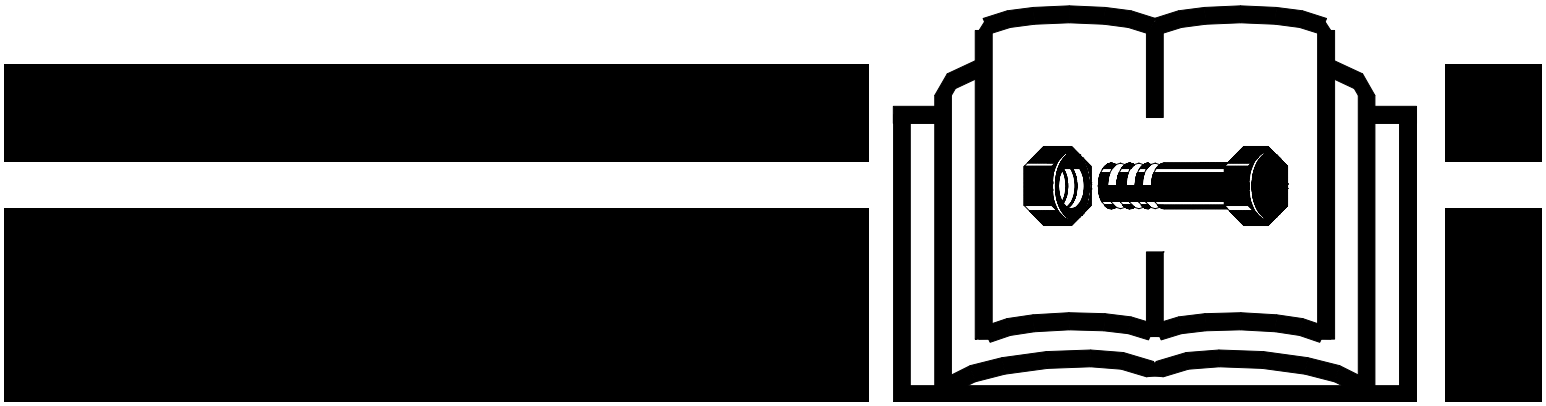
Vermeer® Beijing

D130x150 VBM Navigator®
Horizontal Directional Drill



Parts Manual

P1.01
SERIAL NO. 101 -
ORDER NO. 105400ZPD

HOW TO USE THE MANUAL

This manual contains illustrations and parts lists of components and assemblies which make up the machine. Each page consists of the name of the assembly or component, a figure number, reference numbers, part numbers, part names, and the quantities of the parts used.

Assembly or component name helps identify the illustration and parts list for each figure. This name also helps locate the general area of the machine where the assembly or component can be located.

Figure numbers are used to identify each assembly or component and to group these assemblies or components into major categories.

Reference numbers shown in a column refer to the numbered parts in the illustration. This ties the part in the illustration to the part number and description in the parts list.

An asterisk indicates information about the item has changed since the previous release of the parts manual. A note in the Remarks column often explains the change.

Part numbers are used to identify individual parts or part assemblies.

Part descriptions provide the name of the part, plus additional information such as dimensional specifications and what parts are grouped together to form part assemblies, which helps you identify the part(s).

Quantities listed for each figure are only for that assembly or component and not the total used per machine.

This parts manual is not intended to be a complete guide for machine service or repairs. Contact your Vermeer Beijing dealer for any of your service or technical requirements.

ORDERING PARTS

Parts for repair or replacement are available through our network of authorized dealers located throughout the world.

Use only authorized Vermeer Beijing parts for repair or replacement. Always give the serial number and model number of the machine for which parts are being ordered. When ordering parts for component(s), which are not manufactured by Vermeer Beijing Manufacturing, also give the serial number of that component(s). Order all parts by part number, part name, and quantity needed.

UPDATING AND REORDERING MANUALS

The parts lists, illustrations, and specifications in this manual are based on the latest information available at time of publication. Your machine may have product improvements and options not yet contained in this manual.

Vermeer Beijing Manufacturing Company reserves the right to make changes at any time without notice or obligation to you.

Your dealer will receive notice of these changes and can assist you with accurate parts identification when ordering.

A copy of this manual is supplied with each machine. Additional copies are available through your dealer. When ordering additional manuals, use the reorder number listed on the front cover and the quantity needed.

NOTICE TO OWNER – You are requested to notify Vermeer Beijing Manufacturing Company when you have purchased a used VBM machine. Notify the Customer Data Department by telephone: 010-80515711extension 839; email: vbm_customerdata@vermeer.com; or, letter: Customer Data Dept., Vermeer (Beijing) Manufacturing Company, A-05 Office Building Balama Industrial Park Yongkai Road, Yongle Economic Development Zone Tongzhou District, Beijing. Upon request, an owner of a used VBM machine will receive one free set of Operator's, Maintenance and Parts manuals.

Decal/Resource Library - Section 1

Decals - International. . . . . Fig 1-1
Decals - Control (S/N 114-). . . . . Fig 1-2r03
Decals - Control (S/N 111-113). . . . . Fig 1-2r02
Decals - Control (S/N 107-110). . . . . Fig 1-2r01
Decals - Control (S/N 101-106). . . . . Fig 1-2
Decals - Miscellaneous (S/N 114-) . . . . . Fig 1-3r03
Decals - Miscellaneous (S/N 111-113) . . . . . Fig 1-3r02
Decals - Miscellaneous (S/N 107-110) . . . . . Fig 1-3r01
Decals - Miscellaneous (S/N 101-106) . . . . . Fig 1-3
Decals - Safety . . . . . Fig 1-4
Decals - Safety . . . . . Fig 1-5
Decals - Safety . . . . . Fig 1-6
Decals Location Assembly (S/N 111-) . . . . . Fig 1-7r02
Decals Location Assembly (S/N 107-110) . . . . . Fig 1-7r01
Decals Location Assembly (S/N 101-106) . . . . . Fig 1-7
Decals Location Assembly . . . . . Fig 1-8
Decals Location Assembly (S/N 109-) . . . . . Fig 1-9r01
Decals Location Assembly (S/N 101-108) . . . . . Fig 1-9
Decals Location Assembly (S/N 107-) . . . . . Fig 1-10r01
Decals Location Assembly (S/N 101-106) . . . . . Fig 1-10
Decals Location Assembly (S/N 114-) . . . . . Fig 1-11r03
Decals Location Assembly (S/N 111-113) . . . . . Fig 1-11r02
Decals Location Assembly (S/N 107-110) . . . . . Fig 1-11r01
Decals Location Assembly (S/N 101-106) . . . . . Fig 1-11
Resource Library . . . . . Fig 1-12

MainFrame - Section 2

Main Frame (S/N 107-). . . . . Fig 2-1r02
Main Frame (S/N 105-106). . . . . Fig 2-1r01
Main Frame (S/N 101-104). . . . . Fig 2-1
Components -Track Chain . . . . . Fig 2-1z01
Rack (S/N 107-). . . . . Fig 2-2r01
Rack (S/N 101-106). . . . . Fig 2-2
Track Tightener, Roller & Chain (S/N 108-). . . . . Fig 2-3r01
Track Tightener, Roller & Chain (S/N 101-107). . . . . Fig 2-3
Track Planetary (S/N 101-107,111-) . . . . . Fig 2-4r01
Track Planetary (S/N 108-110) . . . . . Fig 2-4
Components - Planetary (S/N 101-107,111-). . . . . Fig 2-4z01r01
Components - Planetary (S/N 108-110). . . . . Fig 2-4z01
Cab Frame (S/N 107-). . . . . Fig 2-5r01
Cab Frame (S/N 101-106). . . . . Fig 2-5
Carriage . . . . . Fig 2-6
Gearbox Bracket. . . . . Fig 2-7
Gearbox. . . . . Fig 2-7x01
Outrigger (S/N 107-). . . . . Fig 2-8r01
Outrigger (S/N 101-106). . . . . Fig 2-8
Rod Position Indicator (S/N 107-) . . . . . Fig 2-9r01
Rod Position Indicator (S/N 101-106) . . . . . Fig 2-9
Drive Chuck . . . . . Fig 2-10

Front Load Wire Line (Optional) . . . . . Fig 2-11

Engine - Section 3

Pump Drive . . . . . Fig 3-1
Pump Support (S/N 108-) . . . . . Fig 3-2r01
Pump Support (S/N 101-107) . . . . . Fig 3-2
Base - Engine Bay (S/N 107-) . . . . . Fig 3-3r01
Base - Engine Bay (S/N 101-106) . . . . . Fig 3-3
Radiator - Engine Cooler (S/N 107-) . . . . . Fig 3-4r01
Radiator - Engine Cooler (S/N 101-106) . . . . . Fig 3-4
Engine Shield (S/N 114-) . . . . . Fig 3-5r02
Engine Shield (S/N 106-113) . . . . . Fig 3-5r01
Engine Shield (S/N 101-105) . . . . . Fig 3-5
Engine Shield (Right) (S/N 107-) . . . . . Fig 3-6r01
Engine Shield (Right) (S/N 101-106) . . . . . Fig 3-6
Engine Shield (Left) . . . . . Fig 3-7
Air Cleaner (S/N 114-) . . . . . Fig 3-8r01
Air Cleaner (S/N 101-113) . . . . . Fig 3-8
Muffler (S/N 107-) . . . . . Fig 3-9r01
Muffler (S/N 101-106) . . . . . Fig 3-9
Fuel Tank (S/N 111-) . . . . . Fig 3-10r02
Fuel Tank (S/N 106-110) . . . . . Fig 3-10r01
Fuel Tank (S/N 101-105) . . . . . Fig 3-10
Power Distribution Door (S/N 107-) . . . . . Fig 3-11r01
Power Distribution Door (S/N 101-106) . . . . . Fig 3-11
Throttle Controller (S/N 109-) . . . . . Fig 3-12r03
Throttle Controller (S/N 106-108) . . . . . Fig 3-12r02
Throttle Controller (S/N 104-105) . . . . . Fig 3-12r01
Throttle Controller (S/N 101-103) . . . . . Fig 3-12
Components-Engine (S/N 111-) . . . . . Fig 3-13r01
Components-Engine (S/N 101-110) . . . . . Fig 3-13
Components-Engine (S/N 111-) . . . . . Fig 3-14r01
Components-Engine (S/N 101-110) . . . . . Fig 3-14

Hydraulic - Section 4

Oil Tank (S/N 109-) . . . . . Fig 4-1r01
Oil Tank (S/N 101-108) . . . . . Fig 4-1
Oil Tank Hydraulic (S/N 114-) . . . . . Fig 4-2r02
Oil Tank Hydraulic (S/N 109-113) . . . . . Fig 4-2r01
Oil Tank Hydraulic (S/N 101-108) . . . . . Fig 4-2
Hydraulic Pump (Rotation/Left Track Drive) (S/N 107-) . . . . . Fig 4-3r01
Hydraulic Pump (Rotation/Left Track Drive) (S/N 101-106) . . . . . Fig 4-3
Components-Rotation/Left Track Drive Pump . . . . . Fig 4-3z01
Hydraulic Pump (Thrust/Pullback/Right Track Drive) (S/N 107-) . . . . . Fig 4-4r01
Hydraulic Pump (Thrust/Pullback/Right Track Drive) (S/N 101-106) . . . . . Fig 4-4
Components-Thrust/Pullback/Right Track Drive Pump . . . . . Fig 4-4z01
Hydraulic Pump (Water System) (S/N 107-) . . . . . Fig 4-5r01
Hydraulic Pump (Water System) (S/N 101-106) . . . . . Fig 4-5
Components-Water Pump . . . . . Fig 4-5z01
Hydraulic Pump PC (Implement) (S/N 106-) . . . . . Fig 4-6r01
Hydraulic Pump PC (Implement) (S/N 101-105) . . . . . Fig 4-6

Track Drive Motor (Left) (S/N 101-107,111-) . . . Fig 4-7r01
Track Drive Motor (Left) (S/N 108-110) . . . Fig 4-7
Components-Track Drive Motor (Left) . . . Fig 4-7z01
Track Drive Motor (Right) (S/N 101-107,111-) . . . Fig 4-8r01
Track Drive Motor (Right) (S/N 108-110) . . . Fig 4-8
Rotation Drive Motor Hydraulic (S/N 104-) . . . Fig 4-9r01
Rotation Drive Motor Hydraulic (S/N 101-103) . . . Fig 4-9
Components-Rotation Drive Motor Hydraulic . . . Fig 4-9z01
Components-Rotation Drive Motor Hydraulic . . . Fig 4-9z02
Thrust/Pullback Drive Motor (S/N 104-) . . . Fig 4-10r01
Thrust/Pullback Drive Motor (S/N 101-103) . . . Fig 4-10
Components-Thrust/Pullback Drive Motor . . . Fig 4-10z01
Components-Thrust/Pullback Drive Motor . . . Fig 4-10z02
Water Pump Drive Motor . . . Fig 4-11
Components-Water Pump Drive Motor . . . Fig 4-11z01
Selector Manifold (Left Track/Rotation) . . . Fig 4-12
Components-Selector Manifold (Left Track/Rotation) . . . Fig 4-12z01
Selector Manifold (Right Track/Thrust Pullback) (S/N 106-) . . . Fig 4-13r01
Selector Manifold (Right Track/Thrust Pullback) (S/N 101-105) . . . Fig 4-13
Control Valve (Outrigger/Rack) (S/N 114-) . . . Fig 4-14r03
Control Valve (Outrigger/Rack) (S/N 108-113) . . . Fig 4-14r02
Control Valve (Outrigger/Rack) (S/N 107-107) . . . Fig 4-14r01
Control Valve (Outrigger/Rack) (S/N 101-106) . . . Fig 4-14
Components-Control Valve (Outrigger/Rack) (S/N 107-) . . . Fig 4-14z01r01
Components-Control Valve (Outrigger/Rack) (S/N 101-106) . . . Fig 4-14z01
Components-Control Valve (Outrigger/Rack) (S/N 101-106) . . . Fig 4-14z02
Components-Control Valve (Outrigger/Rack) (S/N 101-106) . . . Fig 4-14z03
Thrust/Pullback Manifold . . . Fig 4-15
Rotation 3 Speed Valve . . . Fig 4-16
Components-Rotation 3 Speed Valve . . . Fig 4-16z01
Tower Manifold Case Drain (S/N 107-) . . . Fig 4-17r01
Tower Manifold Case Drain (S/N 101-106) . . . Fig 4-17
Hydraulic Enable Valve (S/N 105-) . . . Fig 4-18r01
Hydraulic Enable Valve (S/N 101-104) . . . Fig 4-18
Components-Hydraulic Enable Valve . . . Fig 4-18z01
Brake Valve(Carriage) . . . Fig 4-19
Components-Brake Valve(Carriage) . . . Fig 4-19z01
Solenoid Valve-Water (S/N 114-) . . . Fig 4-20r02
Solenoid Valve-Water (S/N 108-113) . . . Fig 4-20r01
Solenoid Valve-Water (S/N 101-107) . . . Fig 4-20
Components-Solenoid Valve-Water . . . Fig 4-20z01
Compressing Drive Valve (S/N 114-) (Deleted) . . . Fig 4-21r02
Compressing Drive Valve (S/N 108-113) . . . Fig 4-21r01
Compressing Drive Valve (S/N 101-107) . . . Fig 4-21
Components-Compressing Drive Valve (S/N 108-113) . . . Fig 4-21z01
Solenoid Brake Valve . . . Fig 4-22
Rack Lift Cylinder (S/N 106,108-) . . . Fig 4-23r01
Rack Lift Cylinder (S/N 101-105,107) . . . Fig 4-23
Components-Rack Lift Cylinder . . . Fig 4-23z01
Water Pump On/Off Cylinder . . . Fig 4-24
Components-Water Pump On/Off Cylinder . . . Fig 4-24z01
Components-Ball Valve . . . Fig 4-24z02
Controlling Return Manifold (S/N 108-) . . . Fig 4-25r01
Controlling Return Manifold (S/N 101-107) . . . Fig 4-25
Shuttle Rotation Gauge . . . Fig 4-26
Components-Shuttle Rotation Gauge . . . Fig 4-26z01
Oil Cooler . . . Fig 4-27

Return Manifold . . . . . Fig 4-28
Bulkhead (Rack) (S/N 106-) . . . . . Fig 4-29r01
Bulkhead (Rack) (S/N 101-105) . . . . . Fig 4-29
Bulkhead (Tower) (S/N 107-) . . . . . Fig 4-30r01
Bulkhead (Tower) (S/N 101-106) . . . . . Fig 4-30
Floating Gearbox Cylinder. . . . . Fig 4-31
Components-Floating Gearbox Cylinder. . . . . Fig 4-31z01
Outrigger Cylinder (S/N 107-) . . . . . Fig 4-32r01
Outrigger Cylinder (S/N 101-106) . . . . . Fig 4-32
Components-Outrigger Cylinder (S/N 107-) . . . . . Fig 4-32z01r01
Components-Outrigger Cylinder (S/N 101-106) . . . . . Fig 4-32z01
Hose Carrier . . . . . Fig 4-33
Components-Hose Carrier . . . . . Fig 4-33z01
Controlling Supply Manifold (S/N 106-) . . . . . Fig 4-34r01
Controlling Supply Manifold (S/N 101-105) . . . . . Fig 4-34
Low Pressure Supply Manifold (S/N 114-) . . . . . Fig 4-35r03
Low Pressure Supply Manifold (S/N 108-113) . . . . . Fig 4-35r02
Low Pressure Supply Manifold (S/N 107-107) . . . . . Fig 4-35r01
Low Pressure Supply Manifold (S/N 101-106) . . . . . Fig 4-35
Low Pressure Return Manifold (S/N 114-) . . . . . Fig 4-36r03
Low Pressure Return Manifold (S/N 108-113) . . . . . Fig 4-36r02
Low Pressure Return Manifold (S/N 107-107) . . . . . Fig 4-36r01
Low Pressure Return Manifold (S/N 101-106) . . . . . Fig 4-36
Cooling Manifold (S/N 103-). . . . . Fig 4-37r01
Cooling Manifold (S/N 101-102). . . . . Fig 4-37
Air Conditioner Assembly (S/N 114-) . . . . . Fig 4-38r01
Air Conditioner Assembly (S/N 101-113) . . . . . Fig 4-38
Motor (Air Conditioner) (S/N 114-) . . . . . Fig 4-39r01
Motor (Air Conditioner) (S/N 101-113) . . . . . Fig 4-39
Components- Motor (Air Conditioner). . . . . Fig 4-39z01
Lock Out Valve (S/N 120-) (Deleted) . . . . . Fig 4-40r02
Lock Out Valve (S/N 108-119) . . . . . Fig 4-40r01
Lock Out Valve (S/N 101-107) . . . . . Fig 4-40
Components-Lock Out Valve (S/N 108-119) . . . . . Fig 4-40z01

Controls/Electrical - Section 5

Seat (S/N 107-) . . . . . Fig 5-1r01
Seat (S/N 101-106) . . . . . Fig 5-1
Console Mount (S/N 111-) . . . . . Fig 5-2r02
Console Mount (S/N 107-110) . . . . . Fig 5-2r01
Console Mount (S/N 101-106) . . . . . Fig 5-2
Console Mount-Inside (S/N 111-). . . . . Fig 5-2x01r01
Console Mount-Inside (S/N 107-110). . . . . Fig 5-2x01
Components-Air conditioner (S/N 111-) . . . . . Fig 5-2x01z01r01
Components-Air conditioner (S/N 107-110) . . . . . Fig 5-2x01z01
Left Joystick (S/N 107-) . . . . . Fig 5-3r01
Left Joystick (S/N 101-106) . . . . . Fig 5-3
Components-Left Joystick (S/N 107-) . . . . . Fig 5-3z01r01
Components-Left Joystick (S/N 101-106) . . . . . Fig 5-3z01
Right Joystick (S/N 107-) . . . . . Fig 5-4r01
Right Joystick (S/N 101-106) . . . . . Fig 5-4
Components-Right Joystick (S/N 107-) . . . . . Fig 5-4z01r01
Components-Right Joystick (S/N 101-106) . . . . . Fig 5-4z01
Electrical Panel (S/N 114-). . . . . Fig 5-5r03

Electrical Panel (S/N 111-113) . . . Fig 5-5r02
Electrical Panel (S/N 107-110) . . . Fig 5-5r01
Electrical Panel (S/N 101-106) . . . Fig 5-5
Electrical Panel (Upper) (S/N 114-) . . . Fig 5-5x01
Display Assembly (S/N 111-) . . . Fig 5-6r02
Display Assembly (S/N 107-110) . . . Fig 5-6r01
Display Assembly (S/N 101-106) . . . Fig 5-6
Infrared Camera (S/N 111-) . . . Fig 5-6x01r01
Infrared Camera (S/N 101-110) . . . Fig 5-6x01
Engine Electrical Panel (S/N 111-) . . . Fig 5-7r01
Engine Electrical Panel (S/N 101-110) . . . Fig 5-7
Battery (S/N 114-) . . . Fig 5-8r02
Battery (S/N 111-113) . . . Fig 5-8r01
Battery (S/N 101-110) . . . Fig 5-8
Rack Switch Proximity (S/N 111-) . . . Fig 5-9r01
Rack Switch Proximity (S/N 101-110) . . . Fig 5-9
Rack Harness (S/N 114-) . . . Fig 5-10r03
Rack Harness (S/N 111-113) . . . Fig 5-10r02
Rack Harness (S/N 107-110) . . . Fig 5-10r01
Rack Harness (S/N 101-106) . . . Fig 5-10
Rotation/Thrust Harness (S/N 111-) . . . Fig 5-11r02
Rotation/Thrust Harness (S/N 107-110) . . . Fig 5-11r01
Rotation/Thrust Harness (S/N 101-106) . . . Fig 5-11
Water/Park Brake Harness (S/N 114-) . . . Fig 5-12r03
Water/Park Brake Harness (S/N 111-113) . . . Fig 5-12r02
Water/Park Brake Harness (S/N 107-110) . . . Fig 5-12r01
Water/Brake Harness (S/N 101-106) . . . Fig 5-12
Left/Right Handle Harness (S/N 111-) (Deleted) . . . Fig 5-13r02
Left/Right Handle Harness (S/N 107-110) . . . Fig 5-13r01
Left/Right Handle Harness (S/N 101-106) . . . Fig 5-13
Console Harness (S/N 114-) . . . Fig 5-14r03
Console Harness (S/N 111-113) . . . Fig 5-14r02
Console Harness (S/N 107-110) (Deleted) . . . Fig 5-14r01
Console Harness (S/N 101-106) . . . Fig 5-14
Connecting Harness (S/N 111-) (Deleted) . . . Fig 5-15r02
Connecting Harness (S/N 107-110) . . . Fig 5-15r01
Connecting Harness (S/N 101-106) . . . Fig 5-15
Display Harness (S/N 111-) (Deleted) . . . Fig 5-16r02
Display Harness (S/N 107-110) . . . Fig 5-16r01
Display Harness (S/N 101-106) . . . Fig 5-16
R/L&Strike Alert Harness (S/N 107-) (Deleted) . . . Fig 5-17r01
R/L&Strike Alert Harness (S/N 101-106) . . . Fig 5-17
Alternator To Motor Power Harness (S/N 114-) . . . Fig 5-18r02
Alternator To Motor Power Harness (S/N 111-113) . . . Fig 5-18r01
Start Motor To Alternator Harness (S/N 101-110) . . . Fig 5-18
Main Harness (S/N 114-) . . . Fig 5-19r03
Main Harness (S/N 111-113) . . . Fig 5-19r02
Main Harness (S/N 107-110) . . . Fig 5-19r01
Main Harness (S/N 101-106) . . . Fig 5-19
EngineTo Chassis Harness (S/N 114-) . . . Fig 5-20r02
EngineTo Chassis Harness (S/N 111-113) . . . Fig 5-20r01
EngineTo Chassis Harness (S/N 101-110) . . . Fig 5-20
Fuse Box Connector Harness (S/N 114-) . . . Fig 5-21
Controller Harness (S/N 111-) . . . Fig 5-22r01
Controller Harness (S/N 107-110) . . . Fig 5-22
Tether Harness (S/N 111-) . . . Fig 5-23r01
Tether Harness (S/N 107-110) . . . Fig 5-23

Gauge Harness (S/N 111-) (Deleted) . . . Fig 5-24r01
Gauge Harness (S/N 107-110) . . . Fig 5-24
Monitor Harness (S/N 111-) (Deleted) . . . Fig 5-25r01
Monitor Harness (S/N 107-110) . . . Fig 5-25
Cab Harness (S/N 111-) (Deleted) . . . Fig 5-26r01
Cab Harness (S/N 107-110) . . . Fig 5-26
EDC/Transducer Harness (S/N 111-) (Deleted) . . . Fig 5-27r01
EDC/Transducer Harness (S/N 107-110) . . . Fig 5-27
Rack/Outrigger Control Harness (S/N 111-) (Deleted) . . . Fig 5-28r01
Rack/Outrigger Control Harness (S/N 107-110) . . . Fig 5-28
Crane/Rack/Outrigger Harness (S/N 114-) . . . Fig 5-29r02
Crane/Rack/Outrigger Harness (S/N 111-113) . . . Fig 5-29r01
Crane/Rack/Outrigger Harness (S/N 107-110) . . . Fig 5-29
Left Control Panel Harness (S/N 114-) . . . Fig 5-30
Right Control Panel Harness (S/N 114-) . . . Fig 5-31

Ground/Safety - Section 6

Voltage Stake . . . Fig 6-1
Safety Features - Gloves, Boots, Cones . . . Fig 6-2
Tether Remote Unit . . . Fig 6-3

Water System - Section 7

Platform . . . Fig 7-1
Hand Rail Platform . . . Fig 7-2
Water Line . . . Fig 7-3
Water Pump - Aplex 200 GPM (SC170) (S/N 114-) . . . Fig 7-4r02
Water Pump - Aplex 200 GPM (SC170) (S/N 107-113) . . . Fig 7-4r01
Water Pump - Aplex 200 GPM (SC170) (S/N 101-106) . . . Fig 7-4
Components-Power Frame . . . Fig 7-4z01
Components-Crankshaft . . . Fig 7-4z02
Components-Lube . . . Fig 7-4z03
Components-Fliud End . . . Fig 7-4z04
Components-Suction/Discharge Valve . . . Fig 7-4z05
Components-Piston 4” . . . Fig 7-4z06
Components-Special Tools . . . Fig 7-4z07
Components-Gearbox . . . Fig 7-4z08
Piston Wash . . . Fig 7-5
Antifreeze Tank . . . Fig 7-6
Wand . . . Fig 7-7

Vise - Section 8

Carriage - Rear Vise . . . Fig 8-1
Vise Valve (S/N 107-) . . . Fig 8-2r01
Vise Valve (S/N 101-106) . . . Fig 8-2
Components-Vise Valve . . . Fig 8-2z01
Vise Cylinder (Front) . . . Fig 8-3
Components-Clamp Cylinder (Front) . . . Fig 8-3z01
Vise Cylinder (Rear) . . . Fig 8-4
Components-Clamp Cylinder (Rear) . . . Fig 8-4z01

Components-Clamp Cylinder (Rear) . . . . . Fig 8-4z02
Rotation Carriage Cylinder . . . . . Fig 8-5
Components-Rotation Cylinder . . . . . Fig 8-5z01
Vise Spread Cylinder . . . . . Fig 8-6
Components-Spread Cylinder . . . . . Fig 8-6z01
Zap Alert . . . . . Fig 8-7

Rod Loader - Section 9

Rod Loader Frame . . . . . Fig 9-1
Rod Position Cylinder (S/N 106-) . . . . . Fig 9-2r01
Rod Position Cylinder (S/N 101-105) . . . . . Fig 9-2
Components-Rod Position Cylinder . . . . . Fig 9-2z01
Rod Rotation Cylinder . . . . . Fig 9-3
Components-Rod Rotation Cylinder . . . . . Fig 9-3z01
Rod Lift Cylinder (S/N 106-) . . . . . Fig 9-4r01
Rod Lift Cylinder (S/N 101-105) . . . . . Fig 9-4
Components-Rod Lift Cylinder . . . . . Fig 9-4z01
Rod Box . . . . . Fig 9-5
Rod Loader Valve (S/N 120-) . . . . . Fig 9-6r02
Rod Loader Valve (S/N 106-119) . . . . . Fig 9-6r01
Rod Loader Valve (S/N 101-105) . . . . . Fig 9-6
Components-Rod Loader Valve (S/N 120-) . . . . . Fig 9-6z01r01
Components-Rod Loader Valve (S/N 101-119) . . . . . Fig 9-6z01

Crane - Section 10

Crane Hydraulic (S/N 107-) . . . . . Fig 10-1r01
Crane Hydraulic (S/N 101-106) . . . . . Fig 10-1
Solenoid Control Valve (S/N 107-) . . . . . Fig 10-2r01
Control Valve - 4 Spool Implement (S/N 101-106) . . . . . Fig 10-2
Components-Solenoid Control Valve (S/N 107-) . . . . . Fig 10-2z01
Control Console Bulkhead (S/N 107-) (Deleted) . . . . . Fig 10-3r01
Control Console Bulkhead (S/N 101-106) . . . . . Fig 10-3
Switch Valve For Crane (S/N 107-) (Deleted) . . . . . Fig 10-4r01
Switch Valve For Crane (S/N 101-106) . . . . . Fig 10-4
Anti -Two-Blocking Assembly (S/N 111-) (Deleted) . . . . . Fig 10-5r01
Anti-Two-Blocking Assembly (S/N 107-110) . . . . . Fig 10-5

Hydraulic Hose Diagram - Section 11

Ground Drive (S/N 106-) . . . . . Fig 11-1r01
Ground Drive (S/N 101-105) . . . . . Fig 11-1
Water (S/N 114-) . . . . . Fig 11-2r02
Water (S/N 108-113) . . . . . Fig 11-2r01
Water (S/N 101-107) . . . . . Fig 11-2
Hydraulic Enable (S/N 109-) . . . . . Fig 11-3r02
Hydraulic Enable (S/N 105-108) . . . . . Fig 11-3r01
Hydraulic Enable (S/N 101-104) . . . . . Fig 11-3
Rack/Outrigger (S/N 107-) . . . . . Fig 11-4r01
Rack/Outrigger (S/N 101-106) . . . . . Fig 11-4
Rotation (S/N 104-) . . . . . Fig 11-5r01

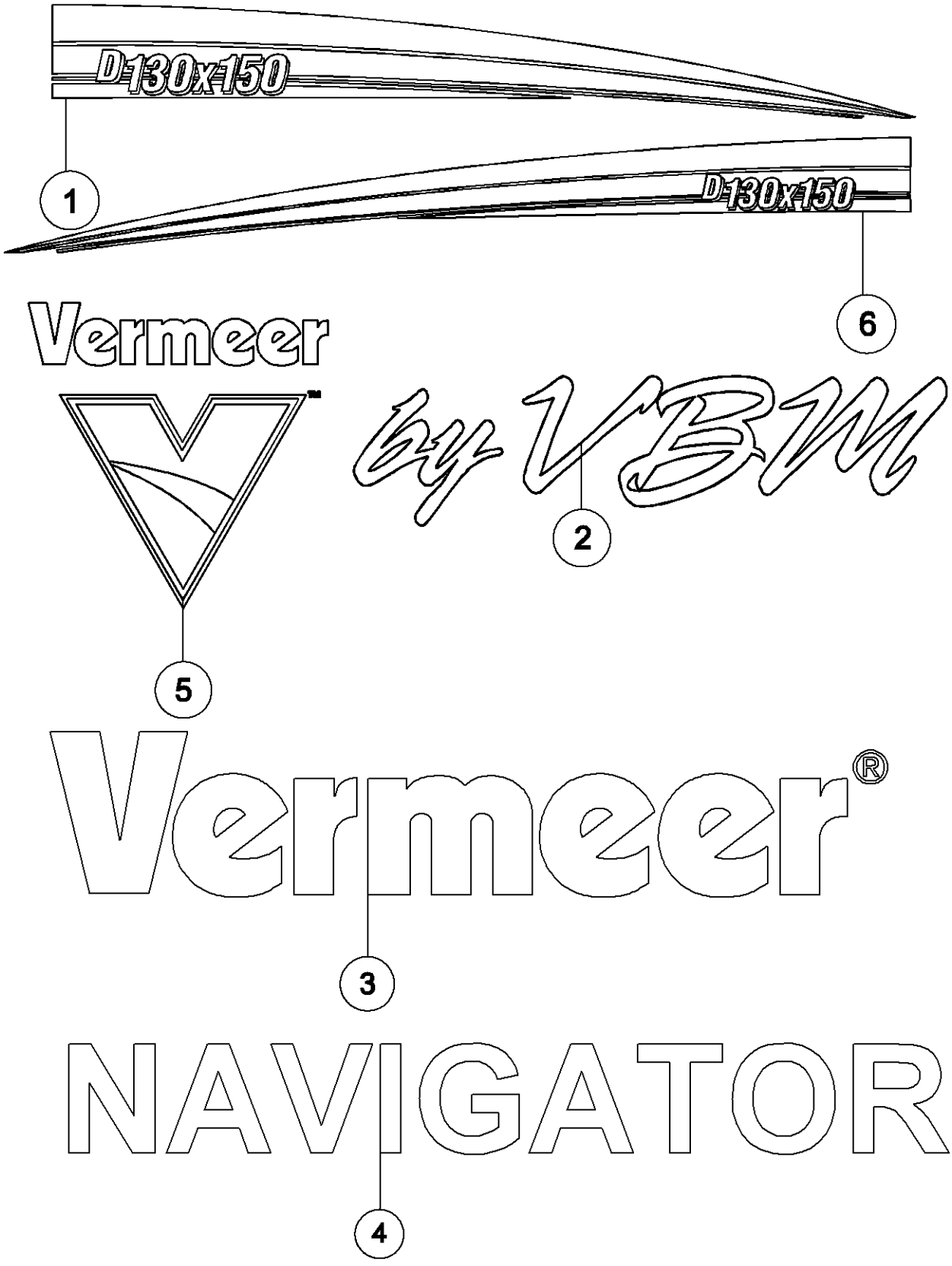
Rotation (S/N 101-103) . . . . . Fig 11-5
Thrust/Pullback (S/N 109-) . . . . . Fig 11-6r01
Thrust/Pullback (S/N 101-108) . . . . . Fig 11-6
Vise . . . . . Fig 11-7
Rod Loader (S/N 121-) . . . . . Fig 11-8r02
Rod Loader (S/N 106-120) . . . . . Fig 11-8r01
Rod Loader (S/N 101-105) . . . . . Fig 11-8
Crane (S/N 107-) . . . . . Fig 11-9r01
Crane (S/N 101-106) . . . . . Fig 11-9

Maintenance Items - Section 12

Hydraulic Supplies . . . . . Fig 12-1
Lubricants . . . . . Fig 12-2
DRC Series Connectors . . . . . Fig 12-3
DT Series Connectors . . . . . Fig 12-4
DTHD Series/HDFB Modules . . . . . Fig 12-5
DT series Diode/Buss Blocks . . . . . Fig 12-6
Fuse . . . . . Fig 12-7

This page intentionally left blank.

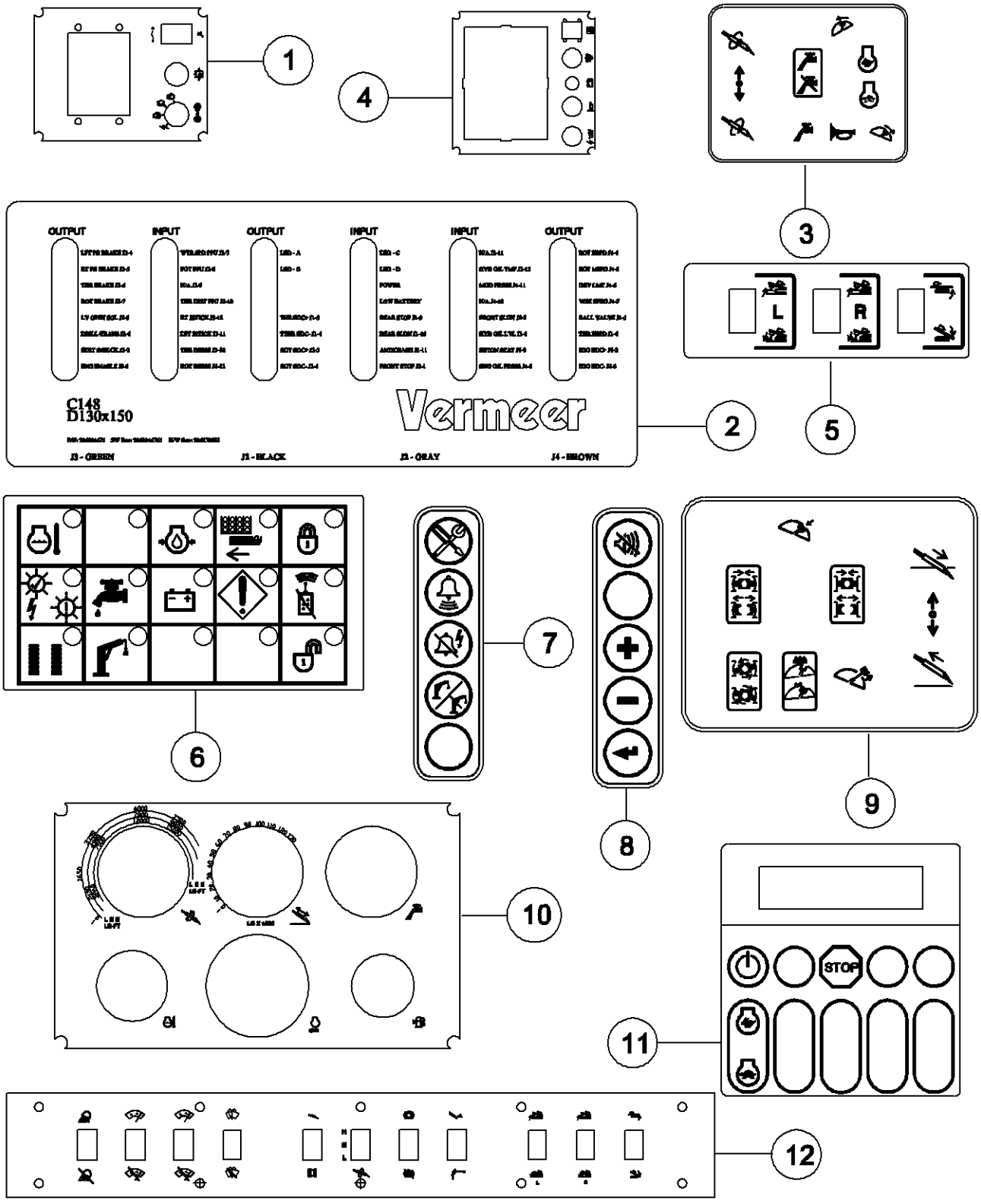
Decals - International Fig 1-1



Decals - International Fig 1-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700ID841	DECAL - D130X150 RIGHT STRIPE	1	PELLA
2		7000C948	DECAL - BY VBM	2	PELLA
3		2326595	DECAL VERMEER- 4 1/2 X 24	4	PELLA
4		70000614	DECAL - MODEL NAVIGATOR (BIG)	1	PELLA
5		7000D010	DECAL - COSMETIC V - 12.00”	1	PELLA
6		700ID842	DECAL - D130X150 LEFT STRIPE	1	PELLA

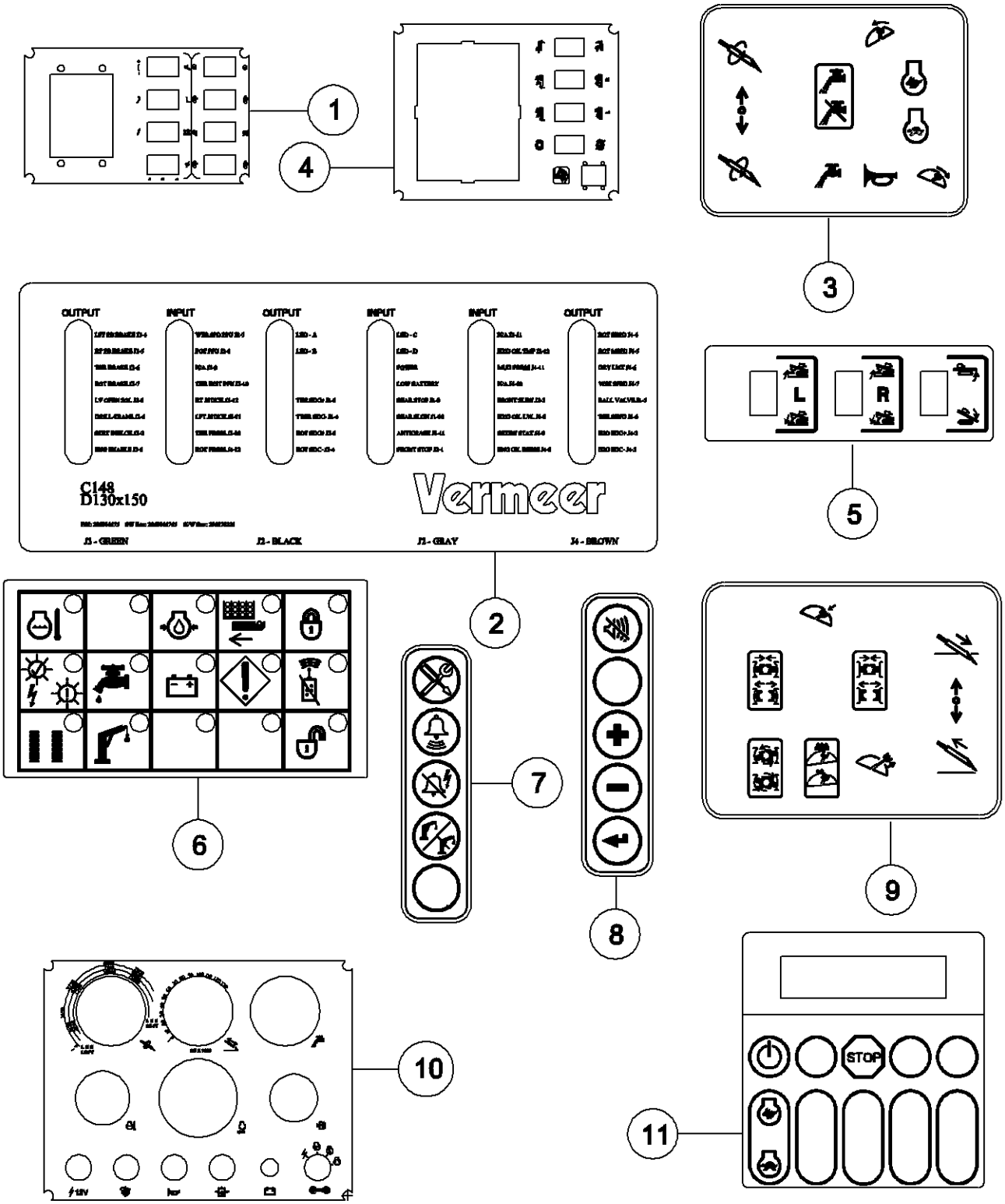
Decals - Control (S/N 114-) Fig 1-2r03



Decals - Control (S/N 114-) Fig 1-2r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026556	DECAL - CONSOLE III	1	VBM
2		299005391	C148 DECAL	1	VBM
3		299024994	LEFT JOYSTICK DECAL	1	VBM
4		299026555	DECAL - CONSOLE II	1	VBM
5		299026508	DECAL - OUTRIGGER	1	VBM
6		299005393	DP10 INDICATOR LIGHT DECAL	1	VBM
7		299005392	DP10 LEFT KEY DECAL	1	VBM
8		299005342	DP10 RIGHT KEY DECAL	1	VBM
9		299024995	RIGHT JOYSTICK DECAL	1	VBM
10		299026554	DECAL - CONSOLE I	1	VBM
11		299005345	TETHER UNIT DECAL	1	VBM
12		299026557	DECAL - CONSOLE IV	1	VBM

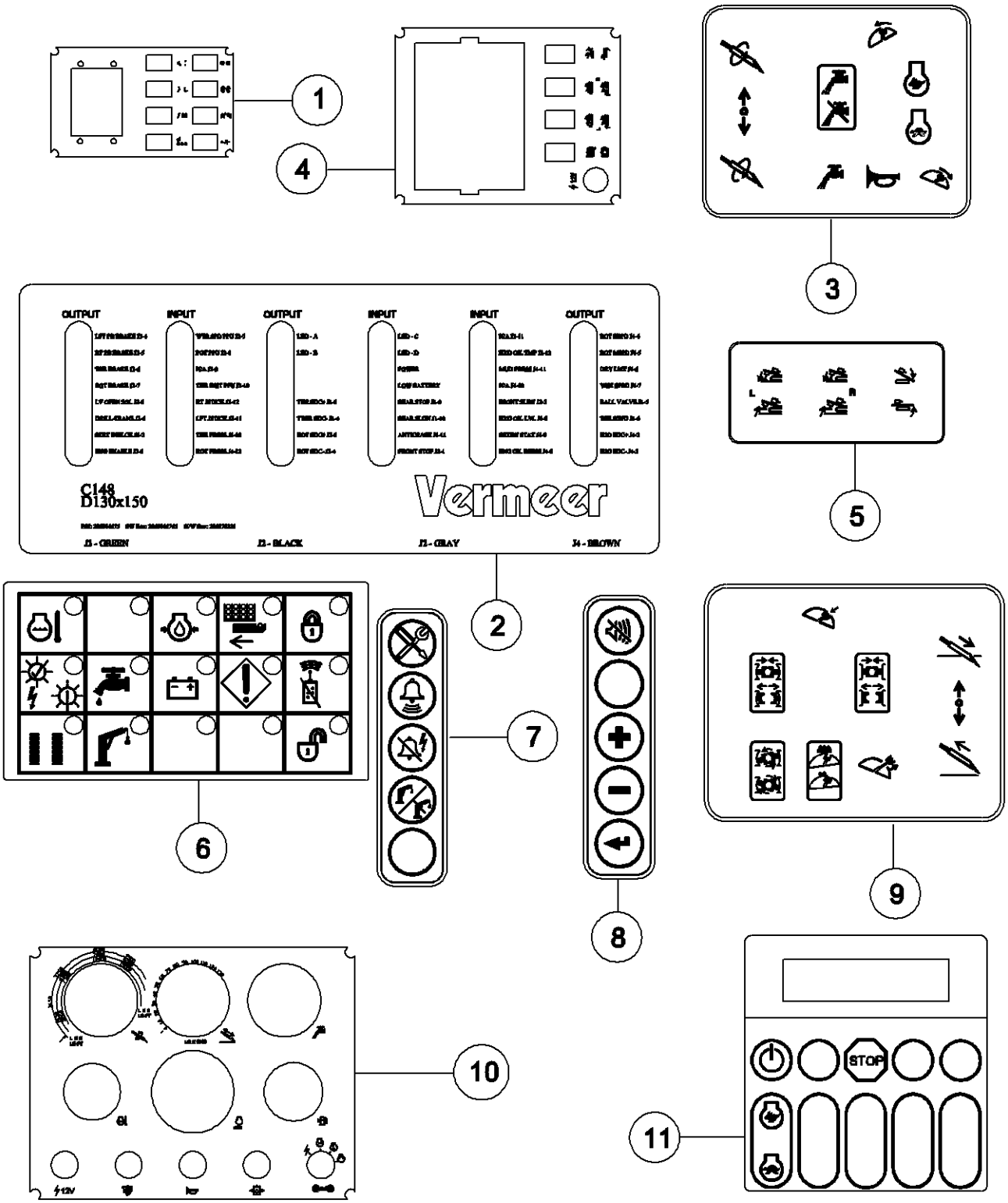
Decals - Control (S/N 111-113) Fig 1-2r02



Decals - Control (S/N 111-113) Fig 1-2r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299024943	DECAL - CONSOLE I	1	VBM
2		299005391	C148 DECAL	1	VBM
3		299024994	LEFT JOYSTICK DECAL	1	VBM
4		299026505	DECAL - CONSOLE II	1	VBM
5		299026508	DECAL - OUTRIGGER	1	VBM
6		299005393	DP10 INDICATOR LIGHT DECAL	1	VBM
7		299005392	DP10 LEFT KEY DECAL	1	VBM
8		299005342	DP10 RIGHT KEY DECAL	1	VBM
9		299024995	RIGHT JOYSTICK DECAL	1	VBM
10		299026506	DECAL - CONSOLE III	1	VBM
11		299005345	TETHER UNIT DECAL	1	VBM

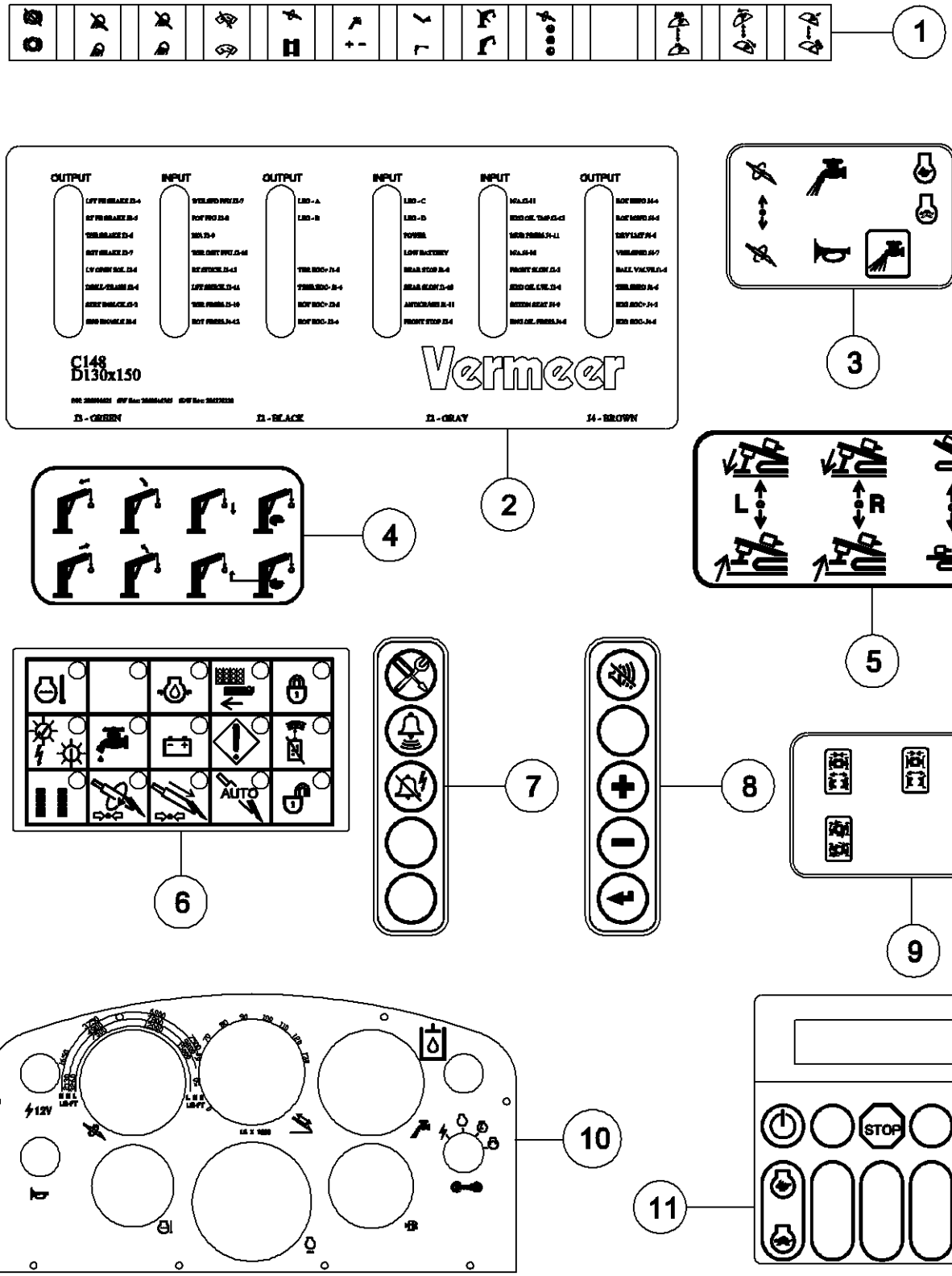
Decals - Control (S/N 107-110) Fig 1-2r01



Decals - Control (S/N 107-110) Fig 1-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299024996	CONSOLE DECAL I	1	VBM
2		299005391	C148 DECAL	1	VBM
3		299024994	LEFTJOYSTICK DECAL	1	VBM
4		299024992	CONSOLE DECAL II	1	VBM
5		299024997	DECAL - OUTRIGGER	1	VBM
6		299005393	DP10 INDICATOR LIGHT DECAL	1	VBM
7		299005392	DP10 LEFT KEY DECAL	1	VBM
8		299005342	DP10 RIGHT KEY DECAL	1	VBM
9		299024995	RIGHTJOYSTICK DECAL	1	VBM
10		299024993	CONSOLE DECAL III	1	VBM
11		299005345	TETHER UNIT DECAL	1	VBM

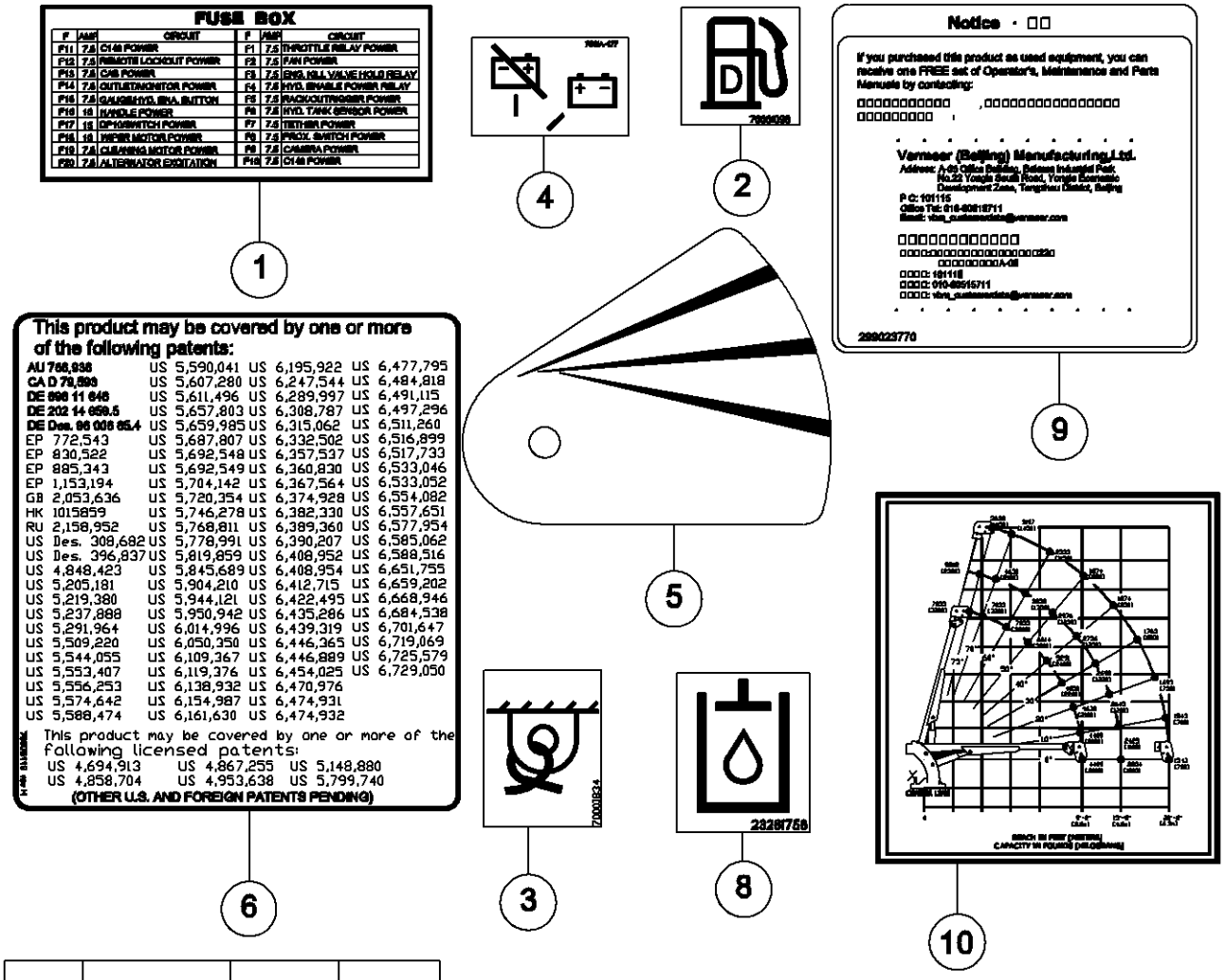
Decals - Control (S/N 101-106) Fig 1-2



Decals - Control (S/N 101-106) Fig 1-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299022931	DECAL - SWITCH	1	VBM
2		299005340	C148 DECAL	1	VBM
3		299022934	DECAL - LEFT HANDLE	1	VBM
4		299022932	DECAL - CRANE	1	VBM
5		299022936	DECAL - MANUAL VALVE	1	VBM
6		299005344	DP10 INDICATOR LIGHT DECAL	1	VBM
7		299005341	DP10 LEFT KEY DECAL	1	VBM
8		299005342	DP10 RIGHT KEY DECAL	1	VBM
9		299022935	DECAL - VISE	1	VBM
10		299022933	DECAL - CONTROL PANEL	1	VBM
11		299005345	TETHER UNIT DECAL	1	VBM

Decals - Miscellaneous (S/N 114-) Fig 1-3r03



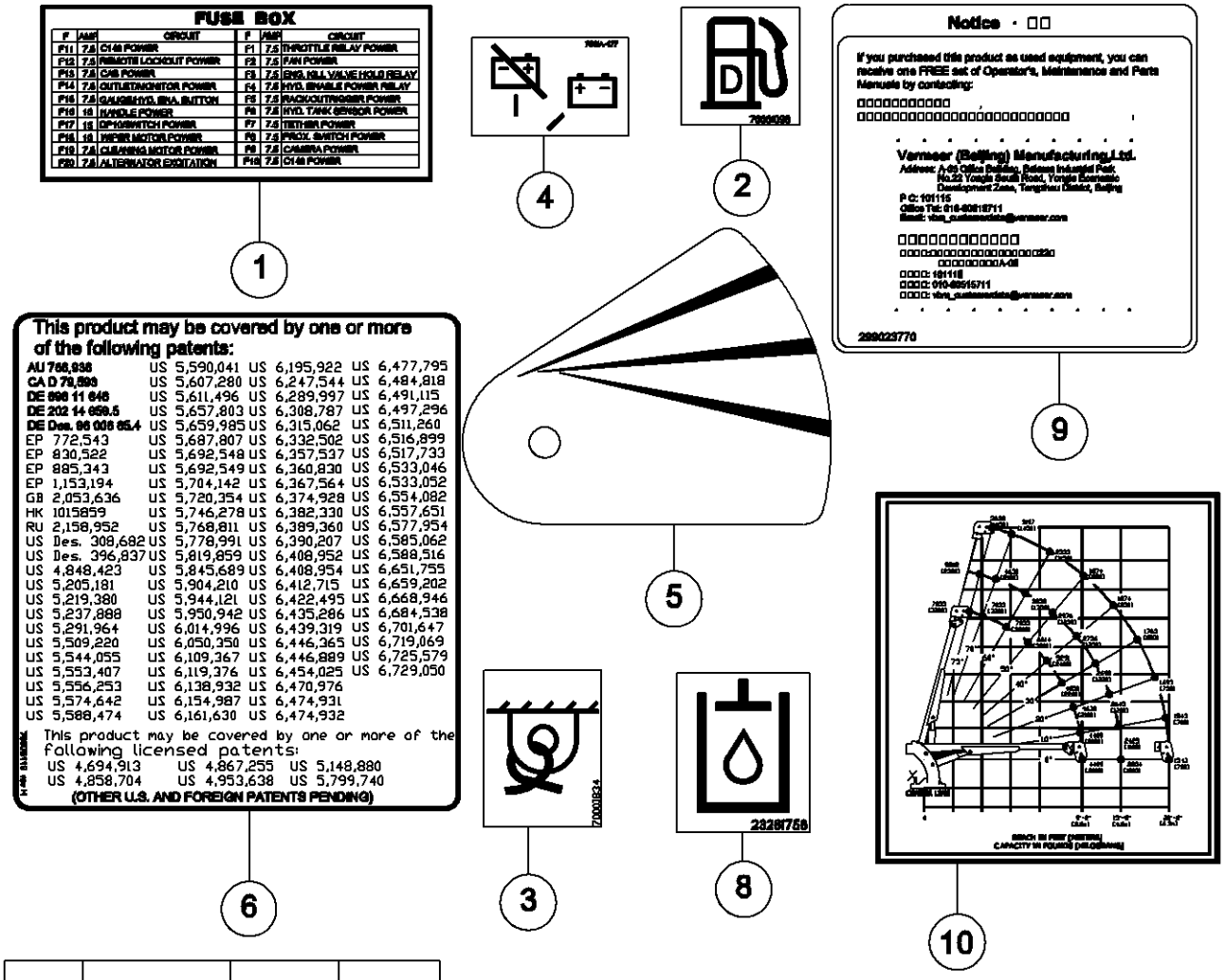
REF. NO.	DESCRIPTION	NO. SHOTS	INTERVALS (HOURS)
1	ROD GUIDE ROLLERS (6)	2	10
2	VISE SLIDER PINS (2)	2	10
3	TRACK END IDLER (BOTH TRACKS)	6	10
4	SEAT PIVOT (4)	1	50
5	RACK PIVOT (2)	1	50
6	RACK ANGLE CYL. (2)	1	50
7	VISE CYLINDER PINS (4)	1	50
8	ROD LOADER PIVOT (BOTH ENDS)	2	50
9	EXT. ARM FLIPPERS (2)	2	50

See Operator's Manual for detailed lubrication instructions.

Decals - Miscellaneous (S/N 114-) Fig 1-3r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026313	FUSE BOX DECAL	1	VBM
2		7000I098	DECAL - DIESEL FUEL	1	PELLA
3		7000I834	DECAL - TIE DOWN POINT	4	PELLA
4		700IA477	DECAL - BATTERY SWITCH (UG)	1	PELLA
5		700IA624	DECAL - LOADER POSITION	1	PELLA
6		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
7		700IA490	DECAL - INDICATOR 2 7/8-3 1/2ROD	1	PELLA
8		2326I756	DECAL - HYDRAULIC FLUID	1	PELLA
9		299023770	DECAL - NOTICE TO OWNERS	1	VBM
10		299006755	DECAL - CAPACITY CHART 220X235	1	VBM
11		299026333	RELAY DECAL	1	VBM
12		299005400	TETHER JOYSTICK DECAL	1	VBM
13		7000C458	DECAL - LUBRICATION CHART	1	PELLA

Decals - Miscellaneous (S/N 111-113) Fig 1-3r02



F	AMP	CIRCUIT	F	AMP	CIRCUIT
F11	7.5	C148 POWER	F1	7.5	THROTTLE RELAY POWER
F12	7.5	REMOTE LOCKOUT POWER	F2	7.5	FAN POWER
F13	7.5	C46 POWER	F3	7.5	ENG. KILL VALVE HOLD RELAY
F14	7.5	OUTLET/MONITOR POWER	F4	7.5	HYD. ENABLE POWER RELAY
F15	7.5	GAUGE/HYD. ENA. SWITCH	F5	7.5	RACK OUT/RESET POWER
F16	15	HANDLE POWER	F6	7.5	HYD. TANK SENSOR POWER
F17	15	DP/MSW/TCH POWER	F7	7.5	TETHER POWER
F18	15	WIPER MOTOR POWER	F8	7.5	PROX. SWITCH POWER
F19	7.5	CUMMINS MOTOR POWER	F9	7.5	CAMERA POWER
F20	7.5	ALTERNATOR EXCITATION	F10	7.5	C148 POWER

AU 758,938	US 5,590,041	US 6,195,922	US 6,477,795
CA D 79,599	US 5,607,280	US 6,247,544	US 6,484,818
DE 696 11 646	US 5,611,496	US 6,289,997	US 6,491,115
DE 202 14 659.5	US 5,657,803	US 6,308,787	US 6,497,296
DE Des. 96 006 65.4	US 5,659,985	US 6,315,062	US 6,511,260
EP 772,543	US 5,687,807	US 6,332,502	US 6,516,899
EP 830,522	US 5,692,548	US 6,357,537	US 6,517,733
EP 885,343	US 5,692,549	US 6,360,830	US 6,533,046
EP 1,153,194	US 5,704,142	US 6,367,564	US 6,533,052
GB 2,053,636	US 5,720,354	US 6,374,928	US 6,554,082
HK 1015859	US 5,746,278	US 6,382,330	US 6,557,651
RU 2,158,952	US 5,768,811	US 6,389,360	US 6,577,954
US Des. 308,682	US 5,778,991	US 6,390,207	US 6,585,062
US Des. 396,837	US 5,819,859	US 6,408,952	US 6,588,516
US 4,848,423	US 5,845,689	US 6,408,954	US 6,651,755
US 5,205,181	US 5,904,210	US 6,412,715	US 6,659,202
US 5,219,380	US 5,944,121	US 6,422,495	US 6,668,946
US 5,237,888	US 5,950,942	US 6,435,286	US 6,684,538
US 5,291,964	US 6,014,996	US 6,439,319	US 6,701,647
US 5,509,220	US 6,050,350	US 6,446,365	US 6,719,069
US 5,544,055	US 6,109,367	US 6,446,889	US 6,725,579
US 5,553,407	US 6,119,376	US 6,454,025	US 6,729,050
US 5,556,253	US 6,138,932	US 6,470,976	
US 5,574,642	US 6,154,987	US 6,474,931	
US 5,588,474	US 6,161,630	US 6,474,932	

This product may be covered by one or more of the following licensed patents:
US 4,694,913 US 4,867,255 US 5,148,880
US 4,858,704 US 4,953,638 US 5,799,740
(OTHER U.S. AND FOREIGN PATENTS PENDING)

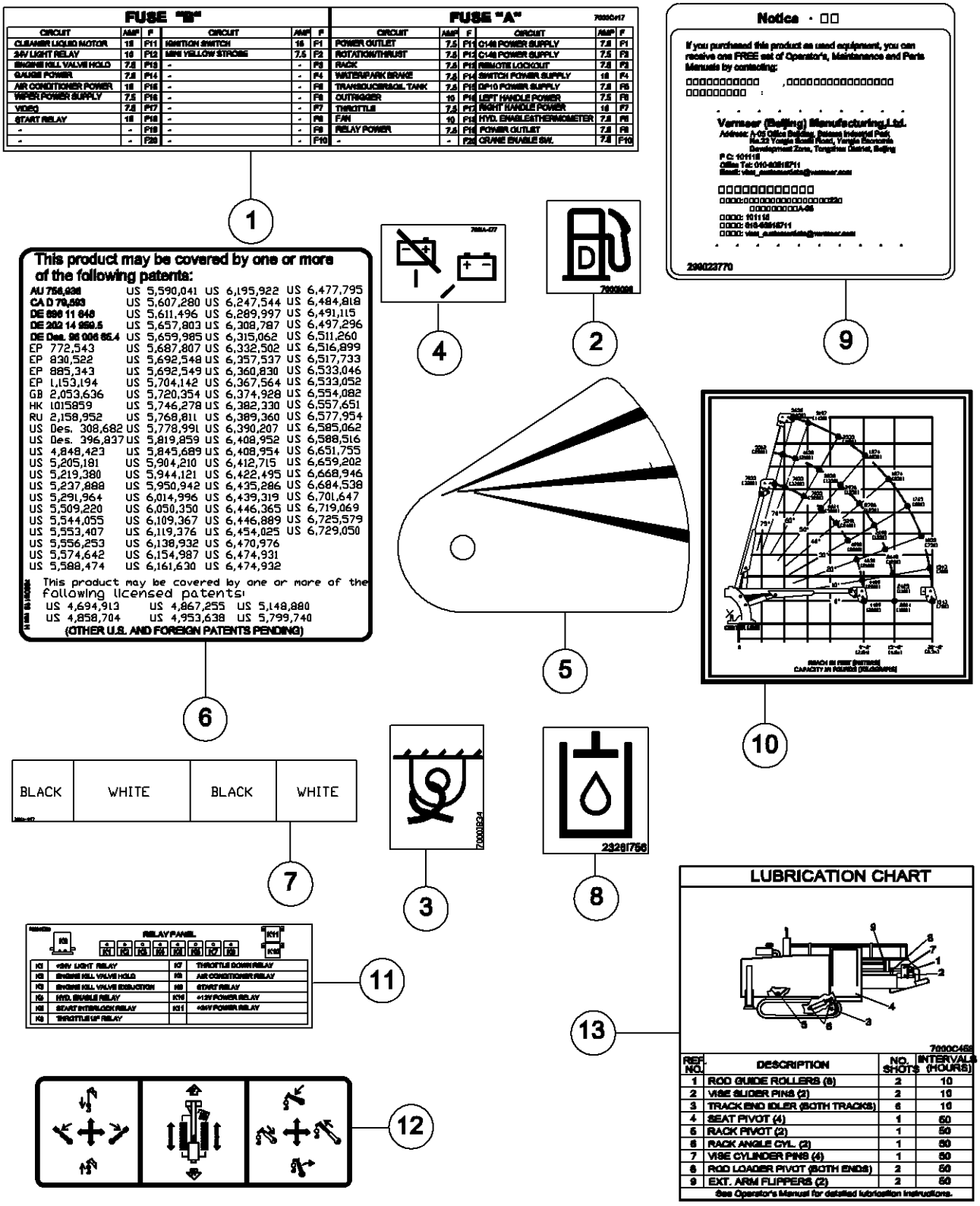
REF. NO.	DESCRIPTION	NO. SHOTS	INTERVALS (HOURS)
1	ROD GUIDE ROLLERS (6)	2	10
2	VISE SLIDER PINS (2)	2	10
3	TRACK END IDLER (BOTH TRACKS)	6	10
4	SEAT PIVOT (4)	1	50
5	RACK PIVOT (2)	1	50
6	RACK ANGLE CYL. (2)	1	50
7	VISE CYLINDER PINS (4)	1	50
8	ROD LOADER PIVOT (BOTH ENDS)	2	50
9	EXT. ARM FLIPPERS (2)	2	50

See Operator's Manual for detailed lubrication instructions.

Decals - Miscellaneous (S/N 111-113) Fig 1-3r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026313	FUSE BOX DECAL	1	VBM
2		7000I098	DECAL - DIESEL FUEL	1	PELLA
3		7000I834	DECAL - TIE DOWN POINT	4	PELLA
4		700IA477	DECAL - BATTERY SWITCH (UG)	1	PELLA
5		700IA624	DECAL - LOADER POSITION	1	PELLA
6		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
7		700IA490	DECAL - INDICATOR 2 7/8-3 1/2ROD	1	PELLA
8		2326I756	DECAL - HYDRAULIC FLUID	1	PELLA
9		299023770	DECAL - NOTICE TO OWNERS	1	VBM
10		299006755	DECAL - CAPACITY CHART 220X235	1	VBM
11		299026314	RELAY DECAL	1	VBM
12		299005400	TETHER JOYSTICK DECAL	1	VBM
13		7000C458	DECAL - LUBRICATION CHART	1	PELLA

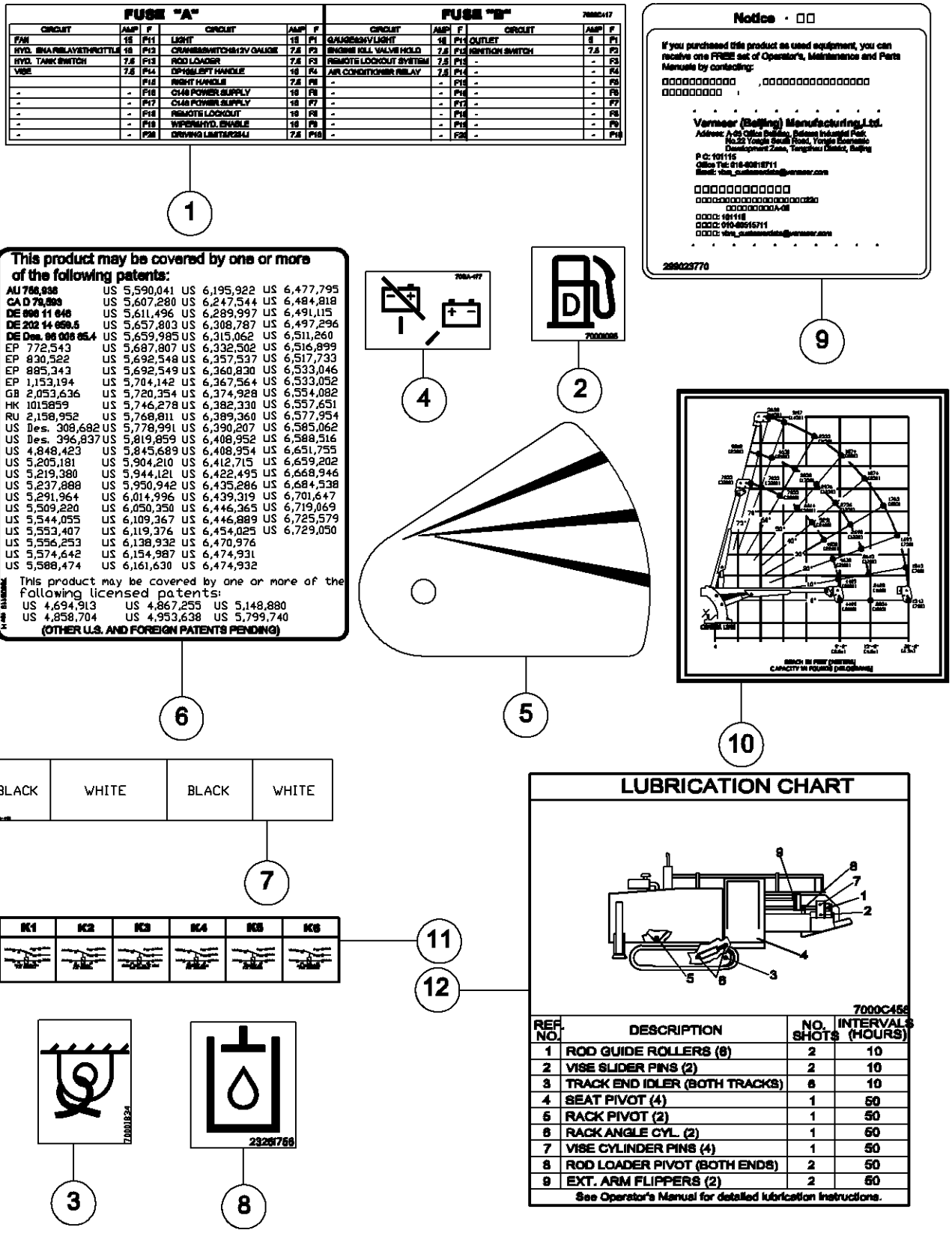
Decals - Miscellaneous (S/N 107-110) Fig 1-3r01



Decals - Miscellaneous (S/N 107-110) Fig 1-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005386	FUSE BOX DECAL	1	VBM
2		7000I098	DECAL - DIESEL FUEL	1	PELLA
3		7000I834	DECAL - TIE DOWN POINT	4	PELLA
4		700IA477	DECAL - BATTERY SWITCH (UG)	1	PELLA
5		700IA624	DECAL - LOADER POSITION	1	PELLA
6		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
7		700IA997	DECAL - GEARBOX POSITION	1	PELLA
8		2326I756	DECAL - HYDRAULIC FLUID	1	PELLA
9		299023770	DECAL - NOTICE TO OWNERS	1	VBM
10		299006755	DECAL - CAPACITY CHART 220X235	1	VBM
11		299005399	RELAY DECAL	1	VBM
12		299005400	TETHER JOYSTICK DECAL	1	VBM
13		7000C458	DECAL - LUBRICATION CHART	1	PELLA

Decals - Miscellaneous (S/N 101-106) Fig 1-3



Decals - Miscellaneous (S/N 101-106) Fig 1-3

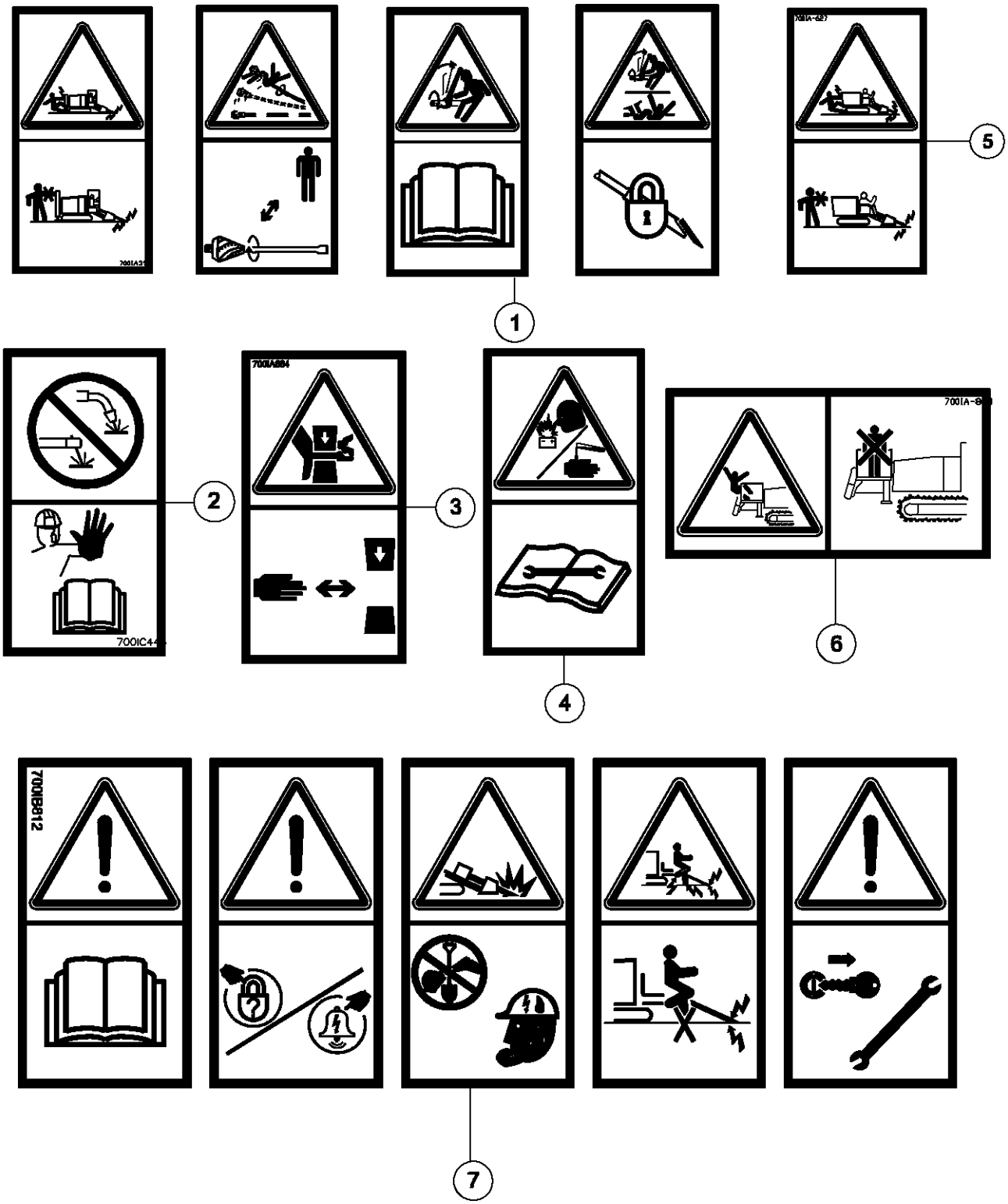
REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005343	FUSE BOX DECAL	1	VBM
2		7000I098	DECAL - DIESEL FUEL	1	PELLA
3		7000I834	DECAL - TIE DOWN POINT	4	PELLA
4		700IA477	DECAL - BATTERY SWITCH (UG)	1	PELLA
5		700IA624	DECAL - LOADER POSITION	1	PELLA
6		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
7		700IA490	DECAL - INDICATOR 2 7/8-3 1/2ROD	1	PELLA
8		2326I756	DECAL - HYDRAULIC FLUID	1	PELLA
9		299023770	DECAL - NOTICE TO OWNERS	1	VBM
10		299006755	DECAL - CAPACITY CHART 220X235	1	VBM
10		299006756	DECAL - CAPACITY CHART 140X150	1	VBM
11		299005399	RELAY DECAL	1	VBM
12		7000C458	DECAL - LUBRICATION CHART	1	PELLA

Decals - Safety Fig 1-4

Decals - Safety Fig 1-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000I563	DECAL - WARNING (UND)	2	PELLA
2		700IB304	DECAL - WARNING	1	PELLA
3		700IA392	DECAL - DANGER D28/D50	2	PELLA
4		2326I324	DECAL - WARNING EXPLOSION	1	PELLA
5		2326I315	DECAL - WARNING	1	PELLA
6		7000B499	DECAL - ANTIFREEZE	2	PELLA
7		7000I530	DECAL - DANGER	4	PELLA

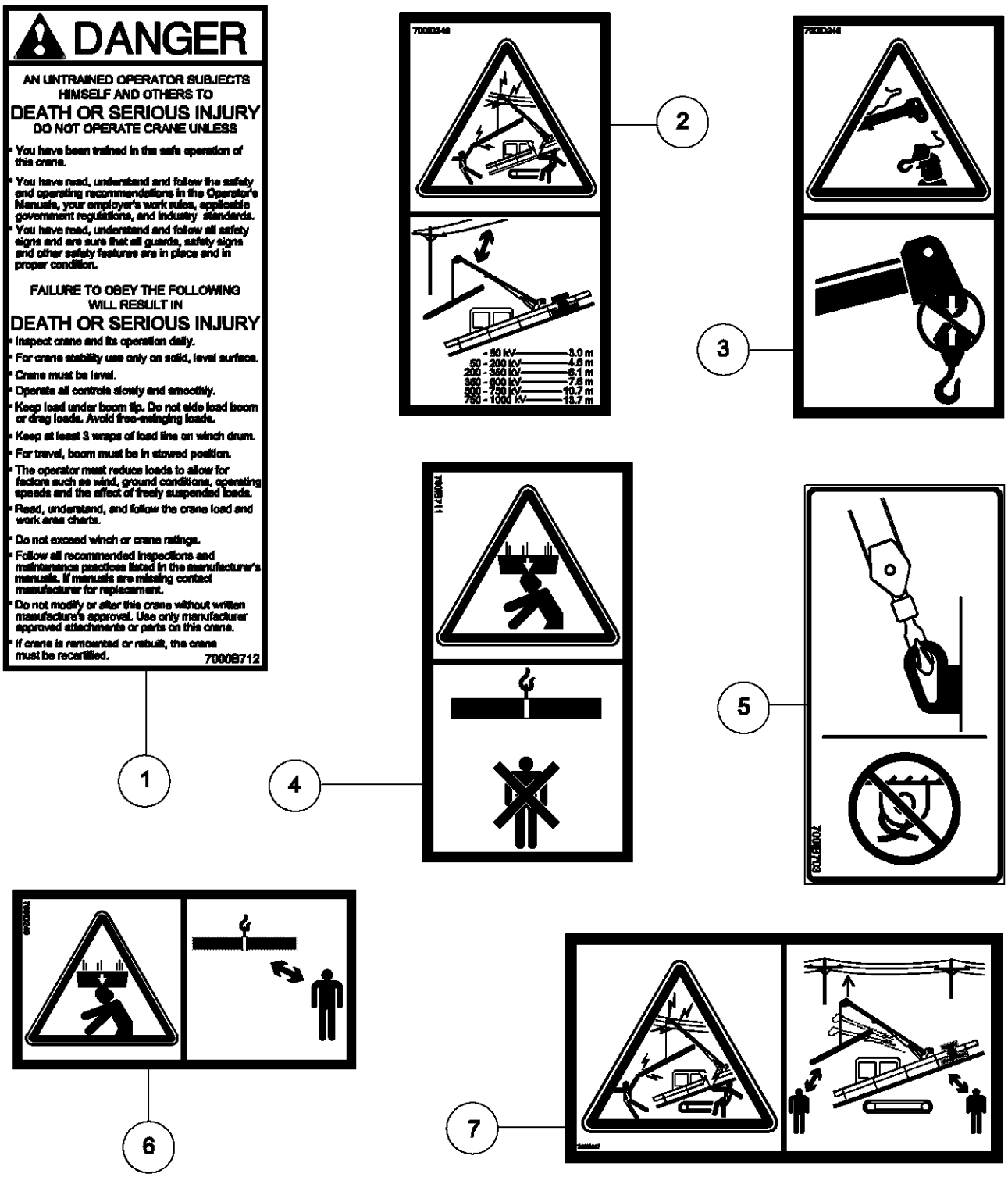
Decals - Safety Fig 1-5



Decals - Safety Fig 1-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700IC530	DECAL - DANGER INTERNATIONAL 4 PANEL	2	PELLA
2		700IC446	DECAL - NO WELD	4	PELLA
3		700IA864	DECAL - WARNING INTERNATIONAL	2	PELLA
4		7000I044	DECAL - WARNING	1	PELLA
5		700IA627	DECAL - DANGER	1	PELLA
6		700IA863	DECAL - WARNING	1	PELLA
7		700IB812	DECAL - WARNING	1	PELLA

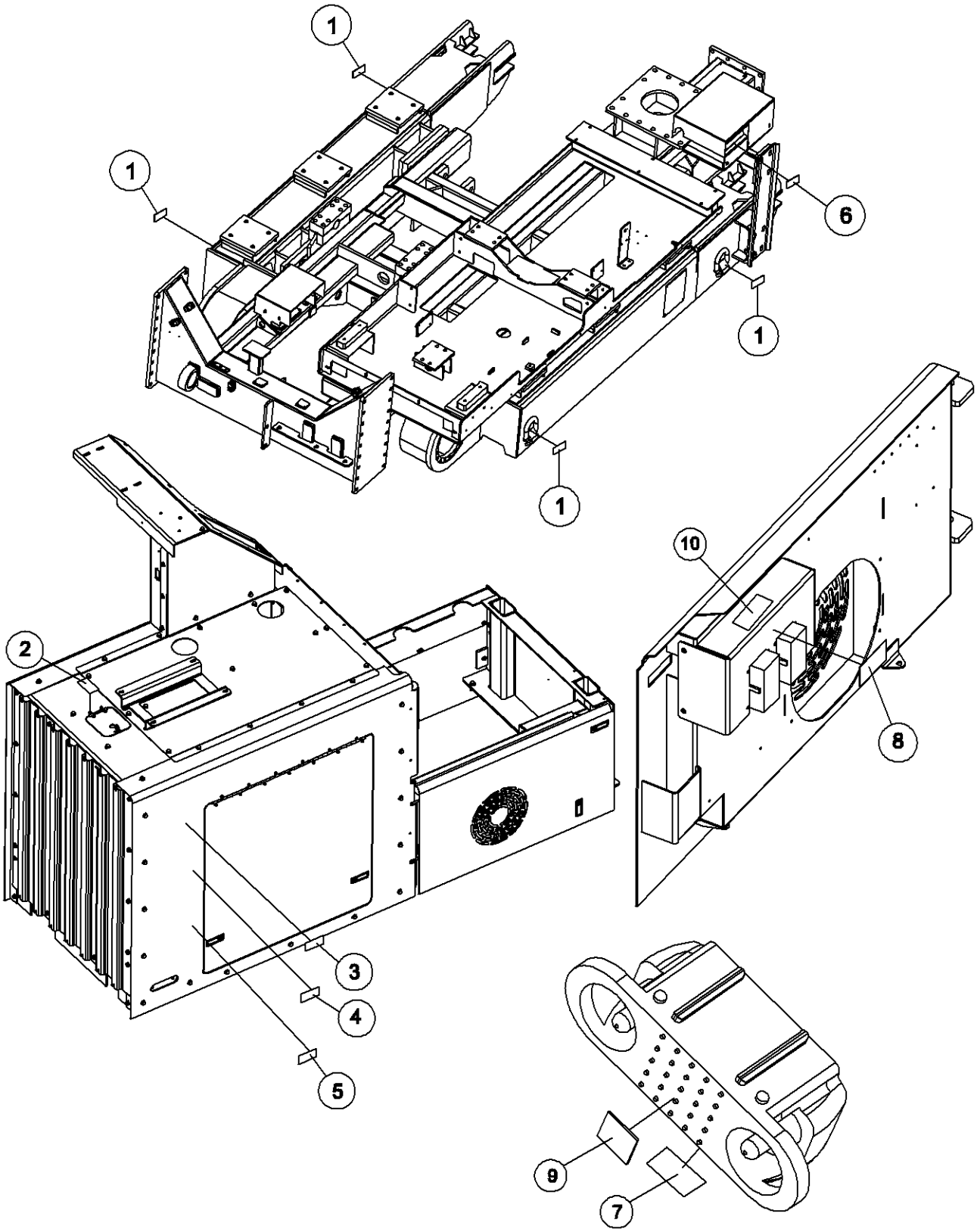
Decals - Safety Fig 1-6



Decals - Safety Fig 1-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000B712	DECAL - DANGER	1	PELLA
2		700ID248	DECAL - DANGER KEEP AWAY	1	PELLA
3		700ID246	DECAL - WARNING	1	PELLA
4		700IB711	DECAL - WARNING - FALLING LOAD	1	PELLA
5		700IB703	DECAL - HOOK	1	PELLA
6		700ID249	DECAL - WARNING FALLING LOAD	2	PELLA
7		700IB617	DECAL - DANGER POWER LINES	2	PELLA

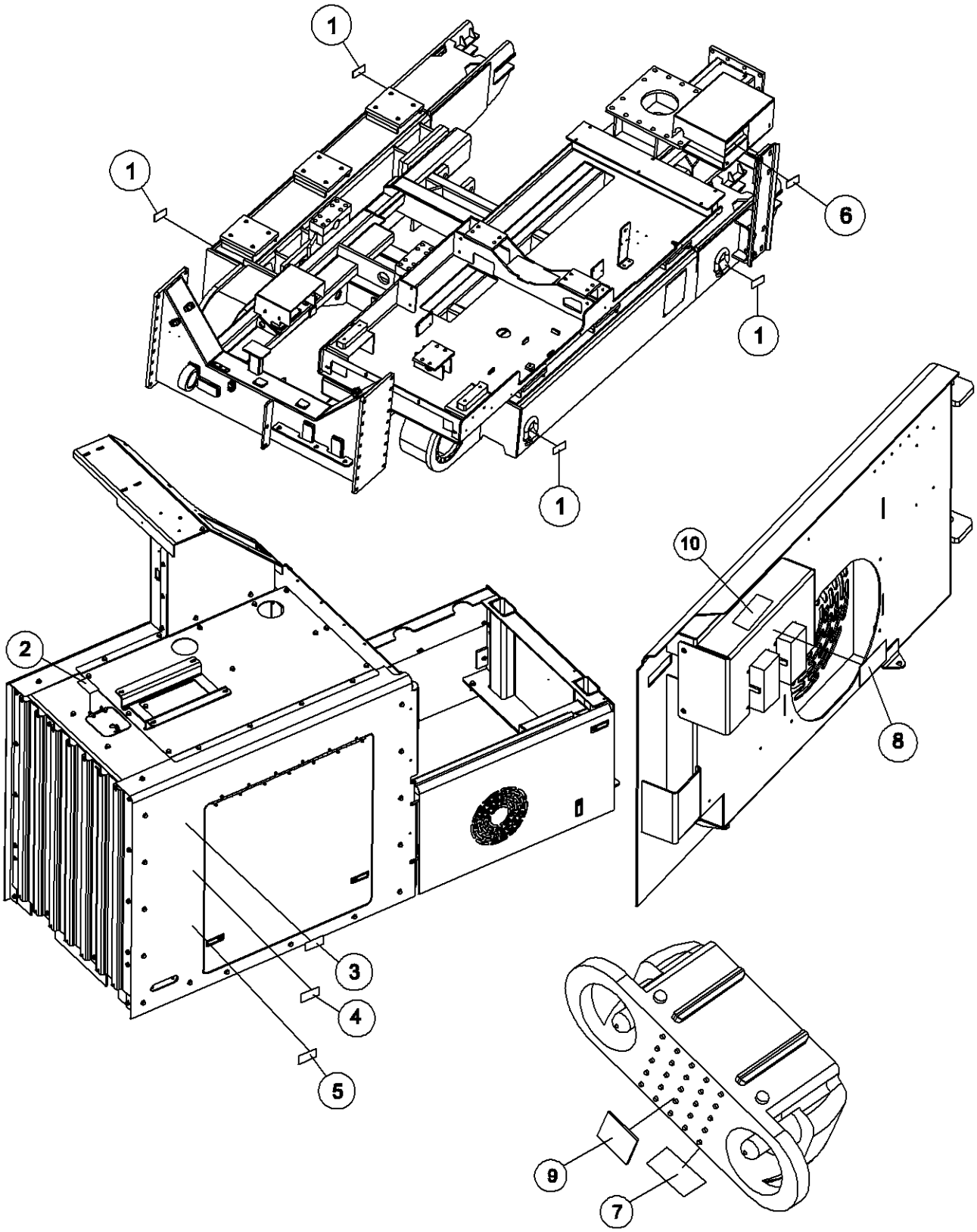
Decals Location Assembly (S/N 111-) Fig 1-7r02



Decals Location Assembly (S/N 111-) Fig 1-7r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000I834	DECAL - TIE DOWN POINT	4	PELLA
2		2326I315	DECAL - WARNING	1	PELLA
3		700ID841	DECAL - D130X150 RIGHT STRIPE	1	PELLA
4		7000C948	DECAL - BY VBM	1	PELLA
5		70000614	DECAL - MODEL NAVIGATOR (BIG)	1	PELLA
6		299026508	DECAL	1	VBM
7		299005400	TETHER JOYSTICK DECAL	1	VBM
8		299026313	FUSE BOX DECAL	1	VBM
9		299005345	TETHER UNIT DECAL	1	VBM
10		299026314	RELAY DECAL	1	VBM

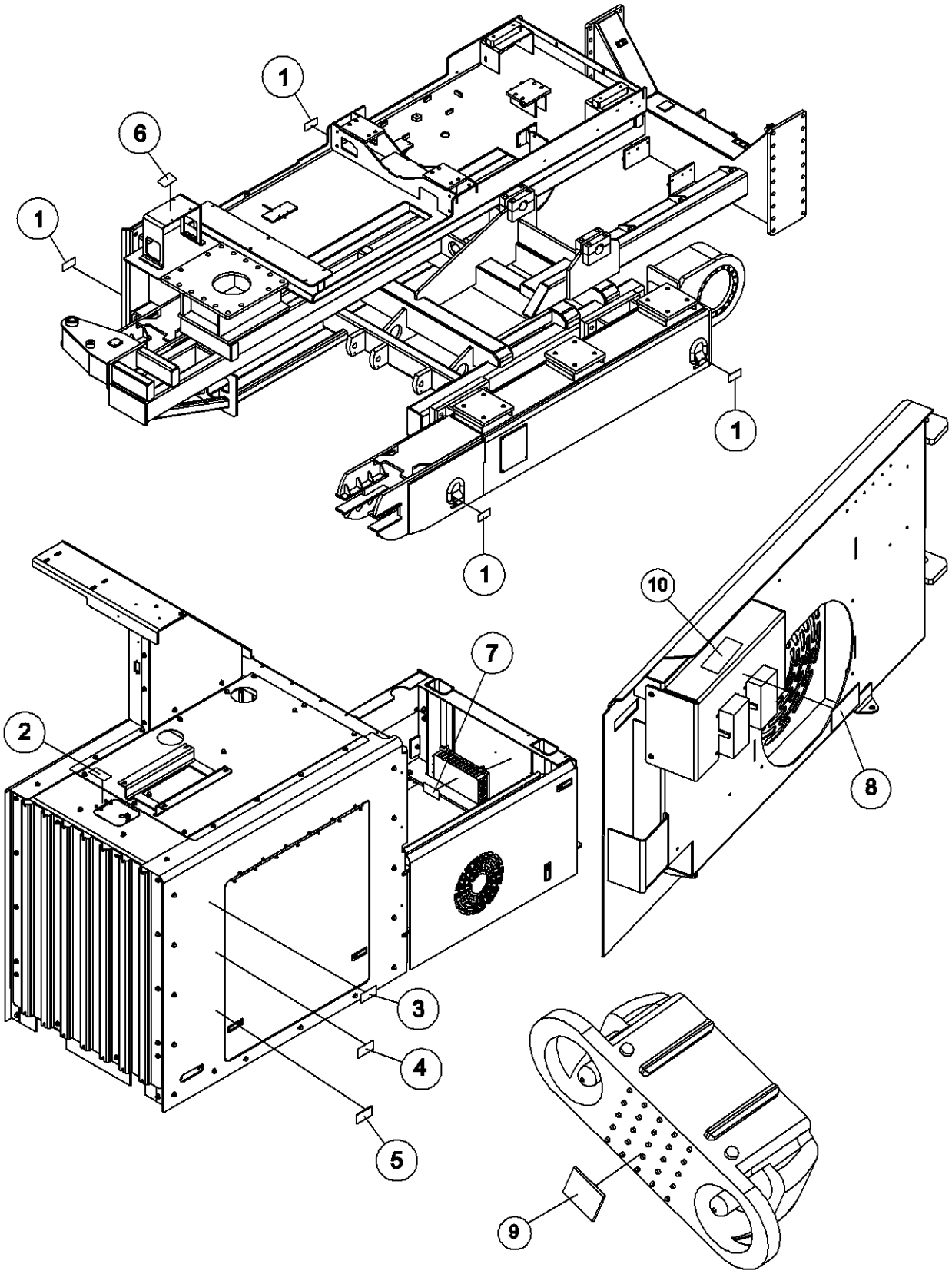
Decals Location Assembly (S/N 107-110) Fig 1-7r01



Decals Location Assembly (S/N 107-110) Fig 1-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000I834	DECAL - TIE DOWN POINT	4	PELLA
2		2326I315	DECAL - WARNING	1	PELLA
3		700ID841	DECAL - D130X150 RIGHT STRIPE	1	PELLA
4		7000C948	DECAL - BY VBM	1	PELLA
5		70000614	DECAL - MODEL NAVIGATOR (BIG)	1	PELLA
6		299024997	DECAL - OUTRIGGER	1	VBM
7		299005400	TETHER JOYSTICK DECAL	1	VBM
8		299005386	FUSE BOX DECAL	1	VBM
9		299005345	TETHER UNIT DECAL	1	VBM
10		299026314	RELAY DECAL	1	VBM

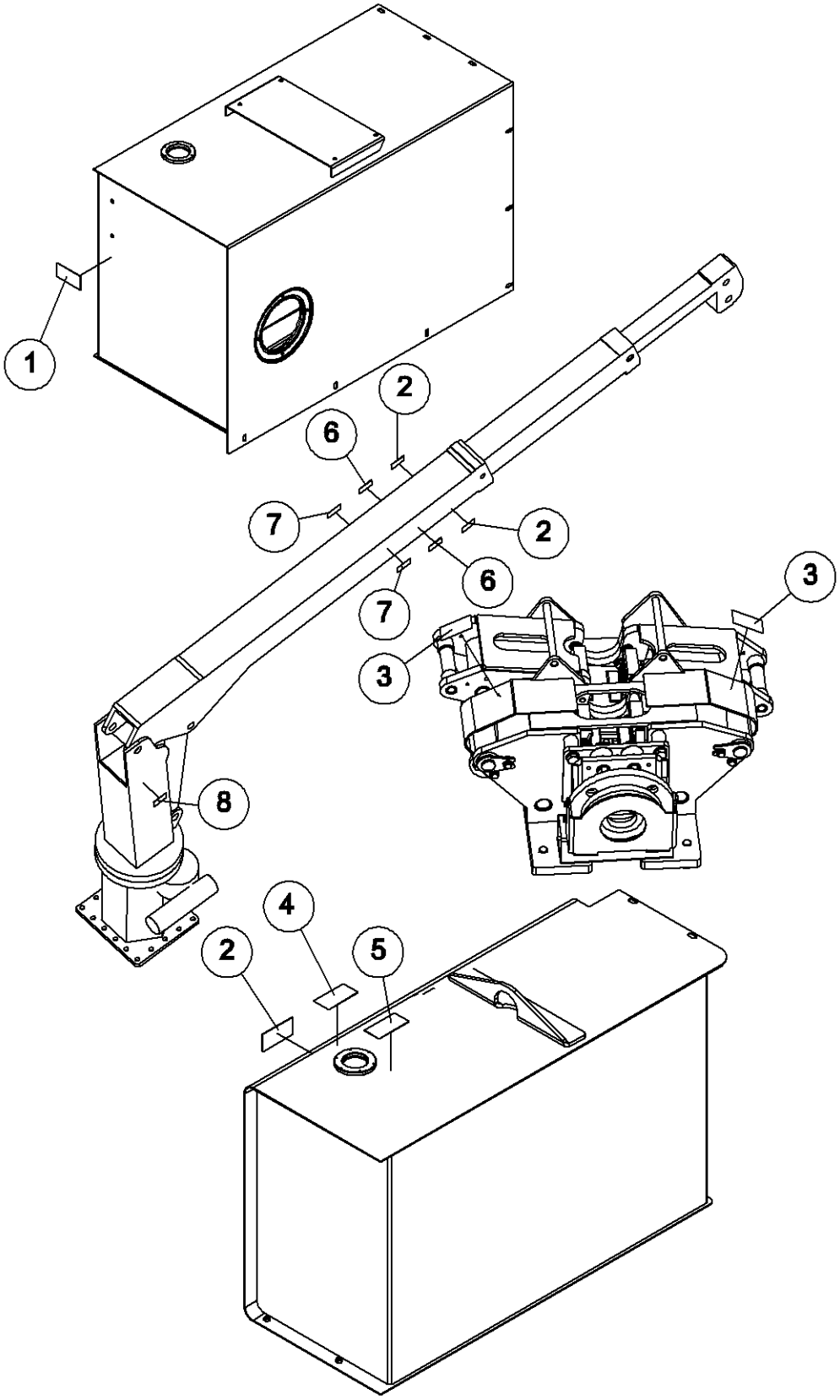
Decals Location Assembly (S/N 101-106) Fig 1-7



Decals Location Assembly (S/N 101-106) Fig 1-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000I834	DECAL - TIE DOWN POINT	4	PELLA
2		2326I315	DECAL - WARNING	1	PELLA
3		700ID841	DECAL - D130X150 RIGHT STRIPE	1	PELLA
4		7000C948	DECAL - BY VBM	1	PELLA
5		70000614	DECAL - MODEL NAVIGATOR (BIG)	1	PELLA
6		299022936	DECAL - MANUAL VALVE	1	VBM
7		299005340	C148 DECAL	1	VBM
8		299005343	FUSE BOX DECAL	1	VBM
9		299005345	TETHER UNIT DECAL	1	VBM
10		299005399	RELAY DECAL	1	VBM

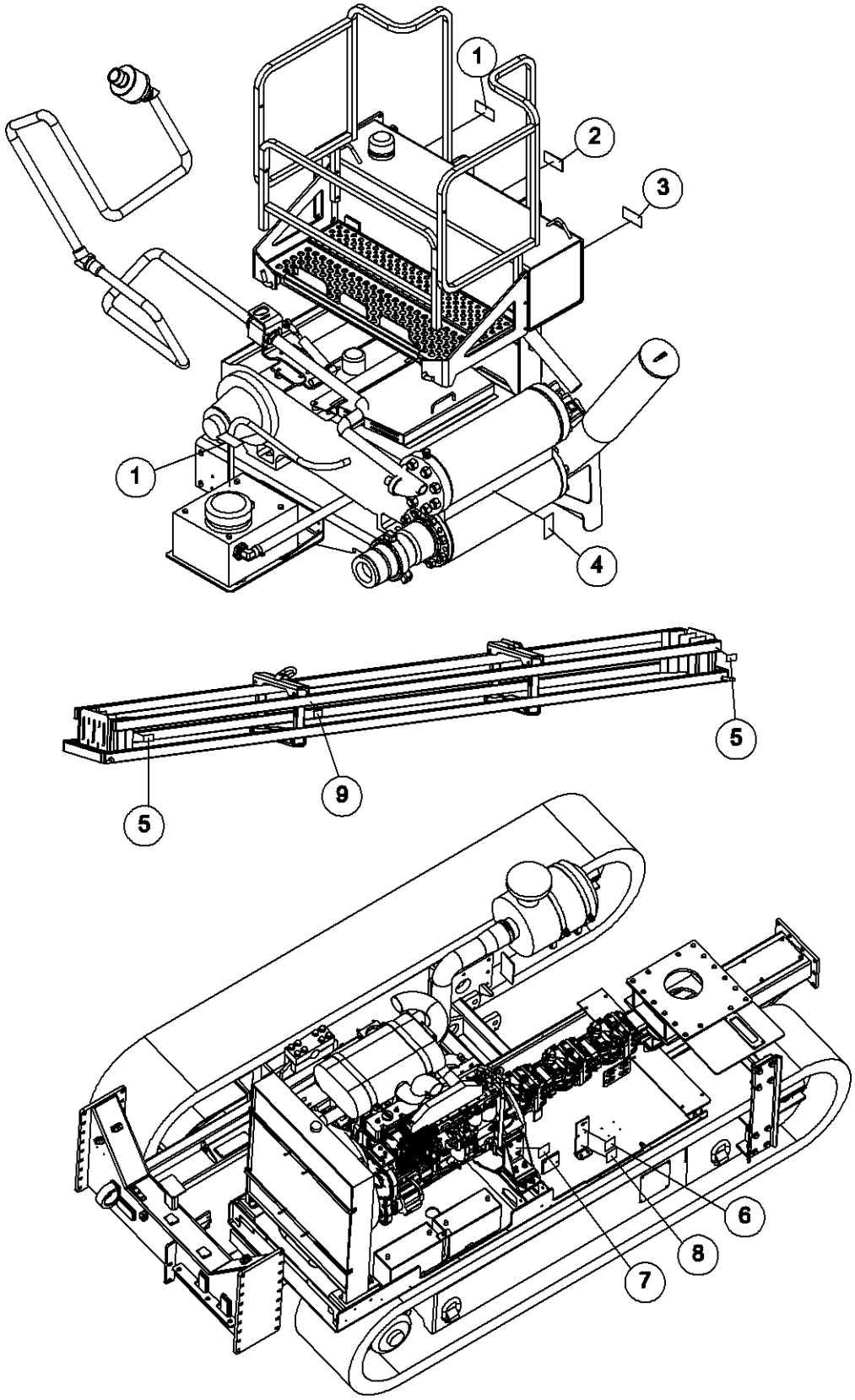
Decals Location Assembly Fig 1-8



Decals Location Assembly Fig 1-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		2326I756	DECAL - HYDRAULIC FLUID	1	PELLA
2		2326595	DECAL VERMEER- 4 1/2 X 24	3	PELLA
3		700IA864	DECAL - WARNING INTERNATIONAL	2	PELLA
4		2326I324	DECAL - WARNING EXPLOSION	1	PELLA
5		7000I098	DECAL - DIESEL FUEL	1	PELLA
6		700ID249	DECAL - WARNING FALLING LOAD	2	PELLA
7		700IB617	DECAL - DANGER POWER LINES	2	PELLA
8		299006755	DECAL - CAPACITY CHART 220X235	1	VBM

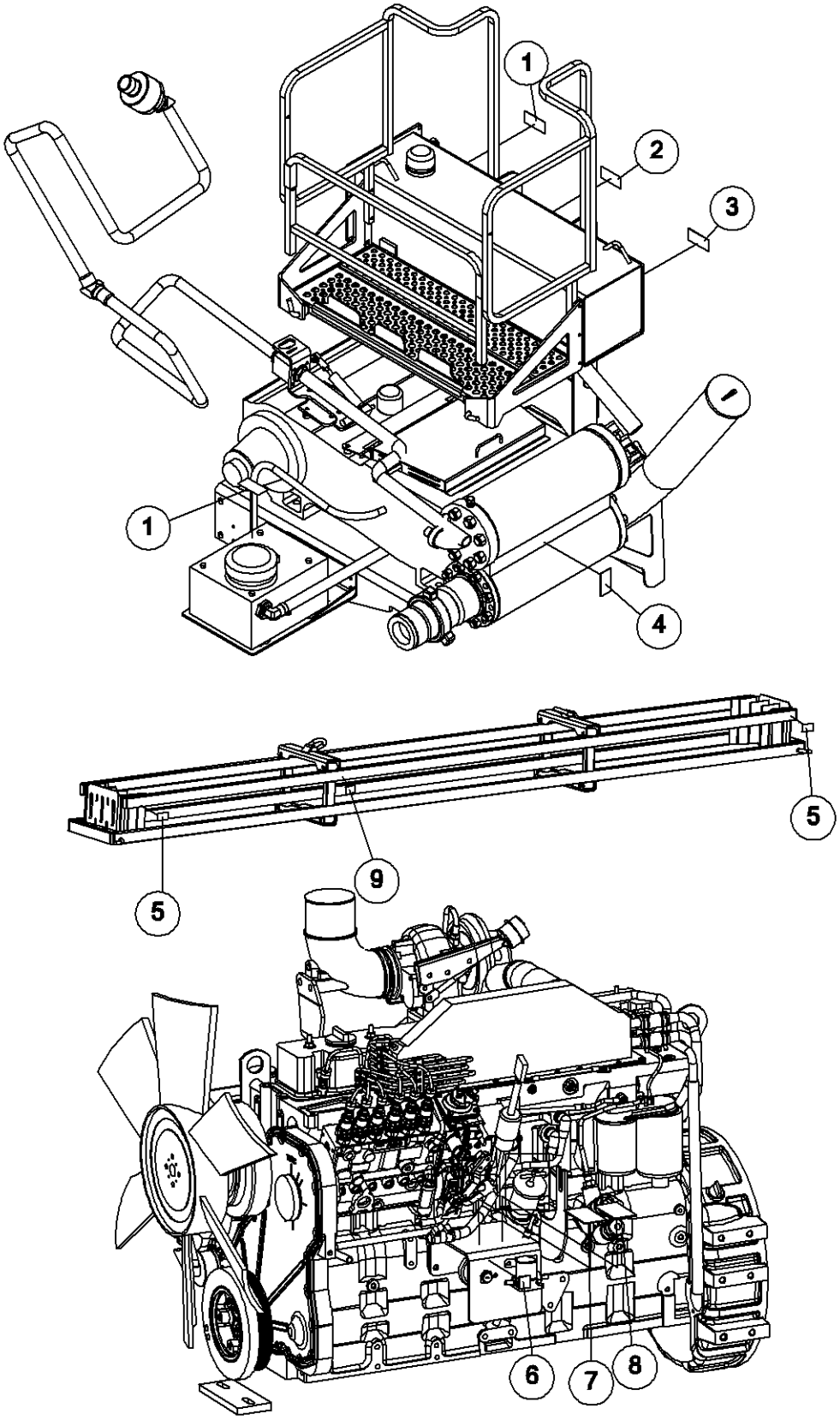
Decals Location Assembly (S/N 109-) Fig 1-9r01



Decals Location Assembly (S/N 109-) Fig 1-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000B499	DECAL - ANTIFREEZE	2	PELLA
2		700IA863	DECAL - WARNING	1	PELLA
3		700IA392	DECAL - DANGER D28/D50	1	PELLA
4		700IB304	DECAL - WARNING	1	PELLA
5		7000I563	DECAL - WARNING (UND)	2	PELLA
6		700IA477	DECAL - BATTERY SWITCH (UG)	1	PELLA
7		7000I044	DECAL - WARNING	1	PELLA
8		700IC446	DECAL - NO WELD	1	PELLA
9		700IB703	DECAL - HOOK	1	PELLA

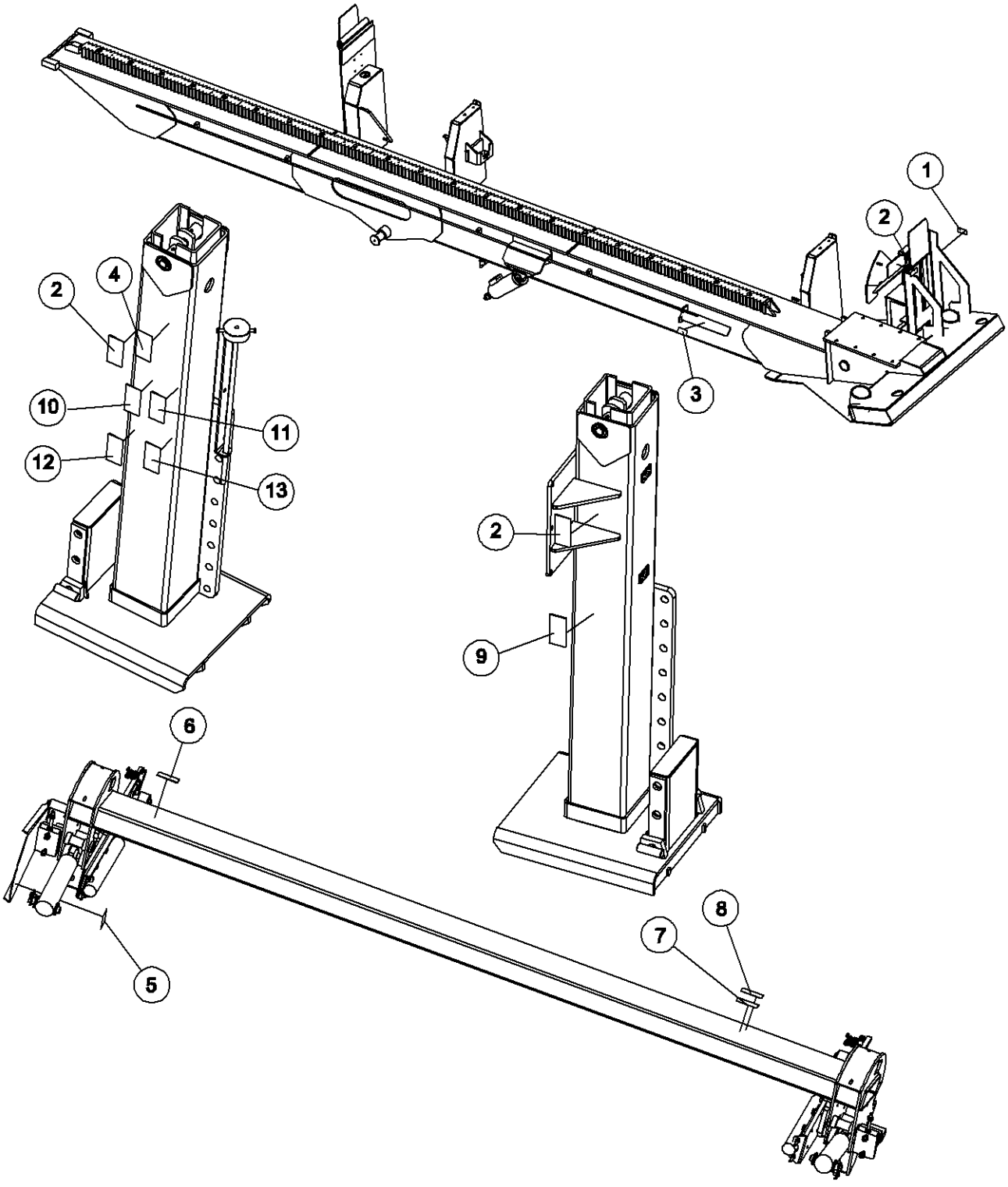
Decals Location Assembly (S/N 101-108) Fig 1-9



Decals Location Assembly (S/N 101-108) Fig 1-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000B499	DECAL - ANTIFREEZE	2	PELLA
2		700IA863	DECAL - WARNING	1	PELLA
3		700IA392	DECAL - DANGER D28/D50	1	PELLA
4		700IB304	DECAL - WARNING	1	PELLA
5		7000I563	DECAL - WARNING (UND)	2	PELLA
6		700IA477	DECAL - BATTERY SWITCH (UG)	1	PELLA
7		7000I044	DECAL - WARNING	1	PELLA
8		700IC446	DECAL - NO WELD	1	PELLA
9		700IB703	DECAL - HOOK	1	PELLA

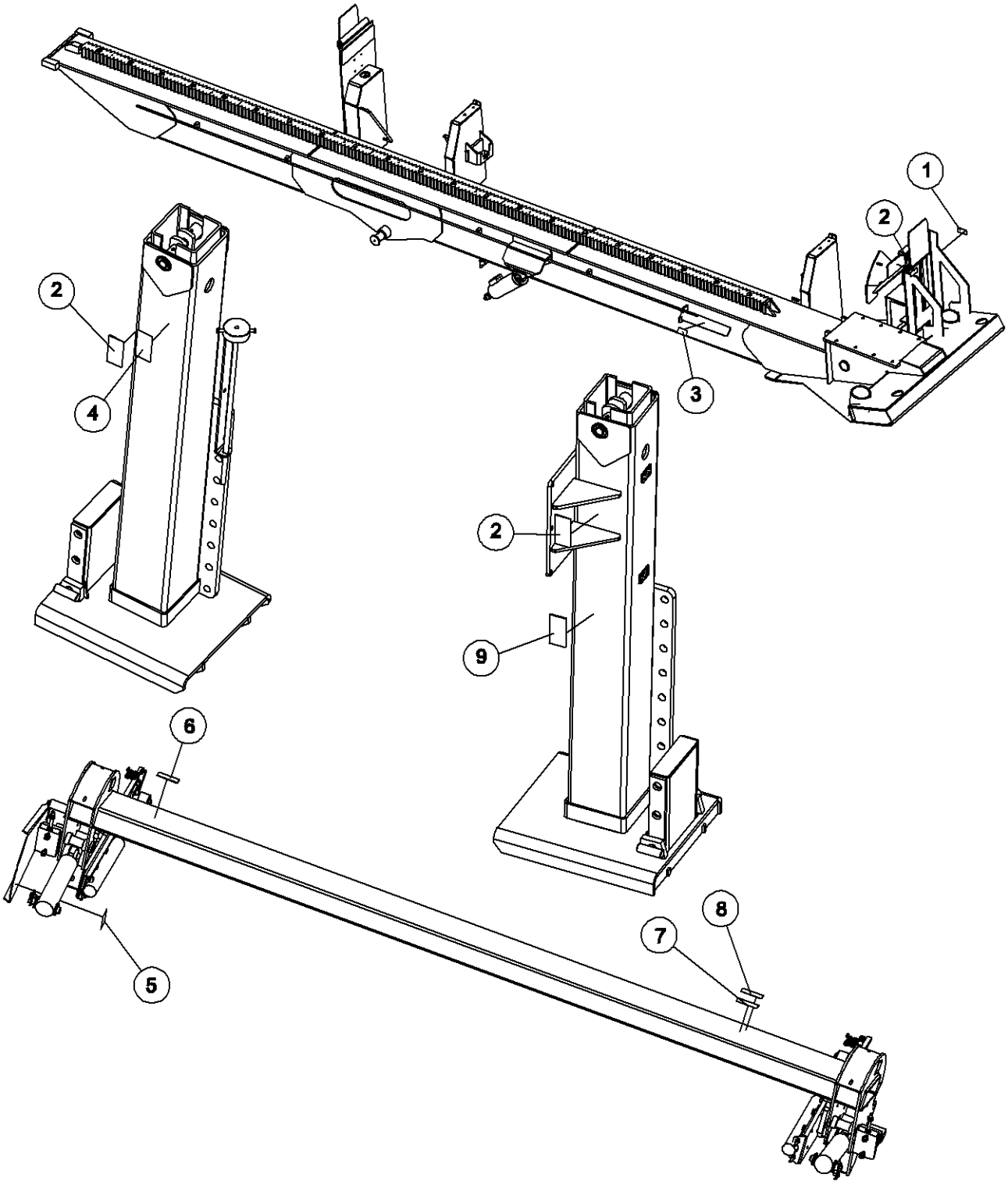
Decals Location Assembly (S/N 107-) Fig 1-10r01



Decals Location Assembly (S/N 107-) Fig 1-10r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700IA627	DECAL - DANGER	1	PELLA
2		700IC446	DECAL - NO WELD	3	PELLA
3		700IA490	DECAL - INDICATOR 2 7/8-3 1/2ROD	1	PELLA
4		700IA392	DECAL - DANGER D28/D50	1	PELLA
5		700IA624	DECAL - LOADER POSITION	1	PELLA
6		2326595	DECAL VERMEER- 4 1/2 X 24	1	PELLA
7		7000C948	DECAL - BY VBM	1	PELLA
8		700ID842	DECAL - D130X150 LEFT STRIPE	1	PELLA
9		7000C458	DECAL - LUBRICATION CHART	1	PELLA
10		700IB711	DECAL - WARNING - FALLING LOAD	1	PELLA
11		700ID248	DECAL - DANGER KEEP AWAY	1	PELLA
12		700ID246	DECAL - WARNING	1	PELLA
13		7000B712	DECAL - DANGER	1	PELLA

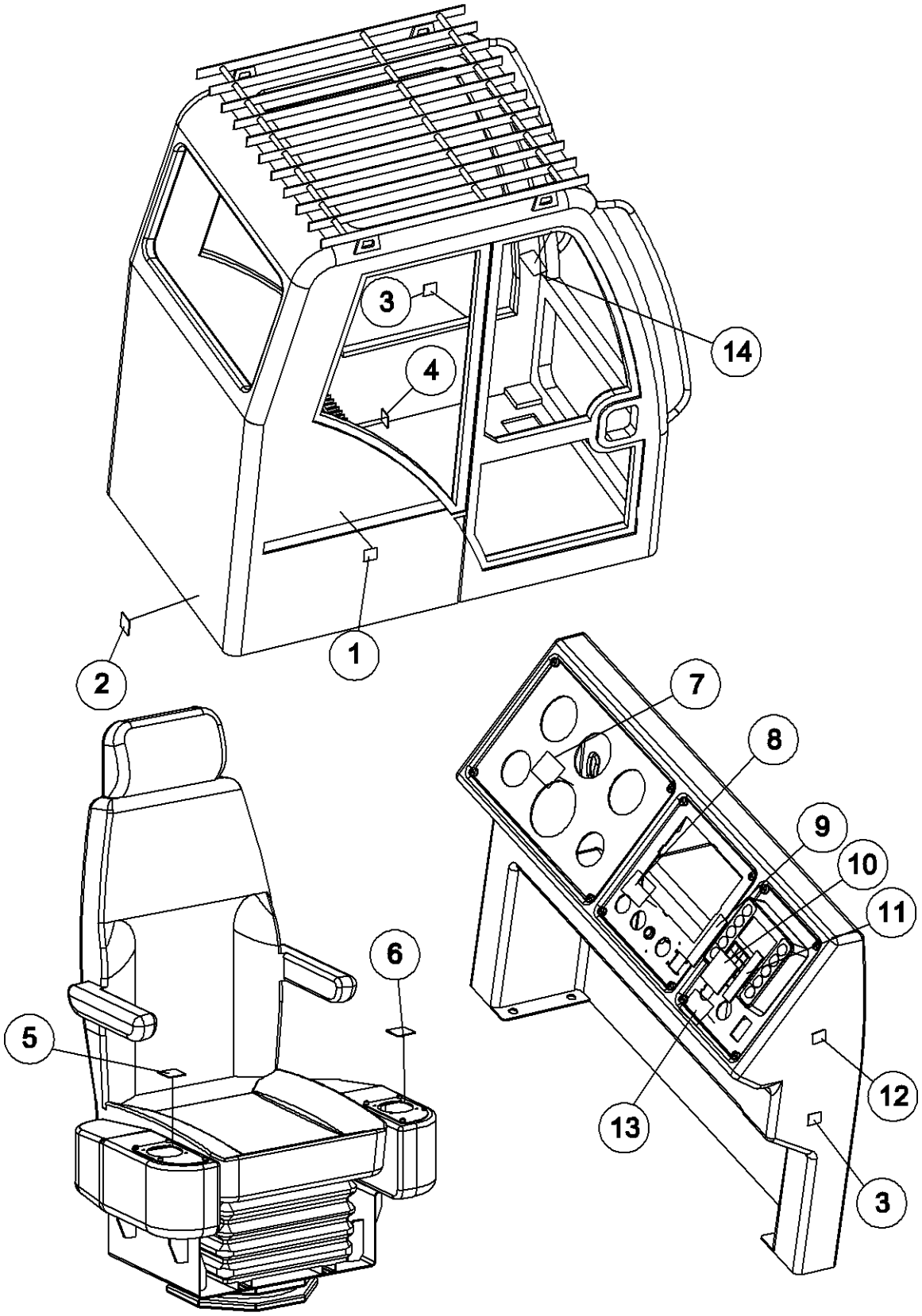
Decals Location Assembly (S/N 101-106) Fig 1-10



Decals Location Assembly (S/N 101-106) Fig 1-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700IA627	DECAL - DANGER	1	PELLA
2		700IC446	DECAL - NO WELD	3	PELLA
3		700IA490	DECAL - INDICATOR 2 7/8-3 1/2ROD	1	PELLA
4		700IA392	DECAL - DANGER D28/D50	1	PELLA
5		700IA624	DECAL - LOADER POSITION	1	PELLA
6		2326595	DECAL VERMEER- 4 1/2 X 24	1	PELLA
7		7000C948	DECAL - BY VBM	1	PELLA
8		700ID842	DECAL - D130X150 LEFT STRIPE	1	PELLA
9		7000C458	DECAL - LUBRICATION CHART	1	PELLA

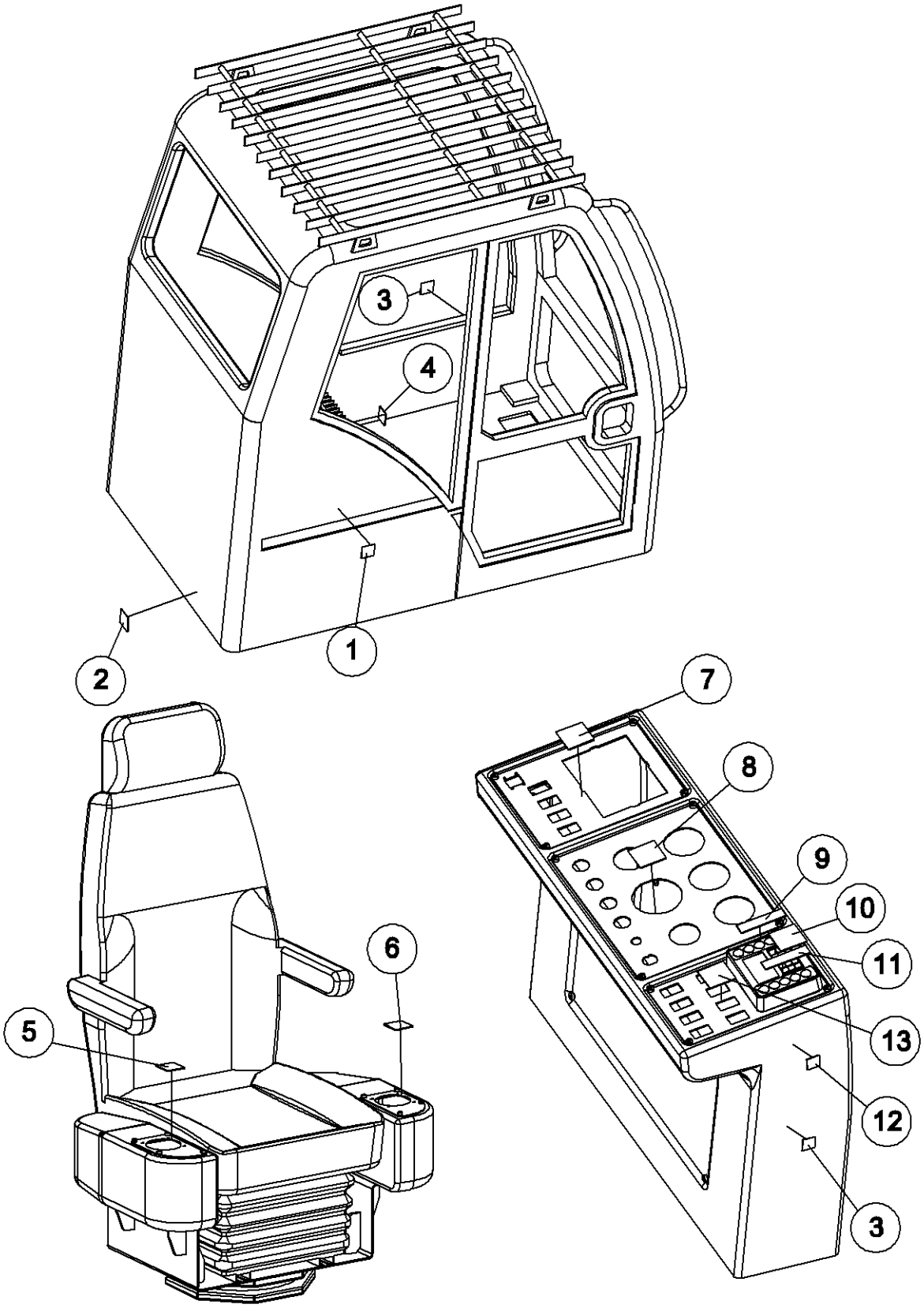
Decals Location Assembly (S/N 114-) Fig 1-11r03



Decals Location Assembly (S/N 114-) Fig 1-11r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000D010	DECAL - COSMETIC V - 12.00”	1	PELLA
2		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
3		700IC530	DECAL - DANGER INTERNATIONAL 4 PANEL	2	PELLA
4		299005391	C148 DECAL	1	VBM
5		299024995	RIGHT JOYSTICK DECAL	1	VBM
6		299024994	LEFT JOYSTICK DECAL	1	VBM
7		299026554	DECAL - CONSOLE I	1	VBM
8		299026555	DECAL - CONSOLE II	1	VBM
9		299005392	DP10 LEFT KEY DECAL	1	VBM
10		299005393	DP10 INDICATOR LIGHT DECAL	1	VBM
11		299005342	DP10 RIGHT KEY DECAL	1	VBM
12		700IB812	DECAL - WARNING	1	PELLA
13		299026556	DECAL - CONSOLE III	1	VBM
14		299026557	DECAL - CONSOLE IV	1	VBM

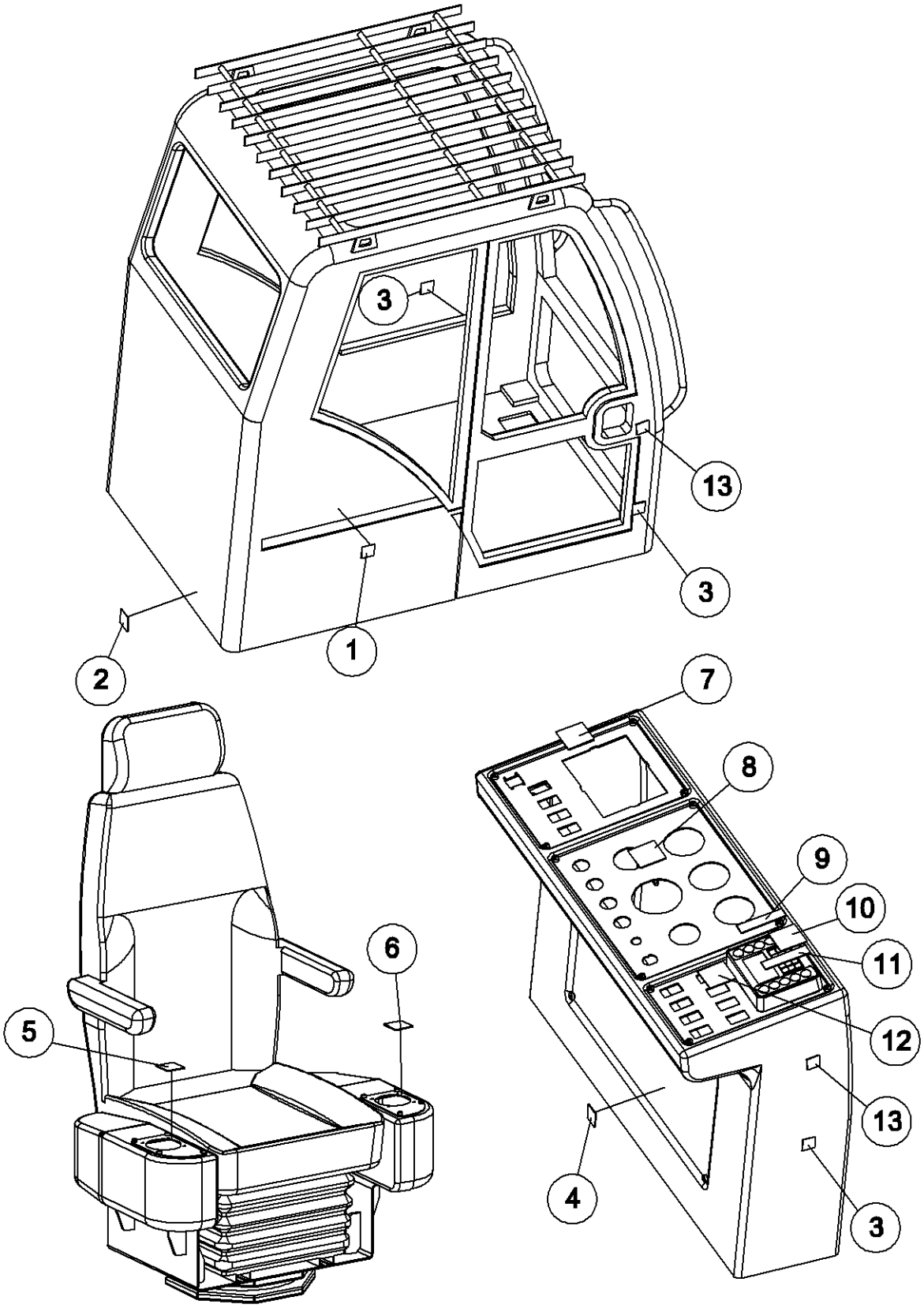
Decals Location Assembly (S/N 111-113) Fig 1-11r02



Decals Location Assembly (S/N 111-113) Fig 1-11r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000D010	DECAL - COSMETIC V - 12.00”	1	PELLA
2		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
3		700IC530	DECAL - DANGER INTERNATIONAL 4 PANEL	2	PELLA
4		299005391	C148 DECAL	1	VBM
5		299024995	RIGHT JOYSTICK DECAL	1	VBM
6		299024994	LEFT JOYSTICK DECAL	1	VBM
7		299026505	DECAL - CONSOLE II	1	VBM
8		299026506	DECAL - CONSOLE III	1	VBM
9		299005392	DP10 LEFT KEY DECAL	1	VBM
10		299005393	DP10 INDICATOR LIGHT DECAL	1	VBM
11		299005342	DP10 RIGHT KEY DECAL	1	VBM
12		700IB812	DECAL - WARNING	1	PELLA
13		299024943	DECAL - CONSOLE I	1	VBM

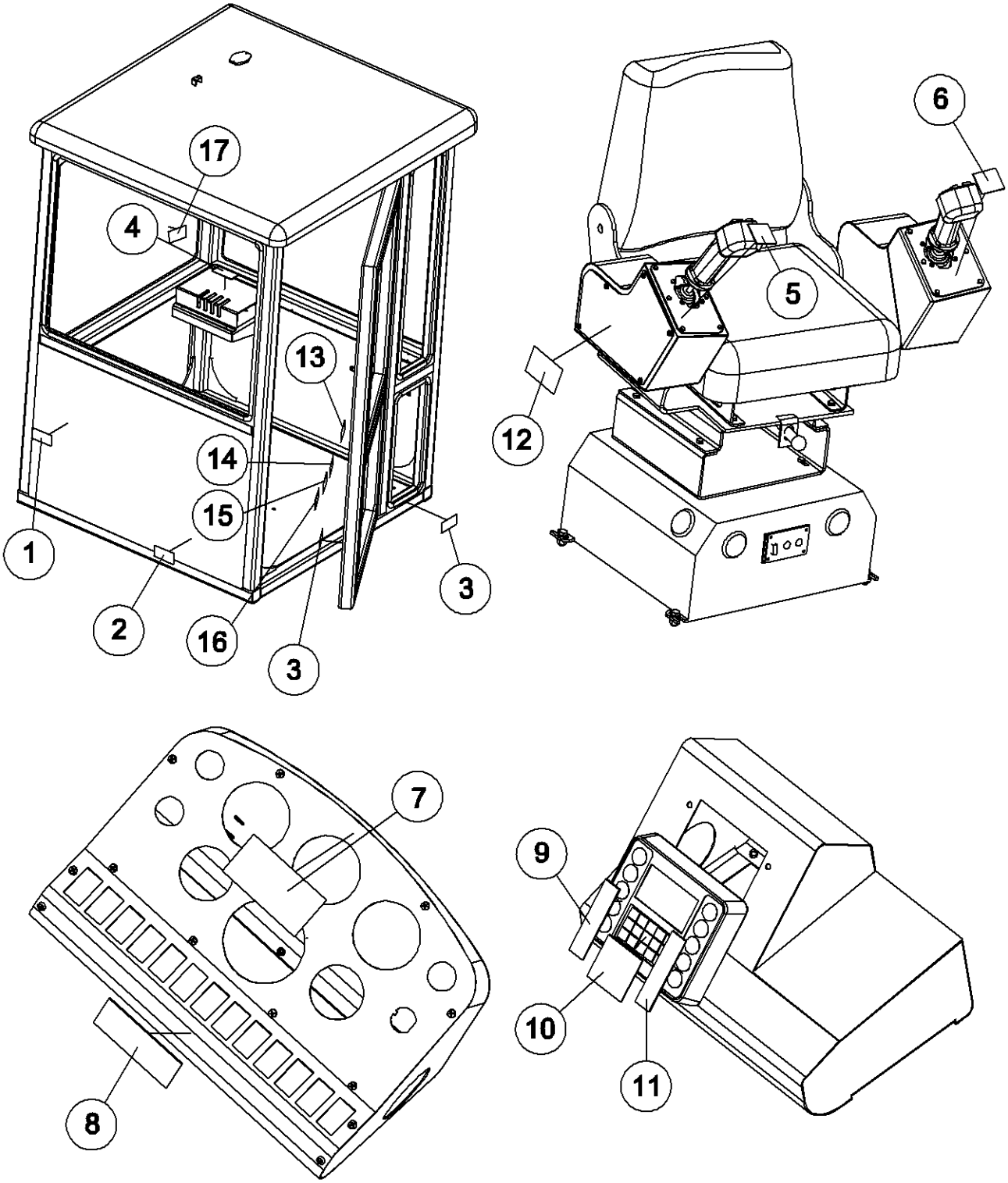
Decals Location Assembly (S/N 107-110) Fig 1-11r01



Decals Location Assembly (S/N 107-110) Fig 1-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000D010	DECAL - COSMETIC V - 12.00”	1	PELLA
2		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
3		700IC530	DECAL - DANGER INTERNATIONAL 4 PANEL	2	PELLA
4		299005391	C148 DECAL	1	VBM
5		299024995	RIGHT JOYSTICK DECAL	1	VBM
6		299024994	LEFT JOYSTICK DECAL	1	VBM
7		299024992	CONSOLE DECAL II	1	VBM
8		299024993	CONSOLE DECAL III	1	VBM
9		299005392	DP10 LEFT KEY DECAL	1	VBM
10		299005393	DP10 INDICATOR LIGHT DECAL	1	VBM
11		299005342	DP10 RIGHT KEY DECAL	1	VBM
12		700IB812	DECAL - WARNING	1	PELLA
13		299024996	CONSOLE DECAL I	1	VBM

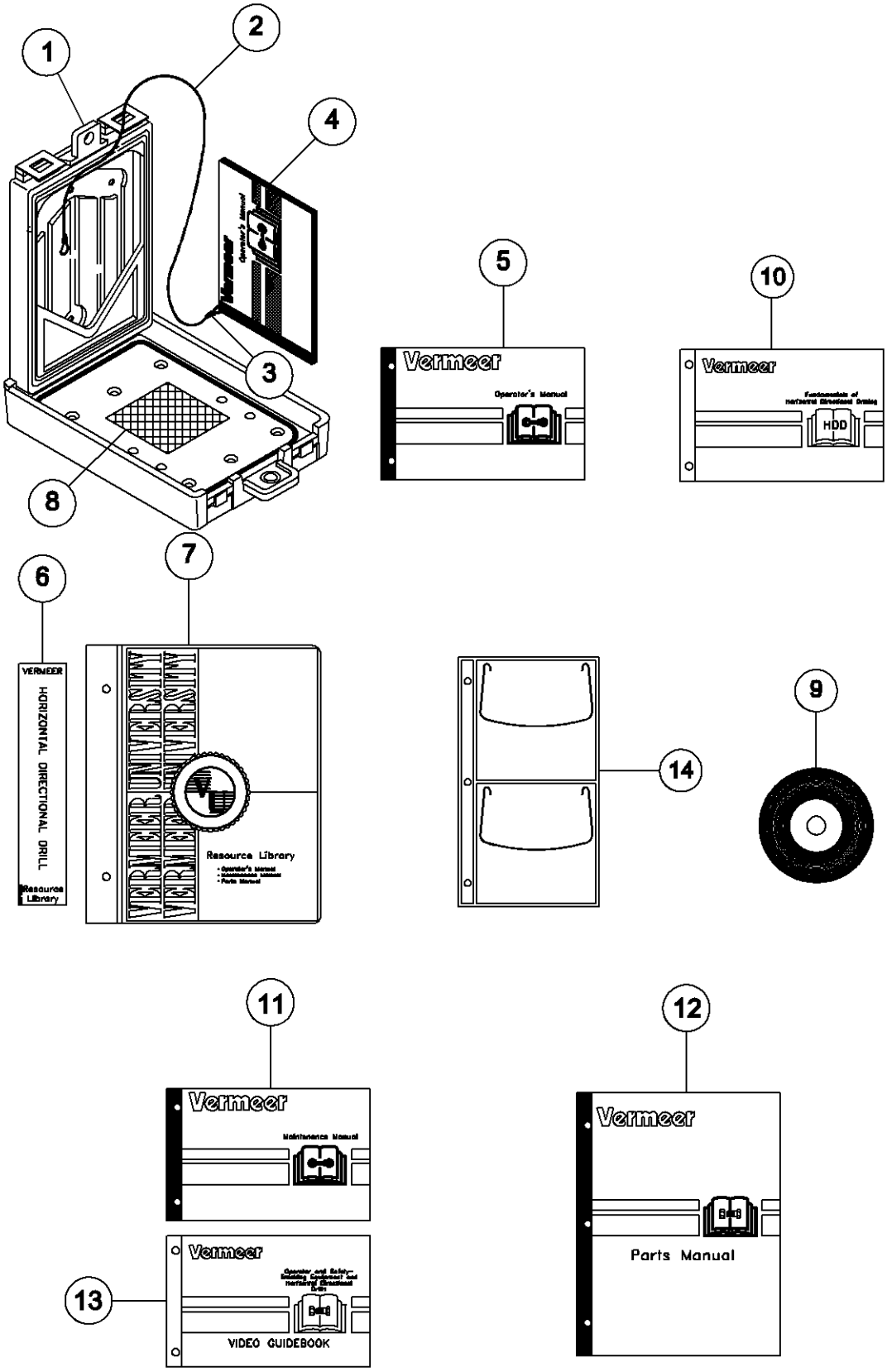
Decals Location Assembly (S/N 101-106) Fig 1-11



Decals Location Assembly (S/N 101-106) Fig 1-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000D010	DECAL - COSMETIC V - 12.00”	1	PELLA
2		7000B119	DECAL - PATENT INDUSTRIAL	1	PELLA
3		700IC530	DECAL - DANGER INTERNATIONAL 4 PANEL	2	PELLA
4		299022932	DECAL - CRANE	1	VBM
5		299022935	DECAL - VISE	1	VBM
6		299022934	DECAL - LEFT HANDLE	1	VBM
7		299022933	DECAL - CONTROL PANEL	1	VBM
8		299022931	DECAL - SWITCH	1	VBM
9		299005341	DP10 LEFT KEY DECAL	1	VBM
10		299005344	DP10 INDICATOR LIGHT DECAL	1	VBM
11		299005342	DP10 RIGHT KEY DECAL	1	VBM
12		700IB812	DECAL - WARNING	1	PELLA
13		700IB711	DECAL - WARNING - FALLING LOAD	1	PELLA
14		700ID248	DECAL - DANGER KEEP AWAY	1	PELLA
15		700ID246	DECAL - WARNING	1	PELLA
16		7000B712	DECAL - DANGER	1	PELLA
17		299006756	DECAL - CAPACITY CHART 140X150	1	VBM

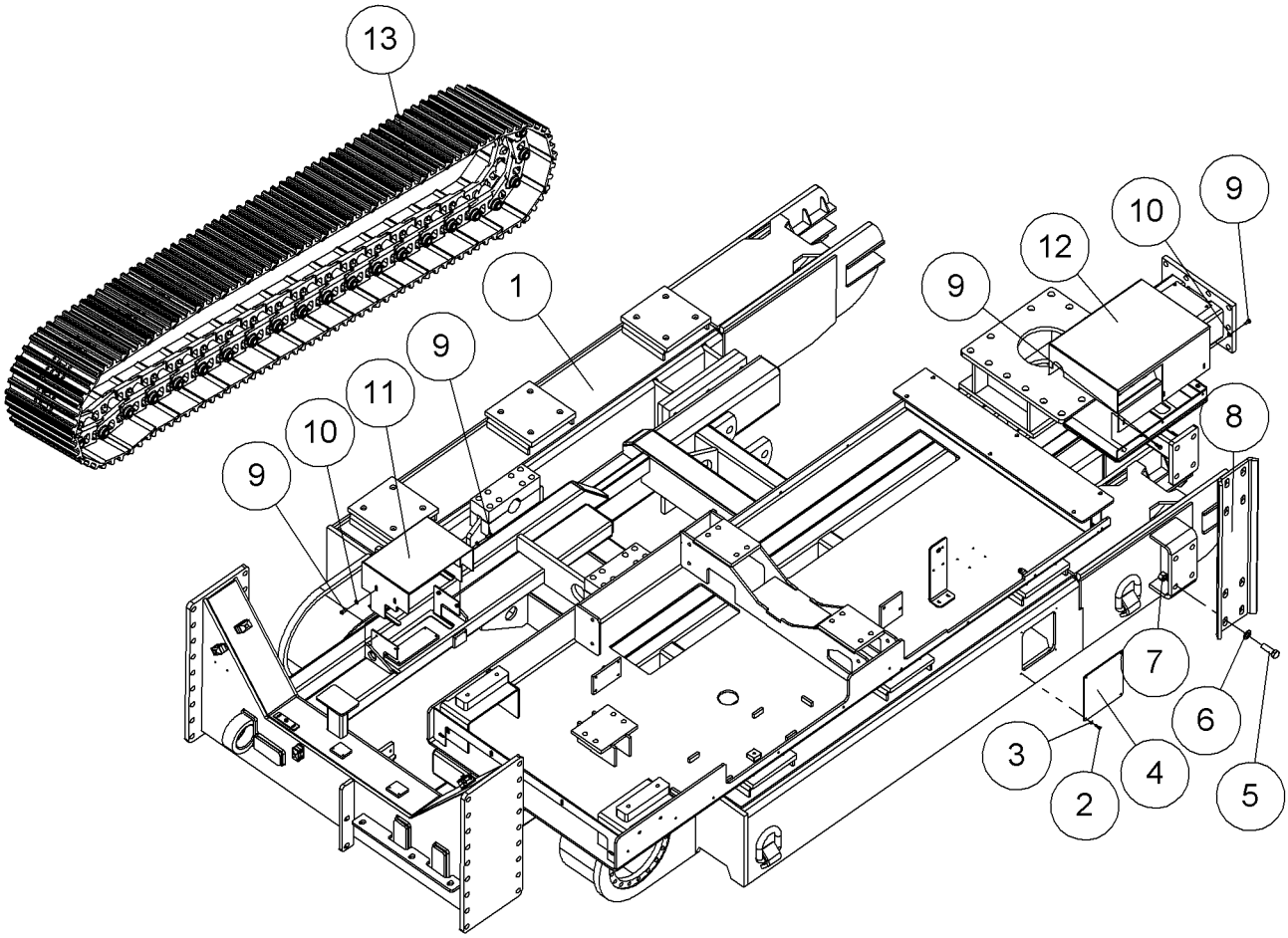
Resource Library Fig 1-12



Resource Library Fig 1-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		142410001	CASE - 6"X9"X1" OPERATOR MANUAL	1	PELLA
2		142954001	CABLE - .068DIA.NYLON CT.-36.00	1	PELLA
3		142423001	CRIMP - CABLE (FOR.068DIA.CABLE)	2	PELLA
4		117000BB2	OM - D130x150 VBM CABLED (EN)O1.00	1	PELLA
4		117000BG3	OM - D130x150VBM CABLED (ZH)O1.00	1	PELLA
5		117000BB1	OM - D130x150 VBM (EN)O1.00	1	PELLA
5		117000BG2	OM - D130x150 VBM (ZH)O1.00	1	PELLA
6		7000B222	DECAL - HORIZONTAL DRILL - RESOURCE LIB.	1	PELLA
7		144144001	NOTEBOOK BINDER - 2"-3"	1	PELLA
8		299023770	DECAL - NOTICE TO OWNERS	1	VBM
9		296296909	DVD - PAL VIDEO HDD OPERATIONS&FIRESTICK(INCL SPAN)	1	PELLA
10		105400W26	FUNDAMENTALS OF HDD UP o1.00	1	PELLA
11		117000BB3	MM - D130x150 VBM (EN)O1.00	1	VBM
11		117000BG4	MM - D130x150 VBM (ZH)O1.00	1	VBM
12		105400ZPD	PM - D130x150 VBM (EN)O1.00	1	VBM
13		105400T90	HDD OPERATIONS & SAFETY VIDEO GUIDEBOOK	1	PELLA
14		180010788	DVD - HOLDER	1	PELLA

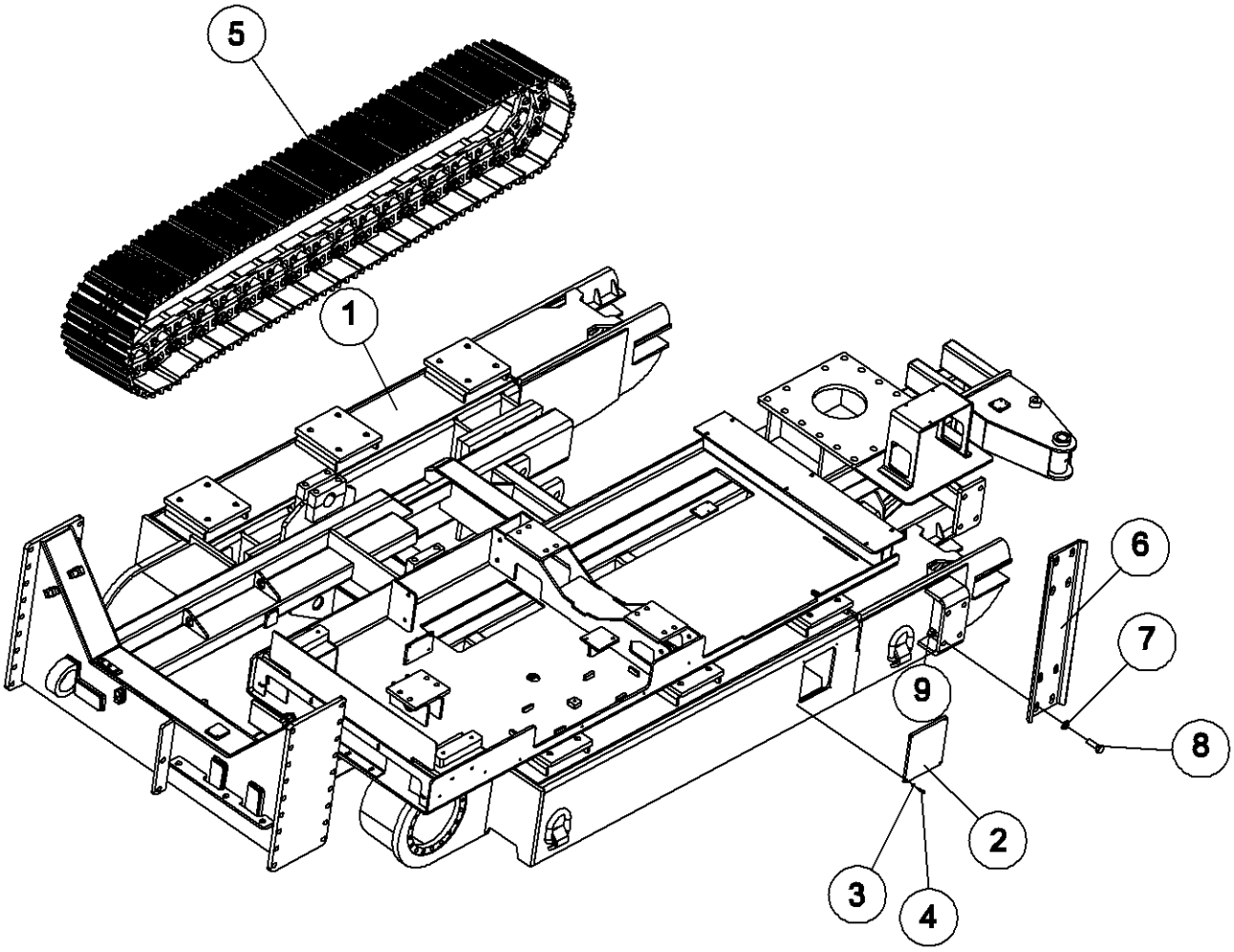
Main Frame (S/N 107-) Fig 2-1r02



Main Frame (S/N 107-) Fig 2-1r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025799	UNDERCARRIAGE	1	VBM
2		299010434	BOLT GB/T5783 M6X20-GR8.8	8	VBM
3		299012380	WASHER GB/T97 6 200HV	8	VBM
4		299005693	COVER BOARD Q235-A	2	VBM
5		299010533	BOLT M20X60-GR8.8 GB/T5783	8	VBM
6		299012386	WASHER 20 (GB/T97-85)	8	VBM
7		299012338	NUT GB/T6170 M20-GR8	8	VBM
8		299005774	PLATE Q345	1	VBM
9		299010445	BOLT GB/T5783 M8X20-GR8.8	9	VBM
10		299012381	WASHER GB/T97 8 200HV	9	VBM
11		299027218	SHIELD - SOLENOID VALVE	1	VBM
12		299027208	COVER - SOLENOID VALVE	1	VBM
13		299005715	TRACK SHOE ASSY 50Mn	2	VBM, Breakdown Fig.2-1z01

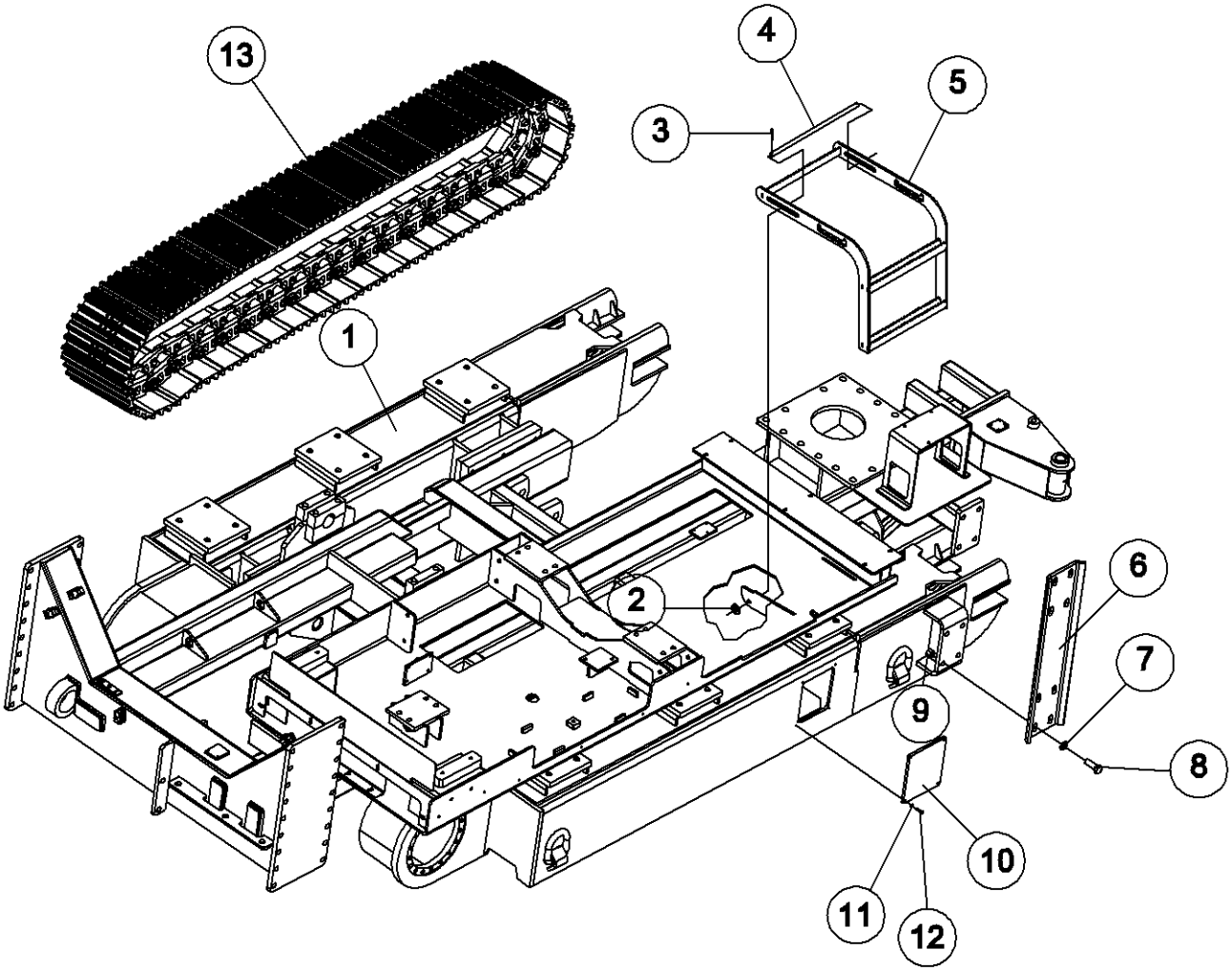
Main Frame (S/N 105-106) Fig 2-1r01



Main Frame (S/N 105-106) Fig 2-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005799	UNDERCARRIAGE ASSY	1	VBM
2		299005693	COVER BOARD Q235-A	2	VBM
3		299012380	WASHER GB/T97 6 200HV	8	VBM
4		299010436	BOLT GB/T5783 M6X30 - GR8.8	8	VBM
5		299005715	TRACK SHOE ASSY 50Mn	2	VBM, Breakdown Fig.2-1z01
6		299005774	PLATE Q345	1	VBM
7		299012386	WASHER 20 (GB/T97-85)	8	VBM
8		299010533	BOLT M20X60-GR8.8 GB/T5783	8	VBM
9		299012338	NUT GB/T6170 M20-GR8	8	VBM
note			Delete the ladder		

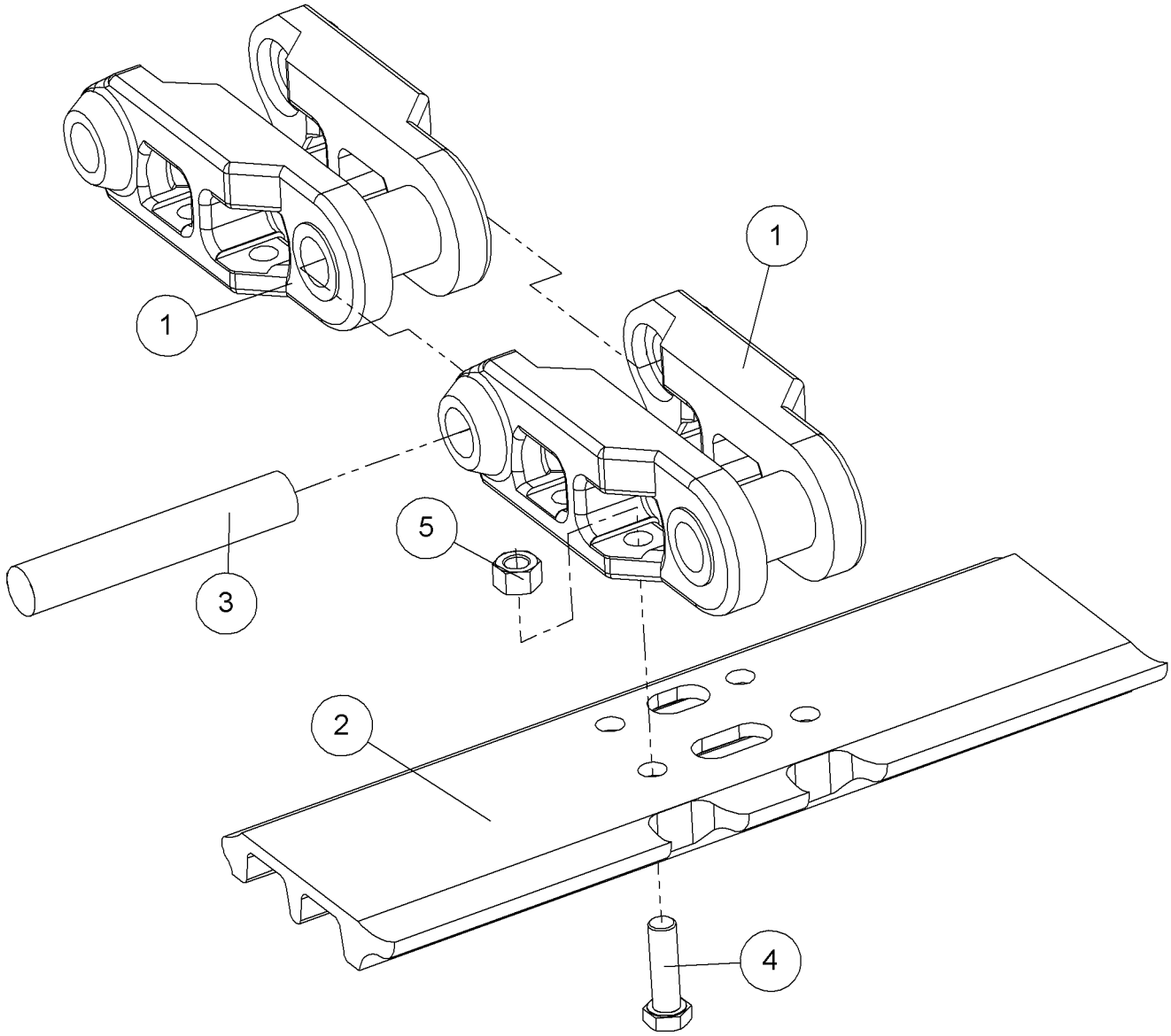
Main Frame (S/N 101-104) Fig 2-1



Main Frame (S/N 101-104) Fig 2-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005799	UNDERCARRIAGE ASSY	1	VBM
2		299012384	WASHER - FLAT 14	4	VBM
3		299013615	COTTER PIN 4X30	4	VBM
4		299006953	GUIDE BAR	2	VBM
5		299006950	LADDER	1	VBM
6		299005774	PLATE Q345	1	VBM
7		299012386	WASHER 20 (GB/T97-85)	8	VBM
8		299010533	BOLT M20X60-GR8.8 GB/T5783	8	VBM
9		299012338	NUT GB/T6170 M20-GR8	8	VBM
10		299005693	COVER BOARD Q235-A	2	VBM
11		299012380	WASHER GB/T97 6 200HV	8	VBM
12		299010436	BOLT GB/T5783 M6X30-GR8.8	8	VBM
13		299005715	TRACK SHOE ASSY 50Mn	2	VBM, Breakdown Fig.2-1z01

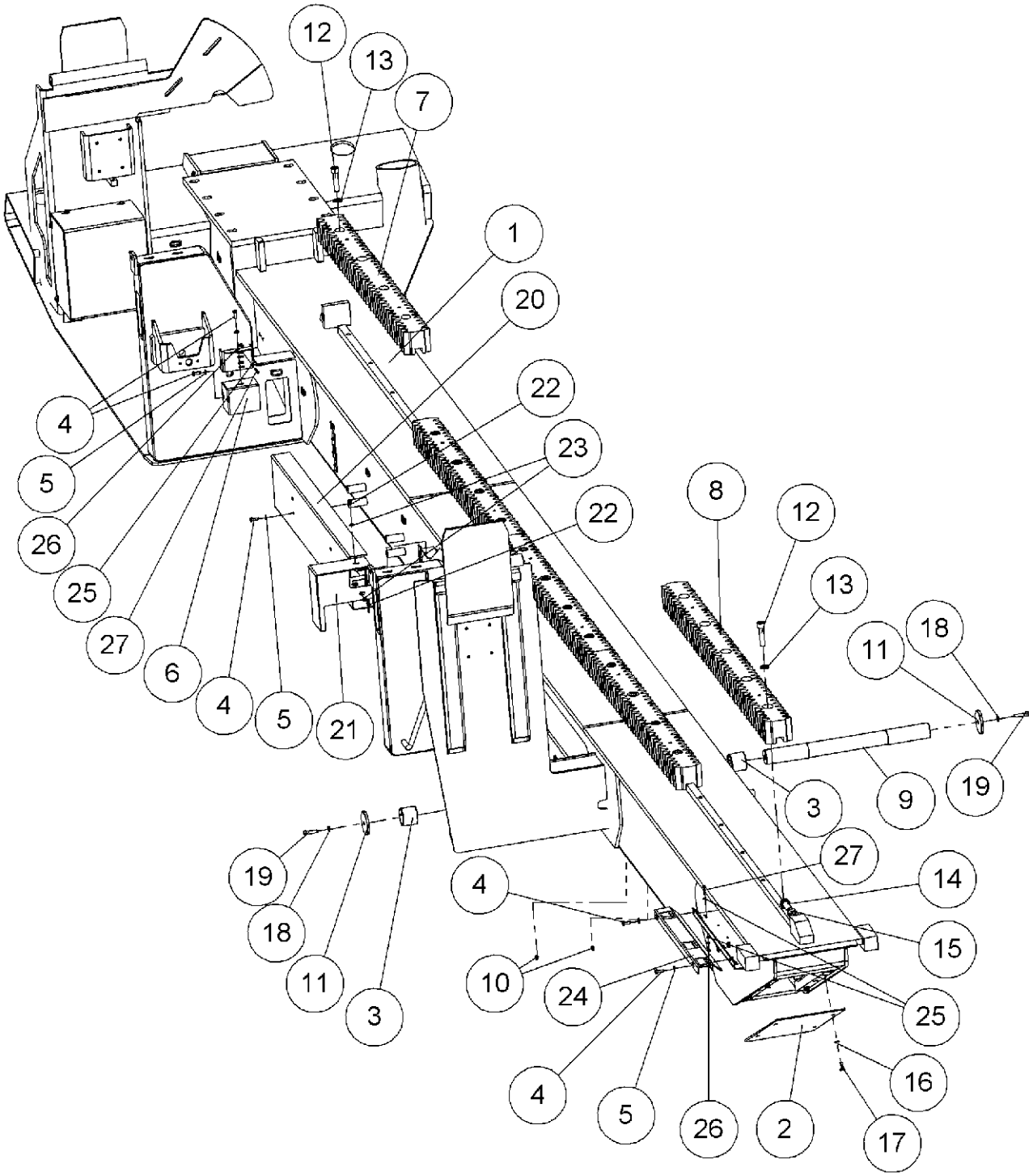
Components -Track Chain Fig 2-1z01



Components -Track Chain Fig 2-1z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027080	LINK	44	VBM, Inc. Ref. No. 3
2		299027081	GROUSER-500mm	44	VBM
3			PIN	44	Not Sold Separately
4		299027082	CONNECT KIT	176	VBM, Inc. Ref. No. 5
5			NUT	176	Not Sold Separately
		299005715	TRACK SHOE ASSY 50Mn		VBM, Inc. All Items In Figure

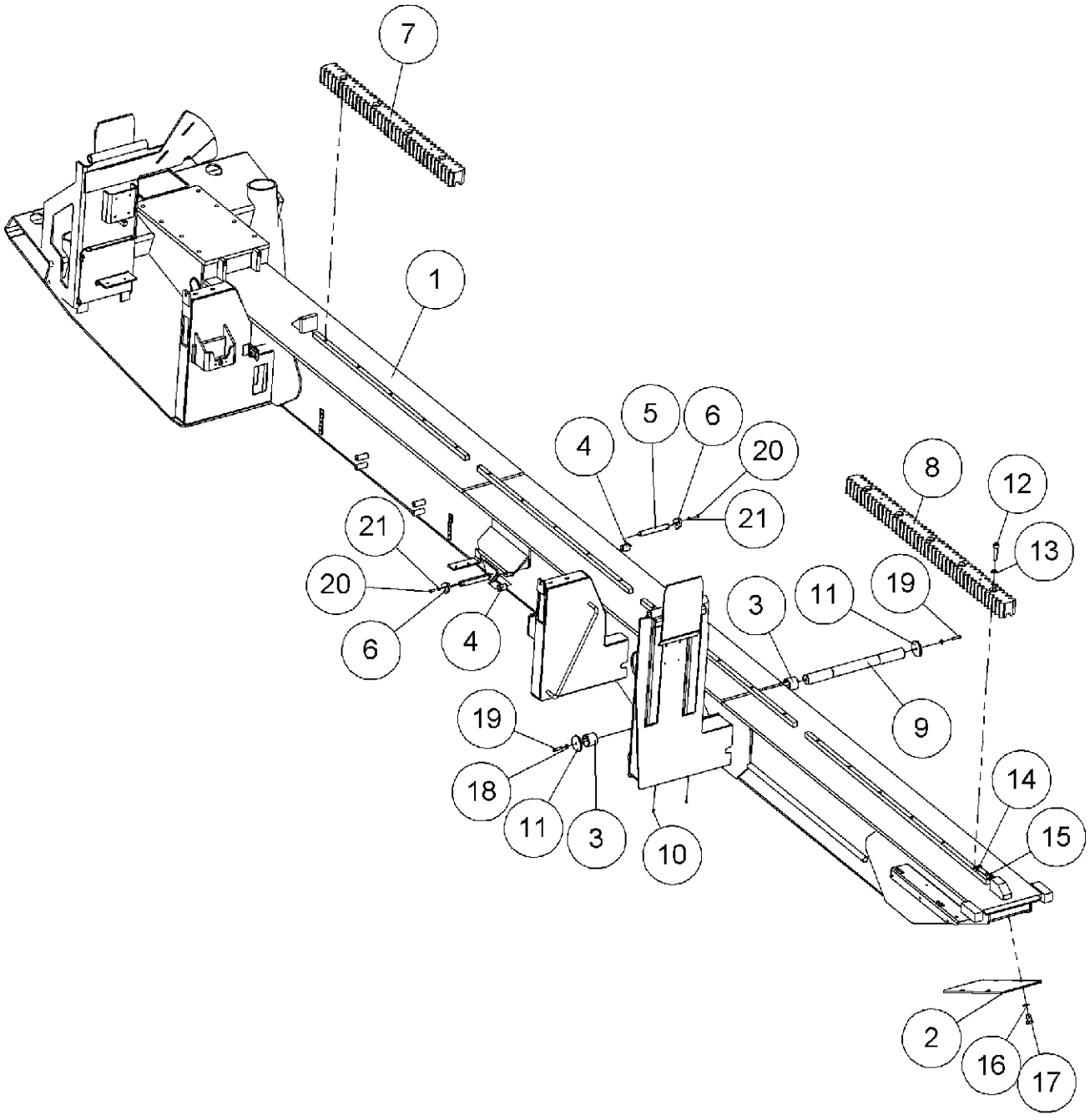
Rack (S/N 107-) Fig 2-2r01



Rack (S/N 107-) Fig 2-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025889	RACK FRAME	1	VBM
2		299025875	PLATE - COVER	1	VBM
3		1835099	BSHG - STL.3 X 2 1/2 - 2 1/2	2	PELLA
4		299010458	BOLT GB/T5783 M10X25 - GR8.8	8	VBM
5		299012382	WASHER GB/T97 10 200HV	8	VBM
6		299025845	SHIELD - SENSOR Q235	1	VBM
7		280750001B	GEAR - RACK 2P 37T	4	VBM
8		299005876	GEAR	1	VBM
9		299025883	SHAFT - MAIN	1	VBM
10		299006620	OIL CUP JB/T7940.1 M10X1	2	VBM
11		299006886	RETAINER RING	2	VBM
12		299015054	BOLT GB/T70 M20X85 - GR10.9	21	VBM
13		299012386	WASHER 20 (GB/T97-85)	21	VBM
14		299010563	BOLT M24X80 GB/T5783	1	VBM
15		299012366	NUT M24 GB/T6170	1	VBM
16		299012387	WASHER 24 (GB95-85)	4	VBM
17		299010556	BOLT M24X40 GB/T5783	4	VBM
18		299012383	WASHER GB/T97 12 200HV	2	VBM
19		299010476	BOLT M12X50 GB/T5783	2	VBM
20		299005878	COVER	1	VBM
21		299026519	SHIELD - VALVE	1	VBM
22		299010445	BOLT GB/T5783 M8X20-GR8.8	3	VBM
23		299012381	WASHER GB/T97 8 200HV	3	VBM
24		299025885	PLATE - SWITCH Q235	1	VBM
25		299012379	WASHER GB/T97 5 200HV	16	VBM
26		299012330	NUT GB/T6170 M5 - GR8	16	VBM
27		299011700	SCREW GB/T70 M5X25 - GR8.8	8	VBM

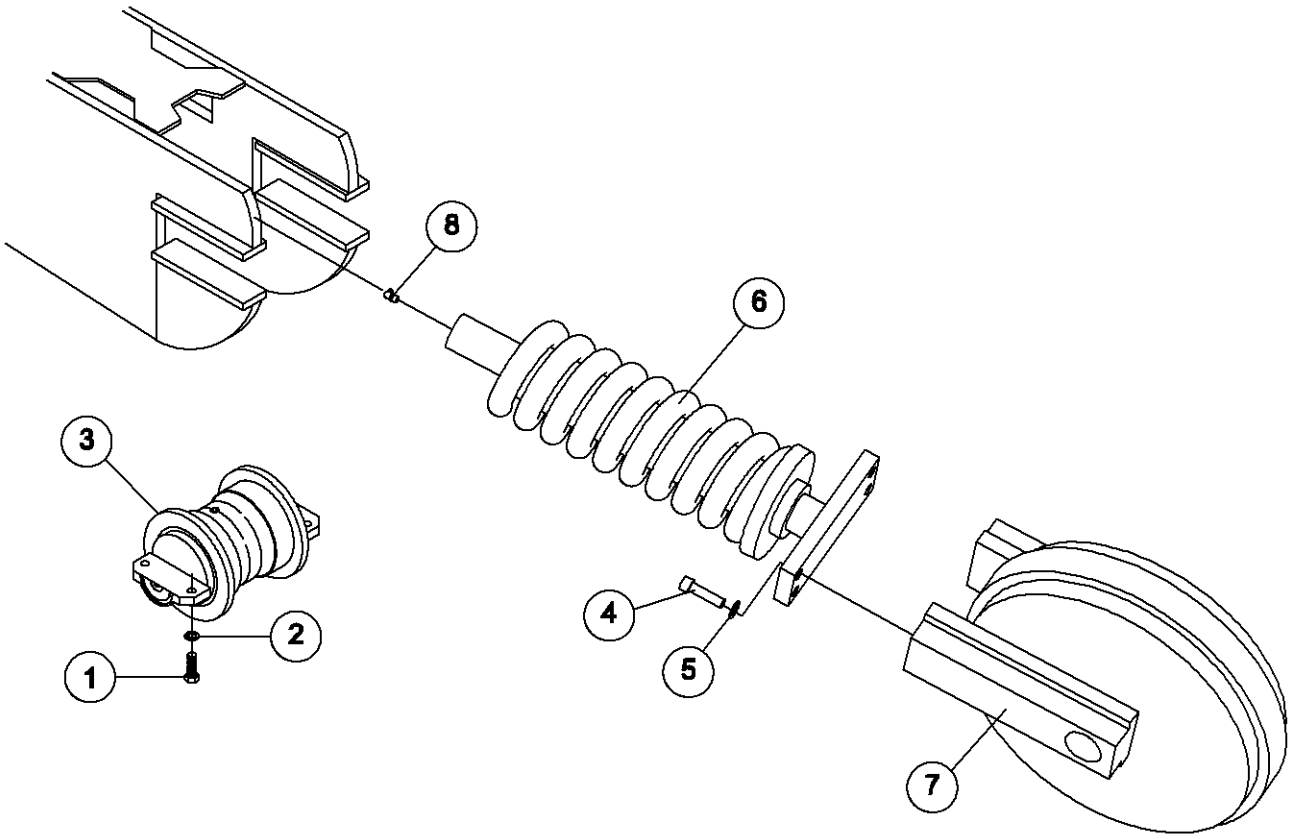
Rack (S/N 101-106) Fig 2-2



Rack (S/N 101-106) Fig 2-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005889	RACK FRAME	1	VBM
2		299005875	PLATE - COVER	1	VBM
3		1835099	BSHG. - STL.3 X 2 1/2 - 2 1/2	2	PELLA
4		1835007	BSHG. - ST. - 1 1/2 X 1 1/4 X 2 REF T05880	2	PELLA
5		299005882	SMALL SHAFT	2	VBM
6		299005884	PLATE	2	VBM
7		280750001B	GEAR - RACK 2P 37T	4	VBM
8		299005876	GEAR	1	VBM
9		299025883	SHAFT - MAIN	1	VBM
10		299006620	OIL CUP JB/T7940.1 M10X1	2	VBM
11		299006886	RETAINER RING	2	VBM
12		299015054	BOLT GB/T70 M20X85-GR10.9	21	VBM
13		299012386	WASHER 20 (GB/T97-85)	21	VBM
14		299010563	BOLT M24X80 GB/T5783	1	VBM
15		299012366	NUT M24 GB/T6170	1	VBM
16		299012387	WASHER 24 (GB95-85)	4	VBM
17		299010556	BOLT M24X40 GB/T5783	4	VBM
18		299012383	WASHER GB/T97 12 200HV	2	VBM
19		299010476	BOLT M12X50 GB/T5783	2	VBM
20		299010458	BOLT GB/T5783 M10X25-GR8.8	2	VBM
21		299012382	WASHER GB/T97 10 200HV	2	VBM

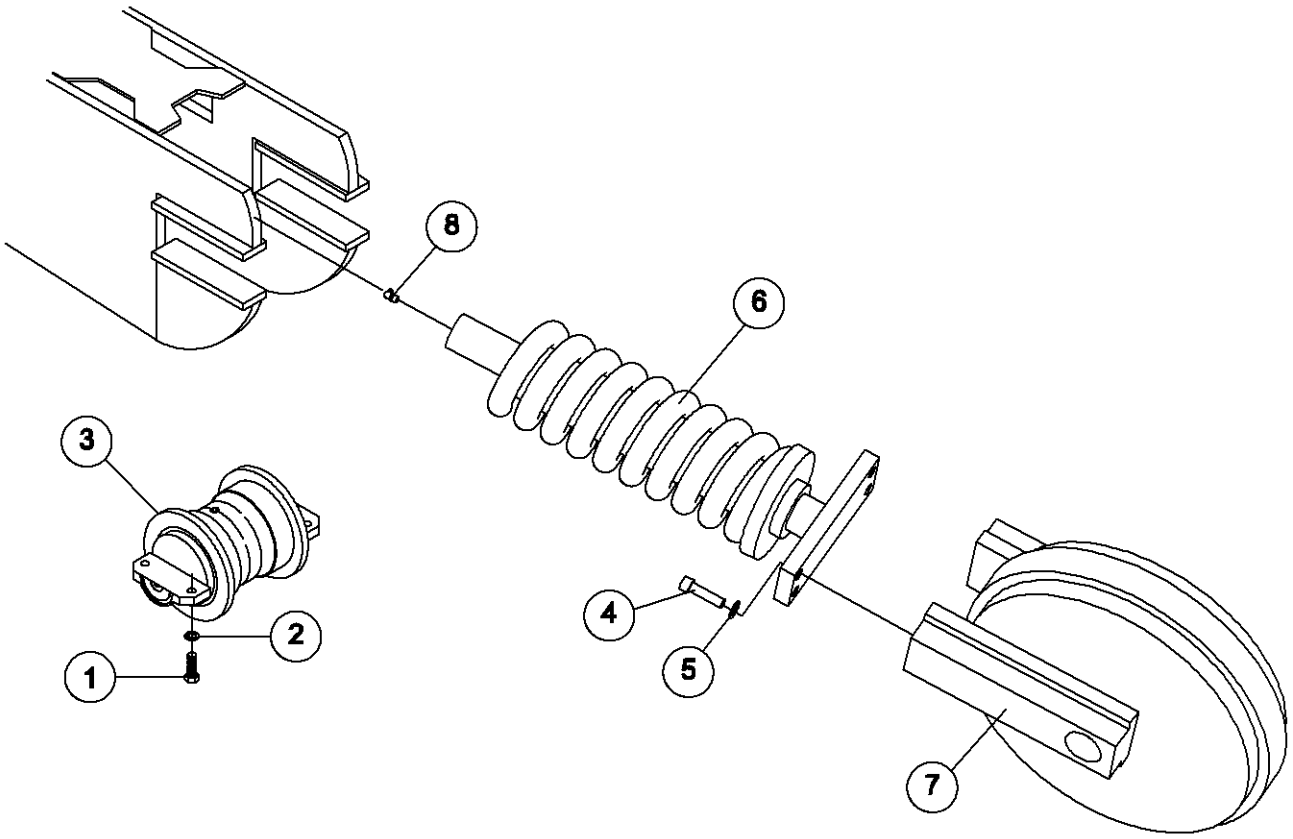
Track Tightener, Roller & Chain (S/N 108-) Fig 2-3r01



Track Tightener, Roller & Chain (S/N 108-) Fig 2-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010508	BOLT GB/T5783 M16X80 - GR8.8	64	VBM
2		299012385	WASHER 16 (GB/T97-85)	64	VBM
3		299005632	TRACK ROLLER	16	VBM
4		299012227	SCREW GB/T70 M14X55 - GR12.9	4	VBM
5		299012384	WASHER - FLAT 14	4	VBM
6		299005635	TENSIONING EQUIPMENT	2	VBM
7		299005634	DRIVEN WHEEL	2	VBM
8		299015101	OIL CUP ST-ZG1/8	2	VBM

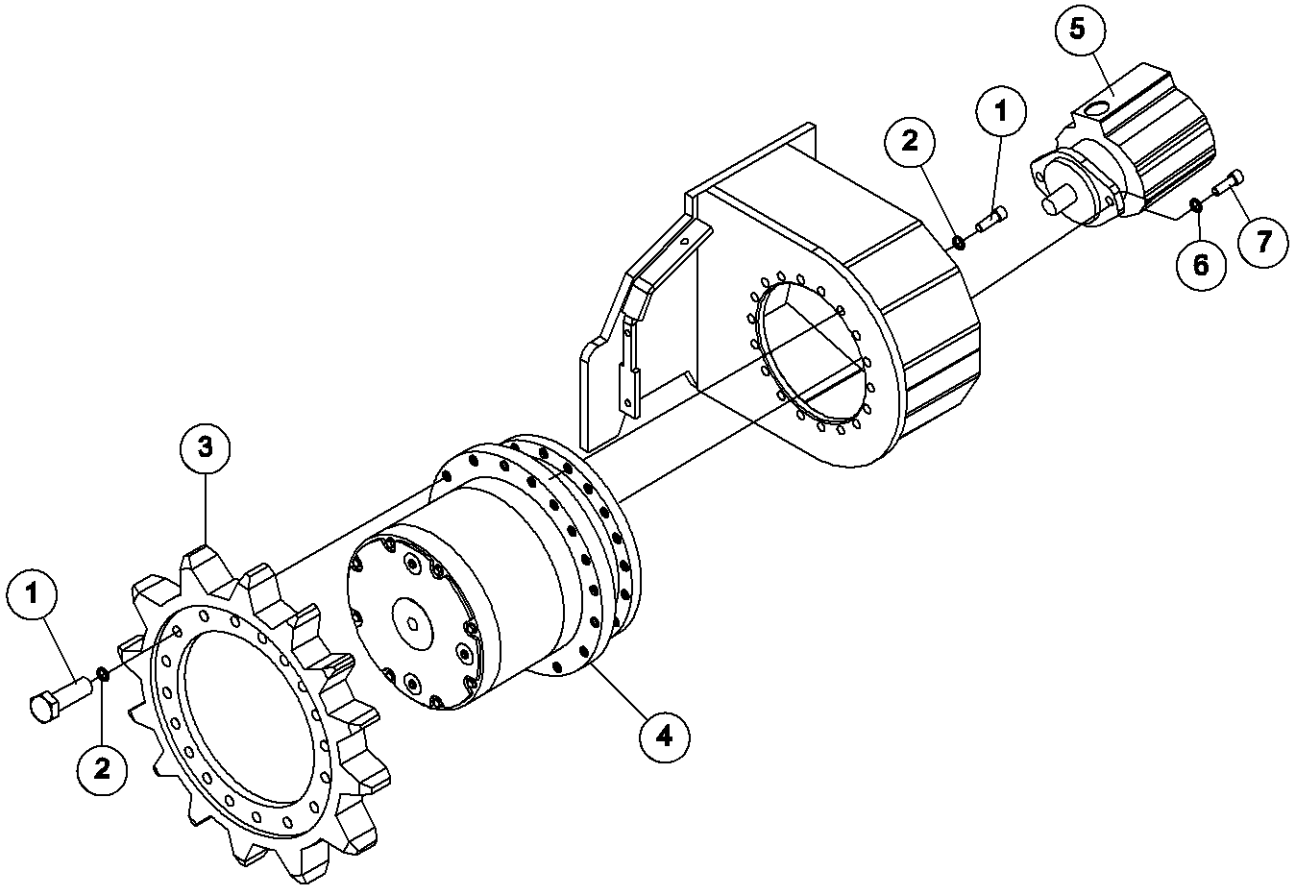
Track Tightener, Roller & Chain (S/N 101-107) Fig 2-3



Track Tightener, Roller & Chain (S/N 101-107) Fig 2-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299011038	BOLT GB/T5782 M16X90 - GR8.8	64	VBM
2		299012385	WASHER 16 (GB/T97-85)	64	VBM
3		299005632	TRACK ROLLER	16	VBM
4		299012227	SCREW GB/T70 M14X55 - GR12.9	4	VBM
5		299012384	WASHER - FLAT 14	4	VBM
6		299005635	TENSIONING EQUIPMENT	2	VBM
7		299005634	DRIVEN WHEEL	2	VBM
8		299012817	OIL CUP JB/T7940.2 M10 90	2	VBM

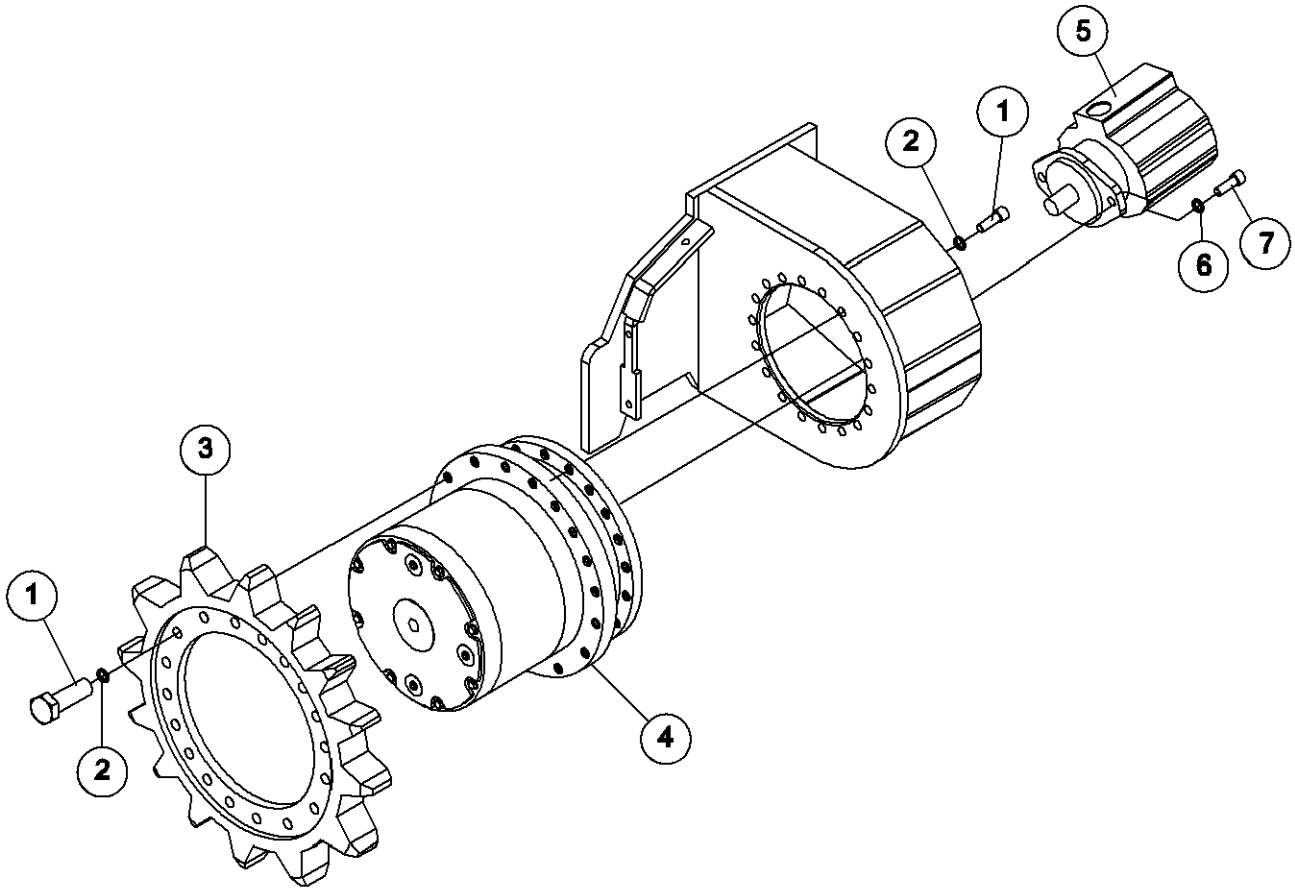
Track Planetary (S/N 101-107,111-) Fig 2-4r01



Track Planetary (S/N 101-107,111-) Fig 2-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299012243	SCREW GB/T70 - 85 M16X50 - GR12.9	72	VBM
2		299012385	WASHER 16 (GB/T97-85)	72	VBM
3		299005631	DRIVE WHEEL 50Mn	2	VBM
4		299005633	PGRF1003 R79.74.4 PLANETARY TRACK DRIVE PKG.	2	VBM, Breakdown Fig.2-4z01
5		619555001	MOTOR - FIXED DISPLACEMENT SERIES40-M35/45	2	PELLA, Breakdown Fig.4-7z01
6		299012383	WASHER GB/T97 12 200HV	4	VBM
7		299011980	BOLT M12X35 - GR10.9 GB/T70-85	4	VBM

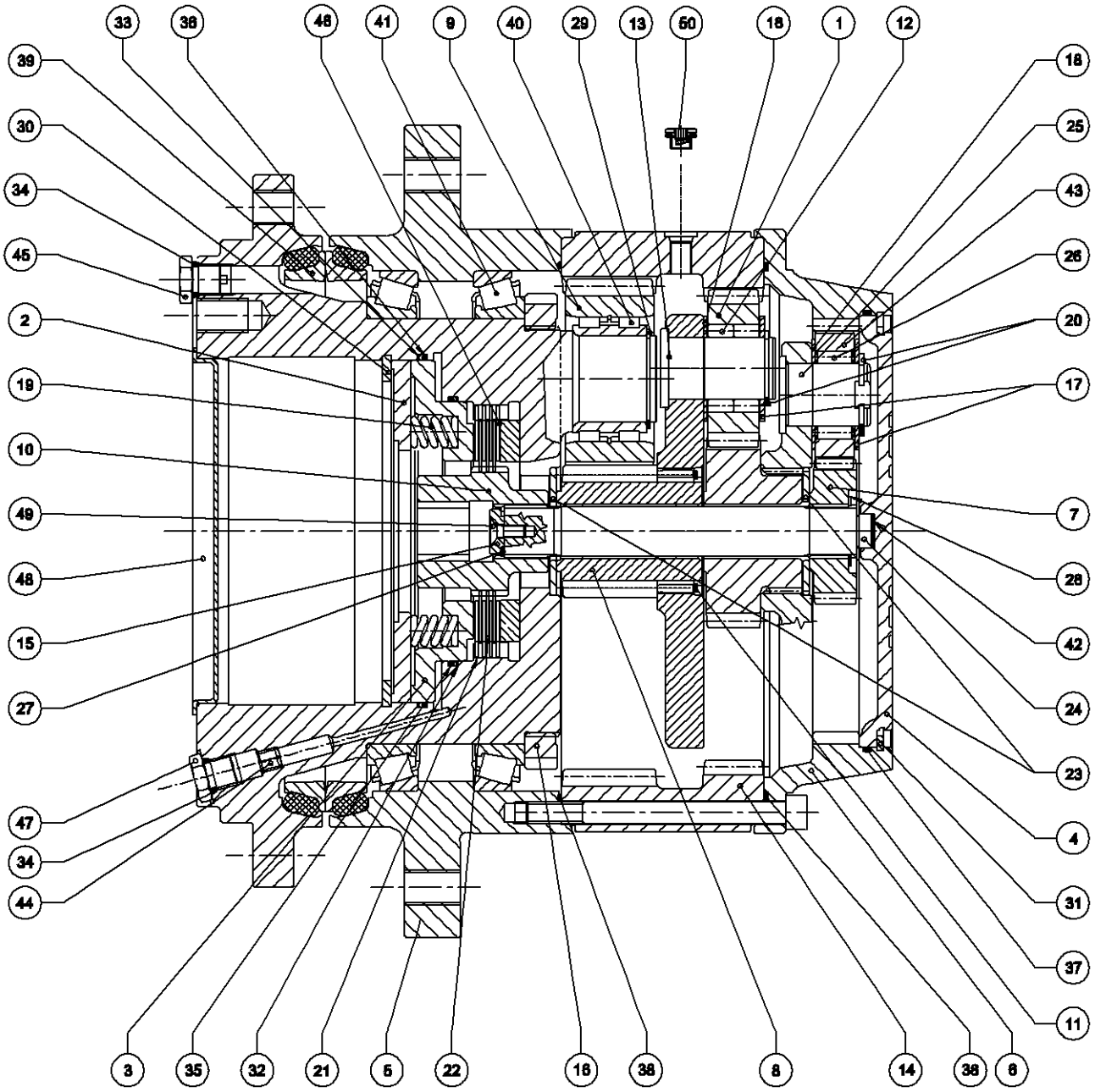
Track Planetary (S/N 108-110) Fig 2-4



Track Planetary (S/N 108-110) Fig 2-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299012243	SCREW GB/T70-85 M16X50 - GR12.9	72	VBM
2		299012385	WASHER 16 (GB/T97-85)	72	VBM
3		299005631	DRIVE WHEEL 50Mn	2	VBM
4		619554001	PLANETARY - TORQUE HUB	2	PELLA, Breakdown Fig.2-4z01
5		619555001	MOTOR - FIXED DISPLACEMENT SERIES40-M35/45	2	PELLA, Breakdown Fig.4-7z01
6		299012383	WASHER GB/T97 12 200HV	4	VBM
7		299011980	BOLT M12X35 - GR10.9 GB/T70-85	4	VBM

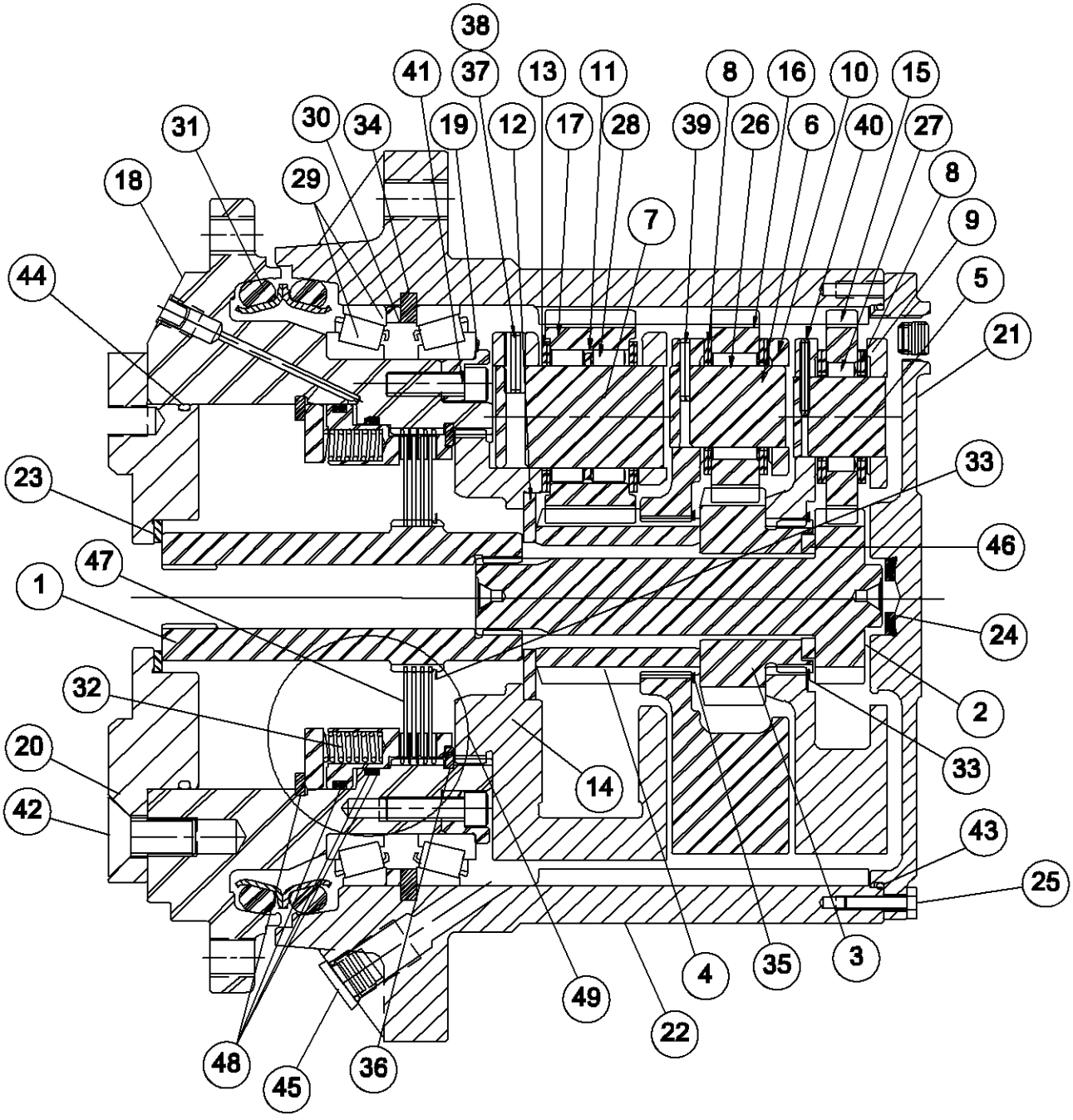
Components - Planetary (S/N 101-107,111-) Fig 2-4z01r01



Components - Planetary (S/N 101-107,111-) Fig 2-4z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027067	MIDDLE STAGE PLANET GEAR I=3.67	3	VBM
2		299027025	RETAINING BRAKE DISK	1	VBM
3		299027026	BRAKE PISTON	1	VBM
4		299027027	OUTPUT COVER	1	VBM
5		299027028	ROTATING HOUSING	1	VBM
6		299027029	INPUT STAGE RING WHEEL	1	VBM
7		299027030	INPUT STAGE SUN GEAR I=4.12	1	VBM
8		299027031	OUTPUT STAGE SUN GEAR I=5.33	1	VBM
9		299027032	OUTPUT STAGE PLANET GEAR I=5.33	4	VBM
10		299027033	INPUT COUPLING 16/32DP T=15	1	VBM
11		299027034	EXTERNAL SNAP RING 507433-A-10	1	VBM
12		299027070	NEEDLE BEARING 6X12	108	VBM
13		299027069	MIDDLE STAGE PLANET SHAFT	3	VBM
14		299027036	RING WHEEL	1	VBM
15		299027037	RETAINING WASHER	1	VBM
16		299027038	RING NUT M190X3	1	VBM
17		180006340	WASHER	6	PELLA
18		180006341	WASHER	6	PELLA
19		299027041	SPRING D11.3X30.86	16	VBM
20		180006397	EXTERNAL SNAP RING 29X2mm	6	PELLA
21		299027042	SINTERED BRONZE BRAKE DISK	3	VBM
22		299027043	STEEL BRAKE DISK	4	VBM
23		299027044	STOP BOTTOM PLATE	2	VBM
24		180006343	INT. RETAINING RING	1	PELLA
25		299027045	INPUT STAGE PLANET GEAR SHAFT	3	VBM
26		299027046	NEEDLE BEARING 6X18	54	VBM
27		180010523	INT. RETAINING RING	1	PELLA
28		299027047	EXT.SNAP RING 25 UNI 7435	1	VBM
29		299027048	EXT.SNAP RING 40 UNI 7435	4	VBM
30		299027049	INT.SNAP RING 160 UNI 7437	1	VBM
31		299027050	INT.SNAP RING BR200	1	VBM
32		299027051	PARBAK RING FOR OR 2.88X120	1	VBM
33		299027052	PARBAK RING FOR OR 2.88X158.5	1	VBM
34		299027053	O-RING(2X11.5)	4	VBM
35		299027054	O-RING(2.88X120)	1	VBM
36		299027055	O-RING(2.88X158.5)	1	VBM
37		299027056	O-RING 3775(196.52X2.62)	1	VBM
38		299027057	ANELLO OR 3950(2.62X240.97)	2	VBM
39		299027058	DUO-CONE SEALS	1	VBM
40		299027059	PLANET GEAR BEARING CPM 2168	4	VBM
41		299027060	TIMKEN TAPER ROLLER BEARING	2	VBM
42		180006369	SHIM KIT 8,2X14	1	PELLA
43		299027072	INPUT STAGE PLANET GEAR I=4.12	3	VBM
44		299027061	PLUG 1/8 NPTF SPEC.WITH 0.6MM HOLE	1	VBM
45		299027062	EX.HEAD DRAIN PLUG 9/16-18UNF-2B	1	VBM
46		299027073	SHIM KIT 65X103	A/R	VBM
47		299027063	EX.HEAD DRAIN PLUG 9/16UNF+O-RING	1	VBM
48		299027074	PLASTIC INPUT PROTECTION COVER	1	VBM
49		299027064	CONICAL HEAD BOLT	1	VBM
50		299027066	INT.HET HEAD 3/8-24 ORB PLUG	2	VBM
		299005633	PGRF1003 R79.74.4 PLANETARY TRACK DRIVE PKG.		VBM, Inc. All Items In Figure

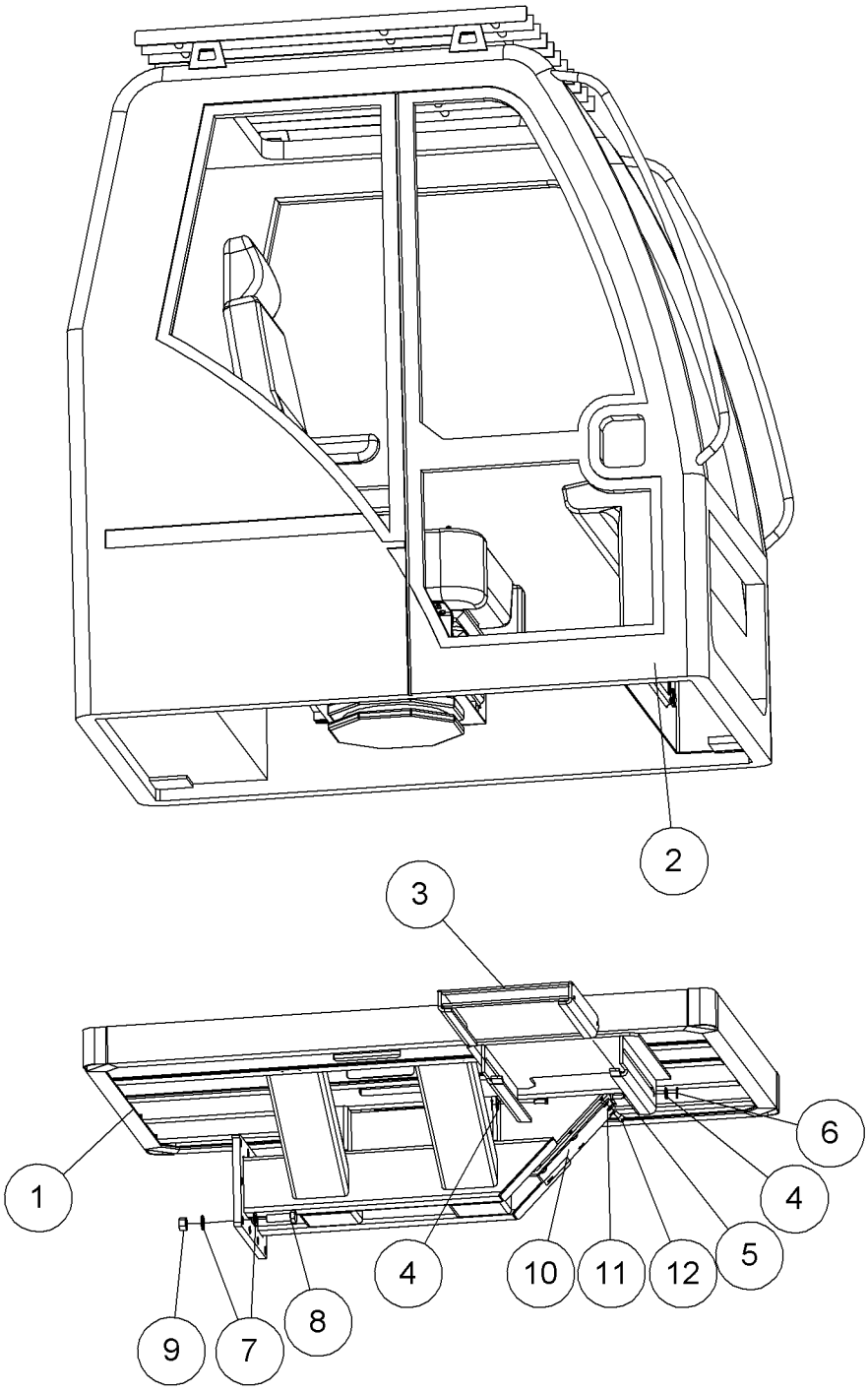
Components - Planetary (S/N 108-110) Fig 2-4z01



Components - Planetary (S/N 108-110) Fig 2-4z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296276804	COUPLING	1	PELLA
2		296276805	GEAR - SUN	1	PELLA
3		296276806	GEAR - SUN	1	PELLA
4		296276807	GEAR - SUN	1	PELLA
5		296276808	SHAFT-PLANET	3	PELLA
6		296276809	SHAFT-PLANET	3	PELLA
7		296276810	SHAFT-PLANET	4	PELLA
8		296276811	WASHER-THRUST	24	PELLA
9		296276812	CARRIER	1	PELLA
10		296276813	CARRIER	1	PELLA
11		296276814	SPACER	4	PELLA
12		296276815	SPACER-THRUST	1	PELLA
13		296276816	WASHER-1.67, .060	13	PELLA
14		296276817	CARRIER	1	PELLA
15		296276818	GEAR-PLANET	3	PELLA
16		296276819	GEAR-PLANET	3	PELLA
17		296276820	GEAR-PLANET	4	PELLA
18		296276821	SPINDLE	1	PELLA
19		296276822	BEARING PLATE	1	PELLA
20		296254602	ADAPTER - MOUNTING	1	PELLA
21		296276823	PLATE-COVER	1	PELLA
22		296276824	HOUSING	1	PELLA
23		296276844	WASHER-THRUST 1.757, .1245	1	PELLA
24		214045063	WASHER-THRUST	1	PELLA
25		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	8	PELLA
26		296276825	BEARING-NEEDLE	66	PELLA
27		296276826	BEARING-NEDLE	66	PELLA
28		296276827	BEARING-NEEDLE	192	PELLA
29		296276828	BEARING-TAPERED ASSY	2	PELLA
30		296276829	SPACER-CUP	1	PELLA
31		214045013	SEAL-FACE	1	PELLA
32		296276830	BRAKE-INPUT	1	PELLA
33		214045057	RETAINING RING-EXTERNAL	2	PELLA
34		296276831	RETAINING RING-INTERNAL	1	PELLA
35		296276832	RETAINING RING-EXTERNAL	1	PELLA
36		296276833	RETAINING RING-INT	1	PELLA
37		406801001	PIN-ROLL	4	PELLA
38		296276834	PIN-SPRING .312, 1.125	4	PELLA
39		296276835	PIN-ROLL .164, 1.00	3	PELLA
40		296276836	PIN-SPRING.125, 1.250	3	PELLA
41		296276837	BOLT-SKT-UNC(.365-16,1.23)	10	PELLA
42		296254603	BOLT - METRIC - FLT HD (M16-2X35MM)	2	PELLA
43		296276838	O-RING	1	PELLA
44		296254604	O-RING	1	PELLA
45		296276839	PIPE PLUG-MAG	5	PELLA
46		296276840	WASHER-THRUST 1.375, .1865	1	PELLA
47		296276841	FRICTION DISC KIT	1	PELLA
48		296276842	REPAIR KIT-O-RING	1	PELLA
49		296276843	SPRING REPAIR KIT	1	PELLA
		619554001	PLANETARY-TORQUE HUB		PELLA, Inc. All Items In Figure

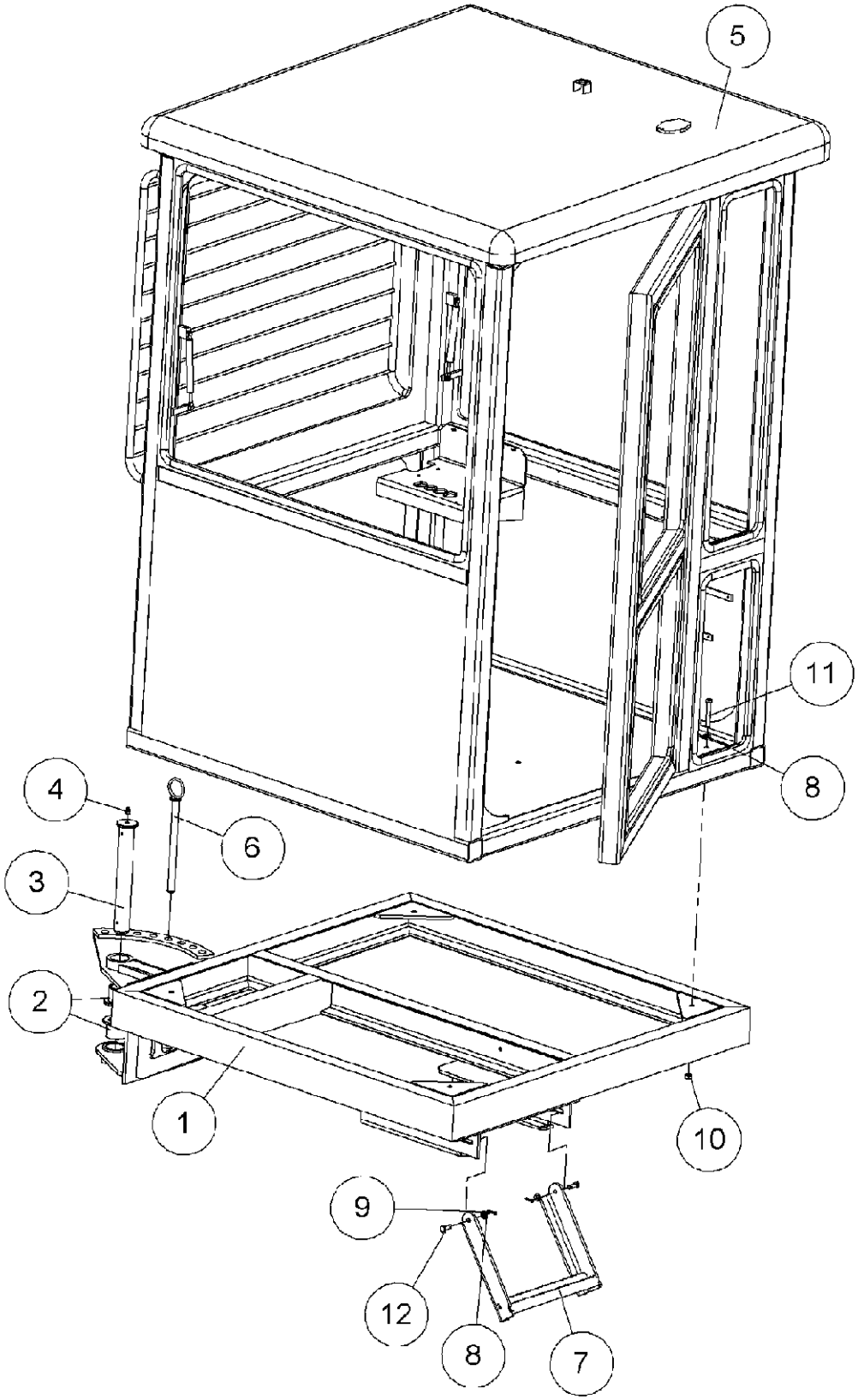
Cab Frame (S/N 107-) Fig 2-5r01



Cab Frame (S/N 107-) Fig 2-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299024939	OPERATING STATION	1	VBM
2			CAB & CONSOLE	1	Not Sold Separately
3		299024915	LADDER	1	VBM
4		299012395	WASHER GB/T96 10-200HV	2	VBM
5		299024990	PIN	2	VBM
6		299013595	PIN (32X20)	2	VBM
7		299012386	WASHER 20 GB/T97-85	20	VBM
8		299010534	BOLT GB/T5783M20X65-GR8.8	10	VBM
9		299012338	NUT GB/T6170 M20-GR8	10	VBM
10		299024991	PLATE	1	VBM
11		299012382	WASHER GB/T97 10 200HV	12	VBM
12		299011735	SCREW GB/T70-85 M10X20-GR8.8	12	VBM

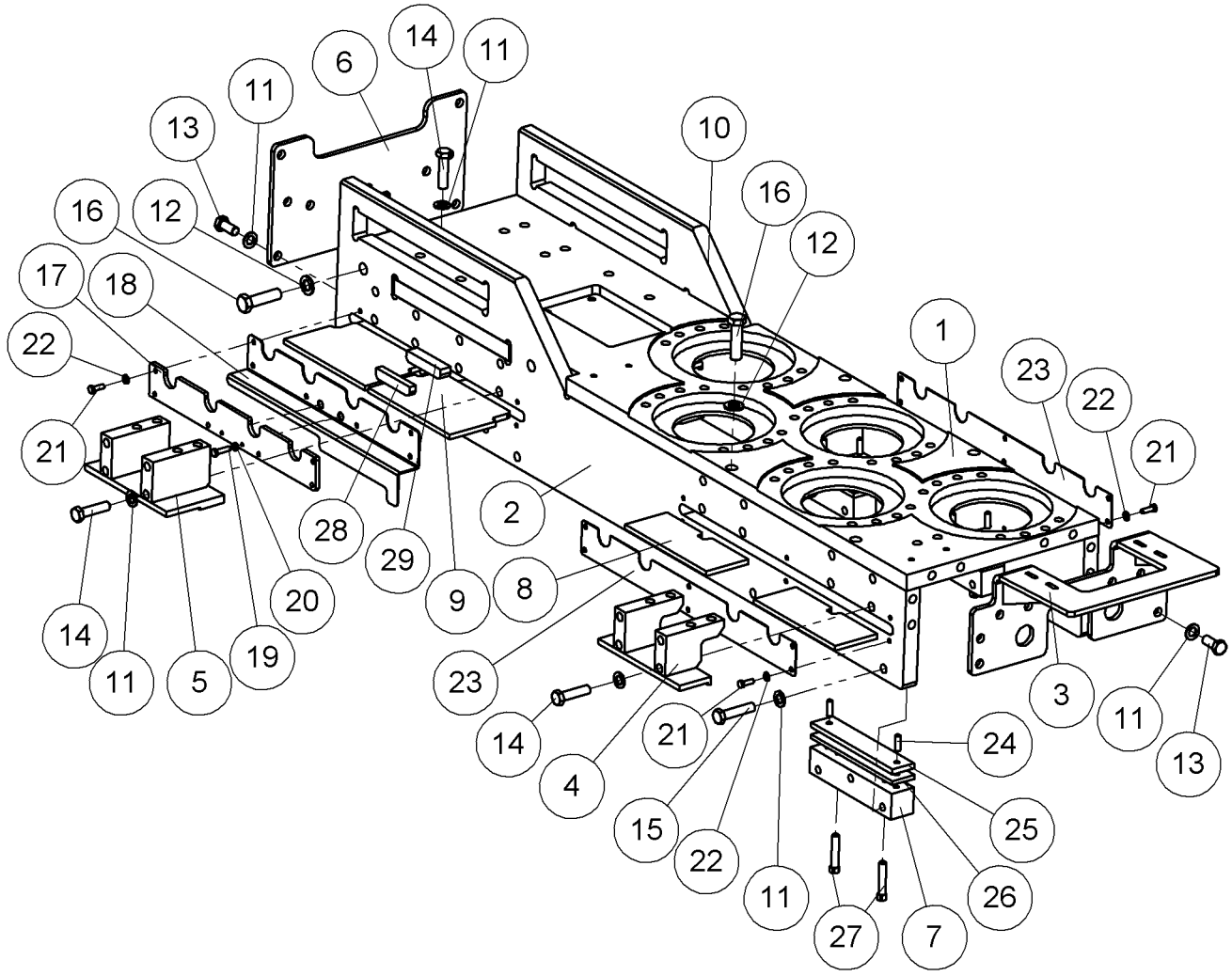
Cab Frame (S/N 101-106) Fig 2-5



Cab Frame (S/N 101-106) Fig 2-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006602	BASE ASSEMBLY - CAB	1	VBM
2		299006616	COPPER BUSH QSn4-4-4	2	VBM
3		299006617	SEAT PIVOT - CAB 45	1	VBM
4		299006620	OIL CUP JB/T7940.1 M10X1	1	VBM
5		299006734	WELDMENT - CAB	1	VBM
6		299006697	PIN STOP - WELDMENT	1	VBM
7		299006733	WELDMENT - LADDER	1	VBM
8		299012382	WASHER GB/T97 10 200HV	6	VBM
9		299013609	PIN GB/T91 4X18	2	VBM
10		299012333	NUT M10(GB/T6170-85)	4	VBM
11		299011006	BOLT GB/T5782 M10X70 - GR8.8	4	VBM
12		299006731	PIN Q235-A	2	VBM

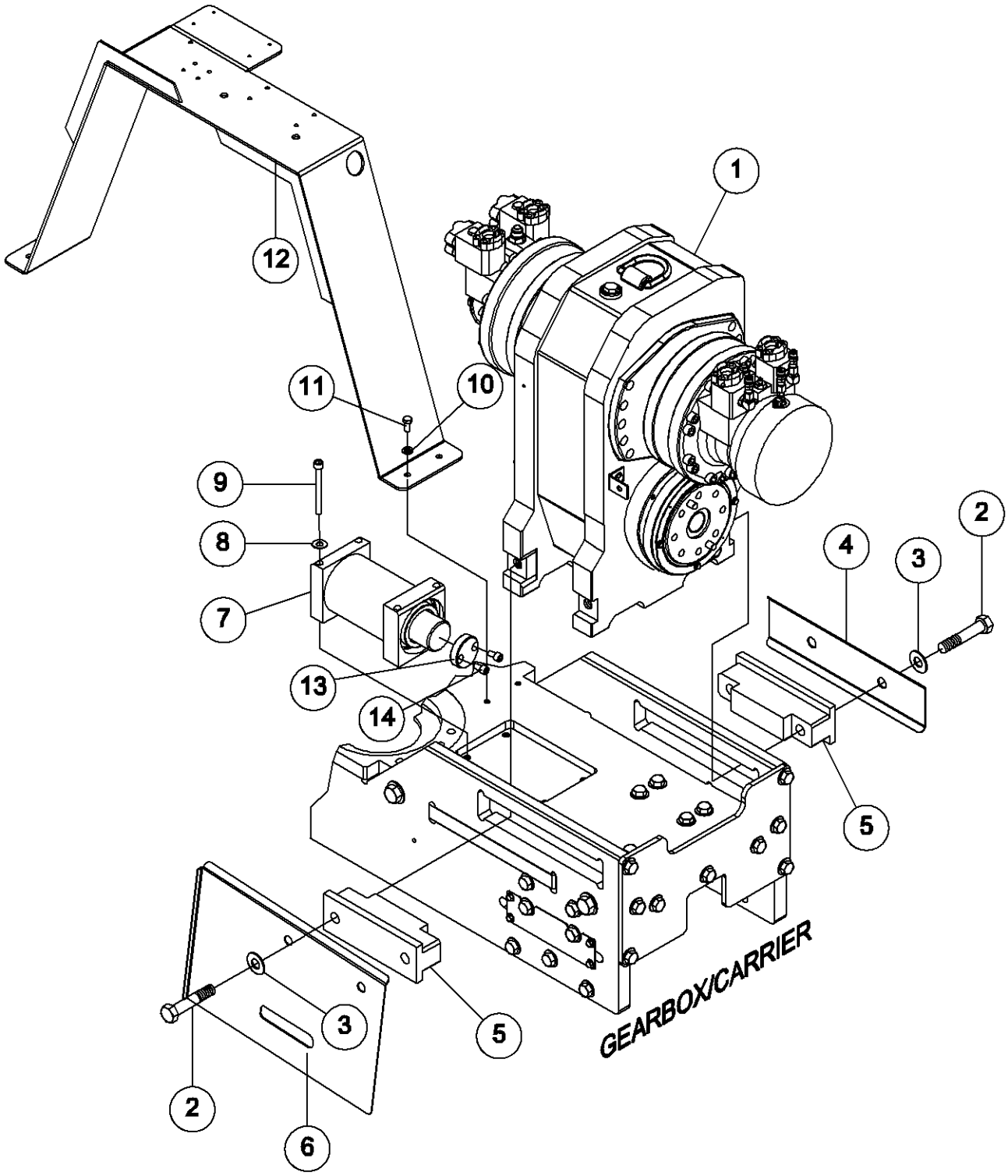
Carriage Fig 2-6



Carriage Fig 2-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005938	MAIN PLATE - CARRIAGE	1	VBM
2		299005940	PLATE	1	VBM
3		299005985	CARRIAGE - HOSE CARRIER	1	VBM
4		299005903	SUPPORT	4	VBM
5		299005949	SUPPORT	4	VBM
6		299005942	PLATE - FRONT	1	VBM
7		299005946	BAR	8	VBM
8		299005953	WEAR PLATE	4	VBM
9		299005954	WEAR PLATE	4	VBM
10		299005955	PLATE	1	VBM
11		299012386	WASHER 20 (GB/T97-85)	83	VBM
12		299012387	WASHER 24 (GB95-85)	8	VBM
13		299010530	BOLT M20X45 - GR8.8 GB/T5783	15	VBM
14		299011059	BOLT M20X80 - GR8.8 GB/T5782	46	VBM
15		299011060	BOLT M20X90 (GB/T5782)	22	VBM
16		299011367	M24X90 - GR 10.9 GB/T5782	8	VBM
17		299005965	PLATE	1	VBM
18		299005961	PLATE	1	VBM
19		299011000	BOLT M10X40-GR8.8 GB/T5782	8	VBM
20		299013741	NUT - HEX - M10 - GR8 - YZ	2	VBM
21		299010459	BOLT M10X30 (GB/T5783)	24	VBM
22		299012382	WASHER GB/T97 10 200HV	25	VBM
23		299005964	COVER PLATE	2	VBM
24		299005950	PIN	16	VBM
25		299005948	WEAR PLATE	8	VBM
26		299005947	PAD	8	VBM
27		299013007	SCREWM16X70-33H GB/T821	16	VBM
28		299005966	FILLING BLOCK	2	VBM
29		299005967	WEAR PAD	2	VBM

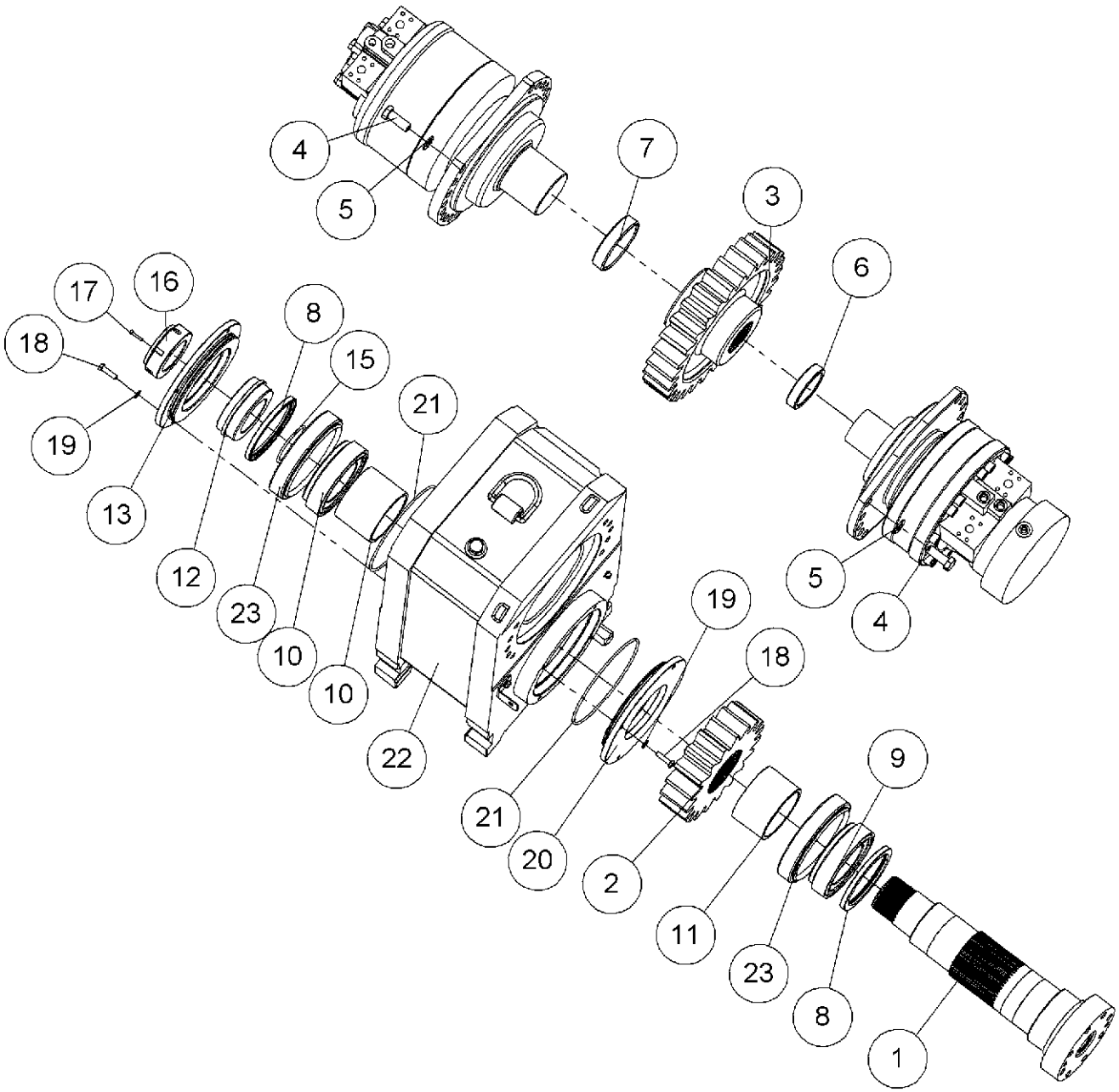
Gearbox Bracket Fig 2-7



Gearbox Bracket Fig 2-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023023	GEARBOX ASSY	1	VBM
2		299011087	M24X140 - GR8.8 GB/T5782	4	VBM
3		299012387	WASHER 24 (GB95-85)	4	VBM
4		299005962	BAFFLE PLATE - WEDGE	1	VBM
5		299005930	WEDGE	2	VBM
6		299005963	GUARD PLATE	1	VBM
7		299004961	CYLINDER - HEAD SHAFT125/75-84	1	VBM, Breakdown Fig.4-31z01
8		299012385	WASHER 16 (GB/T97-85)	4	VBM
9		299011800	SCREW GB/T70 M16X160-GR8.8	4	VBM
10		299012383	WASHER GB/T97 12 200HV	4	VBM
11		299010471	BOLT M12X25-GR8.8 GB/T5783	4	VBM
12		299005987	WELDMENT - VALVE BASE	1	VBM
13		299022929	BLOCK	1	VBM
14		299011749	SCREW GB/T70 - 85 M10X20 - GR8.8	2	VBM

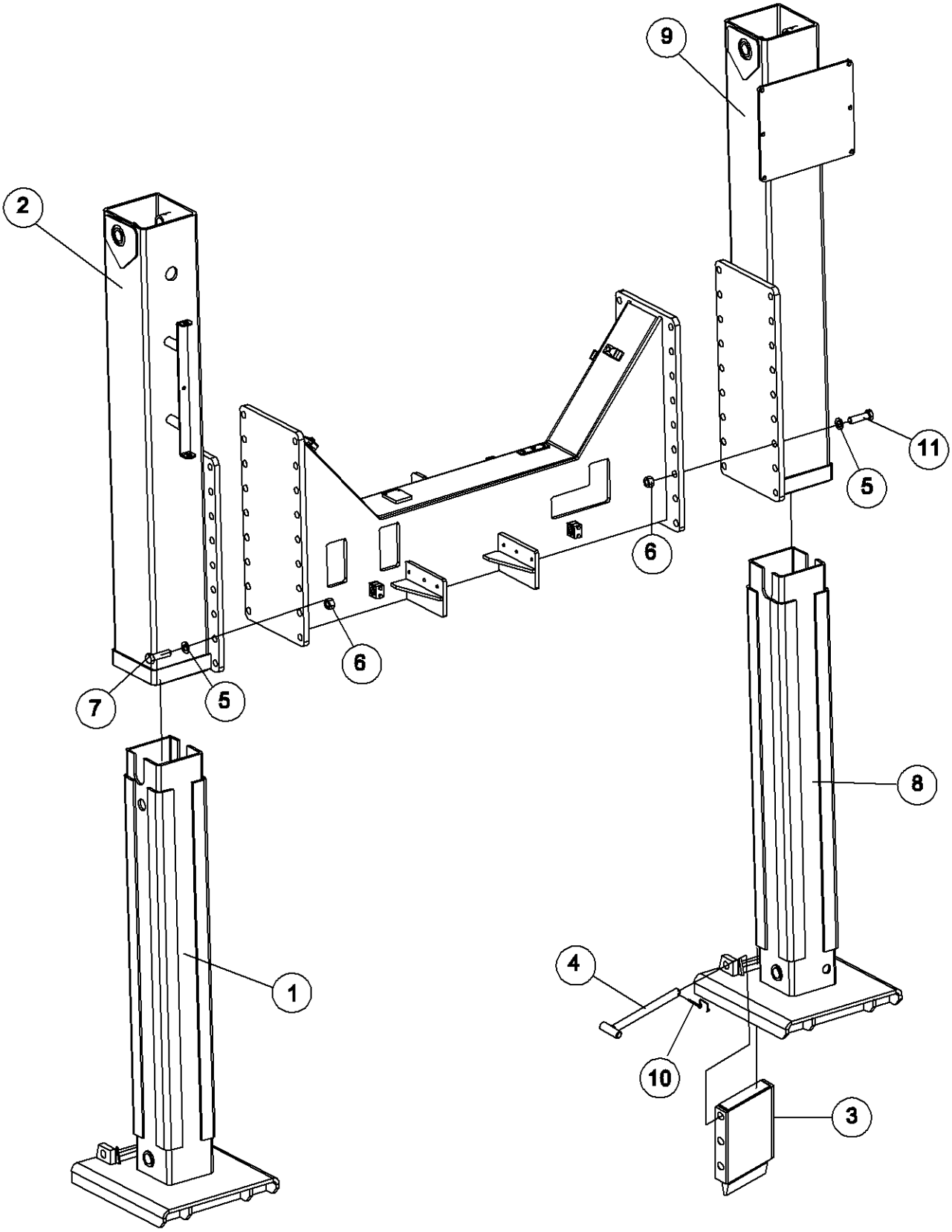
Gearbox Fig 2-7x01



Gearbox Fig 2-7x01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005913	HOLLOW SHAFT	1	VBM
2		299005910	PINION - 19T14M	1	VBM
3		299005911	GEAR 29T14M	1	VBM
4		299010532	BOLTM20X55-GR8.8 GB/T5783	28	VBM
5		299012386	WASHER 20 GB/T97-85	28	VBM
6		299005919	RING-SPACER	1	VBM
7		299005983	BUSH - SPACER	1	VBM
8		299005926	OIL SEAL 146.05X177.80X12.70	2	VBM
9		296284138	CONE - TIMKEN HM926740	1	PELLA
10		296284139	CONE - TIMKEN HM926747	1	PELLA
11		299005920	SPACER-RING	1	VBM
12		299005921	SPACER-SLEEVE	1	VBM
13		299005922	TUBE-SPACER	1	VBM
14		299005923	COVER	1	VBM
15		299005928	O RING 95.0X5.0 GB/3452.1-1992	1	VBM
16		299005918	LOCKNUT M90X2	1	VBM
17		299011701	SCREW M5X30-GR8.8 GB/T70-85	6	VBM
18		299011000	BOLT M10X40-GR8.8 GB/T5782	8	VBM
19		299012382	WASHER GB/T97 10 200HV	8	VBM
20		299005925	COVER-FRONT	1	VBM
21		299005927	O-RING 236X5.0 GB/3452.1-1992	2	VBM
22		299005901	FRAME-GEARBOX	1	VBM
23		296284137	CUP - TIMKEN HM926710	2	PELLA

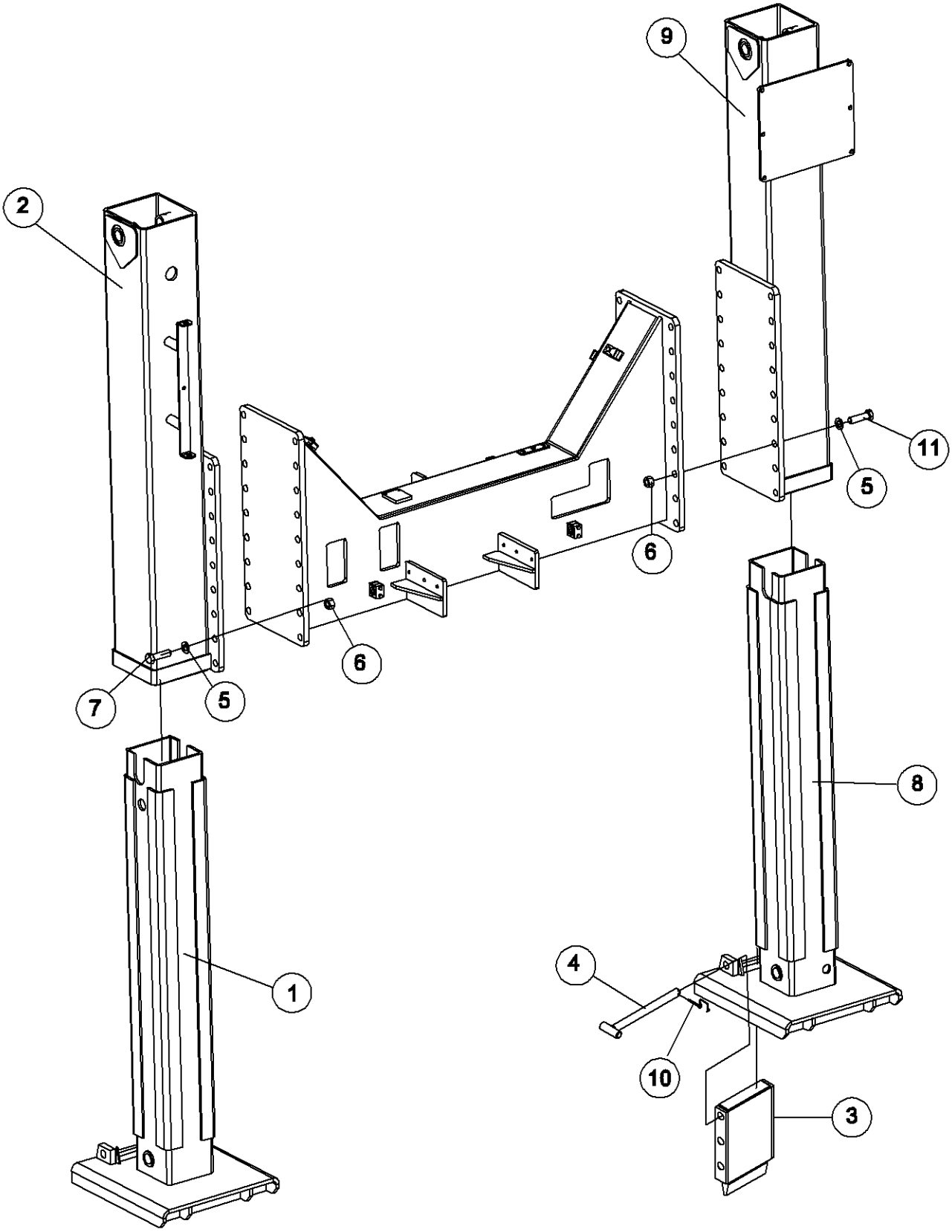
Outrigger (S/N 107-) Fig 2-8r01



Outrigger (S/N 107-) Fig 2-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023830	OUTRIGGER TUBE - INSIDE LEFT	1	VBM
2		299023829	OUTRIGGER TUBE - OUTSIDE LEFT	1	VBM
3		299006425	GROUND STAKE	2	VBM
4		299006428	HANDLE ASSEMBLY	2	VBM
5		299012386	WASHER 20 (GB/T97-85)	36	VBM
6		299012338	NUT GB/T6170 M20 - GR8	36	VBM
7		299011058	BOLT GBT5782 M20X70 - GR8.8	33	VBM
8		299023819	OUTRIGGER TUBE - INSIDE RIGHT	1	VBM
9		299023810	OUTRIGGER TUBE - OUTSIDE RIGHT	1	VBM
10		1794003	HAIR PIN COTTER - .148 WIRE	2	PELLA
11		299016163	BOLT GBT5782 M20X85 - GR8.8	3	VBM

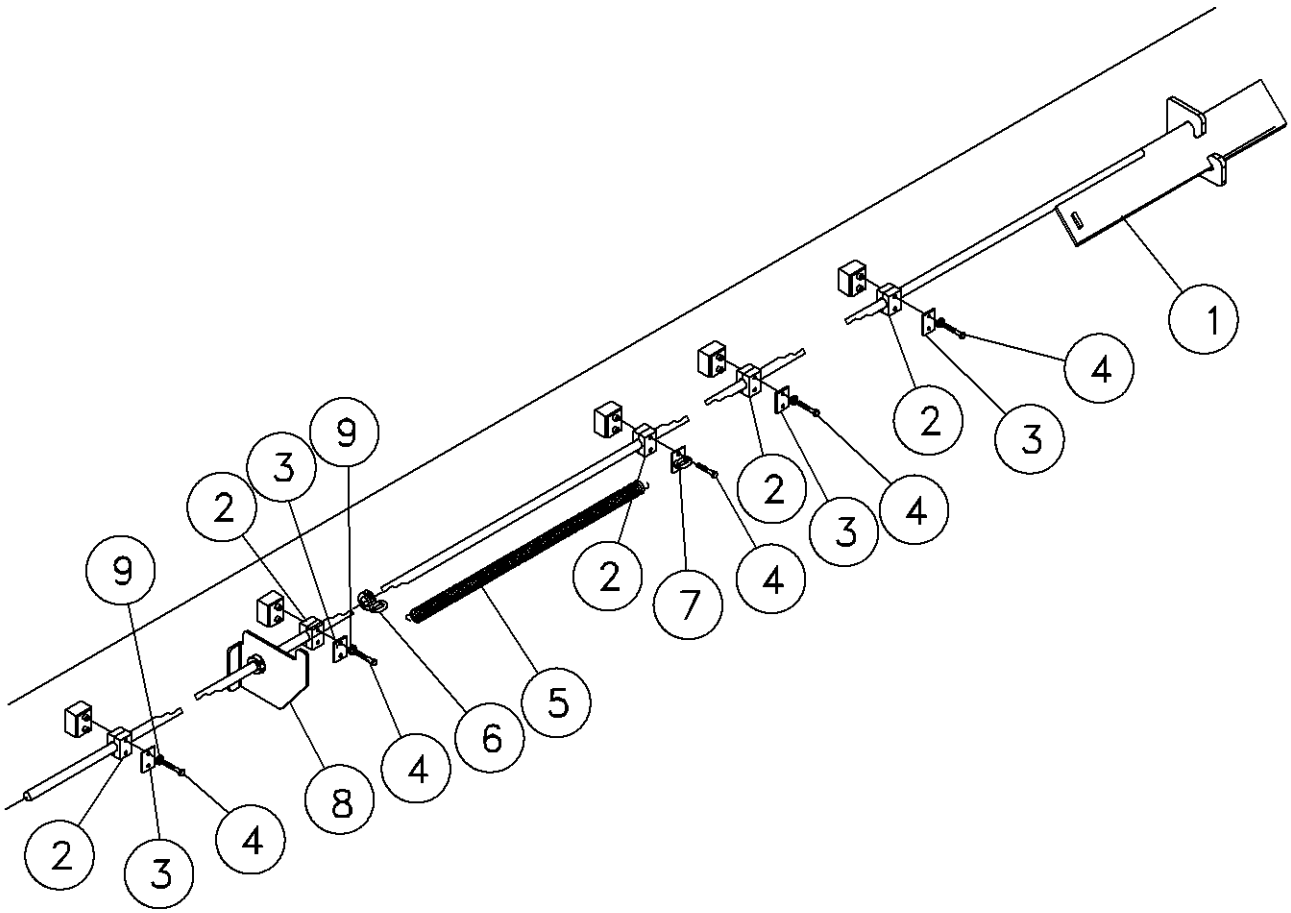
Outrigger (S/N 101-106) Fig 2-8



Outrigger (S/N 101-106) Fig 2-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006432	OUTRIGGER TUBE - INSIDE LEFT	1	VBM
2		299006429	OUTRIGGER TUBE - OUTSIDE LEFT	1	VBM
3		299006425	GROUND STAKE	2	VBM
4		299006428	HANDLE ASSEMBLY	2	VBM
5		299012386	WASHER 20 (GB/T97-85)	36	VBM
6		299012338	NUT GB/T6170 M20-GR8	36	VBM
7		299011058	BOLT GBT5782 M20X70 - GR8.8	33	VBM
8		299006409	OUTRIGGER TUBE - INSIDE RIGHT	1	VBM
9		299006419	OUTRIGGER TUBE - OUTSIDE RIGHT	1	VBM
10		1794003	HAIR PIN COTTER - .148 WIRE	2	PELLA
11		299016163	BOLT GBT5782 M20X85 - GR8.8	3	VBM

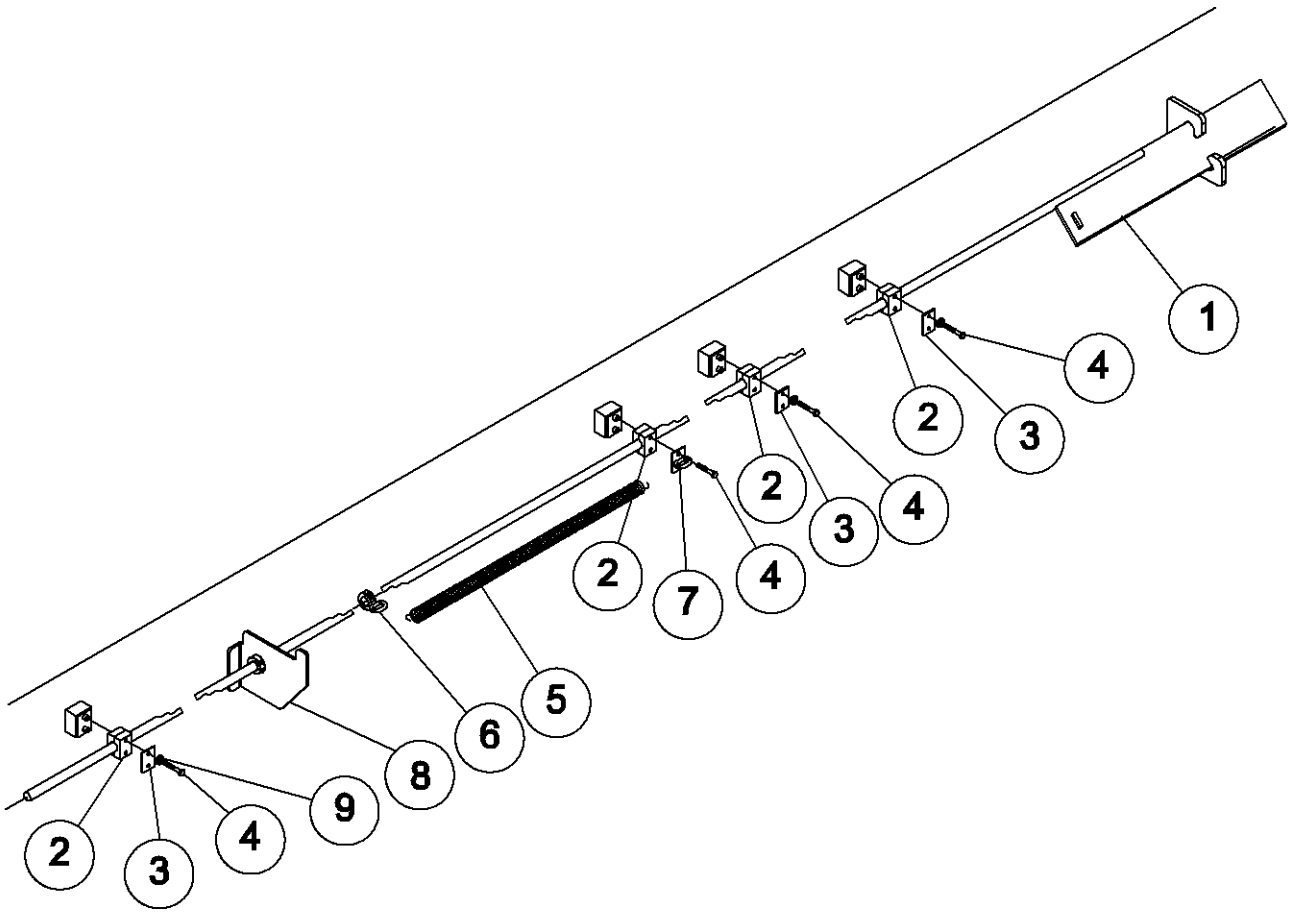
Rod Position Indicator (S/N 107-) Fig 2-9r01



Rod Position Indicator (S/N 107-) Fig 2-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299008138	INDICATOR ROD	1	VBM
2		299009524	TLPG - 218 CLAMP	5	VBM
3		299009534	COVER PLATE TL - G2	4	VBM
4		299010986	BOLT GB/T5782 M6X40 - GR8.8	10	VBM
5		1789001	SPRING - 1 1/8ODX15/16ID X 15 EXT REF	1	PELLA
6		295529001	MOUNT - ROD INDICATOR SPRING	1	PELLA
7		227978001B	MOUNT - ROD INDICATOR SPRING	1	VBM
8		299025800	SUB - CARRIAGE BUMBPER	1	VBM
9		299012380	WASHER GB/T97 6 200HV	10	VBM

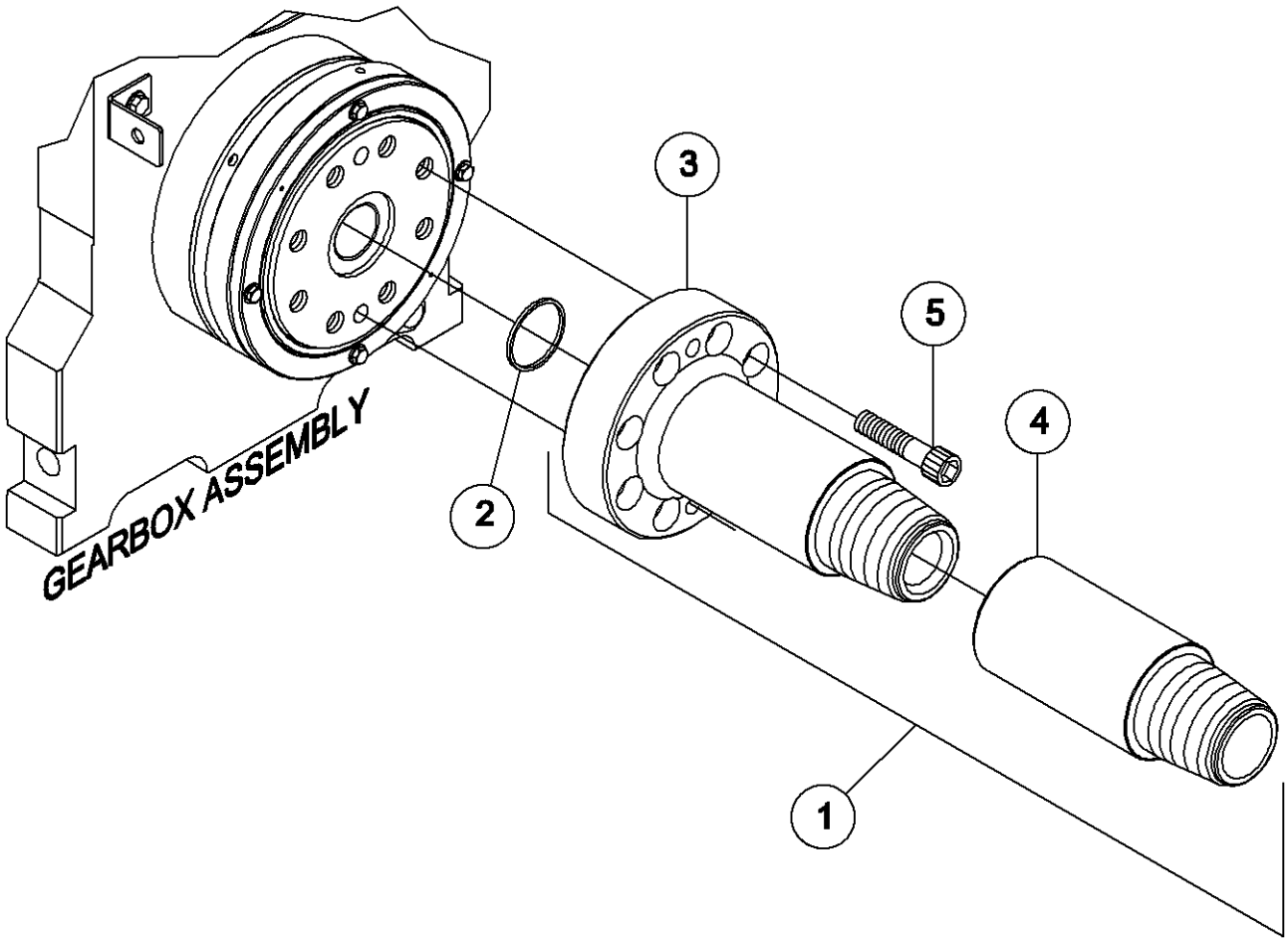
Rod Position Indicator (S/N 101-106) Fig 2-9



Rod Position Indicator (S/N 101-106) Fig 2-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299008138	INDICATOR ROD	1	VBM
2		299009524	TLPG - 218 CLAMP	4	VBM
3		299009534	COVER PLATE TL - G2	3	VBM
4		299010986	BOLT GB/T5782 M6X40 - GR8.8	8	VBM
5		1789001	SPRING - 1 1/8ODX15/16ID X 15 EXT REF	1	PELLA
6		295529001	MOUNT - ROD INDICATOR SPRING	1	PELLA
7		227978001B	MOUNT - ROD INDICATOR SPRING	1	VBM
8		296279586B	SUB - CARRIAGE BUMPER	1	VBM
9		299012380	WASHER GB/T97 6 200HV	8	VBM

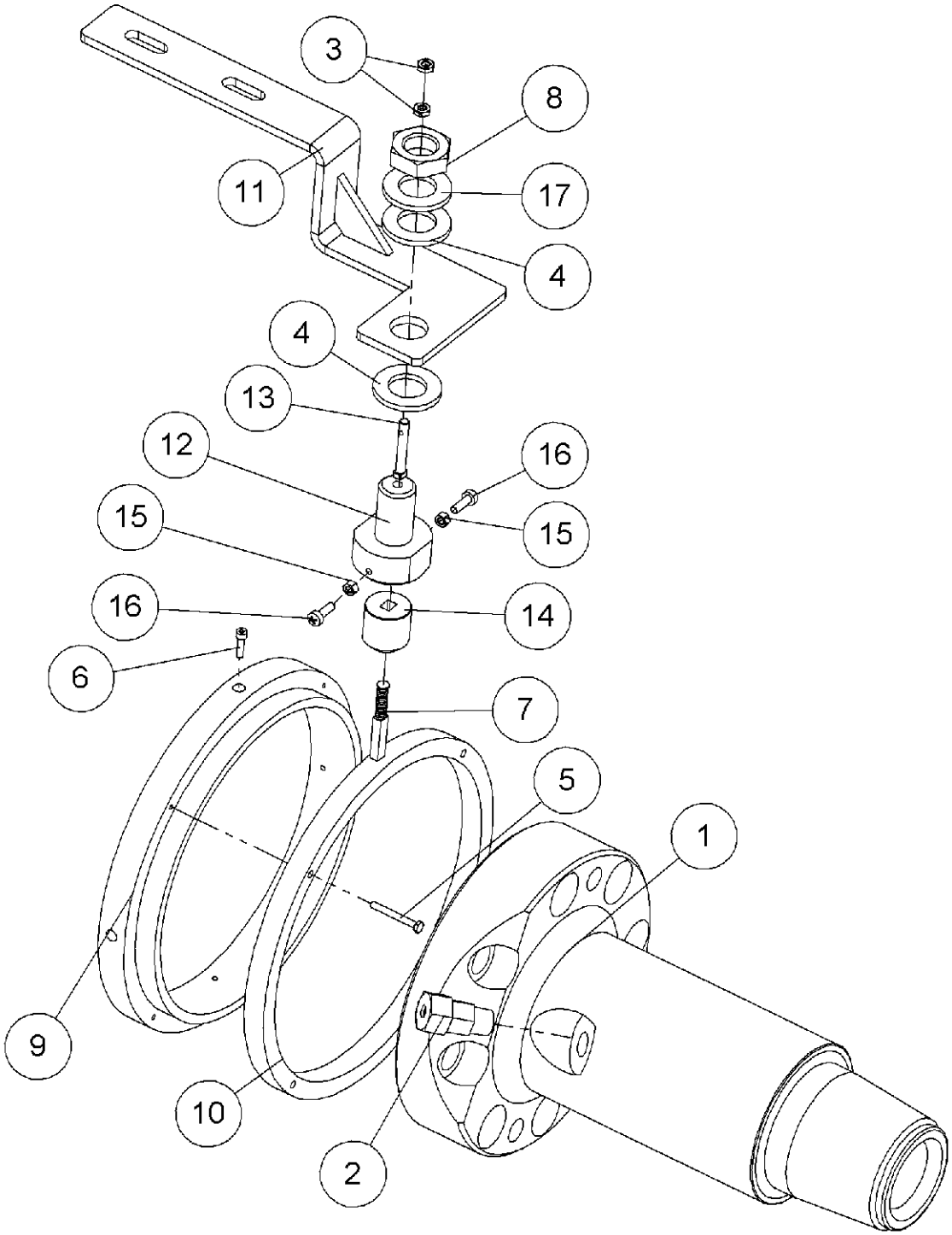
Drive Chuck Fig 2-10



Drive Chuck Fig 2-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023469	DRIVE CHUCK	1	VBM, Inc. Ref. No's 3 & 4
2		72898001	O RING - SQ. #24 FLANGE	1	PELLA
3		299022961	DRIVE CHUCK 3 1/2 FST I	1	VBM
4		299023455	SUB SAVER 3 1/2 FST I	1	VBM
5		239364001	BOLT - 3/4 - 16X3 1/4 SKTHD GR8 ZN	8	PELLA

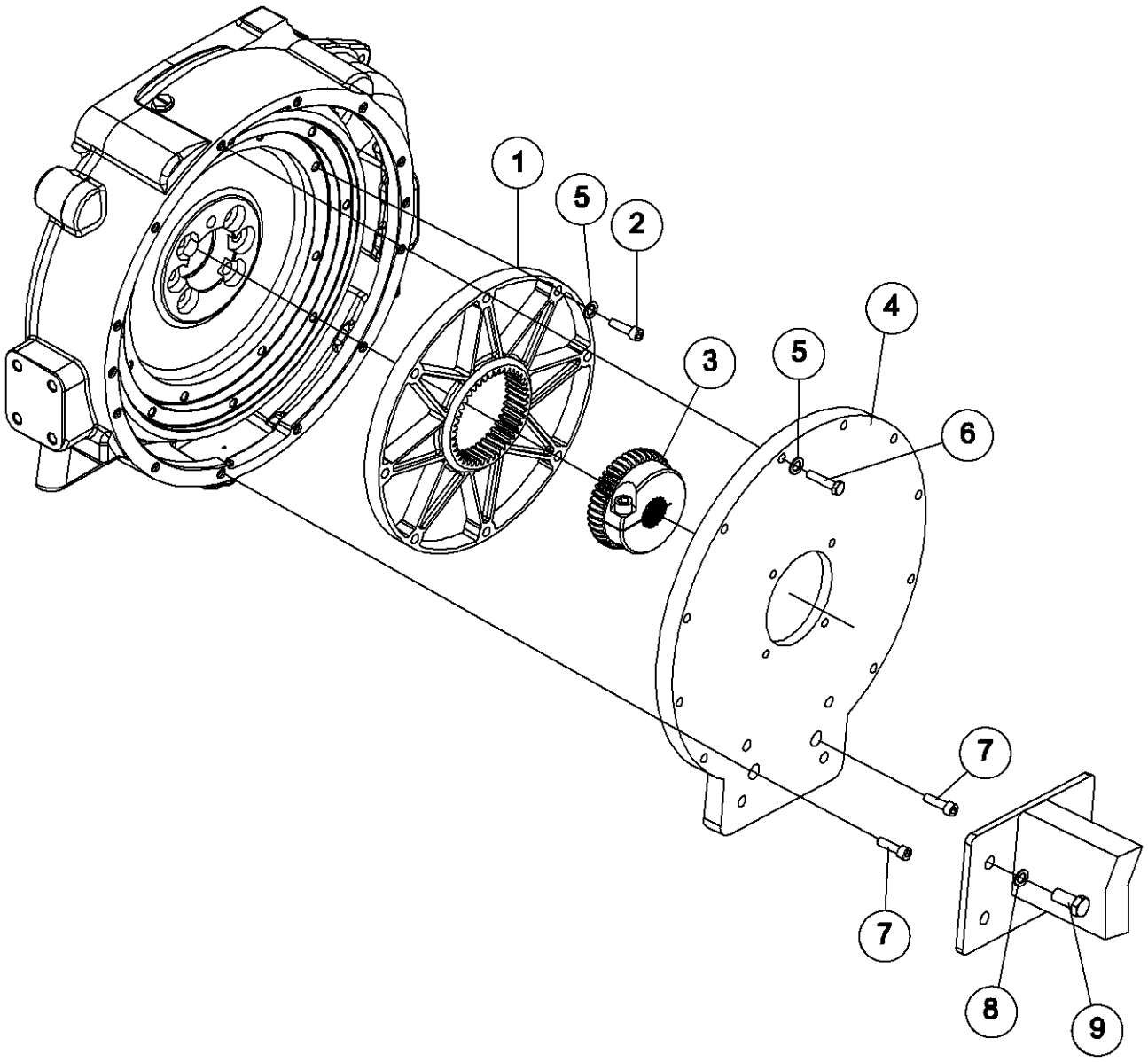
Front Load Wire Line (Optional) Fig 2-11



Front Load Wire Line (Optional) Fig 2-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299022970	DRIVE CHUCK 3 1/2 FST I	1	VBM
2		296265895	FITTING - COMPRESSION 3/8 NPT	1	PELLA
3		299022973	CUPRUM NUT M6 GB/T6172	2	VBM
4		299012387	WASHER 24 (GB95-85)	2	VBM
5		299010418	BOLT M4X35(GB/T6172)	4	VBM
6		299011688	SCREW M4X16 GB/T70-85	4	VBM
7		299008121	CARBON BRUSH	1	VBM
8		299013748	NUT M24 (GB/T5783)	1	VBM
9		299022976	INSULATING RING	1	VBM
10		299022977	RING	1	VBM
11		299022969	BRACKET	1	VBM
12		299008119	PLUG	1	VBM
13		299008118	COPPER BOLT M6X40	1	VBM
14		299008120	BUSHING	1	VBM
15		299012330	NUT GB/T6170 M5-GR8	2	VBM
16		299012609	SCREW GB/T818 M5X16 H	2	VBM
17		299022974	INSULATING SHIM	1	VBM

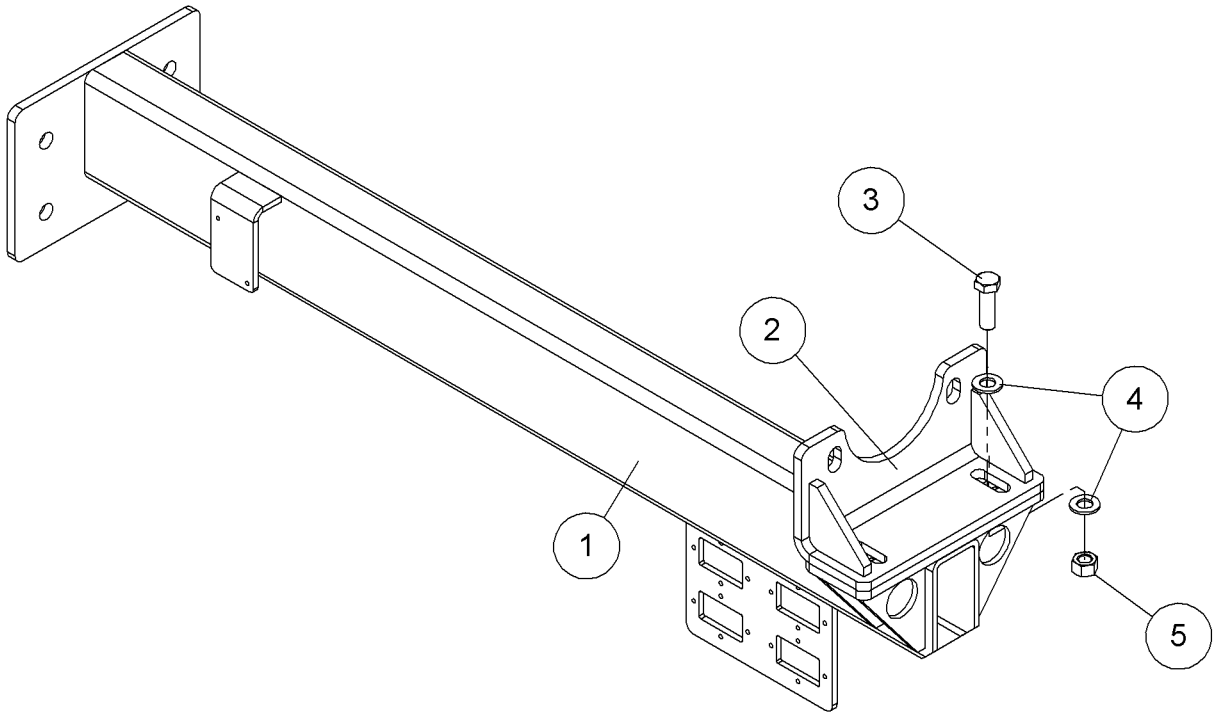
Pump Drive Fig 3-1



Pump Drive Fig 3-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005025	FLANGE	1	VBM
2		299012194	SCREW GB/T70 M10X35-GR12.9	8	VBM
3		299005026	PINION	1	VBM
4		299005024	DISK	1	VBM
5		299012382	WASHER GB/T97 10 200HV	18	VBM
6		299010462	BOLT GB/T5783 M10X45-GR8.8	10	VBM
7		299011738	SCREW M10X35-GR8.8 GB/T70-85	2	VBM
8		299012385	WASHER 16 (GB/T97-85)	4	VBM
9		299010848	BOLT GB/T5783 M16X35-GR10.9	4	VBM

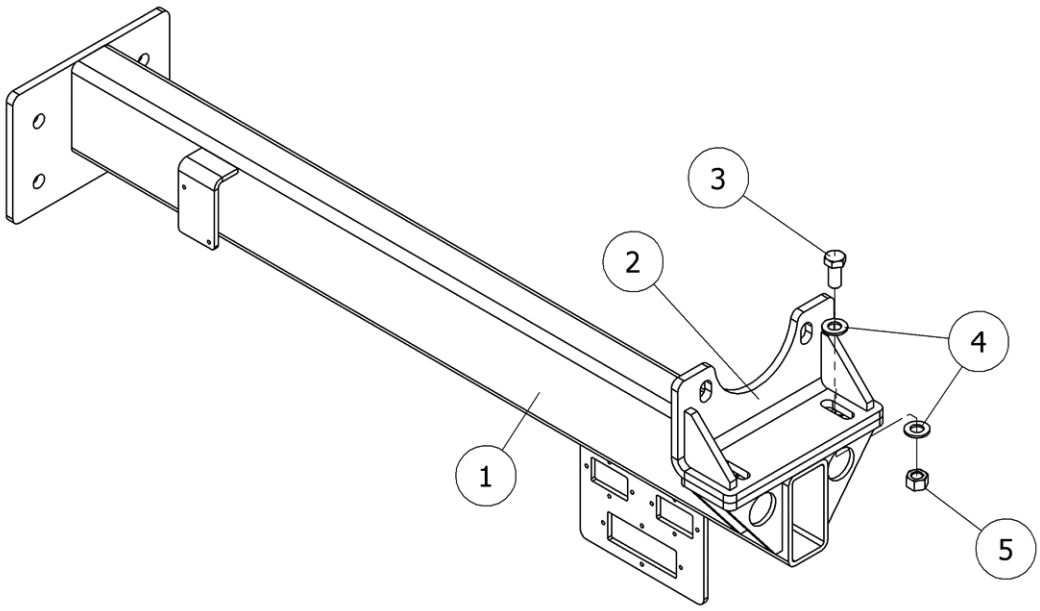
Pump Support (S/N 108-) Fig 3-2r01



Pump Support (S/N 108-) Fig 3-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025728	WELDMENT - PUMP MOUNT	1	VBM
2		299005019	WELDMENT - PUMP MOUNT	1	VBM
3		299010487	BOLT GB/T5783 M14X45-GR8.8	2	VBM
4		299012384	WASHER-FLAT 14	4	VBM
5		299012335	NUT GB/T6170 M14-GR8	2	VBM

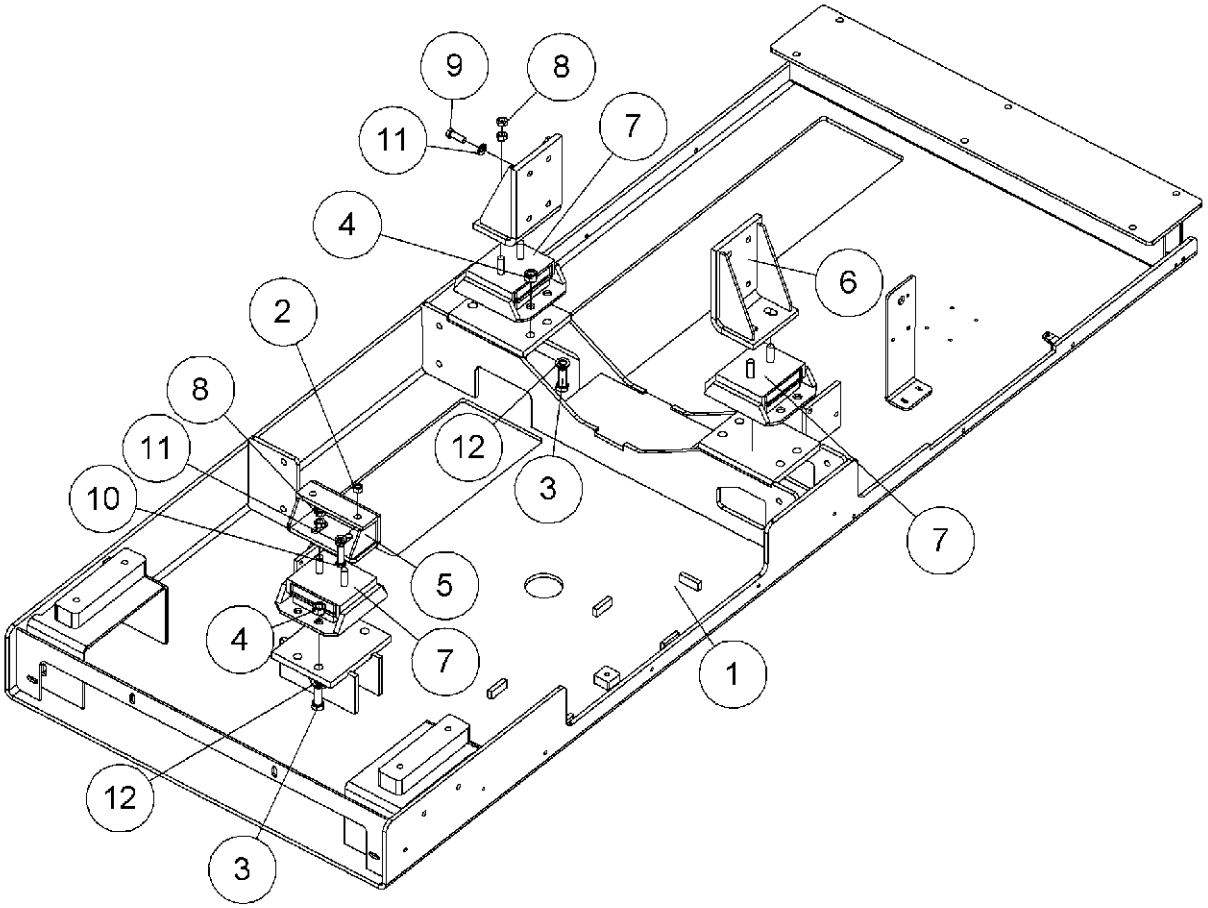
Pump Support (S/N 101-107) Fig 3-2



Pump Support (S/N 101-107) Fig 3-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005030	WELDMENT - PUMP MOUNT	1	VBM
2		299005019	WELDMENT - PUMP MOUNT	1	VBM
3		299010487	BOLT GB/T5783 M14X45-GR8.8	2	VBM
4		299012384	WASHER-FLAT 14	4	VBM
5		299012335	NUT GB/T6170 M14-GR8	2	VBM

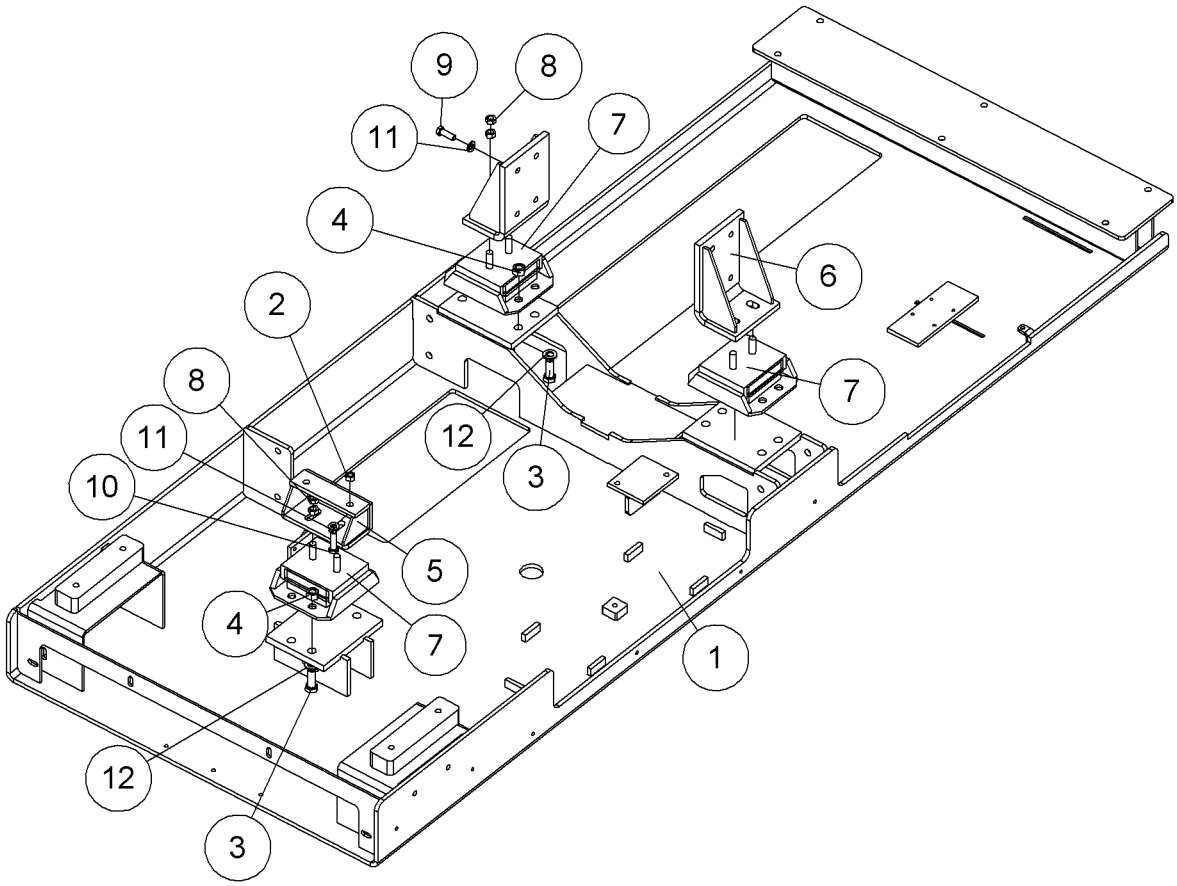
Base - Engine Bay (S/N 107-) Fig 3-3r01



Base - Engine Bay (S/N 107-) Fig 3-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025780	BRACKET - ENGINE WELDMENT	1	VBM
2		299012334	NUT GB/T6170 M12-GR8	2	VBM
3		299010502	BOLT GB/T5783 M16X45-GR8.8	12	VBM
4		299012336	NUT GB/T6170 M16-GR8	12	VBM
5		299005020	FRONT BRACKET - ENGINE	1	VBM
6		299025725	WELDMENT - BRACKET	2	VBM
7		299005010	DAMPING 10Z06-01050	3	VBM
8		299021896	BOLT GB/T6171 M14X1.5-GR8.8	12	VBM
9		299010473	BOLT GB/T5783 M12X35-GR8.8	8	VBM
10		299010475	BOLT GB/T5783 M12X45-GR8.8	2	VBM
11		299012383	WASHER GB/T97 12 200HV	10	VBM
12		299012385	WASHER 16 (GB/T97-85)	12	VBM

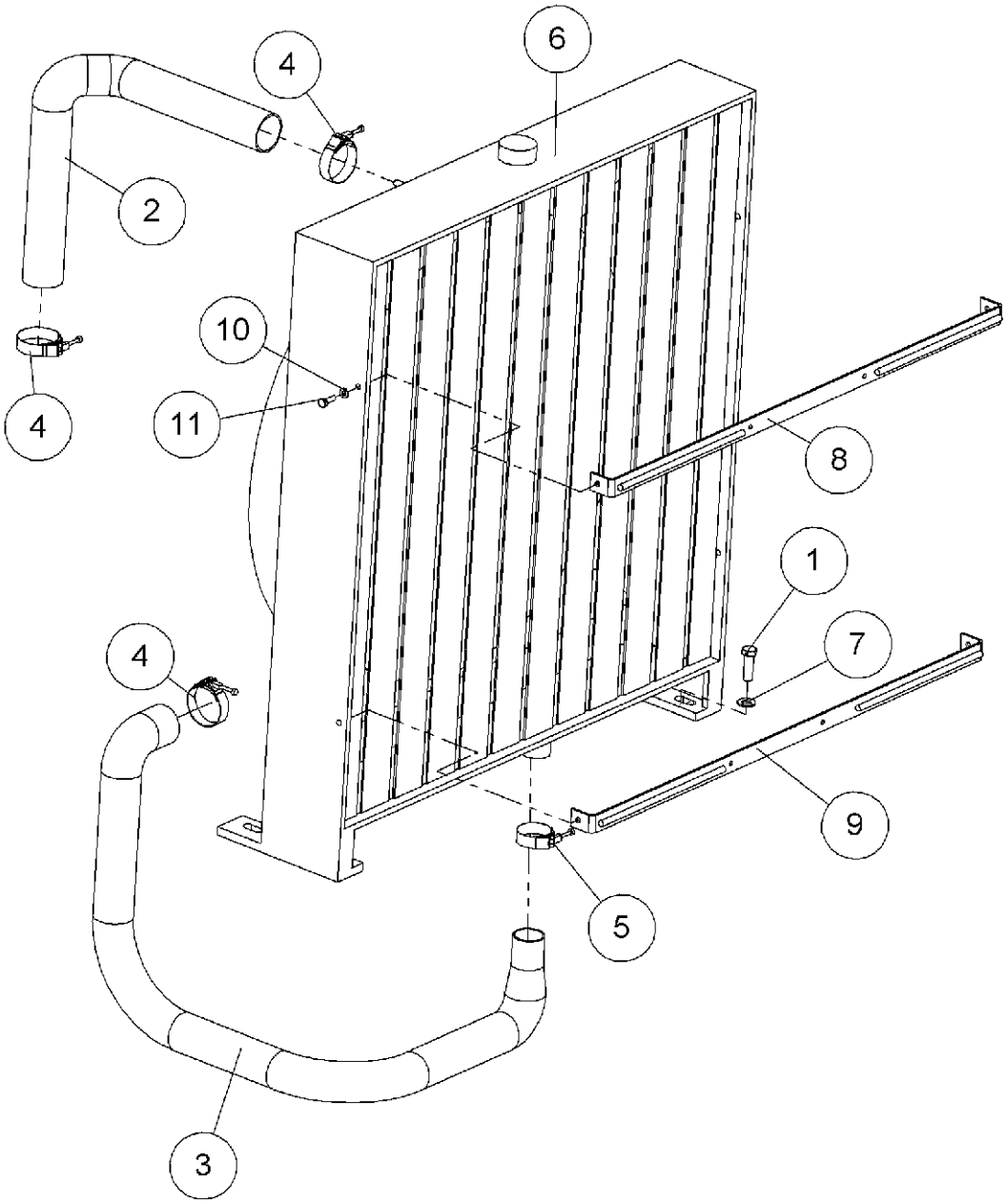
Base - Engine Bay (S/N 101-106) Fig 3-3



Base - Engine Bay (S/N 101-106) Fig 3-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005079	BRACKET - ENGINE WELDMENT	1	VBM
2		299012334	NUT GB/T6170 M12-GR8	2	VBM
3		299010502	BOLT GB/T5783 M16X45-GR8.8	12	VBM
4		299012336	NUT GB/T6170 M16-GR8	12	VBM
5		299005020	FRONT BRACKET - ENGINE	1	VBM
6		299005009	WELDMENT - BRACKET	2	VBM
7		299005010	DAMPING 10Z06-01050	3	VBM
8		299021896	BOLT GB/T6171 M14X1.5-GR8.8	12	VBM
9		299010473	BOLT GB/T5783 M12X35-GR8.8	8	VBM
10		299010475	BOLT GB/T5783 M12X45-GR8.8	2	VBM
11		299012383	WASHER GB/T97 12 200HV	10	VBM
12		299012385	WASHER 16 (GB/T97-85)	12	VBM

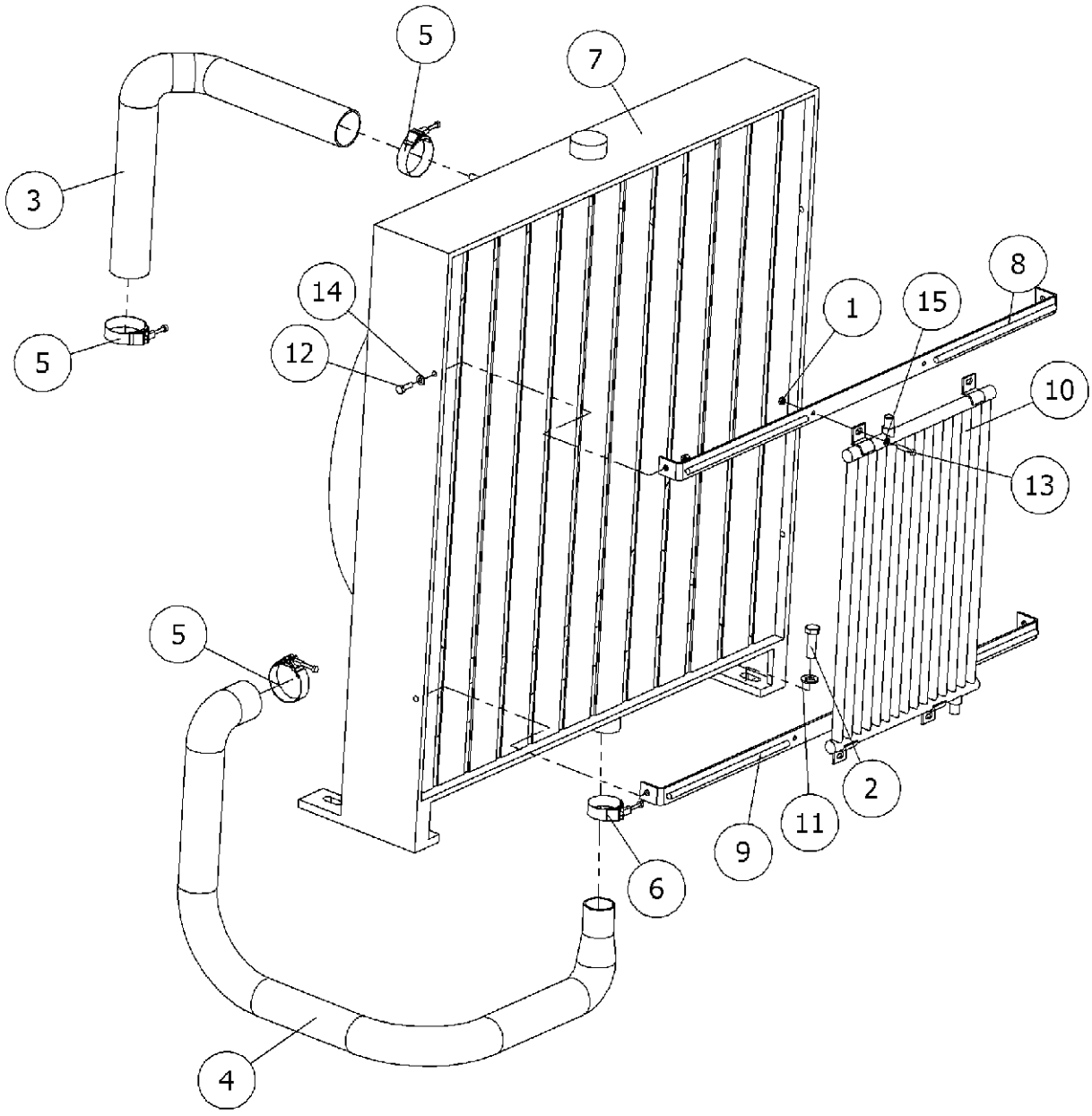
Radiator - Engine Cooler (S/N 107-) Fig 3-4r01



Radiator - Engine Cooler (S/N 107-) Fig 3-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010487	BOLT GB/T5783 M14X45-GR8.8	4	VBM
2		299005083	RETURN PIPE Q235-A	1	VBM
3		299005084	RISING PIPE - RUBBER	1	VBM
4		299023515	HOOP TX19Bb6371	3	VBM
5		299005085	CLAMP (51) Q235-A	1	VBM
6		299025710	RADIATOR ASSY	1	VBM
7		299012384	WASHER - FLAT 14	4	VBM
8		299023509	BRACKET 1	1	VBM
9		299023510	BRACKET II	1	VBM
10		299012332	NUT GB/T6170 M8-GR8	4	VBM
11		299010446	BOLT GB/T5783 M8X25-GR8.8	4	VBM

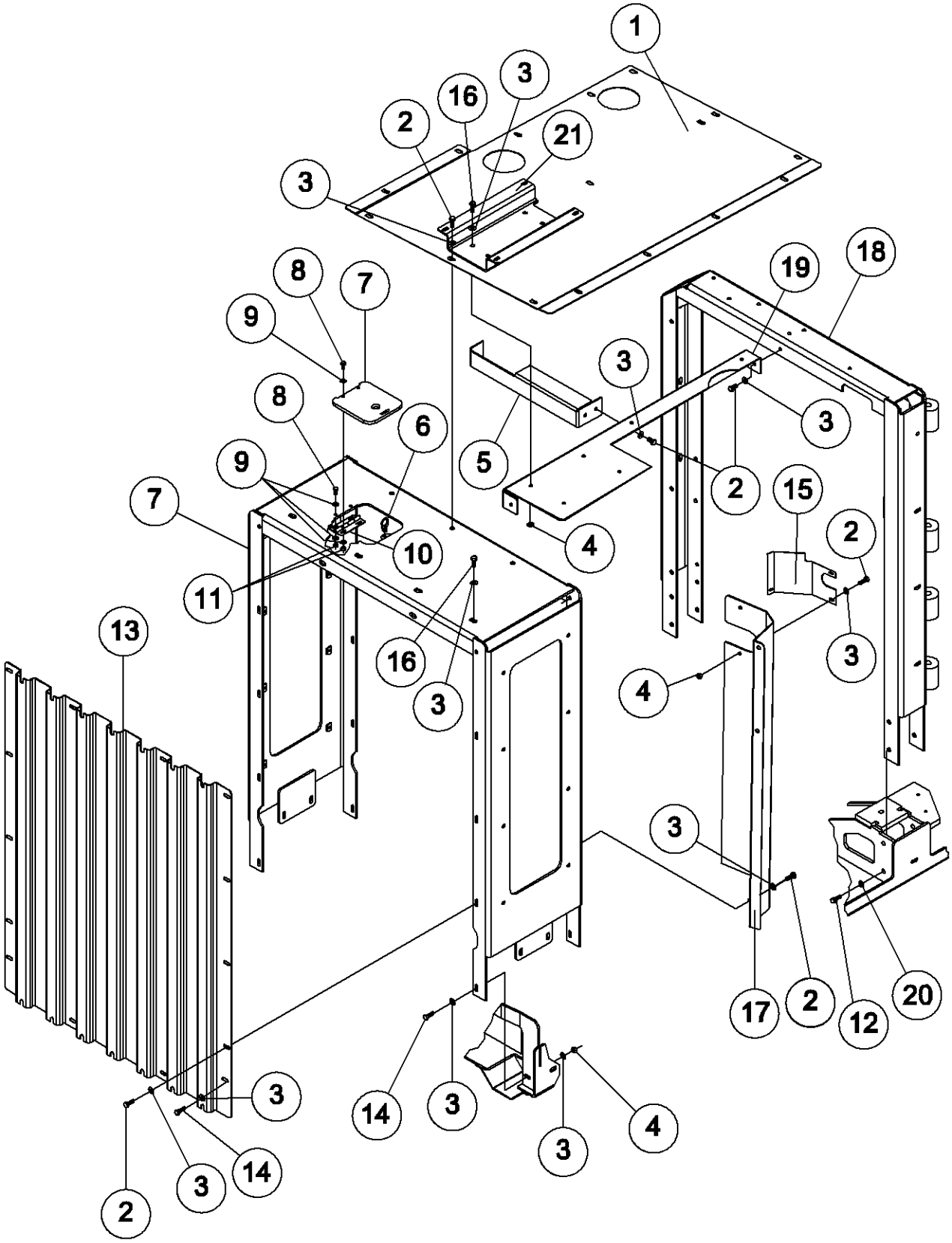
Radiator - Engine Cooler (S/N 101-106) Fig 3-4



Radiator - Engine Cooler (S/N 101-106) Fig 3-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299012331	NUT GB/T6170 M6-GR8	4	VBM
2		299010487	BOLT GB/T5783 M14X45-GR8.8	4	VBM
3		299005083	RETURN PIPE Q235-A	1	VBM
4		299005084	RISING PIPE - RUBBER	1	VBM
5		299023515	HOOP TX19Bb6371	3	VBM
6		299005085	CLAMP (51) Q235-A	1	VBM
7		299005017	RADIATOR ASSY	1	VBM
8		299023509	BRACKET 1	1	VBM
9		299023510	BRACKET II	1	VBM
10		299005045	CONDENSATOR TY46W-020000	1	VBM
11		299012384	WASHER - FLAT 14	4	VBM
12		299010446	BOLT GB/T5783 M8X25-GR8.8	4	VBM
13		299010436	BOLT GB/T5783 M6X30-GR8.8	4	VBM
14		299012332	NUT GB/T6170 M8-GR8	4	VBM
15		299012380	WASHER GB/T97 6 200HV	4	VBM

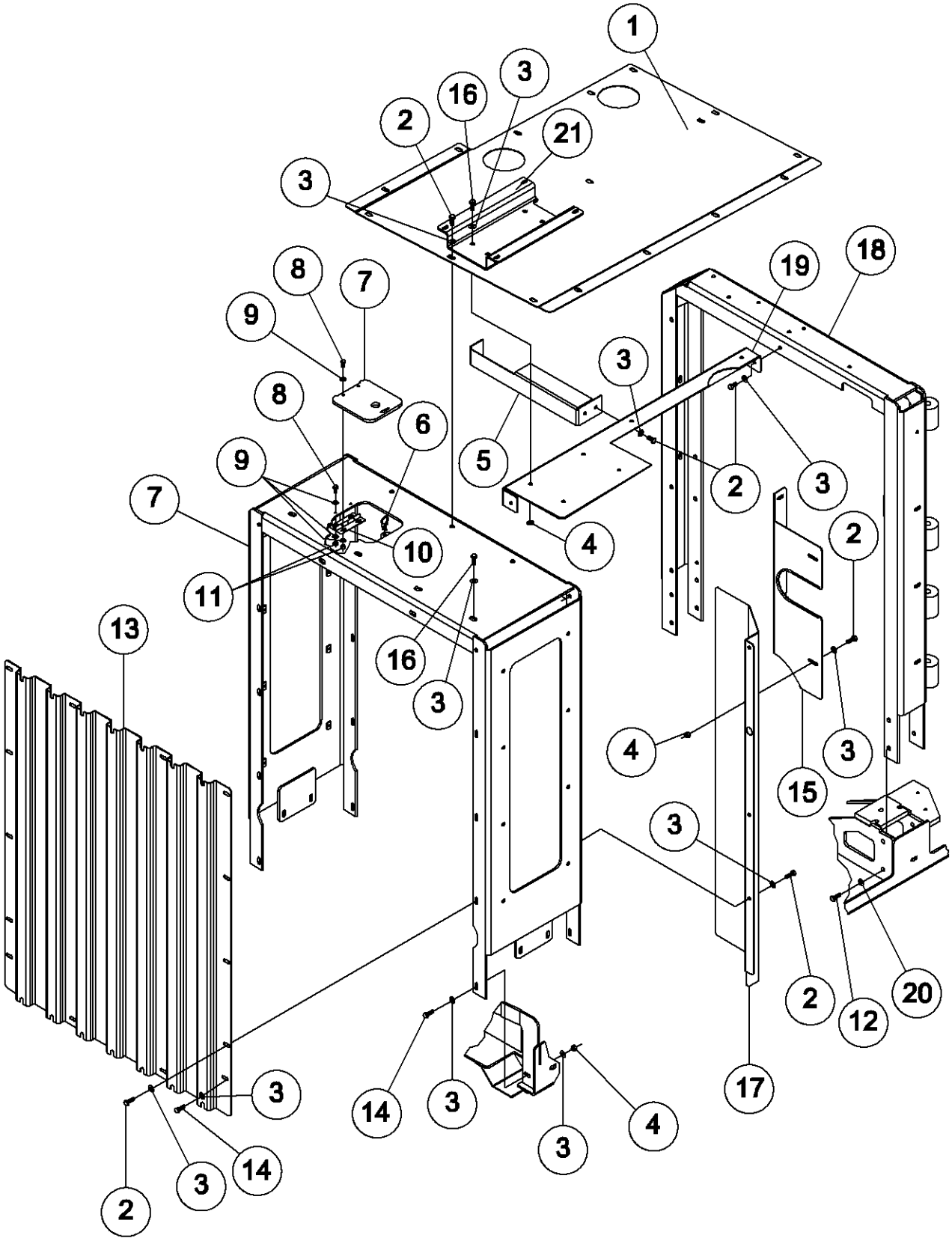
Engine Shield (S/N 114-) Fig 3-5r02



Engine Shield (S/N 114-) Fig 3-5r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027271	COVER PLATE-TOP	1	VBM
2		299010457	BOLT GB/T5783 M10X20-GR8.8	36	VBM
3		299012382	WASHER GB/T97 10 200HV	50	VBM
4		299012333	NUT M10 (GB/T6170-85)	6	VBM
5		299006814	PLATE	1	VBM
6		86113001	FASTENER-1/4 TURN	1	PELLA
7		299006829	REAR SUPPORT	1	VBM
8		299010432	BOLT GB/T5783 M6X16-GR8.8	4	VBM
9		299012380	WASHER GB/T97 6 200HV	8	VBM
10		299006939	SHORT HINGE	1	VBM
11		299012331	NUT GB/T6170 M6-GR8	4	VBM
12		299012472	SCREW GB/T78 M5X8	4	VBM
13		299006894	GRID STEEL	1	VBM
14		299010459	BOLT GB/T5783 M10X30	6	VBM
15		299027273	PLATE-JOINT	1	VBM
16		299012458	SCREW GB/T78 M3X16	8	VBM
17		299027280	BAFFLE	1	VBM
18		299006809	FRONT BRACKET	1	VBM
19		299027269	CROSS ARM	1	VBM
20		299012383	WASHER GB/T97 12 200HV	4	VBM
21		299027272	PLATE-AIR CLEANER	4	VBM

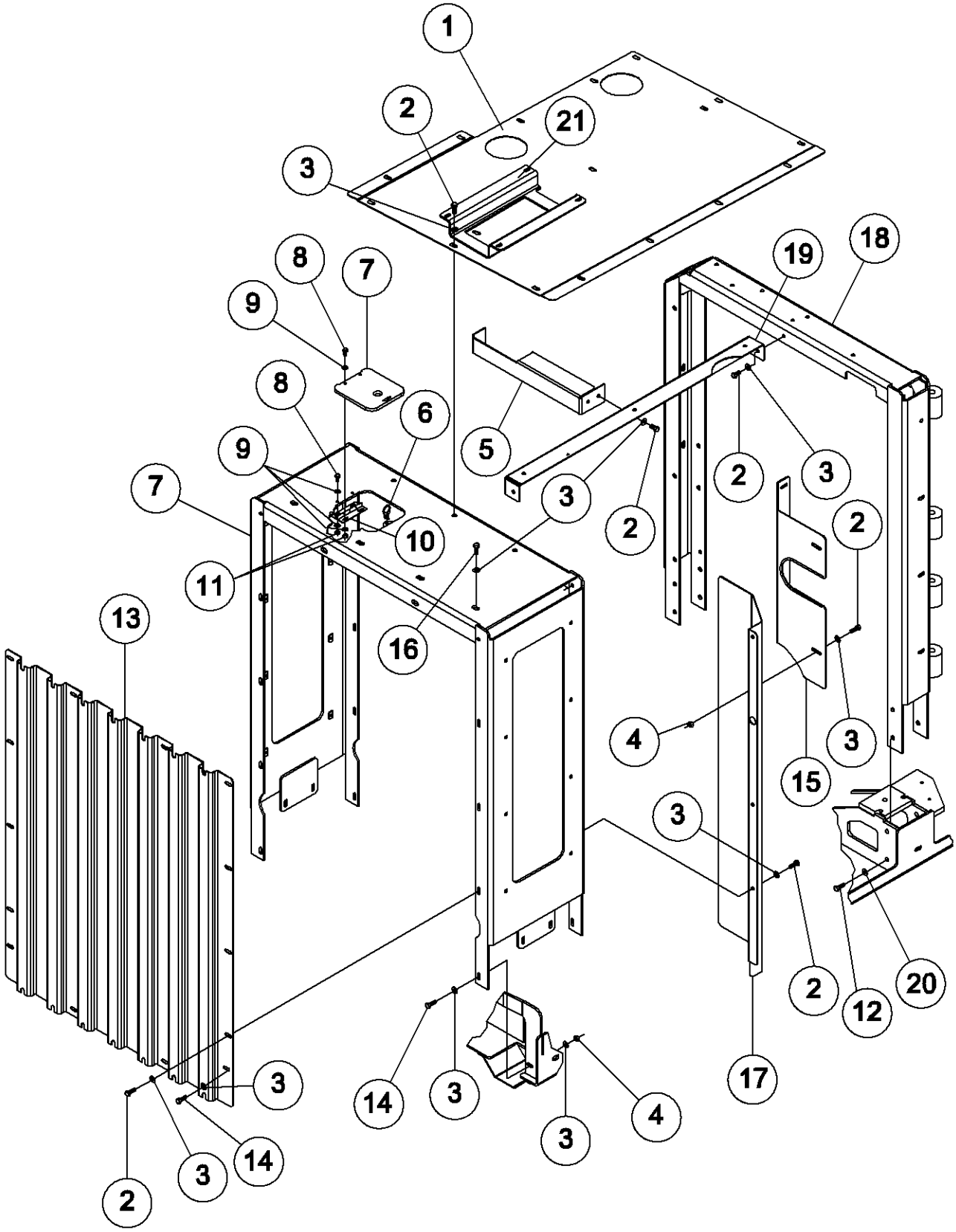
Engine Shield (S/N 106-113) Fig 3-5r01



Engine Shield (S/N 106-113) Fig 3-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027271	COVER PLATE-TOP	1	VBM
2		299010457	BOLT GB/T5783 M10X20-GR8.8	36	VBM
3		299012382	WASHER GB/T97 10 200HV	50	VBM
4		299012333	NUT M10 (GB/T6170-85)	6	VBM
5		299006814	PLATE	1	VBM
6		86113001	FASTENER-1/4 TURN	1	PELLA
7		299006829	REAR SUPPORT	1	VBM
8		299010432	BOLT GB/T5783 M6X16-GR8.8	4	VBM
9		299012380	WASHER GB/T97 6 200HV	8	VBM
10		299006939	SHORT HINGE	1	VBM
11		299012331	NUT GB/T6170 M6-GR8	4	VBM
12		299012472	SCREW GB/T78 M5X8	4	VBM
13		299006894	GRID STEEL	1	VBM
14		299010459	BOLT GB/T5783 M10X30	6	VBM
15		299006944	PLATE-JOINT	1	VBM
16		299012458	SCREW GB/T78 M3X16	8	VBM
17		299006943	BAFFLE	1	VBM
18		299006809	FRONT BRACKET	1	VBM
19		299027269	CROSS ARM	1	VBM
20		299012383	WASHER GB/T97 12 200HV	4	VBM
21		299027272	PLATE-AIR CLEANER	4	VBM

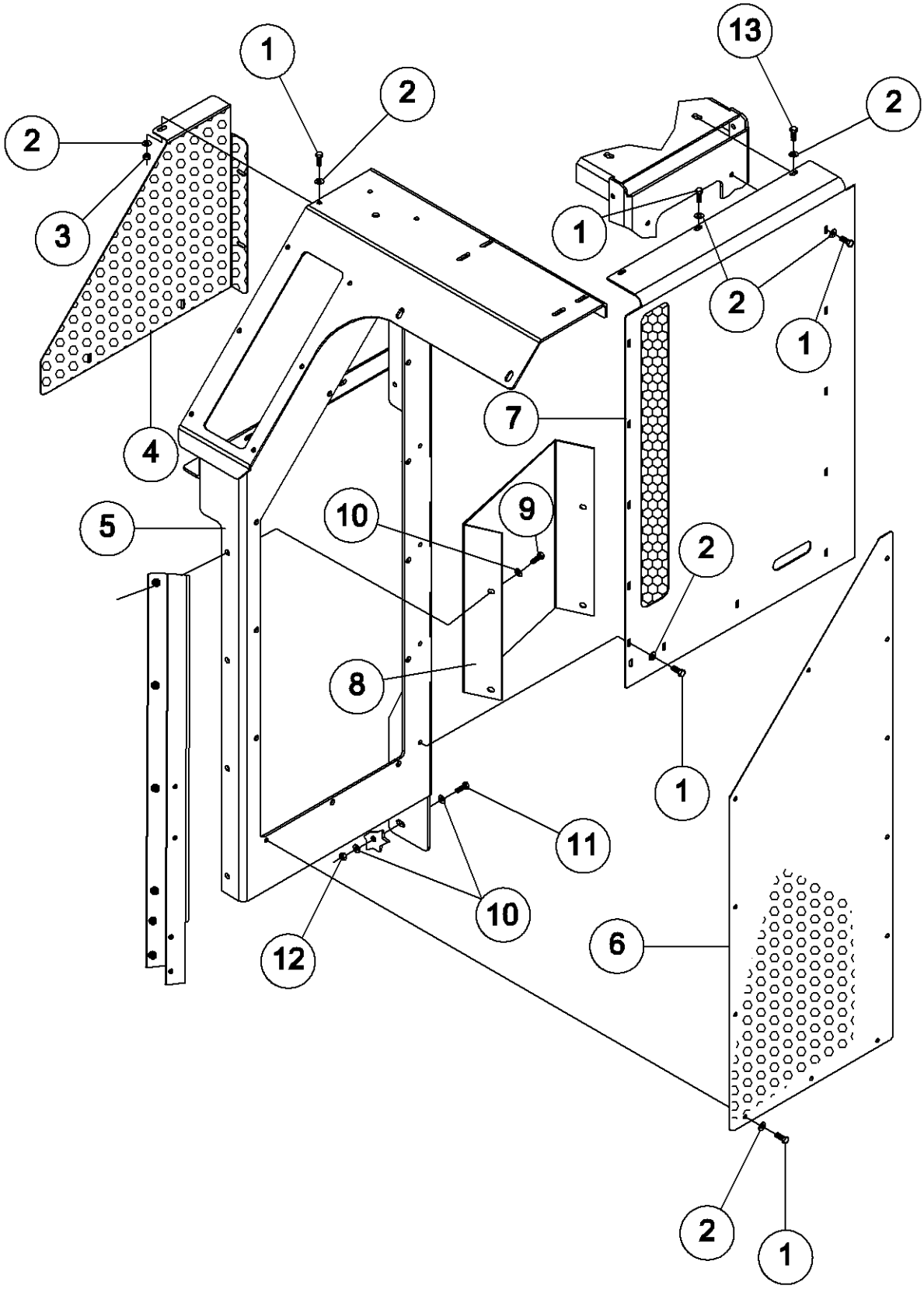
Engine Shield (S/N 101-105) Fig 3-5



Engine Shield (S/N 101-105) Fig 3-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006920	COVER PLATE-TOP	1	VBM
2		299010457	BOLT GB/T5783 M10X20-GR8.8	36	VBM
3		299012382	WASHER GB/T97 10 200HV	46	VBM
4		299012333	NUT M10 (GB/T6170-85)	2	VBM
5		299006814	PLATE	1	VBM
6		86113001	FASTENER-1/4 TURN	1	PELLA
7		299006829	REAR SUPPORT	1	VBM
8		299010432	BOLT GB/T5783 M6X16-GR8.8	4	VBM
9		299012380	WASHER GB/T97 6 200HV	8	VBM
10		299006939	SHORT HINGE	1	VBM
11		299012331	NUT GB/T6170 M6-GR8	4	VBM
12		299012472	SCREW GB/T78 M5X8	4	VBM
13		299006894	GRID STEEL	1	VBM
14		299010459	BOLT GB/T5783 M10*30	6	VBM
15		299006944	PLATE-JOINT	1	VBM
16		299012458	SCREW GB/T78 M3X16	4	VBM
17		299006943	BAFFLE	1	VBM
18		299006809	FRONT BRACKET	1	VBM
19		299006909	CROSS ARM	1	VBM
20		299012383	WASHER GB/T97 12 200HV	4	VBM
21		299006921	PLATE-AIR CLEANER	4	VBM

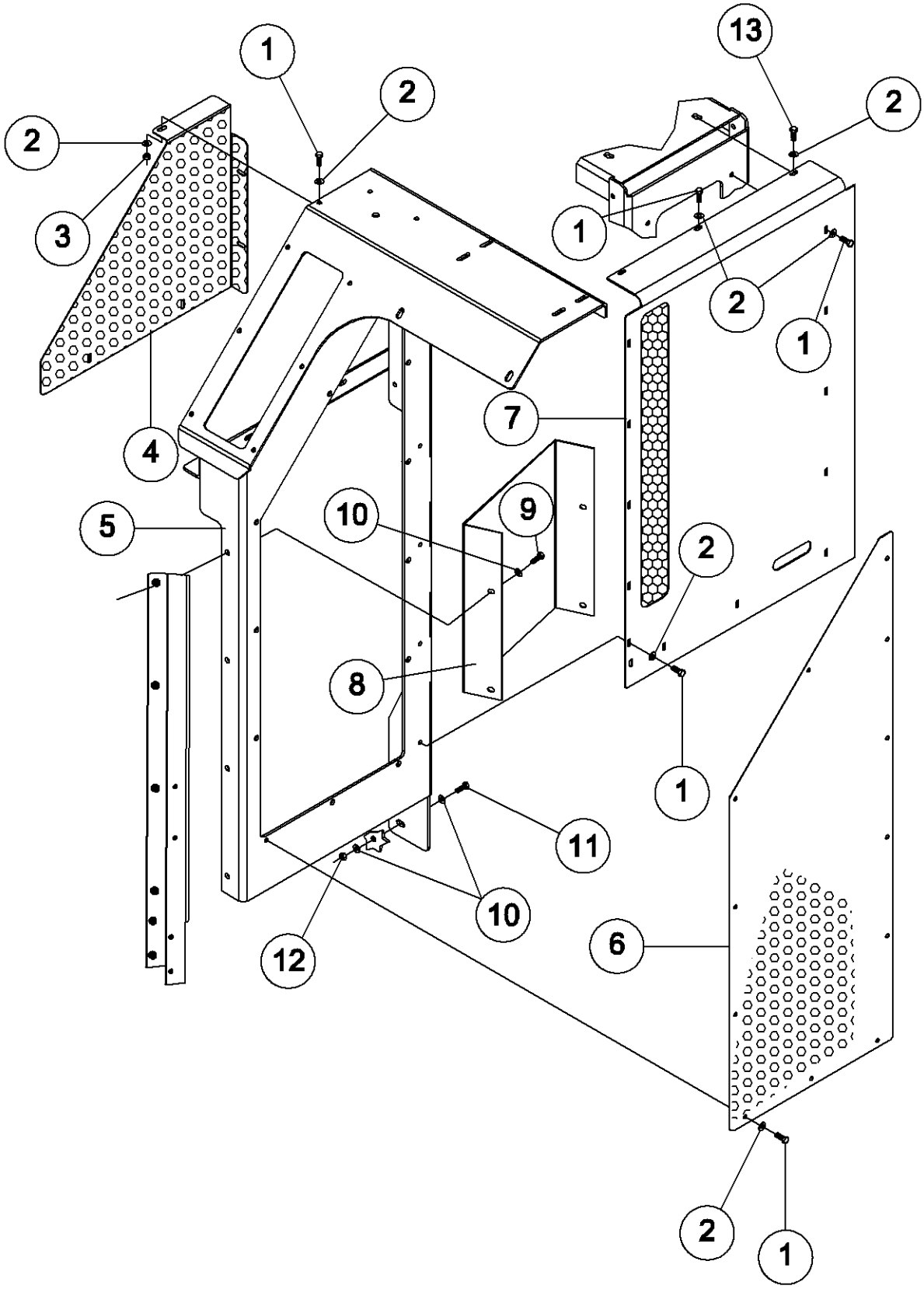
Engine Shield (Right) (S/N 107-) Fig 3-6r01



Engine Shield (Right) (S/N 107-) Fig 3-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010457	BOLT GB/T5783 M10X20-GR8.8	28	VBM
2		299012382	WASHER GB/T97 10 200HV	30	VBM
3		299012333	NUT M10 (GB/T6170-85)	1	VBM
4		299006891	PLATE - COVER	1	VBM
5		299025059	BRACKET - HOSE CARRIER	1	VBM
6		299006893	PLATE-COVER	1	VBM
7		299006849	READ SHIELD	1	VBM
8		299006898	THERMAL BAFFLE	1	VBM
9		299010472	BOLT GB/T5783 M12X30-GR8.8	6	VBM
10		299012383	WASHER GB/T97 12 200HV	6	VBM
11		299010473	BOLT GB/T5783 M12X35-GR8.8	2	VBM
12		299012334	NUT GB/T6170 M12-GR8	2	VBM
13		299010458	BOLT GB/T5783 M10X25-8.8	1	VBM

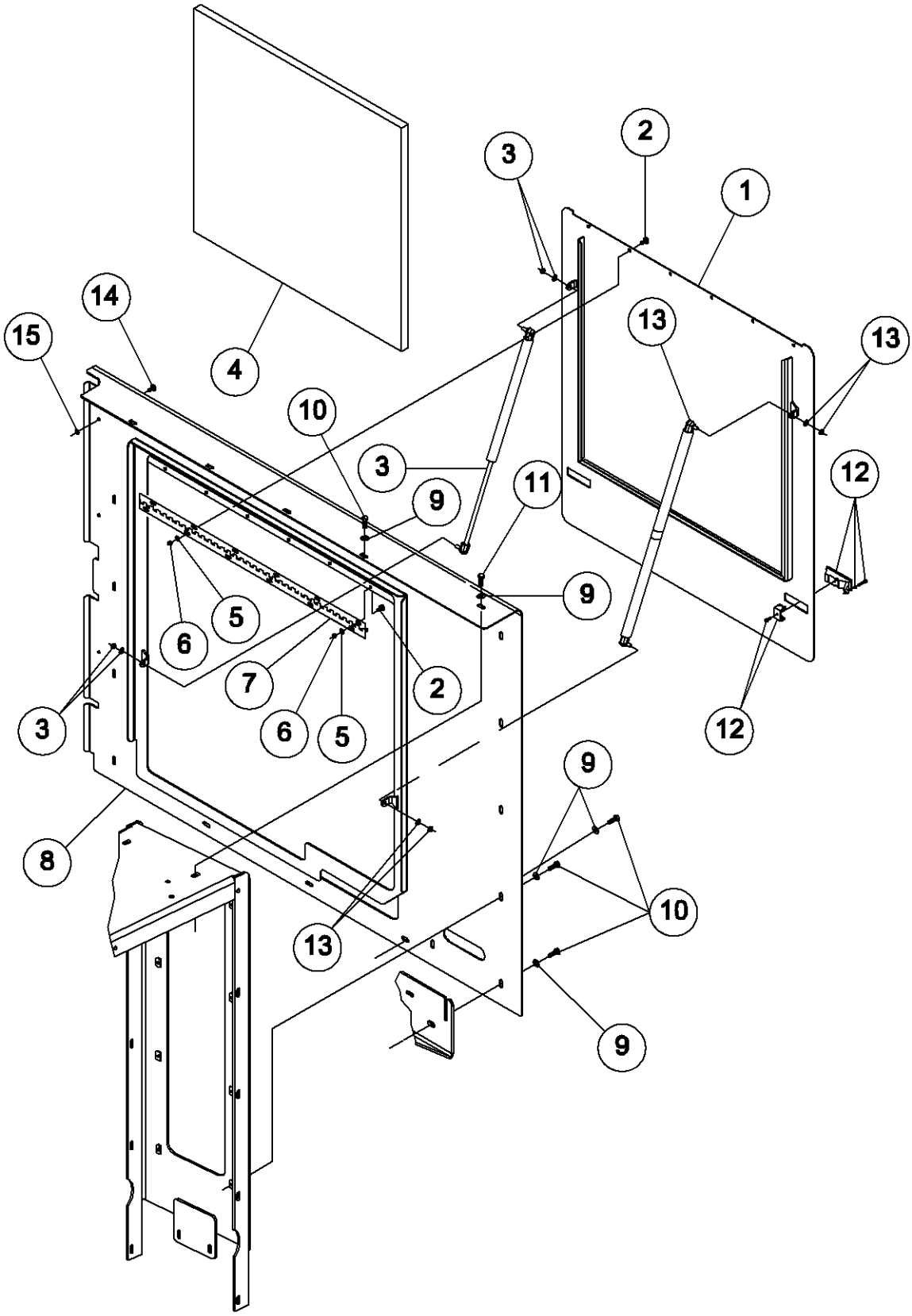
Engine Shield (Right) (S/N 101-106) Fig 3-6



Engine Shield (Right) (S/N 101-106) Fig 3-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010457	BOLT GB/T5783 M10X20-GR8.8	28	VBM
2		299012382	WASHER GB/T97 10 200HV	30	VBM
3		299012333	NUT M10 (GB/T6170-85)	1	VBM
4		299006891	PLATE - COVER	1	VBM
5		299006819	BRACKET - HOSE CARRIER	1	VBM
6		299006893	PLATE-COVER	1	VBM
7		299006849	READ SHIELD	1	VBM
8		299006898	THERMAL BAFFLE	1	VBM
9		299010472	BOLT GB/T5783 M12X30-GR8.8	6	VBM
10		299012383	WASHER GB/T97 12 200HV	6	VBM
11		299010473	BOLT GB/T5783 M12X35-GR8.8	2	VBM
12		299012334	NUT GB/T6170 M12-GR8	2	VBM
13		299010458	BOLT GB/T5783 M10X25-8.8	1	VBM

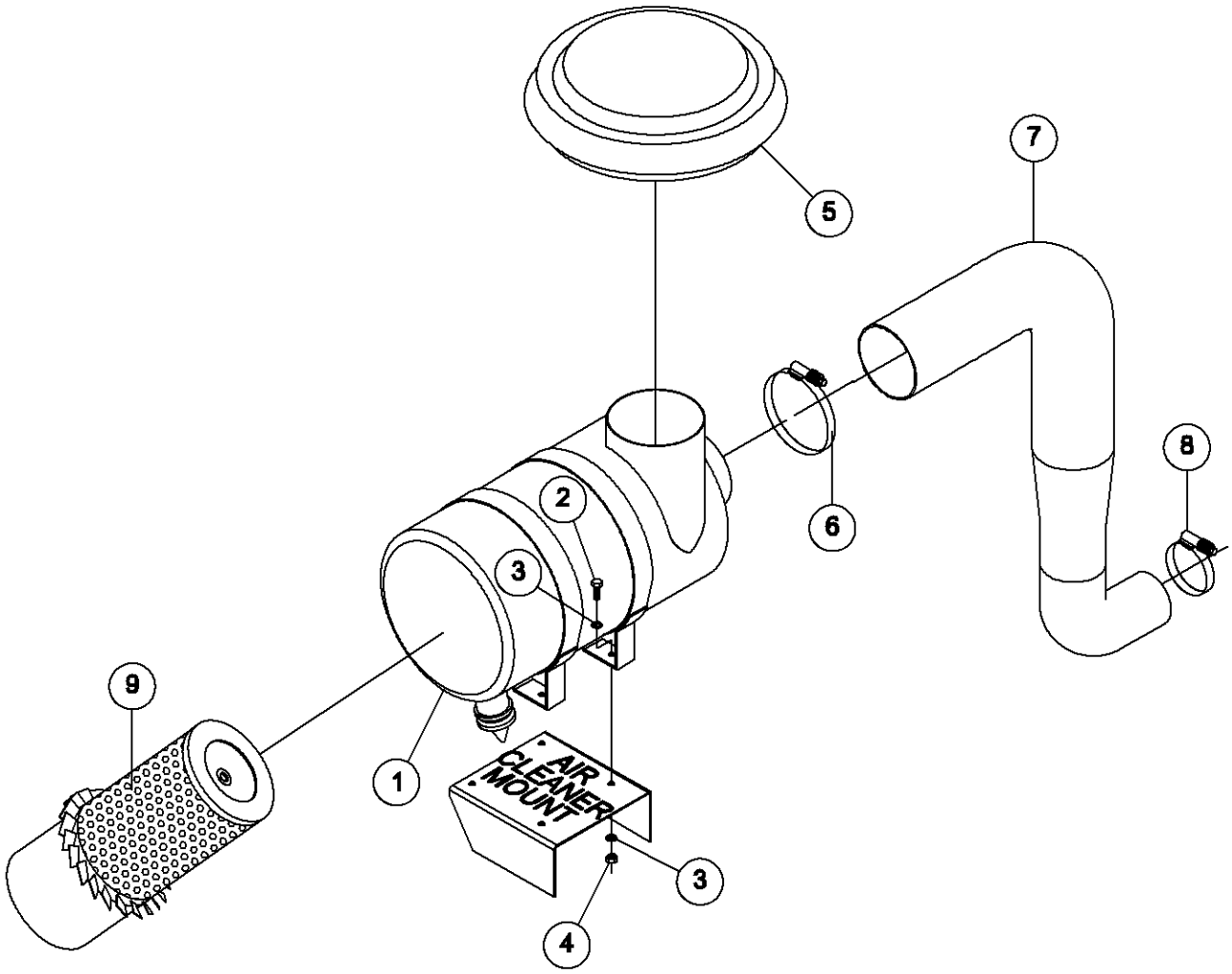
Engine Shield (Left) Fig 3-7



Engine Shield (Left) Fig 3-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006869	DOOR	1	VBM
2		299010432	BOLT GB/T5783 M6X16-GR8.8	13	VBM
3		294030001	SPRING - GAS, 26.3 EXT LENGTH	1	PELLA
4		296279662	FOAM - ENGINE BAY DOOR	2	PELLA
5		299012380	WASHER GB/T97 6 200HV	26	VBM
6		299012331	NUT GB/T6170 M6-GR8	14	VBM
7		299006949	PIANO HINGE	1	VBM
8		299006879	SHIELD	1	VBM
9		299012382	WASHER GB/T97 10 200HV	16	VBM
10		299010457	BOLT GB/T5783 M10X20-GR8.8	15	VBM
11		299010458	BOLT GB/T5783 M10X25-8.8	1	VBM
12		299006895	DOOR LOCK	2	VBM
13		294029001	SPRING - GAS LATCHING, 26.3 EXT LENGTH	1	PELLA
14		299010443	BOLT GB/T5783 M8X16-GR8.8	3	VBM
15		299012332	NUT GB/T6170 M8-GR8	3	VBM

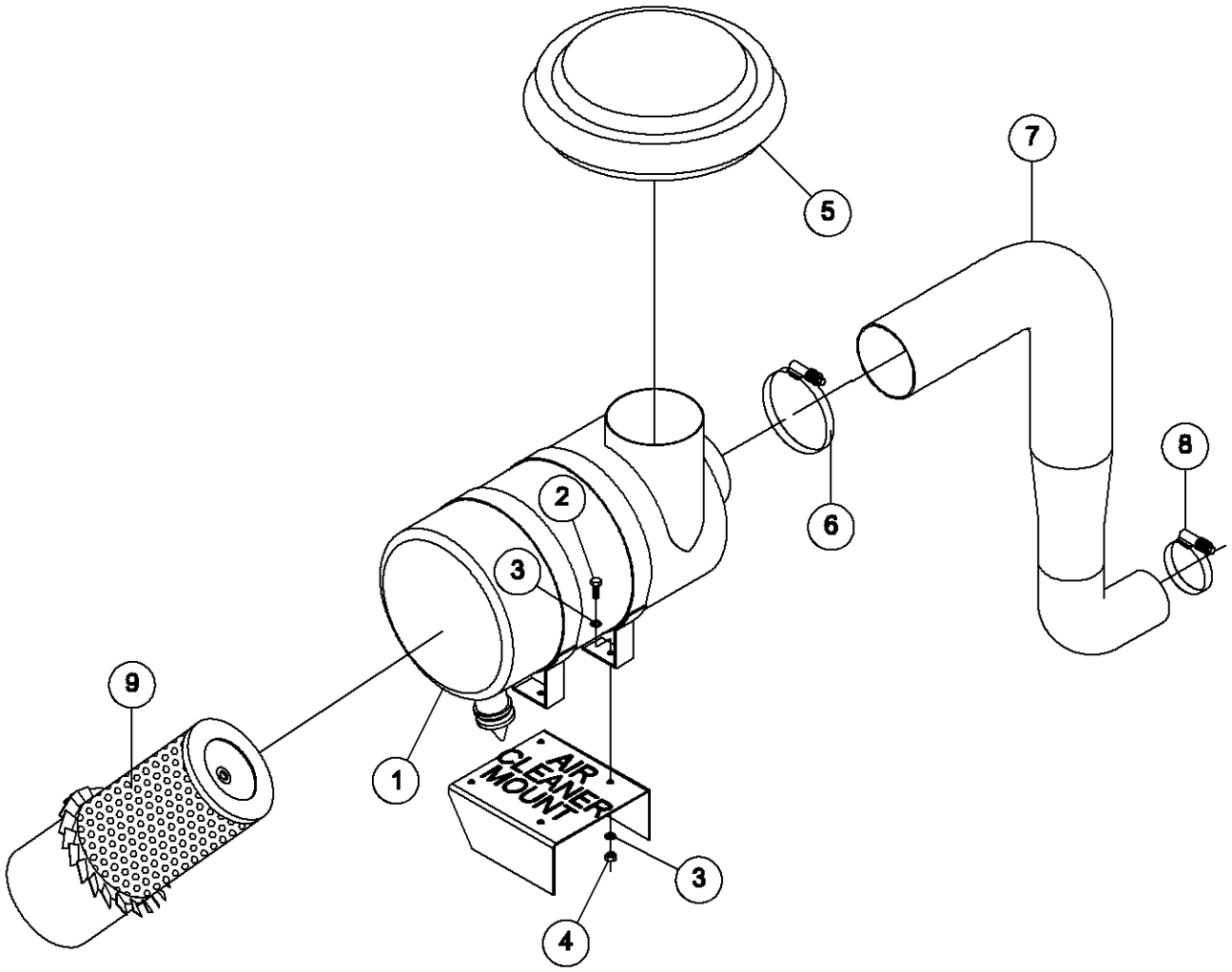
Air Cleaner (S/N 114-) Fig 3-8r01



Air Cleaner (S/N 114-) Fig 3-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023506	AIR FILTER ASSY AH19227-A1	1	VBM, Inc. Ref. No's 9
2		299010457	BOLT GB/T5783 M10X20-GR8.8	4	VBM
3		299012382	WASHER GB/T97 10 200HV	8	VBM
4		299012333	NUT M10 (GB/T6170-85)	4	VBM
5		299023507	RAINHAT 1109B34A-FYM	1	VBM
6		299005088	CLAMP (164) Q235-A	1	VBM
7		299025733	INLET PIPE	1	VBM
8		299023505	HOOP TX19Bb114122	1	VBM
9		299023457	AIR FILTER AF25276+AF25277	1	VBM

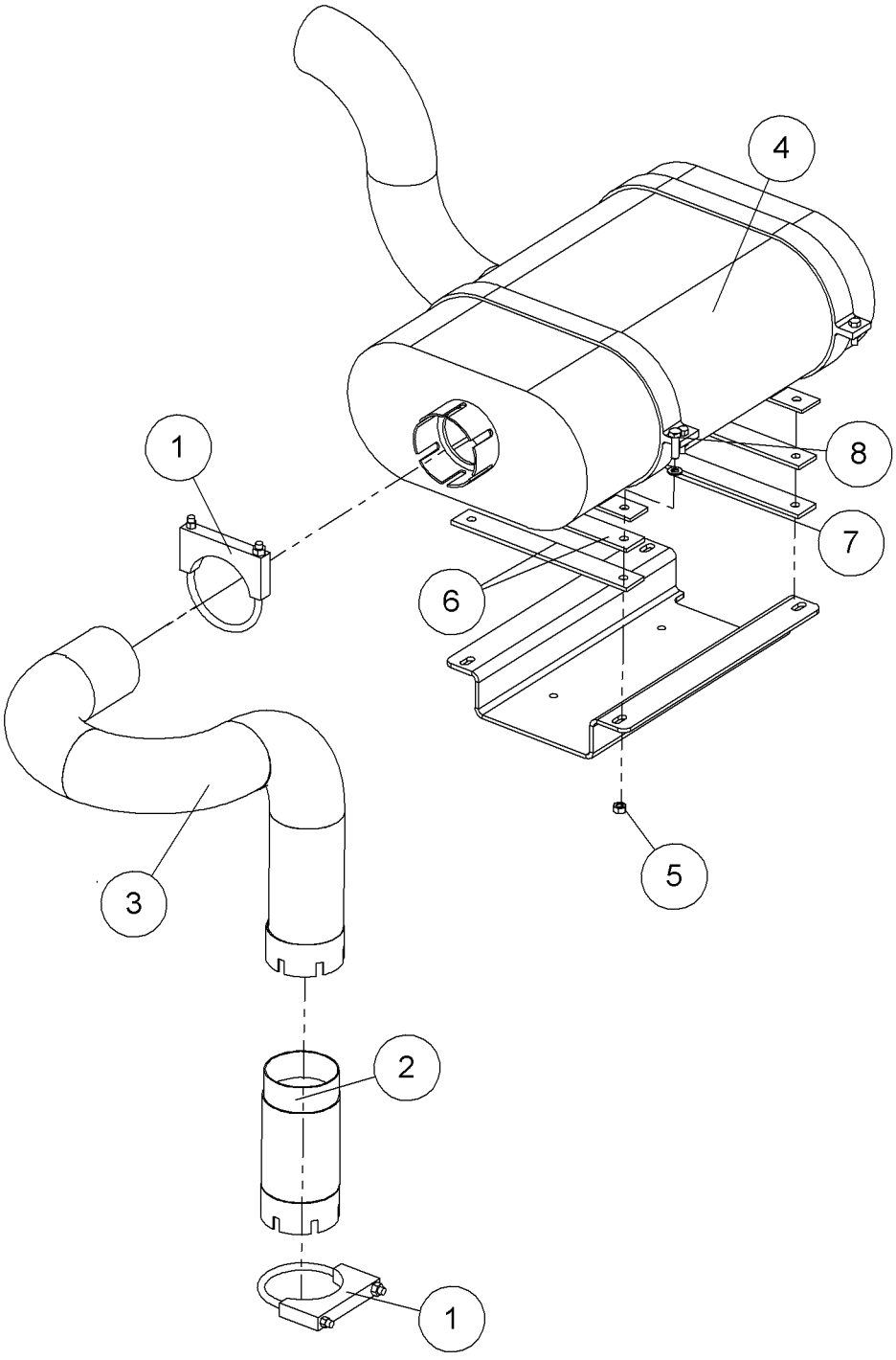
Air Cleaner (S/N 101-113) Fig 3-8



Air Cleaner (S/N 101-113) Fig 3-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023506	AIR FILTER ASSY AH19227-A1	1	VBM, Inc. Ref. No's 9
2		299010457	BOLT GB/T5783 M10X20-GR8.8	4	VBM
3		299012382	WASHER GB/T97 10 200HV	8	VBM
4		299012333	NUT M10 (GB/T6170-85)	4	VBM
5		299023507	RAINHAT 1109B34A-FYM	1	VBM
6		299005088	CLAMP (164) Q235-A	1	VBM
7		299005064	INLET PIPE	1	VBM
8		299023505	HOOP TX19Bb114122	1	VBM
9		299023457	AIR FILTER AF25276+AF25277	1	VBM

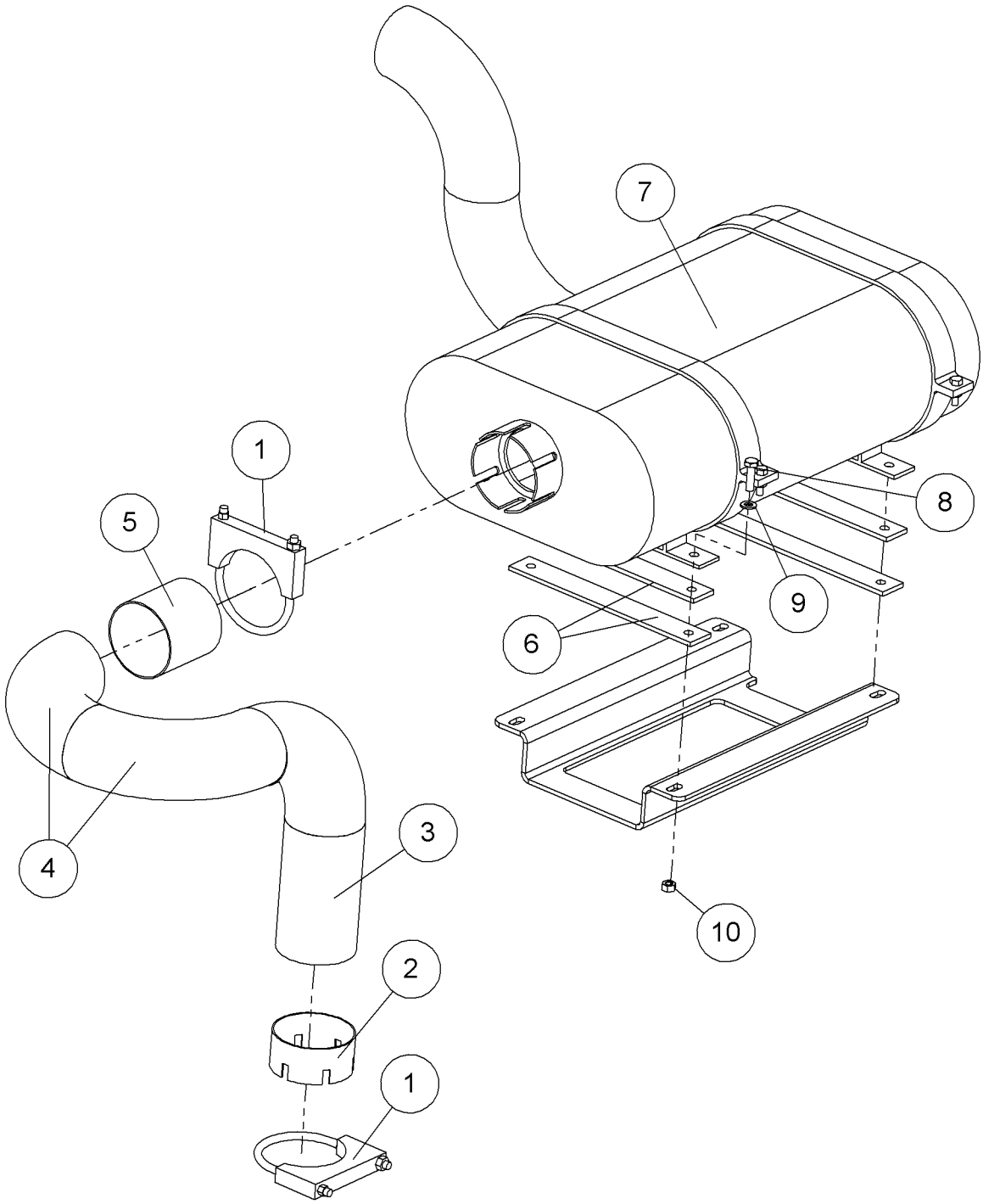
Muffler (S/N 107-) Fig 3-9r01



Muffler (S/N 107-) Fig 3-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005031	U SHAPED CLAMP UXQ106	2	VBM
2		299025739	WELDMENT - EXHAUST STRAIGHT PIPE	2	VBM
3		299025740	WELDMENT - EXHAUST BEND PIPE	1	VBM
4		299025711	MUFFLER ASSEMBLY 1201Z44-011	1	VBM
5		299012333	NUT M10 (GB/T6170-85)	4	VBM
6		299023546	PLATE - RUBBER	4	VBM
7		299012382	WASHER GB/T97 10 200HV	4	VBM
8		299010460	BOLT GB/T5783 M10X35 - GR8.8	4	VBM

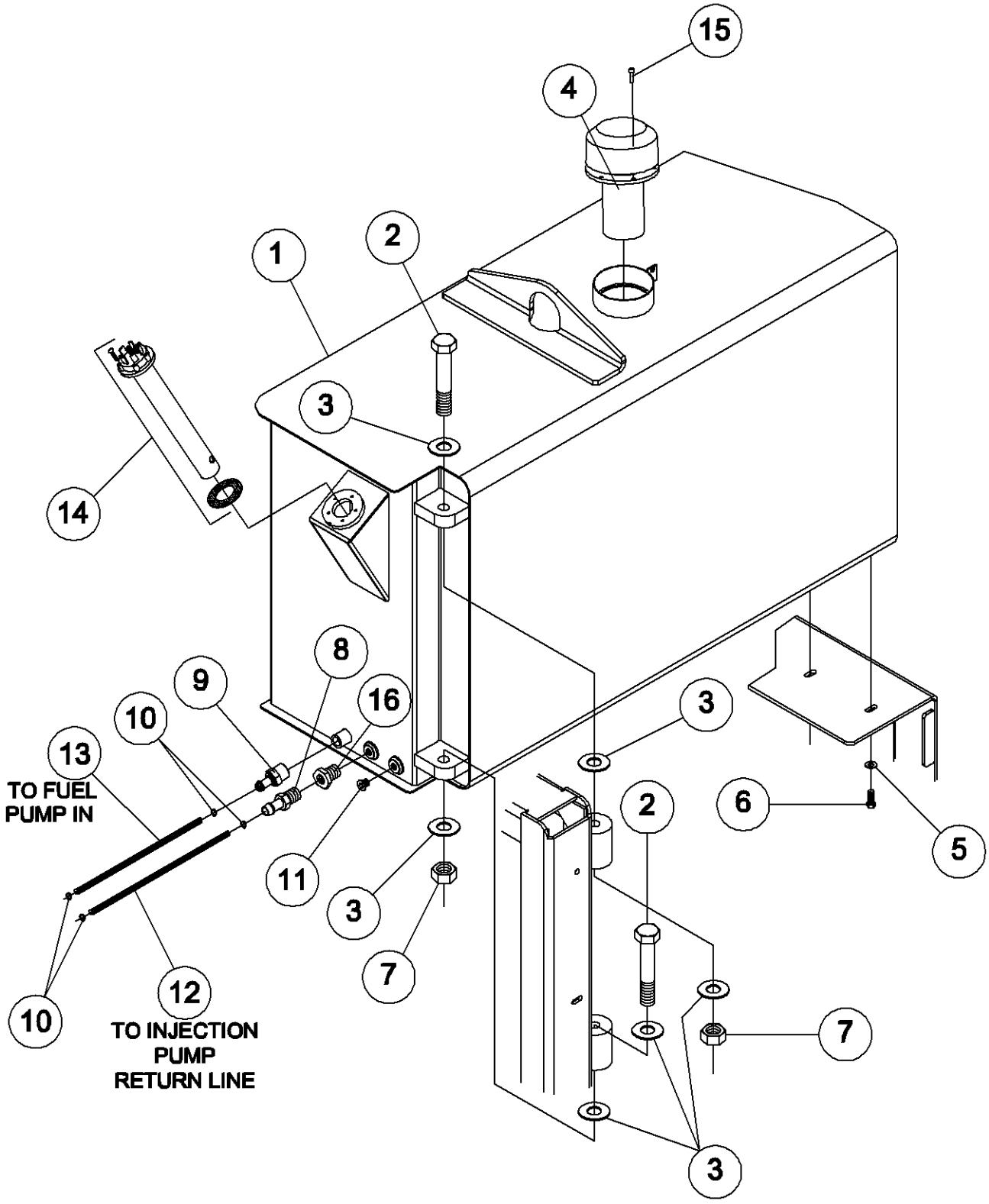
Muffler (S/N 101-106) Fig 3-9



Muffler (S/N 101-106) Fig 3-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005031	U SHAPED CLAMP UXQ106	2	VBM
2		299023511	BOTTOM OUTLET	1	VBM
3		299023512	CORRUGATED PIPE	1	VBM
4		299023513	DIA. 102 RIGHT ANGLE ELBOW (1.5D)	2	VBM
5		299023514	TUBE	1	VBM
6		299023546	PLATE - RUBBER	4	VBM
7		299025711	MUFFLER ASSEMBLY 1201Z44-011	1	VBM
8		299010460	BOLT GB/T5783 M10X35-GR8.8	4	VBM
9		299012382	WASHER GB/T97 10 200HV	4	VBM
10		299012333	NUT M10 (GB/T6170-85)	4	VBM

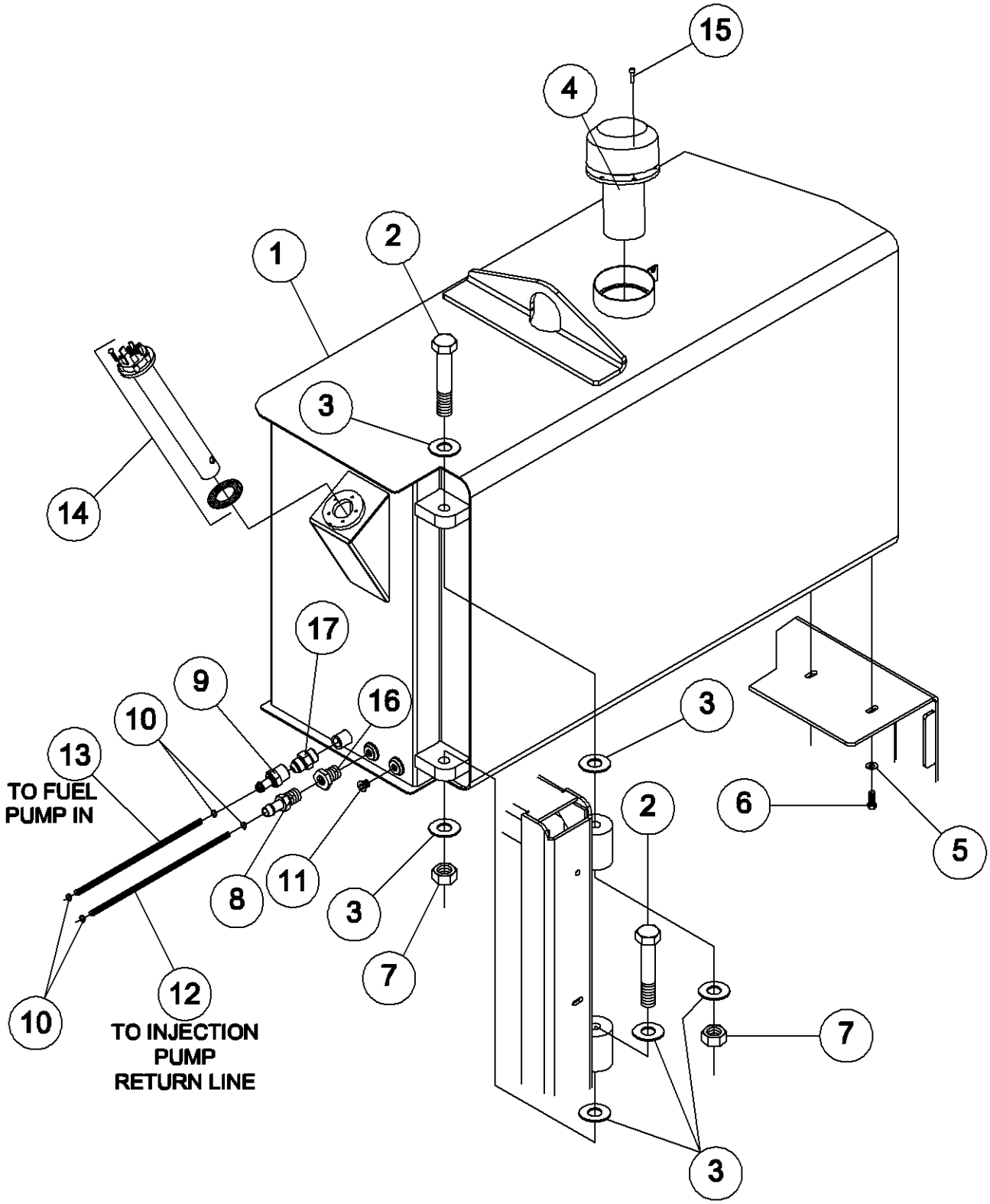
Fuel Tank (S/N 111-) Fig 3-10r02



Fuel Tank (S/N 111-) Fig 3-10r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006490	CASE-FUEL TANK	1	VBM
2		299011064	BOLT GB/T5782 M20X130-GR8.8	2	VBM
3		299012386	WASHER 20 (GB/T97-85)	6	VBM
4		299004162	FILTER CLEANER	1	VBM
5		299012381	WASHER GB/T97 8 200HV	2	VBM
6		299010445	BOLT GB/T5783 M8X20-GR8.8	2	VBM
7		299012338	NUT GB/T6170 M20-GR8	2	VBM
8		102118001	FITTING-1/4NPT X 3/8 HOSE BARB	1	PELLA
9		299014250	ST-6MNPT-5HB	1	VBM
10		299023024	HOSE CLAMP 10-16	4	VBM
11		299014078	PLUG 8MNPT	1	VBM
12		299022947	RETURN OIL PIPE	1	VBM
13		299022946	FUEL OIL PIPE	1	VBM
14		285049001	FLUID LEVEL INDICATOR	1	PELLA
15		299011688	SCREW M4X16 GB/T70-85	6	VBM
16		730003	1/2” X 1/4” HEX BUSHING STEEL	1	PELLA

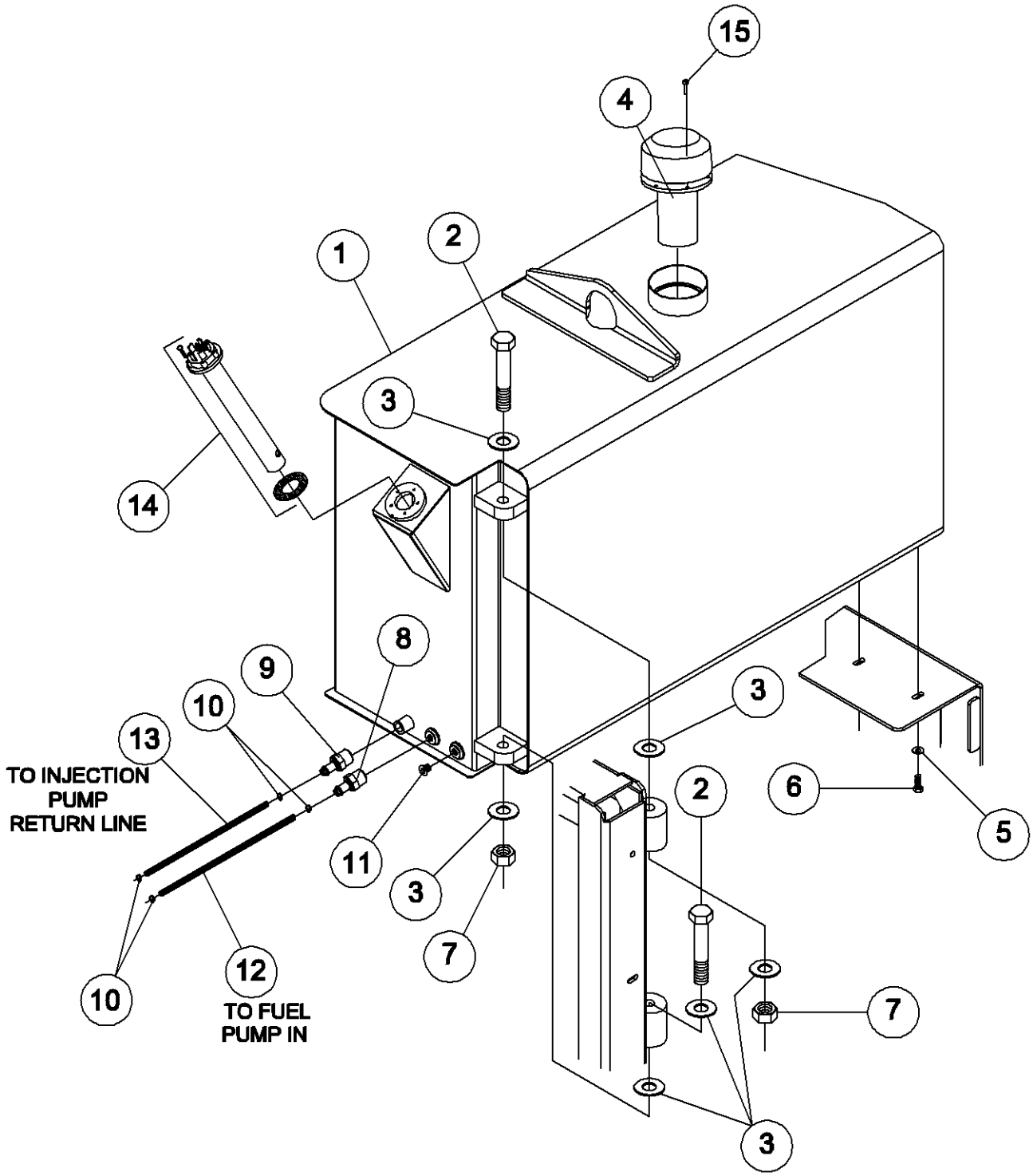
Fuel Tank (S/N 106-110) Fig 3-10r01



Fuel Tank (S/N 106-110) Fig 3-10r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006490	CASE - FUEL TANK	1	VBM
2		299011064	BOLT GB/T5782 M20X130-GR8.8	2	VBM
3		299012386	WASHER 20 (GB/T97-85)	6	VBM
4		299004162	FILTER CLEANER	1	VBM
5		299012381	WASHER GB/T97 8 200HV	2	VBM
6		299010445	BOLT GB/T5783 M8X20-GR8.8	2	VBM
7		299012338	NUT GB/T6170 M20-GR8	2	VBM
8		102118001	FITTING-1/4NPT X 3/8 HOSE BARB	1	PELLA
9		299013918	ST-5FSJ-5HB	1	VBM
10		299023024	HOSE CLAMP 10-16	4	VBM
11		299014078	PLUG 8MNPT	1	VBM
12		299022947	RETURN OIL PIPE	1	VBM
13		299022946	FUEL OIL PIPE	1	VBM
14		299005369	FLUID LEVEL INDICATOR WITH FUEL GAUGE	1	VBM
15		299011688	SCREW M4X16 GB/T70-85	6	VBM
16		730003	1/2” X 1/4” HEX BUSHING STEEL	1	PELLA
17		299014185	ST-6MNPT-5MJ	1	VBM

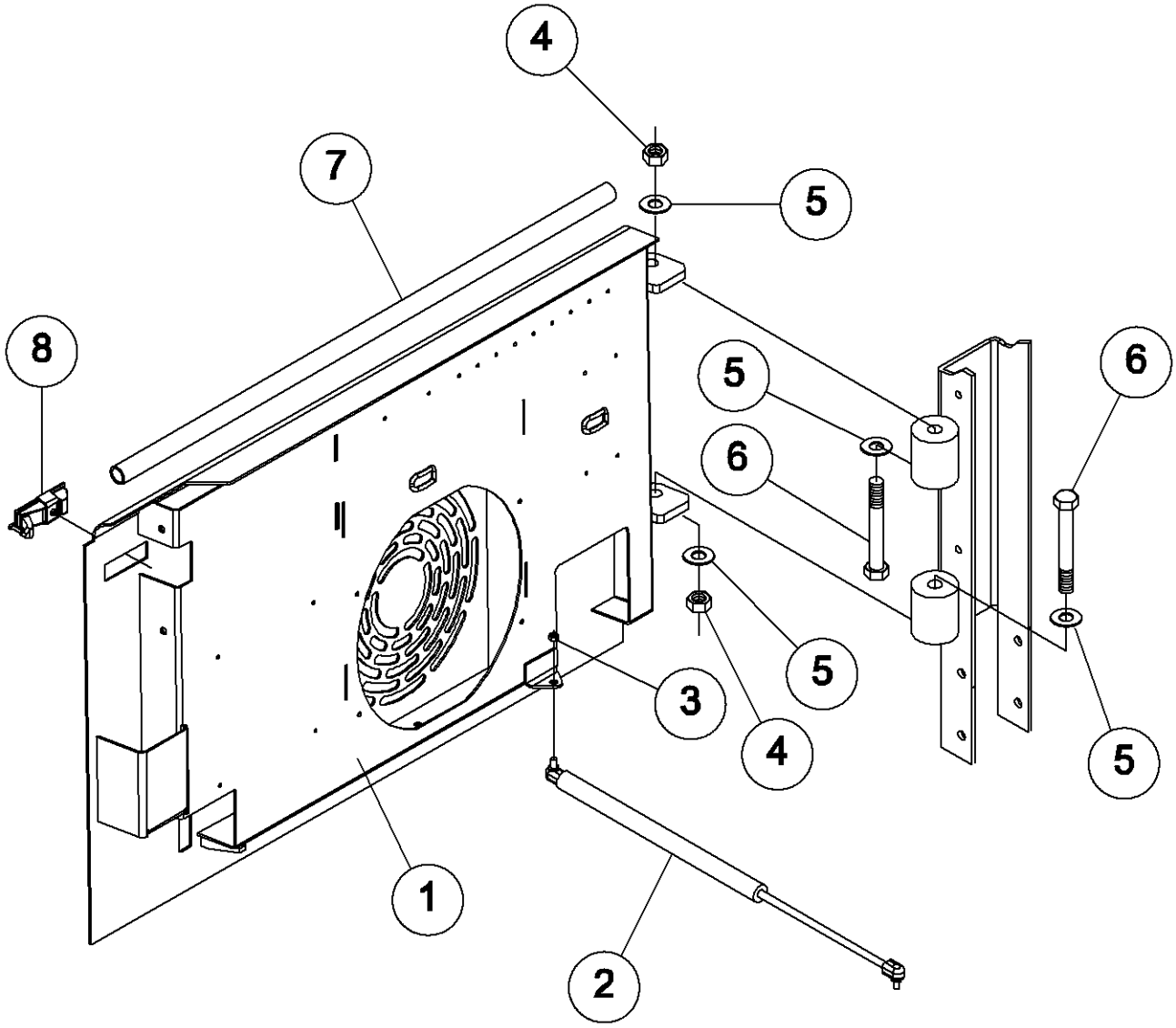
Fuel Tank (S/N 101-105) Fig 3-10



Fuel Tank (S/N 101-105) Fig 3-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006490	CASE - FUEL TANK	1	VBM
2		299011064	BOLT GB/T5782 M20X130-GR8.8	2	VBM
3		299012386	WASHER 20 (GB/T97-85)	6	VBM
4		299004162	FILTER CLEANER	1	VBM
5		299012381	WASHER GB/T97 8 200HV	2	VBM
6		299010445	BOLT GB/T5783 M8X20-GR8.8	2	VBM
7		299012338	NUT GB/T6170 M20-GR8	2	VBM
8		299022903	1/2”NPT FITTING	1	VBM
9		299022902	3/8”NPT FITTING	1	VBM
10		299023024	HOSE CLAMP 10-16	4	VBM
11		299014078	PLUG 8MNPT	1	VBM
12		299022947	RETURN OIL PIPE	1	VBM
13		299022946	FUEL OIL PIPE	1	VBM
14		299005369	FLUID LEVEL INDICATOR WITH FUEL GAUGE	1	VBM
15		299011688	SCREW M4X16 GB/T70-85	6	VBM

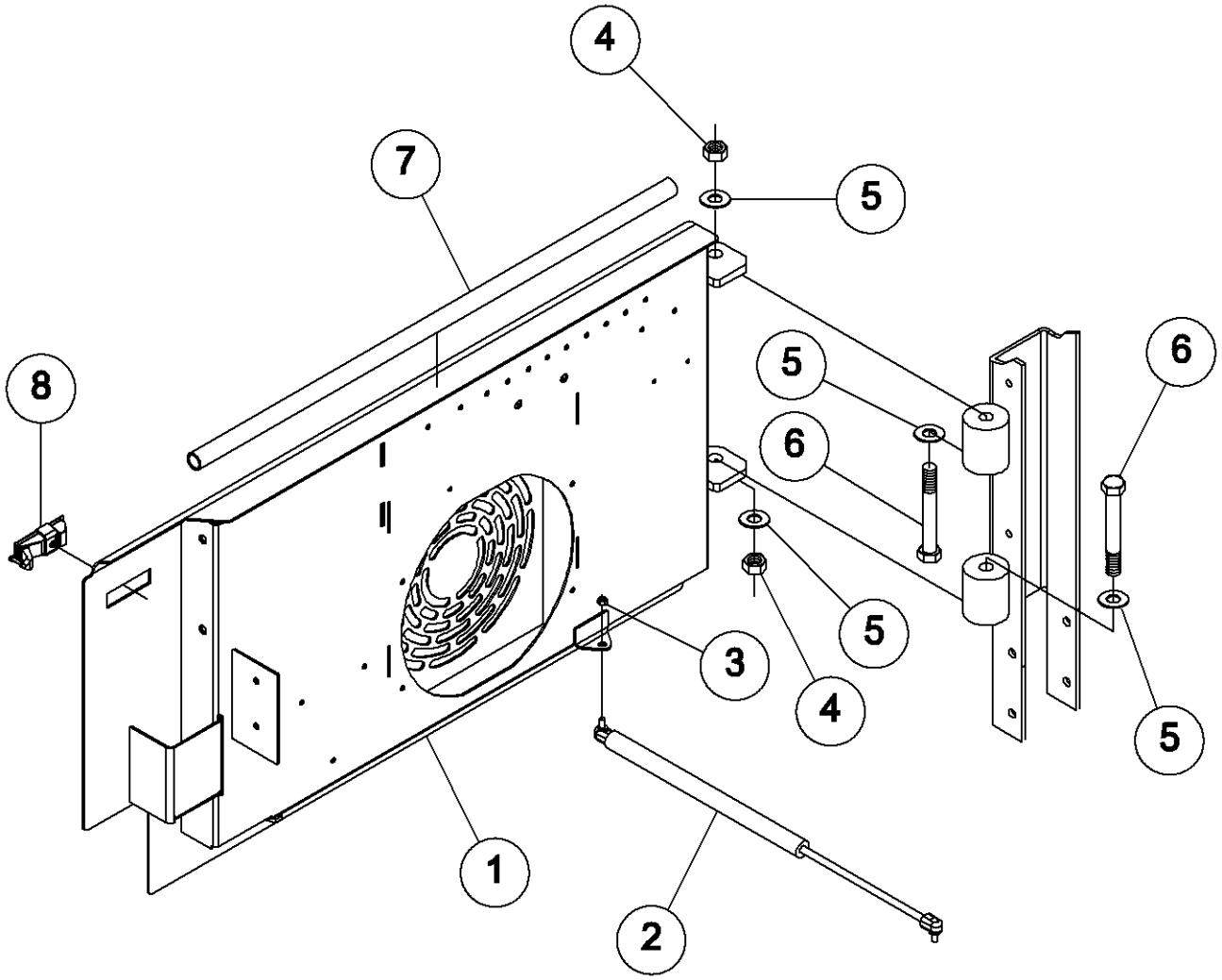
Power Distribution Door (S/N 107-) Fig 3-11r01



Power Distribution Door (S/N 107-) Fig 3-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025089	DOOR	1	VBM
2		294030001	SPRING - GAS, 26.3 EXT LENGTH	1	PELLA
2		510502066	10MM BALL STUD SAFETY CLIP	2	PELLA
3		235741001B	NUT - HEX - .31 - 18 - GR8 -YZ	2	VBM
4		299012338	NUT GB/T6170 M20-GR8	2	VBM
5		299012386	WASHER 20M (GB/T97-85)	4	VBM
6		299011063	BOLT GB/T5782 M20X120-GR8.8	2	VBM
7		288982001	SEAL - 1” X 1” HALF ROUND	A/R	PELLA, Specify Length
8		299006895	DOOR LOCK	2	VBM

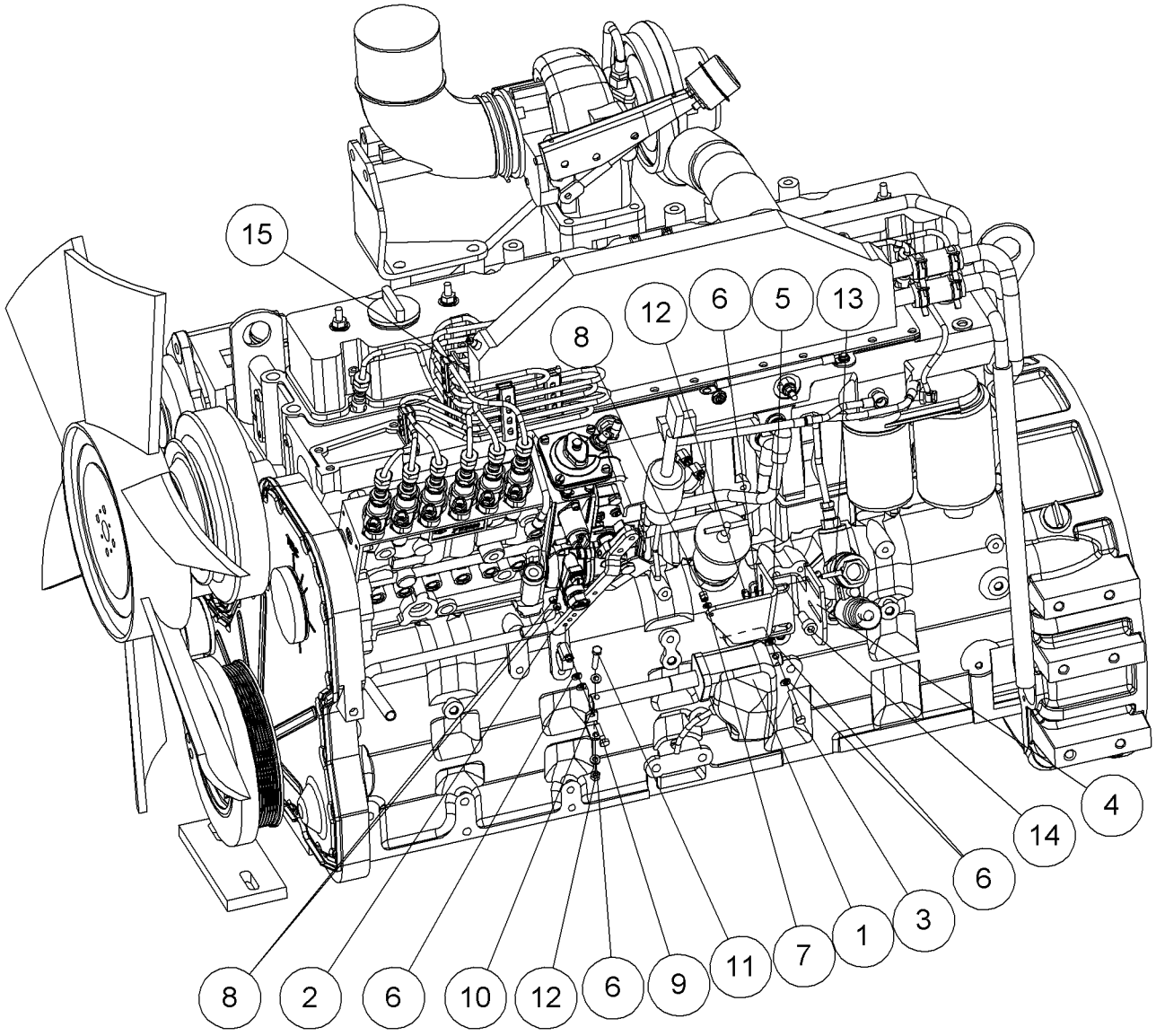
Power Distribution Door (S/N 101-106) Fig 3-11



Power Distribution Door (S/N 101-106) Fig 3-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006859	DOOR	1	VBM
2		294030001	SPRING - GAS, 26.3 EXT LENGTH	1	PELLA
		510502066	10MM BALL STUD SAFETY CLIP	2	PELLA
3		235741001B	NUT - HEX - .31 - 18 - GR8 -YZ	2	VBM
4		299012338	NUT GB/T6170 M20-GR8	2	VBM
5		299012386	WASHER 20 (GB/T97-85)	4	VBM
6		299011063	BOLT GB/T5782 M20X120-GR8.8	2	VBM
7		288982001	SEAL - 1” X 1” HALF ROUND	A/R	PELLA, Specify Length
8		299006895	DOOR LOCK	2	VBM

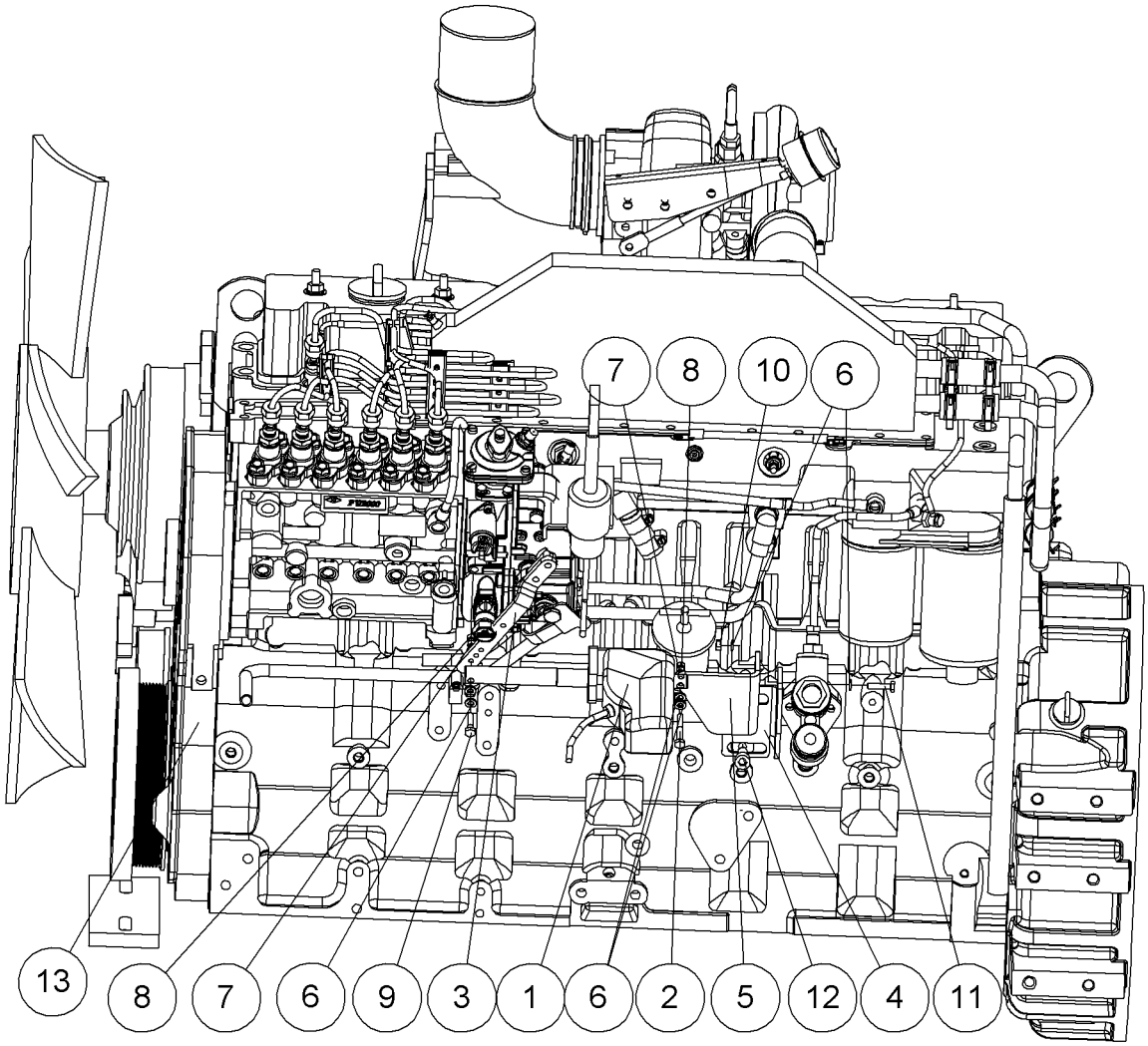
Throttle Controller (S/N 109-) Fig 3-12r03



Throttle Controller (S/N 109-) Fig 3-12r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		255069001	ACTUATOR-LINEAR THROTTLE	1	PELLA
2		299027004	HANDLE Q235-A	1	VBM
3		299027003	SHOULDER BOLT 3 45	1	VBM
4		299027005	PLATE Q235-A	1	VBM
5		299027007	PLATE Q235-A	1	VBM
6		299012380	WASHER GB/T97 6 200HV	11	VBM
7		299012379	WASHER GB/T97 5 200HV	2	VBM
8		299012330	NUT GB/T6170 M5-GR8	4	VBM
9		299027002	SHOULDER BOLT 2 45	1	VBM
10		299027006	HANDLE Q235-A	1	VBM
11		299010437	BOLT GB/T5783 M6X35-GR8.8	1	VBM
12		299012331	NUT GB/T6170 M6-GR8	3	VBM
13		299010435	BOLT M6X25-GR8.8	2	VBM
14		299011736	SCREW M10X25 GB/T70-85	2	VBM
15		299005050	ENGINE	1	VBM, Breakdown Fig.3-13,3-14

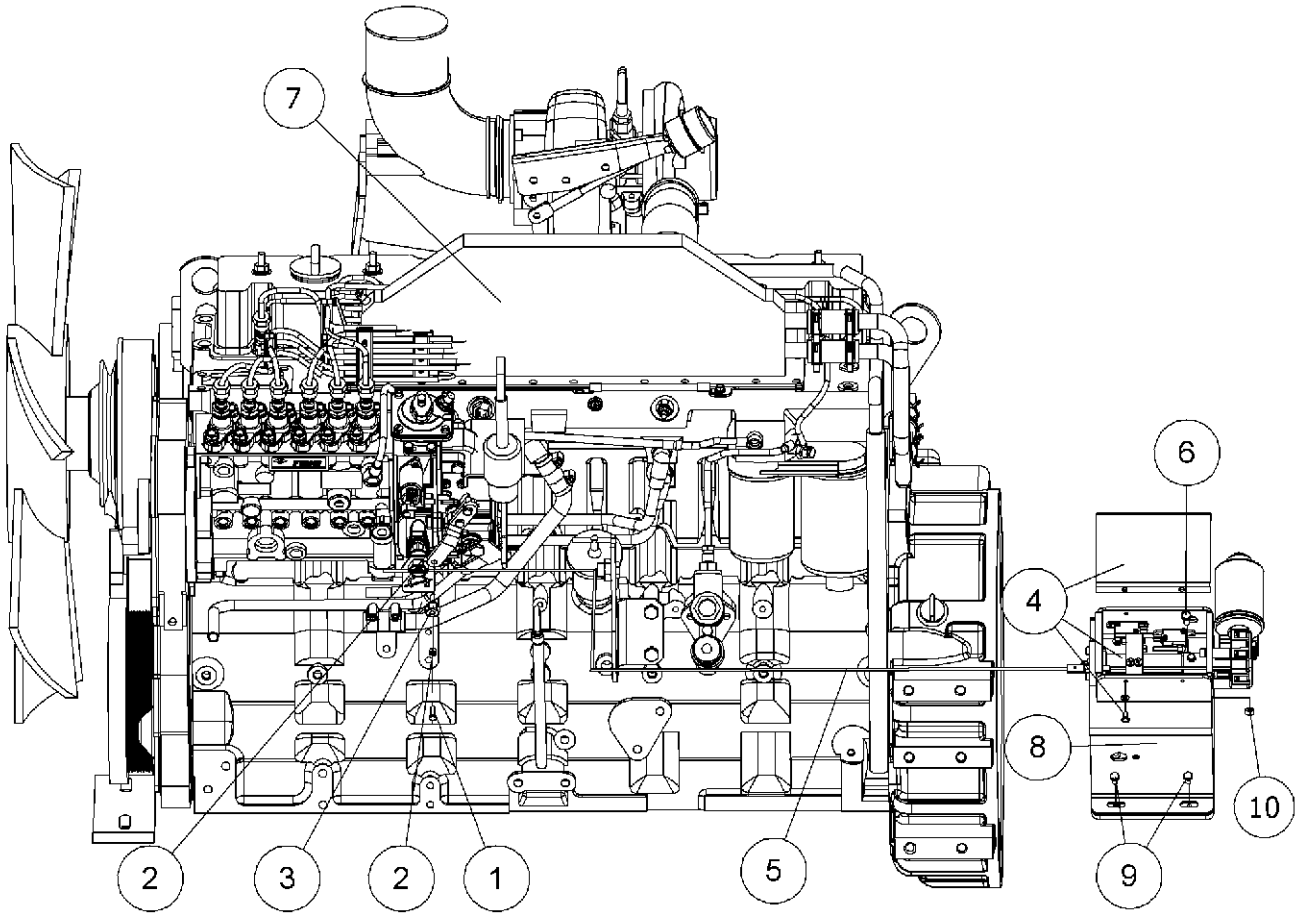
Throttle Controller (S/N 106-108) Fig 3-12r02



Throttle Controller (S/N 106-108) Fig 3-12r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		255069001	ACTUATOR-LINEAR THROTTLE	1	PELLA
2		299027003	SHOULDER BOLT 3 45	1	VBM
3		299027004	HANDLE Q235-A	1	VBM
4		299027005	PLATE Q235-A	1	VBM
5		299027007	PLATE Q235-A	1	VBM
6		299012380	WASHER GB/T97 6 200HV	9	VBM
7		299012379	WASHER GB/T97 5 200HV	2	VBM
8		299012330	NUT GB/T6170 M5-GR8	4	VBM
9		299027001	SHOULDER BOLT M5X6X20	1	VBM
10		299012331	NUT GB/T6170 M6-GR8	2	VBM
11		299010435	BOLT M6X25-GR8.8	2	VBM
12		299011736	SCREW M10X25 GB/T70-85	2	VBM
13		299005050	ENGINE	1	VBM, Breakdown Fig.3-13,3-14

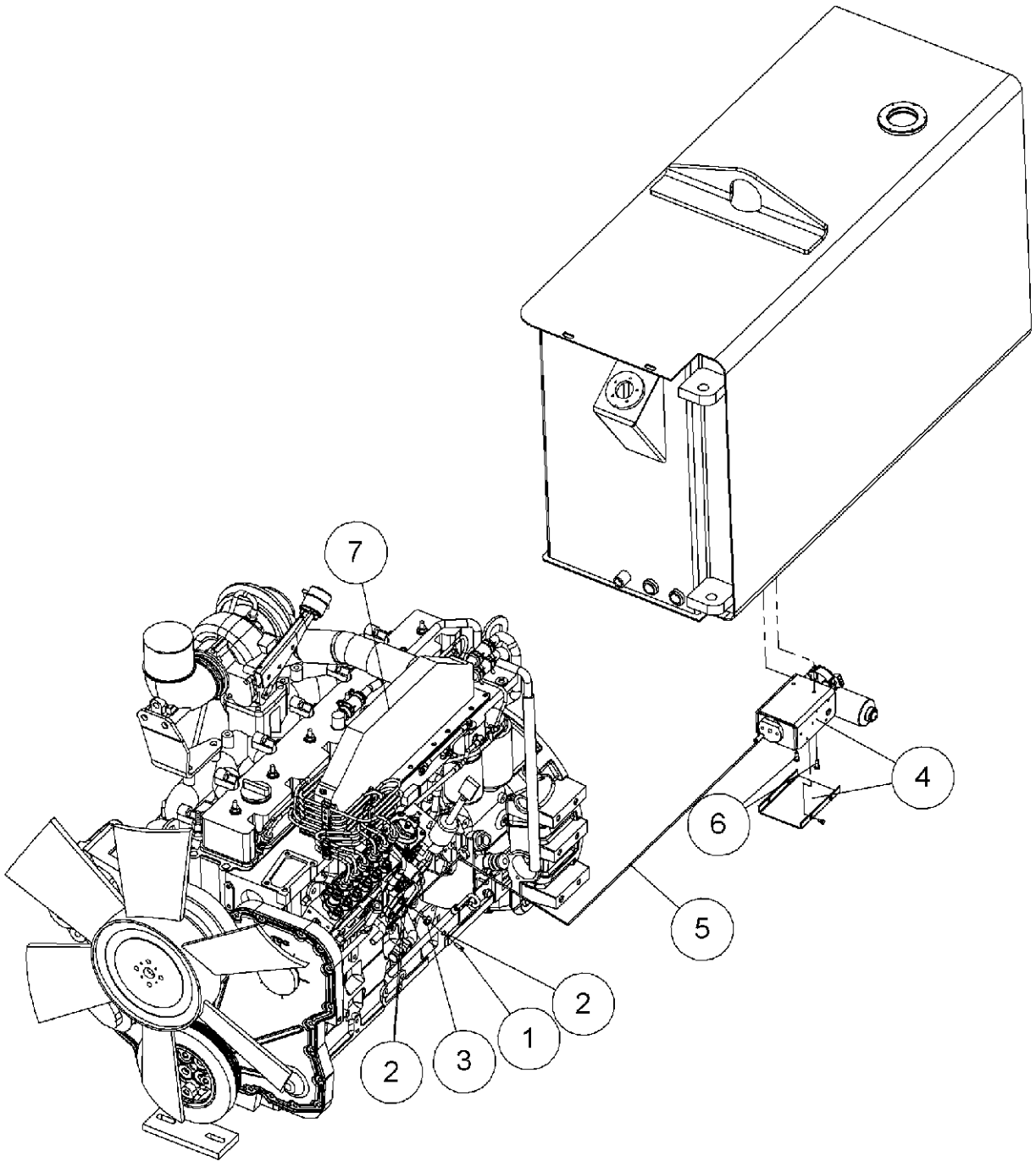
Throttle Controller (S/N 104-105) Fig 3-12r01



Throttle Controller (S/N 104-105) Fig 3-12r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010422	BOLT GB/T5783 M5X16-GR8.8	1	VBM
2		299012330	NUT GB/T6170 M5-GR8	3	VBM
3		299023476	STUFFING TUBE Q235-A	1	VBM
4		299005740	ACCELEROGRAPH WIRES CONTROL BOX	1	VBM
5		299023468	BRAKE CABLE	1	VBM
6		299010432	BOLT GB/T5783 M6X16-GR8.8	2	VBM
7		299005050	ENGINE	1	VBM, Breakdown Fig.3-13,3-14
8		299023474	BRACKET-THROTTLE WIRE Q235-A	1	VBM
9		299010431	BOLT GB/T5783 M6X12-GR8.8	4	VBM
10		299012331	NUT GB/T6170 M6-GR8	2	VBM

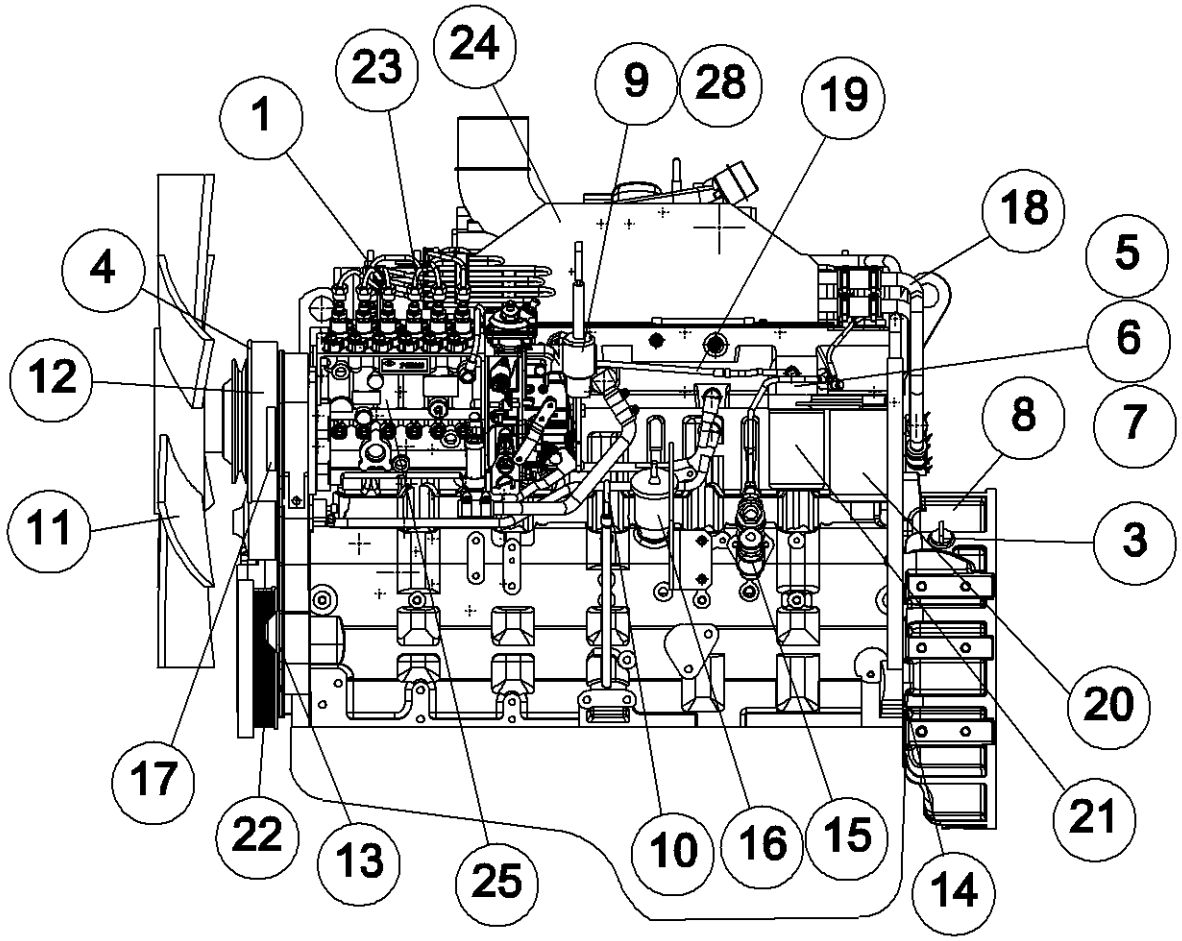
Throttle Controller (S/N 101-103) Fig 3-12

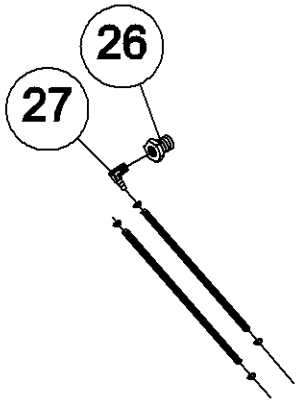


Throttle Controller (S/N 101-103) Fig 3-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010422	BOLT GB/T5783 M5X16-GR8.8	1	VBM
2		299012330	NUT GB/T6170 M5-GR8	3	VBM
3		299023476	STUFFING TUBE Q235-A	1	VBM
4		299005740	ACCELEROGRAPH WIRES CONTROL BOX	1	VBM
5		299023468	BRAKE CABLE	1	VBM
6		299010432	BOLT GB/T5783 M6X16-GR8.8	2	VBM
7		299005050	ENGINE	1	VBM, Breakdown Fig.3-13,3-14

Components-Engine (S/N 111-) Fig 3-13r01

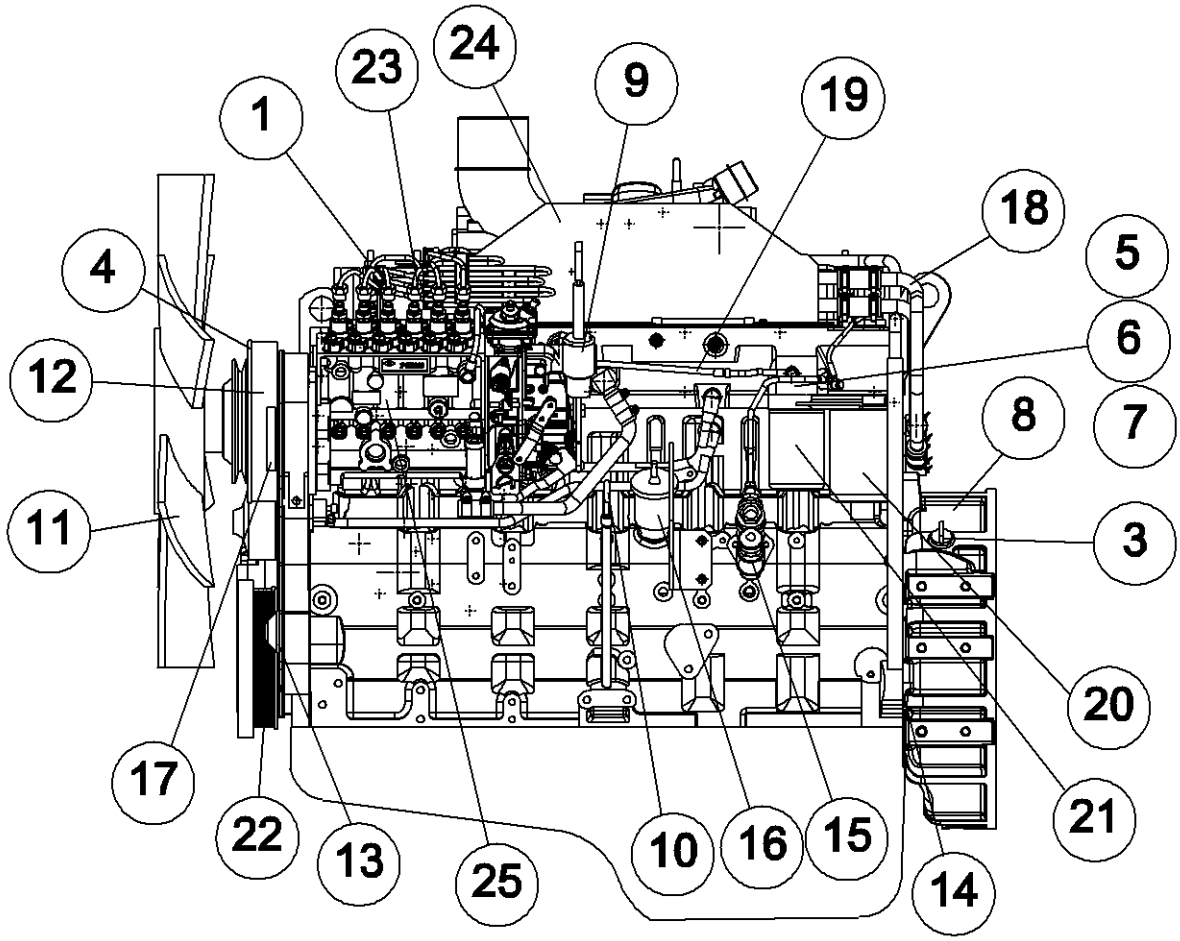


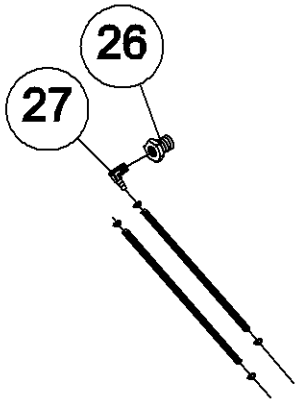


Components-Engine (S/N 111-) Fig 3-13r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027023	INJECTOR	1	VBM
2		299026293	SENSOR-OIL PRESSURE	1	VBM
3		299026294	SENSOR-SPEED	1	VBM
4		299026295	FAN PULLEY	1	VBM
5		299026296	FUEL FILTER SEAT	1	VBM
6		299026920	FILTER SEAT ADAPTER	1	VBM
7		299026297	GASKET-FILTER SEAT	1	VBM
8		299026298	FLYWHEEL HOUSING	1	VBM
9		299027085	12V ENGINE KILL VALVE	1	VBM
10		299027012	DIPSTICK	1	VBM
11		299026289	FAN	1	VBM
12		299027090	FAN BELT	1	VBM
13		299027014	CRANKSHAFT FRONT SEAL	1	VBM
14		299027015	CRANKSHAFT REAR SEAL	1	VBM
15		299027016	FUEL LIFT PUMP	1	VBM
16		299027017	OIL COVER	1	VBM
17		299026959	COVER-ACCESS HOLE	1	VBM
18		299027018	TUBE-AFTERCOOLER	1	VBM
19		299026961	FUEL PUMP PIPE	1	VBM
20		299023449	FUEL WATER SEPARATOR C3930942	1	VBM
21		299023448	FUEL FILTER C3931063	1	VBM
22		299027019	CRANKSHAFT PULLEY	1	VBM
23		299027020	HIGH PRESSURE FUEL LINES	1	VBM
24		299027021	AFTERCOOLER	1	VBM
25		299027022	FUEL INJECTION PUMP	1	VBM
26		730003	1/2” X 1/4” HEX BUSHING STEEL	1	PELLA
27		602037001	FITTING -1/4 PIPE 5/16 BARB 90	1	PELLA
28		299027086	ENGINE KILL VALVE BRACKET	1	VBM
		299005050	ENGINE		VBM, Inc. Ref. No’s 1-25

Components-Engine (S/N 101-110) Fig 3-13

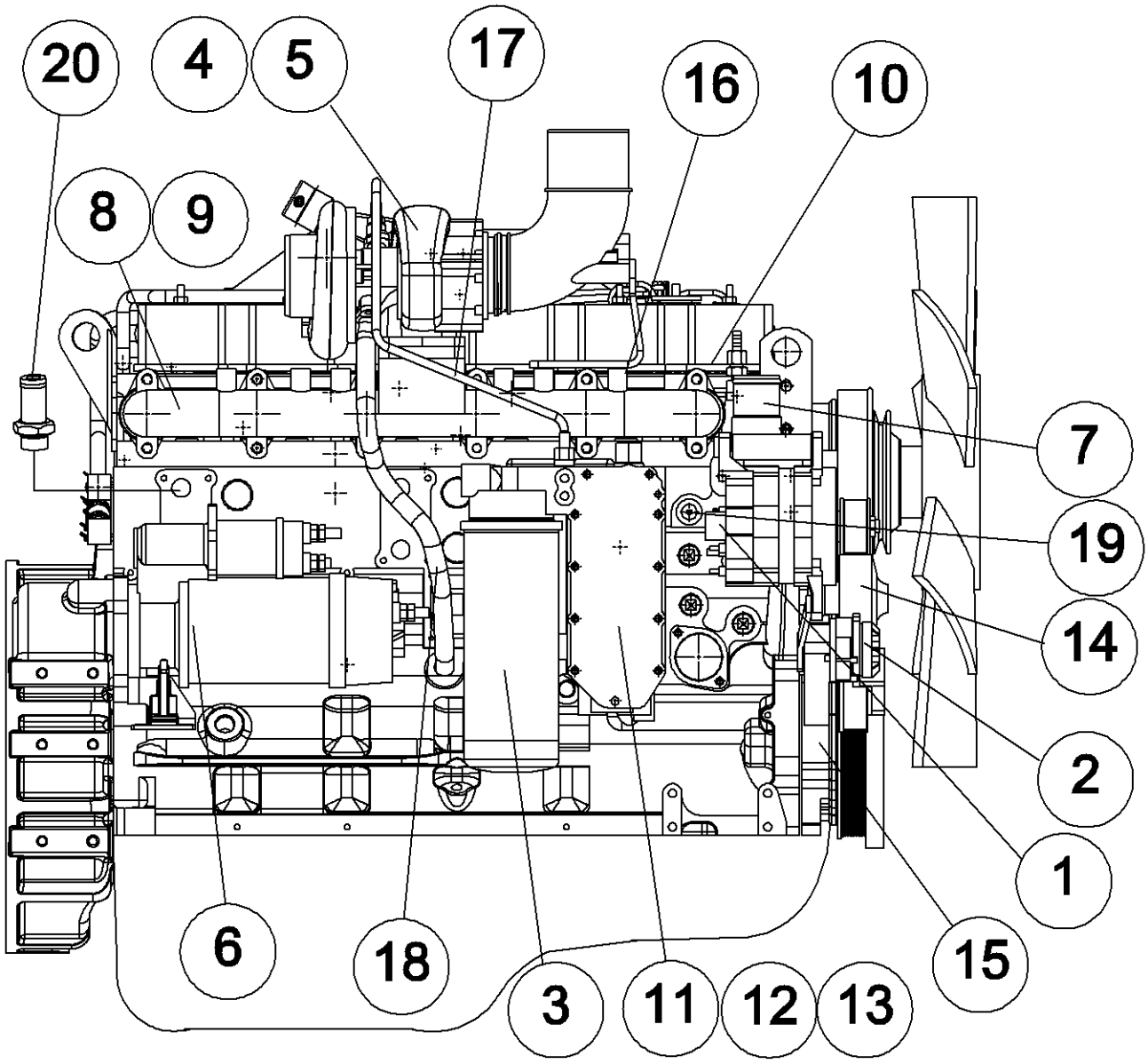




Components-Engine (S/N 101-110) Fig 3-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027023	INJECTOR	1	VBM
2		299026293	SENSOR-OIL PRESSURE	1	VBM
3		299026294	SENSOR-SPEED	1	VBM
4		299026295	FAN PULLEY	1	VBM
5		299026296	FUEL FILTER SEAT	1	VBM
6		299026920	FILTER SEAT ADAPTER	1	VBM
7		299026297	GASKET-FILTER SEAT	1	VBM
8		299026298	FLYWHEEL HOUSING	1	VBM
9		299026299	ENGINE KILL VALVE	1	VBM
10		299027012	DIPSTICK	1	VBM
11		299026289	FAN	1	VBM
12		299027013	FAN BELT	1	VBM
13		299027014	CRANKSHAFT FRONT SEAL	1	VBM
14		299027015	CRANKSHAFT REAR SEAL	1	VBM
15		299027016	FUEL LIFT PUMP	1	VBM
16		299027017	OIL COVER	1	VBM
17		299026959	COVER-ACCESS HOLE	1	VBM
18		299027018	TUBE-AFTERCOOLER	1	VBM
19		299026961	FUEL PUMP PIPE	1	VBM
20		299023449	FUEL WATER SEPARATOR C3930942	1	VBM
21		299023448	FUEL FILTER C3931063	1	VBM
22		299027019	CRANKSHAFT PULLEY	1	VBM
23		299027020	HIGH PRESSURE FUEL LINES	1	VBM
24		299027021	AFTERCOOLER	1	VBM
25		299027022	FUEL INJECTION PUMP	1	VBM
26		730003	1/2” X 1/4” HEX BUSHING STEEL	1	PELLA
27		602037001	FITTING -1/4 PIPE 5/16 BARB 90	1	PELLA
		299005050	ENGINE		VBM, Inc. Ref. No’s 1-25

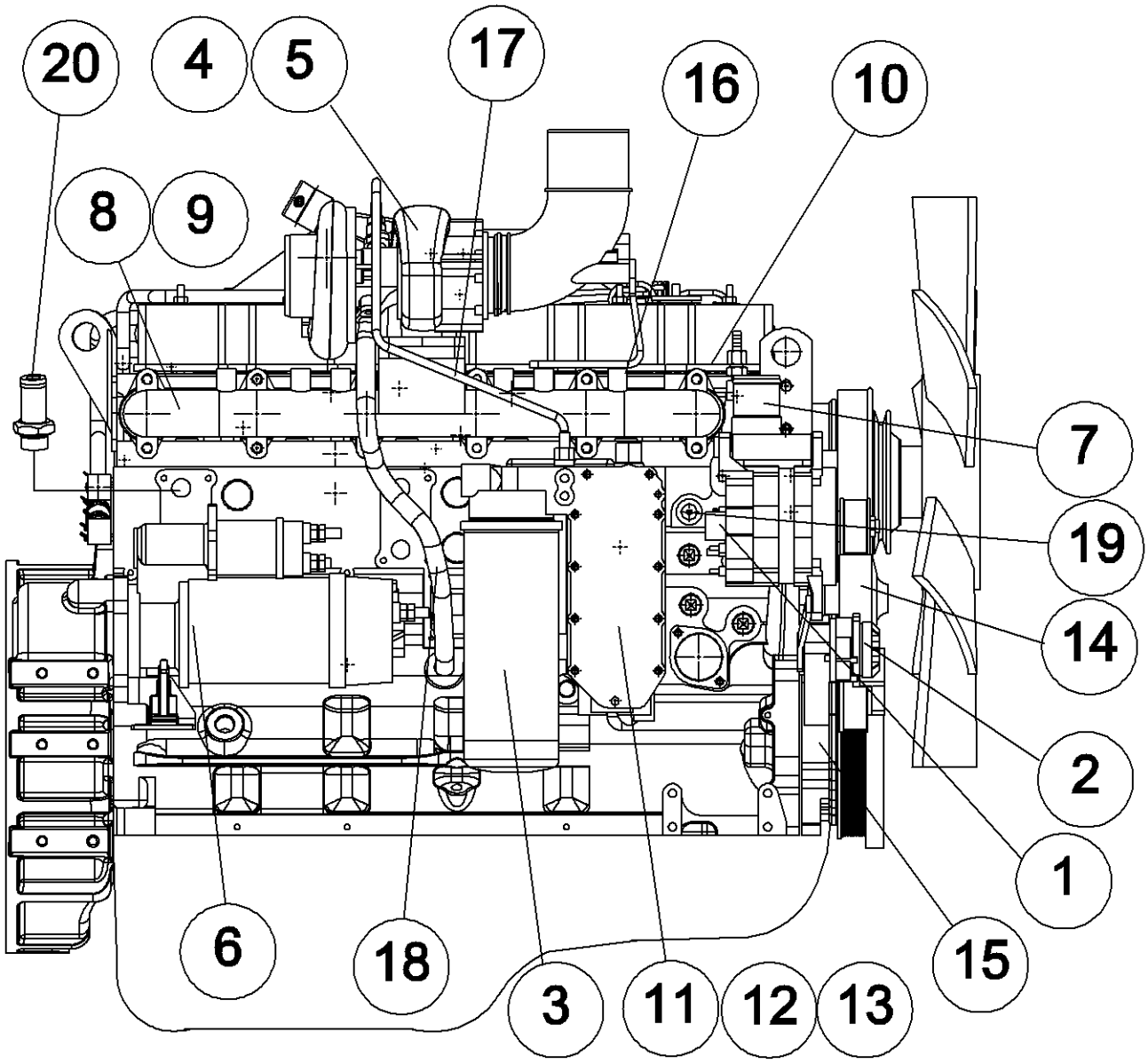
Components-Engine (S/N 111-) Fig 3-14r01



Components-Engine (S/N 111-) Fig 3-14r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027083	12V ALTERNATOR	1	VBM
2		299026276	BELT TENSIONER	1	VBM
3		299023450	OIL FILTER C3401544	1	VBM
4		299026277	TURBOCHARGER	1	VBM
5		299026278	GASKET-TURBOCHARGER	1	VBM
6		299027084	12V MOTOR-STARTING	1	VBM
7		299026280	THERMOSTAT	1	VBM
8		299026281	EXHAUST PIPE	1	VBM
9		299026282	GASKET-EXHAUST PIPE	6	VBM
10		299026283	GASKET-CHAMBER COVER	1	VBM
11		299026284	OIL COOLER CORE	1	VBM
12		299026285	GASKET-OIL COOLER CORE	1	VBM
13		299026286	OIL COOLER SEAT	1	VBM
14		299026287	WATER PUMP	1	VBM
15		299026288	OIL PUMP	1	VBM
16		299023043	FILTER C3973898	1	VBM
17		299026290	INLET PIPE-TURBOCHARGER	1	VBM
18		299026291	RETURN PIPE-TURBOCHARGER	1	VBM
19		299026292	SENSOR-TEMPERATURE	1	VBM
20		299014251	ST-12MNPT-10MBHI	1	VBM
		299005050	ENGINE		VBM, Inc. Ref. No's 1-19

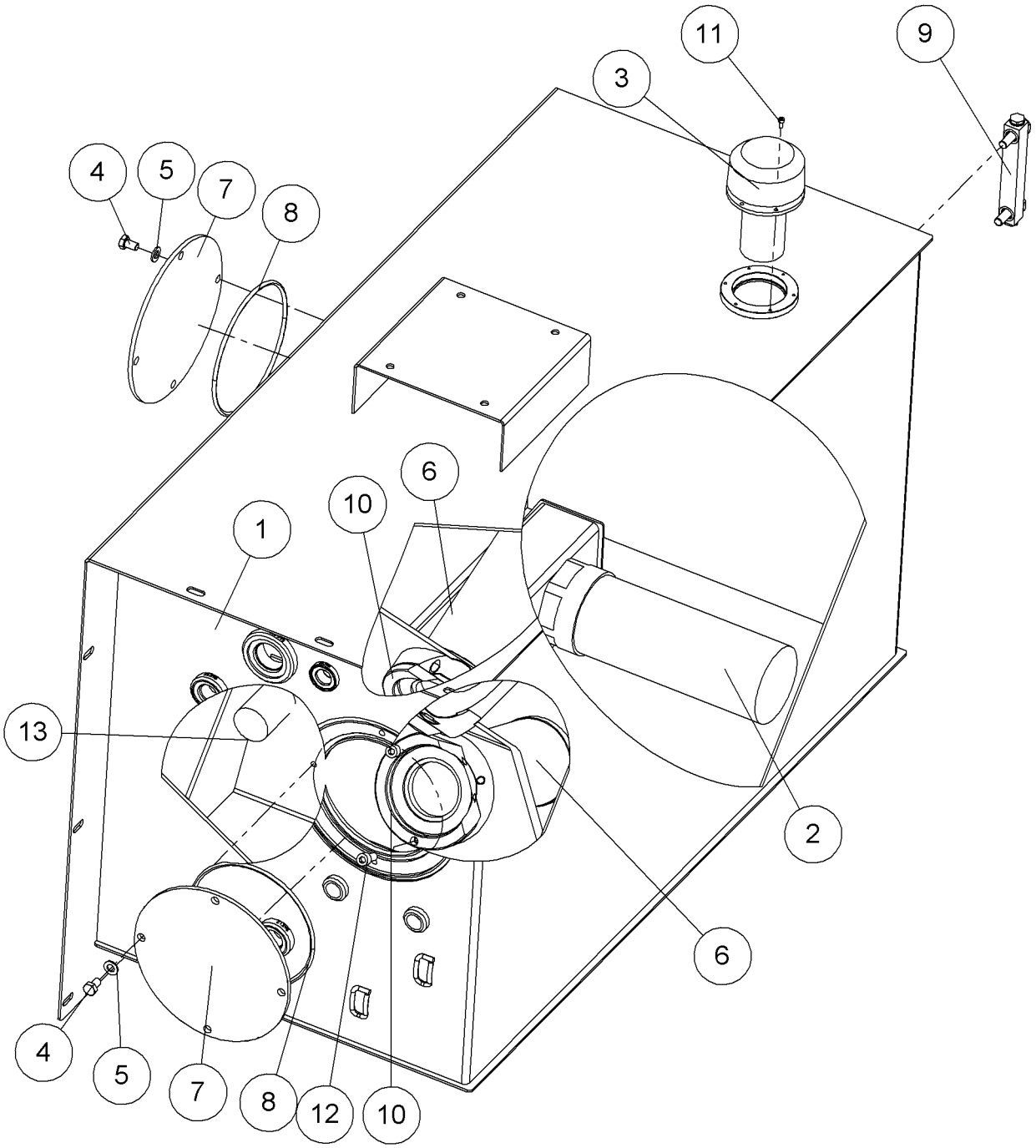
Components-Engine (S/N 101-110) Fig 3-14



Components-Engine (S/N 101-110) Fig 3-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026275	ALTERNATOR	1	VBM
2		299026276	BELT TENSIONER	1	VBM
3		299023450	OIL FILTER C3401544	1	VBM
4		299026277	TURBOCHARGER	1	VBM
5		299026278	GASKET-TURBOCHARGER	1	VBM
6		299026279	MOTOR-STARTING	1	VBM
7		299026280	THERMOSTAT	1	VBM
8		299026281	EXHAUST PIPE	1	VBM
9		299026282	GASKET-EXHAUST PIPE	6	VBM
10		299026283	GASKET-CHAMBER COVER	1	VBM
11		299026284	OIL COOLER CORE	1	VBM
12		299026285	GASKET-OIL COOLER CORE	1	VBM
13		299026286	OIL COOLER SEAT	1	VBM
14		299026287	WATER PUMP	1	VBM
15		299026288	OIL PUMP	1	VBM
16		299023043	FILTER C3973898	1	VBM
17		299026290	INLET PIPE-TURBOCHARGER	1	VBM
18		299026291	RETURN PIPE-TURBOCHARGER	1	VBM
19		299026292	SENSOR-TEMPERATURE	1	VBM
20		299014251	ST-12MNPT-10MBHI	1	VBM
		299005050	ENGINE		VBM, Inc. Ref. No's 1-19

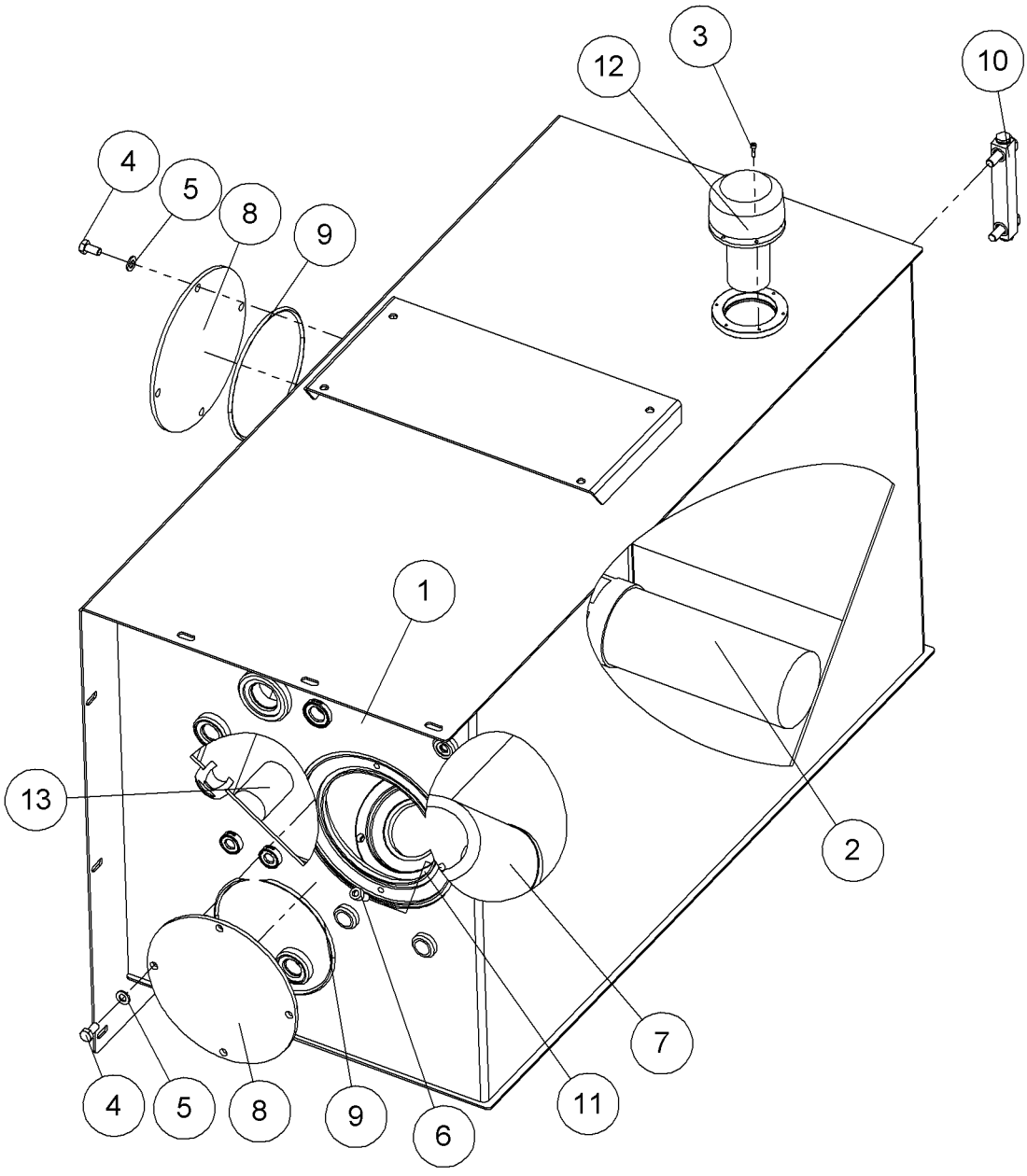
Oil Tank (S/N 109-) Fig 4-1r01



Oil Tank (S/N 109-) Fig 4-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023071	HYD. OIL TANK	1	VBM
2		98681001	FILTER-TANK 3 NPT OUTLET PORT	1	PELLA
3		299004162	FILTER CLEANER	1	VBM
4		299016332	BOLT GB/T5783 M10X16-GR8.8	8	VBM
5		299012382	WASHER GB/T97 10 200HV	8	VBM
6		296273964	ELEMENT-RETURN TANK (936974Q-10Q-PN)	2	PELLA
7		299006442	COVER-OIL TANK	2	VBM
8		299008112	O-RING 180X5.3	2	VBM
9		299005986	LEVEL METER	1	VBM
10		299023042	FLANGE	2	VBM
11		299011688	SCREW M4X16 GB/T70-85	6	VBM
12		299011736	SCREW M10X25 GB/T70-85	6	VBM
13		163632911	COLUMN-MAGNET	1	PELLA

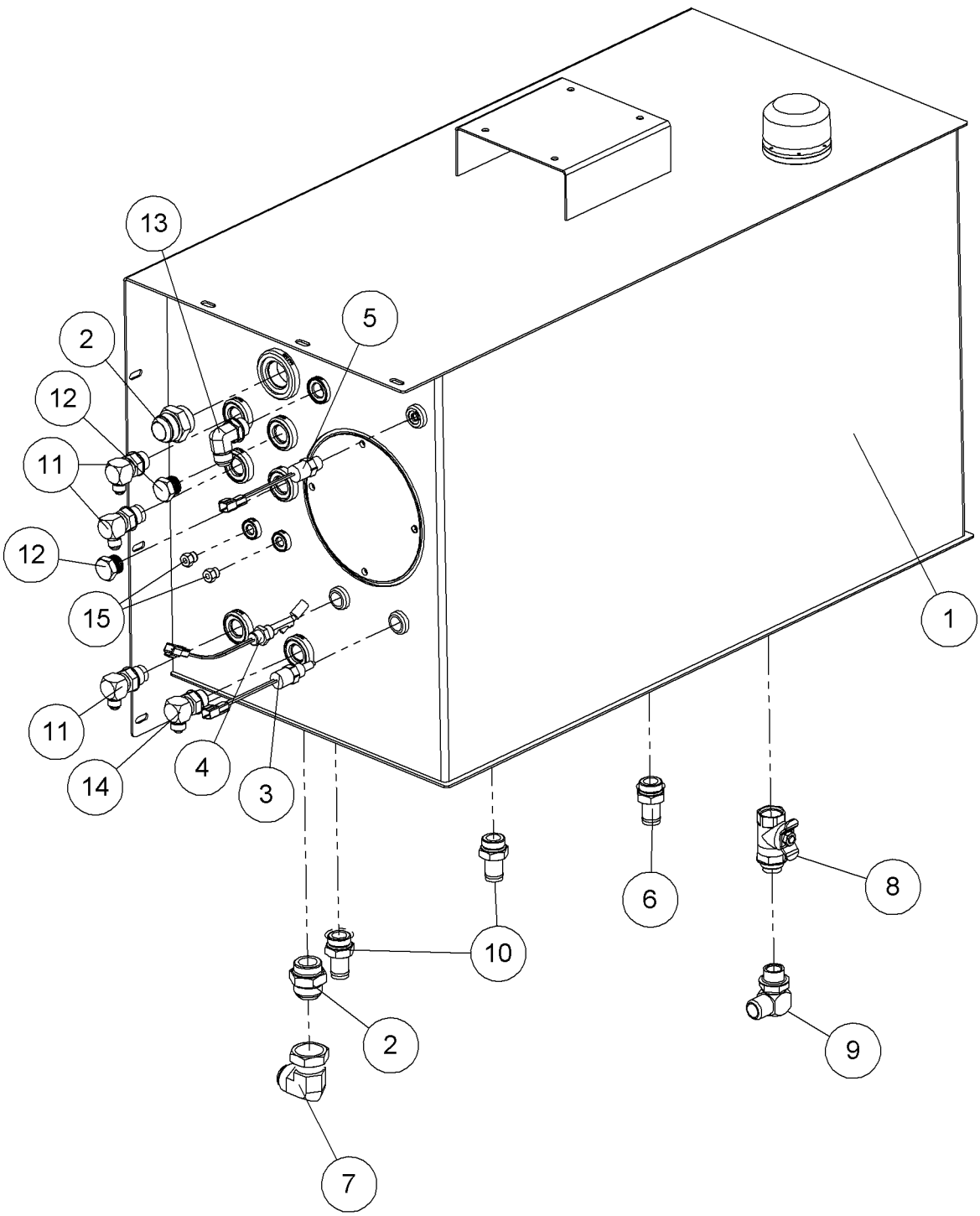
Oil Tank (S/N 101-108) Fig 4-1



Oil Tank (S/N 101-108) Fig 4-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006489	HYD. OIL TANK	1	VBM
2		98681001	FILTER-TANK 3 NPT OUTLET PORT	1	PELLA
3		299011688	SCREW M4X16 GB/T70-85	6	VBM
4		299016332	BOLT GB/T5783 M10X16-GR8.8	8	VBM
5		299012382	WASHER GB/T97 10 200HV	8	VBM
6		299011736	SCREW M10X25 GB/T70-85	3	VBM
7		296273964	ELEMENT-RETURN TANK (936974Q-10Q-PN)	1	PELLA
8		299006442	COVER-OIL TANK	2	VBM
9		299008112	O-RING 180X5.3	2	VBM
10		299005986	LEVEL METER	1	VBM
11		299006472	FLANGE	1	VBM
12		299004162	FILTER CLEANER	1	VBM
13		163632911	COLUMN-MAGNET	1	PELLA

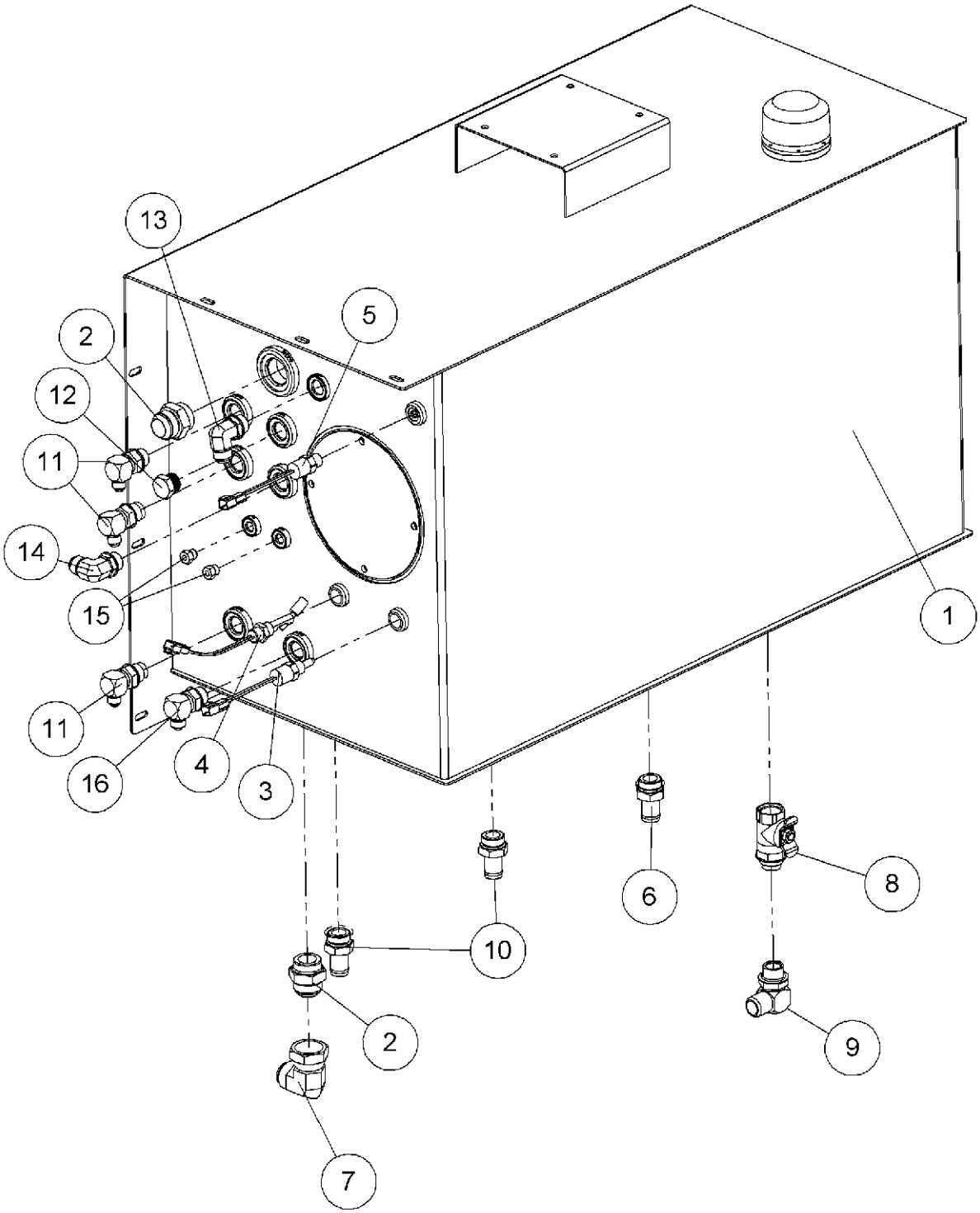
Oil Tank Hydraulic (S/N 114-) Fig 4-2r02



Oil Tank Hydraulic (S/N 114-) Fig 4-2r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023071	HYD. OIL TANK	1	VBM
2		70006001	FITTING-20M X 20 M JIC STR.	2	VBM
3		625912001	SWITCH-200 DEG (SPST) N.O.	1	PELLA
4		279866001	SWITCH - FLOAT LEVEL	1	PELLA
5		279847001	SWITCH - 22 PSI NO	1	PELLA
6		299014184	ST-20MORB-16MBHI	1	VBM
7		65574001	20FS JICX20M JIC 90 DEGREE	1	VBM
8		296273984	VALVE-BALL, #16M O-RING/#16F O-RING	1	PELLA
9		299013810	90-16MORBA-16MBHI	1	VBM
10		299014016	ST-20MORB-20MBHI	2	VBM
11		299005254	90-12MORBA-8MJ	3	VBM
12		67570001	FITTING - PLUG - 12MORB - HEX	2	VBM
13		299013830	90-10MORBA-10MJ	1	VBM
14		299013807	90-12MORBA-10MJ	1	VBM
15		5553001	FITTING - PLUG - 6MORB - HEX	2	VBM

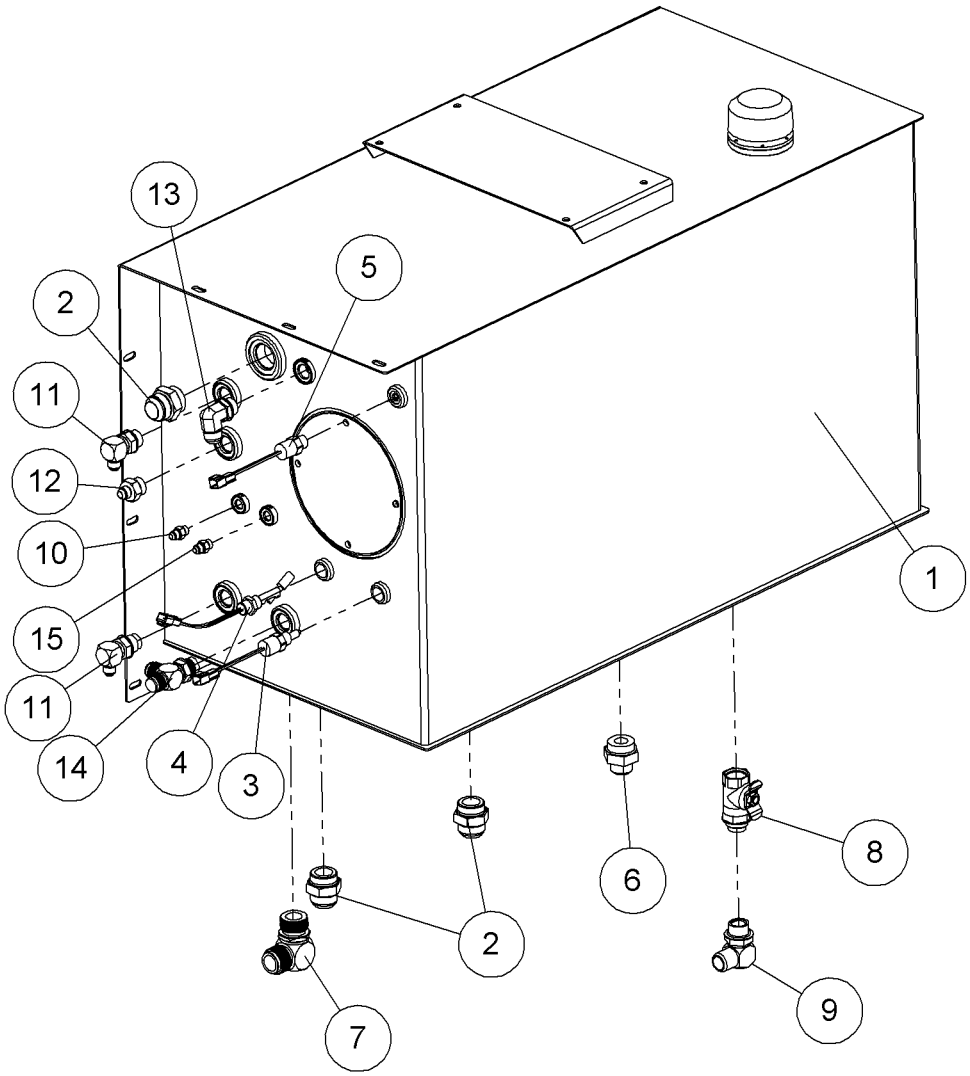
Oil Tank Hydraulic (S/N 109-113) Fig 4-2r01



Oil Tank Hydraulic (S/N 109-113) Fig 4-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023071	HYD. OIL TANK	1	VBM
2		70006001	FITTING-20M X 20 M JIC STR.	2	VBM
3		625912001	SWITCH-200 DEG (SPST) N.O.	1	PELLA
4		279866001	SWITCH - FLOAT LEVEL	1	PELLA
5		279847001	SWITCH - 22 PSI NO	1	PELLA
6		299014184	ST-20MORB-16MBHI	1	VBM
7		65574001	20FS JICX20M JIC 90 DEGREE	1	VBM
8		296273984	VALVE-BALL, #16M O-RING/#16F O-RING	1	PELLA
9		299013810	90-16MORBA-16MBHI	1	VBM
10		299014016	ST-20MORB-20MBHI	2	VBM
11		299005254	90-12MORBA-8MJ	3	VBM
12		67570001	FITTING - PLUG - 12MORB - HEX	1	VBM
13		299013830	90-10MORBA-10MJ	1	VBM
14		299013807	90-12MORBA-10MJ	1	VBM
15		5553001	FITTING - PLUG - 6MORB - HEX	2	VBM
16		59410001	FITTING-90-12MJ-12MORBA	1	VBM

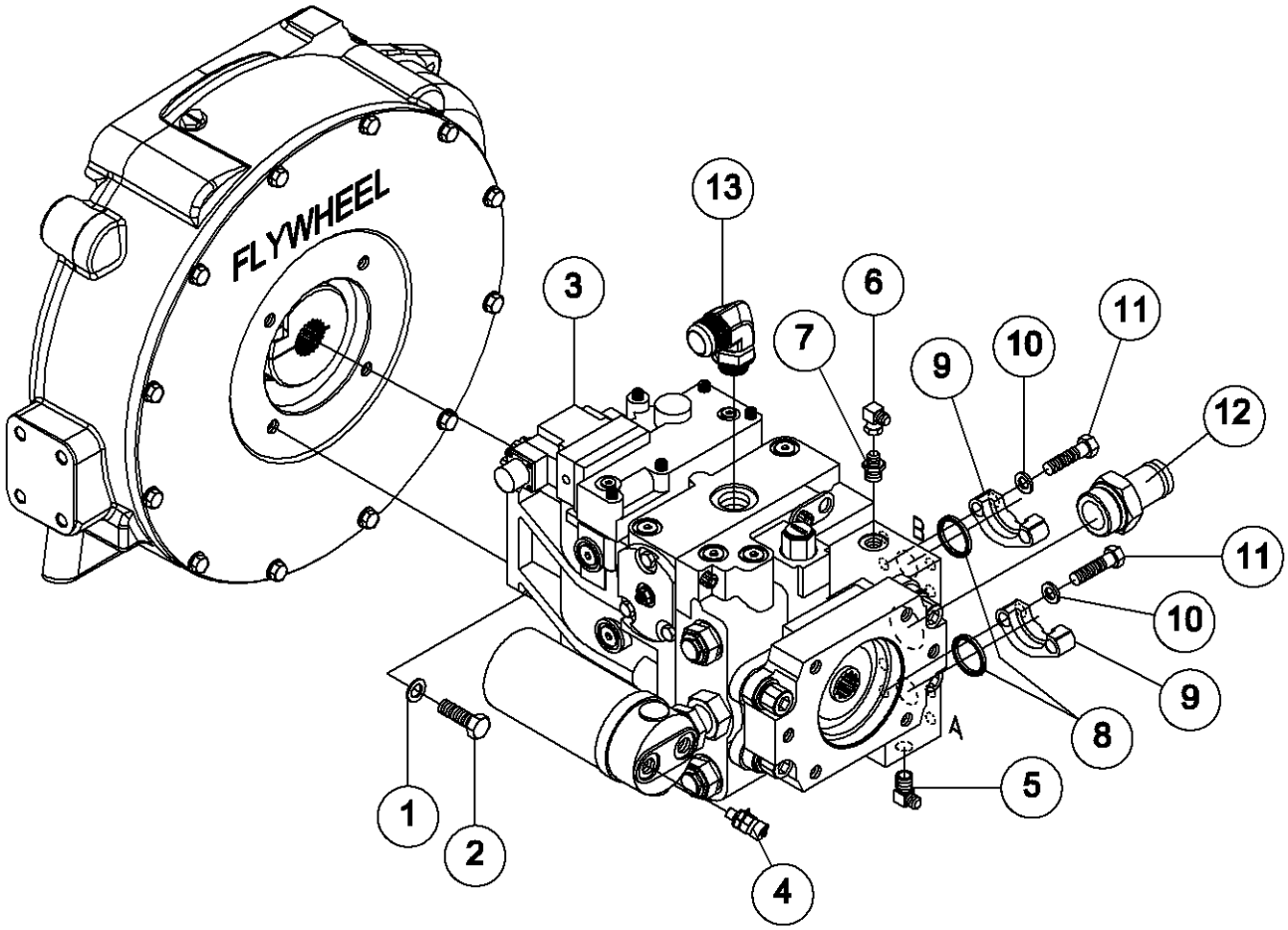
Oil Tank Hydraulic (S/N 101-108) Fig 4-2



Oil Tank Hydraulic (S/N 101-108) Fig 4-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006489	HYD. OIL TANK	1	VBM
2		70006001	FITTING-20M X 20 M JIC STR.	3	VBM
3		625912001	SWITCH-200 DEG (SPST) N.O.	1	PELLA
4		279866001	SWITCH - FLOAT LEVEL	1	PELLA
5		279847001	SWITCH - 22 PSI NO	1	PELLA
6		85657001	FITTING-20M X 16M JIC STR.	1	VBM
7		77137001	FITTING-20MX20M JIC 90 DEG.	1	VBM
8		296273984	VALVE-BALL, #16M O-RING/#16F O-RING	1	PELLA
9		299013810	90-16MORBA-16MBHI	1	VBM
10		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM
11		299005254	90-12MORBA-8MJ	2	VBM
12		53825001	#12M O-RING-#8M JIC ST.	1	VBM
13		299013830	90-10MORBA-10MJ	1	VBM
14		299014183	TEE 12MORBA-12MJ-1OMJ	1	VBM
15		299013827	ST-6MORB-8MJ	1	VBM

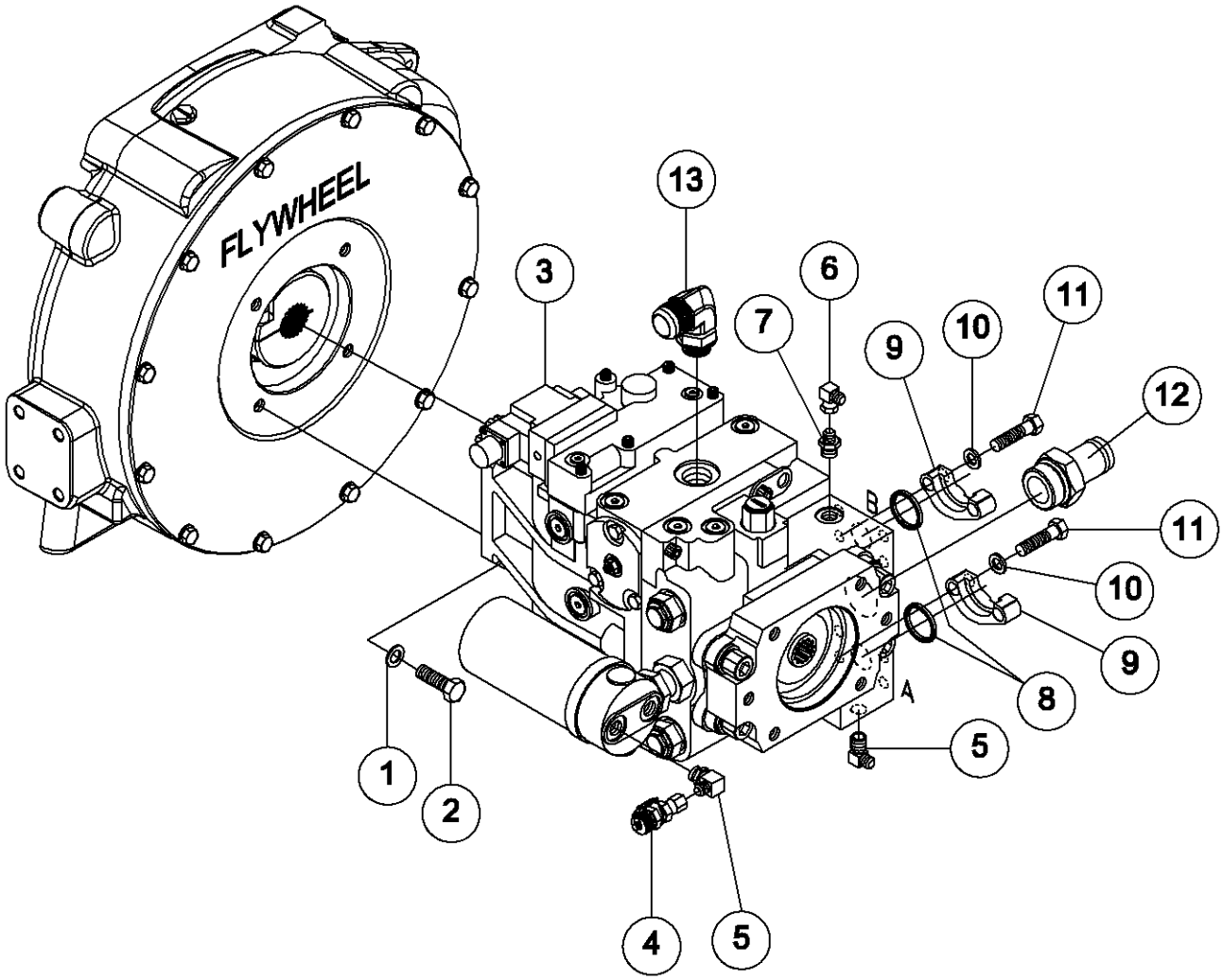
Hydraulic Pump (Rotation/Left Track Drive) (S/N 107-) Fig 4-3r01



Hydraulic Pump (Rotation/Left Track Drive) (S/N 107-) Fig 4-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299015074	WASHER 1/2	4	VBM
2		299015005	BOLT 1/2-13X1-1/2-8.8 UNC	4	VBM
3		296284161	PUMP - 100CC FRONT	1	PELLA, Breakdown Fig.4-3z01
4		299014167	ST-6MORB-16MTP	1	VBM
5		57950001	FITTING-90-4MJ-6MORBA	1	VBM
6		299013852	FITTING-4M JICX4 FS JIC 90 DEG	1	VBM
7		57968001	FITTING-STR-4MJ-6MORB	1	VBM
8		72895001	O RING-SQ. #16 FLANGE	2	PELLA
9		67745001	FITTING - FLGH - 16CD62	4	VBM
10		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
11		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
12		299014016	ST-20MORB-20MBHI	1	VBM
13		299013809	90-12MORBA-16MJ	1	VBM

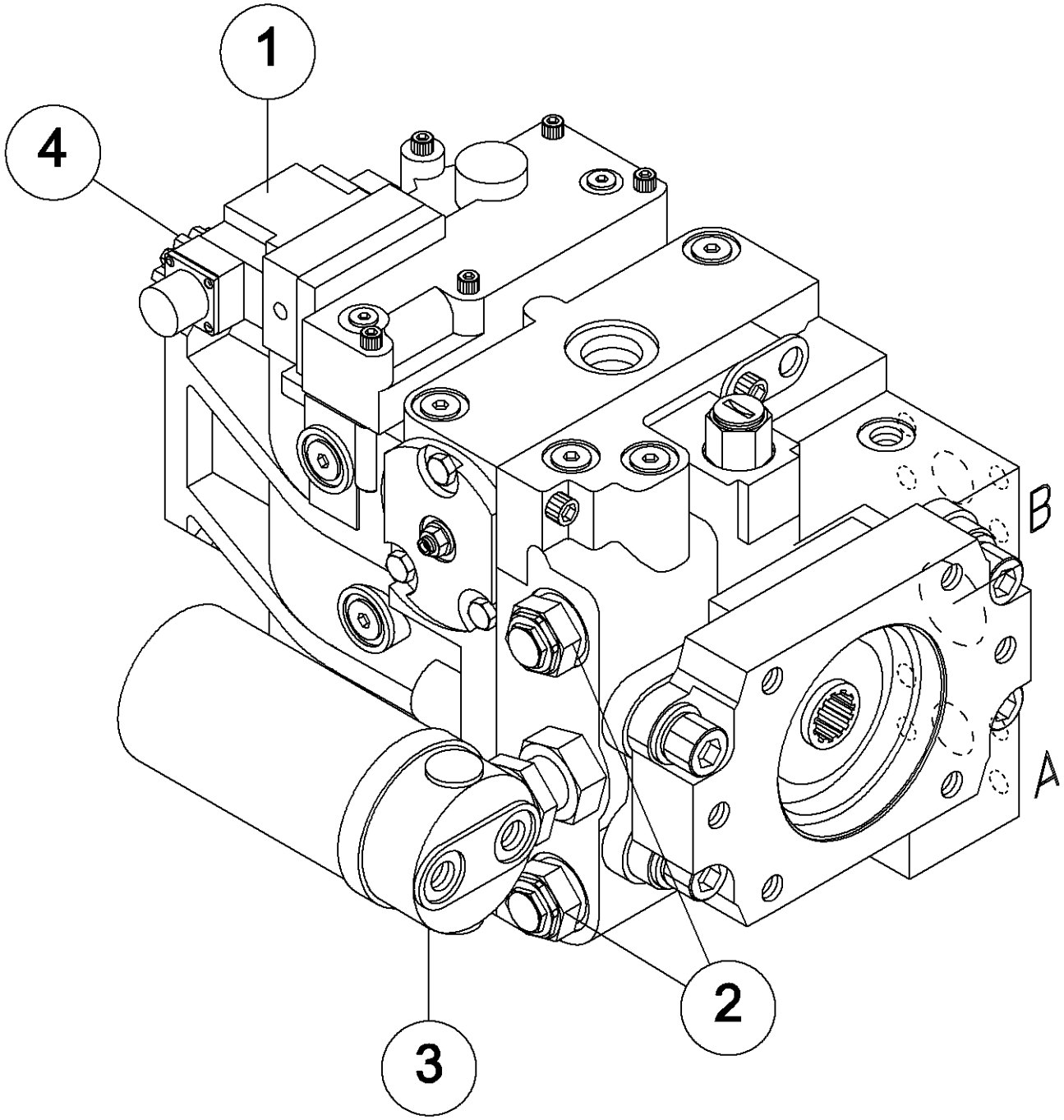
Hydraulic Pump (Rotation/Left Track Drive) (S/N 101-106) Fig 4-3



Hydraulic Pump (Rotation/Left Track Drive) (S/N 101-106) Fig 4-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299015074	WASHER 1/2	4	VBM
2		299015005	BOLT 1/2-13X1-1/2-8.8 UNC	4	VBM
3		296284161	PUMP - 100CC FRONT	1	PELLA, Breakdown Fig.4-3z01
4		83015001	FITTING-4F JIC DIAGNOSTIC	1	VBM
5		57950001	FITTING-90-4MJ-6MORBA	2	VBM
6		299013852	FITTING-4M JICX4 FS JIC 90 DEG	1	VBM
7		57968001	FITTING-STR-4MJ-6MORB	1	VBM
8		72895001	O RING-SQ. #16 FLANGE	2	PELLA
9		67745001	FITTING - FLGH - 16CD62	4	VBM
10		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
11		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
12		299014016	ST-20MORB-20MBHI	1	VBM
13		299013809	90-12MORBA-16MJ	1	VBM

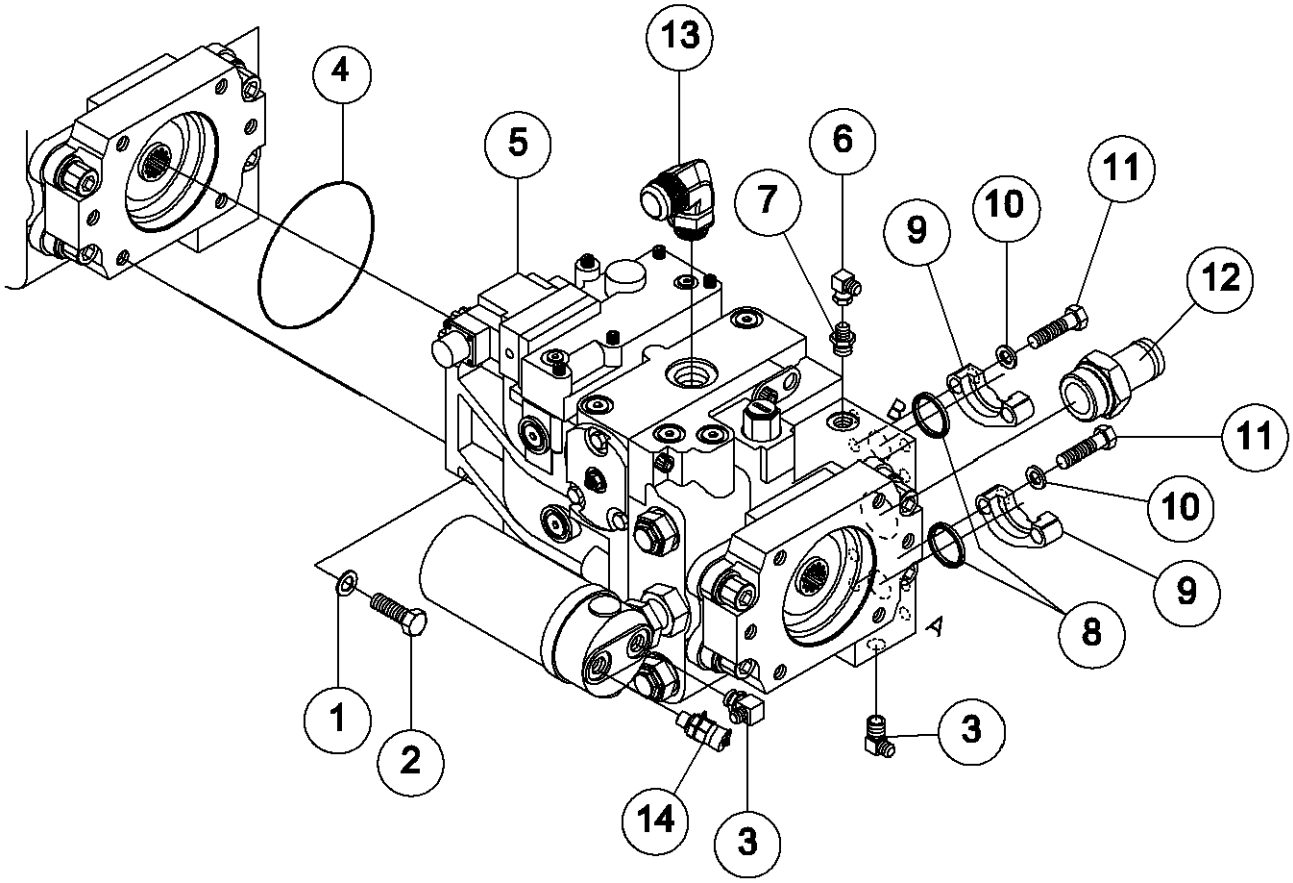
Components-Rotation/Left Track Drive Pump Fig 4-3z01



Components-Rotation/Left Track Drive Pump Fig 4-3z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026202	EDC KIT	1	PELLA
1		254674049	PCP TYPE 3, WEATHER PACK CONNECTOR	1	PELLA
1		224411005	GASKET-CONTROL	1	PELLA
2		605212001	MULTI FUNCTION VALVE KIT	2	PELLA
2		299026203	O-RING	1	PELLA
2		113079009	O-RING	1	PELLA
2		85642011	O-RING	1	PELLA
3		85642051	FILTRATION-INTEGRAL SHT FILTER	1	PELLA
3		299026204	FILTER	1	PELLA
4		296284762	SHAFT SEAL ASSEMBLY	1	PELLA
4		626284001	LIP SEAL	1	PELLA
4		98688013	O-RING	1	PELLA
		296284161	PUMP - 100CC FRONT		PELLA, Inc. All Items In Figure

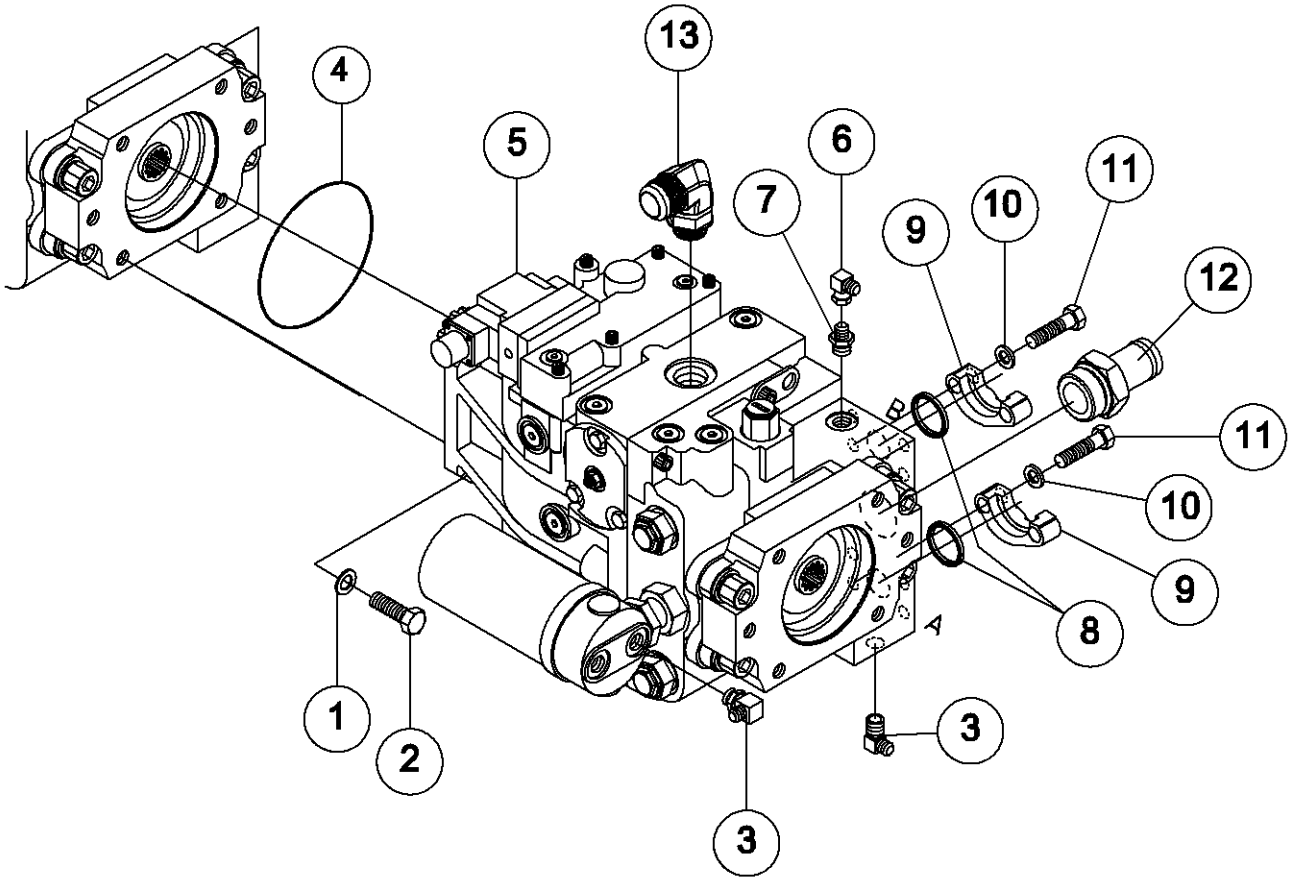
Hydraulic Pump (Thrust/Pullback/Right Track Drive) (S/N 107-) Fig 4-4r01



Hydraulic Pump (Thrust/Pullback/Right Track Drive) (S/N 107-) Fig 4-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299015074	WASHER 1/2	4	VBM
2		299015005	BOLT 1/2-13X1-1/2-GR8 UNC	4	VBM
3		57950001	FITTING - 90-6MORBA-4MJ	2	VBM
4		299015053	O-RING 127X3.0	1	VBM
5		296284162	PUMP - 100CC MIDDLE	1	PELLA, Breakdown Fig.4-4z01
6		299013852	90-4FSJ-4MJ	1	VBM
7		57968001	FITTING-STR-4MJ-6MORB	1	VBM
8		72895001	O RING-SQ. #16 FLANGE	2	PELLA
9		67745001	FITTING - FLGH - 16CD62	4	VBM
10		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
11		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
12		299014016	ST-20MORB-20MBHI	1	VBM
13		299013809	90-12MORBA-16MJ	1	VBM
14		299014167	ST-6MORB-16MTP	1	VBM

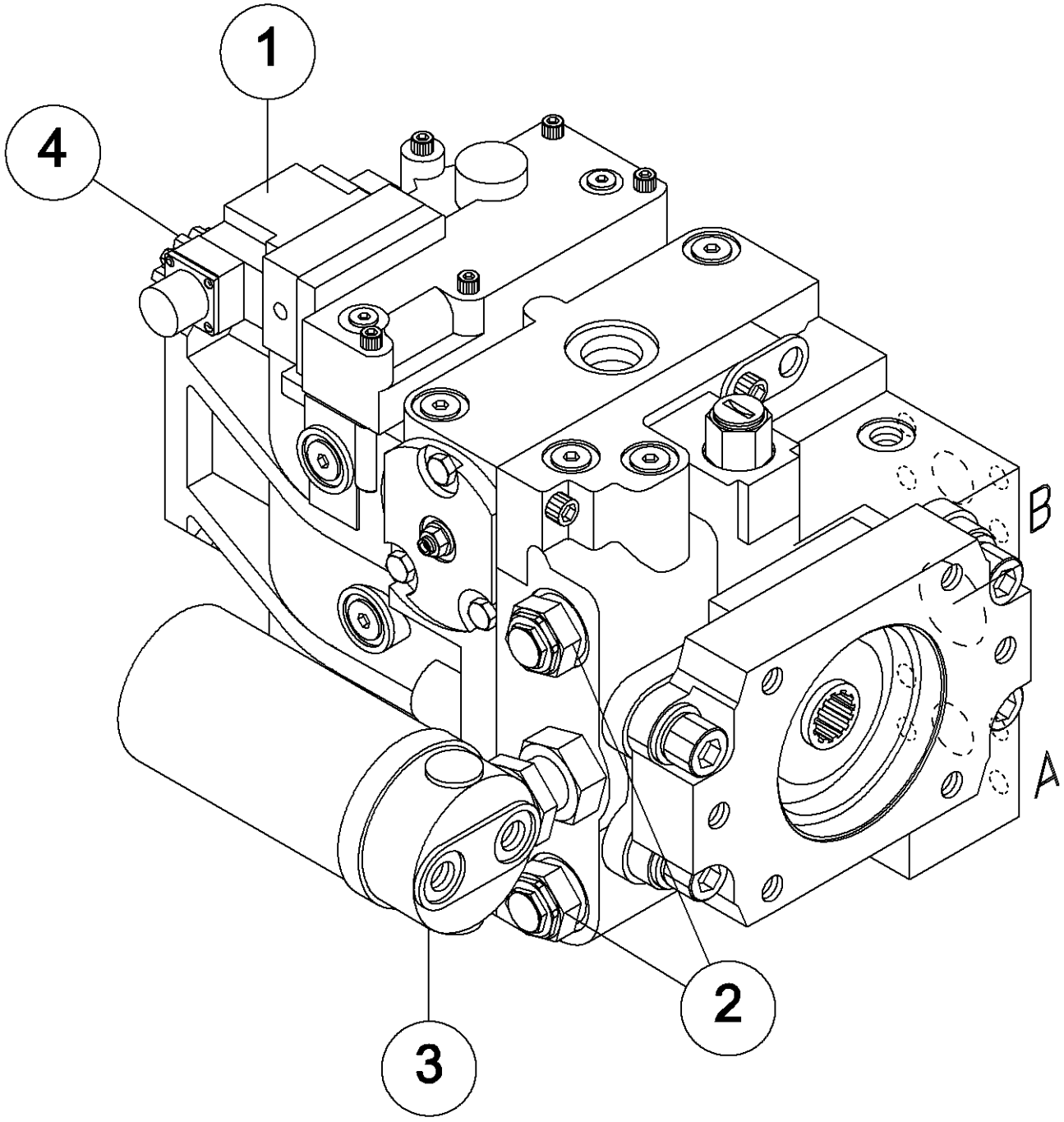
Hydraulic Pump (Thrust/Pullback/Right Track Drive) (S/N 101-106) Fig 4-4



Hydraulic Pump (Thrust/Pullback/Right Track Drive) (S/N 101-106) Fig 4-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299015074	WASHER 1/2	4	VBM
2		299015005	BOLT 1/2-13X1-1/2-GR8 UNC	4	VBM
3		57950001	FITTING - 90-6MORBA-4MJ	2	VBM
4		299015053	O-RING 127X3.0	1	VBM
5		296284162	PUMP - 100CC MIDDLE	1	PELLA, Breakdown Fig.4-4z01
6		299013852	90-4FSJ-4MJ	1	VBM
7		57968001	FITTING-STR-4MJ-6MORB	1	VBM
8		72895001	O RING-SQ. #16 FLANGE	2	PELLA
9		67745001	FITTING - FLGH - 16CD62	4	VBM
10		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
11		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
12		299014016	ST-20MORB-20MBHI	1	VBM
13		299013809	90-12MORBA-16MJ	1	VBM

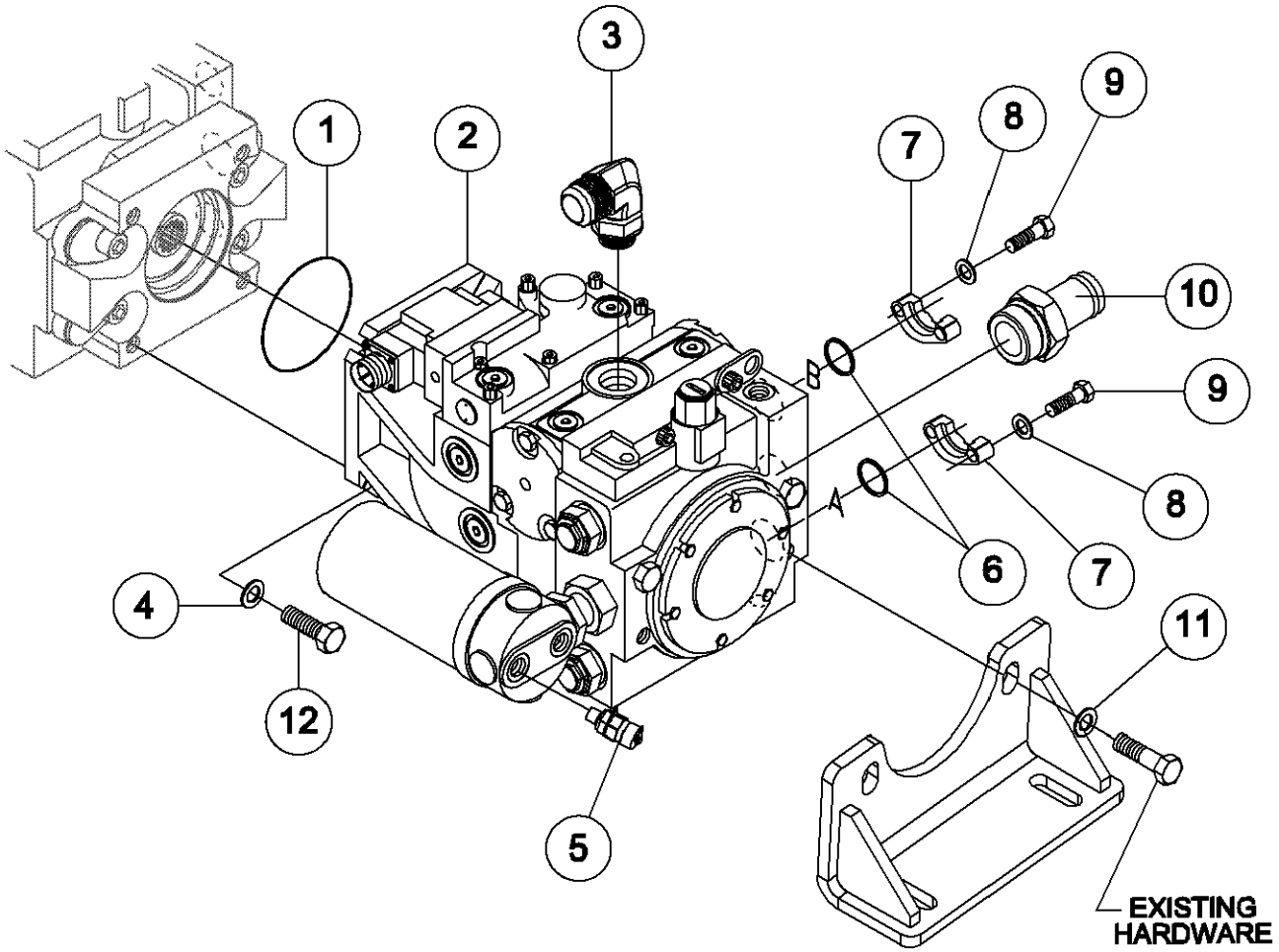
Components-Thrust/Pullback/Right Track Drive Pump Fig 4-4z01



Components-Thrust/Pullback/Right Track Drive Pump Fig 4-4z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026202	EDC KIT	1	PELLA
1		254674049	PCP TYPE 3, WEATHER PACK CONNECTOR	1	PELLA
1		224411005	GASKET-CONTROL	1	PELLA
2		605212001	MULTI FUNCTION VALVE KIT	2	PELLA
2		299026203	O-RING	1	PELLA
2		113079009	O-RING	1	PELLA
2		85642011	O-RING	1	PELLA
3		85642051	FILTRATION-INTEGRAL SHT FILTER	1	PELLA
3		299026204	FILTER	1	PELLA
4		296284762	SHAFT SEAL ASSEMBLY	1	PELLA
4		626284001	LIP SEAL	1	PELLA
4		98688013	O-RING	1	PELLA
		296284162	PUMP - 100CC MIDDLE		PELLA, Inc. All Items In Figure

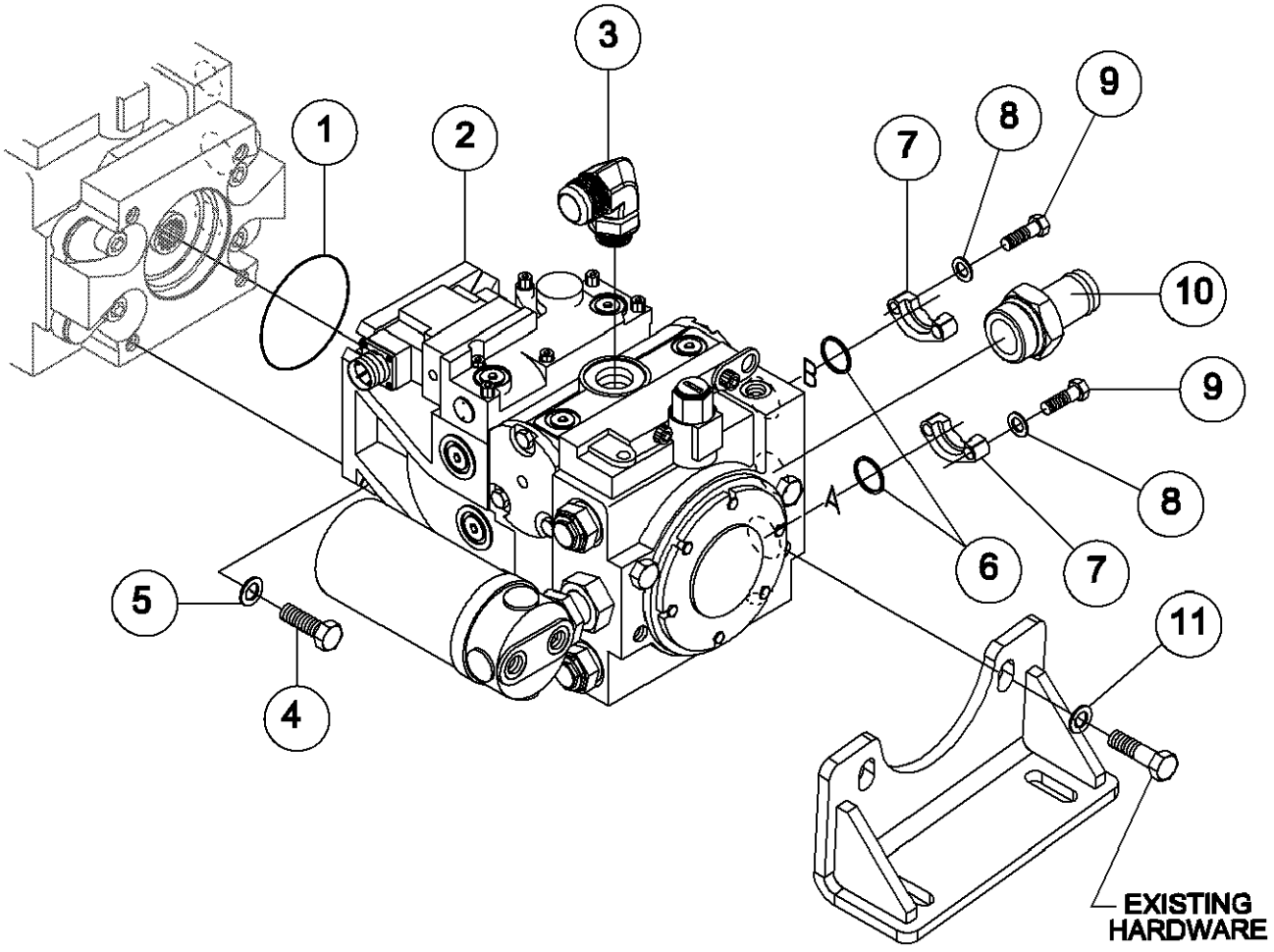
Hydraulic Pump (Water System) (S/N 107-) Fig 4-5r01



Hydraulic Pump (Water System) (S/N 107-) Fig 4-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299015053	O-RING 127X3.0	1	VBM
2		296284163	PUMP - 75CC REAR	1	PELLA, Breakdown Fig.4-5z01
3		299013809	12M X 16M JIC 90 DEGREE	1	VBM
4		299015074	WASHER 1/2	4	VBM
5		299014167	ST-6MORB-16MTP	1	VBM
6		72895001	O RING-SQ. #16 FLANGE	2	PELLA
7		67745001	FITTING - FLGH - 16CD62	4	VBM
8		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
9		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
10		299013817	ST-16MORB-16MBHI	1	VBM
11		299012385	WASHER 16 (GB/T97-85)	1	VBM
12		299015005	BOLT 1/2-13X1-1/2-8.8 UNC	4	VBM

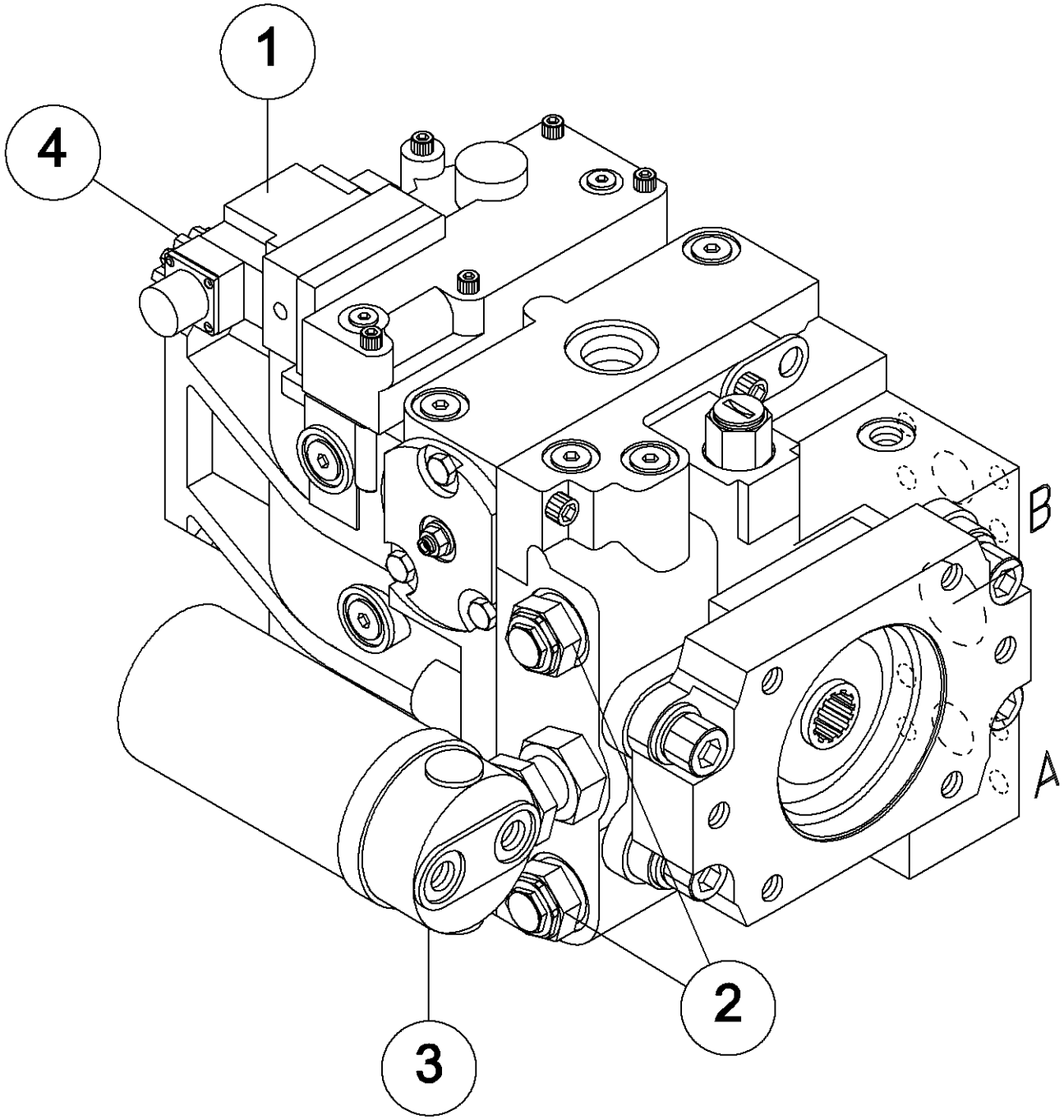
Hydraulic Pump (Water System) (S/N 101-106) Fig 4-5



Hydraulic Pump (Water System) (S/N 101-106) Fig 4-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299015053	O-RING 127X3.0	1	VBM
2		296284163	PUMP - 75CC REAR	1	PELLA, Breakdown Fig.4-5z01
3		299013809	12M X 16M JIC 90 DEGREE	1	VBM
4		299015005	BOLT 1/2-13X1-1/2-8.8 UNC	4	VBM
5		299015074	WASHER 1/2	4	VBM
6		72895001	O RING-SQ. #16 FLANGE	2	PELLA
7		67745001	FITTING - FLGH - 16CD62	4	VBM
8		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
9		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
10		299013817	ST-16MORB-16MBHI	1	VBM
11		299012385	WASHER 16 (GB/T97-85)	1	VBM

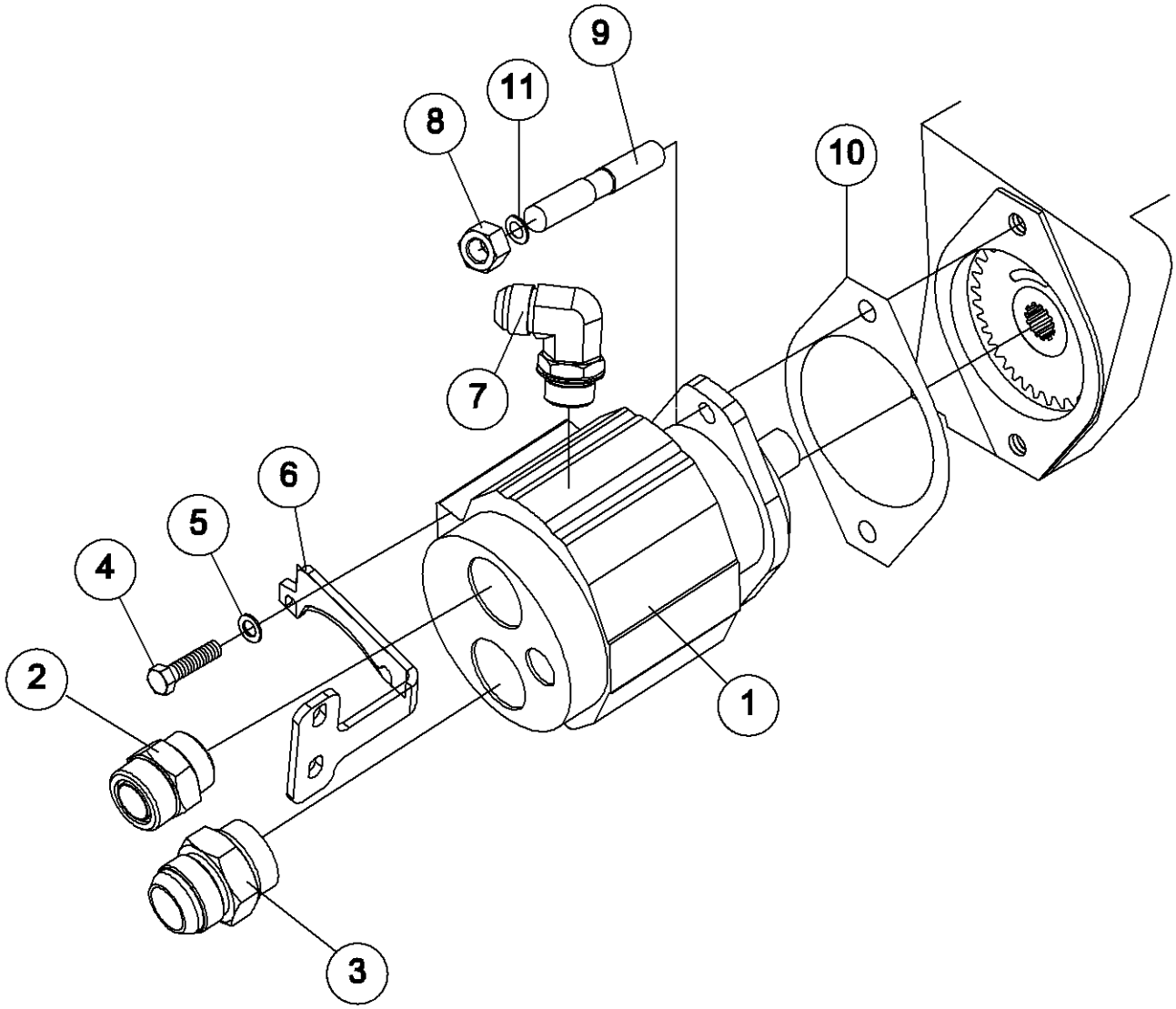
Components-Water Pump Fig 4-5z01



Components-Water Pump Fig 4-5z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026205	EDC KIT	1	PELLA
1		254674049	PCP TYPE 3, WEATHER PACK CONNECTOR	1	PELLA
1		224411005	GASKET-CONTROL	1	PELLA
2		605212001	MULTI FUNCTION VALVE KIT	2	PELLA
2		299026203	O-RING	1	PELLA
2		113079009	O-RING	1	PELLA
2		85642011	O-RING	1	PELLA
3		85642051	FILTRATION-INTEGRAL SHT FILTER	1	PELLA
3		299026204	FILTER	1	PELLA
4		296285105	SHAFT SEAL ASSEMBLY	1	PELLA
4		296285106	LIP SEAL	1	PELLA
4		114282007	O-RING	1	PELLA
		296284163	PUMP - 75CC REAR		PELLA, Inc. All Items In Figure

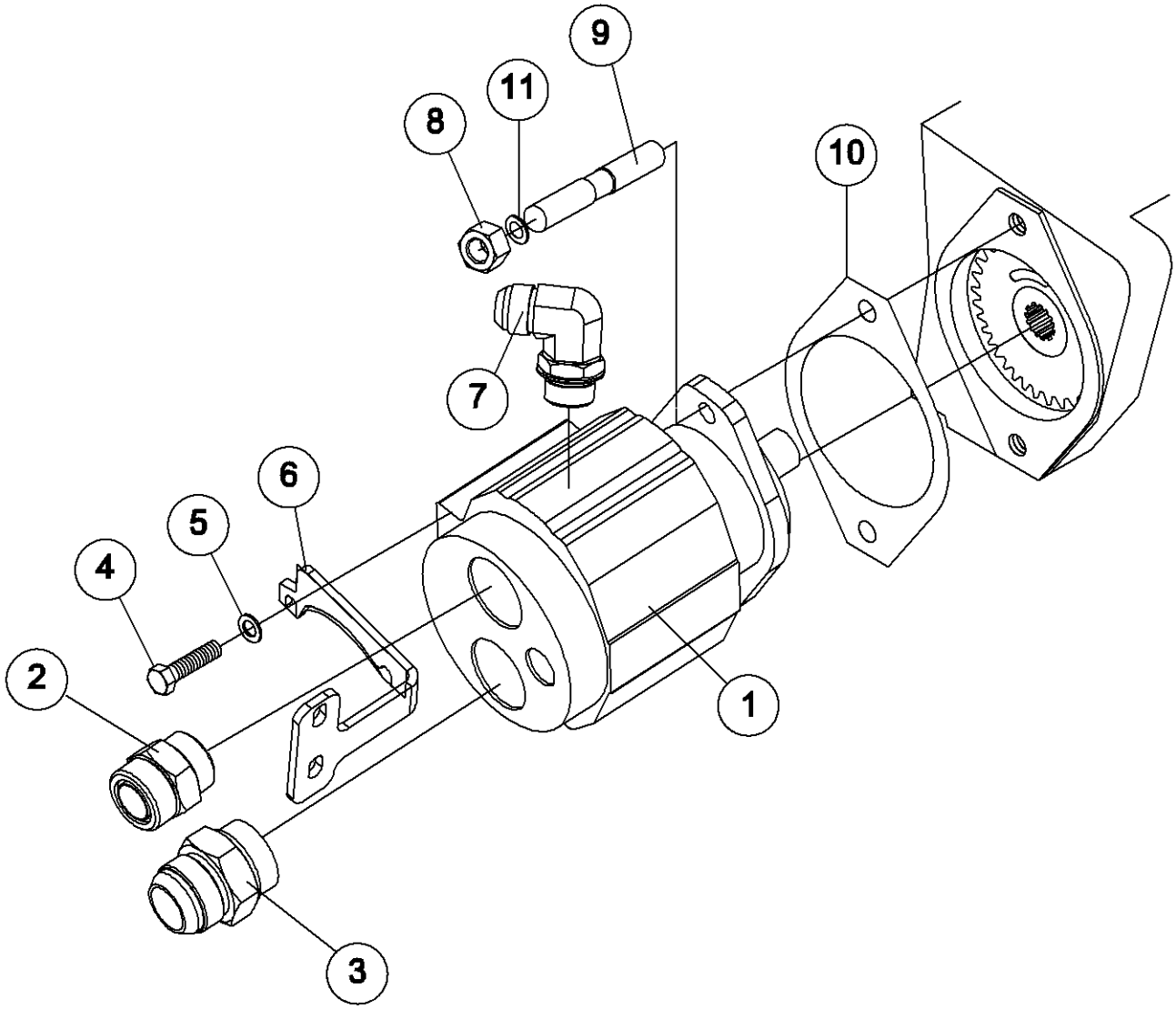
Hydraulic Pump PC (Implement) (S/N 106-) Fig 4-6r01



Hydraulic Pump PC (Implement) (S/N 106-) Fig 4-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		280850001	PUMP - 2.32 CID PD	1	PELLA
1		77958097	SEAL KIT-PUMP & COMPENSATOR	1	PELLA
1		296254567	COMPENSATOR ASSEMBLY	1	PELLA
2		299014259	ST-16MORB-16MORFF-L10	1	VBM
3		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
4		299015044	BOLT-3/8-16X1 1/2 GR8	2	VBM
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	VBM
6		299025713	PLATE - JOINT Q235-A	1	VBM
7		299013830	90-10MORBA-10MJ	1	VBM
8		299012334	NUT GB/T6170 M12-GR8	2	VBM
9		299005662	STUD M6X50 - GR 8.8	2	VBM
10		283642001	GASKET	1	PELLA
11		299012383	WASHER GB/T97 12 200HV	1	VBM

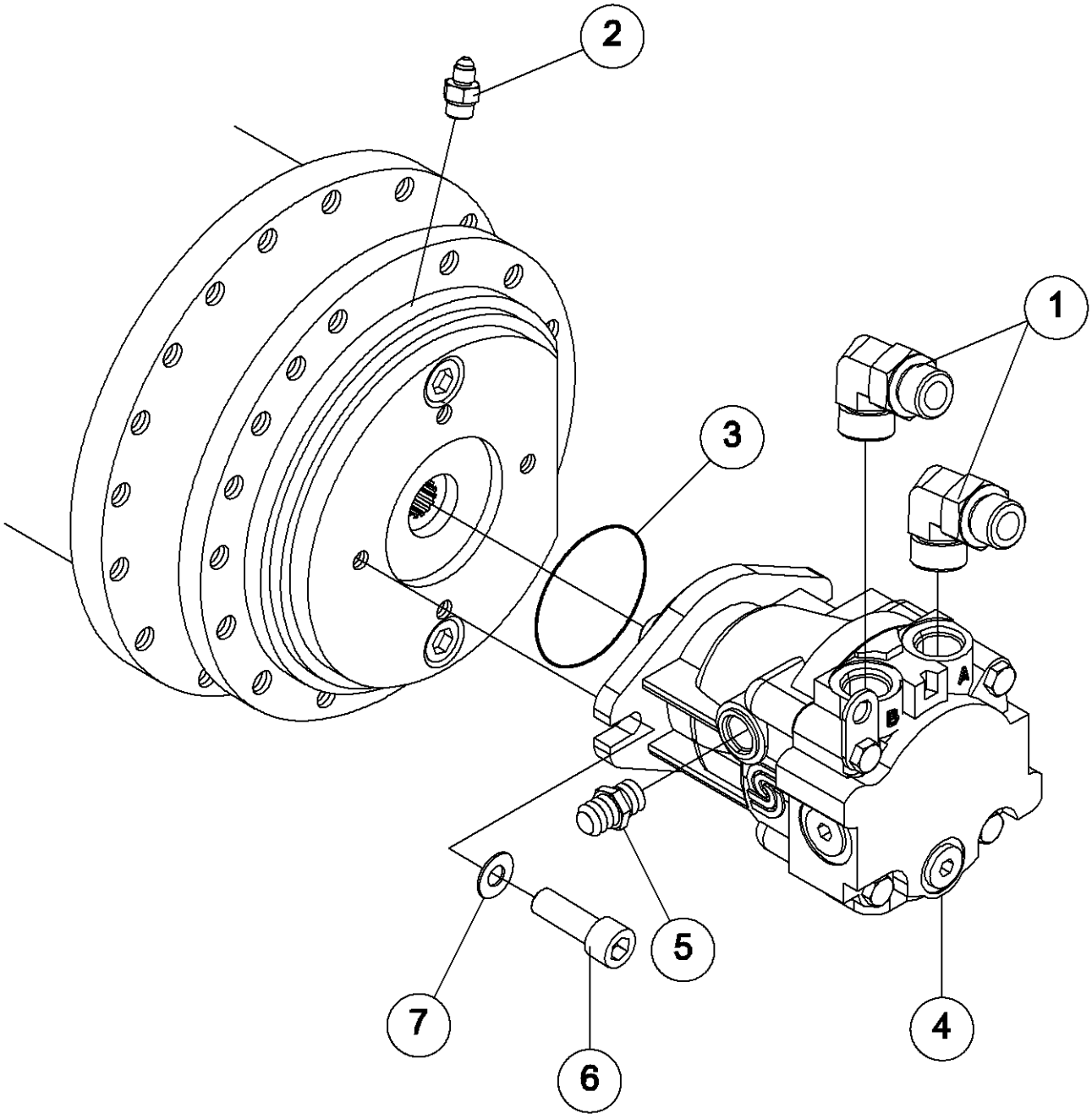
Hydraulic Pump PC (Implement) (S/N 101-105) Fig 4-6



Hydraulic Pump PC (Implement) (S/N 101-105) Fig 4-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		280850001	PUMP - 2.32 CID PD	1	PELLA
1		77958097	SEAL KIT-PUMP & COMPENSATOR	1	PELLA
1		296254567	COMPENSATOR ASSEMBLY	1	PELLA
2		72407001	FITTING - STR - 16MORFF - 16MORB	1	VBM
3		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
4		299015044	BOLT-3/8-16X1 1/2 GR8	2	VBM
5		235713001B	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	VBM
6		299005073	PLATE Q235-A	1	VBM
7		299013830	90-10MORBA-10MJ	1	VBM
8		299012334	NUT GB/T6170 M12-GR8	2	VBM
9		299005662	STUD M6X50 - GR 8.8	2	VBM
10		283642001	GASKET	1	PELLA
11		299012383	WASHER GB/T97 12 200HV	1	VBM

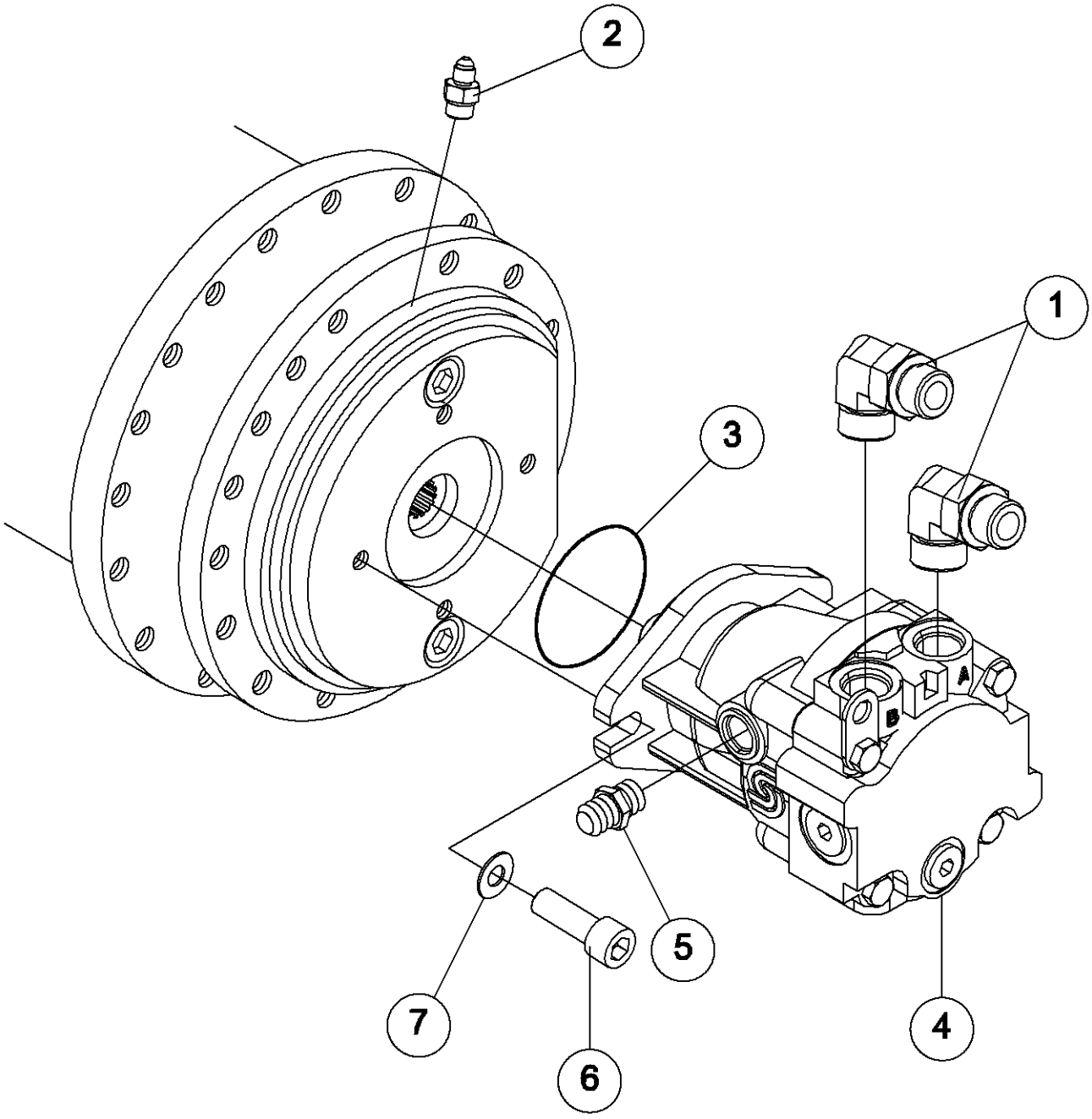
Track Drive Motor (Left) (S/N 101-107,111-) Fig 4-7r01



Track Drive Motor (Left) (S/N 101-107,111-) Fig 4-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		72419001	FITTING - 90 - 12MORFF - 12MORBA	2	VBM
2		57968001	FITTING-STR-4MJ-6MORB	1	VBM
3		299022944	O-RING 101X3.0	1	VBM
4		619555001	MOTOR-FIXED DISPLACEMENT SERIES40-M35/45	1	PELLA, Breakdown Fig.4-7z01
5		299013829	ST-10MORB-12MJ	1	VBM
6		299011979	BOLT M12X30 - GR10.9 GB/T70-85	2	VBM
7		299012383	WASHER GB/T97 12 200HV	2	VBM

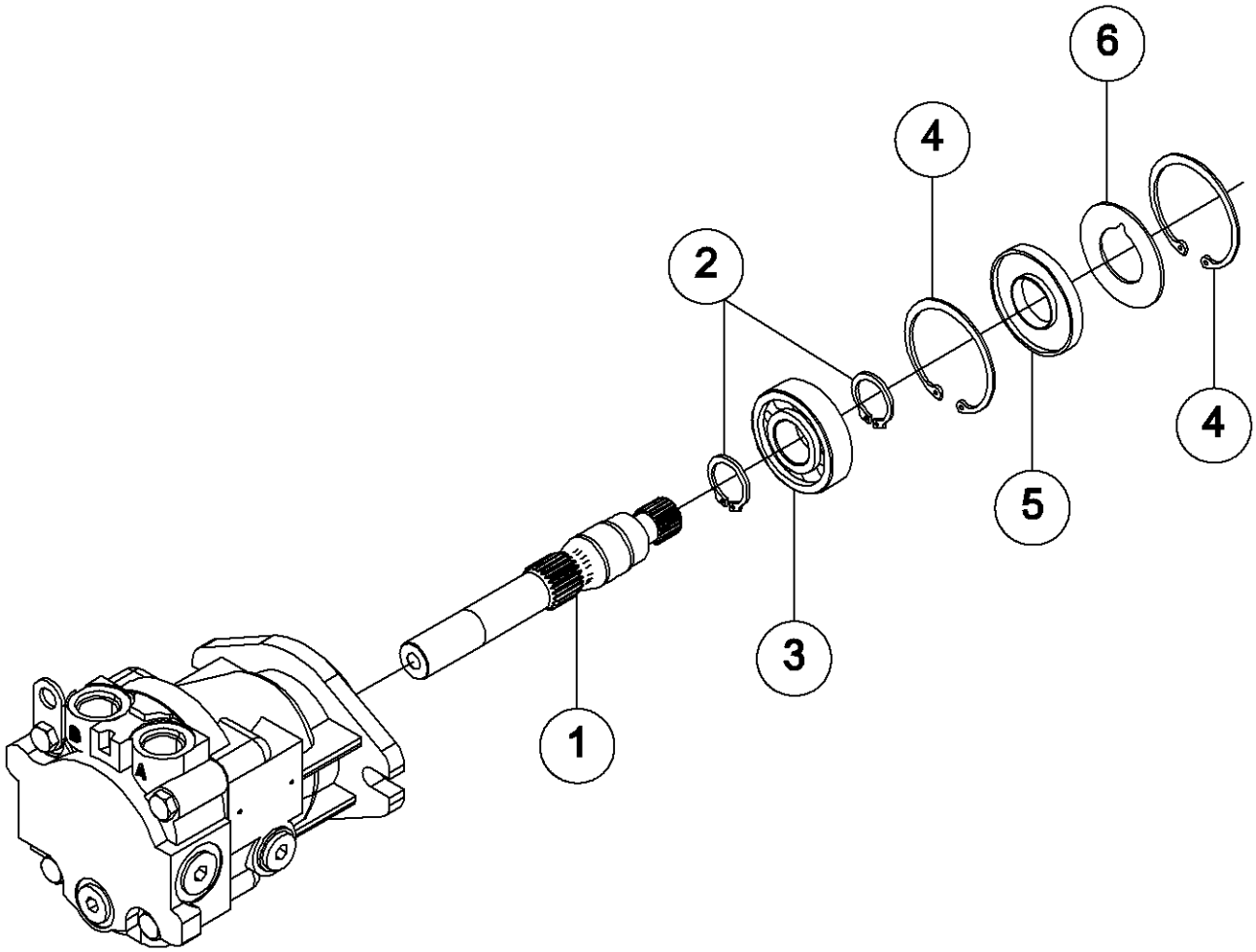
Track Drive Motor (Left) (S/N 108-110) Fig 4-7



Track Drive Motor (Left) (S/N 108-110) Fig 4-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		72419001	FITTING - 90 - 12MORFF - 12MORBA	2	VBM
2		57968001	FITTING-STR-4MJ-6MORB	1	VBM
3		903382001	O-RING AS-155	1	PELLA
4		619555001	MOTOR-FIXED DISPLACEMENT SERIES40-M35/45	1	PELLA, Breakdown Fig.4-7z01
5		299013829	ST-10MORB-12MJ	1	VBM
6		299011979	BOLT M12X30 - GR10.9 GB/T70-85	2	VBM
7		299012383	WASHER GB/T97 12 200HV	2	VBM

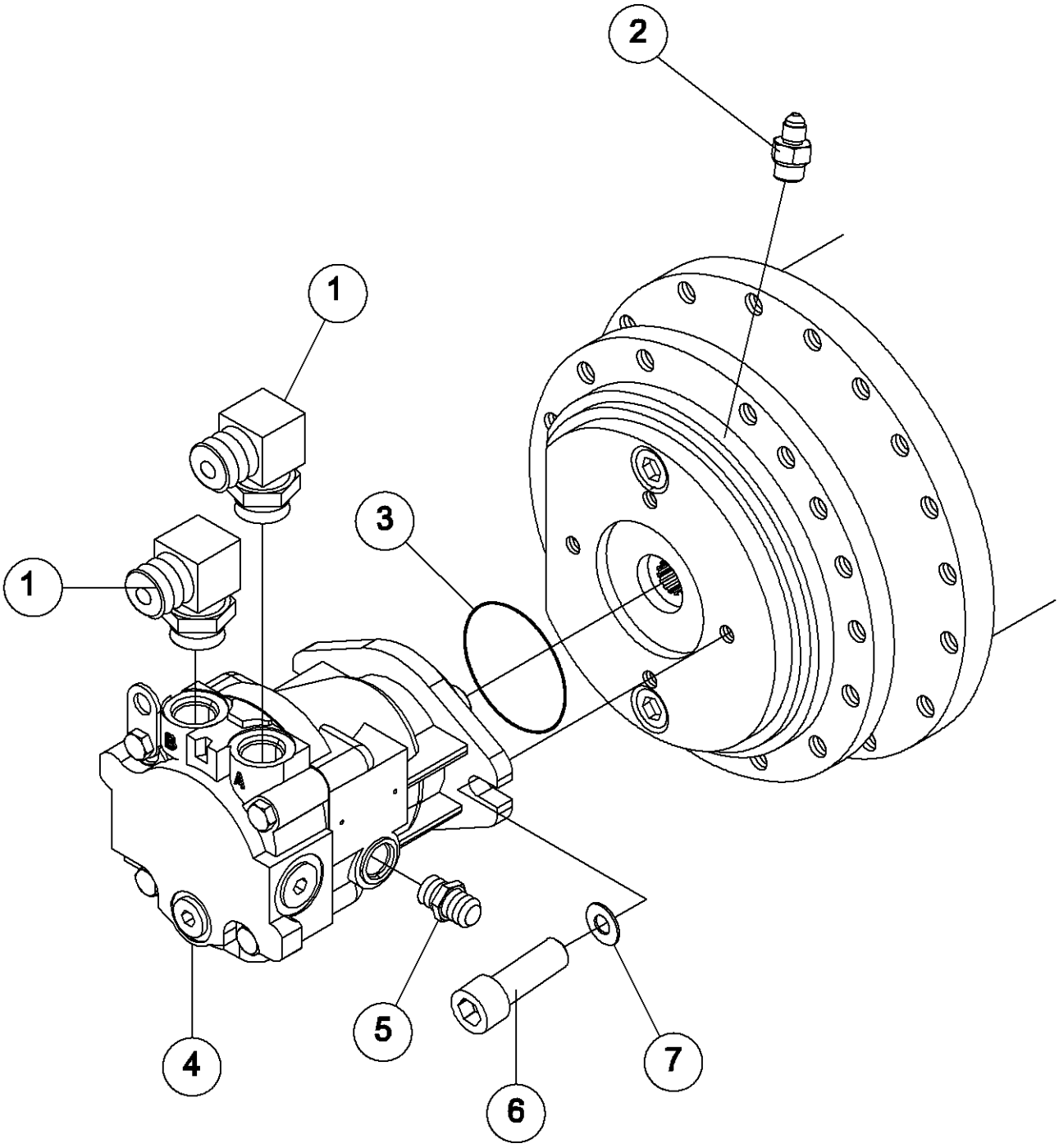
Components-Track Drive Motor (Left) Fig 4-7z01



Components-Track Drive Motor (Left) Fig 4-7z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296278068	SHAFT - MOTOR FIXED 15T	1	PELLA
2		68859057	RING-RETAINING	2	PELLA
3		68859053	BEARING-BALL	1	PELLA
4		68859055	RING-RETAINING	2	PELLA
5		68859099	SEAL LIP	1	PELLA
6		296278070	WASHER - SEAL SUPPORT	1	PELLA
		619555001	MOTOR-FIXED DISPLACEMENT SERIES40-M35/45		PELLA, Inc. All Items In Figure
		296278075	SEAL KIT		PELLA

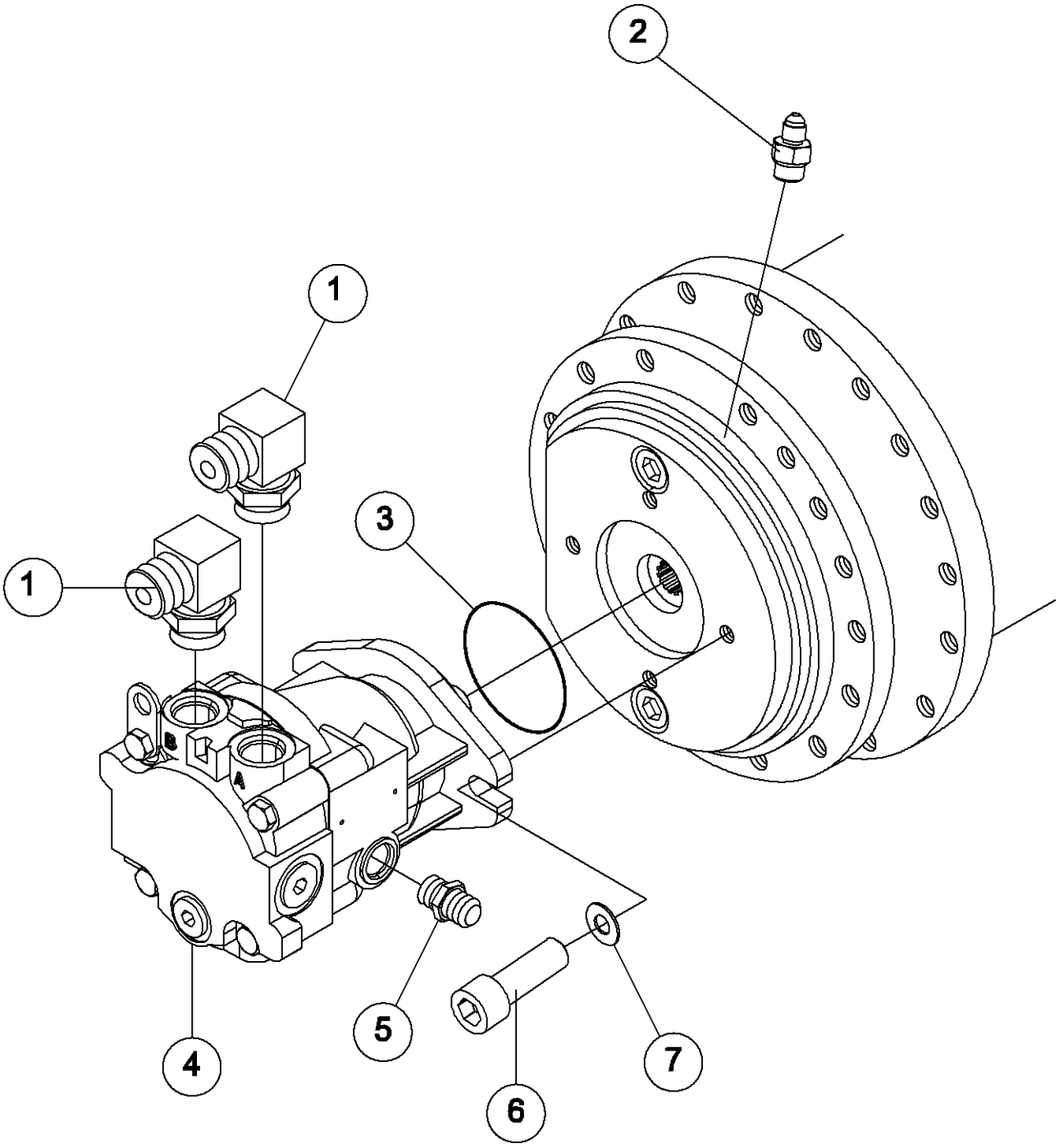
Track Drive Motor (Right) (S/N 101-107,111-) Fig 4-8r01



Track Drive Motor (Right) (S/N 101-107,111-) Fig 4-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		72419001	FITTING - 90 - 12MORFF - 12MORBA	2	VBM
2		57968001	FITTING-STR-4MJ-6MORB	1	VBM
3		299022944	O-RING 101X3.0	1	VBM
4		619555001	MOTOR-FIXED DISPLACEMENT SERIES40-M35/45	1	PELLA, Breakdown Fig.4-7z01
5		299013829	ST-10MORB-12MJ	1	VBM
6		299011979	BOLT M12X30 - GR10.9 GB/T70-85	2	VBM
7		299012383	WASHER GB/T97 12 200HV	2	VBM

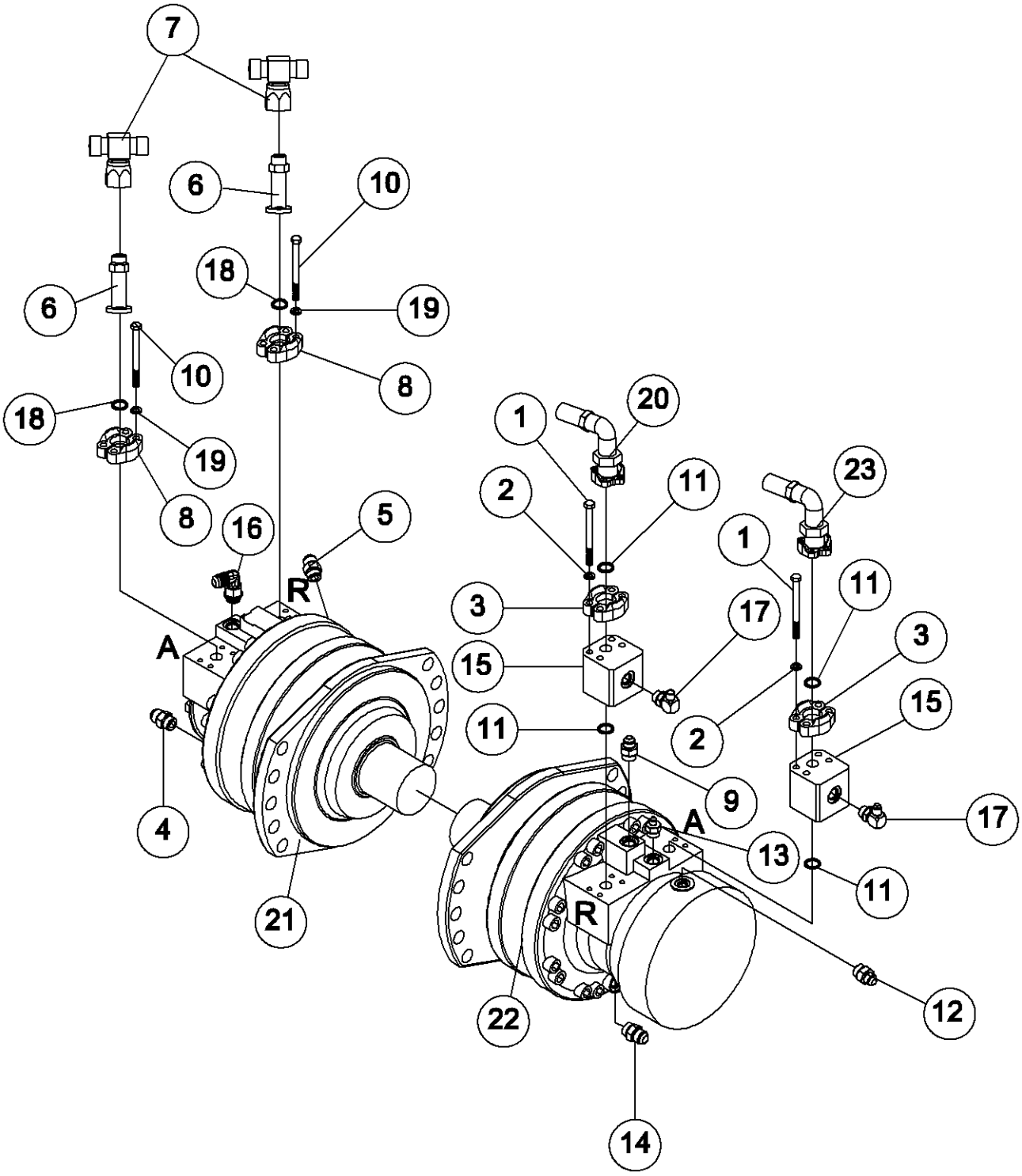
Track Drive Motor (Right) (S/N 108-110) Fig 4-8



Track Drive Motor (Right) (S/N 108-110) Fig 4-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		72419001	FITTING - 90 - 12MORFF - 12MORBA	2	VBM
2		57968001	FITTING-STR-4MJ-6MORB	1	VBM
3		903382001	O-RING AS-155	1	PELLA
4		619555001	MOTOR-FIXED DISPLACEMENT SERIES40-M35/45	1	PELLA, Breakdown Fig.4-7z01
5		299013829	ST-10MORB-12MJ	1	VBM
6		299011980	BOLT M12X30 - GR10.9 GB/T70-85	2	VBM
7		299012383	WASHER GB/T97 12 200HV	2	VBM

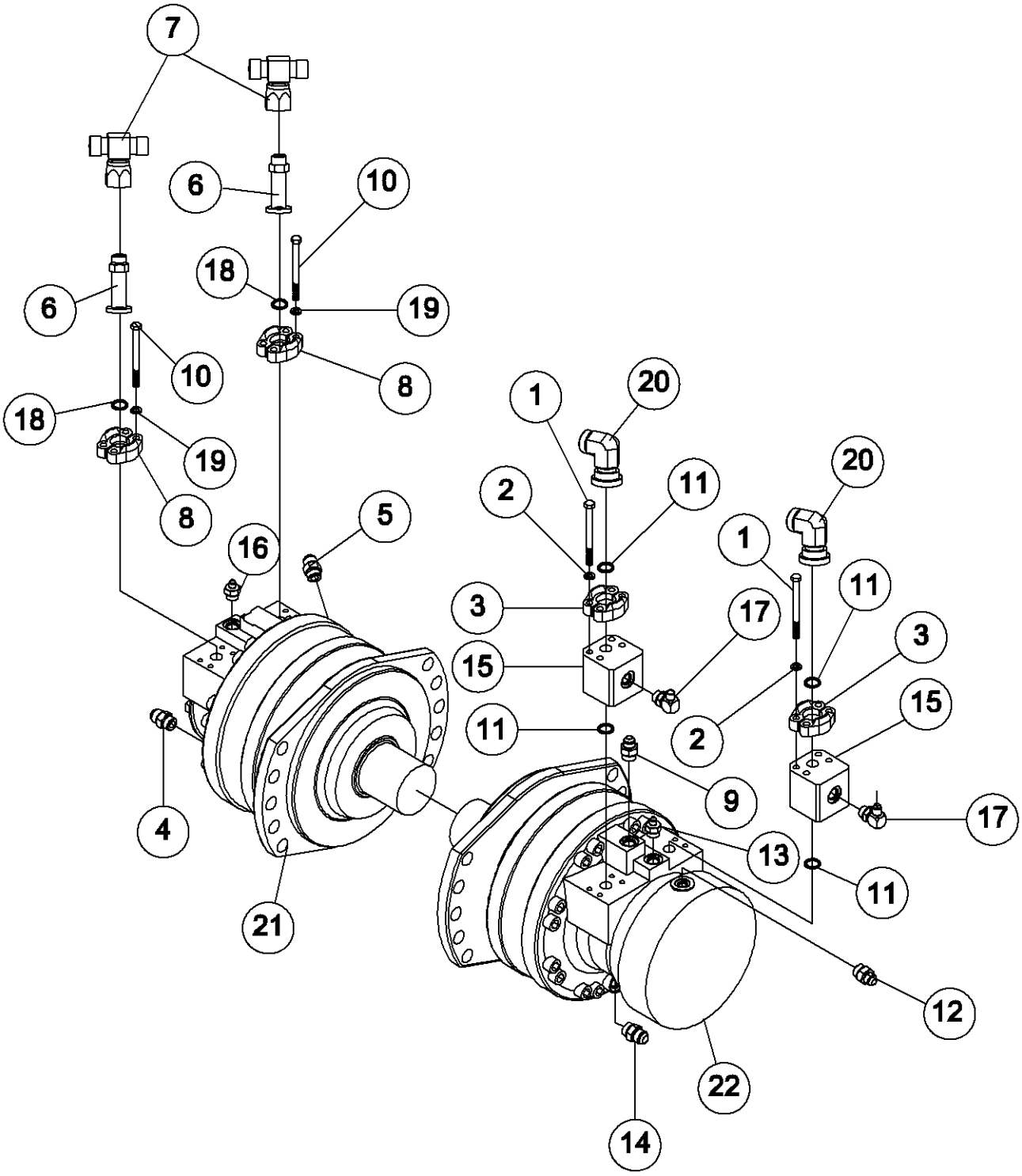
Rotation Drive Motor Hydraulic (S/N 104-) Fig 4-9r01



Rotation Drive Motor Hydraulic (S/N 104-) Fig 4-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299016062	BOLT GB/T5782 M10X110-GR8.8	8	VBM
2		299012382	WASHER GB/T97 10 200HV	8	VBM
3		67746001	FITTING - FLGH - 12CD62	4	VBM
4		299013863	ST-12MORB-16MJ	1	VBM
5		299013875	ST-12MORB-10MJ	1	VBM
6		299014197	ST-16FLH-16MORFF-L120	2	VBM
7		299013913	TEE 16MORFF-16MORFF-16FORFF	2	VBM
8		67745001	FITTING - FLGH - 16CD62	4	VBM
9		57946001	10MX#6JIC ST ADAPTER	1	VBM
10		299010474	BOLT M12X40 (GB/T5783)	8	VBM
11		72894001	O RING-SQ. #12 FLANGE	4	PELLA
12		57968001	FITTING-STR-4MJ-6MORB	1	VBM
13		60247001	FITTING - 8M O-RING X 6M JIC ST.	1	VBM
14		53827001	FITT.-#10M O-RING-#10M JIC ST.	1	VBM
15		291764001	MANIFOLD - 12 CODE 62/8 O-RING	2	VBM
16		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
17		299013792	90-8MORBA-4MORFF	2	VBM
18		72895001	O RING-SQ. #16 FLANGE	2	VBM
19		299012383	WASHER GB/T97 12 200HV	8	VBM
20		299023055	HOSE 1”X790mm 90-12FLH/ST-16MORFF 6000PSI	1	VBM
21		296284136	MOTOR - MS35-2	1	PELLA, Breakdown Fig.4-9z01
22		296284164	MOTOR - MSE1802	1	PELLA, Breakdown Fig.4-9z02
23		299023081	HOSE 1”X810mm 90-12FLH/ST-16MORFF 6000PSI	1	VBM

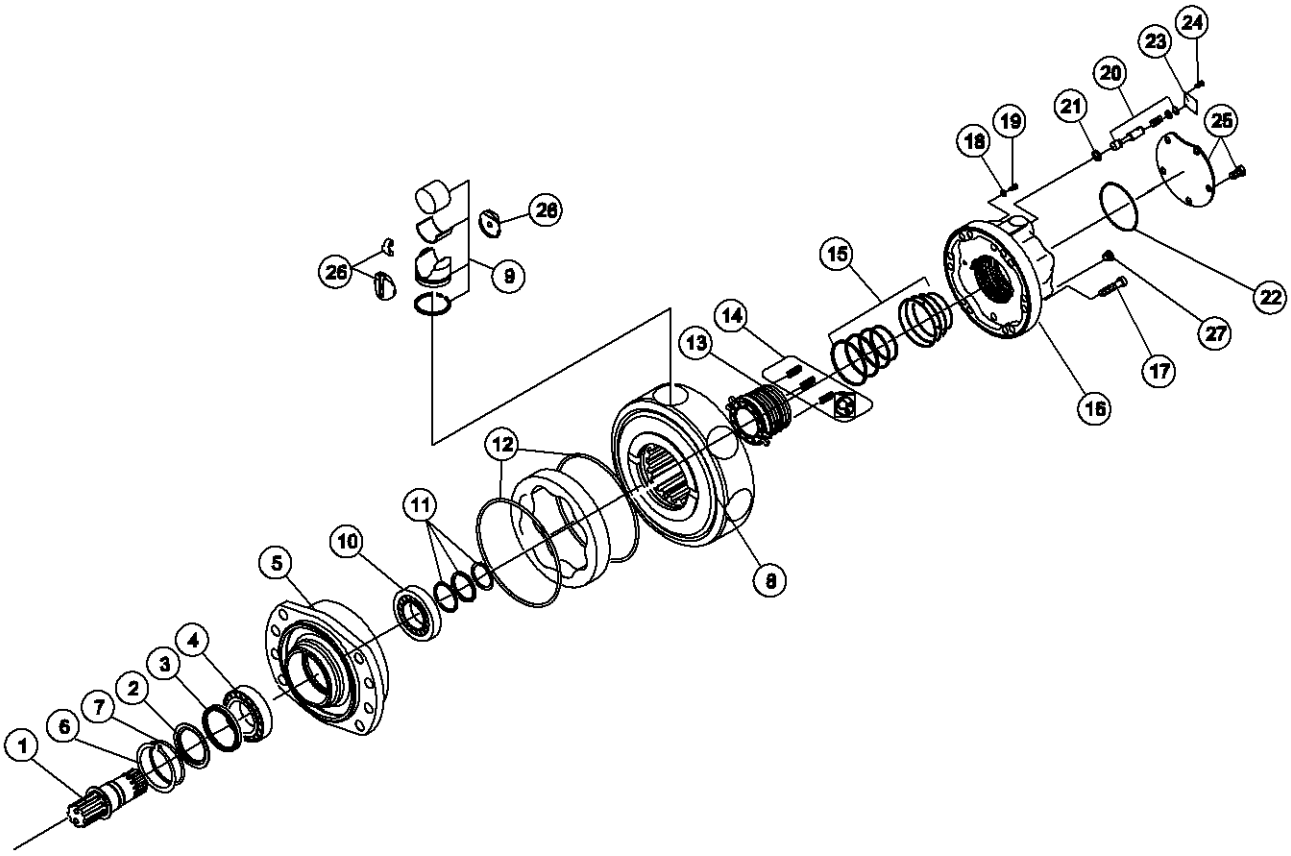
Rotation Drive Motor Hydraulic (S/N 101-103) Fig 4-9



Rotation Drive Motor Hydraulic (S/N 101-103) Fig 4-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299016062	BOLT GB/T5782 M10X110-GR8.8	8	VBM
2		299012382	WASHER GB/T97 10 200HV	8	VBM
3		67746001	FITTING - FLGH - 12CD62	4	VBM
4		299013863	ST-12MORB-16MJ	1	VBM
5		299013875	ST-12MORB-10MJ	1	VBM
6		299014197	ST-16FLH-16MORFF-L120	2	VBM
7		299013913	TEE 16MORFF-16MORFF-16FORFF	2	VBM
8		67745001	FITTING - FLGH - 16CD62	4	VBM
9		57946001	10MX#6JIC ST ADAPTER	1	VBM
10		299010474	BOLT M12X40 (GB/T5783)	8	VBM
11		72894001	O RING-SQ. #12 FLANGE	4	PELLA
12		57968001	FITTING-STR-4MJ-6MORB	1	VBM
13		60247001	FITTING - 8M O-RING X 6M JIC ST.	1	VBM
14		53827001	FITT.-#10M O-RING-#10M JIC ST.	1	VBM
15		291764001	MANIFOLD - 12 CODE 62/8 O-RING	2	VBM
16		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM
17		299013792	90-8MORBA-4MORFF	2	VBM
18		72895001	O RING-SQ. #16 FLANGE	2	VBM
19		299012383	WASHER GB/T97 12 200HV	8	VBM
20		299014258	90-12FL-16MORFF	2	VBM
21		296284136	MOTOR - MS35-2	1	PELLA, Breakdown Fig.4-9z01
22		296284164	MOTOR - MSE1802	1	PELLA, Breakdown Fig.4-9z02

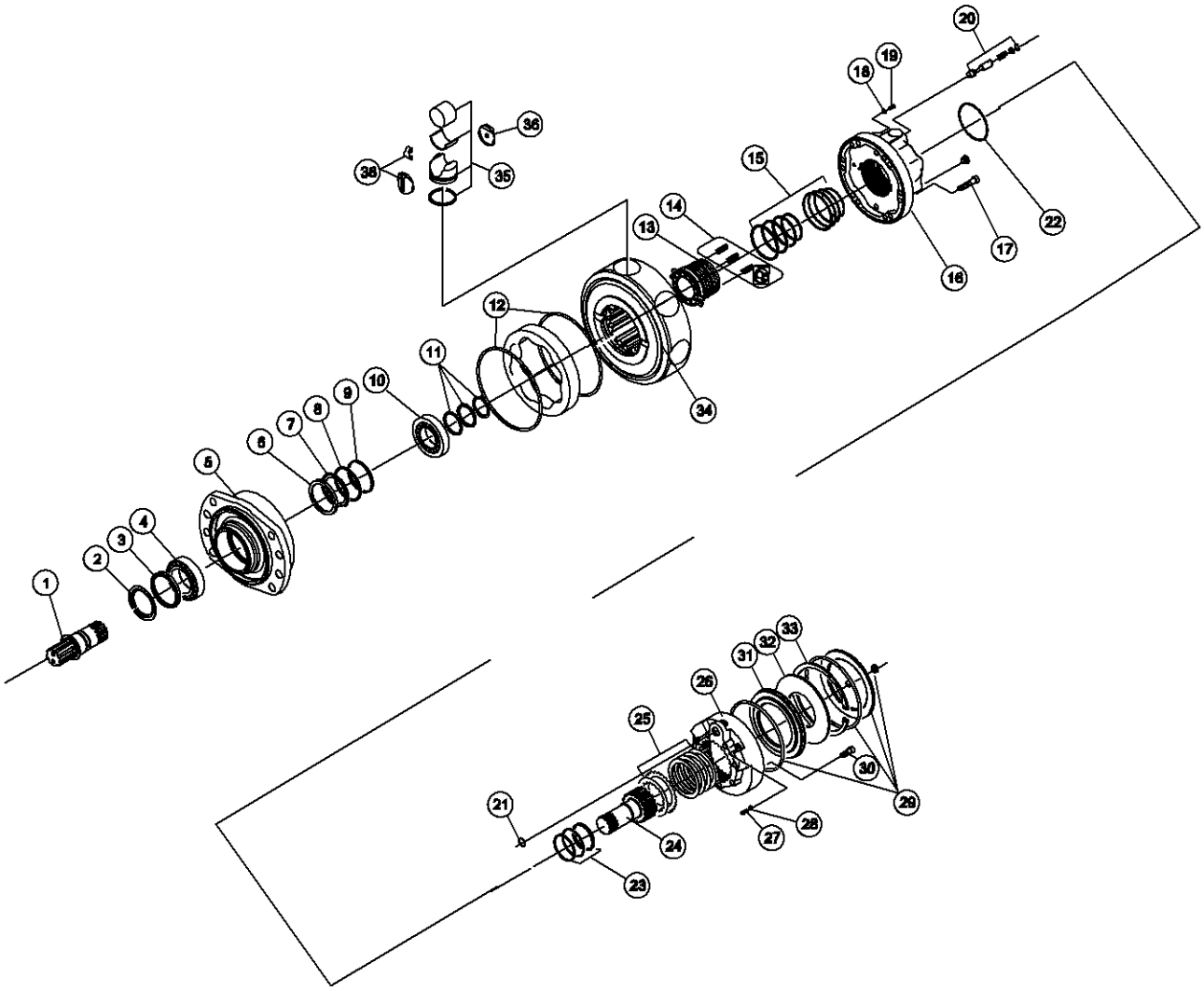
Components-Rotation Drive Motor Hydraulic Fig 4-9z01



Components-Rotation Drive Motor Hydraulic Fig 4-9z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026265	MOTOR SHAFT	1	PELLA
2		299026266	COVER	1	PELLA
3		299026267	SEAL	1	PELLA
4		299026268	SNAP RING	1	PELLA
5		296251985	BEARING SUPPORT	1	PELLA
6		296251990	SEAL	1	PELLA
7		296251989	O - RING	1	PELLA
8		299026272	CYLINDER BLOCK	1	PELLA
9		299026261	PISTON (MOTOR)	A/R	PELLA
10		254642029	BEARING	1	PELLA
11		299026255	SPARE PART SET	1	PELLA
12			SEAL	2	Not Sold Separately
13		296251975	VALVING DISTRIBUTOR	1	PELLA
14		299026256	KITSAV-COMPR-SPRING-4.5-X	1	PELLA
15		84550025	SEAL SET - VALVE	1	PELLA
16		299026269	COVER PLATE	1	PELLA
17		296251973	BOLT	12	PELLA
18			SEAL	4	Not Sold Separately
19		64078027	SCREW-BLEEDING	1	PELLA
20		299026270	SPARE PART SET	1	PELLA
21			SEAL	2	Not Sold Separately
22			SEAL	1	Not Sold Separately
23		296251974	COVER	1	PELLA
24		84550047	SCREW-M16X25	1	PELLA
25		299026271	BLANKING PLATE	1	PELLA
26		296251970	REPAIR KIT	1	PELLA
27		296251976	PLUG	1	PELLA
		296284136	MOTOR-MS35-2		PELLA, Inc. All Items In This Figure
		299026273	SPARE PART SET		PELLA, Inc. Ref. No's 3,7,11,12
		299026274	SPARE PART SET		PELLA, Inc. Ref. No's12,15,18,21,22

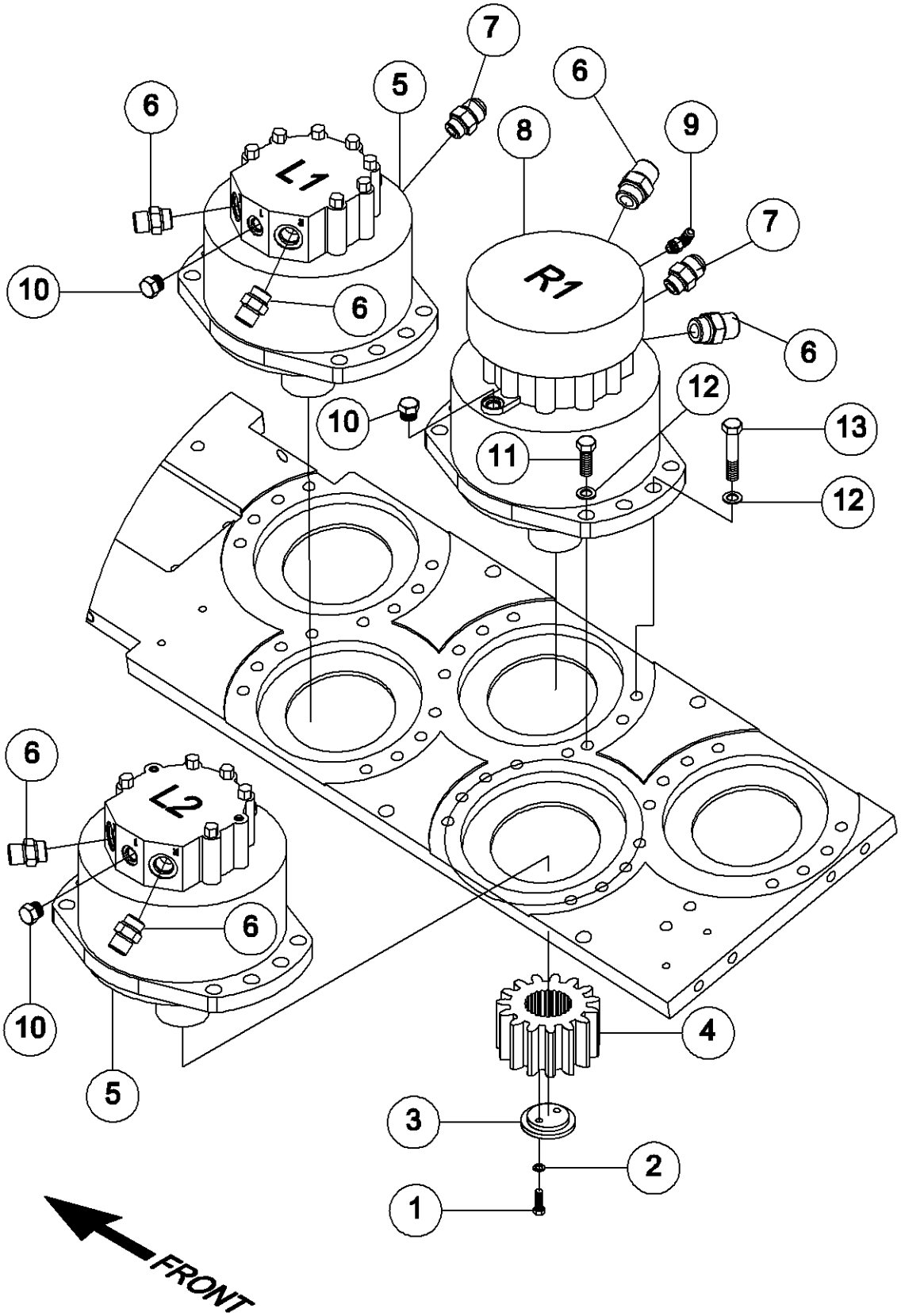
Components-Rotation Drive Motor Hydraulic Fig 4-9z02



Components-Rotation Drive Motor Hydraulic Fig 4-9z02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296278136	SHAFT	1	PELLA
2		254642039	DEFLECTOR	1	PELLA
3		99098031	SEAL	1	PELLA
4		296278135	BEARING	1	PELLA
5		296251957	BEARING SUPPORT	1	PELLA
6		99098025	SEAL	1	PELLA
7		299026252	GUIDE RING	1	PELLA
8		299026253	SEAL	1	PELLA
9		299026254	SEAL SUPPORT	1	PELLA
10		99098029	INNER BEARING	1	PELLA
11		299026255	SPARE PART SET	1	PELLA
12			SEAL	2	Not Sold Separately
13		299026609	VALVING/DISTRIBUTOR-GLACE	1	PELLA
14		299026256	KITSAV-COMPR-SPRING-4.5-X	1	PELLA
15			SEAL	1	Not Sold Separately
16		296278092	VALVING COVER	1	PELLA
17		216674009	BOLT-M16X100 CL 10.9	16	PELLA
18			SEAL	4	Not Sold Separately
19		64078027	SCREW-BLEEDING	1	PELLA
20		299026257	KITSAV-SPOOL-S18	1	PELLA
21			SEAL	2	Not Sold Separately
22			SEAL	1	Not Sold Separately
23		296251965	SEAL KIT	1	PELLA
24		296278097	SHAFT	1	PELLA
25		299026258	SPARE PART SET	1	PELLA
26		296278096	BRAKE BODY	1	PELLA
27		140255041	SCREW - BOLT	2	PELLA
28		608383001	WASHER	2	PELLA
29		299026259	SPARE PART SET	1	PELLA
30		280985011	SCREW	10	PELLA
31		296278137	BRAKE PISTON	1	PELLA
32		296271036	BELVILLE WASHER	1	PELLA
33		608492001	SNAP RING	1	PELLA
34		299026260	CYLINDER BLOCK	1	PELLA
35		299026261	PISTON (MOTOR)	A/R	PELLA
36		254642007	REPAIR KIT	1	PELLA
		296284164	MOTOR - MSE1802		PELLA, Inc. All Items In This Figure
		299026262	SPARE PART SET		PELLA, Inc. Ref. No's 21,22,23,28,29
		299026263	KITSAV-CV-REP-MS18-2C/3C		PELLA, Inc. Ref. No's 12,15,18,21,22
		299026264	SPARE PART SET		PELLA, Inc. Ref. No's 2,3,6,7,8,9,11

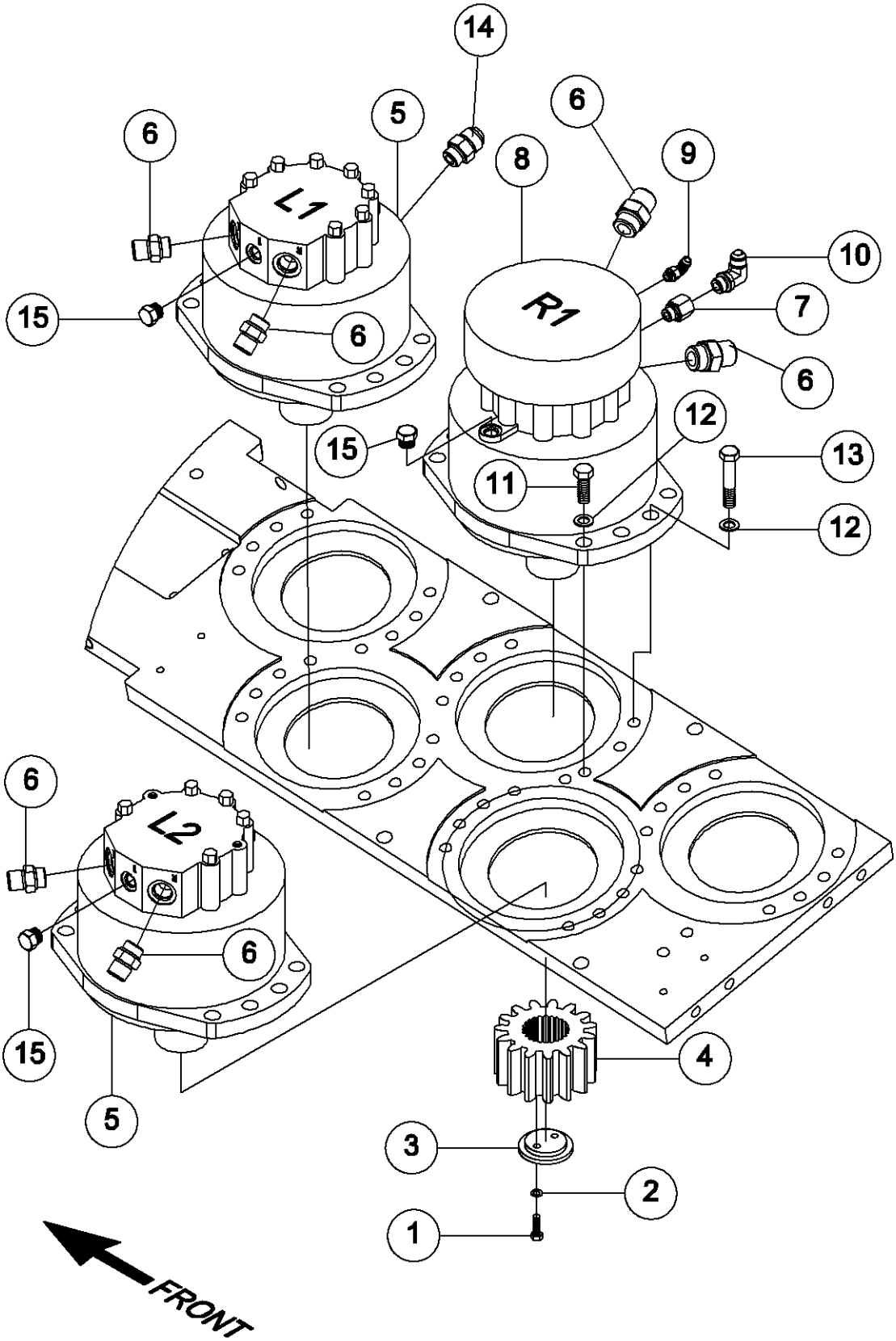
Thrust/Pullback Drive Motor (S/N 104-) Fig 4-10r01



Thrust/Pullback Drive Motor (S/N 104-) Fig 4-10r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010462	BOLT GB/T5783 M10X45-GR8.8	10	VBM
2		299012382	WASHER GB/T97 10 200HV	10	VBM
3		280779001B	CAP - PINION	5	VBM
4		280751001B	GEAR - 12 TOOTH 2P	5	VBM
5		296273807	MOTOR-MSE11-2-11A-A11-2A10-5000	4	PELLA, Breakdown Fig.4-10z01
6		279784001	FITTING-STR-12MORFF-12MORB	10	VBM
7		299013849	ST-8MORB-10MJ	5	VBM
8		296273808	MOTOR-MSE11-2-14A-F12-2A10-2500	1	PELLA, Breakdown Fig.4-10z02
9		57950001	FITTING-90-4MJ-6MORBA	1	VBM
10		289767001	PLUG, #8 ORB HHP	5	VBM
11		299010533	BOLT M20X60-GR8.8 GB/T5783	26	VBM
12		299012386	WASHER 20 (GB/T97-85)	40	VBM
13		299011060	BOLT M20X90 (GB/T5782)	14	VBM

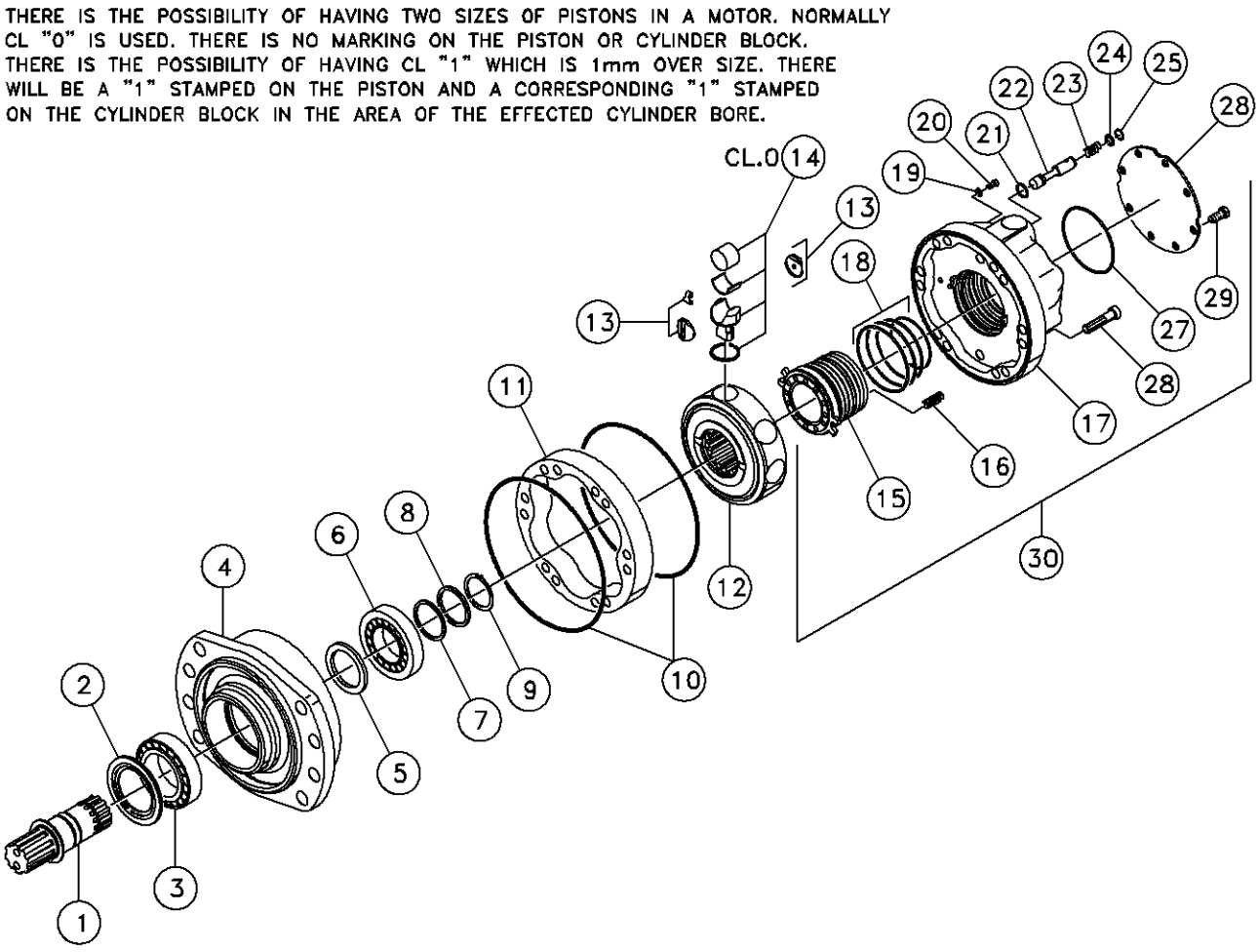
Thrust/Pullback Drive Motor (S/N 101-103) Fig 4-10



Thrust/Pullback Drive Motor (S/N 101-103) Fig 4-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010462	BOLT GB/T5783 M10X45-GR8.8	10	VBM
2		299012382	WASHER GB/T97 10 200HV	10	VBM
3		280779001B	CAP - PINION	5	VBM
4		280751001B	GEAR - 12 TOOTH 2P	5	VBM
5		296273807	MOTOR-MSE11-2-11A-A11-2A10-5000	4	PELLA, Breakdown Fig.4-10z01
6		279784001	FITTING-STR-12MORFF-12MORB	10	VBM
7		81696001	FITTING-8MX10F STR	1	VBM
8		296273808	MOTOR-MSE11-2-14A-F12-2A10-2500	1	PELLA, Breakdown Fig.4-10z02
9		57950001	FITTING-90-4MJ-6MORBA	1	VBM
10		53829001	#10M O-RING-#10M JIC 90 DEG.	1	VBM
11		299010533	BOLT M20X60-GR8.8 GB/T5783	26	VBM
12		299012386	WASHER 20 (GB/T97-85)	40	VBM
13		299011060	BOLT M20X90 (GB/T5782)	14	VBM
14		299013849	ST-8MORB-10MJ	4	VBM
15		289767001	PLUG, #8 ORB HHP	5	VBM

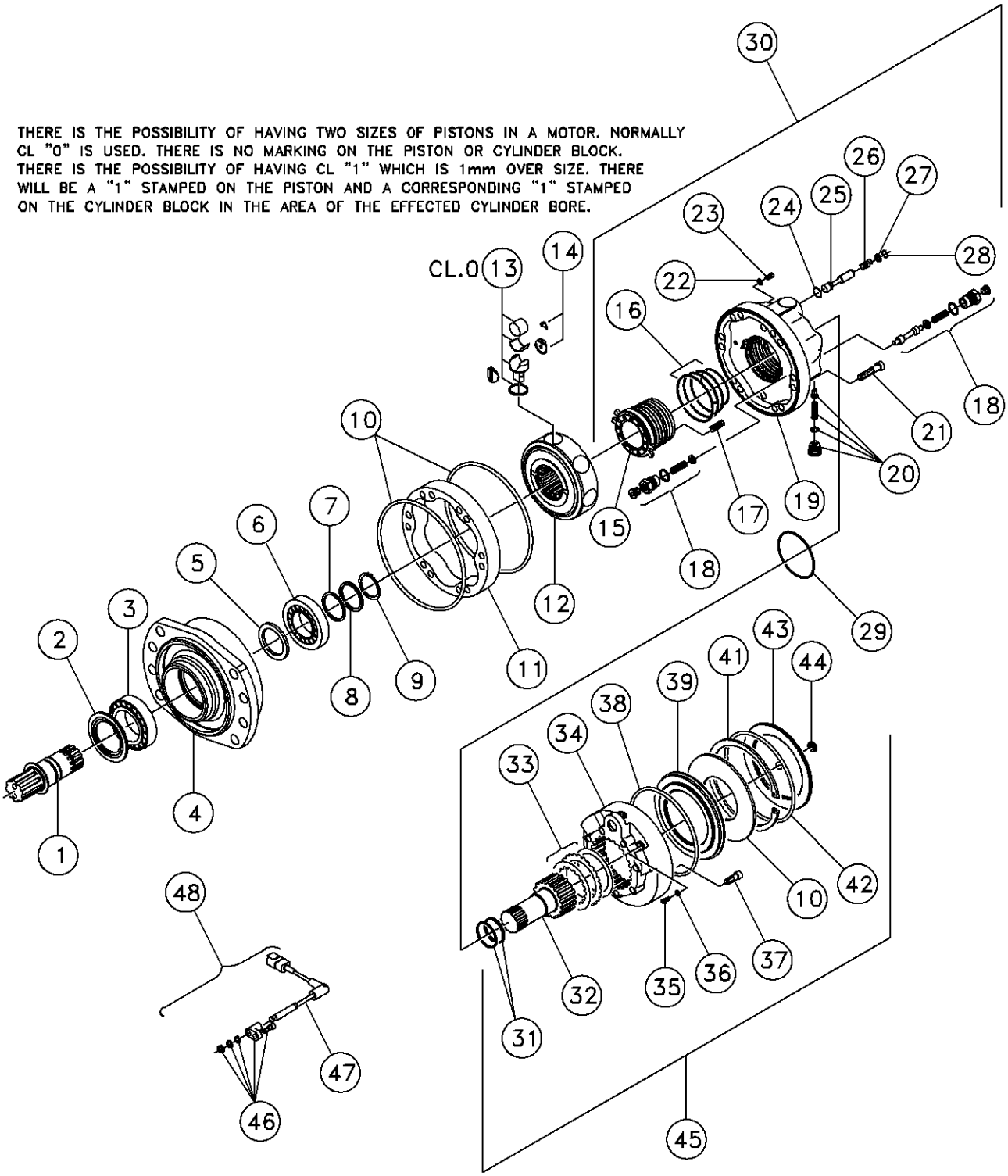
Components-Thrust/Pullback Drive Motor Fig 4-10z01



Components-Thrust/Pullback Drive Motor Fig 4-10z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		276258009	SHAFT	1	PELLA
2		256555005	ENVIRONMENT SEAL	1	PELLA
3		256555007	BEARING	1	PELLA
4		276258011	BEARING SUPPORT ASSEMBLY	1	PELLA
4		276258005	BEARING SUPPORT	1	PELLA
5		256555011	RUBBER SEAL RING	1	PELLA
6		256555013	BEARING	1	PELLA
7		256555015	SET OF SPUDS	1	PELLA
8		256555017	RING	1	PELLA
9		208165001	SNAP RING	1	PELLA
10		256555021	O-RING	2	PELLA
11		296278023	CAM RING	1	PELLA
12		224897003	CYLINDER BLOCK	1	PELLA
13		224897017	REPAIR KIT-PISTON	1	PELLA
14		224897005	PISTON CL “0”	A/R	PELLA
15		296278025	VALVING	1	PELLA
16		84550029	SPRING	8	PELLA
17		235790005	VALVING COVER	1	PELLA
18		256555027	SEAL KIT	1	PELLA
19		608383001	WASHER	2	PELLA
20		140255041	SCREW - BOLT	2	PELLA
21		235790011	O-RING	1	PELLA
22		235790013	VALVE SPOOL	1	PELLA
23		235790015	SPRING	1	PELLA
24		235790017	WASHER	1	PELLA
25		235790019	SNAP RING	1	PELLA
26		235790007	SCREW	16	PELLA
27		608385001	O-RING	1	PELLA
28		254642021	BACK PLATE	1	PELLA
28		296278104	BACK PLATE	1	PELLA, (Thicker Plate)
29		235790023	BOLT	6	PELLA
30		296278024	VALVING COVER ASSEMBLY	1	PELLA, Inc. Ref. No’s 15-29
		296273807	MOTOR-MSE11-2-11A-A11-2A10-5000		PELLA, Inc. All Items In This Figure
		256555029	SEAL KIT		PELLA, Inc. Ref. No’s 2, 5, 8, 10, 18, 19, & 27

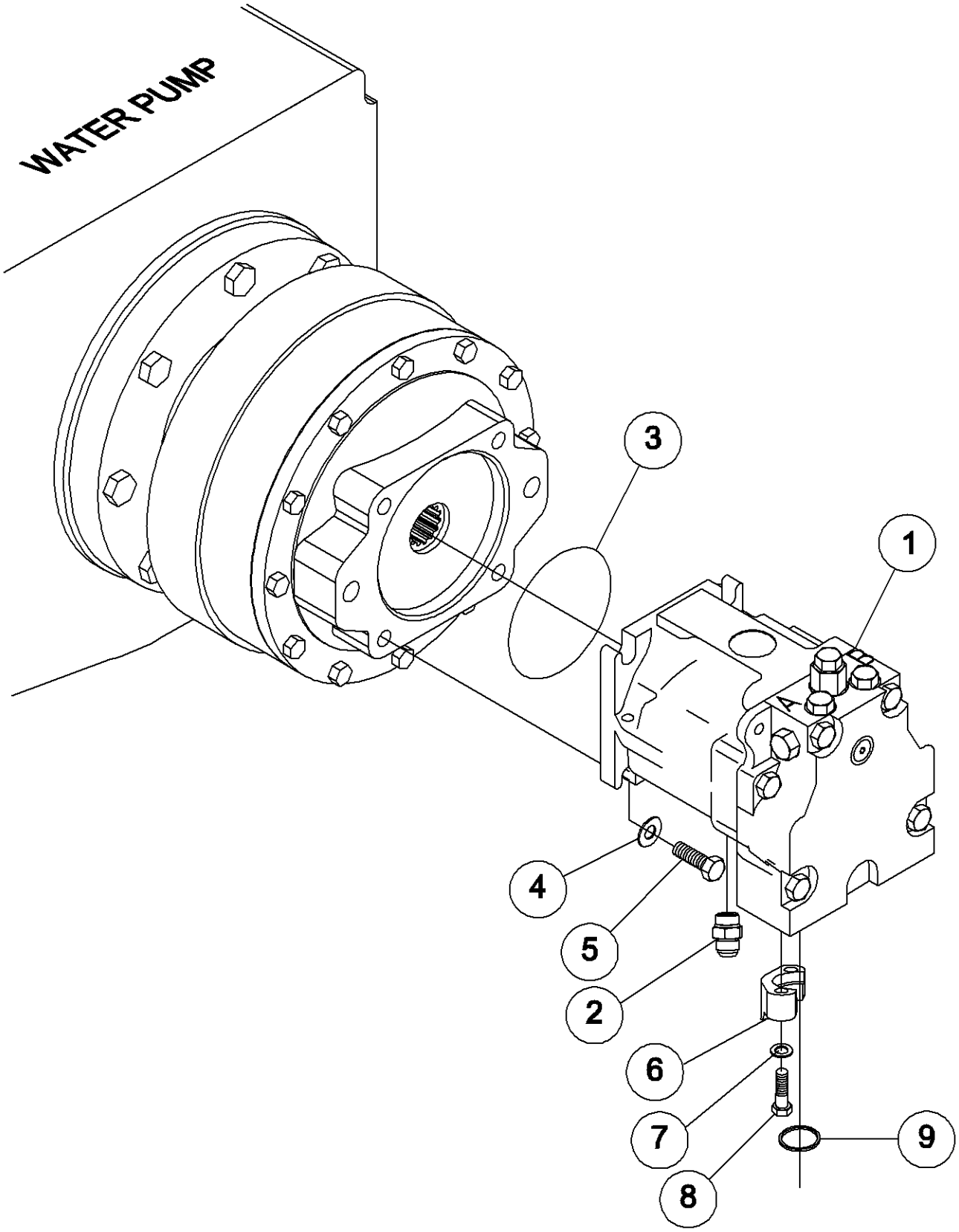
Components-Thrust/Pullback Drive Motor Fig 4-10z02



Components-Thrust/Pullback Drive Motor Fig 4-10z02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		280793003	SHAFT	1	PELLA
2		608397001	ENVIRONMENT SEAL	1	PELLA
3		83651039	BEARING	1	PELLA
4		280793005	BEARING SUPPORT	1	PELLA
5		256556007	RUBBER SEAL RING	1	PELLA
6		83651041	BEARING	1	PELLA
7		83651043	SHIM SET	1	PELLA
8		83651045	WASHER	1	PELLA
9		608396001	SNAP RING	1	PELLA
10		296278080	O-RING	2	PELLA
11		280793007	CAM RING	1	PELLA
12		296278078	CYLINDER BLOCK	1	PELLA
13		296275596	PISTON CI.O	A/R	PELLA
14		296278079	REPAIR KIT	1	PELLA
15		296278083	VALVING/DISTRIBUTOR	1	PELLA
16		608387001	SEAL KIT	1	PELLA
17		84550029	SPRING	9	PELLA
18		256811005	VALVE SPOOL	1	PELLA
19		296278082	VALVING COVER	1	PELLA
20		256811007	VALVE	1	PELLA
21		83651023	SCREW-M16X90	12	PELLA
22		608383001	WASHER	2	PELLA
23		140255041	SCREW - BOLT	2	PELLA
24		235790011	O-RING	1	PELLA
25		235790013	VALVE SPOOL	1	PELLA
26		235790015	SPRING	1	PELLA
27		235790017	WASHER	1	PELLA
28		235790019	SNAP RING	1	PELLA
29		608385001	O-RING	1	PELLA
30		296278081	COMPLETE VALVING COV	1	PELLA, Inc. Ref. No's 15-29
31		608494001	SEAL	1	PELLA
32		280985005	SHAFT	1	PELLA
33		280985007	BRAKE DISC KIT	1	PELLA
34		296278085	BRAKE BODY	1	PELLA
35		140255041	SCREW - BOLT	2	PELLA
36		608383001	WASHER	2	PELLA
37		280985011	SCREW	6	PELLA
38		296275604	O-RING-5.70X199.30	1	PELLA
39		296251962	BRAKE PISTON	1	PELLA
40		296271036	BELVILLE WASHER	1	PELLA
41		608492001	SNAP RING	1	PELLA
42		608499001	O-RING	1	PELLA
43		296251967	PROJECTOR	1	PELLA
44		608498001	PLUG	1	PELLA
45		296278084	DISC BRAKE	1	PELLA, Inc. Ref. No's 31-44
46		296278086	SPEED SENSOR KIT	1	PELLA, Inc. Ref. No's 47 & 48
47		296278087	SPEED SENSOR KIT	1	PELLA
48		296278088	REPAIR KIT	1	PELLA
		296273808	MOTOR-MSE11-2-14A-F12-2A10-2500		PELLA, Inc. All Items In This Figure
		208350001	SEAL KIT		PELLA, Inc. Ref. No's 2, 5, 8, 10, 16, 22, 29, 31, 38 & 42

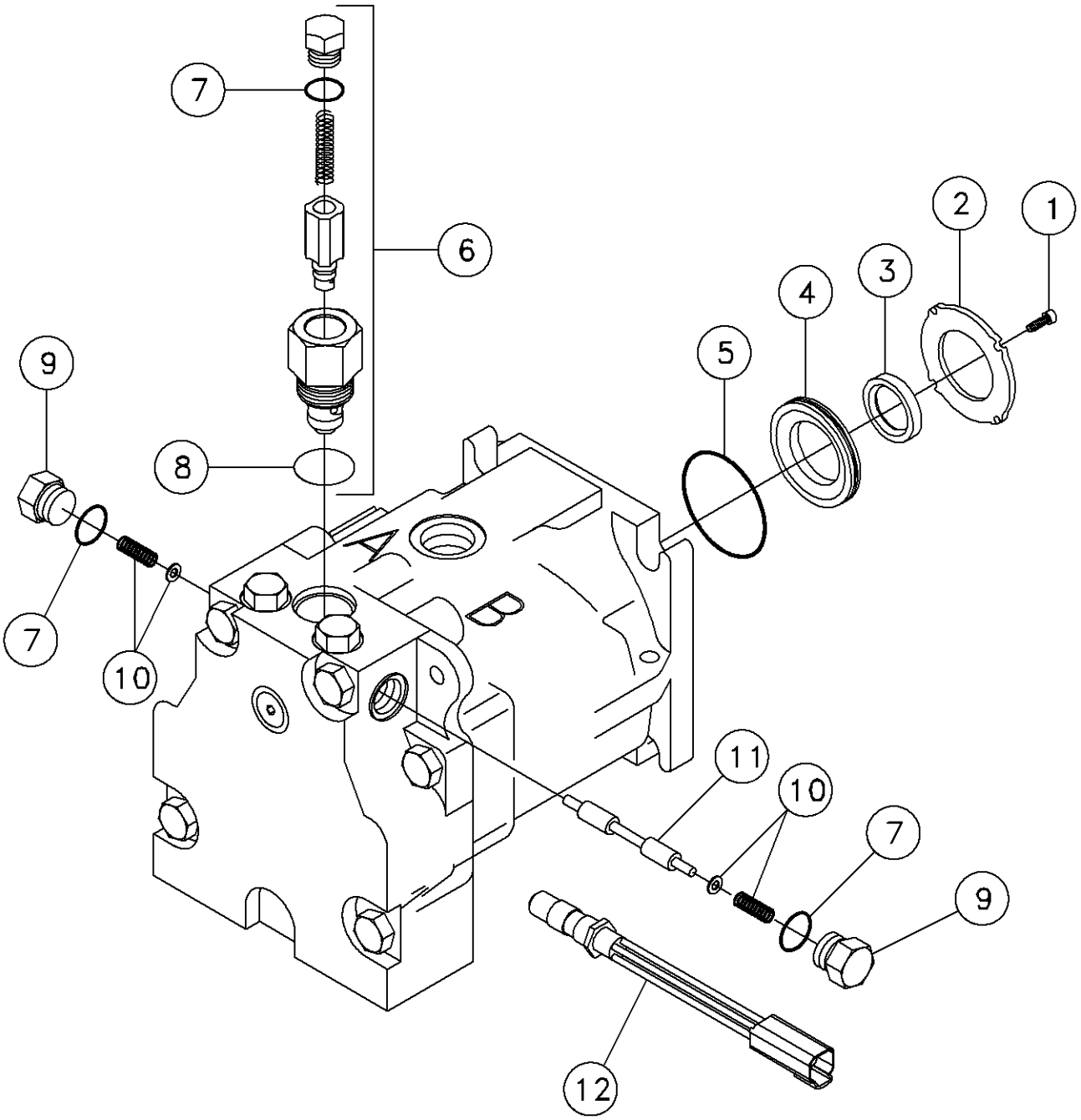
Water Pump Drive Motor Fig 4-11



Water Pump Drive Motor Fig 4-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296273947	MOTOR-HYD 90 SERIES 75CC(W/SPEED SENSOR)	1	PELLA, Breakdown Fig.4-11z01
2		53828001	#12M O-RING-#12M JIC ST.	1	VBM
3		299015053	O-RING 127X3.0	1	VBM
4		299015074	WASHER 1/2	4	VBM
5		299015005	BOLT 1/2-13X1-1/2-8.8UNC	4	VBM
6		67745001	FITTING - FLGH - 16CD62	4	VBM
7		299015013	ANSI/ASME B18.22.1-HZP 7/16	8	VBM
8		250507001B	BOLT 7/16-14 X 1 3/4”GR8 HEX Y	8	VBM
9		72895001	O RING-SQ. #16 FLANGE	2	PELLA

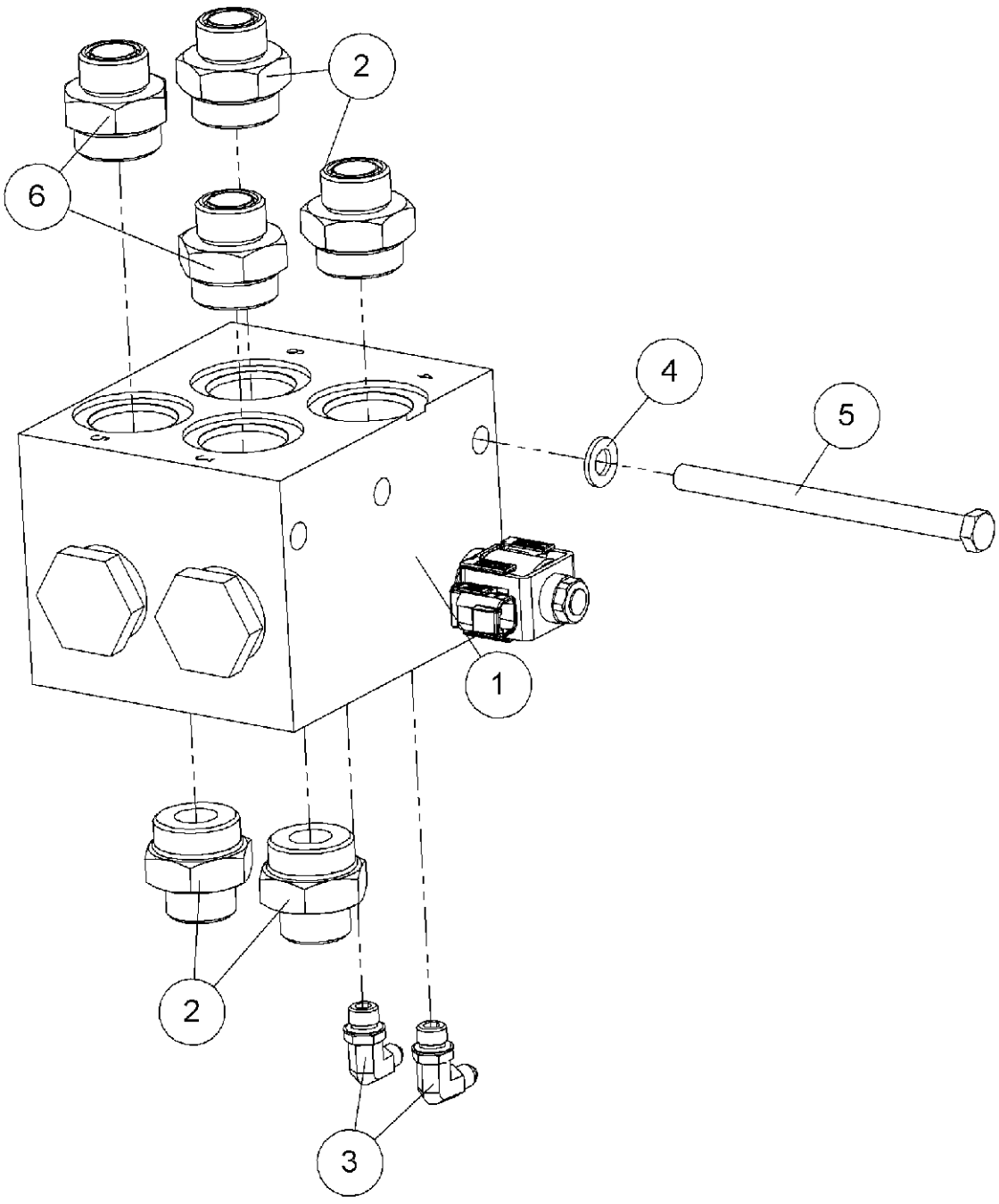
Components-Water Pump Drive Motor Fig 4-11z01



Components-Water Pump Drive Motor Fig 4-11z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		131494021	SOCKET HEAD SCREW	3	PELLA
2		131494019	RETAINER PLATE	1	PELLA
3		114282005	LIP SEAL	1	PELLA
4		114282003	SEAL CARRIER	1	PELLA
5		114282007	O-RING	3	PELLA
6		296278108	CHARGE RELIEF VALVE CARTRIDGE KIT	1	PELLA
7		296278109	O-RING	1	PELLA
8		113080023	O-RING	1	PELLA
9		296278110	SPECIAL PLUG	2	PELLA
10		296278111	SPRING GUIDE ASSEMBLY	2	PELLA
11		196278112	SHUTTLE SPOOL	1	PELLA
12		604451001	MAGNETIC PICKUP	1	PELLA
		296273947	MOTOR-HYD 90 SERIES 75CC(W/SPEED SENSOR)		PELLA, Inc. All Items In This Figure
		296278075	SEAL KIT		PELLA

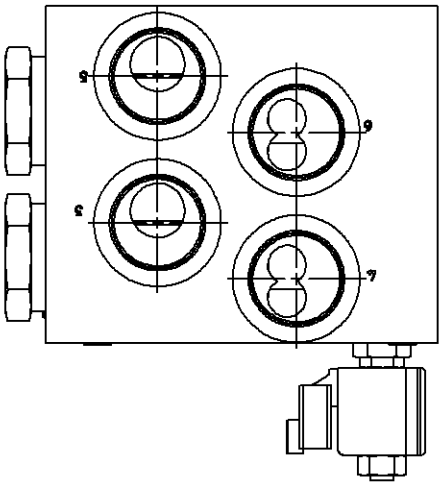
Selector Manifold (Left Track/Rotation) Fig 4-12

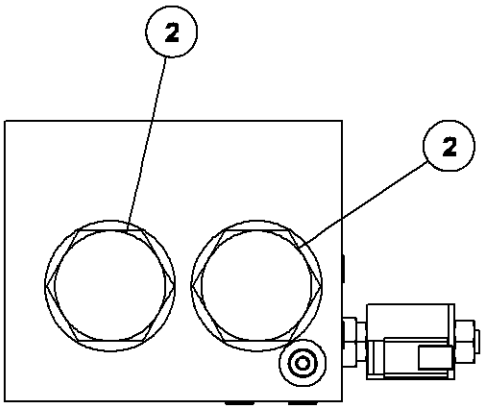


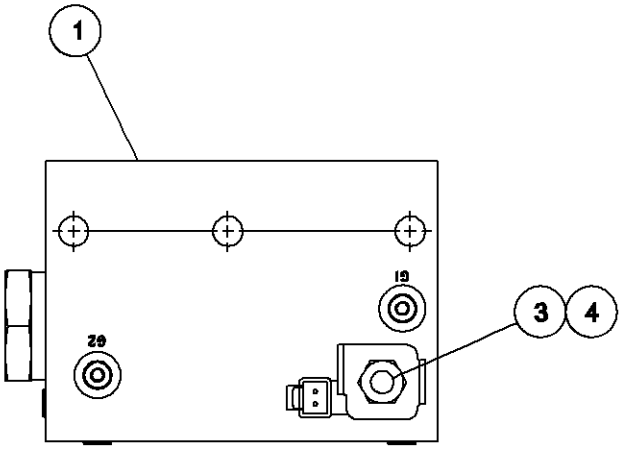
Selector Manifold (Left Track/Rotation) Fig 4-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005245	VALVE - DRILL TRANSPORT	1	PELLA, Breakdown Fig.4-12z01
2		292594001	FITTING - STR - 16MORFF -20MORB	4	VBM
3		57950001	FITTING-90-4MJ-6MORBA	2	VBM
4		299012383	WASHER GB/T97 12 200HV	3	VBM
5		299016087	BOLT GB/T5782 M12X170-GR8.8	3	VBM
6		299005258	ST-20MORB-12MORFF	2	VBM

Components-Selector Manifold (Left Track/Rotation) Fig 4-12z01



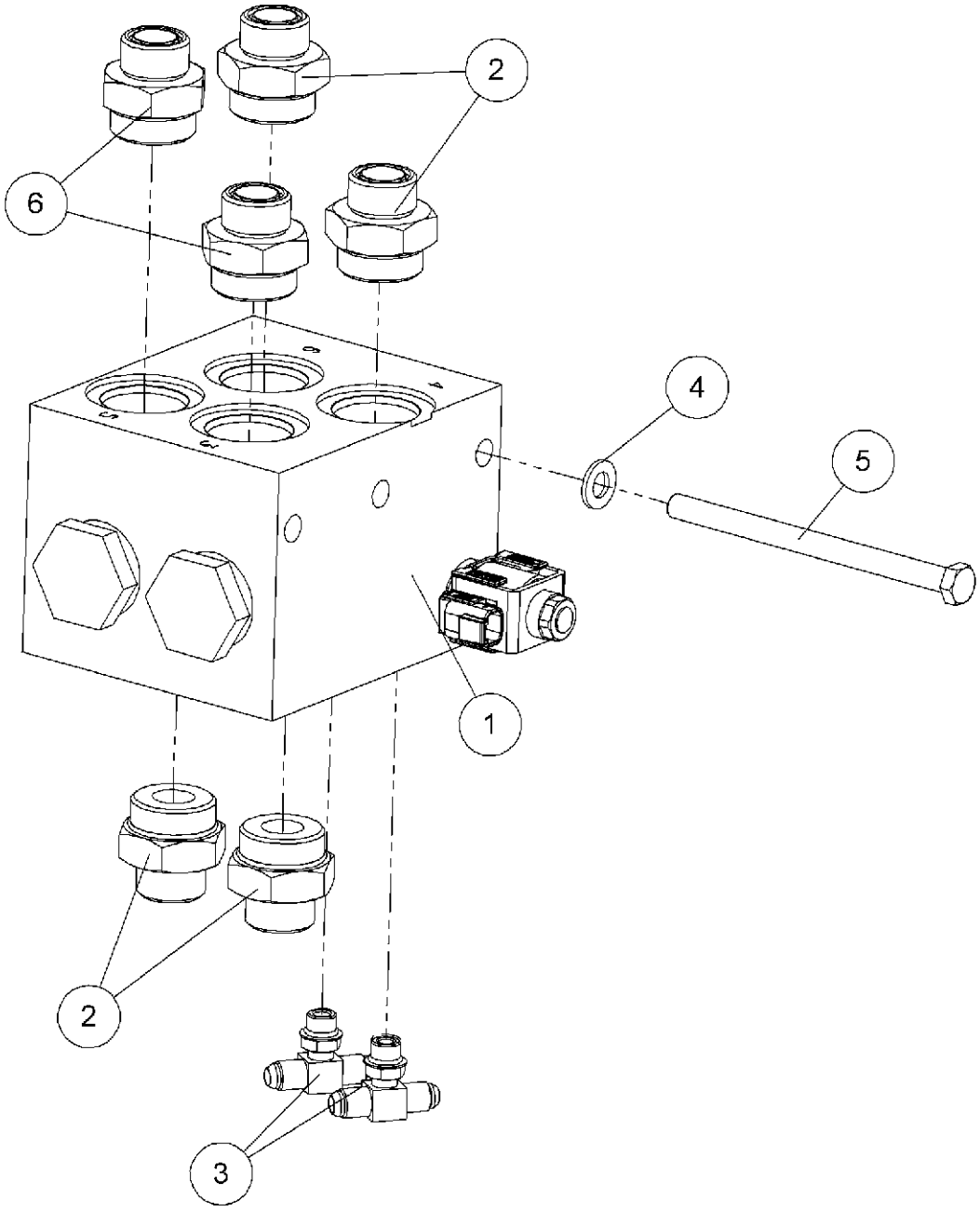




Components-Selector Manifold (Left Track/Rotation) Fig 4-12z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			VALVE BODY	1	Not Sold Separately
2		296263263	PILOT OPERRATED DIRECTIONAL VALVE	2	PELLA
2		296253476	SEAL KIT	2	PELLA
3		296278060	SOLENOID VALVE	1	PELLA
3		255077007	SEAL KIT	1	PELLA
4		274750001	12VDC DEUTSCH COIL	1	PELLA
		299005245	VALVE - DRILL TRANSPORT		PELLA, Inc. All Items In Figure

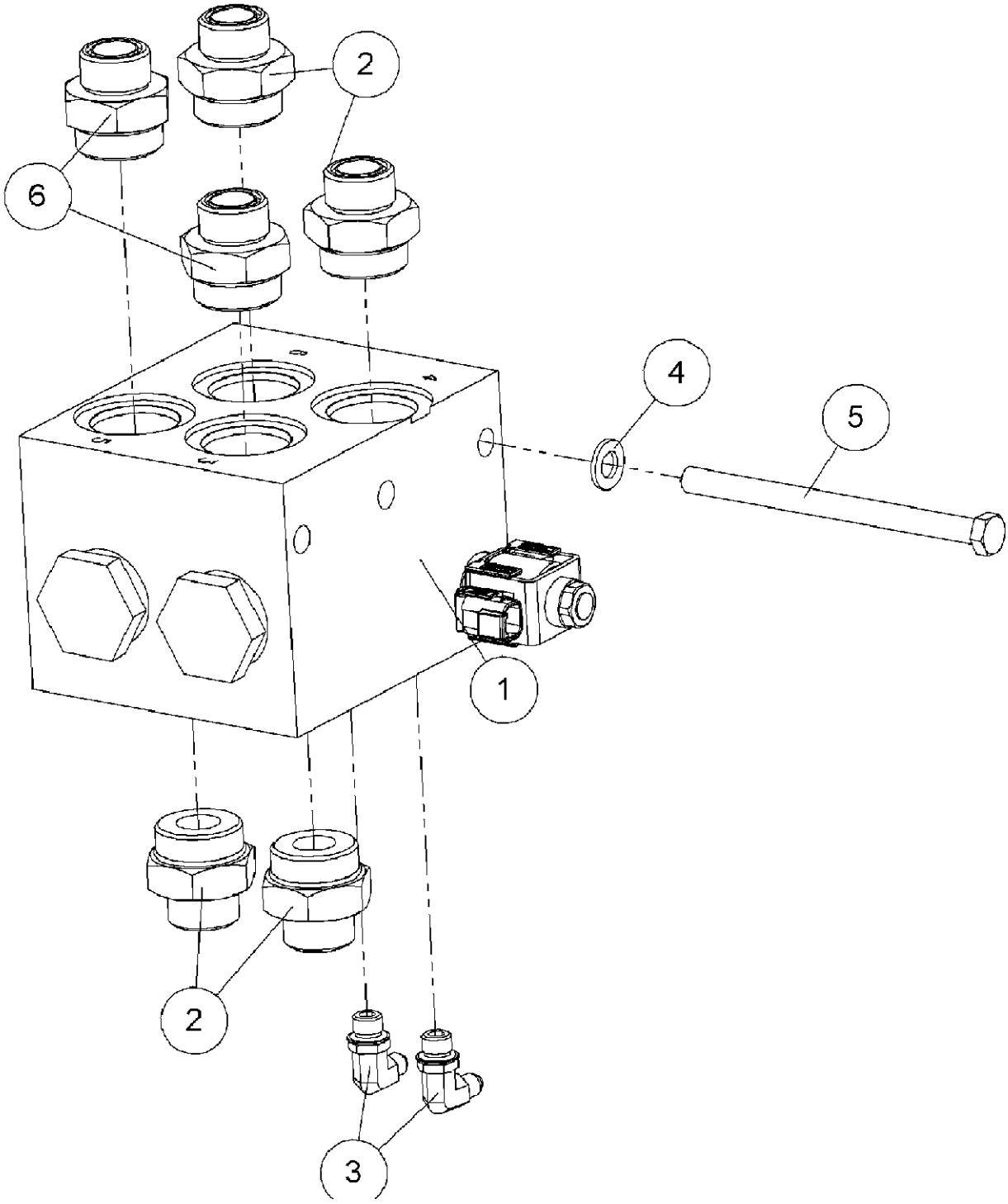
Selector Manifold (Right Track/Thrust Pullback) (S/N 106-) Fig 4-13r01



Selector Manifold (Right Track/Thrust Pullback) (S/N 106-) Fig 4-13r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005245	VALVE - DRILL TRANSPORT	1	PELLA, Breakdown Fig.4-12z01
2		292594001	FITTING - STR - 16MORFF -20MORB	4	VBM
3		163644603	TEE 4MJ-4MJ-6MORBA	2	PELLA
4		299012383	WASHER GB/T97 12 200HV	3	VBM
5		299016087	BOLT GB/T5782 M12X170-GR8.8	3	VBM
6		299005258	ST-20MORB-12MORFF	2	VBM

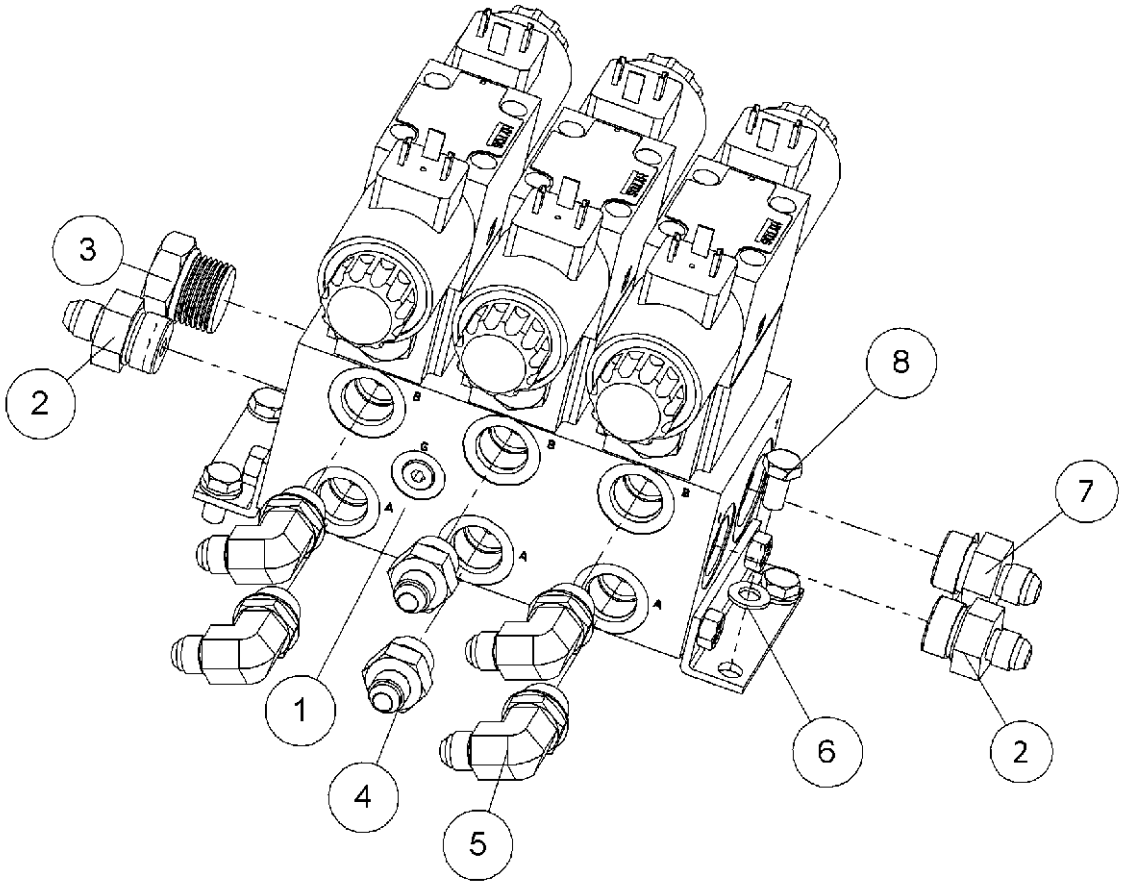
Selector Manifold (Right Track/Thrust Pullback) (S/N 101-105) Fig 4-13



Selector Manifold (Right Track/Thrust Pullback) (S/N 101-105) Fig 4-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005245	VALVE - DRILL TRANSPORT	1	PELLA, Breakdown Fig.4-12z01
2		292594001	FITTING - STR - 16MORFF -20MORB	4	VBM
3		57950001	FITTING - 90-6MORBA-4MJ	2	VBM
4		299012383	WASHER GB/T97 12 200HV	3	VBM
5		299016087	BOLT GB/T5782 M12X170-GR8.8	3	VBM
6		299005258	ST-20MORB-12MORFF	2	VBM

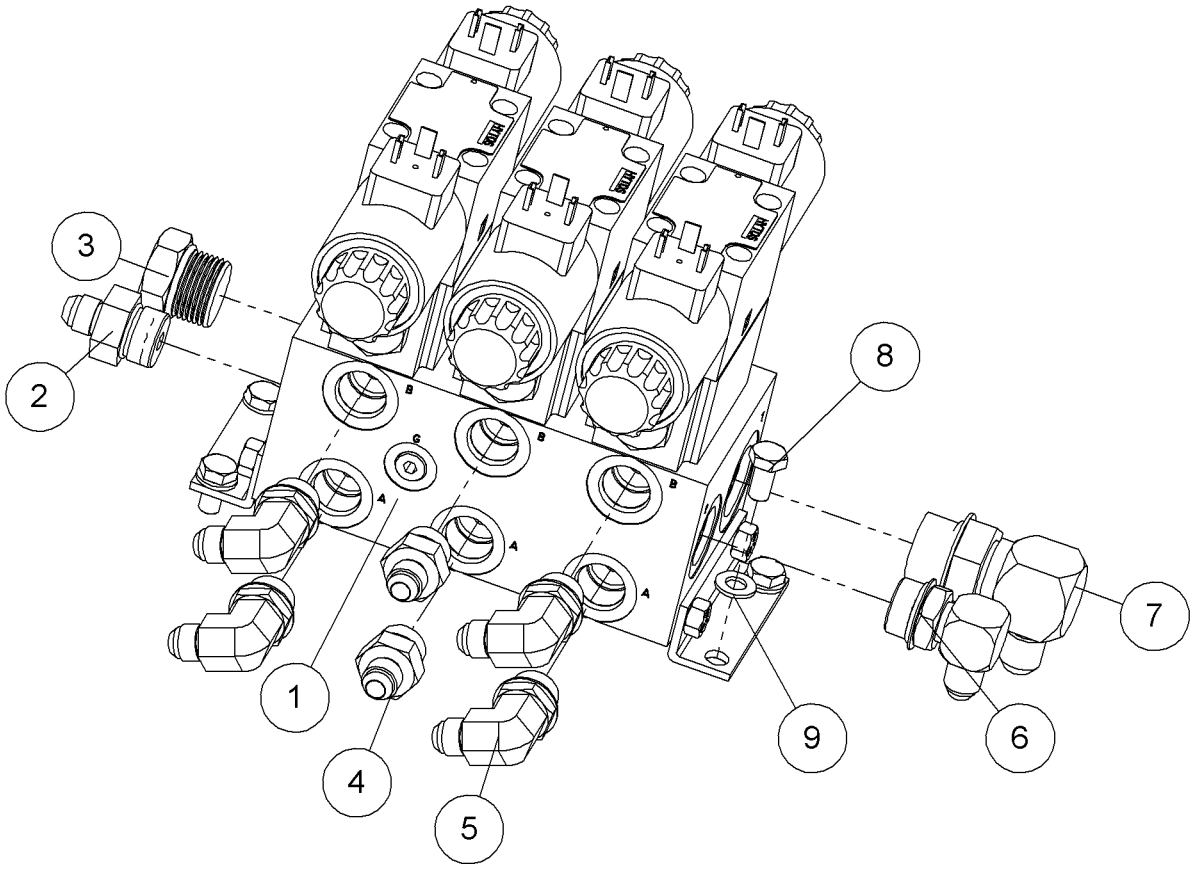
Control Valve (Outrigger/Rack) (S/N 114-) Fig 4-14r03



Control Valve (Outrigger/Rack) (S/N 114-) Fig 4-14r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023003	OUTRIGGER & RACK CONTROL	1	PELLA, Breakdown Fig.4-14z01
2		57946001	10MX#6JIC ST ADAPTER	2	VBM
3		67570001	FITTING - PLUG - 12MORB - HEX	1	VBM
4		60247001	FITTING - 8M O-RING X 6M JIC ST.	2	VBM
5		299014095	90-8MORBA-6MJ	4	VBM
6		299012381	WASHER GB/T97 8 200HV	4	VBM
7		64168001	ST-12MORBA-6MJ	1	VBM
8		299015055	BOLT GB/T5783 M8X12-8.8	4	VBM

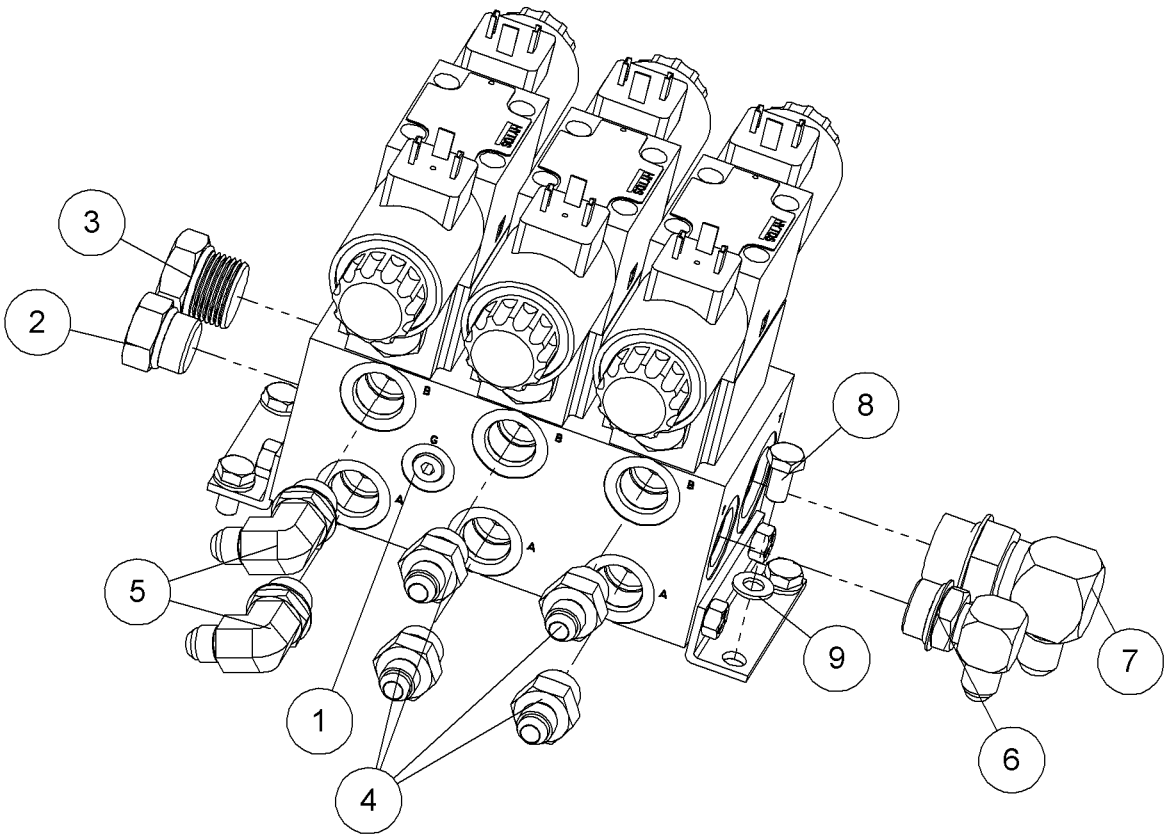
Control Valve (Outrigger/Rack) (S/N 108-113) Fig 4-14r02



Control Valve (Outrigger/Rack) (S/N 108-113) Fig 4-14r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023003	OUTRIGGER & RACK CONTROL	1	PELLA, Breakdown Fig.4-14z01
2		57946001	10MX#6JIC ST ADAPTER	1	VBM
3		67570001	FITTING - PLUG - 12MORB - HEX	1	VBM
4		60247001	FITTING - 8M O-RING X 6M JIC ST.	2	VBM
5		299014095	90-8MORBA-6MJ	4	VBM
6		299014170	90-10MORBA-6MJ	1	VBM
7		102115001	FITTING - 90 - 6MJ - 12MORBA	1	VBM
8		299015055	BOLT GB/T5783 M8X12-8.8	4	VBM
9		299012381	WASHER GB/T97 8 200HV	4	VBM

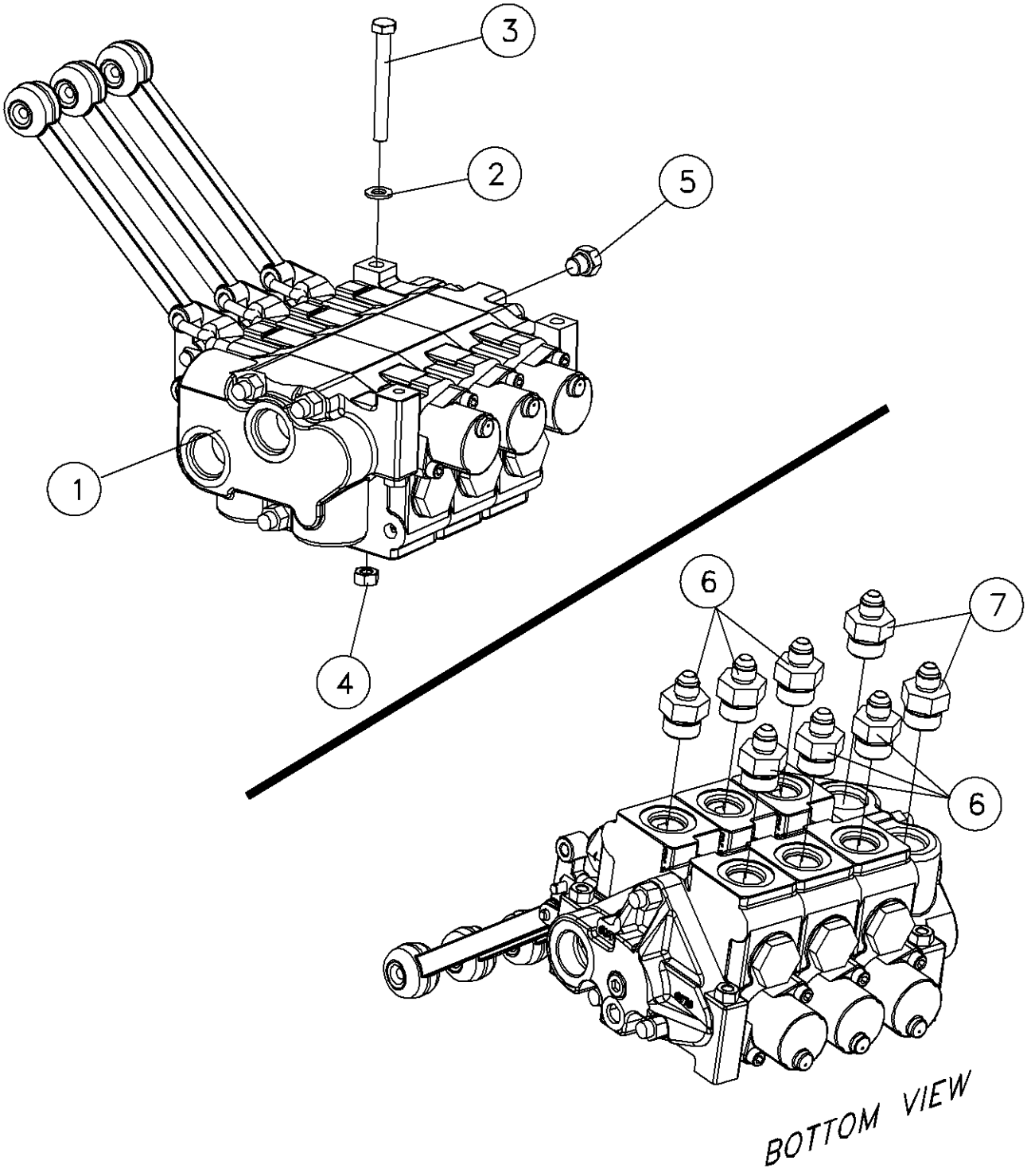
Control Valve (Outrigger/Rack) (S/N 107-107) Fig 4-14r01



Control Valve (Outrigger/Rack) (S/N 107-107) Fig 4-14r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023003	OUTRIGGER & RACK CONTROL	1	PELLA, Breakdown Fig.4-14z01
2		299013900	10MORB	1	VBM
3		67570001	FITTING - PLUG - 12MORB - HEX	1	VBM
4		60247001	FITTING - 8M O-RING X 6M JIC ST.	4	VBM
5		299014095	90-8MORBA-6MJ	2	VBM
6		299014170	90-10MORBA-6MJ	1	VBM
7		102115001	FITTING - 90 - 6MJ - 12MORBA	1	VBM
8		299010443	BOLT GB/T5783 M8X16-GR8.8	4	VBM
9		299012381	WASHER GB/T97 8 200HV	4	VBM

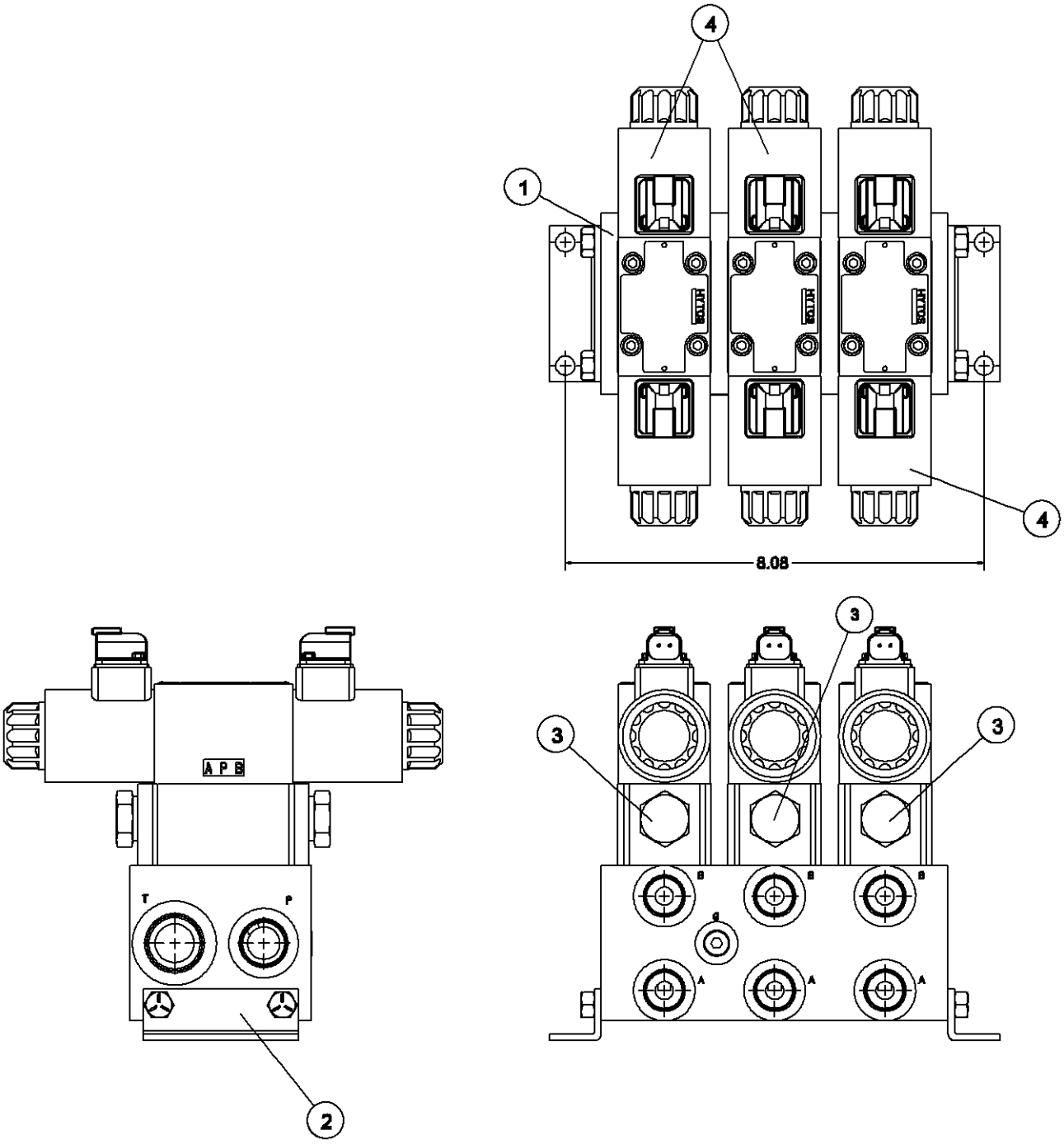
Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14



Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269699	VALVE 3 - SPOOL CONTROL	1	PELLA, Breakdown Fig.4-14z01
2		299012381	WASHER GB/T97 8 200HV	3	VBM
3		299010998	BOLT GB/T5782 M8X70-GR8.8	3	VBM
4		299012332	NUT GB/T6170 M8-GR8	3	VBM
5		67263001	FITTING - PLUG - 4MORB - HEX	1	VBM
6		57946001	10MX#6JIC ST ADAPTER	6	VBM
7		64168001	12MX6 JIC M STR.	2	VBM

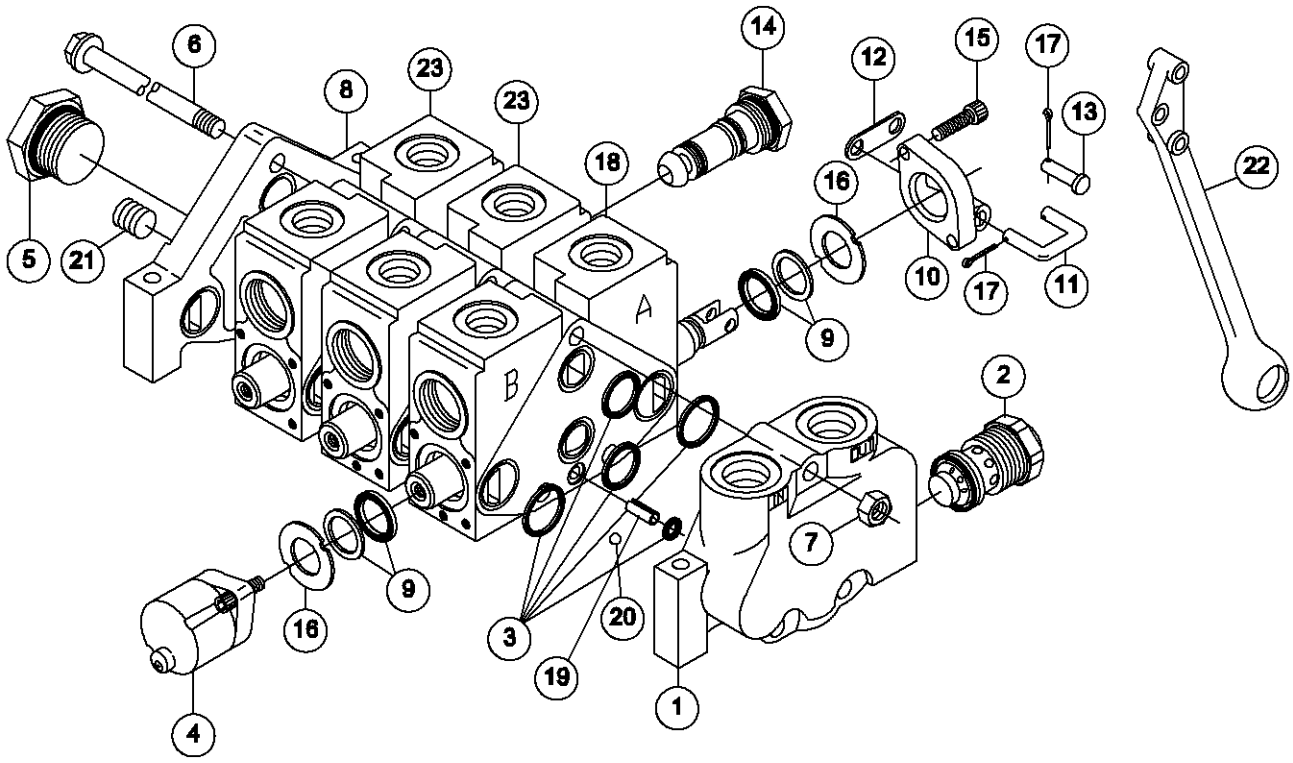
Components-Control Valve (Outrigger/Rack) (S/N 107-) Fig 4-14z01r01



Components-Control Valve (Outrigger/Rack) (S/N 107-) Fig 4-14z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026217	D03 3 STATION PARALLEL MANIFOLD	1	PELLA
2		299026219	MOUNTING FEET ASSEMBLY	1	PELLA
3		296278223	DUAL P.O.CHECK SANDWICH	3	PELLA
4		299026220	D03 VALVE,MOTOR SPOOL,12VDC CONNECTORS	3	PELLA
4		180005644	KIT-SEAL	3	PELLA
		299023003	OUTRIGGER & RACK CONTROL		PELLA, Inc. All Items In Figure

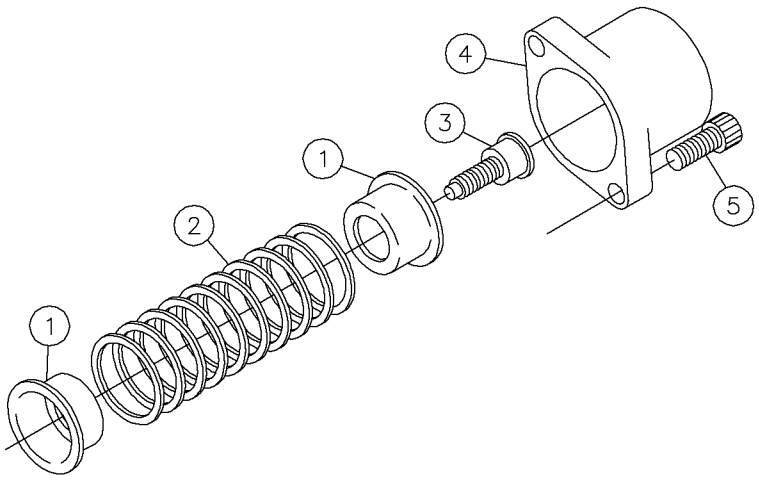
Components-Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14z01



Components-Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228113003	LEFT COVER PLATE COMPLETE	1	PELLA, Inc. Ref. 2
2		228113005	WH MAIN RELIEF (3500 PSI)	1	PELLA
3		87390001	REPAIR KIT-LOAD SENSING SECT.	4	PELLA
4		6149005	POSITIONER-STD. GRESEN K-6125	3	PELLA, Breakdown Fig. 4-14z02
5		3152011	PLUG SAE 12 GRESEN 1726-001	1	PELLA, Inc. O-Ring
5		3152013	SEAL-O-RING GRESEN 2708-001	1	PELLA
6		16358005	STUD KIT-3 SPOOL K-6106	1	PELLA, Inc. Ref. 7
7		446001	NUT-3/8 NF HEX	3	PELLA
8		102976001	COVER ASSY-RIGHT LOAD SEN.	1	PELLA, Inc. One Of Ref. 3, 5, & 21
9		3147077	REPAIR KIT GRESEN K-6035	3	PELLA
10		3147029	BRACKET GRESEN 1801-001	3	PELLA
11		4333003	LINK-	3	PELLA
12		4333005	PLATE-LINK	3	PELLA
13		2110003	PIN - CLEVIS 1/4 X 7/8 - 47/64 UL ZINC	3	PELLA
14		3147035	PLUG-LOAD CHECK STEEL K-6030	6	PELLA, Breakdown Fig. 4-14z03
15		79704001	SCREW-1/4-20X7/8 SOC HD SELFLK	6	PELLA
16		3147081	RETAIN-PLT WASH GRSN 6752-001	6	PELLA
17		510035	PIN-3/32 X 1/2 COTTER	9	PELLA
18		224397003	BODY ASSEMBLY-CENTER SECTION	1	PELLA, Inc. One Of Ref. 3, 4, 9-11, 13, 19, 20, 22 And Two Of Ref. 14-16, And Three Of Ref. 17.
19		87397001	PIN-SPRING	1	PELLA
20		87398001	BALL	1	PELLA
21		3213017	PLUG-RELIEF 3/8” GRESEN 73-001	1	PELLA
22		280625001	HANDLE-W/ ZINC PLATE & BLACK PLASTIC COAT	3	PELLA
23		236457003	BODY ASSY-CNTR SEC W/FREE FLOW	2	PELLA, Inc. One Of Ref. 3, 4, 9-11, 13, 19, 20, 22 And Two Of Ref. 14-16, And Three Of Ref. 17.
		296269699	VALVE-3 SPOOL CONTROL		PELLA, Inc. All Items In Figure

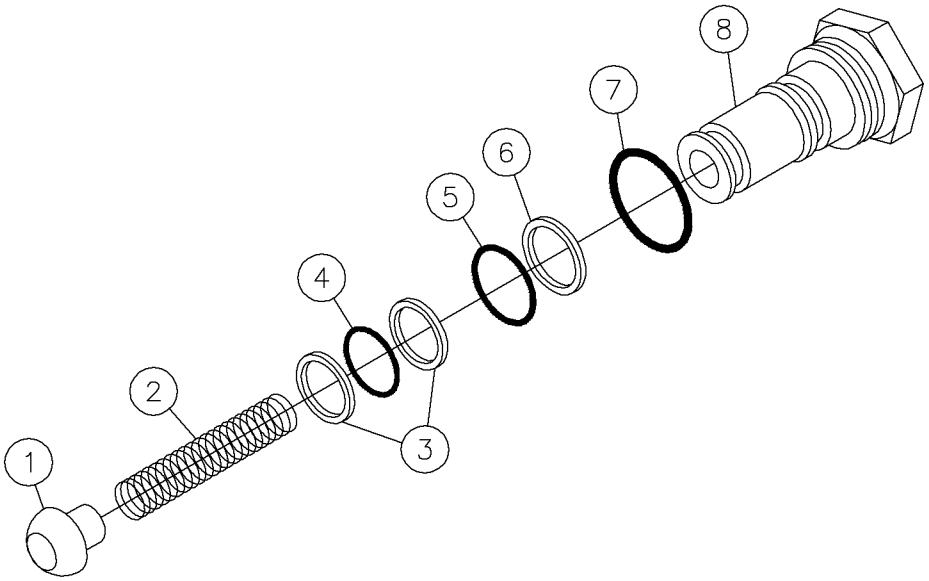
Components-Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14z02



Components-Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14z02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		3149005	COLLAR-SPRING GRESEN 1809-001	2	PELLA
2		6149057	SPRING-RETURN 7433-001	1	PELLA
3		3149013	COLLAR-SPOOL	1	PELLA
4		6149043	BONNET	1	PELLA
5		79704001	SCREW-1/4-20X7/8 SOC HD SELFLK	2	PELLA
		6149005	POSITIONER-STD. GRESEN K-6125		PELLA, Inc. Ref. 1-5

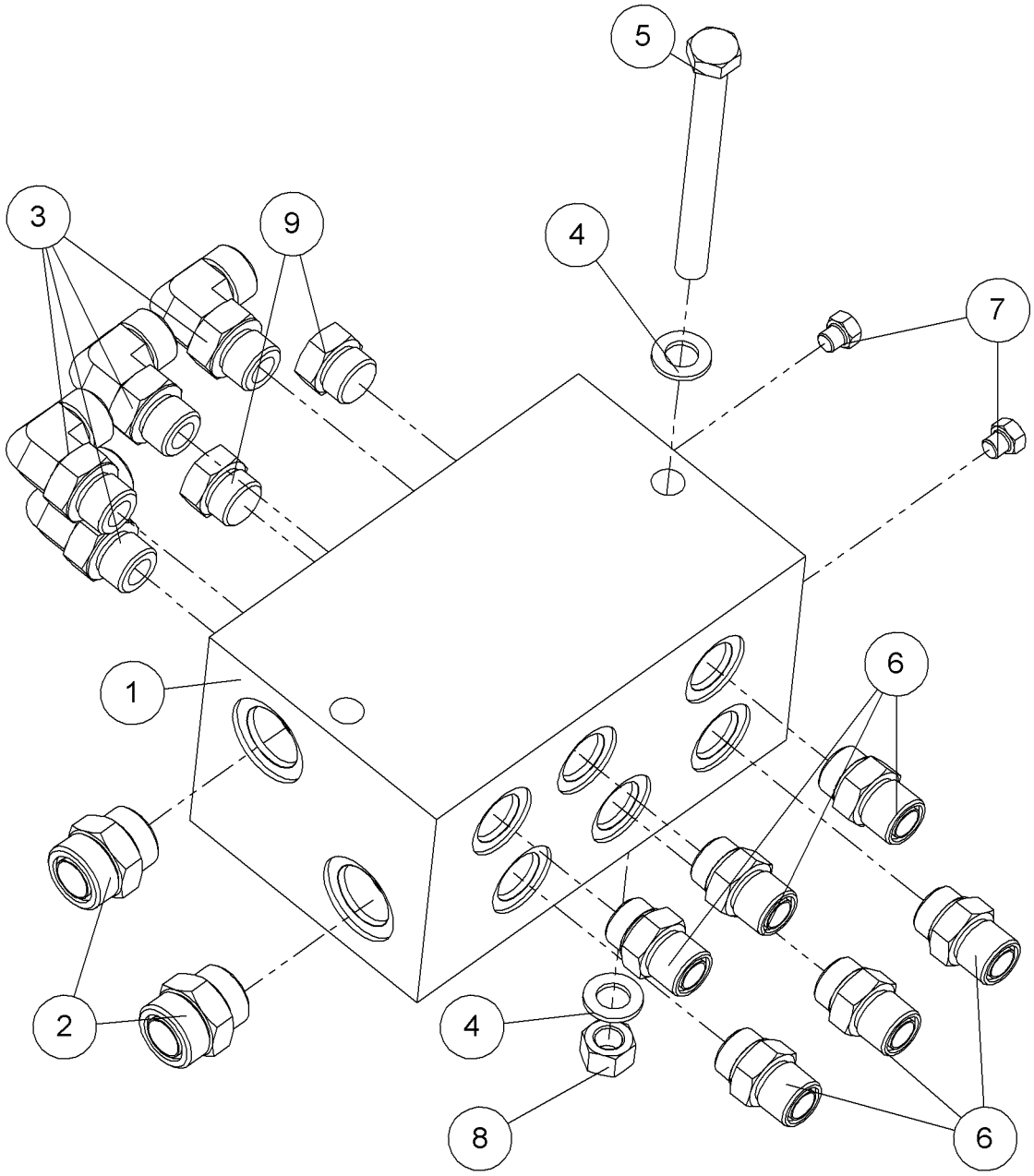
Components-Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14z03



Components-Control Valve (Outrigger/Rack) (S/N 101-106) Fig 4-14z03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		3128009	POPPET-CHECK GRESEN 2781-001	1	PELLA
2		3147041	SPRING-CHECK GRESEN 1868-001	1	PELLA
3			WASHER-BACKUP (INNER)	2	NOT SOLD SEPARATELY
4			O-RING	1	NOT SOLD SEPARATELY
5			O-RING (OUTER)	1	NOT SOLD SEPARATELY
6			WASHER-BACKUP (OUTER)	1	NOT SOLD SEPARATELY
7			O-RING	1	NOT SOLD SEPARATELY
8		3147043	PLUG-LIFT CHECK GRSN 3411-001	1	PELLA
		3147035	PLUG-LOAD CHECK STEEL K-6030		PELLA, Inc. Ref. 1-8
		3147037	REPAIR KIT GRESEN K-6032		PELLA, Inc. Ref. 3-7

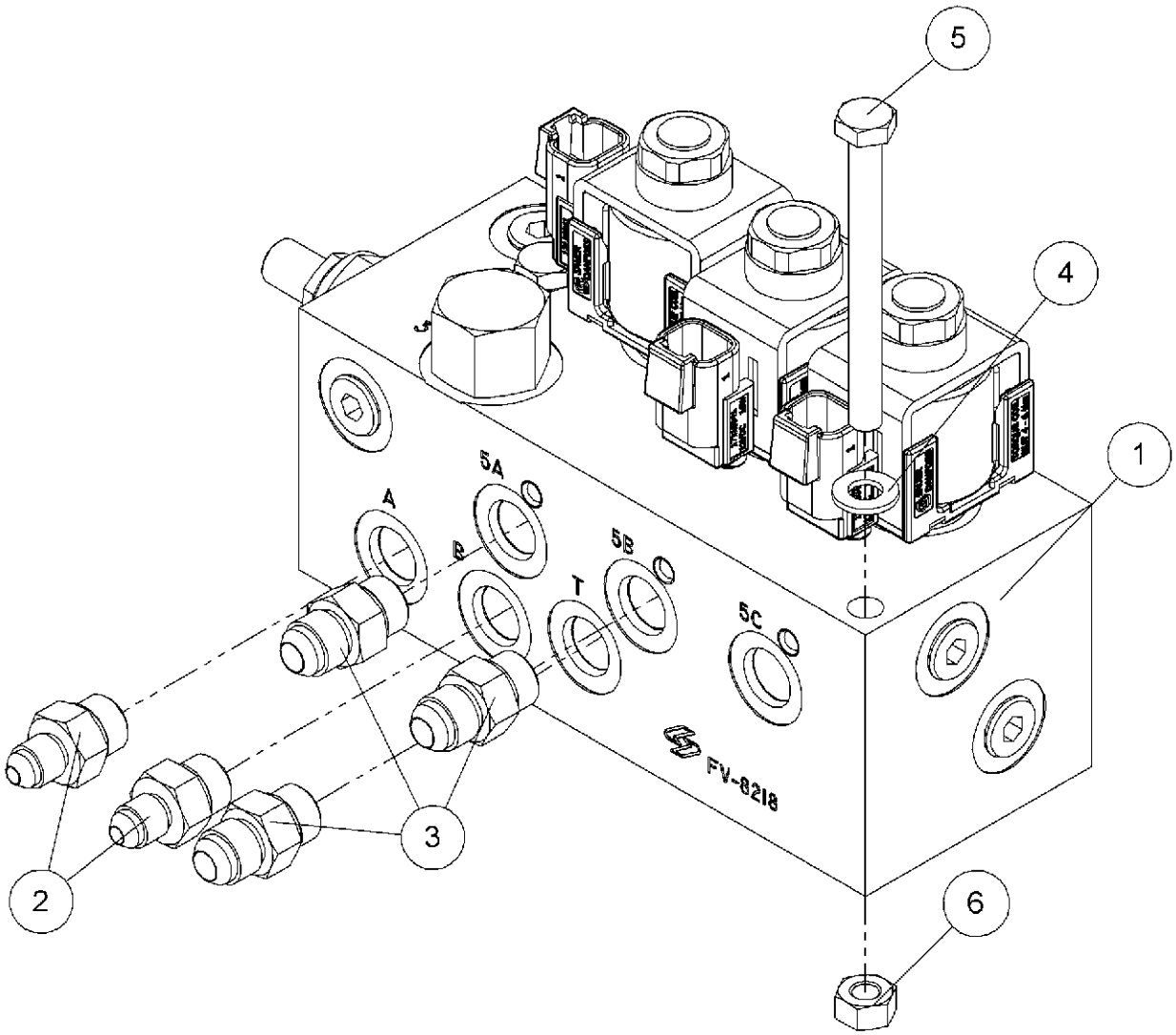
Thrust/Pullback Manifold Fig 4-15



Thrust/Pullback Manifold Fig 4-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005267	MANIFOLD - THRUST AND PULLBACK	1	VBM
2		72407001	FITTING - STR - 16MORFF - 16MORB	2	VBM
3		72419001	FITTING - 90 - 12MORFF - 12MORBA	4	VBM
4		299012385	WASHER 16 (GB/T97-85)	4	VBM
5		299016128	BOLT GB/T5782 M16X180 - GR8.8	2	VBM
6		279784001	FITTING-STR-12MORFF-12MORB	6	VBM
7		67263001	FITTING - PLUG - 4MORB - HEX	2	VBM
8		299012336	NUT GB/T6170 M16 - GR8	2	VBM
9		67570001	FITTING - PLUG - 12MORB - HEX	2	VBM

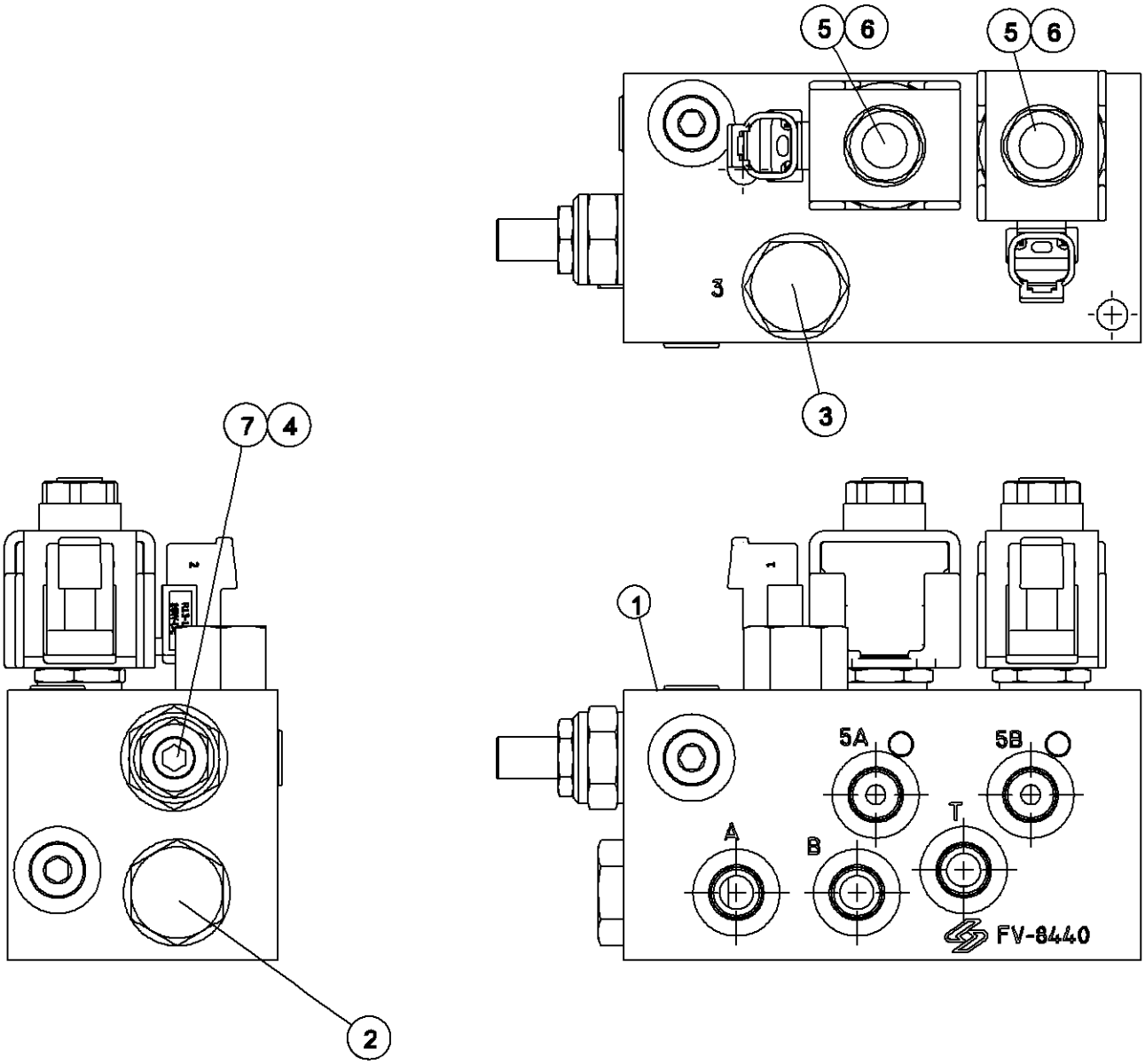
Rotation 3 Speed Valve Fig 4-16



Rotation 3 Speed Valve Fig 4-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005287	VALVE - 3SPD ROTATION	1	PELLA, Breakdown Fig.4-16z01
2		299005260	ST-6MORB-4MORFF	2	VBM
3		65565001	FITTING - 6M O-RING X 6M JIC ST.	3	VBM
4		299012381	WASHER GB/T97 8 200HV	2	VBM
5		299016038	BOLT GB/T5782 M8X100-GR8.8	2	VBM
6		299012332	NUT GB/T6170 M8-GR8	2	VBM

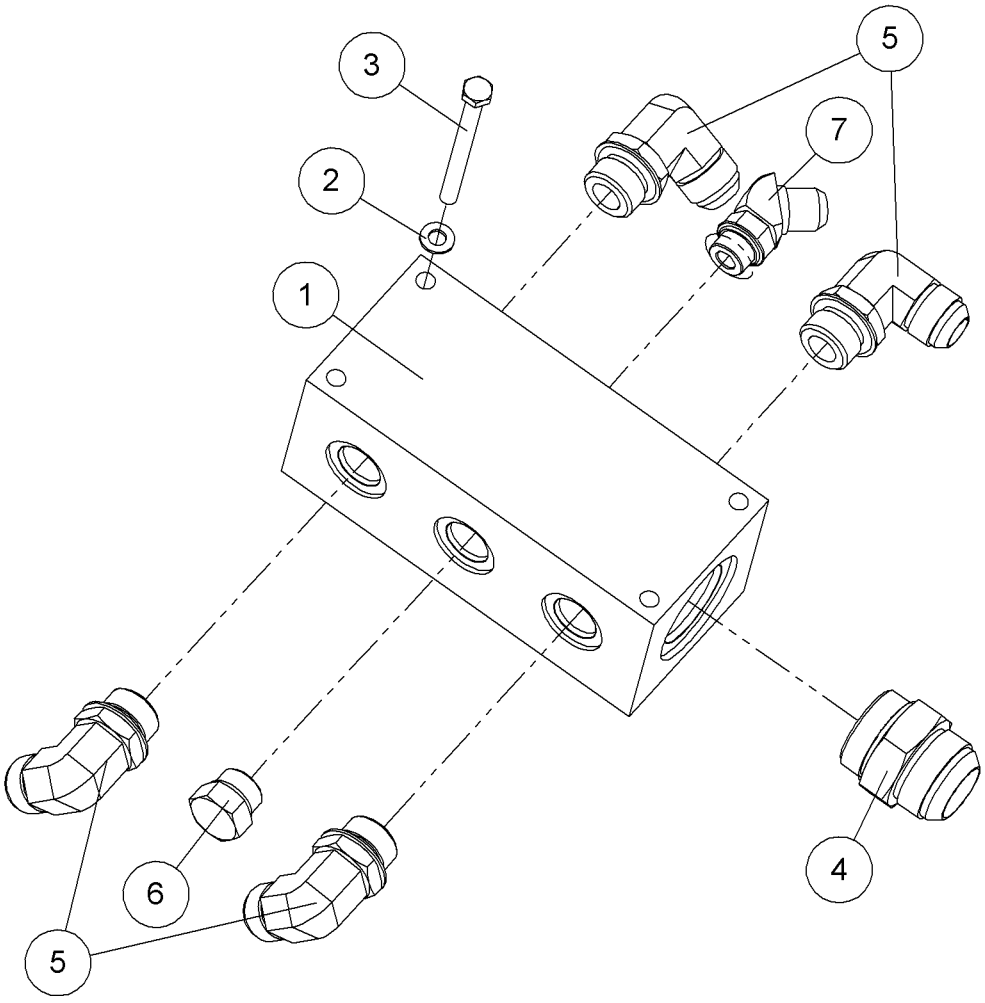
Components-Rotation 3 Speed Valve Fig 4-16z01



Components-Rotation 3 Speed Valve Fig 4-16z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			VALVE BODY	1	Not Sold Separately
2		616044001	SHUTTLE VALVE	1	PELLA
2		277838005	REPAIR KIT - SHUTTLE VALVE	1	PELLA
3		299026210	FLOW CONTROL, 6 GPM FIXED. 3000 PSI MAX.	1	PELLA
3		260609021	SEAL KIT	1	PELLA
4		299026211	LOW PRESSURE RELIEFE VALVE, 50-500 PSI	1	PELLA
4		108362007	SEAL KIT	1	PELLA
5		299026212	2 POS.3 WAY SOLENOID VALVE	2	PELLA
5		299026209	SEAL KIT	2	PELLA
6		299026213	12VDC DEUTSCH COIL	2	PELLA
7		299026214	REMOVABLE ORIFICE (1/16”-27 NPT)	1	PELLA
		299005287	VALVE - 3SPD ROTATION		PELLA, Inc. All Items In Figure

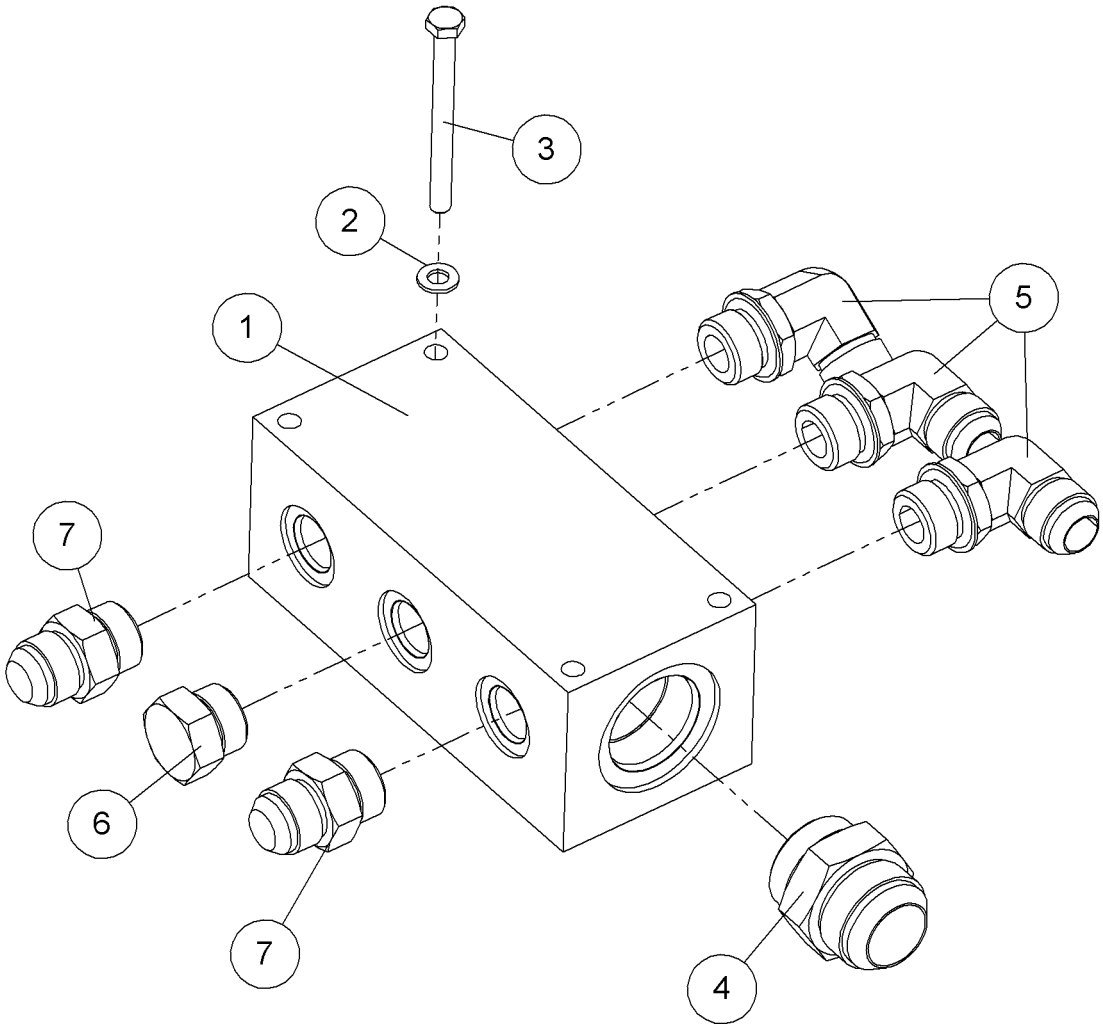
Tower Manifold Case Drain (S/N 107-) Fig 4-17r01



Tower Manifold Case Drain (S/N 107-) Fig 4-17r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005269	MANIFOLD - ROLLER CARRIAGE RETURN OIL LIMIT	1	VBM
2		299012381	WASHER GB/T97 8 200HV	4	VBM
3		299016036	BOLT GB/T5782 M8X90-GR8.8	4	VBM
4		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
5		299013830	90-10MORBA-10MJ	4	VBM
6		299013900	10MORB	1	VBM
7		299013847	45-10MORBA-10MJ	1	VBM

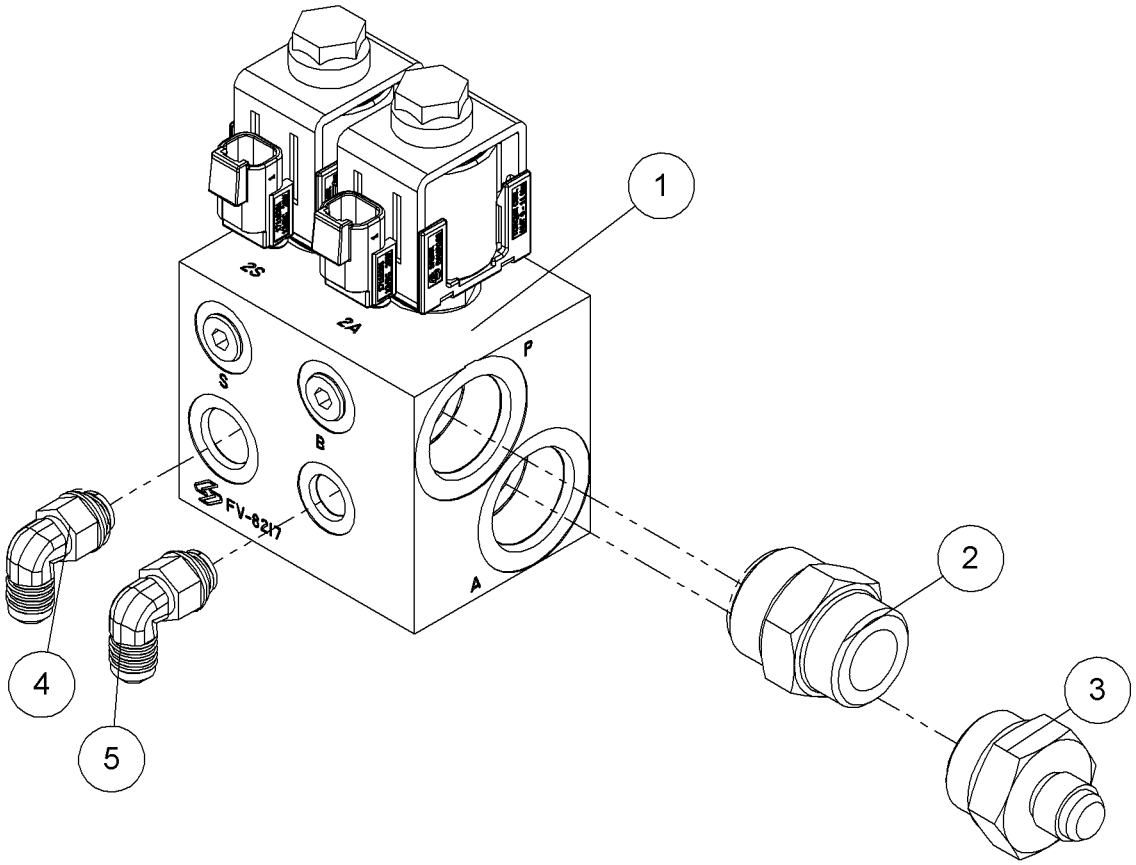
Tower Manifold Case Drain (S/N 101-106) Fig 4-17



Tower Manifold Case Drain (S/N 101-106) Fig 4-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005269	MANIFOLD - ROLLER CARRIAGE RETURN OIL LIMIT	1	VBM
2		299012381	WASHER GB/T97 8 200HV	4	VBM
3		299016036	BOLT GB/T5782 M8X90-GR8.8	4	VBM
4		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
5		299013830	90-10MORBA-10MJ	3	VBM
6		299013900	10MORB	1	VBM
7		53827001	FITT.-#10M O-RING-#10M JIC ST.	2	VBM

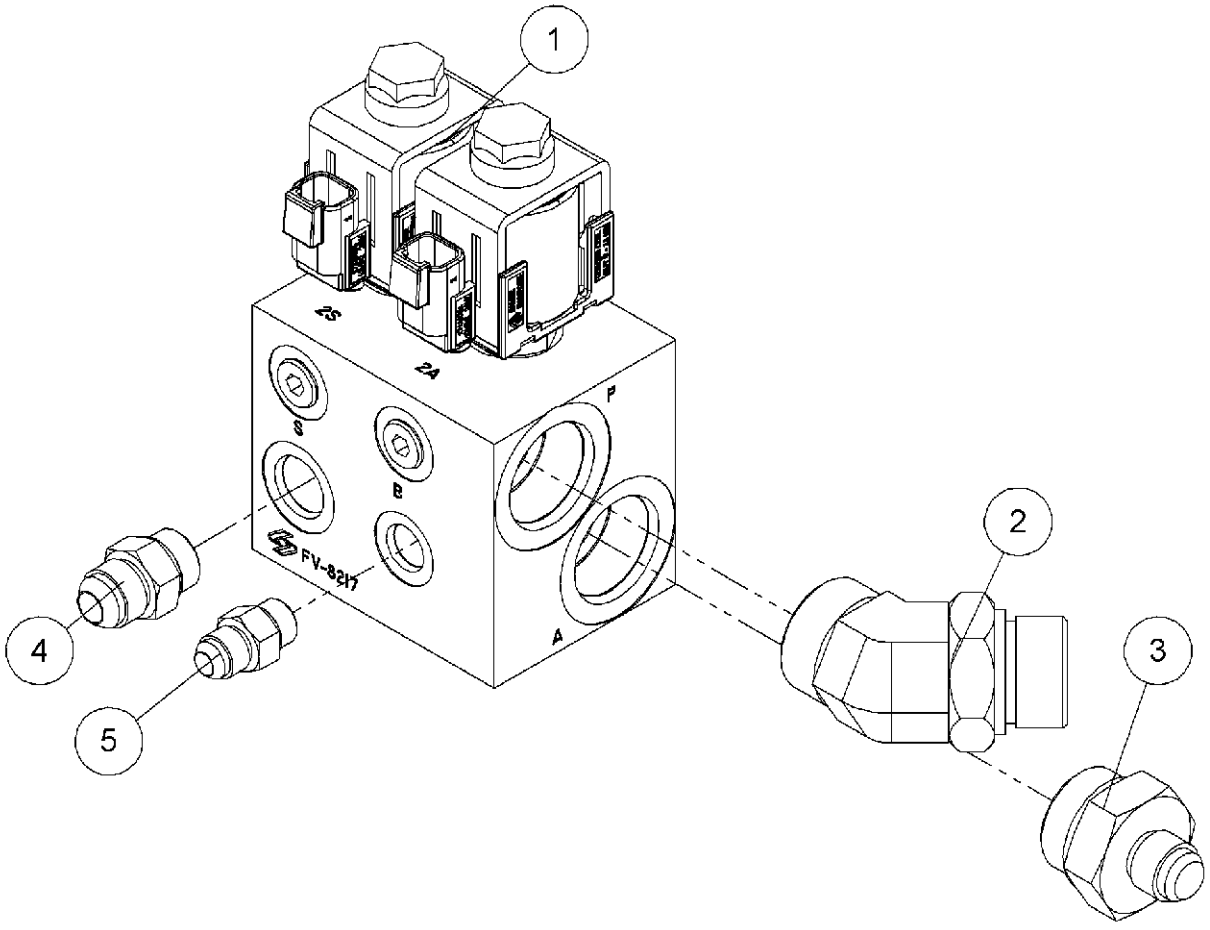
Hydraulic Enable Valve (S/N 105-) Fig 4-18r01



Hydraulic Enable Valve (S/N 105-) Fig 4-18r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005250	VALVE - HYD. ENABLE	1	PELLA, Breakdown Fig.4-18z01
2		72407001	FITTING - STR - 16MORFF - 16MORB	1	VBM
3		100851001	FITTING -16MORINGX8MJIC STR.	1	VBM
4		264552001	FITTING-90-8MJ-8MORBA (FLARED)	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	1	VBM

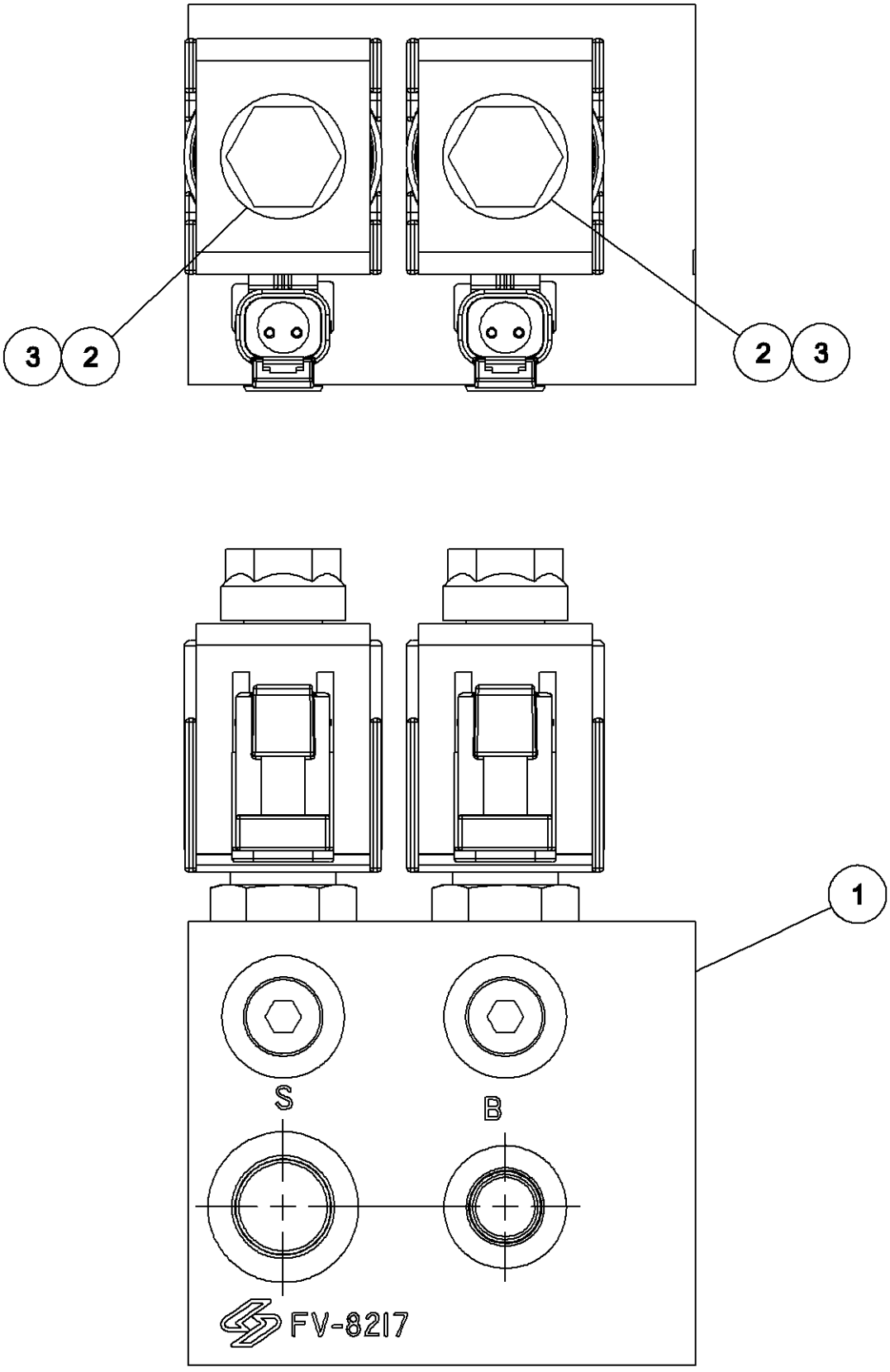
Hydraulic Enable Valve (S/N 101-104) Fig 4-18



Hydraulic Enable Valve (S/N 101-104) Fig 4-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005250	VALVE - HYD. ENABLE	1	PELLA, Breakdown Fig.4-18z01
2		72408001	FITTING 45-16MORBA-16MORFF	1	VBM
3		100851001	FITTING -16MORINGX8MJIC STR.	1	VBM
4		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
5		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM

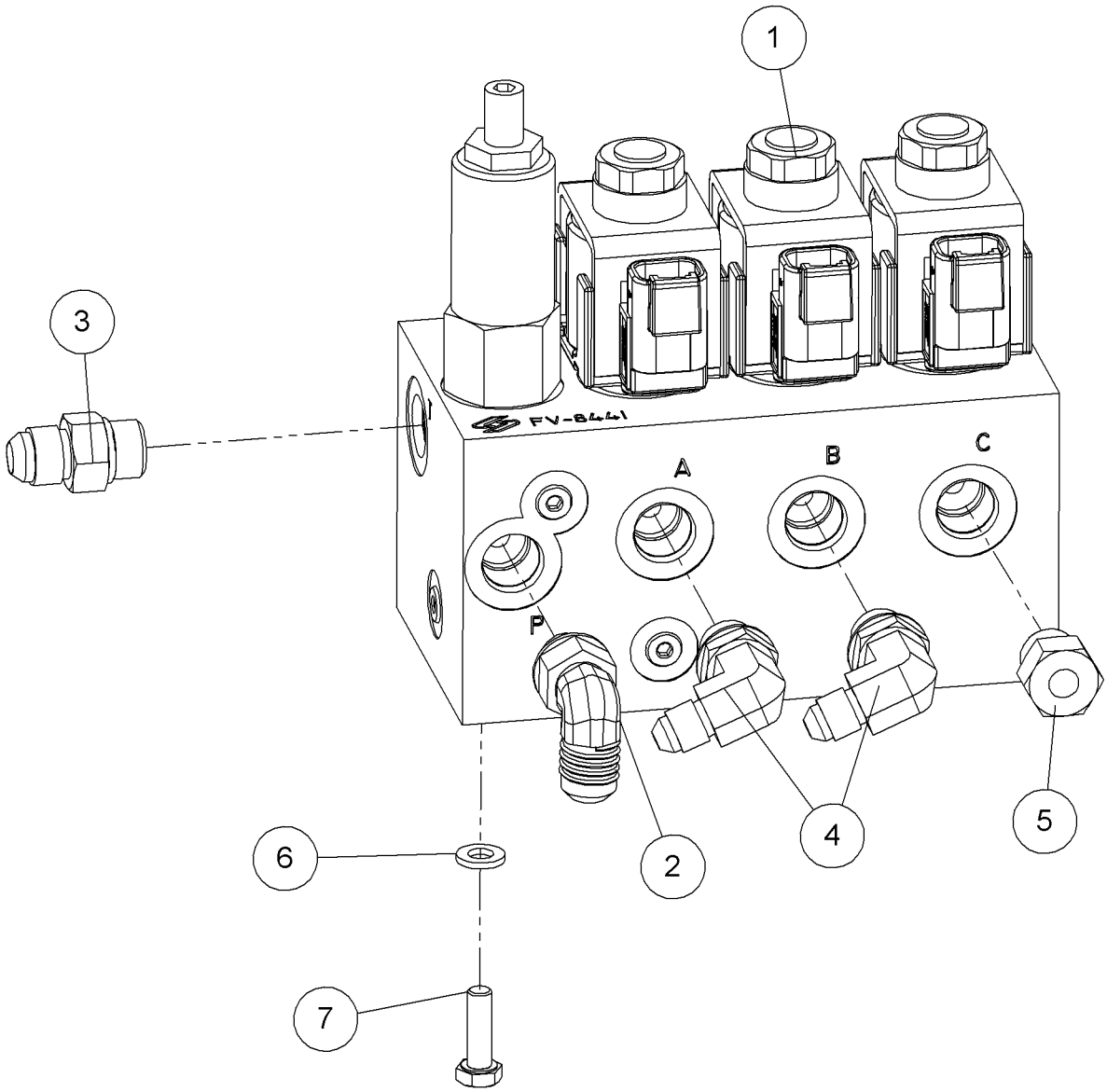
Components-Hydraulic Enable Valve Fig 4-18z01



Components-Hydraulic Enable Valve Fig 4-18z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			MANIFOLD BODY	1	Not Sold Separately
2		299026207	SOLENOID VALVE	2	PELLA
2		299026206	SEAL KIT	2	PELLA
3		299026208	ROBUST COIL, 12 VDC DEUTSCH	2	PELLA
		299005250	VALVE - HYD. ENABLE		PELLA, Inc. All Items In Figure

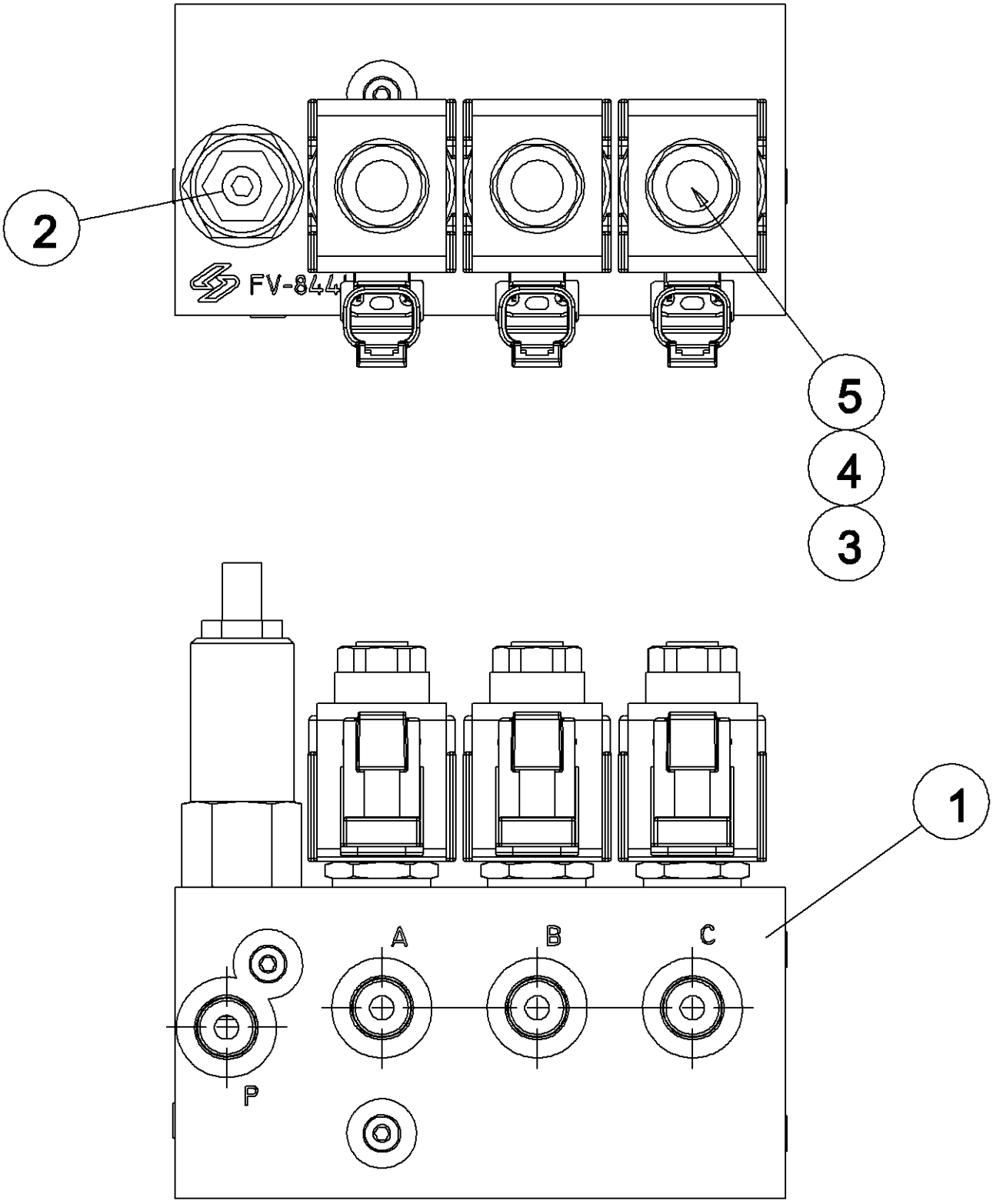
Brake Valve(Carriage) Fig 4-19



Brake Valve(Carriage) Fig 4-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005288	VALVE - THRUST/PULLBACK/ROTATION BRAKES	1	PELLA, Breakdown Fig.4-19z01
2		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
3		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM
4		57950001	FITTING-90-4MJ-6MORBA	2	VBM
5		5553001	6MORB	1	VBM
6		235716001B	WASHER - FLATSTRL - .25 -.28 X .63 - .06	4	VBM
7		235734001B	BOLT-1/4-20X3/4 GR8 ZINC PLTD	4	VBM

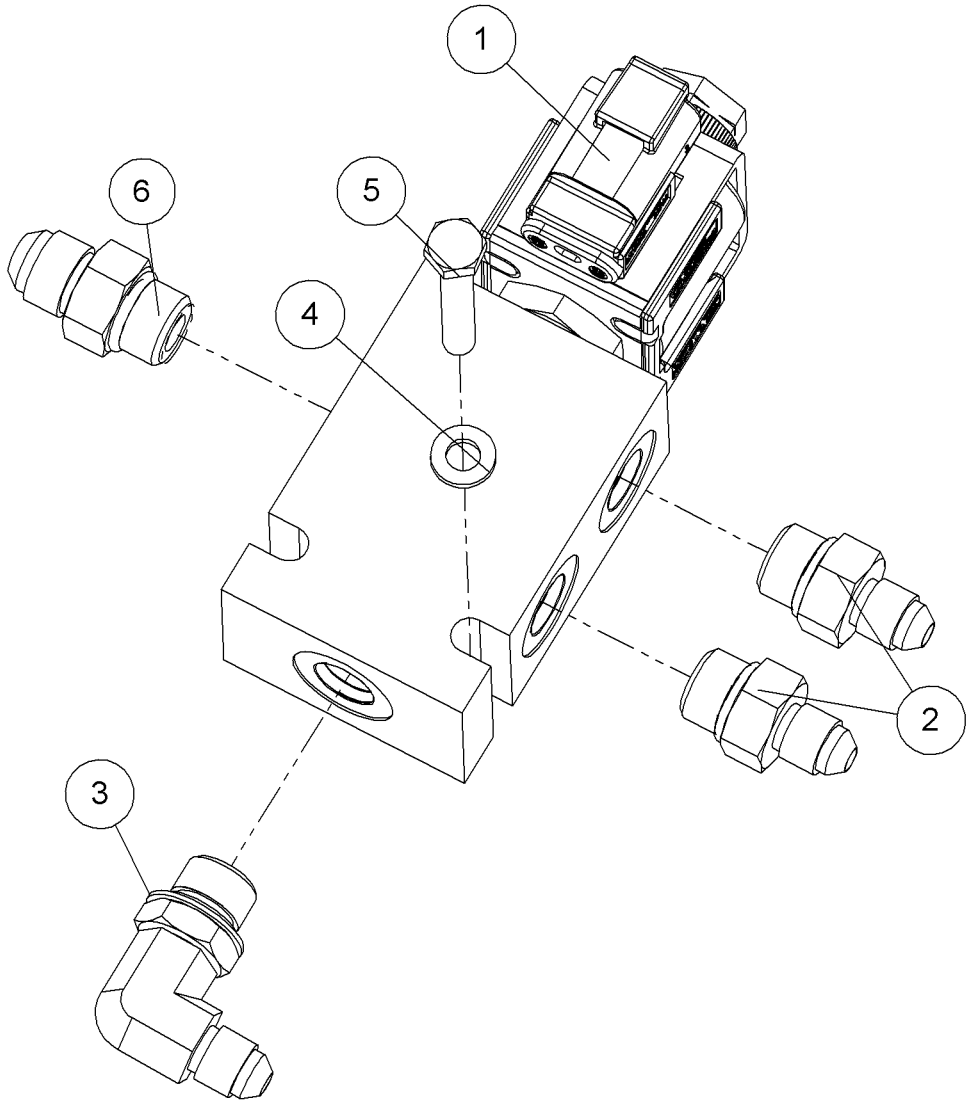
Components-Brake Valve(Carriage) Fig 4-19z01



Components-Brake Valve(Carriage) Fig 4-19z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			VALVE BODY	1	Not Sold Separately
2		299026215	PRESSURE RELIEFE VALVE, 50-400 PSI	1	PELLA
2		296276846	SEAL KIT	1	PELLA
3		299026212	2 POS.3 WAY SOLENOID VALVE	3	PELLA
3		299026209	SEAL KIT	3	PELLA
4		299026213	12VDC DEUTSCH COIL	3	PELLA
5		299026216	REMOVABLE ORIFICE (1/16”-27 NPT)	3	PELLA
		299005288	VALVE - THRUST/PULLBACK/ROTATION BRAKES		PELLA, Inc. All Items In Figure

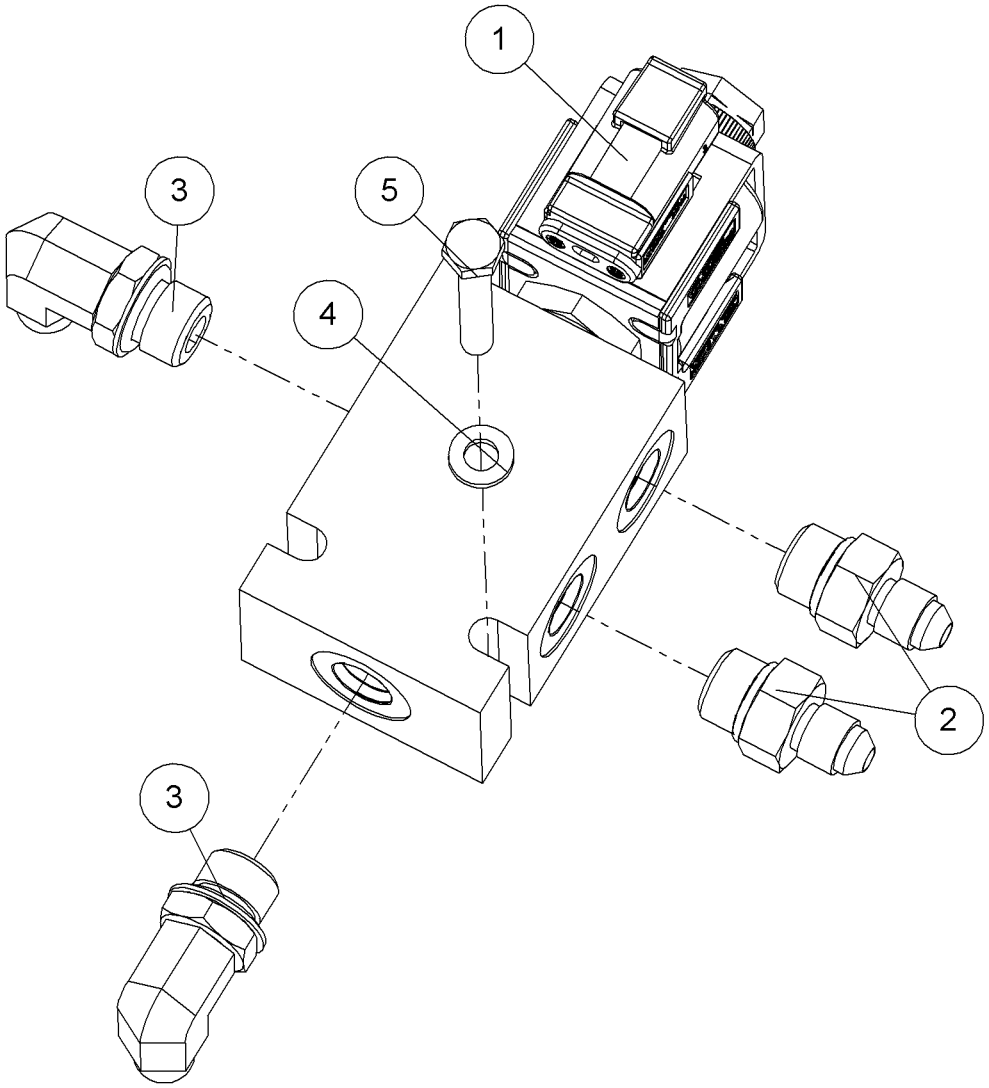
Solenoid Valve-Water (S/N 114-) Fig 4-20r02



Solenoid Valve-Water (S/N 114-) Fig 4-20r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		294901001	VALVE - GREASER	1	PELLA, Breakdown Fig.4-20z01
2		57968001	FITTING-STR-4MJ-6MORB	2	VBM
3		59426001	FITTING - 90-6MORBA-6MJ	1	VBM
4		299012380	WASHER GB/T97 6 200HV	2	VBM
5		299010438	BOLT GB/T5783 M6X40-GR8.8	2	VBM
6		65565001	ST-6MORB-6MJ	1	VBM

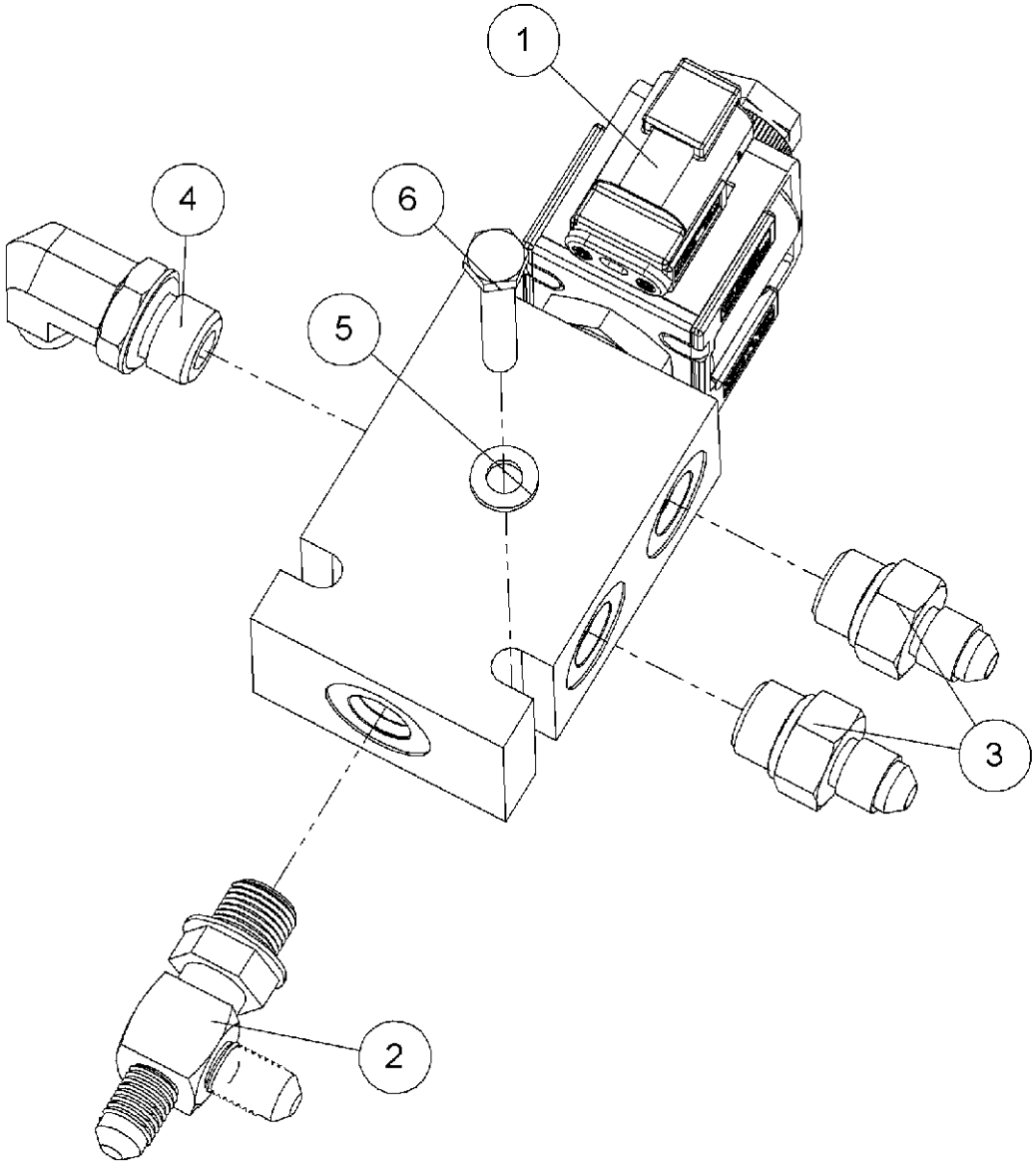
Solenoid Valve-Water (S/N 108-113) Fig 4-20r01



Solenoid Valve-Water (S/N 108-113) Fig 4-20r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		294901001	VALVE - GREASER	1	PELLA, Breakdown Fig.4-20z01
2		57968001	FITTING-STR-4MJ-6MORB	2	VBM
3		57950001	FITTING - 90-6MORBA-4MJ	2	VBM
4		299012380	WASHER GB/T97 6 200HV	2	VBM
5		299010438	BOLT GB/T5783 M6X40-GR8.8	2	VBM

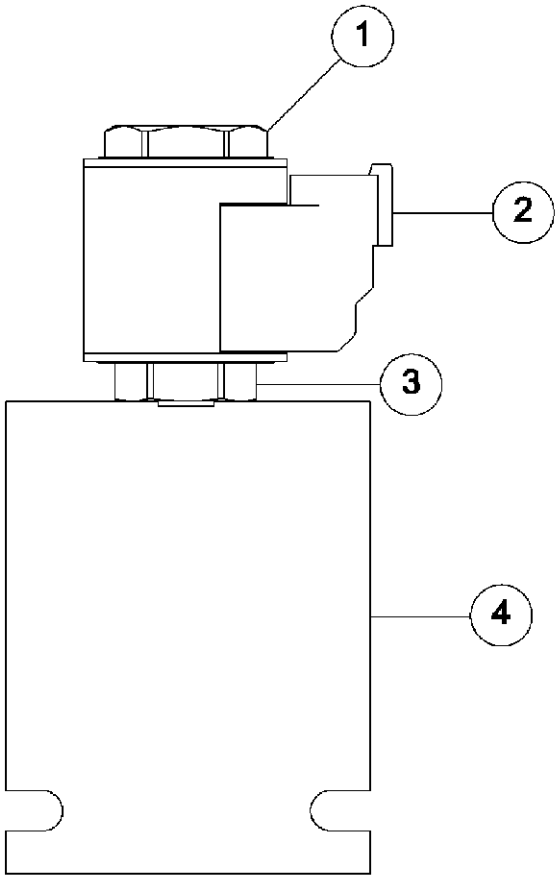
Solenoid Valve-Water (S/N 101-107) Fig 4-20



Solenoid Valve-Water (S/N 101-107) Fig 4-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		294901001	VALVE - GREASER	1	PELLA, Breakdown Fig.4-20z01
2		82930001	FIT-6MX4M JICX4M JIC (RUN) TEE	1	VBM
3		57968001	FITTING-STR-4MJ-6MORB	2	VBM
4		57950001	FITTING - 90-6MORBA-4MJ	1	VBM
5		299012380	WASHER GB/T97 6 200HV	2	VBM
6		299010438	BOLT GB/T5783 M6X40-GR8.8	2	VBM

Components-Solenoid Valve-Water Fig 4-20z01



Components-Solenoid Valve-Water Fig 4-20z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265526	NUT-COIL	1	PELLA
2		296265527	COIL	1	PELLA
3		244725009	CARTRIDGE - SOLENOID	1	PELLA
3		244725011	SEAL KIT	1	PELLA
4			BLOCK	1	Not Sold Separately
		294901001	VALVE - GREASER		PELLA, Inc. All Items In This Figure

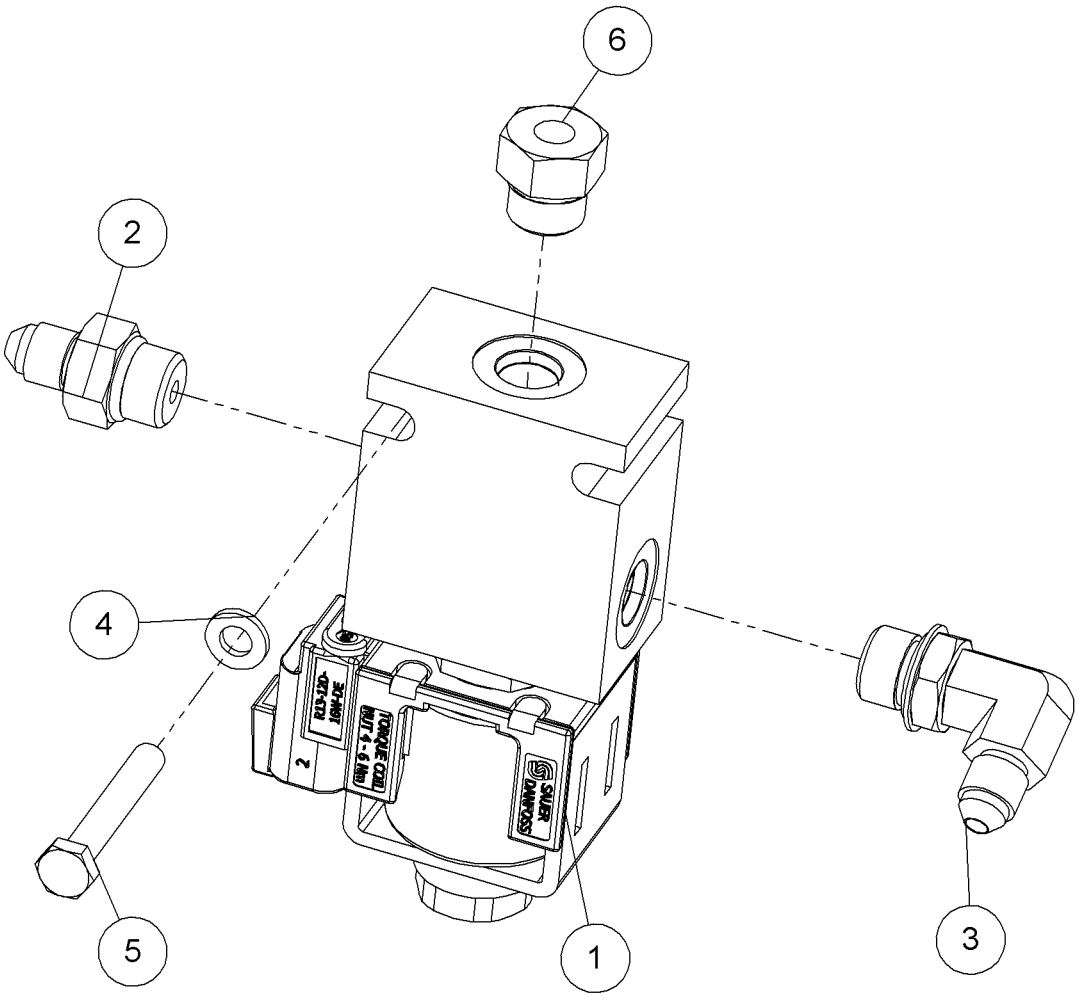
Compressing Drive Valve (S/N 114-) (Deleted) Fig 4-21r02

DELETED DUE TO UPDATE

Compressing Drive Valve (S/N 114-) (Deleted) Fig 4-21r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

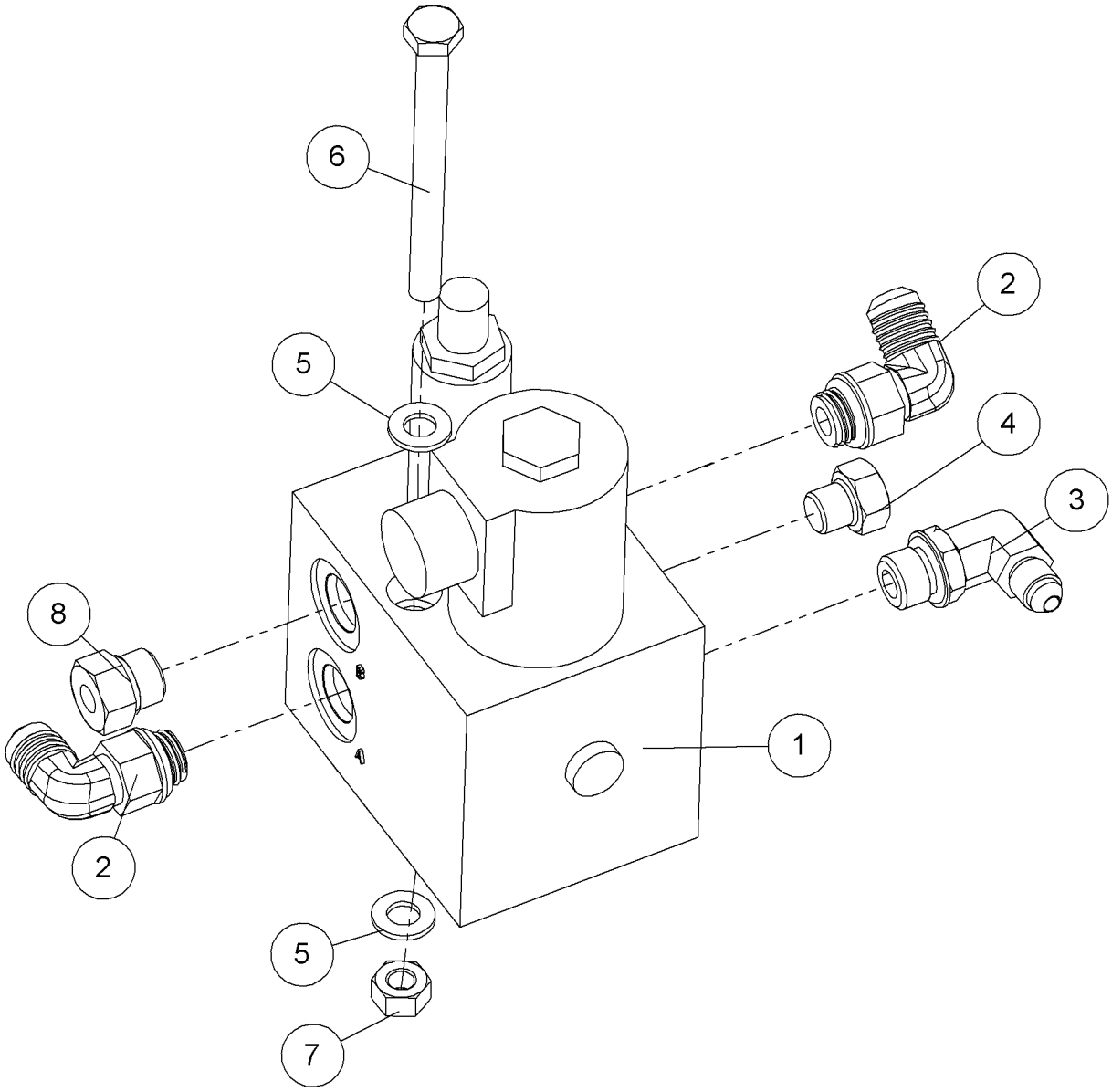
Compressing Drive Valve (S/N 108-113) Fig 4-21r01



Compressing Drive Valve (S/N 108-113) Fig 4-21r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		291768001	VALVE - 2 POS. 3 WAY W/ DEUTSCH	1	PELLA, Breakdown Fig.4-21z01
2		65565001	ST-6MORB-6MJ	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		299012380	WASHER GB/T97 6 200HV	2	VBM
5		299010438	BOLT GB/T5783 M6X40-GR8.8	2	VBM
6		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM

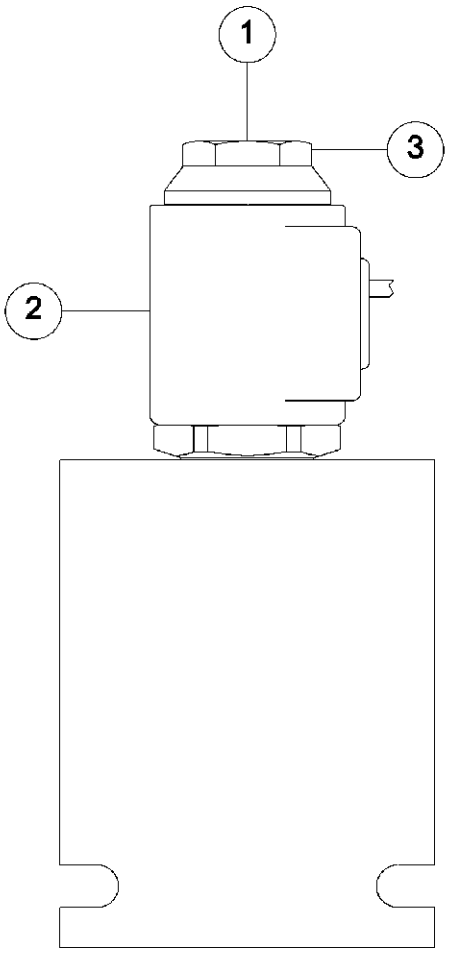
Compressing Drive Valve (S/N 101-107) Fig 4-21



Compressing Drive Valve (S/N 101-107) Fig 4-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299022922	HYDRAULIC VALVE	1	VBM
2		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
3		57950001	FITTING - 90-4MJ-6MORBA	1	VBM
4		67263001	FITTING - PLUG - 4MORB - HEX	1	VBM
5		299012381	WASHER GB/T97 8 200HV	4	VBM
6		299016036	BOLT GB/T5782 M8X90-GR8.8	2	VBM
7		299012332	NUT GB/T6170 M8-GR8	2	VBM
8		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM

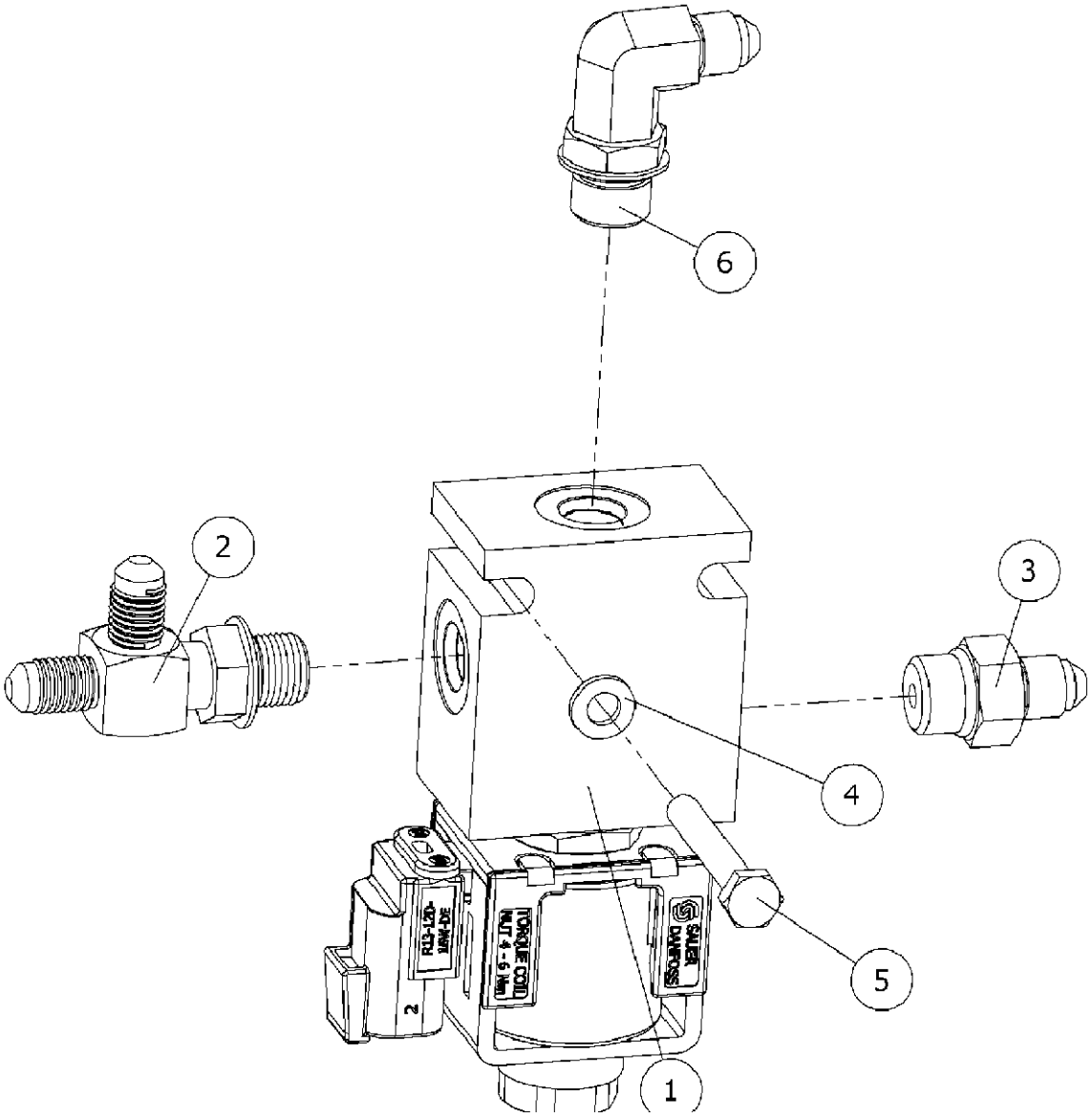
Components-Compressing Drive Valve (S/N 108-113) Fig 4-21z01



Components-Compressing Drive Valve (S/N 108-113) Fig 4-21z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278845003	CARTRIDGE - SOLENOID	1	PELLA
1		110467003	SEAL KIT	1	PELLA
2		251117009	COIL - #8	1	PELLA
3		280624001	NUT - RAIN PROOF COIL	1	PELLA
3		240324003	SEAL KIT	1	PELLA
		291768001	VALVE - 2 POS. 3 WAY W/ DEUTSCH		PELLA, Inc. All Items In Figure

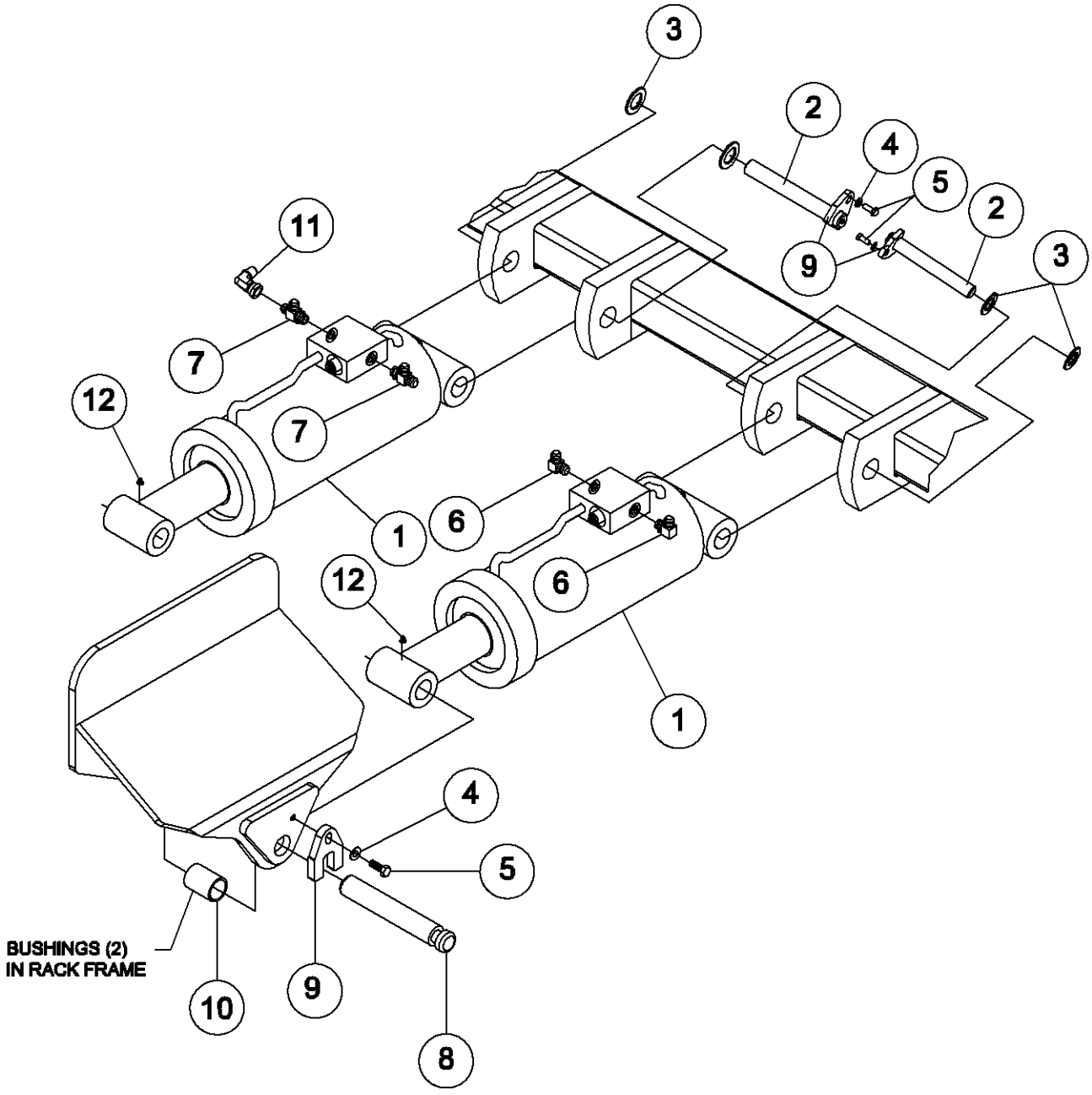
Solenoid Brake Valve Fig 4-22



Solenoid Brake Valve Fig 4-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		291768001	VALVE - 2 POS. 3 WAY W/DEUTSCH	1	PELLA, Breakdown Fig.4-21z01
2		82930001	FIT-6MX4M JICX4M JIC (RUN) TEE	1	PELLA
3		57968001	FITTING-STR-4MJ-6MORB	1	VBM
4		299012380	WASHER GB/T97 6 200HV	2	VBM
5		299010438	BOLT GB/T5783 M6X40-GR8.8	2	VBM
6		57950001	FITTING-90-4MJ-6MORBA	1	VBM

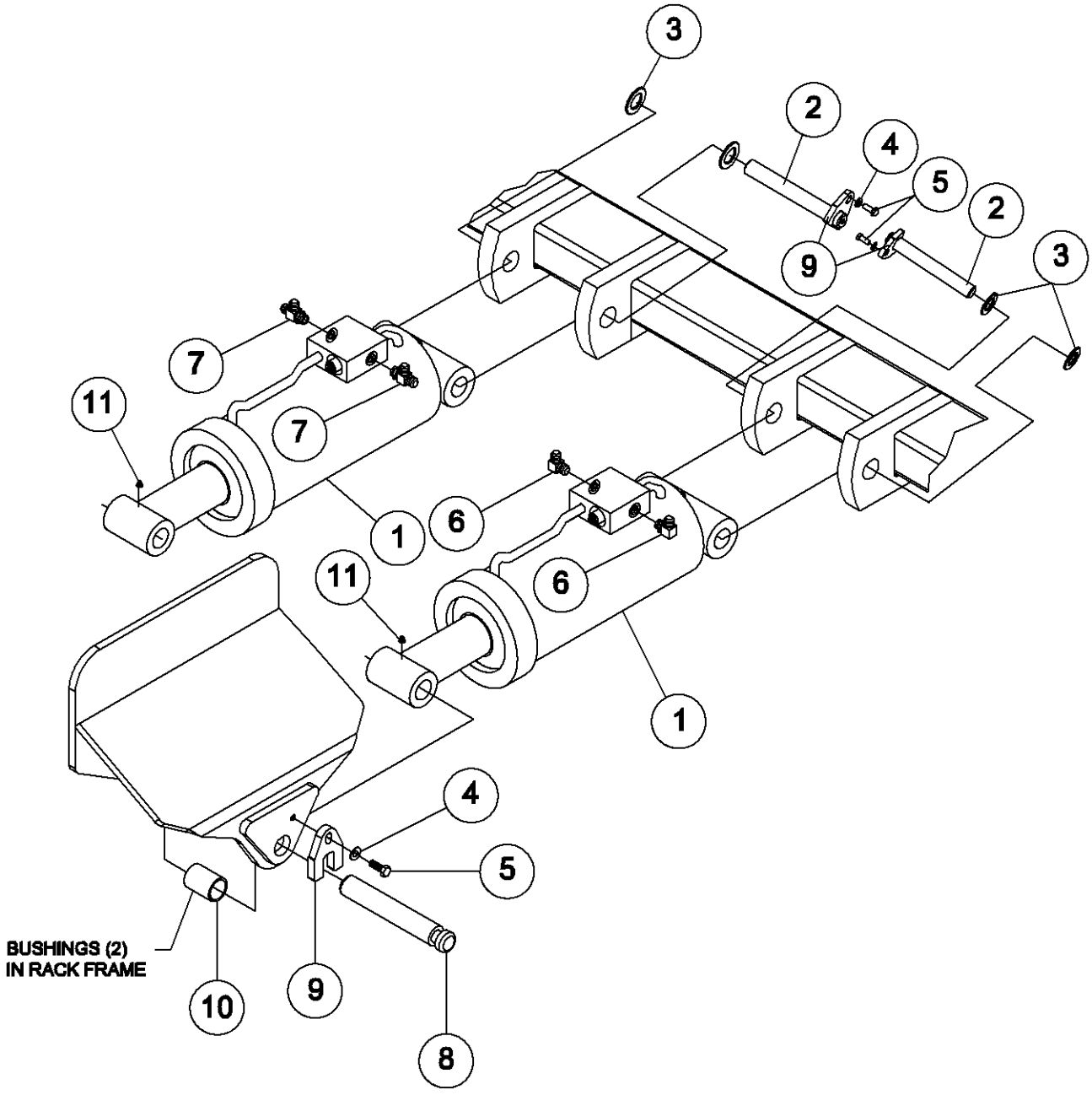
Rack Lift Cylinder (S/N 106,108-) Fig 4-23r01



Rack Lift Cylinder (S/N 106,108-) Fig 4-23r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299004969	CYLINDER	2	VBM, Breakdown Fig.4-23z01
2		299005887	SHAFT - CYLINDER	2	VBM
3		299005888	WASHER	4	VBM
4		299012382	WASHER GB/T97 10 200HV	3	VBM
5		299010458	BOLT GB/T5783 M10X25-8.8	3	VBM
6		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
7		68774001	FITTING - 6MX6M JIC (RUN)X6M JIC	2	VBM
8		299025882	SMALL SHAFT	2	VBM
9		299005884	PLATE	3	VBM
10		1835007	BSHG.-ST.-1 1/2 X 1 1/4 X 2 REF T05880	2	PELLA
11		299013814	90-6FSJ-6MJ	1	VBM
12		299006620	OIL CUP JB/T7940.1 M10X1	2	VBM

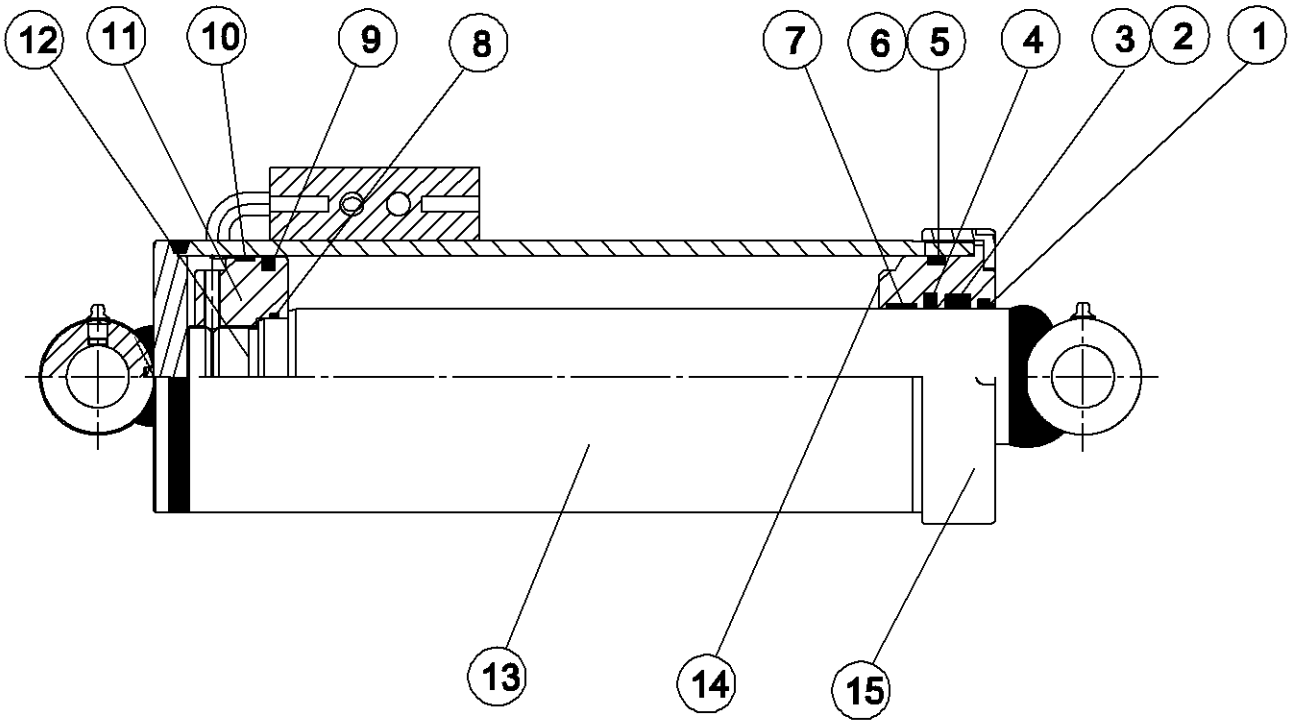
Rack Lift Cylinder (S/N 101-105,107) Fig 4-23



Rack Lift Cylinder (S/N 101-105,107) Fig 4-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299004969	CYLINDER	2	VBM, Breakdown Fig.4-23z01
2		299005887	SHAFT - CYLINDER	2	VBM
3		299005888	WASHER	4	VBM
4		299012382	WASHER GB/T97 10 200HV	3	VBM
5		299010458	BOLT GB/T5783 M10X25-8.8	3	VBM
6		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
7		68774001	FITTING - 6MX6M JIC (RUN)X6M JIC	2	VBM
8		299025882	SMALL SHAFT	2	VBM
9		299005884	PLATE	3	VBM
10		1835007	BSHG.-ST.-1 1/2 X 1 1/4 X 2 REF T05880	2	PELLA
11		299006620	OIL CUP JB/T7940.1 M10X1	2	VBM

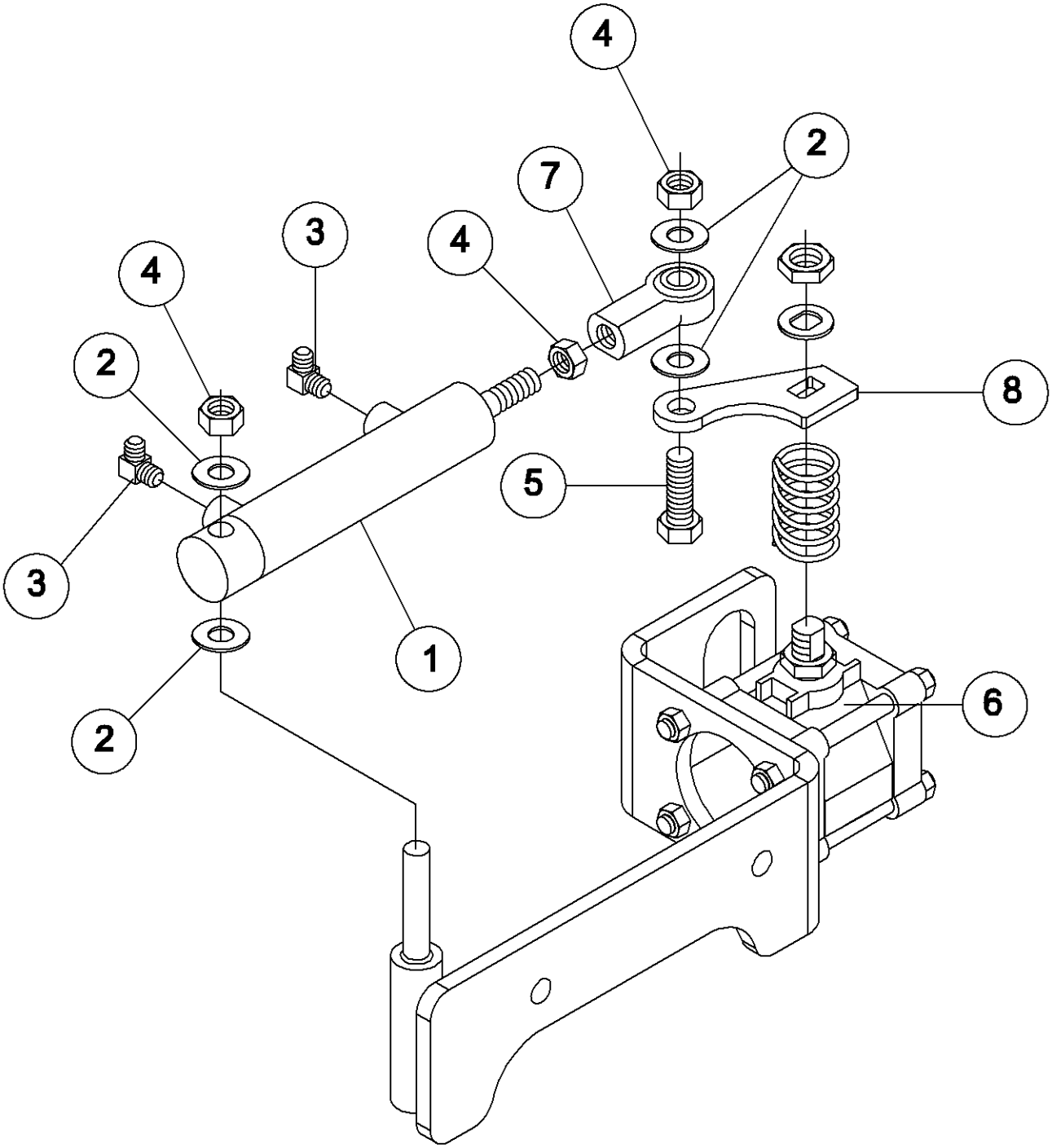
Components-Rack Lift Cylinder Fig 4-23z01



Components-Rack Lift Cylinder Fig 4-23z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST RING D70X6	1	Not Sold Separately
2			Y - RING D70XD85X10	1	Not Sold Separately
3			SNAP RING D70XD85X2	1	Not Sold Separately
4			STEP SEAL D70X6	1	Not Sold Separately
5			O - RING D125X5.7	1	Not Sold Separately
6			SNAP RING D125X115.9X2	1	Not Sold Separately
7			SUPPORT RING D75X15X2.5	1	Not Sold Separately
8			O - RING D65X3.1	1	Not Sold Separately
9			GLYD RING D125X6	1	Not Sold Separately
10			SUPPORT RING D125X10X2.5	1	Not Sold Separately
11			PISTON 125	1	Not Sold Separately
12			PISTON ROD 70	1	Not Sold Separately
13			CYLINDER BODY 125	1	Not Sold Separately
14			PILOT SLEEVE 125/70	1	Not Sold Separately
15			PROTECT NUT 125	1	Not Sold Separately
		299004969	CYLINDER		VBM, Inc. All Items In Figure
		299025319	SEAL KIT		VBM, Inc. Ref. No's 1-10

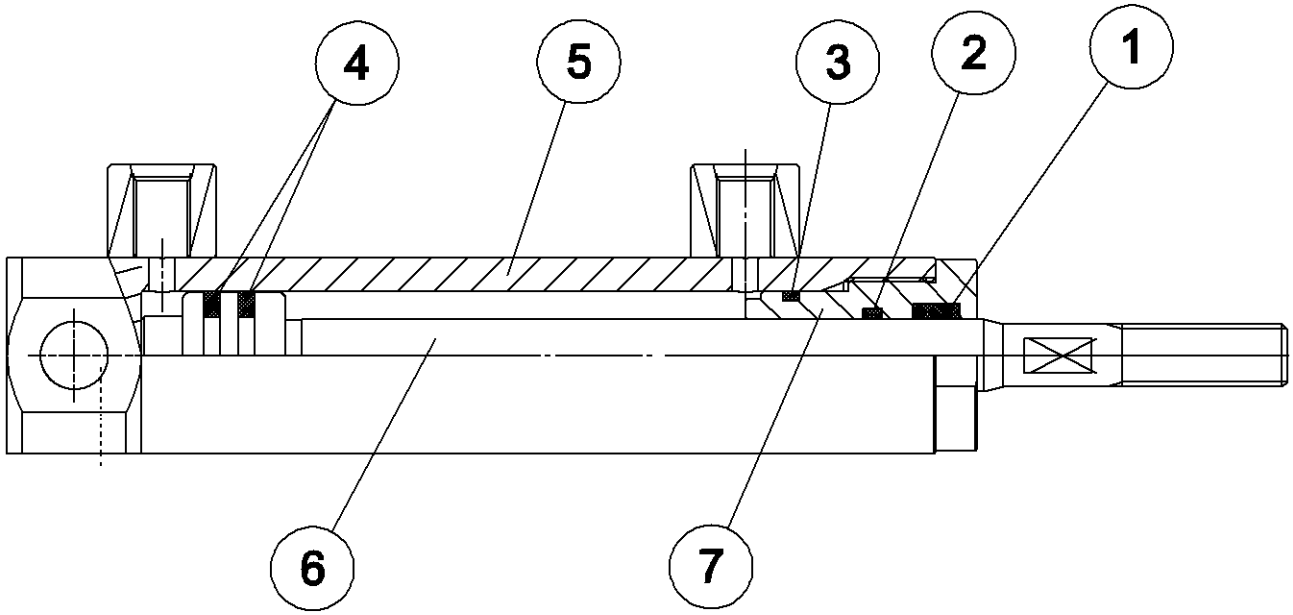
Water Pump On/Off Cylinder Fig 4-24



Water Pump On/Off Cylinder Fig 4-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		287591001B	CYLINDER - 1 X 3-1/2	1	VBM, Breakdown Fig.4-24z01
2		299012383	WASHER GB/T97 12 200HV	4	VBM
3		59423001	90-4MORBA-4MJ	2	VBM
4		299012334	NUT GB/T6170 M12-GR8	2	VBM
5		299010476	BOLT GB/T5783 M12X50-GR8.8	1	VBM
6		287053001	VALVE - 1-1/2” BALL (2200 PSI)	1	PELLA, Breakdown Fig.4-24z02
7		299008441	SPHEROJOINT DIA. 12 M12X30 L=46	1	VBM
8		299005423	ARM	1	VBM

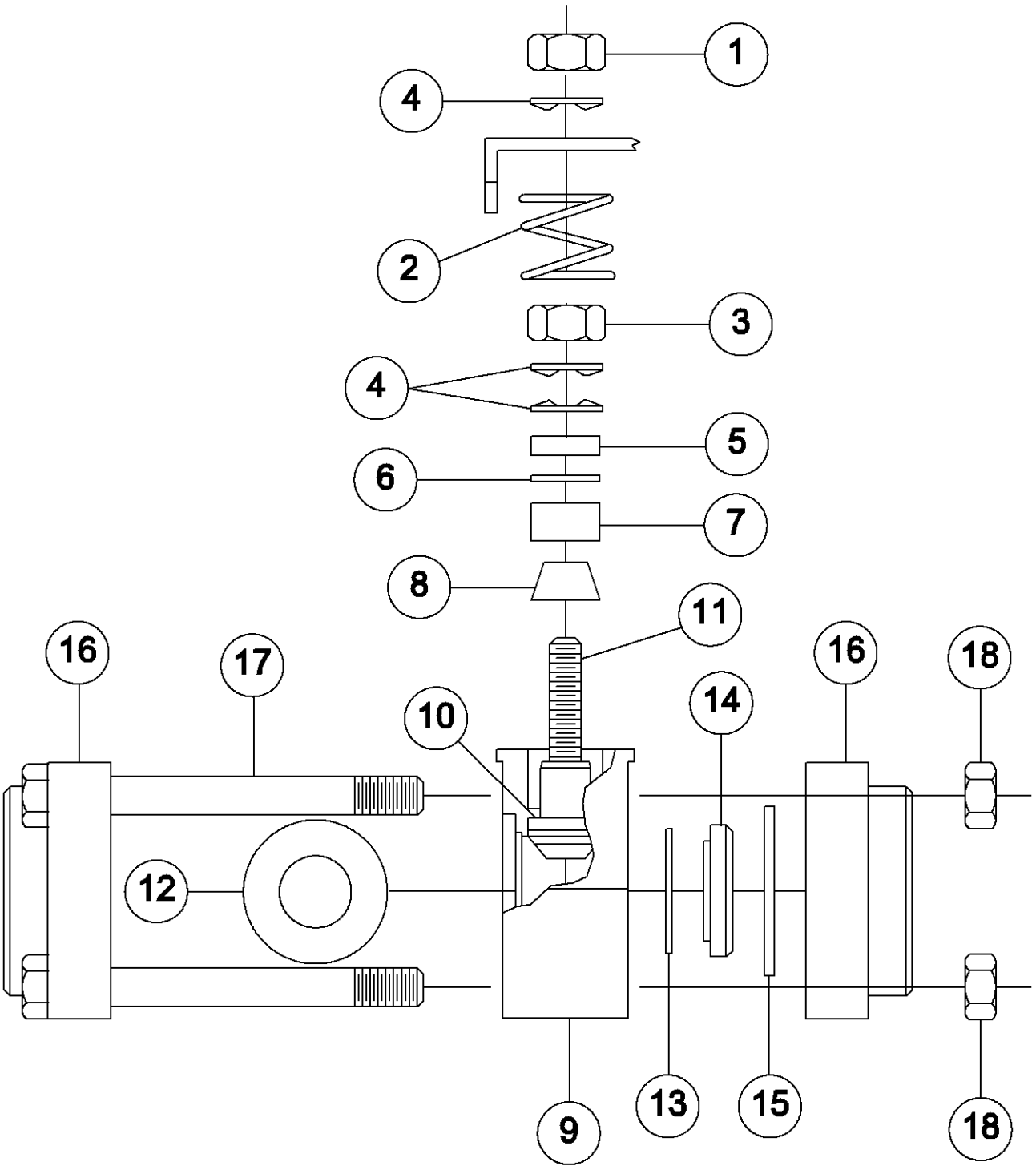
Components-Water Pump On/Off Cylinder Fig 4-24z01



Components-Water Pump On/Off Cylinder Fig 4-24z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			Y-RING 14X20X8	1	Not Sold Separately
2			O-RING 14X2.65	1	Not Sold Separately
3			O-RING 25X2.4	1	Not Sold Separately
4			GLYD RING 25X3	2	Not Sold Separately
5			CYLINDER BODY 25	1	Not Sold Separately
6			PISTON ROD 14	1	Not Sold Separately
7			PILOT SLEEVE 25/14	1	Not Sold Separately
		299025399	SEAL KIT		VBM, Inc. Ref No's 1-4
		287591001B	CYLINDER - 1 X 3-1/2		VBM, Inc. All Items In Figure

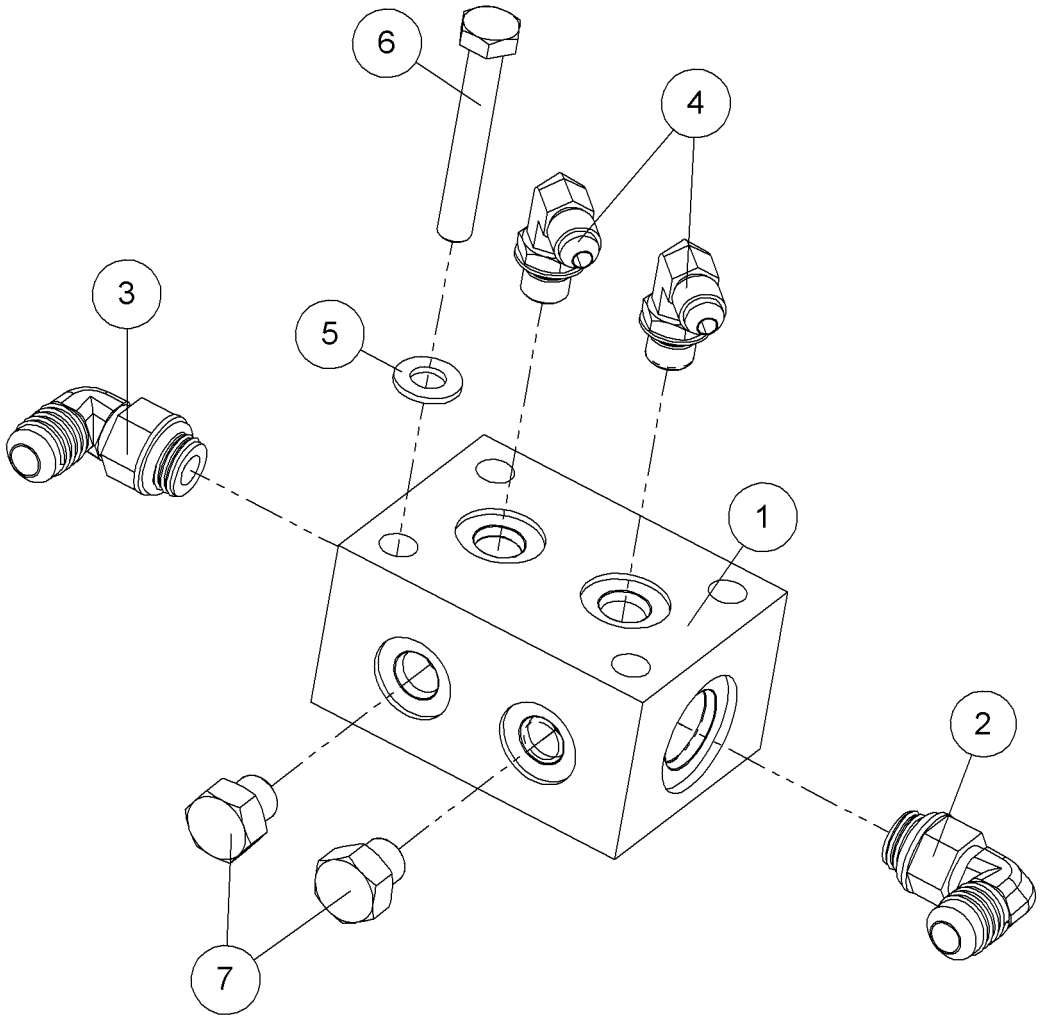
Components-Ball Valve Fig 4-24z02



Components-Ball Valve Fig 4-24z02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		287053002	NUT - STEM	1	PELLA
2		287053003	SPRING - GROUNDING	1	PELLA
3		287053004	NUT - STEM	1	PELLA
4		287053005	SPRING - STEM	3	PELLA
5		287053006	GLAND	1	PELLA
6		287053007	SUPPORT - PACKING	1	PELLA
7		287053008	PACKING - TOP	1	PELLA
8		287053009	PACKING - BOTTOM	1	PELLA
9		287053010	BODY - CYLINDER	1	PELLA
10		287053011	BEARING - STEM	2	PELLA
11		287053012	STEM	1	PELLA
12		287053013	BALL	1	PELLA
13		287053014	RING - SUPPORT	2	PELLA
14		287053015	SEAT/SEAT SPRING	2	PELLA
15		287053016	O-RING	2	PELLA
16		287053017	FLANGE	2	PELLA
17		287053018	CAP - SCREW	4	PELLA
18		287053019	NUT - BODY	8	PELLA
		287053001	VALVE - 1-1/2” BALL (2200 PSI)		PELLA, Inc. All Items In Figure
		287053020	KIT - MAINTENANCE		PELLA, Inc. Ref. No’s 4-8,10&14-15

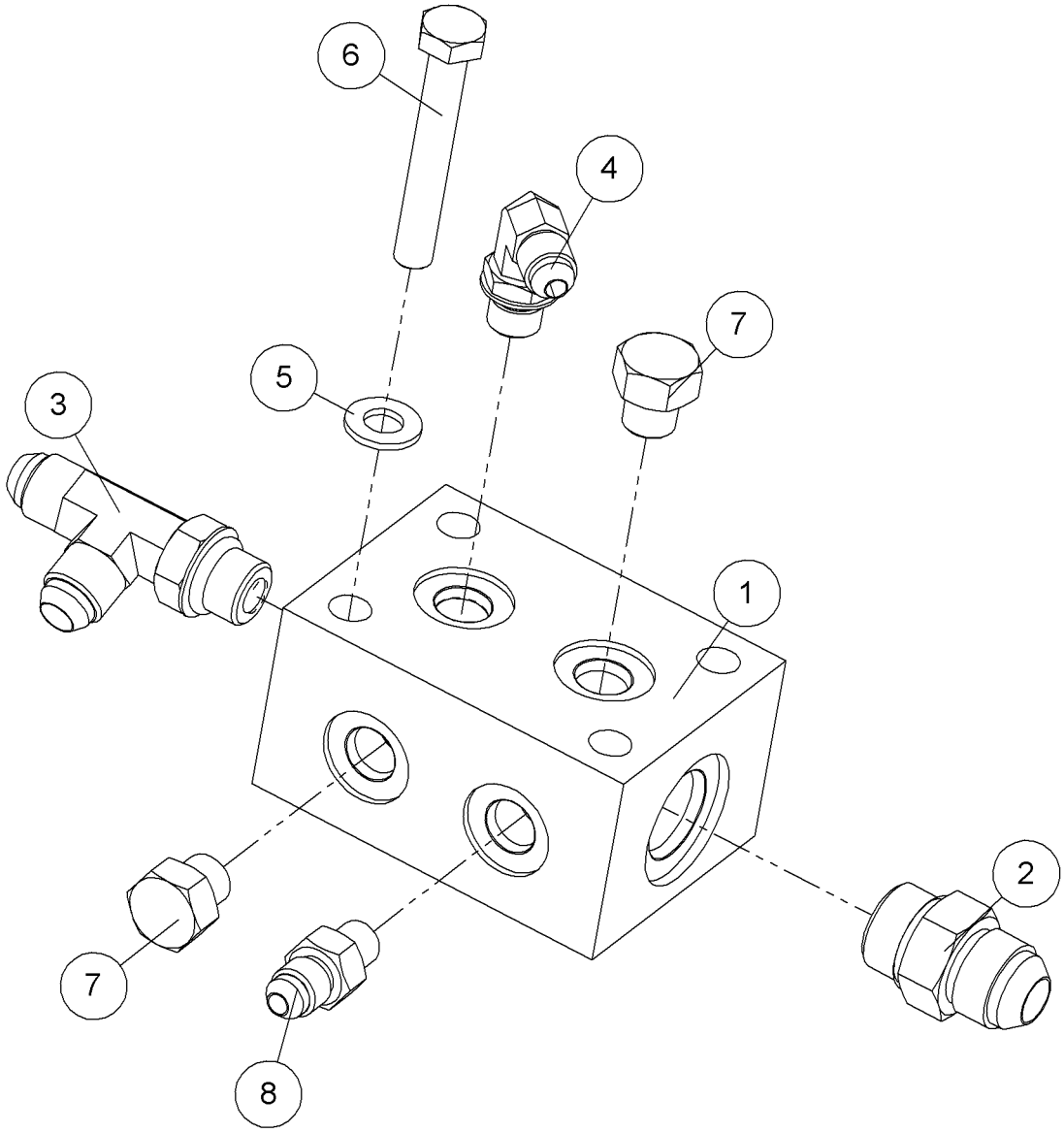
Controlling Return Manifold (S/N 108-) Fig 4-25r01



Controlling Return Manifold (S/N 108-) Fig 4-25r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005272	MANIFOLD - CONTROL RETURN OIL	1	VBM
2		264552001	FITTING-90-8MJ-8MORBA (FLARED)	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		59423001	90-4MORBA-4MJ	2	VBM
5		299012381	WASHER GB/T97 8 200HV	4	VBM
6		299010995	BOLT GB/T5782 M8X55-GR8.8	4	VBM
7		67263001	FITTING - PLUG - 4MORB - HEX	2	VBM

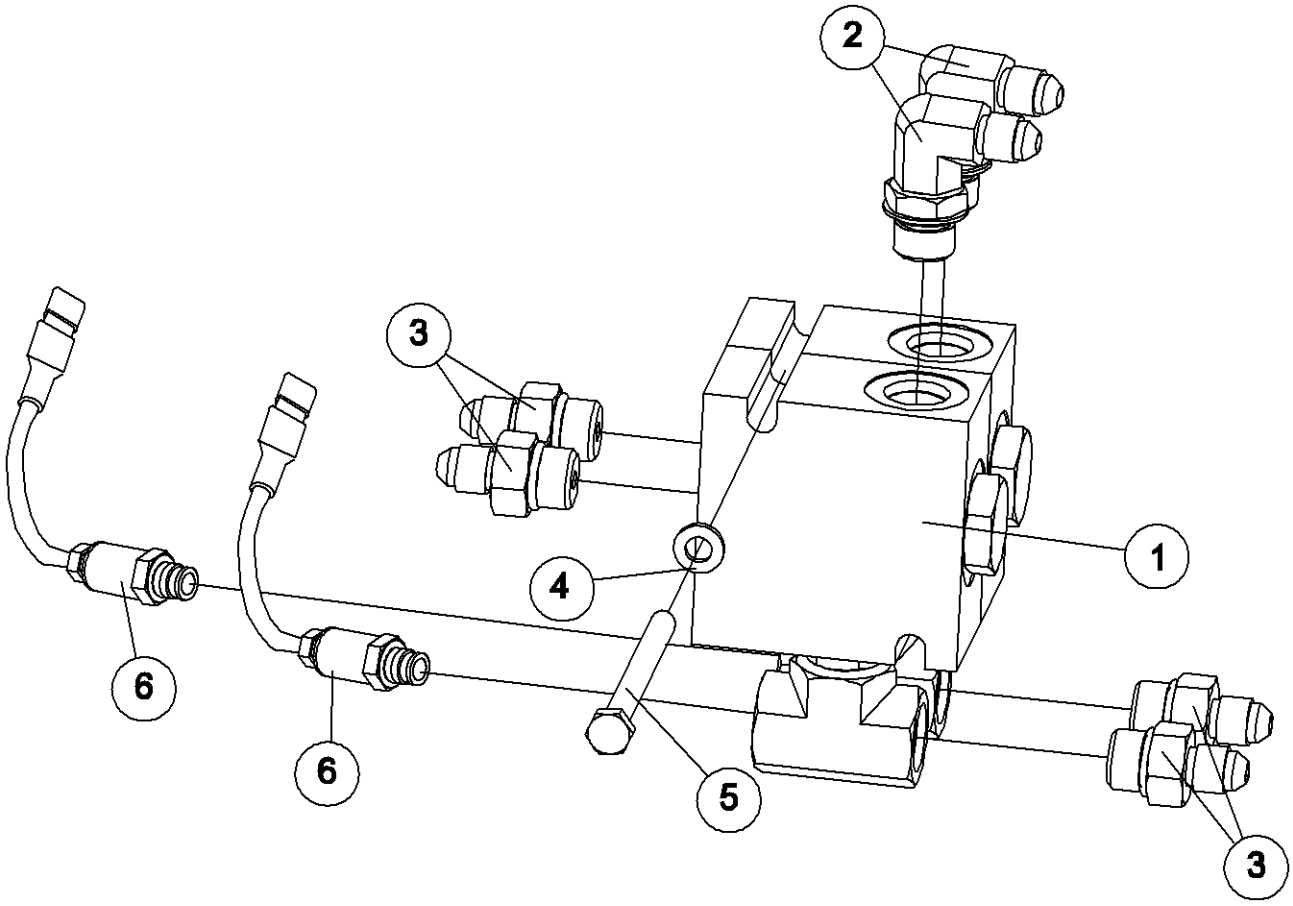
Controlling Return Manifold (S/N 101-107) Fig 4-25



Controlling Return Manifold (S/N 101-107) Fig 4-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005272	MANIFOLD - CONTROL RETURN OIL	1	VBM
2		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
3		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	1	VBM
4		59423001	90-4MORBA-4MJ	1	VBM
5		299012381	WASHER GB/T97 8 200HV	4	VBM
6		299010995	BOLT GB/T5782 M8X55-GR8.8	4	VBM
7		67263001	FITTING - PLUG - 4MORB - HEX	2	VBM
8		60908001	FITTING-4MX4M JIC STR ADAPTER	1	VBM

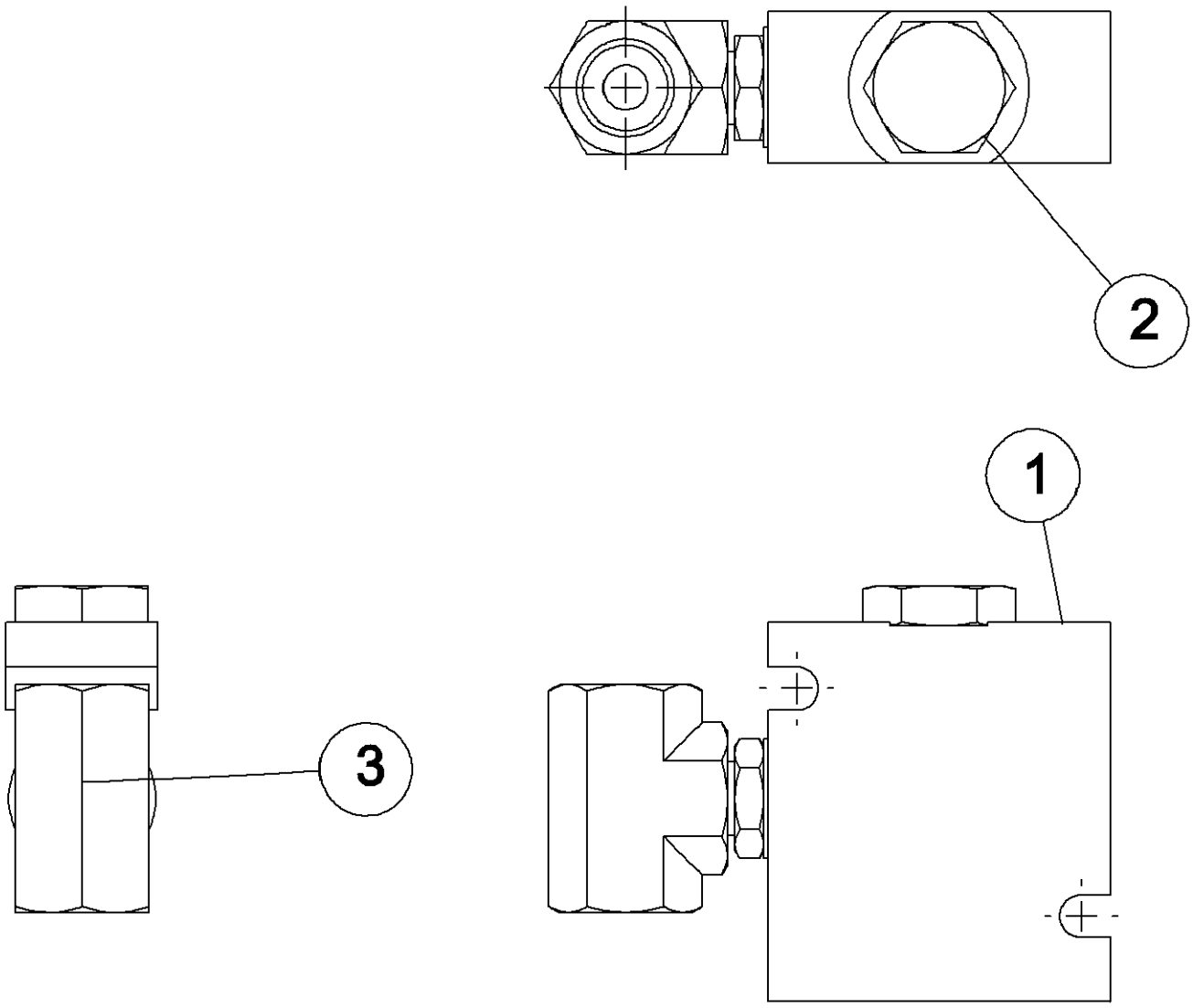
Shuttle Rotation Gauge Fig 4-26



Shuttle Rotation Gauge Fig 4-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005248	VALVE - SHUTTLE	2	PELLA, Breakdown Fig.4-26z01
2		57950001	FITTING-90-4MJ-6MORBA	2	VBM
3		57968001	FITTING-STR-4MJ-6MORB	4	VBM
4		299012380	WASHER GB/T97 6 200HV	2	VBM
5		299015001	BOLT GB/T5782 M6X70-GR8.8	2	VBM
6		283059001	SENSOR - HYDRAULIC PRESSURE	2	PELLA

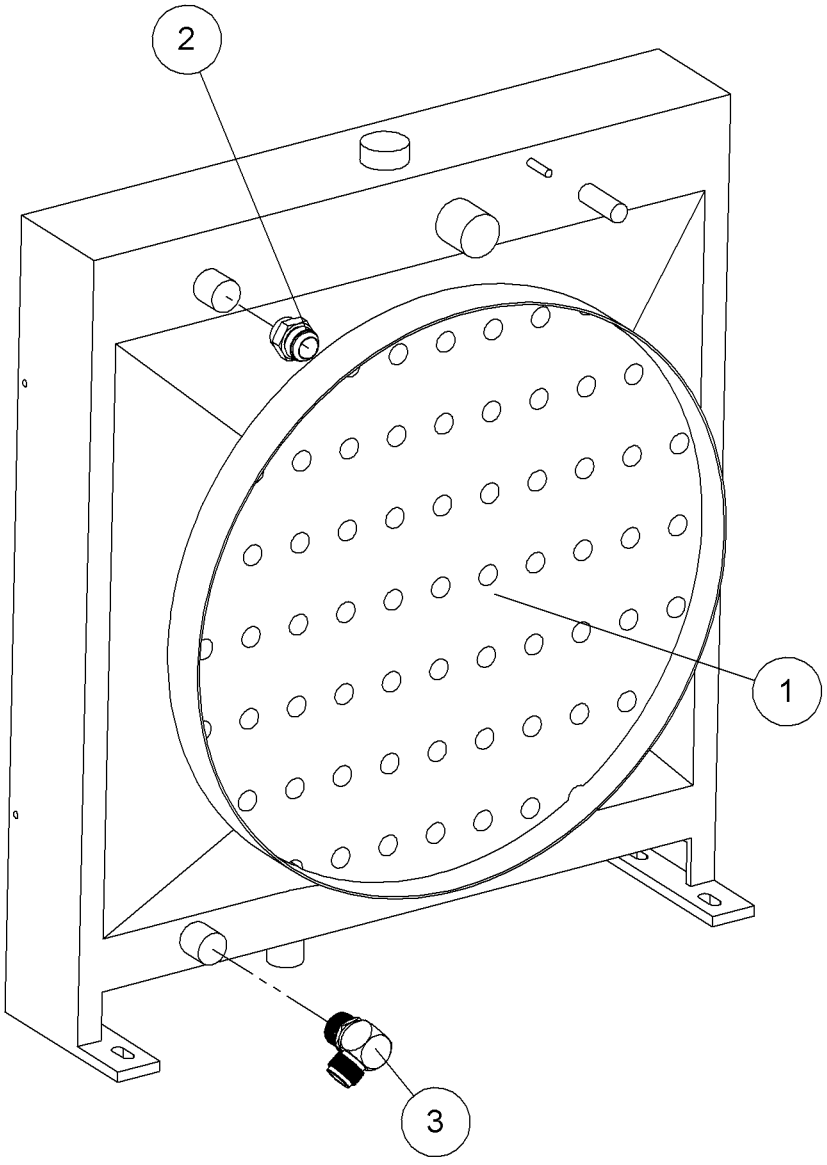
Components-Shuttle Rotation Gauge Fig 4-26z01



Components-Shuttle Rotation Gauge Fig 4-26z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			LINE BODY	1	Not Sold Separately
2		161662001	CARTRIDGE (COMPLETE)	1	PELLA
2		161664001	SEAL - KIT	1	PELLA
3		299026218	SAE-6ORB PORT TEE	1	PELLA
		299005248	VALVE - SHUTTLE		PELLA, Inc. All Items In Figure

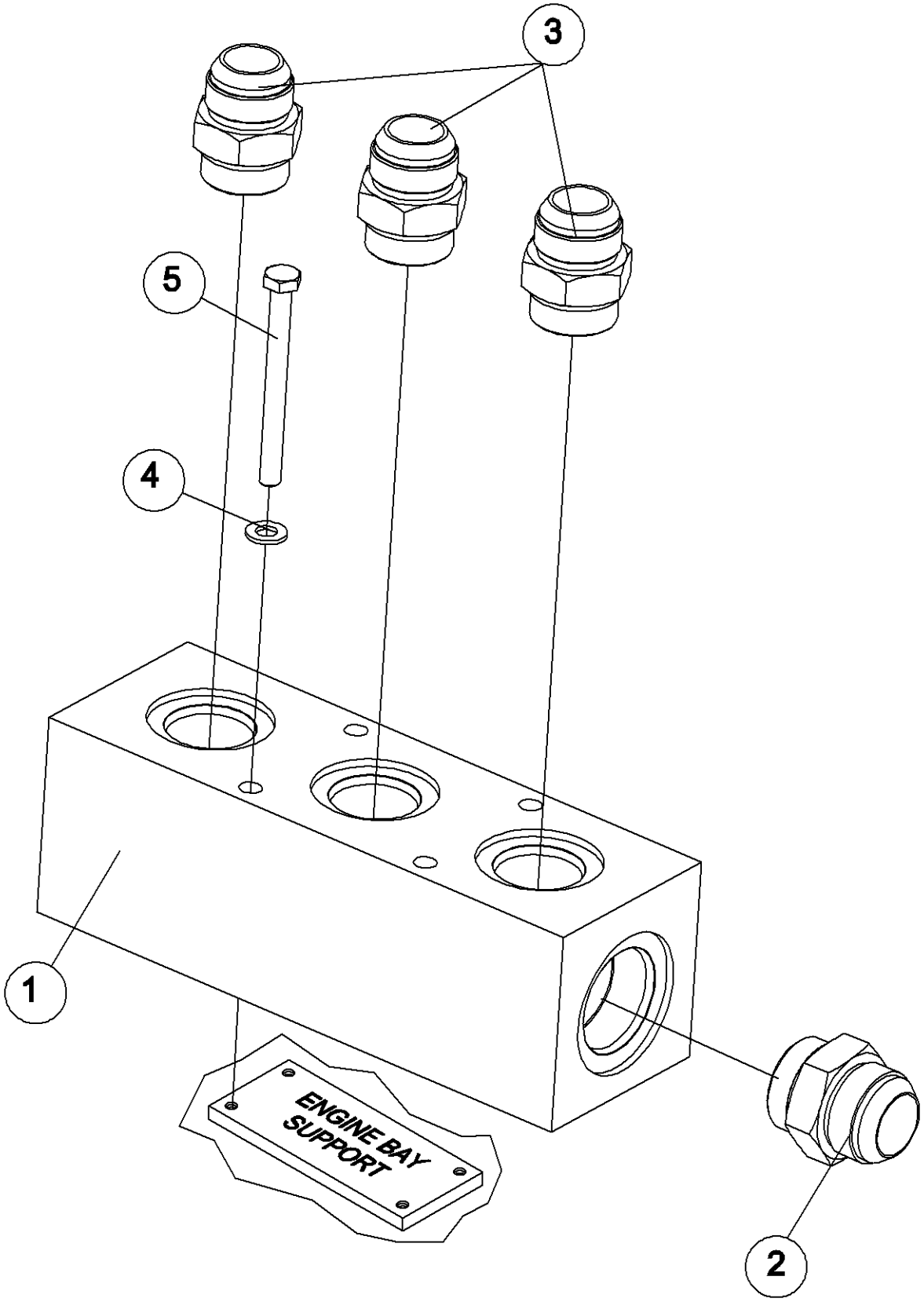
Oil Cooler Fig 4-27



Oil Cooler Fig 4-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005017	RADIATOR ASSY	1	VBM
2		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
3		77137001	FITTING-20MX20M JIC 90 DEG.	1	VBM

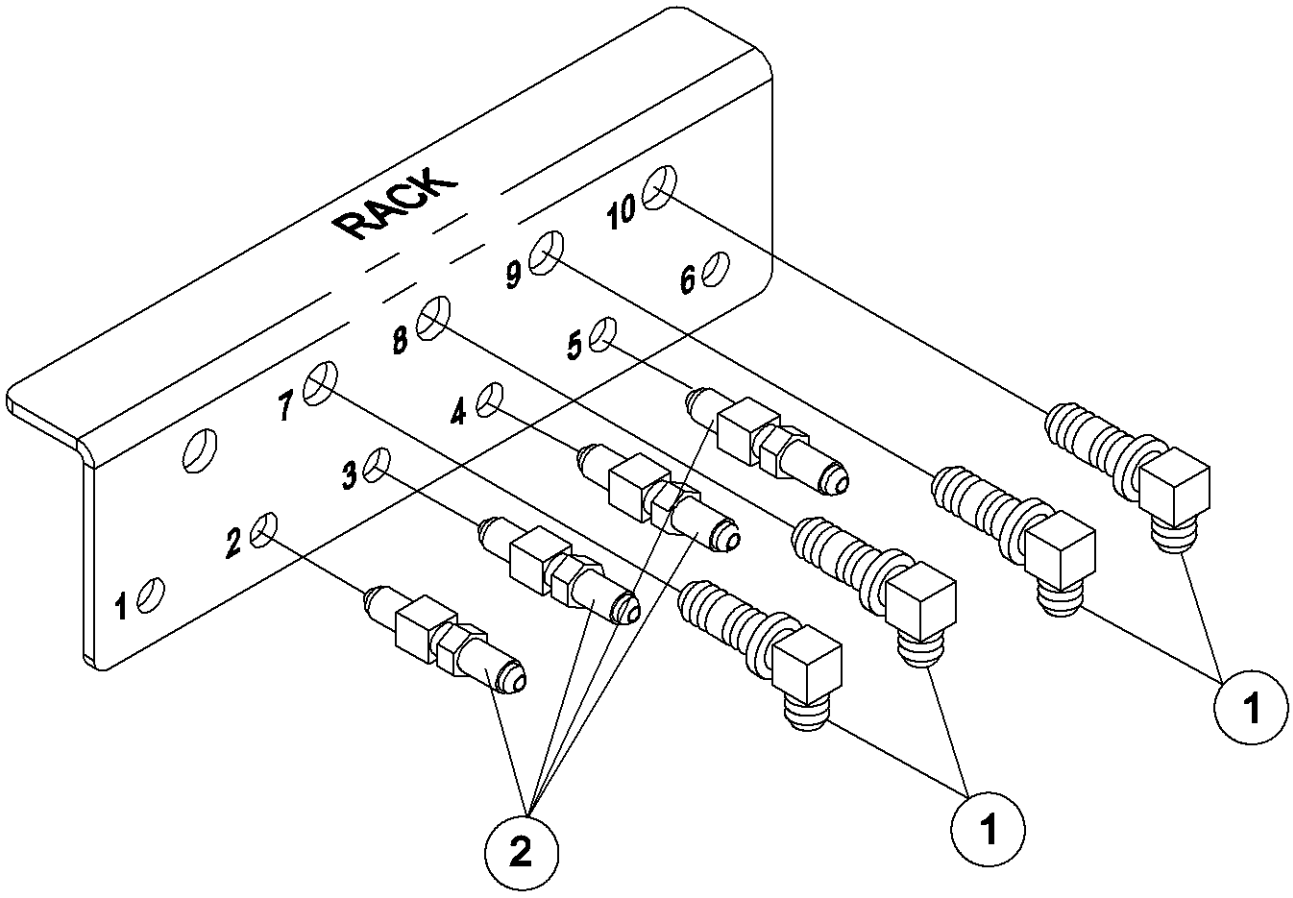
Return Manifold Fig 4-28



Return Manifold Fig 4-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005270	MANIFOLD - PUMP	1	VBM
2		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
3		60907001	FITTING-16M JICX16M STR ADAPT	3	VBM
4		299012381	WASHER GB/T97 8 200HV	4	VBM
5		299016035	BOLT GB/T5782 M8X85-GR8.8	4	VBM

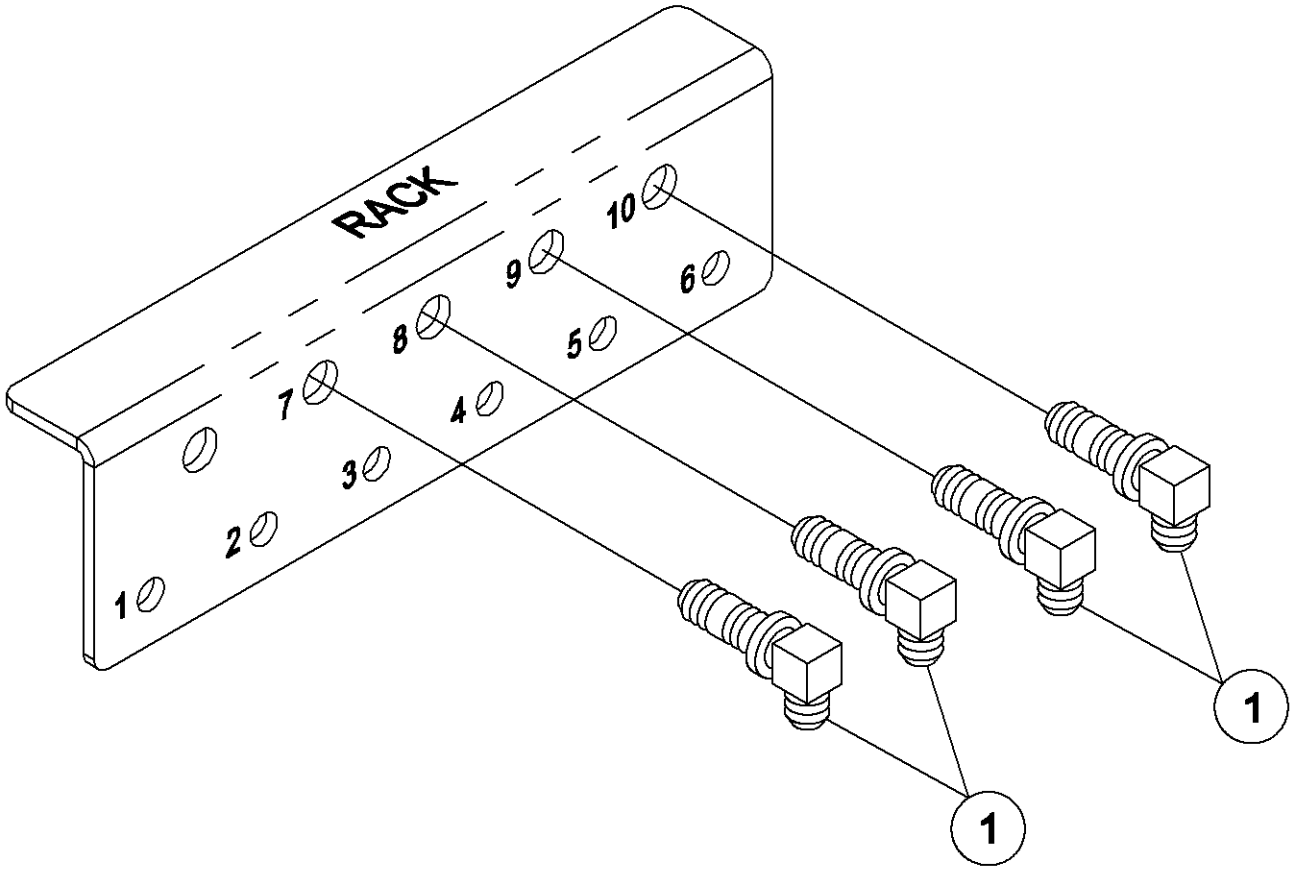
Bulkhead (Rack) (S/N 106-) Fig 4-29r01



Bulkhead (Rack) (S/N 106-) Fig 4-29r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		60727001	FITTING-6MJICX90BULKHEAD ELBOW	4	VBM
2		299013873	ST-6MJBH-6MJ	4	VBM

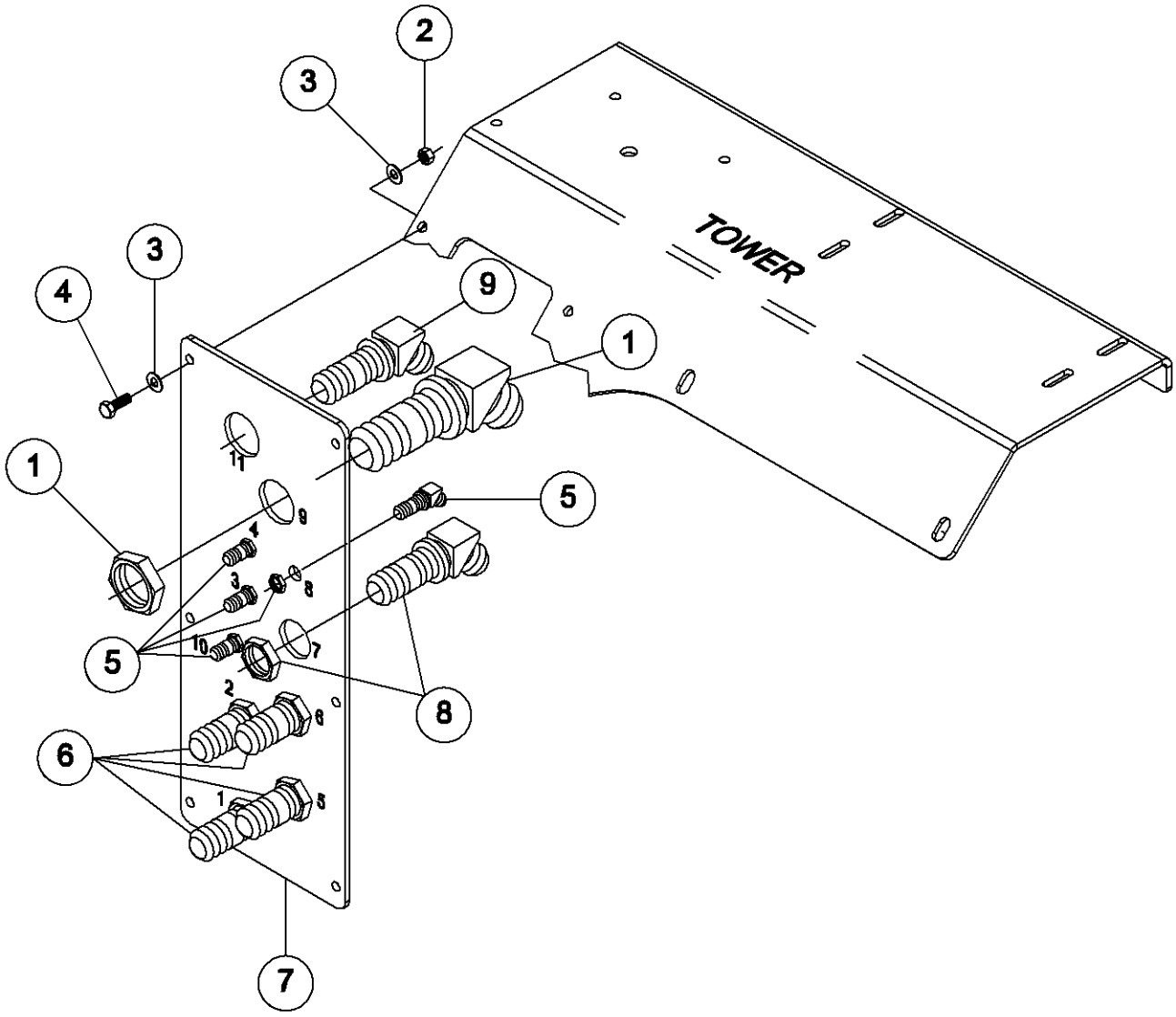
Bulkhead (Rack) (S/N 101-105) Fig 4-29



Bulkhead (Rack) (S/N 101-105) Fig 4-29

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		60727001	FITTING-6MJICX90BULKHEAD ELBOW	4	VBM

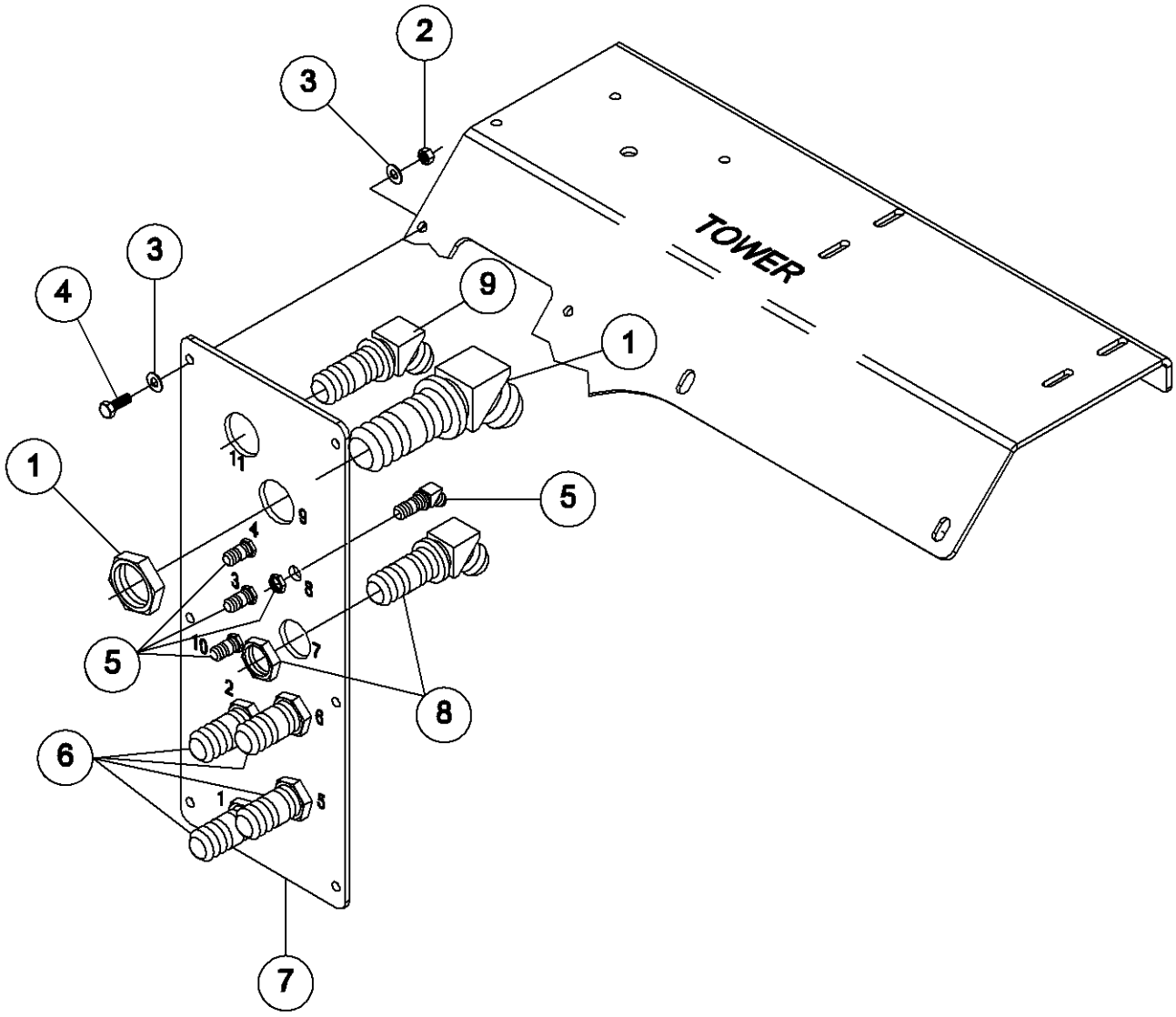
Bulkhead (Tower) (S/N 107-) Fig 4-30r01



Bulkhead (Tower) (S/N 107-) Fig 4-30r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279582	FITTING - BH45-24MJ-24MJ	1	PELLA
2		299012333	NUT M10 (GB/T6170-85)	6	VBM
3		299012382	WASHER GB/T97 10 200HV	12	VBM
4		299010458	BOLT GB/T5783 M10X25-GR8.8	6	VBM
5		60728001	FITTING - 6MJIC X 45 BULK ELBOW	4	PELLA
6		299013838	45-16MORFFBH-16MORFF	4	VBM
7		299025090	PLATE - PIPE COUPLING	1	VBM
8		299013844	45-16MJBH-16MJ	1	VBM
9		296282120	FITTING-BH45-20MJ 20MJ-LN	1	PELLA

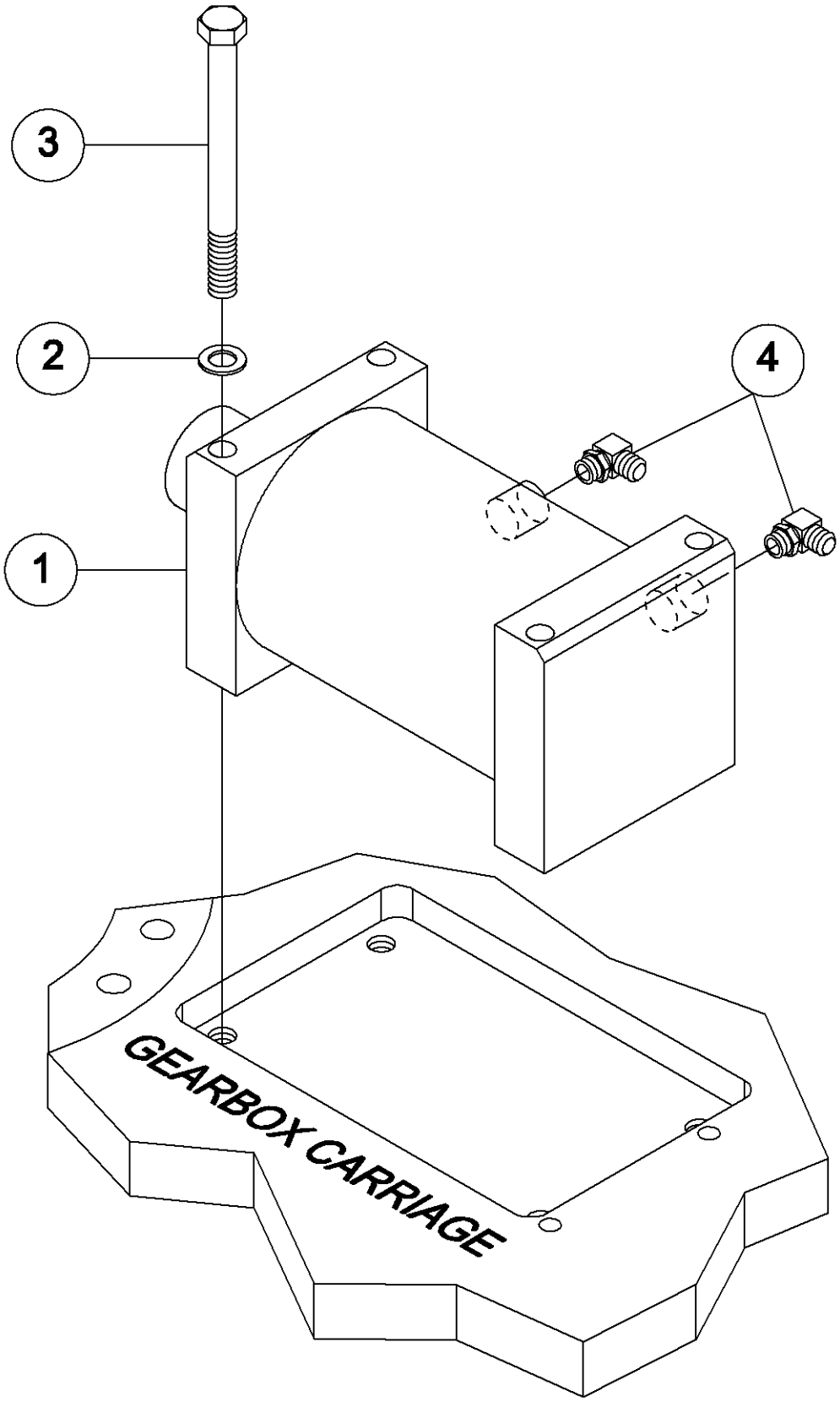
Bulkhead (Tower) (S/N 101-106) Fig 4-30



Bulkhead (Tower) (S/N 101-106) Fig 4-30

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279582	FITTING - BH45-24MJ-24MJ	1	VBM
2		299012333	NUT M10 (GB/T6170-85)	6	VBM
3		299012382	WASHER GB/T97 10 200HV	12	VBM
4		299010458	BOLT GB/T5783 M10X25-GR8.8	6	VBM
5		60728001	FITTING - 6MJIC X 45 BULK ELBOW	4	VBM
6		299013838	45-16MORFFBH-16MORFF	4	VBM
7		299006960	PLATE - PIPE COUPLING	1	VBM
8		299013844	45-16MJBH-16MJ	1	VBM
9		296282120	FITTING-BH45-20MJ 20MJ-LN	1	VBM

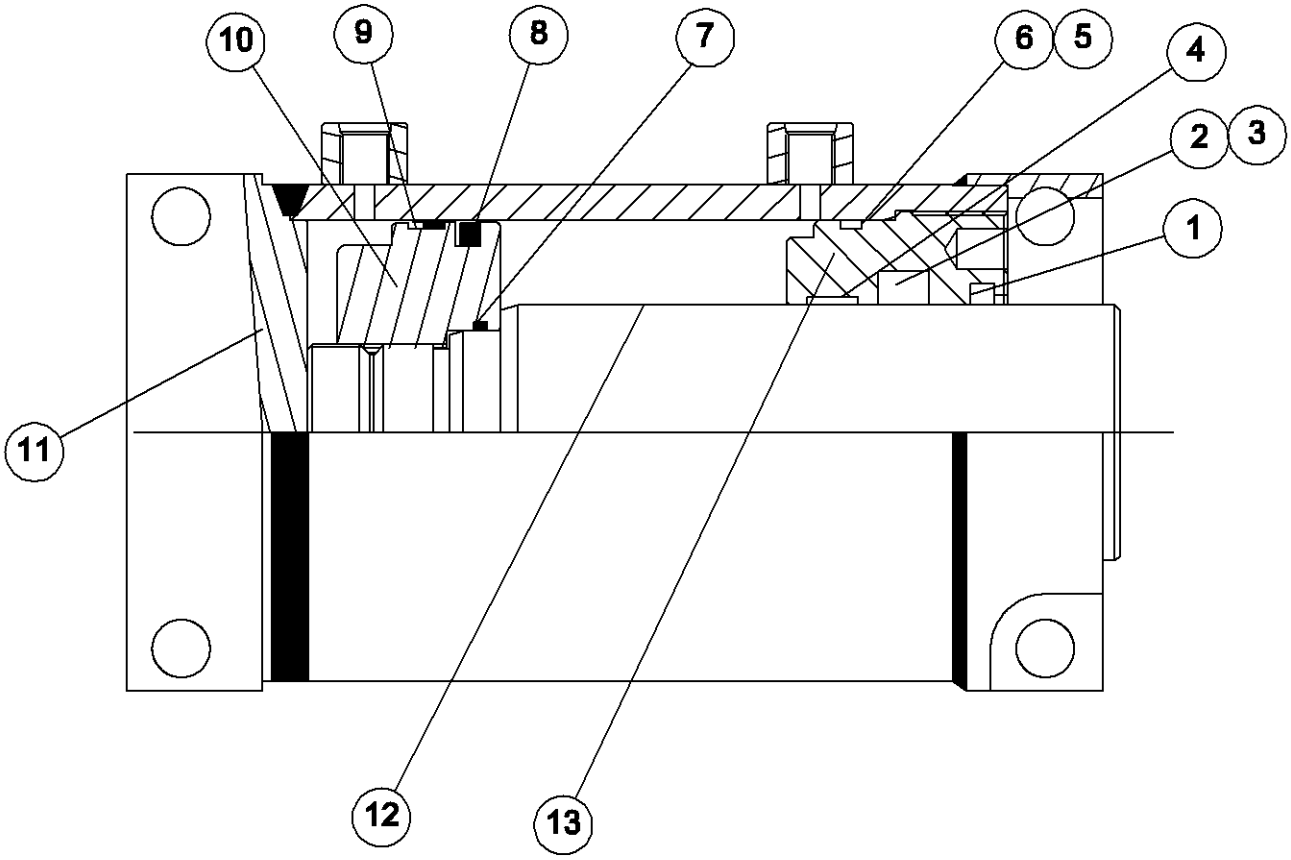
Floating Gearbox Cylinder Fig 4-31



Floating Gearbox Cylinder Fig 4-31

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299004961	CYLINDER - HEAD SHAFT125/75-84	1	VBM, Breakdown Fig.4-31z01
2		299012385	WASHER 16 (GB/T97-85)	4	VBM
3		299011800	SCREW GB/T70 M16X160 - GR8.8	4	VBM
4		59426001	FITTING - 90-6MJ-6MORBA	2	VBM

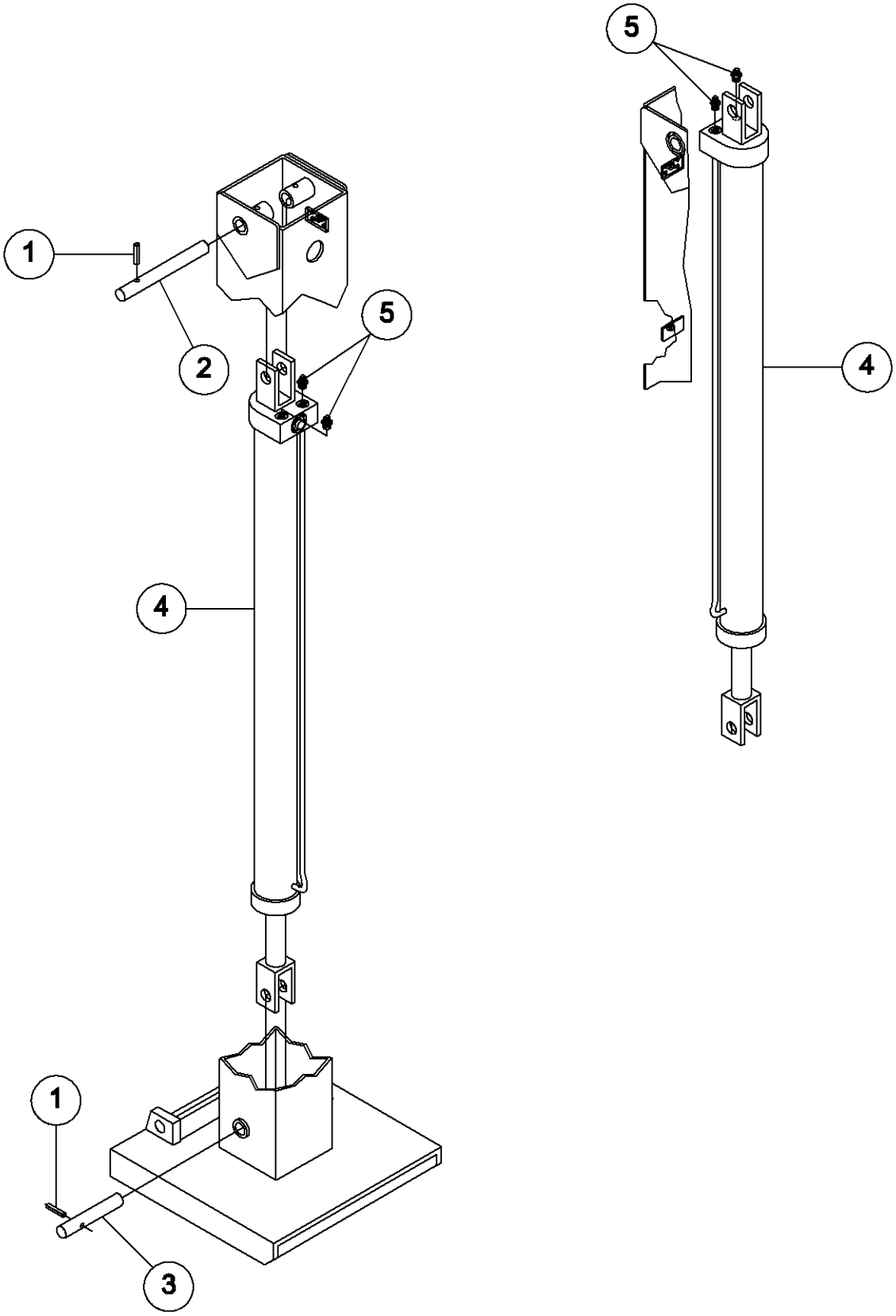
Components-Floating Gearbox Cylinder Fig 4-31z01



Components-Floating Gearbox Cylinder Fig 4-31z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST J RING 75X7	1	Not Sold Separately
2			Y - RING 75X95X12	1	Not Sold Separately
3			SNAP RING 95X75X2	1	Not Sold Separately
4			SUPPORT RING 80X15X2.5	1	Not Sold Separately
5			SNAP RING 125X120X2	1	Not Sold Separately
6			O - RING D125X3.1	1	Not Sold Separately
7			O - RING D65X3.1	1	Not Sold Separately
8			GLYD RING 125X6	1	Not Sold Separately
9			SUPPORT RING 125X10X2.5	1	Not Sold Separately
10			PISTON 125	1	Not Sold Separately
11			CYLINDER BODY 125	1	Not Sold Separately
12			PISTON ROD 75	1	Not Sold Separately
13			PILOT SLEEVE 125/75	1	Not Sold Separately
		299004961	CYLINDER - HEAD SHAFT125/75-84		VBM, Inc. All Items In Figure
		299025309	SEAL KIT		VBM, Inc. Ref. No's1-9

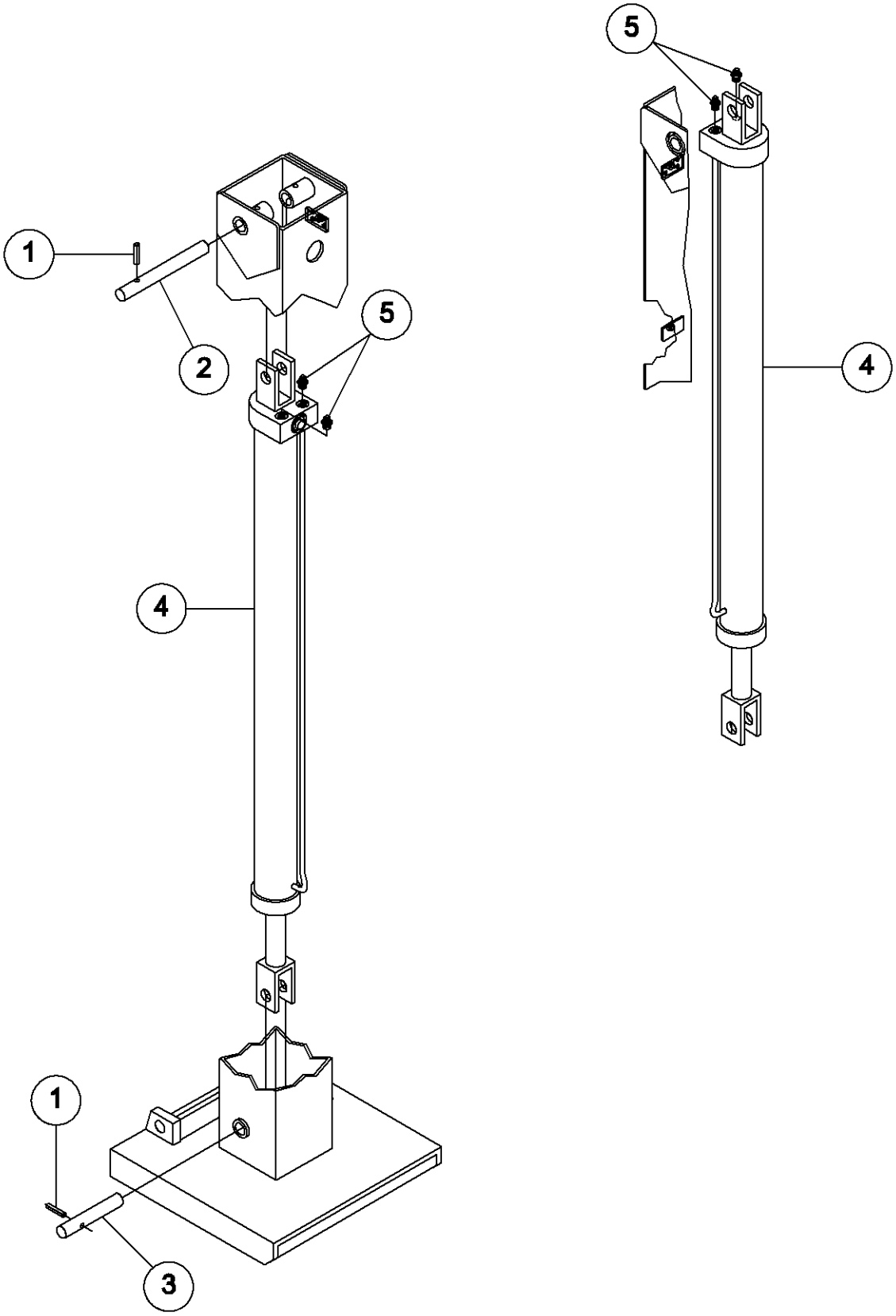
Outrigger Cylinder (S/N 107-) Fig 4-32r01



Outrigger Cylinder (S/N 107-) Fig 4-32r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006488	PIN - (10X55)GB/T879.1	4	VBM
2		299023826	PIN 45	2	VBM
3		299023827	PIN 45	2	VBM
4		299008140	CYLINDER 4”X40 XCX (W/CB)	2	VBM, Breakdown Fig.4-32z01
5		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	VBM

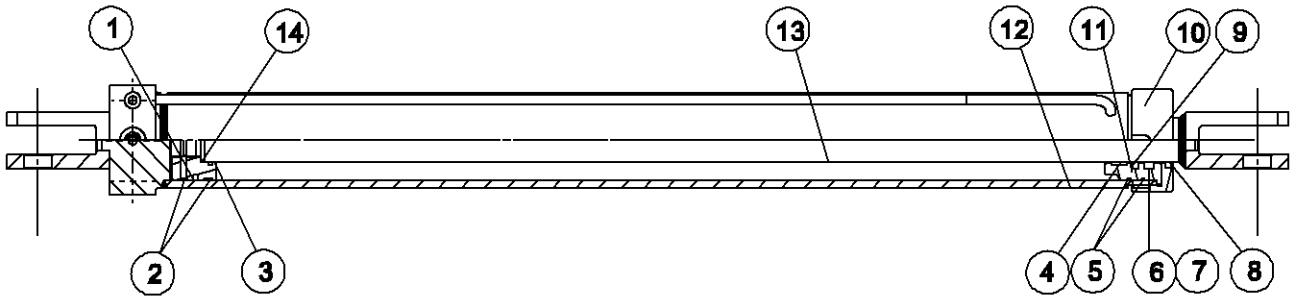
Outrigger Cylinder (S/N 101-106) Fig 4-32



Outrigger Cylinder (S/N 101-106) Fig 4-32

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006488	PIN-(10X55)GB/T879.1	4	VBM
2		299006418	PIN	2	VBM
3		299006420	PIN	2	VBM
4		299004962	CYLINDER - OUTRIGGER 80/56-1016	2	VBM, Breakdown Fig.4-32z01
5		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	VBM

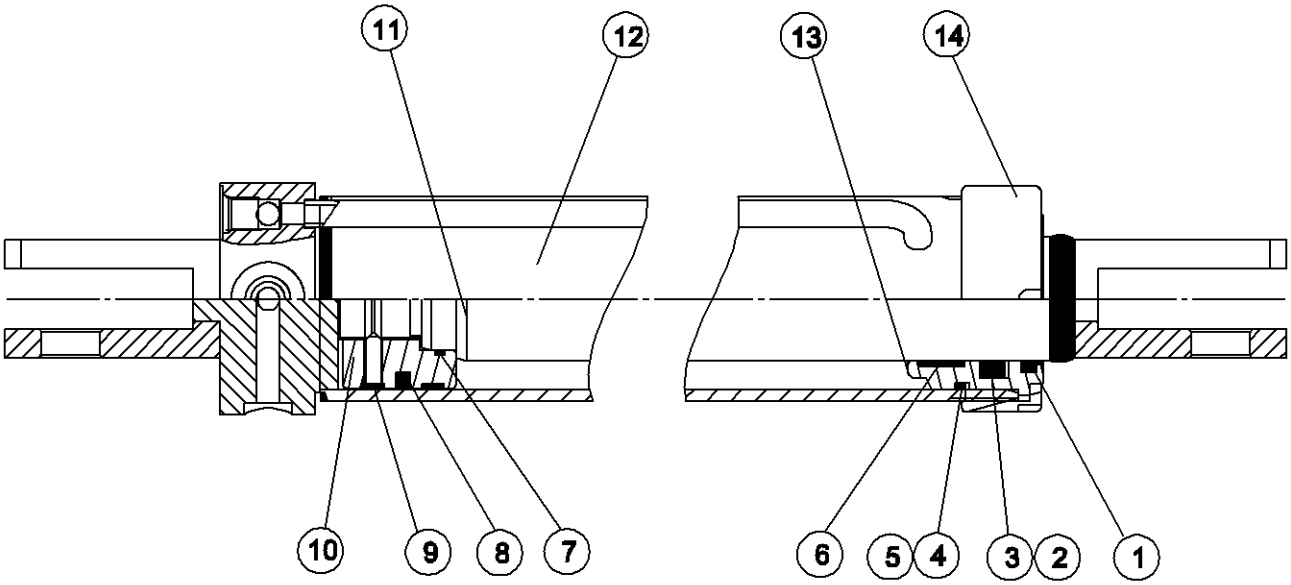
Components-Outrigger Cylinder (S/N 107-) Fig 4-32z01r01



Components-Outrigger Cylinder (S/N 107-) Fig 4-32z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			GLYD RING 100X6	1	Not Sold Separately
2			SUPPORT RING 100X10X2.5	1	Not Sold Separately
3			O - RING d54.5X3.55	1	Not Sold Separately
4			SUPPORT RING 60X20X2.5	1	Not Sold Separately
5			O - RING D100X3.1	1	Not Sold Separately
6			Y - RING 55X70X10	1	Not Sold Separately
7			SNAP RING 70X55X2	1	Not Sold Separately
8			ANTI - DUST J RING 55X7	1	Not Sold Separately
9			SNAP RING 55X6	1	Not Sold Separately
10			PROTECT NUT 100/55	1	Not Sold Separately
11			PILOT SLEEVE 100/55	1	Not Sold Separately
12			CYLINDER BODY 100	1	Not Sold Separately
13			PISTON ROD 55	1	Not Sold Separately
14			PISTON 100	1	Not Sold Separately
		299008140	CYLINDER 4”X40 XCX (W/CB)		VBM, Inc. All Items In Figure
		299025339	SEAL KIT		VBM, Inc. Ref. No’s1-10

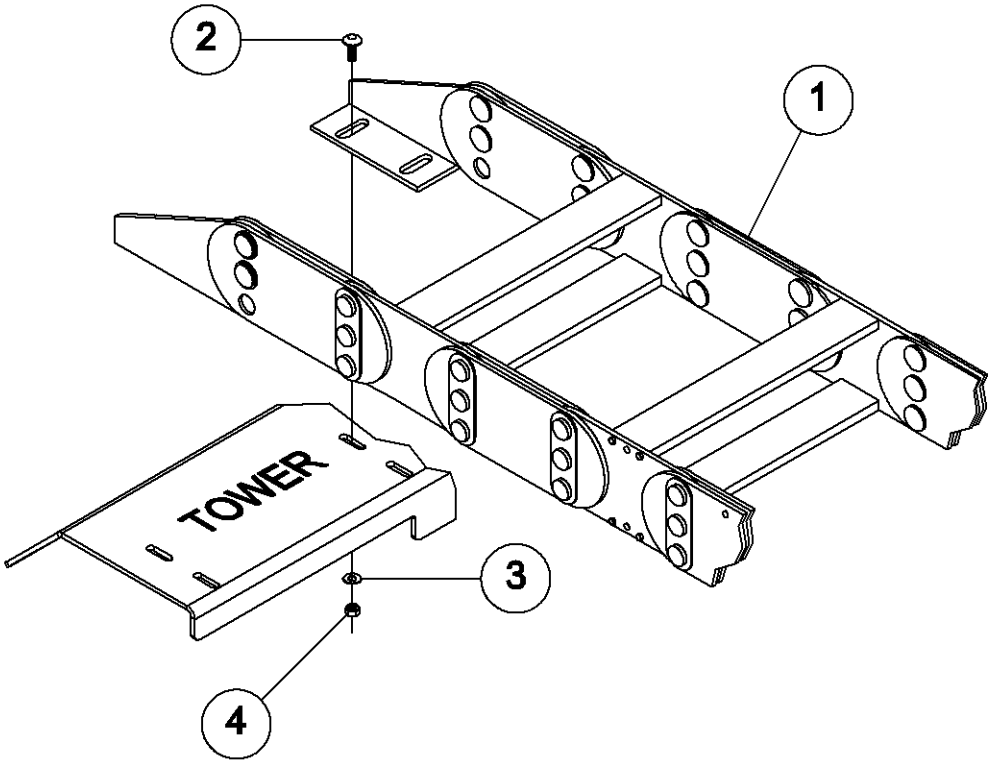
Components-Outrigger Cylinder (S/N 101-106) Fig 4-32z01

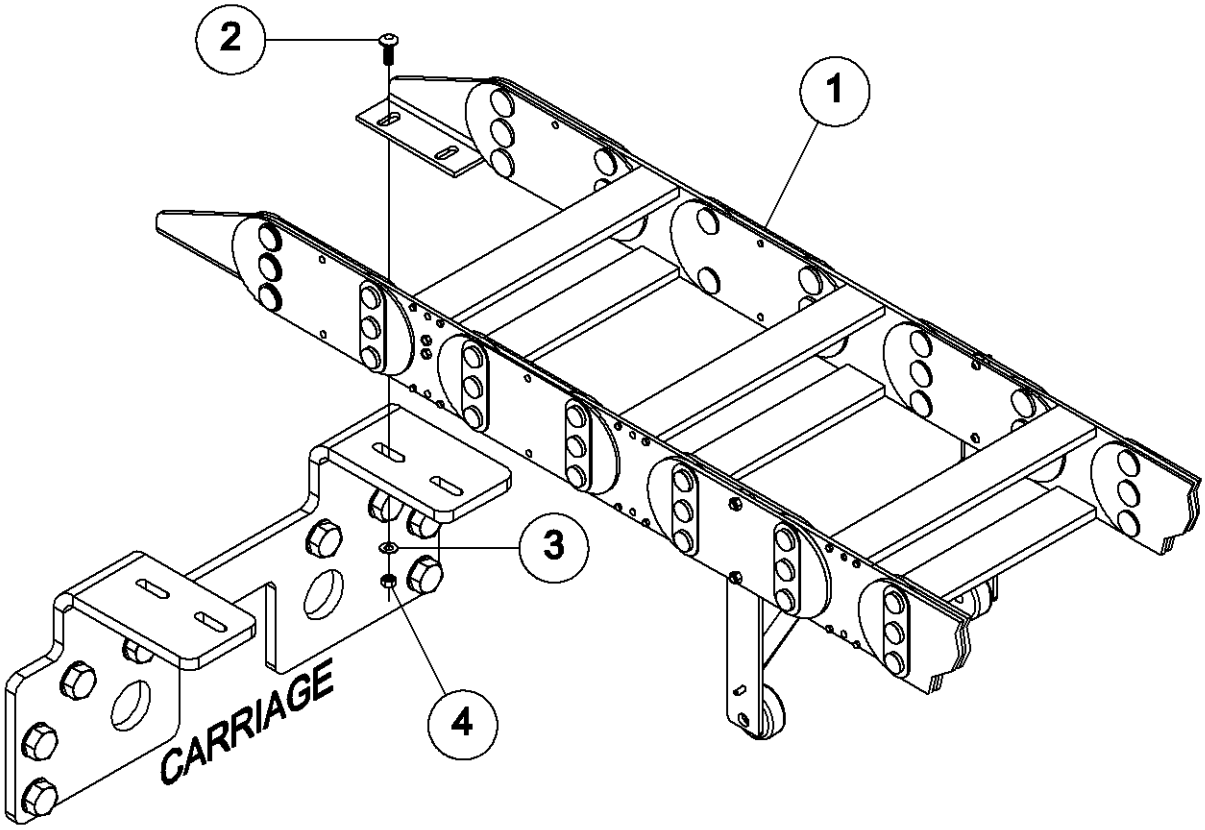


Components-Outrigger Cylinder (S/N 101-106) Fig 4-32z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI-DUST RING D55X6	1	Not Sold Separately
2			Y- RING D55XD70X10	1	Not Sold Separately
3			SNAP RING D55XD70X2	1	Not Sold Separately
4			O- RING D73X3.55	1	Not Sold Separately
5			SNAP RING D80X74.3X2	1	Not Sold Separately
6			SUPPORT RING D60X20X2.5	1	Not Sold Separately
7			O- RING D50X3.1	1	Not Sold Separately
8			GLYD RING D80X6	1	Not Sold Separately
9			SUPPORT RING D80X10X2.5	2	Not Sold Separately
10			PISTON 80	1	Not Sold Separately
11			PISTON ROD 55	1	Not Sold Separately
12			CYLINDER BODY 80	1	Not Sold Separately
13			PILOT SLEEVE 80/55	1	Not Sold Separately
14			PROTECT NUT 80	1	Not Sold Separately
		299004962	CYLINDER - OUTRIGGER 80/56-1016		VBM, Inc. All Items In Figure
		299025349	SEAL KIT		VBM, Inc. Ref. No's1-9

Hose Carrier Fig 4-33

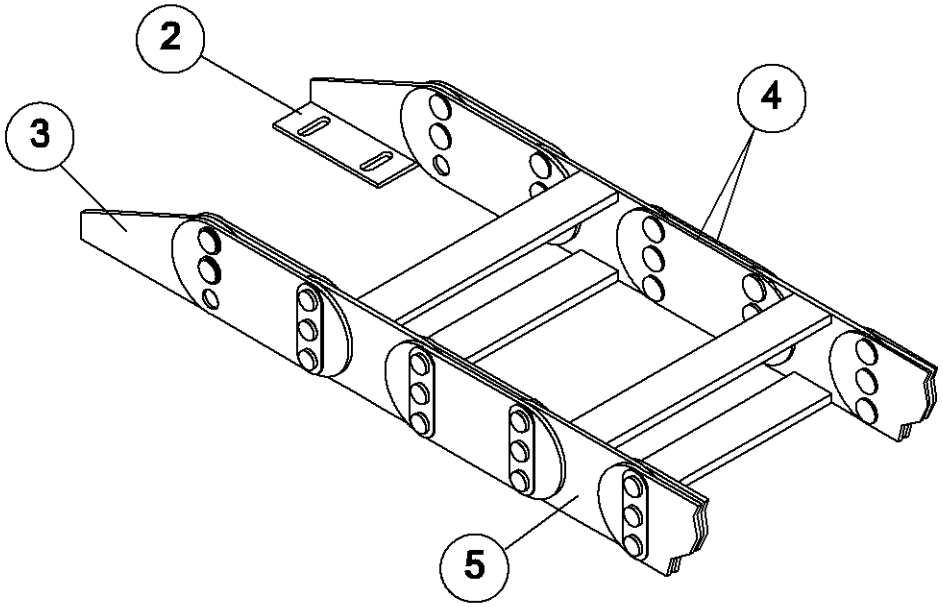


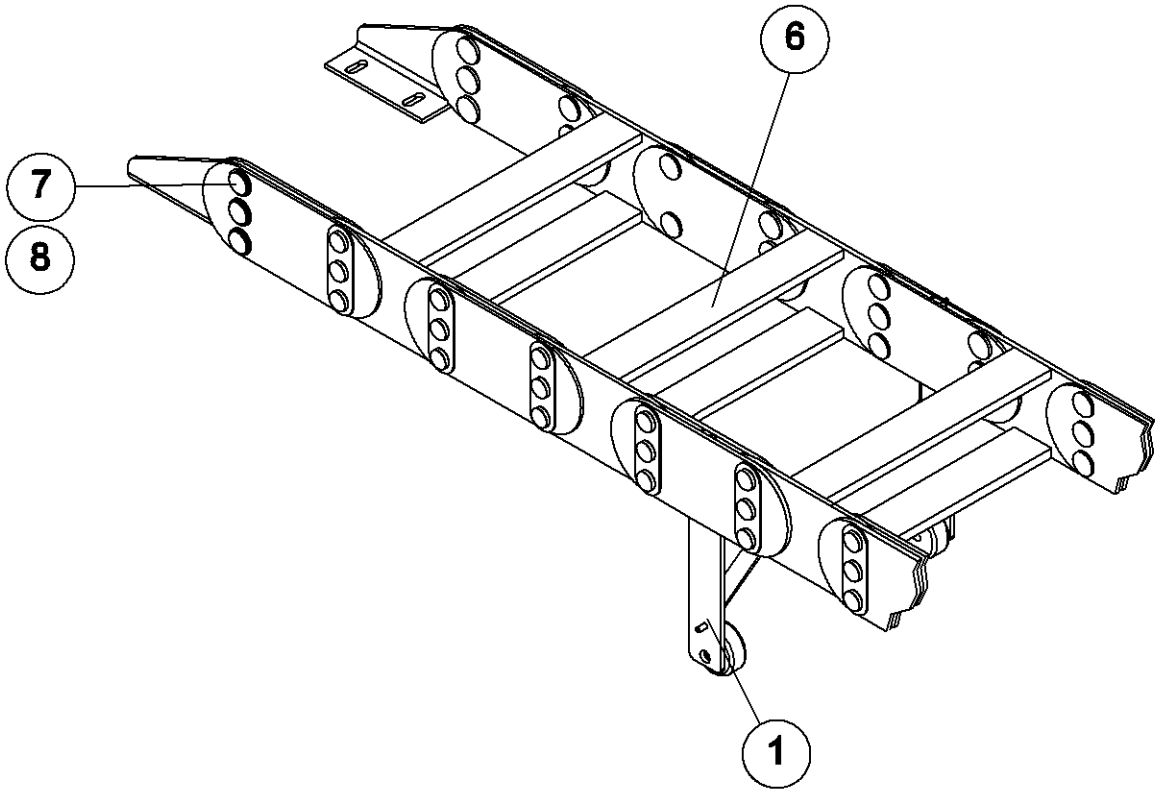


Hose Carrier Fig 4-33

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006430	HOSE CARRIER	1	VBM, Breakdown Fig.4-33z01
2		299010460	BOLT GB/T5783 M10X35-GR8.8	8	VBM
3		299012382	WASHER GB/T97 10 200HV	8	VBM
4		299012333	NUT M10 (GB/T6170-85)	8	VBM

Components-Hose Carrier Fig 4-33z01

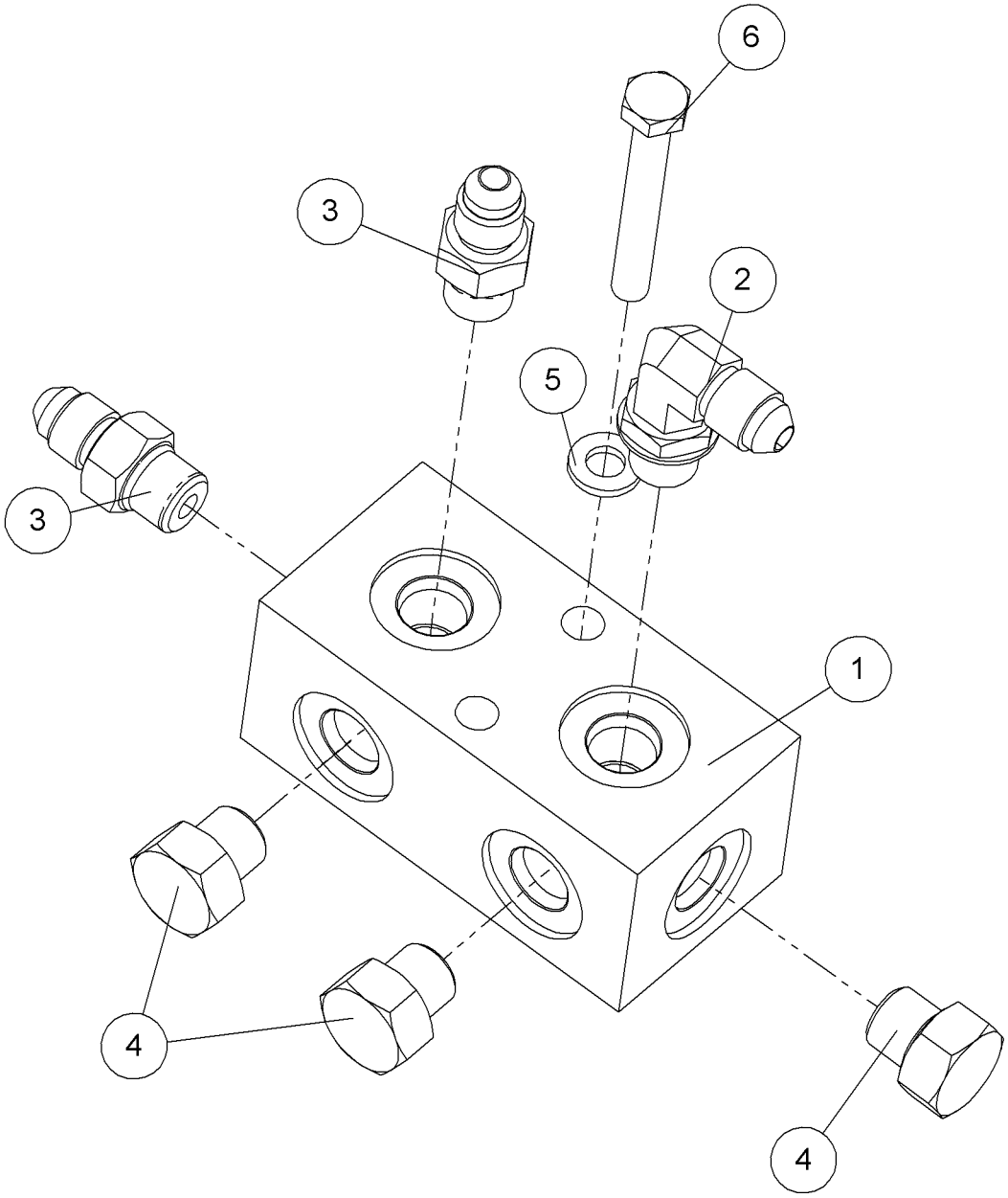




Components-Hose Carrier Fig 4-33z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026231	BRACKET	7	VBM
2		299026232	RIGHT LINK	2	VBM
3		299026233	LEFT LINK	2	VBM
4		299026234	OUTER LINK	100	VBM
5		299026235	INNER LINK	48	VBM
6		299026236	SUPPORT PLATE	24	VBM
7		299026936	PIN 20	408	VBM
8		299013381	SNAP RING GB/T894 20	408	VBM
		299006430	HOSE CARRIER		VBM, Inc. All Items In Figure

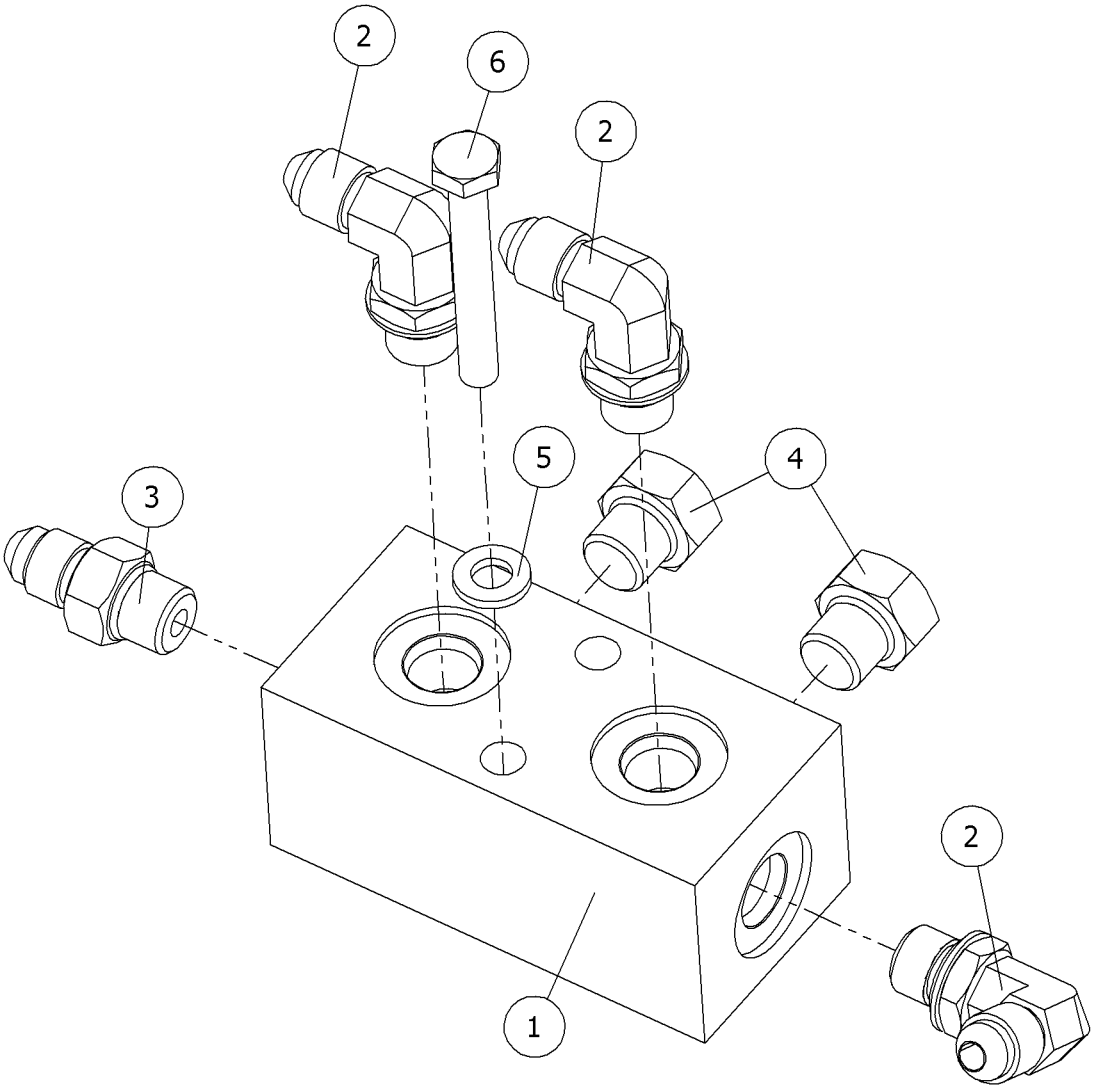
Controlling Supply Manifold (S/N 106-) Fig 4-34r01



Controlling Supply Manifold (S/N 106-) Fig 4-34r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005273	MANIFOLD - CONTROL SUPPLY OIL	1	VBM
2		59423001	90-4MORBA-4MJ	1	VBM
3		60908001	FITTING-4MX4M JIC STR ADAPTER	2	VBM
4		67263001	FITTING - PLUG - 4MORB - HEX	3	VBM
5		299012380	WASHER GB/T97 6 200HV	2	VBM
6		299010987	BOLT GB/T5782 M6X45-GR8.8	2	VBM

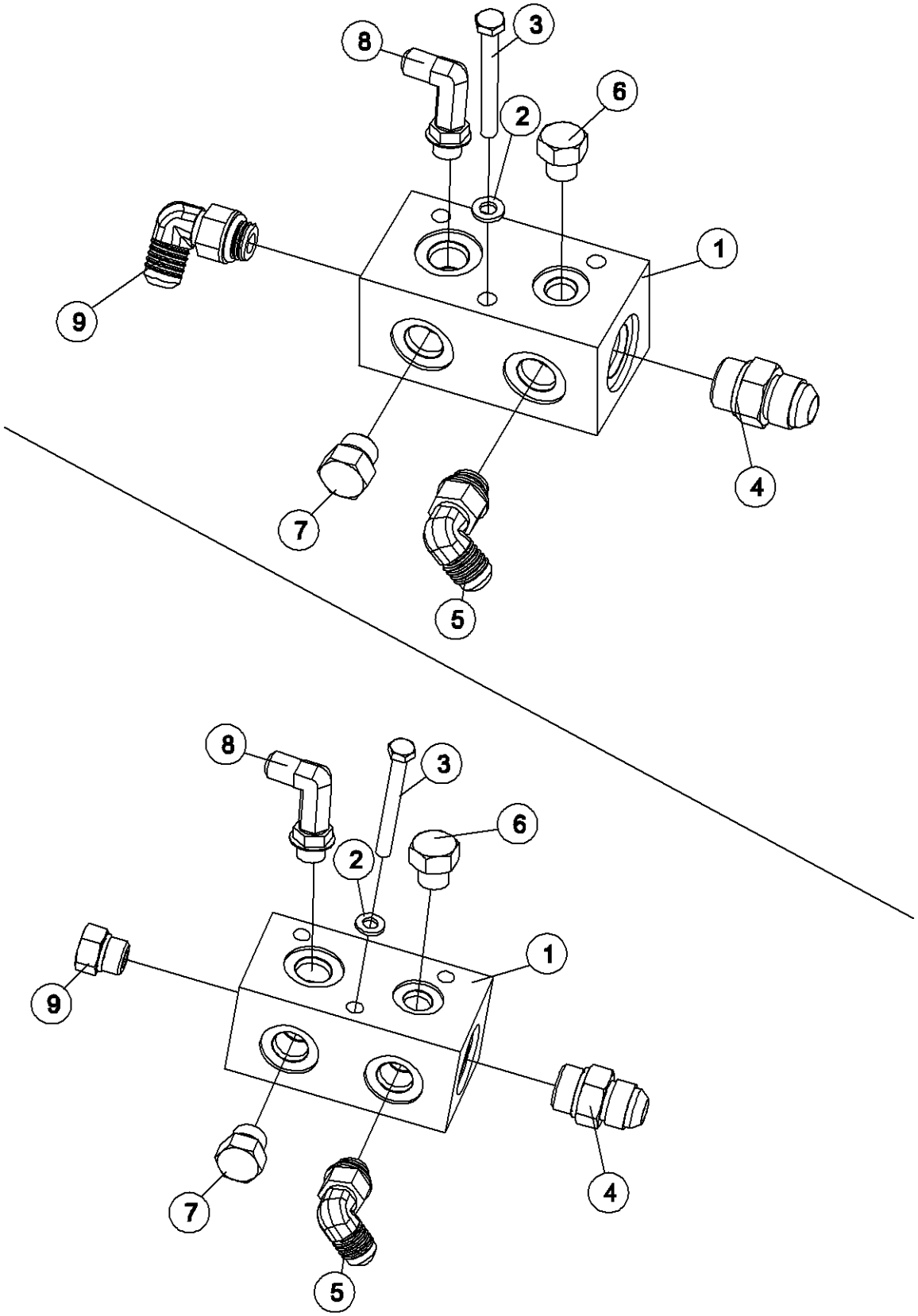
Controlling Supply Manifold (S/N 101-105) Fig 4-34



Controlling Supply Manifold (S/N 101-105) Fig 4-34

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005273	MANIFOLD - CONTROL SUPPLY OIL	1	VBM
2		59423001	90-4MORBA-4MJ	3	VBM
3		60908001	FITTING-4MX4M JIC STR ADAPTER	1	VBM
4		67263001	FITTING - PLUG - 4MORB - HEX	2	VBM
5		299012380	WASHER GB/T97 6 200HV	2	VBM
6		299010987	BOLT GB/T5782 M6X45-GR8.8	2	VBM

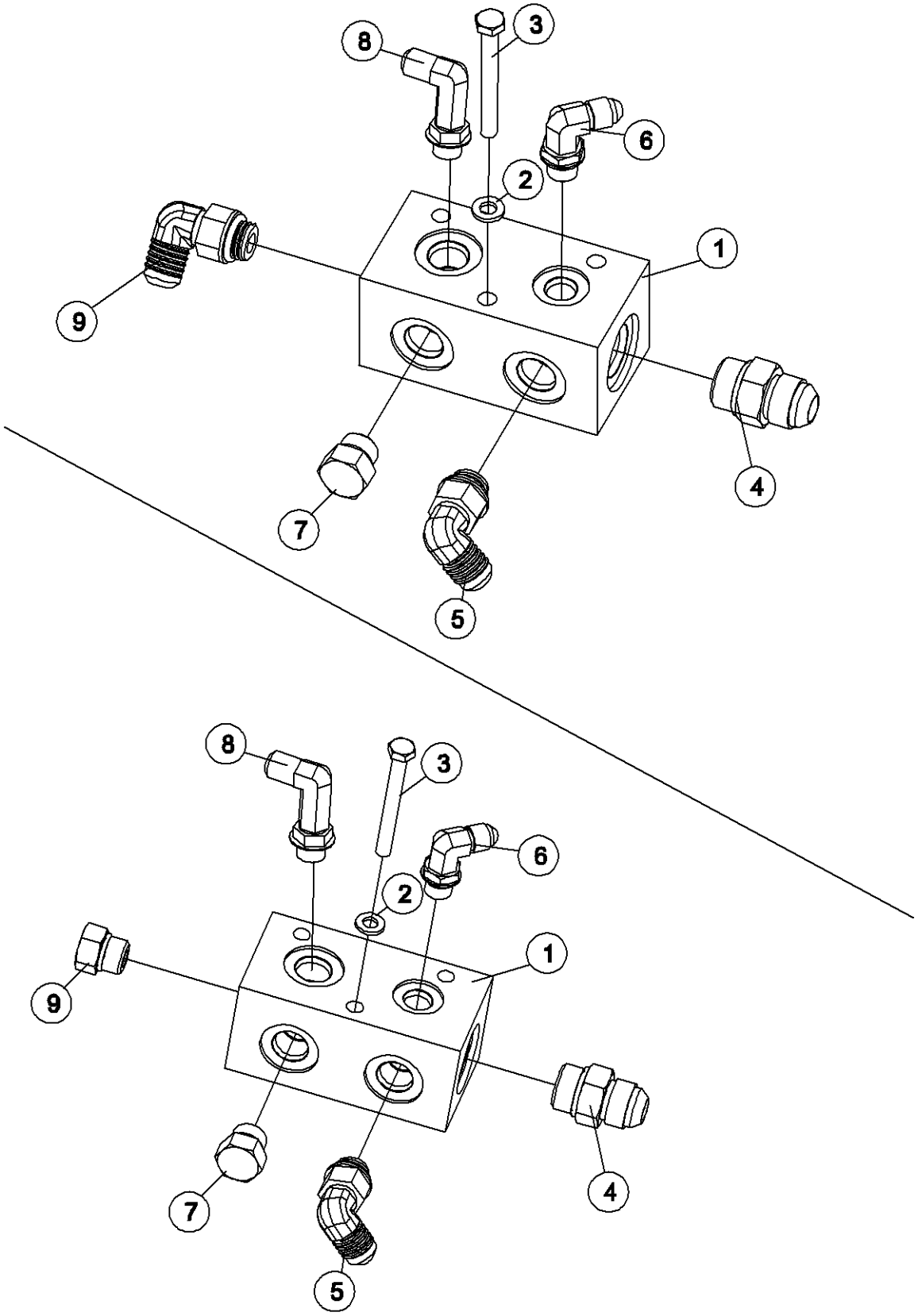
Low Pressure Supply Manifold (S/N 114-) Fig 4-35r03



Low Pressure Supply Manifold (S/N 114-) Fig 4-35r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005275	MANIFOLD - SUPPY OIL	1	VBM
2		299012380	WASHER GB/T97 6 200HV	3	VBM
3		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM
4		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
6		67263001	4MORB	1	VBM
7		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM
8		65570001	6M X 6M JIC 90 DEGREE LONG	1	VBM
9		59426001	FITTING - 90-6MJ-6MORBA	1	VBM, With Crane
9		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane

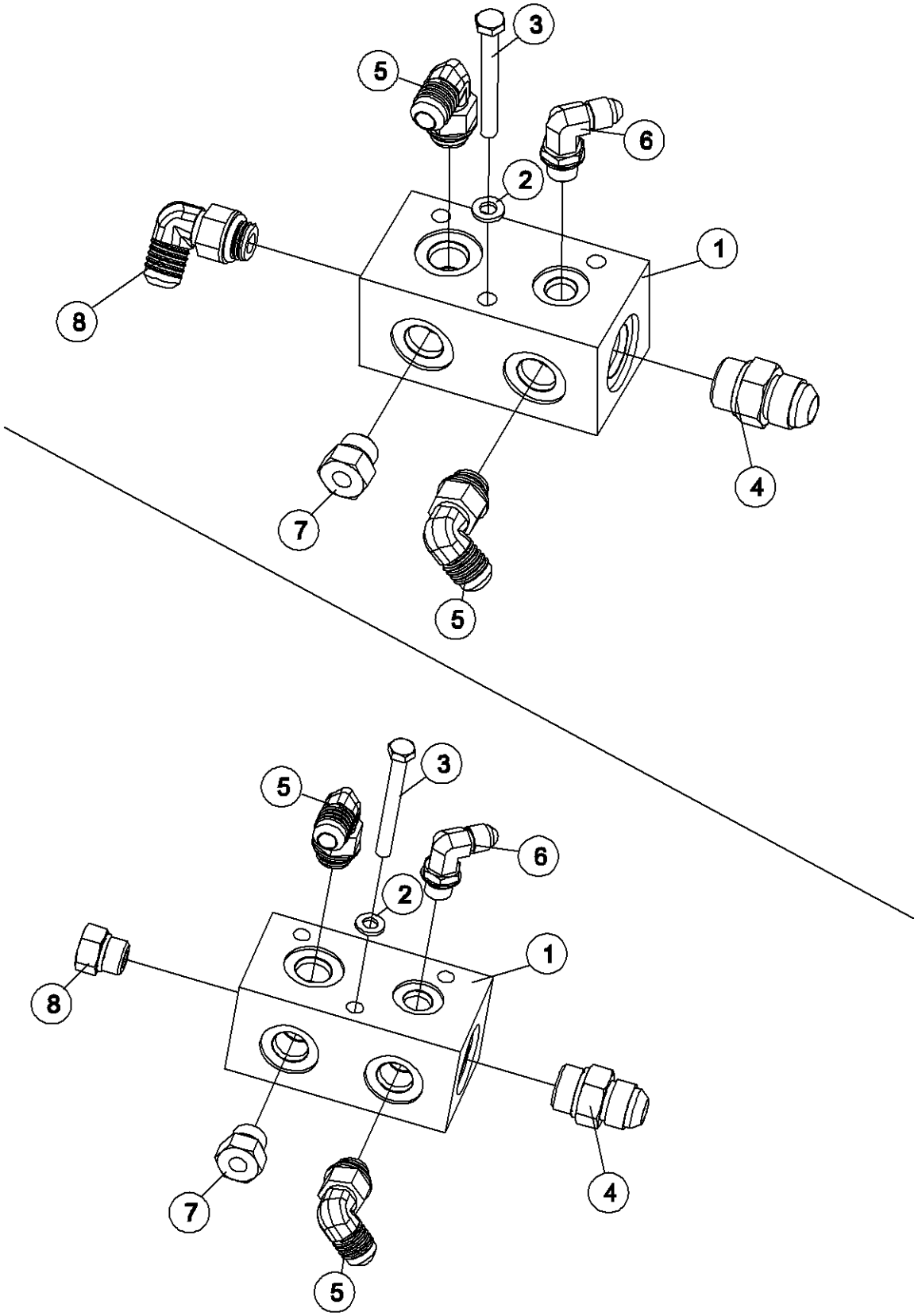
Low Pressure Supply Manifold (S/N 108-113) Fig 4-35r02



Low Pressure Supply Manifold (S/N 108-113) Fig 4-35r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005275	MANIFOLD - SUPPY OIL	1	VBM
2		299012380	WASHER GB/T97 6 200HV	3	VBM
3		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM
4		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
6		59423001	90-4MORBA-4MJ	1	VBM
7		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM
8		65570001	6M X 6M JIC 90 DEGREE LONG	1	VBM
9		59426001	FITTING - 90-6MJ-6MORBA	1	VBM, With Crane
9		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane

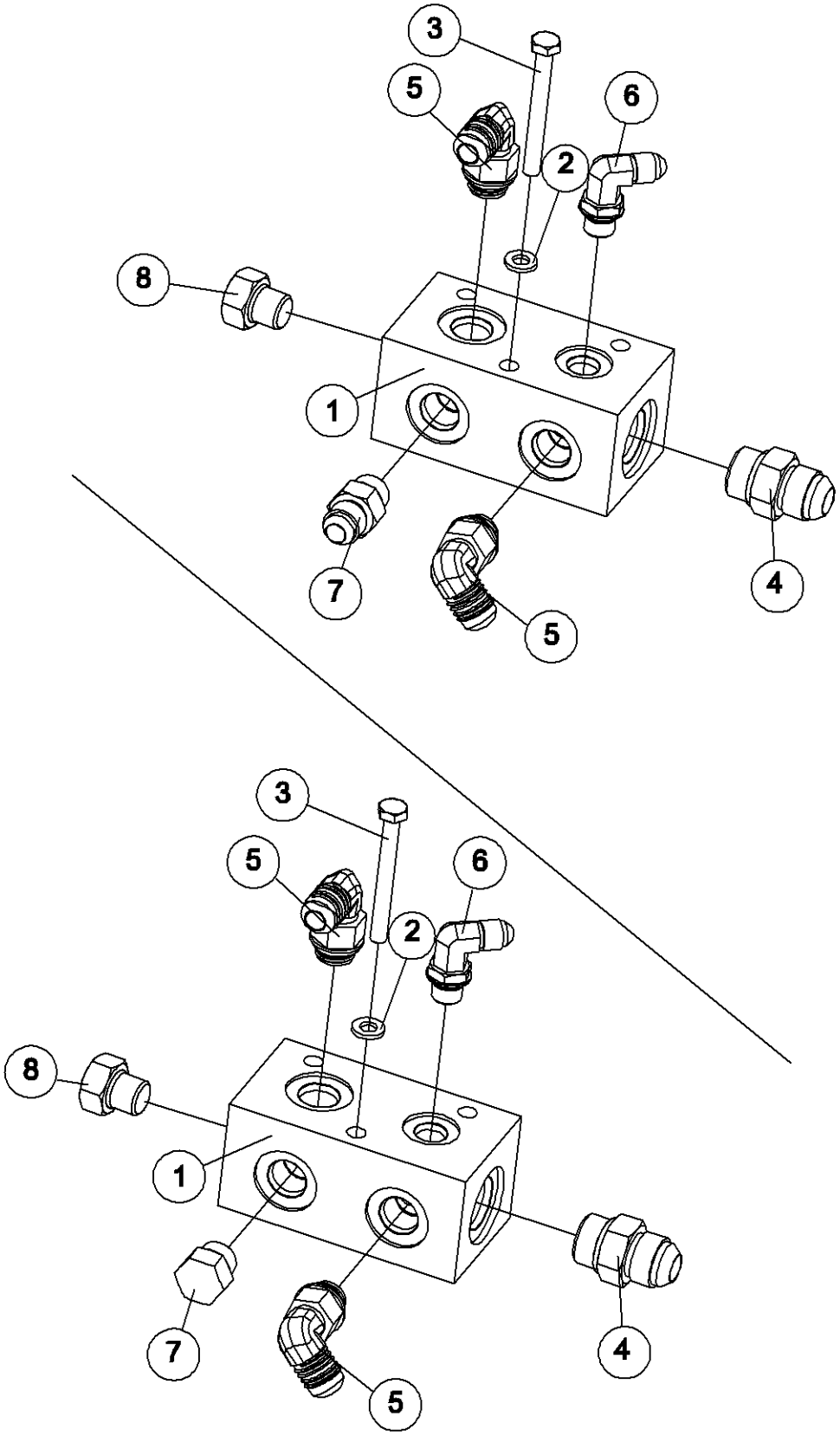
Low Pressure Supply Manifold (S/N 107-107) Fig 4-35r01



Low Pressure Supply Manifold (S/N 107-107) Fig 4-35r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005275	MANIFOLD - SUPPY OIL	1	VBM
2		299012380	WASHER GB/T97 6 200HV	3	VBM
3		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM
4		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
6		59423001	90-4MORBA-4MJ	1	VBM
7		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM
8		59426001	FITTING - 90-6MJ-6MORBA	1	VBM, With Crane
8		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane

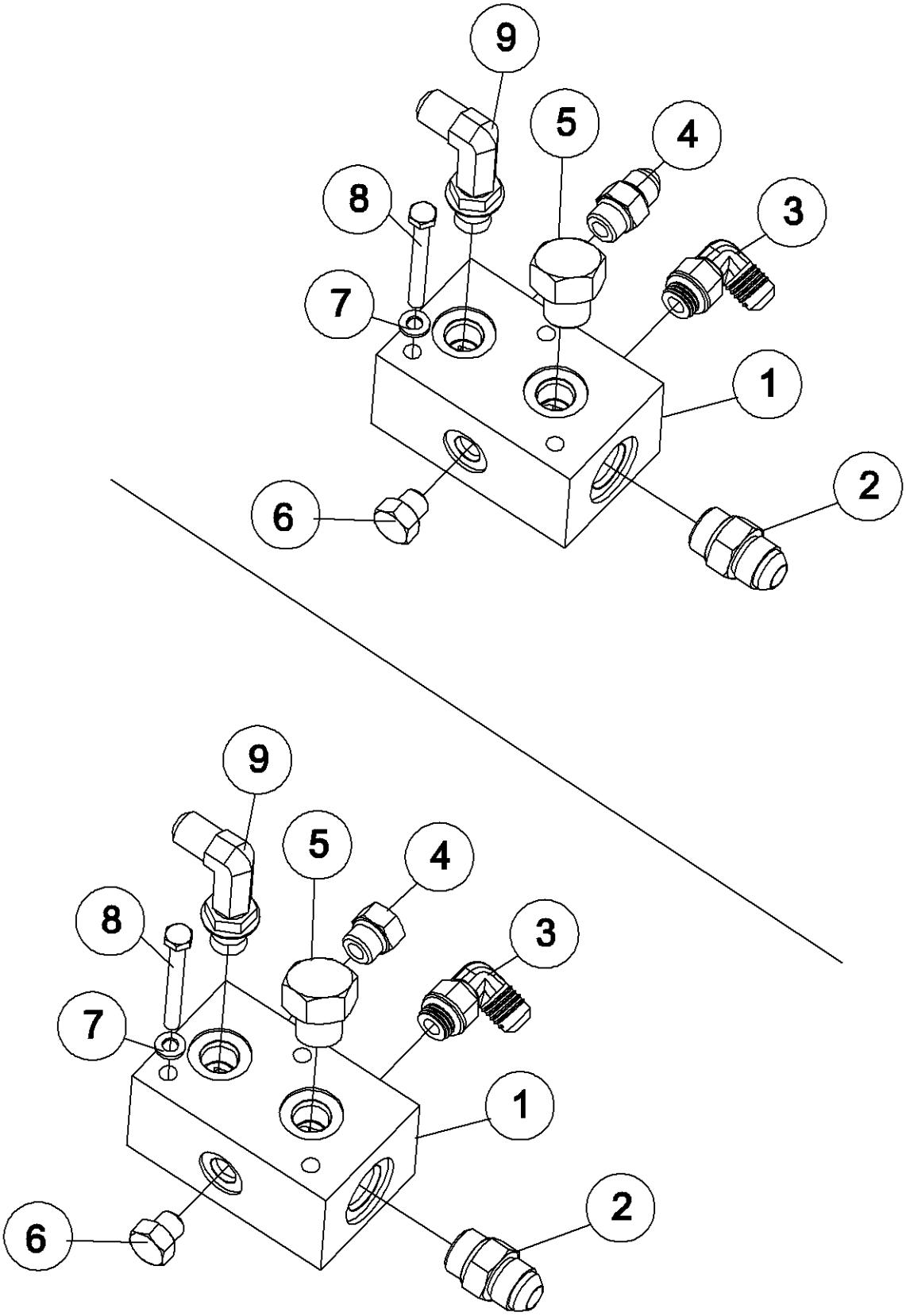
Low Pressure Supply Manifold (S/N 101-106) Fig 4-35



Low Pressure Supply Manifold (S/N 101-106) Fig 4-35

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005275	MANIFOLD - SUPPY OIL	1	VBM
2		299012380	WASHER GB/T97 6 200HV	3	VBM
3		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM
4		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
6		59423001	90-4MORBA-4MJ	1	VBM
7		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM, With Crane
7		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane
8		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM

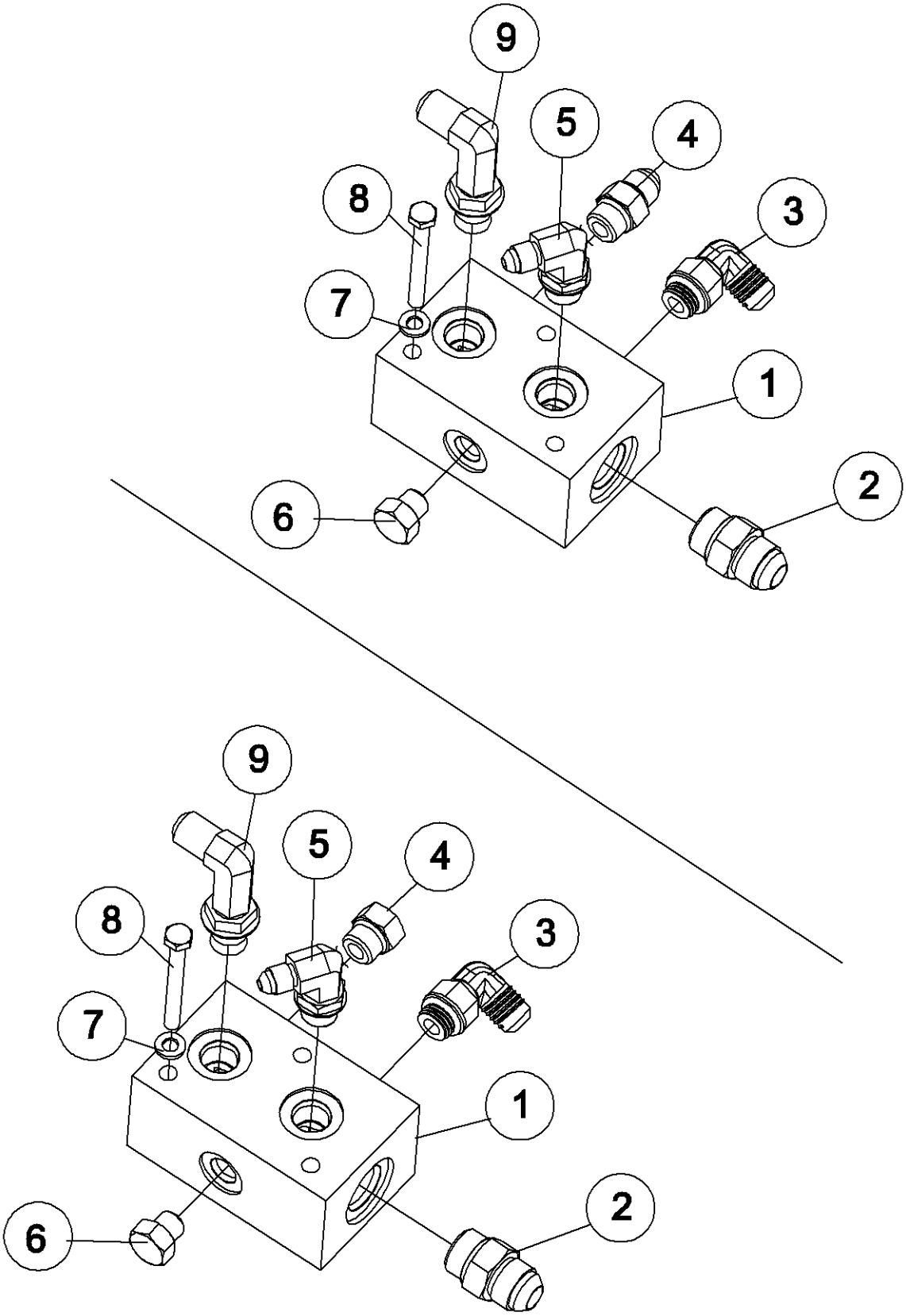
Low Pressure Return Manifold (S/N 114-) Fig 4-36r03



Low Pressure Return Manifold (S/N 114-) Fig 4-36r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005274	MANIFOLD - RETURN OIL	1	VBM
2		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM, With Crane
4		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane
5		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM
6		67263001	FITTING - PLUG - 4MORB - HEX	1	VBM
7		299012380	WASHER GB/T97 6 200HV	3	VBM
8		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM
9		65570001	6M X 6M JIC 90 DEGREE LONG	1	VBM

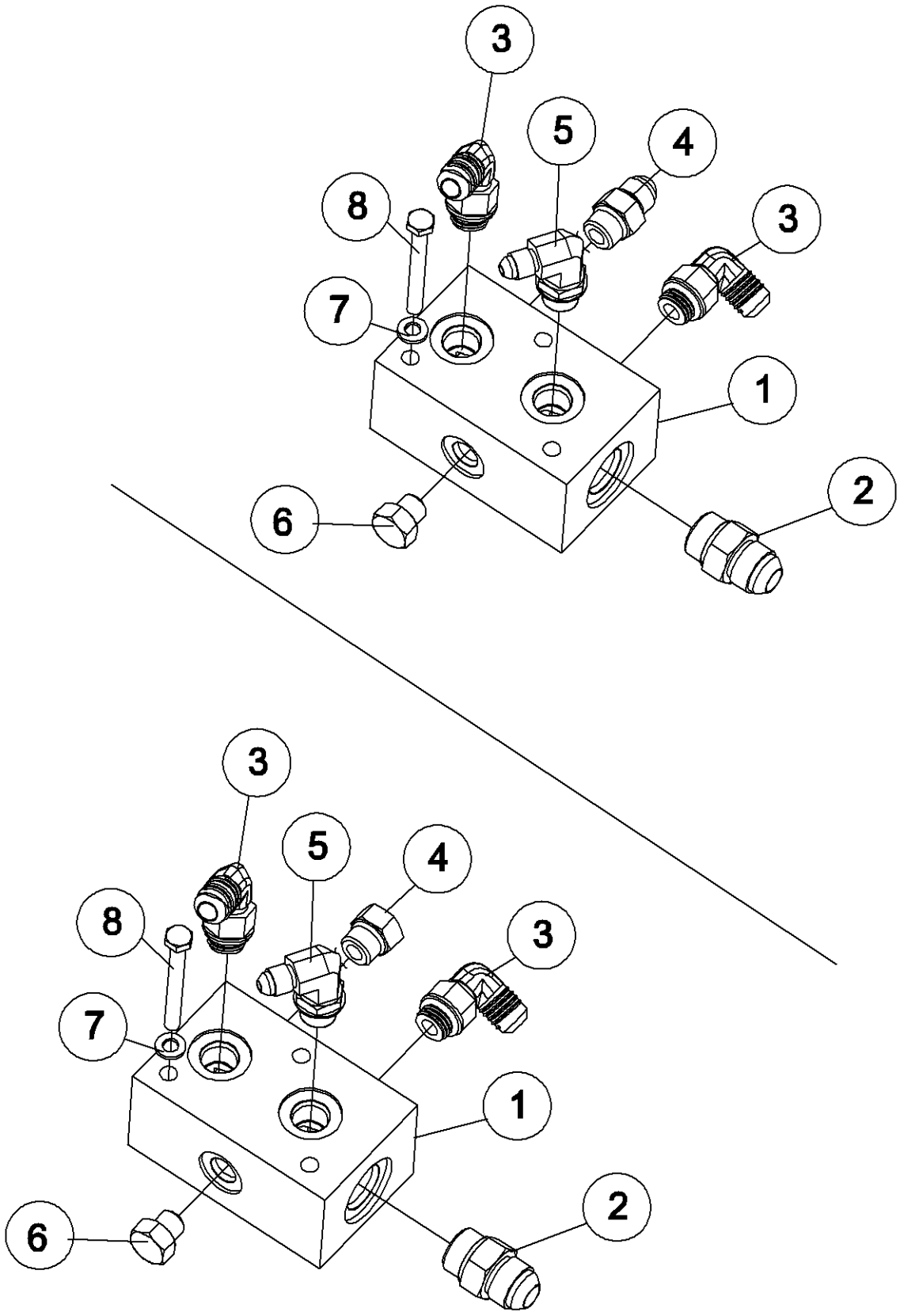
Low Pressure Return Manifold (S/N 108-113) Fig 4-36r02



Low Pressure Return Manifold (S/N 108-113) Fig 4-36r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005274	MANIFOLD - RETURN OIL	1	VBM
2		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM, With Crane
4		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane
5		57950001	FITTING - 90-4MJ-6MORBA	1	VBM
6		67263001	FITTING - PLUG - 4MORB - HEX	1	VBM
7		299012380	WASHER GB/T97 6 200HV	3	VBM
8		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM
9		65570001	6M X 6M JIC 90 DEGREE LONG	1	VBM

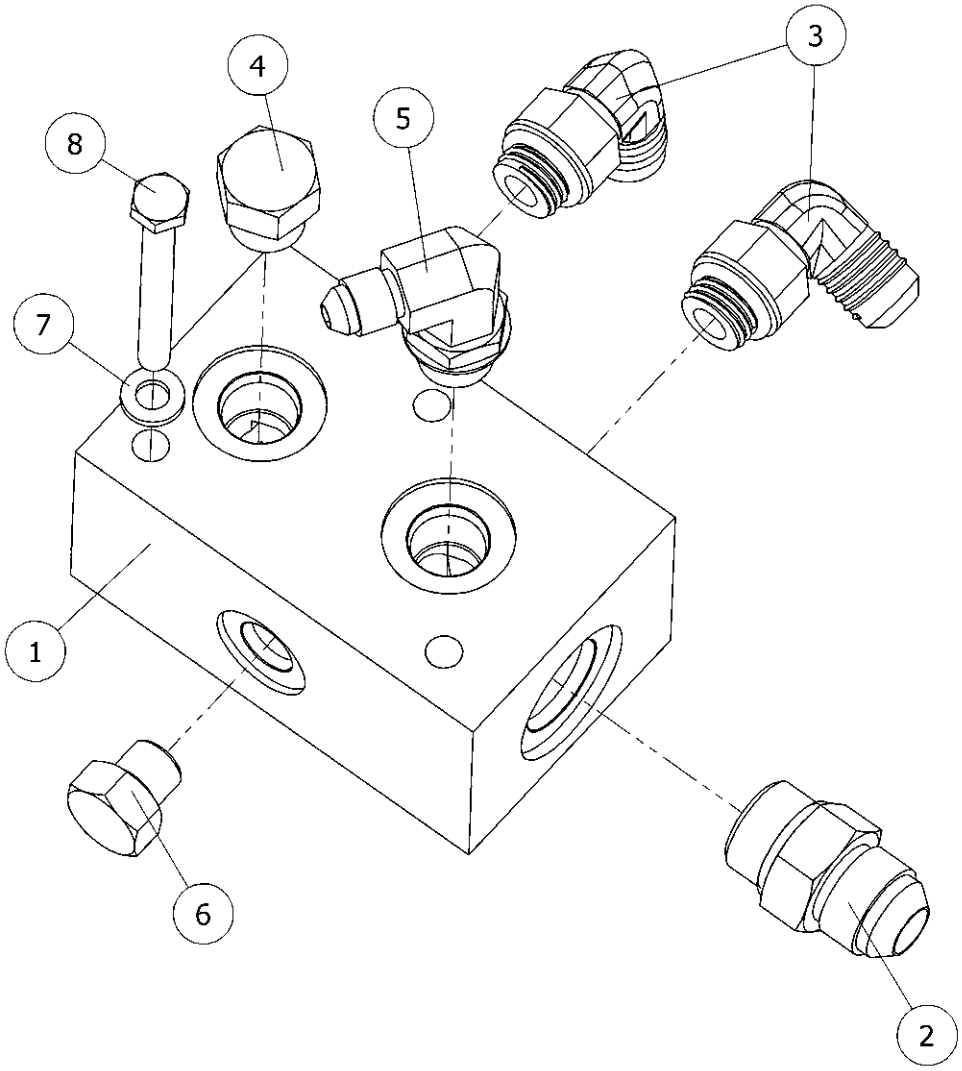
Low Pressure Return Manifold (S/N 107-107) Fig 4-36r01



Low Pressure Return Manifold (S/N 107-107) Fig 4-36r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005274	MANIFOLD - RETURN OIL	1	VBM
2		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
4		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM, With Crane
4		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM, Without Crane
5		57950001	FITTING - 90-4MJ-6MORBA	1	VBM
6		67263001	FITTING - PLUG - 4MORB - HEX	1	VBM
7		299012380	WASHER GB/T97 6 200HV	3	VBM
8		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM

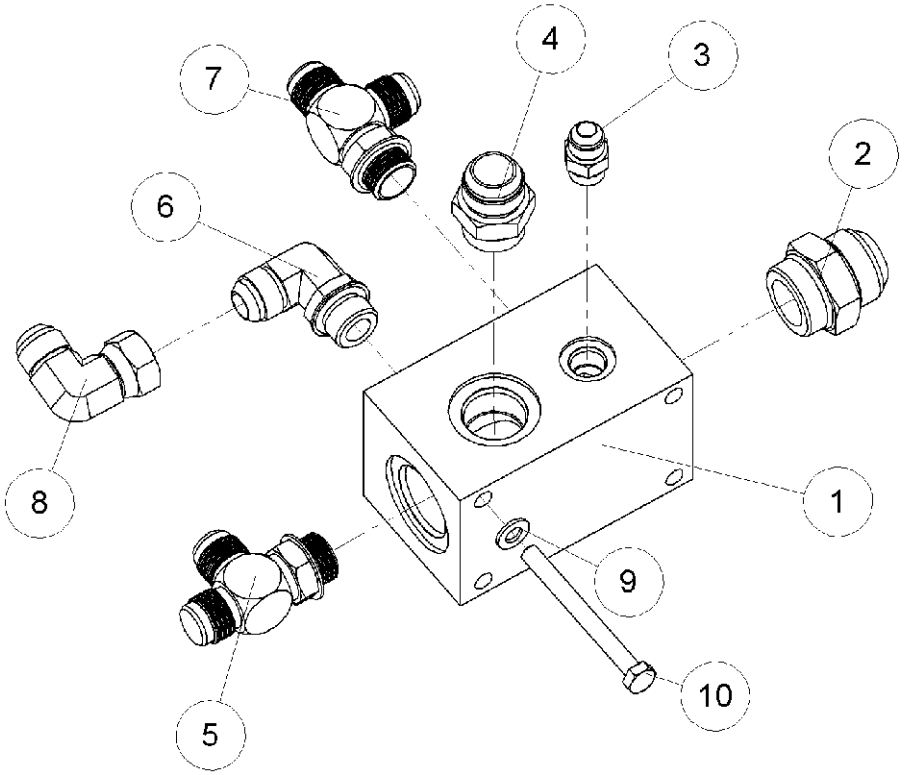
Low Pressure Return Manifold (S/N 101-106) Fig 4-36



Low Pressure Return Manifold (S/N 101-106) Fig 4-36

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005274	MANIFOLD - RETURN OIL	1	VBM
2		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
4		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM
5		57950001	FITTING - 90-4MJ-6MORBA	1	VBM
6		67263001	FITTING - PLUG - 4MORB - HEX	1	VBM
7		299012380	WASHER GB/T97 6 200HV	3	VBM
8		299010989	BOLT GB/T5782 M6X55-GR8.8	3	VBM

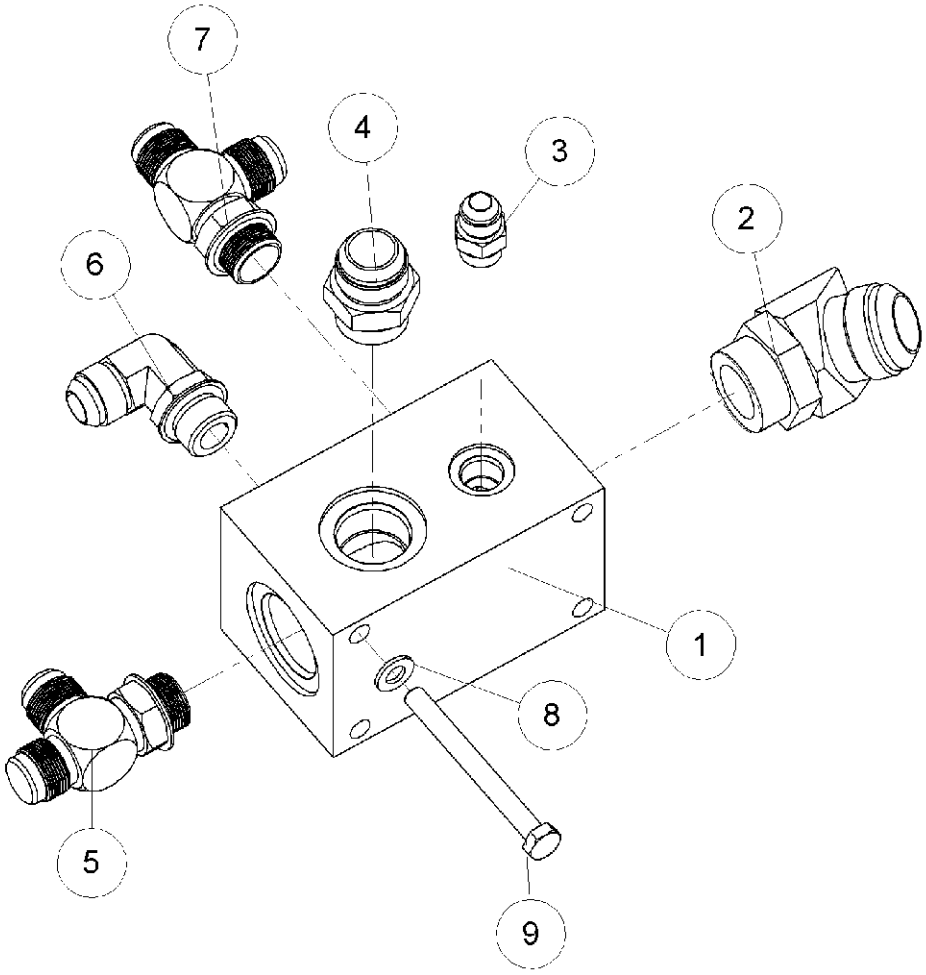
Cooling Manifold (S/N 103-) Fig 4-37r01



Cooling Manifold (S/N 103-) Fig 4-37r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005271	MANIFOLD - COOL	1	VBM
2		70006001	FITTING-20M X 20 M JIC STR.	1	VBM
3		60247001	FITTING - 8M O-RING X 6M JIC ST.	1	VBM
4		60907001	FITTING-16M JICX16M STR ADAPT	1	VBM
5		299014176	TEE 20MORBA-20MJ-20MJ	1	VBM
6		59410001	FITTING-90-12MJ-12MORBA	1	VBM
7		299013840	TEE 12MORBA-12MJ-12MJ	1	VBM
8		299013870	90-12FSJ-12MJ	1	VBM
9		299012382	WASHER GB/T97 10 200HV	4	VBM
10		299011009	BOLT GB/T5782 M10X100-GR8.8	4	VBM

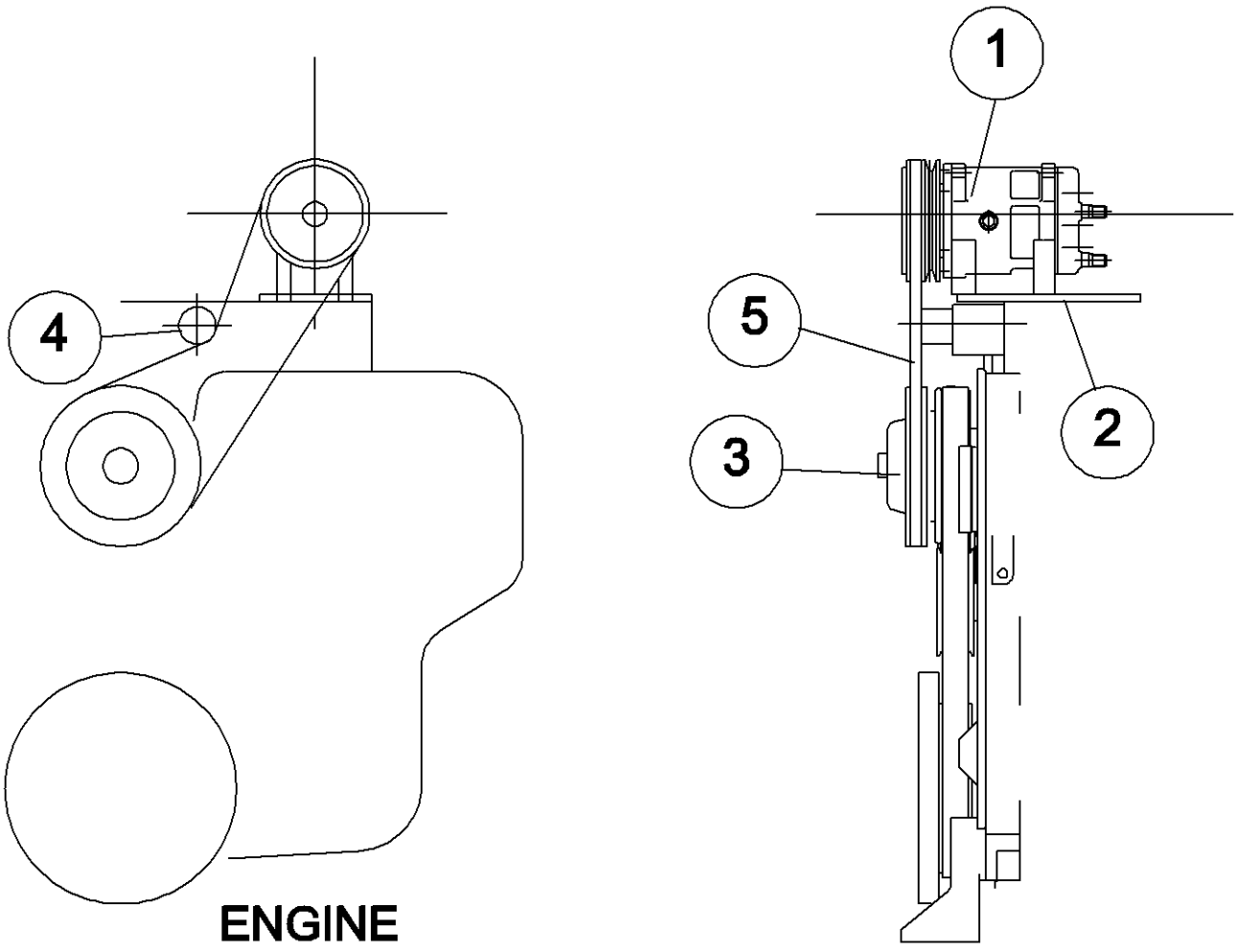
Cooling Manifold (S/N 101-102) Fig 4-37



Cooling Manifold (S/N 101-102) Fig 4-37

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005271	MANIFOLD - COOL	1	VBM
2		81703001	FITTING-20M ORBA X 20M JIC 45 DEG.EL.	1	VBM
3		60247001	FITTING - 8M O-RING X 6M JIC ST.	1	VBM
4		60907001	FITTING-16M JICX16M STR ADAPT	1	VBM
5		299014176	TEE 20MORBA-20MJ-20MJ	1	VBM
6		59410001	FITTING-90-12MJ-12MORBA	1	VBM
7		299013840	TEE 12MORBA-12MJ-12MJ	1	VBM
8		299012382	WASHER GB/T97 10 200HV	4	VBM
9		299011009	BOLT GB/T5782 M10X100-GR8.8	4	VBM

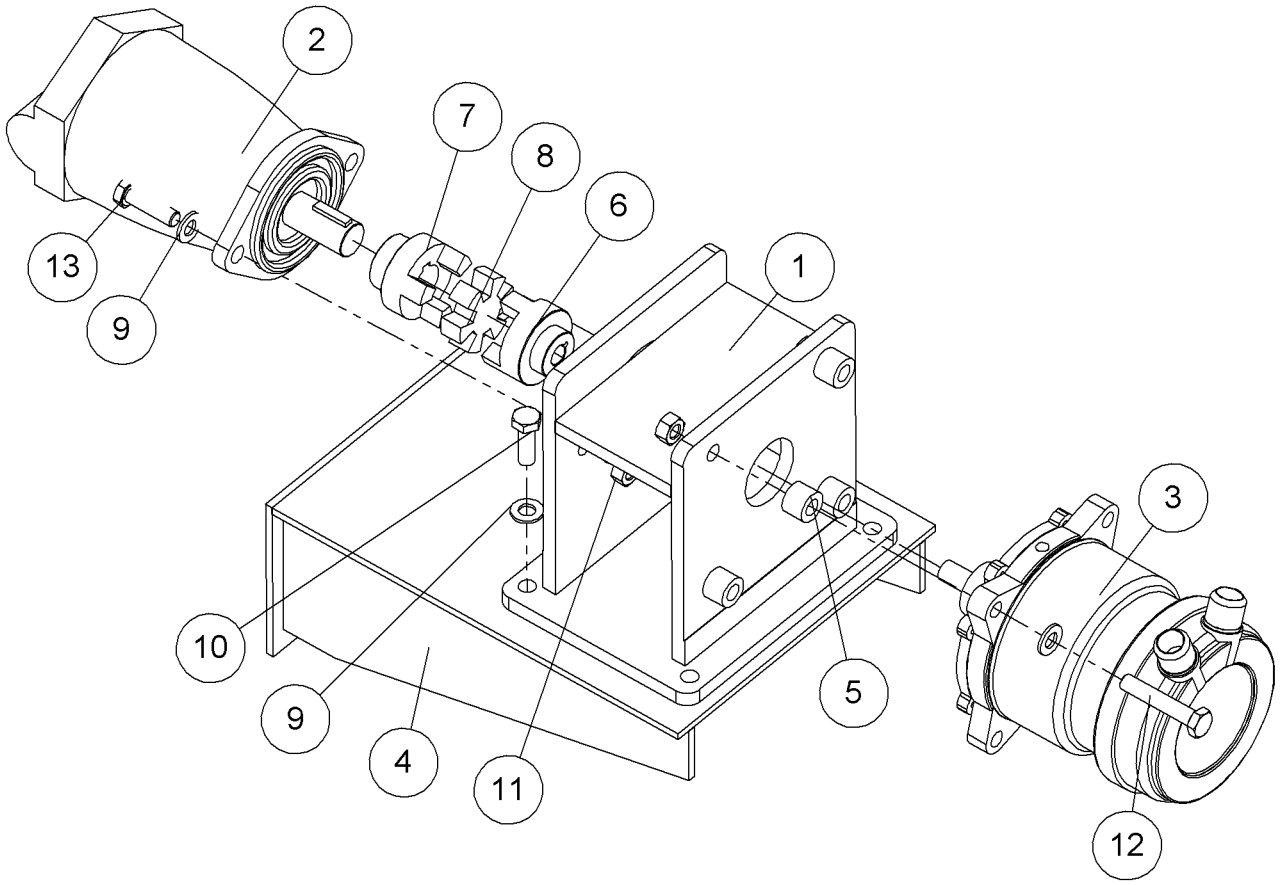
Air Conditioner Assembly (S/N 114-) Fig 4-38r01



Air Conditioner Assembly (S/N 114-) Fig 4-38r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			COMPRESSOR - SE5H14 12V	1	Not Sold Separately
2		299025742	COMPRESSOR BRACKET ASSEMBLY	1	VBM
3		299027089	PULLEY, ACCESSORY DRIVE	1	VBM
4		299027091	TENSIONER,BELT	1	VBM
5		299027092	BELT,V RIBBED	1	VBM

Air Conditioner Assembly (S/N 101-113) Fig 4-38



Air Conditioner Assembly (S/N 101-113) Fig 4-38

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006757	WELDMENT - FRAME	1	VBM
2		299022993	MOTOR -1.24 IN3/REV	1	PELLA, Breakdown Fig.4-39z01
3			COMPRESSOR - SE5H14 12V	1	Not Sold Separately
4		299006762	PLATE Q235-A	1	VBM
5		299006764	BRACKET - COMPRESSOR WELDMENT	4	VBM
6		299006760	COUPLING-COMPRESSOR Q235-A	1	VBM
7		299006759	COUPLING-MOTOR Q235-A	1	VBM
8		299006758	ELASTOMER RUBBER	1	VBM
9		299012382	WASHER GB/T97 10 200HV	10	VBM
10		299010459	BOLT GB/T5783 M10X30	4	VBM
11		299012333	NUT M10 (GB/T6170-85)	10	VBM
12		299010464	BOLT GB/T5783 M10X55-GR8.8	4	VBM
13		299010460	BOLT GB/T5783 M10X35-GR8.8	2	VBM

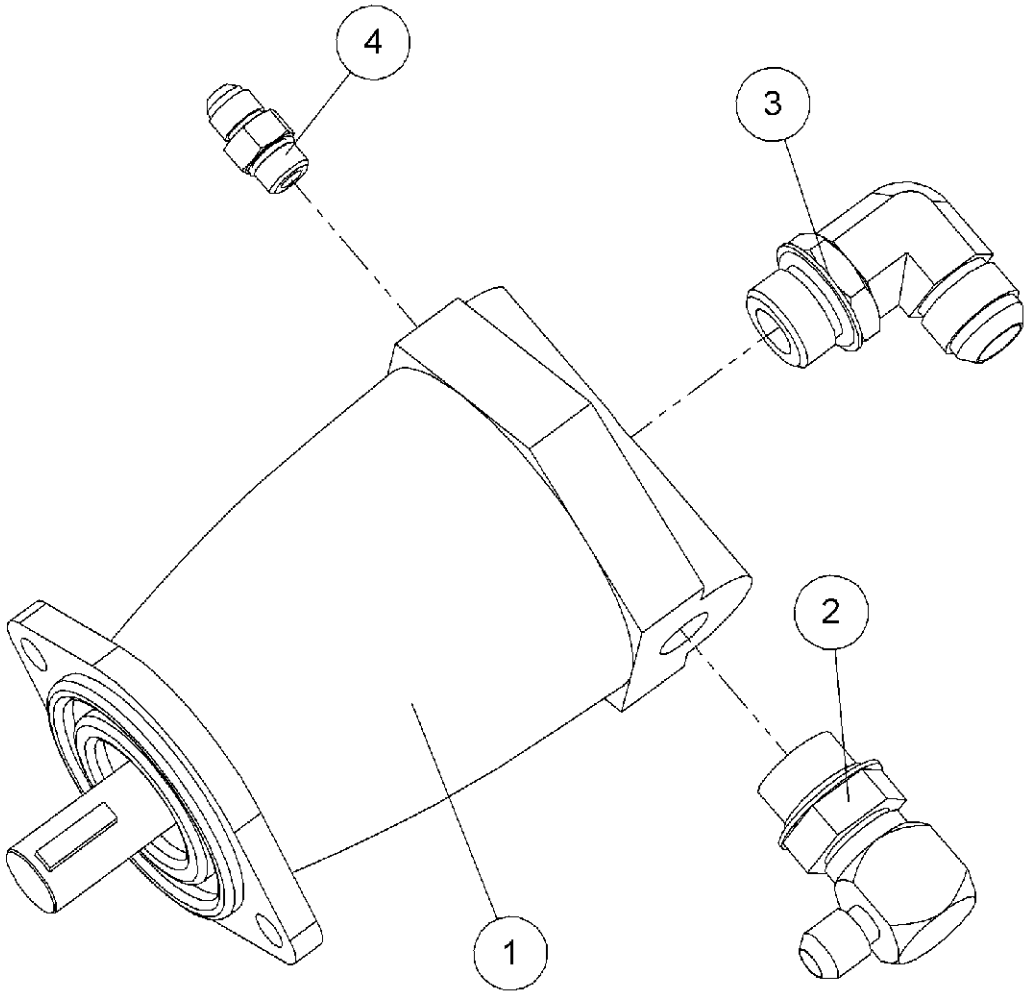
Motor (Air Conditioner) (S/N 114-) Fig 4-39r01

DELETED DUE TO UPDATE

Motor (Air Conditioner) (S/N 114-) Fig 4-39r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

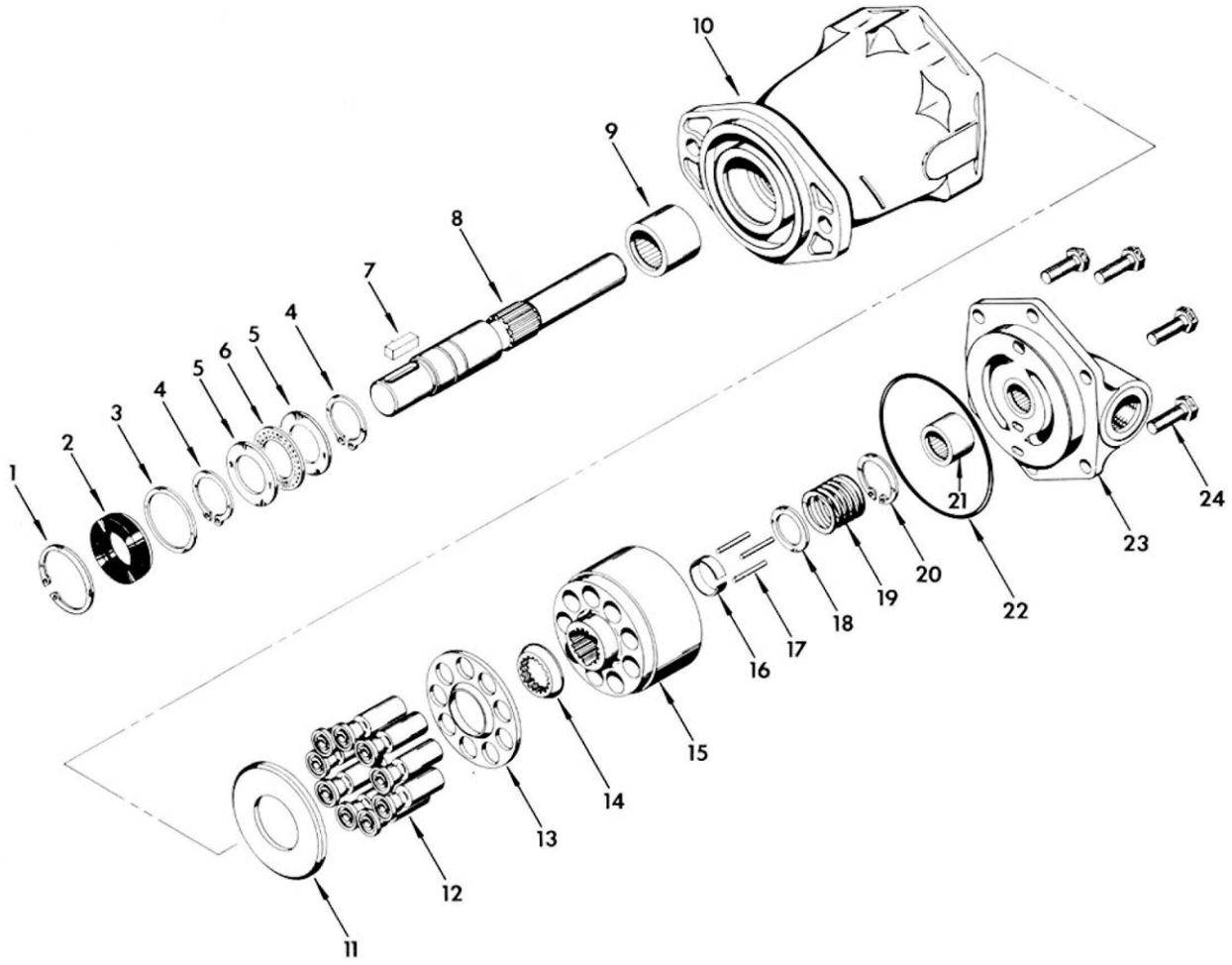
Motor (Air Conditioner) (S/N 101-113) Fig 4-39



Motor (Air Conditioner) (S/N 101-113) Fig 4-39

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299022993	MOTOR -1.24 IN3/REV	1	PELLA, Breakdown Fig.4-39z01
2		102115001	FITTING - 90 - 6MJ - 12MORBA	1	VBM
3		59410001	FITTING-90-12MJ-12MORBA	1	VBM
4		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM

Components- Motor (Air Conditioner) Fig 4-39z01



Components- Motor (Air Conditioner) Fig 4-39z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		77958031	RETAINING RING	1	PELLA
2		299026238	SEAL,SHAFT	1	PELLA
3		299026239	WASHER	1	PELLA
4		299026240	RING,RETAINING	2	PELLA
5		299026241	RACE, BEARING	2	PELLA
6		299026242	BEARING,THRUST	1	PELLA
7		241978013	KEY	1	PELLA
8		299026244	SHAFT	1	PELLA
9			NEEDLE BEARING	1	Not Sold Separately
10		299026245	HOUSING & BEARING S/A	1	PELLA, Inc. Ref. 9
11		299026246	INSERT,CAMPLATE	1	PELLA
12			PISTON ASSEMBLY	1	Not Sold Separately
13			SPIDER	1	Not Sold Separately
14			PIVOT	1	Not Sold Separately
15			PISTON BLOCK	1	Not Sold Separately
16			PIN KEEPER	1	Not Sold Separately
17			PIN	1	Not Sold Separately
18			WASHER	1	Not Sold Separately
19			SPRING	1	Not Sold Separately
20			SNAP RING	1	Not Sold Separately
21			NEEDLE BEARING	1	Not Sold Separately
22		299026250	O-RING	1	PELLA
23		299026247	BACKPLATE& BEARING S/A	1	PELLA, Inc. Ref. 21
24		299026248	SCREW, CAP	6	PELLA
		299022993	MOTOR -1.24 IN3/REV		PELLA, Inc. All Items In Figure
		299026249	ROTATING KIT S/A		PELLA, Inc. Ref. No’s12-20
		299026251	SEAL KIT		PELLA, Inc. Ref. No’s1,2,4, 22

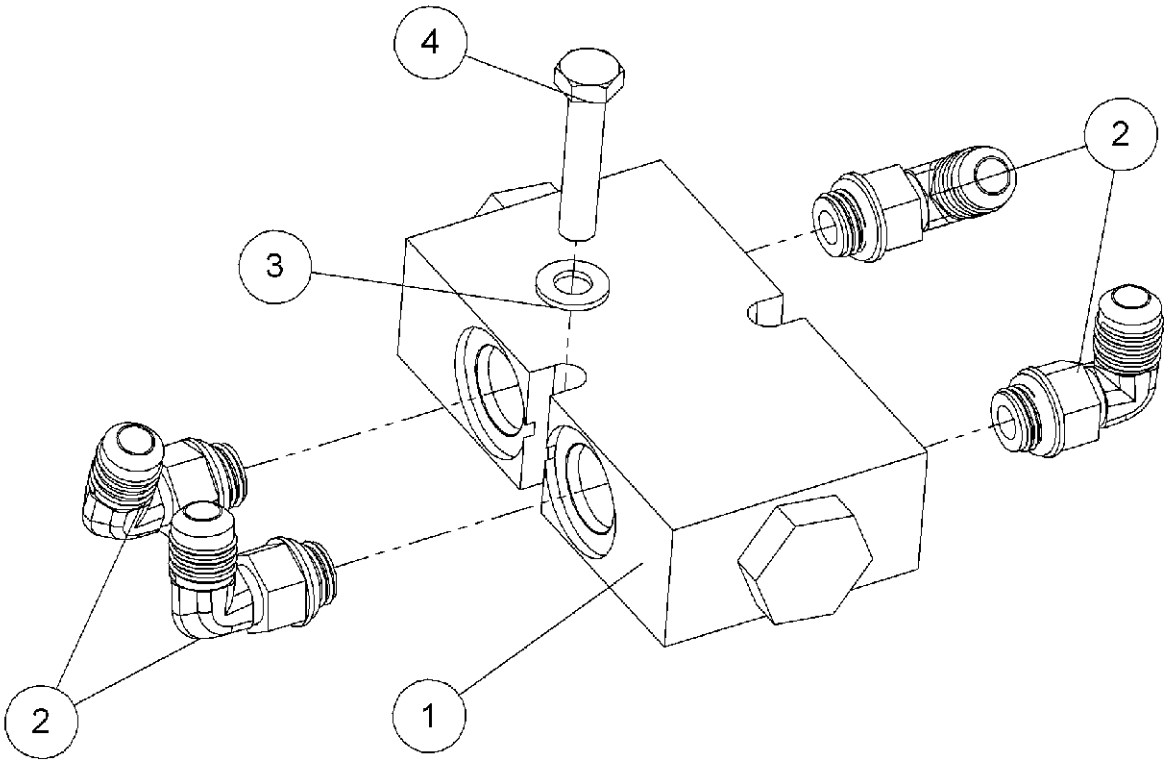
Lock Out Valve (S/N 120-) (Deleted) Fig 4-40r02

DELETED DUE TO UPDATE

Lock Out Valve (S/N 120-) (Deleted) Fig 4-40r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

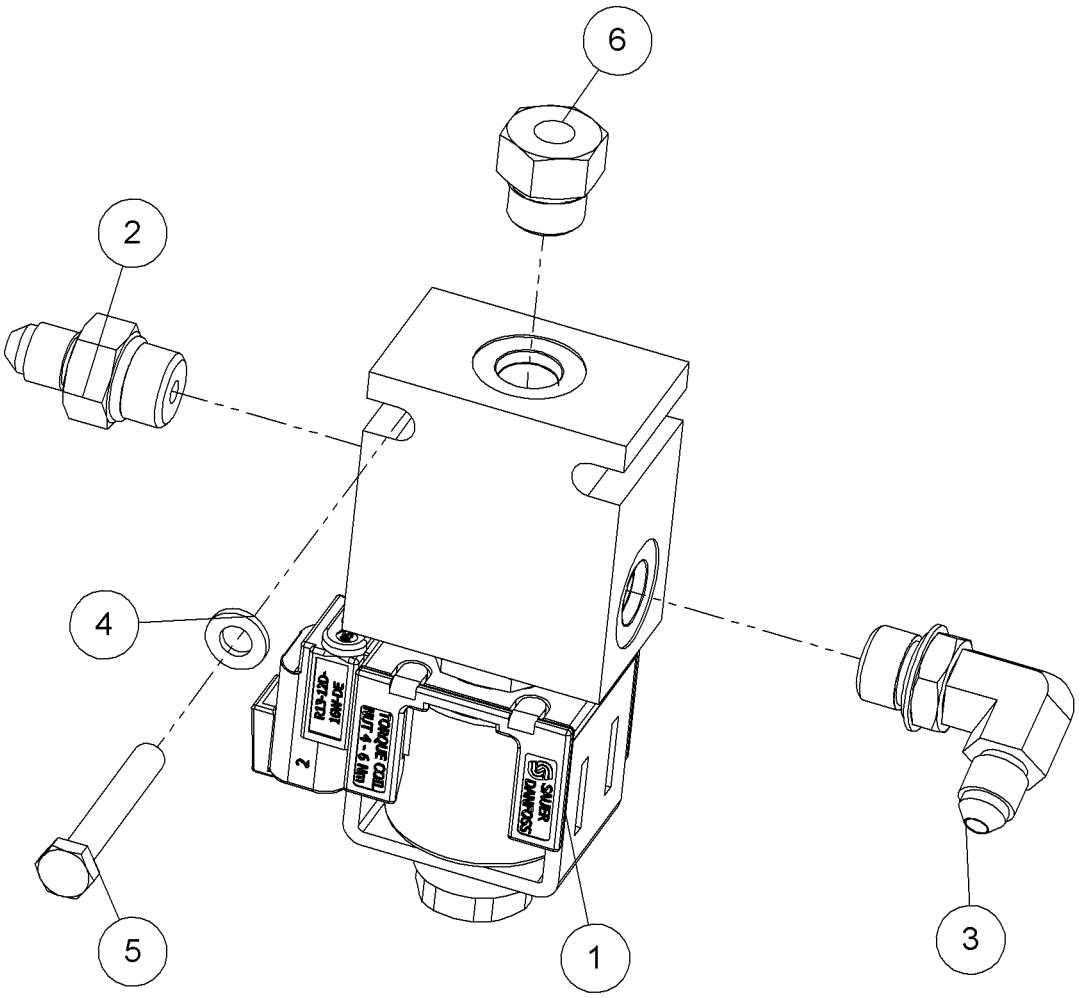
Lock Out Valve (S/N 108-119) Fig 4-40r01



Lock Out Valve (S/N 108-119) Fig 4-40r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027075	DUAL P/O CHECK VALVE	1	PELLA, Breakdown Fig.4-40z01
2		299014095	90-8MORBA-6MJ	4	VBM
3		299012381	WASHER GB/T97 8 200HV	2	VBM
4		299010992	BOLT GB/T5782 M8X40-GR8.8	2	VBM

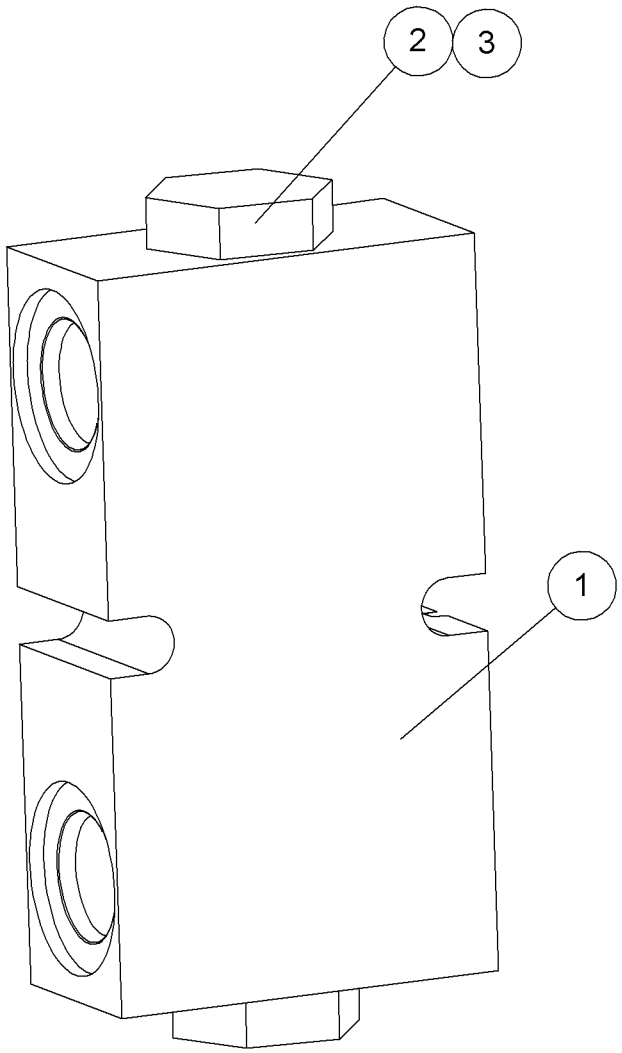
Lock Out Valve (S/N 101-107) Fig 4-40



Lock Out Valve (S/N 101-107) Fig 4-40

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		291768001	VALVE - 2 POS. 3 WAY W/ DEUTSCH	1	PELLA, Breakdown Fig.4-21z01
2		65565001	ST-6MORB-6MJ	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		299012380	WASHER GB/T97 6 200HV	2	VBM
5		299010438	BOLT GB/T5783 M6X40-GR8.8	2	VBM
6		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM

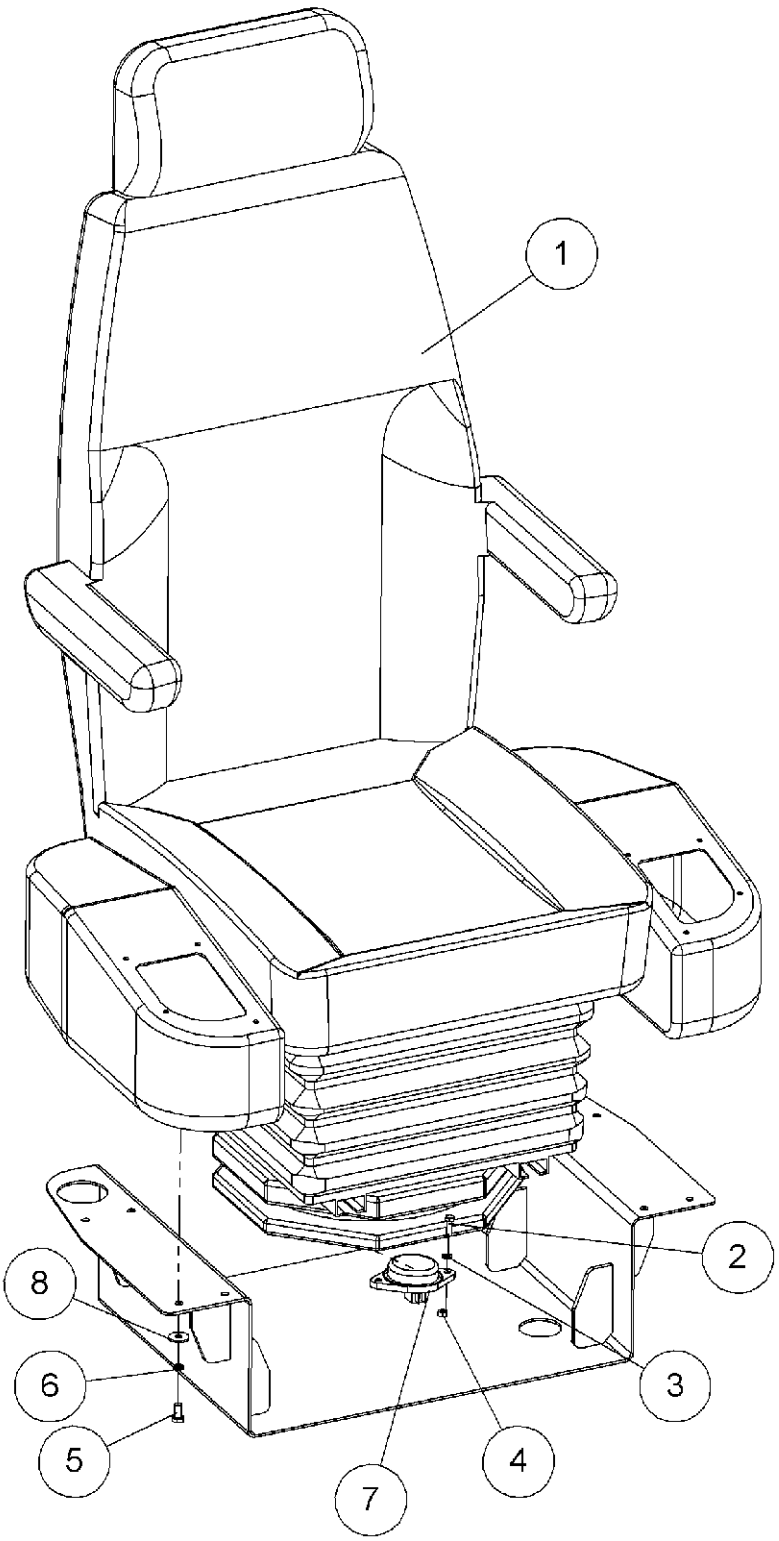
Components-Lock Out Valve (S/N 108-119) Fig 4-40z01



Components-Lock Out Valve (S/N 108-119) Fig 4-40z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			MANIFOLD	1	Not Sold Separately
2		299027119	CARTRIDGE	2	PELLA
3		299027120	SEAL KIT	2	PELLA
		299027075	DUAL P/O CHECK VALVE		PELLA, Inc. All Items In Figure

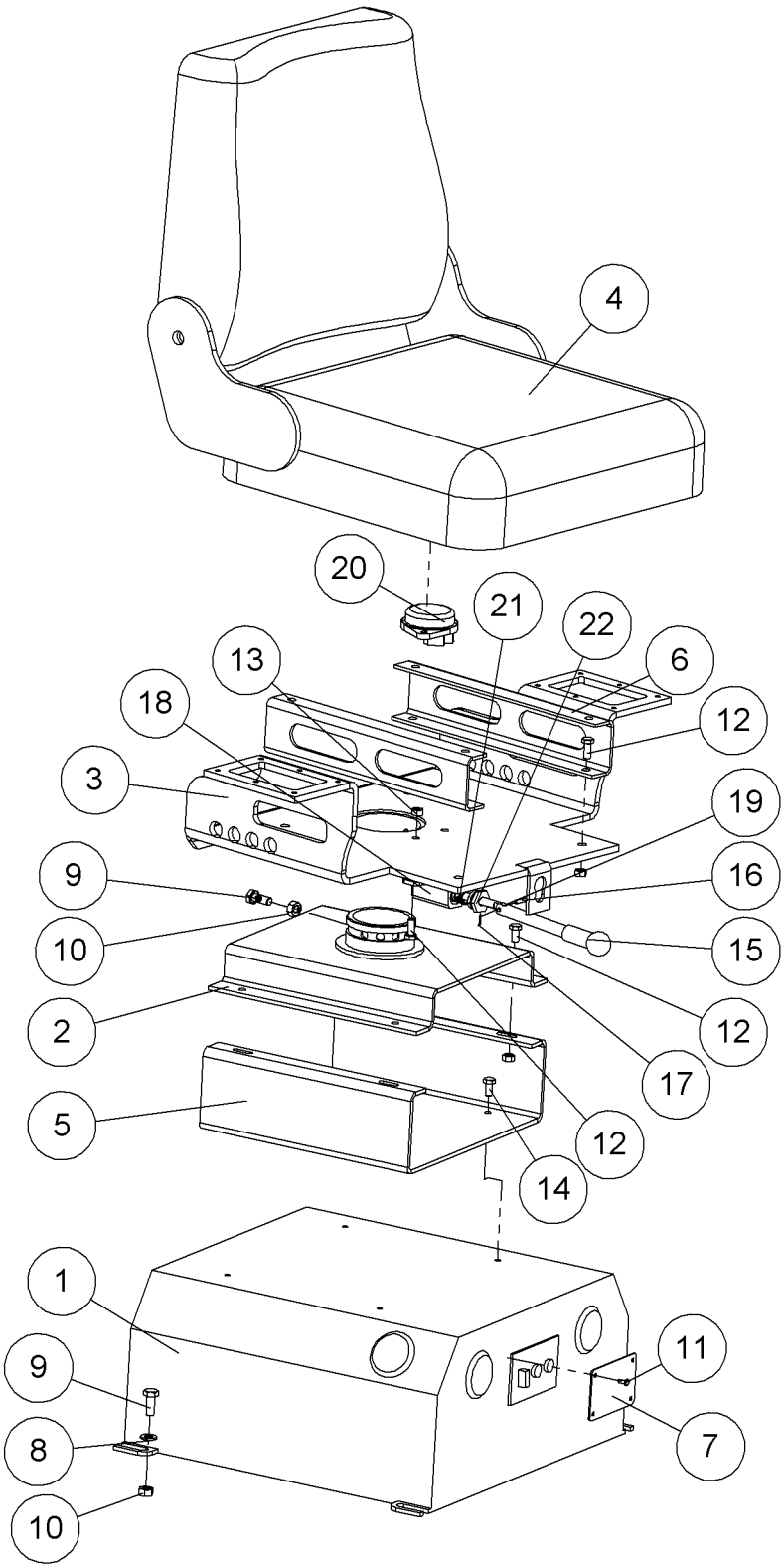
Seat (S/N 107-) Fig 5-1r01



Seat (S/N 107-) Fig 5-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299024980	SEAT	1	VBM
2		299010434	BOLT GB/T5783 M6X20-GR8.8	2	VBM
3		299012380	WASHER GB/T97 6 200HV	2	VBM
4		299012331	NUT GB/T6170 M6-GR8	2	VBM
5		299010443	BOLT GB/T5783 M8X16-GR8.8	8	VBM
6		299012409	FLEX WASHER GB/T5783 8	8	VBM
7		279361003	SWITCH - SAFETY (SEALED)	8	PELLA
8		299012394	WASHER 8 GB/T96	8	VBM

Seat (S/N 101-106) Fig 5-1



Seat (S/N 101-106) Fig 5-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299022913	AIR CONDITIONER	1	VBM
2		299006695	PIVOT SUPPORT	1	VBM
3		299006626	WELDMENT - SEAT MOUNT	1	VBM
4		299006629	SEAT SC3	1	VBM
5		299006721	SUPPORT - SEAT Q235-A	1	VBM
6		299006720	BRACKET - SEAT Q235-A	2	VBM
7		299006749	PLATE	1	VBM
8		299012382	WASHER GB/T97 10 200HV	4	VBM
9		299010458	BOLT GB/T5783 M10X25-GR8.8	7	VBM
10		299012333	NUT M10 (GB/T6170-85)	7	VBM
11		299010411	BOLT M4X10-GR 8.8	4	VBM
12		299010445	BOLT GB/T5783 M8X20-GR8.8	6	VBM
13		299012332	NUT GB/T6170 M8-GR8	10	VBM
14		299010443	BOLT GB/T5783 M8X16-GR8.8	8	VBM
15		299006656	HANDLE - SEAT ADJUSTMENT 45	1	VBM
16		299006659	PIN - HANDLE 45	1	VBM
17		299013551	PIN GB/T91 1.6X10	1	VBM
18		299006651	HOUSING - SEAT Q235-A	1	VBM
19		299006653	PIN - SEAT 45	1	VBM
20		279361003	SWITCH - SAFETY (SEALED)	1	PELLA
21		299006652	SEAT-NUT COVER Q235-A	1	VBM
22		299006654	SPRING - SEAT	1	VBM

Console Mount (S/N 111-) Fig 5-2r02

Console Mount (S/N 111-) Fig 5-2r02

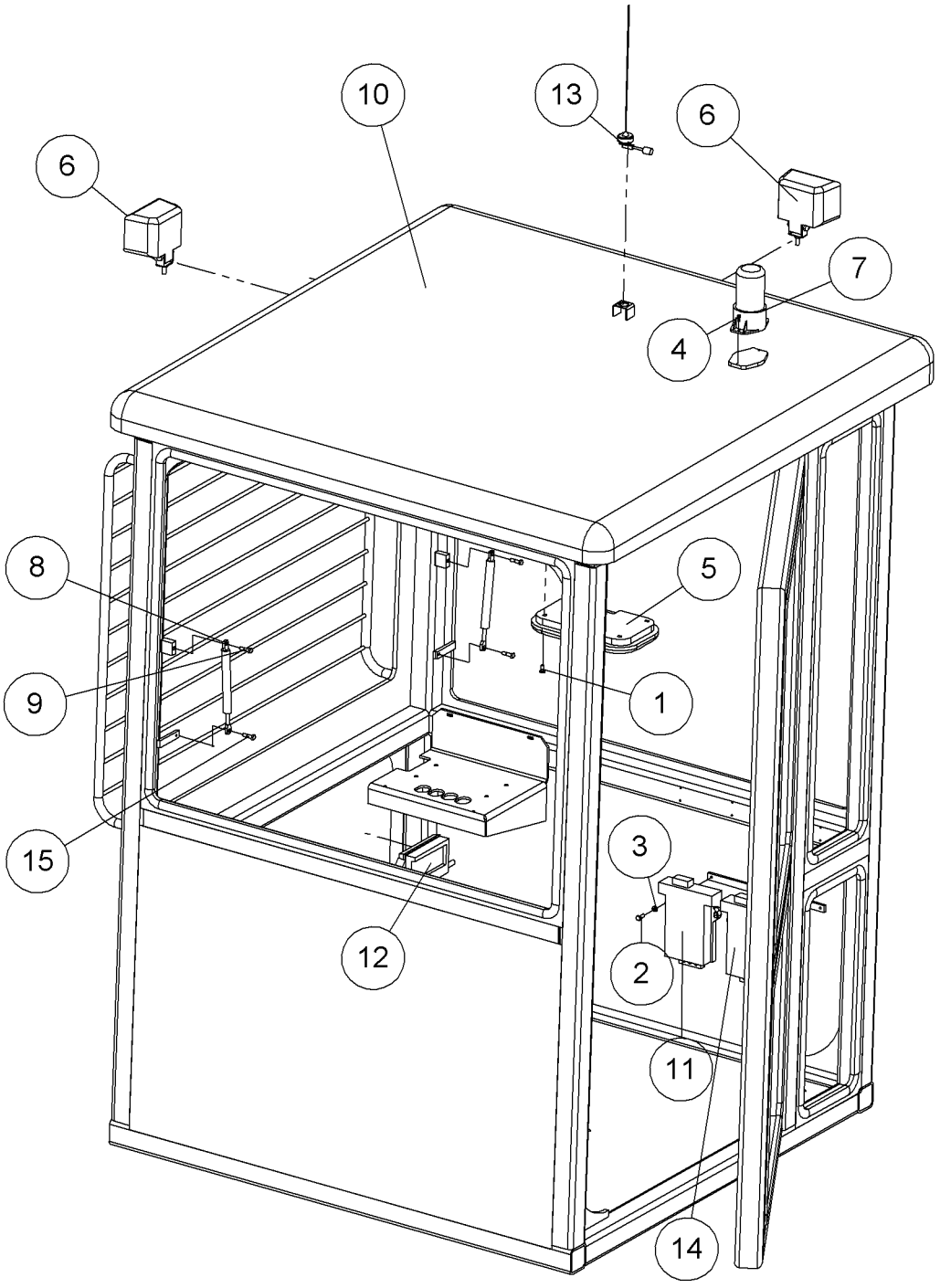
REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		245006001	ASSEMBLY-3X5 FLOOD LIGHT	2	PELLA
2		296272382	ANTENNA - 2400MHZ 1/4 WAVE	1	PELLA
3		180010848	STROBE-AMBER,LED,DEUTSCH 2 PIN	1	PELLA
4		299027099	DEFEND COTE	1	VBM
5		299027100	SHIFT WINDOW 1	1	VBM
6		299027102	RIGHT REAR WINDOW	1	VBM
7		299027107	REAR WINDOW	1	VBM
8		299027109	FRONT WINDOW	1	VBM
9		299024944	MIRROR	1	VBM
10		299027101	SHIFT WINDOW 2	1	VBM
11		299027106	LOCK	1	VBM
12		299027103	BOTTOM WINDOW	1	VBM
13		299027105	SCREEN WIPER 12V	1	VBM
14		299027108	LEFT WINDOW	1	VBM

Console Mount (S/N 107-110) Fig 5-2r01

Console Mount (S/N 107-110) Fig 5-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		245006001	ASSEMBLY-3X5 FLOOD LIGHT	2	PELLA
2		296272382	ANTENNA - 2400MHZ 1/4 WAVE	1	PELLA
3		180010848	STROBE-AMBER,LED,DEUTSCH 2 PIN	1	PELLA
4		299027099	DEFEND COTE	1	VBM
5		299027100	SHIFT WINDOW 1	1	VBM
6		299027102	RIGHT REAR WINDOW	1	VBM
7		299027107	REAR WINDOW	1	VBM
8		299027109	FRONT WINDOW	1	VBM
9		299024944	MIRROR	1	VBM
10		299027101	SHIFT WINDOW 2	1	VBM
11		299027106	LOCK	1	VBM
12		299027103	BOTTOM WINDOW	1	VBM
13		299027104	SCREEN WIPER 24V	1	VBM
14		299027108	LEFT WINDOW	1	VBM

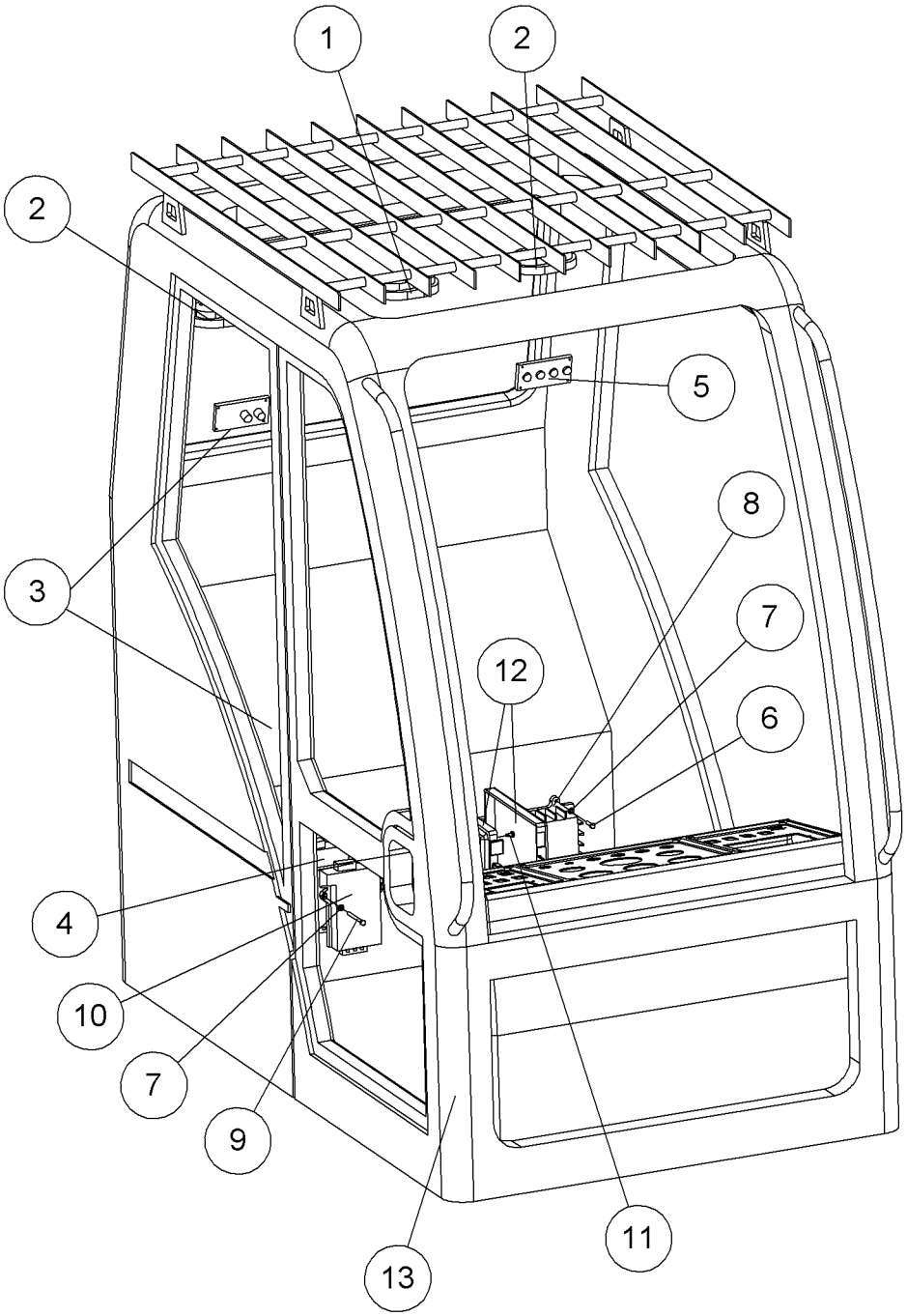
Console Mount (S/N 101-106) Fig 5-2



Console Mount (S/N 101-106) Fig 5-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010431	BOLT GB/T5783 M6X12-GR8.8	4	VBM
2		299010433	BOLT GB/T5783 M6X18-GR8.8	6	VBM
3		299012380	WASHER GB/T97 6 200HV	6	VBM
4		299010411	BOLT M4X10-GR 8.8	2	VBM
5		299006745	LIGHT - CAB	1	VBM
6		245006001	ASSEMBLY-3X5 FLOOD LIGHT	2	PELLA
7		180010848	MINI YELLOW STROBE	1	PELLA
8		299006739	SPRING	2	VBM
9		299010446	BOLT GB/T5783 M8X25-GR8.8	2	VBM
10		299006621	CAB	1	VBM
11		296304680	B324LK7, FREQ.BAND, TOP ASM	1	PELLA
12		296272392	CHARGER, 12-VOLT NBB	1	PELLA
13		296272382	ANTENNA - 2400MHZ 1/4 WAVE	1	PELLA
14		296270163	ASM, STRIKEALERT BLANK	1	PELLA
15		299010435	BOLT M6X25-GR8.8	2	VBM

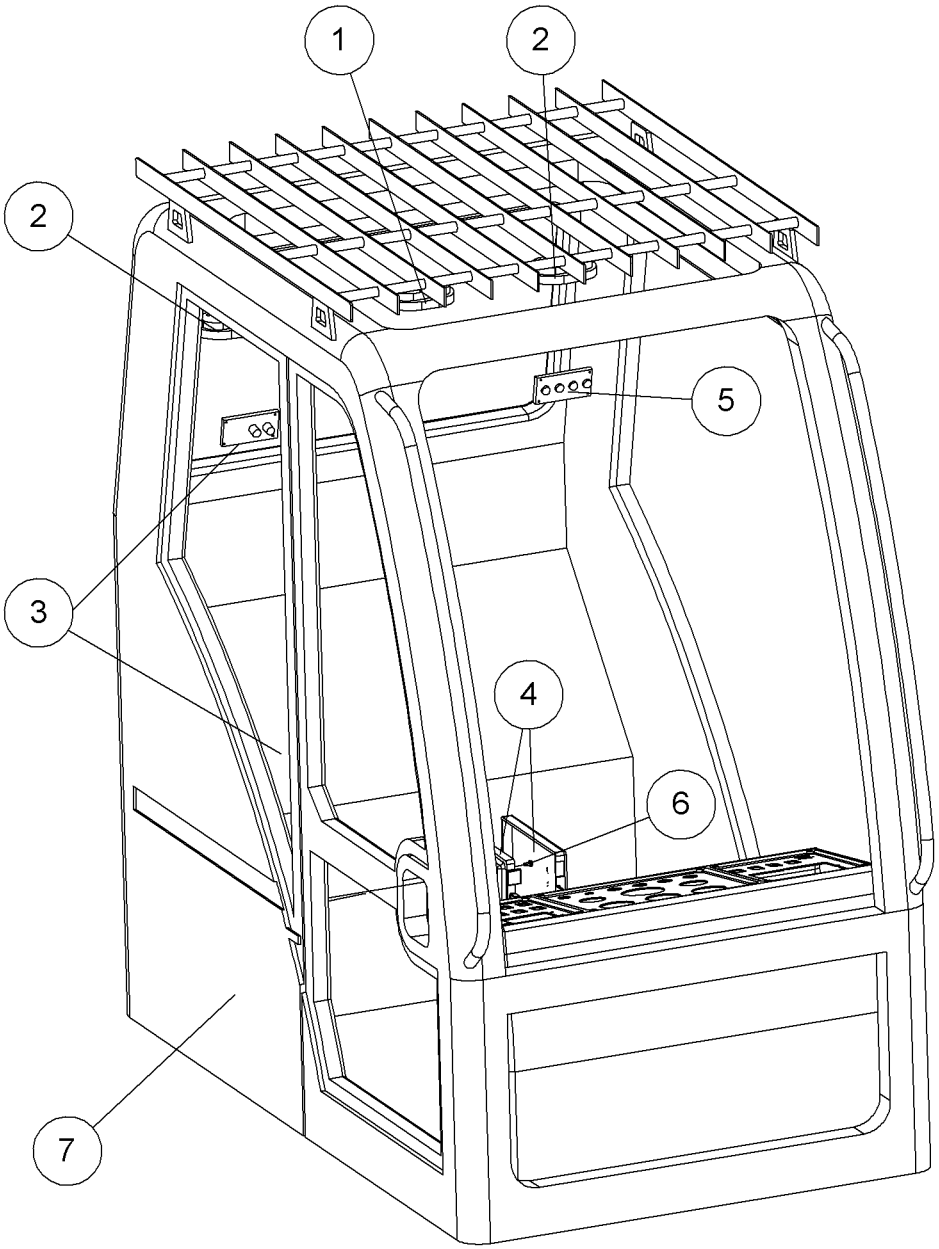
Console Mount-Inside (S/N 111-) Fig 5-2x01r01



Console Mount-Inside (S/N 111-) Fig 5-2x01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027112	INSIDE LIGHT	1	VBM
2		299027111	REPRODUCER	2	VBM
3		299027114	AIR CONDITIONER ASSEMBLY 12V	1	VBM, Breakdown Fig.5-2x01z01
4		296304680	B324LK7, FREQ.BAND, TOP ASM	1	PELLA
5		299027113	RADIO 12V	1	VBM
6		299010435	BOLT M6X25-GR8.8	4	PELLA
7		299012380	WASHER GB/T97 6 200HV	6	PELLA
8		296270223	ASM, C148 BLANK	1	VBM
9		299015001	BOLT GB/T5782 M6X70-GR8.8	2	VBM
10		296270163	ASM, STRIKEALERT BLANK	1	PELLA
11		299010431	BOLT GB/T5783 M6X12-GR8.8	3	VBM
12		142410001	CASE-6"X9"X1" OPERATOR MANUAL	1	PELLA
13			CAB WELDING	1	Not Sold Separately

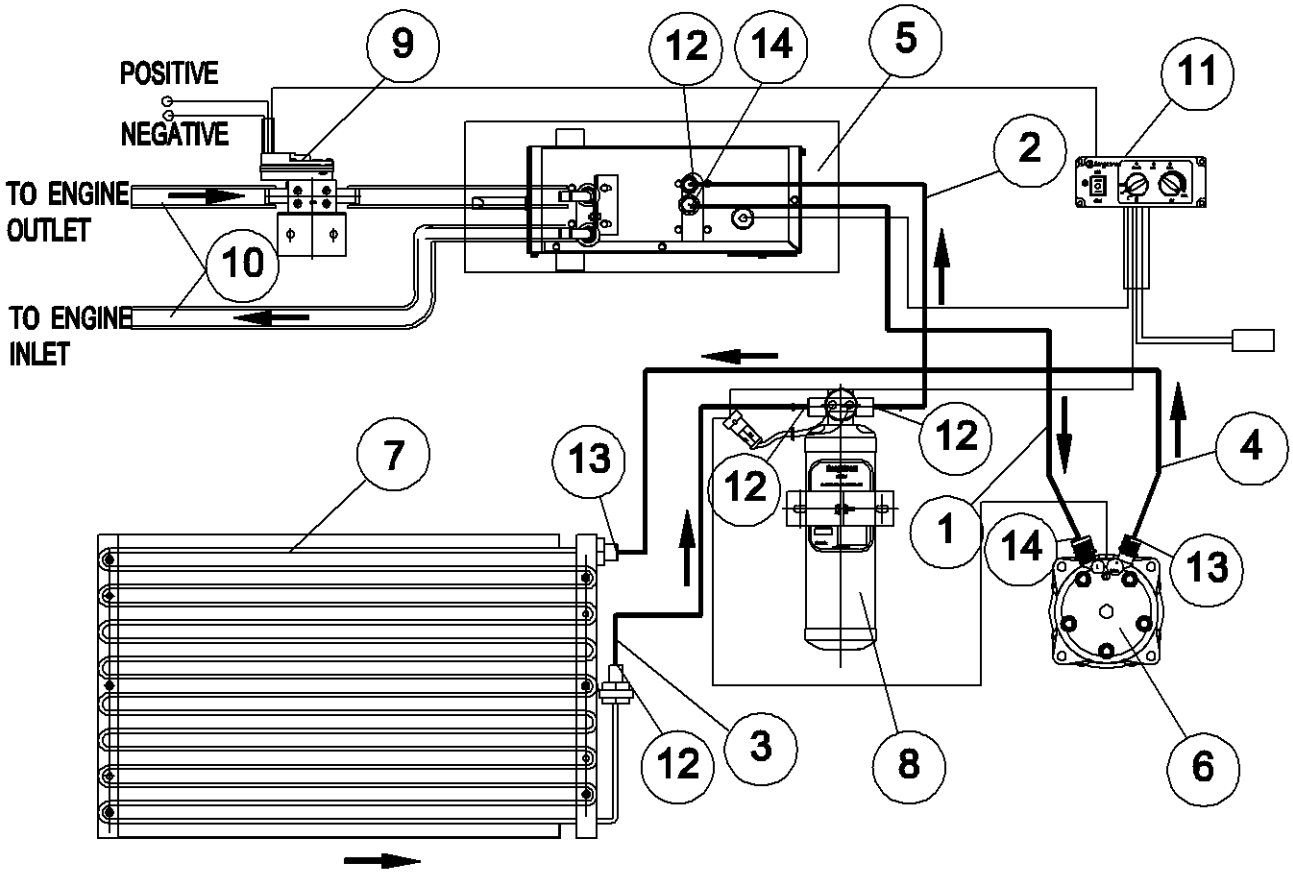
Console Mount-Inside (S/N 107-110) Fig 5-2x01



Console Mount-Inside (S/N 107-110) Fig 5-2x01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299027112	INSIDE LIGNT	1	VBM
2		299027111	REPRODUCER	2	VBM
3		299025014	AIR CONDITIONER ASSEMBLY 24V	1	VBM, Breakdown Fig.5-2x01z01
4		142410001	CASE-6"X9"X1" OPERATOR MANUAL	1	PELLA
5		299027110	RADIO 24V	1	VBM
6		299010431	BOLT GB/T5783 M6X12-GR8.8	3	VBM
7			CAB WELDING	1	Not Sold Separately

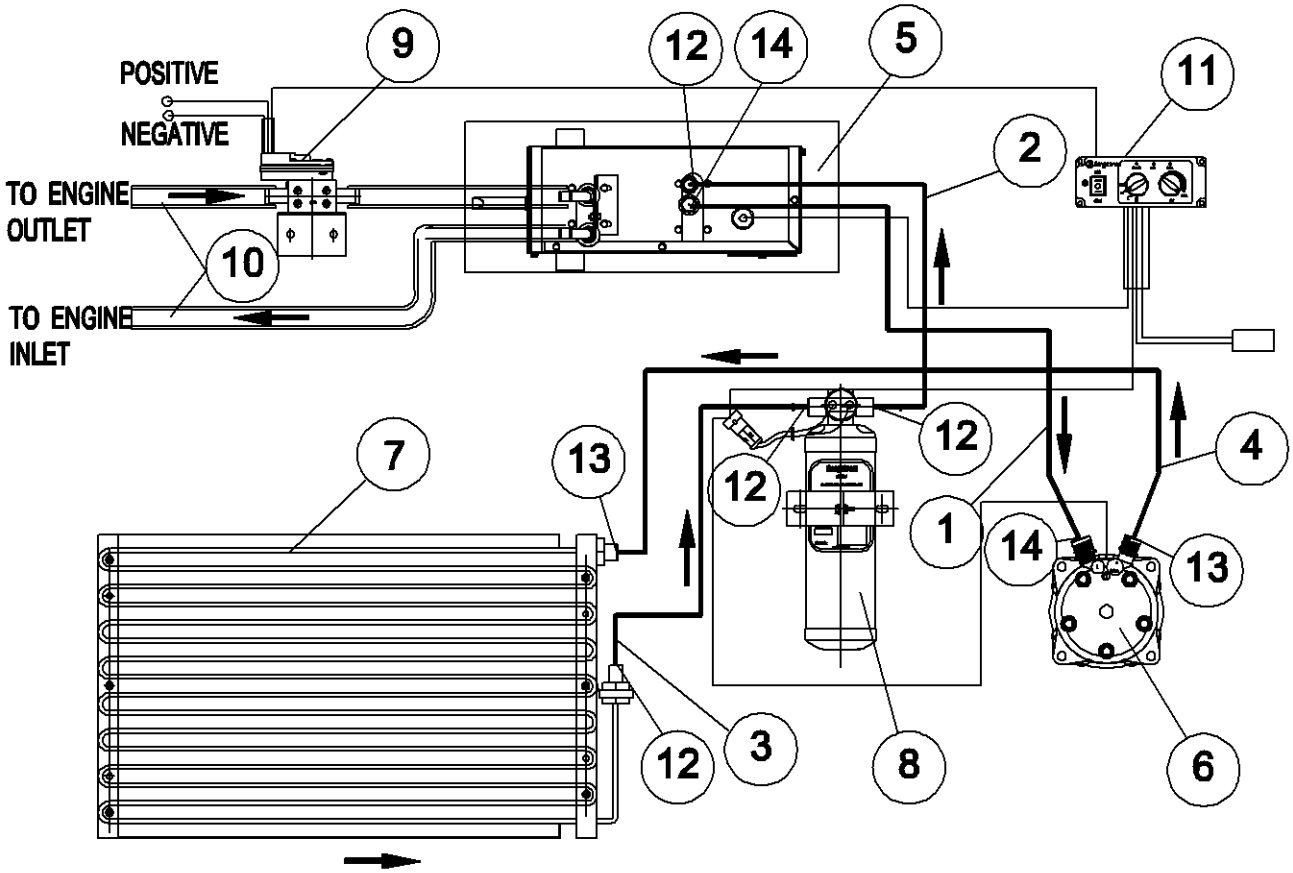
Components-Air conditioner (S/N 111-) Fig 5-2x01z01r01



Components-Air conditioner (S/N 111-) Fig 5-2x01z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025007	HOSE 1	1	VBM
2		299025008	HOSE 2	1	VBM
3		299025009	HOSE 3	1	VBM
4		299025010	HOSE 4	1	VBM
5		299027115	EVAPORATOR 12V	1	VBM
6		299027116	COMPRESSOR 12V	1	VBM
7		299025003	CONDENSER	1	VBM
8		299025004	DRIVER	1	VBM
9		299027117	WATER VALVE 12V	1	VBM
10		299025006	HOSE 5	1	VBM
11		299027093	CONTROLLER PANEL 12V	1	VBM
12		299027094	SEAL 6	4	VBM
13		299027095	SEAL 8	2	VBM
14		299027096	SEAL 10	2	VBM
		299027114	AIR CONDITIONER ASSEMBLY 12V		VBM, Inc. All Items In Figure

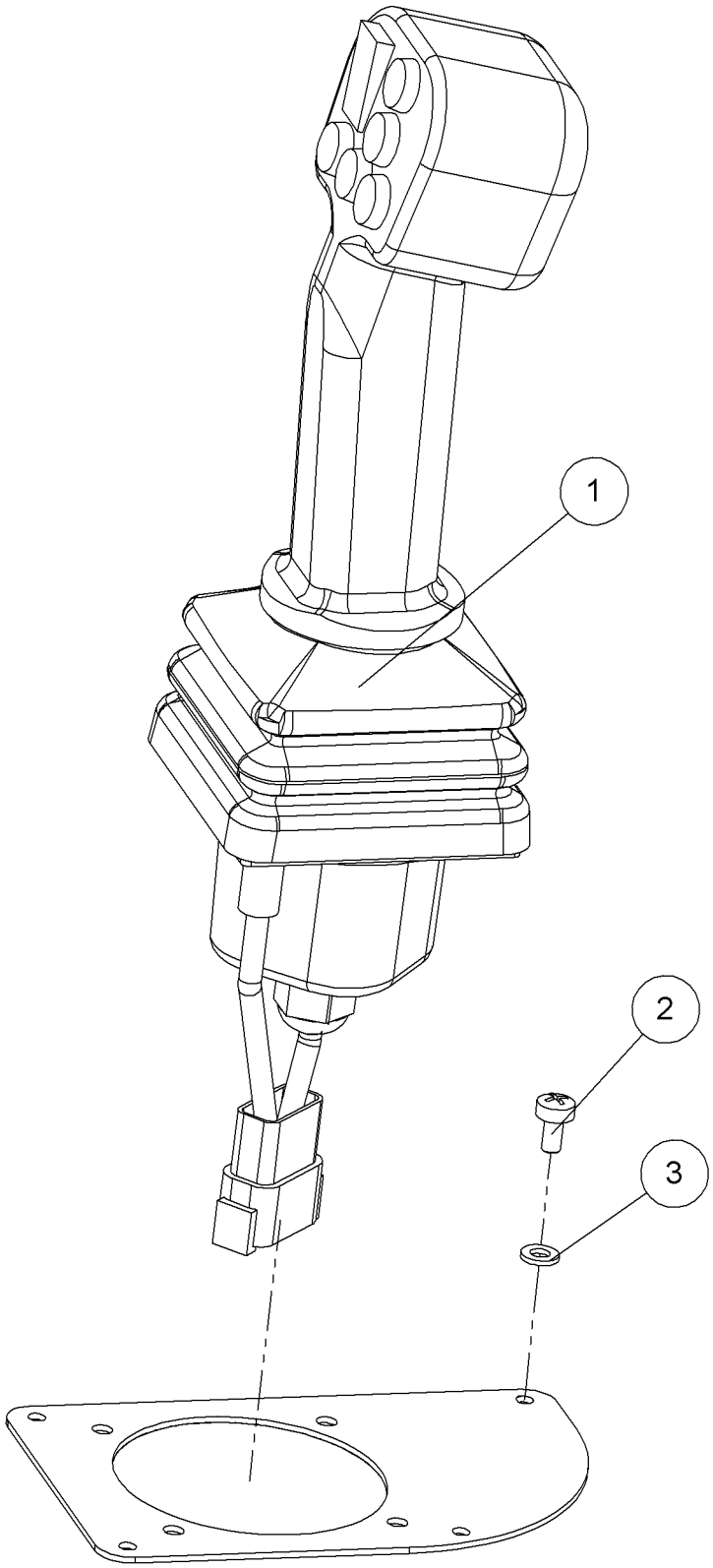
Components-Air conditioner (S/N 107-110) Fig 5-2x01z01



Components-Air conditioner (S/N 107-110) Fig 5-2x01z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299025007	HOSE 1	1	VBM
2		299025008	HOSE 2	1	VBM
3		299025009	HOSE 3	1	VBM
4		299025010	HOSE 4	1	VBM
5		299025001	EVAPORATOR 24V	1	VBM
6		299025002	COMPRESSOR 24V	1	VBM
7		299025003	CONDENSER	1	VBM
8		299025004	DRIVER	1	VBM
9		299025005	WATER VALVE 24V	1	VBM
10		299025006	HOSE 5	1	VBM
11		299027097	CONTROLER PANELE 24V	1	VBM
12		299027094	SEAL 6	4	VBM
13		299027095	SEAL 8	2	VBM
14		299027096	SEAL 10	2	VBM
		299025014	AIR CONDITIONER ASSEMBLY 24V		VBM, Inc. All Items In Figure

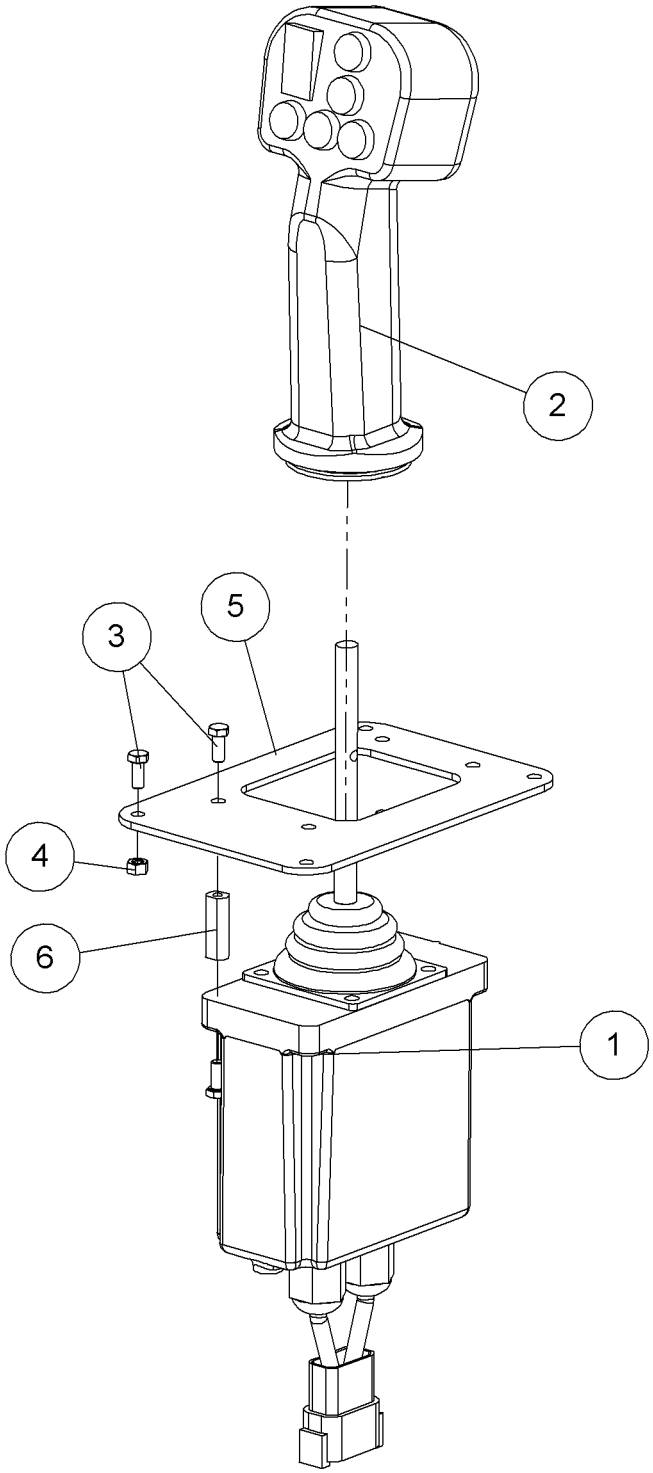
Left Joystick (S/N 107-) Fig 5-3r01



Left Joystick (S/N 107-) Fig 5-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296294085	HANDLE GRIP ASSY - LH JOYSTICK	1	PELLA, Breakdown Fig.5-3z01
2		299012620	SCREW GB/T818 M6X12 H	4	VBM
3		299012380	WASHER GB/T97 6 200HV	4	VBM

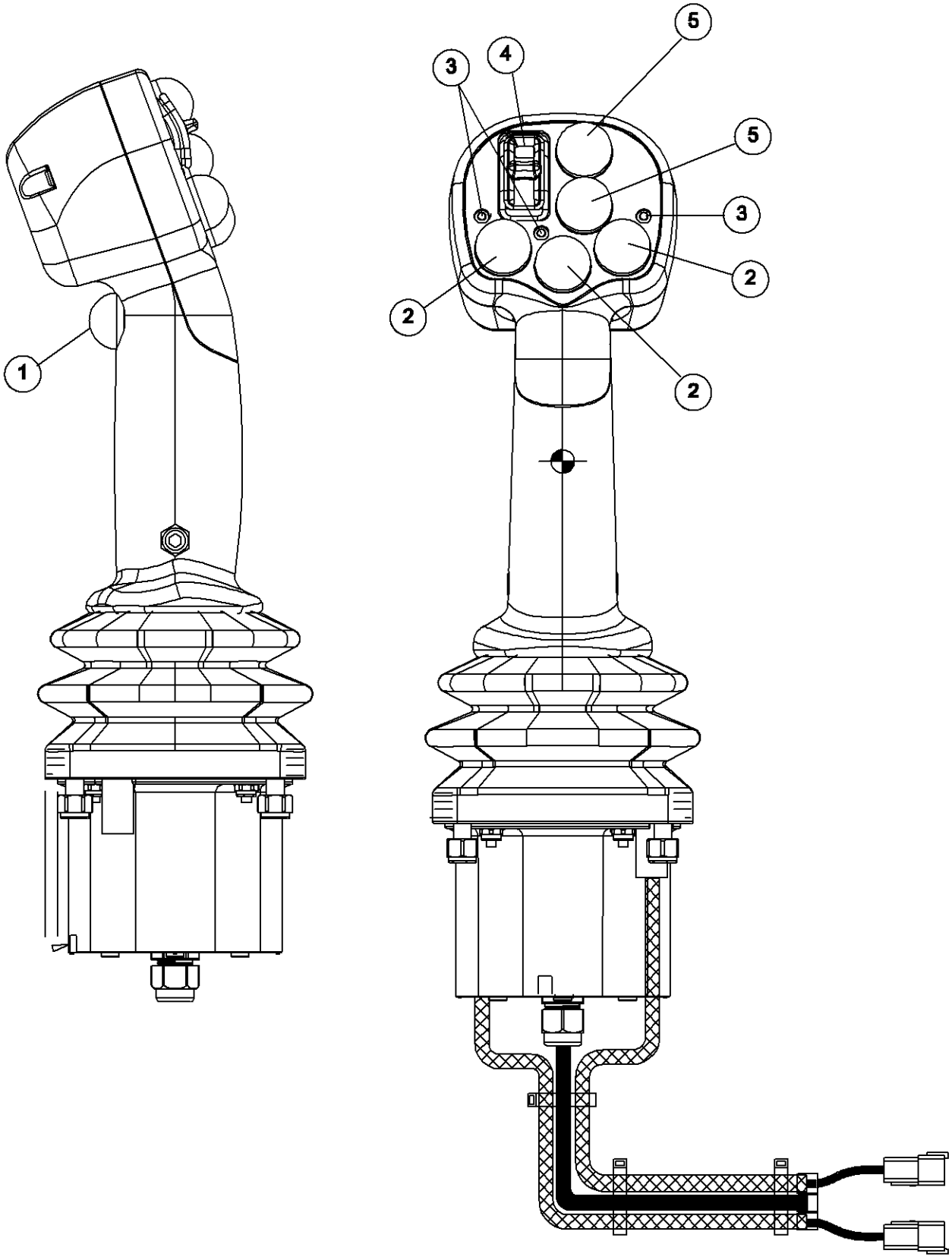
Left Joystick (S/N 101-106) Fig 5-3



Left Joystick (S/N 101-106) Fig 5-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296284021	CONTROLLER-EDC	1	PELLA
2		296273907	HANDLE GRIP ASSEMBLY - LEFT JOYSTICK	1	PELLA, Breakdown Fig.5-3z01
3		299010421	SCREW GB/T5783 M5X12-GR8.8	12	VBM
4		299012330	NUT GB/T6170 M5-GR8	4	VBM
5		299006634	BASE-HANDLE RIGHT	1	VBM
6		299006751	SPACING	4	VBM

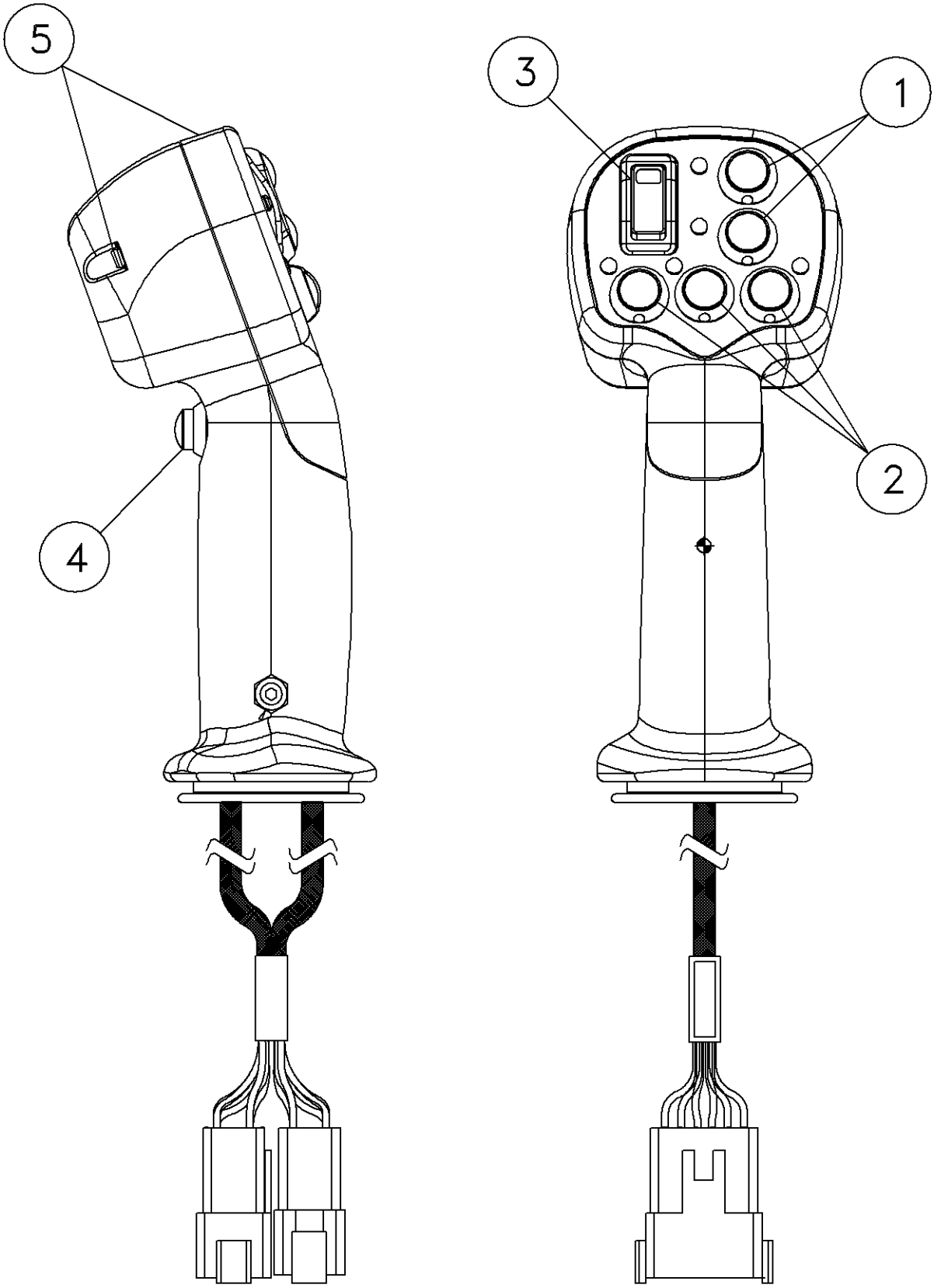
Components-Left Joystick (S/N 107-) Fig 5-3z01r01



Components-Left Joystick (S/N 107-) Fig 5-3z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271138	SWITCH	1	PELLA
2		296271137	SWITCH	3	PELLA
2		296271135	BOOT -RUBBER	5	PELLA
3		296302422	LIGHT - GREEN LED	3	PELLA
4		296271141	ROCKER SWITCH	1	PELLA
5		296271136	SWITCH	3	PELLA
		296294085	HANDLE GRIP ASSY - LH JOYSTICK		PELLA, Inc. All Items In Figure.

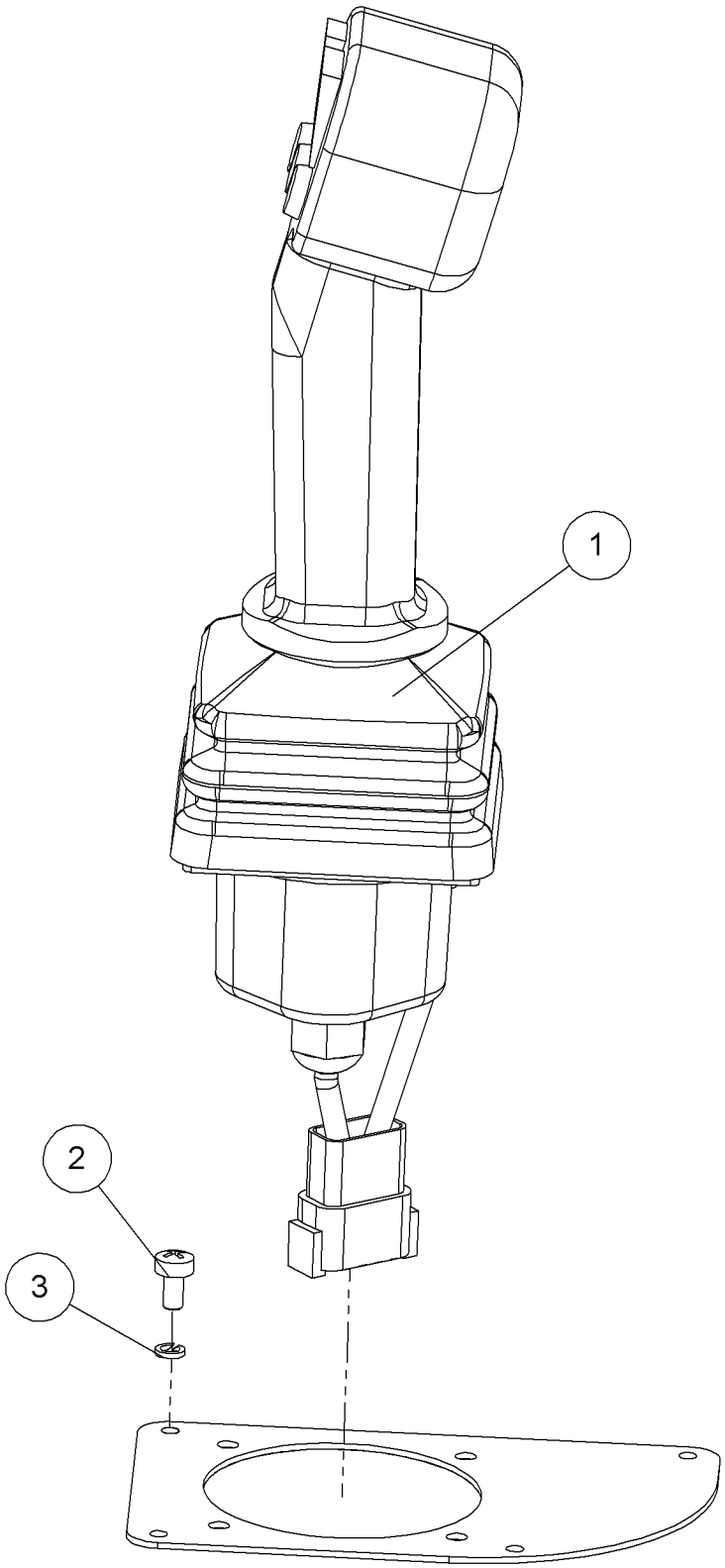
Components-Left Joystick (S/N 101-106) Fig 5-3z01



Components-Left Joystick (S/N 101-106) Fig 5-3z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271136	SWITCH	2	PELLA
1		296271135	BOOT -RUBBER	2	PELLA
2		296271137	SWITCH	3	PELLA
2		296271135	BOOT -RUBBER	3	PELLA
3		296271141	ROCKER SWITCH	1	PELLA
4		296271138	SWITCH	1	PELLA
5		296278211	FACE PLATE LEFT COVER	1	PELLA, Inc. Screw
5		296278212	SCREW	2	PELLA
		296273907	HANDLE GRIP ASSEMBLY - LEFT JOYSTICK		PELLA, Inc. All Items In Figure

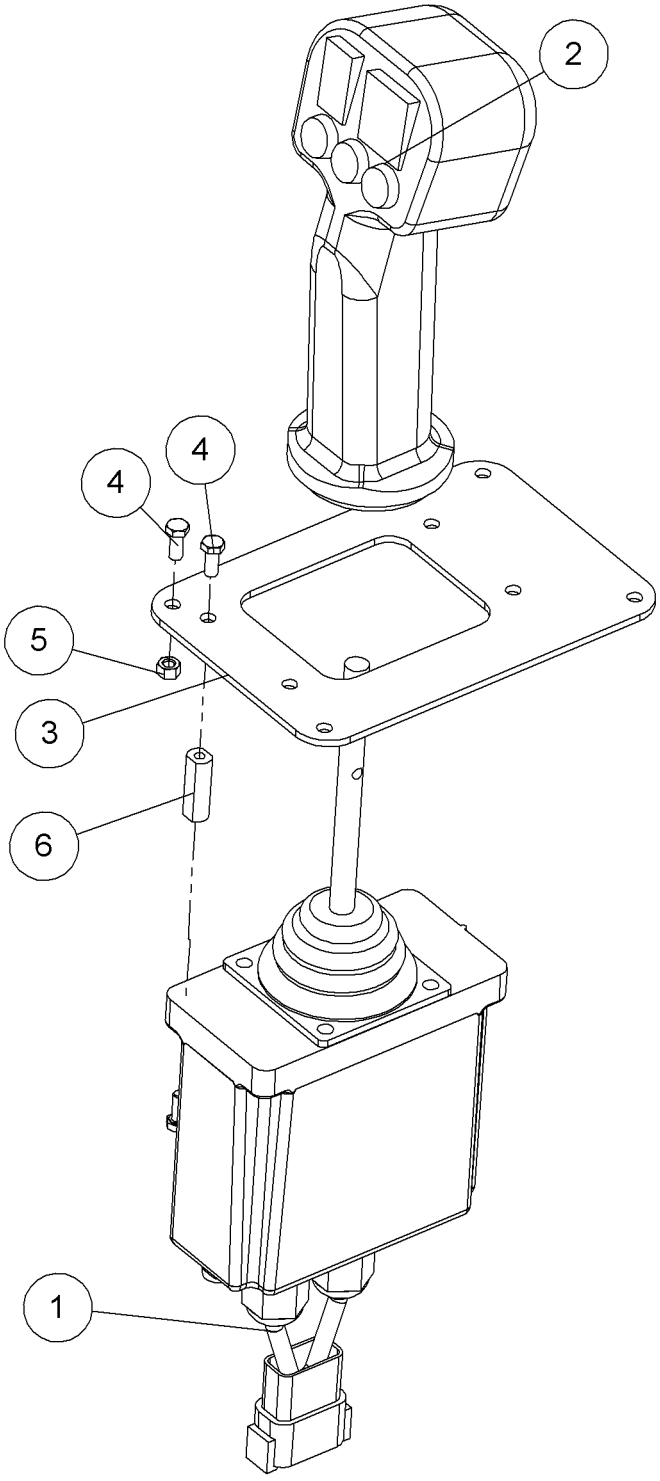
Right Joystick (S/N 107-) Fig 5-4r01



Right Joystick (S/N 107-) Fig 5-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296298979	HANDLE GRIP ASSY - RH JOYSTICK	1	PELLA, Breakdown Fig.5-4z01
2		299012620	SCREW GB/T818 M6X12 H	4	VBM
3		299012380	WASHER GB/T97 6 200HV	4	VBM

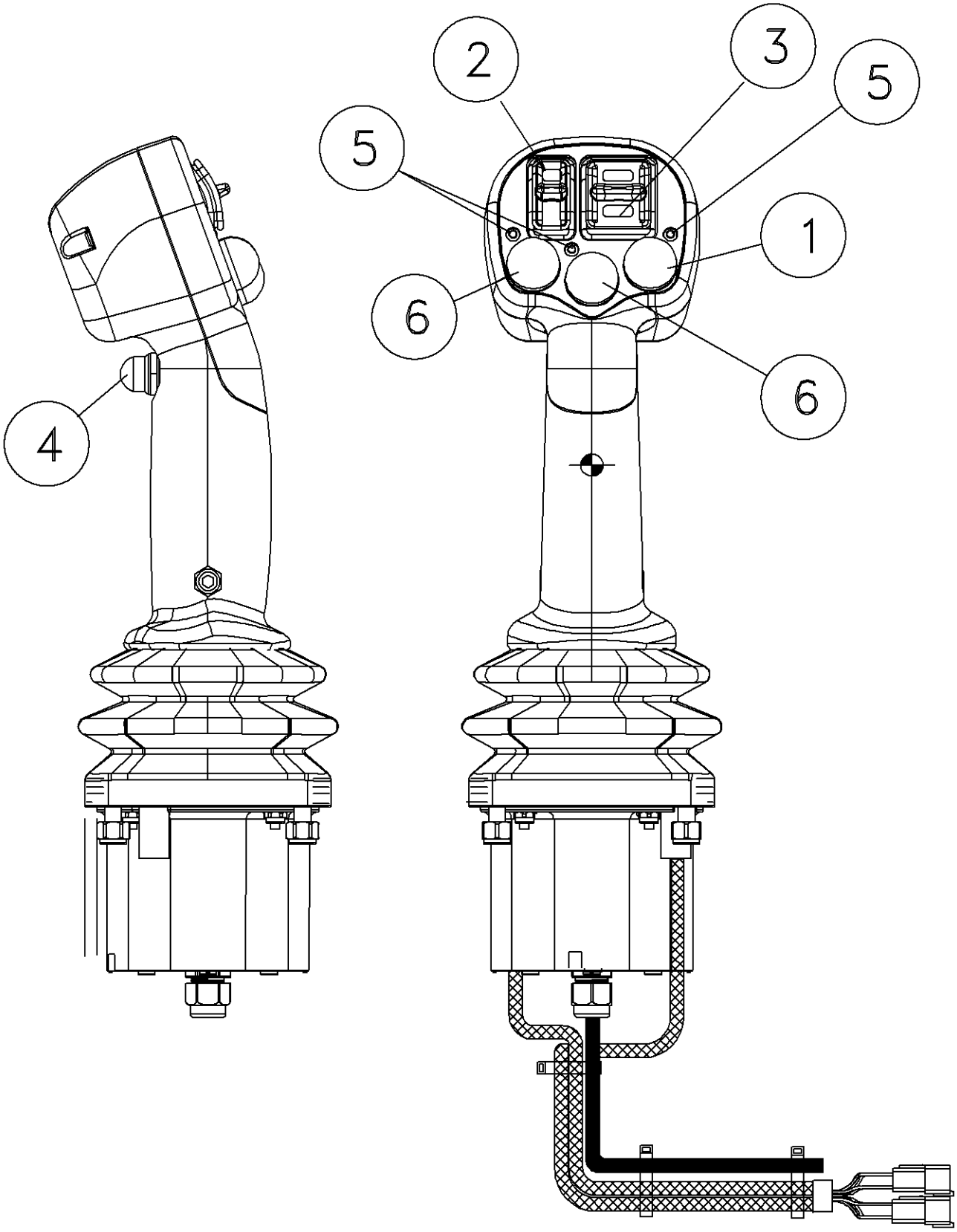
Right Joystick (S/N 101-106) Fig 5-4



Right Joystick (S/N 101-106) Fig 5-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296284021	CONTROLLER-EDC	1	PELLA
2		296273908	HANDLE GRIP ASSEMBLY - RIGHT JOYSTICK	1	PELLA, Breakdown Fig.5-4z01
3		299006634	BASE-HANDLE RIGHT	1	VBM
4		299010421	SCREW GB/T5783 M5X12-GR8.8	12	VBM
5		299012330	NUT GB/T6170 M5-GR8	4	VBM
6		299006751	SPACING	4	VBM

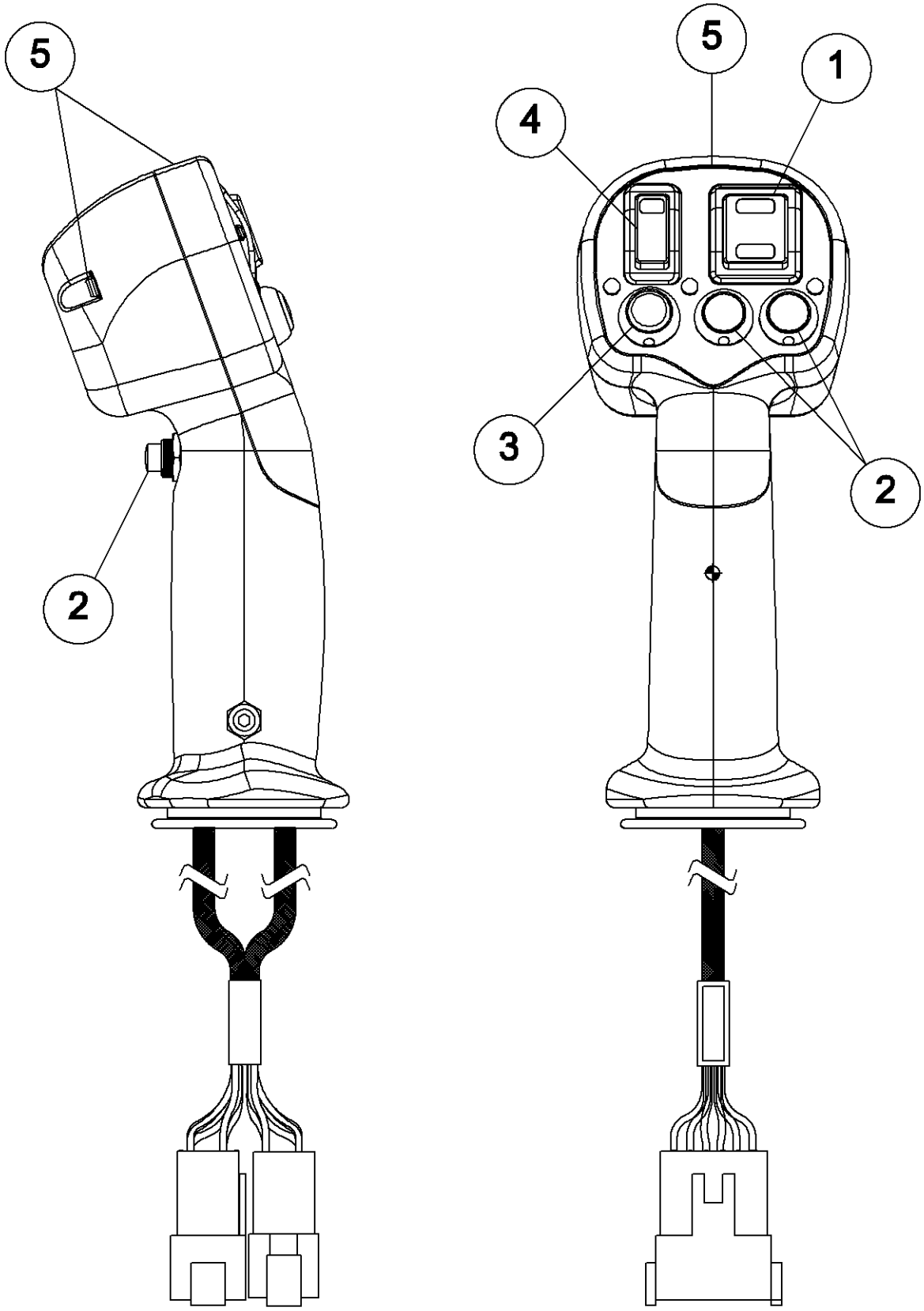
Components-Right Joystick (S/N 107-) Fig 5-4z01r01



Components-Right Joystick (S/N 107-) Fig 5-4z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271137	SWITCH	2	PELLA
1		296271135	BOOT -RUBBER	1	PELLA
2		296271141	ROCKER SWITCH	1	PELLA
2		296302320	BOOT COVER	1	PELLA
3		296271142	ROCKER SWITCH	1	PELLA
3		296302321	BOOT COVER	1	PELLA
4		296302422	LIGHT - GREEN LED	3	PELLA
5		296271139	SWITCH	2	PELLA
5		296271135	BOOT-RUBBER	2	PELLA
		296298979	HANDLE GRIP ASSY - RH JOYSTICK		PELLA, Inc. All Items In Figure.

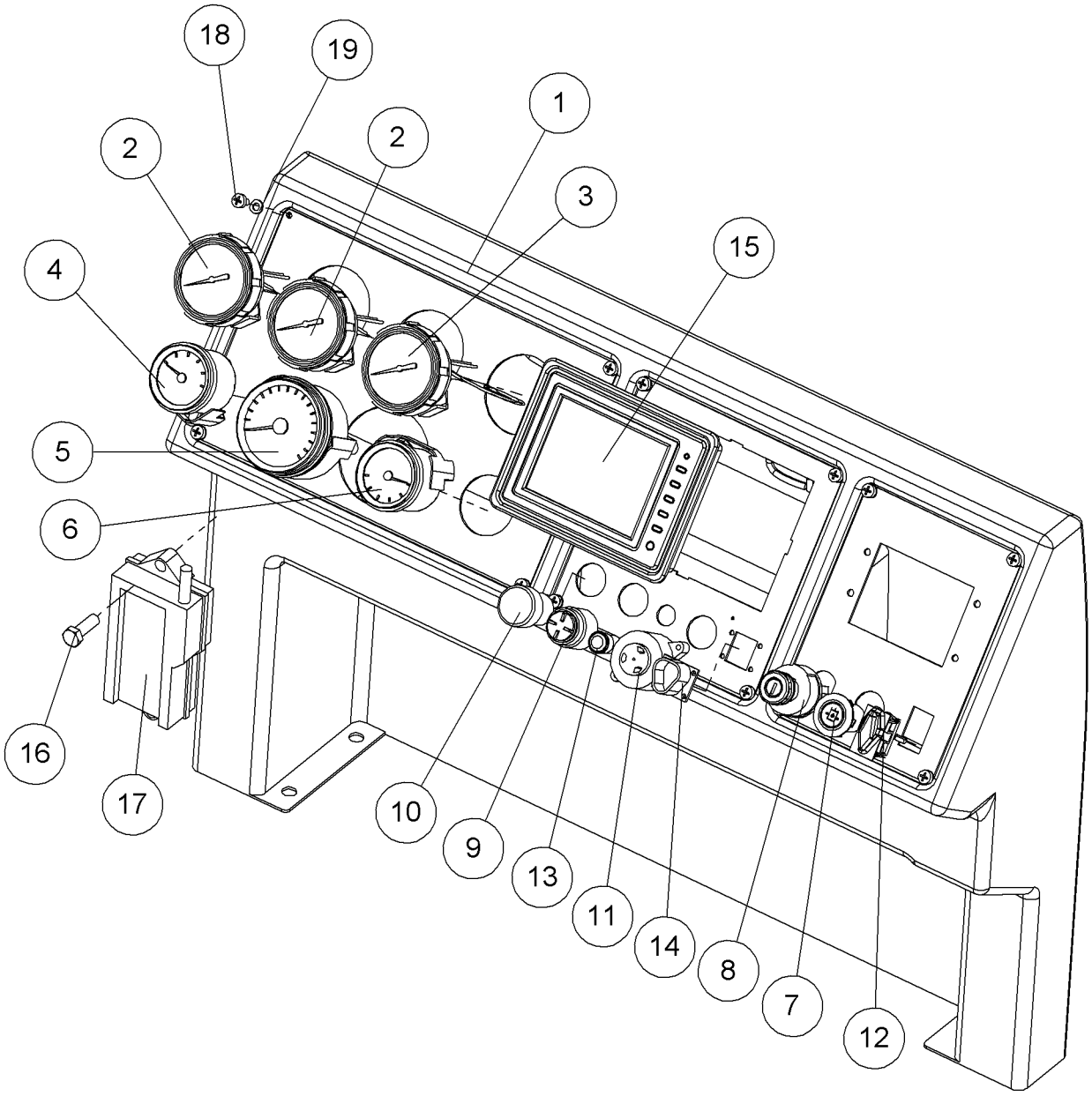
Components-Right Joystick (S/N 101-106) Fig 5-4z01



Components-Right Joystick (S/N 101-106) Fig 5-4z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271142	ROCKER SWITCH	1	PELLA
2		296271137	SWITCH	3	PELLA
2		296271135	BOOT - RUBBER	2	PELLA
3		296271139	SWITCH	1	PELLA
3		296271135	BOOT - RUBBER	1	PELLA
4		296271141	ROCKER SWITCH	1	PELLA
5		296285231	FACE PLATE - CONTROL	1	PELLA, Includes Screw
5		296278212	SCREW	2	PELLA
		296273908	HANDLE GRIP ASSEMBLY - RIGHT JOYSTICK		PELLA, Inc. All Items In Figure

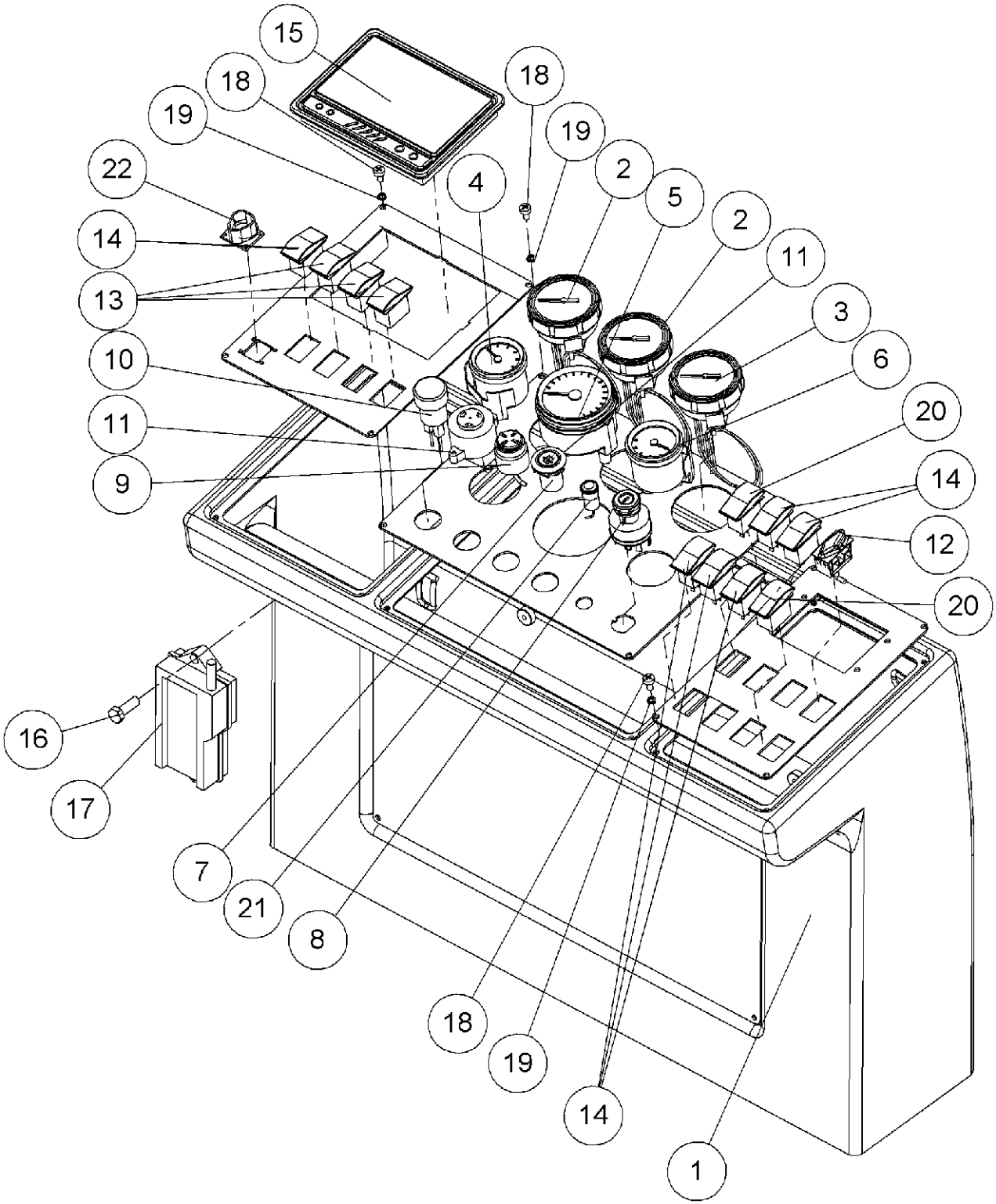
Electrical Panel (S/N 114-) Fig 5-5r03



Electrical Panel (S/N 114-) Fig 5-5r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			CONSOLE FRAME ASSEMBLY	1	Not Sold Separately
2		289651001	GAUGE - 7500 PSI - SPAN - JIC - LIGHT	2	PELLA
3		289650001	GAUGE - 2000 PSI - SPAN - JIC - LIGHT	1	PELLA
4		299005330	METER-WATER TEMPERATURE 38085010910	1	VBM
5		299005398	TACHOMETER WITH HOURMETER(12v)	1	VBM
6		296274330	GAUGE - FUEL	1	PELLA
7		277699001	SWITCH - PUSH BUTTON HYDRAULIC ENABLE	1	PELLA
8		285597001	SWITCH - IGNITION	1	PELLA
8		285597002	KEYS - IGNITION SWITCH (MATCHED PAIR)	1	PELLA
9		286920001	REMOTE LOCKOUT BUZZER	1	PELLA
10		154677001	OUTLET - 12 VOLT	2	PELLA
11		285617001	HORN - ZAP ALERT 2 PIN DEUTSCH	1	PELLA
12		296286254	ROTARY SWITCH (ON) - OFF - (ON)	1	PELLA
13		296275582	LIGHT - REMOTE LOCKOUT- REDÿ	1	PELLA
14		163659004	3 WAY RECEPTACLE - DT SERIES	1	PELLA
15		299026701	5.6” LCD DISPLAY	1	VBM
16		299010459	BOLT GB/T5783 M10X30	2	VBM
17		296272392	CHARGER, 12-VOLT NBB	1	PELLA
18		299012620	SCREW GB/T818 M6X12 H	12	VBM
19		299012380	WASHER GB/T97 6 200HV	12	VBM

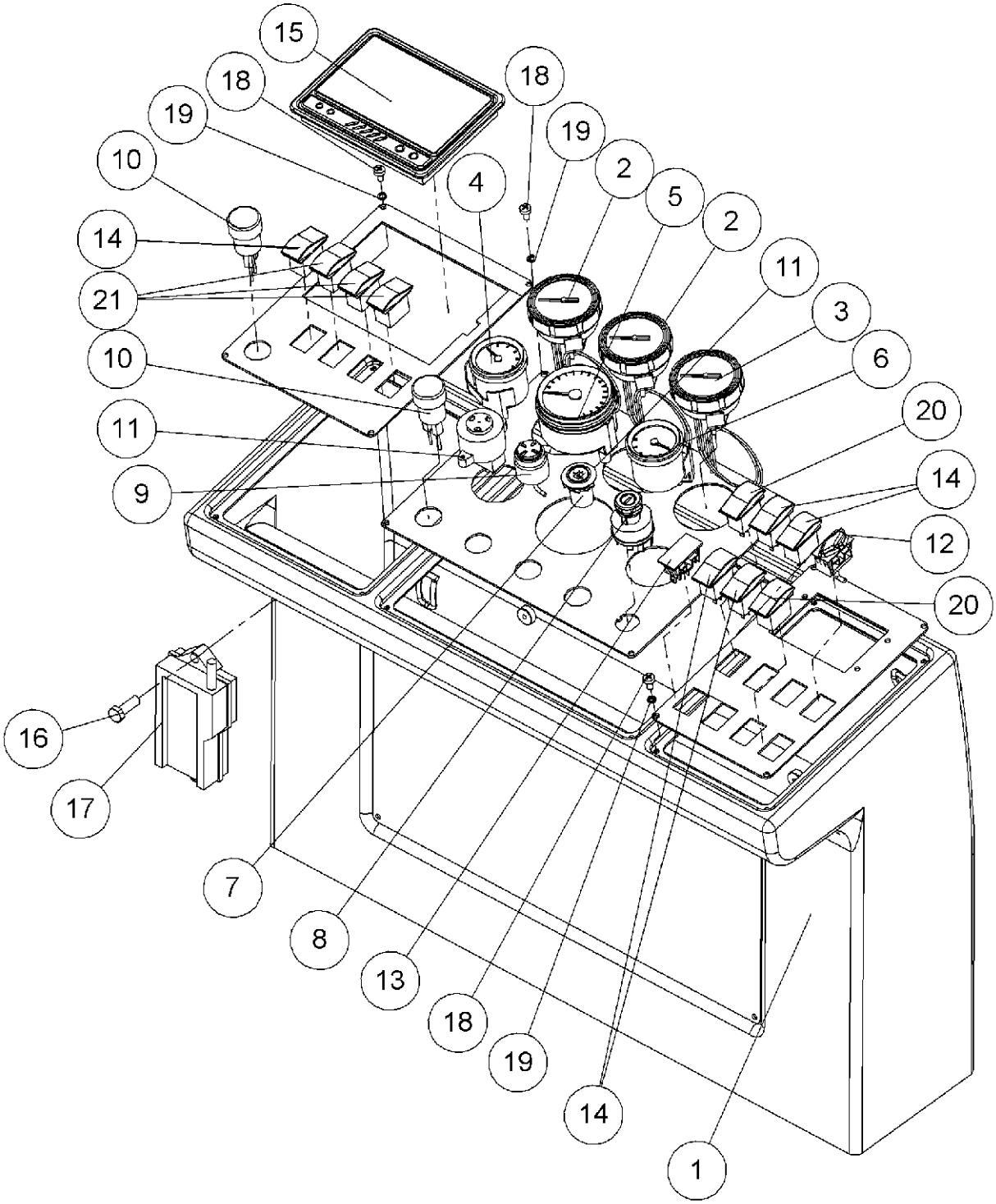
Electrical Panel (S/N 111-113) Fig 5-5r02



Electrical Panel (S/N 111-113) Fig 5-5r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			CONSOLE FRAME ASSEMBLY	1	Not Sold Separately
2		289651001	GAUGE - 7500 PSI - SPAN - JIC - LIGHT	2	PELLA
3		289650001	GAUGE - 2000 PSI - SPAN - JIC - LIGHT	1	PELLA
4		299005330	METER-WATER TEMPERATURE 38085010910	1	VBM
5		299005398	TACHOMETER WITH HOURMETER(12v)	1	VBM
6		296274330	GAUGE - FUEL	1	PELLA
7		277699001	SWITCH - PUSH BUTTON HYDRAULIC ENABLE	1	PELLA
8		285597001	SWITCH - IGNITION	1	PELLA
8		285597002	KEYS - IGNITION SWITCH (MATCHED PAIR)	1	PELLA
9		286920001	REMOTE LOCKOUT BUZZER	1	PELLA
10		154677001	OUTLET - 12 VOLT	1	PELLA
11		285617001	HORN - ZAP ALERT 2 PIN DEUTSCH	1	PELLA
12		296286254	ROTARY SWITCH (ON) - OFF - (ON)	1	PELLA
13		296279988	SWITCH - ON# ON ON#	3	PELLA
14		257205001	SWITCH-SP 2 POSITION	6	PELLA
15		299026701	5.6” LCD DISPLAY	1	VBM
16		299010459	BOLT GB/T5783 M10X30	2	VBM
17		296272392	CHARGER, 12-VOLT NBB	1	PELLA
18		299012620	SCREW GB/T818 M6X12 H	12	VBM
19		299012380	WASHER GB/T97 6 200HV	12	VBM
20		257541001	SWITCH-SPDT 3 POSITION MOM	2	PELLA
21		296275582	LIGHT - REMOTE LOCKOUT- RED	1	PELLA
22		163659004	3 WAY RECEPTACLE - DT SERIES	1	PELLA

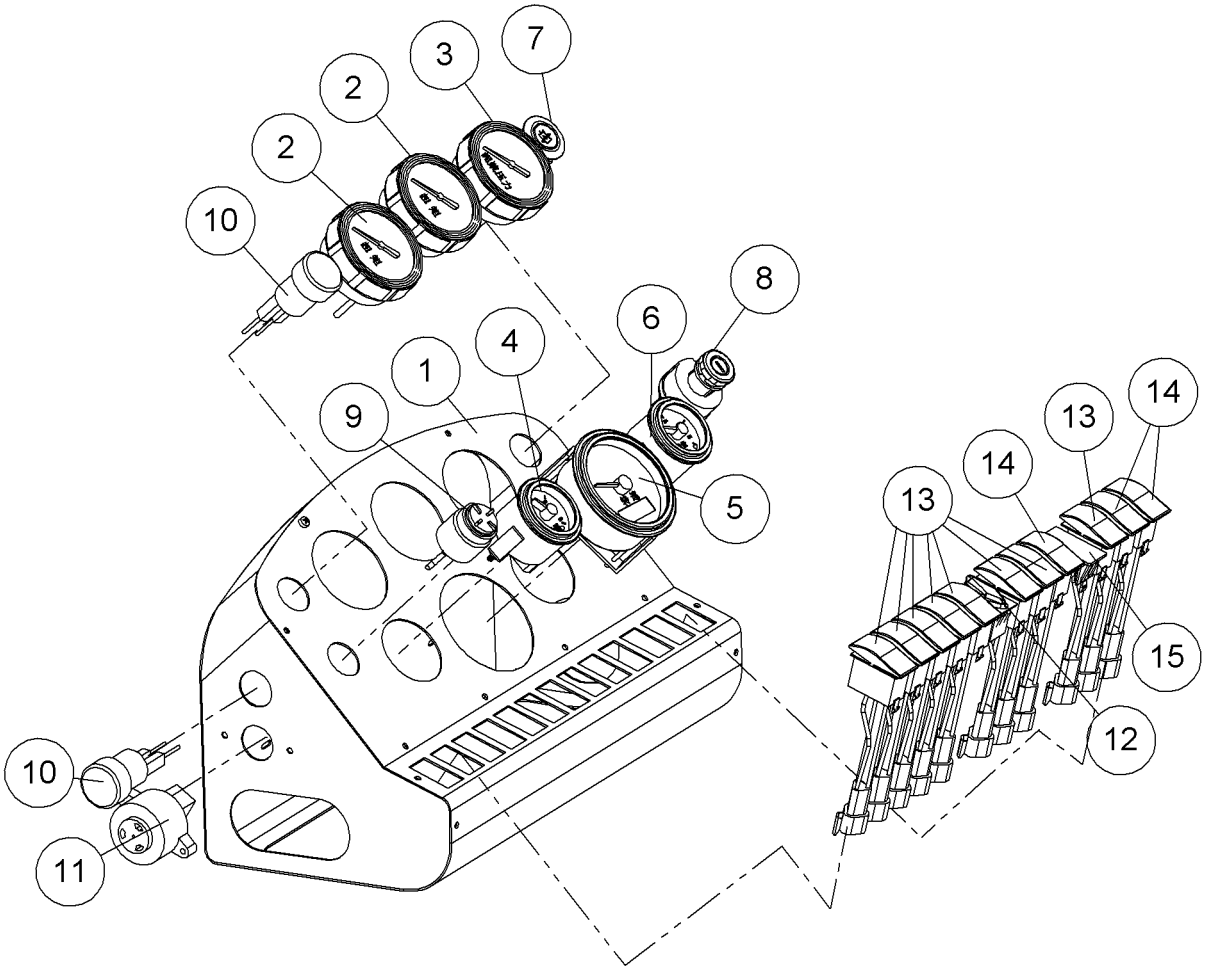
Electrical Panel (S/N 107-110) Fig 5-5r01



Electrical Panel (S/N 107-110) Fig 5-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			CONSOLE FRAME ASSEMBLY	1	Not Sold Separately
2		289651001	GAUGE - 7500 PSI - SPAN - JIC - LIGHT	2	PELLA
3		289650001	GAUGE - 2000 PSI - SPAN - JIC - LIGHT	1	PELLA
4		299005330	METER-WATER TEMPERATURE 38085010910	1	VBM
5		299005361	TACHOMETER(WITH HOUR METER)-38136100320	1	VBM
6		299005369	FLUID LEVEL INDICATOR WITH FUEL GAUGE	1	VBM
7		277699001	SWITCH - PUSH BUTTON HYDRAULIC ENABLE	1	PELLA
8		285597001	SWITCH - IGNITION	1	PELLA
8		285597002	KEYS - IGNITION SWITCH (MATCHED PAIR)	1	PELLA
9		286920001	REMOTE LOCKOUT BUZZER	1	PELLA
10		154677001	OUTLET - 12 VOLT	2	PELLA
11		285617001	HORN - ZAP ALERT 2 PIN DEUTSCH	1	PELLA
12		296286254	ROTARY SWITCH (ON) - OFF - (ON)	1	PELLA
13		156720001	PLUG - ROCKER SWITCH	1	PELLA
14		257205001	SWITCH-SP 2 POSITION	5	PELLA
15		299022957	DISPLAY	1	VBM
16		299010459	BOLT GB/T5783 M10X30	2	VBM
17		296272392	CHARGER, 12-VOLT NBB	1	PELLA
18		299012620	SCREW GB/T818 M6X12 H	12	VBM
19		299012380	WASHER GB/T97 6 200HV	12	VBM
20		257541001	SWITCH-SPDT 3 POSITION MOM	2	PELLA
21		296279988	SWITCH - ON# ON ON#	3	PELLA

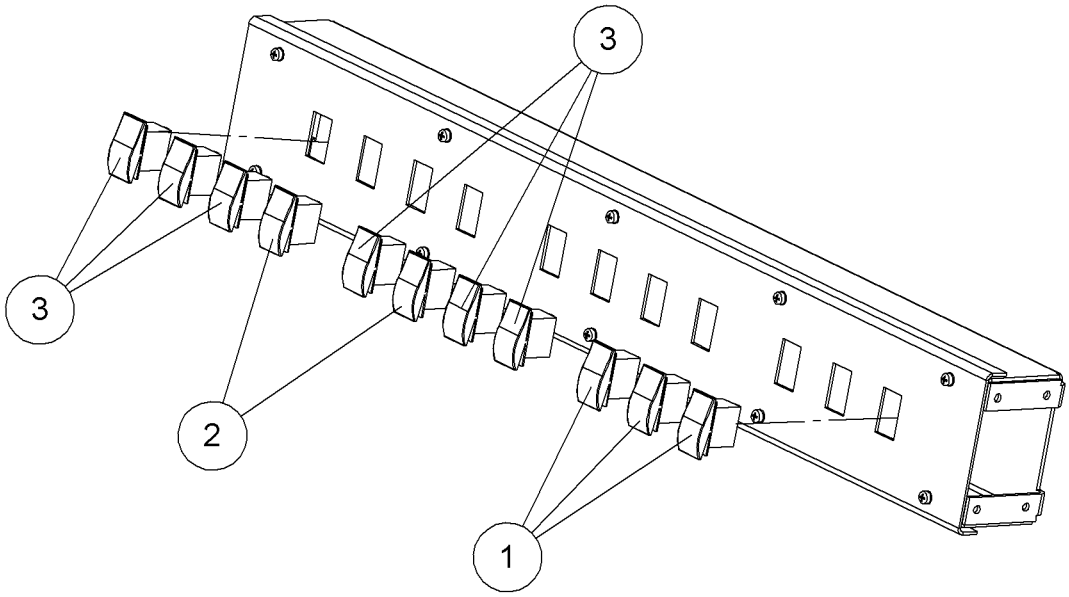
Electrical Panel (S/N 101-106) Fig 5-5



Electrical Panel (S/N 101-106) Fig 5-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006636	OPERATOR STATION	1	VBM
2		289651001	GAUGE - 7500 PSI - SPAN - JIC - LIGHT	2	PELLA
3		289650001	GAUGE - 2000 PSI - SPAN - JIC - LIGHT	1	PELLA
4		299005330	METER-WATER TEMPERATURE 38085010910	1	VBM
5		299005361	TACHOMETER(WITH HOUR METER)-38136100320	1	VBM
6		299005369	FLUID LEVEL INDICATOR WITH FUEL GAUGE	1	VBM
7		277699001	SWITCH - PUSH BUTTON HYDRAULIC ENABLE	1	PELLA
8		285597001	SWITCH - IGNITION	1	PELLA
8		285597002	KEYS - IGNITION SWITCH (MATCHED PAIR)	1	PELLA
9		286920001	REMOTE LOCKOUT BUZZER	1	PELLA
10		154677001	OUTLET - 12 VOLT	2	PELLA
11		285617001	HORN - ZAP ALERT 2 PIN DEUTSCH	1	PELLA
12		296286254	ROTARY SWITCH (ON) - OFF - (ON)	1	PELLA
13		257205001	SWITCH-SP 2 POSITION	8	PELLA
14		257541001	SWITCH-SPDT 3 POSITION MOM	3	PELLA
15		156720001	PLUG - ROCKER SWITCH	1	PELLA

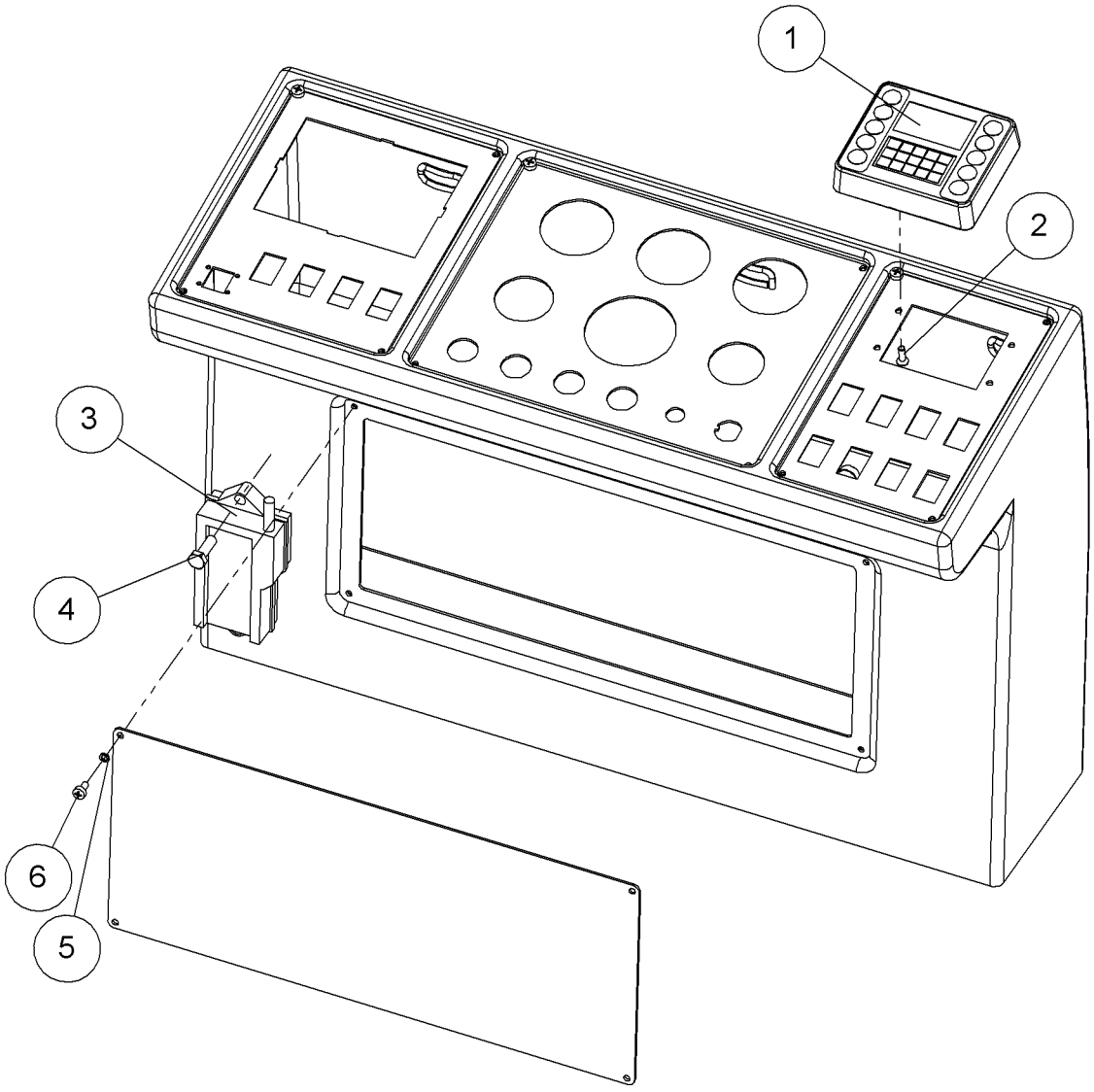
Electrical Panel (Upper) (S/N 114-) Fig 5-5x01



Electrical Panel (Upper) (S/N 114-) Fig 5-5x01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279988	SWITCH - ON# ON ON#	3	PELLA
2		257541001	SWITCH-SPDT 3 POSITION MOM	2	PELLA
3		257205001	SWITCH-SP 2 POSITION	6	PELLA

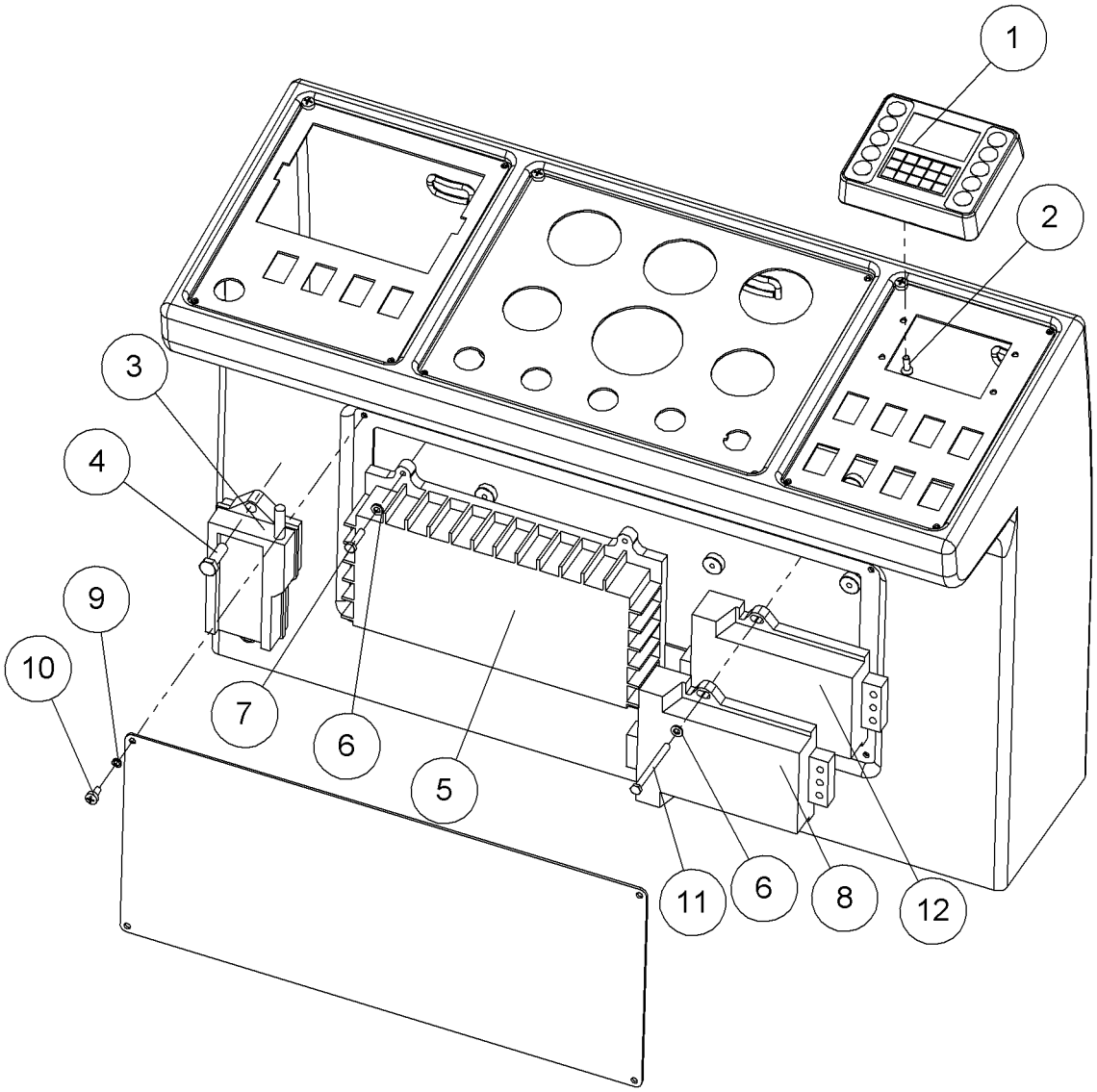
Display Assembly (S/N 111-) Fig 5-6r02



Display Assembly (S/N 111-) Fig 5-6r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296287254	ASM - DP10	1	PELLA
2		299015009	SCREW GB/T845 ST6.3X13	4	VBM
3		296272392	CHARGER, 12-VOLT NBB	4	PELLA
4		299010459	BOLT GB/T5783 M10X30	1	VBM
5		299012408	FLEX WASHER GB/T5783 8	4	VBM
6		299012620	SCREW GB/T818 M6X12 H	4	VBM
note			Remove the C148 Blank,asm		

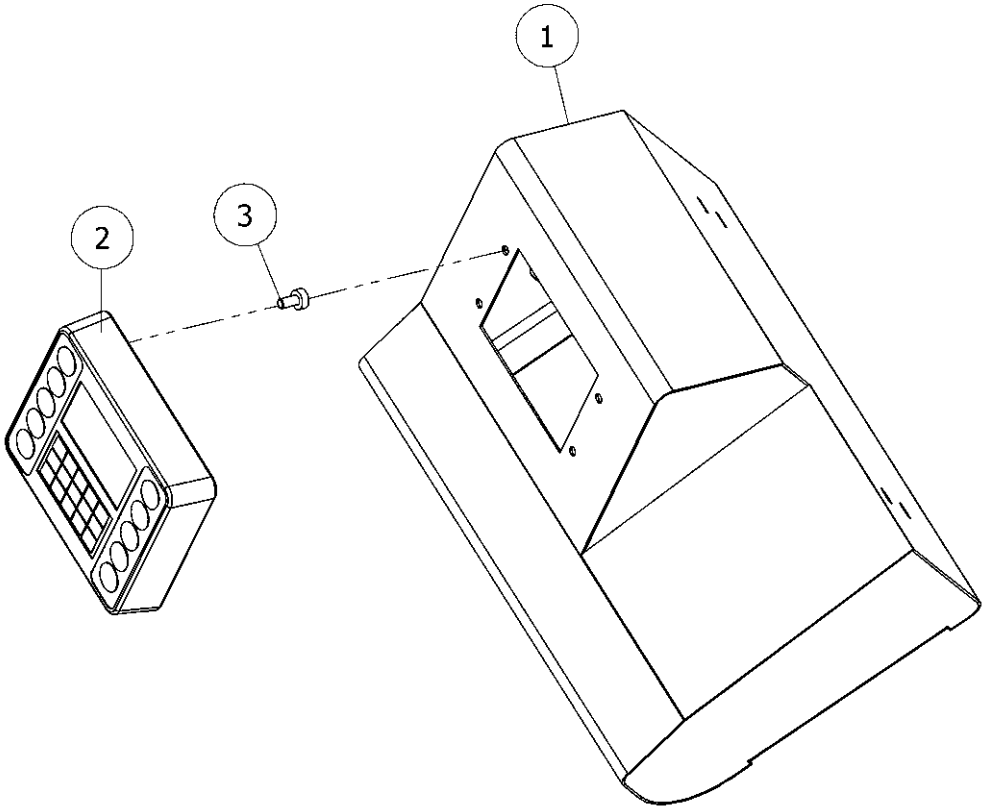
Display Assembly (S/N 107-110) Fig 5-6r01



Display Assembly (S/N 107-110) Fig 5-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296287254	ASM - DP10	1	PELLA
2		299015009	SCREW GB/T845 ST6.3X13	4	VBM
3		296272392	CHARGER, 12-VOLT NBB	4	PELLA
4		299010459	BOLT GB/T5783 M10X30	1	VBM
5		296270223	ASM, C148 BLANK	2	PELLA
6		299012380	WASHER GB/T97 6 200HV	6	VBM
7		299010435	BOLT M6X25-GR8.8	4	VBM
8		296270163	ASM, STRIKEALERT BLANK	1	PELLA
9		299012408	FLEX WASHER GB/T5783 8	4	VBM
10		299012620	SCREW GB/T818 M6X12 H	4	VBM
11		299015001	BOLT GB/T5782 M6X70-GR8.8	2	VBM
12		296304680	B324LK7, FREQ.BAND, TOP ASM	1	PELLA

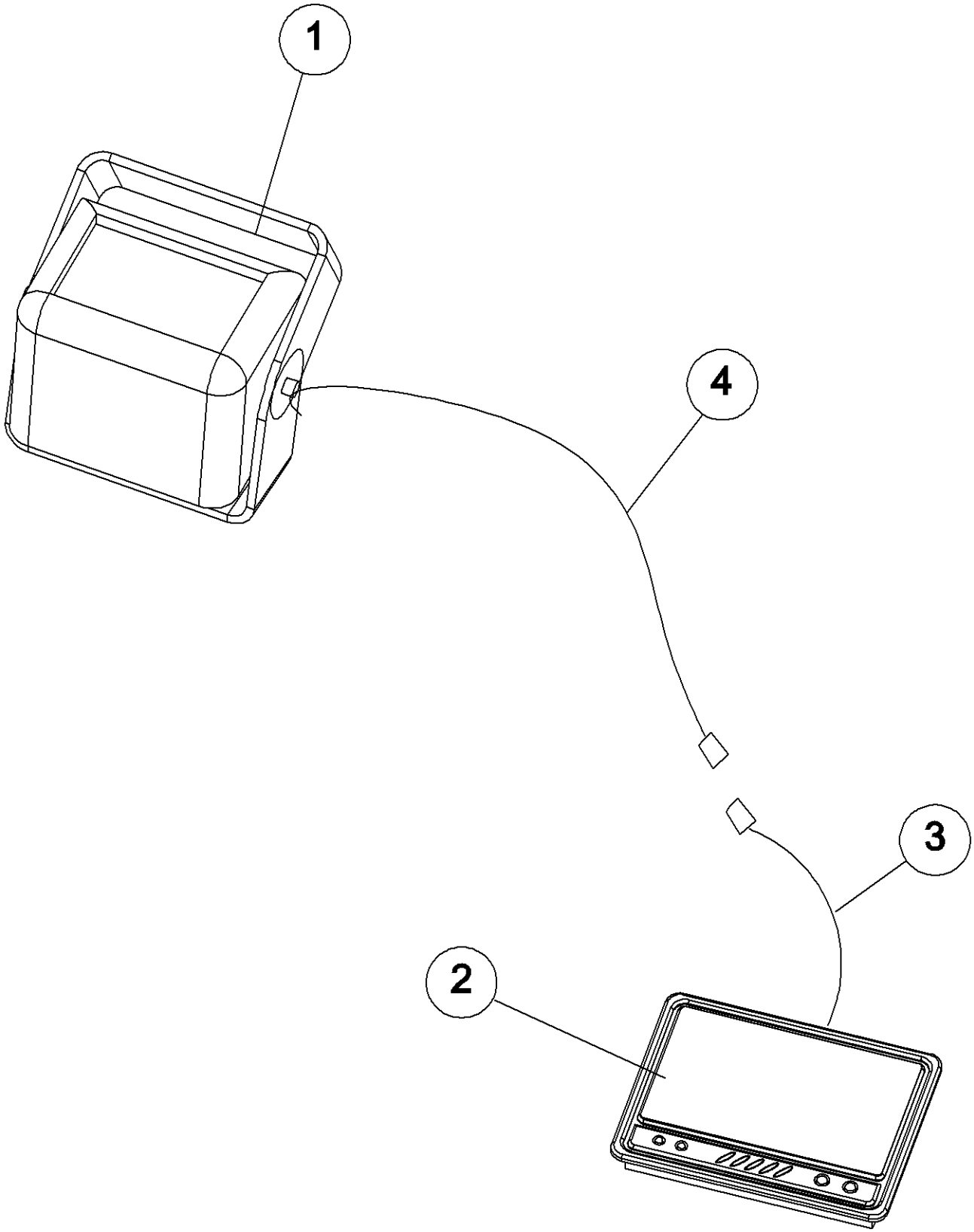
Display Assembly (S/N 101-106) Fig 5-6



Display Assembly (S/N 101-106) Fig 5-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006682	OPERATOR STATION-RIGHT	1	VBM
2		296287254	ASM - DP10	1	PELLA
3		299015009	SCREW GB/T845 ST6.3X13	4	VBM

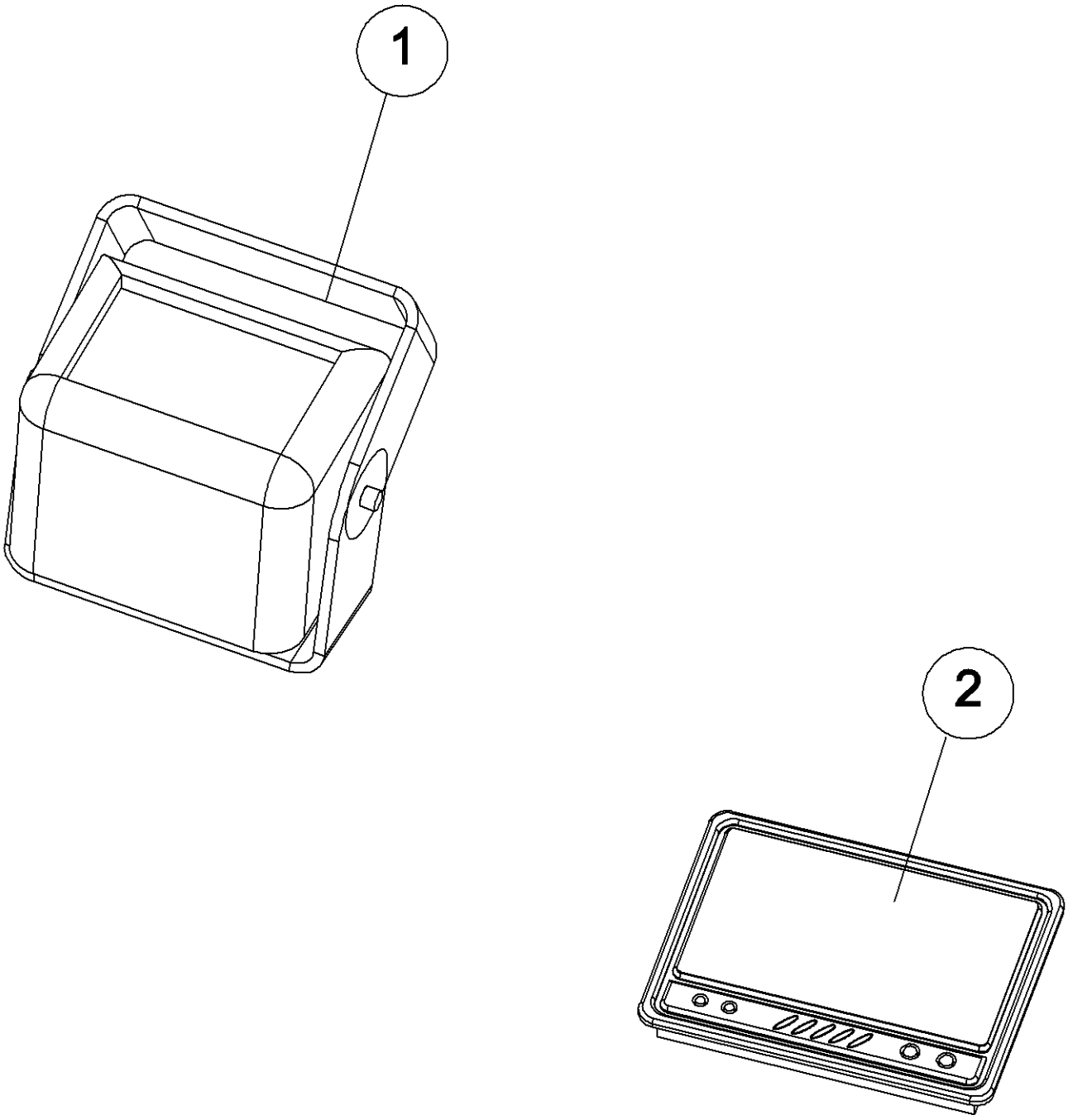
Infrared Camera (S/N 111-) Fig 5-6x01r01



Infrared Camera (S/N 111-) Fig 5-6x01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026700	INFRARED CAMERA AE-CM111	1	VBM
2		299026701	5.6” LCD DISPLAY	1	VBM
3		299026702	VIDEO CABLE	1	VBM
4		299026703	VIDEO EXTENTION CABLE	1	VBM

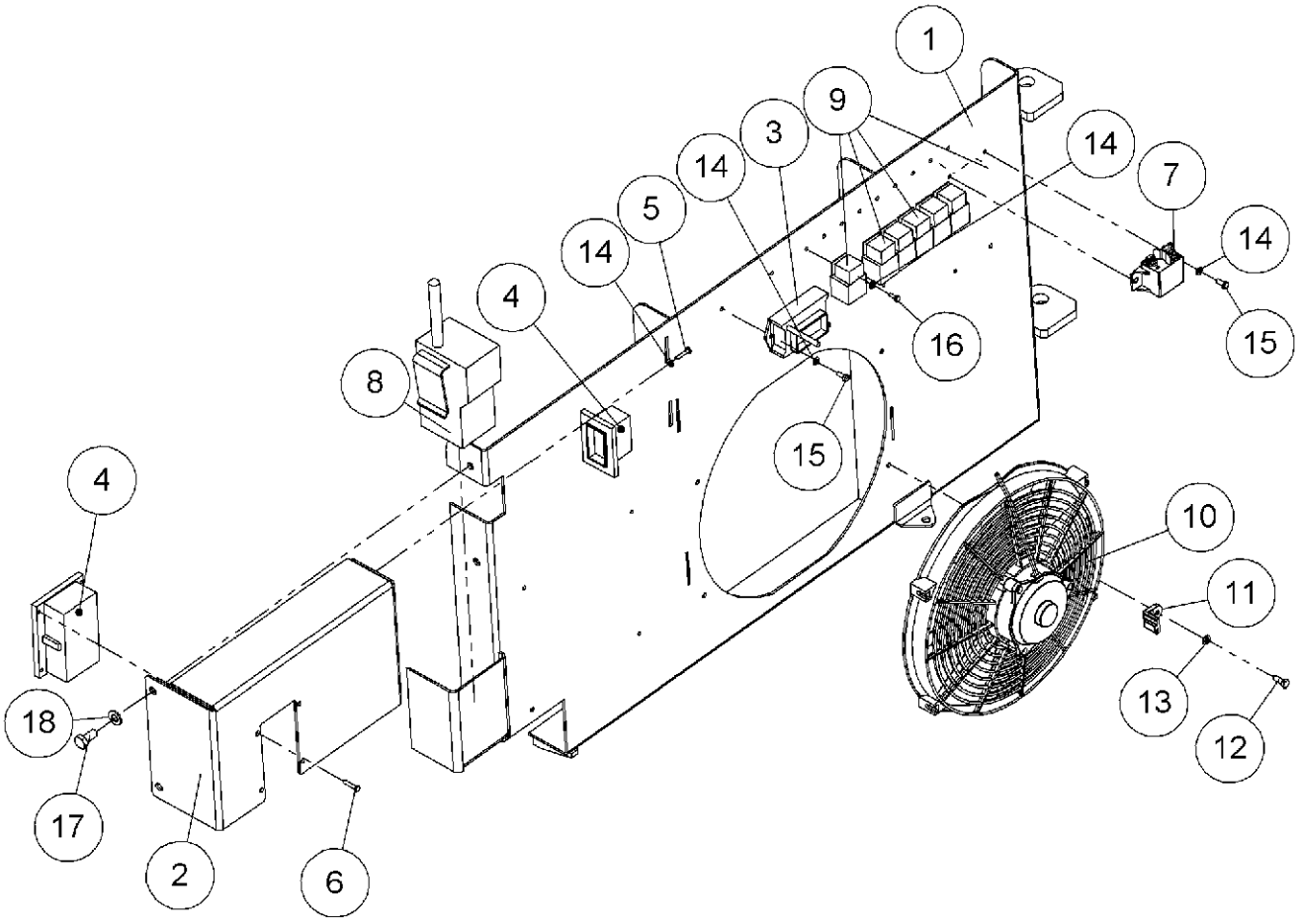
Infrared Camera (S/N 101-110) Fig 5-6x01



Infrared Camera (S/N 101-110) Fig 5-6x01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006682	CAMERA	1	VBM
2		299022957	DISPLAY	1	VBM

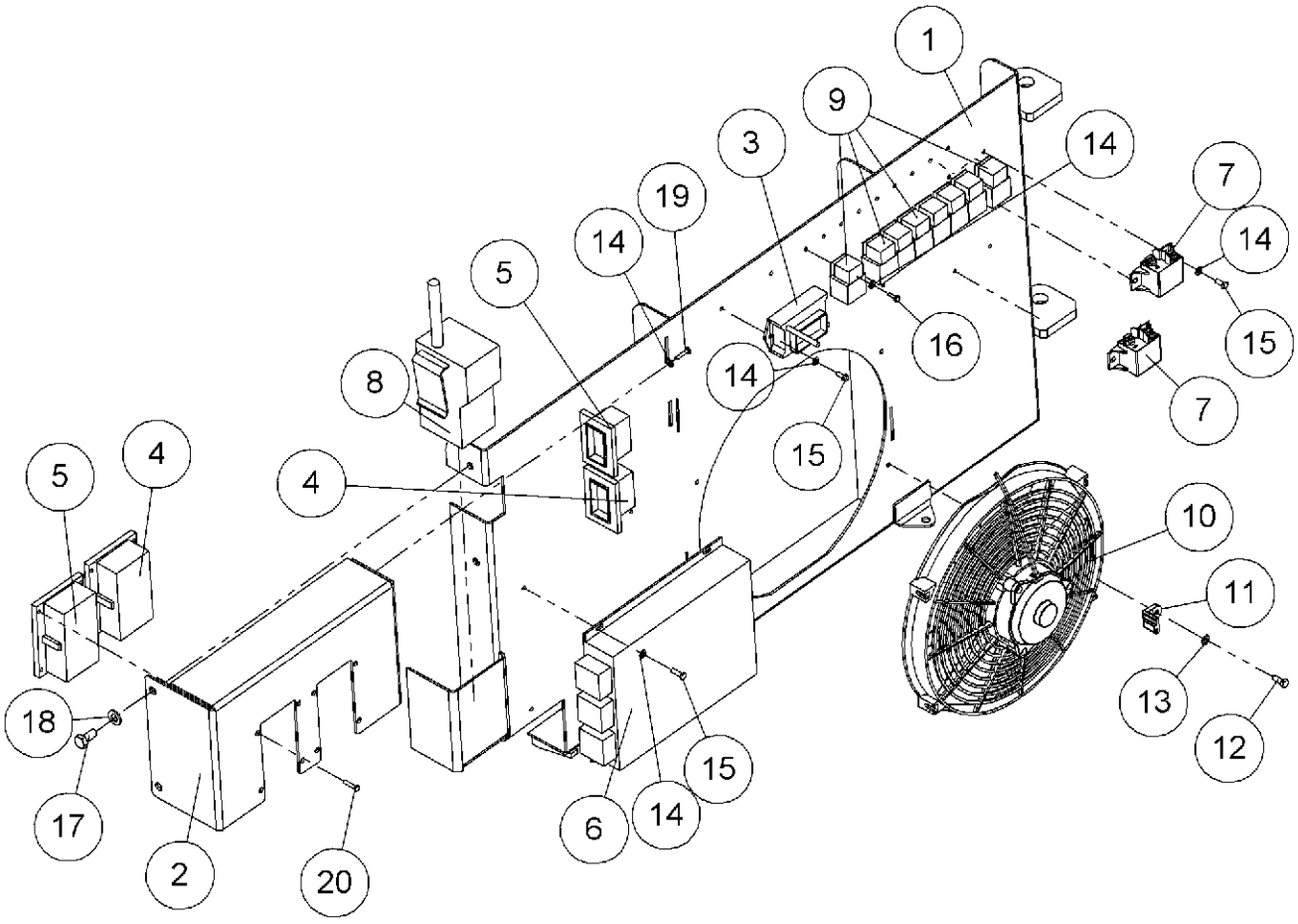
Engine Electrical Panel (S/N 111-) Fig 5-7r01



Engine Electrical Panel (S/N 111-) Fig 5-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006859	DOOR	1	VBM
2		299025091	MOUNTING PLATE - FUSE MODULE	1	VBM
3		281526001	BUSS BAR MODULE	1	PELLA
4		296276015	HARNESS - FUSE BLOCK	1	PELLA
5		299012700	SCREW GB/T819 M4X20	2	VBM
6		1802004	BOLT-3/16”NF X 1/2” STOVE REF T16183	4	PELLA
7		86217001	RELAY-BOSCH SPST 75 AMP SEALED	1	PELLA
8		296272513	R324LK, REMOTE LOCKOUT INT	1	PELLA
9		296286772	CONTROL RELAY - 12V,40.30 AMP, SPDT	6	PELLA
10		241895001	FAN-12” SEALED ELECTRIC	1	PELLA
11		207852001	MOUNT KIT-FAN FLUSH(SET OF 4)	4	PELLA
12		299010434	BOLT GB/T5783 M6X20-GR8.8	4	VBM
13		299012380	WASHER GB/T97 6 200HV	4	VBM
14		299012379	WASHER GB/T97 5 200HV	16	VBM
15		299012609	SCREW GB/T818 M5X16 H	4	VBM
16		299012698	SCREW GB/T819 M4X12	8	VBM
17		299010457	BOLT GB/T5783 M10X20-GR8.8	2	VBM
18		299012382	WASHER GB/T97 10 200HV	2	VBM

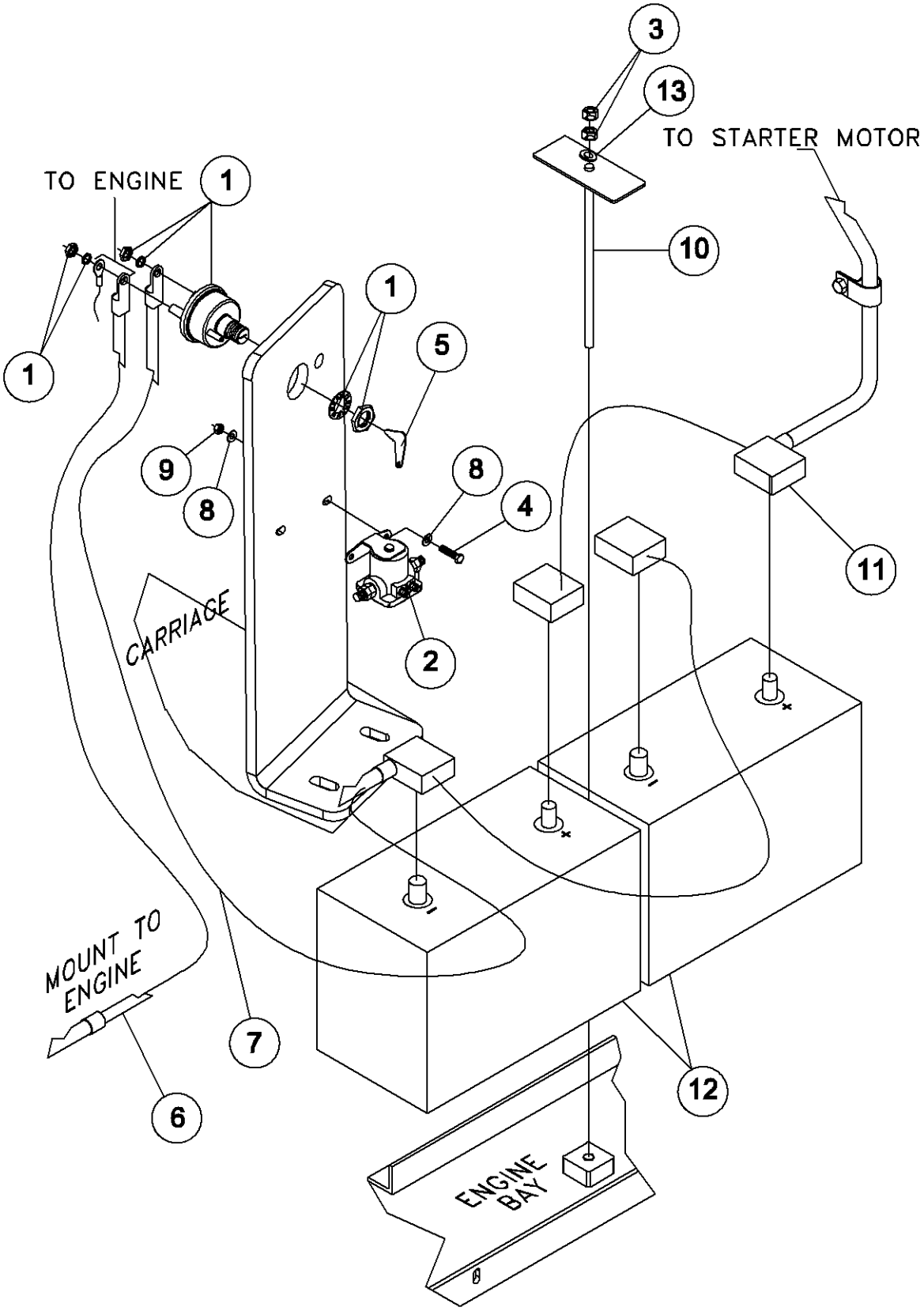
Engine Electrical Panel (S/N 101-110) Fig 5-7



Engine Electrical Panel (S/N 101-110) Fig 5-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006859	DOOR	1	VBM
2		299006961	MOUNTING PLATE - FUSE MODULE	1	VBM
3		281526001	BUSS BAR MODULE	1	PELLA
4		296276024	HARNESS - FUSE BLOCK 2	2	PELLA
5		296276015	HARNESS - FUSE BLOCK	2	PELLA
6		299005350	POWER SUPPLY CONVERTOR (FROM +24V TO +12V)	1	VBM
7		86217001	RELAY-BOSCH SPST 75 AMP SEALED	2	PELLA
8		296272513	R324LK, REMOTE LOCKOUT INT	1	PELLA
9		296286772	CONTROL RELAY - 12V,40.30 AMP, SPDT	8	PELLA
10		241895001	FAN-12” SEALED ELECTRIC	1	PELLA
11		207852001	MOUNT KIT-FAN FLUSH(SET OF 4)	4	PELLA
12		299010434	BOLT GB/T5783 M6X20-GR8.8	4	VBM
13		299012380	WASHER GB/T97 6 200HV	4	VBM
14		299012379	WASHER GB/T97 5 200HV	22	VBM
15		299012609	SCREW GB/T818 M5X16 H	10	VBM
16		299012698	SCREW GB/T819 M4X12	8	VBM
17		299010457	BOLT GB/T5783 M10X20-GR8.8	2	VBM
18		299012382	WASHER GB/T97 10 200HV	2	VBM
19		299012700	SCREW GB/T819 M4X20	4	VBM
20		1802004	BOLT-3/16”NF X 1/2” STOVE REF T16183	8	PELLA

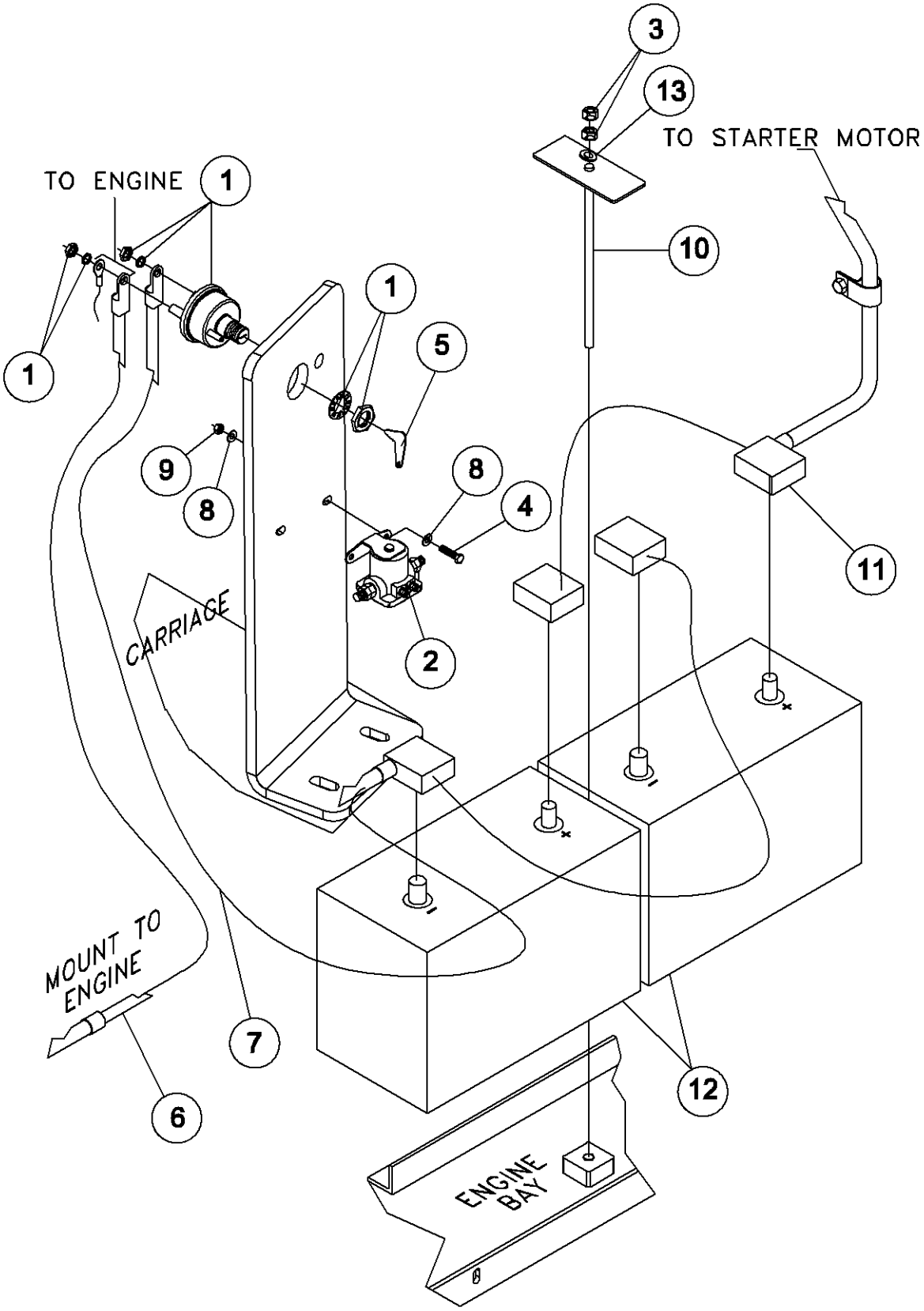
Battery (S/N 114-) Fig 5-8r02



Battery (S/N 114-) Fig 5-8r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904365001	DISCONNECT SWITCH	1	PELLA
2		81947001	RELAY - STARTER D20F-11450-AA	1	PELLA
3		299012334	NUT GB/T6170 M12-GR8	2	VBM
4		299010432	BOLT GB/T5783 M6X16-GR8.8	2	VBM
5		87356003	KEY	1	PELLA
6		299026325	DISCONNECT SWITCH TO ENGINE HARNESS	1	VBM
7		299026328	BATTERY 12V NEGITIVE HARNESS	1	VBM
8		299012380	WASHER GB/T97 6 200HV	4	VBM
9		299012331	NUT GB/T6170 M6-GR8	2	VBM
10		299025753	BOLT 45	1	VBM
11		299026327	BATTERY 12V POSITIVE HARNESS	1	VBM
12			BATTERY 12VCCA850A	2	Not Sold Separately
13		299012383	WASHER GB/T97 10 200HV	1	VBM

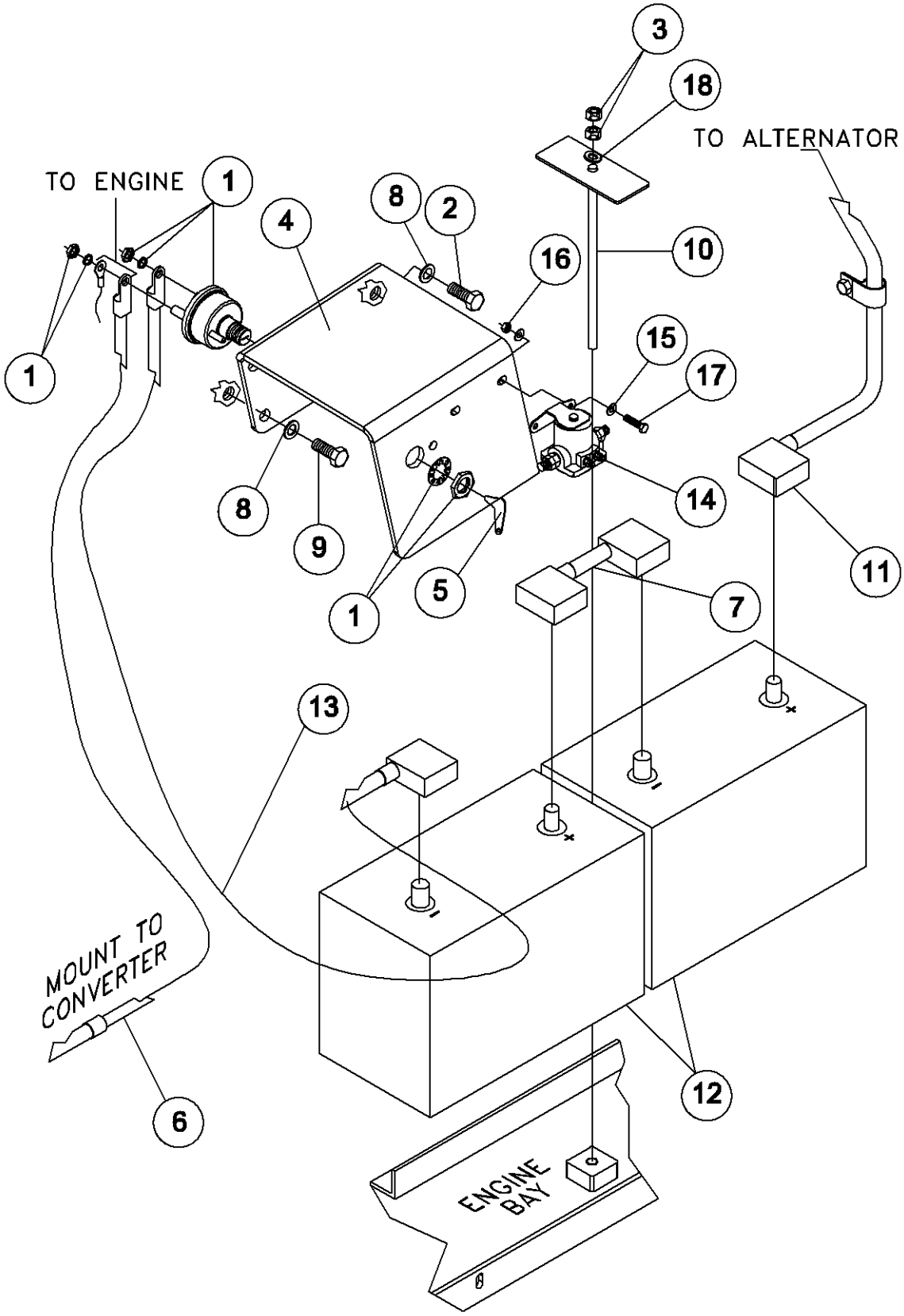
Battery (S/N 111-113) Fig 5-8r01



Battery (S/N 111-113) Fig 5-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904365001	DISCONNECT SWITCH	1	PELLA
2		81947001	RELAY - STARTER D20F-11450-AA	1	PELLA
3		299012334	NUT GB/T6170 M12-GR8	2	VBM
4		299010432	BOLT GB/T5783 M6X16-GR8.8	2	VBM
5		87356003	KEY	1	PELLA
6		299026311	DISCONNECT SWITCH TO ENGINE HARNESS	1	VBM
7		299026328	BATTERY 12V NEGITIVE HARNESS	1	VBM
8		299012380	WASHER GB/T97 6 200HV	4	VBM
9		299012331	NUT GB/T6170 M6-GR8	2	VBM
10		299025753	BOLT 45	1	VBM
11		299026327	BATTERY 12V POSITIVE HARNESS	1	VBM
12			BATTERY 12VCCA850A	2	Not Sold Separately
13		299012383	WASHER GB/T97 10 200HV	1	VBM

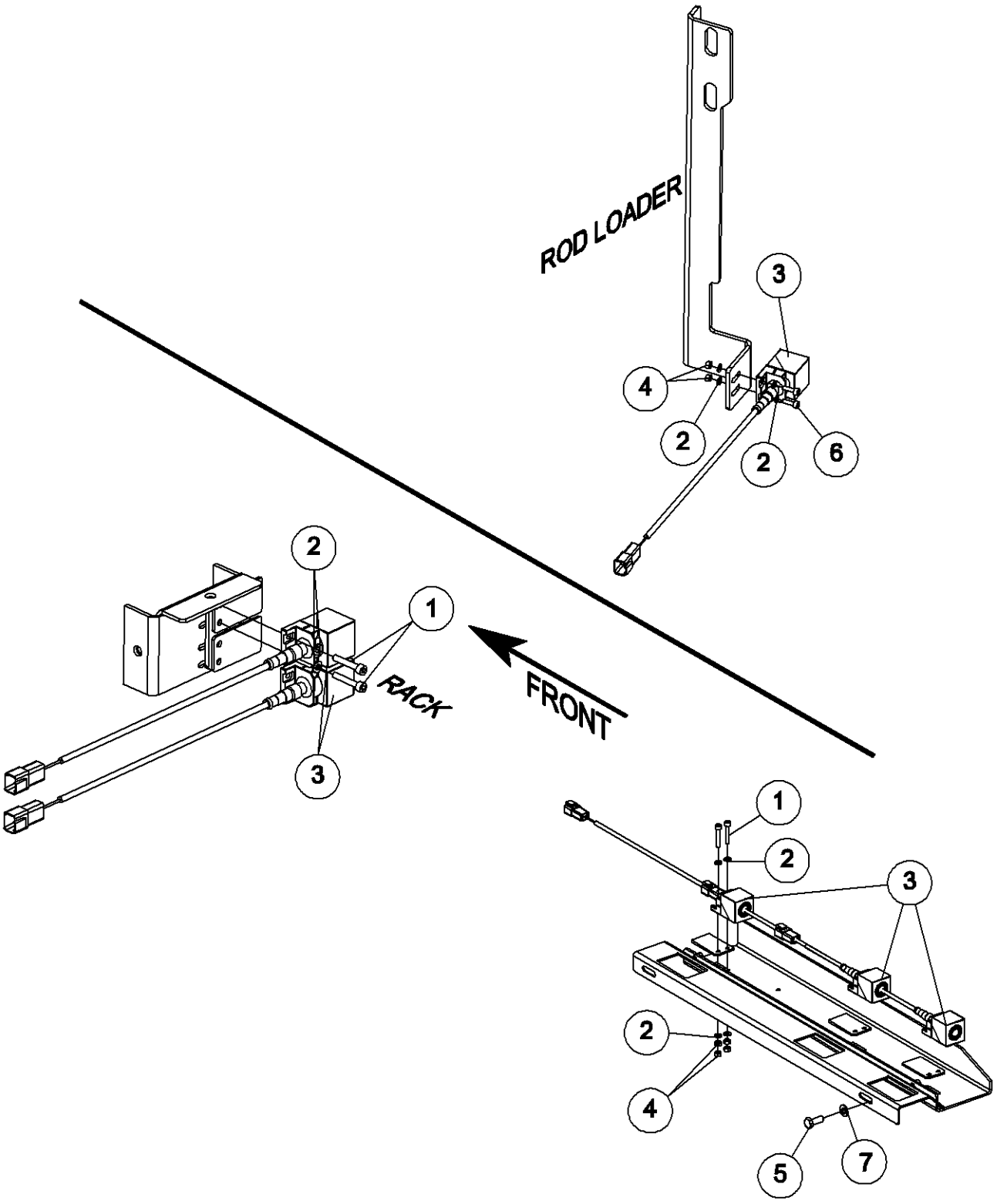
Battery (S/N 101-110) Fig 5-8



Battery (S/N 101-110) Fig 5-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904365001	DISCONNECT SWITCH	1	PELLA
2		299010458	BOLT GB/T5783 M10X25-8.8	1	VBM
3		299012334	NUT GB/T6170 M12-GR8	1	VBM
4		299008731	BRACKET - 130 ELECTRIC WIRES MAIN SWITCH Q235-A	1	VBM
5		87356003	KEY	1	PELLA
6		299005311	DISCONNECT SWITCH TO CHASSIS	1	VBM
7		299005312	CONNECTING HARNESS	1	VBM
8		299012382	WASHER GB/T97 10 200HV	2	VBM
9		299010460	BOLT GB/T5783 M10X35-GR8.8	2	VBM
10		299005712	BOLT 45	1	VBM
11		299005309	BATTERY 24V POSITIVE HARNESS	1	VBM
12			VARTA BATTERY 31-750TMF	2	Not Sold Separately
13		299005310	BATTERY NEGATIVE TO DISCONNECT HARNESS	1	VBM
14		81947001	RELAY - STARTER D20F-11450-AA	1	PELLA
15		299012380	WASHER GB/T97 6 200HV	4	VBM
16		299012331	NUT GB/T6170 M6-GR8	2	VBM
17		299010432	BOLT GB/T5783 M6X16-GR8.8	2	VBM
18		299012383	WASHER GB/T97 10 200HV	1	VBM

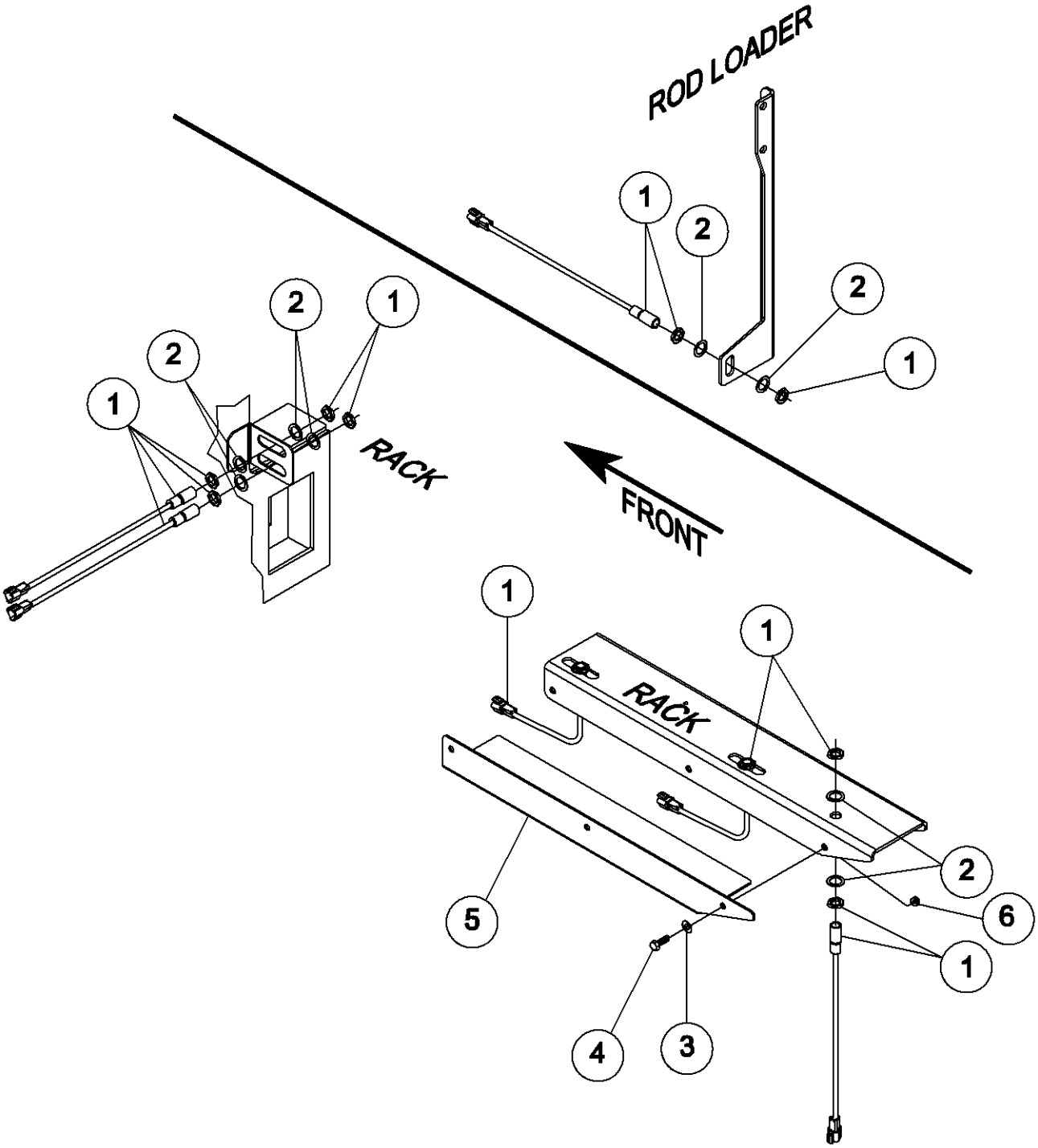
Rack Switch Proximity (S/N 111-) Fig 5-9r01



Rack Switch Proximity (S/N 111-) Fig 5-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299011702	SCREWGB/T70M5X35-GR8.8	10	VBM
2		299012379	WASHER GB/T97 5 200HV	20	VBM
3		296301537	SENSOR - PROXIMITY, INDUCTIVE - 20MM (CUBE)	6	PELLA
4		299012330	NUT GB/T6170 M5-GR8	8	VBM
5		299010458	BOLT GB/T5783 M10X25-GR8.8	2	VBM
6		299011699	SCREWGB/T70M5X20-GR8.8	2	VBM
7		299012382	WASHER GB/T97 10 200HV	2	VBM

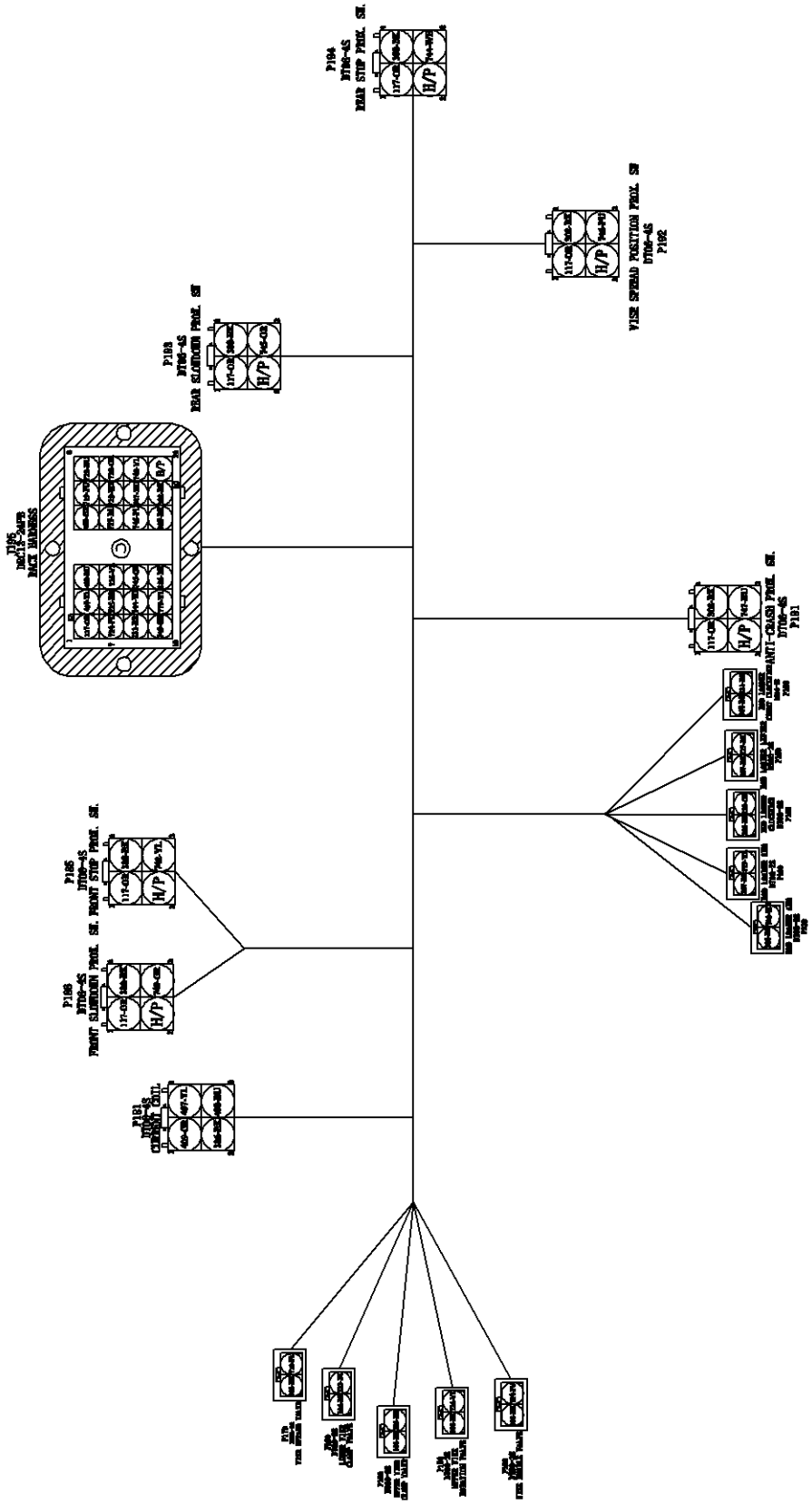
Rack Switch Proximity (S/N 101-110) Fig 5-9



Rack Switch Proximity (S/N 101-110) Fig 5-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272091	SWITCH - PROXIMITY 18MM NO	6	PELLA
2		483051	WASHER-1.125ODX.765IDX18GA.	12	PELLA
3		299012382	WASHER GB/T97 10 200HV	3	VBM
4		299010457	BOLT GB/T5783 M10X20-GR8.8	3	VBM
5		299005885	PLATE - L	1	VBM
6		299012333	NUT M10 (GB/T6170-85)	3	VBM

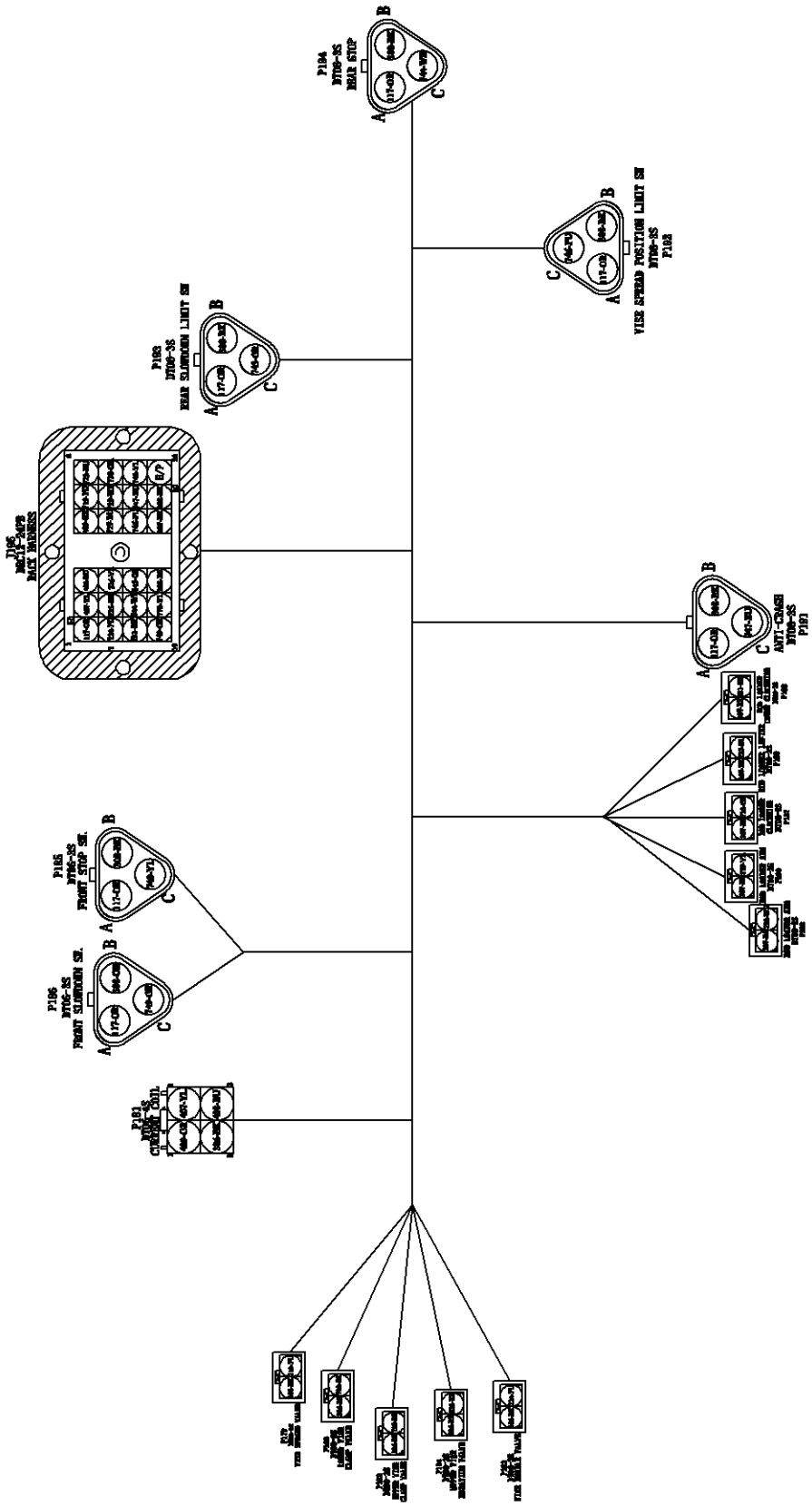
Rack Harness (S/N 114-) Fig 5-10r03



Rack Harness (S/N 114-) Fig 5-10r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026322	RACK HARNESS	1	VBM

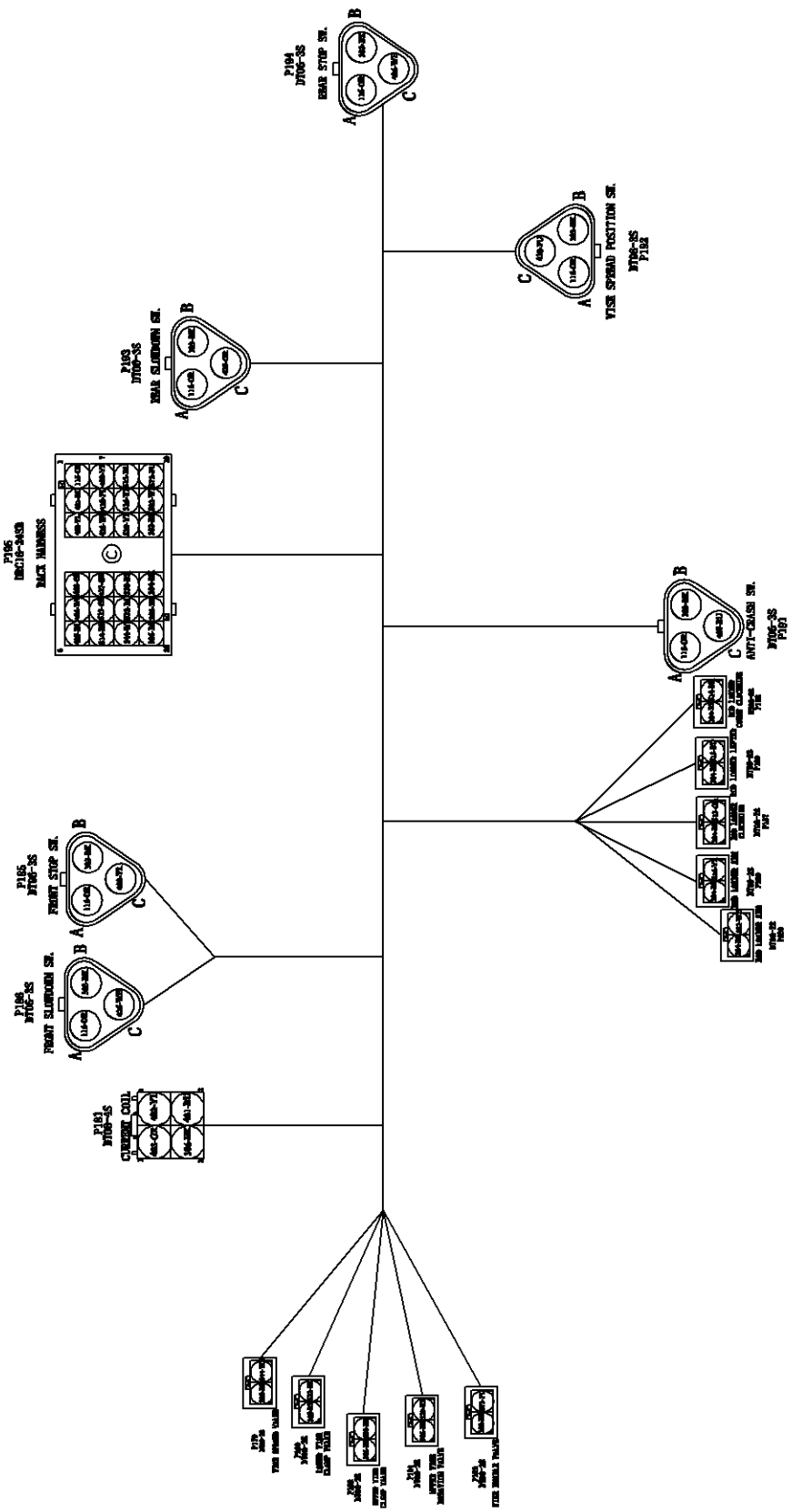
Rack Harness (S/N 111-113) Fig 5-10r02



Rack Harness (S/N 111-113) Fig 5-10r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026303	RACK HARNESS	1	VBM

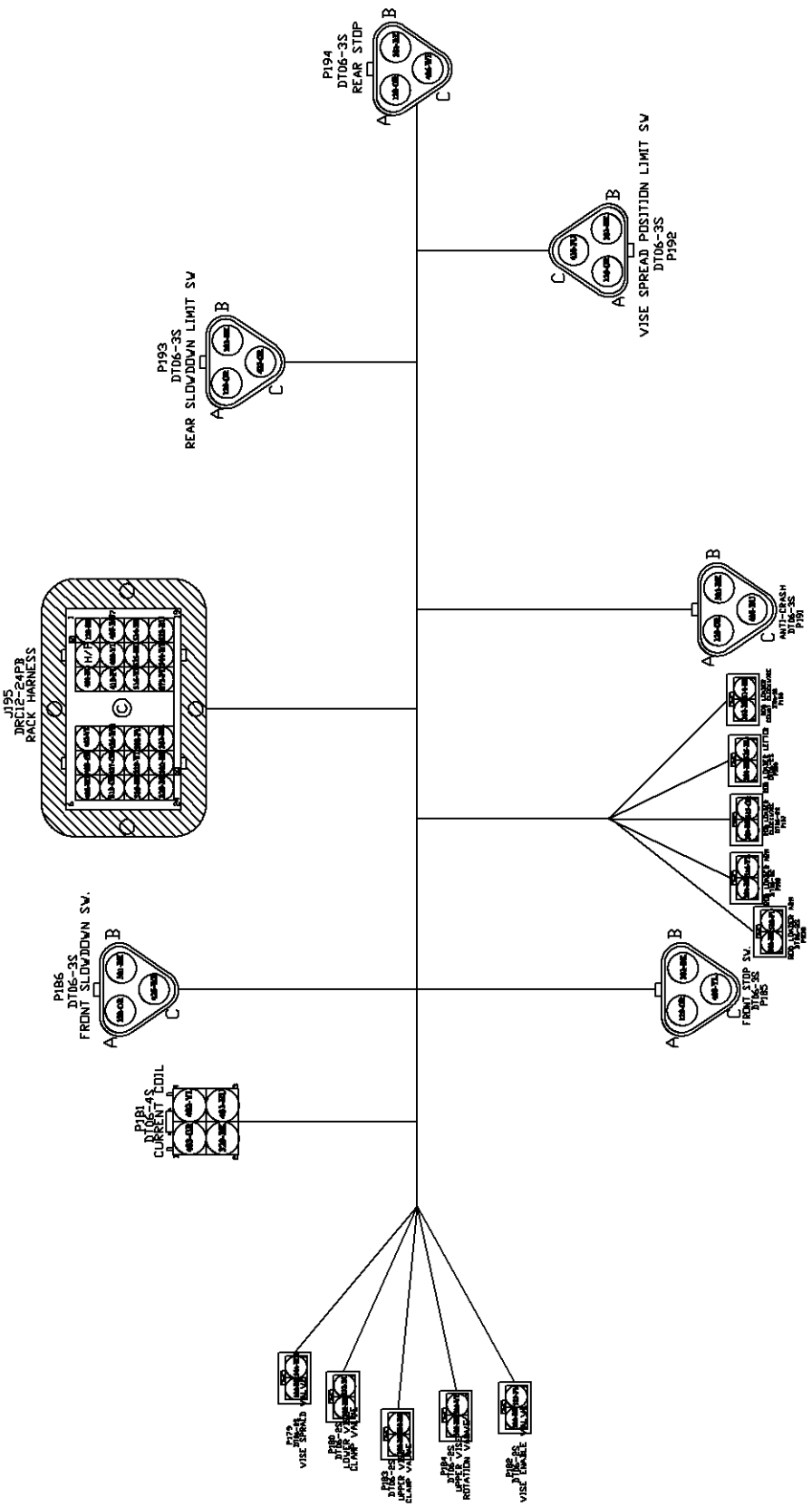
Rack Harness (S/N 107-110) Fig 5-10r01



Rack Harness (S/N 107-110) Fig 5-10r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005335	RACK HARNESS	1	VBM

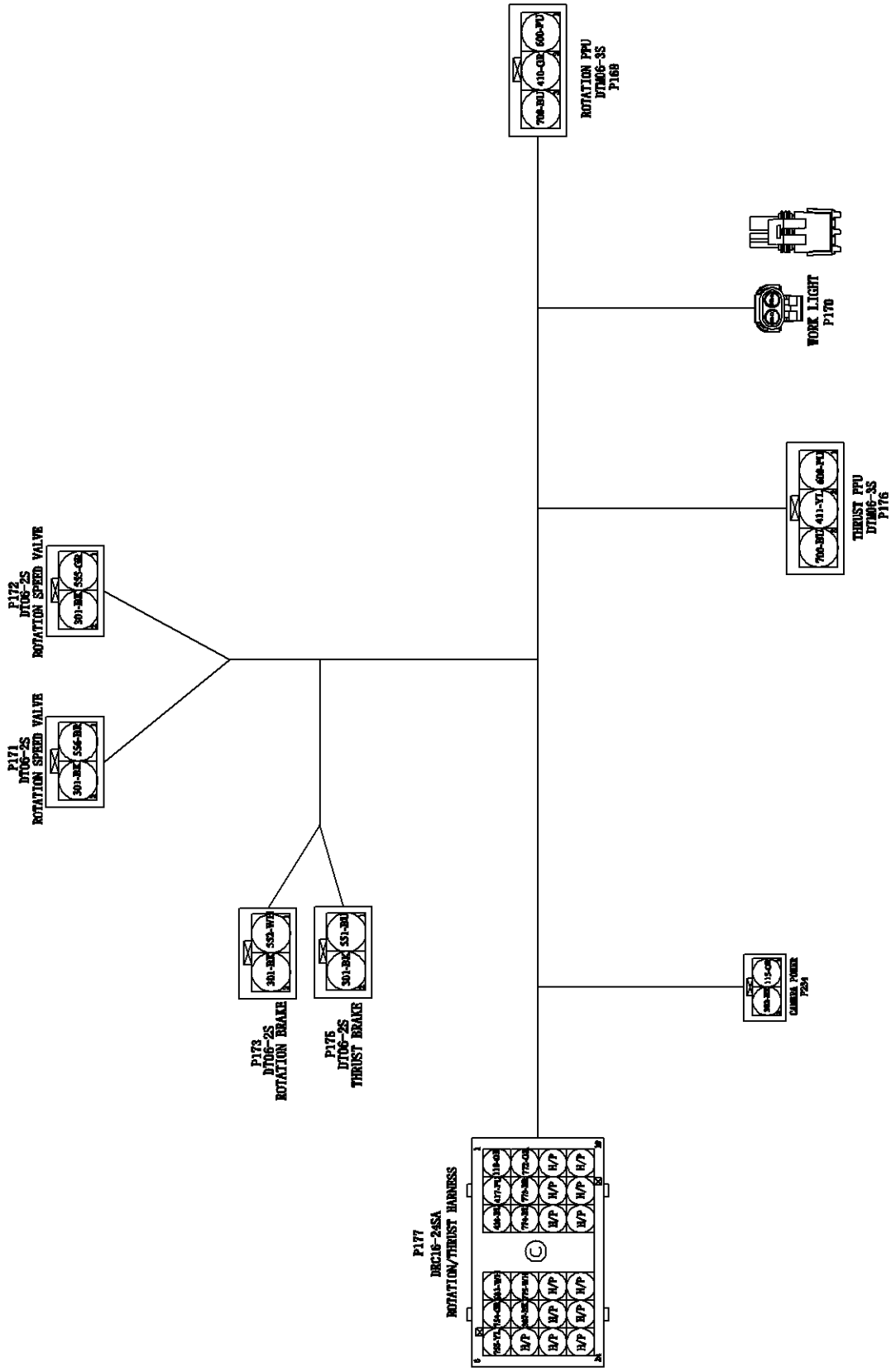
Rack Harness (S/N 101-106) Fig 5-10



Rack Harness (S/N 101-106) Fig 5-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005301	RACK HARNESS	1	VBM

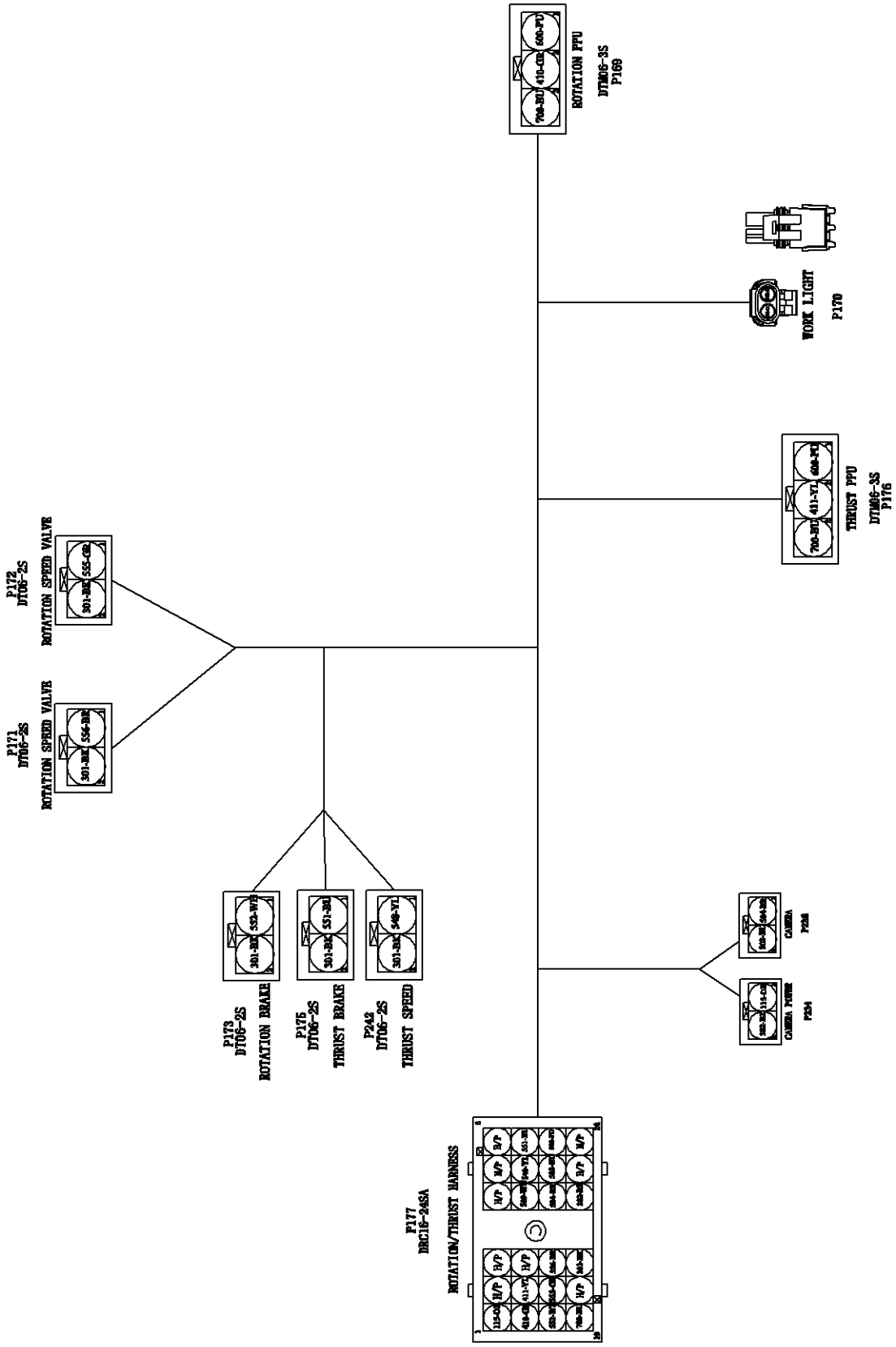
Rotation/Thrust Harness (S/N 111-) Fig 5-11r02



Rotation/Thrust Harness (S/N 111-) Fig 5-11r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026304	ROTATION/THRUST HARNESS	1	VBM

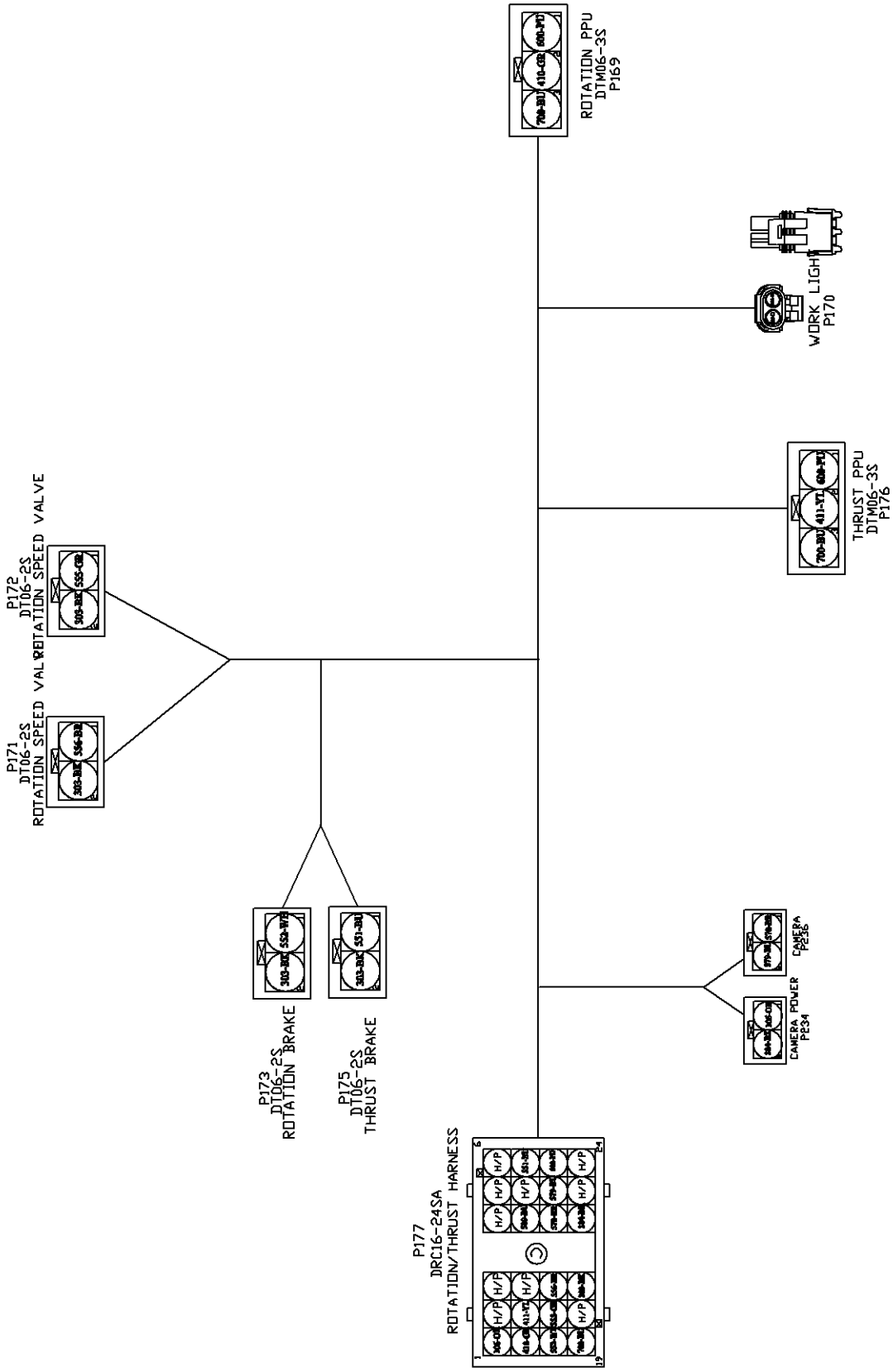
Rotation/Thrust Harness (S/N 107-110) Fig 5-11r01



Rotation/Thrust Harness (S/N 107-110) Fig 5-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005329	ROTATION/THRUST HARNESS	1	VBM

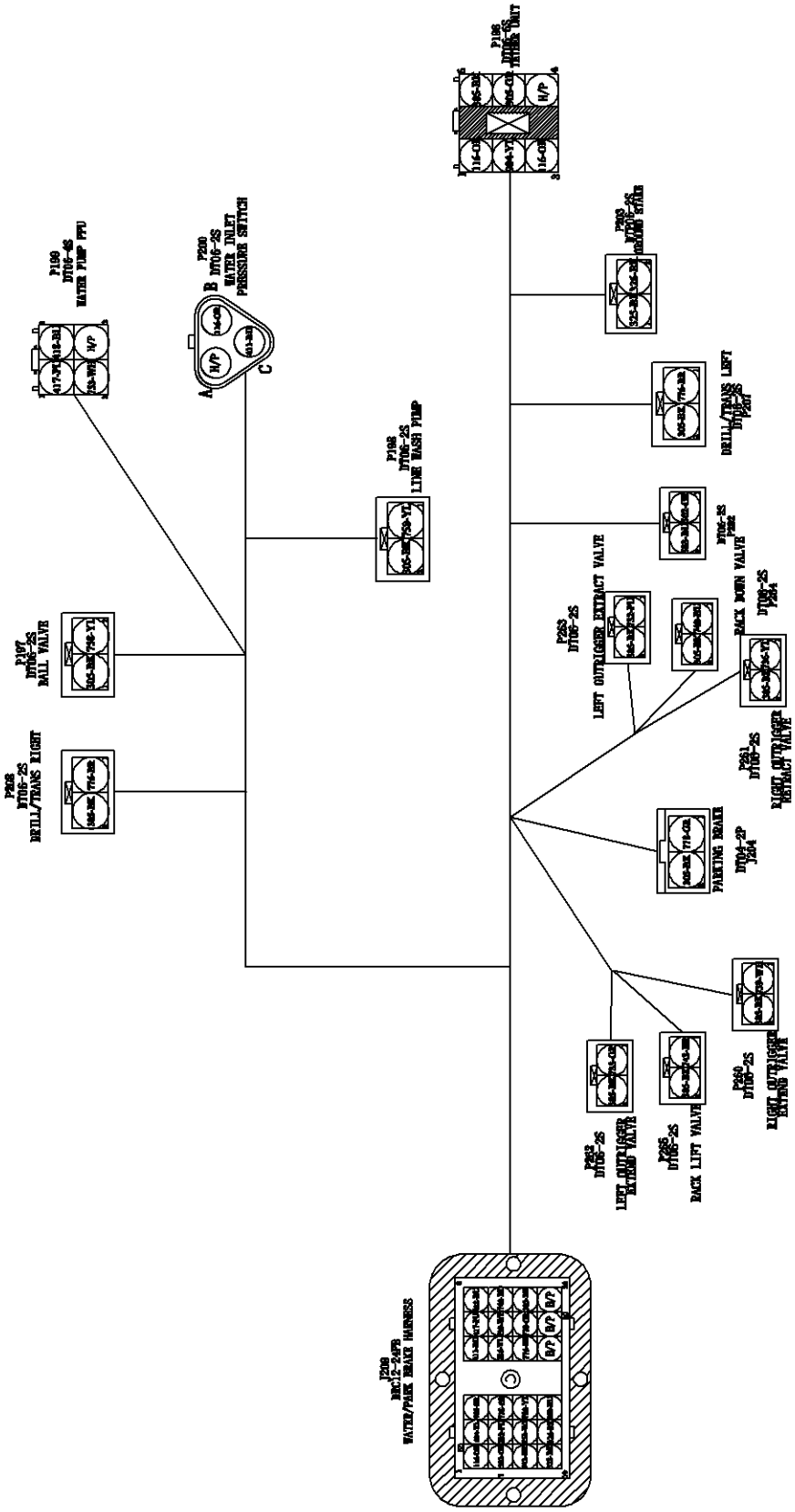
Rotation/Thrust Harness (S/N 101-106) Fig 5-11



Rotation/Thrust Harness (S/N 101-106) Fig 5-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005302	ROTATION/THRUST HARNESS	1	VBM

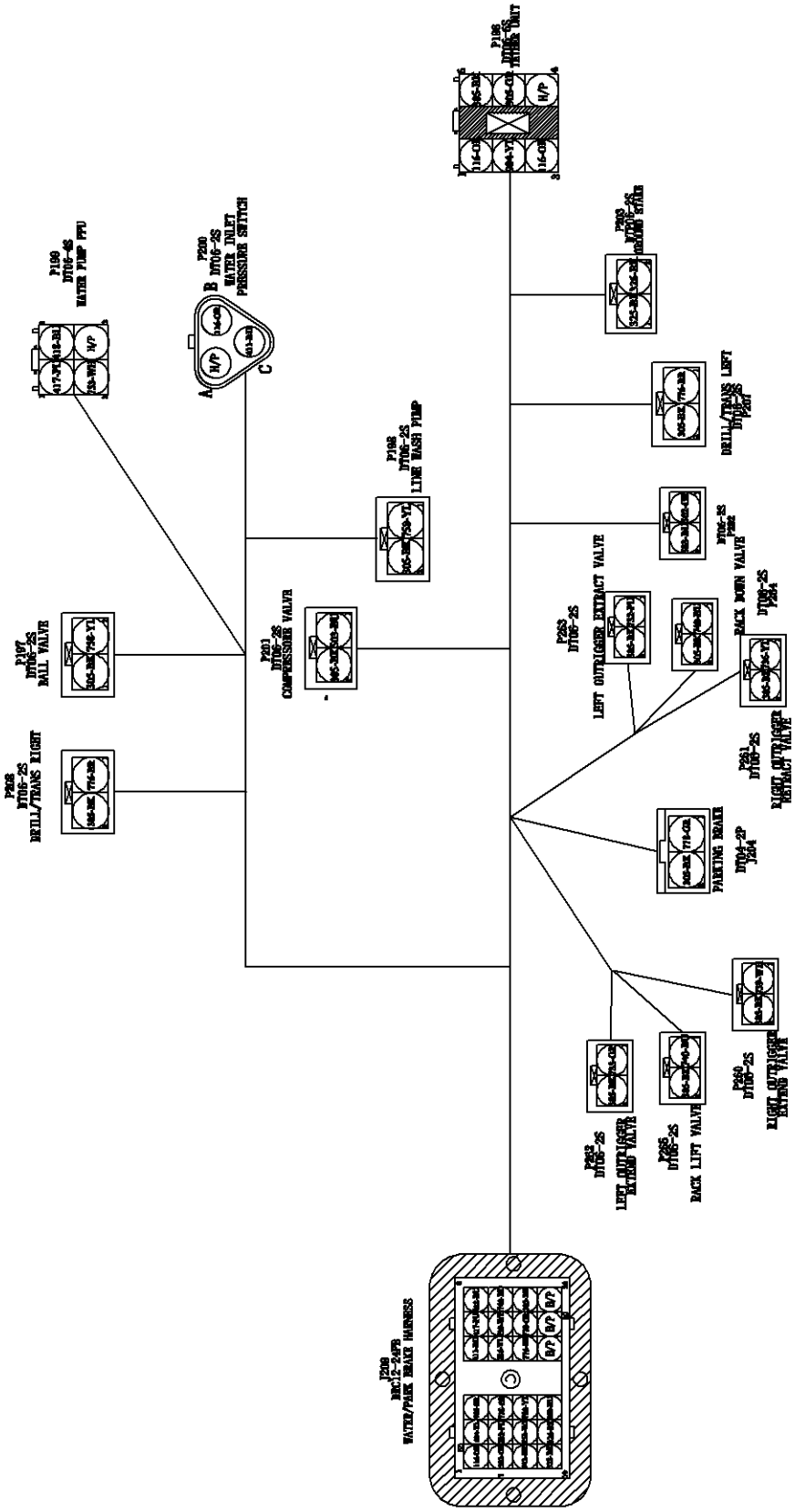
Water/Park Brake Harness (S/N 114-) Fig 5-12r03



Water/Park Brake Harness (S/N 114-) Fig 5-12r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026323	WATER/PARK BRAKE HARNESS	1	VBM

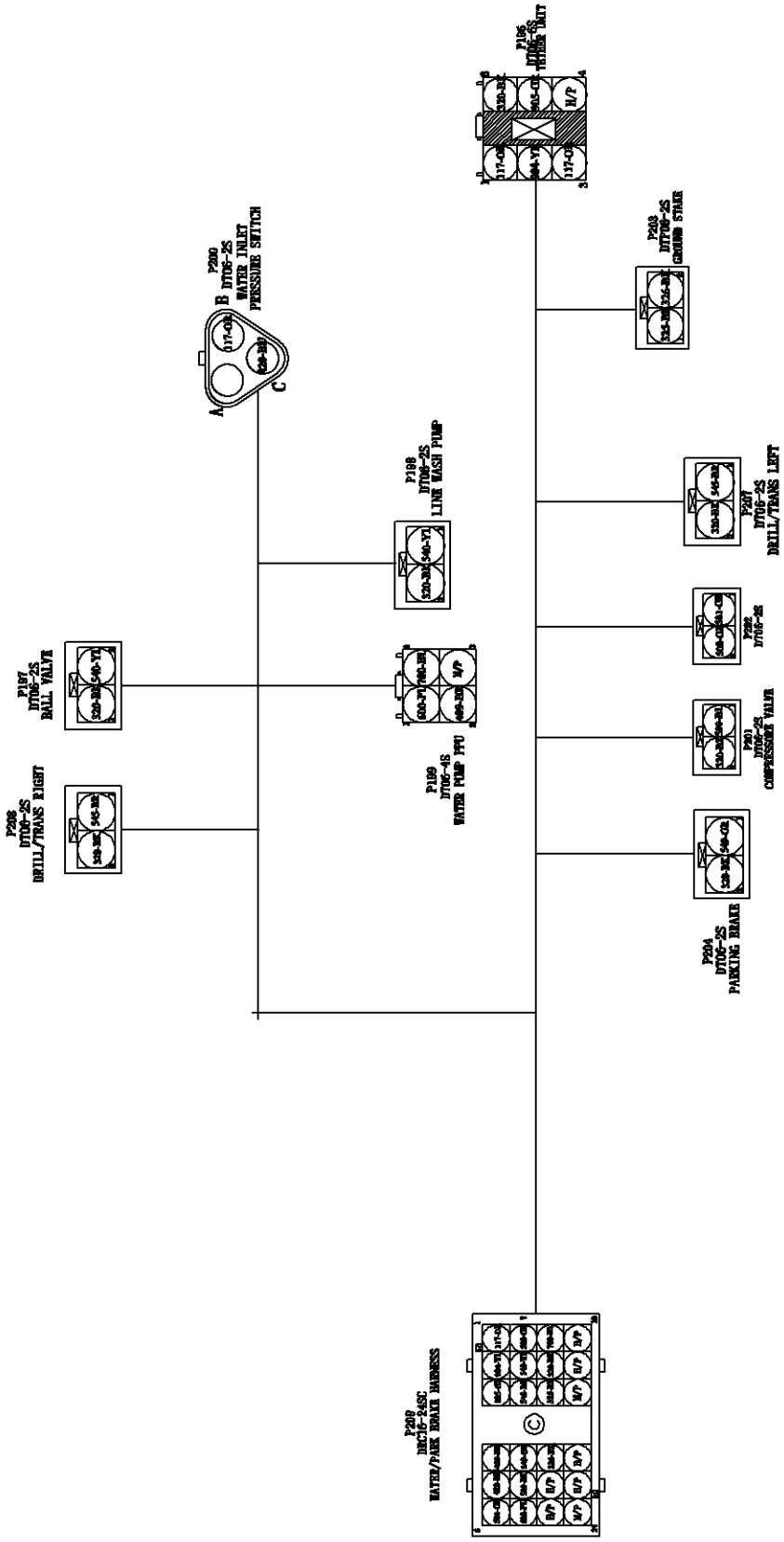
Water/Park Brake Harness (S/N 111-113) Fig 5-12r02



Water/Park Brake Harness (S/N 111-113) Fig 5-12r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026306	WATER/PARK BRAKE HARNESS	1	VBM

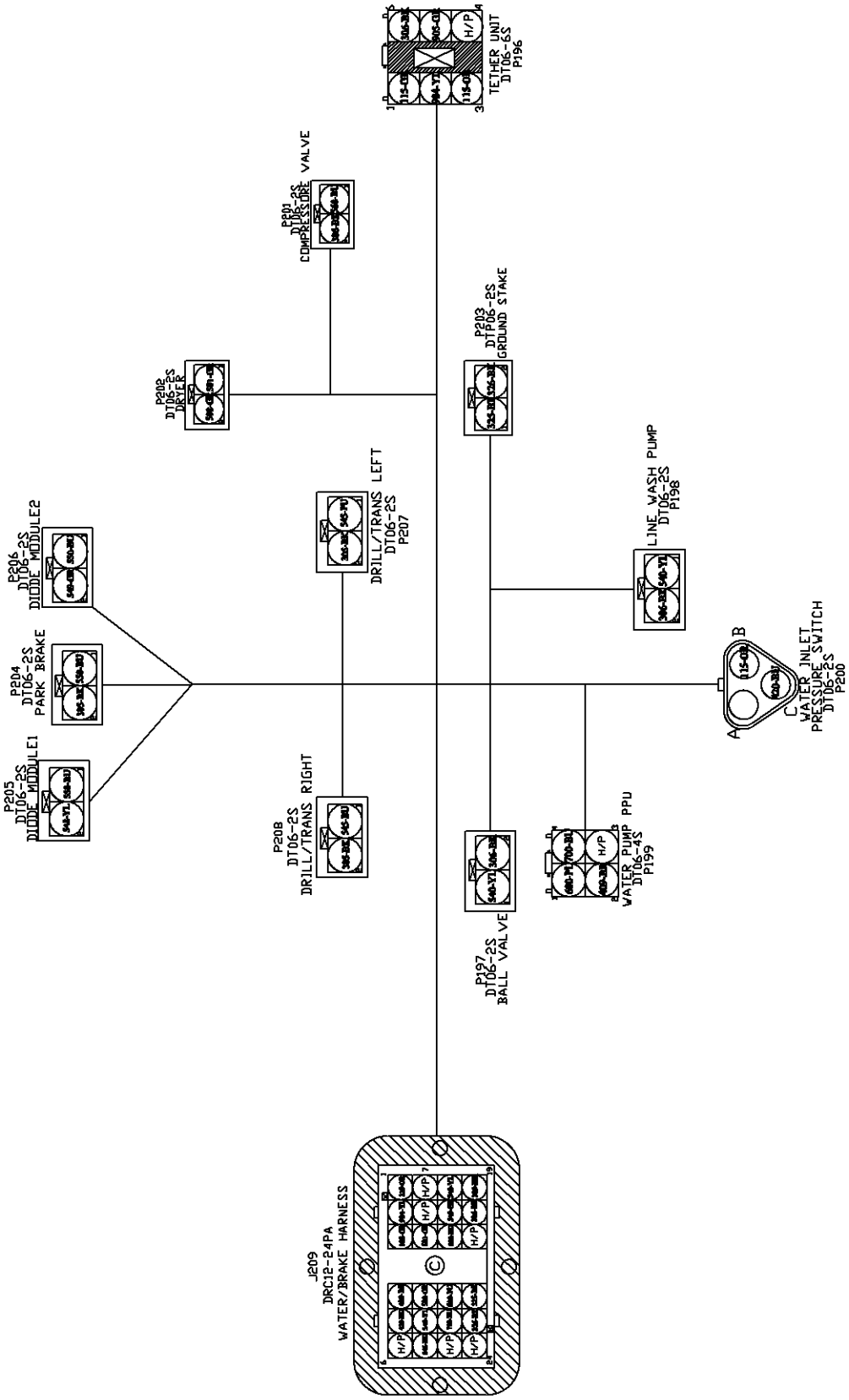
Water/Park Brake Harness (S/N 107-110) Fig 5-12r01



Water/Park Brake Harness (S/N 107-110) Fig 5-12r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005336	WATER/PARK BRAKE HARNESS	1	VBM

Water/Brake Harness (S/N 101-106) Fig 5-12



Water/Brake Harness (S/N 101-106) Fig 5-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005303	WATER/BRAKE HARNESS	1	VBM

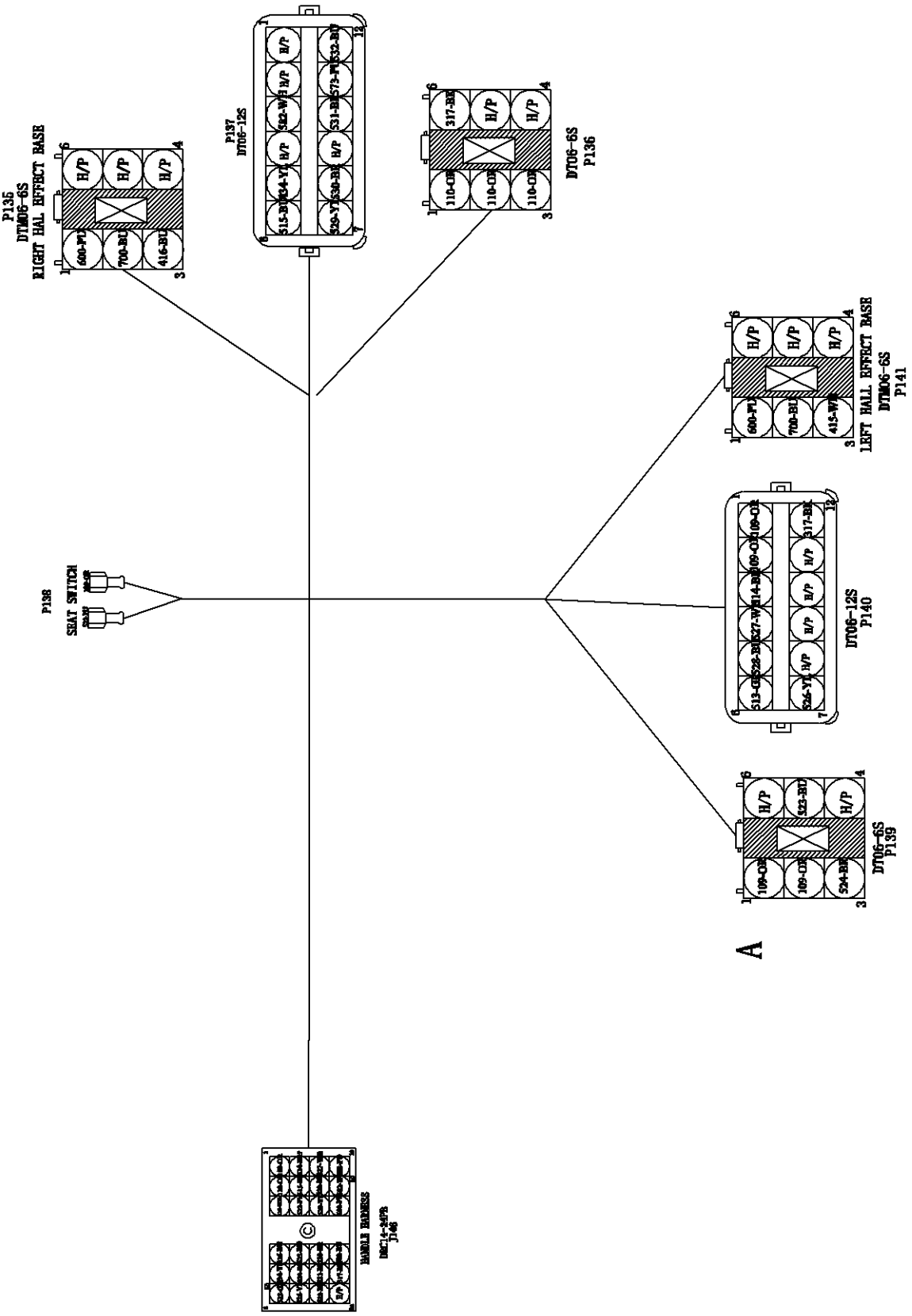
Left/Right Handle Harness (S/N 111-) (Deleted) Fig 5-13r02

DELETED DUE TO UPDATE

Left/Right Handle Harness (S/N 111-) (Deleted) Fig 5-13r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

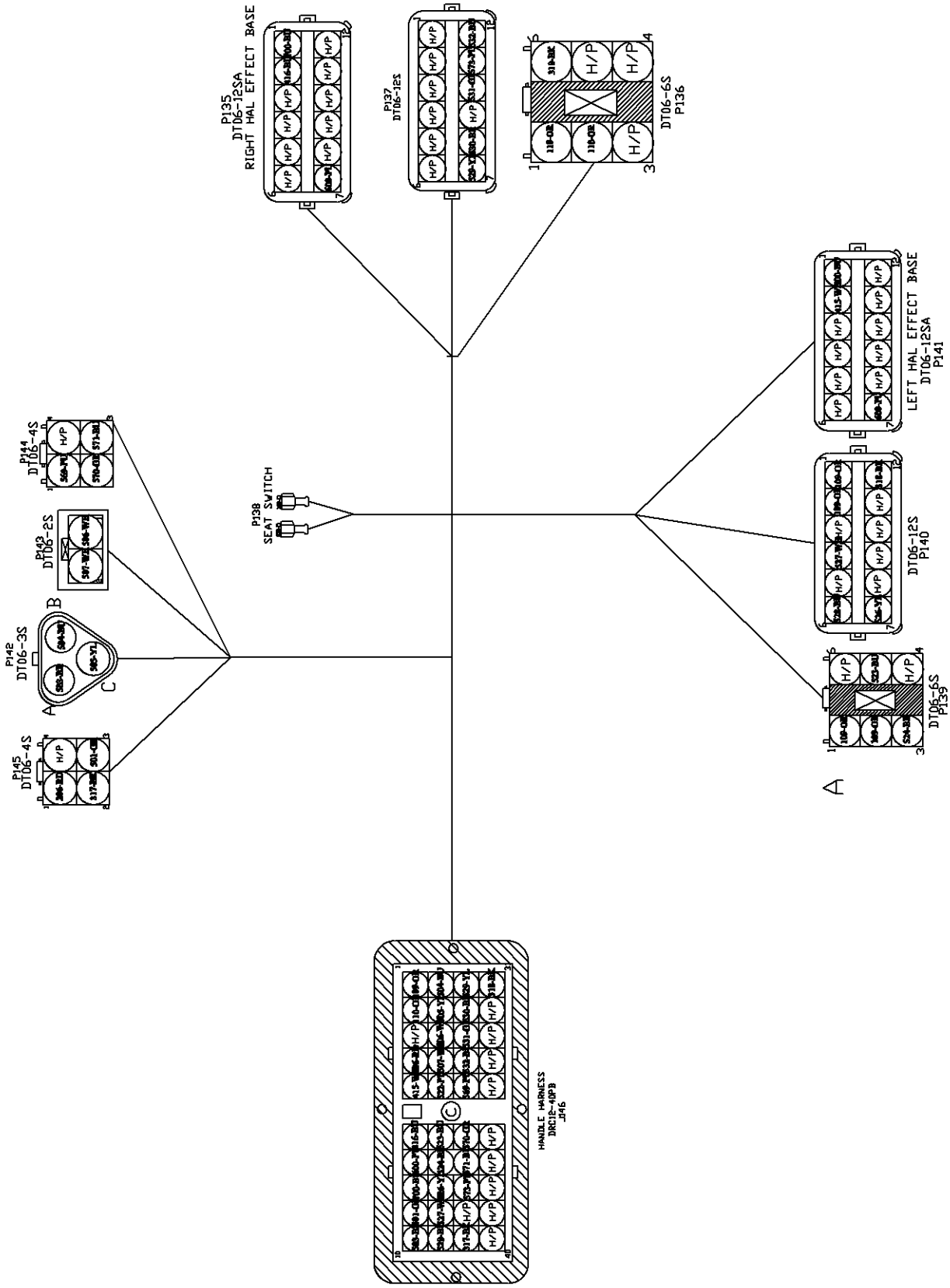
Left/Right Handle Harness (S/N 107-110) Fig 5-13r01



Left/Right Handle Harness (S/N 107-110) Fig 5-13r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005323	LEFT/RIGHT HANDLE HARNESS	1	VBM

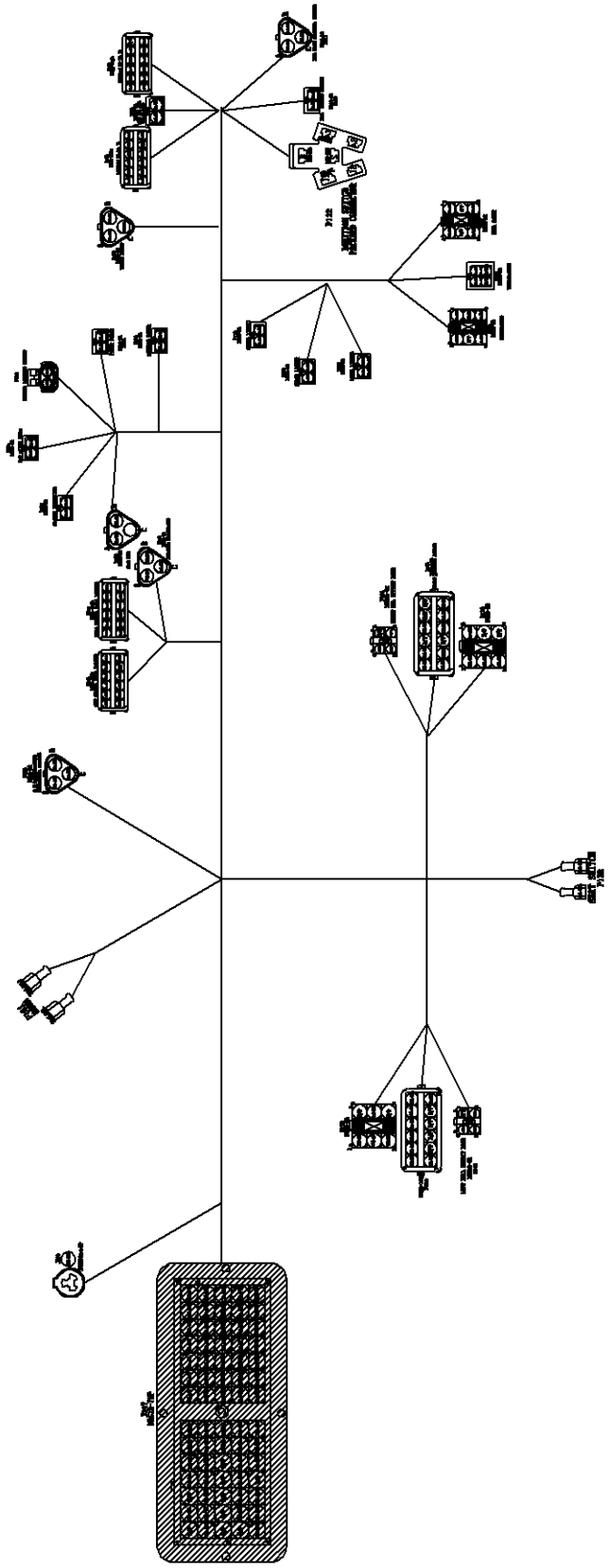
Left/Right Handle Harness (S/N 101-106) Fig 5-13



Left/Right Handle Harness (S/N 101-106) Fig 5-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005304	LEFT/RIGHT HANDLE HARNESS	1	VBM

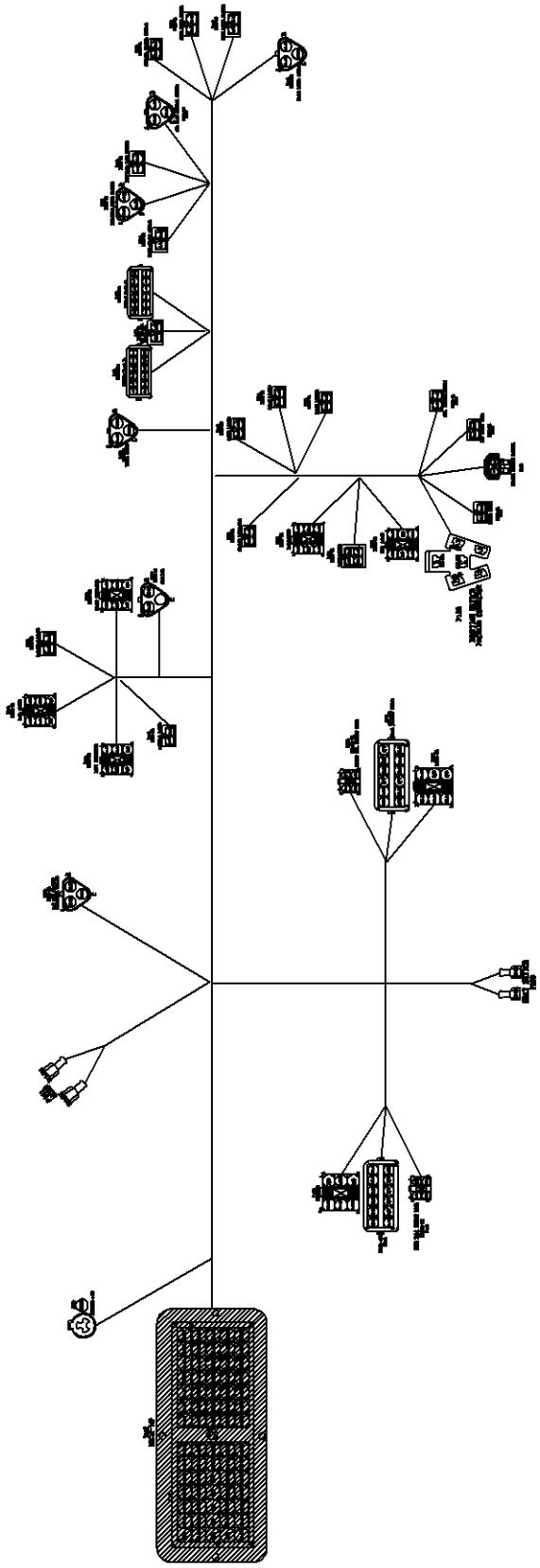
Console Harness (S/N 114-) Fig 5-14r03



Console Harness (S/N 114-) Fig 5-14r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026318	CONSOLE HARNESS	1	VBM

Console Harness (S/N 111-113) Fig 5-14r02



Console Harness (S/N 111-113) Fig 5-14r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026302	CONSOLE HARNESS	1	VBM

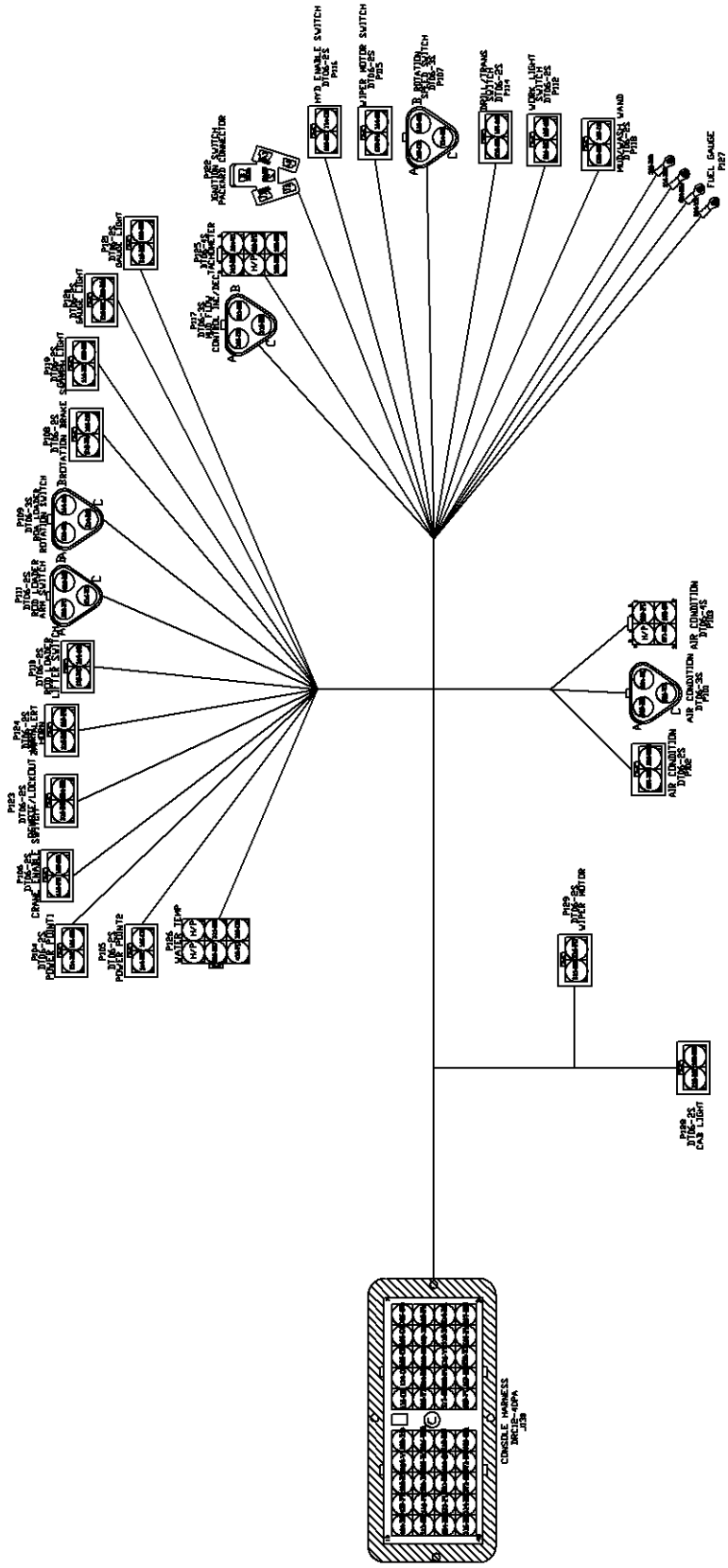
Console Harness (S/N 107-110) (Deleted) Fig 5-14r01

DELETED DUE TO UPDATE

Console Harness (S/N 107-110) (Deleted) Fig 5-14r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

Console Harness (S/N 101-106) Fig 5-14



Console Harness (S/N 101-106) Fig 5-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005305	CONSOLE HARNESS	1	VBM

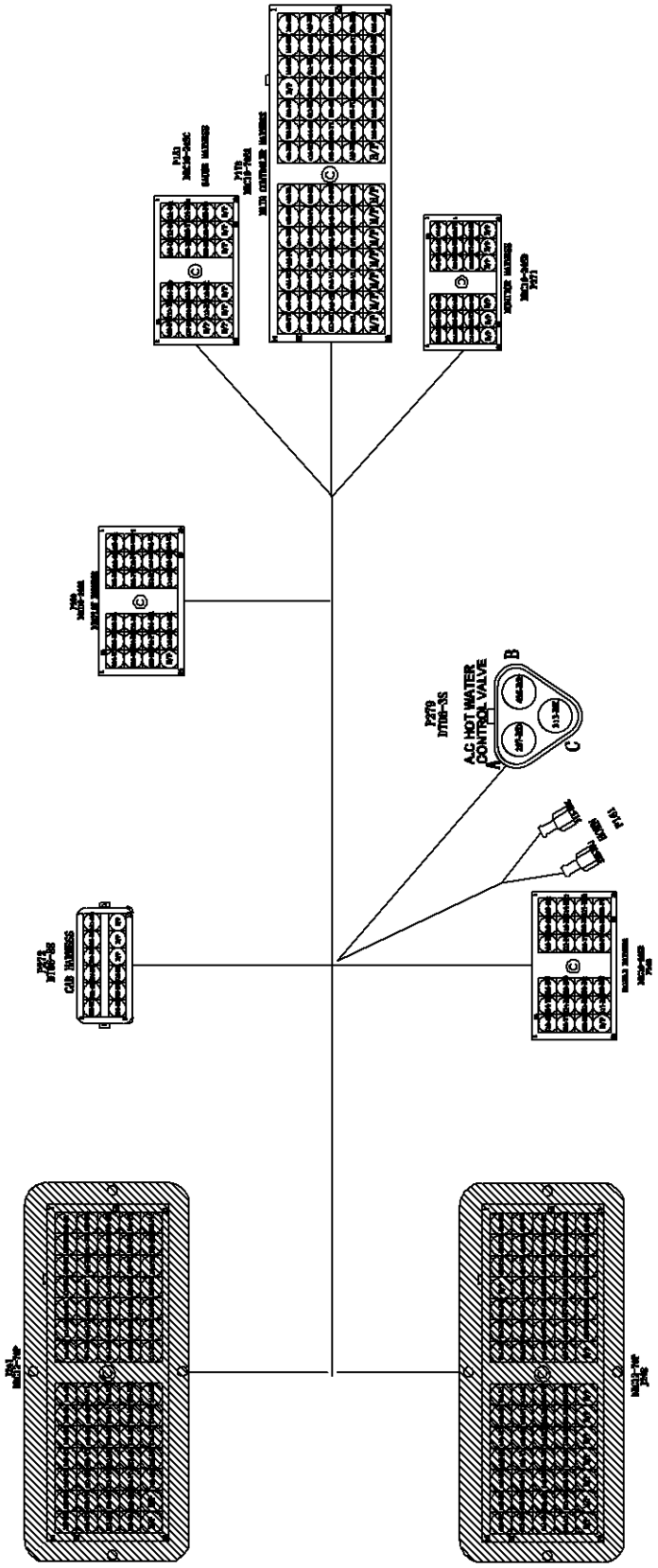
Connecting Harness (S/N 111-) (Deleted) Fig 5-15r02

DELETED DUE TO UPDATE

Connecting Harness (S/N 111-) (Deleted) Fig 5-15r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

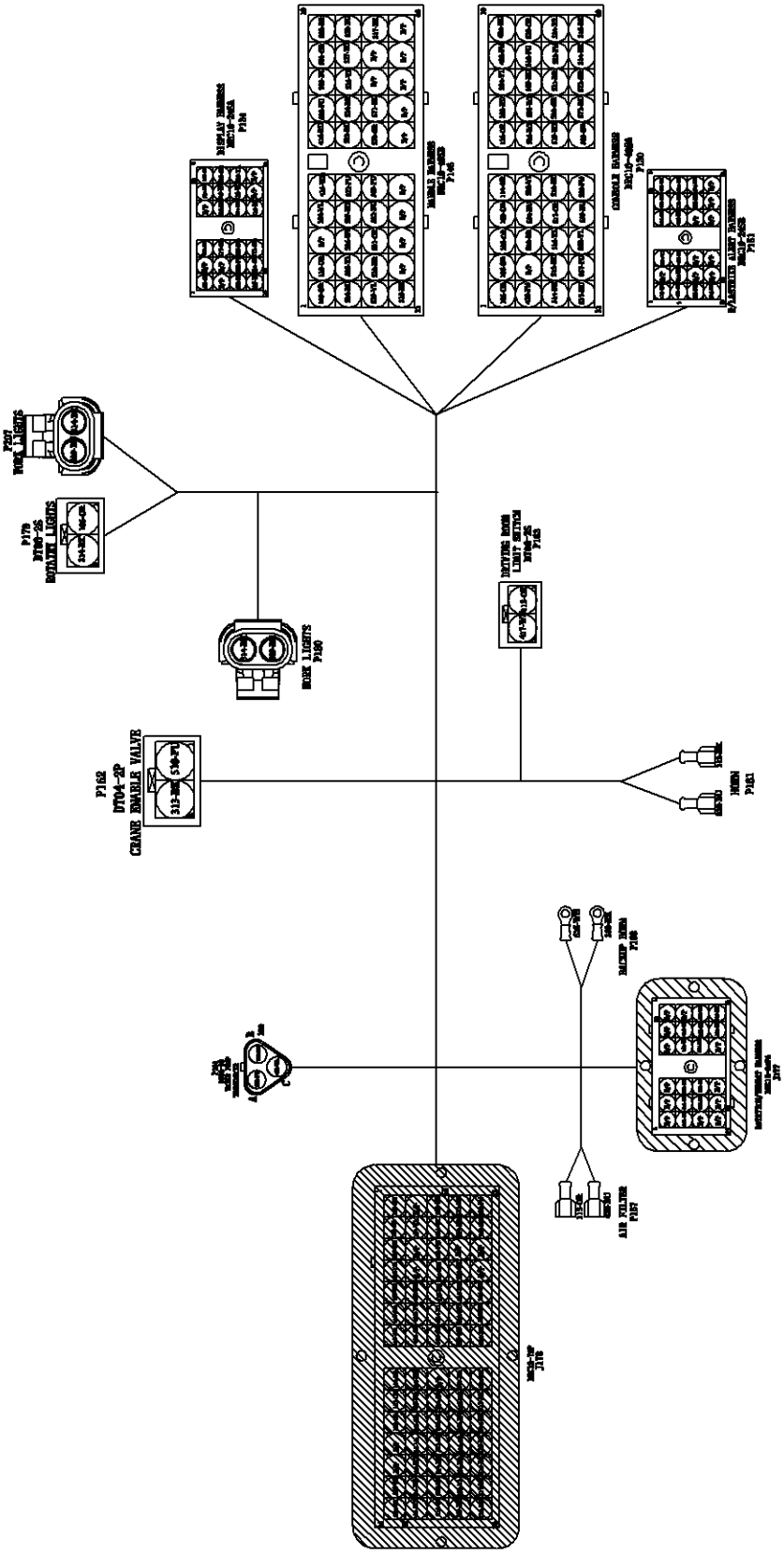
Connecting Harness (S/N 107-110) Fig 5-15r01



Connecting Harness (S/N 107-110) Fig 5-15r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005328	CONNECTING HARNESS	1	VBM

Connecting Harness (S/N 101-106) Fig 5-15



Connecting Harness (S/N 101-106) Fig 5-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005316	CONNECTING HARNESS	1	VBM

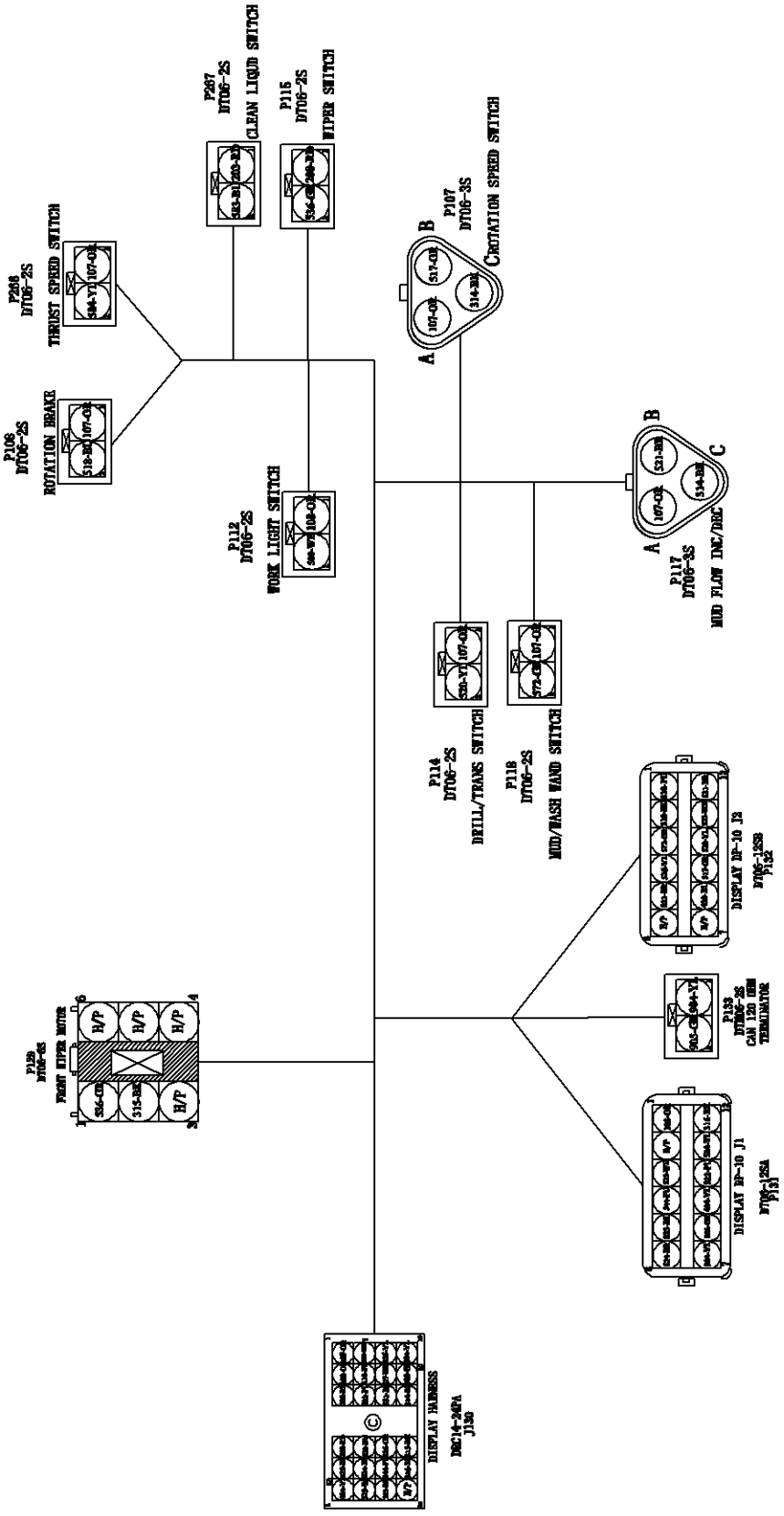
Display Harness (S/N 111-) (Deleted) Fig 5-16r02

DELETED DUE TO UPDATE

Display Harness (S/N 111-) (Deleted) Fig 5-16r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

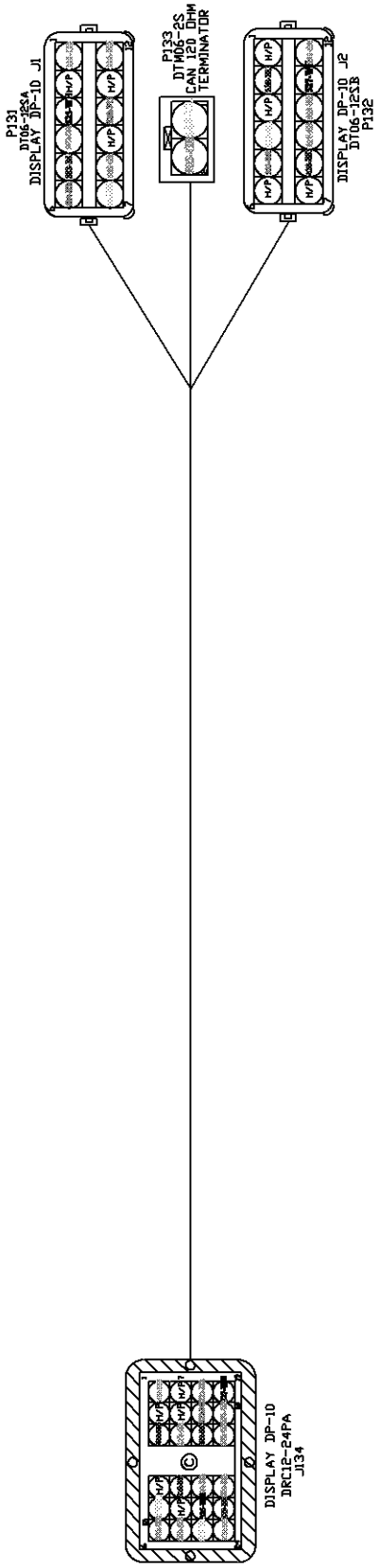
Display Harness (S/N 107-110) Fig 5-16r01



Display Harness (S/N 107-110) Fig 5-16r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005322	DISPLAY HARNESS	1	VBM

Display Harness (S/N 101-106) Fig 5-16



Display Harness (S/N 101-106) Fig 5-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005317	DISPLAY HARNESS	1	VBM

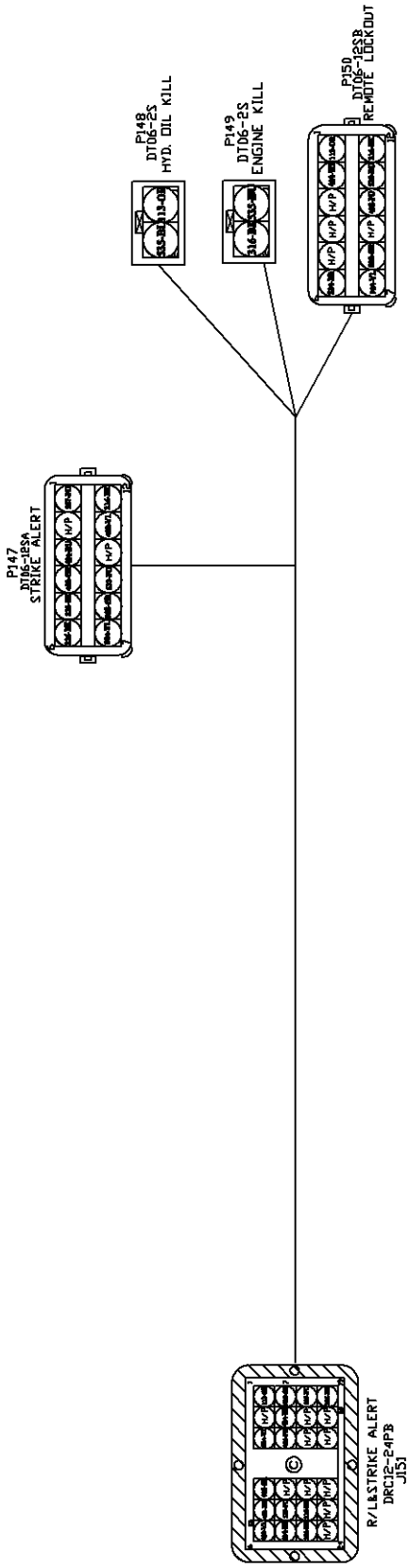
R/L&Strike Alert Harness (S/N 107-) (Deleted) Fig 5-17r01

DELETED DUE TO UPDATE

R/L&Strike Alert Harness (S/N 107-) (Deleted) Fig 5-17r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

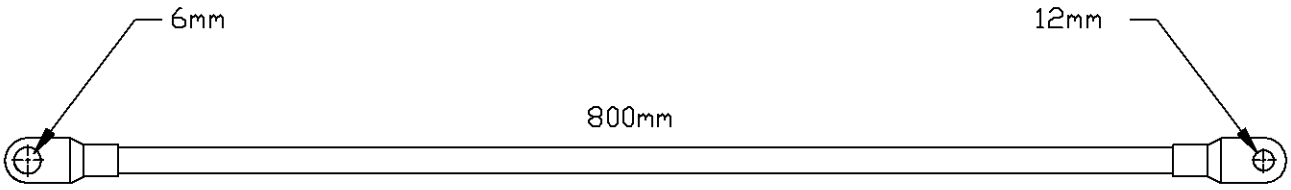
R/L&Strike Alert Harness (S/N 101-106) Fig 5-17



R/L&Strike Alert Harness (S/N 101-106) Fig 5-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005318	R/L&STRIKE ALERT HARNESS	1	VBM

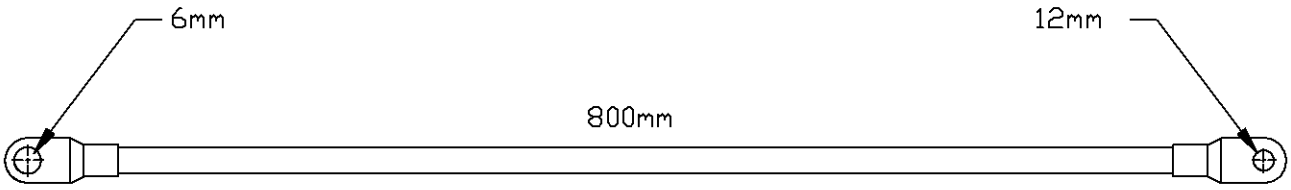
Alternator To Motor Power Harness (S/N 114-) Fig 5-18r02



Alternator To Motor Power Harness (S/N 114-) Fig 5-18r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026324	ALTERNATOR TO MOTOR POWER HARNESS	1	VBM

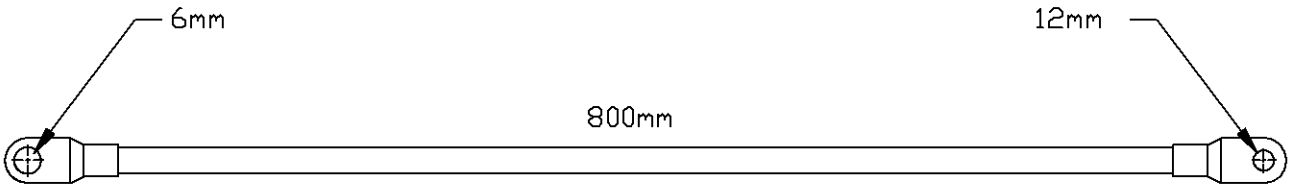
Alternator To Motor Power Harness (S/N 111-113) Fig 5-18r01



Alternator To Motor Power Harness (S/N 111-113) Fig 5-18r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026308	ALTERNATOR TO MOTOR POWER HARNESS	1	VBM

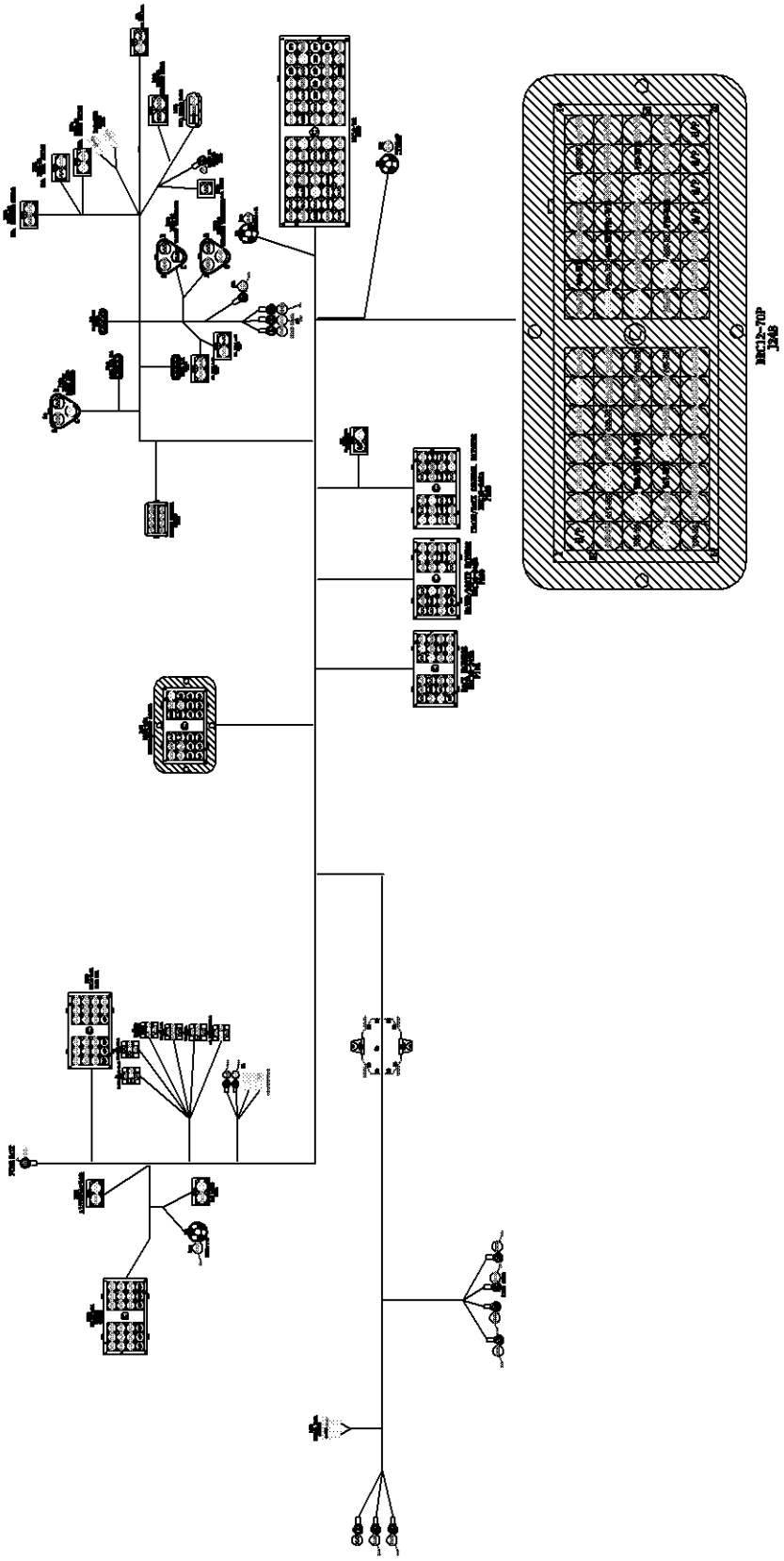
Start Motor To Alternator Harness (S/N 101-110) Fig 5-18



Start Motor To Alternator Harness (S/N 101-110) Fig 5-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005308	START MOTOR TO ALTERNATOR HARNESS	1	VBM

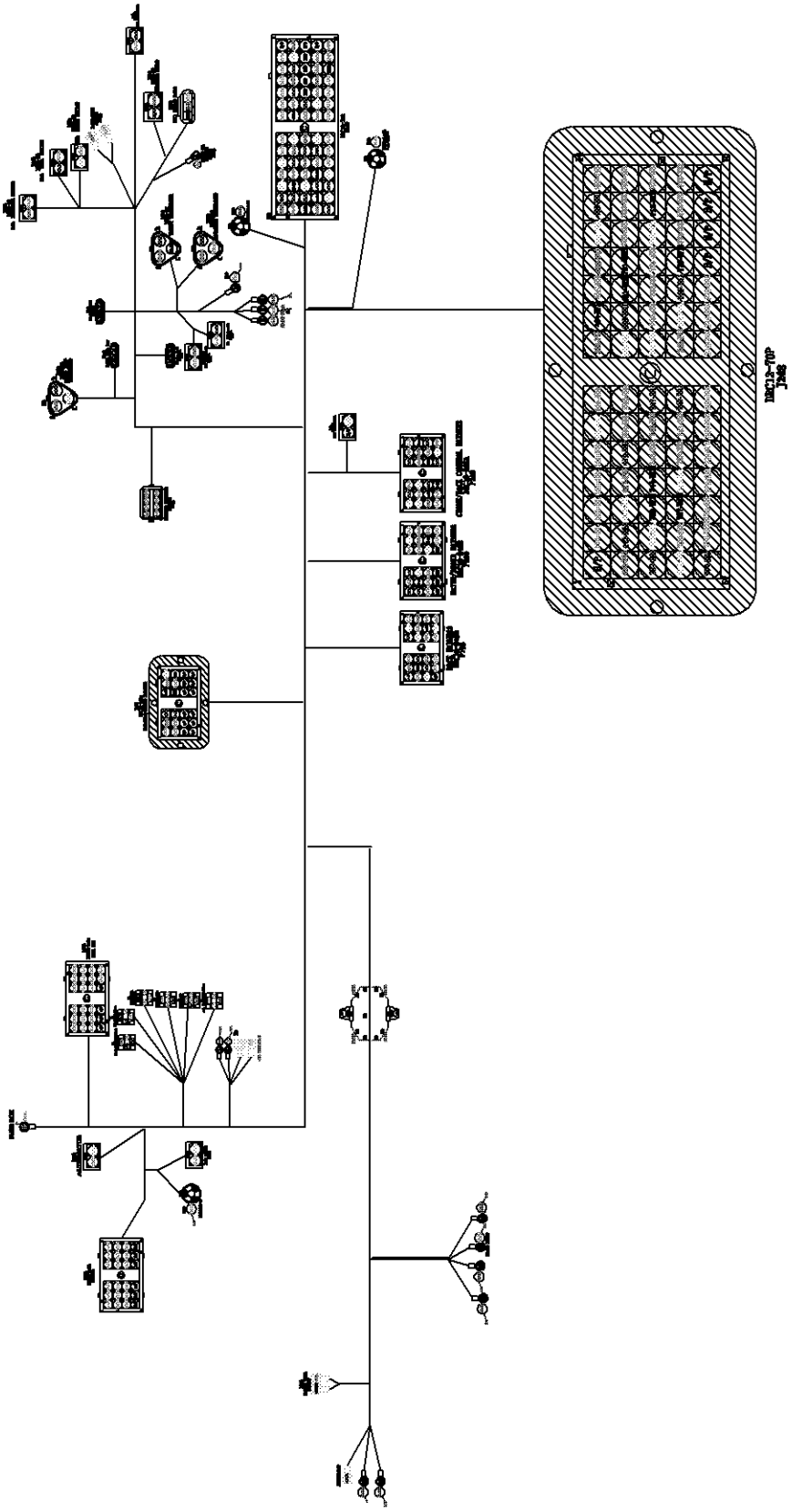
Main Harness (S/N 114-) Fig 5-19r03



Main Harness (S/N 114-) Fig 5-19r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026321	MAIN HARNESS	1	VBM

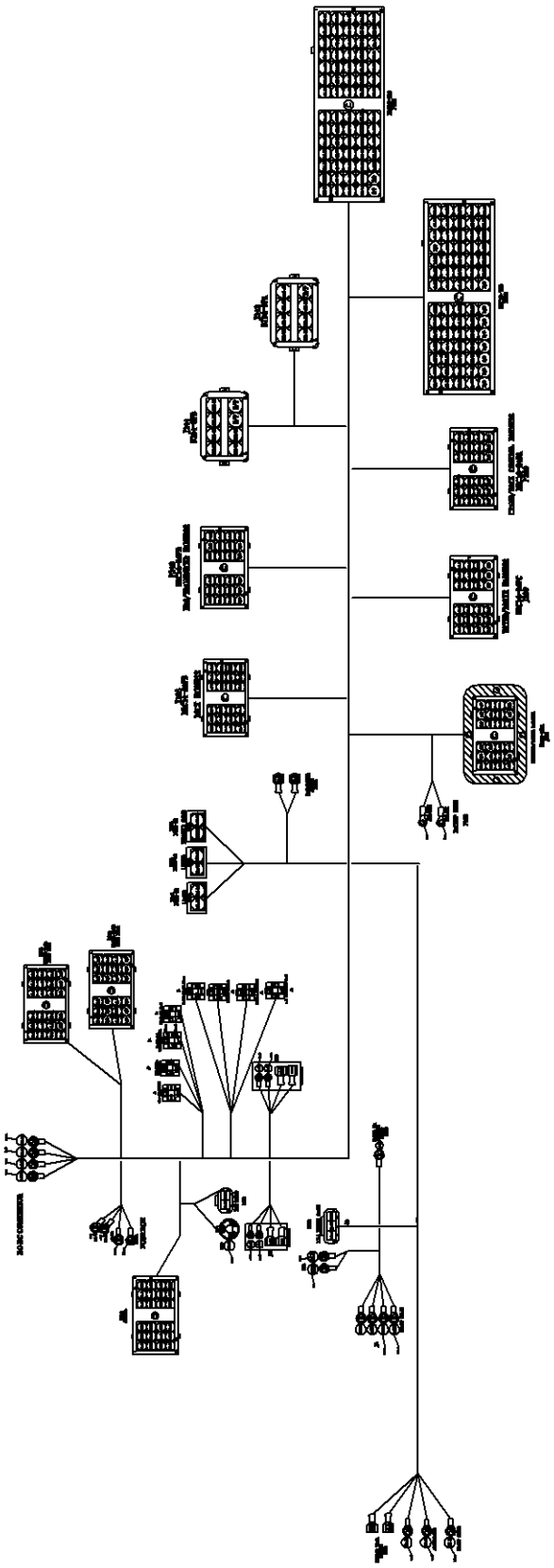
Main Harness (S/N 111-113) Fig 5-19r02



Main Harness (S/N 111-113) Fig 5-19r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026300	MAIN HARNESS	1	VBM

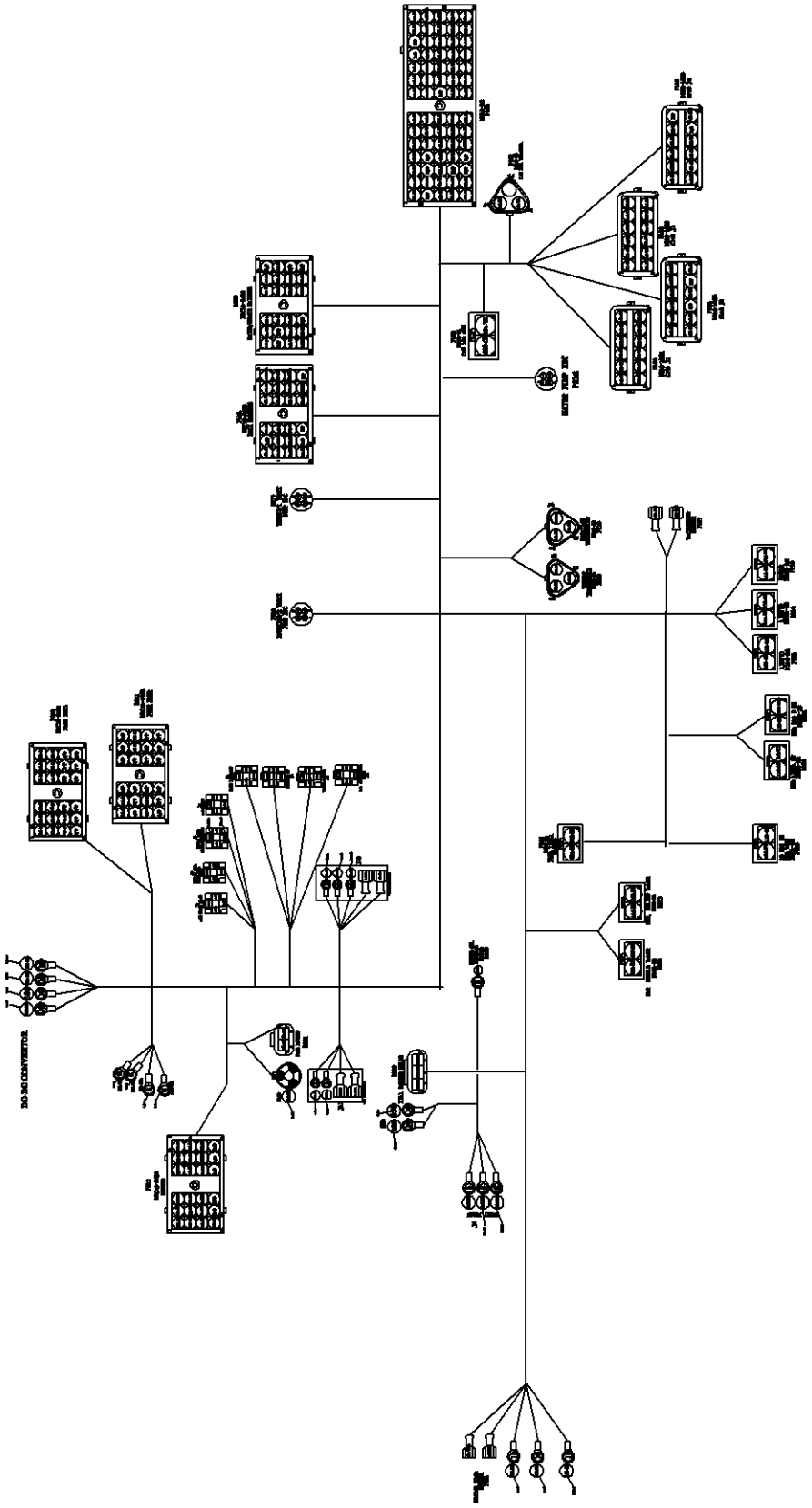
Main Harness (S/N 107-110) Fig 5-19r01



Main Harness (S/N 107-110) Fig 5-19r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005320	MAIN HARNESS	1	VBM

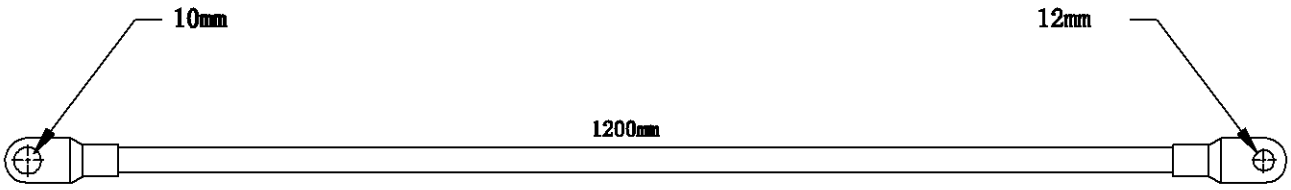
Main Harness (S/N 101-106) Fig 5-19



Main Harness (S/N 101-106) Fig 5-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005307	MIAN HARNESS	1	VBM

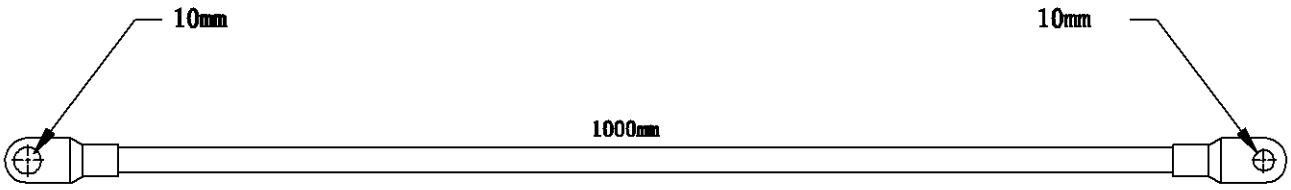
EngineTo Chassis Harness (S/N 114-) Fig 5-20r02



EngineTo Chassis Harness (S/N 114-) Fig 5-20r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026326	ENGINE TO CHASSIS HARNESS	1	VBM

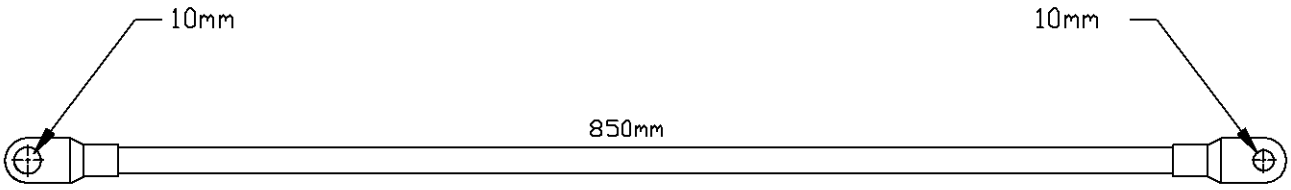
EngineTo Chassis Harness (S/N 111-113) Fig 5-20r01



EngineTo Chassis Harness (S/N 111-113) Fig 5-20r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026312	ENGINE TO CHASSIS HARNESS	1	VBM

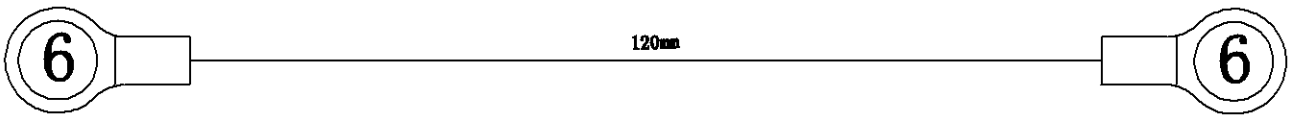
EngineTo Chassis Harness (S/N 101-110) Fig 5-20



EngineTo Chassis Harness (S/N 101-110) Fig 5-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005319	ENGINE TO CHASSIS HARNESS	1	VBM

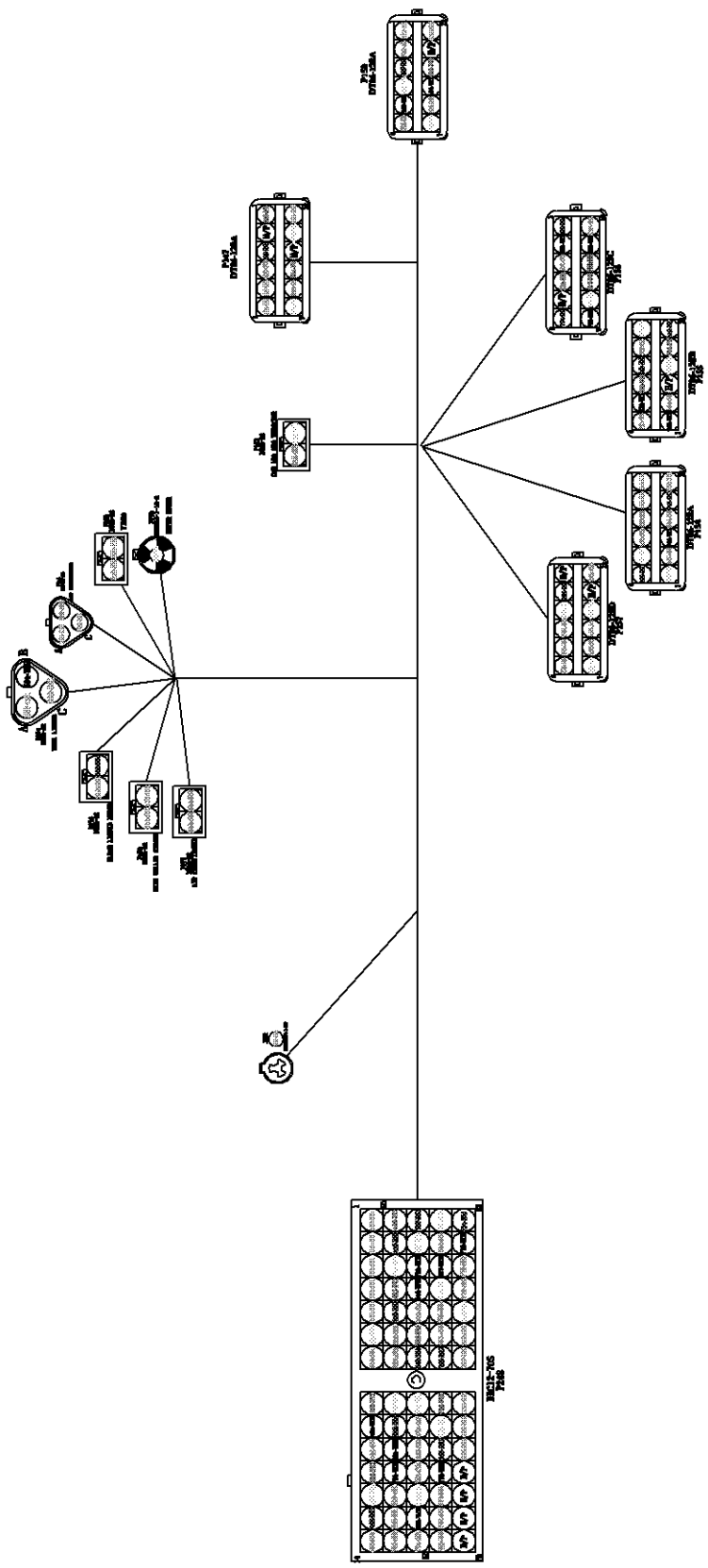
Fuse Box Connector Harness (S/N 114-) Fig 5-21



Fuse Box Connector Harness (S/N 114-) Fig 5-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026319	FUSE BOX CONNECTOR HARNESS	1	VBM

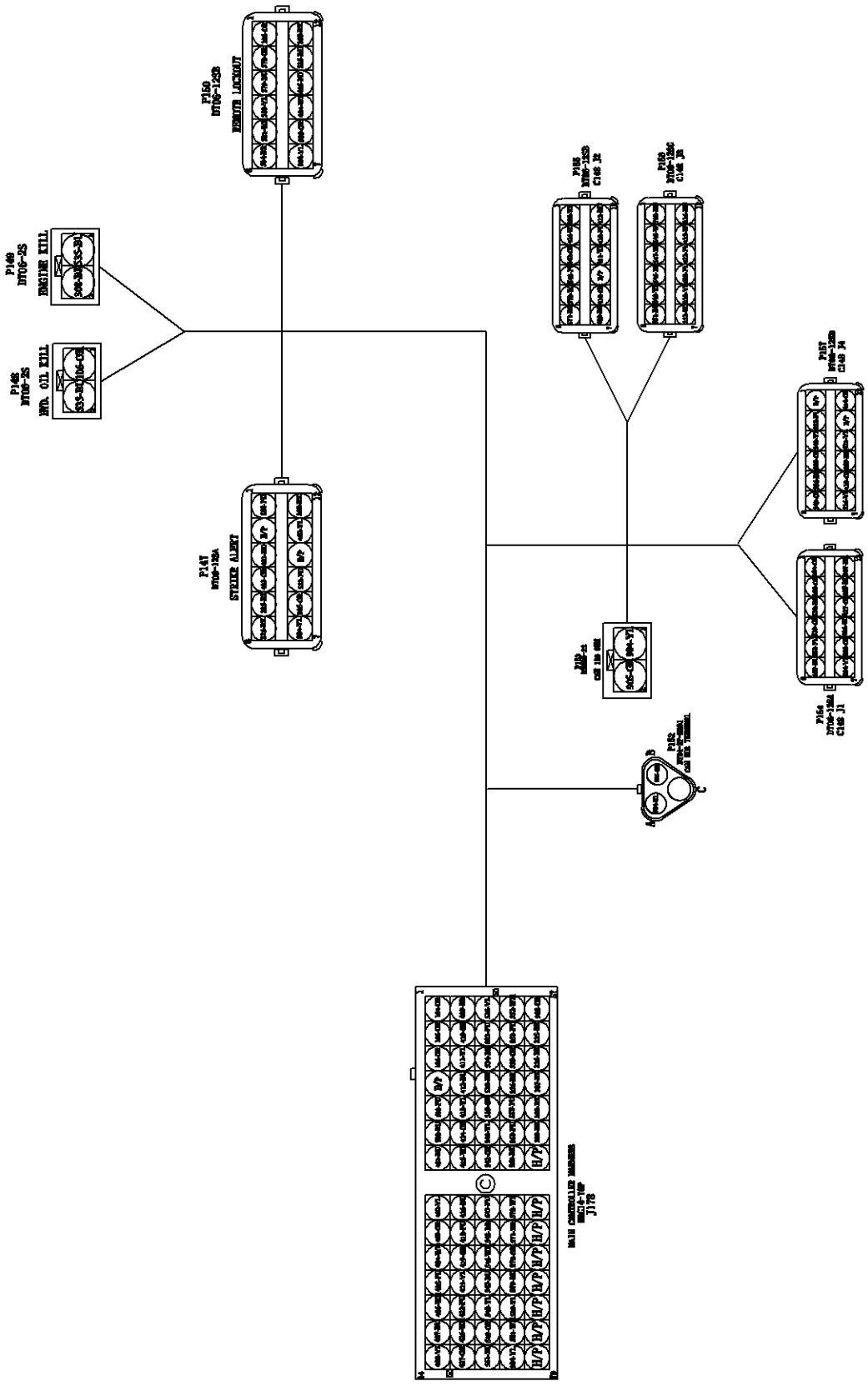
Controller Harness (S/N 111-) Fig 5-22r01



Controller Harness (S/N 111-) Fig 5-22r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026301	CONTROLLER HARNESS	1	VBM

Controller Harness (S/N 107-110) Fig 5-22



Controller Harness (S/N 107-110) Fig 5-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005327	MAIN CONTROLLER HARNESS	1	VBM

Tether Harness (S/N 111-) Fig 5-23r01

Tether Harness (S/N 111-) Fig 5-23r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026307	TETHER HARNESS	1	VBM

Tether Harness (S/N 107-110) Fig 5-23

Tether Harness (S/N 107-110) Fig 5-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005321	TETHER HARNESS	1	VBM

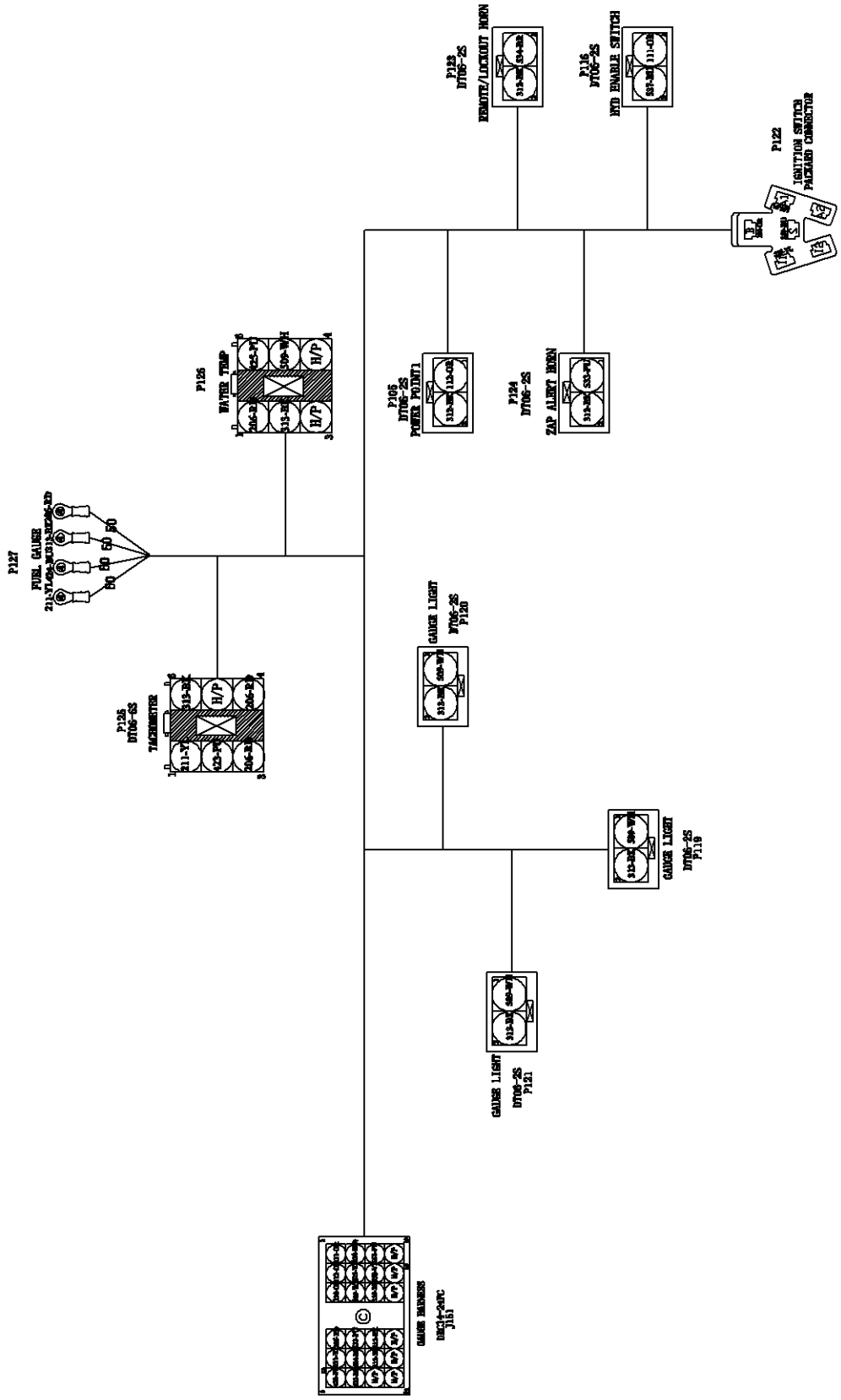
Gauge Harness (S/N 111-) (Deleted) Fig 5-24r01

DELETED DUE TO UPDATE

Gauge Harness (S/N 111-) (Deleted) Fig 5-24r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

Gauge Harness (S/N 107-110) Fig 5-24



Gauge Harness (S/N 107-110) Fig 5-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005324	GAUGE HARNESS	1	VBM

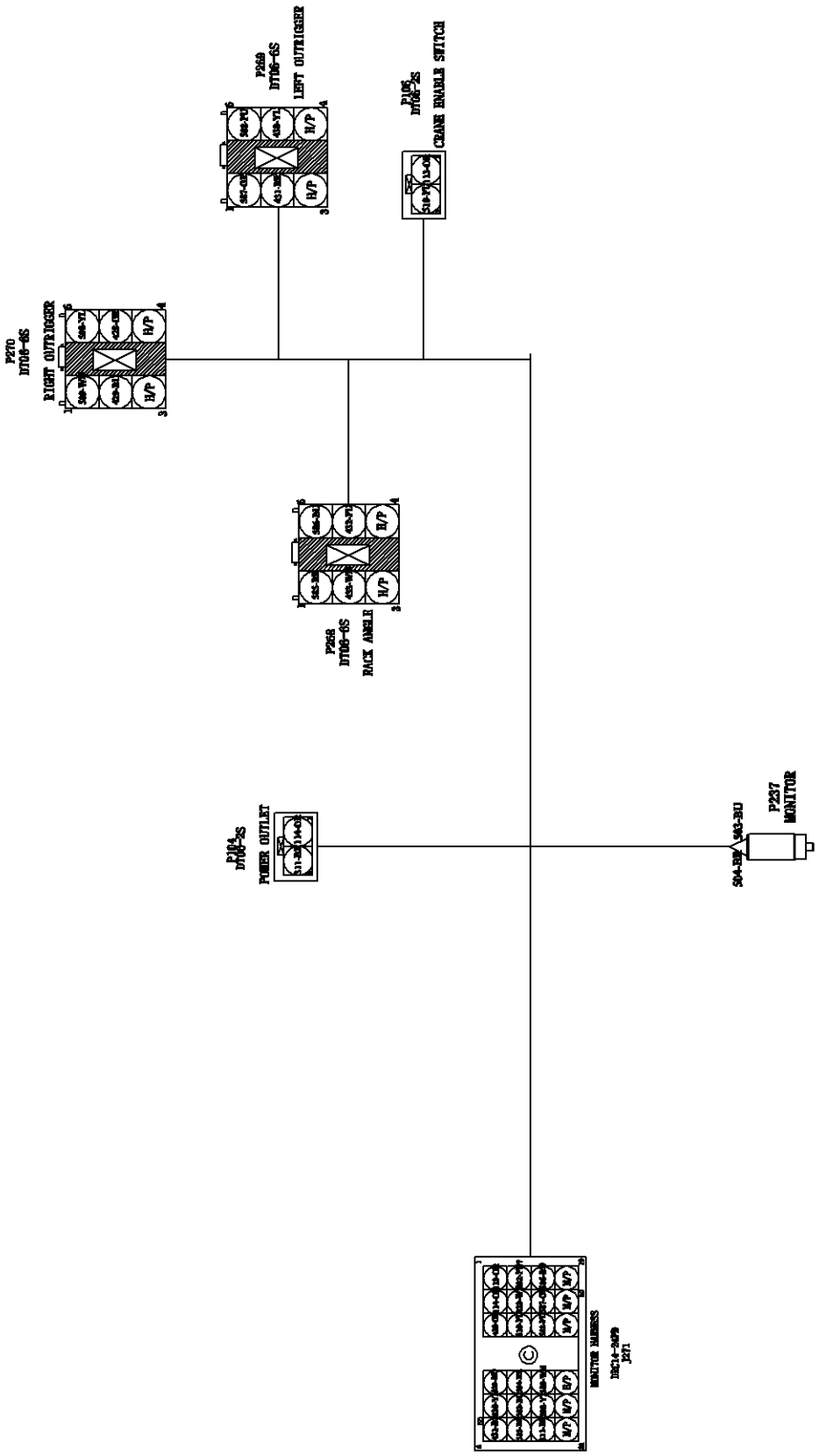
Monitor Harness (S/N 111-) (Deleted) Fig 5-25r01

DELETED DUE TO UPDATE

Monitor Harness (S/N 111-) (Deleted) Fig 5-25r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

Monitor Harness (S/N 107-110) Fig 5-25



Monitor Harness (S/N 107-110) Fig 5-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005325	MONITOR HARNESS	1	VBM

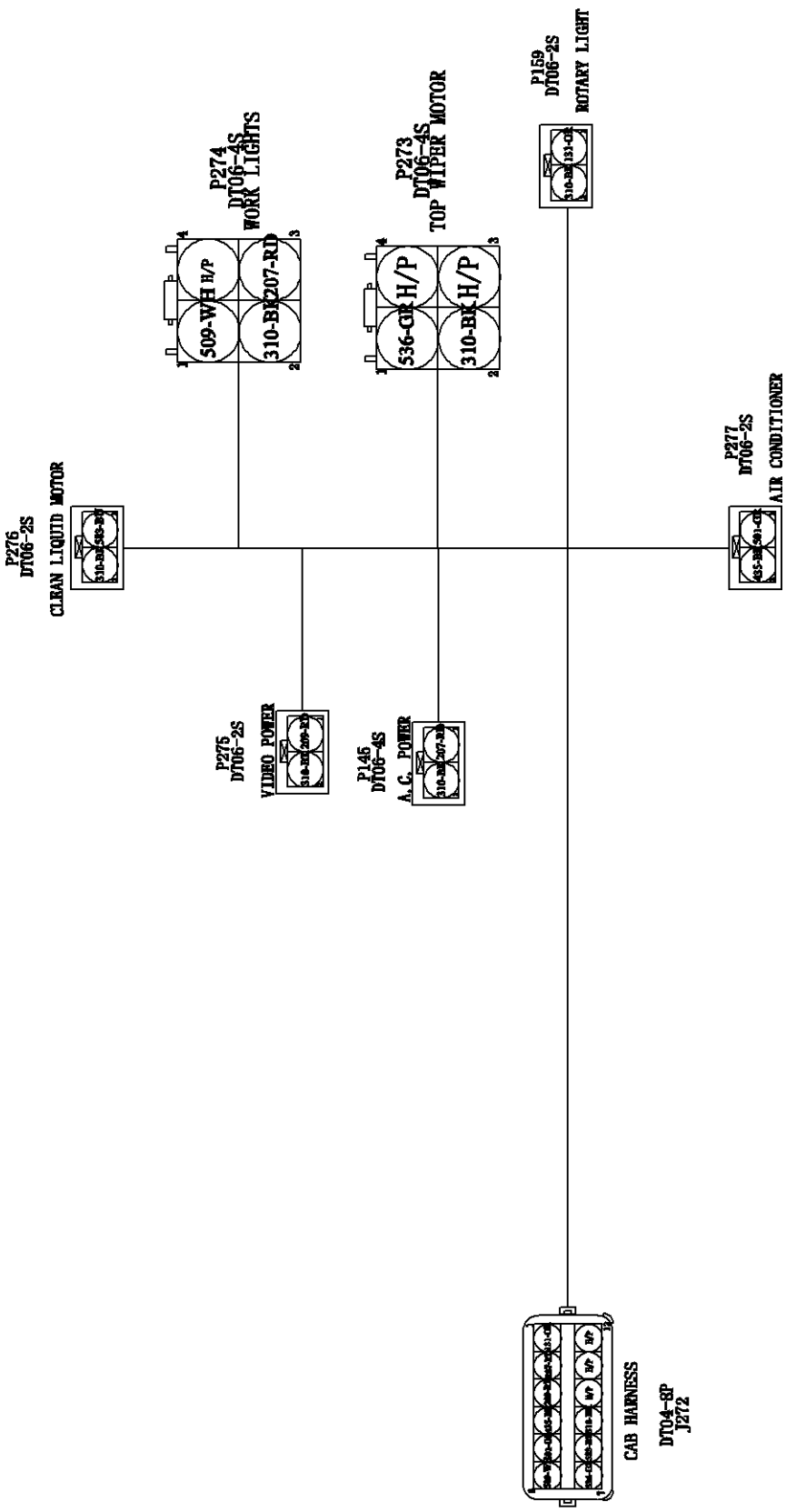
Cab Harness (S/N 111-) (Deleted) Fig 5-26r01

DELETED DUE TO UPDATE

Cab Harness (S/N 111-) (Deleted) Fig 5-26r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

Cab Harness (S/N 107-110) Fig 5-26



Cab Harness (S/N 107-110) Fig 5-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005326	CAB HARNESS	1	VBM

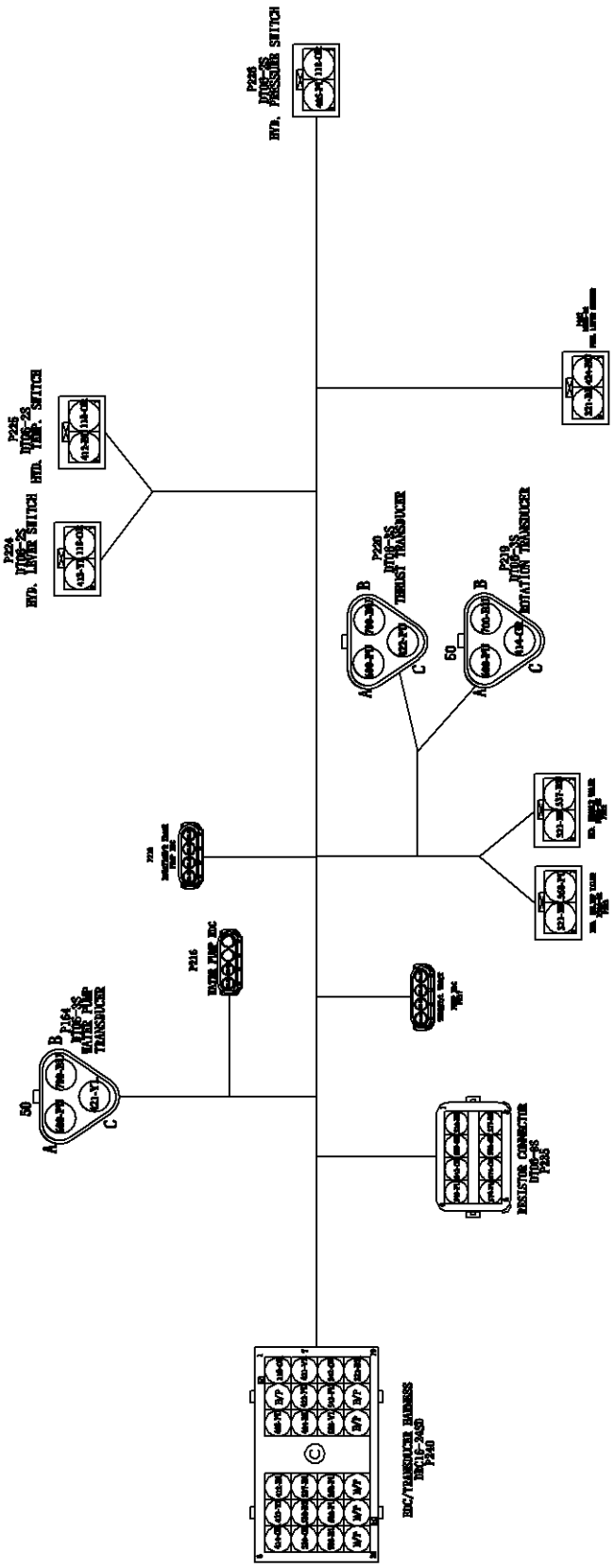
EDC/Transducer Harness (S/N 111-) (Deleted) Fig 5-27r01

DELETED DUE TO UPDATE

EDC/Transducer Harness (S/N 111-) (Deleted) Fig 5-27r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

EDC/Transducer Harness (S/N 107-110) Fig 5-27



EDC/Transducer Harness (S/N 107-110) Fig 5-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005337	EDC/TRANSDUCER HARNESS	1	VBM

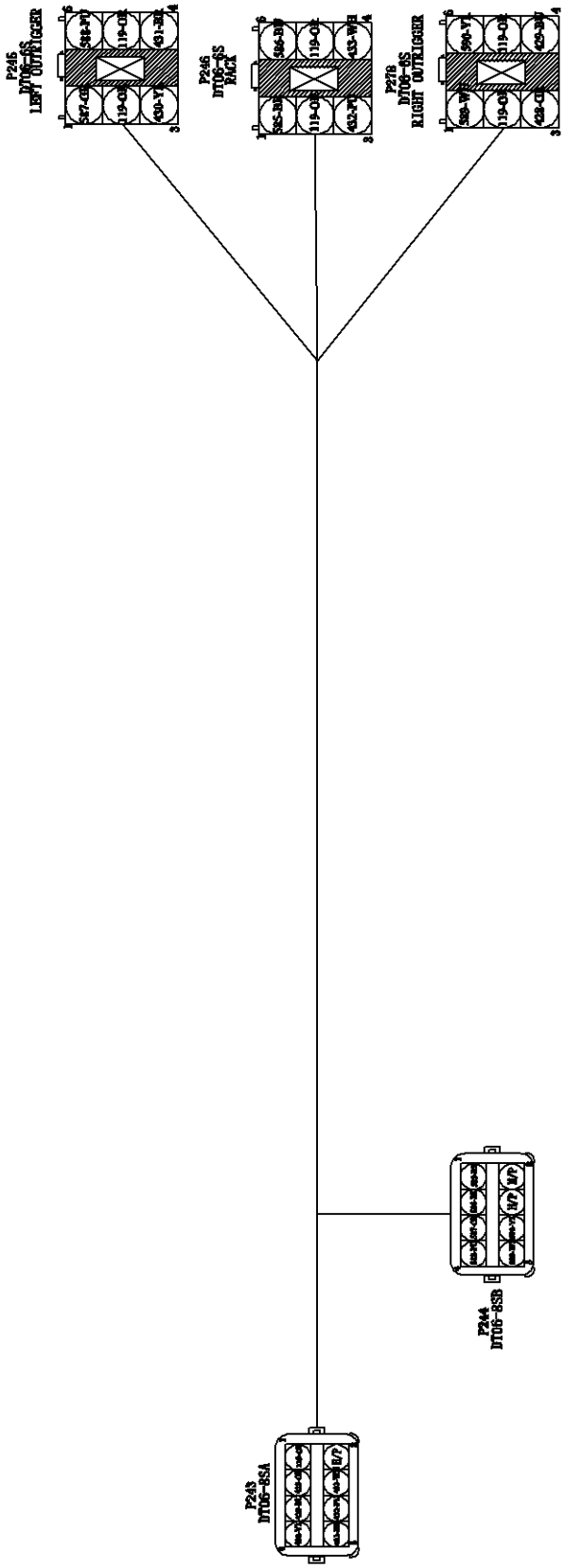
Rack/Outrigger Control Harness (S/N 111-) (Deleted) Fig 5-28r01

DELETED DUE TO UPDATE

Rack/Outrigger Control Harness (S/N 111-) (Deleted) Fig 5-28r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

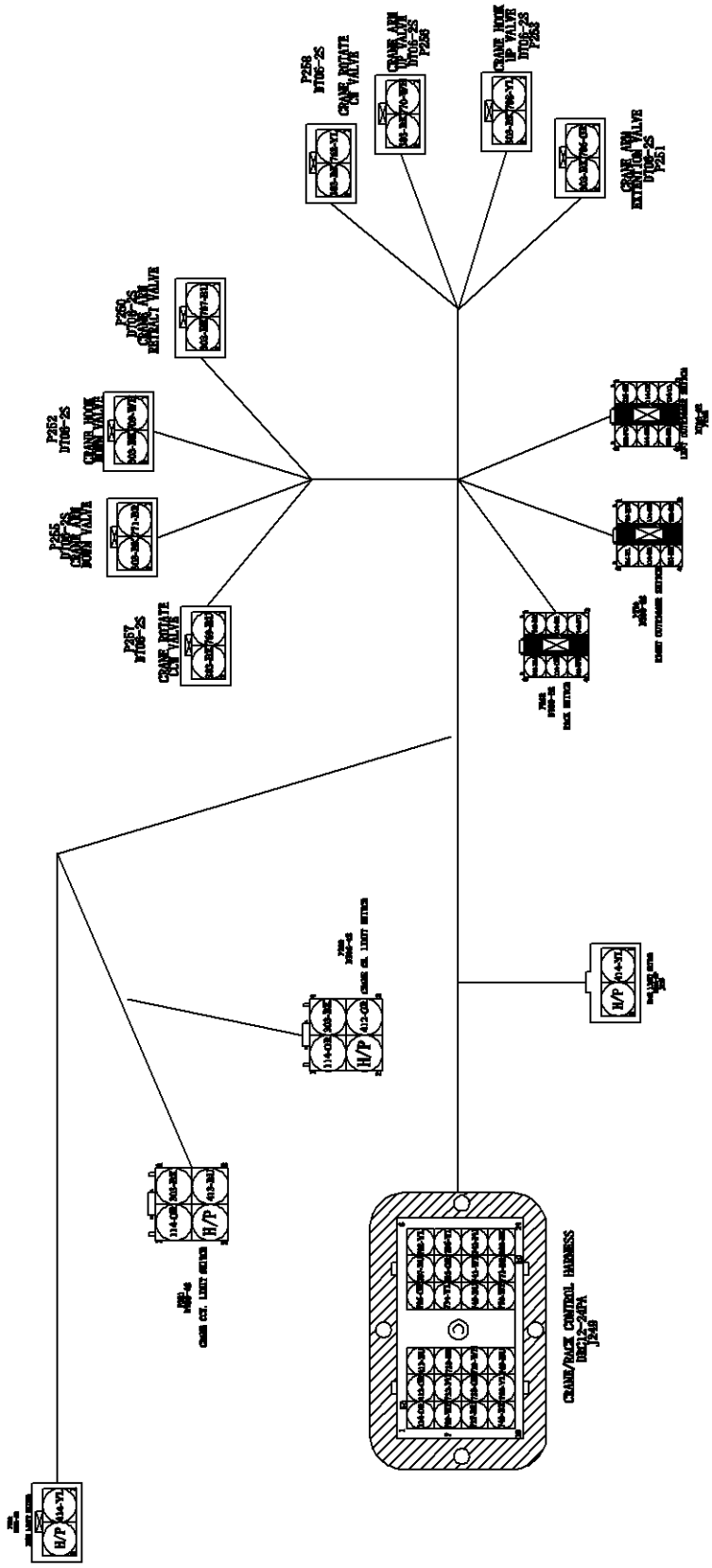
Rack/Outrigger Control Harness (S/N 107-110) Fig 5-28



Rack/Outrigger Control Harness (S/N 107-110) Fig 5-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005338	RACK/OUTRIGGER CONTROL HARNESS	1	VBM

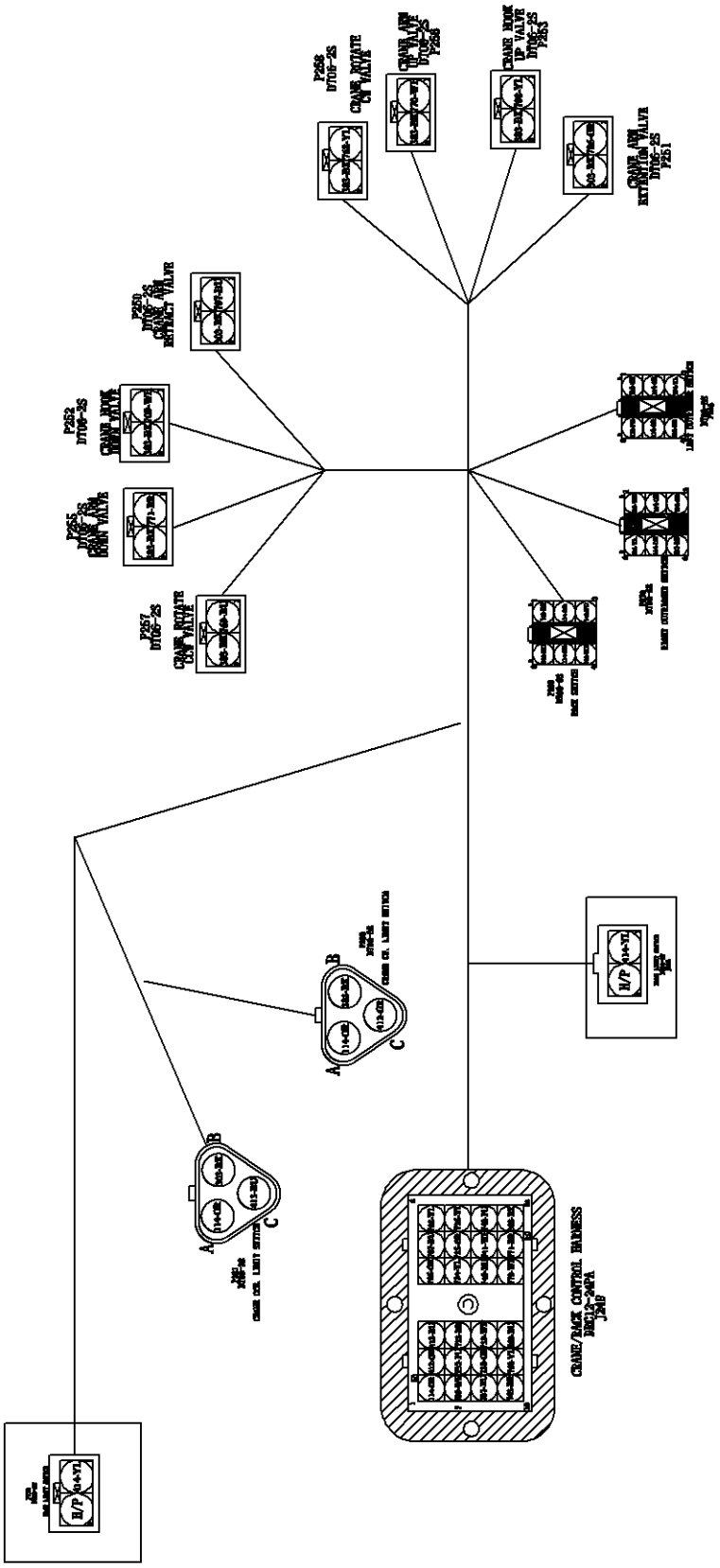
Crane/Rack/Outrigger Harness (S/N 114-) Fig 5-29r02



Crane/Rack/Outrigger Harness (S/N 114-) Fig 5-29r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026320	CRANE/RACK/OUTRIGGER HARNESS	1	VBM

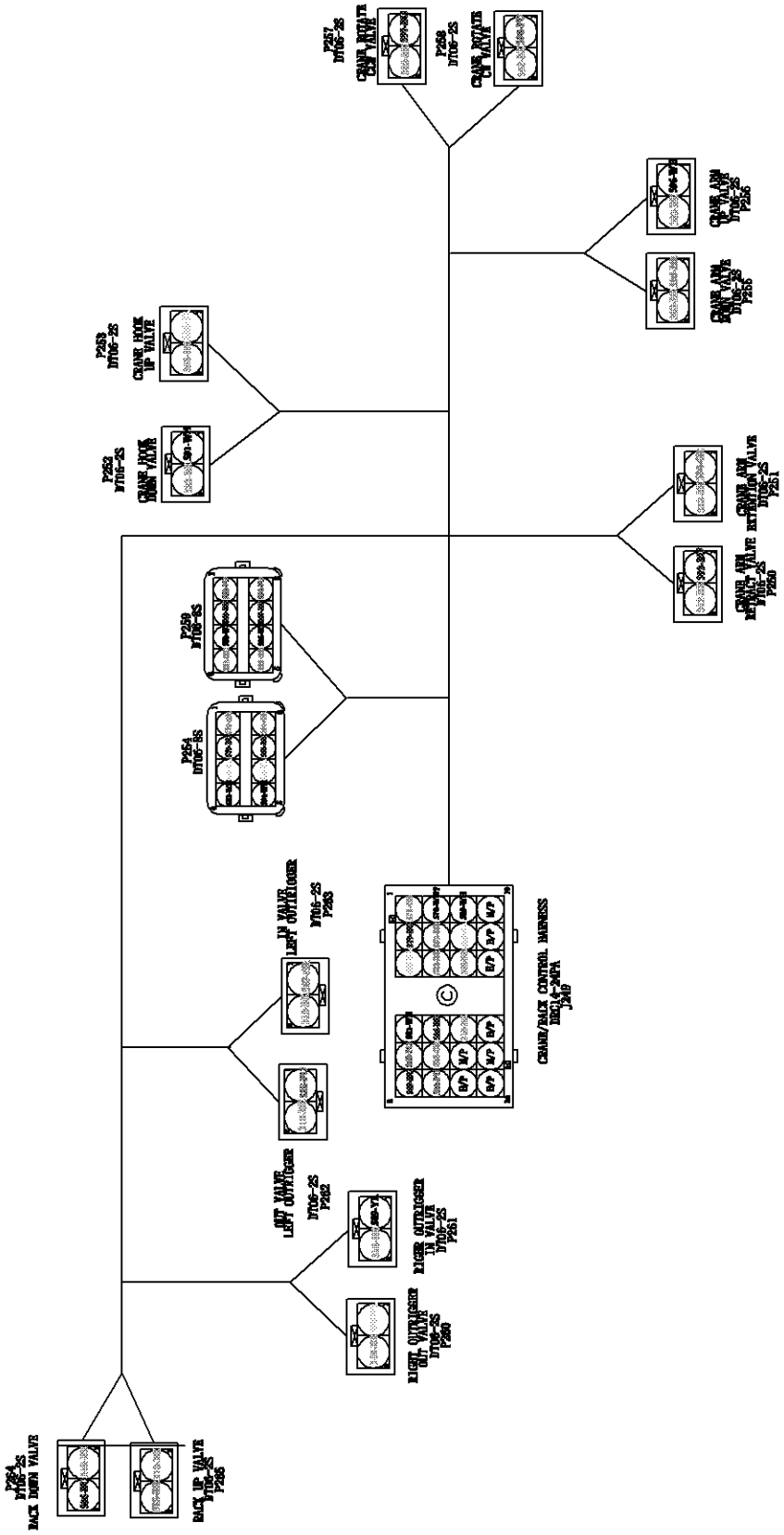
Crane/Rack/Outrigger Harness (S/N 111-113) Fig 5-29r01



Crane/Rack/Outrigger Harness (S/N 111-113) Fig 5-29r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026305	CRANE/RACK/OUTRIGGER HARNESS	1	VBM

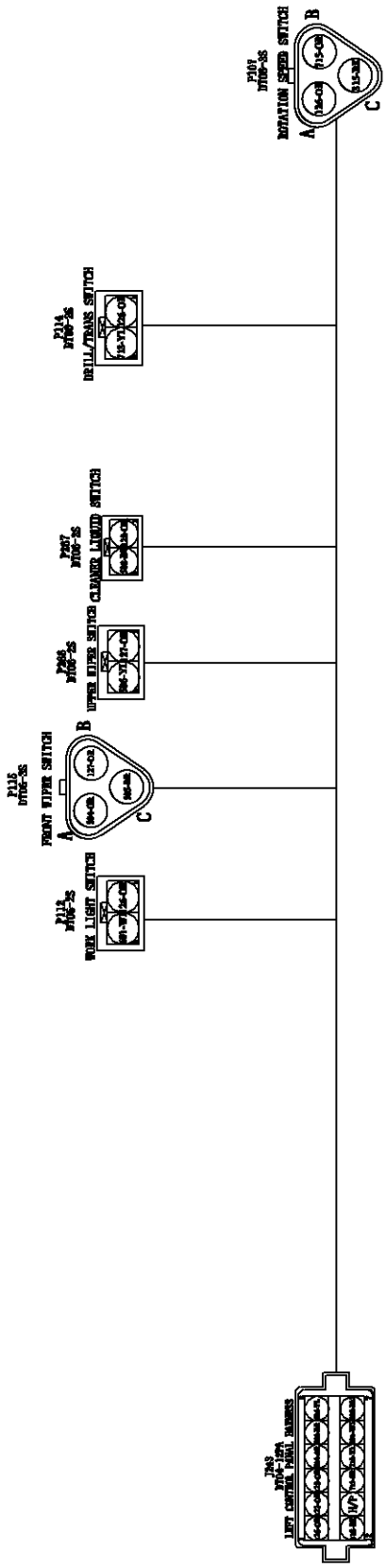
Crane/Rack/Outrigger Harness (S/N 107-110) Fig 5-29



Crane/Rack/Outrigger Harness (S/N 107-110) Fig 5-29

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299005339	CRANE - RACK - OUTRIGGER HARNESS	1	VBM

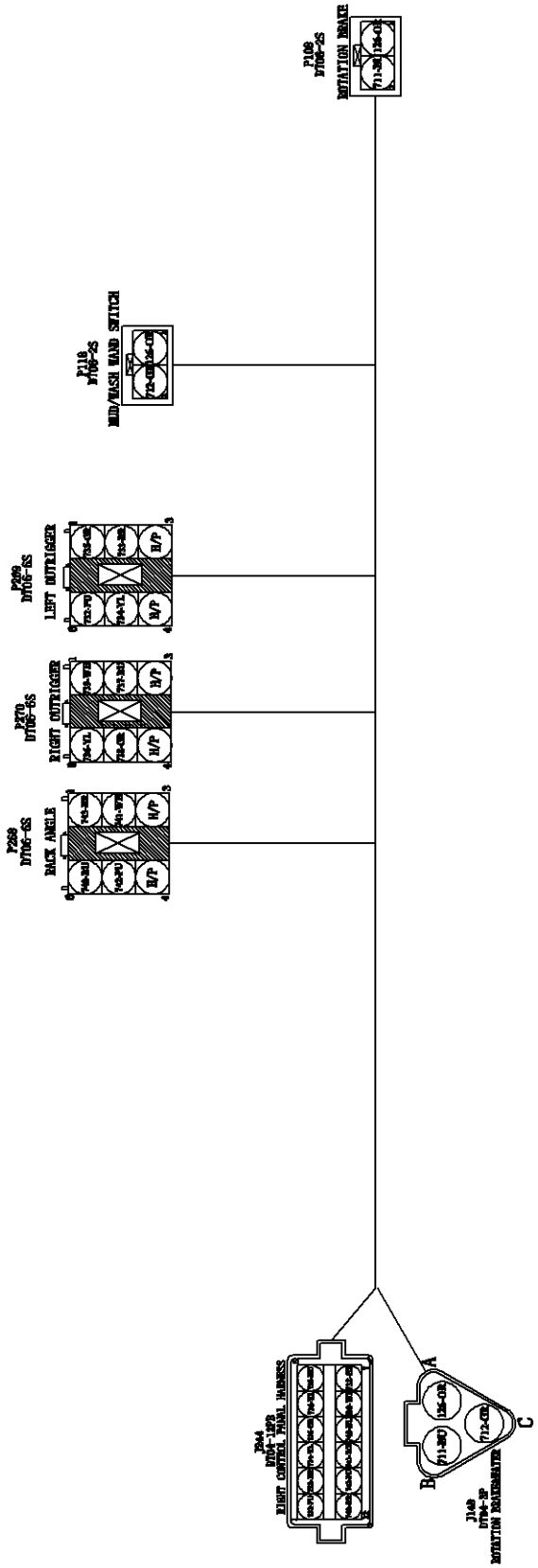
Left Control Panel Harness (S/N 114-) Fig 5-30



Left Control Panel Harness (S/N 114-) Fig 5-30

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026316	LEFT CONTROL PANEL HARNESS	1	VBM

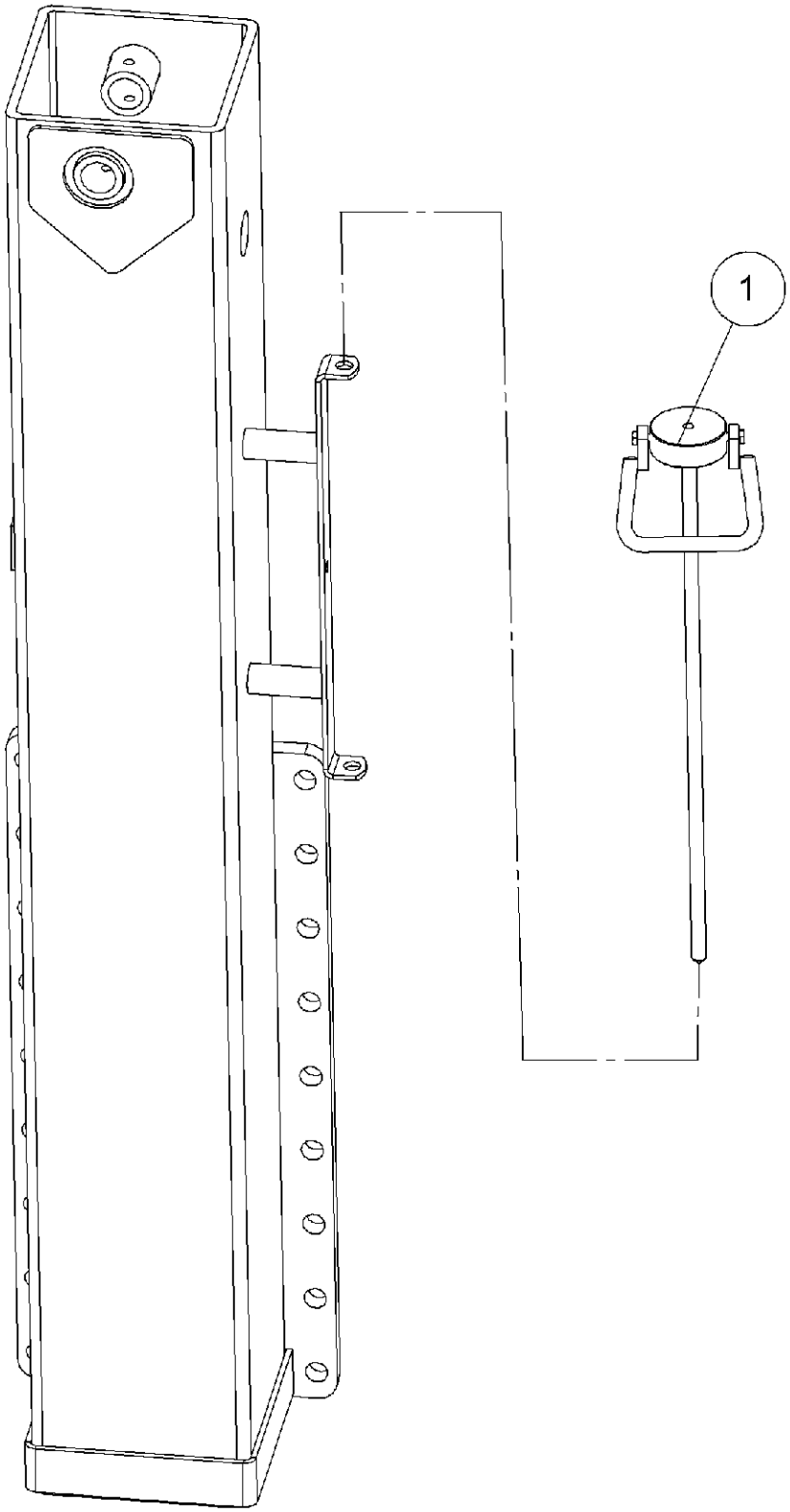
Right Control Panel Harness (S/N 114-) Fig 5-31



Right Control Panel Harness (S/N 114-) Fig 5-31

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299026317	RIGHT CONTROL PANEL HARNESS	1	VBM

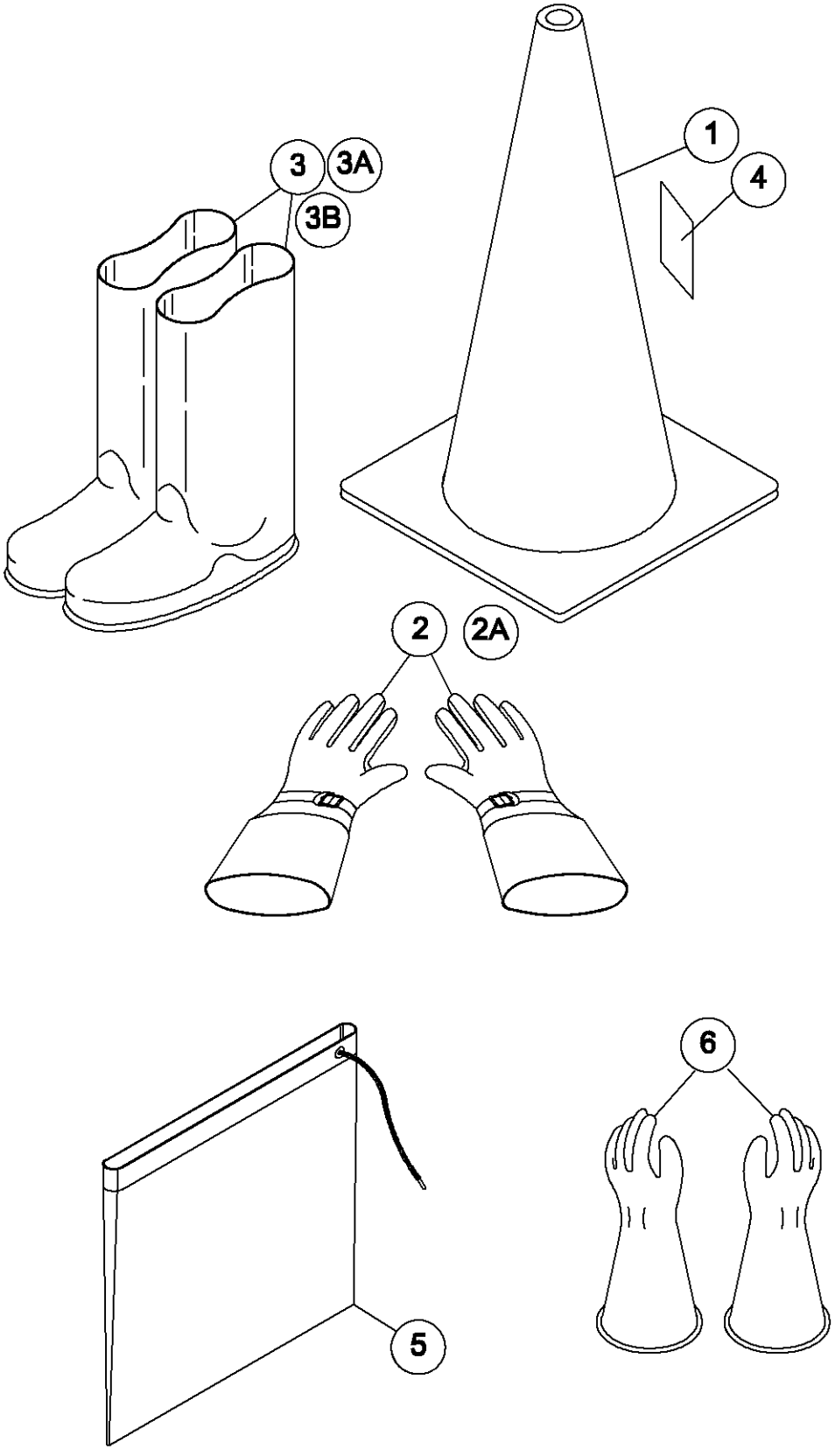
Voltage Stake Fig 6-1



Voltage Stake Fig 6-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006487	VOLTAGE STAKE	1	VBM

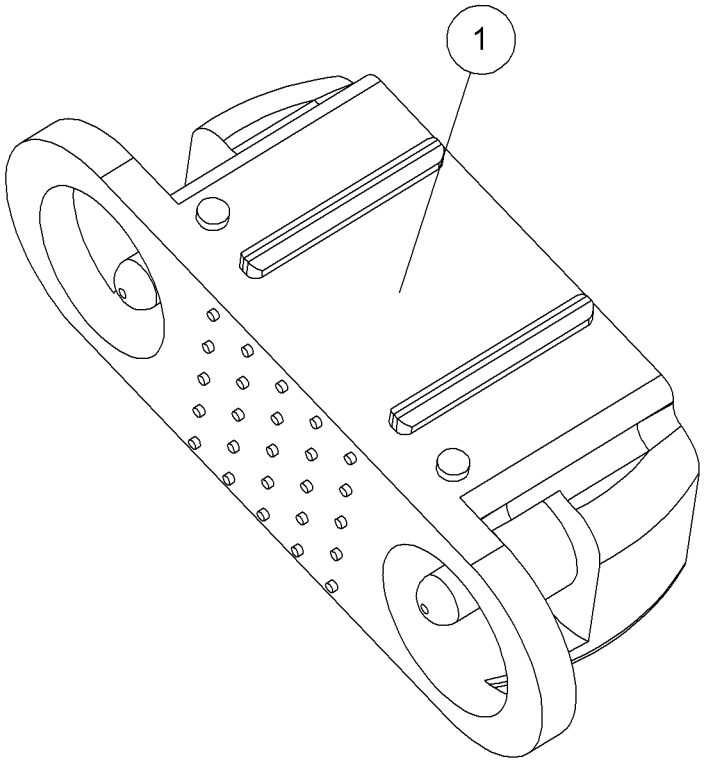
Safety Features - Gloves, Boots, Cones Fig 6-2



Safety Features - Gloves, Boots, Cones Fig 6-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299008103	CONE -- PVC	4	VBM
2		299023463	LEATHER PROTECT GLOVES	1	VBM, PAIR
2A		210781001	GLOVE KIT-SIZE 9	1	PELLA, INC 1PR OF RUBBER GLOVES 1PR OF LEATHER GLOVES & 1 GLOVE BAG
3		299008107	ELECTRICALLY NSULATED BOOTS SIZE 42	1	VBM, PAIR
3A		299008108	ELECTRICALLY INSULATED BOOTS SIZE 43	1	VBM, PAIR
3B		299008106	ELECTRICALLY NSULATED BOOTS SIZE 44	1	VBM, PAIR
4		7000I530	DECAL- DANGER	4	PELLA
5		299023462	BAG-GLOVE	1	VBM
6		299008105	ELECTRICALLY INSULATED GLOVES	1	VBM, PAIR

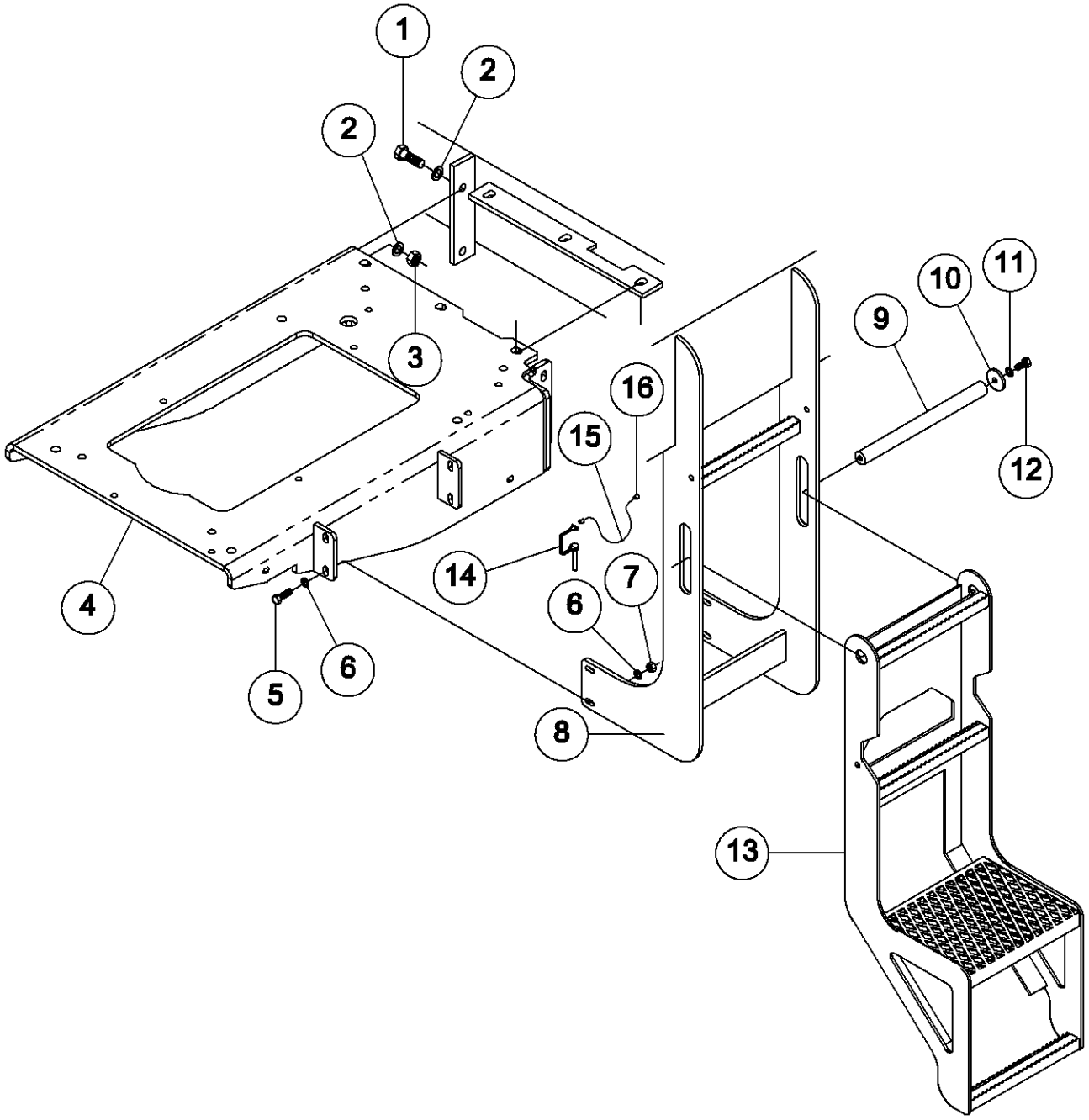
Tether Remote Unit Fig 6-3



Tether Remote Unit Fig 6-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296304829	TETHER UNIT R200J	1	PELLA

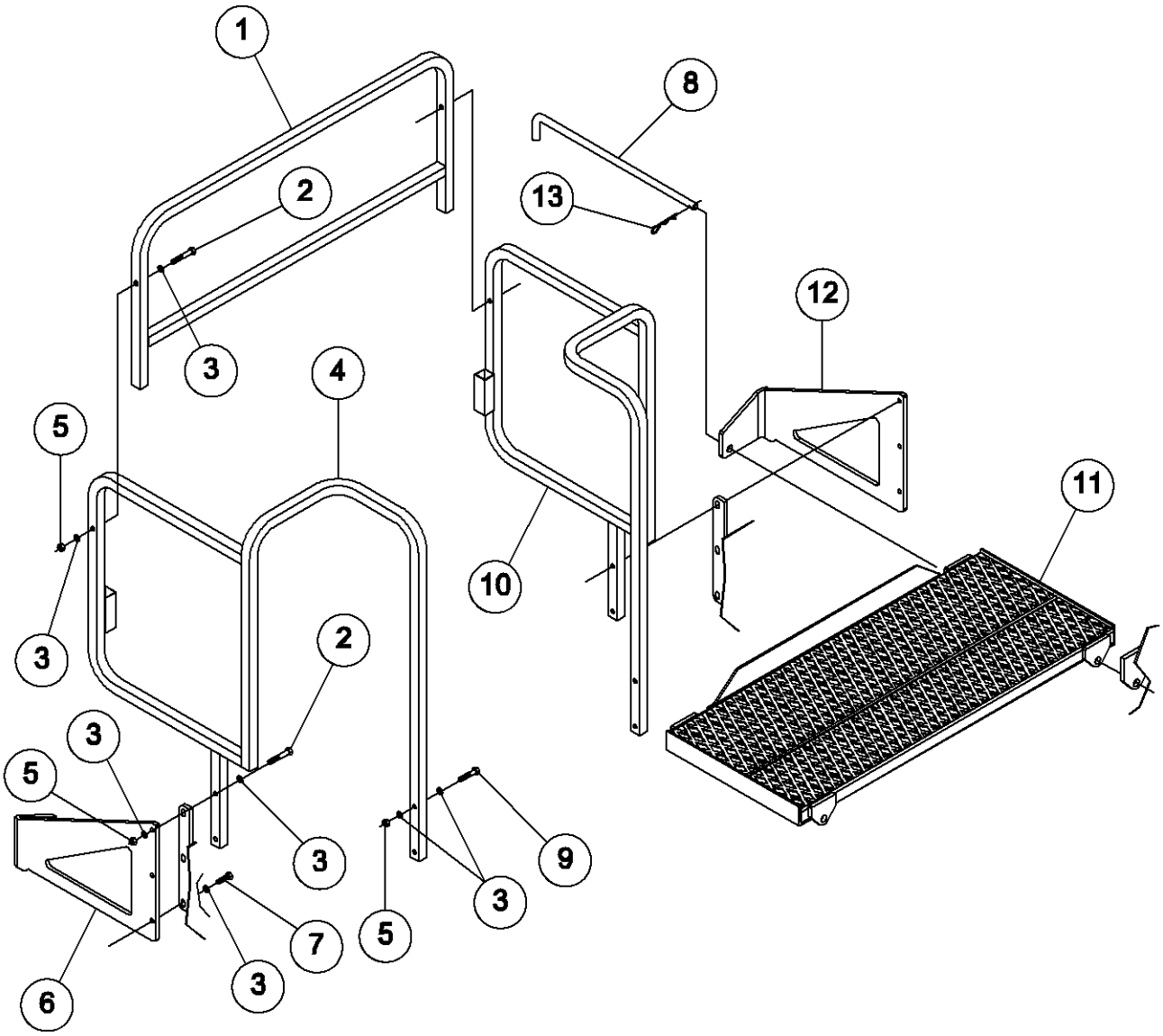
Platform Fig 7-1



Platform Fig 7-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010881	BOLT GB/T5783 M20X60-GR10.9	5	VBM
2		299012399	WASHER GB/T96 20 200HV	10	VBM
3		299012364	NUT GB/T6170 M20-GR10	5	VBM
4		299025909	WELDMENG - BRACKET	1	VBM
5		299010476	BOLT M12X50 GB/T5783	4	VBM
6		299012383	WASHER GB/T97 12 200HV	8	VBM
7		299012334	NUT GB/T6170 M12-GR8	4	VBM
8		299005520	HANGING LADDER	1	VBM
9		299005401	SHAFT	1	VBM
10		299005402	GASKET	2	VBM
11		299012382	WASHER GB/T97 10 200HV	2	VBM
12		299010457	BOLT GB/T5783 M10X20-GR8.8	2	VBM
13		299005529	LADDER	1	VBM
14		2109003	PIN LOCKING - 3/8 X 2 1/4 YZ	2	PELLA
15		299006353	STAINLESS STEEL WIRE 1 X7 -350	2	VBM
16		1838001	CONNECTOR - WIRE (ETC)	4	VBM

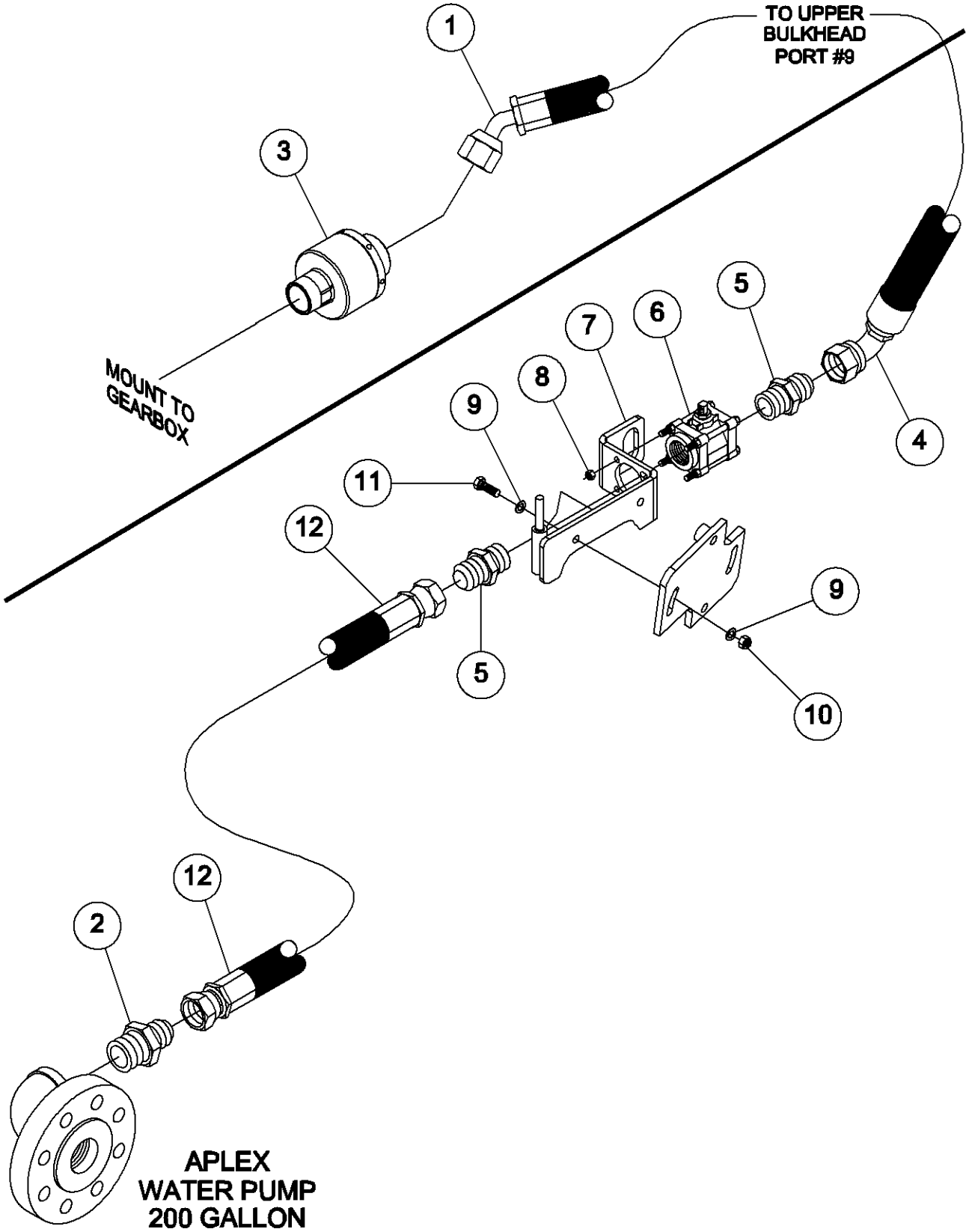
Hand Rail Platform Fig 7-2



Hand Rail Platform Fig 7-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005579	FENCE	1	VBM
2		299011006	BOLT GB/T5782 M10X70-GR8.8	6	VBM
3		299012382	WASHER GB/T97 10 200HV	24	VBM
4		299005549	ARMREST	1	VBM
5		299012333	NUT M10 (GB/T6170-85)	12	VBM
6		299005507	RIGHT BENT PLATE	1	VBM
7		299010461	BOLT GB/T5783 M10X40-GR8.8	2	VBM
8		299005506	LONG PIN	2	VBM
9		299010461	BOLT GB/T5783 M10X40-GR8.8	4	VBM
10		299005569	RIGHT ARMREST	1	VBM
11		299005539	PLATFORM	1	VBM
12		299005508	LEFT BENT PLATE	1	VBM
13		1794003	HAIR PIN COTTER - .148 WIRE	2	PELLA

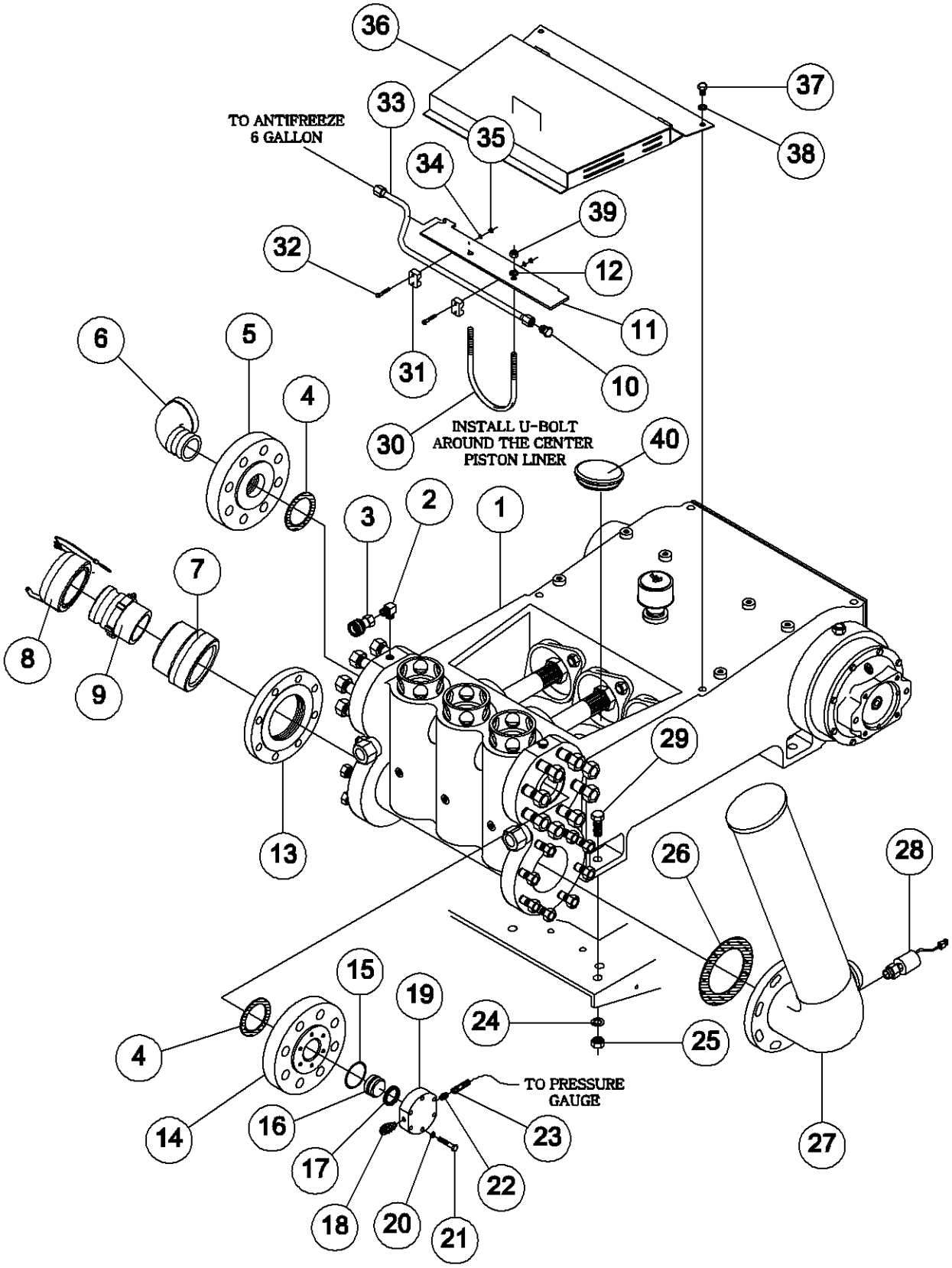
Water Line Fig 7-3



Water Line Fig 7-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005170	HOSE1.5”X8500mm 45-24FJX/ST-24FJX 1500PSI	1	VBM
2		299014077	ST-32MNPT-24MJ	1	VBM
3		296273990	SWIVEL - WATER, SS24MP200XMJ24-NI-U	1	PELLA
3		296289775	SEAL KIT	1	PELLA
4		299005239	HOSE1.5”X2800mm ST-24FJX/45-24FJX 1500PSI	1	VBM
5		299013819	ST-24MNPT-24MJ	2	VBM
6		287053001	VALVE - 1-1/2” BALL (2200 PSI)	1	PELLA
7		299005421	PLATE	1	VBM
8		235725001B	NUT - HEX - .38 - 16 - GR8 - YZ	4	VBM
9		299012383	WASHER GB/T97 12 200HV	4	VBM
10		299012334	NUT GB/T6170 M12-GR8	2	VBM
11		299010822	BOLT GB/T5783 M12X40-GR10.9	2	VBM
12		299005117	HOSE 1.5”X870mm ST-24FJX/ST-24FJX 1500PSI	1	VBM

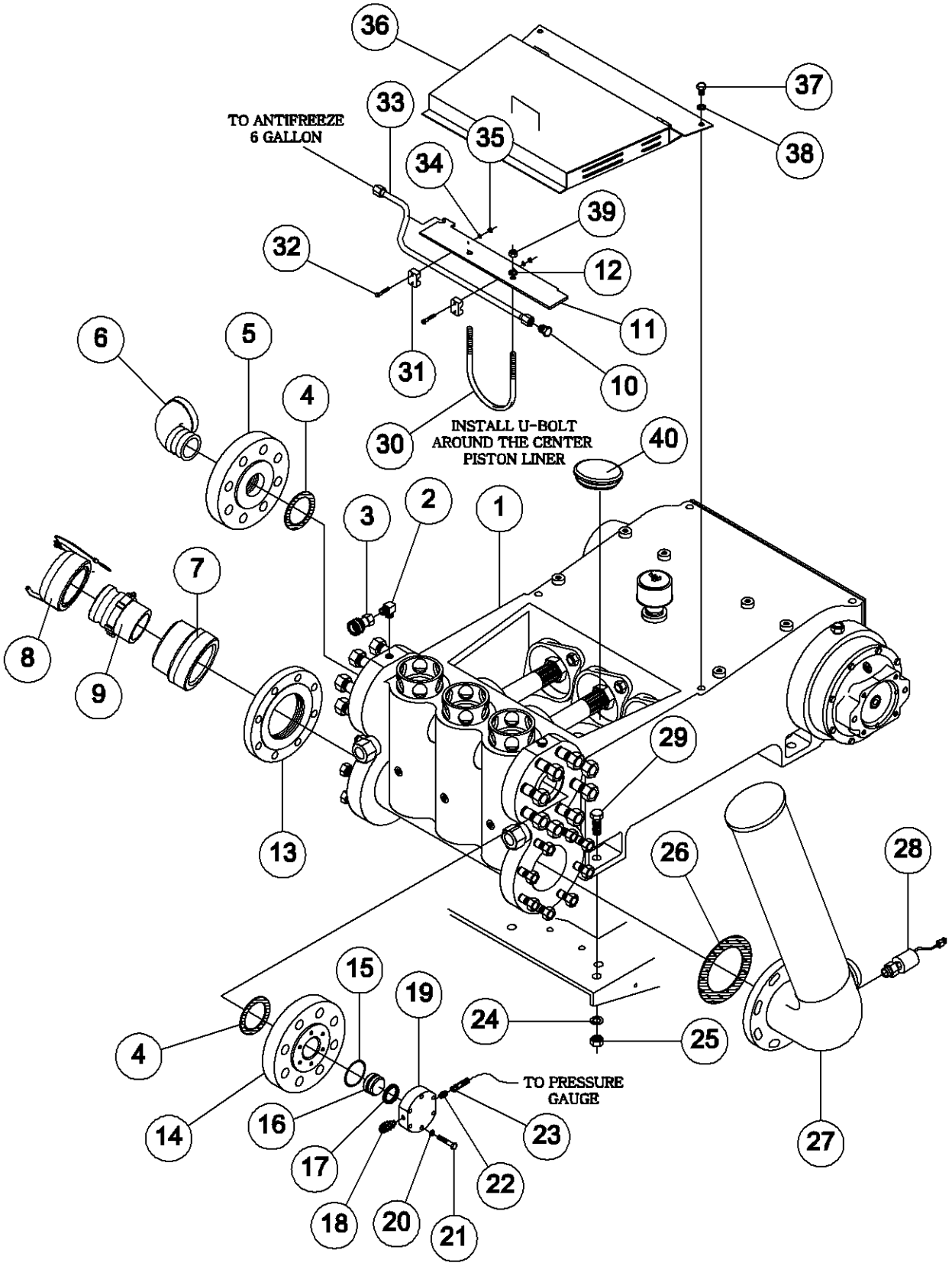
Water Pump - Aplex 200 GPM (SC170) (S/N 114-) Fig 7-4r02



Water Pump - Aplex 200 GPM (SC170) (S/N 114-) Fig 7-4r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780001	PUMP- SC170 4”-07 GR TRIPLEX	1	PELLA, Inc. Ref. 4,13&26; Breakdown Fig. 7-4z01 - 7-4z07
2		904831001	FITTING 1/2MNPT X 1/2MNPT 90	1	VBM
3		227235001	COUPLER-1/2”NPT QUICK(FEMALE)	1	PELLA
4		277780002	GASKET - DISCHARGE (4.125 OD)	2	PELLA
5		299005492	END CAP	1	VBM
6		244191001	ELBOW - 2” 90 DEG BLK STREET	1	PELLA
7		299005408	5”-3 XCX FITTING	1	VBM
8		215429001	CAP-3” CAM LOCK *	1	VBM
9		299005453	FITTING F3’ XYX STAINLESS STEEL 316	1	VBM
10		299013906	PLUG-#8 JIC MALE	1	VBM
11		299005527	BENT PLATE	1	VBM
12		299012383	WASHER GB/T97 12 200HV	2	VBM
13		287035001	FLANGE - SUCTION STABILIZER	1	PELLA
14		299005490	FLANGE	1	VBM
15		299005494	O-RING 67X5.3 GB/T3452.1-1992	1	VBM
16		239252001	PISTON-SC65 OUTLET FITTING	1	PELLA
17		51181001	O-RING #326	1	PELLA
18		75493001	FITTING - TEST - 4MORB - 16MTP	1	VBM
19		299005491	END CAP	1	VBM
20		299012382	WASHER GB/T97 10 200HV	6	VBM
21		299010463	BOLT (M10X50-GR8.8)GB/T5783	6	VBM
22		60908001	FITTING-4MX4M JIC STR ADAPTER	1	VBM
23		299023011	HOSE-HYD- .08 347 ST-4FJX/ST-4FJX 6900PSI	1	PELLA
24		299012399	WASHER GB/T96 20 200HV	4	VBM
25		299012364	NUT GB/T6170 M20-GR10	4	VBM
26		277780003	GASKET - SUCTION (7.75 OD)	2	PELLA
27		299005559	SUCTION HOSE	1	VBM
28		287554001	SWITCH - 10 PSI NO/NC	1	PELLA
29		299011343	BOLT GB/T5782 M20X70-GR10.9	4	VBM
30		299005526	BAR-U-SHAPED	1	VBM
31		299009520	TLPG-212.7	2	VBM
32		299011714	SCREW GB/T70M6X40-GR8.8	4	VBM
33		285068001	TUBE - PISTON WASH	1	PELLA
34		299012380	WASHER GB/T97 6 200HV	4	VBM
35		299012331	NUT GB/T6170 M6-GR8	4	VBM
36		299005495	HOOD - PISTON WASH	1	VBM
37		235728001B	SCREW-HCS-.50-13X.75-GR8-YZ	2	VBM
38		485025B	WASHER-1/2 FLAT-HARDENED-YZ	2	VBM
39		299012334	NUT GB/T6170 M12-GR8	2	VBM
40		296279658B	PLUC-EXPANDABLE	1	VBM

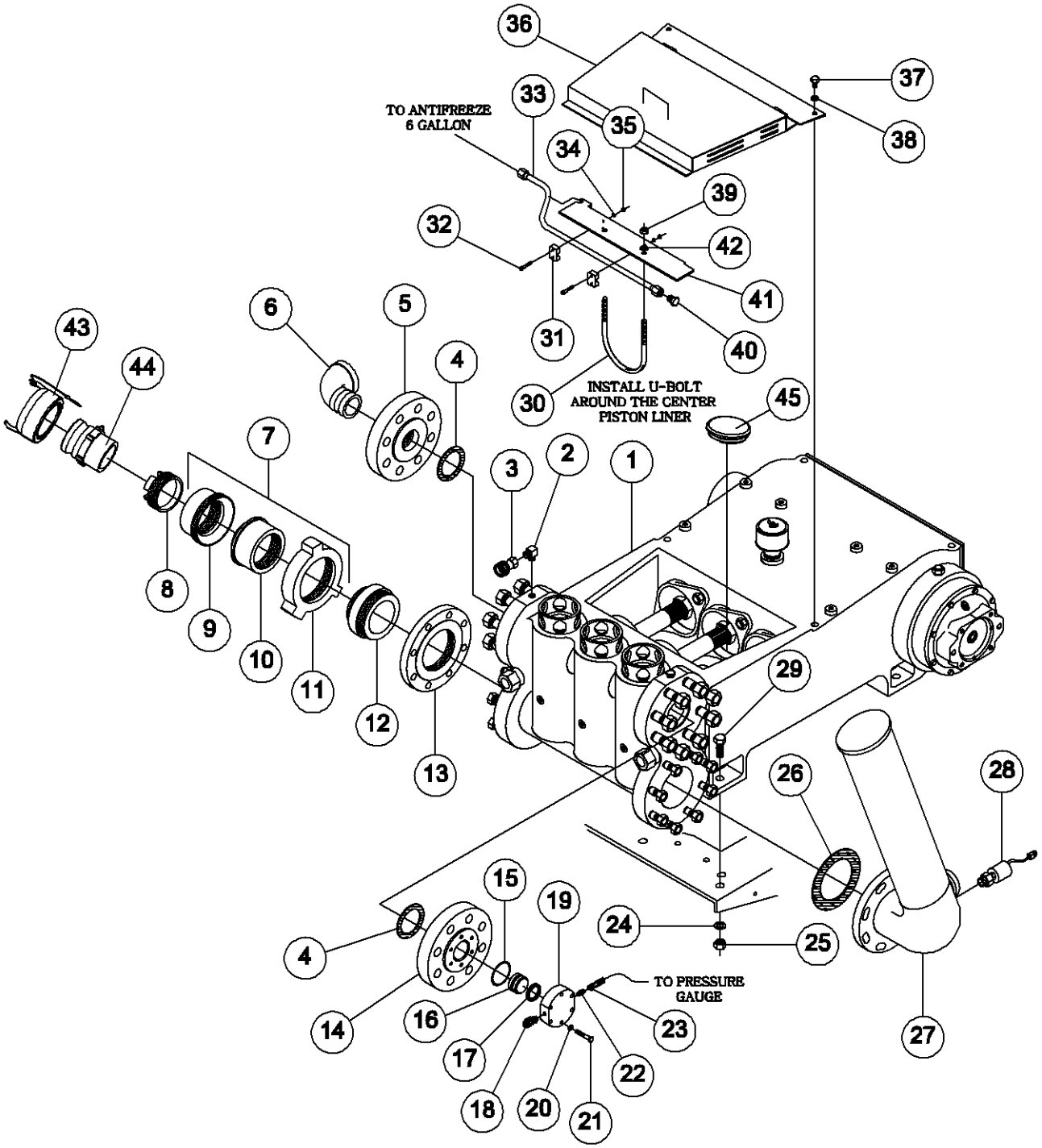
Water Pump - Aplex 200 GPM (SC170) (S/N 107-113) Fig 7-4r01



Water Pump - Aplex 200 GPM (SC170) (S/N 107-113) Fig 7-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780001	PUMP- SC170 4”-07 GR TRIPLEX	1	PELLA, Inc. Ref. 4,13&26; Breakdown Fig. 7-4z01 - 7-4z07
2		904831001	FITTING 1/2MNPT X 1/2MNPT 90	1	VBM
3		227235001	COUPLER-1/2”NPT QUICK(FEMALE)	1	PELLA
4		277780002	GASKET - DISCHARGE (4.125 OD)	2	PELLA
5		299005492	END CAP	1	VBM
6		244191001	ELBOW - 2” 90 DEG BLK STREET	1	PELLA
7		299005408	5”-3 XCX FITTING	1	VBM
8		215429001	CAP-3” CAM LOCK *	1	VBM
9		215427001B	COUPLING- F-80	1	VBM
10		83637001	PLUG-#8 JIC MALE	1	PELLA
11		299005527	BENT PLATE	1	VBM
12		299012383	WASHER GB/T97 12 200HV	2	VBM
13		287035001	FLANGE - SUCTION STABILIZER	1	PELLA
14		299005490	FLANGE	1	VBM
15		299005494	O-RING 67X5.3 GB/T3452.1-1992	1	VBM
16		239252001	PISTON-SC65 OUTLET FITTING	1	PELLA
17		51181001	O-RING #326	1	PELLA
18		75493001	FITTING - TEST - 4MORB - 16MTP	1	VBM
19		299005491	END CAP	1	VBM
20		299012382	WASHER GB/T97 10 200HV	6	VBM
21		299010463	BOLT (M10X50-GR8.8)GB/T5783	6	VBM
22		60908001	FITTING-4MX4M JIC STR ADAPTER	1	VBM
23		299023011	HOSE-HYD- .08 347 ST-4FJX/ST-4FJX 6900PSI	1	PELLA
24		299012399	WASHER GB/T96 20 200HV	4	VBM
25		299012364	NUT GB/T6170 M20-GR10	4	VBM
26		277780003	GASKET - SUCTION (7.75 OD)	2	PELLA
27		299005559	SUCTION HOSE	1	VBM
28		287554001	SWITCH - 10 PSI NO/NC	1	PELLA
29		299011343	BOLT GB/T5782 M20X70-GR10.9	4	VBM
30		299005526	BAR-U-SHAPED	1	VBM
31		299009520	TLPG-212.7	2	VBM
32		299011714	SCREW GB/T70M6X40-GR8.8	4	VBM
33		285068001	TUBE - PISTON WASH	1	PELLA
34		299012380	WASHER GB/T97 6 200HV	4	VBM
35		299012331	NUT GB/T6170 M6-GR8	4	VBM
36		299005495	HOOD - PISTON WASH	1	VBM
37		235728001B	SCREW-HCS-.50-13X.75-GR8-YZ	2	VBM
38		485025B	WASHER-1/2 FLAT-HARDENED-YZ	2	VBM
39		299012334	NUT GB/T6170 M12-GR8	2	VBM
40		296279658B	PLUC-EXPANDABLE	1	VBM

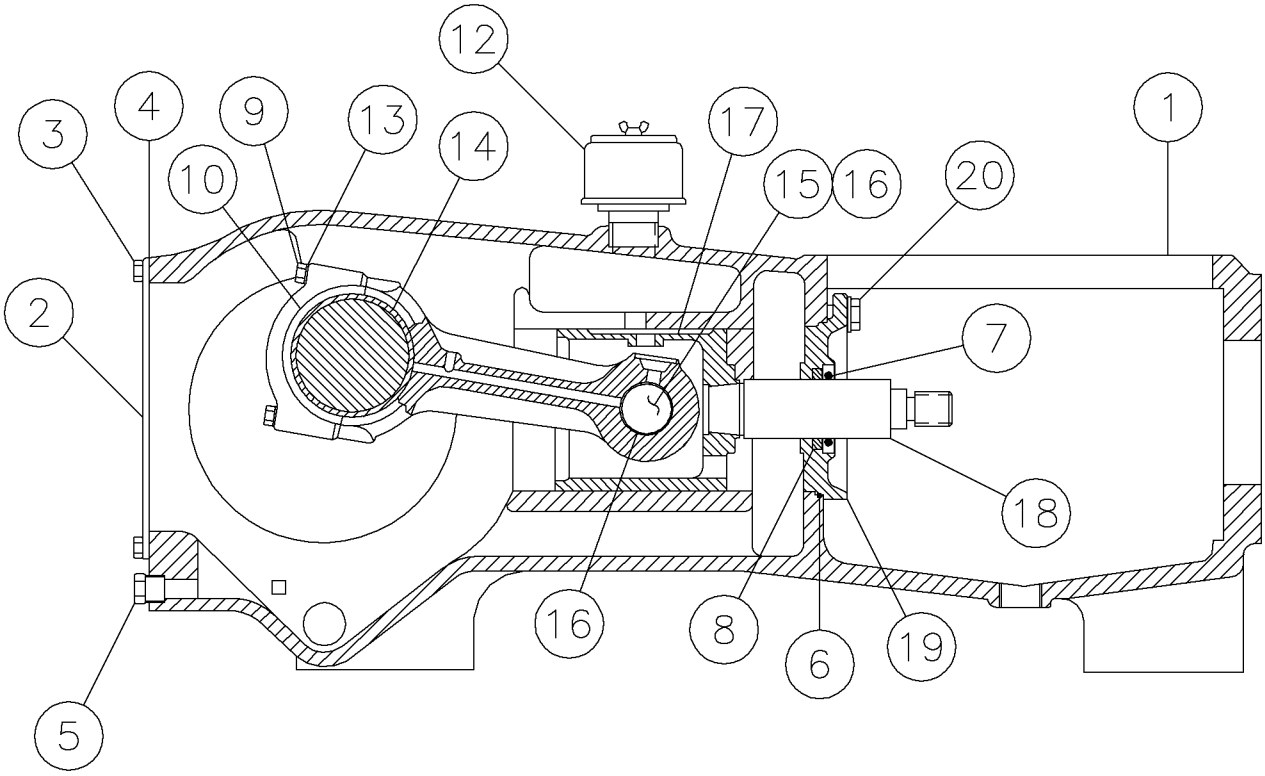
Water Pump - Aplex 200 GPM (SC170) (S/N 101-106) Fig 7-4



Water Pump - Aplex 200 GPM (SC170) (S/N 101-106) Fig 7-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780001	PUMP- SC170 4”-07 GR TRIPLEX	1	PELLA, Inc. Ref. 4,13&26; Breakdown Fig. 7-4z01 - 7-4z07
2		904831001	FITTING 1/2MNPT X 1/2MNPT 90	1	VBM
3		227235001	COUPLER-1/2”NPT QUICK(FEMALE)	1	PELLA
4		277780002	GASKET - DISCHARGE (4.125 OD)	2	PELLA
5		299005492	END CAP	1	VBM
6		244191001	ELBOW - 2” 90 DEG BLK STREET	1	PELLA
7		287056001	UNION - 4” HAMMER (1000PSI)	1	PELLA, Inc. Ref. 9,10&11
8		299001996	ADAPTER - 3’ XYX -4’ XYX	1	VBM
9		287056005	SUB - 4” FEMALE HAMMER UNION (1000PSI)	1	PELLA
10		287056003	SUB - 4” MALE HAMMER UNION (1000PSI)	1	PELLA
11		287056007	NUT - 4” HAMMER UNION WING (1000PSI)	1	PELLA
12		287034001B	FITTING - 5” MPT X 4” MPT REDUCER	1	VBM
13		287035001	FLANGE - SUCTION STABILIZER	1	PELLA
14		299005490	FLANGE	1	VBM
15		299005494	O-RING 67X5.3 GB/T3452.1-1992	1	VBM
16		239252001	PISTON-SC65 OUTLET FITTING	1	PELLA
17		51181001	O-RING #326	1	PELLA
18		75493001	FITTING - TEST - 4MORB - 16MTP	1	PELLA
19		299005491	END CAP	1	VBM
20		299012382	WASHER GB/T97 10 200HV	6	VBM
21		299010463	BOLT (M10X50-GR8.8)GB/T5783	6	VBM
22		60908001	FITTING-4MX4M JIC STR ADAPTER	1	VBM
23		299023011	HOSE-HYD- .08 347 ST-4FJX/ST-4FJX 6900PSI	1	PELLA
24		299012399	WASHER GB/T96 20 200HV	4	VBM
25		299012364	NUT GB/T6170 M20-GR10	4	VBM
26		277780003	GASKET - SUCTION (7.75 OD)	2	PELLA
27		299005559	SUCTION HOSE	1	VBM
28		287554001	SWITCH - 10 PSI NO/NC	1	PELLA
29		299011343	BOLT GB/T5782 M20X70-GR10.9	4	VBM
30		299005526	BAR-U-SHAPED	1	VBM
31		299009520	TLPG-212.7	2	VBM
32		299011714	SCREW GB/T70M6X40-GR8.8	4	VBM
33		285068001	TUBE - PISTON WASH	1	PELLA
34		299012380	WASHER GB/T97 6 200HV	4	VBM
35		299012331	NUT GB/T6170 M6-GR8	4	VBM
36		299005495	HOOD - PISTON WASH	1	VBM
37		235728001B	SCREW-HCS-.50-13X.75-GR8-YZ	2	VBM
38		485025B	WASHER-1/2 FLAT-HARDENED-YZ	2	VBM
39		299012334	NUT GB/T6170 M12-GR8	2	VBM
40		83637001	PLUG-#8 JIC MALE	1	PELLA
41		299005527	BENT PLATE	1	VBM
42		299012383	WASHER GB/T97 12 200HV	2	VBM
43		215429001	CAP-3” CAM LOCK *	1	VBM
44		215427001B	COUPLING- F-80	1	VBM
45		296279658B	PLUC-EXPANDABLE	1	VBM

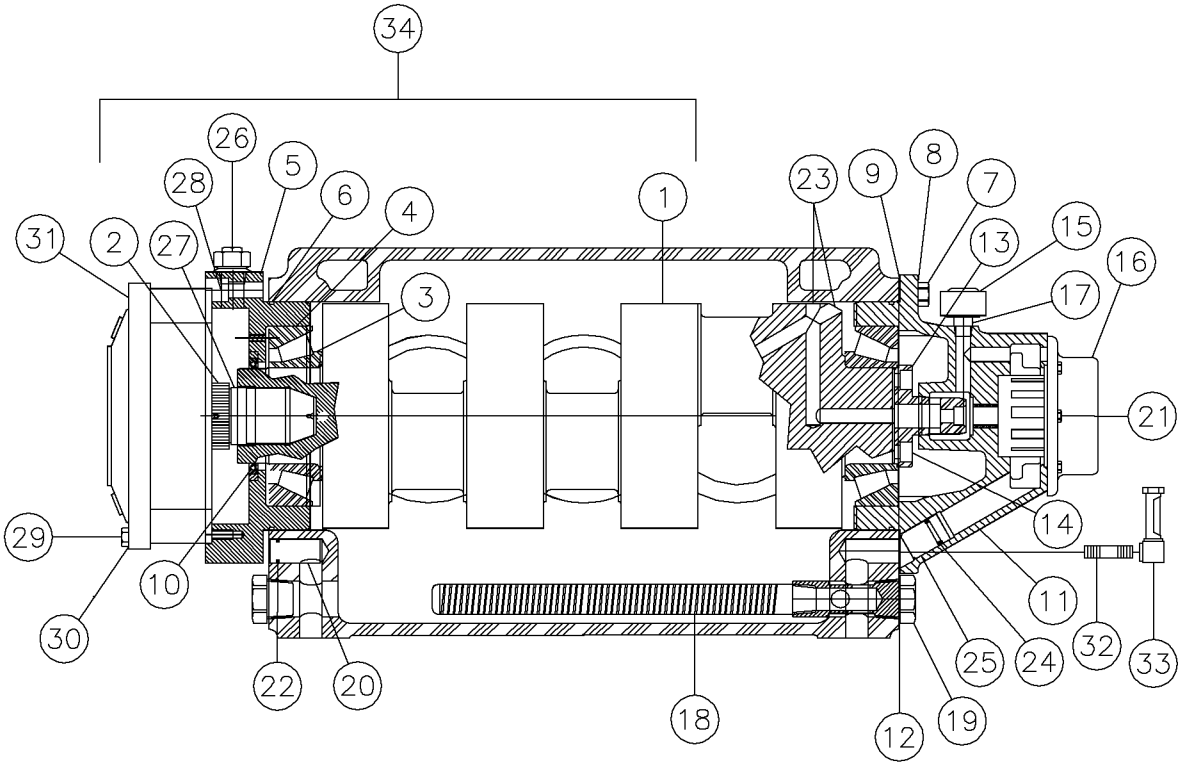
Components-Power Frame Fig 7-4z01



Components-Power Frame Fig 7-4z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780004	FRAME - POWER	1	PELLA
2		277780005	COVER - CRANKCASE	1	PELLA
3		277780006	HEX HD CAP SCREW 3/8-16X3/4	14	PELLA
4		277780007	GASKET - CRANKCASE COVER	1	PELLA
5		277780008	PLUG - 1/2” HEX HD	1	PELLA
6		277780009	SEAL - NITRILE RUBBER	3	PELLA
7		277780010	SEAL - OIL	3	PELLA
8		277780011	POLYPACK RING-2” ID X 2 3/4” OD	3	PELLA
9		277780012	BOLT - CONNECTING ROD	6	PELLA
10		277780013	CONNECTING ROD ASSEMBLY	3	PELLA, Inc. Ref. No’s 9-11 & 13
11		277780014	BUSHING - WRIST PIN	3	PELLA
12		277780015	BREATHER - CRANKCASE	1	PELLA
13		277780016	WASHER - 1/2” MEDIUM SPRING LOCK	6	PELLA
14		277780017	BEARING HALF-CRANK PIN (W/OIL GROOVE)	6	PELLA
15		277780018	PIN - WRIST	3	PELLA
16		277780019	SET SCREW - 3/8 NC X 3/4 NY LOCK SAC HD	3	PELLA, Not Shown
17		277780020	CROSSHEAD	3	PELLA
18		277780021	ROD - EXTENSION	3	PELLA
19		277780022	WIPER BOX	1	PELLA
20		277780023	HEX HD CAP SCREW -5/8 X 1 1/2	5	PELLA

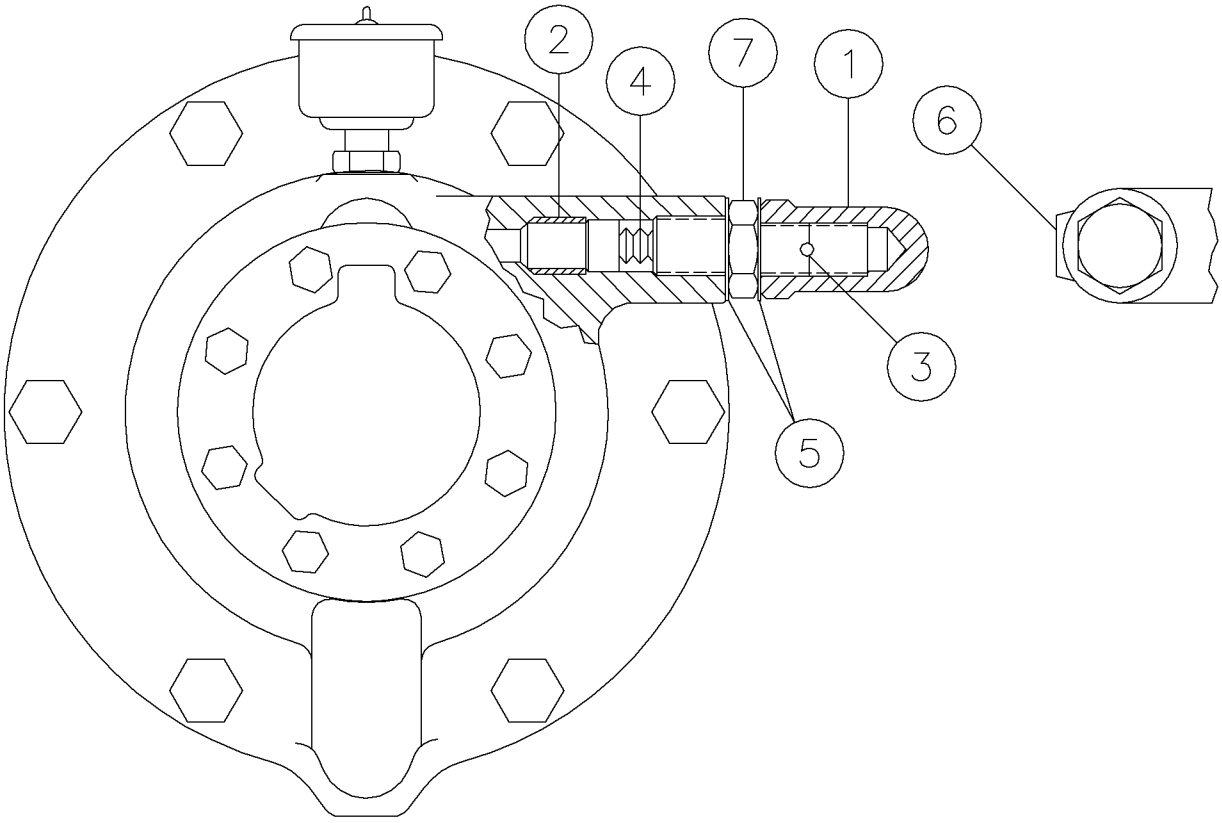
Components-Crankshaft Fig 7-4z02



Components-Crankshaft Fig 7-4z02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780024	CRANK SHAFT	1	PELLA
2		277780025	ADAPTOR - SPLINED	1	PELLA
3		277780026	CONE - BEARING	2	PELLA
4		277780027	CUP - BEARING	2	PELLA
5		277780028	BEARING CARRIER / GEAR ADAPTOR	1	PELLA
6		277780029	O-RING - NITRILE RUBBER	2	PELLA
7		277780030	HEX HD CAP SCREW - 5/8 NCX 1 3/4	6	PELLA
8		277780031	WASHER - 5/8 MEDIUM SPRING LOCK	6	PELLA
9		277780032	SHIM SET	1	PELLA
10		277780033	SEAL - OIL (DRIVE SIDE)	1	PELLA
11		277780043	CARRIER - BEARING	1	PELLA
12		277780034	GASKET	1	PELLA
13		277780035	RETAINER - BEARING	1	PELLA
14		277780036	SCREW - 1/2 X 1 SOC HD CAP NYLOK	4	PELLA
15		277780037	SWITCH -MURPHY	1	PELLA
16		277780038	LUBE OUL PUMP	1	PELLA
17		277780039	BUSHING - 3/8 X 1/8 HEX	1	PELLA
18		277780040	FILTER - OIL 1 X 15	1	PELLA
19		277780041	PLUG - 1 1/4 OIL FILTER	1	PELLA
20		277780042	PLUG -DRIVE	1	PELLA
21		277780044	HEX HD CAP SCREW - 5/16 NC X 5/8	8	PELLA
22		277780045	O-RING - NITRILE RUBBER	1	PELLA
23		3213017	PLUG-RELIEF 3/8” GRESEN 73-001	2	PELLA
24		277780046	O-RING - NITRILE RUBBER	1	PELLA
25		277780047	CHECK VALVE - BRASS	1	PELLA
26		220741019	BREATHER-CRANKCASE 3/4M NPT	1	PELLA
27		244643013	RING-SNAP	1	PELLA
28		277780048	SCREW - 5/8 X 2 1/2 SOC HD CAP	6	PELLA
29		277780049	SCREW - 3/8 X 3 1/4 HEX HD CAP	12	PELLA
30		244643017	WASHER-STAT O SEAL-3/8	12	PELLA
31		277780050	GEARBOX - #8 KIT 7.07 RATIO AUBURN	1	PELLA, Breakdown Fig. 7-4z08
32		277780051	NIPPLE - 1/4 X 2 STD WT.	1	PELLA
33		220741127	OIL LEVEL SIGHT GAUGE	1	PELLA
34		296253159	SC - 170 LH - CRANKSHAFT KIT W/ BEARINGS	1	PELLA, Inc. Ref. No’s 1-4 & Ref. 27

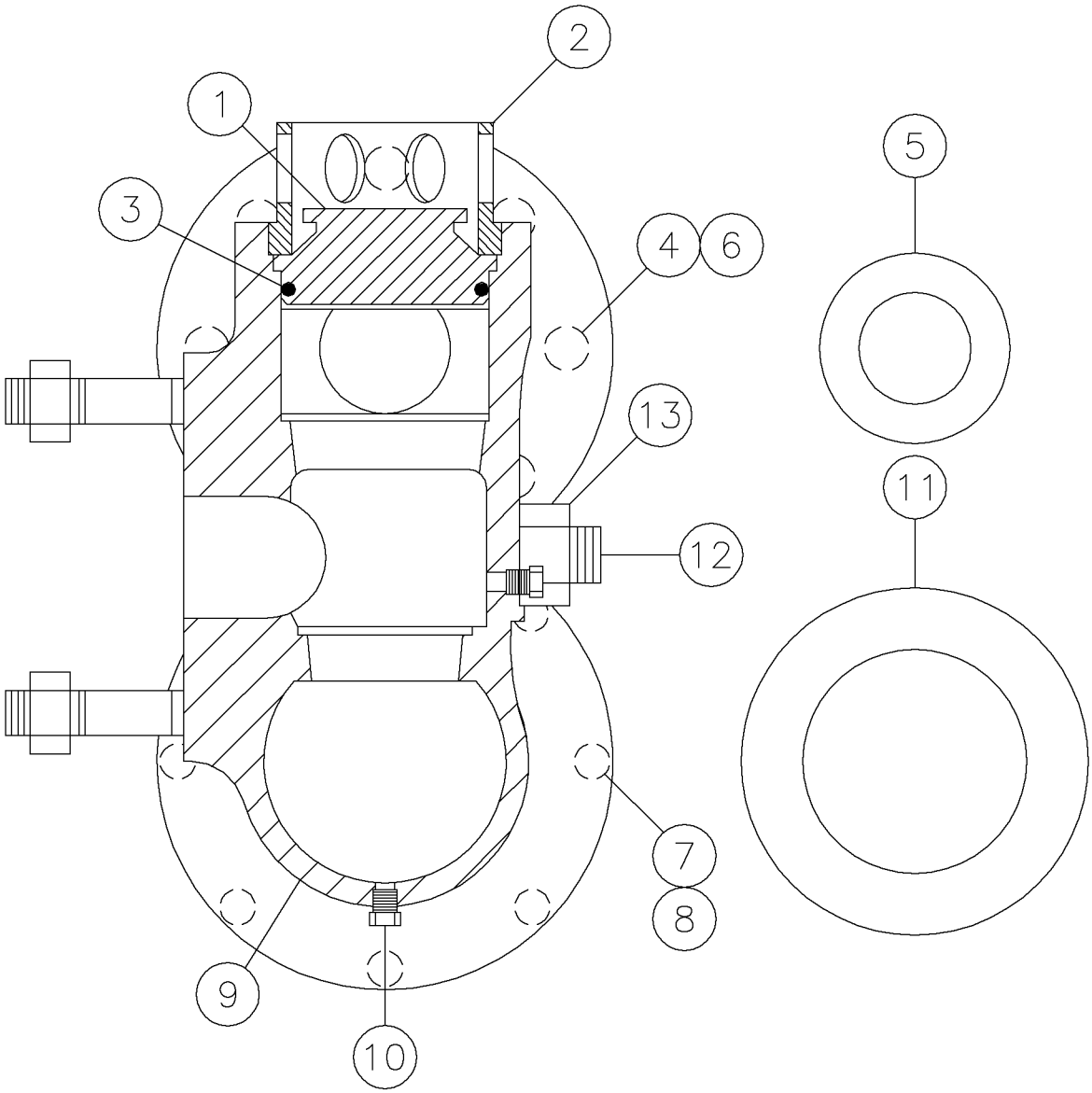
Components-Lube Fig 7-4z03



Components-Lube Fig 7-4z03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780055	CAP - RELIEF VALVE	1	PELLA
2		277780056	PISTON - RELIEF VALVE	1	PELLA
3		277780057	ADJUSTING SCREW - RELIEF VALVE	1	PELLA
4		277780058	SPRING - RELIEF VALVE	1	PELLA
5		277780059	WASHER	1	PELLA
6		115222001	FITTING-1/8 NPT HEX SOCKET	1	PELLA
7		277780060	NUT - 7/8 - 14 JAM	1	PELLA

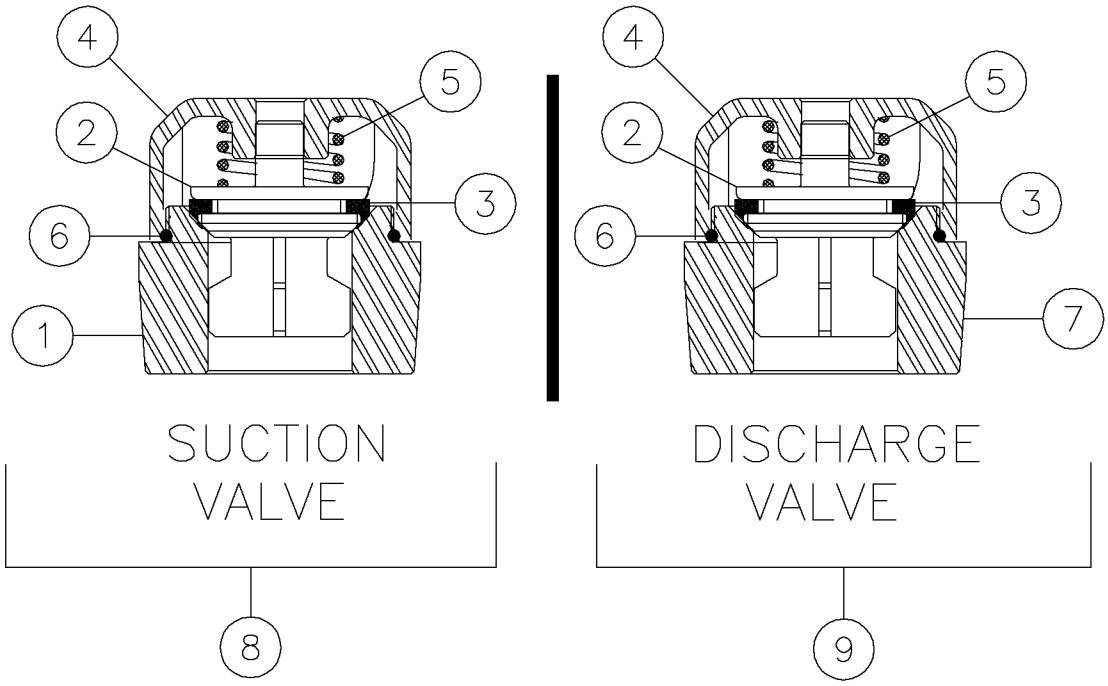
Components-Fliud End Fig 7-4z04



Components-Fliud End Fig 7-4z04

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780061	COVER - VALVE	3	PELLA
2		277780062	SCREW - VALVE COVER	3	PELLA
3		277780063	O-RING	3	PELLA
4		277780064	NUT - 1-8 HVY HEX	16	PELLA
5		277780002	GASKET - DISCHARGE (4.125 OD)	2	PELLA
6		277780065	STUD - 1 X 4 1/8	16	PELLA
7		277781039	NUT - 3/4 HEAVY HEX	16	PELLA
8		277780067	STUD - 3/4 X 3	16	PELLA
9		277780068	LIQUID END	1	PELLA
10		277780069	PLUG - 1/4 HEX SS	4	PELLA
11		277780003	GASKET - SUCTION (7.75 OD)	2	PELLA
12		277780070	STUD - POWER FRAME TO LIQUID END	2	PELLA
13		277780071	NUT - 1 1/4 - 7 HVY HEX	2	PELLA

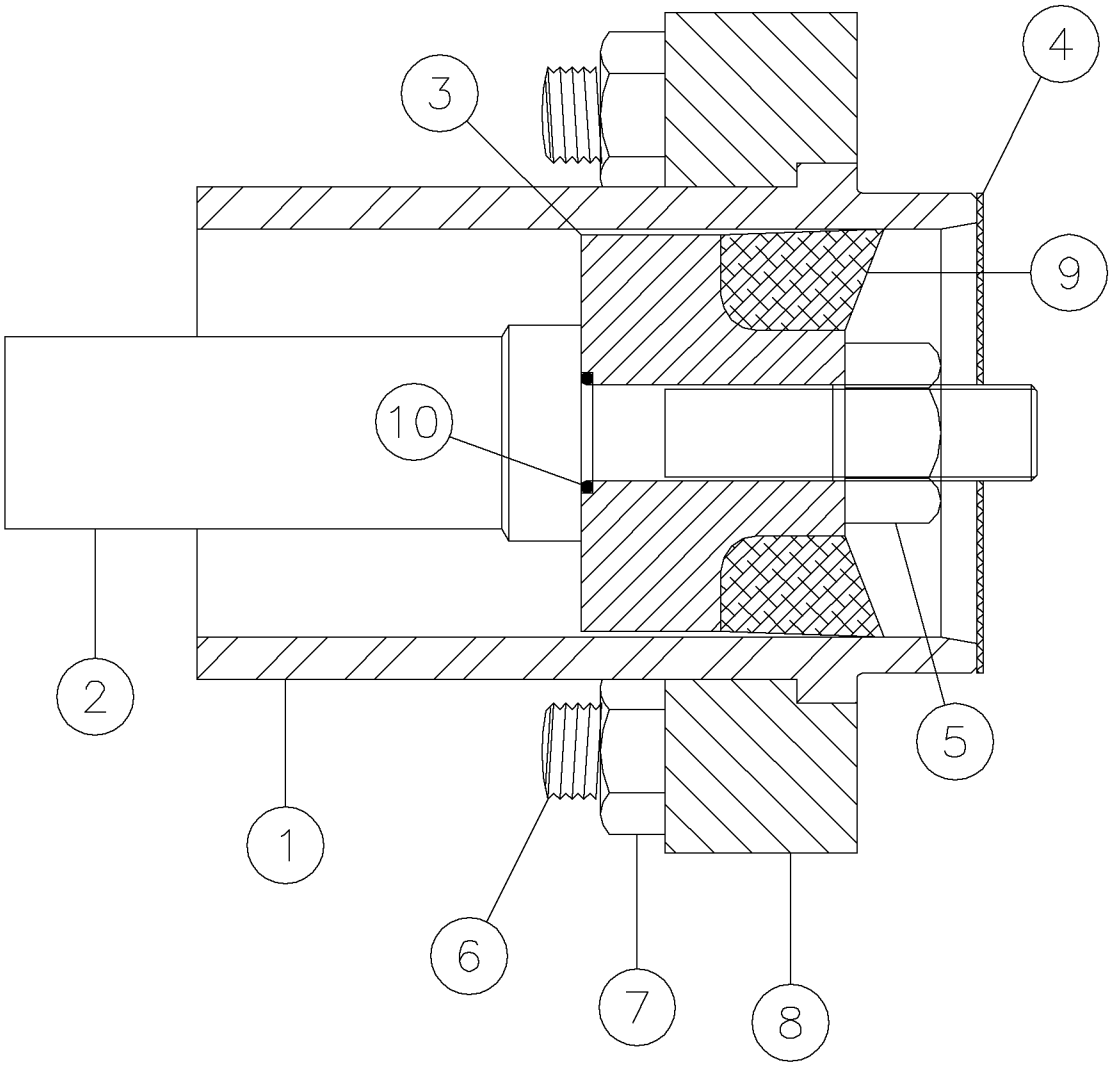
Components-Suction/Discharge Valve Fig 7-4z05



Components-Suction/Discharge Valve Fig 7-4z05

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780072	VALVE SEAT - SUCTION	3	PELLA
2		277780073	VALVE BODY	6	PELLA
3		277780074	POLYURETHANE INSERT	6	PELLA
4		277780075	GUIDE CAGE	6	PELLA
5		277780076	VALVE SPRING	6	PELLA
6		277780077	O-RING - NITRILE RUBBER	6	PELLA
7		277780078	VALVE SEAT - DISCHARGE	3	PELLA
8		277780079	VALVE ASSEMBLY - SUCTION	3	PELLA, Inc. Ref. No's 1-6
9		277780080	VALVE ASSEMBLY - DISCHARGE	3	PELLA, Inc. Ref. No's 2-7

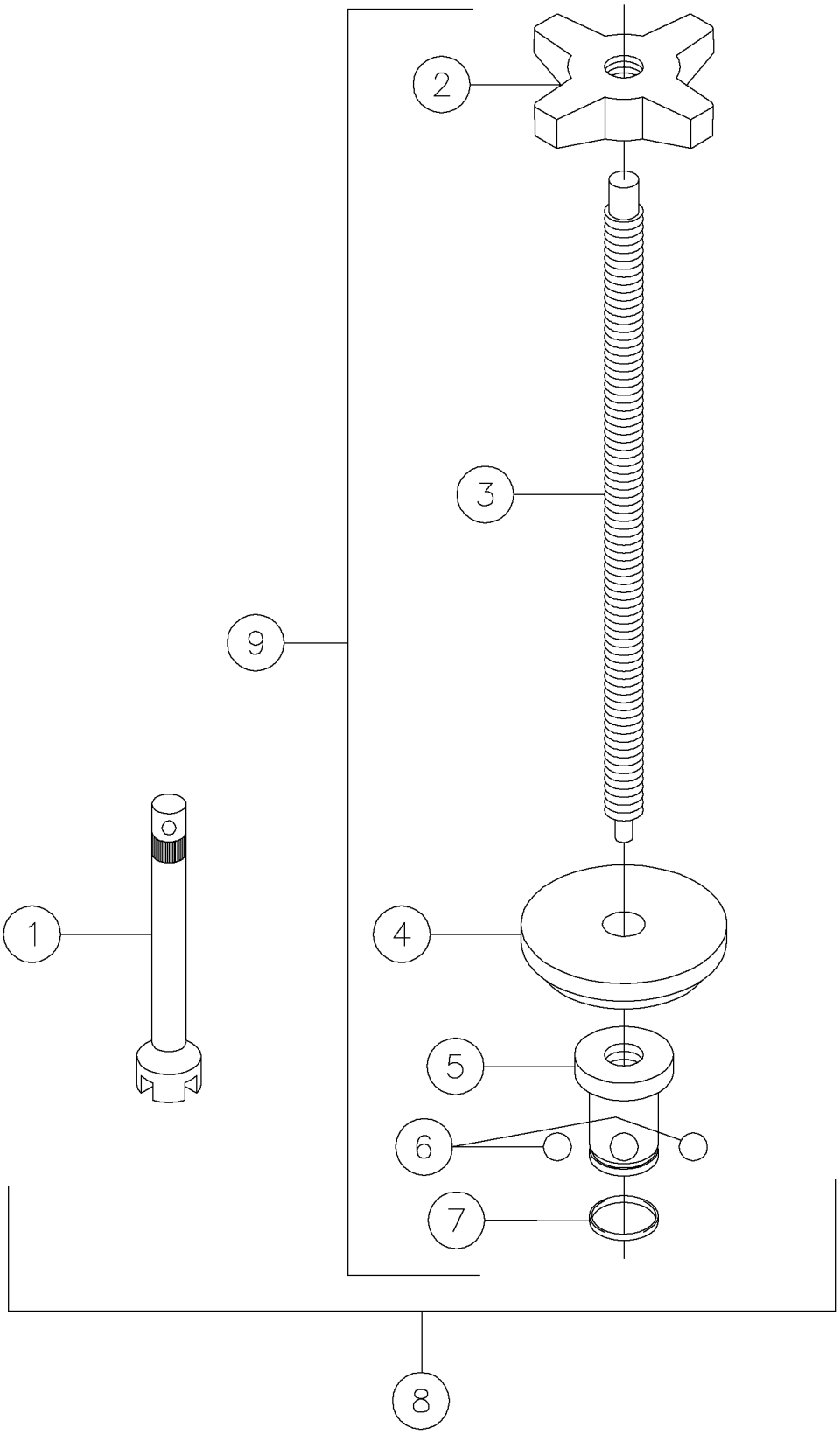
Components-Piston 4'' Fig 7-4z06



Components-Piston 4'' Fig 7-4z06

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277780081	LINER - 4” CHROME OXIDE PISTON	3	PELLA
2		277780082	ROD - PISTON	3	PELLA
3		277780083	PISTON ASSY (BLACK)	3	PELLA
4		277780084	GASKET LINER	3	PELLA
5		277780085	NUT - SL PISTON ROD	3	PELLA
6		277780086	STUD	16	PELLA
7		277780087	NUT - 1” NC	16	PELLA
8		277780088	LINER - PISTON FLANGE	4	PELLA
9			PISTON RUBBER	3	Not Sold Separately
10			O - RING	3	Not Sold Separately

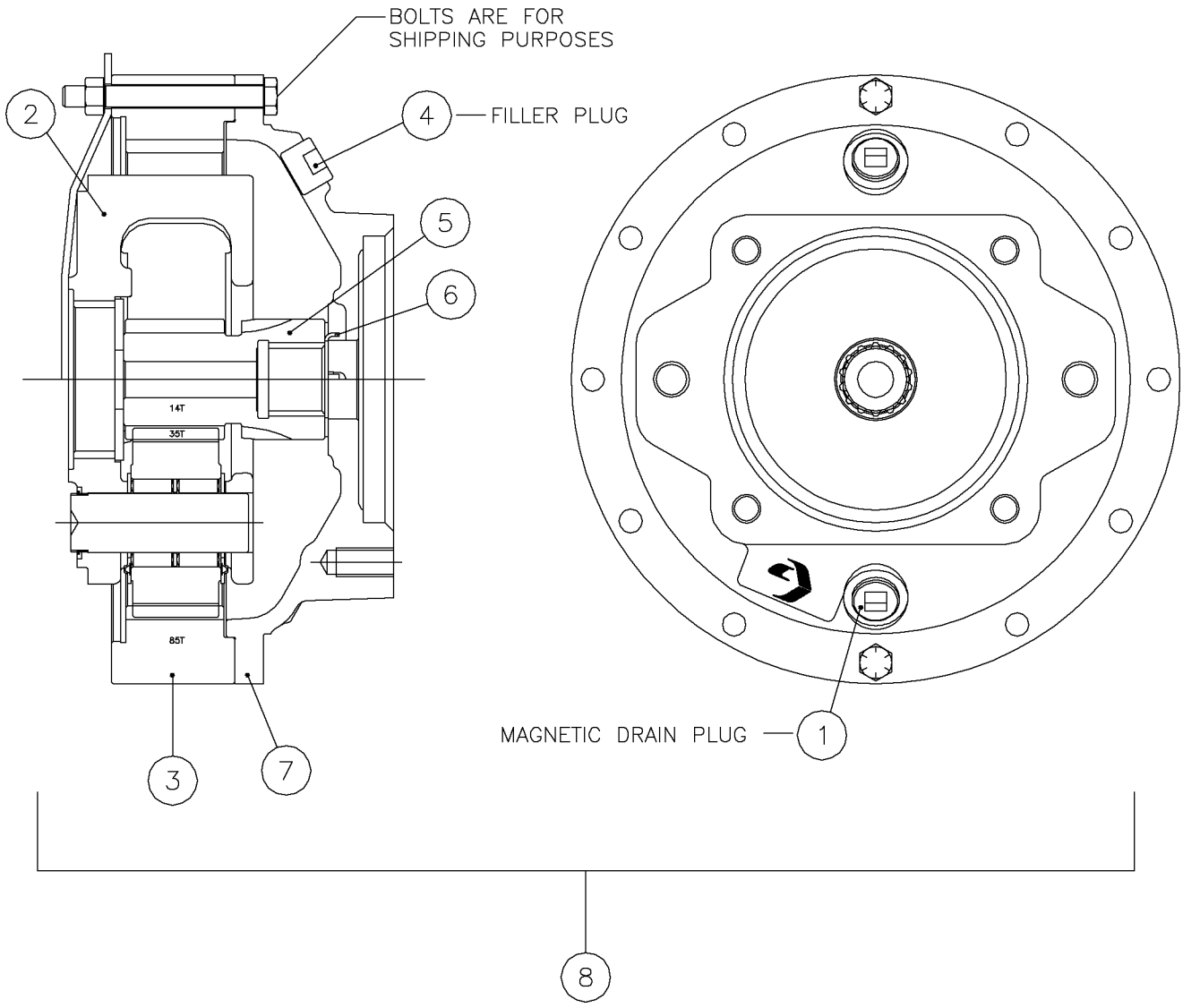
Components-Special Tools Fig 7-4z07



Components-Special Tools Fig 7-4z07

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296251254	CAGE WRENCH	1	PELLA
2		277780101	WING NUT	1	PELLA
3		277780095	VALVE STEM	1	PELLA
4		277780097	BRIDGE	1	PELLA
5		277780093	PULLER HEAD	1	PELLA
6		277780099	BALL - 1”	2	PELLA
7		277780091	O-RING	1	PELLA
8		277780089	VALVE PULLER ASSEMBLY	1	PELLA, Inc. Ref. No’s 1-7
9		296251276	SC170 VALVE SEAT PULLER TOOL	1	PELLA, Inc. Ref. No’s 2-7

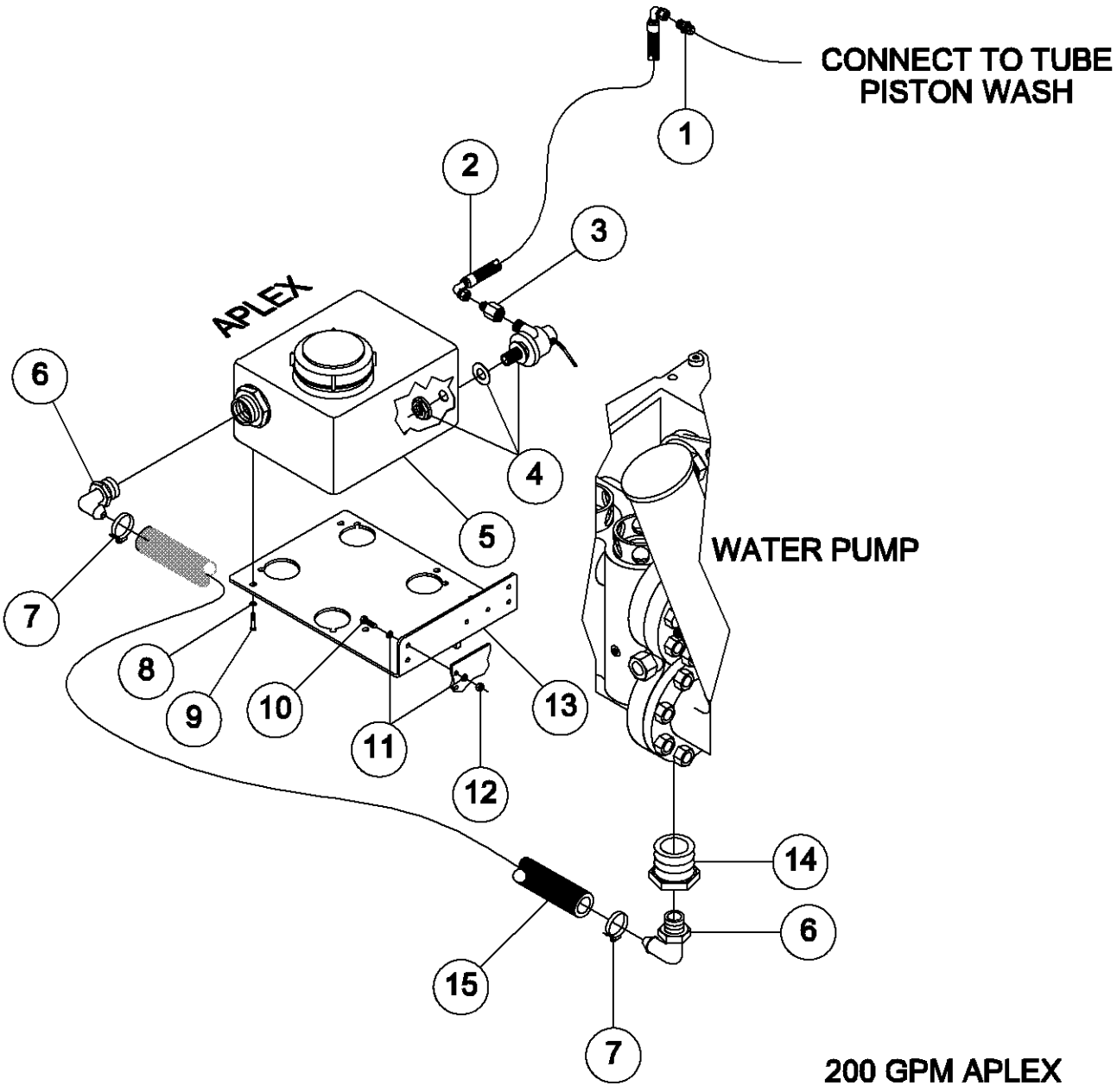
Components-Gearbox Fig 7-4z08



Components-Gearbox Fig 7-4z08

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		221652035	MAGNETIC PLUG	1	PELLA
2		277780052	SEC. CARRIER ASSEMBLY	1	PELLA
3		277780053	GEAR - RING	1	PELLA
4		221652039	PIPE PLUG	1	PELLA
5		277780054	GEAR - SUN	1	PELLA
6		131488021	THRUST WASHER	1	PELLA
7		277781033	COVER	1	PELLA
8		277780050	GEARBOX - #8 KIT 7.07 RATIO BURN	1	PELLA, Inc. All Items In This Figure

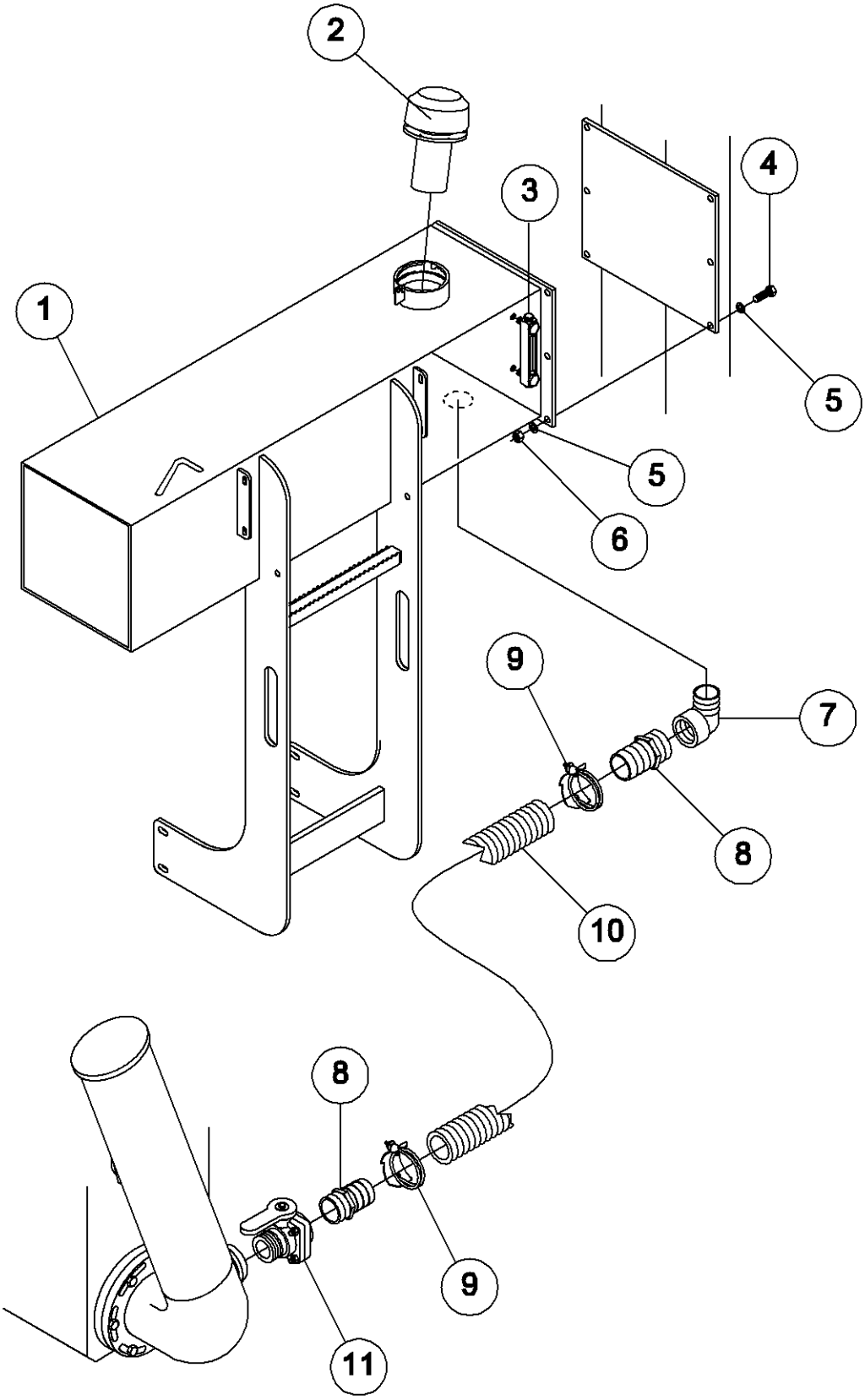
Piston Wash Fig 7-5



Piston Wash Fig 7-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299014140	ST-8MJ-8MJ	1	VBM
2		299023058	HOSE 0.5”x740mm ST-8FJX/90-8FJX 350PSI	1	VBM
3		296275718	FITTING - 8MJ-12FP-ST	1	PELLA
4		296279590	PUMP - PISTON WASH	1	PELLA
5		285850001	TANK - 6 GALLON POLY	1	PELLA
6		905430001	FITTING-1NPTX1 BARB-90 NYLON	2	PELLA
7		1580007B	HOSE CLAMP - 1 1/2” REF	2	VBM
8		235716001B	WASHER - FLATSTRL - .25 -.28 X .63 - .06	4	VBM
9		235734001B	BOLT-1/4-20X3/4 GR8 ZINC PLTD	4	VBM
10		299010461	BOLT GB/T5783 M10X40-GR8.8	4	VBM
11		299012382	WASHER GB/T97 10 200HV	8	VBM
12		299012333	NUT M10 (GB/T6170-85)	4	VBM
13		299005589	PLATE	1	VBM
14		299005418	ADAPTOR - MUD PUMP 3”-1 XCX	1	VBM
15		285924001B	HOSE - 1 1/2 X 37 SUCTION	1	VBM

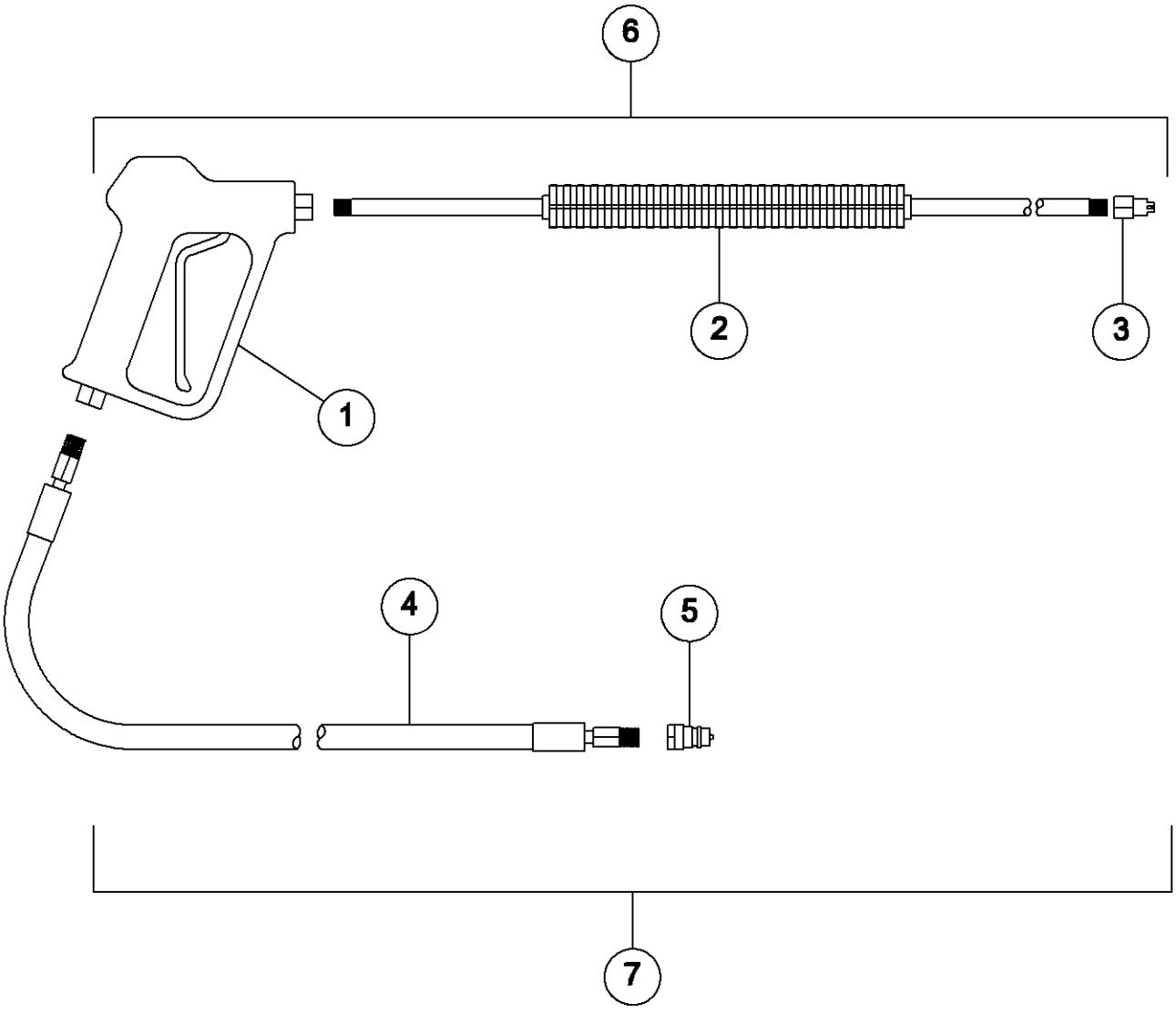
Antifreeze Tank Fig 7-6



Antifreeze Tank Fig 7-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005519	ANTIFREEZE TANK ASSEMBLY	1	VBM
2		299004162	FILTER CLEANER	1	VBM
3		299005528	FLUID LEVEL GAUGE	1	VBM
4		299010472	BOLT GB/T5783 M12X30-GR8.8	6	VBM
5		299012383	WASHER GB/T97 12 200HV	12	VBM
6		299012334	NUT GB/T6170 M12-GR8	6	VBM
7		214088001	ELBOW-90 DEG 2” POLY STREET	1	PELLA
8		215426001	HOSE BARB-2X2 MPT (POLY)	2	PELLA
9		238064001	CLAMP-2” POWERLOCK HOSE	2	PELLA
10		278116001	HOSE - 2” HD SUCTION 45”	1	PELLA
11		236045001	VALVE-2”FPTX2”MPT POLY BALL	1	PELLA

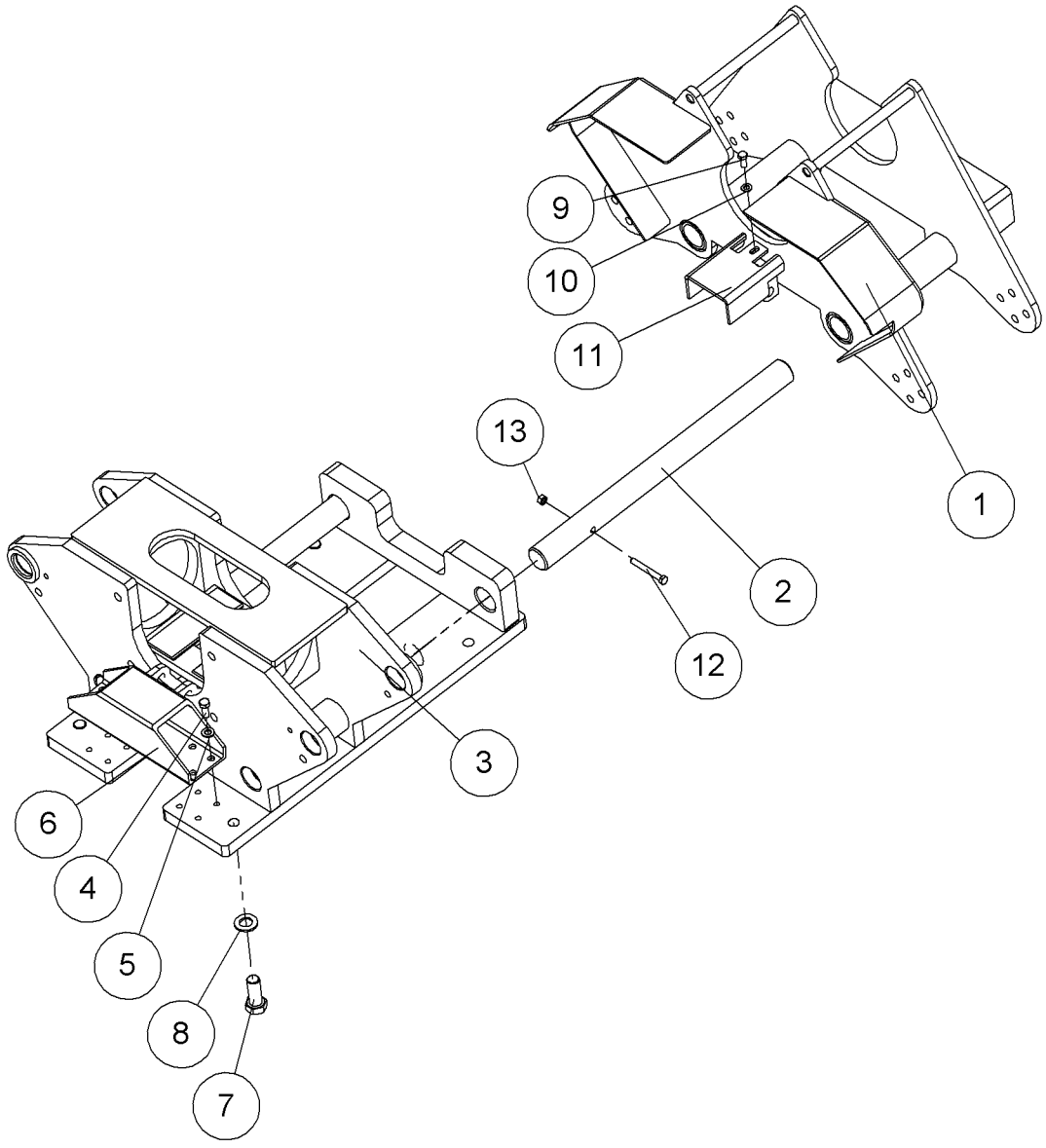
Wand Fig 7-7



Wand Fig 7-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904578001	GUN HANDLE	4	PELLA
2		904577001	MOLDED LANCE	8	PELLA
3		904576001	SPRAY NOZZLE	4	PELLA
4		282761001	HOSE-3/8X500 3/8MSNPT/1/2MNPT 100R2	1	PELLA
5		227236001	COUPLER-1/2” NPT QUICK(MALE)	1	PELLA
6		285927001	GUN ASSY	1	PELLA
7		240264001	WAND ASSY	1	PELLA, Inc. All Items In This Figure

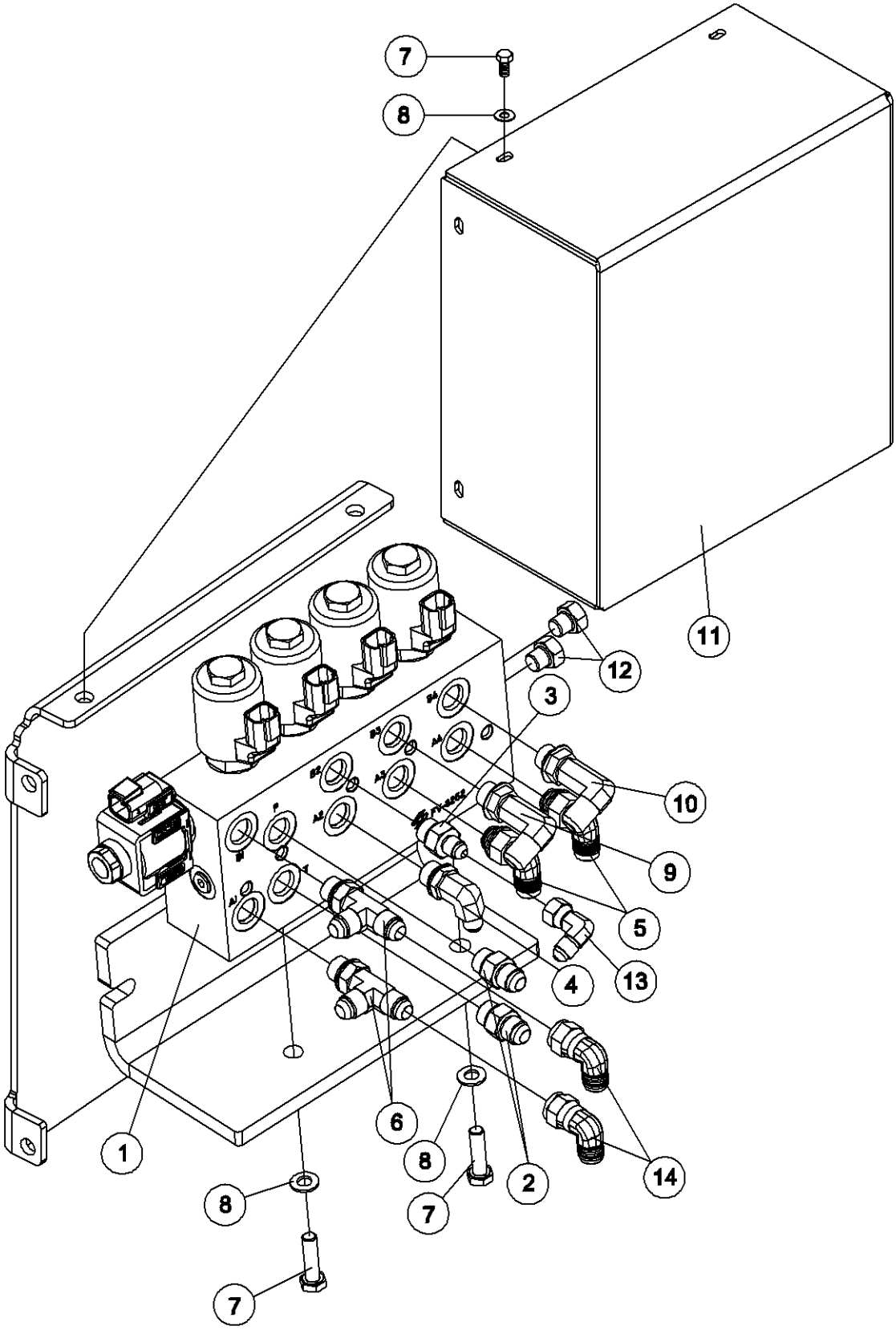
Carriage - Rear Vise Fig 8-1



Carriage - Rear Vise Fig 8-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023670	REAR VISE ASSY	1	VBM
2		299023640	SHAFT	2	VBM
3		299023619	FRONT VISE	1	VBM
4		299010472	BOLT GB/T5783 M12X30-GR8.8	8	VBM
5		299012383	WASHER GB/T97 12 200HV	8	VBM
6		299023667	MOUNT	1	VBM
7		299010560	BOLT GB/T5783 M24X60-GR8.8	8	VBM
8		299012387	WASHER 24 (GB95-85)	8	VBM
9		299010458	BOLT GB/T5783 M10X25-GR8.8	1	VBM
10		299012382	WASHER GB/T97 10 200HV	1	VBM
11		299006032	GUARD PLATE	1	VBM
12		299011007	BOLT GB/T5782 M10X80-GR8.8	2	VBM
13		299012333	NUT M10 (GB/T6170-85)	2	VBM

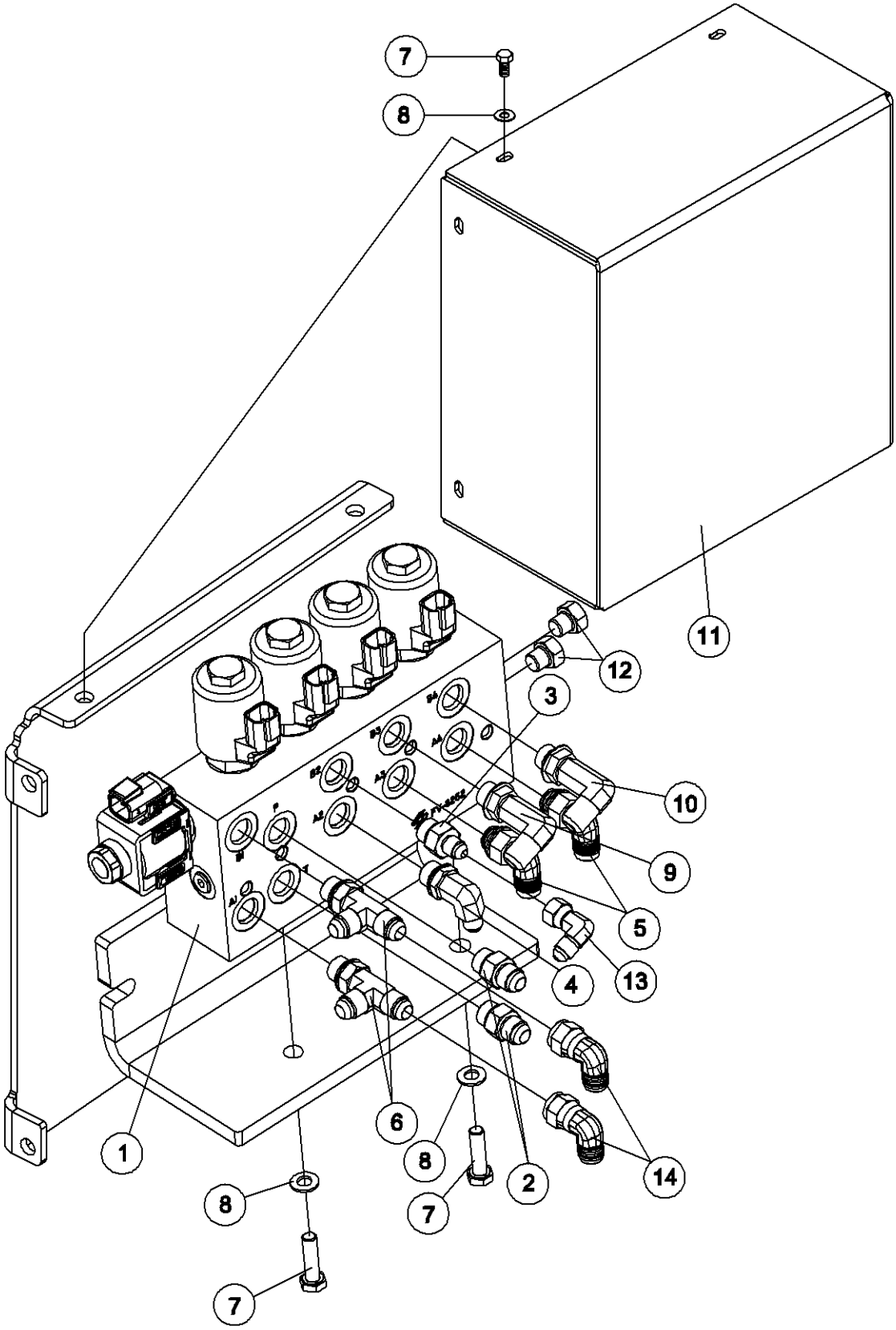
Vise Valve (S/N 107-) Fig 8-2r01



Vise Valve (S/N 107-) Fig 8-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005253	VISE - MANIFOLD	1	PELLA, Breakdown Fig.8-2z01
2		65565001	FITTING - 6M O-RING X 6M JIC ST.	2	VBM
3		57968001	FITTING-STR-4MJ-6MORB	1	VBM
4		57950001	FITTING-90-4MJ-6MORBA	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
6		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	2	VBM
7		299010458	BOLT GB/T5783 M10X25-8.8	6	VBM
8		299012382	WASHER GB/T97 10 200HV	6	VBM
9		251044001	90-6MJ-6MORBA-L-R.062	1	PELLA
10		65570001	6M X 6M JIC 90 DEGREE LONG	1	VBM
11		299025809	SHIELD - VALVE	1	VBM
12		67263001	FITTING - PLUG - 4MORB - HEX	2	VBM
13		299013852	90-4FSJ-4MJ	1	VBM
14		299013814	90-6FSJ-6MJ	2	VBM

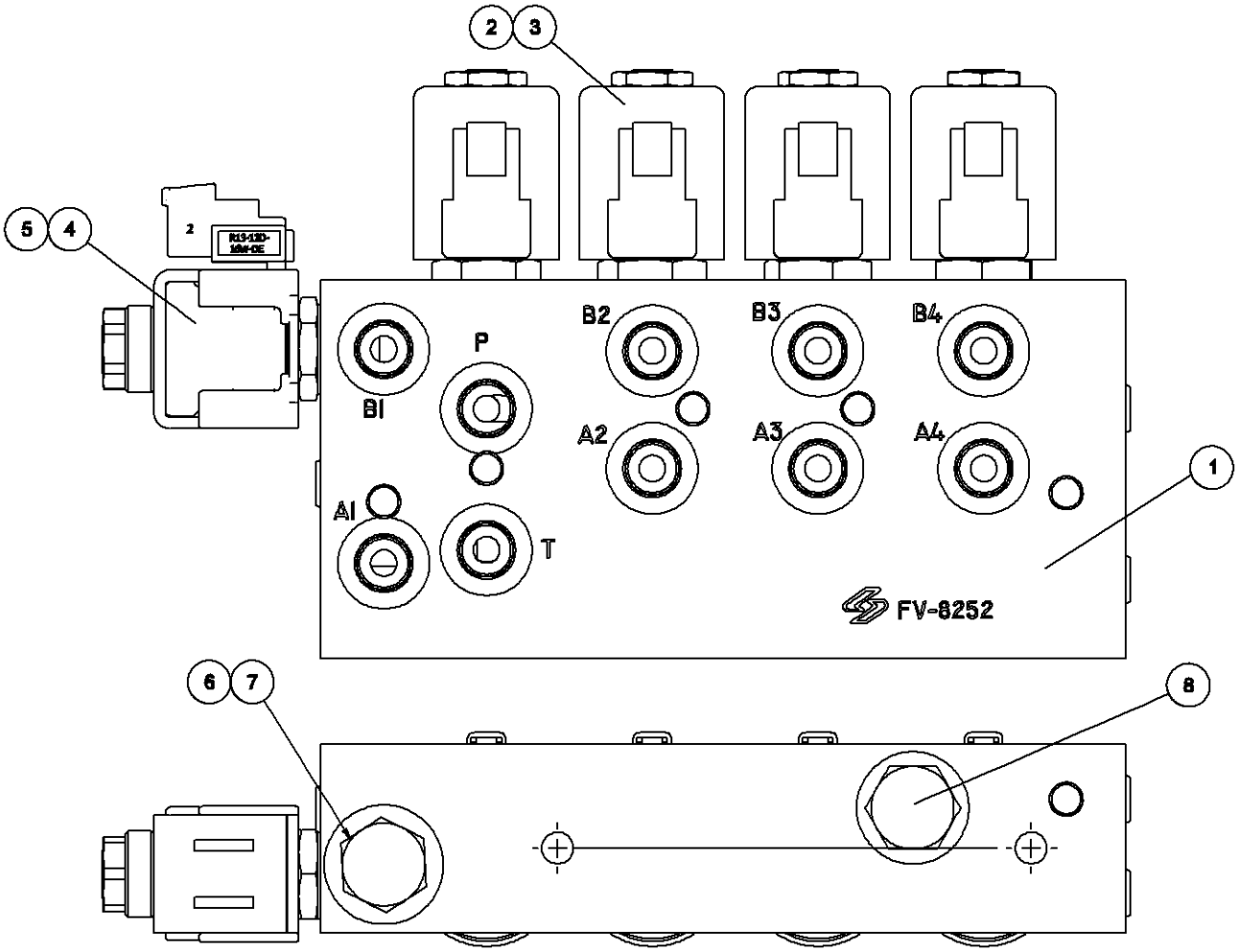
Vise Valve (S/N 101-106) Fig 8-2



Vise Valve (S/N 101-106) Fig 8-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005253	VISE - MANIFOLD	1	PELLA, Breakdown Fig.8-2z01
2		65565001	FITTING - 6M O-RING X 6M JIC ST.	2	VBM
3		57968001	FITTING-STR-4MJ-6MORB	1	VBM
4		57950001	FITTING-90-4MJ-6MORBA	1	VBM
5		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
6		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	2	VBM
7		299010458	BOLT GB/T5783 M10X25-8.8	6	VBM
8		299012382	WASHER GB/T97 10 200HV	6	VBM
9		251044001	90-6MJ-6MORBA-L-R.062	1	PELLA
10		65570001	6M X 6M JIC 90 DEGREE LONG	1	VBM
11		283889001B	SHIELD - VALVE	1	VBM
12		67263001	FITTING - PLUG - 4MORB - HEX	2	VBM
13		299013852	90-4FSJ-4MJ	1	VBM
14		299013814	90-6FSJ-6MJ	2	VBM

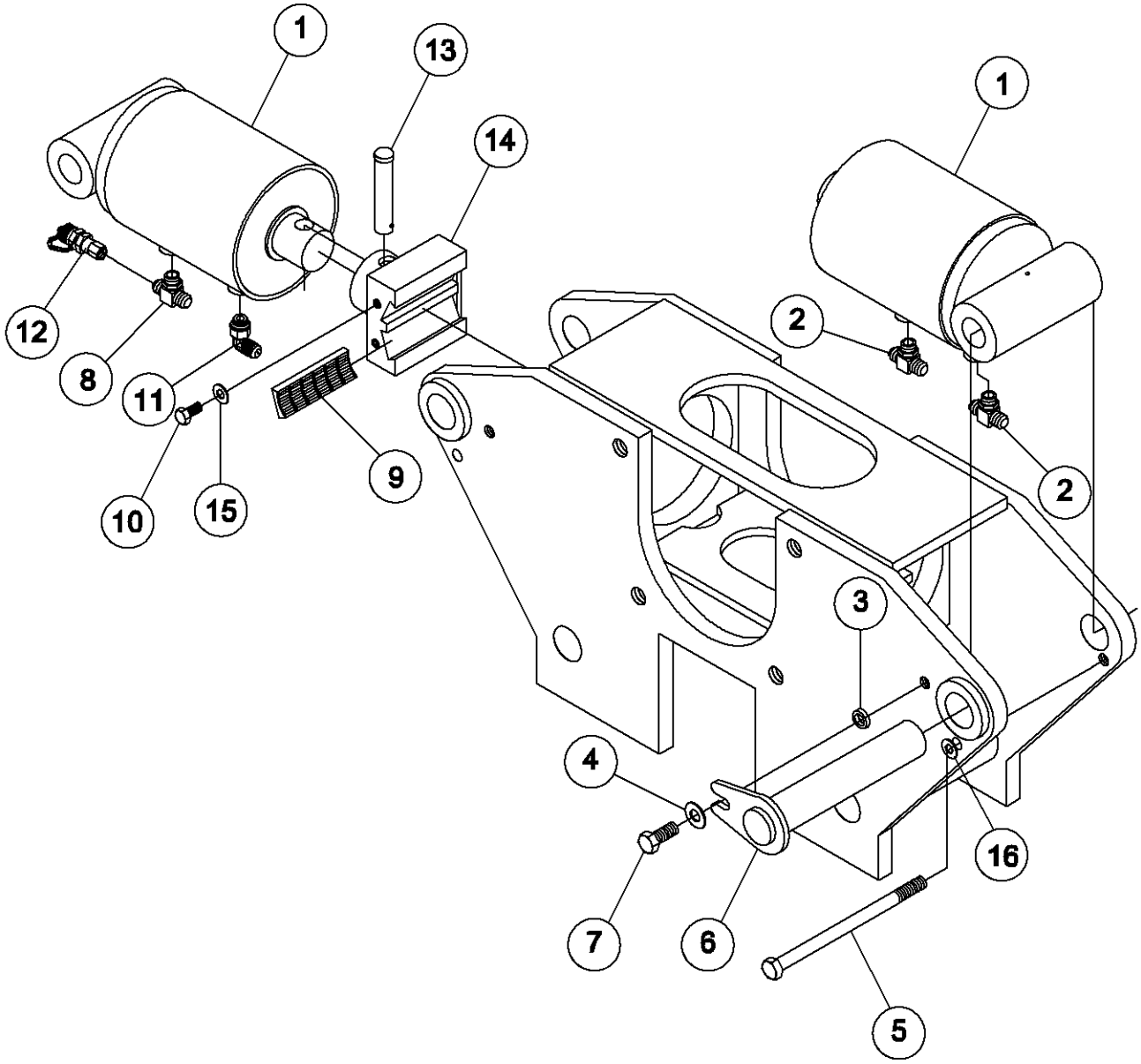
Components-Vise Valve Fig 8-2z01



Components-Vise Valve Fig 8-2z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			VALVE BODY	1	Not Sold Separately
2		299026224	SOLENOID VALVE	4	PELLA
2		299026226	SEAL KIT	4	PELLA
3		299005292	12VDC J SERIES DEUTSCH COIL	4	PELLA
4		299026227	SOLENOID POPPET VALVE, N.C. 3300 PSI	1	PELLA
4		299026228	SEAL KIT	1	PELLA
5		299026213	12VDC DEUTSCH COIL	1	PELLA
6		296263257	SINGLE PILOT PISTON	1	PELLA
7		296278195	CHECK VALVE, 30 PSI	1	PELLA
7		260609019	SEAL KIT	1	PELLA
8		299026966	CHECK VALVE, 5 PSI SPRING	1	PELLA
8		260609019	SEAL KIT	1	PELLA
		299005253	MANIFOLD - VISE		PELLA, Inc. All Items In Figure

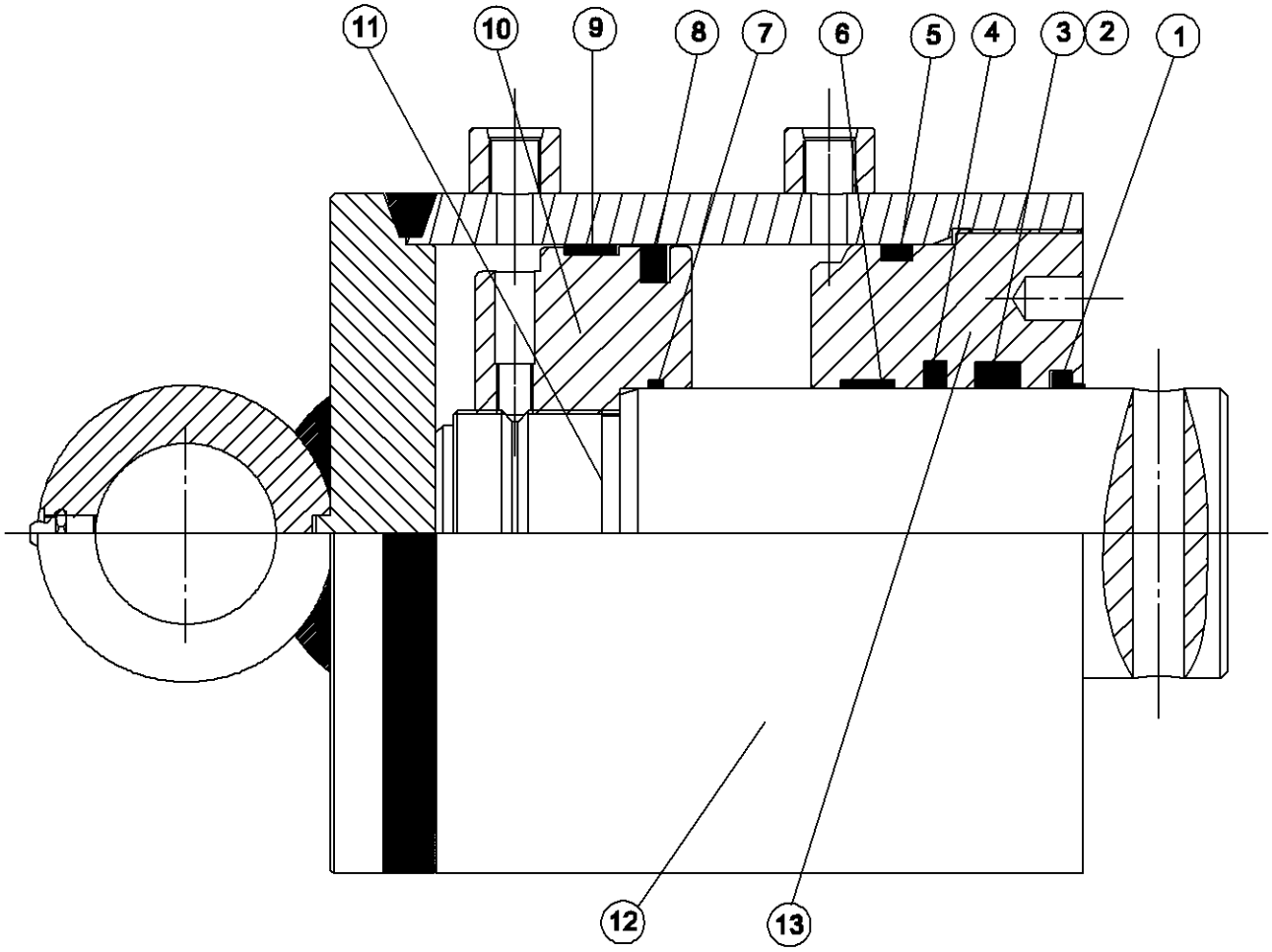
Vise Cylinder (Front) Fig 8-3



Vise Cylinder (Front) Fig 8-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006095	CLAMP CYLINDER ASSY	2	VBM, Breakdown Fig.8-3z01
2		68787001	FITTING-6M (BCH)X6M JICX6M JIC	2	VBM
3		299006055	SPACER-SLEEVE	2	VBM
4		299012383	WASHER GB/T97 12 200HV	2	VBM
5		299016135	BOLT GB5782 M16X250-GR8.8	2	VBM
6		299023649	PIN 3 - CYLINDER	2	VBM
7		299010474	BOLT M12X40 (GB/T5783)	2	VBM
8		299015092	TEE 6MJ-6MJ-6MORBA-R0.125	1	VBM
9		299023666	JAW	4	VBM
10		299010457	BOLT GB/T5783 M10X20-GR8.8	4	VBM
11		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
12		296280278	FITTING - TEST - 6FSJ - 16MTP WITH ORING	1	PELLA
13		299006063	SHAFT	2	VBM
14		299023659	MOUNT - VICE DIE	2	VBM
15		299012382	WASHER GB/T97 10 200HV	4	VBM
16		299012385	WASHER 16 (GB/T97-85)	2	VBM

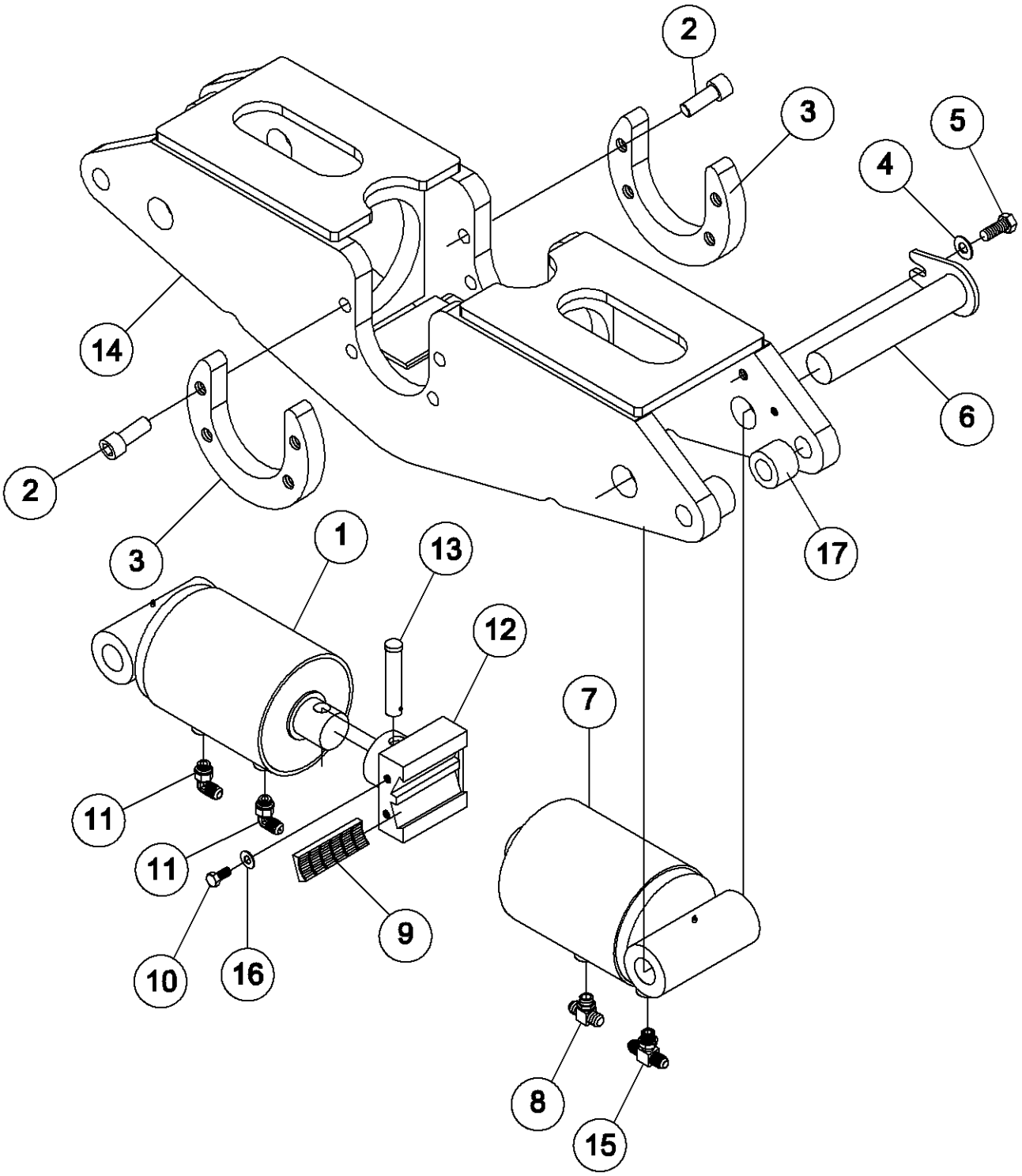
Components-Clamp Cylinder (Front) Fig 8-3z01



Components-Clamp Cylinder (Front) Fig 8-3z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST RING D80X6	1	Not Sold Separately
2			Y - RING D80XD95X10	1	Not Sold Separately
3			SNAP RING D80XD95X2	1	Not Sold Separately
4			STEP SEAL D80X6	1	Not Sold Separately
5			O - RING D160X5.7	1	Not Sold Separately
6			SUPPORT RING D80X15X2.5	1	Not Sold Separately
7			O - RING D85X3.1	1	Not Sold Separately
8			GLYD RING D160X8	1	Not Sold Separately
9			SUPPORT RING D160X15X3	1	Not Sold Separately
10			PISTON 160	1	Not Sold Separately
11			PISTON ROD 80	1	Not Sold Separately
12			CYLINDER BODY 160	1	Not Sold Separately
13			PILOT SLEEVE 160/80	1	Not Sold Separately
		299006095	CLAMP CYLINDER ASSY		VBM, Inc. All Items In Figure
		299025409	SEAL KIT		VBM, Inc. Ref. No's1-9

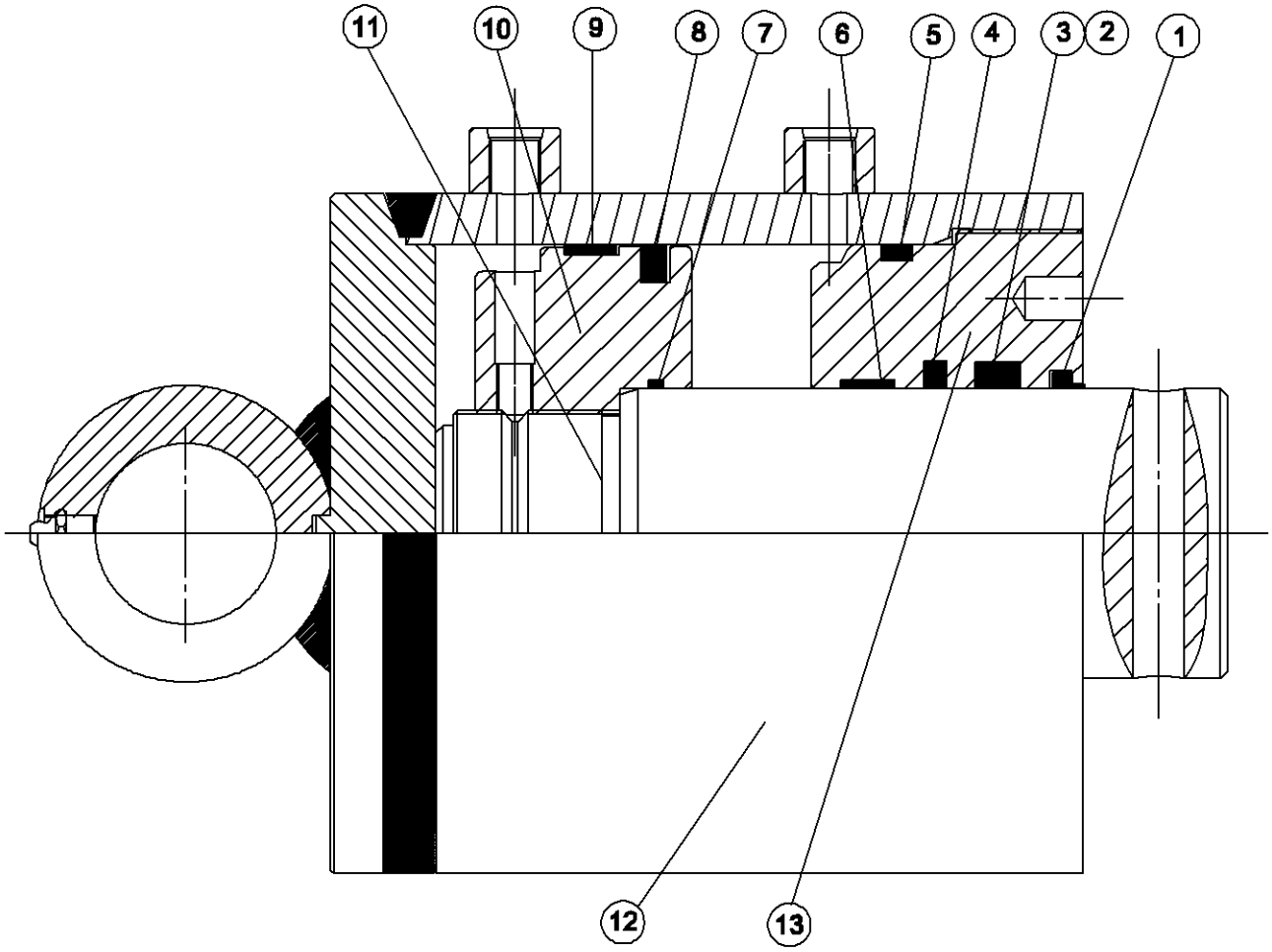
Vise Cylinder (Rear) Fig 8-4



Vise Cylinder (Rear) Fig 8-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006085	CYLINDER 3 ASSY	1	VBM, Breakdown Fig.8-4z01
2		299011785	SCREW GB/T70-85 M16X40-GR8.8	8	VBM
3		299006026	BLOCK - C SHAPED	2	VBM
4		299012383	WASHER GB/T97 12 200HV	2	VBM
5		299010473	BOLT GB/T5783 M12X35-GR8.8	2	VBM
6		299023635	PIN 1 - CYLINDER	2	VBM
7		299006075	CYLINDER 2 ASSY	1	VBM, Breakdown Fig.8-4z02
8		68787001	FITTING-6M (BCH)X6M JICX6M JIC	1	VBM
9		299023666	JAW	4	VBM
10		299010457	BOLT GB/T5783 M10X20-GR8.8	4	VBM
11		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
12		299023659	MOUNT - VICE DIE	2	VBM
13		299006063	SHAFT	2	VBM
14		299023629	SUPPORT	1	VBM
15		299015092	TEE 6MJ-6MJ-6MORBA-R0.125	1	VBM
16		299012382	WASHER GB/T97 10 200HV	4	VBM
17		299023611	BUSH	4	VBM

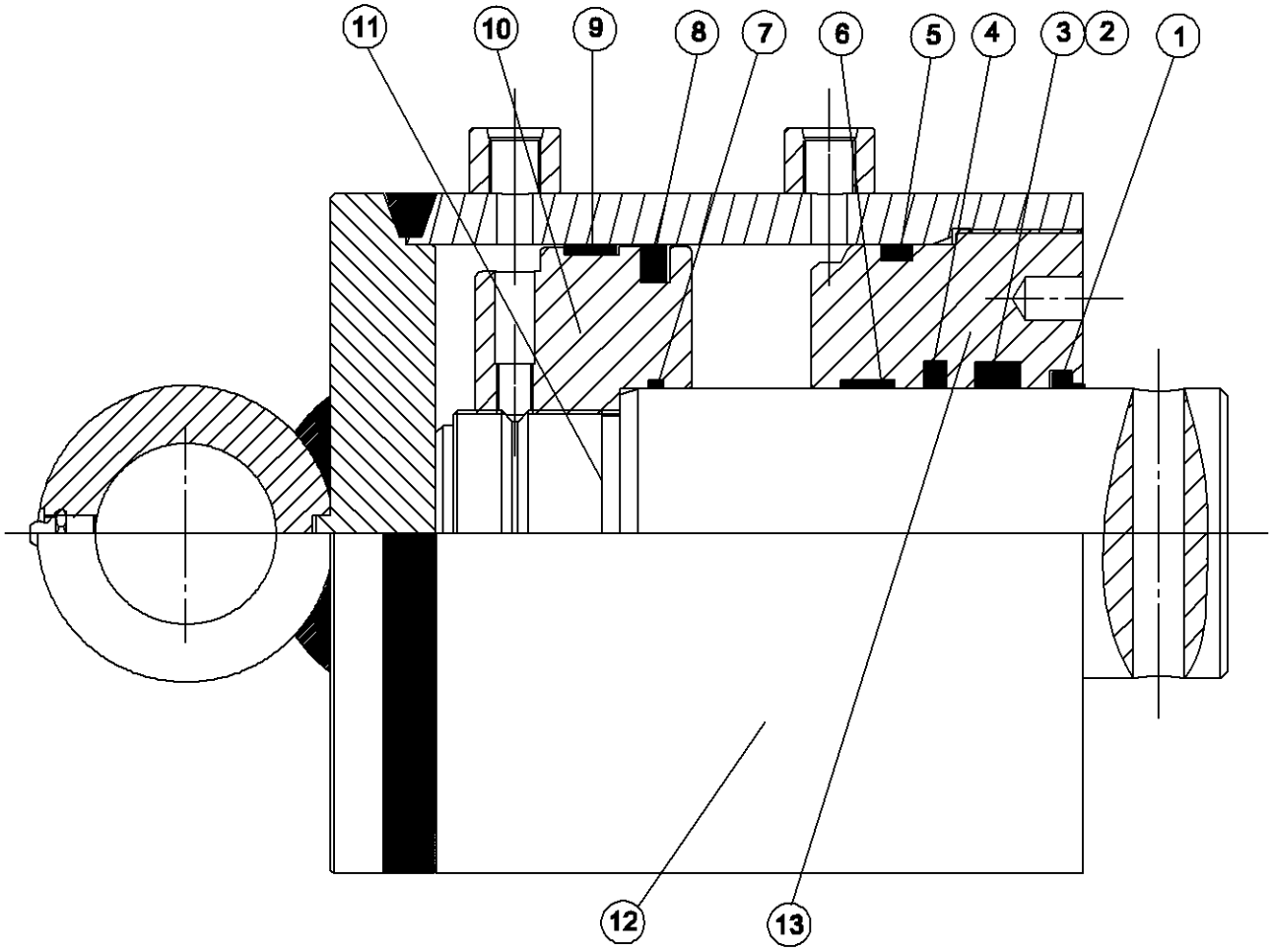
Components-Clamp Cylinder (Rear) Fig 8-4z01



Components-Clamp Cylinder (Rear) Fig 8-4z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST RING D80X6	1	Not Sold Separately
2			Y - RING D80XD95X10	1	Not Sold Separately
3			SNAP RING D80XD95X2	1	Not Sold Separately
4			STEP SEAL D80X6	1	Not Sold Separately
5			O - RING D160X5.7	1	Not Sold Separately
6			SUPPORT RING D80X15X2.5	1	Not Sold Separately
7			O - RING D85X3.1	1	Not Sold Separately
8			GLYD RING D160X8	1	Not Sold Separately
9			SUPPORT RING D160X15X3	1	Not Sold Separately
10			PISTON 160	1	Not Sold Separately
11			PISTON ROD 80	1	Not Sold Separately
12			CYLINDER BODY 160	1	Not Sold Separately
13			PILOT SLEEVE 160/80	1	Not Sold Separately
		299006085	CYLINDER 3 ASSY		VBM, Inc. All Items In Figure
		299025409	SEAL KIT		VBM, Inc. Ref. No's1-9

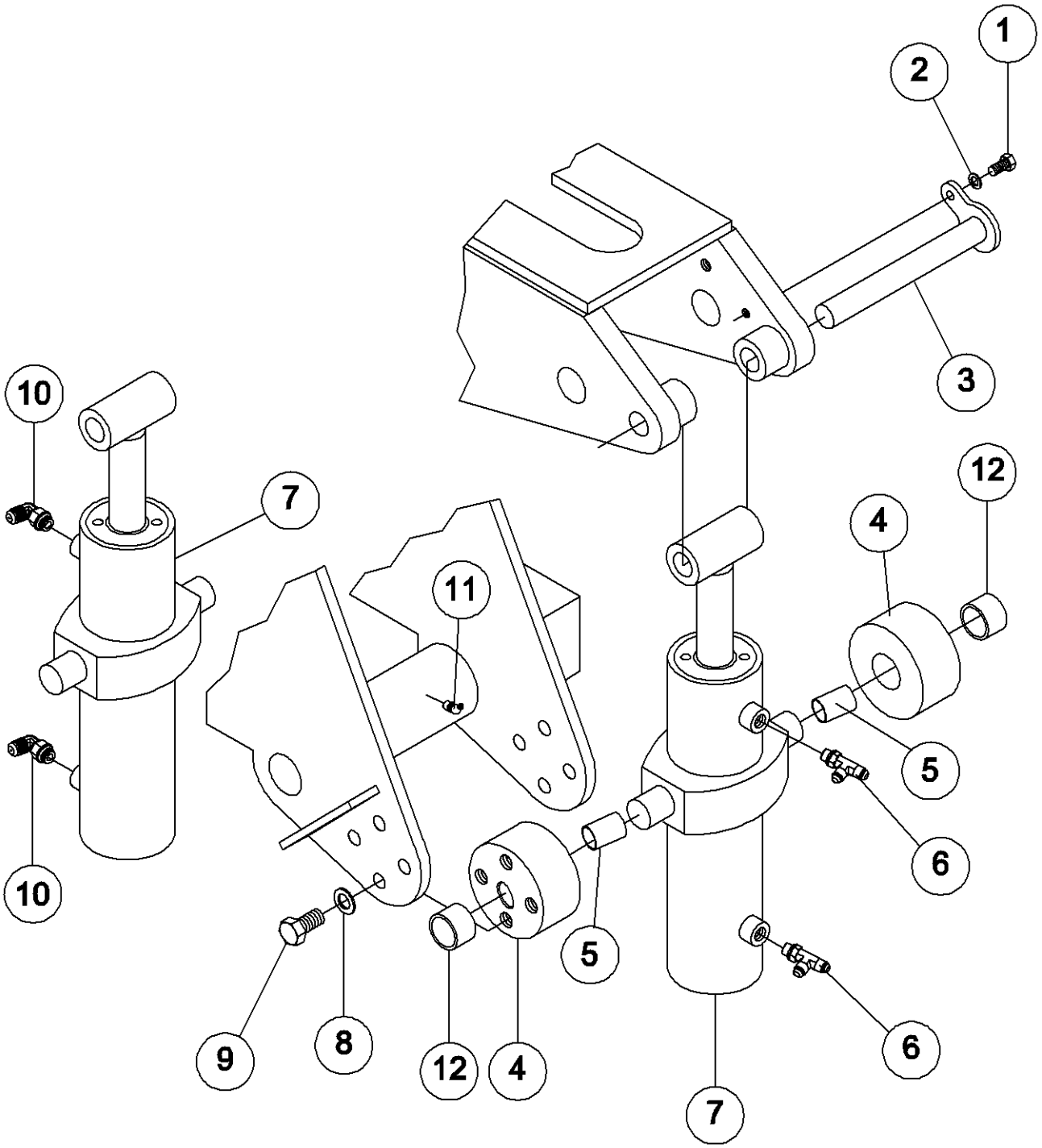
Components-Clamp Cylinder (Rear) Fig 8-4z02



Components-Clamp Cylinder (Rear) Fig 8-4z02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST RING D80X6	1	Not Sold Separately
2			Y - RING D80XD95X10	1	Not Sold Separately
3			SNAP RING D80XD95X2	1	Not Sold Separately
4			STEP SEAL D80X6	1	Not Sold Separately
5			O - RING D160X5.7	1	Not Sold Separately
6			SUPPORT RING D80X15X2.5	1	Not Sold Separately
7			O - RING D85X3.1	1	Not Sold Separately
8			GLYD RING D160X8	1	Not Sold Separately
9			SUPPORT RING D160X15X3	1	Not Sold Separately
10			PISTON 160	1	Not Sold Separately
11			PISTON ROD 80	1	Not Sold Separately
12			CYLINDER BODY 160	1	Not Sold Separately
13			PILOT SLEEVE 160/80	1	Not Sold Separately
		299006075	CYLINDER 2 ASSY		VBM, Inc. All Items In Figure
		299025409	SEAL KIT		VBM, Inc. Ref. No's1-9

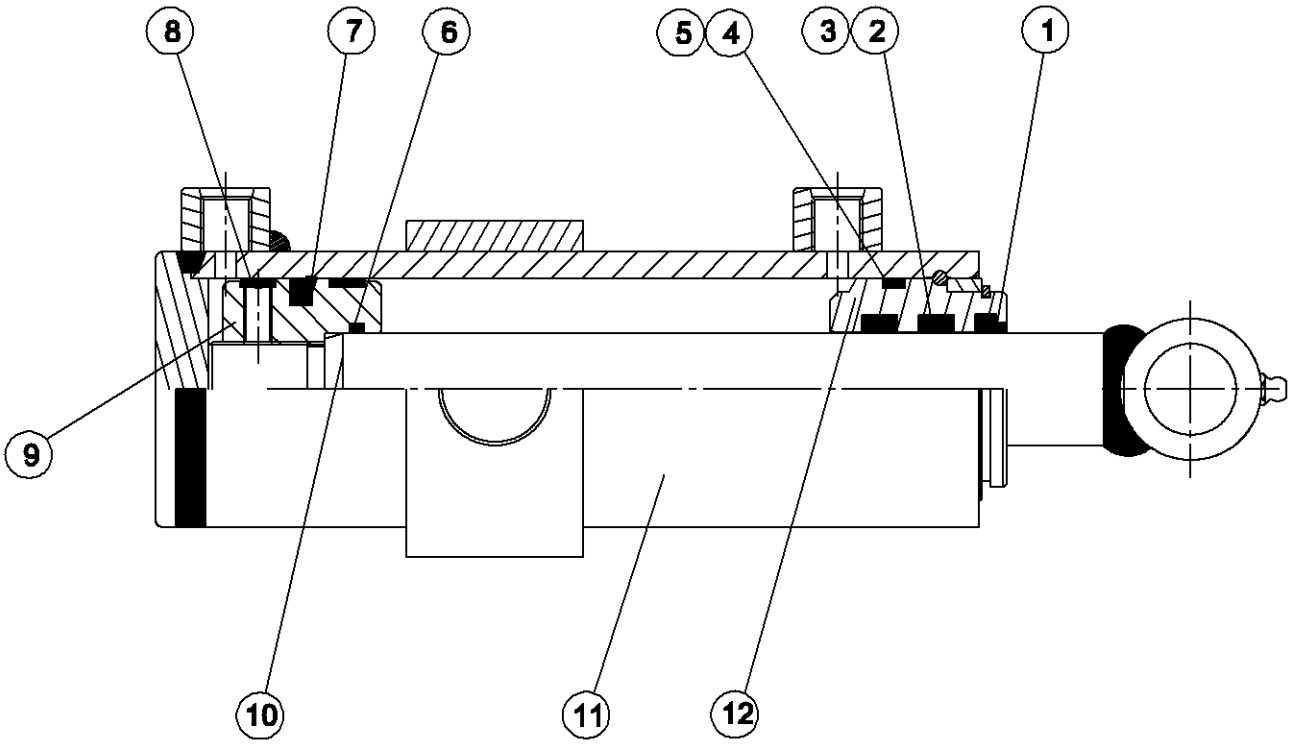
Rotation Carriage Cylinder Fig 8-5



Rotation Carriage Cylinder Fig 8-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299010460	BOLT GB/T5783 M10X35-GR8.8	2	VBM
2		299012382	WASHER GB/T97 10 200HV	2	VBM
3		299023639	PIN - CYLINDER	2	VBM
4		299023648	BASE - JOINT	4	VBM
5		299006052	SLEEVE - SHAFT	4	VBM
6		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	2	VBM
7		239275001B	CYLINDER-2 1/2 X 5 TRN MNT	2	VBM, Breakdown Fig.8-5z01
8		299012385	WASHER 16 (GB/T97-85)	16	VBM
9		299010509	BOLT M16X90 (GB/T5783)	16	VBM
10		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
11		299012717	OIL CUP JB/T7940.2 M10X1 45 DEGREE	2	VBM
11		299023652	BUSH - SPACER	4	VBM

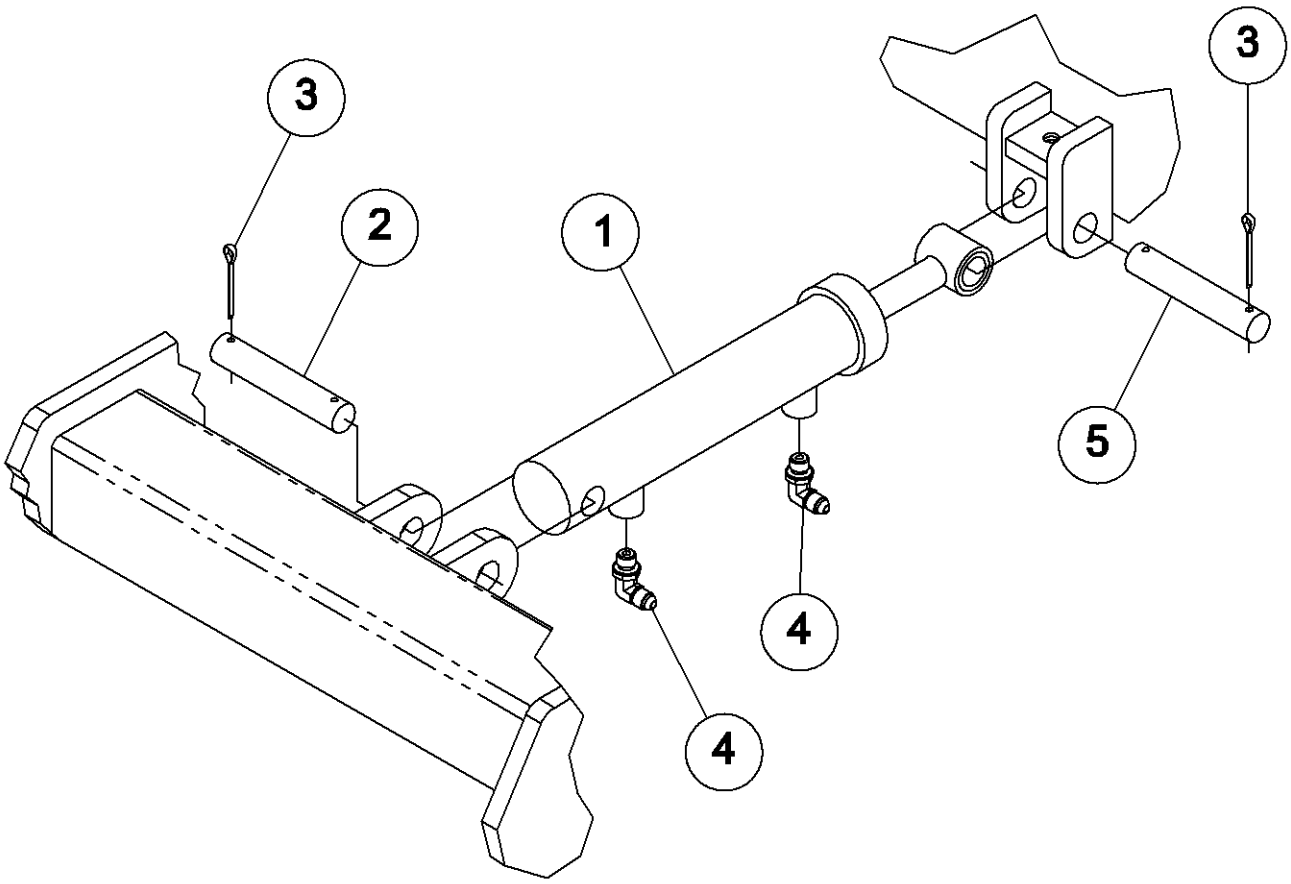
Components-Rotation Cylinder Fig 8-5z01



Components-Rotation Cylinder Fig 8-5z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST RING D32X6	1	Not Sold Separately
2			Y - RING D32XD42X6	2	Not Sold Separately
3			SNAP RING D32XD42X3	2	Not Sold Separately
4			O - RING D56X3.55	1	Not Sold Separately
5			SNAP RING D63X57.3X2	1	Not Sold Separately
6			O - RING D37X3.1	1	Not Sold Separately
7			GLYD RING 63X6	1	Not Sold Separately
8			SUPPORT RING D63X10X2.5	2	Not Sold Separately
9			PISTON 63	1	Not Sold Separately
10			PISTON ROD 32	1	Not Sold Separately
11			CYLINDER BODY 63	1	Not Sold Separately
12			PILOT SLEEVE 63/32	1	Not Sold Separately
		239275001B	CYLINDER-2 1/2 X 5 TRN MNT		VBM, Inc. All Items In Figure
		299025369	SEAL KIT		VBM, Inc. Ref. No's1- 8

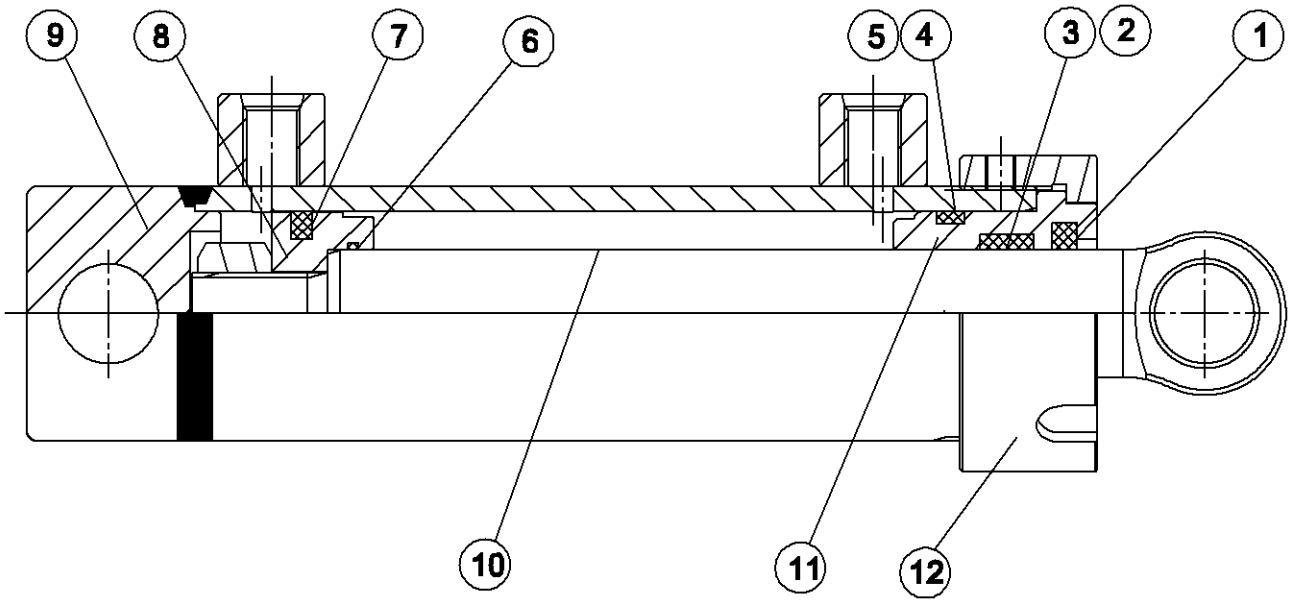
Vise Spread Cylinder Fig 8-6



Vise Spread Cylinder Fig 8-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299004963	CYLINDER - VISE 40/20-152	1	VBM, Breakdown Fig.8-6z01
2		299006053	PIN	1	VBM
3		1794003	HAIR PIN COTTER - .148 WIRE	4	PELLA
4		59423001	90-4MORBA-4MJ	2	VBM
5		299006054	PIN	1	VBM

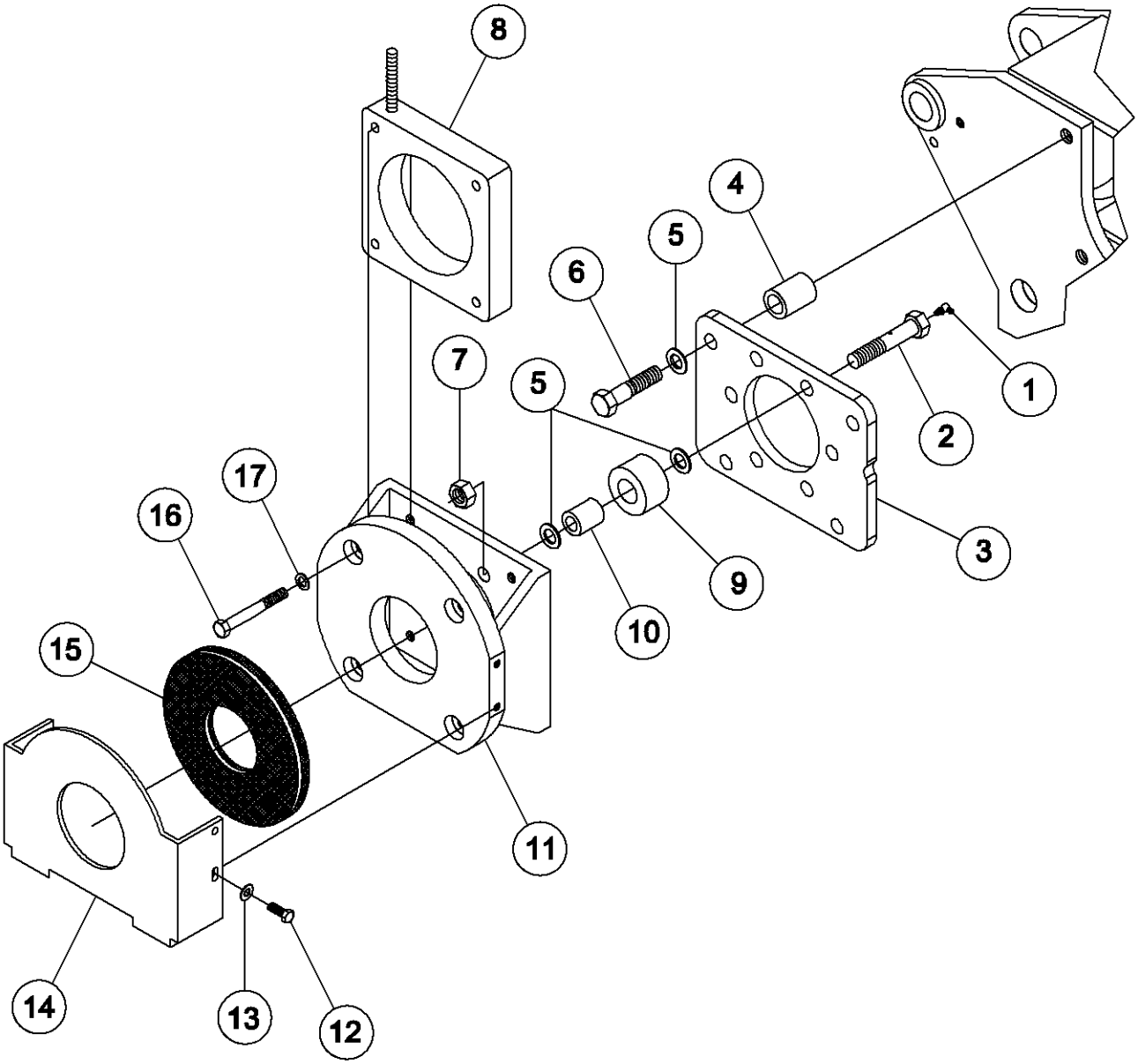
Components-Spread Cylinder Fig 8-6z01



Components-Spread Cylinder Fig 8-6z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST J RING 25X5	1	Not Sold Separately
2			Y - RING 25X31X8	1	Not Sold Separately
3			SNAP RING 25X31X1.5	1	Not Sold Separately
4			O - RING D40X3.1	1	Not Sold Separately
5			SNAP RING 40X35X1.5	1	Not Sold Separately
6			O - RING D25X1.8	1	Not Sold Separately
7			GLYD RING 40X4	1	Not Sold Separately
8			PISTON 40	1	Not Sold Separately
9			CYLINDER BODY 40	1	Not Sold Separately
10			PISTON ROD 25-102	1	Not Sold Separately
11			PILOT SLEEVE 40/25	1	Not Sold Separately
12			PROTECT NUT 40	1	Not Sold Separately
		299004963	CYLINDER - VISE 40/25-102		VBM, Inc. All Items In Figure
		299025389	SEAL KIT		VBM, Inc. Ref. No's1 - 7

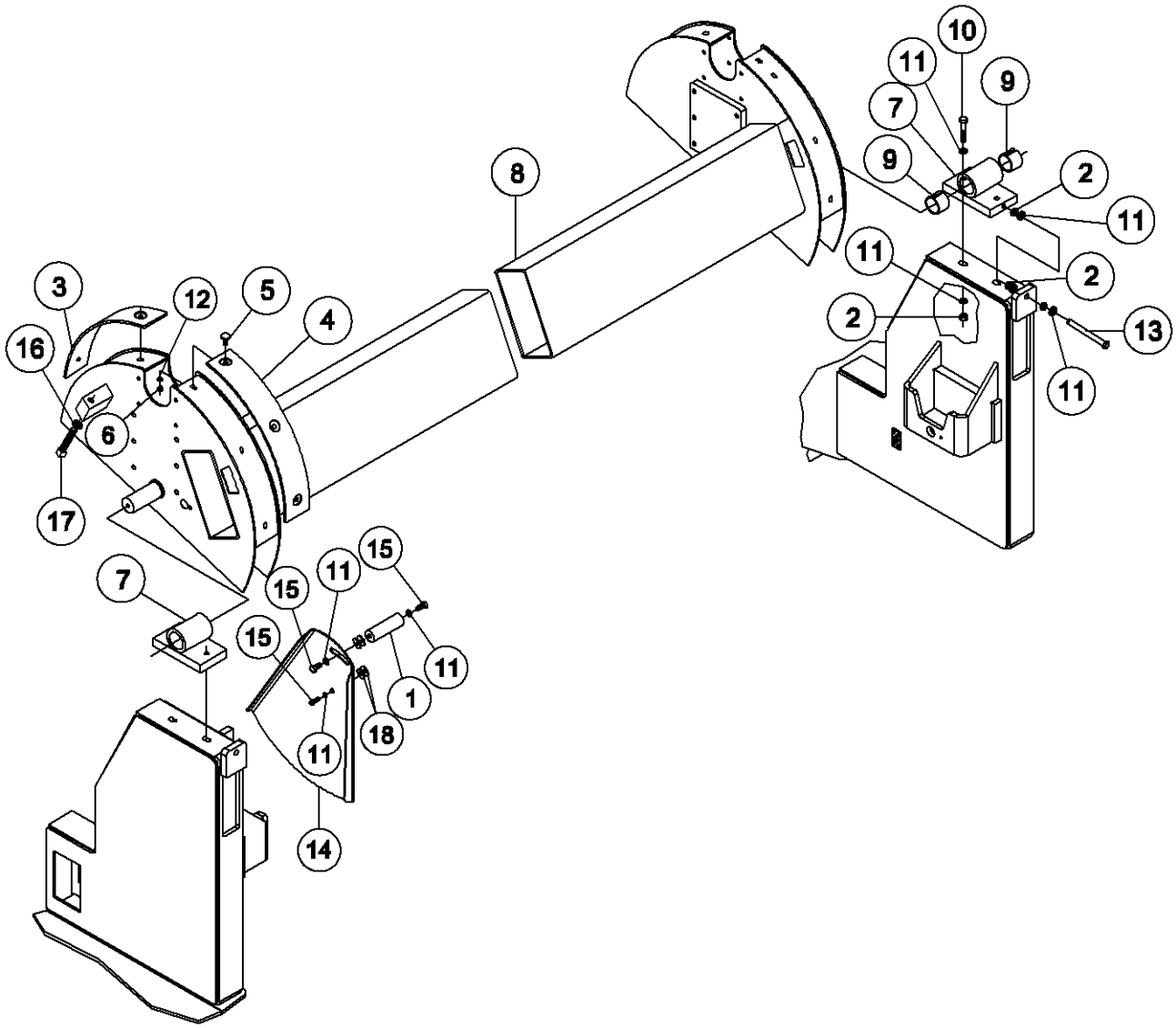
Zap Alert Fig 8-7



Zap Alert Fig 8-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299012817	OIL CUP JB/T7940.2 M10 90	6	VBM
2		234426001B	BOLT ASSEMBLY - ROLLER MOUNT	6	VBM
3		299023661	PLATE	1	VBM
4		299006057	TUBE - SPACER	4	VBM
5		299012386	WASHER 20 (GB/T97-85)	16	VBM
6		299011060	BOLT M20X90 (GB/T5782)	4	VBM
7		299012338	NUT GB/T6170 M20-GR8	6	VBM
8		296304606	STRIKE ALERT COIIL 6” VERMEER	1	PELLA
9		299003455	ROLLER	6	VBM
10		299003453	SLEEVE - SHAFT	6	VBM
11		299023636	BASE - SUPPORT	1	VBM
12		299010458	BOLT GB/T5783 M10X25-8.8	4	VBM
13		299012382	WASHER GB/T97 10 200HV	4	VBM
14		299006062	GUARD PLATE	1	VBM
15		235926001	WIPER-3 1/2 OD ROD	1	PELLA
16		299011019	BOLT GB/T5782 M12X110-GR8.8	4	VBM
17		299012383	WASHER GB/T97 12 200HV	4	VBM

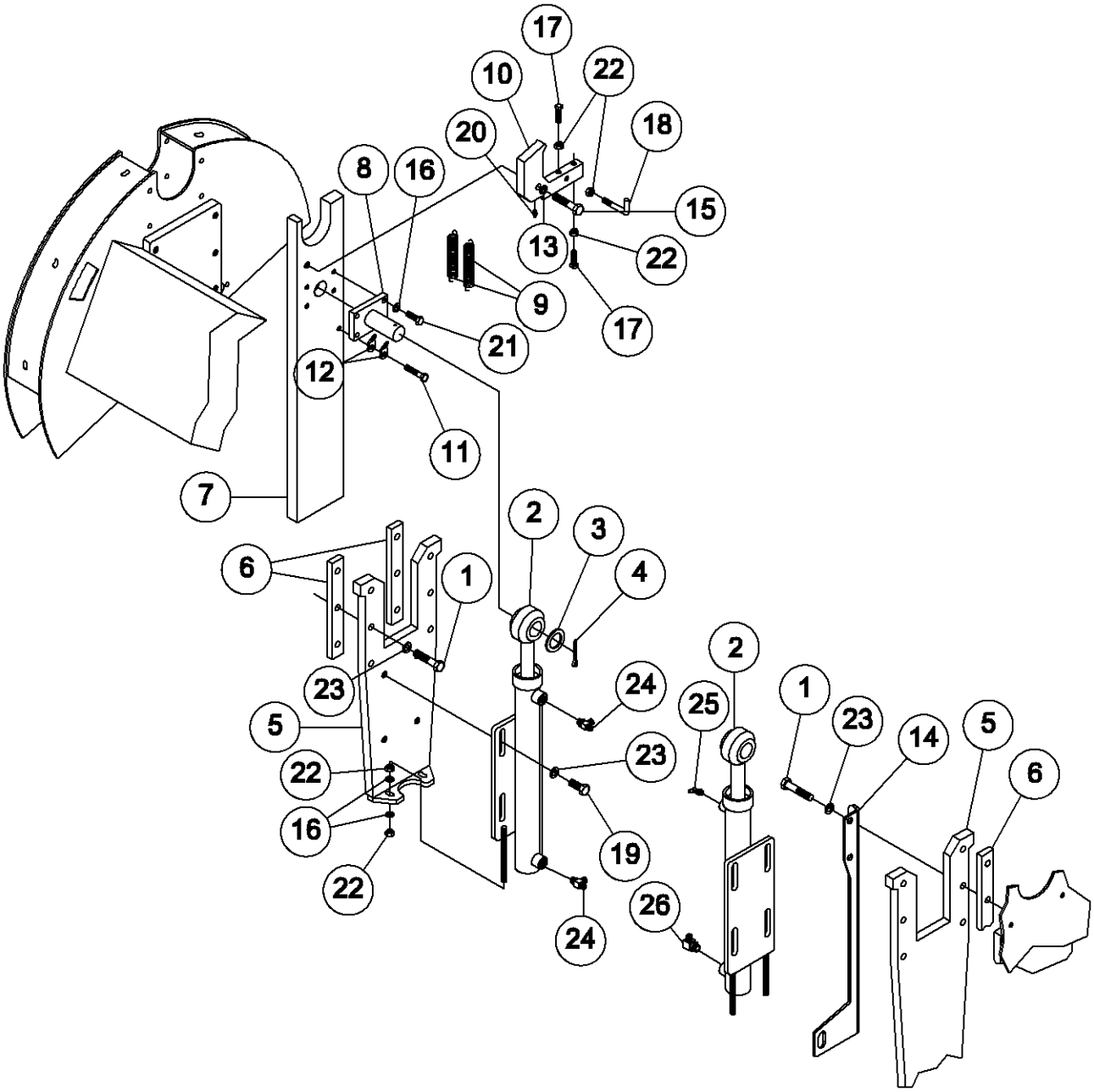
Rod Loader Frame Fig 9-1



Rod Loader Frame Fig 9-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006142	SLEEVE	1	VBM
2		299012334	NUT GB/T6170 M12-GR8	10	VBM
3		299006130	WEAR PLATE	2	VBM
4		299006131	WEAR PLATE	2	VBM
5		601699012	3/8-16X1 1/4 ELEVATOR BOLT ZNC	12	PELLA
6		235725001B	NUT - HEX - .38 - 16 - GR8 - YZ	12	VBM
7		299006155	BASE-BEARING	2	VBM
8		299006139	FRAME	1	VBM
9		299006198	SLEEVE - SHAFT	4	VBM
10		299011013	BOLT GB/T5782 M12X60-GR8.8	4	VBM
11		299012383	WASHER GB/T97 12 200HV	17	VBM
12		235713001B	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	12	VBM
13		299016357	BOLT GB/T5783 M12X120-GR8.8	2	VBM
14		299006143	INDICATOR PLATE	1	VBM
15		299010471	BOLT M12X25-GR8.8 GB/T5783	3	VBM
16		299012336	NUT GB/T6170 M16-GR8	2	VBM
17		299013008	SCREWM16X80-33H GB/T821	2	VBM
18		299006185	ADJUSTING SHIM	4	VBM

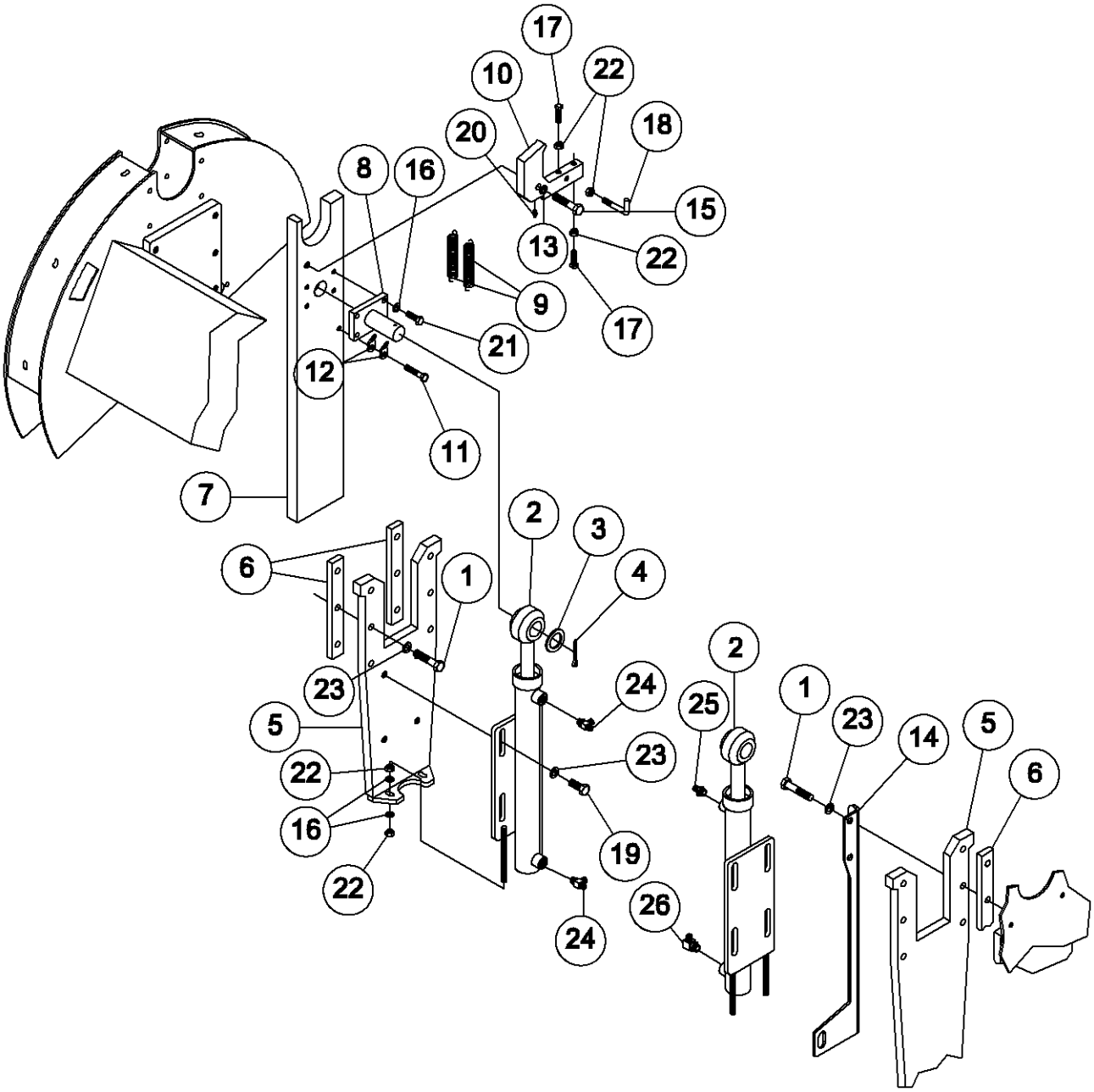
Rod Position Cylinder (S/N 106-) Fig 9-2r01



Rod Position Cylinder (S/N 106-) Fig 9-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299011014	BOLTM16X65 (GB/T5782)	12	VBM
2		227815001B	CYLINDER 1 1/2 X 14 1/2	2	VBM, Breakdown Fig 9-2z01
3		299012388	WASHER 30 (GB/T97-85)	2	VBM
4		1794003	HAIR PIN COTTER-.148 WIRE	2	PELLA
5		299006120	PLATE	2	VBM
6		299006116	BAFFLE	4	VBM
7		299006108	PLATE-FLEX	2	VBM
8		299006169	PIN - CYLINDER	2	VBM
9		1789013	SPRING -EXT. #76 4” OA	4	PELLA
10		299006117	HOOP	2	VBM
11		299011008	BOLT GB/T5782 M10X90-GR8.8	2	VBM
12		299006144	JOINT BAR	8	VBM
13		299012383	WASHER GB/T97 12 200HV	2	VBM
14		299006121	PLATE	1	VBM
15		299011013	BOLT GB/T5782 M12X65-GR8.8	2	VBM
16		299012382	WASHER GB/T97 10 200HV	12	VBM
17		299010462	BOLT GB/T5783 M10X45-GR8.8	4	VBM
18		299006146	BAR-JOINT	2	VBM
19		299012856	BOLTM16X30 (GB/T5783)	8	VBM
20		299006620	OIL CUP JB/T7940.1 M10X1	2	VBM
21		299010459	BOLT M10X30 (GB/T5783)	8	VBM
22		299012333	NUT M10 (GB/T6170-85)	10	VBM
23		299012385	WASHER16 (GB/T97-85)	20	VBM
24		68774001	FITTING - 6MX6M JIC (RUN)X6M JIC	2	VBM
25		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	1	VBM
26		59426001	FITTING - 90-6MJ-6MORBA	1	VBM

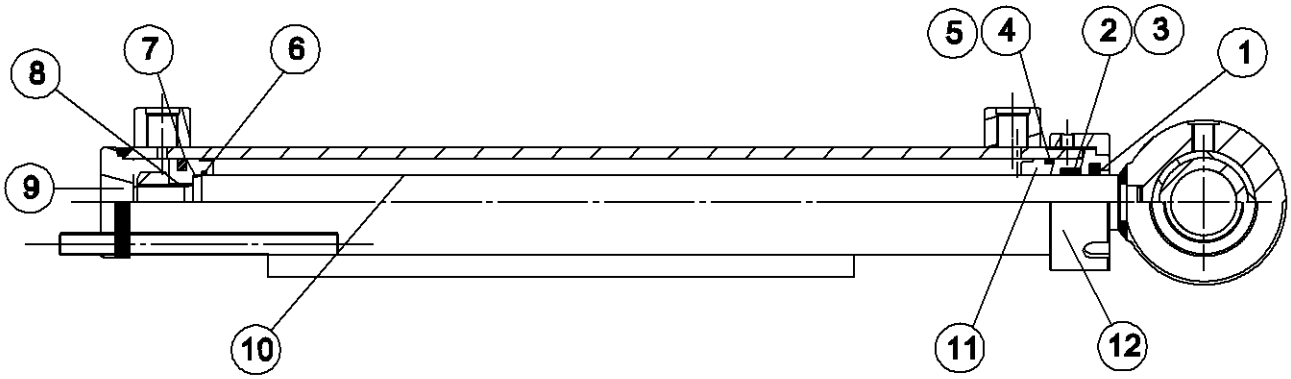
Rod Position Cylinder (S/N 101-105) Fig 9-2



Rod Position Cylinder (S/N 101-105) Fig 9-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299011014	BOLTM16X65 (GB/T5782)	12	VBM
2		227815001B	CYLINDER 1 1/2 X 14 1/2	2	VBM, Breakdown Fig 9-2z01
3		299012388	WASHER 30 (GB/T97-85)	2	VBM
4		1794003	HAIR PIN COTTER-.148 WIRE	2	PELLA
5		299006120	PLATE	2	VBM
6		299006116	BAFFLE	4	VBM
7		299006108	PLATE-FLEX	2	VBM
8		299006169	PIN - CYLINDER	2	VBM
9		1789013	SPRING -EXT. #76 4” OA	4	PELLA
10		299006117	HOOP	2	VBM
11		299011008	BOLT GB/T5782 M10X90-GR8.8	2	VBM
12		299006144	JOINT BAR	8	VBM
13		299012383	WASHER GB/T97 12 200HV	2	VBM
14		299006141	PLATE	1	VBM
15		299011013	BOLT GB/T5782 M12X65-GR8.8	2	VBM
16		299012382	WASHER GB/T97 10 200HV	12	VBM
17		299010462	BOLT GB/T5783 M10X45-GR8.8	4	VBM
18		299006146	BAR-JOINT	2	VBM
19		299012856	BOLTM16X30 (GB/T5783)	8	VBM
20		299006620	OIL CUP JB/T7940.1 M10X1	2	VBM
21		299010459	BOLT M10X30 (GB/T5783)	8	VBM
22		299012333	NUT M10 (GB/T6170-85)	10	VBM
23		299012385	WASHER16 (GB/T97-85)	20	VBM
24		299014139	TEE-6MJ-6MORBAR1.0-6MJ	2	VBM
25		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM
26		59426001	FITTING - 90-6MJ-6MORBA	1	VBM

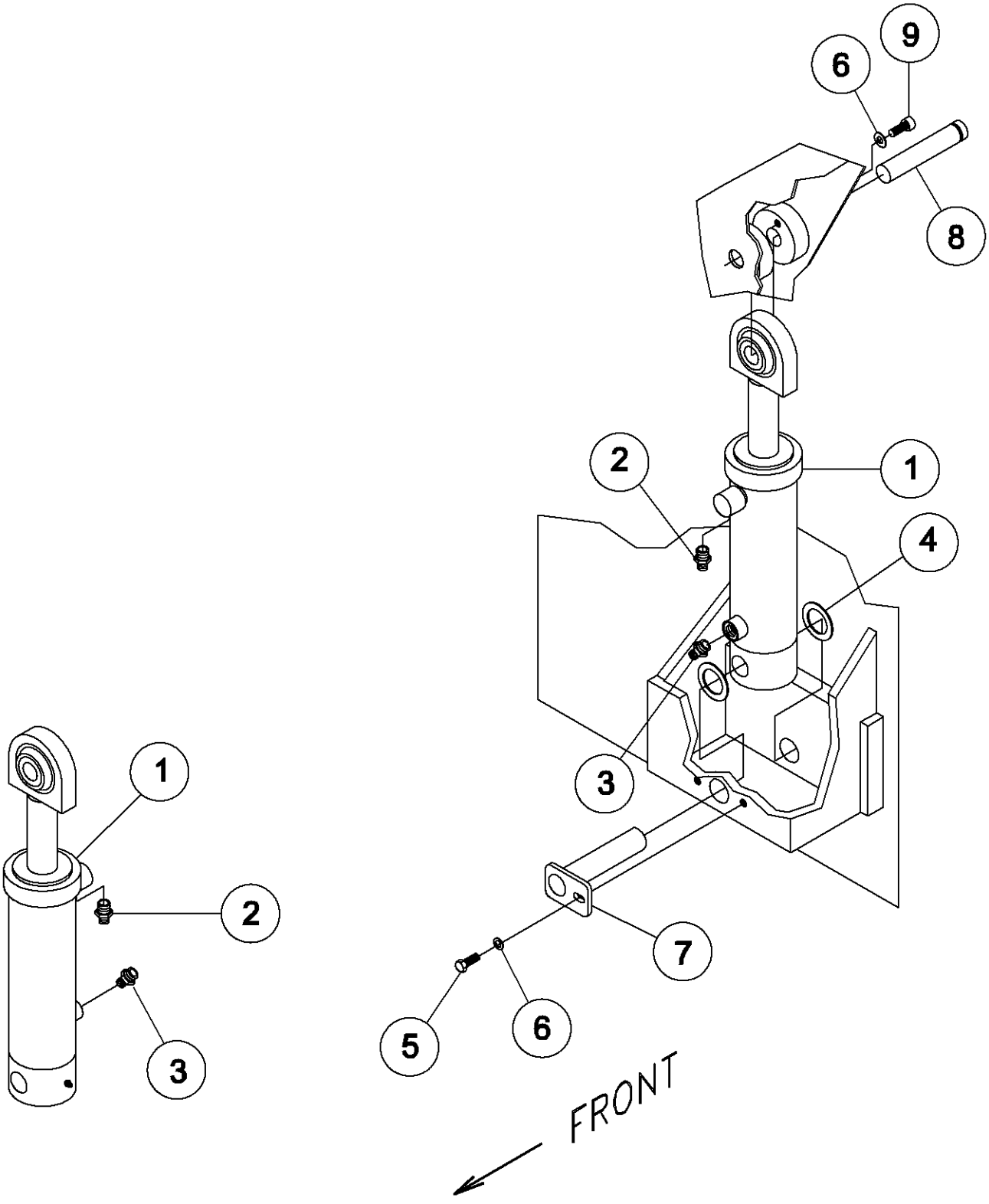
Components-Rod Position Cylinder Fig 9-2z01



Components-Rod Position Cylinder Fig 9-2z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST J - RING 25X5	1	Not Sold Separately
2			Y - RING 25X31X8	1	Not Sold Separately
3			SNAP RING 25X31X1.5	1	Not Sold Separately
4			O - RING D40X3.1	1	Not Sold Separately
5			SNAP RING 40X35X1.5	1	Not Sold Separately
6			O - RING D25X1.8	1	Not Sold Separately
7			GLYD RING 40X4	1	Not Sold Separately
8			PISTON 40	1	Not Sold Separately
9			CYLINDER BODY 40	1	Not Sold Separately
10			PISTON ROD 25-368	1	Not Sold Separately
11			PILOT SLEEVE 40/25	1	Not Sold Separately
12			PROTECT NUT 40	1	Not Sold Separately
		227815001B	CYLINDER 1 1/2 X 14 1/2		VBM, Inc. All Items In Figure
		299025389	SEAL KIT		VBM, Inc. Ref. No's1-7

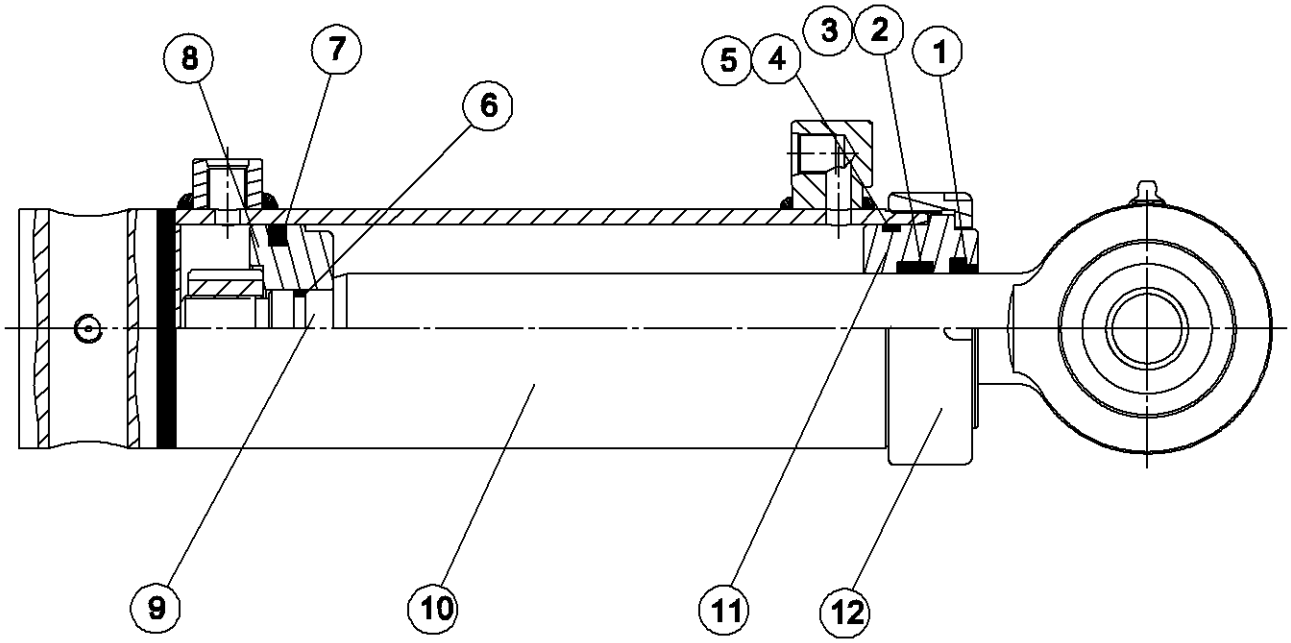
Rod Rotation Cylinder Fig 9-3



Rod Rotation Cylinder Fig 9-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		227814001B	CYLINDER-3 X 7 1/2	2	VBM, Breakdown Fig 9-3z01
2		65565001	FITTING - 6M O-RING X 6M JIC ST.	2	VBM
3		157169001	FITTING-STR-6MJ-6MORB-R.031	2	VBM
4		299012401	WASHER 30(GB/T96-85)	4	VBM
5		299010457	BOLT GB/T5783 M10X20-GR8.8	2	VBM
6		299012382	WASHER GB/T97 10 200HV	4	VBM
7		299006138	PIN	2	VBM
8		299006135	PIN	2	VBM
9		299011735	SCREW GB/T70 M10X20	2	VBM

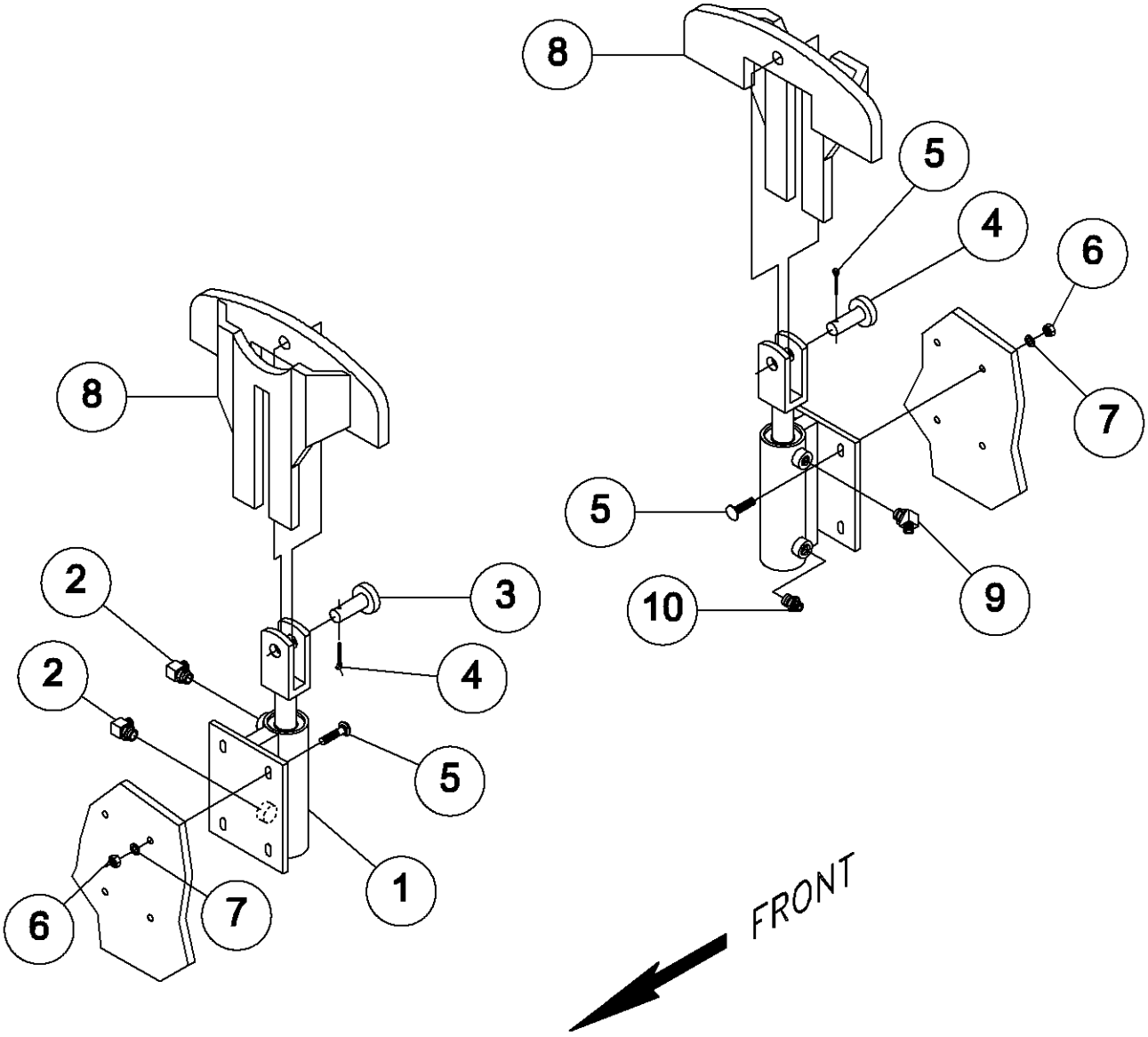
Components-Rod Rotation Cylinder Fig 9-3z01



Components-Rod Rotation Cylinder Fig 9-3z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI-DUST RING D40X6	1	Not Sold Separately
2			Y- RING D40XD48X10	1	Not Sold Separately
3			SNAP RING D40XD48X2	1	Not Sold Separately
4			O- RING D75X3.1	1	Not Sold Separately
5			SNAP RING D75X70X2	1	Not Sold Separately
6			O- RING D28X3.1	1	Not Sold Separately
7			GLYD RING D75X6	1	Not Sold Separately
8			PISTON 75	1	Not Sold Separately
9			PISTON ROD 40	1	Not Sold Separately
10			CYLINDER BODY 75	1	Not Sold Separately
11			PILOT SLEEVE 75/40	1	Not Sold Separately
12			PROTECT NUT 75	1	Not Sold Separately
		227814001B	CYLINDER-3 X 7 1/2		VBM, Inc. All Items In Figure
		299025359	SEAL KIT		VBM, Inc. Ref. No's1-7

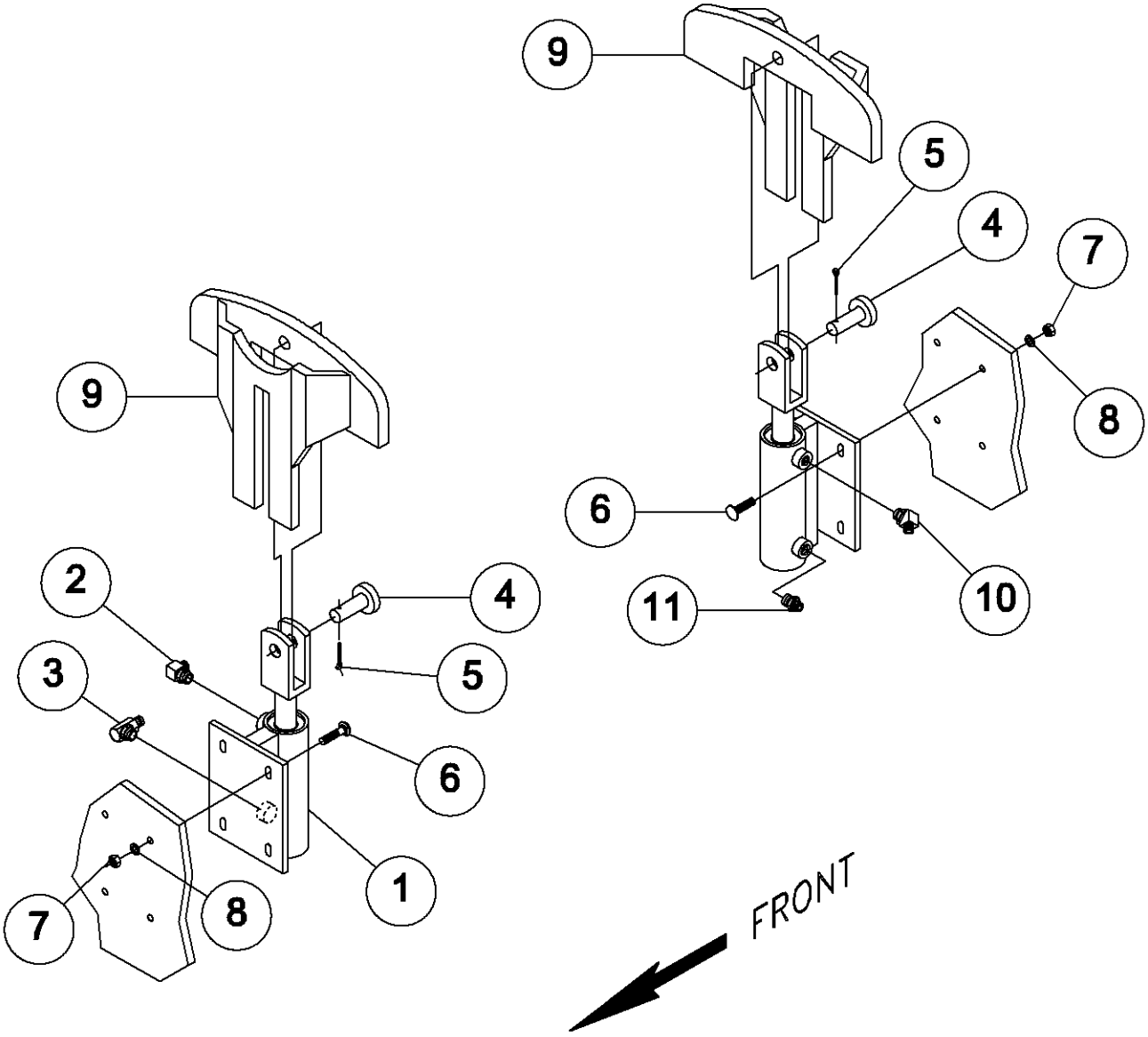
Rod Lift Cylinder (S/N 106-) Fig 9-4r01



Rod Lift Cylinder (S/N 106-) Fig 9-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		224394001B	CYLINDER-2X5	2	VBM, Breakdown Fig 9-4z01
2		59426001	FITTING - 90-6MJ-6MORBA	2	VBM
3		299006127	PIN	2	VBM
4		1794003	HAIR PIN COTTER-.148 WIRE	2	PELLA
5		299015057	BOLT GB/T12 M10X30-GR8.8	8	VBM
6		299012333	NUT M10 (GB/T6170-85)	8	VBM
7		299012382	WASHER GB/T97 10 200HV	8	VBM
8		299006149	SUPPORT	2	VBM
9		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	1	VBM
10		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	VBM

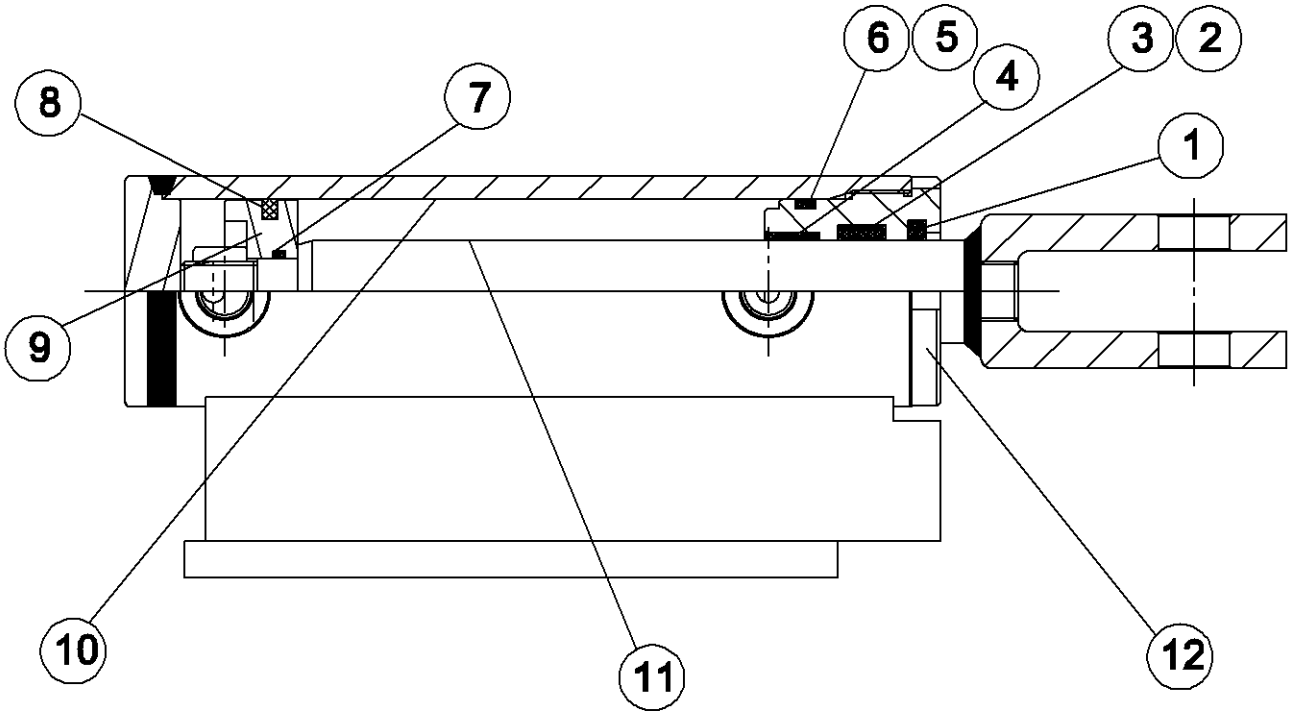
Rod Lift Cylinder (S/N 101-105) Fig 9-4



Rod Lift Cylinder (S/N 101-105) Fig 9-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		224394001B	CYLINDER-2X5	2	VBM, Breakdown Fig 9-4z01
2		299014126	90-6MORBA-6MJ-R1.0	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		299006127	PIN	2	VBM
5		1794003	HAIR PIN COTTER-.148 WIRE	2	PELLA
6		299015057	BOLT GB/T12 M10X30-GR8.8	8	VBM
7		299012333	NUT M10 (GB/T6170-85)	8	VBM
8		299012382	WASHER GB/T97 10 200HV	8	VBM
9		299006149	SUPPORT	2	VBM
10		299014150	FITTING 45-6MORBA-6MJ-R1.0	1	VBM
11		157169001	FITTING-STR-6MJ-6MORB-R.031	1	VBM

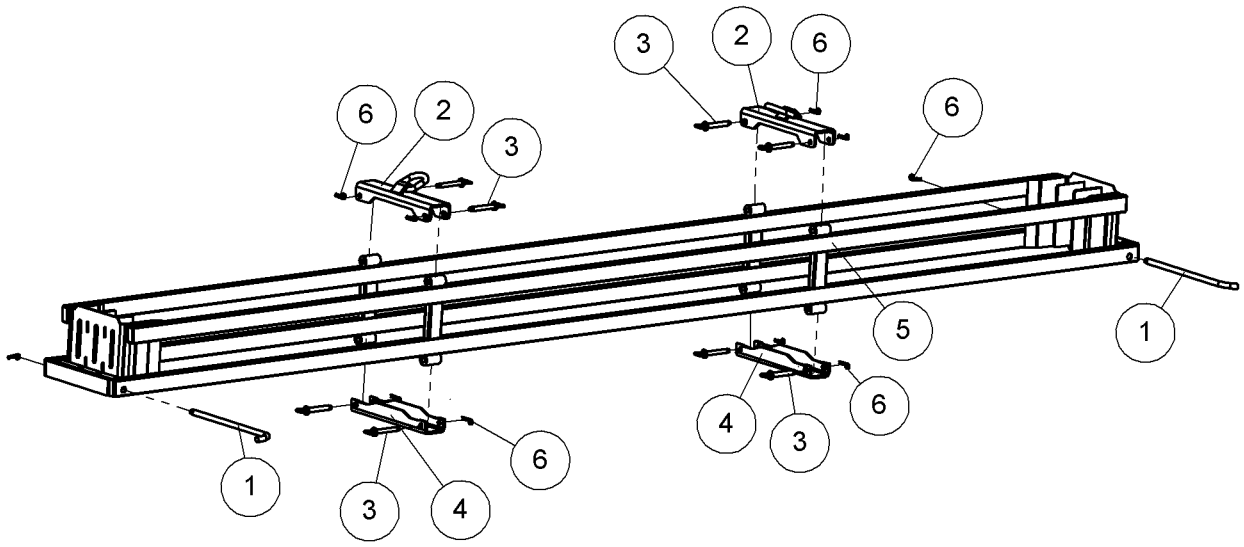
Components-Rod Lift Cylinder Fig 9-4z01



Components-Rod Lift Cylinder Fig 9-4z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			ANTI - DUST J - RING 28X5	1	Not Sold Separately
2			Y - RING 28X36X10	1	Not Sold Separately
3			SNAP RING 28X36X2	1	Not Sold Separately
4			SUPPORT RING 32X28X15	1	Not Sold Separately
5			O - RING D50X3.1	1	Not Sold Separately
6			SNAP RING 50X45X1.5	1	Not Sold Separately
7			O - RING D18X2.65	1	Not Sold Separately
8			GLYD RING 50X4	1	Not Sold Separately
9			PISTON 50	1	Not Sold Separately
10			CYLINDER BODY 50	1	Not Sold Separately
11			PISTON ROD 28	1	Not Sold Separately
12			PILOT SLEEVE 50/28	1	Not Sold Separately
		224394001B	CYLINDER-2X5		VBM, Inc. All Items In Figure
		299025379	SEAL KIT		VBM, Inc. Ref. No's1-8

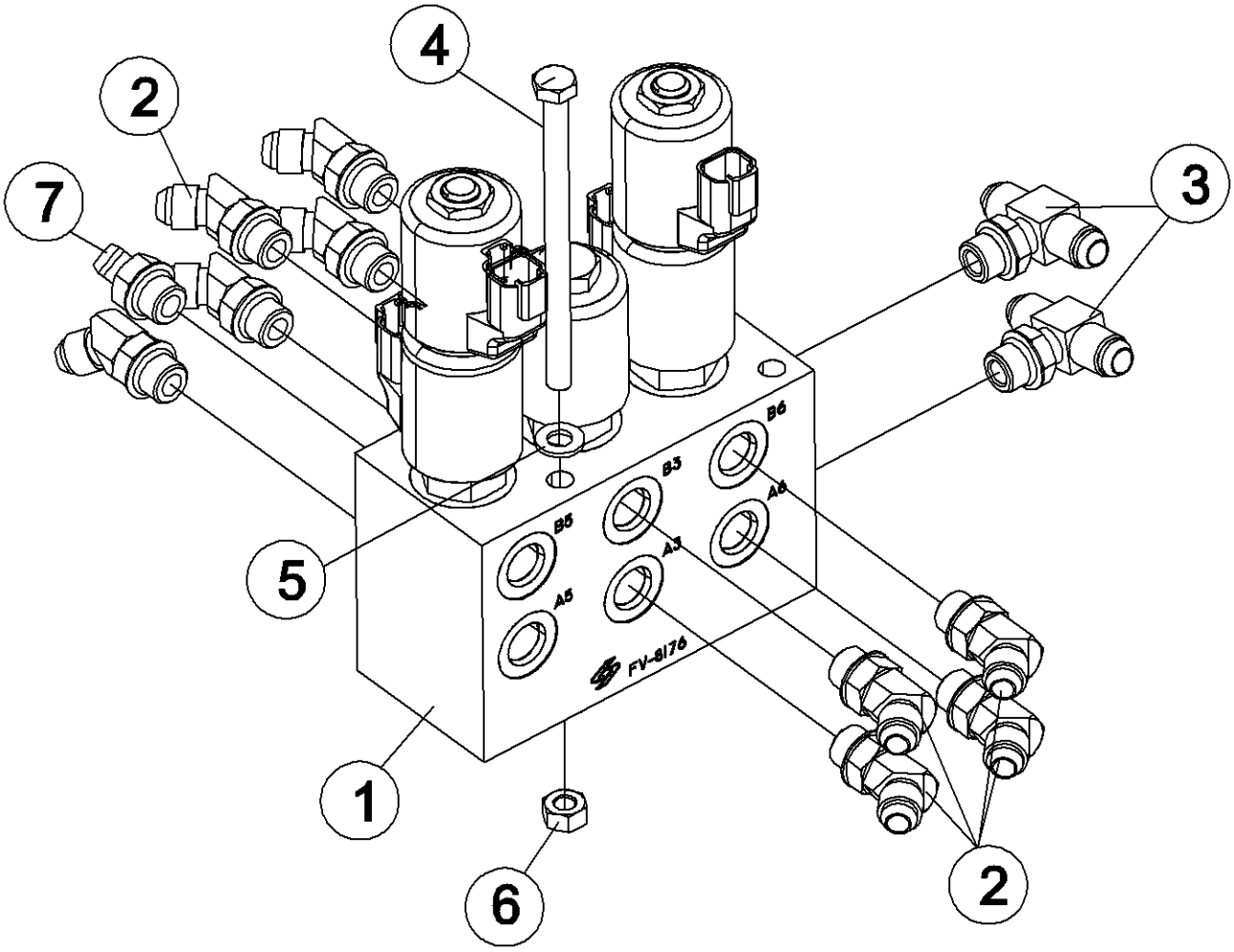
Rod Box Fig 9-5



Rod Box Fig 9-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006213	LIMIT BAR	2	VBM
2		299006249	TOP - ROD BOX	2	VBM
3		2107007	PIN-HITCH 3/4 X 6	8	PELLA
4		299006217	MOUNTING	2	VBM
5		299006239	COVER - ROD BOX	1	VBM
6		1794003	HAIR PIN COTTER - .148 WIRE REF TR00152	10	PELLA

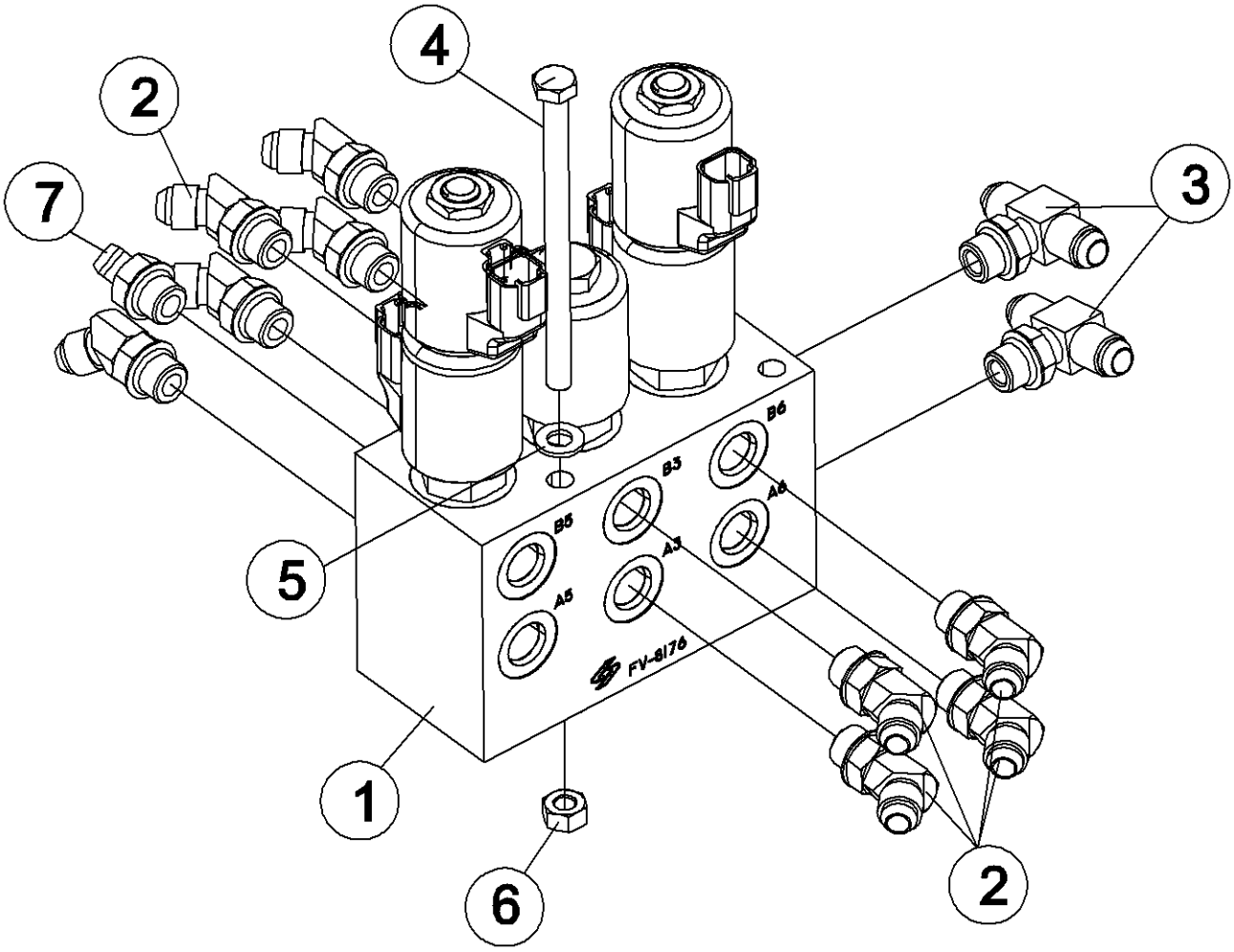
Rod Loader Valve (S/N 120-) Fig 9-6r02



Rod Loader Valve (S/N 120-) Fig 9-6r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023051	MANIFOLD - SUNSOURCE	1	PELLA, Breakdown Fig 9-6z01
2		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	9	VBM
3		68787001	FITTING-6M (BCH)X6M JICX6M JIC	2	VBM
4		299016040	BOLT GB/T5782 M8X120-GR8.8	2	VBM
5		299012381	WASHER GB/T97 8 200HV	4	VBM
6		299012332	NUT GB/T6170 M8-GR8	2	VBM
7		157169001	FITTING-STR-6MJ-6MORB-R.031	1	VBM

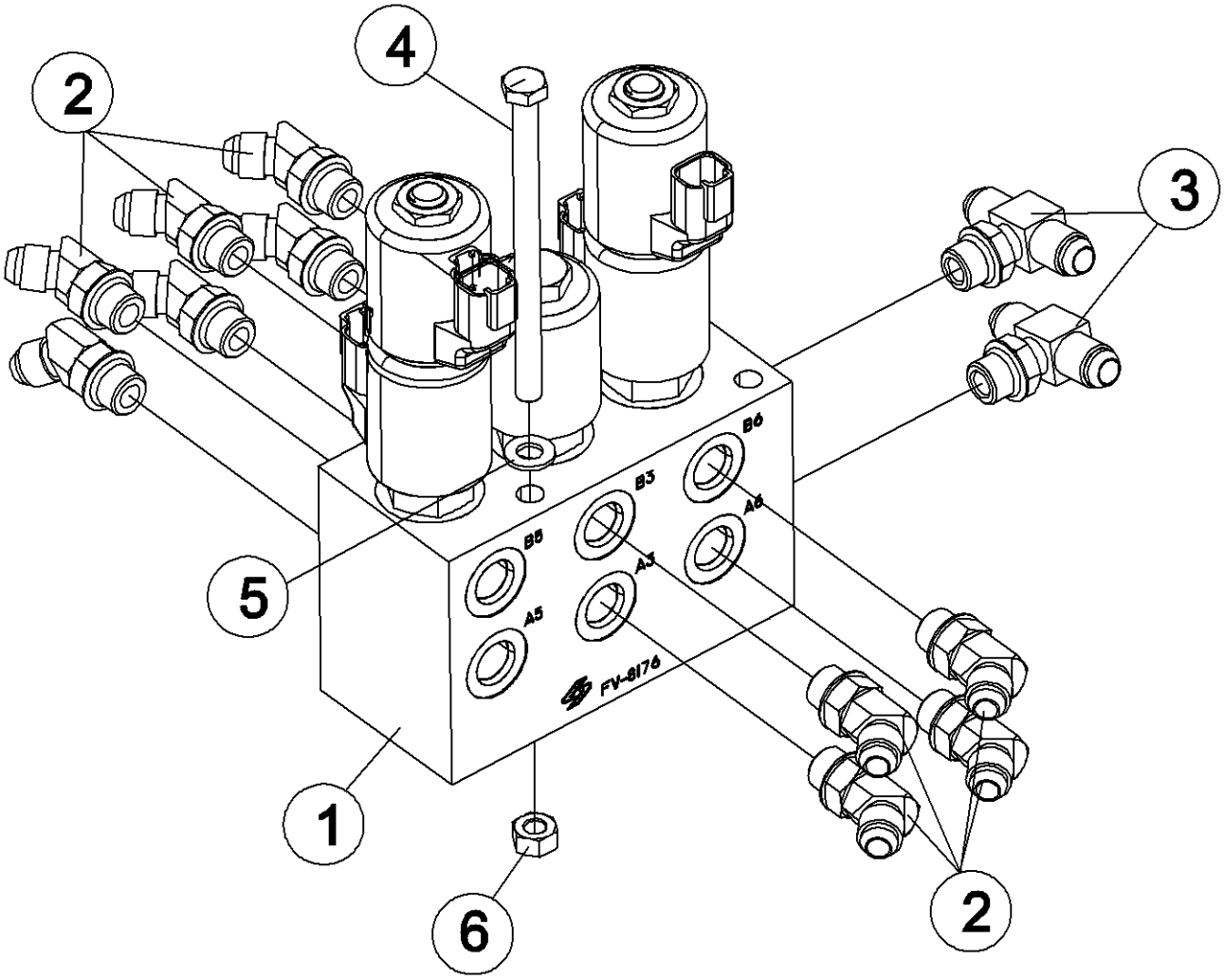
Rod Loader Valve (S/N 106-119) Fig 9-6r01



Rod Loader Valve (S/N 106-119) Fig 9-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005249	MANIFOLD - SUNSOURCE	1	PELLA, Breakdown Fig 9-6z01
2		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	9	VBM
3		68787001	FITTING-6M (BCH)X6M JICX6M JIC	2	VBM
4		299016040	BOLT GB/T5782 M8X120-GR8.8	2	VBM
5		299012381	WASHER GB/T97 8 200HV	4	VBM
6		299012332	NUT GB/T6170 M8-GR8	2	VBM
7		157169001	FITTING-STR-6MJ-6MORB-R.031	1	VBM

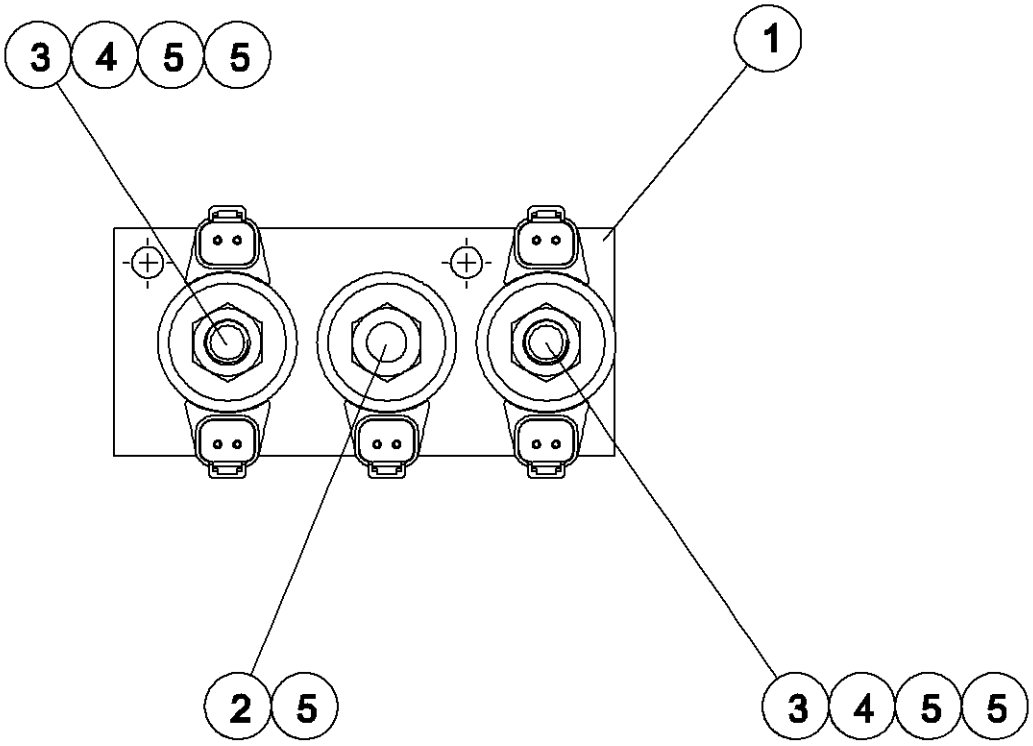
Rod Loader Valve (S/N 101-105) Fig 9-6

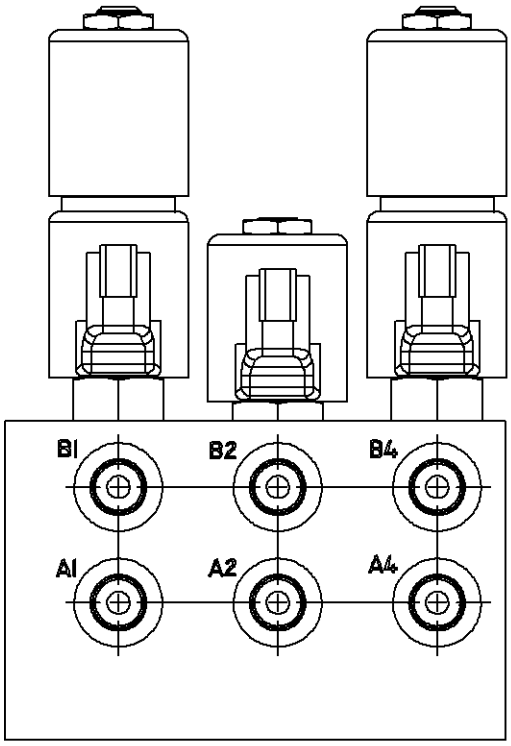


Rod Loader Valve (S/N 101-105) Fig 9-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005249	MANIFOLD - SUNSOURCE	1	PELLA, Breakdown Fig 9-6z01
2		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	10	VBM
3		68787001	FITTING-6M (BCH)X6M JICX6M JIC	2	VBM
4		299016040	BOLT GB/T5782 M8X120-GR8.8	2	VBM
5		299012381	WASHER GB/T97 8 200HV	4	VBM
6		299012332	NUT GB/T6170 M8-GR8	2	VBM

Components-Rod Loader Valve (S/N 120-) Fig 9-6z01r01

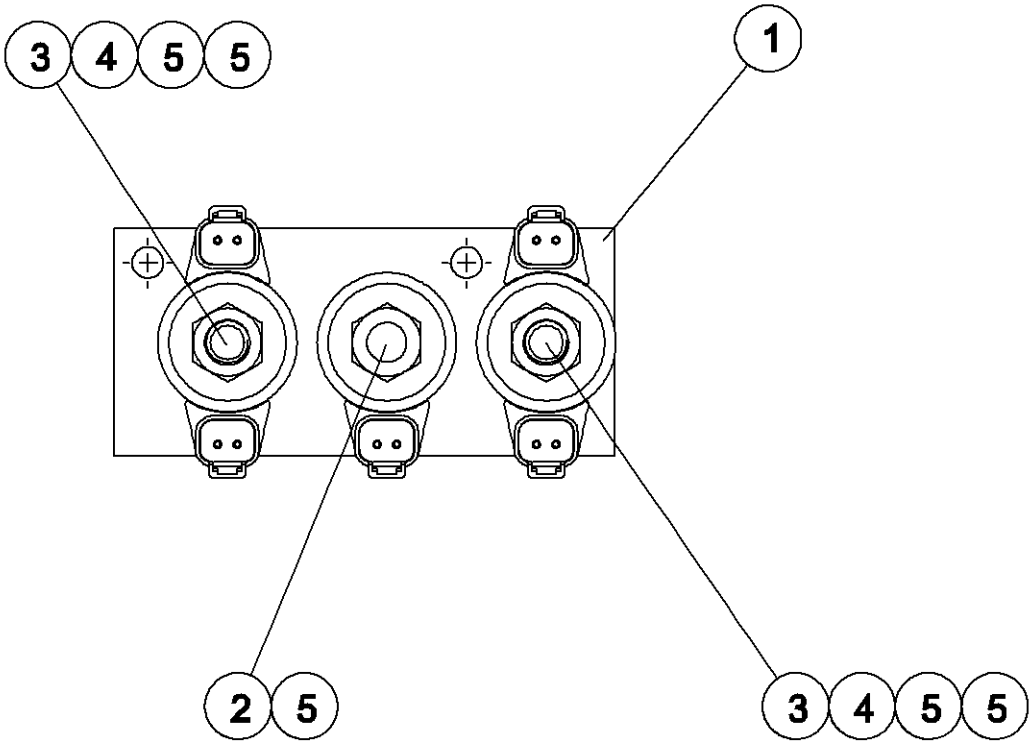


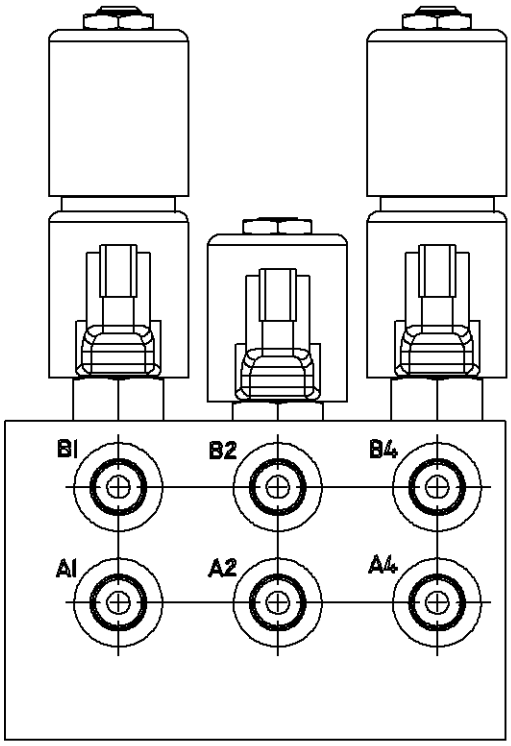


Components-Rod Loader Valve (S/N 120-) Fig 9-6z01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			VALVE BODY	1	Not Sold Separately
2		299005290	SOLENOID VALVE	2	PELLA
2		299026226	SEAL KIT	2	PELLA
3		299026224	SOLENOID VALVE	1	PELLA
3		299026226	SEAL KIT	1	PELLA
4		299005291	COIL SPACER	2	PELLA
5		299005292	12VDC J SERIES DEUTSCH COIL	5	PELLA
6		299027118	P.O.CHECK VALVE	4	PELLA
6		296276846	SEAL KIT	4	PELLA
		299023051	MANIFOLD - SUNSOURCE		PELLA, Inc. All Items In Figure

Components-Rod Loader Valve (S/N 101-119) Fig 9-6z01

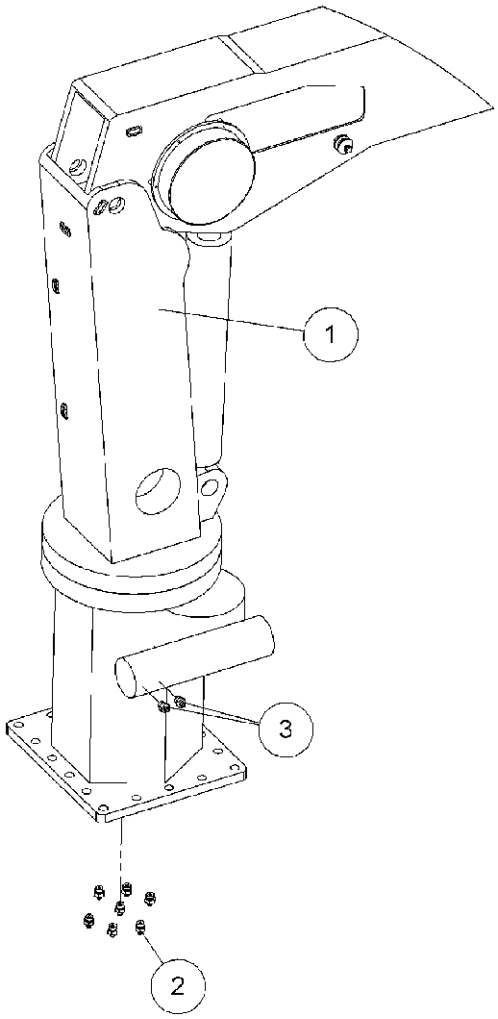




Components-Rod Loader Valve (S/N 101-119) Fig 9-6z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			VALVE BODY	1	Not Sold Separately
2		299026224	SOLENOID VALVE	1	PELLA
2		299026226	SEAL KIT	1	PELLA
3		299005290	SOLENOID VALVE	2	PELLA
3		299026226	SEAL KIT	2	PELLA
4		299005291	COIL SPACER	2	PELLA
5		299005292	12VDC J SERIES DEUTSCH COIL	5	PELLA
		299005249	MANIFOLD - SUNSOURCE		PELLA, Inc. All Items In Figure

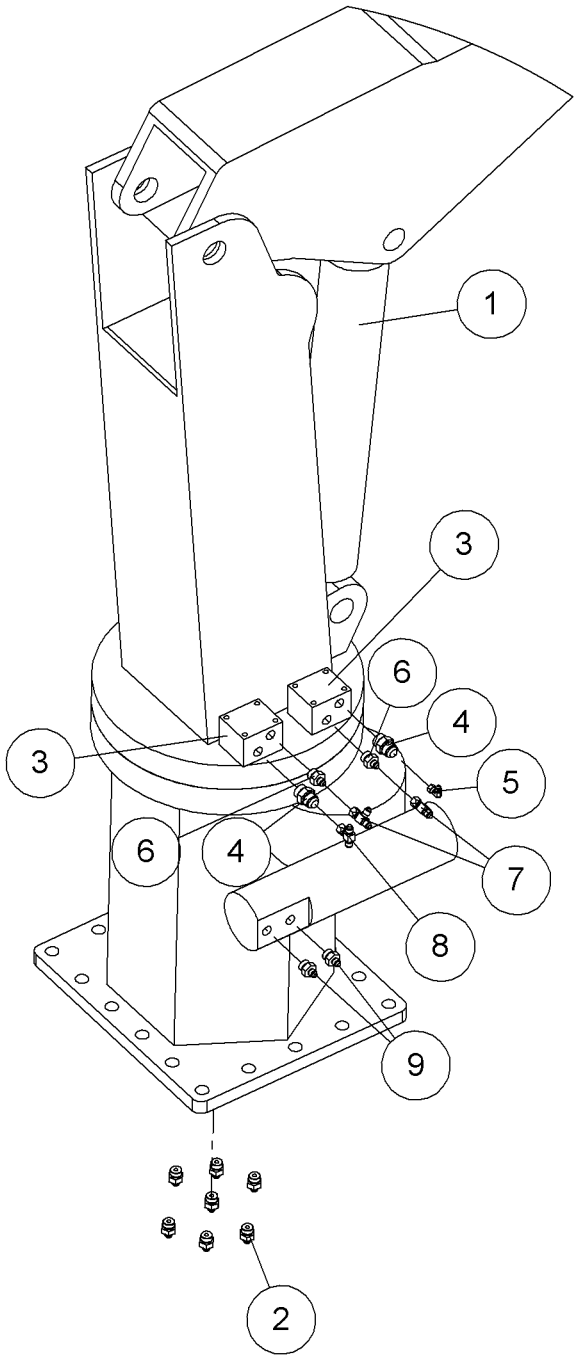
Crane Hydraulic (S/N 107-) Fig 10-1r01



Crane Hydraulic (S/N 107-) Fig 10-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006599	CRANE	1	VBM
2		299014157	FITTING ST-M16X1.5-6MJ	7	VBM
3		299014159	FITTING ST-M18X1.5-6MJ	2	VBM

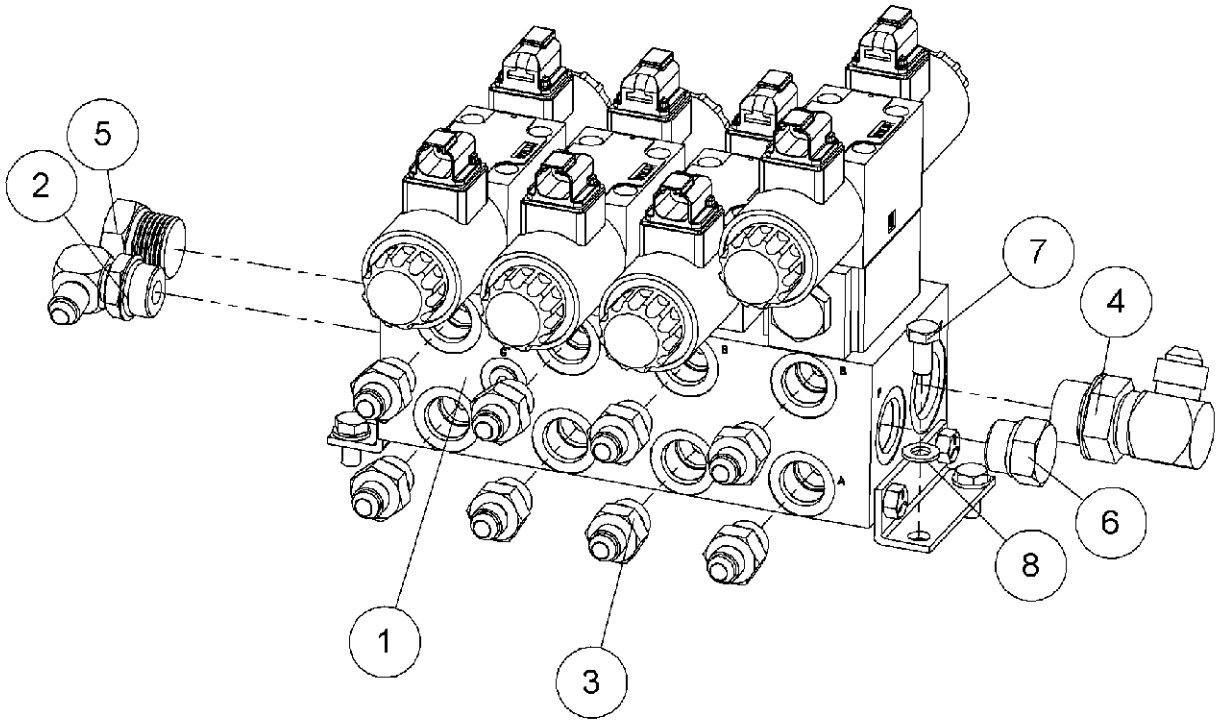
Crane Hydraulic (S/N 101-106) Fig 10-1



Crane Hydraulic (S/N 101-106) Fig 10-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299006599	CRANE	1	VBM
2		299014157	FITTING ST-M16X1.5-6MJ	7	VBM
3		299022926	LIMIT CONTROL VALVE	2	VBM
4		299014158	FITTING ST-M22X1.5-10MJ	2	VBM
5		299014127	FITTING 90-10FSJ-10MJ	1	VBM
6		299022930	FITTING M22X1.5-JIC6	2	VBM
7		59427001	FITTING TEE-6MJ-6FSJ-6MJ	2	VBM
8		299013850	FITTING TEE 10MJ-10MJ-10FSJ	1	VBM
9		299014159	FITTING ST-M18X1.5-6MJ	2	VBM

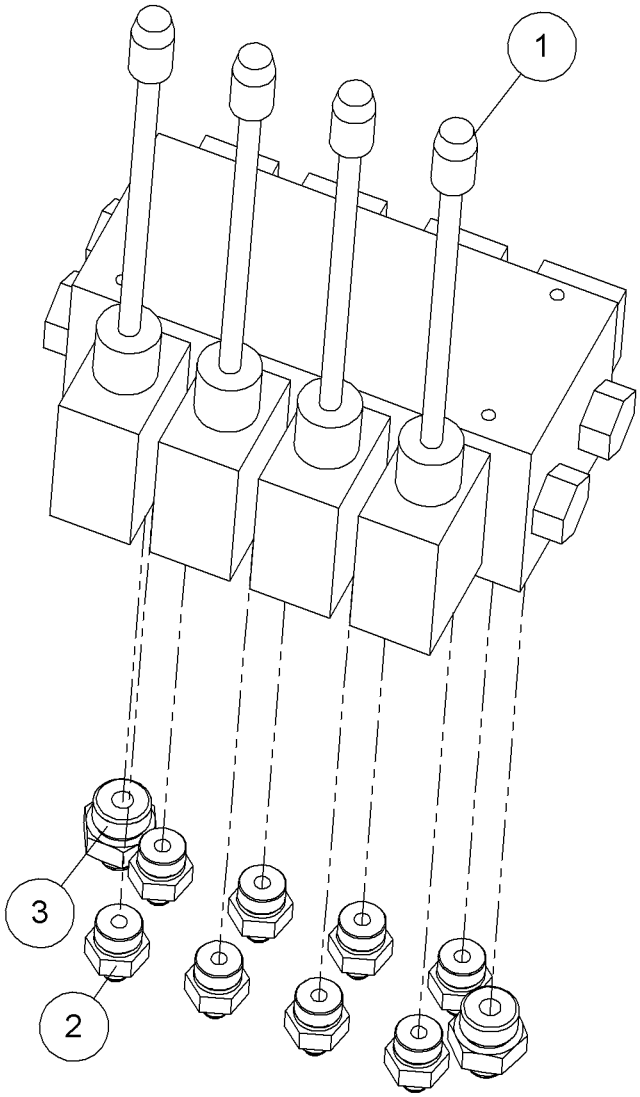
Solenoid Control Valve (S/N 107-) Fig 10-2r01



Solenoid Control Valve (S/N 107-) Fig 10-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023002	CRANE CONTROL VALVE	1	PELLA, Breakdown Fig.10-2z01
2		299014170	90-10MORBA-6MJ	1	VBM
3		60247001	FITTING - 8M O-RING X 6M JIC ST.	8	VBM
4		299013807	90-12MORBA-10MJ	1	VBM
5		67570001	FITTING - PLUG - 12MORB - HEX	1	VBM
6		299013900	10MORB	1	VBM
7		299015055	BOLT GB/T5783 M8X12-8.8	4	VBM
8		299012381	WASHER GB/T97 8 200HV	4	VBM

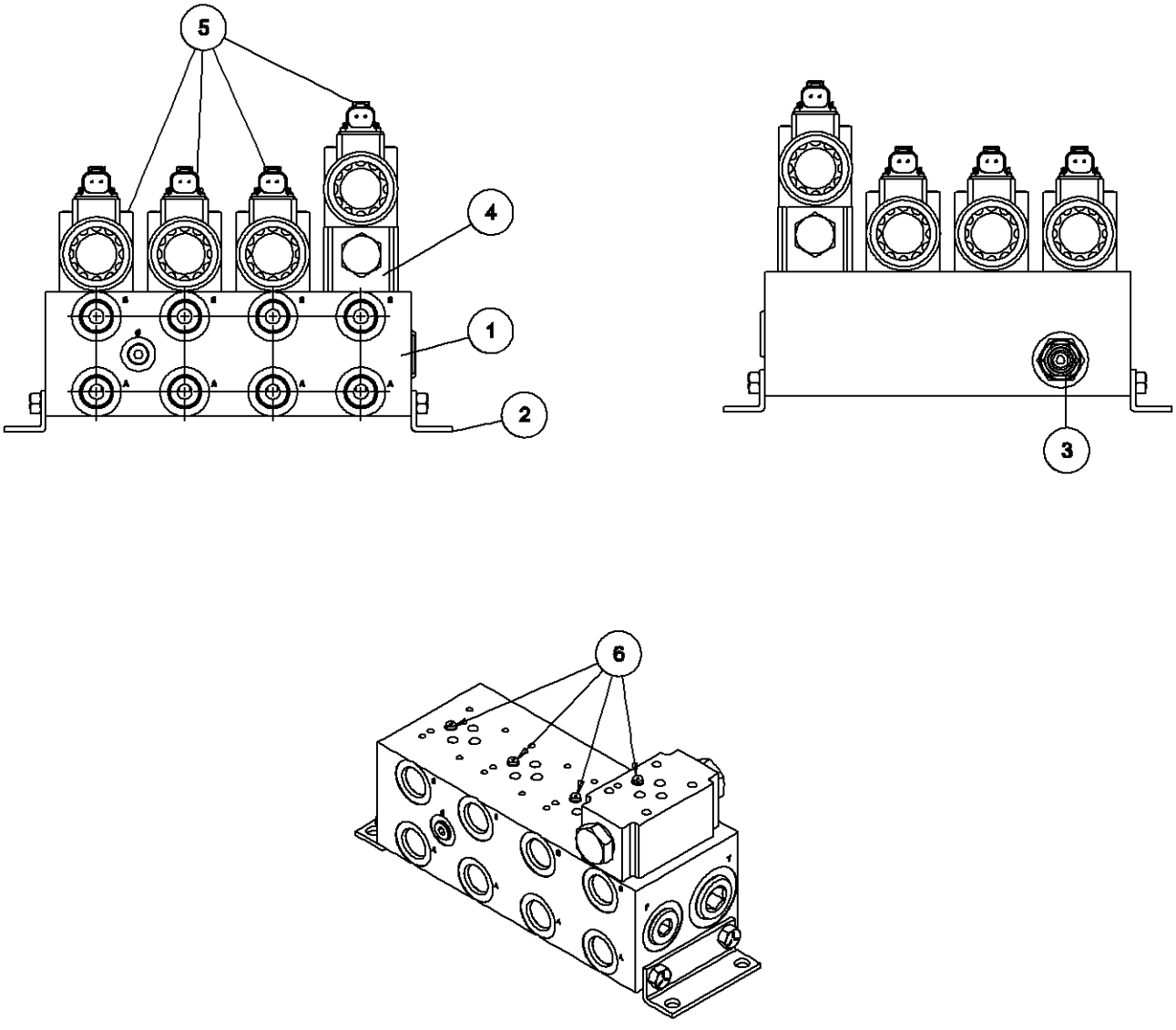
Control Valve - 4 Spool Implement (S/N 101-106) Fig 10-2



Control Valve - 4 Spool Implement (S/N 101-106) Fig 10-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			CONTROL VALVE-4 SPOOL IMPLEMENT	1	Not Sold Separately
2		299014161	FITTING ST-G1/2-6MJ	8	VBM
3		299014162	FITTING ST-G1/2-8MJ	2	VBM

Components-Solenoid Control Valve (S/N 107-) Fig 10-2z01



Components-Solenoid Control Valve (S/N 107-) Fig 10-2z01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299026221	D03 4 STATION MANIFOLD	1	PELLA
2		299026219	MOUNTING FEET ASSEMBLY	1	PELLA
3		299026222	RELIEF VALVE, 200-3000 PSI ADJUST	1	PELLA
3		108362007	SEAL KIT	1	PELLA
4		296278223	VALVE - DUAL P.O. CHECK SANDWICH	1	PELLA
5		296278219	PROPORTIONAL 3/4WAY SPOOL	4	PELLA
5		180005644	KIT- SEAL	4	PELLA
6		296278224	ORIFICE DISK .056”	4	PELLA
		299023002	CRANE CONTROL VALVE		PELLA, Inc. All Items In Figure

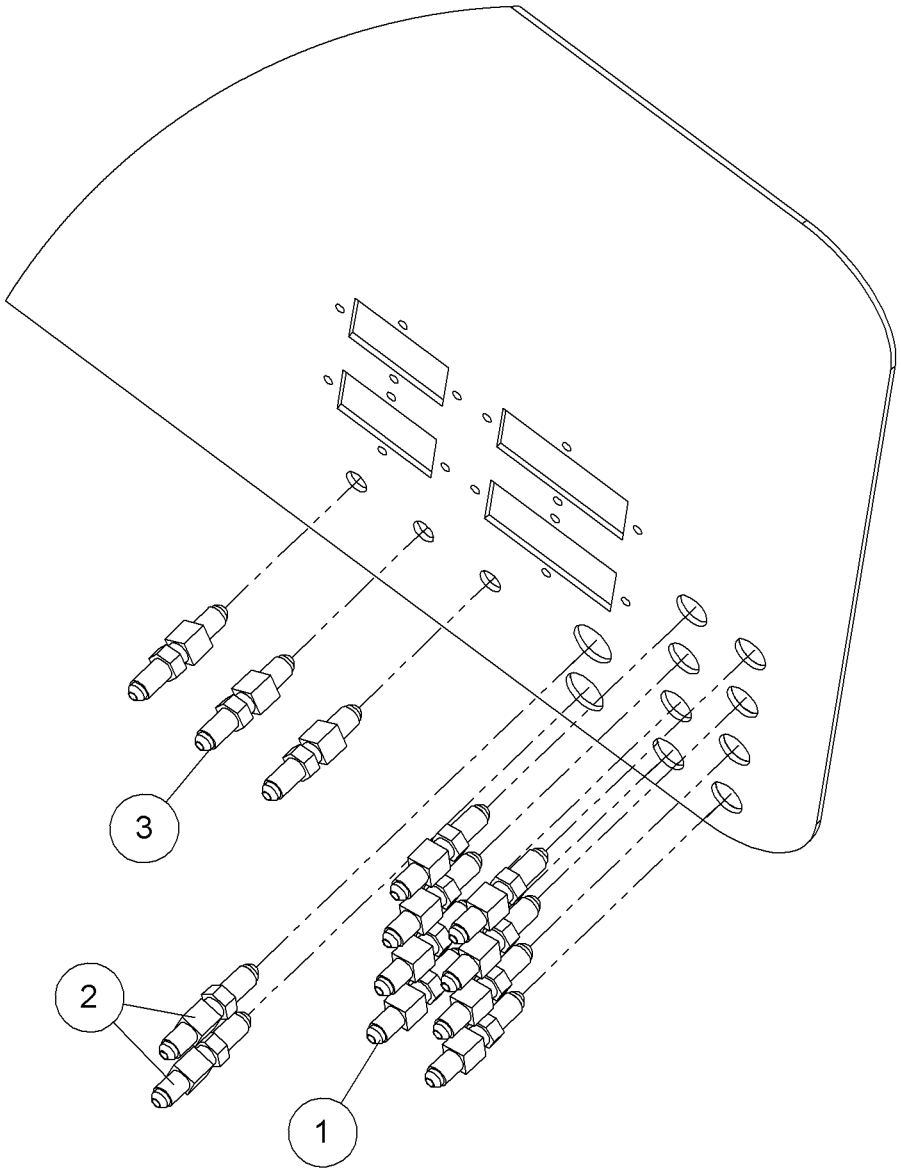
Control Console Bulkhead (S/N 107-) (Deleted) Fig 10-3r01

DELETED DUE TO UPDATE

Control Console Bulkhead (S/N 107-) (Deleted) Fig 10-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

Control Console Bulkhead (S/N 101-106) Fig 10-3



Control Console Bulkhead (S/N 101-106) Fig 10-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299013873	FITTING ST-6MJBH-6MJ	8	VBM
2		299014168	FITTING ST-8MJBH-8MJ	2	VBM
3		299014169	FITTING ST-4MJBH-4MJ	3	VBM

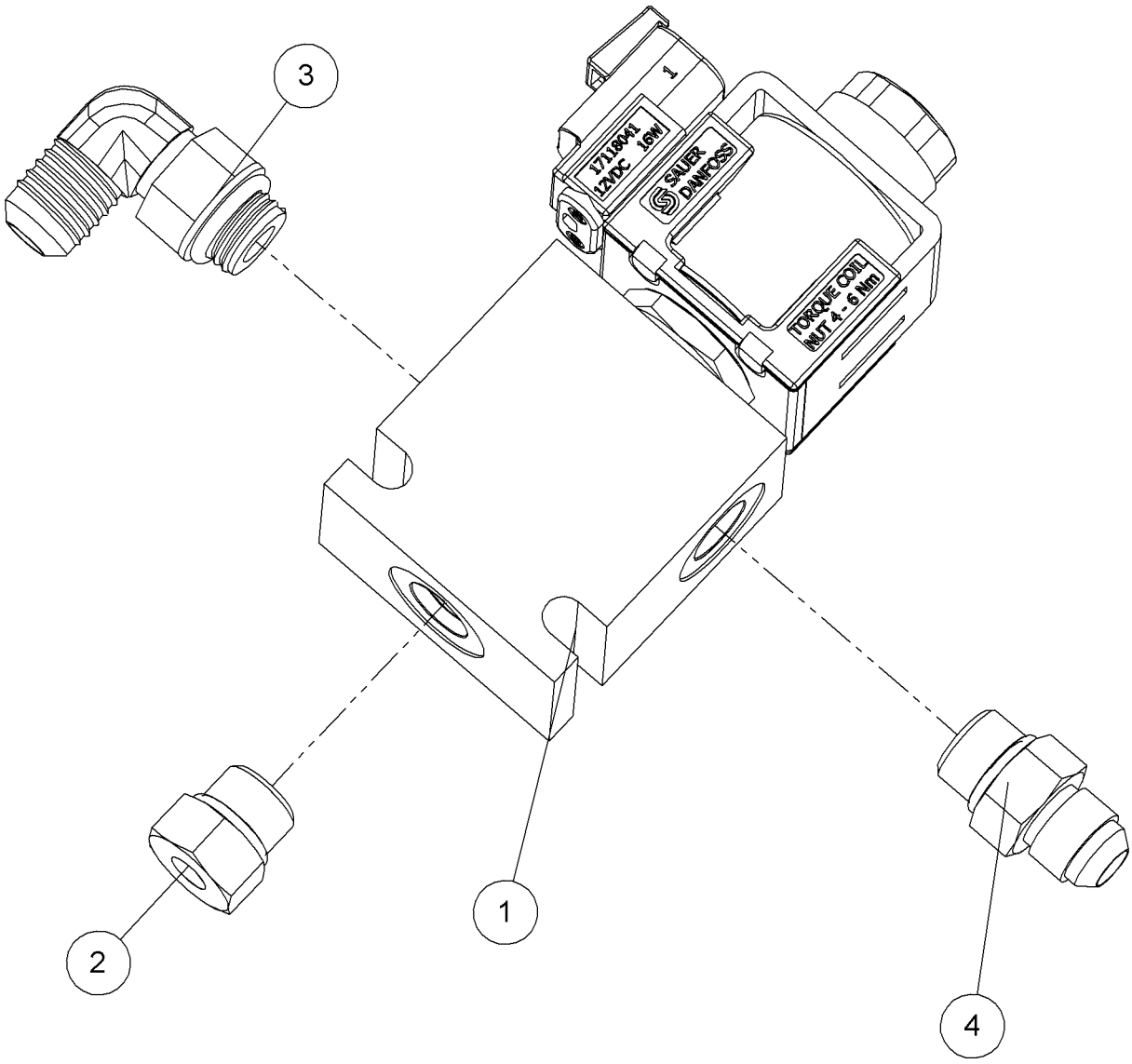
Switch Valve For Crane (S/N 107-) (Deleted) Fig 10-4r01

DELETED DUE TO UPDATE

Switch Valve For Crane (S/N 107-) (Deleted) Fig 10-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

Switch Valve For Crane (S/N 101-106) Fig 10-4



Switch Valve For Crane (S/N 101-106) Fig 10-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		291768001	VALVE - 2 POS. 3 WAY W/ DEUTSCH	1	PELLA, Breakdown Fig.4-21z01
2		5553001	FITTING - PLUG - 6MORB - HEX	1	VBM
3		59426001	FITTING - 90-6MJ-6MORBA	1	VBM
4		299013827	ST-6MORB-8MJ	1	VBM

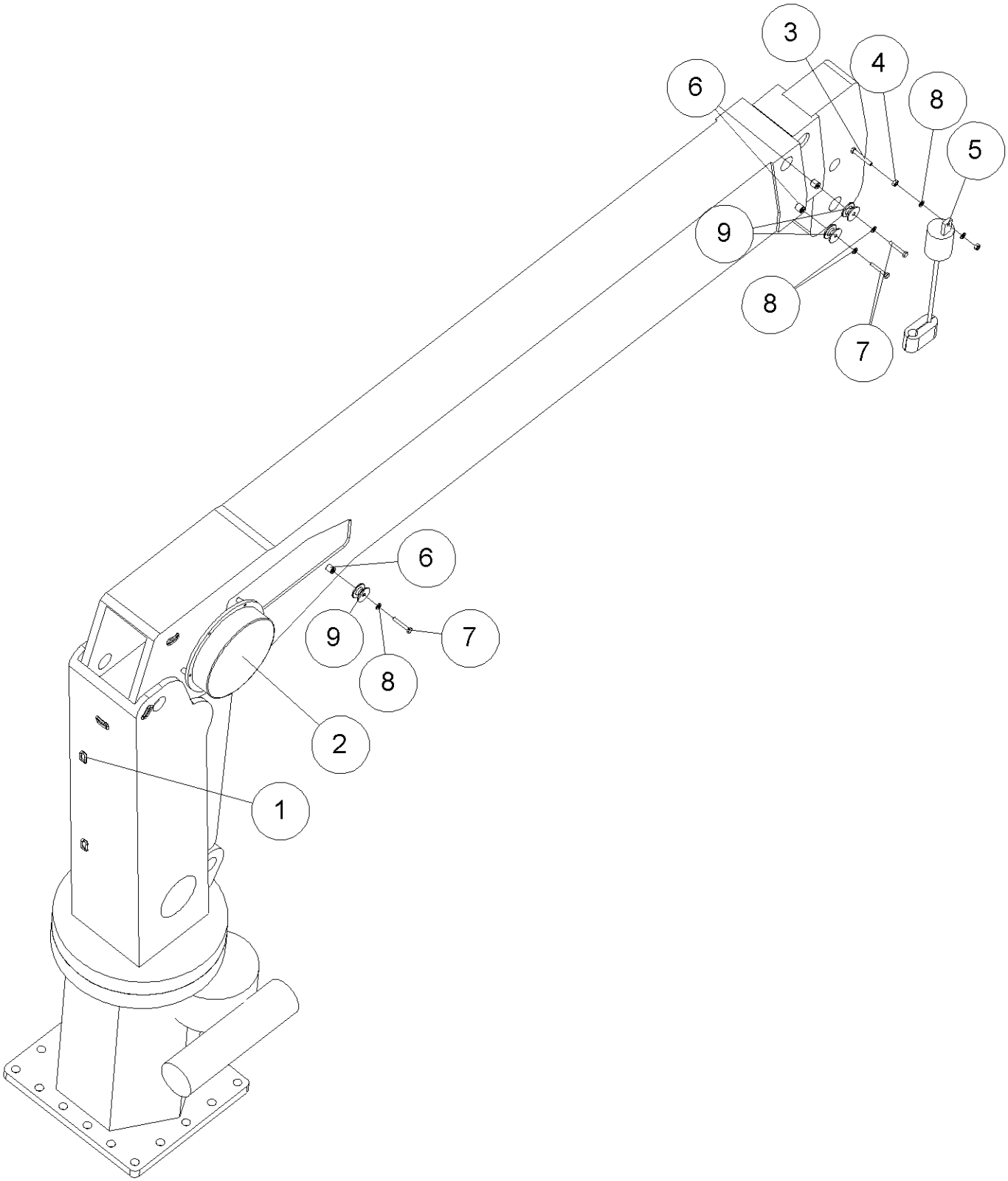
Anti -Two-Blocking Assembly (S/N 111-) (Deleted) Fig 10-5r01

DELETED DUE TO UPDATE

Anti -Two-Blocking Assembly (S/N 111-) (Deleted) Fig 10-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Deleted Due to Update		

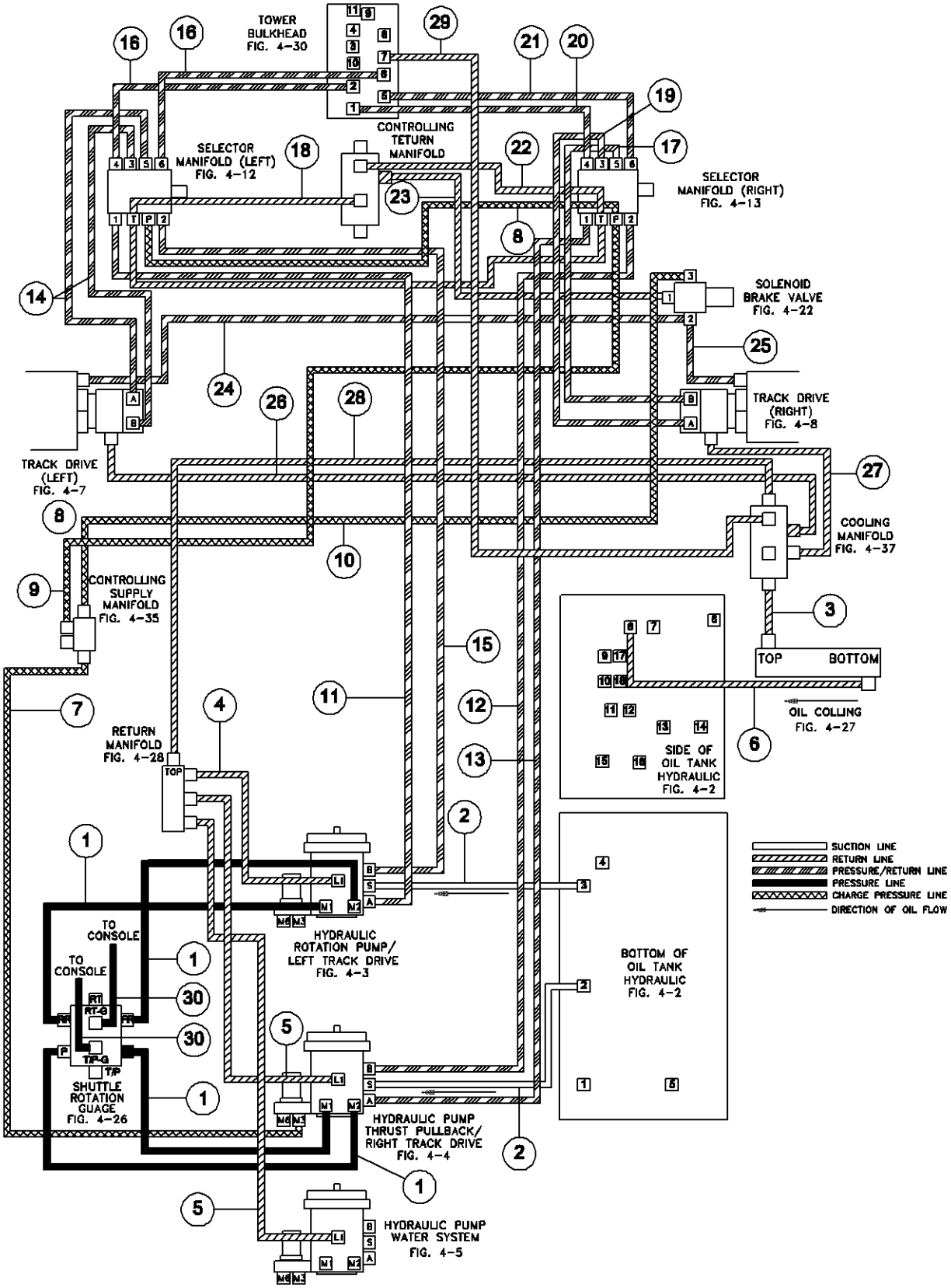
Anti-Two-Blocking Assembly (S/N 107-110) Fig 10-5



Anti-Two-Blocking Assembly (S/N 107-110) Fig 10-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005370	WIRE HARNESS MOUNT	5	VBM
2		299005470	PULL BOX	1	VBM
3		299011006	BOLT GB/T5782 M10X70-GR8.8	1	VBM
4		299015070	NUT M10	2	VBM
5		299005471	LIMIT SWITCH	1	VBM
6		299005472	BASE-SCREW	3	VBM
7		299011004	BOLTM12X60 (GB/T5782)	3	VBM
8		299012382	WASHER GB/T97 10 200HV	8	VBM
9		299005473	PULLEY - NYLON	3	VBM

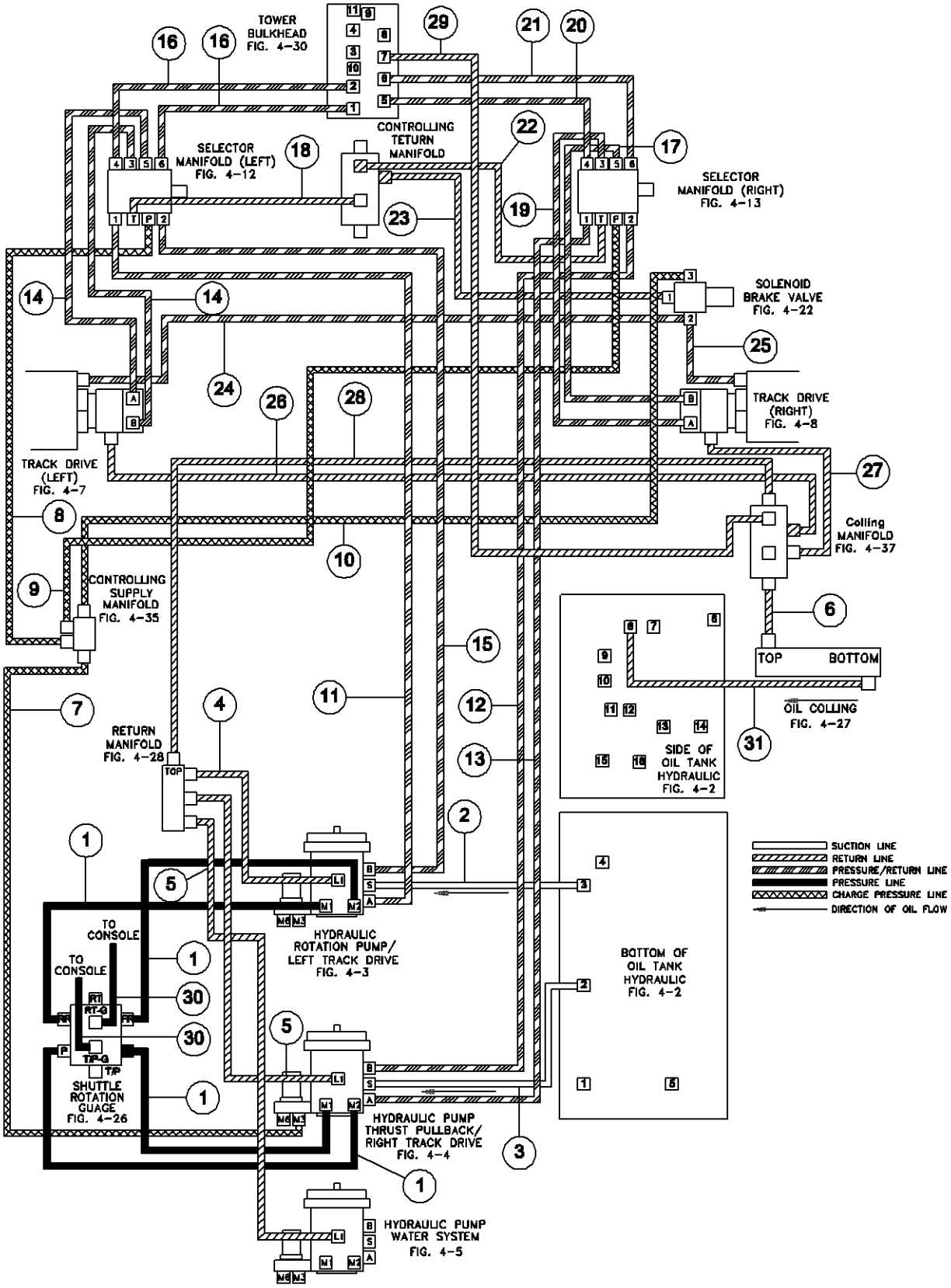
Ground Drive (S/N 106-) Fig 11-1r01



Ground Drive (S/N 106-) Fig 11-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296256903	HOSE - .08 X 34 4FS JIC ST/ST MICRO	4	PELLA
2		299022960	HOSE 1 1/4”	2	VBM
3		299005155	HOSE1.25X780 ST-20FJX/ST-20FJX 350PSI	1	VBM
4		299005107	HOSE 1”X660mm CL ST-16FJX/ST-16FJX 350PSI	1	VBM
5		299005109	HOSE 1”X580mm CL ST-16FJX/ST-16FJX 350PSI	2	VBM
6		299005156	HOSE 1.25X1670 ST-20FJX/90-20FJX 350PSI	1	VBM
7		299005168	HOSE 0.25”X2600mm ST-4FJX/ST-4FJX 350PSI	1	VBM
8		299023099	HOSE 0.25”X380mm ST-4FJX/ST-4FJX 350PSI	1	VBM
9		299005172	HOSE 0.25X1460 ST-4FJX/90-4FJX 350PSI	1	VBM
10		299005171	HOSE 0.25X370 ST-4FJX/ST-4FJX 350PSI	1	VBM
11		299005162	HOSE 1”X2150mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
12		299005165	HOSE 1”X2680mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
13		299005164	HOSE 1”X2730mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
14		299005173	HOSE 0.75”X1050mm ST-12FORFF/90-12FORFF 6000PSI	2	VBM
15		299005163	HOSE 1”X2280mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
16		299005122	HOSE 1”X3030mm 90-16FORFFL/ST-16FORFF 6000PSI	2	VBM
17		299005174	HOSE 0.75”X1050mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
18		299023100	HOSE 0.25”X380mm ST-4FJX/ST-4FJX 350PSI	1	VBM
19		299005175	HOSE 0.75”X930mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
20		299023057	HOSE 1”X2950mm 90-16FORFFL/ST-16FORFF 6000PSI	1	VBM
21		299005177	HOSE 1”X2810mm 90-16FORFFL/ST-16FORFF 6000PSI	1	VBM
22		299005158	HOSE 0.25”X1770mm ST-4FJX/ST-4FJX 350PSI	1	VBM
23		299005160	HOSE 0.25”X720mm ST-4FJX/ST-4FJX 350PSI	1	VBM
24		299005166	HOSE 0.25X870 ST-4FJX/90-4FJX 350PSI	1	VBM
25		299005167	HOSE 0.25”X1660mm ST-4FJX/ST-4FJX 350PSI	1	VBM
26		299005152	HOSE 0.75”X2500mm ST-12FJX/90-12FJX 350PSI	1	VBM
27		299005153	HOSE 0.75”X2200mm ST-12FJX/90-12FJX 350PSI	1	VBM
28		299005105	HOSE 1.25”X1400mm CL ST-20FJX/ST-20FJX 350PSI	1	VBM
29		299023054	HOSE 1.25”X1650mm ST-20FJX/ST-20FJX 350PSI	1	VBM
30		296310574	HOSE - .078 X 200” 4FSJIC ST/ST MICRO 6900 PSI	2	PELLA

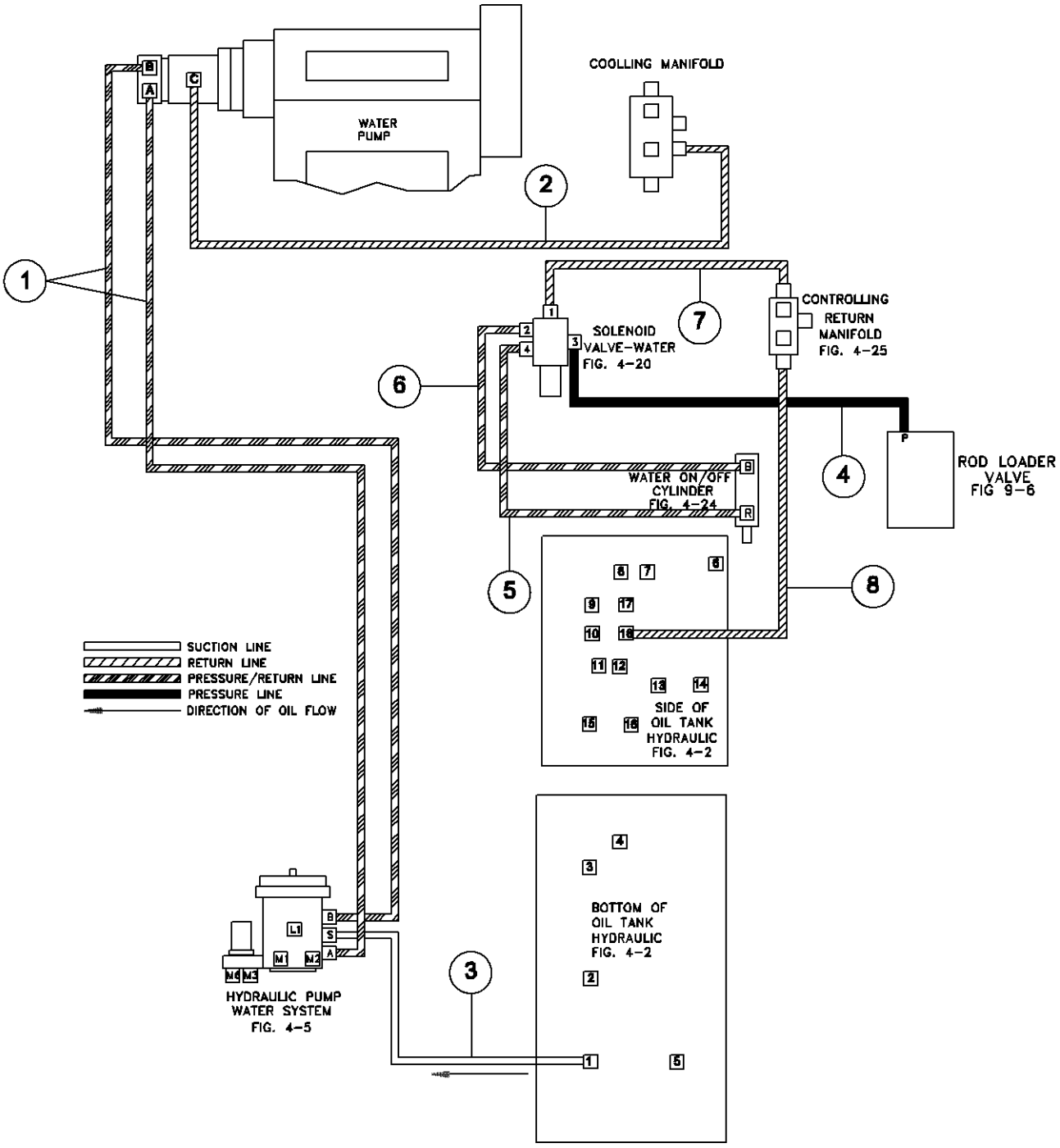
Ground Drive (S/N 101-105) Fig 11-1



Ground Drive (S/N 101-105) Fig 11-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296256903	HOSE - .08 X 34 4FS JIC ST/ST MICRO	4	PELLA
2		299005106	HOSE 1X415 90-16FJX/ST-16FJX 350PSI	1	VBM
3		299005108	HOSE 1X430 90-16FJX/ST-16FJX 350PSI	1	VBM
4		299005107	HOSE 1”X660mm CL ST-16FJX/ST-16FJX 350PSI	1	VBM
5		299005109	HOSE 1”X580mm CL ST-16FJX/ST-16FJX 350PSI	2	VBM
6		299005155	HOSE 1.25X780 ST-20FJX/ST-20FJX 350PSI	1	VBM
7		299005168	HOSE 0.25”X2600mm ST-4FJX/ST-4FJX 350PSI	1	VBM
8		299005169	HOSE 0.25X1815 ST-4FJX/90-4FJX 350PSI	1	VBM
9		299005172	HOSE 0.25X1460 ST-4FJX/90-4FJX 350PSI	1	VBM
10		299005171	HOSE 0.25X370 ST-4FJX/ST-4FJX 350PSI	1	VBM
11		299005162	HOSE 1”X2150mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
12		299005165	HOSE 1”X2680mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
13		299005164	HOSE 1”X2730mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
14		299005173	HOSE 0.75”X1050mm ST-12FORFF/90-12FORFF 6000PSI	2	VBM
15		299005163	HOSE 1”X2280mm 90-16FLH/90-16FORFF 90 6000PSI	1	VBM
16		299005122	HOSE 1”X3030mm 90-16FORFFL/ST-16FORFF 6000PSI	2	VBM
17		299005174	HOSE 0.75”X1050mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
18		299005157	HOSE 0.25X2200 ST-4FJX/90-4FJX 350PSI	1	VBM
19		299005175	HOSE 0.75”X930mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
20		299023057	HOSE 1”X2950mm 90-16FORFFL/ST-16FORFF 6000PSI	1	VBM
21		299005177	HOSE 1”X2810mm 90-16FORFFL/ST-16FORFF 6000PSI	1	VBM
22		299005158	HOSE 0.25”X1770mm ST-4FJX/ST-4FJX 350PSI	1	VBM
23		299005160	HOSE 0.25”X720mm ST-4FJX/ST-4FJX 350PSI	1	VBM
24		299005166	HOSE 0.25X870 ST-4FJX/90-4FJX 350PSI	1	VBM
25		299005167	HOSE 0.25”X1660mm ST-4FJX/ST-4FJX 350PSI	1	VBM
26		299005152	HOSE 0.75”X2500mm ST-12FJX/90-12FJX 350PSI	1	VBM
27		299005153	HOSE 0.75”X2200mm ST-12FJX/90-12FJX 350PSI	1	VBM
28		299005105	HOSE 1.25”X1400mm CL ST-20FJX/ST-20FJX 350PSI	1	VBM
29		299023054	HOSE 1.25”X1650mm ST-20FJX/ST-20FJX 350PSI	1	VBM
30		299015033	HOSE - 2mmX3000mm (.08X118) ST-4FJX/ST-4FJX 6900PSI	2	PELLA
31		299005156	HOSE 1.25X1670 ST-20FJX/90-20FJX 350PSI	1	VBM

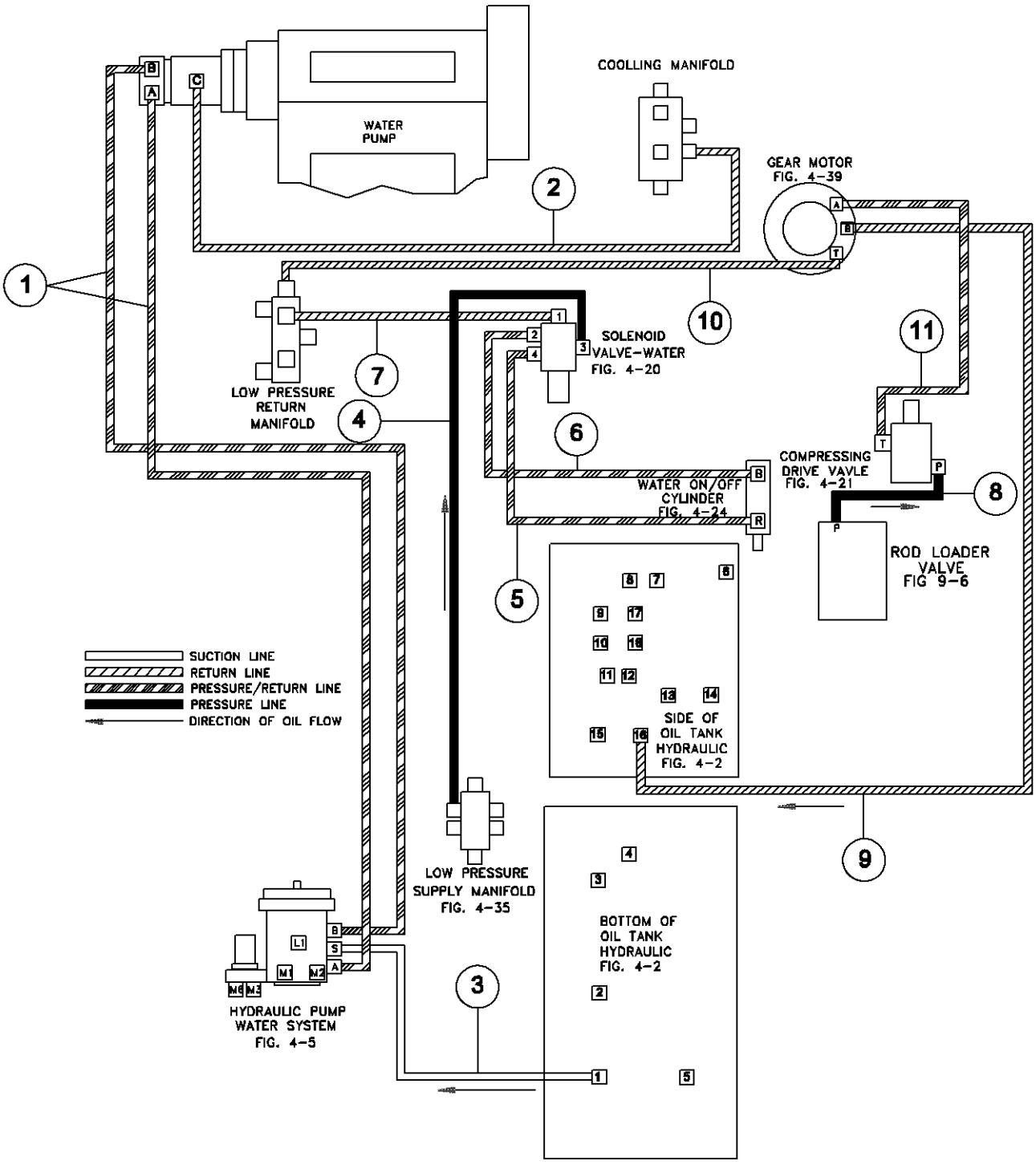
Water (S/N 114-) Fig 11-2r02



Water (S/N 114-) Fig 11-2r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005112	HOSE 1”X3210mm CL 90-16FLH/ST-16FLH 6000PSI	2	VBM
2		299005154	HOSE 0.75”X1300mm 45-12FJX/ST-12FJX 350PSI	1	VBM
3		299023030	HOSE 1”	1	VBM
4		299023106	HOSE 0.25”X1000mm ST-4FJX/90-4FJX 3000PSI	1	VBM
5		299005194	HOSE 0.25”X900mm ST-4FJX/90-4FJX 3000PSI	1	VBM
6		299005193	HOSE 0.25”X800mm ST-4FJX/90-4FJX 3000PSI	1	VBM
7		299023107	HOSE 0.25”X1900mm ST-4FJX/90-4FJX 350PSI	1	VBM
8		299023091	HOSE 0.5”X1770mm ST-8FJX/ST-8FJX 350PSI	1	VBM

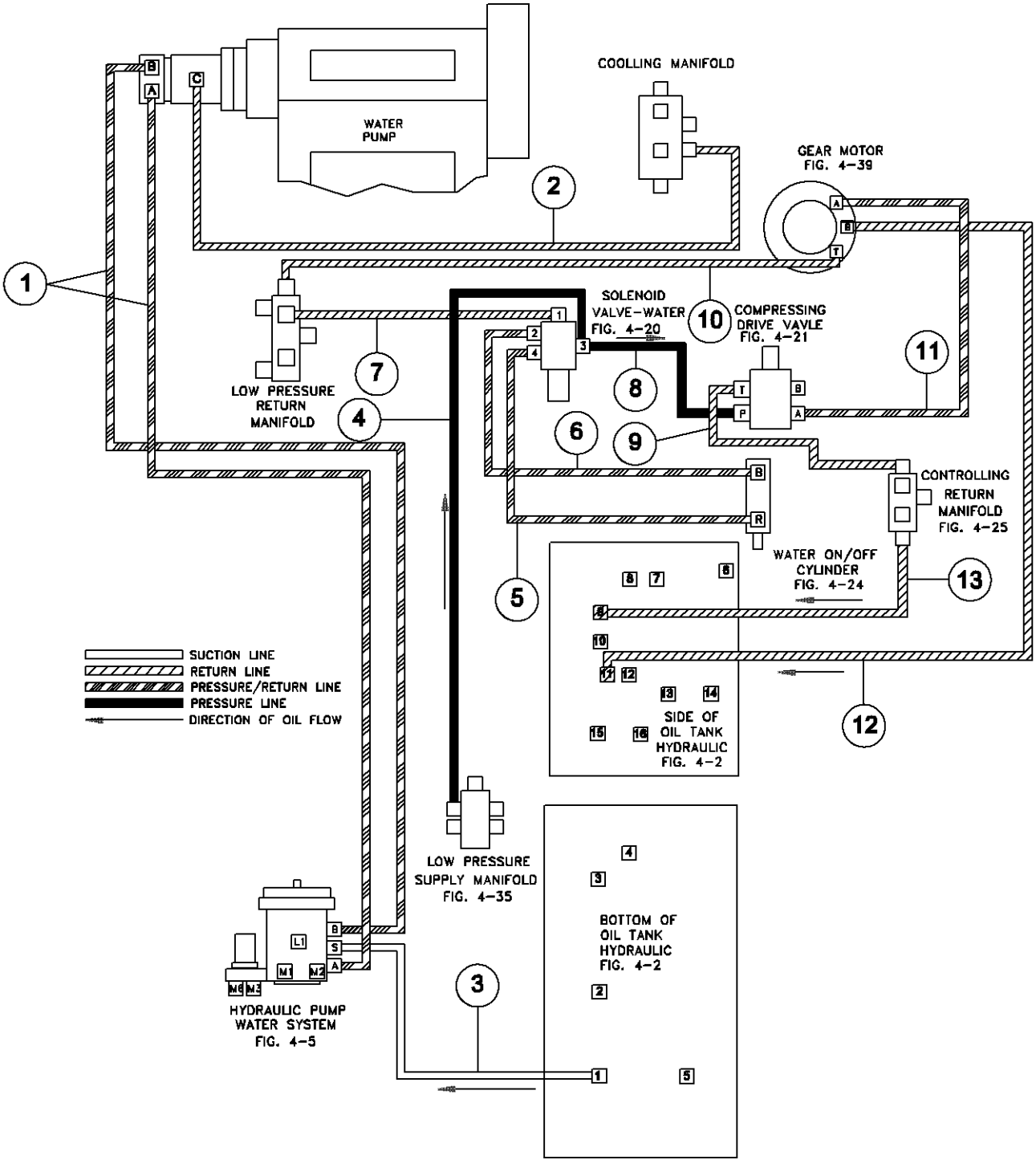
Water (S/N 108-113) Fig 11-2r01



Water (S/N 108-113) Fig 11-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005112	HOSE 1”X3210mm CL 90-16FLH/ST-16FLH 6000PSI	2	VBM
2		299005154	HOSE 0.75”X1300mm 45-12FJX/ST-12FJX 350PSI	1	VBM
3		299023030	HOSE 1”	1	VBM
4		299005191	HOSE 0.25”X3200mm ST-4FJX/90-4FJX 3000PSI	1	VBM
5		299005194	HOSE 0.25”X900mm ST-4FJX/90-4FJX 3000PSI	1	VBM
6		299005193	HOSE 0.25”X800mm ST-4FJX/90-4FJX 3000PSI	1	VBM
7		299005192	HOSE 0.25”X3200mm ST-4FJX/90-4FJX 350PSI	1	VBM
8		299005233	HOSE 0.375”X800mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
9		299005235	HOSE 0.75”X3000mm ST-12FJX/ST-12FJX 350PSI	1	VBM
10		299005113	HOSE 0.375”X2100mm 90-6FJX/ST-6FJX 350PSI	1	VBM
11		299005237	HOSE 0.375”X350mm ST-6FJX/45-6FJX 3000PSI	1	VBM

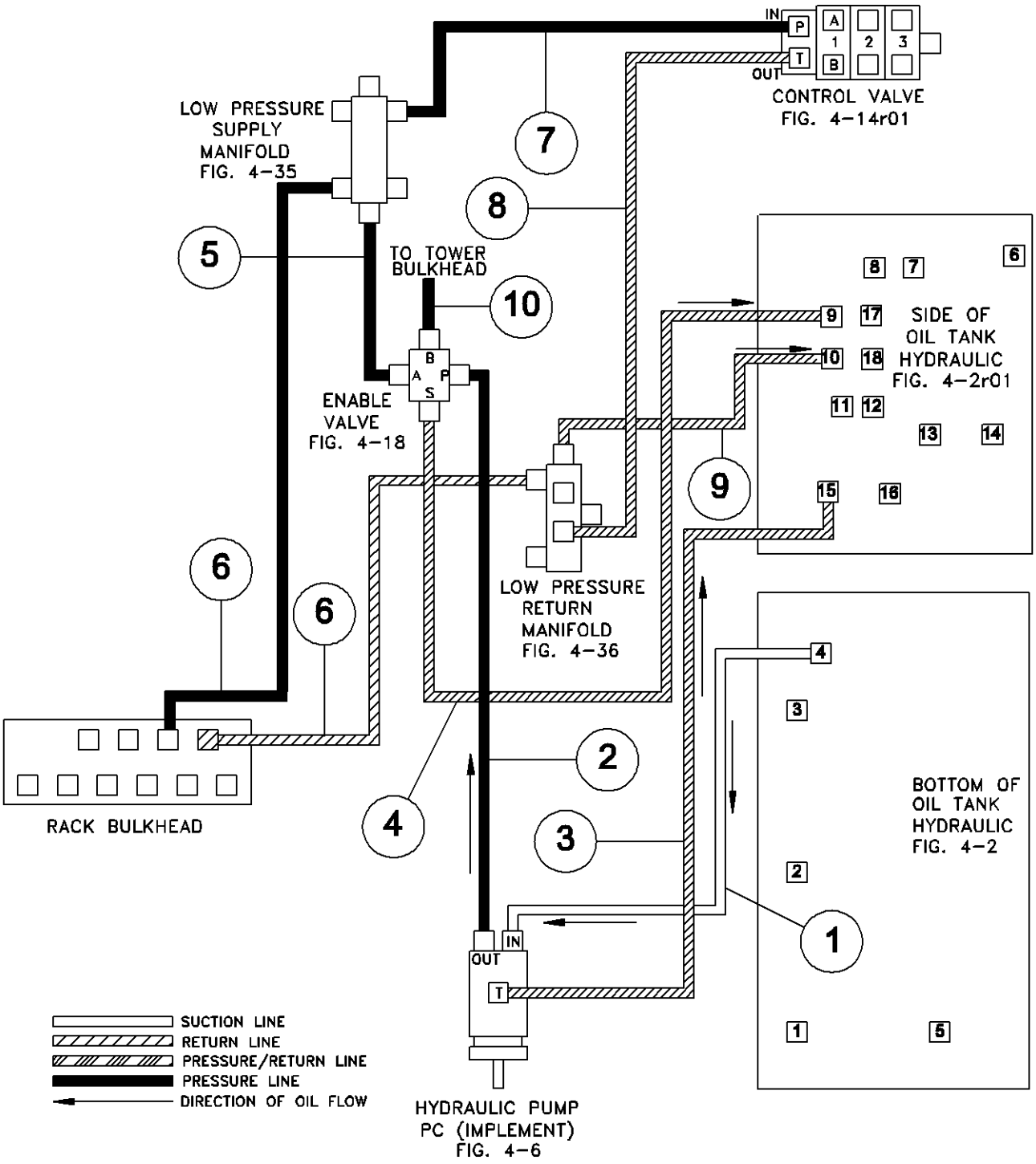
Water (S/N 101-107) Fig 11-2



Water (S/N 101-107) Fig 11-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005112	HOSE 1”X3210mm CL 90-16FLH/ST-16FLH 6000PSI	2	VBM
2		299005154	HOSE 0.75”X1300mm 45-12FJX/ST-12FJX 350PSI	1	VBM
3		299005110	HOSE 1X455 90-16FJX/ST-16FJX 350PSI	1	VBM
4		299005191	HOSE 0.25”X3200mm ST-4FJX/90-4FJX 3000PSI	1	VBM
5		299005194	HOSE 0.25”X900mm ST-4FJX/90-4FJX 3000PSI	1	VBM
6		299005193	HOSE 0.25”X800mm ST-4FJX/90-4FJX 3000PSI	1	VBM
7		299005192	HOSE 0.25”X3200mm ST-4FJX/90-4FJX 350PSI	1	VBM
8		299023428	HOSE 0.25X700 ST-4FJX/90-4FJX 3000PSI	1	VBM
9		299023424	HOSE 0.375X1250 ST-6FJX/ST-6FJX 3000PSI	1	VBM
10		299005113	HOSE 0.375”X2100mm 90-6FJX/ST-6FJX 350PSI	1	VBM
11		299023426	HOSE 0.375X800 ST-6FJX/90-6FJX 3000PSI	1	VBM
12		299005235	HOSE 0.75”X3000mm ST-12FJX/ST-12FJX 350PSI	1	VBM
13		299005161	HOSE 0.5X1770 ST-8FJX/90-8FJX 350PSI	1	VBM

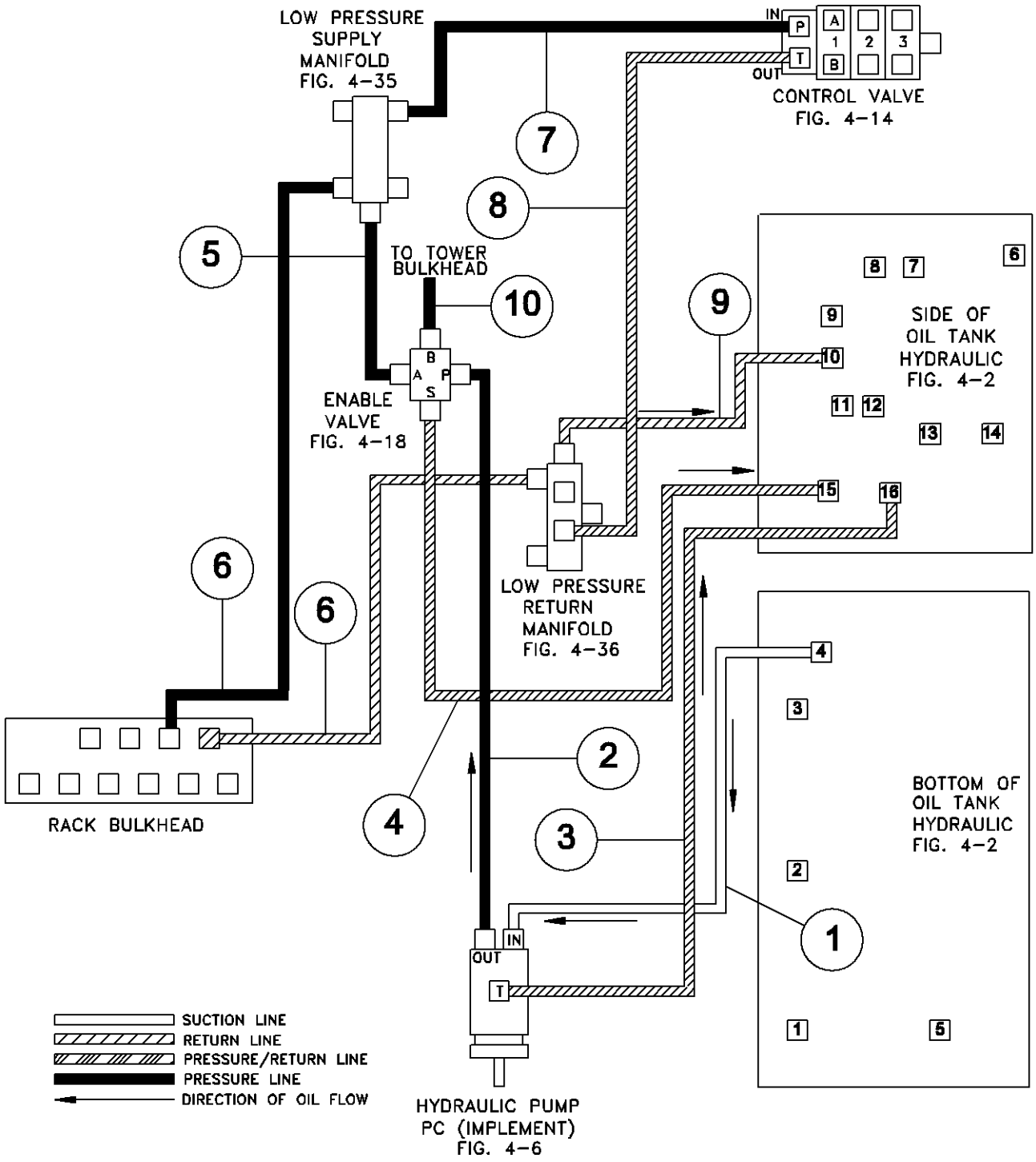
Hydraulic Enable (S/N 109-) Fig 11-3r02



Hydraulic Enable (S/N 109-) Fig 11-3r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005179	HOSE 1.25”X1550mm 45-20FJX/ST-20FJX 350PSI	1	VBM
2		299023082	HOSE 1”X880mm 45-16FJX/ST-16FJX 3000PSI	1	VBM
3		299005180	HOSE 0.625”X1800mm ST-10FJX/ST-10FJX 350PSI	1	VBM
4		299023083	HOSE 0.5”X2050mm ST-8FJX/ST-8FJX 350PSI	1	VBM
5		299023084	HOSE 0.5”X2130mm ST-8FJX/90-8FJX 3000PSI	1	VBM
6		299005232	HOSE 0.375”X1570mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
7		299023052	HOSE 0.375”X2730mm CL ST-6FJX/ST-6FJX 3000PSI	1	VBM
8		299023053	HOSE0.375”X2630mm CL ST-6FJX/ST-6FJX 350PSI	1	VBM
9		299023085	HOSE 0.5”X2470mm ST-8FJX/ST-8FJX 350PSI	1	VBM
10		299023086	HOSE 0.375”X2700mm ST-6FJX/ST-6FJX 3000PSI	1	VBM

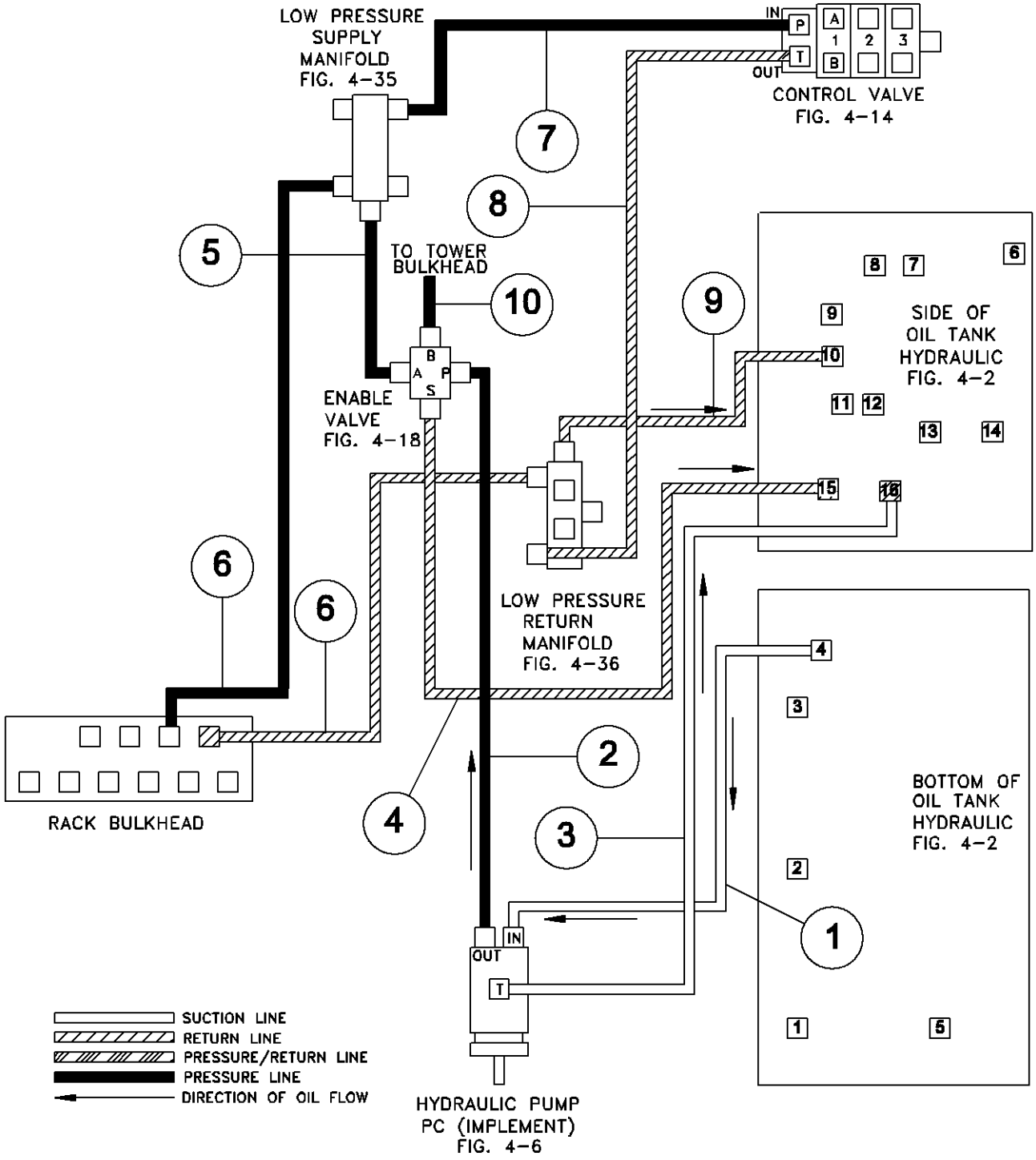
Hydraulic Enable (S/N 105-108) Fig 11-3r01



Hydraulic Enable (S/N 105-108) Fig 11-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005179	HOSE 1.25”X1550mm 45-20FJX/ST-20FJX 350PSI	1	VBM
2		299023082	HOSE 1”X880mm 45-16FJX/ST-16FJX 3000PSI	1	VBM
3		299005180	HOSE 0.625”X1800mm ST-10FJX/ST-10FJX 350PSI	1	VBM
4		299023083	HOSE 0.5”X2050mm ST-8FJX/ST-8FJX 350PSI	1	VBM
5		299023084	HOSE 0.5”X2130mm ST-8FJX/90-8FJX 3000PSI	1	VBM
6		299005232	HOSE 0.375”X1570mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
7		299023052	HOSE 0.375”X2730mm CL ST-6FJX/ST-6FJX 3000PSI	1	VBM
8		299023053	HOSE 0.375”X2630mm CL ST-6FJX/ST-6FJX 350PSI	1	VBM
9		299023085	HOSE 0.5”X2470mm ST-8FJX/ST-8FJX 350PSI	1	VBM
10		299023086	HOSE 0.375”X2700mm ST-6FJX/ST-6FJX 3000PSI	1	VBM

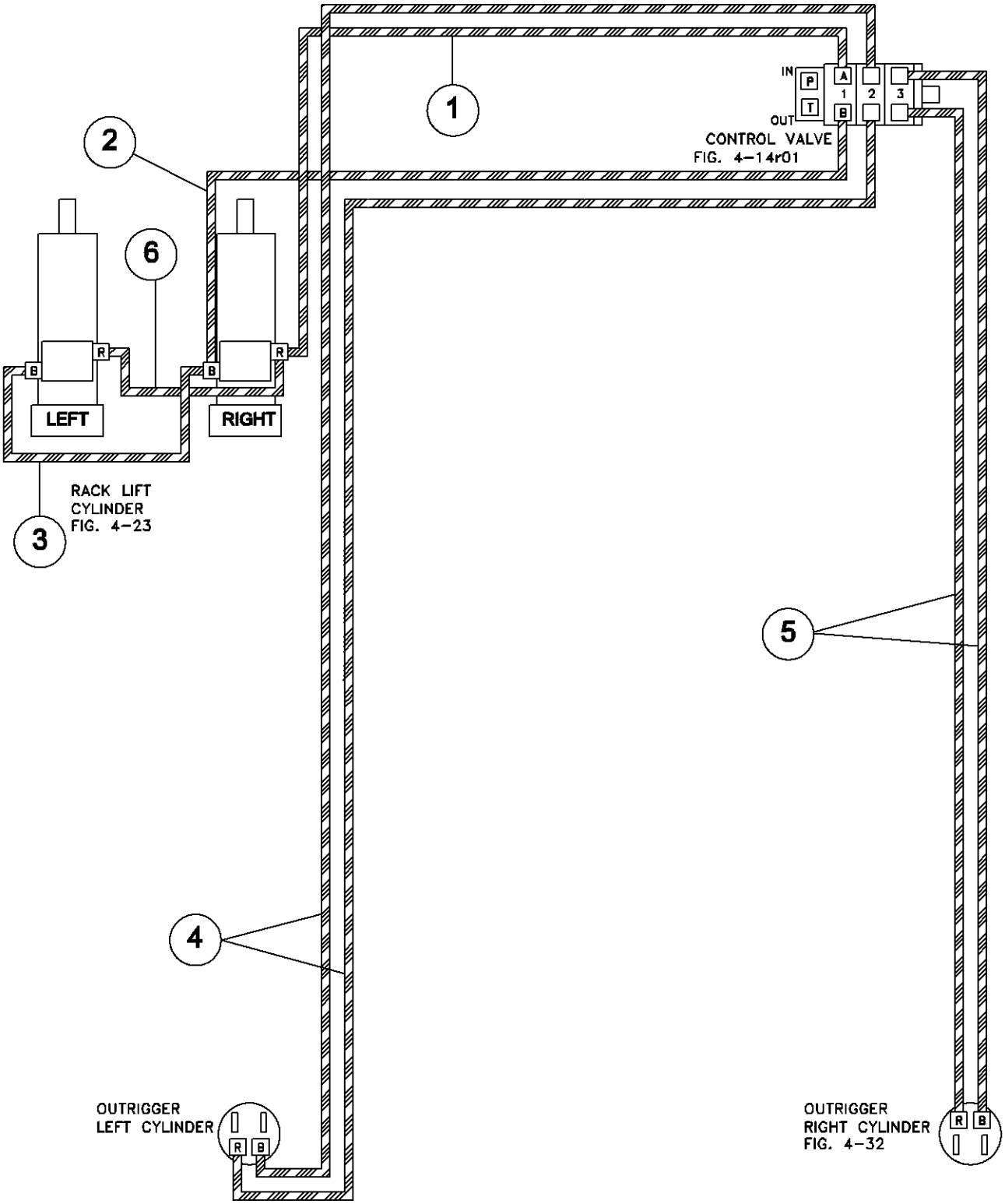
Hydraulic Enable (S/N 101-104) Fig 11-3



Hydraulic Enable (S/N 101-104) Fig 11-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005179	HOSE 1.25”X1550mm 45-20FJX/ST-20FJX 350PSI	1	VBM
2		299005182	HOSE 1”X600mm ST-16FJX/ST-16FJX 3000PSI	1	VBM
3		299005180	HOSE 0.625”X1800mm ST-10FJX/ST-10FJX 350PSI	1	VBM
4		299005181	HOSE 0.5X1350 ST-8FJX/ST-8FJX 350PSI	1	VBM
5		299005183	HOSE 0.5X1580 ST-8FJX/90-8FJX 3000PSI	1	VBM
6		299005232	HOSE 0.375”X1570mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
7		299005187	HOSE 0.375”X1680mm ST-6FJX/90-6FJX 3000PSI	1	VBM
8		299005188	HOSE 0.375”X1760mm ST-6FJX/90-6FJX 350PSI	1	VBM
9		299005184	HOSE 0.5”X1870mm ST-8FJX/ST-8FJX 350PSI	1	VBM
10		299005134	HOSE 0.375X2000 ST-6FJX/ST-6FJX 3000PSI	1	VBM

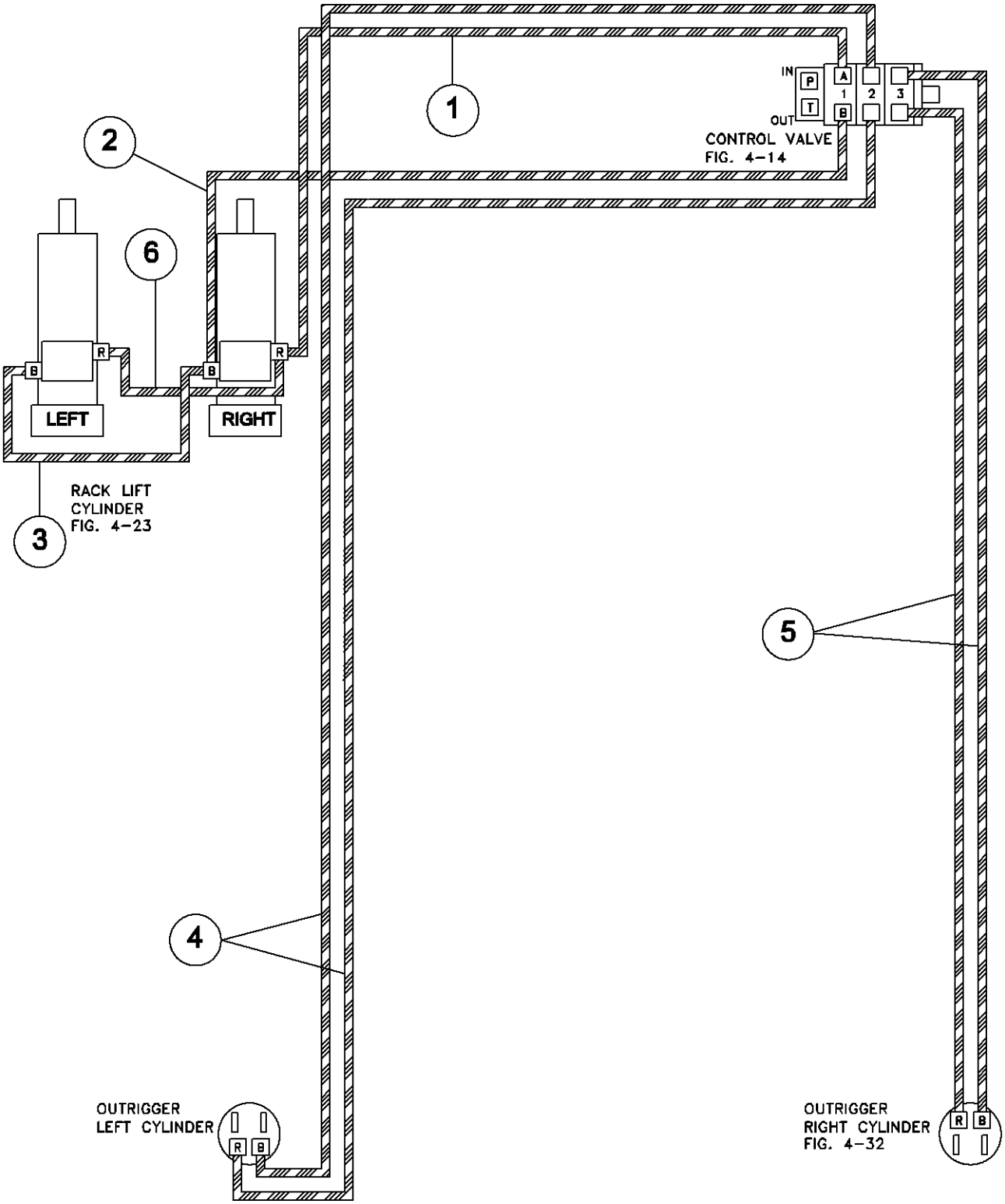
Rack/Outrigger (S/N 107-) Fig 11-4r01



Rack/Outrigger (S/N 107-) Fig 11-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023077	HOSE 0.375”X2400mm CL ST-6FJX/ST-6FJX 3000PSI	1	VBM
2		299023078	HOSE 0.375”X2070mm CL ST-6FJX/ST-6FJX 3000PSI	1	VBM
3		299005209	HOSE 0.375”X560mm ST-6FJX/90-6FJX 3000PSI	1	VBM
4		299023079	HOSE 0.375”X2600mm CL ST-6FJX/ST-6FJX 3000PSI	2	VBM
5		299023080	HOSE 0.375”X3100mm CL ST-6FJX/ST-6FJX 3000PSI	2	VBM
6		299005210	HOSE 0.375”X540mm ST-6FJX/90-6FJX 3000PSI	1	VBM

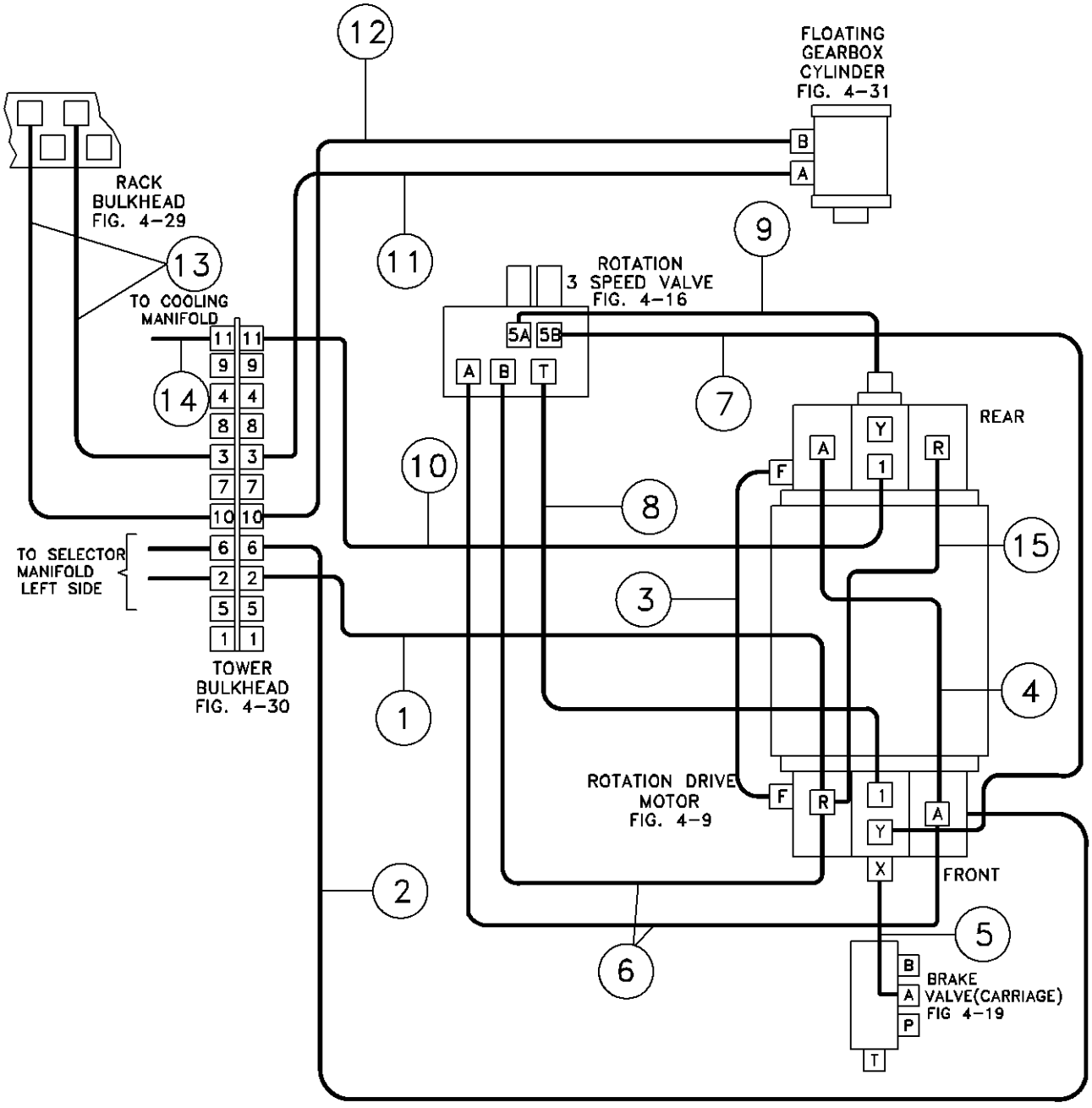
Rack/Outrigger (S/N 101-106) Fig 11-4



Rack/Outrigger (S/N 101-106) Fig 11-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005207	HOSE 0.375”X2400mm CL ST-6FJX/ST-6FJX 3000PSI	1	VBM
2		299005208	HOSE 0.375”X2070mm CL ST-6FJX/ST-6FJX 3000PSI	1	VBM
3		299005209	HOSE 0.375”X560mm ST-6FJX/90-6FJX 3000PSI	1	VBM
4		299005211	HOSE 0.375”X2600mm CL ST-6FJX/ST-6FJX 3000PSI	2	VBM
5		299005213	HOSE 0.375”X3100mm CL ST-6FJX/ST-6FJX 3000PSI	2	VBM
6		299005210	HOSE 0.375”X540mm ST-6FJX/90-6FJX 3000PSI	1	VBM

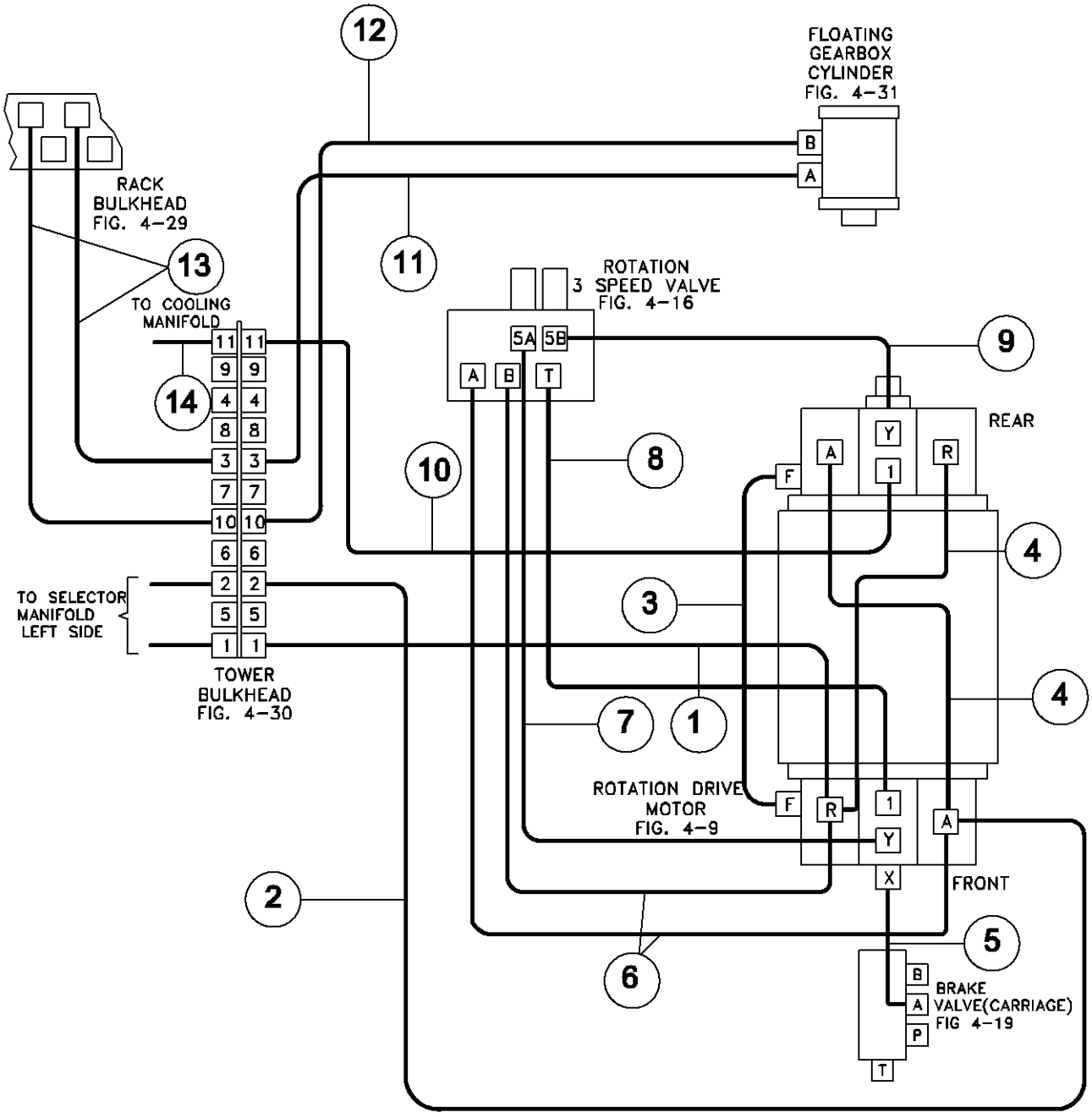
Rotation (S/N 104-) Fig 11-5r01



Rotation (S/N 104-) Fig 11-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023089	HOSE 1”X9100mm 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
2		299023090	HOSE 1”X9000mm 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
3		299023113	HOSE 0.625”X1170mm 90-10FJX/90-10FJX 350PSI	1	VBM
4		299023055	HOSE 1”X790mm 90-12FLH/ST-16MORFF 6000PSI	1	VBM
5		299005135	HOSE 0.25”X1800mm ST-4FJX/ST-4FJX 350PSI	1	VBM
6		299005116	HOSE 0.25”X1600mm ST-4FORFF/ST-4FORFF 6000PSI	2	VBM
7		299023087	HOSE 0.375”X1580mm ST-6FJX/ST-6FJX 350PSI	1	VBM
8		299005118	HOSE 0.375”X1500mm ST-6FJX/ST-6FJX 350PSI	1	VBM
9		299023088	HOSE 0.375”X500mm ST-6FJX/ST-6FJX 350PSI	1	VBM
10		299005143	HOSE 1”X8500mm 45-16FJX/ST-16FJX 350PSI	1	VBM
11		299005216	HOSE 0.375”X9100mm ST-6FJX/45-6FJX 3000PSI	1	VBM
12		299005215	HOSE 0.375”X8900mm ST-6FJX/45-6FJX 3000PSI	1	VBM
13		299005234	HOSE 0.375”X3580mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
14		299005159	HOSE 1”X1850mm ST-16FJX/45-16FJX 350PSI	1	VBM
15		299023081	HOSE 1”X810mm 90-12FLH/ST-16MORFF 6000PSI	1	VBM

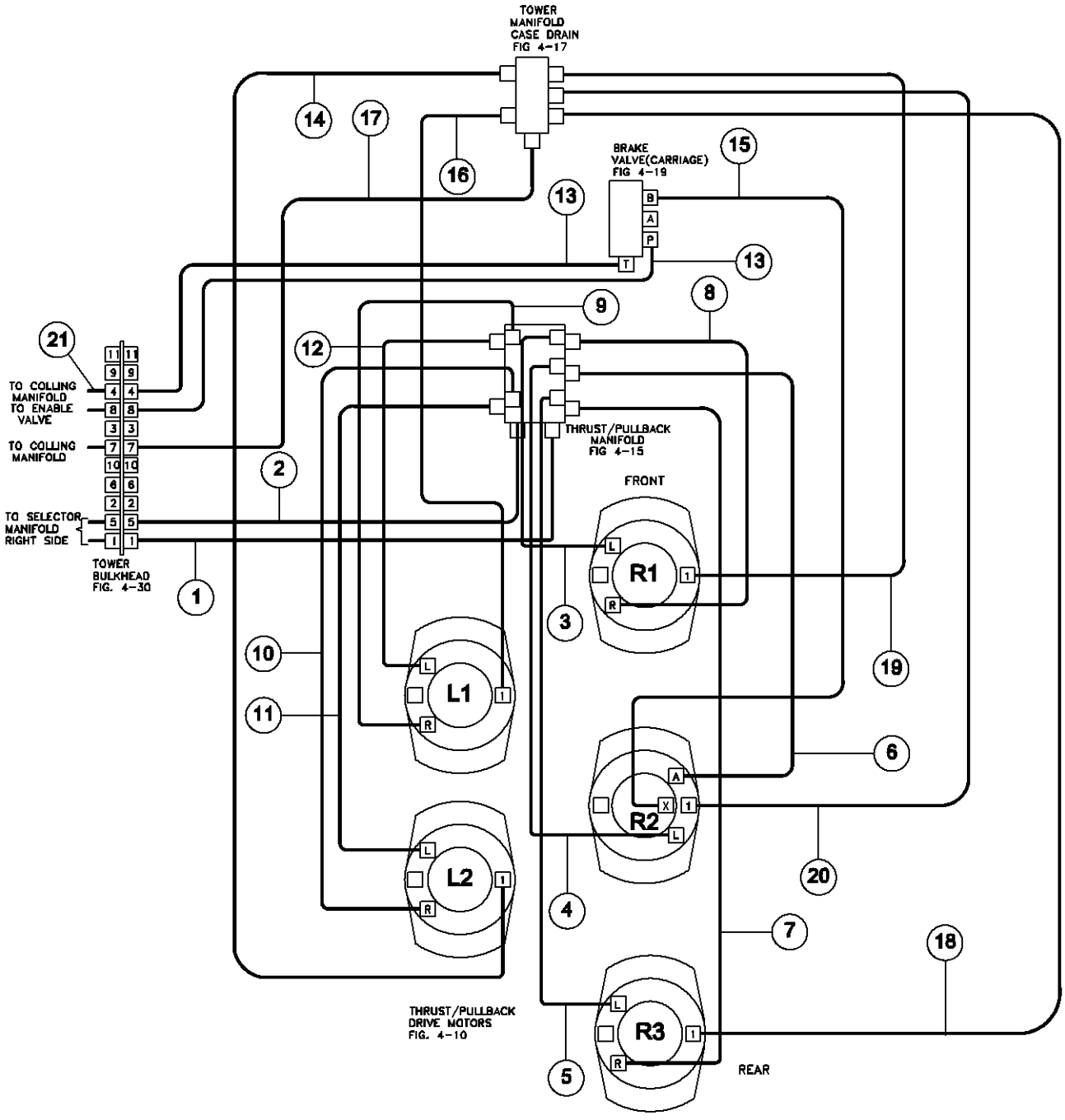
Rotation (S/N 101-103) Fig 11-5



Rotation (S/N 101-103) Fig 11-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005141	HOSE1”X8900mm 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
2		299005140	HOSE 1”X8800mm 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
3		299005119	HOSE 0.625”X1350mm ST-10FJX/ST-10FJX 350PSI	1	VBM
4		299005114	HOSE 0.75”X1100mm 90-12FLHL/90-12FLHS 6000PSI	2	VBM
5		299005135	HOSE 0.25”X1800mm ST-4FJX/ST-4FJX 350PSI	1	VBM
6		299005116	HOSE 0.25”X1600mm ST-4FORFF/ST-4FORFF 6000PSI	2	VBM
7		299005120	HOSE 0.375”X1580mm ST-6FJX/90-6FJX 350PSI	1	VBM
8		299005118	HOSE 0.375”X1500mm ST-6FJX/ST-6FJX 350PSI	1	VBM
9		299005121	HOSE 0.375”X500mm ST-6FJX/90-6FJX 350PSI	1	VBM
10		299005143	HOSE 1”X8500mm 45-16FJX/ST-16FJX 350PSI	1	VBM
11		299005216	HOSE 0.375”X9100mm ST-6FJX/45-6FJX 3000PSI	1	VBM
12		299005215	HOSE 0.375”X8900mm ST-6FJX/45-6FJX 3000PSI	1	VBM
13		299005234	HOSE 0.375”X3580mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
14		299005159	HOSE 1”X1850mm ST-16FJX/45-16FJX 350PSI	1	VBM

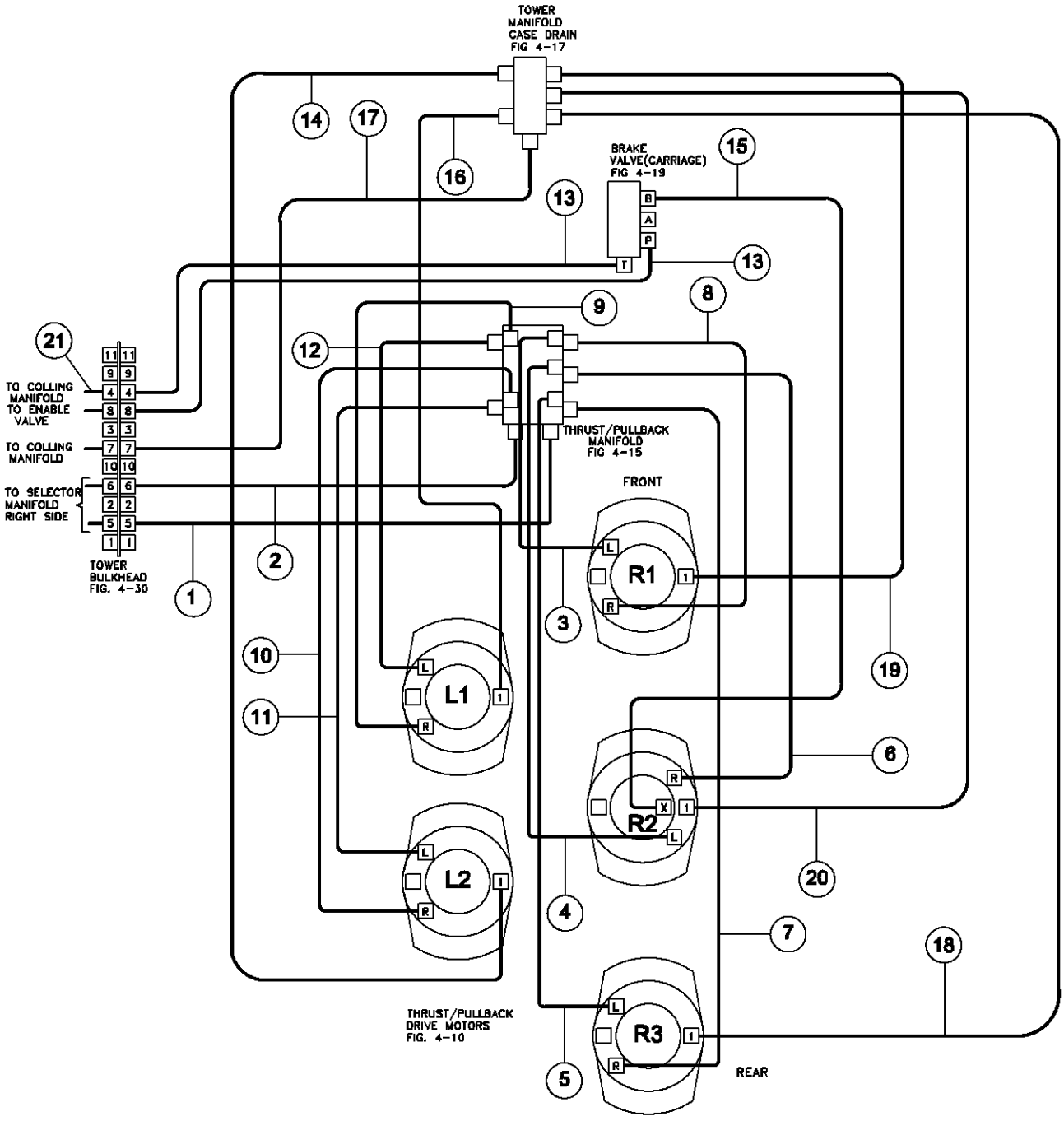
Thrust/Pullback (S/N 109-) Fig 11-6r01



Thrust/Pullback (S/N 109-) Fig 11-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023092	HOSE 1”X8250mm 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
2		299023093	HOSE 1”X8100mm 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
3		299005132	HOSE 0.75”X810mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
4		299005130	HOSE 0.75”X650mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
5		299005129	HOSE 0.75”X800mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
6		299005131	HOSE 0.75”X630mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
7		299005128	HOSE 0.75”X670mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
8		299005133	HOSE 0.75”X900mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
9		299005127	HOSE 0.75”X550mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
10		299005126	HOSE 0.75”X510mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
11		299005124	HOSE 0.75”X420mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
12		299005125	HOSE 0.75”X560mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
13		299005144	HOSE 0.375”X8100mm 45-6FJX/ST-6FJX 3000PSI	2	VBM
14		299005146	HOSE 0.625”X470mm ST-10FJX/ST-10FJX 350PSI	1	VBM
15		299005142	HOSE0.25”X620mm ST-4FJX/ST-4FJX 350PSI	1	VBM
16		299005145	HOSE 0.625”X540mm 45-10FJX/ST-10FJX 350PSI	1	VBM
17		299005150	HOSE 1.25”X7700mm ST-20FJX/45-20FJX 350PSI	1	VBM
18		299005149	HOSE0.625”X470mm 45-10FJX/ST-10FJX 350PSI	1	VBM
19		299005147	HOSE 0.625”X600mm 45-10FJX/ST-10FJX 350PSI	1	VBM
20		299005148	HOSE0.625”X570mm 90-10FJX/ST-10FJX 350PSI	1	VBM
21		299005189	HOSE 0.375”X1800mm ST-6FJX/45-6FJX 350PSI	1	VBM

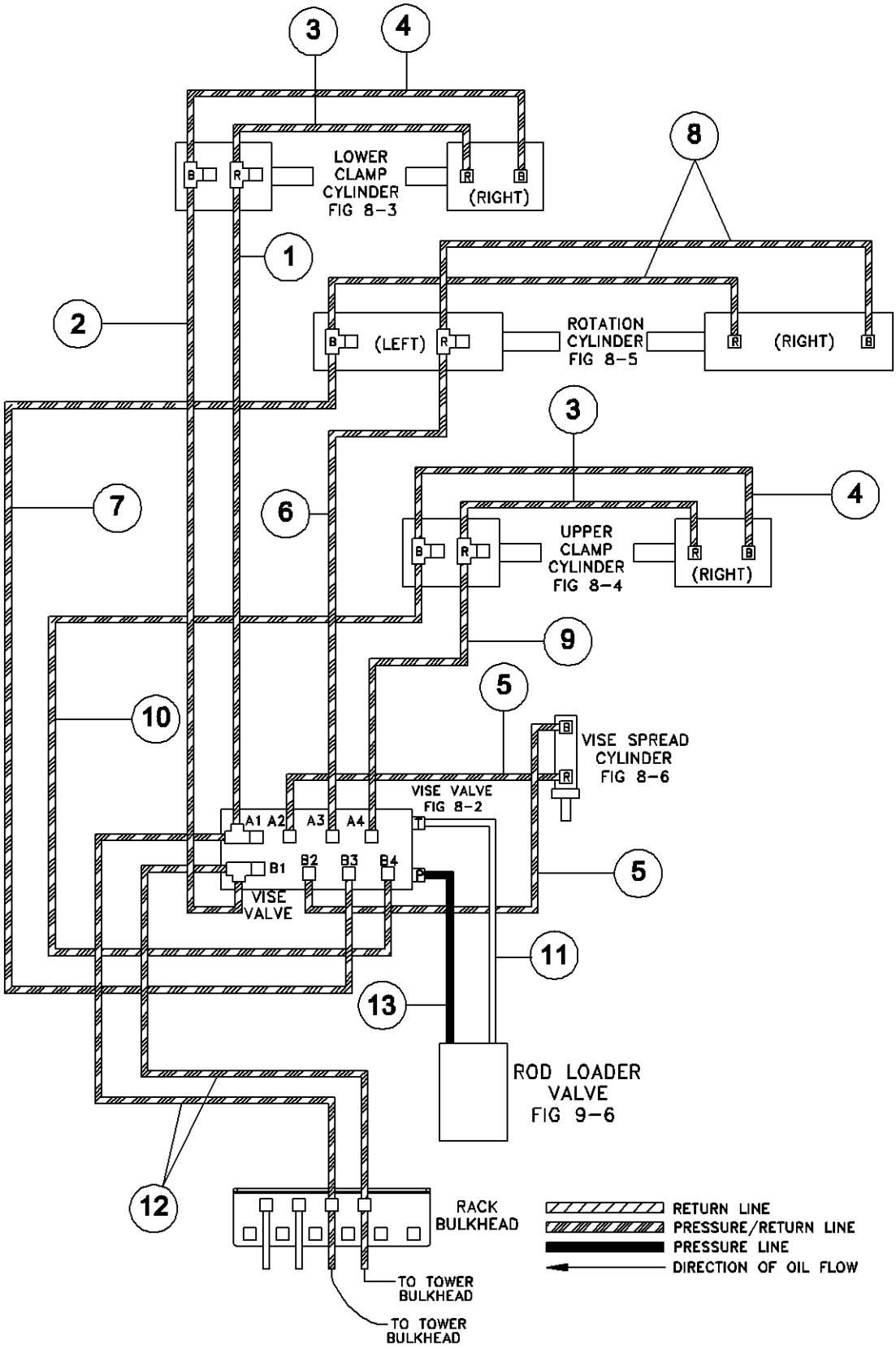
Thrust/Pullback (S/N 101-108) Fig 11-6



Thrust/Pullback (S/N 101-108) Fig 11-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005138	HOSE 1X7800 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
2		299005139	HOSE 1X8000 45-16FORFF/ST-16FORFF 6000PSI	1	VBM
3		299005132	HOSE 0.75”X810mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
4		299005130	HOSE 0.75”X650mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
5		299005129	HOSE 0.75”X800mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
6		299005131	HOSE 0.75”X630mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
7		299005128	HOSE 0.75”X670mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
8		299005133	HOSE 0.75”X900mm 45-12FORFF/90-12FORFF 6000PSI	1	VBM
9		299005127	HOSE 0.75”X550mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
10		299005126	HOSE 0.75”X510mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
11		299005124	HOSE 0.75”X420mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
12		299005125	HOSE 0.75”X560mm ST-12FORFF/90-12FORFF 6000PSI	1	VBM
13		299005144	HOSE 0.375”X8100mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
14		299005146	HOSE 0.625”X470mm ST-10FJX/ST-10FJX 350PSI	1	VBM
15		299005142	HOSE 0.25”X620mm ST-4FJX/ST-4FJX 350PSI	1	VBM
16		299005145	HOSE 0.625”X540mm 45-10FJX/ST-10FJX 350PSI	1	VBM
17		299005150	HOSE 1.25”X7700mm ST-20FJX/45-20FJX 350PSI	1	VBM
18		299005149	HOSE 0.625”X470mm 45-10FJX/ST-10FJX 350PSI	1	VBM
19		299005147	HOSE 0.625”X600mm 45-10FJX/ST-10FJX 350PSI	1	VBM
20		299005148	HOSE 0.625”X570mm 90-10FJX/ST-10FJX 350PSI	1	VBM
21		299005189	HOSE 0.375”X1800mm ST-6FJX/45-6FJX 350PSI	1	VBM

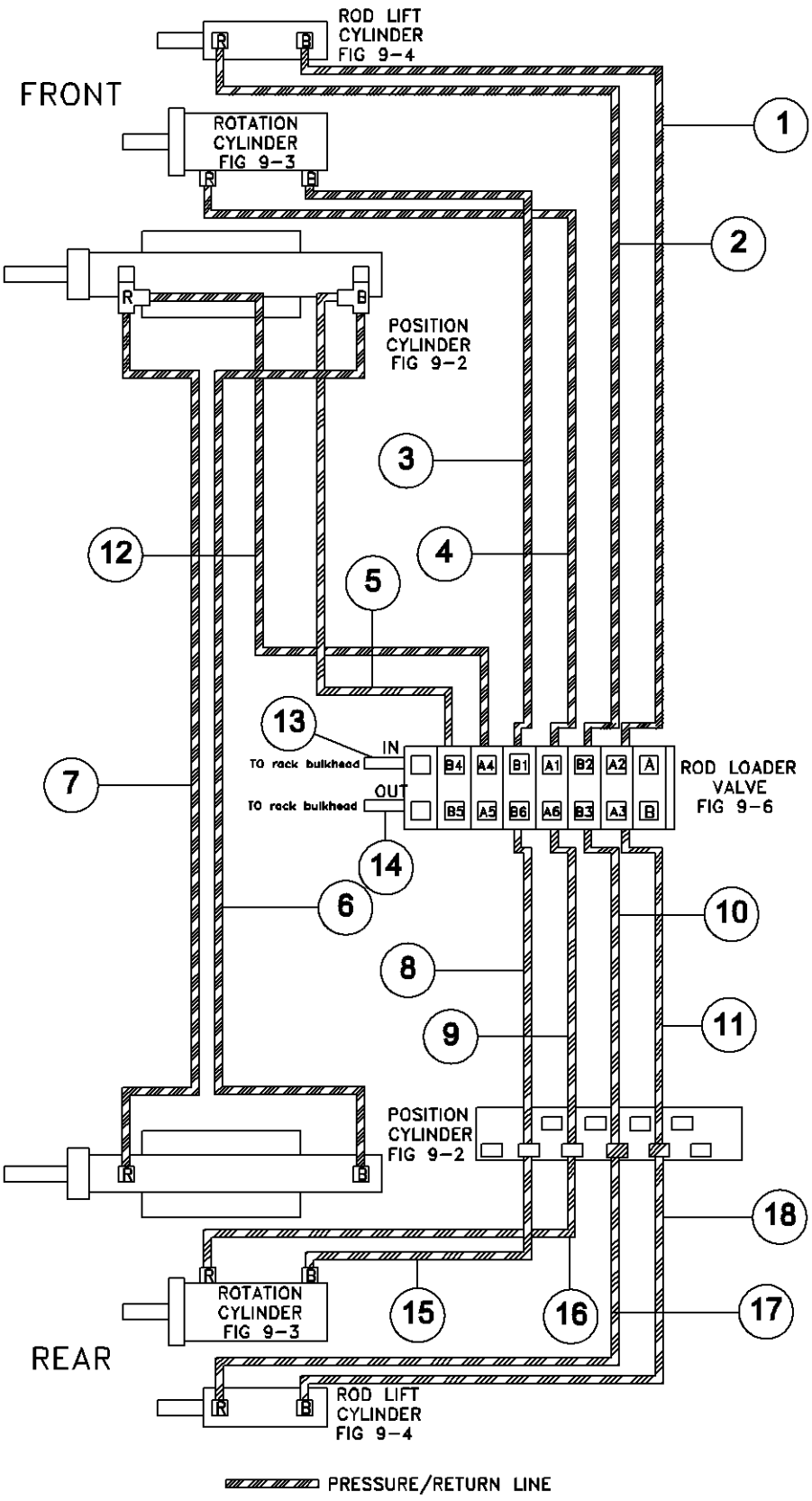
Vise Fig 11-7


3
4
8
LOWER CLAMP CYLINDER FIG 8-3
B
R
R
B
(RIGHT)
1
2
(LEFT)
ROTATION CYLINDER FIG 8-5
(RIGHT)
3
4
7
6
UPPER CLAMP CYLINDER FIG 8-4
(RIGHT)
9
5
10
VISE SPREAD CYLINDER FIG 8-6
VISE VALVE FIG 8-2
A1 A2
A3
A4
T
B1
B2
B3
B4
P
VISE VALVE
5
11
13
ROD LOADER VALVE FIG 9-6
12
RACK BULKHEAD
TO TOWER BULKHEAD
TO TOWER BULKHEAD
RETURN LINE
PRESSURE/RETURN LINE
PRESSURE LINE
DIRECTION OF OIL FLOW

Vise Fig 11-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005218	HOSE0.375”X1200mm 90-6FJX/ST-6FJX 3000PSI	1	VBM
2		299005217	HOSE 0.375”X1150mm 90-6FJX/ST-6FJX 3000PSI	1	VBM
3		299005219	HOSE 0.375”X340mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
4		299005220	HOSE 0.375”X560mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
5		299005228	HOSE 0.25”X1450mm ST-4FJX/ST-4FJX 3000PSI	2	VBM
6		299005226	HOSE 0.375”X650mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
7		299005225	HOSE0.375”X800mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
8		299005227	HOSE 0.375”X1400mm 90-6FJX/ST-6FJX 3000PSI	2	VBM
9		299005221	HOSE0.375”X760mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
10		299005222	HOSE 0.375”X750mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
11		299005186	HOSE 0.375”X3870mm ST-6FJX/ST-6FJX 350PSI	1	VBM
12		299005101	HOSE 0.375”X4970mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
13		299005185	HOSE 0.375”X3870mm ST-6FJX/ST-6FJX 3000PSI	1	VBM

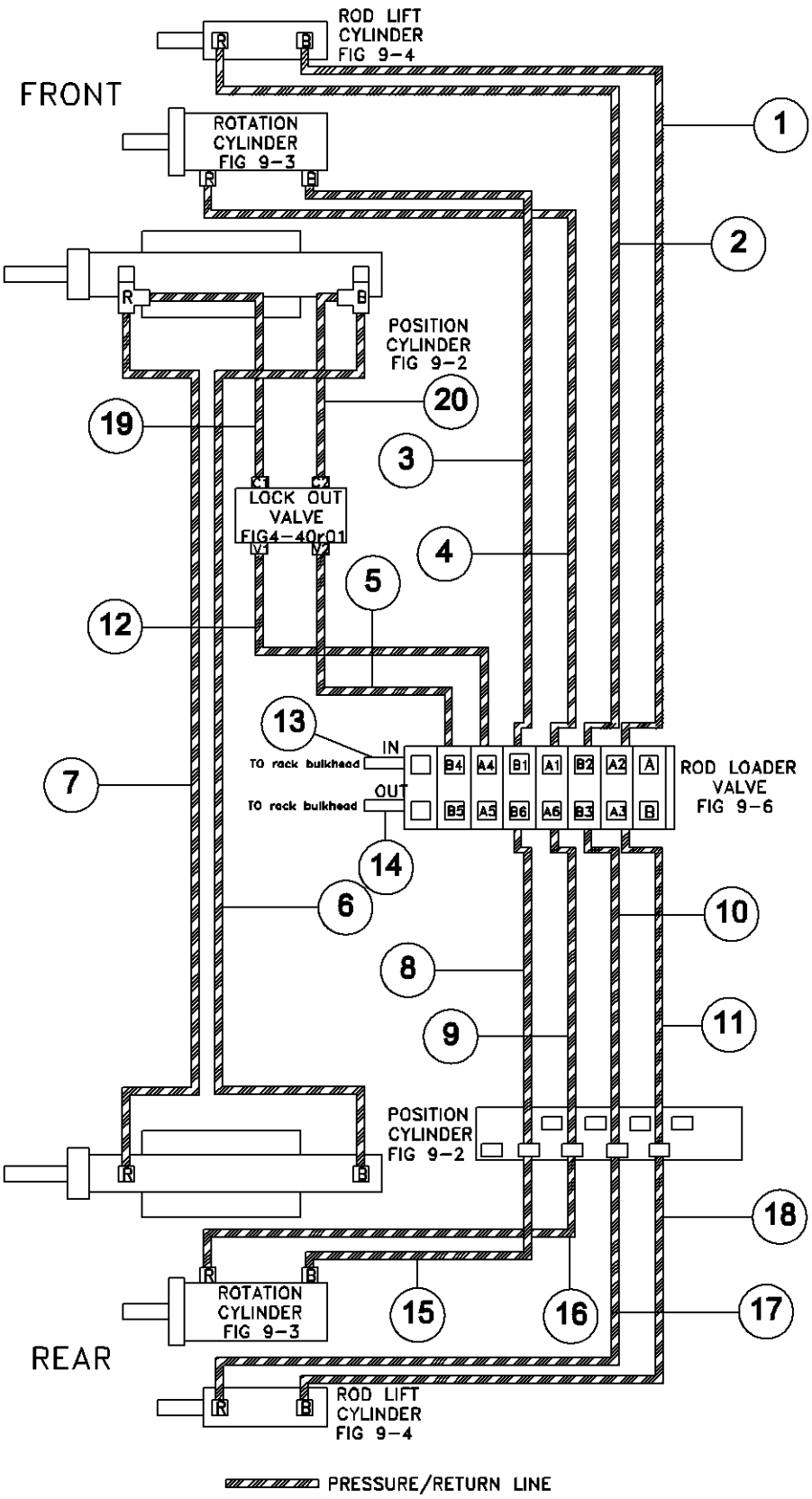
Rod Loader (S/N 121-) Fig 11-8r02



Rod Loader (S/N 121-) Fig 11-8r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005199	HOSE 0.375”X3900mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
2		299005200	HOSE 0.375”X4050mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
3		299005195	HOSE 0.375”X3000mm ST-6FJX/90-6FJX 3000PSI	1	VBM
4		299005196	HOSE 0.375”X3200mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
5		299023098	HOSE0.375X3100 45-6FJX/ST-6FJX 3000PSI	1	VBM
6		299005206	HOSE0.375”X3310mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
7		299005205	HOSE 0.375”X3800mm ST-6FJX/90-6FJX 3000PSI	1	VBM
8		299023095	HOSE 0.375”X1090mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
9		299023094	HOSE 0.375”X1100mm ST-6FJX/90-6FJX 3000PSI	1	VBM
10		299023097	HOSE 0.375”X1080mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
11		299023096	HOSE 0.375”X1090mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
12		299005204	HOSE0.375X3500 ST-6FJX/ST-6FJX 3000PSI	1	VBM
13		299005190	HOSE 0.375”X970mm ST-6FJX/45-6FJX 3000PSI	1	VBM
14		299005231	HOSE 0.375”X990mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
15		299023033	HOSE 0.375”X1820mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
16		299023032	HOSE 0.375”X1570mm ST-6FJX/90-6FJX 3000PSI	1	VBM
17		299023035	HOSE 0.375”X3530mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
18		299023034	HOSE 0.375”X3410mm ST-6FJX/ST-6FJX 3000PSI	1	VBM

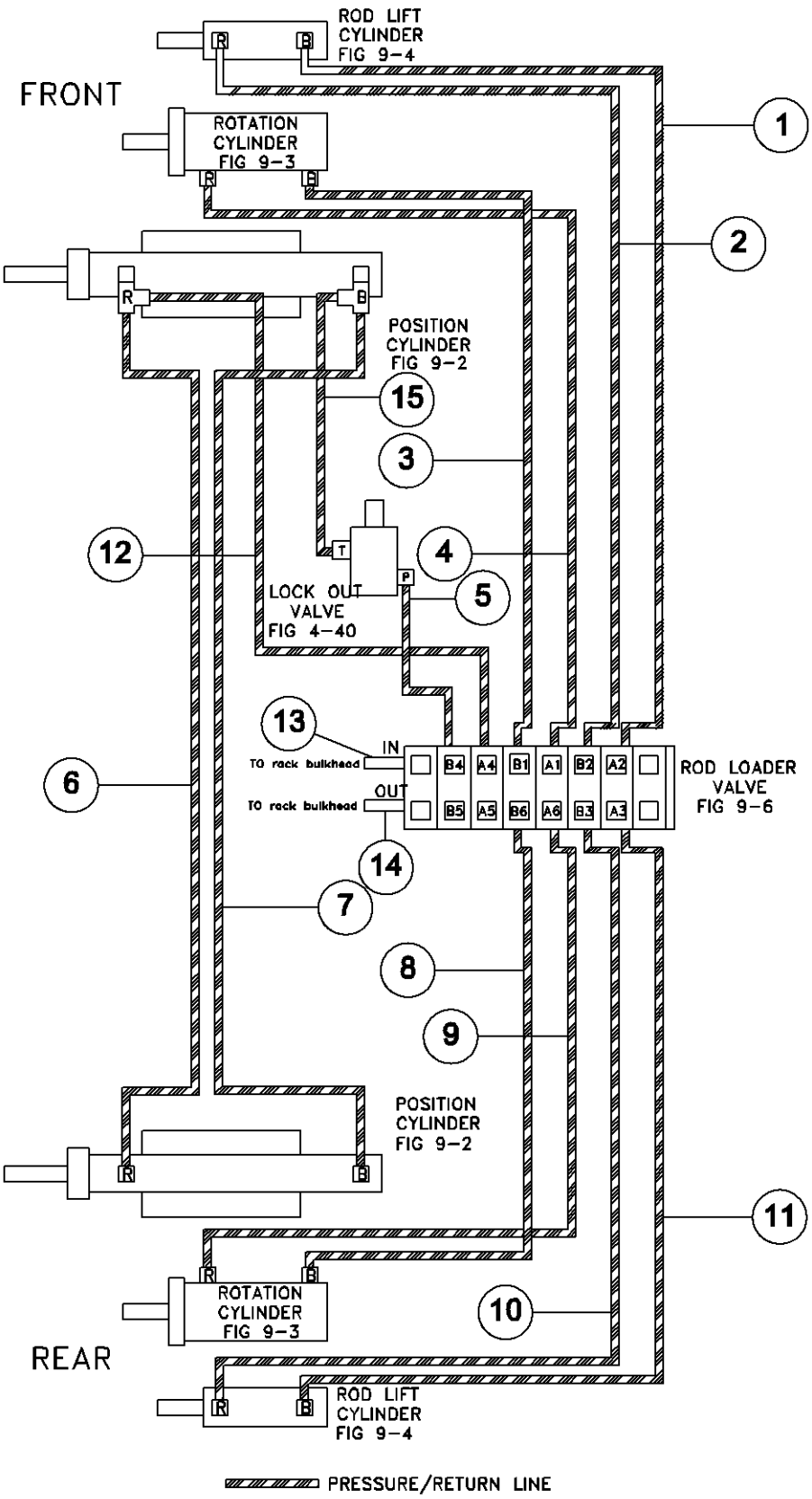
Rod Loader (S/N 106-120) Fig 11-8r01



Rod Loader (S/N 106-120) Fig 11-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005199	HOSE 0.375”X3900mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
2		299005200	HOSE 0.375”X4050mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
3		299005195	HOSE 0.375”X3000mm ST-6FJX/90-6FJX 3000PSI	1	VBM
4		299005196	HOSE 0.375”X3200mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
5		299023060	HOSE 0.375”X2650mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
6		299005206	HOSE 0.375”X3310mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
7		299005205	HOSE 0.375”X3800mm ST-6FJX/90-6FJX 3000PSI	1	VBM
8		299023095	HOSE 0.375”X1090mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
9		299023094	HOSE 0.375”X1100mm ST-6FJX/90-6FJX 3000PSI	1	VBM
10		299023097	HOSE 0.375”X1080mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
11		299023096	HOSE 0.375”X1090mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
12		299023059	HOSE 0.375”X2650mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
13		299005190	HOSE 0.375”X970mm ST-6FJX/45-6FJX 3000PSI	1	VBM
14		299005231	HOSE 0.375”X990mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
15		299023033	HOSE 0.375”X1820mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
16		299023032	HOSE 0.375”X1570mm ST-6FJX/90-6FJX 3000PSI	1	VBM
17		299023035	HOSE 0.375”X3530mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
18		299023034	HOSE 0.375”X3410mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
19		299023062	HOSE 0.375”X1800mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
20		299023061	HOSE 0.375”X1400mm ST-6FJX/ST-6FJX 3000PSI	1	VBM

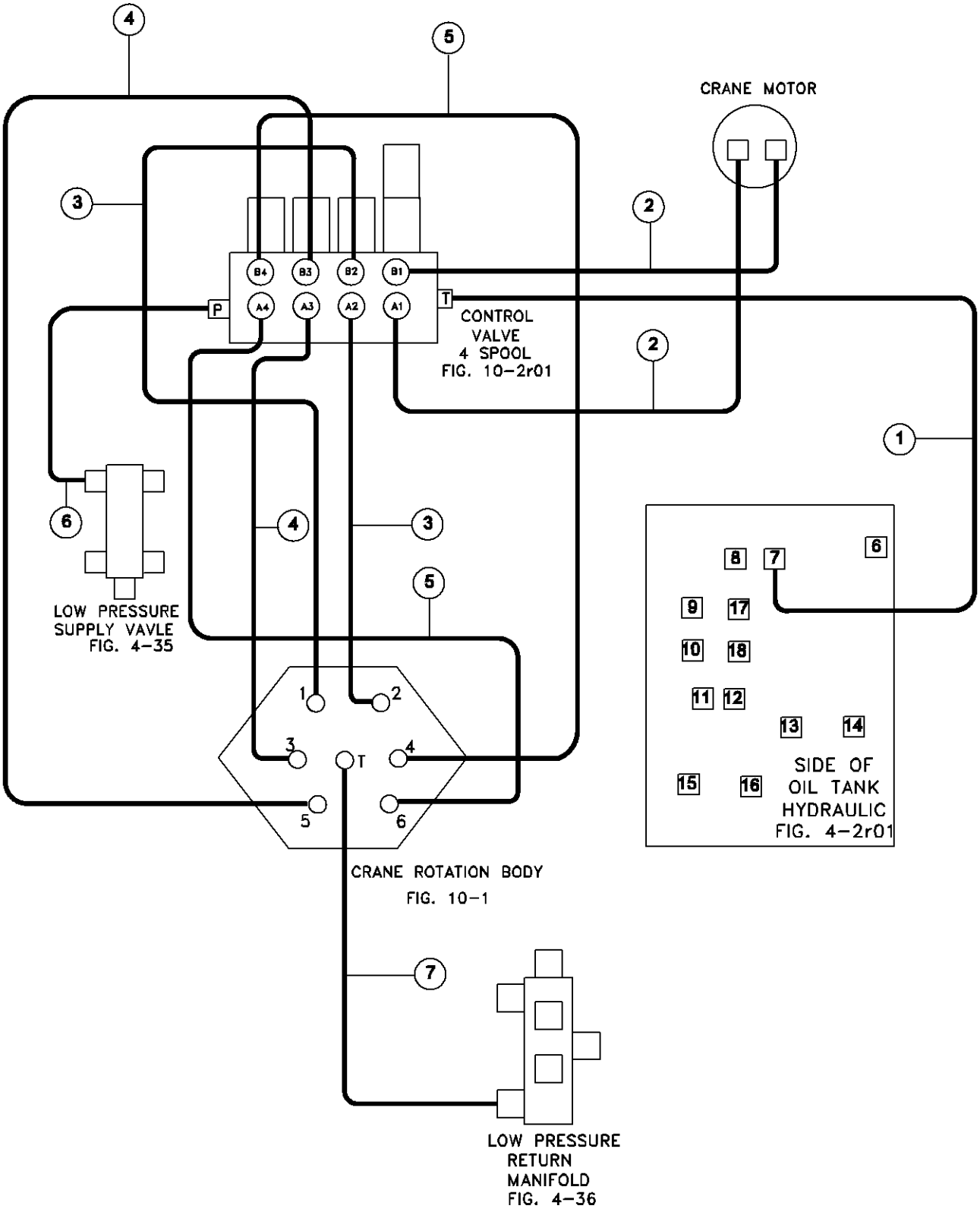
Rod Loader (S/N 101-105) Fig 11-8



Rod Loader (S/N 101-105) Fig 11-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299005199	HOSE 0.375X3900 ST-6FJX/ST-6FJX 3000PSI	1	VBM
2		299005200	HOSE 0.375X4050 ST-6FJX/ST-6FJX 3000PSI	1	VBM
3		299005195	HOSE 0.375X3000 ST-6FJX/90-6FJX 3000PSI	1	VBM
4		299005196	HOSE 0.375X3200 ST-6FJX/ST-6FJX 3000PSI	1	VBM
5		299005203	HOSE 0.375X1900 45-6FJX/ST-6FJX 3000PSI	1	VBM
6		299005206	HOSE 0.375X3350 ST-6FJX/ST-6FJX 3000PSI	1	VBM
7		299005205	HOSE 0.375X3800 ST-6FJX/90-6FJX 3000PSI	1	VBM
8		299005198	HOSE 0.375X2400 ST-6FJX/ST-6FJX 3000PSI	1	VBM
9		299005197	HOSE 0.375X2200 ST-6FJX/90-6FJX 3000PSI	1	VBM
10		299005202	HOSE 0.375X4700 ST-6FJX/ST-6FJX 3000PSI	1	VBM
11		299005201	HOSE 0.375X4500 ST-6FJX/ST-6FJX 3000PSI	1	VBM
12		299005204	HOSE 0.375X3500 ST-6FJX/ST-6FJX 3000PSI	1	VBM
13		299005190	HOSE 0.375”X970mm ST-6FJX/45-6FJX 3000PSI	1	VBM
14		299005231	HOSE 0.375”X990mm 45-6FJX/ST-6FJX 3000PSI	1	VBM
15		299023117	HOSE 0.375X1400 ST-6FJX/ST-6FJX 3000PSI	1	VBM

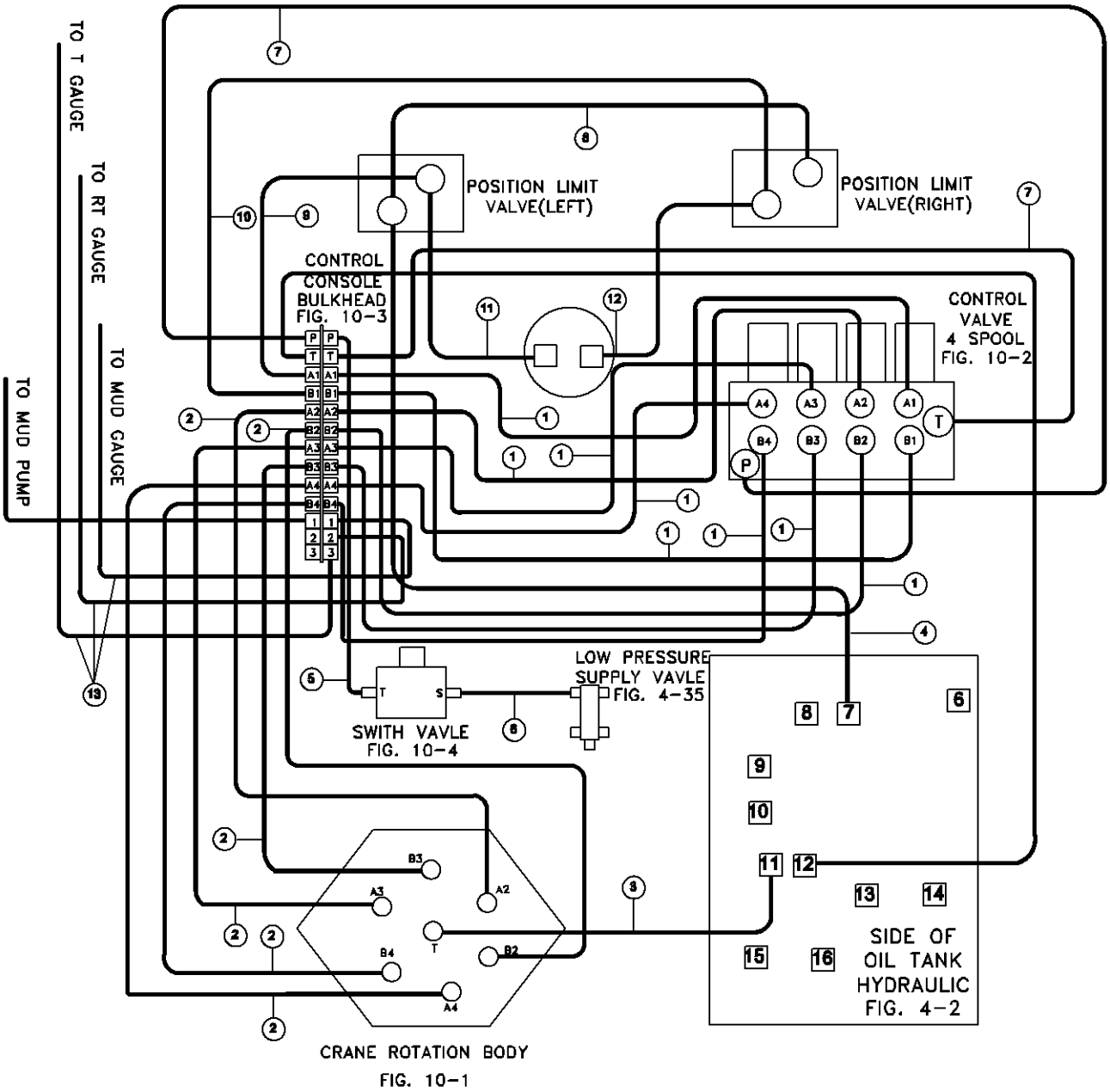
Crane (S/N 107-) Fig 11-9r01



Crane (S/N 107-) Fig 11-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023037	HOSE 0.625”X4300mm ST-10FJX/ST-10FJX 350PSI	1	VBM
2		299005236	HOSE 0.375”X800mm CL ST-6FJX/ST-6FJX 3000PSI	2	VBM
3		299005240	HOSE 0.375”X2600mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
4		299005242	HOSE 0.375”X2650mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
5		299005238	HOSE 0.375”X2550mm ST-6FJX/ST-6FJX 3000PSI	2	VBM
6		299023038	HOSE 0.375”X1250mm ST-6FJX/ST-6FJX 3000PSI	1	VBM
7		299005241	HOSE 0.375”X1600mm ST-6FJX/ST-6FJX 350PSI	1	VBM

Crane (S/N 101-106) Fig 11-9

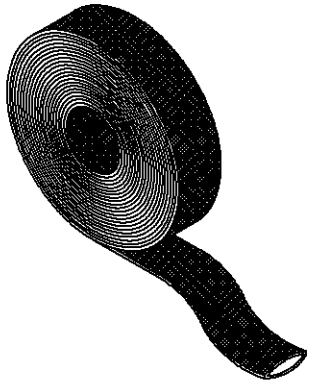


Crane (S/N 101-106) Fig 11-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		299023436	HOSE 0.375X1400 ST-6FJX/ST-6FJX 3000PSI	8	VBM
2		299023434	HOSE 0.375X2500 ST-6FJX/ST-6FJX 3000PSI	6	VBM
3		299023435	HOSE 0.375X3800 ST-6FJX/ST-6FJX 350PSI	1	VBM
4		299023439	HOSE 0.625X4300 ST-10FJX/ST-10FJX 350PSI	1	VBM
5		299023438	HOSE0.5X900 ST-8FJX/45-8FJX 3000PSI	1	VBM
6		299023445	HOSE 0.375X1000 ST-6FJX/45-6FJX 3000PSI	1	VBM
7		299023437	HOSE0.5X1400 ST-8FJX/ST-8FJX 3000PSI	2	VBM
8		299023444	HOSE 0.375X0.45 ST-6FJX/90-6FJX 3000PSI	1	VBM
9		299023440	HOSE 0.375X1500 ST-6FJX/90-6FJX 3000PSI	1	VBM
10		299023441	HOSE 0.375X2000 ST-6FJX/ST-6FJX 3000PSI	1	VBM
11		299023442	HOSE 0.375X0.65 ST-6FJX/90-6FJX 3000PSI	1	VBM
12		299023443	HOSE 0.375X0.5 ST-6FJX/90-6FJX 3000PSI	1	VBM
13		278922001	HOSE - .078X88 4FSJIC ST/ST MICRO 6900 PSI	3	PELLA

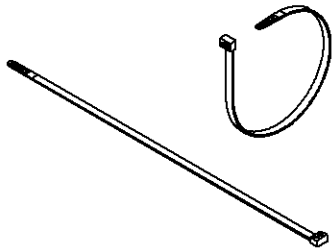
Hydraulic Supplies Fig 12-1

CORDURA SLEEVES

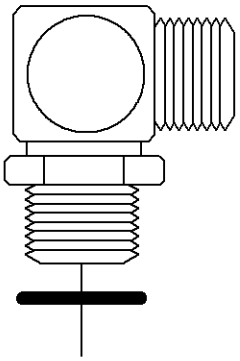


NOTE: SPECIFY LENGTH WHEN ORDERING

TIE STRAPS



O-RINGS

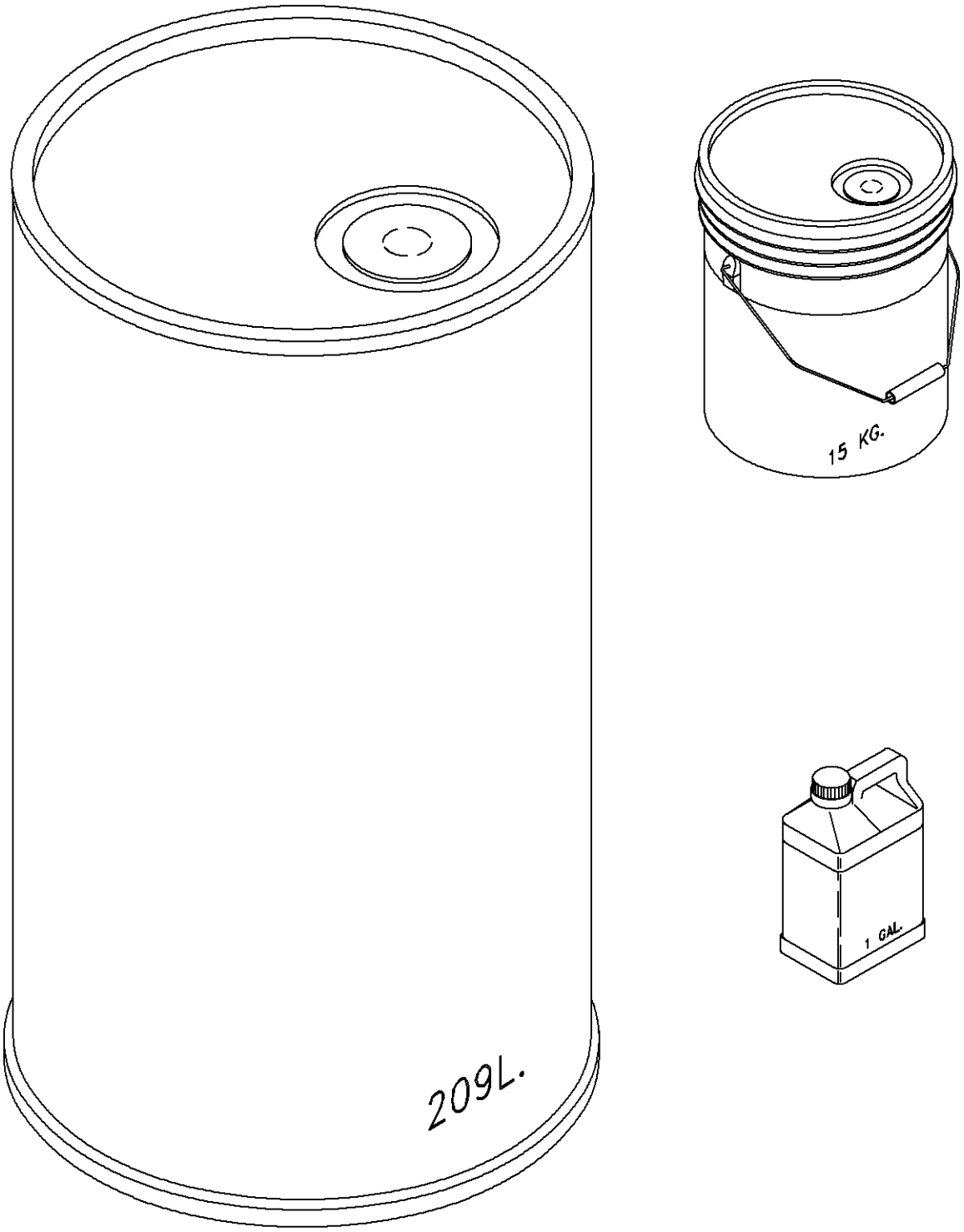


Hydraulic Supplies Fig 12-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			CORDURA SLEEVES		
		299013892	RH-23		VBM - SPECIFY LENGTH WHEN ORDERING
		299013893	RH-31		VBM - SPECIFY LENGTH WHEN ORDERING
		299013894	RH-46		VBM - SPECIFY LENGTH WHEN ORDERING
		299013895	RH-56		VBM - SPECIFY LENGTH WHEN ORDERING
		299013896	RH-67		VBM - SPECIFY LENGTH WHEN ORDERING
		299013897	RH-73		VBM - SPECIFY LENGTH WHEN ORDERING
			TIE STRAPS		
		299009702	TIE STRAP 3*160		VBM
		299009703	TIE STRAP 3*200		VBM
		299009712	TIE STRAP 4*150		VBM
		299009715	TIE STRAP 4*300		VBM
		299009725	TIE STRAP 5*300		VBM
		299009728	TIE STRAP 5*430		VBM
		299009738	TIE STRAP 8*450		VBM
			O-RINGS		
			SAE FITTING REPLACEMENT O-RING		
		299014265	O-RING SAE04		VBM
		299014266	O-RING SAE05		VBM
		299014267	O-RING SAE06		VBM
		299014268	O-RING SAE08		VBM
		299014269	O-RING SAE10		VBM
		299014270	O-RING SAE12		VBM
		299014271	O-RING SAE14		VBM
		299014272	O-RING SAE16		VBM
		299014273	O-RING SAE20		VBM
		299014274	O-RING SAE24		VBM
note			Not All Items Listed Are Used On This Machine		

Lubricants Fig 12-2

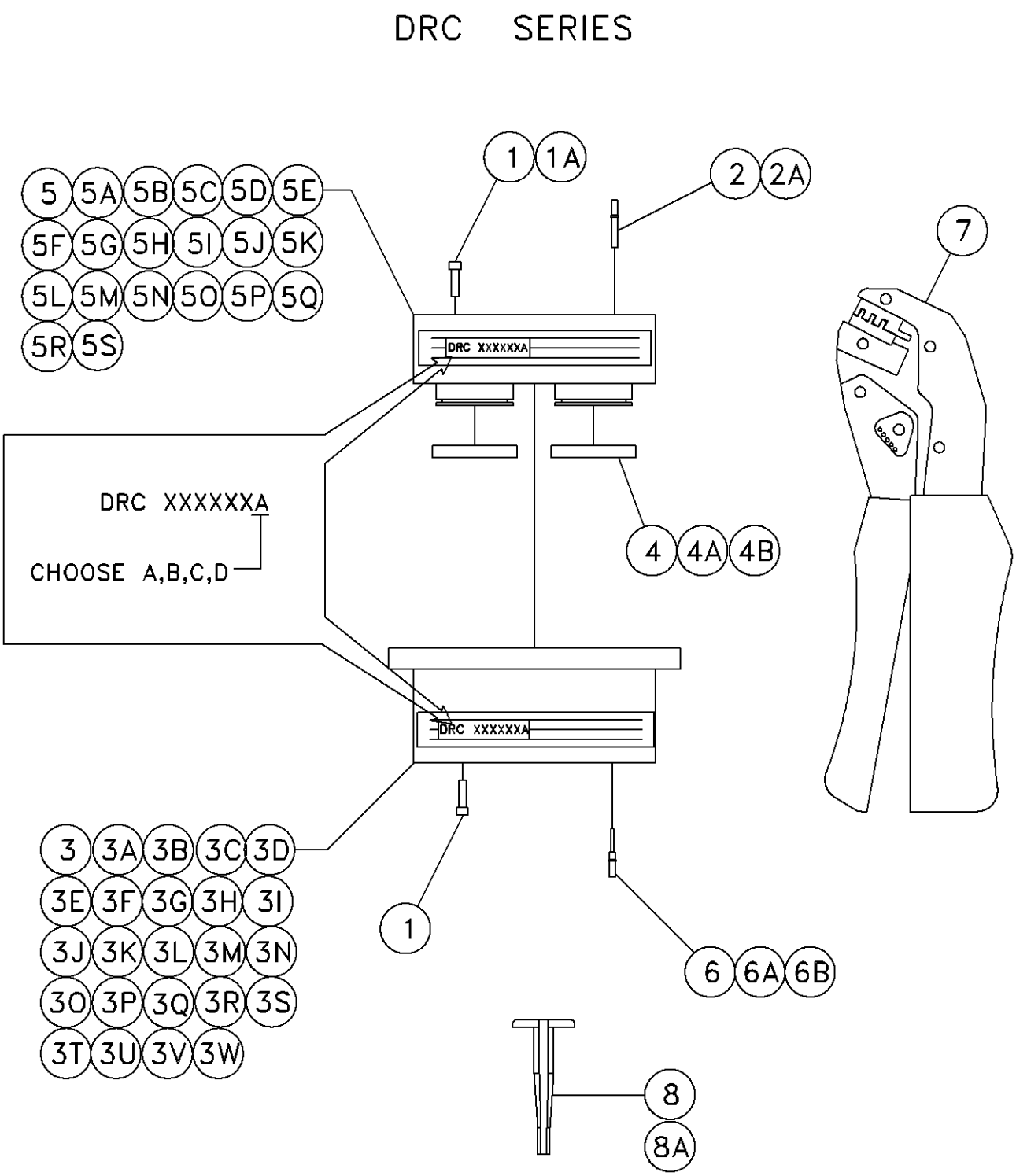
MOTOR OIL, HYD FLUID, HYD OIL, TRANSMISSION FLUID, ETC.



Lubricants Fig 12-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		299007641	ANTIFREEZE -300C 1GAL		VBM
		299007642	SHELL TELLUS HYDRAULIC OIL T68 209L		VBM
		299007643	SHELL SPIRAX GEAR OIL 80W-90 209L		VBM
		299007644	LUBRICANT EP2 15KG		VBM
		299007645	SHELL RIMULA X 15W-40 209L		VBM

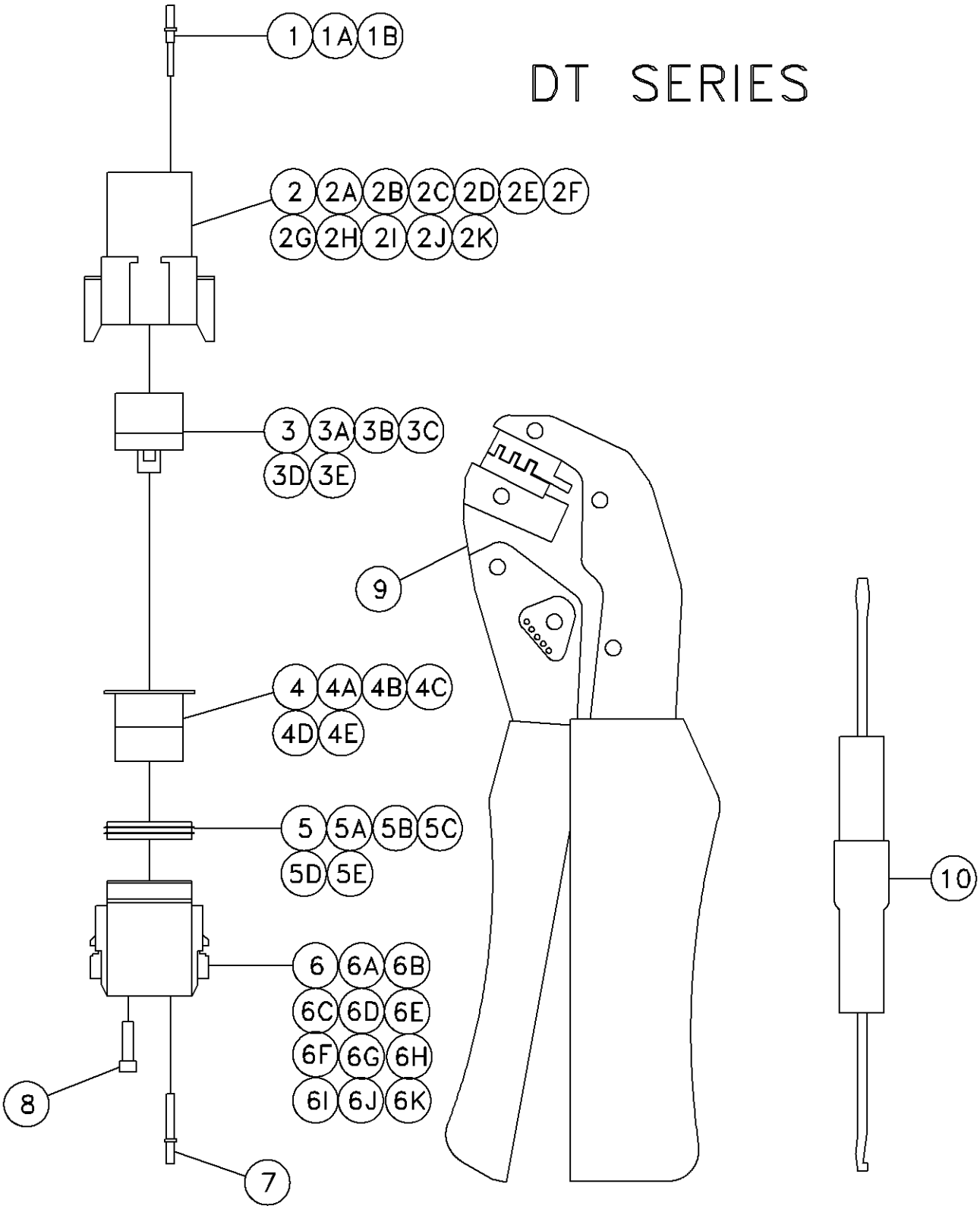
DRC Series Connectors Fig 12-3



DRC Series Connectors Fig 12-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		276906001	PLUG - SEALING (20)		PELLA
1A		94201001	PLUG - SEALING (12-16)		PELLA
2		91354001	SOCKET - 16/18 GA.		PELLA
2A		276916001	SOCKET - 20 GA.		PELLA
3		276894001	RECEPTACLE - 24 PIN INLINE (A)		PELLA
3A		276907001	RECEPTACLE - 24 PIN INLINE (B)		PELLA
3B		276917001	RECEPTACLE - 24 PIN INLINE (C)		PELLA
3C		276918001	RECEPTACLE - 24 PIN INLINE (D)		PELLA
3D		276895001	RECEPTACLE - 24 IN FLNG MNT (A)		PELLA
3E		276908001	RECEPTACLE - 24 PIN FLNG MNT (B)		PELLA
3F		276919001	RECEPTACLE - 24 PIN FLNG MNT (C)		PELLA
3G		276920001	RECEPTACLE - 24 PIN FLNG MNT (D)		PELLA
3H		276896001	RECEPTACLE - 40 PIN INLINE (A)		PELLA
3I		276909001	RECEPTACLE - 40 PIN INLINE (B)		PELLA
3J		276921001	RECEPTACLE - 40 PIN INLINE (C)		PELLA
3K		276922001	RECEPTACLE - 40 PIN INLINE (D)		PELLA
3L		276897001	RECEPTACLE - 40 PIN FLNG MNT (A)		PELLA
3M		276910001	RECEPTACLE - 40 PIN FLNG MNT (B)		PELLA
3N		276923001	RECEPTACLE - 40 PIN FLNG MNT (C)		PELLA
3O		276924001	RECEPTACLE - 40 PIN FLNG MNT (D)		PELLA
3P		276898001	RECEPTACLE - 70 PIN INLINE (A)		PELLA
3Q		276911001	RECEPTACLE - 70 PIN INLINE (B)		PELLA
3R		276925001	RECEPTACLE - 70 PIN INLINE (C)		PELLA
3S		276926001	RECEPTACLE - 70 PIN INLINE (D)		PELLA
3T		276899001	RECEPTACLE - 70 PIN FLNG MNT (A)		PELLA
3U		276912001	RECEPTACLE - 70 PIN FLNG MNT (B)		PELLA
3V		276927001	RECEPTACLE - 70 PIN FLNG MNT (C)		PELLA
3W		276928001	RECEPTACLE - 70 PIN FLNG MNT (D)		PELLA
4		276900001	GASKET - 24 PIN INTERFACE		PELLA
4A		276901001	GASKET - 40 PIN INTERFACE		PELLA
4B		276902001	GASKET - 70 PIN INTERFACE		PELLA
5		276931001	PLUG - 24 PIN (SIZE 20 CONTACTS) (A)		PELLA
5A		276932001	PLUG - 24 PIN (SIZE 20 CONTACTS)		PELLA
5B		276933001	PLUG - 24 PIN (SIZE 20 CONTACTS) (C)		PELLA
5C		276934001	PLUG - 24 PIN (SIZE 20 CONTACTS) (D)		PELLA
5D		276939001	PLUG - 40 PIN (SIZE 20 CONTACTS) (A)		PELLA
5E		276940001	PLUG - 40 PIN (SIZE 20 CONTACTS) (B)		PELLA
5F		276941001	PLUG - 40 PIN (SIZE 20 CONTACTS) (C)		PELLA
5G		276942001	PLUG - 40 PIN (SIZE 20 CONTACTS) (D)		PELLA
5H		276903001	PLUG - 24 PIN (A)		PELLA
5I		276913001	PLUG - 24 PIN (B)		PELLA
5J		276929001	PLUG - 24 PIN (C)		PELLA
5K		276930001	PLUG - 24 PIN (D)		PELLA
5L		276904001	PLUG - 40 PIN (A)		PELLA
5M		276914001	PLUG - 40 PIN (B)		PELLA
5N		276935001	PLUG - 40 PIN (C)		PELLA
5O		276936001	PLUG - 40 PIN (D)		PELLA
5P		276905001	PLUG - 70 PIN (A)		PELLA
5Q		276915001	PLUG - 70 PIN (B)		PELLA
5R		276937001	PLUG - 70 PIN (C)		PELLA
5S		276938001	PLUG - 70 PIN (D)		PELLA
6		276866001	PIN - 14/16 GA.		PELLA
6A		87696001	PIN-16/18 GA.		PELLA
6B		276951001	PIN - (20 GA.)		PELLA
7		286553001	TOOL - DEUTSCH CRIMPING (FIELD)		PELLA
8		276892001	TOOL - 16/18 GA. EXTRACTOR (BLUE)		PELLA
8A		276893001	TOOL - 20/24 GA. EXTRACTOR (RED)		PELLA
Note			Not All Items Listed Are Used On This Machine		

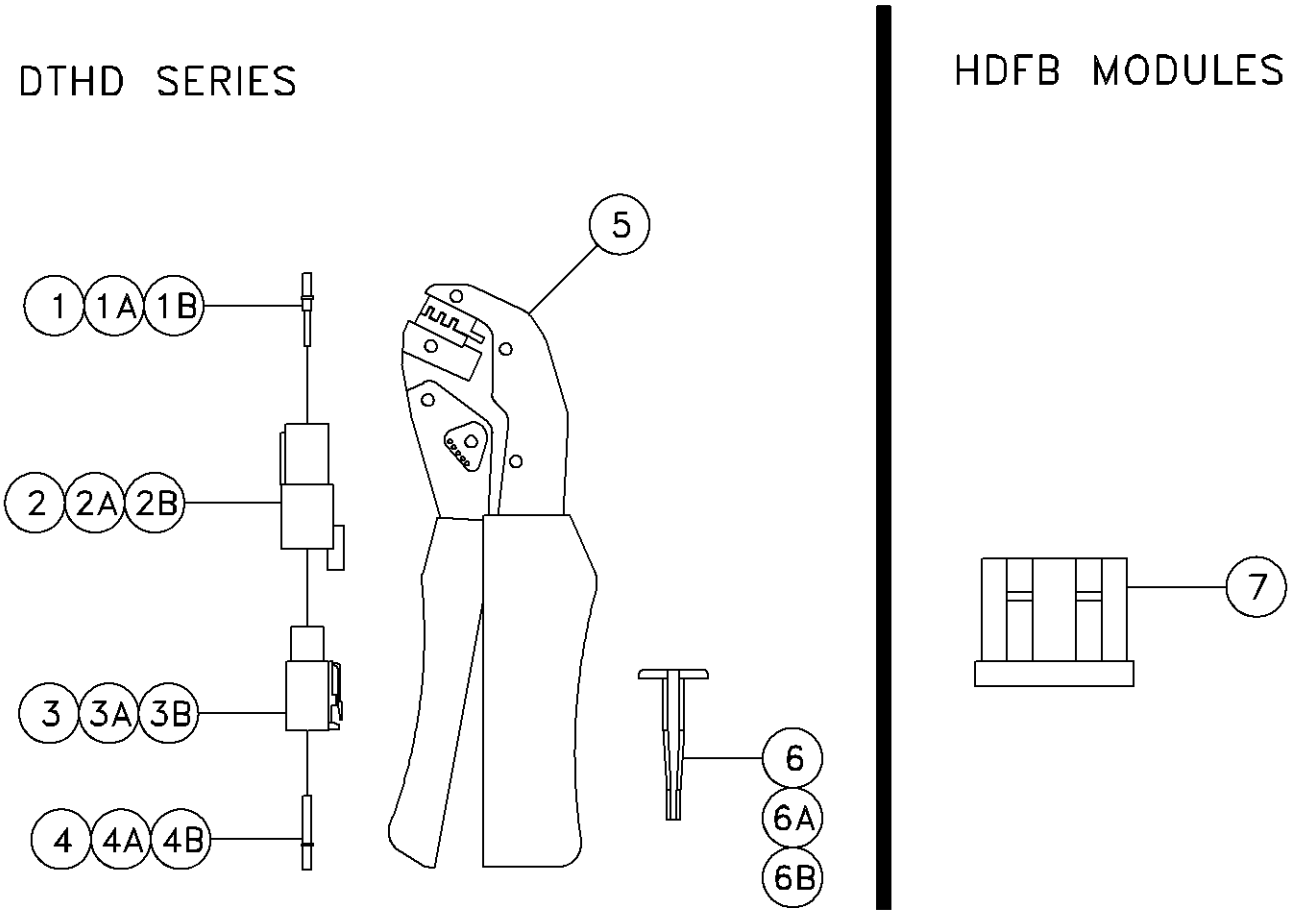
DT Series Connectors Fig 12-4



DT Series Connectors Fig 12-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		276866001	PIN - 14/16 GA.		PELLA
1A		87696001	PIN-16/18 GA.		PELLA
1B		276951001	PIN - (20 GA.)		PELLA
2		276867001	RECEPTACLE - 2 PIN		PELLA
2A		276868001	RECEPTACLE - 3 PIN		PELLA
2B		276869001	RECEPTACLE - 4 PIN		PELLA
2C		276890001	RECEPTACLE - 6 PIN		PELLA
2D		276943001	RECEPTACLE - 8 PIN (A)		PELLA
2E		276944001	RECEPTACLE - 8 PIN (B)		PELLA
2F		276945001	RECEPTACLE - 8 PIN (C)		PELLA
2G		276946001	RECEPTACLE - 8 PIN (D)		PELLA
2H		276947001	RECEPTACLE - 12 PIN (A)		PELLA
2I		276948001	RECEPTACLE - 12 PIN (B)		PELLA
2J		276949001	RECEPTACLE - 12 PIN (C)		PELLA
2K		276950001	RECEPTACLE - 12 PIN (D)		PELLA
3		276870001	WEDGE - 2 PIN RECEPTACLE		PELLA
3A		276871001	WEDGE - 3 PIN RECEPTACLE		PELLA
3B		276872001	WEDGE - 4 PIN RECEPTACLE		PELLA
3C		276873001	WEDGE - 6 PIN RECEPTACLE		PELLA
3D		94200001	WEDGE - 8 PIN RECEPTACLE		PELLA
3E		103213001	WEDGE - 12 PIN RECEPTACLE		PELLA
4		276874001	WEDGE - 2 PIN PLUG		PELLA
4A		276875001	WEDGE - 3 PIN PLUG		PELLA
4B		276876001	WEDGE - 4 PIN PLUG		PELLA
4C		276877001	WEDGE - 6 PIN PLUG		PELLA
4D		98106001	WEDGE - 8 PIN PLUG		PELLA
4E		103214001	WEDGE - 12 PIN PLUG		PELLA
5		276878001	GASKET - INTERFACE 2 PIN		PELLA
5A		276879001	GASKET - INTERFACE 3 PIN		PELLA
5B		276880001	GASKET - INTERFACE 4 PIN		PELLA
5C		276881001	GASKET - INTERFACE 6 PIN		PELLA
5D		276882001	GASKET - INTERFACE 8 PIN		PELLA
5E		276883001	GASKET - INTERFACE 12 PIN		PELLA
6		276884001	PLUG - 2 PIN		PELLA
6A		276885001	PLUG - 3 PIN		PELLA
6B		276886001	PLUG - 4 PIN		PELLA
6C		276887001	PLUG - 6 PIN		PELLA
6D		98107001	PLUG - 8 PIN (A)		PELLA
6E		276985001	PLUG - 8 PIN (B)		PELLA
6F		276986001	PLUG - 8 PIN (C)		PELLA
6G		276987001	PLUG - 8 PIN (D)		PELLA
6H		103211001	PLUG - 12 PIN (A)		PELLA
6I		276988001	PLUG - 12 PIN (B)		PELLA
6J		276989001	PLUG - 12 PIN (C)		PELLA
6K		276990001	PLUG - 12 PIN (D)		PELLA
7		91354001	SOCKET - 16/18 GA.		PELLA
8		94201001	PLUG - SEALING (12-16)		PELLA
9		286553001	TOOL - DEUTSCH CRIMPING (FIELD)		PELLA
10		286553003	TOOL - DEUTSCH (FIELD)		PELLA
Note			Not All Items Listed Are Used On This Machine		

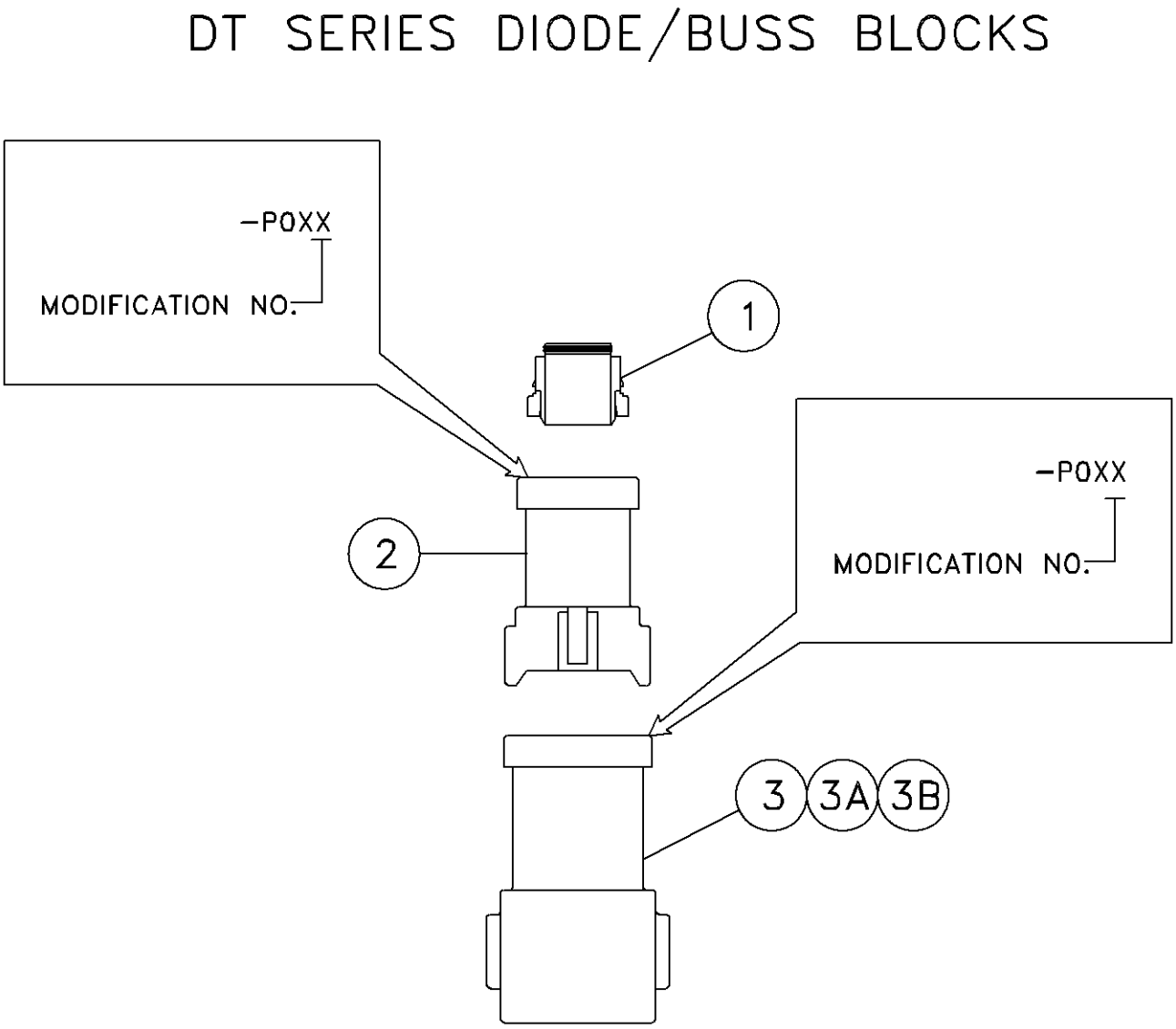
DTHD Series/HDFB Modules Fig 12-5



DTHD Series/HDFB Modules Fig 12-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		231988001	PIN-12 GA		PELLA
1A		276953001	PIN - 8/10 GA.		PELLA
1B		276954001	PIN - 6 GA.		PELLA
2		279423001	RECEPTACLE - SIZE 4 CONTACT		PELLA
2A		279424001	RECEPTACLE - SIZE 8 CONTACT		PELLA
2B		279425001	RECEPTACLE - SIZE 12 CONTACT		PELLA
3		279426001	PLUG - SIZE 4 CONTACT		PELLA
3A		279427001	PLUG - SIZE 8 CONTACT		PELLA
3B		279428001	PLUG - SIZE 12 CONTACT		PELLA
4		276982001	SOCKET - 12/14 GA. DEUTSCH		PELLA
4A		276984001	SOCKET - 8/12 GA.		PELLA
4B		276952001	SOCKET - 6 GA.		PELLA
5		603961001	PLIERS-DEUTSCH CRIMPING		PELLA
6		276981001	PLUG - 19 PIN (SHELL SIZE 24)		PELLA
6A		276889001	TOOL - 8/10 GA. EXTRACTOR (GREEN)		PELLA
6B		276888001	TOOL - 6 GA. EXTRACTOR (WHITE)		PELLA
7		279430001	MODULE - FEEDBACK (10 PIN)		PELLA
note			Not All Items Listed Are Used On This Machine		

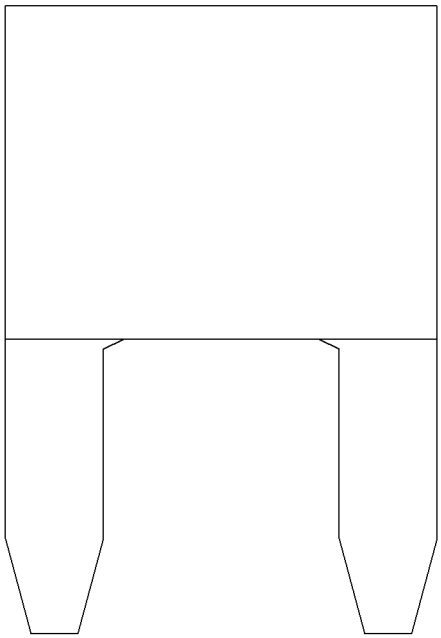
DT series Diode/Buss Blocks Fig 12-6



DT series Diode/Buss Blocks Fig 12-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		282531001	MODULE - DEUTSCH DT06-6S 3AMP DIODE	1	PELLA
2		700000096	BUSS - 1 - 8PIN - B	1	PELLA
3		700000102	BUSS - 1 - 12PIN - B - NICKEL	1	PELLA
3A		700000104	BUSS - 2 - 12PIN - B - 6/6	1	PELLA
3B		700000106	BUSS - 4 - 12PIN - B - 3/3/3/3	1	PELLA
note			Not All Items Listed Are Used On This Machine		

Fuse Fig 12-7



Fuse Fig 12-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			FUSES		
		296282541	FUSE - MINI 7.5 AMP		PELLA
		296273497	FUSE - MINI 10 AMP		PELLA
		296273498	FUSE - MINI 15 AMP		PELLA

This page intentionally left blank.

No part of this manual may be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval systems, without the express written consent of Vermeer Beijing Manufacturing Company.

Copyright 2008-2009. All rights reserved
Vermeer Beijing Manufacturing, Ltd.
A-05 Office Building Balama Industrial Park Yongkai Road, Yongle
Economic Development Zone Tongzhou District, Beijing Post Code: 101115
Office Tel: 010-80515711 Office Fax: 010-80515035