

NOTICE

The information contained is for **DEALER REFERENCE PURPOSES ONLY**.
MANUALS ARE MODEL AND SERIAL NUMBER SPECIFIC.

If additional printed manuals are required for your shop/office location, order by part number through the factory's Parts Center.

If a retail customer needs replacement manual(s) for a specific unit, contact the factory's Customer Data Center at: 800-829-0051 or customerdata@vermeermfg.com

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Vermeer®

*D20x22 Navigator®
Horizontal Directional Drill*



Parts Manual

P1.11
SERIAL NO. 335 -
ORDER NO. 105400ZGM

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 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 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 Corporation, 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 Corporation 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.

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Decal/Resource Library-Section 1

Decals - Cosmetic (S/N 265-) Fig 1-1r01
 Decals - Cosmetic Fig 1-1
 Decals - Control Fig 1-2
 Decals - Miscellaneous Fig 1-3
 Decals - Miscellaneous Fig 1-4r01
 Decals - Miscellaneous Fig 1-4
 Decals - Safety Fig 1-5
 Decals - Safety Fig 1-6
 Decals - Safety Fig 1-7
 Decals - Safety Fig 1-8
 Resource Library (S/N 219-). Fig 1-9r01
 Resource Library Fig 1-9

Frame Assy-Section 2

Rack (S/N 183-). Fig 2-1r02
 Rack Fig 2-1r01
 Rack Fig 2-1
 Undercarriage/Track (S/N 309-) Fig 2-2r01
 Undercarriage/Track Fig 2-2
 Rotation Gearbox Fig 2-3r01
 Rotation Gearbox Fig 2-3
 Carriage Fig 2-4
 Rear Control Station Fig 2-5
 Seat Pivot Frame Fig 2-6r01
 Seat Pivot Frame Fig 2-6
 Seat Platform Fig 2-7
 Outrigger Frame Fig 2-8
 Drive Chuck Fig 2-9
 Umbrella Fig 2-10

Engine Assy-Section 3

Engine Components Fig 3-1
 Air Cleaner Fig 3-2
 Fuel Tank Fig 3-3r01
 Fuel Tank Fig 3-3
 Oil Tank Fig 3-4
 Radiator Fig 3-5
 Muffler (S/N 220-). Fig 3-6r03
 Muffler (S/N 196-). Fig 3-6r02
 Muffler Fig 3-6r01
 Muffler Fig 3-6
 Engine Mount Fig 3-7

Shield Assy-Section 4

Side Shield Fig 4-1
 Rear Shield Fig 4-2
 Left Side Engine Shield Fig 4-3
 Front Shield Fig 4-4r01
 Front Shield Fig 4-4
 Top Shield (S/N 236-) Fig 4-5r03
 Top Shield (S/N 220-235) Fig 4-5r02
 Top Shield Fig 4-5r01
 Top Shield Fig 4-5
 Engine Door (S/N 265-) Fig 4-6r02
 Engine Door Fig 4-6r01
 Engine Door Fig 4-6

Hydraulic Assy-Section 5

Miscellaneous Supplies Fig 5-1
 Oil Tank (S/N 335-) Fig 5-2r01
 Oil Tank Fig 5-2
 Cylinder - Outrigger Fig 5-3
 Cylinder - Water Shutoff (S/N 244-) Fig 5-4r01
 Cylinder - Water Shutoff Fig 5-4
 Motor - Rotation (S/N 202-) Fig 5-5r01
 Motor - Rotation Fig 5-5
 Motor - Thrust/Pullback Fig 5-6r01
 Motor - Thrust/Pullback Fig 5-6
 Valve - Stakedown Fig 5-7r01
 Valve - Stakedown Fig 5-7
 Track Drive (S/N 264-) Fig 5-8
 Valve - Rack Pivot Fig 5-9
 Cylinder - Rack Pivot Fig 5-10
 Stakedown - Standard 4" (S/N 244-) Fig 5-11r01
 Stakedown - Standard 4" (S/N 244-) (Continued) Fig 5-11r01
 Stakedown - Standard 4" Fig 5-11
 Stakedown - Standard 4" (Continued) Fig 5-11
 Stakedown - Large 6" (S/N 244-) Fig 5-12r02
 Stakedown - Large 6" (S/N 244-) (Continued) Fig 5-12r02
 Stakedown - Large 6" Fig 5-12r01
 Stakedown - Large 6" (Continued) Fig 5-12r01
 Stakedown - Large 6" Fig 5-12
 Stakedown - Large 6" (Continued) Fig 5-12
 Cylinder - Clamp Rotation Fig 5-13
 Valve - Clamp Fig 5-14r01
 Valve - Clamp Fig 5-14
 Auto Greaser Fig 5-15
 Valve - Rod Loader (S/N 212-) Fig 5-16r01
 Valve - Rod Loader Fig 5-16
 Pump - Hydraulic Fig 5-17
 Charge Filter Fig 5-18
 Valve - Water Control (S/N 335-) Fig 5-19r01
 Valve - Water Control Fig 5-19
 Valve - Drill Transport Fig 5-20r01
 Valve - Drill Transport Fig 5-20
 Valve - Pilot Fig 5-21

Valve - Shuttle	Fig 5-22
Valve - Transport Flush	Fig 5-23
Motor - Water Pump	Fig 5-24
Hose Carrier Assy.	Fig 5-25
Undercarriage Bulkhead	Fig 5-26
Oil Cooler	Fig 5-27
Valve - Thrust/Pullback	Fig 5-28
Valve - Torque Limiter	Fig 5-29
Bucket Auto Greaser Mount	Fig 5-30
Bucket Auto Greaser (1 Gallon)	Fig 5-31
Bucket Auto Greaser Valve	Fig 5-32
Bucket Auto Greaser Cylinder (S/N 330-)	Fig 5-33r01
Bucket Auto Greaser Cylinder	Fig 5-33
Bucket Auto Greaser Follower (1 Gal.)	Fig 5-34

Control/Electrical Assy-Section 6

Electrical Harness (S/N 236-)	Fig 6-1r02
Electrical Harness	Fig 6-1r01
Electrical Harness	Fig 6-1
Electrical Harness-(R.A.T. Option) (S/N 270-)	Fig 6-1x01r01
Electrical Harness-(R.A.T. Option)	Fig 6-1x01
Rack/ Rod Loader Electrical	Fig 6-2
Work Lights	Fig 6-3
Front Shield Electrical	Fig 6-4r01
Front Shield Electrical	Fig 6-4
Control Panel Electrical	Fig 6-5r01
Control Panel Electrical (Continued)	Fig 6-5r01
Control Panel Electrical	Fig 6-5
Control Panel Electrical (Continued)	Fig 6-5
Throttle Actuator	Fig 6-6
Battery	Fig 6-7r01
Battery	Fig 6-7
Rear Control Box Electrical	Fig 6-8r01
Rear Control Box Electrical	Fig 6-8
Remote Lockout	Fig 6-9
Seat Control Electrical (S/N 236-)	Fig 6-10r02
Seat Control Electrical	Fig 6-10r01
Seat Control Electrical	Fig 6-10
R.A.T. Controller/Mount/Auto Drill (S/N 236-)	Fig 6-11r01
R.A.T. Controller/Mount	Fig 6-11
R.A.T. Pulse Pickup Sensor	Fig 6-12

Safety Assy-Section 7

Safety Features - Gloves, Boots, Cones	Fig 7-1
Voltage Stake	Fig 7-2

Water Assy-Section 8

Water Pump	Fig 8-1
Water Shutoff Valve	Fig 8-2

Water Tank Fig 8-3
 Wand Fig 8-4r01
 Wand Fig 8-4
 Drill Fluid Fig 8-5

Vise Clamp Assy-Section 9

Clamp Fig 9-1r01
 Clamp Fig 9-1
 Zap Alert Coil (S/N 309-) Fig 9-2r02
 Zap Alert Coil Fig 9-2r01
 Zap Alert Coil Fig 9-2

Rod Loader Assy-Section 10

Rod Position Indicator Fig 10-1
 Rod Box Fig 10-2r01
 Rod Box Fig 10-2
 Row Selector Lift Fig 10-3
 Extend Retract Fig 10-4

Component Breakdowns-Section 11

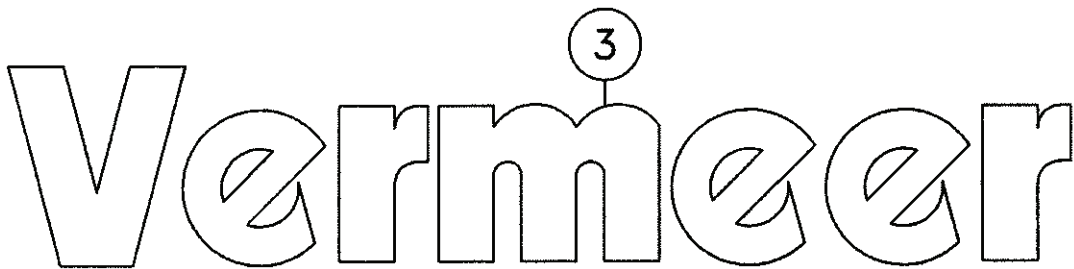
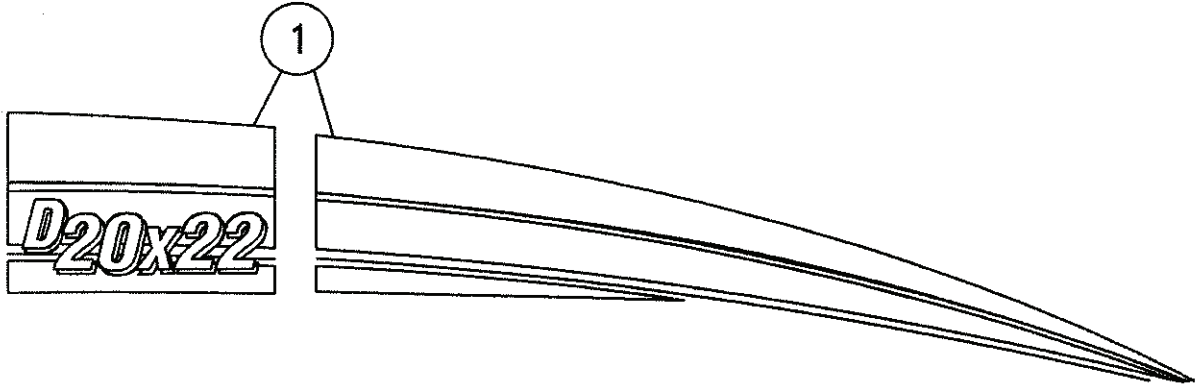
Valve - Stakedown Control Fig 11-1
 Valve - Rack Pivot Control Valve Fig 11-2
 Valve - Load Fig 11-3
 Valve - Stakedown Enable Fig 11-4
 Valve - Vise Control Fig 11-5r01
 Valve - Vise Control Fig 11-5
 Valve - Water Control Fig 11-6
 Valve - Rod Loader Fig 11-7r01
 Valve - Rod Loader Fig 11-7
 Valve - Pivot Control Fig 11-8
 Valve - Greaser Fig 11-9
 Valve - Thrust/Transport Fig 11-10r01
 Valve - Thrust/Transport Fig 11-10
 Valve - Water Shutoff Fig 11-11
 Pump - Tandem Hydro/Pfc Fig 11-12
 Pump - Water Fig 11-13
 Motor - Water Pump Fig 11-14
 Motor - Gearbox (S/N 202-) Fig 11-15r01
 Motor - Gearbox Fig 11-15
 Motor - Carriage/Stakedown Fig 11-16
 Cylinder - Outrigger Fig 11-17
 Cylinder - Water Shutoff (S/N 244-) Fig 11-18r01
 Cylinder - Water Shutoff Fig 11-18
 Cylinder - Auto Greaser Fig 11-19
 Cylinder - Rack Pivot Fig 11-20
 Motor - Drive Track Planetary (264-) Fig 11-21r01
 Motor - Drive Track Planetary Fig 11-21
 Track - Hose Carrier Fig 11-22
 Auto Greaser Fig 11-23

Air Cleaner Fig 11-24
Left-Joystick - 4 Switch Fig 11-25r02
Left-Joystick - 4 Switch Fig 11-25r01
Left-Joystick - 4 Switch Fig 11-25
Right-Joystick - 5 Switch Fig 11-26r02
Right-Joystick - 5 Switch Fig 11-26r01
Right-Joystick - 5 Switch Fig 11-26
Motor - Carriage/Stakedown Fig 11-27
Valve - Thrust/Pullback Fig 11-28
Valve - Torque Limiter Fig 11-29
Cylinder - Bucket Greaser (S/N 330-) Fig 11-30r01
Cylinder - Bucket Greaser Fig 11-30

Diagrams-Hyd Locations-Section 12

Vise Clamp Hyd Diagram Fig 12-1
Rod Loader Hyd Diagram Fig 12-2
Stakedown Hyd Diagram Fig 12-3r01
Stakedown Hyd Diagram Fig 12-3
Track Drive Hyd Diagram Fig 12-4
Trust/Pullback Rotation Hyd Diagram Fig 12-5
Implement Hyd Diagram Fig 12-6
Bucket Auto Greaser Fig 12-7

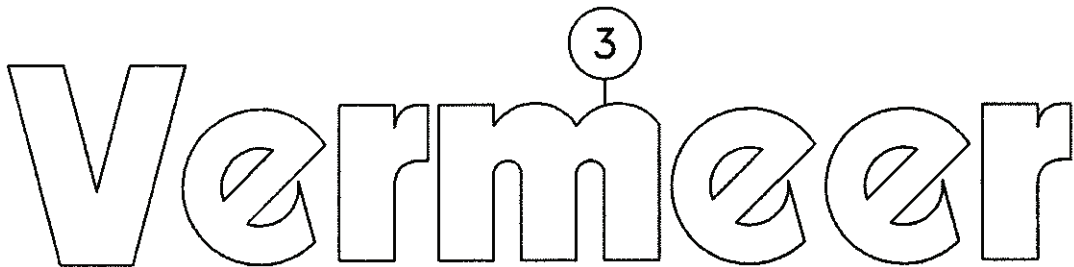
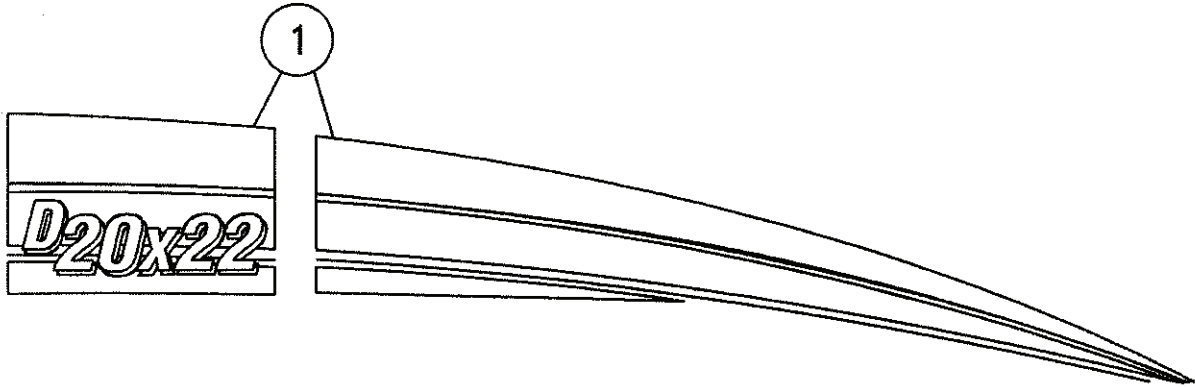
Decals - Cosmetic (S/N 265-) Fig 1-1r01



Decals - Cosmetic (S/N 265-) Fig 1-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	March, 2007		Change Decal Colors
1	*	7000D174	DECAL - D20X22 STRIPE	1	(S/N 265-)
2		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	
3		2326595	DECAL VERMEER- 4 1/2 X 24	1	

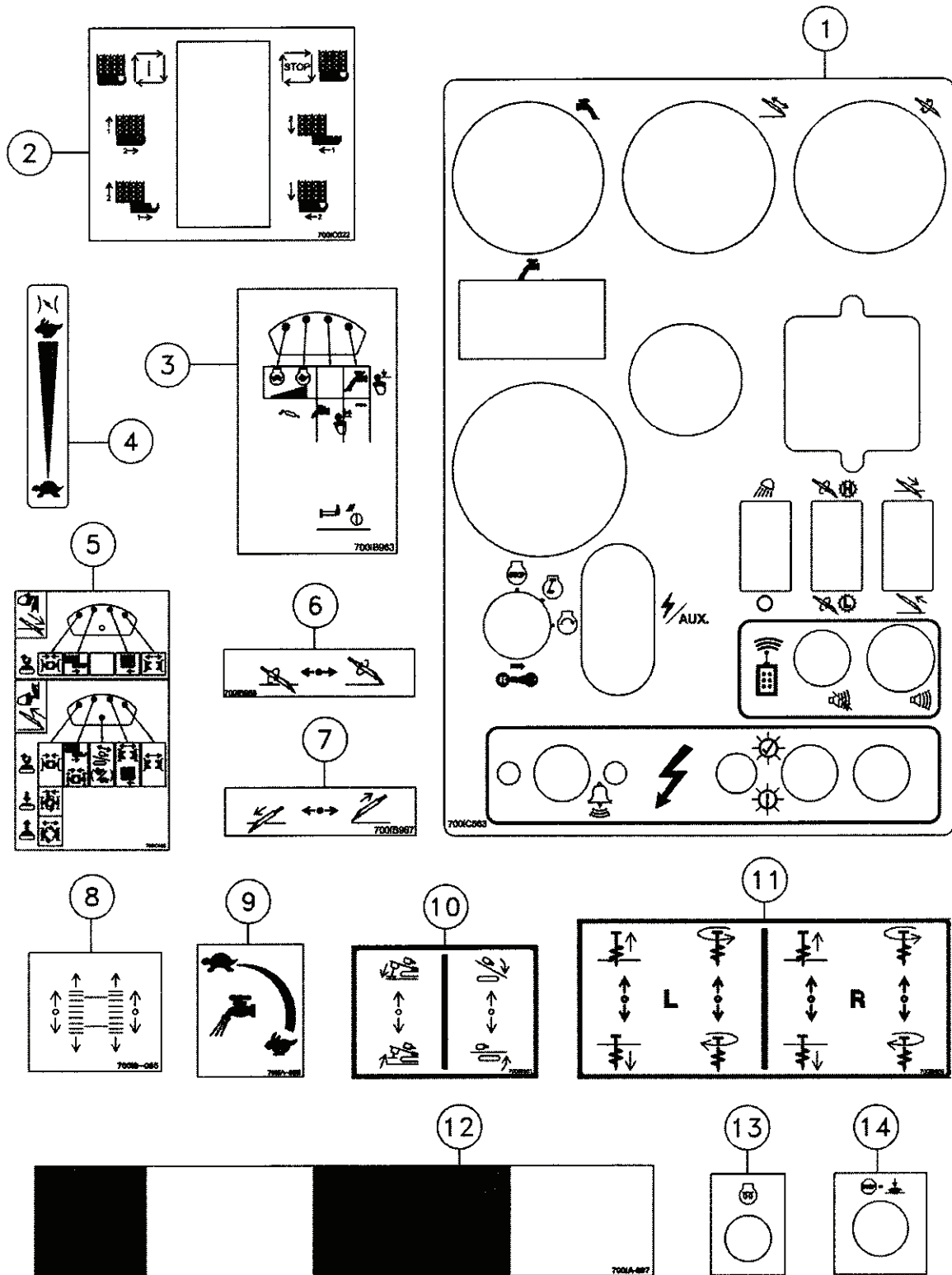
Decals - Cosmetic Fig 1-1



Decals - Cosmetic Fig 1-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000C654	DECAL - D20X22 STRIPE	1	
2		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	
3		2326595	DECAL VERMEER- 4 1/2 X 24	1	

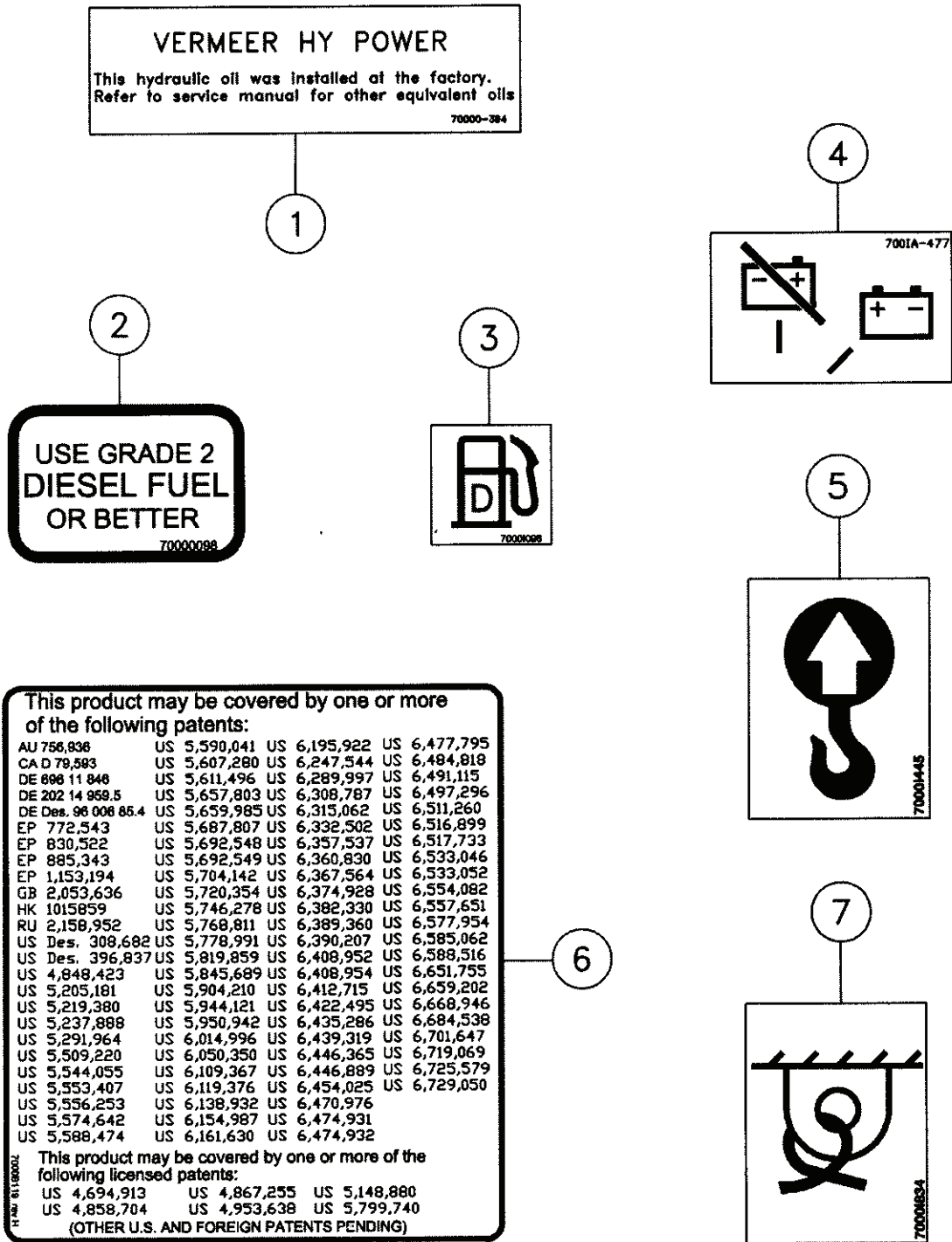
Decals - Control Fig 1-2



Decals - Control Fig 1-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700IC563	DECAL - CONTROL PANEL	1	
2		700IC022	DECAL - CONTROLS	1	
3		700IB963	DECAL - LEFT JOYSTICK	1	
4		700IC035	DECAL-THROTTLE	1	
5		700IC685	DECAL - RIGHT JOYSTICK CONTROL	1	
6		700IB968	DECAL - LEFT JOYSTICK - ROTATION	1	
7		700IB967	DECAL - RIGHT JOYSTICK - THRUST	1	
8		700IB055	DECAL - TRACK DRIVE	1	
9		700IA355	DECAL-DRILLING FLUIDSPEED(UND)	1	
10		700IB961	DECAL - RACK LIFT / OUTRIGGER	1	
11		700IB959	DECAL - STAKEDOWN	1	
12		700IA997	DECAL - GEARBOX POSITION	1	
13		7000C072	DECAL-GLOW PLUG	1	
14		7000C073	DECAL-E-STOP	2	

Decals - Miscellaneous Fig 1-3



Decals - Miscellaneous Fig 1-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		70000394	DECAL-VERMEER HY POWER	1	
2		70000098	DECAL-DIESEL (AT/UND)	1	
3		7000I098	DECAL-DIESEL FUEL	1	International
4		700IA477	DECAL_BATTERY SWITCH (UG)	1	
5		7000I445	DECAL-LIFT POINT	4	
6		7000B119	DECAL - PATENT INDUSTRIAL	1	
7		7000I834	DECAL - TIE DOWN POINT	4	

Decals - Miscellaneous Fig 1-4r01

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If you purchased this product as used equipment, you can receive a FREE Operator's Manual by contacting:

Si vous avez acheté cet équipement d'occasion, vous pouvez recevoir un manuel de l'opérateur GRATUIT en composant le:

Wenn Sie diese Maschine gebraucht erworben haben, können Sie eine KOSTENLOSE Betriebsanleitung wie folgt anfordern:

Se si è comprata la presente macchina usata, si può ricevere una copia del manuale dell'operatore IN OMAGGIO, contattando:

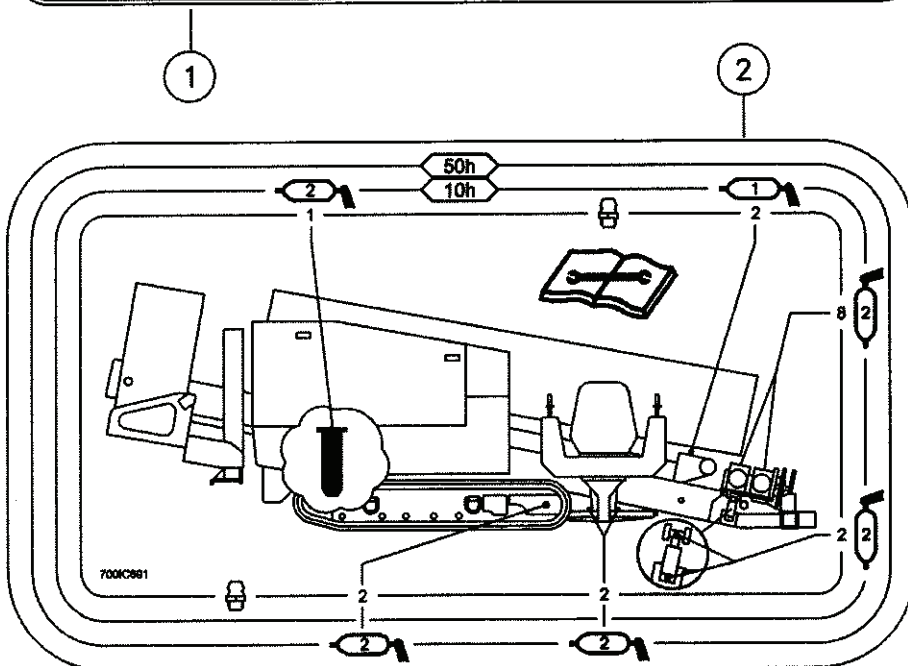
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.

OR by completing and mailing the Used Equipment Registration Form enclosed in the Operator's Manual.
 OU en remplissant et en envoyant le formulaire d'enregistrement de l'équipement d'occasion inclus dans le manuel de l'opérateur.
 ODER das in der Betriebsanleitung enthaltene Formular zur Registrierung gebrauchter Ausrüstung ausfüllen und einsenden.
 OPPURE compilando e spedendo il modulo di registrazione per macchinari usati, accluso al manuale dell'operatore.
 O rellenando y enviando por correo el impreso de registro de equipos usados incluido en el manual del operador.



Decals - Miscellaneous Fig 1-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		2326940	DECAL-NOTICE TO OWNERS	1	
2		700IC691	DECAL-D18X22 GREASE CHART	1	

Decals - Miscellaneous Fig 1-4

Notice • Avis • Hinweis • Avviso • Aviso •

If you purchased this product as used equipment, you can receive a FREE Operator's Manual by contacting:
 Si vous avez acheté cet équipement d'occasion, vous pouvez recevoir un manuel de l'opérateur GRATUIT en composant le:
 Wenn Sie diese Maschine gebraucht erworben haben, können Sie eine KOSTENLOSE Betriebsanleitung wie folgt anfordern:
 Se si è comprata la presente macchina usata, si può ricevere una copia del manuale dell'operatore IN OMAGGIO, contattando:
 Si este producto que ha comprado es un equipo usado, puede recibir un manual del operador GRATUITO llamando al:

• • • • •

Vermeer Manufacturing Company
 ATTN: Customer Data Department
 1210 Vermeer Road East, PO BOX 200
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 Téléphone: en anglais uniquement
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 Teléfono: en Inglés solamente

• • • • •

OR by completing and mailing the Used Equipment Registration Form enclosed in the Operator's Manual.
 OU en remplissant et en envoyant le formulaire d'enregistrement de l'équipement d'occasion inclus dans le manuel de l'opérateur.
 ODER das in der Betriebsanleitung enthaltene Formular zur Registrierung gebrauchter Ausrüstung ausfüllen und einsenden.
 OPPURE compilando e spedendo il modulo di registrazione per macchinari usati, accluso al manuale dell'operatore.
 O rellenando y enviando por correo el impreso de registro de equipos usados incluido en el manual del operador.

1

2

GREASE CHART 7000C-691

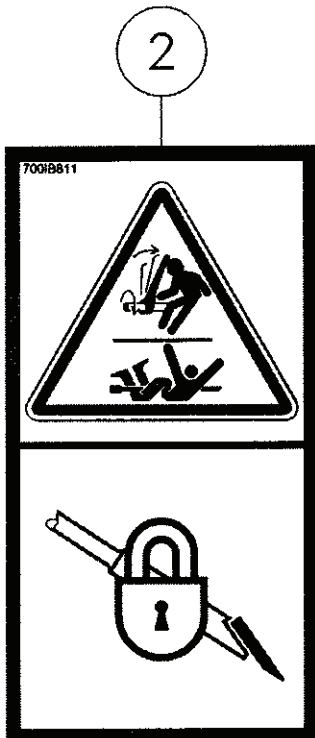
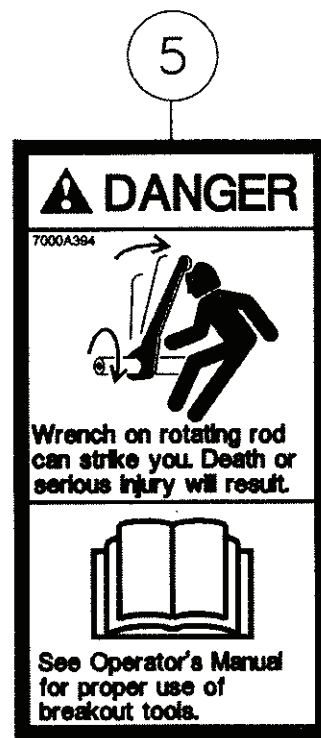
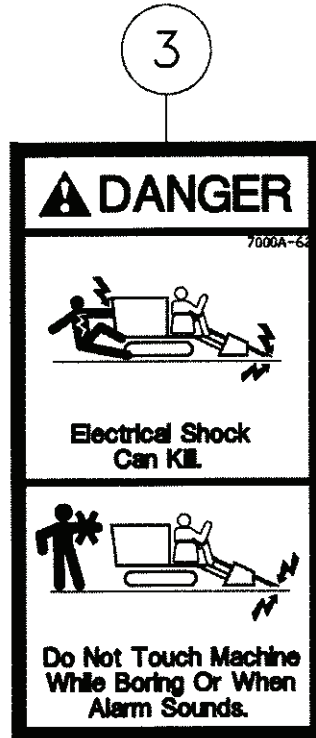
REFERENCE NUMBER	DESCRIPTION	NUMBER SHOTS	INTERVALS HOURS
1.	CLAMP SLIDE (8 PLACES)	2	10
2.	JOINT BREAK CYLINDER (2 PLACES)	2	10
3.	MOTION BAR SYNCHRONIZER (2 PLACES)	1	10
4.	RACK PIVOT	2	10
5.	SEAT PIVOT (2 PLACES)	2	50
6.	FRONT IDLERS (2 PLACES)	2	50

See operator's manual for detailed lubrication instructions.

Decals - Miscellaneous Fig 1-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		2326940	DECAL-NOTICE TO OWNERS	1	
2		7000C691	DECAL-GREASE CHART	1	

Decals - Safety Fig 1-5



Decals - Safety Fig 1-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000B811	DECAL - DANGER - REMOTE LOCK OUT	1	
2		700IB811	DECAL - DANGER - REMOTE LOCK OUT	1	International
3		7000A627	DECAL-DANGER	4	
4		700IA627	DECAL-DANGER	4	International
5		7000A394	DECAL - WARNING	1	
6		700IA394	DECAL - WARNING	1	International

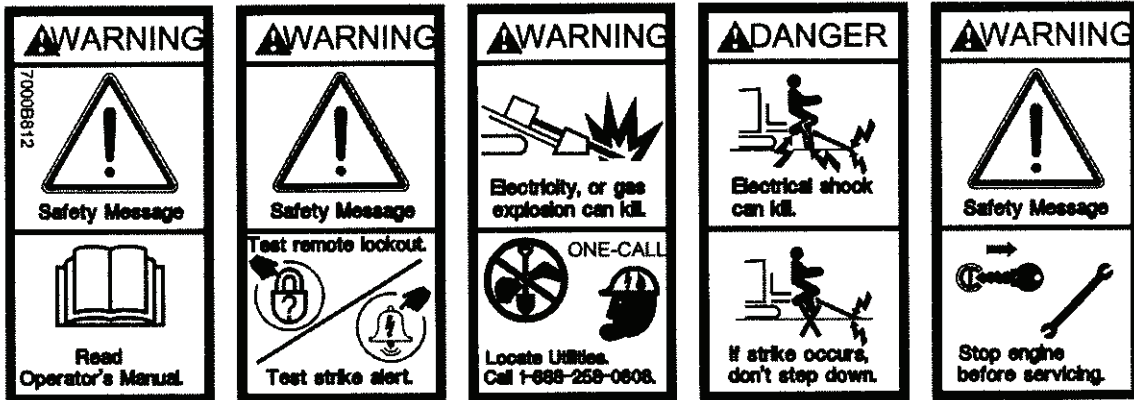
Decals - Safety Fig 1-6



Decals - Safety Fig 1-6

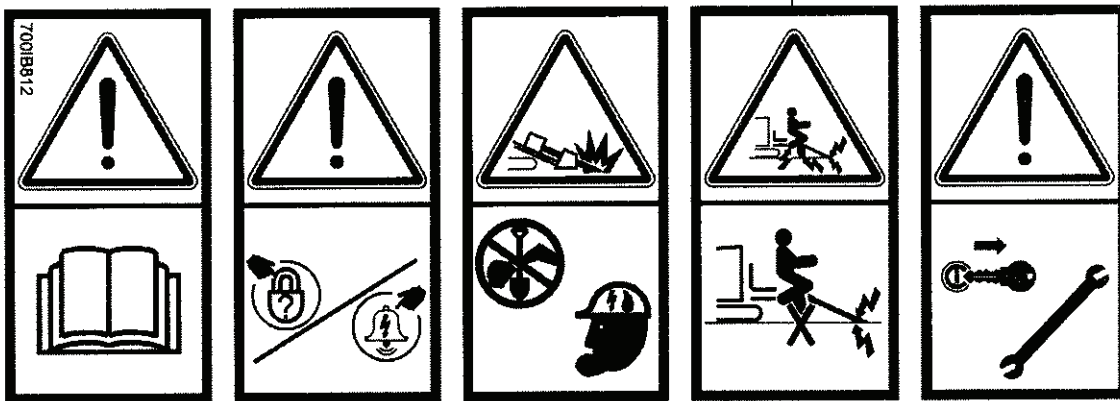
REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000A393	DECAL - DANGER	1	
2		700IA393	DECAL - DANGER	1	International
3		7000B304	DECAL - WARNING	1	
4		700IB304	DECAL - WARNING	1	International
5		7000A864	DECAL-WARNING DOMESTIC	2	
6		700IA864	DECAL-WARNING INTERNATIONAL	2	International
7		70000044	DECAL-WARNING(AT/UND)	1	
8		7000I044	DECAL-WARNING	1	International

Decals - Safety Fig 1-7

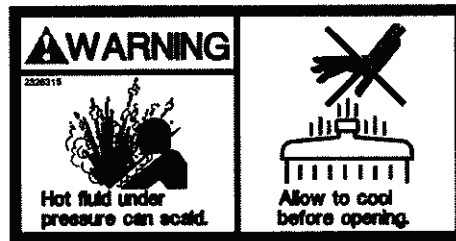
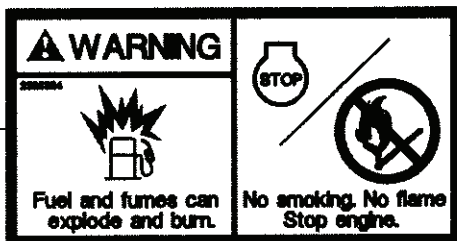


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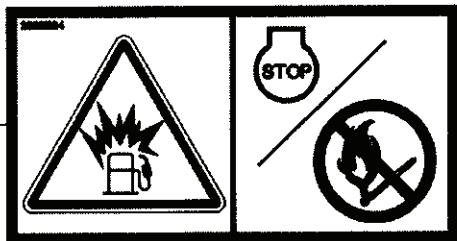


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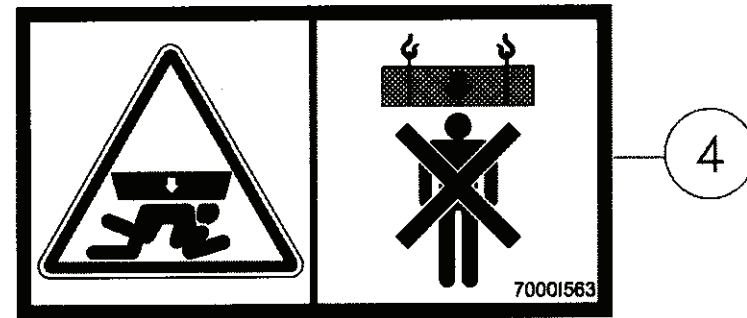
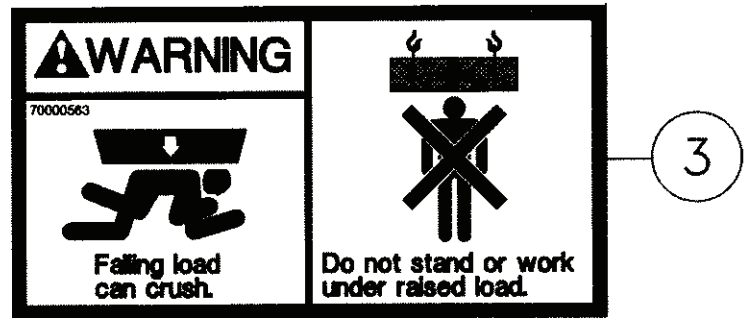
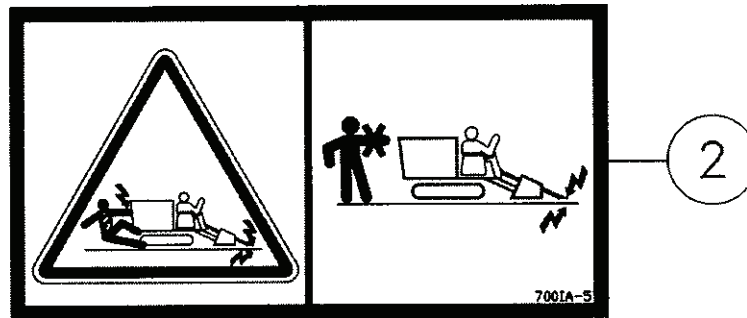
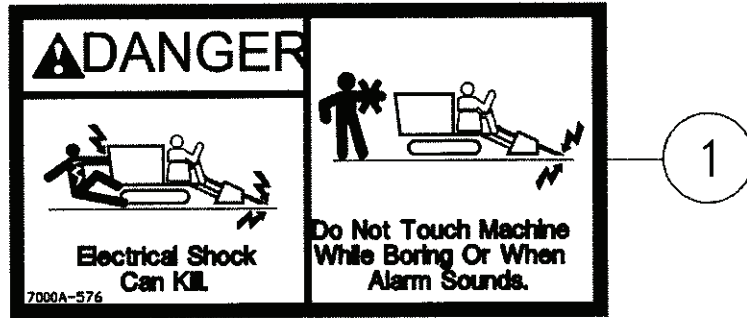


6

Decals - Safety Fig 1-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000B812	DECAL - WARNING	1	
2		700IB812	DECAL - WARNING	1	International
3		2326324	DECAL-WARNING/REFUEL	1	
4		2326I324	DECAL - WARNING EXPLOSION	1	International
5		2326315	DECAL-WARNING	1	
6		2326I315	DECAL-WARNING	1	International

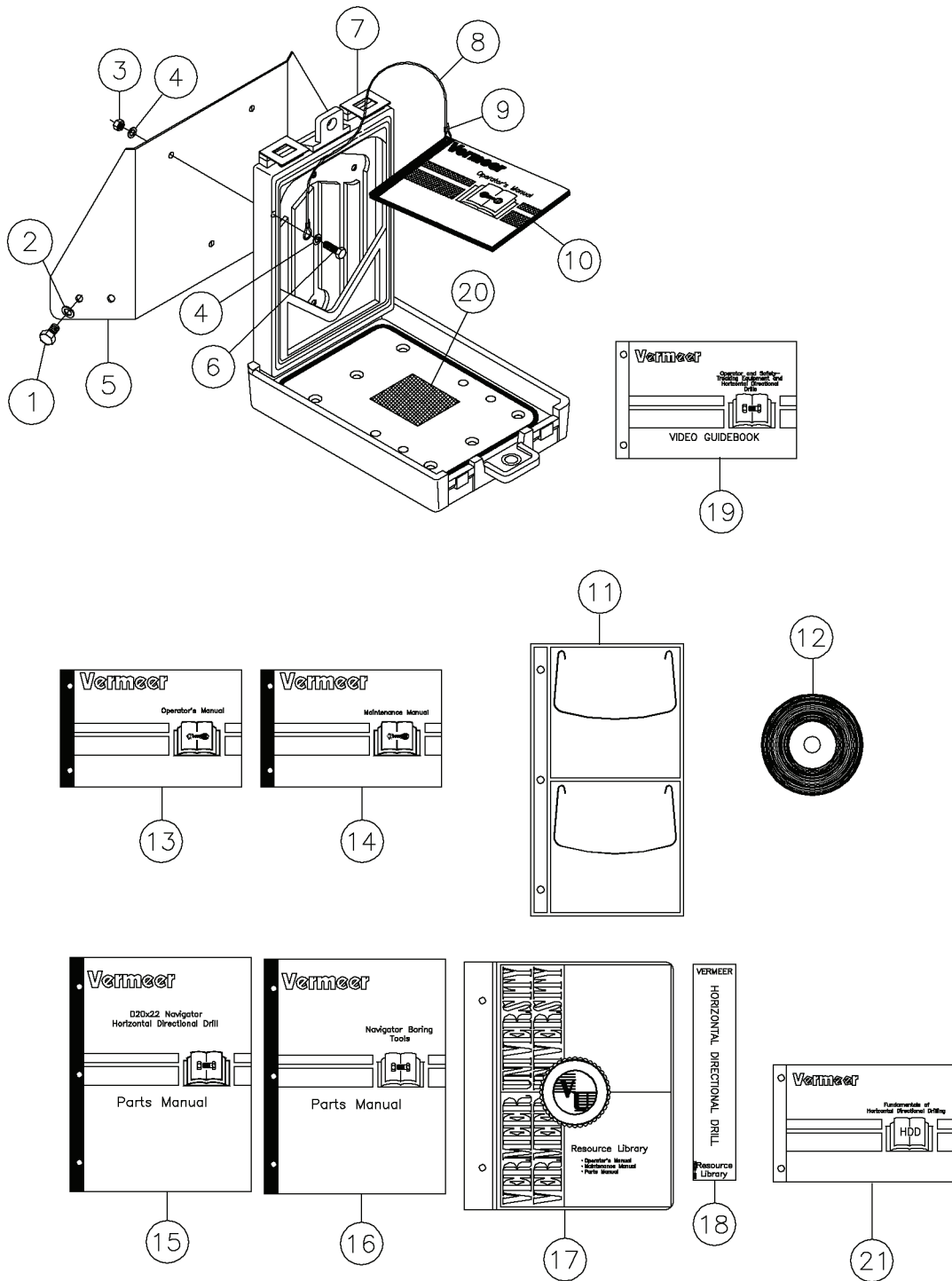
Decals - Safety Fig 1-8



Decals - Safety Fig 1-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000A576	DECAL-DANGER	3	
2		700IA576	DECAL-DANGER	3	International
3		70000563	DECAL-WARNING (UND)	3	
4		7000I563	DECAL-WARNING (UND)	3	International

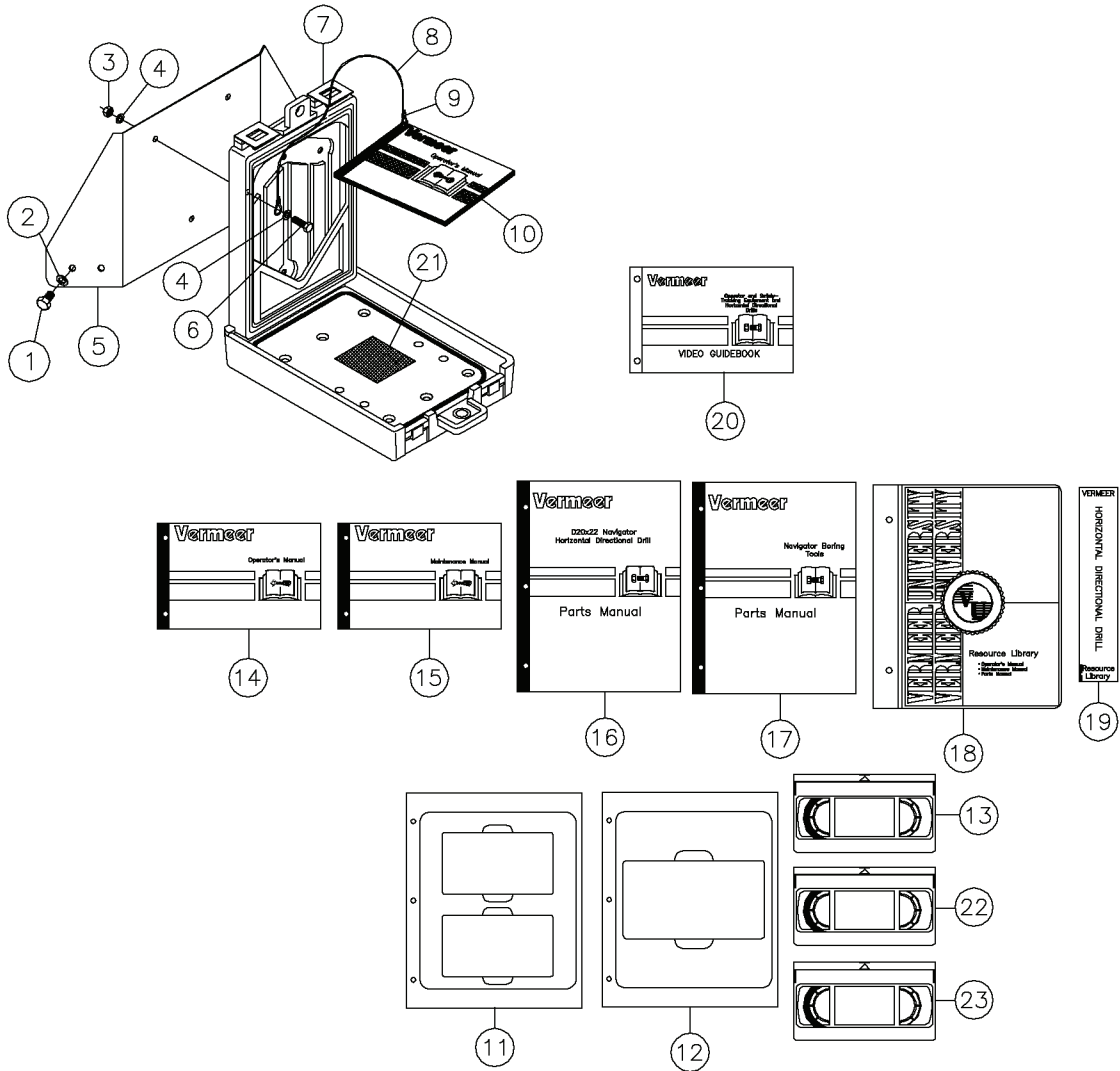
Resource Library (S/N 219-) Fig 1-9r01



Resource Library (S/N 219-) Fig 1-9r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2007		Add Book Ref. 21
1		235740001	BOLT-5/16-18X1/2 GR8 ZINC PLT	4	
2		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
3		405001	NUT-1/4 NC FLG WHIZ LOCK	3	
4		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	6	
5		235683001	MOUNT-MANUAL BOX	1	
6		235733001	BOLT-1/4-20X1/2 GR8 ZINC PLTD	3	
7		142410001	CASE-6"X9 XCX X1" OPERATOR MANUAL	1	
8		142954001	CABLE-.068DIA.NYLON CT.-36.00	1	
9		142423001	CRIMP-CABLE (FOR.068DIA.CABLE)	2	
10		296260962	D20X22 MANUAL ASSY - CABLED o1.00	1	Inc. Ref 8 & 9
		296287078	MANUAL ASSY - D20X22 (SP) CABLED 1.00	1	Spanish-Inc. Ref. 8 & 9
11		180010788	DVD-HOLDER	1	(S/N 219-)
12		296296910	DVD-NTSC VIDEO HDD OPERATIONS&FIRESTICK(INCL SPAN)	1	(S/N 219-)
13		105400X98	OM D20X22 (EN) 1.00	1	
14		105400Y00	MM D20X22 (EN) 1.00	1	
		117000W11	OM-D20X22 (SP) o1.01	1	Spanish
15		105400ZGM	PM - D20X22 ENG p1.00	1	
		117000W13	MM-D20X22 (SP) m1.01	1	Spanish
16		105400T09	PM - NAVIGATOR BORING TOOLS p4.00	1	
17		144144001	NOTEBOOK BINDER - 2"-3 XCX	1	
18		7000B222	DECAL -HORIZONTAL DRILL - RESOURCE LIB.	1	
19		105400T90	HDD OPERATIONS & SAFETY VIDEO GUIDEBOOK	1	
20		2326940	DECAL-NOTICE TO OWNERS	1	
21	*	105400W26	FUNDAMENTALS OF HDD UP o1.00	1	

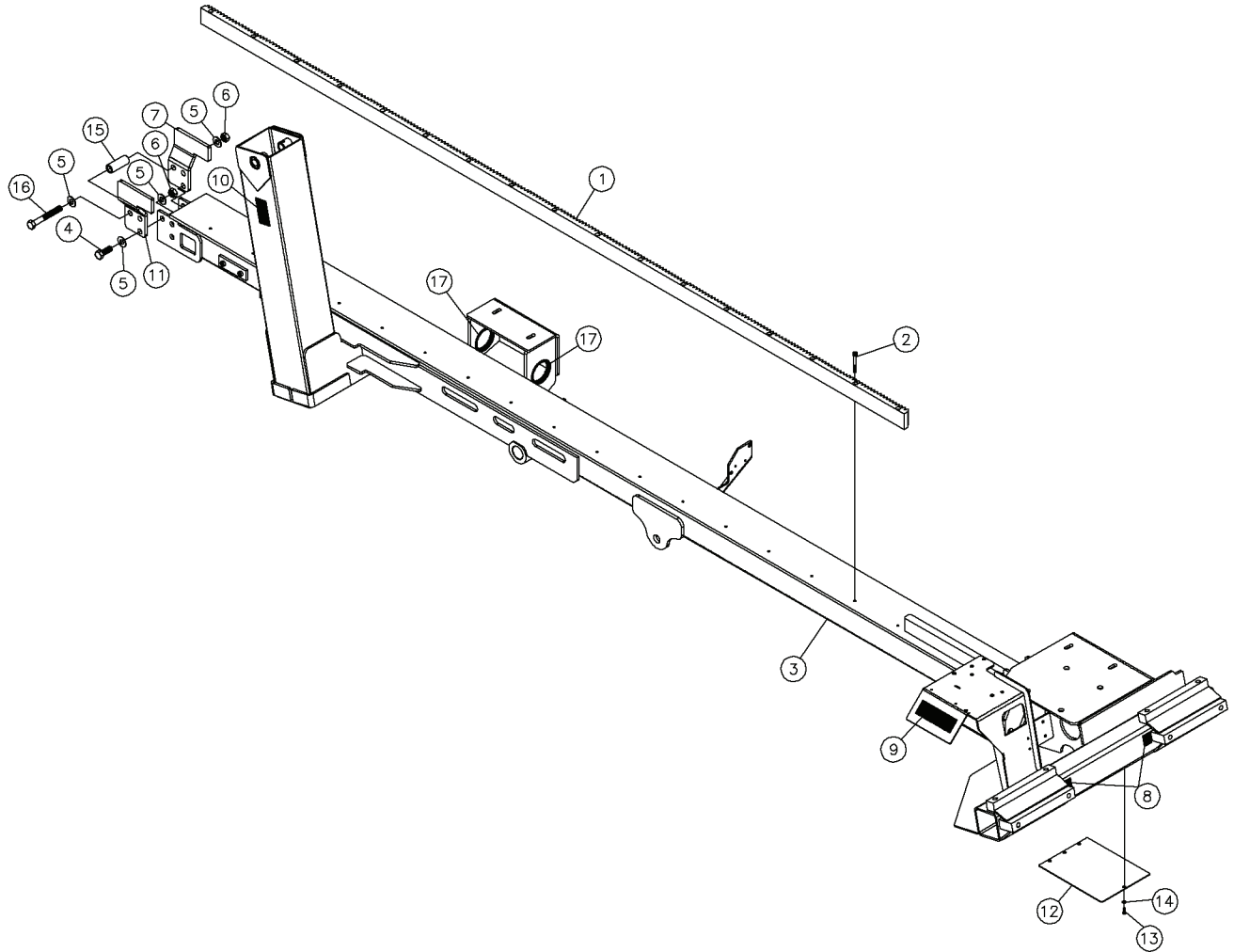
Resource Library Fig 1-9



Resource Library Fig 1-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		235740001	BOLT-5/16-18X1/2 GR8 ZINC PLT	4	
2		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
3		405001	NUT-1/4 NC FLG WHIZ LOCK	3	
4		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	6	
5		235683001	MOUNT-MANUAL BOX	1	
6		235733001	BOLT-1/4-20X1/2 GR8 ZINC PLTD	3	
7		142410001	CASE-6"X9 XCX X1" OPERATOR MANUAL	1	
8		142954001	CABLE-.068DIA.NYLON CT.-36.00	1	
9		142423001	CRIMP-CABLE (FOR.068DIA.CABLE)	2	
10		296260962	D20X22 MANUAL ASSY - CABLED o1.00	1	Inc. Ref 8 & 9
11		151815001	VHS HOLDER DOUBLE	1	
12		144145001	VHS - HOLDER	1	
13		251803001	VIDEO - DRILL ROD OPERATION AND MAINTENANCE	1	
14		105400X98	OM D20X22 (EN) 1.00	1	
15		105400Y00	MM D20X22 (EN) 1.00	1	
16		105400ZGM	PM - D20X22 ENG p1.00	1	
17		105400T09	PM - NAVIGATOR BORING TOOLS p4.00	1	
18		144144001	NOTEBOOK BINDER - 2"-3 XCX	1	
19		7000B222	DECAL -HORIZONTAL DRILL - RESOURCE LIB.	1	
20		105400T90	HDD OPERATIONS & SAFETY VIDEO GUIDEBOOK	1	
21		2326940	DECAL-NOTICE TO OWNERS	1	
22		296264888	VIDEO - REMOTE LOCKOUT	1	
23		296264887	VIDEO-OPERATIONS/SAFETY HDD&TRKNG EQUIP	1	

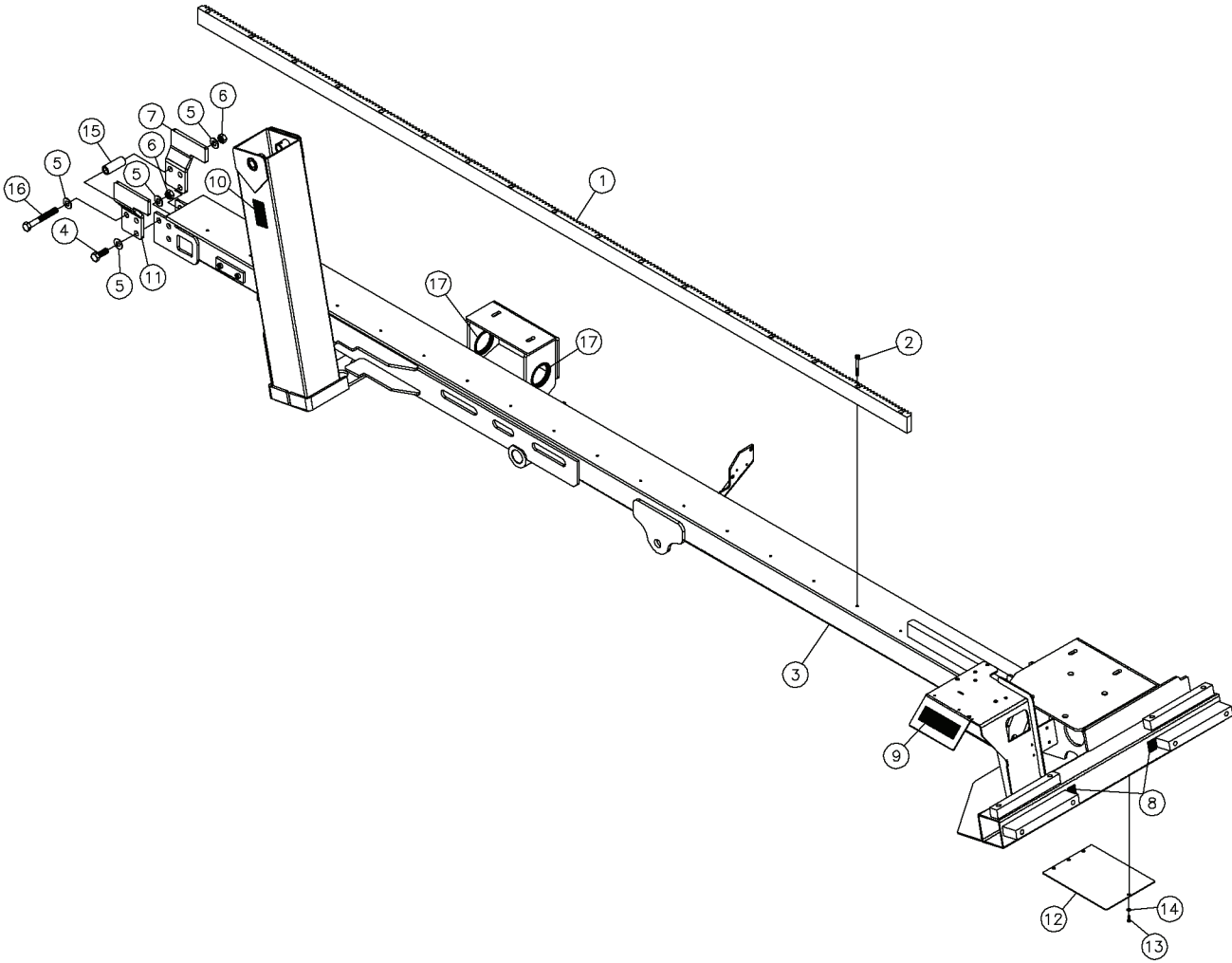
Rack (S/N 183-) Fig 2-1r02



Rack (S/N 183-) Fig 2-1r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Update In Illustration.
1		288122001	GEAR - RACK	1	
2		4478030	SCREW-3/8-16X3 SOCKET HEAD CAP	17	
3	*	296279728	RACK - D18X22	1	S/N 183 & Up
4		235746001	BOLT-3/4-10X2 GR8 HEX ZNC PLTD	4	
5		235717001	WASHER-3/4 FLAT HARDENED YELLOW ZINC	10	
6		235739001	NUT-3/4-10 GR8 ZINC PLTD	5	
7		296270778	PLATE - LEFT STOP	1	
8		7000I834	DECAL - TIE DOWN POINT	2	
9		700IB959	DECAL - STAKEDOWN	1	
10		7000B304	DECAL - WARNING	1	
		700IB304	DECAL - WARNING	1	International
11		296270779	PLATE - RIGHT STOP	1	
12		296266664	COVER - ACCESS	1	
13		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
15		296273257	TUBE-STOP SPACER	1	
16		385064	SCREW - HCS -3/4-10X6 1/2 GR 8 YZ	1	
17		278774001	SEAL - EDGE 1/2" STYLE	A/R	

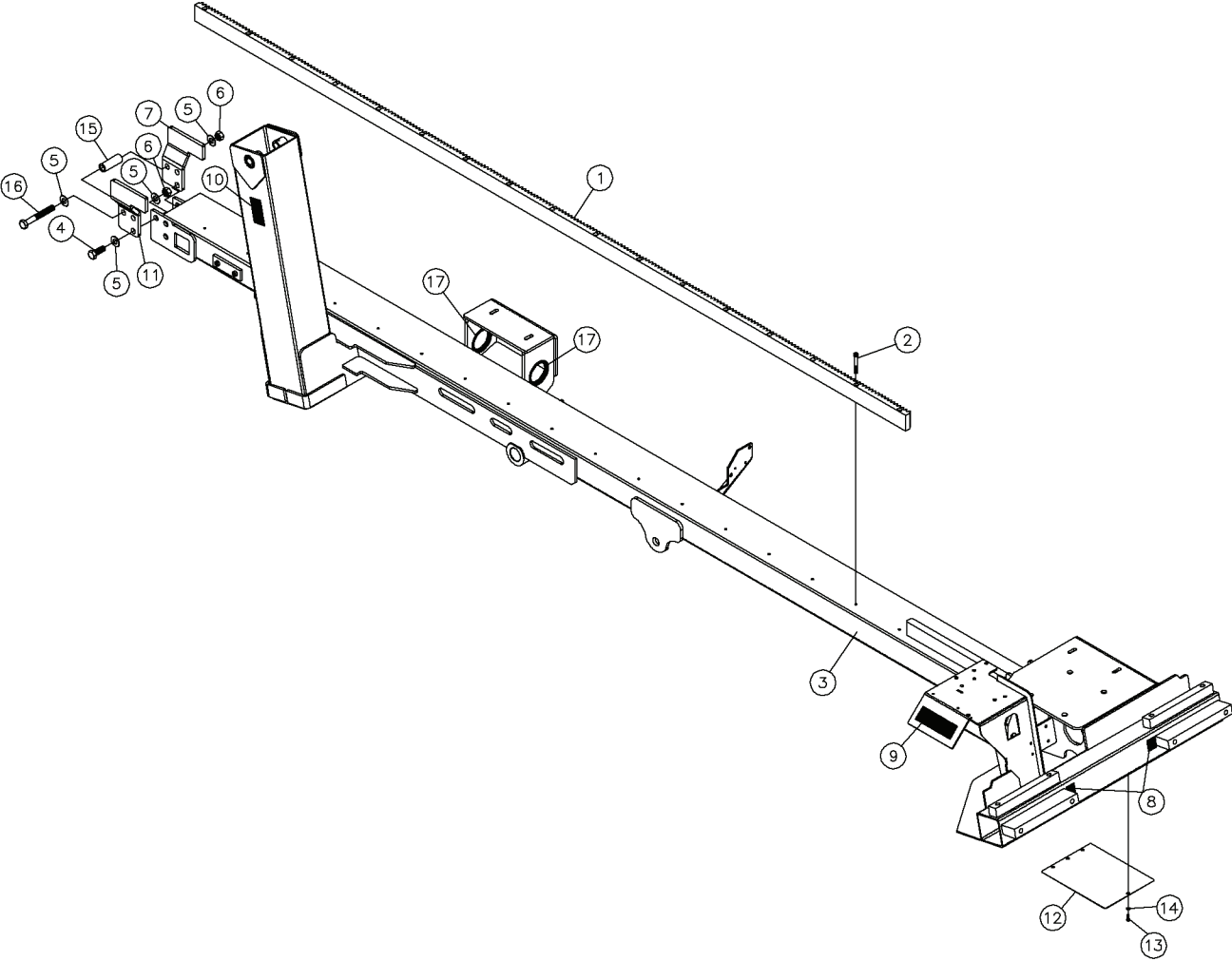
Rack Fig 2-1r01



Rack Fig 2-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration.
1		288122001	GEAR - RACK	1	
2		4478030	SCREW-3/8-16X3 SOCKET HEAD CAP	17	
3		296279728	RACK - D18X22	1	
4		235746001	BOLT-3/4-10X2 GR8 HEX ZNC PLTD	4	
5		235717001	WASHER-3/4 FLAT HARDENED YELLOW ZINC	10	
6		235739001	NUT-3/4-10 GR8 ZINC PLTD	5	
7		296270778	PLATE - LEFT STOP	1	
8		7000I834	DECAL - TIE DOWN POINT	2	
9		700IB959	DECAL - STAKEDOWN	1	
10		7000B304	DECAL - WARNING	1	
		700IB304	DECAL - WARNING	1	International
11		296270779	PLATE - RIGHT STOP	1	
12		296266664	COVER - ACCESS	1	
13		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
15		296273257	TUBE-STOP SPACER	1	
16		385064	SCREW - HCS -3/4-10X6 1/2 GR 8 YZ	1	
17		278774001	SEAL - EDGE 1/2" STYLE	A/R	

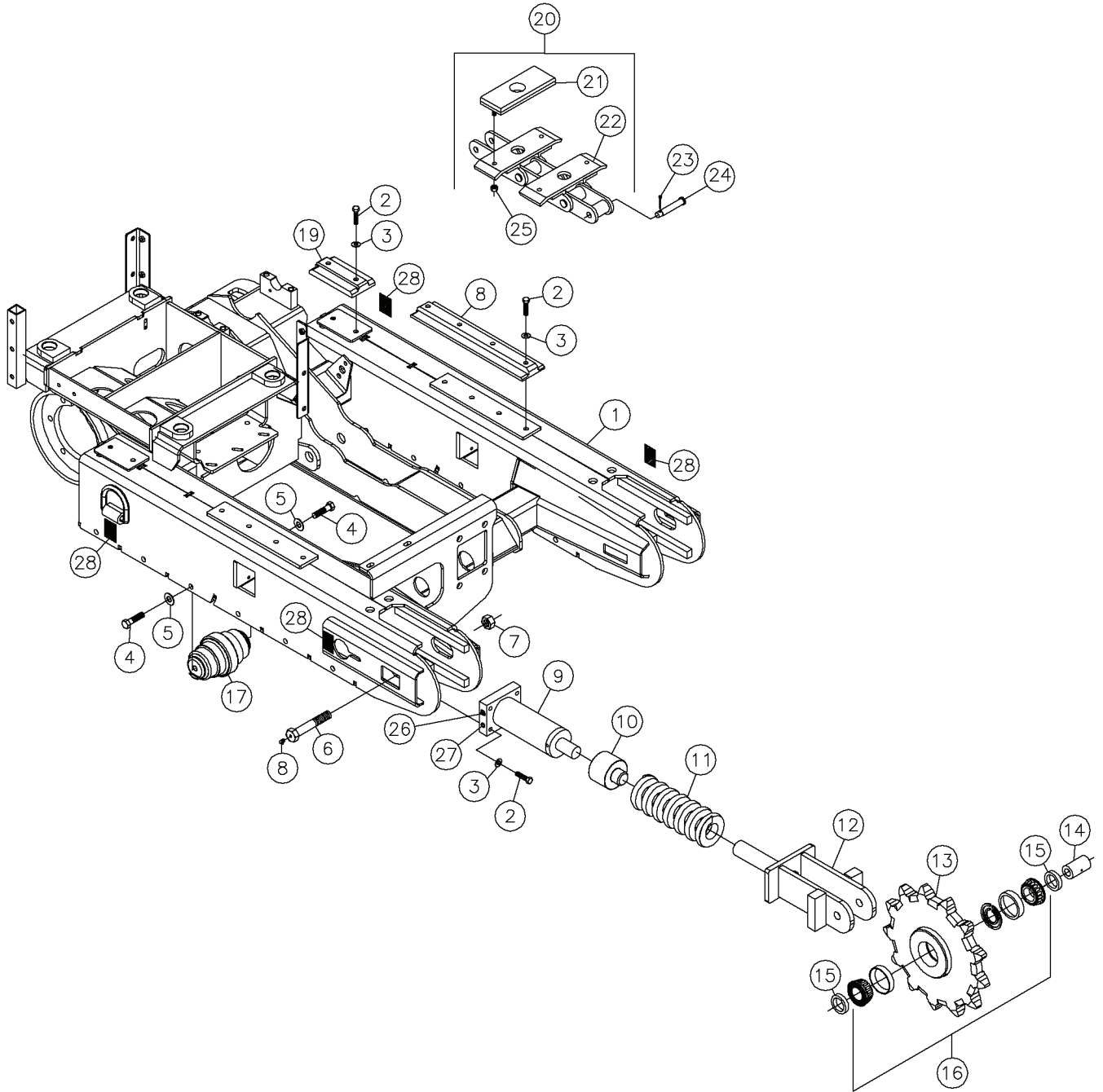
Rack Fig 2-1



Rack Fig 2-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		288122001	GEAR - RACK	1	
2		4478030	SCREW-3/8-16X3 SOCKET HEAD CAP	17	
3		296279728	RACK - D18X22	1	
4		235746001	BOLT-3/4-10X2 GR8 HEX ZNC PLTD	4	
5		235717001	WASHER-3/4 FLAT HARDENED YELLOW ZINC	10	
6		235739001	NUT-3/4-10 GR8 ZINC PLTD	5	
7		296270778	PLATE - LEFT STOP	1	
8		7000I834	DECAL - TIE DOWN POINT	2	
9		700IB959	DECAL - STAKEDOWN	1	
10		7000B304	DECAL - WARNING	1	
		700IB304	DECAL - WARNING	1	International
11		296270779	PLATE - RIGHT STOP	1	
12		296266664	COVER - ACCESS	1	
13		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
15		296273257	TUBE-STOP SPACER	1	
16		385064	SCREW - HCS -3/4-10X6 1/2 GR 8 YZ	1	
17		278774001	SEAL - EDGE 1/2" STYLE	A/R	

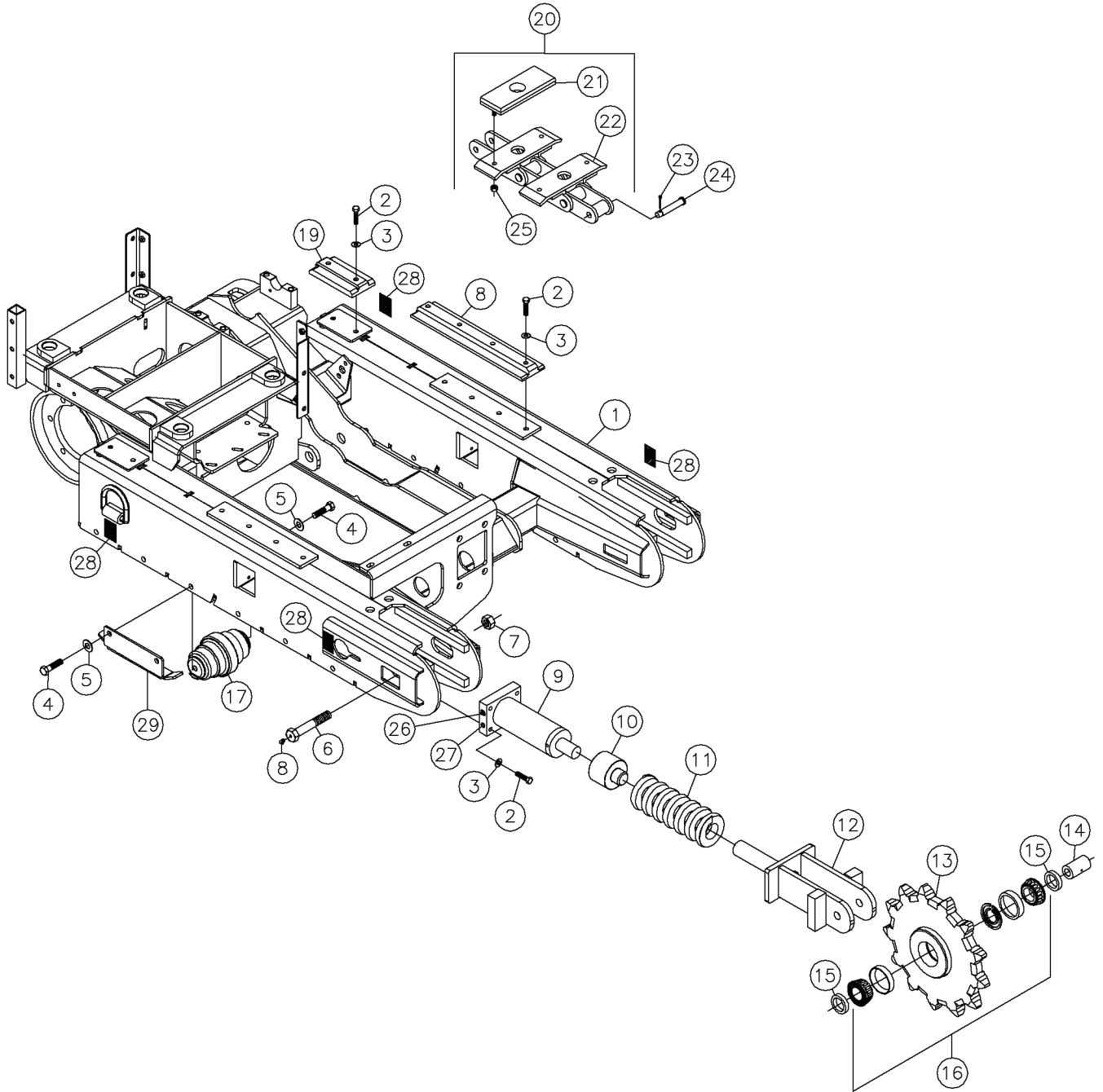
Undercarriage/Track (S/N 309-) Fig 2-2r01



Undercarriage/Track (S/N 309-) Fig 2-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	March, 2007		Change Rollers
1		296257422	WELDMENT - MAIN UNDERCARRIAGE	1	
2		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	20	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	20	
4		508477030	SCREW-HCS,M14-2.00X30,10.9,YZ,ISO4017,FT	24	
5		508486014	WASHER-FLAT, HARDENED, M14, YZ, DIN6916	24	
6		240329001	BOLT-TRACK IDLER 26184	2	
7		397001	NUT-3/4-10 GR 8 SLTL	2	
8		598001	FITTING-1/4" NF ST GREASE ZERK	2	
9		251097001	CYLINDER - 2.50 X 4.50 GREASE	2	Inc Ref 26 & 27
		251097009	PISTON ROD (INCL. PISTON)	2	
		251097015	SEAL KIT	2	
10		296269281	CAP-ROD	2	
11		289057001	SPRING - 3 5/16OD X 8 1/4H X 27/32 W	2	
12		296266515	WELDMENT - FRONT IDLER	2	
13		296261330	SPROCKET - 10 TOOTH IDLER	2	
14		240327001	TUBE-BEARING IDLER	2	
15		240328001	TUBE-BEARING SPACER	4	
16		217234001	BEARING SET-1 3/8" ROLLER	2	
17	*	296299003	ROLLER - LOWER	12	(S/N 309-)
18		275034001	BAR - TRACK SLIDE	2	
19		275035001	BAR - TRACK WEAR	2	
20		296257240	TRACK - STEEL W/RUBBER PADS	2	Inc. Ref 21, 22, & 25
21		289066001	PAD - RUBBER TRACK	56	
22		296266591	TRACK - STEEL	2	
23		510047	PIN - 3/16 X 1 1/4 COTTER	2	
24		289143001	PIN - TRACK	2	
25		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	112	
26		586001	ZERK-1/8" ST NPT GREASE	2	
27		251097013	CHECK VALVE	2	
28		7000I834	DECAL - TIE DOWN POINT	4	

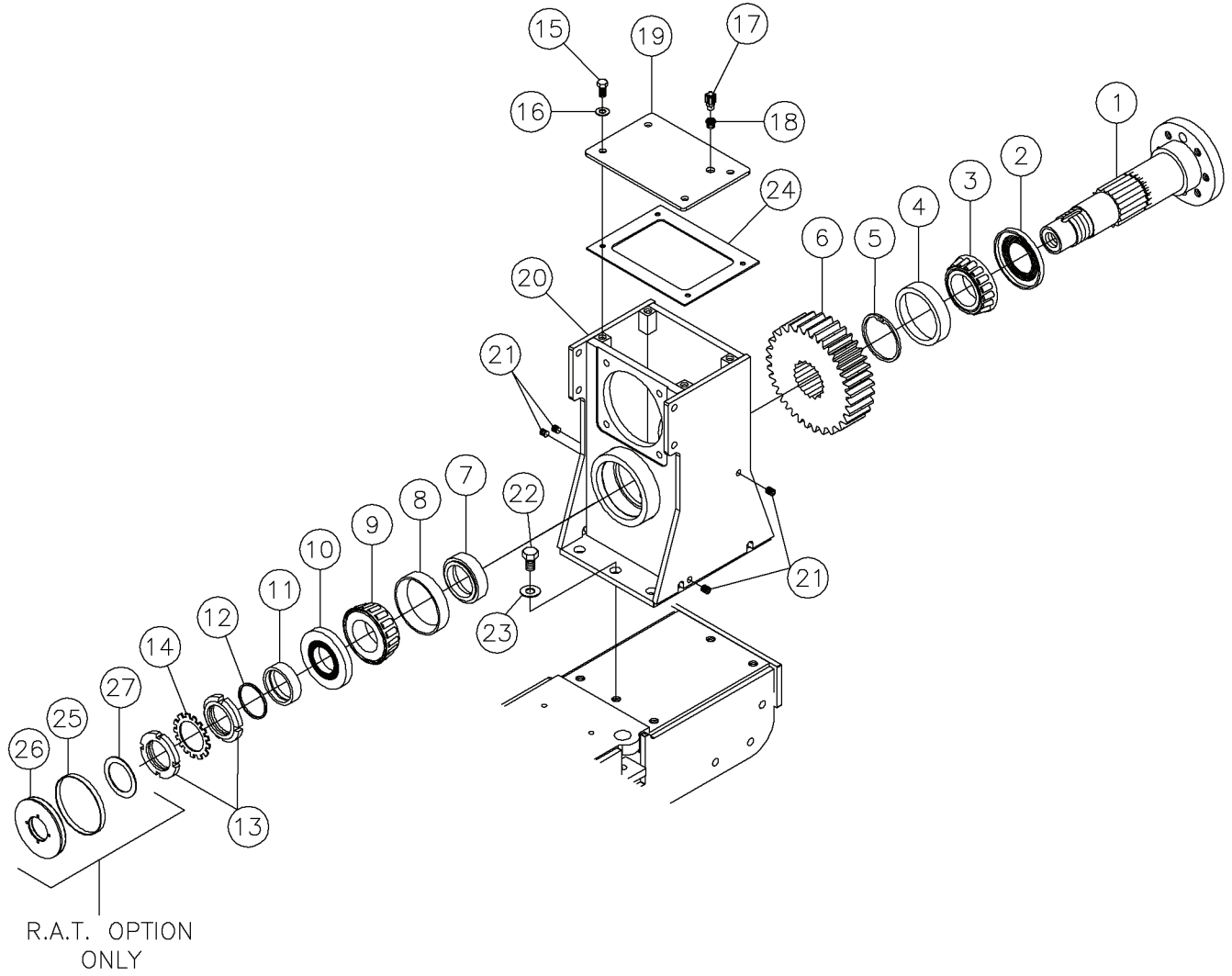
Undercarriage/Track Fig 2-2



Undercarriage/Track Fig 2-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	June, 2007		Added Roc Guard Plate
1		296257422	WELDMENT - MAIN UNDERCARRIAGE	1	
2		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	20	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	20	
4		508477040	SCREW-HCS,M14-2.00X40,10.9,YZ,ISO4017,FT	24	
5		508486014	WASHER-FLAT, HARDENED, M14, YZ, DIN6916	24	
6		240329001	BOLT-TRACK IDLER 26184	2	
7		397001	NUT-3/4-10 GR 8 SLTL	2	
8		598001	FITTING-1/4" NF ST GREASE ZERK	2	
9		251097001	CYLINDER - 2.50 X 4.50 GREASE	2	Inc Ref 26 & 27
		251097009	PISTON ROD (INCL. PISTON)	2	
		251097015	SEAL KIT	2	
10		296269281	CAP-ROD	2	
11		289057001	SPRING - 3 5/16OD X 8 1/4H X 27/32 W	2	
12		296266515	WELDMENT - FRONT IDLER	2	
13		296261330	SPROCKET - 10 TOOTH IDLER	2	
14		240327001	TUBE-BEARING IDLER	2	
15		240328001	TUBE-BEARING SPACER	4	
16		217234001	BEARING SET-1 3/8" ROLLER	2	
17		296266663	ROLLER - LOWER	12	
18		275034001	BAR - TRACK SLIDE	2	
19		275035001	BAR - TRACK WEAR	2	
20		296257240	TRACK - STEEL W/RUBBER PADS	2	Inc. Ref 21, 22, & 25
21		289066001	PAD - RUBBER TRACK	56	
22		296266591	TRACK - STEEL	2	
23		510047	PIN - 3/16 X 1 1/4 COTTER	2	
24		289143001	PIN - TRACK	2	
25		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	112	
26		586001	ZERK-1/8" ST NPT GREASE	2	
27		251097013	CHECK VALVE	2	
28		70001834	DECAL - TIE DOWN POINT	4	
29	*	296289187	PLATE-ROCK GUARD	12	

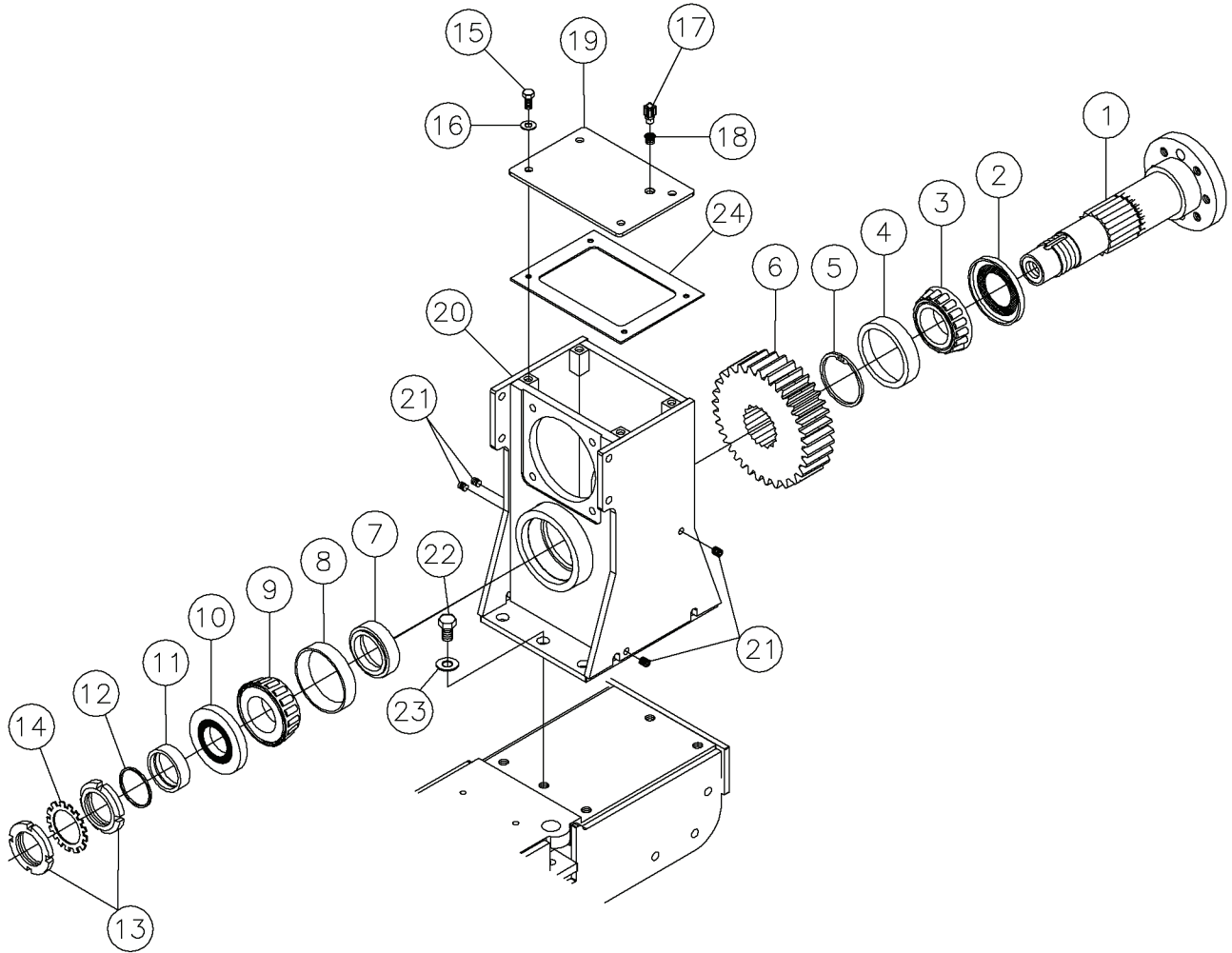
Rotation Gearbox Fig 2-3r01



Rotation Gearbox Fig 2-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296269260	SHAFT ROTATION	1	
2		240266001	SEAL-4.501ODX3.125IDX.438 WIDE	1	
3		4771061	BRG. CONE 3994	1	
4		1715013	TIMKEN CUP-2 1/2" #3920	1	
5		224896250	SNAP RING-2 1/2" EXTERNAL	1	
6		235609001	GEAR 55 TOOTH	1	
7		235627001	TUBE-GEAR SPACER	1	
8		1715001	TIMKEN CUP-2 1/4" #382A	1	
9		1716097	CONE-2 1/8" BRG.	1	
10		214201001	SEAL-#25100	1	
11		229433001	SLEEVE-SEAL	1	
12		214202001	O-RING #138	1	
13		214200001	LOCKNUT-SLOTTED 2"-18 NF	2	
14		94594007	LOCKWASHER-2.844DIA.OVER TANGS	1	
15		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
16		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
17		599001	BREATHER VENT-1/8 NPT 131000	1	
18		730037	PIPE BUSHING-3/8 X 1/8 STEEL	1	
19		288175001	COVER - GEARBOX TOP	1	
20		288189001	GEARBOX - MACHINED	1	
21		287503001	PLUG - 3/8" PIPE HOLLOW HEX	4	
22		235730001	BOLT-5/8-11X1 1/4 GR8 ZINC PLT	6	
23		235715001	WASHER-5/8 SAE HARD ZINC PLTD	6	
24		288183001	GASKET - GEARBOX	1	
25		234814001	60 PULSE RING	1	R.A.T. Option Only
26		296265385	MOUNT - PULSE RING - D36X50II	1	R.A.T. Option Only
27		296286253	WASHER - 1.96 X 2.68 X .093 (BUNA-N)	1	R.A.T. Option Only

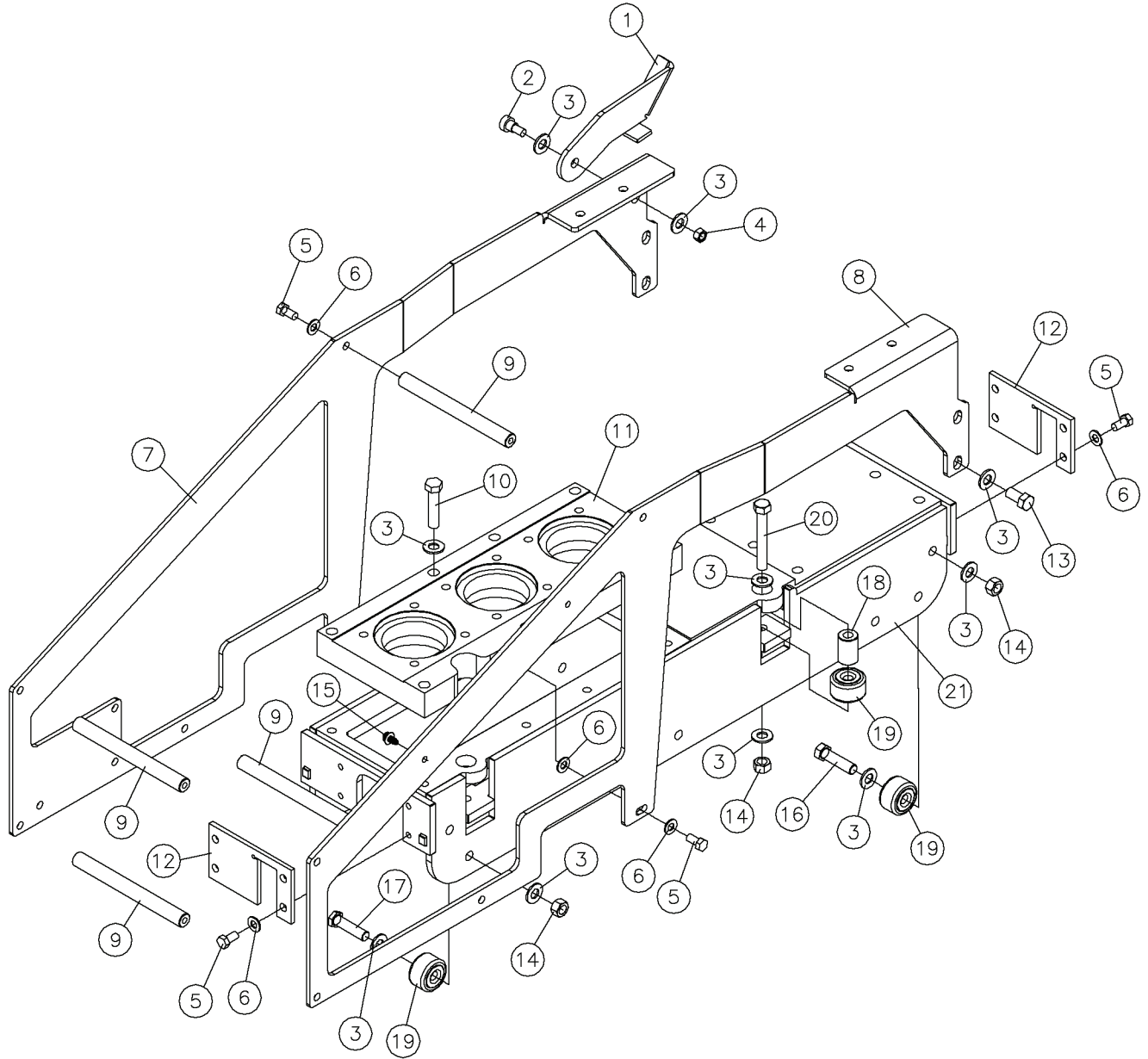
Rotation Gearbox Fig 2-3



Rotation Gearbox Fig 2-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269260	SHAFT ROTATION	1	
2		240266001	SEAL-4.501ODX3.125IDX.438 WIDE	1	
3		4771061	BRG. CONE 3994	1	
4		1715013	TIMKEN CUP-2 1/2" #3920	1	
5		224896250	SNAP RING-2 1/2" EXTERNAL	1	
6		235609001	GEAR 55 TOOTH	1	
7		235627001	TUBE-GEAR SPACER	1	
8		1715001	TIMKEN CUP-2 1/4" #382A	1	
9		1716097	CONE-2 1/8" BRG.	1	
10		214201001	SEAL-#25100	1	
11		229433001	SLEEVE-SEAL	1	
12		214202001	O-RING #138	1	
13		214200001	LOCKNUT-SLOTTED 2"-18 NF	2	
14		94594007	LOCKWASHER-2.844DIA.OVER TANGS	1	
15		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
16		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
17		599001	BREATHER VENT-1/8 NPT 131000	1	
18		730037	PIPE BUSHING-3/8 X 1/8 STEEL	1	
19		288175001	COVER - GEARBOX TOP	1	
20		288189001	GEARBOX - MACHINED	1	
21		287503001	PLUG - 3/8" PIPE HOLLOW HEX	4	
22		235730001	BOLT-5/8-11X1 1/4 GR8 ZINC PLT	6	
23		235715001	WASHER-5/8 SAE HARD ZINC PLTD	6	
24		288183001	GASKET - GEARBOX	1	

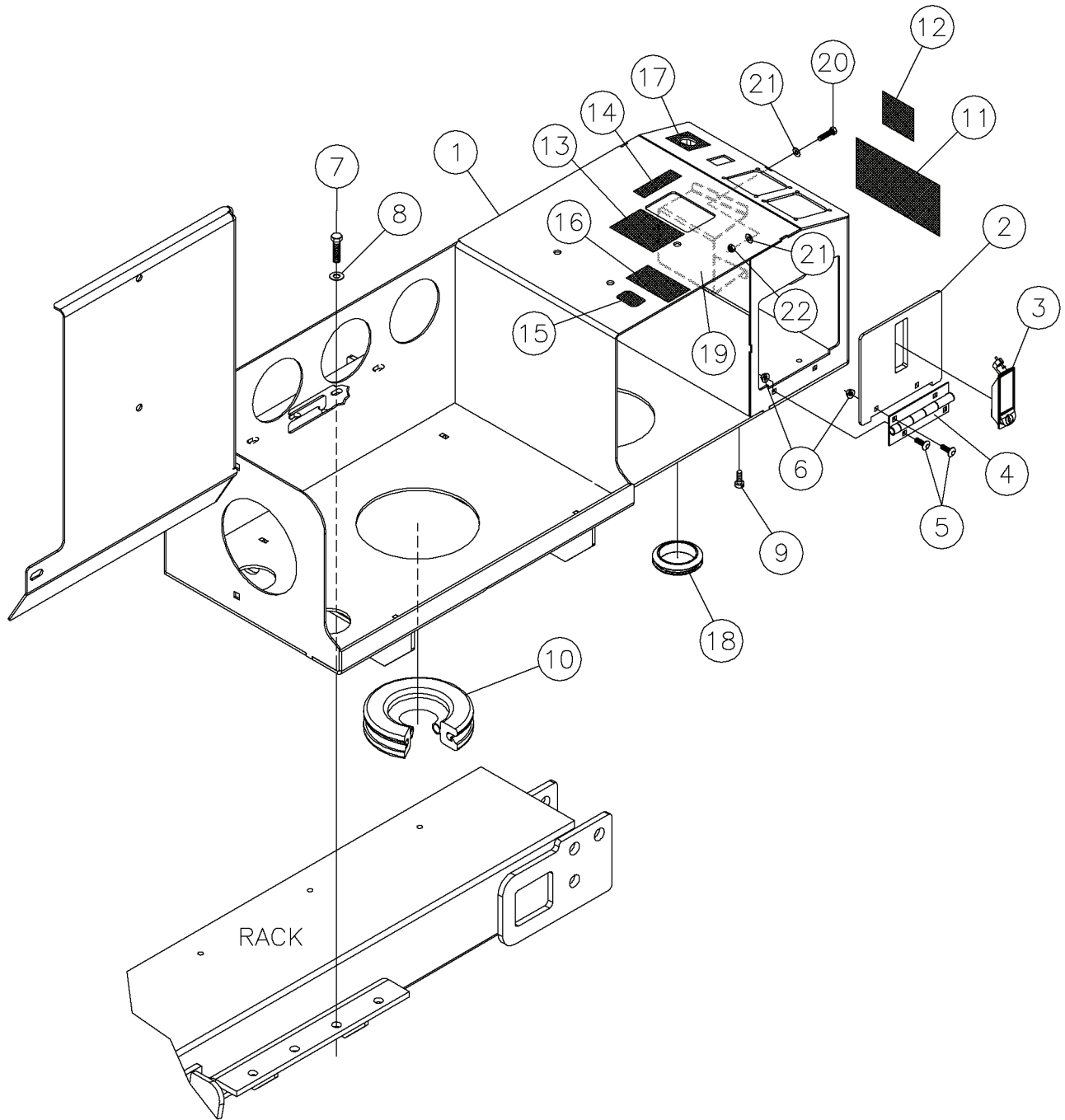
Carriage Fig 2-4



Carriage Fig 2-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296270767	CATCH - ROD INDICATOR	1	
2		296256038	SCREW - SHSS - .50X.38-.38-16 THD-CZ	1	
3		485025	WASHER-1/2 FLAT-HARDENED-YZ	34	
4		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	1	
5		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	18	
6		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	20	
7		296282065	PLATE - SIDE SUPPORT	1	
8		296282071	PLATE - SIDE SUPPORT	1	
9		296282063	SPACER - HOSE TRACK FRAME	4	
10		240335001	BOLT-1/2-13X2 1/4 GR8 ZINC PLT	8	
11		296282081	BLOCK-GEARBOX CARRIAGE	1	
12		288182001	COVER - RACK GEAR	2	
13		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	4	
14		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	10	
15		296276007	FIR TREE MOUNT	2	
16		296266694	BOLT - 1/2 - 13X2 GR8 MILLED HEAD	2	Upper 2 Bolts on Right Side
17		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	6	
18		288199001	BUSHING - CARRIAGE ROLLER	2	
19		296257282	BEARING - 1.75" OD ROLLER	10	
20		238241001	BOLT 1/2"-13X 3 1/2" GR8 HEX	2	
21		296282017	CARRIAGE - MOTOR	1	

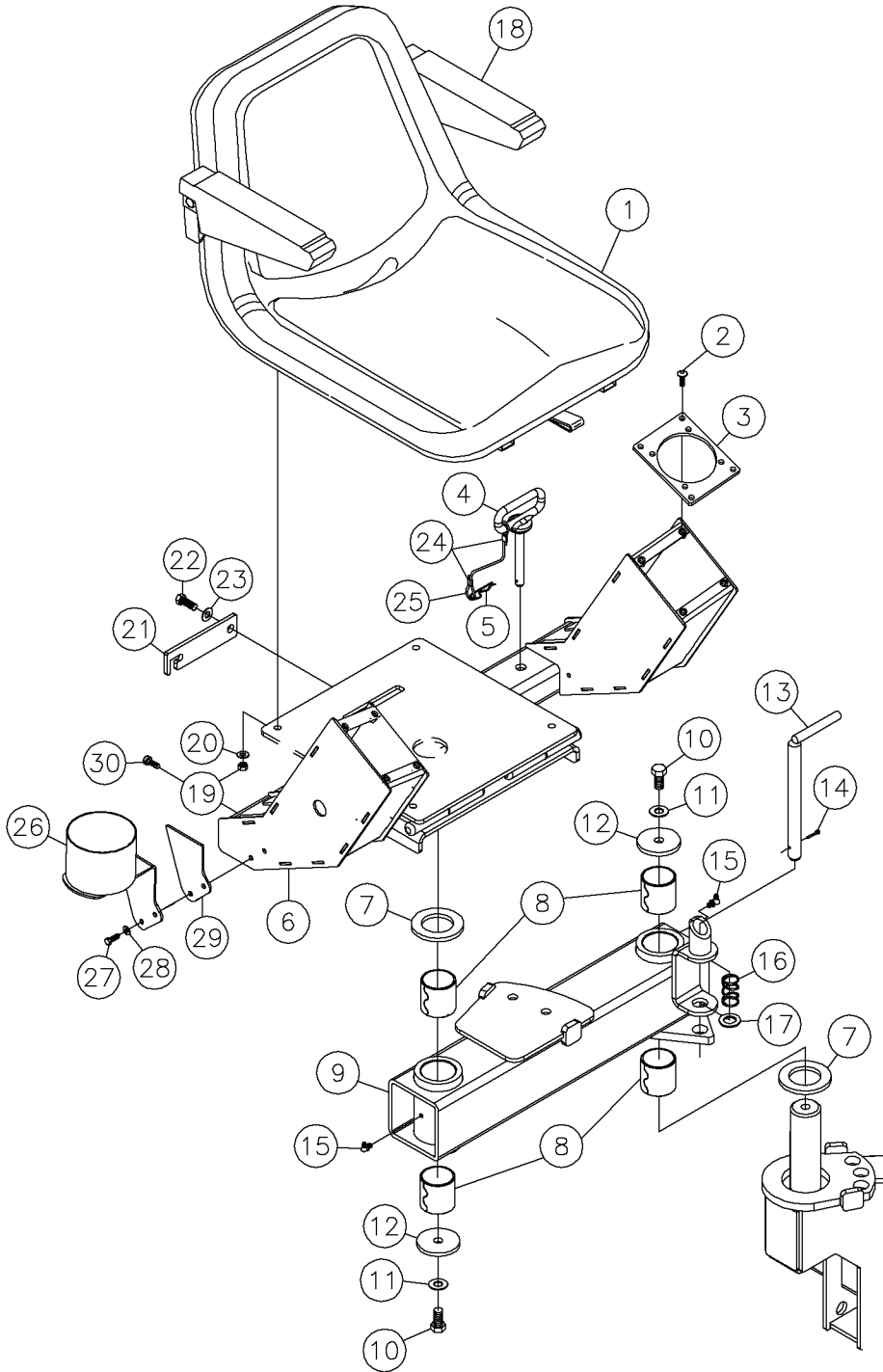
Rear Control Station Fig 2-5



Rear Control Station Fig 2-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269011	HOUSING - REAR CONTROL STATION	1	
2		296270755	DOOR - REMOTE LOCKOUT	1	
3		218080001	LATCH-ADJ.LEVER W/RAISED BUTTN(INC KEYS)	1	
4		251524001	HINGE - DOOR	1	
5		373005	BOLT-1/4-20X5/8 GR5 CARRIAGE	4	
6		1809005	NUT-1/4 SM FLGE T.L.	4	
7		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
8		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
9		278953001	ANCHOR - CABLE TIE	1	
10		219104001	SEAL-BULB EDGE 3/16" STYLE	A/R	Part Qty Of 1 = 1 Foot
11		7000A576	DECAL-DANGER	1	
		700IA576	DECAL-DANGER	1	International
12		700IB055	DECAL - TRACK DRIVE	1	
13		700IB961	DECAL - RACK LIFT / OUTRIGGER	1	
14		700IC035	DECAL-THROTTLE	1	
15		70000098	DECAL-DIESEL (AT/UND)	1	
		7000I098	DECAL-DIESEL FUEL	1	International
16		2326324	DECAL-WARNING/REFUEL	1	
		2326I324	DECAL-WARNING	1	International
17		7000C073	DECAL-E-STOP	1	
18		1865001	GROMMET - 1/4 X 2 1/2 (YELLOW)	1	
19		296280310	PLATE - REMOTE LOCKOUT HOLDER	1	
20		235735001	BOLT-1/4-20X1 GR8 HEX ZNC PLTD	2	
21		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
22		1809005	NUT-1/4 SM FLGE T.L.	2	

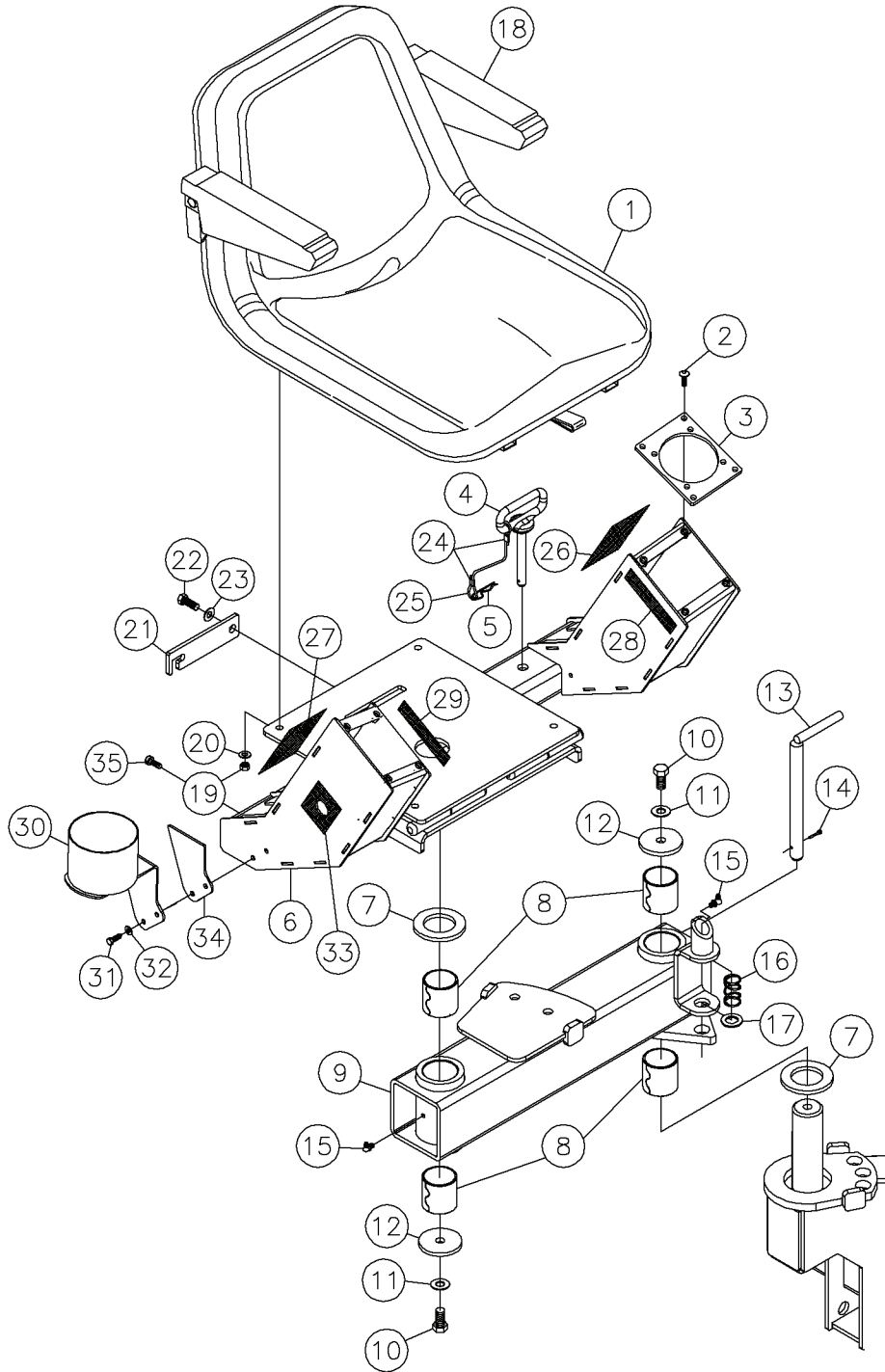
Seat Pivot Frame Fig 2-6r01



Seat Pivot Frame Fig 2-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	January, 2007		Remove Decals
1		279361001	SEAT - MILSCO W/ ONE FOAM PC.	1	
		279361003	SWITCH - SAFETY (SEALED)	1	
2		240419001	BOLT-1/4-20X3/4 BUTTON HEAD	8	
3		296273295	PLATE - JOYSTICK MOUNT	2	
4		295133001	PIN, HITCH .5 DIA	1	
5		1794003	HAIR PIN COTTER - .148 WIRE	1	
6		296273290	WELDMENT - SEAT SUPPORT	1	
7		296260403	SPACER - SEAT SWIVEL	2	
8		282797001	BUSHING - SPRING 2 X 1 3/4 X 2	4	
9		296260277	WELDMENT - SEAT ARM	1	
10		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	2	
11		485025	WASHER-1/2 FLAT-HARDENED-ZINC	2	
12		3808001	CAP-SHAFT	2	
13		296270826	PIN-SEAT PIVOT	1	
14		510009	COTTER PIN-1/8" X 1"	1	
15		588001	ZERK-1/8" NPT 45 DEG GREASE	2	
16		1803023	SPRING - COMP. #67 2" OA	1	
17		483025	WASHER-1 1/4X3/4X14 GA M.B.	1	
18		220238001	KIT-MILSCO OLYMPIC ARM REST	1	Inc. Mounting Bracket And Hardware
19		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
20		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
21		296260342	PLATE - PROP ROD	1	
22		240056001	SCREW-SHSS-.50X.50-.38-16THD-CZ	1	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
24		142423001	CRIMP-CABLE (FOR.068DIA.CABLE)	2	
25		142954001	CABLE-.068DIA.NYLON CT.-36.00	1	
26		236397001	HOLDLER-CUP/RADIO	1	
27		53653006	1/4-20X3/4 S TAP WA HD TYPE F	2	
28		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
29		296270851	RUBBER - CUP HOLDER	1	
30		278953001	ANCHOR - CABLE TIE	2	

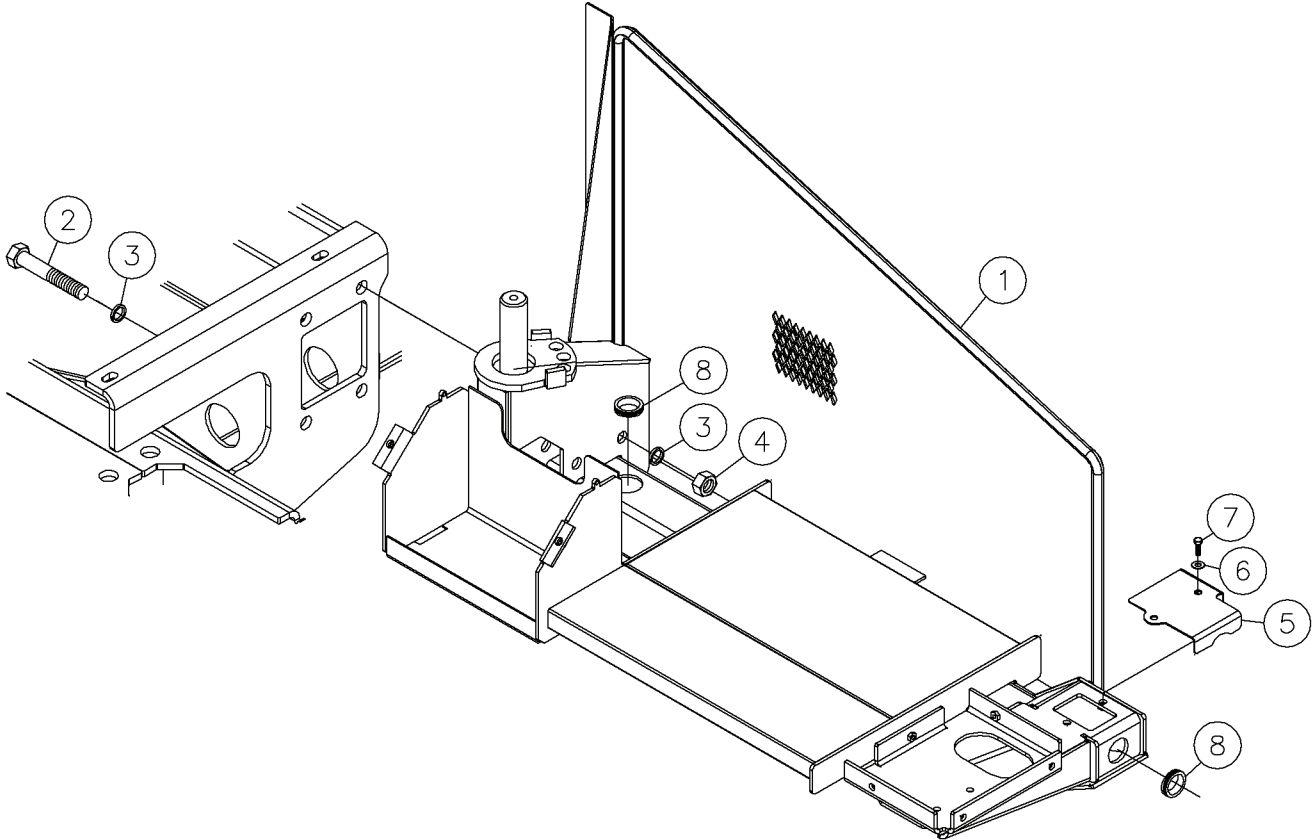
Seat Pivot Frame Fig 2-6



Seat Pivot Frame Fig 2-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		279361001	SEAT - MILSCO W/ ONE FOAM PC.	1	
		279361003	SWITCH - SAFETY (SEALED)	1	
2		240419001	BOLT-1/4-20X3/4 BUTTON HEAD	8	
3		296273295	PLATE - JOYSTICK MOUNT	2	
4		295133001	PIN, HITCH .5 DIA	1	
5		1794003	HAIR PIN COTTER - .148 WIRE	1	
6		296273290	WELDMENT - SEAT SUPPORT	1	
7		296260403	SPACER - SEAT SWIVEL	2	
8		282797001	BUSHING - SPRING 2 X 1 3/4 X 2	4	
9		296260277	WELDMENT - SEAT ARM	1	
10		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	2	
11		485025	WASHER-1/2 FLAT-HARDENED-ZINC	2	
12		3808001	CAP-SHAFT	2	
13		296270826	PIN-SEAT PIVOT	1	
14		510009	COTTER PIN-1/8" X 1"	1	
15		588001	ZERK-1/8" NPT 45 DEG GREASE	2	
16		1803023	SPRING - COMP. #67 2" OA	1	
17		483025	WASHER-1 1/4X3/4X14 GA M.B.	1	
18		220238001	KIT-MILSCO OLYMPIC ARM REST	1	Inc. Mounting Bracket And Hardware
19		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	4	
20		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
21		296260342	PLATE - PROP ROD	1	
22		240056001	SCREW-SHSS-.50X.50-.38-16THD-CZ	1	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
24		142423001	CRIMP-CABLE (FOR.068DIA.CABLE)	2	
25		142954001	CABLE-.068DIA.NYLON CT.-36.00	1	
26		700IB963	DECAL - LEFT JOYSTICK	1	
27		700IC685	DECAL - RIGHT JOYSTICK CONTROL	1	
28		700IB968	DECAL - LEFT JOYSTICK - ROTATION	1	
29		700IB967	DECAL - RIGHT JOYSTICK - THRUST	1	
30		236397001	HOLDER-CUP/RADIO	1	
31		53653006	1/4-20X3/4 S TAP WA HD TYPE F	2	
32		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
33		7000C073	DECAL-E-STOP	1	
34		296270851	RUBBER - CUP HOLDER	1	
35		278953001	ANCHOR - CABLE TIE	2	

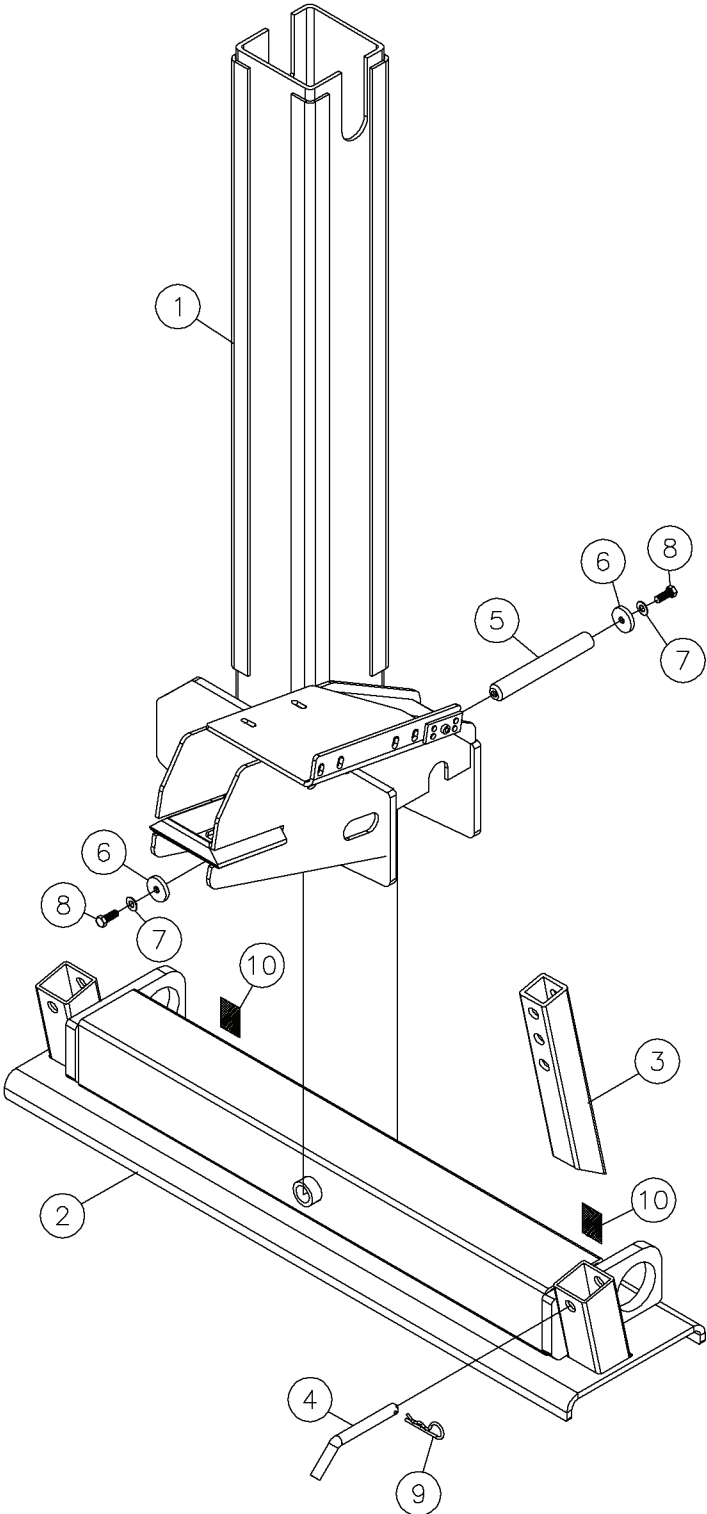
Seat Platform Fig 2-7



Seat Platform Fig 2-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296268944	WELDMENT - 707 CONSOLE/BATTERY TRAY	1	
2		235738001	BOLT-3/4-10X4 1/2 GR8 ZNC PLT	4	
3		235717001	WASHER-3/4 FLAT HARDENED YELLOW ZINC	8	
4		250510001	NUT 3/4 NC Gr8 SLTL Y/ZINC	4	
5		296266662	COVER - HARNESS ACCESS	1	
6		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
7		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	2	
8		1865001	GROMMET - 2875	2	

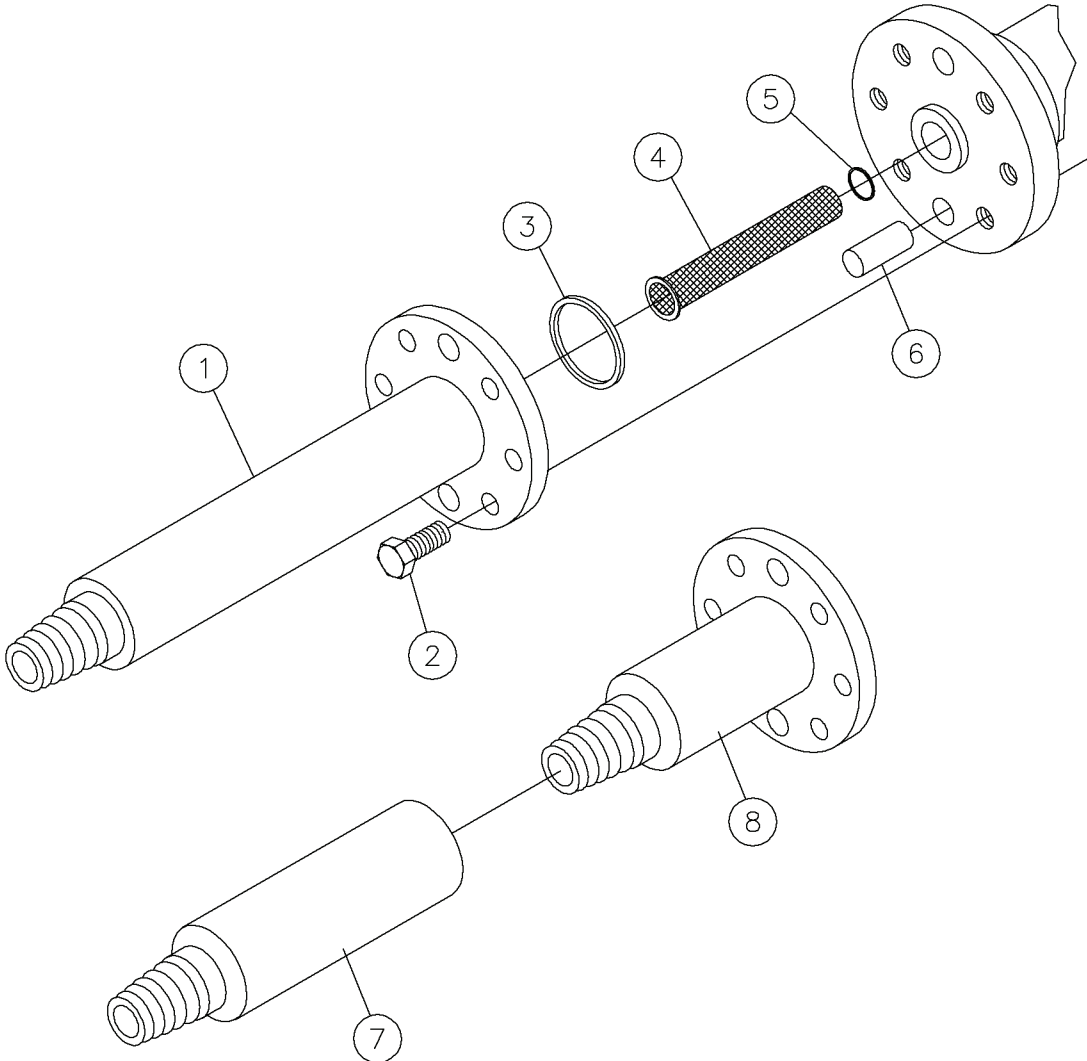
Outrigger Frame Fig 2-8



Outrigger Frame Fig 2-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266501	OUTRIGGER - RACK LIFT	1	
2		296266505	PAD - OUTRIGGER	1	
3		296266507	STAKE - OUTRIGGER PAD	2	
4		278124001	ROD - FOOT PIN	2	
5		278000001	PIN-OUTRIGGER	1	
6		240006001	CAP-END	2	
7		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
8		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	2	
9		1794003	HAIR PIN COTTER - .148 WIRE	2	
10		70001834	DECAL - TIE DOWN POINT	2	

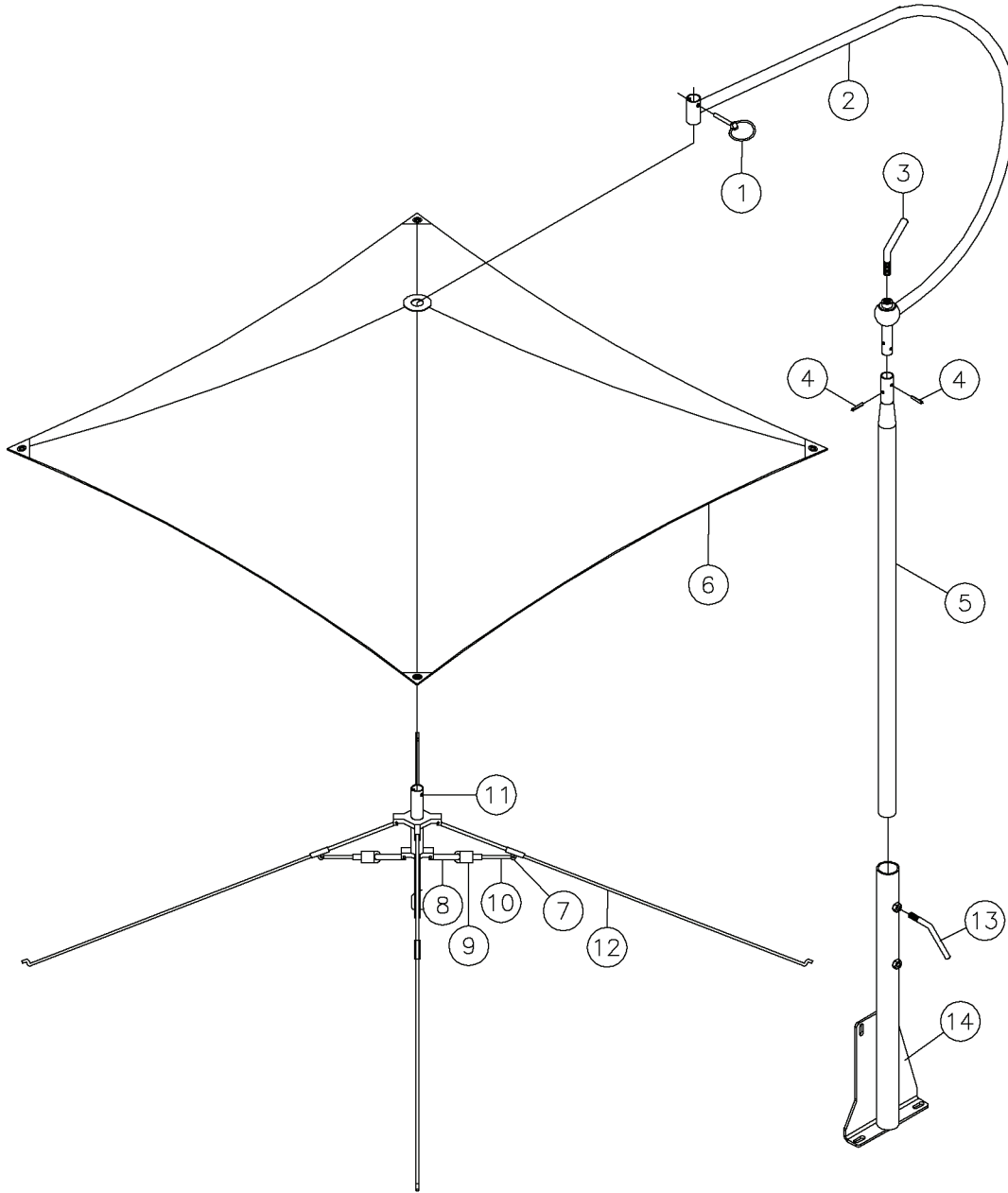
Drive Chuck Fig 2-9



Drive Chuck Fig 2-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		235751001	DRIVE CHUCK-2 1/8"OD	1	Use With 1.90" Drill Rod
2		235737001	BOLT-1/2-13X1 1/4 GR8 ZINC PLT	6	
3		72897001	O RING-SQ. #24 FLANGE	1	
4		905011001	SCREEN (DRILL FLUID)	1	
		905012001	SCREEN (WATER)	1	
5		904508001	WASHER-BLACK RUBBER	1	
6		70096001	PIN-DOWEL 5/8DIA.-1 1/2	1	
7		296279708	SUB 2-1/16 VERMEER THREAD	1	Use With 2.06" Drill Rod
8		296279707	DRIVE CHUCK - 2-1/4 OD	1	Use With 2.06" Drill Rod

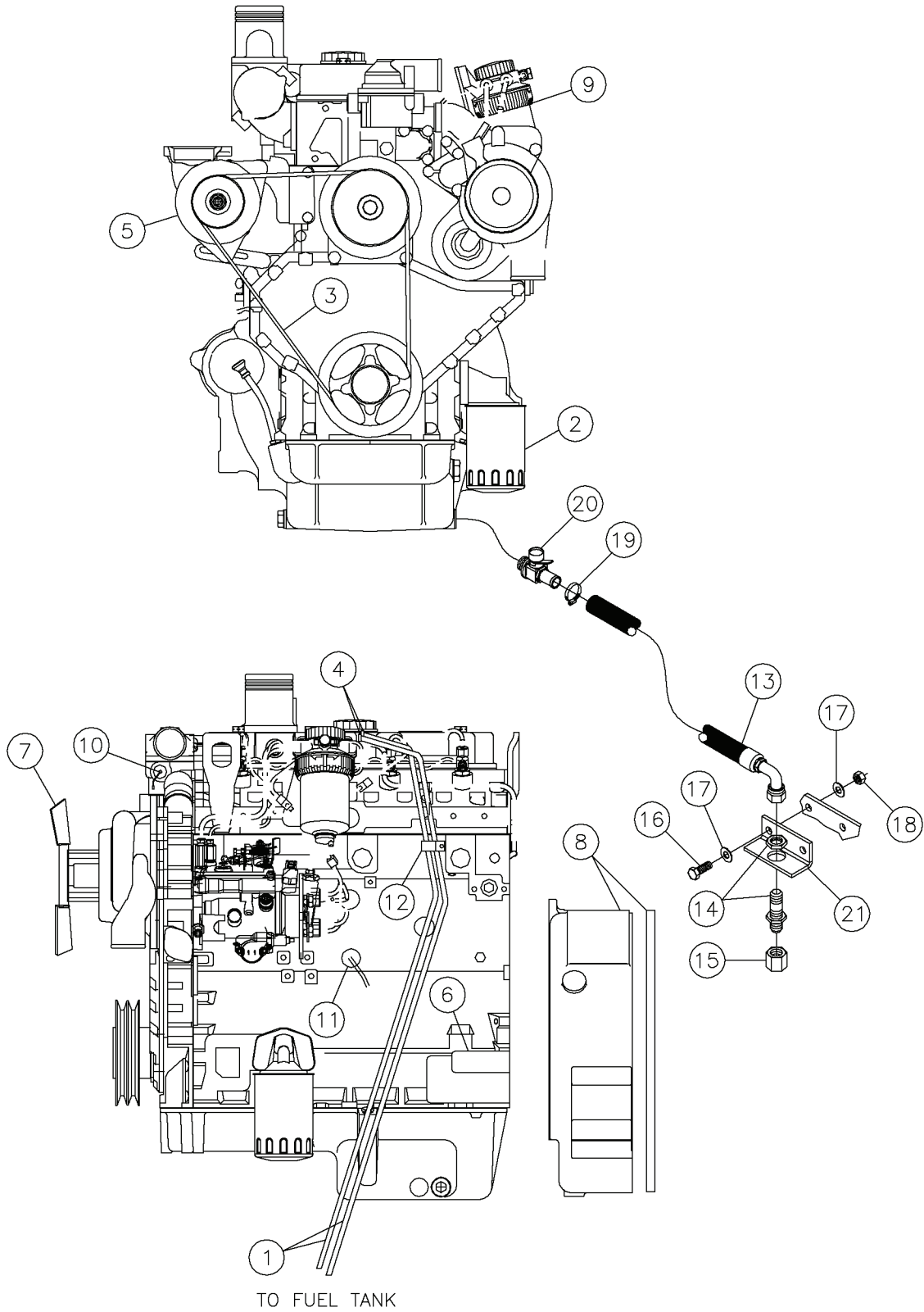
Umbrella Fig 2-10



Umbrella Fig 2-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		1797003	PIN-QUICK ATTACHMENT LATCH 1/4"-XCX 6M DIA"	1	
2		238181003	CURVED SHAFT	1	
3		238181005	LOCKING HANDLE	1	
4		1978011	PIN ROLL 3/16 X 1 ZINC	2	
5		238181007	SUPPORT SHAFT-UMBRELLA	1	
6		240103001	SHEATH-UMBRELLA	1	
7		238181011	RIVET-PUSH PIN	12	
8		238181013	TUBE-PUSH ROD	4	
9		238181015	CLIP-PUSH ROD LOCKING SPRING	4	
10		238181017	PUSH ROD	4	
11		238181019	CENTER TUBE W/ SPIDERS	1	
12		238181021	BOW W/ CLEVIS	4	
13		240038001	BOLT-TIGHTENING 3/8"	2	
14		296271408	MOUNT - UMBRELLA	1	
		238181001	UMBRELLA-ASSY (PARTS REPAIR)		Inc Ref No's 1-12
		240102001	FRAME-UMBRELLA		Inc Ref No's 2-5 & 7-12

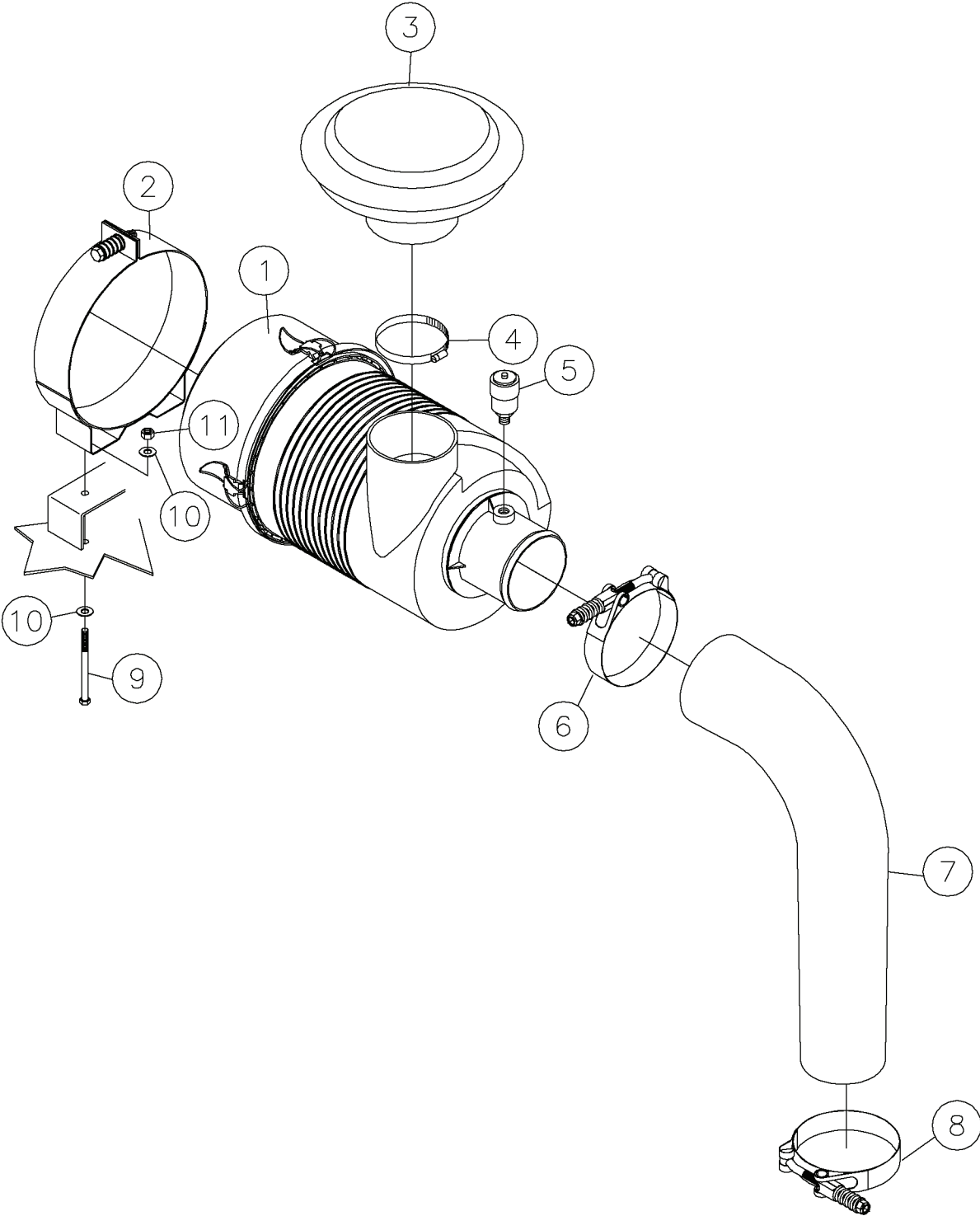
Engine Components Fig 3-1



Engine Components Fig 3-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		620001	HOSE - 5/16 FUEL LINE	A/R	P/N Qty. Of 1 = 1 Foot
2		296267174	OIL FILTER	1	
3		296267172	BELT - SET	2	
4		1580001	HOSE CLAMP - 3/8"	2	
5		296267176	ALTERNATER	1	
6		296275137	STARTER - DENSO P95 E0103	1	
7		296257239	FAN - 12 - BLADE SUCTION	1	
8		296267177	COUPLING ASSY	1	
9		296267175	FUEL FILTER	1	
10		296269282	SWITCH - WATER TEMPERATUR	1	
11		98678001	SWITCH-PRESSURE SIN POLE 9 PSI	1	
		3075001	FITTING-3300X2 WTHR-HD	1	
		4020001	FITTING-3326X2 WTHR-HD	1	
12		230965001	CLAMP-1 3/4" W/17/32 HOLE	1	Use Existing Engine Hardware
13		296275074	HOSE - DRAIN 5/8 X 8 X 10 FSJIC 90/ OPEN	1	
14		77734001	FITTING-10M JIC BULKHEAD STR.	1	
15		78062001	FITTING - CAP - 10FJ	1	
16		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	2	
17		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
18		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	
19		1580005	HOSE CLAMP - 1"	1	
20		296275077	VALVE - DRAIN	1	
21		296275076	MOUNT - BULKHEAD	1	

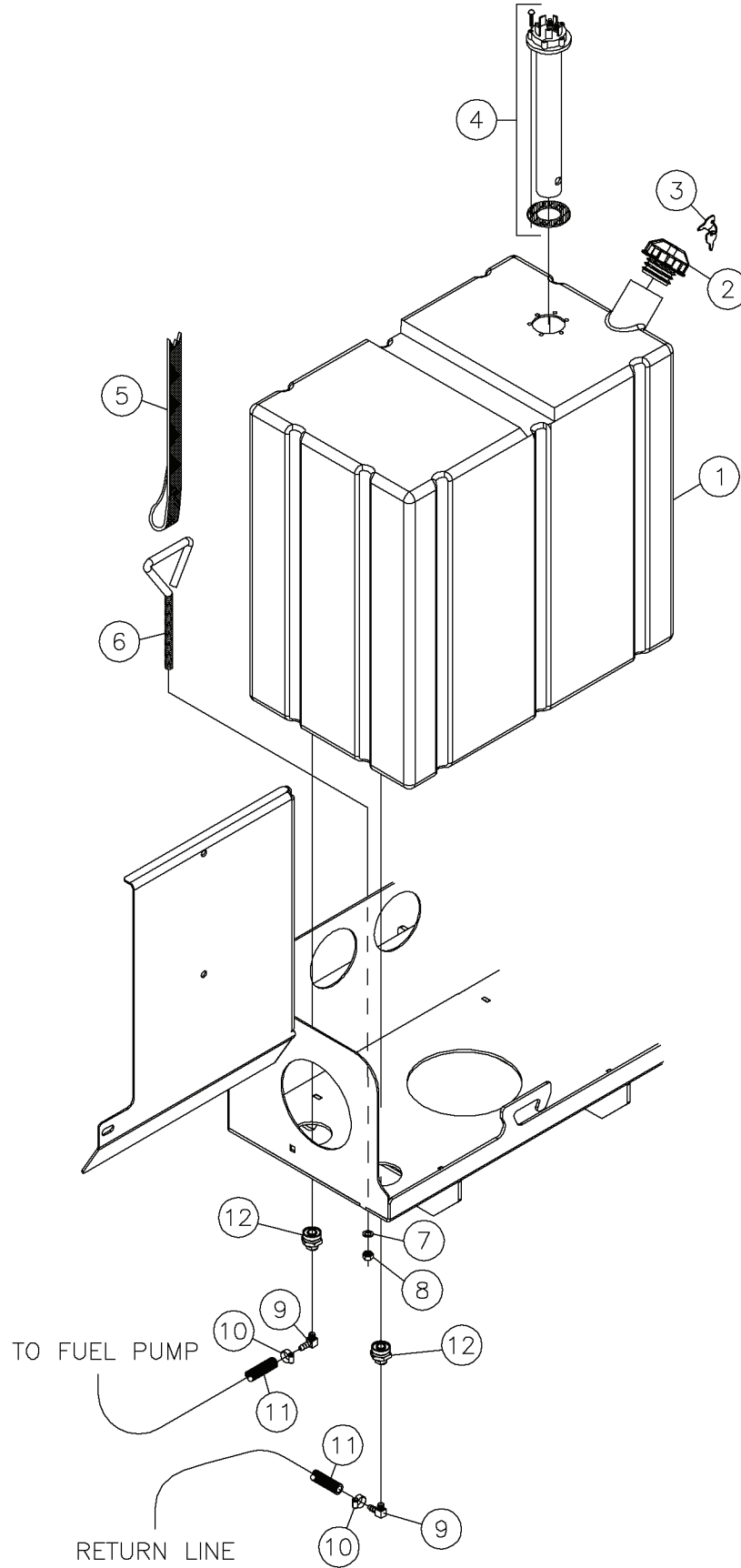
Air Cleaner Fig 3-2



Air Cleaner Fig 3-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		118496001	AIR CLEANER-FPG082525	1	Breakdown On Fig. 11-24
2		220167001	CLAMP-AIR CLEANER H00-2023	1	
3		2154001	CAP-GAH00-0466	1	
4		1580017	HOSE CLAMP - 3 3/4"	1	
5		2164001	INDICATOR - RAX00-2351	1	
6		100488001	CLAMP-AIR CLEANER T-BOLT 4"	1	
7		296269253	HOSE - AIR INTAKE	1	
8		286176001	CLAMP - T-BOLT HOSE 3.5" ID	1	
9		248013001	BOLT-5/16-18X3 1/2 GD8 ZINC PL	2	
10		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
11		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	

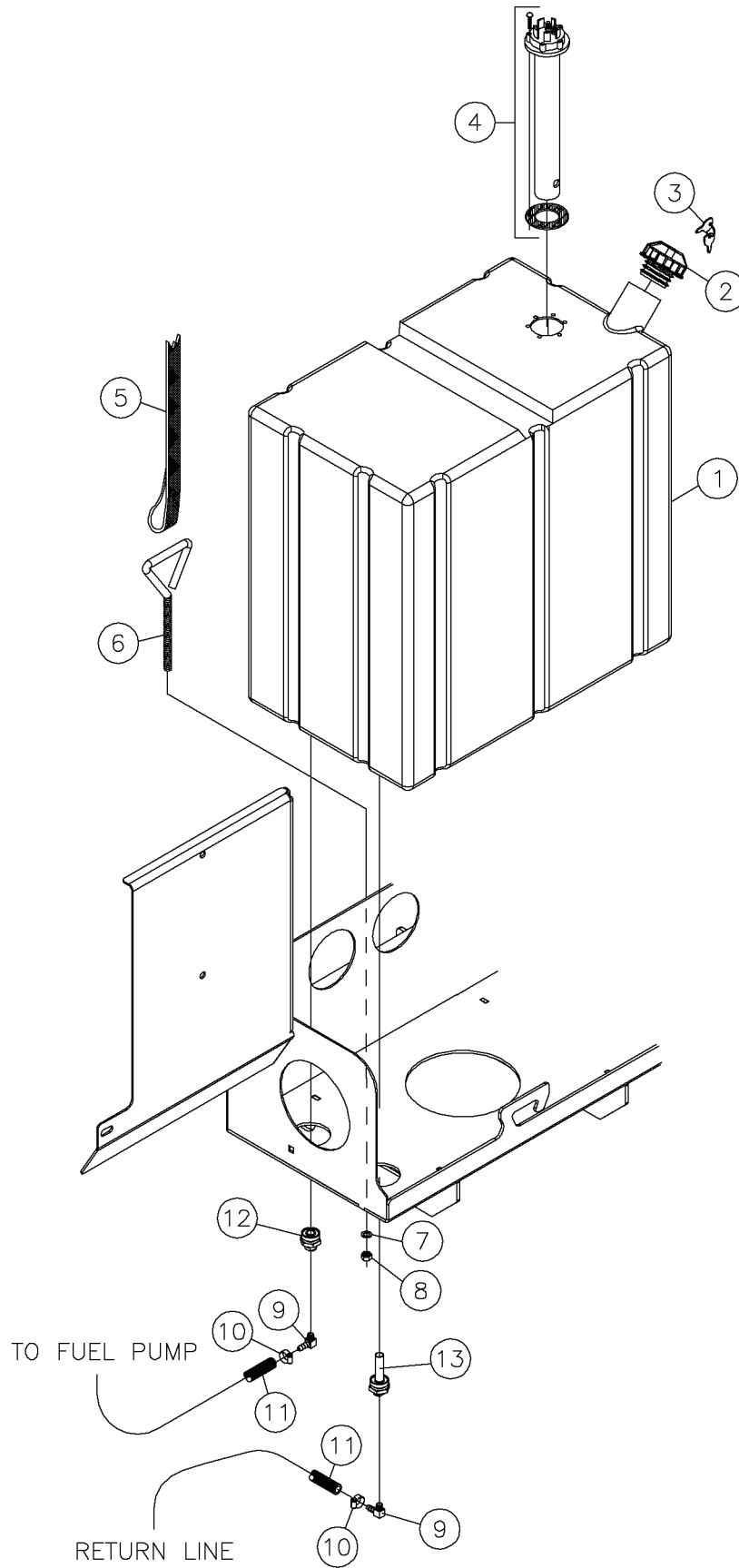
Fuel Tank Fig 3-3r01



Fuel Tank Fig 3-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296260388	TANK - 25 GALLON FUEL	1	
2		279326001	CAP - DIESEL FUEL W/LOCK	1	
3		296263412	KEYS	1	Includes Two Keys
4		292038001	SENDER - FUEL LEVEL	1	
		251538001	SENDER - FUEL LEVEL	1	
5		296270843	STRAP - TANK - NYLON - 2.0" X 44.0"	1	
6		903862001	BOLT-WATER TANK HOLD DOWN	1	
7		510337635	WASHER-FLATSAE-.38-.41X.81-16G-YZ	1	
8		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	1	
9		608118001	FITTING-1/4NPTX1/4HOSE BARB90	2	
10		1580001	HOSE CLAMP - 3/8"	4	
11		620001	HOSE - 5/16 FUEL LINE	A/R	P/n Qty Of 1 = 1 Foot
12		296280408	FITTING - FUEL TANK RETURN	2	

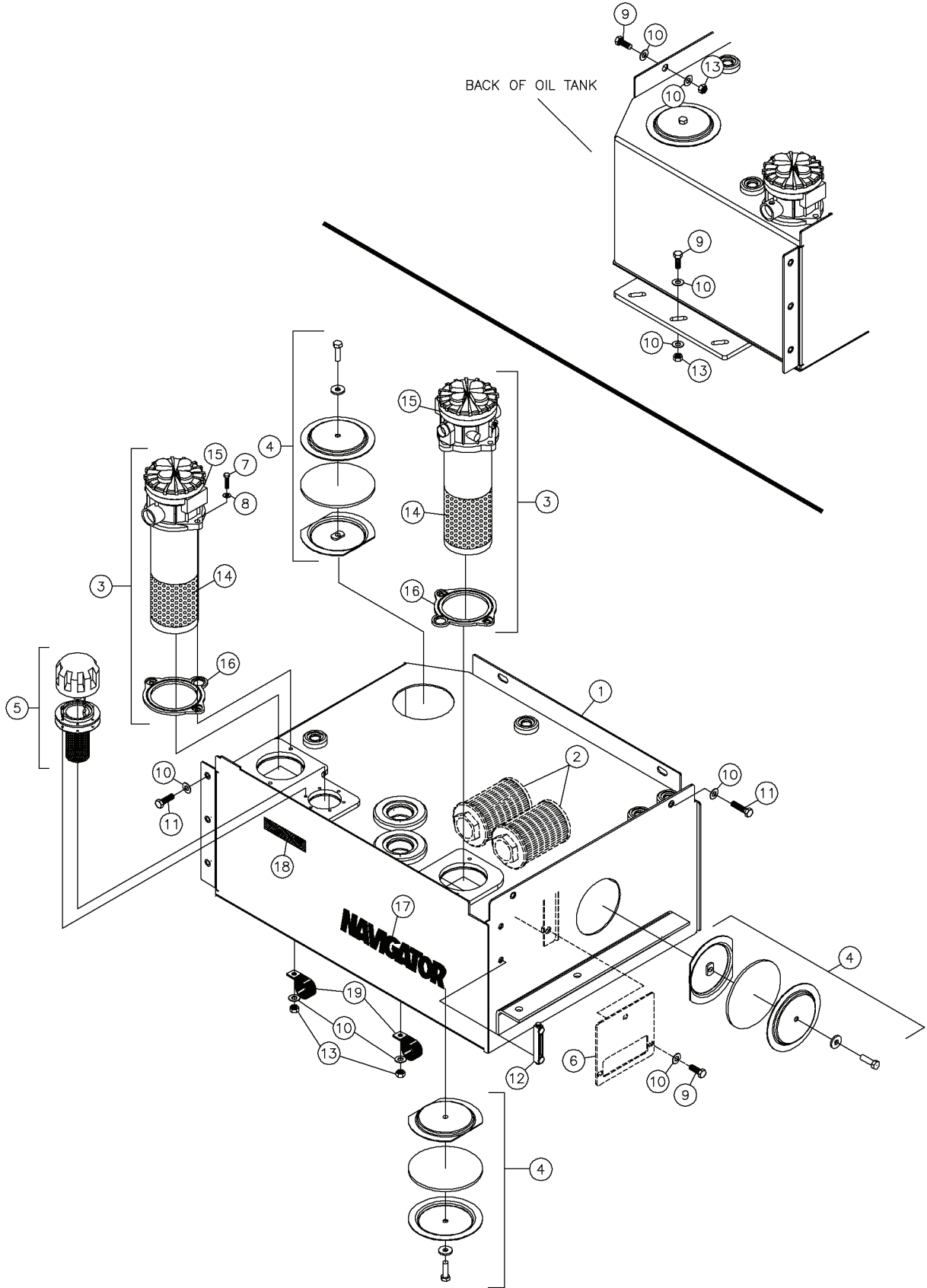
Fuel Tank Fig 3-3



Fuel Tank Fig 3-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296260388	TANK - 25 GALLON FUEL	1	
2		279326001	CAP - DIESEL FUEL W/LOCK	1	
3		296263412	KEYS	1	Includes Two Keys
4		292038001	SENDER - FUEL LEVEL	1	
		251538001	SENDER - FUEL LEVEL	1	
5		296270843	STRAP - TANK - NYLON - 2.0" X 44.0"	1	
6		903862001	BOLT-WATER TANK HOLD DOWN	1	
7		510337635	WASHER-FLATSAE-.38-.41X.81-16G-YZ	1	
8		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	1	
9		608118001	FITTING-1/4NPTX1/4HOSE BARB90	2	
10		1580001	HOSE CLAMP - 3/8"	4	
11		620001	HOSE - 5/16 FUEL LINE	A/R	P/n Qty Of 1 = 1 Foot
12		296280408	FITTING - FUEL TANK RETURN	1	
13		296280399	FITTING -FILTER-FUEL TANK OUTLET	1	

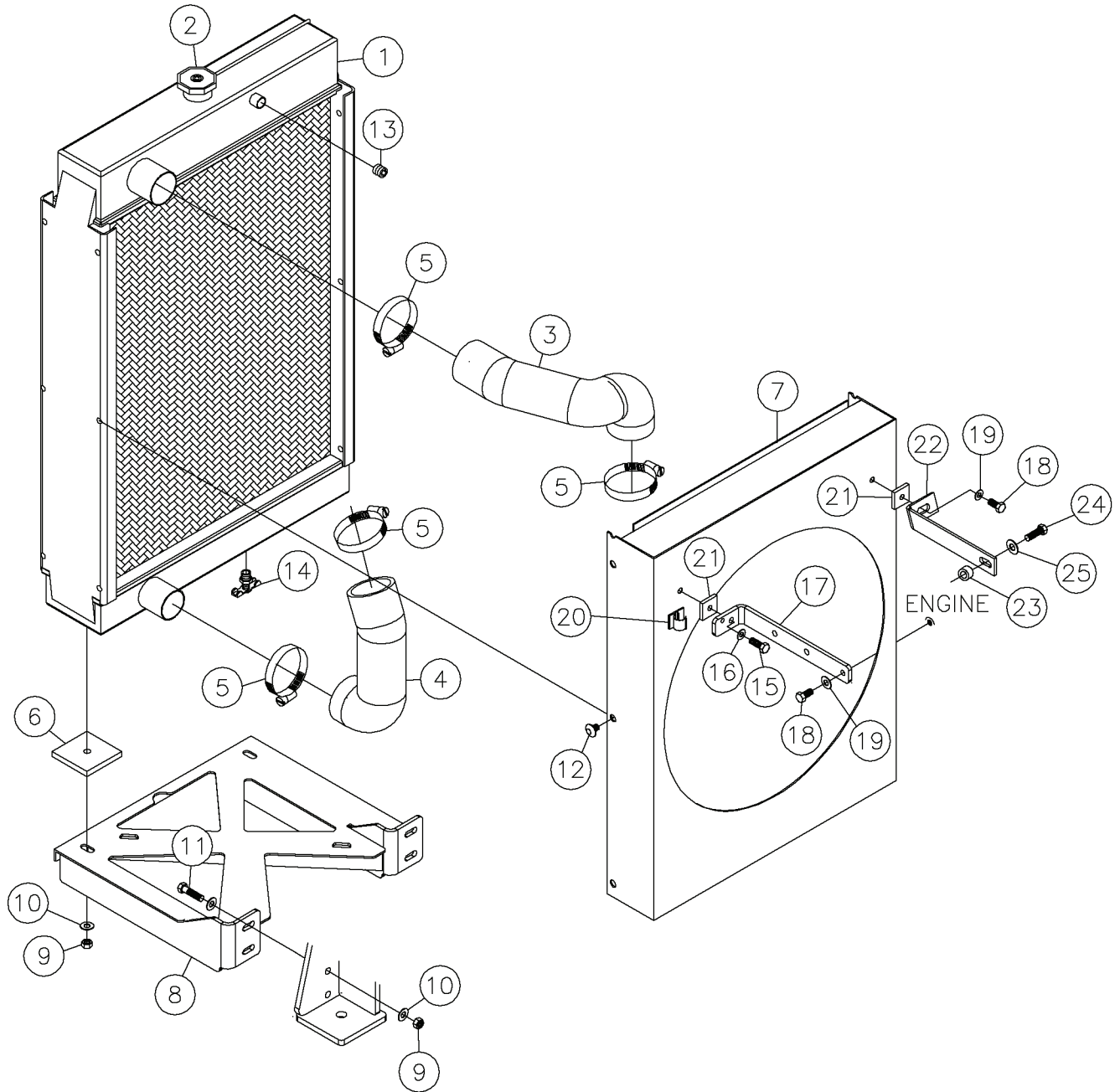
Oil Tank Fig 3-4



Oil Tank Fig 3-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257487	TANK - HYDRAULIC	1	
2		296257237	STRAINER - 20 GPM SUCTION	2	
3		296257188	FILTER - INTANK RETURN	2	Inc Ref 14, 15, & 16
4		296257231	COVER - 6" RESERVOIR END	3	
5		296257212	FILLER - 10 MICRON 5 PSI BREATHER	1	
6		296266620	BAFFLE - INLET	1	
7		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	4	
8		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
9		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	12	
10		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	18	
11		235736001	BOLT-3/8-16X1 1/4 ZINC PLTD	7	
12		158158001	SIGHT GAUGE LGZ3 3"	1	
13		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	7	
14		296267169	ELEMENT	2	
15		296267170	O-RING	2	
16		296276763	GASKET	2	
17		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	
18		70000394	DECAL-VERMEER HY POWER	1	
19		2595009	CLAMP-1 1/4 HOSE #7701164	2	

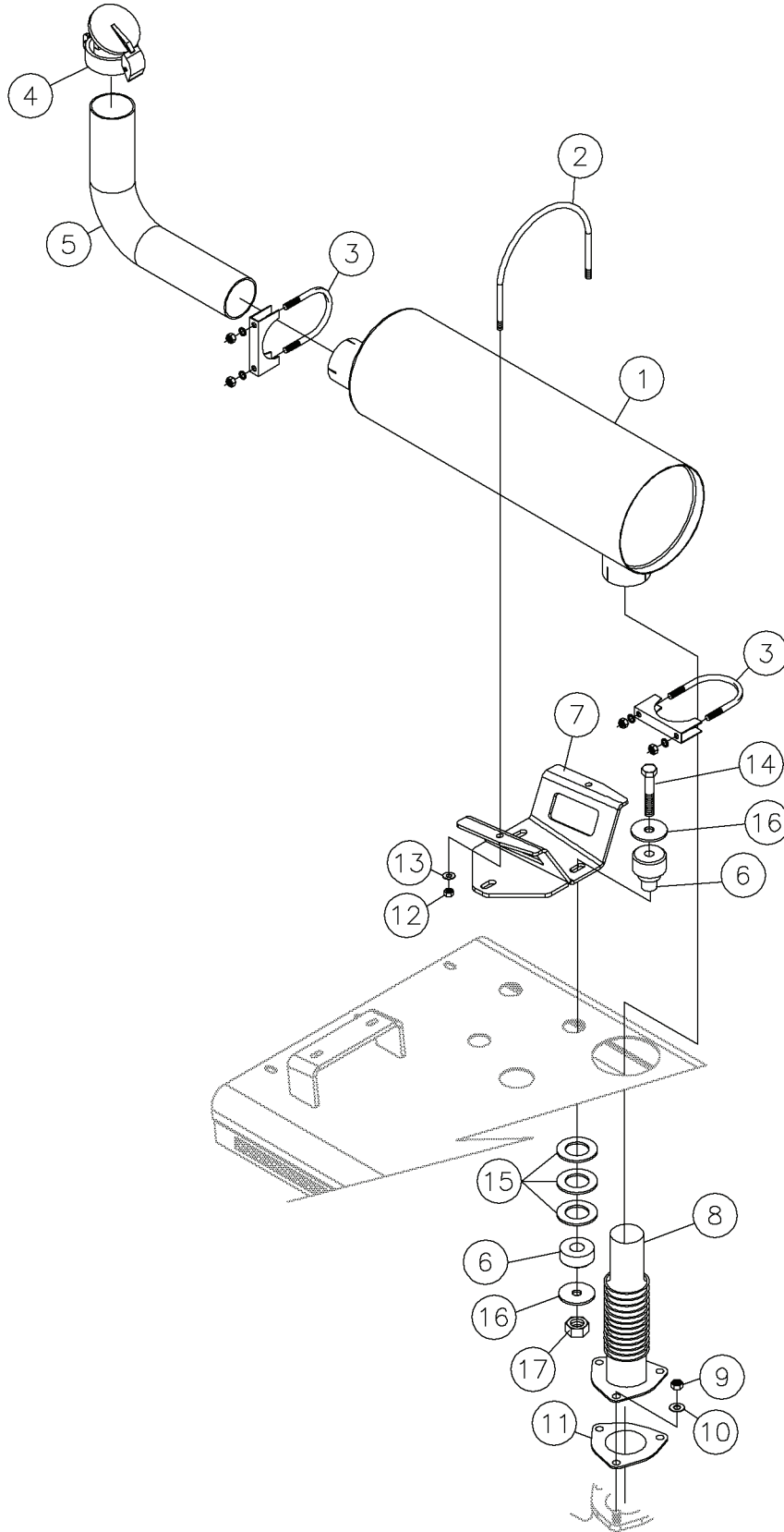
Radiator Fig 3-5



Radiator Fig 3-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257183	RADIATOR	1	
2		256004003	CAP-RADIATOR (10LBS.)	1	
3		296269026	HOSE - UPPER RADIATOR	1	
4		296269025	HOSE - LOWER RADIATOR	1	
5		1580013	HOSE CLAMP - 2 1/2"	4	
6		234690001	RUBBER-RADIATOR MOUNT	2	
7		296267171	SHROUD	1	
8		296266606	MOUNT - RADIATOR	1	
9		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	10	
10		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	6	
11		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
12		296270852	SCREW-SBHCS-5/16-18 X .50 - GR8-YZ	12	
13		282126001	FITTING - 1/4 BRASS HEX PLUG	1	
14		251501003	PETCOCK	1	
15		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	1	
16		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	1	
17		296266646	BAR - RADIATOR BRACE	1	
18		235719001	BOLT-M8X15MM DIN933 10.9 ZN PL	2	
19		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
20		279318001	CLAMP - ADHESIVE MOUNT	3	
21		296270853	RUBBER - RADIATOR SUPPORT	2	
22		296275016	BRACE - RADIATOR	1	
23		1074007	TUBE-3/4"ODX7/16"ID-1/2"	1	
24		250603001	BOLT-10M X 30M 10.9 HEX Y/ZINC	1	
25		250515001	7/16 HARD WASHER SAE Y/ZINC	1	

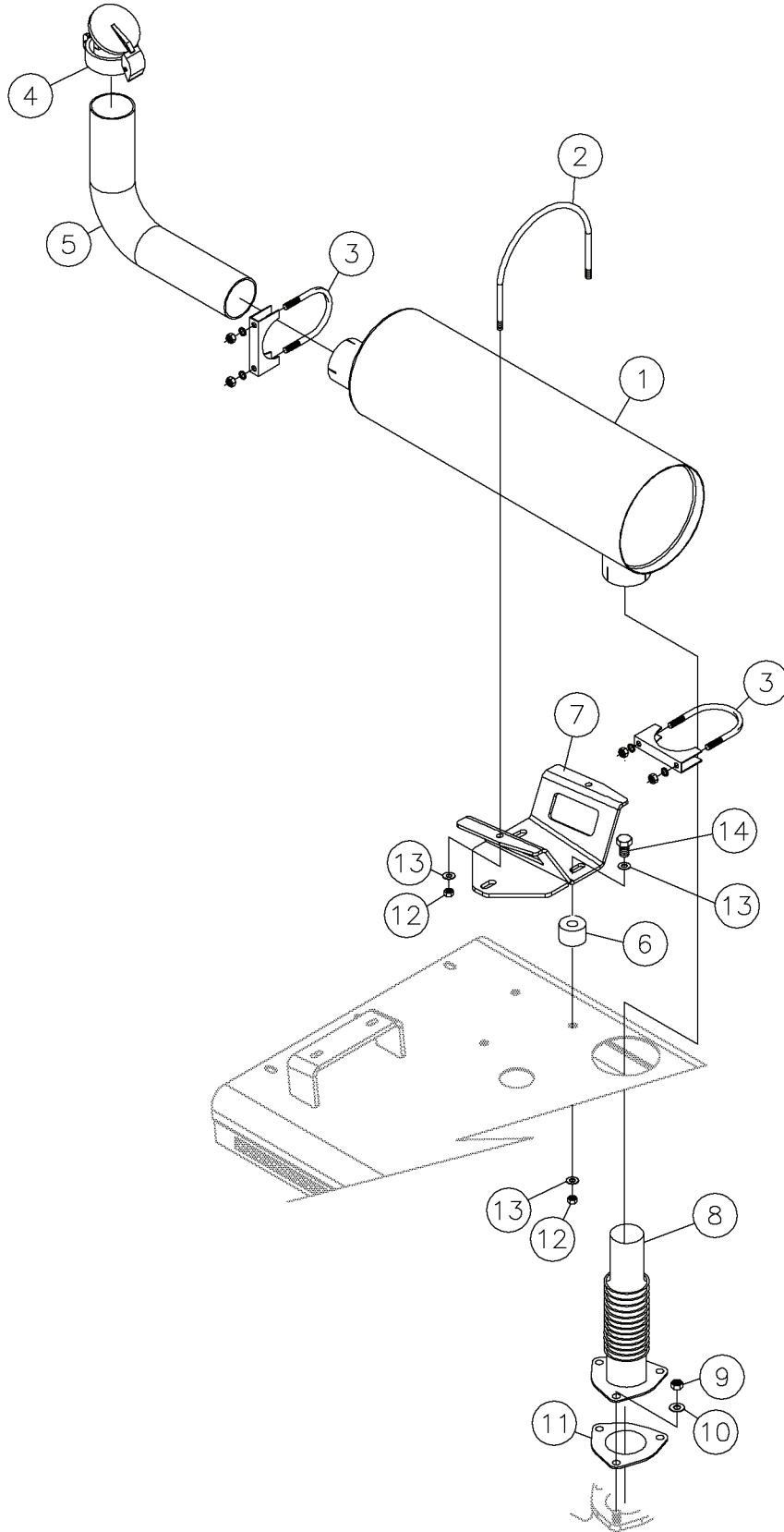
Muffler (S/N 220-) Fig 3-6r03



Muffler (S/N 220-) Fig 3-6r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	March, 2007		Change Isolator Mount
1		96057001	MUFFLER-STYLE 3 2.5 INLET	1	
2		93866001	ROD	1	
3		2609007	MUFFLER CLAMP-2 1/2"	2	
4		2633001	RAIN CAP - #7 2 1/2"	1	
5		296269252	TUBE - EXHAUST	1	
6	*	149874001	MOUNT - ISOLATOR .531CX 1.23 OD	3	(S/N 220-)
7		296275148	MOUNT - MUFFLER	1	(S/N 220-)
8		296275200	PIPE-FLEX 2 1/2" WELDMENT	1	(S/N 196-)
9		235731001	NUT-1/2-13 GR8 ZINC PLTD	3	
10		485025	WASHER-1/2 FLAT-HARDENED-ZINC	3	
11		296267234	GASKET	1	
12		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
13		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	2	
14		235724001	BOLT-1/2-13X3 GR8 HEX ZINC PLT	3	
15		285795001	WASHER - MOUNT	9	
16		265133001	WASHER-FLATSTRL-.52.53X2.00-.13-YZ	6	
17		250520001	BOLT -8M X 1.25 25M Gr8 Y/ZINC	3	

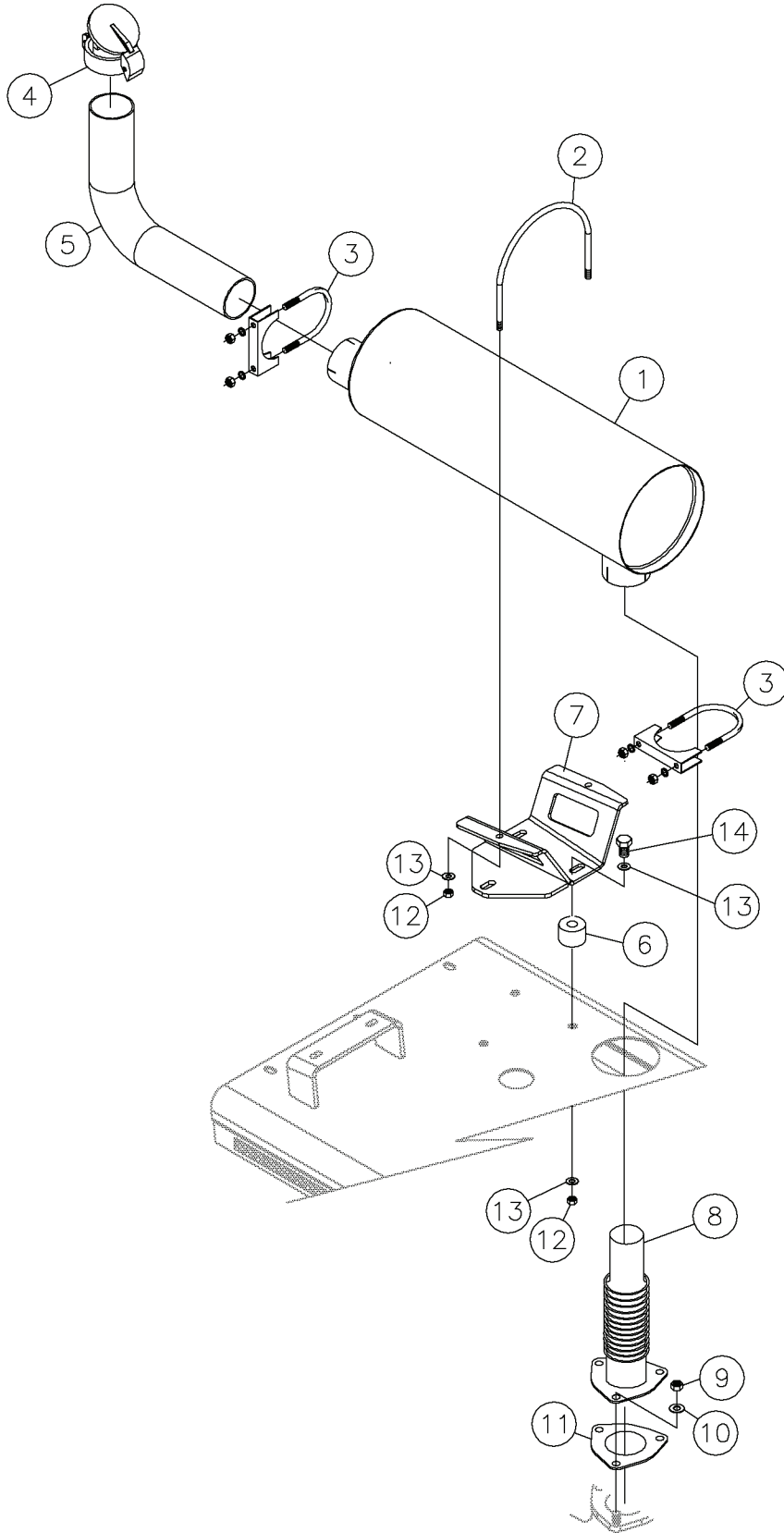
Muffler (S/N 196-) Fig 3-6r02



Muffler (S/N 196-) Fig 3-6r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2006		Change Flex Pipe
1		96057001	MUFFLER-STYLE 3 2.5 INLET	1	
2		93866001	ROD	1	
3		2609007	MUFFLER CLAMP-2 1/2"	2	
4		2633001	RAIN CAP - #7 2 1/2"	1	
5		296269252	TUBE - EXHAUST	1	
6		287706001	MOUNT - 50 DUROMETER X 1.5 X 1.0	3	
7		296275148	MOUNT - MUFFLER	1	
8	*	296275200	PIPE-FLEX 2 1/2" WELDMENT	1	S/N 196-
9		235731001	NUT-1/2-13 GR8 ZINC PLTD	3	
10		485025	WASHER-1/2 FLAT-HARDENED-ZINC	3	
11		296267234	GASKET	1	
12		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	8	
13		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	5	

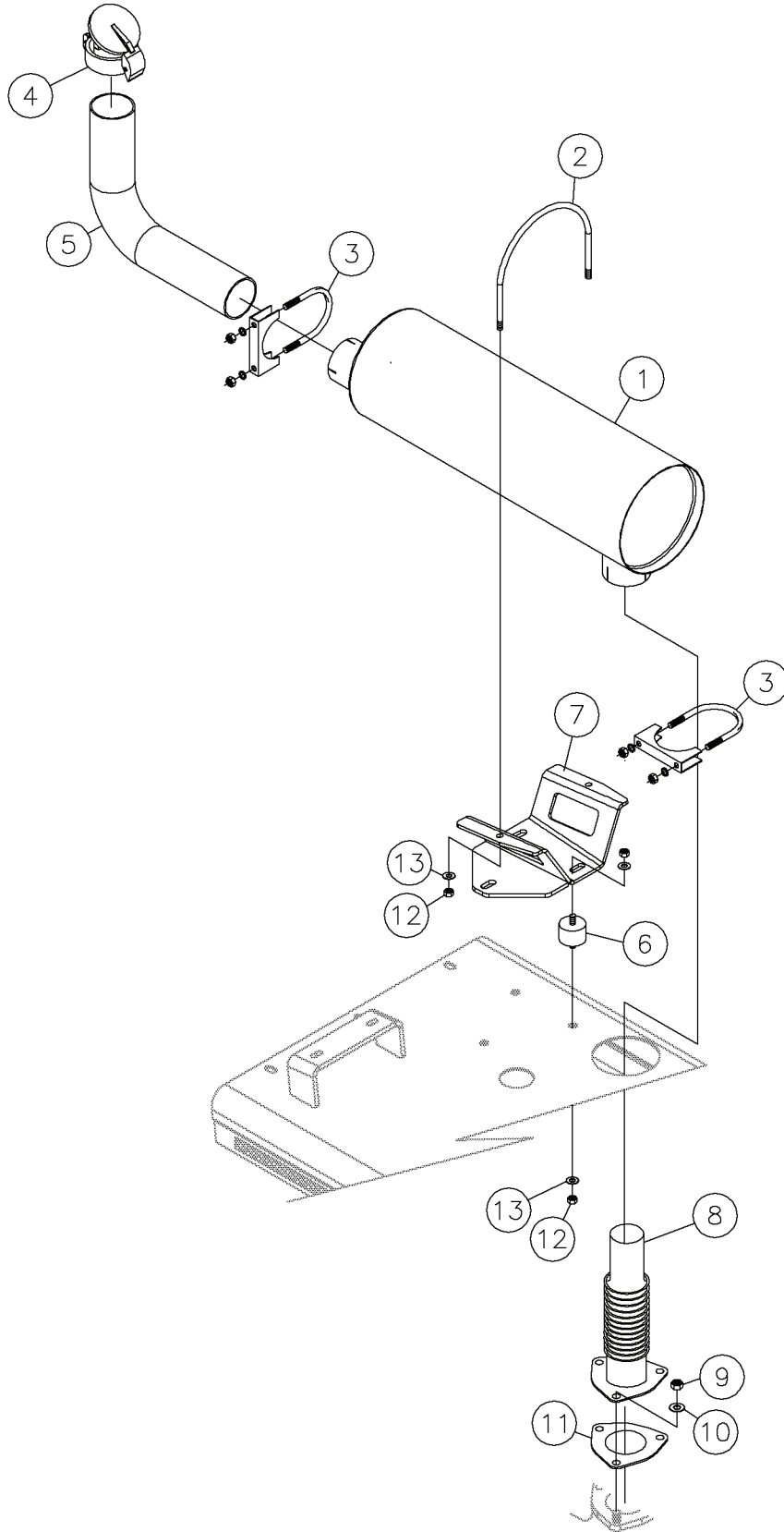
Muffler Fig 3-6r01



Muffler Fig 3-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		96057001	MUFFLER-STYLE 3 2.5 INLET	1	
2		93866001	ROD	1	
3		2609007	MUFFLER CLAMP-2 1/2"	2	
4		2633001	RAIN CAP - #7 2 1/2"	1	
5		296269252	TUBE - EXHAUST	1	
6		287706001	MOUNT - 50 DUROMETER X 1.5 X 1.0	3	
7		296275148	MOUNT - MUFFLER	1	
8		296275089	PIPE - FLEX 2- 1/2"	1	
9		235731001	NUT-1/2-13 GR8 ZINC PLTD	3	
10		485025	WASHER-1/2 FLAT-HARDENED-ZINC	3	
11		296267234	GASKET	1	
12		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	8	
13		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	5	

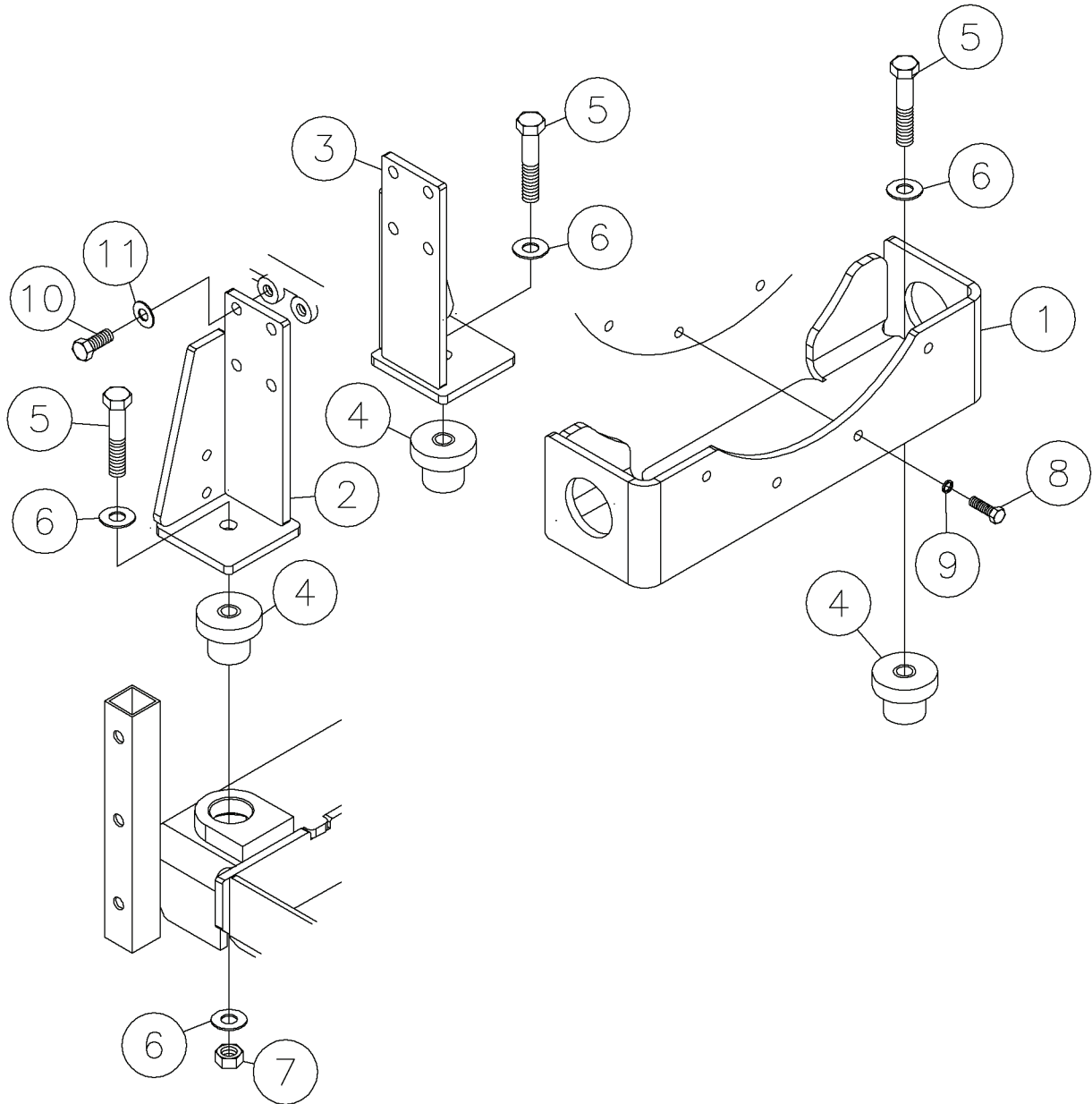
Muffler Fig 3-6



Muffler Fig 3-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		96057001	MUFFLER-STYLE 3 2.5 INLET	1	
2		93866001	ROD	1	
3		2609007	MUFFLER CLAMP-2 1/2"	2	
4		2633001	RAIN CAP - #7 2 1/2"	1	
5		296269252	TUBE - EXHAUST	1	
6		289068001	MOUNT - CYLINDRICAL ISOLATOR 1.5 OD X 1.0 H	3	
7		296275148	MOUNT - MUFFLER	1	
8		296275089	PIPE - FLEX 2- 1/2"	1	
9		235731001	NUT-1/2-13 GR8 ZINC PLTD	3	
10		485025	WASHER-1/2 FLAT-HARDENED-ZINC	3	
11		296267234	GASKET	1	
12		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	8	
13		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	8	

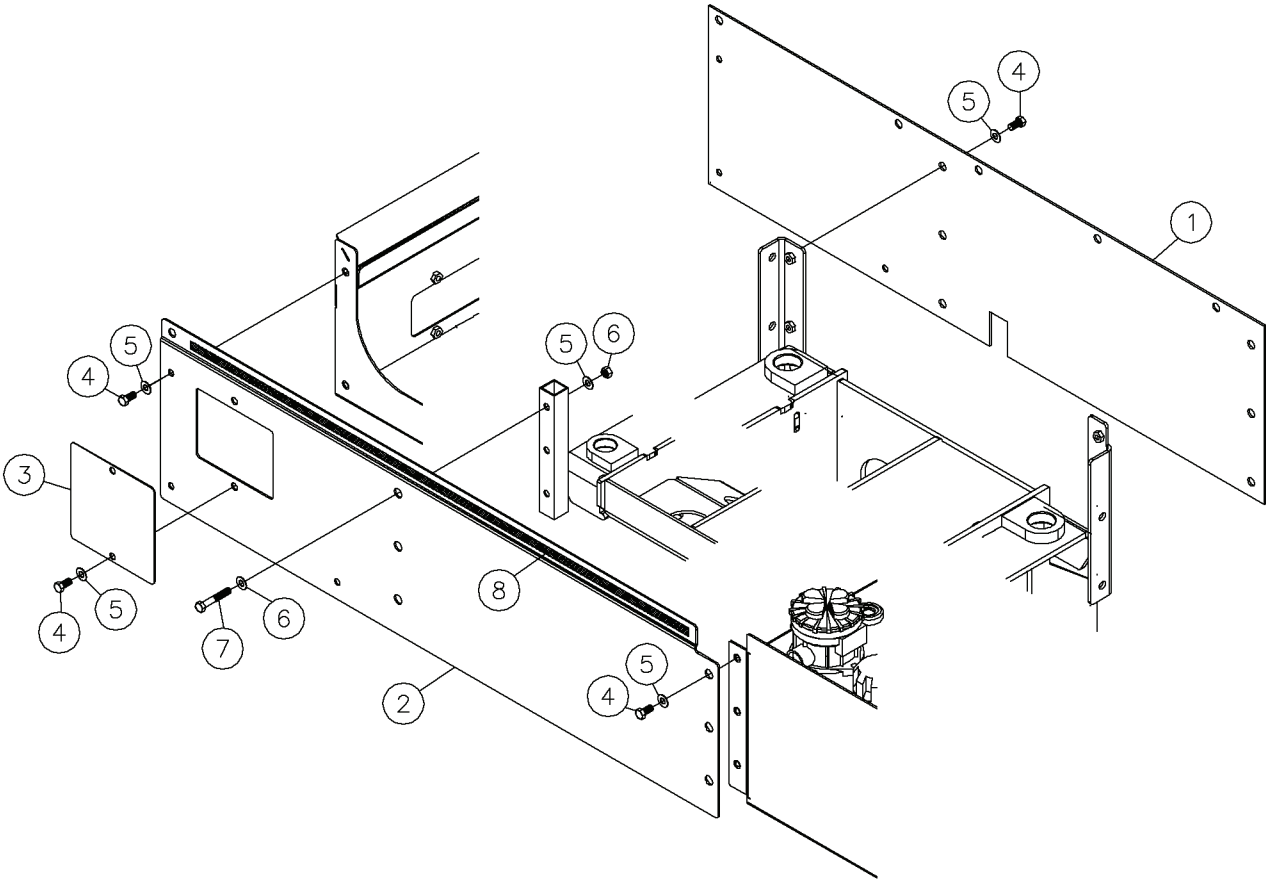
Engine Mount Fig 3-7



Engine Mount Fig 3-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266596	MOUNT - FRONT ENGINE	1	
2		296257450	MOUNT - RT REAR ENGINE	1	
3		296257435	MOUNT - REAR ENGINE (LH)	1	
4		2607001	MOUNT - M501-70NR	4	
5		236443001	BOLT-5/8-11X3 1/4 GR8 HEX ZNC	4	
6		235715001	WASHER-5/8 SAE HARD ZINC PLTD	8	
7		250513001	NUT - 5/8NC Gr8 TOP LOCK Y/ZINC	4	
8		507092035	SCREW-HCS,M10-1.50X35,8.8,YZ,ISO4017,FT	4	
9		506047010	WASHER-LOCK,M10,YZ,D127B	4	
10		24772001	BOLT-12M X 35 GR. 8.8 HEX HEAD	8	
11		250515001	7/16 HARD WASHER SAE Y/ZINC	8	

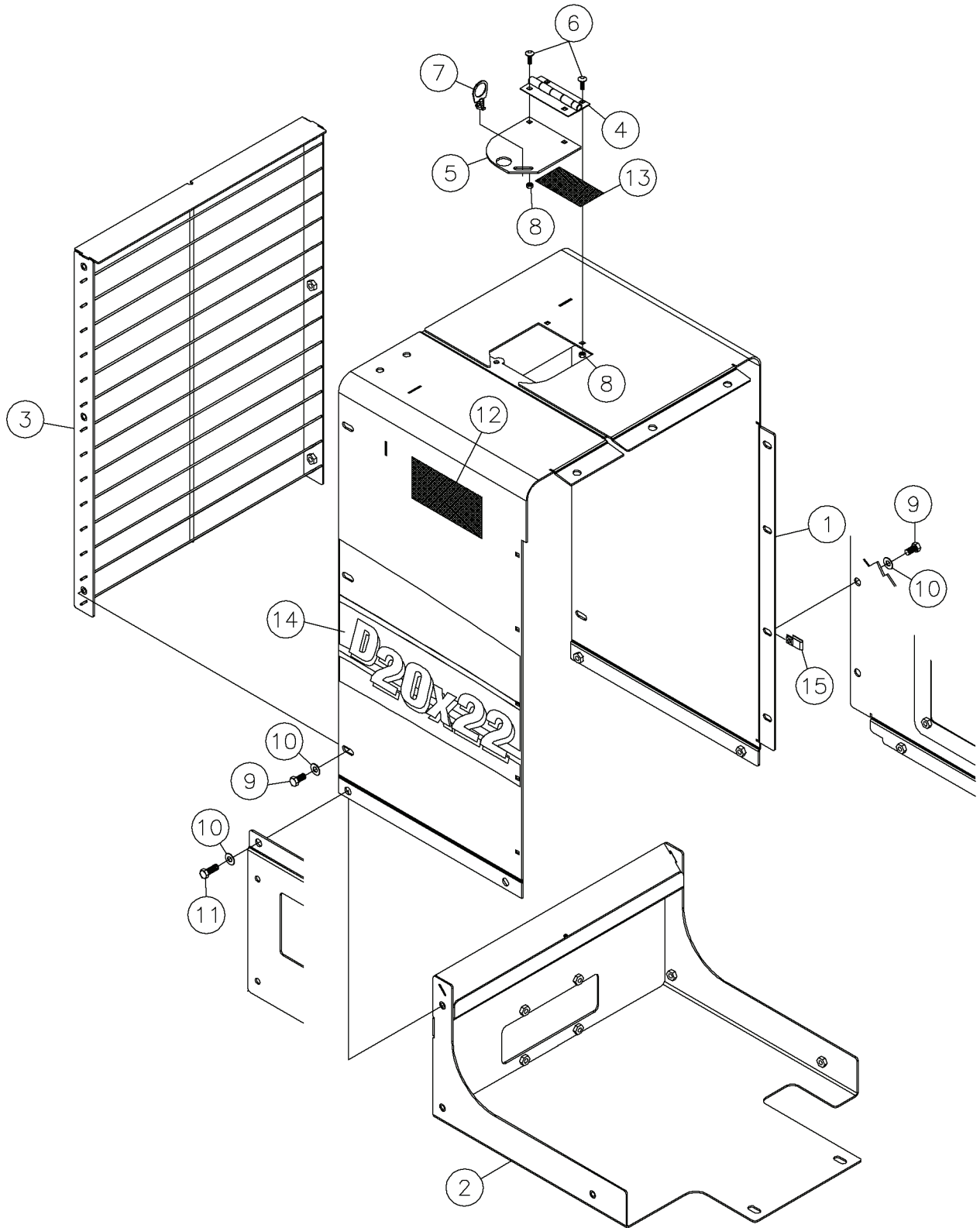
Side Shield Fig 4-1



Side Shield Fig 4-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257488	SHROUD - LOWER RADIATOR	1	
2		296270810	SHROUD - LOWER RADIATOR	1	
3		296275045	COVER - ACCESS	1	
4		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	15	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	18	
6		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	3	
7		235736001	BOLT-3/8-16X1 1/4 ZINC PLTD	3	
8		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot

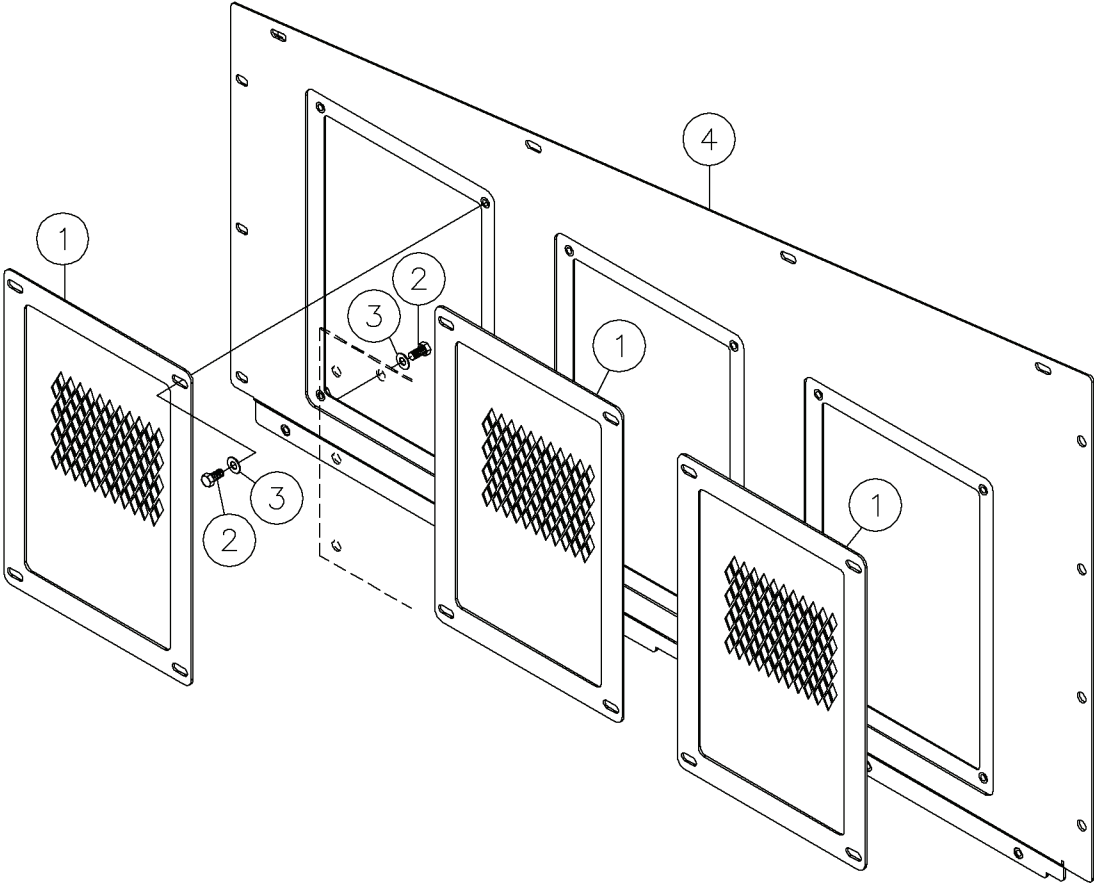
Rear Shield Fig 4-2



Rear Shield Fig 4-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257471	SHROUD - RADIATOR	1	
2		296266610	SHIELD - LOWER RADIATOR	1	
3		296266613	DIVERTER - RADIATOR AIR	1	
4		251524001	HINGE - DOOR	1	
5		296270806	DOOR-RADIATOR CAP	1	
6		373005	BOLT-1/4-20X5/8 GR5 CARRIAGE	4	
7		86113001	FASTENER-1/4 TURN	1	
8		1809005	NUT-1/4 SM FLGE T.L.	4	
9		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	12	
10		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	16	
11		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
12		7000A576	DECAL-DANGER	1	
		700IA576	DECAL-DANGER	1	International
13		2326315	DECAL-WARNING	1	
		2326I315	DECAL-WARNING	1	International
14		7000C654	DECAL - D20X22 STRIPE	1	
15		13323001	NUT - PANEL - 3/8-16 U-CLIP	7	

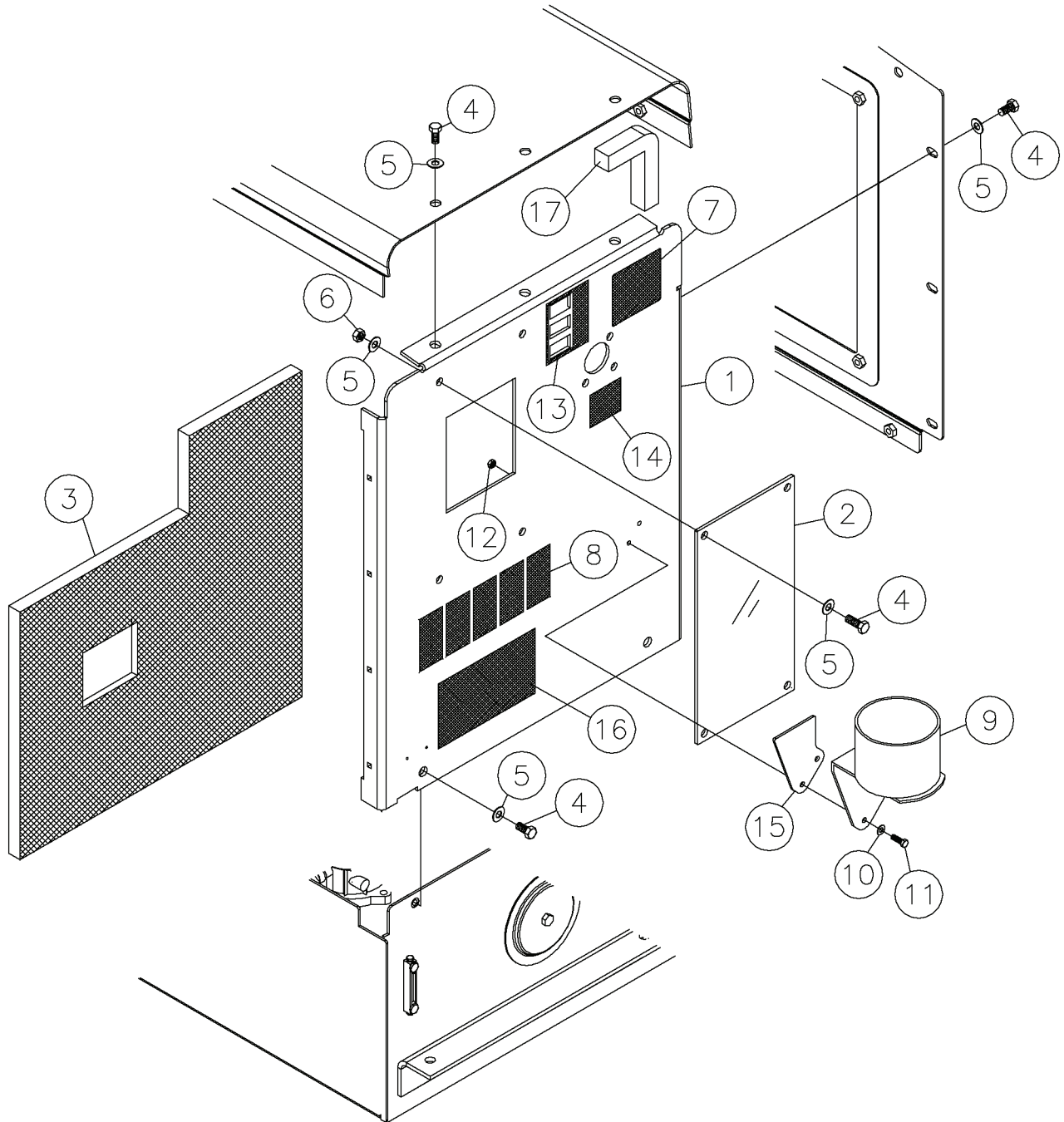
Left Side Engine Shield Fig 4-3



Left Side Engine Shield Fig 4-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266525	SHIELD - ENGINE ACCESS	3	
2		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	17	
3		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	17	
4		296266523	SHIELD - ENGINE BAY	1	

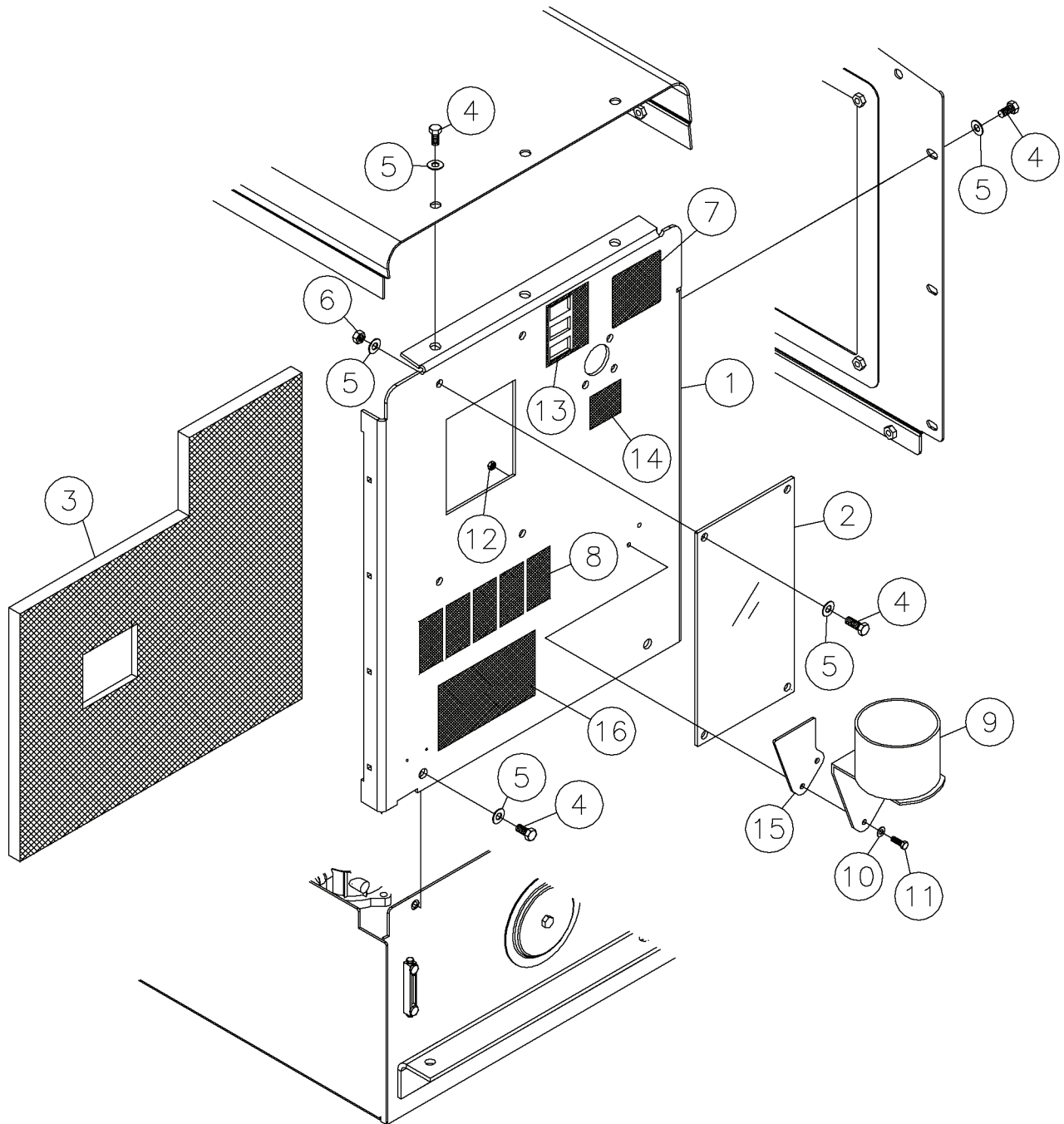
Front Shield Fig 4-4r01



Front Shield Fig 4-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296270855	SHIELD - FRONT ENGINE	1	
2		296270782	SHIELD - CONTROLLER	1	
3		296269265	FOAM - ENGINE DOOR	1	
4		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	12	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	16	
6		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	3	
7		7000B119	DECAL - PATENT INDUSTRIAL	1	
8		7000B812	DECAL - WARNING	1	Domestic
		700IB812	DECAL - WARNING	1	International
9		236397001	HOLDER-CUP/RADIO	1	
10		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	2	
11		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
12		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
13		700IC022	DECAL - CONTROLS	1	
14		700IA355	DECAL-DRILLING FLUIDSPEED(UND)	1	
15		296270851	RUBBER - CUP HOLDER	1	
16		7000C691	DECAL-GREASE CHART	1	

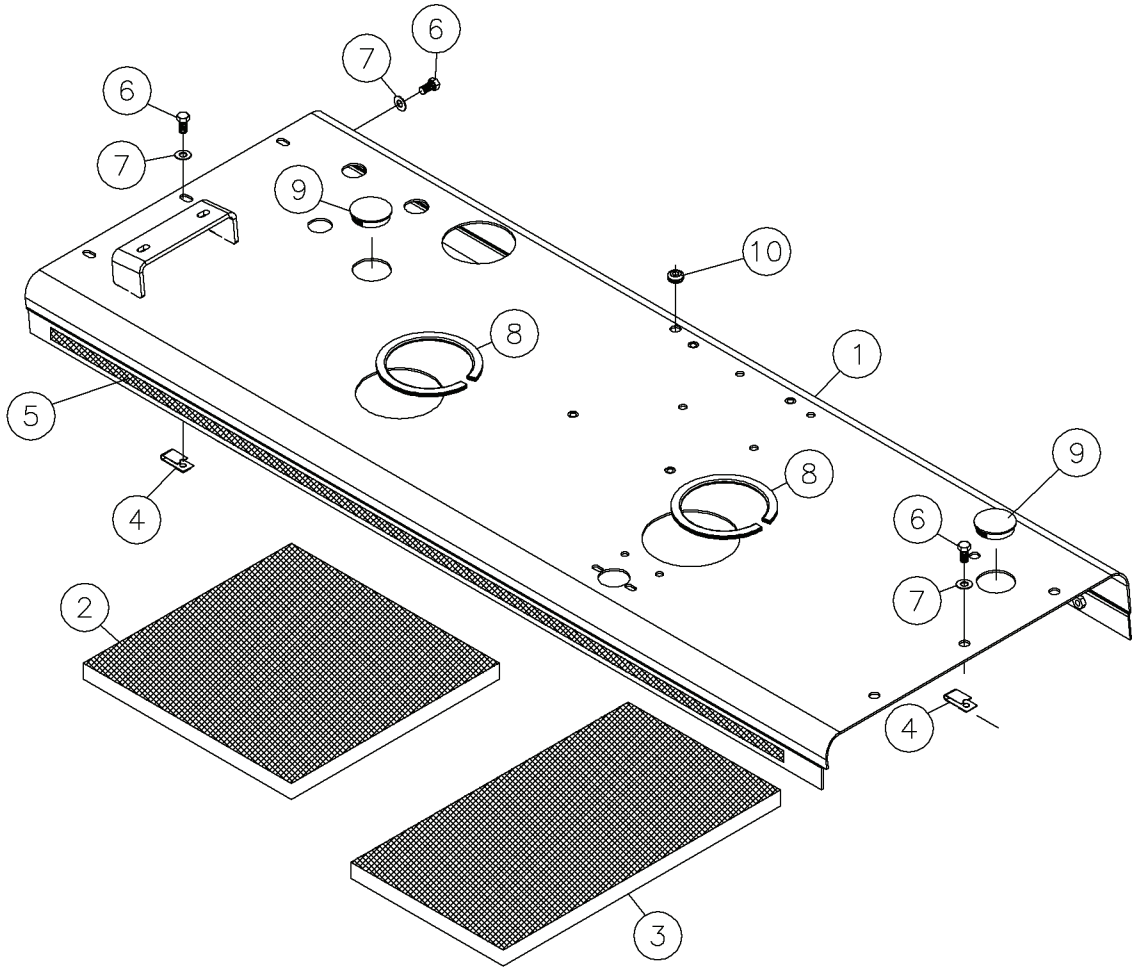
Front Shield Fig 4-4



Front Shield Fig 4-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296270855	SHIELD - FRONT ENGINE	1	
2		296270782	SHIELD - CONTROLLER	1	
3		296269265	FOAM - ENGINE DOOR	1	
4		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	12	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	16	
6		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	3	
7		7000B119	DECAL - PATENT INDUSTRIAL	1	
8		7000B812	DECAL - WARNING	1	
		700IB812	DECAL - WARNING	1	International
9		236397001	HOLDLER-CUP/RADIO	1	
10		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	2	
11		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
12		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
13		700IC022	DECAL - CONTROLS	1	
14		700IA355	DECAL-DRILLING FLUIDSPEED(UND)	1	
15		296270851	RUBBER - CUP HOLDER	1	
16		7000C691	DECAL-GREASE CHART	1	

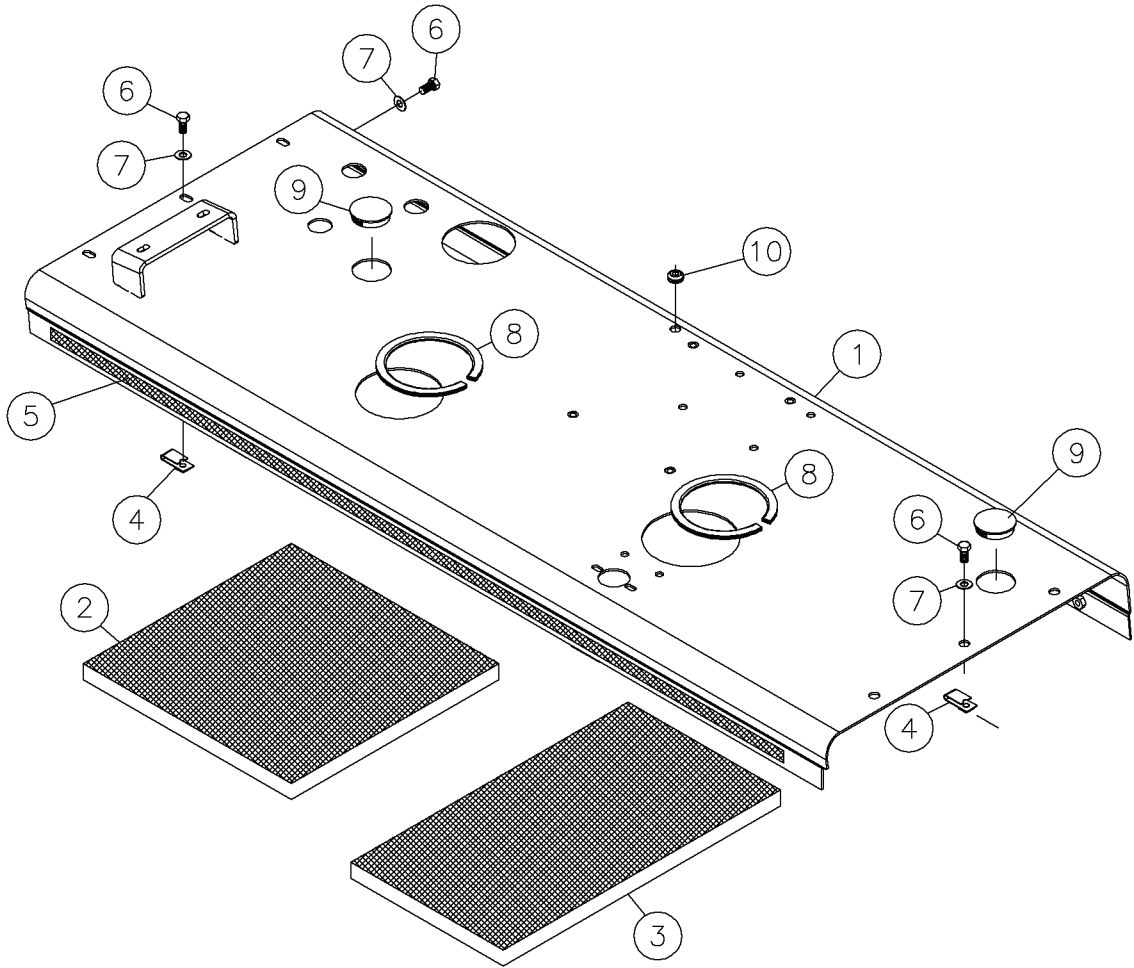
Top Shield (S/N 236-) Fig 4-5r03



Top Shield (S/N 236-) Fig 4-5r03

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	January, 2007		Change Shield
1	*	296298779	SHIELD - UPPER BAY	1	(S/N 236-)
2		296269266	FOAM - TOP ENGINE SHIELD	1	
3		296269263	FOAM - TOP ENGINE SHEILD	1	
4		13323001	U-CLIP - 3/8-16	6	
5		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
6		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	10	
7		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	10	
8		212522001	TRIM-1/4 EDGE	A/R	P/N Qty. Of 1 = 1 Foot
9		148952001	PLUG HOLE 2" BLACK NYLON	2	
10		1865027	GROMMET-5/16ID-1/8GR-.56 HOLE	1	

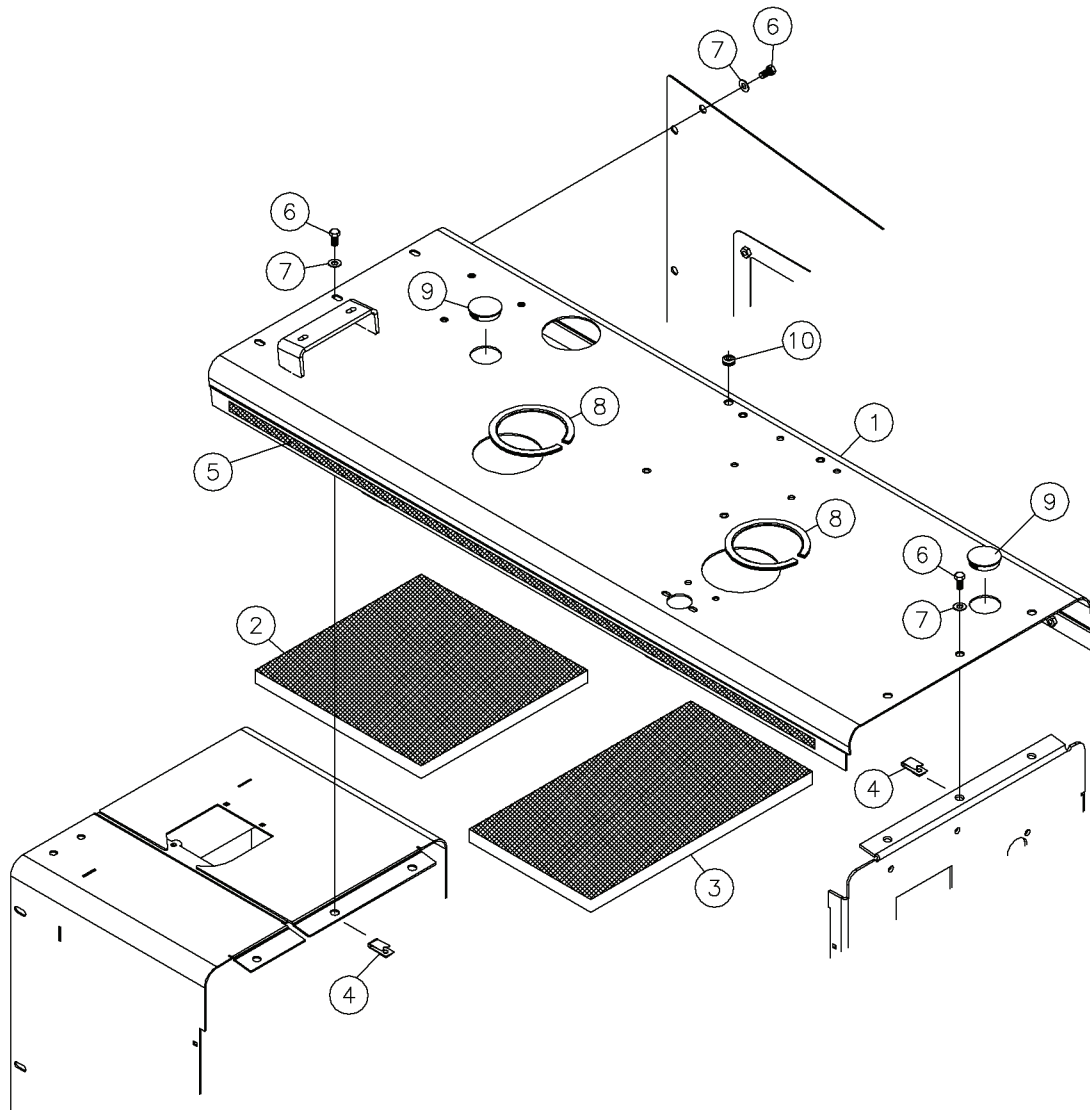
Top Shield (S/N 220-235) Fig 4-5r02



Top Shield (S/N 220-235) Fig 4-5r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Added Bigger Holes In Upper Shield.
1	*	296292091	SHIELD - UPPER BAY	1	(S/N 220-)
2		296269266	FOAM - TOP ENGINE SHIELD	1	
3		296269263	FOAM - TOP ENGINE SHEILD	1	
4		13323001	U-CLIP - 3/8-16	6	
5		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
6		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	10	
7		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	10	
8		212522001	TRIM-1/4 EDGE	A/R	P/N Qty. Of 1 = 1 Foot
9		148952001	PLUG HOLE 2" BLACK NYLON	2	
10		1865027	GROMMET-5/16ID-1/8GR-.56 HOLE	1	

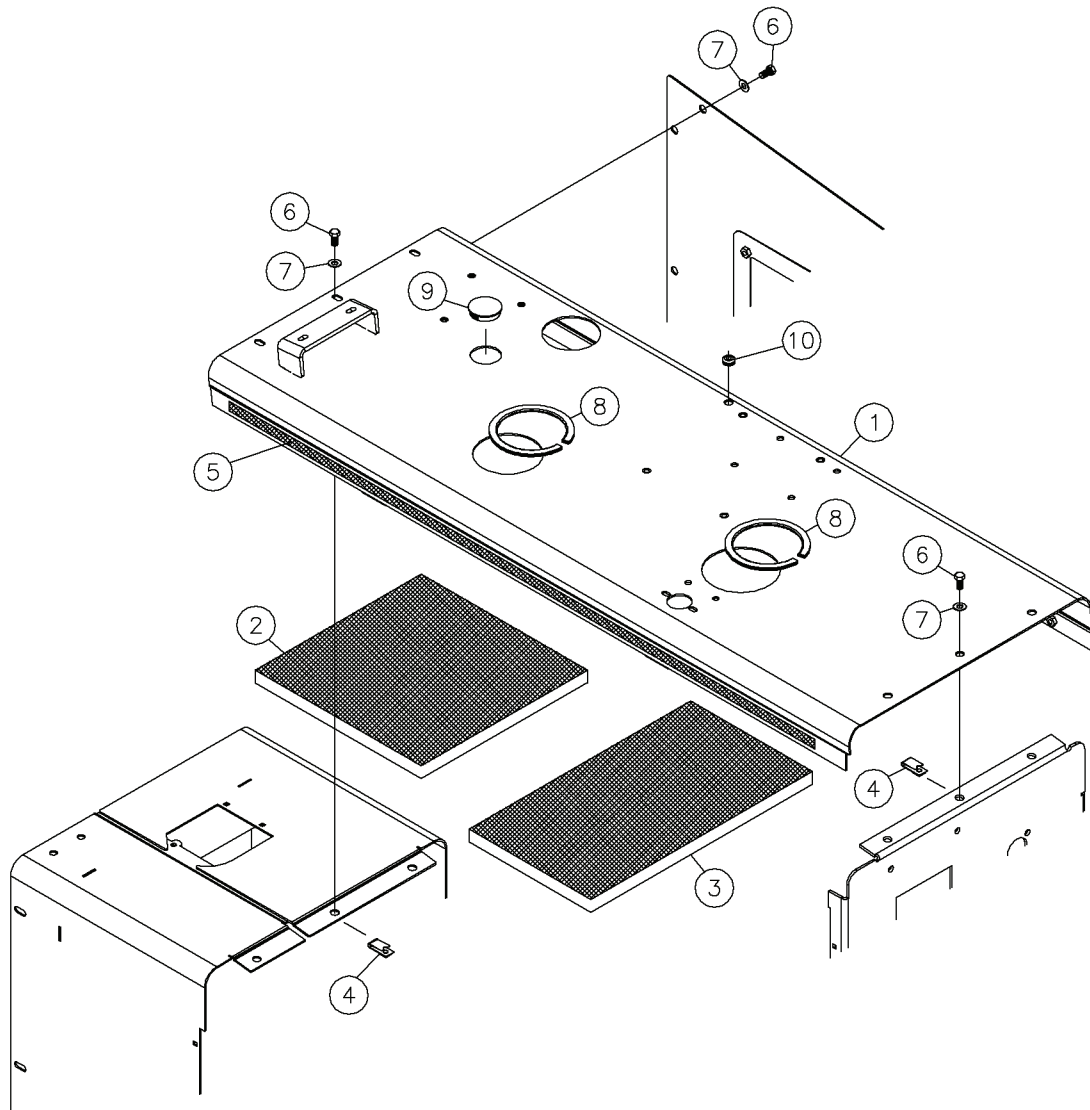
Top Shield Fig 4-5r01



Top Shield Fig 4-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296282083	SHIELD - UPPER BAY	1	
2		296269266	FOAM - TOP ENGINE SHIELD	1	
3		296269263	FOAM - TOP ENGINE SHEILD	1	
4		13323001	U-CLIP - 3/8-16	6	
5		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
6		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	10	
7		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	10	
8		212522001	TRIM-1/4 EDGE	A/R	P/N Qty. Of 1 = 1 Foot
9		148952001	PLUG HOLE 2" BLACK NYLON	2	
10		1865027	GROMMET-5/16ID-1/8GR-.56 HOLE	1	

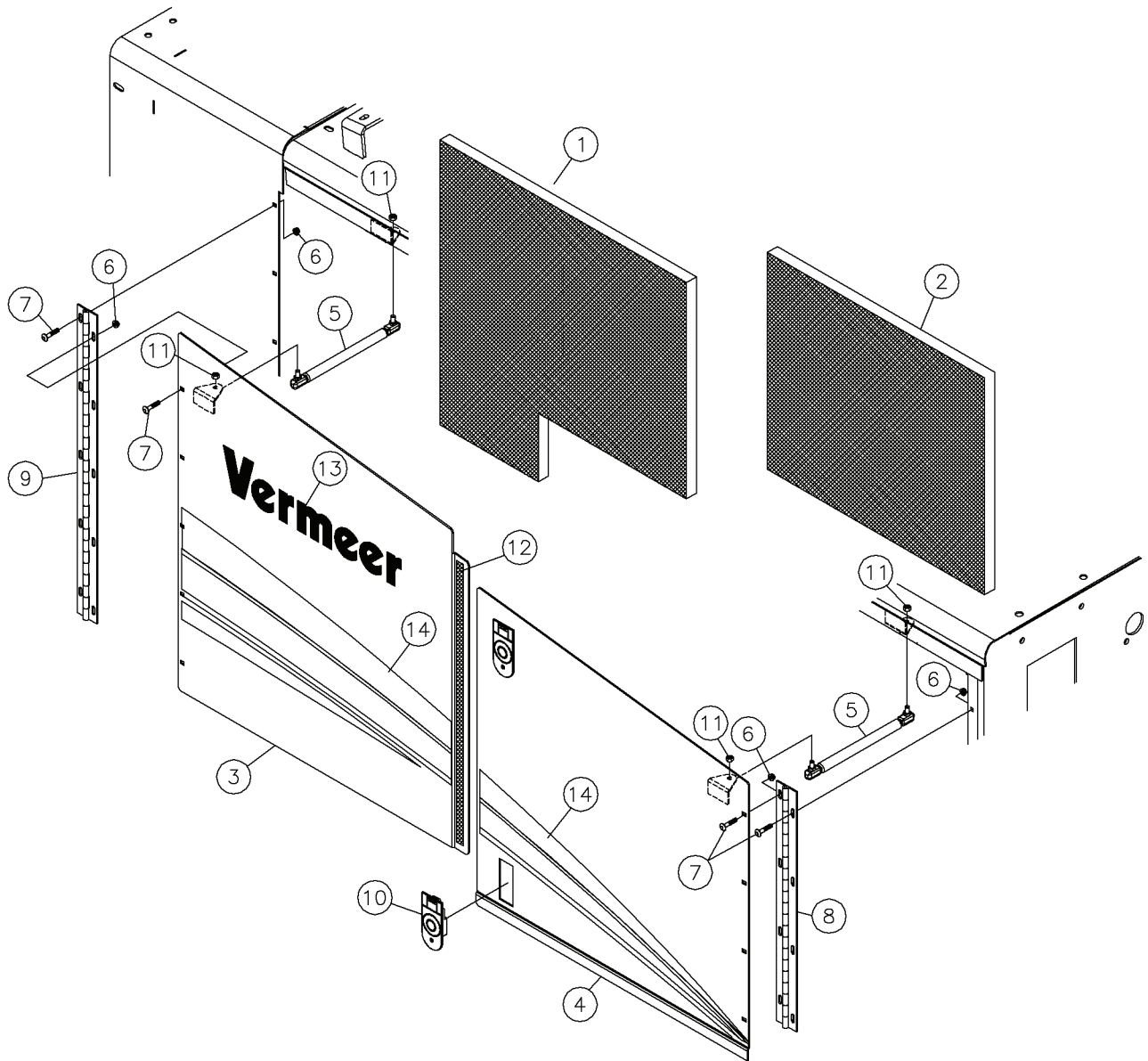
Top Shield Fig 4-5



Top Shield Fig 4-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282083	SHIELD - UPPER BAY	1	
2		296269266	FOAM - TOP ENGINE SHIELD	1	
3		296269263	FOAM - TOP ENGINE SHEILD	1	
4		13323001	U-CLIP - 3/8-16	6	
5		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
6		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	10	
7		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	10	
8		212522001	TRIM-1/4 EDGE	A/R	P/N Qty. Of 1 = 1 Foot
9		148952001	PLUG HOLE 2" BLACK NYLON	1	
10		1865027	GROMMET-5/16ID-1/8GR-.56 HOLE	1	

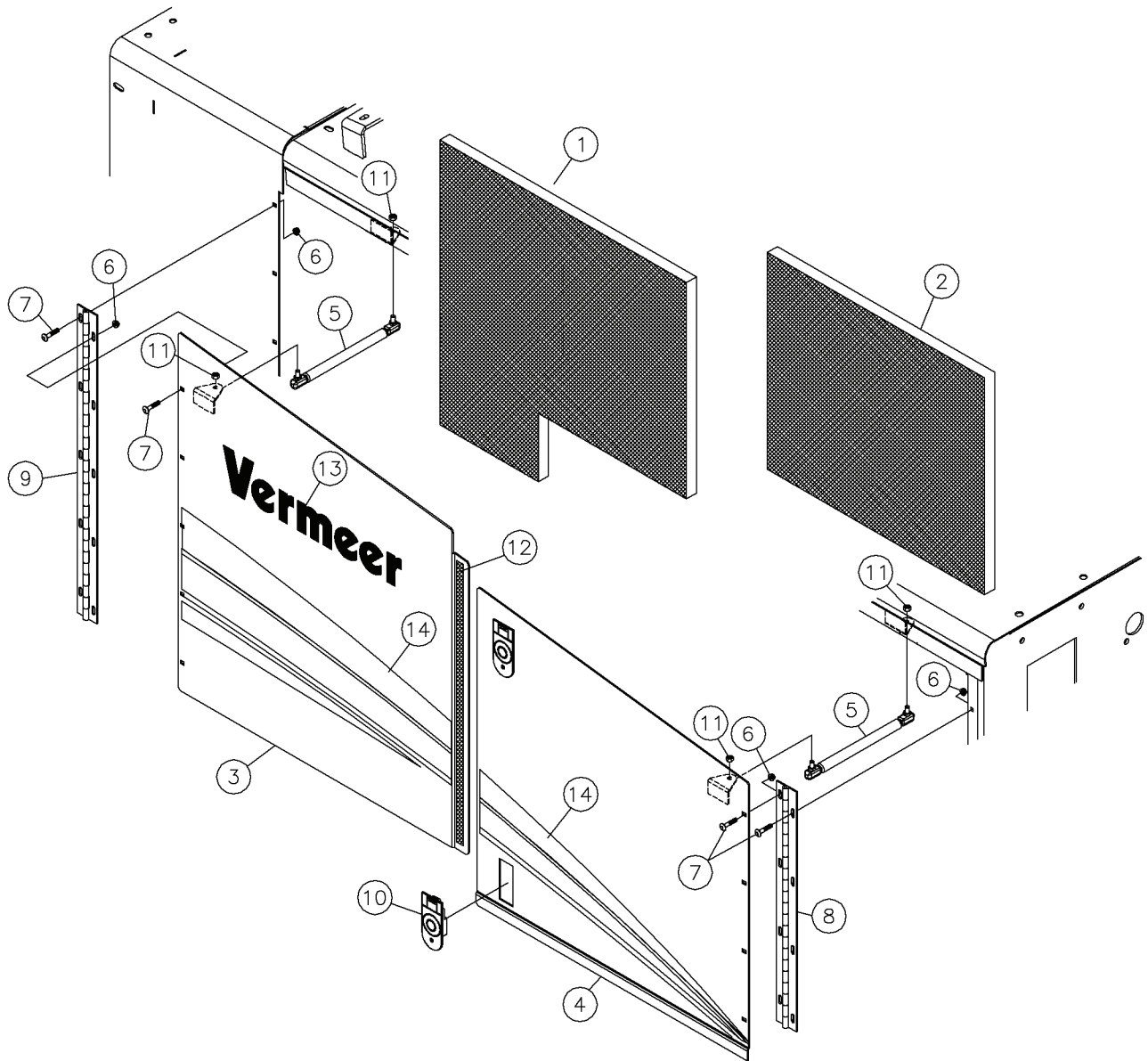
Engine Door (S/N 265-) Fig 4-6r02



Engine Door (S/N 265-) Fig 4-6r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	March, 2007		Change Decal Colors.
1		296269264	FOAM - ENGINE DOOR	1	
2		296269265	FOAM - ENGINE DOOR	1	
3		296266667	DOOR - REAR	1	
4		296266668	DOOR - FRONT	1	
5		149863001	SPRING - GAS 15.94 LENGTH X 6.30 STROKE 56.2 LBS	2	
6		1809005	NUT-1/4 SM FLGE T.L.	18	
7		373005	BOLT-1/4-20X5/8 GR5 CARRIAGE	18	
8		296266615	HINGE - DOOR	1	
9		279338001	HINGE - ENGINE BAY DOOR	1	
10		110479001	LATCH-SEALED LEVER	2	
11		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
12		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
13		2326595	DECAL VERMEER- 4 1/2 X 24	1	
14	*	7000D174	DECAL - D20X22 STRIPE	1	(S/N 265-)

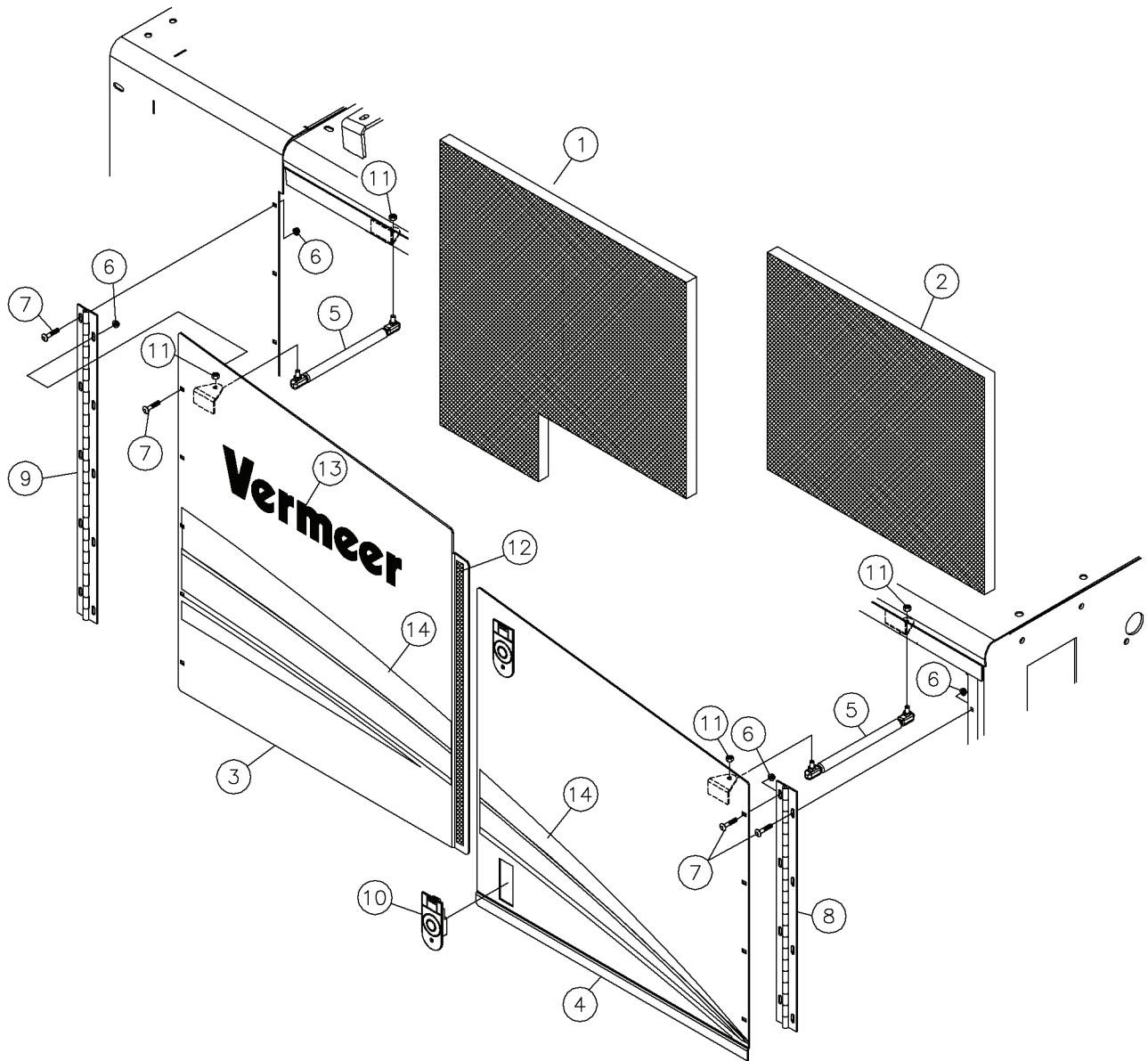
Engine Door Fig 4-6r01



Engine Door Fig 4-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Change hinge
1		296269264	FOAM - ENGINE DOOR	1	
2		296269265	FOAM - ENGINE DOOR	1	
3		296266667	DOOR - REAR	1	
4		296266668	DOOR - FRONT	1	
5		149863001	SPRING - GAS 15.94 LENGTH X 6.30 STROKE 56.2 LBS	2	
6		1809005	NUT-1/4 SM FLGE T.L.	18	
7		373005	BOLT-1/4-20X5/8 GR5 CARRIAGE	18	
8		296266615	HINGE - DOOR	1	
9		279338001	HINGE - ENGINE BAY DOOR	1	
10		110479001	LATCH-SEALED LEVER	2	
11		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
12		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
13		2326595	DECAL VERMEER- 4 1/2 X 24	1	
14		7000C654	DECAL - D20X22 STRIPE	1	

Engine Door Fig 4-6

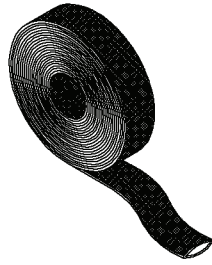


Engine Door Fig 4-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269264	FOAM - ENGINE DOOR	1	
2		296269265	FOAM - ENGINE DOOR	1	
3		296266667	DOOR - REAR	1	
4		296266668	DOOR - FRONT	1	
5		149863001	SPRING - GAS 15.94 LENGTH X 6.30 STROKE 56.2 LBS	2	
6		1809005	NUT-1/4 SM FLGE T.L.	18	
7		373005	BOLT-1/4-20X5/8 GR5 CARRIAGE	18	
8		296266674	HINGE - ENGINE DOOR 21"	1	
9		279338001	HINGE - ENGINE BAY DOOR	1	
10		110479001	LATCH-SEALED LEVER	2	
11		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
12		245059001	TAPE-URETHANE .75"WX 36 YD ROL	A/R	P/N Qty. Of 1 = 1 Foot
13		2326595	DECAL VERMEER- 4 1/2 X 24	1	
14		7000C654	DECAL - D20X22 STRIPE	1	

Miscellaneous Supplies Fig 5-1

CORDURA SLEEVES



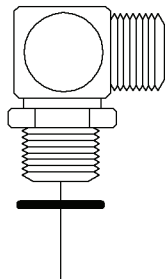
INSIDE DIAMETER	PART NUMBER
.71	83726001
1.22	66094001
1.42	67264001
1.59	69129001
1.81	53840001
2.37	53841001

NOTE: SPECIFY LENGTH WHEN ORDERING

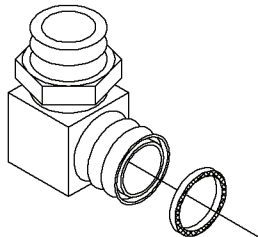
TIE STRAPS

LENGTH	PART NUMBER
4 IN.	78657001
8 IN.	59634001
15 IN.	58151001

O-RINGS



SAE FITTING SIZE	REPLACEMENT O-RING PART NO.
4M	78185027
5M	53649081
6M	59088057
8M	59088053
10M	792029
12M	78518037
14M	64082019
16M	81580001
20M	93316001



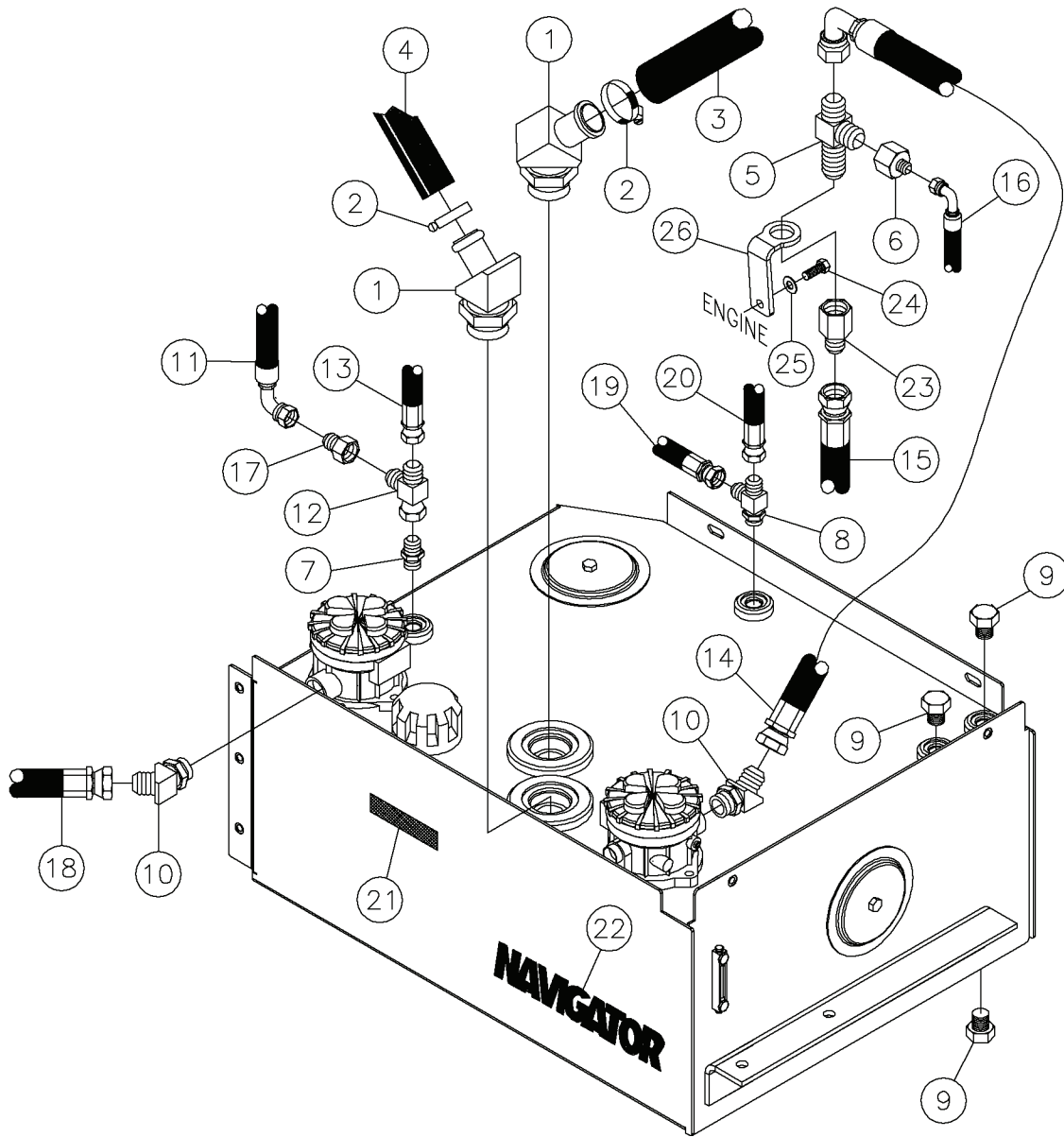
ORS (FLAT FACE) FITTING SIZE	REPLACEMENT O-RING PART NO.
4	93843001
6	93844001
8	93845001
10	93846001
12	93847001
16	93848001
20	93849001
24	93850001

NOTE: O-RINGS LISTED ARE 90 DUROMETER

Miscellaneous Supplies Fig 5-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			Miscellaneous Supplies		

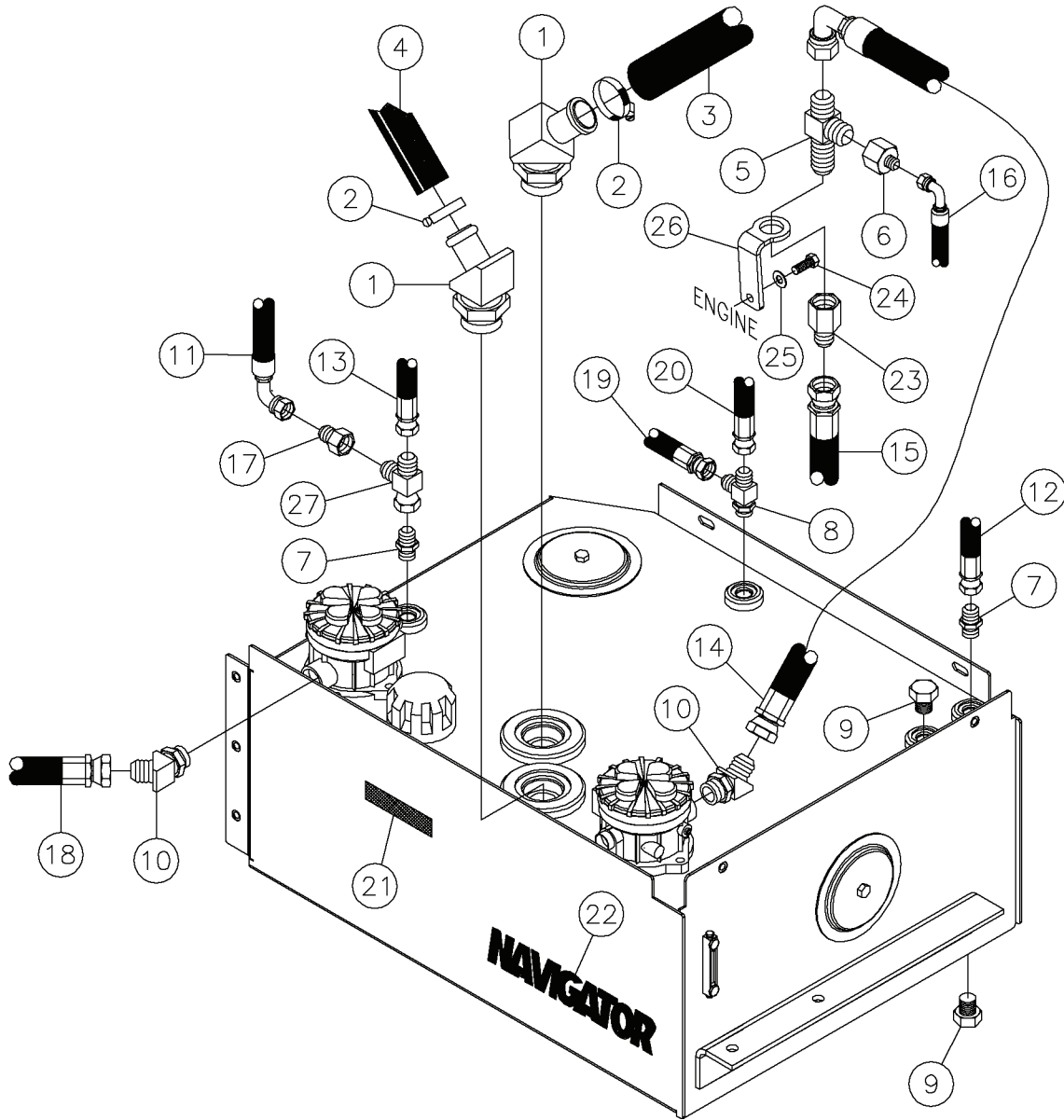
Oil Tank (S/N 335-) Fig 5-2r01



Oil Tank (S/N 335-) Fig 5-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	June, 2007		Add Plug
1		103998001	HOSE INSERT-24MX1 1/2 45 DEG.	2	
2		1580011	HOSE CLAMP - 2"	2	
3		296270758	HOSE - 1 1/2" X 11.50" SUCTION	1	
4		296270759	HOSE- 1 1/2" X 13.00" SUCTION	1	
5		96075001	FITTING-12MJIC BLKHD RUN TEE	1	
6		81690001	FITTING-12F JICX10M JIC ST.	1	
7		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	
8		81705001	FITTING-8MX8M JIC(RUN)X8M JIC	1	
9	*	56218001	FITTING - PLUG - 8MORB - HEX	3	(S/N 335-)
10		60718001	FITTING-45-12MJ-12MORBA	2	
11		296275037	HOSE - 8 FSJ ST X 8FSJ 90 X 18"	1	
12		71250001	10M JIC(BCH)X10M JICX10FS JIC	1	
13		53842377	HOSE-5/8X24 10FS JIC 3000 PSI	1	
14		296270816	HOSE- 3/4 X 50 ST/90 12FSJIC 4000PSI	1	
15		296270817	HOSE-HYD 5/8 X 50 12FSJIC ST/ST 3300PSI	1	
16		296275057	HOSE-5/8 X 32 -10FSJIC-ST/90-3000PSI	1	
17		86670001	FITTING-ADAPT 10FJICX8MJIC RED	1	
18		296260475	HOSE- 3/4 X 46 ST/90 12FSJIC 4000PSI	1	
19		296260496	HOSE-HYD-1/2X26 8FSJIC ST/90 3300 PSI	1	
20		296260462	HOSE - 1/2 X 49 STsT 8FSJIC 500PSI	1	
21		70000394	DECAL-VERMEER HY POWER	1	
22		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	
23		81690001	FITTING-12F JICX10M JIC ST.	1	
24		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	1	
25		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
26		296270841	MOUNT - BULKHEAD	1	

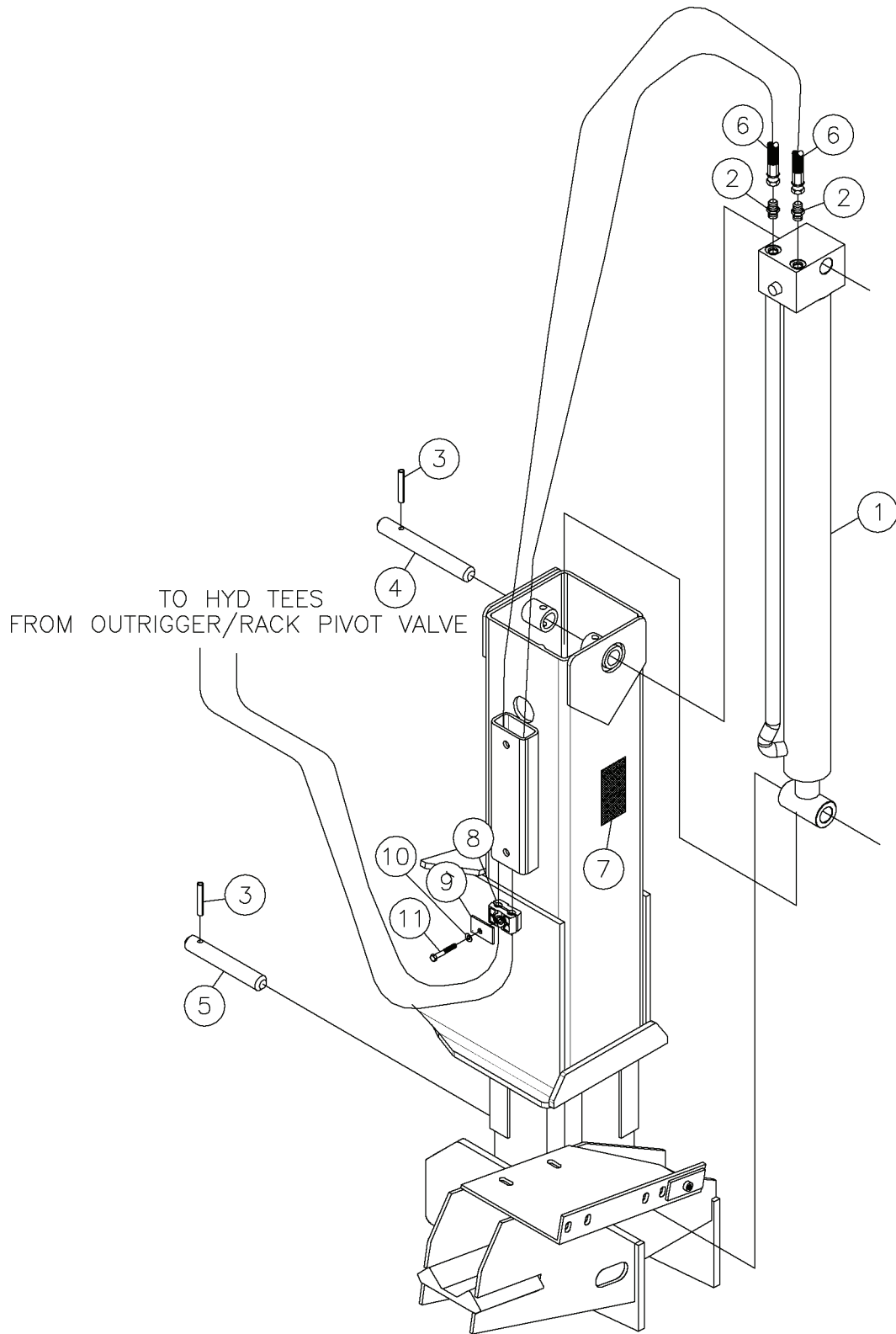
Oil Tank Fig 5-2



Oil Tank Fig 5-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		103998001	HOSE INSERT-24MX1 1/2 45 DEG.	2	
2		1580011	HOSE CLAMP - 2"	2	
3		296270758	HOSE - 1 1/2" X 11.50" SUCTION	1	
4		296270759	HOSE- 1 1/2" X 13.00" SUCTION	1	
5		96075001	FITTING-12MJIC BLKHD RUN TEE	1	
6		81690001	FITTING-12F JICX10M JIC ST.	1	
7		53824001	FITTING-#8M O-RING-#8M JIC ST.	2	
8		81705001	FITTING-8MX8M JIC(RUN)X8M JIC	1	
9		56218001	FITTING - PLUG - 8MORB - HEX	2	
10		60718001	FITTING-45-12MJ-12MORBA	2	
11		296275037	HOSE - 8 FSJ ST X 8FSJ 90 X 18"	1	
12		53844677	HOSE-1/2X19 8FSJIC 100R1	1	
13		53842377	HOSE-5/8X24 10FS JIC 3000 PSI	1	
14		296270816	HOSE- 3/4 X 50 ST/90 12FSJIC 4000PSI	1	
15		296270817	HOSE-HYD 5/8 X 50 12FSJIC ST/ST 3300PSI	1	
16		296275057	HOSE-5/8 X 32 -10FSJIC-ST/90-3000PSI	1	
17		86670001	FITTING-ADAPT 10FJICX8MJIC RED	1	
18		296260475	HOSE- 3/4 X 46 ST/90 12FSJIC 4000PSI	1	
19		296260496	HOSE-HYD-1/2X26 8FSJIC ST/90 3300 PSI	1	
20		296260462	HOSE - 1/2 X 49 STsT 8FSJIC 500PSI	1	
21		70000394	DECAL-VERMEER HY POWER	1	
22		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	
23		81690001	FITTING-12F JICX10M JIC ST.	1	
24		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	1	
25		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
26		296270841	MOUNT - BULKHEAD	1	
27		71250001	10M JIC(BCH)X10M JICX10FS JIC	1	

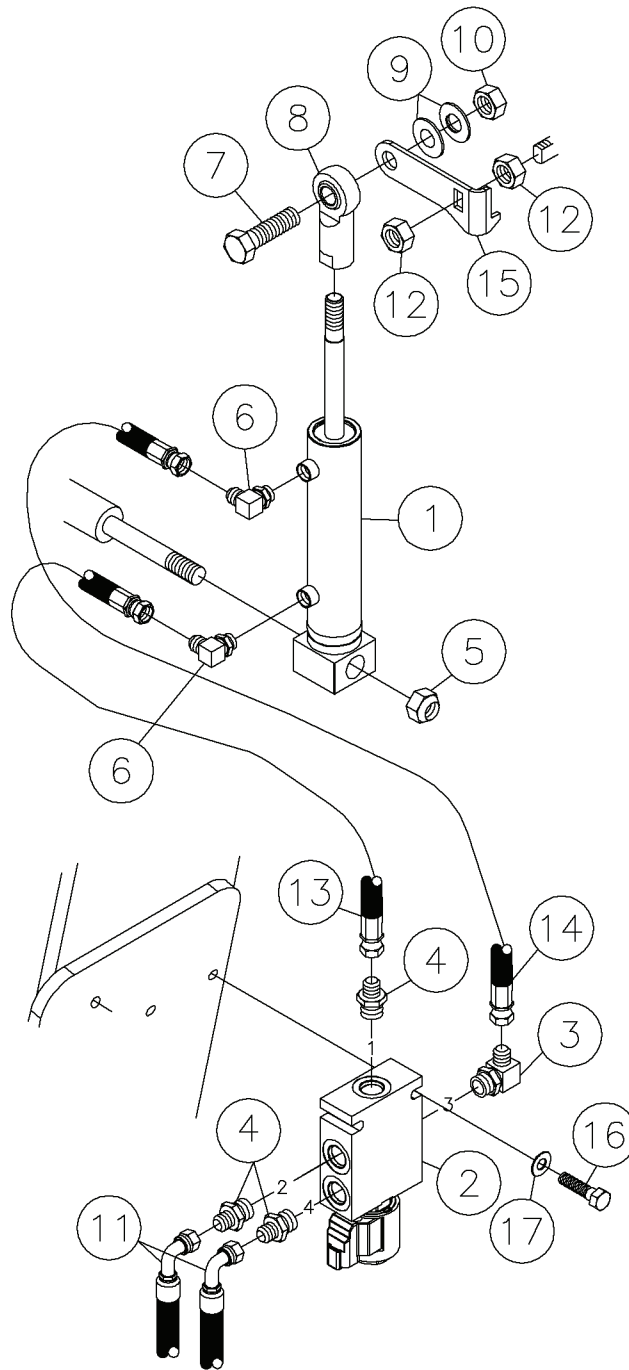
Cylinder - Outrigger Fig 5-3



Cylinder - Outrigger Fig 5-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257190	CYLINDER - 2.5 X 32 HYD	1	Breakdown 11-17
2		600087001	FIT-6MO-RINGX6MJIC ST.W/R.062	2	
3		1788033	PIN-EXP3/8X2 1/4	2	
4		216681001	PIN-OUTRIGGER CYLINDER	1	
5		278018001	PIN-OUTRIGGER CYLINDER	1	
6		296269289	HOSE-HYD-3/8X95 6FSJIC ST/ST 3300 PSI	2	
7		7000B304	DECAL - WARNING	1	
		700IB304	DECAL - WARNING	1	International
8		67846005	CLAMP-PAIR-1/2" PIPE/1/4" HYD. HOSE	1	
9		67846003	PLATE-TWIN COVER	1	
10		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	1	
11		248107001	BOLT-1/4-20X1 3/4 GR 8 ZINC PL	1	

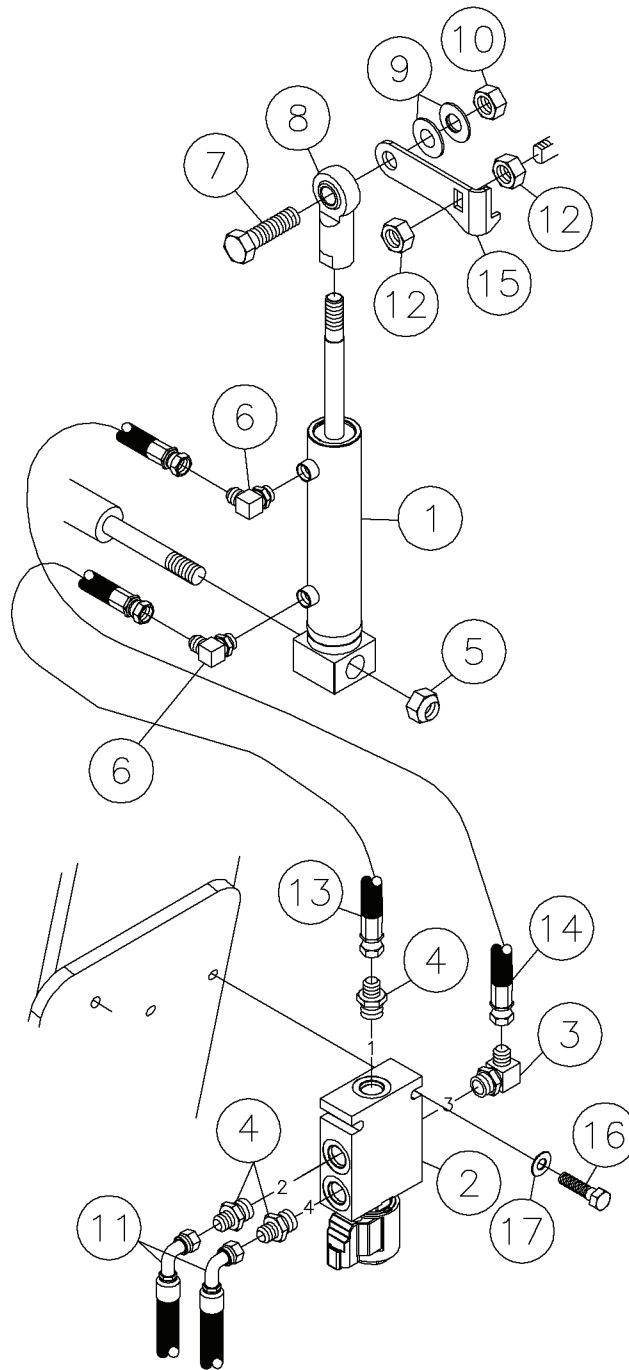
Cylinder - Water Shutoff (S/N 244-) Fig 5-4r01



Cylinder - Water Shutoff (S/N 244-) Fig 5-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Change Cylinder
1	*	296285658	CYLINDER - 1 X 3-1/2	1	(S/N 244-) Breakdown Fig. 11-18
2		294901001	VALVE - GREASER	1	Breakdown Fig. 11-9
3		57950001	FITTING-90-4MJ-6MORBA	1	
4		57968001	FITTING-STR-4MJ-6MORB	3	
5		451001	NUT-1/2 N.F. HEX	1	
6		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	2	
7		235721001	BOLT-1/2-13X1 1/2 GR8 ZINC PLT	1	
8		224291001	BALL JOINT-1/2-20 FEMALE THDS.	1	
9		485025	WASHER-1/2 FLAT-HARDENED-ZINC	2	
10		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	1	
11		296269294	HOSE-HYD-1/4X28 4FSJIC ST/90 3300PSI	2	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	2	
13		53843547	HOSE-1/4X21 4FS JIC 3000 PSI	1	
14		53843787	HOSE-1/4X24 4FSJIC ST 100R2	1	
15		278002001	ARM-LEVER	1	
16		248030001	BOLT-5/16-18X1 3/4 GR8 ZINC PL	2	
17		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	

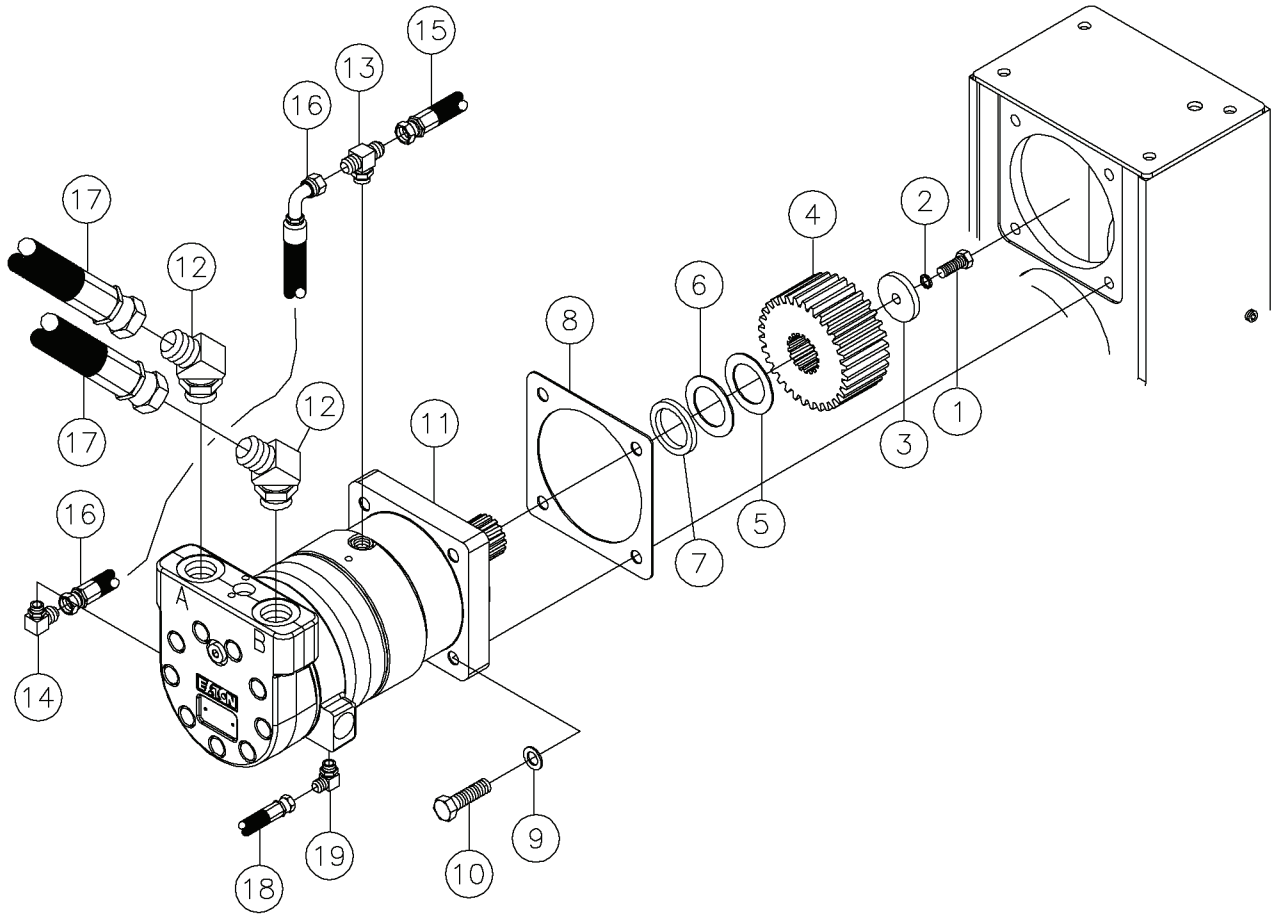
Cylinder - Water Shutoff Fig 5-4



Cylinder - Water Shutoff Fig 5-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		287591001	CYLINDER - 1 X 3-1/2	1	Breakdown Fig. 11-18
2		294901001	VALVE - GREASER	1	Breakdown Fig. 11-9
3		57950001	FITTING-90-4MJ-6MORBA	1	
4		57968001	FITTING-STR-4MJ-6MORB	3	
5		451001	NUT-1/2 N.F. HEX	1	
6		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	2	
7		235721001	BOLT-1/2-13X1 1/2 GR8 ZINC PLT	1	
8		224291001	BALL JOINT-1/2-20 FEMALE THDS.	1	
9		485025	WASHER-1/2 FLAT-HARDENED-ZINC	2	
10		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	1	
11		296269294	HOSE-HYD-1/4X28 4FSJIC ST/90 3300PSI	2	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	2	
13		53843547	HOSE-1/4X21 4FS JIC 3000 PSI	1	
14		53843787	HOSE-1/4X24 4FSJIC ST 100R2	1	
15		278002001	ARM-LEVER	1	
16		248030001	BOLT-5/16-18X1 3/4 GR8 ZINC PL	2	
17		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	

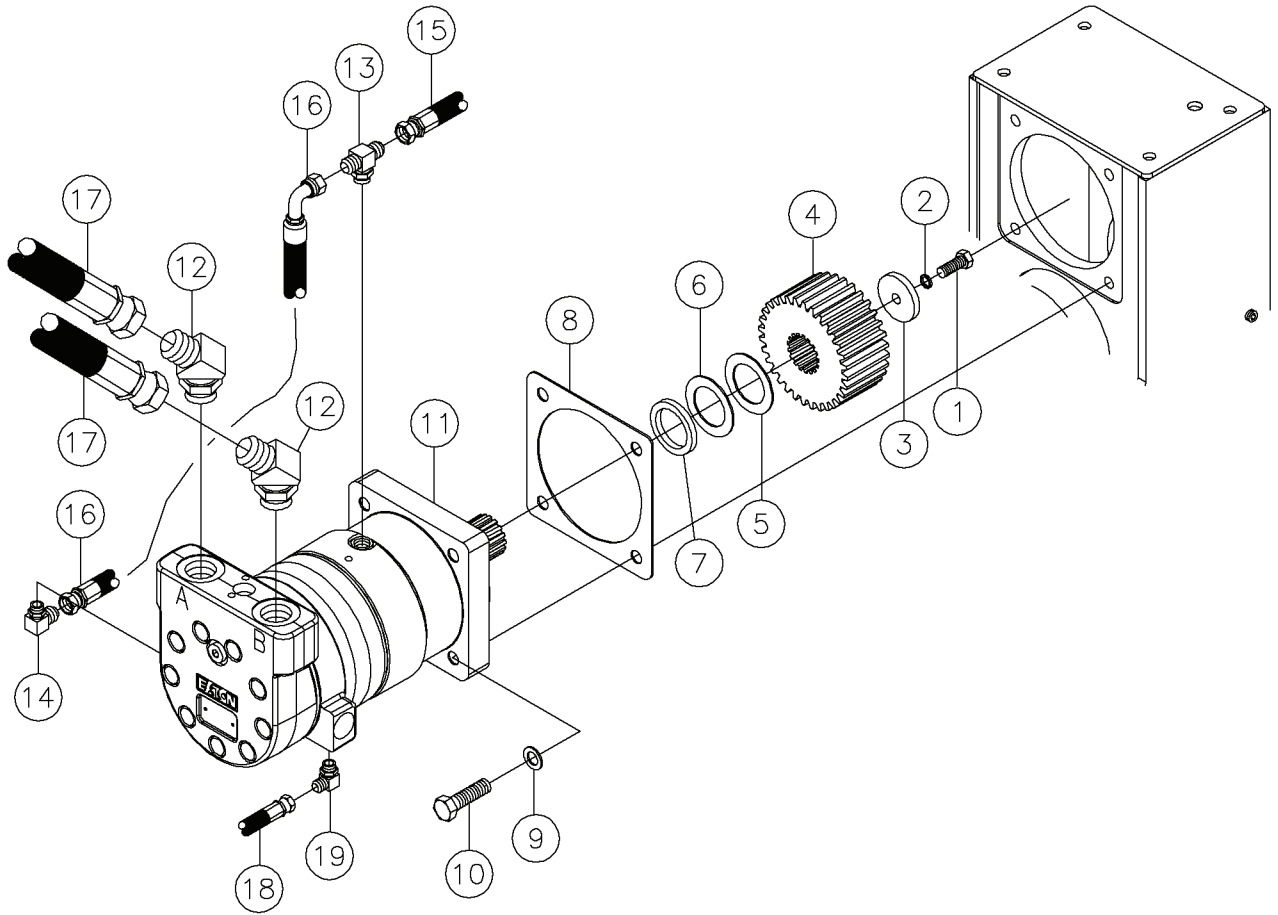
Motor - Rotation (S/N 202-) Fig 5-5r01



Motor - Rotation (S/N 202-) Fig 5-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Change Motor
1		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	1	
2		235713001	WASHER - FLATSTRL -.38 -.41 X .81-.06	1	
3		902087001	CAP-SHAFT	1	
4		296272020	GEAR - TOP ROTATION 17T SPL	1	
5		4542001	WASHER-2 1/4X1 1/2X18 GA M.B.	1	
6		483009	WASHER-2 1/4X1 1/2X14 GA M.B.	1	
7		235663001	TUBE-GEAR SPACER	1	
8		217035001	GASKET-.020 4 BOLT	1	
9		485025	WASHER-1/2 FLAT-HARDENED-ZINC	4	
10		240334001	BOLT-1/2-13X1 3/4 GR8 ZINC PLT	4	
11	*	296275156	MOTOR - 30.7 CU. IN. 3SPD 17T SPL	1	(S/N 202-) Breakdown Fig. 11-15
12		60718001	12M JICX12M ADJ.45 DEG.EL	2	
13		68787001	6M (BCH)X6M JICX6M JIC TEE	1	
14		60906001	4MX6M JIC 90 DEG ELBOW	1	
15		57940135	HOSE-3/8X172 6FSJIC (3000)	1	
16		278804001	HOSE-3/8X12 6FSJIC ST/90 (M3K)	1	
17		296270893	HOSE-3/4X169 12FS JIC ST/45 (4000)	2	
18		53843179	HOSE-1/4X180 4FS JIC (100R1)	1	
19		59423001	4M JICX4M ADJ.90 DEG.ELBOW	1	

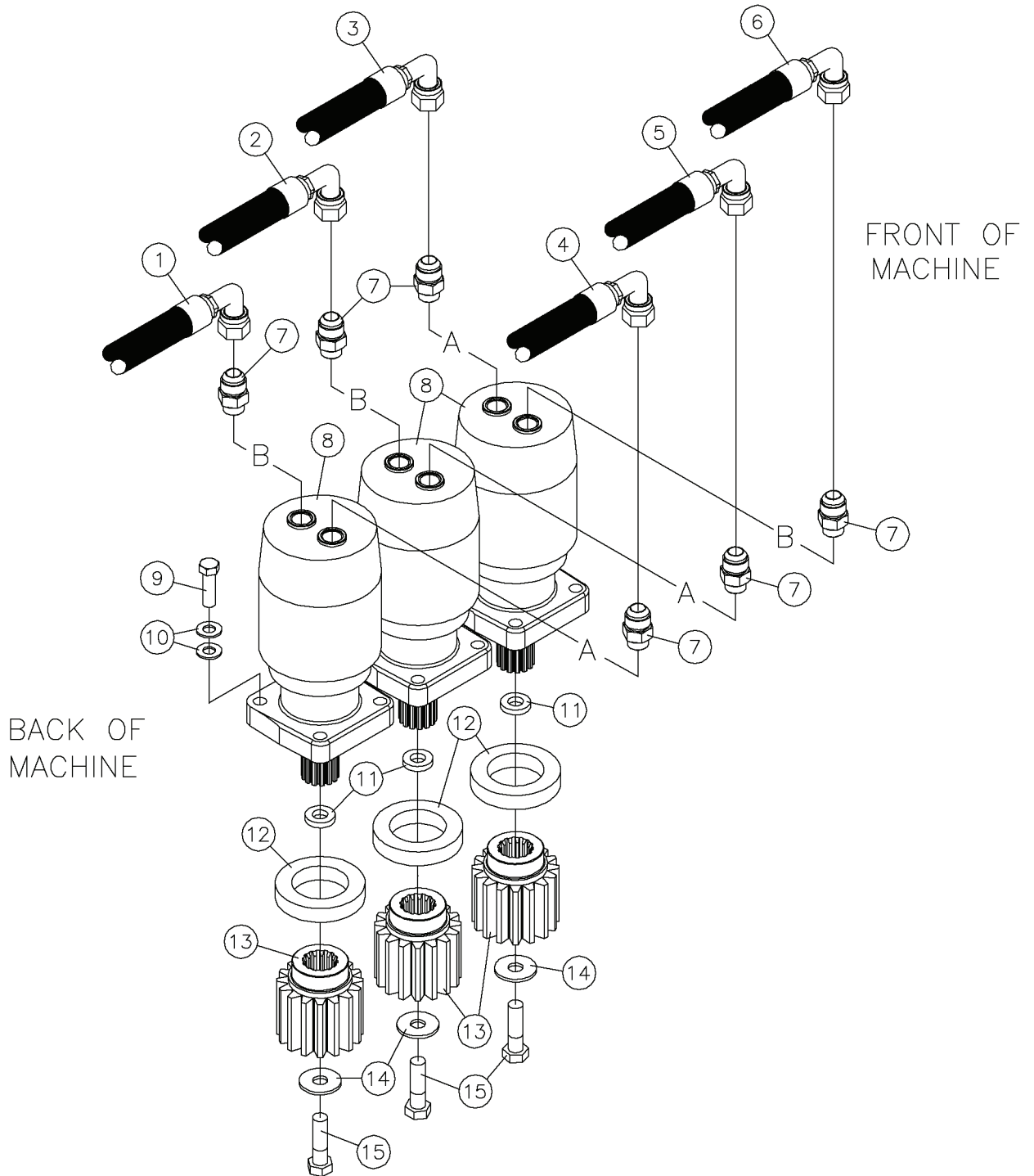
Motor - Rotation Fig 5-5



Motor - Rotation Fig 5-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	1	
2		235713001	WASHER - FLATSTRL -.38 -.41 X .81-.06	1	
3		902087001	CAP-SHAFT	1	
4		296272020	GEAR - TOP ROTATION 17T SPL	1	
5		4542001	WASHER-2 1/4X1 1/2X18 GA M.B.	1	
6		483009	WASHER-2 1/4X1 1/2X14 GA M.B.	1	
7		235663001	TUBE-GEAR SPACER	1	
8		217035001	GASKET-.020 4 BOLT	1	
9		485025	WASHER-1/2 FLAT-HARDENED-ZINC	4	
10		240334001	BOLT-1/2-13X1 3/4 GR8 ZINC PLT	4	
11		296272101	MOTOR - 30.7 CU. IN. 3SPD 17T SPL	1	Breakdown Fig. 11-15
12		60718001	12M JICX12M ADJ.45 DEG.EL	2	
13		68787001	6M (BCH)X6M JICX6M JIC TEE	1	
14		60906001	4MX6M JIC 90 DEG ELBOW	1	
15		57940135	HOSE-3/8X172 6FSJIC (3000)	1	
16		278804001	HOSE-3/8X12 6FSJIC ST/90 (M3K)	1	
17		296270893	HOSE-3/4X169 12FS JIC ST/45 (4000)	2	
18		53843179	HOSE-1/4X180 4FS JIC (100R1)	1	
19		59423001	4M JICX4M ADJ.90 DEG.ELBOW	1	

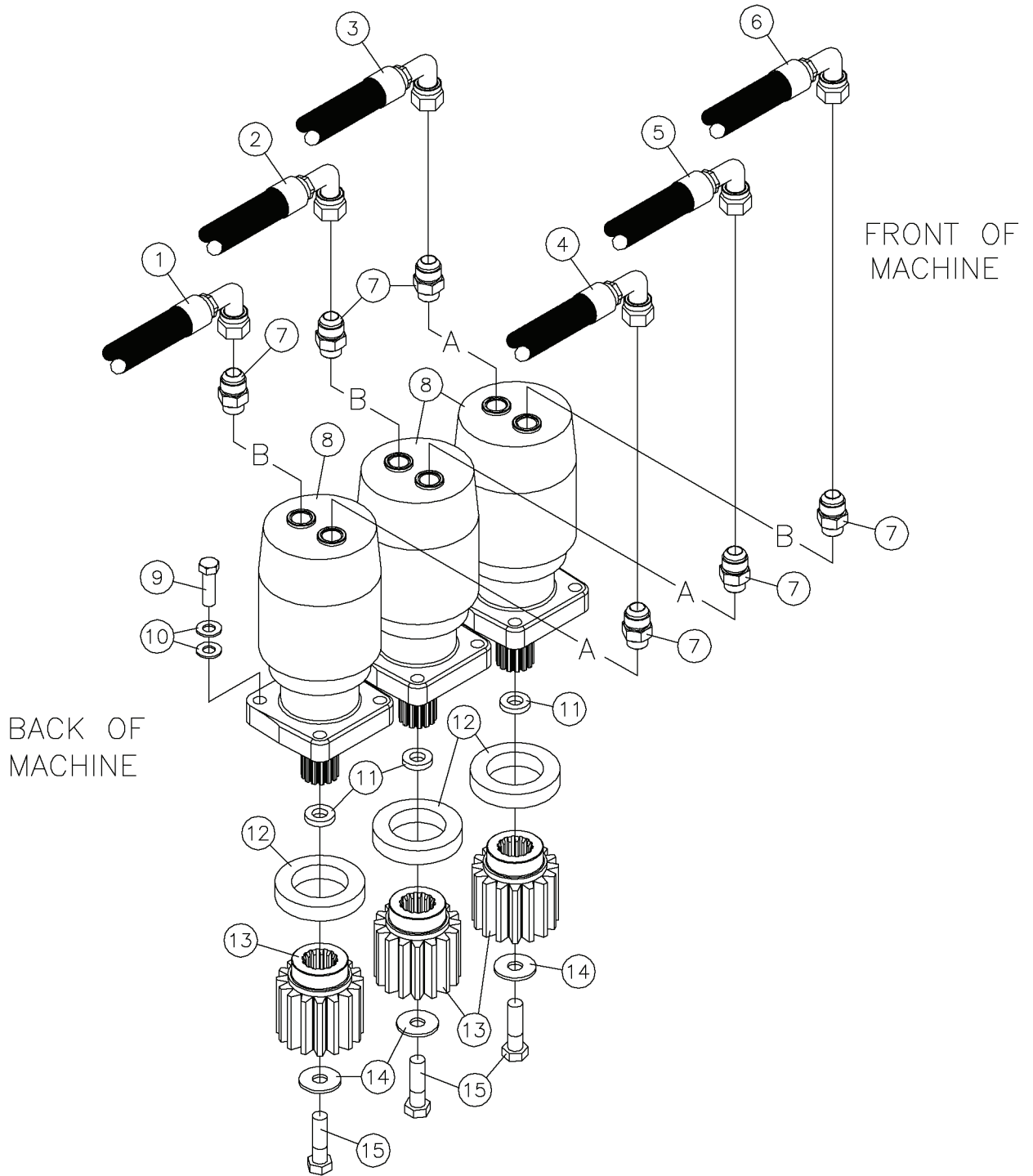
Motor - Thrust/Pullback Fig 5-6r01



Motor - Thrust/Pullback Fig 5-6r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296282038	HOSE-HYD 3/4X19.5 12FSJ ST/90 4000PSI-M4	1	
2		296282036	HOSE-HYD 3/4X31 12FSJ ST/90 4000 PSI-M4K	1	
3		296282033	HOSE-HYD 3/4X33 12FSJ ST/90L 4000PSI-M4K	1	
4		296282034	HOSE-HYD 3/4X18 12FSJ ST/90 4000 PSI-M4K	1	
5		296282035	HOSE-HYD 3/4X29 12FSJ ST/90 4000 PSI-M4K	1	
6		296282037	HOSE-HYD 3/4X37 12FSJ ST/90L 4000PSI-M4K	1	
7		60910001	10MX12M JIC ST.ADAPTER	6	
8		296257255	MOTOR - 20.6 CU. IN. HYD.	3	Breakdown Fig. 11-16
9		240334001	BOLT-1/2-13X1 3/4 GR8 ZINC PLT	12	
10		485025	WASHER-1/2 FLAT-HARDENED-YZ	24	
11		296282021	SPACER - T/P MOTORS	3	
12		296282018	BEARING - 6012 RS	3	
13		296282015	PINION - GEAR	3	
14		235715001	WASHER-FLATSTRL-5/8" YZ A325	3	
15		255634001	BOLT-5/8-18 X 2 1/4 HEX GR.8 ZY	3	

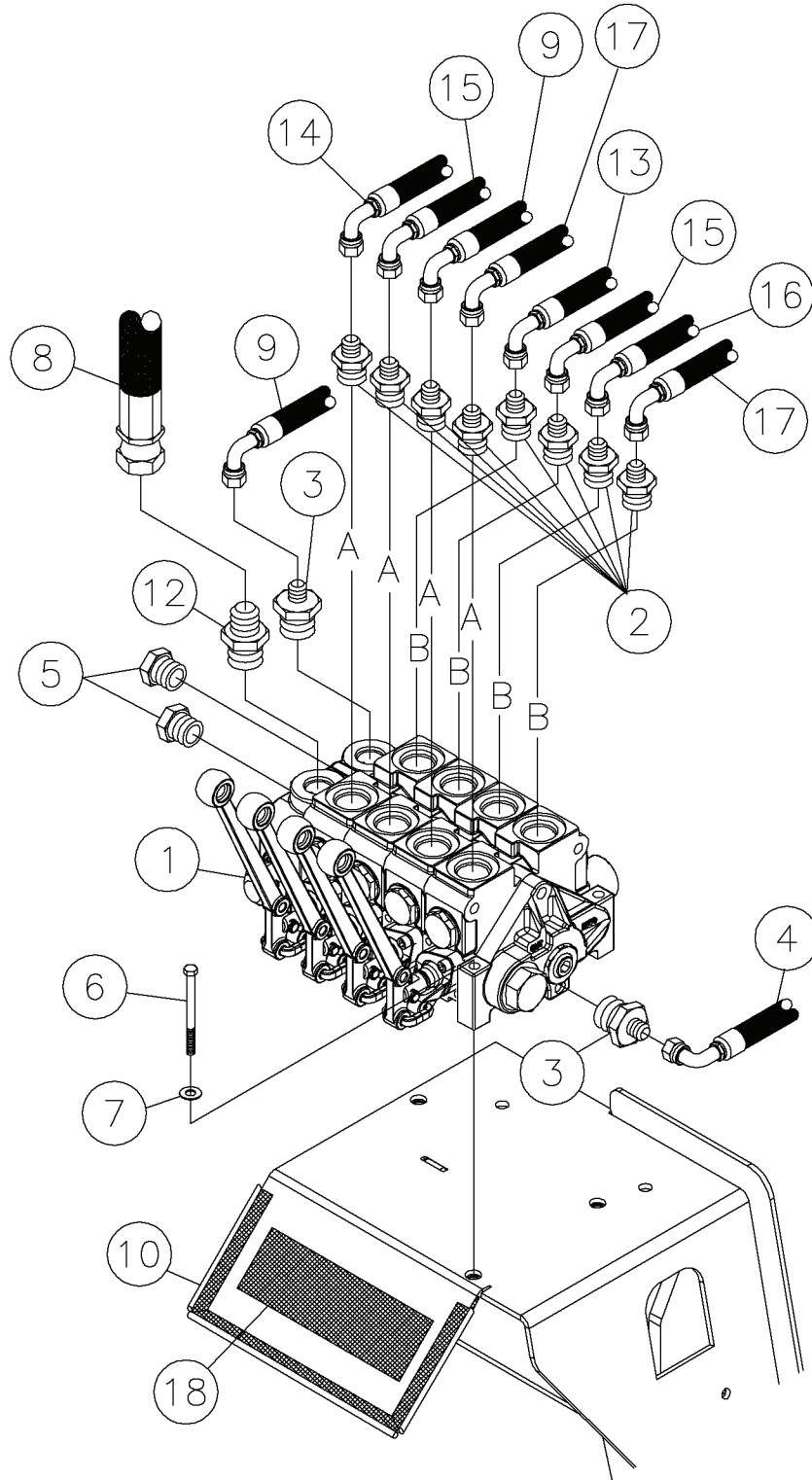
Motor - Thrust/Pullback Fig 5-6



Motor - Thrust/Pullback Fig 5-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282038	HOSE-HYD 3/4X19.5 12FSJ ST/90 4000PSI-M4	1	
2		296282036	HOSE-HYD 3/4X31 12FSJ ST/90 4000 PSI-M4K	1	
3		296282033	HOSE-HYD 3/4X33 12FSJ ST/90L 4000PSI-M4K	1	
4		296282034	HOSE-HYD 3/4X18 12FSJ ST/90 4000 PSI-M4K	1	
5		296282035	HOSE-HYD 3/4X29 12FSJ ST/90 4000 PSI-M4K	1	
6		296282037	HOSE-HYD 3/4X37 12FSJ ST/90L 4000PSI-M4K	1	
7		60910001	10MX12M JIC ST.ADAPTER	6	
8		296257255	MOTOR - 20.6 CU. IN. HYD.	3	Breakdown Fig. 11-16
9		240334001	BOLT-1/2-13X1 3/4 GR8 ZINC PLT	12	
10		485025	WASHER-1/2 FLAT-HARDENED-YZ	24	
11		296282021	SPACER - T/P MOTORS	3	
12		296282018	BEARING - 6012 RS	3	
13		296282015	PINION - GEAR	3	
14		485015	WASHER-5/8 FLAT	3	
15		255634001	BOLT-5/8-18 X 2 1/4 HEX GR.8 ZY	3	

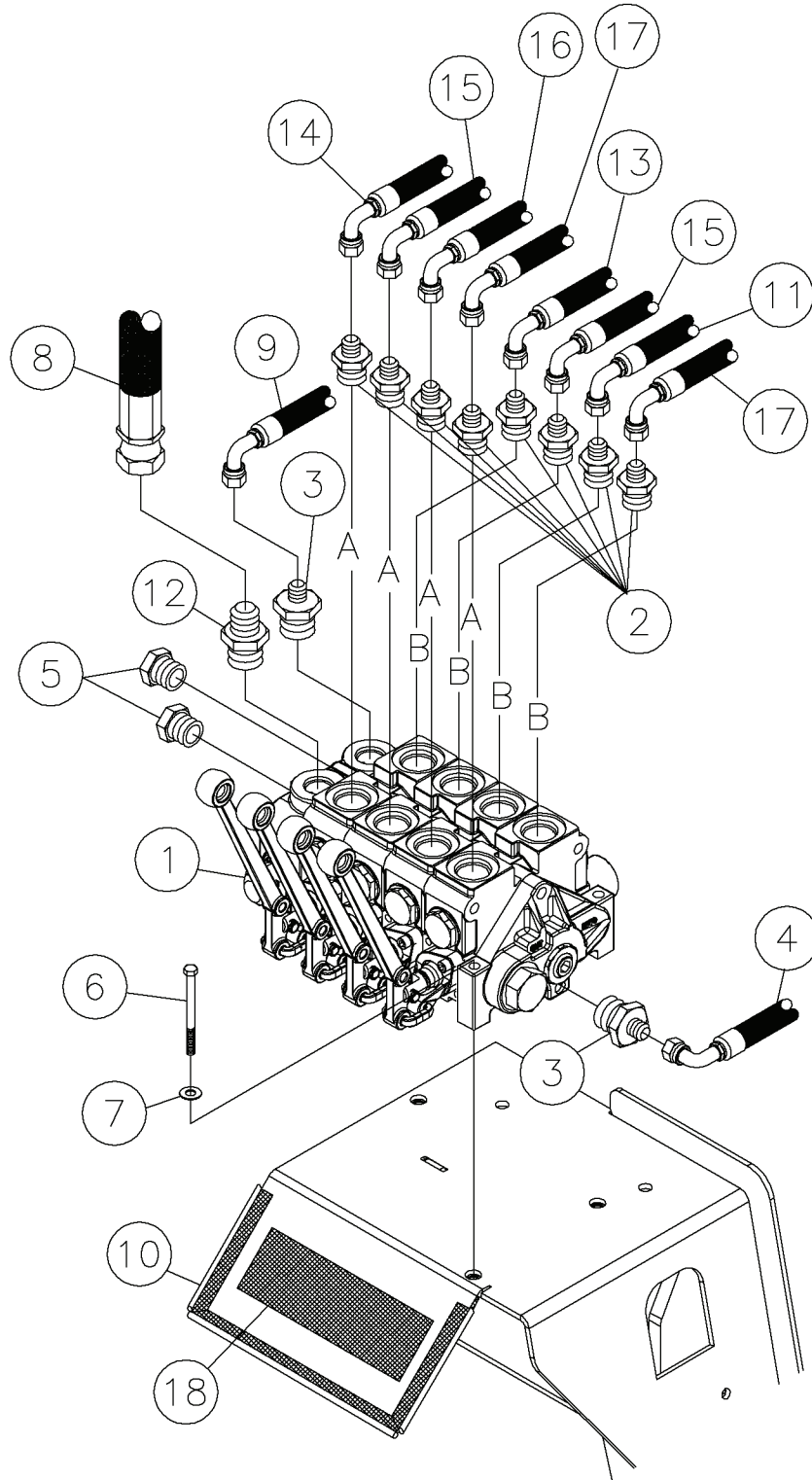
Valve - Stakedown Fig 5-7r01



Valve - Stakedown Fig 5-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		Change Hoses
1		296257243	VALVE - 4 - SECTION CONTROL	1	Breakdown On Fig 11-1
2		60247001	FITTING - 8M O-RING X 6M JIC ST.	8	
3		64168001	12MX6 JIC M STR.	2	
4		296275054	HOSE-3/8 X 30 6JIC ST/90 3000PSI	1	
5		4235001	FITTING - PLUG - 10MORB - HEX	2	
6		250502001	BOLT 5/16-18 X 2 3/4"GR8 HEX Y	3	
7		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	6	
8		296275055	HOSE-5/8X115-10FSJIC-ST/90-3000PSI	1	
9	*	296260444	HOSE - 3/8 X 20 ST/90 6FSJIC 3300 PSI	2	
10		97456001	SEAL-BULB EDGE 1/8" STYLE	A/R	P/N Qty. Of 1 = 1 Foot
11		700IB959	DECAL - STAKEDOWN	1	
12		53854001	12M O-RING-10M JIC ST.	1	
13		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
14		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
15		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
16		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
17		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	

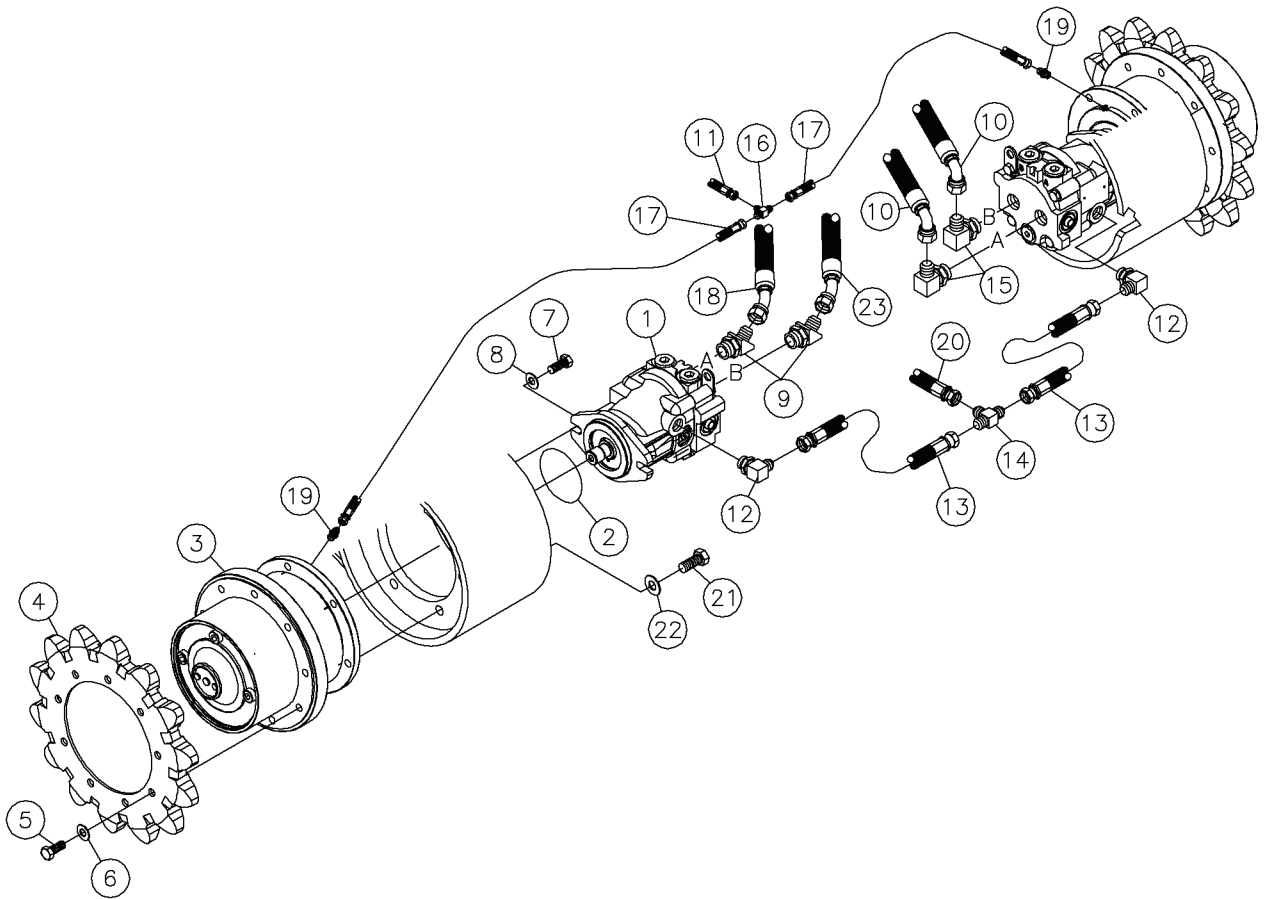
Valve - Stakedown Fig 5-7



Valve - Stakedown Fig 5-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257243	VALVE - 4 - SECTION CONTROL	1	Breakdown On Fig 11-1
2		60247001	FITTING - 8M O-RING X 6M JIC ST.	8	
3		64168001	12MX6 JIC M STR.	2	
4		296275054	HOSE-3/8 X 30 6JIC ST/90 3000PSI	1	
5		4235001	FITTING - PLUG - 10MORB - HEX	2	
6		250502001	BOLT 5/16-18 X 2 3/4"GR8 HEX Y	3	
7		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	6	
8		296275055	HOSE-5/8X115-10FSJIC-ST/90-3000PSI	1	
9		296260444	HOSE - 3/8 X 20 ST/90 6FSJIC 3300 PSI	1	
10		97456001	SEAL-BULB EDGE 1/8" STYLE	A/R	P/N Qty. Of 1 = 1 Foot
11		296260442	HOSE - 3/8 X 18 ST/90 6FSJIC 3300PSI	1	
12		53854001	12M O-RING-10M JIC ST.	1	
13		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
14		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
15		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
16		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
17		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	
18		700IB959	DECAL - STAKEDOWN	1	

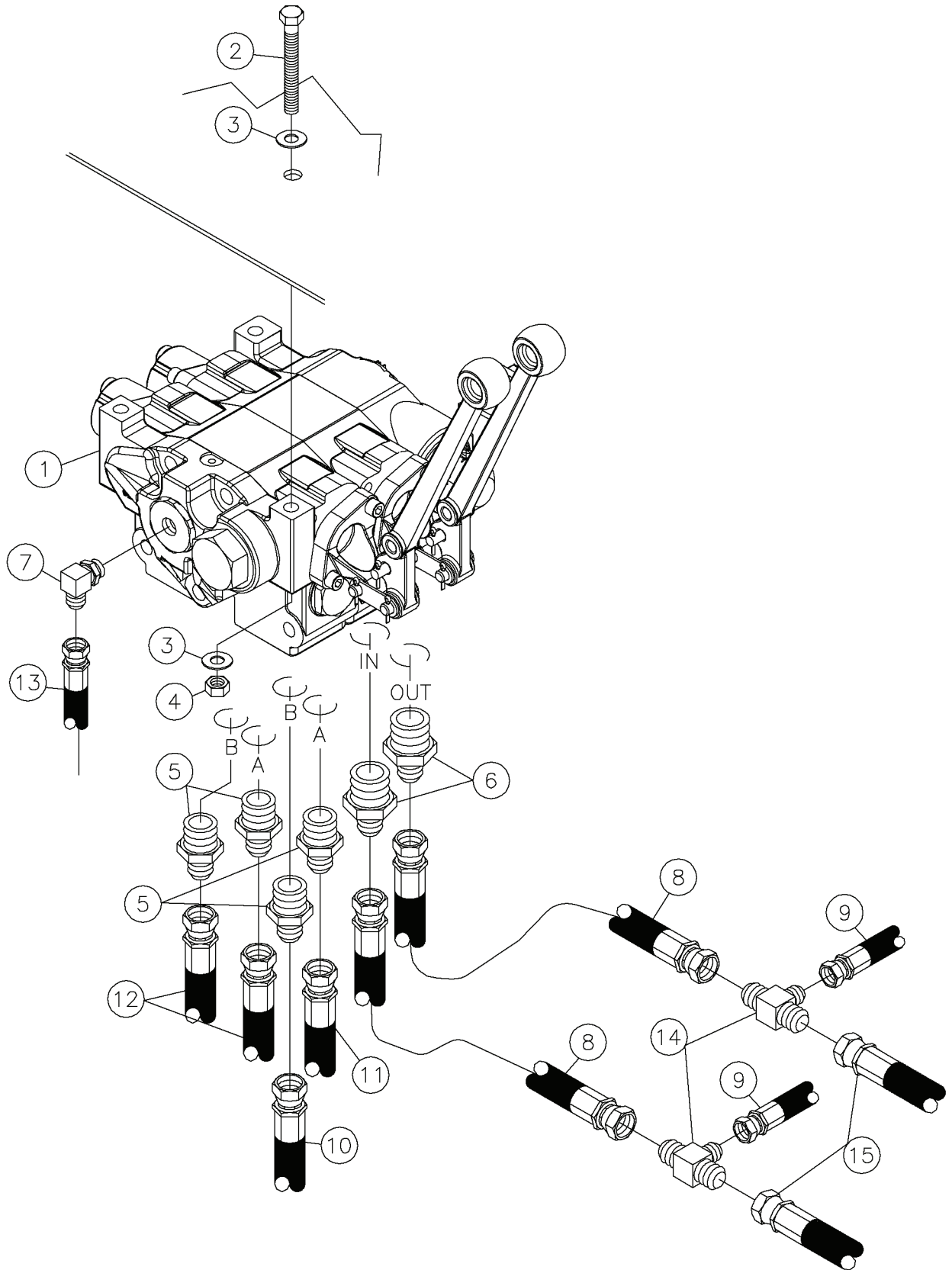
Track Drive (S/N 264-) Fig 5-8



Track Drive (S/N 264-) Fig 5-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		Added Serial Number
1		296266590	MOTOR - 2.7 CU. IN. HYD.	2	
		70027003	SEAL-LIP	2	
2		296251909	O-RING	2	
3		296272083	PLANETARY - TRACK DRIVE	2	(S/N 264-) Breakdown On Fig 11-21
4		296280339	SPROCKET-14 TOOTH DRIVE	2	
5		24772001	BOLT-12M X 35 GR. 8.8 HEX HEAD	36	
6		238249001	12MM HARD WASHER Y/ ZINC	36	
7		235737001	BOLT-1/2-13X1 1/4 GR8 ZINC PLT	4	
8		485025	WASHER-1/2 FLAT-HARDENED-ZINC	4	
9		88659001	FITTING-12M ORINGX10MJIC 45DEG	2	
10		296270822	HOSE - 5/8 X 56 ST/45 10FSJIC 4000PSI	2	
11		296260429	HOSE - 1/4 X 57 ST/ST 4FSJIC 3300 PSI	1	
12		59407001	8M JICX10M ADJ. 90 DEG.ELBOW	2	
13		53844005	HOSE-1/2X12 8FS JIC (100R2)	2	
14		61363001	8M JIC TEE	1	
15		59409001	10M JICX12M ADJ. 90 DEG.ELBOW	2	
16		54387001	FITTING-#4M JIC UNION TEE	1	
17		296260415	HOSE - 1/4 X 14 ST/ST 4FSJIC 3300PSI	2	
18		296270821	HOSE-5/8X60 ST/45 10FSJIC 4000PSI	1	
19		60908001	FITTING-4MX4M JIC STR ADAPTER	2	
20		296260462	HOSE - 1/2 X 49 STsT 8FSJIC 500PSI	1	
21		230727001	BOLT-5/8-11X1 1/2GR8 PLATED	12	
22		235715001	WASHER-5/8 SAE HARD ZINC PLTD	12	
23		296270823	HOSE - 5/8 X 57 ST/45 10FSJIC 4000PSI	1	

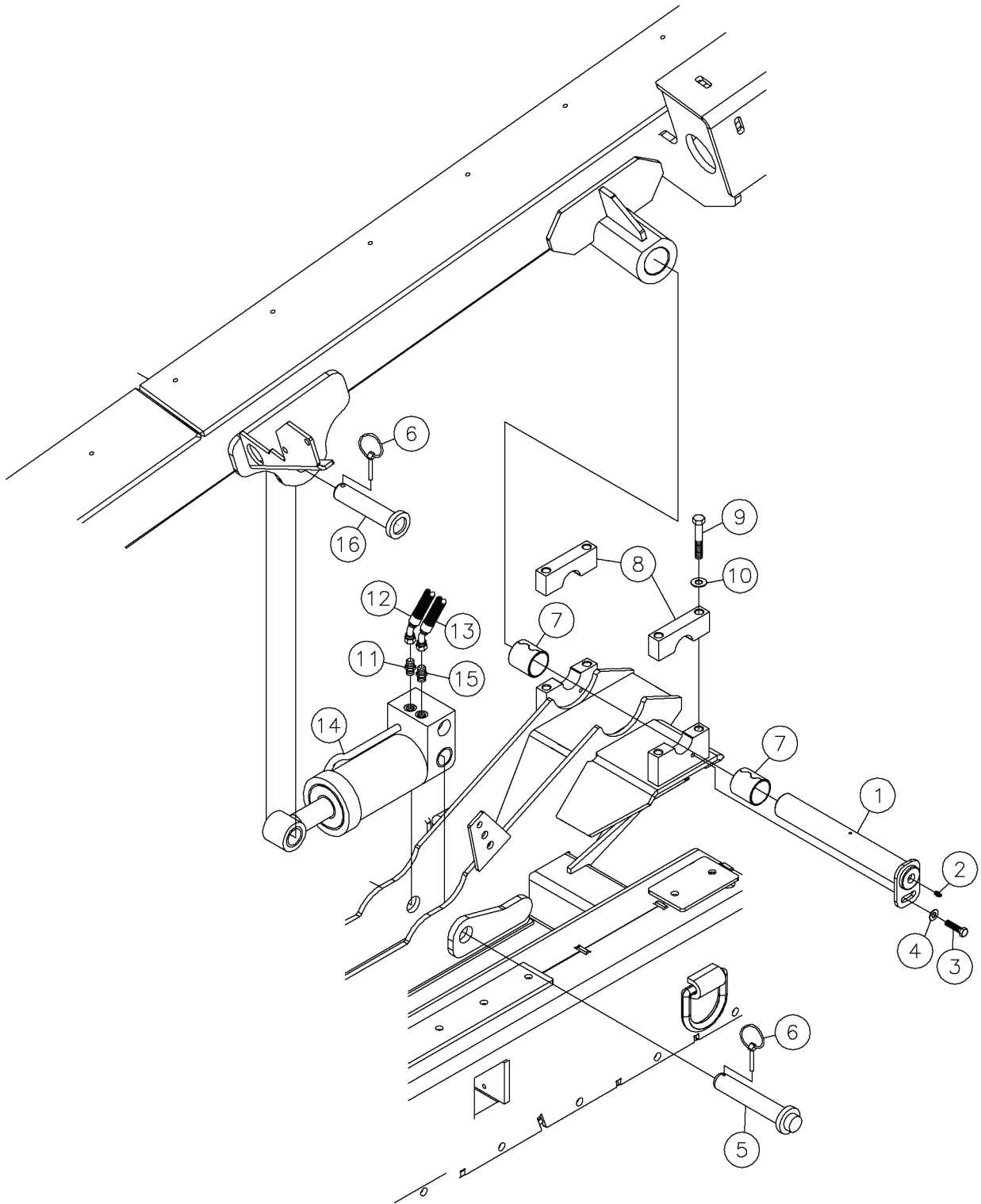
Valve - Rack Pivot Fig 5-9



Valve - Rack Pivot Fig 5-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257181	VALVE - 2 - SECTION	1	Breakdown On Fig 11-2
2		250502001	BOLT 5/16-18 X 2 3/4"GR8 HEX Y	3	
3		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	6	
4		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	3	
5		60247001	FITTING - 8M O-RING X 6M JIC ST.	4	
6		57946001	10MX#6JIC ST ADAPTER	2	
7		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
8		296260448	HOSE - 3/8 X 30 ST/ST 6FSJIC 3300PSI	2	
9		296269294	HOSE-HYD-1/4X28 4FSJIC ST/90 3300PSI	2	
10		296269300	HOSE-HYD-3/8X96 6FSJIC ST/45 3300PSI	1	
11		296260455	HOSE - 3/8 X 93 6FSJIC ST/45 3300 PSI	1	
12		296269289	HOSE-HYD-3/8X95 6FSJIC ST/ST 3300 PSI	2	
13		296260433	HOSE - 1/4 X 90 ST/ST 4FSJIC 3300 PSI	1	
14		296270825	6JICX6JICX4JIC	2	
15		296269291	HOSE-HYD-3/8X60 6FSJIC ST/ST 3300 PSI	2	

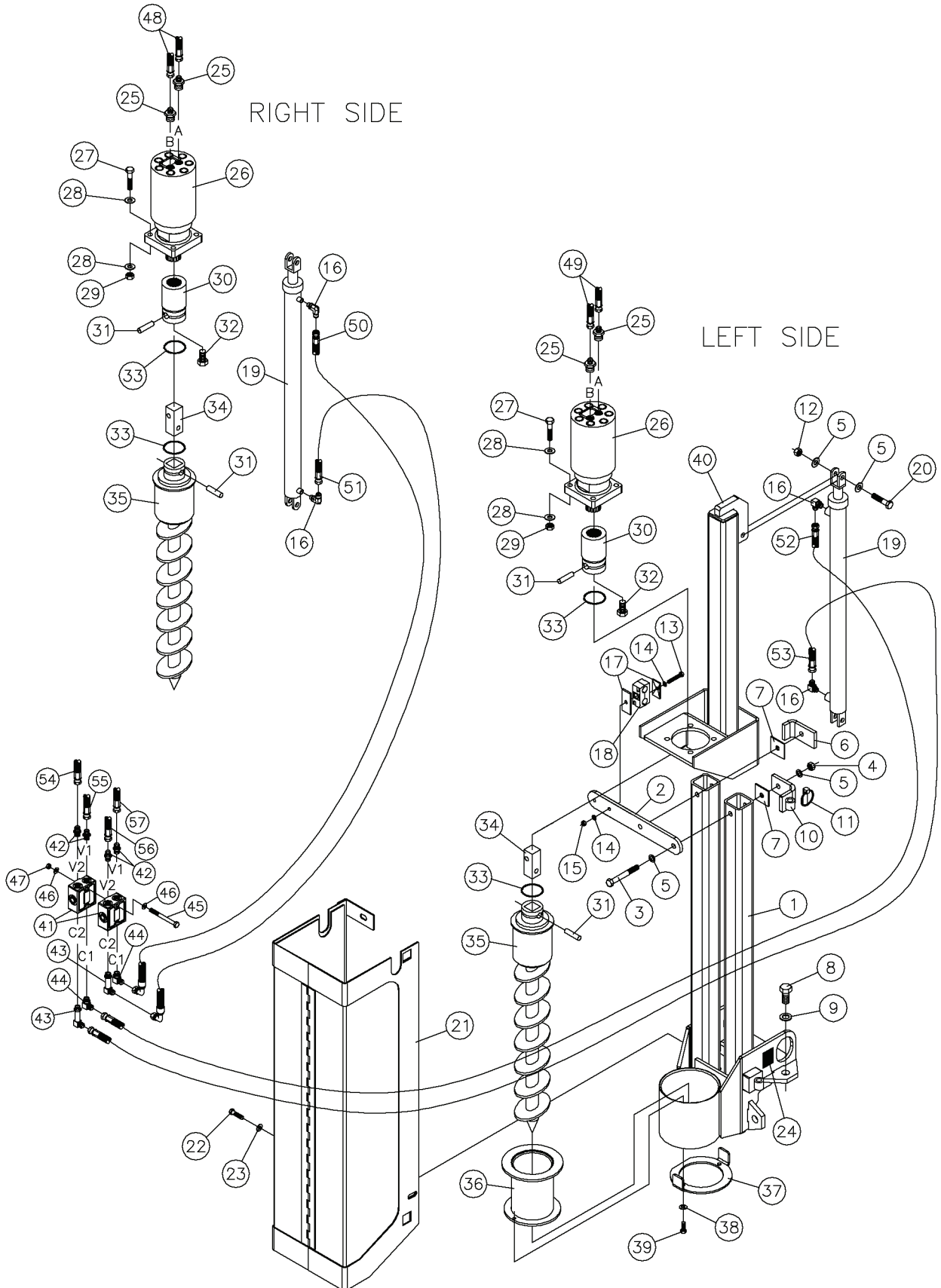
Cylinder - Rack Pivot Fig 5-10



Cylinder - Rack Pivot Fig 5-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266594	PIN - PIVOT	1	
2		598001	FITTING-1/4" NF ST GREASE ZERK	1	
3		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	1	
4		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
5		281752001	PIN - PIVOT	1	
6		1797003	PIN-QUICK ATTACHMENT LATCH 1/4"- "6M DIA"	2	
7		282797001	BUSHING - SPRING 2 X 1 3/4 X 2	2	
8		296266551	PIVOT - TOP CAP	2	
9		238240001	Bolt 1/2" 13x5 1/2" Grade 8 Hex Y Zinc	4	
10		485025	WASHER-1/2 FLAT-HARDENED-ZINC	4	
11		600087001	FIT-6MO-RINGX6MJIC ST.W/R.062	1	
12		296260455	HOSE - 3/8 X 93 6FSJIC ST/45 3300 PSI	1	
13		296269300	HOSE-HYD-3/8X96 6FSJIC ST/45 3300PSI	1	
14		296270800	CYLINDER - 3.50 X 4.00 HYD.	1	Breakdown On Fig 11-20
15		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	
16		296270837	PIN-LIFT CYLINDER	1	

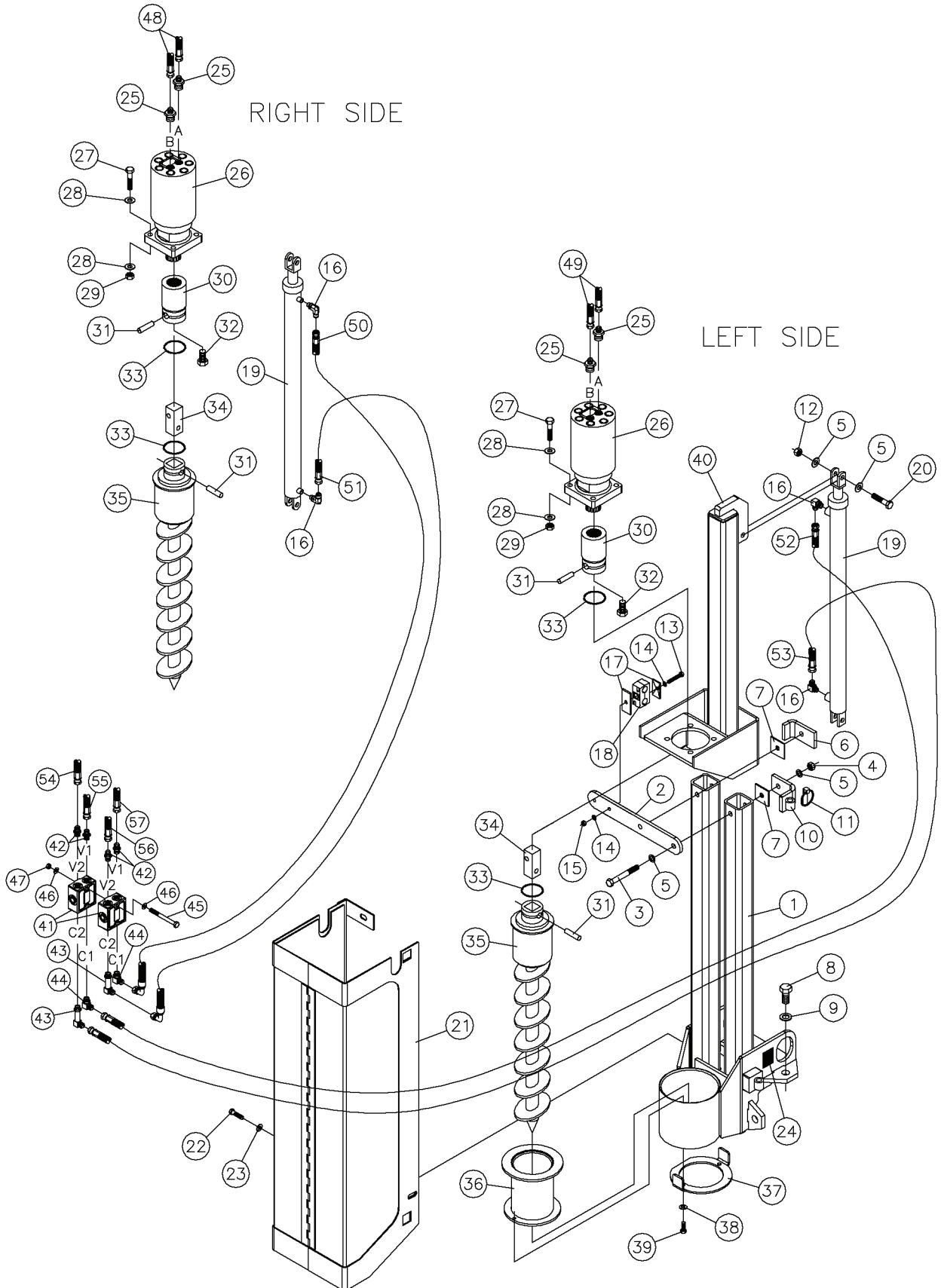
Stakedown - Standard 4" (S/N 244-) Fig 5-11r01



Stakedown - Standard 4" (S/N 244-) Fig 5-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		Added Remarks
1		296275488	WELDMENT - TOWER STAKEDOWN LEFT	1	
		296275489	WELDMENT-TOWER STAKEDOWN RIGHT	1	
2		279150001	BAR-LIGHT REINFORCEMENT	2	
3		296275065	SCREW - 1/2-13 X 4.25 GR.8 Y/ZINC	4	
4		235731001	NUT-1/2-13 GR8 ZINC PLTD	4	
5		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
6		236232001	BAR-GUIDE	2	
7		236233001	PLATE-SPACER	4	
8		385014	BOLT-3/4"-10X1 1/2 GR.8 HEX	8	
9		235717001	WASHER - 3/4" HARDENED FLAT YZ	8	
10		296280264	WELDMENT-MOUNT STAKEDOWN GUARD-UPPER	2	
11		1797001	PIN-QUICK TACH. 7/16X1 3/4	4	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	4	
13		244147001	BOLT-5/16-18X2 1/4 GR8 ZINC PL	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
15		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
16		60906001	4MX6M JIC 90 DEG ELBOW	4	
17		67846003	PLATE-TWIN COVER	2	
18		900035005	CLAMP-3/8"DOUBLE HOSE(COMplete)	4	
19		296285659	CYLINDER-1-1/2X24	2	(S/N 244-)
		296285212	SHAFT W/CLEVIS	1	
		296271163	REPAIR KIT	1	
20		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	4	
21	*	296275486	WELDMENT - STAKE DOWN SHIELD	1	Right
	*	296275438	WELDMENT - STAKEDOWN SHIELD	1	Left
22		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
24		7000I834	DECAL - TIE DOWN POINT	2	
			Continued On Next Page		

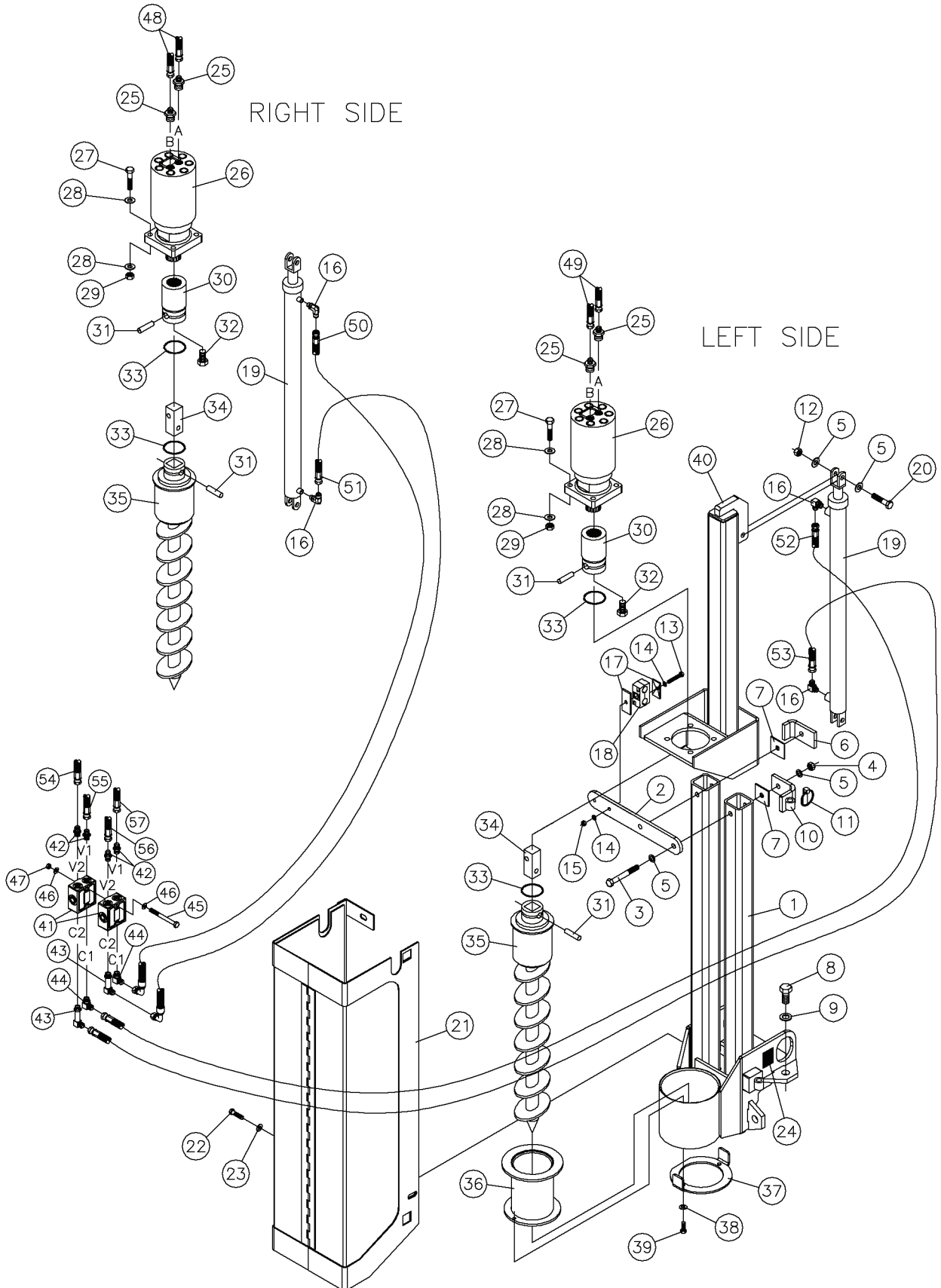
Stakedown - Standard 4" (S/N 244-) (Continued) Fig 5-11r01



Stakedown - Standard 4" (S/N 244-) (Continued) Fig 5-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		Added Remarks
25		57946001	10MX#6JIC ST ADAPTER	4	
26		296257255	MOTOR - 20.6 CU. IN. HYD.	2	Breakdown Fig. 11-16
27		240335001	BOLT-1/2-13X2 1/4 GR8 ZINC PLT	8	
28		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
29		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	8	
30		296257177	COUPLER - STAKEDOWN	2	
31		236200001	PIN-STAKE KEEPER	4	
32		384012	BOLT-5/8-18X1 1/4 GRADE 8	2	
33		236229001	O-RING - 329	4	
34		236230001	BAR-STAKE DRIVE	2	
35		236197001	STAKE-4" SQ. DRIVE	2	
36		296279715	TUBE-4" STAKE	2	
37		296279719	TUBE - LOCK	2	
38		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
39		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
40		296279714	MOUNT - SLIDE MOTOR	2	
41		86668001	VALVE-LOA-6-D	2	Breakdown Fig. 11-3
42		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	
43		157172001	FITTING - 6M X 6M JIC LL 90 DEG	2	
44		59426001	FITTING - 90-6MJ-6MORBA	2	
45		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
46		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
47		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
48		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	
49		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
50		296260446	HOSE - 3/8 X 28 ST/90 6FSJIC3300PSI SLVD	1	
51		296260445	HOSE-3/8X27 ST/90 6FSJIC 3300 PSI SLVD	1	
52		57940423	HOSE-3/8X52 6FS JIC 4000 PSI	1	
53		296279734	HOSE - 3/8 X 40 6FSJ ST/ST	1	
54		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
55		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
56		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
57		296260442	HOSE - 3/8 X 18 ST/90 6FSJIC 3300PSI	1	

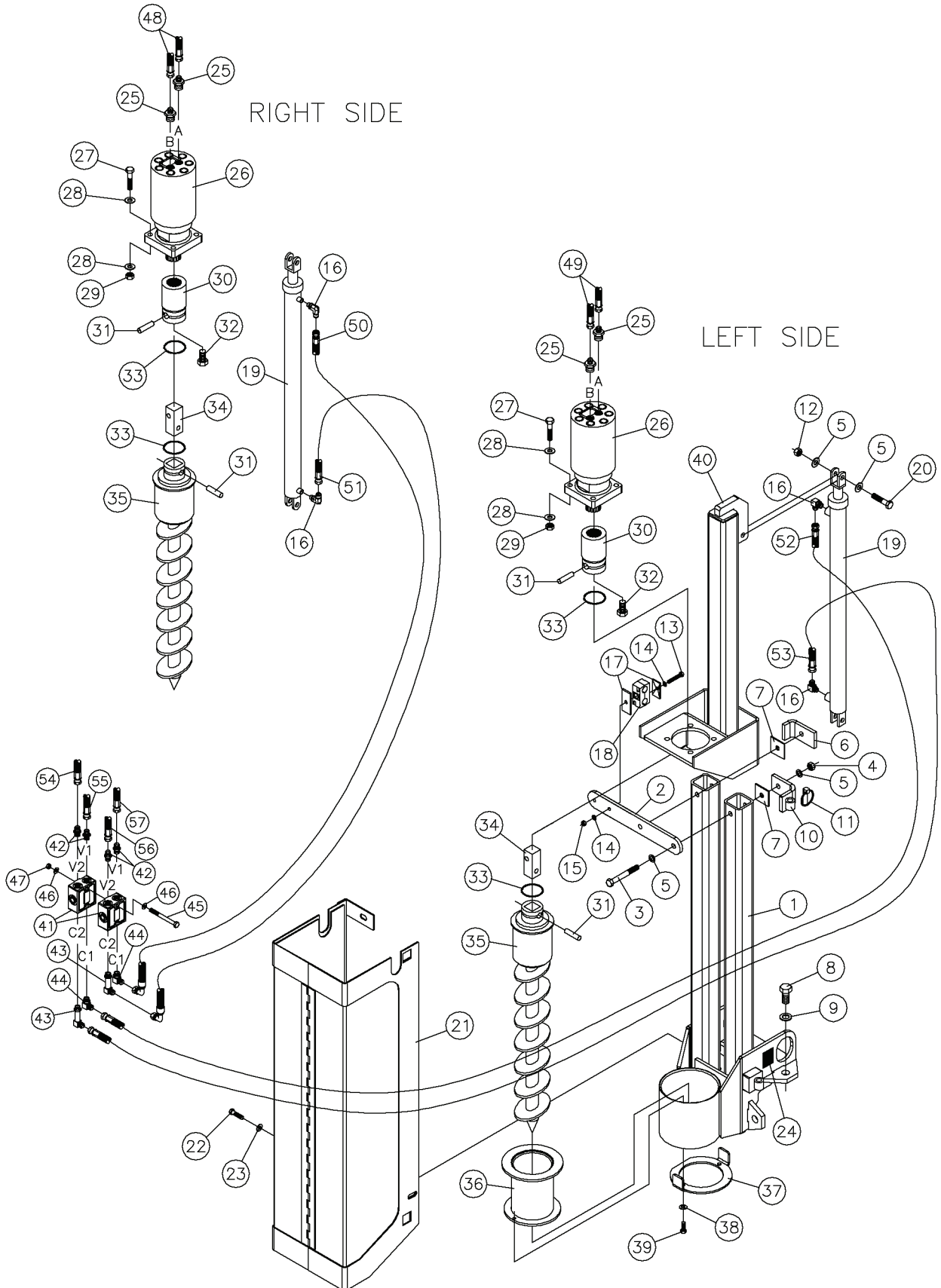
Stakedown - Standard 4" Fig 5-11



Stakedown - Standard 4" Fig 5-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275488	WELDMENT - TOWER STAKEDOWN LEFT	1	
		296275489	WELDMENT-TOWER STAKEDOWN RIGHT	1	
2		279150001	BAR-LIGHT REINFORCEMENT	2	
3		296275065	SCREW - 1/2-13 X 4.25 GR.8 Y/ZINC	4	
4		235731001	NUT-1/2-13 GR8 ZINC PLTD	4	
5		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
6		236232001	BAR-GUIDE	2	
7		236233001	PLATE-SPACER	4	
8		385014	BOLT-3/4"-10X1 1/2 GR.8 HEX	8	
9		235717001	WASHER - 3/4" HARDENED FLAT YZ	8	
10		296280264	WELDMENT-MOUNT STAKEDOWN GUARD-UPPER	2	
11		1797001	PIN-QUICK TACH. 7/16X1 3/4	4	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	4	
13		244147001	BOLT-5/16-18X2 1/4 GR8 ZINC PL	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
15		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
16		60906001	4MX6M JIC 90 DEG ELBOW	4	
17		67846003	PLATE-TWIN COVER	2	
18		900035005	CLAMP-3/8"DOUBLE HOSE(COMplete)	4	
19		287588001	CYLINDER - 1-1/2 X 24	2	
		287588006	ROD ASSEMBLY	1	
		287588002	SEAL KIT	1	
20		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	4	
21		296275486	WELDMENT - STAKE DOWN SHIELD LEFT	1	
		296275438	WELDMENT - STAKEDOWN SHIELD	1	
22		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
24		70001834	DECAL - TIE DOWN POINT	2	
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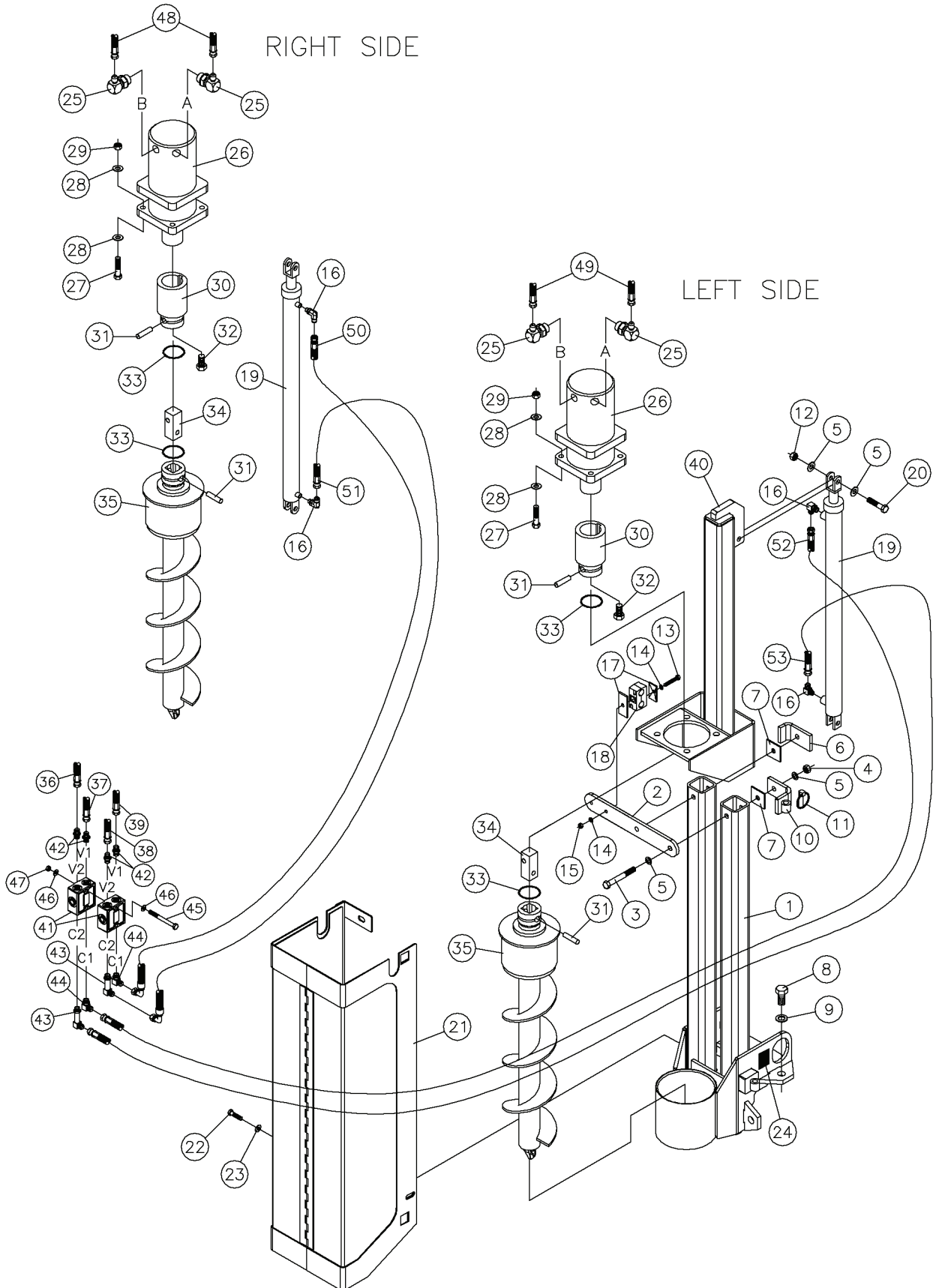
Stakedown - Standard 4" (Continued) Fig 5-11



Stakedown - Standard 4" (Continued) Fig 5-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
25		57946001	10MX#6JIC ST ADAPTER	4	
26		296257255	MOTOR - 20.6 CU. IN. HYD.	2	Breakdown Fig. 11-16
27		240335001	BOLT-1/2-13X2 1/4 GR8 ZINC PLT	8	
28		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
29		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	8	
30		296257177	COUPLER - STAKEDOWN	2	
31		236200001	PIN-STAKE KEEPER	4	
32		384012	BOLT-5/8-18X1 1/4 GRADE 8	2	
33		236229001	O-RING - 329	4	
34		236230001	BAR-STAKE DRIVE	2	
35		236197001	STAKE-4" SQ. DRIVE	2	
36		296279715	TUBE-4" STAKE	2	
37		296279719	TUBE - LOCK	2	
38		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
39		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
40		296279714	MOUNT - SLIDE MOTOR	2	
41		86668001	VALVE-LOA-6-D	2	Breakdown Fig. 11-3
42		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	
43		157172001	FITTING - 6M X 6M JIC LL 90 DEG	2	
44		59426001	FITTING - 90-6MJ-6MORBA	2	
45		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
46		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
47		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
48		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	
49		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
50		296260446	HOSE - 3/8 X 28 ST/90 6FSJIC3300PSI SLVD	1	
51		296260445	HOSE-3/8X27 ST/90 6FSJIC 3300 PSI SLVD	1	
52		57940423	HOSE-3/8X52 6FS JIC 4000 PSI	1	
53		296279734	HOSE - 3/8 X 40 6FSJ ST/ST	1	
54		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
55		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
56		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
57		296260442	HOSE - 3/8 X 18 ST/90 6FSJIC 3300PSI	1	

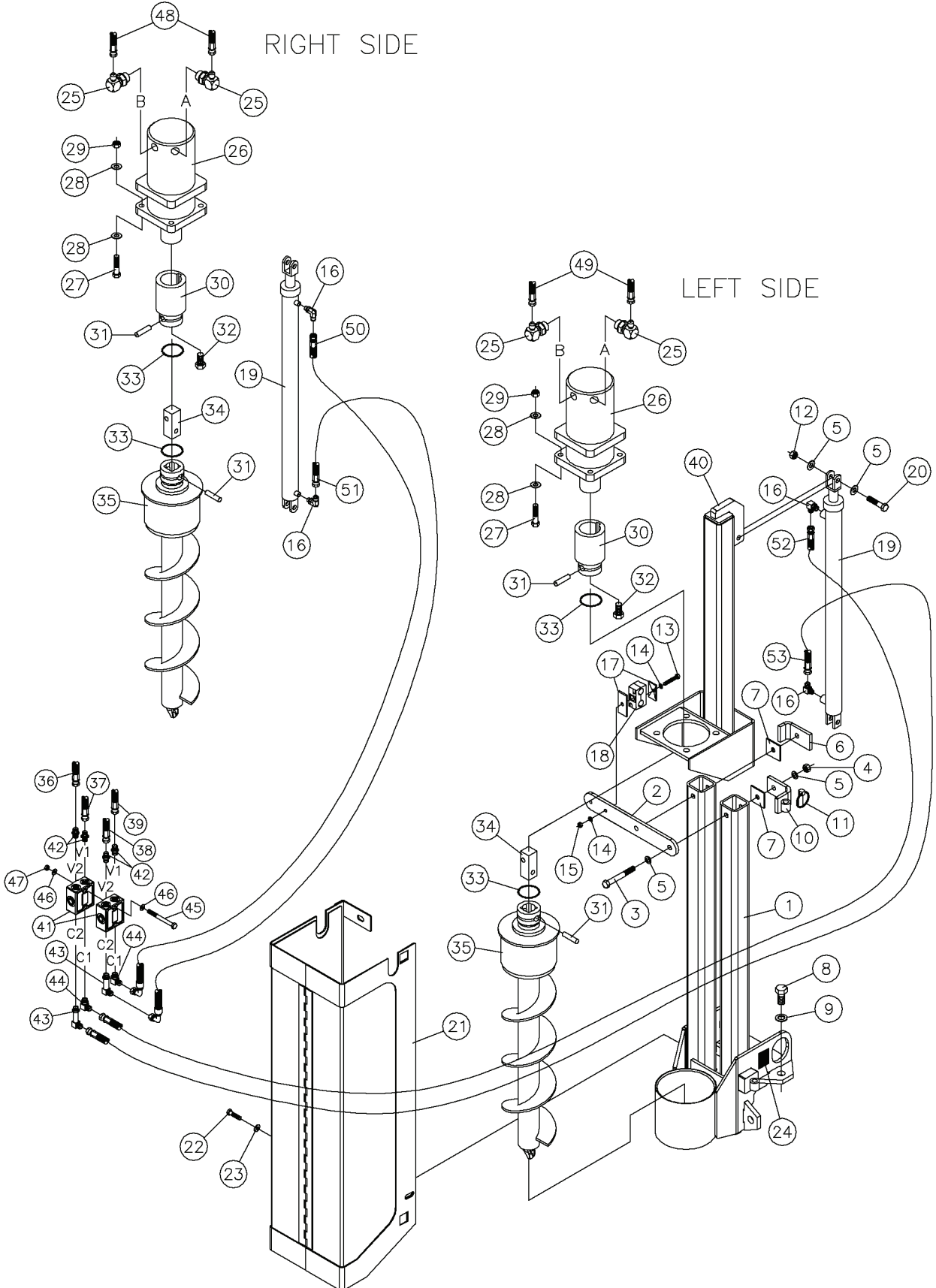
Stakedown - Large 6" (S/N 244-) Fig 5-12r02



Stakedown - Large 6" (S/N 244-) Fig 5-12r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Change Cylinder
1		296275488	WELDMNT - TOWER STAKEDOWN LEFT	1	
		296275489	WELDMNT-TOWER STAKEDOWN RIGHT	1	
2		279150001	BAR-LIGHT REINFORCEMENT	2	
3		296275065	SCREW - 1/2-13 X 4.25 GR.8 Y/ZINC	4	
4		235731001	NUT-1/2-13 GR8 ZINC PLTD	4	
5		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
6		236232001	BAR-GUIDE	2	
7		236233001	PLATE-SPACER	4	
8		385014	BOLT-3/4"-10X1 1/2 GR.8 HEX	8	
9		235717001	WASHER - 3/4" HARDENED FLAT YZ	8	
10		296280264	WELDMNT-MOUNT STAKEDOWN GUARD-UPPER	2	
11		1797001	PIN-QUICK TACH. 7/16X1 3/4	4	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	4	
13		244147001	BOLT-5/16-18X2 1/4 GR8 ZINC PL	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
15		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
16		60906001	4MX6M JIC 90 DEG ELBOW	4	
17		67846003	PLATE-TWIN COVER	2	
18		900035005	CLAMP-3/8"DOUBLE HOSE(COMplete)	4	
19	*	296285659	CYLINDER - 1-1/2 X 24	2	(S/N 244-)
		296285212	SHAFT W/CLEVIS	1	
		296271163	REPAIR KIT	1	
20		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	4	
21		296275486	WELDMNT - STAKE DOWN SHIELD LEFT	1	
		296275438	WELDMNT - STAKEDOWN SHIELD	1	
22		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
24		70001834	DECAL - TIE DOWN POINT	2	
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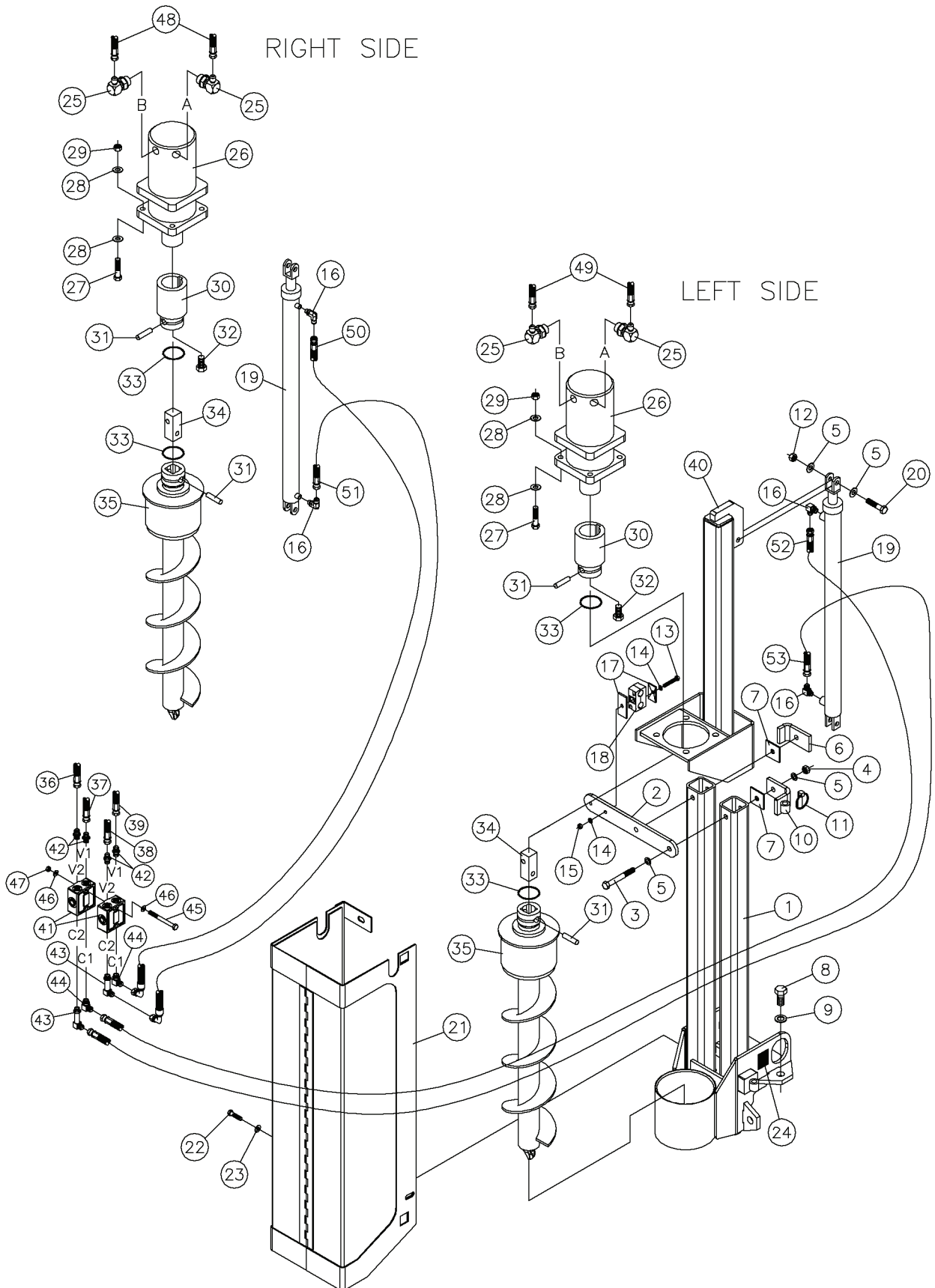
Stakedown - Large 6" (S/N 244-) (Continued) Fig 5-12r02



Stakedown - Large 6" (S/N 244-) (Continued) Fig 5-12r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Change Cylinder
25		102115001	FITTING - 90 - 6MJ - 12MORBA	4	
26		236219001	HYD MOTOR-66CI	2	Breakdown Fig. 11-27
27		238245001	BOLT 5/8" - 11 X 2 1/4 Gr 8 HEX	8	
28		235715001	WASHER-5/8 SAE HARD ZINC PLTD	16	
29		238221001	NUT - HEX -.63 - 11 - GR8 - YZ	8	
30		236205001	HUB-STAKE DRIVE	2	
31		236200001	PIN-STAKE KEEPER	4	
32		384012	BOLT-5/8-18X1 1/4 GRADE 8	2	
33		236229001	O-RING - 329	4	
34		236230001	BAR-STAKE DRIVE	2	
35		232484001	STAKE-6" FLIGHT	2	
36		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
37		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
38		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
39		296260442	HOSE - 3/8 X 18 ST/90 6FSJIC 3300PSI	1	
40		296265765	MOUNT - SLIDE MOTOR	2	
41		86668001	VALVE-LOA-6-D	2	Breakdown Fig. 11-3
42		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	
43		157172001	FITTING - 6M X 6M JIC LL 90 DEG	2	
44		59426001	FITTING - 90-6MJ-6MORBA	2	
45		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
46		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
47		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
48		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	
49		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
50		296260446	HOSE - 3/8 X 28 ST/90 6FSJIC3300PSI SLVD	1	
51		296260445	HOSE-3/8X27 ST/90 6FSJIC 3300 PSI SLVD	1	
52		57940003	HOSE-3/8X48 6FS JIC (100R2)	1	
53		296279734	HOSE - 3/8 X 40 6FSJ ST/ST	1	

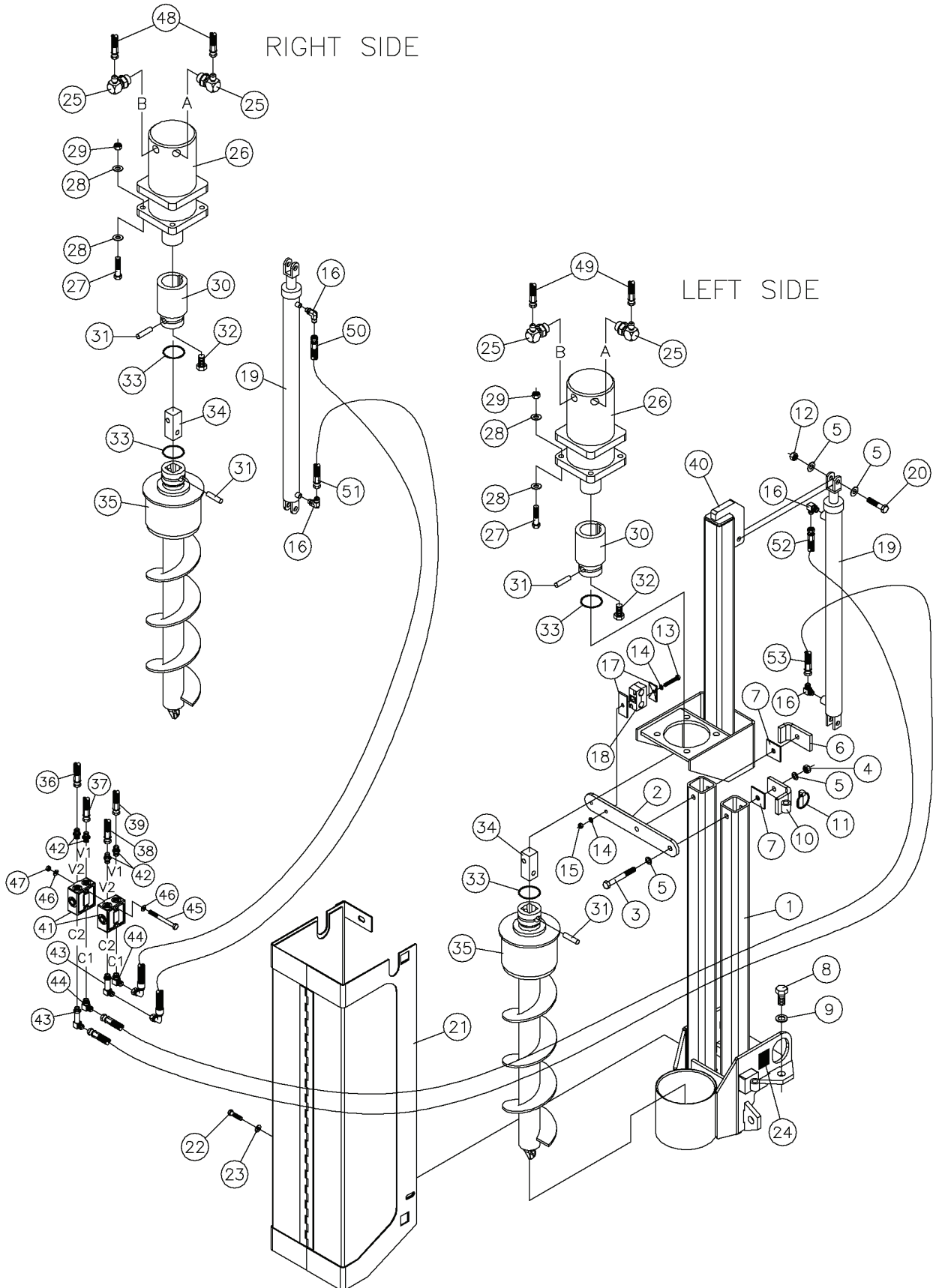
Stakedown - Large 6" Fig 5-12r01



Stakedown - Large 6" Fig 5-12r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296275488	WELDMENT - TOWER STAKEDOWN LEFT	1	
		296275489	WELDMENT-TOWER STAKEDOWN RIGHT	1	
2		279150001	BAR-LIGHT REINFORCEMENT	2	
3		296275065	SCREW - 1/2-13 X 4.25 GR.8 Y/ZINC	4	
4		235731001	NUT-1/2-13 GR8 ZINC PLTD	4	
5		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
6		236232001	BAR-GUIDE	2	
7		236233001	PLATE-SPACER	4	
8		385014	BOLT-3/4"-10X1 1/2 GR.8 HEX	8	
9		235717001	WASHER - 3/4" HARDENED FLAT YZ	8	
10		296280264	WELDMENT-MOUNT STAKEDOWN GUARD-UPPER	2	
11		1797001	PIN-QUICK TACH. 7/16X1 3/4	4	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	4	
13		244147001	BOLT-5/16-18X2 1/4 GR8 ZINC PL	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
15		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
16		60906001	4MX6M JIC 90 DEG ELBOW	4	
17		67846003	PLATE-TWIN COVER	2	
18		900035005	CLAMP-3/8"DOUBLE HOSE(COMplete)	4	
19		287588001	CYLINDER - 1-1/2 X 24	2	
		287588006	ROD ASSEMBLY	1	
		287588002	SEAL KIT	1	
20		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	4	
21		296275486	WELDMENT - STAKE DOWN SHIELD LEFT	1	
		296275438	WELDMENT - STAKEDOWN SHIELD	1	
22		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
24		70001834	DECAL - TIE DOWN POINT	2	
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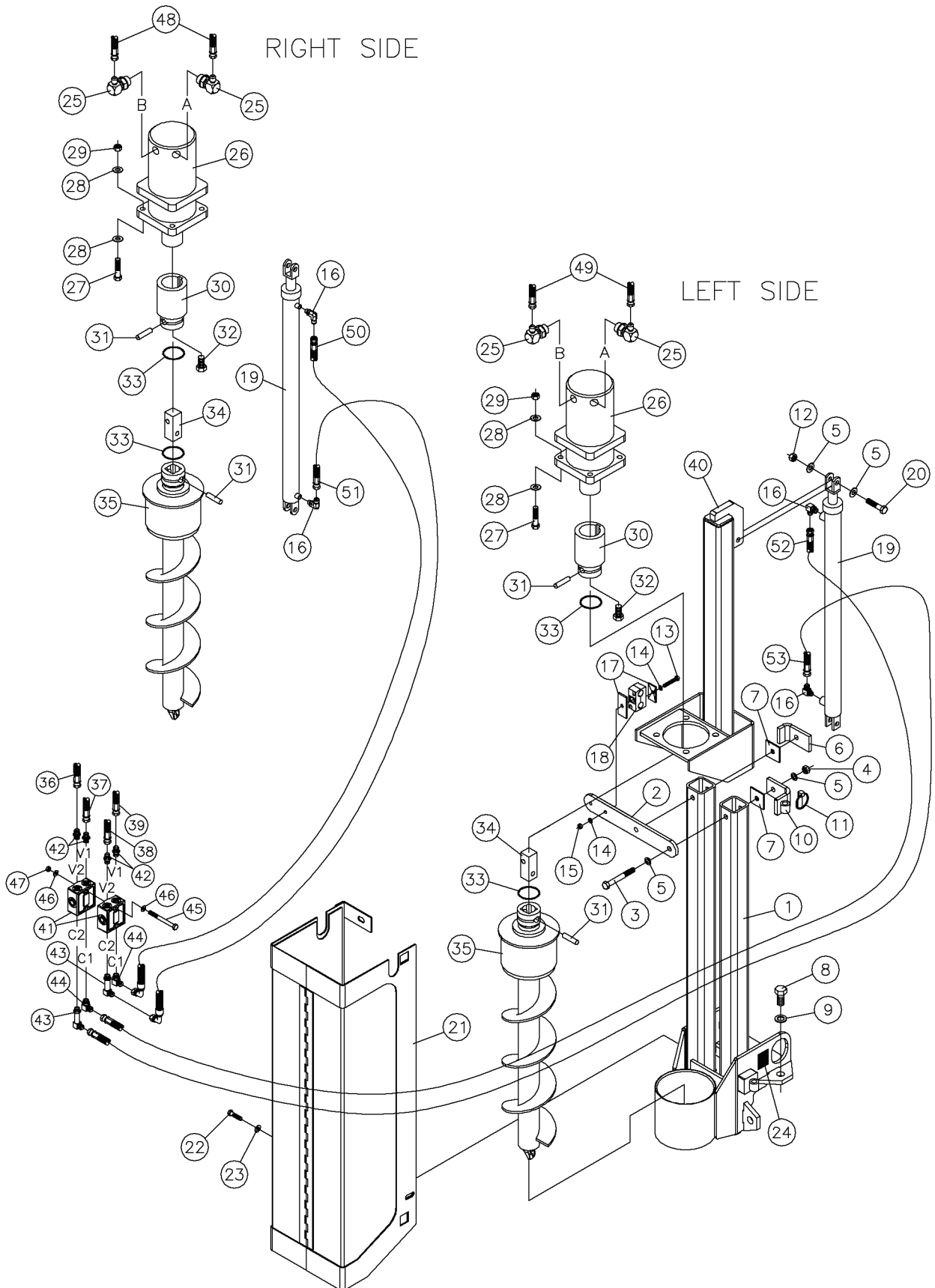
Stakedown - Large 6" (Continued) Fig 5-12r01



Stakedown - Large 6" (Continued) Fig 5-12r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
25		102115001	FITTING - 90 - 6MJ - 12MORBA	4	
26		236219001	HYD MOTOR-66CI	2	Breakdown Fig. 11-27
27		238245001	BOLT 5/8" - 11 X 2 1/4 Gr 8 HEX	8	
28		235715001	WASHER-5/8 SAE HARD ZINC PLTD	16	
29		238221001	NUT - HEX -.63 - 11 - GR8 - YZ	8	
30		236205001	HUB-STAKE DRIVE	2	
31		236200001	PIN-STAKE KEEPER	4	
32		384012	BOLT-5/8-18X1 1/4 GRADE 8	2	
33		236229001	O-RING - 329	4	
34		236230001	BAR-STAKE DRIVE	2	
35		232484001	STAKE-6" FLIGHT	2	
36		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
37		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
38		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
39		296260442	HOSE - 3/8 X 18 ST/90 6FSJIC 3300PSI	1	
40		296265765	MOUNT - SLIDE MOTOR	2	
41		86668001	VALVE-LOA-6-D	2	Breakdown Fig. 11-3
42		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	
43		157172001	FITTING - 6M X 6M JIC LL 90 DEG	2	
44		59426001	FITTING - 90-6MJ-6MORBA	2	
45		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
46		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
47		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
48		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	
49		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
50		296260446	HOSE - 3/8 X 28 ST/90 6FSJIC3300PSI SLVD	1	
51		296260445	HOSE-3/8X27 ST/90 6FSJIC 3300 PSI SLVD	1	
52		57940003	HOSE-3/8X48 6FS JIC (100R2)	1	
53		296279734	HOSE - 3/8 X 40 6FSJ ST/ST	1	

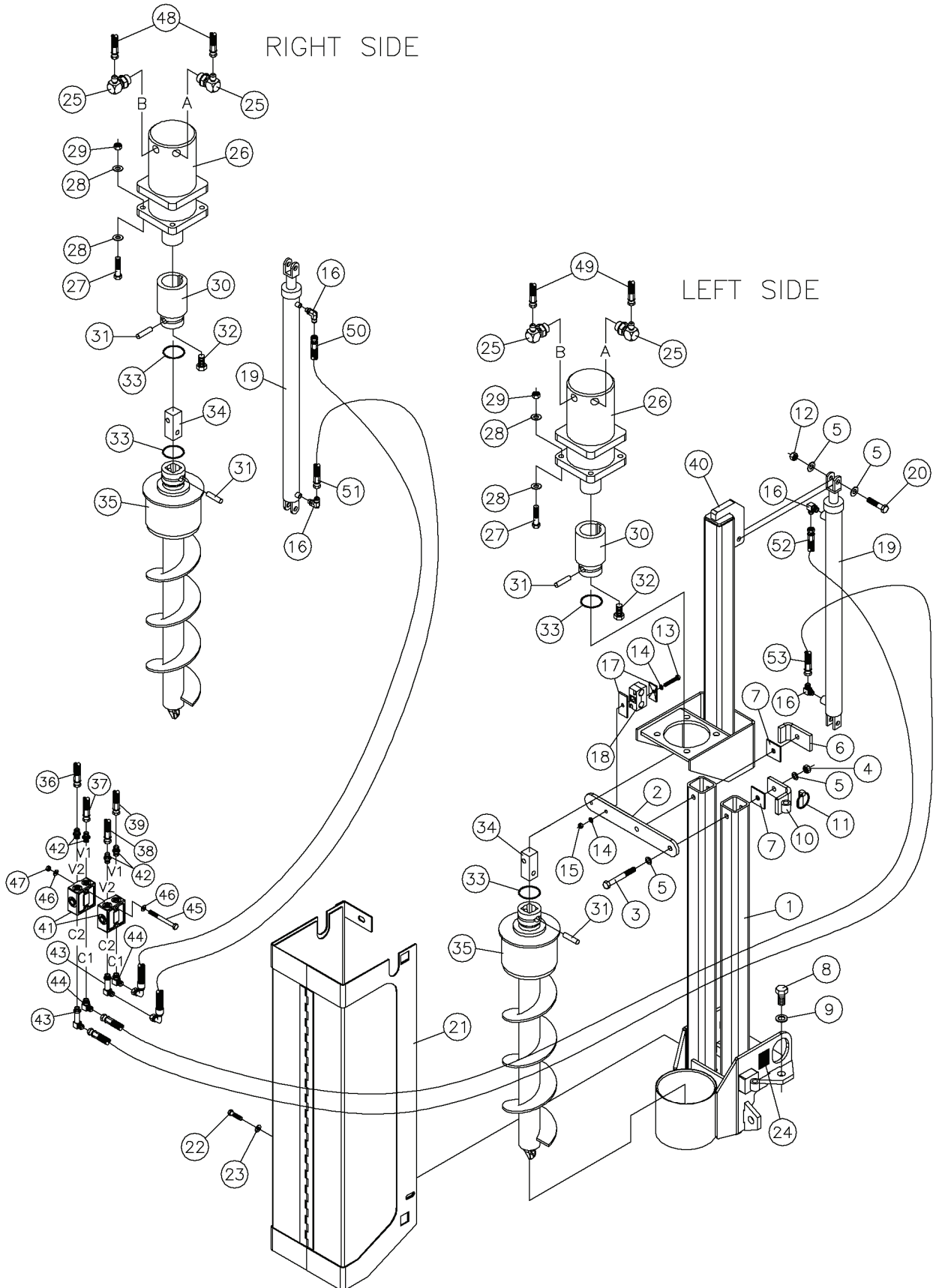
Stakedown - Large 6" Fig 5-12



Stakedown - Large 6" Fig 5-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275488	WELDMENT - TOWER STAKEDOWN LEFT	1	
		296275489	WELDMENT-TOWER STAKEDOWN RIGHT	1	
2		279150001	BAR-LIGHT REINFORCEMENT	2	
3		296275065	SCREW - 1/2-13 X 4.25 GR.8 Y/ZINC	4	
4		235731001	NUT-1/2-13 GR8 ZINC PLTD	4	
5		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
6		236232001	BAR-GUIDE	2	
7		236233001	PLATE-SPACER	4	
8		385014	BOLT-3/4"-10X1 1/2 GR.8 HEX	8	
9		235717001	WASHER - 3/4" HARDENED FLAT YZ	8	
10		296280264	WELDMENT-MOUNT STAKEDOWN GUARD-UPPER	2	
11		1797001	PIN-QUICK TACH. 7/16X1 3/4	4	
12		75382001	NUT-1/2-UNC GRADE 8 SLTL	4	
13		244147001	BOLT-5/16-18X2 1/4 GR8 ZINC PL	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
15		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
16		60906001	4MX6M JIC 90 DEG ELBOW	4	
17		67846003	PLATE-TWIN COVER	2	
18		900035005	CLAMP-3/8"DOUBLE HOSE(COMplete)	4	
19		287588001	CYLINDER - 1-1/2 X 24	2	
		287588006	ROD ASSEMBLY	1	
		287588002	SEAL KIT	1	
20		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	4	
21		296275486	WELDMENT - STAKE DOWN SHIELD LEFT	1	
		296275438	WELDMENT - STAKEDOWN SHIELD	1	
22		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
23		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
24		70001834	DECAL - TIE DOWN POINT	2	
			Continued On Next Page		

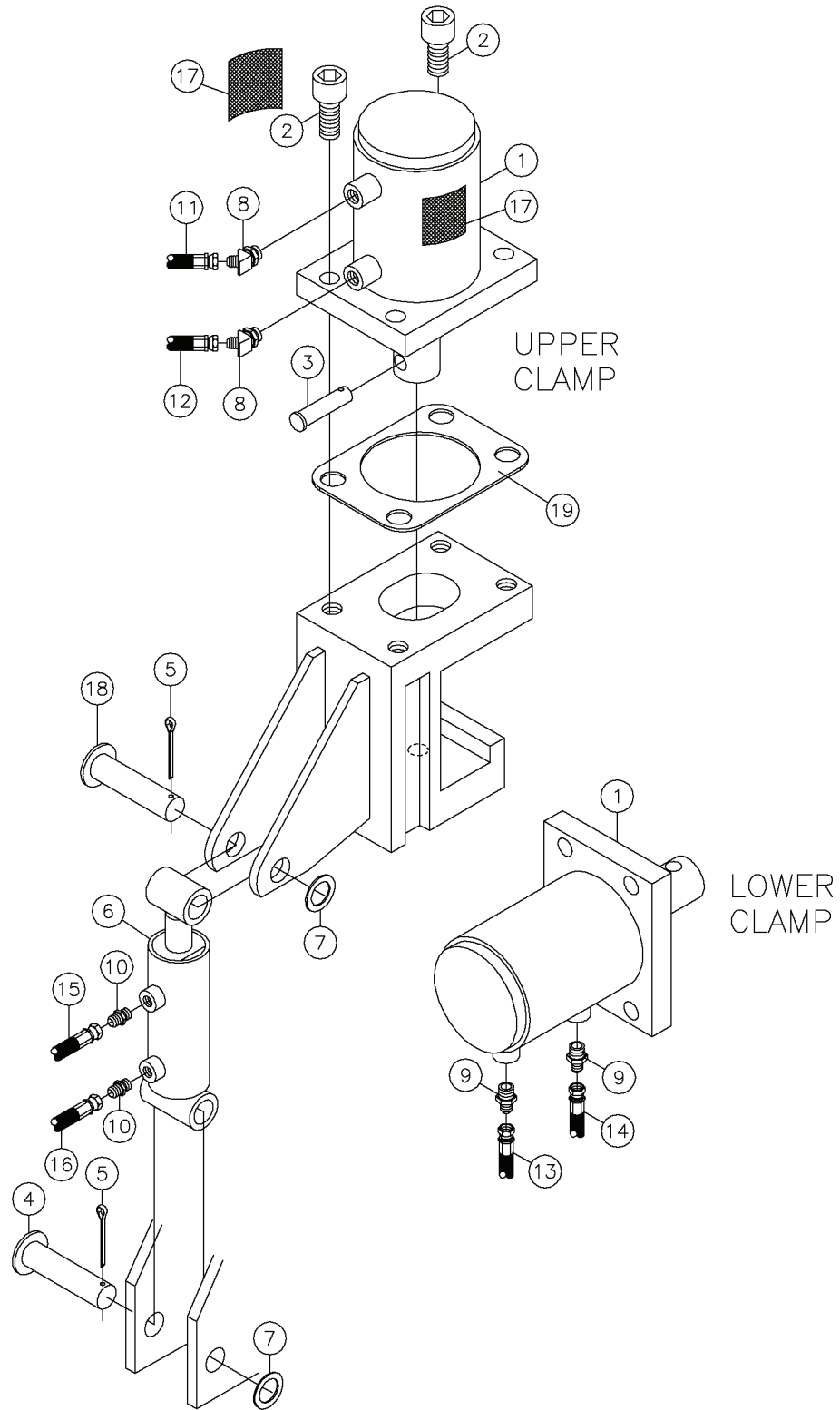
Stakedown - Large 6" (Continued) Fig 5-12



Stakedown - Large 6" (Continued) Fig 5-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
25		102115001	FITTING - 90 - 6MJ - 12MORBA	4	
26		236219001	HYD MOTOR-66CI	2	Breakdown Fig. 11-27
27		238245001	BOLT 5/8" - 11 X 2 1/4 Gr 8 HEX	8	
28		235715001	WASHER-5/8 SAE HARD ZINC PLTD	16	
29		238221001	NUT - HEX -.63 - 11 - GR8 - YZ	8	
30		236205001	HUB-STAKE DRIVE	2	
31		236200001	PIN-STAKE KEEPER	4	
32		384012	BOLT-5/8-18X1 1/4 GRADE 8	2	
33		236229001	O-RING - 329	4	
34		236230001	BAR-STAKE DRIVE	2	
35		232484001	STAKE-6" FLIGHT	2	
36		296279732	HOSE - 3/8 X 22 6FSJ ST/90	1	
37		296279731	HOSE-3/8 X 21 6FSJ ST/90	1	
38		296260443	HOSE - 3/8 X 19 ST/90 6FSJIC 3300 PSI	1	
39		296260442	HOSE - 3/8 X 18 ST/90 6FSJIC 3300PSI	1	
40		296265765	MOUNT - SLIDE MOTOR	2	
41		86668001	VALVE-LOA-6-D	2	Breakdown Fig. 11-3
42		65565001	FITTING - 6M O-RING X 6M JIC ST.	4	
43		157172001	FITTING - 6M X 6M JIC LL 90 DEG	2	
44		59426001	FITTING - 90-6MJ-6MORBA	2	
45		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
46		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
47		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
48		296279735	HOSE - 3/8 X65 6FSJ ST/ST	2	
49		296270890	HOSE-HYD-3/8X102 6FSJIC ST/90 3300PSI	2	
50		296260446	HOSE - 3/8 X 28 ST/90 6FSJIC3300PSI SLVD	1	
51		296260445	HOSE-3/8X27 ST/90 6FSJIC 3300 PSI SLVD	1	
52		57940423	HOSE-3/8X52 6FS JIC 4000 PSI	1	
53		296279734	HOSE - 3/8 X 40 6FSJ ST/ST	1	

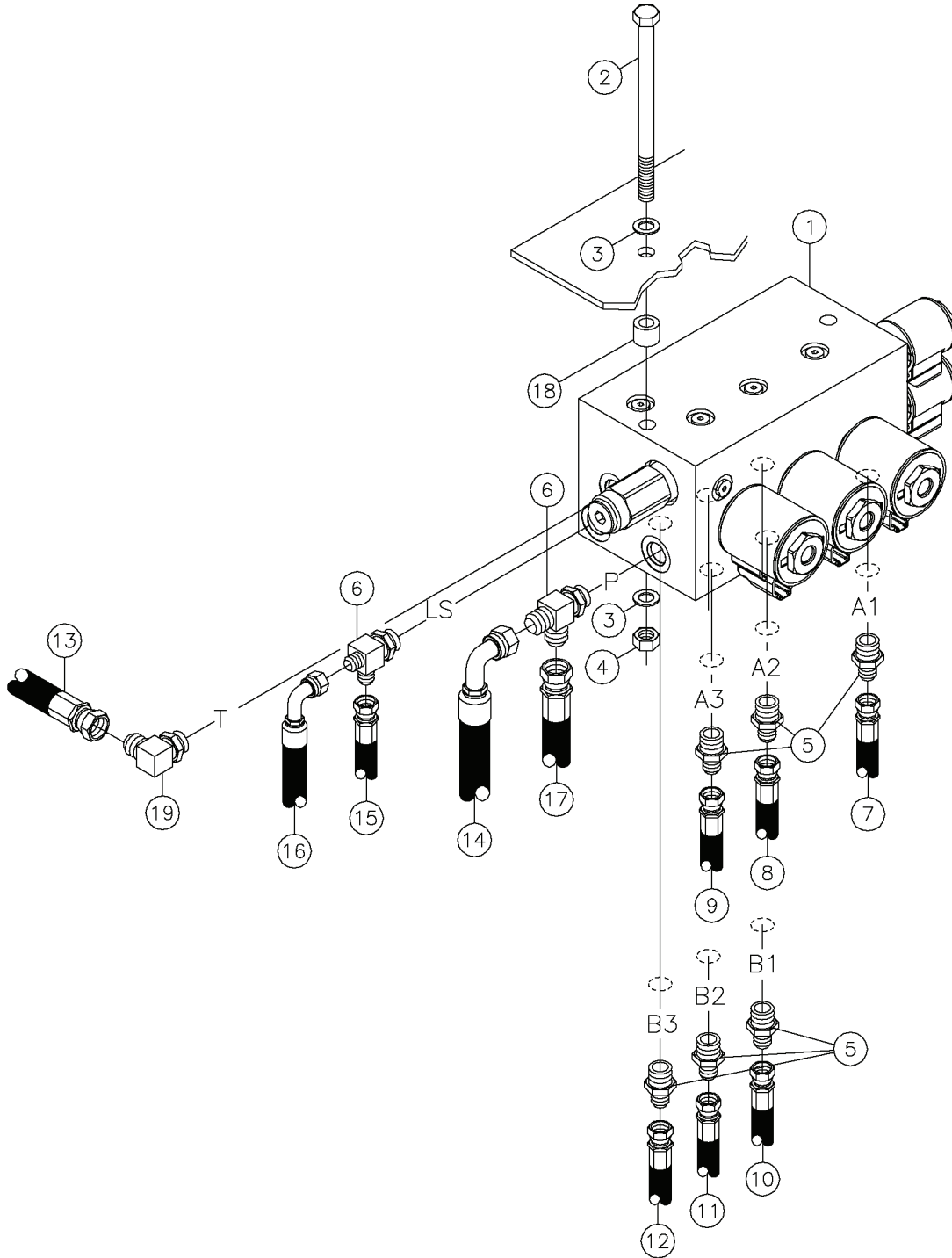
Cylinder - Clamp Rotation Fig 5-13



Cylinder - Clamp Rotation Fig 5-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		232454001	CYLINDER-4X2	2	
		221730011	ROD-CYLINDER	1	
		221730013	SEAL KIT	1	
2		121827020	SCREW-7/8-14X2 SK.HD. CAP GR.8	8	
3		240032001	PIN-.620X2 33/64 BALL LOCK	2	
4		241664001	PIN-TILT	1	
5		510025	COTTER PIN-3/16" X 2"	2	
6		229412001	CYLINDER-2X2	1	
		229412007	ROD ASSEMBLY	1	
		229412009	SEAL KIT	1	
7		483005	WASHER-1 1/2X1X14 GA M.B.	2	
8		82931001	FITTING-6MX4M JIC 45DEG.ELBOW	2	
9		57968001	FITTING-STR-4MJ-6MORB	2	
10		60908001	FITTING-4MX4M JIC STR ADAPTER	2	
11		296260427	HOSE - 1/4 X 32 ST/ST 4FSJIC 3300PSI	1	
12		296260425	HOSE - 1/4 X 28 ST/ST 4FSJIC 3300PSI	1	
13		296260420	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI SLVD	1	
14		296260418	HOSE - 1/4 X 16 ST/ST 4FSJIC3300PSI SLVD	1	
15		53843497	HOSE-1/4X13 4FS JIC 5000 PSI	1	
16		296260419	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI	1	
17		7000A864	DECAL-WARNING DOMESTIC	1	
		700IA864	DECAL-WARNING INTERNATIONAL	1	
18		1795009	CYL. PIN - 1" X 3 1/4"	1	
19		296282029	PLATE-SHIM	1	

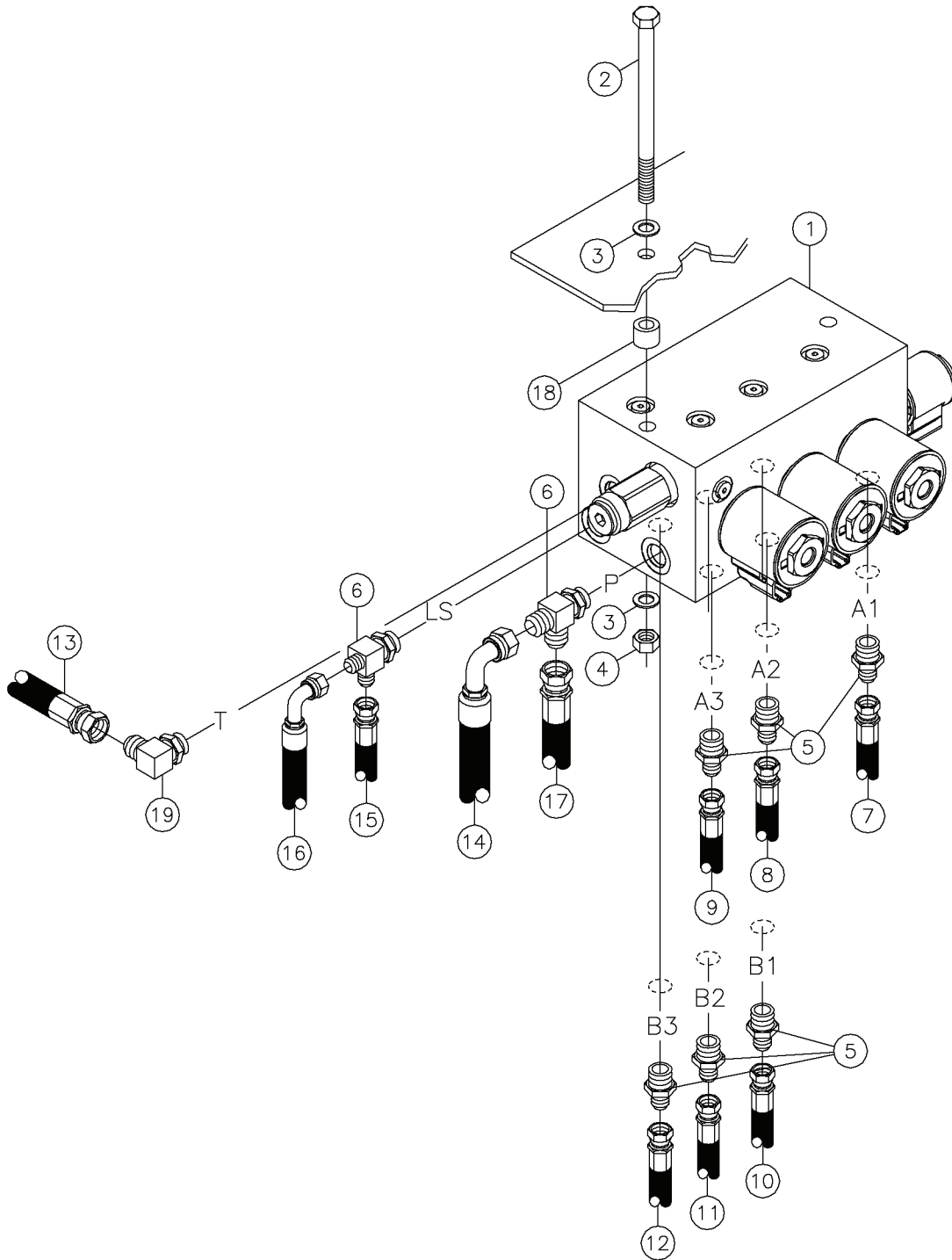
Valve - Clamp Fig 5-14r01



Valve - Clamp Fig 5-14r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration.
1		296266538	VALVE - VISE CONTROL	1	Breakdown Fig 11-5
2		244066001	BOLT-3/8-16X5 1/2 GD 8 ZNC PL	2	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
4		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
5		57968001	FITTING-STR-4MJ-6MORB	6	
6		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	2	
7		296260420	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI SLVD	1	
8		296260427	HOSE - 1/4 X 32 ST/ST 4FSJIC 3300PSI	1	
9		296260419	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI	1	
10		296260418	HOSE - 1/4 X 16 ST/ST4FSJIC3300PSI SLVD	1	
11		296260425	HOSE - 1/4 X 28 ST/ST 4FSJIC 3300PSI	1	
12		53843497	HOSE-1/4X13 4FS JIC 5000 PSI	1	
13		296269297	HOSE-HYD-3/8X15 6FSJIC ST/ST 4000PSI	1	
14		296260457	HOSE - 3/8 X 102 ST/90 6FSJIC 3300PSI	1	
15		53843173	HOSE-1/4X114 4FS JIC 100R1	1	
16		296260426	HOSE - 1/4 X 31 ST/90 4FSJIC 3300PSI	1	
17		296260449	HOSE - 3/8 X 33 ST/90 6FSJIC 3300PSI	1	
18		1074007	TUBE-3/4"ODX7/16"ID-1/2"	2	
19		59426001	FITTING - 90-6MJ-6MORBA	1	

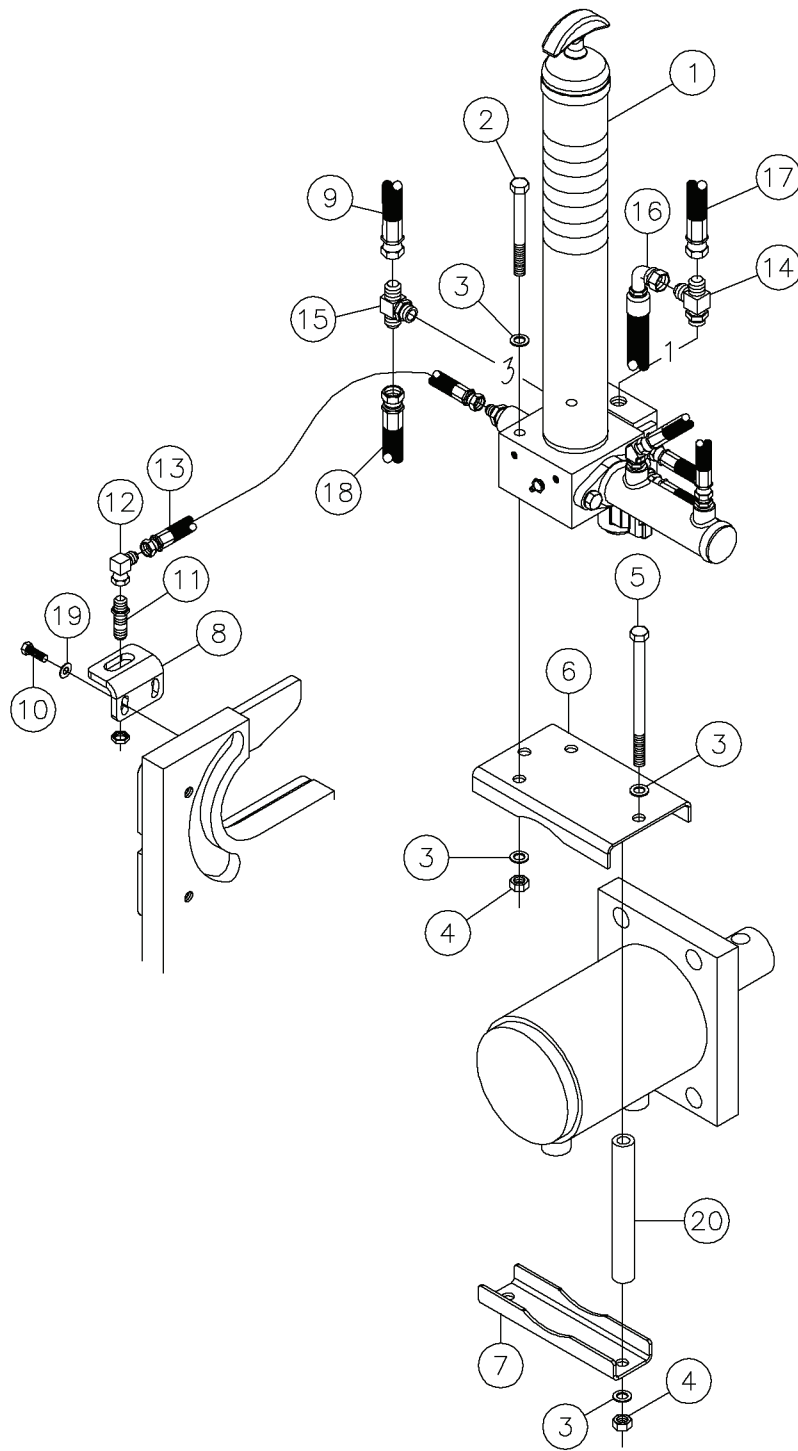
Valve - Clamp Fig 5-14



Valve - Clamp Fig 5-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266538	VALVE - VISE CONTROL	1	Breakdown Fig 11-5
2		244066001	BOLT-3/8-16X5 1/2 GD 8 ZNC PL	2	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
4		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
5		57968001	FITTING-STR-4MJ-6MORB	6	
6		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	2	
7		296260420	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI SLVD	1	
8		296260427	HOSE - 1/4 X 32 ST/ST 4FSJIC 3300PSI	1	
9		296260419	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI	1	
10		296260418	HOSE - 1/4 X 16 ST/ST4FSJIC3300PSI SLVD	1	
11		296260425	HOSE - 1/4 X 28 ST/ST 4FSJIC 3300PSI	1	
12		53843497	HOSE-1/4X13 4FS JIC 5000 PSI	1	
13		296269297	HOSE-HYD-3/8X15 6FSJIC ST/ST 4000PSI	1	
14		296260457	HOSE - 3/8 X 102 ST/90 6FSJIC 3300PSI	1	
15		53843173	HOSE-1/4X114 4FS JIC 100R1	1	
16		296260426	HOSE - 1/4 X 31 ST/90 4FSJIC 3300PSI	1	
17		296260449	HOSE - 3/8 X 33 ST/90 6FSJIC 3300PSI	1	
18		1074007	TUBE-3/4"ODX7/16"ID-1/2"	2	
19		59426001	FITTING - 90-6MJ-6MORBA	1	

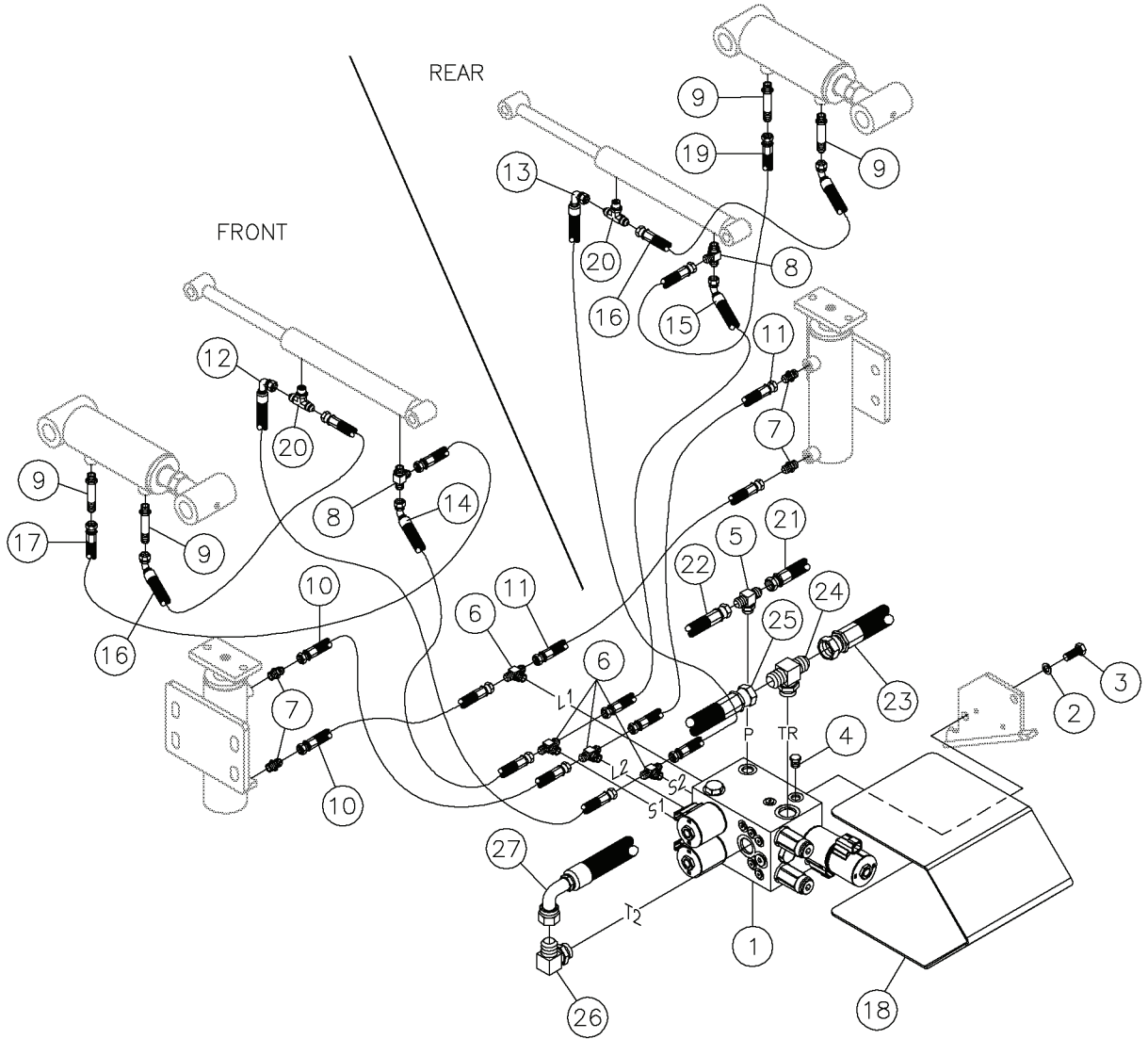
Auto Greaser Fig 5-15



Auto Greaser Fig 5-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		294900001	GREASE PUMP AY - VAR DISP	1	Breakdown fig 11-23
2		235743001	SCREW - HCS - .38 - 16 X 3.00 - GR8-YZ	2	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	8	
4		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
5		278010001	BOLT-3/8-16X6 1/2 GR8 HEX ZINC	2	
6		296266577	BLOCK - MOUNT	1	
7		296266579	BLOCK - LOWER MOUNT	1	
8		296266585	BLOCK - NOZZLE	1	
9		296275054	HOSE-3/8 X 30 6JIC ST/90 3000PSI	1	
10		284944001	SOCKET HD CAPSCREW - 1/4 - 20 UNC X 5/8	2	
11		65564001	FITTING - 4M JIC BULKHEAD ST.	1	
12		53658001	FITTING-4M JICX4 FS JIC 90 DEG	1	
13		53843497	HOSE-1/4X13 4FS JIC 5000 PSI	1	
14		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	1	
15		68787001	FITTING-6M (BCH)X6M JICX6M JIC	1	
16		296260449	HOSE - 3/8 X 33 ST/90 6FSJIC 3300PSI	1	
17		296260444	HOSE - 3/8 X 20 ST/90 6FSJIC 3300 PSI	1	
18		296269297	HOSE-HYD-3/8X15 6FSJIC ST/ST 4000PSI	1	
19		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	2	
20		296270840	TUBE - 3/4 OD X 7/16 ID - 5.69	2	

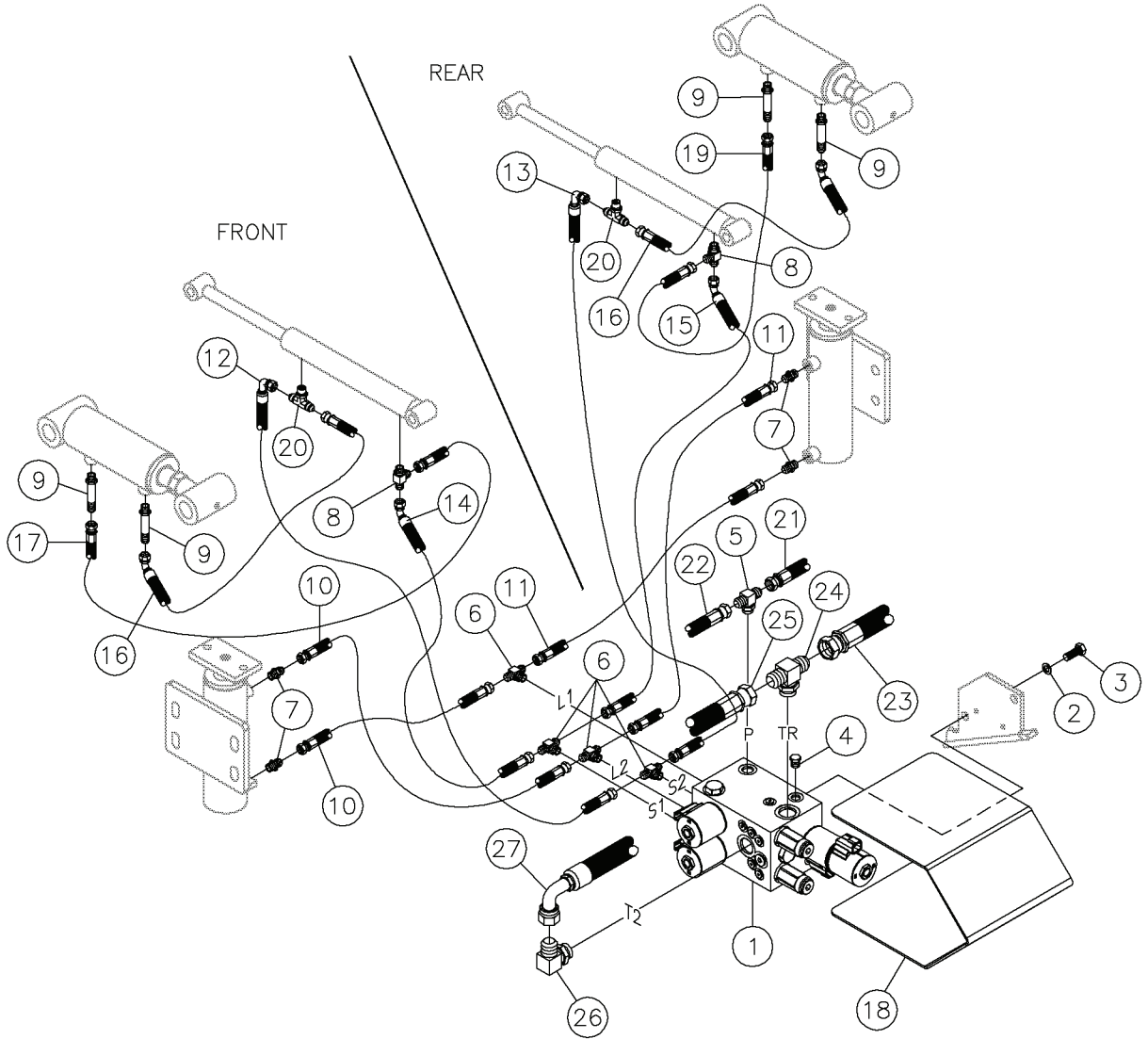
Valve - Rod Loader (S/N 212-) Fig 5-16r01



Valve - Rod Loader (S/N 212-) Fig 5-16r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Add Hole To Guard
1		296272080	VALVE - ROD LOADER SPLIT T LINE	1	Breakdown Fig 11-7r01
2		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
3		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	2	
4		67263001	FITTING - PLUG - 4MORB - HEX	1	
5		68787001	FITTING-6M (BCH)X6M JICX6M JIC	1	
6		81343001	4M (BCH)X4M JICX4M JIC TEE	4	
7		60908001	FITTING-4MX4M JIC STR ADAPTER	4	
8		81342001	4MX4M JIC(BCH)X4M JIC TEE	2	
9		96074001	FITTING-4MJICX4MORING STRAIGHT	4	
10		296260431	HOSE - 1/4 X 62 ST/ST 4FSJIC 3300 PSI	2	
11		296260436	HOSE-1/4 X 33 ST/ST 4FSJIC 3300PSI	2	
12		275150001	HOSE-1/4X68 4FSJIC ST/90 M3K	1	
13		296074001	HOSE-HYD-.25 X 47 4FSJ ST/90 3000PSI	1	
14		296275145	HOSE-HYD-.25X72 4FSJ ST/45 3000PSI	1	
15		296275146	HOSE-HYD-.25X51 4FSJ ST/45 3000PSI	1	
16		53843597	HOSE-1/4X24 4FS JIC 3000 PSI	2	
17		296260424	HOSE - 1/4 X 26 ST/ST 4FSJIC 3300PSI	1	
18	*	296275051	GUARD WELDMENT	1	
19		296260422	HOSE - 1/4 X 23 ST/ST 4FSJIC 3300PSI	1	
20		81343001	4M (BCH)X4M JICX4M JIC TEE	2	
21		296270814	HOSE-HYD-3/8X30 6FSJIC ST/45 4000PSI	1	
22		296260457	HOSE - 3/8 X 102 ST/90 6FSJIC 3300PSI	1	
23		296275056	HOSE-5/8 X 32 - 10FSJIC-ST/45-3000PSI	1	
24		98947001	TEE-10M BCHX10MJICX10MJIC	1	
25		296275055	HOSE-5/8X115-10FSJIC-ST/90-3000PSI	1	
26		53829001	#10M O-RING-#10M JIC 90 DEG.	1	
27		296275058	HOSE-5/8X81-10FSJIC-ST/90-3000PSI	1	

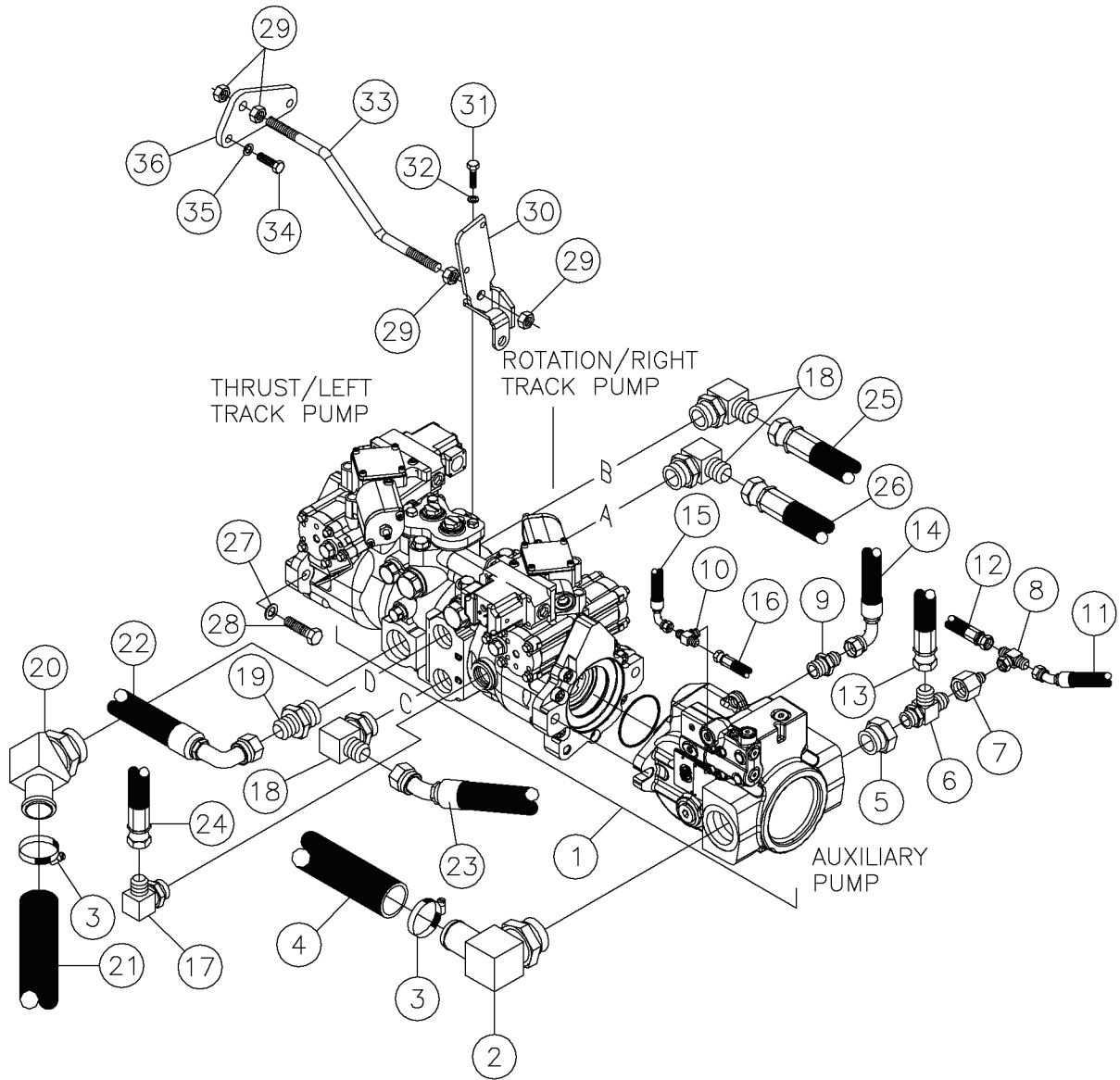
Valve - Rod Loader Fig 5-16



Valve - Rod Loader Fig 5-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272080	VALVE - ROD LOADER SPLIT T LINE	1	Breakdown Fig 11-7r01
2		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
3		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	2	
4		67263001	FITTING - PLUG - 4MORB - HEX	1	
5		68787001	FITTING-6M (BCH)X6M JICX6M JIC	1	
6		81343001	4M (BCH)X4M JICX4M JIC TEE	4	
7		60908001	FITTING-4MX4M JIC STR ADAPTER	4	
8		81342001	4MX4M JIC(BCH)X4M JIC TEE	2	
9		96074001	FITTING-4MJICX4MORING STRAIGHT	4	
10		296260431	HOSE - 1/4 X 62 ST/ST 4FSJIC 3300 PSI	2	
11		296260436	HOSE-1/4 X 33 ST/ST 4FSJIC 3300PSI	2	
12		275150001	HOSE-1/4X68 4FSJIC ST/90 M3K	1	
13		296074001	HOSE-HYD-.25 X 47 4FSJ ST/90 3000PSI	1	
14		296275145	HOSE-HYD-.25X72 4FSJ ST/45 3000PSI	1	
15		296275146	HOSE-HYD-.25X51 4FSJ ST/45 3000PSI	1	
16		53843597	HOSE-1/4X24 4FS JIC 3000 PSI	2	
17		296260424	HOSE - 1/4 X 26 ST/ST 4FSJIC 3300PSI	1	
18		296275051	GUARD WELDMENT	1	
19		296260422	HOSE - 1/4 X 23 ST/ST 4FSJIC 3300PSI	1	
20		81343001	4M (BCH)X4M JICX4M JIC TEE	2	
21		296270814	HOSE-HYD-3/8X30 6FSJIC ST/45 4000PSI	1	
22		296260457	HOSE - 3/8 X 102 ST/90 6FSJIC 3300PSI	1	
23		296275056	HOSE-5/8 X 32 - 10FSJIC-ST/45-3000PSI	1	
24		98947001	TEE-10M BCHX10MJICX10MJIC	1	
25		296275055	HOSE-5/8X115-10FSJIC-ST/90-3000PSI	1	
26		53829001	#10M O-RING-#10M JIC 90 DEG.	1	
27		296275058	HOSE-5/8X81-10FSJIC-ST/90-3000PSI	1	

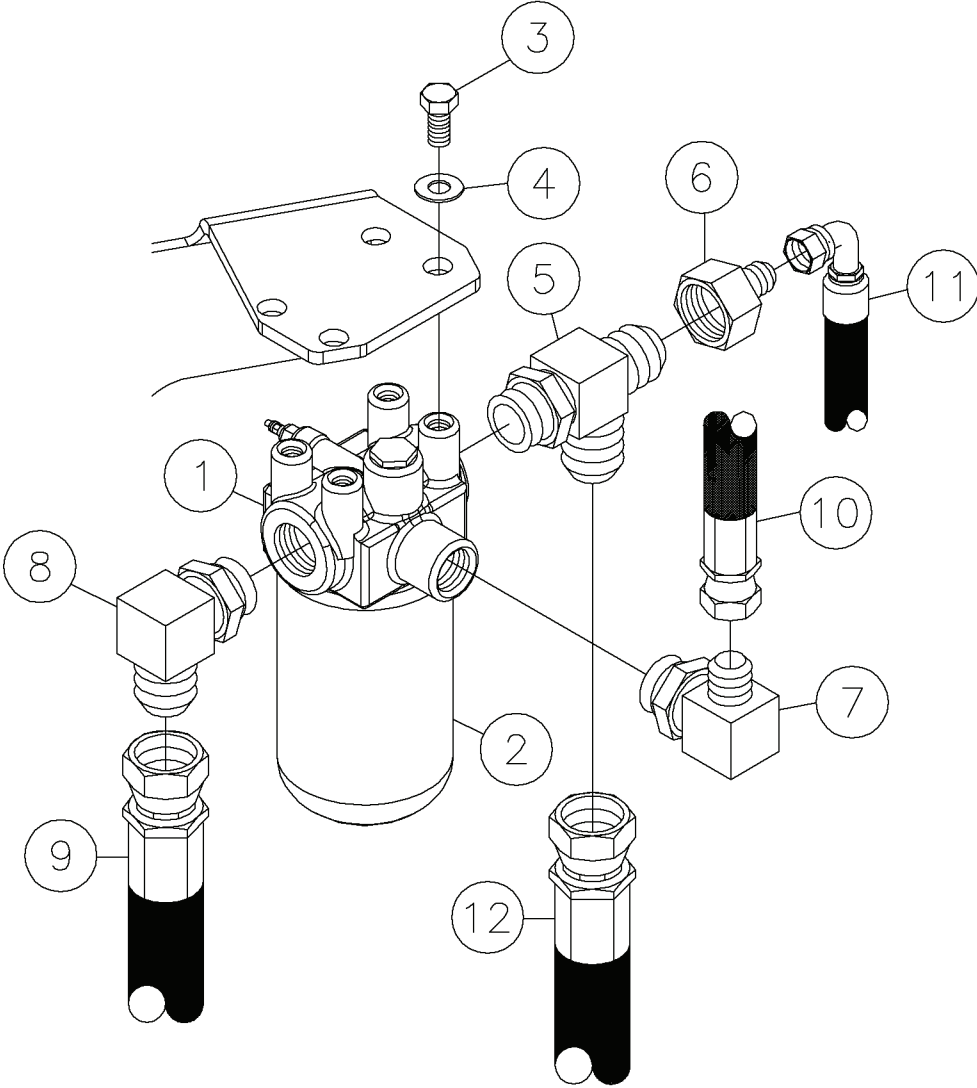
Pump - Hydraulic Fig 5-17



Pump - Hydraulic Fig 5-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257180	PUMP - TANDEM HYDRO/PFC	1	Breakdown On Fig 11-12
2		296257235	FITTING - 90 -24BHI - 24MORB	1	
3		1580009	HOSE CLAMP - 1 3/4"	2	
4		296270758	HOSE - 1 1/2" X 11.50" SUCTION	1	
5		296270854	FITTING - STR - 16MORB - 10FORB	1	
6		100873001	FITTING-10MX10MJIC RUN TEE	1	
7		71253001	FITTING-6M JICX10F JIC REDUCER	1	
8		60852001	6M JICX6FS JIC SWIV.NUT B TEE	1	
9		53826001	#10M O-RING-#8M JIC ST.	1	
10		81343001	4M (BCH)X4M JICX4M JIC TEE	1	
11		296270818	HOSE-HYD 3/8 X 23 6FSJIC ST/45 4000PSI	1	
12		296269291	HOSE-HYD-3/8X60 6FSJIC ST/ST 3300 PSI	1	
13		296260463	HOSE - 5/8 X 14.5 ST/ST 10FSJIC 3300PSI	1	
14		296260496	HOSE-HYD-1/2X26 8FSJIC ST/90 3300 PSI	1	
15		296260416	HOSE - 1/4 X 15 ST/ST 4FSJIC 3300PSI	1	
16		296270831	HOSE - 1/4 X 75 ST/45 4FSJIC 3300PSI	1	
17		59409001	10M JICX12M ADJ. 90 DEG.ELBOW	1	
18		78057001	FITTING-90-12MJ-16MORBA	3	
19		70008001	FITTING-16M X 12M JIC STR.	1	
20		103997001	HOSE INSER-20MX1 1/2 45 DEG.	1	
21		296270759	HOSE- 1 1/2" X 13.00" SUCTION	1	
22		296260472	HOSE - 3/4 X 28.5 ST/90 12FSJIC 4000PSI	1	
23		296260474	HOSE - 3/4 X 35.5 ST/45 12FSJIC 4000PSI	1	
24		296269292	HOSE-HYD-5/8 X22 10FSJIC ST/ST 3300 PSI	1	
25		296260471	HOSE - 3/4 X 28.5 ST/45 12FSJIC 4000PSI	1	
26		296260473	HOSE - 3/4 X 33 ST/45 12FSJIC 4000PSI	1	
27		485025	WASHER-1/2 FLAT-HARDENED-YZ	2	
28		240334001	BOLT-1/2-13X1 3/4 GR8 ZINC PLT	2	
29		235731001	NUT-1/2-13 GR8 ZINC PLTD	4	
30		296269279	MOUNT - PUMP SUPPORT BAR	1	
31		248031001	BOLT-5/16-18X1 1/4 GR8 ZINC PL	1	
32		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	1	
33		296269280	PUMP SUPPORT - BAR	1	
34		24772001	BOLT-12M X 35 GR. 8.8 HEX HEAD	2	
35		506046012	WASHER-FLAT,M12,YZ,D125A	2	
36		296269275	PUMP SUPPORT - MOUNT	1	

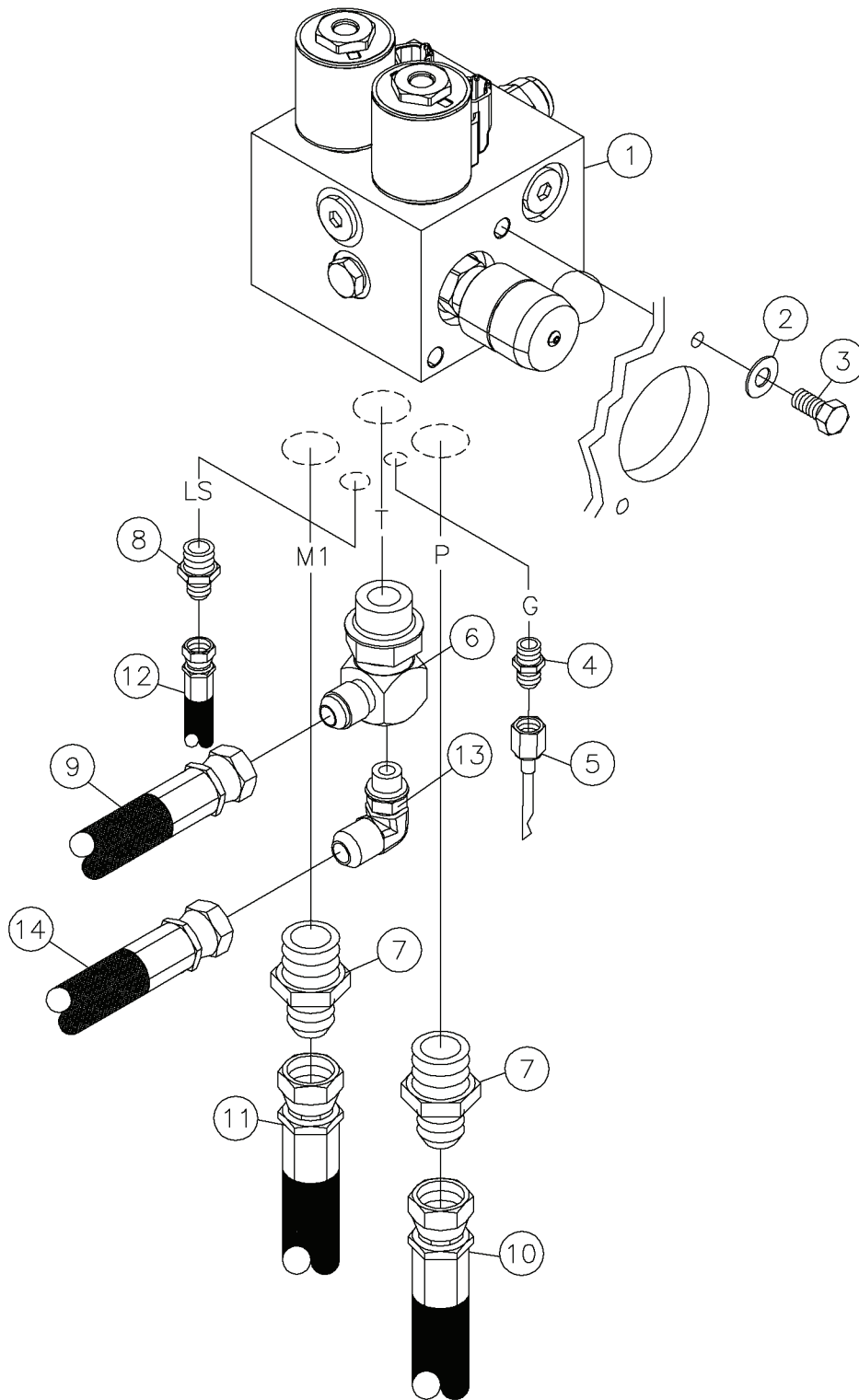
Charge Filter Fig 5-18



Charge Filter Fig 5-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257495	HEAD - FILTER	1	
2		296257496	ELEMENT - FILTER	1	
3		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	4	
4		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
5		59420001	12 JICX12M ADJ. STR THRD RUN TEE	1	
6		60909001	6M JICX12F JIC ST.ADAPTER	1	
7		57949001	FITTING-12MX8M JIC 90 DEG. EL.	1	
8		59410001	FITTING-90-12MJ-12MORBA	1	
9		296273306	HOSE-HYD-3/4X27 12FSJIC ST/90 500 PSI	1	
10		296260460	HOSE - 1/2 X 14 ST/ST 8FSJIC 500PSI	1	
11		296260439	HOSE - 3/8 X 15 ST/90 6FSJIC 3300 PSI	1	
12		296273307	HOSE-HYD-3/4X23 12 FSJIC ST/90 500PSI	1	

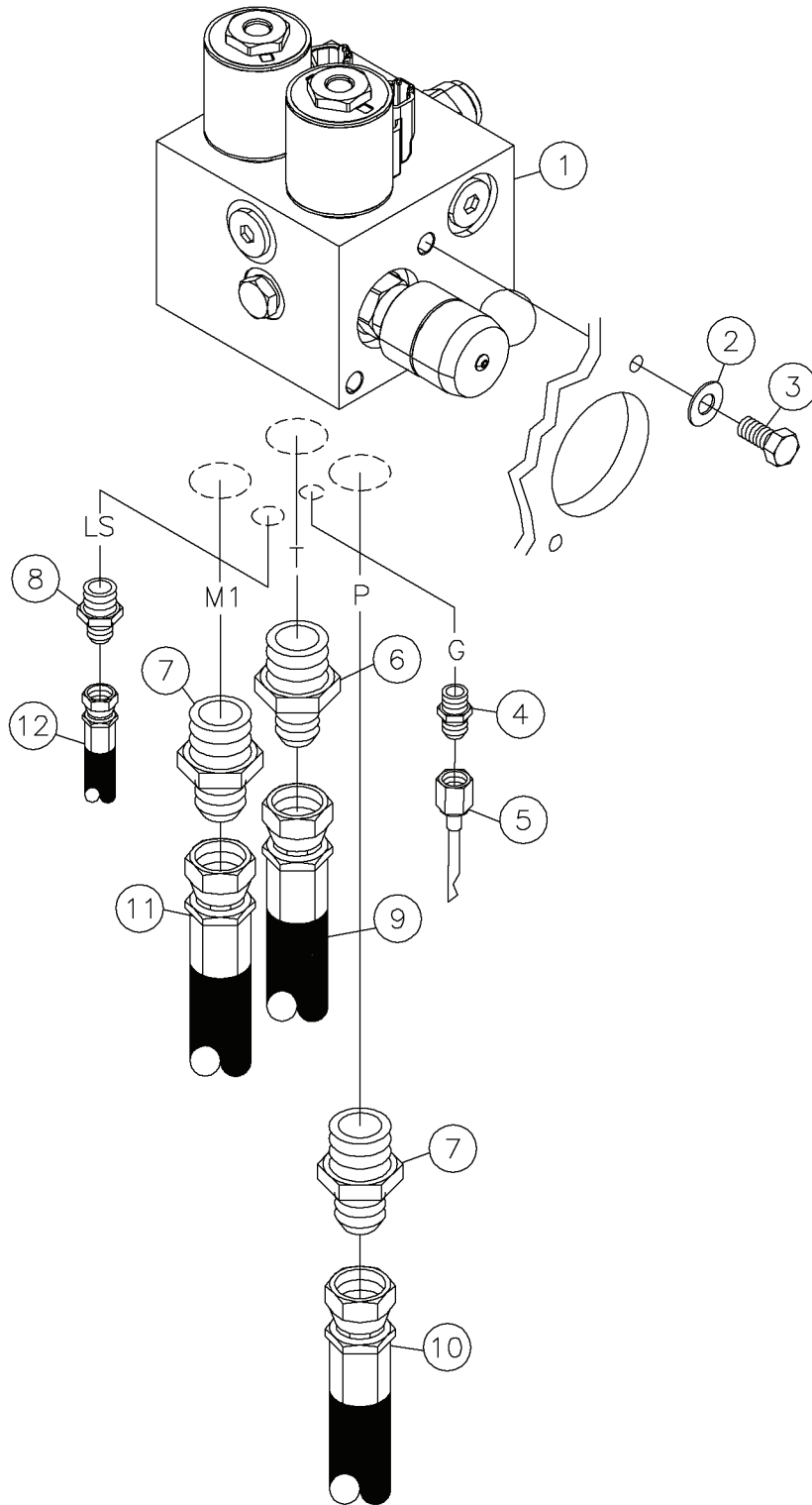
Valve - Water Control (S/N 335-) Fig 5-19r01



Valve - Water Control (S/N 335-) Fig 5-19r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	June, 2007		Change And Add Fittings
1		296257420	VALVE - WATER CONTROL	1	Breakdown On Fig 11-6
2		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
3		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
4		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
5	*	296260492	MICRO HOSE - .078 X 160 4FSJIC 6900PSI	1	(S/N 335-)
6		296280342	FITTING-90-8MJ-12MORBA-P4-6FJ	1	
7		53854001	12M O-RING-10M JIC ST.	2	
8		57968001	FITTING-STR-4MJ-6MORB	1	
9		53844677	HOSE-1/2X19 8FSJIC 100R1	1	
10		296260463	HOSE - 5/8 X 14.5 ST/ST 10FSJIC 3300PSI	1	
11		296269290	HOSE-HYD-5/8 X 93 10FSJIC ST/ST 2350 PSI	1	
12		296260416	HOSE - 1/4 X 15 ST/ST 4FSJIC 3300PSI	1	
13	*	77811001	FITTING - 6M O-RING X 8M JIC 90 DEG	1	(S/N 335-)
14	*	296269288	HOSE-HYD-1/2X28 8FSJIC ST/ST 4000PSI	1	(S/N 335-)

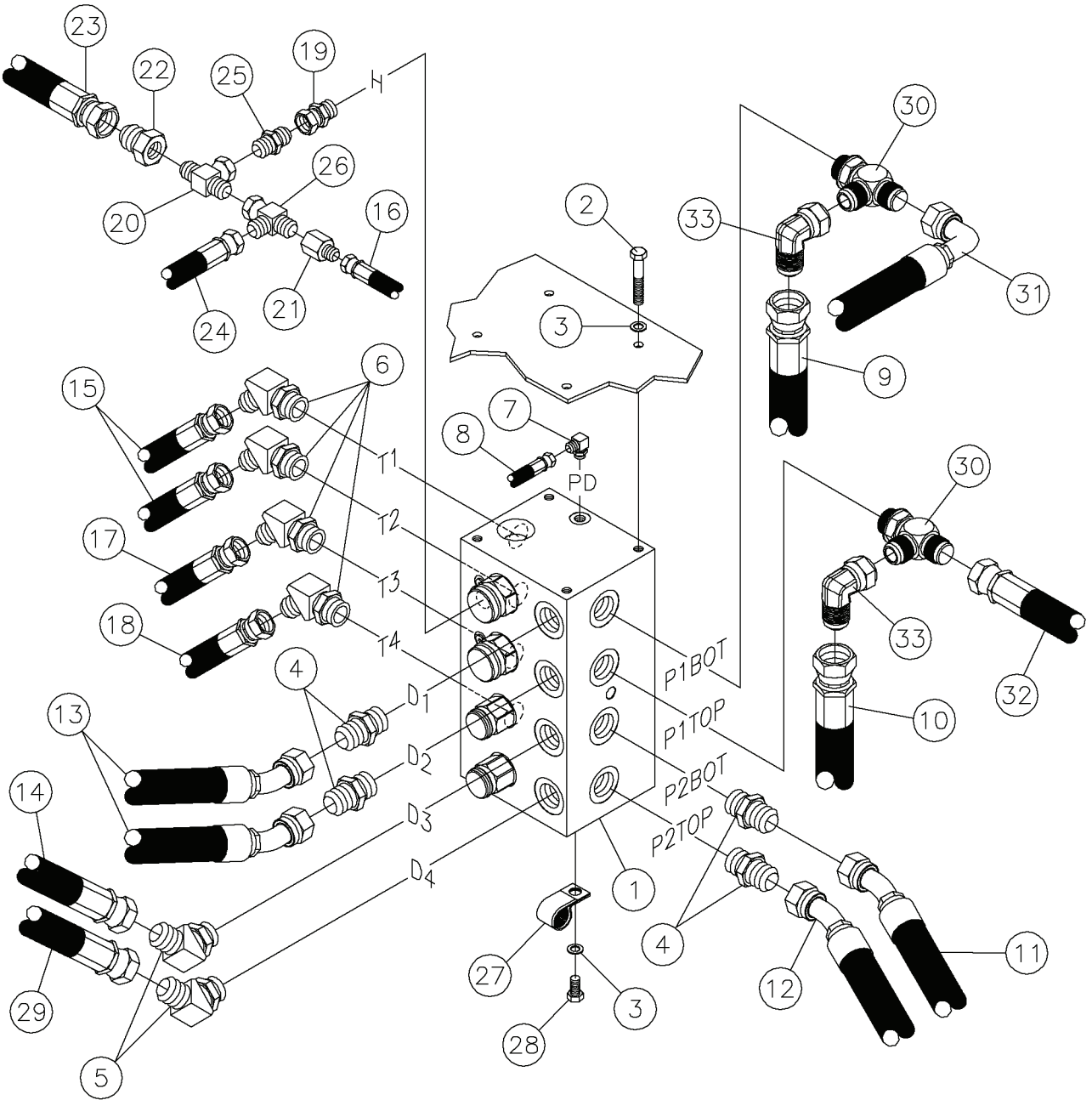
Valve - Water Control Fig 5-19



Valve - Water Control Fig 5-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257420	VALVE - WATER CONTROL	1	Breakdown On Fig 11-6
2		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
3		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
4		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
5		296260492	MICRO HOSE - .078 X 160 4FSJIC 6900PSI	1	
6		53825001	#12M O-RING-#8M JIC ST.	1	
7		53854001	12M O-RING-10M JIC ST.	2	
8		57968001	FITTING-STR-4MJ-6MORB	1	
9		53844677	HOSE-1/2X19 8FSJIC 100R1	1	
10		296260463	HOSE - 5/8 X 14.5 ST/ST 10FSJIC 3300PSI	1	
11		296269290	HOSE-HYD-5/8 X 93 10FSJIC ST/ST 2350 PSI	1	
12		296260416	HOSE - 1/4 X 15 ST/ST 4FSJIC 3300PSI	1	

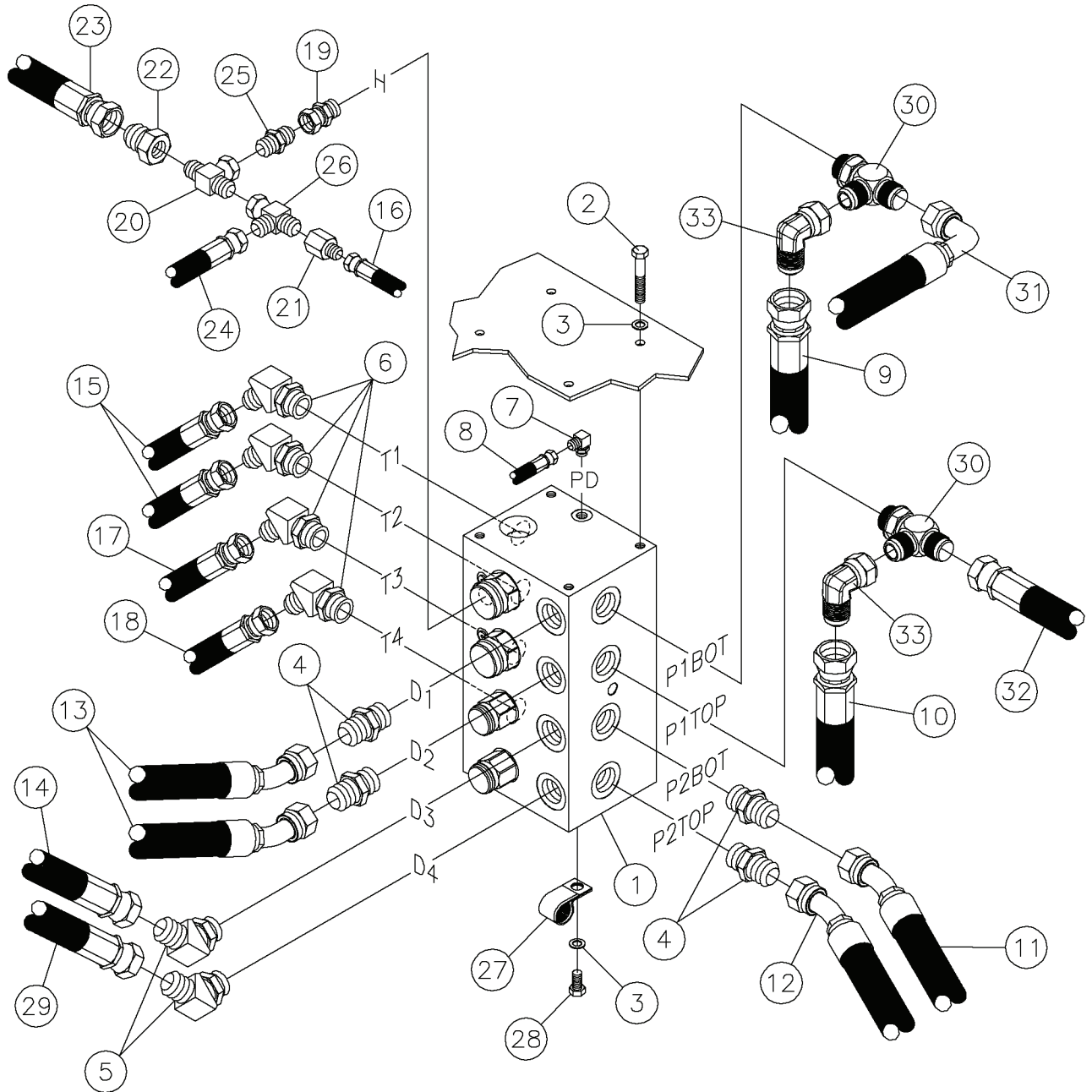
Valve - Drill Transport Fig 5-20r01



Valve - Drill Transport Fig 5-20r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296273259	VALVE - THRUST / TRANSPORT	1	Breakdown Fig 11-10
2		250529001	BOLT 3/8-16X2 1/2"GR.8 HEX	4	
3		235713001	WASHER-FLAT-.38 -.41 X .81-.06	5	
4		53828001	12M O-RING-12M JIC ST.	4	
5		60718001	FITTING-45-12MJ-12MORBA	4	
6		88659001	FITTING-12M ORINGX10MJIC 45DEG	4	
7		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
8		296260420	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI SLVD	1	
9		296260474	HOSE - 3/4 X 35.5 ST/45 12FSJIC 4000PSI	1	
10		296260472	HOSE - 3/4 X 28.5 ST/90 12FSJIC 4000PSI	1	
11		296260471	HOSE - 3/4 X 28.5 ST/45 12FSJIC 4000PSI	1	
12		296260473	HOSE - 3/4 X 33 ST/45 12FSJIC 4000PSI	1	
13		296270893	HOSE - 3/4X169 12FSJIC ST/45 4000PSI	2	
14		296282040	HOSE - 3/4X188 12FSJ ST/90 4000PSI	2	
15		296270822	HOSE - 5/8 X 56 ST/45 10FSJIC 4000PSI	2	
16		57940135	HOSE - 3/8 X 172 6FSJIC 3000 PSI	1	
17		296270823	HOSE - 5/8 X 57 ST/45 10FSJIC 4000PSI	1	
18		296270821	HOSE - 5/8 X 60 ST/45 10FSJIC 4000PSI	1	
19		296284371	FITTING-STR 8FSJX8MORB-R.078	1	S/N 125, 126, 134, 136, 137, 142, 144, 151, 152, 156, And Up.
20		63687001	8JIC FS BCHX8JIC MX8JIC M TEE	1	
21		61500001	8 JIC F X 6 JIC M STR.	1	
22		296270768	FITTING - STR - 8FJ - 12MJ	1	
23		296260476	HOSE - 3/4 X 65 ST/90 12FSJIC 1000PSI	1	
24		296269288	HOSE - 1/2 X 28 8FSJIC ST/ST 4000PSI	1	
25		67215001	8M JICX8M JIC STR.	1	
26		59461001	8 JIC SW RUN TEE	1	
27		2595009	CLAMP-1 1/4 HOSE #7701164	1	
28		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	1	
29		296282039	HOSE - 3/4X189 12FSJ ST/ST 4000 PSI	1	
30		59420001	12 JICX12M ADJ. STR THRD RUN TEE	2	
31		296282095	HOSE - 3/4 X 12.5 12FSJ ST/90 3000 PSI-M3K	1	
32		296282094	HOSE - 3/4 X 19.5 12FSJ ST/ST 3000 PSI-M3K	1	
33		59422001	FITTING-90-12MJ-12FSJ	2	

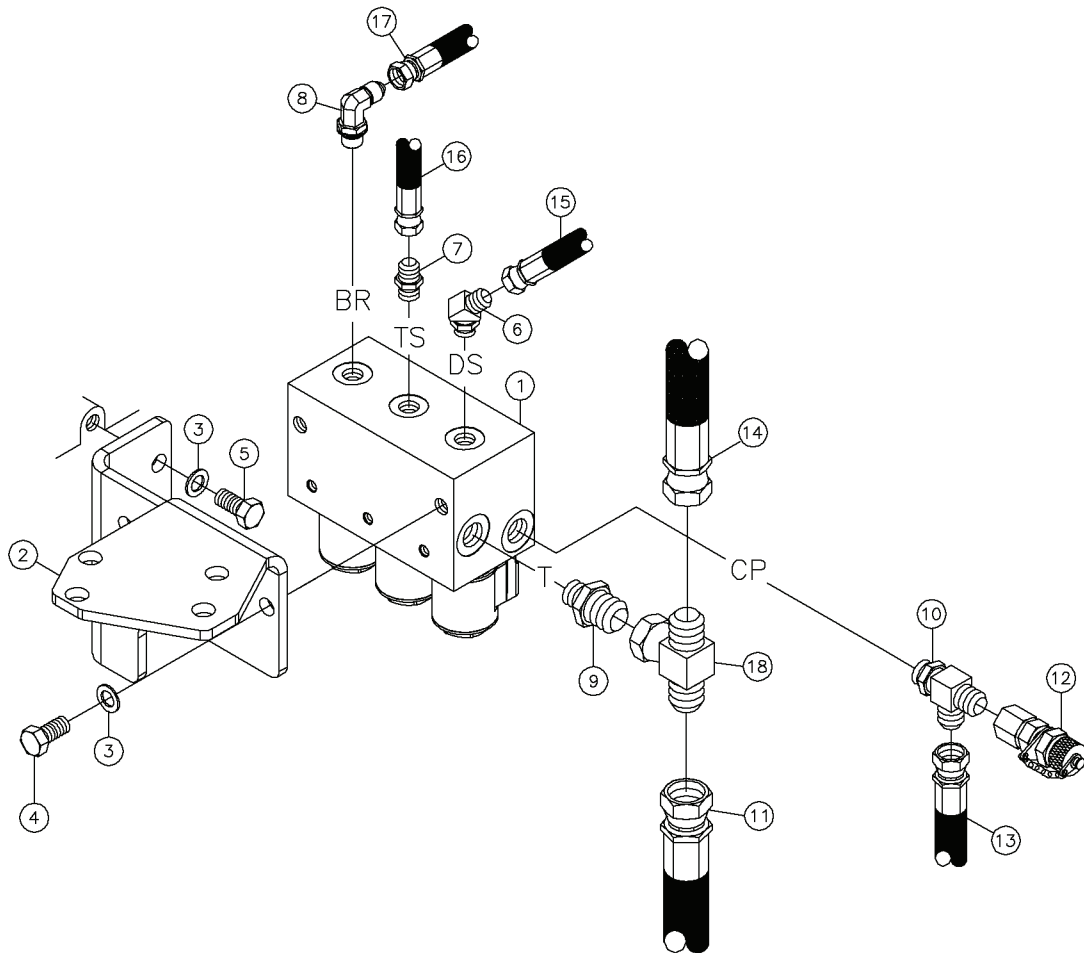
Valve - Drill Transport Fig 5-20



Valve - Drill Transport Fig 5-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278291001	VALVE - THRUST / TRANSPORT	1	Breakdown Fig 11-10
2		250529001	BOLT 3/8-16X2 1/2"GR.8 HEX	4	
3		235713001	WASHER-FLAT-.38 -.41 X .81-.06	5	
4		53828001	12M O-RING-12M JIC ST.	4	
5		60718001	FITTING-45-12MJ-12MORBA	4	
6		88659001	FITTING-12M ORINGX10MJIC 45DEG	4	
7		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
8		296260420	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI SLVD	1	
9		296260474	HOSE - 3/4 X 35.5 ST/45 12FSJIC 4000PSI	1	
10		296260472	HOSE - 3/4 X 28.5 ST/90 12FSJIC 4000PSI	1	
11		296260471	HOSE - 3/4 X 28.5 ST/45 12FSJIC 4000PSI	1	
12		296260473	HOSE - 3/4 X 33 ST/45 12FSJIC 4000PSI	1	
13		296270893	HOSE - 3/4X169 12FSJIC ST/45 4000PSI	2	
14		296282040	HOSE - 3/4X188 12FSJ ST/90 4000PSI	2	
15		296270822	HOSE - 5/8 X 56 ST/45 10FSJIC 4000PSI	2	
16		57940135	HOSE - 3/8 X 172 6FSJIC 3000 PSI	1	
17		296270823	HOSE - 5/8 X 57 ST/45 10FSJIC 4000PSI	1	
18		296270821	HOSE - 5/8 X 60 ST/45 10FSJIC 4000PSI	1	
19		296269284	FITTING-STR 8FSJX8MORB-R.125	1	
20		63687001	8JIC FS BCHX8JIC MX8JIC M TEE	1	
21		61500001	8 JIC F X 6 JIC M STR.	1	
22		296270768	FITTING - STR - 8FJ - 12MJ	1	
23		296260476	HOSE - 3/4 X 65 ST/90 12FSJIC 1000PSI	1	
24		296269288	HOSE - 1/2 X 28 8FSJIC ST/ST 4000PSI	1	
25		67215001	8M JICX8M JIC STR.	1	
26		59461001	8 JIC SW RUN TEE	1	
27		2595009	CLAMP-1 1/4 HOSE #7701164	1	
28		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	1	
29		296282039	HOSE - 3/4X189 12FSJ ST/ST 4000 PSI	1	
30		59420001	12 JICX12M ADJ. STR THRD RUN TEE	2	
31		296282095	HOSE - 3/4 X 12.5 12FSJ ST/90 3000 PSI-M3K	1	
32		296282094	HOSE - 3/4 X 19.5 12FSJ ST/ST 3000 PSI-M3K	1	
33		59422001	FITTING-90-12MJ-12FSJ	2	

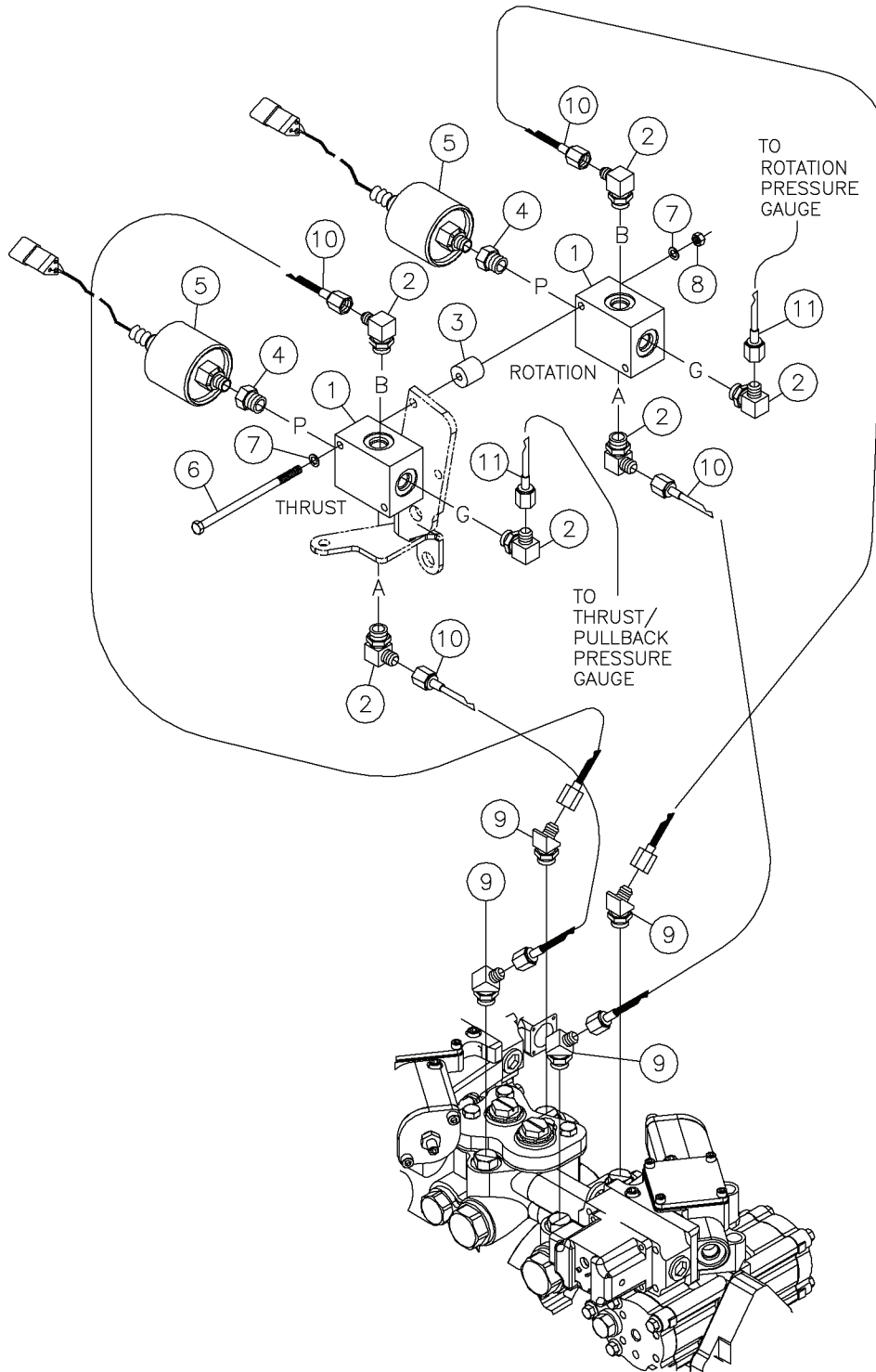
Valve - Pilot Fig 5-21



Valve - Pilot Fig 5-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257416	VALVE - PILOT CONTROL	1	Breakdown Fig 11-8
2		296273305	MOUNT - VALVE	1	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
4		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
5		238888001	BOLT-M10X1.50X25 HHCS CL-10.9 ZY	2	
6		58295001	FITTING-4M OR X 4M JIC 45 DEG.	1	
7		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
8		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
9		86235001	6M ORING X 8M JIC STR.	1	
10		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	1	
11		296275037	HOSE - 8 FSJ ST X 8FSJ 90 X 18"	1	
12		296280278	FITTING - TEST - 6FSJ - 16MTP WITH ORING	1	
13		296260439	HOSE - 3/8 X 15 ST/90 6FSJIC 3300 PSI	1	
14		296260460	HOSE - 1/2 X 14 ST/ST 8FSJIC 500PSI	1	
15		296260420	HOSE - 1/4 X17 ST/ST 4FSJIC 3300PSI SLVD	1	
16		53843179	HOSE-1/4X180 4FS JIC 100R1	1	
17		296260429	HOSE - 1/4 X 57 ST/ST 4FSJIC 3300 PSI	1	
18		63687001	8JIC FS BCHX8JIC MX8JIC M TEE	1	

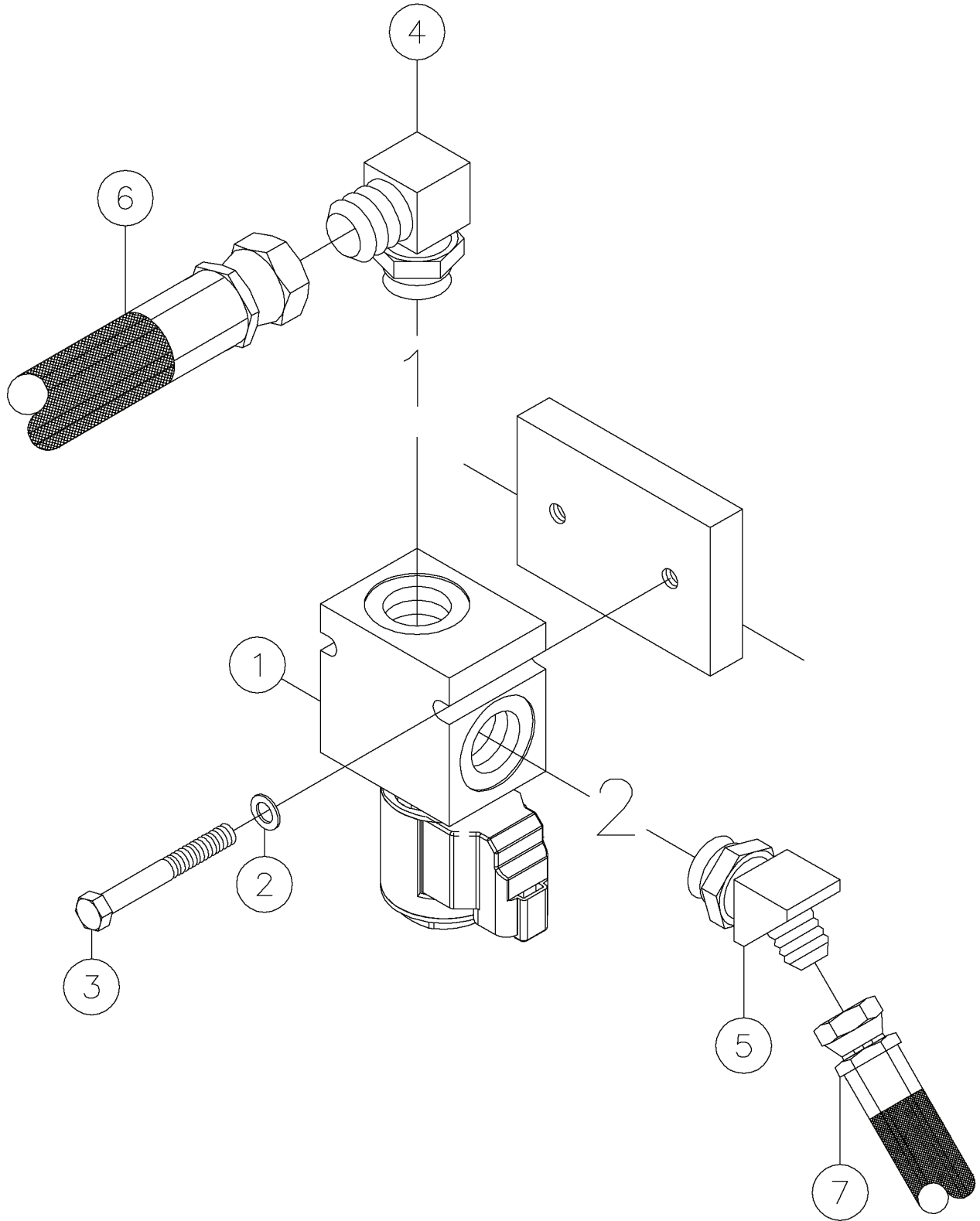
Valve - Shuttle Fig 5-22



Valve - Shuttle Fig 5-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296260411	VALVE - SHUTTLE	2	
		296267116	SHUTTLE VALVE	1	
		260040007	SEAL KIT	1	
2		57950001	FITTING-90-4MJ-6MORBA	6	
3		1075023	TUBING-RND.3/4ODX5/16ID- .75	2	
4		67291001	FITTING - STR - 6MORB - 4FORB	2	
5		296260407	TRANSDUCER - PRESSURE	2	
6		296258562	SCREW - HCS - .25 - 20 X 4.50 - GR8 - YZ	2	
7		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
8		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
9		82931001	FITTING-6MX4M JIC 45DEG.ELBOW	4	
10		285556001	HOSE - .078 X 18 4 FS JIC ST/ST 6900 PSI	4	
11		296260492	MICRO HOSE - .078 X 160 4FSJIC 6900PSI	2	

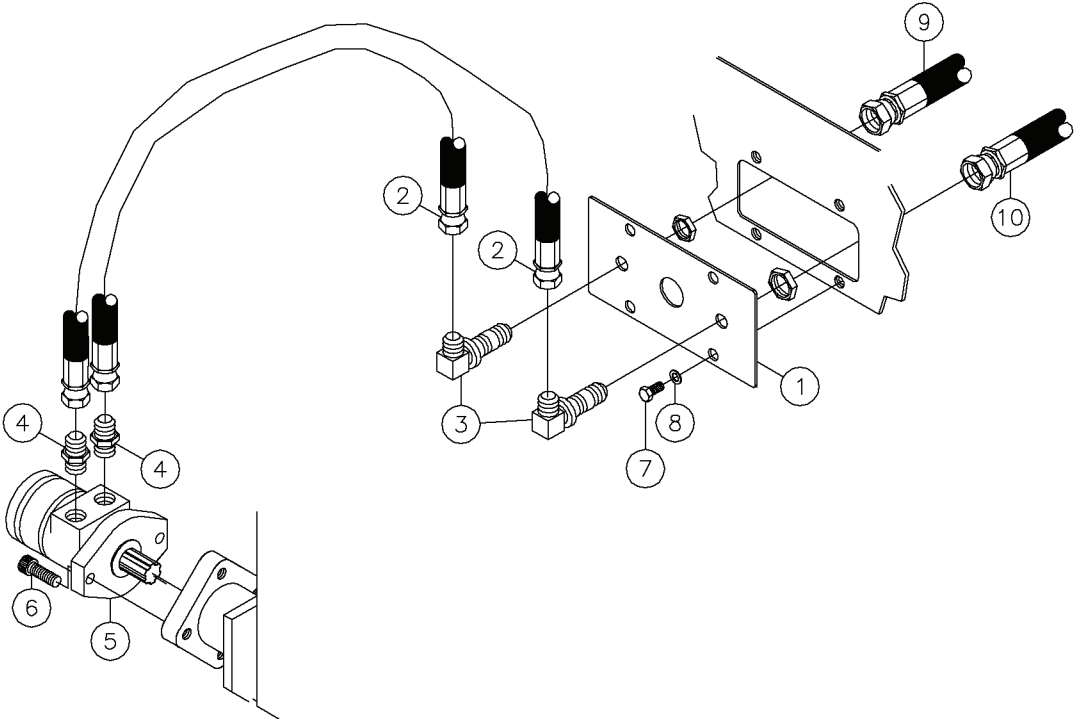
Valve - Transport Flush Fig 5-23



Valve - Transport Flush Fig 5-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266539	VALVE - STAKEDOWN ENABLE	1	Breakdown Fig 11-4
2		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
3		23821001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	2	
4		53837001	FITTING - 8M O-RING X 8M JIC 90 DEGREE	1	
5		59425001	FITTING-6M JICX8M ADJ.45 ELBOW	1	
6		296269288	HOSE-HYD-1/2X28 8FSJIC ST/ST 4000PSI	1	
7		296270818	HOSE-HYD 3/8 X 23 6FSJIC ST/45 4000PSI	1	

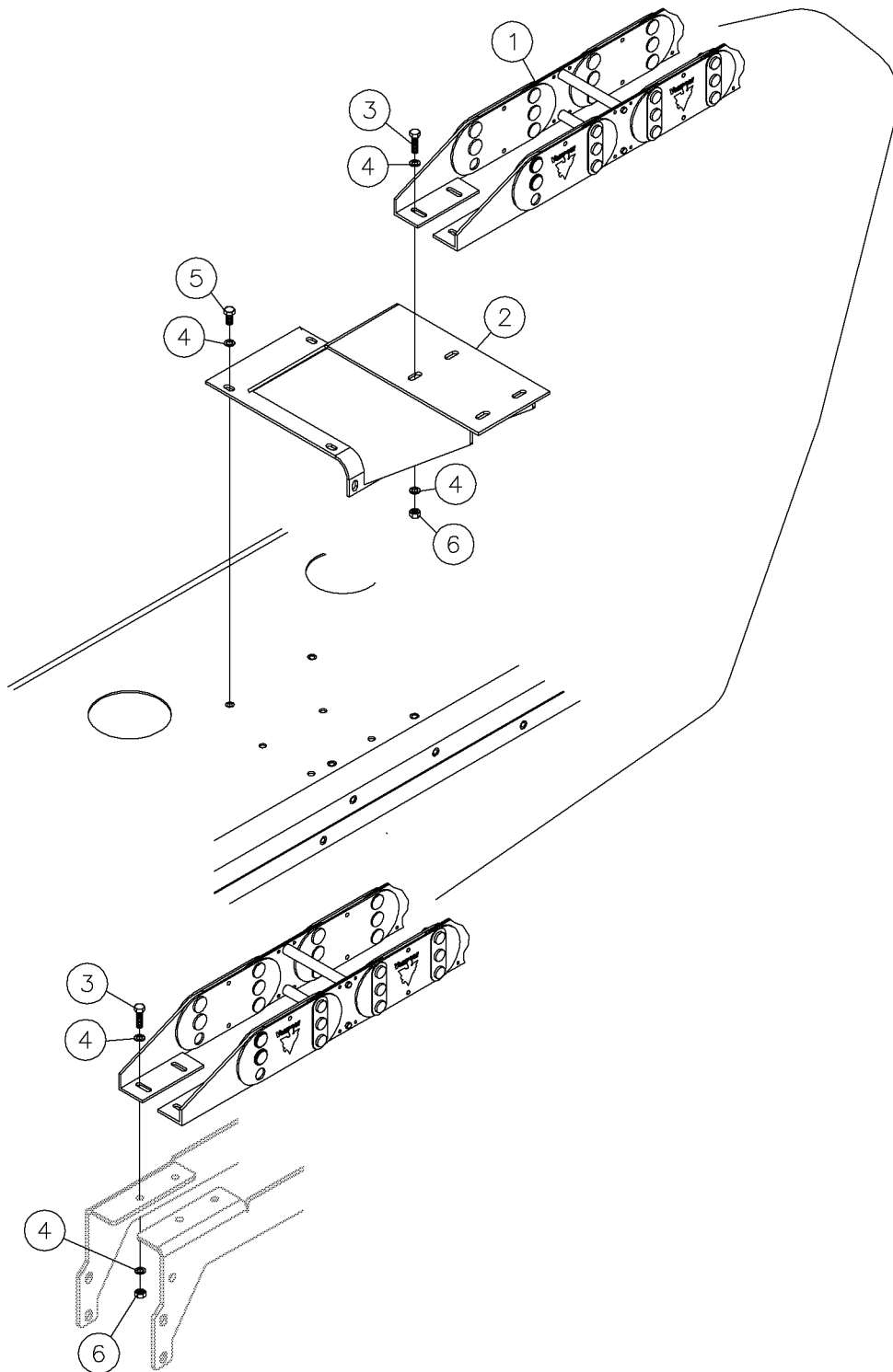
Motor - Water Pump Fig 5-24



Motor - Water Pump Fig 5-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266643	BULKHEAD - HYD. HOSE	1	
2		296260469	HOSE - 5/8 X 63 ST/ST 10FSJIC 2350PSI	2	
3		77735001	FITTING - BH90 - 10MJ - 10MJ - LN	2	
4		53827001	FITT.-#10M O-RING-#10M JIC ST.	2	
5		287506001	MOTOR - ROSS MF W/ SPEED SENSOR	1	Breakdown Fig 11-14
6		514014	1/2-13X1 1/2" SOCKET HEAD BOLT	2	
7		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	4	
8		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
9		296270817	HOSE-HYD 5/8 X 50 12FSJIC ST/ST 3300PSI	1	
10		296269290	HOSE-HYD-5/8 X 93 10FSJIC ST/ST 2350 PSI	1	

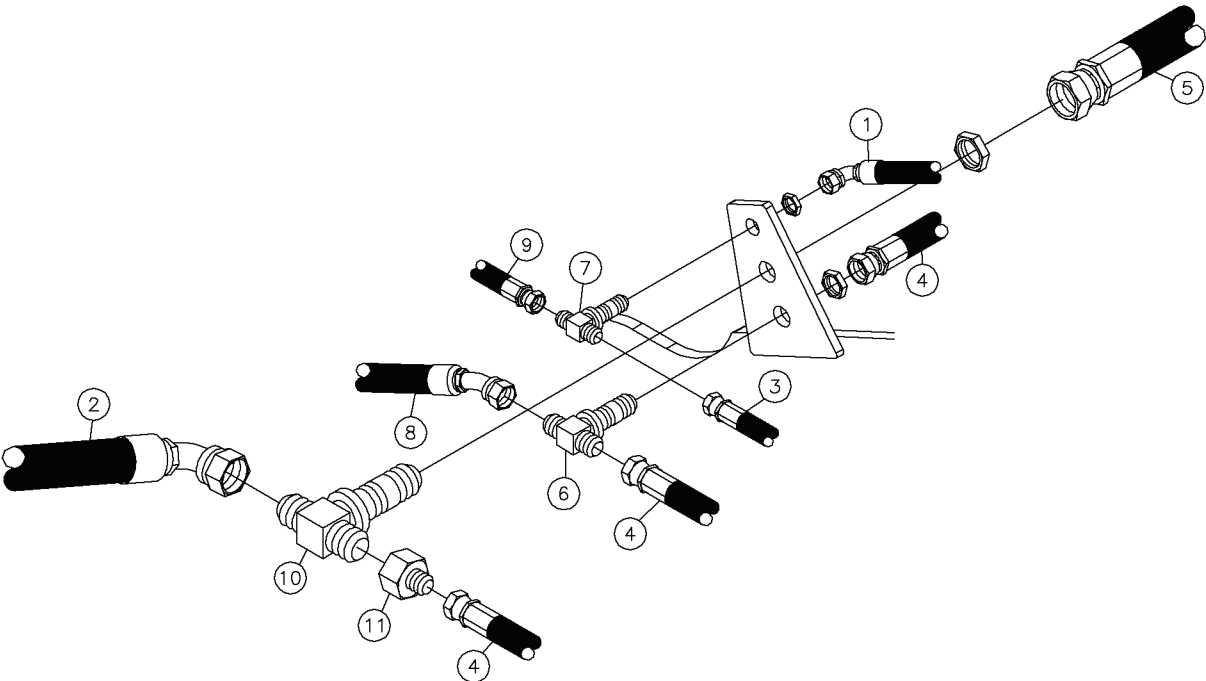
Hose Carrier Assy Fig 5-25



Hose Carrier Assy Fig 5-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257193	TRACK - HOSE	1	Breakdown Fig 11-22
2		296257228	MOUNT - UPPER HOSE TRACK	1	
3		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	8	
4		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	25	
5		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	9	
6		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	8	

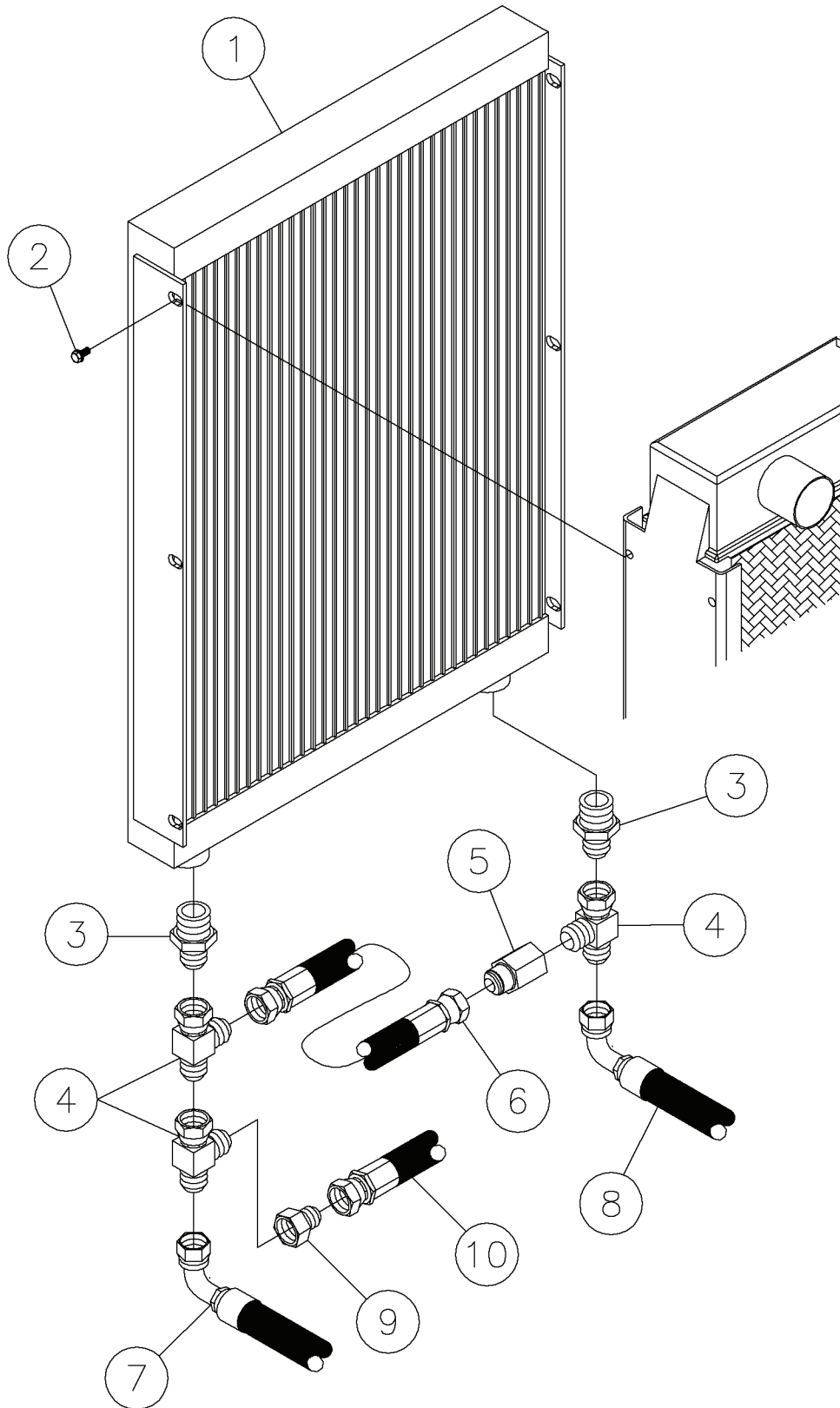
Undercarriage Bulkhead Fig 5-26



Undercarriage Bulkhead Fig 5-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296270831	HOSE - 1/4X75 ST/45 4FSJIC 3300PSI	1	
2		296275056	HOSE-5/8 X 32 - 10FSJIC-ST/45-3000PSI	1	
3		296260433	HOSE - 1/4 X 90 ST/ST 4FSJIC 3300 PSI	1	
4		296269291	HOSE-HYD-3/8X60 6FSJIC ST/ST 3300 PSI	3	
5		296275057	HOSE-5/8 X 32 -10FSJIC-ST/90-3000PSI	1	
6		60726001	6M JIC BULKHEAD TEE	1	
7		60926001	FITT.-4JIC BULKHEAD BRANCH TEE	1	
8		296270815	HOSE-HYD-3/8X32 6FSJIC ST/45 4000PSI	1	
9		53843173	HOSE-1/4X114 4FS JIC 100R1	1	
10		111476001	FITTING-10MX10MX10M BRANCH TEE	1	
11		71253001	FITTING-6M JICX10F JIC REDUCER	1	

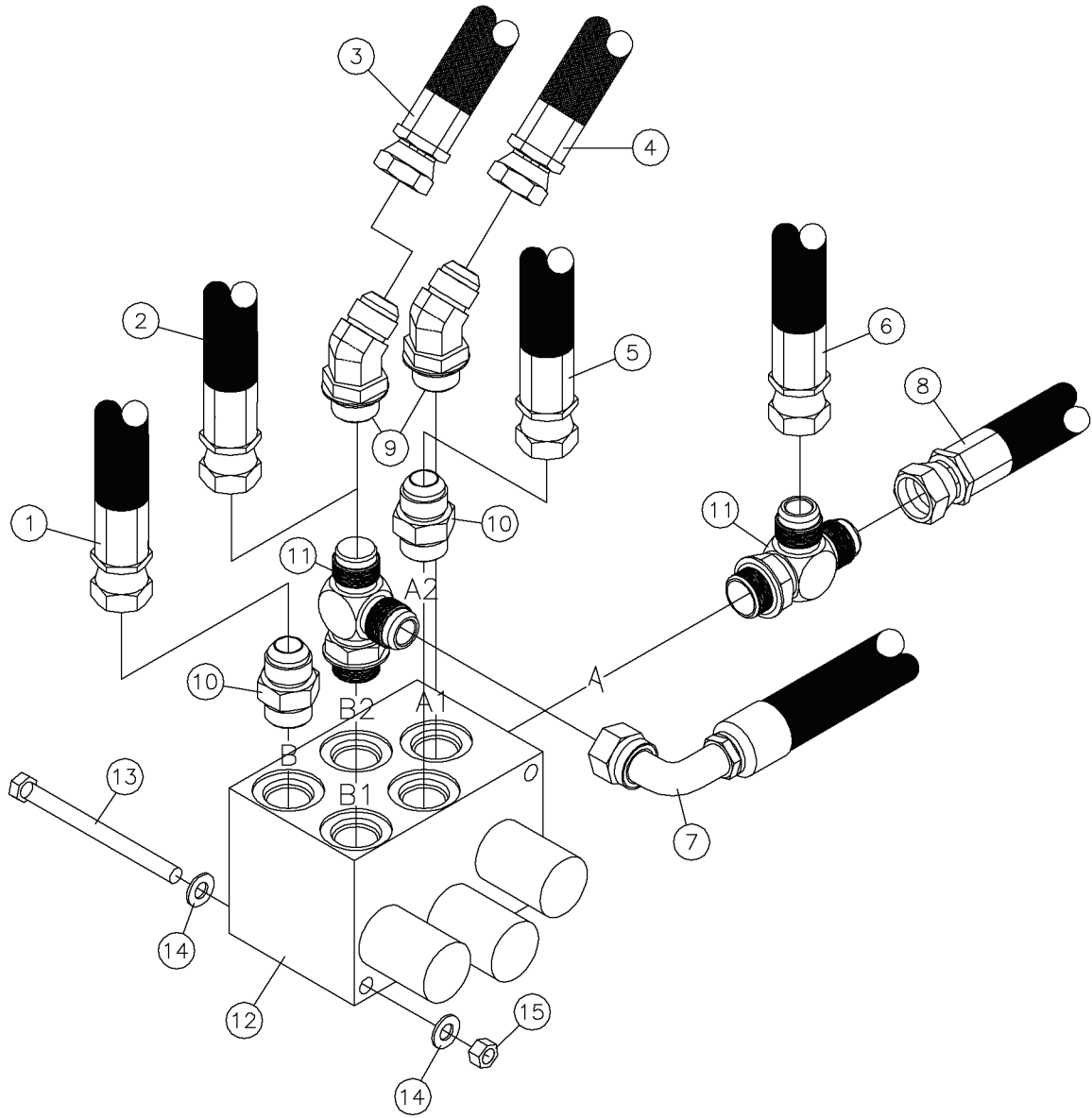
Oil Cooler Fig 5-27



Oil Cooler Fig 5-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296257198	COOLER - OIL	1	
2		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	6	
3		70008001	FITTING-16M X 12M JIC STR.	2	
4		59417001	12 JIC SW RUN TEE	3	
5		296257223	VALVE - 50PSI BYPASS	1	
6		296260470	HOSE - 3/4 X 13.5 ST/ST 12FSJIC 1000PSI	1	
7		296260475	HOSE- 3/4 X 46 ST/90 12FSJIC 4000PSI	1	
8		296260476	HOSE - 3/4 X 65 ST/90 12FSJIC 1000PSI	1	
9		81690001	FITTING-12F JICX10M JIC ST.	1	
10		296275058	HOSE-5/8X81-10FSJIC-ST/90-3000PSI	1	

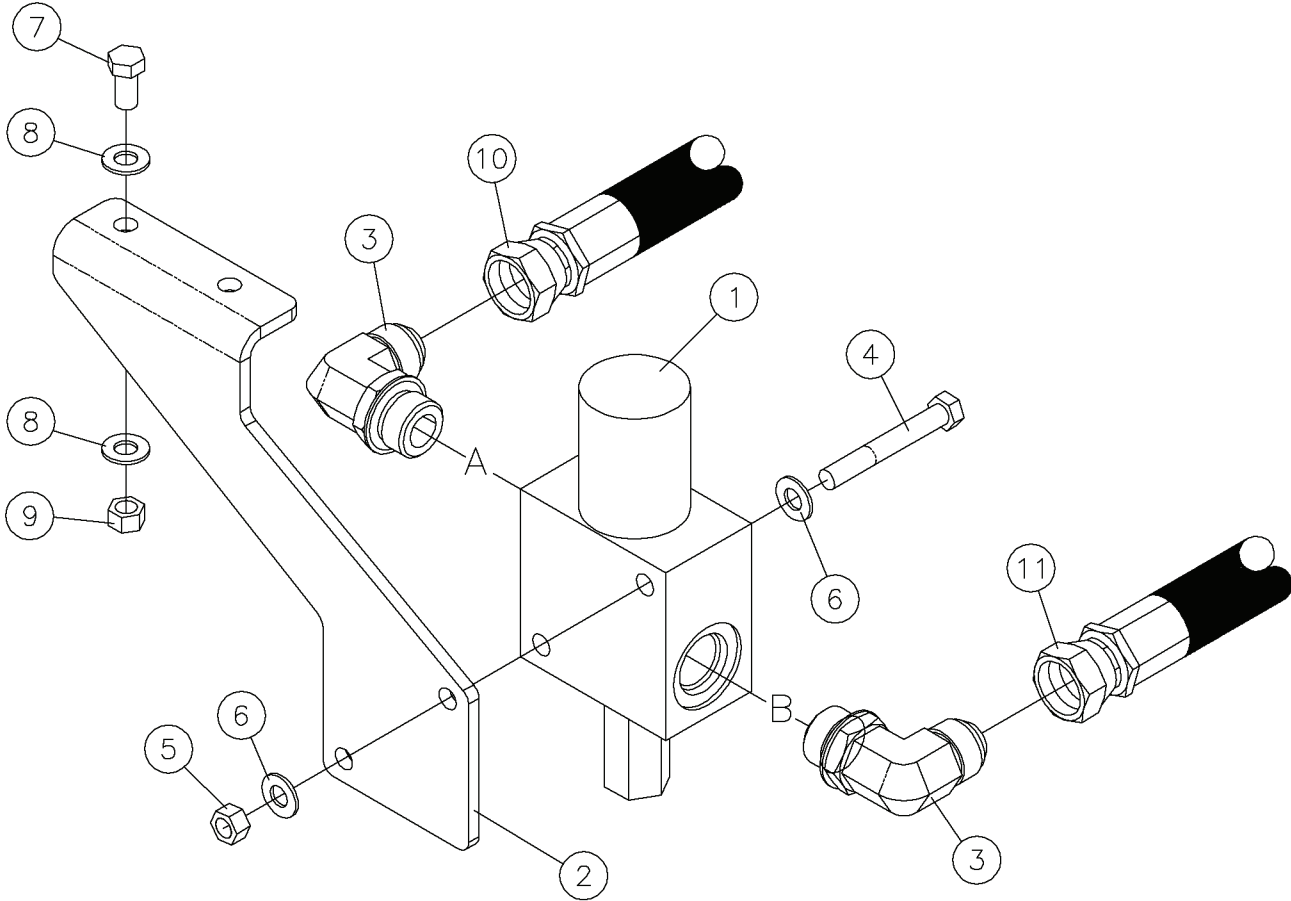
Valve - Thrust/Pullback Fig 5-28



Valve - Thrust/Pullback Fig 5-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282036	HOSE-HYD 3/4X31 12FSJ ST/90 4000 PSI-M4K	1	
2		296282037	HOSE-HYD 3/4X37 12FSJ ST/90L 4000PSI-M4K	1	
3		296282038	HOSE-HYD 3/4X19.5 12FSJ ST/90 4000PSI-M4	1	
4		296282034	HOSE-HYD 3/4X18 12FSJ ST/90 4000 PSI-M4K	1	
5		296282035	HOSE-HYD 3/4X29 12FSJ ST/90 4000 PSI-M4K	1	
6		296282033	HOSE-HYD 3/4X33 12FSJ ST/90L 4000PSI-M4K	1	
7		296282040	HOSE-HYD 3/4X188 12FSJ ST/90 4000PSI-M4K	1	
8		296282039	HOSE-HYD 3/4X189 12FSJ ST/ST 4000 PSI-M4	1	
9		60718001	FITTING-45-12MJ-12MORBA	2	
10		53828001	#12M O-RING-#12M JIC ST.	2	
11		59420001	12 JICX12M ADJ. STR THRD RUN TEE	2	
12		296282022	VALVE- T/P	1	Breakdown Fig. 11-28
13		275231001	BOLT-3/8-16X5 GR8 HEX ZINC PLT	3	
14		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	6	
15		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	3	

Valve - Torque Limiter Fig 5-29



Valve - Torque Limiter Fig 5-29

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265775	VALVE - TORQUE LIMITER	1	Breakdown Fig. 11-29
2		296282087	PLATE - VALVE MOUNT	1	
3		59410001	FITTING-90-12MJ-12MORBA	2	
4		250640001	BOLT-3/8-16 X2 3/4 GR 8 Y/ZINC	2	
5		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
6		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
7		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
8		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
9		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
10		296282095	HOSE - HYD 3/4 X 12.5 12FSJ ST/90 3000 PSI-M3K	1	
11		296282094	HOSE - HYD 3/4 X 19.5 12FSJ ST/ST 3000 PSI-M3K	1	

Bucket Auto Greaser Mount Fig 5-30

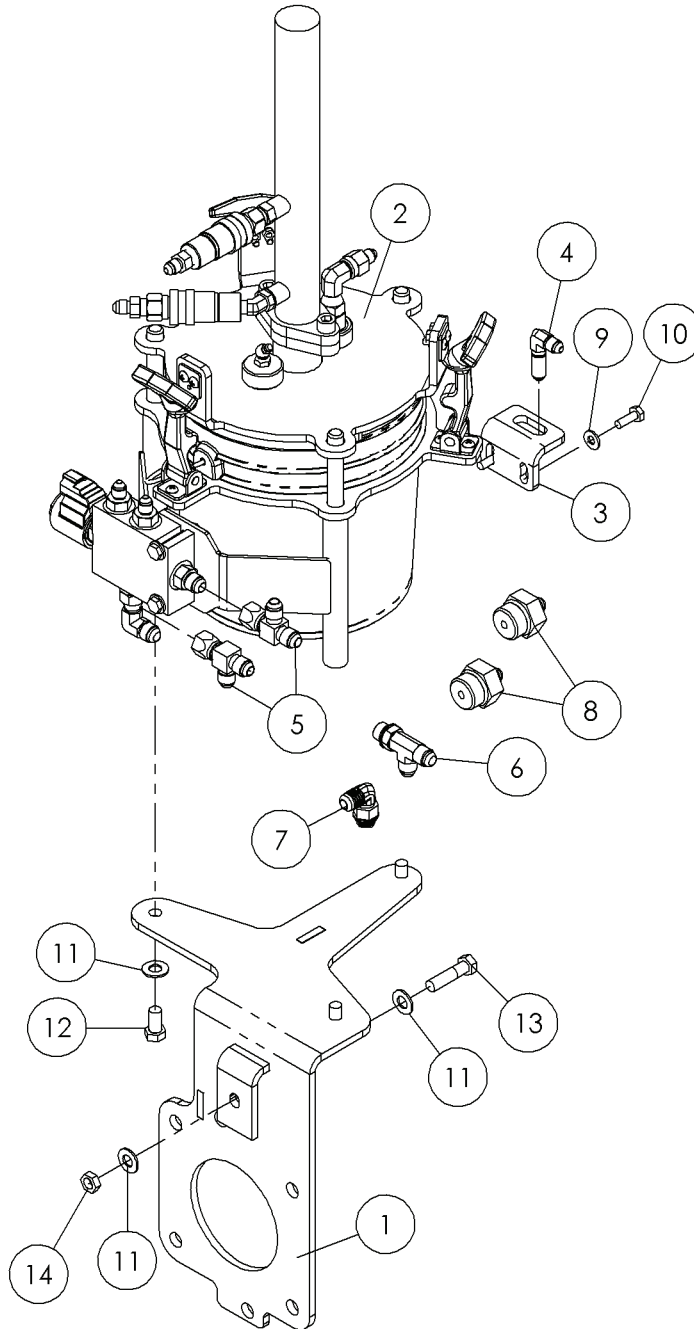


Illustration No. 296289078

Bucket Auto Greaser Mount Fig 5-30

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2007		Updated Figure
1		296289070	BRACKET - GREASER MOUNT	1	
2		296287962	ASSEMBLY - AUTO GREASER (1 GAL.	1	Breakdown Fig. 5-31
3		296266585	BLOCK - NOZZLE	1	
4		61497001	FITTING-4M JIC BULKHEAD 90DEG.	1	
5		59427001	TEE-6MJ-6FSJ-6MJ	2	
6		68774001	FITTING-6MX6M JIC (RUN)X6M JIC	1	
7		59426001	FITTING - 90-6MJ-6MORBA	1	
8		64168001	12MX6 JIC M STR.	2	
9		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	2	
10		235734001	BOLT-1/4-20X3/4 GR8 ZYC	2	
11		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	5	
12		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	3	
13		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	1	
14		250576001	NUT-3/8 NC HEX JAM W/Y-ZINC	1	

Bucket Auto Greaser (1 Gallon) Fig 5-31

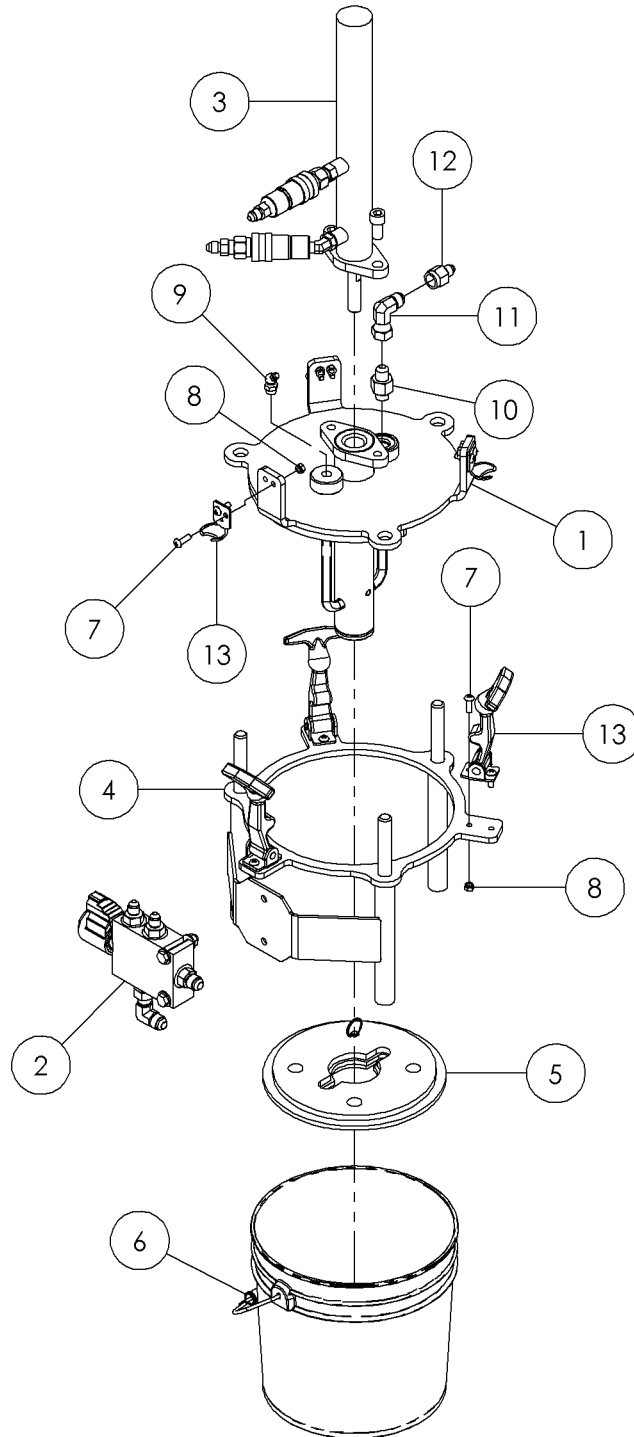


Illustration No. 296287962

Bucket Auto Greaser (1 Gallon) Fig 5-31

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2007		Updated Figure
1		296287952	WELDMENT - GREASE BUCKET TOP	1	
2		296287941	ASSEMBLY - AUTO GREASER VALVE	1	Breakdown Fig. 5-32
3		296287960	CYLINDER - AUTO GREASER	1	Breakdown Fig. 5-33
4		296289052	WELD - BUCKET SUPPORT	1	
5		296287954	ASSEMBLY - GREASER FOLLOWER (1 GAL.	1	Breakdown Fig. 5-34
6		235983001	LUBRICANT - THREAD 1 GALLON	1	
7		233502001	SCREW- #10-24X5/8 PHILLIPS PAN	12	
8		99042001	NUT - NYLOCK - 10 - 24 - GR2 - CZ	12	
9		588001	ZERK-1/8" NPT 45 DEG GREASE	1	
10		296280727	FITTING-CHECK VALVE-6MORX6MJIC-40PSI	1	
11		60851001	FITTING-6M JICX6FS JIC 90ELBOW	1	
12		59928001	6F JICX4M JIC ST REDUCER	1	
13		109591001	LATCH-4" RUBBER T HANDLE	3	

Bucket Auto Greaser Valve Fig 5-32

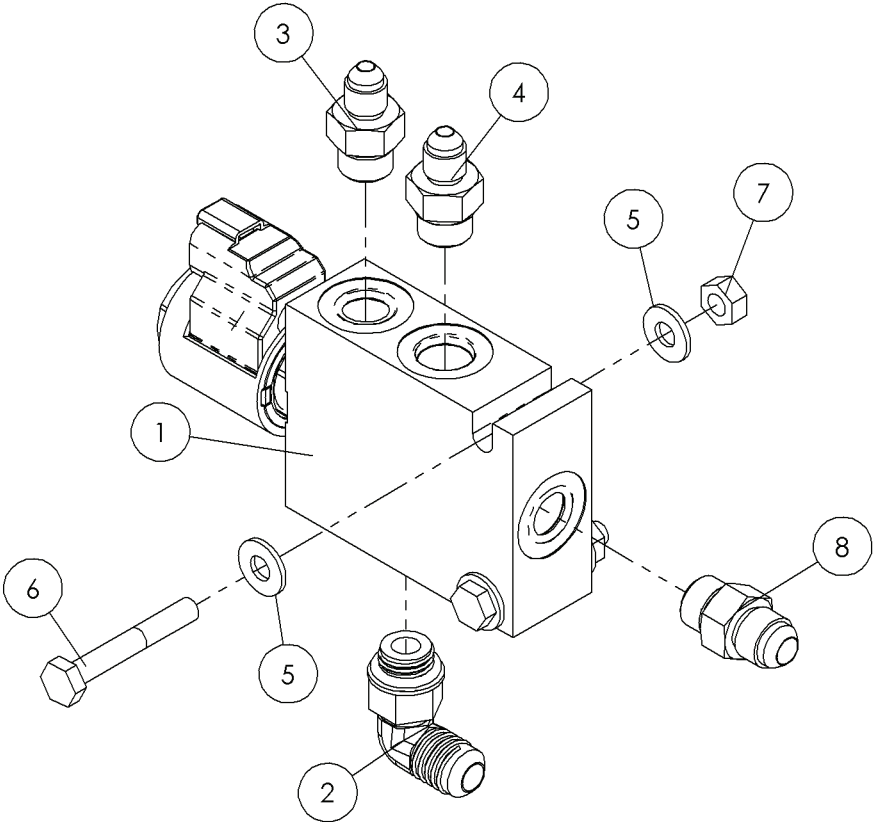


Illustration No. 296287941

Bucket Auto Greaser Valve Fig 5-32

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	February, 2007		Addition To Manual
1		294901001	VALVE - GREASER	1	Breakdown Fig. 11-9
2		59426001	FITTING - 90-6MJ-6MORBA	1	
3		57968001	FITTING-STR-4MJ-6MORB	1	
4		131009001	FITTING-4MJCX6MORING ST.062R	1	
5		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	4	
6		248107001	BOLT-1/4-20X1 3/4 GR 8 ZINC PL	2	
7		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
8		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	

Bucket Auto Greaser Cylinder (S/N 330-) Fig 5-33r01

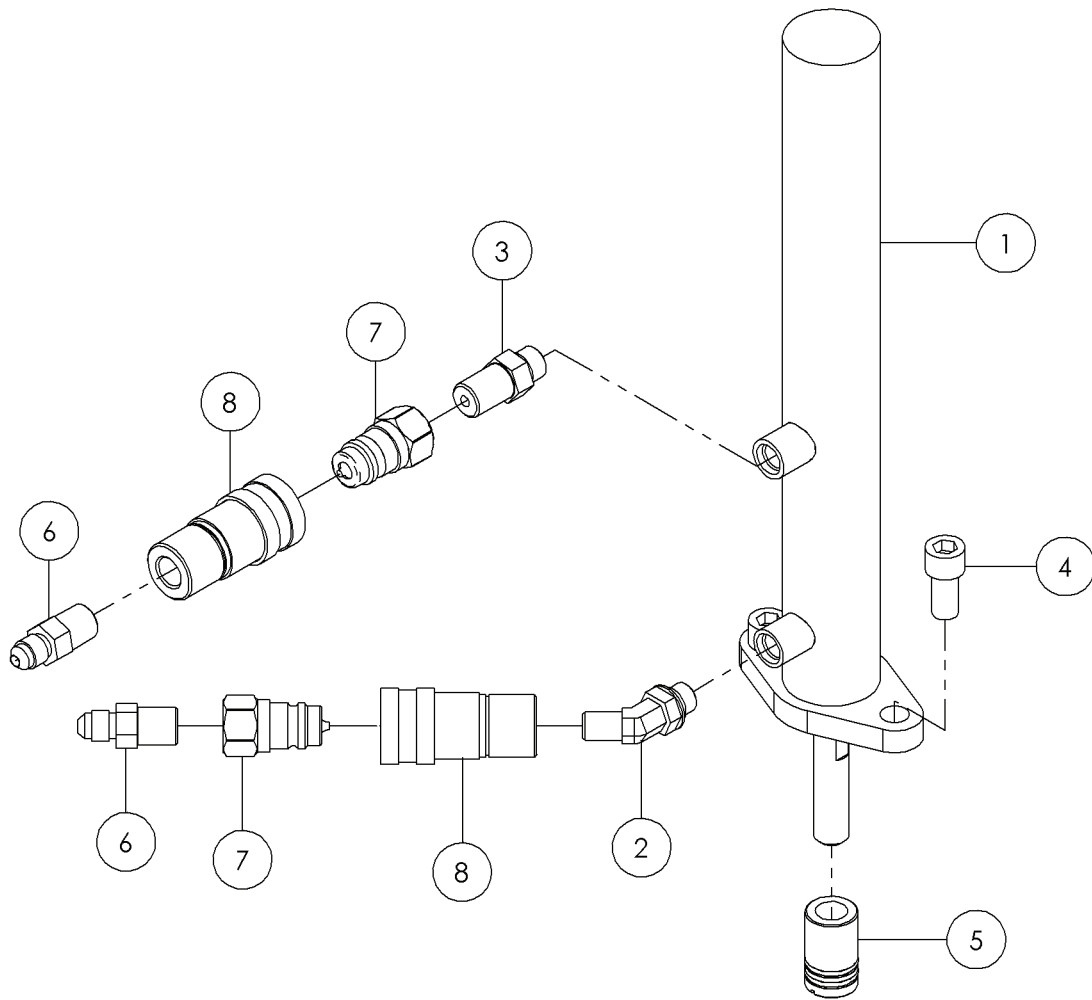


Illustration No. 296287960

Bucket Auto Greaser Cylinder (S/N 330-) Fig 5-33r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296289208	CYL - 1.00 BORE X 2.50 STROKE X 0.50 ROD	1	(S/N 330-) Breakdown Fig. 11-30r01
2		296289214	FITTING - 45 - 4MNPT - 4MORBA	1	
3		296289124	FITTING - 4MOR X 4MNPT - ST	1	
4		512006	3/8-16X3/4"SOCKET HEAD BOLT	2	
5		296287964	ASSEMBLY - GLAND O-RING	1	
6		67849001	1/4 M X 4M JIC ST.	2	
7		4255003	COUPLER-1/4" M OF QUICK SET	2	
8		4255005	COUPLER-1/4" F OF QUICK SET	2	

Bucket Auto Greaser Cylinder Fig 5-33

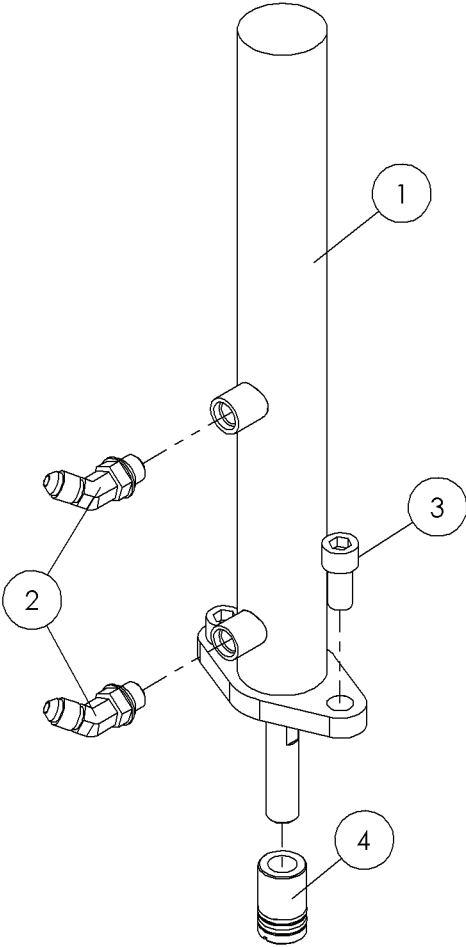


Illustration No. 296287960

Bucket Auto Greaser Cylinder Fig 5-33

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	February, 2007		Addition To Manual
1		296280672	CYL-1.00 BORE X 3.50 STROKE X 0.50 ROD	1	Breakdown Fig. 11-30
2		58295001	FITTING-4M OR X 4M JIC 45 DEG.	2	
3		512006	3/8-16X3/4" SOCKET HEAD BOLT	2	
4		296287964	ASSEMBLY - GLAND O-RING	1	

Bucket Auto Greaser Follower (1 Gal.) Fig 5-34

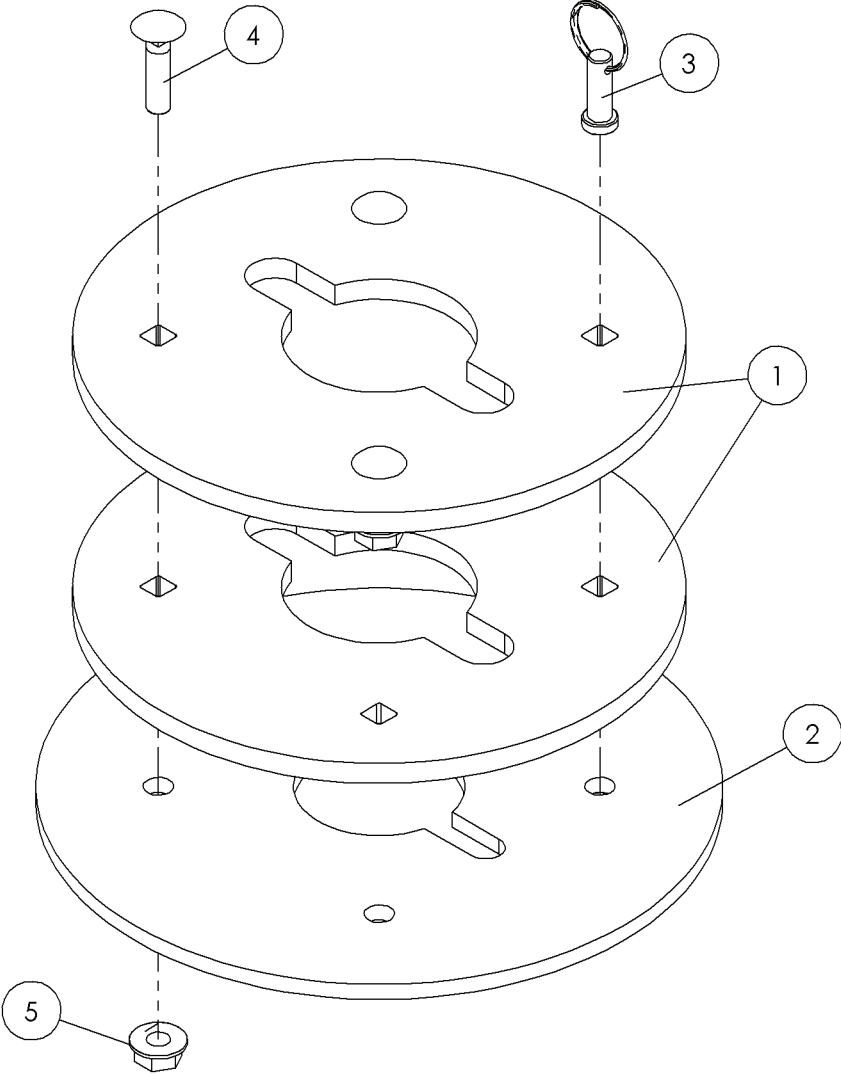
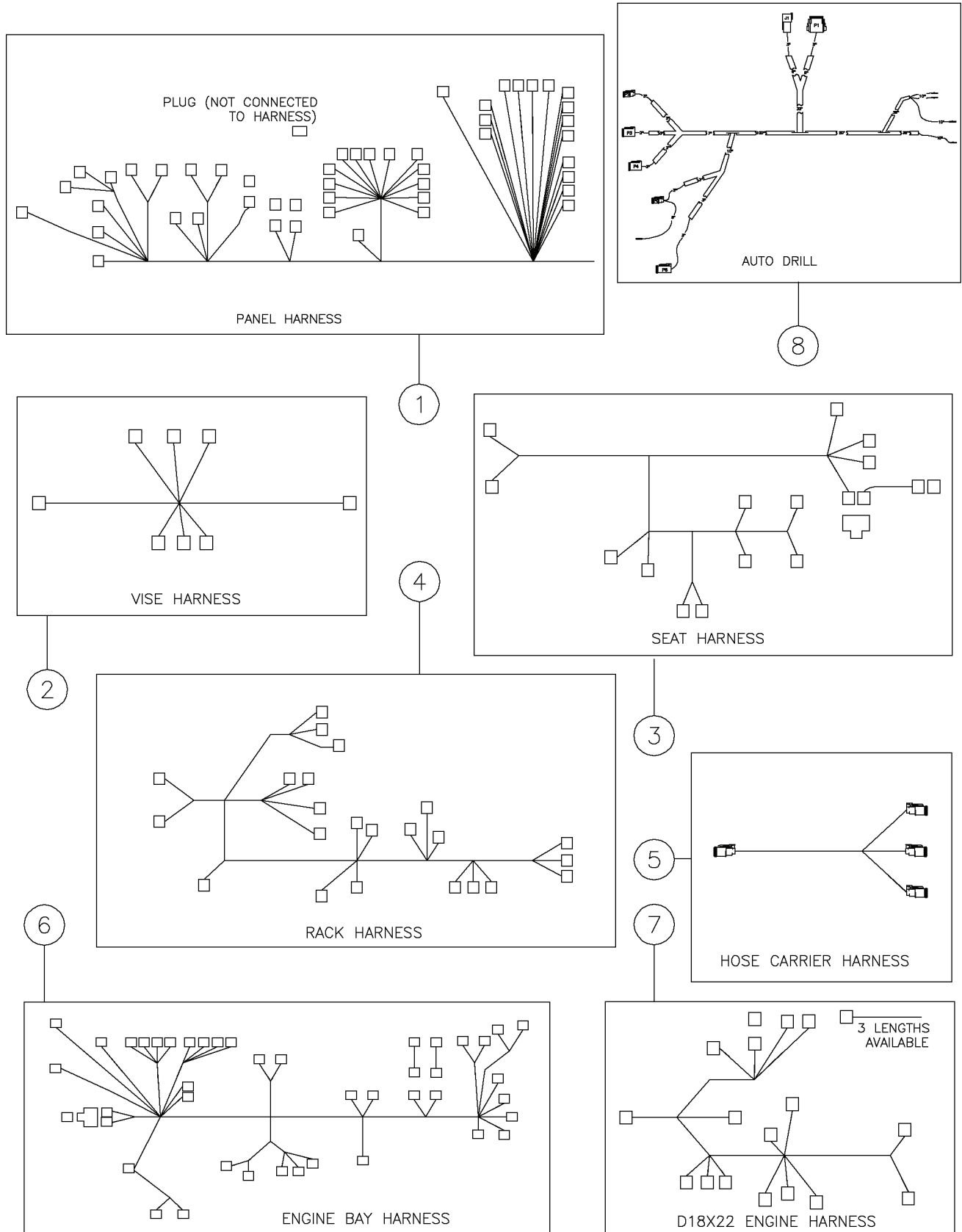


Illustration No. 296287954

Bucket Auto Greaser Follower (1 Gal.) Fig 5-34

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	February, 2007		Addition To Manual
1		296287951	PLATE-GREASE FOLLOWER	2	
2		296287955	SHEET-RUBBER	1	
3		296280696	PIN-CLEVIS-.25X.5 U.L. WITH RING	1	
4		373010	BOLT-CARG-.25-20X1.00-GR5-CZ	3	
5		1809005	NUT-SMFLGTL-.25-20-G-CZ	3	

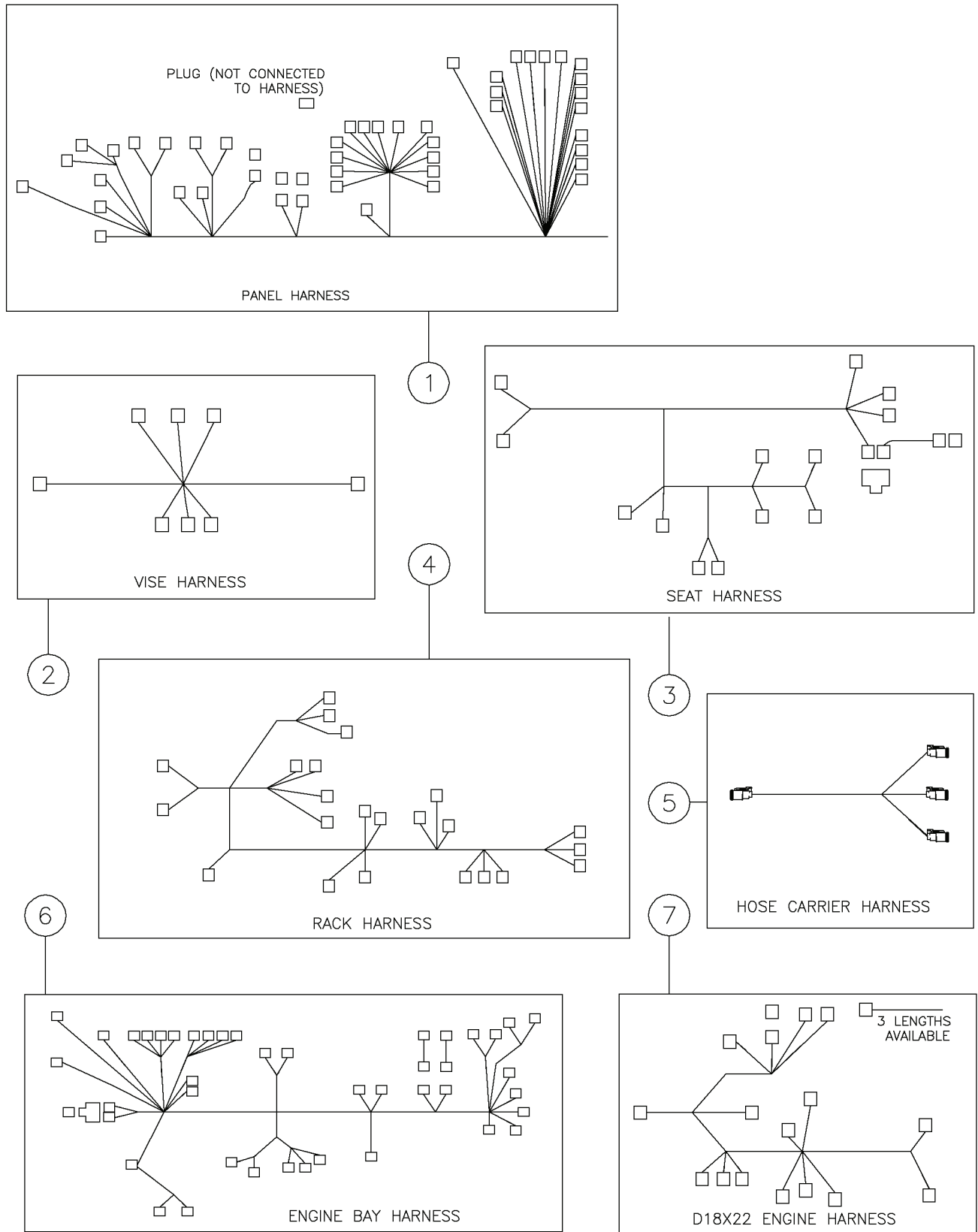
Electrical Harness (S/N 236-) Fig 6-1r02



Electrical Harness (S/N 236-) Fig 6-1r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	January, 2007		Added Harness
1		296282044	HARNESS-PANEL	1	
2		296282068	HARNESS-VISE D20X22	1	
3		296282042	HARNESS-SEAT D20X22	1	
4		296282066	HARNESS-RACK D20X22	1	
5		296282045	HARNESS HOSE CARRIER	1	
6		296282069	HARNESS-ENGINE BAY	1	
7		296282067	HARNESS-ENGINE D20X22	1	
8	*	296298760	HARNESS-AUTO DRILL	1	(S/N 236-)

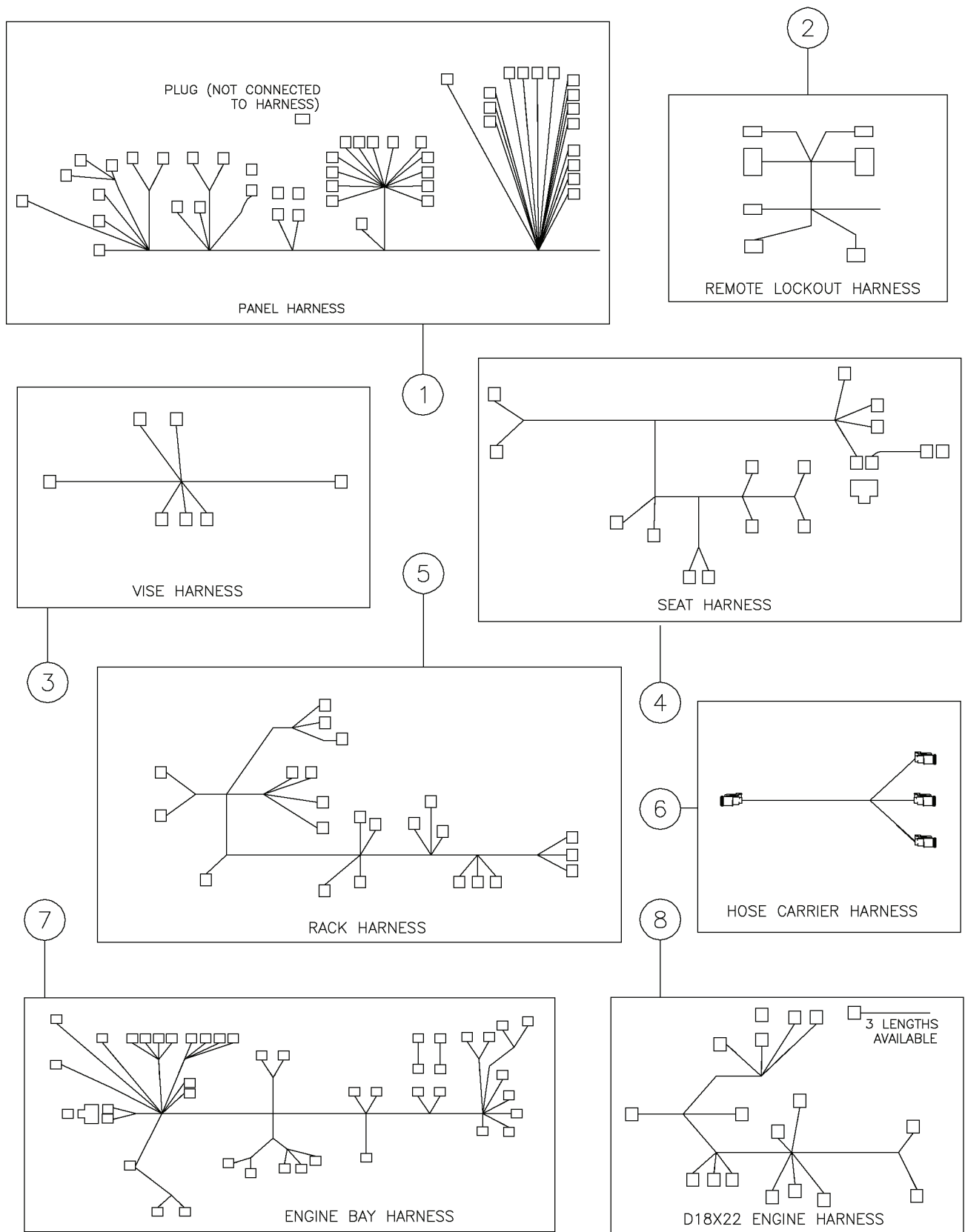
Electrical Harness Fig 6-1r01



Electrical Harness Fig 6-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration.
1		296282044	HARNESS-PANEL	1	
2		296282068	HARNESS-VISE D20X22	1	
3		296282042	HARNESS-SEAT D20X22	1	
4		296282066	HARNESS-RACK D20X22	1	
5		296282045	HARNESS HOSE CARRIER	1	
6		296282069	HARNESS-ENGINE BAY	1	
7		296282067	HARNESS-ENGINE D20X22	1	

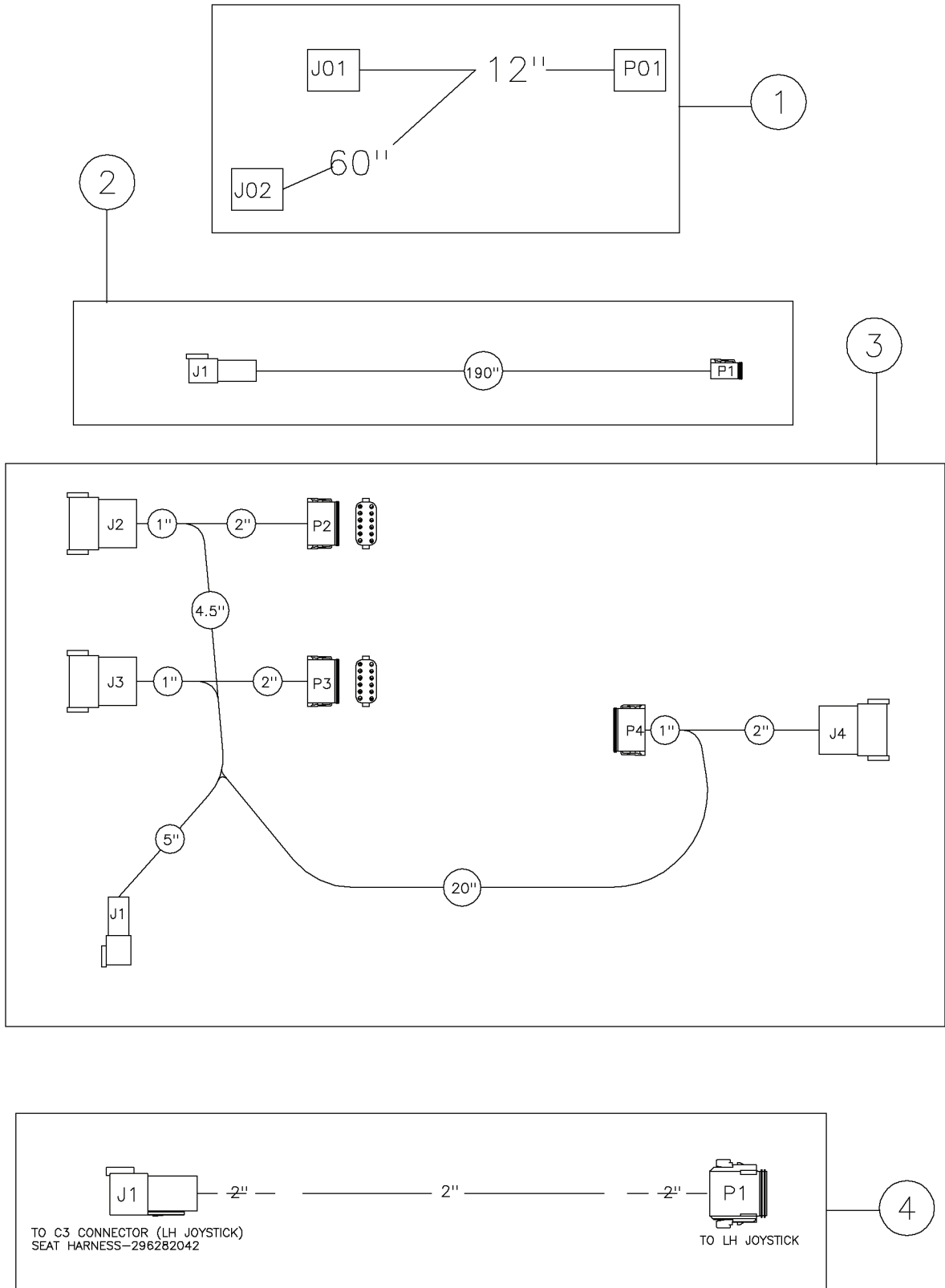
Electrical Harness Fig 6-1



Electrical Harness Fig 6-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282044	HARNESS-PANEL	1	
2		296272597	HARNESS-REMOTE LOCKOUT D18X22- ADD ON	1	
3		296282068	HARNESS-VISE D20X22	1	
4		296282042	HARNESS-SEAT D20X22	1	
5		296282066	HARNESS-RACK D20X22	1	
6		296282045	HARNESS HOSE CARRIER	1	
7		296282069	HARNESS-ENGINE BAY	1	
8		296282067	HARNESS-ENGINE D20X22	1	

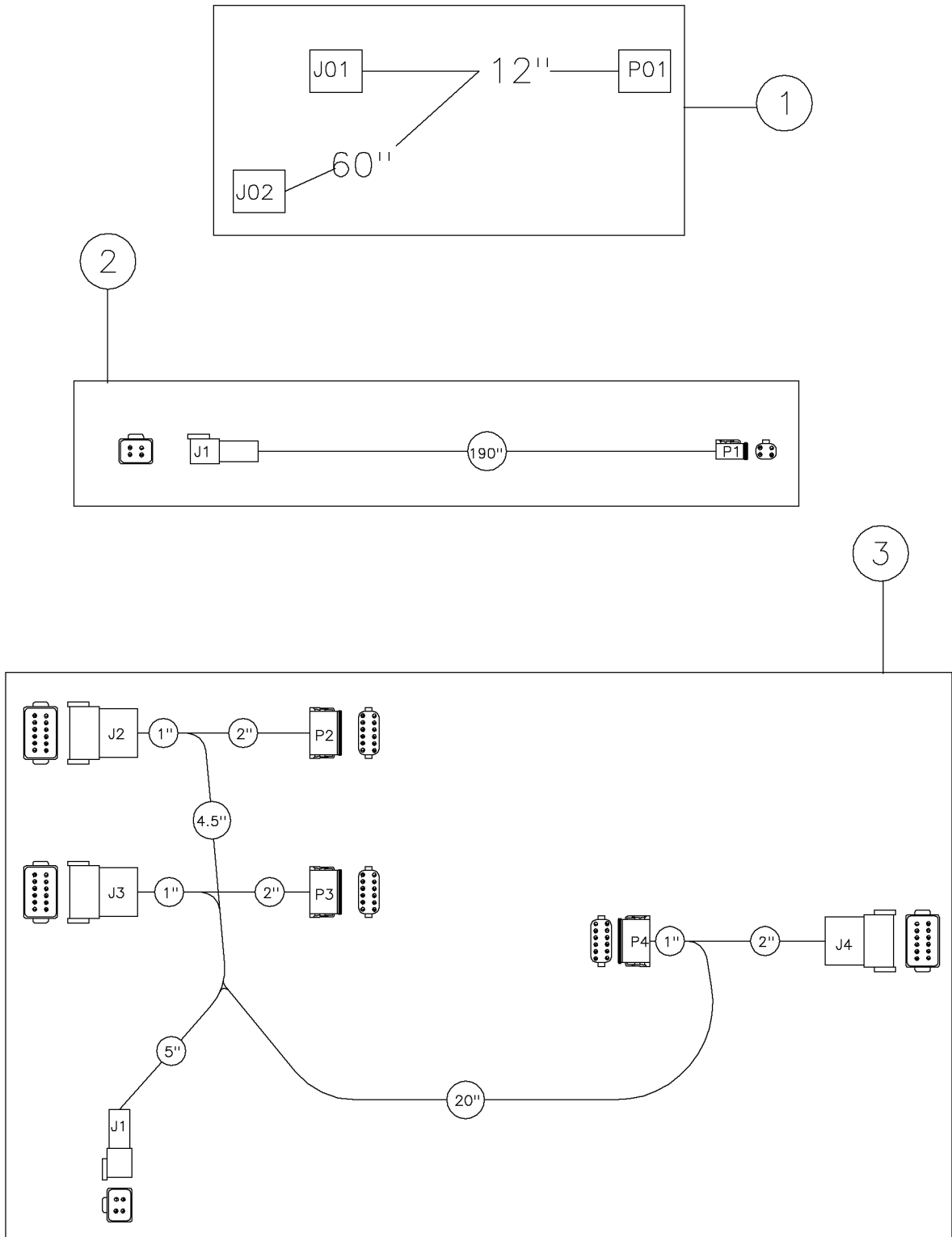
Electrical Harness-(R.A.T. Option) (S/N 270-) Fig 6-1x01r01



Electrical Harness-(R.A.T. Option) (S/N 270-) Fig 6-1x01r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	March, 2007		Added Harness
1		296280338	HARNESS - SERVICE ADAPTER	1	
2		296281814	HARNESS - JUMPER PULSE PICK UP	1	
3		296281813	HARNESS - RAT D18X22 / D20X22	1	
4	*	296298789	HARNESS - LH JOYSTICK JUMPER	1	(S/N 270-)

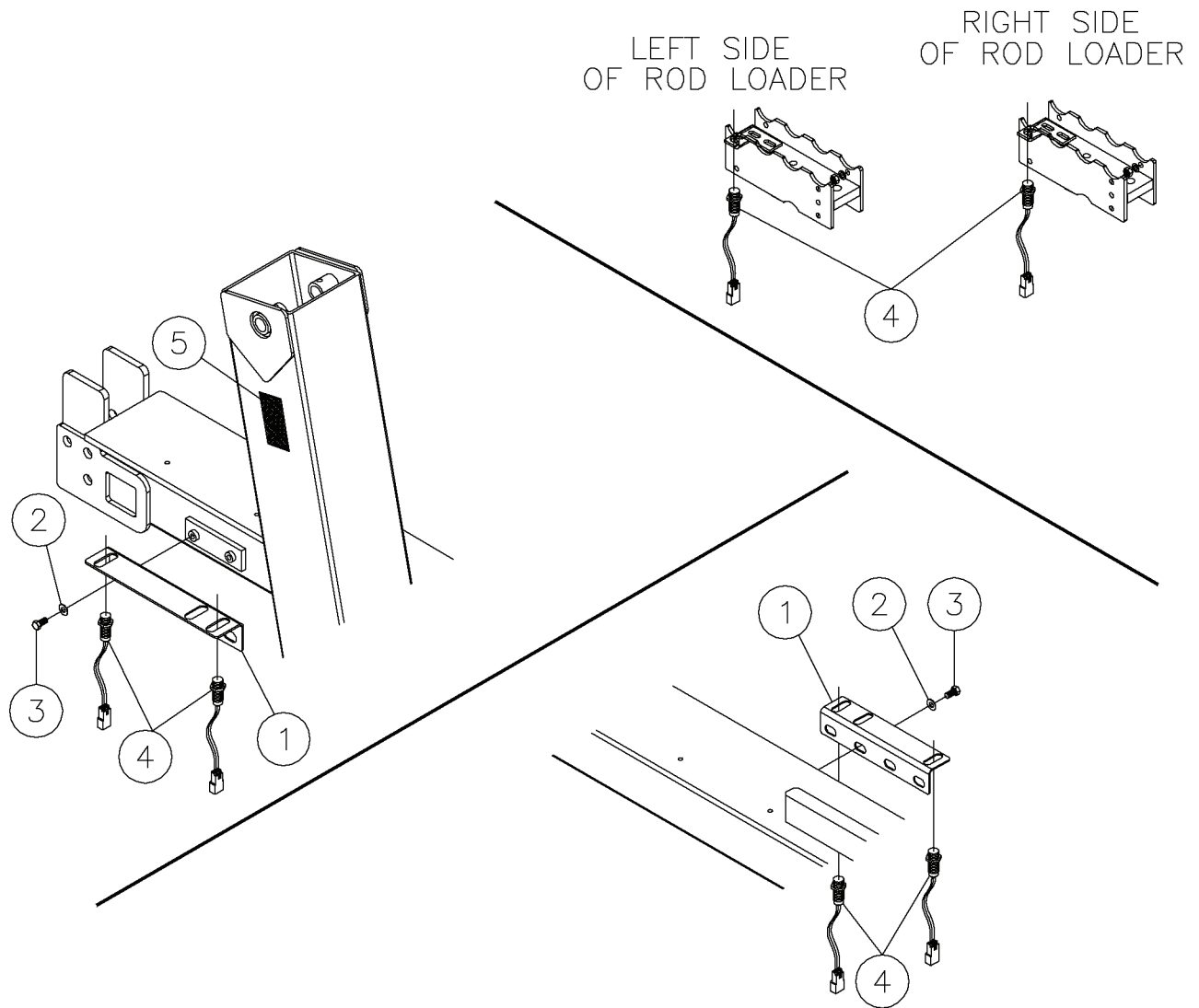
Electrical Harness-(R.A.T. Option) Fig 6-1x01



Electrical Harness-(R.A.T. Option) Fig 6-1x01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Correct Reference Numbers
1		296280338	HARNESS - SERVICE ADAPTER	1	
2	*	296281814	HARNESS - JUMPER PULSE PICK UP	1	
3	*	296281813	HARNESS - RAT D18X22 / D20X22	1	

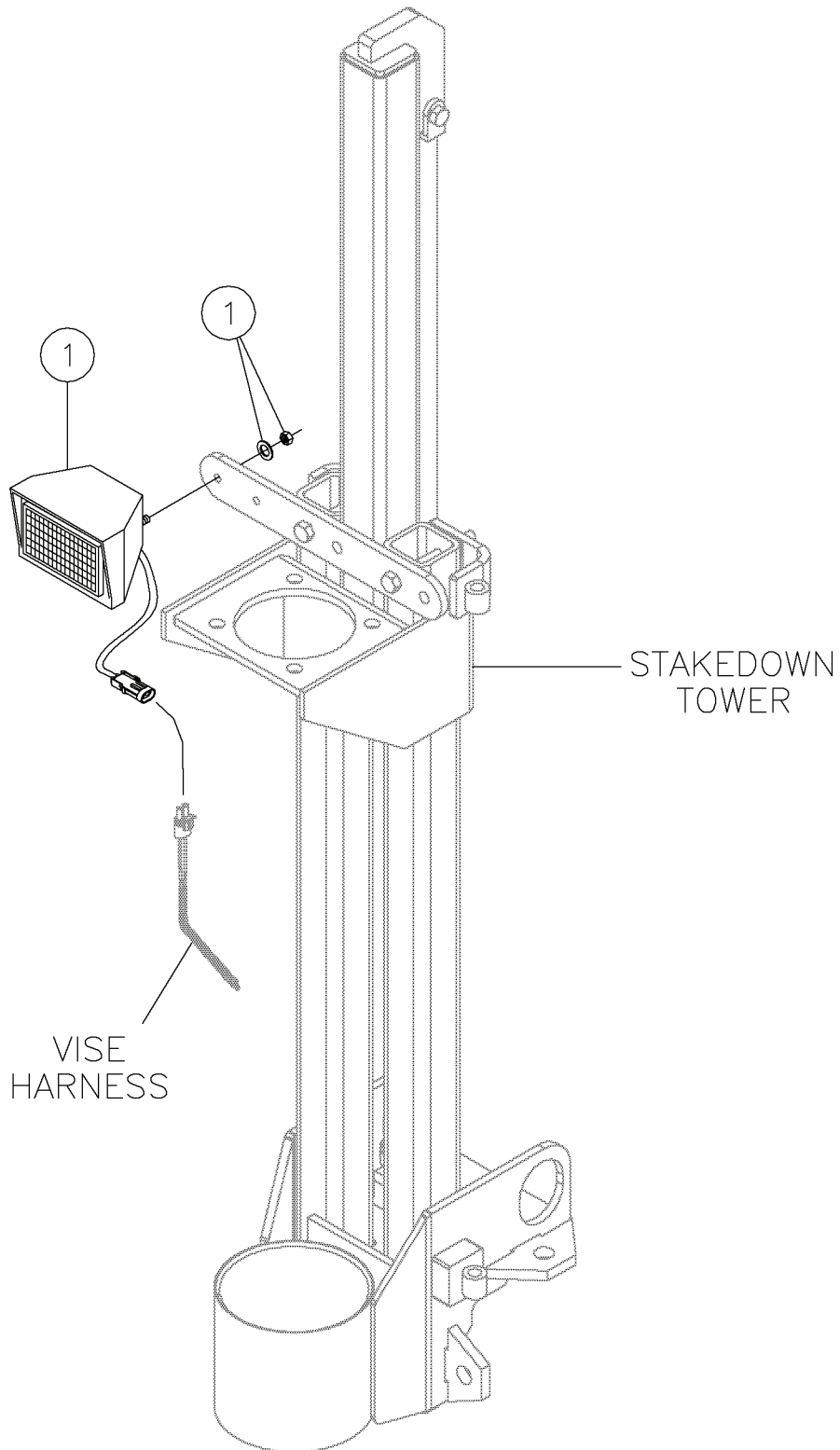
Rack/ Rod Loader Electrical Fig 6-2



Rack/ Rod Loader Electrical Fig 6-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296260400	PLATE-SLOWDOWN AND STOP MOUNT	2	
2		485009	WASHER-7/16 FLAT	4	
3		276023001	BOLT-7/16-14X3/4 GR8 ZNC PLT	4	
4		296272048	SWITCH - PROXIMITY ASSEMBLY	6	
5		7000B304	DECAL - WARNING	1	
		700IB304	DECAL - WARNING	1	International

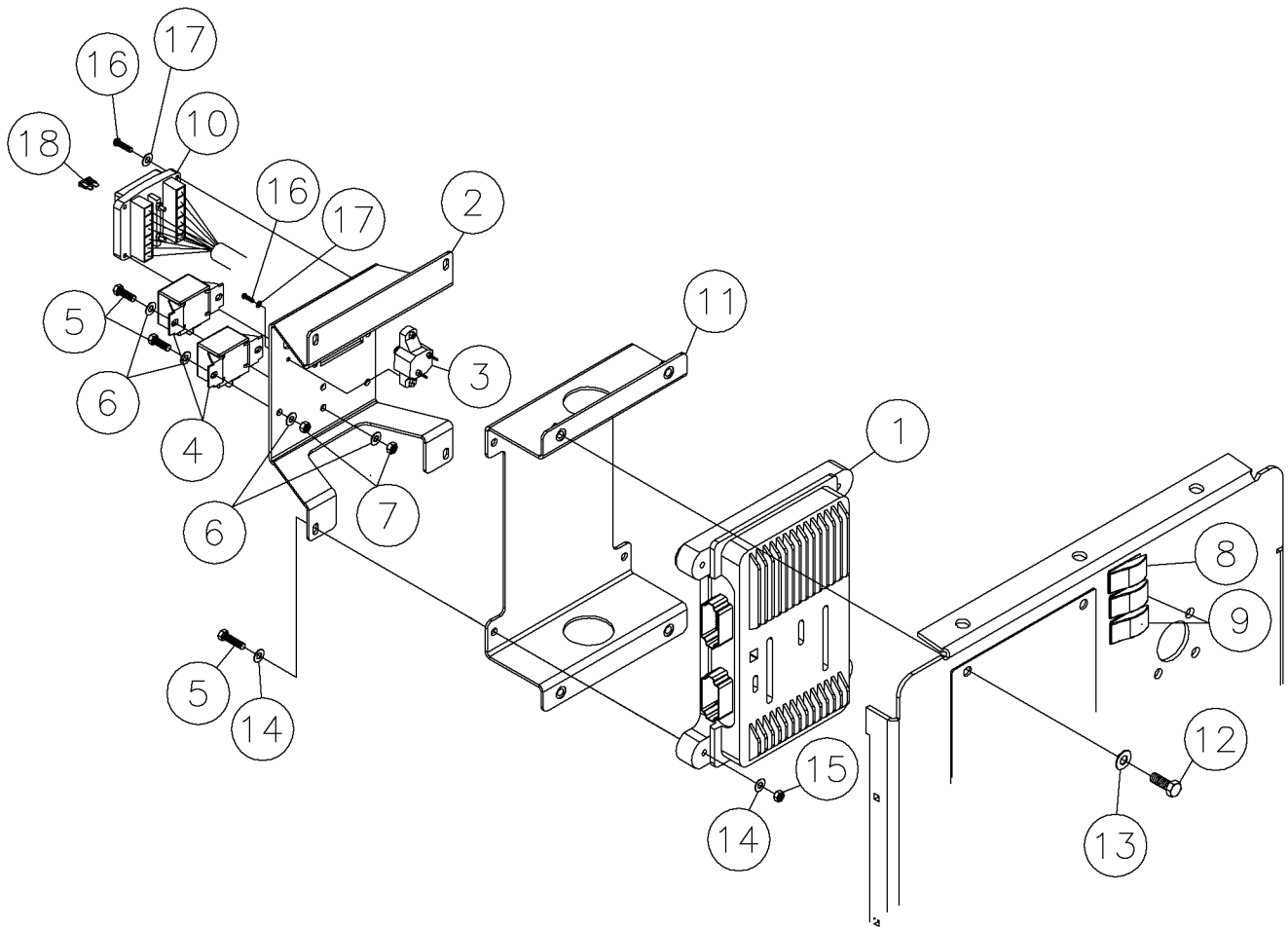
Work Lights Fig 6-3



Work Lights Fig 6-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		245006001	ASSEMBLY-3X5 FLOOD LIGHT	1	

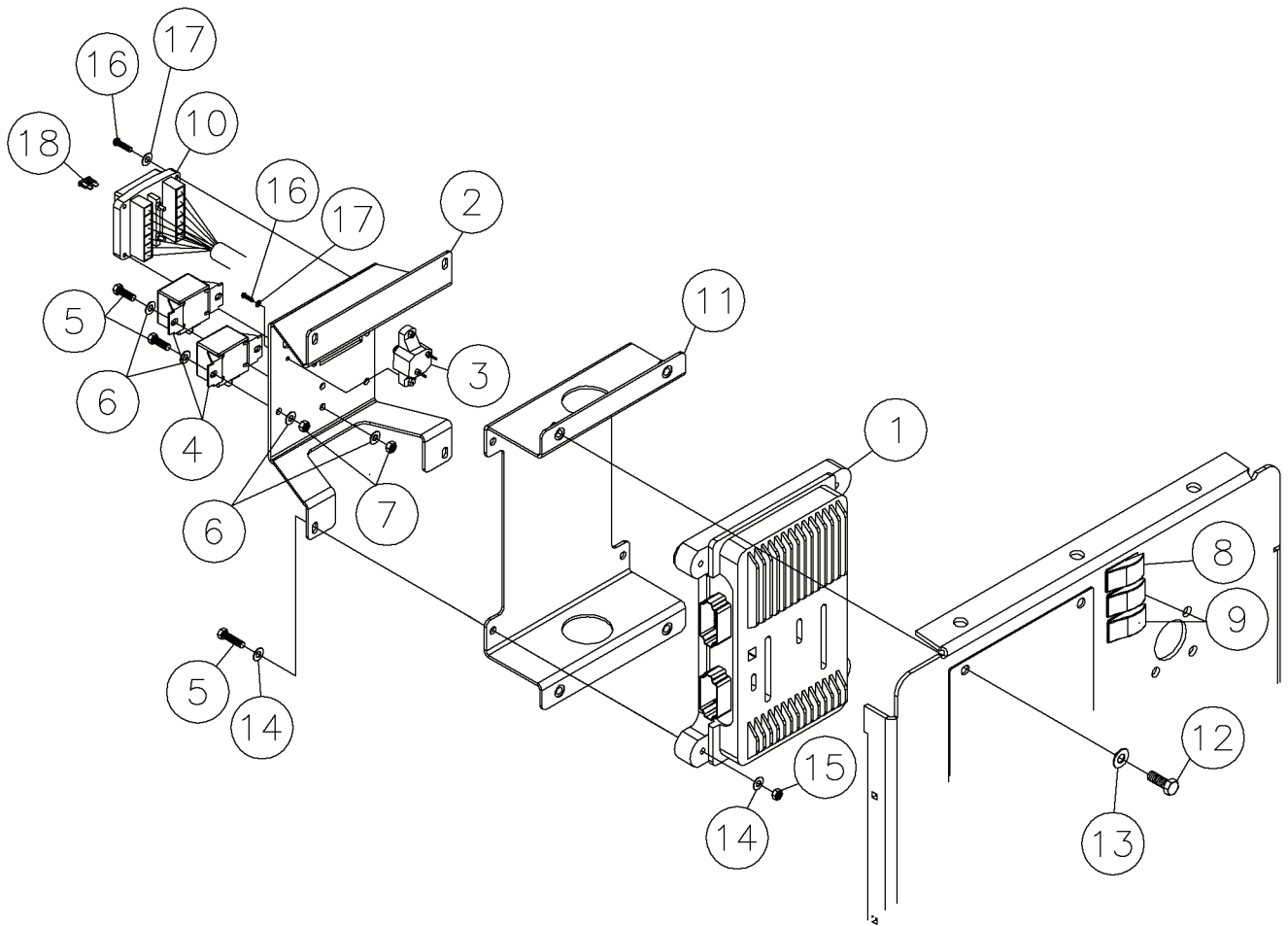
Front Shield Electrical Fig 6-4r01



Front Shield Electrical Fig 6-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296272676	MRC D20X22 ENGINE TOP ASM	1	
2		296269286	PANEL - GAUGE	1	
3		282532001	CIRCUIT BREAKER - 60 AMP	1	
4		86217001	RELAY-BOSCH SPST 75 AMP SEALED	2	
5		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	8	
6		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
7		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	4	
8		257205001	SWITCH-SP 2 POSITION BRAKE	1	Automatic Rod Loader Stop/Enable
9		257541001	SWITCH-SPDT 3 POSITION MOM	2	(Middle-Manual Rod Loader Up And Out/In And Down.) (Bottom-Manual Rod Loader Out and Up/Down And In.)
10		296280330	HARNESS - ENGINE BAY	1	
11		296266680	WELDMENT - ELECTRICAL MOUNT	1	
12		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
13		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
14		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	8	
15		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	4	
16		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	6	
17		224769001	WASHER-#8 FLAT	6	
18		224743001	FUSE-5 AMP 257005	2	
		122730001	FUSE-10 AMP 257010	3	
		225713119	FUSE-15 AMP	1	

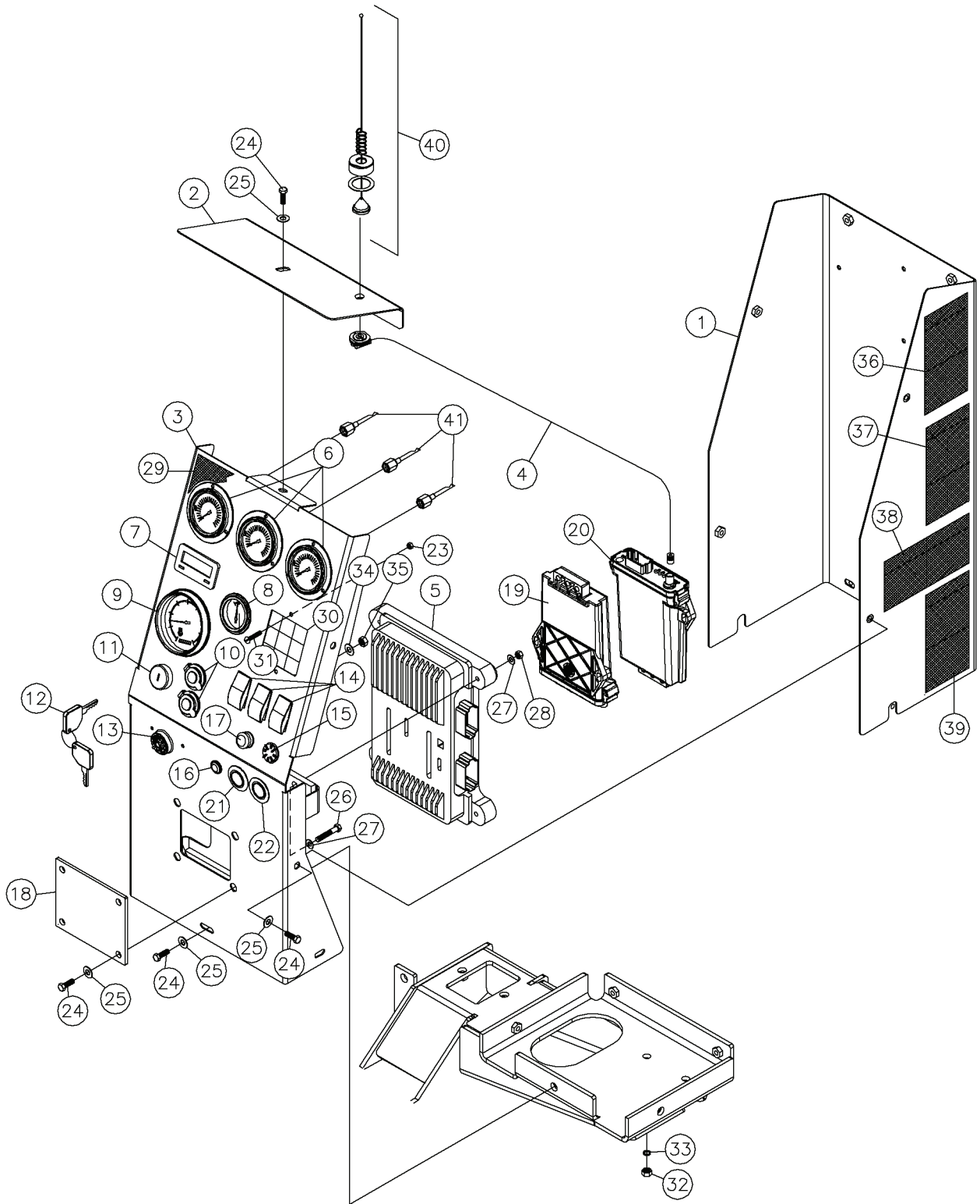
Front Shield Electrical Fig 6-4



Front Shield Electrical Fig 6-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272676	MRC D20X22 ENGINE TOP ASM	1	
2		296269286	PANEL - GAUGE	1	
3		282532001	CIRCUIT BREAKER - 60 AMP	1	
4		86217001	RELAY-BOSCH SPST 75 AMP SEALED	2	
5		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	8	
6		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	4	
7		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	4	
8		257205001	SWITCH-SP 2 POSITION BRAKE	1	
9		257541001	SWITCH-SPDT 3 POSITION MOM	2	
10		296280330	HARNESS - ENGINE BAY	1	
11		296266680	WELDMENT - ELECTRICAL MOUNT	1	
12		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
13		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
14		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	8	
15		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	4	
16		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	6	
17		224769001	WASHER-#8 FLAT	6	
18		224743001	FUSE-5 AMP 257005	2	
		122730001	FUSE-10 AMP 257010	3	
		225713119	FUSE-15 AMP	1	

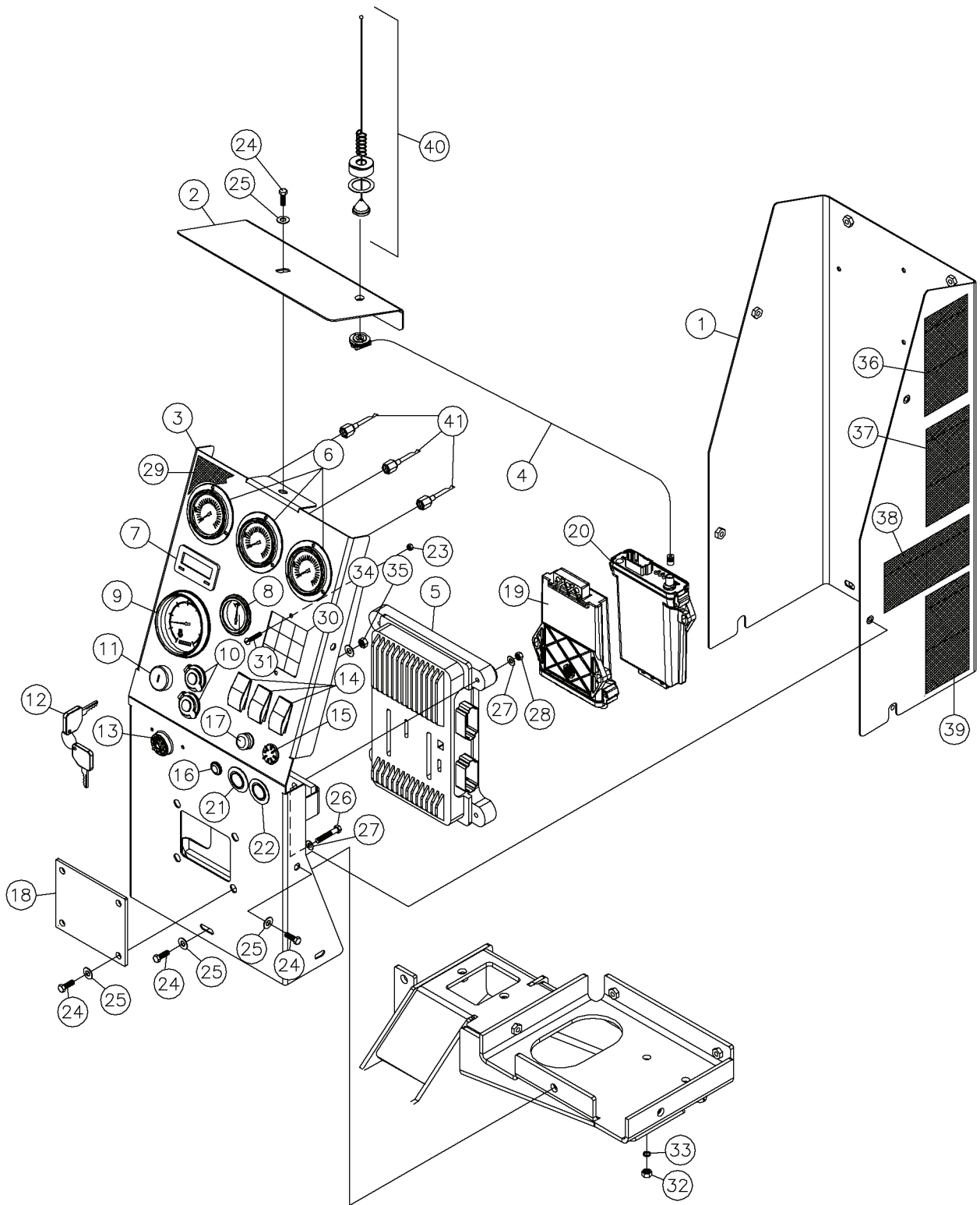
Control Panel Electrical Fig 6-5r01



Control Panel Electrical Fig 6-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		Corrected Number
1		296280334	SHROUD - FRONT CONSOLE	1	
2		296280326	PLATE - TOP CONSOLE	1	
3		296280336	SHROUD - CONSOLE GAUGE	1	
4		296272607	MOUNT-ANTENNA MOTOROLA TYPE RG-58-4'	1	
5	*	296272679	ASM - MRC D20X22 CONSOLE TOP ASM	1	Standard
		296272699	ASM - MRC D20x22 Vermeer Rock Engine	1	R.A.T.T. Option Only
6		289709001	GAUGE - SPAN 5000 PSI WITH BACKLITE	3	
		70889001	BULB. #112-1418	3	
7		296260406	DISPLAY - FLOW	1	
8		180006555	GAUGE-FUEL MAXIMA	1	
		70889001	BULB. #112-1418	1	
9		98933001	GAUGE-TACHOMETER O-3000 RPM	1	
		70889001	BULB. #112-1418	1	
10		154677001	OUTLET - 12 VOLT	2	
11		285597001	SWITCH - IGNITION	1	Key Switch
12		285597002	KEYS - IGNITION SWITCH (MATCHED PAIR)	1	
13		296292078	HORN-ZAP ALERT DEUTSCH	1	Strike Alert Horn (S/N 235-)
14		257205001	SWITCH-SP 2 POSITION	3	(Right-Drill Out/Pullback) (Middle-H/L Rotation Speed) (Left-Light switch)
15		286920001	REMOTE LOCKOUT BUZZER	1	Remote Lockout Horn
16		296275581	LIGHT - REMOTE LOCKOUT-GREEN	1	Strike Alert On Green Indicator Light
17		260766001	SWITCH-MOM BUTTON NO	1	Remote Lockout Alarm Cancel
18		296270783	SHIELD - CONTROLLER	1	
19		296270163	ASM, STRIKEALERT BLANK	1	
20		296272506	B309LK2, CAN DOM	1	
21		296280273	SWITCH - PUSH BUTTON STRIKE ALERT TEST	1	Strike Alert Test
22		296280268	SWITCH-PUSH BUTTON STRK ALERT ALARM OFF	1	Strike Alert Cancel
23		69759001	LOCK NUT-#8-32 NYLON INSERT PL	2	
24		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	12	
25		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	12	
26		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	4	
27		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	8	
			Continued On Next Page		

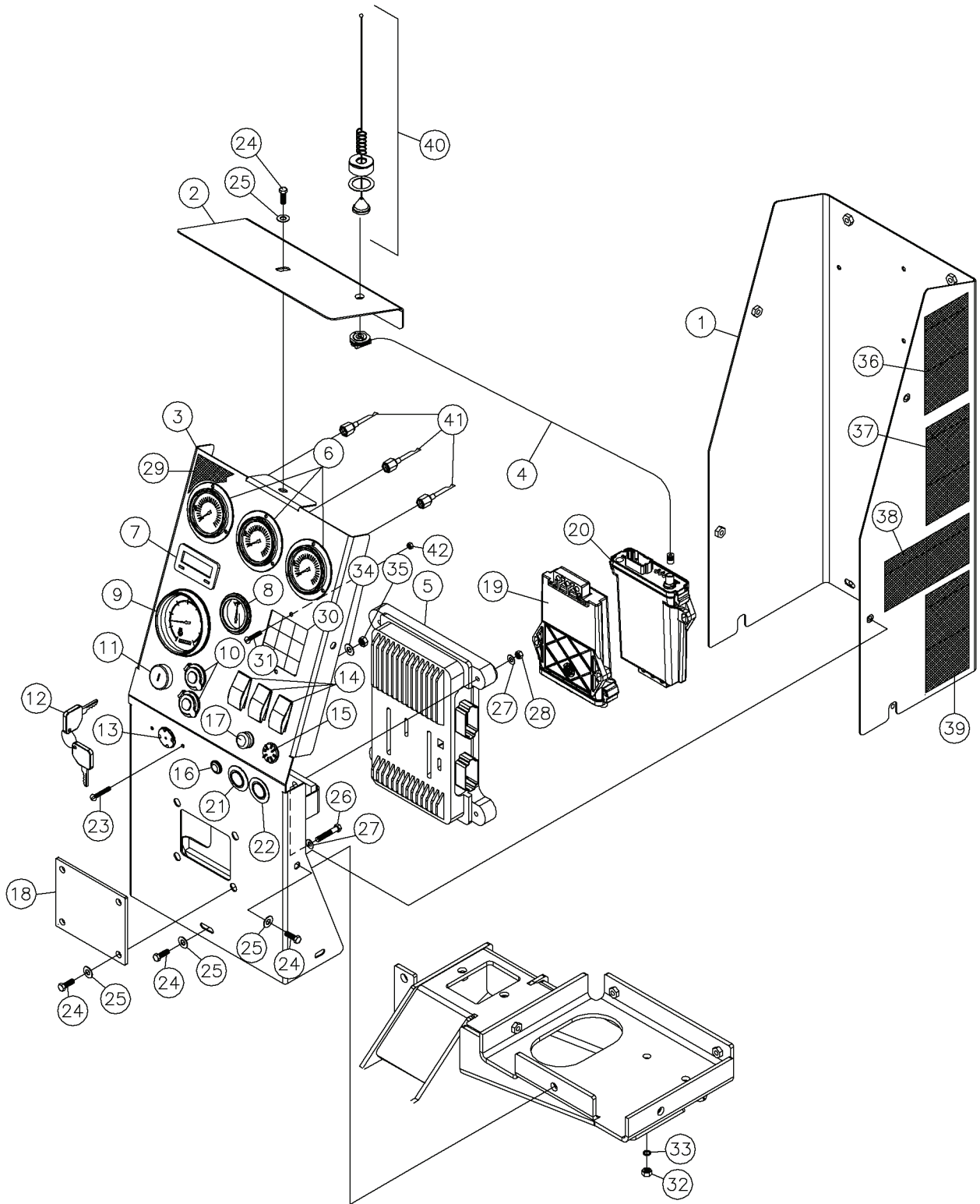
Control Panel Electrical (Continued) Fig 6-5r01



Control Panel Electrical (Continued) Fig 6-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		Corrected Number
28		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	4	
29		700IC563	DECAL - CONTROL PANEL	1	
30		296266661	DISPLAY - INDICATOR LIGHT	1	
31		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	2	
32		406001	NUT-5/16 NC HEX	2	
33		485005	WASHER-5/16 FLAT	2	
34		904995001	WASHER-8 INTERNAL STAR	2	
35		399001	NUT-8-32 HEX	2	
36		7000A393	DECAL - DANGER	1	
		700IA393	DECAL - DANGER	1	International
37		7000A394	DECAL - WARNING	1	
		700IA394	DECAL - WARNING	1	International
38		7000A576	DECAL-DANGER	1	
		700IA576	DECAL-DANGER	1	International
39		7000B811	DECAL - DANGER - RLE - DOMESTIC	1	
		700IB811	DECAL - DANGER - RLE INTERNATIONAL	1	International
40		296272364	ANTENNA -915 MHZ, 3 dBI, 1/4 WAVE	1	
41		296260492	MICRO HOSE - .078 X 160 4FSJIC 6900PSI	3	

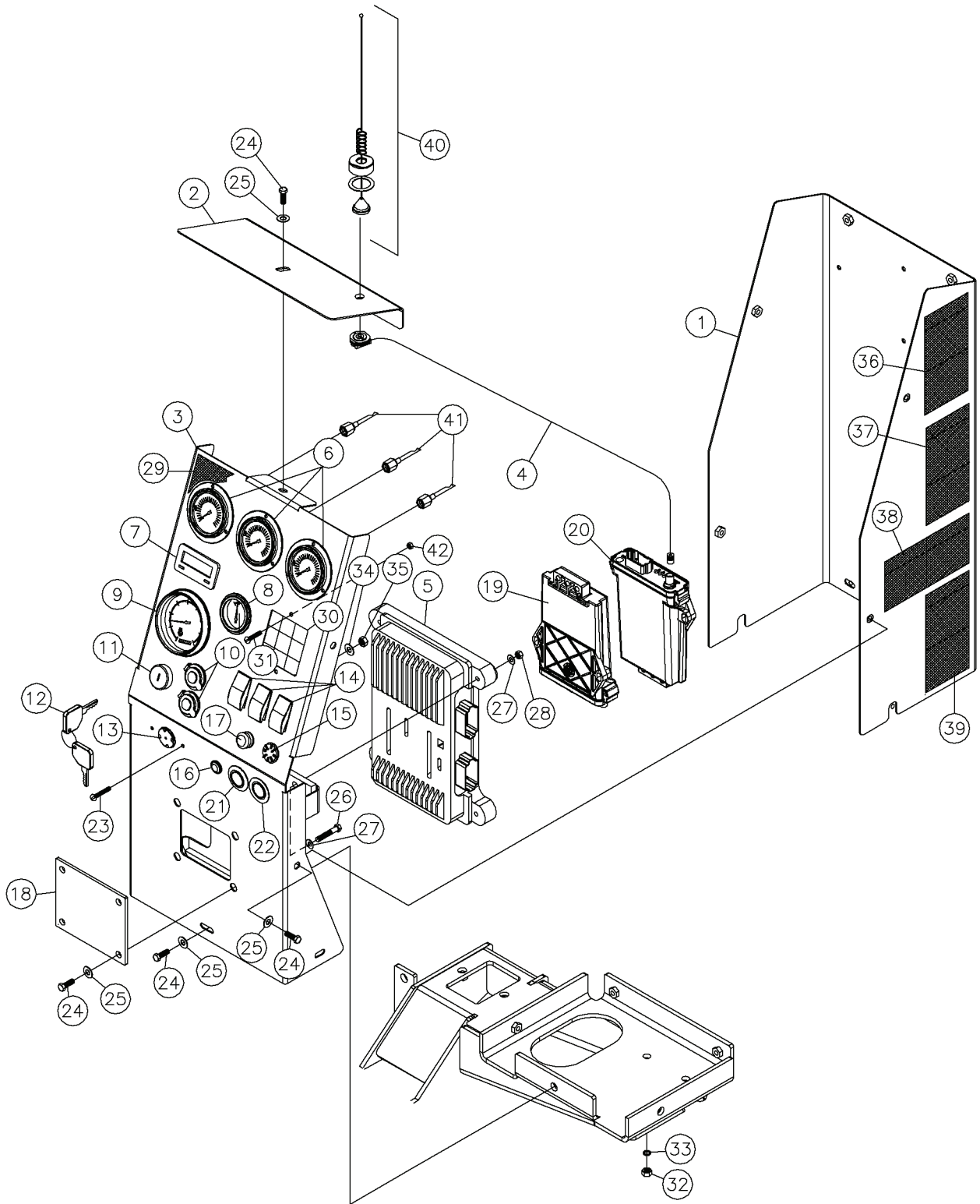
Control Panel Electrical Fig 6-5



Control Panel Electrical Fig 6-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280334	SHROUD - FRONT CONSOLE	1	
2		296280326	PLATE - TOP CONSOLE	1	
3		296280336	SHROUD - CONSOLE GAUGE	1	
4		296272607	MOUNT-ANTENNA MOTOROLA TYPE RG-58-4'	1	
5		296272697	MRC D20X22 CONSOLE TOP ASM	1	
6		289709001	GAUGE - SPAN 5000 PSI WITH BACKLITE	3	
		70889001	BULB. #112-1418	3	
7		296260406	DISPLAY - FLOW	1	
8		180006555	GAUGE-FUEL MAXIMA	1	
		70889001	BULB. #112-1418	1	
9		98933001	GAUGE-TACHOMETER O-3000 RPM	1	
		70889001	BULB. #112-1418	1	
10		154677001	OUTLET - 12 VOLT	2	
11		285597001	SWITCH - IGNITION	1	
12		285597002	KEYS - IGNITION SWITCH (MATCHED PAIR)	1	
13		285617001	HORN - ZAP ALERT 2 PIN DEUTCSH	1	
14		257205001	SWITCH-SP 2 POSITION	3	
15		286920001	REMOTE LOCKOUT BUZZER	1	
16		296275581	LIGHT - REMOTE LOCKOUT-GREEN	1	
17		260766001	SWITCH-MOM BUTTON NO	1	
18		296270783	SHIELD - CONTROLLER	1	
19		296270163	ASM, STRIKEALERT BLANK	1	
20		296272506	B309LK2, CAN DOM	1	
21		296280273	SWITCH - PUSH BUTTON STRIKE ALERT TEST	1	
22		296280268	SWITCH-PUSH BUTTON STRK ALERT ALARM OFF	1	
23		905001001	BOLT-8-32 X 2 STOVE	2	
24		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	12	
25		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	12	
26		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	4	
27		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	8	
			Continued On Next Page		

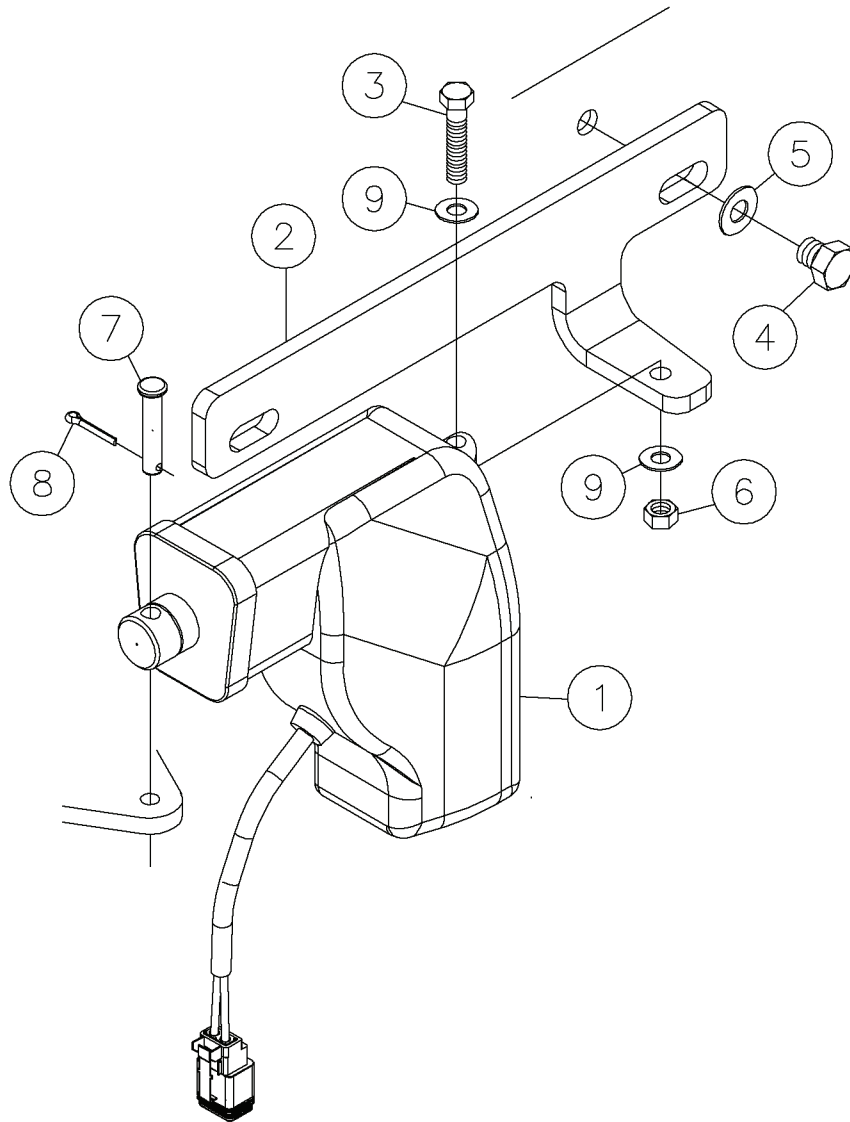
Control Panel Electrical (Continued) Fig 6-5



Control Panel Electrical (Continued) Fig 6-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
28		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	4	
29		700IC563	DECAL - CONTROL PANEL	1	
30		296266661	DISPLAY - INDICATOR LIGHT	1	
31		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	2	
32		406001	NUT-5/16 NC HEX	2	
33		485005	WASHER-5/16 FLAT	2	
34		904995001	WASHER-8 INTERNAL STAR	2	
35		399001	NUT-8-32 HEX	2	
36		7000A393	DECAL - DANGER	1	
		700IA393	DECAL - DANGER	1	
37		7000A394	DECAL - WARNING	1	
		700IA394	DECAL - WARNING	1	
38		7000A576	DECAL-DANGER	1	
		700IA576	DECAL-DANGER	1	
39		7000B811	DECAL - DANGER - RLE - DOMESTIC	1	
		700IB811	DECAL - DANGER - RLE INTERNATIONAL	1	
40		296272364	ANTENNA -915 MHZ, 3 dBI, 1/4 WAVE	1	
41		296260492	MICRO HOSE - .078 X 160 4FSJIC 6900PSI	3	
42		69759001	LOCK NUT-#8-32 NYLON INSERT PL	2	

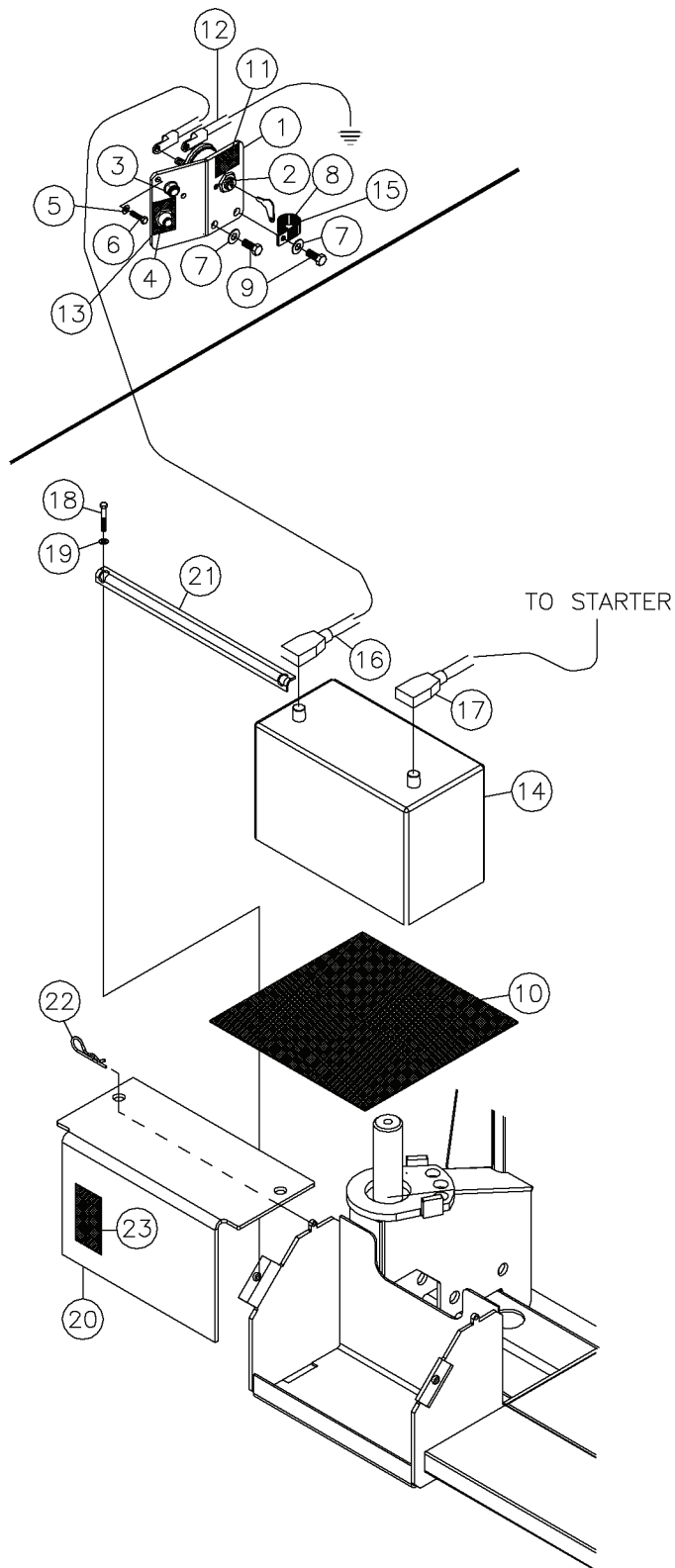
Throttle Actuator Fig 6-6



Throttle Actuator Fig 6-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266654	ACTUATOR - THROTTLE ELECTRIC	1	
2		296273252	BRACKET-THROTTLE	1	
3		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	1	
4		235719001	BOLT-M8X15MM DIN933 10.9 ZN PL	2	
5		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
6		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	1	
7		2110021	PIN - CLEVIS 1/4 X 1-1/4 - 1-7/64 UL	1	
8		510005	COTTER PIN-3/32" X 3/4"	1	
9		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	

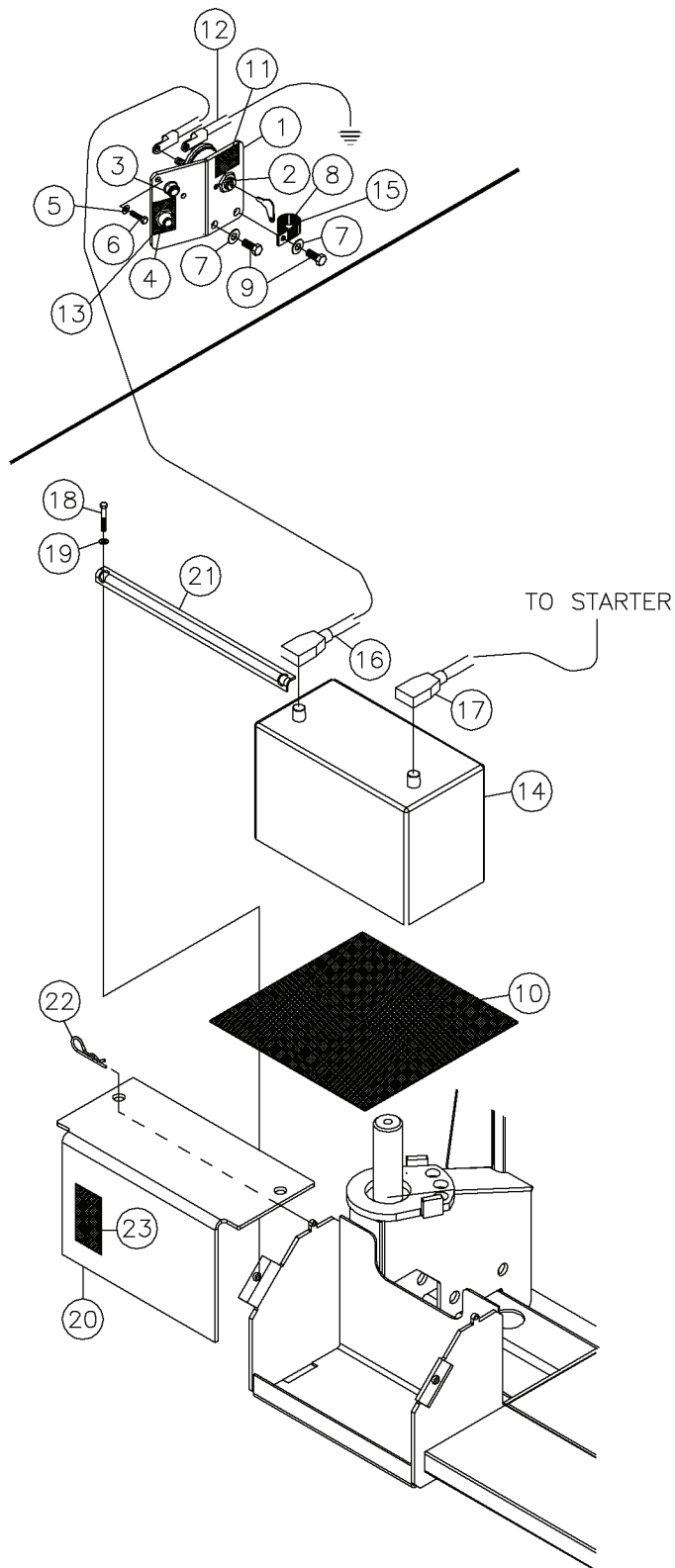
Battery Fig 6-7r01



Battery Fig 6-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296266681	MOUNT - DASH SWITCH	1	
2		904365001	DISCONNECT SWITCH	1	
3		244767001	BREAKER-105 AMP CIRCUIT	1	
4		12543001	SWITCH-1996097 DETROIT PSH BUT	1	Glow Plug/Cold Start
5		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	1	
6		235735001	BOLT-1/4-20X1 GR8 HEX ZNC PLTD	1	
7		250515001	7/16 HARD WASHER SAE Y/ZINC	1	
8		87356003	KEY	1	
9		24772001	BOLT-12M X 35 GR. 8.8 HEX HEAD	1	
10		277044001	PAD - RUBBER	1	
11		700IA477	DECAL BATTERY SWITCH (UG)	1	
12		296269273	CABLE - 2/0 GA. X 22" GROUND	1	
13		7000C072	DECAL - GLOW PLUG	1	
14		NSS	BATT. GROUP 31 950CCA	1	
15		230965001	CLAMP-1 3/4" W/17/32 HOLE	1	
16		296260057	CABLE - 2/0 GA X 97" N TO E BLACK	1	
17		296260056	CABLE - 2/0 GA X 115" N TO E RED	1	
18		351016	BOLT-5/16-18X1 3/4"GRADE#5 HEX	2	
19		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
20		296260242	COVER - BATTERY (PLASTIC)	1	
21		296260241	BAR-BATTERY CLAMP	1	
22		1793005	HAIR PIN COTTER - .125 WIRE	2	
23		70000044	DECAL-WARNING(AT/UND)	1	
		70000I044	DECAL-WARNING	1	International
		NSS	NOT SOLD SEPARATELY		

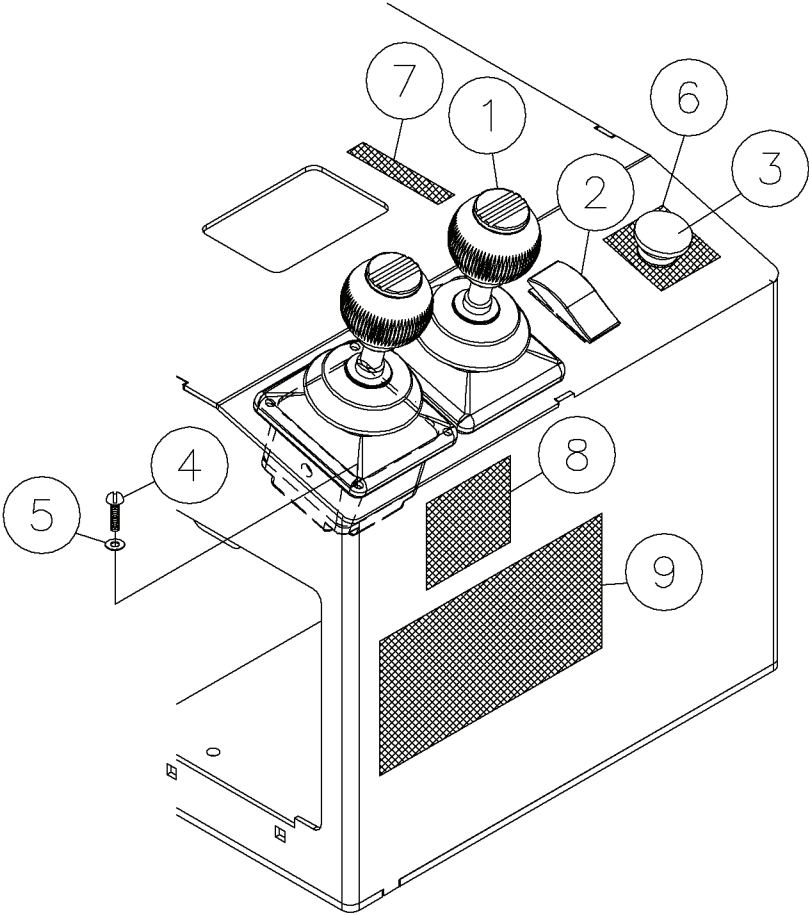
Battery Fig 6-7



Battery Fig 6-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296266681	MOUNT - DASH SWITCH	1	
2		904365001	DISCONNECT SWITCH	1	
3		244767001	BREAKER-105 AMP CIRCUIT	1	
4		12543001	SWITCH-1996097 DETROIT PSH BUT	1	
5		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	1	
6		235735001	BOLT-1/4-20X1 GR8 HEX ZNC PLTD	1	
7		250515001	7/16 HARD WASHER SAE Y/ZINC	1	
8		87356003	KEY	1	
9		24772001	BOLT-12M X 35 GR. 8.8 HEX HEAD	1	
10		277044001	PAD - RUBBER	1	
11		700IA477	DECAL_BATTERY SWITCH (UG)	1	
12		296269273	CABLE - 2/0 GA. X 22" GROUND	1	
13		7000C072	DECAL - GLOW PLUG	1	
14		NSS	BATT. GROUP 31 950CCA	1	
15		230965001	CLAMP-1 3/4" W/17/32 HOLE	1	
16		296260057	CABLE - 2/0 GA X 97" N TO E BLACK	1	
17		296260056	CABLE - 2/0 GA X 115" N TO E RED	1	
18		351016	BOLT-5/16-18X1 3/4"GRADE#5 HEX	2	
19		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
20		296260242	COVER - BATTERY (PLASTIC)	1	
21		296260241	BAR-BATTERY CLAMP	1	
22		1793005	HAIR PIN COTTER - .125 WIRE	2	
23		70000044	DECAL-WARNING(AT/UND)	1	
		70000I044	DECAL-WARNING	1	International
		NSS	NOT SOLD SEPARATELY		

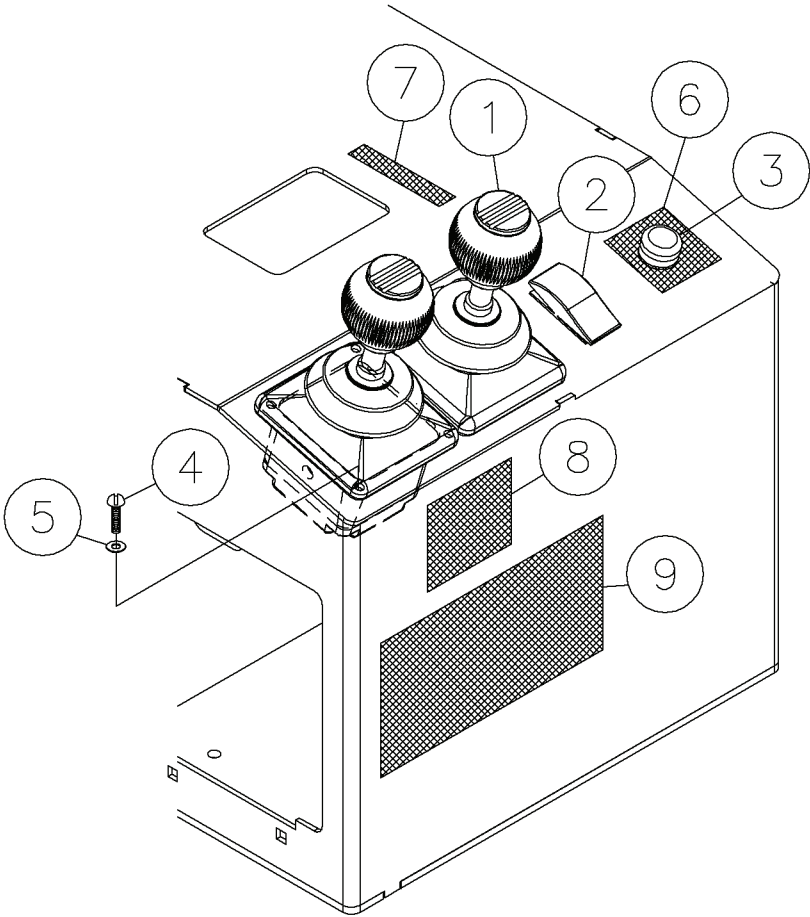
Rear Control Box Electrical Fig 6-8r01



Rear Control Box Electrical Fig 6-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		285694001	JOYSTICK - AJ3 BASE UNIT W/NO GRIP	2	(Left-Track Lever) (Right-Track Lever)
		292091001	BALL GRIP - JOYSTICK	2	
2		257205001	SWITCH-SP 2 POSITION BRAKE	1	Throttle Switch
3		296259684	BUTTON - RED PUSH/PULL	1	Emergency Shutoff Switch
4		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	8	
5		224769001	WASHER-#8 FLAT	8	
6		7000C073	DECAL-E-STOP	1	
7		700IC035	DECAL-THROTTLE	1	
8		700IB055	DECAL - TRACK DRIVE	1	
9		7000A576	DECAL-DANGER	1	
		700IA576	DECAL-DANGER	1	International

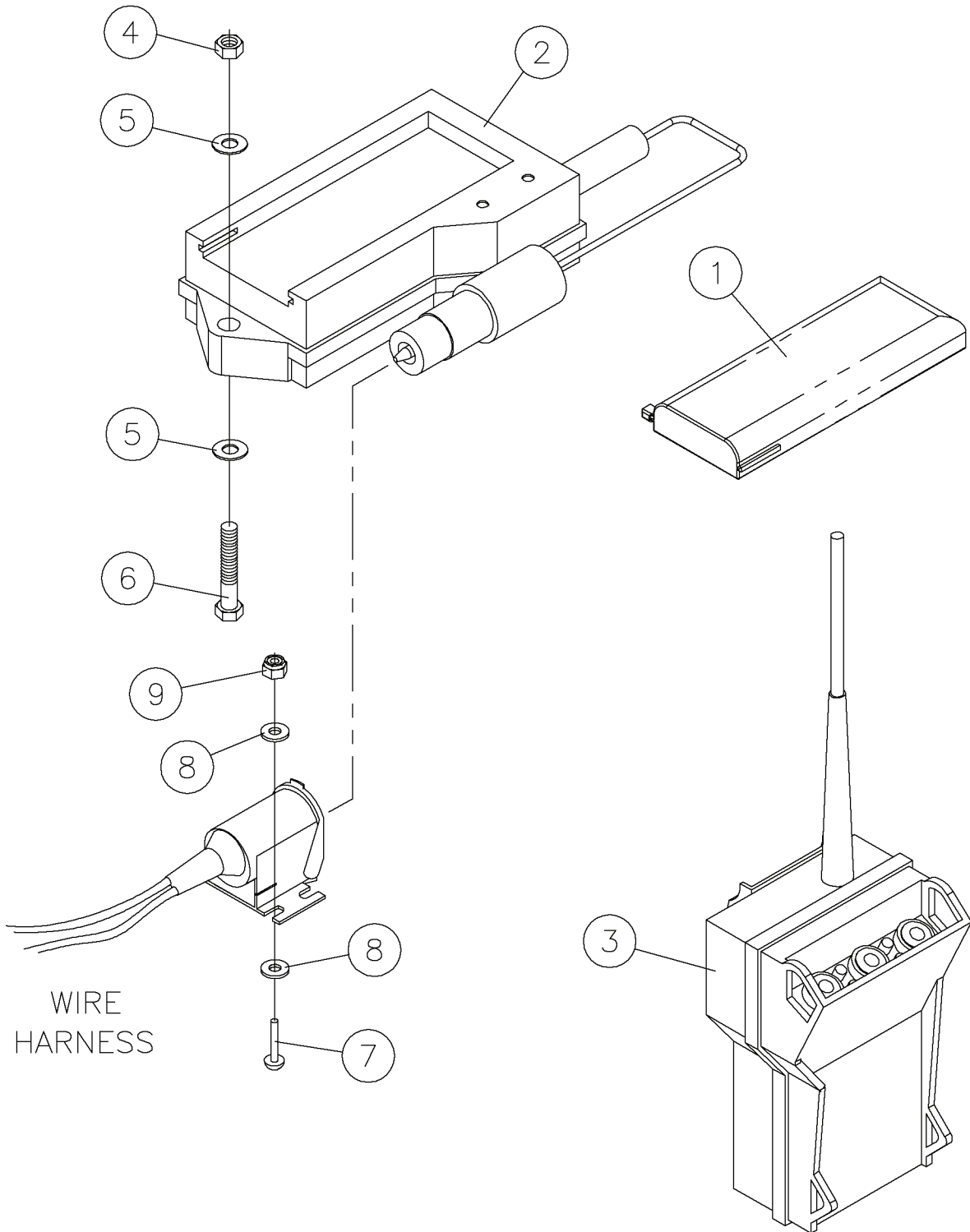
Rear Control Box Electrical Fig 6-8



Rear Control Box Electrical Fig 6-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		285694001	JOYSTICK - AJ3 BASE UNIT W/NO GRIP	2	
		292091001	BALL GRIP - JOYSTICK	2	
2		257205001	SWITCH-SP 2 POSITION BRAKE	1	
3		296259684	BUTTON - RED PUSH/PULL	1	
4		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	8	
5		224769001	WASHER-#8 FLAT	8	
6		7000C073	DECAL-E-STOP	1	
7		700IC035	DECAL-THROTTLE	1	
8		700IB055	DECAL - TRACK DRIVE	1	
9		7000A576	DECAL-DANGER	1	
		700IA576	DECAL-DANGER	1	International

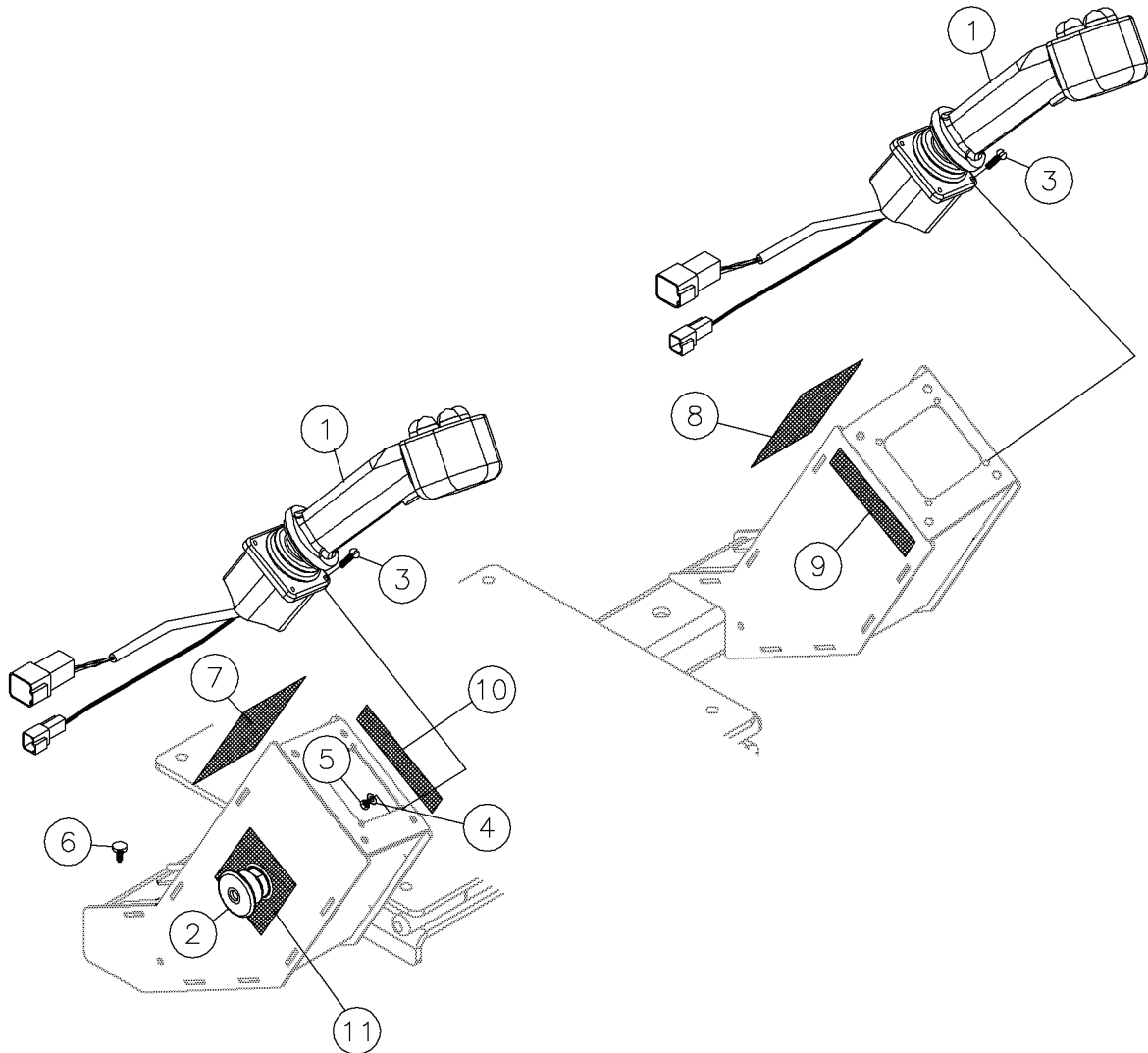
Remote Lockout Fig 6-9



Remote Lockout Fig 6-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272400	BATTERY - 1000MA NBB	1	
2		296272392	CHARGER, 12-VOLT NBB	1	
3		296272303	ASM - R309LK FOR HDD	1	
4		1809005	NUT-1/4 SM FLGE T.L.	2	
5		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	4	
6		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	2	
7		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	2	
8		224769001	WASHER-#8 FLAT	4	
9		69759001	LOCK NUT-#8-32 NYLON INSERT PL	2	

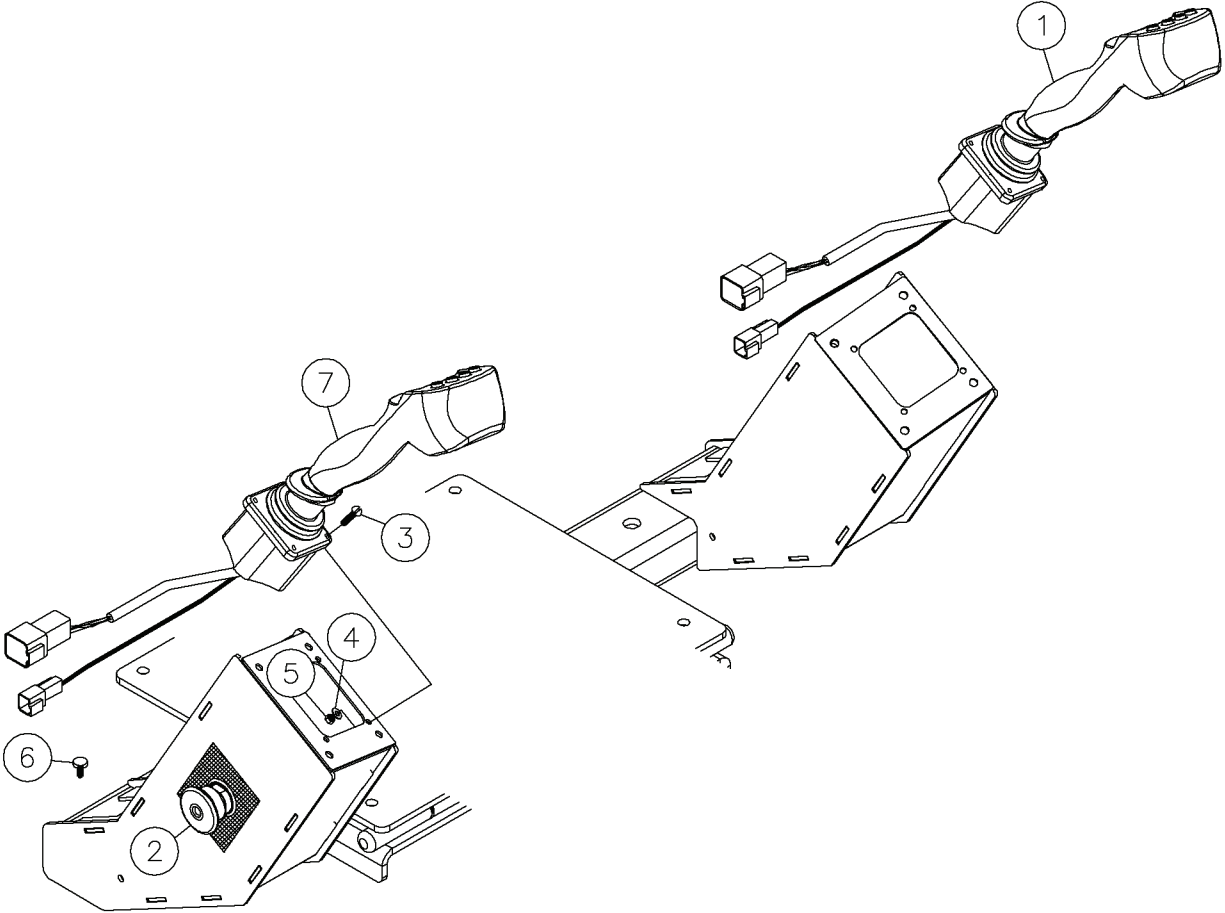
Seat Control Electrical (S/N 236-) Fig 6-10r02



Seat Control Electrical (S/N 236-) Fig 6-10r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	March, 2007		Change Decal
1		296282025	JOYSTICK-1AXIS, 5 SWITCH PLUS TRIGGER	2	Breakdown Fig. 11-26 (S/N 236-)
2		296259684	BUTTON - RED PUSH/PULL	1	Emergency Shutoff Switch
3		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	8	
4		224769001	WASHER-#8 FLAT	8	
5		69759001	LOCK NUT-#8-32 NYLON INSERT PL	8	
6		278953001	ANCHOR - CABLE TIE	5	
7		700IC685	DECAL - RIGHT JOYSTICK CONTROL	1	
8	*	700IB963	DECAL - LEFT JOYSTICK	1	
9		700IB968	DECAL - LEFT JOYSTICK - ROTATION	1	
10		700IB967	DECAL - RIGHT JOYSTICK - THRUST	1	
11		7000C073	DECAL - E-STOP	1	

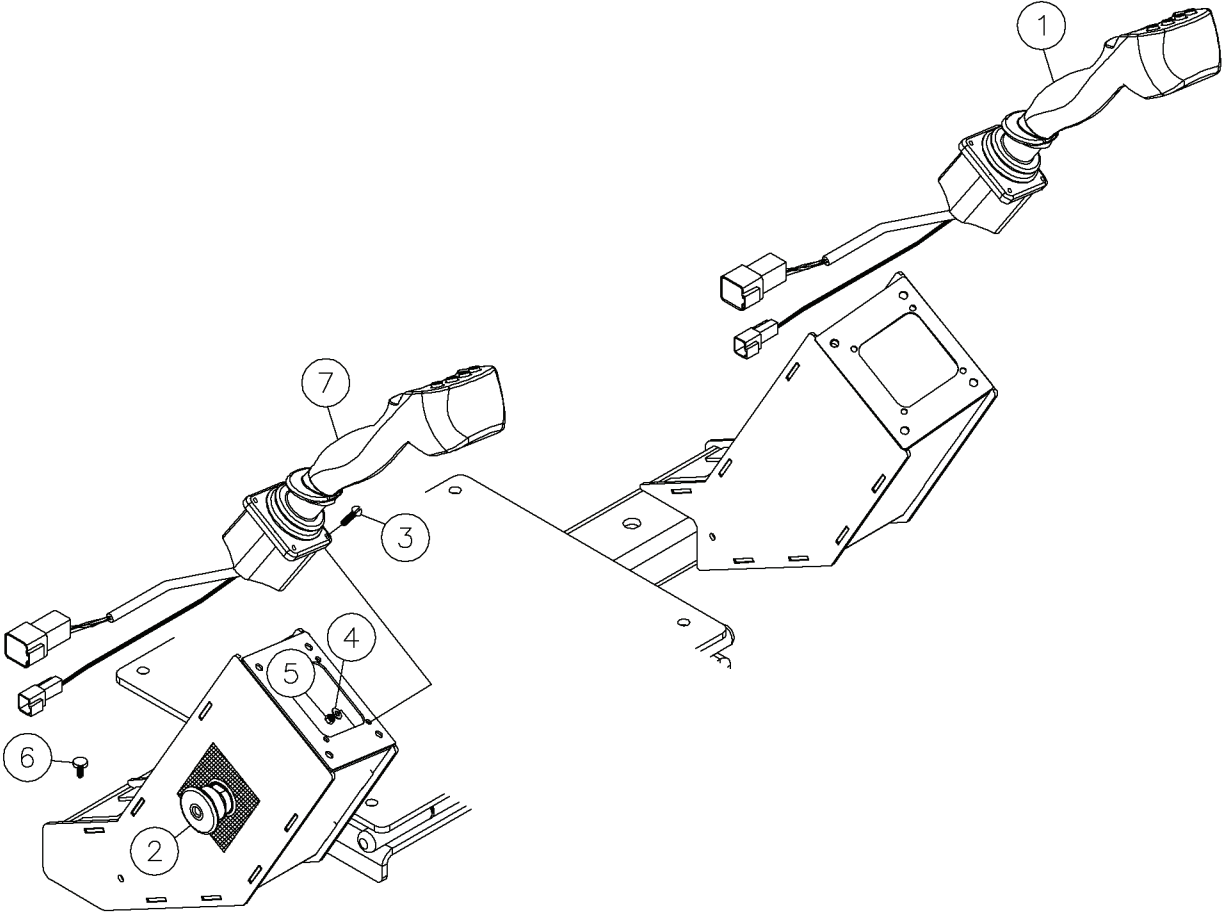
Seat Control Electrical Fig 6-10r01



Seat Control Electrical Fig 6-10r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296273300	JOYSTICK - 1 AXIS, 4 SWITCH	1	Breakdown Fig. 11-25
2		296259684	BUTTON - RED PUSH/PULL	1	Emergency Shutoff Switch
3		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	8	
4		224769001	WASHER-#8 FLAT	8	
5		69759001	LOCK NUT-#8-32 NYLON INSERT PL	8	
6		278953001	ANCHOR - CABLE TIE	5	
7		296282025	JOYSTICK-1AXIS, 5 SWITCH PLUS TRIGGER	1	Breakdown Fig. 11-26

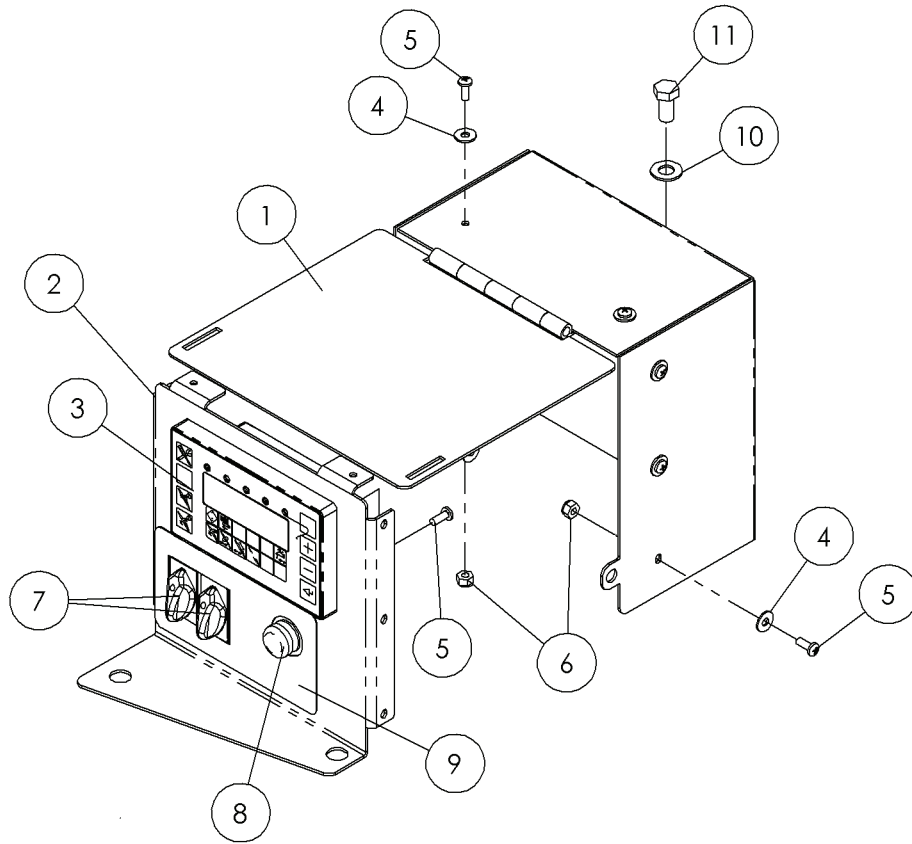
Seat Control Electrical Fig 6-10



Seat Control Electrical Fig 6-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296273300	JOYSTICK - 1 AXIS, 4 SWITCH	1	Breakdown Fig. 11-25
2		296259684	BUTTON - RED PUSH/PULL	1	
3		10530006	SCREW-#8-32X3/4 SLOT RD.HD.	8	
4		224769001	WASHER-#8 FLAT	8	
5		69759001	LOCK NUT-#8-32 NYLON INSERT PL	8	
6		278953001	ANCHOR - CABLE TIE	5	
7		296282025	JOYSTICK-1AXIS, 5 SWITCH PLUS TRIGGER	1	Breakdown Fig. 11-26

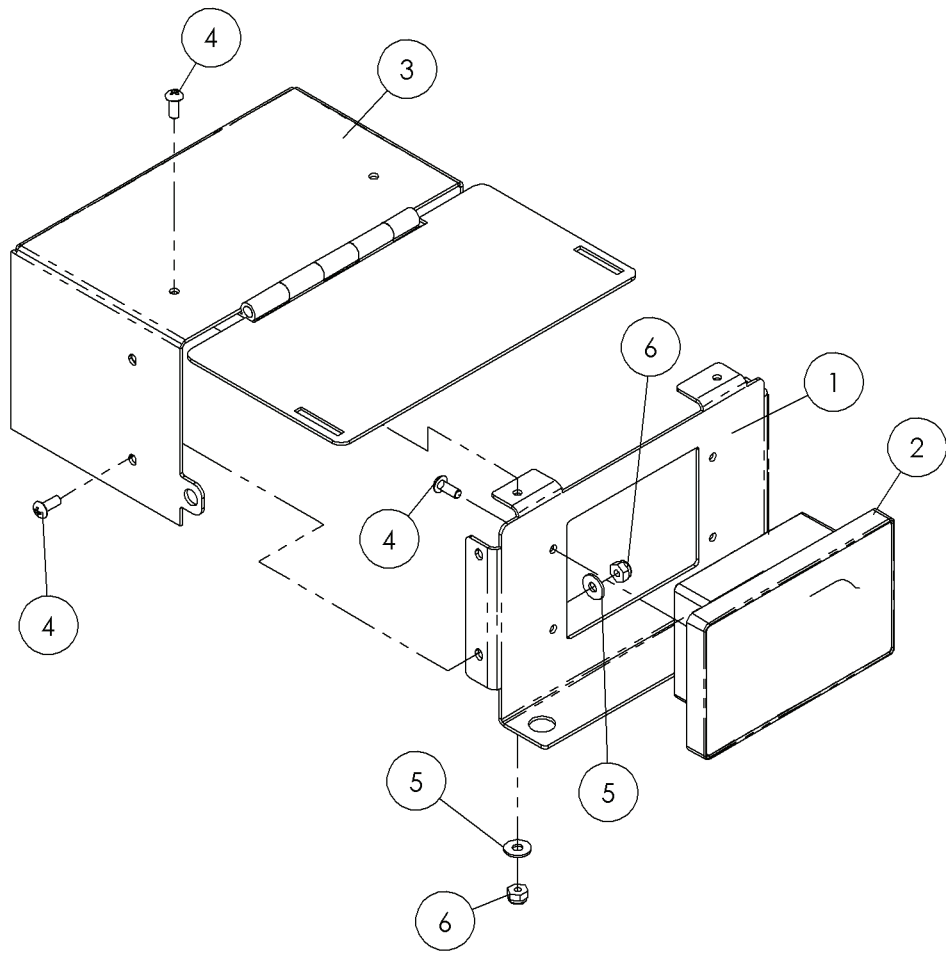
R.A.T. Controller/Mount/Auto Drill (S/N 236-) Fig 6-11r01



R.A.T. Controller/Mount/Auto Drill (S/N 236-) Fig 6-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	January, 2007		New Assy
1		296298775	WELDMENT - MOUNT COVER/HINGE LID	1	
2		296298757	PLATE - LED CONTROLLER MOUNT	1	
3		296287271	ASM - LED MID SIZE HDD	1	
4		485001	WASHER - FLATSTD - .19 - .22 X .56 - .05 - CZ	8	
5		242655001	SCREW-#10-24X1/2PAN HD PLT PHP	12	
6		99042001	NUT - NYLOCK - 10 - 24 - GR2 - CZ	8	
7		296286254	ROTARY SWITCH (ON) - OFF - (ON)	2	
8		260766001	SWITCH-MOM BUTTON NO	1	
9		700ID413	DECAL-AUTO DRILL	1	
10		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
11		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	1	

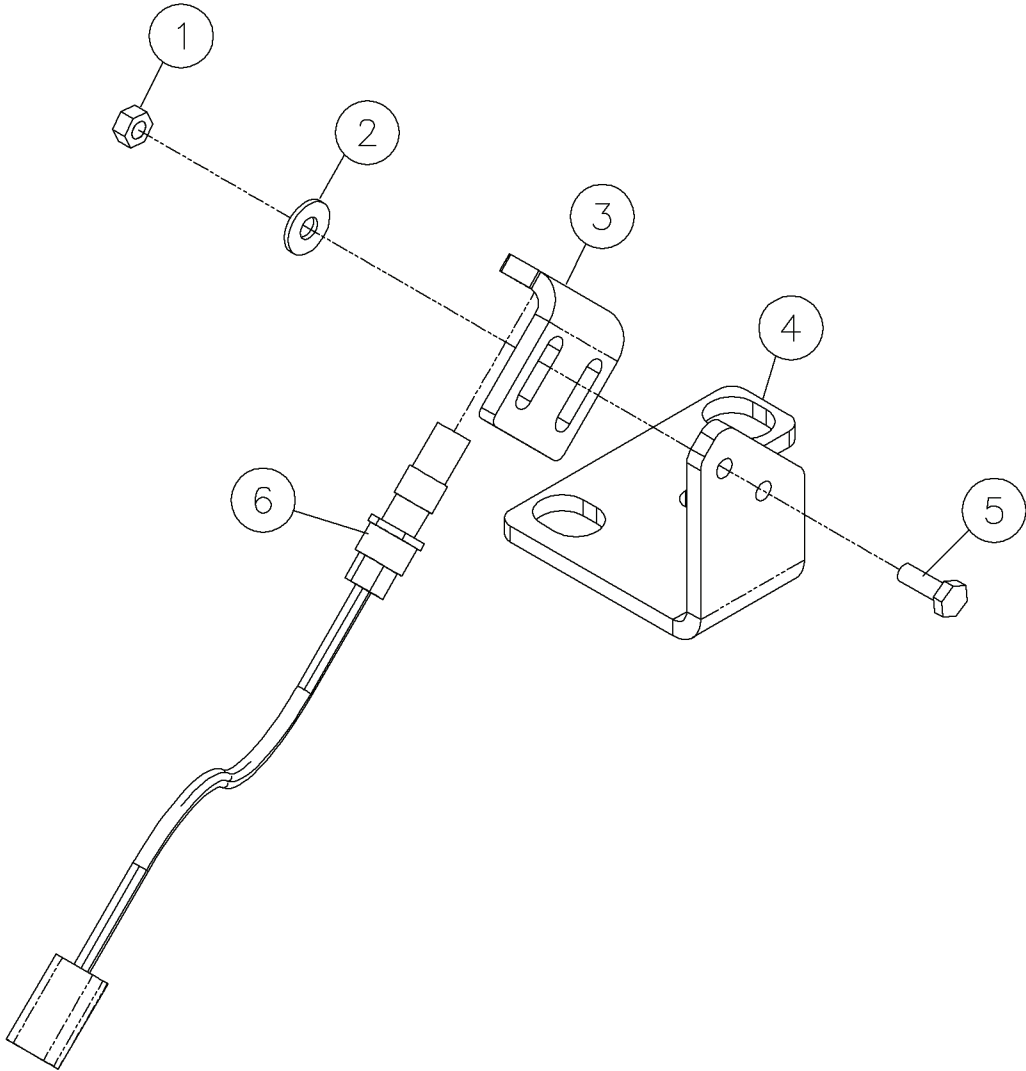
R.A.T. Controller/Mount Fig 6-11



R.A.T. Controller/Mount Fig 6-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Addition To Manual
1		296280361	PLATE - LED CONTROLLER MOUNT	1	
2		296272686	Display D18x22 Rock LED	1	
3		296281802	WELDMENT - MOUNT COVER/HINGE LID	1	
4		242655001	SCREW-#10-24X1/2PAN HD PLT PHP	10	
5		485001	WASHER - FLATSTD - .19 - .22 X .56 - .05 - CZ	6	
6		99042001	NUT - NYLOCK - 10 - 24 - GR2 - CZ	6	

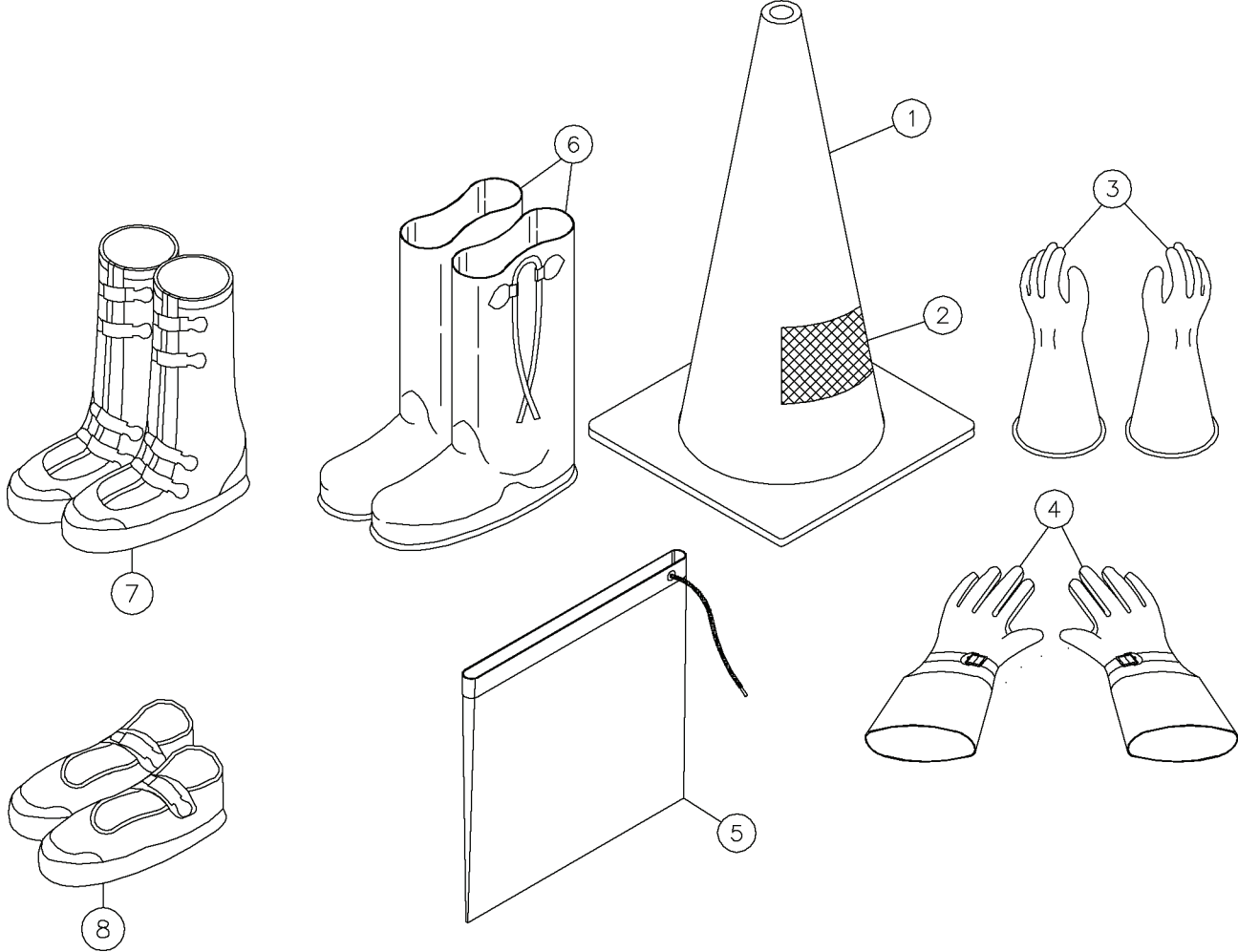
R.A.T. Pulse Pickup Sensor Fig 6-12



R.A.T. Pulse Pickup Sensor Fig 6-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
2		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	2	
3		296274006	TAB - SENSOR	1	
4		296274007	BASE - SENSOR BRACKET	1	
5		235734001	BOLT-1/4-20X3/4 GR8 ZYC	2	
6		296281808	PULSE PICKUP SENSOR	1	

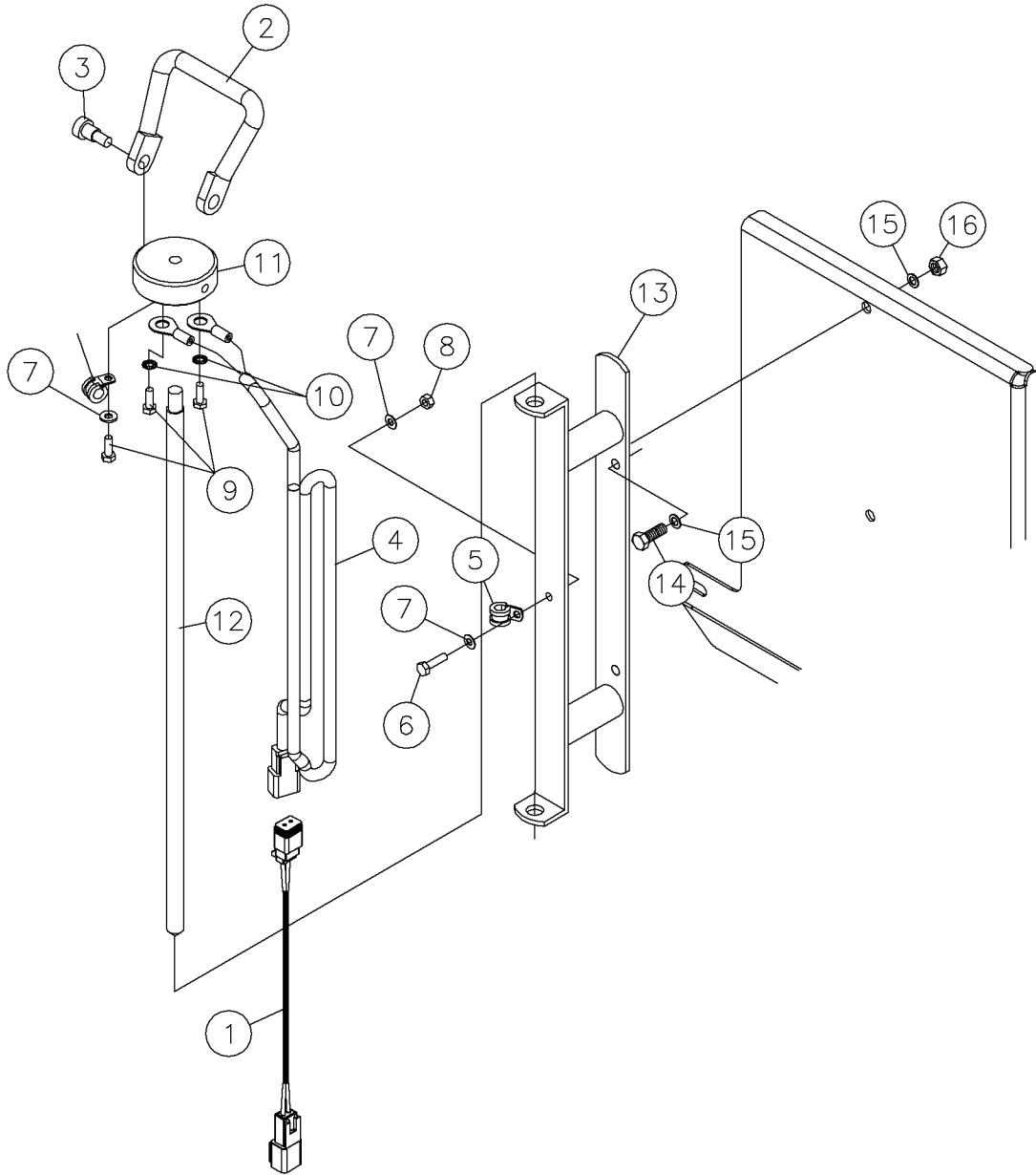
Safety Features - Gloves, Boots, Cones Fig 7-1



Safety Features - Gloves, Boots, Cones Fig 7-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904541001	CONES-ORANGE PVC	4	
2		70000530	DECAL-DANGER	4	
		7000I530	DECAL-WARNING (NAVIGATORS)	4	international
3		210782001	GLOVES-SIZE 9 RUBBER INSULATE	1	P/N Qty. Of 1 = 1 Pair
		210782005	GLOVES-SIZE 9 1/2 RUBBER INSUL	1	P/N Qty. Of 1 = 1 Pair
		210782003	GLOVES-SIZE 10 RUBBER INSULATE	1	P/N Qty. Of 1 = 1 Pair
		210782007	GLOVE-SIZE 11 RUBBER INSULATED	1	P/N Qty. Of 1 = 1 Pair
		210782009	GLOVE-SIZE 12 RUBBER INSULATED	1	P/N Qty. Of 1 = 1 Pair
4		210783001	GLOVES-SIZE 9 LEATHER PROTECT	1	P/N Qty. Of 1 = 1 Pair
		210783005	GLOVES SIZE 9 1/2 LEATHER PROT	1	P/N Qty. Of 1 = 1 Pair
		210783003	GLOVES-SIZE 10 LEATHER PROTECT	1	P/N Qty. Of 1 = 1 Pair
		210783007	GLOVE-SIZE 11 LEATHER PROTECT	1	P/N Qty. Of 1 = 1 Pair
		210783009	GLOVE-SIZE 12 LEATHER PROTECT	1	P/N Qty. Of 1 = 1 Pair
		210781001	GLOVE KIT-SIZE 9	1	Incudes 1 Pair Of Rubber Gloves, 1pair Of Leather Gloves & 1 Glove Bag Ref 5
		224979001	GLOVE KIT-SIZE 9 1/2	1	Incudes 1 Pair Of Rubber Gloves, 1pair Of Leather Gloves & 1 Glove Bag Ref 5
		210785001	GLOVE KIT-SIZE 10	1	Incudes 1 Pair Of Rubber Gloves, 1pair Of Leather Gloves & 1 Glove Bag Ref 5
		224990001	GLOVE KIT-SIZE 11	1	Incudes 1 Pair Of Rubber Gloves, 1pair Of Leather Gloves & 1 Glove Bag Ref 5
		224991001	GLOVE KIT-SIZE 12	1	Incudes 1 Pair Of Rubber Gloves, 1pair Of Leather Gloves & 1 Glove Bag Ref 5
5		210784001	BAG-GLOVE	1	
6		210780009	BOOTS-SIZE 9 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
		210780001	BOOTS-SIZE 10 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
		210780003	BOOTS-SIZE 11 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
		210780005	BOOTS-SIZE 12 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
		210780007	BOOTS-SIZE 13 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
		210780011	BOOTS-SIZE 14 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
		210780013	BOOTS-SIZE 15 OVER-THE-SHOE	1	P/N Qty. Of 1 = 1 Pair
7		279118001	BOOT - 4 BUCKLE SIZE 9	1	P/N Qty. Of 1 = 1 Pair
		279118002	BOOT - 4 BUCKLE SIZE 10	1	P/N Qty. Of 1 = 1 Pair
		279118003	BOOT 4 BUCKLE SIZE 11	1	P/N Qty. Of 1 = 1 Pair
		279118004	BOOT - 4 BUCKLE SIZE 12	1	P/N Qty. Of 1 = 1 Pair
		279118005	BOOT - 4 BUCKLE SIZE 13	1	P/N Qty. Of 1 = 1 Pair
		279118006	BOOT - 4 BUCKLE SIZE 14	1	P/N Qty. Of 1 = 1 Pair
		279118007	BOOT - 4 BUCKLE SIZE 15	1	P/N Qty. Of 1 = 1 Pair
		279118008	BOOT - 4 BUCKLE SIZE 16	1	P/N Qty. Of 1 = 1 Pair
8		279119001	BOOT - ANKLE RUBBER SIZE9	1	P/N Qty. Of 1 = 1 Pair
		279119002	BOOT - ANKLE RUBBER SIZE 10	1	P/N Qty. Of 1 = 1 Pair
		279119003	BOOT - ANKLE RUBBER SIZE 11	1	P/N Qty. Of 1 = 1 Pair
		279119004	BOOT - ANKLE RUBBER SIZE 12	1	P/N Qty. Of 1 = 1 Pair
		279119005	BOOT - ANKLE RUBBER SIZE 13	1	P/N Qty. Of 1 = 1 Pair
		279119006	BOOT - ANKLE RUBBER SIZE 14	1	P/N Qty. Of 1 = 1 Pair
		279119007	BOOT - ANKLE RUBBER SIZE 15	1	P/N Qty. Of 1 = 1 Pair
		279119008	BOOT - ANKLE RUBBER SIZE 16	1	P/N Qty. Of 1 = 1 Pair

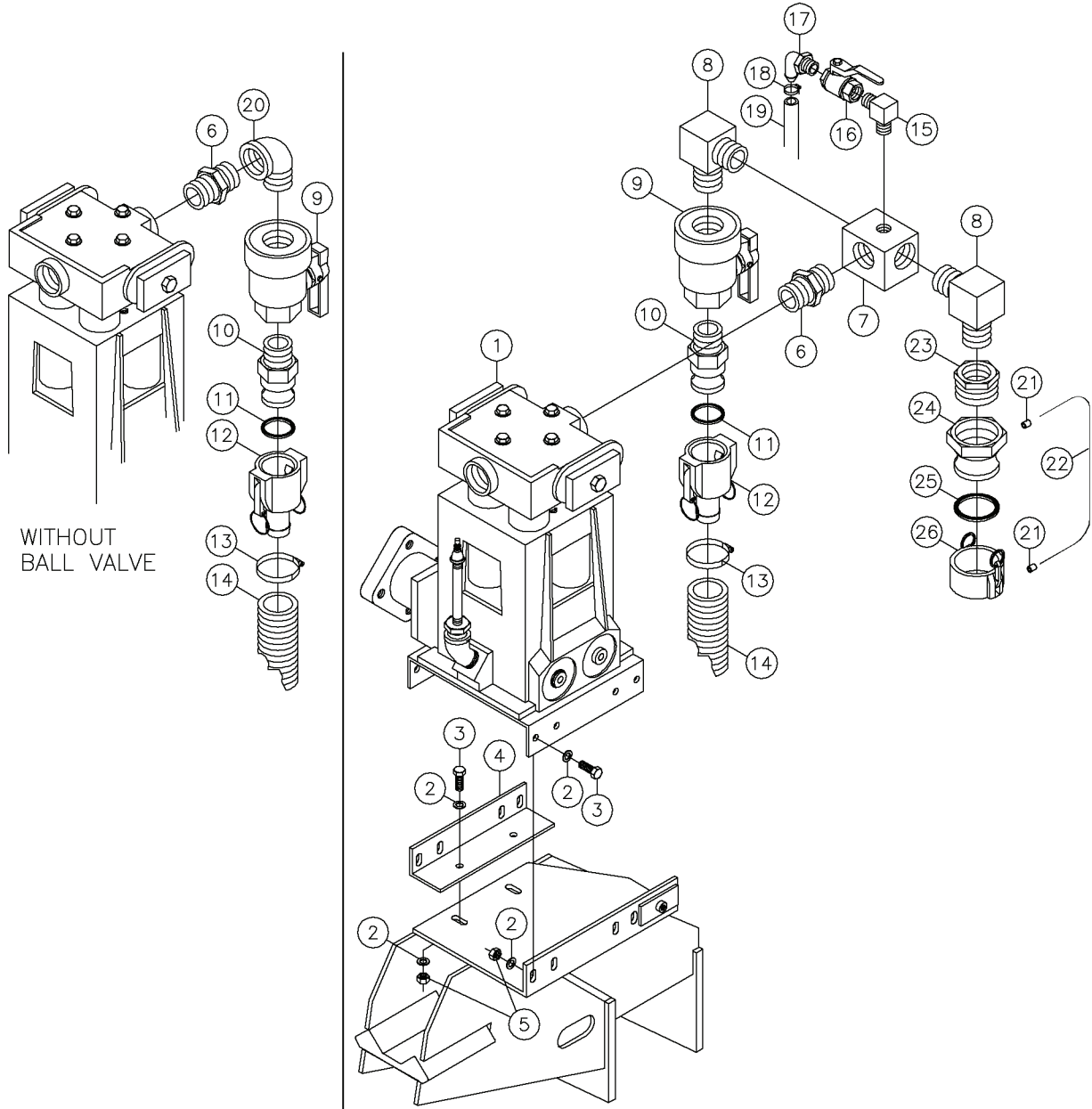
Voltage Stake Fig 7-2



Voltage Stake Fig 7-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275120	HARNESS-ADAPTOR VOLTAGE STAKE	1	
2		234164001	HANDLE-VOLTAGE STAKE	1	
3		240056001	SCREW-SHSS-.50X.50-.38-16THD-CZ	2	
4		296275117	HARNESS-VOLTAGE STAKE	1	
5		296275118	CLAMP - #8	2	
6		235735001	BOLT-1/4-20X1 GR8 HEX ZNC PLTD	1	
7		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	3	
8		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	1	
9		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	3	
10		481013	WASHER-1/4 EST. STAR	2	
11		296275107	HEAD - VOLTAGE STAKE	1	
12		904155001	VOLTAGE STAKE	1	
13		240791001	BRACKET-VOLTAGE STAKE	1	
14		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	2	
15		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
16		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	1	

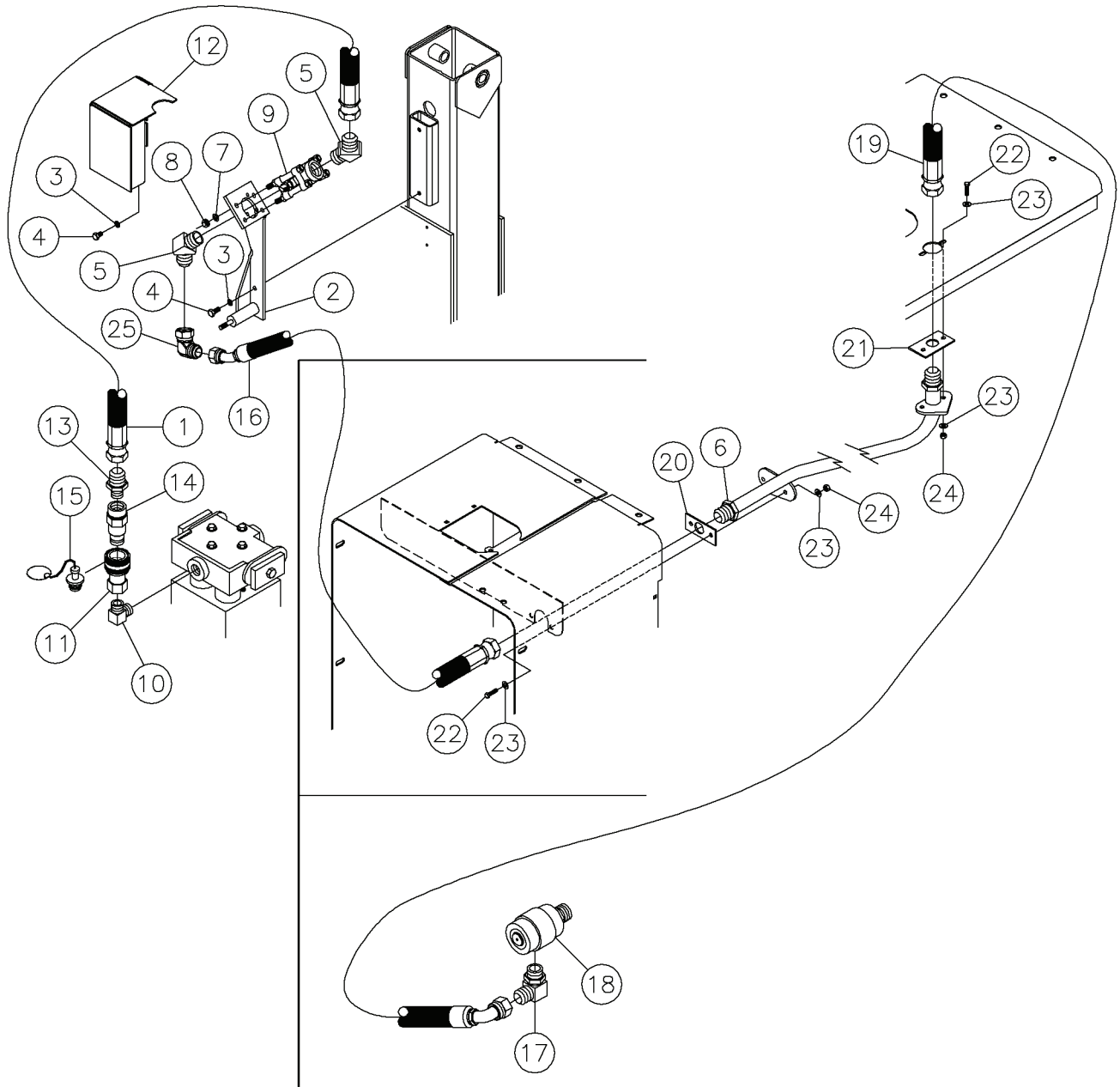
Water Pump Fig 8-1



Water Pump Fig 8-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		236318001	PUMP-13.5 GPM WATER	1	Breakdown Fig 11-13
2		235713001	WASHER-3/8 SAE HARD ZINC PLTD	20	
3		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	10	
4		278035001	PLATE-PUMP MOUNT SLIDE	1	
5		235725001	NUT-3/8-16 GR 8 ZIN PLTD	10	
6		119495010	FITTING-HEX NIPPLE	1	
7		278001001	MANIFOLD-WATER PUMP	1	
8		130434001	FITTING-1 1/4 NPT 90 MALE ELBOW	2	
9		236324001	VALVE-UV-125-FP BANJO	1	
10		236332001	ADAPTER-1 1/4 M NPT X 1 1/2 M CAM	1	
11		236331001	GASKET-1 1/2"	1	
12		278036001	HOSE-SHANK-1 1/2F X 1 1/2 CL PL	1	Inc Ref 11
13		1580007	HOSE CLAMP-1 1/2"	1	
14		278034001	HOSE-1.50 300 SPDM 28.00	1	
15		904831001	FITTING-1/2M NPT X 1/2 M NPT 90	1	
16		1976001	VALVE-1/2" BALL	1	
17		278032001	HOSE-BARB-1/2MPT X 1/2 90 DEG	1	
18		1580003	HOSE CLAMP-3/4"	1	
19		67355047	1/2" ID VINYL REIN. HOSE 24.00	1	
20		716011	1 1/4X90 DEG ST EL BLACK	1	
21		1838001	CONNECTOR-WIRE (ETC)	2	
22		244069001	CABLE-3/32X12" NYLON COATED	1	
23		244015001	BUSHING-2" X 1 1/4" REDUCER POLY	1	
24		244068001	COUPLING-2"F NPT X 2" CAM L POLY	1	
25		225992003	GASKET-2"	1	
26		224941001	CAP-2" CAM LOCK	1	Inc Ref 25

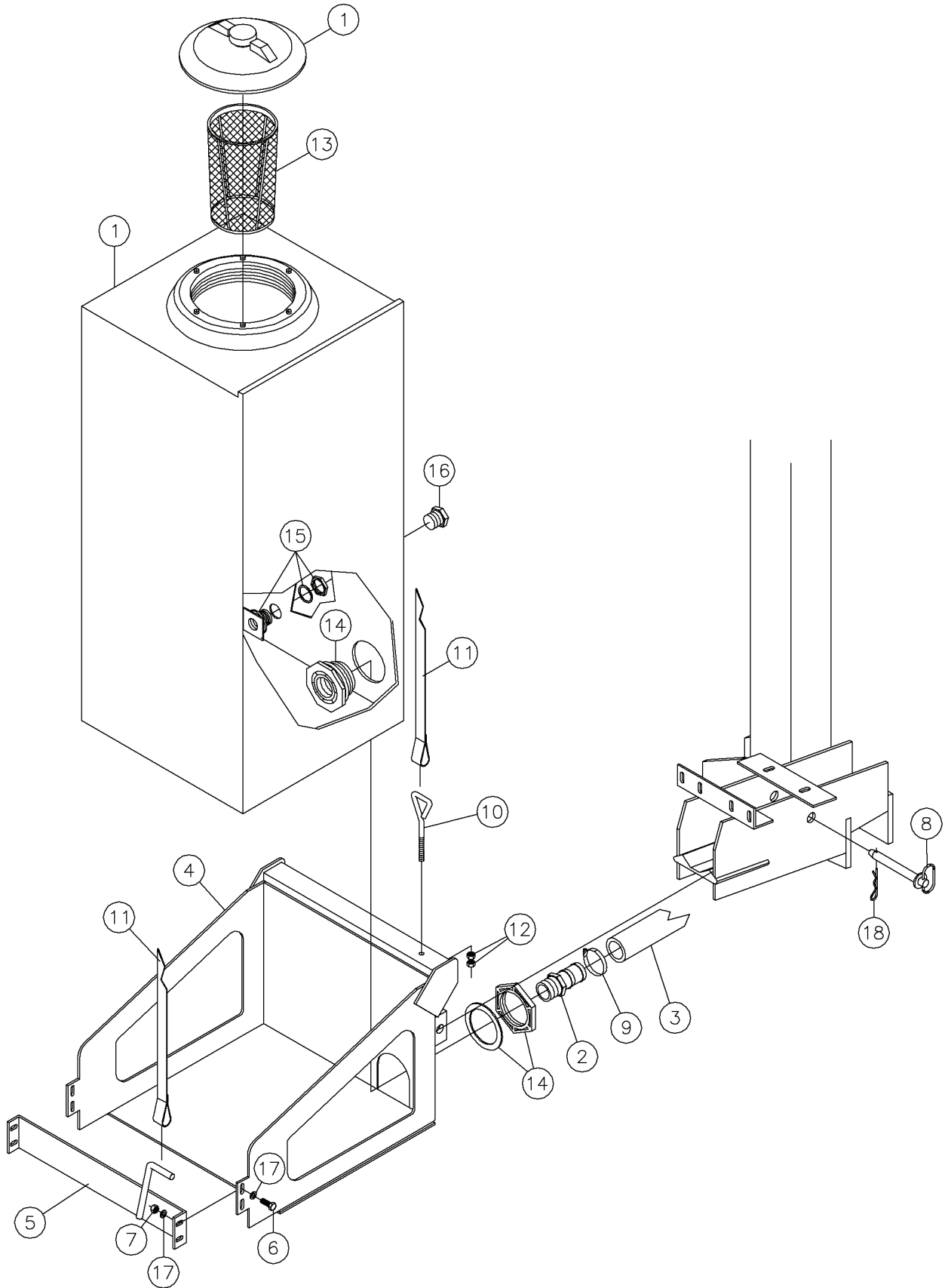
Water Shutoff Valve Fig 8-2



Water Shutoff Valve Fig 8-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296270820	HOSE- 1X72 ST/ST 16FSJIC 2000PSI	1	
2		278025001	SUPPORT-BALL VALVE	1	
3		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
4		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	4	
5		60904001	1M NPT X 16M JIC 45 DEG ELBOW	2	
6		296270793	TUBE WATERLINE	1	
7		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
8		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	4	
9		278003001	VALVE - 1" 1500 PSI BRASS BALL	1	Breakdown Fig. 11-11
10		123645001	FITTING-3/4NPT M ELBOW 5500-12	1	
11		221512001	COUPLER-3/4 NPT QUICK (FEMALE)	1	
12		296270751	COVER-BALL VALVE	1	
13		81692001	FITTING-3/4M NPTX16M JIC ST.	1	
14		221511001	COUPLER-3/4 NPT QUICK (MALE)	1	
15		251679001	PLUG - COUPLER	1	
16		296270819	HOSE- 1X53 ST/45 16FSJIC 2000PSI	1	
17		61703001	FITTING-90-16MJ-16MORBA	1	
18		296269258	SWIVEL-16MORB WATER	1	
		296267178	SEAL KIT	1	Inc Instruction Sheet
		296267179	SEAL INSTALLATION CONE	1	
		296267180	RESIZING TOOL	1	
19		296270892	HOSE-HYD-1X166 16FSJIC ST/45 2000PSI	1	
20		296270807	PAD-TUBE AIR	1	
21		296270808	PAD-TUBE AIR	1	
22		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	4	
23		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	8	
24		240333001	NUT-5/16-18 GR8 TL ZINC PLTD	4	
25		60905001	FITTING-16M JICX16FS JIC 90 DEG ELBOW	1	

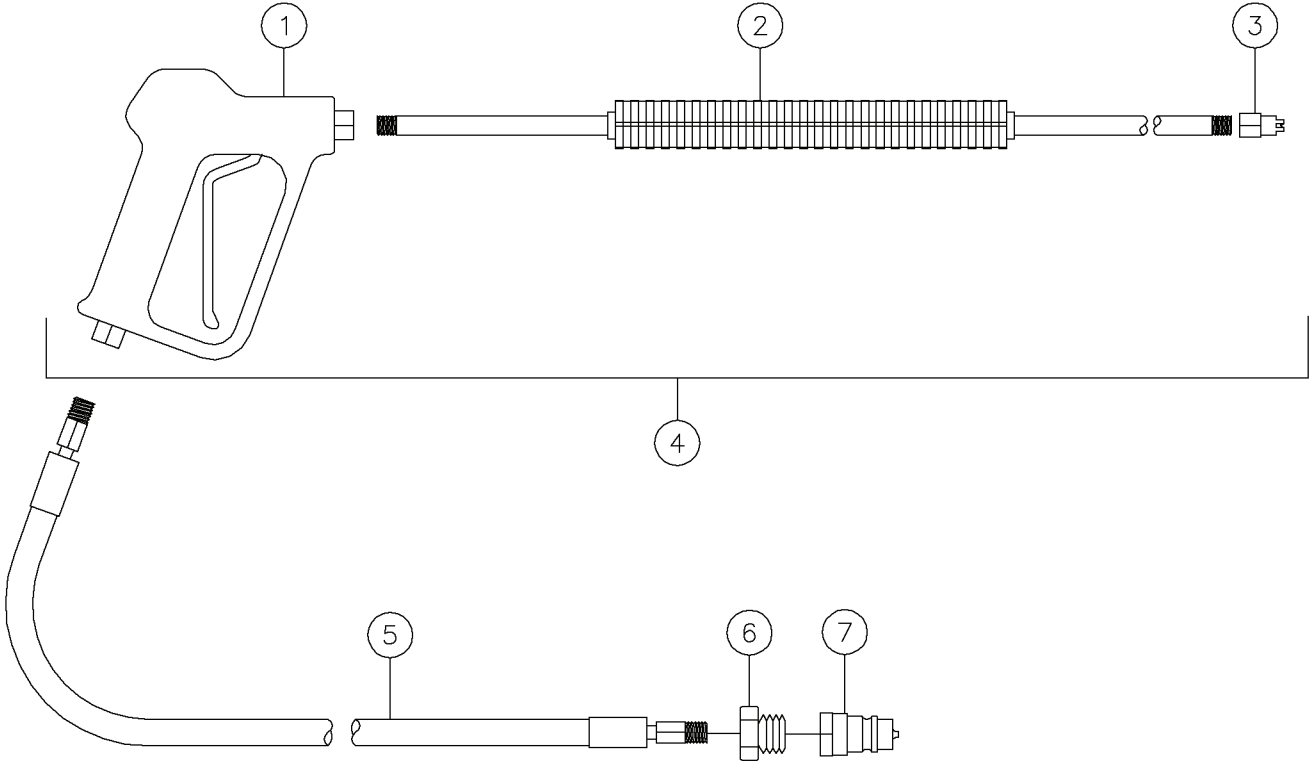
Water Tank Fig 8-3



Water Tank Fig 8-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		236315001	TANK-55 GALLON WATER	1	Inc Ref No's 13-16
2		236322001	FITTING-1 1/2"MNPTX1 1/2"HBPOL	1	
3		278034001	HOSE-1.50 300 EPDM 28"	1	
4		245247001	MOUNT-WATER TANK	1	
5		236416001	SUPPORT-TANK	1	
6		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
7		235725001	NUT-3/8-16 GR8 ZINC PLTD	4	
8		2107007	PIN-HITCH 3/4 X 6	1	
9		1580007	HOSE CLAMP - 1 1/2"	1	
10		903862001	BOLT-WATER TANK HOLD DOWN	1	
11		287697001	STRAP - 2 X 73.5 TANK	1	
12		412001	NUT-3/8 NC HEX	2	
13		225854001	STRAINER-BASKET	1	
14		215433001	BULKHEAD FITTING-1 1/2" (POLY)	1	
15		219110005	1"BULKHEAD	1	
16		236441001	PLUG-1NPT POLY HEX HEAD	1	
17		235713001	WASHER-3/8 SAE HARD ZINC PLTD	8	
18		1794003	HAIR PIN COTTER - .148 WIRE	1	

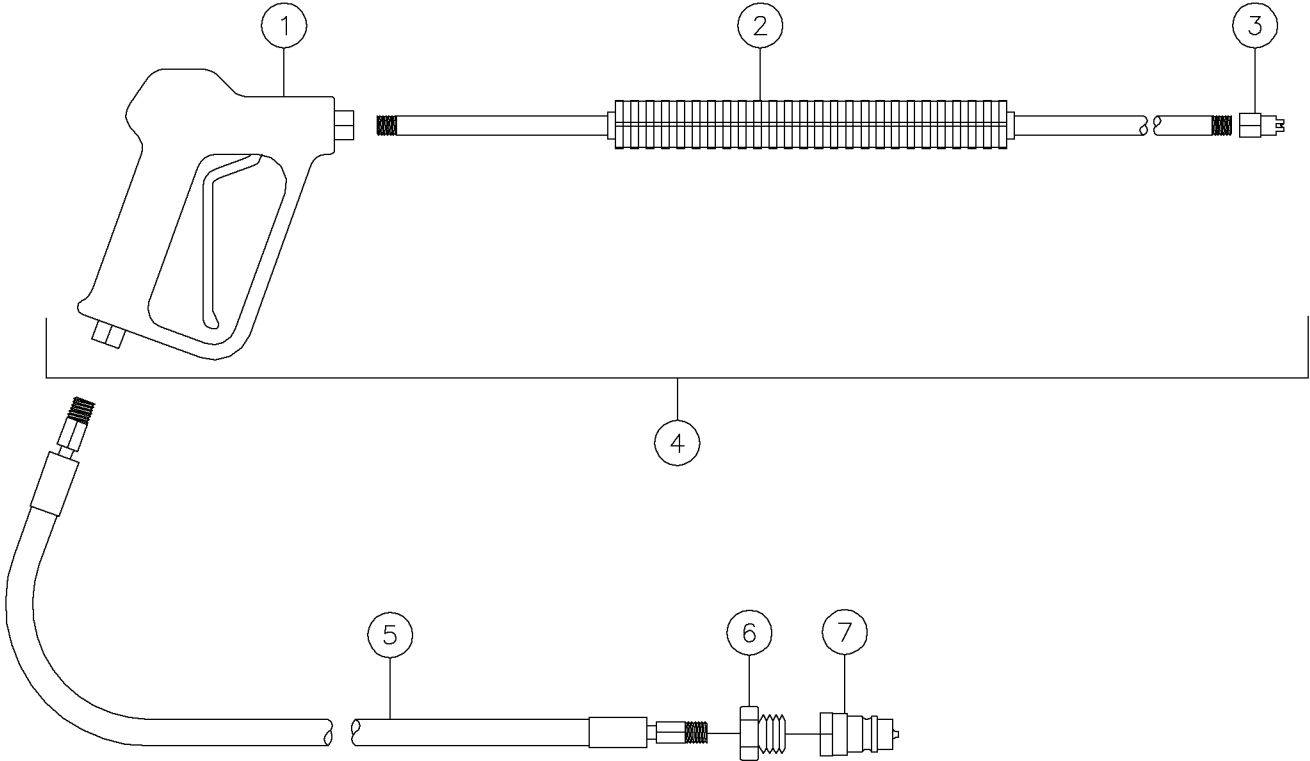
Wand Fig 8-4r01



Wand Fig 8-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Parts List.
1		904578001	GUN HANDLE	1	
2		904577001	MOLDED LANCE	1	
3		904576001	SPRAY NOZZLE	1	
4		285927001	GUN ASSY	1	Inc. Ref. 1-3
5		282761001	HOSE-3/8X500 3/8M SMPT 1 1/2M NPT 100R2	1	
6		730011	3/4"X1/2" HEX BUSHING STEEL ZNC PLTD	1	
7		221511001	COUPLER-3/4 NPT QUICK (MALE)	1	
		235777001	WAND ASSEMBLY		Includes All Items In Figure

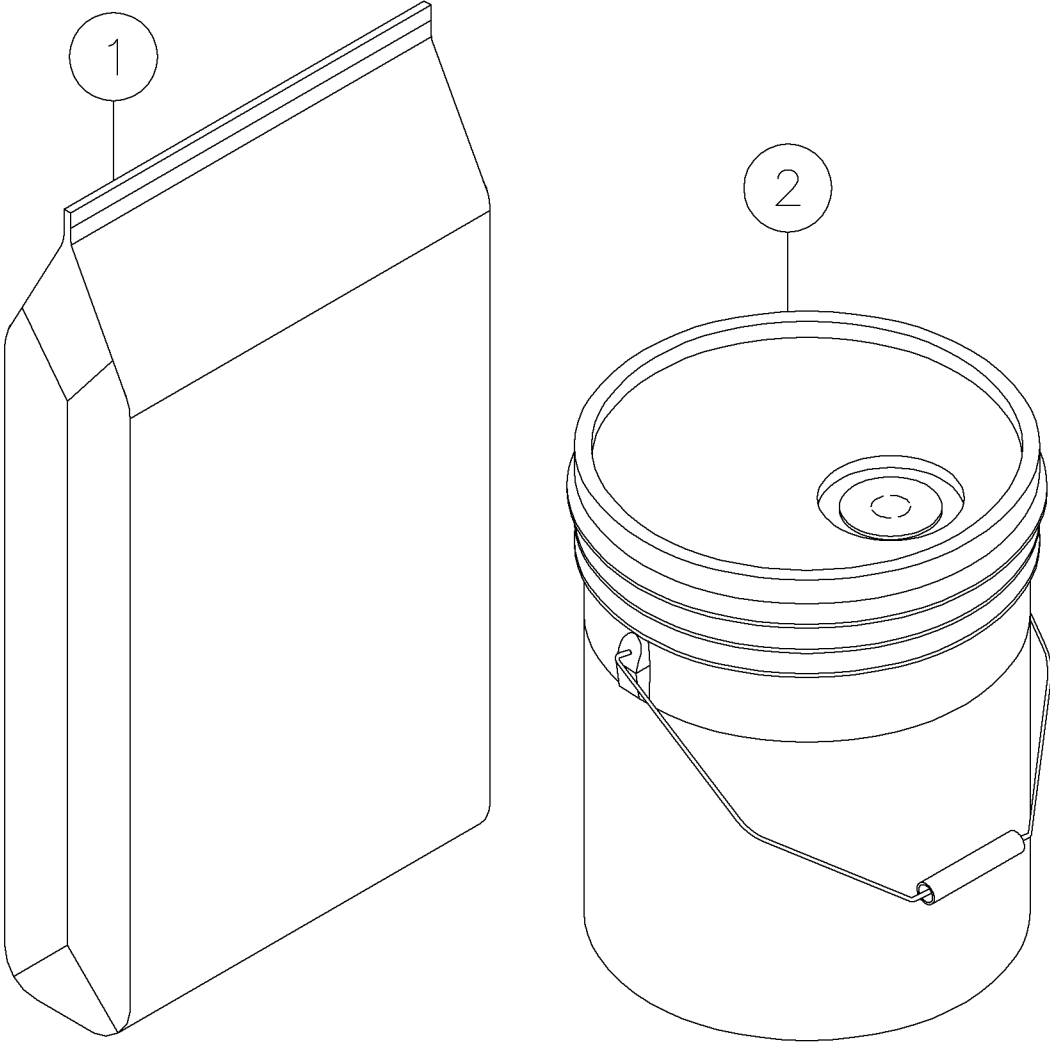
Wand Fig 8-4



Wand Fig 8-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904578001	GUN HANDLE	1	
2		904577001	MOLDED LANCE	1	
3		904576001	SPRAY NOZZLE	1	
4		285927001	GUN ASSY	1	Inc. Ref. 1-3
5		282761001	HOSE-3/8X500 3/8M SMPT 1 1/2M NPT 100R2	1	
6		730011	3/4"X1/2" HEX BUSHING STEEL ZNC PLTD	1	
7		221511001	COUPLER-3/4 NPT QUICK (MALE)	1	
		240264001	WAND ASSEMBLY		Includes All Items In Figure

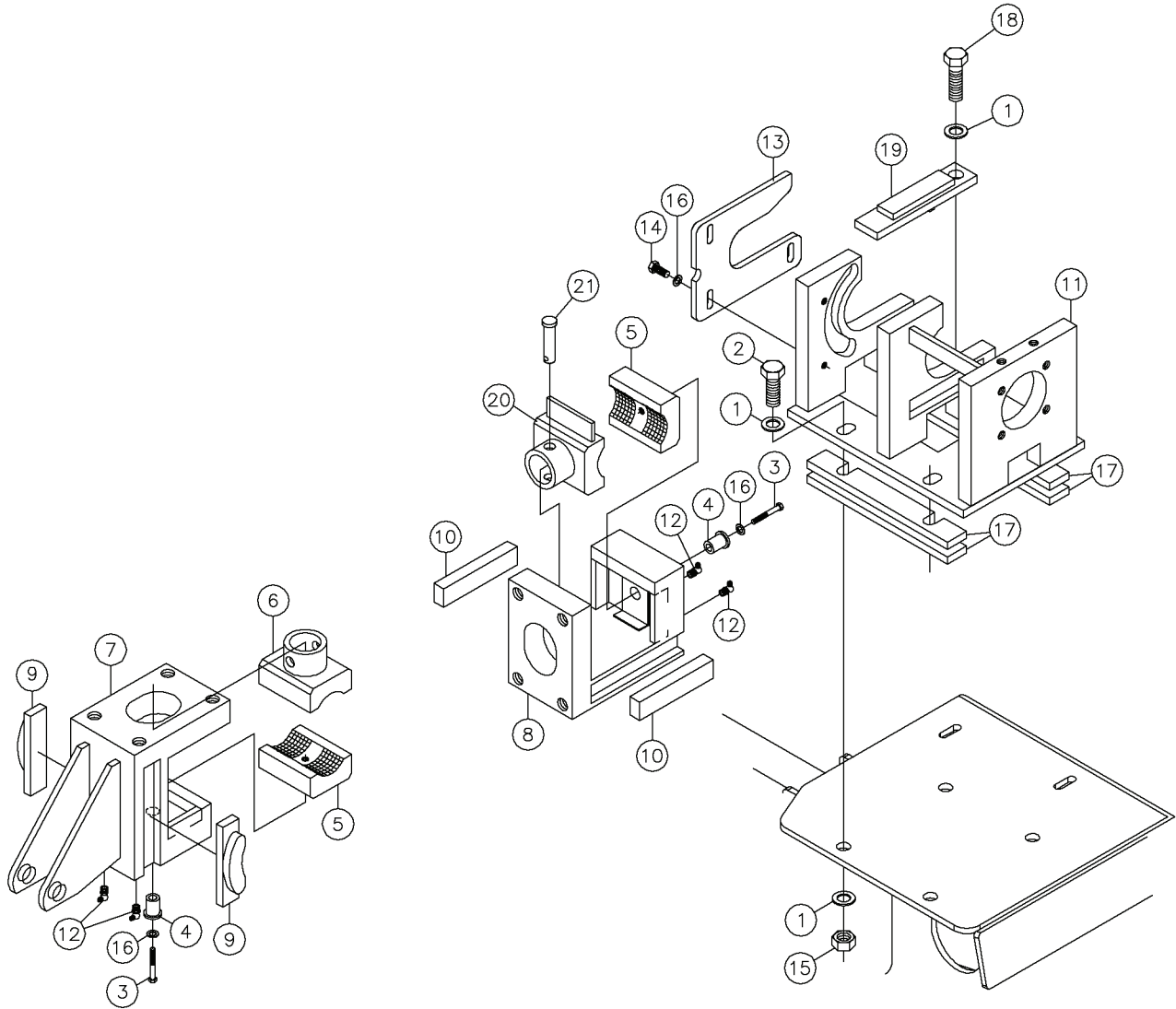
Drill Fluid Fig 8-5



Drill Fluid Fig 8-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904882001	50LBS BAG QUICK GELL BENTONITE	1	
		123596001	BORE-GEL (50 LB BAG)	1	
2		905216001	POLYMER	1	
		123595001	EZ-MUD - 5 GALLON	1	

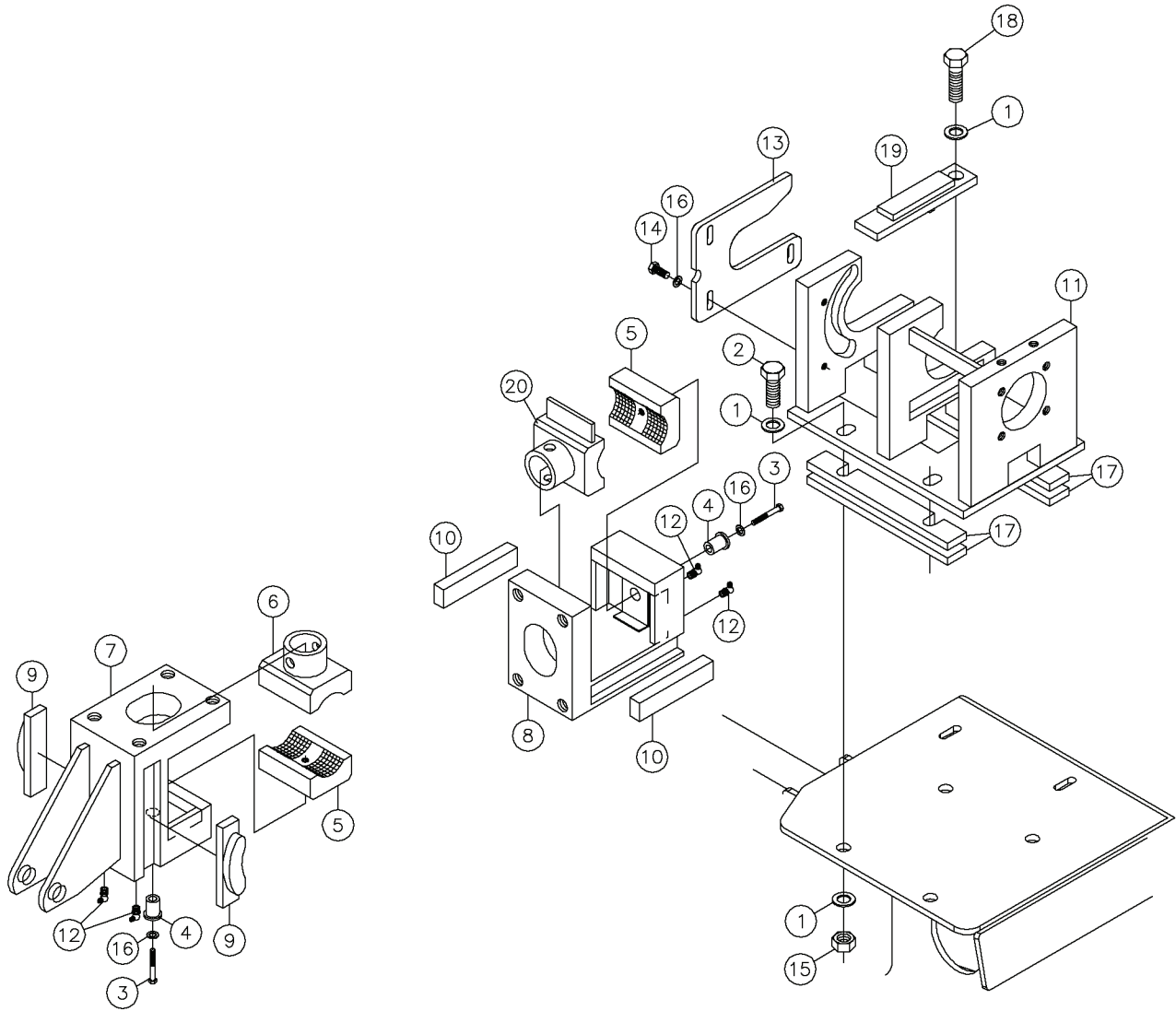
Clamp Fig 9-1r01



Clamp Fig 9-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		235717001	WASHER-3/4 SAE HARD ZINC PLTD	4	
2		235746001	BOLT-3/4-10X2 G48 HEX ZNC PLTD	3	
3		235720001	BOLT-3/8-16X1 3/4 6R8 ZINC PLT	2	
4		228064001	INSERT-FASTENER	2	
5		236111001	JAW-1.90 STEM	2	Use With 1.90" Drill Rod
		296279701	JAW - 2.06 STEM	2	Use With 2.06" Drill Rod
6		236112001	JAW-1.90 STEM	1	Use With 1.90" Drill Rod
		296279702	JAW - 2.06 STEM	1	Use With 2.06" Drill Rod
7		246386001	PLATE-CLAMP	1	
8		235414001	BAR-CLAMP	1	
9		232449001	PIVOT-SLIDE	2	
10		232456001	BAR SLIDE	2	
11		250250001	FRAME CLAMP WELDMENT	1	
12		590001	ZERK-1/8" NPT 90 DEG GREASE	2	
13		282107001	PLATE-ROD CENTERING	1	
14		235736001	BOLT-3/8-16X1 1/4 ZINC PLTD	3	
15		235739001	NUT-3/4-10 GR8 ZINC PLTD	4	
16		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YA-A325	5	
17		236110001	PLATE-CLAMP SHIM	4	
18		238880001	BOLT-3/4-10X2 1/2 HHCS GR8 ZY	1	
19		296272013	SHIM - VISE	1	
20		250272001	JAW-1.90 STEM	1	Use With 1.90" Drill Rod
		296279704	JAW - 2.06 STEM	1	Use With 2.06" Drill Rod
21		240032001	PIN-.620X2 33/64 BALL LOCK	2	

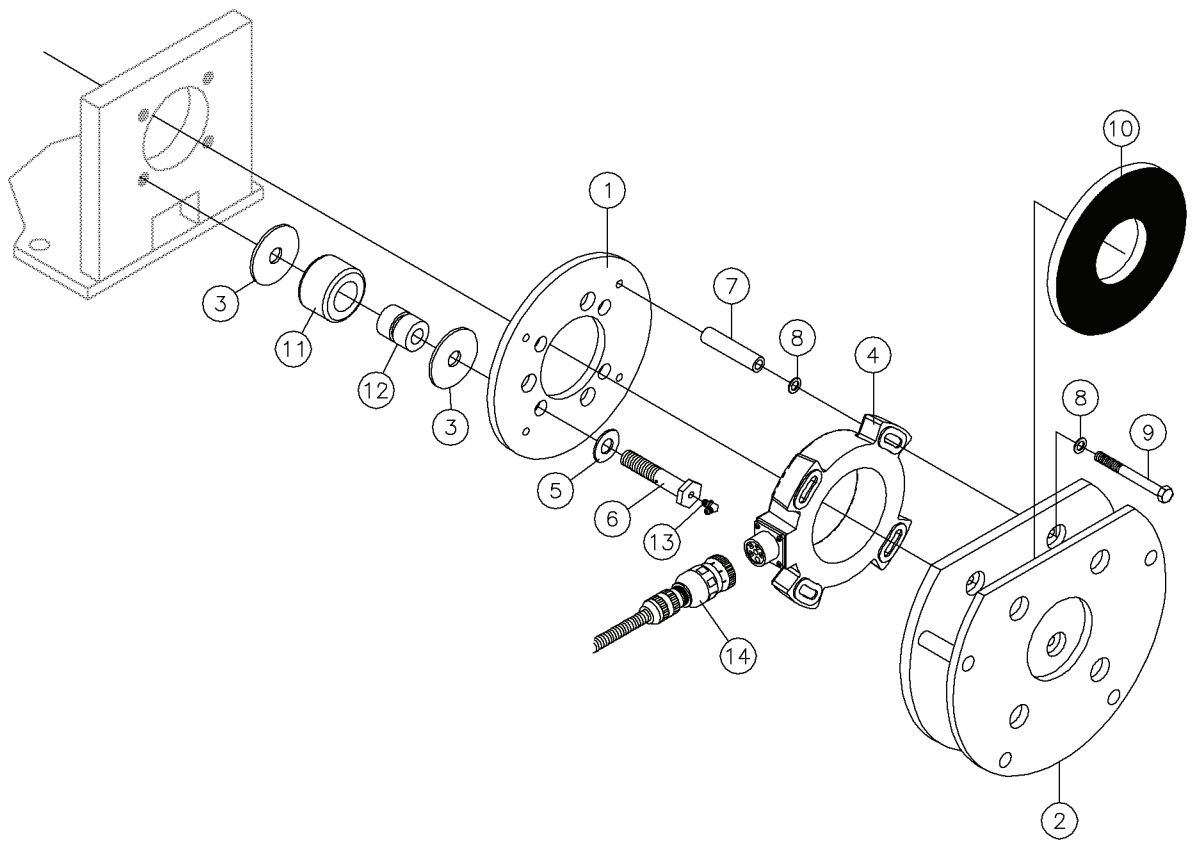
Clamp Fig 9-1



Clamp Fig 9-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		235717001	WASHER-3/4 SAE HARD ZINC PLTD	4	
2		235746001	BOLT-3/4-10X2 G48 HEX ZNC PLTD	3	
3		235720001	BOLT-3/8-16X1 3/4 6R8 ZINC PLT	2	
4		228064001	INSERT-FASTENER	2	
5		236111001	JAW-1.90 STEM	2	Use With 1.90" Drill Rod
		296279701	JAW - 2.06 STEM	2	Use With 2.06" Drill Rod
6		236112001	JAW-1.90 STEM	1	Use With 1.90" Drill Rod
		296279702	JAW - 2.06 STEM	1	Use With 2.06" Drill Rod
7		246386001	PLATE-CLAMP	1	
8		235414001	BAR-CLAMP	1	
9		232449001	PIVOT-SLIDE	2	
10		232456001	BAR SLIDE	2	
11		250250001	FRAME CLAMP WELDMENT	1	
12		590001	ZERK-1/8" NPT 90 DEG GREASE	2	
13		282107001	PLATE-ROD CENTERING	1	
14		235736001	BOLT-3/8-16X1 1/4 ZINC PLTD	3	
15		235739001	NUT-3/4-10 GR8 ZINC PLTD	4	
16		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YA-A325	5	
17		236110001	PLATE-CLAMP SHIM	4	
18		238880001	BOLT-3/4-10X2 1/2 HHCS GR8 ZY	1	
19		296272013	SHIM - VISE	1	
20		250272001	JAW-1.90 STEM	1	Use With 1.90" Drill Rod
		296279704	JAW - 2.06 STEM	1	Use With 2.06" Drill Rod

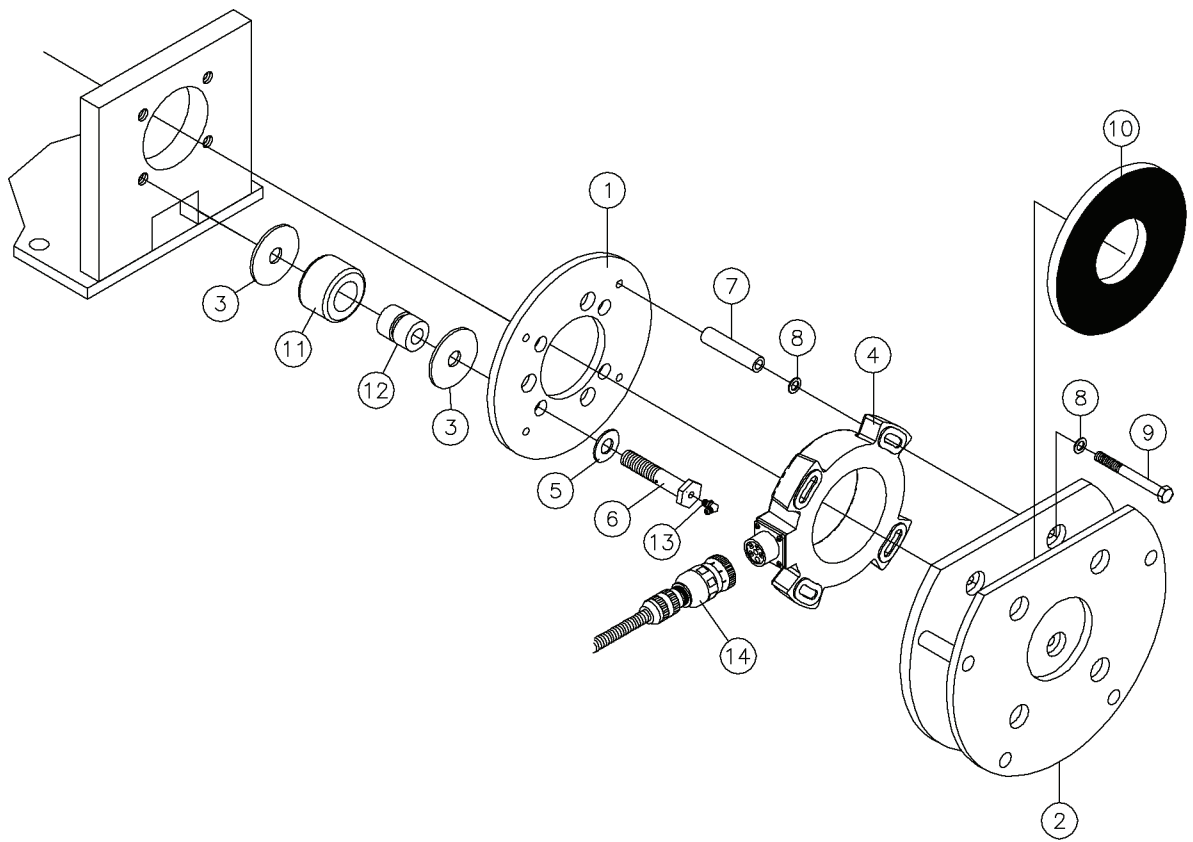
Zap Alert Coil (S/N 309-) Fig 9-2r02



Zap Alert Coil (S/N 309-) Fig 9-2r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2007		Change Strike Alert
1		232462001	PLATE-MOUNT	1	
2		236351001	MOUNT-ROD WIPER	1	
3		485015	WASHER-5/8 FLAT	8	
4	*	296252772	STRIKE ALERT - 4" COIL ASSEMBLY 2000 TURNS	1	(S/N 309-)
5		235715001	WASHER-FLATSTRL-5/8" YZ A325	4	
6		236376001	BOLT-ROLLER GREASE	4	
7		296289071	SPACER TUBE D18X22 & D20X22	4	
8		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YA- A325	8	
9		16114034	BOLT-3/8-16X3 1/2 HEX HD. GR8	4	
10		235922001	WIPER-1.90 OD ROD	1	Use With 1.90" Drill Rod
		235923001	WIPER-2.06 OD ROD	1	Use With 2.06" Drill Rod
11		296279700	ROLLER - GUIDE	4	
12		236377001	BUSHING-GUIDE ROLLER	4	
13		597001	ZERK-1/4" NF 90 DEG GREASE ZYC	4	
14		296280323	HARNES-STRIKE ALERT COIL	1	

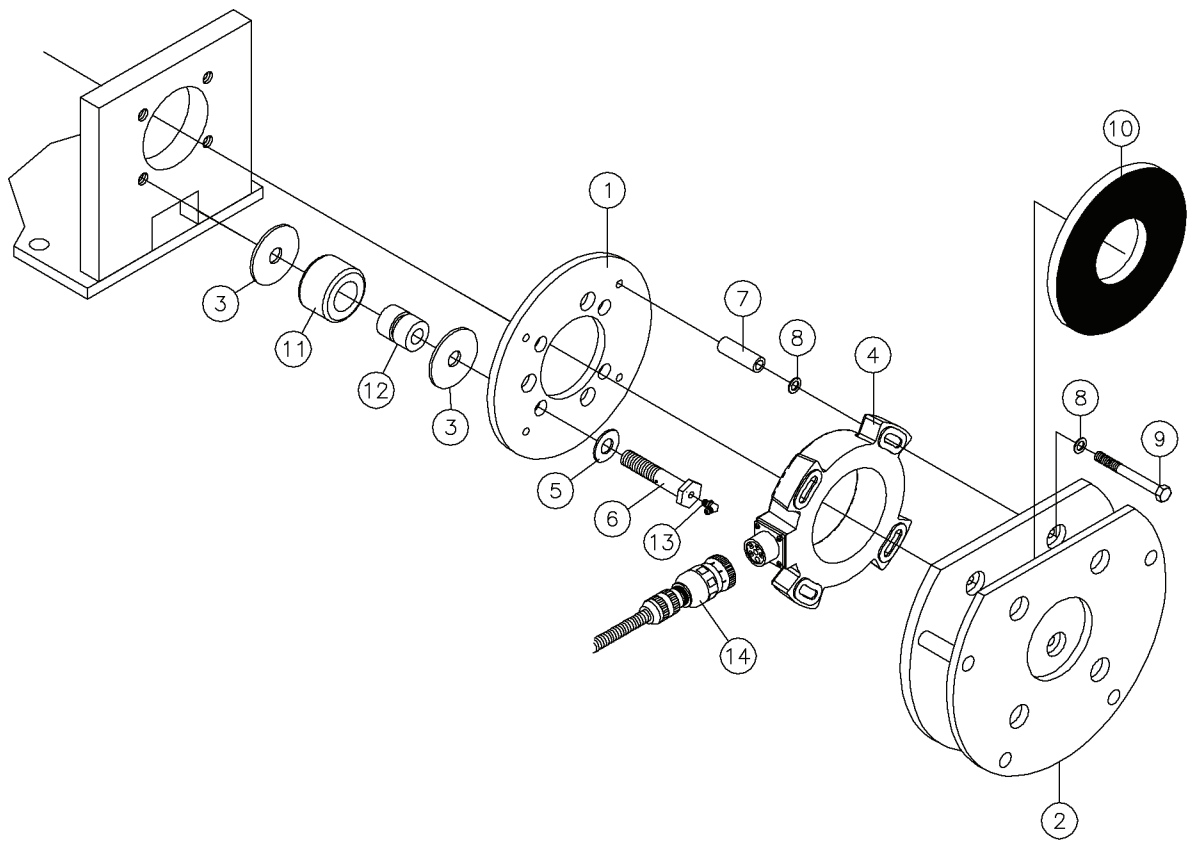
Zap Alert Coil Fig 9-2r01



Zap Alert Coil Fig 9-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Changed Spacer Tube & Bolt
1		232462001	PLATE-MOUNT	1	
2		236351001	MOUNT-ROD WIPER	1	
3		485015	WASHER	8	
4		296272742	STRIKE ALERT - 4" COIL ASSEMBLY	1	
5		235715001	WASHER-5/8 SAE HARD ZINC PLTD	4	
6		236376001	BOLT-ROLLER GREASE @26184	4	
7	*	296289071	TUBE-5/8ODX11GA.-2 7/8"	4	
8		235713001	WASHER-3/8 SAE HARD ZINC PLTD	8	
9	*	16114034	BOLT-3/8-16X3 1/2 HEX HD. GR8	4	
10		235922001	WIPER-1.90 OD ROD	1	Use With 1.90" Drill Rod
		235923001	WIPER-2.06 OD ROD	1	Use With 2.06" Drill Rod
11		296279700	ROLLER-GUIDE	4	
12		236377001	BUSHING-GUIDE ROLLER	4	
13		597001	ZERK-1/4" NF 90 DEG GREASE	4	
14		296280323	HARNES-STRIKE ALERT COIL	1	

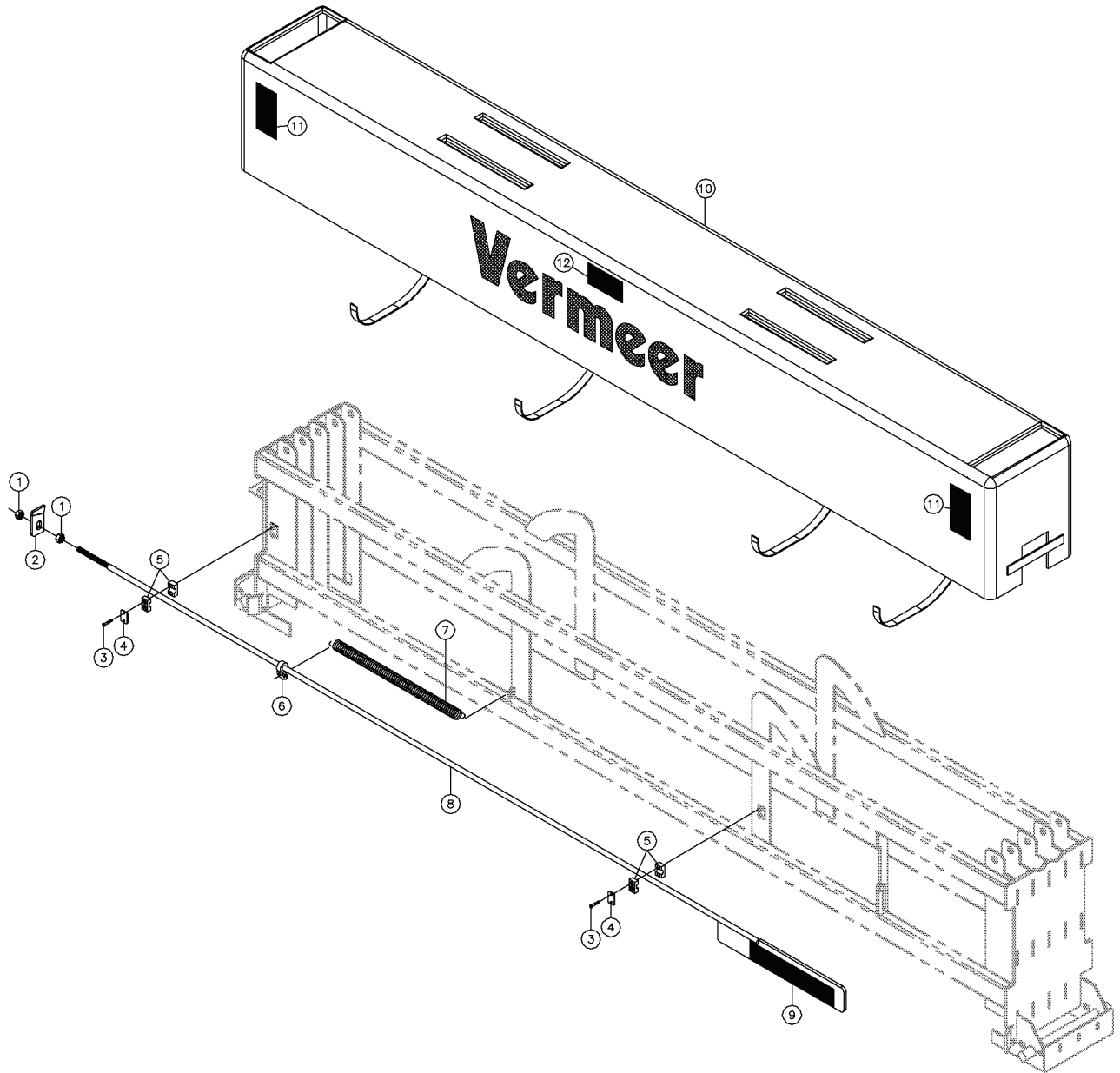
Zap Alert Coil Fig 9-2



Zap Alert Coil Fig 9-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		232462001	PLATE-MOUNT	1	
2		236351001	MOUNT-ROD WIPER	1	
3		296266527	RING-ROD GUIDED WEAR	1	
4		296272742	STRIKE ALERT - 4" COIL ASSEMBLY	1	
5		235715001	WASHER-5/8 SAE HARD ZINC PLTD	4	
6		236376001	BOLT-ROLLER GREASE @26184	4	
7		296280269	TUBE-5/8 ODX11GA.-1 15/16"	1	
8		235713001	WASHER-3/8 SAE HARD ZINC PLTD	8	
9		240377001	BOLT-3/8-16X3 1/4 GR8 ZINC PLT	4	
10		235922001	WIPER-1.90 OD ROD	1	Use With 1.90" Drill Rod
		235923001	WIPER-2.06 OD ROD	1	Use With 2.06" Drill Rod
11		296279700	ROLLER-GUIDE	4	
12		236377001	BUSHING-GUIDE ROLLER	4	
13		597001	ZERK-1/4" NF 90 DEG GREASE	4	
14		296280323	HARNES-STRKE ALERT COIL	1	

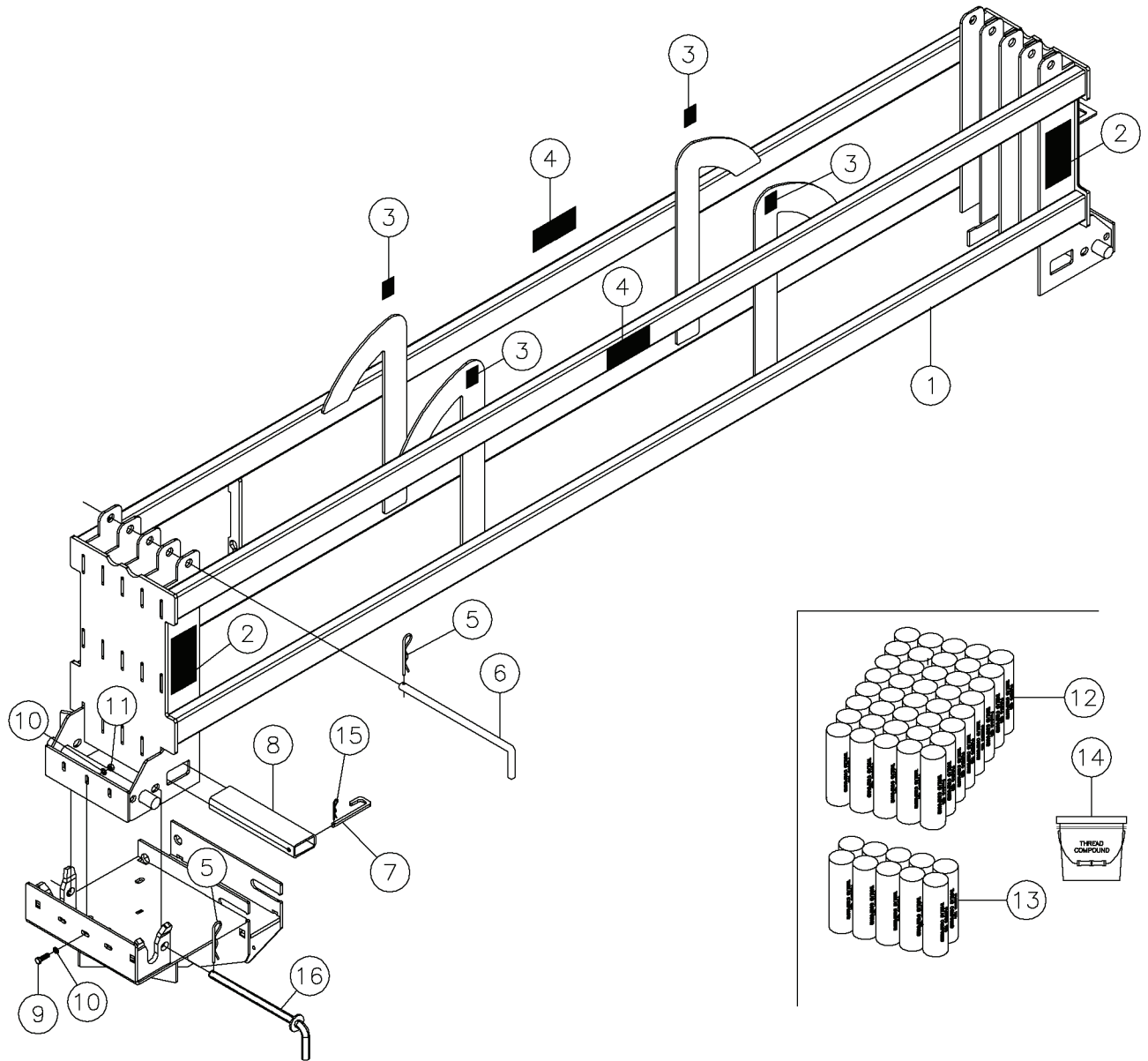
Rod Position Indicator Fig 10-1



Rod Position Indicator Fig 10-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		250514001	NUT -5/8NC JAM Y/ZINC	2	
2		296270784	PLATE - INDICATOR CATCH	1	
3		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	2	
4		903135005	PLATE-COVER COP-2	2	
5		903135003	CLAMP-HOSE 20675-PP	2	
6		227979001	MOUNT-ROD INDICATOR SPRING	1	
7		1789041	SPG-EXT.12GA.X1 1/8OD X13 1/2	1	
8		296256056	WELDMENT - ROD POSITION MARKER	1	
9		700IA997	DECAL - GEARBOX POSITION	1	
10		296280364	COVER - D18X22 ROD BOX	1	
11		7000A627	DECAL-DANGER	2	
12		70000563	DECAL-WARNING (UND)	1	

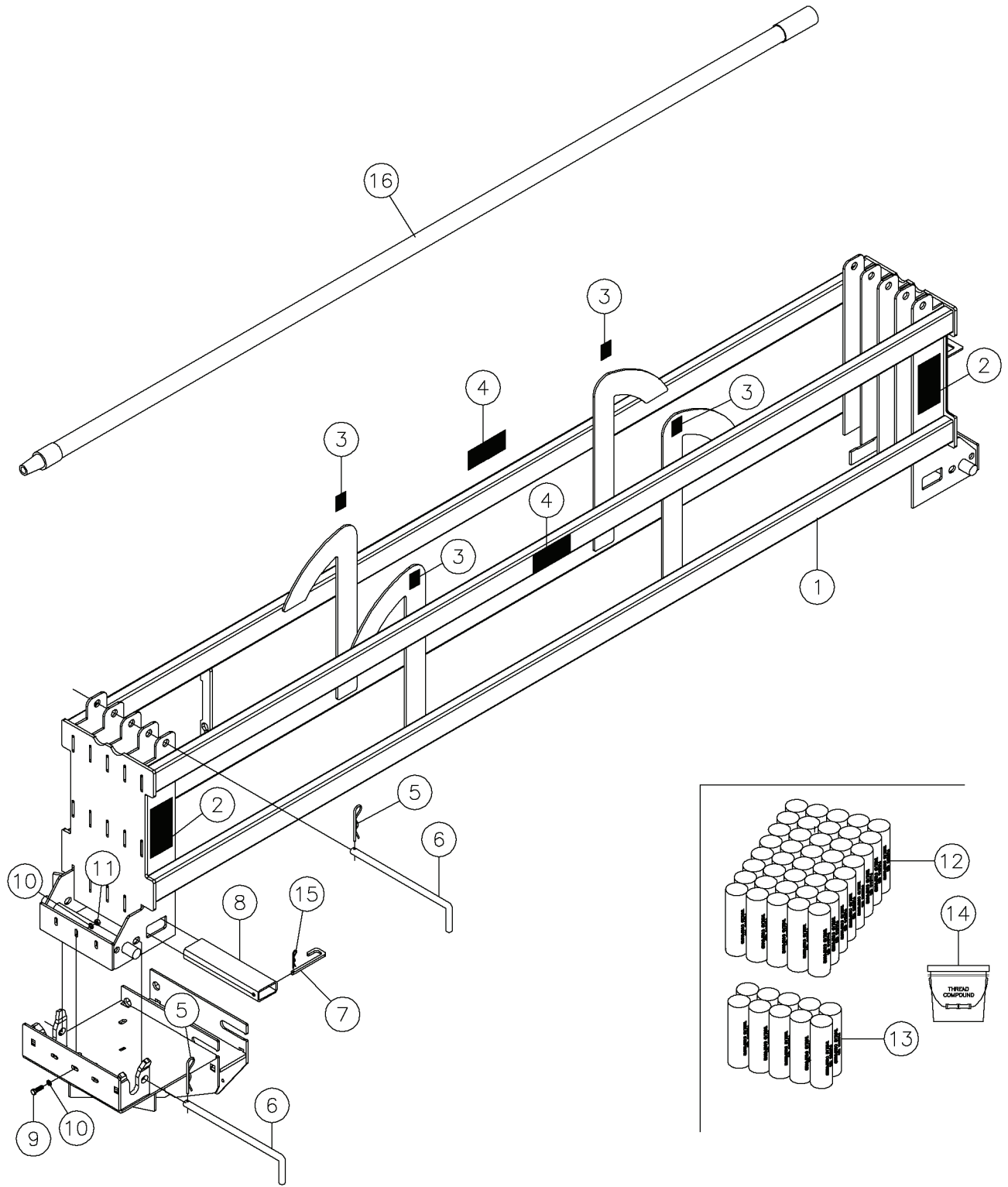
Rod Box Fig 10-2r01



Rod Box Fig 10-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2007		Added Two Pins
1		296276774	ROD BOX ASSY - D18X22 DOMESTIC	1	Inc Ref 2-4
		296276775	ROD BOX ASSY - D18X22 INTERNATIONAL	1	Inc Ref 2-4
2		7000A627	DECAL-DANGER	2	Domestic
		700IA627	DECAL-DANGER	2	International
3		7000I445	DECAL-LIFT POINT	4	
4		70000563	DECAL-WARNING (UND)	2	Domestic
		7000I563	DECAL-WARNING (UND)	2	international
5		1794003	HAIR PIN COTTER - .148 WIRE	4	
6		294759001	PIN - 3/4" X 12.25 UL BENT PULL	2	
7		296266689	BAR - LINK	2	
8		296266670	TUBE - ROD BOX	2	
9		235737001	BOLT-1/2-13X1 1/4 GR8 ZYC	6	
10		485025	WASHER-1/2 FLAT-HARDENED-YZ	12	
11		235731001	NUT-1/2-13 GR8 ZYC	6	
12		296274031	THREAD - COMPOUND CARTRIDGE 30 PACK	A/R	
13		296274030	THREAD - COMPOUND 3/10PACKS - CARTRIDGES	A/R	
14		235983001	LUBRICANT - THREAD 1 GALLON	A/R	
15		1794007	HAIR PIN COTTER - .080 WIRE	2	
16	*	250264001	PIN-ROD	2	

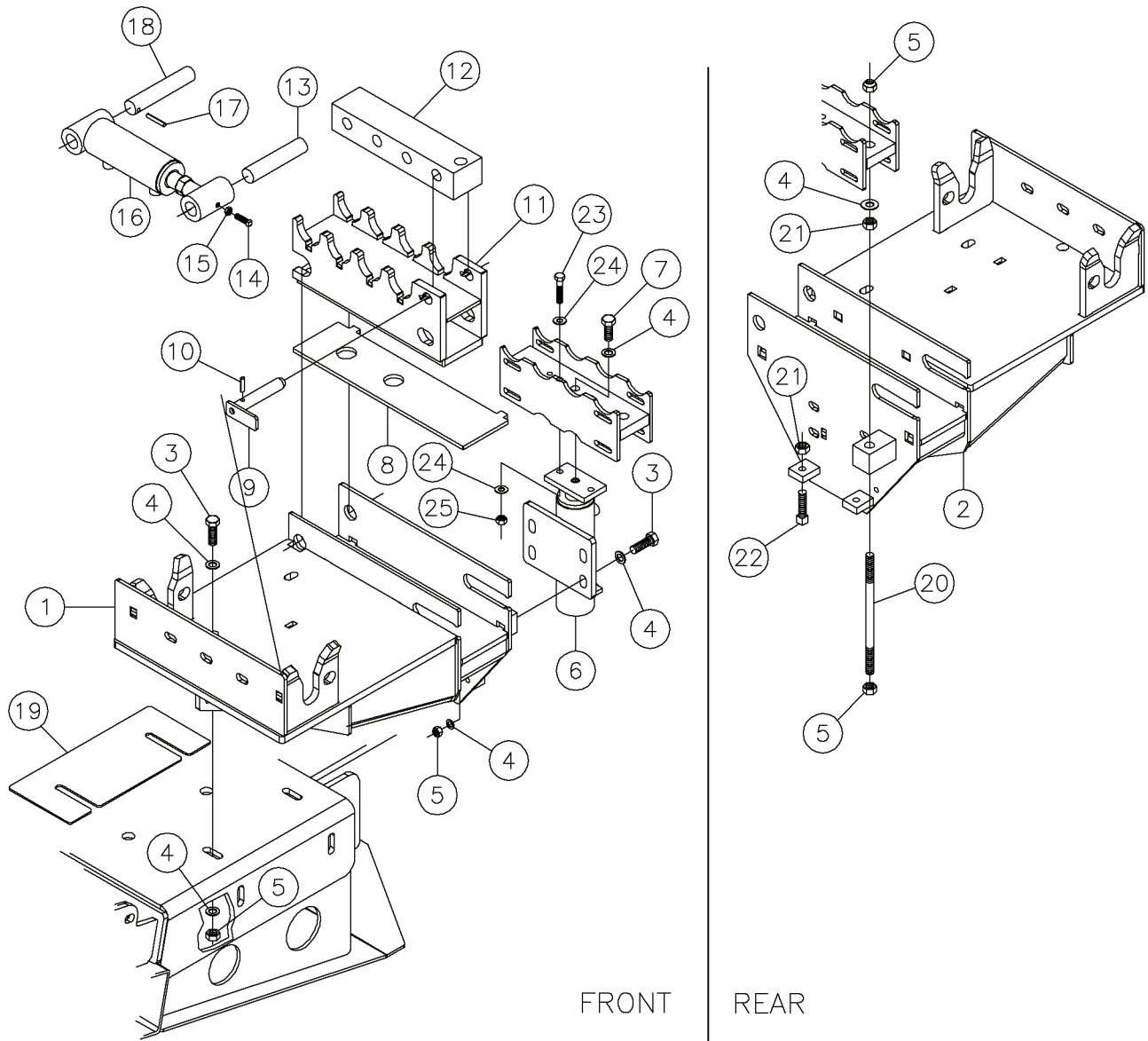
Rod Box Fig 10-2



Rod Box Fig 10-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296276774	ROD BOX ASSY - D18X22 DOMESTIC	1	Inc Ref 2-4
		296276775	ROD BOX ASSY - D18X22 INTERNATIONAL	1	Inc Ref 2-4
2		7000A627	DECAL-DANGER	2	Domestic
		700IA627	DECAL-DANGER	2	International
3		7000I445	DECAL-LIFT POINT	4	
4		70000563	DECAL-WARNING (UND)	2	Domestic
		7000I563	DECAL-WARNING (UND)	2	international
5		1794003	HAIR PIN COTTER - .148 WIRE	4	
6		294759001	PIN - 3/4" X 12.25 UL BENT PULL	4	
7		296266689	BAR - LINK	2	
8		296266670	TUBE - ROD BOX	2	
9		235736001	BOLT-3/8-16X1 1/4 ZINC PLTD	6	
10		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	12	
11		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	6	
12		296274031	THREAD - COMPOUND CARTRIDGE 30 PACK	A/R	
13		296274030	THREAD - COMPOUND 3/10PACKS - CARTRIDGES	A/R	
14		235983001	LUBRICANT - THREAD 1 GALLON	A/R	
15		1794007	HAIR PIN COTTER - .080 WIRE	2	
16		230993001	DRILL ROD - 1.90" (4.8 CM) O.D. X 10'	A/R	
		221628001	DRILL ROD - 2.06" (5.2 CM) O.D. X 10'	A/R	

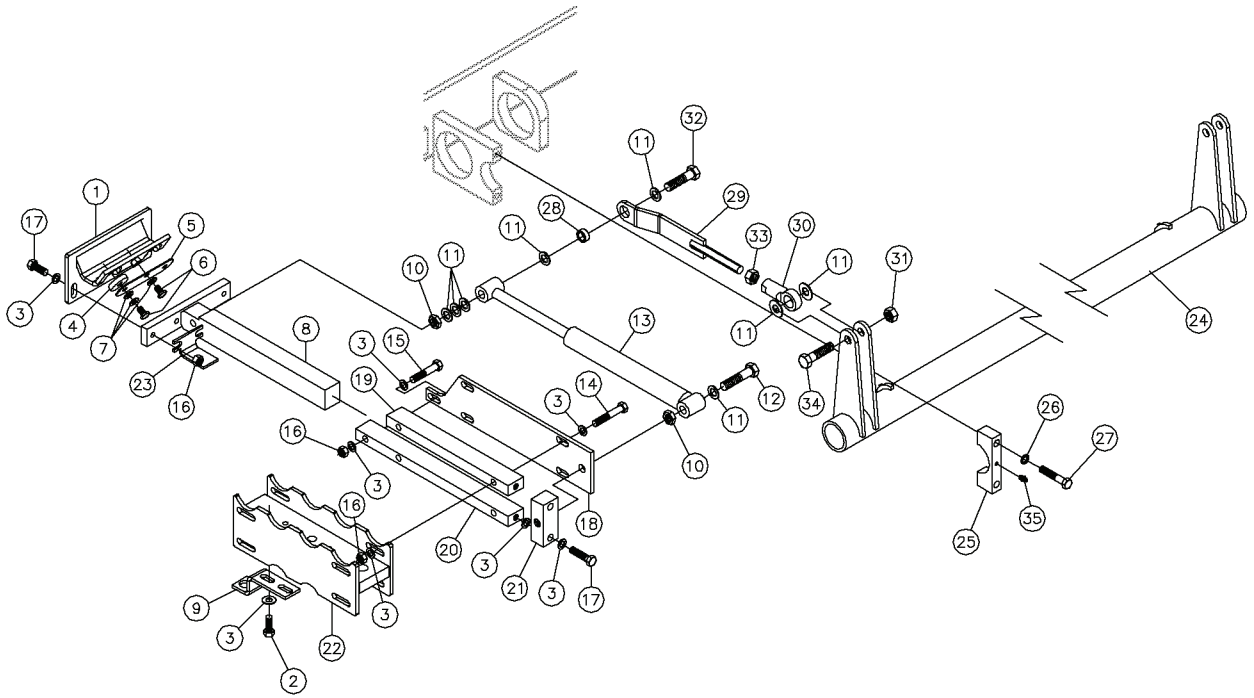
Row Selector Lift Fig 10-3



Row Selector Lift Fig 10-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275397	MOUNT - ROD LOADER	1	
2		296275396	MOUNT - ROD LOADER	1	
3		235721001	BOLT-1/2-13X1 1/2 GR8 ZINC PLT	16	
4		485025	WASHER-1/2 FLAT-HARDENED-YZ	36	
5		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	20	
6		296275075	CYLINDER - 2 X 3-3/8 HYD	2	
		296271066	SHAFT	2	
		296263830	REPAIR KIT	2	
7		235737001	BOLT-1/2-13X1 1/4 GR8 ZINC PLT	2	
8		276728001	SLIDE - WEAR	2	
9		276720001	PIN - SELECTOR	2	
10		1788009	PIN EXPANSION 1/4 X 1 ZINC	2	
11		296279697	COMB-2.06 LOADER	2	
12		276700001	BAR - POCKET BLOCK	2	
13		276717001	PIN - SHIFT	2	
14		510365811	SCREW-SQSET-.38-16X.75-GR5-YZ	2	
15		250576001	NUT-3/8 NC HEX JAM W/Y-ZINC	2	
16		294821001	CYL.-HYD.2" X 3"	2	
		296251066	SHAFT	2	
		296251068	REPAIR KIT	2	
17		510342801	PIN - EXPANSION 1/4 X 1 1/2 YZ	2	
18		276716001	PIN - SHIFT	2	
19		296266692	SHIM - ROD LOADER	A/R	
20		296265792	BAR - LOADER GUIDE	2	
21		75383001	NUT-1/2-UNC GR.8 JAM HEX	4	
22		550020	SQ HSS-1/2-13X2	4	
23		235720001	BOLT-3/8-16X1 3/4 6R8 ZINC PLT	4	
24		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	8	
25		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	4	

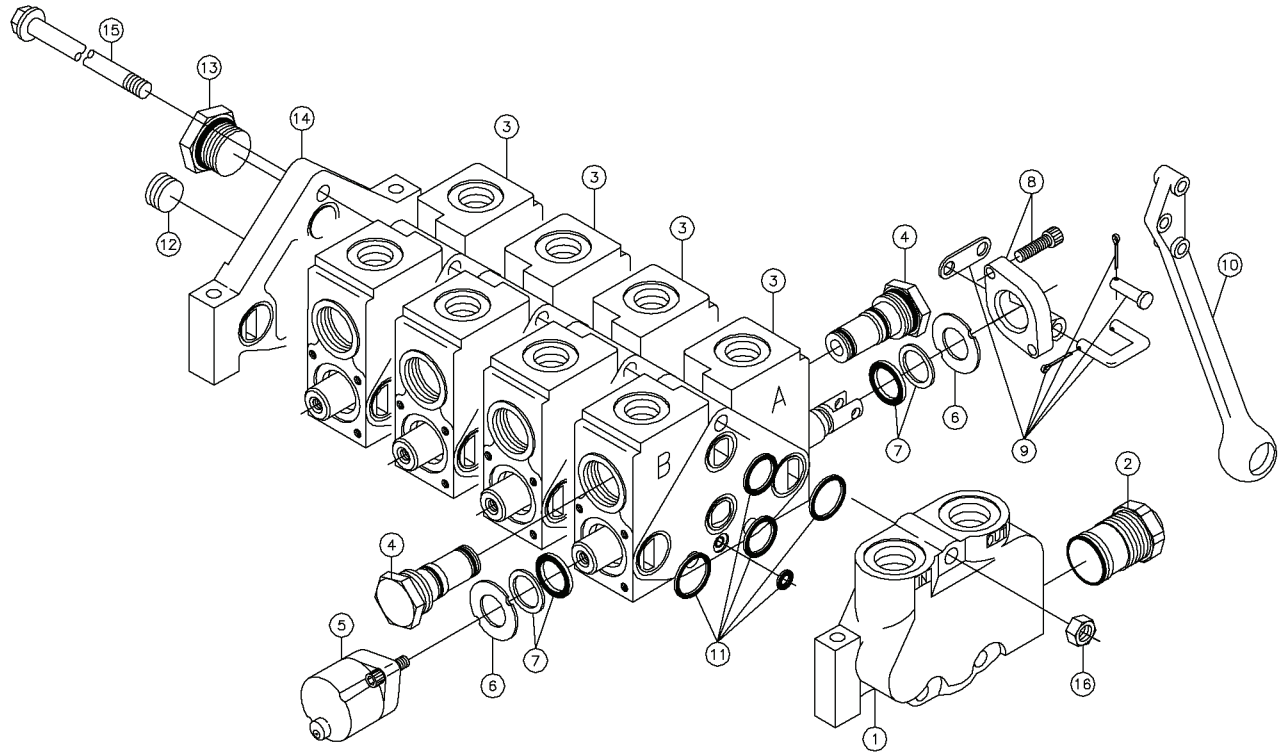
Extend Retract Fig 10-4



Extend Retract Fig 10-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279694	HOLDER-2.06 ROD	2	
2		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	4	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	38	
4		282642001	MAGNET - 1.25" ROD HOLDER	4	
5		276742001	BAR - MAGNET MOUNT	2	
6		235740001	BOLT-5/16-18X1/2 GR8 ZINC PLT	6	
7		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	10	
8		276726001	BAR - ROW SELECTOR	2	
9		296268957	PLATE - SENSOR MOUNT	2	
10		75383001	NUT-1/2-UNC GR.8 JAM HEX	4	
11		485025	WASHER-1/2 FLAT-HARDENED-YZ	16	
12		235744001	BOLT-1/2-13X2 3/4 GR8 ZNC PLTD	2	
13		276721001	CYLINDER - 1" X 6 1/2" HYD.	2	
		296265559	ROD - CYLINDER	2	
		296265561	REPAIR KIT	2	
14		250529001	BOLT 3/8-16X2 1/2"GR.8 HEX	8	
15		250504001	BOLT 3/8-16 X 2 1/4"GR8 HEX Y	2	
16		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	12	
17		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	8	
18		276692001	PLATE - CAP	2	
19		276694001	BAR - SLIDE	2	
20		276693001	BAR - SLIDE	2	
21		276695001	BAR - CYLINDER BLOCK	2	
22		296275079	LIFTER - ROD	2	
23		296268958	PLATE - SENSOR TAB	2	
24		296275112	BAR - SYNCHRONIZER WELDMENT	1	
25		296275106	CAP - SYNCHRONIZER PIVOT	2	
26		480009	WASHER-7/16 S/T LOCK	4	
27		381020	BOLT-7/16-14X2 GRADE 8 HEX	4	
28		296275114	BUSHING - 1/2" X 3/4"	2	
29		296275121	LINK - ROD WELDMENT	2	
30		224291001	BALL JOINT-1/2-20 FEMALE THDS.	2	
31		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	2	
32		235724001	BOLT-1/2-13X3 GR8 HEX ZINC PLT	2	
33		3888001	NUT-1/2 N.F. HEX JAM	2	
34		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	2	
35		598001	FITTING-1/4" NF ST GREASE ZERK	2	

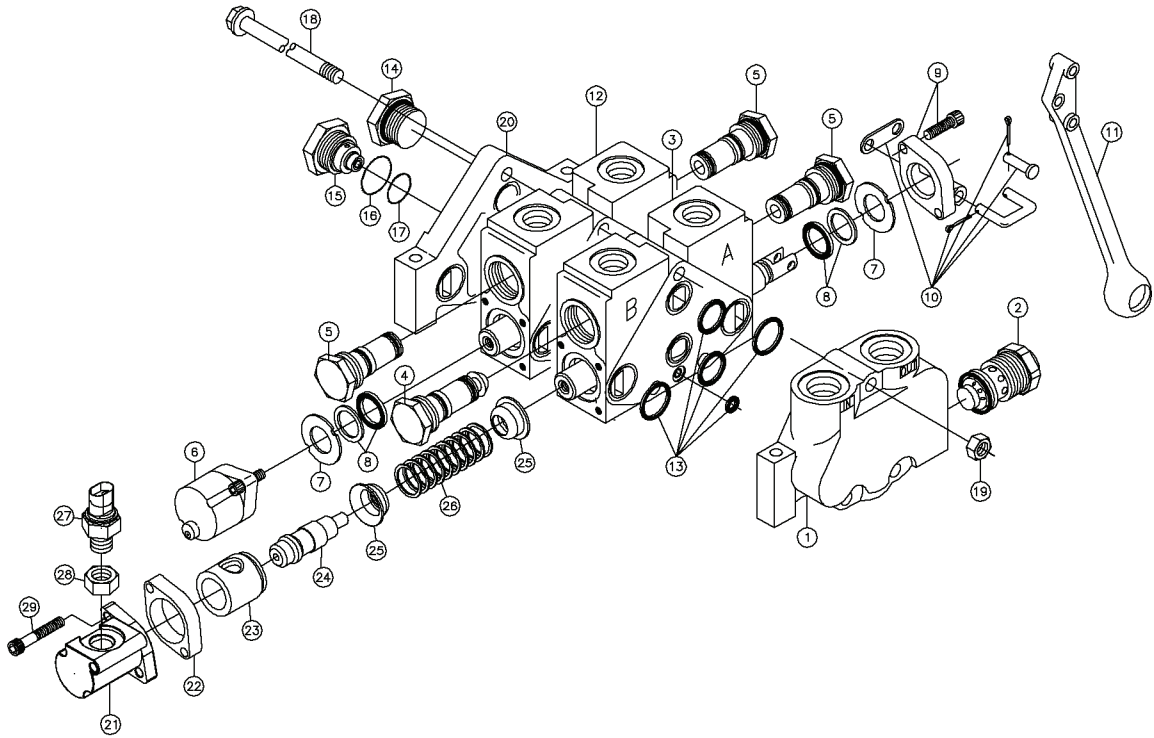
Valve - Stakedown Control Fig 11-1



Valve - Stakedown Control Fig 11-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		10867007	LEFT COVER PLATE COMPLETE	1	Inc Ref 2
2		10867003	PLUG-NO. RELIEF GRESEN K-6132	1	
		10867005	REP. KIT-NO RELF PLUG GK28062	1	
3		296265638	BODY ASSY- CENTER SECTION	1	Inc Ref 4-10
4		87396001	PLUG-LOAD CHECK	8	
		3147037	REPAIR KIT GRESEN K-6032	8	
5		6149005	POSITIONER-STD. GRESEN K-6125	4	
6		3147081	RETAIN-PLT WASH GRSN 6752-001	8	
7		3147077	REPAIR KIT GRESEN K-6035	4	Inc Two O-ring & Two B/U
8		3148003	BRACKET-HANDLE GRESEN K-6031	4	
9		296265633	KIT-LINK & PIN	4	
10		3147039	HANDLE - CP VALVE - #1802-001	4	
11		87390001	REPAIR KIT-LOAD SENSING SECT.	5	
12		3213017	PLUG-RELIEF 3/8" GRESEN 73-001	1	
13		3152011	PLUG SAE 12 GRESEN 1726-001	1	
14		245187005	COVER ASSY - RIGHT	1	
15		14173003	STUD KIT-4 SECT.GRESEN K-6107	1	Inc Ref 16
16		446001	NUT-3/8 NF HEX	3	
		296257243	VALVE - 4 - SECTION CONTROL		Inc Ref 1-16

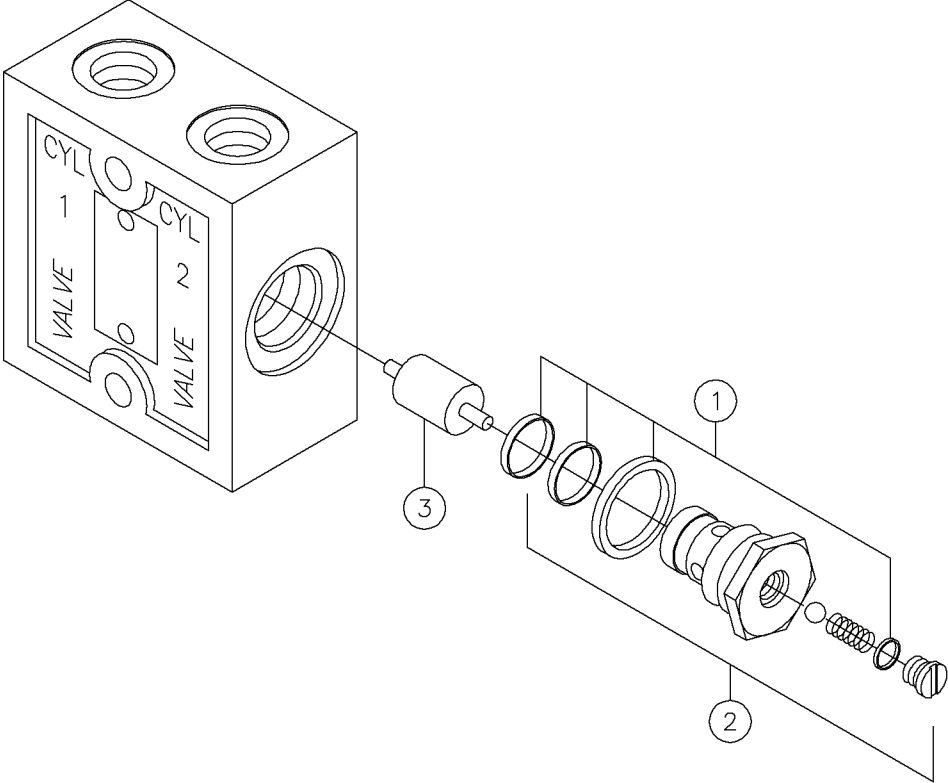
Valve - Rack Pivot Control Valve Fig 11-2



Valve - Rack Pivot Control Valve Fig 11-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265631	LEFT COVER PLATE-COMPLETE	1	Inc Ref 2
2		228113005	WH MAIN RELIEF (3500 PSI)	1	
		15844007	REPAIR KIT-K19003	1	
3		296265632	BODY ASSY- CENTER SECTION	1	Inc Ref 4-11
4		3147035	PLUG-LOAD CHECK STEEL	1	
		3147037	REPAIR KIT GRESEN K-6032	1	
5		87396001	PLUG-LOAD CHECK	3	
		3147037	REPAIR KIT GRESEN K-6032	3	
6		6149005	POSITIONER-STD. GRESEN K-6125	2	
7		3147081	RETAIN-PLT WASH GRSN 6752-001	4	
8		3147077	REPAIR KIT GRESEN K-6035	2	Inc Two O-ring & Two B/U
9		3148003	BRACKET-HANDLE GRESEN K-6031	2	
10		296265633	KIT-LINK & PIN	2	
11		3147039	HANDLE - CP VALVE - #1802-001	2	
12		296265634	BODY ASSY- CENTER SECTION	1	Inc Ref 5-11
13		87390001	REPAIR KIT-LOAD SENSING SECT.	3	
14		3152011	PLUG SAE 12 GRESEN 1726-001	1	
15		296265635	PLUG-LOAD SENSE BLEED	1	Inc Ref 16 & 17
16		3152013	SEAL-O-RING GRESEN 2708-001	1	
17		296265636	O-RING	1	
18		16358003	STUD KIT-2 SPOOL K 6-105	1	
19		446001	NUT-3/8 NF HEX	3	
20		296265637	RIGHT COVER PLATE- COMPLETE	1	Inc Ref 14-17
21		236458015	BONNET	1	
22		236458007	SPACER	1	
23		236458012	SLEEVE	1	
24		236458011	SWITCH SPUD	1	
25		236458008	SPRING COLLAR	2	
26		236458010	SPRING	1	
27		296271068	SWITCH, INTERLOCK	1	
28		236458014	HEX JAM NUT	1	
29		236458009	SCREW	2	
		296257181	VALVE - 2 - SECTION		Inc Ref 1-20

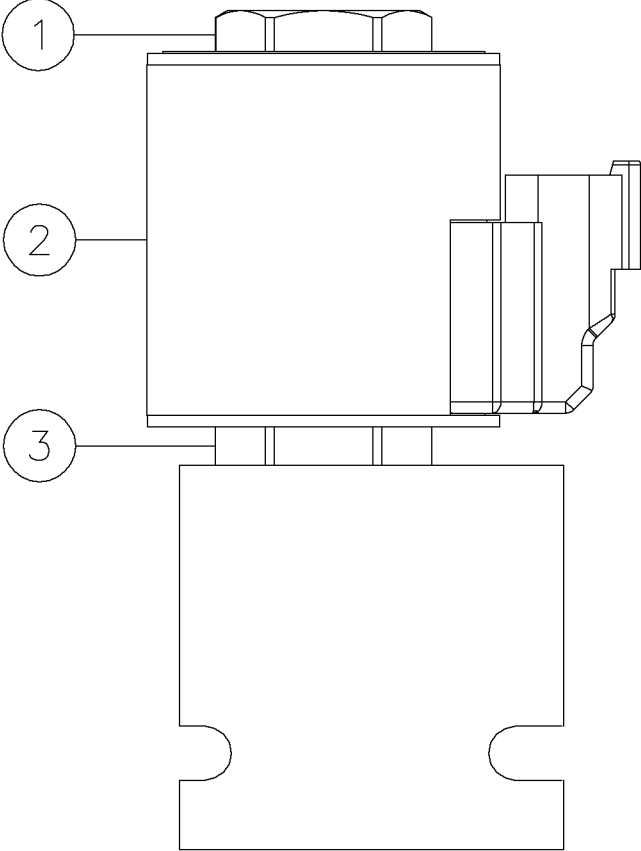
Valve - Load Fig 11-3



Valve - Load Fig 11-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		3216003	REPAIR KIT		Inc Two Of Ref 2
2		3216005	REBUILDING KIT-D		Inc Two of Ref 2 & One Of Ref 3
3		NSS	PISTON-D	1	
		86668001	VALVE-LOA-6-D		Inc All Items In Illustration
		NSS	NOT SOLD SEPARATELY		

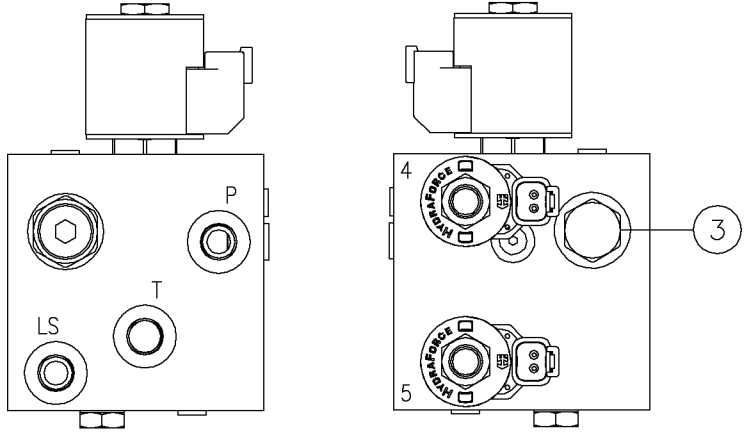
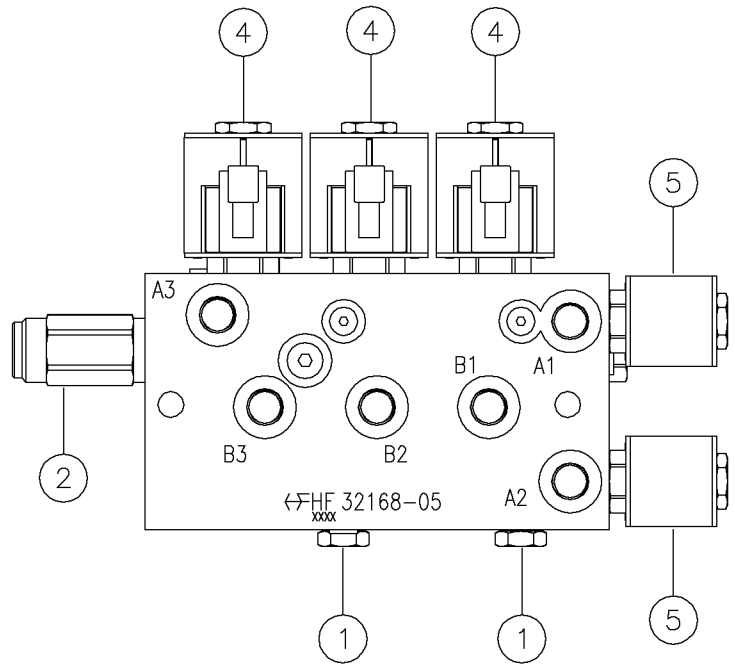
Valve - Stakedown Enable Fig 11-4



Valve - Stakedown Enable Fig 11-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265598	NUT - COIL	1	
2		296265644	COIL	1	
3		218499005	CARTRIDGE-SOLENOID	1	Inc Nut & Seal Kit
		240324005	SEAL KIT	1	
		296266539	VALVE - STAKEDOWN ENABLE		Inc All items in Figure

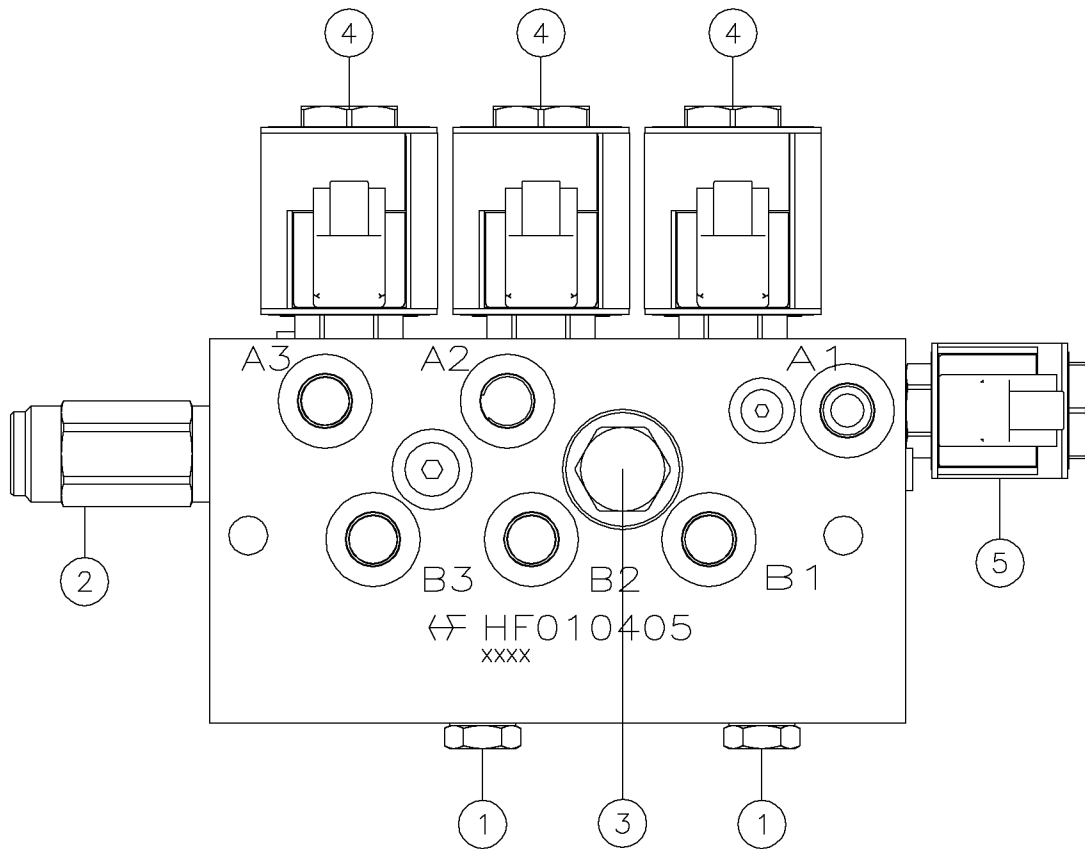
Valve - Vise Control Fig 11-5r01



Valve - Vise Control Fig 11-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		228128013	SENSE CHECK	2	
		228128015	SEAL KIT	2	
2		296276802	VALVE-PRESSURE CONTROL	1	
		296251085	SEAL KIT	1	
3		296265594	VALVE-CHECK	1	
		296265595	SEAL KIT	1	
4		296265596	CARTRIDGE-SOLENOID VALVE	3	Inc Nut & Seal Kit
		296271077	COIL	3	
		296265598	NUT-COIL	3	
		296265599	SEAL KIT	3	
5		296265600	CARTRIDGE-SOLENOID VALVE	2	Inc Nut & Seal Kit
		296271115	COIL	2	
		296265598	NUT-COIL	2	
		296265595	SEAL KIT	2	
		296266538	VALVE - VISE CONTROL		Inc All Items In Figure

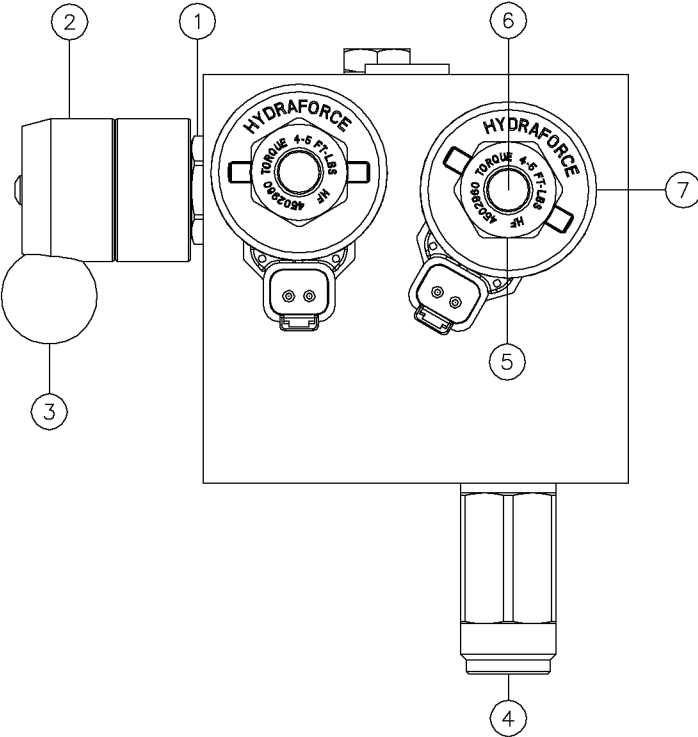
Valve - Vise Control Fig 11-5



Valve - Vise Control Fig 11-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228128013	SENSE CHECK	1	
		228128015	SEAL KIT	1	
2		296265593	VALVE-PRESSURE CONTROL	1	
		296251085	SEAL KIT	1	
3		296265594	VALVE-CHECK	1	
		296265595	SEAL KIT	1	
4		296265596	CARTRIDGE-SOLENOID VALVE	3	Inc Nut & Seal Kit
		296265597	COIL	3	
		296265598	NUT-COIL	3	
		296265599	SEAL KIT	3	
5		296265600	CARTRIDGE-SOLENOID VALVE	1	Inc Nut & Seal Kit
		296265527	COIL	1	
		296265598	NUT-COIL	1	
		296265595	SEAL KIT	1	
		296266538	VALVE - VISE CONTROL		Inc All Items In Figure

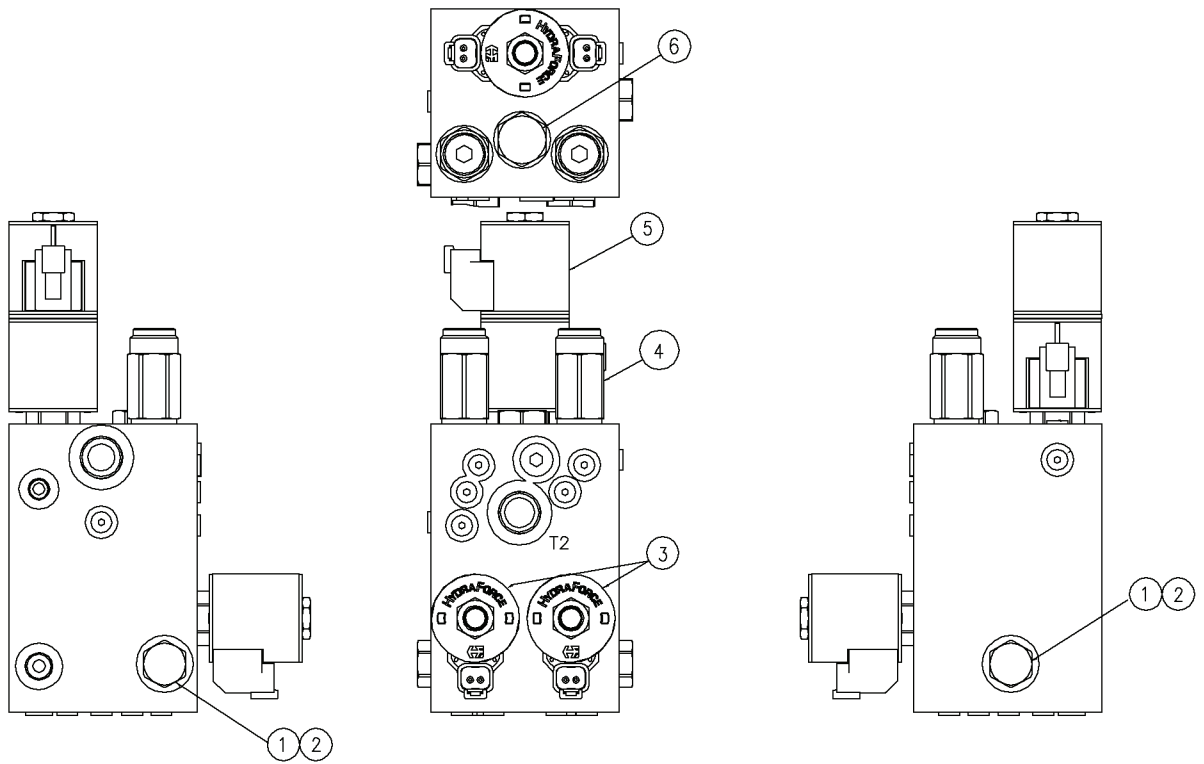
Valve - Water Control Fig 11-6



Valve - Water Control Fig 11-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2008		Change Part Number
1		296265645	FLOW CONTROL-MANUAL ROTARY	1	
		500659019	SEAL KIT-SOLENOID,SPOOL,2-WAY	1	
2		296272916	KNOB KIT	1	Inc Ref 3
3		263797001	KNOB-BALL	1	
4	*	296302416	CARTRIDGE	1	
		251117013	SEAL KIT	1	
5		296265598	NUT - COIL	2	
6		218499005	CARTRIDGE-SOLENOID	2	Inc Nut & Seal Kit
		240324005	SEAL KIT	2	
7		296265644	COIL	2	
		296257420	VALVE - WATER CONTROL		Inc All Items In Figure

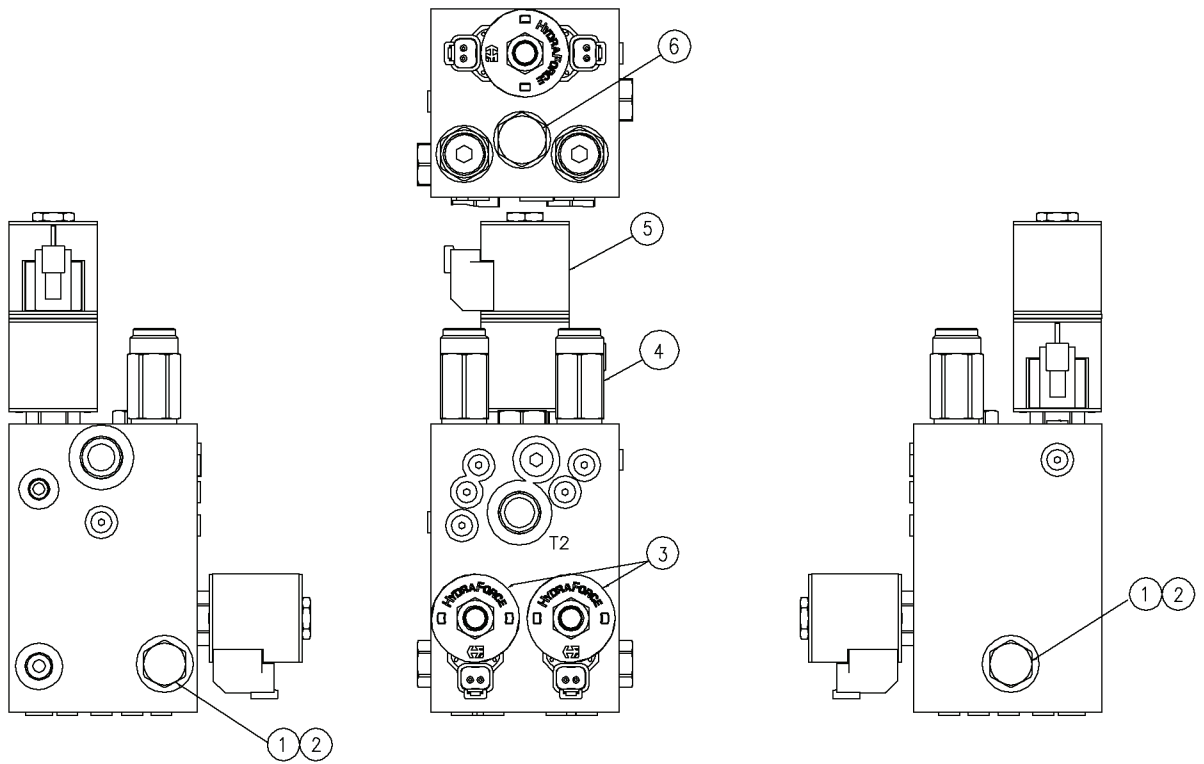
Valve - Rod Loader Fig 11-7r01



Valve - Rod Loader Fig 11-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		246415003	PILOT PISTON	2	
2		296271083	CHECK VALVE	2	
		296271087	SEAL KIT	1	
3		296265596	CARTRIDGE - SOLENOID VALVE	2	
		296271077	COILS	2	
4		296271084	SEQUENCING VALVE	2	
		296285165	OFICE	2	
		296271088	SEAL KIT	2	
5		296271086	SOLENOID VALVE	1	
		296271077	COILS	2	
		296265599	SEAL KIT	1	
6		296271085	CAVITY PLUG	1	
		296271089	SEAL KIT	1	
		296272080	VALVE - ROD LOADER SPLIT T LINE		Inc All Items In Figure

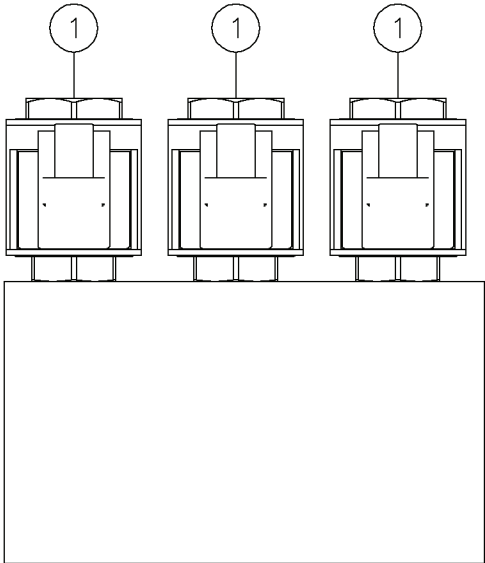
Valve - Rod Loader Fig 11-7



Valve - Rod Loader Fig 11-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		246415003	PILOT PISTON	2	
2		296271083	CHECK VALVE	2	
		296271087	SEAL KIT	1	
3		296265596	CARTRIDGE - SOLENOID VALVE	2	
		296271077	COILS	2	
4		296271084	SEQUENCING VALVE	2	
		296271088	SEAL KIT	1	
5		296271086	SOLENOID VALVE	1	
		296271077	COILS	2	
		296265599	SEAL KIT	1	
6		296271085	CAVITY PLUG	1	
		296271089	SEAL KIT	1	
		296272080	VALVE - ROD LOADER SPLIT T LINE		Inc All Items In Figure

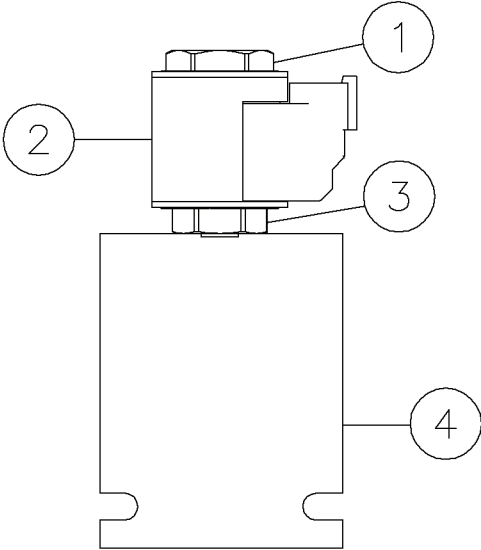
Valve - Pivot Control Fig 11-8



Valve - Pivot Control Fig 11-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		161158001	SPOOL-3 WAY	3	Inc Nut & Seal Kit
		296265527	COIL	3	
		296256598	NUT-COIL	3	
		161159001	SEAL KIT	3	
		296257416	VALVE - PILOT CONTROL		Inc All Items In Figure

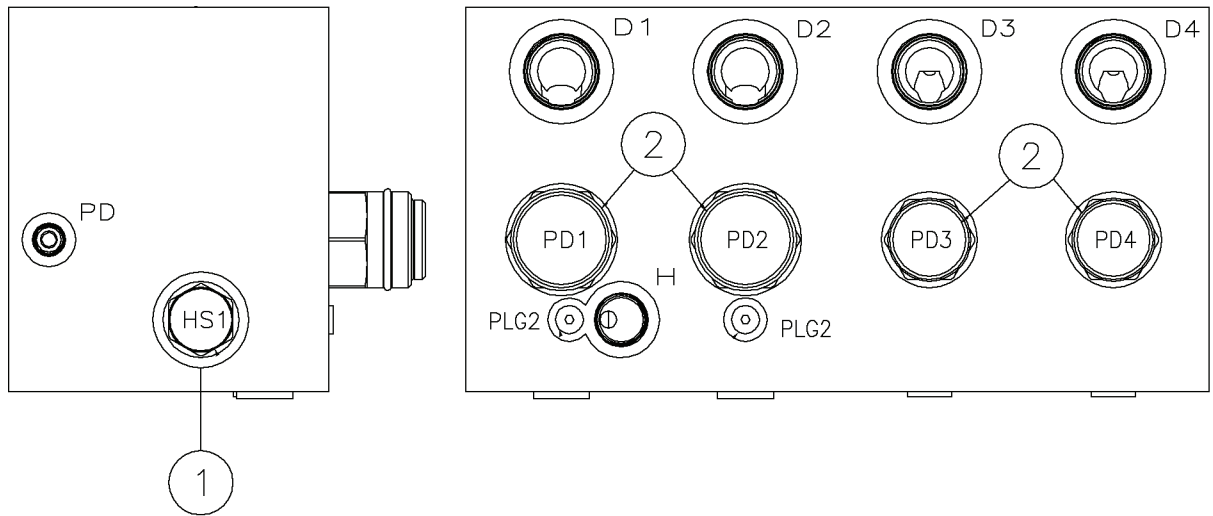
Valve - Greaser Fig 11-9



Valve - Greaser Fig 11-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265526	NUT-COIL	1	
2		296265527	COIL	1	
3		244725009	CARTRIDGE - SOLENOID	1	
		244725011	SEAL KIT	1	
4		NSS	BLOCK	1	
		294901001	VALVE - GREASER	1	Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

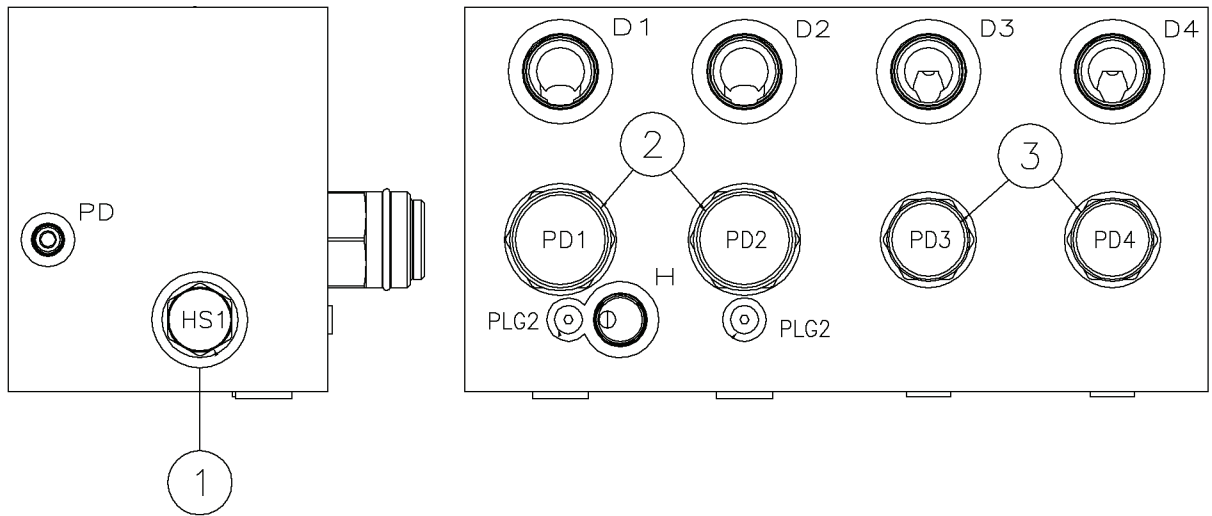
Valve - Thrust/Transport Fig 11-10r01



Valve - Thrust/Transport Fig 11-10r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		251117003	SHUTTLE - HOT OIL (SPRINGLESS)	1	
2		296251267	VALVE-PILOTED 3 WAY EXT-VENT	4	
		296251045	SEAL KIT-DIVERTER VALVE	4	
		296273259	VALVE - THRUST / TRANSPORT	1	Inc All Items In Figure

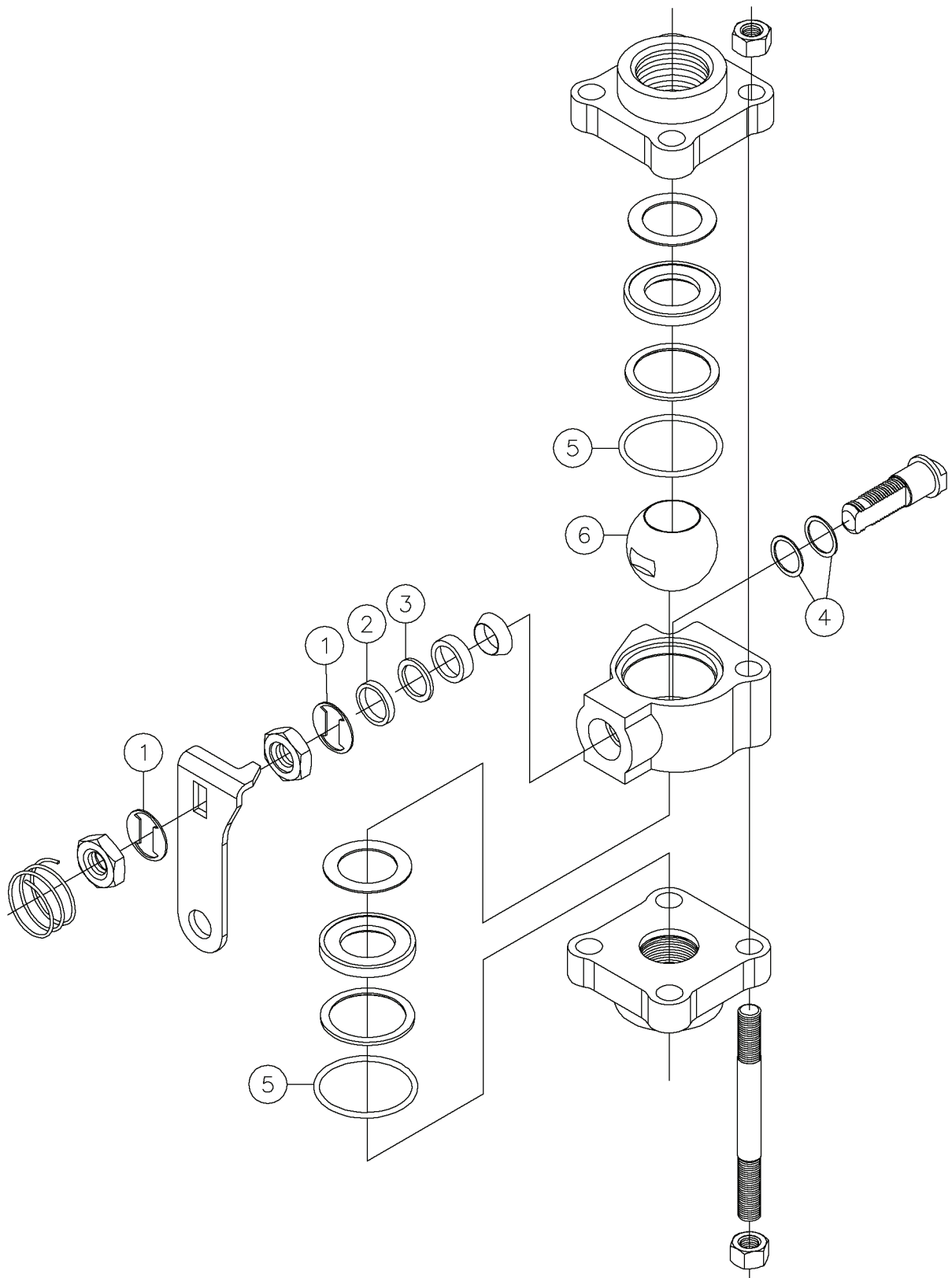
Valve - Thrust/Transport Fig 11-10



Valve - Thrust/Transport Fig 11-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251117003	SHUTTLE - HOT OIL (SPRINGLESS)	1	
2		296251267	VALVE-PILOTED 3 WAY EXT-VENT	2	
		296251045	SEAL KIT-DIVERTER VALVE	2	
3		296251272	VALVE-PILOTED 3 WAY SPOOL-EXT.VENT	2	
		279112001	SEAL KIT	2	
		278291001	VALVE - THRUST / TRANSPORT	1	Inc All Items In Figure

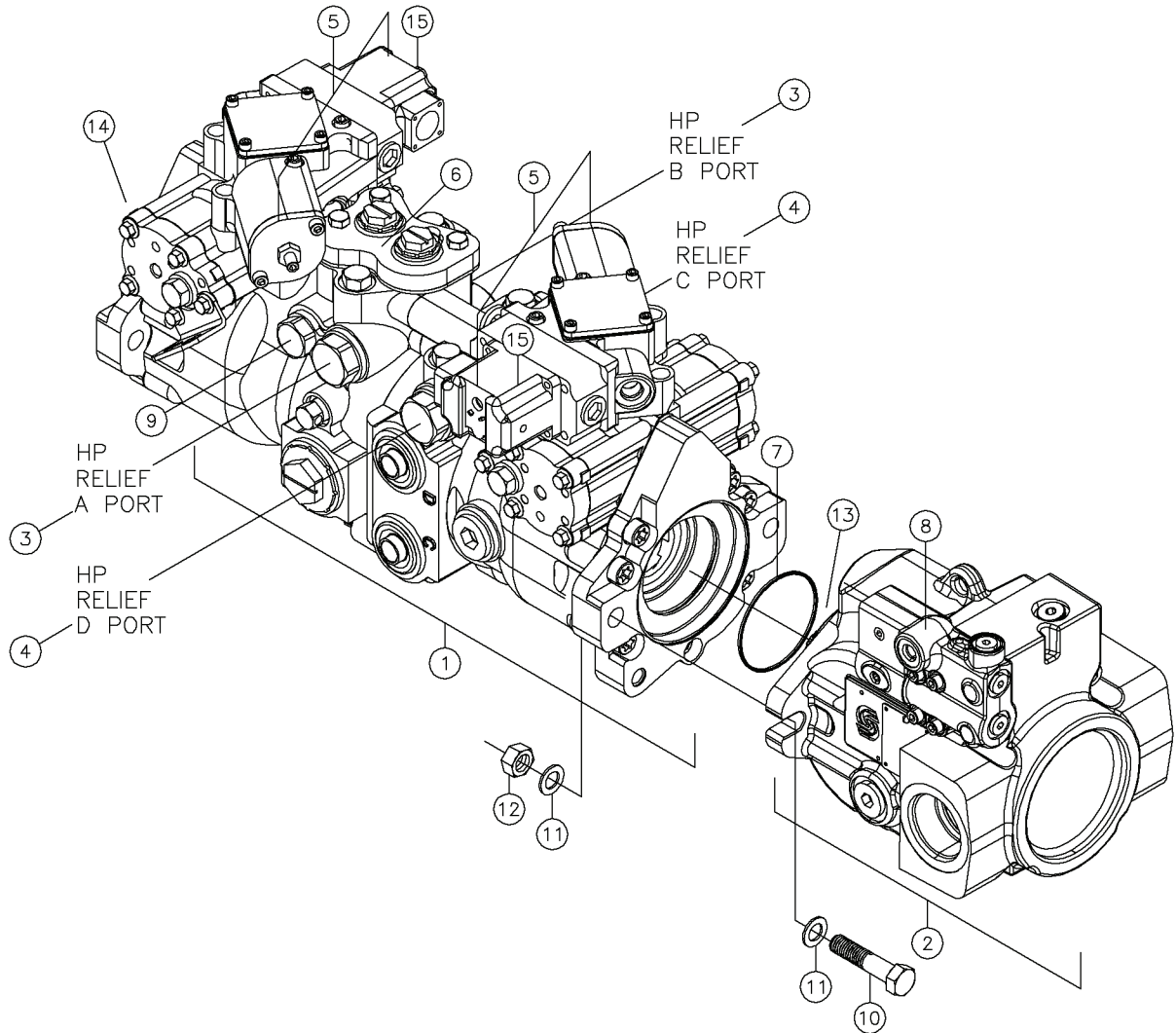
Valve - Water Shutoff Fig 11-11



Valve - Water Shutoff Fig 11-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	STEM SPRING	2	
2		NSS	GLAND	1	
3		NSS	PACKING SUPPORT	1	
4		NSS	BEARING - STEM	2	
5		NSS	O-RING	2	
6		245079025	BALL	1	
		245079039	KIT-MAINTENANCE		Inc Ref 1-5
		278003001	VALVE - 1" 1500 PSI BRASS BALL		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

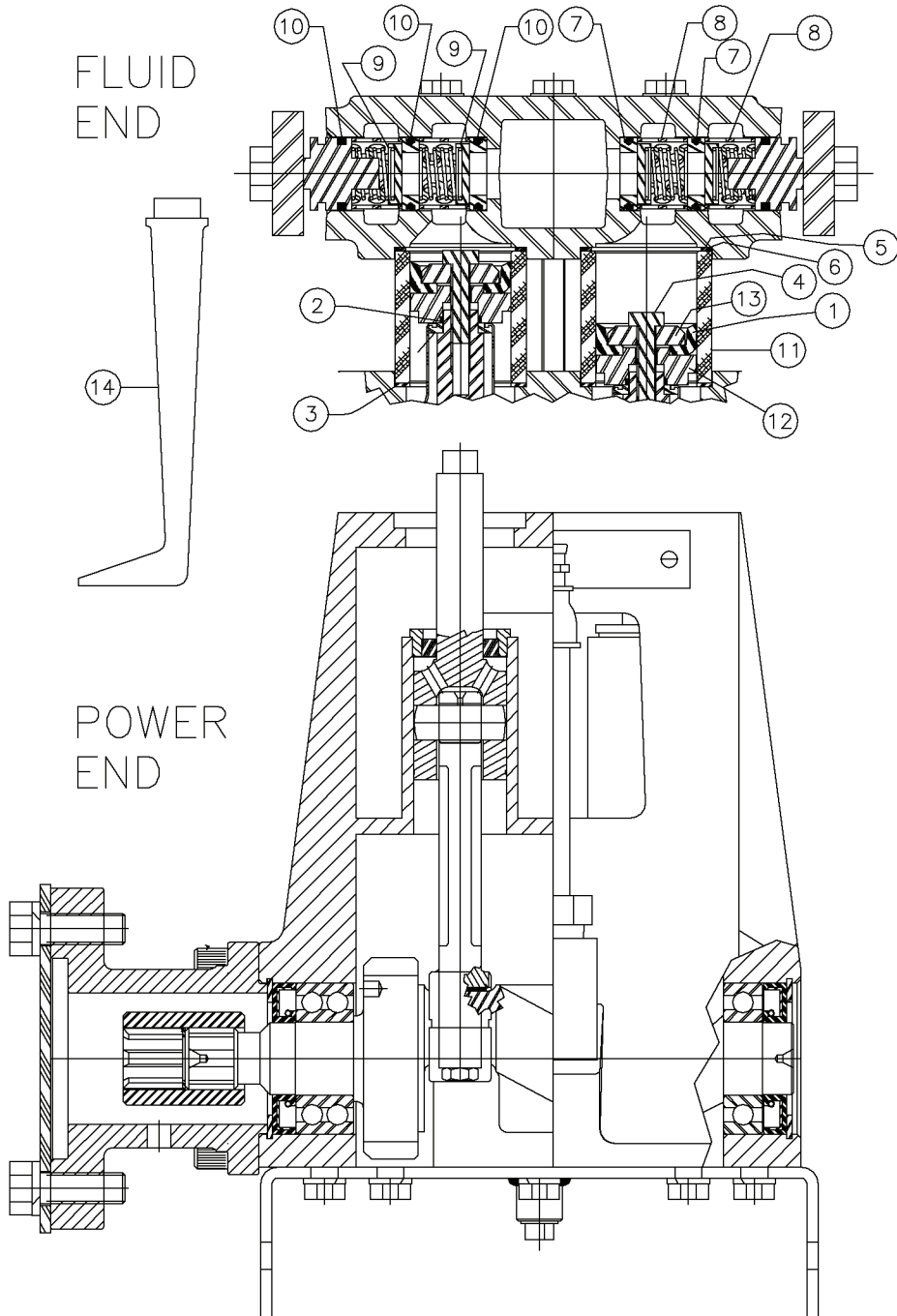
Pump - Tandem Hydro/Pfc Fig 11-12



Pump - Tandem Hydro/Pfc Fig 11-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265579	PUMP-40 SERIES	1	
2		296265580	PUMP-45 SERIES 25CC	1	
3		296265581	RELIEF VALVE-HP 210/3045	2	
		78518037	O-RING	1	
4		296265582	RELIEF VALVE-HP 230/3335	2	
		78518037	O-RING	3	
5		296265583	CONTROLLER-EDC	2	
		85642027	O-RING	2	Qty Per Controller
		296265584	O-RING	1	Qty Per Controller
		68859045	SCREW	2	Qty Per Controller (Long)
		205305001	BOLT	2	Qty Per Controller (Short)
6		296265585	FILTER ADAPTER SEAL REMOTE	1	
		296265586	O-RING	3	
7		296265587	O-RING-B PAD	1	
8		296265588	COMPENSATOR	1	
		296265589	O-RING	4	
		254674047	SCREW	4	
9		113080029	CHARGE RELIEF VALVE	1	
		113080027	CHARGE RELIEF VALVE SPRING	1	
		113080023	O-RING	1	
10		235744001	BOLT-1/2-13X2 3/4 GR8 ZNC PLTD	2	
11		485025	WASHER-1/2 FLAT-HARDENED-ZINC	4	
12		235731001	NUT-1/2-13 GR8 ZINC PLTD	2	
13		296265590	SEAL-SHAFT	1	
14		70027003	SEAL-LIP (SHAFT SEAL)	1	
15		68859151	PILOT ASSY-	1	
		296257180	PUMP - TANDEM HYDRO/PFC	1	Inc All Items In Figure

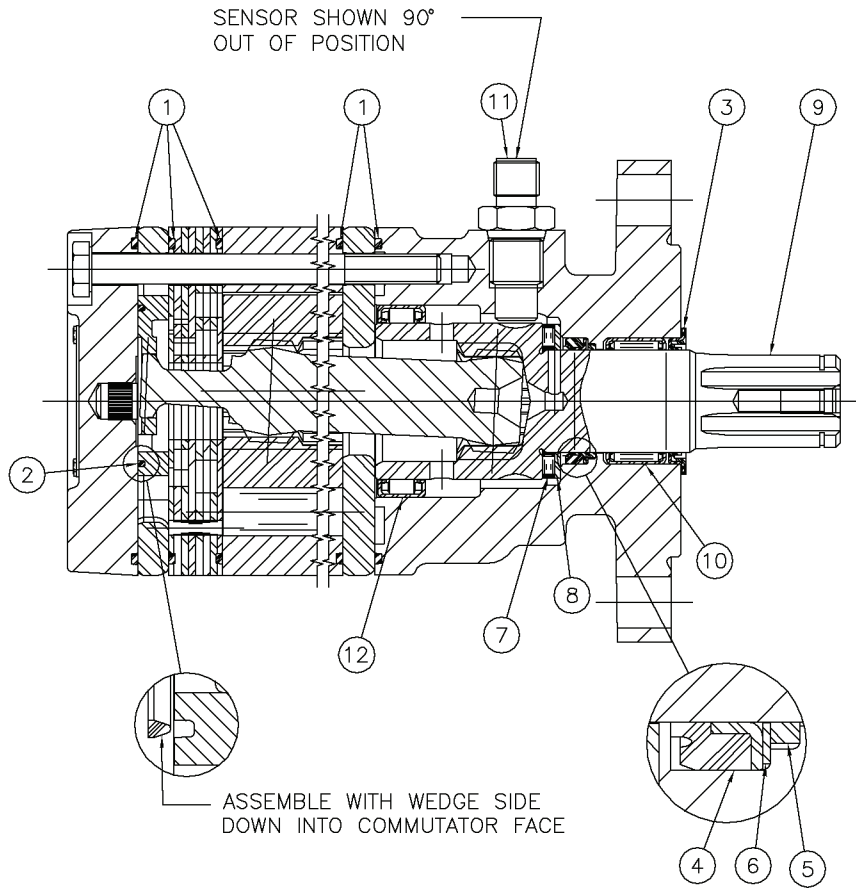
Pump - Water Fig 11-13



Pump - Water Fig 11-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Corrected Valve Kit Component List
1		NSS	PACKING 1 5/8 HSN	4	
2		NSS	O-RING-11/16 OD X9/16ID-1/16	4	
3		NSS	GASKET-CYLINDER	4	
4		NSS	CAPSCREW-HEX HD 5/16-18X1 1/2	4	
5		NSS	SEAL RING 38-5	4	
6		NSS	O-RING-2 1/8"OD X 1/16	4	
7		NSS	SEAT-VALVE	8	
8		NSS	VALVE CAGE	8	
9		NSS	DISC AND SPRING ASSEMBLY	8	
10		NSS	O-RING 1.1875 OD X .125	12	
11		224667003	CYLINDER 1 5/8	4	
12		224667005	PACKING HOLDER 1 5/8	4	
13		229367039	PACKING WASHER	4	
14		236318067	TOOL-VALVE PULLER	1	
	*	234680019	VALVE KIT		Inc Two of Ref 3-5, Four of Ref 7-9, Six of Ref 12
		234680021	PACKING KIT		Inc Two Of Ref 1,14,18 & 22-24
		236318001	PUMP - WATER		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

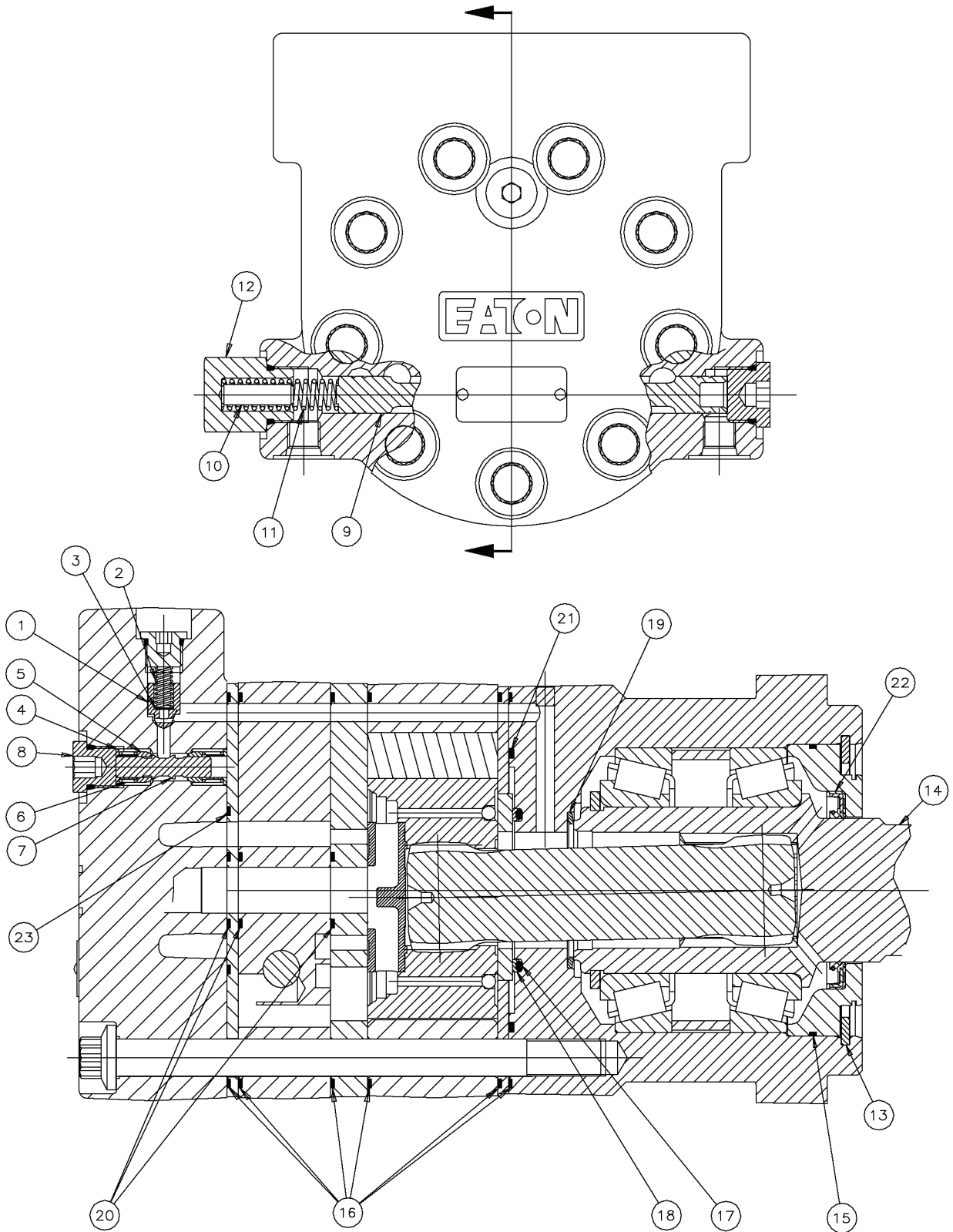
Motor - Water Pump Fig 11-14



Motor - Water Pump Fig 11-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	SEAL-RING	5	
2		NSS	BONDED RING-032435	1	
3		NSS	DIRT & WATER SEAL	1	
4		NSS	INNER SEAL	1	
5		NSS	BACKUP RING	1	
6		NSS	BACKUP WASHER	1	
7		93285027	THRUST BEARING	1	
8		296265643	WASHER-THRUST	1	
9		287506003	COUPLING SHAFT	1	
10		236317015	NEEDLE BEARING	1	
11		287506005	SENSOR	1	
12		236317011	NEEDLE BEARING	1	
		93285003	REPAIR KIT		Inc Ref 1-6
		287506001	MOTOR - ROSS MF W/ SPEED SENSOR		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

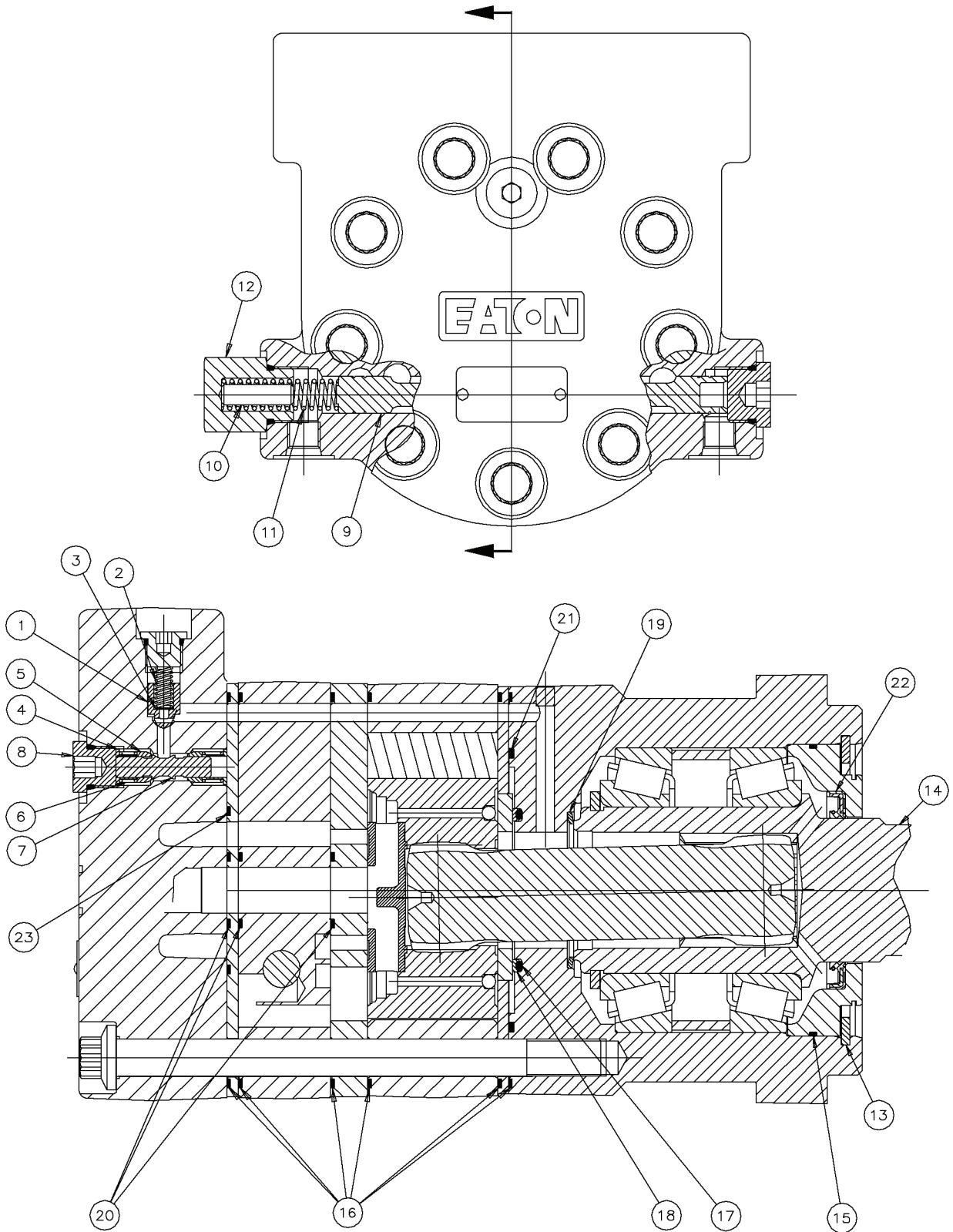
Motor - Gearbox (S/N 202-) Fig 11-15r01



Motor - Gearbox (S/N 202-) Fig 11-15r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Change Motor
1		257547015	POPPET	1	
2		257547011	SPRING	1	
3		257547013	SHIM	A/R	
4		257547003	SLEEVE,DASH POT	2	
5		257547007	POPPET	2	
6		257547005	SPRING	2	
7		257547009	PISTON,SHUTTLE	1	
8		235642017	PLUG ASSEMBLY	1	
9		296265619	SPOOL-CONTROL	1	
10		296265622	SPRING-COMPRESSION	1	
11		296265624	SPRING-COMPRESSION	1	
12		296265625	PLUG	1	
13		257547027	RING,RETAINER	1	
14		257547019	SHAFT-SUB ASS'Y	1	Inc Bearings
15		209137007	SEAL-3 3/4"ID - (O-RING)	1	
16		NSS	SEAL	6	
17		NSS	O-RING	1	
18		NSS	RING-BACK-UP	1	
19		NSS	SEAL,SHAFT FACE	1	
20		NSS	O-RING	3	
21		NSS	O-RING	1	
22		NSS	SEAL,SHAFT	1	
23		NSS	O-RING	1	
		296265628	SEAL KIT		Inc Ref 16-23
	*	296275156	MOTOR - 30.7 CU. IN. 3SPD 17T SPL		(S/N 202-) Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

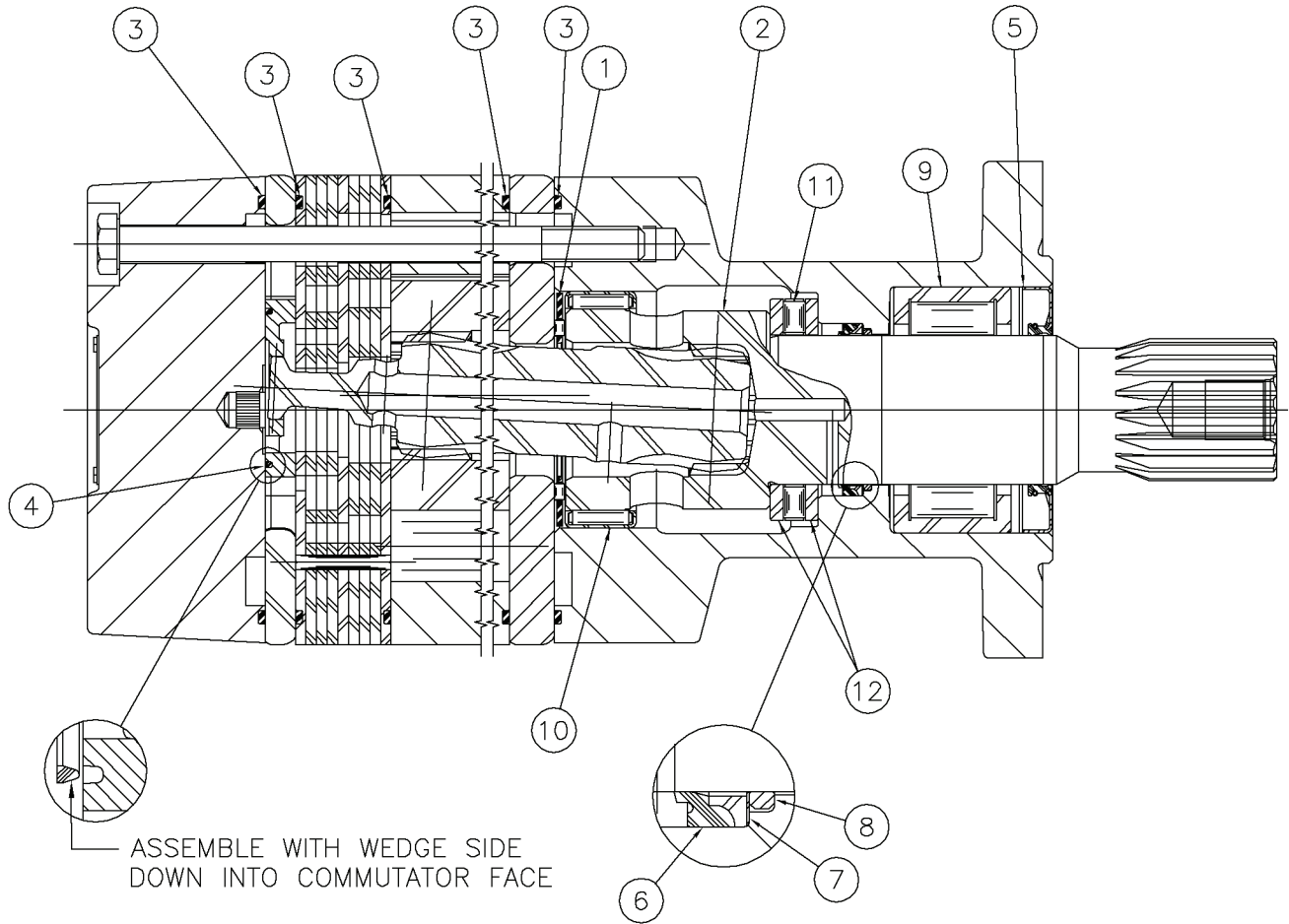
Motor - Gearbox Fig 11-15



Motor - Gearbox Fig 11-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		257547015	POPPET	1	
2		257547011	SPRING	1	
3		257547013	SHIM	A/R	
4		257547003	SLEEVE,DASH POT	2	
5		257547007	POPPET	2	
6		257547005	SPRING	2	
7		257547009	PISTON,SHUTTLE	1	
8		235642017	PLUG ASSEMBLY	1	
9		296265619	SPOOL-CONTROL	1	
10		296265622	SPRING-COMPRESSION	1	
11		296265624	SPRING-COMPRESSION	1	
12		296265625	PLUG	1	
13		257547027	RING,RETAINER	1	
14		257547019	SHAFT-SUB ASS'Y	1	Inc Bearings
15		209137007	SEAL-3 3/4"ID - (O-RING)	1	
16		NSS	SEAL	6	
17		NSS	O-RING	1	
18		NSS	RING-BACK-UP	1	
19		NSS	SEAL,SHAFT FACE	1	
20		NSS	O-RING	3	
21		NSS	O-RING	1	
22		NSS	SEAL,SHAFT	1	
23		NSS	O-RING	1	
		296265628	SEAL KIT		Inc Ref 16-23
		296272101	MOTOR - 30.7 CU. IN. 3SPD 17T SPL		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

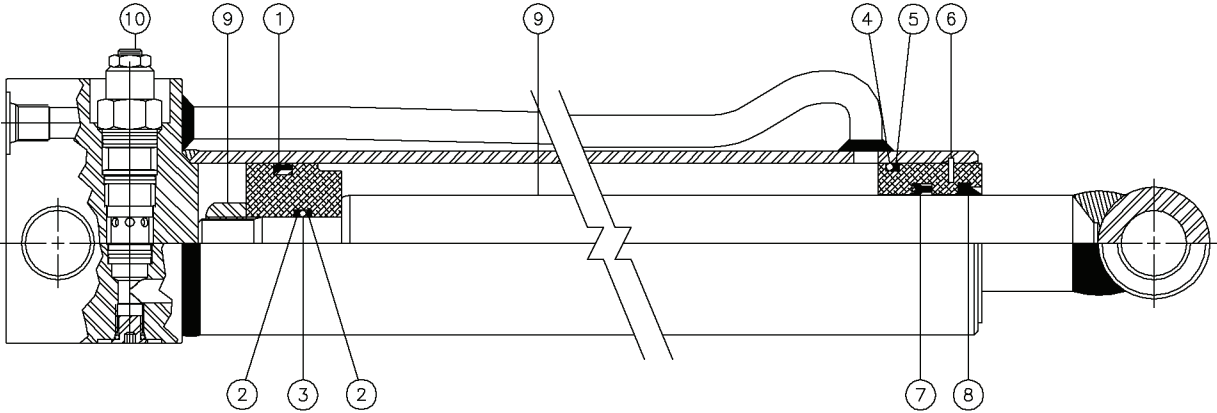
Motor - Carriage/Stakedown Fig 11-16



Motor - Carriage/Stakedown Fig 11-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		88759021	BEARING-THRUST	1	
2		296265564	SHAFT-COUPLING	1	
3		NSS	SEAL RING	5	
4		NSS	SEAL-COMMUTATOR	1	
5		NSS	SEAL-D&W	1	
6		NSS	SEAL-SHAFT	1	
7		NSS	WASHER-BACKUP	1	
8		NSS	RING-BACKUP	1	
9		296265639	BEARING-FRONT RADIAL	1	
10		296265640	BEARING-REAR RADIAL	1	
11		296265641	BEARING-THRUST	1	
12		269265642	WASHER-THRUST	2	
		296265578	REPAIR KIT		Inc Ref 3-8
		296257255	MOTOR - 20.6 CU. IN. HYD.		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

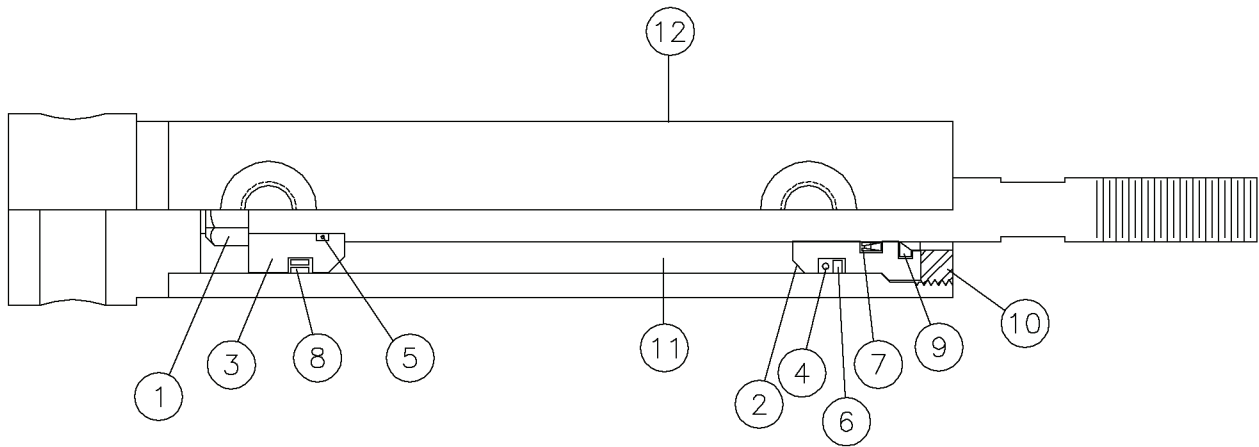
Cylinder - Outrigger Fig 11-17



Cylinder - Outrigger Fig 11-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	SEAL-PSP	1	
2		NSS	BACK-UP RING	2	
3		NSS	O-RING	1	
4		NSS	O-RING	1	
5		NSS	BACK-UP RING	1	
6		NSS	SNAP RING-INTERNAL	1	
7		NSS	U-CUP-LOADED	1	
8		NSS	WIPER-ROD	1	
9		296265545	ROD ASSEMBLY	1	
10		278769023	VALVE- CBCA-LHN	1	
		278769021	REPAIR KIT	1	For CBCA-LHN
		296265542	REPAIR KIT		Inc Ref 1-8
		296257190	CYLINDER - 2.5 X 32 HYD		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

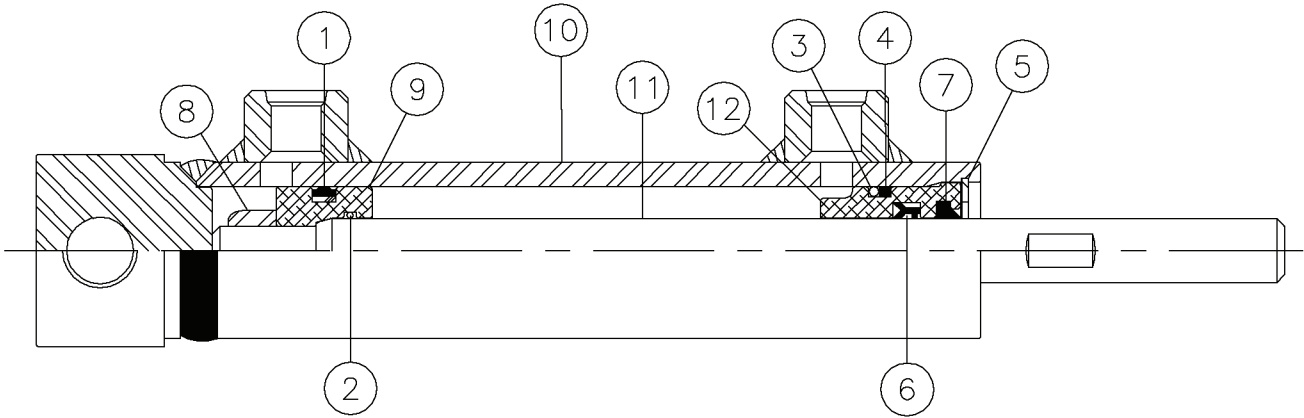
Cylinder - Water Shutoff (S/N 244-) Fig 11-18r01



Cylinder - Water Shutoff (S/N 244-) Fig 11-18r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1			NUT	1	
2			HEAD	1	
3			PISTON	1	
4			O-RING	1	
5			O-RING	1	
6			BACKUP	3	
7			BS SEAL	1	
8			PSP SEAL	1	
9			DUST SEAL	1	
10			COLLAR	1	
11		296285210	SHAFT	1	
12			BARREL W/CLEVIS AND PORTS	1	
	*	296285658	CYLINDER		(S/N 244-) Inc. All Items In Figure
		296285211	SEAL KIT		Inc. Ref. 4 Thru 9

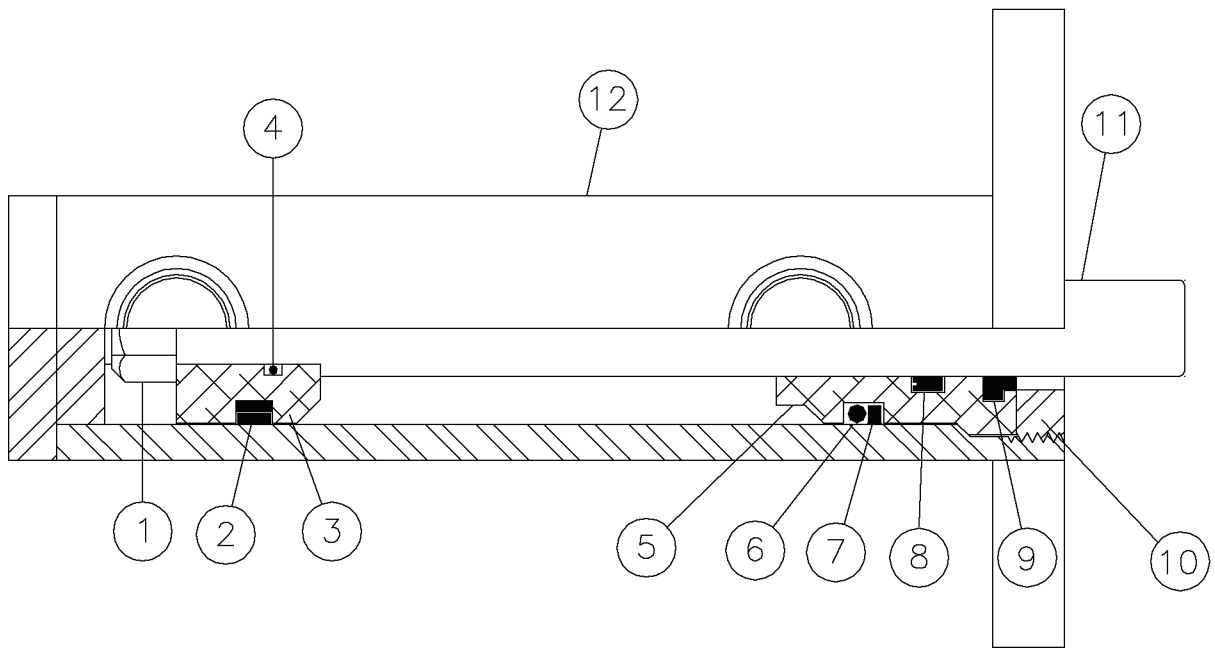
Cylinder - Water Shutoff Fig 11-18



Cylinder - Water Shutoff Fig 11-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	SEAL-PPS	1	
2		NSS	O-RING	1	
3		NSS	O-RING	1	
4		NSS	BACKUP RING	1	
5		NSS	SNAP RING-INTERNAL	1	
6		NSS	U-CLIP-DOUBLE LIP	1	
7		NSS	WIPER ROD	1	
8		296254582	LOCKNUT	1	
9		296254583	PISTON	1	
10		296254584	BARREL ASSEMBLY	1	
11		296254585	ROD ASSEMBLY	1	
12		296254586	SNAP RING HEAD	1	
				1	
		296254587	SEAL KIT		Inc Ref 1-7
		287591001	CYLINDER - 1 X 3-1/2		Inc Ref 1-12
		NSS	NOT SOLD SEPARATELY		

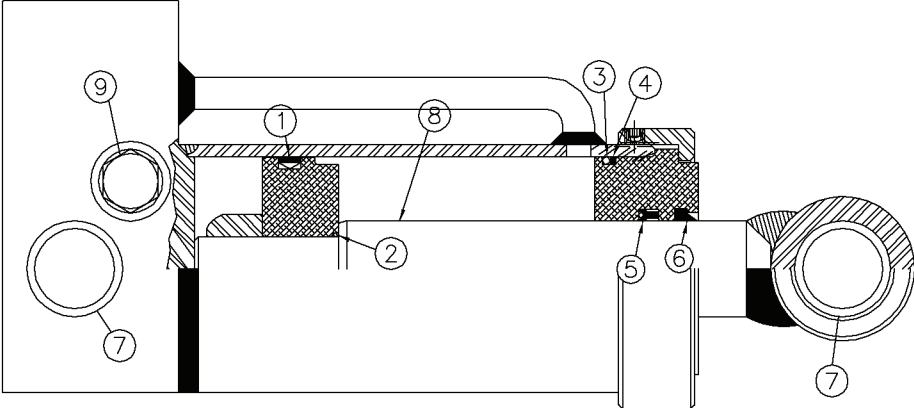
Cylinder - Auto Greaser Fig 11-19



Cylinder - Auto Greaser Fig 11-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		236113003	NUT	1	
2		NSS	PSP - SEAL	1	
3		296251772	PISTON	1	
4		NSS	O-RING	1	
5		234359007	HEAD	1	
6		NSS	O-RING	1	
7		NSS	BACKUP	1	
8		NSS	ROD SEAL	1	
9		NSS	DUST SEAL	1	
10		234359013	COLLAR	1	
11		296265525	ROD-CYLINDER	1	
12		296265524	BODY-CYLINDER	1	
		296251775	SEAL KIT	1	Inc. Ref 2,4,& 6-9
		294899001	CYLINDER - HYD 1 X 2-3/8	1	Inc. Ref 1-12
		NSS	NOT SOLD SEPARATELY		

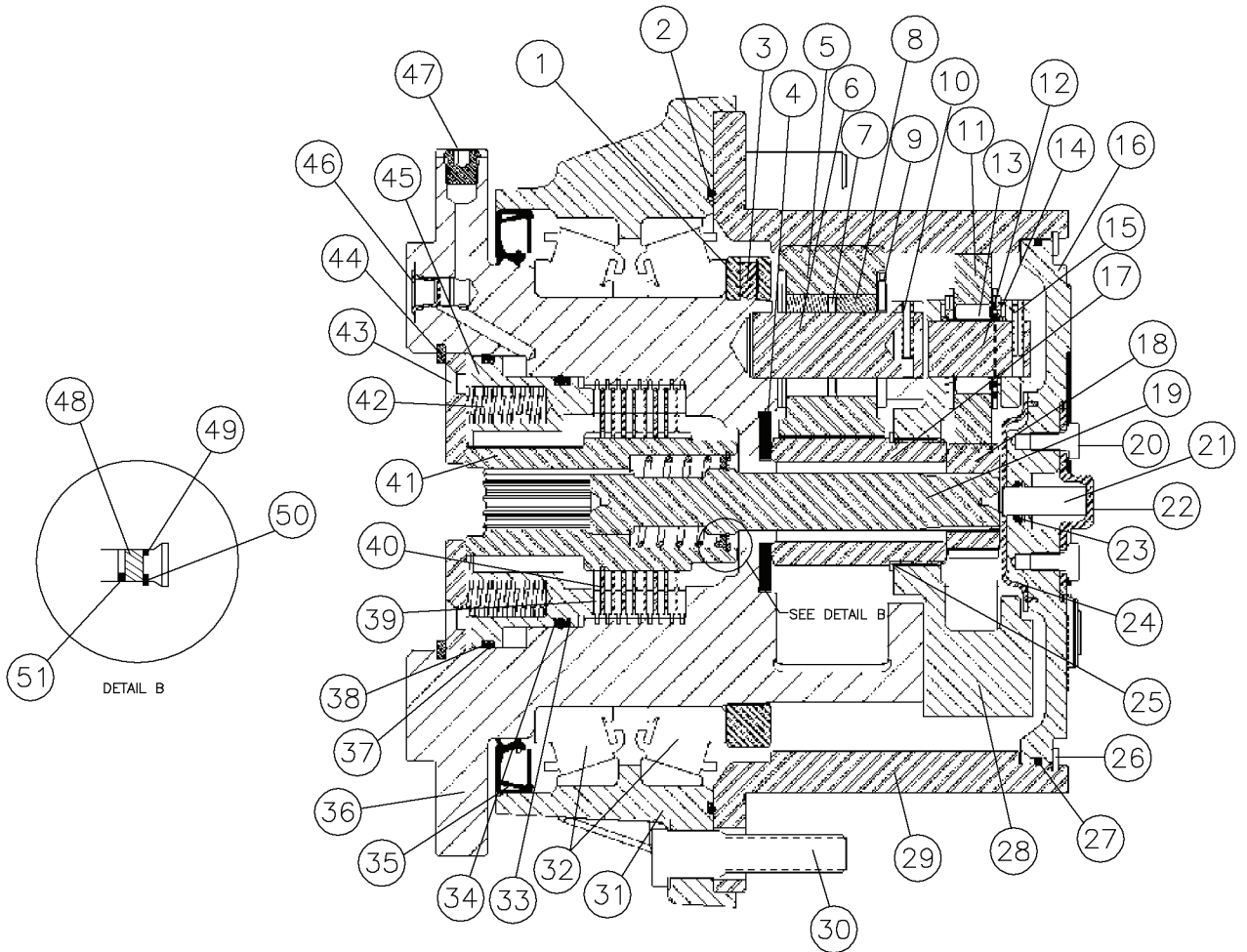
Cylinder - Rack Pivot Fig 11-20



Cylinder - Rack Pivot Fig 11-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	UNI-RING	1	
2		NSS	O-RING	1	
3		NSS	O-RING	1	
4		NSS	WASHER-BACKUP	1	
5		NSS	U-CUP	1	
6		NSS	ROD WIPER	1	
7		216772011	BUSHING-SELF LUBRICATING	4	
8		296271025	ROD ASSY	1	Inc Ref 7
9		278769019	VALVE	2	
		278769021	REPAIR KIT	2	
		94464003	REPAIR KIT-CYL.		Inc Ref 1-6
		296270800	CYLINDER-3 1/2 X 4		Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

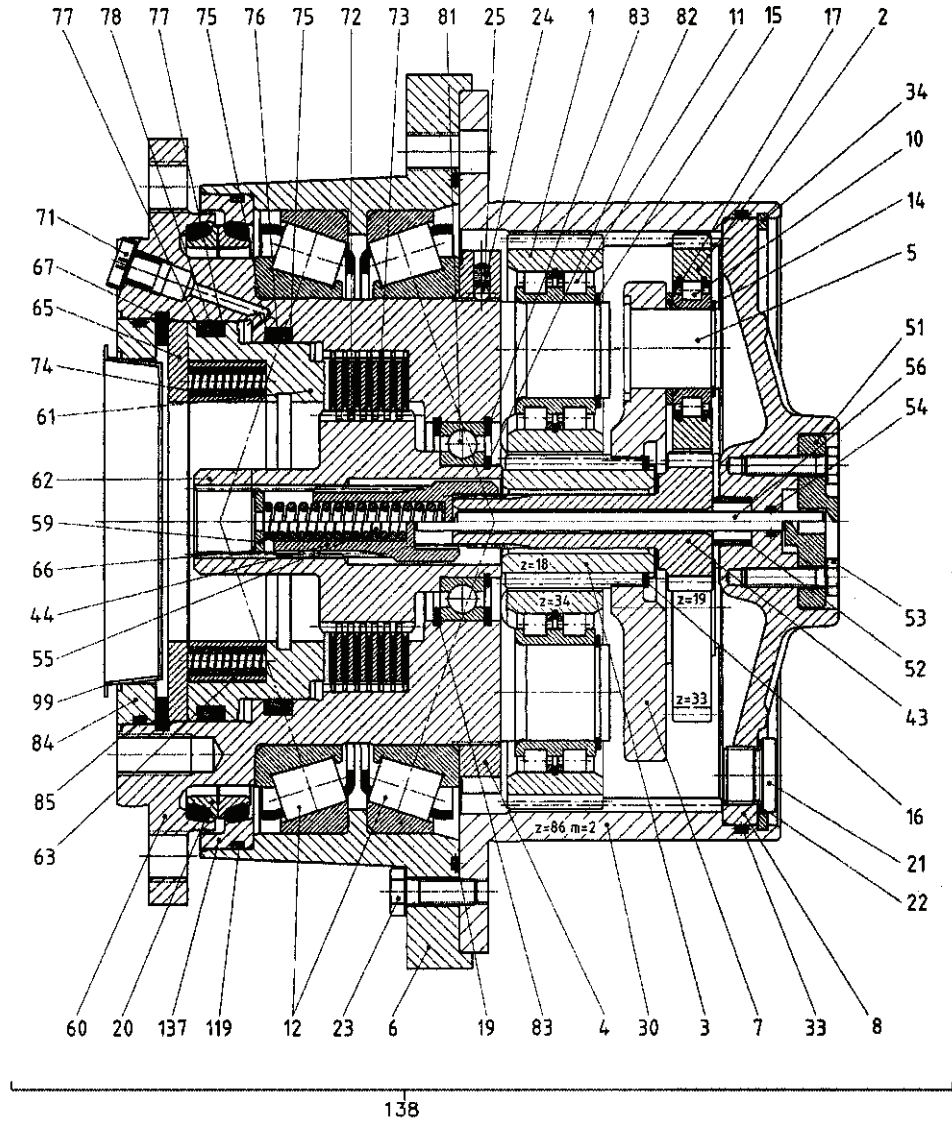
Motor - Drive Track Planetary (264-) Fig 11-21r01



Motor - Drive Track Planetary (264-) Fig 11-21r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	April, 2007		New Assy
5		296302257	PLANET ASSY	1	Inc. Ref. 7 Thru 9
16		296302258	COVER ASSY	1	Inc. Ref. 20 Thru 23
28		296302256	CARRIER ASSY	1	Inc. Ref. 10 Thru 15
41		296302254	COUPLING ASSY	1	Inc. Ref. 48, 50, And 51
45		296302259	BRAKE PISTON ASSY	1	Inc. Ref. 42 Thru 43
		296272083	PLANETARY - TRACK DRIVE	1	(S/N 264-) Inc. All Items In Figure
		296302260	SEAL KIT		

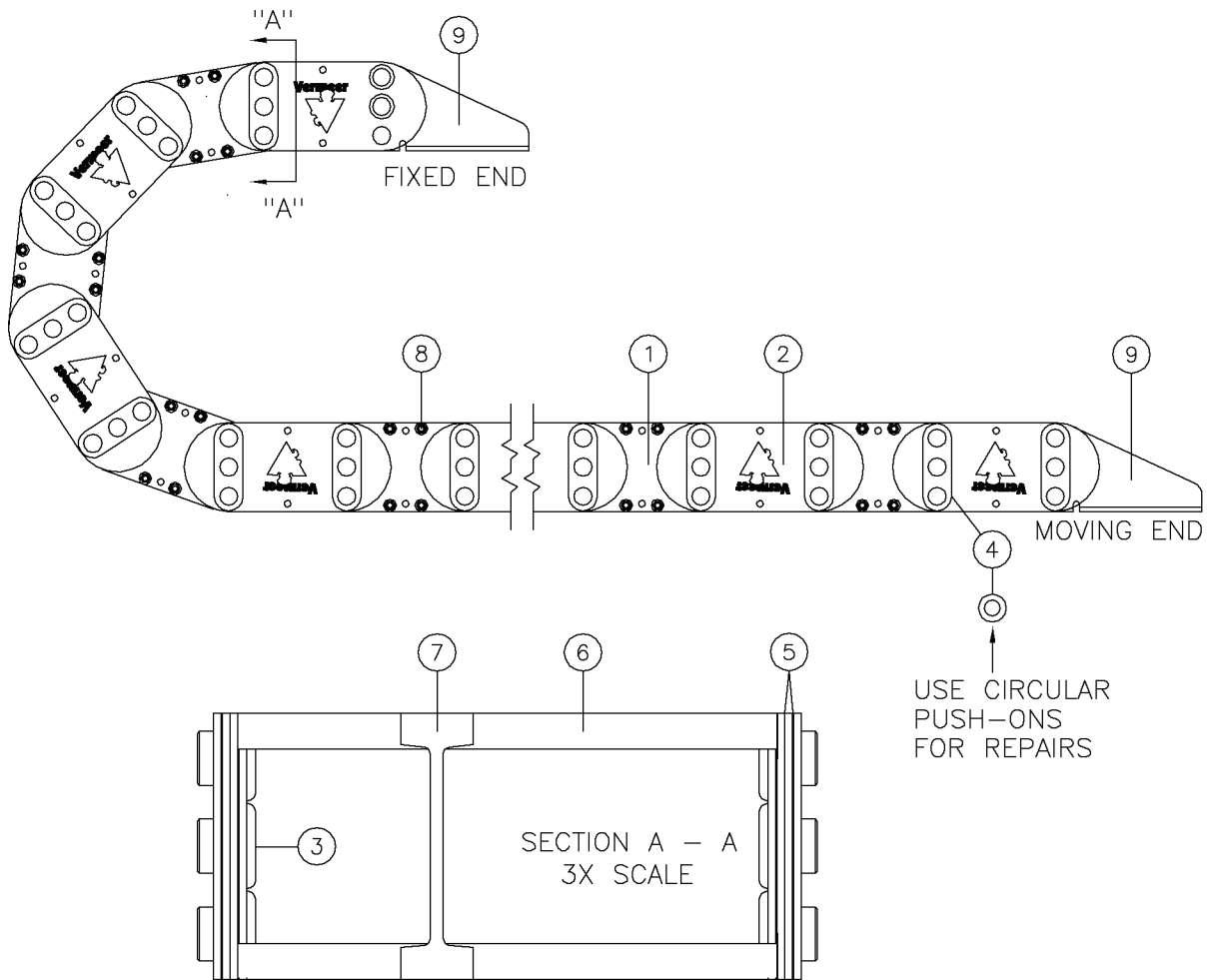
Motor - Drive Track Planetary Fig 11-21



Motor - Drive Track Planetary Fig 11-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296251907	PLANET GEAR ASS'Y	1	Inc Ref 1,11,15
2		296251908	PLANET GEAR ASS'Y	1	Inc Ref 2,10,14,17
4		296251906	KIT-BEARING	1	Inc Ref 4,12,19,20,24,25,33,119
8		296251905	KIT - COVER	1	Inc Ref 8,21,22,33,34,51-53
19		296251902	KIT - SEAL	1	Inc Ref 19,75-78
54		296251904	KIT - DISCONNECT	1	Inc Ref 53-56,59,66
61		296251903	KIT - BRAKE	1	Inc Ref 61,72-74
138		278290001	PLANETARY - TRACK DRIVE		Inc All Items In Figure

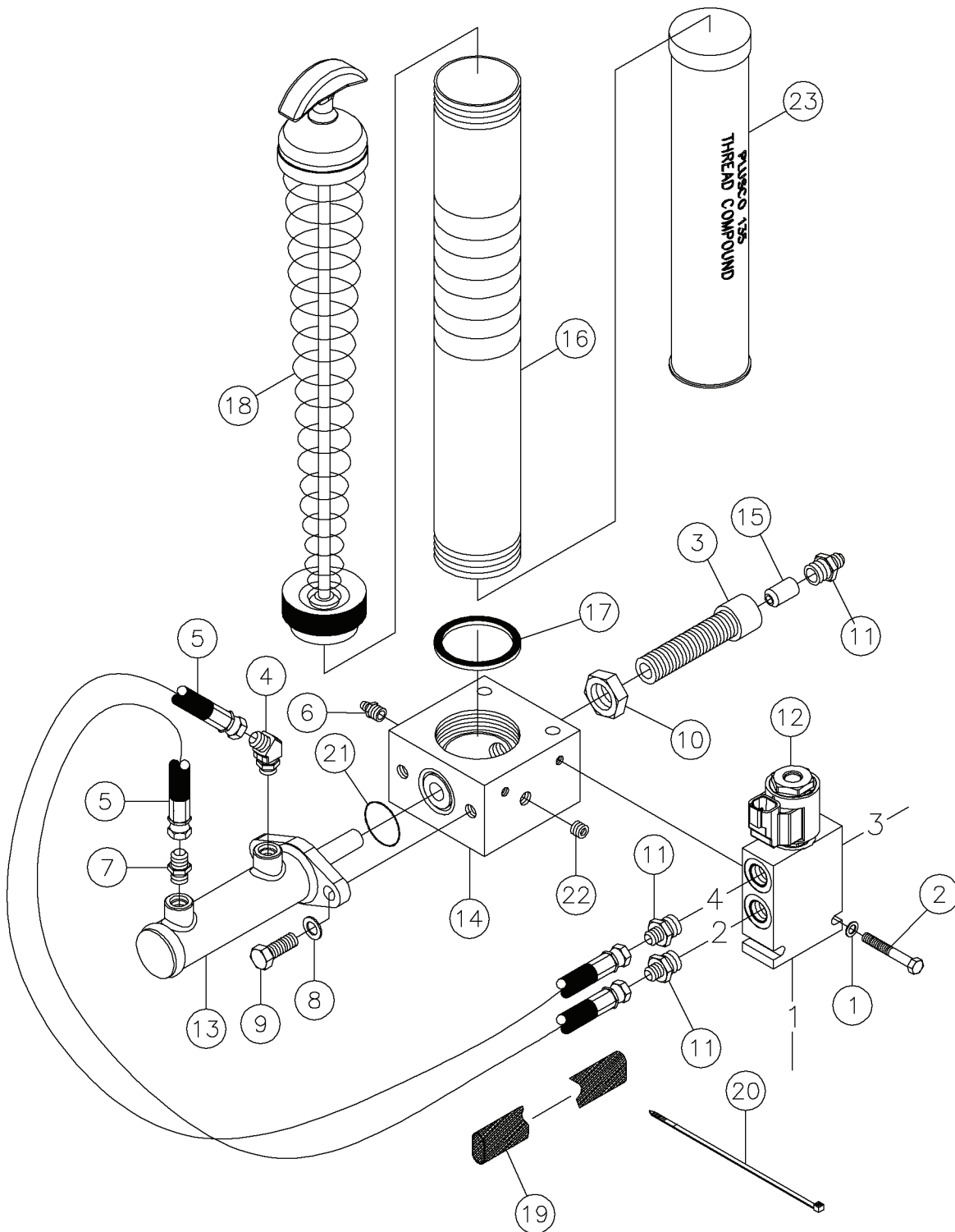
Track - Hose Carrier Fig 11-22



Track - Hose Carrier Fig 11-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265591	PT45E INNER LINK 7.5" RADIUS	48	
2		234256007	PT45E OUTER LINK W/VERMEERLOGO	52	
3		234256017	PT45E HINGE PIN-PUSH ON FASTNR	144	
4		296251021	PT45E ONE-PIECE PUSH ON	144	
5		234256011	PT45E ANTI-FRICTION DISC	104	
6		296265592	PT45E ALUMINUM CHANNEL 7.5" LG	24	
7		296251020	PT45E AC SEPERATOR	12	
8		215252017	SCREW-WHIZ LOCK	96	
9		234256003	PT45E MOUNTING BRACKET ASSY (L)	2	Shown
		234256005	PT45E MOUNTING BRACKET ASSY(R)	2	
		296257193	TRACK - HOSE		Inc Ref 1-9

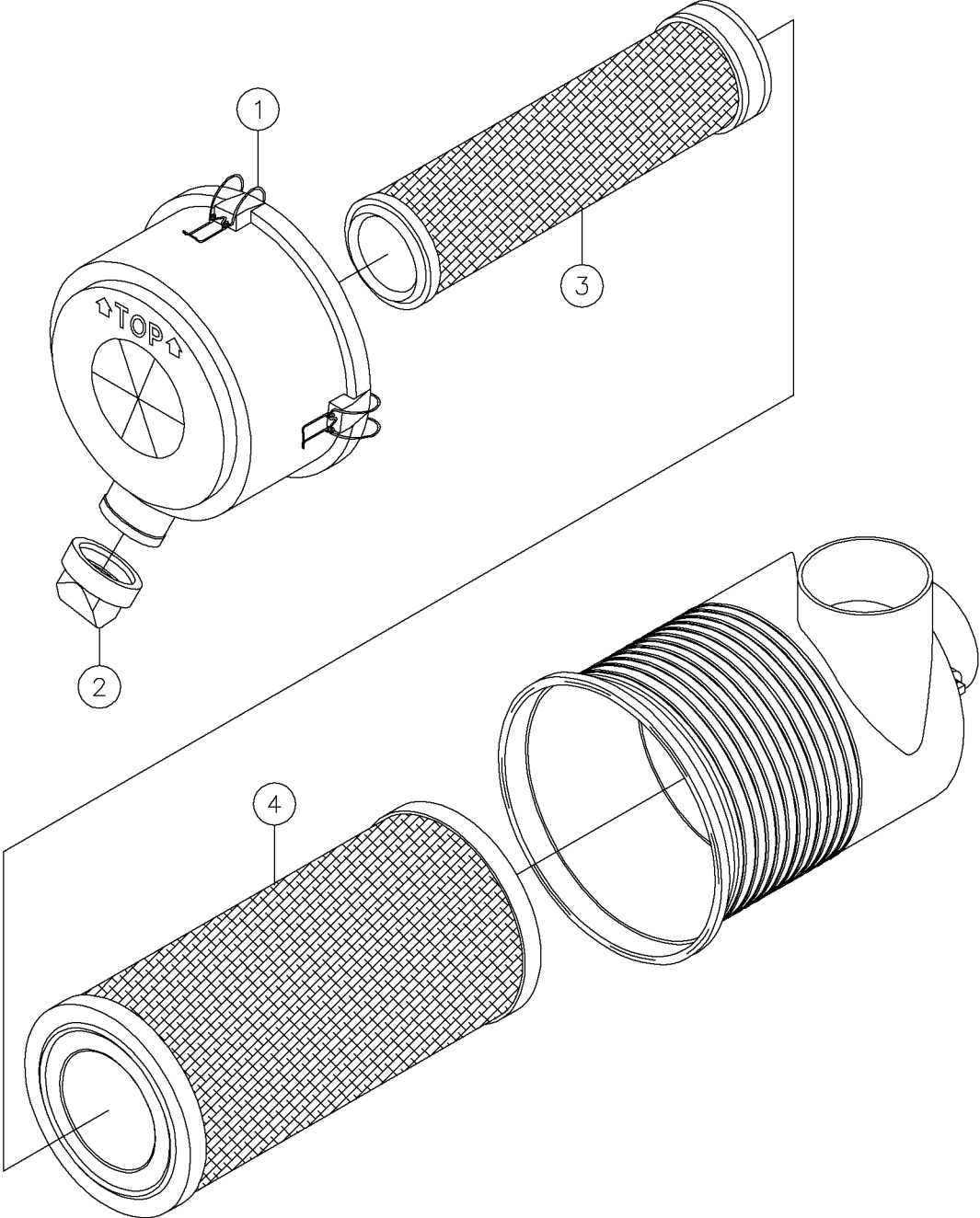
Auto Greaser Fig 11-23



Auto Greaser Fig 11-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	2	
2		248107001	BOLT-1/4-20X1 3/4 GR 8 ZINC PL	2	
3		294896001	SLEEVE - GREASE PUMP	1	
4		58295001	FITTING-4M OR X 4M JIC 45 DEG.	1	
5		53843195	HOSE-1/4X16 4FS JIC 3000 PSI	2	
6		586001	ZERK-1/8" ST NPT GREASE	1	
7		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
8		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
9		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	2	
10		456001	NUT-3/4 N.F. HEX JAM	1	
11		57968001	FITTING-STR-4MJ-6MORB	3	
12		294901001	VALVE - GREASER	1	Breakdown Fig 11-9
13		294899001	CYLINDER - HYD 1 X 2-3/8	1	Breakdown Fig 11-19
14		294895001	HOUSING - GREASE PUMP	1	
15		294905001	VALVE - INSERT CHECK, 1/2"	1	
16		294910001	TUBE - GREASE	1	
17		294902001	GASKET - GREASE TUBE	1	
18		294903001	FOLLOWER - GREASE TUBE AY	1	
19		235824001	CORDURA SLEEVE-NHS-090	A/R	
20		59634001	SINGLE NYTIE - 8"	4	
21		296262010	O-RING - 213 .139 X .921 ID	1	
22		296258613	FITTING -1/8 NPT HEX SOCKET - .25L	1	
23		296274014	THRD CMPND-PLUSCO 135-SINGLE CARTRIDGE	1	
		296274030	THREAD - COMPOUND 3/10PACKS - CARTRIDGES	A/R	
		296274031	THREAD - COMPOUND CARTRIDGE 30 PACK	A/R	
		294900001	GREASE PUMP AY - VAR DISP		Inc All Items In Figure

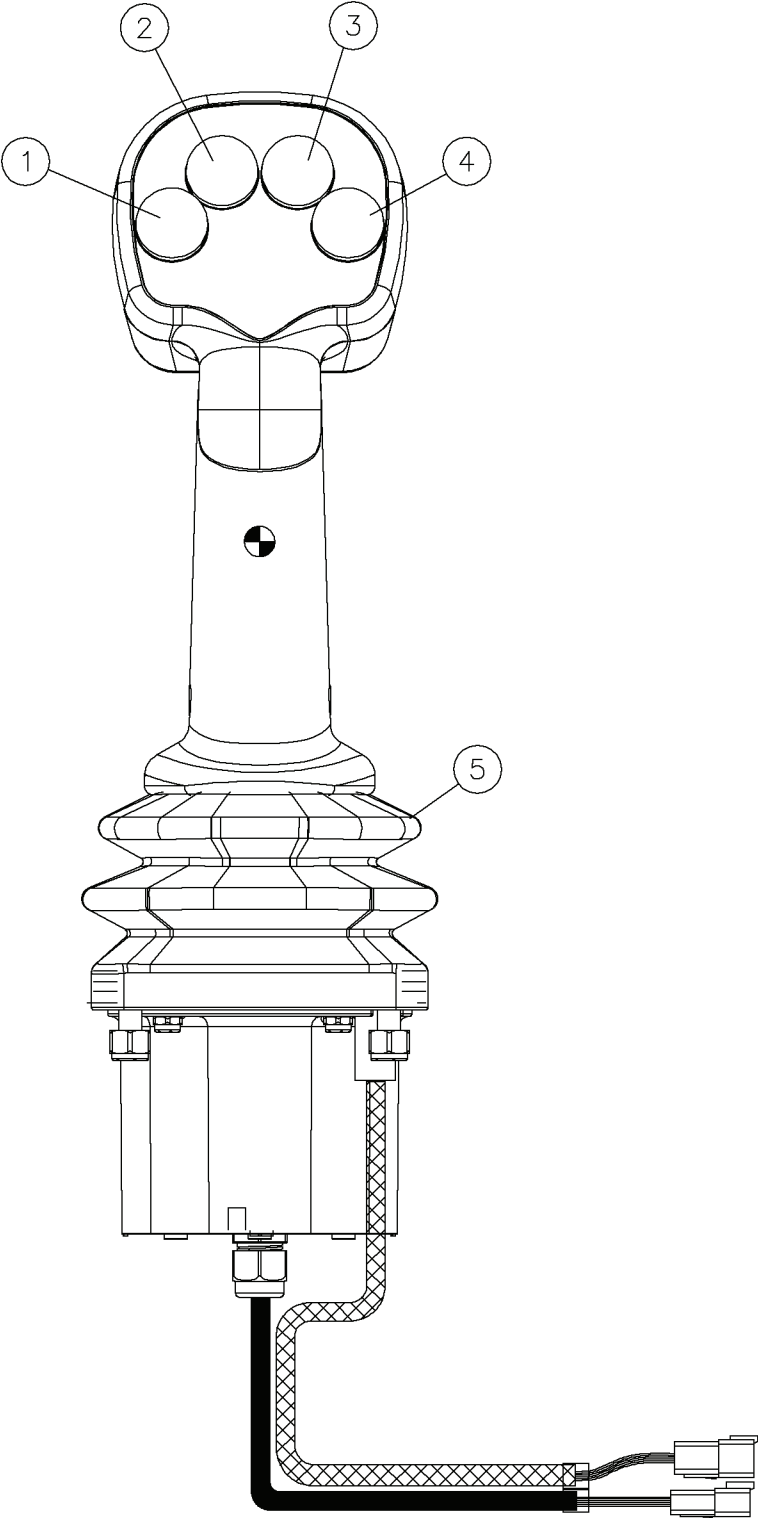
Air Cleaner Fig 11-24



Air Cleaner Fig 11-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		224285013	LATCH ASSEMBLY	3	
2		220166009	VALVE	2	
3		118496003	ELEMENT-SECONDARY	1	
4		220166005	ELEMENT ASSEMBLY	1	
		118496001	AIR CLEANER-FPG082525	1	Inc All Items In Figure

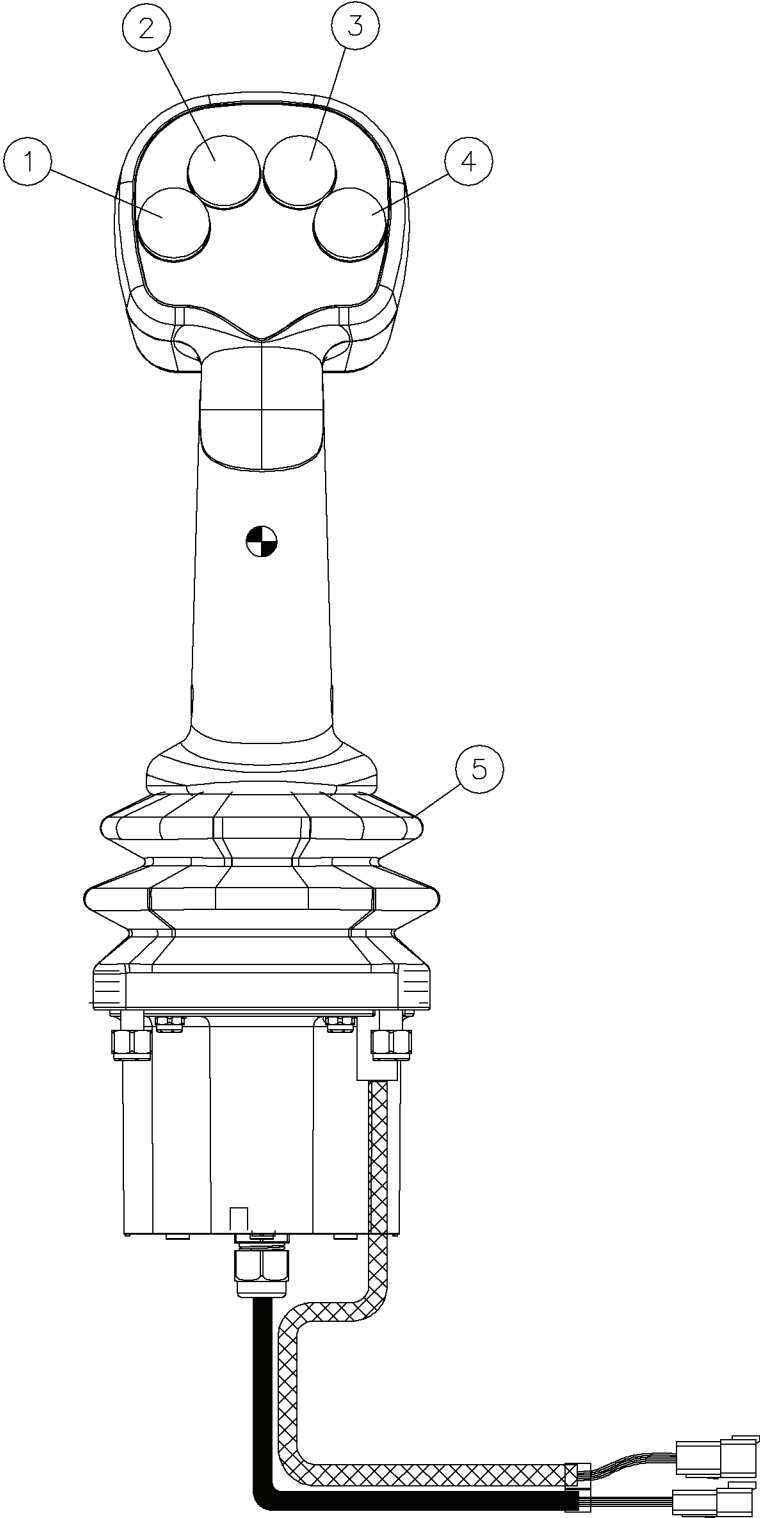
Left-Joystick - 4 Switch Fig 11-25r02



Left-Joystick - 4 Switch Fig 11-25r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Added Part Number for Rubber Boot
1		296271131	SWITCH	1	Throttle Down Button
	*	296271135	BOOT -RUBBER		
2		296271132	SWITCH	1	Throttle Up Button
	*	296271135	BOOT -RUBBER		
3		296271133	SWITCH	1	Auto Grease Button
	*	296271135	BOOT -RUBBER		
4		296271134	SWITCH	1	Fluid On/Off/Full Flow
	*	296271135	BOOT -RUBBER		
5		296274059	BOOT - JOY STICK	1	
		296273300	JOYSTICK - 1 AXIS, 4 SWITCH		Inc All Items In Figure

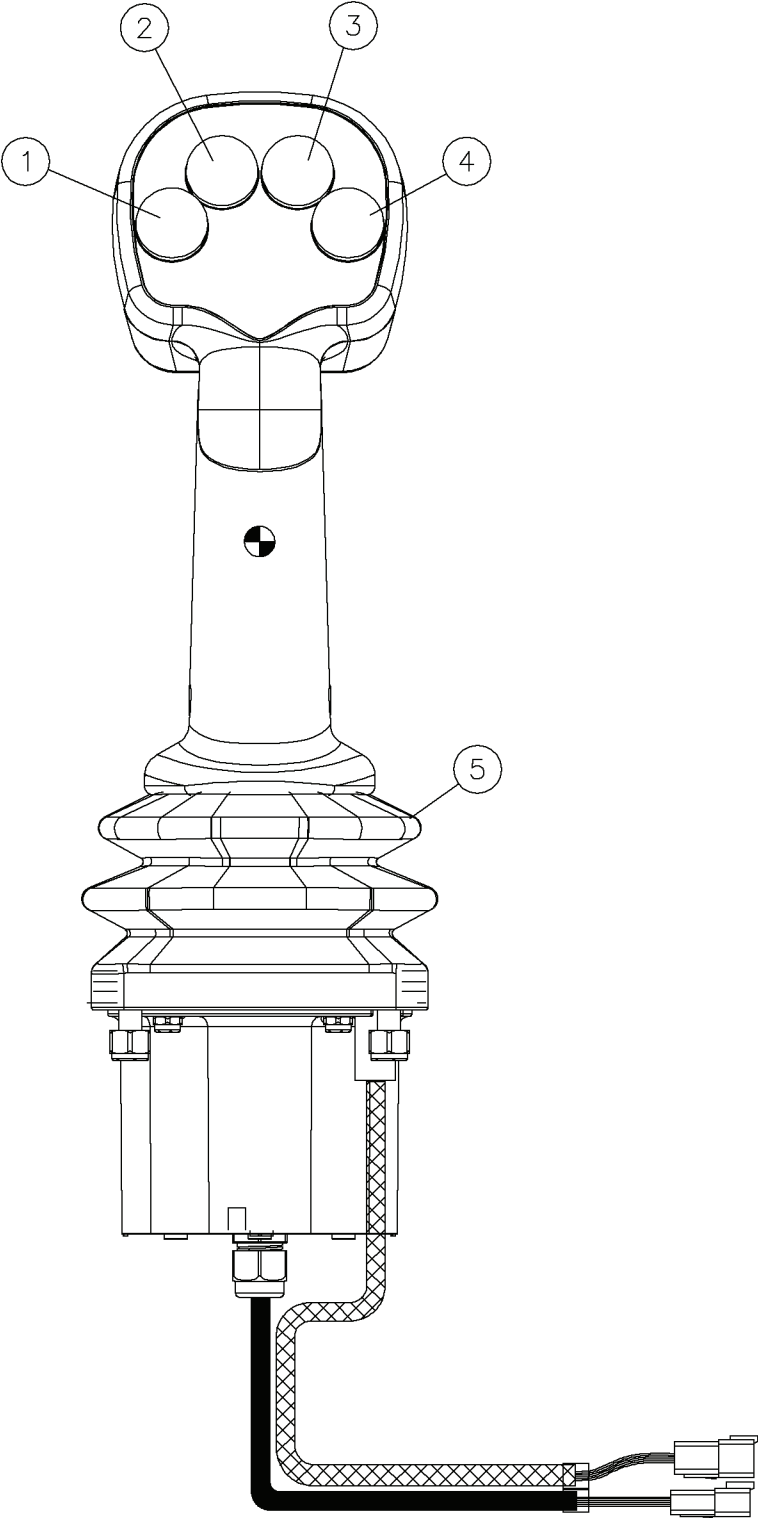
Left-Joystick - 4 Switch Fig 11-25r01



Left-Joystick - 4 Switch Fig 11-25r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296271131	SWITCH	1	Throttle Down Button
2		296271132	SWITCH	1	Throttle Up Button
3		296271133	SWITCH	1	Auto Grease Button
4		296271134	SWITCH	1	Fluid On/Off/Full Flow
5		296274059	BOOT - JOY STICK	1	
		296273300	JOYSTICK - 1 AXIS, 4 SWITCH		Inc All Items In Figure

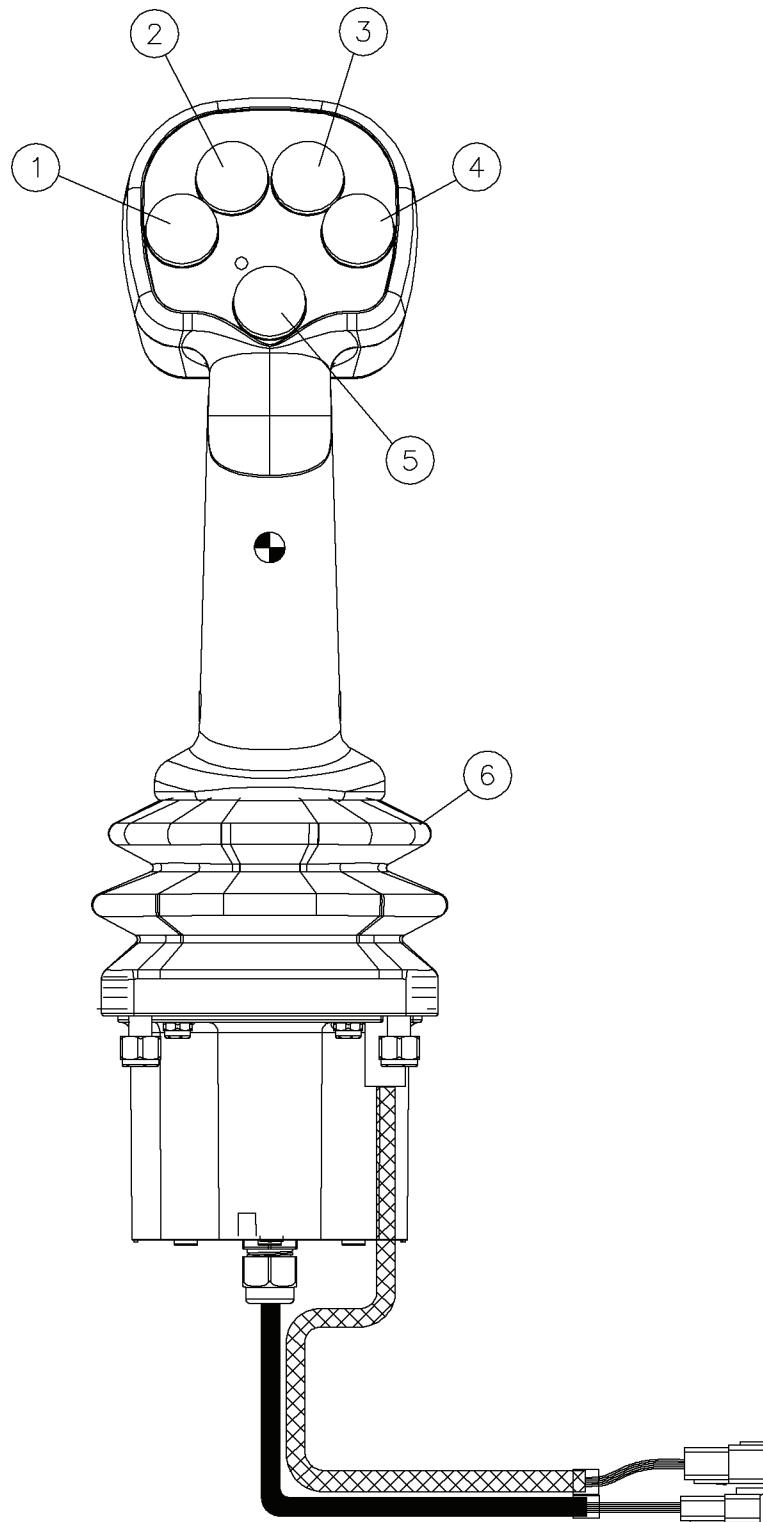
Left-Joystick - 4 Switch Fig 11-25



Left-Joystick - 4 Switch Fig 11-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271131	SWITCH	1	
2		296271132	SWITCH	1	
3		296271133	SWITCH	1	
4		296271134	SWITCH	1	
5		296274059	BOOT - JOY STICK	1	
		296273300	JOYSTICK - 1 AXIS, 4 SWITCH		Inc All Items In Figure

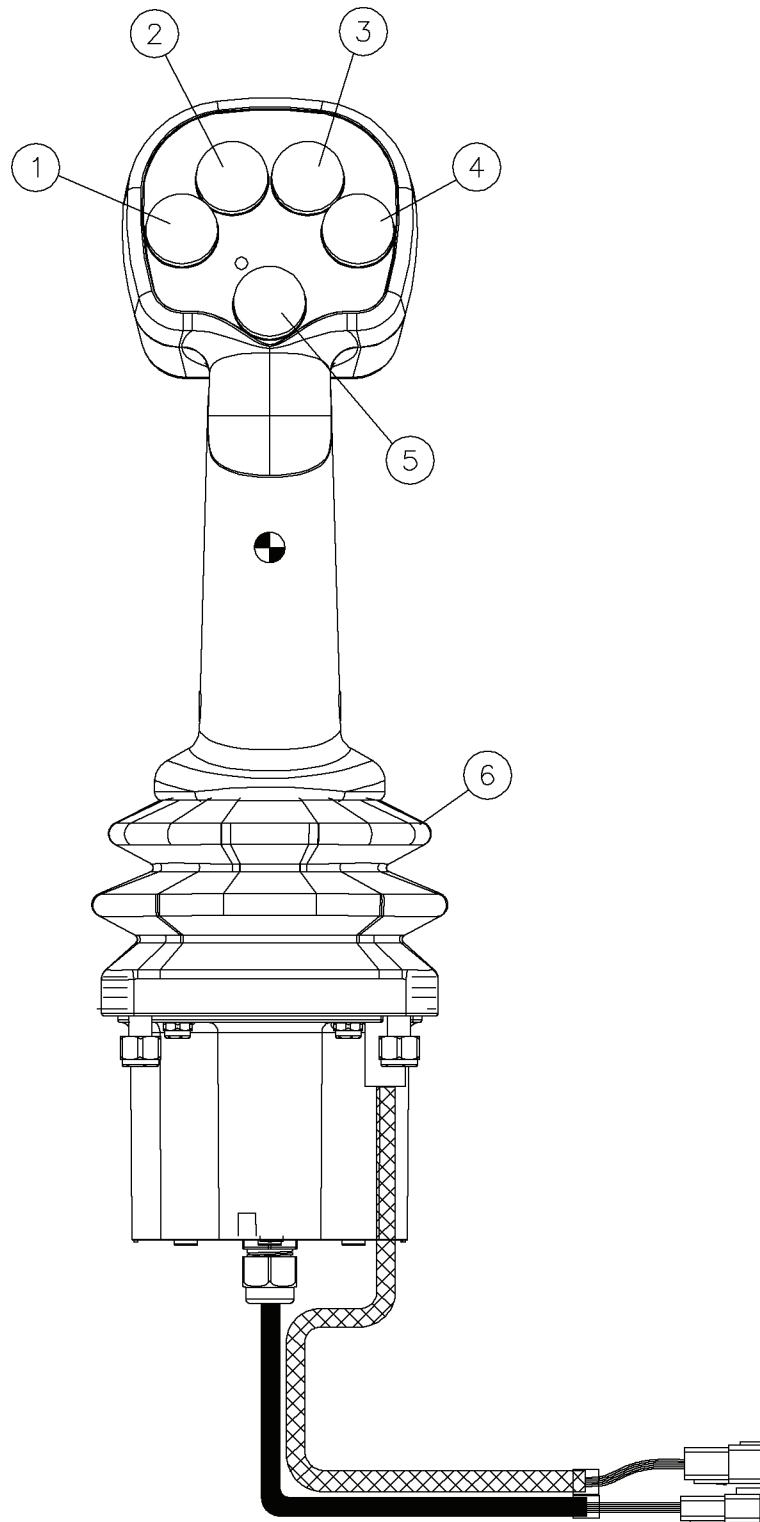
Right-Joystick - 5 Switch Fig 11-26r02



Right-Joystick - 5 Switch Fig 11-26r02

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Added Part Number for Rubber Boot
1		296271131	SWITCH	1	Front Vise Engage
		296271135	BOOT -RUBBER		
2		296271132	SWITCH	1	Rod Loader Arm Extend
		296271135	BOOT -RUBBER		
3		296271133	SWITCH	1	Rod Loader arm Retract
		296271135	BOOT -RUBBER		
4		296271134	SWITCH	1	Front Vise Disengage
		296271135	BOOT -RUBBER		
5		296276778	SWITCH	1	2-Speed Thrust/Pullback
		296271135	BOOT -RUBBER		
6		296274059	BOOT - JOY STICK	1	
		296282025	JOYSTICK-1AXIS, 5 SWITCH PLUS TRIGGER		Inc. All Items In Figure

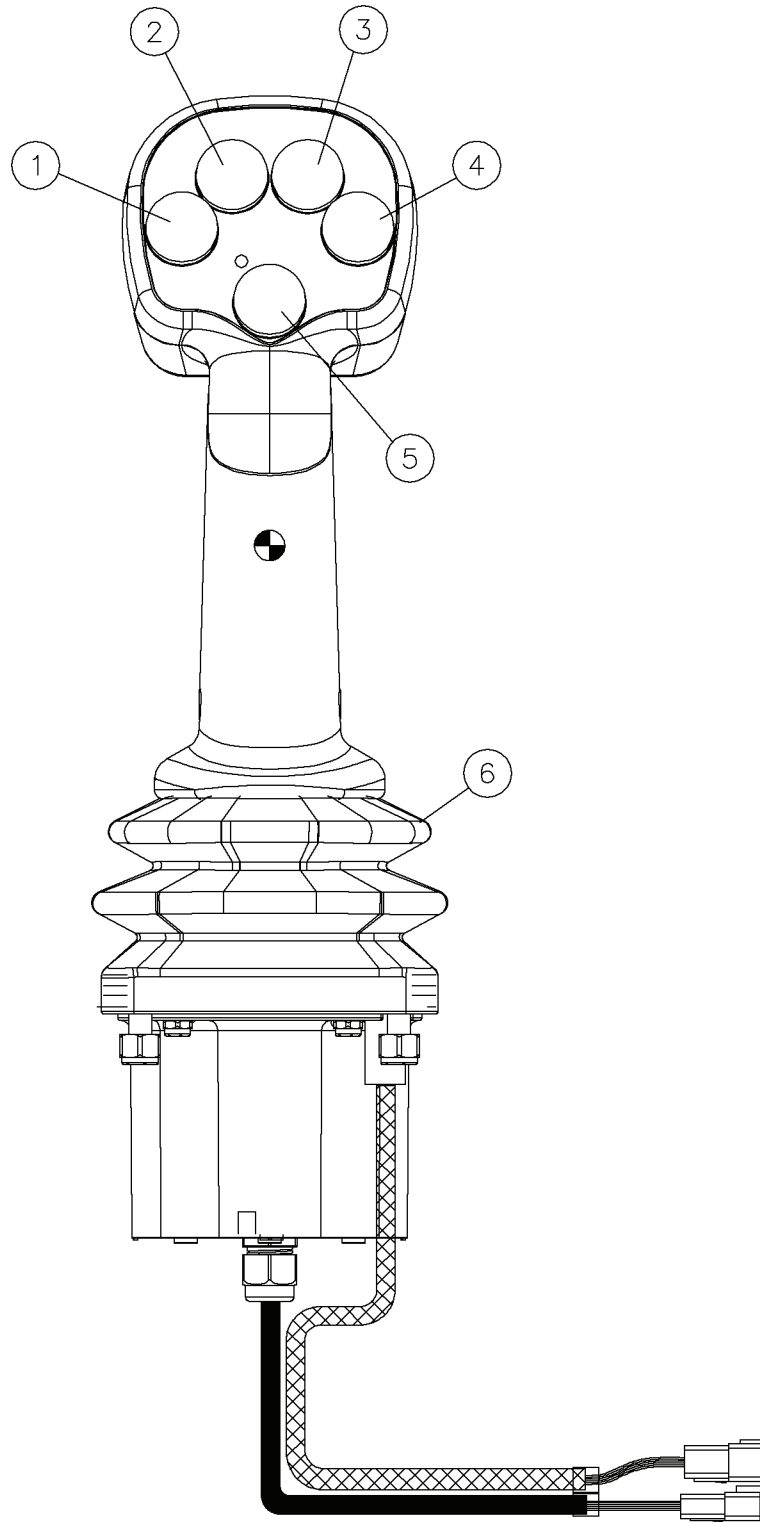
Right-Joystick - 5 Switch Fig 11-26r01



Right-Joystick - 5 Switch Fig 11-26r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2006		Update In Illustration & Parts List.
1		296271131	SWITCH	1	Front Vise Engage
2		296271132	SWITCH	1	Rod Loader Arm Extend
3		296271133	SWITCH	1	Rod Loader arm Retract
4		296271134	SWITCH	1	Front Vise Disengage
5		296276778	SWITCH	1	2-Speed Thrust/Pullback
6		296274059	BOOT - JOY STICK	1	
		296282025	JOYSTICK-1AXIS, 5 SWITCH PLUS TRIGGER		Inc. All Items In Figure

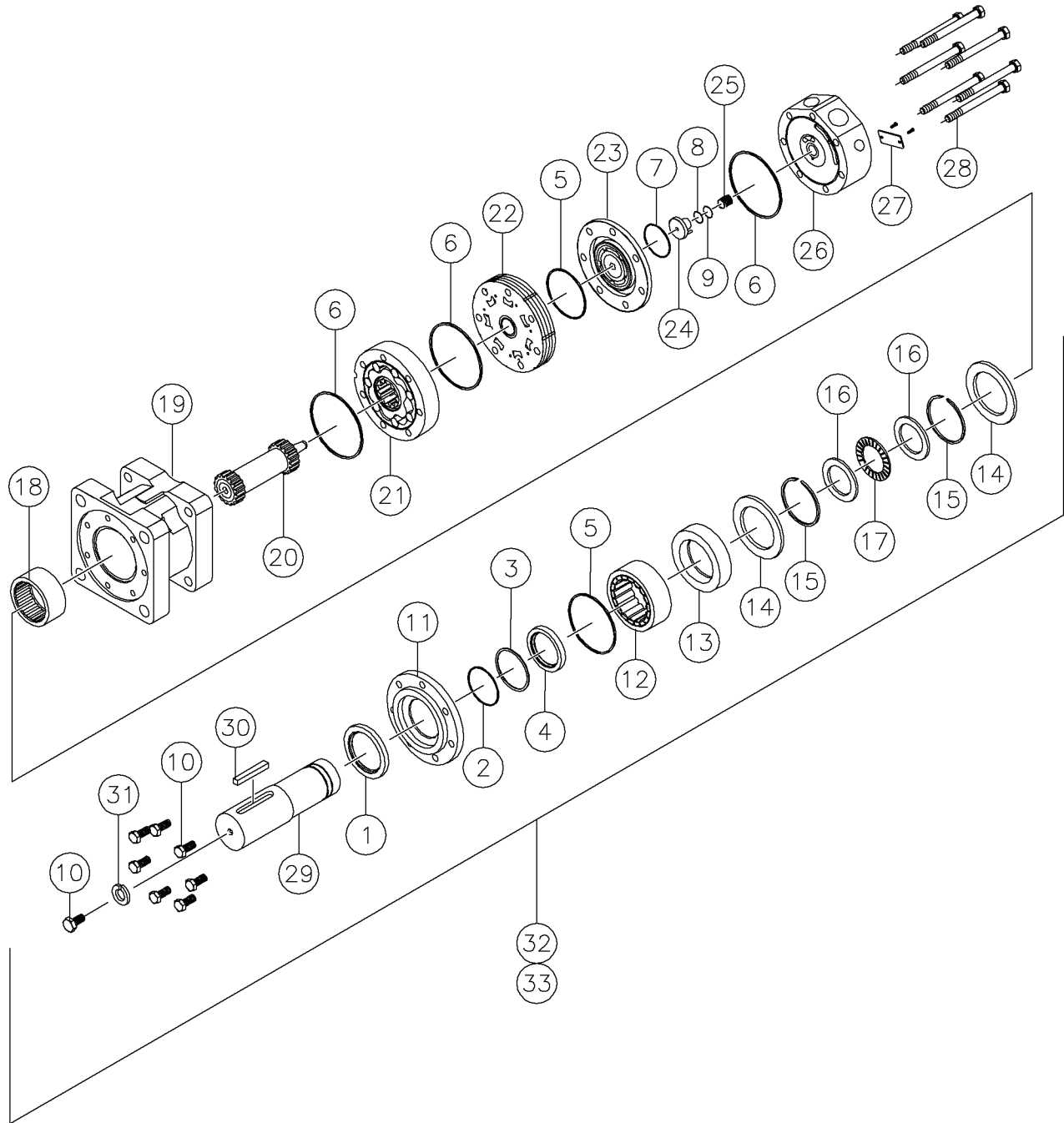
Right-Joystick - 5 Switch Fig 11-26



Right-Joystick - 5 Switch Fig 11-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271131	SWITCH	1	
2		296271132	SWITCH	1	
3		296271133	SWITCH	1	
4		296271134	SWITCH	1	
5		296276778	SWITCH	1	
6		296274059	BOOT - JOY STICK	1	
		296282025	JOYSTICK-1AXIS, 5 SWITCH PLUS TRIGGER		Inc. All Items In Figure

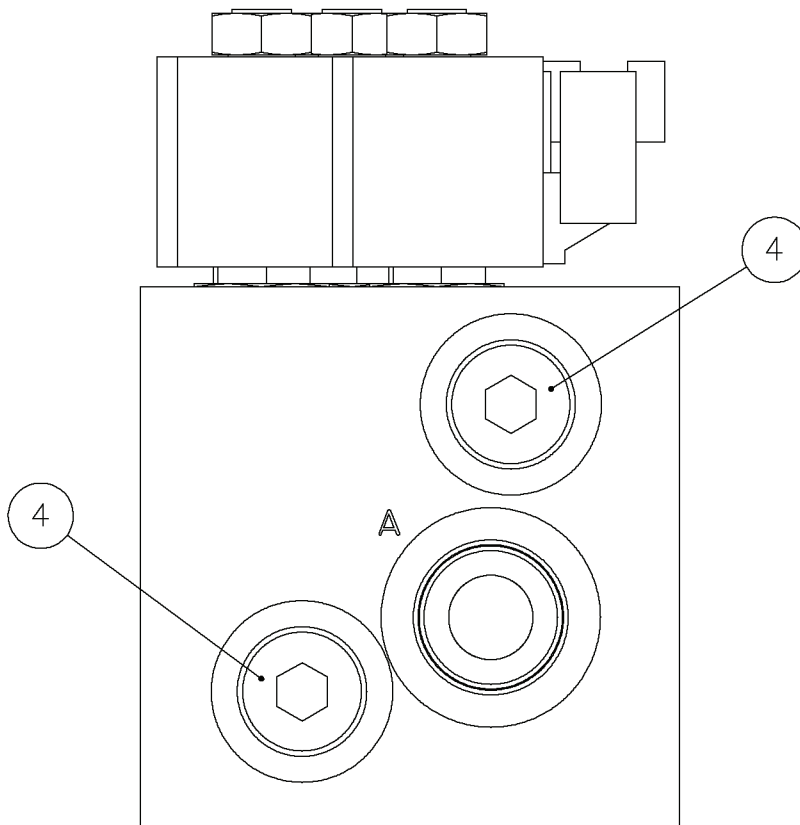
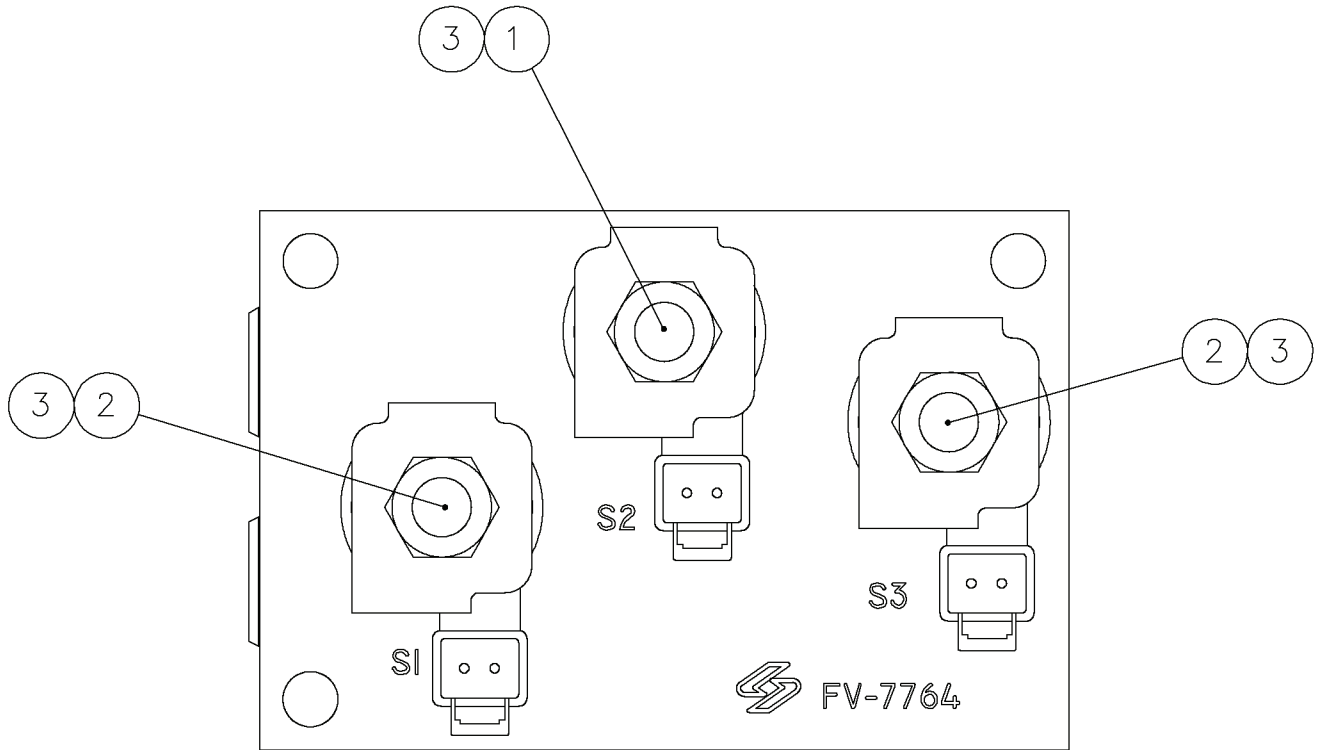
Motor - Carriage/Stakedown Fig 11-27



Motor - Carriage/Stakedown Fig 11-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	SEAL-DUST	1	
2		NSS	SHIM-METAL BACKUP	1	
3		NSS	SEAL-TEFLON BACKUP	1	
4		NSS	SEAL-SHAFT	1	
5		NSS	SEAL-LATHE CUT	2	
6		NSS	SEAL-BODY	3	
7		NSS	SEAL-COMMUTATOR	1	
8		NSS	SEAL O-RING	1	
9		NSS	SEAL-TEFLON BACKUP	1	
10		383010	BOLT-1/2-20X1 GR.8 HEX HEAD	8	
11		236219007	RING-PILOT	1	
12		236219009	BEARING-2 1/2" ROLLER	1	
13		236219011	SPACER-BEARING	1	
14		236219013	WASHER-RETAINING	2	
15		236219015	SNAP RING	2	
16		236219017	WASHER-THRUST	2	
17		236219019	BEARING-THRUST	1	
18		236219021	BEARING-REAR HOUSING	1	
19		236219023	HOUSING	1	
20		236219025	DRIVE LINK	1	
21		236219027	ROTOR ASSEMBLY	1	
22		236219029	MANIFOLD	1	
23		236219031	COMMUTATOR ASSEMBLY	1	
24		236219033	PISTON-ENDCOVER	1	
25		236219035	SPRING-PISTON	1	
26		236219037	ENDCOVER	1	Inc Ref 8, 9, 24, 25
27		NSS	I.D. TAG ASSEMBLY	1	
28		236219039	BOLT	7	
29		236219041	SHAFT-ASSEMBLY	1	Inc Ref 1-5, 10-17, 29-31
30		236219005	KEY-SHAFT	1	
31		480011	WASHER-1/2 S/T LOCK	1	
32		236219003	SEAL KIT-HYD. MOTOR	1	Inc Ref 1-9
33		236219001	HYD MOTOR-66CI	1	Inc All Items In Figure
		NSS	NOT SOLD SEPARATELY		

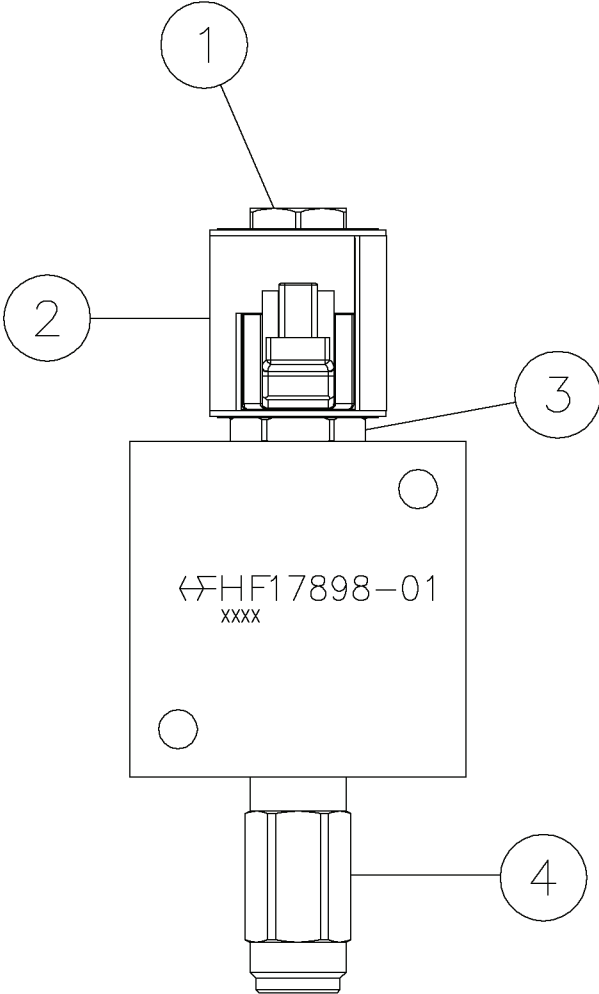
Valve - Thrust/Pullback Fig 11-28



Valve - Thrust/Pullback Fig 11-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296276776	POPPET SOLENOID VALVE, N.C.	1	
2		296276777	POPPET SOLENOID VALVE, N.O.	2	
3		296278061	STERLING 12 VOLT COIL	3	
4		296278018	PLUG - #10 EPCO	3	
		296282022	VALVE- T/P		Includes All Items In Figure

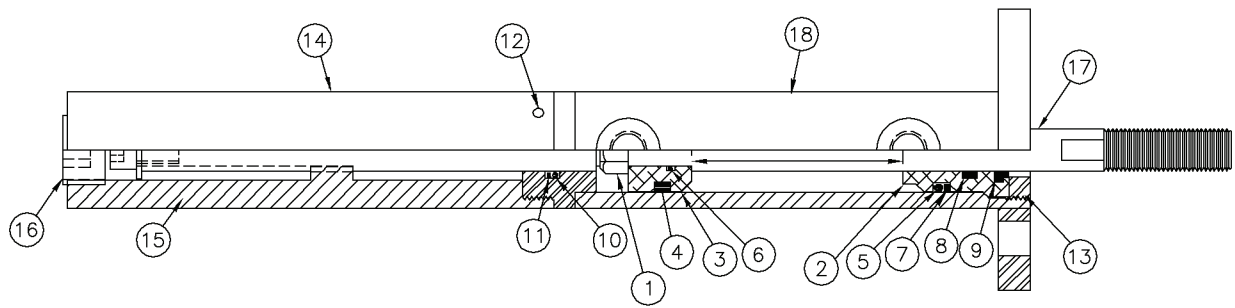
Valve - Torque Limiter Fig 11-29



Valve - Torque Limiter Fig 11-29

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265598	NUT - COIL	1	
2		296278002	COIL	1	
3		296272890	CARTRIDGE (NO COIL)	1	
		296278003	SEAL KIT	1	
4		296272891	RELIEF VALVE	1	
		240324005	SEAL KIT	1	
		296265775	VALVE - TORQUE LIMITER		Includes All Items In Figure

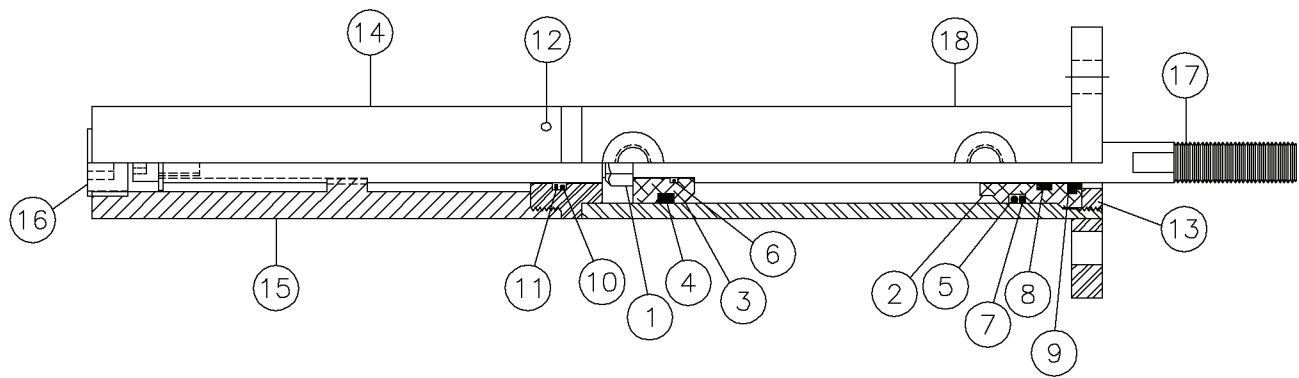
Cylinder - Bucket Greaser (S/N 330-) Fig 11-30r01



Cylinder - Bucket Greaser (S/N 330-) Fig 11-30r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2007		Change Cylinder
1		NSS	NUT	1	Not Sold Separately
2		NSS	HEAD	1	Not Sold Separately
3		NSS	PISTON	1	Not Sold Separately
4		NSS	PSP-SEAL	1	Not Sold Separately
5		NSS	O-RING	1	Not Sold Separately
6		NSS	O-RING	1	Not Sold Separately
7		NSS	BACKUP	1	Not Sold Separately
8		NSS	ROD SEAL	1	Not Sold Separately
9		NSS	DUST SEAL	1	Not Sold Separately
10		NSS	O-RING	1	Not Sold Separately
11		NSS	BACKUP	1	Not Sold Separately
12		NSS	ROLL PIN	1	Not Sold Separately
13		NSS	COLLAR	1	Not Sold Separately
14		NSS	1/4-28 NYLOCK SET SCREW	1	Not Sold Separately
15		NSS	STROKE ADJUSTER	1	Not Sold Separately
16		NSS	1/2 NPT STEEL PLUG	1	Not Sold Separately
17		NSS	SHAFT	1	Not Sold Separately
18		NSS	BARREL W/PORTS	1	Not Sold Separately
	*	296289208	CYL - 1.00 BORE X 2.50 STROKE X 0.50 ROD		(S/N 330-) Inc. All Items In Figure.
		296285225	REPAIR KIT		Inc. Ref. 4 Thru 11

Cylinder - Bucket Greaser Fig 11-30



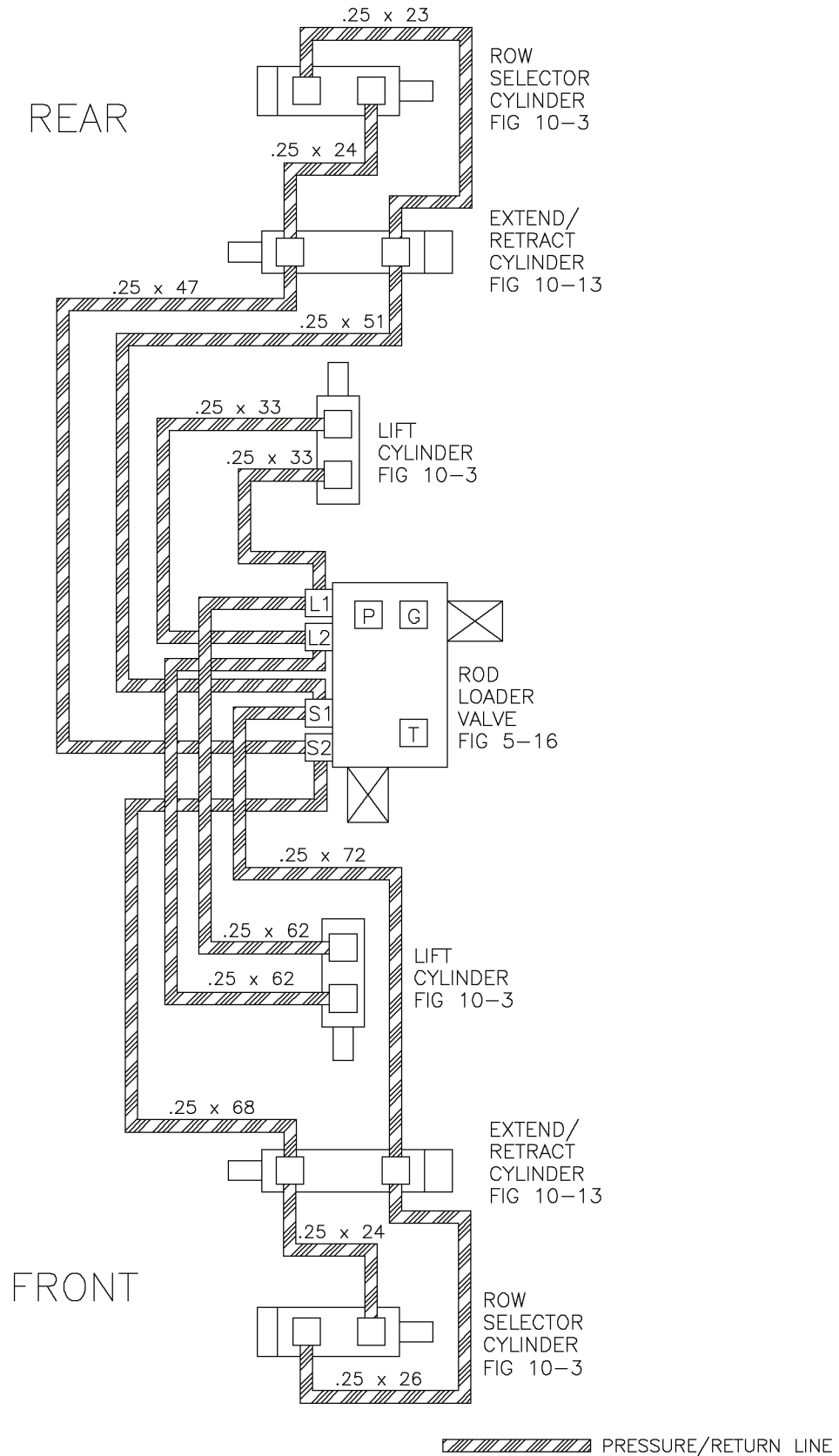
Cylinder - Bucket Greaser Fig 11-30

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	February, 2007		Addition To Manual
1			NUT	1	
2			HEAD	1	
3			PISTON	1	
4			PSP-SEAL	1	
5			O-RING	1	
6			O-RING	1	
7			BACKUP	1	
8			ROD SEAL	1	
9			DUST SEAL	1	
10			O-RING	1	
11			BACKUP	1	
12			ROLL PIN	1	
13			COLLAR	1	
14			1/4-28 NYLOCK SET SCREW	1	
15			STOKE ADJUSTER	1	
16			1/2 NPT STEEL PLUG	1	
17		296285224	SHAFT	1	
18					
		296280672	CYLINDER-1" X 3 1/2"		Inc. All Items In Figure
		296285225	REPAIR KIT		Inc. Ref. 4 Thru 11

Vise Clamp Hyd Diagram Fig 12-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

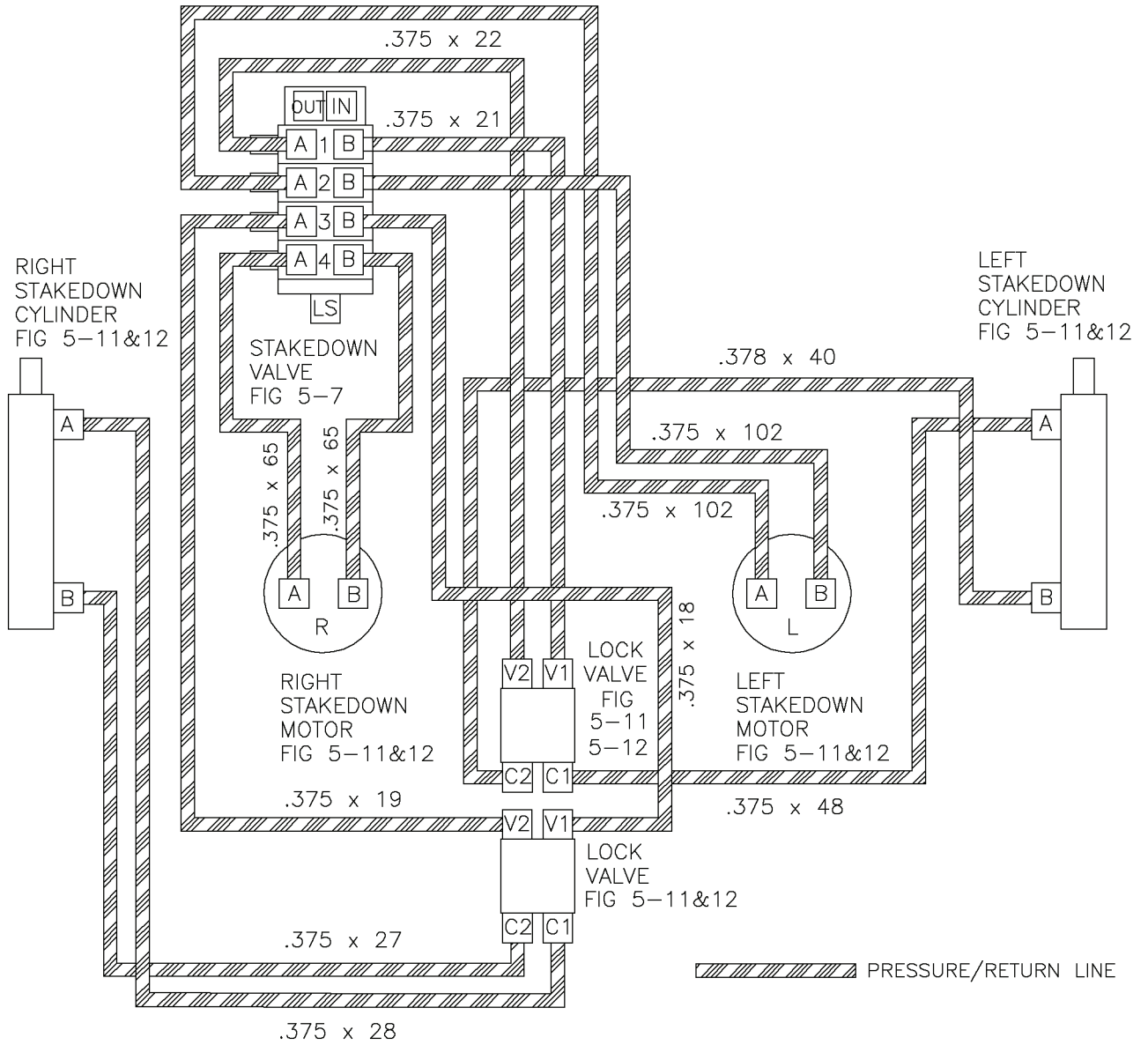
Rod Loader Hyd Diagram Fig 12-2



Rod Loader Hyd Diagram Fig 12-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

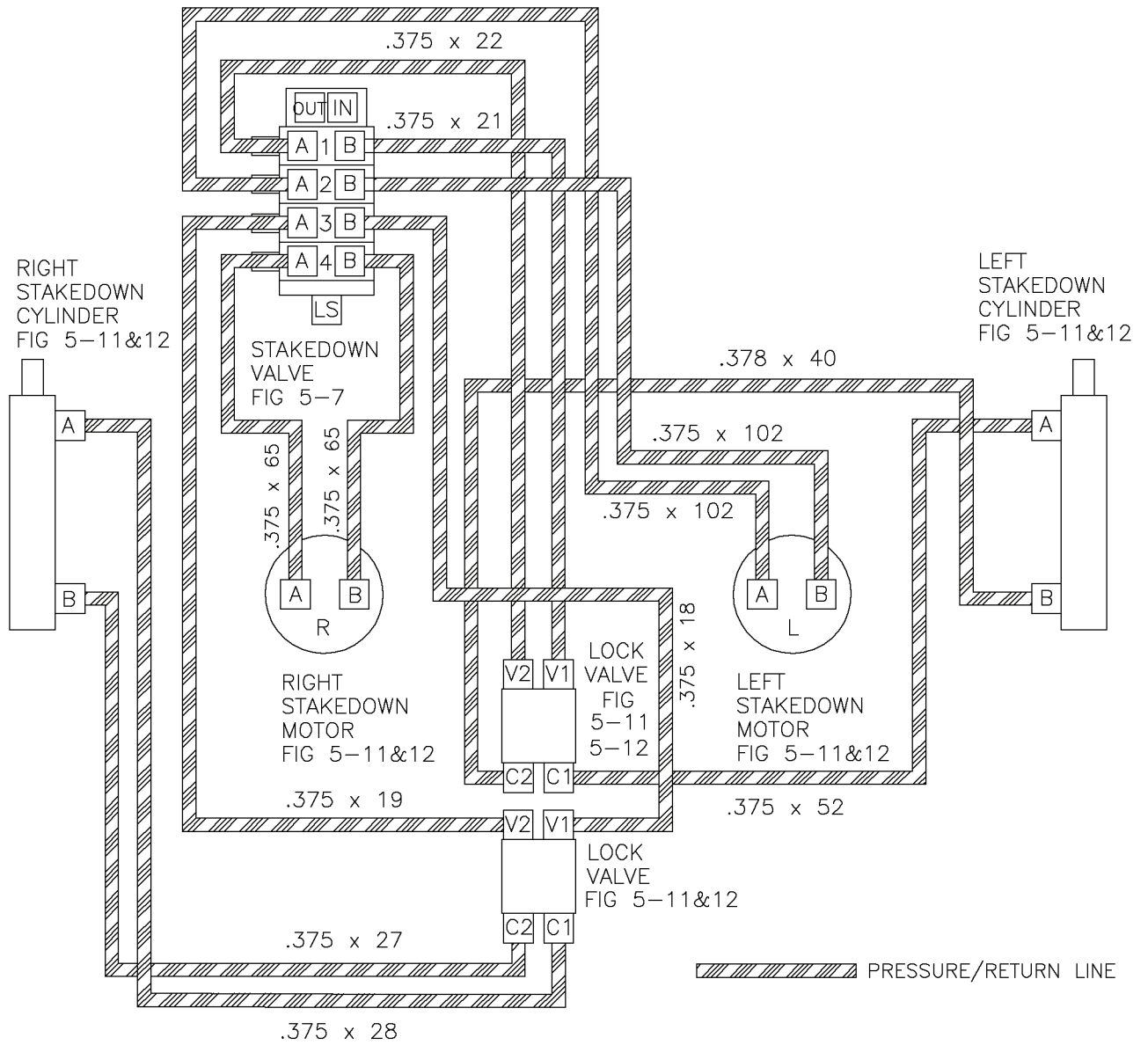
Stakedown Hyd Diagram Fig 12-3r01



Stakedown Hyd Diagram Fig 12-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

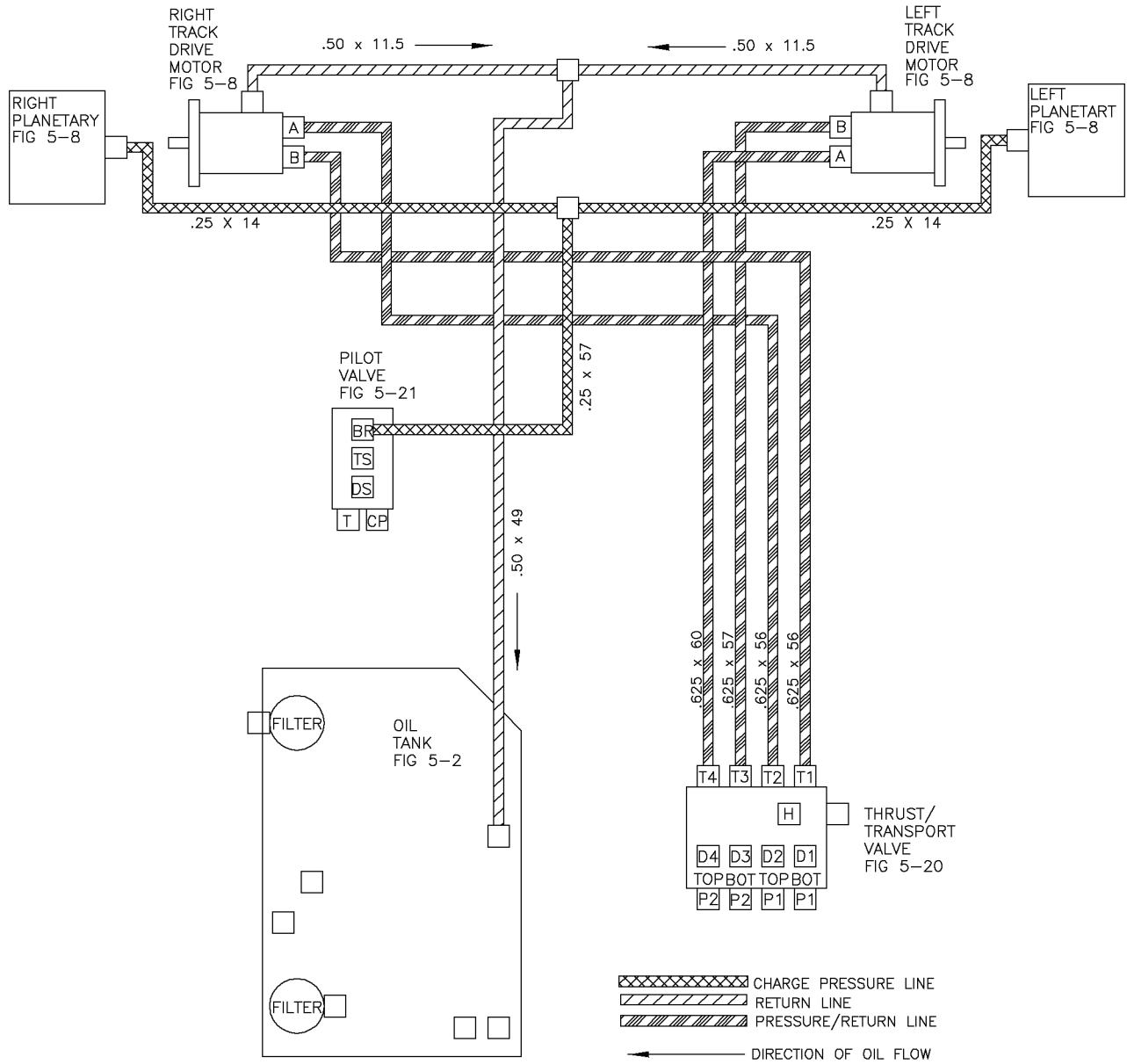
Stakedown Hyd Diagram Fig 12-3



Stakedown Hyd Diagram Fig 12-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

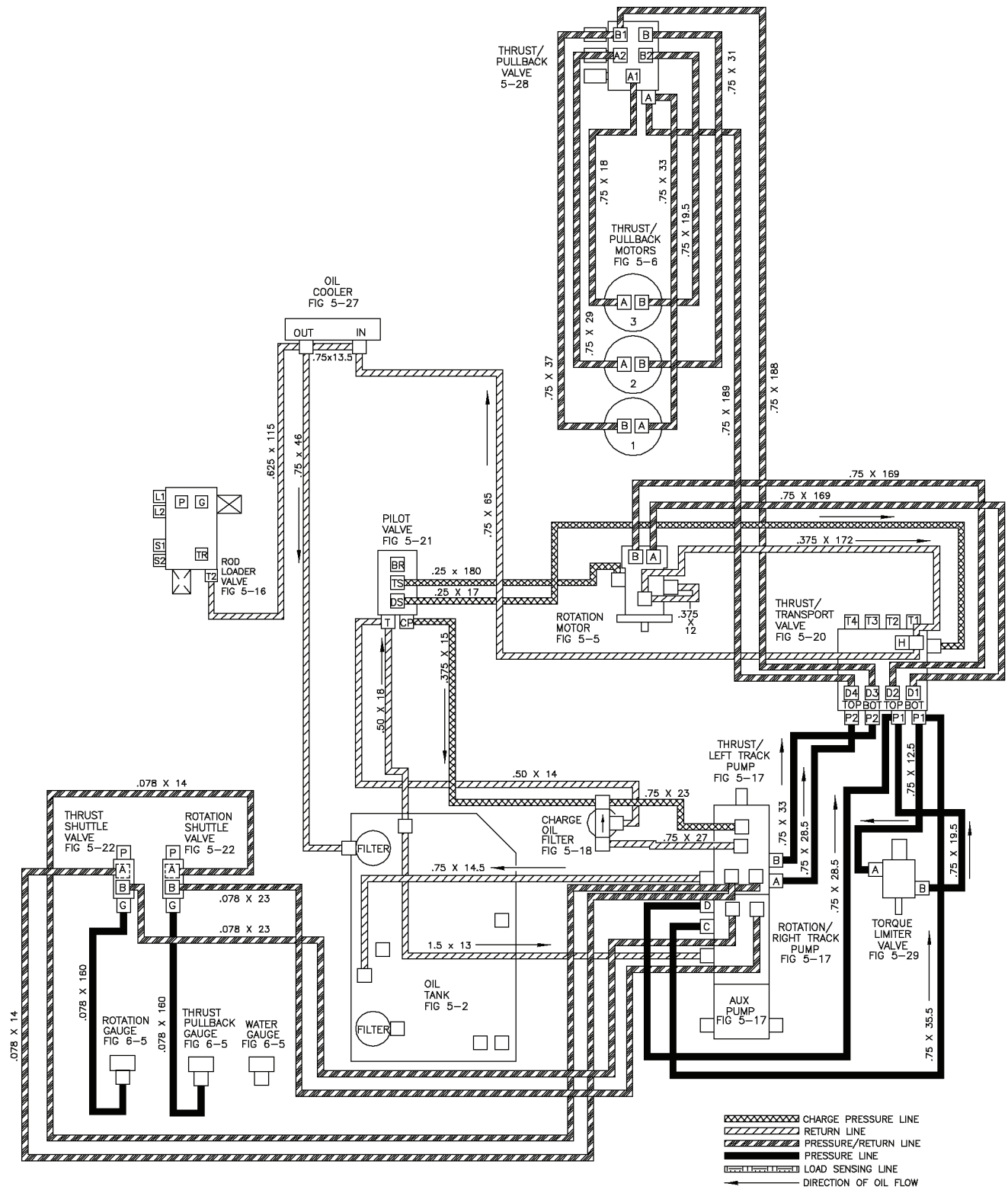
Track Drive Hyd Diagram Fig 12-4



Track Drive Hyd Diagram Fig 12-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

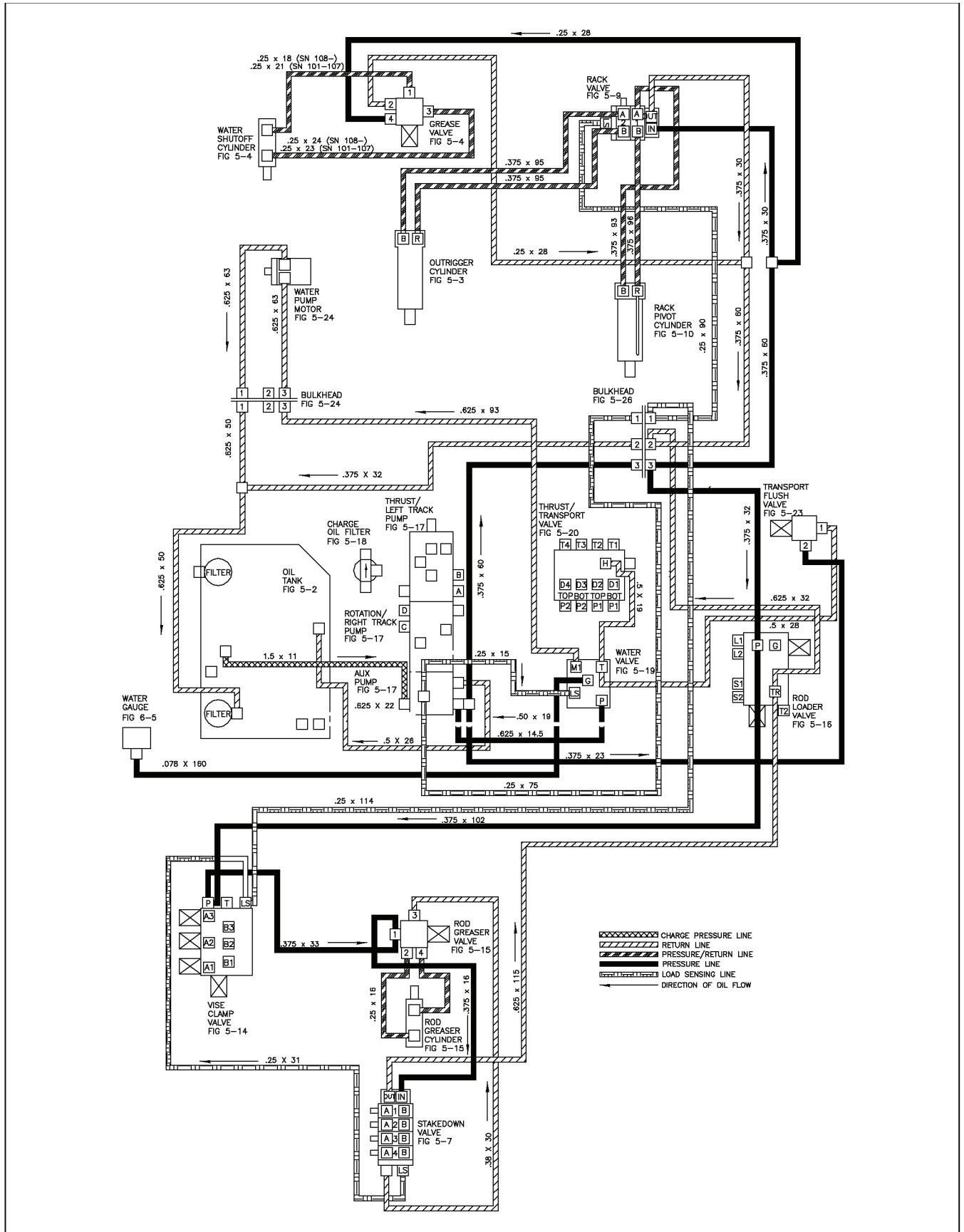
Trust/Pullback Rotation Hyd Diagram Fig 12-5



Trust/Pullback Rotation Hyd Diagram Fig 12-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

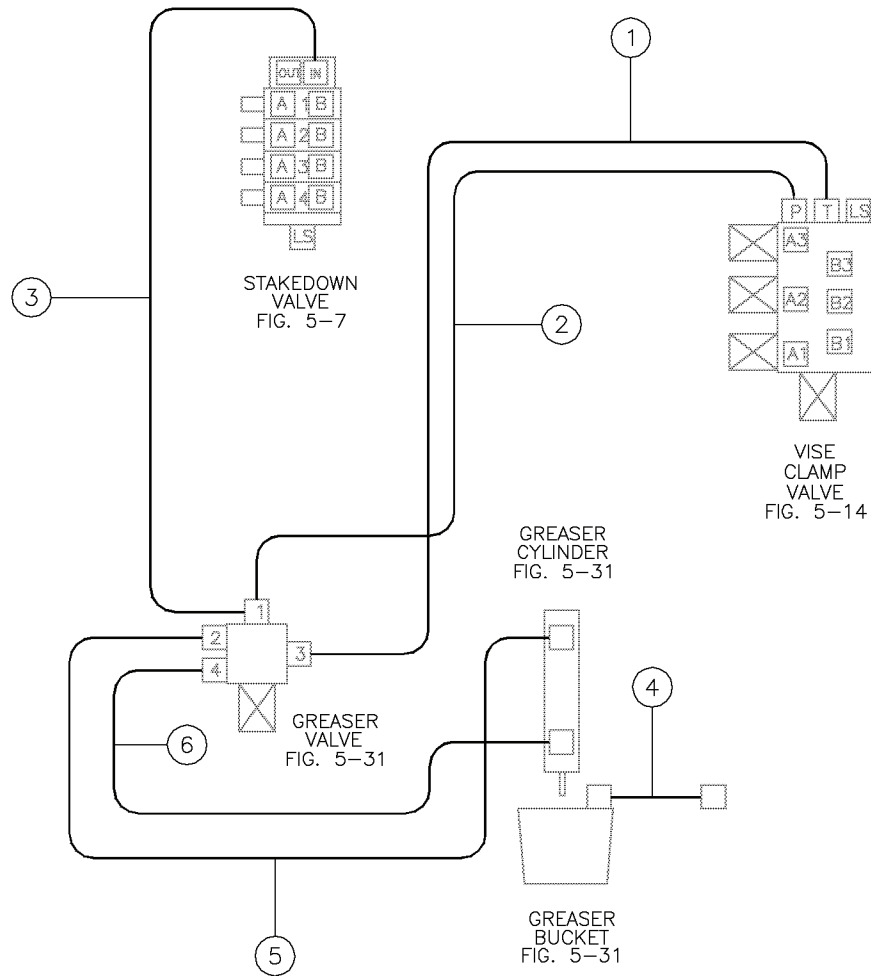
Implement Hyd Diagram Fig 12-6



Implement Hyd Diagram Fig 12-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS

Bucket Auto Greaser Fig 12-7



Bucket Auto Greaser Fig 12-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	May, 2007		Change Hoses
1		57940281	HOSE-3/8X40 6FS JIC 3000 PSI	1	
2		291642001	HOSE - HYD. -.38 X 53 6FS JIC ST/90-3000 PSI	1	
3		57940325	HOSE-3/8X60 JIC 6FS STR/6FS 90	1	
4		258205001	HOSE-1/4 X 27 4FS JIC ST/ST 3000PSI	1	
5	*	53843601	HOSE-1/4X17 4FS JIC 3000 PSI	1	
6	*	53843197	HOSE-1/4X14 4FS JIC 3000 PSI	1	

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Revision History

REVISION	DATE	PAGE(S)	DESCRIPTION
P1.00	October, 2005	All	1st Edition
P1.01	May, 2006	Revised: TOC, 1-4, 2-1, 2-3, 2-6 3-3, 3-6, 4-4, 4-5, 4-6, 5-6, 5-12, 5-14, 5-20, 6-1, 6-4, 6-5, 6-7, 6-8, 6-10 5, 6-8, 8-4, 9-1, 9-2, 10-2, 11-5, 11-7, 11-10, 11-25, 11-26, 12-3. New: 6-1x01, 6-11, 6-12,	1st Edition, 1st Revision
P1.02	August, 2006	Revised: TOC, 2-1, 3-6, 5-16, 11-25, 11-26	1st Edition, 2nd Revision
P1.03	November, 2006	Revised: TOC, 3-6, 4-5, 5-5, 6-5, 11-15	1st Edition, 3rd Revision
P1.04	February, 2007	Revised: TOC, 1-9, 2-6, 3-6, 4-5, 5-4, 5-11, 5-12, 6-1, 6-1x01, 6-5, 6-10, 6-11, 9-2, 11-13, 11-18 New: 5-30, 5-31, 5-32, 5-33, 5-34, 11-30, 12-7	1st Edition, 4th Revision
P1.05	April, 2007	Revised: TOC, 1-1, 3-6, 4-6, 5-7, 5-8, 6-10, 11-21	1st Edition, 5th Revision
P1.06	June, 2007	Revised: TOC, 1-9, 2-2, 5-11, 6-1x01, 6-5, 12-6, 12-7	1st Edition, 6th Revision
P1.07	Aug, 2007	Revised: TOC, 9-2, 10-2,	1st Edition, 7th Revision
P1.08	Aug, 2007	Revised: TOC, 2-2	1st Edition, 8th Revision
P1.09	Sept, 2007	Revised: TOC, 1-9, 5-2, 5-19	1st Edition, 9th Revision
P1.10	Oct, 2007	Revised: TOC, 5-30, 5-31, 5-33, 11-30	1st Edition, 10th Revision
P1.11	May, 2008	Revised: TOC, 11-6,	1st Edition, 11th Revision

