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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®

D24X40 Series II Navigator® Horizontal Directional Drill



Parts Manual

P2.02
SERIAL NO. 324 -
ORDER NO. 105400ZIM

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 Manufacturing, also give the serial number of that component(s). Order all parts by part number, part name, and quantity needed.

UPDATING AND REORDERING MANUALS

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

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

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

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

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Decals - Cosmetic Fig 1-1



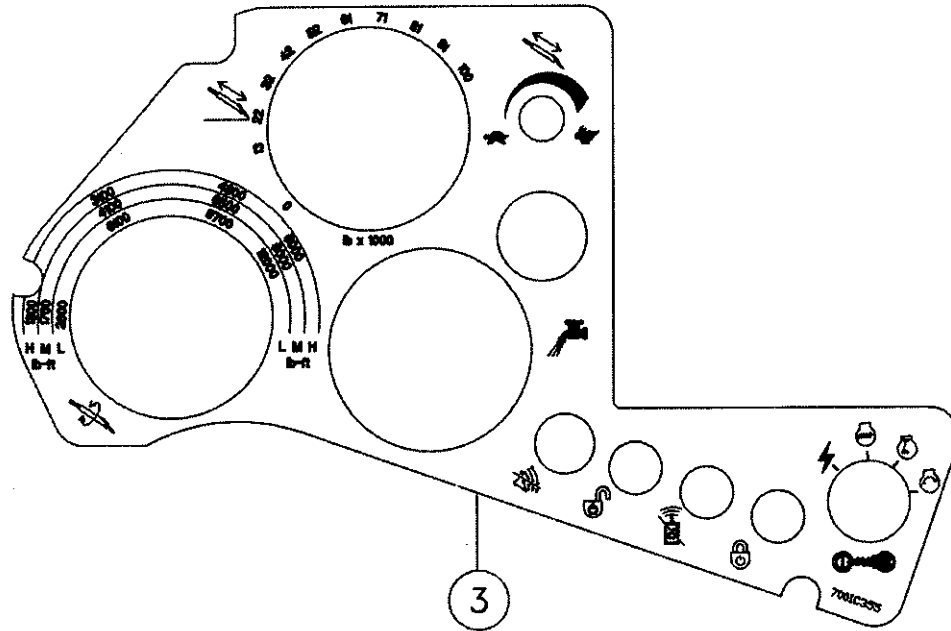
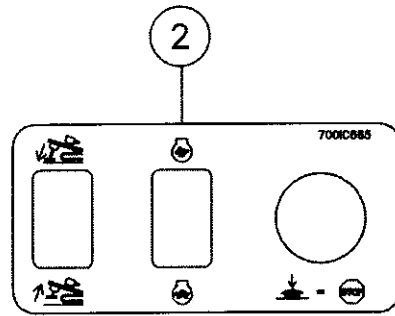
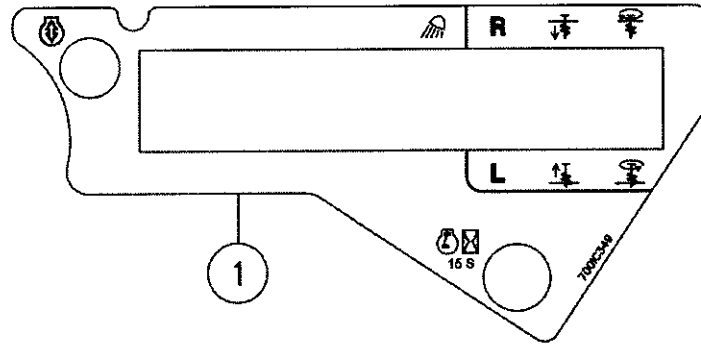
Decals - Cosmetic Fig 1-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000C462	DECAL - D24X40 II RIGHT STRIPE	1	
2		7000C463	DECAL - SERIES II MEDIUM	1	
3		2326619	DECAL- VERMEER 3 X 15	1	
4		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	

Decals - Control Fig 1-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700IC519	DECAL - STRIKE ALERT GREEN LIGHT	1	
2		700IA472	DECAL-CTRL. TRACK & RACK (UG)	1	
3		700IC348	DECAL - CONTROL LEFT HAND	1	
4		700IC454	DECAL - CONTROL	1	
5		700IC664	DECAL - CONTROL LH JOYSTICK	1	
6		700IC352	DECAL - CONTROL RIGHT HAND JOYSTICK	1	

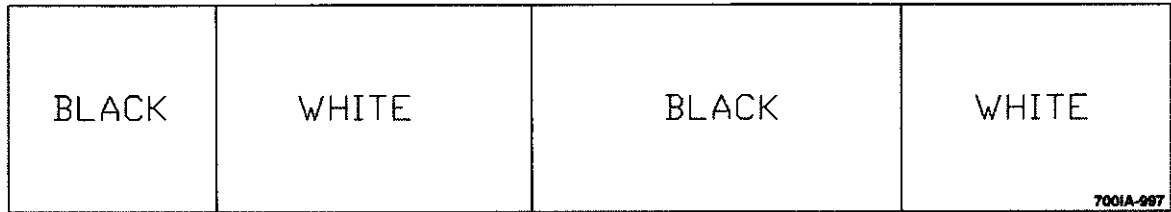
Decals - Control Fig 1-3



Decals - Control Fig 1-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		700IC349	DECAL - CONTROL RIGHT HAND LOWER	1	
2		700IC665	DECAL - CONTROL REAR TRANSPORT	1	
3		700IC355	DECAL- UPPER RIGHT CONSOLE	1	

Decals - Miscellaneous Fig 1-4



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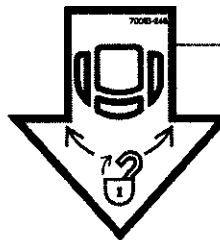
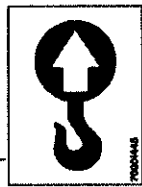


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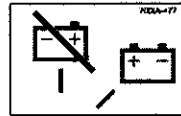


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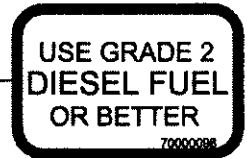


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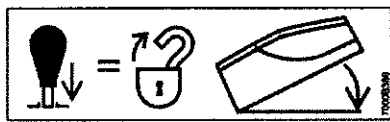
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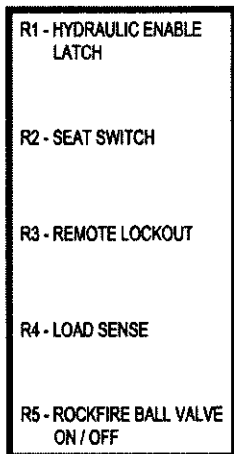
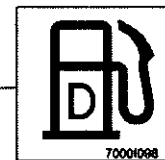


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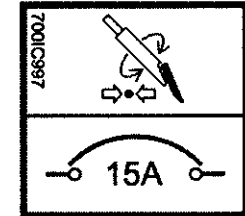
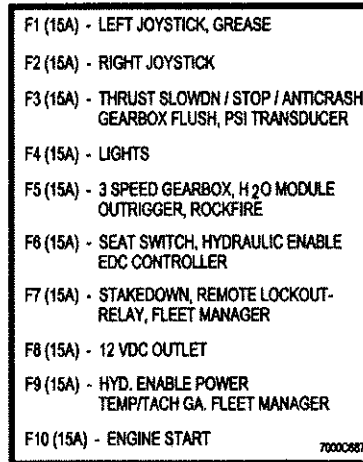
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Decals - Miscellaneous Fig 1-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2006		Update In Illustration & Parts List.
1		700IA997	DECAL - GEARBOX POSITION	1	
2		7000B300	DECAL - TEST POINT	1	
3		2326756	DECAL-HYDRAULIC OIL	1	
4		2326I756	DECAL-HYDRAULIC FLUID	1	International
5		700IC557	DECAL - HYD. FILTER WARNING LIGHT	1	
6		7000I445	DECAL-LIFT POINT	4	
7		700IB248	DECAL - PUSH	2	
8		700IC414	DECAL- ENGINE WARNING	1	
9		7000I834	DECAL - TIE DOWN POINT	7	
10		7000B388	DECAL - HOOD LATCH	1	
11		700IA477	DECAL_BATTERY SWITCH (UG)	1	
12		70000394	DECAL-VERMEER HY POWER	1	
13		7000C686	DECAL-RELAY BOX D36X50	1	
14		7000C687	DECAL-BREAKER BOX D36X50	1	
15		700IC997	DECAL - BRAKER RESET ROTATION LIMITER	1	
16		70000098	DECAL-DIESEL (AT/UND)	1	
17		7000I098	DECAL-DIESEL FUEL	1	International

Decals - Miscellaneous Fig 1-5

LUBRICANT CHART		
LOCATION	CAPACITY	TYPE
ENGINE OIL	WITH FILTER 15.5 QT (14.7L) W/O FILTER 14.0 QT (13.3L)	15W-40 HD -ROTELLA T MULTIGRADE -JOHN DEERE PLUS 50
HYDRAULIC OIL TANK	55 GAL (208L)	-VERMEER HYPOWER 48 -VERMEER HYPOWER 68 -VERMEER HYPOWER 100
DRILL FLUID PUMP CRANKCASE	4.5 QT (4.3L)	SAE-40 -VERMEER XTRAGOLD 40
ENGINE RADIATOR	8.0 GAL (30.3L)	MIX 50% WATER AND 50% ETHYLENE GLYCOL BASE ANTIFREEZE TO -34° F (-37°C) PROTECTION
SYSTEM ANTIFREEZE TANK	5 GAL (18.9L)	RV ANTIFREEZE
TRACK PLANETARIES	HALF FULL	ALL PURPOSE GEAR LUB 80W-90

See Operator's Manual for detailed instructions. 7000C2451

1

This product may be covered by one or more of the following patents:

AU 758,836	US 5,590,041	US 6,195,922	US 6,477,795
CA D 79,593	US 5,607,280	US 6,247,544	US 6,484,818
DE 696 11 846	US 5,611,496	US 6,289,997	US 6,491,115
DE 202 14 959.5	US 5,637,803	US 6,308,787	US 6,497,296
DE Des. 98 008 85.4	US 5,659,985	US 6,315,062	US 6,511,260
EP 772,543	US 5,687,807	US 6,332,302	US 6,516,899
EP 830,522	US 5,692,548	US 6,357,537	US 6,517,733
EP 885,343	US 5,692,549	US 6,360,830	US 6,533,046
EP 1,153,194	US 5,704,142	US 6,367,564	US 6,533,052
GB 2,053,636	US 5,720,354	US 6,374,928	US 6,554,082
HK 1015859	US 5,746,278	US 6,382,330	US 6,557,651
RU 2,158,952	US 5,768,811	US 6,389,360	US 6,577,954
US Des. 308,682	US 5,778,991	US 6,390,207	US 6,585,062
US Des. 396,837	US 5,819,859	US 6,408,952	US 6,588,516
US 4,848,423	US 5,845,689	US 6,408,954	US 6,651,755
US 5,205,181	US 5,904,210	US 6,412,715	US 6,659,202
US 5,219,380	US 5,944,121	US 6,422,495	US 6,668,946
US 5,237,888	US 5,950,942	US 6,435,286	US 6,684,538
US 5,291,964	US 6,014,996	US 6,439,319	US 6,701,647
US 5,309,220	US 6,050,350	US 6,446,365	US 6,719,069
US 5,544,055	US 6,109,367	US 6,446,889	US 6,725,579
US 5,553,407	US 6,119,376	US 6,454,025	US 6,729,050
US 5,556,253	US 6,138,932	US 6,470,976	
US 5,574,642	US 6,154,987	US 6,474,931	
US 5,588,474	US 6,161,630	US 6,474,932	

This product may be covered by one or more of the following licensed patents:

US 4,694,913	US 4,867,255	US 5,148,880
US 4,858,704	US 4,953,638	US 5,799,740

(OTHER U.S. AND FOREIGN PATENTS PENDING)

3

Photos-graphic article
Navigator water system

5 U.S. GAL

Vermeer®

NAVIGATOR FREEZE GUARD

ANTI-FREEZE AND LUBRICANT

Multi-Phase Oil
Never mix water with any lubricant. Flare with fresh water for approximately 10 minutes. It includes particles, and a pigment.
Only Certified Not expected to protect a significant life based under anticipated conditions of normal use.
Regulator Not expected to prevent significant regulator based under anticipated conditions of normal use.
Vermeer Manufacturing Company Falls A, MN 55601

5

4

Notice • Avis • Hinweis • Aviso • Aviso • 告示

If you purchased this product on 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 contactant le :
Wenn Sie diese Maschine gebraucht erworben haben, können Sie eine KOSTENLOSHE Betriebsanleitung mit folgendem erhalten:
Se si è comprato la presente macchina usata, si può ricevere una copia del manuale dell'operatore IN GRATUITO, contattando:
El este producto que ha comprado en un equipo usado, puede recibir un manual del operador GRATUITO llamando al:
如果您是在用过的设备上购买的，您可以通过以下方式获得一份免费的说明书。

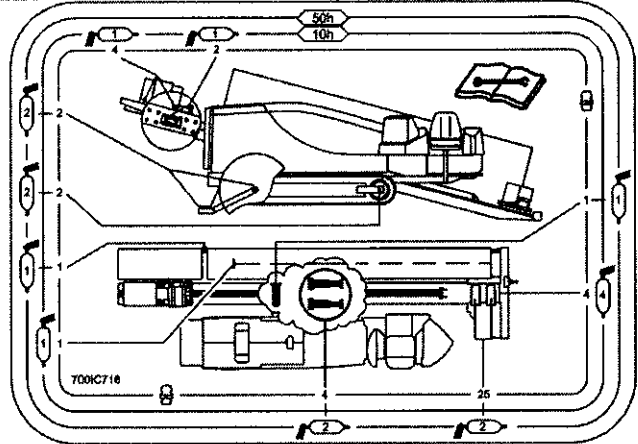
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Vermeer Manufacturing Company
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800-888-0091 or 844-828-3141
Telephone: English speaking only
Téléphone : en français uniquement
Telefon: Nur in Englisch besprochen
Telefon: tutte le comunicazioni saranno in inglese
Teléfono: en inglés solamente
電話: 只限英語

• • • • •

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 die in der Betriebsanleitung enthaltene Formular zur Registrierung gebrauchter Ausrüstung ausfüllen und abschicken.
OPPURE compilando e spedendo il modulo di registrazione per macchine usate, incluso al manuale dell'operatore.
O rellenando y enviando por correo el impreso de registro de equipos usados incluido en el manual del operador.
如果您是在用过的设备上购买的，您可以通过以下方式获得一份免费的说明书。

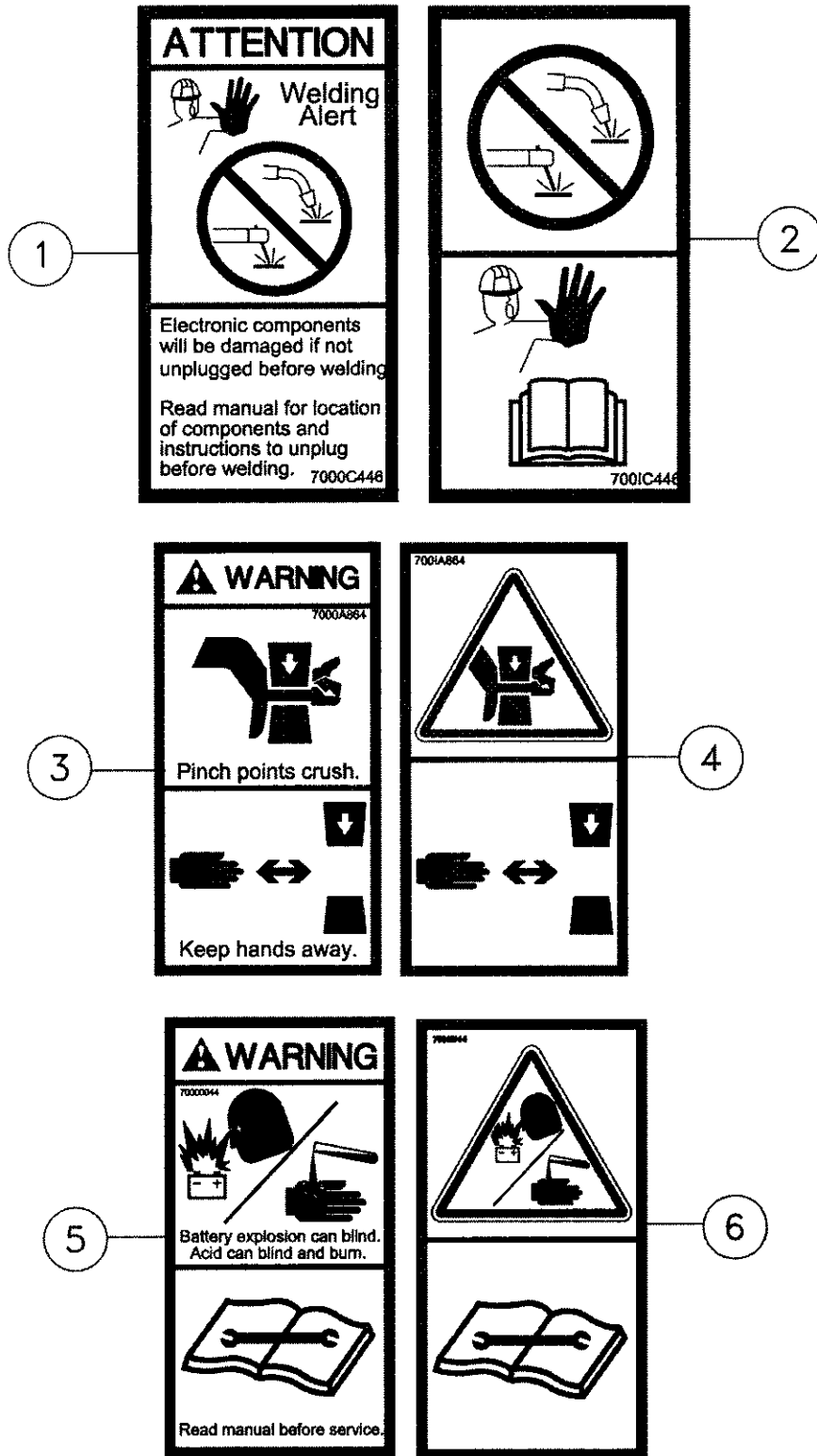
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Decals - Miscellaneous Fig 1-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000C451	DECAL - FLUID CAPACITIES	1	
2		2326940	DECAL-NOTICE TO OWNERS	1	
3		7000B119	DECAL - PATENT INDUSTRIAL	1	
4		700IC716	DECAL-D24X40II GREASE CHART	1	
5		70000675	DECAL-NAVIGATOR FREEZE GUARD	1	

Decals - Safety Fig 1-6


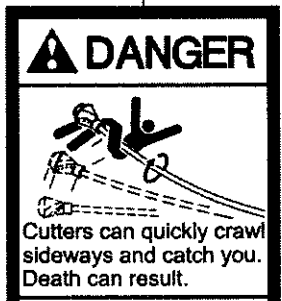


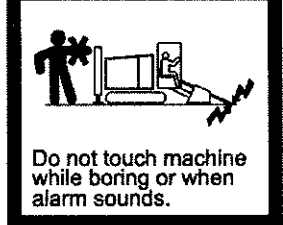
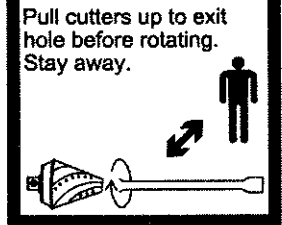
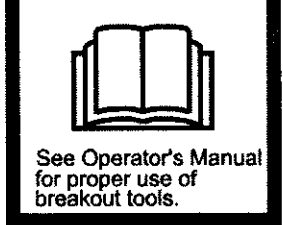







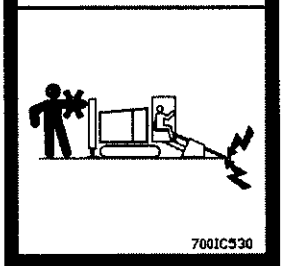
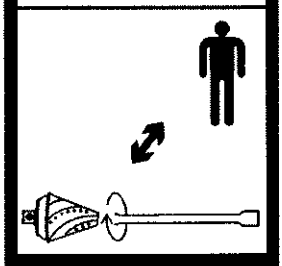
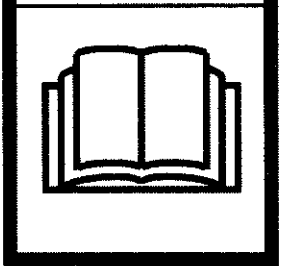
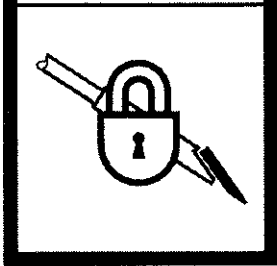
Decals - Safety Fig 1-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000C446	DECAL - NO WELD	4	Domestic
2		700IC446	DECAL - NO WELD	4	International
3		7000A864	DECAL-WARNING DOMESTIC	2	Domestic
4		700IA864	DECAL-WARNING INTERNATIONAL	2	International
5		70000044	DECAL-WARNING(AT/UND)	1	Domestic
6		7000I044	DECAL-WARNING	1	International

Decals - Safety Fig 1-7

1

 <p>⚠ DANGER 7000C530</p> <p>Electric shock can kill.</p>	 <p>⚠ DANGER</p> <p>Cutters can quickly crawl sideways and catch you. Death can result.</p>	 <p>⚠ DANGER</p> <p>Wrench on rotating rod can strike you. Death or serious injury will result.</p>	 <p>⚠ DANGER</p> <p>Unexpected rotation of drill string can kill.</p>
 <p>Do not touch machine while boring or when alarm sounds.</p>	 <p>Pull cutters up to exit hole before rotating. Stay away.</p>	 <p>See Operator's Manual for proper use of breakout tools.</p>	 <p>Lock out before working on drill string.</p>

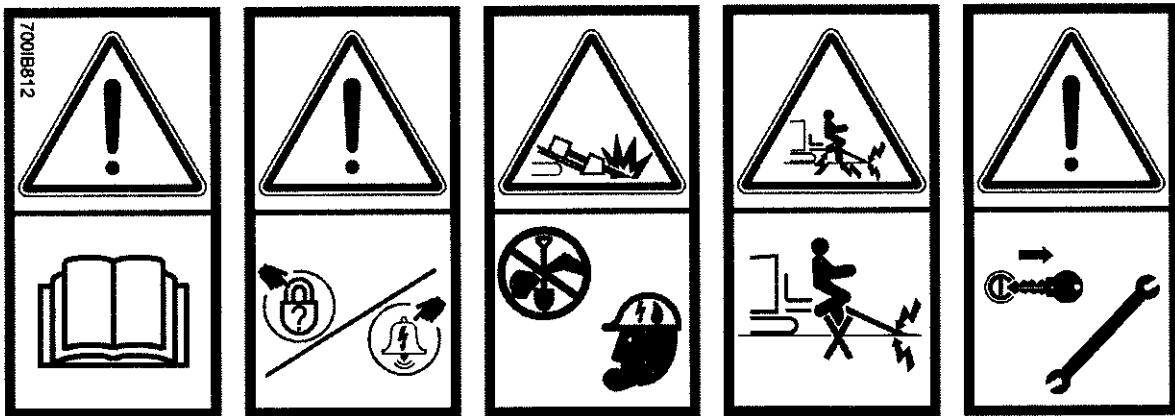
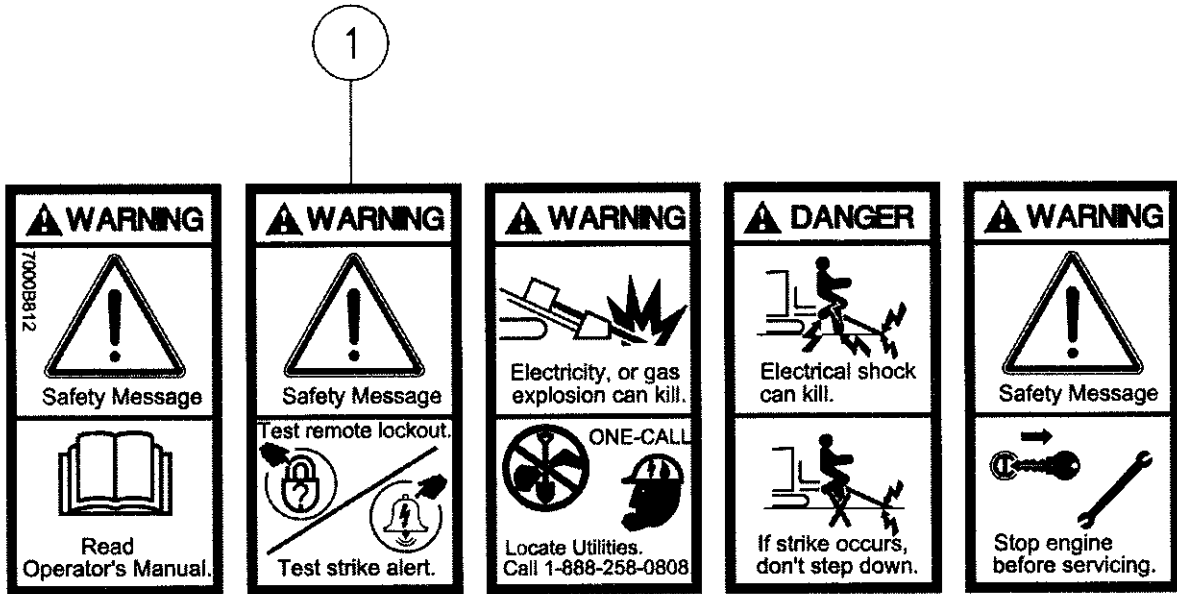
			
 <p>7001C530</p>			

2

Decals - Safety Fig 1-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000C530	DECAL - DANGER 4 PANEL	1	Domestic
2		7001C530	DECAL - DANGER INTERNATIONAL 4 PANEL	1	International

Decals - Safety Fig 1-8



2

Decals - Safety Fig 1-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		7000B812	DECAL - WARNING	1	Domestic
2		700IB812	DECAL - WARNING	1	International

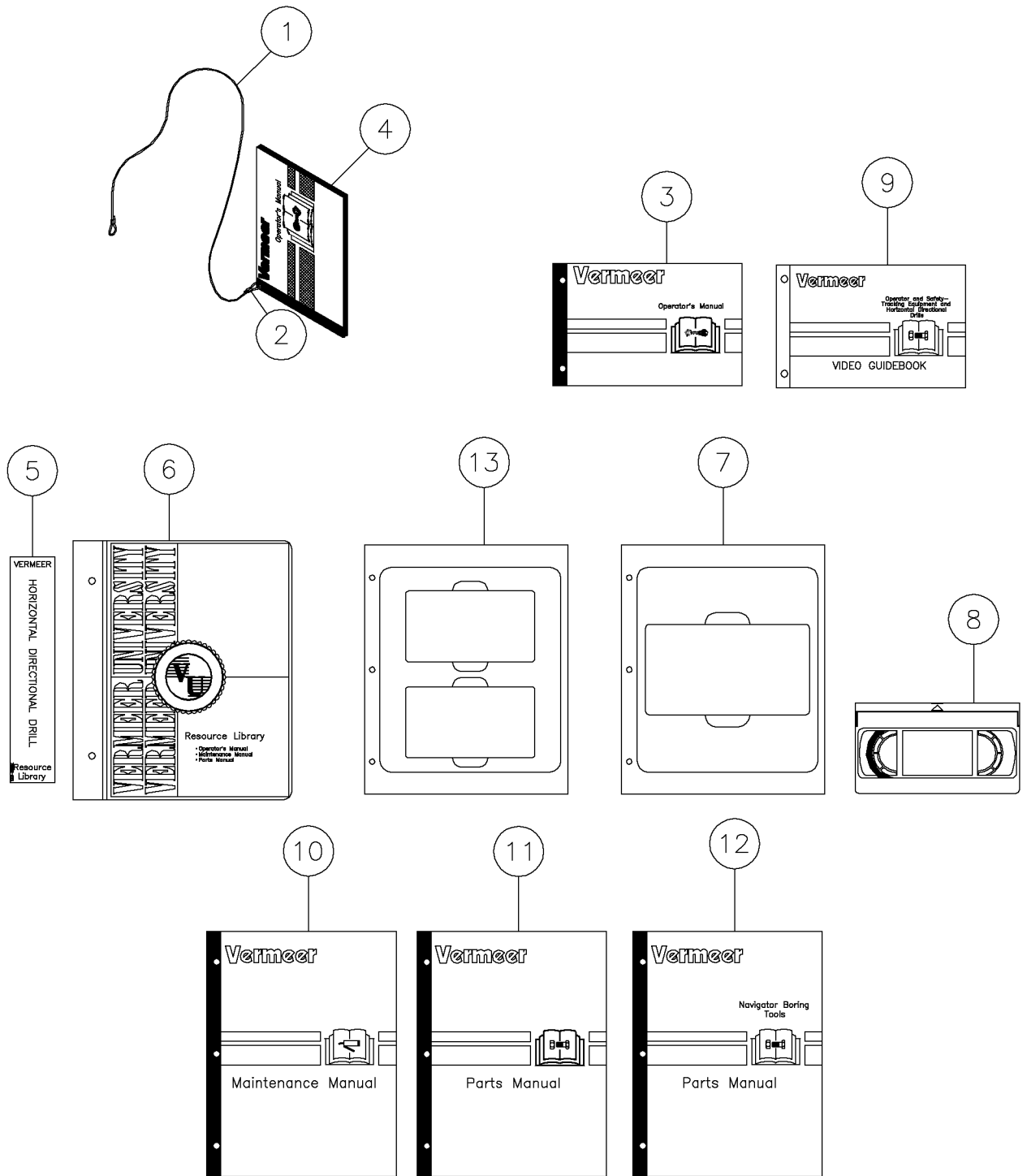
Decals - Safety Fig 1-9



Decals - Safety Fig 1-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2006		Update In Illustration & Parts List.
1		70000530	DECAL-DANGER	4	Domestic
2		7000I530	DECAL-WARNING (NAVIGATORS)	4	International
3		7000A576	DECAL-DANGER	1	Domestic
4		700IA576	DECAL-DANGER	1	International
5		70000563	DECAL-WARNING (UND)	4	Domestic
6		7000I563	DECAL-WARNING (UND)	4	International
7		2326324	DECAL-WARNING/REFUEL	1	Domestic
8		2326I324	DECAL - WARNING EXPLOSION	1	International

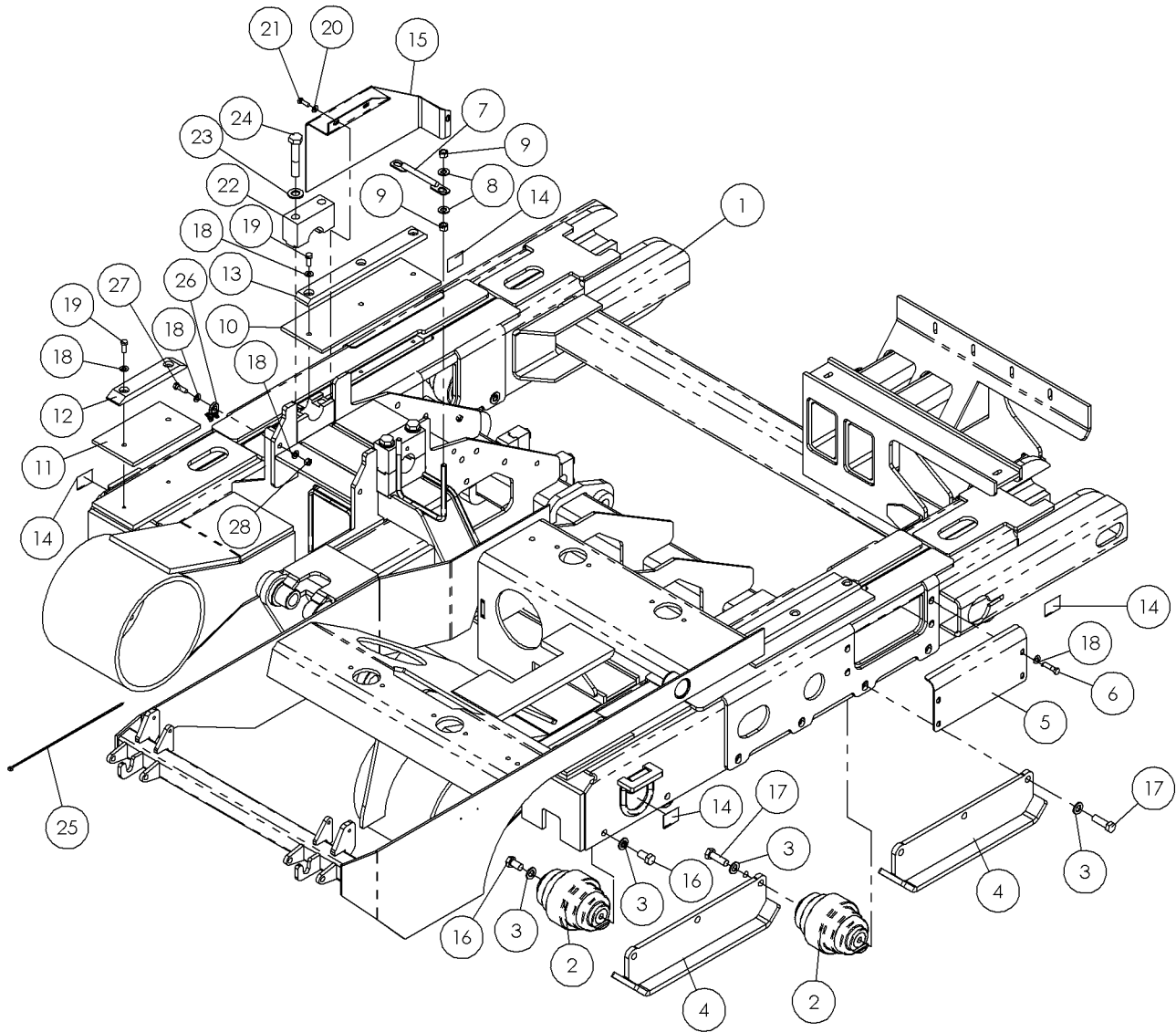
Resource Library Fig 1-10



Resource Library Fig 1-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Added Spanish Manuals
1		142954001	CABLE-.068DIA.NYLON CT.-36.00	1	
2		142423001	CRIMP-CABLE (FOR.068DIA.CABLE)	2	
3		105400X52	OM - D24X40II (EN) o2.00	1	
	*	117000Y48	OM-D24X40II (SP) o2.01	1	Spanish
4		296269619	D24X40II CABLED MINI MANUAL ASSEMBLY	1	Inc. Ref. 1 & 2
	*	296292799	MANUAL ASSY-D24X40II (SP) CABLED 2.01	1	Spanish - Inc. Ref. 1 & 2
5		7000B222	DECAL -HORIZONTAL DRILL - RESOURCE LIB.	1	
6		144144001	NOTEBOOK BINDER - 2"-3 XCX	1	
7		144145001	VHS - HOLDER	1	
8		251803001	VIDEO - DRILL ROD OPERATION AND MAINTENANCE	1	
		296264887	VIDEO-OPERATIONS/SAFETY HDD&TRKNG EQUIP	1	
		296264888	VIDEO - REMOTE LOCKOUT	1	
9		105400T90	HDD OPERATIONS & SAFETY VIDEO GUIDEBOOK	1	
10		105400X54	MM - D24X40II (EN) m2.00	1	
	*	117000Y50	MM-D24X40II (SP) m2.01	1	Spanish
11		105400ZIM	PM-D24X40 II (EN) p2.00	1	
12		105400T09	PM - NAVIGATOR BORING TOOLS p4.00	1	
13		151815001	VHS HOLDER DOUBLE	1	

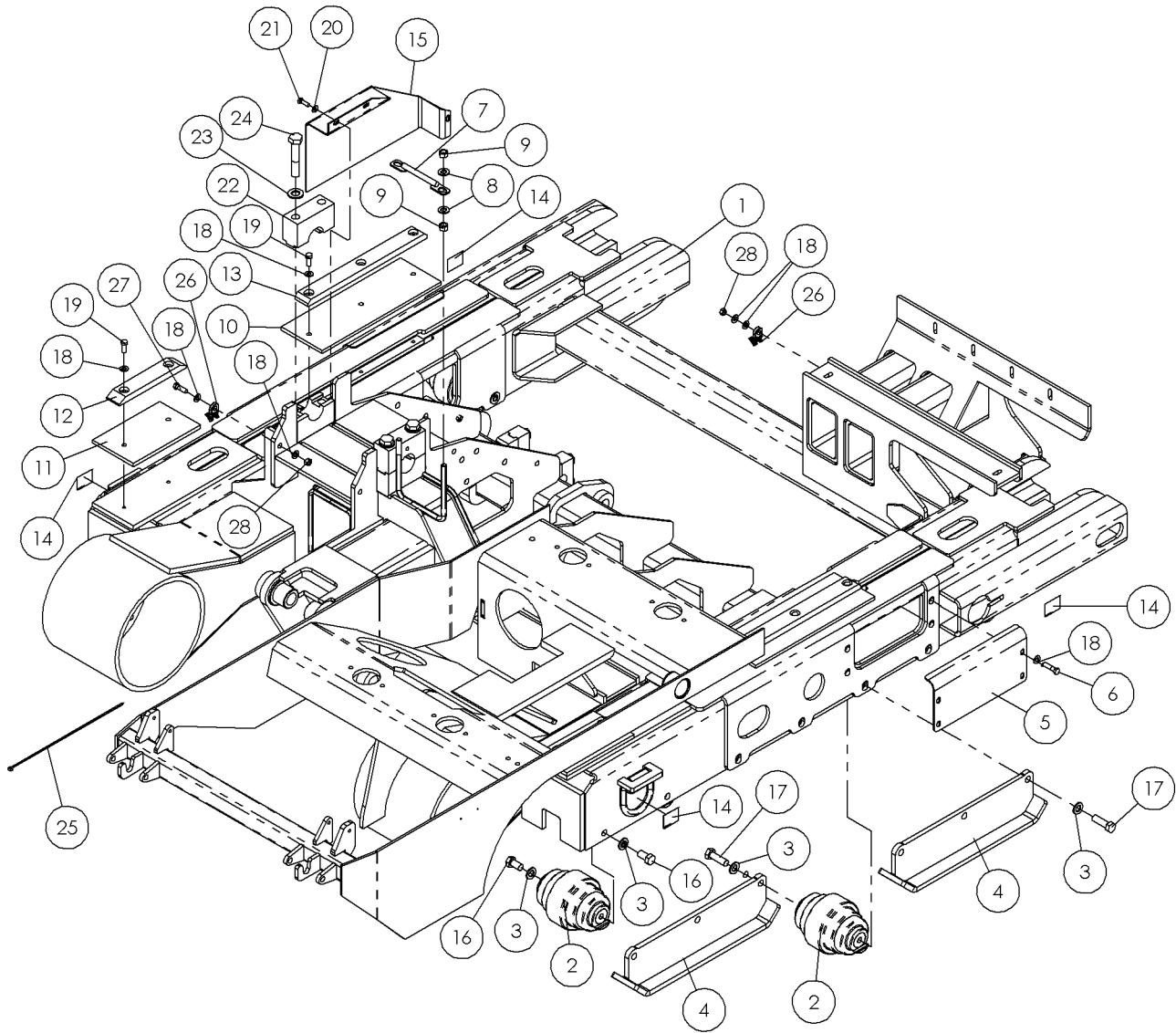
Main Frame/Track Fig 2-1r01



Main Frame/Track Fig 2-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Change Quantities
1		296287806	MAIN FRAME - MEDIUM	1	
2		251099001	TRACK - ROLLER ASSEMBLY	14	
3		603946001	WASHER-FLATHARD-M16-17.0X30.0-3.0-YZ-D125A-RC30/38	28	
4		296275353	ROCK GUARD	4	
5		296279758	COVER - REINFORCED TRACK RAIL	2	
6		235723001	SCREW-HCS-.38-16X1.50-GR8-YZ	8	
7		285532001	ROD - HOSE LOOP COVER	1	
8		485025	WASHER-FLATSTRL-.50-.53X1.06-.09-YZ	4	
9		250512001	NUT-TLHEX-.50-13-C-YZ	4	
10		244456001	BAR - LOWER TRACK WEAR	2	
11		296280079	BAR - LOWER TRACK WEAR	2	
12		285777001	BAR - UPPER TRACK WEAR	2	
13		244455001	BAR - UPPER TRACK WEAR	2	
14		7000i834	DECAL - TIE DOWN POINT	4	
15		296284009	SHIELD - HOSE	1	
16		251100001	SCREW-HCS-M16-2.00X30-10.9-YZ-D933-PT	14	
17		508478050	SCREW-HCS-M16-2.00X50-10.9-YZ-ISO4017-FT	12	
18		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	20	
19		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	10	
20		235714001	WASHER-FLATSTRL-.31-.34X.69-.06-YZ-A325	3	
21		238209001	SCREW-HCS-.31-18X1.00-GR8-YZ	3	
22		296277259	BLOCK - PIVOT	2	
23		235717001	WASHER-FLATSTRL-.75-.81X1.47-.15-YZ-A325	4	
24		238881001	SCREW-HCS-.75-10X4.00-GR8-YZ	4	
25		58151001	STRAP-CABLE TIE-T120R-0 15"	1	
26	*	296276018	MOUNT - HEAVY DUTY CABLE TIE	1	
27		235736001	SCREW-HCS-.38-16X1.25-GR8-YZ	1	
28	*	235725001	NUT-HEX-.38-16-GR8-YZ	1	

Main Frame/Track Fig 2-1

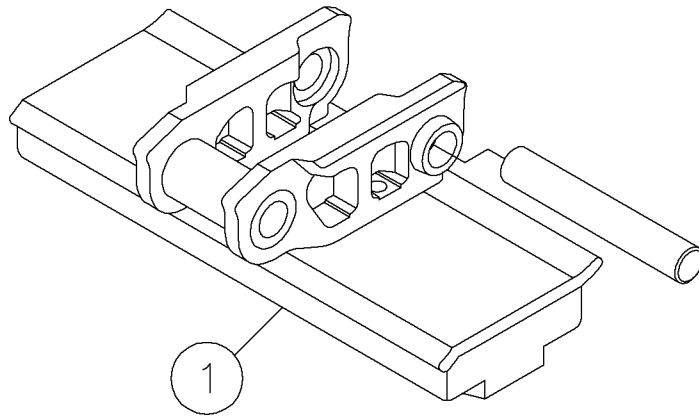


Main Frame/Track Fig 2-1

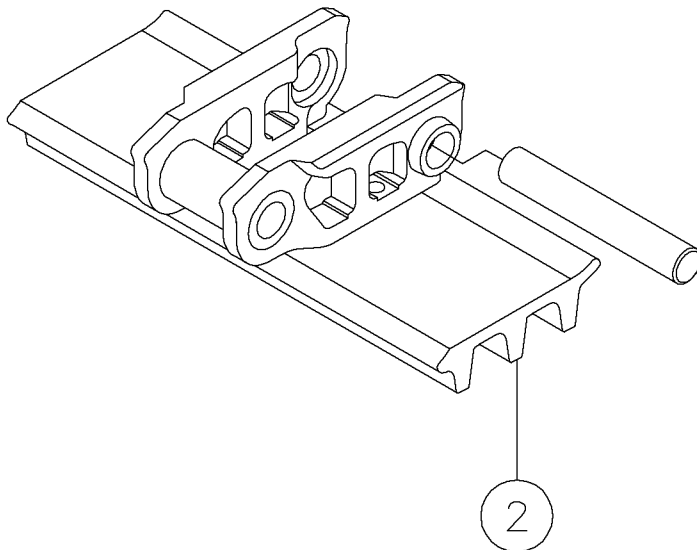
REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Added Harness Mount
1		296287806	MAINFRAME - MEDIUM	1	
2		251099001	ROLLER - LOWER TRACK	14	
3		603946001	WASHER M16	28	
4		296275353	ROCK GUARD	4	
5		296279758	COVER - REINFORCED TRACK RAIL	2	
6		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	8	
7		285532001	ROD - HOSE LOOP COVER	1	
8		485025	WASHER-1/2 FLAT-HARDENED-YZ	4	
9		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	4	
10		244456001	BAR - LOWER TRACK WEAR	2	
11		296280079	BAR - LOWER TRACK WEAR	2	
12		285777001	BAR - UPPER TRACK WEAR	2	
13		244455001	BAR -UPPER TRACK WEAR	2	
14		7000i834	DECAL - TIE DOWN POINT	4	
15		296284009	SHIELD - HOSE	1	
16		251100001	BOLT-M16X2.0X30 GR10.9 HEX YZN	14	
17		508478050	SCREW-HCS,M16- 2.00X50,10.9,YZ,ISO4017,FT	12	
18		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	22	
19		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	10	
20		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	3	
21		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	3	
22		296277259	BLOCK PIVOT MOUNT TOP	2	
23		235717001	WASHER - 3/4" HARDENED FLAT YZ	4	
24		238881001	BOLT-3/4-10 X 4 HHCS GR8 ZY	4	
25		58151001	STRAP-CABLE TIE-T120R-0 15"	1	
26	*	296276018	MOUNT HELLER MANN TITON	2	
27	*	235736001	BOLT-3/8-16X1 1/4 ZYC	1	
28	*	235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	

Steel/Rubber Tracks Fig 2-2

RUBBER TRACK



STEEL TRACK



Steel/Rubber Tracks Fig 2-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251102001	TRACK - 36 SECTION RUBBER	2	
		230841001	RUBBER TRACK-25MMX400M CHAIN	36	
		230840005	PIN-MASTER	1	
		230840007	PIN-TRACK	35	
2		251103001	TRACK - 36 SECTION STEEL	2	
		230840003	SECTION-TRACK (STEEL)	36	
		230840005	PIN-MASTER	1	
		230840007	PIN-TRACK	35	

Rack - 10' Fig 2-3

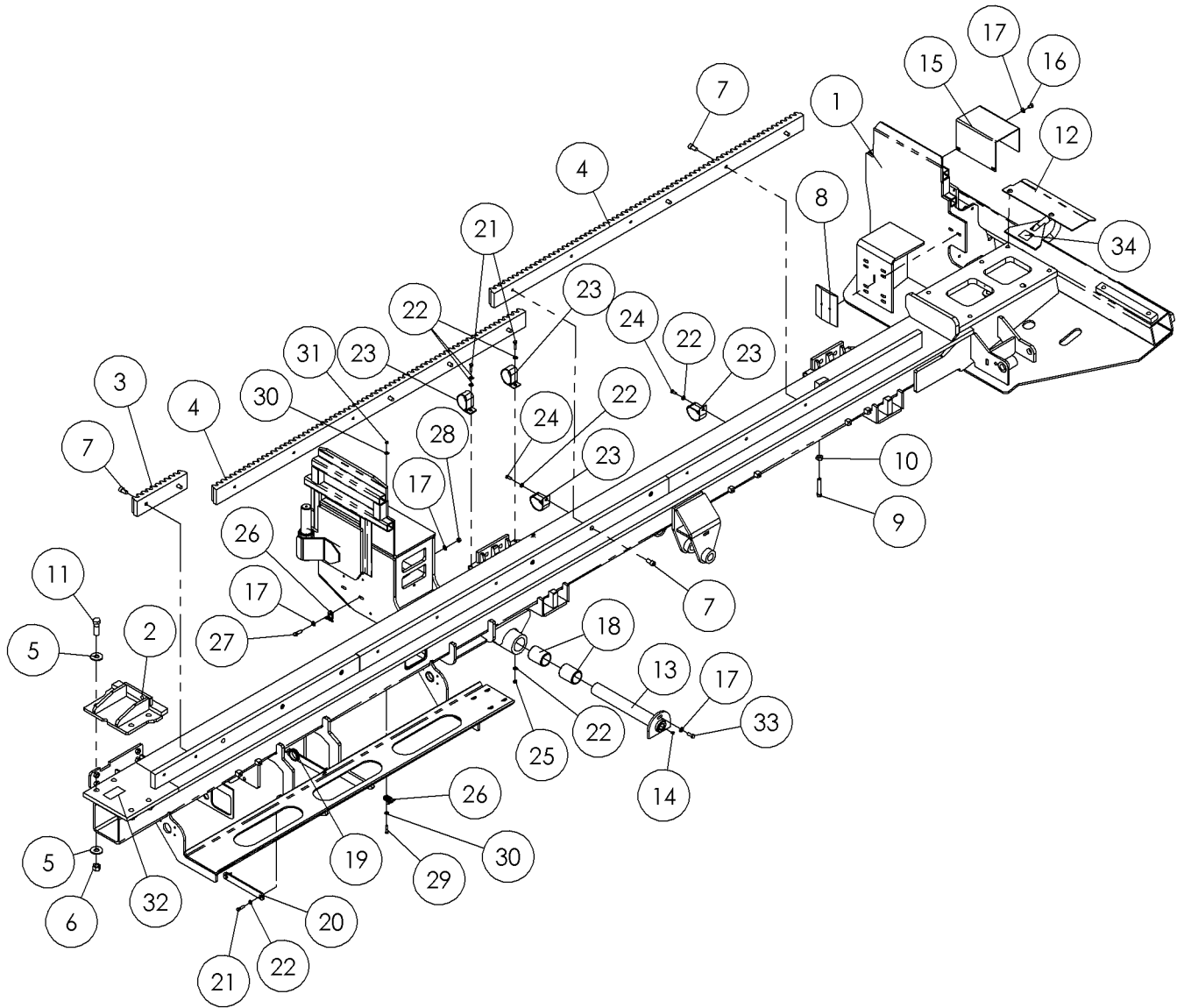
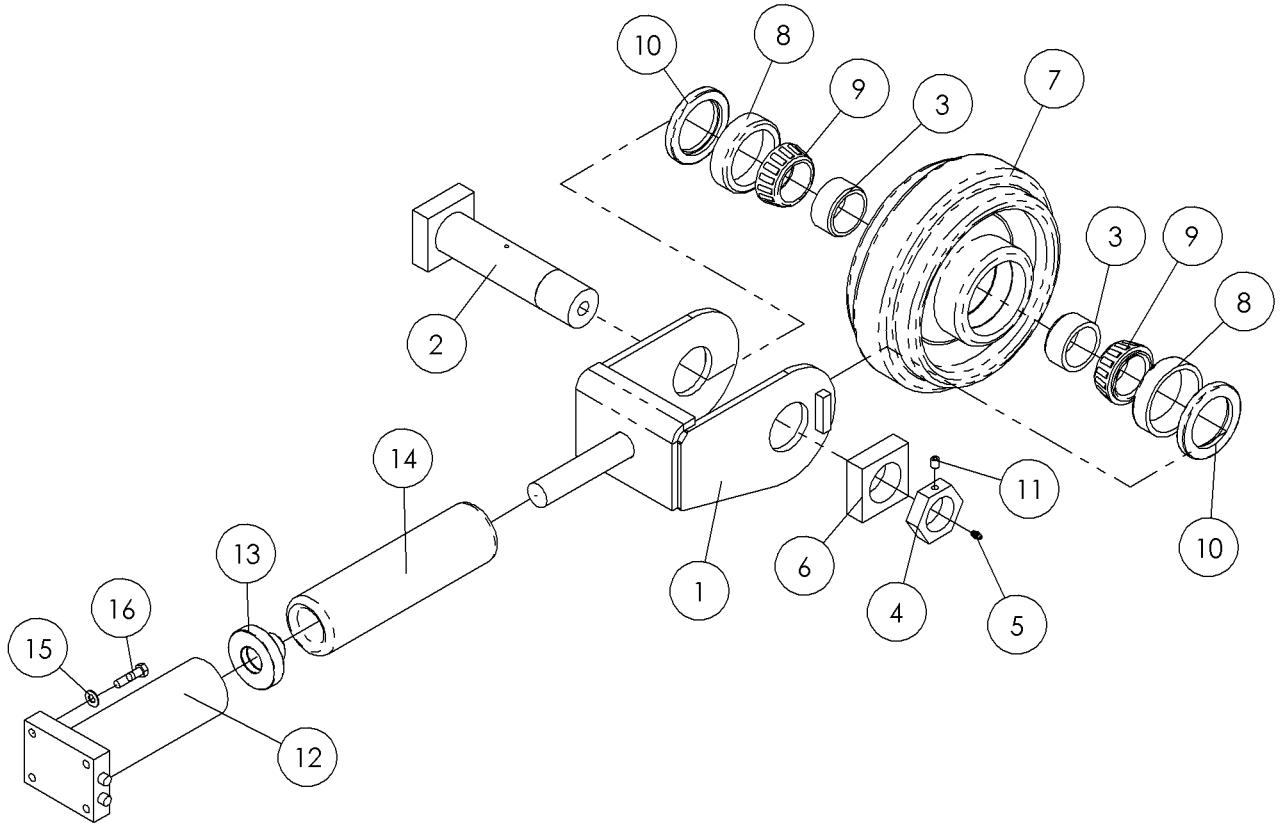


Illustration No. 296282553

Rack - 10' Fig 2-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296287904	WELDMENT - RACK 10' D24X40II	1	
2		296273630	WELDMENT - REAR STOP	1	
3		296277050	GEAR - SHORT RACK	1	
4		276318001	RACK - SIDE	2	
5		510337617	WASHER-FLATSTD-.75-.81X2.00-.15-YZ	11	
6		235739001	NUT-3/4-10 GR8 ZYC	4	
7		129667010	CAPSCREW-1/2-13X1 SOCKET HEAD	21	
8		296280137	PLATE - ROD GUARD	1	
9		551030	SQ HSS-5/8-11X3	1	
10		250514001	NUT -5/8NC JAM Y/ZINC	1	
11		238880001	BOLT-3/4-10X2 1/2 HHCS GR8 ZY	6	
12		291538001	PLATE-FRONT VICE	1	
13		296275355	PIN - RACK PIVOT	1	
14		598001	FITTING-1/4" NF ST GREASE ZERK	1	
15		279093001	SHIELD-VALVE	1	
16		240310001	SCREW - HCS - .38 - 16 X .50 - GR8 - YZ	2	
17		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	7	
18		276336001	BSHNG-2 3/8ODX2.00ID-3.00 CNNX	2	
19		1865055	GROMMET-1 1/2 IDX1 3/4 OD 1/4G	2	
20		296284051	STRAP - HOSE SUPPORT	2	
21		248031001	BOLT-5/16-18X1 1/4 GR8 ZYC	6	
22		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	11	
23		278901001	STRAP - HOSE SLEEVE HANGER	4	
24		235742001	BOLT-5/16-18X3/4 GR8 ZYC	2	
25		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
26		296276018	MOUNT HELLER MANN TITON	3	
27		235736001	BOLT-3/8-16X1 1/4 ZYC	2	
28		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
29		250008001	BOLT 1/4-20 X 1 1/4 ZINC PL	1	
30		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	2	
31		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	1	
32		7000A864	DECAL-WARNING DOMESTIC	1	Domestic
		700IA864	DECAL-WARNING INTERNATIONAL	1	International
33		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	1	
34		7000I834	DECAL - TIE DOWN POINT	1	

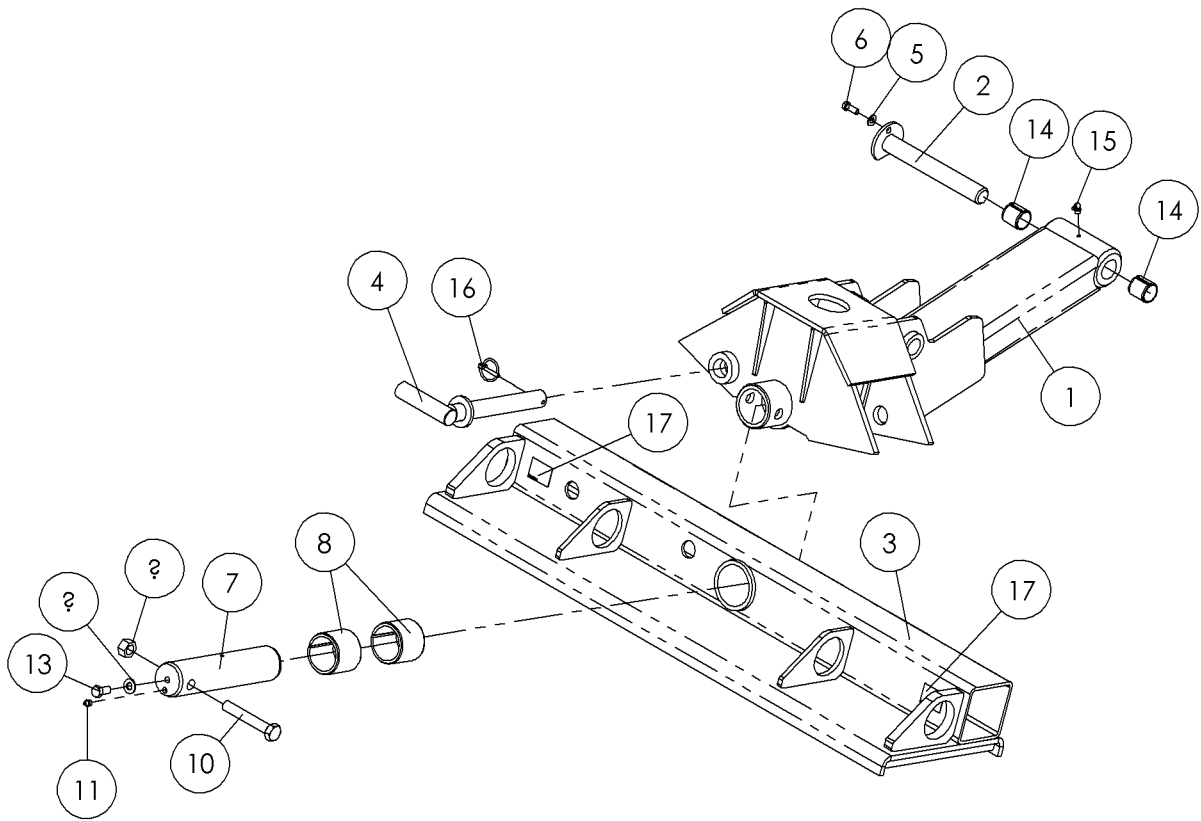
Track Tightener Fig 2-4



Track Tightener Fig 2-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		294562001	BRACKET - TRACK END ROLLER	2	
2		251129001	PIN - FRONT IDLER	2	
3		280532001	SPACER-IDLER ROLLER	4	
4		251131001	NUT - FRONT IDLER	2	
5		598001	FITTING-1/4" NF ST GREASE ZERK	2	
6		251423001	BLOCK-IDLER ROLLER BOLT	2	
7		251203001	ROLLER - FRONT TRACK	2	
8		1715011	TIMKEN CUP 2" #3730	4	
9		1716011	TIMKEN CONE 2" #3775	4	
10		3967001	SEAL -#25091 C/R	4	
11		530001	SSS-3/8-16X1/2	2	
12		296275159	CYLINDER-2.50X4.50 GREASE	2	
13		251432001	CAP-ROD	2	
14		251101001	SPRING-3.0 OD X25/32W X 13 1/2	2	
15		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	8	
16		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	8	

Outrigger Fig 2-5



Outrigger Fig 2-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275429	SUB - ARM OUTRIGGER	1	
2		230858001	PIN-OUTRIGGER	1	
3		296275423	PAD - OUTRIGGER	1	
4		296275446	ASSEMBLY - OUTRIGGER PIN	1	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	1	
6		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	1	
7		235849001	PIN-PIVOT 125@26184	1	
8		1835099	BSHG-STL.3 X 2 1/2-2 1/2	2	
9		250510001	NUT 3/4 NC Gr8 SLTL Y/ZINC	1	
10		235738001	BOLT-3/4-10X4 1/2 GR8 ZNC PLT	1	
11		586001	ZERK-1/8" ST NPT GREASE REF TR00484	1	
12		485025	WASHER-1/2 FLAT-HARDENED-YZ	1	
13		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	1	
14		1835027	BSHG.-STL.-1 1/2X1 1/4X1 1/2 REF T05914	2	
15		590001	ZERK-1/8" NPT 90 DEG GREASE REF T00838	1	
16		1797003	PIN-QUICK ATTACHMENT LATCH 1/4"-XCX 6M DIA"	1	
17		70001834	DECAL - TIE DOWN POINT	2	

Thrust/Carriage Fig 2-6

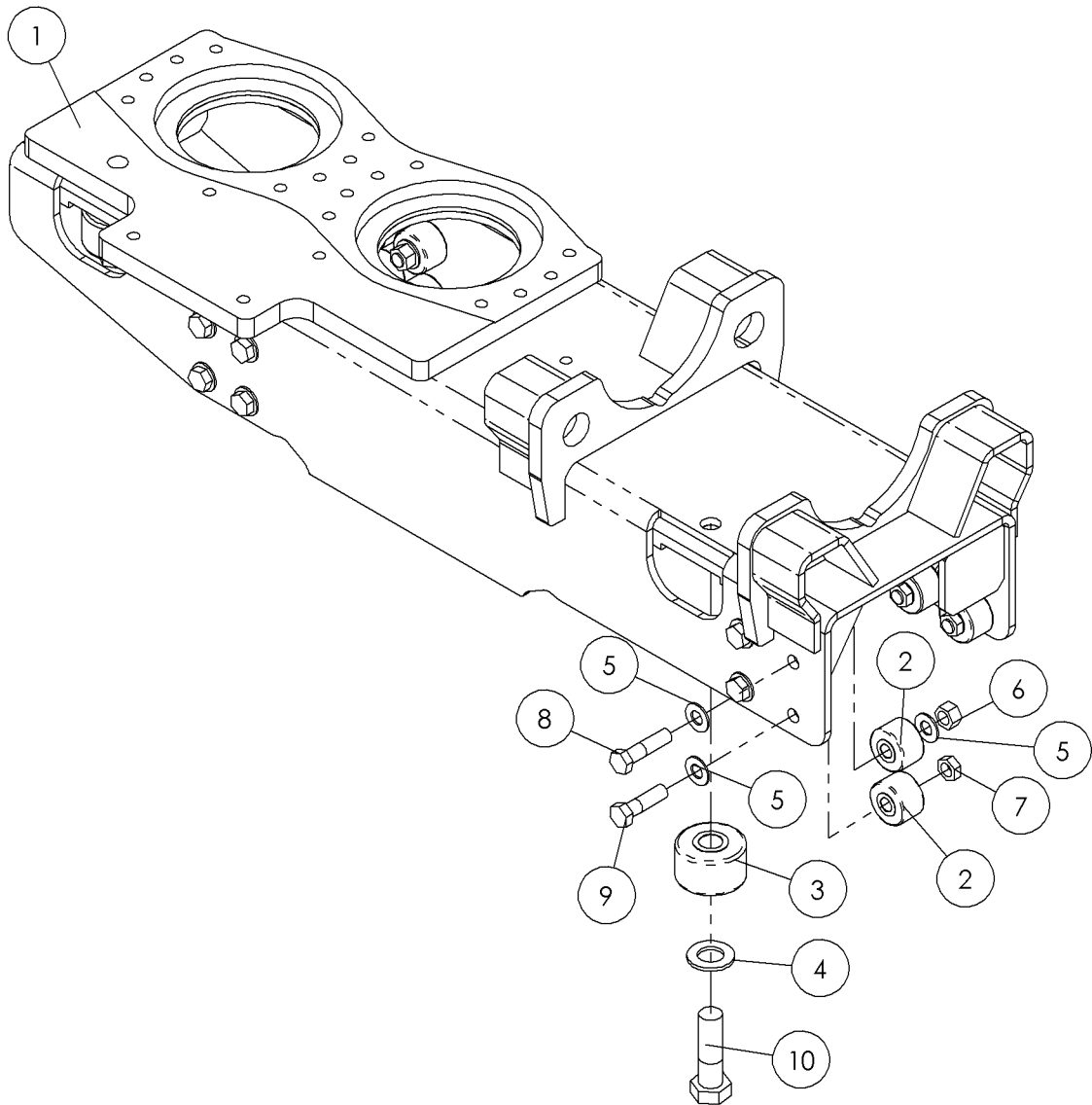
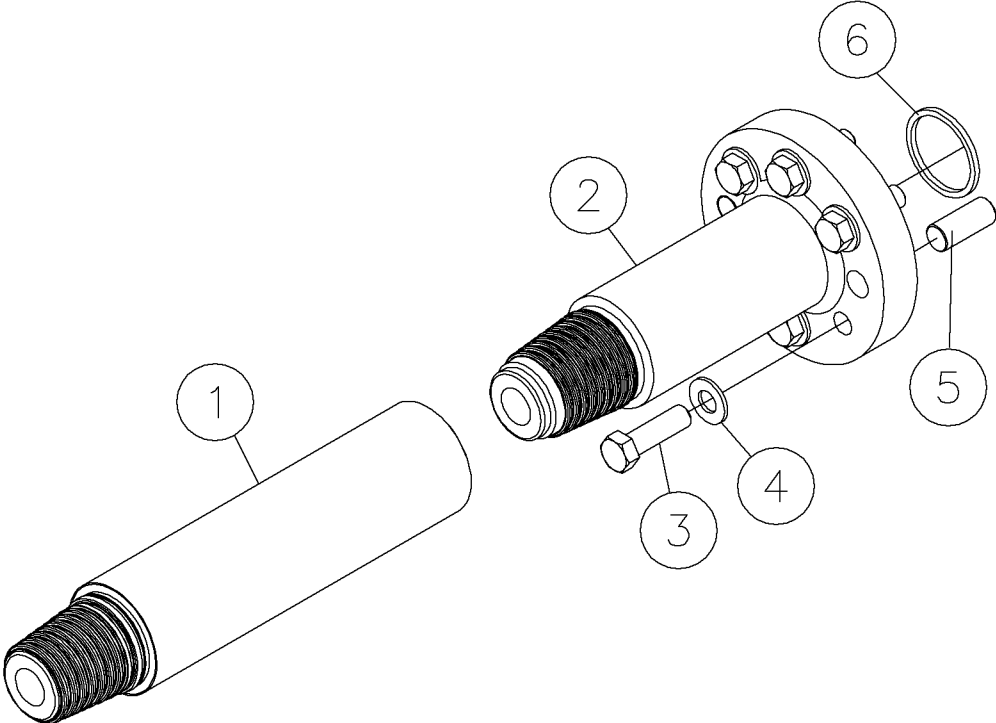


Illustration No. 296282551

Thrust/Carriage Fig 2-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296264226	MACHINE- CARRIER - THRUST	1	
2		278378001	BEARING-2" ROLLER	16	
3		288513001	BEARING- 3" ROLLER	2	
4		238892001	WASHER-FLATSTRL-1.00-1.13X2.00-.16- YZ-A325	2	
5		235715001	WASHER-FLATSTRL-.63-.66X1.31-.09- YZ-A325	24	
6		238221001	NUT-HEX-.63-11-GR8-YZ	8	
7		250514001	NUT-HEXJAM-.63-11-GR8-YZ	8	
8		280647001	SCREW-HCS-.63-11X2.50-GR8-YZ	8	
9		238245001	SCREW-HCS-.63-11X2.25-GR8-YZ	8	
10		388034	SCREW-HCS-1.00-8X3.50-GR8-PLN	2	

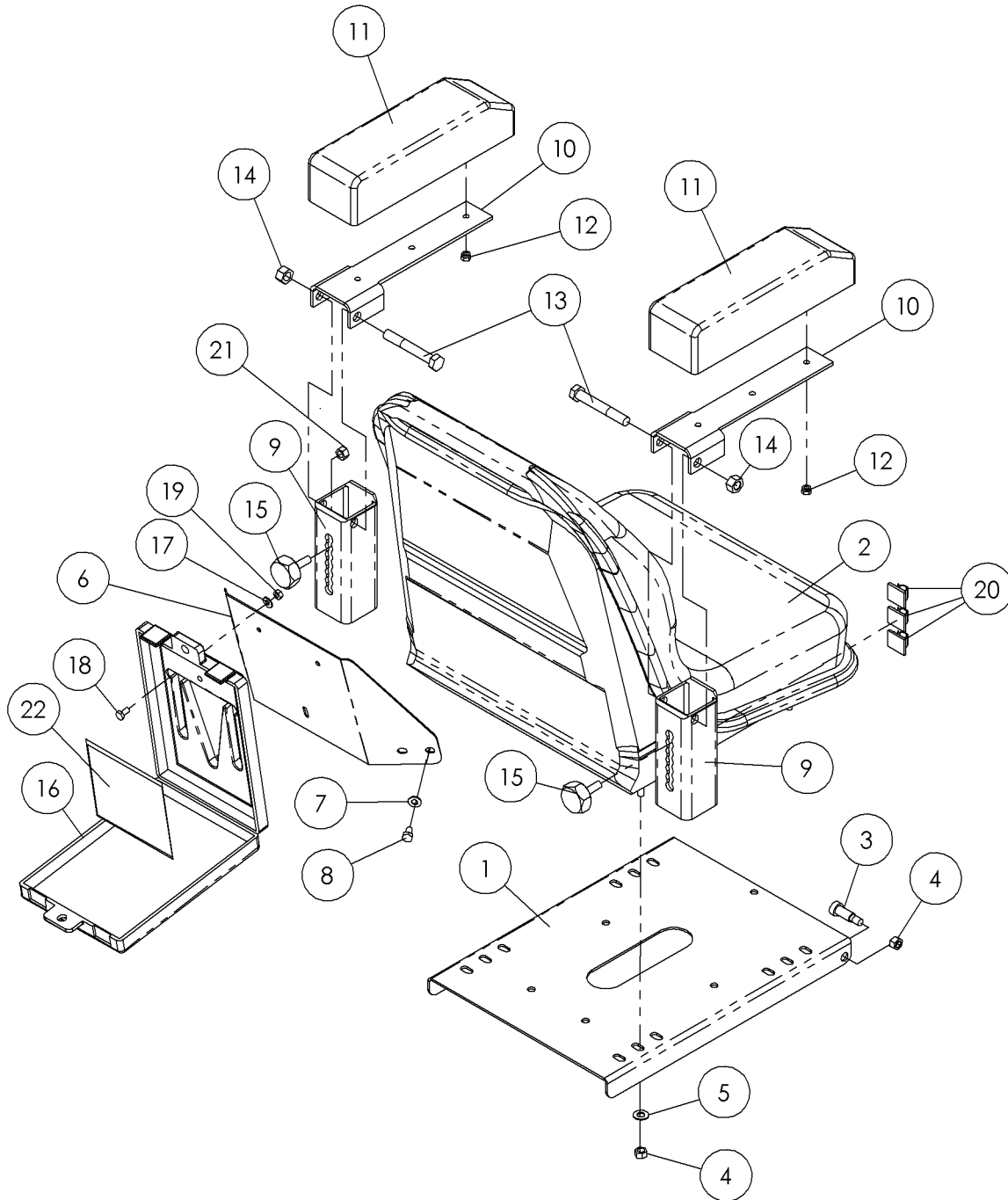
Drive Chuck Fig 2-7



Drive Chuck Fig 2-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Added Assy
1		276323001	SUB - 2 3/8 VERMEER THREAD LONG	1	
2		230806001	DRIVE CHUCK 2 5/8 OD	1	
3		240334001	SCREW-HCS-.50-13X1.75-GR8-YZ	6	
4		485025	WASHER-1/2 FLAT-HARDENED-YZ	6	
5		70096001	PIN-DOWEL 5/8DIA.-1 1/2	2	
6		72897001	O RING-SQ. #24 FLANGE	1	
	*	296273550	ASSY-DRIVE CHUCK		Inc. Ref. 1 and 2

Seat/Arm Rest Fig 2-8



Seat/Arm Rest Fig 2-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Change Clamp Quantity
1		296274174	PLATE - SEAT MOUNT	1	
2		296274289	SEAT - MILSCO XR210 GRAY	1	
		219186003	SWITCH-SAFETY	1	Not Shown
		4473004	1/4-20X1/2 FLGE WHIZ BOLT	2	Not Shown
3		129671001	SCREW-1/2X1 SOCKET SHOULDER	2	
4		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	6	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
6		235683001	MOUNT-MANUAL BOX	1	
7		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
8		235740001	BOLT-5/16-18X1/2 GR8 ZYC	4	
9		296274121	ARM - REST SUPPORT UPPER	2	
10		296274122	ARM - REST HINGE PLATE	2	
11		296274120	ARM REST - VINYL	2	
12		103201001	NUT-1/4-20NC NYLON INSERT LOCK	6	
13		238241001	BOLT 1/2"-13X 3 1/2" GR8 HEX	2	
14		75382001	NUT-1/2-UNC GRADE 8 SLTL	2	
15		296274127	HANDLE - SEAT ADJUSTMENT	2	
16		142410001	CASE-6"X9 XCX X1" OPERATOR MANUAL	1	
17		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	3	
18		235733001	BOLT-1/4-20X1/2 GR8 ZYC	3	
19		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	3	
20	*	279318001	CLAMP - ADHESIVE MOUNT	3	
21		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	
22		2326940	DECAL-NOTICE TO OWNERS	1	

Operator Platform Fig 2-9

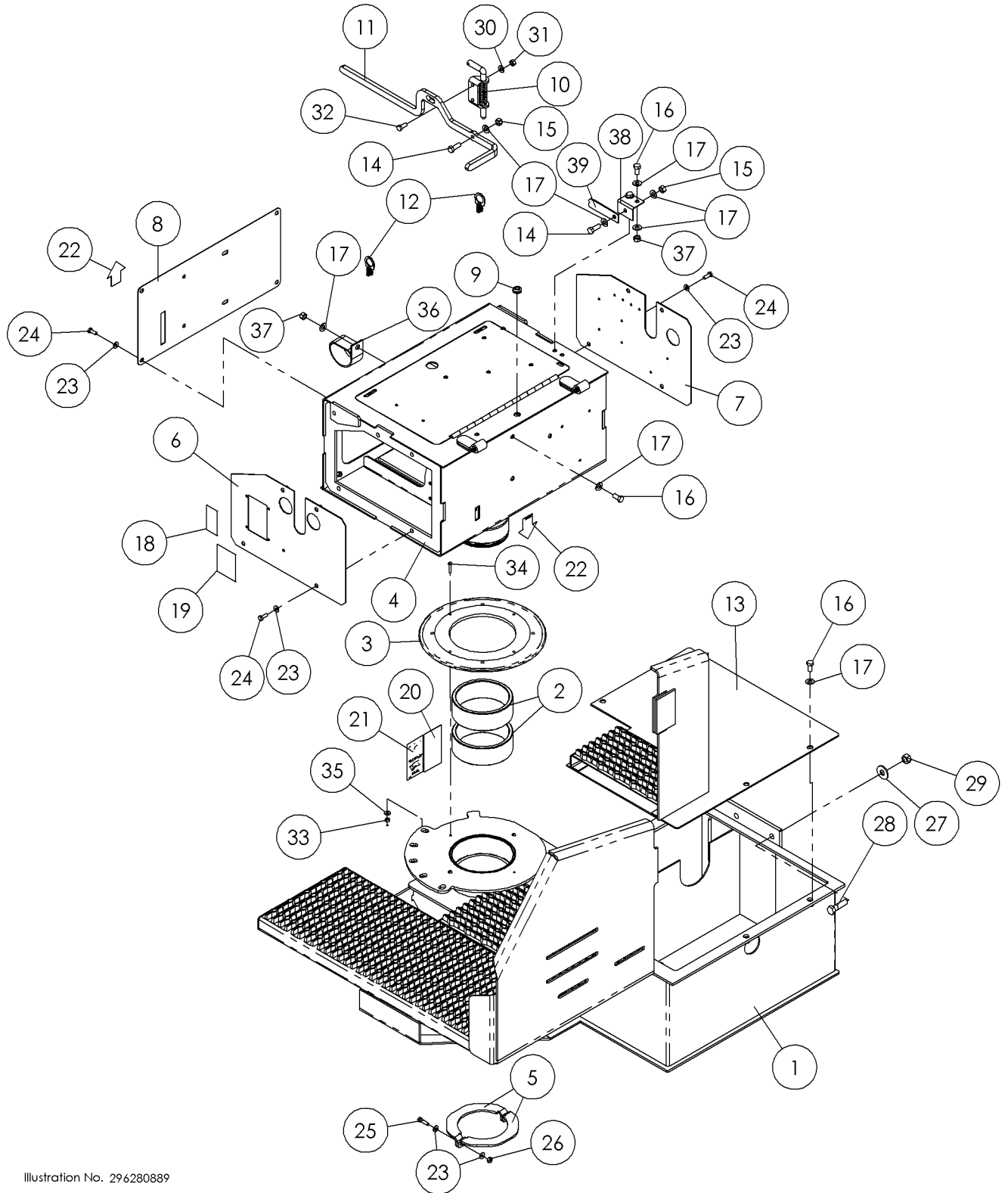
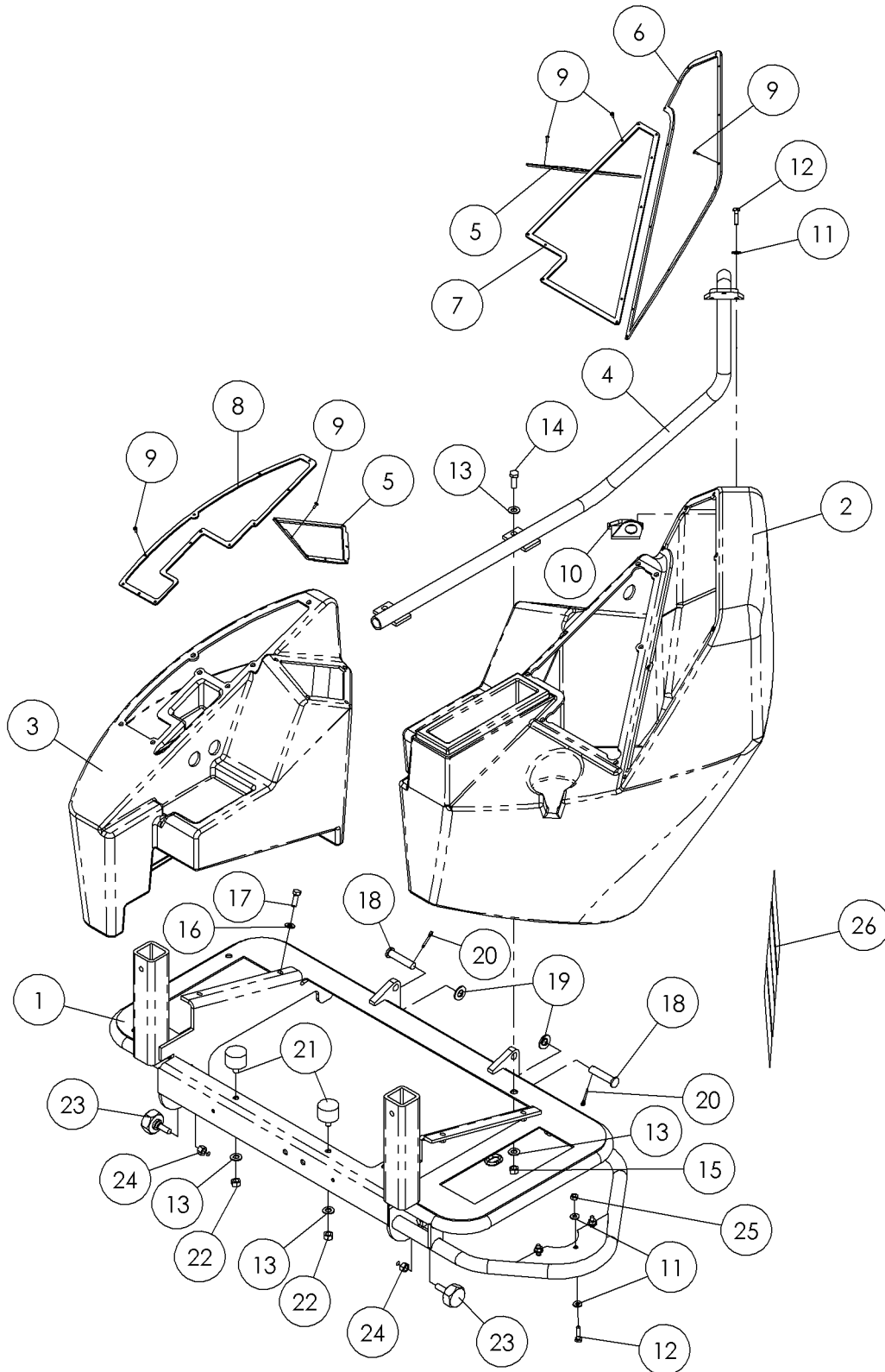


Illustration No. 296280889

Operator Platform Fig 2-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Change Profile On Items 1 And 13
1	*	296269678	WELDMENT - OPERATOR PLATFORM	1	Change Profile
2		296274302	BUSHING - PIVOT	2	
3		296256466	BEARING-LAZY SUSAN #12C	1	
4		296287814	WELDMENT - CONSOLE LOWER FRAME	1	
5		296274303	CLAMP - SHAFT CLAMP CONSOLE LOWER BASE	2	
6		296292025	PLATE - SIDE CONSOLE FRAME RH	1	
7		296292026	PLATE - SIDE CONSOLE FRAME LH	1	
8		296282509	PLATE - COVER SEAT BASE	1	
9		1865027	GROMMET-5/16ID-1/8GR-.56 HOLE	1	
10		296274337	SPRING LATCH 720-S-L-ZINC	1	
11		296287824	LEVER - SEAT LOCK RELEASE	1	
12		86113001	FASTENER-1/4 TURN	2	
13	*	296269689	PANEL - BATTERY COVER	1	Change Profile
14		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	2	
15		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	
16		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	7	
17		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	13	
18		7000c928	DECAL-RELAY BOX 2/CONTROLLERS	1	
19		7000C687	DECAL-BREAKER BOX D36X50	1	
20		7000C446	DECAL - NO WELD	1	Domestic
		700IC446	DECAL - NO WELD	1	International
21		70000044	DECAL-WARNING(AT/UND)	1	Domestic
		7000I044	DECAL-WARNING	1	International
22		700Ib248	DECAL - PUSH	2	
23		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	16	
24		235734001	BOLT-1/4-20X3/4 GR8 ZYC	12	
25		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	2	
26		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	2	
27		510337611	WASHER - FLATSTD - .50-.56X1.38-.11- YZ	6	
28		240334001	SCREW-HCS-.50-13X1.75-GR8-YZ	6	
29		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	6	
30		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	2	
31		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
32		235742001	BOLT-5/16-18X3/4 GR8 ZYC	2	
33		400001	NUT-3/16 NC HEX REF T09423	3	
34		1802010	BOLT - 3/16" X 1" NC STOVE	3	
35		510337601	WASHER-FLATSTD-.19-.22X.56-.05-YZ	3	
36		278901001	STRAP - HOSE SLEEVE HANGER	1	
37		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	3	
38		296292020	PLATE - PROP ROD	1	
39		296292019	PROP ROD - CONSOLE	1	

Control Console Fig 2-10



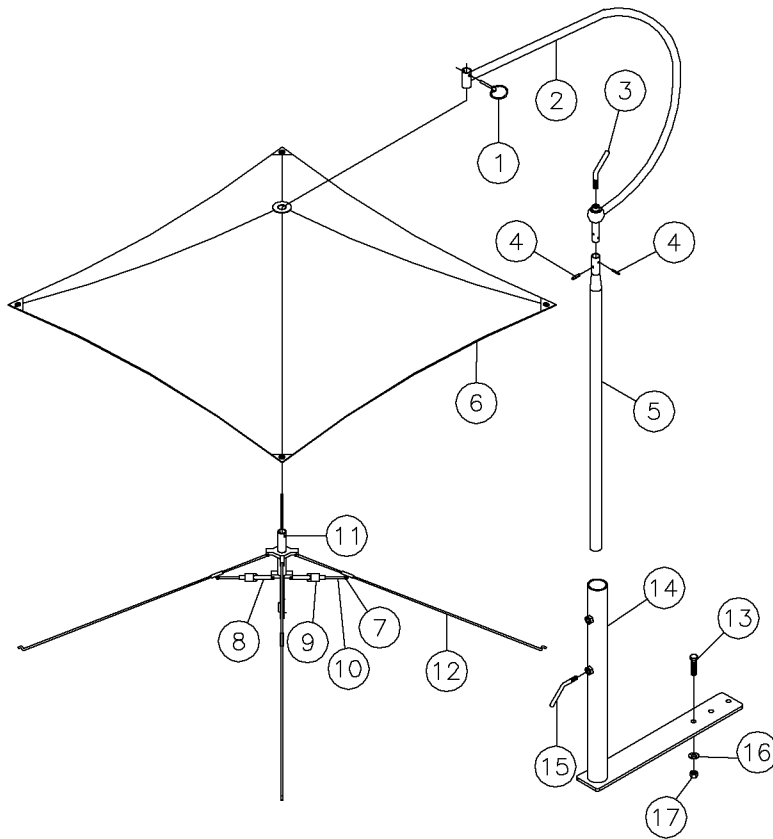
Control Console Fig 2-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296287827	FRAME - SEAT WELDMENT STANDARD OPER CONSOLE	1	
2		296274251	CONSOLE - OPERATOR RH	1	
3		296274252	CONSOLE - OPERATOR LH	1	
4		296274172	WELD - HAND RAIL	1	
5		296274182	BACKING - PLATE - JOYSTICK	2	
6		296274187	PLATE - BACKING GAUGE RIGHT UPPER	1	
7		296274188	BACKING - PLATE RIGHT HAND LOWER	1	
8		296274190	PLATE - BACKING LEFT HAND	1	
9		296280370	POP RIVET - ABA46	19	
10		296274185	WELDMENT-MOUNT-ANTENNA/HANDLE	1	
11		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	9	
12		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	6	
13		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	6	
14		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	2	
15		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	
16		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
17		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	4	
18		289662001	PIN - CLEVIS 1/2" X 2 1/4"	2	
19		485025	WASHER-1/2 FLAT-HARDENED-YZ	2	
20		510009	COTTER PIN-1/8" X 1"	2	
21		122474001	MOUNT-SANDWICH SINGLE STUD	2	
22		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
23		296274127	HANDLE - SEAT ADJUSTMENT	2	
24		416001	NUT-3/8 NC SLTL	2	
25		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	3	
26		7000C530	DECAL - DANGER 4 PANEL	1	Domestic
		700IC530	DECAL - DANGER INTERNATIONAL 4 PANEL	1	International

Rotation Gearbox Fig 2-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Change Plugs
1		296264224	MACHINE - ROTATION - G.B.	1	
2		243031001	SHAFT-GEARBOX ROTATION	1	
3		4771061	BRG. CONE 3994	1	
4		1715013	TIMKEN CUP-2 1/2" #3920	1	
5		296264238	GEAR - 38T - 4 D.P.	1	
6		296264247	GEAR - 27T - 4 D.P.	1	
7		224896250	SNAP RING-2 1/2" EXTERNAL	1	
8		228223001	TUBE - GEAR SPACER	1	
9		1716099	CONE-2 1/8" BRG.	1	
10		1715085	CUP-BEARING	1	
11		296264246	GLAND - FRONT SEAL	1	
12		296264245	GLAND - REAR - SEAL	1	
13		215350001	SLEEVE-SEAL	1	
14		278767001	NUT - 50X18-4000# SPEITH-LOCK	1	
15		296264244	COVER	1	
16		78202001	PLUG-1/4NPT SOCKET HEAD PIPE	1	
17		296264153	BUSHING- 1.75 X 1.50 X 1.5 W/EXT GREASE	4	
18		599001	BREATHER VENT-1/8 NPT 131000	1	
19		296273519	SNAP RING (HO-237)	2	
20		78185027	O-RING # 407228	2	
21	*	296292056	1/16 FLUSH HOLLOW HEX PLUG	2	
22		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	30	
23		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	8	
24		228181001	O-RING -#243 7OD BUNA-N	1	
25		228180001	O-RING -#252 7OD BUNA-N	1	
26		214202001	O-RING #138	1	
27		296273549	SEAL-4.000"-LIP	1	
28		296273548	SEAL-3.125"-LIP	1	
29		598001	FITTING-1/4" NF ST GREASE ZERK	4	
30		523001	SSS-1/4-20X3/8 REF T12503	1	
31		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	22	
32		296273639	FITTING - 16MNPT - 2FNPT - HEX -YZ	1	
33		296269258	SWIVEL - 16MORB WATER	1	
34		60904001	1M NPT X 16M JIC 45 DEG ELBOW	1	
35		96076001	FIT.-12MX16F O-RING	1	
36		296280122	PLATE - POSITION MARKER STOP	1	
37		613754001	PLUG - SIGHT .75-16 ZC	1	

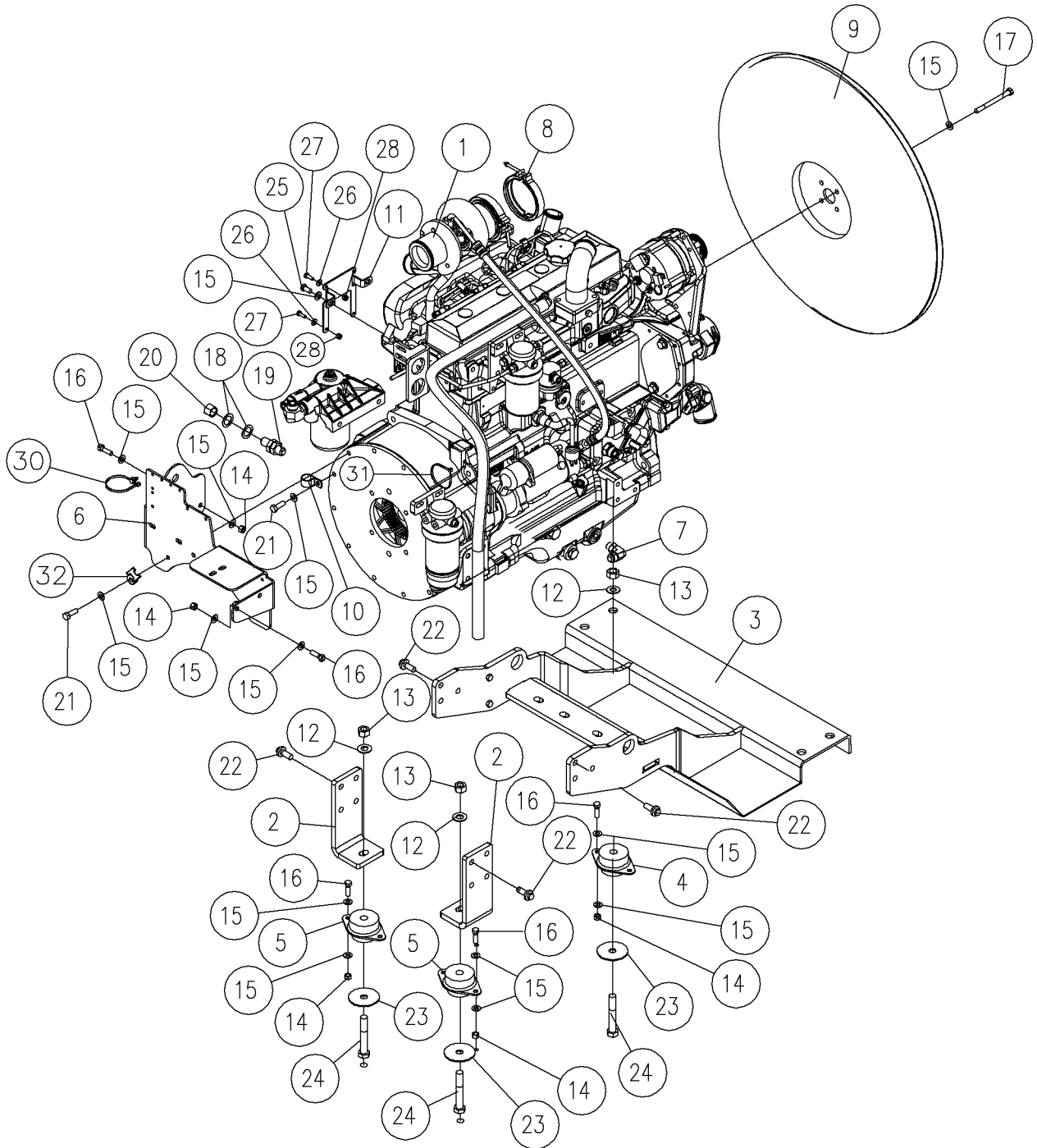
Umbrella Fig 2-12



Umbrella Fig 2-12

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		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	3	
14		296280397	WELDMENT-UMBRELLA MOUNT D24X40II	1	
15		240038001	BOLT-TIGHTENING 3/8"	2	
16		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	3	
17		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	3	
		238181001	UMBRELLA-ASSY (PARTS REPAIR)		Inc. Ref. 1-12
		240102001	FRAME-UMBRELLA		Inc. Ref. 2-5 & 7-12
		296280396	ASSEMBLY-UMBRELLA D24X40II - D36X50II		Inc. Ref. 1-17

Engine & Mounting (S/N 372-) Fig 3-1r01



Engine & Mounting (S/N 372-) Fig 3-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Added Mounts & Ties
1		296274640	296274640 AIR INLET 1724	1	
2		296274655	PLATE - ENGINE SUPPORT	2	
3		296280416	MOUNT - FRONT ENGINE	1	
4		296274660	ISOLATOR - ENGINE WHITE	2	
5		296274659	ISOLATOR - ENGINE RED	2	
6		296274626	BRACKET - OIL FILTER	1	
7		100351001	FITTING - 90-10MJ-M18X1.5MORBA	1	
8		285687001	CLAMP - MUFFLER/TURBO	1	
9		296280871	COOLING FAN - 28.25" BLOWER	1	
10		2595009	CLAMP - 1-1/4" 'P' STYLE	1	
11		296289044	PLATE - ECU MOUNT	1	(S/N 372-)
12		235715001	WASHER-FLATSTRL-.63-.66X1.31-.09-YZ-A325	4	
13		250513001	NUT-TLHEX-.63-11-C-YZ	4	
14		250508001	NUT-TLHEX-.38-16-C-YZ	12	
15		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	36	
16		235736001	SCREW-HCS-.38-16X1.25-GR8-YZ	12	
17		508476110	SCREW-HCS-M10-1.50X110-10.9-YZ-ISO4014-PT	4	
18		240756001	WASHER-VIBRATION-.88-.92X1.36-.13-	2	
19		77734001	FITTING-BHSTR-10MJ-10MJ-LN	1	
20		78062001	FITTING - CAP - 10FJ	1	
21		508476030	SCREW-HCS-M10-1.50X30-10.9-YZ-ISO4017-FT	8	
22		507613030	SCREW-HFS-M12-1.75X30-10.9-YZ-ANSI-B18.2.3.9M-PT	14	
23		220203001	SLUG - ENGINE MOUNT	4	
24		27169040	SCREW-HCS-.63-11X4.00-GR8-PLN	4	
25		506046010	WASHER-FLAT-M10-10.5X20.0-2.0-YZ-D125A	2	
26		507092020	SCREW-HCS-M10-1.50X20-8.8-YZ-ISO4017-FT	2	
27		235716001	WASHER-FLATSTRL-.25-.28X.63-.06-CZ	4	
28		235734001	SCREW-HCS-.25-20X.75-GR8-YZ	4	
29		103201001	NUT-NYLOCK-.25-20-GR2-CZ	4	
30	*	296276007	FIR TREE MOUNT	1	
31	*	59634001	SINGLE NYTIE - 8"	1	
32	*	296276018	MOUNT HELLER MANN TITON	3	

Engine & Mounting Fig 3-1

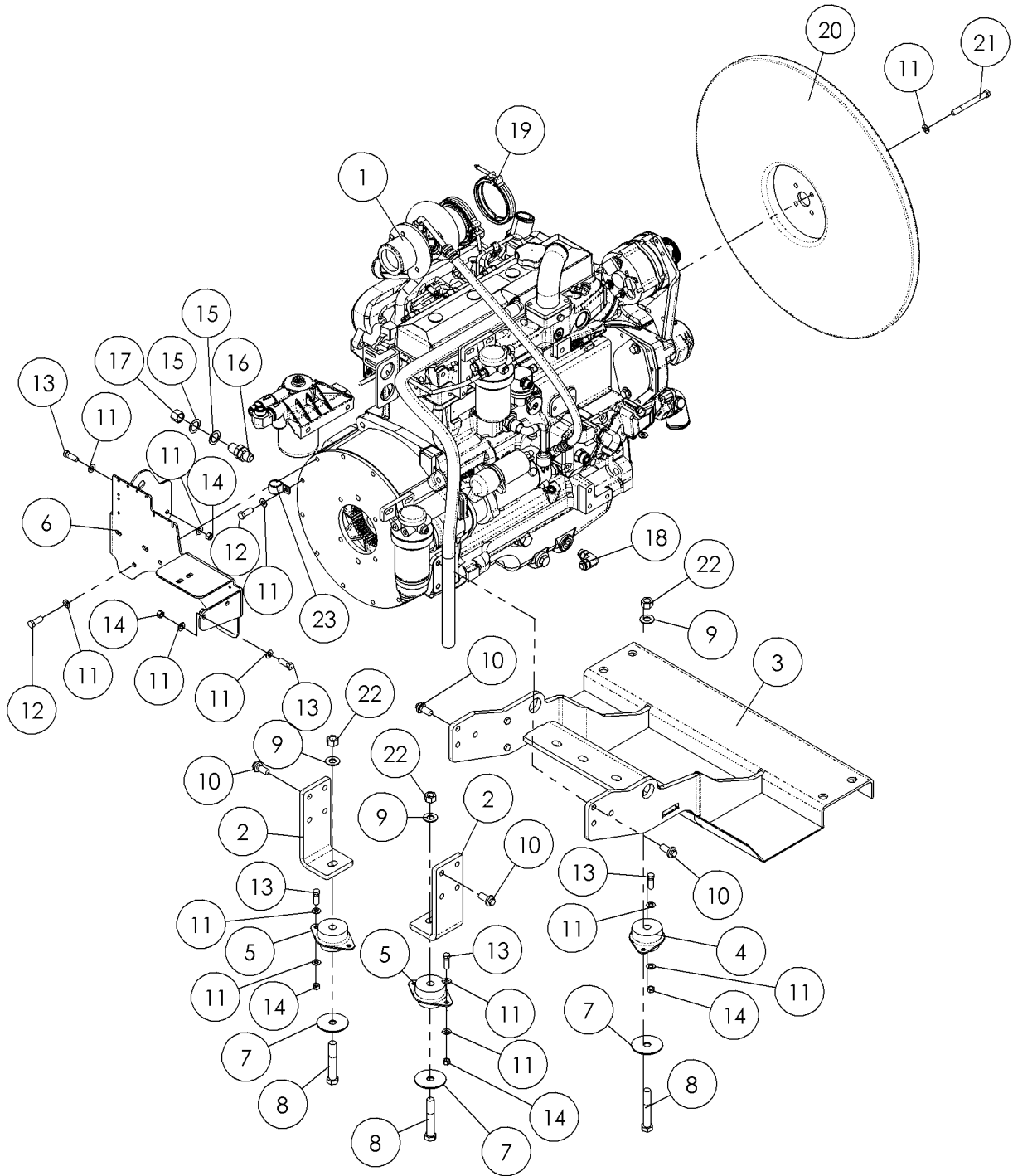
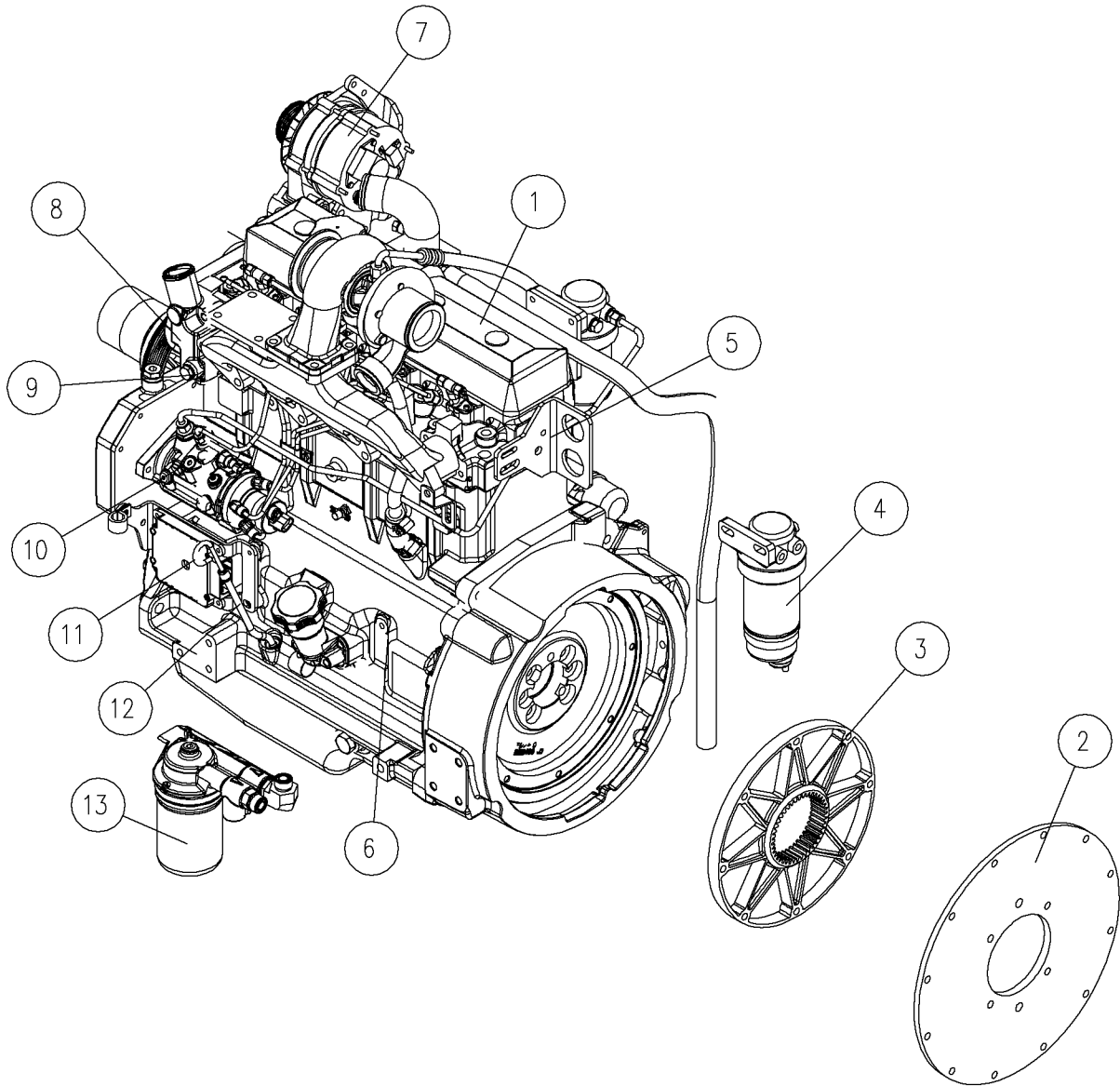


Illustration No. 296282565

Engine & Mounting Fig 3-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296274640	ENGINE - 125 HP DEERE	1	
2		296274655	PLATE - ENGINE SUPPORT	2	
3		296280416	MOUNT - FRONT ENGINE	1	
4		296274660	ISOLATOR - ENGINE WHITE	2	
5		296274659	ISOLATOR - ENGINE RED	2	
6		296274626	BRACKET - OIL FILTER	1	
7		220203001	SLUG-ENGINE MOUNT	4	
8		27169040	BOLT-5/8-11UNCX4 GR.8 HEX	4	
9		235715001	WASHER-FLATSTRL-5/8" YZ A325	4	
10		507613030	SCREW-HFS,M12-1.75X30,10.9,YZ,ANSI,B18.2.3.9M,PT	14	
11		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	36	
12		508476030	SCREW-HCS,M10-1.50X30,10.9,YZ,ISO4017,FT	8	
13		235736001	BOLT-3/8-16X1 1/4 ZYC	12	
14		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	12	
15		240756001	WASHER-SERRAID 1 3/8 ODX7/8ID	2	
16		77734001	FITTING-10M JIC BULKHEAD STR.	1	
17		78062001	FITTING - CAP - 10FJ	1	
18		100351001	FITTING-90-10MJ-M18X1.5MORBA	1	
19		285687001	CLAMP - MUFFLER/TURBO	1	
20		296280871	COOLING FAN - 28.25" BLOWER	1	
21		508476110	SCREW-HCS,M10-1.50X110,10.9,YZ,ISO4014,PT	4	
22		250513001	NUT - 5/8NC Gr8 TOP LOCK Y/ZINC	4	
23		2595009	CLAMP-1 1/4 HOSE #7701164	1	

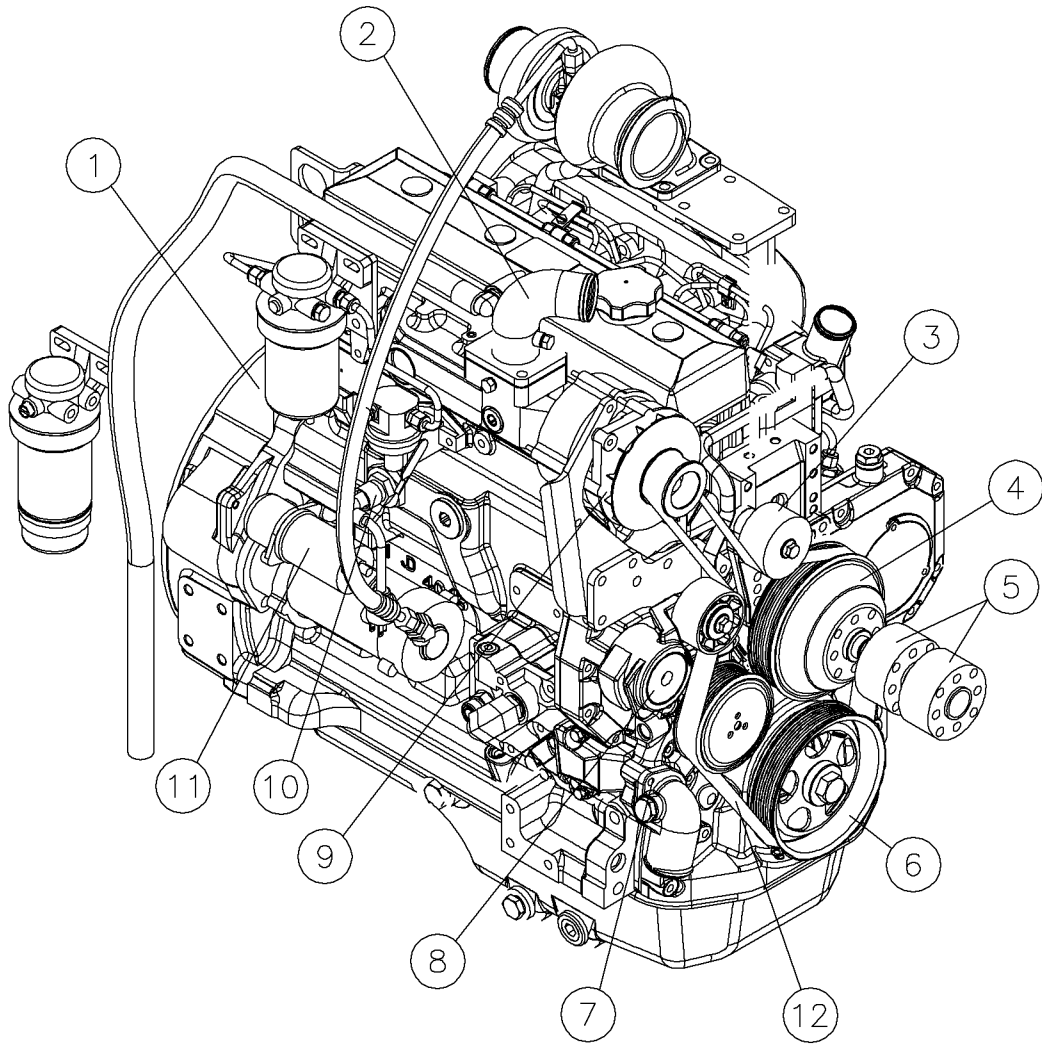
Engine Components - 1 Fig 3-2



Engine Components - 1 Fig 3-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296274640	ENGINE - 125 HP DEERE	1	
2		609531001	MOUNTING PLATE-#4SAE C PUMP	1	
3		282304001	SPLINED HUB	1	
4		618430001	PRIMARY FUEL FILTER	1	
		296272994	FILTER HEAD	1	
		296272995	SEDIMENT BOWL	1	
		180006306	ELEMENT-FUEL FILTER	1	
5		296272993	BRACKET	1	
6		180005696	SENSOR-OIL PRESSURE	1	
7		180006301	ALTERNATOR-12V, 65 Amp	1	
8		180005647	THERMOSTAT	1	
9		180005687	SWITCH-TEMP	1	
10		180005695	PUMP-FUEL TRANSFER	1	
11		152009001	DIPSTICK	1	
12		152008001	DIPSTICK - TUBE	1	
13		618429001	REMOTE OIL FILTER - 500 HR	1	

Engine Components - 2 Fig 3-3



Engine Components - 2 Fig 3-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296277754	ENGINE - 140 HP DEERE 4045H	1	
2		296272989	AIR INTAKE	1	
		180005693	GASKET-AIR INLET	1	
		296251840	GASKET	1	
3		296251849	PULLEY	1	
4		131959047	SHEAVE	1	
5		280971001	SPACER - 1 3/4" ENGINE FAN	2	
6		296272907	O-RING	1	
7		180005697	PUMP-WATER	1	
8		296254516	SHEAVE - BELT TENSIONER	1	
9		180006301	ALTERNATOR-12V, 65 Amp	1	
10		296272991	ENGINE HEAD TEMP SENSOR	1	
11		66712001	MOTOR ASSY-STARTING RE62916	1	
12		296272990	V-BELT	1	

Cooler Shroud (S/N 379-) Fig 3-4r01

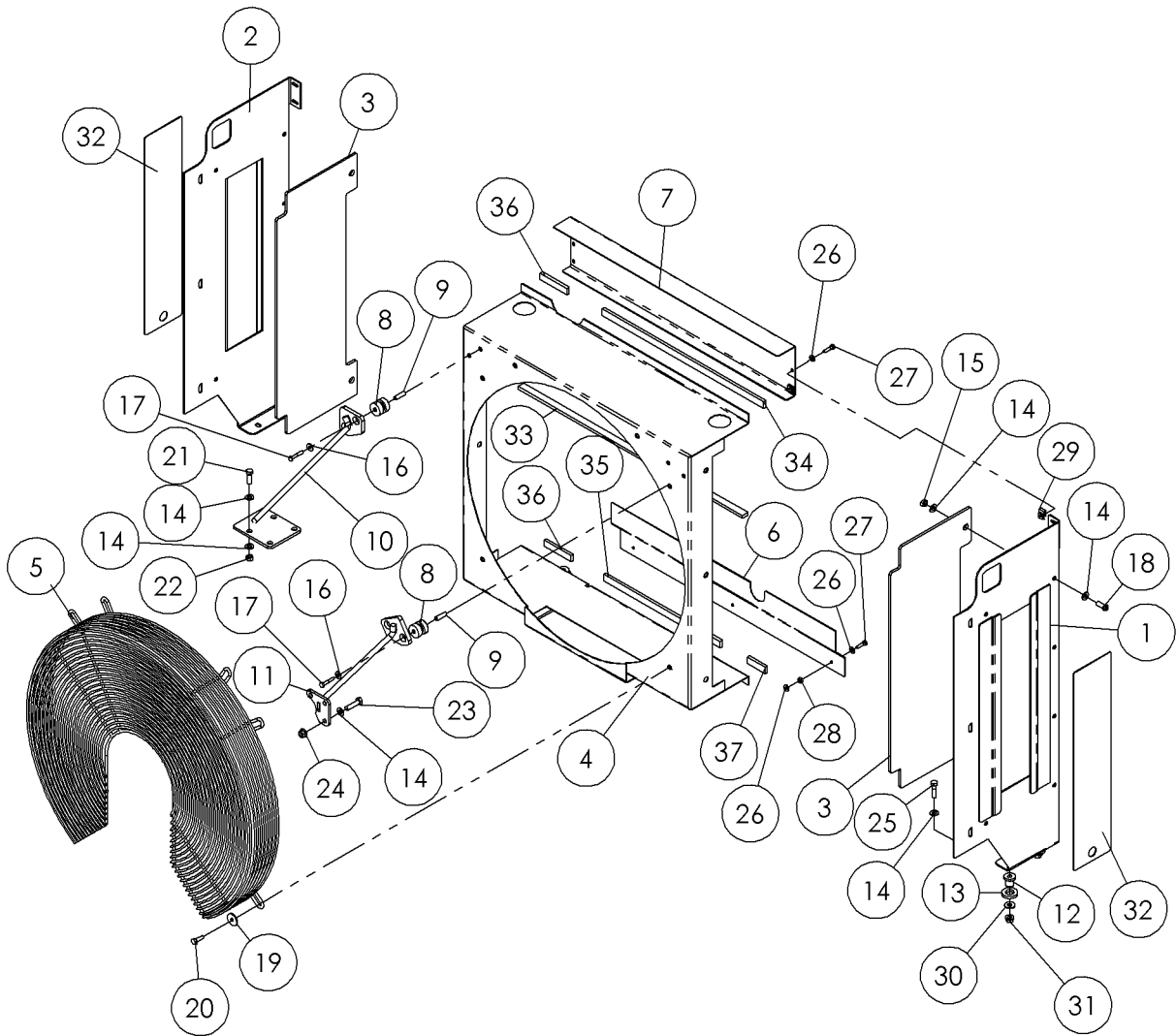
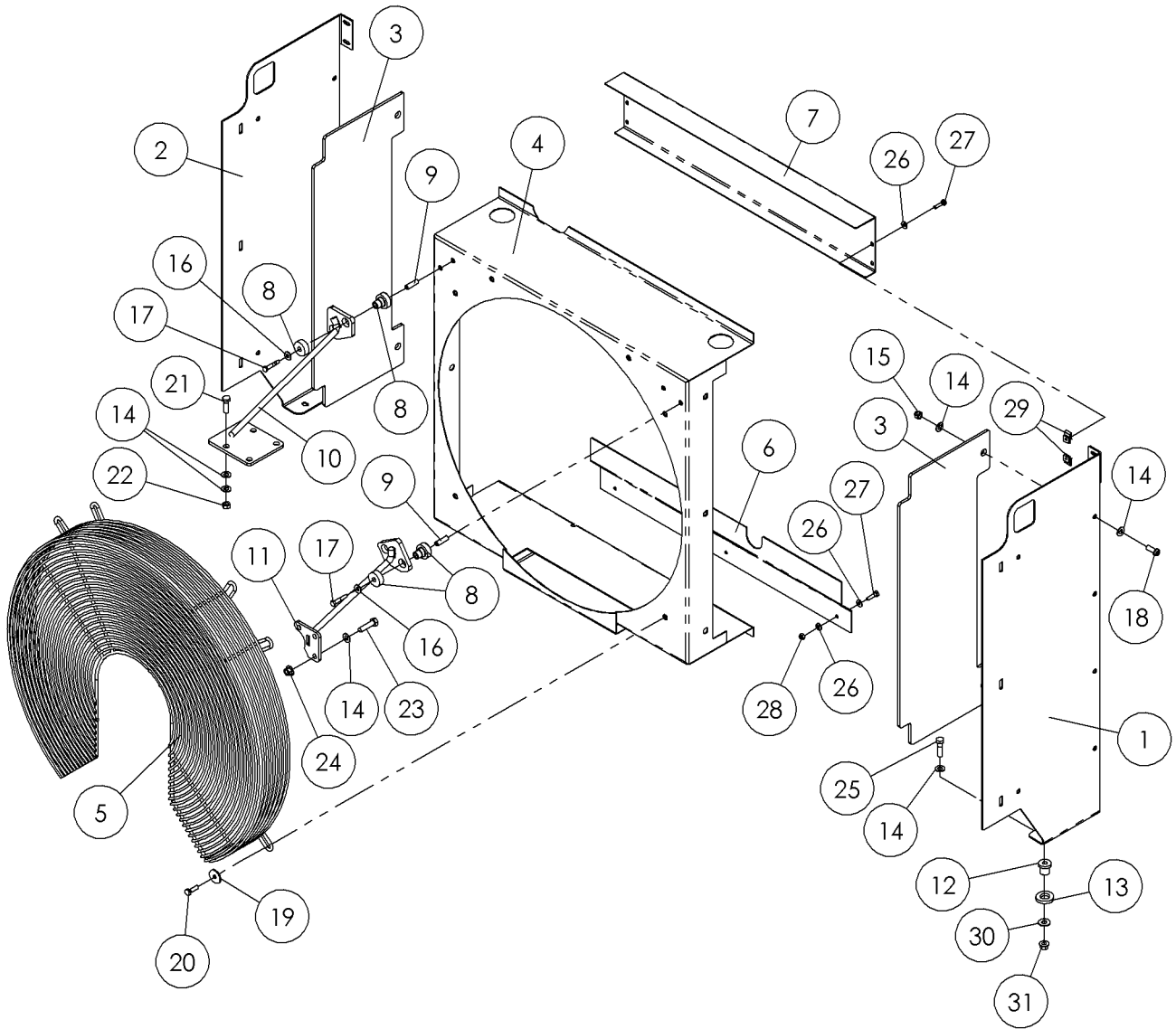


Illustration No. 296280909

Cooler Shroud (S/N 379-) Fig 3-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2006		Update In Illustration & Parts List.
1	*	296292032	SUPPORT - RH RADIATOR	1	(S/N 379-)
2	*	296292036	SUPPORT - LH RADIATOR	1	(S/N 379-)
3		296274583	FOAM- RADIATOR SIDE	2	
4	*	296289037	WELDMENT - SHROUD FAN	1	(S/N 365-)
5		296289024	GUARD	1	
6		296280872	PANEL - RECIRCULATION BLOCK	1	
7		296280873	PANEL - RECIRCULATION BLOCK	1	
8		294553001	MOUNT-UPPER RADIATOR ISOLATOR	4	
9		291550001	SPACER-RADIATOR ISOLATOR	4	
10		296274632	STRUT - LH RADIATOR	1	
11		296274631	STRUT - RH RADIATOR	1	
12		294552001	MOUNT-LOWER RADIATOR ISOLATOR	4	
13		291549001	SPACER-LOWER ISOLATOR	4	
14		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	41	
15		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	8	
16		485003	WASHER-1/4 FLAT	4	
17		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	4	
18		103978010	BOLT-3/8NCX1 BUT.HD.SOCKET	18	
19		287758001	WASHER - VAC SYSTEM	6	
20		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	6	
21		235736001	BOLT-3/8-16X1 1/4 ZYC	4	
22		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
23		508476040	SCREW-HCS,M10-1.50X40,10.9,YZ,ISO4017,FT	3	
24		506986010	NUT-HEXFLNG,M10-1.50,CL10,YZ,ISO4161	3	
25		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	4	
26		252251001	WASHER-1/4 SAE FLAT ZP	10	
27		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	7	
28		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	3	
29		5549001	NUT-U-CLIP 1/4 NC	4	
30		485007	WASHER-FLATSTD-.38-.44X1.00-.08-CZ	4	
31		4536001	NUT - 3/8-16 FLG. WHIZ LOCK	4	
32	*	296292031	CLEANOUT COVER-RADIATOR	2	(S/N 379-)
33	*	296292037	WEATHERSTRIP-30 IN	1	(S/N 379-)
34	*	296292038	WEATHERSTRIP-21.6 IN	1	(S/N 379-)
35	*	296292039	WEATHERSTRIP-15.6 IN	1	(S/N 379-)
36	*	296292049	WEATHERSTRIP-3.6 IN	2	(S/N 379-)
37	*	296292051	WEATHERSTRIP-2.4 IN	1	(S/N 379-)

Cooler Shroud Fig 3-4



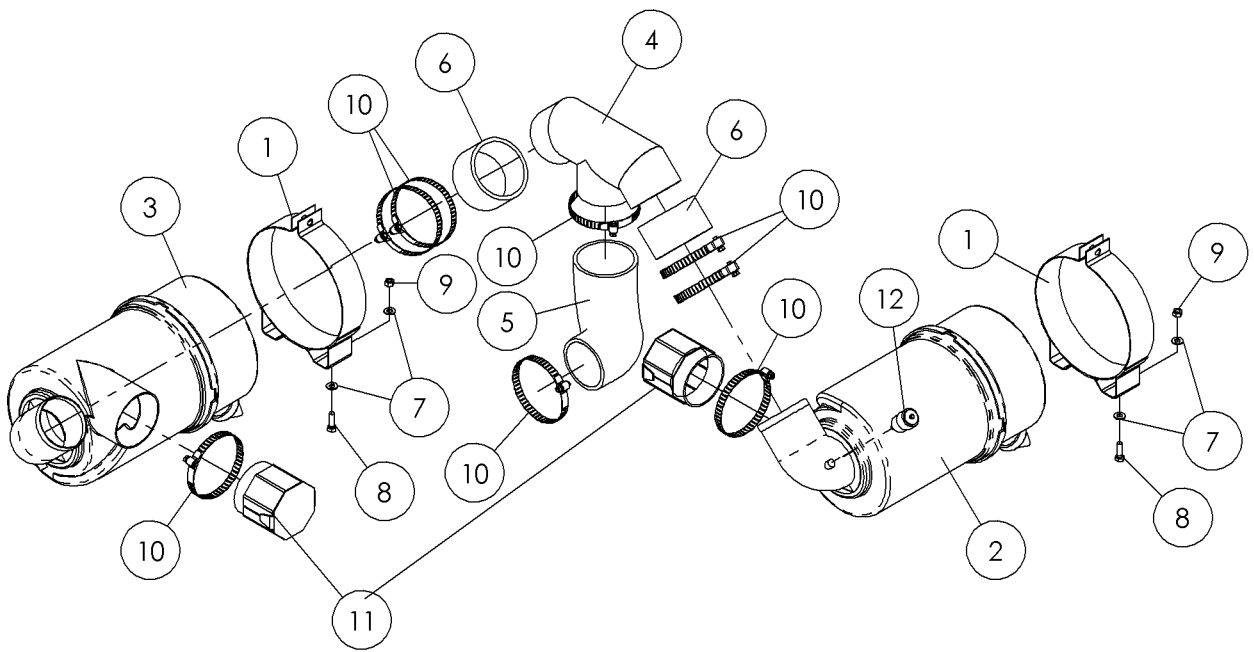
Cooler Shroud Fig 3-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279967	SUPPORT - RH RADIATOR	1	
2		296279968	SUPPORT - LH RADIATOR	1	
3		296274583	FOAM- RADIATOR SIDE	2	
4		296289037	WELDMENT - SHROUD FAN	1	
5		296289024	GUARD	1	
6		296280872	PANEL - RECIRCULATION BLOCK	1	
7		296280873	PANEL - RECIRCULATION BLOCK	1	
8		294553001	MOUNT-UPPER RADIATOR ISOLATOR	4	
9		291550001	SPACER-RADIATOR ISOLATOR	4	
10		296274632	STRUT - LH RADIATOR	1	
11		296274631	STRUT - RH RADIATOR	1	
12		294552001	MOUNT-LOWER RADIATOR ISOLATOR	4	
13		291549001	SPACER-LOWER ISOLATOR	4	
14		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	41	
15		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	8	
16		485003	WASHER-1/4 FLAT	4	
17		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	4	
18		103978010	BOLT-3/8NCX1 BUT.HD.SOCKET	18	
19		287758001	WASHER - VAC SYSTEM	6	
20		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	6	
21		235736001	BOLT-3/8-16X1 1/4 ZYC	4	
22		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
23		508476040	SCREW-HCS,M10-1.50X40,10.9,YZ,ISO4017,FT	3	
24		506986010	NUT-HEXFLNG,M10-1.50,CL10,YZ,ISO4161	3	
25		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	4	
26		252251001	WASHER-1/4 SAE FLAT ZP	10	
27		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	7	
28		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	3	
29		5549001	NUT-U-CLIP 1/4 NC	4	
30		485007	WASHER-FLATSTD-.38-.44X1.00-.08-CZ	4	
31		4536001	NUT - 3/8-16 FLG. WHIZ LOCK	4	

Radiator/Air/Oil Cooler Fig 3-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279966	COOLER - RADIATOR	1	
2		296279965	COOLER - AIR	1	
3		617884001	HOSE- HUMP CAC 3.00 X 3.00 - 4.38	2	
4		296274678	HOSE - RADIATOR LOWER	1	
5		296274677	HOSE - RADIATOR UPPER	1	
6		1580013	HOSE CLAMP - 2 1/2"	4	
7		113095001	HOSE CLAMP-CONST.TRQ. CT350L	4	
8		296274680	TUBE - CHARGE AIR LOWER	1	
9		296274679	TUBE - CHARGE AIR UPPER	1	
10		296274588	BRACKET - UPPER CAC	1	
11		2609007	MUFFLER CLAMP-2 1/2"	2	
12		280917001	CONNECTOR - CAC HUMP HOSE	2	
13		116769001	CLAMP - CON TORQUE 1 3/4 - 2 5/8	4	
14		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
15		296274587	BRACKET - LOWER CAC	1	
16		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	
17		508476020	SCREW-HCS,M10-1.50X20,10.9,YZ,ISO4017,FT	2	
18		296284053	HOSE - ANTIFREEZE OVERFLOW 5/16 X 50"	1	
19		2326315	DECAL-WARNING	1	Domestic
		23261315	DECAL-WARNING	1	International
20		279015001	HOSE CLAMP - 9/16 W/13/32 HOLE	2	

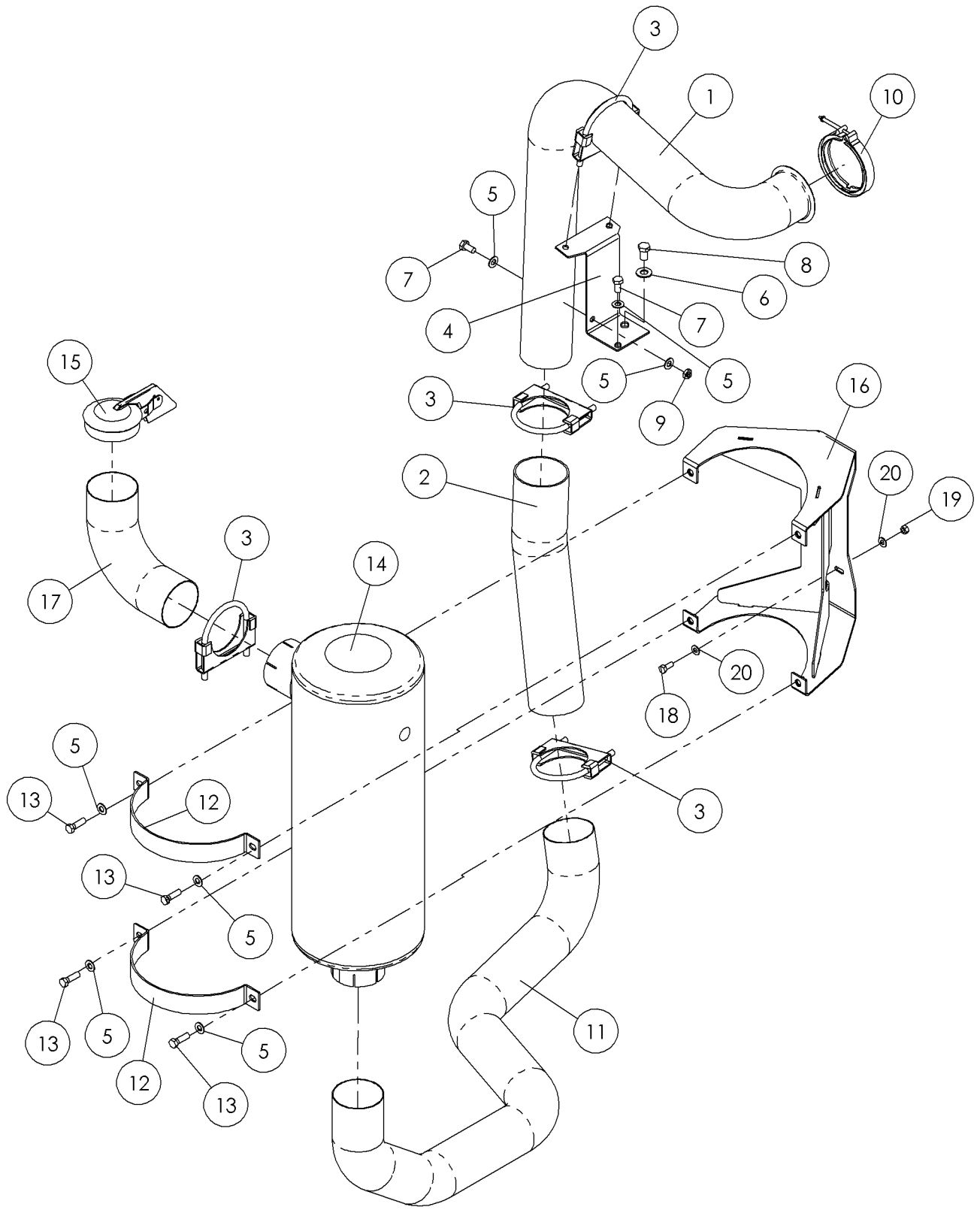
Air Cleaner Fig 3-6



Air Cleaner Fig 3-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		220167001	CLAMP-AIR CLEANER H00-2023	2	
2		224847001	AIR CLEANER	1	Breakdown Fig. 11-47
3		224847001	AIR CLEANER	1	
4		296280371	WELDMENT - MANIFOLD - INTAKE AIR	1	
5		296274693	HOSE - 3.5" -3 XCX INLET AIR	1	
6		296274582	HOSE - 3.5" CONNECTOR	2	
7		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	8	
8		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	4	
9		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
10		1580019	HOSE CLAMP - 4 1/2"	8	
11		296277941	COVER - INLET AIR	2	
12		2164001	INDICATOR - RAX00-2351	1	

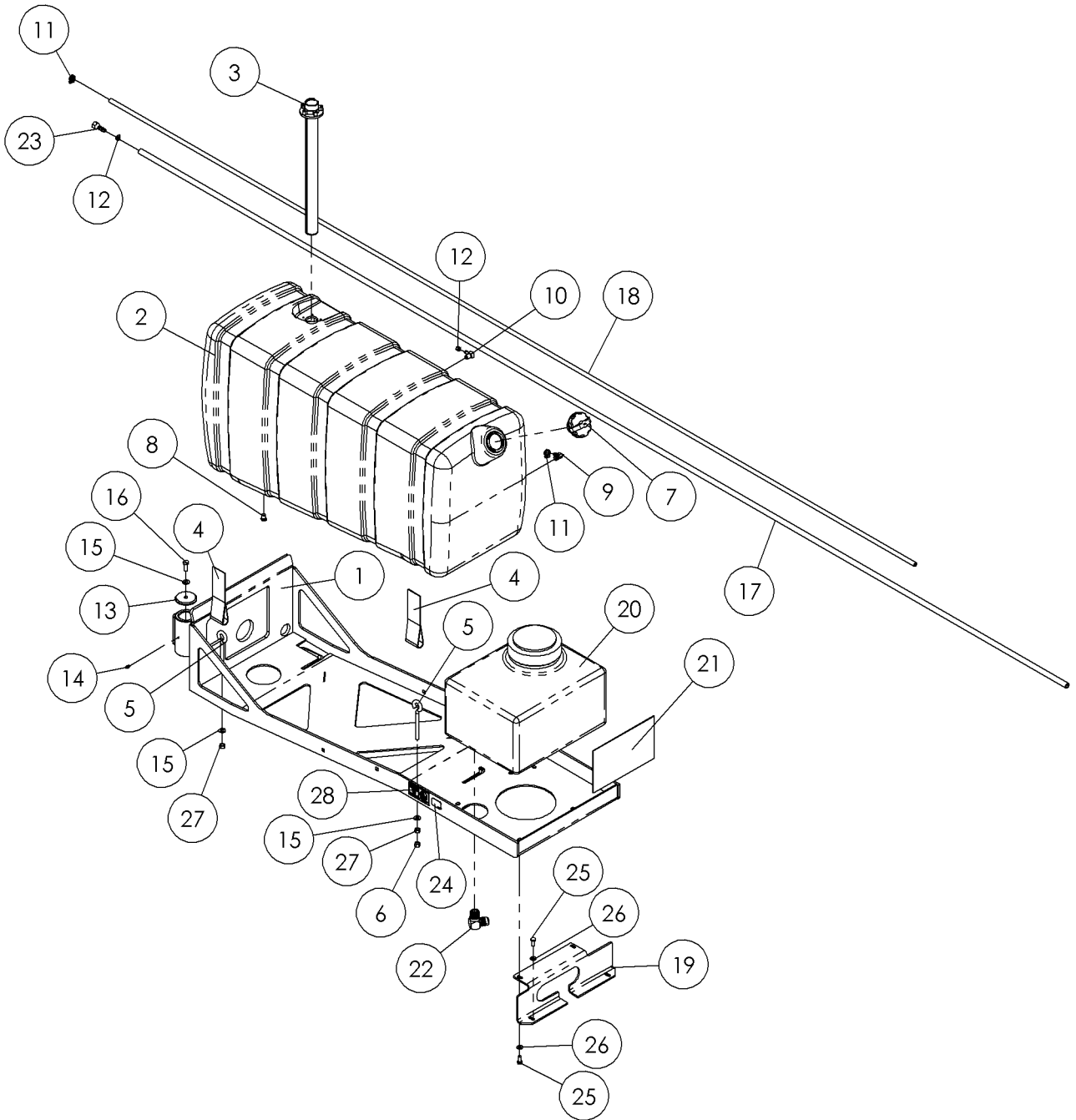
Exhaust Fig 3-7



Exhaust Fig 3-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296274687	TUBE- 3.5" EXHAUST	1	
2		296274722	TUBE - 3.5" X 18" FLEX EXHAUST	1	
3		2609013	CLAMP-MUFFLER 3 1/2 REF T14049	5	
4		296274586	BRACKET EXHAUST	1	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	7	
6		485025	WASHER-1/2 FLAT-HARDENED-YZ	1	
7		508476020	SCREW-HCS,M10- 1.50X20,10.9,YZ,ISO4017,FT	2	
8		507407020	SCREW-HCS,M12- 1.75X20,10.9,YZ,ISO4017,FT	1	
9		61656001	NUT-HEX M10-1.50 CL8 YZ D934	1	
10		285687001	CLAMP - MUFFLER/TURBO	1	
11		296279822	TUBE - LOWER EXHAUST WRAPPED	1	
12		296274676	STRAP - MUFFLER CLAMP	2	
13		235736001	BOLT-3/8-16X1 1/4 ZYC	4	
14		296280907	MUFFLER - 3.5" SIDE OUTLET	1	
15		287964001	CAP-RAIN	1	
16		296280764	BRACKET ASSY - MUFFLER SUPPORT	1	
17		296280908	ELBOW - 90 DEG 3.5"	1	
18		235742001	BOLT-5/16-18X3/4 GR8 ZYC	2	
19		240333001	NUT-5/16-18 GR8 TL ZINC PLTD	2	
20		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	

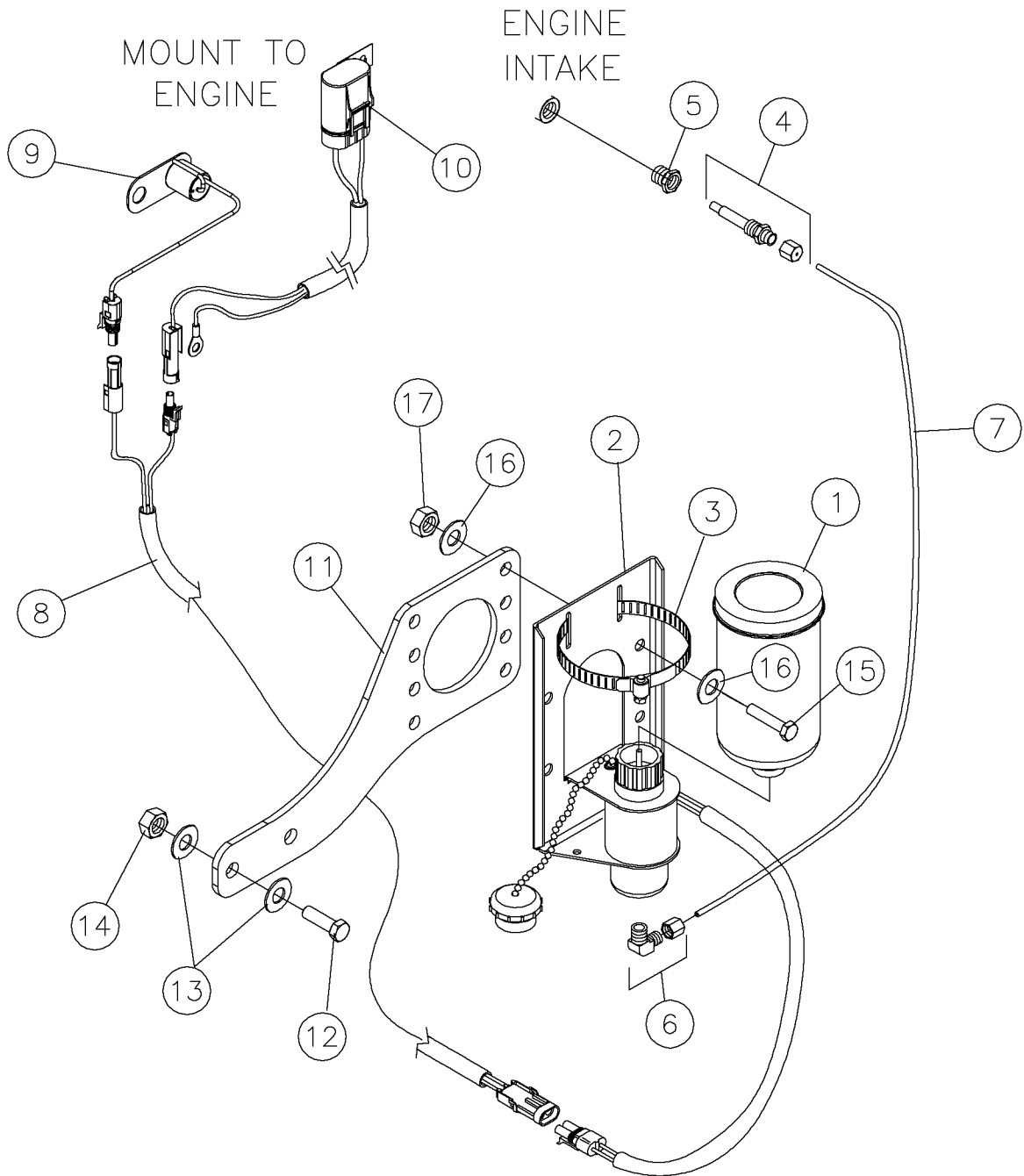
Fuel Tank Fig 3-8



Fuel Tank Fig 3-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	July, 2006		Update In Illustration.
1		296280773	MOUNT ASSY - PIVOTING FUEL TANK	1	
2		289602001	FUEL TANK	1	
3		292038001	SENDER - FUEL LEVEL	1	
4		287698001	STRAP - FUEL TANK	2	
5		279374001	BOLT - 3/8-16 X 5 1/2 EYE	2	
6		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
7		279326001	CAP - DIESEL FUEL W/LOCK	1	
8		282126001	FITTING - 1/4 BRASS HEX PLUG	1	
9		602037001	FITTING -1/4 PIPE 5/16 BARB 90	1	
10		603184001	FITT.-3/8 BARBX1/4M NPT 90DEG	1	
11		1578001	HOSE CLAMP - 1/4"	2	
12		1580001	HOSE CLAMP - 3/8"	2	
13		285625001	PLATE - COMB HOLD DOWN WSH.	1	
14		598001	FITTING-1/4" NF ST GREASE ZERK	1	
15		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	5	
16		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	1	
17		296280221	HOSE - FUEL SUPPLY 3/8" X 152"	1	
18		296277783	HOSE - FUEL RETURN 5/16 X 132"	1	
19		296280978	SUPPORT - FUEL TANK	1	
20		236466001	TANK-6 GALLON POLY	1	
21		70000675	DECAL-NAVIGATOR FREEZE GUARD	1	
22		56215001	FITTING-3/4M PIPE-#12M JIC 90	1	
23		296280466	FITTING-5FS JIC X 6 HOSE BARB-ST	1	
24		70000098	DECAL-DIESEL (AT/UND)	1	Domestic
		70001098	DECAL-DIESEL FUEL	1	International
25		235742001	BOLT-5/16-18X3/4 GR8 ZYC	4	
26		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
27		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	
28		2326324	DECAL-WARNING/REFUEL	1	Domestic
		23261324	DECAL - WARNING EXPLOSION	1	International

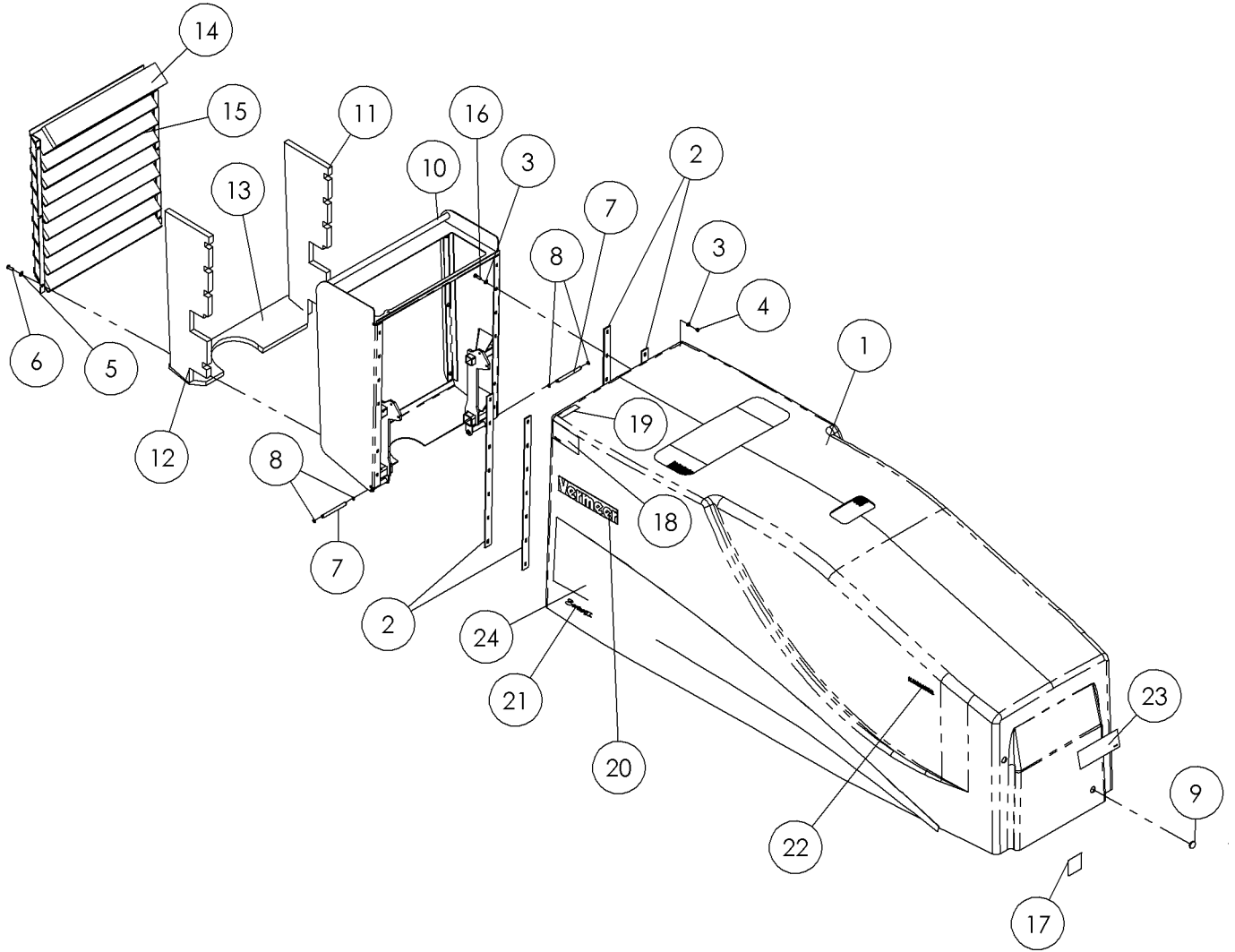
Ether Start System (Optional) Fig 3-9



Ether Start System (Optional) Fig 3-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279823	CYLINDER - 8 OZ ETHER 3" DIA X 6" TALL	1	
2		296281251	ETHER 12V SOLENOID VALVE	1	
3		1580015	HOSE CLAMP - 3"	1	
4		296281253	NOZZLE ASSEMBLY	1	
5		296281252	ADAPTER	1	
6		296281254	BLOCK OR FITTING ASSEMBLY	1	
7		202831001	TUBING-NYLON 1/8OD	A/R	P/N Qty. Of 1 = 1 Foot
8		NSS	WIRE HARNESS	1	Not Sold Separately
9		296281255	SWITCH-ENGINE TEMP SENSOR	1	
10		NSS	FUSE BLOCK HARNESS	1	Not Sold Separately
11		296277798	BRACKET - ETHER MOUNT	1	
12		235736001	BOLT-3/8-16X1 1/4 ZINC PLTD	2	
13		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
14		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
15		279376001	BOLT - 5/16-18X1 1/2 GR8 HEX ZNC PLT	4	
16		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	8	
17		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	4	
		296277799	KIT - DEERE ETHER PARTS		

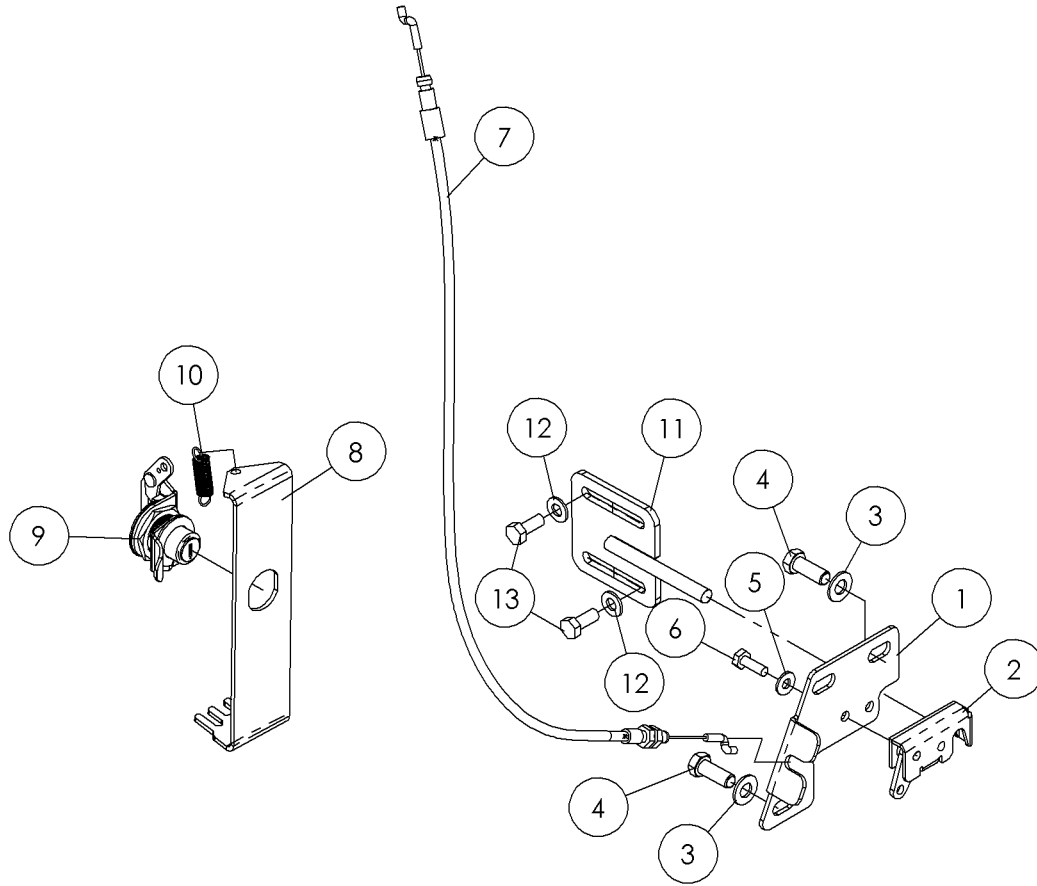
Hood Fig 3-10



Hood Fig 3-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280983	HOOD ASSEMBLY - ENGINE COVER	1	
2		278829001	BAR - GRILLE MOUNT	4	
3		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	24	
4		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	12	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	6	
6		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	6	
7		291616001	PIN - 1/2" X 5.75	2	
8		294761001	SNAP RING - .50 SHR-50	4	
9		296280859	PLUG - 1.125"	1	
10		296277849	FRAME - HOOD PIVOT	1	
11		296277871	FOAM- ACOUSTICAL RACK SIDE GRILL	1	
12		296277872	FOAM- ACOUSTICAL OPERATOR SIDE GRILL	1	
13		296277873	FOAM- ACOUSTICAL LOWER GRILL	1	
14		296277867	FOAM - ACOUSTIC GRILL	9	
15		296277894	GRILL - RADIATOR DISCHARGE	1	
16		248031001	BOLT-5/16-18X1 1/4 GR8 ZYC	12	
17		7000B119	DECAL - PATENT INDUSTRIAL	1	
18		7000A576	DECAL-DANGER	1	Domestic
		700IA576	DECAL-DANGER	1	International
19		7000B388	DECAL - HOOD LATCH	1	
20		2326619	DECAL- VERMEER 3 X 15	1	
21		7000C463	DECAL - SERIES II MEDIUM	1	
22		70000614	DECAL-MODEL NAVIGATOR (BIG)	1	
23		700IB812	DECAL - WARNING	1	International
		7000B812	DECAL - WARNING	1	Domestic
24		7000C462	DECAL - D24X40 II RIGHT STRIPE	1	

Hood Latch Fig 3-11



Hood Latch Fig 3-11

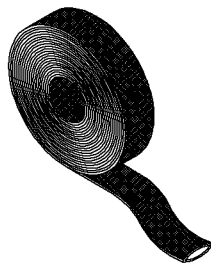
REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296277878	BRACKET - CABLE END	1	
2		159973001	LATCH - MINI ROTARY, RIGHT	1	
		161562001	KEY-LATCH	1	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	3	
4		235727001	BOLT-3/8-16X1 GR8 HEX ZINC PLT	3	
5		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	2	
6		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	2	
7		159972001	CABLE - HOOD RELEASE	1	
8		296279848	BRACKET - HOOD CABLE	1	
9		155985001	LATCH - PUSHBUTTON	1	
10		282052001	SPRING -2084 EXTENSION 1.50"	1	
11		296279837	STRIKER - ADJUSTABLE	1	
12		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	3	
13		235742001	BOLT-5/16-18X3/4 GR8 ZINC PLTD	3	

Hood Pivot Fig 3-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Added New Knob
1		285784001	BALL - STUD	4	
2		251144001	SPRING - GAS ASSIST	2	
3		240056001	SCREW-1/2X1/2 SOCKET SHOULDER	5	
4		296274624	SLIDE - HOOD CATCH	1	
5		296274625	SLIDE - HOOD LOCK	1	
6		296274628	PIVOT - UNLATCH	1	
7		4734001	NUT-HEX-.25-28-GR2-CZ	2	
8		1489001	1/4" BALLJOINT MALE	1	
9		296274629	ROD - HOOD LATCH	1	
10		1803089	SPRING-COMP.#30 3/8ODX5/16ID	1	
11	*	296292050	KNOB - 1" ROUND	1	

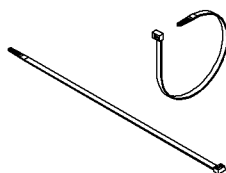
Miscellaneous Supplies Fig 4-1

CORDURA SLEEVES

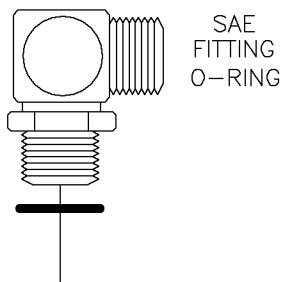


NOTE: SPECIFY LENGTH WHEN ORDERING

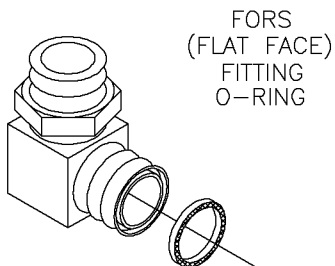
TIE STRAPS



O-RINGS



SAE
FITTING
O-RING



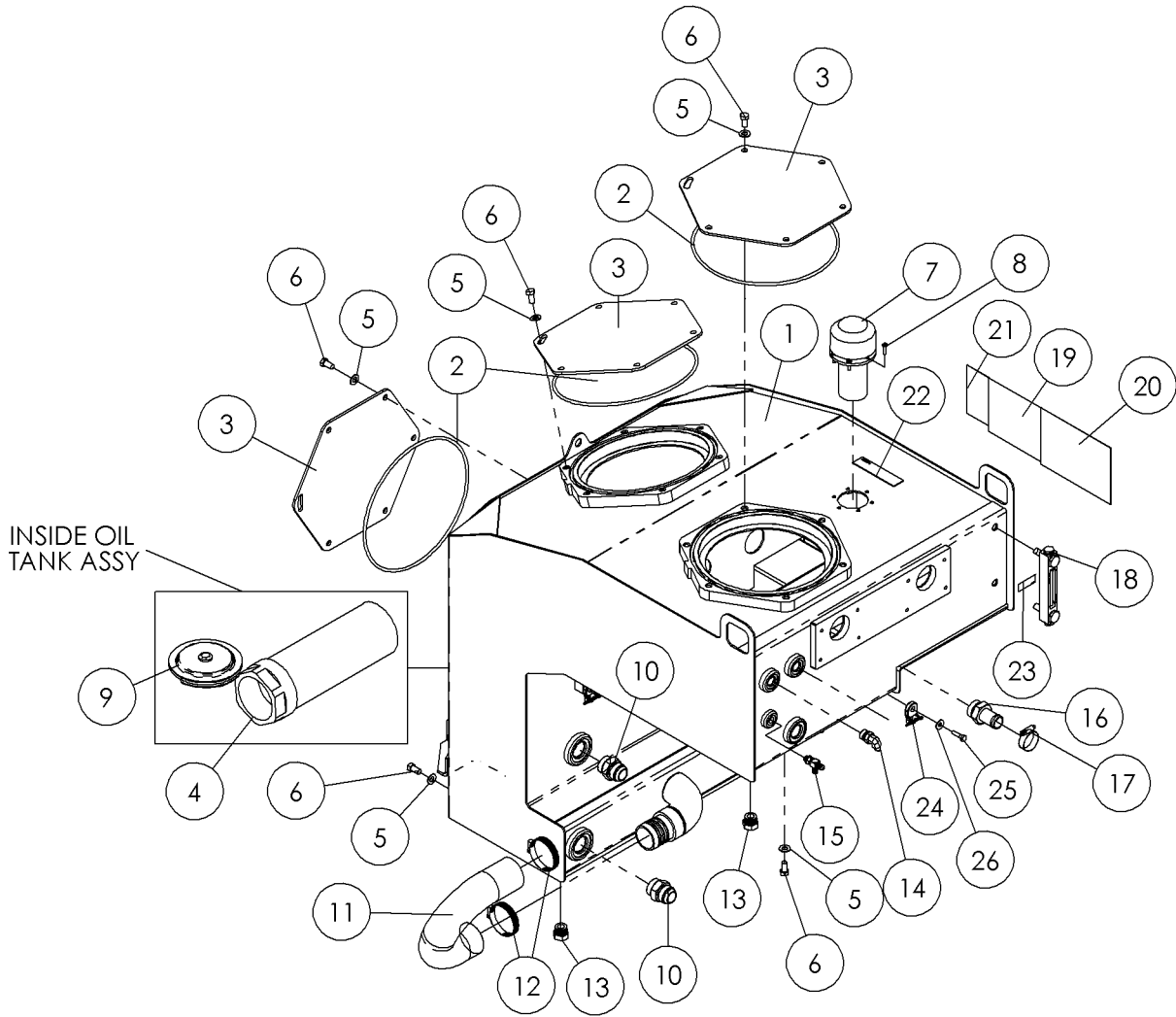
FORS
(FLAT FACE)
FITTING
O-RING

NOTE: O-RINGS LISTED ARE 90 DUROMETER

Miscellaneous Supplies Fig 4-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
			CORDURA SLEEVES		
		83726001	INSIDE DIAMETER .71		
		66094001	INSIDE DIAMETER 1.22		
		67264001	INSIDE DIAMETER 1.42		
		69129001	INSIDE DIAMETER 1.59		
		53840001	INSIDE DIAMETER 1.81		
		53841001	INSIDE DIAMETER 2.37		
		235824001	INSIDE DIAMETER 2.66		
			NOTE: SPECIFY LENGTH WHEN ORDERING		
			TIE STRAPS		
		78657001	4 IN. LENGTH		
		59634001	8 IN. LENGTH		
		58151001	15 IN. LENGTH		
			O-RINGS		
			SAE FITTING REPLACEMENT O-RING		
		78185027	4M SAE FITTING SIZE		
		53649081	5M SAE FITTING SIZE		
		59088057	6M SAE FITTING SIZE		
		59088053	8M SAE FITTING SIZE		
		792029	10M SAE FITTING SIZE		
		3152013	12M SAE FITTING SIZE		
		3155015	14M SAE FITTING SIZE		
		81580001	16M SAE FITTING SIZE		
		93316001	20M SAE FITTING SIZE		
			O-RINGS		
			FORS FITTING REPLACEMENT O-RING		
		93843001	ORING-AS-011-C90 FOR#4ORS FIT		
		93844001	ORING-AS-012-C90 FOR #6ORS FIT		
		93845001	ORING-AS-014-C90 FOR#8ORS FIT.		
		93846001	O-RING-AS-016-C90 FOR#10ORS FIT		
		93847001	O-RING-AS-018-C90 FOR#12ORS FIT		
		93848001	ORING-AS-021-C90 FOR#16ORS FIT		
		93849001	O-RING-AS-025-C90 FOR#20ORS FIT		
		93850001	O-RING-AS-029-C90 FOR#24ORS FIT		
			NOTE: O-RINGS LISTED ARE 90 DUROMETER		

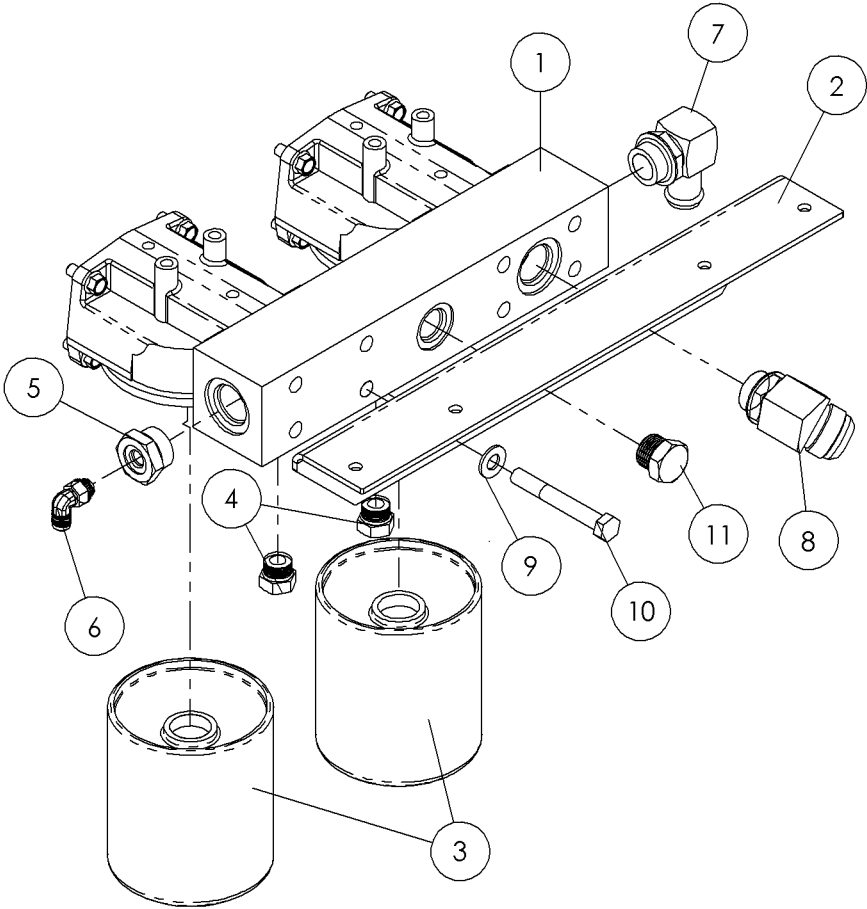
Oil Tank Fig 4-2



Oil Tank Fig 4-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296292002	TANK - 55 GALLON OIL	1	
2		78544001	O-RING AS-378 B46	3	
3		96291001	PLATE-CLEANOUT PORT	3	
4		98681001	FILTER-TANK 3 NPT OUTLET PORT	1	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	24	
6		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	24	
7		235808001	CAP-FILLER/BREATHING W/O RELIEF	1	
8		1802006	BOLT-10-24 X 3/4 RND HD STOVE	6	
9		296257231	COVER - 6" RESERVOIR END	1	
10		60907001	FITTING-16M JICX16M STR ADAPT	2	
11		251243001	HOSE - PUMP SUCTION	1	
12		1580013	HOSE CLAMP - 2 1/2" REF T08735	2	
13		56218001	FITTING - PLUG - 8MORB - HEX	2	
14		86671001	FITTING-8M ORING X4M JIC 90 EL	1	
15		81342001	FITTING-RTEE-4MJ-4MORBA-4MJ	1	
16		96709001	HOSE INSERT-16MX1 BEAD STR.	1	
17		238094001	CLAMP-3/4X1 3/4 BAND W/SCREW	1	
18		81590001	GAUGE-SIGHT	1	
19		700IC700	DECAL-D36X50II GREASE CHART	1	
20		7000C451	DECAL - FLUID CAPACITIES	1	
21		7000c446	DECAL - NO WELD	1	
22		70000394	DECAL-VERMEER HY POWER	1	
23		2326756	DECAL-HYDRAULIC OIL	1	
24		296276018	MOUNT HELLER MANN TITON	2	
25		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	2	
26		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	2	

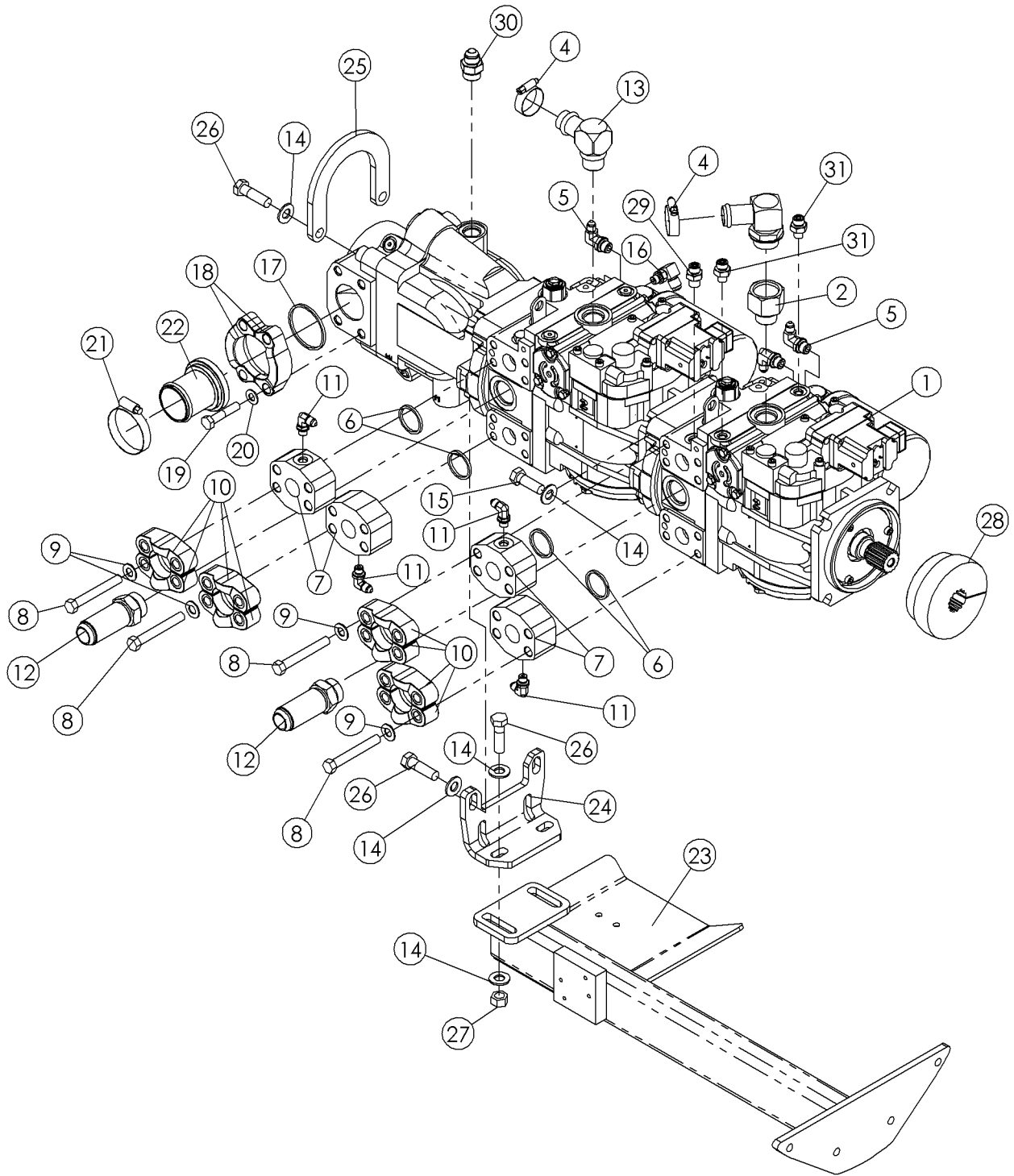
Return Filter Manifold Fig 4-3



Return Filter Manifold Fig 4-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296273660	ASSEMBLY - FILTER HEAD	1	Breakdown Fig. 11-36
2		296274715	SUPPORT - AIR CLEANER	1	
3		296269657	FILTER - 5 MICRON HYDRAULIC	2	
4		56218001	FITTING - PLUG - 8MORB - HEX	2	
5		279128001	FITTING-STR- 16MORB-6FORB	1	
6		59426001	FITTING - 90-6MJ-6MORBA	1	
7		100000001	FITTING -90- 16MORBX 16MBHI	1	
8		86234001	FITTING - 16M ORING X 20 M JIC 45 DEG	1	
9		485025	WASHER-FLATSTRL-.50-.53X1.06-.09-YZ	8	
10		238213001	SCREW-HCS-.50-13X3.75-GR8-YZ	8	
11		67570001	FITTING-PLUG-12MORB-HEX	1	

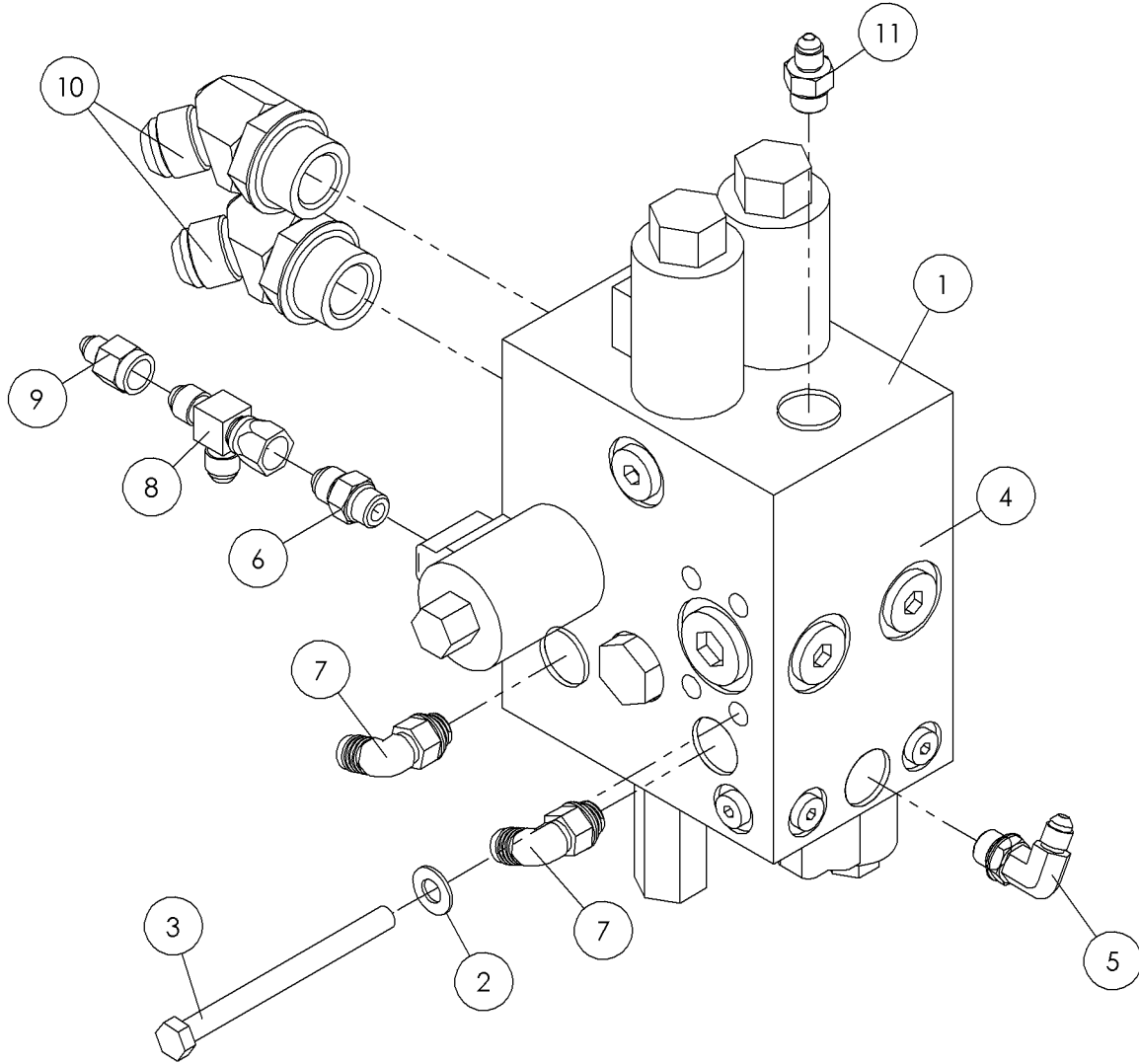
Stack Pump Fig 4-4



Stack Pump Fig 4-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278772001	PUMP ASSEMBLY	1	Breakdown Fig. 11-30 And 11-51
2		96076001	FIT.-12MX16F O-RING	1	
3		100000001	FITTING-16MORINGX1"BEADED90DEG	1	
4		238094001	CLAMP-3/4X1 3/4 BAND W/SCREW	2	
5		57950001	FITTING-90-4MJ-6MORBA	3	
6		72895001	O RING-SQ. #16 FLANGE	4	
7		296273640	FLANGE - 4 BOLT W/-4 PORT	4	
8		296273645	SCREW - HHCS - .44-14X3.25-GR8-YZ	16	
9		250515001	7/16 HARD WASHER SAE Y/ZINC	16	
10		67745001	FITTING - FLGH - 16CD62	8	
11		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	4	
12		94161001	FITTING-16MJICX16MORING LONG	2	
13		99706001	FITTING-12MORX1"HOSEBEAD 90DEG	1	
14		485025	WASHER-1/2 FLAT-HARDENED-YZ	12	
15		235721001	BOLT-1/2-13X1 1/2 GR8 ZINC PLT	4	
16		296273661	FITTING - 90 - 4MOR-6MJIC-100 MICRON	1	
17		72898001	O RING-SQ. #32 FLANGE	1	
18		73114001	FITTING-CODE 61 #32 FLANGE	2	
19		250574001	BOLT-10M X 50M 10.9 HEX Y/ZINC	4	
20		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
21		1580013	HOSE CLAMP - 2 1/2" REF T08735	1	
22		278765001	FITTING-#32 FLANGE X 2" HB ST.	1	
23		296274580	SUPPORT - PUMP	1	
24		278842001	PLATE - PUMP SUPPORT	1	
25		251238001	PLATE - LIFT POINT	1	
26		240334001	SCREW-HCS-.50-13X1.75-GR8-YZ	6	
27		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	2	
28		278981001	HUB - 14T PUMP DRIVE	1	
29		278947001	FITTING-STR-4MORFF-6MORB	2	
30		53826001	#10M O-RING-#8M JIC ST.	1	
31		294561001	FITTING - STR- 4MORFF - 4MORB - R.063	2	

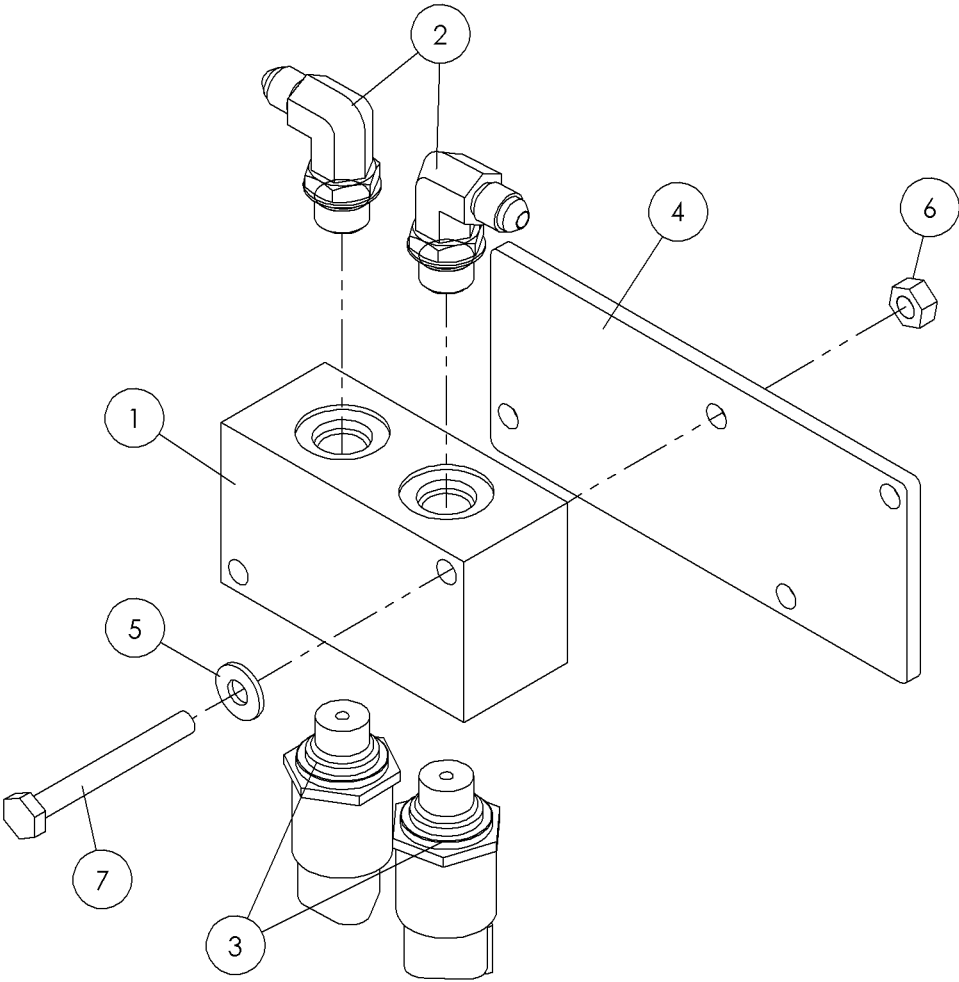
Valve - Proportional/Dump Fig 4-5



Valve - Proportional/Dump Fig 4-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296277840	VALVE - PROPORTIONAL/DUMP	1	Breakdown Fig. 11-3
2		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
3		238246001	BOLT 3/8"-16 X 4 1/2" GR8 HEX	4	
4		72895001	O RING-SQ. #16 FLANGE	1	
5		57950001	FITTING-90-4MJ-6MORBA	1	
6		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	
7		59426001	FITTING - 90-6MJ-6MORBA	2	
8		59427001	TEE-6MJ-6FSJ-6MJ	1	
9		59928001	6F JICX4M JIC ST REDUCER	1	
10		81212001	FITTING-16MX12M JIC 45 ELBOW	2	
11		57968001	FITTING-STR-4MJ-6MORB	1	

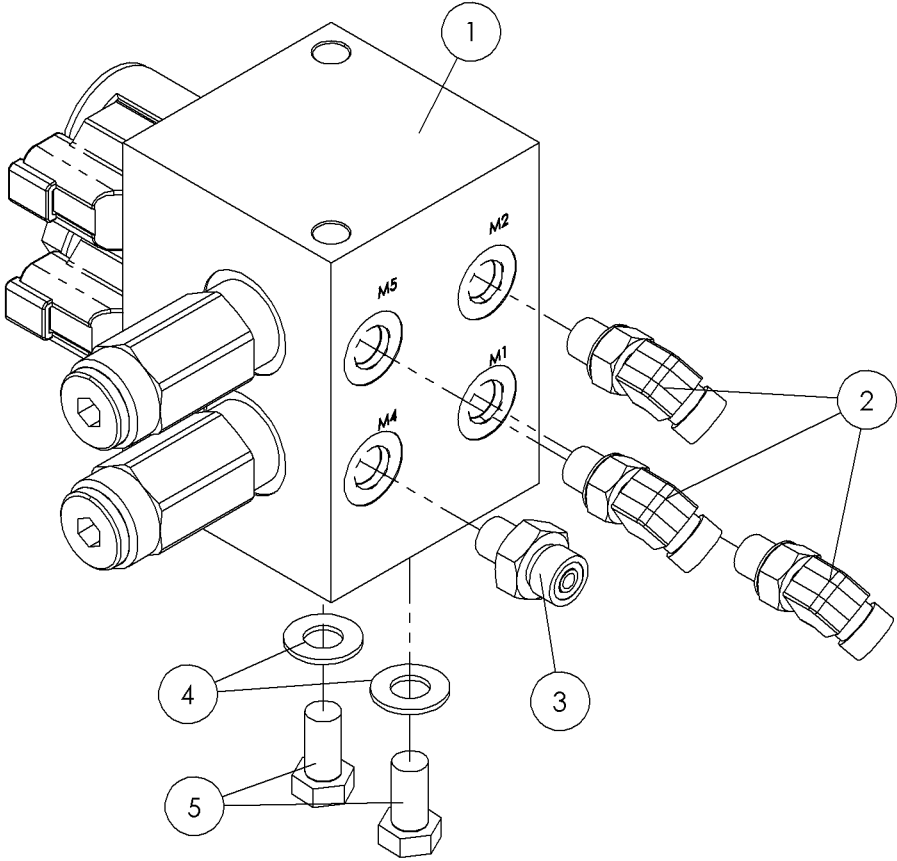
Valve-Reducer Block Fig 4-6



Valve-Reducer Block Fig 4-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282514	MANIFOLD- PRESSURE TRANSDUCER	1	
2		57950001	FITTING-90-4MJ-6MORBA	2	
3		296282516	PRESSURE TRANSDUCER - 7500 PSI HYDAC	2	
4		296282517	MOUNT - PRESSURE TRANSDUCER	1	
5		252251001	WASHER-FLATSAE-.25-.28X.63-.06-CZ	2	
6		235732001	NUT-HEX-.25-20-GR8-YZ	2	
7		250644001	SCREW-HCS-.25-20X2.25-GR8-YZ	2	

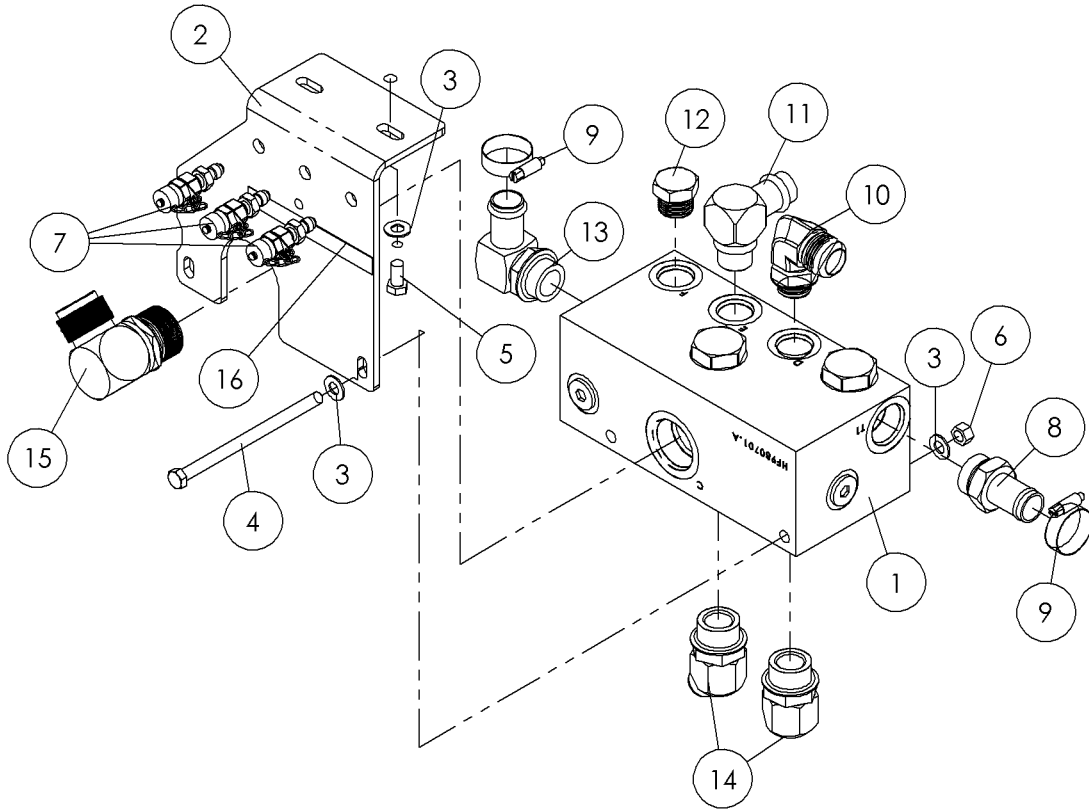
Valve - Torque & Thrust Limiter Fig 4-7



Valve - Torque & Thrust Limiter Fig 4-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269561	VALVE - TORQUE LIMITER	1	Breakdown Fig. 11-4
2		72450001	FITTING - 45 - 4MORFF - 4MORBA - FRG	3	
3		72449001	FITTING - STR - 4MORFF - 4MORB	1	
4		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
5		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	

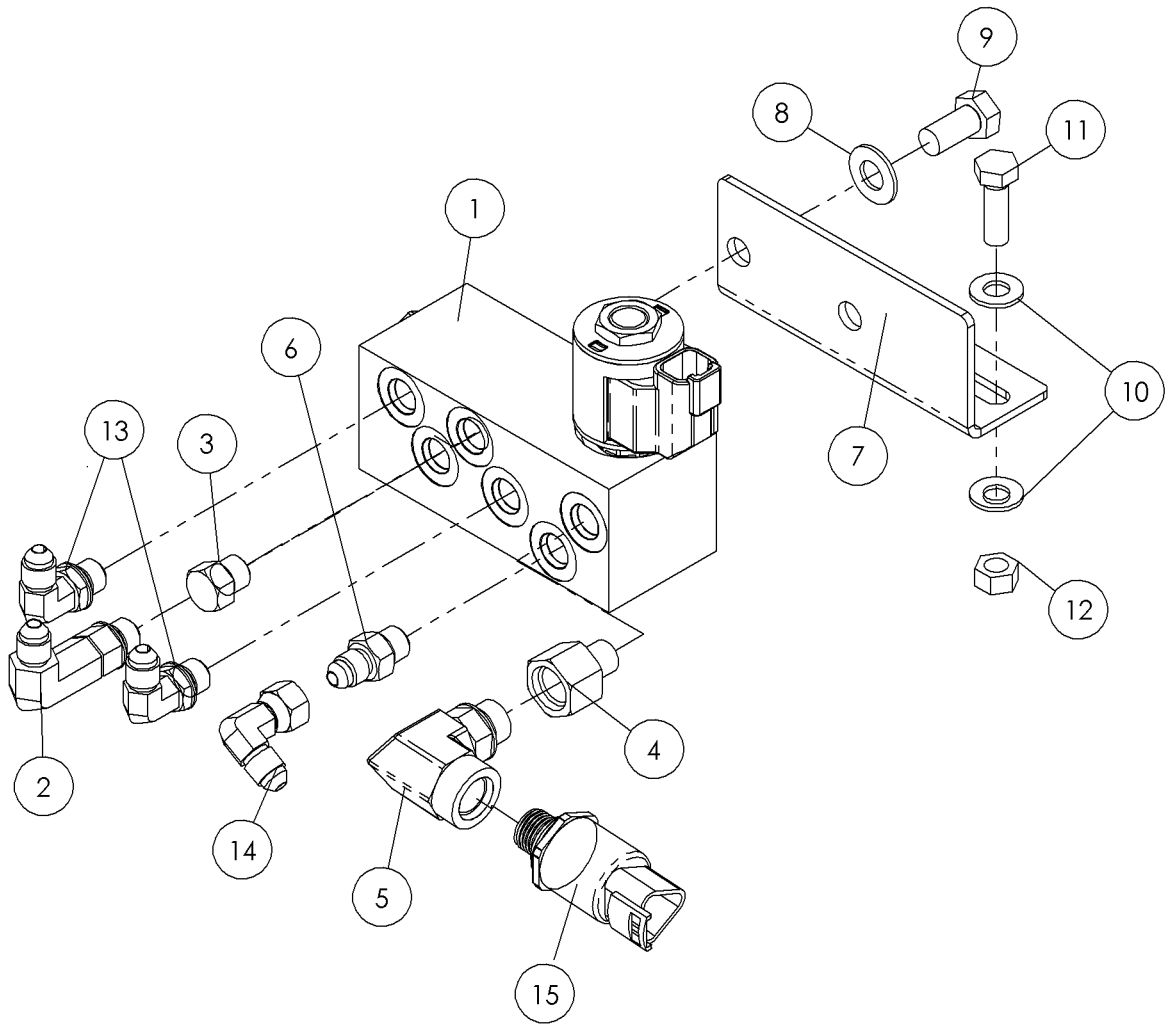
Valve - Return Fig 4-8



Valve - Return Fig 4-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296273651	MANIFOLD- RETURN	1	Breakdown Fig. 11-6
2		278752001	PLATE - RETURN VALVE MOUNT	1	
3		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	6	
4		238214001	SCREW- HCS-.38-16X6.00-GR8-CZ	2	
5		235726001	SCREW-HCS-.38-16X.75-GR8-YZ	2	
6		235725001	NUT-HEX-.38-16-GR8-YZ	2	
7		86230001	FITTING-MALE BLKHD CPLG7/16JIC	3	
8		96709001	HOSE INSERT-16MX1 BEAD-STR	1	
9		238094001	CLAMP- BAND	2	
10		65571001	16M JICX12M ADJ. 90 DEG.ELBOW	1	
11		99706001	FITTING-90-12ORBA-16HBI	1	
12		67570001	FITTING-PLUG-12MORB-HEX	1	
13		100000001	FITTING -90- 16MORBX 16MBHI	1	
14		81212001	FITTING-45-16MORBA-12MJ	2	
15		77137001	FITTING-90-20MJ-20MORBA	1	
16		7000b300	TEST PIONT DECAL	1	

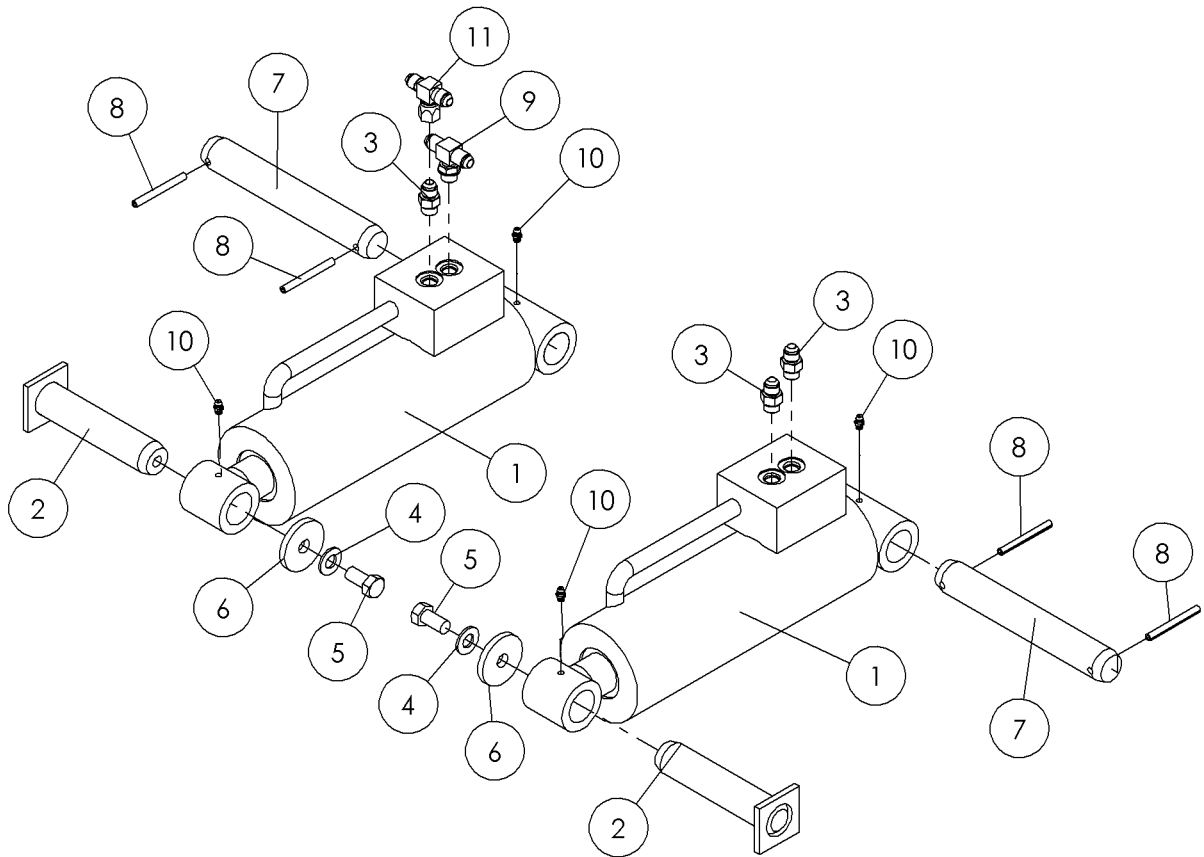
Valve - Remote Lockout Fig 4-9



Valve - Remote Lockout Fig 4-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296278540	VALVE - CHECK BANK	1	Breakdwon Fig. 11-17
2		249977001	FITTING - 4MOR X 4MJIC 90 LONG	1	
3		67263001	FITTING - PLUG - 4MORB - HEX	1	
4		88530001	FITTING-4MX6F JIC SOLID REDUCE	1	
5		296259050	FITTING - 6FOR X 6MOR FORGED ELBOW	1	
6		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
7		296280981	BRACKET- REMOTE LOCKOUT VALVE	1	
8		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
9		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
10		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
11		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	2	
12		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	2	
13		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	2	
14		53658001	FITTING-4M JICX4 FS JIC 90 DEG	1	
15		296276082	TRANSDUCER 6000 PSI HYDAC	1	

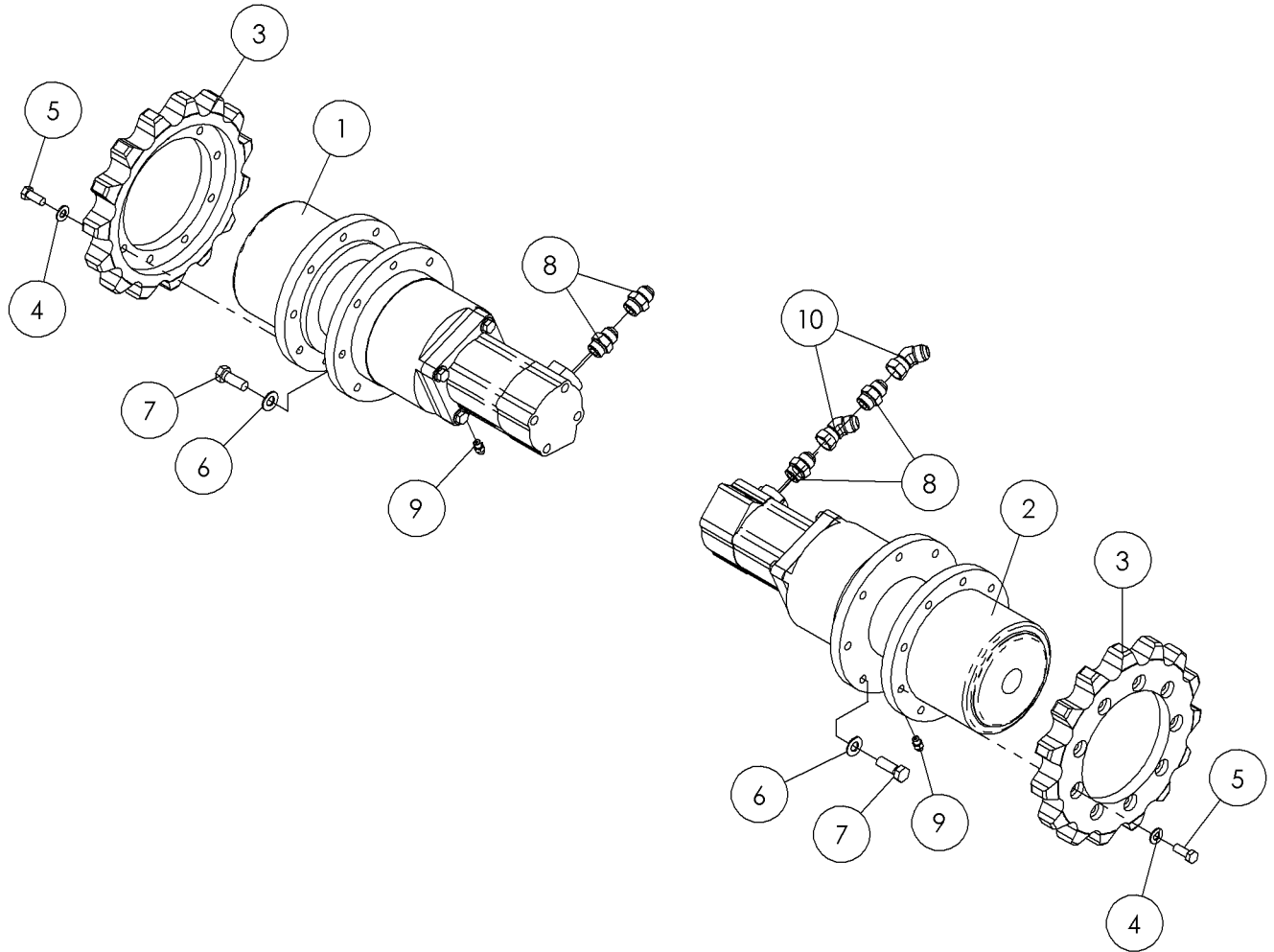
Cylinder - Rack Lift Fig 4-10



Cylinder - Rack Lift Fig 4-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278769001	CYLINDER-3 1/2"BORE X 7"STROKE	2	Breakdown Fig. 11-15
2		277202001	PIN-CYLINDER RACK	2	
3		65565001	FITTING - 6M O-RING X 6M JIC ST.	3	
4		485025	WASHER-1/2 FLAT-HARDENED-YZ	2	
5		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	2	
6		281787001	SLUG -.53 ID X 2.00 OD - 1/4"	2	
7		296277267	PIN - RACK CYLINDER PIN	2	
8		1788035	PIN-EXPANSION 1/4X2 1/2	4	
9		68787001	FITTING-6M (BCH)X6M JICX6M JIC	1	
10		598001	FITTING-1/4" NF ST GREASE ZERK	4	
11		60852001	6M JICX6FS JIC SWIV.NUT B TEE	1	

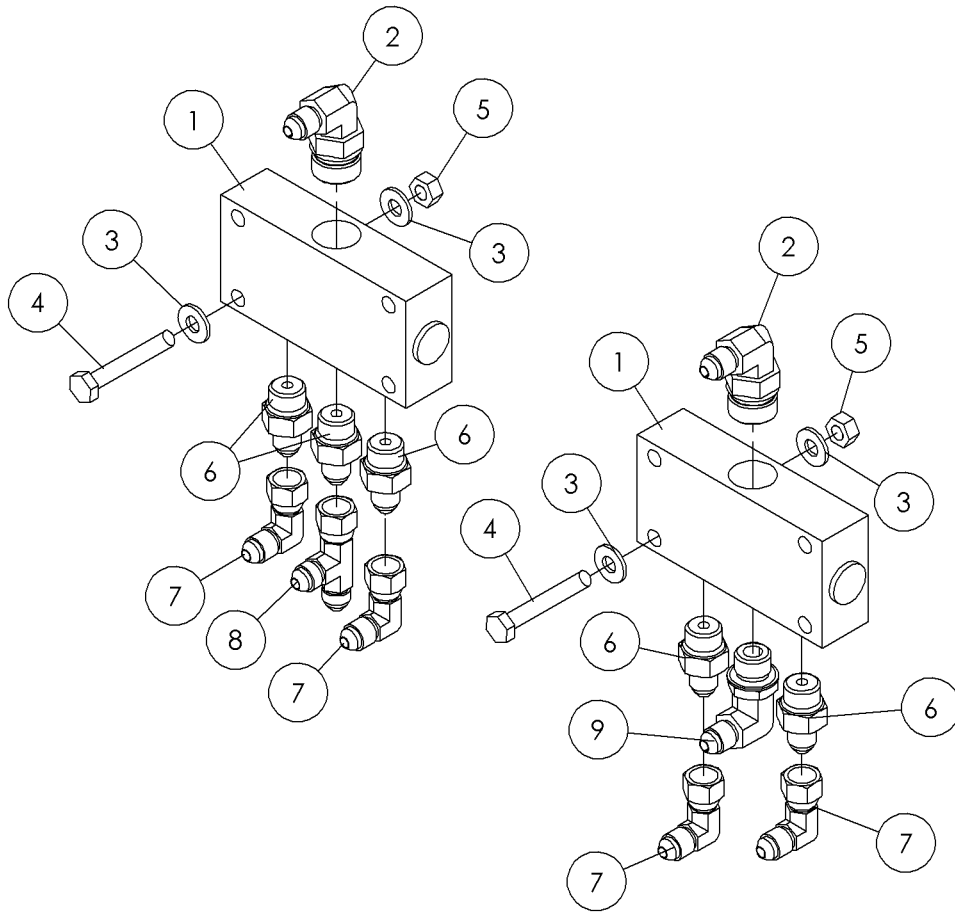
Motor - Track Drive Fig 4-11



Motor - Track Drive Fig 4-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278999001	PLANETARY ASSEMBLY - LEFT	1	Breakdown Fig. 11-31 And 11-32
2		291553001	PLANETARY ASSEMBLY - RIGHT	1	Breakdown Fig. 11-31 And 11-32
3		244467001	PLATE - 15 T SPROCKET	2	
4		485025	WASHER-FLATSTRL-.50-.53X1.06-.09-YZ	18	
5		508347001	SCREW-HCS-.50-20X1.25-GR8-YZ	18	
6		235715001	WASHER-FLATSTRL-.63-.66X1.31-.09-YZ-A325	16	
7		230728001	SCREW-HCS-.63-11X1.75-GR8-YZ	16	
8		53828001	FITTING-STR-12MJ-12MORB-YZ	4	
9		67849001	1/4 M x 4 M JIC ST	2	
10		58017001	FITTING - 12FS JIC X 12M JIC 45 DEG	2	

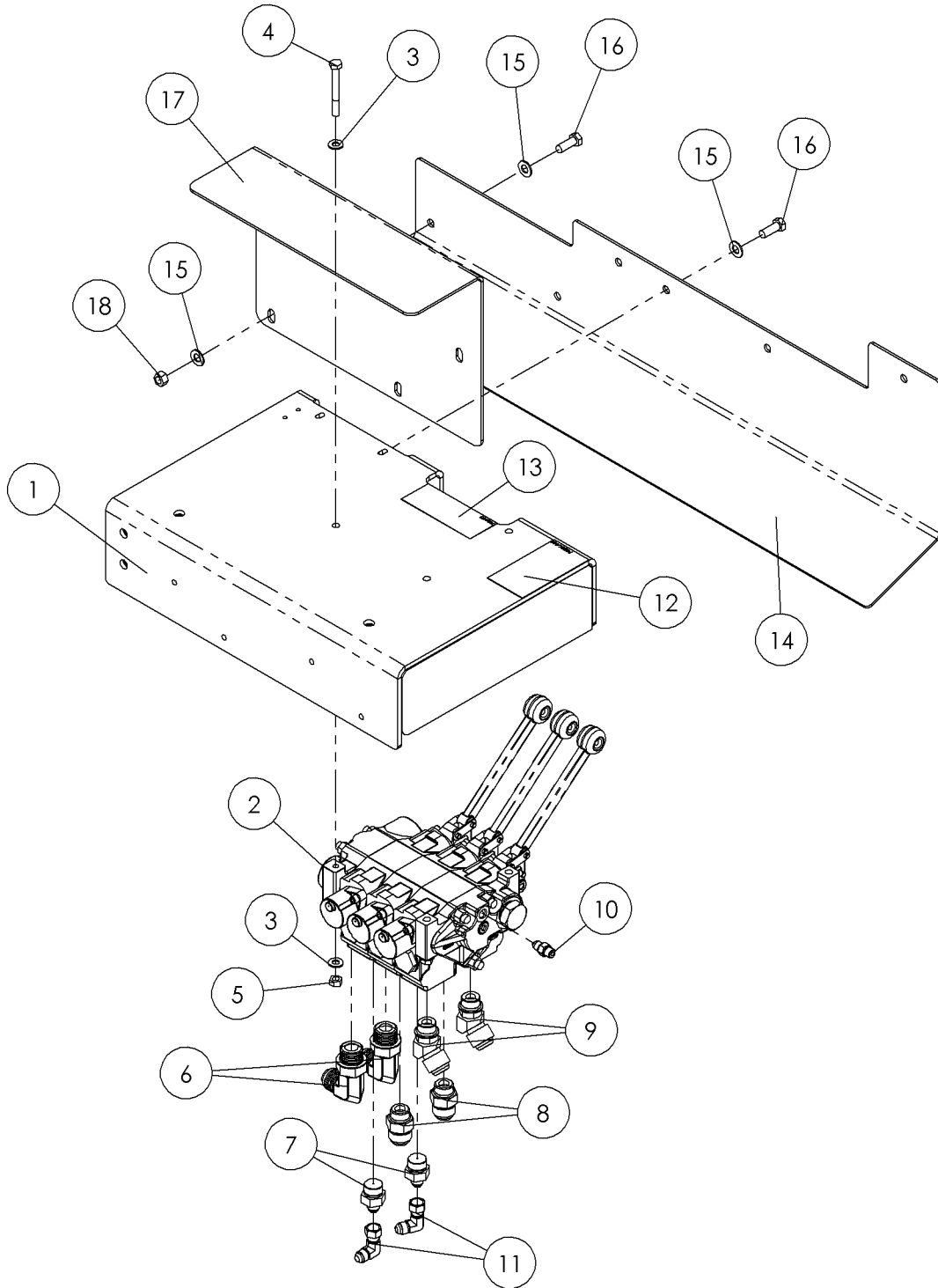
Valve - Track Brake Fig 4-12



Valve - Track Brake Fig 4-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		225190001	VALVE - SHUTTLE	2	
2		86671001	FITTING-8M ORING X4M JIC 90 EL	2	
3		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	8	
4		248107001	BOLT-1/4-20X1 3/4 GR 8 ZINC PL	4	
5		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	4	
6		57968001	FITTING-STR-4MJ-6MORB	5	
7		53658001	FITTING-4M JICX4 FS JIC 90 DEG	4	
8		60248001	TEE-4M JICX4M JICX4FS JIC	1	
9		57950001	FITTING-90-4MJ-6MORBA	1	

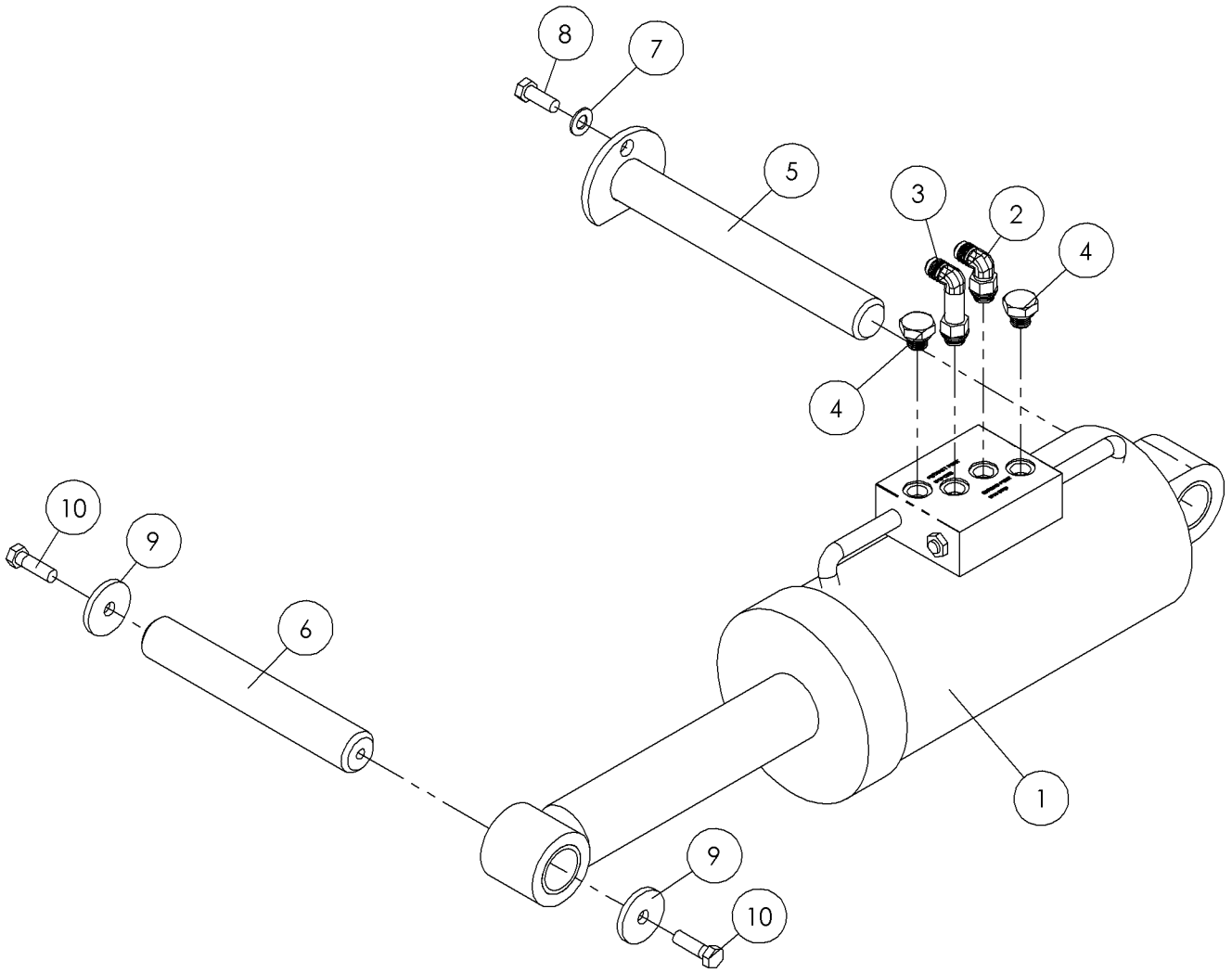
Valve - Transport-10' (S/N 354-) Fig 4-13



Valve - Transport-10' (S/N 354-) Fig 4-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269700	WELDMENT - TRANSPORT VALVE MOUNT	1	
2		296269699	VALVE 3 - SPOOL CONTROL	1	Breakdown Fig. 11-12
3		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	6	
4		250502001	BOLT 5/16-18 X 2 3/4"GR8 HEX Y	3	
5		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	3	
6		278867001	FITTING-12M X 12M JIC LONG 90	2	
7		296269633	FITTING - 10MB - 6MJ ST/R.062	2	
8		60910001	10MX12M JIC ST.ADAPTER	2	
9		67552001	10MX12M JIC 45 DEG.	2	
10		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
11		60851001	FITTING-6M JICX6FS JIC 90ELBOW	2	
12		7000c446	DECAL - NO WELD	1	
13		700ia472	DECAL-CTRL. TRACK & RACK (UG)	1	
14		296269702	PLATE - SHIELD TRANSPORT D36X50II	1	
15		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	6	
16		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	4	
17		296269703	PLATE - SHIELD TRANSPORT	1	
18		163621963	NUT-HEXCTRLOCK-.38-16-GR5-YZ	2	

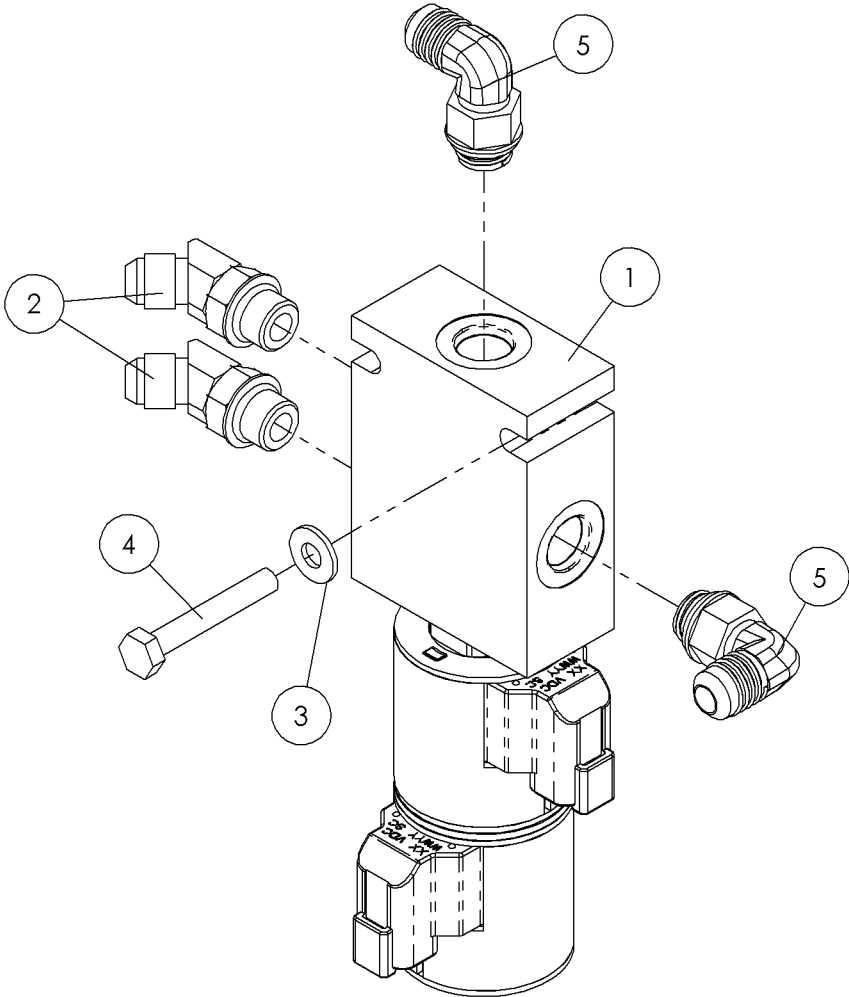
Cylinder - Outrigger Fig 4-14



Cylinder - Outrigger Fig 4-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Change pin
1		296280124	CYLINDER - 5 X 8 X 2"	1	
2		122606001	FITTING - 90-6MJ-6MORBA/90 DEG/ R.062	1	
3		157172001	FITTING - 6MJ-6MORBA/90 DEG LL/ R.062	1	
4		5553001	PLUG-#6M	2	
5		230858001	PIN - OUTRIGGER	1	
6	*	296292055	PIN-OUTRIGGER	1	
7		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ- A325	1	
8		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	1	
9	*	277206001	WASHER-FLATWRT-.38-.41X1.63-.188-YZ	2	
10	*	235736001	SCREW-HCS-.38-16X1.25-GR8-YZ	2	

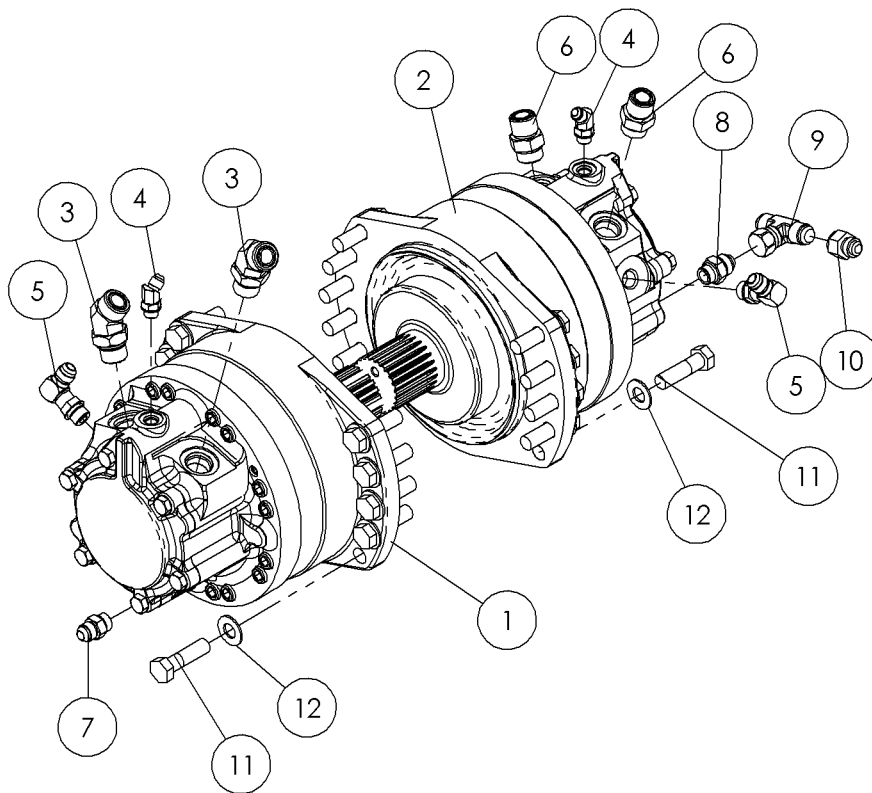
Valve - Outrigger Fig 4-15



Valve - Outrigger Fig 4-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269565	VALVE - 3 POSITION, 4 WAY	1	Breakdown Fig. 11-9
2		65563001	FITTING-45-6MJ-6MORBA	2	
3		510337603	WASHER- FLATSTD-.25-.31X.75-.07-YZ	2	
4		248107001	SCREW-HCS-.25-20X1.75-GR8-YZ	2	
5		59426001	FITTING - 90-6MJ-6MORBA	2	

Gearbox Drive Motors Fig 4-16



Gearbox Drive Motors Fig 4-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Remove Light Bracket.
1		296273602	MOTOR - HYD 38/19 (MS08)('G')	1	Breakdown Fig. 11-24
2		296273528	MOTOR - HYD - 38/19 (MS08) ('D')	1	Breakdown Fig. 11-25
3		72418001	FITTING - 45 - 12MORFF - 12MORBA	2	
4		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	2	
5		278044001	FITTING -8MJ X 8MOR 90 - LONG	2	
6		279784001	FITTING-STR-12MORFF-12MORB	2	
7		53824001	FITTING-#8M O-RING-#8M JIC ST.	1	
8		67850001	8M X 10MJIC STR	1	
9		65566001	10FS JIC BCHX10MJICX10MJIC TEE	1	
10		86670001	FITTING-ADAPT 10FJICX8MJIC RED	1	
11		238245001	BOLT 5/8" - 11 X 2 1/4 Gr 8 HEX	20	
12		235715001	WASHER-FLATSTRL-5/8" YZ A325	20	

Motor - Thrust Drive Fig 4-17

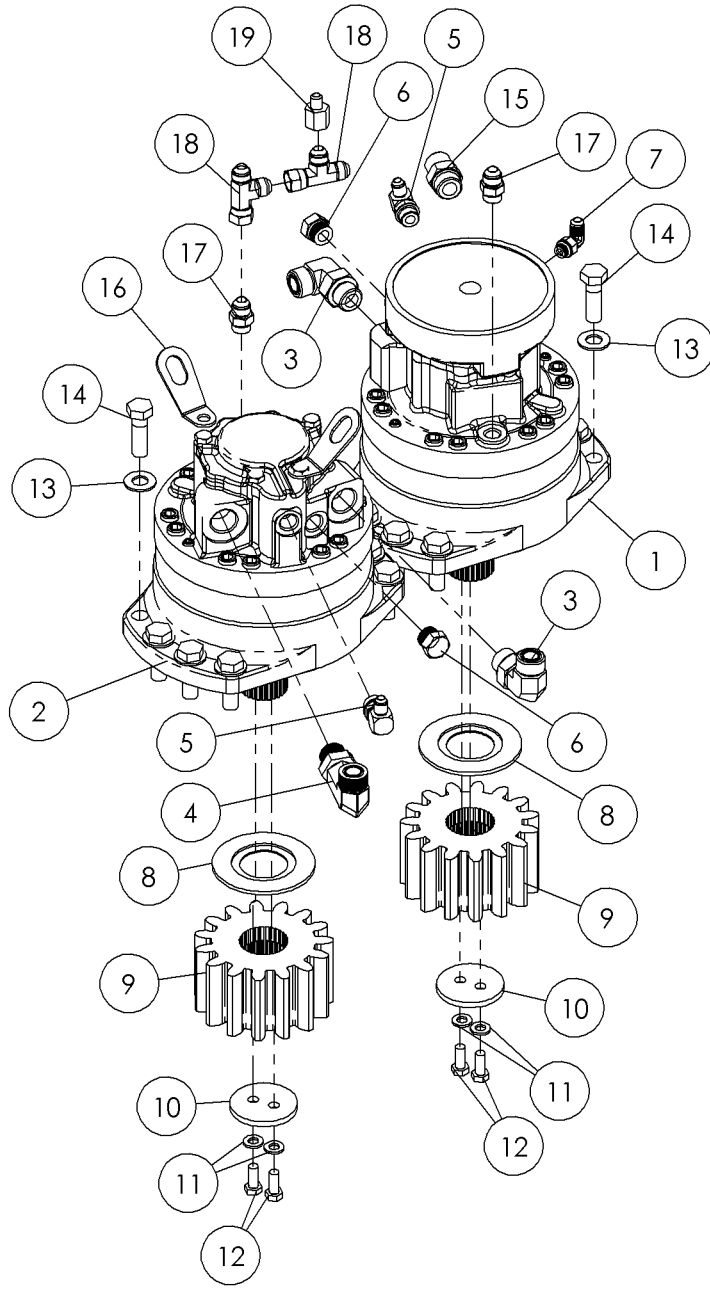
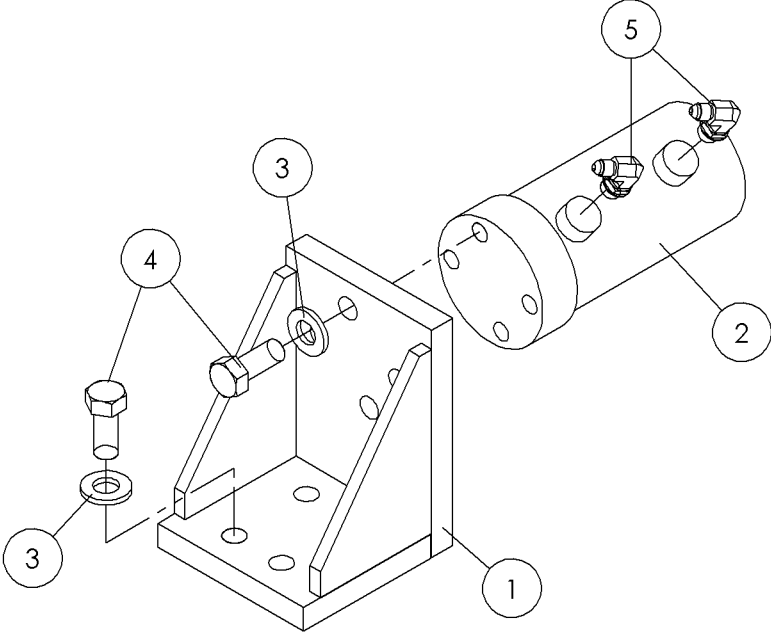


Illustration No. 296273561

Motor - Thrust Drive Fig 4-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296273526	MOTOR-HYD-38 (MSO5) W/BRAKE	1	Breakdown Fig. 11-29
2		296273527	MOTOR-HYD-38 (MSO5)	1	Breakdown Fig. 11-28
3		72419001	FITTING - 90 - 12MORFF - 12MORBA	2	
4		296273567	FITTING -90-12MORFF-12MORBA-LL	1	
5		57954001	FITTING-90-6MJ-8MORBA	2	
6		56218001	FITTING - PLUG - 8MORB - HEX	2	
7		59426001	FITTING - 90-6MJ-6MORBA	1	
8		296273547	WASHER-FOAM	2	
9		278310001	GEAR-PINION-15T	2	
10		282044001	CAP-PINION	2	
11		141350001	WASHER-M10 HARDEN PLATED FLAT	4	
12		238888001	SCREW-HCS-M10-1.25X25-10.9-YZ-ANSI-FT	4	
13		235715001	WASHER-FLATSTRL-.63-.66X1.31-.09-YZ-A325	16	
14		145645001	SCREW-HCS-.63-11X2.00-GR8-YZ	16	
15		279784001	FITTING-STR-12MORFF-12MORB	1	
16		278926001	PLATE- LIFT PONT	2	
17		53824001	FITTING-STR-8MJ-8MORB	2	
18		59461001	8 JIC SW RUN TEE	2	
19		61500001	FITTING-STR-6MJ-8FJ	1	

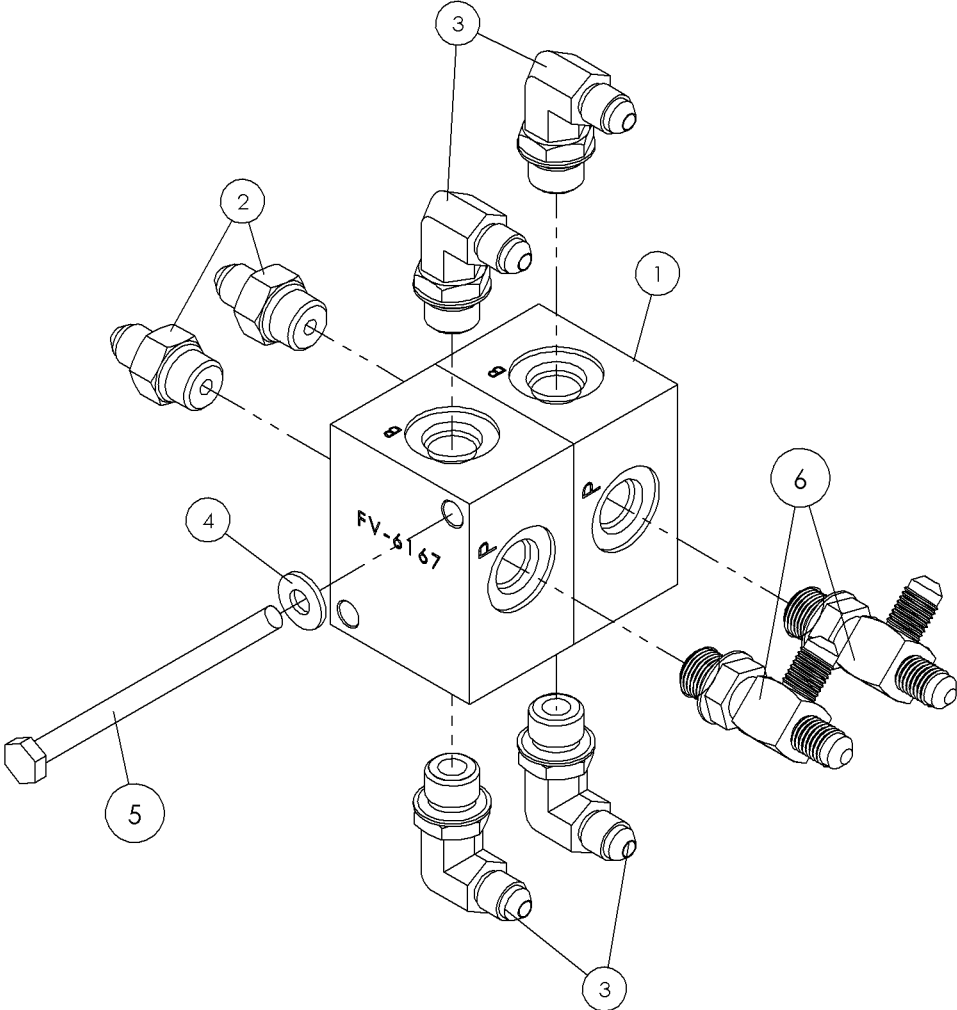
Cylinder - Gearbox Lock Fig 4-18



Cylinder - Gearbox Lock Fig 4-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280970	BRACKET - LOCK CYLINDER	1	
2		278306001	CYLINDER - HYDRAULIC LOCK	1	Breakdown Fig. 11-17
3		235715001	WASHER-5/8 SAE HARD ZINC PLTD	8	
4		230727001	BOLT-5/8-11X1 1/2GR8 PLATED	8	
5		57950001	FITTING-90-4MJ-6MORBA	2	

Valve - Pressure Gauge Shuttle Fig 4-19



Valve - Pressure Gauge Shuttle Fig 4-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296260411	VALVE-SHUTTLE	2	
2		57968001	FITTING-STR-4MJ-6MORB	2	
3		57950001	FITTING-90-4MJ-6MORBA	4	
4		252251001	WASHER-FLATSAE-.25-.28X.63-.06-CZ	2	
5		244204001	SCREW-HCS-.25-20X3.50-GR8-YZ-SP	2	
6		82930001	FIT-6MX4M JICX4M JIC (BCH) TEE	2	

Valve - Three Speed Gearbox Fig 4-20

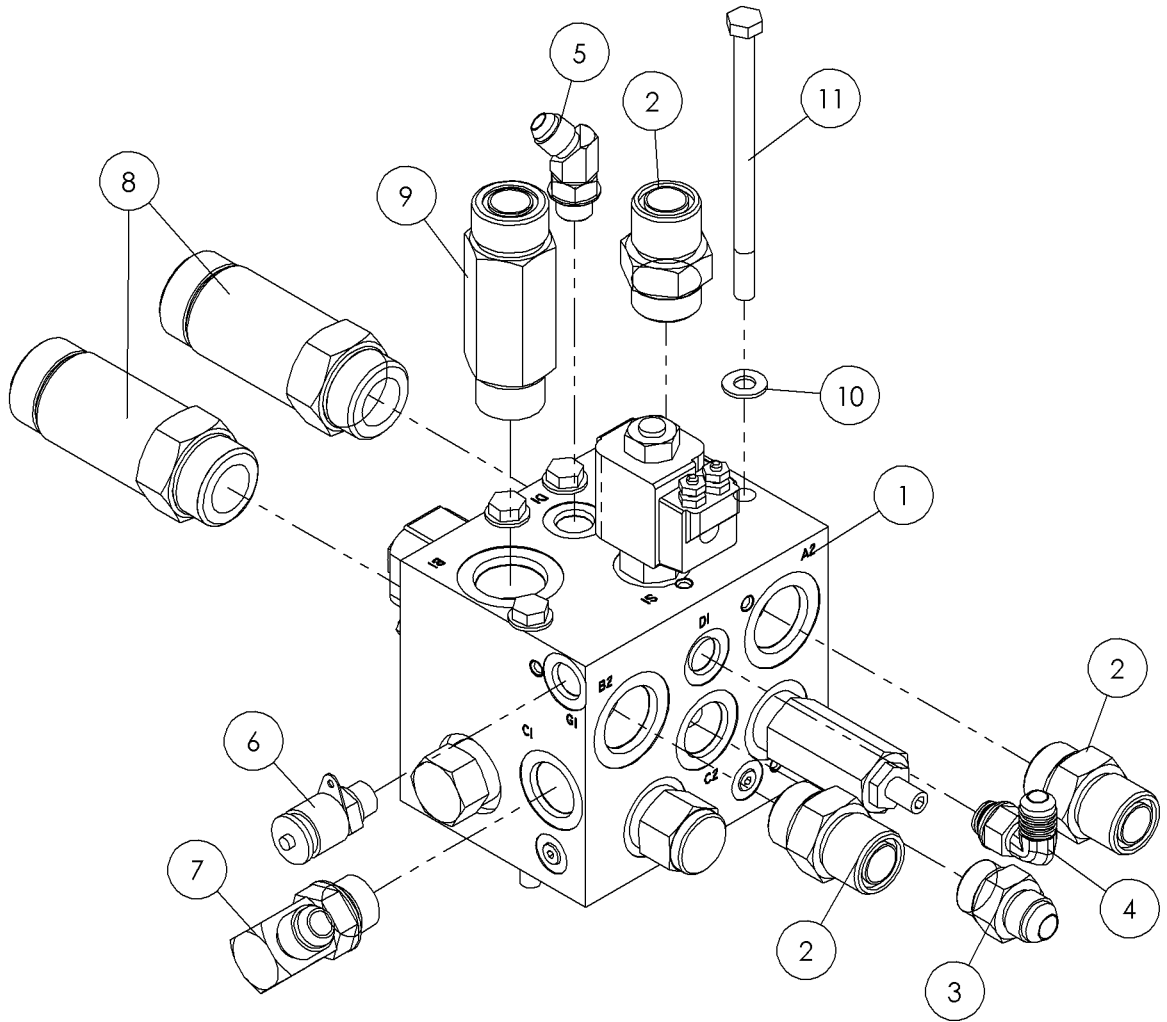


Illustration No. 296273563

Valve - Three Speed Gearbox Fig 4-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		277838001	VALVE-3 SPEED SHUTTLE	1	Breakdown Fig. 11-1
2		279784001	FITTING-STR-12MORFF-12MORB	3	
3		53826001	#10M O-RING-#8M JIC ST.	1	
4		59426001	FITTING - 90-6MJ-6MORBA	1	
5		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	1	
6		72056001	FITTING-TEST-6MORB-16MTP	1	
7		59407001	8M JICX10M ADJ. 90 DEG.ELBOW REF 59648-001-1	1	
8		296273564	FITTING-STR-16MORFF-16MORB-L	2	
9		279786001	FITTING - FLTF - L - 12MORS X 12M	1	
10		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
11		248069001	BOLT-5/16-18X5 GR 8 ZINC PLTD	4	

Hose Carrier & Tower (10') Fig 4-21

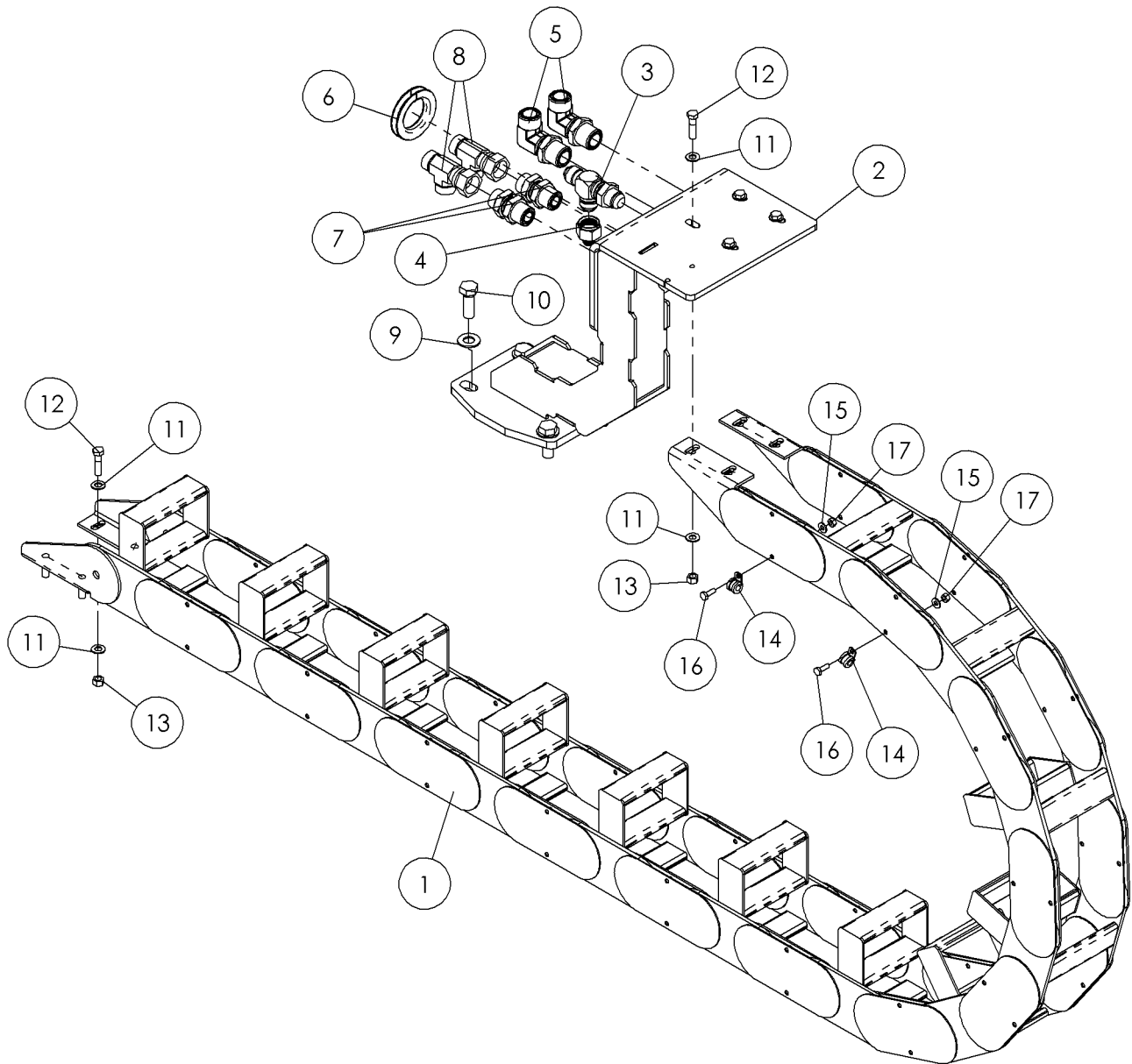
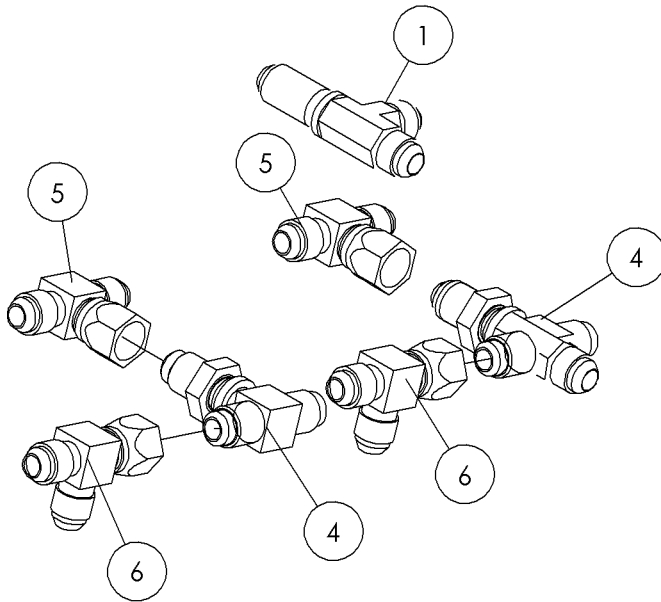


Illustration No. 296287844

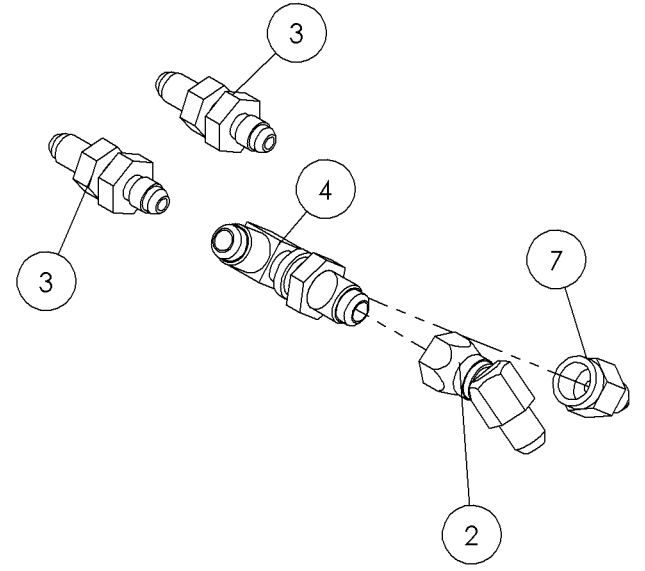
Hose Carrier & Tower (10') Fig 4-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296273692	HOSE TRACK - D24X40 II	1	Breakdown Fig. 11-38
2		296287830	WELDMENT - BULKHEAD MOUNT	1	
3		96075001	FITTING-12MJIC BLKHD RUN TEE	1	
4		59421001	12F JICX8M JIC ST REDUCER FITTING	1	
5		256690001	FITTING-BH90-16MORFF-16MORFF	2	
6		296273597	SEAL - EDGE - 3/8" X 7"	1	
7		296254814	FITTING - BHSTR - 12MORFF - 12MORFF	2	
8		292583001	FITTING - RTEE - 12MORFF - 12FSORFF - 12MORFF	2	
9		235715001	WASHER-FLATSTRL-5/8" YZ A325	4	
10		230728001	BOLT-5/8-11X1 3/4GR 8 PLATED	4	
11		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	16	
12		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	8	
13		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	8	
14		296275118	CLAMP - #8	2	
15		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
16		235734001	BOLT-1/4-20X3/4 GR8 ZYC	2	
17		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	2	

Carriage Bulkhead Fittings Fig 4-22



HYDRAULIC FITTINGS
MOUNTED ON BULKHEAD
ON UNDERCARRIAGE



Carriage Bulkhead Fittings Fig 4-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		503342001	FITTING-BHRTEE-6MJ-6MJBH-6MJ	2	
2		59419001	6M JICX6FS JIC 45 DEG.ELBOW	1	
3		65564001	FITTING - 4M JIC BULKHEAD ST.	2	
4		60726001	6M JIC BULKHEAD TEE	3	
5		60852001	6M JICX6FS JIC SWIV.NUT B TEE	2	
6		59427001	TEE-6MJ-6FSJ-6MJ	2	
7		59928001	6F JICX4M JIC ST REDUCER	1	

Valve - Thrust Fig 4-23

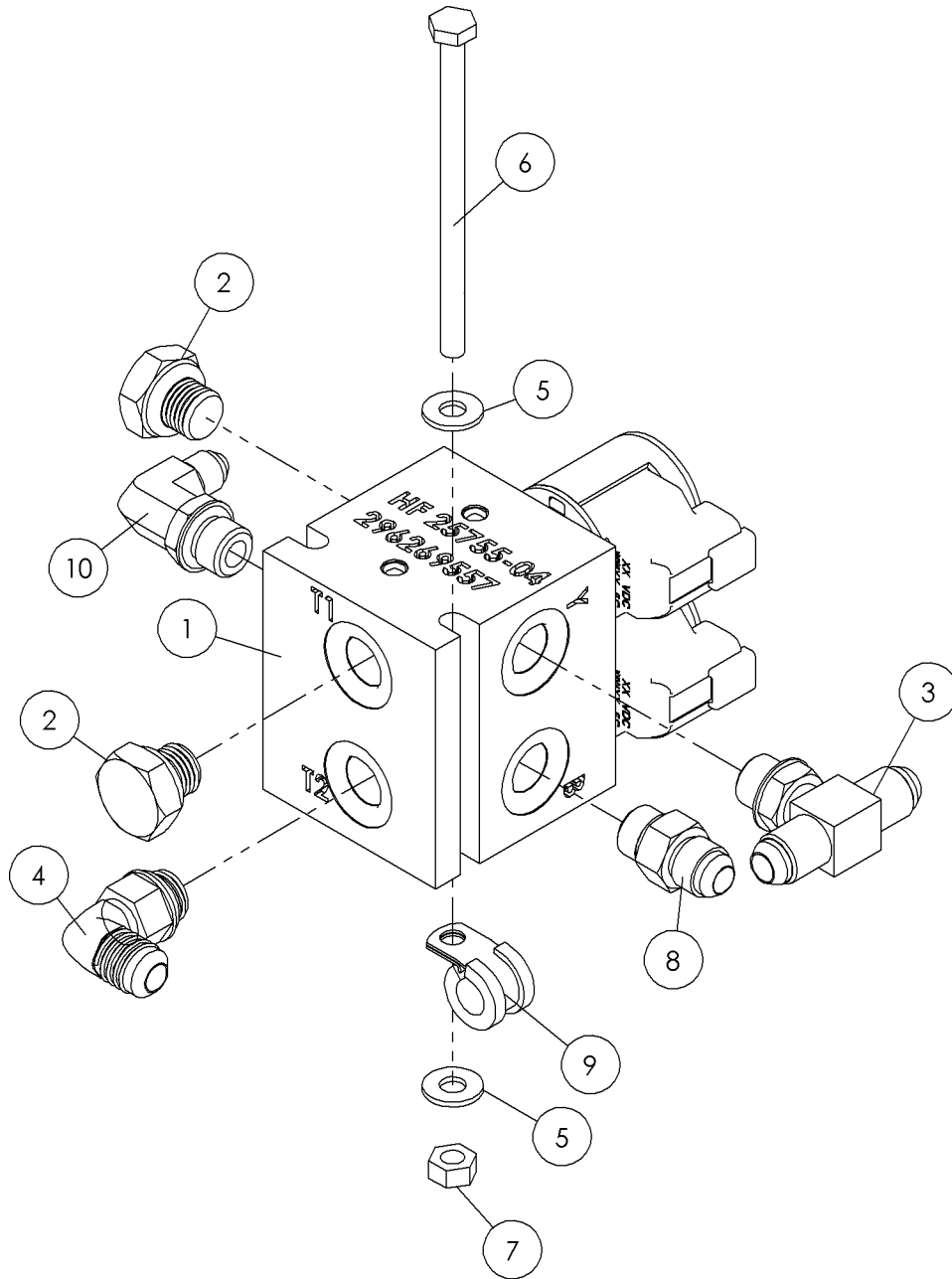
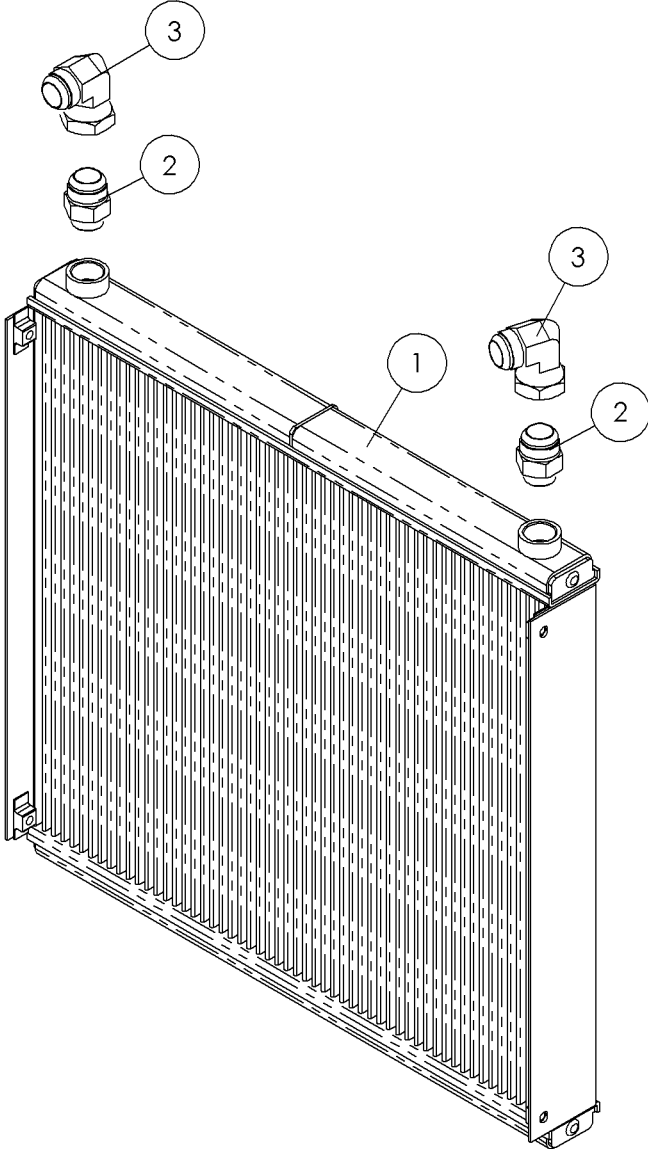


Illustration No. 296273562

Valve - Thrust Fig 4-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269557	VALVE- TWO SPEED W/BRAKE	1	Breakdown Fig. 11-52
2		5553001	FITTING - PLUG - 6MORB - HEX	2	
3		68787001	FITTING-6M (BCH)X6M JICX6M JIC	1	
4		59426001	FITTING - 90-6MJ-6MORBA	1	
5		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
6		238243001	SCREW - HCS- .25 - 20 X 4.00 - GR8 -YZ	2	
7		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
8		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	
9		296275118	CLAMP - #8	1	
10		57950001	FITTING-90-4MJ-6MORBA	1	

Oil Cooler Fig 4-24



Oil Cooler Fig 4-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296279964	COOLER - OIL	1	
2		86320001	FIT-ADAPT 16M ORINGX20MJIC STR	2	
3		65574001	20FS JICX20M JIC 90 DEGREE	2	

Motor - 10' Rod Loader (S/N 381-) Fig 4-25r01

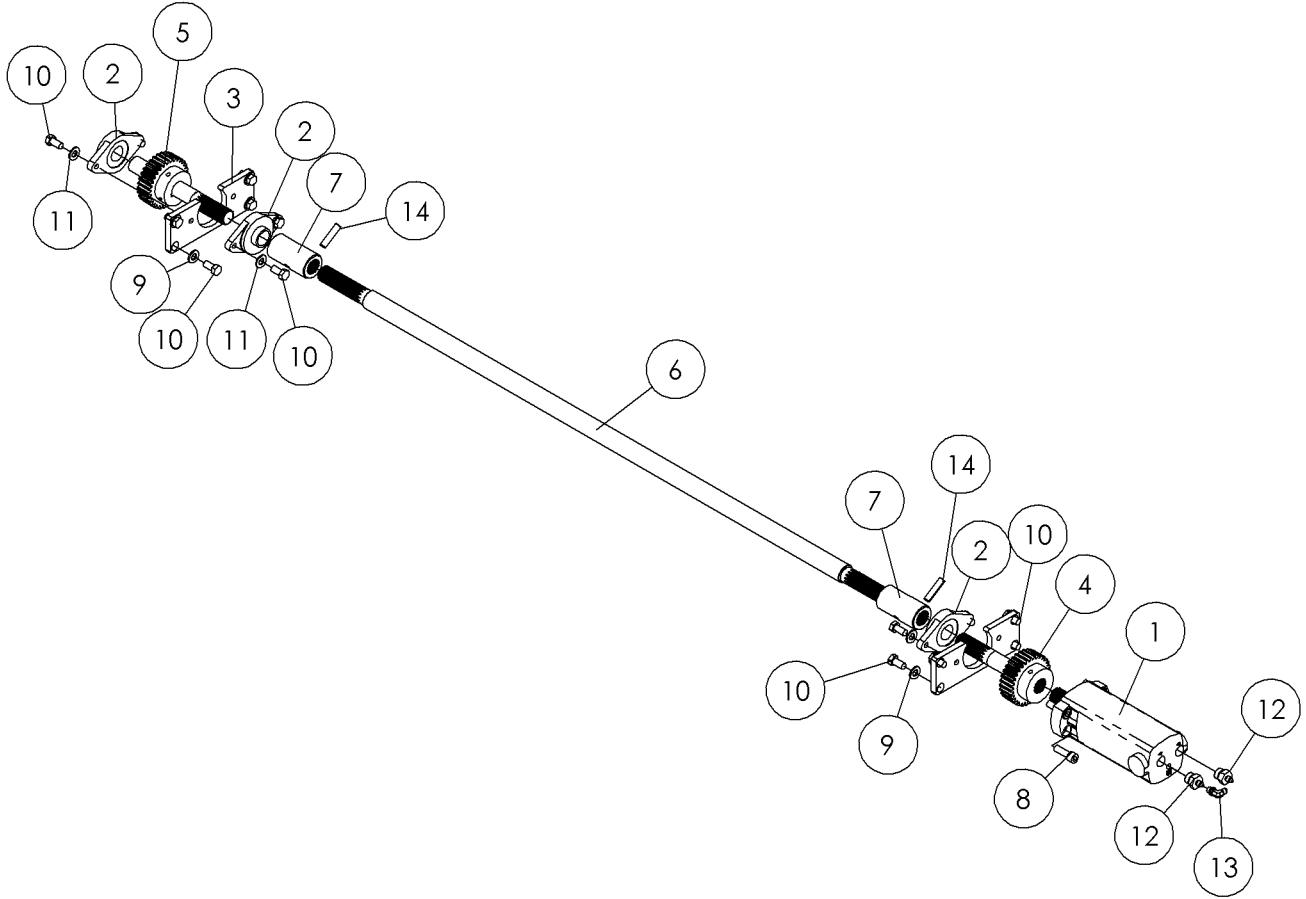
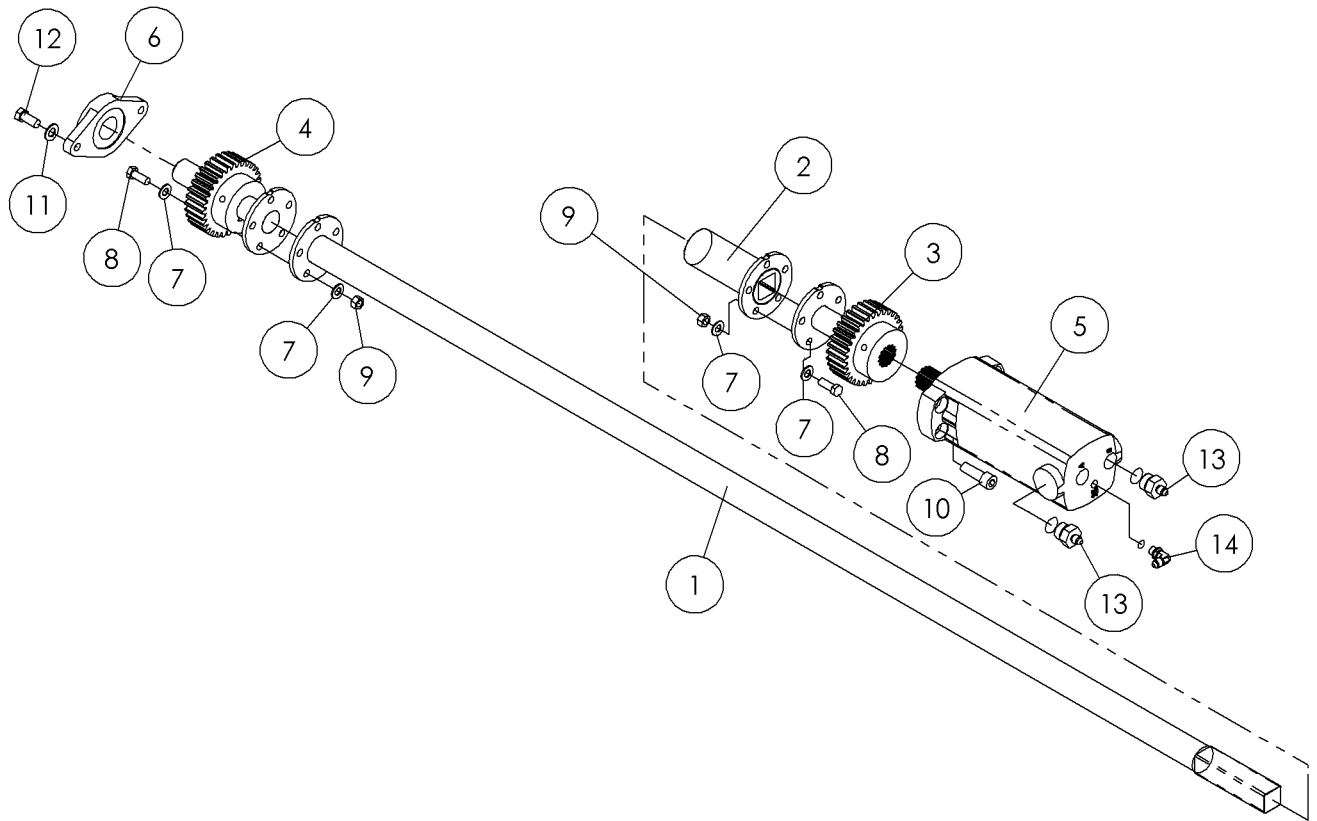


Illustration No. 296287894

Motor - 10' Rod Loader (S/N 381-) Fig 4-25r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Changed Hardware
1		296287807	MOTOR-HDY 4K COMPACT	1	(S/n 348-) Breakdown Fig. 11-27
2		246416001	BEARING- 2 BOLT FLANGE	3	
3		296287861	PLATE - BEARING	2	(S/N 381-)
4		296287859	WELDMENT - MOTOR GEAR	1	(S/N 381-)
5		296287860	WELDMENT - BEARING GEAR	1	(S/N 381-)
6		296287862	WELDMENT - SPLINE SYNCRO TUBE	1	(S/N 381-)
7		296287853	HUB - 1.25 14T SPLINE	2	(S/N 381-)
8		276402001	SCREW-1/2-13X1 1/2 SHC Y ZINC	4	
9		235712001	WASHER-1/2 SAE HARD ZINC PLTD - Replaced by 485025	8	
10	*	235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	14	
11	*	485025	WASHER-1/2 FLAT-HARDENED-YZ	6	
12		101507001	FITTING-10MORX4MJIC STR.	2	
13		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
14		296287915	1/2 X 2" ROLL PIN	2	(S/N 381-)

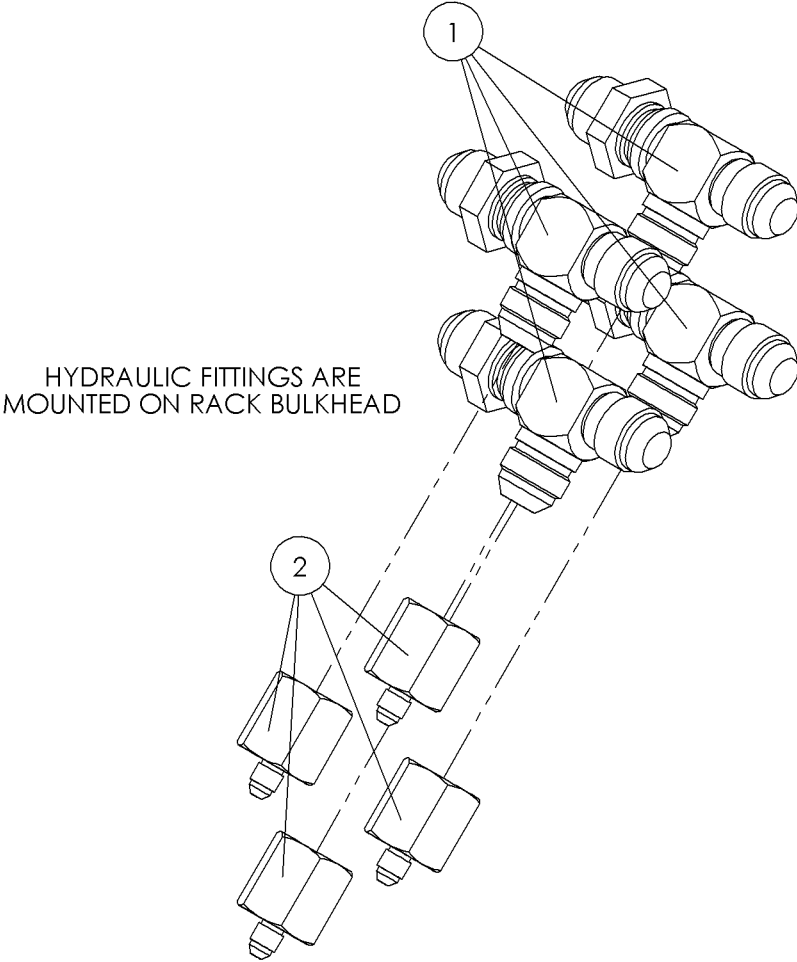
Motor - 10' Rod Loader Fig 4-25



Motor - 10' Rod Loader Fig 4-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	June, 2006		Update In Illustration & Parts List.
1		296277005	WELDMENT - SYNCHRO TUBE	1	
2		296280118	WELDMENT - SYNCHRO TUBE MOUNT	1	
3		296275143	WELDMENT - FRONT ROD LOADER GEAR	1	
4		296277008	WELDMENT - REAR ROD LOADER GEAR	1	
5		296287807	MOTOR- HYD 4K COMPACT	1	Breakdown Fig. 11-27
6		246416001	BEARING- 2 BOLT FLANGE	1	
7		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	20	
8		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	10	
9		250508001	NUT-TLHEX-.38-16-C-YZ	10	
10		276402001	SCREW-SHCS-.50-13X1.50-GR8-CZ	4	
11		250515001	WASHER-FLATSTRL-.44-.47X.92-.06-YZ	2	
12		250539001	SCREW-HCS-.44-14X1.00-GR8-YZ	2	
13		101507001	FITTING-10MORX4MJIC STR.	2	
14		59423001	FITTING-90-4MJ-4MORBA	1	

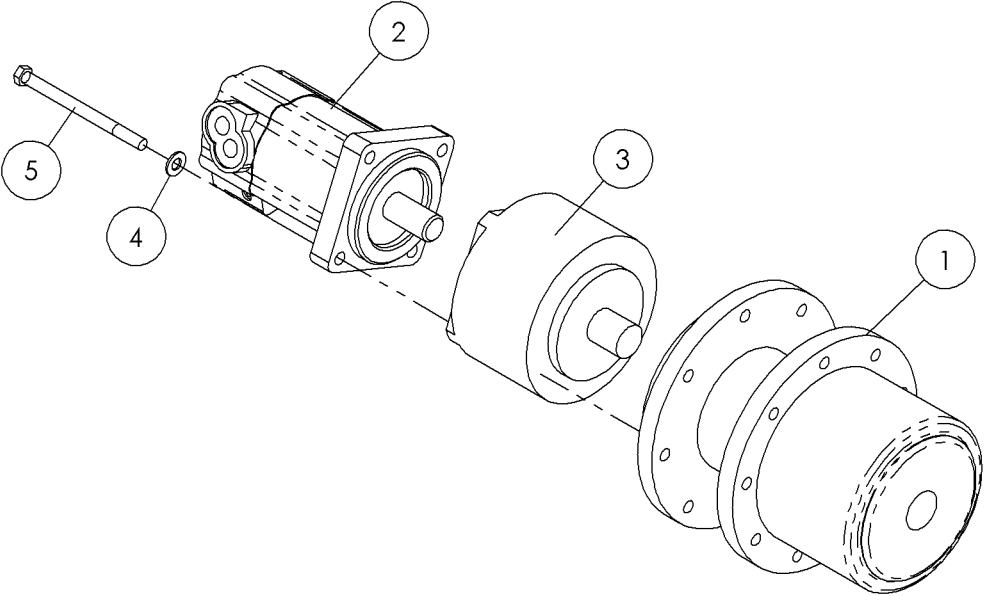
Rack Bulkhead Fittings Fig 4-26



Rack Bulkhead Fittings Fig 4-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		96075001	FITTING-12MJIC BLKHD RUN TEE	4	
2		81345001	FITTING-12F JICX4M JIC STR.	4	

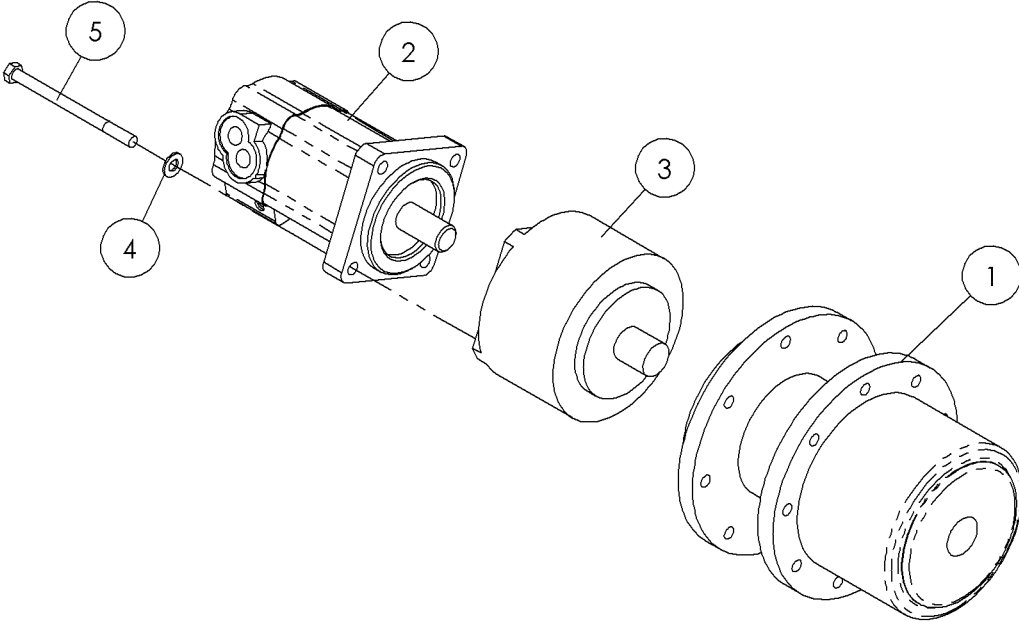
Planetary - Left Fig 4-27



Planetary - Left Fig 4-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		244405001	GEARBOX - PLANETARY 7WC14150ZX	1	Breakdown Fig. 11-31
2		251105001	MOTOR-7.9 CID 4000 SERIES HYD.	1	Breakdown Fig. 11-33
3		278785001	BRAKE-TRACK DRIVE PARK	1	Breakdown Fig. 11-32
4		485025	WASHER-1/2 FLAT-HARDENED-YZ	4	
5		251046001	BOLT-1/2-13X6 3/4 GR8 HEX ZINC	4	

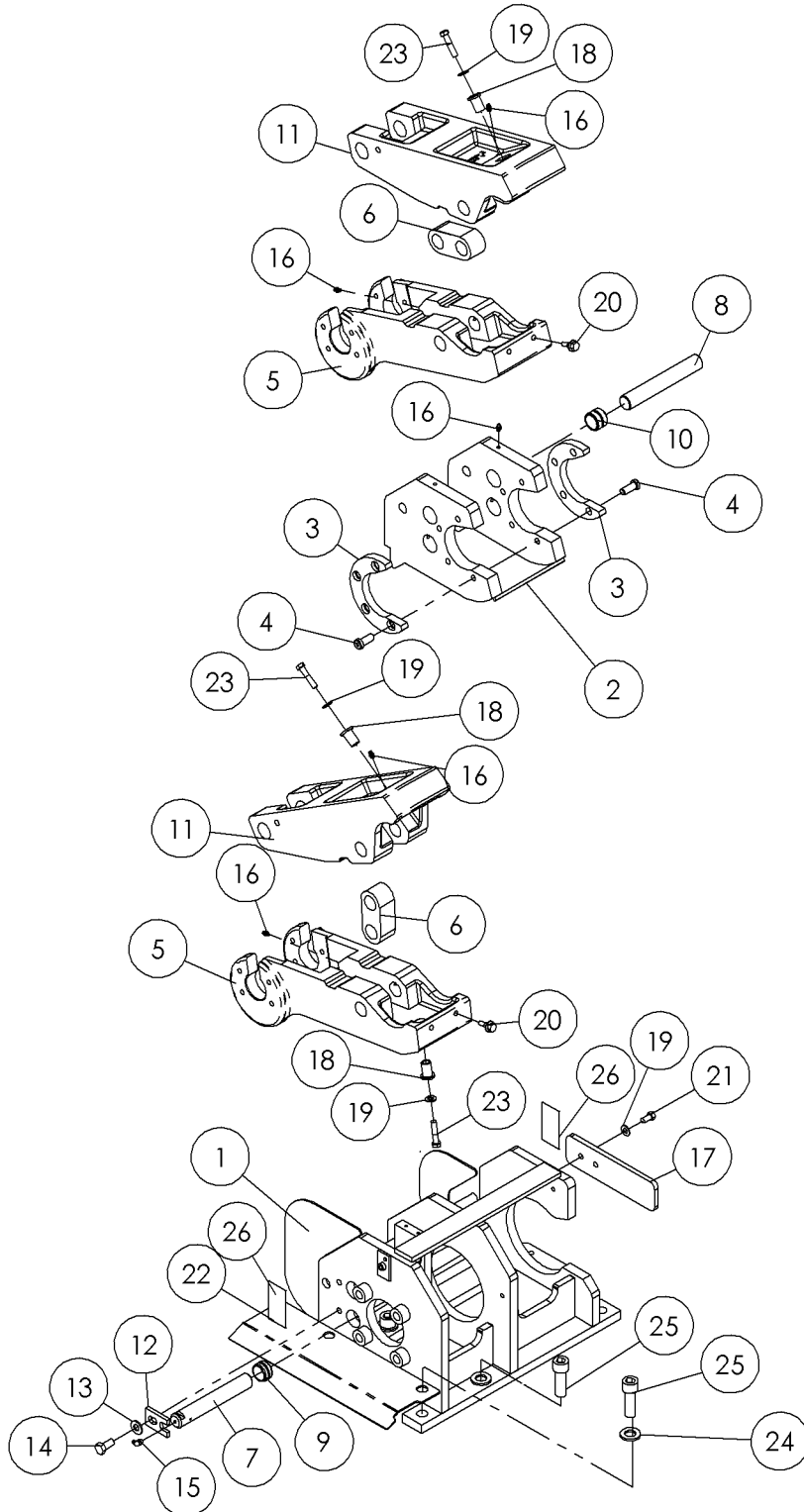
Planetary - Right Fig 4-28



Planetary - Right Fig 4-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		244405001	GEARBOX - PLANETARY 7WC14150ZX	1	Breakdown Fig. 11-31
2		251105001	MOTOR-7.9 CID 4000 SERICES HYD.	1	Breakdown Fig. 11-33
3		278785001	BRAKE - TRACK DRIVE PARK	1	Breakdown Fig. 11-32
4		485025	WASHER-FLATSTRL-.50-.53X1.06-.09-YZ	4	
5		251046001	SCREW-HCS-.50-13X6.75-GR8-YZ	4	

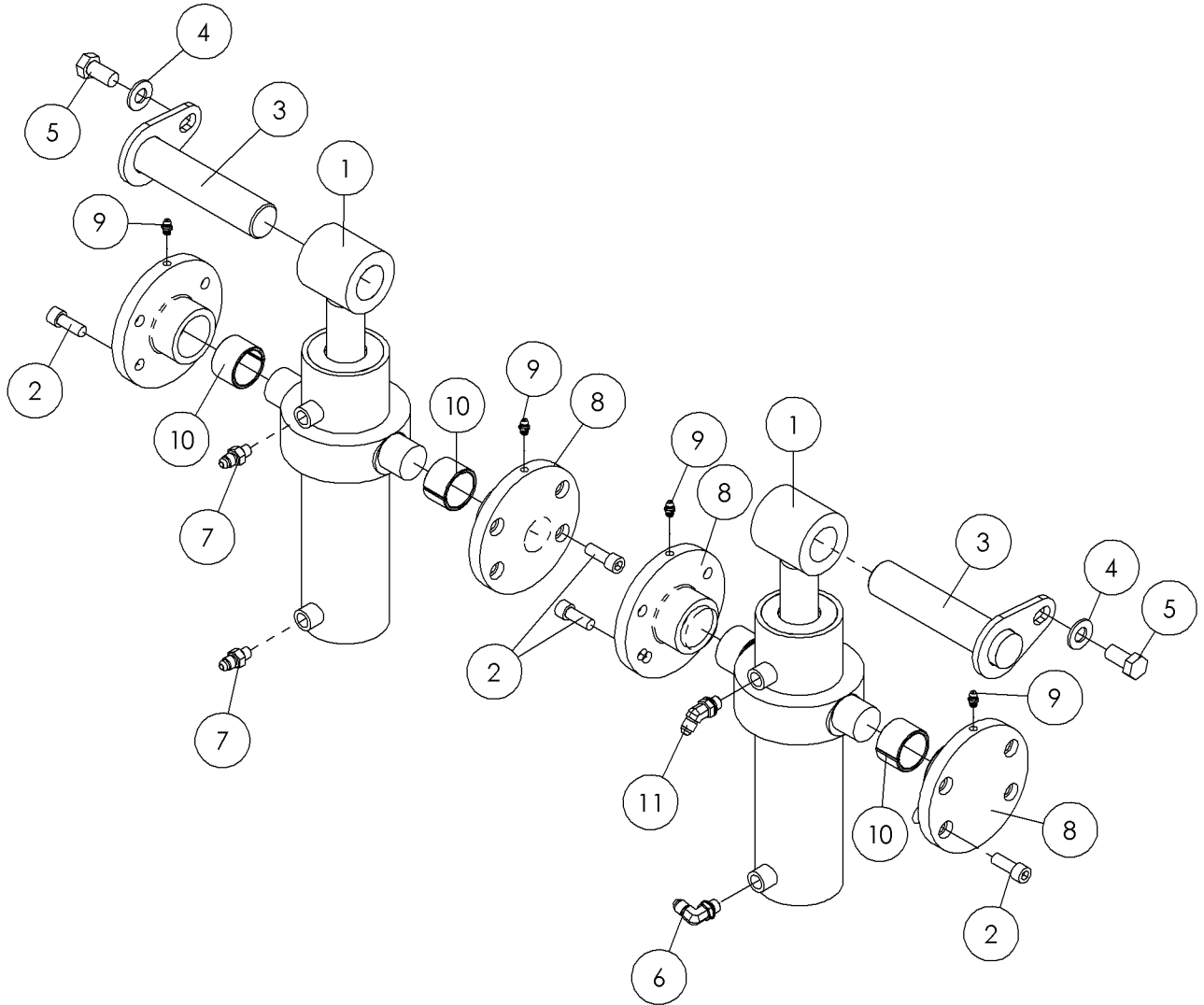
Vise Clamp Fig 5-1



Vise Clamp Fig 5-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Remove 3/4x 2" Bolt
1		243025001	FRAME-VISE	1	
2		240885001	PIVOT VISE - DUPLICATE FIXTURE	1	
3		240908001	PLATE-INSERT	2	
4		240854001	SCREW-1/2-13 UNCX1 1/4 LOW SH	8	
5		282810001	VISE - LOWER ARM	2	
6		240917001	PLATE-LINK	2	
7		240909001	PIN-VISE	2	
8		240918001	PIN-PIVOT	2	
9		240878001	BSHG-STL 1 3/8 ODX1 1/8 ID-.75	4	
10		240877001	BSHG-STL 1 3/8 ODX1 1/8 ID-1.0	4	
11		282811001	ARM - JAW UPPER VISE	2	
12		235929001	PLATE-TAB	2	
13		485025	WASHER-1/2 FLAT-HARDENED-YZ	2	
14		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	2	
15		597001	ZERK-1/4" NF 90 DEG GREASE ZYC	2	
16		598001	FITTING-1/4" NF ST GREASE ZERK	12	
17		291534001	BAR - ROD GUARD	1	
18		228064001	INSERT-FASTENER	4	
19		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	6	
20		249161001	BOLT-JAW PIN 3/8-16 X 1 SP PER PRINT	4	
21		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
22		291538001	PLATE-FRONT VICE	1	
23		235720001	BOLT-3/8-16X1 3/4 6R8 ZINC PLT	4	
24		235717001	WASHER - 3/4" HARDENED FLAT YZ	6	
25	*	249153001	SCREW-3/4-10X2 1/4 GR8 Y/ZINC	6	
26		7000A864	DECAL-WARNING DOMESTIC	2	Domestic
		700IA864	DECAL-WARNING INTERNATIONAL	2	International

Cylinder - Jaw Fig 5-2



Cylinder - Jaw Fig 5-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Changed Fitting
1		287590001	CYLINDER-2 1/2 X 6 5/8	2	Breakdown Fig. 11-18
2		601696010	SCREW-SHCS-.38-16X1.00-GR8-CZ	16	
3		228058001	PIN-CLAMP	2	
4		485025	WASHER-FLATSTRL-.50-.53X1.06-.09-YZ	2	
5		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	2	
6		59423001	FITTING-90-4MJ-4MORBA	1	
7		60908001	FITTING-STR-4MJ-4MORB	2	
8		240888001	BOSS-TRUNION	4	
9		598001	FITTING-1/4" NF ST GREASE ZERK	4	
10		1835025	BSHG-STL.-1 1/2X1 1/4 X 1	4	
11	*	58295001	FITTING-45-4MJ-4MORBA	1	(S/N 381-)

Cylinder - Rotation Fig 5-3

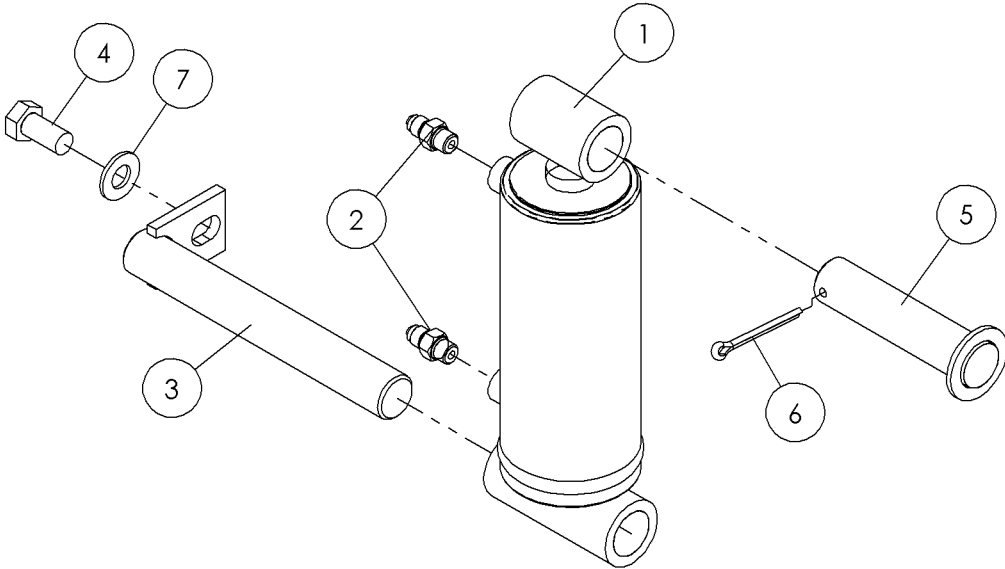
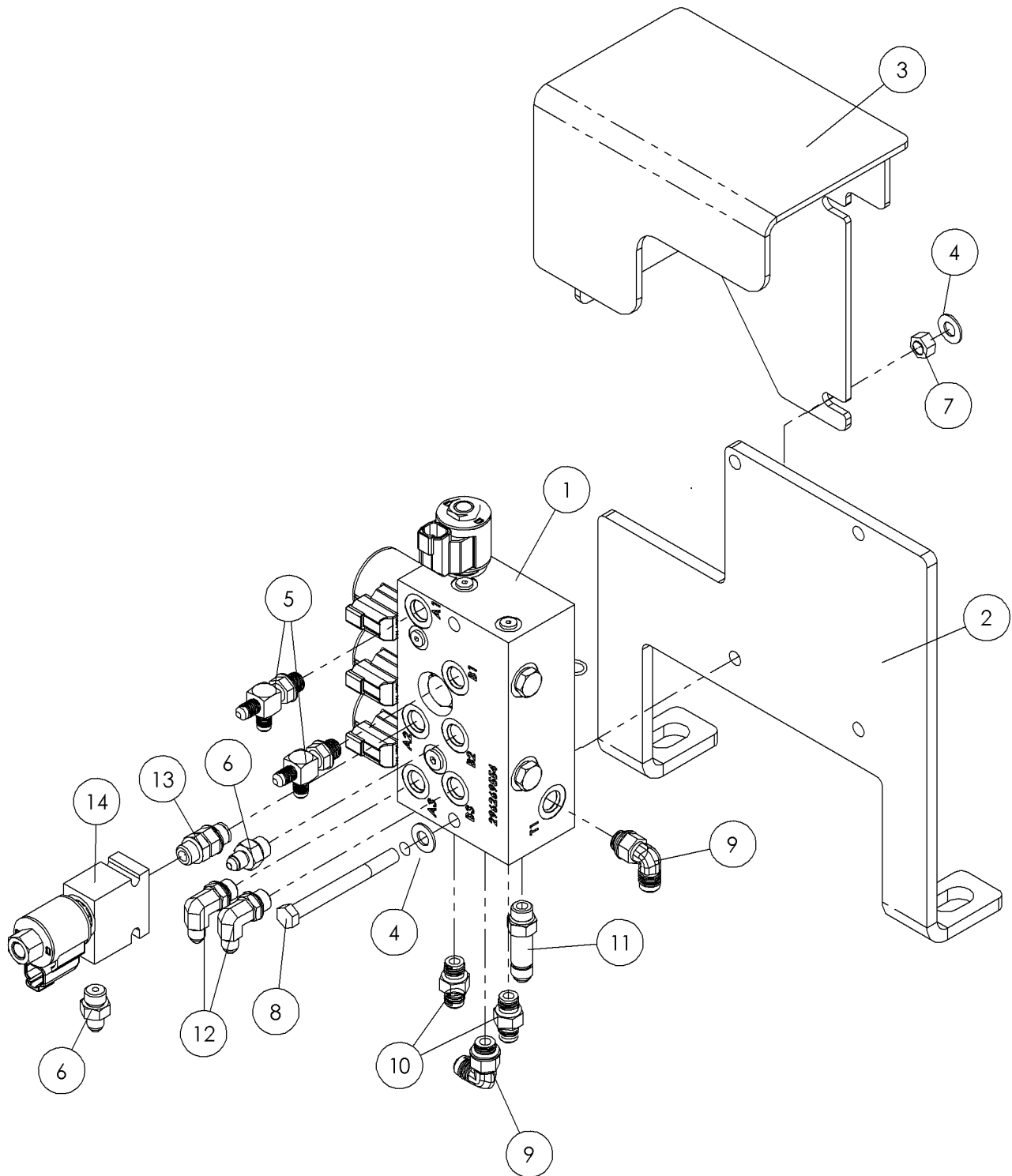


Illustration No. 296282554

Cylinder - Rotation Fig 5-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228021001	CYLINDER-2 1/2 X 3 HYD	1	Breakdown Fig. 11-21
2		60908001	FITTING-4MX4M JIC STR ADAPTER	2	
3		228037001	PIN-STATIONARY	1	
4		235729001	SCREW-HCS-.50-13X1.00-GR8-YZ	1	
5		228061001	PIN-TILT	1	
6		510025	COTTER PIN-3/16" X 2" REF T10997	1	
7		485025	WASHER-1/2 FLAT-HARDENED-YZ	1	

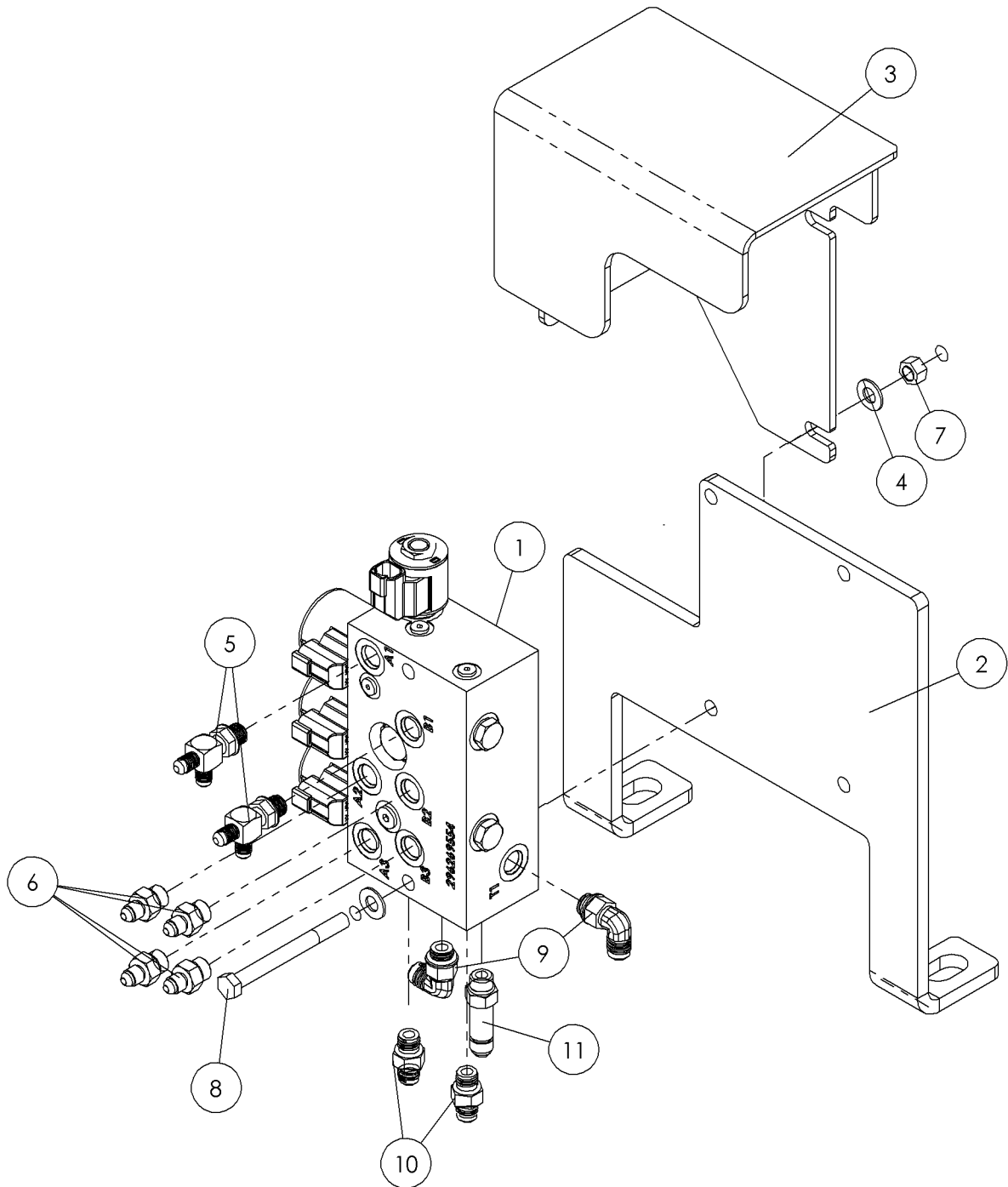
Valve - Vise Clamp (S/N 381-) Fig 5-4r01



Valve - Vise Clamp (S/N 381-) Fig 5-4r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Added Two Position Valve
1		296269554	VALVE-VISE	1	Breakdown Fig. 11-10
2		296280916	ANGLE - VISE VALVE MOUNT	1	
3		296280084	WELDMENT - VICE VALVE COVER	1	
4		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	4	
5		82930001	FIT-6MX4M JICX4M JIC (BCH) TEE	2	
6		57968001	FITTING-STR-4MJ-6MORB	2	
7		250508001	NUT-TLHEX-.38-16-C-YZ	2	
8		250583001	SCREW-HCS-.38-16X3.75-GR8-YZ	2	
9		59426001	FITTING - 90-6MJ-6MORBA	2	
10		65565001	FITTING - 6M O-RING X 6M JIC ST.	2	
11		103047001	FITTING-STR-6MJ-6MORB-L	1	
12		57950001	FITTING-90-4MJ-6MORBA	2	
13		108909001	FITTING-6M HEX NIPPLE	1	
14	*	296269720	VALVE - HYDRAULIC 2 POSITION 2 WAY N.O. POPPET	1	(S/N 381-) Breakdown Fig. 11-54

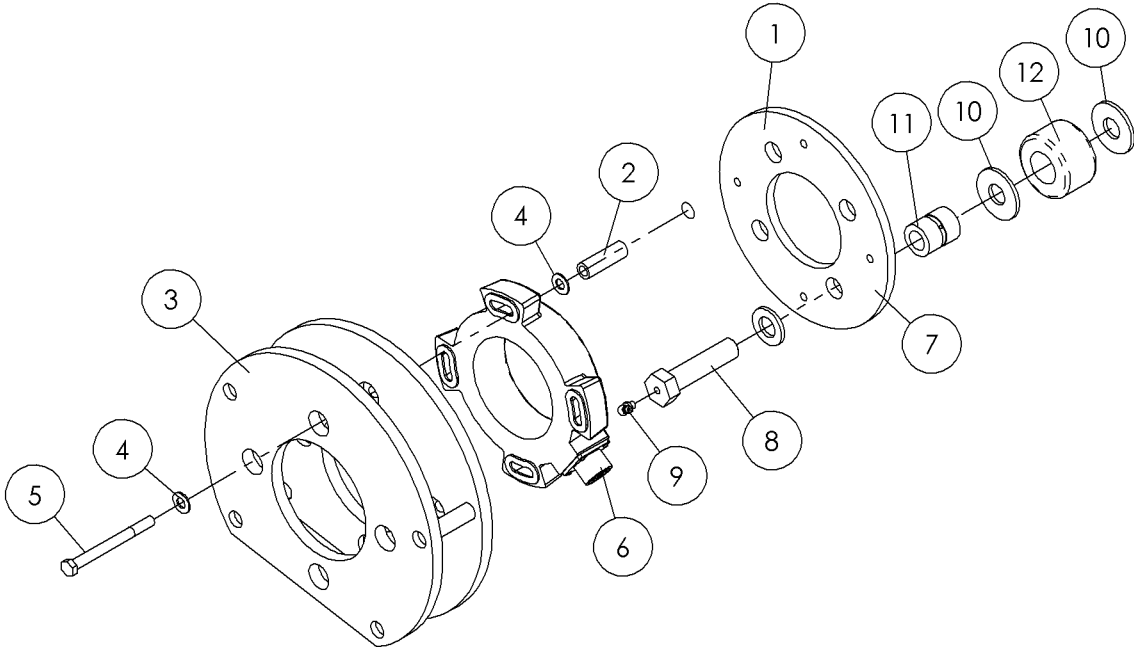
Valve - Vise Clamp Fig 5-4



Valve - Vise Clamp Fig 5-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269554	VALVE-VISE	1	Breakdown Fig. 11-10
2		296280916	ANGLE - VISE VALVE MOUNT	1	
3		296280084	WELDMENT - VICE VALVE COVER	1	
4		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	4	
5		82930001	FIT-6MX4M JICX4M JIC (BCH) TEE	2	
6		57968001	FITTING-STR-4MJ-6MORB	4	
7		250508001	NUT-TLHEX-.38-16-C-YZ	2	
8		250583001	SCREW-HCS-.38-16X3.75-GR8-YZ	2	
9		59426001	FITTING - 90-6MJ-6MORBA	2	
10		65565001	FITTING - 6M O-RING X 6M JIC ST.	2	
11		103047001	FITTING-STR-6MJ-6MORB-L	1	

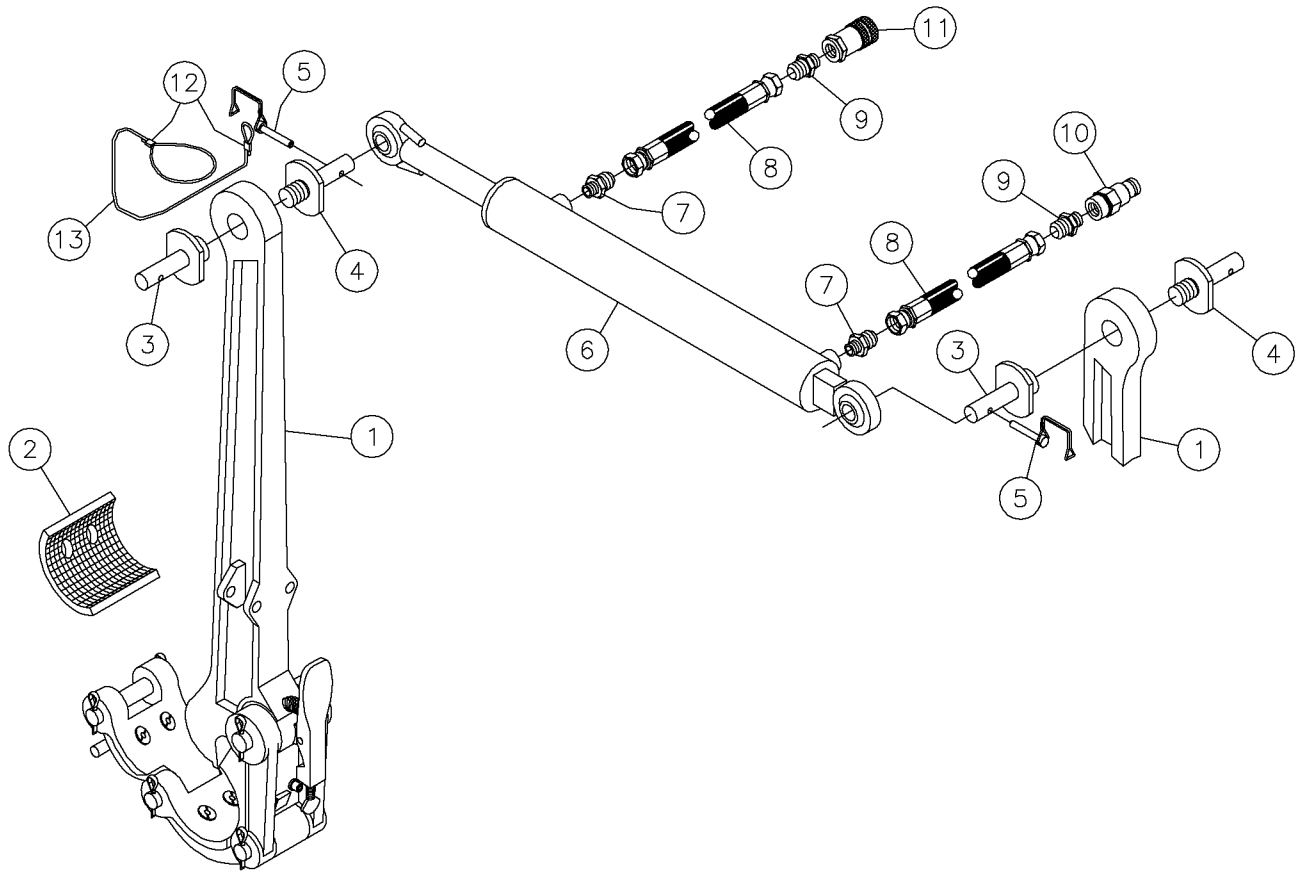
Strike Alert Fig 5-5



Strike Alert Fig 5-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228049001	PLATE-ROLLER SUPPORT	1	
2		296280269	TUBE-5/8 ODX11GA.-1 15/16"	4	
3		235313001	HOLDER-ROD WIPER	1	
4		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	8	
5		250541001	BOLT-3/8-16 X 4" GR8 HEX Y/ZI	4	
6		296272742	STRIKE ALERT - 4" COIL ASSEMBLY	1	
7		235717001	WASHER - 3/4" HARDENED FLAT YZ	4	
8		235915001	BOLT-GREASABLE ROLLER 26184	4	
9		597001	ZERK-1/4" NF 90 DEG GREASE ZYC	4	
10		485017	WASHER-3/4 FLAT REF T10967	8	
11		244678001	BUSHING GUIDE ROLLER	4	
12		244679001	ROLLER-GUIDE	4	

Tubing Tong Fig 5-6



Tubing Tong Fig 5-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		230970001	TONG-K30 LIGHT WEIGHT TUBING	2	Breakdown Fig. 11-48
2		291546001	K-30 2-3/4" DIE SET (3/SET)	1	
3		234967001	PIN-FEMALE CYLINDER	2	
4		234966001	PIN-MALE CYLINDER	2	
5		2108001	LYNCH PIN - 1/4 X 2	2	
6		230977001	CYLINDER 2"X15 XCX	1	Breakdown Fig. 11-23
7		86235001	6M ORING X 8M JIC STR.	2	
8		53844167	HOSE-1/2X240 8FS JIC 3000 PSI	2	
9		68634001	FITTING-3/8MX8M JIC (STR)	2	
10		221503001	COUPLER-3/8 NPT QUICK (MALE)	1	
11		221504001	COUPLER-3/8 NPT QUICK (FEM)	1	
12		1838001	CONNECTOR-WIRE (ETC)	4	
13		240546001	CABLE-3/32 NYLON-18.00	2	

Auto Greaser Fig 5-7

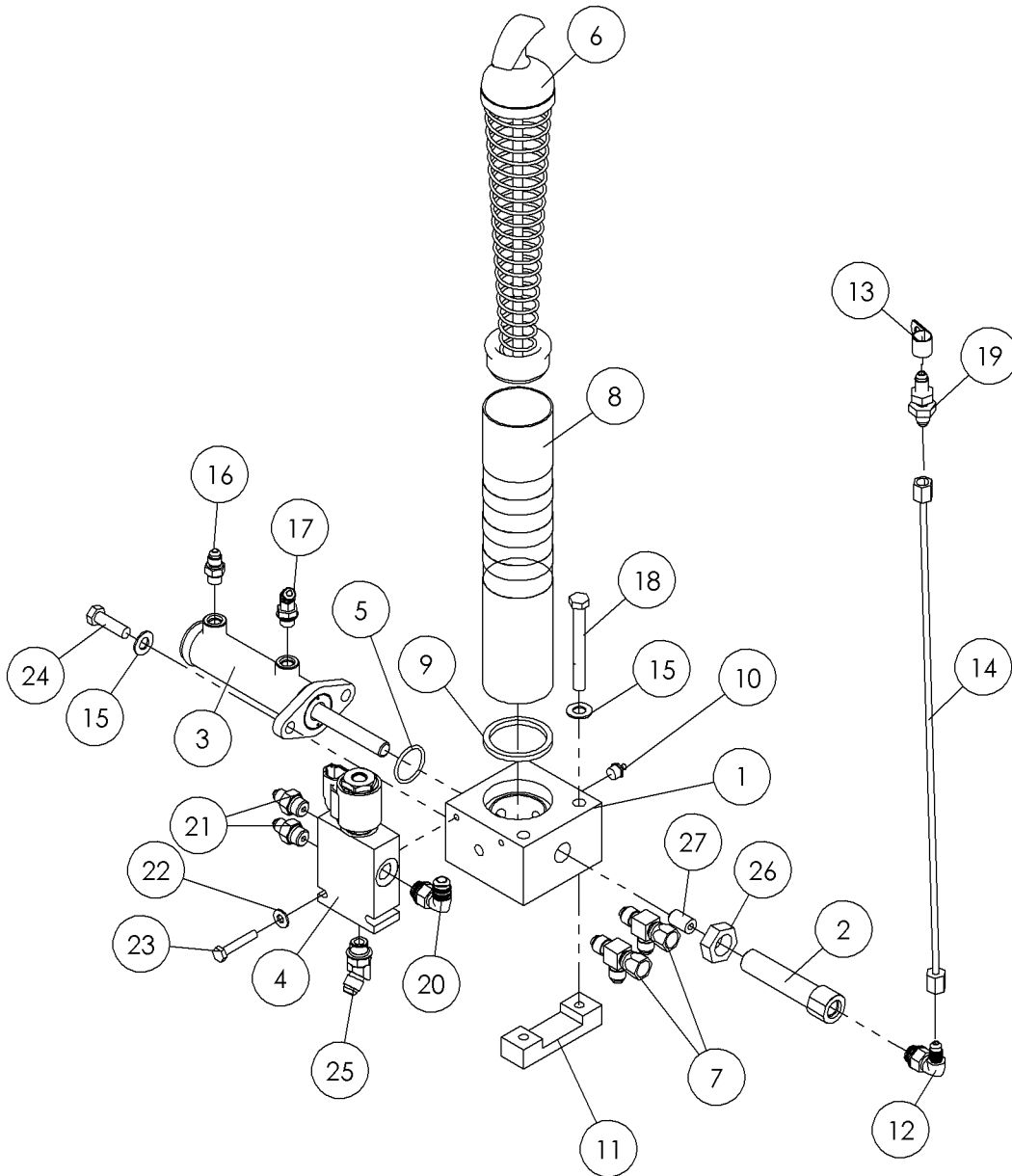


Illustration No. 296292035

Auto Greaser Fig 5-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		294895001	HOUSING - GREASE PUMP	1	
2		294896001	SLEEVE - GREASE PUMP	1	
3		294899001	CYLINDER - HYD 1 X 2-3/8	1	Breakdown Fig. 11-37
4		294901001	VALVE - GREASER	1	Breakdown Fig. 11-8
5		296262010	O-RING - 213 .139 X .921 ID	1	
6		294903001	FOLLOWER - GREASE TUBE AY	1	
7		59427001	TEE-6MJ-6FSJ-6MJ	2	
8		294910001	TUBE - GREASE	1	
9		294902001	GASKET - GREASE TUBE	1	
10		586001	ZERK-1/8" ST NPT GREASE ZYC	1	
11		294908001	BAR - BLOCK MOUNT	1	
12		600118001	FITTING-6MORINGX4MJIC90PARKER	1	
13		279015001	HOSE CLAMP - 9/16 W/13/32 HOLE	1	
14		285556001	HOSE - .078 X 18 4 FS JIC ST/ST 6900 PSI	1	
15		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
16		60908001	FITTING-4MX4M JIC STR ADAPTER	1	
17		58295001	FITTING-4M OR X 4M JIC 45 DEG.	1	
18		240377001	BOLT-3/8-16X3 1/4 GR8 ZINC PLT	1	
19		65564001	FITTING - 4M JIC BULKHEAD ST.	1	
20		59426001	FITTING - 90-6MJ-6MORBA	2	
21		57968001	FITTING-STR-4MJ-6MORB	2	
22		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	
23		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	2	
24		235736001	BOLT-3/8-16X1 1/4 ZYC	1	
25		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	1	
26		510328311	NUT-HEXJAM-.75-16-GR2-YZ	1	
27		294905001	VALVE - INSERT CHECK, 1/2"	1	

Bucket Auto Greaser Mount Fig 5-8

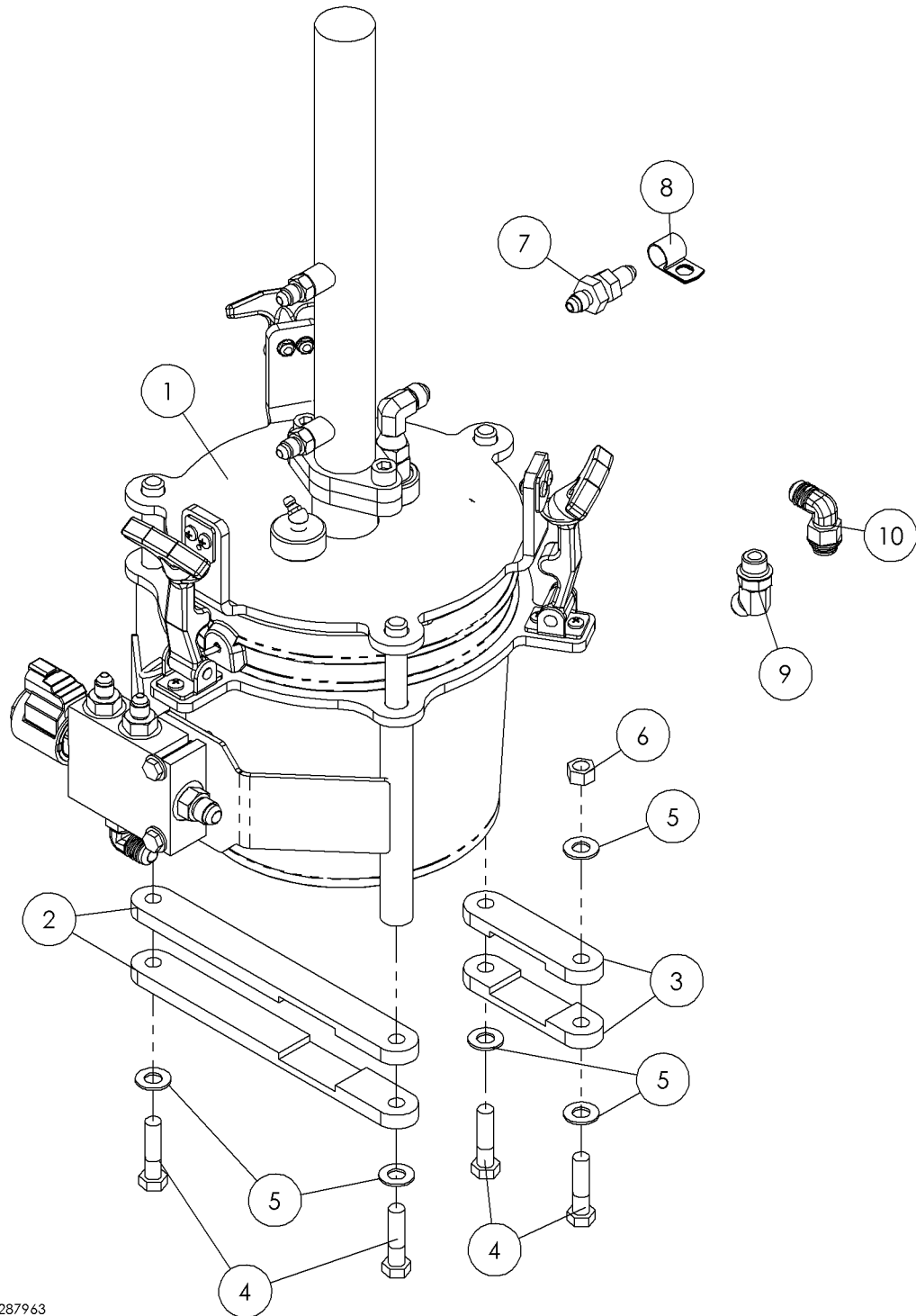


Illustration No. 296287963

Bucket Auto Greaser Mount Fig 5-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Addition To Manual
1		296287962	ASSEMBLY - AUTO GREASER (1 GAL.	1	Breakdown Fig. 5-9
2		296289048	PLATE - BUCKET GREASER BASE	2	
3		296289016	PLATE - BUCKET GREASER BASE	2	
4		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	4	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	5	
6		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	1	
7		65564001	FITTING - 4M JIC BULKHEAD ST.	1	
8		279015001	HOSE CLAMP - 9/16 W/13/32 HOLE	1	
9		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	1	
10		59426001	FITTING - 90-6MJ-6MORBA	1	

Bucket Auto Greaser (1 gal.) Fig 5-9

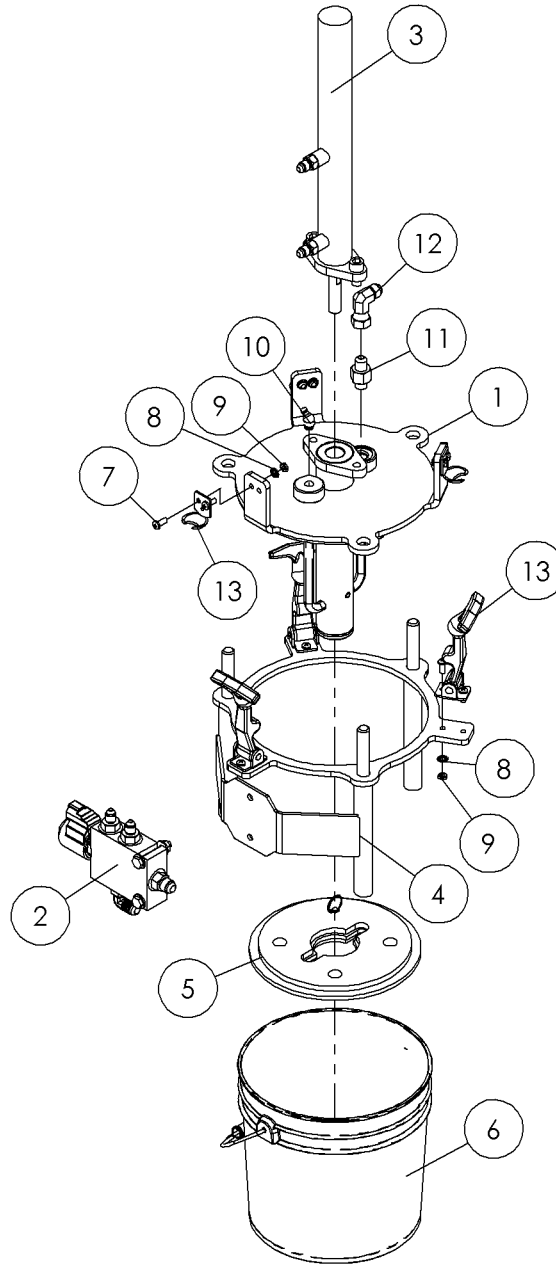


Illustration No. 296287962

Bucket Auto Greaser (1 gal.) Fig 5-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Addition To Manual
1		296287952	WELDMENT - GREASE BUCKET TOP	1	
2		296287941	ASSEMBLY - AUTO GREASER VALVE	1	Breakdown Fig. 5-10
3		296287960	CYLINDER - AUTO GREASER	1	Breakdown Fig. 5-11
4		296289052	WELD - BUCKET SUPPORT	1	
5		296287954	ASSEMBLY - GREASER FOLLOWER (1 GAL.	1	Breakdown Fig. 5-12
6		235983001	LUBRICANT - THREAD 1 GALLON	1	
7		141364001	SCREW-10-32 X 1/2 CRPHM	12	
8		481015	WASHER-3/16 EXTERNAL STAR	12	
9		26692001	NUT-10-32 NF HEX	12	
10		588001	ZERK-1/8" NPT 45 DEG GREASE REF T00847	1	
11		296280727	FITTING-CHECK VALVE-6MORX6MJIC-40PSI	1	
12		60851001	FITTING-6M JICX6FS JIC 90ELBOW	1	
13		109591001	LATCH-4" RUBBER T HANDLE	3	

Bucket Auto Greaser Valve Fig 5-10

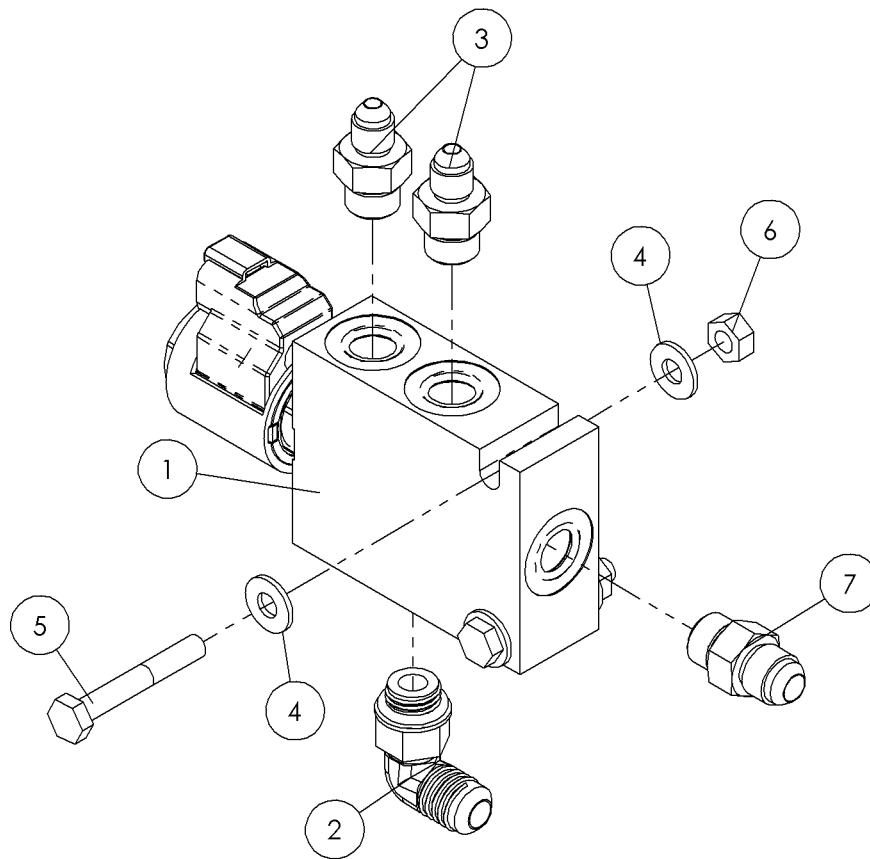


Illustration No. 296287941

Bucket Auto Greaser Valve Fig 5-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Addition To Manual
1		294901001	VALVE - GREASER	1	Breakdown Fig. 11-8
2		59426001	FITTING - 90-6MJ-6MORBA	1	
3		57968001	FITTING-STR-4MJ-6MORB	2	
4		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	4	
5		248107001	BOLT-1/4-20X1 3/4 GR 8 ZINC PL	2	
6		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
7		65565001	FITTING - 6M O-RING X 6M JIC ST.	1	

Bucket Auto Greaser Cylinder Fig 5-11

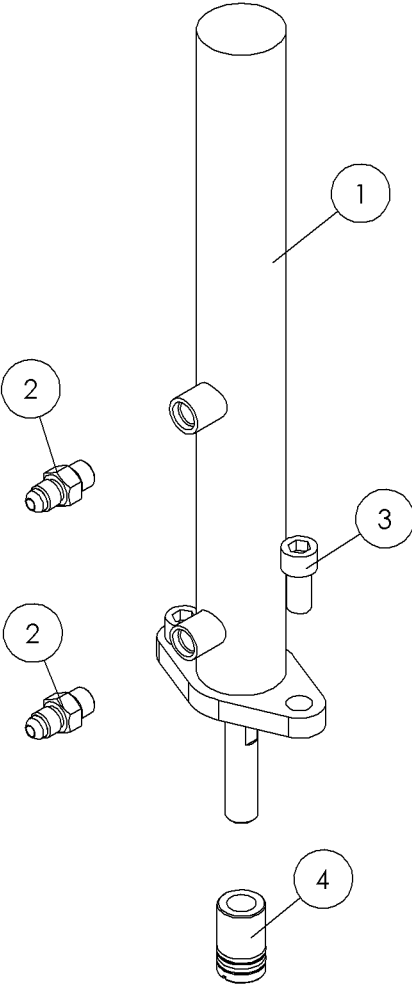


Illustration No. 296287960

Bucket Auto Greaser Cylinder Fig 5-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280672	CYL-1.00 BORE X 3.50 STROKE X 0.50 ROD	1	Breakdown Fig. 11-23x01
2		60908001	FITTING-STR-4MJ-4MORB	2	
3		512006	SCREW-SHCS-.38-16X.75-GR8-PLN	2	
4		296287964	ASSEMBLY - GLAND O-RING	1	

Bucket Auto Greaser Follower (1 Gal.) Fig 5-12

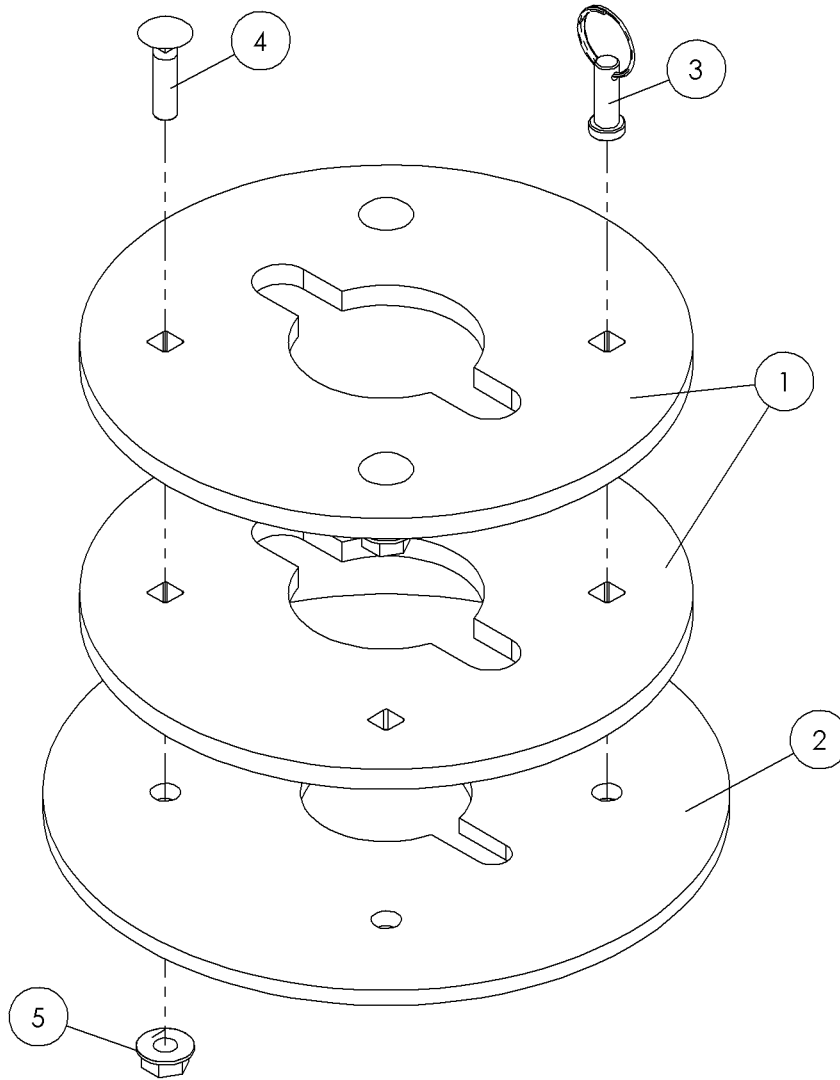
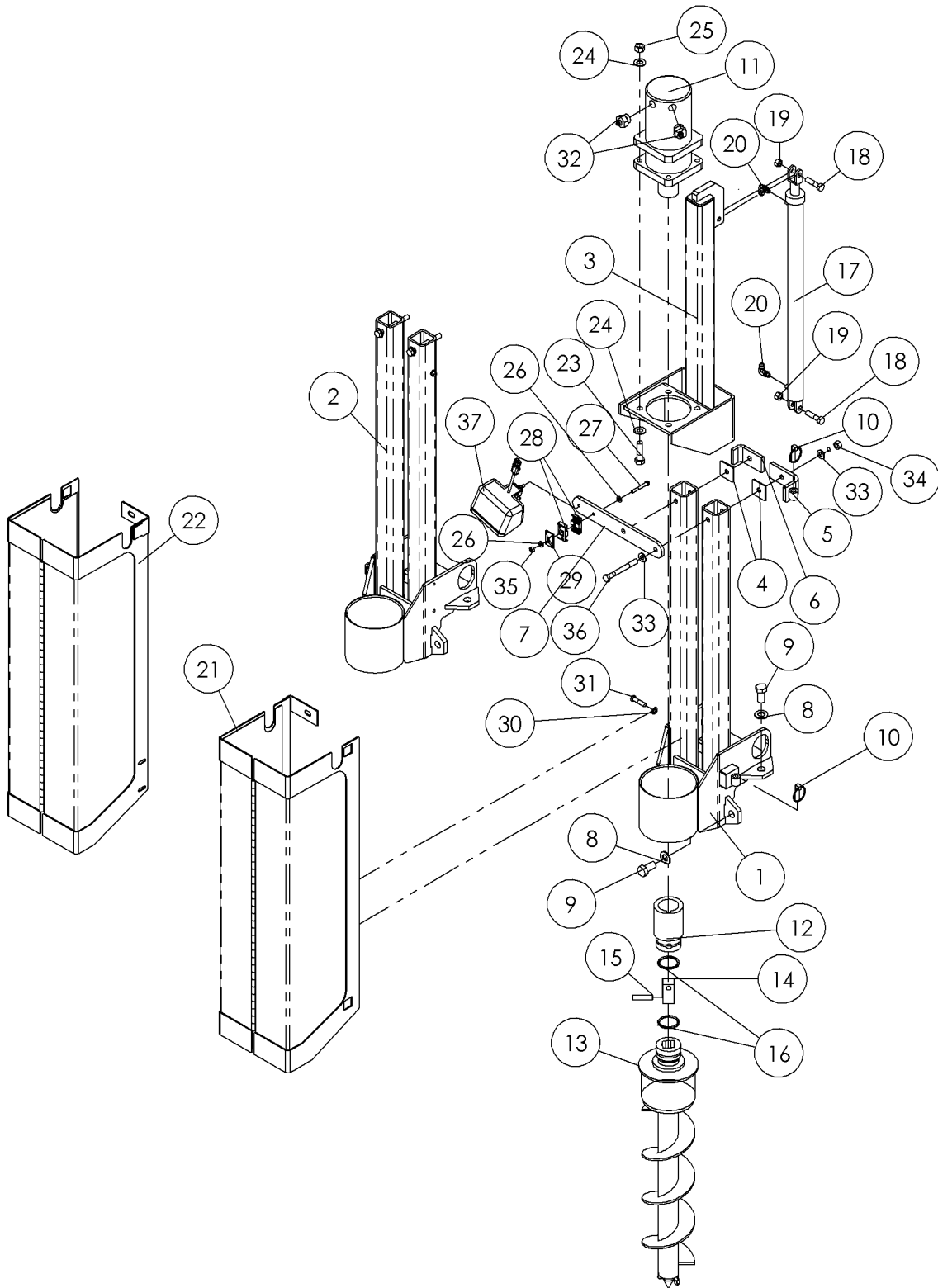


Illustration No. 296287954

Bucket Auto Greaser Follower (1 Gal.) Fig 5-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		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	

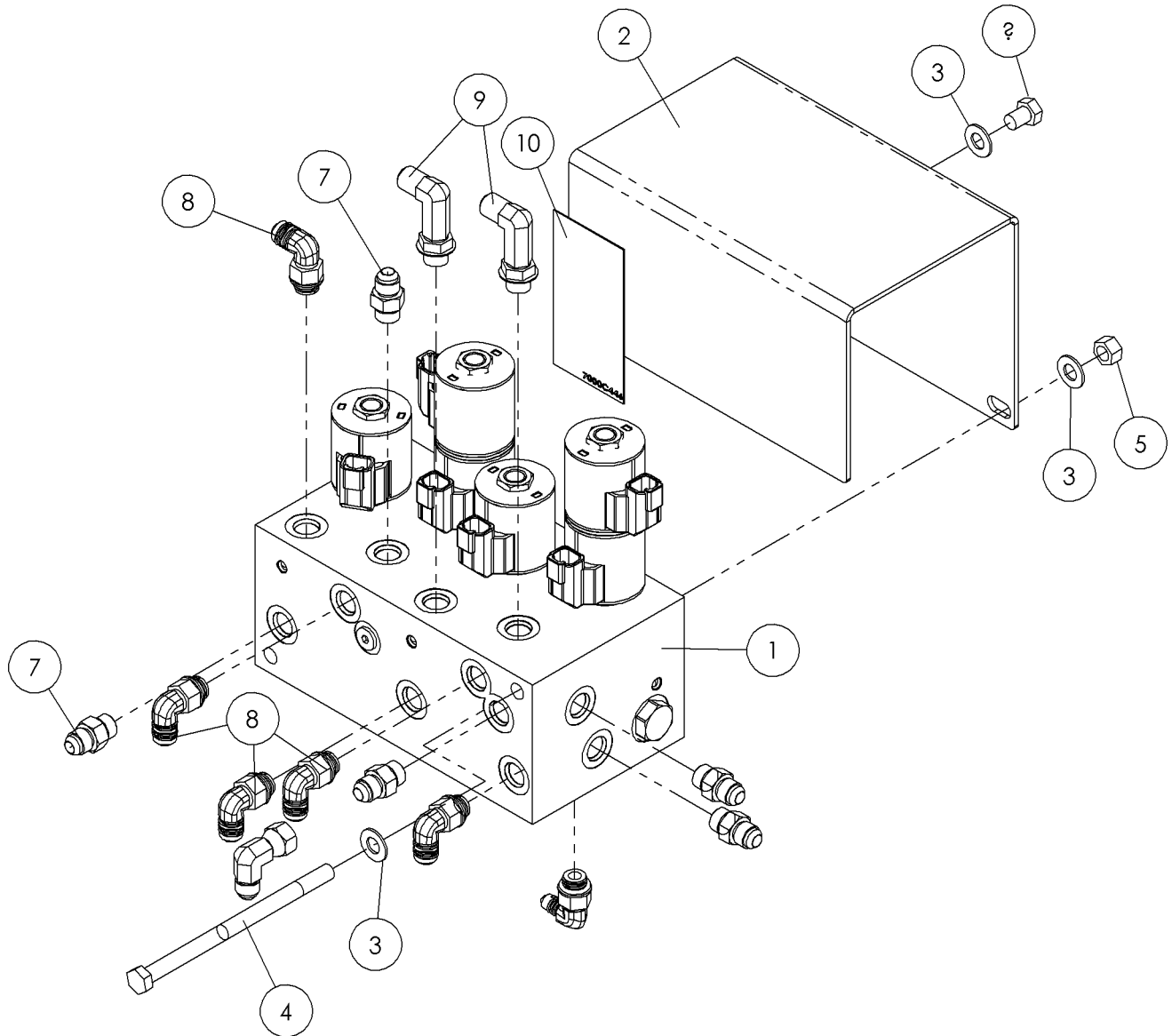
Stakedown Fig 6-1



Stakedown Fig 6-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275488	WELDMENT - TOWER STAKEDOWN LEFT	1	
2		296275489	WELDMENT-TOWER STAKEDOWN RIGHT	1	
3		296265765	MOUNT - SLIDE MOTOR	2	
4		236233001	PLATE-SPACER	4	
5		296280264	WELDMENT-MOUNT STAKEDOWN GUARD-UPPER	2	
6		236232001	BAR-GUIDE	2	
7		279150001	BAR-LIGHT REINFORCEMENT	2	
8		235717001	WASHER - 3/4" HARDENED FLAT YZ	8	
9		385014	BOLT-3/4"-10X1 1/2 GR.8 HEX	8	
10		1797001	PIN-QUICK TACH. 7/16X1 3/4	4	
11		236219001	HYD MOTOR-66CI	2	
12		236205001	HUB-STAKE DRIVE	2	
13		232484001	STAKE-6" FLIGHT	2	
14		236230001	BAR-STAKE DRIVE	2	
15		236200001	PIN-STAKE KEEPER	4	
16		236229001	O-RING - 329	4	
17		287588001	CYLINDER - 1-1/2 X 24	2	
18		235718001	BOLT-1/2-13X2 GR8 HEX ZINC PLT	4	
19		75382001	NUT-1/2-UNC GRADE 8 SLTL	4	
20		60906001	4MX6M JIC 90 DEG ELBOW	4	
21		296275438	WELDMENT - STAKEDOWN SHIELD	1	
22		296275486	WELDMENT - STAKE DOWN SHIELD LEFT	1	
23		238245001	BOLT 5/8" - 11 X 2 1/4 Gr 8 HEX	8	
24		235715001	WASHER-FLATSTRL-5/8" YZ A325	16	
25		238221001	NUT - HEX -.63 - 11 - GR8 - YZ	8	
26		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
27		244147001	BOLT-5/16-18X2 1/4 GR8 ZYC	2	
28		900035005	CLAMP-3/8"DOUBLE HOSE(COMPLETE)	4	
29		67846003	PLATE-TWIN COVER	2	
30		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
31		235720001	BOLT-3/8-16X1 3/4 6R8 ZINC PLT	4	
32		64168001	12MX6 JIC M STR.	4	
33		485025	WASHER-1/2 FLAT-HARDENED-YZ	5	
34		235731001	NUT-1/2-13 GR8 ZYC	1	
35		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
36		250568001	SCREW - HCS-.50-13 X 4.50-GR 8-YZ	4	
37		245006001	ASSEMBLY-3X5 FLOOD LIGHT	2	

Valve - Stakedown Fig 6-2



Valve - Stakedown Fig 6-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269562	VALVE - STAKEDOWN	1	Breakdown Fig. 11-11
2		279093001	PLATE - SHIELD VALVE	1	
3		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	5	
4		238214001	SCREW-HCS-.38-16X6.00-GR8-YZ	2	
5		250508001	NUT-TLHEX-.38-16-C-YZ	2	
6		240310001	SCREW-HCS-.38-16X.50-GR8-YZ	1	
7		65565001	FITTING-6M O-RING X 6M JIC ST	5	
8		59426001	FITTING - 90-6MJ-6MORBA	5	
9		65570001	FITTING - 6MB - 6MJ 90 L	2	
10		7000c446	DECAL - NO WELD	1	Domestic
		700ic446	DECAL - NO WELD	1	International
11		600118001	FITTING-90-4MJ-6MORB	1	
12		60851001	FITTING - 6M JIC X 6FS JIC 90	1	

Rod Loader Guard (S/N 381-) Fig 7-1r01

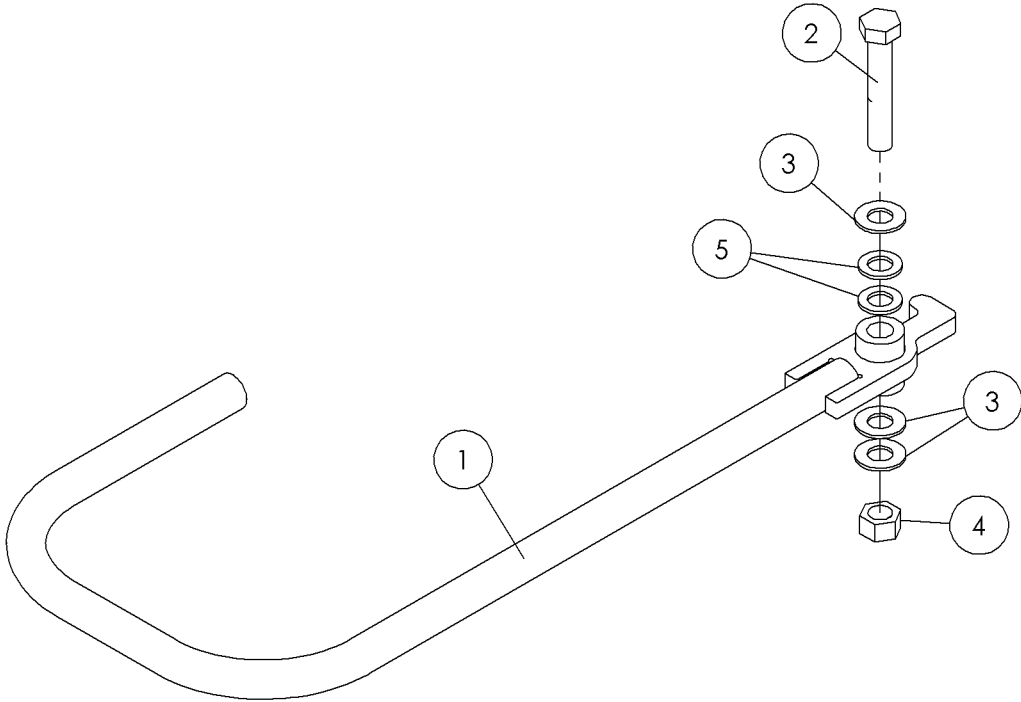
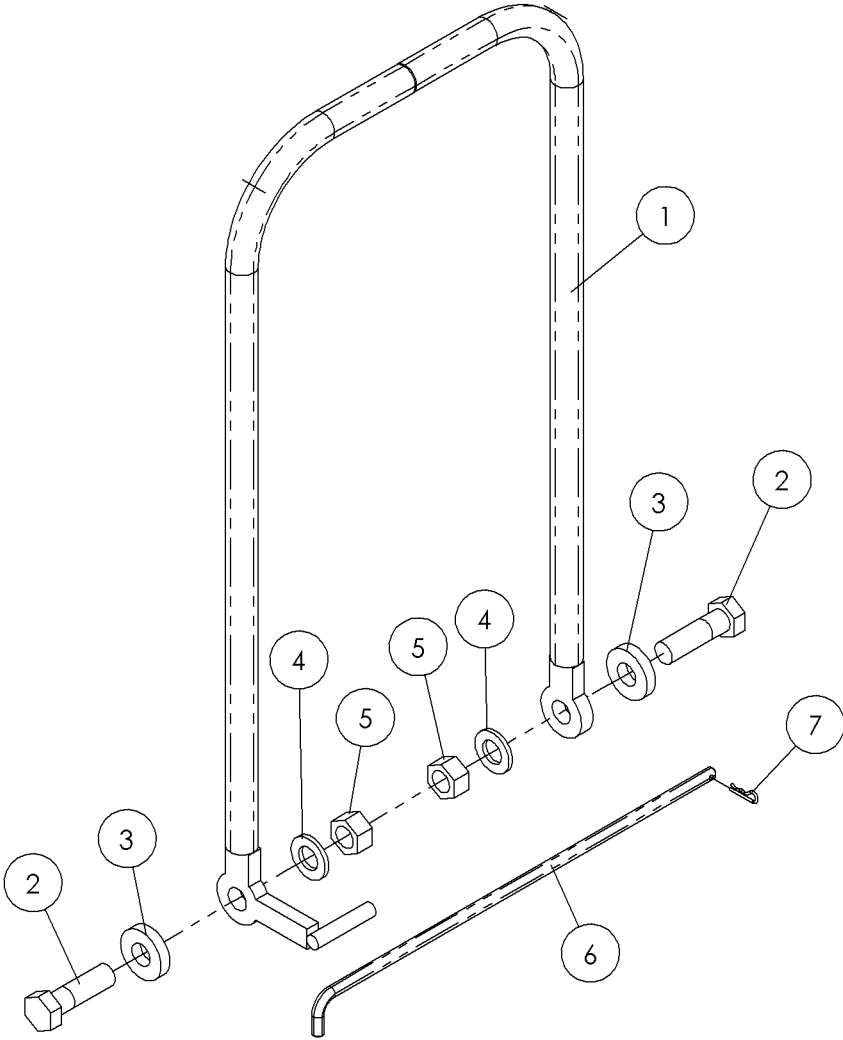


Illustration No. 296287893

Rod Loader Guard (S/N 381-) Fig 7-1r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Change Bolt And Added Washers
1		296287890	WELDMENT - SAFETY ARM	1	(S/N 381-)
2	*	238208001	SCREW-HCS-.63-11X3.50-GR8-YZ	1	
3		235715001	WASHER-FLATSTRL-.63-.66X1.31-.09-YZ-A325	3	
4		250513001	NUT-TLHEX-.63-11-C-YZ	1	
5	*	218386001	WASHER-BELV-.63-.65X1.13-.10	2	

Rod Loader Guard Fig 7-1



Rod Loader Guard Fig 7-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275478	WELDMENT - ARM SAFETY GUARD	1	
2		238880001	SCREW-HCS-.75-10X2.50-GR8-YZ	2	
3		276465001	TUBE - ARM SPACER	2	
4		235717001	WASHER-FLATSTRL-.75-.81X1.47-.15-YZ-A325	2	
5		250510001	NUT-TLHEX-.75-10-C-YZ	2	
6		276466001	BAR - ARM PIN	1	
7		1794007	PIN-HAIR-.08-.38-.080WIRE-CZ	1	

Rod Loader Arm (S/N 381-) Fig 7-2r01

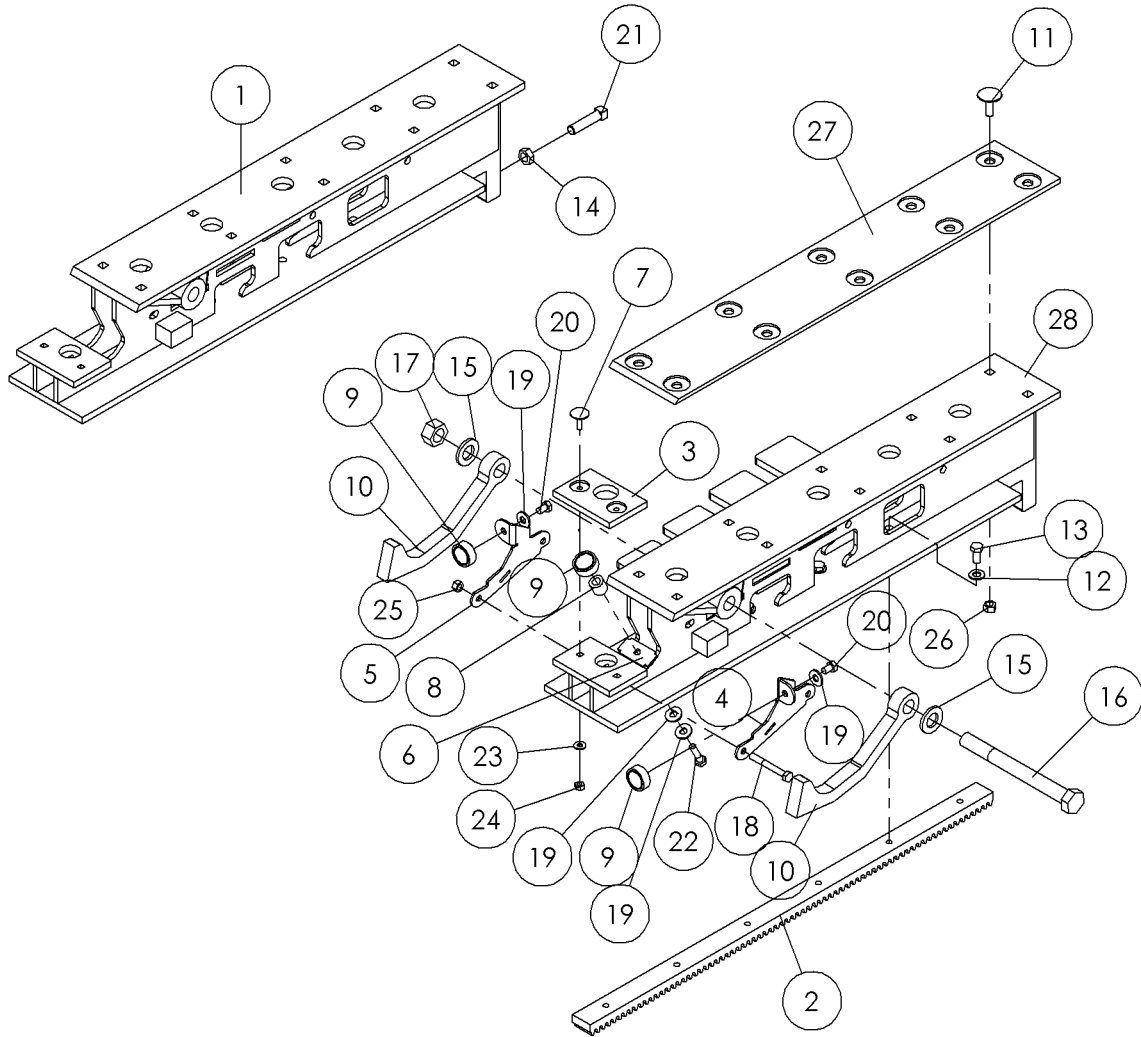
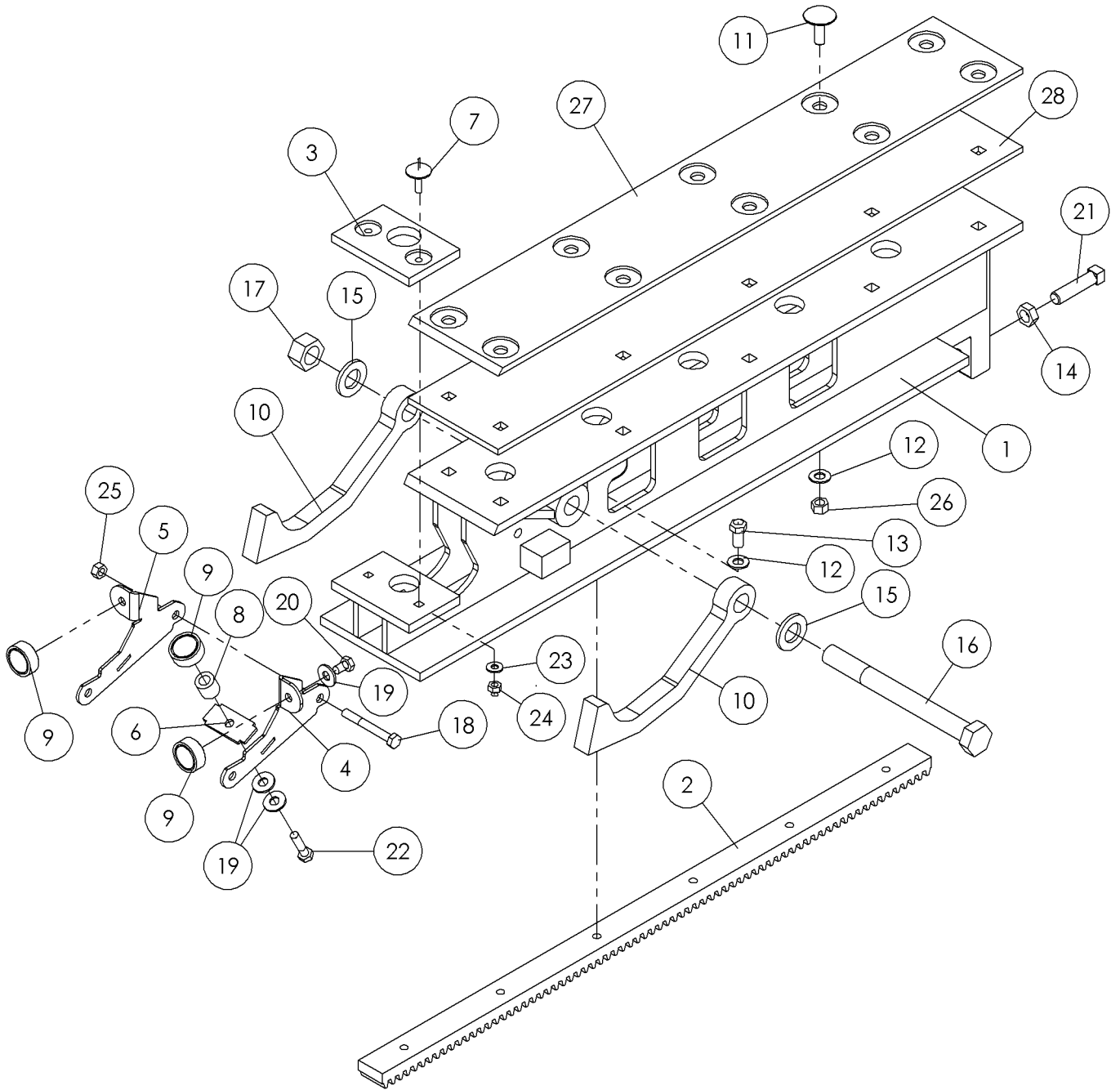


Illustration No. 296289005

Rod Loader Arm (S/N 381-) Fig 7-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Update Weldment
1		296289013	WELDMENT - REAR ROD LOADER EXTEND/RETRACT	1	(S/N 381-)
2		296280050	GEAR - ROD LOADER SLIDER	2	
3		277154001	BAR - WEAR	2	
4		296277002	PLATE - MAGNET MOUNT LH	2	
5		296277001	PLATE - MAGNET MOUNT RH	2	
6		296277003	PLATE - MAGNET MOUNT SPACER	2	
7		276477001	BOLT-ELEV-.25-20X1.00-GR5-CZ	4	
8		296277004	TUBE - MAGNET SPACER	2	
9		282642001	MAGNET - 1.25"	6	
10		277147001	ARM -LOADER	4	
11		601699012	BOLT-ELEV .38-16X1.25-GR5-CZ	20	
12		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	32	
13		235726001	SCREW-HCS-.38-16X.75-GR8-YZ	12	
14		75383001	NUT-HEXJAM-.50-13-GR8-YZ	1	
15		235717001	WASHER-FLATSTRL-.75-.81X1.47-.15-YZ-A325	4	
16		240344001	SCREW-HCS-.75-10X7.50-GR8-YZ	2	
17		250510001	NUT-TLHEX-.75-10-C-YZ	2	
18		248029001	SCREW-HCS-.31-18X2.50-GR8-YZ	4	
19		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	8	
20		235740001	SCREW-HCS-.31-18X.50-GR8-YZ	4	
21		153752001	SQ HSS-1/2-13X2 PLATED	1	
22		248031001	SCREW-HCS-.31-18X1.25-GR8-CZ	2	(S/N 381-)
23		235716001	WASHER-FLATSTRL-.25-.28X.63-.06-CZ	4	
24		235732001	NUT-HEX-.25-20-GR8-YZ	4	
25		235741001	NUT-HEX-.31-18-GR8-YZ	4	(S/N 381-)
26		250508001	NUT-TLHEX-.38-16-C-YZ	20	
27		296280090	PLATE - STRIP WEAR	2	
28	*	296289006	WELDMENT - FRONT ROD LOADER EXTEND/RETRACT	1	(S/N 381-)

Rod Loader Arm Fig 7-2



Rod Loader Arm Fig 7-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280085	WELDMENT - SLIDE ROD EXTEND/ RETRACT	1	
2		296280050	GEAR - ROD LOADER SLIDER	1	
3		277154001	BAR - WEAR	1	
4		296277002	PLATE - MAGNET MOUNT LH	1	
5		296277001	PLATE - MAGNET MOUNT RH	1	
6		296277003	PLATE - MAGNET MOUNT SPACER	1	
7		276477001	BOLT-ELEV-.25-20X1.00-GR5-CZ	2	
8		296277004	TUBE - MAGNET SPACER	1	
9		282642001	MAGNET - 1.25"	3	
10		277147001	ARM -LOADER	2	
11		601699012	BOLT-ELEV .38-16X1.25-GR5-CZ	10	
12		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ- A325	16	
13		235726001	SCREW-HCS-.38-16X.75-GR8-YZ	6	
14		75383001	NUT-HEXJAM-.50-13-GR8-YZ	1	
15		235717001	WASHER-FLATSTRL-.75-.81X1.47-.15- YZ-A325	2	
16		240344001	SCREW-HCS-.75-10X7.50-GR8-YZ	1	
17		250510001	NUT-TLHEX-.75-10-C-YZ	1	
18		248029001	SCREW-HCS-.31-18X2.50-GR8-YZ	2	
19		510337605	WASHER-FLATSTD-.31-.38X.88-.08-YZ	4	
20		235740001	SCREW-HCS-.31-18X.50-GR8-YZ	2	
21		153752001	SQ HSS-1/2-13X2 PLATED	1	
22		248031001	SCREW-HCS-.31-18X1.25-GR8-CZ	1	
23		235716001	WASHER-FLATSTRL-.25-.28X.63-.06-CZ	2	
24		235732001	NUT-HEX-.25-20-GR8-YZ	2	
25		235741001	NUT-HEX-.31-18-GR8-YZ	2	
26		250508001	NUT-TLHEX-.38-16-C-YZ	10	
27		296280090	PLATE - STRIP WEAR	1	
28		296286543	PLATE - SHIM (2 5/8" ROD ONLY)	1	

Rod Selector (S/N 381-) Fig 7-3r01

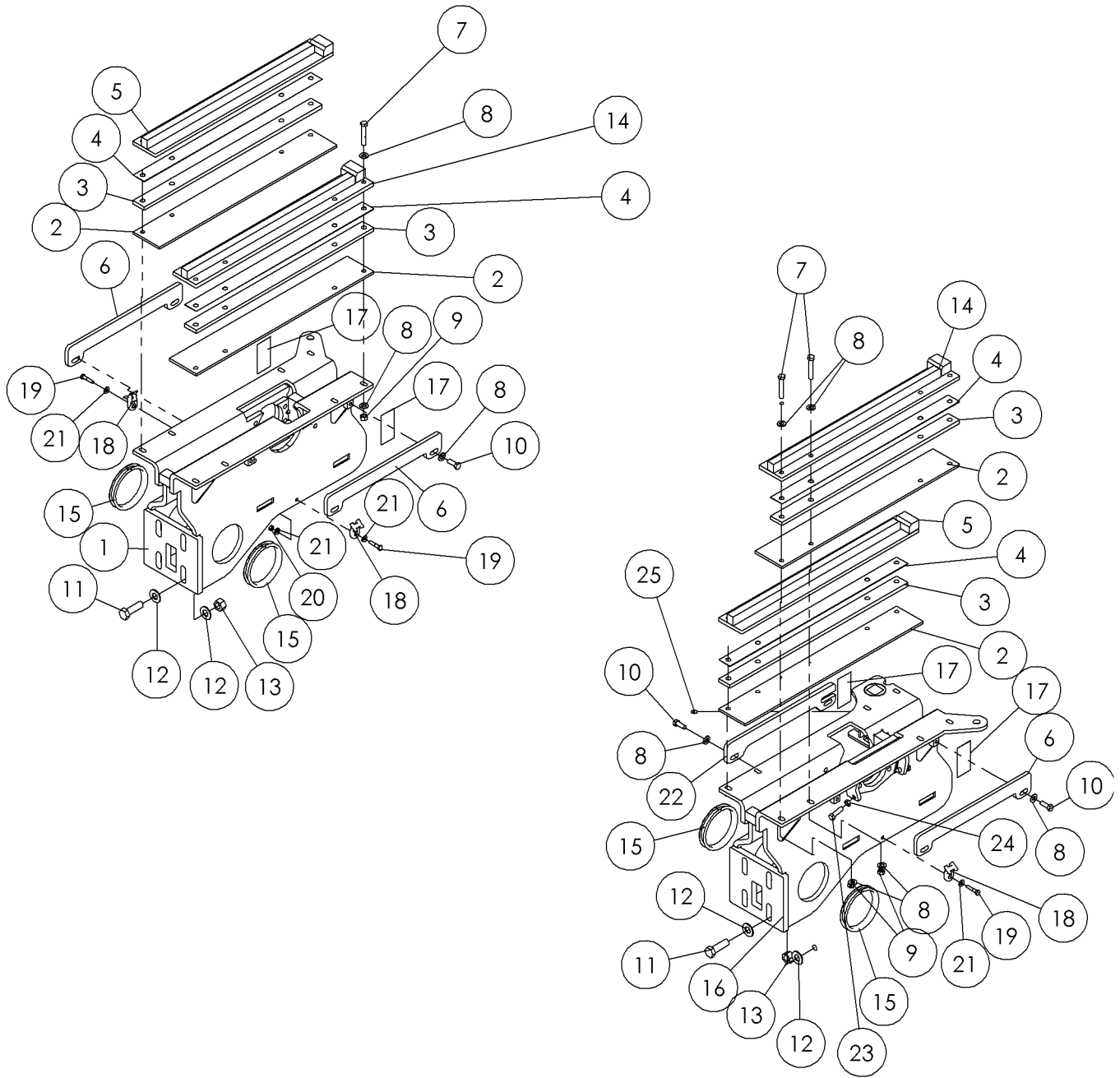


Illustration No. 296287891

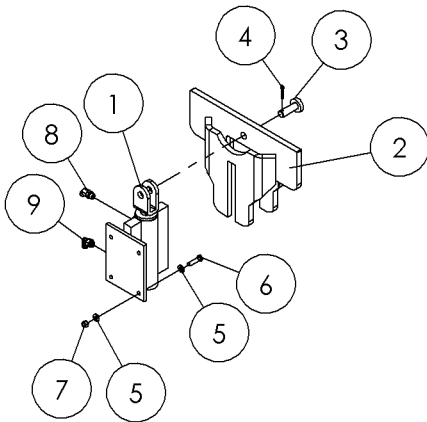
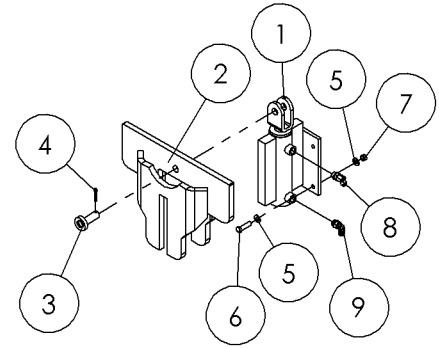
Rod Selector (S/N 381-) Fig 7-3r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Updated Weldment And Change Hardware.
1	*	296287926	WELDMENT - ROD LOADER MOUNT, REAR	1	(S/N 381-)
2		296280063	STRIP - PLASTIC WEAR	4	
3		296280061	PLATE - SPACER HOLD DOWN	4	
4		296280062	PLATE - SHIM HOLD DOWN	4	
5		296280058	WELDMENT - COVER PLATE RIGHT	2	
6		296280064	PLATE - BAR CLAMP	3	
7		250504001	SCREW-HCS-.38-16X2.25-GR8-YZ	16	
8		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	40	
9		250508001	NUT-TLHEX-.38-16-C-YZ	16	
10		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	8	
11		145645001	SCREW-HCS-.63-11X2.00-GR8-YZ	8	
12		235715001	WASHER-FLATSTRL-.63-.66X1.31-.09-YZ-A325	16	
13		238221001	NUT-HEX-.63-11-GR8-YZ	8	
14		296280057	WELDMENT - COVER PLATE LEFT	2	
15		278774001	SEAL - EDGE 1/2" STYLE	4	
16	*	296289004	MACHINE - ROD LOADER MOUNT, FRONT	1	(S/N 381-)
17		7000a864	DECAL - WARNING	4	
18		296276018	MOUNT - HEAVY DUTY CABLE TIE	3	
19		250008001	SCREW-HCS-.25-20X1.25-GR8-YZ	3	
20		248198001	NUT-TLHEX-.25-20-C-CD&W	3	
21		235716001	WASHER-FLATSTRL-.25-.28X.63-.06-CZ	6	
22		296289002	PLATE - BAR CLAMP	1	
23	*	235736001	SCREW-HCS-.38-16X1.25-GR8-YZ	4	(S/N 381-)
24	*	250576001	NUT-HEXJAM-.38-16-GR8-YZ	4	(S/N 381-)
25		598001	FITTING-1/4" NF ST GREASE ZERK	2	

Rod Selector Fig 7-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280039	WELDMENT - ROD LOADER MOUNT, REAR	1	
2		296280063	STRIP - PLASTIC WEAR	4	
3		296280061	PLAT E- SPACER HOLD DOWN	4	
4		296280062	PLATE - SHIM HOLD DOWN	4	
5		296280058	WELDMENT - COVER PLATE RIGHT	2	
6		296280064	PLATE - BAR CLAMP	4	
7		250504001	BOLT 3/8-16 X 2 1/4"GR8 HEX Y	16	
8		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	40	
9		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	16	
10		235727001	BOLT-3/8-16X1 GR8 HEX ZYC	8	
11		145645001	BOLT - 5/8 - 11 X 2 GR.8 ZYC	8	
12		235715001	WASHER-FLATSTRL-5/8" YZ A325	16	
13		238221001	NUT - HEX -.63 - 11 - GR8 - YZ	8	
14		296280057	WELDMENT - COVER PLATE LEFT	2	
15		278774001	SEAL - EDGE 1/2" STYLE	4	
16		296280040	WELDMENT - ROD LOADER MOUNT, FRONT	1	
17		296280052	WELDMENT - STOP FRONT ROW	1	
18		7000a864	DECAL-WARNING DOMESTIC	4	
19		296276018	MOUNT HELLER MANN TITON	3	
20		250008001	BOLT 1/4-20 X 1 1/4 ZINC PL	3	
21		248198001	NUT-1/4 - 20 GR8 TOP LOCK ZINC	3	
22		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	6	

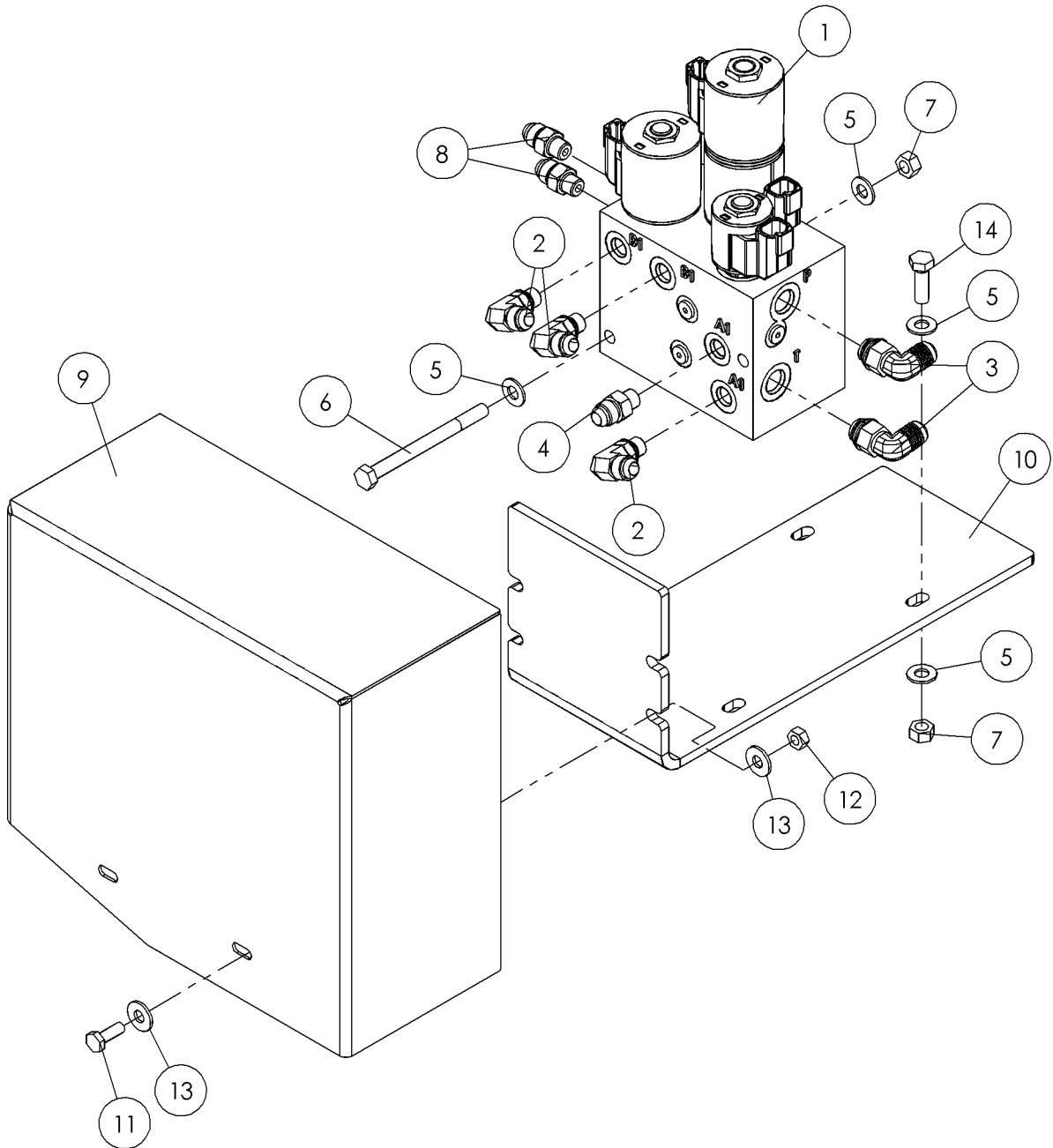
Cylinder - Rod Lift (S/N 381-) Fig 7-4



Cylinder - Rod Lift (S/N 381-) Fig 7-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		250494001	CYLINDER - 2 X 5"	2	Breakdown Fig. 11-19
2		296280022	WELDMENT - ROD LIFT	2	
3		222815001	PIN-STEER CYLINDER	2	
4		510047	PIN - 3/16 X 1 1/4 COTTER REF T16726	2	
5		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	16	
6		235723001	SCREW - HCS -.38 - 16 X 1.50 - GR8 - YZ	8	
7		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	8	
8		65563001	FITTING - 6M O-RING X 6M JIC 45 DEGREE	2	
9		59426001	FITTING - 90-6MJ-6MORBA	2	

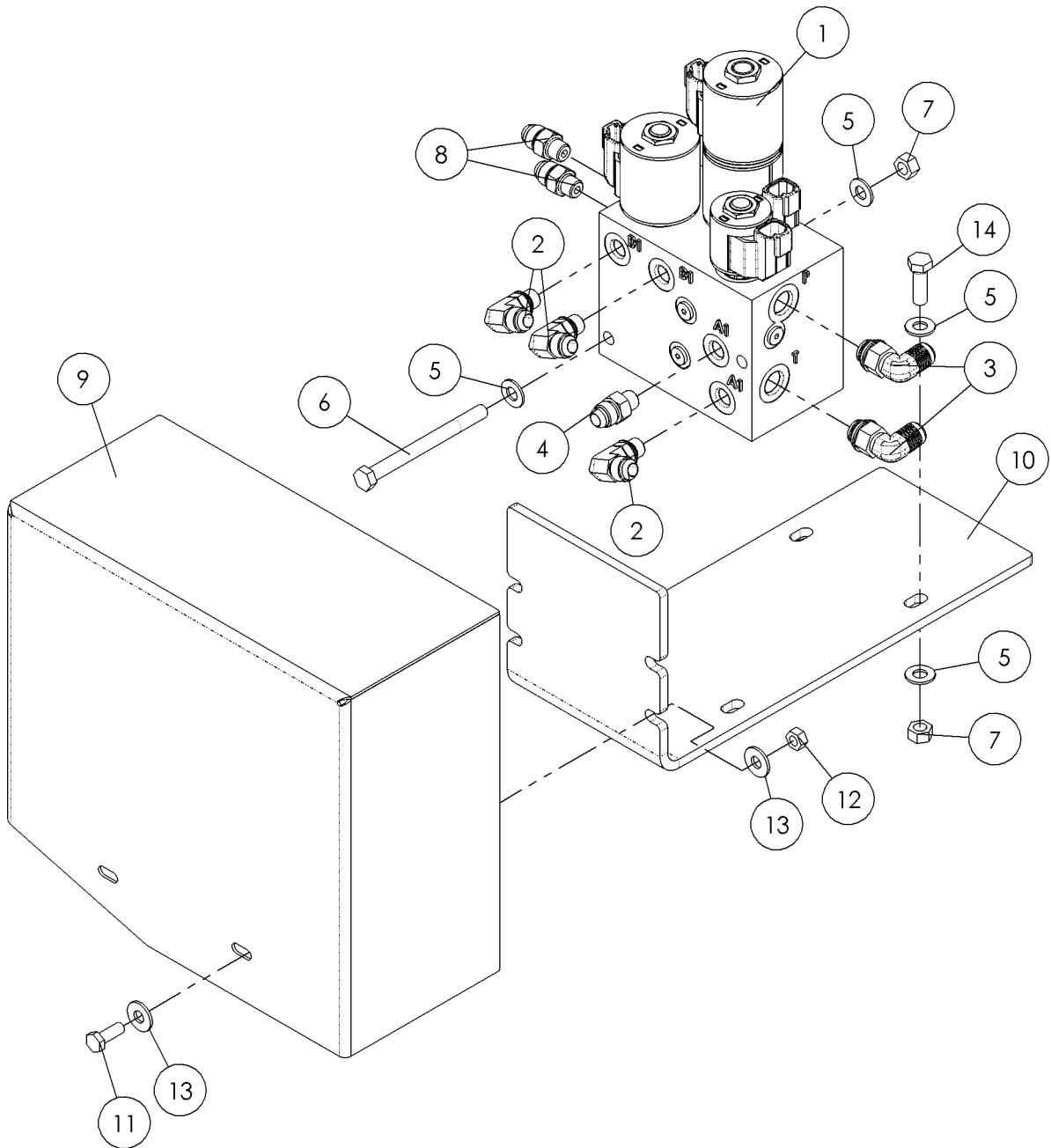
Valve - Rod Loader Fig 7-5r01



Valve - Rod Loader Fig 7-5r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Change Valve
1	*	296269555	MANIFOLD - ROD LOADER	1	Breakdown Fig. 11-2
2		60906001	4MX6M JIC 90 DEG ELBOW	3	
3		59426001	FITTING - 90-6MJ-6MORBA	2	
4		65569001	4M X 6M JIC ST.	1	
5		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	8	
6		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
7		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
8		296284019	FITTING - 6MJICX4MORB ST.060R	2	
9		296284010	SHIELD - ROD LOADER VALVE	1	
10		296280972	BRACKET - ROD LOADER VALVE	1	
11		235734001	BOLT-1/4-20X3/4 GR8 ZYC	2	
12		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
13		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	4	
14		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	2	

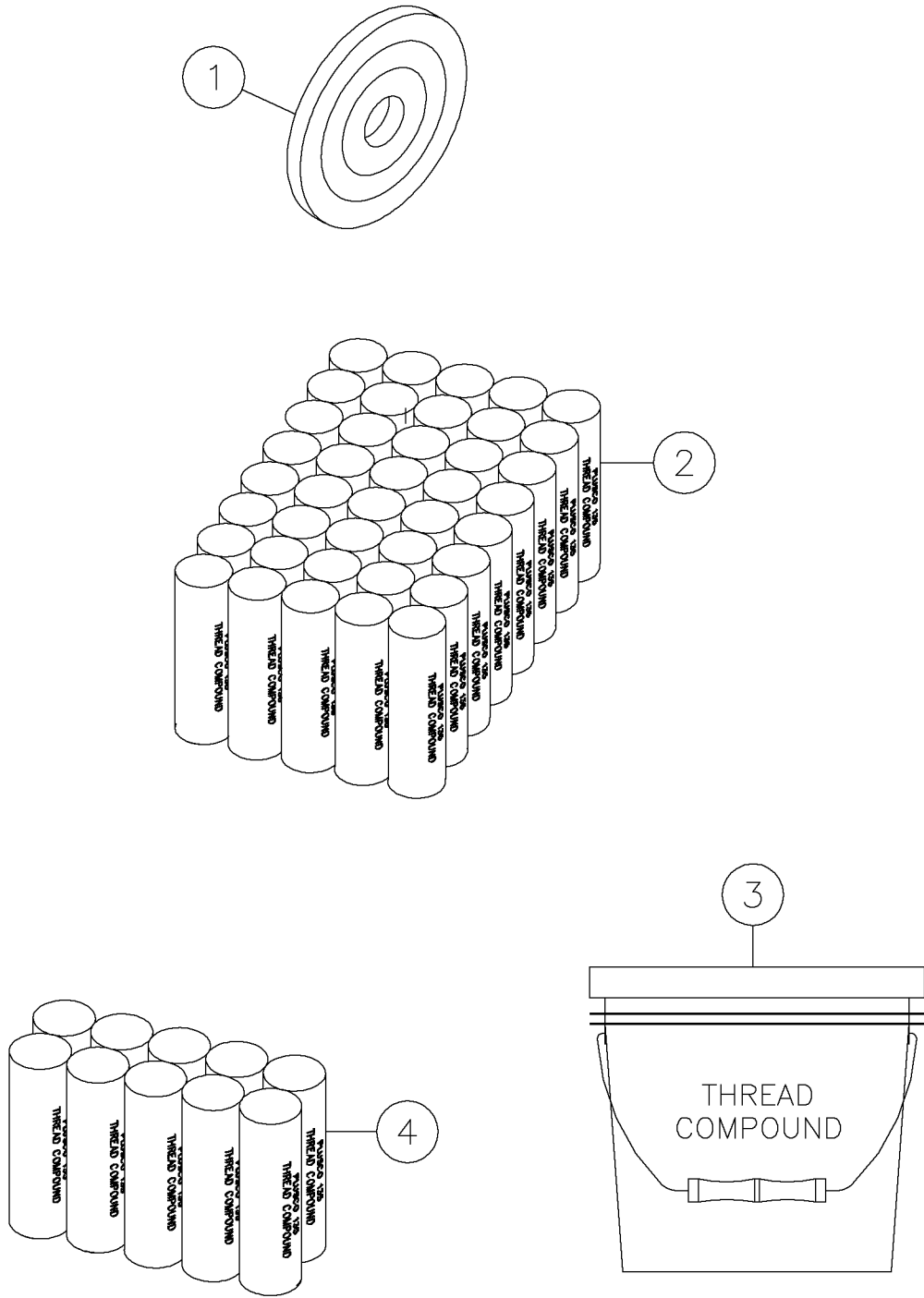
Valve - Rod Loader Fig 7-5



Valve - Rod Loader Fig 7-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269662	MANIFOLD - ROD LOADER	1	Breakdown Fig. 11-2
2		60906001	4MX6M JIC 90 DEG ELBOW	3	
3		59426001	FITTING - 90-6MJ-6MORBA	2	
4		65569001	4M X 6M JIC ST.	1	
5		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	8	
6		250503001	BOLT 5/16 - 18 X 3 3/4 Gr8 HEX	2	
7		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	4	
8		296284019	FITTING - 6MJICX4MORB ST.060R	2	
9		296284010	SHIELD - ROD LOADER VALVE	1	
10		296280972	BRACKET - ROD LOADER VALVE	1	
11		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	2	
12		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
13		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	4	
14		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	2	

Rod Wiper/Thread Compound Fig 7-6



Rod Wiper/Thread Compound Fig 7-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		235924001	WIPER-2 3/8 OD ROD		
2		296274031	THREAD - COMPOUND CARTRIDGE 30 PACK		
3		235983001	LUBRICANT - THREAD 1 GALLON		
4		296274030	THREAD - COMPOUND 3/10PACKS - CARTRIDGES		

Rod Box - 10' (500 FT.) (S/N 381-) Fig 7-7r01

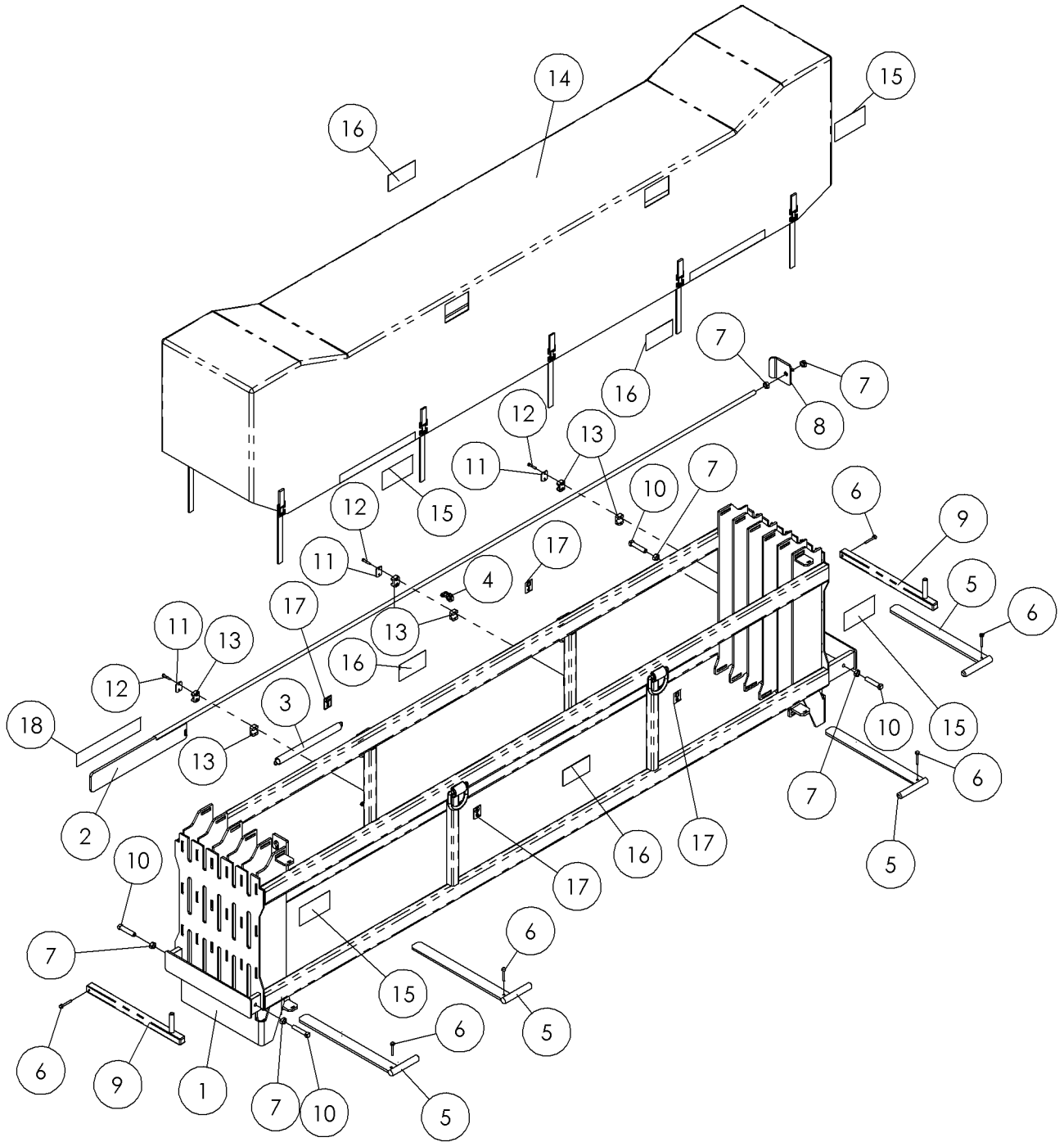


Illustration No. 296287931

Rod Box - 10' (500 FT.) (S/N 381-) Fig 7-7r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Change Weldment/Cover
1	*	296287927	WELDMENT - ROD BOX, 500FT	1	(S/N 381-)
2		296280100	WELDMENT - ROD POSITION MARKER	1	
3		1789001	SPRING - 1.125" OD X .9375" ID X 15"	1	
4		295529001	WELDMENT - MOUNT ROD INDICATOR SPRING	1	
5		296275471	WELDMENT - FLAT BAR RETAINER	4	
6		2108001	LYNCH PIN - 1/4X2	6	
7		250514001	NUT-HEXJAM-.63-11-GR8-YZ	6	
8		296279747	PLATE - FLAG STOP	1	
9		296280023	PIN - ROD BOX	2	
10		551030	SQ HSS-5/8-11X3	4	
11		903135005	PLATE - COVER COP-2	3	
12		238210001	SCREW-HCS-.25-20X1.50-GR8-YZ	6	
13		279817001	CLAMP HOSE 2180PP	6	
14	*	296287935	COVER - ROD BOX, 500FT	1	(S/N 381-)
15		7000A627	DECAL - DANGER	4	Domestic
		700IA627	DECAL-DANGER		International
16		70000563	DECAL-WARNING	4	Domestic
		7000I563	DECAL-WARNING (UND)		International
17		7000I445	DECAL-LIFT POINT	4	
18		700IA997	DECAL - INDICATOR	1	
		296285218	10' LONG ROD BOX W/DECALS ASSEMBLY-DOMESTIC		Inc. One Of Ref. 1, Four Of Ref. 15, 16, And 17.
		296285219	10' LONG ROD BOX W/DECALS ASSEMBLY-INTERNATIONAL		Inc. One Of Ref. 1, Four Of Ref. 15, 16, And 17.

Rod Box - 10' (500 FT.) Fig 7-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280485	WELDMENT - ROD BOX, 500FT	1	
2		296280100	WELDMENT - ROD POSITION MARKER	1	
3		1789001	SPRING - 1.125" OD X .9375" ID X 15"	1	
4		295529001	WELDMENT - MOUNT ROD INDICATOR SPRING	1	
5		296275471	WELDMENT - FLAT BAR RETAINER	4	
6		2108001	LYNCH PIN - 1/4X2	6	
7		250514001	NUT-HEXJAM-.63-11-GR8-YZ	6	
8		296279747	PLATE - FLAG STOP	1	
9		296280023	PIN - ROD BOX	2	
10		551030	SQ HSS-5/8-11X3	4	
11		903135005	PLATE - COVER COP-2	3	
12		238210001	SCREW-HCS-.25-20X1.50-GR8-YZ	6	
13		279817001	CLAMP HOSE 2180PP	6	
14		296280173	COVER - ROD BOX, 10FT, 5 ROW	1	
15		7000A627	DECAL - DANGER	4	Domestic
		700IA627	DECAL-DANGER	4	International
16		70000563	DECAL-WARNING	4	Domestic
		7000I563	DECAL-WARNING (UND)	4	International
17		7000I445	DECAL-LIFT POINT	4	
18		700IA997	DECAL - INDICATOR	1	

Rod Box - 10' (250 FT.) (S/N 381-) Fig 7-8r01

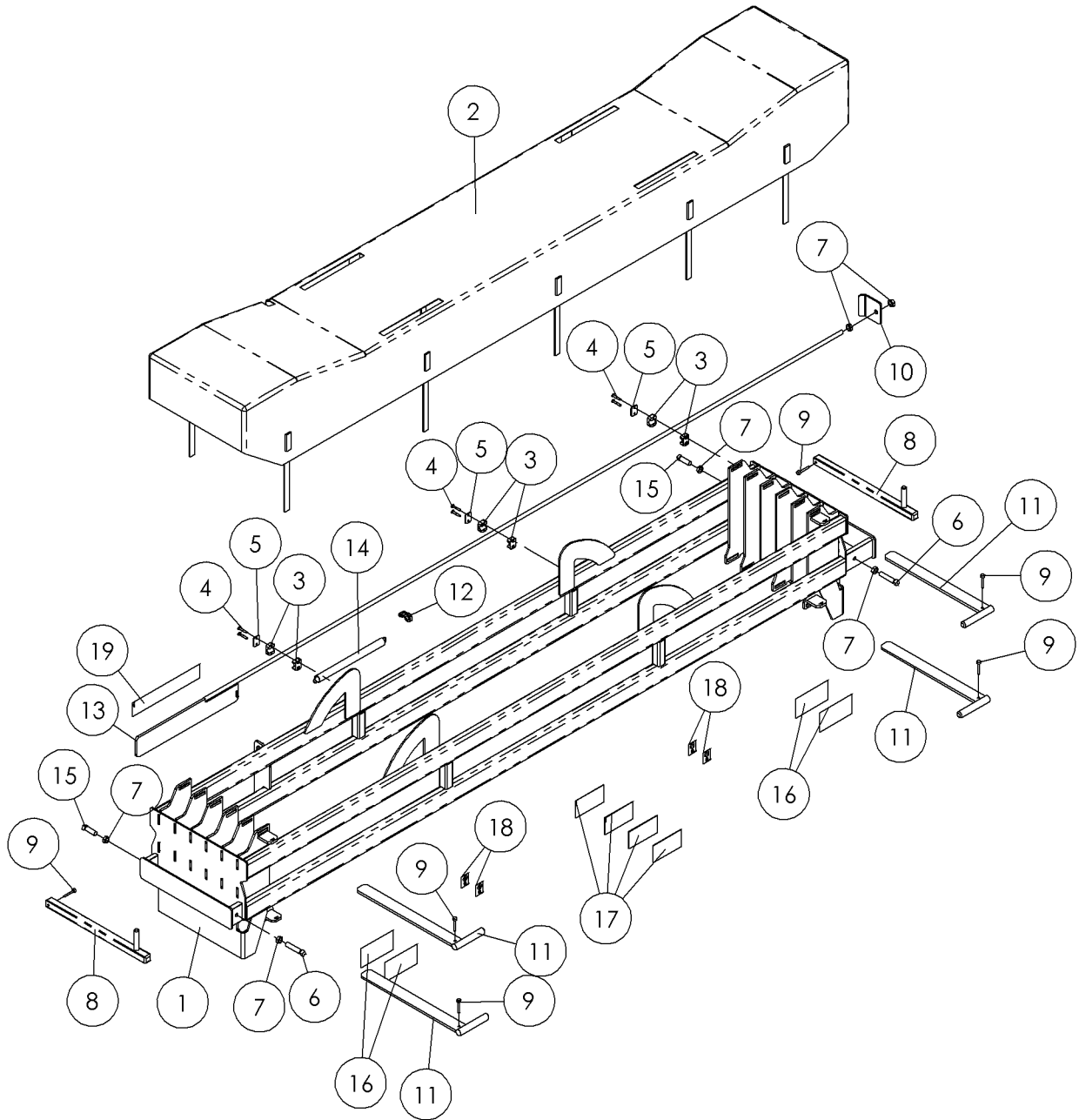
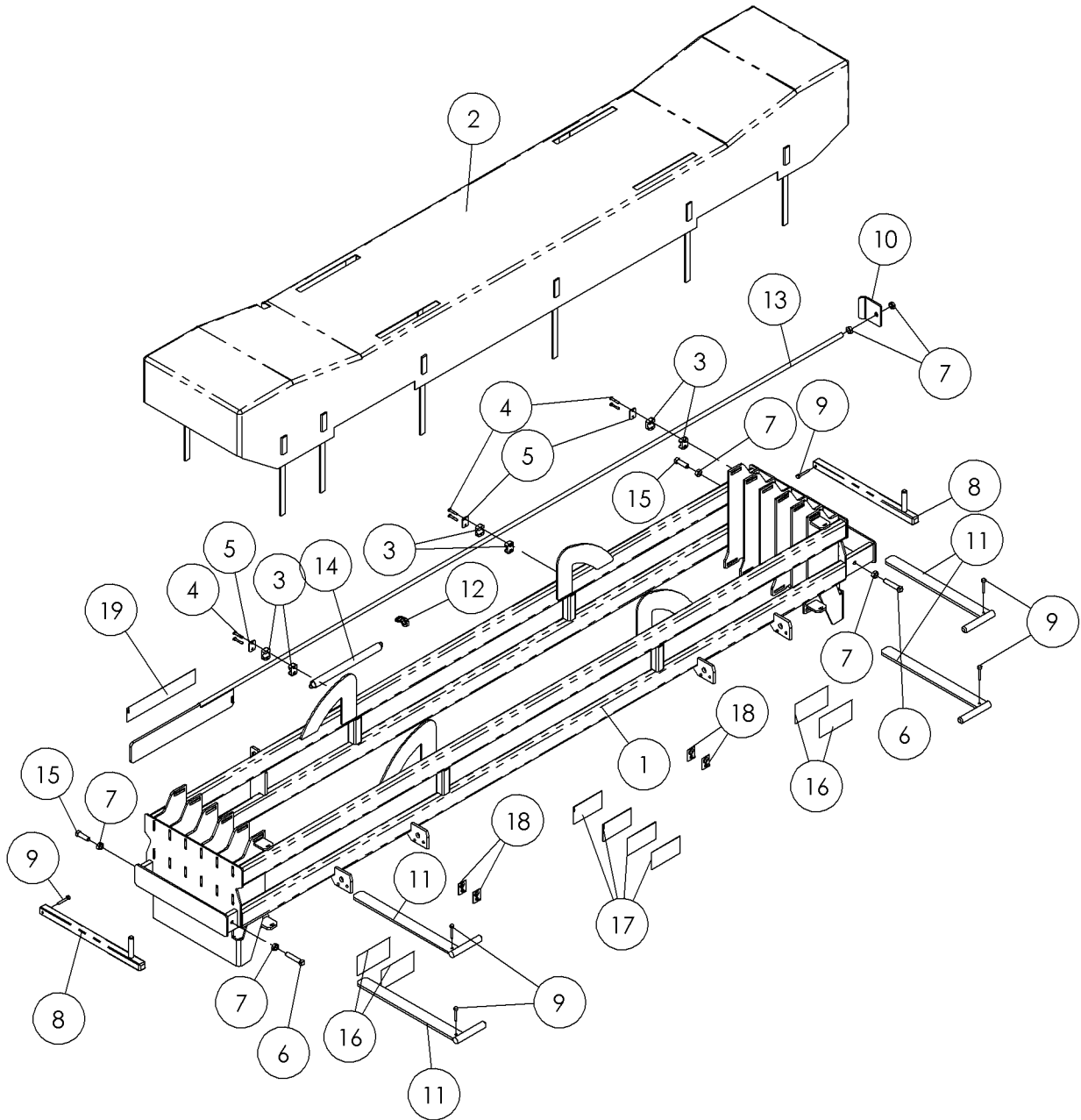


Illustration No. 296287934

Rod Box - 10' (250 FT.) (S/N 381-) Fig 7-8r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Change Weldment/Cover
1	*	296287929	WELDMENT - ROD BOX, 250FT	1	(S/N 381-)
2	*	296287938	COVER - ROD BOX, 250FT	1	(S/N 381-)
3		279817001	CLAMP HOSE 2180PP	6	
4		238210001	SCREW-HCS-.25-20X1.50-GR8-YZ	6	
5		903135005	PLATE - COVER COP-2	3	
6		601697030	SCREW-SQSET-.63-11X3.00-CZ-CUP	2	
7		250514001	NUT-HEXJAM-.63-11-GR8-YZ	6	
8		296280023	PIN - ROD BOX	2	
9		2108001	LYNCH PIN - 1/4X2	6	
10		296279747	PLATE - FLAG STOP	1	
11		296275471	WELDMENT - FLAT BAR RETAINER	4	
12		295529001	WELDMENT - MOUNT ROD INDICATOR SPRING	1	
13		296280100	WELDMENT - ROD POSITION MARKER	1	
14		1789001	SPRING - 1.125" OD X .9375" ID X 15"	1	
15		510365820	SCREW-SQSET-.63-11X2.00-YZ-CUP	2	
16		7000A627	DECAL - DANGER	4	Domestic
		700IA627	DECAL-DANGER	4	International
17		70000563	DECAL-WARNING	4	Domestic
		7000I563	DECAL-WARNING (UND)	4	International
18		7000I445	DECAL-LIFT POINT	4	
19		700IA997	DECAL - INDICATOR	1	
		296285216	10' SHORT ROD BOX W/DECALS ASSEMBLY-DOMESTIC		Inc. One Of Ref. 1, Four Of Ref. 16, 17, And 18.
		296285217	10' SHORT ROD BOX W/DECALS ASSEMBLY-INTERNATIONAL		Inc. One Of Ref. 1, Four Of Ref. 16, 17, And 18.

Rod Box - 10' (250 FT.) Fig 7-8



Rod Box - 10' (250 FT.) Fig 7-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280498	WELDMENT - SHORT ROD BOX, 15' D36X50II	1	
2		296287778	COVER - 250FT. ROD BOX 10'	1	
3		279817001	CLAMP - HOSE 2180PP	6	
4		238210001	BOLT - 1/4-20X1 1/2 GR8 HEX ZYC	6	
5		903135005	PLATE-COVER COP-2	3	
6		601697030	SQ HSS-5/8-11X3 ZINC PLT	2	
7		250514001	NUT -5/8NC JAM Y/ZINC	6	
8		296280023	PIN - ROD BOX	2	
9		2108001	LYNCH PIN - 1/4 X 2 REF T11609	6	
10		296279747	PLATE - FLAG STOP	1	
11		296275471	WELDMENT - FLAT BAR RETAINER	4	
12		295529001	MOUNT-ROD INDICATOR SPRING	1	
13		296280100	WELDMENT - ROD POSITION MARKER	1	
14		1789001	SPRING-1 1/8ODX15/16ID X 15 EXT REF	1	
15		510365820	SCREW-SQSET-.63-11X2.00-YZ-CUP	2	
16		7000A627	DECAL-DANGER	4	Domestic
		700IA627	DECAL-DANGER	4	International
17		70000563	DECAL-WARNING (UND)	4	Domestic
		7000I563	DECAL-WARNING (UND)	4	International
18		7000I445	DECAL-LIFT POINT	4	
19		700IA997	DECAL - GEARBOX POSITION	1	
		296260960	10' SHORT ROD BOX ASSEMBLY(DOM)		Inc. Rod Box And Domestic Decals
		296287074	10' SHORT ROD BOX ASSY - (INT'L)		Inc. Rod Box And International Decals

Row Selector (S/N 381-) Fig 7-9

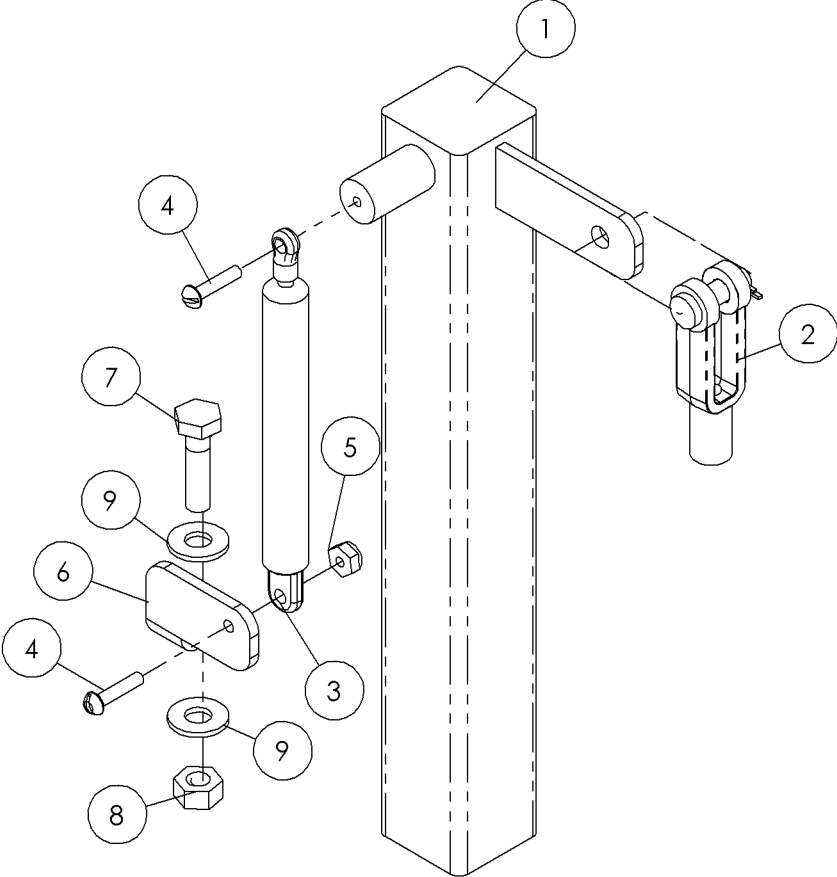
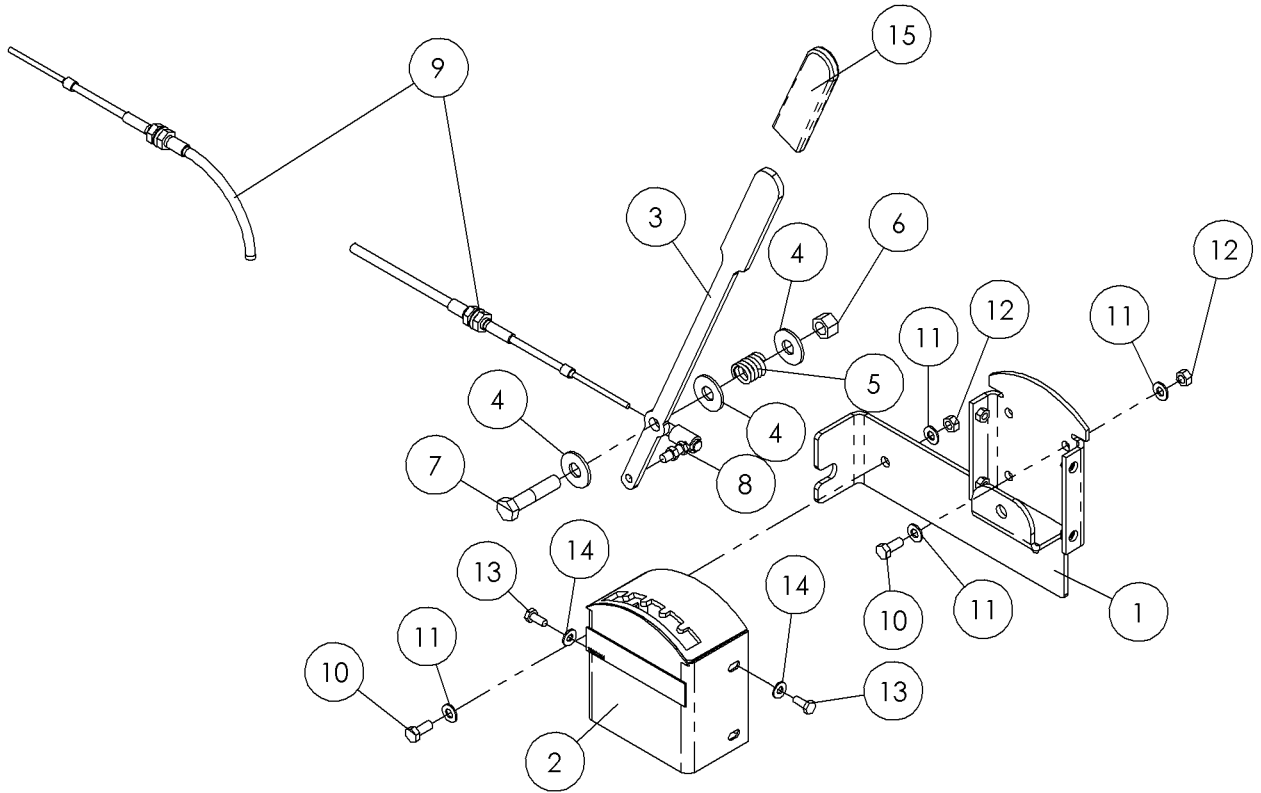


Illustration No. 296289035

Row Selector (S/N 381-) Fig 7-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Change Nut
1		296280463	WELD - SELECTOR ARM	1	
2		296289038	CLEVIS - 029025 40 SERIES	1	
3		296289043	GAS SPRING 4170T4 20 LB	1	
4		6373003	SCREW-MCH-6-32X5/8-GR2-CZ	2	
5		69757001	LOCKNUT-#6-32 NYLON INSERT PLT	1	
6		296289032	GAS SPRING MOUNT	1	
7		235735001	BOLT-1/4-20X1 GR8 HEX ZYC	1	
8	*	235732001	NUT - HEX - .25 - 20 - GR8 - YZ	1	
9		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	2	

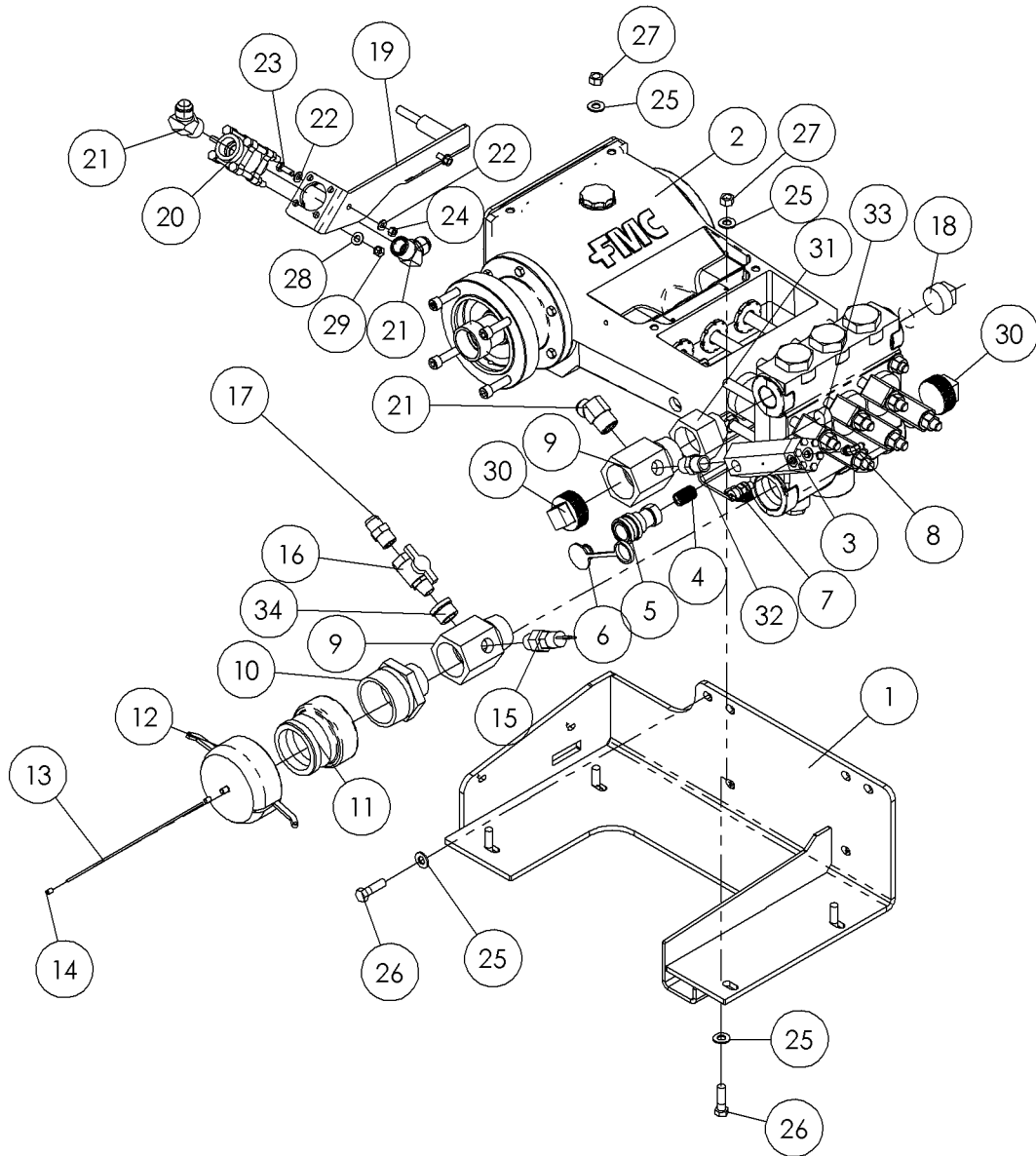
Row Selector Control Box (S/N 381-) Fig 7-10



Row Selector Control Box (S/N 381-) Fig 7-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Change Cable
1		296289010	WELDMENT - HANDLE BASE MOUNT	1	
2		296289011	WELDMENT - HANDLE COVER	1	
3		296280448	PLATE - HANDLE	1	
4		510337611	WASHER - FLATSTD - .50-.56X1.38-.11-YZ	3	
5		285776001	SPRING - COMP #49 1.00 O.A.	1	
6		510317501	NUT-TLHEX-.50-13-B-YZ	1	
7		240335001	SCREW-HCS-.50-13X2.25-GR8-YZ	1	
8		78653001	BALL JOINT 1/4FX5/16M A032267	1	
9	*	296289014	CABLE 314-LTT-3-204	1	
10		235742001	BOLT-5/16-18X3/4 GR8 ZYC	6	
11		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	12	
12		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	6	
13		284944001	SOCKET HD CAPSCREW - 1/4 - 20 UNC X 5/8	4	
14		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
15		258768001	HANDLE-PLASTIC (YELLOW)	1	
16		700ID254	DECAL - ROW SELECTOR	1	

Water Pump - 50 GPM FMC Fig 8-1



Water Pump - 50 GPM FMC Fig 8-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Changed Quantity
1		296280862	PUMP SUPPORT ASY	1	
2		296269558	FMC MUD PUMP 26.8 CID	1	Breakdown Fig. 11-39
3		296265854	WATER PRESSURE DUMBELL PISTON MAN.ASSY	1	Breakdown Fig. 11-40
4		707003	1/2" NPT HEX NIPPLE	1	
5		227235001	COUPLER-1/2"NPT QUICK(FEMALE)	1	
6		234679001	CAP-DUST	1	
7		75493001	FITTING - TEST - 4MORB - 16MTP	1	
8		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
9		236472001	FITTING-2"MX3/4"FX2 XCX M NPT TEE	2	
10		221506001	NIPPLE-REDUCING 3X2 MPT (POLY)	1	
11		275759001	COUPLINE-3"MTPT X3" FPT (POLY)	1	
12		215429001	CAP-3" CAM LOCK *	1	
13		244069001	CABLE-3/32"X12 XCX NYLON COATED	1	
14		1838001	CONNECTOR-WIRE (ETC)	2	
15		287554001	SWITCH - 10 PSI NO/NC	1	
16		275770001	VALVE - 3/4 MXF BALL W/T-HNDL	1	
17		53836001	3/4M PIPE-#12M JIC ST.	1	
18		732015	1 1/2" PIPE PLUG BLACK STEEL	1	
19		296275328	SUPPORT - BALL VALVE	1	
20		278003001	VALVE - 1" 1500 PSI BRASS BALL	1	Breakdown Fig. 11-41
21		60904001	1M NPT X 16M JIC 45 DEG ELBOW	3	
22		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
23		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	2	
24		240333001	NUT-5/16-18 GR8 TL ZINC PLTD	2	
25		485025	WASHER-1/2 FLAT-HARDENED-YZ	14	
26		240334001	SCREW-HCS-.50-13X1.75-GR8-YZ	10	
27		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	4	
28		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
29		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
30	*	296258568	FITTING - PLUG - 32MNPT - SQ - GALV	2	
31		296289008	FITTING - STR - 24MNPT - 32FNPT	1	
32		742001	3/4 X 2 NIPPLE STEEL ZNC PLTD	1	
33		735001	3/4" COUNTERSUNK PIPE PLUG	1	
34		730017	1" X 3/4" HEX BUSHING STEEL	1	

Drive Motor - 50 GPM FMC Fig 8-2

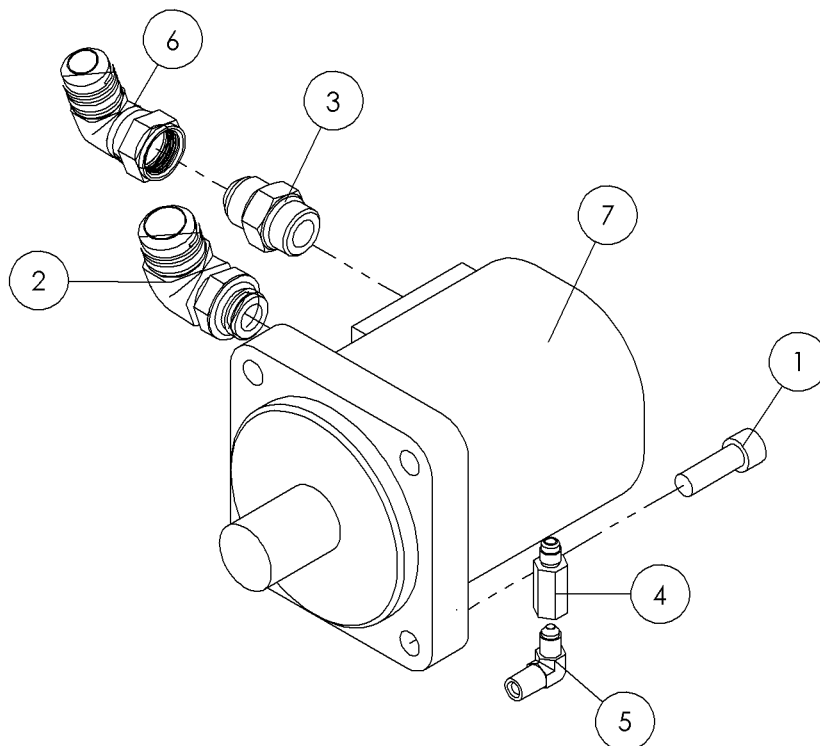
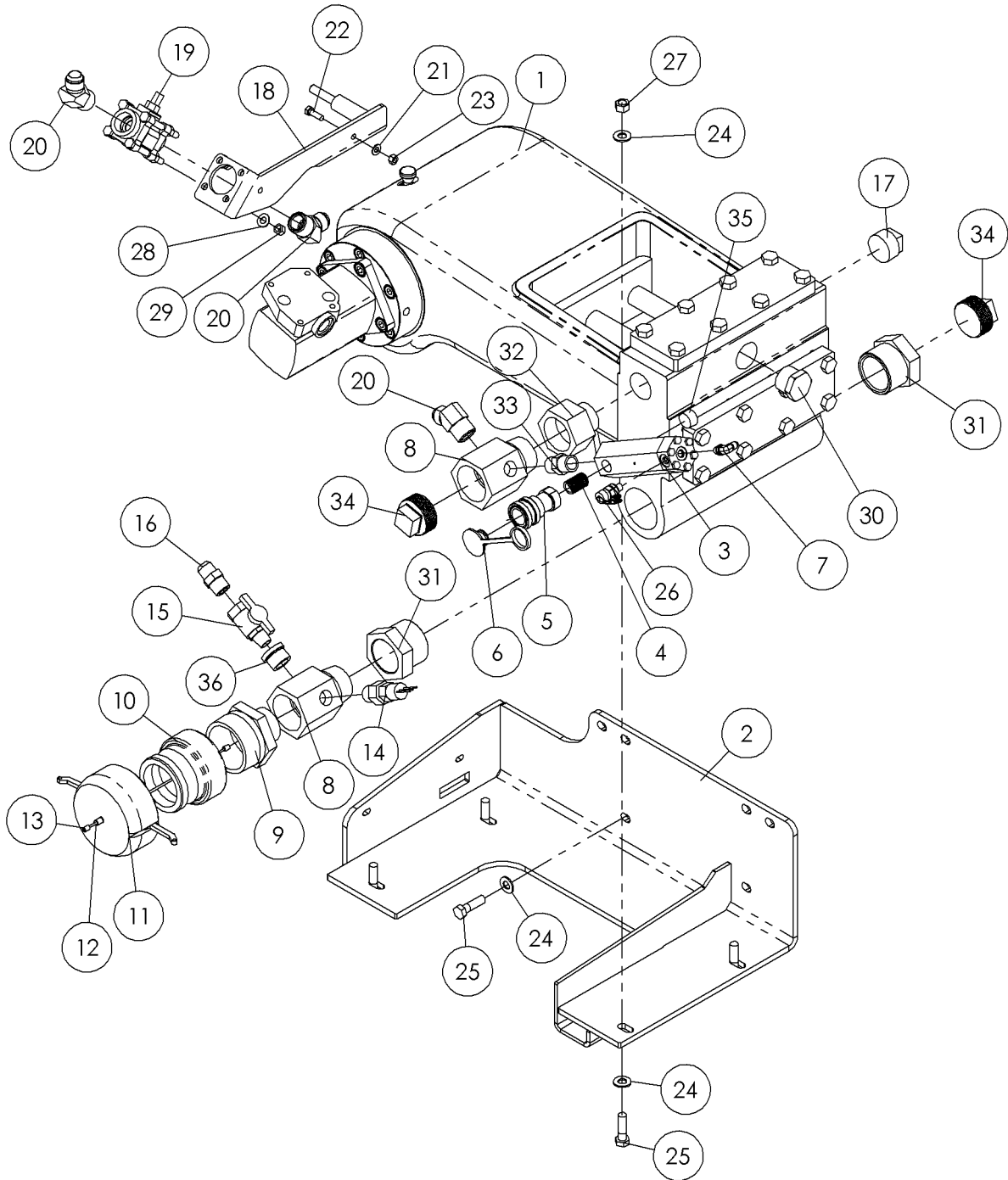


Illustration No. 296287879

Drive Motor - 50 GPM FMC Fig 8-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		276402001	SCREW-1/2-13X1 1/2 SHC Y ZINC	4	
2		65571001	12M X 16M JIC 90 DEGREE	1	
3		53828001	#12M O-RING-#12M JIC ST.	1	
4		296257246	VALVE- 4MJICX4FJIC CHECK	1	
5		56647001	FITTING-1/4MX4M JIC 90 DEG. REF 53821-001-1	1	
6		59422001	FITTING-90-12MJ-12FSJ	1	
7		251106001	MOTOR -12.5 CID 4000 SERIES HY	1	Breakdown Fig. 11-34

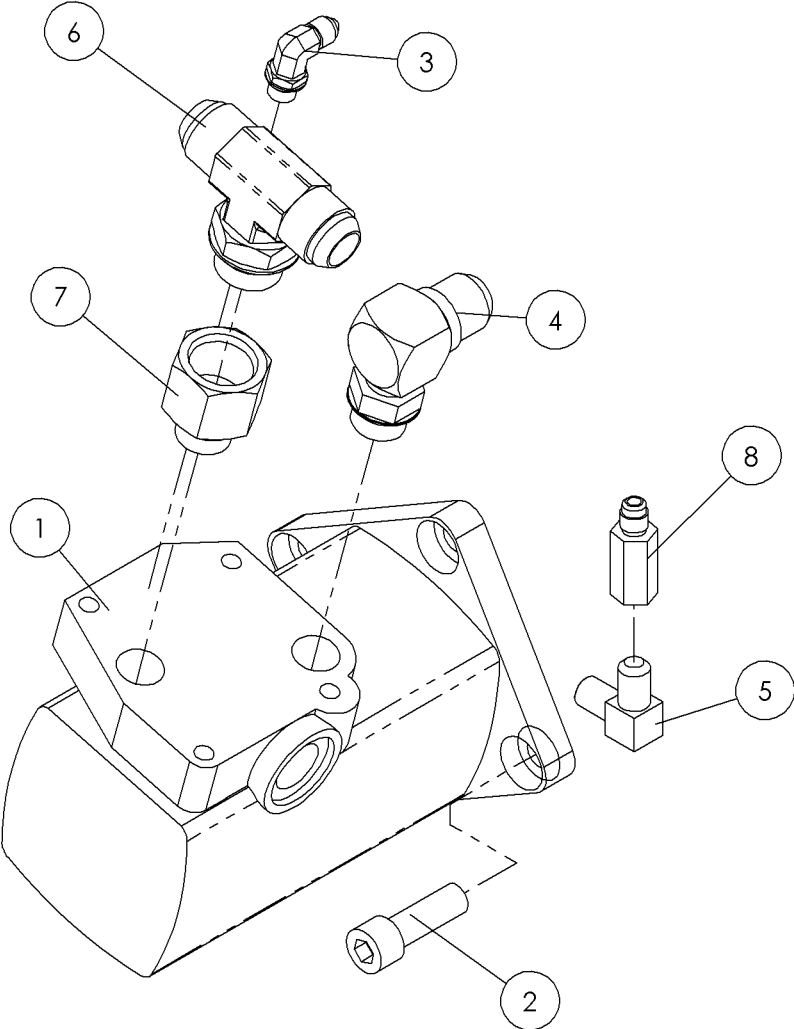
Water Pump - 50 GPM Apex Fig 8-3



Water Pump - 50 GPM Aplex Fig 8-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Change Qty
1		296269559	APLEX 50 GPM MUD PUMP W/CHARLYN HYD/DR M	1	Breakdown fig. 11-42 Thru 11-46
2		296280862	PUMP SUPPORT ASY	1	
3		296265854	WATER PRESSURE DUMBELL PISTON MAN.ASSY	1	Breakdown Fig. 11-40
4		707003	1/2" NPT HEX NIPPLE REF T05385	1	
5		227235001	COUPLER-1/2"NPT QUICK(FEMALE)	1	
6		234679001	CAP-DUST	1	
7		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
8		236472001	FITTING-2"MX3/4"FX2 XCX M NPT TEE	2	
9		221506001	NIPPLE-REDUCING 3X2 MPT (POLY)	1	
10		275759001	COUPLINE-3"MTPT X3" FPT (POLY)	1	
11		215429001	CAP-3" CAM LOCK *	1	
12		244069001	CABLE-3/32"X12 XCX NYLON COATED	1	
13		1838001	CONNECTOR-WIRE (ETC)	2	
14		287554001	SWITCH - 10 PSI NO/NC	1	
15		275770001	VALVE - 3/4 MXF BALL W/T-HNDL	1	
16		53836001	3/4M PIPE-#12M JIC ST.	1	
17		732015	1 1/2" PIPE PLUG BLACK STEEL REF T15823	1	
18		296275328	SUPPORT - BALL VALVE	1	
19		278003001	VALVE - 1" 1500 PSI BRASS BALL	1	Breakdown Fig. 11-41
20		60904001	1M NPT X 16M JIC 45 DEG ELBOW	3	
21		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
22		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	2	
23		240333001	NUT-5/16-18 GR8 TL ZINC PLTD	2	
24		485025	WASHER-1/2 FLAT-HARDENED-YZ	14	
25		240334001	SCREW-HCS-.50-13X1.75-GR8-YZ	10	
26		75493001	FITTING - TEST - 4MORB - 16MTP	1	
27		250512001	NUT- 1/2 NC Gr8 TOP LOCK Y/ ZINC	4	
28		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
29		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
30		120885001	FITTING-1 1/4 NPT PIPE PLUG	1	
31		236015001	HEX BUSHING-40MPT X 32FPT	2	
32		296289008	FITTING - STR - 24MNPT - 32FNPT	1	
33		742001	3/4 X 2 NIPPLE STEEL ZNC PLTD	1	
34	*	296258568	FITTING - PLUG - 32MNPT - SQ - GALV	2	
35		735001	3/4" COUNTERSUNK PIPE PLUG REF T12571	1	
36		730017	1" X 3/4" HEX BUSHING STEEL REF T06438	1	

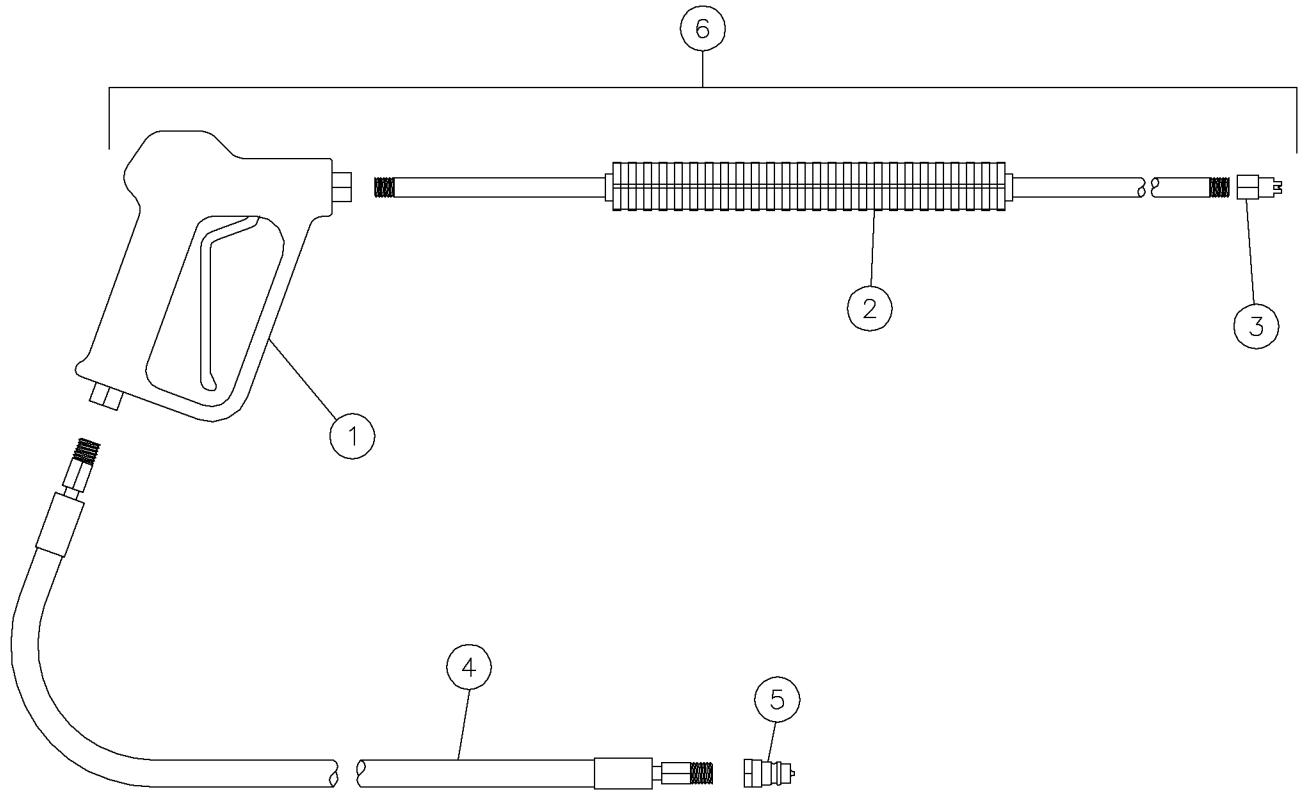
Drive Motor - 50 GPM Aplex Fig 8-4



Drive Motor - 50 GPM Aplex Fig 8-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		275996001	MOTOR - HYD. (EATON) 2 SP.	1	Breakdown Fig. 11-35
2		514014	1/2-13X1 1/2" SOCKET HEAD BOLT	4	
3		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	1	
4		53871001	#10M O-RING X 12M JIC 90	1	
5		68707001	FITTING-1/4MX6M JIC 90 DEG.	1	
6		70032001	12M BCH X 12M JICX12M JIC TEE	1	
7		119167001	FITTING-10M X 12F ST. ADAPTER	1	
8		296257246	VALVE- 4MJICX4FJIC CHECK	1	

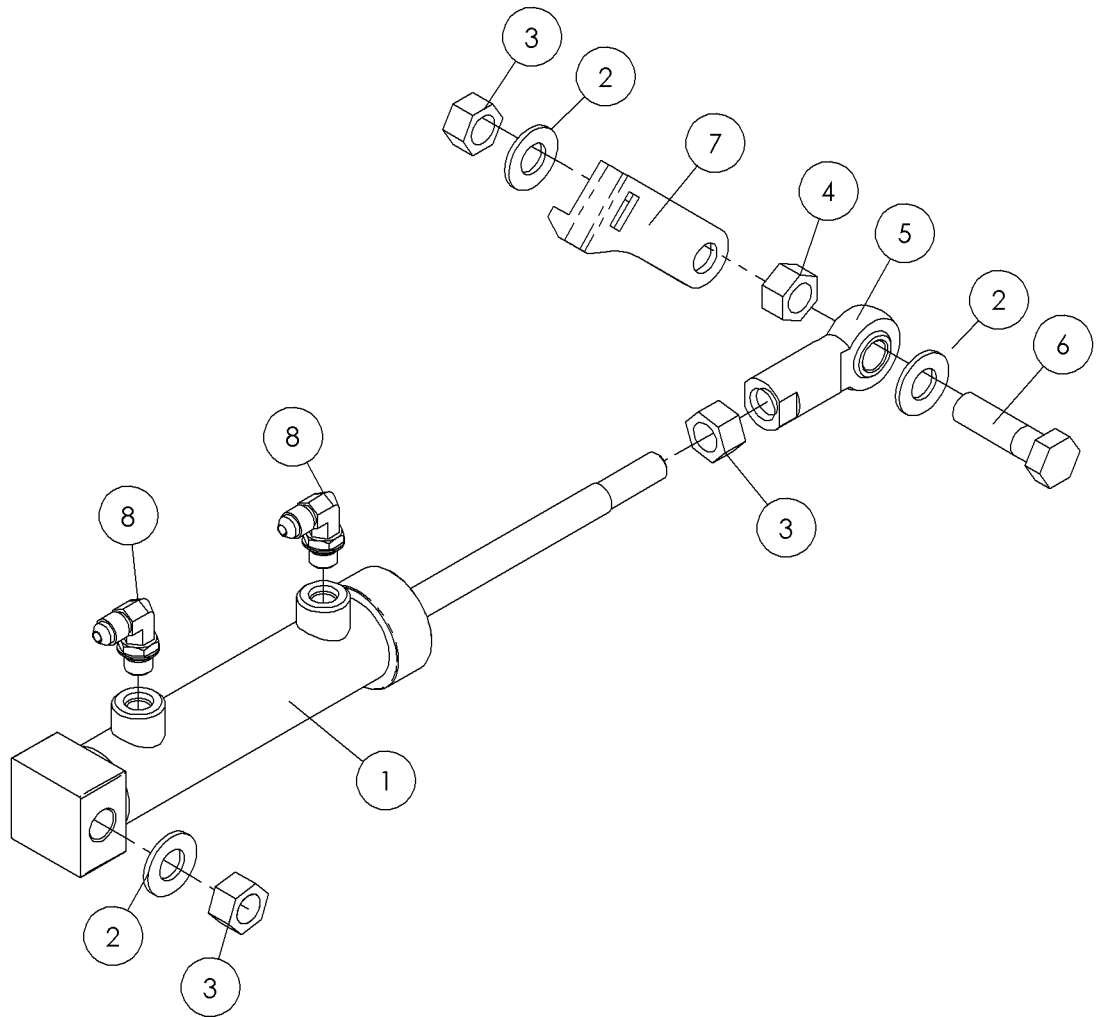
Wash Wand Fig 8-5



Wash Wand Fig 8-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904578001	GUN HANDLE	1	
2		904577001	MOLDED LANCE	1	
3		904576001	SPRAY NOZZLE	1	
4		282761001	HOSE-3/8X500 3/8MSNPT/1/2MNPT 100R2	1	
5		227236001	COUPLER-1/2" NPT QUICK(MALE)	1	
6		285927001	GUN ASSY	1	
		240264001	WAND ASSY	1	Inc. All Items in Figure

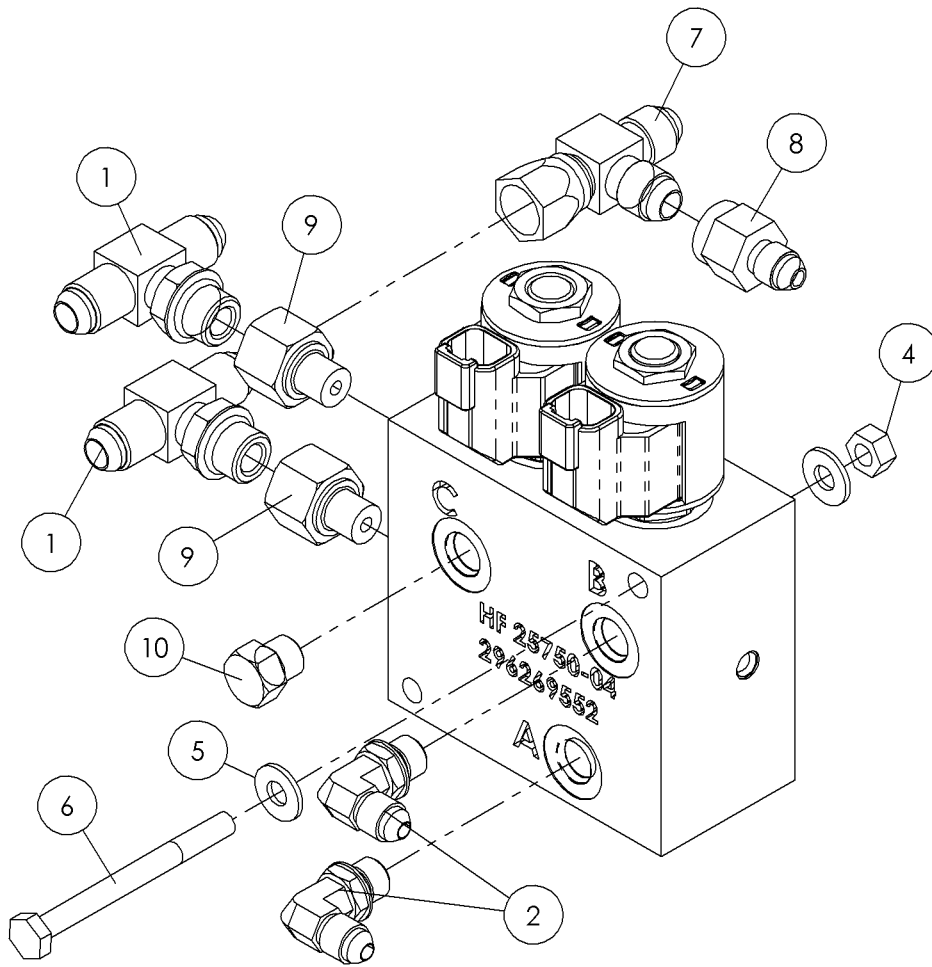
Cylinder - Water Shut-Off Fig 8-6



Cylinder - Water Shut-Off Fig 8-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		287591001	CYLINDER - 1 X 3-1/2	1	Breakdown Fig. 11-20
2		485025	WASHER-FLATSTRL-.50-.53X1.06-.09-YZ	3	
3		250512001	NUT-TLHEX-.50-13-C-YZ	3	
4		451001	NUT-HEX-.50-20-GR2-YZ	1	
5		224291001	BALL JOINT	1	
6		240334001	SCREW-HCS-.50-13X1.75-GR8-YZ	1	
7		296275324	ARM - LEVER	1	
8		59423001	FITTING-90-4MJ-4MORBA	2	

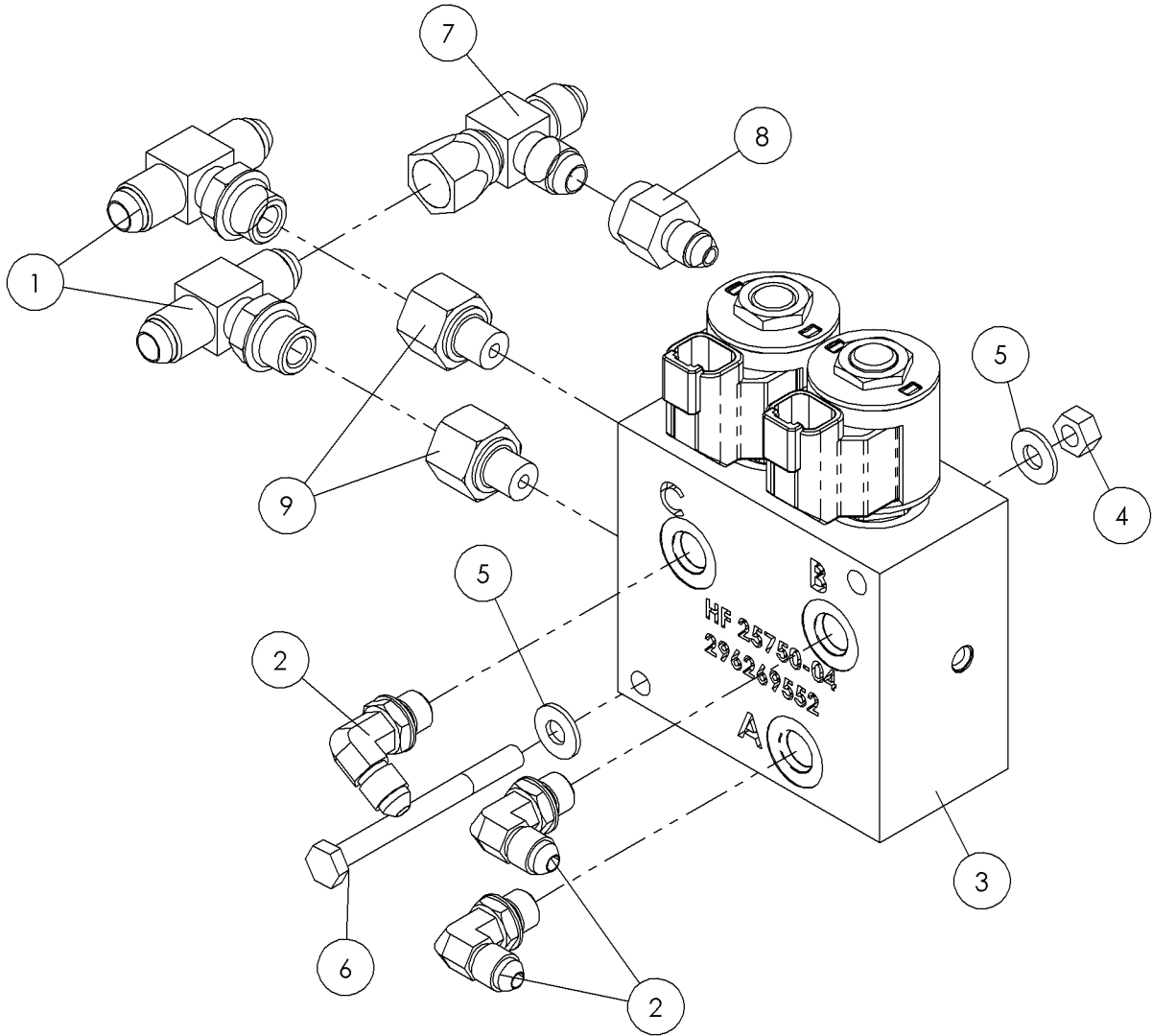
Water On/Off Valve (FMC) Fig 8-7



Water On/Off Valve (FMC) Fig 8-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		68787001	FITTING-6M (BCH)X6M JICX6M JIC	2	
2		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	2	
3		296269552	CONTROL - 2 SPEED/ON-OFF WATER PUMP	1	Breakdown Fig. 11-53
4		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
5		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
6		124631026	BOLT-1/4-20X2 3/4 GR8 HEX ZYC	2	
7		59427001	TEE-6MJ-6FSJ-6MJ	1	
8		59928001	6F JICX4M JIC ST REDUCER	1	
9		88530001	FITTING-4MX6F JIC SOLID REDUCE	2	
10		67263001	FITTING - PLUG - 4MORB - HEX	1	

Water On/Off Valve (Aplex) Fig 8-8



Water On/Off Valve (Aplex) Fig 8-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		68787001	FITTING-6M (BCH)X6M JICX6M JIC	2	
2		59423001	FIT-4M JICX4M ADJ.90 DEG.ELBOW	3	
3		296269552	CONTROL - 2 SPEED/ON-OFF WATER PUMP	1	Breakdown Fig. 11-53
4		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	2	
5		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	4	
6		124631026	BOLT-1/4-20X2 3/4 GR8 HEX ZYC	2	
7		59427001	TEE-6MJ-6FSJ-6MJ	1	
8		59928001	6F JICX4M JIC ST REDUCER	1	
9		88530001	FITTING-4MX6F JIC SOLID REDUCE	2	

Rocfire Fittings Assy Fig 8-9

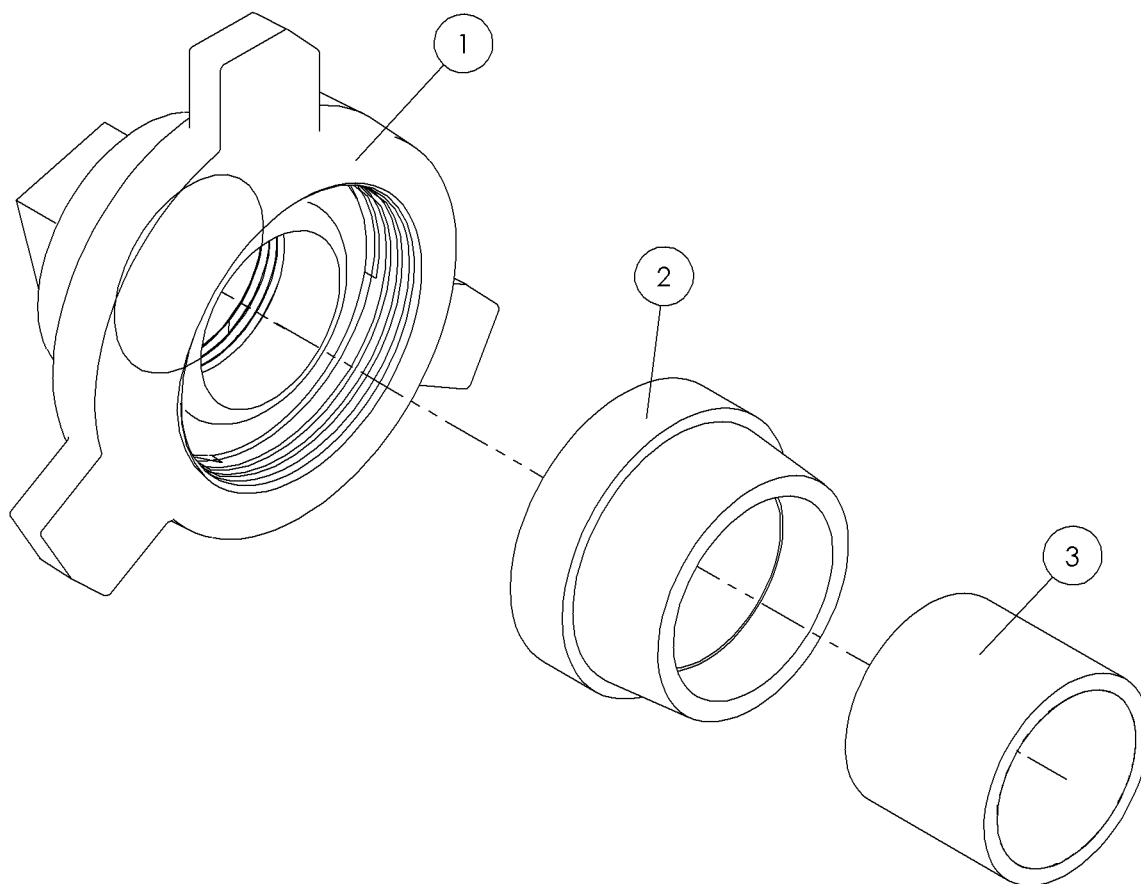
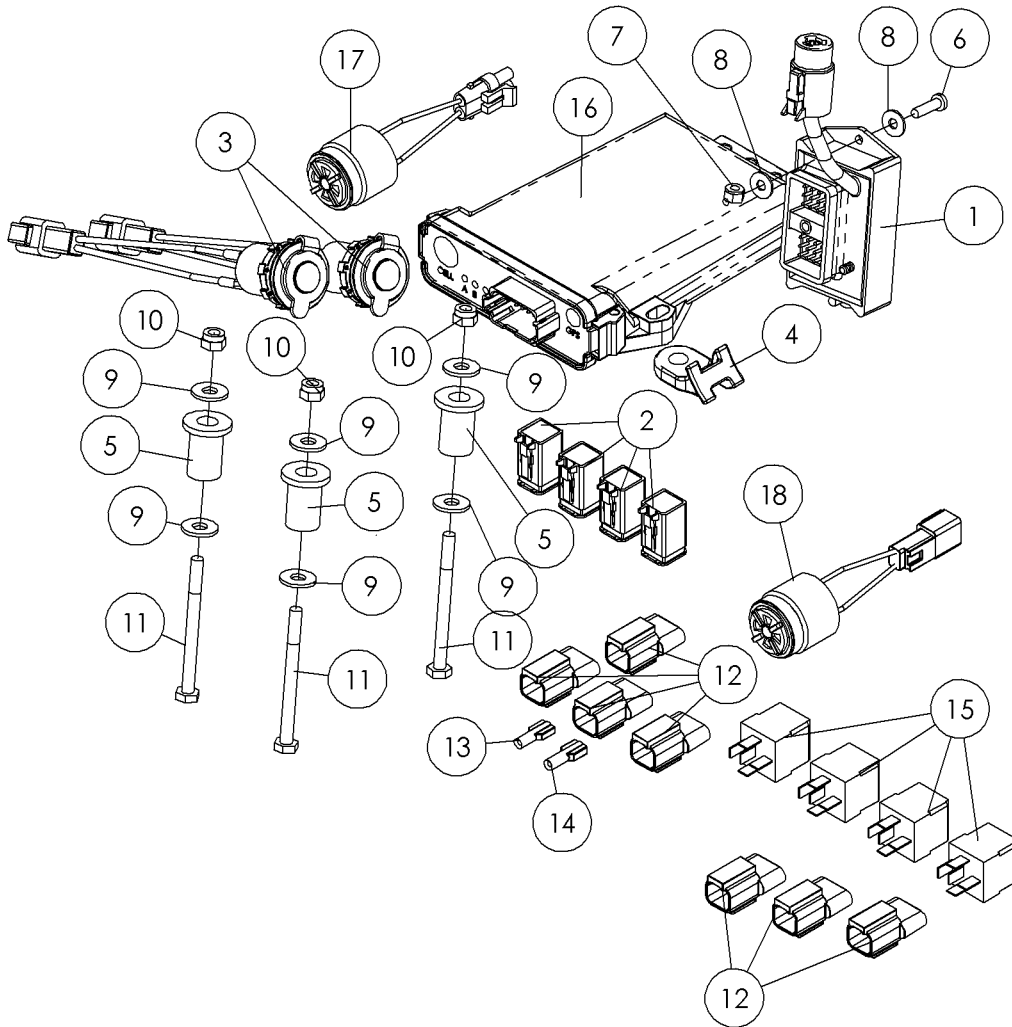


Illustration No. 296287939

Rocfire Fittings Assy Fig 8-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Addition To Manual
1		296259782	ASSEMBLY-CAP-2."	1	
2		296259780	UNION - MALE	1	
3		240674001	NIPPLE-2" NPT-CLOSE-GALVANIZED	1	

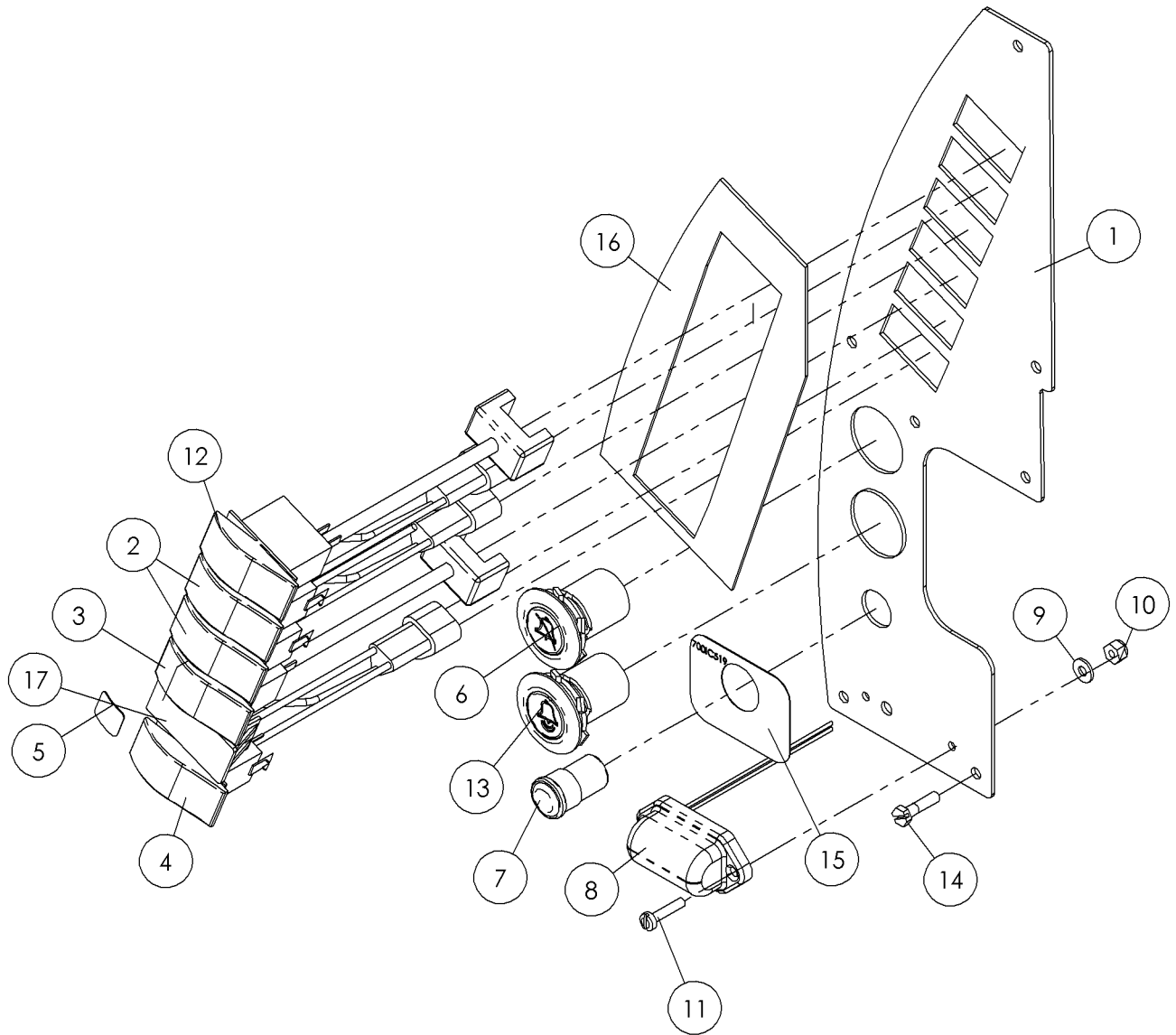
Electrical-Operator Controls Fig 9-1



Electrical-Operator Controls Fig 9-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	November, 2006		Added Ref 16 & 17, Changed Ref 18
1		281526001	BUS BAR MODULE	1	
2		282531001	MODULE-DEUTSCH DT06-6S 3AMP DIODE	4	
3		285604001	OUTLET - PLUG	2	
4		296276018	MOUNT - HEAVY DUTY CABLE TIE	1	
5		228064001	INSERT-FASTENER	3	
6		1802006	BOLT-10-24 X 3/4 RND HD STOVE	2	
7		99042001	NUT-NYLOCK-#10-24-GR2-CZ	2	
8		485001	WASHER-FLATSTD-.19-.22X.56-.05-CZ	4	
9		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	6	
10		103201001	NUT-NYLOCK-.25-20-GR2-CZ	3	
11		503530001	SCREW-HCS-.25-20X3.00-GR8-YZ	3	
12		296269610	RECEPTACLE TERMINOR - 2 WAY	7	
13		18988001	TERM - 250FULL INS MALE SLD16GA.	1	
14		18989001	TERM - 250FULL INS FEM SLD16GA.	1	
15		251681001	RELAY - SEALED 40 AMP	4	
16	*	296270163	ASM, STRIKEALERT BLANK	1	
17	*	286920001	REMOTE LOCKOUT BUZZER	1	
18	*	296292078	HORN - ZAP ALERT DEUTSCH 2 PIN	1	

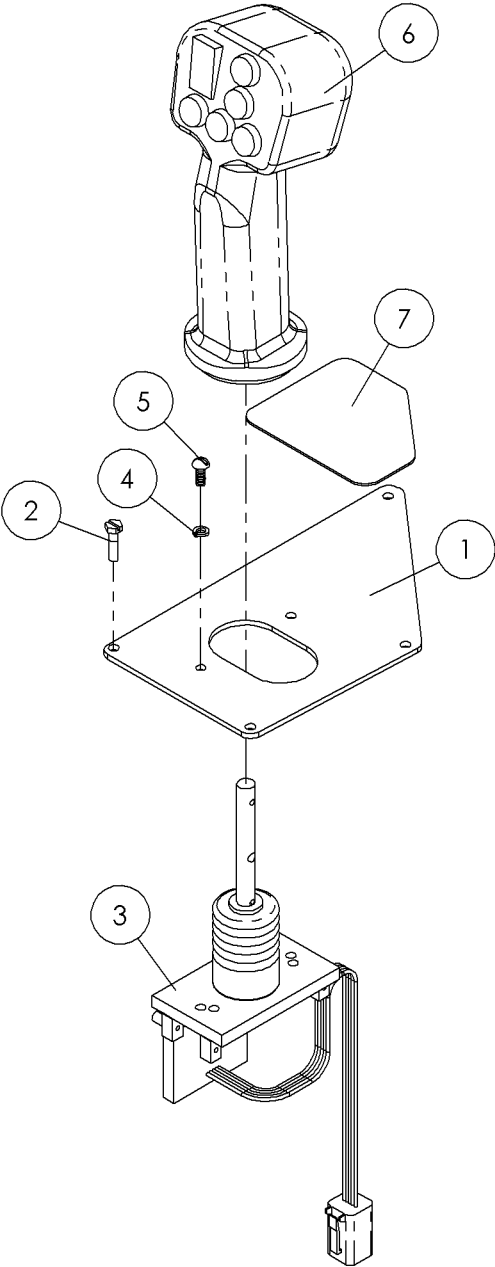
Upper LH Panel Fig 9-2



Upper LH Panel Fig 9-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296274139	PLATE - SWITCH LEFT	1	
2		257205001	SWITCH - SP 2 POSITION	2	(Wash Wand/Drill Fluid)(High/Low Pressure)
3		296269576	SWITCH - SP 2 POSITION BRAKE	1	Drill Mode Selection
4		257541001	SWITCH -1 POLE MOM-OFF-MOM	1	Rear Stabilizer
5		700IC454	DECAL - CONTROL	1	
6		296280268	SWITCH-STRIKE ALERT ALARM OFF	1	Alarm Cansel
7		296275581	LIGHT-REMOTE LOCKOUT-GREEN	1	Green Indicator Light
8		296256067	LIGHT - CONSOLE, M434	1	
9		224769001	WASHER-FLATSAE-#8-.19X.44-.05-CZ	2	
10		69759001	NUT-TLHEX-8-32-GR2-CZ	2	
11		10530006	SCREW-MCH-8-32 X .75-GR2-CZ-RND-SLTD	2	
12		296274146	SWITCH - SP 3 POSITION (OFF, ON, ON)	1	3-Speed Gearbox
13		296280273	PUSHBUTTON - STRIKE ALERT TEST	1	Strike Alert Test
14		510357010	SCREW-MCH-10-24X.75-GR2-YZ-HWH-SLTD	7	
15		700IC519	DECAL - STRIKE ALERT GREEN LIGHT	1	
16		700IC348	DECAL - CONTROL	1	
17		156720001	PLUG-ROCKER SWITCH	1	

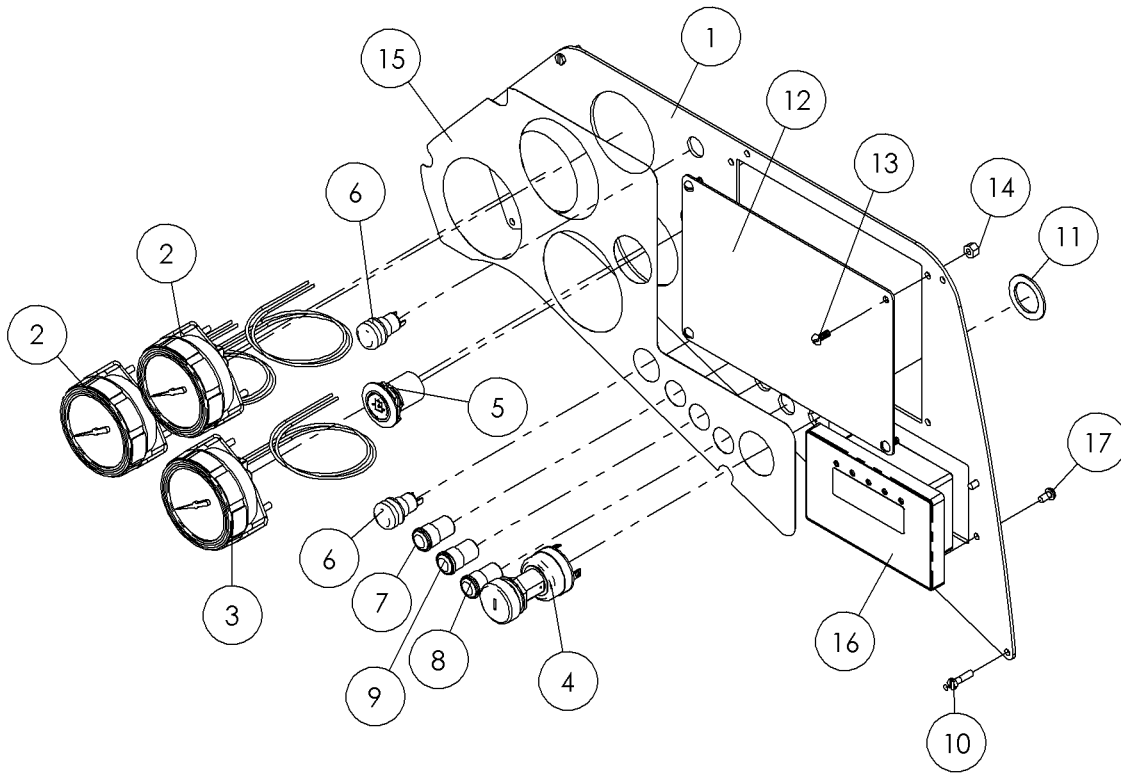
Left Joystick Panel Fig 9-3



Left Joystick Panel Fig 9-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282506	PLATE - JOYSTICK MOUNT	1	
2		510357010	SCREW-MCH-10-24X.75-GR2-YZ-HWH-SLTD	4	
3		296282533	JOYSTICK- SPRING CENTERED	1	
4		480001	WASHER-3/16 S/T LOCK REF T10253	2	
5		1802004	SCREW-MCH-10-32X.50-GR2-CZ-ROUND-SLTD	2	
6		296273907	HANDLE GRIP ASSEMBLY - RIGHT JOYSTICK	1	Breakdown Fig. 11-49
7		700IC857	DECAL - LEFT JOYSTICK CONTROL	1	

Upper RH Panel Fig 9-4



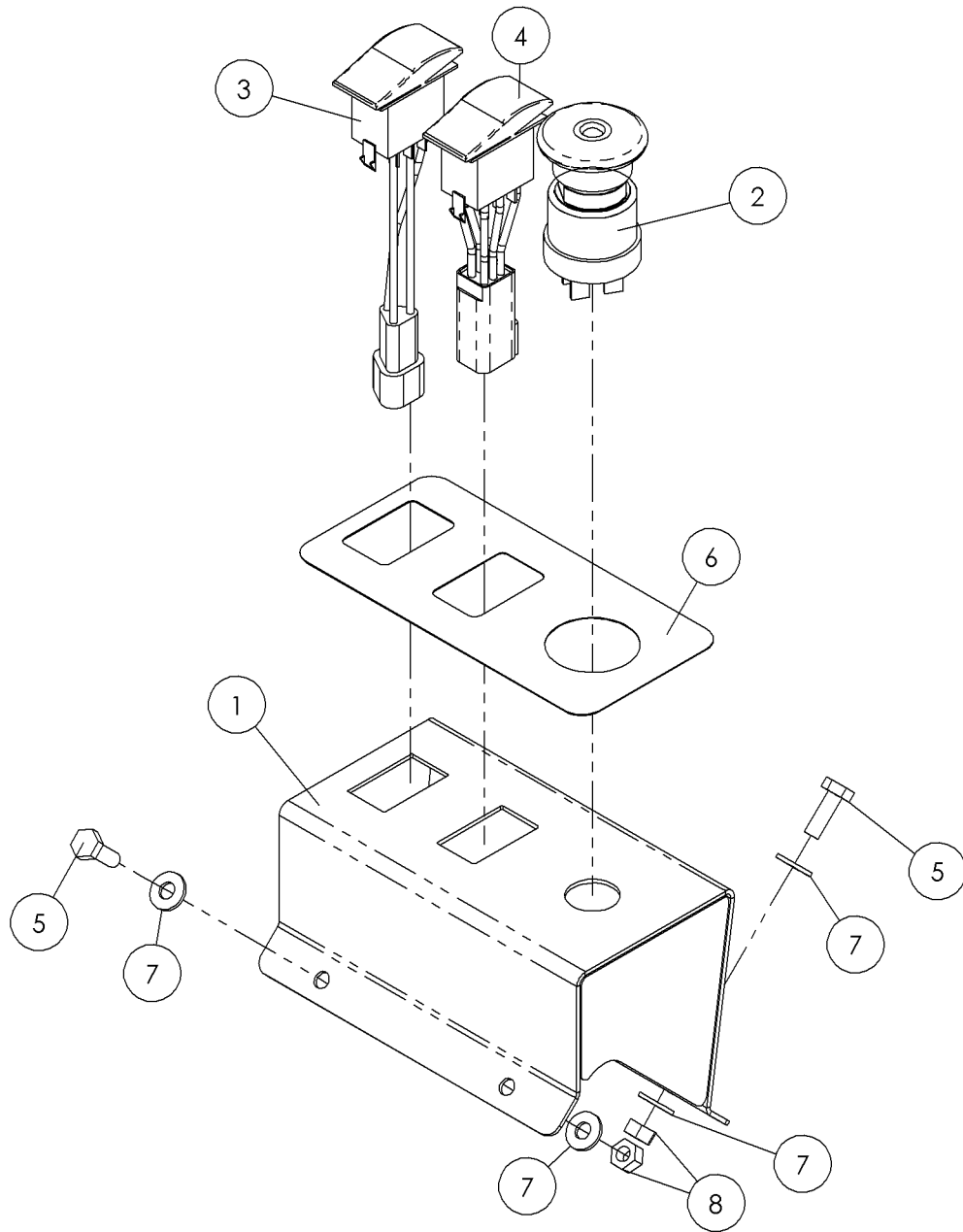
Upper RH Panel Fig 9-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286496	PANEL - DCI/ACS DISPLAY	1	
2		289651001	GAUGE - 7500 PSI - SPAN - JIC - LIGHT	2	
3		289650001	GAUGE - 2000 PSI - SPAN - JIC - LIGHT	1	
4		285597001	SWITCH - IGNITION	1	Ignition Switch
5		277699001	SWITCH - PUSH BUTTON HYDRAULIC ENABLE	1	Hydraulic Enable
6		260766001	SWITCH-MOM BUTTON NO	2	Alam Off
7		296275581	LIGHT - REMOTE LOCKOUT-GREEN	1	Run Mode Light
8		296275582	LIGHT - REMOTE LOCKOUT-RED	1	Lockout mode Light
9		296275583	LIGHT - REMOTE LOCKOUT - AMBER	1	Processing Light
10		510357010	SCREW-MCH-10-24X.75-GR2-YZ-HWH-SLOTTED	7	
11		483005	WASHER-1 1/2X1X14 GA M.B. ZINC	1	
12		296281818	PLATE - COVER RH PANEL	1	
13		533004	BOLT-10-24X1/2 RND.HD.SLTMACH	4	
14		284471001	NUT - 10-24	4	
15		700IC350	DECAL - CONTROL RIGHT HAND UPPER	1	
16		296287271	ASM - LED MID SIZE HDD	1	
17		229830001	SCREW-TFTAP-M5X10-YZ-D7500	4	

Lower RH Panel Fig 9-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269646	PLATE - GAGE PANEL LOWER RIGHT	1	
2		700IC349	DECAL - CONTROL	1	
3		296274330	GAUGE - FUEL DATCON #112739	1	
4		296274329	GAUGE - TEMP DATCON #112718	1	
5		163627173	TACHOMETER	1	
6		260766001	SWITCH - MOM BUTTON NO	2	(Engine Reset)(Display Scroll)
7		257541001	SWITCH - 1 POLE MOM-OFF-MOM	2	(Left-Stakedown Cylinder)(Right-Stakedown Motor)
8		257205001	SWITCH - SP 2 POSITION	3	(Left-2-Speed Thrust/Pullback)(Middle-Light)(Power Stakedown)
9		224769001	WASHER-FLATSAE-#8-.19X.44-.05-CZ	2	
10		69759001	NUT-TLHEX-8-32-GR2-CZ	2	
11		10530006	SCREW-MCH-8-32 X .75-GR2-CZ-RND-SLTD	1	
12		296256067	LIGHT - CONSOLE, M434	1	
13		700IC414	DECAL - ENGINE WARNING	1	
14		296275582	LIGHT-REMOTE LOCKOUT-RED	2	(Left-Engine Warning Light)(Right-Hydraulic Filter Warning Light)
15		700ic557	DECAL - HYD FILTER WARNING	1	
16		510357010	SCREW-MCH-10-24X.75-GR2-YZ-HWH-SLTD	6	
17		296286254	SWITCH - ROTARY DPDT (ON),OFF,(ON)	3	(Left-Rotation Trim)(Middle-Thrust/Pullback Trim)(Right-Drilling Fluid Trim)

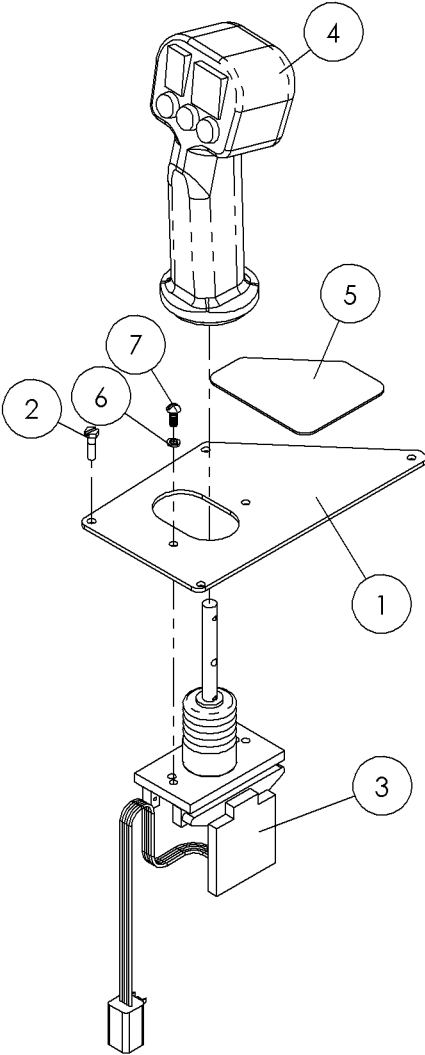
Accessory Panel Fig 9-6



Accessory Panel Fig 9-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296280878	MOUNT - REAR SWITCHES	1	
2		296259684	BUTTON - RED PUSH/PULL	1	Engine Shutoff
3		257541001	SWITCH-SPDT 3 POSITION MOM	1	Throttle
4		296279988	SWITCH - ON# ON ON#	1	Rear Stabilizer
5		235734001	BOLT-1/4-20X3/4 GR8 ZINC PLTD	4	
6		700IC665	DECAL - CONTROL REAR TRANSPORT	1	
7		235716001	WASHER - FLATSTRL - .25 -.28 X .63 - .06 - CZ	8	
8		235732001	NUT - HEX - .25 - 20 - GR8 - YZ	4	

Right Joystick Panel Fig 9-7



Right Joystick Panel Fig 9-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296282506	PLATE - JOYSTICK MOUNT	1	
2		510357010	SCREW-MCH-10-24X.75-GR2-YZ-HWH-SLTD	4	
3		296282533	JOYSTICK- SPRING CENTERED	1	
4		296273908	HANDLE GRIP ASSEMBLY - RIGHT JOYSTICK	1	Breakdown Fig. 11-50
5		700IC352	DECAL - CONTROL	1	
6		480001	WASHER-3/16 S/T LOCK	2	
7		1802004	SCREW-MCH-10-32X.50-GR2-CZ-ROUND-SLTD	2	

Battery Fig 9-8

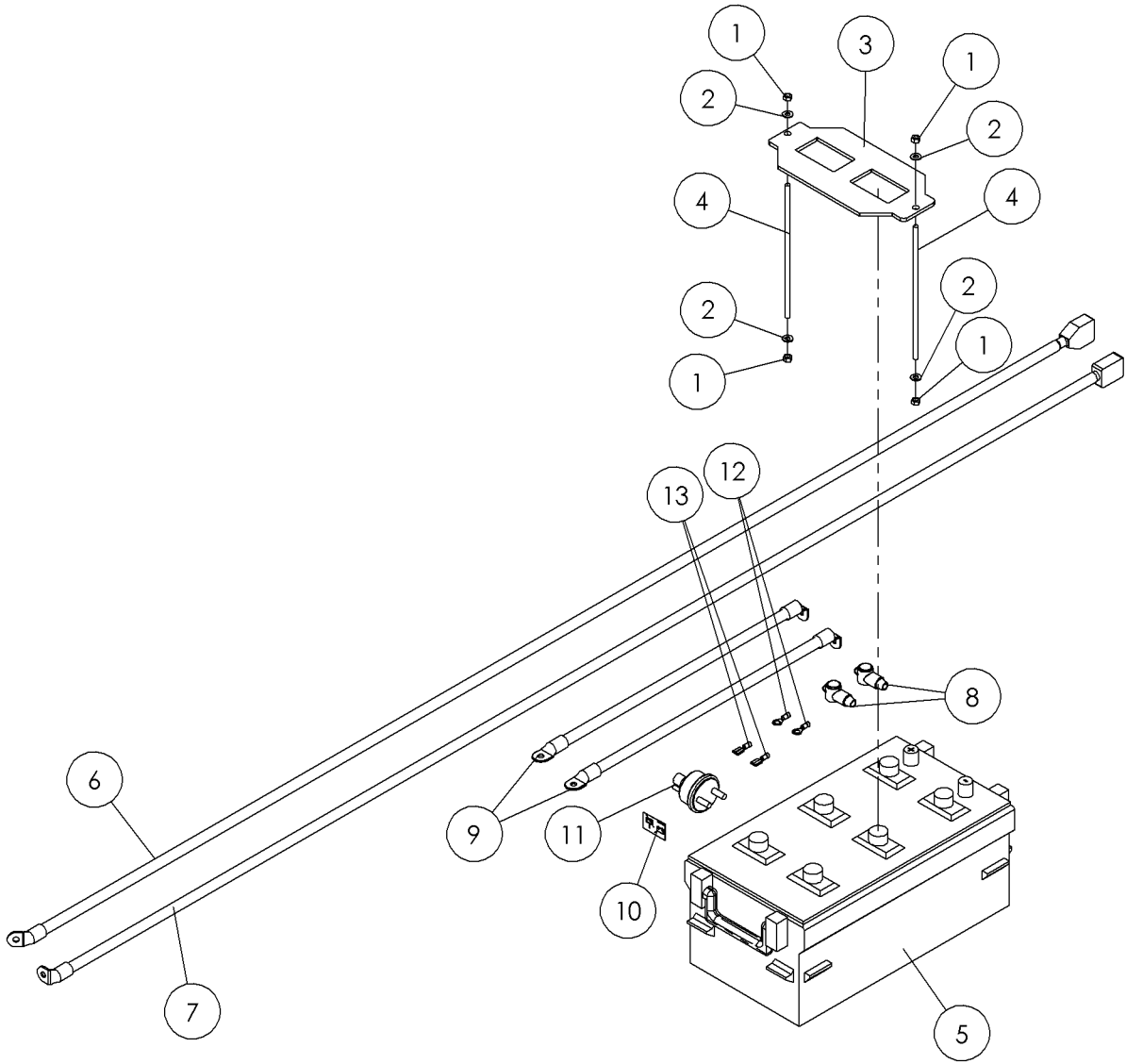
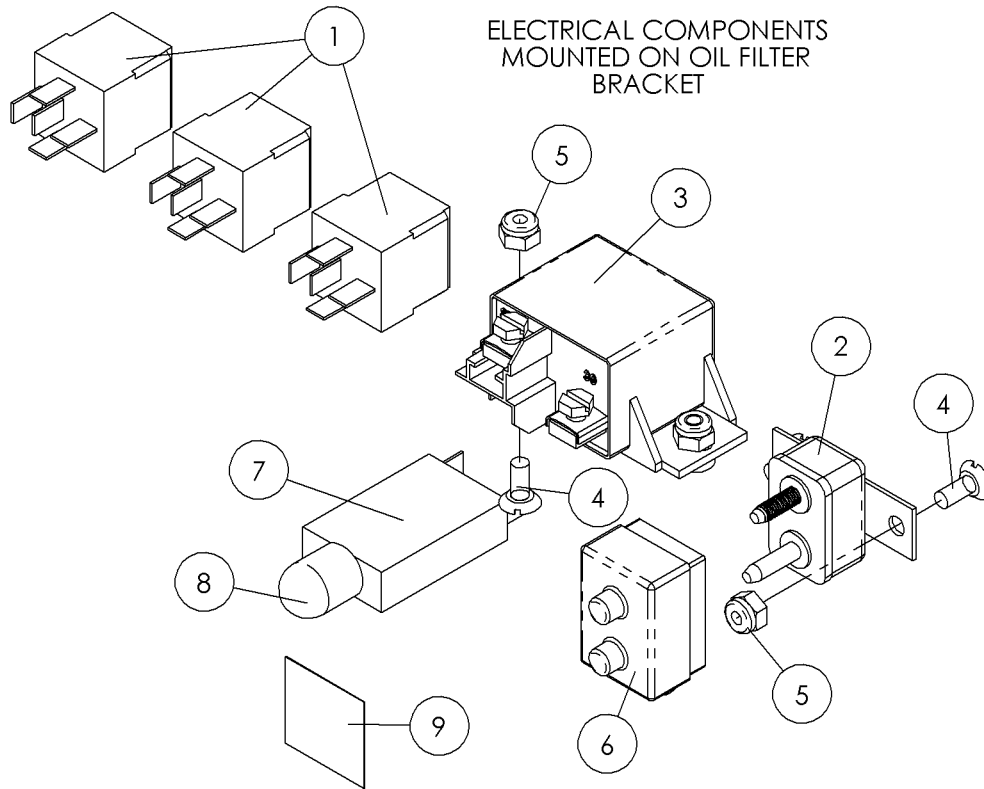


Illustration No. 296287813

Battery Fig 9-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		235741001	NUT - HEX - .31 - 18 - GR8 -YZ	4	
2		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
3		296287812	PLATE - BATTERY HOLD DOWN	1	
4		296258309	ROD BATTERY	2	
5		NSS	BATTERY - 12V 1400 CCA	1	Not Sold Separately
6		296286548	CABLE - BATTERY 4/0 97" RED P-E	1	
7		296286547	CABLE - BATTERY 4/0 97" BLACK P-E	1	
8		296269641	BOOT - BATTERY ALTERNATOR COVER	2	
9		296279963	CABLE - BATTERY 3/0-24" BLACK E-E-	2	
10		700IC950	DECAL - CONTROL, BATTERY DISCONNECT	1	
11		904365001	DISCONNECT SWITCH	1	
12		4716001	TERMINAL-3/8 RING 12-10 GA.	2	
13		14591001	TERM-.250 FEM.SLIDE 12-10 GA.	2	

Engine Electrical Panel Fig 9-9



Engine Electrical Panel Fig 9-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251681001	RELAY - SEALED 40 AMP	3	
2		86582001	BREAKER-40A TYPE 1 W/METALCASE	1	
3		86217001	RELAY-BOSCH SPST 75 AMP SEALED	1	
4		79525001	SCREW-#10-24X1/2 FLHD MACHINE	4	
5		99042001	NUT - NYLOCK - 10 - 24 - GR2 - CZ	4	
6		296269640	BOOT - RED COVER CIRCUIT BREAKER	1	
7		72081001	BREAKER 2-5700-514 DD 15 AMP	1	
8		89597001	COVER-BREAKER SWITCH	1	
9		700IC997	DECAL - BRAKER RESET ROTATION LIMITER	1	

Work Light Fig 9-10

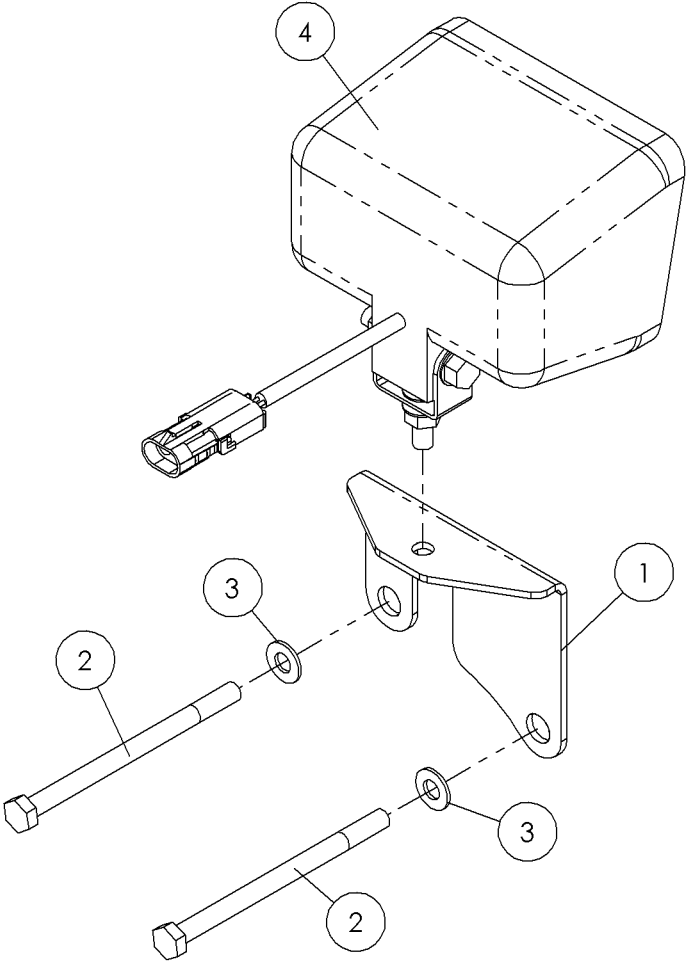


Illustration No. 296279949

Work Light Fig 9-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Update In Illustration.
1		296273638	BRACKET- LIGHT MOUNT	1	
2		250523001	SCREW-HCS-.31-18X4.50-GR8-YZ	2	
3		235714001	WASHER-FLATSTRL-.31-.34X.69-.06-YZ-A325	2	
4		245006001	ASSEMBLY-3X5 FLOOD LIGHT	1	

Rack Slowdown & Anticrash (S/N 381-) Fig 9-11r01

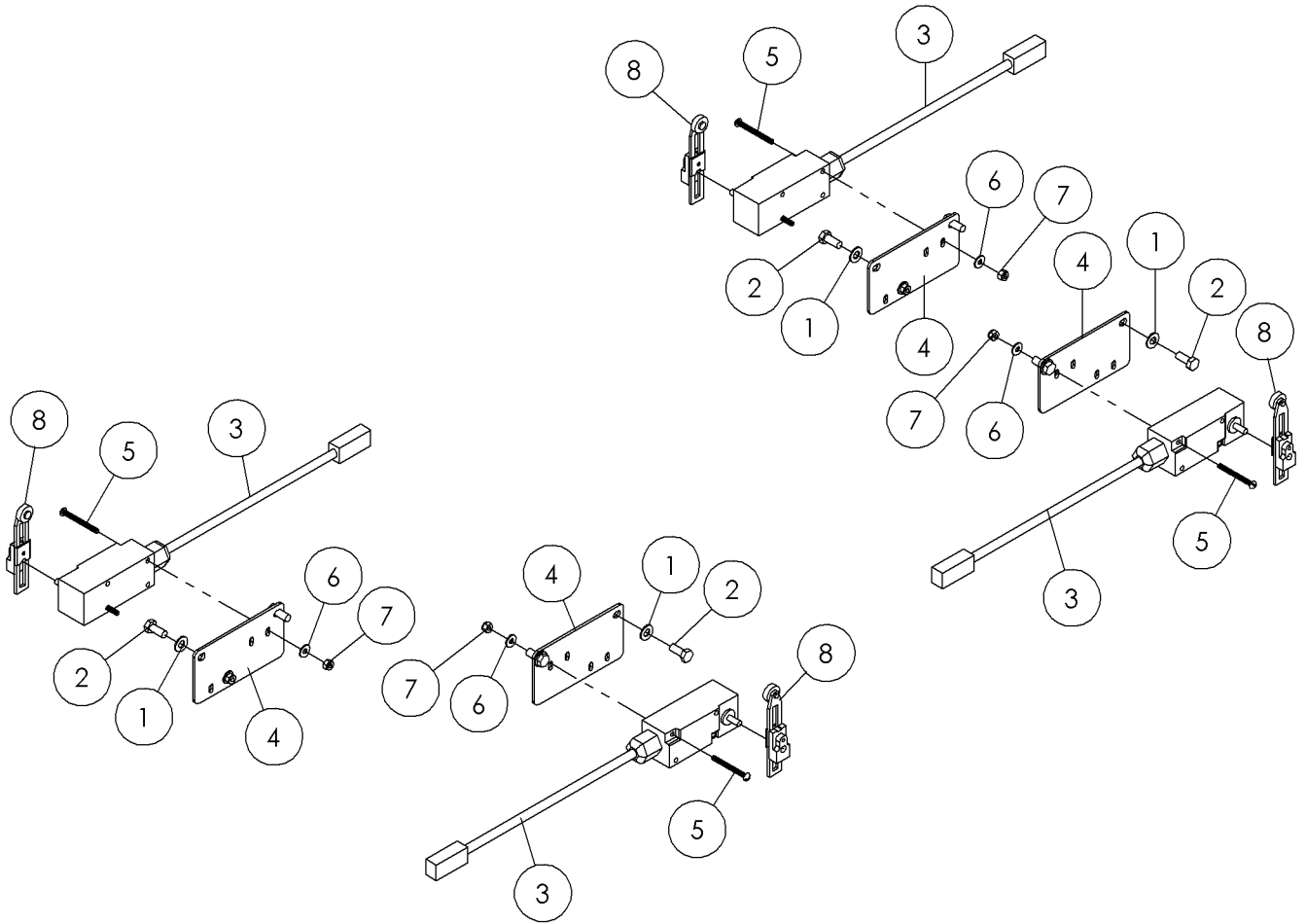
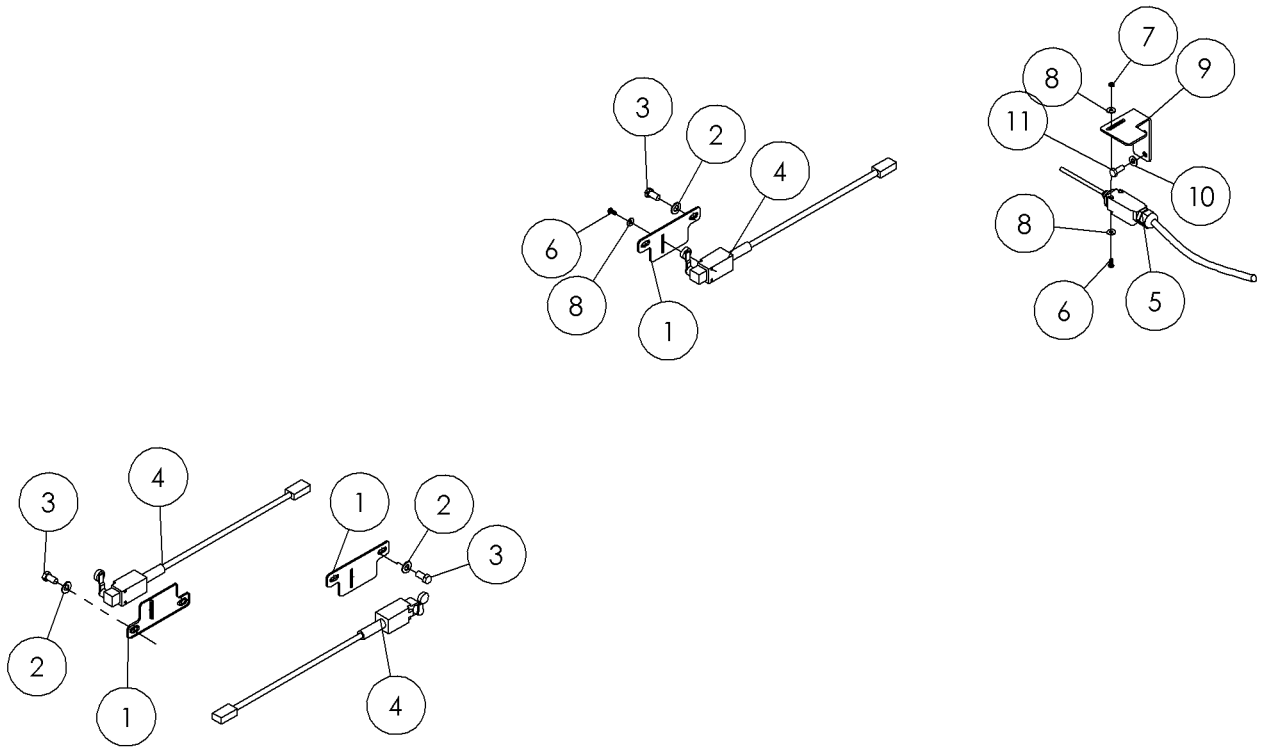


Illustration No. 296289021

Rack Slowdown & Anticrash (S/N 381-) Fig 9-11r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		New Assembly
1		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	8	
2		235742001	BOLT-5/16-18X3/4 GR8 ZYC	8	
3		279362001	LIMIT SWITCH ASSY - MICRO	4	
4		296289026	PLATE - SWITCH MOUNT	4	
5		533020	SCREW-10-24X2 RND.HD.SLT.MACH. REF 533-020-1	8	
6		485001	WASHER - FLATSTD - .19 - .22 X .56 - .05 - CZ	8	
7		99042001	NUT - NYLOCK - 10 - 24 - GR2 - CZ	8	
8		296289023	LEVER - LIMIT SWITCH ADJUSTABLE	4	

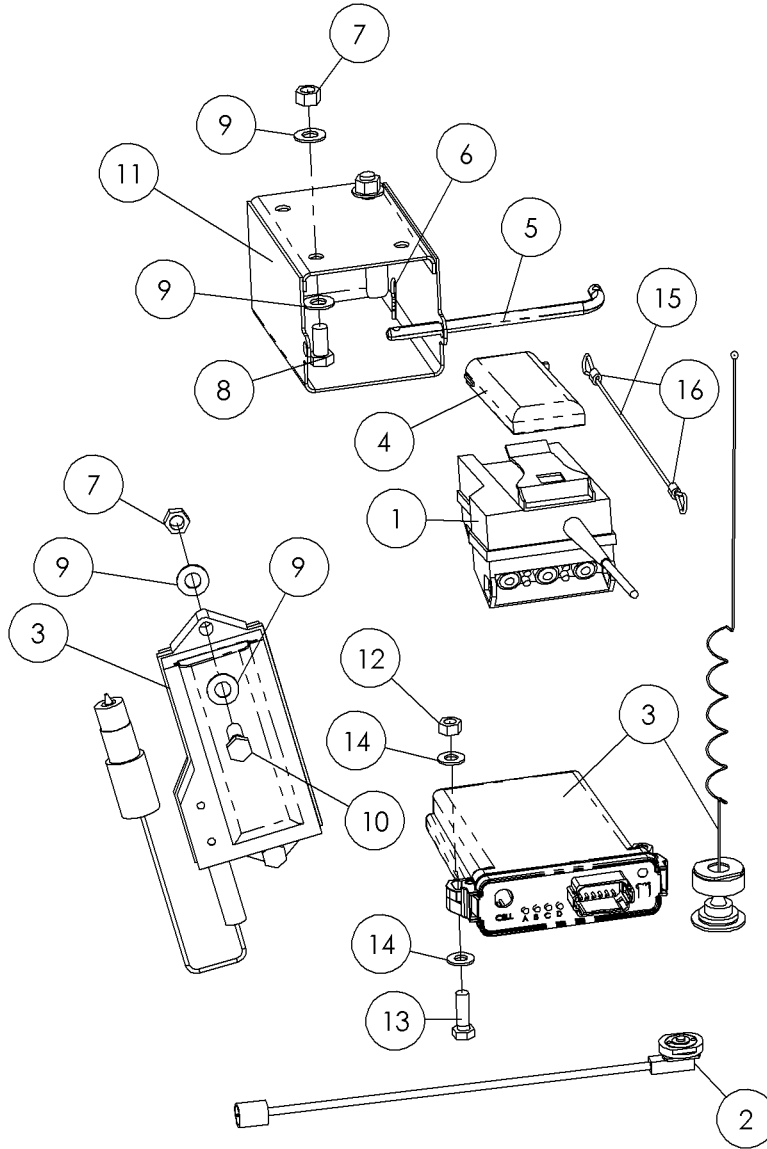
Rack Slowdown & Anticrash Fig 9-11



Rack Slowdown & Anticrash Fig 9-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Correct Illustration
1		281802001	PLATE - SWITCH MOUNT	3	
2		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	6	
3		235726001	SCREW-HCS-.38-16X.75-GR8-YZ	6	
4		276467001	SWITCH - LIMIT NO/NC LEVER/ROLLER	3	
5		276448001	SWITCH- LIMIT NO/NC	1	
6		1802004	SCREW-MCH-10-32X.50-GR2-CZ-ROUND-SLTD	4	
7		26692001	NUT-HEXMS-10-32-GR2-CZ	2	
8		485001	WASHER-FLATSTD-.19-.22X.56-.05-CZ	6	
9		296280226	PLATE - STOP SWITCH	1	
10		235714001	WASHER-FLATSTRL-.31-.34X.69-.06-YZ-A325	2	
11		235742001	SCREW-HCS-.31-18X.75-GR8-YZ	2	

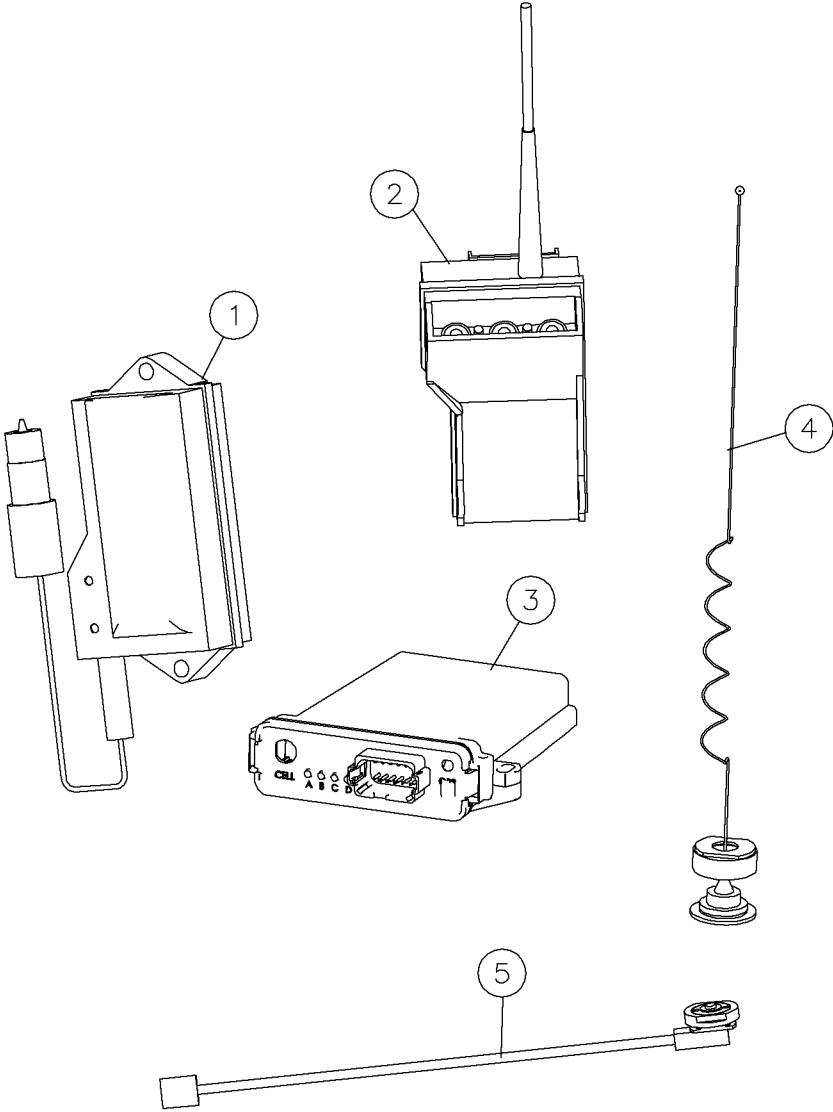
Remote Lockout-Domestic Fig 9-12



Remote Lockout-Domestic Fig 9-12

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272303	ASM - R309LK FOR HDD	1	
2		296272607	MOUNT-ANTENNA MOTOROLA TYPE RG-58-4'	1	
3		296280372	KIT-REMOTE LOCKOUT-LK1DOMESTIC	1	
4		296272400	BATTERY - 1000MA NBB	1	
5		296274192	PIN - REMOTE BOX	1	
6		1794007	HAIR PIN COTTER - .080 WIRE	1	
7		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	4	
8		235726001	BOLT-3/8-16X3/4 GR8 HEX ZNCPLT	2	
9		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	8	
10		235723001	SCREW - HCS - .38 - 16 X 1.50 - GR8 - YZ	2	
11		296289028	WELD - REMOTE BOX	1	
12		235741001	NUT - HEX - .31 - 18 - GR8 - YZ	2	
13		238209001	BOLT-5/16-18X1 GR8 HEX ZINC YC	2	
14		235714001	WASHER - FLATSTRL - .31 - .34 X .69 - .06-YZ-A325	4	
15		142954001	CABLE-.068DIA.NYLON CT.-36.00	1	
16		142423001	CRIMP-CABLE (FOR.068DIA.CABLE)	2	

Remote Lockout-International Fig 9-13



Remote Lockout-International Fig 9-13

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272400	BATTERY - 1000MA NBB	1	
2		296272303	ASM - R309LK FOR HDD	1	
3		296272304	ASM - B309 BASE UNIT	1	
4		296272364	ANTENNA -915 MHZ, 3 dBI, 1/4 WAVE	1	
5		296272607	MOUNT-ANTENNA MOTOROLA TYPE RG-58-4'	1	
		296280372	KIT-REMOTE LOCKOUT-LK1DOMESTIC		Inc All Items 1, 3, and 4.
		296280992	REMOTE L/O ASSY - D36X50 II DOMESTIC		Inc All Items In Figure

Controller W/Hardware Fig 9-14

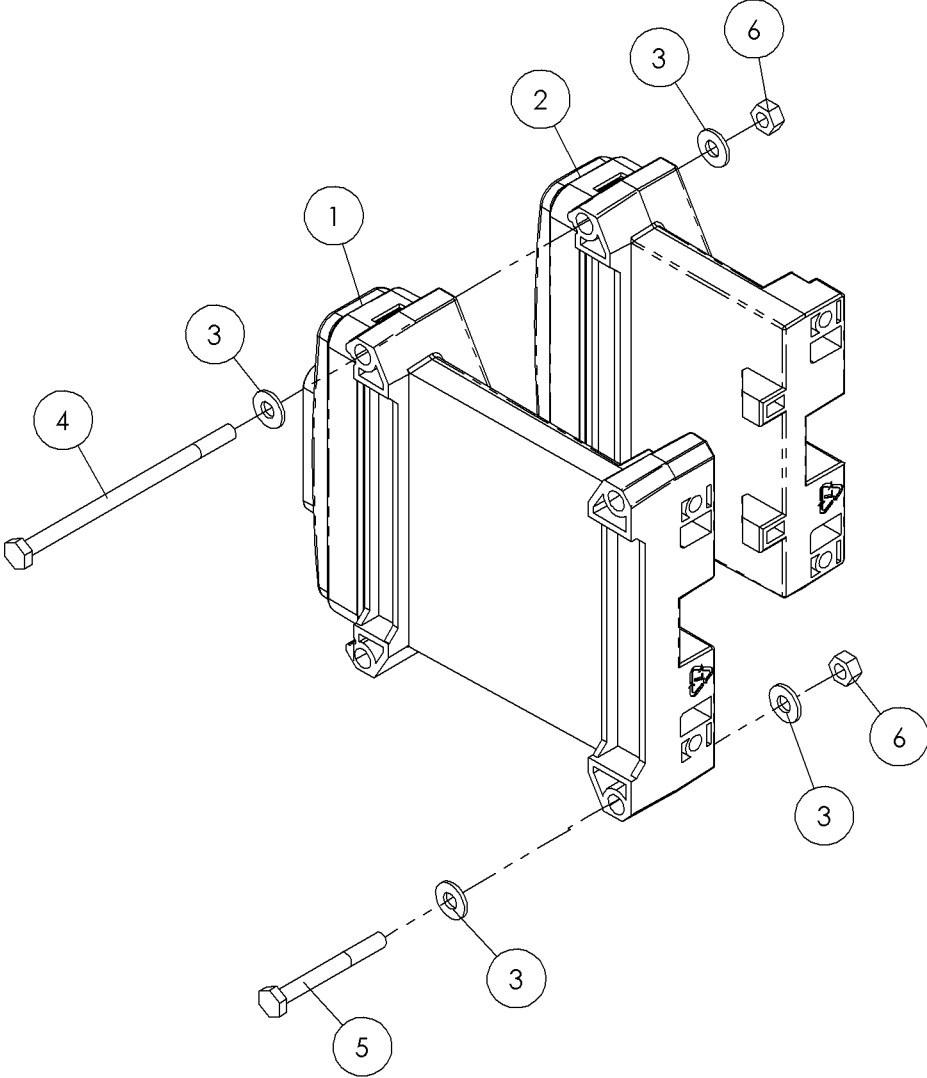
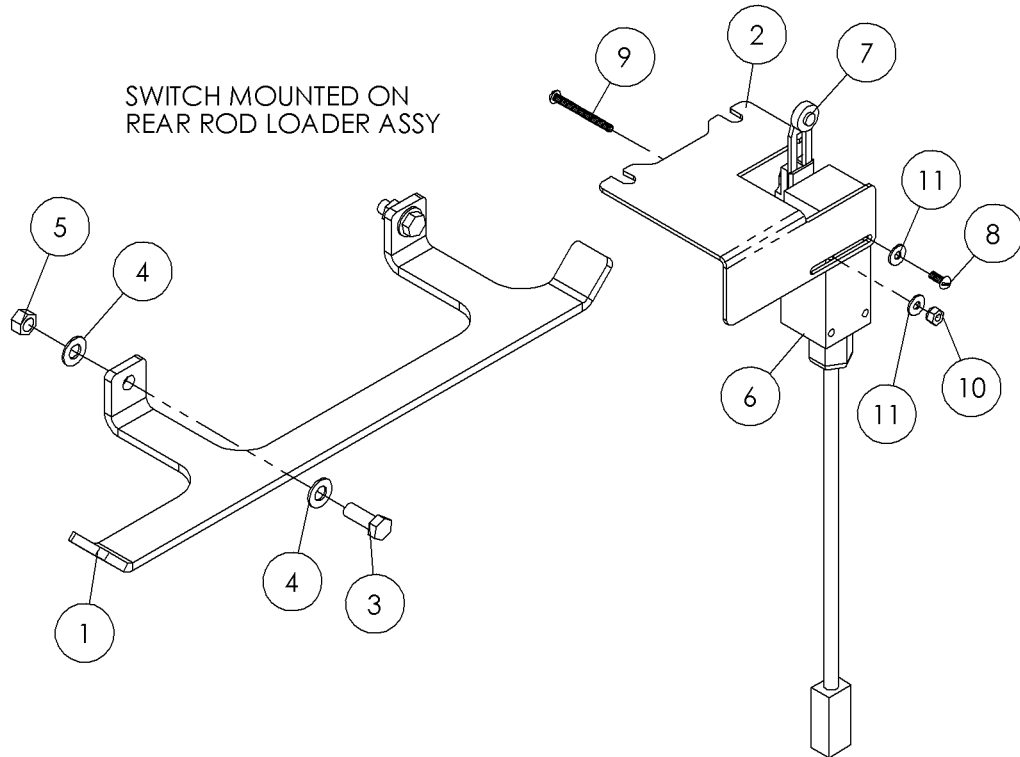


Illustration No. 296286255

Controller W/Hardware Fig 9-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Change Assy
1	*	296286266	CTRL-PRG'D-MC050 -D24/D36 UNIVERSAL	1	Order Unprogram Controller #296273863
2	*	296286270	CTRL- PRG'D-MC024- D24/D36 UNIVERSAL	1	Order Unprogram Controller #296276084
3		252251001	WASHER-FLATSAE-.25-.28X.63-.06-CZ	8	
4		296258562	SCREW-HCS-.25-20X4.50-GR8-YZ	2	
5		250644001	SCREW-HCS-.25-20X2.25-GR8-YZ	2	
6		235732001	NUT-HEX-.25-20-GR8-YZ	4	

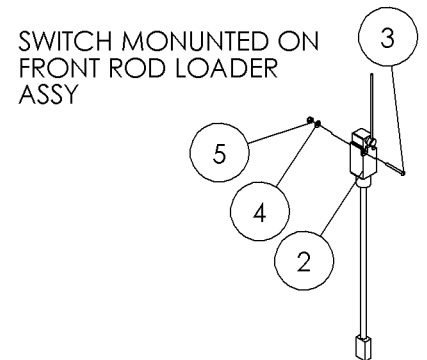
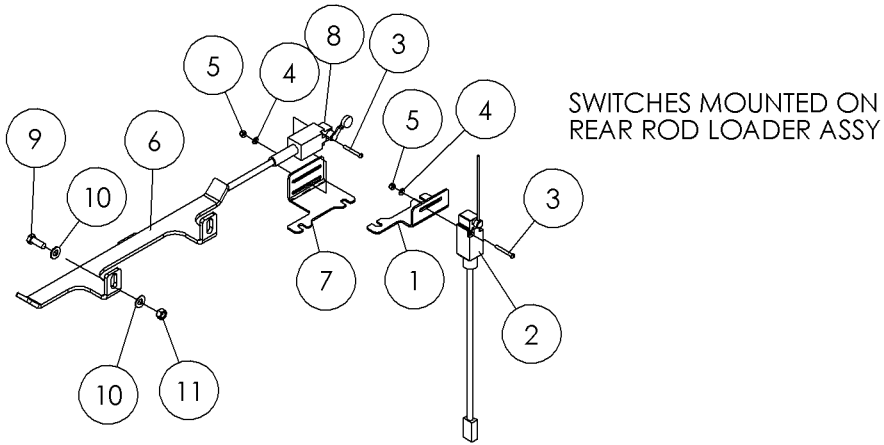
Rod Loader Switches (S/N 381-) Fig 9-15r01



Rod Loader Switches (S/N 381-) Fig 9-15r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Change switches And Mounts
1	*	296289020	PLATE - SWITCH MOUNT INDICATOR	1	(S/N 381-)
2	*	296289025	PLATE - SWITCH MOUNT	1	(S/N 381-)
3		235727001	SCREW-HCS-.38-16X1.00-GR8-YZ	2	
4		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	4	
5		250508001	NUT-TLHEX-.38-16-C-YZ	2	
6		279362001	SWITCH - MICRO	1	
7	*	296289023	LEVER LIMIT SWITCH ADJUSTABLE	1	(S/N 381-)
8		1802004	SCREW-MCH-10-32X.50-GR2-CZ-ROUND-SLTD	1	
9		533020	SCREW-MCH-10-24X2.00-GR2-CZ-ROUND-SLTD	1	
10		99042001	NUT-NYLOCK-#10-24-GR2-CZ	1	
11		485001	WASHER-FLATSTD-.19-.22X.56-.05-CZ	2	

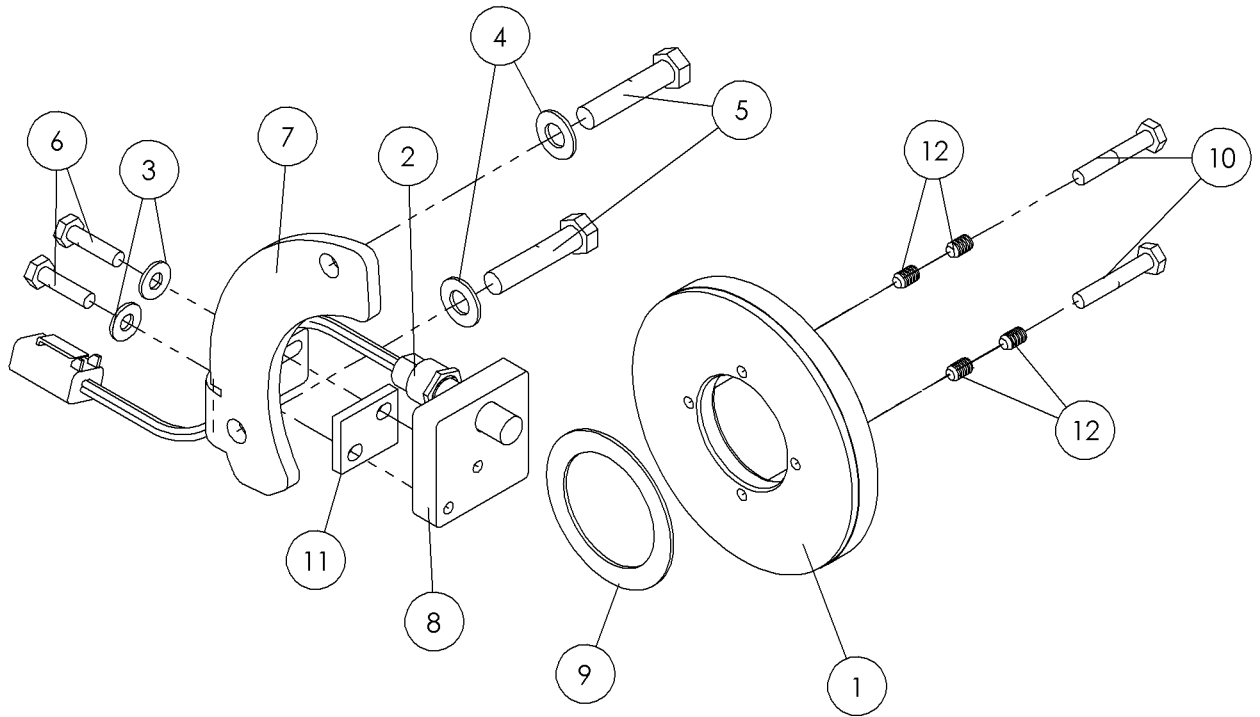
Rod Loader Switches Fig 9-15



Rod Loader Switches Fig 9-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296277042	PLATE - SWITCH MOUNT	1	
2		281844001	SWITCH - LIMIT NO/NC LEVER	2	
3		144654001	SCREW-#8-32 X 1 1/2 STOVE	6	
4		224769001	WASHER-#8 FLAT	6	
5		69759001	LOCK NUT-#8-32 NYLON INSERT PL	6	
6		296280174	PLATE - SWITCH MOUNT INDICATOR	1	
7		296280175	PLATE - SWITCH MOUNT	1	
8		276467001	SWITCH - LIMIT NO/NC LEVER/ROLLER	1	
9		235727001	BOLT-3/8-16X1 GR8 HEX ZYC	2	
10		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	4	
11		250508001	NUT - 3/8-NC Gr8 TOP LOCK Y/ZINC	2	

Mount W/PPU Fig 9-16



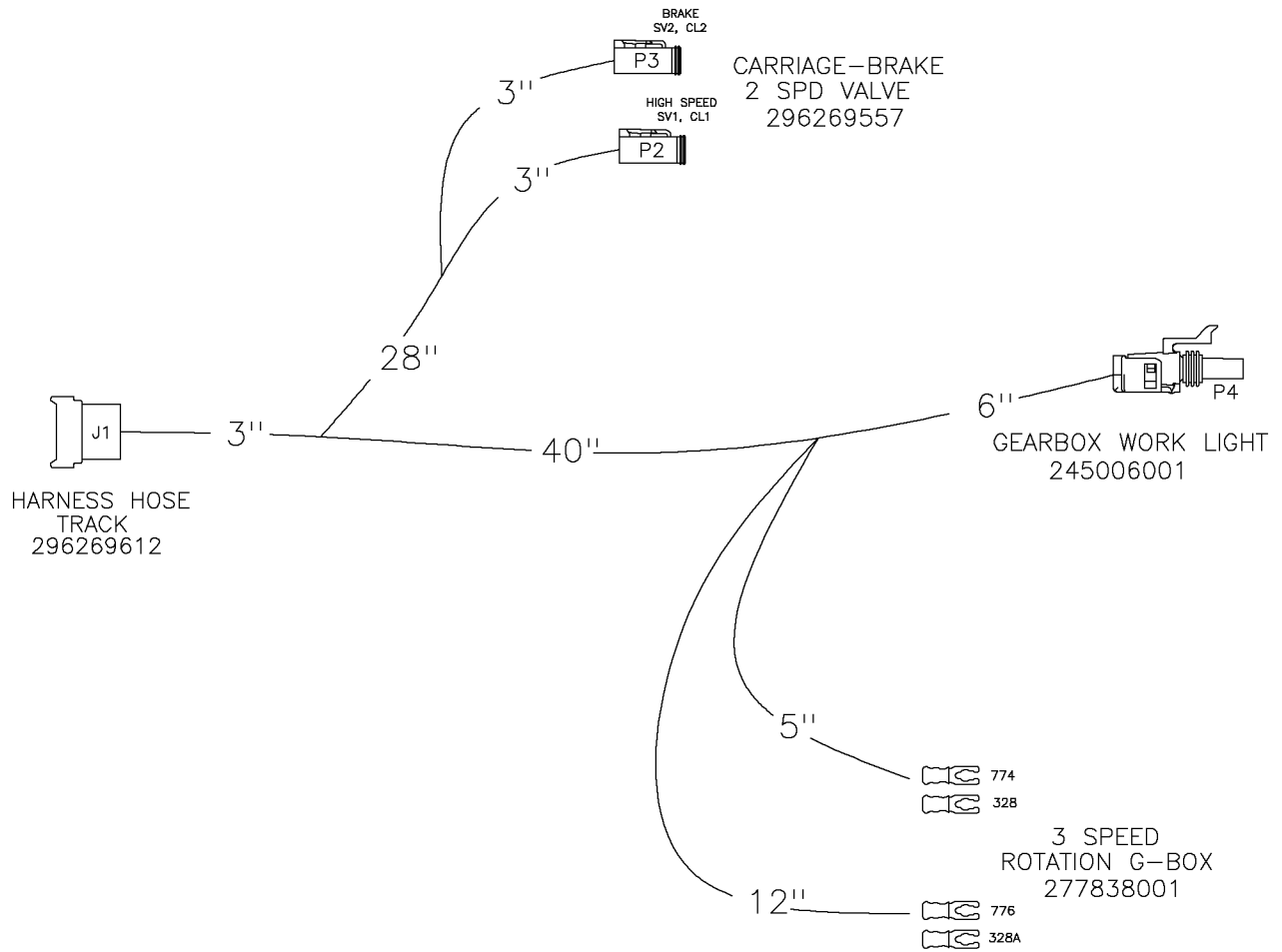
Mount W/PPU Fig 9-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286252	ASSY- PPU- D36X50II	1	
2		296281808	PULSE PICKUP SENSOR	1	
3		235716001	WASHER-FLATSTRL-.25-.28X.63-.06-CZ	2	
4		235713001	WASHER-FLATSTRL-.38-.41X.81-.06-YZ-A325	2	
5		235720001	SCREW-HCS-.38-16X1.75-GR8-YZ	2	
6		235735001	SCREW-HCS-.25-20X1.00-GR8-YZ	2	
7		296265381	MOUNT - PULSE PICKUP 36X50II	1	
8		296265451	THD PLATE- 9/16-18	1	
9		296286253	WASHER- 1.96 X 2.68 X .093 - (BUNA-N)	1	
10		238210001	SCREW-HCS-.25-20X1.50-GR8-YZ	2	
11		296282545	PLATE - SPACER PPU	1	
12		523001	SSS-1/4-20 X 3/8	4	

Harness-Deere 4045H 140 HP Fig 9-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269649	HARNESS-DEERE 4045H 140 HP	1	

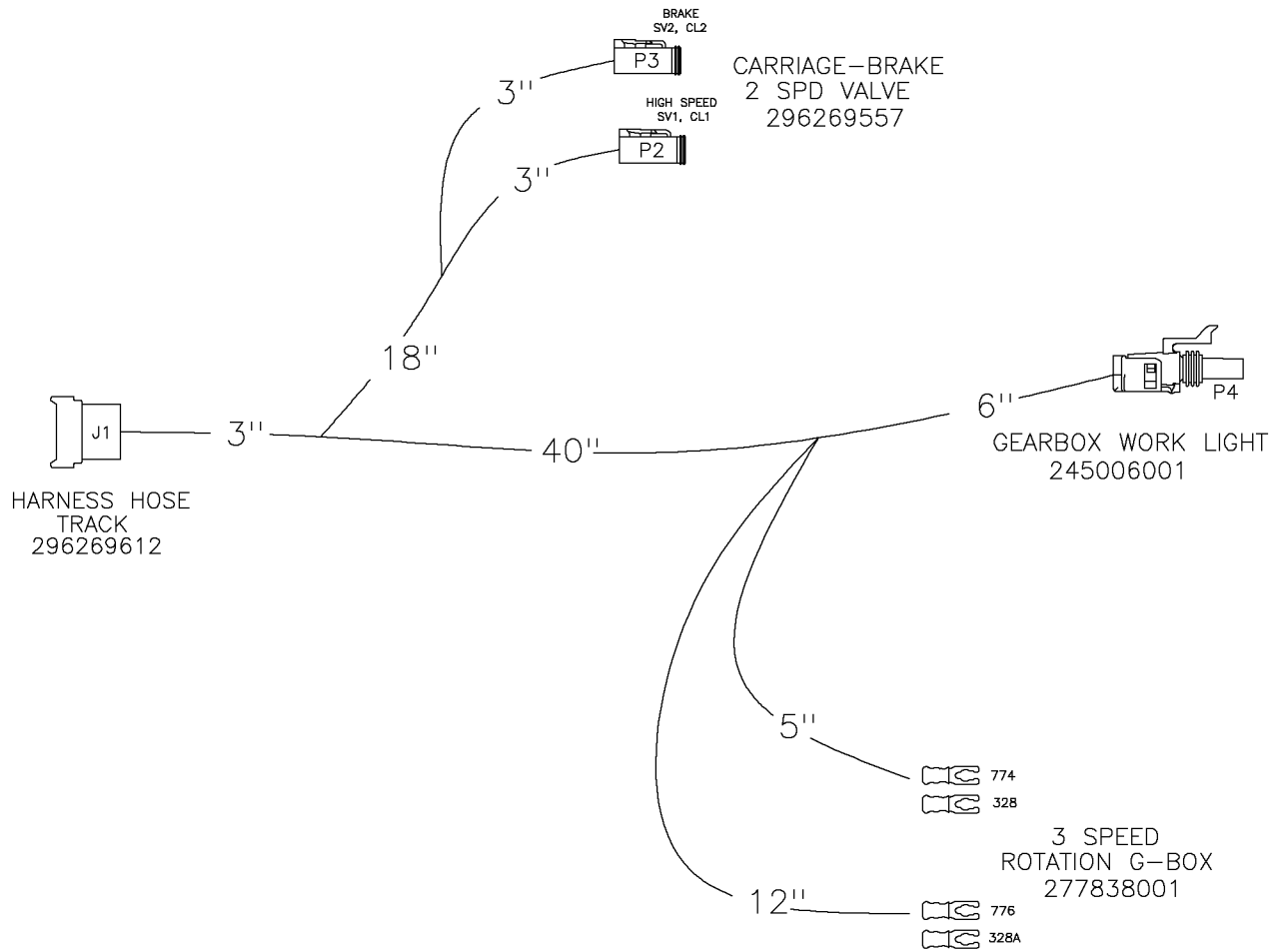
Harness-Rotation Gearbox (S/N 355-) Fig 9-18r01



Harness-Rotation Gearbox (S/N 355-) Fig 9-18r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296282574	WIRE HARNESS-ROTATION GEARBOX	1	(S/N 355-)

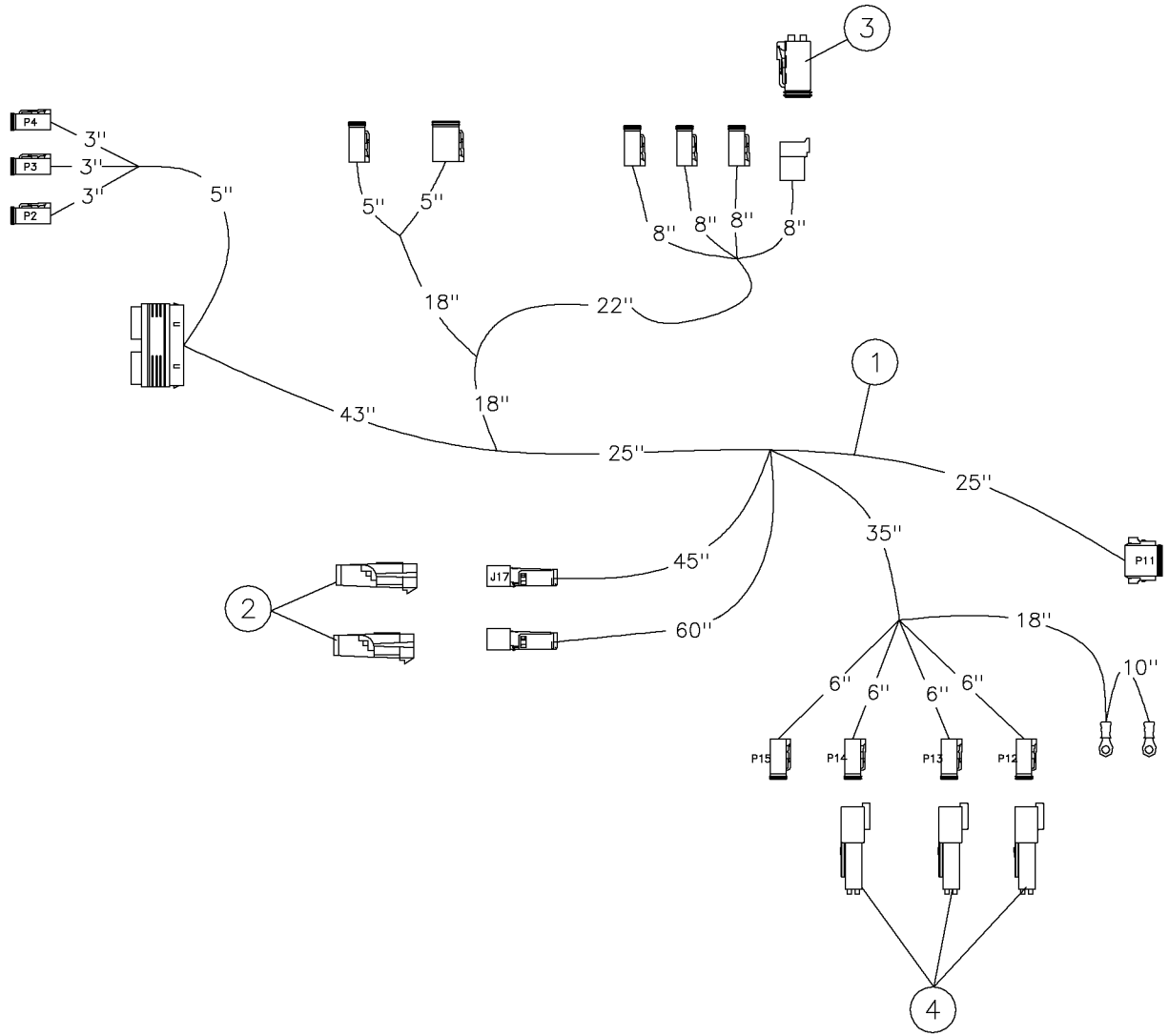
Harness-Rotation Gearbox Fig 9-18



Harness-Rotation Gearbox Fig 9-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296282574	WIRE HARNESS-ROTATION GEARBOX	1	

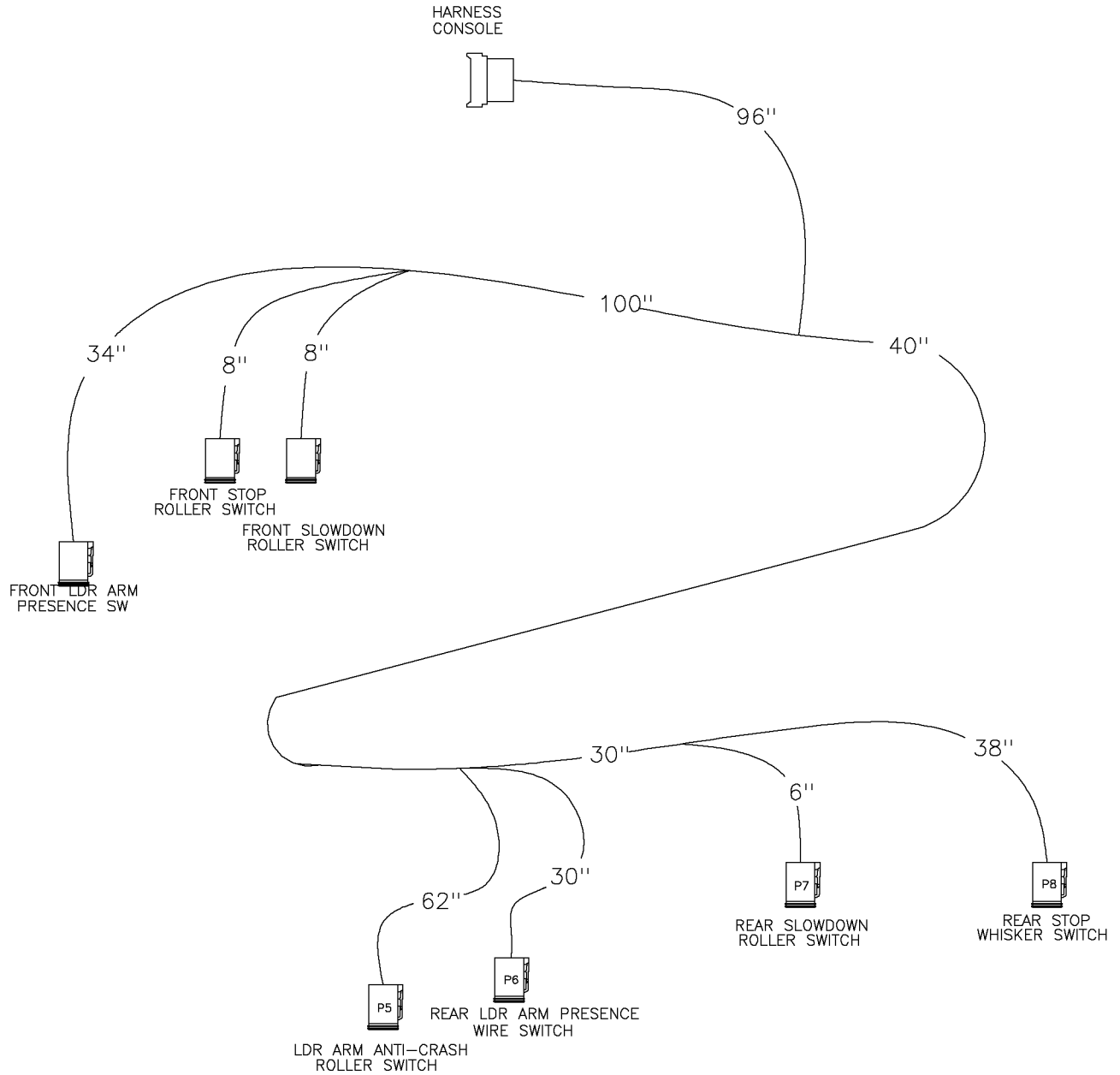
Harness-Engine Bay Fig 9-19



Harness-Engine Bay Fig 9-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296269652	HARNESS-ENGINE BAY	1	
2		501671001	CAP-WEATHER, 4-WAY FEMALE	2	
3		296286487	SEALING PLUG- DT06-4S	1	
4		296286486	RECEPTACLE W/SEAL PLUGS- DT04-2P	4	

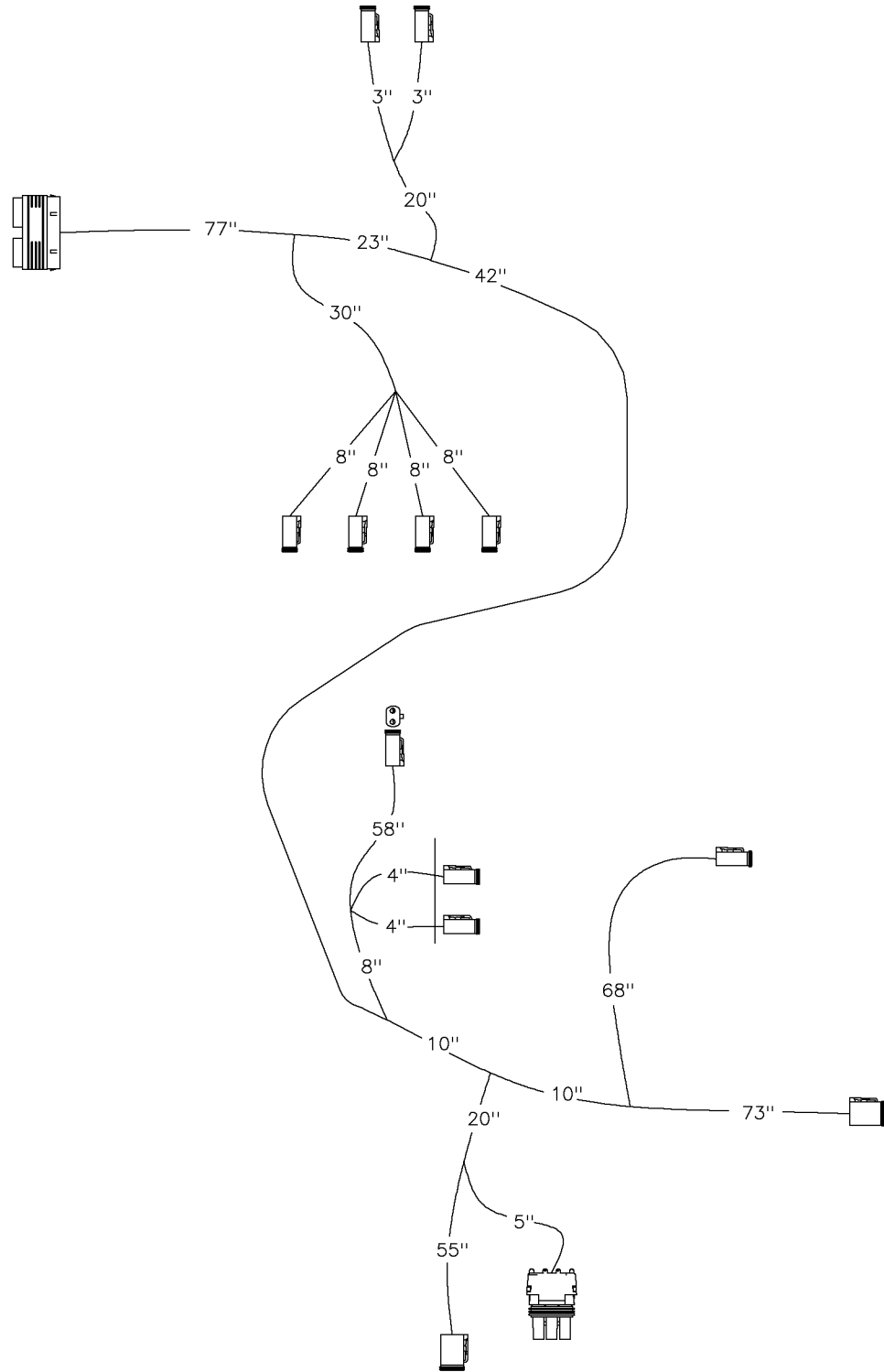
Harness-Thrust, Slowdown, Stop, Crash Fig 9-20



Harness-Thrust, Slowdown, Stop, Crash Fig 9-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269653	HARNES-THRUST SLOWDOWN, STOP, CRASH	1	

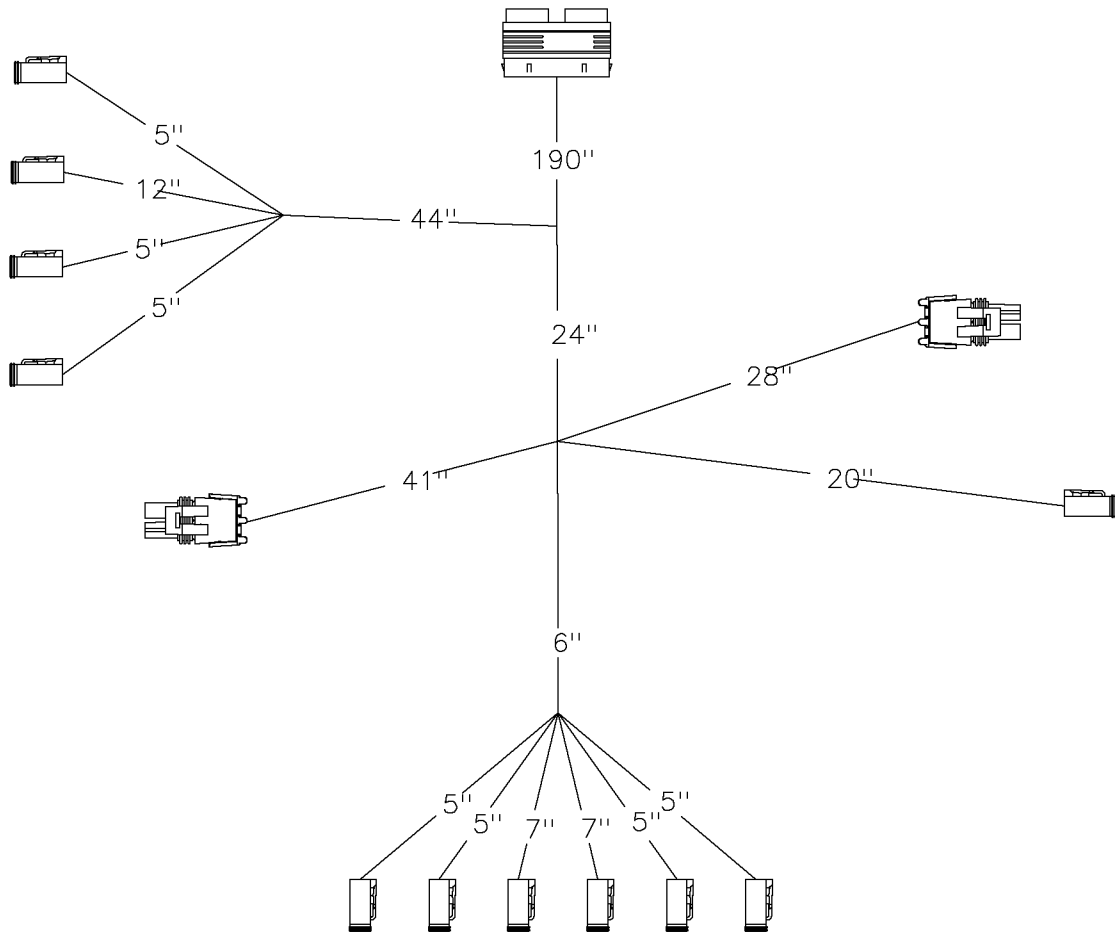
Harness-Outrigger, Fuel, H2O, Rod Loader Fig 9-21



Harness-Outrigger, Fuel, H2O, Rod Loader Fig 9-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269654	HARNES-OUTRIGGER, FUEL, H2O, RD LOADER	1	

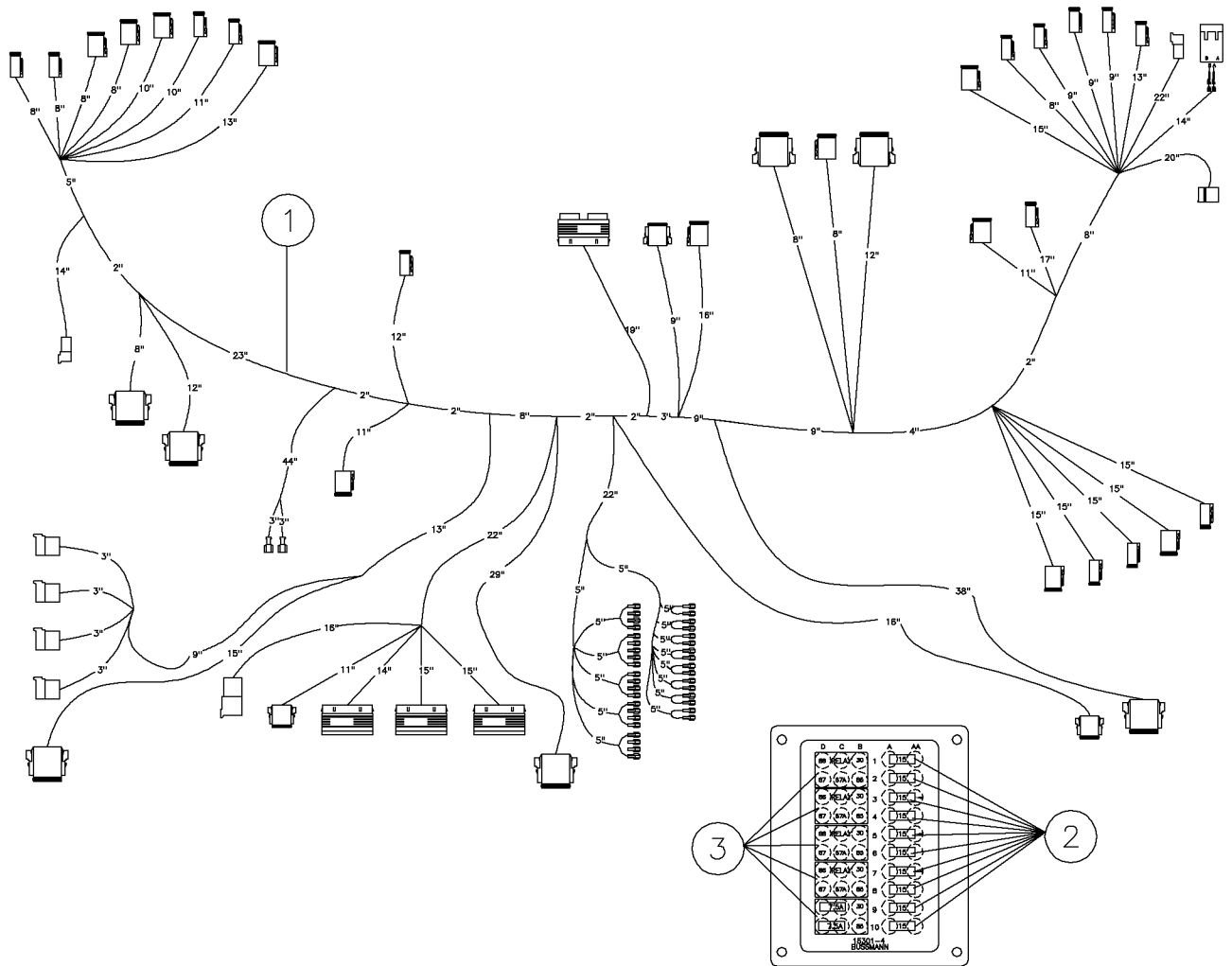
Harness-Stakedown, Vise, Grease, Lights Fig 9-22



Harness-Stakedown, Vise, Grease, Lights Fig 9-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269571	HARNESS-STAKEDOWN, VISE, GREASE, LIGHTS	1	

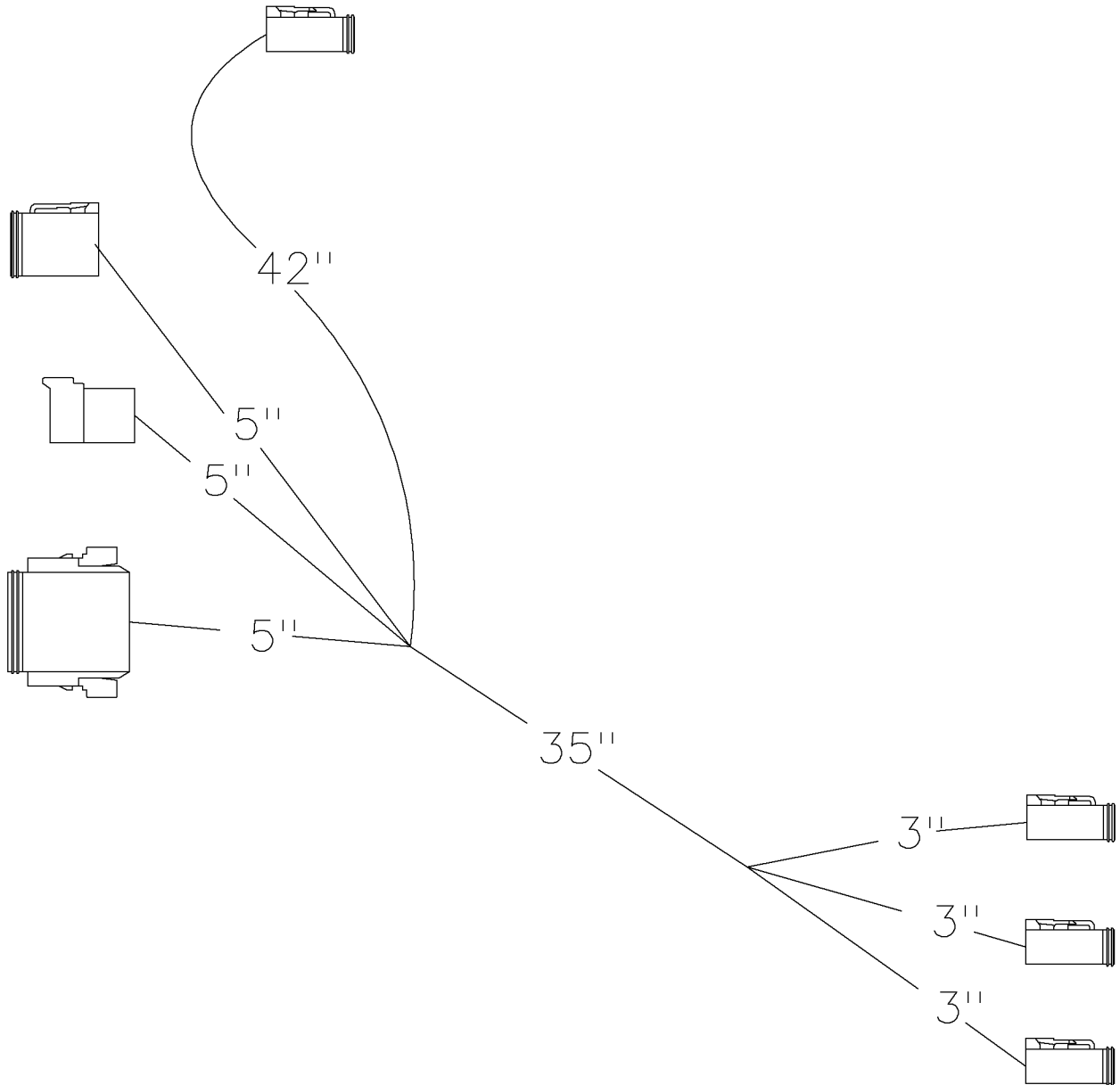
Harness-Console D36x50 Series II Fig 9-23



Harness-Console D36x50 Series II Fig 9-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286481	HARNESS - CONSOLE - D24/D36	1	
2		296285130	THERMAL BREAKER	12	
3		296277636	RELAY-MICRO 280 SERIES	5	

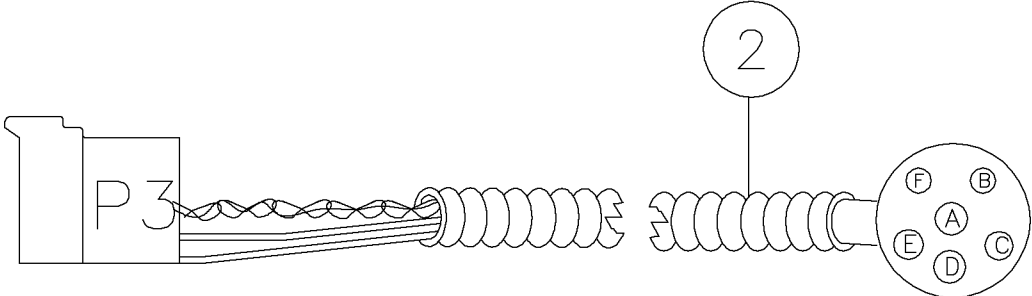
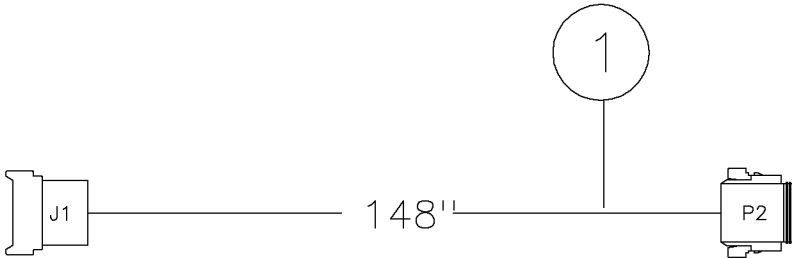
Harness-Strike Alert Fig 9-24



Harness-Strike Alert Fig 9-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269658	HARNESS-STRIKE ALERT	1	

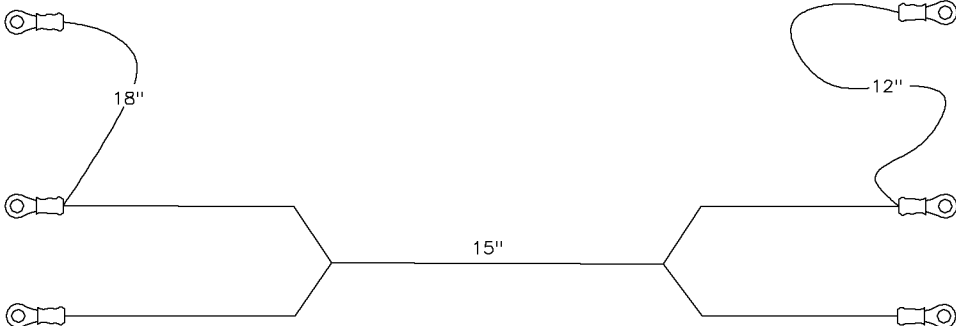
Harness-Hose Track/Strike Alert Fig 9-25



Harness-Hose Track/Strike Alert Fig 9-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Added Item 296282573
1	*	296282573	HARNESS - HOSE TRACK - 10 FT MACH.	1	
2		296280266	WIRE HARNESS-STRIKE ALERT COIL	1	

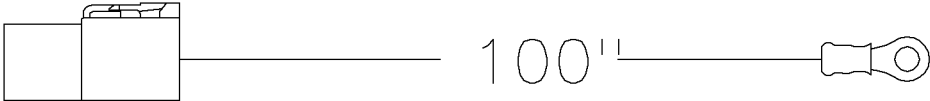
Harness-Starter Relay, Power Fig 9-26



Harness-Starter Relay, Power Fig 9-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269644	WIRE HARNESS STARTER RELAY, POWER	1	

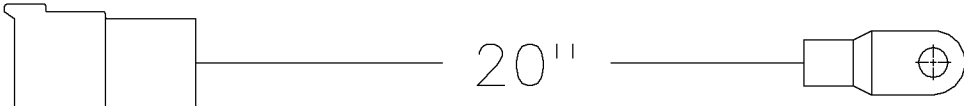
Harness-Main Power Fig 9-27



Harness-Main Power Fig 9-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269637	WIRE HARNESS - MAIN POWER	1	

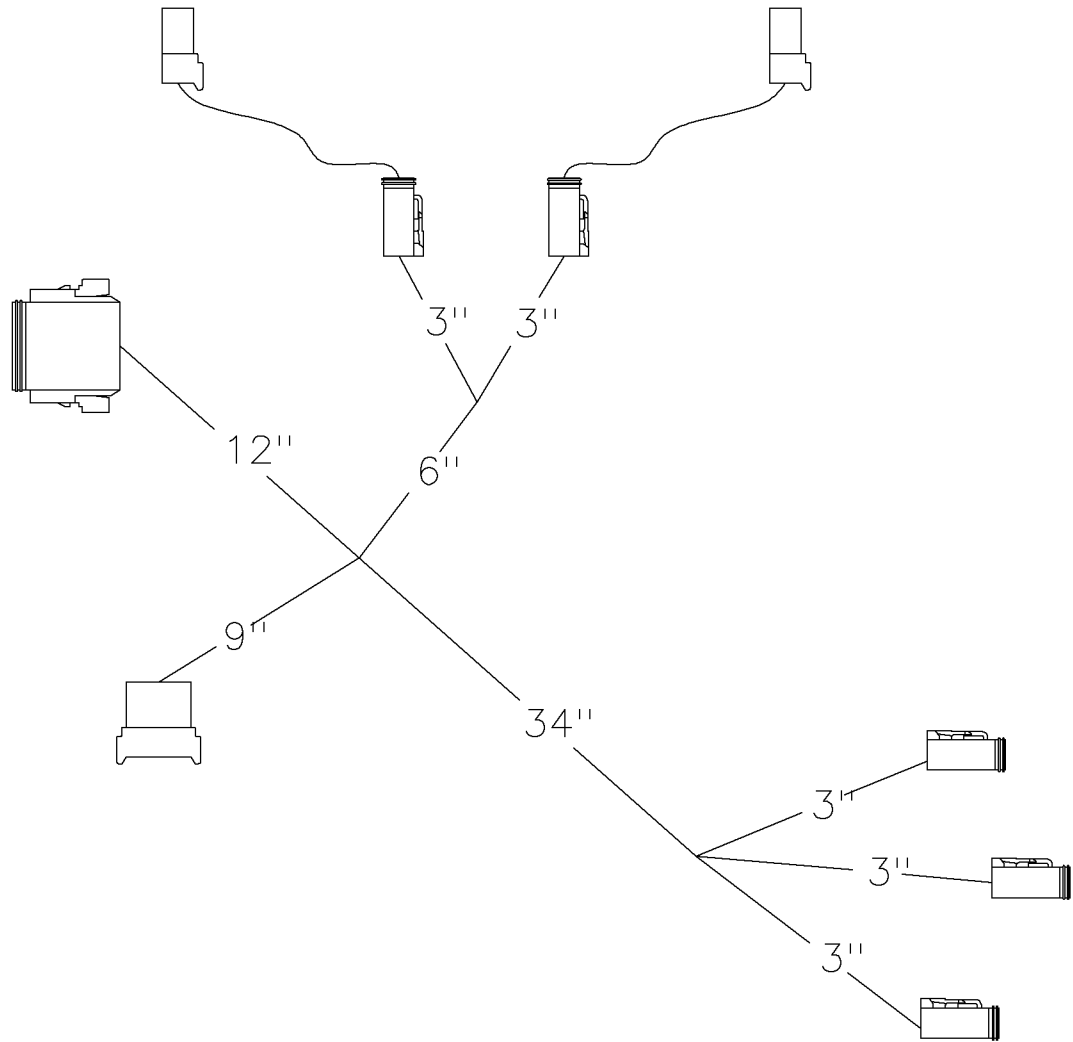
Harness-Ground Lead Fig 9-28



Harness-Ground Lead Fig 9-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269638	WIRE HARNESS - GROUND LEAD	1	

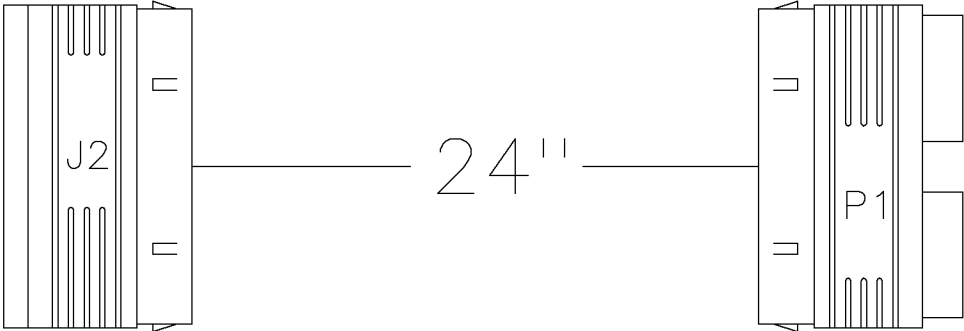
Harness-Remote Lockout Fig 9-29



Harness-Remote Lockout Fig 9-29

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269663	WIRE HARNESS - REMOTE LOCKOUT	1	

Harness-Jumper Fig 9-30



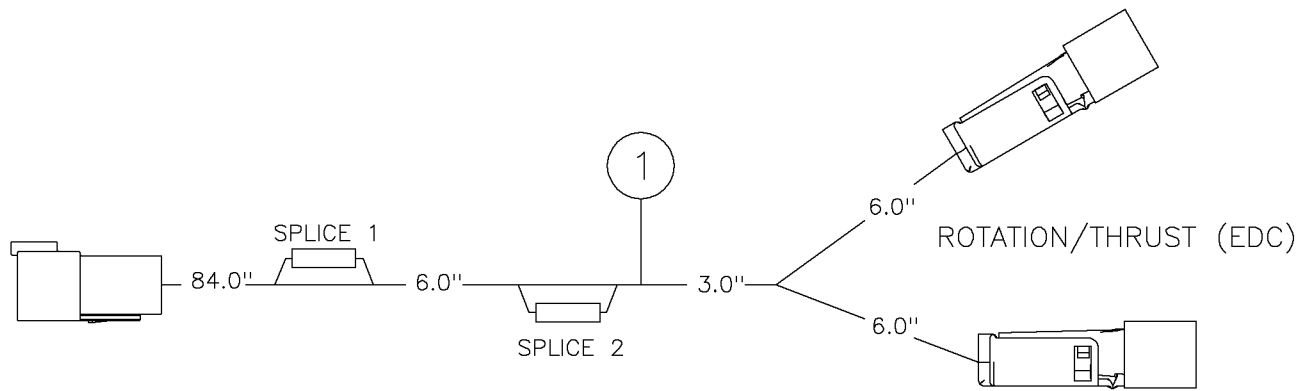
Harness-Jumper Fig 9-30

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		296269655	WIRE HARNESS - JUMPER	1	

Harness-Thrust/Rotation Pressure Sensor Fig 9-31

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Added 20ga Seal
1		296286491	HARNESS - THRUST/ROT.PRESSURE SENSOR	1	

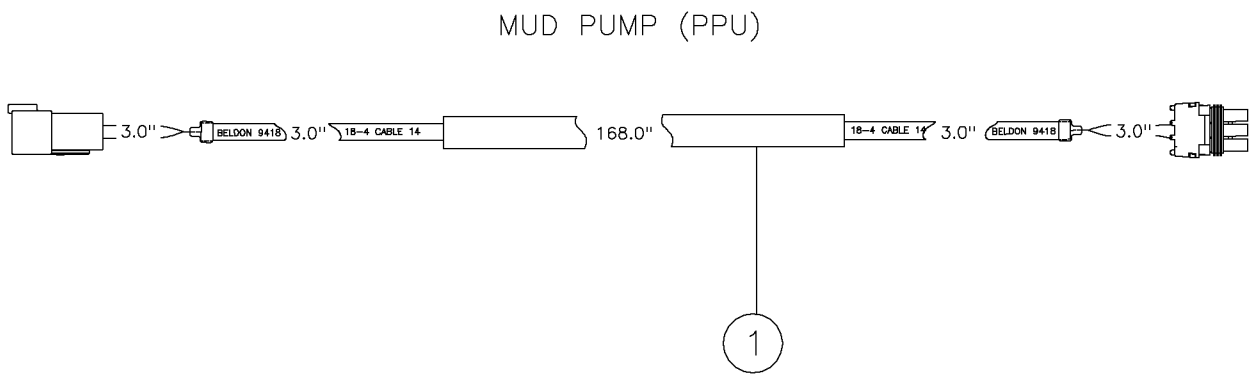
Harness-Rotation/Thrust EDC Fig 9-32



Harness-Rotation/Thrust EDC Fig 9-32

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286492	HARNESS - ROT/THRUST EDC	1	

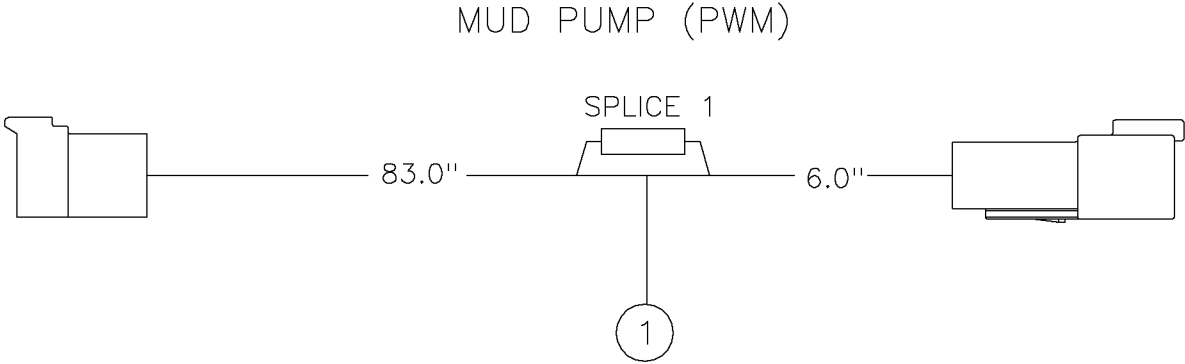
Harness-Mud Pump (PPU) Fig 9-33



Harness-Mud Pump (PPU) Fig 9-33

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Added 20ga seal
1		296286493	HARNESS - MUD PUMP PPU	1	(S/N 366-)

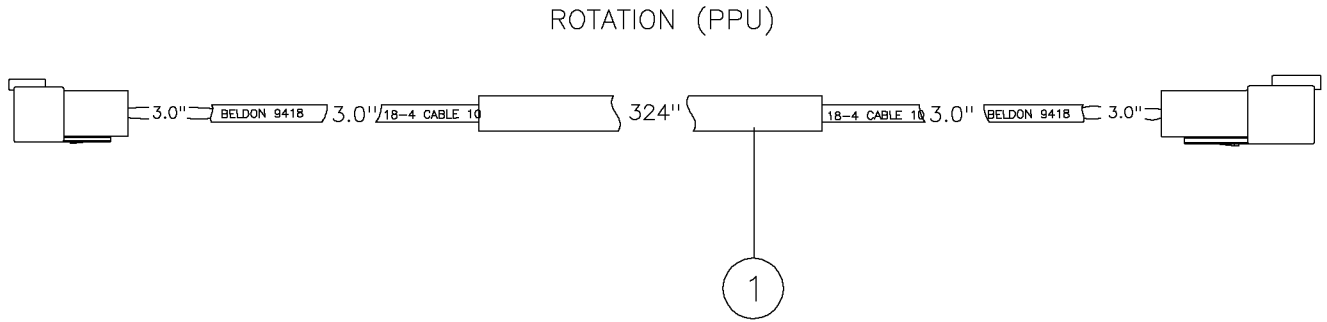
Harness-Mud Pump (PWM) Fig 9-34



Harness-Mud Pump (PWM) Fig 9-34

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286494	HARNESS - MUD PUMP PWM	1	

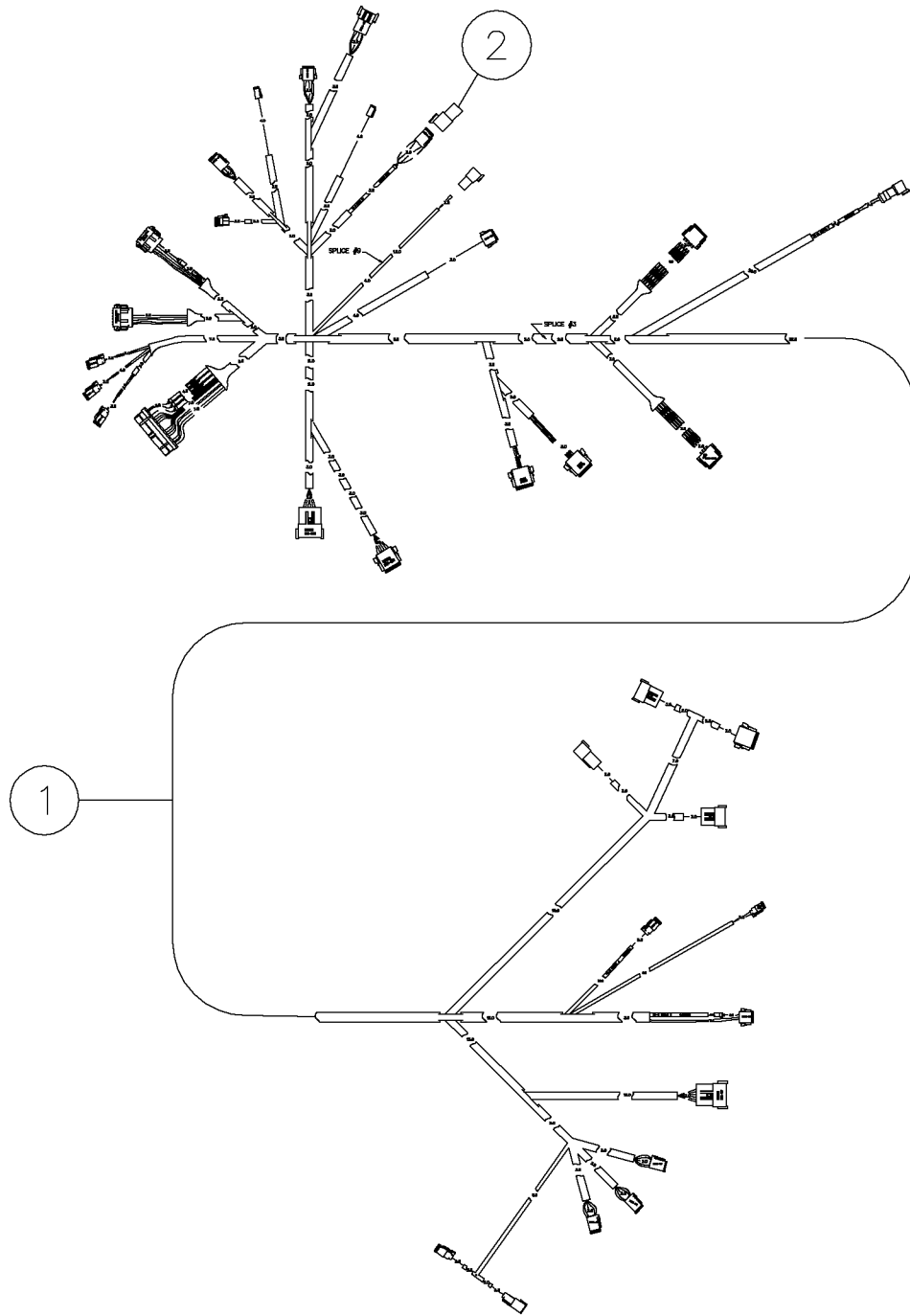
Harness-Rotation (PPU) Fig 9-35



Harness-Rotation (PPU) Fig 9-35

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Added 20ga Seal
1		296286495	HARNESS - ROTATION (PPU)	1	

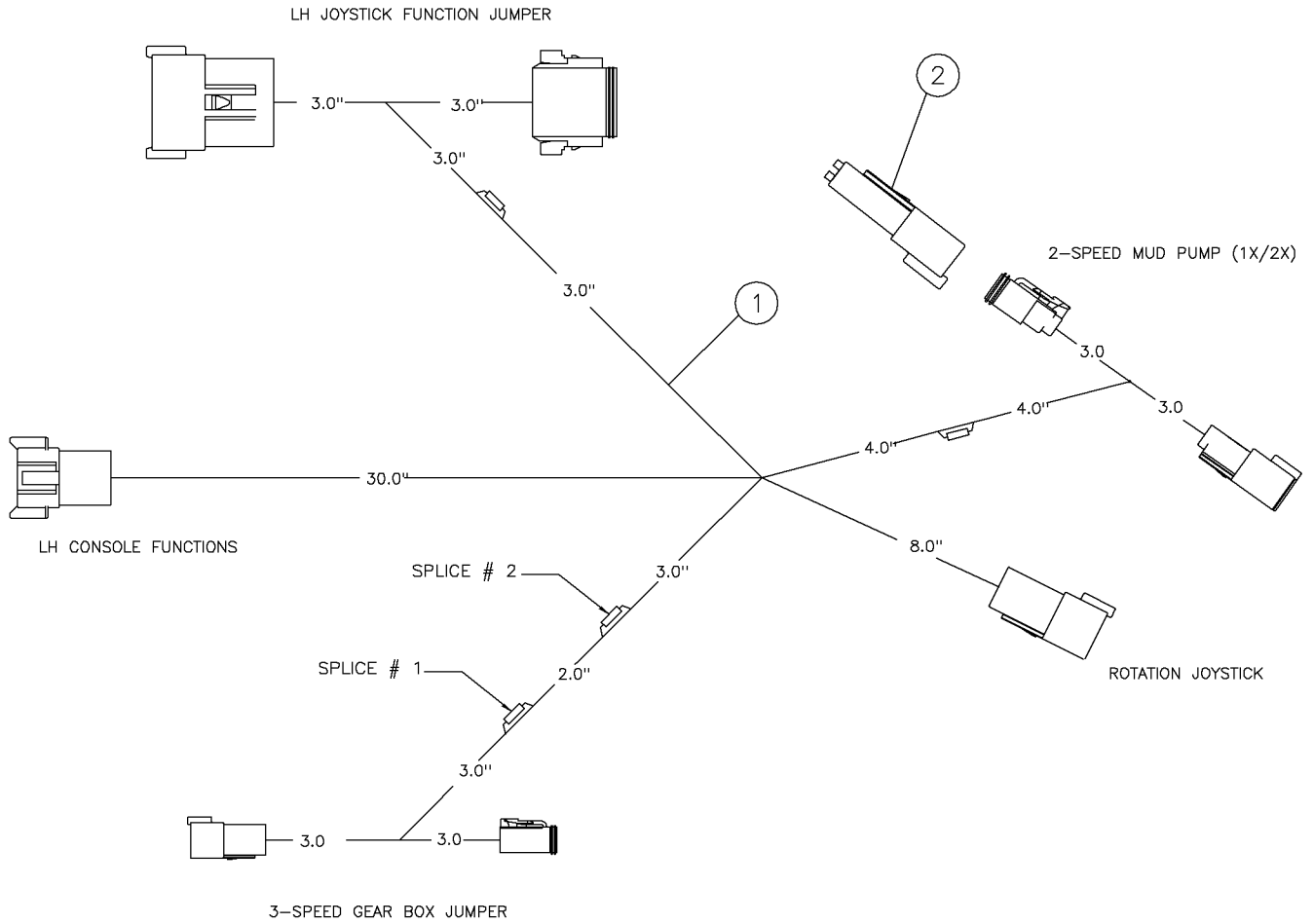
Harness-Controller Fig 9-36



Harness-Controller Fig 9-36

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Added Harness
1	*	296286498	HARNESS - CONTROLLER	1	
2		296286488	RECEPTACLE W/SEAL PLUGS-DT04-4P	1	

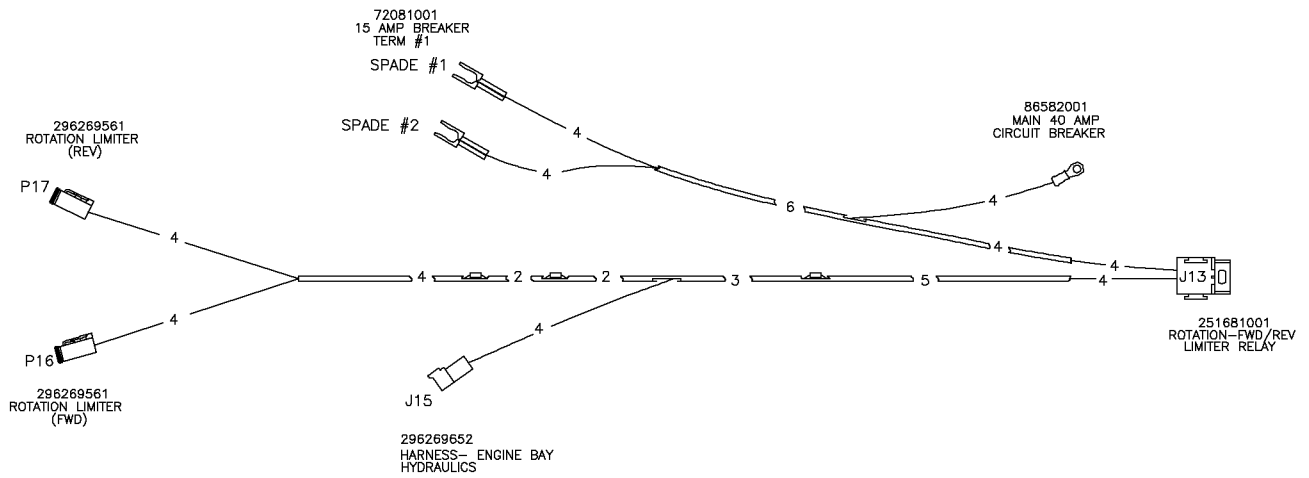
Harness-LH Console Fig 9-37



Harness-LH Console Fig 9-37

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286500	HARNESS - LH CONSOLE	1	
2		296286486	RECEPTACLE W/SEAL PLUGS- DT04-2P	1	

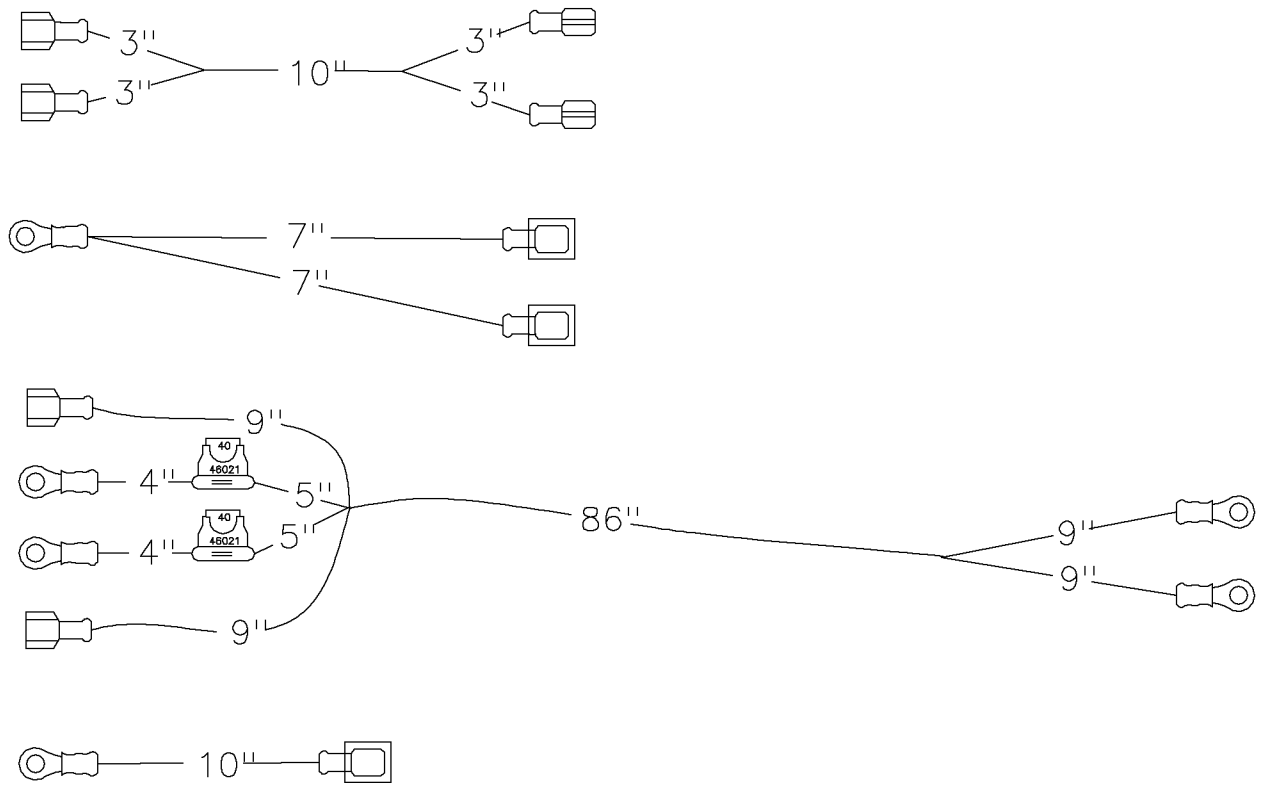
Harness-Rotation Limiter Relay Fig 9-38



Harness-Rotation Limiter Relay Fig 9-38

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286474	HARNESS-ROTATION LIMITER RELAY	1	

Harness-Power Distribution Fig 9-39



Harness-Power Distribution Fig 9-39

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Addition To Manual
	*	296269707	HARNESS-POWER DISTRIBUTION	1	

Power Relays Fig 9-40

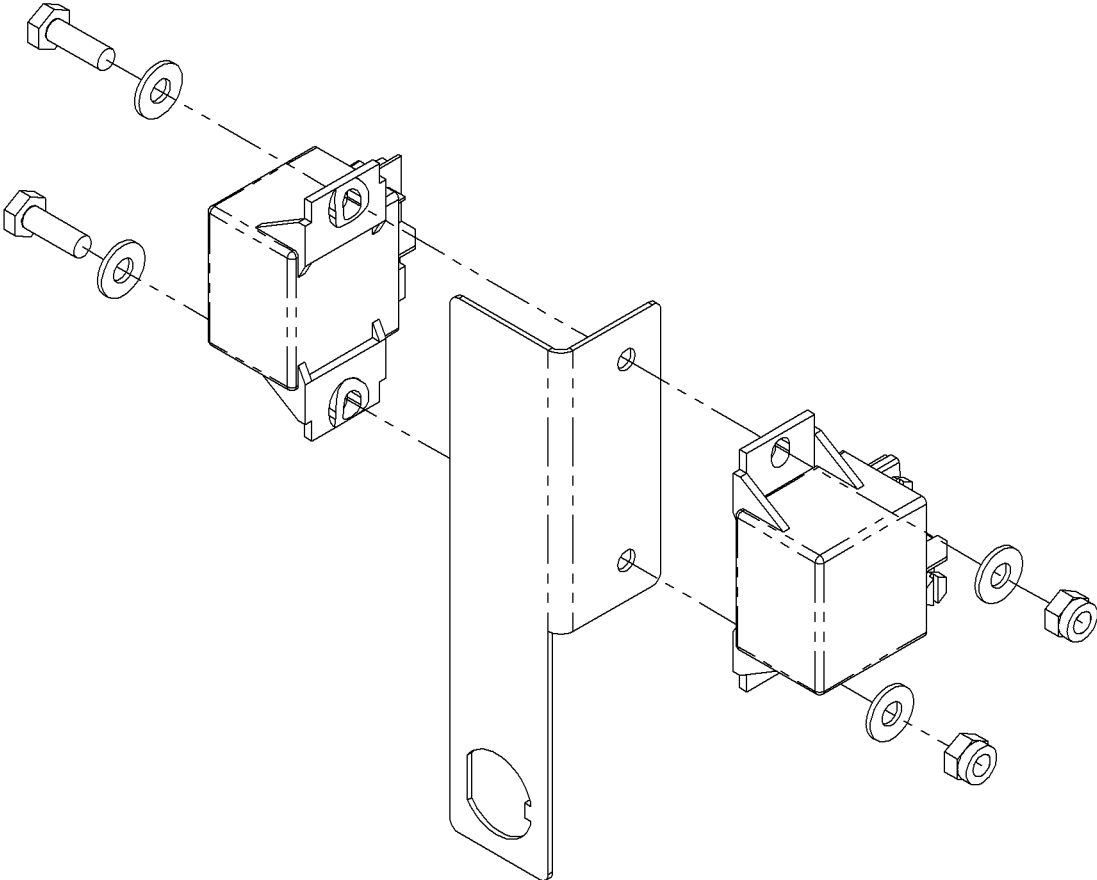
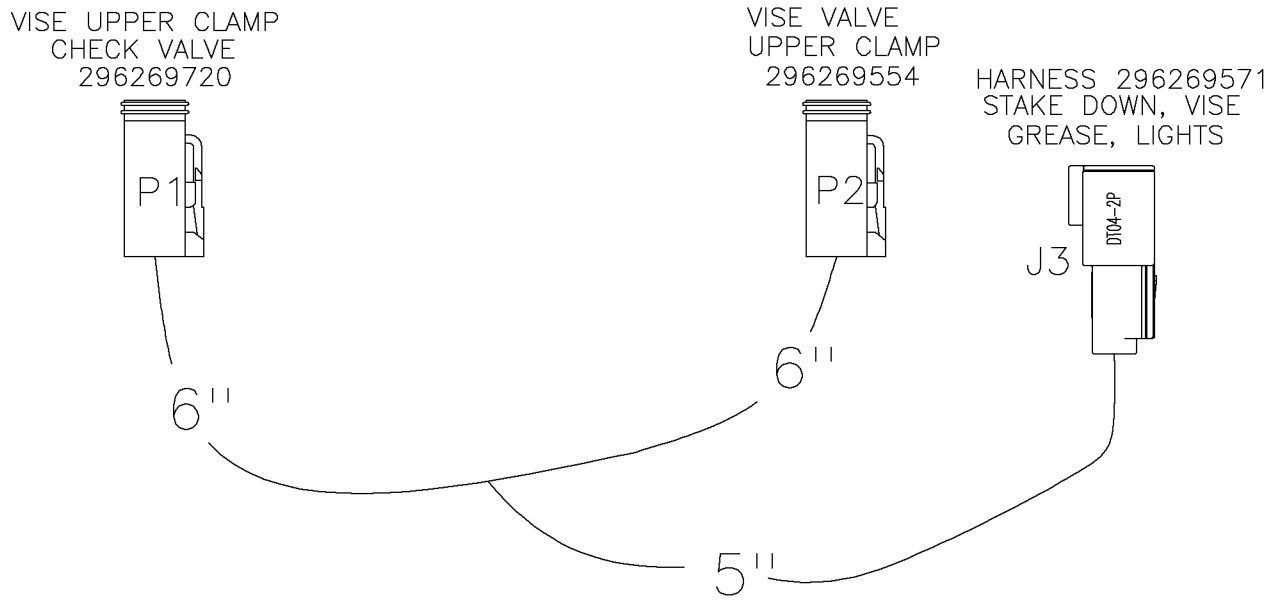


Illustration No. 296269717

Power Relays Fig 9-40

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	August, 2006		Addition To Manual
1		296292033	PLATE - IGNITION SWITCH	1	
2		86217001	RELAY-BOSCH SPST 75 AMP SEALED	2	
3		235716001	WASHER - FLATSTRL - .25 - .28 X .63 - .06 - CZ	4	
4		235734001	BOLT-1/4-20X3/4 GR8 ZYC	2	
5		103201001	NUT-1/4-20NC NYLON INSERT LOCK	2	

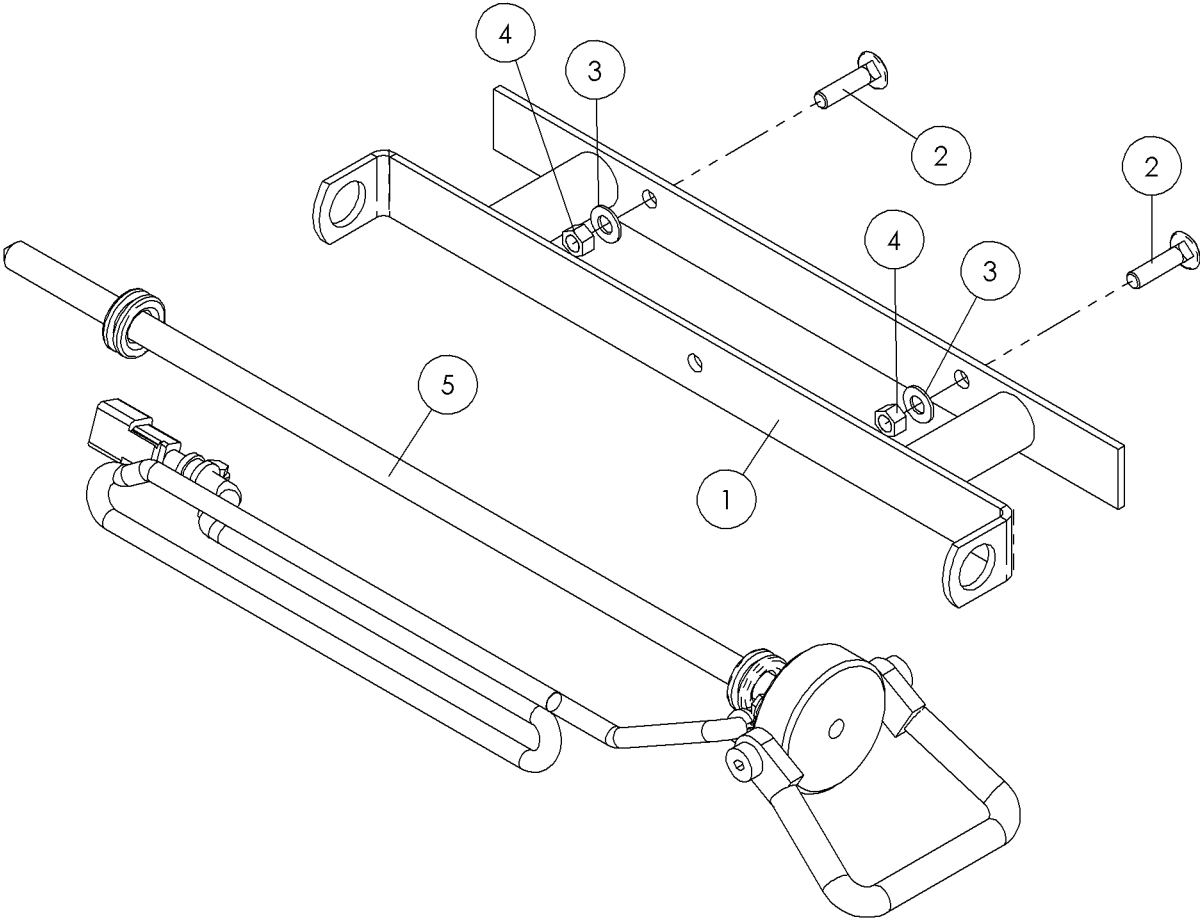
Harness-Vise Check Valve (S/N 381-) Fig 9-41



Harness-Vise Check Valve (S/N 381-) Fig 9-41

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Addition To Manual
		296269721	WIRE HARNESS - VICE CHECK VALVE	1	(S/N 381-)

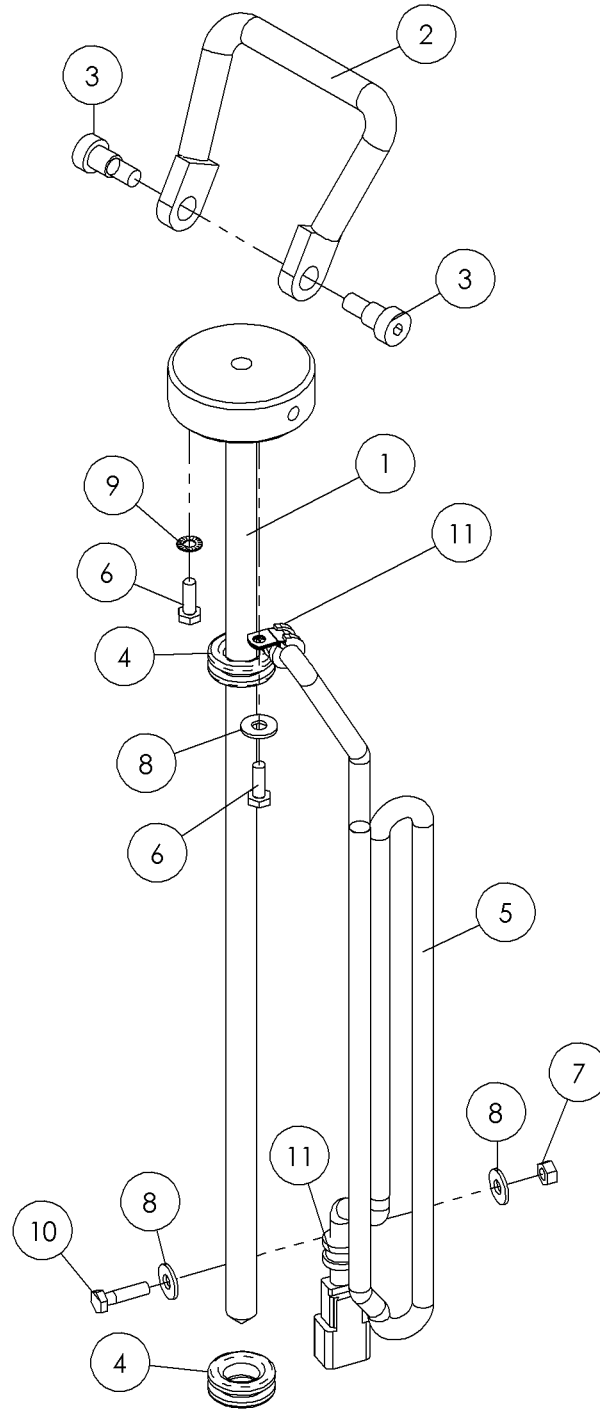
Voltage Stake Fig 10-1



Voltage Stake Fig 10-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		240791001	BRACKET-VOLTAGE STAKE	1	
2		510308114	BOLT-CARG-.38-16X1.50-GR5-YZ	2	
3		235713001	WASHER - FLATSTRL - .38 - .41 X .81 - .06-YA-A325	2	
4		235725001	NUT - HEX - .38 - 16 - GR8 - YZ	2	
5		296273406	ASSEMBLY - VOLTAGE STAKE	1	Breakdown Fig. 10-2

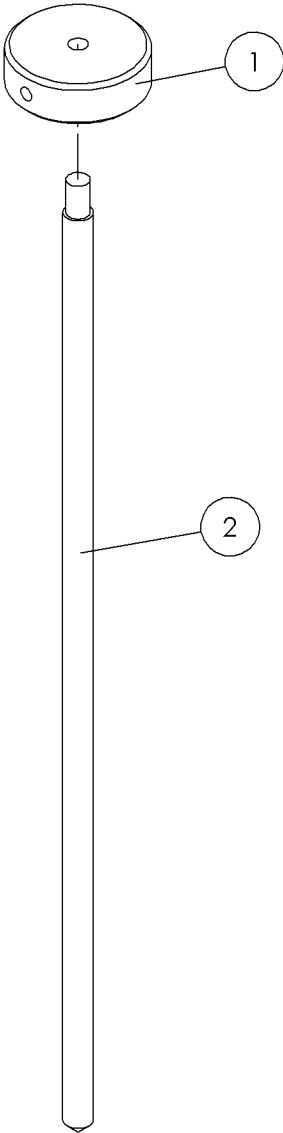
Voltage Stake Components Fig 10-2



Voltage Stake Components Fig 10-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275119	STAKE - VOLTAGE	1	Breakdown Fig. 10-3
2		234164001	HANDLE - VOLTAGE STAKE	1	
3		240056001	SCREW-1/2X1/2 SOCKET SHOULDER	2	
4		1865043	GROMMET-.75ID X 1.38OD - .19 GROOVE	2	
5		296275117	CABLE - 6/2GA - 23 FT W/ LUGS	1	
6		235734001	SCREW-HCS-.25-20X.75-GR8-YZ	3	
7		235732001	NUT-HEX-.25-20-GR8-YZ	1	
8		510337603	WASHER-FLATSTD-.25-.31X.75-.07-YZ	3	
9		481013	WASHER-EXTSER-.25-.27X.51-.03-CZ	2	
10		235735001	SCREW-HCS-.25-20X1.00-GR8-YZ	1	
11		296275118	CLAMP-#8	2	

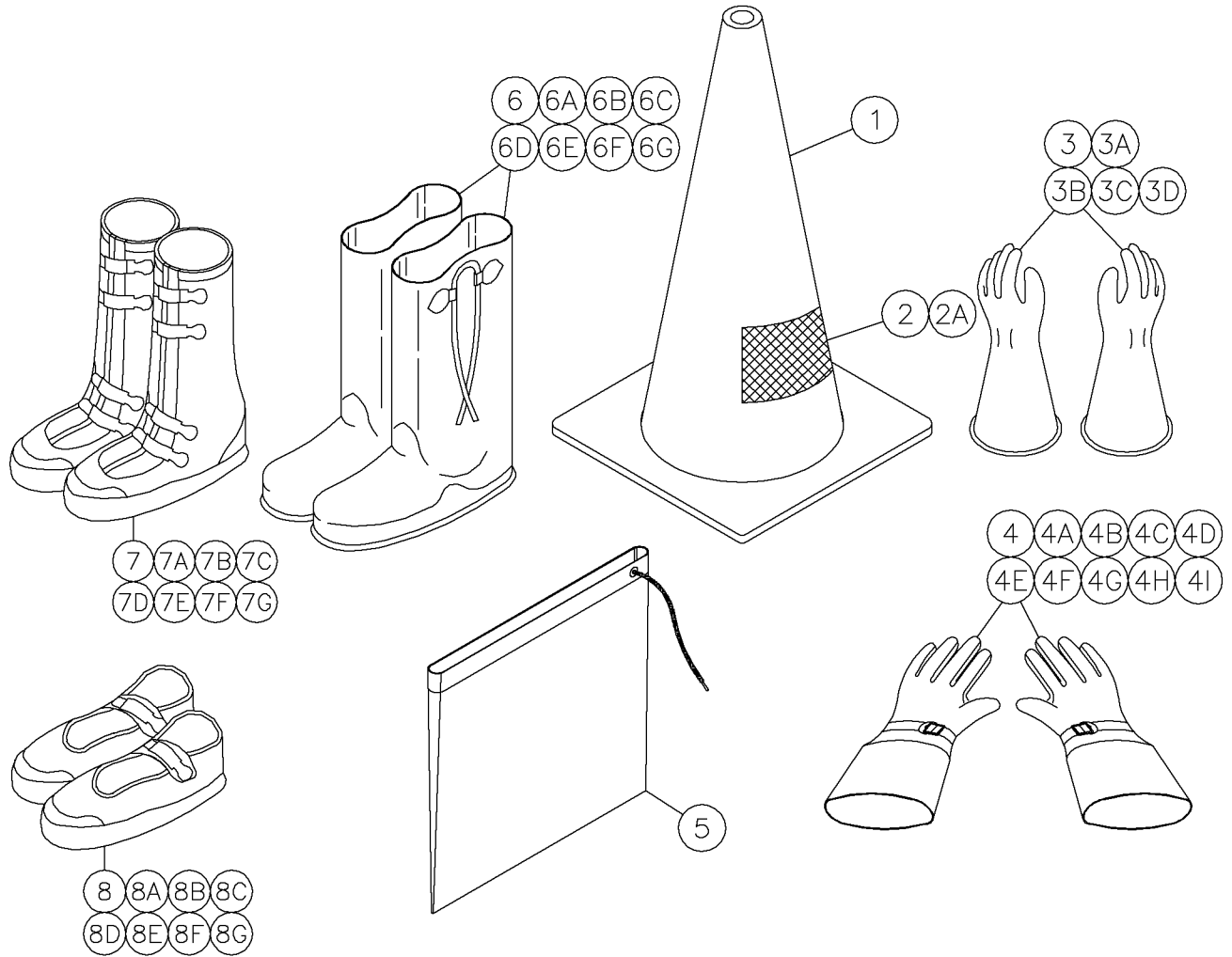
Voltage Stake Components Fig 10-3



Voltage Stake Components Fig 10-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296275107	HEAD - VOLTAGE STAKE	1	
2		904155001	VOLTAGE STAKE	1	

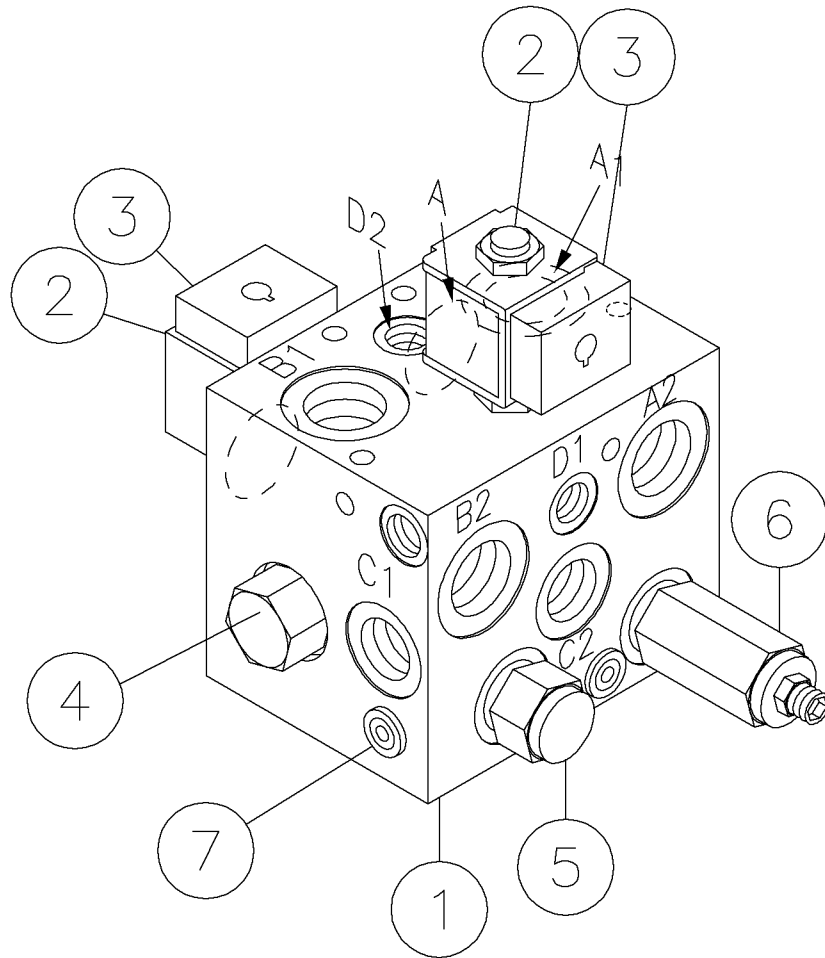
Safety Features - Gloves, Boots, Cones Fig 10-4



Safety Features - Gloves, Boots, Cones Fig 10-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		904541001	CONES-ORANGE PVC	4	
2		70000530	DECAL-DANGER	4	
2A		70001530	DECAL-WARNING (NAVIGATORS)	4	
3		210782001	GLOVES-SIZE 9 RUBBER INSULATE	1PR	
3A		210782005	GLOVES-SIZE 9 1/2 RUBBER INSUL	1PR	
3B		210782003	GLOVES-SIZE 10 RUBBER INSULATE	1PR	
3C		210782007	GLOVE-SIZE 11 RUBBER INSULATED	1PR	
3D		210782009	GLOVE-SIZE 12 RUBBER INSULATED	1PR	
4		210783001	GLOVES-SIZE 9 LEATHER PROTECT	1PR	
4A		210783005	GLOVES SIZE 9 1/2 LEATHER PROT	1PR	
4B		210783003	GLOVES-SIZE 10 LEATHER PROTECT	1PR	
4C		210783007	GLOVE-SIZE 11 LEATHER PROTECT	1PR	
4D		210783009	GLOVE-SIZE 12 LEATHER PROTECT	1PR	
4E		210781001	GLOVE KIT-SIZE 9	1	INC 1PR OF RUBBER GLOVES & 1PR OF LEATHER GLOVES & GLOVE BAG, REF 5
4F		224979001	GLOVE KIT-SIZE 9 1/2	1	INC 1PR OF RUBBER GLOVES & 1PR OF LEATHER GLOVES & GLOVE BAG, REF 5
4G		210785001	GLOVE KIT-SIZE 10	1	INC 1PR OF RUBBER GLOVES & 1PR OF LEATHER GLOVES & GLOVE BAG, REF 5
4H		224990001	GLOVE KIT-SIZE 11	1	INC 1PR OF RUBBER GLOVES & 1PR OF LEATHER GLOVES & GLOVE BAG, REF 5
4I		224991001	GLOVE KIT-SIZE 12		INC 1PR OF RUBBER GLOVES & 1PR OF LEATHER GLOVES & GLOVE BAG, REF 5
5		210784001	BAG-GLOVE	1	
6		210780009	BOOTS-SIZE 9 OVER-THE-SHOE	1PR	
6A		210780001	BOOTS-SIZE 10 OVER-THE-SHOE	1PR	
6B		210780003	BOOTS-SIZE 11 OVER-THE-SHOE	1PR	
6C		210780005	BOOTS-SIZE 12 OVER-THE-SHOE	1PR	
6D		210780007	BOOTS-SIZE 13 OVER-THE-SHOE	1PR	
6E		210780011	BOOTS-SIZE 14 OVER-THE-SHOE	1PR	
6F		210780013	BOOTS-SIZE 15 OVER-THE-SHOE	1PR	
6G		210780015	BOOTS-SIZE 16 OVER-THE SHO	1PR	
7		279118001	BOOT - 4 BUCKLE SIZE 9	1PR	
7A		279118002	BOOT - 4 BUCKLE SIZE 10	1PR	
7B		279118003	BOOT 4 BUCKLE SIZE 11	1PR	
7C		279118004	BOOT - 4 BUCKLE SIZE 12	1PR	
7D		279118005	BOOT - 4 BUCKLE SIZE 13	1PR	
7E		279118006	BOOT - 4 BUCKLE SIZE 14	1PR	
7F		279118007	BOOT - 4 BUCKLE SIZE 15	1PR	
7G		279118008	BOOT - 4 BUCKLE SIZE 16	1PR	
8		279119001	BOOT - ANKLE RUBBER SIZE9	1PR	
8A		279119002	BOOT - ANKLE RUBBER SIZE 10	1PR	
8B		279119003	BOOT - ANKLE RUBBER SIZE 11	1PR	
8C		279119004	BOOT - ANKLE RUBBER SIZE 12	1PR	
8D		279119005	BOOT - ANKLE RUBBER SIZE 13	1PR	
8E		279119006	BOOT - ANKLE RUBBER SIZE 14	1PR	
8F		279119007	BOOT - ANKLE RUBBER SIZE 15	1PR	
8G		279119008	BOOT - ANKLE RUBBER SIZE 16	1PR	

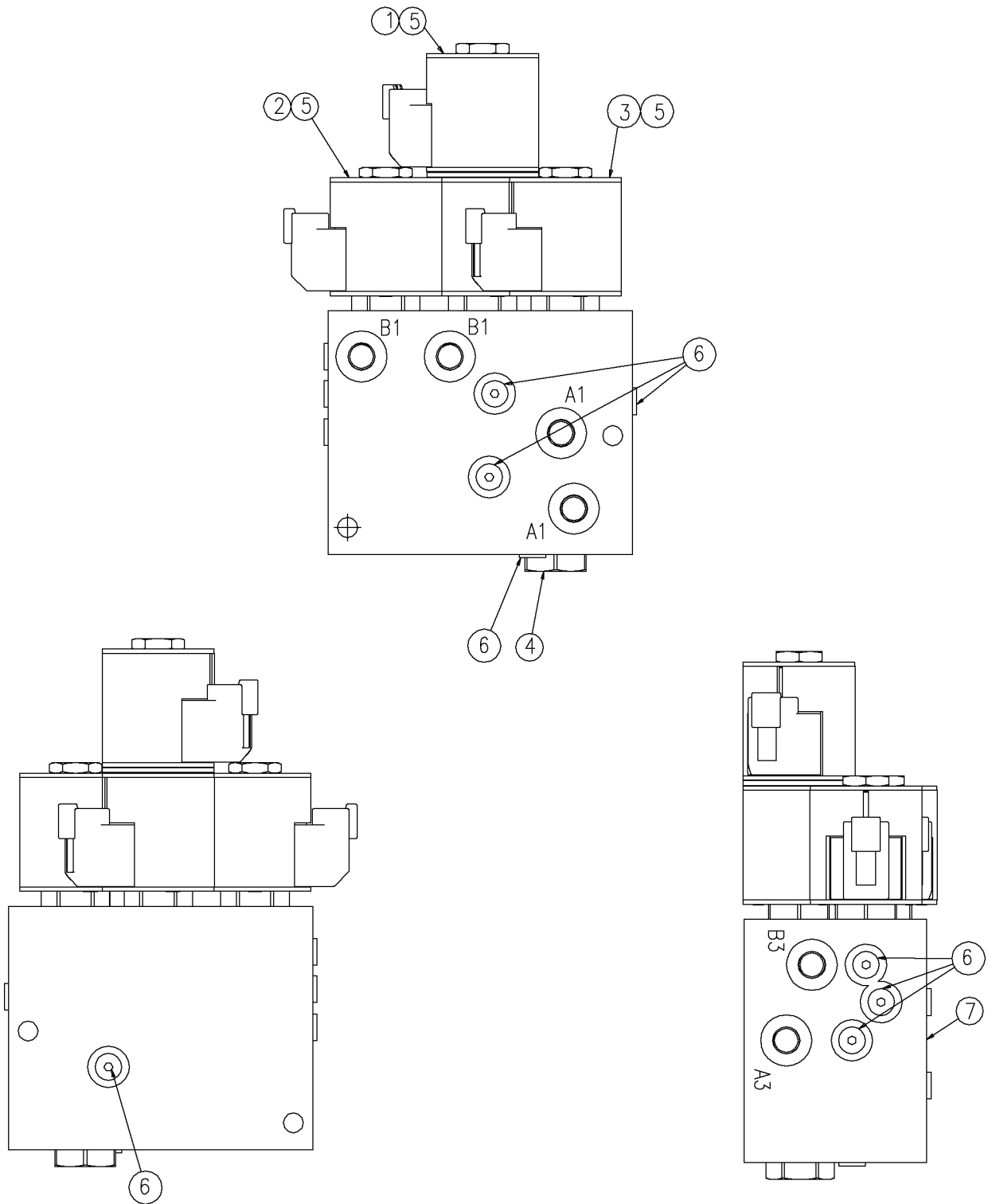
Valve-3 Speed Shuttle Fig 11-1



Valve-3 Speed Shuttle Fig 11-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	VALVE BODY	1	Not Sold Separately
2		224476005	CARTRIDGE-VALVE	2	
3		251061003	SOLENOID VALVE COIL-2 POST	2	
		207418009	REPAIR KIT-SOLENOID VALVE	2	
4		277838003	SHUTTLE VALVE	1	
		277838005	REPAIR KIT-SHUTTLE VALVE	1	
5		277838007	PRESSURE FLOW CONTROL VALVE	1	
		277838009	REPAIR KIT-PRESSURE FLOW CONTROL VALVE	1	
6		277838011	RELIEF VALVE	1	
		277838013	REPAIR KIT-RELIEF VALVE	1	
7		277838015	#2 EPCO PLUG	6	
		277838001	VALVE-3 SPEED SHUTTLE		Includes All Items In Figure

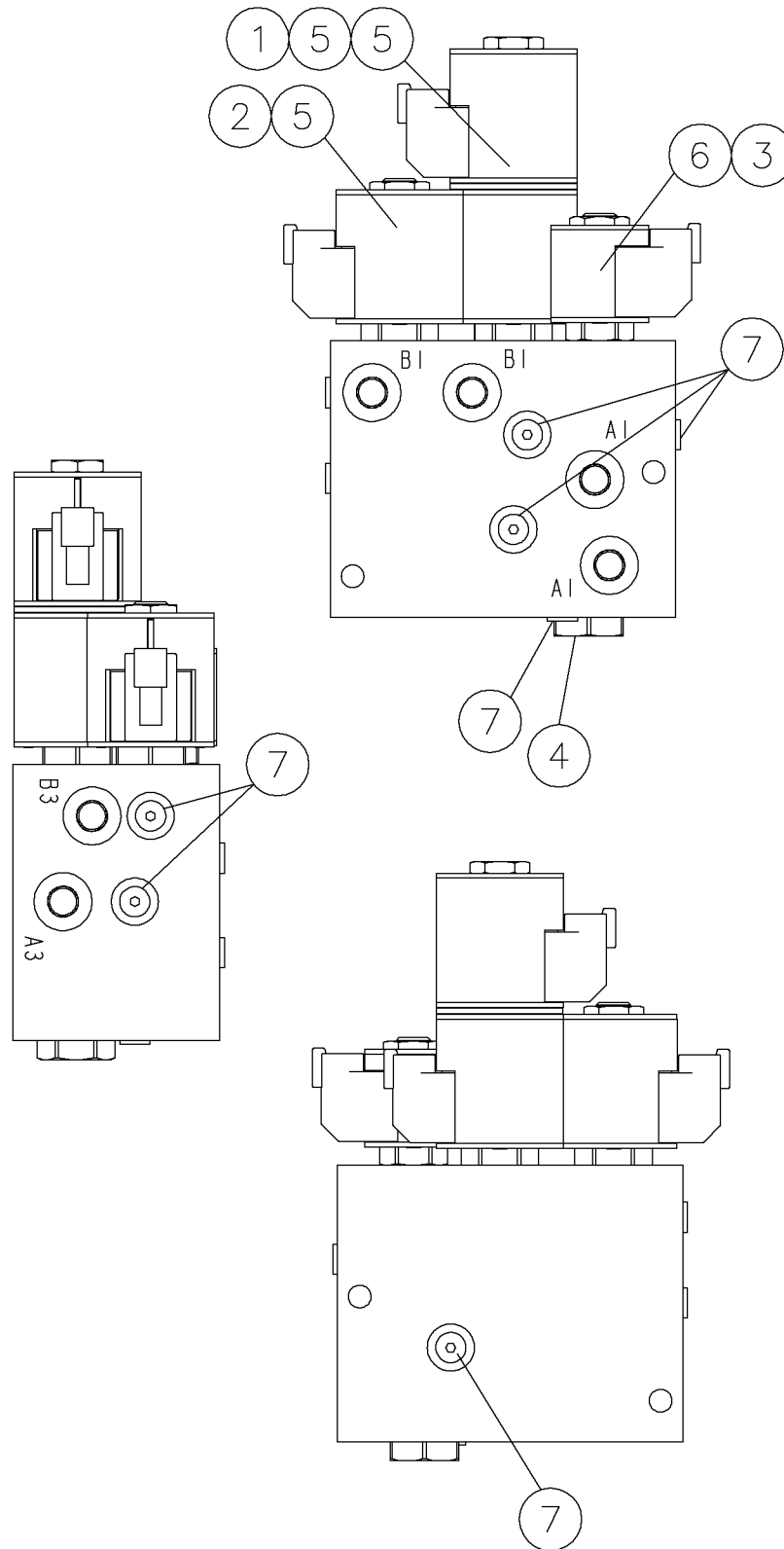
Valve-Rod Loader (S/N 381-) Fig 11-2r01



Valve-Rod Loader (S/N 381-) Fig 11-2r01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	December, 2006		Change Valve
1		296285066	CARTRIDGE - SOLENOID VALVE	1	
		244725007	NUT - COIL	1	
		296265599	SEAL KIT	1	
2		296265596	CARTRIDGE - SOLENOID VALVE	1	
		244725007	NUT - COIL	1	
		296265599	SEAL KIT	1	
3		296285067	CARTRIDGE - SOLENOID VALVE	1	
		244725007	NUT - COIL	1	
		296251078	SEAL KIT	1	
4		296272929	FLOW DIVIDER	1	
		296251088	SEAL KIT	1	
5		296271077	COILS	4	
6		240324015	PLUG-SAE	8	
7		NSS	BLOCK	1	
	*	296269555	MANIFOLD - ROD LOADER		Inc. All Items In Figure
			NSS-NOT SOLD SEPARATELY		

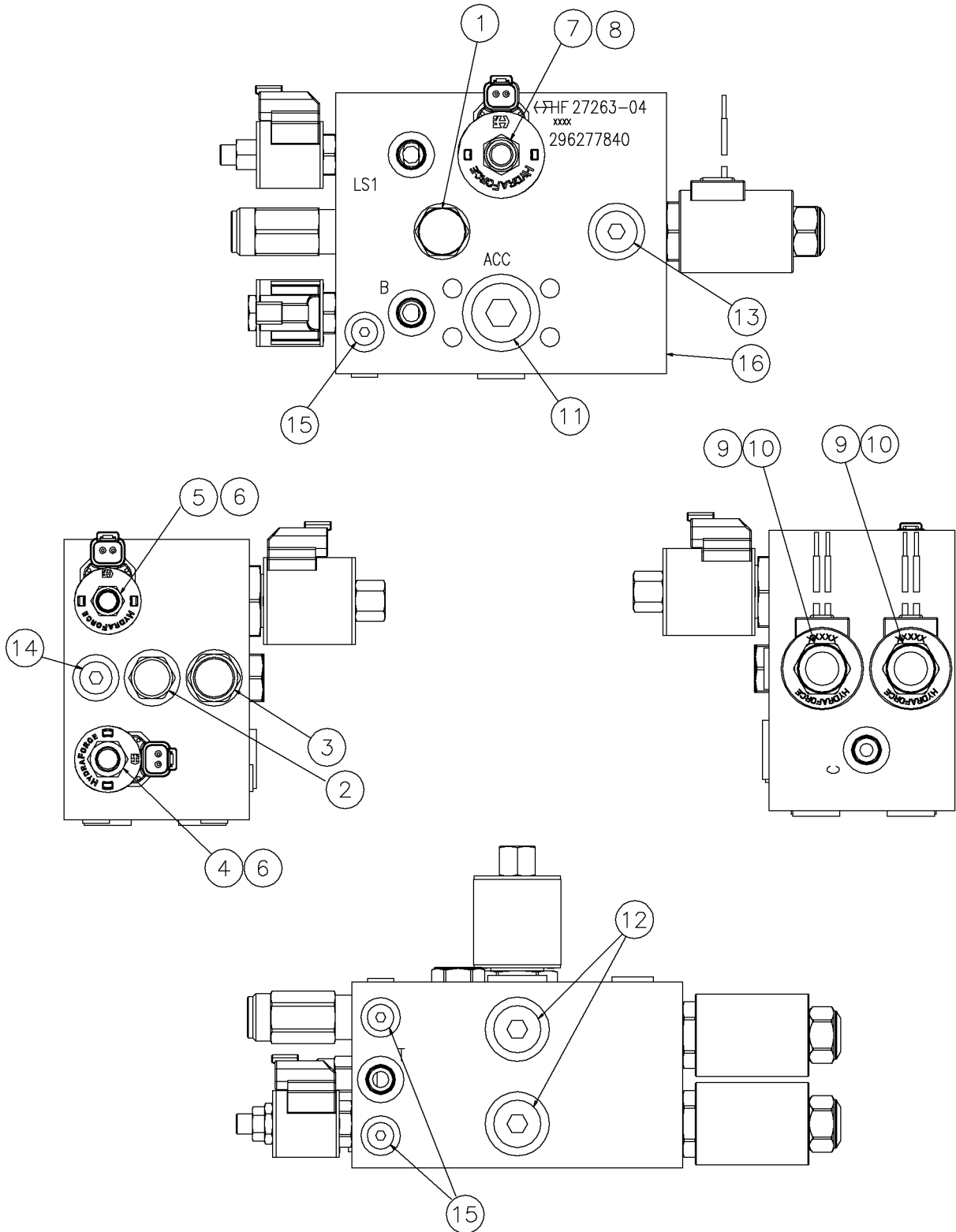
Valve-Rod Loader Fig 11-2



Valve-Rod Loader Fig 11-2

REF NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272927	SOLENOID VALVE	1	
		296265599	SEAL KIT	1	
		244725007	NUT - COIL	1	
2		296265596	CARTRIDGE - SOLENOID VALVE	1	
		296265599	SEAL KIT	1	
		244725007	NUT - COIL	1	
3		296285067	CARTRIDGE	1	
		296265599	SEAL KIT	1	
		244725007	NUT - COIL	1	
4		296272929	FLOW DIVIDER	1	
5		296271077	COILS	3	
6		245016003	ORIFICE DISC	1	
7		240324015	PLUG-SAE	1	
		296269662	MANIFOLD - ROD LOADER		(Inc. All Items in Figure)

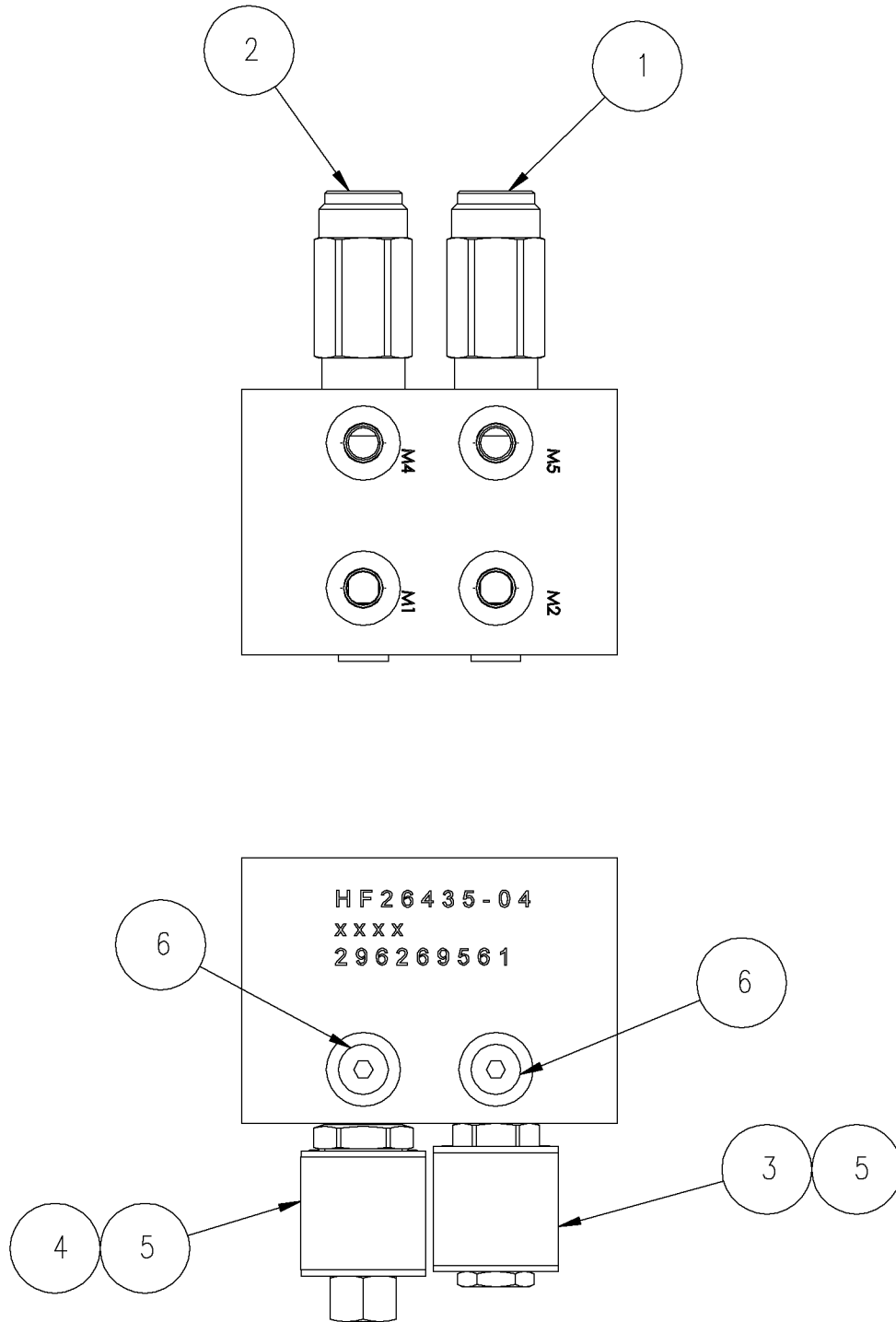
Valve-Proportional/Dump Fig 11-3



Valve-Proportional/Dump Fig 11-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296251271	VALVE-HIGH PRESSURE CHECK	1	
		251117005	SEAL KIT	1	
2		296251244	PRESSURE REGULATOR	1	
		296251054	SEAL KIT	1	
3		296251245	RELIEF - HIGH PRESSURE	1	
		296285062	SEAL KIT	1	
4		250131005	CARTRIDGE - 2 WAY NC HP	1	
		296265595	SEAL KIT	1	
5		296285063	SOLENOID VALVE	1	
		296251054	SEAL KIT	1	
6		296271115	COIL	2	
7		296285064	SOLENOID VALVE	1	
		296285065	SEAL KIT	1	
8		296271077	COILS	1	
9		296251247	PROPORTIONAL FLOW CONTROL	2	
		296251250	SEAL KIT	1	
10		282520003	SOLENOID - #10 W/LEADS DEUTSCH SOCKETS	2	
11		251117019	PORT PLUG	1	
12		251107011	PORT PLUG - SAE 10	2	
13		236494005	PLUG-SAE	1	
14		500659021	SAE PLUG	1	
15		240324011	PLUG-SAE	3	
16		NSS	BLOCK	1	Not Sold Separately
		296277840	VALVE - PROPORTIONAL/DUMP		Inc. All Items In Figure

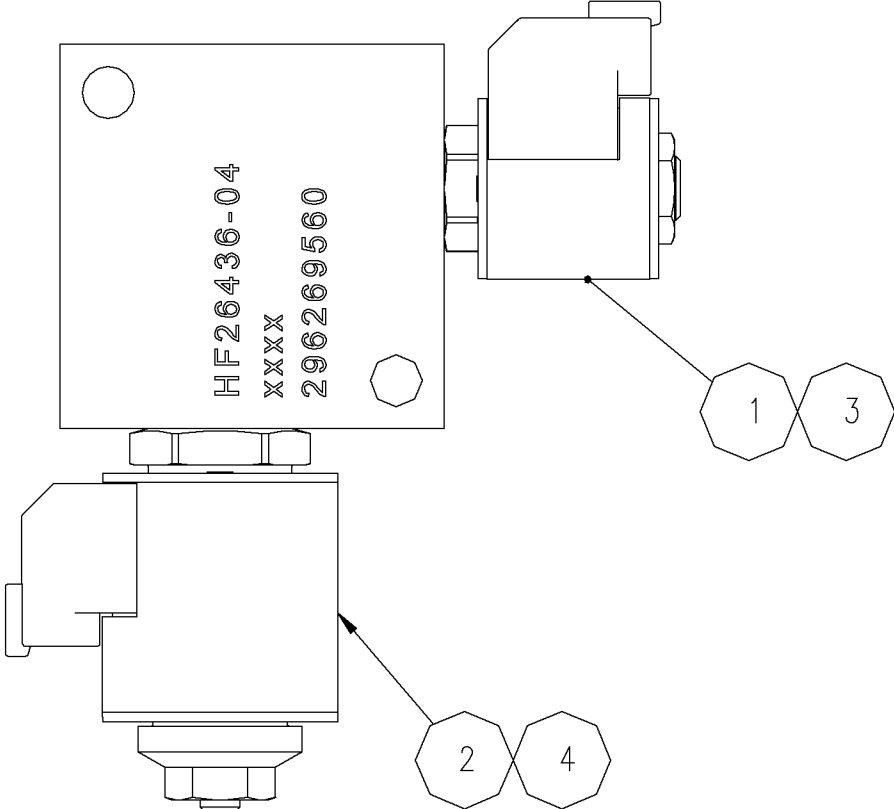
Valve-Torque Limiter Fig 11-4



Valve-Torque Limiter Fig 11-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251120007	RELIEF - HIGH PRESSURE	1	
		296271087	SEAL KIT	1	
2		296272925	RELIEF VALVE	1	
		296271087	SEAL KIT	1	
3		251120003	POPPET - 2 WAY N/C	1	
		296265595	SEAL KIT	1	
4		296272926	SOLENOID VALVE	1	
		296265595	SEAL KIT	1	
5		296271115	COIL	2	
6		240324011	PLUG-SAE	2	
		296269561	VALVE - TORQUE LIMITER		Inc. All Items In Figure

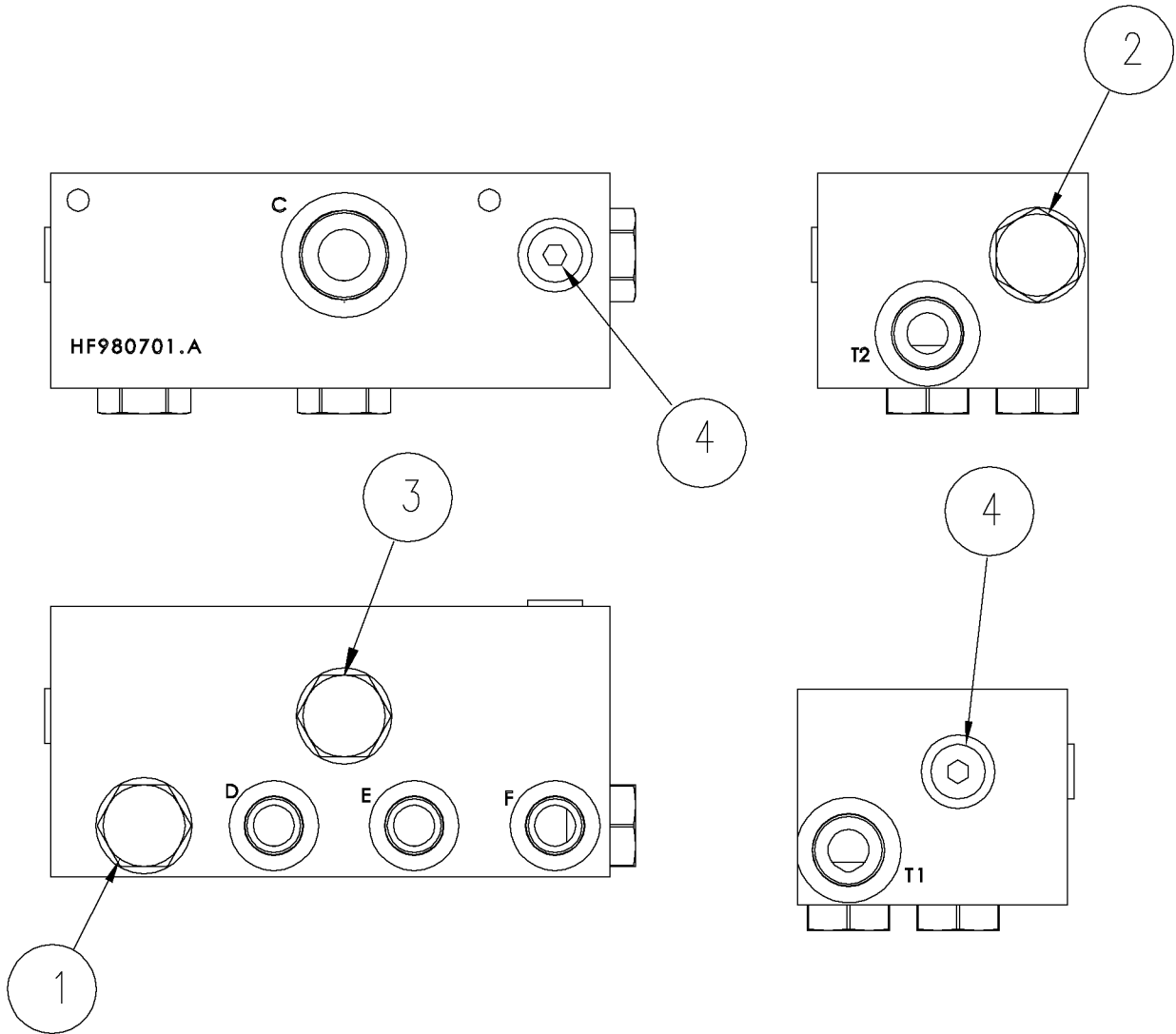
Valve-Thrust Limiter Fig 11-5



Valve-Thrust Limiter Fig 11-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		250131005	CARTRIDGE - 2 WAY NC HP	1	
		296265595	SEAL KIT	1	
2		296272924	PROPORTIONAL PRESSURE CONTROL	1	
		296251056	SEAL KIT	1	
3		296271115	COIL	1	
4		296271077	COILS	1	
		296269560	VALVE - THRUST LIMITER		Inc. All Items In Figure

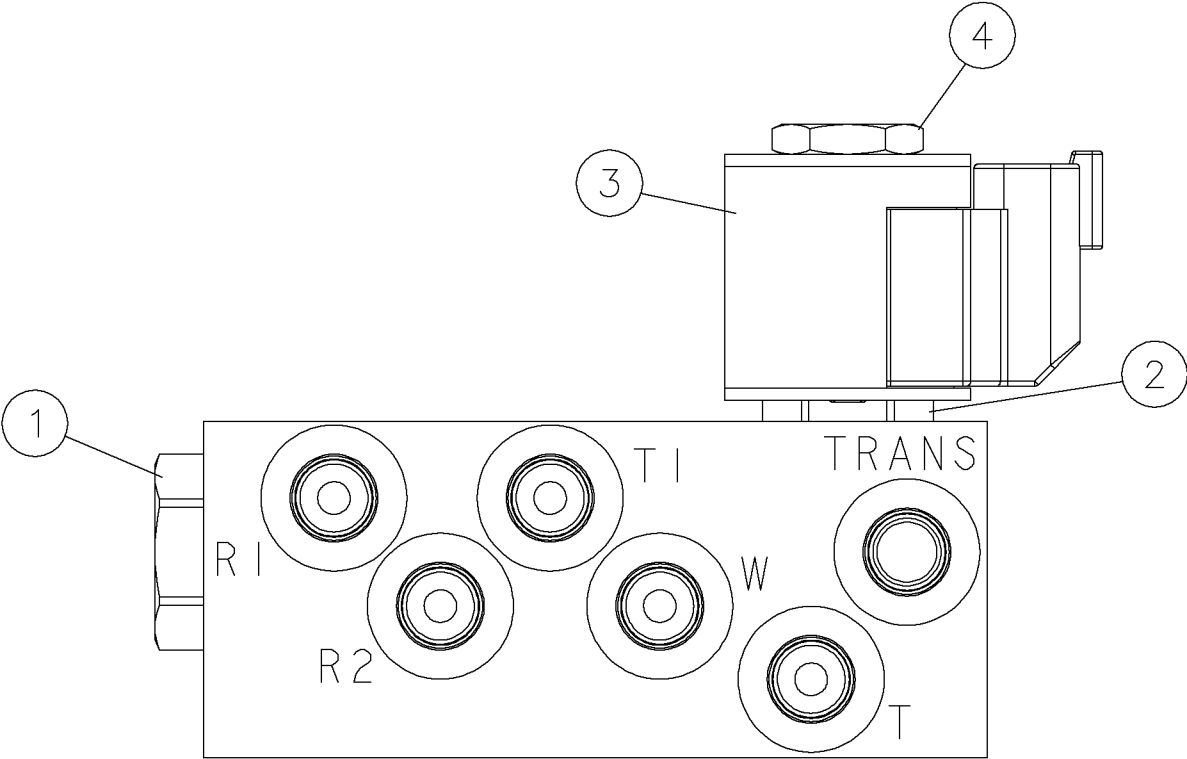
Valve-Return Manifold Fig 11-6



Valve-Return Manifold Fig 11-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251107007	VALVE - CHECK	1	
2		251107009	VALVE - CHECK	1	
3		251107003	VALVE - CHECK	1	
4		251107011	PORT PLUG - SAE 10	1	
		296273651	MANIFOLD - RETURN		Inc. All Items In Figure

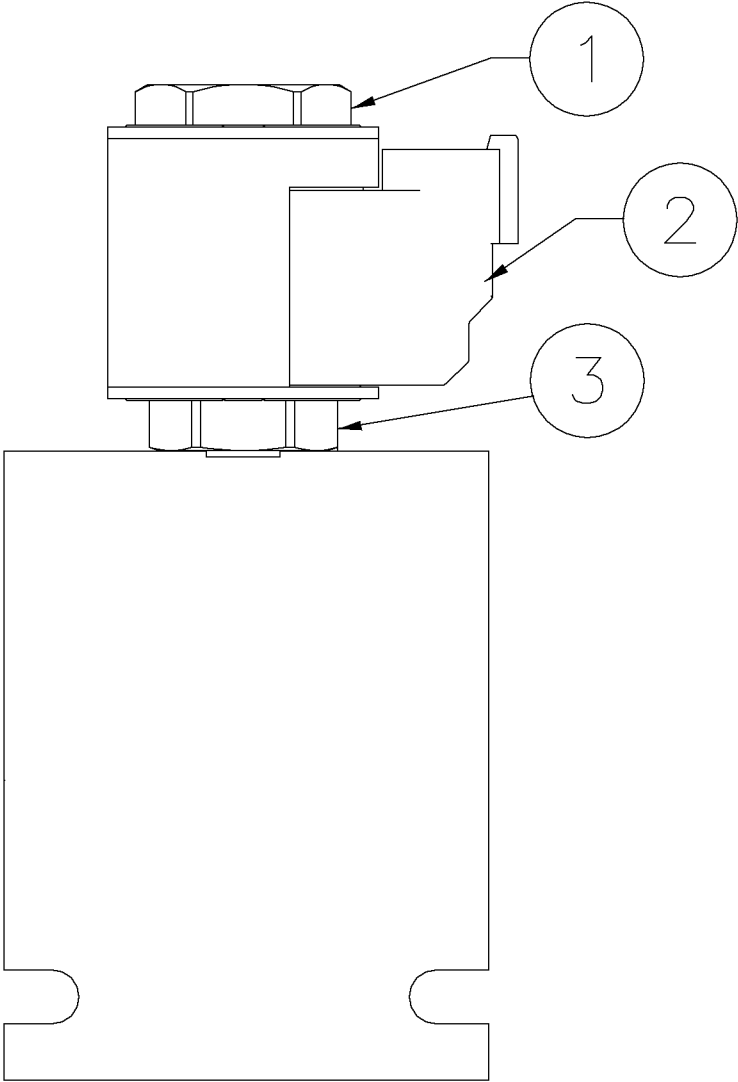
Valve-Check Bank Fig 11-7



Valve-Check Bank Fig 11-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296276754	LOAD SENSE VALVE	1	
		296276755	SEAL KIT	1	
2		251120003	POPPET - 2 WAY N/C	1	
		296271087	SEAL KIT	1	
3		296271115	COIL	1	
4		224886007	NUT	1	
		296278540	VALVE - CHECK BANK		Inc. All Items In Figure

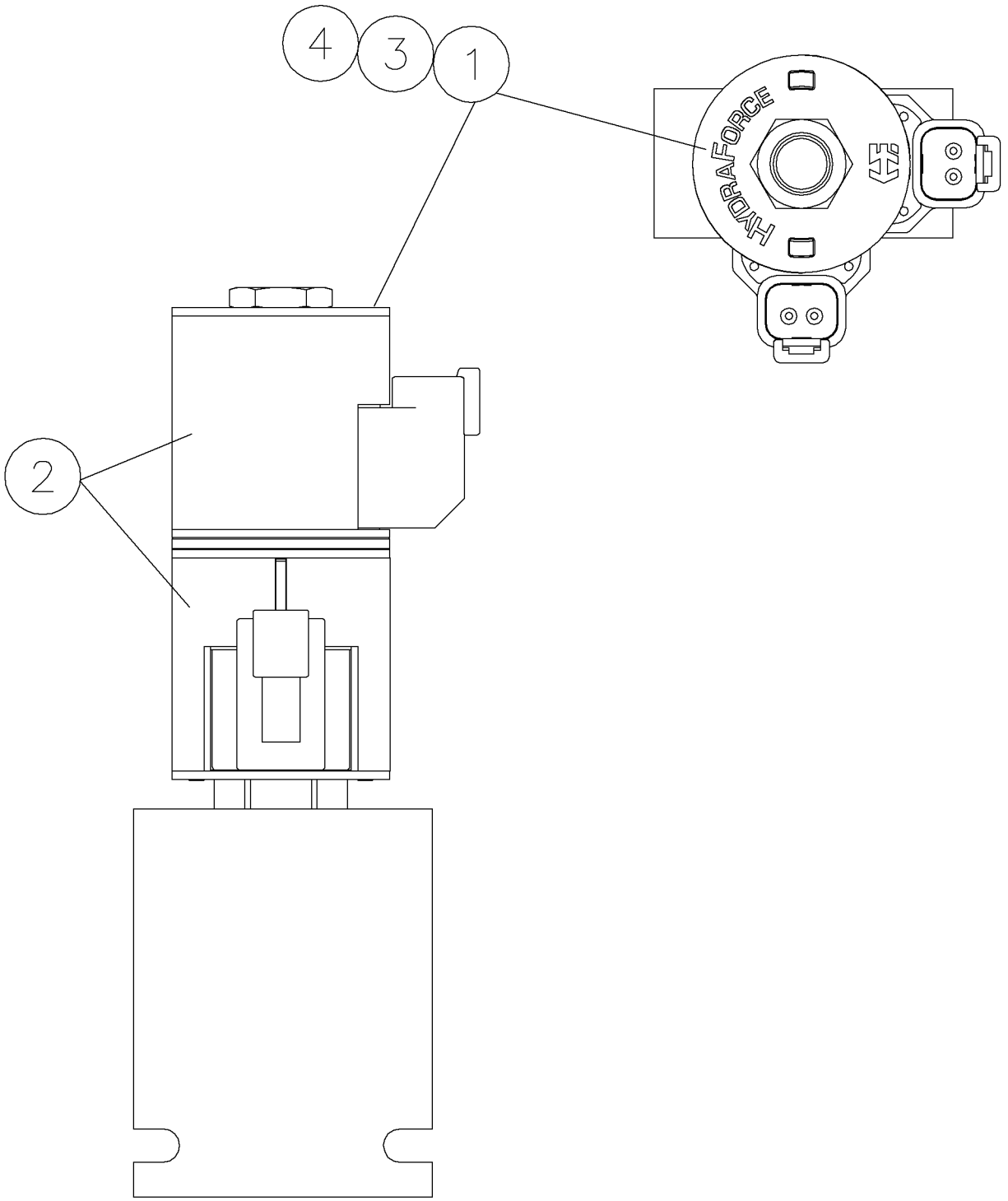
Valve-Greaser Fig 11-8



Valve-Greaser Fig 11-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265526	NUT-COIL	1	
2		296265527	COIL	1	
3		244725009	CARTRIDGE - SOLENOID	1	
		294901001	VALVE - GREASER		Inc. All Items In Figure

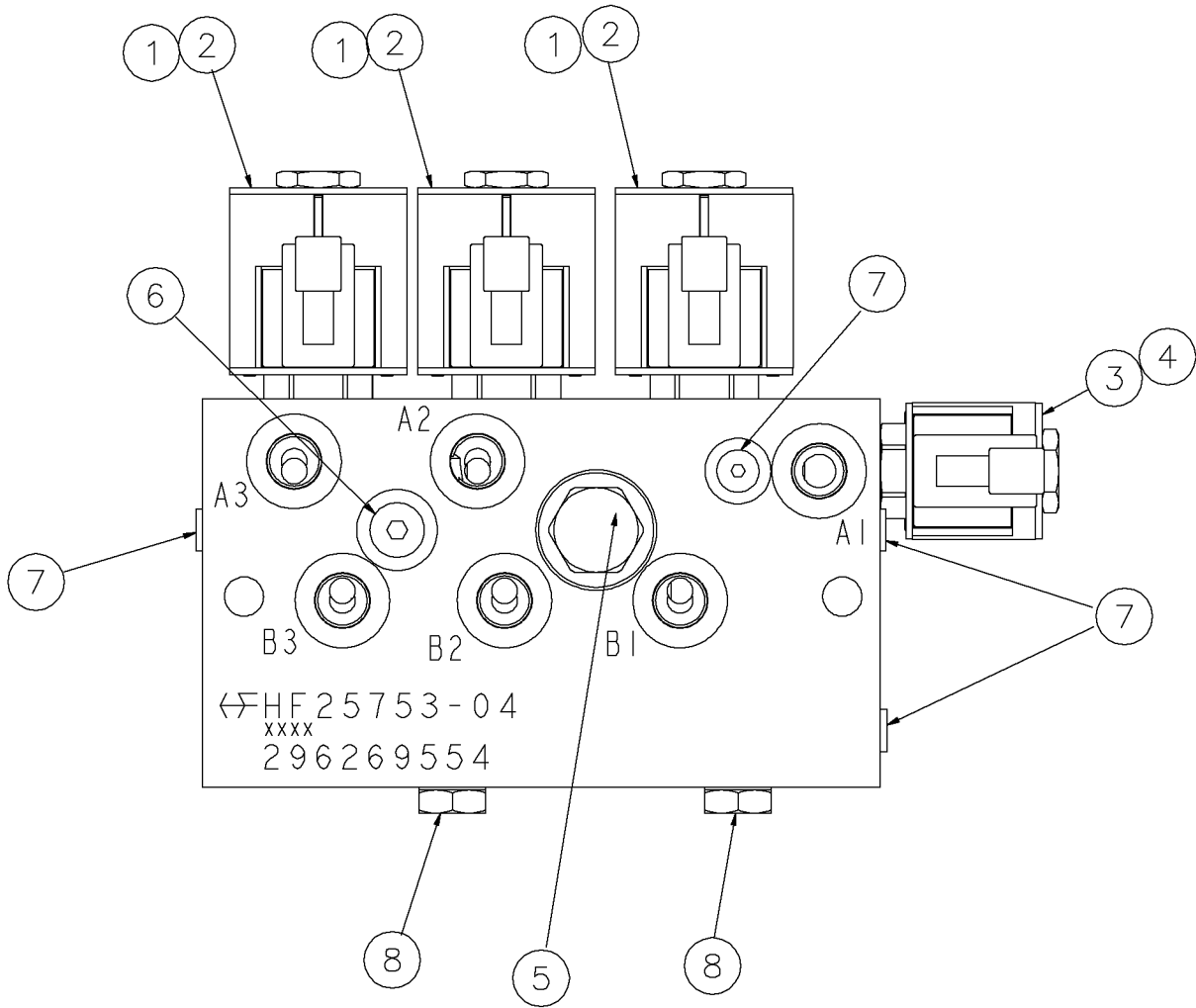
Valve-Outrigger Fig 11-9



Valve-Outrigger Fig 11-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251109003	CARTRIDGE - SOLENOID	1	
2		296271077	COILS	2	
3		224886007	NUT	1	
4		296265599	SEAL KIT	1	
		296269565	VALVE - 3 POSITION, 4 WAY DUAL SOL.		Inc. All Items In Figure

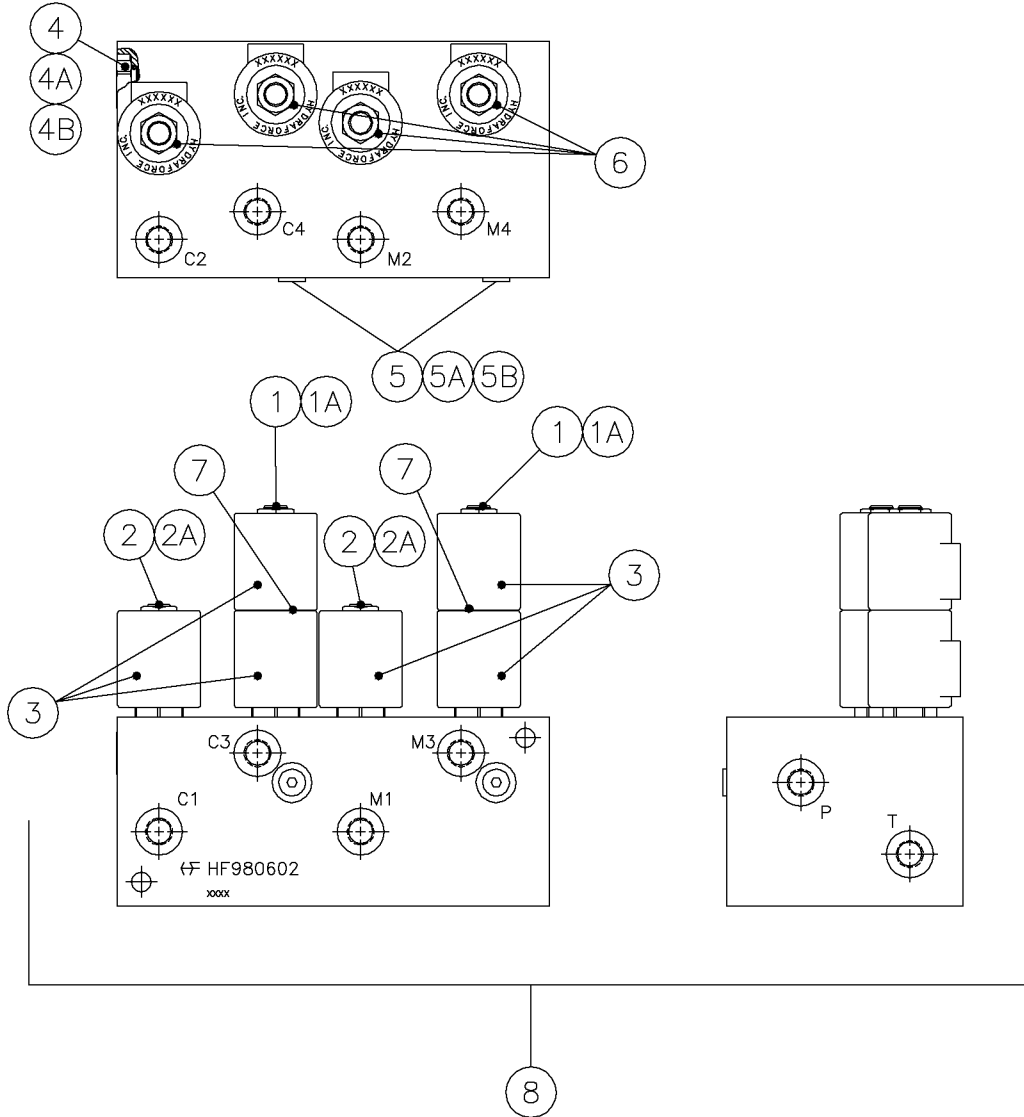
Valve-Vise Manifold Fig 11-10



Valve-Vise Manifold Fig 11-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296265596	CARTRIDGE - SOLENOID VALVE	3	
		296265599	SEAL KIT	3	
2		296271077	COILS	3	
		244725007	NUT - COIL	3	
3		296265600	CARTRIDGE - SOLENOID VALVE	1	
		296265595	SEAL KIT	1	
4		296271115	COIL	1	
		244725007	NUT - COIL	1	
5		296265594	VALVE - CHECK	1	
		296265595	SEAL KIT	1	
6		240324011	PLUG-SAE	1	
7		240324015	PLUG-SAE	4	
8		228128013	SENSE CHECK	2	
		296269554	WISE - MANIFOLD		Inc. All Items In figure

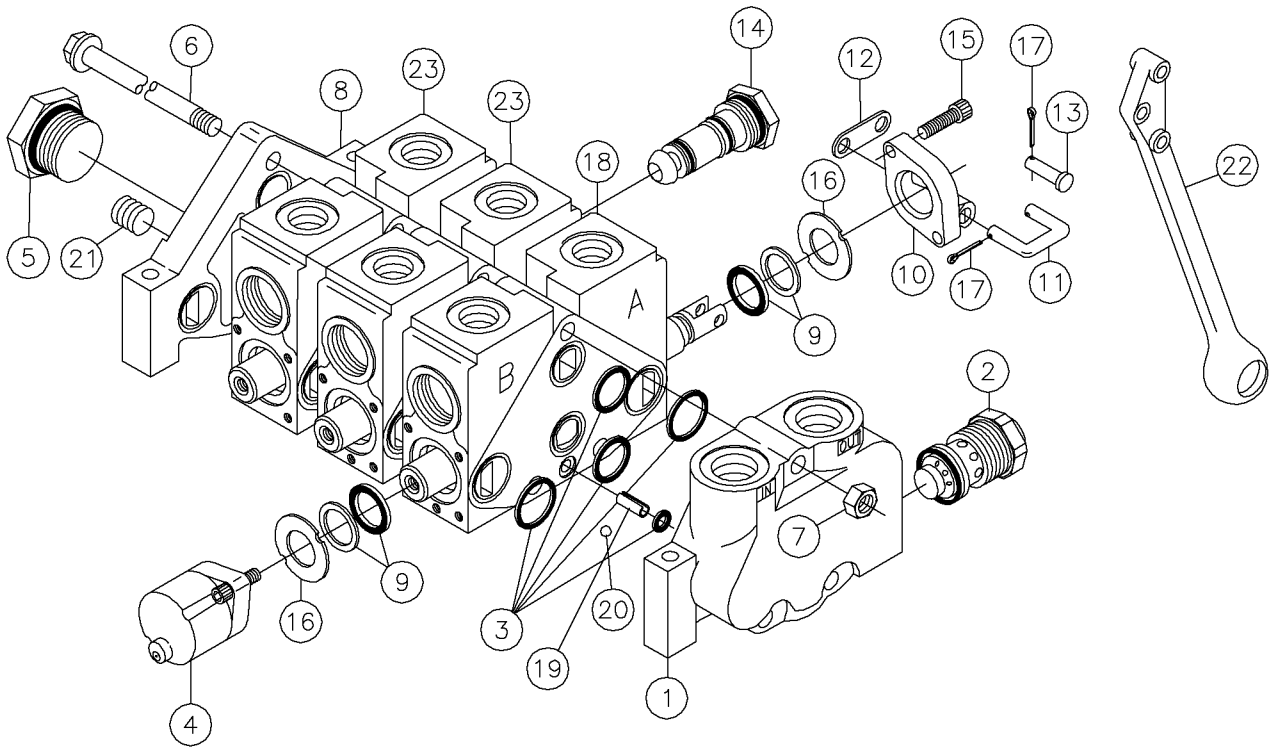
Valve-Stakedown Fig 11-11



Valve-Stakedown Fig 11-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251112003	SOLENOID VALVE	2	Inc. Repair Kit & Nut
1A		206271007	REPAIR KIT	2	
2		251072003	SOLENOID VALVE	2	Inc. Repair Kit & Nut
2A		235500005	SEAL KIT	2	
3		251112005	COIL - 10 DL 12V/SPL	6	
4		205737003	CARTRIDGE - CHECK VALVE	1	
4A		228128009	SEAL KIT	1	
4B		246415003	PILOT PISTON	1	
5		251112007	ORFICE DISC	2	
5A		240324011	PLUG-SAE	2	
5B		240324013	SEAL KIT	2	
6		224886007	NUT	4	
7		228129007	SPACER	2	
8		296269562	VALVE - STAKE DOWN	1	Inc. All Items In Figure

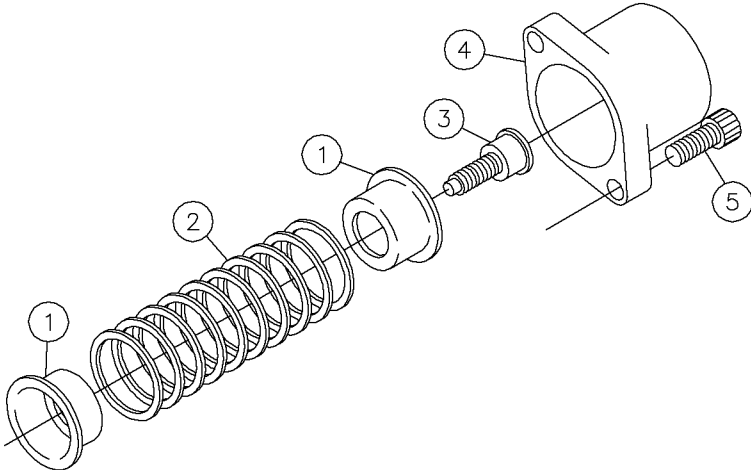
Valve-Transport Fig 11-12



Valve-Transport Fig 11-12

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

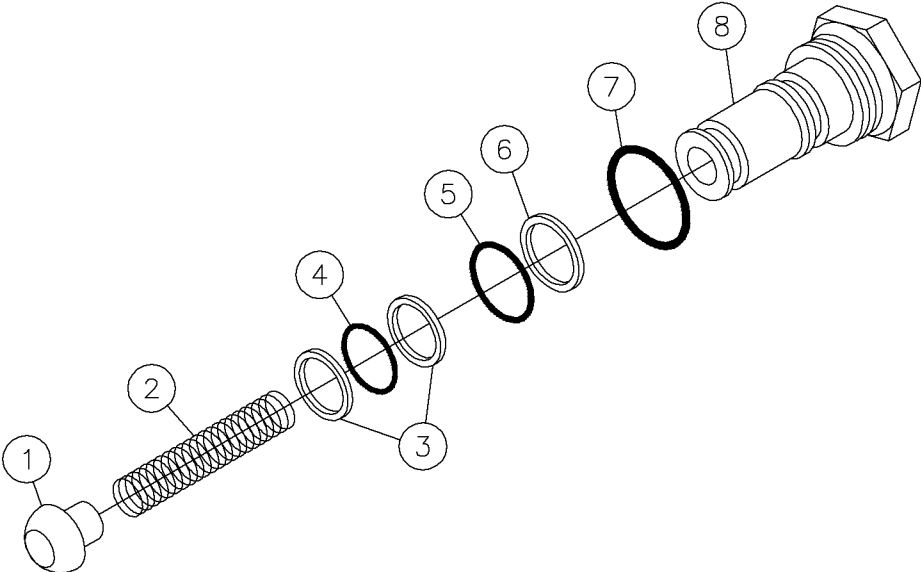
Std. Spool Pos. Fig 11-13



Std. Spool Pos. Fig 11-13

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

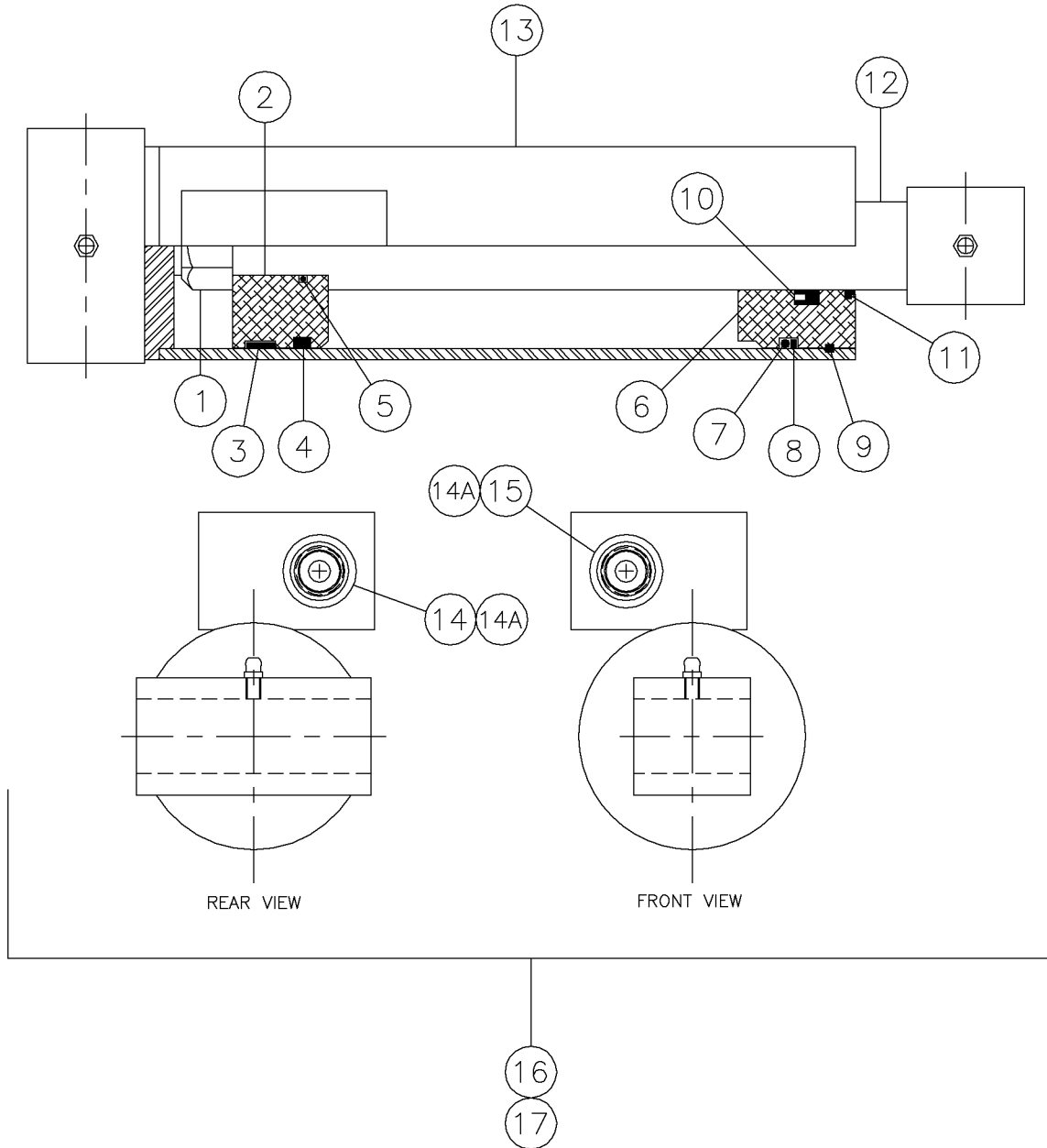
Load Check Plug Fig 11-14



Load Check Plug Fig 11-14

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		3128009	POPPET-CHECK GRESEN 2781-001	1	
2		3147041	SPRING-CHECK GRESEN 1868-001	1	
3		NSS	WASHER-BACKUP (INNER)	2	
4		NSS	O-RING	1	
5		NSS	O-RING (OUTER)	1	
6		NSS	WASHER-BACKUP (OUTER)	1	
7		NSS	O-RING	1	
8		3147043	PLUG-LIFT CHECK GRSN 3411-001	1	
		3147035	PLUG-LOAD CHECK STEEL K-6030		Inc. ref. 1-8
		3147037	REPAIR KIT GRESEN K-6032		Inc. Ref. 3-7

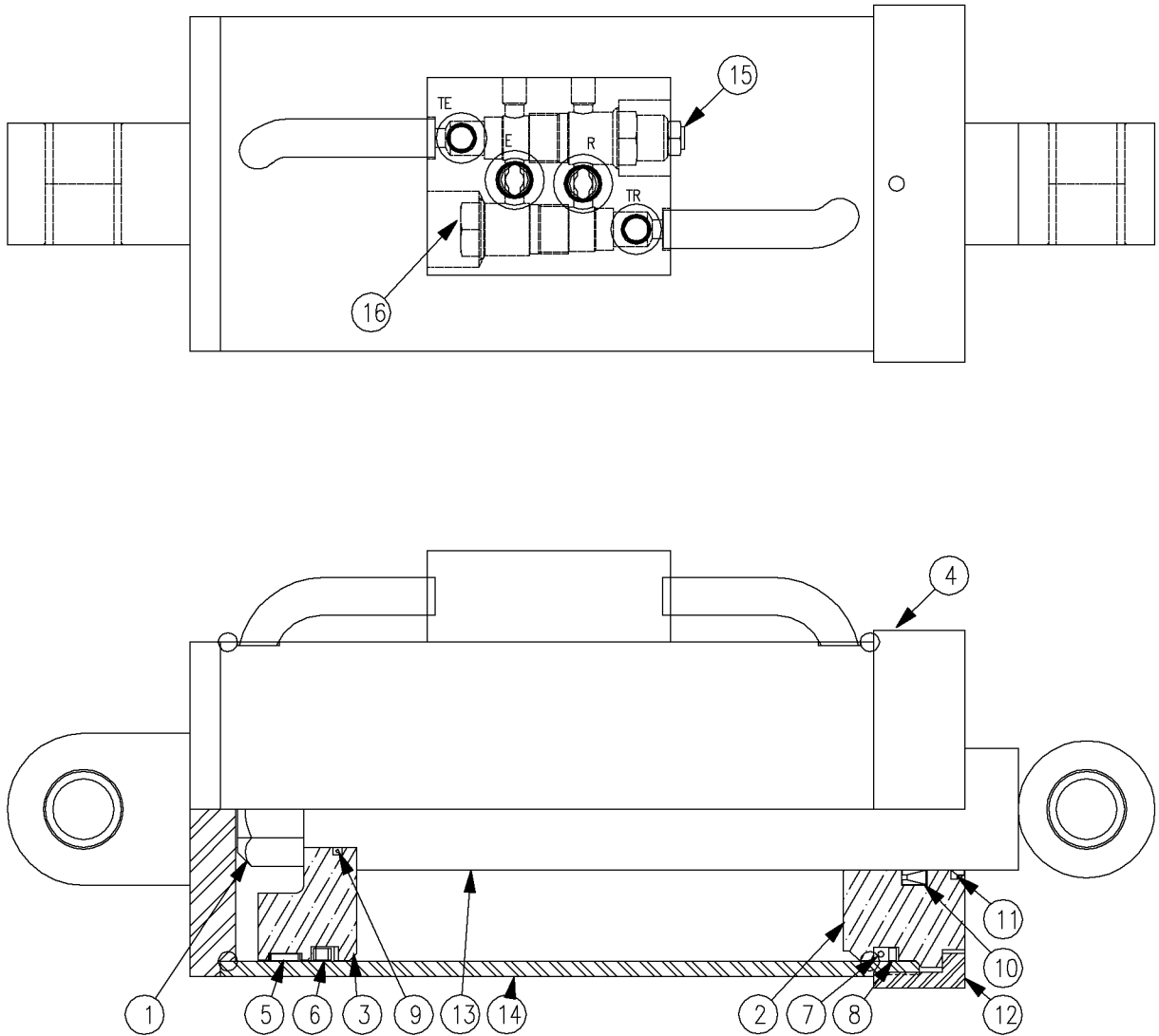
Cylinder-Rack Lift Fig 11-15



Cylinder-Rack Lift Fig 11-15

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		306011	NUT-1-14 SL PRINCE 220000210	1	
2		610291001	PISTON	1	
3		278769003	WEAR RING	1	
4		278769005	PSP SEAL	1	
5		278769007	O-RING	1	
6		278769009	HEAD	1	
7		278769011	O-RING	1	
8		278769013	BACKUP	1	
9		610292001	RETAINING RING	1	
10		236113021	POLYPAK	1	
11		236113023	DUST SEAL	1	
12		278769015	SHAFT W/ CLEVIS	1	
13		278769017	BARREL ASSEMBLY (W/O VALVE)	1	
14		117037001	VALVE	1	
14A		278769021	REPAIR KIT	2	
15		278769023	VALVE	1	
16		278769025	REPAIR KIT	1	Inc. Ref. 3-5, 7, 8, 10, & 11
17		278769001	CYLINDER-3 1/2"BORE X 7"STROKE	1	Inc. All Items In Figure

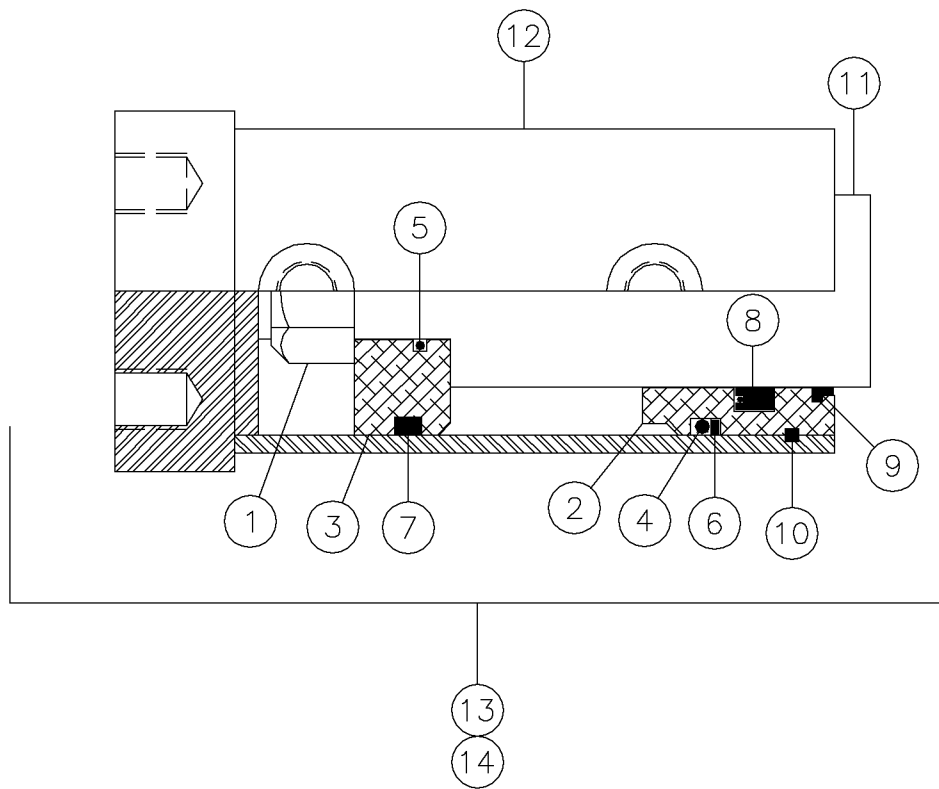
Cylinder-Outrigger Fig 11-16



Cylinder-Outrigger Fig 11-16

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271143	NUT	1	
2		296271144	HEAD	1	
3		296271145	PISTON	1	
4		296271146	NYLOCK SET SCREW	1	
5		NSS	WEAR RING	1	Not Sold Separately
6		NSS	PSP SEAL	1	Not Sold Separately
7		NSS	O-RING	1	Not Sold Separately
8		NSS	BACKUP	1	Not Sold Separately
9		NSS	O-RING	1	Not Sold Separately
10		NSS	ROD SEAL	1	Not Sold Separately
11		NSS	DUST SEAL	1	Not Sold Separately
12		296271147	COLLAR - (SET SCREW)	1	
13		296271148	SHAFT W/CLEVIS	1	
14		296271149	BARREL W/PORTS	1	
15		278769023	VALVE	1	
16		278769019	VALVE	1	
		296280124	CYLINDER - 5 X 8 3000PSI		Inc. All Items In Figure
		296271150	REPAIR KIT		Inc. Ref. 5-11

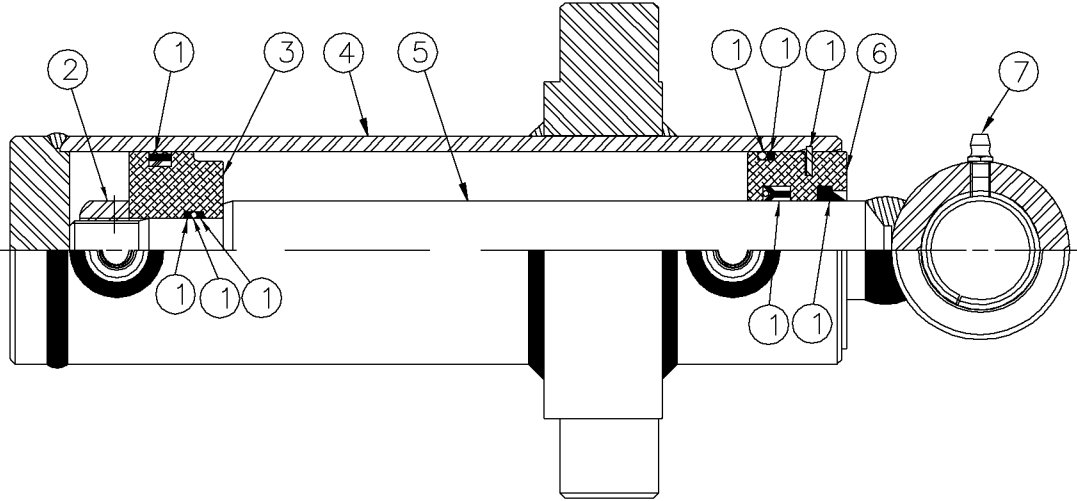
Cylinder-Lock Fig 11-17



Cylinder-Lock Fig 11-17

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		236113003	NUT	1	
2		278306002	HEAD - CYLINDER	1	
3		278306003	PISTON - CYLINDER	1	
4		NSS	O-RING	1	Not Sold Separately
5		NSS	O-RING	1	Not Sold Separately
6		NSS	BACKUP	1	Not Sold Separately
7		NSS	PSP SEAL	1	Not Sold Separately
8		NSS	POLYPACK	1	Not Sold Separately
9		NSS	DUST SEAL	1	Not Sold Separately
10		NSS	RETAINING RING	1	Not Sold Separately
11		278306004	SHAFT - CYLINDER	1	
12		278306005	BARREL W/ PORTS	1	
13		278306006	REPAIR KIT	1	Inc. Ref. 4-9
14		278306001	CYLINDER - HYDRAULIC LOCK	1	Inc. All Items In Figure

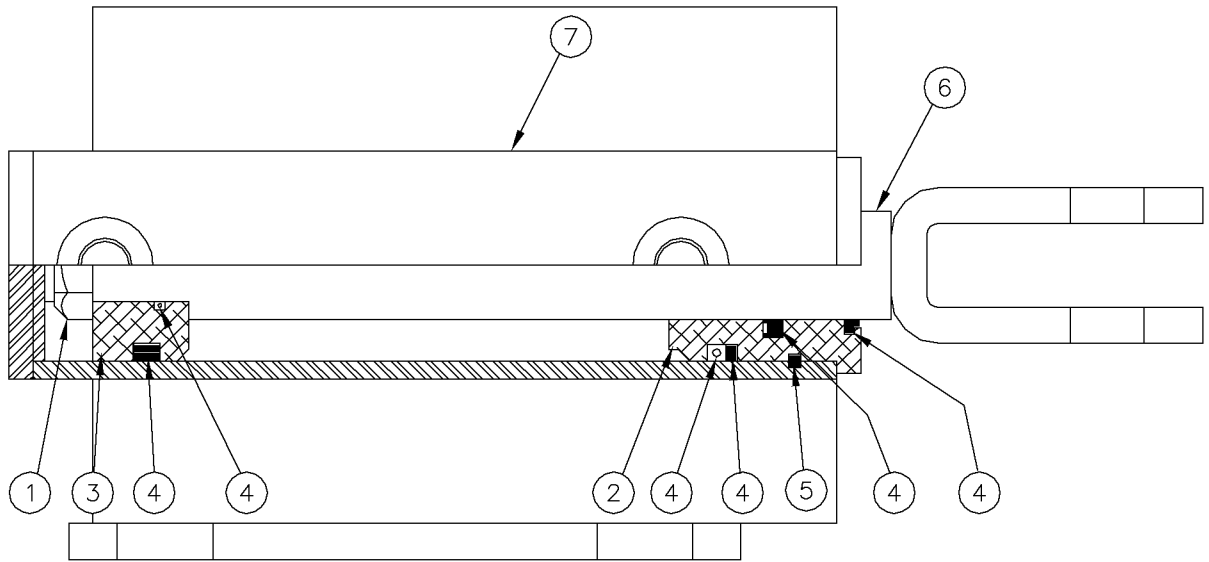
Cylinder-Vise Jaw Fig 11-18



Cylinder-Vise Jaw Fig 11-18

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296253319	SEAL KIT	1	
2		95631011	LOCK NUT	1	
3		296253320	PISTON	1	
4		296253321	BARREL ASSEMBLY	1	
5		296253322	BARREL ASSEMBLY	1	
6		296253323	SNAP RING HEAD	1	
7		598001	FITTING-1/4" NF ST GREASE ZERK	2	
		287590001	CYLINDER - 2-1/2 X 6-5/8		Inc. All Items In Figure

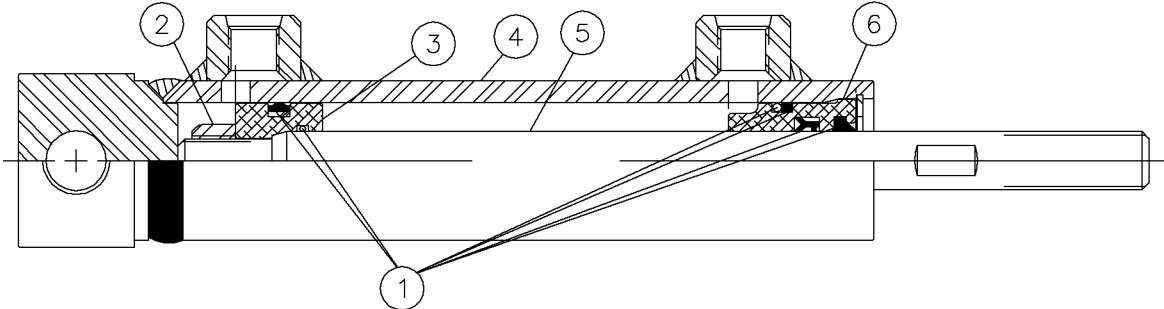
Cylinder-Rod Loader Lift Fig 11-19



Cylinder-Rod Loader Lift Fig 11-19

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		230977003	NUT	1	
2		250494002	HEAD	1	
3		230977007	PISTON	1	
4		250494010	REPAIR KIT	1	
5		250494007	RETAINING RING	1	
6		250494008	SHAFT - (W/ CLEVIS)	1	
7		250494009	BARREL (W/ CLEVIS & PORTS)	1	
		250494001	CYLINDER - 2 X 5"		Inc All Items In Figure

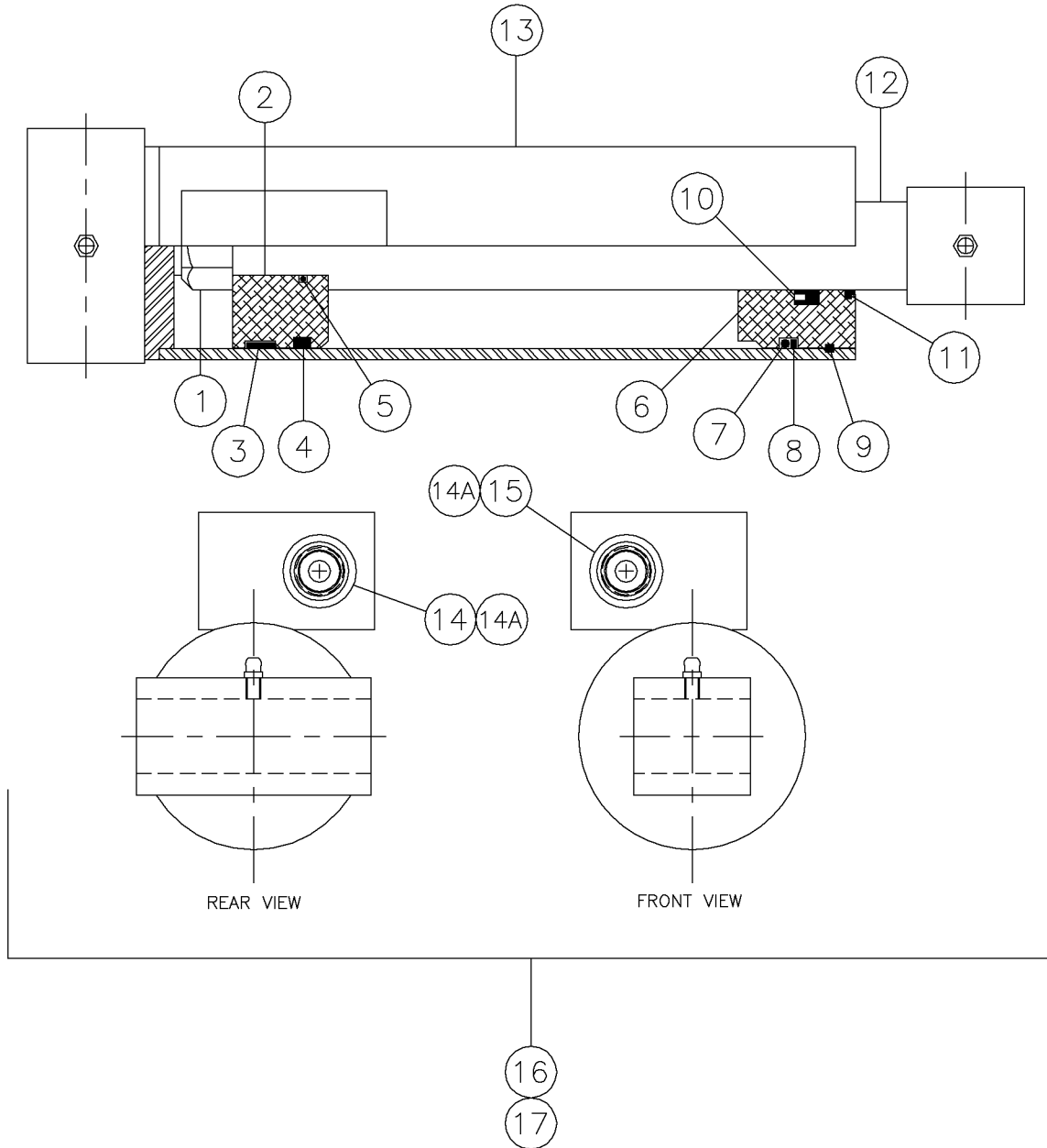
Cylinder-Water Shut-Off Fig 11-20



Cylinder-Water Shut-Off Fig 11-20

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296253308	SEAL KIT	1	
2		296253309	LOCKNUT	1	
3		296253310	PISTON	1	
4		296253311	BARREL ASSEMBLY	1	
5		296253312	ROD	1	
6		296253313	SNAP RING HEAD	1	
		287591001	CYLINDER - 1 X 3-1/2		Inc. All Items In Figure

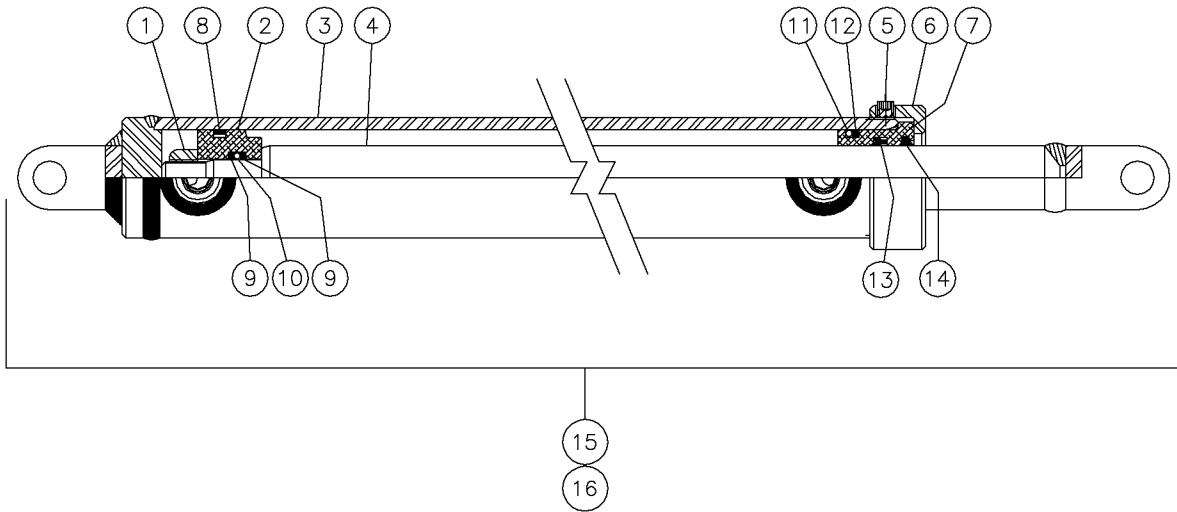
Cylinder-Rotation Fig 11-21



Cylinder-Rotation Fig 11-21

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228021009	SEAL KIT	1	
2		93180007	LOCKOUT .750-16 UNF	1	
3		228021003	PISTON	1	
4		228021005	BODY ASSEMBLY-CYLINDER	1	
5		228021007	ROD ASSEMBLY-CYLINDER	1	
6		200925001	GLAND	1	
7		597001	ZERK-1/4" NF 90 DEG GREASE	2	
		228021001	CYLINDER-2 1/2 X 3 HYD		Inc. All Items in Figure

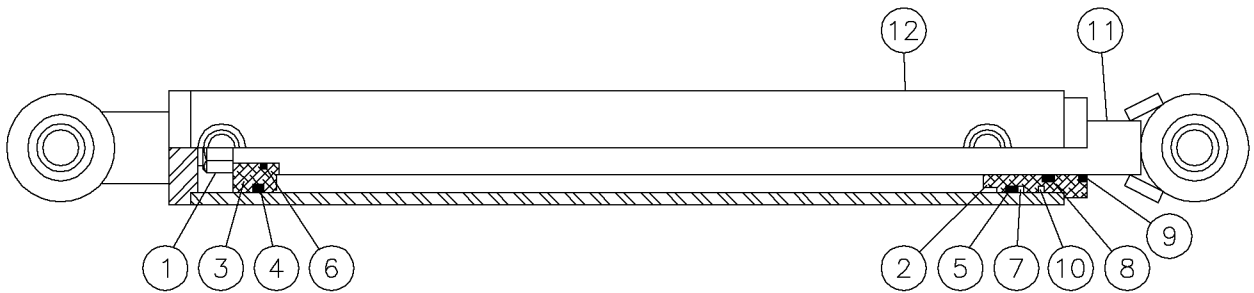
Cylinder-Stakedown Fig 11-22



Cylinder-Stakedown Fig 11-22

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		202722001	LOCKNUT	1	
2		287588004	PISTON	1	
3		287588005	BARREL ASSEMBLY	1	
4		287588006	ROD ASSEMBLY	1	
5		223998013	SET SCREW	1	
6		287588007	THREAD CAP	1	
7		287588008	THREAD CAP HEAD	1	
8		NSS	PSP SEAL	1	Not Sold Separately
9		NSS	BACKUP	1	Not Sold Separately
10		NSS	O-RING	1	Not Sold Separately
11		NSS	O-RING	1	Not Sold Separately
12		NSS	BACKUP	1	Not Sold Separately
13		NSS	LOADED V-CUP	1	Not Sold Separately
14		NSS	ROD WIPER	1	Not Sold Separately
15		287588002	SEAL KIT	1	Inc. Ref. 8-14
16		287588001	CYLINDER - 1-1/2 X 24		Inc. All Items In Figure

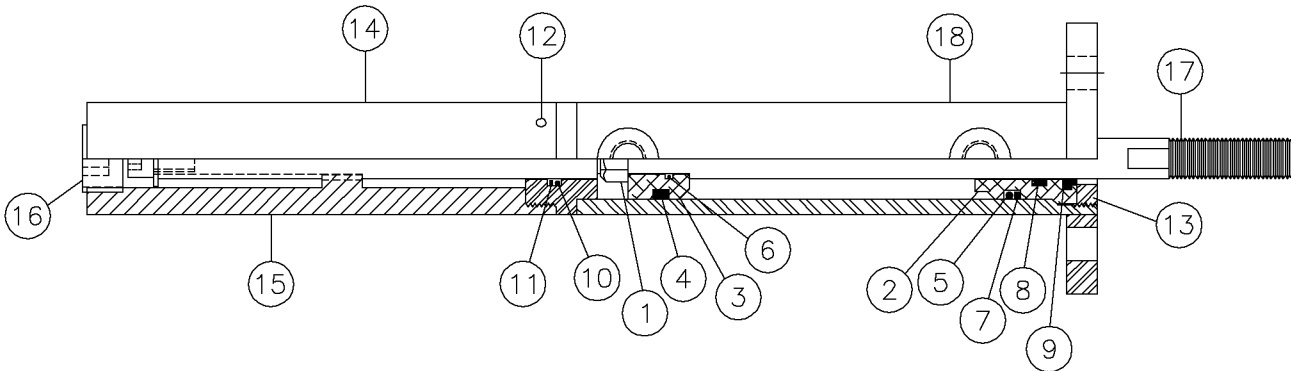
Cylinder-Tubing Tong Fig 11-23



Cylinder-Tubing Tong Fig 11-23

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		230977003	NUT	1	
2		230977005	HEAD	1	
3		230977007	PISTON	1	
4		NSS	PSP-SEAL	1	Not Sold Separately
5		NSS	O-RING #326	1	Not Sold Separately
6		NSS	O-RING	1	Not Sold Separately
7		NSS	BACK-UP	1	Not Sold Separately
8		NSS	ROD SEAL	1	Not Sold Separately
9		NSS	DUST SEAL	1	Not Sold Separately
10		NSS	RETAINING RING1	1	Not Sold Separately
11		230977019	SHAFT (W/CLEVIS)	1	
12		230977021	BARREL W/CLEVIS AND PORTS	1	
		230977001	CYLINDER 2"X15 XCX		Inc. All Items In Figure
		230977023	REPAIR KIT		Inc. Ref. 4-10

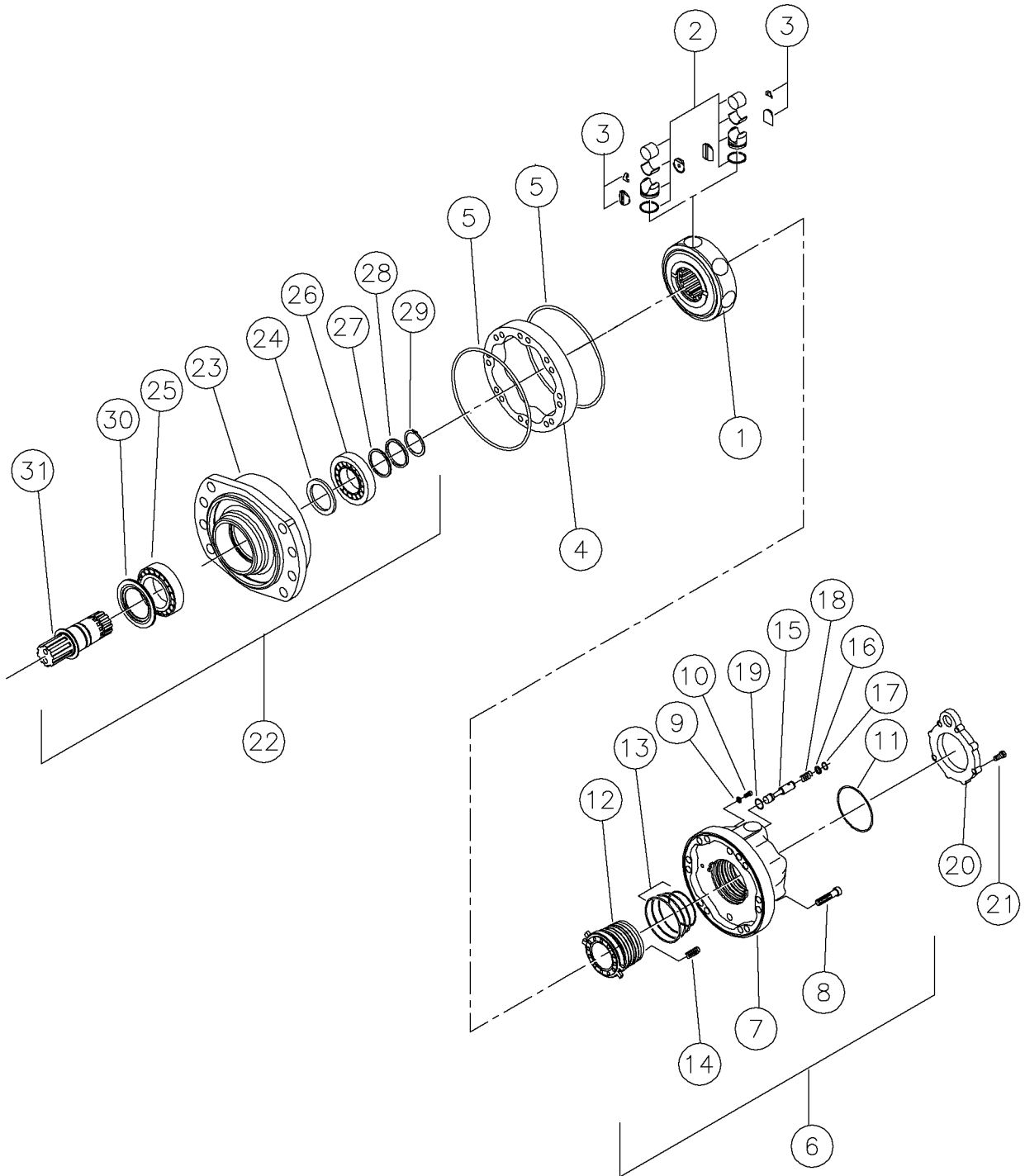
Bucket Greaser Cylinder Fig 11-23x01



Bucket Greaser Cylinder Fig 11-23x01

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		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

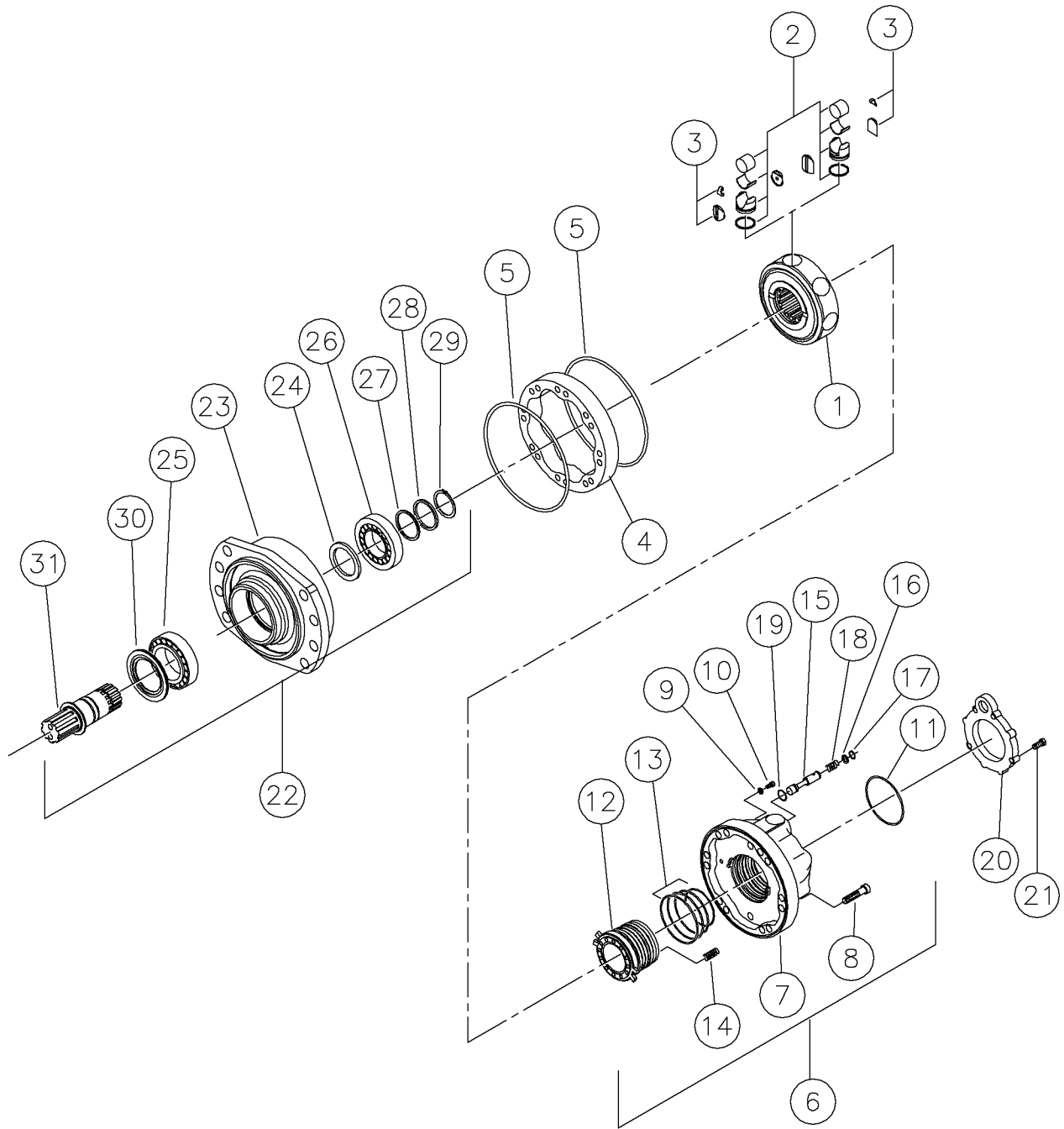
Hyd. Motor Fig 11-24



Hyd. Motor Fig 11-24

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		224897003	CYLINDER BLOCK	1	Inc. Ref. No's 2 & 3
2		224897005	PISTON CL "0"	1	
3		224897017	REPAIR KIT-PISTON	1	
4		208151001	CAM RING	1	Inc. Ref. No. 5
5		256555021	O-RING	2	
6		296278024	VALVING COVER ASSEMBLY	1	Inc. Ref. No's 7-19
7		235790005	VALVING COVER	1	
8		235790007	SCREW	16	
9		608383001	WASHER	2	
10		140255041	SCREW - BOLT	2	
11		608385001	O-RING	1	
12		296278025	VALVING	1	
13		256555027	SEAL KIT	1	
14		84550029	SPRING	8	
15		235790013	VALVE SPOOL	1	
16		235790017	WASHER	1	
17		235790019	SNAP RING	1	
18		235790015	SPRING	1	
19		235790011	O-RING	1	
20		235790021	BACK PLATE	1	Inc. Ref. No. 21
21		235790023	BOLT	6	
22		276258011	BEARING SUPPORT ASSEMBLY	1	Inc. Ref. No's 23-31
23		276258005	BEARING SUPPORT	1	
24		256555011	RUBBER SEAL RING	1	
25		256555007	BEARING	1	
26		256555013	BEARING	1	
27		256555015	SET OF SPUDS	1	
28		256555017	RING	1	
29		208165001	SNAP RING	1	
30		256555005	ENVIRONMENT SEAL	1	
31		276258009	SHAFT	1	
				1	
		296273602	MOTOR - HYD 38/19 (MSO8)('G')		Inc. All Items in Figure
		208170001	SEAL KIT-COMPLETE	1	

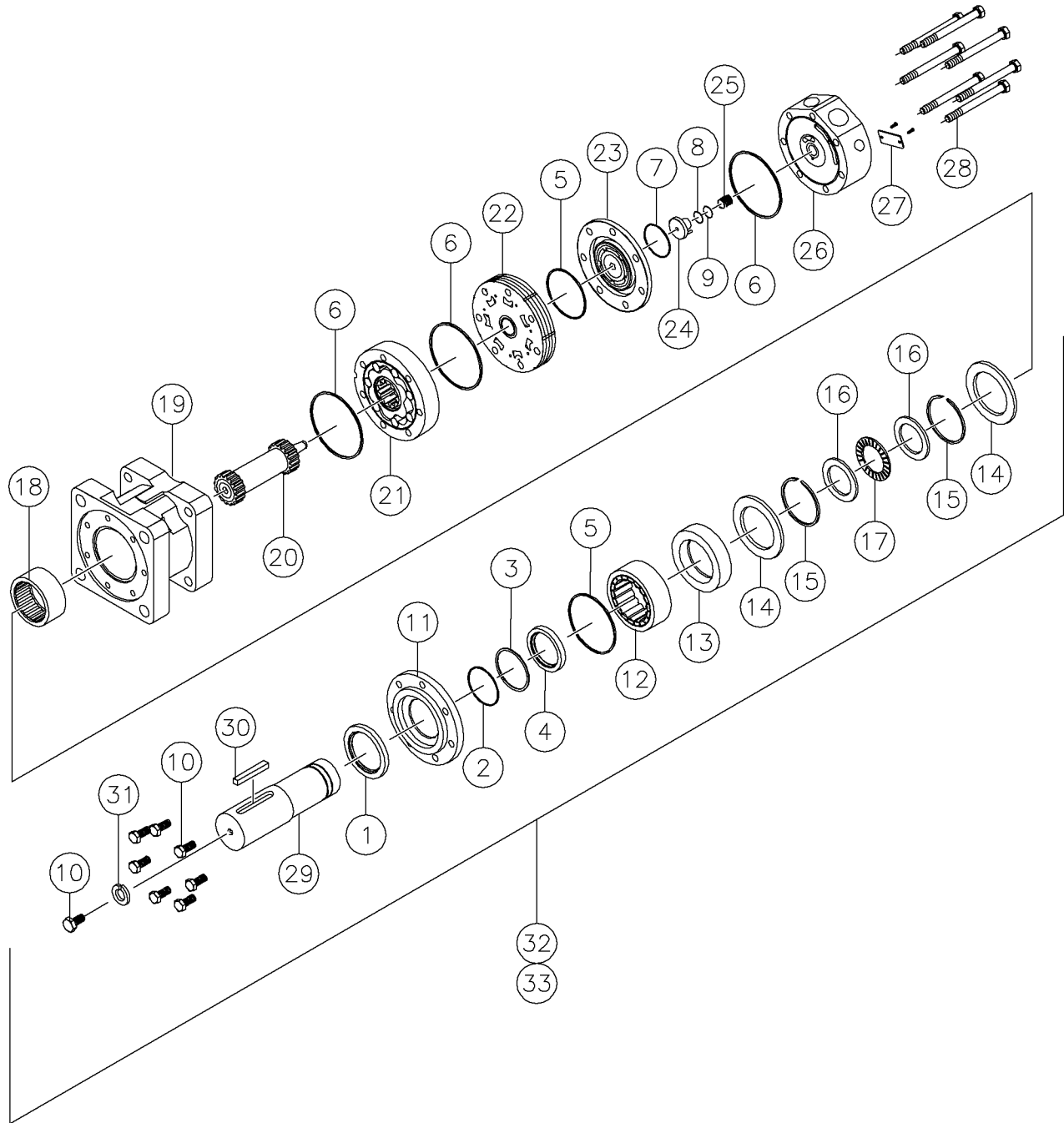
Hyd. Motor Fig 11-25



Hyd. Motor Fig 11-25

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		224897003	CYLINDER BLOCK	1	Inc. Ref. No's 2 & 3
2		224897005	PISTON CL "0"	1	
3		224897017	REPAIR KIT-PISTON	1	
4		208151001	CAM RING	1	Inc. Ref. No. 5
5		256555021	O-RING	2	
6		296278024	VALVING COVER ASSEMBLY	1	Inc. Ref. No's 7-19
7		235790005	VALVING COVER	1	
8		235790007	SCREW	16	
9		608383001	WASHER	2	
10		140255041	SCREW - BOLT	2	
11		608385001	O-RING	1	
12		296278025	VALVING	1	
13		256555027	SEAL KIT	1	
14		84550029	SPRING	8	
15		235790013	VALVE SPOOL	1	
16		235790017	WASHER	1	
17		235790019	SNAP RING	1	
18		235790015	SPRING	1	
19		235790011	O-RING	1	
20		235790021	BACK PLATE	1	Inc. Ref. No. 21
21		235790023	BOLT	6	
22		276258011	BEARING SUPPORT ASSEMBLY	1	Inc. Ref. No's 23-31
23		276258005	BEARING SUPPORT	1	
24		256555011	RUBBER SEAL RING	1	
25		256555007	BEARING	1	
26		256555013	BEARING	1	
27		256555015	SET OF SPUDS	1	
28		256555017	RING	1	
29		208165001	SNAP RING	1	
30		256555005	ENVIRONMENT SEAL	1	
31		276258009	SHAFT	1	
				1	
		296273528	MOTOR - HYD - 38/19 (MS08) ('D')		Inc. All Items in Figure
		208170001	SEAL KIT-COMPLETE	1	

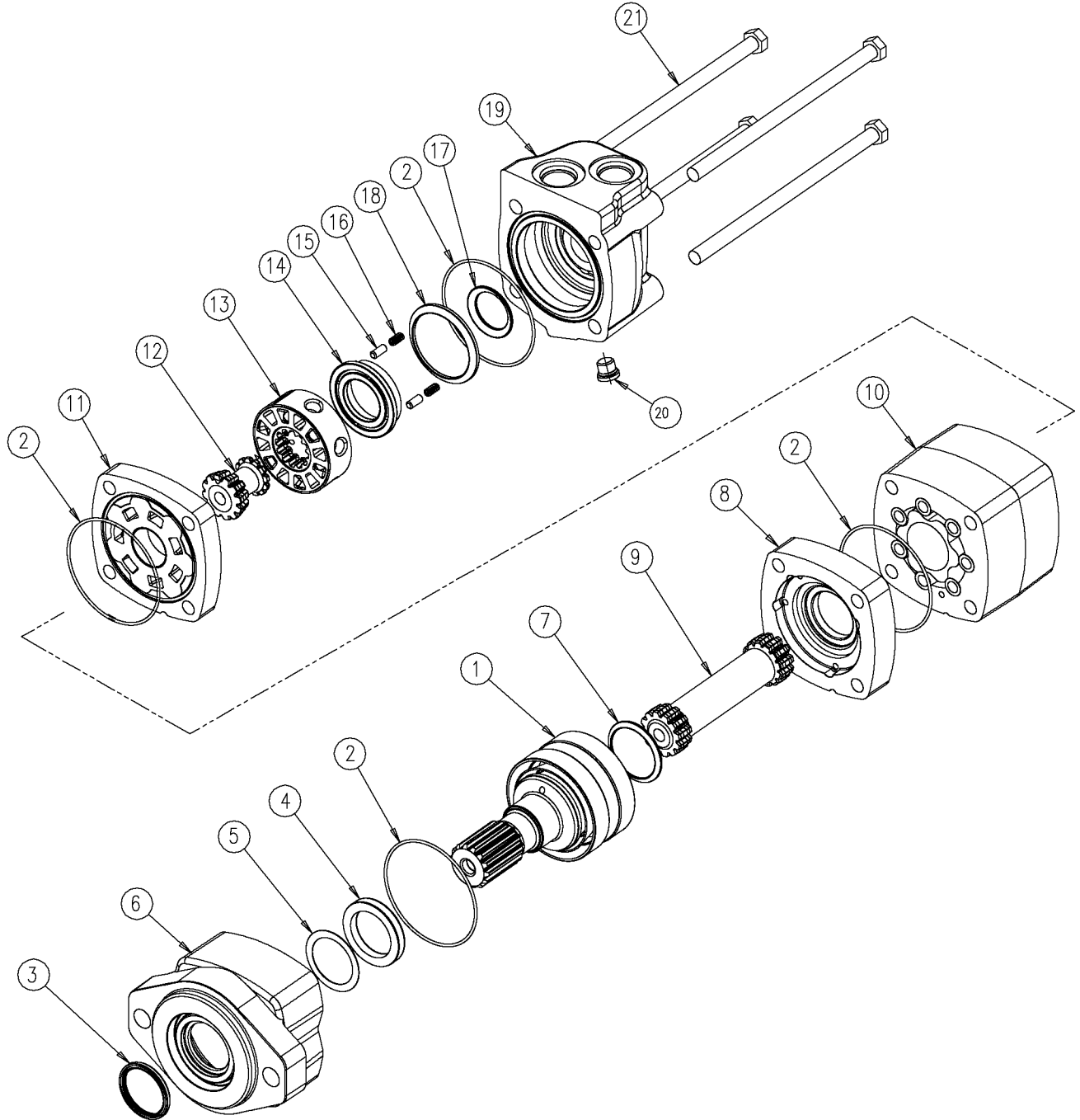
Motor-Stakedown Fig 11-26



Motor-Stakedown Fig 11-26

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	SEAL-DUST	1	Not Sold Separately
2		NSS	SHIM-METAL BACKUP	1	Not Sold Separately
3		NSS	SEAL-TEFLON BACKUP	1	Not Sold Separately
4		NSS	SEAL-SHAFT	1	Not Sold Separately
5		NSS	SEAL-LATHE CUT	2	Not Sold Separately
6		NSS	SEAL-BODY	3	Not Sold Separately
7		NSS	SEAL COMMUTATOR	1	Not Sold Separately
8		NSS	SEAL O-RING	1	Not Sold Separately
9		NSS	SEAL-TEFLON BACKUP	1	Not Sold Separately
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, And 25
27		NSS	I.D. TAG ASSEMBLY	1	Not Sold Separately
28		236219039	BOLT	7	
29		236219041	SHAFT-ASSEMBLY	1	Inc. Ref. 1-5, 10-17, And 29-31
30		236219005	KEY-SHAFT	1	
31		480011	WASHER-1/2 S/T LOCK	1	
32		236219003	SEAL KIT-HYD. MOTOR		Inc. Ref. 1-9
33		236219001	HYD MOTOR-66CI		Inc. All Items In Figure

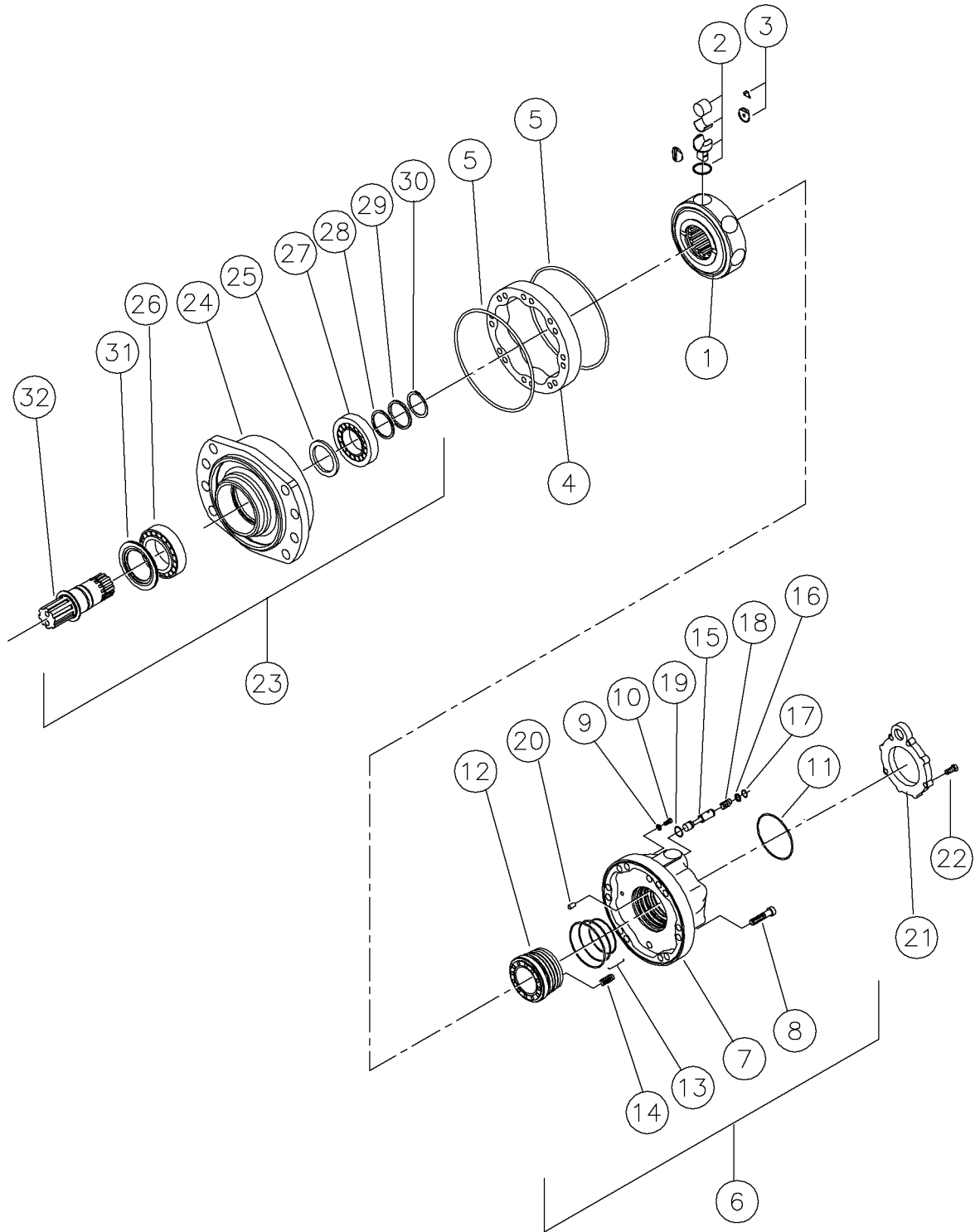
Motor-Rod Loader Fig 11-27



Motor-Rod Loader Fig 11-27

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		180005753	SHAFT-SUB ASSY	1	
2		770007	SEAL-O RING 9022-6	4	
3		770071	SEAL-DUST # 9121-1	1	
4		296285188	SEAL-SHAFT	1	
5		260576013	WASHER-BACKUP	1	
6		26285189	HOUSING-BEARING	1	
7		296271183	SHAFT - SHAFT FACE	1	
8		180005755	PLATE WEAR	1	
9		180005756	DRIVE	1	
10		296285190	GEROLD SUB-ASSY	1	
11		180005757	PLATE - VALVE	1	
12		180005758	DRIVE - VALVE	1	
13		243316017	VALVE	1	
14		770089	PLATE-BALANCE #8915	1	
15		243316023	PIN	2	
16		770039	SPRING-7383	2	
17		770057	SEAL-FACE INNER 9049-1	1	
18		770091	SEAL-FACE OUTER #9135-2	1	
19		770093	HOUSING-(SAE 10 PORTS)#21564-1	1	
20		180005760	PLUG - SUB ASSY	1	
21		180005761	SCREW-CAP	4	
		296287807	MOTOR-HYD. 4K COMPACK		Inc. All Items In Figure
		296285191	SEAL KIT		

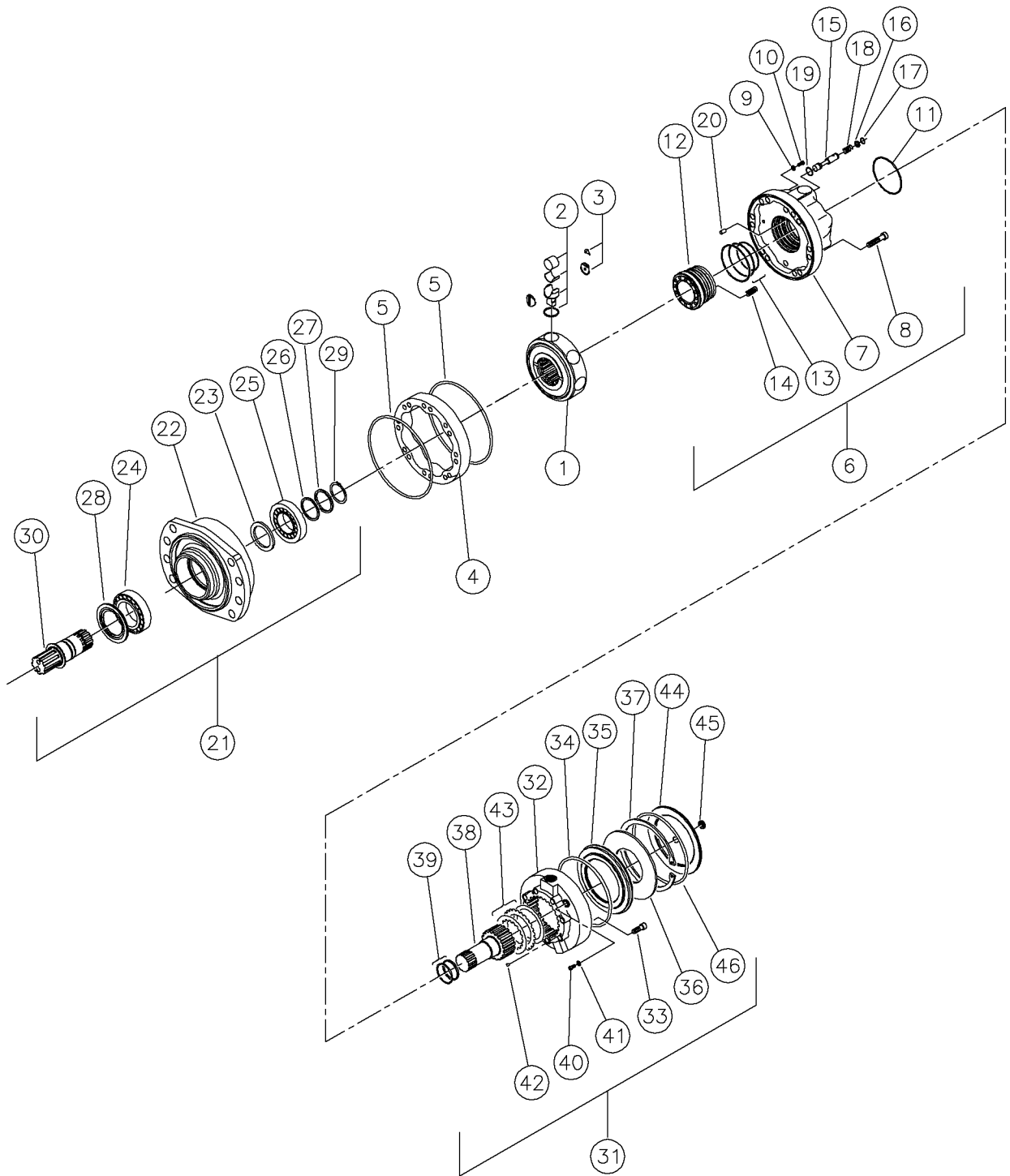
Motor-Thrust Fig 11-28



Motor-Thrust Fig 11-28

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296251786	BLOCK - CYLINDER	1	Inc. Ref. No's 2 & 3
2		296251787	PISTON - CL.O	1	
3		296251789	REPAIR KIT	1	
4		296251790	CAM KIT	1	Inc. Ref. No. 5
5		296272980	O-RING	2	
6		296272981	VALVING COVER ASSEMBLY	1	Inc. Ref. No's 7-20
7		296272982	VALVING COVER	1	
8		235790007	SCREW	12	
9		608383001	WASHER	2	
10		140255041	SCREW - BOLT	2	
11		296251795	O-RING	1	
12		296251826	VALVE - DISTRIBUTION	1	
13		296251797	SEAL KIT	1	
14		84550029	SPRING	6	
15		296251827	SPOOL - VALVE	1	
16		296251828	WASHER	1	
17		296251829	SNAP RING	1	
18		296251830	SPRING	1	
19		296251831	O-RING	1	
20		296251832	PIN - SPLIT	1	
21		296251833	PLATE - BACK	1	Inc. Ref. No. 22
22		296251834	BOLT - M10X30	4	
23		296251800	BEARING SUPPORT ASSEMBLY	1	Inc. Ref. No's 24-32
24		296251801	SUPPORT - BEARING	1	
25		296251802	SEAL - SHAFT	1	
26		296251803	BEARING	1	
27		296251804	BEARING	1	
28		296251805	SHIM KIT	1	
29		296251806	SPACER - BEARING	1	
30		296251807	SNAP RING	1	
31		296251808	SEAL - SHAFT	1	
32		296251809	SHAFT	1	
		296273527	MOTOR - HYD 38/19 (MS05)		Inc. All Items in Figure

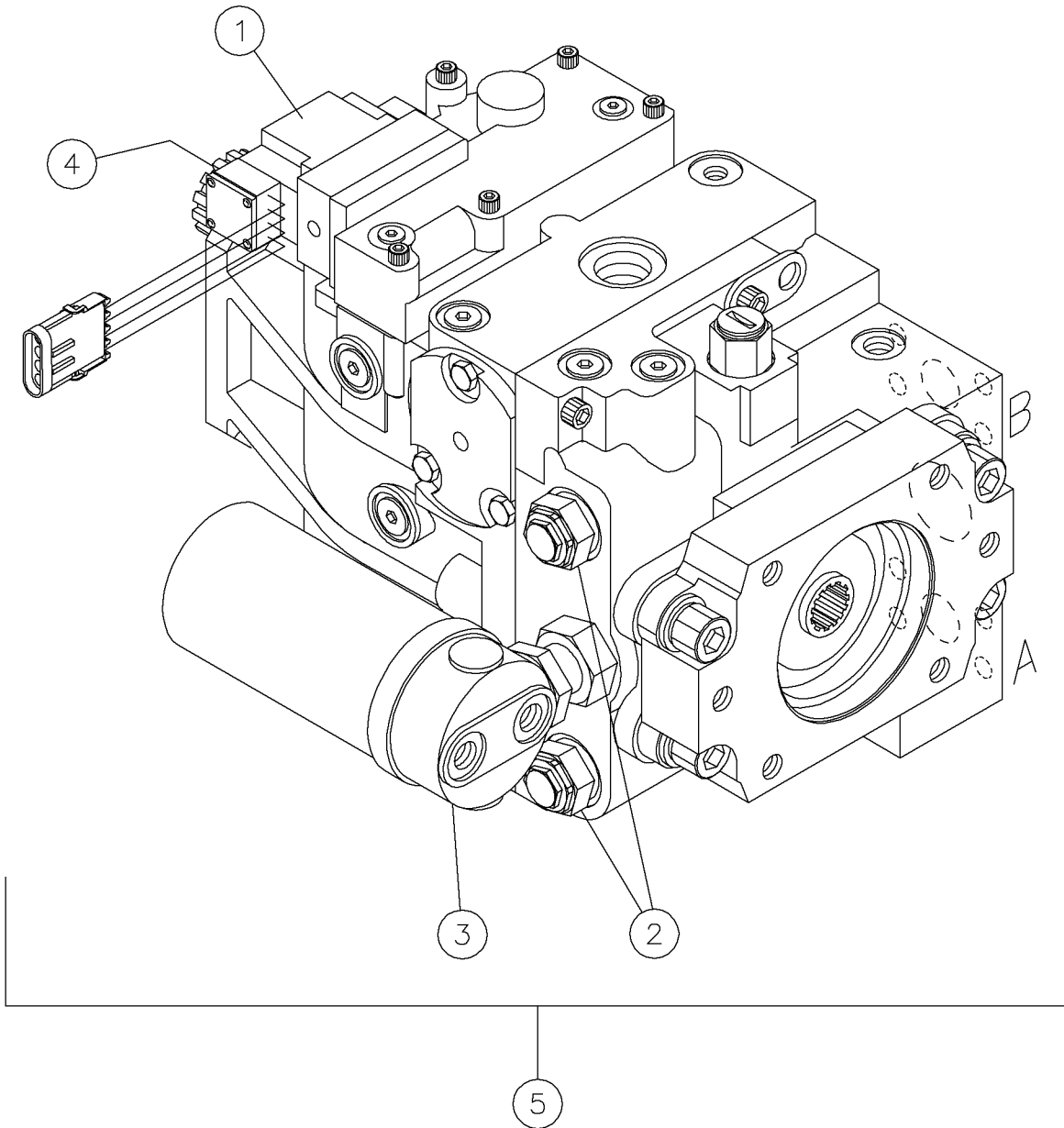
Motor-Thrust W/Brake Fig 11-29



Motor-Thrust W/Brake Fig 11-29

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296251786	BLOCK - CYLINDER	1	Inc. Ref. No's 2 & 3
2		296251787	PISTON - CL.O	1	
3		296251789	REPAIR KIT	1	
4		296251790	CAM KIT	1	Inc. Ref. No. 5
5		296272980	O-RING	2	
6		296272981	VALVING COVER	1	Inc. Ref. No's 7-20
7		296272986	VALVING COVER	1	
8		235790007	SCREW	12	
9		608383001	WASHER	2	
10		140255041	SCREW - BOLT	2	
11		296251795	O-RING	1	
12		296251826	VALVE - DISTRIBUTION	1	
13		296251797	SEAL KIT	1	
14		84550029	SPRING	6	
15		296251827	SPOOL - VALVE	1	
16		296251828	WASHER	1	
17		296251829	SNAP RING	1	
18		296251830	SPRING	1	
19		296251831	O-RING	1	
20		296251832	PIN - SPLIT	1	
21		296251800	BEARING SUPPORT ASSEMBLY	1	Inc. Ref. No's 22-30
22		296251801	SUPPORT - BEARING	1	
23		296251802	SEAL - SHAFT	1	
24		296251803	BEARING	1	
25		296251804	BEARING	1	
26		296251805	SHIM KIT	1	
27		296251806	SPACER - BEARING	1	
28		296251807	SNAP RING	1	
29		296251808	SEAL - SHAFT	1	
30		296251809	SHAFT	1	
31		296272982	DISC BRAKE	1	Inc. Ref. No's 32-46
32		296272983	BRAKE BODY	1	
33		296251812	BOLT - M1 - X10	8	
34		296272984	O-RING	1	
35		296251814	PISTON - BRAKE	1	
36		296251815	WASHER-BELVILLE	1	
37		296251816	SNAP RING	1	
38		296251817	SHAFT - BRAKE	1	
39		296251818	SEAL KIT-BRAKE	1	
40		140255041	SCREW - BOLT	2	
41		608383001	WASHER	2	
42		296272985	BALL	6	
43		296251819	DISC KIT - BRAKE	1	
44		296251820	COVER - BRAKE	1	
45		608498001	PLUG	1	
46		296251821	O-RING	1	
		296273526	MOTOR - HYD 38/19 (MS05) W/BRAKE		Inc. All Items in Figure

Hyd. Pump-90 Series 55cc Fig 11-30



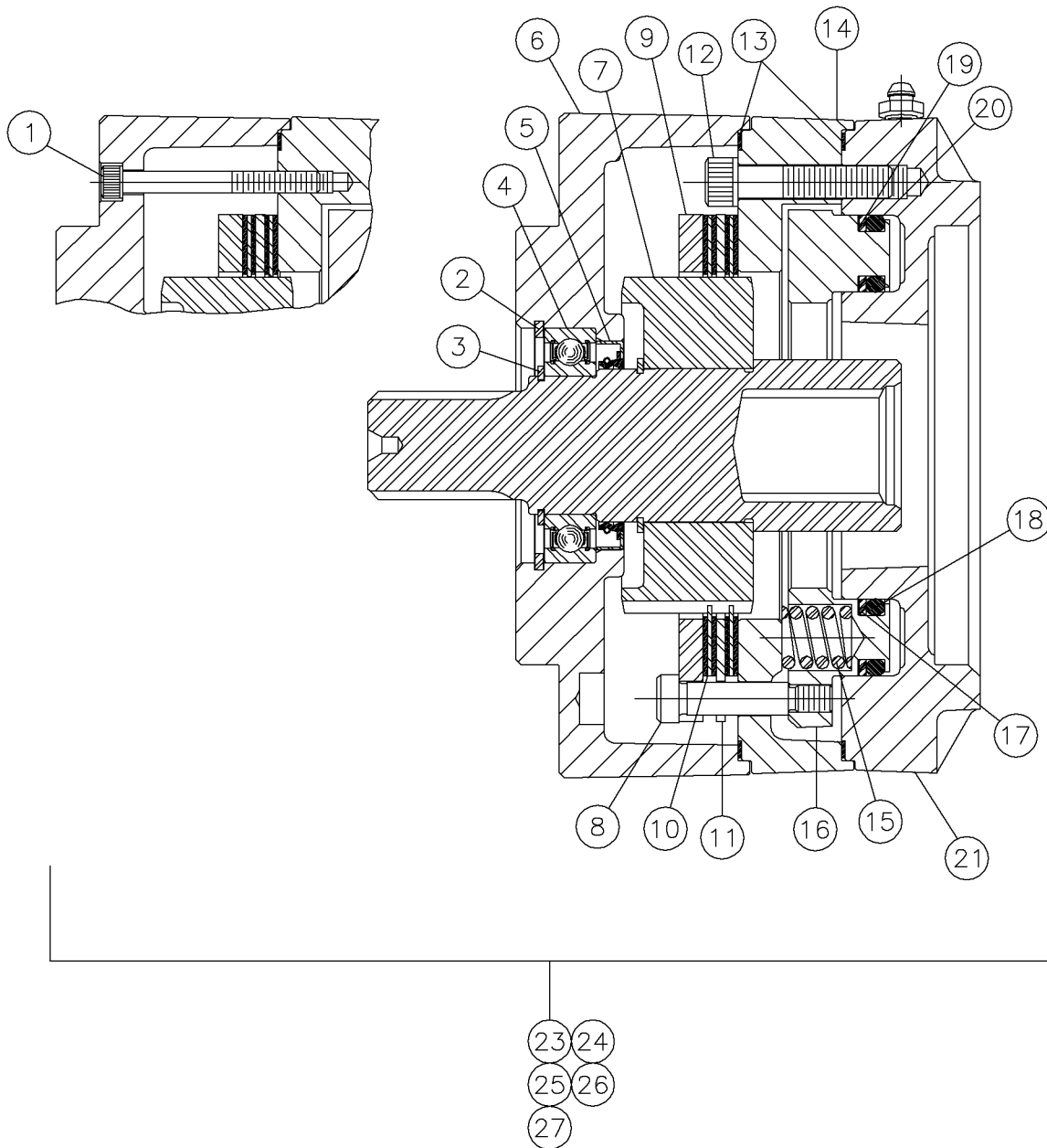
Hyd. Pump-90 Series 55cc Fig 11-30

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278884003	EDC KIT W/ 4-WAY PACKARD CONNECTOR	1	
		224413005	GASKET-CONTROL	1	
		278884005	PRESSURE CONTROL PILOT VALVE	1	
2		85642007	VALVE-MULTI-FUNCTION	2	Specify Pressure Setting
		85642011	O-RING	1	Outer
		85642051	O-RING	1	Inner
3		85462051	FILTRATION-INTEGRAL SHT FILTER	1	
		81902001	FILTER-OIL	1	
4		98688009	LIP SEAL	1	
		98688011	SEAL-CARRIER	1	
		98688013	O-RING	1	
5		278884001	PUMP - HYD 90 SERIES 55CC	1	Complete

Planetary Gearbox Fig 11-31

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	September, 2006		Updated Figure
1		244405057	SEAL - OIL	1	
2		244405055	SEAL - V RING	1	
3		244405053	BEARING - CONE	1	
4		244405051	BEARING - CUP	1	
5		244405049	BEARING - CONE	1	
6		244405047	BEARING - CUP	1	
7		244405045	WASHER - THRUST	1	
8		244405043	WASHER - LOCK	1	
9		244405041	NUT - LOCK	1	
10		244405039	COMPOUND - SEALING	2	
11		221652037	BOLT	8	
12		244405037	COVER	1	
13		244405035	RING - RETAINING	1	
14		244405033	GEAR - PRI SUN	1	
15		244405031	WASHER - THRUST	1	
16		244405029	PLUNGER	1	
17		244405027	COVER - DISENGAGE	1	
18		244405025	O-RING	1	
19		244405023	BOLT - HEX HEAD	2	
20		244405021	ASSEMBLY - PRI CARRIER	1	
21		244405019	GEAR - RING	1	
22		244405017	ASSEMBLY - SEC CARRIER	1	
23		244405015	RING - RETAINING	2	
24		244405013	WASHER - THRUST	2	
25		244405011	SPRING - DISENGAGE	1	
26		244405009	HUB	1	
27		221652013	WASHER	18	
28		221652011	BOLT	18	
29		244405007	SHAFT - IMPUT	1	
30		244405005	COUPLING	1	
31		221652035	MAGNETIC PLUG	1	
32		244405001	GEARBOX - PLANETARY 7WC14150ZX		Inc. All Items In Figure

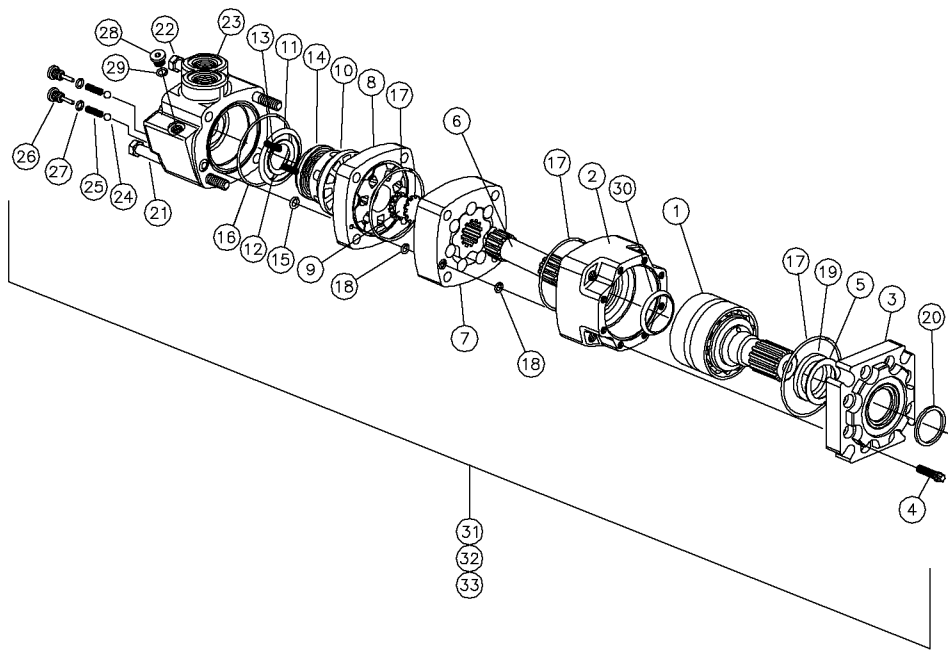
Track Drive Park Brake Fig 11-32



Track Drive Park Brake Fig 11-32

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		NSS	BOLT-SOCKET HEAD	2	Not Sold Separately
2		NSS	RING-RETAINING	1	Not Sold Separately
3		NSS	RING-RETAINING	1	Not Sold Separately
4		NSS	BEARING	1	Not Sold Separately
5		NSS	SEAL-OIL	1	Not Sold Separately
6		NSS	COVER	1	Not Sold Separately
7		NSS	SPINE SHAFT ASSY	4	Not Sold Separately
8		NSS	BOLT-SOCKET HEAD SHOULDER	4	Not Sold Separately
9		NSS	DISC-PRIMARY	1	Not Sold Separately
10		NSS	DISC-ROTOR	5	Not Sold Separately
11		NSS	DISC-STATOR	4	Not Sold Separately
12		NSS	SCREW-SOCKET HEAD CAP	4	Not Sold Separately
13		NSS	GASKET	2	Not Sold Separately
14		NSS	PLATE-SPRING	1	Not Sold Separately
15		NSS	SPRING	8	Not Sold Separately
16		NSS	PISTON	1	Not Sold Separately
17		NSS	BACK-UP RING	1	Not Sold Separately
18		NSS	O-RING	1	Not Sold Separately
19		NSS	BACK-UP RING	1	Not Sold Separately
20		NSS	O-RING	1	Not Sold Separately
21		NSS	PLATE-PRESSURE	1	Not Sold Separately
22		NSS	PIN-DOWEL	2	Not Shown (Not Sold Separately
23		278785003	O-RING & BACK UP RING KIT	1	Inc. Ref. 5, 13, 17-20, And Loctite
24		278785005	STANDARD TORQUE LINING KIT	1	Inc. Ref. 4-5, 13, & Loctite
25		278785007	BEARING KIT	1	Inc. Ref. 13, 15, & Loctite
26		278785009	SPRING KIT	1	Inc. Ref. 9-11, 13 & Loctite
27		278785001	BRAKE-TRACK DRIVE PARK		Inc. All Items In Figure
			NSS NOT SOLD SEPARATELY		

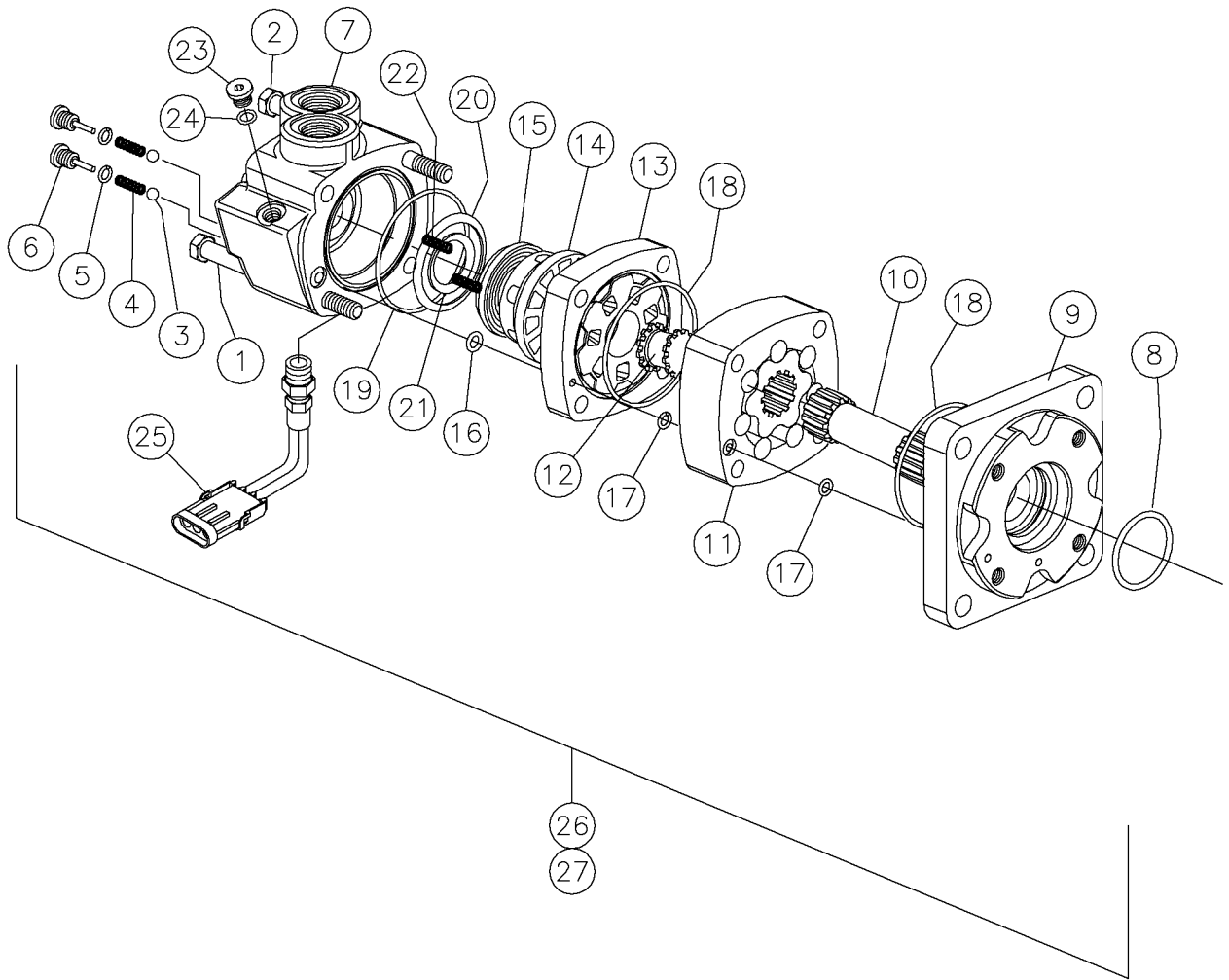
Motor-Track Drive Fig 11-33



Motor-Track Drive Fig 11-33

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251105003	SHAFT AND BEARING KIT	1	
2		13514011	HOUSING-BEARING 8487	1	
3		13514009	SHAFT & BEARING KIT 8709-1	1	
4		57982013	SCREW	8	
5		775011	WASHER-BACKUP 6943	1	
6		251105005	DRIVE-MAIN	1	
7		NSS	GEROLER	1	Not Sold Separately
8		600076017	PLATE-VALVE	1	
9		600076019	VALVE	1	
10		600076021	VALVE	1	
11		775041	SEAL-OUTER FACE 6962	1	
12		775043	SEAL-FACE INNER 6961	1	
13		224408017	SPRING	2	
14		53853017	BALANCE RING&PINS 21316CHARLYN	1	
15		4485011	O-RING-250003-903 (90D)	2	
16		775049	SEAL-9022-007	1	
17		13514033	SEAL 3 1/2" (O-RING)	3	
18		215338009	SEAL	2	
19		53853005	SEAL-SHAFT 9057-12 CHAR-LYNN	1	
20		53853003	SEAL-DUST 9031-1 CHAR-LYNN	1	
21		251105007	SCREW - CAP	3	
22		251109009	SCREW-CAP	1	
23		57982023	VALVE-HOUSING ASSY	1	
24		224408035	BALL	2	
25		224408037	SPRING	2	
26		224408039	PLUG/O-RING S/A	2	
27		4485011	O-RING-250003-903 (90D)	2	
28		120872025	HEX PLUG	1	
29		1749025	SEAL-O RING 15007 (90D)	1	
30		600076033	SEAL-SHAFT FACE	1	
31		53853027	REPAIR KIT-MOTOR 61234 CHARLYN	1	Inc. Ref. 11-12, 15-16, 18, 27, & 29
32		53853025	REPAIR KIT-SHAFT 61236 CHARLYN	1	Inc. Ref. 5, 17, 19-20, & 28
33		251105001	MOTOR-7.9 CID 4000 SERIES HYD.	1	Inc. All Items In Figure

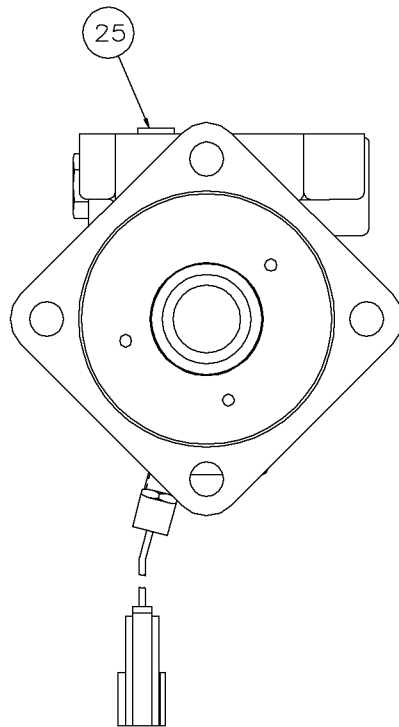
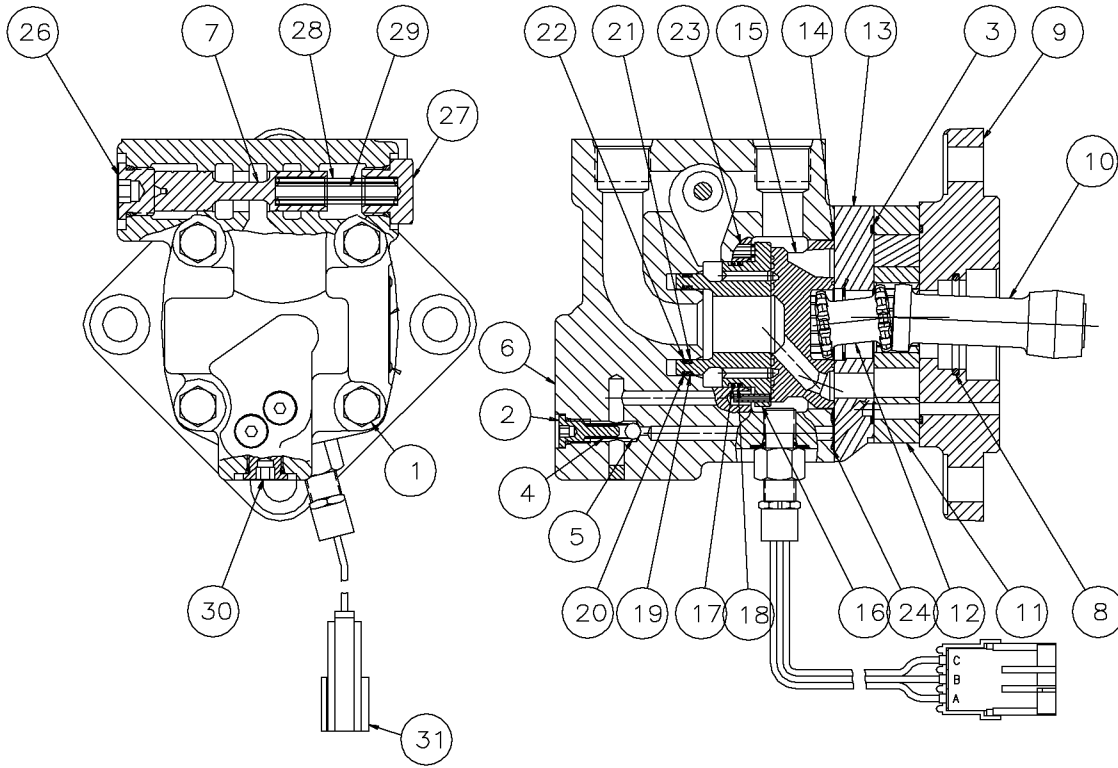
Water Pump Motor-50 GPM FMC Fig 11-34



Water Pump Motor-50 GPM FMC Fig 11-34

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		13514027	BOLT-14386-007	3	
2		13514025	BOLT-14386-009	1	
3		224408035	BALL	2	
4		224408037	SPRING	2	
5		4485011	O-RING-250003-903 (90D)	2	
6		224408039	PLUG/O-RING S/A	2	
7		251106007	HOUSING - VALVE	1	
8		215338003	SEAL	1	
9		251106003	FLANGE - MOUNTING	1	
10		217192005	DRIVE	1	
11		NSS	GEROLER	1	Not Sold Separately
12		600076019	VALVE	1	
13		600076017	PLATE - VALVE	1	
14		600076021	VALVE	1	
15		53853017	BALANCE RING&PINS 21316CHARLYN	1	
16		4485011	O-RING-250003-903 (90D)	2	
17		215338009	SEAL	2	
18		13514033	SEAL-3 1/2 ID	2	
19		775049	SEAL-9022-7	1	
20		775041	SEAL-OUTER FACE 6962	1	
21		775043	SEAL-FACE INNER 6961	1	
22		224408017	SPRING	2	
23		120872025	HEX PLUG	1	
24		1749025	SEAL-O RING 15007 (90D)	1	
25		251106009	SPEED PICKUP - ELECTRONIC	1	
26		251106005	SEAL KIT	1	Inc. Ref 5, 16, 17, 19-21, 24
27		251106001	MOTOR -12.5 CID 4000 SERIES HY	1	Inc. All Items In This Figure

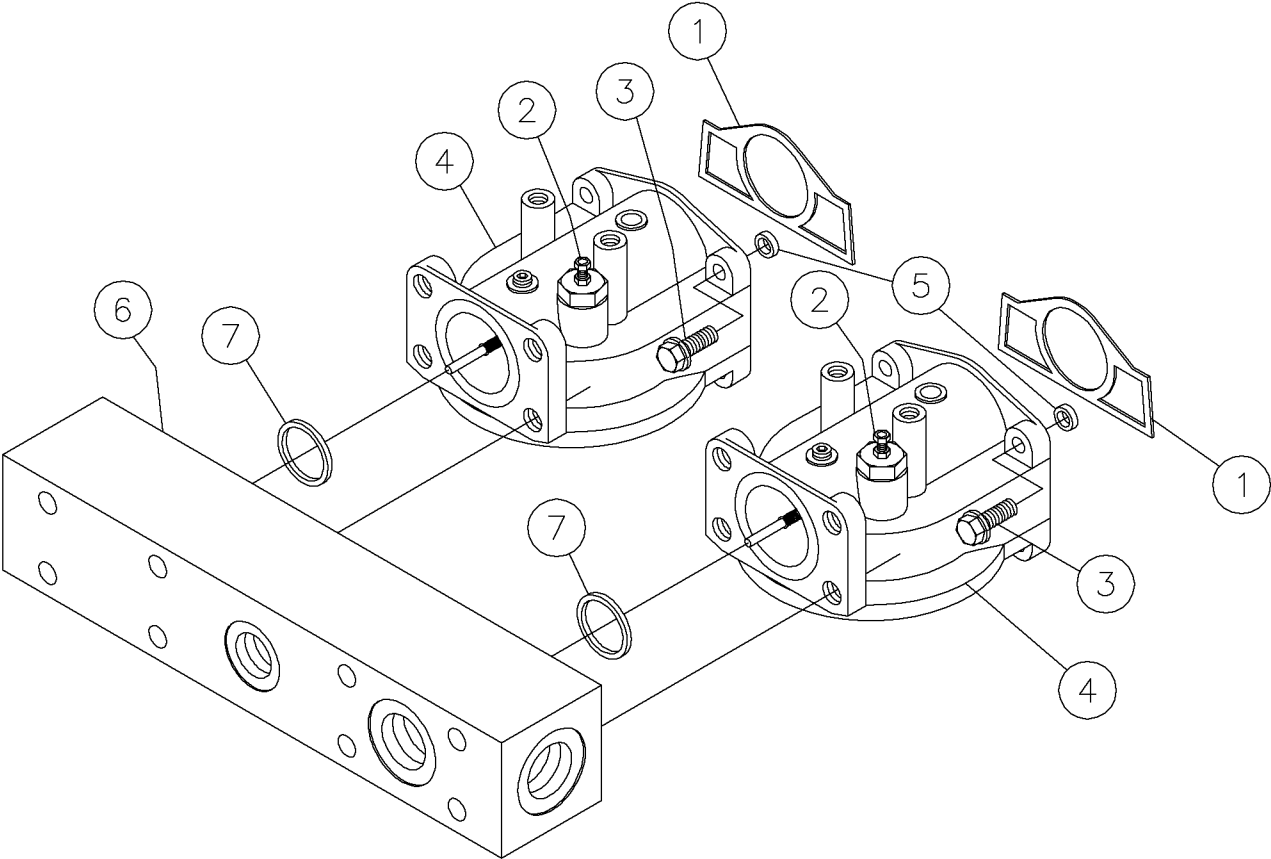
Water Pump Motor-50 GPM Apex Fig 11-35



Water Pump Motor-50 GPM Aplex Fig 11-35

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		771017	BOLT	4	
2		4485015	CHECKING PLUG ASSY.	2	
3		4485011	O-RING-250003-903 (90D)	2	
4		770007	SEAL-O RING 9022-6	2	
5		770051	SPRING	2	
6		275996003	HOUSING	1	
7		201666043	SPOOL-CONTROL	1	
8		221557007	SEAL-O-RING	1	
9		221557009	FLANGE-MOUNTING (BEARING LESS)	1	
10		770081	DRIVE	1	
11		NSS	GEROLER ASSY.	1	
12		774011	DRIVE-VALVE	1	
13		275996002	PLATE - VALVE	1	
14		201666009	SEAL	1	
15		220749003	VALVE	1	
16		201666013	RING ASSY.-BALANCING	1	
		201666015	PIN-SPRING	2	
17		201666023	O-RING	1	
18		201666021	RING-BACKUP	2	
19		201666025	O-RING	1	
20		201666027	RING-BACKUP	1	
21		201666017	O-RING	1	
22		201666019	RING-BACKUP	1	
23		770039	SPRING	1	
24		1749025	SEAL-O-RING	1	
25		4485021	PLUG ASSY.	1	
		4485023	O-RING	1	
26		66845001	PLUG ASSY.	1	
		4343031	O-RING	1	
27		201666035	PLUG-ASSY.	1	
		4343031	O-RING	1	
28		201666041	SPRING-COMPRESSION	1	
29		201666039	SPRING-COMPRESSION	1	
30		500659021	SAE PLUG	1	
31		251106009	SPEED PICKUP - ELECTRONIC	1	
		275996001	MOTOR - HYD. (EATON) 2 SP.		Inc Ref No's 1-29
		221557003	REPAIR KIT		Inc Ref No's 3, 8, 14, 17-22 & 25-27

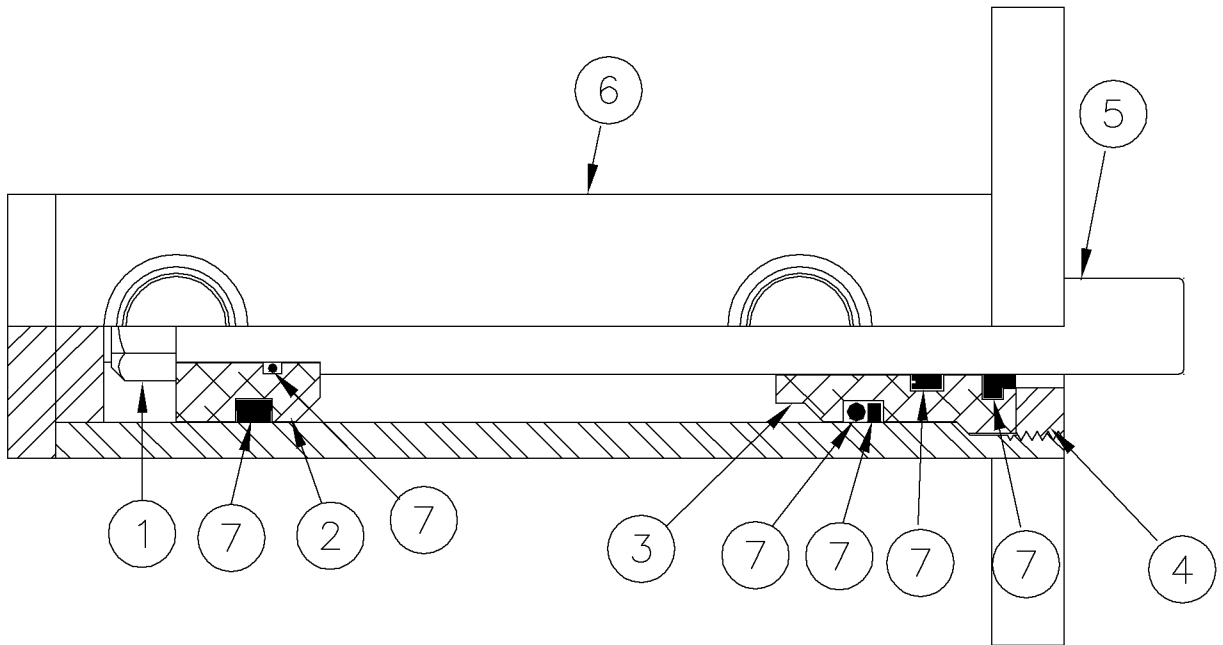
Filter Head Fig 11-36



Filter Head Fig 11-36

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		251140003	GASKET	2	
2		251140005	SWITCH - FILTER RESTRICTION	2	
3		4474010	BOLT-5/16-18X1 FLG.WHIZ PLATED	8	
4		251140001	HEAD - FILTER	2	
5		278858003	SEAL- FLANGE (FLUOROCARBON)	8	
6		251454001	BLOCK - MANIFOLD	1	
7		72895001	O RING-SQ. #16 FLANGE	2	
		296273660	ASSEMBLY - FILTER HEAD		Inc. All Items In Figure

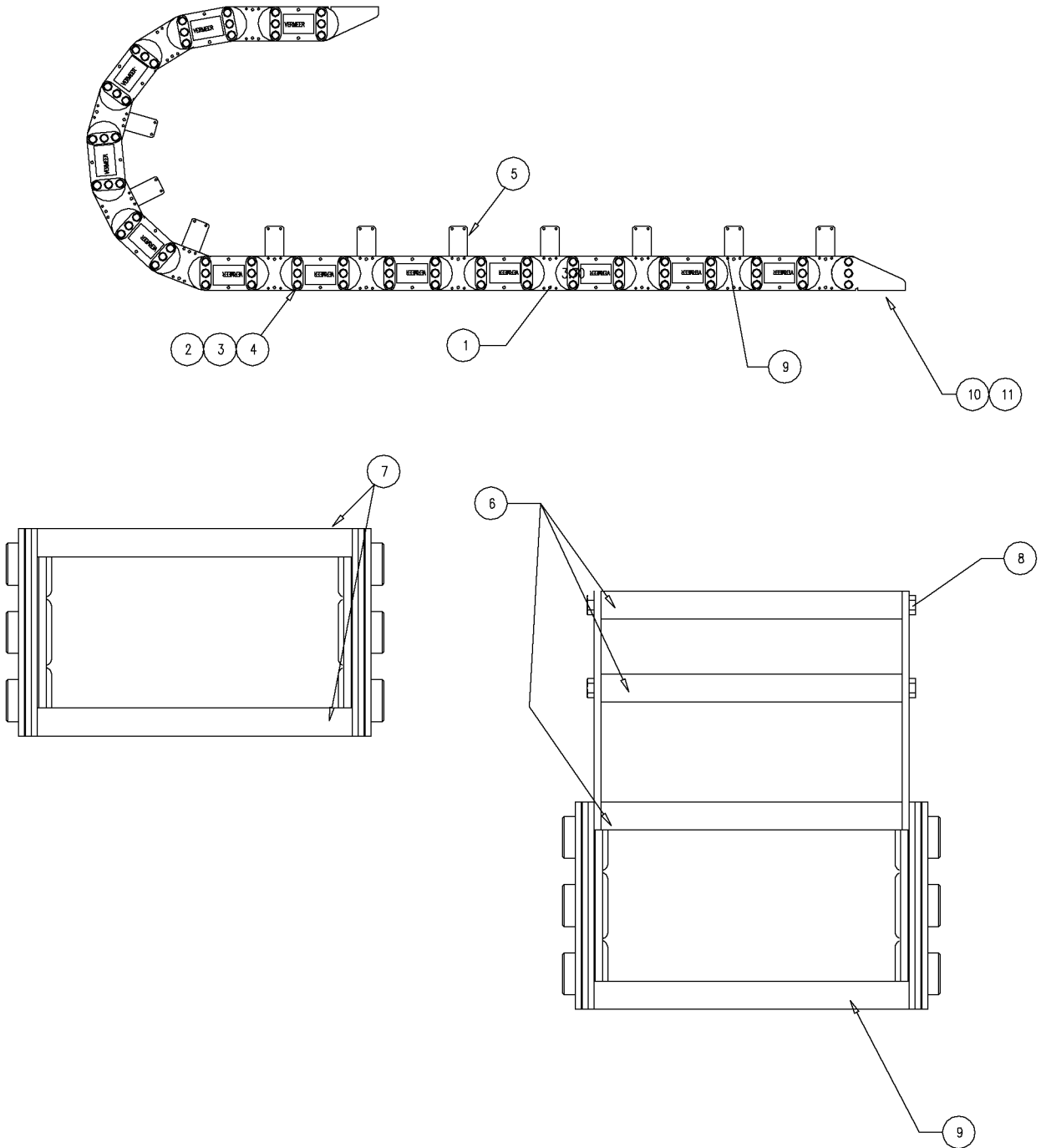
Grease Pump Fig 11-37



Grease Pump Fig 11-37

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		236113003	NUT	1	
2		296251772	PISTON	1	
3		234359007	HEAD	1	
4		234359013	COLLAR	1	
5		296265525	ROD-CYLINDER	1	
6		296265524	BODY-CYLINDER	1	
7		296251775	SEAL KIT	1	
		294899001	CYLINDER - HYD 1 X 2-3/8		Inc. All Items In Figure

Hose Track - (10') Fig 11-38



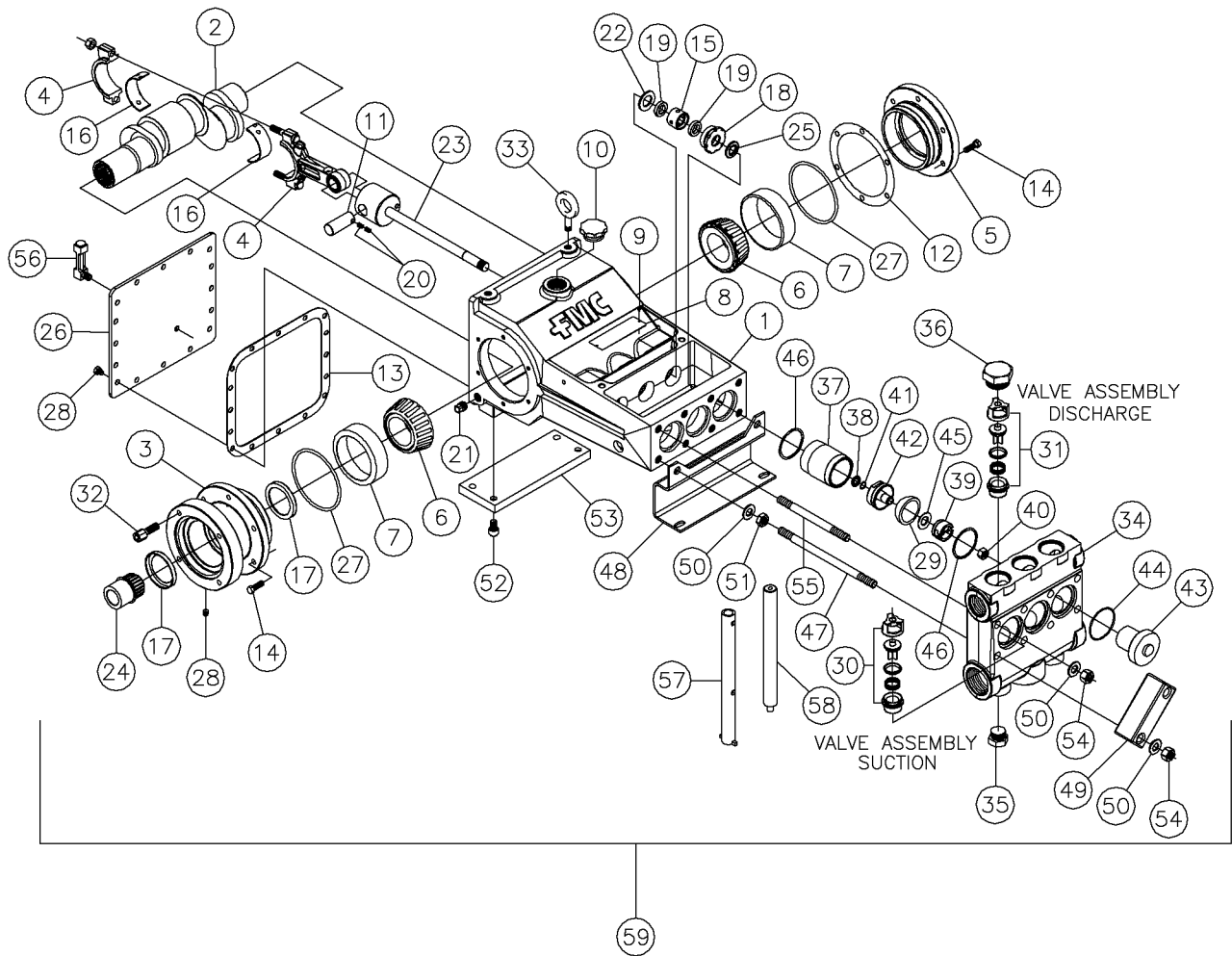
Hose Track - (10') Fig 11-38

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		276280003	PT45E INNER LINK R13.39	48	
2		234256017	PT45E HINGE PIN-PUSH ON FASTNR	138	
3		296251021	PT45E ONE-PIECE PUSH ON	46	
4		234256011	PT45E ANTI-FRICTION DISC	100	
5		276280007	BRACKET - PT45E CARRIER	20	
6		276280009	PT45E ALUM CHANNEL 5.375"	30	
7		276280011	PT45E ALUM CHANNEL 5.825"	14	
8		215252017	SCREW-WHIZ LOCK	136	
9		276280005	SCREW - WHIZ LOCK 10-32 X .62	40	
10		234256003	PT45E MOUNTING BRACKET ASSY (L)	2	
11		234256005	PT45E MOUNTING BRACKET ASSY(R)	2	
		296273692	HOSE TRACK - D24X40 II		Inc All Items In Figure

Water Pump-50 GPM FMC Fig 11-39

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278882002	PUMP CASE	1	
2		278882003	CRANK SHAFT	1	
3		278882004	BEARING HOUSING	1	
4		278882005	CONNECTING ROD	3	
5		278882006	BEARING HOUSING	1	
6		278882008	BEARING CONE	2	
7		278882009	BEARING CUP	2	
8		NA	NAME PLATE	1	
9		248507009	SCREW - #4 X 3/16" LG SELF - TAPPING	2	
10		276521025	OIL CAP	1	
11		278882010	WRIST PIN	3	
12		278882012	SHIM	A/R	
13		278882013	GASKET COVER	1	
14		228460003	CAPSCREW-3/8-16X1 1/4 HEX HD	12	
15		278882015	SLEEVE	3	
16		278882016	SHELL BEARING (PAIR)	6	
17		278882017	SEAL	2	
18		278882018	ROD SEAL RETAINER	3	
19		904540035	OIL SEAL	6	
20		278882019	SET SCREW	6	
21		276521047	PLUG -1/2" PIPE, MAG	2	
22		278882020	WASHER PACKING	3	
23		278882021	CROSS HEAD ASSEMBLY	3	
24		278882022	CROSS OVER SUB	1	
25		904540049	WASHER-BARRIER	3	
26		278882037	BACK COVER	1	
27		278882007	O-RING - UNIFORM #160	2	
28		278882039	CAPSCREW - 3/8-16 X 3/4 LG HEX HEAD	16	
29		278882024	PISTON CUP	3	
30		225946033	VALVE ASSEMBLY-SUCTION	3	
			CONTINUE ON NEXT PAGE		

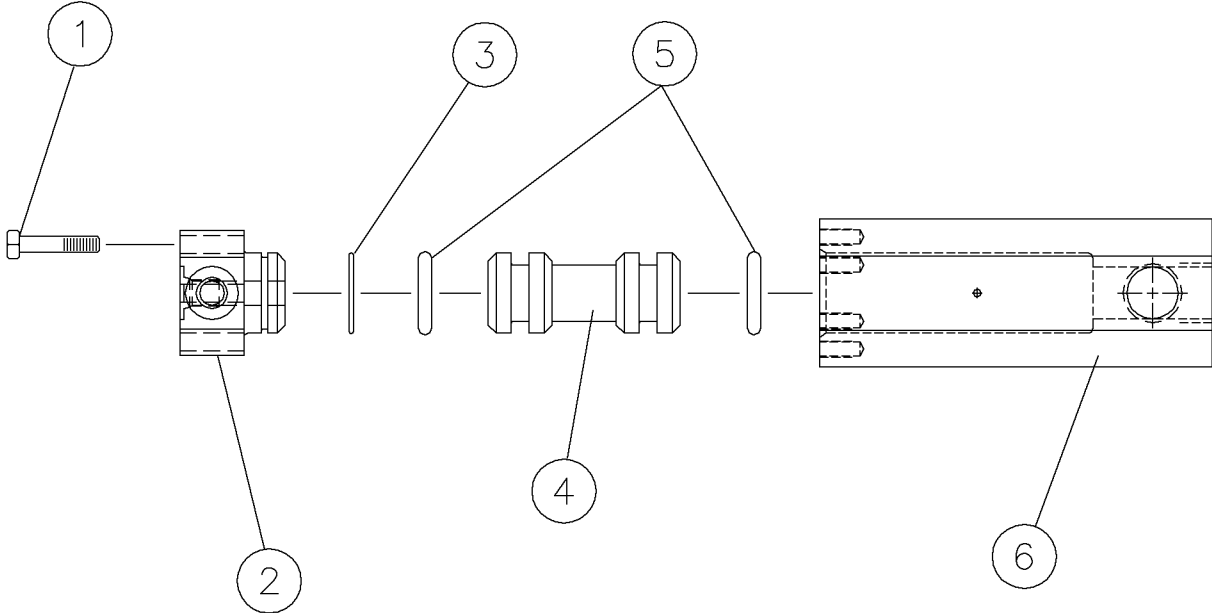
Water Pump-50 GPM FMC (Continued) Fig 11-39



Water Pump-50 GPM FMC (Continued) Fig 11-39

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
31		225946025	VALVE ASSEMBLY-DISCHARGE	3	
32		278882027	SOCKET HEAD CAP SCREW	4	
33		278882036	EYE BOLT - 1/2 X 1-1/2	4	
34		240141005	FLUID CYLINDER	1	
35		225946017	PLUG-1 3/16-12 UN-2A	3	
36		225946011	PLUG-1 7/8-12 UN-2A	3	
37		278882028	PISTON CYLINDER	3	
38		240141009	SEAL HOLDER	3	
39		240141011	PISTON NUT	3	
40		228460023	HEX NUT-SPECIAL BRASS	2	
41		228460029	O-RING	3	
42		278882029	PISTON HOLDER	3	
43		228460027	CYLINDER COVER	3	
44		225946021	O-RING	3	
45		240141015	PISTON WASHER	3	
46		904540105	GASKET	6	
47		278882030	STUD	6	
48		278882031	FRONT FOOT	1	
49		904540059	CLAMP-COVER	3	
50		904540061	WASHER-5/8	10	
51		278882033	JAM NUT	2	
52		278882034	SOCKET HEAD CAP SCREW	2	
53		278882035	REAR FOOT	1	
54		904540063	NUT- 5/8-11	8	
55		904540057	STUD-SHORT	2	
56		278882032	LIQUID LEVEL GAUGE	1	
57		240141019	TOOL - PISTON CUP REMOVAL	1	
58		240141017	TOOL - VALVE INSTALLATION	1	
59		278951001	PUMP - WATER		Inc. All Items In Figure

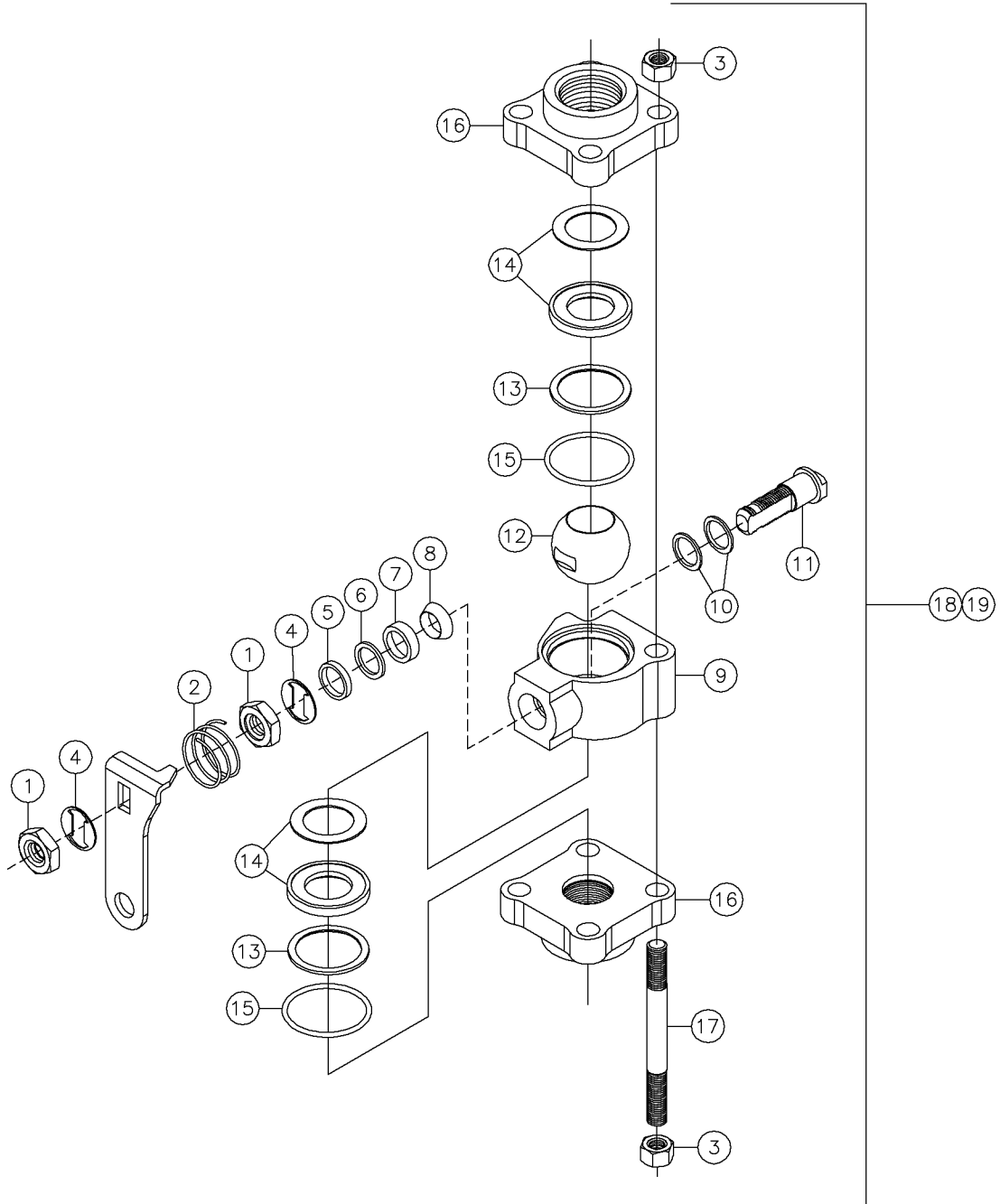
Water Pressure Dumbbell Piston Fig 11-40



Water Pressure Dumbell Piston Fig 11-40

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		250008001	BOLT 1/4-20 X 1 1/4 ZINC PL	6	
2		238138001	ENDCAP-MANIFOLD OUTLET FITTING	1	
3		234818001	O-RING 1.254OD X1.114ID-.070	1	
4		296265885	PISTON - INSERT MANIFOLD	1	
5		250612001	O-RING - 316	2	
6		296265884	FITTING - WATER MANIFOLD PRESSURE	1	
		296265854	WATER PRESSURE DUMBELL PISTON MAN.ASSY		Inc. All Items In Figure

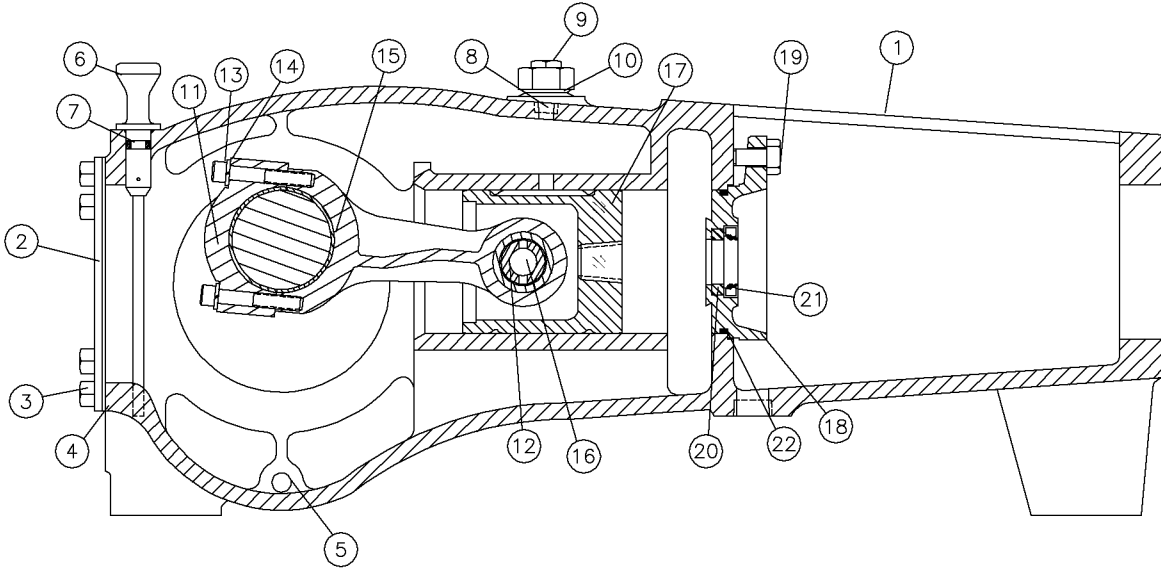
Water Ball Valve Fig 11-41



Water Ball Valve Fig 11-41

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		245079003	STEM NUT	2	
2		245079005	GROUNDING SPRING	1	
3		245079037	BODY NUT	8	
4		245079009	STEM SPRING	2	
5		278003003	GLAND	1	
6		245079013	PACKING SUPPORT	1	
7		245079015	TOP PACKING	1	
8		245079017	BOTTOM PACKING	1	
9		278003004	BODY CENTER	1	
10		278003005	BEARING - STEM	2	
11		245079023	STEM	1	
12		245079025	BALL	1	
13		245079027	SUPPORT RING	2	
14		245079029	SEAT/SEAT SPRING	2	
15		245079031	O-RING	2	
16		278003006	FLANGE	2	
17		245079035	BODY STUD	4	
18		245079039	KIT-MAINTENANCE		Inc. Ref. 4-6, 10 & 15
19		278003001	VALVE - 1" 1500 PSI BRASS BALL		Inc. All Items In Figure

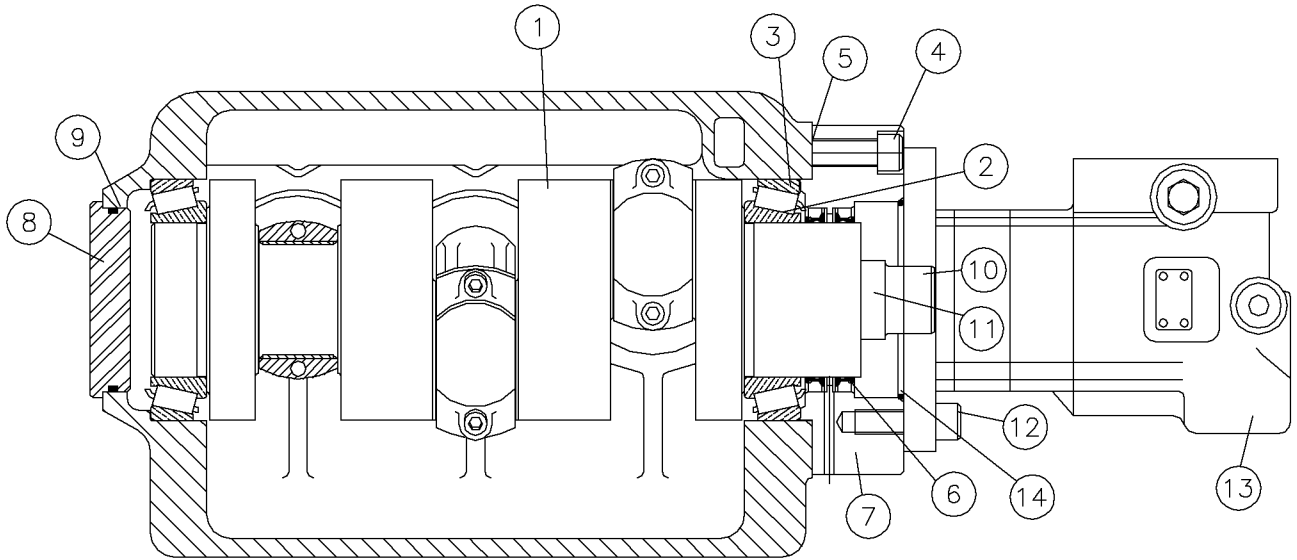
Water Pump-Crankshaft-50 GPM Aplex Fig 11-42



Water Pump-Crankshaft-50 GPM Aplex Fig 11-42

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228098011	CRANKSHAFT	1	
2		228098013	CONE	2	
3		228098015	CUP	2	
4		296272949	SCREW -1/2"NC X 2" LONG HEX HEAD CAP	6	
5		220741113	SHIM SET	1	
6		228098025	OIL SEAL	2	
7		228098019	BEARING RETAINER/MOTOR ADAPTER	1	
8		277781025	PLUG - CRANK SHAFT	1	
9		220741121	O-RING	1	
10		228098027	SPLINED COUPLER -SC45 PUMP	1	
11		224904009	SPACER-HARDENED SPLINE ADAPTER	1	
12		239383023	CAP SCREW-1/2 NC-1 1/4 HEX HD	4	
13		275996001	MOTOR - HYD. (EATON) 2 SP.	1	
14		220741125	O-RING NITRILE	1	
		296269559	APLEX 50 GPM MUD PUMP W/CHARLYN HYD/DR M		Inc. All Items in Figure

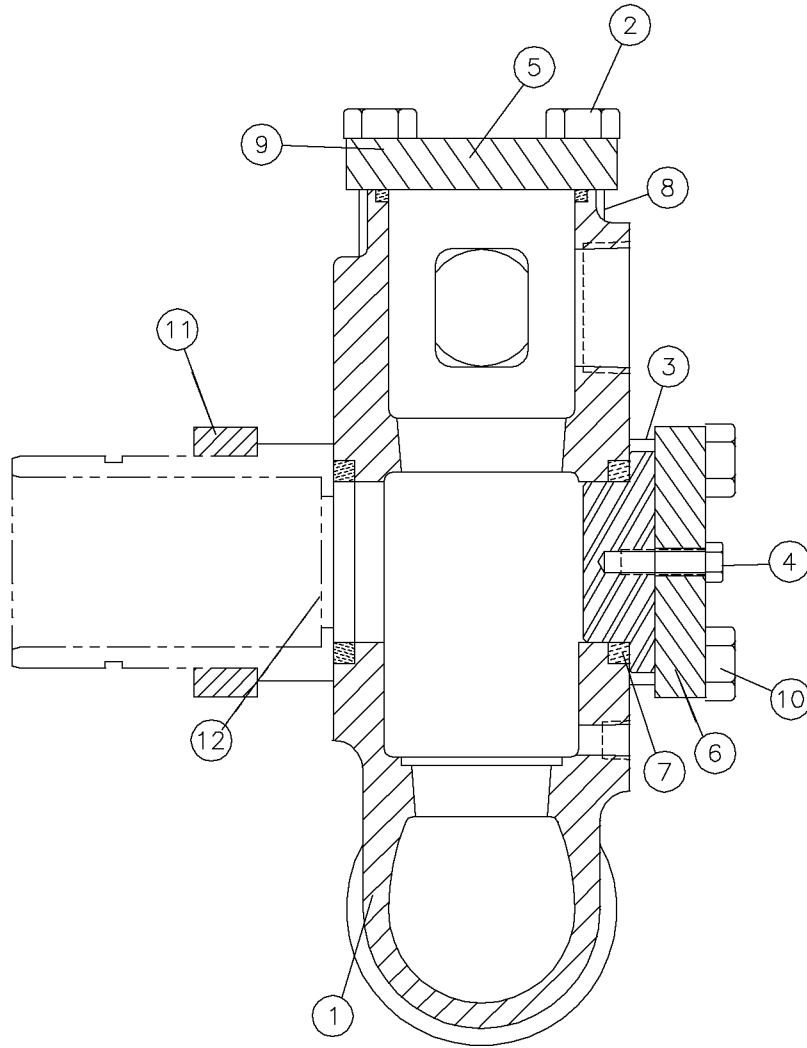
Water Pump-Power Frame-50 GPM Apex Fig 11-43



Water Pump-Power Frame-50 GPM Aplex Fig 11-43

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272942	POWER FRAME	1	
2		220741007	CRANKCASE COVER	1	
3		220741009	3/8-16X5/8 HHCS	8	
4		220741011	GASKET-CRANKCASE COVER	1	
5		296272943	PIPE PLUG 3/8" SQUARE HEAD	2	
6		220741021	OIL LEVEL DIPSTICK	1	
7		220741023	O-RING 2-023	1	
8		296272944	PIPE PLUG 1/8" SOCKET HEAD	3	
9		277781019	FILTER - BREATHER	1	
10		220741017	1/2" NPT PLUG-SOCKET HEAD	1	
11		220741025	CONNECTING ROD	3	Inc. Ref. No's 12, 13, & 14
12		296272945	BUSHING-WRIST PIN	1	
13		220741029	5/16-18X2" SOCKET HD CAP SCREW	2	
14		220741031	5/16" LOCKWASHER	2	
15		220741033	CRANK PIN BEARING HALF	3	
16		220741035	WRIST PIN	3	
17		220741037	CROSSHEAD	3	
18		220741039	WIPER BOX	3	
19		296272946	SCREW-3/8"X1 1/4" HEX HEAD	6	
20		220741045	POLYPAK RING	3	
21		220741047	OIL SEAL	3	
22		220741049	O-RING	3	
		296269559	APLEX 50 GPM MUD PUMP W/CHARLYN HYD/DR M		Inc. All Items in Figure

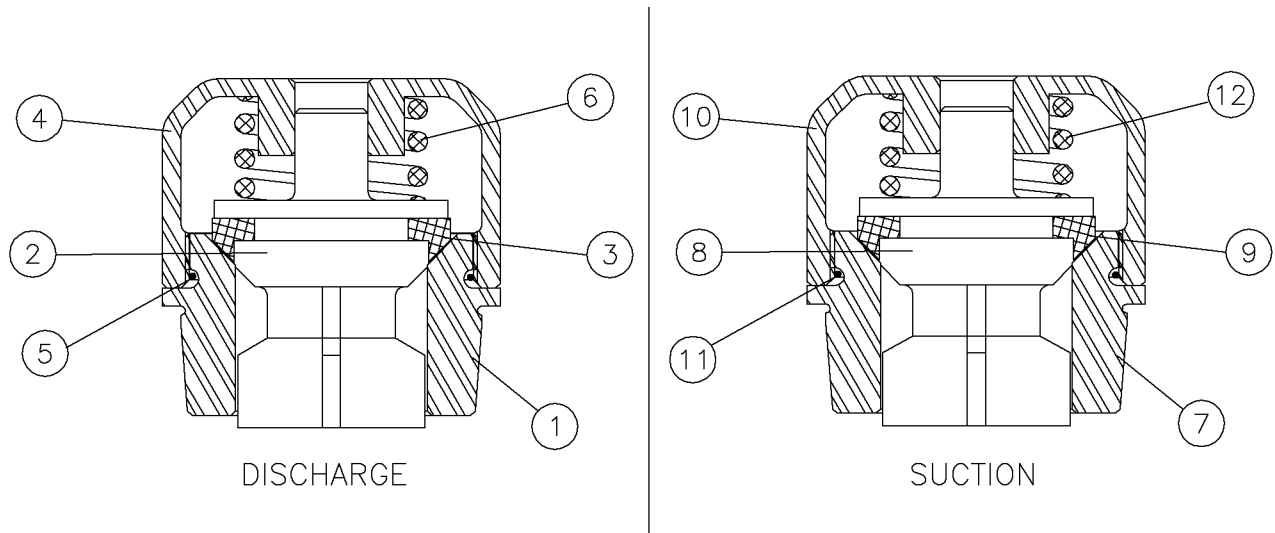
Water Pump-Fluid End-50 GPM Apex Fig 11-44



Water Pump-Fluid End-50 GPM Apex Fig 11-44

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272950	FLUID END	1	
2		296272951	SCREW-3/4"NC X 4 1/2" SOCKET HEAD CAP	2	
3		224408109	VALVE COVER AND CYL.HEAD PLUG	3	
4		220741057	3/8-16X1 1/4" HHCS	3	
5		296272952	VALVE COVER	1	
6		220741059	RETAINER PLATE	2	
7		224408131	SEAL-STUFFING BOX (RUBBER)	3	
8		296272953	O-RING #335	3	
9		277780030	HEX HD CAP SCREW - 5/8 NCX 1 3/4	8	
10		220741065	5/8-11X7 1/2" HHCS	8	
11		296272954	RETAINER PLATE	1	
12		220741069	3/8-16 X 1 1/2" HHCS	2	

Water Pump-Suction/Discharge Valve-50 GPM Apex Fig 11-45

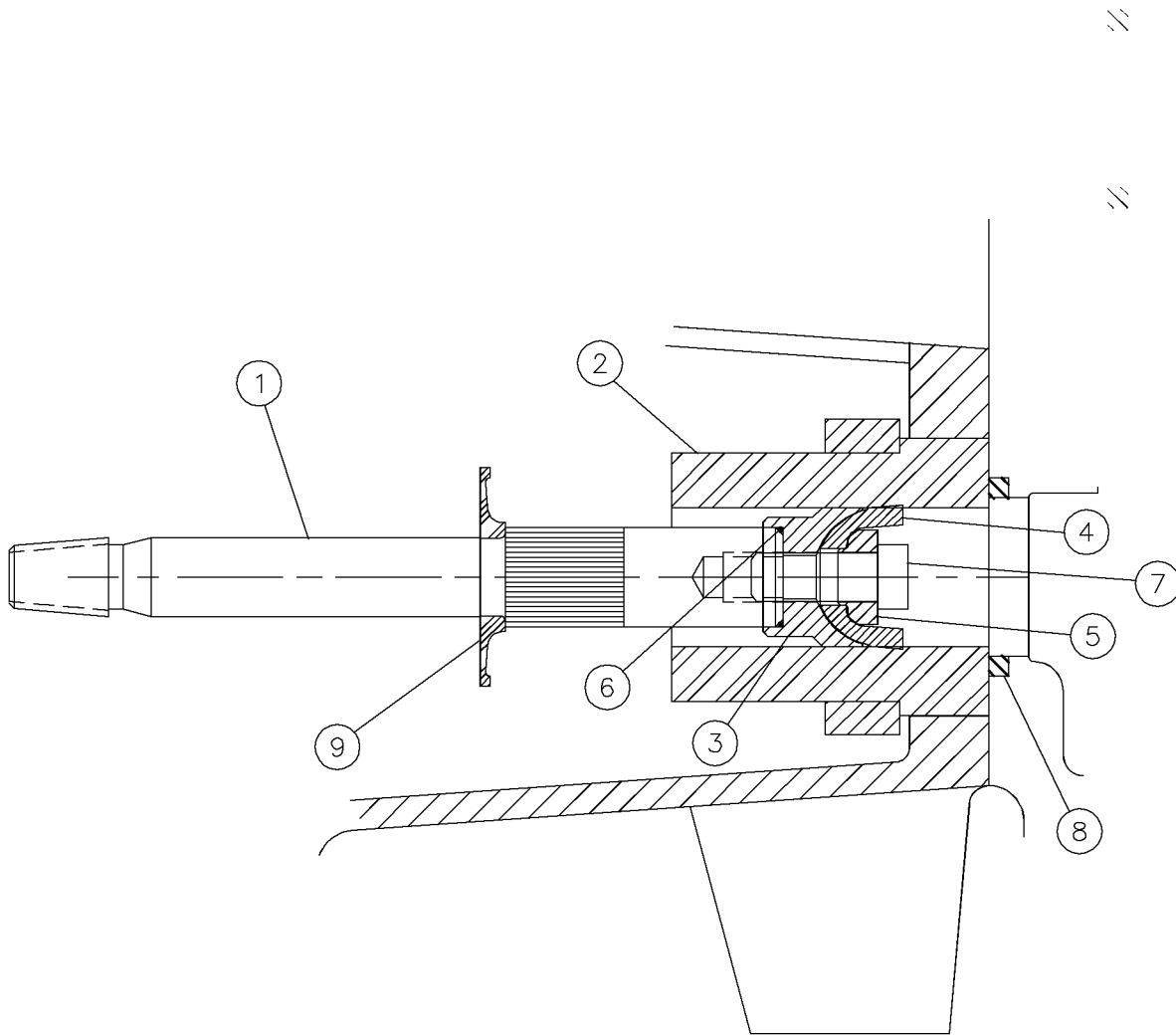


ABRASIVE RESISTANT VALVES

Water Pump-Suction/Discharge Valve-50 GPM Apex Fig 11-45

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		244460033	VALVE SEAT - SUCTION	1	
2		244460029	VAVLE BODY	1	
3		244460023	POLYURETHANE INSERT	1	
4		244460027	GUIDE CAGE	1	
5		224408125	O-RING (RUBBER) SIZE 032	1	
6		220741141	SPRING - VALVE	1	
7		244460021	VALVE SEAT - DISCHARGE	1	
8		244460029	VAVLE BODY	1	
9		244460023	POLYURETHANE INSERT	1	
10		244460027	GUIDE CAGE	1	
11		224408125	O-RING (RUBBER) SIZE 032	1	
12		220741141	SPRING - VALVE	1	
		244460005	VALVE ASSY - ABRASIVE RESISTANT (SUCTION)	3	Inc. Ref. No.'s 1-6
		244460007	VALVE ASSY - ABRASIVE RESISTANT (DISCHARGE)	3	inc. Ref. No.'s 7-12

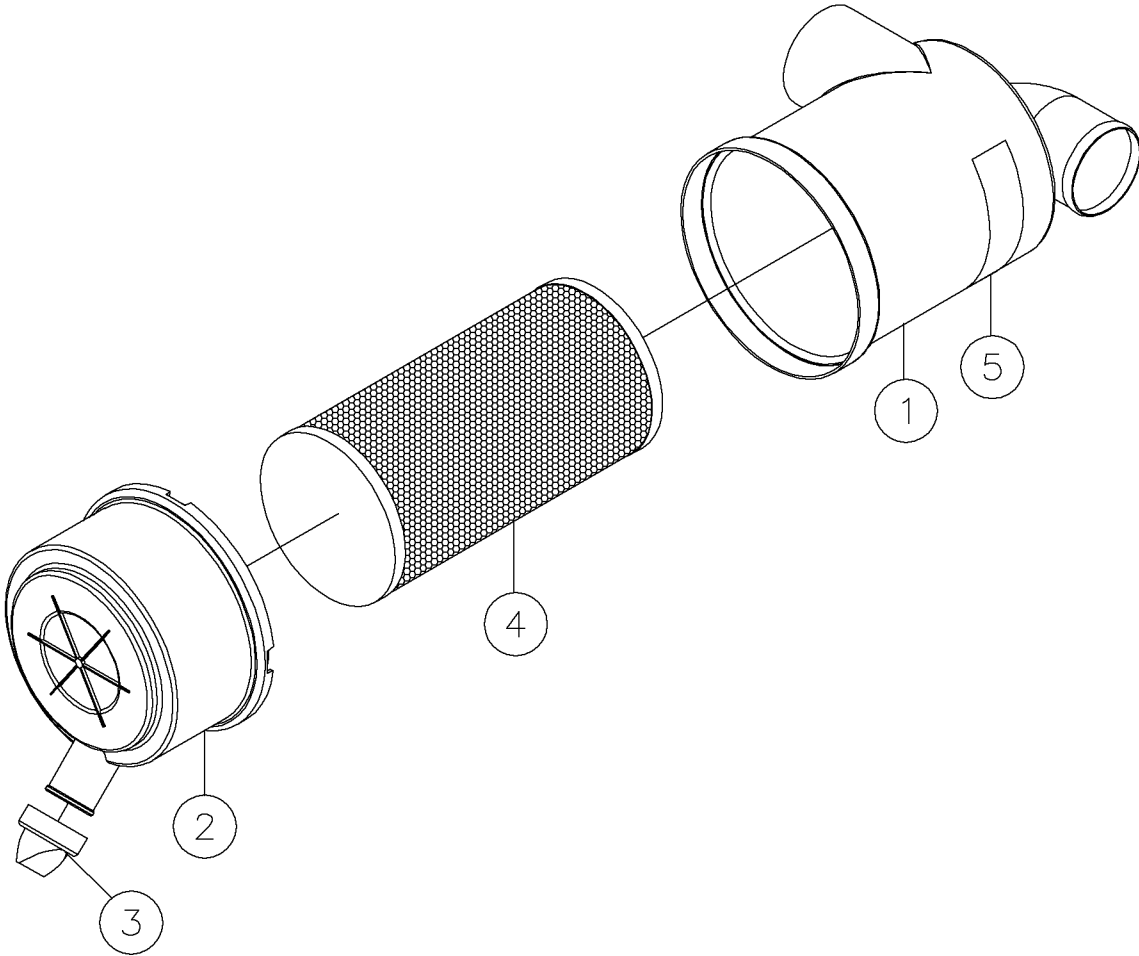
Water Pump-Piston-50 GPM Aplex Fig 11-46



Water Pump-Piston-50 GPM Aplex Fig 11-46

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272955	PISTON ROD	1	
2		296272956	PISTON LINER-2 1/4" WHITE CERAMIC	1	
3		296272957	PISTON HUB	1	
4		296272958	PISTON CUP HSN & KEVLAR	1	
5		296272959	PISTON KEEPER	1	
6		220741075	O-RING-POLYURETHANE (SIZE 024)	1	
7		279264001	PISTON - FASTENER END	1	
8		224408131	SEAL-STUFFING BOX (RUBBER)	1	
9		220741091	BAFFLE PLATE-LOW TEMP. RUBBER	1	

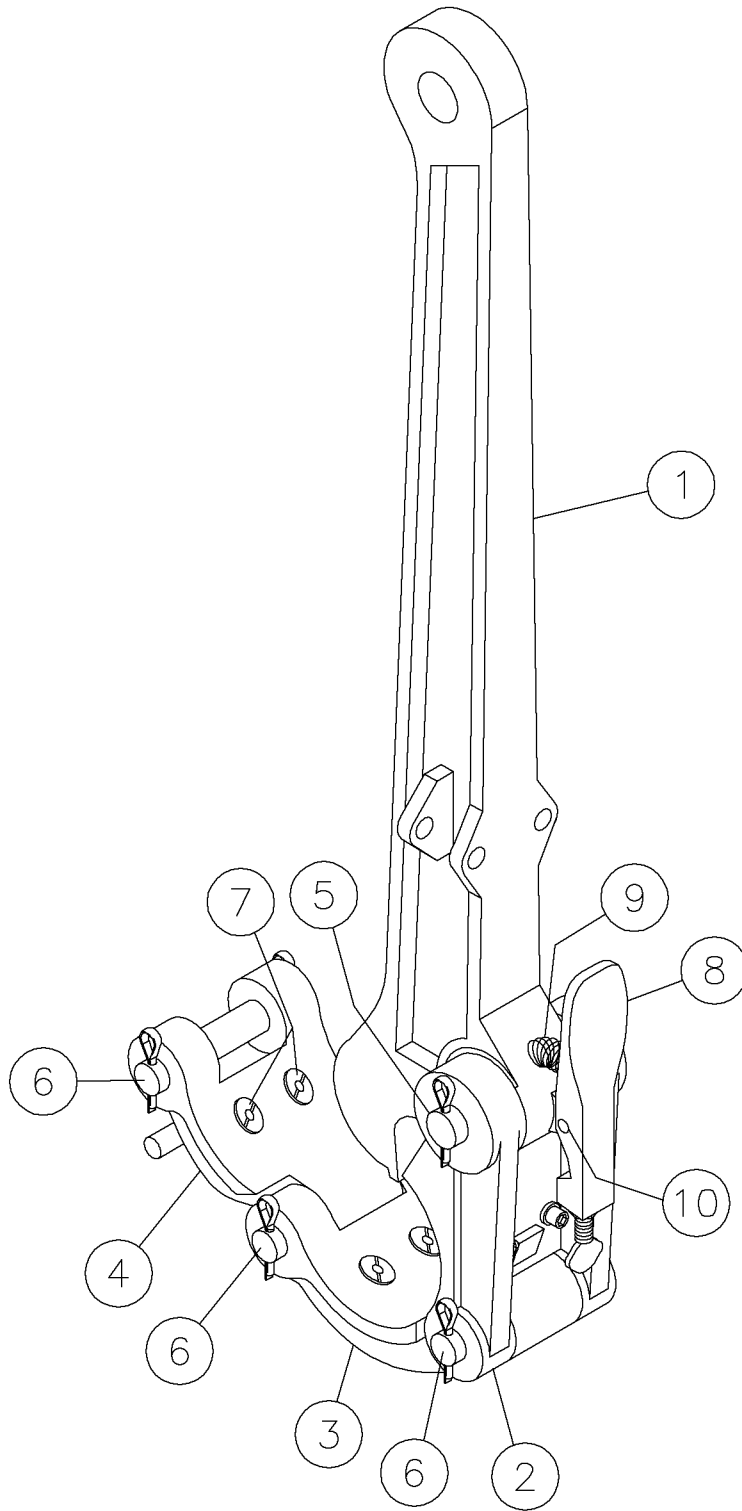
Air Cleaner Fig 11-47



Air Cleaner Fig 11-47

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		224847003	BODY ASSEMBLY	1	
2		220166007	COVER ASSEMBLY	1	
3		220166009	VALVE	1	
4		220166005	ELEMENT ASSEMBLY	1	
5		224847005	DECAL - INSTRUCTION	1	
6		224847001	AIR CLEANER	1	Inc. All Items In Figure

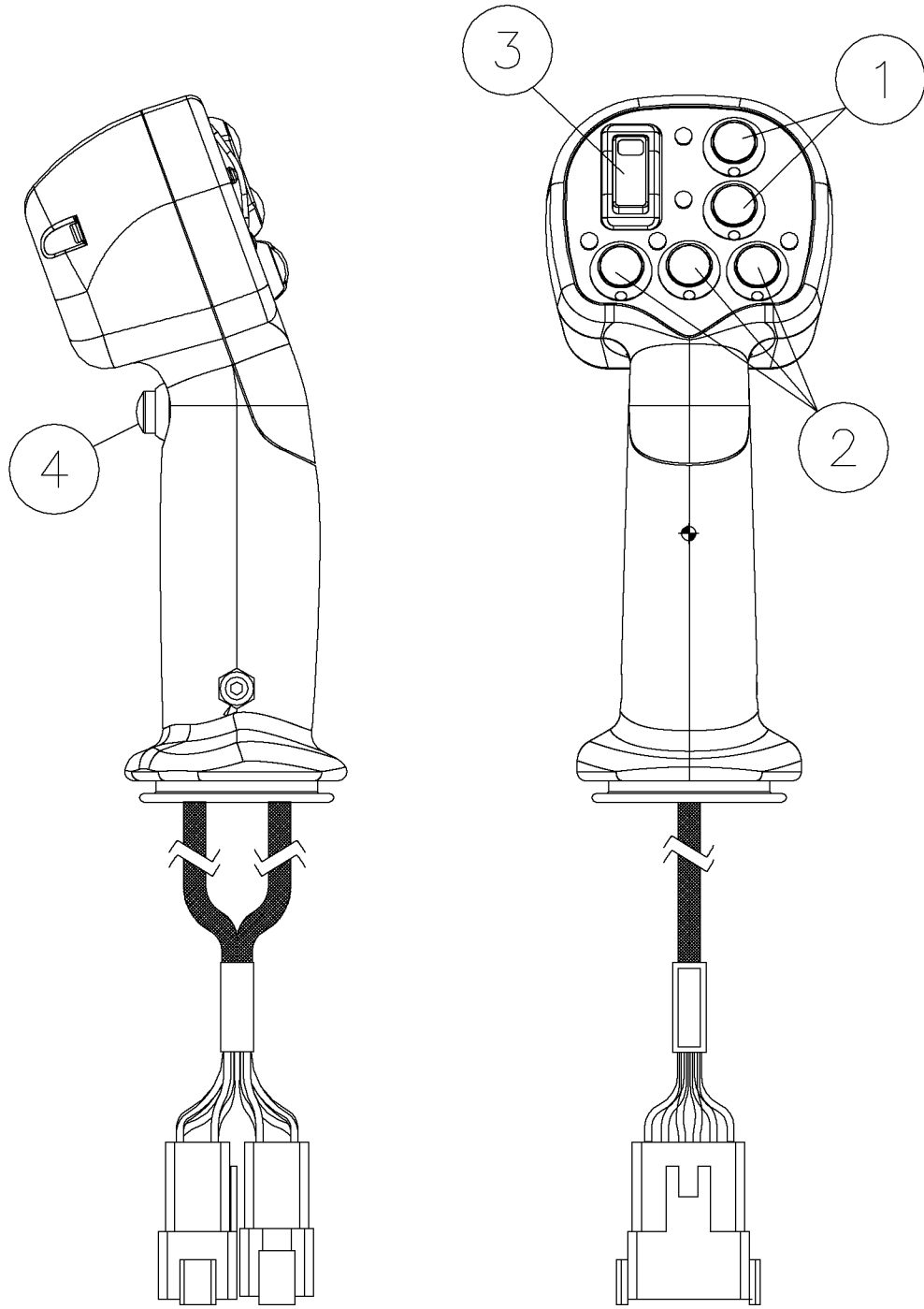
Tong-K30 Light Weight Tubing Fig 11-48



Tong-K30 Light Weight Tubing Fig 11-48

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		230970003	TONG HANDLE	1	
2		230970005	HANDLE JAW	1	
3		230970007	CENTER JAW	1	
4		230970009	LATCH JAW	1	
5		230970011	HANDLE PIN	1	
6		230970013	JAW PIN	3	
7		230970015	BUSHING AND SCREW	6	
8		230970017	ADJUSTABLE TONG LATCH	1	
9		230970019	LATCH SPRING	1	
10		230970021	LATCH RIVET	1	
		230970001	TONG-K30 LIGHT WEIGHT TUBING		Inc All Items In Figure

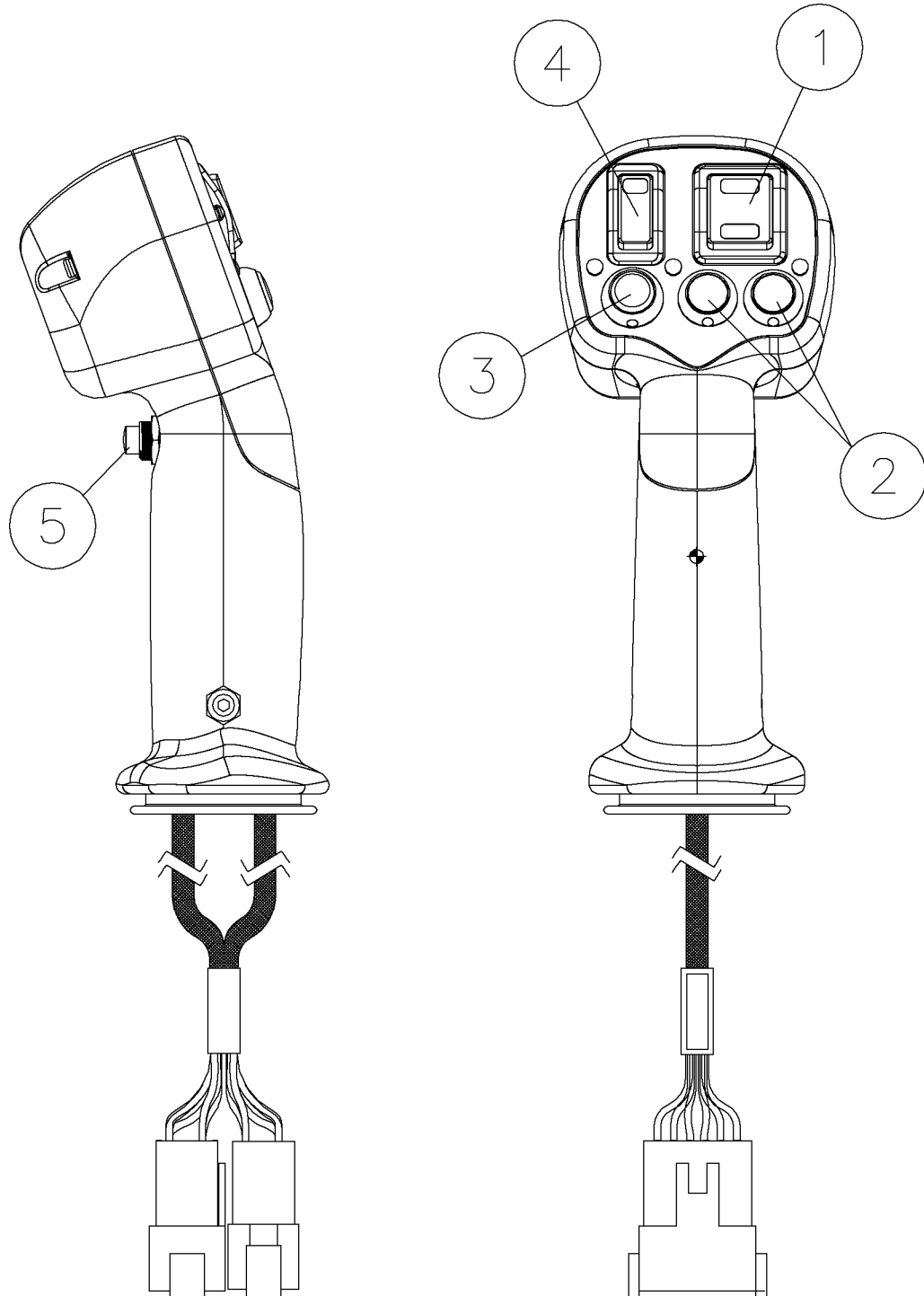
Left Joystick Fig 11-49



Left Joystick Fig 11-49

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271136	SWITCH	2	(Top-Throttle Increase)(Bottom-Throttle Decrease)
		296271135	BOOT -RUBBER		
2		296271137	SWITCH	3	(Left-Fluid Flow)(Middle-Auto Drill)(Right-Auto Grease)
		296271135	BOOT -RUBBER		
3		296271141	ROCKER SWITCH	1	Fluid On/Off
4		296271138	SWITCH	1	Not Used
		296273907	HANDLE GRIP ASSEMBLY - LEFT JOYSTICK		Inc. All Items In Figure

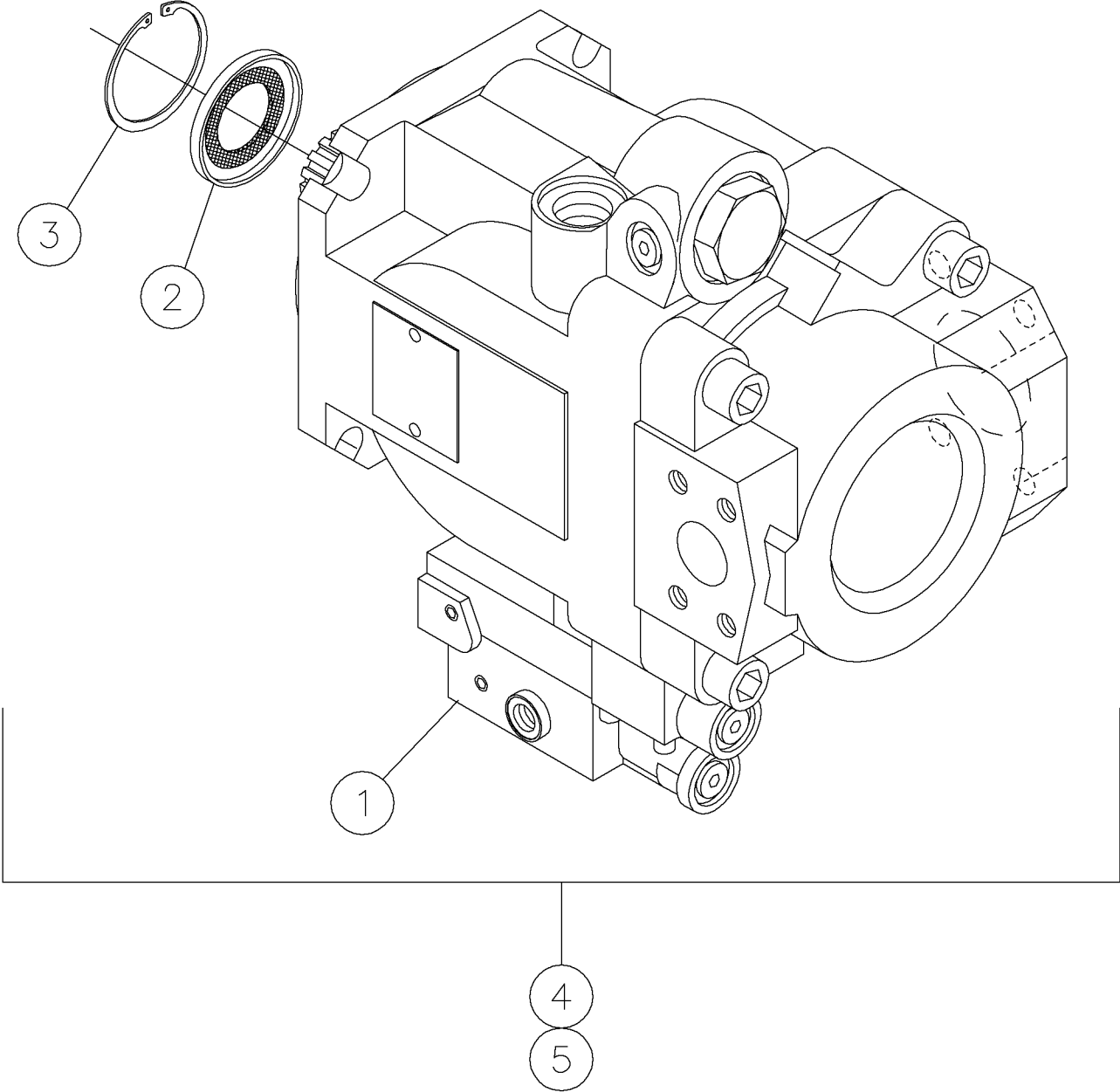
Right Joystick Fig 11-50



Right Joystick Fig 11-50

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296271142	ROCKER SWITCH	1	Front Vise
2		296271137	SWITCH	2	(Left-Rod Lifter)(Right-Rod Transfer Arm Extent)
		296271135	BOOT -RUBBER		
3		296271139	SWITCH	1	Vise Rotation
		296271135	BOOT -RUBBER		
4		296271141	ROCKER SWITCH	1	Rear Vise
5		296271140	SWITCH	1	Rod Transfer Arm Retract
		296273908	HANDLE GRIP ASSEMBLY - RIGHT JOYSTICK		Inc. All Items In Figure

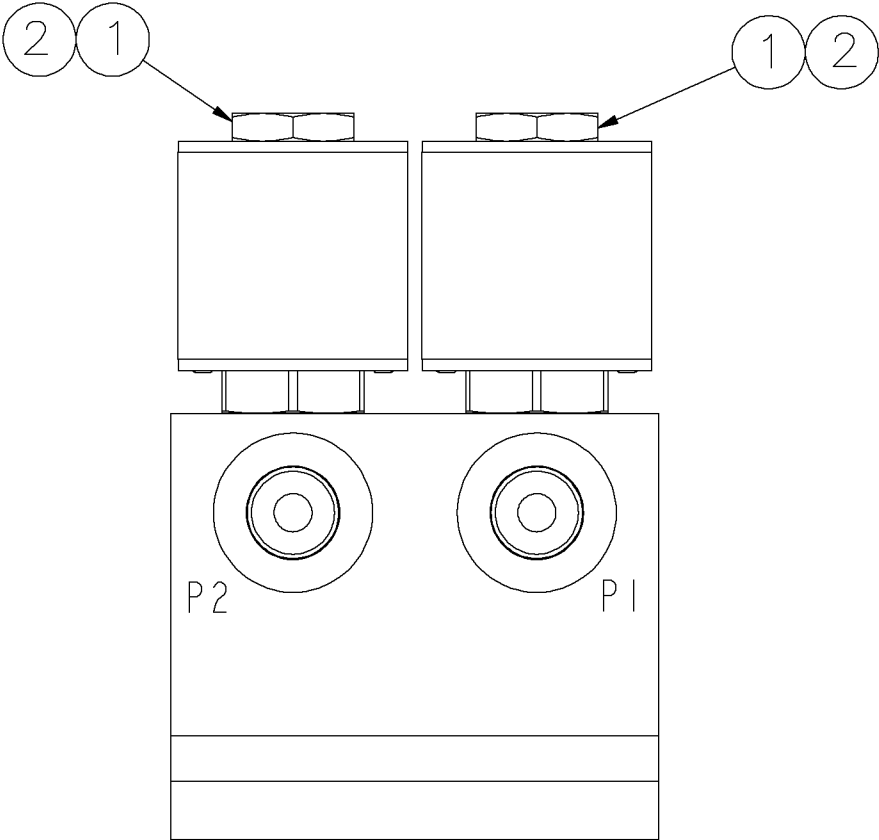
Hyd. Pump-PFC/Implement Fig 11-51



Hyd. Pump-PFC/Implement Fig 11-51

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278885003	CONTROLLER KIT	1	Inc. O-Rings
		278885005	O-RING	4	
2		278885007	LIP SEAL	1	
3		278885009	RETAINING RING	1	
4		278885011	SEAL KIT - OVERHAUL	1	
5		278885001	PUMP - HYDRAULIC 45 SERIES 74CC	1	Inc. All Items In Figure

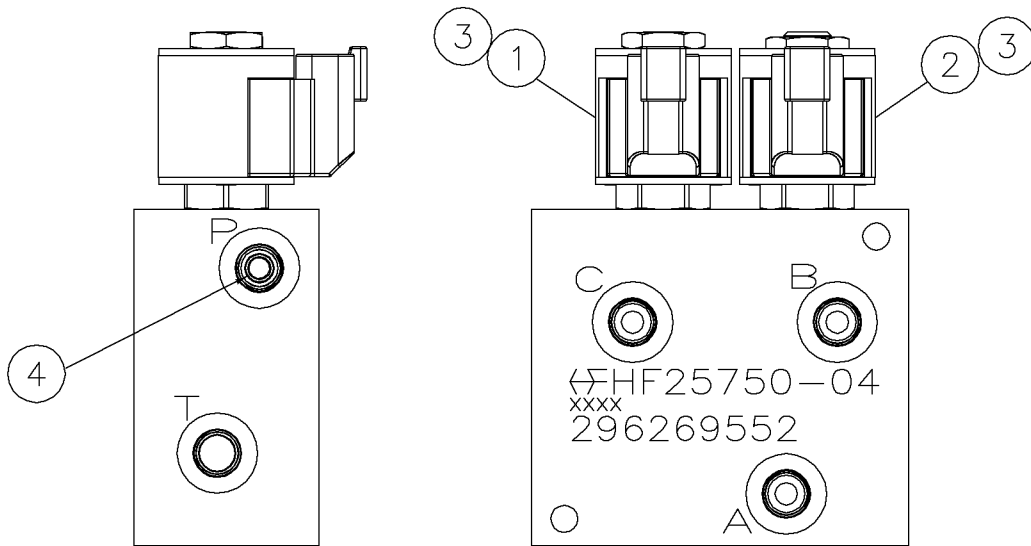
Valve-Thrust Fig 11-52



Valve-Thrust Fig 11-52

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296272930	SOLENOID VALVE	2	
		161159001	SEAL KIT	2	
2		296271115	COIL	2	
		244725007	NUT - COIL	2	
3		296272931	PLUG	2	Not Shown
		296269557	VALVE- TWO SPEED W/BRAKE		Inc. All Items In Figure

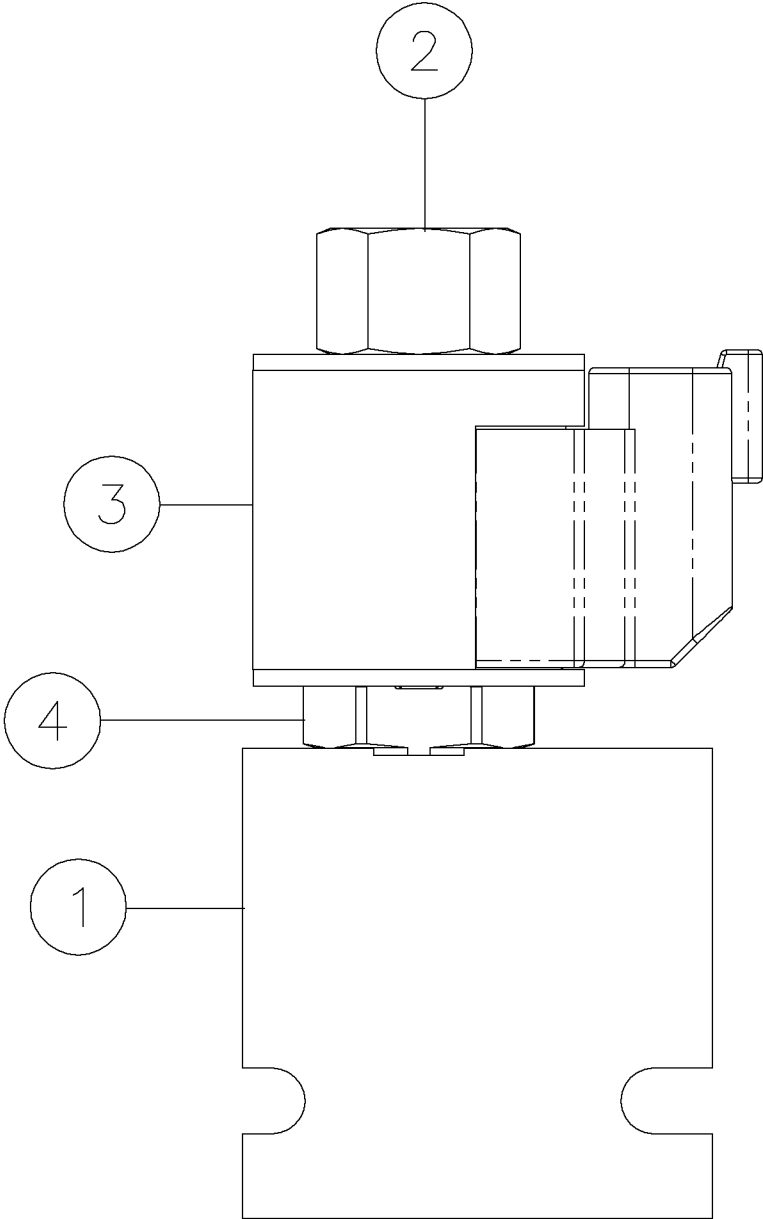
Water Valve-On/Off Fig 11-53



Water Valve-On/Off Fig 11-53

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		228124017	CARTRIDGE-SOLENOID	1	
		161159001	SEAL KIT	1	
		244725007	NUT - COIL	1	
2		234863005	CARTRIDGE	1	
		236409003	SEAL KIT	1	
		244725007	NUT - COIL	1	
3		296271115	COIL	2	
4		296251096	ORIFICE PLUG	1	
5		278267015	PLUG	1	Not Shown
		296269552	CONTROL - 2 SPEED/ON-OFF WATER PUMP		Inc. All Items in Figure

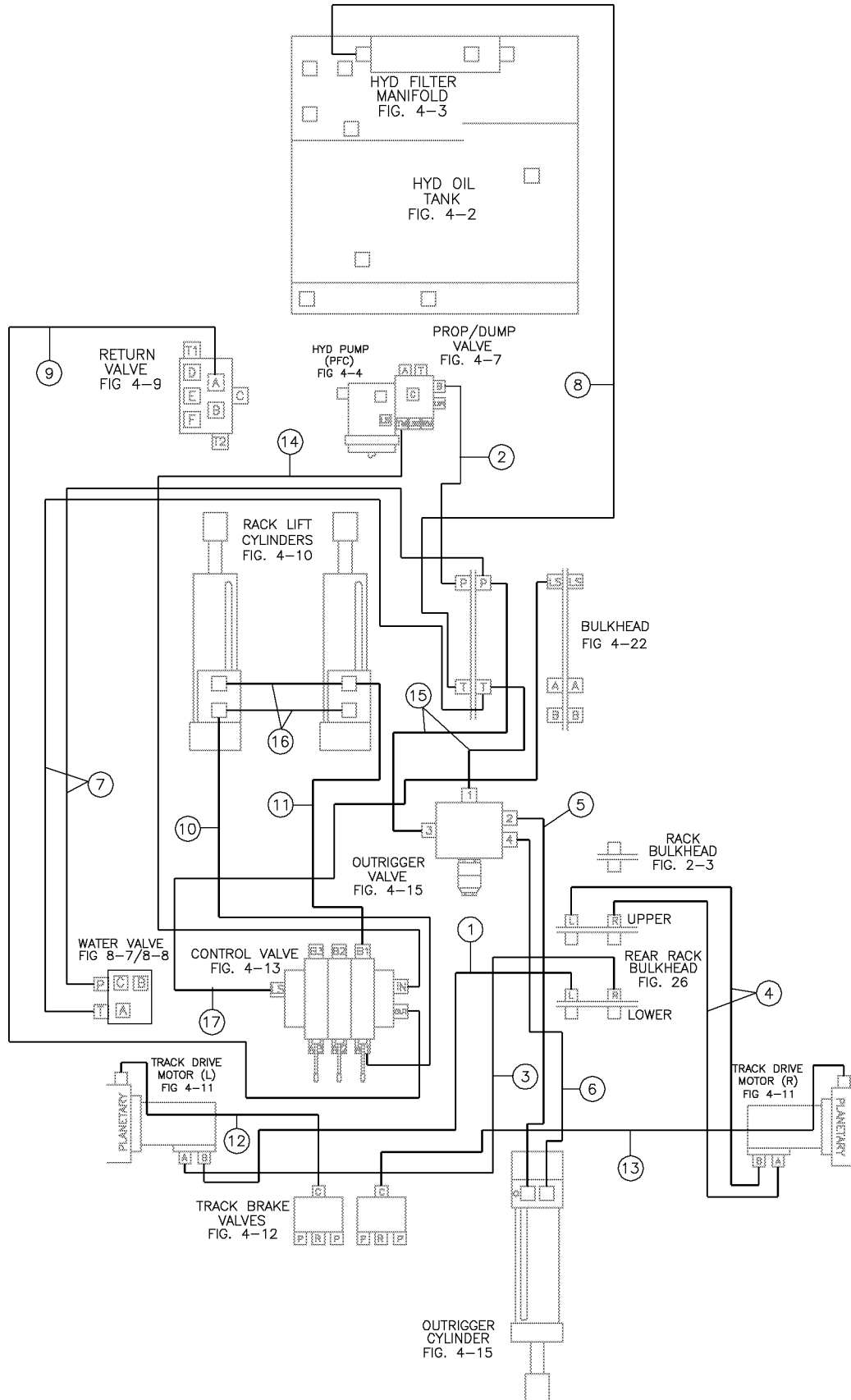
Valve-2 Position/2 Way (S/N 381-) Fig 11-54



Valve-2 Position/2 Way (S/N 381-) Fig 11-54

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Addition To Manual
1			BODY	1	
2		296285226	NUT-COIL	1	
3		296271115	COIL	1	
4		296285227	CARTRIDGE	1	
		296269720	VALVE - HYDRAULIC 2 POSITION 2 WAY N.O. POPPET		Inc. All Items In Figure
			SEAL KIT		

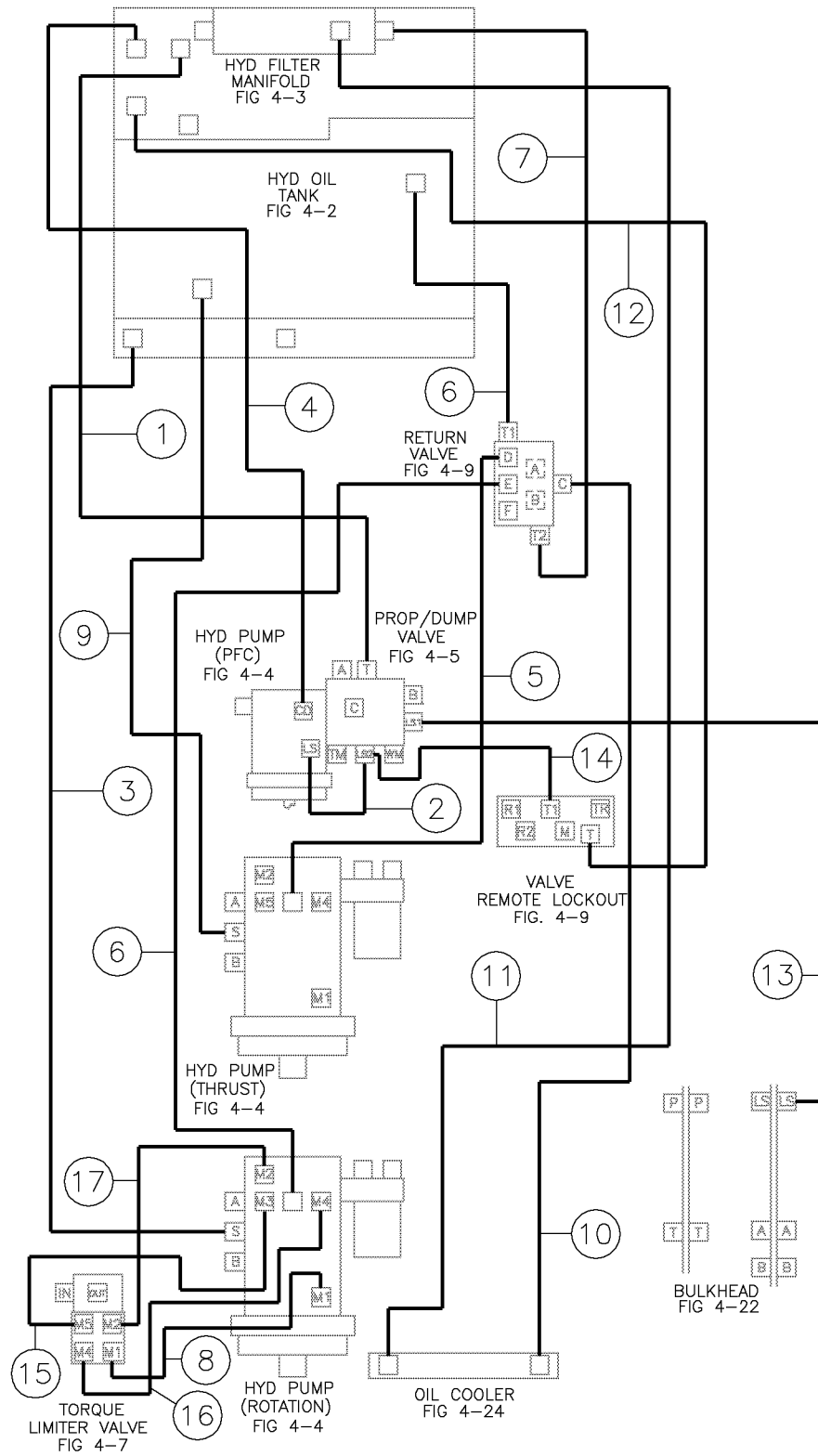
Undercarriage Fig 12-1



Undercarriage Fig 12-1

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		53845597	HOSE-3/4X68 12FS JIC 3000 PSI	1	
2		296280936	HOSE-3/8 X 74 6FS JIC ST/90 3000 PSI	1	
3		53845597	HOSE-3/4X68 12FS JIC 3000 PSI	1	
4		53845475	HOSE-3/4X94 12 FS JIC 3000 PSI	2	
5		257531001	HOSE-HYD 3/8 X 20 6FS JIC ST/45	1	
6		57940719	HOSE-3/8X21 6FSJICST/45D3000#	1	
7		57940477	HOSE-3/8X38 6FSJICST/6FSJC90	2	
8		296286516	HOSE-3/8X65 6FS ST/90 3000 PSI	1	
9		53845583	HOSE-3/4X163 12FS JIC 3000 PSI	1	
10		296286517	HOSE - 3/8 X 127 6FS ST/90 JIC 3000 PSI	1	
11		296286518	HOSE-3/8 X 131 6FS ST/90 JIC 3000 PSI	1	
12		296286519	HOSE - 1/4 X 114 4FS ST/90 JIC 3000 PSI	1	
13		296286520	HOSE-1/4 X 133 4FS ST/90 JIC 3000 PSI	1	
14		53845585	HOSE-3/4X165 12FS JIC 3000 PSI	1	
15		289119001	HOSE - 3/8 X 24 FSJIC ST/45 3000 PSI	2	
16		278804001	HOSE-3/8X12 6FSJIC ST/90 M3K	2	
17		296280241	HOSE-1/4 X 122 4FS ST/90 JIC PSI 3000	1	

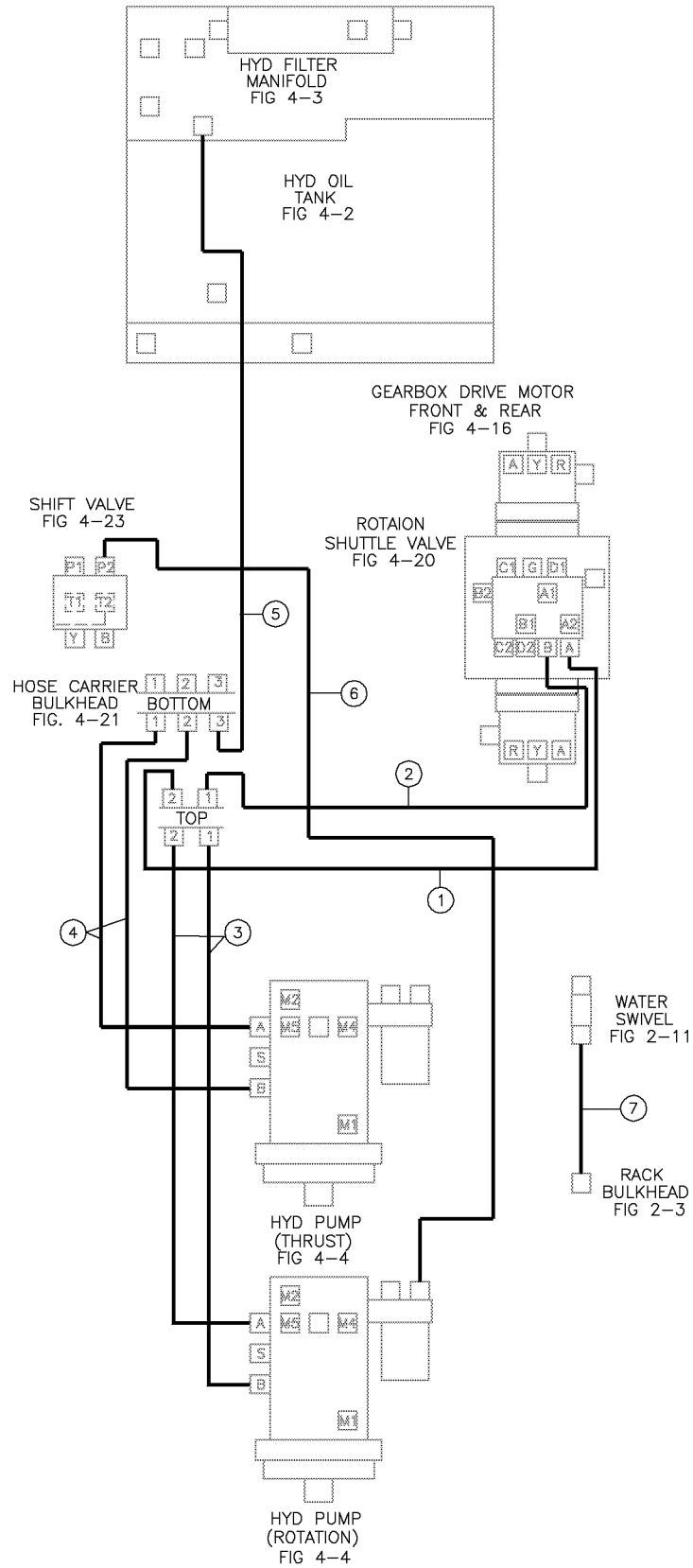
Engine Bay Fig 12-2



Engine Bay Fig 12-2

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296286525	HOSE - 1/4 X 43 4FS ST/ST JIC 3000 PSI	1	
2		57940445	HOSE-3/8X20 6FS JIC 3000 PSI	1	
3		278806001	HOSE-1X30 16FSJIC ST/90 250PSI	1	
4		296256885	HOSE - .50 X 30 8FS JIC ST/90 M3K	1	
5		296273679	HOSE - 1.0 X 23 - 16FSJ/NONE - 16GMV	1	
6		296273675	HOSE- 1.0 X 15.5 - GMV	2	
7		278794001	HOSE-1X12 W/ NO ENDS 250 PSI	1	
8		278944001	HOSE - 1/4 X 26 FFOR ST/90 6000 PSI	1	
9		296273711	HOSE-1.0X16-16FJX STR/90M-GMV	1	
10		296279831	HOSE - 1.25" X 67" 20FSJIC ST/ST 250PSI	1	
11		296279958	HOSE-1-1/4 X 70 20FSJIC ST/45 GMV	1	
12		296280937	HOSE-1/4 X 48 4FS ST/90 JIC 3000 PSI	1	
13		257529001	HOSE-HYD 3/8 X 54 6FS JIC ST	1	
14		53843183	HOSE-1/4X18 4FS JIC 3000 PSI	1	
15		278941001	HOSE - 1/4 X 11 FFOR ST/ST 6000 PSI	1	
16		278942001	HOSE - 1/4 X 11 FFOR ST/90 6000 PSI	1	
17		278943001	HOSE - 1/4 X 13 FFOR ST/ST 6000 PSI	1	

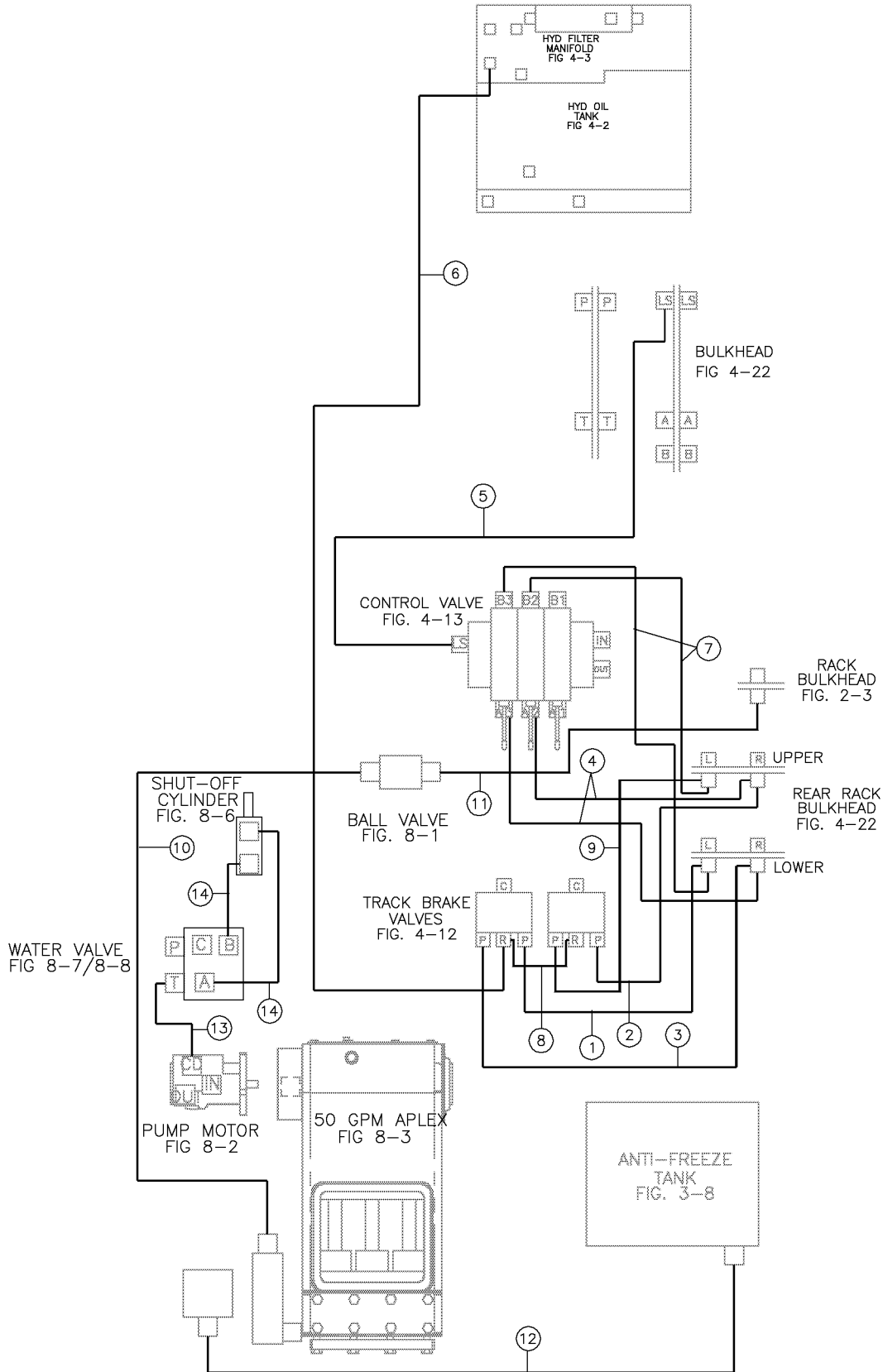
Hose Track Carrier Fig 12-3



Hose Track Carrier Fig 12-3

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296287847	HOSE - 1" X45 16FSORFF STR/90M G6K BNS	1	
2		296287846	HOSE-1" X 47 16FSORFF STR/90L G6K, BNS	1	
3		296287810	HOSE- 1" X 170-16FSORFF / 16CD6245-G6K BNS	2	
4		296287808	HOSE - .75 X 175 12FSORFF / 16CD2690-G6K BNS	2	
5		296287809	HOSE - .75 X 172 12FSJ STR/STR M3K BNS	1	
6		296287811	HOSE - .25 X 186 -4FSJ STR/45 M3K BNS	1	
7		296287898	HOSE-1" X 174 16FS JIC STR/STR M3K	1	

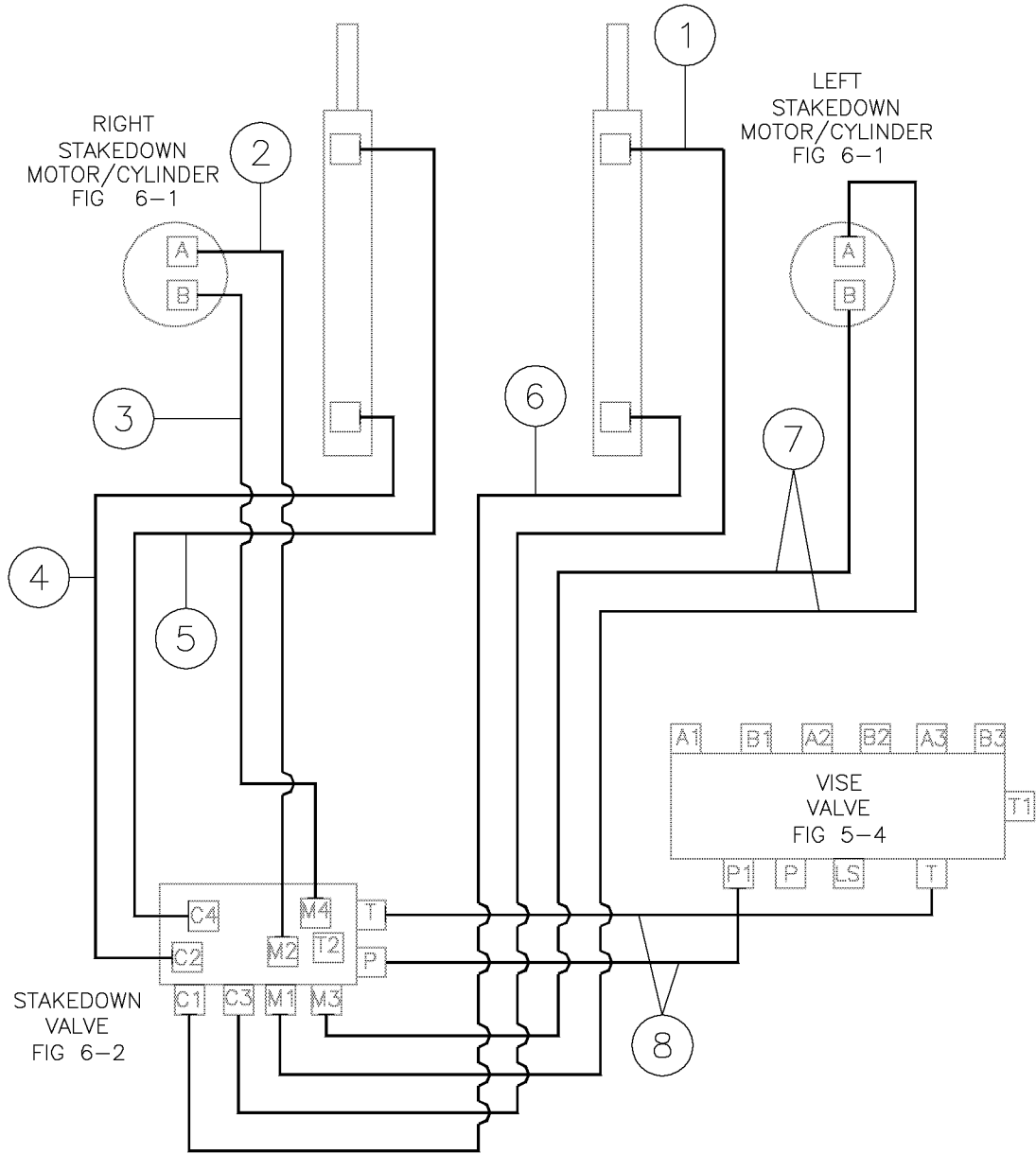
Transport Fig 12-4



Transport Fig 12-4

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		159745001	HOSE - 1/4 X 29 4FSJIC ST/90 3000#	1	
2		240750001	HOSE-1/4X21 4FS JIC ST/90 3000PSI	1	
3		243936001	HOSE-1/4X33 4FS ST/90 3000 PSI	1	
4		296284002	HOSE-3/4 X 31 12FS JIC ST/90 3000 PSI	2	
5		296286571	HOSE - 1/4 X 122 4FS ST/90 JIC 3000 PSI	1	
6		296286537	HOSE - 1/4 X 166 4FS ST/90 JIC 3000 PSI	1	
7		53845789	HOSE 3/4X28 12FSJIC ST/90D3000	2	
8		296280239	HOSE-1/4 X 12 4FS ST/45 JIC PSI 3000	1	
9		296280952	HOSE-1/4X12 4FS JIC ST/90 3000 PSI	1	
10		240748001	HOSE-3/4X63 12FSX12FS 3000 PSI	1	
11		296280240	HOSE-1.0X31.5 16FS ST/45 JIC PSI 3000	1	
12		296280216	HOSE-1.0X32 16FSJICST/90 3000	1	
13		53843547	HOSE-1/4X21 4FS JIC 3000 PSI	1	
14		53843577	HOSE-1/4X16 4FSJICST/4FSJIC90D	2	

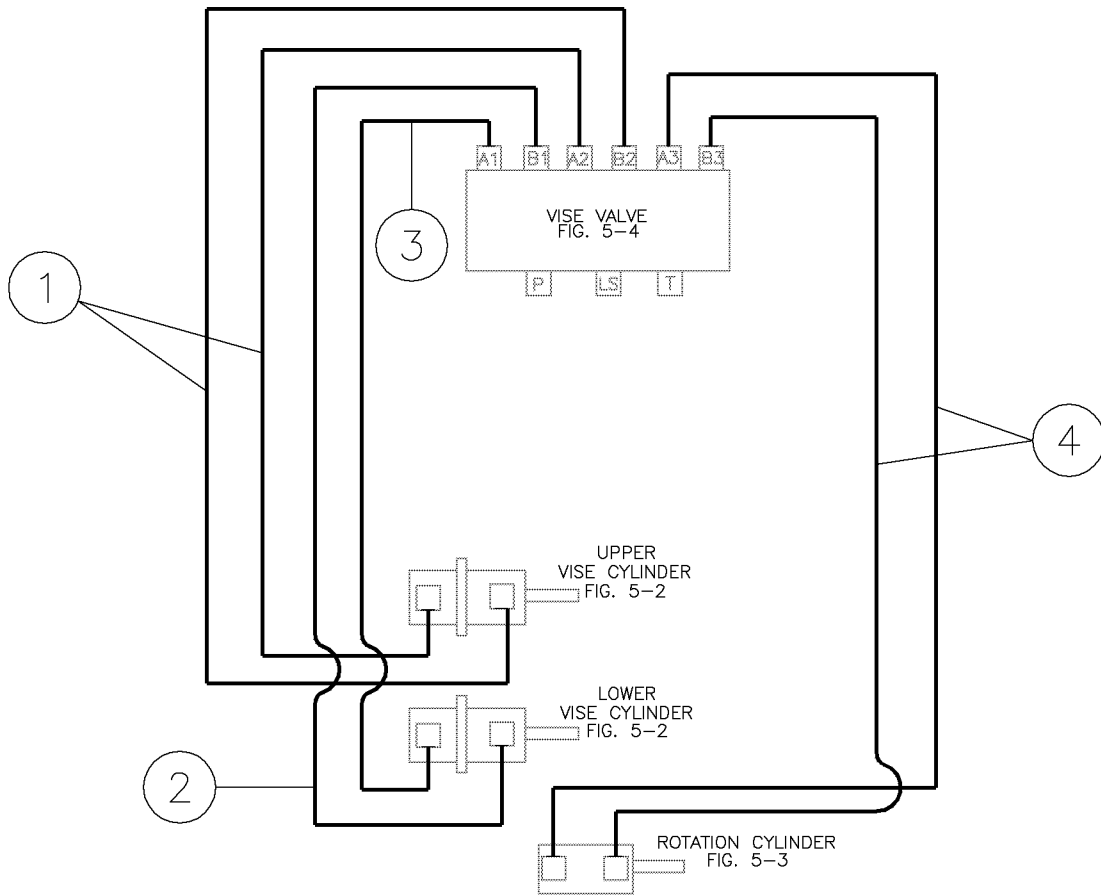
Stakedown Fig 12-5



Stakedown Fig 12-5

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		232125001	HOSE - HYD - 3/8 X 22 6FS JIC ST/ST	1	
2		278840001	HOSE-3/8X90 6FSJIC ST/90 M3K	1	
3		278843001	HOSE-3/8X92 6FSJIC ST/90 M3K	1	
4		57940259	HOSE-3/8X42 6FS JIC 3000 PSI	1	
5		296280238	HOSE-3/8 X 49 6FS ST/90 JIC PSI 3000	1	
6		278271001	HOSE-3/8X17 6 FSJIC ST-90 M2T	1	
7		278841001	HOSE-3/8X63 6FSJIC ST/90 M3K	2	
8		279052001	HOSE-3/8 X 54 FSJIC X FSJIC 90	2	

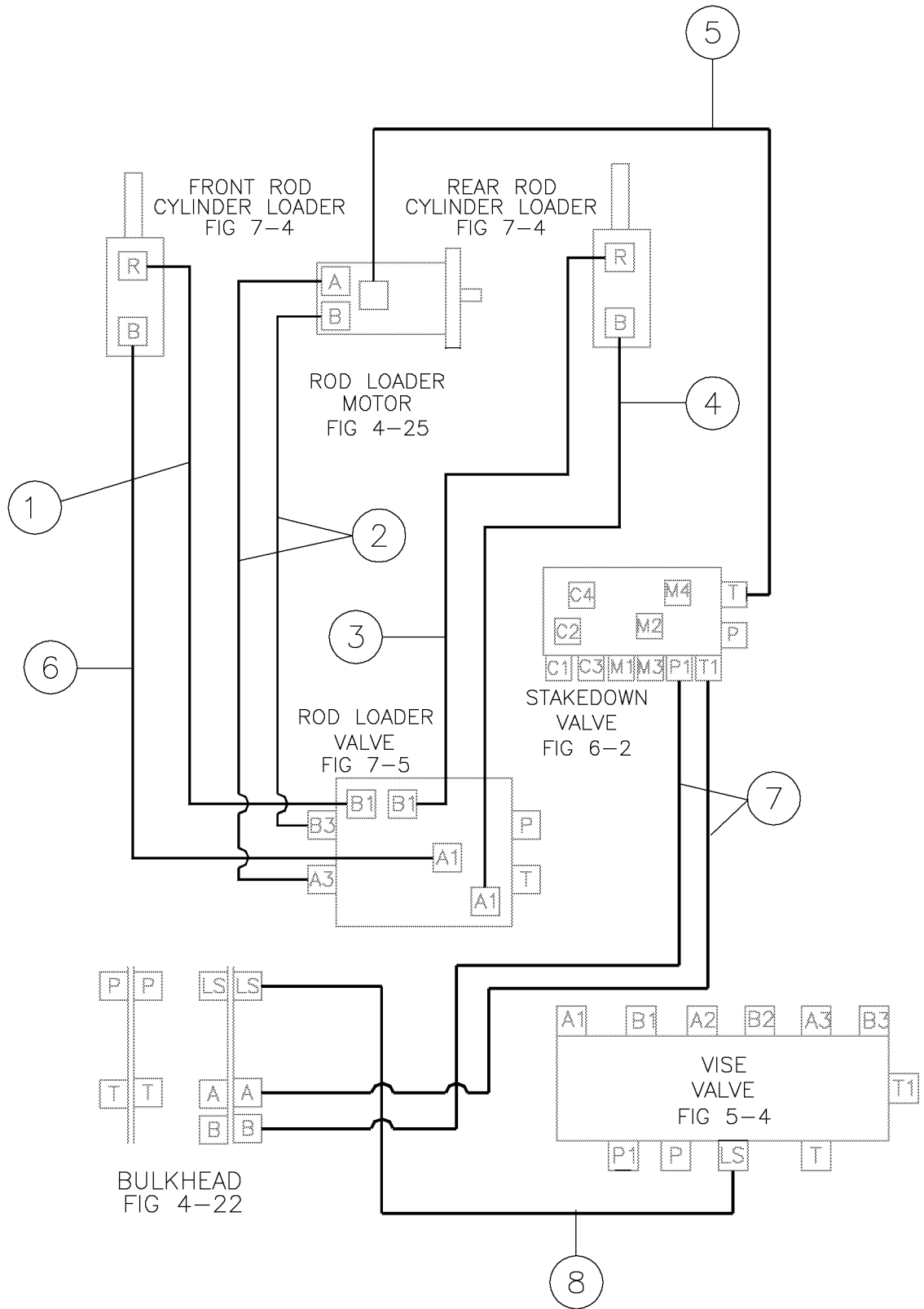
Vise Clamp Fig 12-6



Vise Clamp Fig 12-6

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		53843601	HOSE-1/4X17 4FS JIC 3000 PSI	2	
2		53843547	HOSE-1/4X21 4FS JIC 3000 PSI	1	
3		53843183	HOSE-1/4X18 4FS JIC 3000 PSI	1	
4		53843715	HOSE-1/4X23 4FS JIC 3000 PSI	2	

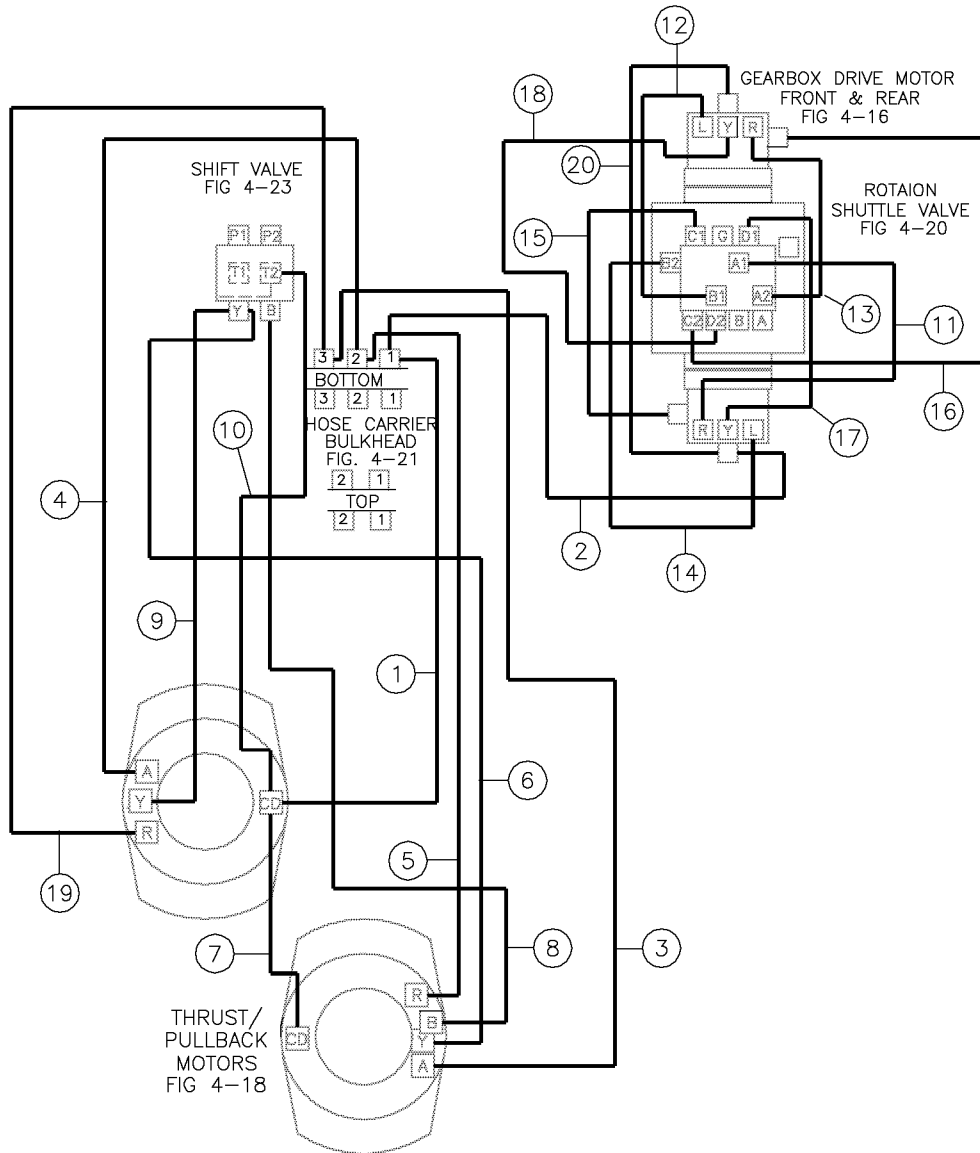
Rod Loader Fig 12-7



Rod Loader Fig 12-7

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		57940179	HOSE-3/8X140 6FS JIC (100R2)	1	
2		57940563	HOSE-3/8X146 6FS JIC 3000 PSI	2	
3		296256906	HOSE - .375 X 23 6FS JIC ST/45 M3K	1	
4		57940739	HOSE-3/8X27 6FS JIC 3000 PSI	1	
5		296284027	HOSE-1/4 X 51 4FS JIC 3000 PSI	1	
6		296269588	HOSE - 3/8 X 137 6FSJIC ST/90 M3K	1	
7		296269590	HOSE - 3/8 X 138 6FSJIC ST/90 M3K	2	
8		296269587	HOSE - 3/8 X 159 6FSJIC ST/45 3000PSI	1	

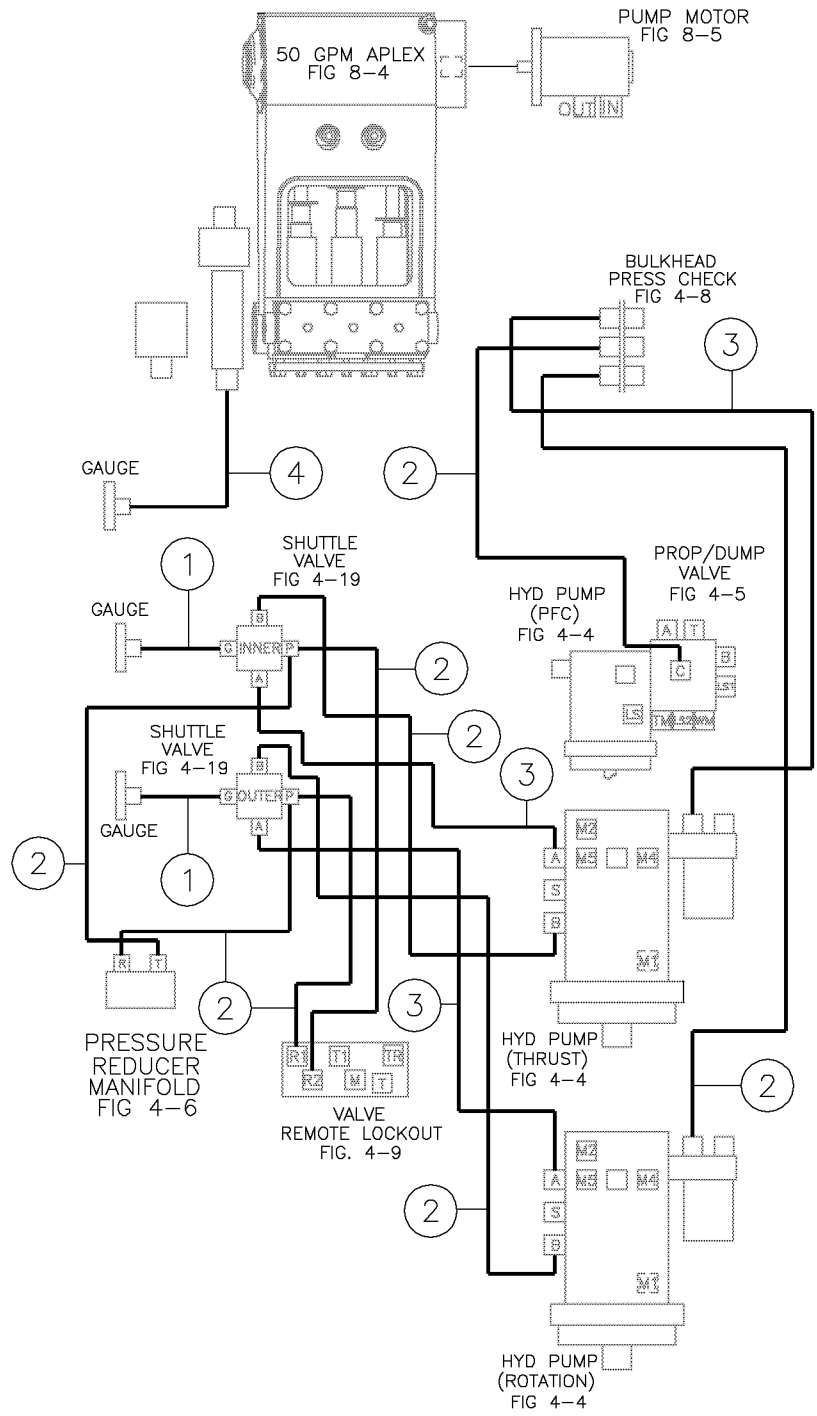
Rotation/Thrust Gearbox Fig 12-8



Rotation/Thrust Gearbox Fig 12-8

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		296287845	HOSE-.5 X 20 8FSJ 90/90 M3K BNS (180)	1	
2		296287835	HOSE-.75 X 27 12FSJ STR/10FSJ STR M3K BNS	1	
3		296287841	HOSE-.75 X 19.25 12FSORFF STR/90M G6K BNS	1	
4		296287842	HOSE-.75 X 25.17 12FSORFF STR/90M G6K BNS	1	
5		296287843	HOSE-.75 X 28 12FSORFF STR/90L G6K BNS	1	
6		296287848	HOSE-.375 X 14 6FSJ STR/90 M3K BNS	1	
7		296273697	HOSE-.50X7.5-8FSJ STR/90-M3K-BNS	1	
8		296273582	HOSE-.38X10-6FSJ STR/90M-M3K-BNS	1	
9		296287849	HOSE-.375 X 28.5 6FSJ STR/45 M3K BNS	1	
10		296287850	HOSE-.375 X21.5 6FSJ STR/90 M3K BNS	1	
11		296273586	HOSE-.75X23-12FSORFF STR/90S-G6K- BNS	1	
12		296273587	HOSE-.75X25 -12FSORFF STR/90S-G6K- BNS	1	
13		296273588	HOSE-.75X22.5 -12FSORFF STR/90M- G6K-BNS	1	
14		296273589	HOSE-.75X12.25-12FSORFF STR/90M- G6K-BNS	1	
15		296273590	HOSE-.50X25-8FSJ STR/45-M3K-BNS	1	
16		296273591	HOSE-.50X18-8FSJ STR/90-M3K-BNS	1	
17		296273592	HOSE-.38X17 -6FSJ STR/90-M3K-BNS	1	
18		296273593	HOSE-.38X18-6FSJ STR/90M-M3K-BNS	1	
19		296273595	HOSE-.75X15.5-12FSORFF 90L/90M- G6K-(270)B	1	
20		296273698	HOSE-.50X45-8FSJ 45/90M-M3K- BNS(315)	1	

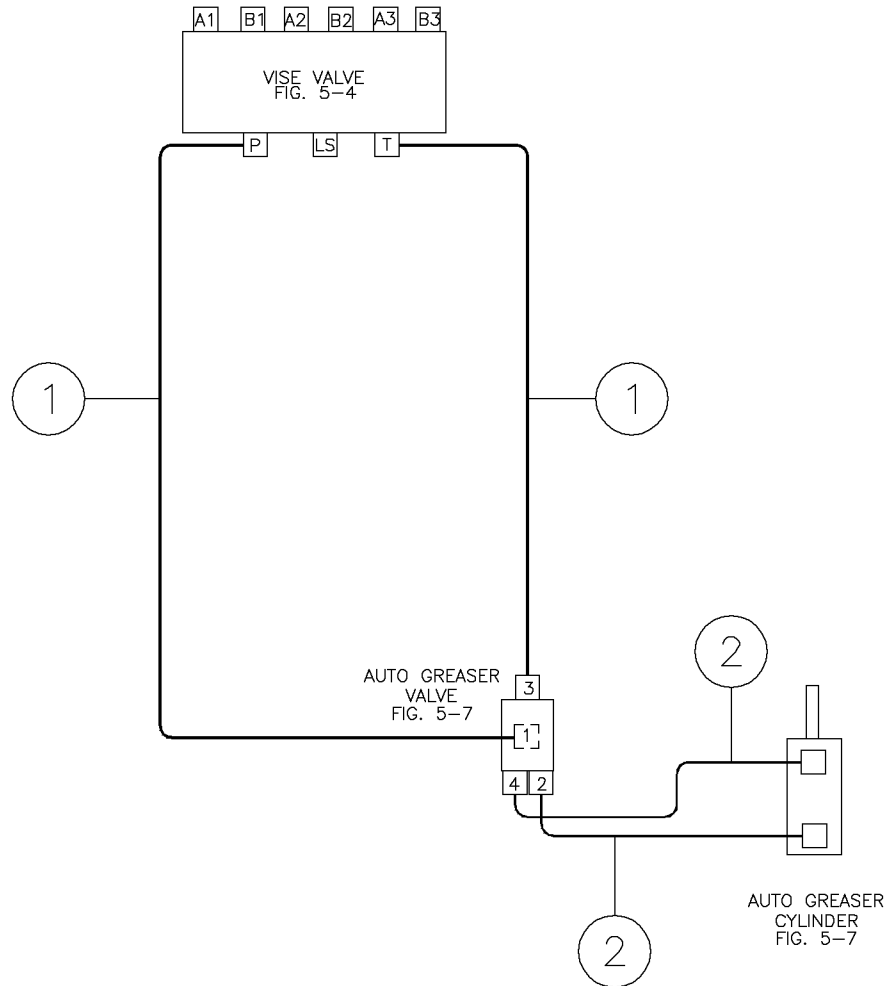
Micro Hoses Fig 12-9



Micro Hoses Fig 12-9

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		278923001	HOSE - .078X168 4FSJIC ST/ST MICRO 6900 PSI	2	
2		285556001	HOSE - .078 X 18 4 FS JIC ST/ST 6900 PSI	8	
3		296258418	HOSE - .08 X 14 4FS JIC ST/ST MICRO	2	
4		296280948	HOSE - MICRO	1	

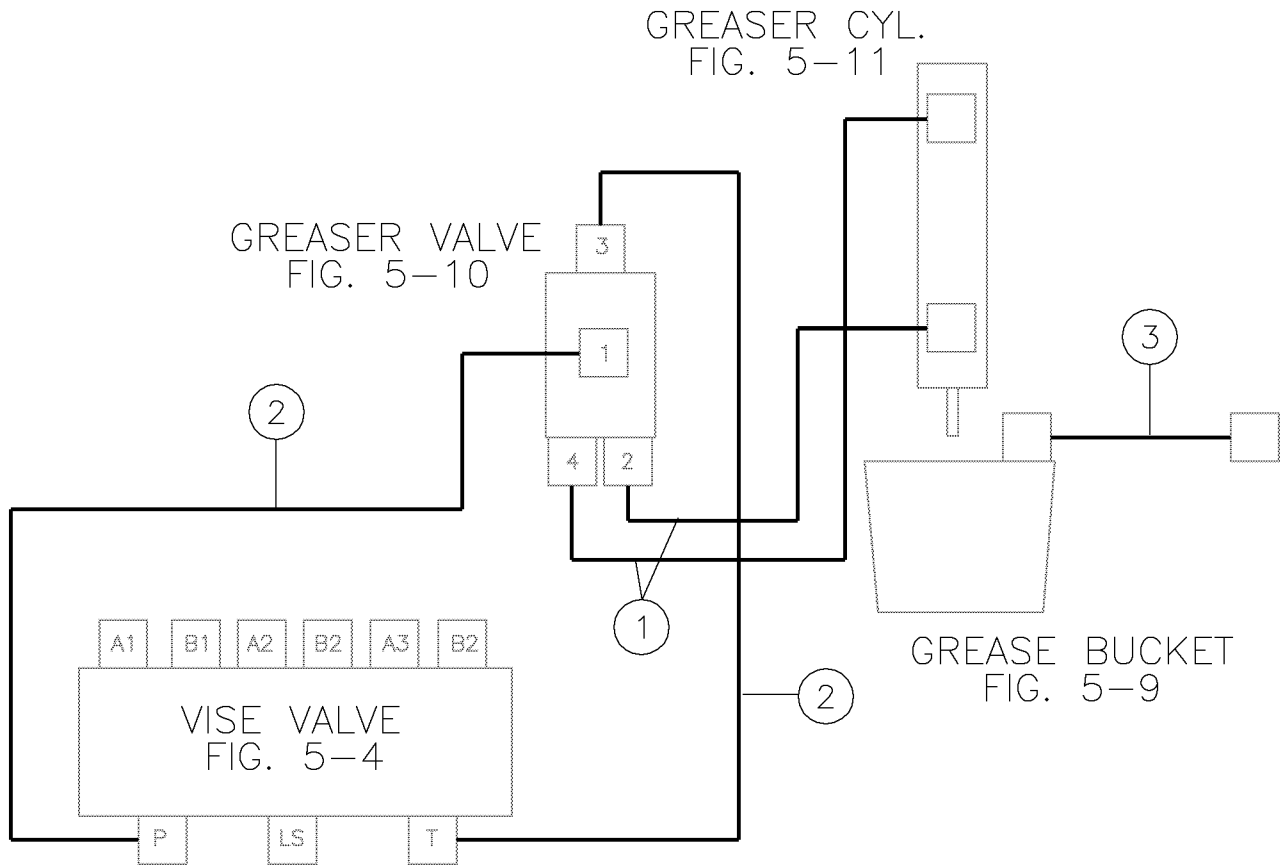
Auto Greaser Fig 12-10



Auto Greaser Fig 12-10

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
1		159999001	HOSE-HYD-.38X59-6FSJ-ST/90-3000PSI	2	
2		53843195	HOSE-1/4X16 4FS JIC 3000 PSI	2	

Auto Bucket Greaser Fig 12-11



Auto Bucket Greaser Fig 12-11

REF. NO.	*	PART NO.	DESCRIPTION	QTY.	REMARKS
		Revision Date	October, 2006		Addition To Manual
1		296073001	HOSE-HYD-.25 X 17.5 4FSJ ST/90 3000PSI	2	
2		256684001	HOSE-HYD-.38X67-6FSJ-ST/90-3000PSI- 100R17-M3KMTF	2	
3		53843195	HOSE-1/4X16 4FS JIC 3000 PSI	1	

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Revision History

Revision	Date	Page(s)	Description
P2.00	August, 2006	All	2nd Edition Manual
P2.01	October, 2006	Revised: TOC, 2-1, 2-7, 2-9, 2-10, 2-11, 3-1, 3-2, 3-4, 3-12, 4-14, 4-16, 4-25, 5-1, 7-1, 7-2, 7-3, 7-7, 7-8 9-10, 9-11, 9-14, 9-15, 9-18, 9-20, 9-25, 9-28, 9-31, 9-33, 9-35, 9-36,11-31,New: 3-2, 5-8, 5-9, 5-10, 5-11, 5-12, 7-9, 7-10, 9-39, 9-40, 11-23x01, 12-11	2nd Edition, 1st Revision
P2.02	December, 2006	Revised: TOC, 1-10, 2-1, 2-8, 3-1, 4-16, 4-25, 5-2, 5-4, 7-1, 7-2, 7-3, 7-5, 7-9, 7-10, 8-1, 8-3, 9-1, 9-11, 11-2, New: 8-9, 9-41, 11-54	2nd Edition, 2nd Revision

