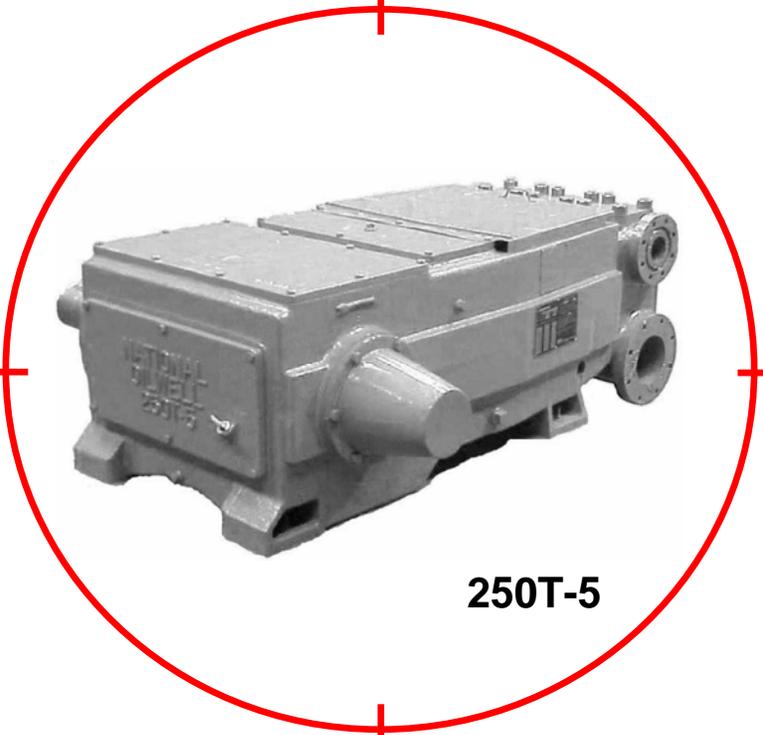
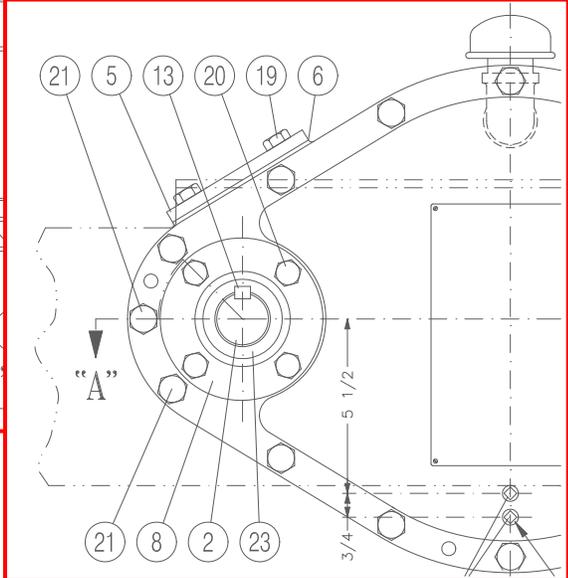
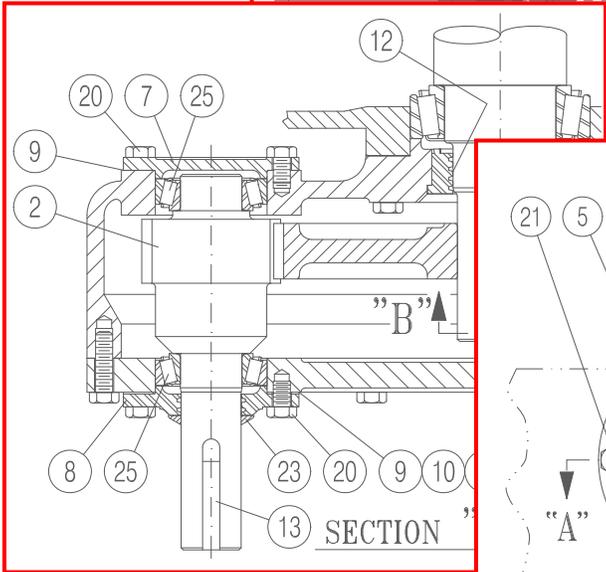
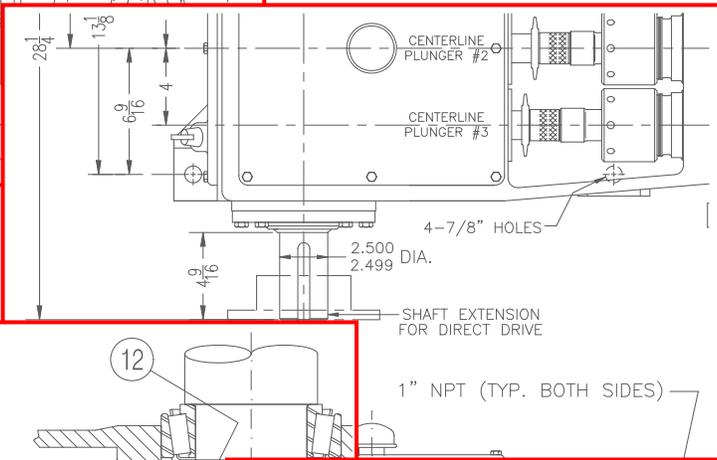
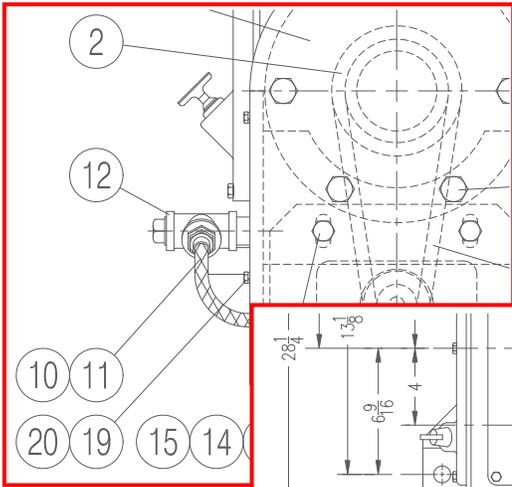


250T-5 Triplex Plunger Pump Parts List



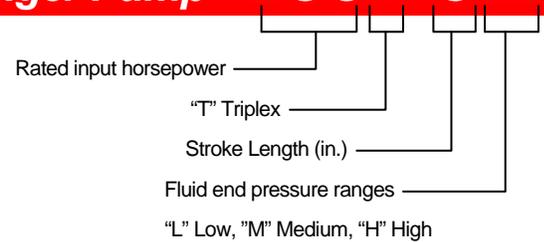
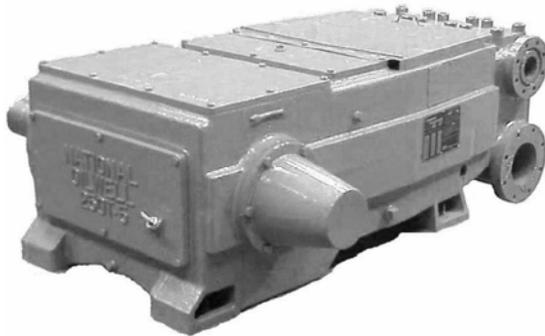
250T-5



Types:
250T-5L
250T-5M
250T-5H

Sales / Technical Information

USA Tollfree: 1 (800) 324-4706
 Phone: 1 (918) 447-4600
 Fax: 1 (918) 447-4677
 Internet: <http://www.nov.com>



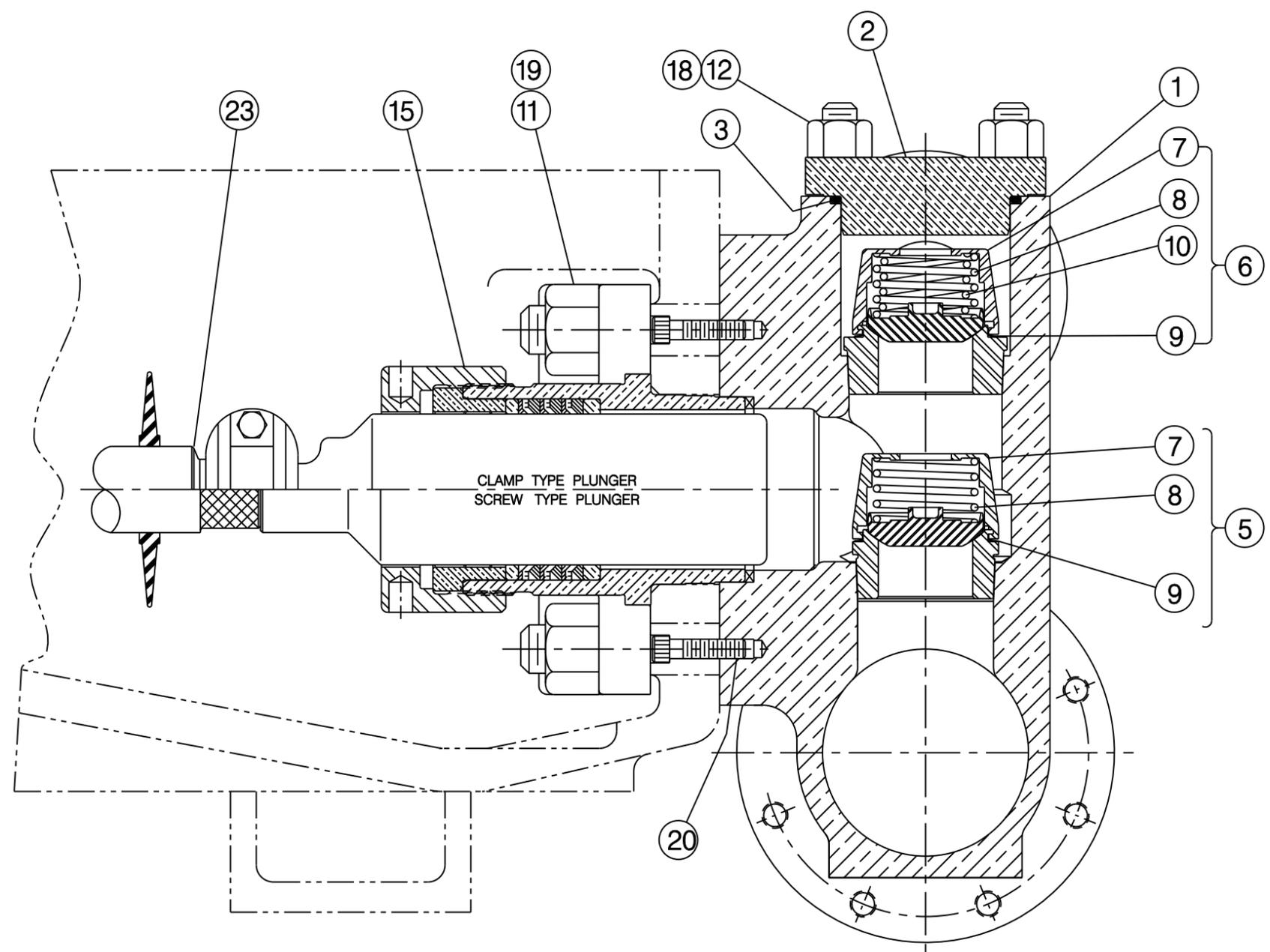
Index and Check List:

PAGE	DWG. NUMBER	DESCRIPTION	SERIES OF ISSUE	DATE OF ISSUE
1	1713972	ASSEMBLY, FLUID END, 250T-5L – ALUM. BRZ.	THIRD	8-21-07
2	1713973	ASSEMBLY, FLUID END, 250T-5M – ALUM. BRZ.	THIRD	8-21-07
3	1713974	ASSEMBLY, FLUID END, 250T-5H – ALUM. BRZ.	SECOND	8-21-07
4	1713975	POWER END ASSEMBLY	FIRST	09-15-03
5	1713976	CRANKSHAFT ASSEMBLY	FIRST	09-15-03
6		PAGE REMOVED		03-08-06
7	1713978	CAGE VALVE SERVICE – S.S. PLATE, BOTTOM GUIDED AND BALL AND SEAT	FIRST	09-15-03
8	1713979	VALVE SERVICE KITS – SPHERICAL SEAT	SECOND	01-19-06
9	1713980	VALVE SERVICE KITS – NOV TAPERED SEAT AND CAGE TYPE	FIRST	09-15-03
10	1713981	GEAR REDUCER ASSEMBLY (ALL RATIOS)	FIRST	09-15-03
11	1713982	PLUNGER KIT ASSEMBLY, 250T-5L – ALUM. BRZ.	FIRST	09-15-03
12	1713983	PLUNGER KIT ASSEMBLY, 250T-5M – ALUM. BRZ.	FIRST	09-15-03
13	1713984	PLUNGER KIT ASSEMBLY, 250T-5H – ALUM. BRZ.	FIRST	09-15-03
14	1713985	PLUNGER KIT ASSEMBLY, 250T-5L – 17-4 S.S.	SECOND	02-14-05
15	1713986	PLUNGER KIT ASSEMBLY, 250T-5M – 17-4 S.S.	SECOND	02-14-05
16	1713987	PLUNGER KIT ASSEMBLY, 250T-5H – 17-4 S.S.	SECOND	02-14-05
17	1713988	PLUNGER W/ INTERM. ROD ASSY. – STRAIGHT/TAPERED CLAMP	FIRST	09-15-03
18	1713989	PLUNGER W/ INTERM. ROD ASSY. – THREADED PLUNGER	FIRST	09-15-03
19	1713990	LUBRICATOR PIPING ASSY.	SECOND	02-14-05
20	1713991	LOW SPEED LUBRICATION	FIRST	09-15-03
21	1713992	OPTIONAL ACCESSORIES	FIRST	09-15-03
22	1713993	LOW PRESSURE IN-LINE SUCTION DAMPENERS (WELD-ON)	FIRST	09-15-03
23	1713994	HIGH PRESSURE IN-LINE SUCTION DAMPENERS (WELD-ON)	FIRST	09-15-03
24	1713998	250T-5 OUTLINE DRAWING WITHOUT GEAR REDUCER	FIRST	09-15-03
25	1713999	250T-5 OUTLINE DRAWING WITH GEAR REDUCER	FIRST	09-15-03

Revisions effective March 8, 2006 – updated logo, revised pages 1, 2 and 8; removed page 6.

Revisions effective August 21, 2007 – revised pages 1 thru 3.

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
B	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH	RPO	8.21.07		



3	SEE PAGES 17 & 18	INTERMEDIATE ROD (SCREW OR CLAMP TYPE)	23	
△	16	7000444-11	SCREW, 3/4" x 3 HEX HD CAP (DISCH.)	22
△	16	7000440-11	SCREW, 3/4" x 2 HEX HD CAP (SUCT.)	21
	4	7006309	SCREW, 1/2"-13 x 2 1/4" HEX SOC HD CAP	20
	12	6300220	NUT, 1 3/8"-6 HVY HEX	19
	12	6300160	NUT, 1"-8 HVY HEX	18
△	2	6908025	RING, OVAL JOINT R-31	17
△	2	6010007	GASKET, 6" 150* FLAT RING	16
	3	SEE PAGES 11 - 16	STD. PLUNGER KIT SELECTION	15
⊗	2	*45-A	CAPLUG - DISCH. FLG.	14
⊗	2	*1097	CAPLUG - SUCT. FLG.	13
	12	10000185	STUD, 1" x 3 3/4" LG	12
	12	10032367	STUD, 1 3/8" x 7 1/2" LG.	11
	1	1794026	SPRING, INNER	10
	1	9707080	WAVE RING	9
	1	1794025	SPRING, OUTER	8
	1	1794024-6W	RETAINER, SPRING	7
	3	1794022-25W	VALVE CPT., SPHERICAL DISCHARGE	6
	3	1794020-25W	VALVE CPT., SPHERICAL SUCTION	5
*	1	1712326	BAR, STUFF. BOX ADJ. NUT	4
	3	2410031429	PACKING, TOP CYL. COVER	3
	3	1712073	COVER, CYLINDER TOP	2
	1	17129641425	CYLINDER ONLY, FLUID (NI-ALUM. BRONZE)	1
QTY REQD	PART NO.	DESCRIPTION	ITEM NO.	
	171381214W	STANDARD ASSY. w/SPHERICAL TAPERED SEAT VALVE w/WAVE RING		
		* ITEM NOT SHOWN FOR CLARITY		
		⊗ FOR SHIPPING PURPOSES ONLY		
		△ SHIPPED SEPERATELY		

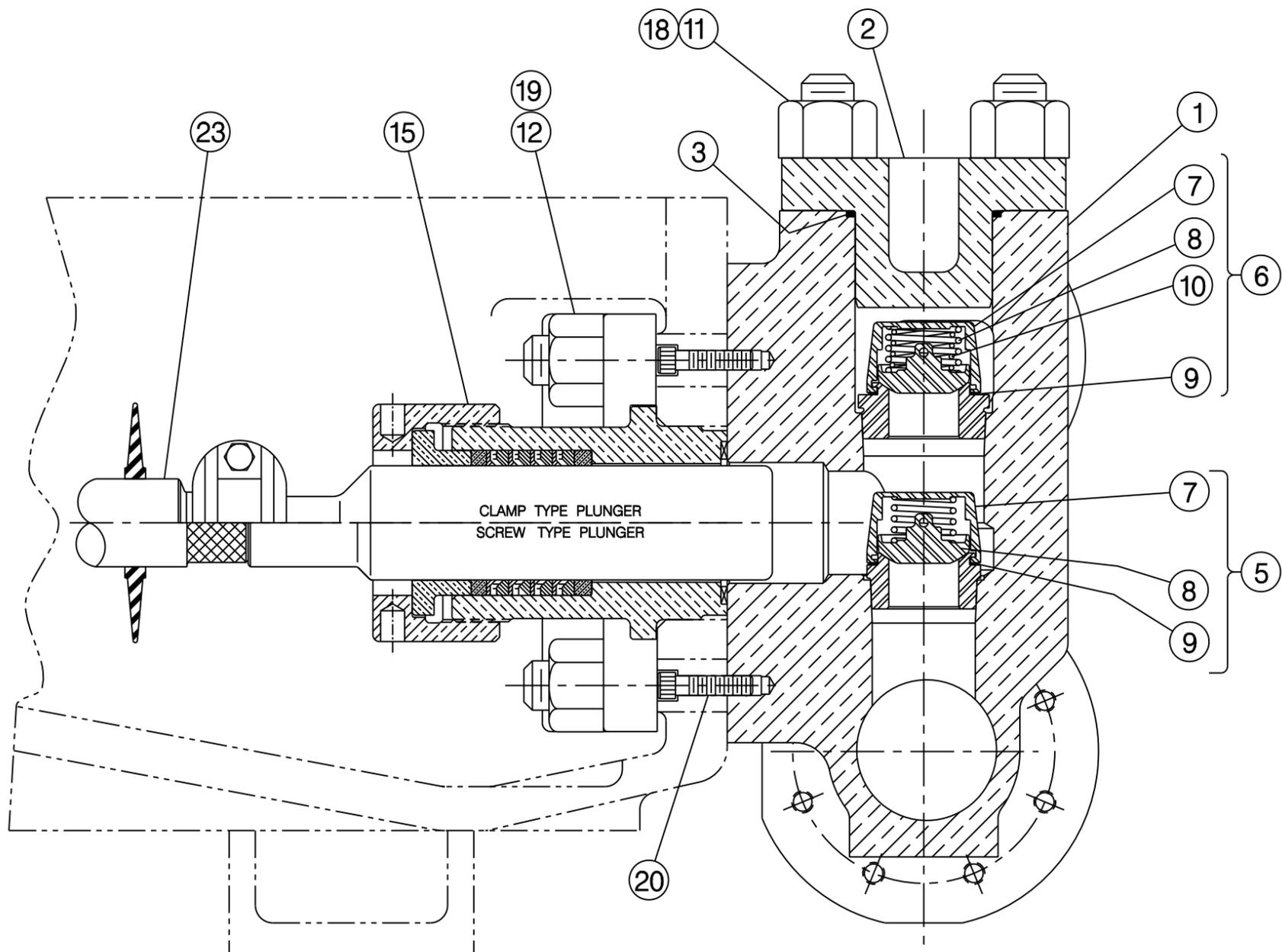
LIST OF MATERIAL

NOV NATIONAL OILWELL VARCO
 HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE
**FLUID END ASSEMBLY
 250T-5L PUMP**

SIZE B	REFERENCE No.	DRAWING No. 1713972	REV B
SCALE 1/4	EST WT	SHEET 1 OF 1	

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
B	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH	RPQ	8.21.07		



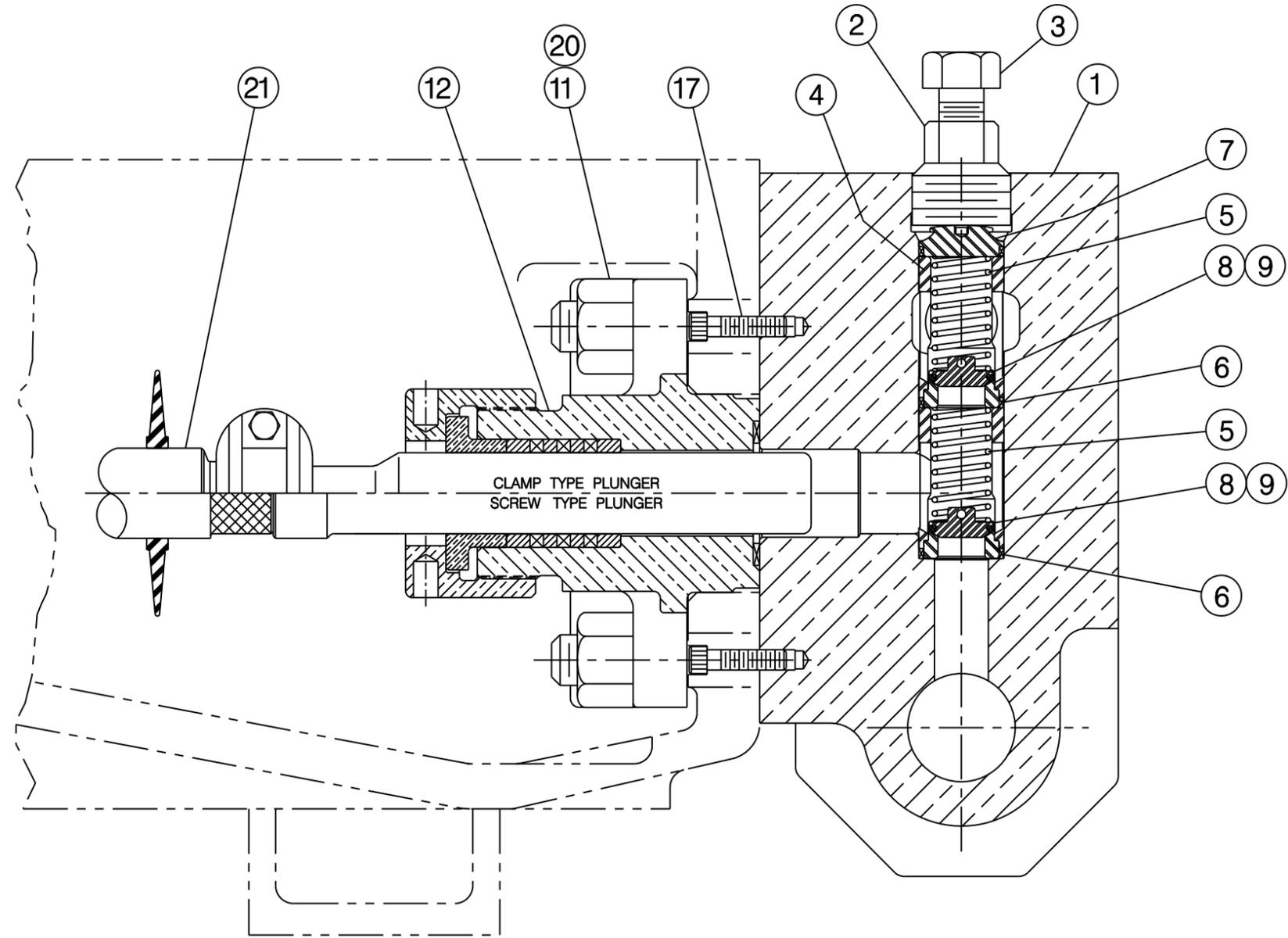
3	SEE PAGES 17 & 18	INTERMEDIATE ROD (SCREW OR CLAMP TYPE)	23	
△	16	7000485-11	SCREW, 7/8" x 3 HEX HD CAP (DISCH.)	22
△	16	7000397-11	SCREW, 5/8" x 2 HEX HD CAP (SUCT.)	21
	4	7006309	SCREW, 1/2"-13 x 2/4" HEX SOC HD CAP	20
	12	6300220	NUT, 1 3/8" HVY HEX	19
	12	6300240	NUT, 1/2" HVY HEX	18
△	2	6908015	RING, OVAL JOINT R-24	17
△	2	6010006	GASKET, 4" 150* FLAT RING	16
	3	SEE PAGES 11 - 16	STD. PLUNGER KIT SELECTION	15
⊗	2	*21	CAPLUG - DISCH. FLG.	14
⊗	2	*1063	CAPLUG - SUCT. FLG.	13
	12	10032367	STUD, 1 3/8"-6 x 7 1/2" LG.	12
	12	49-010-359	STUD, 1/2"-6 x 5 1/2" LG.	11
	1	1793026	SPRING, INNER	10
	1	9707082	WAVE RING	9
	1	1793025	SPRING, OUTER	8
	1	1793024-6W	RETAINER, SPRING	7
	3	1793022-25W	VALVE CPT., SPHERICAL DISCHARGE	6
	3	1793020-25W	VALVE CPT., SPHERICAL SUCTION	5
*	1	1712326	BAR, STUFF. BOX ADJ. NUT	4
	3	2410031345	PACKING, TOP CYL. COVER	3
	3	1712033	COVER, CYLINDER TOP	2
	1	17129731425	CYLINDER ONLY, FLUID (NI-ALUM. BRONZE)	1
QTY REQD	PART NO.	DESCRIPTION	ITEM NO.	
	171381314W	STANDARD ASSY. w/SPHERICAL TAPERED SEAT VALVE w/WAVE RING		
		* ITEM NOT SHOWN FOR CLARITY		
		⊗ FOR SHIPPING PURPOSES ONLY		
		△ SHIPPED SEPERATELY		
LIST OF MATERIAL				

NOV NATIONAL OILWELL VARCO
 HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE **FLUID END ASSEMBLY 250T-5M PUMP**

SIZE	REFERENCE No.	DRAWING No.	REV
B		1713973	B
SCALE	EST WT	SHEET 1 OF 1	
1/4			

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
		MTH	RPQ			
A	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS			8.21.07		



3	SEE PAGES 17 & 18	INTERMEDIATE ROD (SCREW OR CLAMP TYPE)	21
12	6300220	NUT, 1 ³ / ₈ "-6 HVY HEX	20
△	16 700053011	SCREW, 1" x 4" LG. HEX HD CAP (DISCH.)	19
△	16 700044411	SCREW, 3/4" x 3" LG. HEX HD CAP (SUCT.)	18
4	7006309	SCREW, 1/2" x 2 1/4" LG. HEX SOC HD CAP	17
△	2 6908025	RING, OVAL JOINT R-31 (SUCT.)	16
△	2 6908019	RING, OVAL JOINT R-26 (DISCH.)	15
⊗	2 *250	CAPLUG - DISCH. FLG.	14
⊗	2 *501	CAPLUG - SUCT. FLG.	13
3	SEE PAGES 11 - 16	STD. PLUNGER KIT SELECTION	12
12	10032367	STUD, 1 ³ / ₈ " x 7 1/2" LG.	11
*	1 1712326	BAR, STUFFING BOX ADJUSTING NUT	10
1	9707094	INSERT, VALVE	9
6	1717090-25SD	VALVE CPT., SPHERICAL	8
3	17134172	RETAINER, VALVE CAGE	7
9	1712373	SEAL, VALVE CAGE	6
6	1712486	SPRING, BALL VALVE	5
6	17125854	CAGE, VALVE	4
3	1713410	SCREW, CAGE LOADING	3
3	17094842	COVER, CYLINDER TOP	2
1	17124791425	CYLINDER ONLY, FLUID (NI-ALUM. BRONZE)	1
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.
	171381414SD	* ITEM NOT SHOWN FOR CLARITY	
	STANDARD ASSY.	⊗ FOR SHIPPING PURPOSES ONLY	
	w/SPHERICAL	△ SHIPPED SEPERATELY	
	SEVERE DUTY		
	CAGE VALVES		

LIST OF MATERIAL

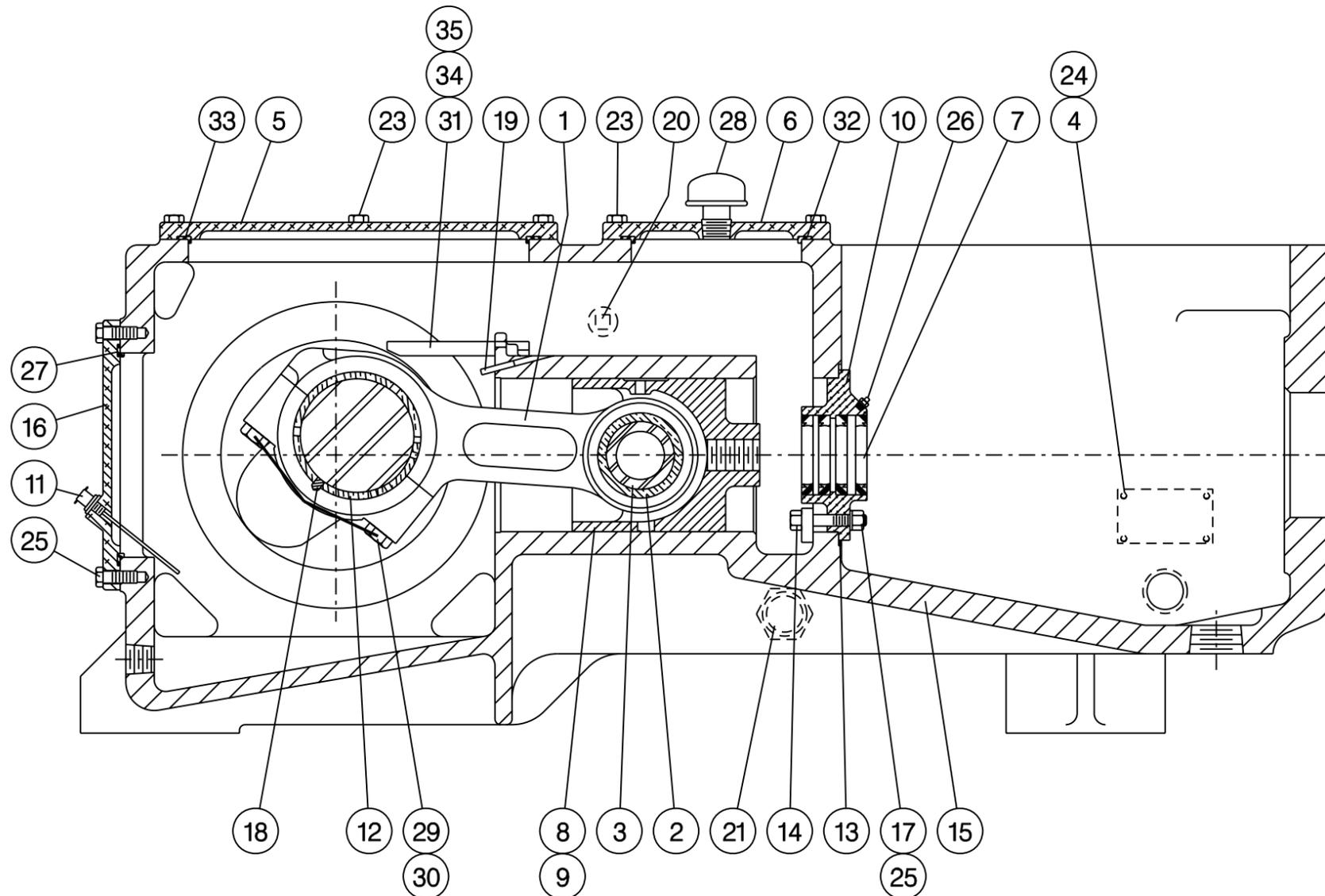
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NOV NATIONAL OILWELL VARCO
 HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE
**FLUID END ASSEMBLY
 250T-5H PUMP**

SIZE B	REFERENCE No.	DRAWING No. 1713974	REV A
SCALE 1/4	EST WT	SHEET 1 OF 1	

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO



4	7619050	WASHER, 1/2"	35
4	700030311	CAPSCREW, 1/2" x 1" LG. HEX HD	34
1	1717112	GASKET, TOP LEFT COVER	33
1	1717111	GASKET, TOP COVER	32
2	1713016P	TROUGH, OIL	31
3 FT.	59-800-016	WIRE, 16 GA. ANNEALED	30
2	21032044	BOLT, CONN. ROD - DRILLED HD	29
1	7802020	CAP, 1" BREATHER	28
1	1717110	GASKET, REAR COVER	27
3	7805052	FITTING, LUBE 1/8	26
6	7618018	WASHER, 1/2" PARKER	25
4	7178025	DRIVESCREW, *2-1/4" ROUND HEAD	24
18	700030511	CAPSCREW, 1/2" x 1 1/2" LG. HEX HD	23
2	7026299	SETSCREW, 1/2" x 1/2" LG. HEX SOCKET	22
1	6874012	PLUG, 1 1/2" STD SOLID SQ. HD.	21
2	6874008	PLUG, 1" STD SOLID SQ. HD.	20
3	6572420	PIN, 3/8" x 1/4" SPRING SLOT	19
1	6510604	PIN, 3/8" x 1/2" DOWEL	18
6	6308080	NUT, 1/2" ESNA	17
1	1713815	PLATE, POWER END REAR COVER	16
1	1713801	FRAME, MAIN	15
6	1716031	BOLT, HOOK INT ROD	14
3	1716017	GASKET, INT ROD	13
6	1716012	BUSHING, CONN ROD	12
1	2400054	GAUGE, DIPSTICK OIL	11
3	1716009	RETAINER, WIPER	10
1	H7028104	SETSCREW, 1/4" x 1/2" LG. HEX SOC CONE PT	9
3	1716005	CROSSHEAD	8
12	1713297	WIPER, OIL JM 16203	7
1	1712014	PLATE, CROSSHEAD COVER	6
1	G1717614	PLATE, POWER END TOP	5
1	G2407274	PLATE, WARNING	4
3	1716008	PIN, CROSSHEAD (INCL. ITEM *9)	3
3	1716010	BUSHING, CROSSHEAD PIN	2
3	G1716004	ROD CPT, CONNECTING (INCL. ITEM No. 2, 18 & 29)	1
QTY REQ'D	PART NO.	DESCRIPTION / MATERIAL / SPECIFICATION	ITEM NO.

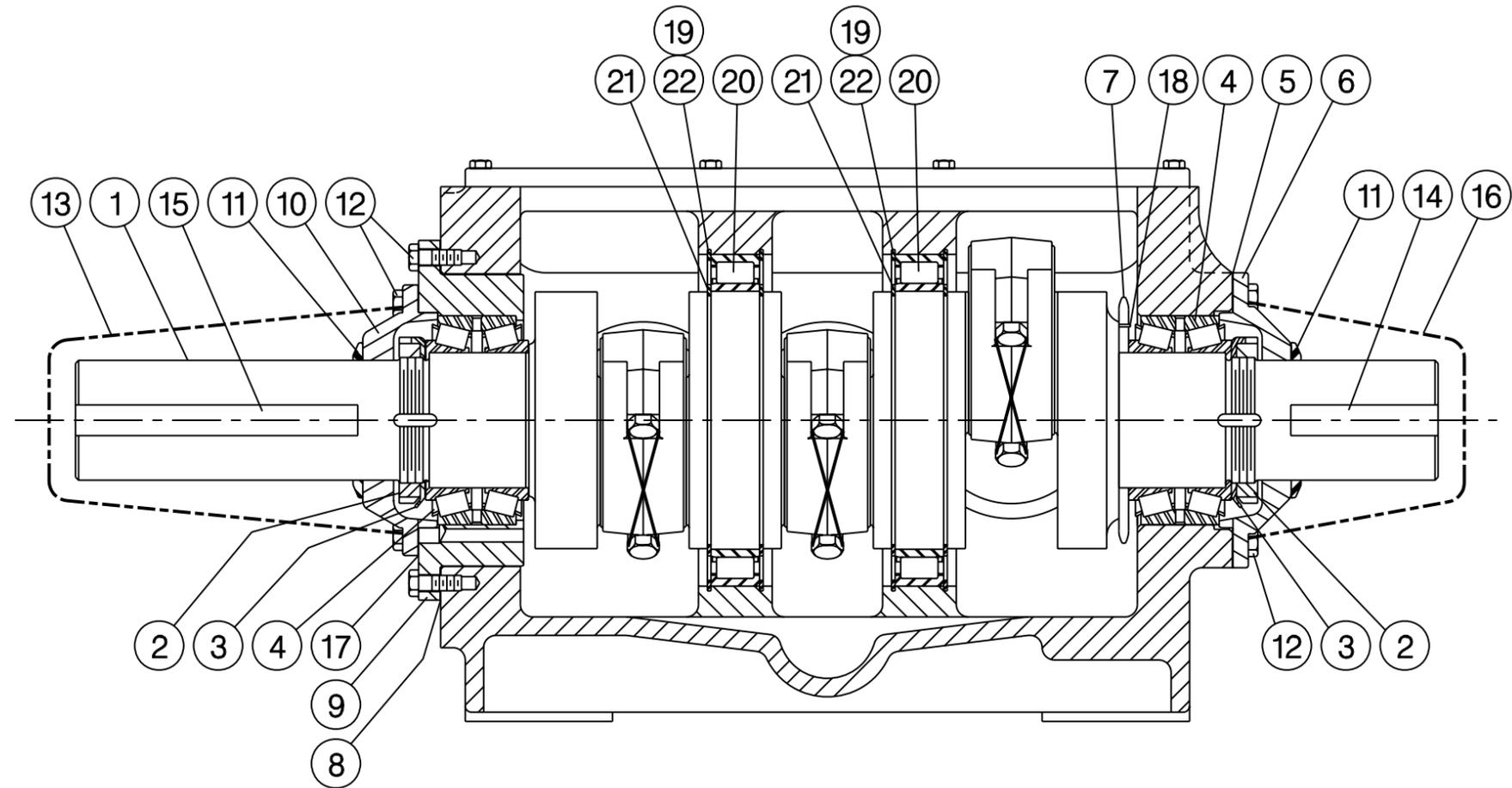
LIST OF MATERIAL

* ITEM NOT SHOWN FOR CLARITY

NOV NATIONAL OILWELL VARCO
HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE POWER END ASSEMBLY
250T-5 PLUNGER PUMP

SIZE B	REFERENCE No.	DRAWING No. 1713975	REV
SCALE NONE	EST WT	SHEET 1 OF 1	



QTY REQ'D	PART NO.	DESCRIPTION / MATERIAL / SPECIFICATION	ITEM NO.
4	6570816	PIN, 1/8" x 1" SPRING	22
4	1716019	RING, CRANKSHAFT SNAP	21
2	ZB-10500	BEARING, CENTER ROLLER	20
4	1716018	RING, MAIN FRAME SPAP	19
1	6571208	PIN, 3/16 x 1/2" SLOT SPRING	18
1	1713010	GASKET, BEARING RETAINER (CAGE SIDE)	17
1	1713112	COVER, RIGHT CRANKSHAFT EXTENSION	16
1	2404019	KEY, CRANKSHAFT 1/2"x9 1/2" (BELT DRIVE)	15
1	2404048	KEY, CRANKSHAFT 1/4"x5 1/2" (DIRECT DRIVE)	14
1	1713111	COVER, CRANKSHAFT EXTENSION	13
20	2400930	SCREW, 5/8 X 1 3/4 DRLD HEX HD CAP	12
2	7818106	EXCLUDER, DIRT	11
1	1713022	RETAINER, CRANKSHAFT - CAGE SIDE	10
1	1713007	CAGE, MAIN BEARING	9
1	1713008	GASKET, MAIN BEARING CAGE	8
1	G1717621	SPROCKET, CRANKSHAFT-60T	7
1	1713017	RETAINER, CRANKSHAFT BEARING	6
2	1713009	GASKET, CRK'SHT. BEARING RETAINER	5
2	ZT5506	BEARING, TIMKEN	4
2	7610050	WASHER, TIMKEN	3
2	6304048	NUT, TIMKEN BEARING LOCK	2
1	1717862	CRANKSHAFT, F.S. (INCLUDES ITEM *2)	1

LIST OF MATERIAL

* *
*
*
*

* OPTIONAL EQUIPMENT
* * FURNISHED ONLY WHEN NO
ACCESSORY DRIVES ARE REQUIRED

NOV NATIONAL OILWELL VARCO
HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

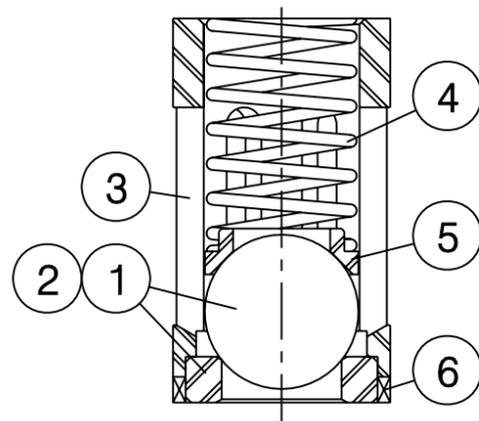
TITLE **CRANKSHAFT ASSEMBLY**
250T-5 PLUNGER PUMP

SIZE B	REFERENCE No.	DRAWING No. 1713976	REV
SCALE NONE	EST WT	SHEET 1 OF 1	

INTENTIONALLY LEFT
BLANK TO KEEP PAGE
NUMBER SEQUENCE

1	1712373	SEAL	6
1	1712372	RETAINER, SPRING	5
1	1712371	SPRING	4
1	1712370-4	CAGE	3
1	1712367	VALVE & SEAT (DISCHARGE)	2
1	1712367	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.

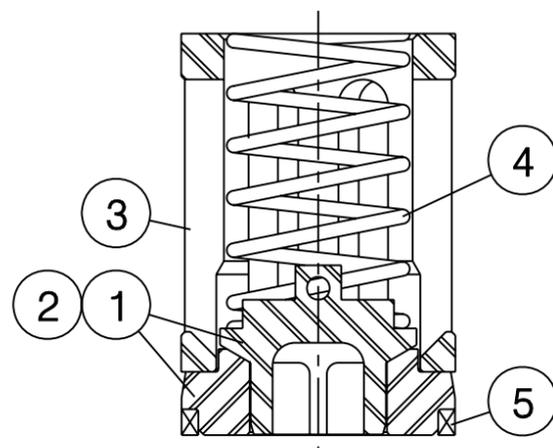
LIST OF MATERIAL



250T - 5H & 5PO
CAGE TYPE
BALL VALVE

1	1716112	SEAL	5
1	1716336	SPRING	4
1	1716335-4	CAGE	3
1	1716330-25	VALVE & SEAT (DISCHARGE)	2
1	1716330-25	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.

LIST OF MATERIAL



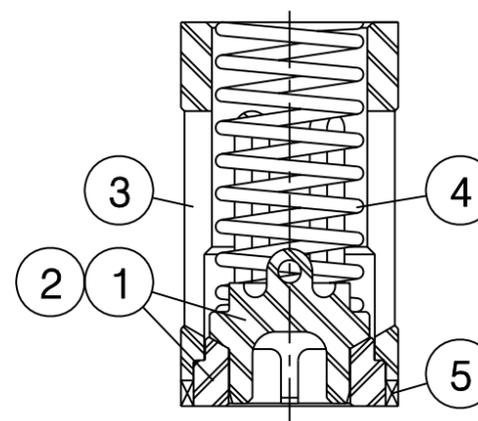
250T - 5HCB
BOTTOM GUIDED
CAGE TYPE VALVE

NOTE:

THESE VALVE OPTIONS ARE
THE SAME FOR THE 200T-5.

1	1713038	1712373	SEAL	5
1	1713036	1712486	SPRING	4
1	1713065-4	1712585-4	CAGE	3
1	1713500-25	1717080-25	VALVE & SEAT (DISCHARGE)	2
1	1713500-25	1717080-25	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART No. 250T-M	PART No. 250T-5H	DESCRIPTION	ITEM NO.

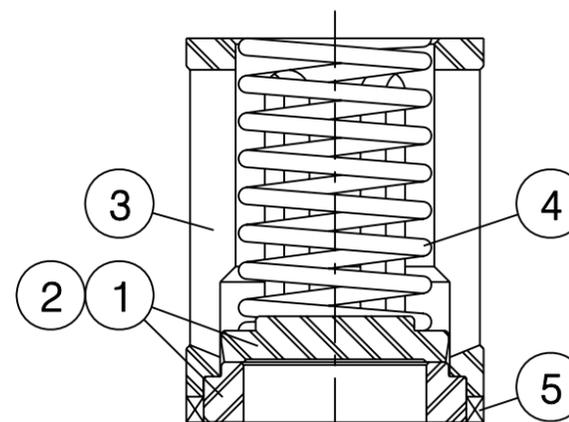
LIST OF MATERIAL



250T - 5MCA & 5HCA
BOTTOM GUIDED
CAGE TYPE VALVE

1	1713038	1712373	SEAL	5
1	1713036	1712486	SPRING	4
1	1713065-4	1712585-4	CAGE	3
1	1713062	1712582	VALVE & SEAT (DISCHARGE)	2
1	1713060	1712580	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART No. 250T-M	PART No. 250T-5H	DESCRIPTION	ITEM NO.

LIST OF MATERIAL



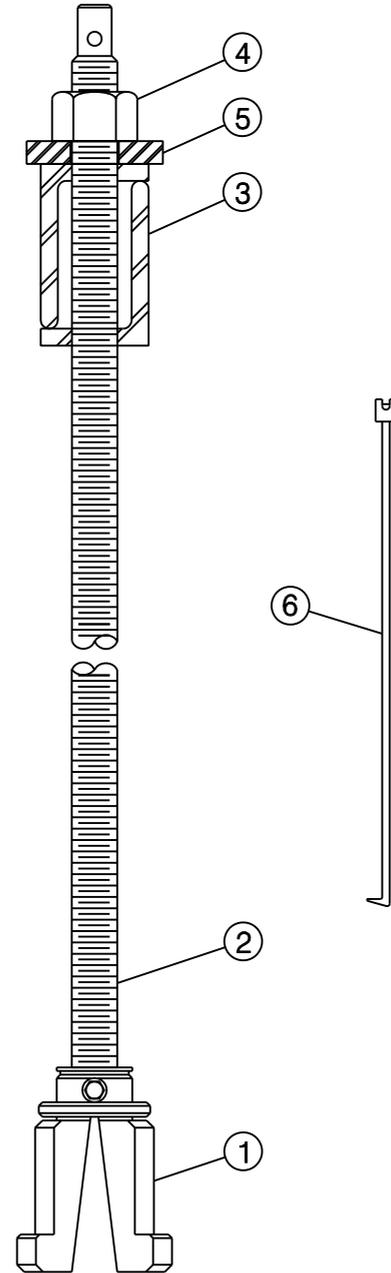
250T - 5MCA & 5HCA
CAGE TYPE
DISC VALVE

NOV NATIONAL OILWELL VARCO			
HOUSTON, TEXAS U.S.A.		ENGINEERING, McALESTER, OKLAHOMA	
TITLE CAGE TYPE VALVE ASSEMBLY 250T-5 TRIPLEX PLUNGER PUMP			
SIZE B	REFERENCE No.	DRAWING No. 1713978	REV
SCALE 1/2	EST WT	SHEET 1 OF 1	

LTR	DESCRIPTION OF CHANGE	MADE	CHGD	DATE	APPROVED	M NO
A	REMOVED DURABLE VALVE	MTH	RPO	1.19.06		

250T - 5L			
ITEM No.	PART NO.	DESCRIPTION	QTY. REQ'D
	180104143	VALVE KIT CPT.	1
1	181259409	HEAD	1
2	20220159	STEM	1
3	181205709	SPACER	1
4	75518308	NUT, 1"	1
5	20220194	WASHER	1
6	1790034	RETRIEVER	1

250T - 5M			
ITEM No.	PART NO.	DESCRIPTION	QTY. REQ'D
	180104127	VALVE KIT CPT.	1
1	181259300	HEAD	1
2	20220159	STEM	1
3	181205709	SPACER	1
4	75518308	NUT, 1"	1
5	20220194	WASHER	1
6	1790034	RETRIEVER	1



SPHERICAL TAPERED SEAT VALVE KIT

NOTE:
THESE VALVE SERVICE KITS
ARE THE SAME FOR THE 200T-5.

NOV NATIONAL OILWELL VARCO	
HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA	
TITLE VALVE SERVICE KITS 250T-5 PLUNGER PUMP	
SIZE C	REFERENCE No. DRAWING No. 1713979
SCALE 1/4	EST WT SHEET 1 OF 1

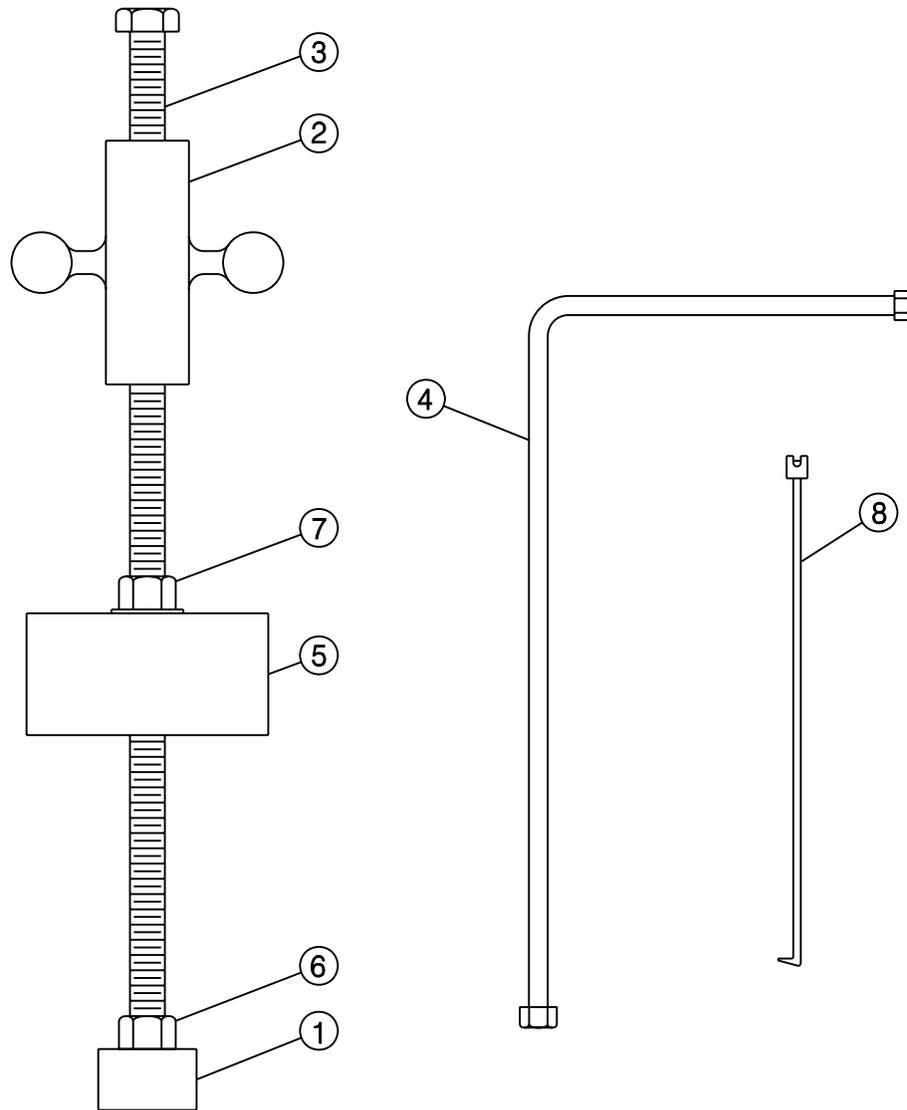
250T - 5L			
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	1794007	VALVE KIT CPT.	1
1	1794006	HEAD	1
2	1790080	BUMPER	1
3	1790081	BAR	1
4	1790082	WRENCH	1
5	1713109	SUPPORT	1
6	6300160	NUT	1
7	6314002	NUT	1
8	1790034	RETRIEVER	1

250T - 5M			
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	1793007	VALVE KIT CPT.	1
1	1793006	HEAD	1
2	1790080	BUMPER	1
3	1790081	BAR	1
4	1790082	WRENCH	1
5	1713109	SUPPORT	1
6	6300160	NUT	1
7	6314002	NUT	1
8	1790034	RETRIEVER	1

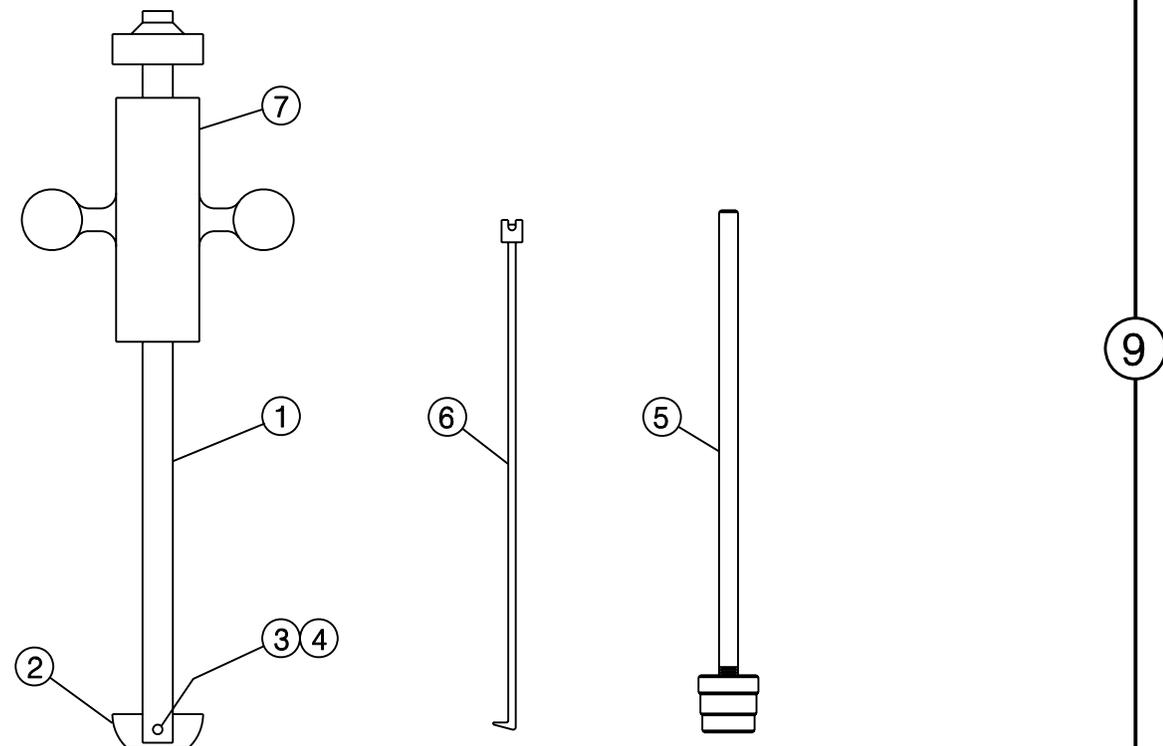
250T - 5M (MCA)			
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	1713068	VALVE KIT CPT.	1
	1713069	BAR CPT., INCL.	1
1	1713070	BAR	1
2	1713072	PLATE	1
3	6572018	PIN	1
4	6571218	PIN	1
5	1790043	DRIVER	1
6	1790034	RETRIEVER	1
7	1790080	BUMPER	1

250T - 5H (HCB)			
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	1713351	VALVE KIT CPT.	1
	1713352	BAR CPT., INCL.	1
1	1713070	BAR	1
2	1713353	PLATE	1
3	6572018	PIN	1
4	6571218	PIN	1
5	G-1790064	DRIVER	1
6	1790034	RETRIEVER	1
7	1790080	BUMPER	1

250T - 5PO /5HCA			
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	1712342	VALVE KIT CPT.	1
	1712242	BAR CPT., INCL.	1
1	1710250	BAR	1
2	1712263	PLATE	1
3	6572016	PIN	1
4	6571216	PIN	1
5	1790042	DRIVER	1
6	1790034	RETRIEVER	1
7	1790080	BUMPER	1



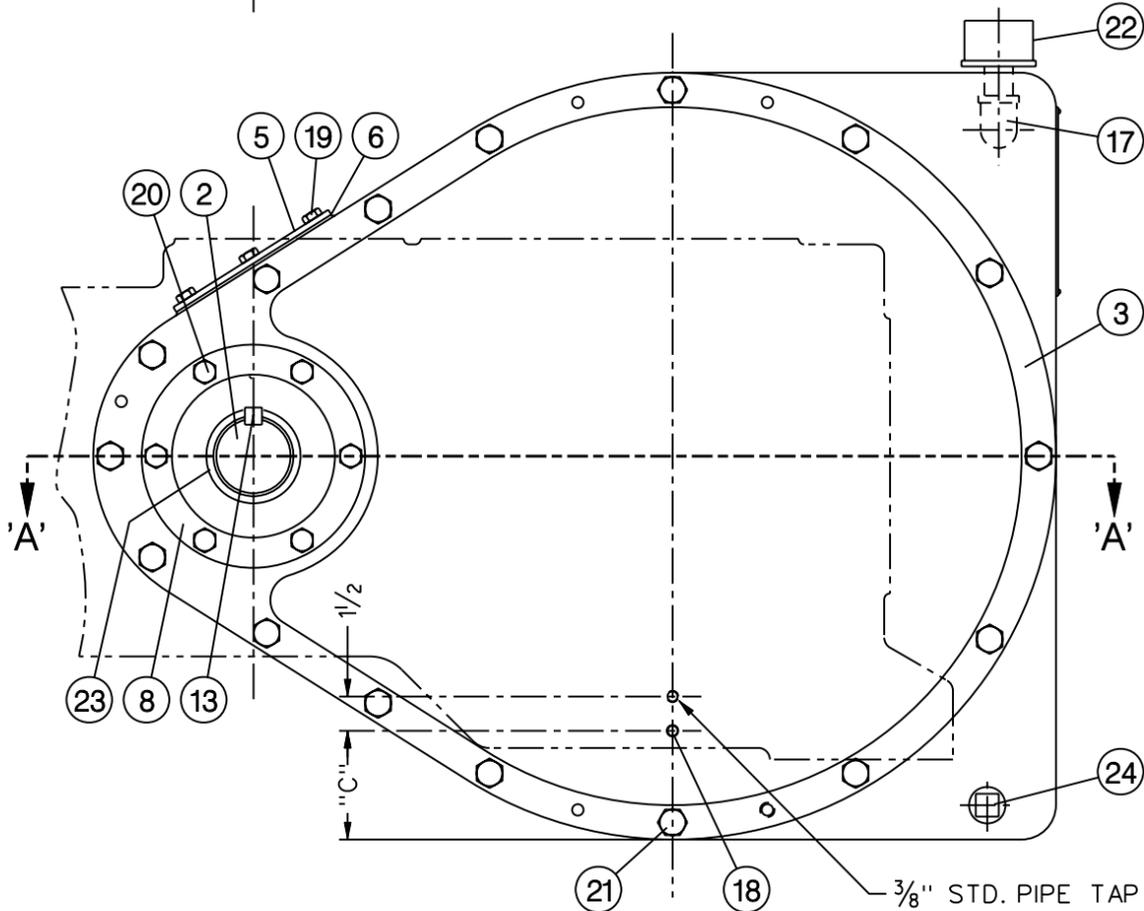
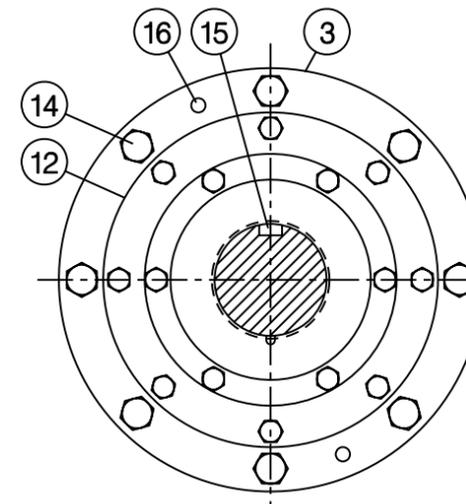
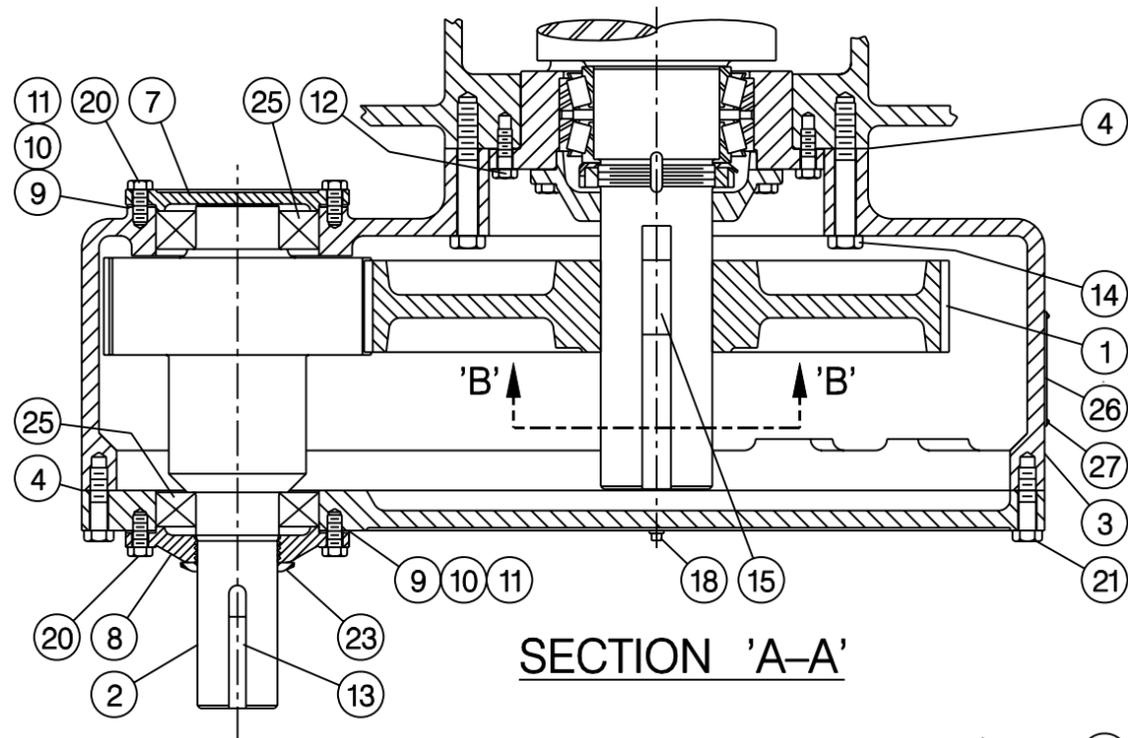
NATIONAL OILWELL TAPERED SEAT VALVE KIT



CAGE TYPE VALVE KIT
(SPHERICAL, BOTTOM GUIDED, DISC, OR BALL)

NOTE:
THESE VALVE SERVICE KITS
ARE THE SAME FOR THE 200T-5.

NOV NATIONAL OILWELL VARCO			
HOUSTON, TEXAS U.S.A.		ENGINEERING, McALESTER, OKLAHOMA	
TITLE VALVE SERVICE KITS 250T-5 PLUNGER PUMP			
SIZE C	REFERENCE No.	DRAWING No. 1713980	REV
SCALE 1/4	EST WT	SHEET 1 OF 1	



1		7178025		SCREW, RD HD DRIVE #2 x 1/4"	27					
1		1711606		PLATE, NAME & INSTRUCTION	26					
2		ZT-3621		BEARING, PINION SHAFT	25					
1		7815059		PLUG, MAGNETIC DRAIN 1/4"	24					
1		1127523		EXCLUDER, BRG	23					
1		7802020		CAP, BREATHER *S-183	22					
16		7000443-11		SCREW, HEX HD CAP 3/4" x 2 3/4"	21					
12		7000395-11		SCREW, HEX HD CAP 5/8" x 1 1/2"	20					
4		7000206-11		SCREW, HEX HD CAP 3/8" x 3/4"	19					
2		6874003		PLUG, STD PIPE 3/8"	18					
1		6829008		ELBOW, STD 1" x 90° STREET	17					
2		6581072		PIN, TAPER #10 x 4 1/2"	16					
1		2403101		KEY, GEAR 1" x 1" x 3 1/4"	15					
8		2405018		SCREW, HEX HD DRLD 7/8" x 4 1/2"	14					
1		2402990		KEY, PINION 3/4" x 3/4" x 4"	13					
1		1713621		RETAINER, CRANKSHAFT BRG	12					
6		1713627		SHIM, BEARING RETAINER .007	11					
6		1713625		SHIM, BEARING RETAINER .005	10					
2		1713620		SHIM, BEARING RETAINER .020	9					
1		1713605		CAP, H.S. PINION BRG OPEN	8					
1		1713604		CAP, H.S. PINION BRG BLIND	7					
1		1108210		GASKET, INSPECTION COVER	6					
1		1108110		COVER, INSPECTION	5					
1		7817200-68		GASKET, LOCTITE PLASTIC	4					
1	1713682	1713622	1713602	1713602	1713602	1713602	1713602	1713602	HOUSING CPT, GEAR REDUCER	3
1	1713684	1713619	1713614	1713624	1713617	1713616	1713613	1713612	PINION	2
1	1713683	1713618	1713609	1713623	1713607	1713608	1713610	1713611	GEAR	1
QTY REQ'D	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	DESCRIPTION /MAT'L. /SPEC.	ITEM NO.
	1713637	G1713635	1713632	1713636	1713634	1713633	1713631	1713630		
	5.63 RATIO	4.84 RATIO	4.38 RATIO	3.69 RATIO	3.36 RATIO	3.25 RATIO	2.89 RATIO	2.27 RATIO		

GEAR REDUCER ASSY. COMPLETE BILL OF MATERIAL No.'s

LIST OF MATERIAL

OIL LEVEL LOCATION	
GEAR RED. CPT. / RATIO	"C"
1713630 / 2.27	4 3/4
1713631 / 2.89	3 3/4
1713633 / 3.25	3 1/2
1713634 / 3.36	3 1/2
1713636 / 3.69	2 1/2
1713632 / 4.38	2 1/2
G1713635 / 4.84	2 1/2
1713637 / 5.63	2 1/2

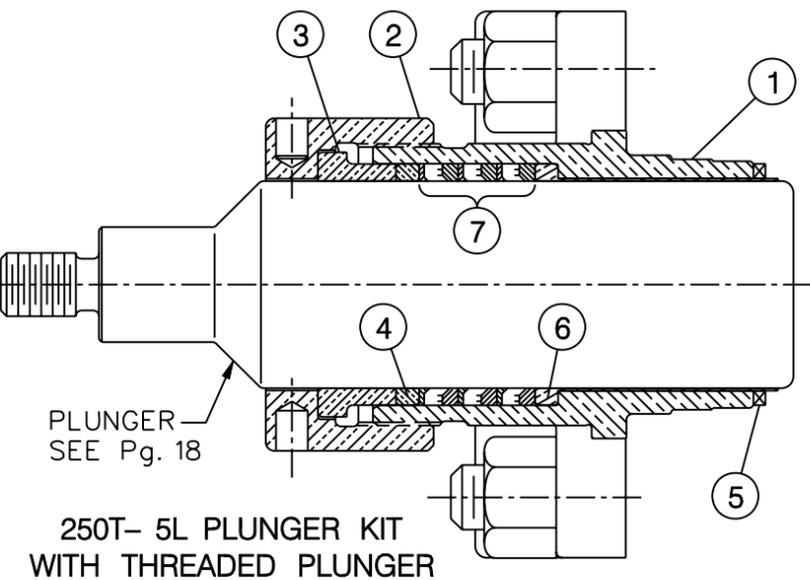
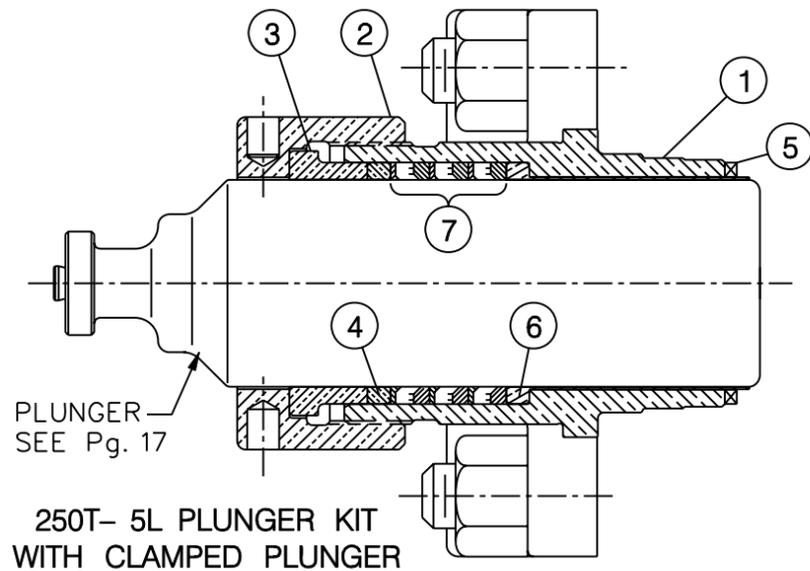
NATIONAL OILWELL VARCO
 HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE
**GEAR REDUCER ASSEMBLY
 250T-5 PLUNGER PUMP**

SIZE REFERENCE No. DRAWING No. REV
 B 1713981

SCALE 1/8" EST WT SHEET 1 OF 1

10



QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.
1	08423022	SEAL, STUFFING BOX	5
2	1713902	3 ³ / ₈ " WASHER	4
2	1712098	3 ¹ / ₂ " WASHER	
2	1713901	3 ⁵ / ₈ " WASHER	
2	1713900	3 ³ / ₄ " WASHER	
2	1713899	3 ⁷ / ₈ " WASHER	
2	1712100	4" WASHER	
2	1713898	4 ¹ / ₈ " WASHER	
2	1713897	4 ¹ / ₄ " WASHER	
2	1713896	4 ³ / ₈ " WASHER	
2	1713895	4 ¹ / ₂ " WASHER	
1	1713885	3 ³ / ₈ " GLAND	3
1	1713886	3 ¹ / ₂ " GLAND	
1	1713887	3 ⁵ / ₈ " GLAND	
1	1713888	3 ³ / ₄ " GLAND	
1	1713889	3 ⁷ / ₈ " GLAND	
1	1713890	4" GLAND	
1	1713891	4 ¹ / ₈ " GLAND	
1	1713892	4 ¹ / ₄ " GLAND	
1	1713893	4 ³ / ₈ " GLAND	
1	1713894	4 ¹ / ₂ " GLAND	
1	1713865	NUT, ADJUSTING	2
1	17138582	3 ³ / ₈ " PLG'R x 4 ¹ / ₄ " BORE STUFFING BOX	1*
1	17138582	3 ¹ / ₂ " PLG'R x 4 ¹ / ₄ " BORE STUFFING BOX	
1	17138572	3 ⁵ / ₈ " PLG'R x 4 ¹ / ₂ " BORE STUFFING BOX	
1	17138572	3 ³ / ₄ " PLG'R x 4 ¹ / ₂ " BORE STUFFING BOX	
1	17138562	3 ⁷ / ₈ " PLG'R x 4 ³ / ₄ " BORE STUFFING BOX	
1	17138562	4" PLG'R x 4 ³ / ₄ " BORE STUFFING BOX	
1	17138552	4 ¹ / ₈ " PLG'R x 5" BORE STUFFING BOX	
1	17138552	4 ¹ / ₄ " PLG'R x 5" BORE STUFFING BOX	
1	17138542	4 ³ / ₈ " PLG'R x 5 ¹ / ₄ " BORE STUFFING BOX	
1	17138542	4 ¹ / ₂ " PLG'R x 5 ¹ / ₄ " BORE STUFFING BOX	

LIST OF MATERIAL

250T- 5L PLUNGER KIT

QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.
1	64223361	3 ³ / ₈ " 850-N UNIVERSAL PACKING	7
1	6422343	3 ¹ / ₂ " 850-N UNIVERSAL PACKING	
1	6422362	3 ⁵ / ₈ " 850-N UNIVERSAL PACKING	
1	6422368	3 ³ / ₄ " 850-N UNIVERSAL PACKING	
1	6422363	3 ⁷ / ₈ " 850-N UNIVERSAL PACKING	
1	6422346	4" 850-N UNIVERSAL PACKING	
1	6422364	4 ¹ / ₈ " 850-N UNIVERSAL PACKING	
1	6422365	4 ¹ / ₄ " 850-N UNIVERSAL PACKING	
1	6422366	4 ³ / ₈ " 850-N UNIVERSAL PACKING	
1	6422348	4 ¹ / ₂ " 850-N UNIVERSAL PACKING	
1	1713934	3 ³ / ₈ " SLEEVE WASHER	6
1	1713933	3 ¹ / ₂ " SLEEVE WASHER	
1	1713932	3 ⁵ / ₈ " SLEEVE WASHER	
1	1713931	3 ³ / ₄ " SLEEVE WASHER	
1	1713930	3 ⁷ / ₈ " SLEEVE WASHER	
1	1713929	4" SLEEVE WASHER	
1	1713928	4 ¹ / ₈ " SLEEVE WASHER	
1	1713927	4 ¹ / ₄ " SLEEVE WASHER	
1	1713926	4 ³ / ₈ " SLEEVE WASHER	
1	1713925	4 ¹ / ₂ " SLEEVE WASHER	

LIST OF MATERIAL

250T- 5L PLUNGER KIT

* ALL STUFFING BOXES LISTED USE RETAINER 1713834.

△ USE ONLY WITH CERAMIC PLUNGER. REPLACE ONE OF ITEM *4 WITH ITEM *6.

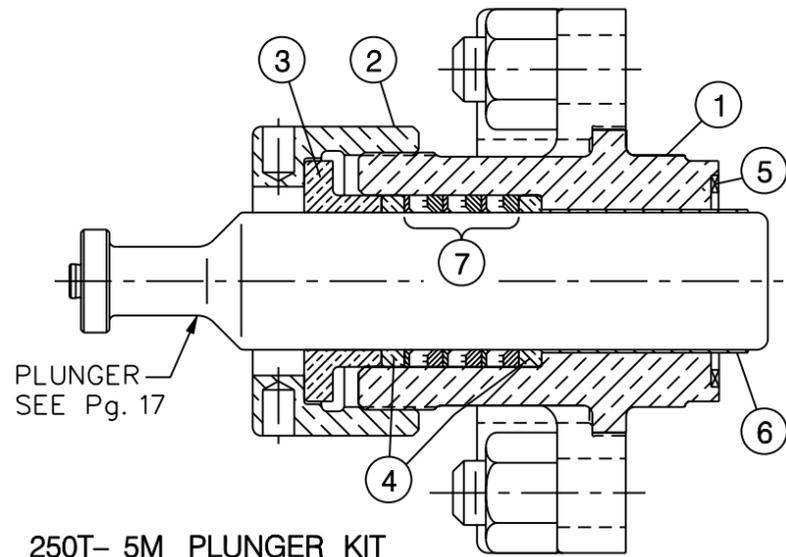
NOV NATIONAL OILWELL VARCO

HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

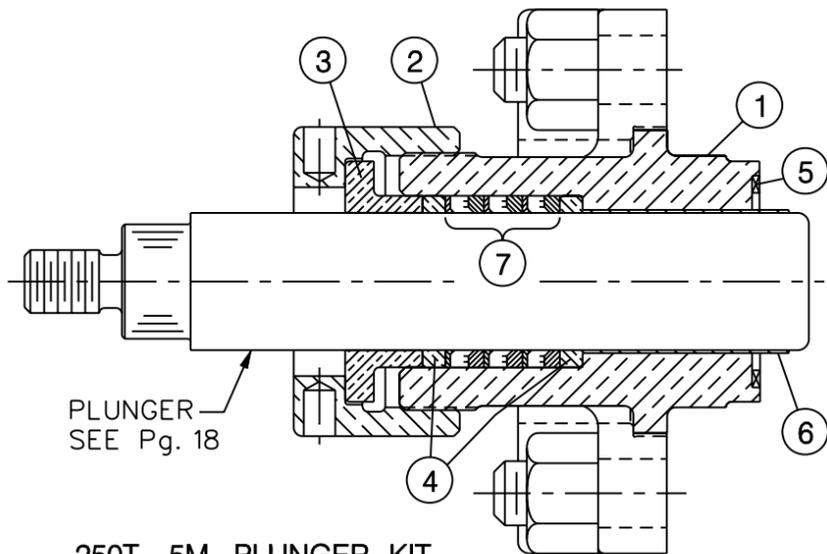
TITLE ASSY., PLUNGER KIT-(AL.BRZ.)
250T-5L TRIPLEX PUMP

SIZE B REFERENCE No. DRAWING No. 1713982 REV

SCALE 1/4 EST WT SHEET 1 OF 1



250T- 5M PLUNGER KIT
WITH CLAMPED PLUNGER



250T- 5M PLUNGER KIT
WITH THREADED PLUNGER

QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.	
1	2410031342	2 ⁵ / ₈ "-2 ³ / ₈ " SEAL, STUFFING BOX	5	
1	2410031347	3 ¹ / ₄ "-2 ³ / ₄ " SEAL, STUFFING BOX		
2	17160912	2 ³ / ₈ " WASHER	4	
2	17160942	2 ¹ / ₂ " WASHER		
2	1713057	2 ⁵ / ₈ " WASHER		
2	1712095	2 ³ / ₄ " WASHER		
2	1713903	2 ⁷ / ₈ " WASHER		
2	1712096	3" WASHER		
2	1711099	3 ¹ / ₈ " WASHER		
2	1711072	3 ¹ / ₄ " WASHER		
1	17160902	2 ³ / ₈ " GLAND		3
1	17160932	2 ¹ / ₂ " GLAND		
1	1713056	2 ⁵ / ₈ " GLAND		
1	1713089	2 ³ / ₄ " GLAND		
1	1713907	2 ⁷ / ₈ " GLAND		
1	1712090	3" GLAND		
1	1713906	3 ¹ / ₈ " GLAND		
1	1713905	3 ¹ / ₄ " GLAND		
1	1712025	2 ⁵ / ₈ " - 2 ³ / ₈ " NUT, ADJUSTING	2	
1	1712065	3 ¹ / ₄ " - 2 ³ / ₄ " NUT, ADJUSTING		
1	17160762	2 ³ / ₈ " PLG'R x 3 ¹ / ₄ " BORE STUFFING BOX	1*	
1	17160762	2 ¹ / ₂ " PLG'R x 3 ¹ / ₄ " BORE STUFFING BOX		
1	17160772	2 ⁵ / ₈ " PLG'R x 3 ¹ / ₂ " BORE STUFFING BOX		
1	17160782	2 ³ / ₄ " PLG'R x 3 ³ / ₄ " BORE STUFFING BOX		
1	17160782	2 ⁷ / ₈ " PLG'R x 3 ³ / ₄ " BORE STUFFING BOX		
1	17160782	3" PLG'R x 3 ³ / ₄ " BORE STUFFING BOX		
1	1713859	3 ¹ / ₈ " PLG'R x 4 ¹ / ₈ " BORE STUFFING BOX		
1	1713859	3 ¹ / ₄ " PLG'R x 4 ¹ / ₈ " BORE STUFFING BOX		

LIST OF MATERIAL

250T- 5M PLUNGER KIT

QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.	
1	6422359	2 ³ / ₈ " 850-N UNIVERSAL PACKING	7	
1	6422333	2 ¹ / ₂ " 850-N UNIVERSAL PACKING		
1	6422335	2 ⁵ / ₈ " 850-N UNIVERSAL PACKING		
1	6422338	2 ³ / ₄ " 850-N UNIVERSAL PACKING		
1	6422367	2 ⁷ / ₈ " 850-N UNIVERSAL PACKING		
1	64223240	3" 850-N UNIVERSAL PACKING		
1	6422341	3 ¹ / ₈ " 850-N UNIVERSAL PACKING		
1	49010923	3 ¹ / ₄ " 850-N UNIVERSAL PACKING		
1	17160922	2 ³ / ₈ " SLEEVE WASHER		6
1	17160952	2 ¹ / ₂ " SLEEVE WASHER		
1	1713058	2 ⁵ / ₈ " SLEEVE WASHER		
1	1712513	2 ³ / ₄ " SLEEVE WASHER		
1	1713937	2 ⁷ / ₈ " SLEEVE WASHER		
1	1712514	3" SLEEVE WASHER		
1	1713936	3 ¹ / ₈ " SLEEVE WASHER		
1	1713935	3 ¹ / ₄ " SLEEVE WASHER		

LIST OF MATERIAL

250T- 5M PLUNGER KIT

* ALL STUFFING BOXES LISTED WILL
USE RETAINER 1716034.

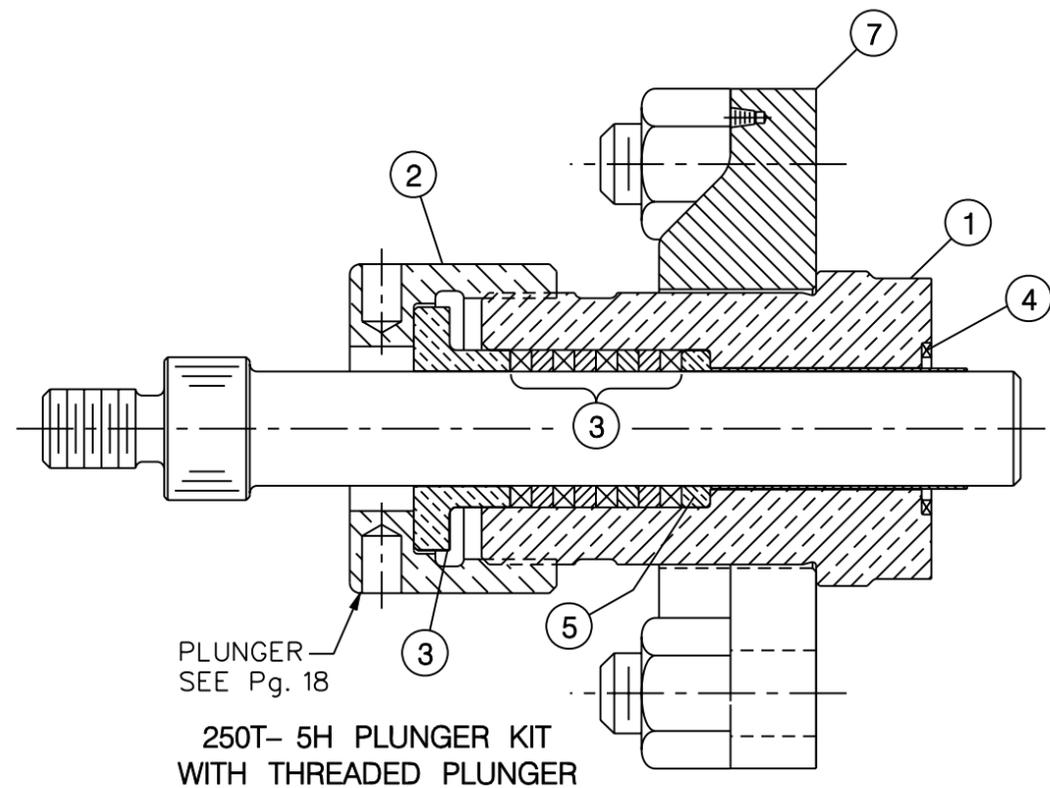
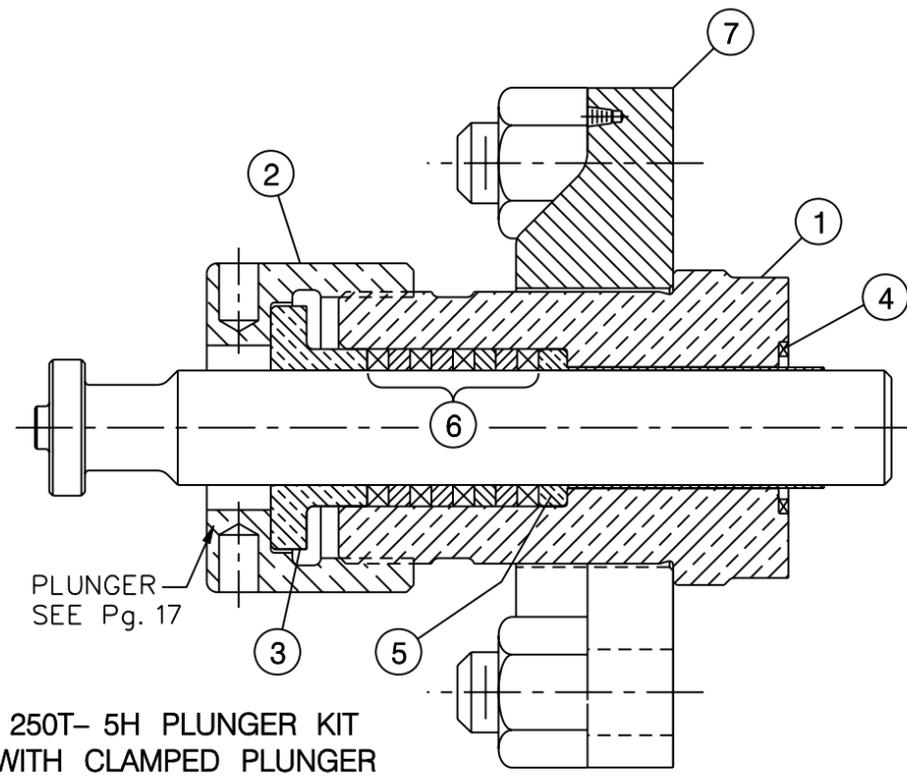
△ USE ONLY WITH CERAMIC PLUNGER.
REPLACE ONE OF ITEM *4 WITH ITEM *6.

NOV NATIONAL OILWELL VARCO

HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE ASSY., PLUNGER KIT-(AL. BRZ.)
250T- 5M TRIPLEX PUMP

SIZE B	REFERENCE No.	DRAWING No. 1713983	REV
SCALE 1 / 4	EST WT	SHEET 1 OF 1	



REF.	17133041	2", 1 ⁷ / ₈ " RETAINER, STUFFING BOX	7
REF.	1716034	2 ¹ / ₄ ", 2 ¹ / ₈ " RETAINER, STUFFING BOX	7
1	6420462	1 ⁷ / ₈ " 1045 UNIVERSAL PACKING	6
1	6420463	2" 1045 UNIVERSAL PACKING	
1	6420466	2 ¹ / ₈ " 1045 UNIVERSAL PACKING	
1	6420465	2 ¹ / ₄ " 1045 UNIVERSAL PACKING	
1	17131012	SLEEVE WASHER	5
1	1712554	SLEEVE WASHER	
1	1712503	SLEEVE WASHER	
1	1712507	SLEEVE WASHER	
1	2410031-334	2" - 1 ⁷ / ₈ " SEAL, STUFFING BOX	4
1	2410031-342	2 ¹ / ₄ "-2 ¹ / ₈ " SEAL, STUFFING BOX	
1	17131002	1 ⁷ / ₈ " GLAND	3
1	1712527	2" GLAND	
1	1712332	2 ¹ / ₈ " GLAND	
1	1712052	2 ¹ / ₄ " GLAND	
1	1712025	NUT, ADJUSTING	2
1	1713304-1	2"- 1 ⁷ / ₈ " RETAINER, STUFFING BOX	REF.
1	1716034	2 ¹ / ₈ "-2 ¹ / ₄ " RETAINER, STUFFING BOX	1
1	1716071-2	1 ⁷ / ₈ " PLG'R x 2 ³ / ₄ " BORE STUFFING BOX	
1	1716071-2	2" PLG'R x 2 ³ / ₄ " BORE STUFFING BOX	
1	1716075-2	2 ¹ / ₈ " PLG'R x 3" BORE STUFFING BOX	
1	1716075-2	2 ¹ / ₄ " PLG'R x 3" BORE STUFFING BOX	
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.

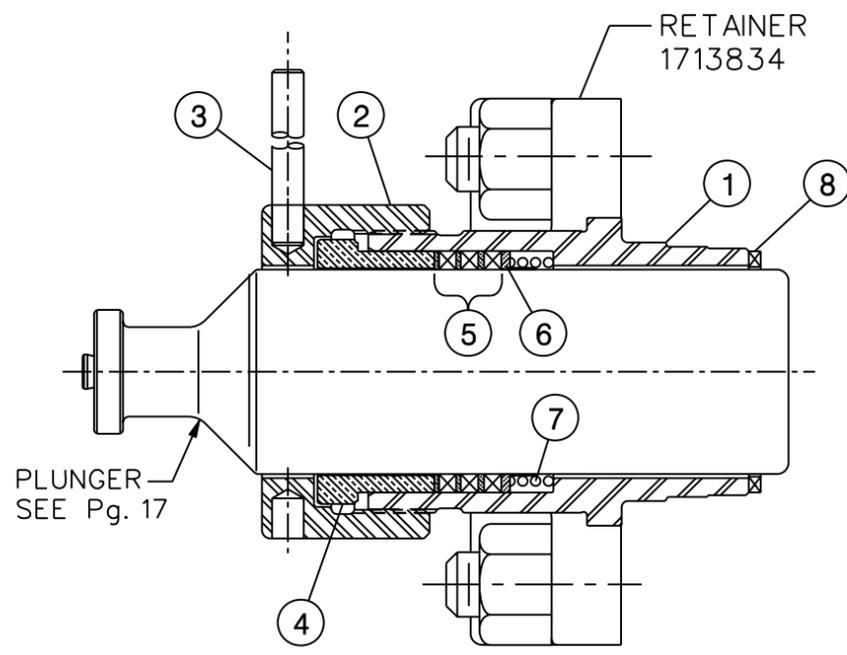
LIST OF MATERIAL

250T- 5H PLUNGER KIT

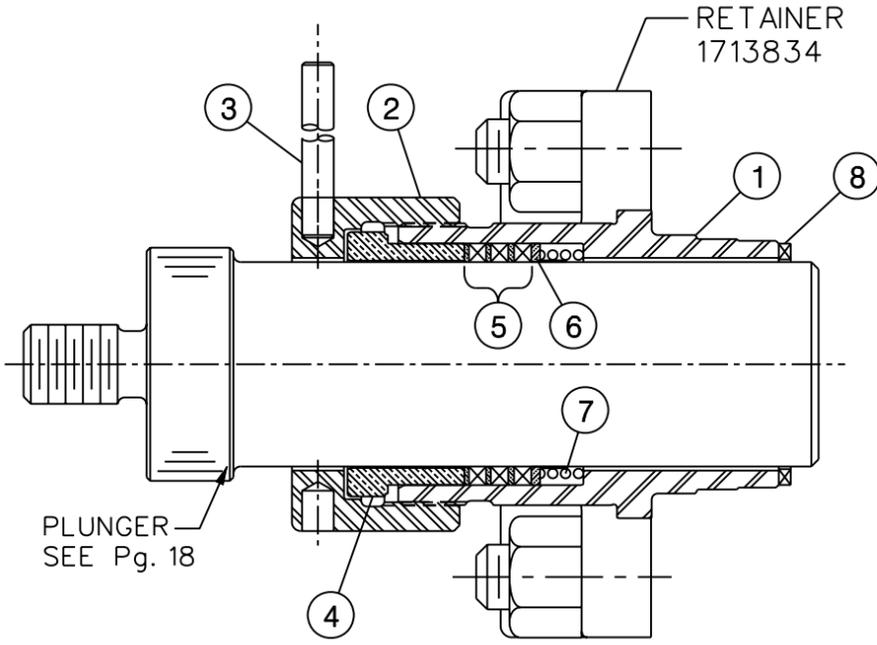
△ USE ONLY WITH CERAMIC PLUNGER

NOV NATIONAL OILWELL VARCO			
HOUSTON, TEXAS U.S.A.		ENGINEERING, McALESTER, OKLAHOMA	
TITLE ASSY., PLUNGER KIT-(AL. BRZ.) 250T-5H TRIPLEX PUMP			
SIZE B	REFERENCE No.	DRAWING No. 1713984	REV
SCALE NONE	EST WT	SHEET 1 OF 1	

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
A	CORRECTED VIEWS	WFL	RPQ	2.14.05		



250T- 5L PLUNGER KIT
WITH CLAMPED PLUNGER



250T- 5L PLUNGER KIT
WITH THREADED PLUNGER

1	343-032	3 ³ / ₈ " KEVLAR PACKING	5
1	342-017	3 ¹ / ₂ " KEVLAR PACKING	
1	343-031	3 ⁵ / ₈ " KEVLAR PACKING	
1	343-040	3 ³ / ₄ " KEVLAR PACKING	
1	343-030	3 ⁷ / ₈ " KEVLAR PACKING	
1	342-758	4" KEVLAR PACKING	4
1	343-029	4 ¹ / ₈ " KEVLAR PACKING	
1	343-028	4 ¹ / ₄ " KEVLAR PACKING	
1	343-027	4 ³ / ₈ " KEVLAR PACKING	
1	L342-790	4 ¹ / ₂ " KEVLAR PACKING	
1	343-023	3 ³ / ₈ " GLAND	
1	343-022	3 ¹ / ₂ " GLAND	
1	343-021	3 ⁵ / ₈ " GLAND	
1	343-020	3 ³ / ₄ " GLAND	
1	343-019	3 ⁷ / ₈ " GLAND	
1	343-018	4" GLAND	3
1	343-017	4 ¹ / ₈ " GLAND	
1	343-016	4 ¹ / ₄ " GLAND	
1	343-015	4 ³ / ₈ " GLAND	2
1	342-174	4 ¹ / ₂ " GLAND	
1	342-930	PIN, STUFFING BOX LOCK	1
1	343-013	NUT, ADJUSTING	
1	343-012	3 ³ / ₈ " PLG'R x 4 ¹ / ₄ " BORE STUFFING BOX	
1	343-012	3 ¹ / ₂ " PLG'R x 4 ¹ / ₄ " BORE STUFFING BOX	
1	343-011	3 ⁵ / ₈ " PLG'R x 4 ¹ / ₂ " BORE STUFFING BOX	
1	343-011	3 ³ / ₄ " PLG'R x 4 ¹ / ₂ " BORE STUFFING BOX	
1	343-010	3 ⁷ / ₈ " PLG'R x 4 ³ / ₄ " BORE STUFFING BOX	
1	343-010	4" PLG'R x 4 ³ / ₄ " BORE STUFFING BOX	
1	343-009	4 ¹ / ₈ " PLG'R x 5" BORE STUFFING BOX	
1	343-009	4 ¹ / ₄ " PLG'R x 5" BORE STUFFING BOX	
1	343-008	4 ³ / ₈ " PLG'R x 5 ¹ / ₄ " BORE STUFFING BOX	
1	343-008	4 ¹ / ₂ " PLG'R x 5 ¹ / ₄ " BORE STUFFING BOX	

QTY REQ'D PART NO. DESCRIPTION ITEM NO.
LIST OF MATERIAL

250T- 5L PLUNGER KIT

1	08423022	SEAL, STUFFING BOX	8
1	342-007	3 ¹ / ₂ "-3 ³ / ₈ " SPRING	7
1	343-025	3 ³ / ₄ "-3 ⁵ / ₈ " SPRING	
1	342-269	4" -3 ⁷ / ₈ " SPRING	
1	343-024	4 ¹ / ₄ "-4 ¹ / ₈ " SPRING	
1	342-272	4 ¹ / ₂ "-4 ³ / ₈ " SPRING	
1	343-039	3 ³ / ₈ " FOLLOWER	6
1	342-028	3 ¹ / ₂ " FOLLOWER	
1	343-038	3 ⁵ / ₈ " FOLLOWER	
1	343-041	3 ³ / ₄ " FOLLOWER	
1	343-037	3 ⁷ / ₈ " FOLLOWER	
1	342-360	4" FOLLOWER	
1	343-036	4 ¹ / ₈ " FOLLOWER	
1	343-035	4 ¹ / ₄ " FOLLOWER	
1	343-034	4 ³ / ₈ " FOLLOWER	
1	342-392	4 ¹ / ₂ " FOLLOWER	

QTY REQ'D PART NO. DESCRIPTION ITEM NO.
LIST OF MATERIAL

250T- 5L PLUNGER KIT



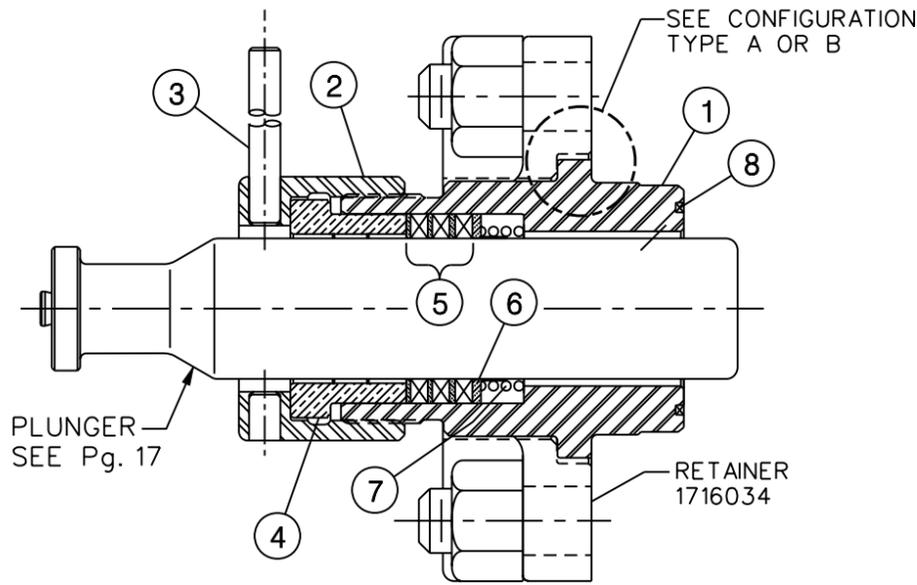
HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE ASSEMBLY, S.S. PLUNGER KITS
WITH KEVLAR PACKING
250T-5L TRIPLEX PUMP

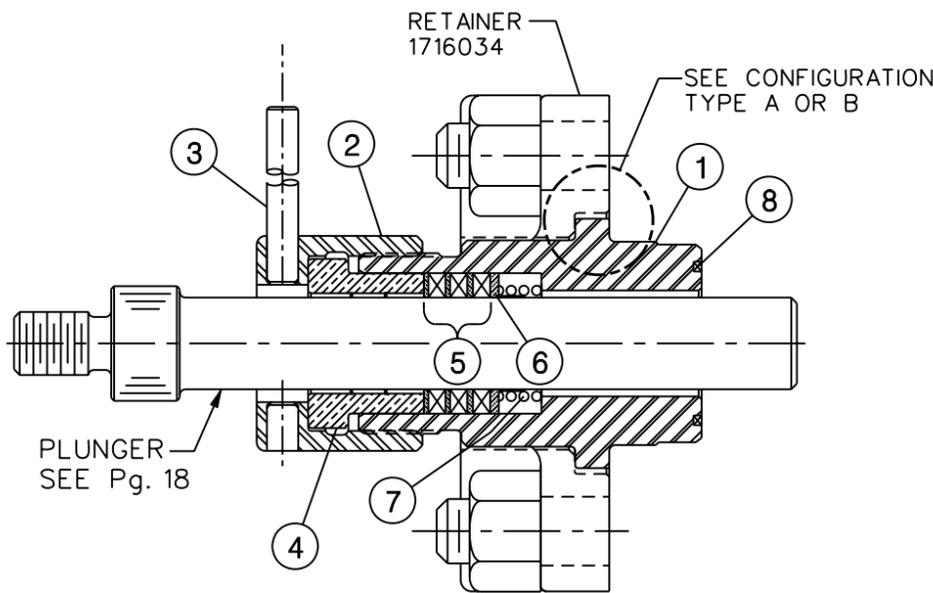
SIZE B REFERENCE No. DRAWING No. 1713985 REV A

SCALE NONE EST WT SHEET 1 OF 1

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
A	CORRECTED VIEWS & DATA	WFL	RPQ	2.14.05		



250T- 5M PLUNGER KIT
WITH CLAMPED PLUNGER



250T- 5M PLUNGER KIT
WITH THREADED PLUNGER

1	342-752	2 3/8" KEVLAR PACKING	5
1	342-004	2 1/2" KEVLAR PACKING	
1	342-753	2 5/8" KEVLAR PACKING	
1	342-018	2 3/4" KEVLAR PACKING	
1	342-754	2 7/8" KEVLAR PACKING	
1	342-019	3" KEVLAR PACKING	
1	342-755	3 1/8" KEVLAR PACKING	
1	342-843	3 1/4" KEVLAR PACKING	
1	342-122	2 3/8" GLAND	4
1	342-006	2 1/2" GLAND	
1	342-123	2 5/8" GLAND	
1	342-022	2 3/4" GLAND	
1	342-124	2 7/8" GLAND	
1	342-023	3" GLAND	
1	342-125	3 1/8" GLAND	
1	343-044	3 1/4" GLAND	
1	342-930	PIN, STUFFING BOX LOCK	3
1	342-916	2 1/2" - 2 3/8" NUT, ADJUSTING	2
1	342-928	3" - 2 5/8" NUT, ADJUSTING	
1	342-927	3 1/4" - 3 1/8" NUT, ADJUSTING	
1	342-915	2 3/8" PLG'R x 3 1/4" BORE STUFFING BOX	1
1	342-915	2 1/2" PLG'R x 3 1/4" BORE STUFFING BOX	
1	342-952	2 5/8" PLG'R x 3 5/8" BORE STUFFING BOX	
1	342-924	2 3/4" PLG'R x 3 3/4" BORE STUFFING BOX	
1	342-924	2 7/8" PLG'R x 3 3/4" BORE STUFFING BOX	
1	342-924	3" PLG'R x 3 3/4" BORE STUFFING BOX	
1	343-042	3 1/8" PLG'R x 4 1/8" BORE STUFFING BOX	
1	343-042	3 1/4" PLG'R x 4 1/8" BORE STUFFING BOX	

QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.
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LIST OF MATERIAL

250T- 5M PLUNGER KIT

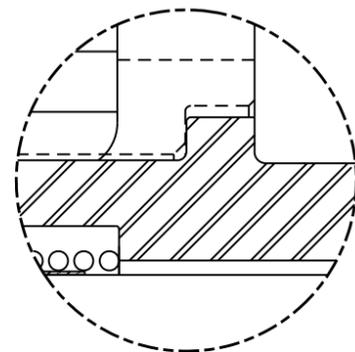
1	342-933	3"-2 3/8" ADAPTER	9
-	NONE USED	3 1/4"-2 1/8" ADAPTER	
1	2410031342	2 5/8"-2 3/8" SEAL, STUFFING BOX	8
1	2410031347	3 1/4"-2 3/4" SEAL, STUFFING BOX	
1	342-000	2 1/2"- 2 3/8" SPRING	7
1	342-270	2 5/8" SPRING	
1	342-008	3"- 2 3/4" SPRING	
1	342-268	3 1/4"- 3 1/8" SPRING	6
1	342-354	2 3/8" FOLLOWER	
1	342-002	2 1/2" FOLLOWER	
1	342-355	2 5/8" FOLLOWER	
1	342-014	2 3/4" FOLLOWER	
1	342-356	2 7/8" FOLLOWER	
1	342-015	3" FOLLOWER	
1	342-357	3 1/8" FOLLOWER	
1	343-045	3 1/4" FOLLOWER	

QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.
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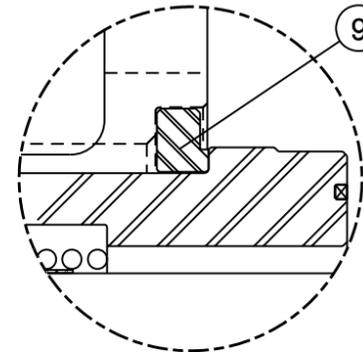
LIST OF MATERIAL

250T- 5M PLUNGER KIT

PLUNGER SIZE	RETAINER / ADAPTER CONFIG. SEE DETAIL FOR TYPE
2 3/8"	TYPE B
2 1/2"	TYPE B
2 5/8"	TYPE B
2 3/4"	TYPE B
2 7/8"	TYPE B
3"	TYPE B
3 1/8"	TYPE A
3 1/4"	TYPE A



TYPE A - 250T-5M



TYPE B - 250T-5M

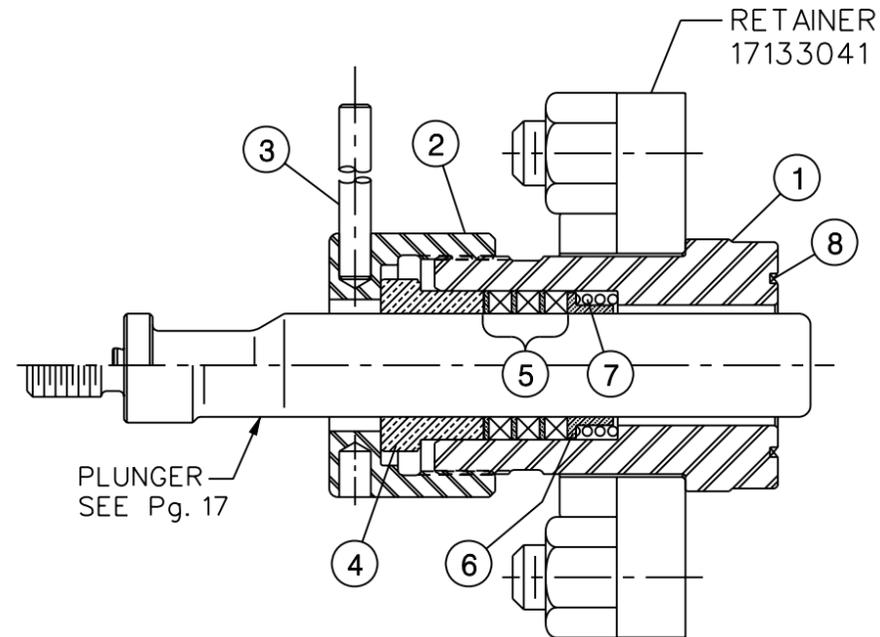
NOV NATIONAL OILWELL VARCO
HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA

TITLE ASSEMBLY, S.S. PLUNGER KITS WITH KEVLAR PACKING 250T-5M TRIPLEX PUMP

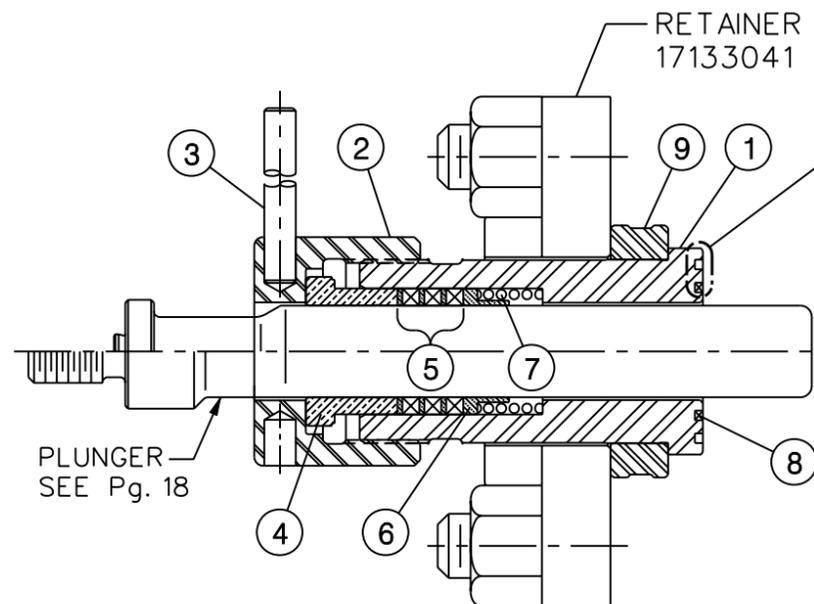
SIZE **B** REFERENCE No. DRAWING No. **1713986** REV **A**

SCALE NONE EST WT SHEET 1 OF 1

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
A	CORRECTED VIEW	WFL	RPQ	2.14.05		



250T- 5H 2 1/4" PLUNGER KIT WITH CLAMPED OR THREADED PLUNGER



250T- 5H 2 1/8", 2" & 1 7/8" PLUNGER KIT WITH CLAMPED OR THREADED PLUNGER

STUFFING BOX 342-948 ONLY HAS ONE (1) SEAL GROOVE.

STUFFING L342-908 IS CUT WITH AN EXTRA SEAL GROOVE. ONLY ONE SEAL IS REQUIRED.

1	L342-907	2 1/8", 2" & 1 7/8" ADAPTER, STUFFING BOX	9
1	2410031-334	2" & 1 7/8" SEAL, STUFFING BOX	8
1	2410031-342	2 1/4" & 2 1/8" SEAL, STUFFING BOX	8
1	L342-260	2 1/8", 2" & 1 7/8" SPRING	7
1	342-000	2 1/4" SPRING	7
1	L342-367	1 7/8" FOLLOWER	6
1	L342-368	2" FOLLOWER	
1	342-353	2 1/8" FOLLOWER	
1	342-001	2 1/4" FOLLOWER	5
1	L342-767	1 7/8" KEVLAR PACKING	
1	342-768	2" KEVLAR PACKING	
1	342-751	2 1/8" KEVLAR PACKING	4
1	342-003	2 1/4" KEVLAR PACKING	
1	L342-167	1 7/8" GLAND	
1	L342-168	2" GLAND	3
1	342-121	2 1/8" GLAND	
1	342-005	2 1/4" GLAND	
1	342-914	2 1/8", 2" & 1 7/8" PIN	2
1	342-930	2 1/4" PIN	
1	L342-913	2 1/8", 2" & 1 7/8" ADJUSTING NUT	1
1	342-916	2 1/4" ADJUSTING NUT	
1	L343-908	1 7/8" PLG'R x 2 3/4" BORE STUFFING BOX	
1	L342-908	2" PLG'R x 2 3/4" BORE STUFFING BOX	
1	342-948	2 1/8" PLG'R x 2 7/8" BORE STUFFING BOX	
1	342-915	2 1/4" PLG'R x 3 1/4" BORE STUFFING BOX	
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.

LIST OF MATERIAL

250T- 5H PLUNGER KIT

NOV NATIONAL OILWELL VARCO
HOUSTON, TEXAS U.S.A. ENGINEERING, McALESTER, OKLAHOMA
TITLE ASSEMBLY, S.S. PLUNGER KITS WITH KEVLAR PACKING 250T-5H TRIPLEX PUMP
SIZE B REFERENCE No. DRAWING No. 1713987 REV A
SCALE NONE EST WT SHEET 1 OF 1

BILL OF MATERIAL

ITEM	PART NO.	DESCRIPTION
1	340-019	INTERMEDIATE ROD STAINLESS
2	1716037	CLAMP CPT.
3	1716035	BOLT HALF
4	1716036	THREAD HALF
5	700031211	SCREW, H.H. CAP
6	7616050	WASHER, SPRING LOCK
7	1717016	BAFFLE, INTERMEDIATE ROD

PLUNGERS FOR STRAIGHT / TAPER CLAMPS

250T – 5L

ITEM	PART NO.	DESCRIPTION
8	340-287	4 1/2" CARBIDE PLUNGER
	340-286	4 3/8" CARBIDE PLUNGER
	340-285	4 1/4" CARBIDE PLUNGER
	340-284	4 1/8" CARBIDE PLUNGER
	340-204	4" CARBIDE PLUNGER
	340-283	3 7/8" CARBIDE PLUNGER
	340-203	3 3/4" CARBIDE PLUNGER
	340-282	3 5/8" CARBIDE PLUNGER
	340-010	3 1/2" CARBIDE PLUNGER
	340-281	3 3/8" CARBIDE PLUNGER

250T – 5M

340-004	3 1/4" CARBIDE PLUNGER
340-295	3 1/8" CARBIDE PLUNGER
340-012	3" CARBIDE PLUNGER
340-296	2 7/8" CARBIDE PLUNGER
340-011	2 3/4" CARBIDE PLUNGER
340-202	2 5/8" CARBIDE PLUNGER
340-150	2 1/2" CARBIDE PLUNGER
340-201	2 3/8" CARBIDE PLUNGER

250T – 5H

340-149	2 1/4" CARBIDE PLUNGER
340-200	2 1/8" CARBIDE PLUNGER
L340-148	2" CARBIDE PLUNGER
L340-147	1 7/8" CARBIDE PLUNGER

PLUNGERS FOR STRAIGHT / TAPER CLAMPS

250T – 5L

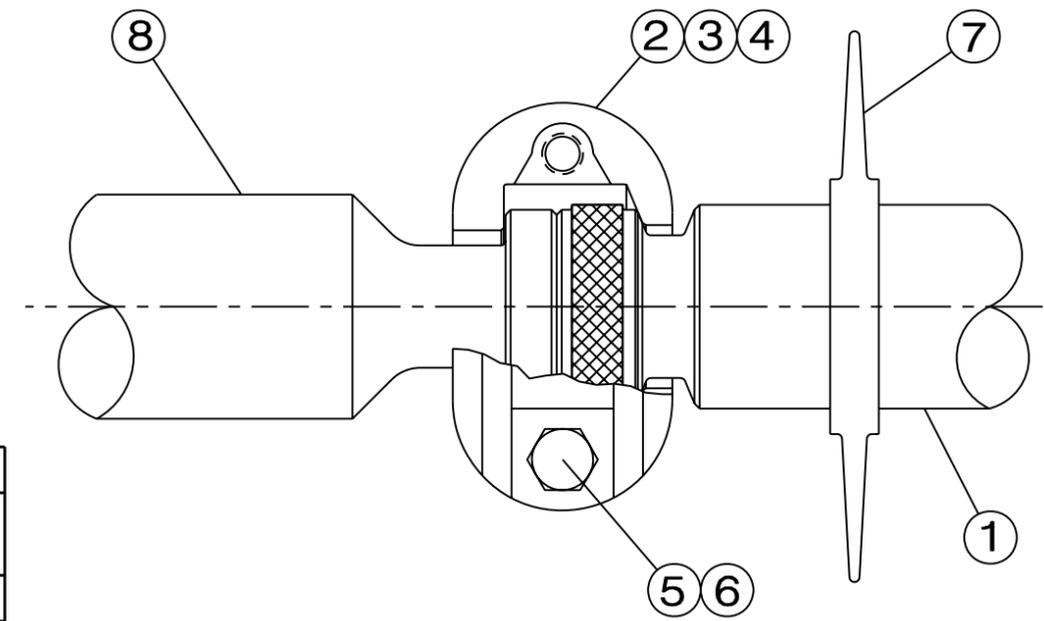
ITEM	PART NO.	DESCRIPTION
8	1713706	4 1/2" CERAMIC PLUNGER
	1713705	4 3/8" CERAMIC PLUNGER
	1713704	4 1/4" CERAMIC PLUNGER
	1713703	4 1/8" CERAMIC PLUNGER
	1716066	4" CERAMIC PLUNGER
	1713702	3 7/8" CERAMIC PLUNGER
	1716065	3 3/4" CERAMIC PLUNGER
	1713701	3 5/8" CERAMIC PLUNGER
	1716064	3 1/2" CERAMIC PLUNGER
	1713700	3 3/8" CERAMIC PLUNGER

250T – 5M

1716063	3 1/4" CERAMIC PLUNGER
1713707	3 1/8" CERAMIC PLUNGER
1716062	3" CERAMIC PLUNGER
1713708	2 7/8" CERAMIC PLUNGER
1716060	2 3/4" CERAMIC PLUNGER
1716059	2 5/8" CERAMIC PLUNGER
1716058	2 1/2" CERAMIC PLUNGER
1716057	2 3/8" CERAMIC PLUNGER

250T – 5H

1716056	2 1/4" CERAMIC PLUNGER
1716055	2 1/8" CERAMIC PLUNGER
1716054	2" CERAMIC PLUNGER
1716053	1 7/8" CERAMIC PLUNGER



STRAIGHT / TAPER CLAMP

NOV NATIONAL OILWELL VARCO			
HOUSTON, TEXAS U.S.A.		ENGINEERING, McALESTER, OKLAHOMA	
TITLE PLUNGER/INTERMEDIATE ROD ASSY. STRAIGHT / TAPER CLAMP 250T-5 PLUNGER			
SIZE B	REFERENCE No.	DRAWING No. 1713988	REV
SCALE 1 / 2	EST WT	SHEET 1 OF 1	

BILL OF MATERIAL

ITEM	PART NO.	DESCRIPTION
1	340-023	INTERMEDIATE ROD STAINLESS
2	1717016	BAFFLE, INTERMEDIATE ROD

PLUNGERS FOR STRAIGHT / TAPER CLAMPS

250T – 5L

ITEM	PART NO.	DESCRIPTION
3	340-294	4 1/2" CARBIDE PLUNGER
	340-293	4 3/8" CARBIDE PLUNGER
	340-292	4 1/4" CARBIDE PLUNGER
	340-291	4 1/8" CARBIDE PLUNGER
	340-199	4" CARBIDE PLUNGER
	340-290	3 7/8" CARBIDE PLUNGER
	340-198	3 3/4" CARBIDE PLUNGER
	340-289	3 5/8" CARBIDE PLUNGER
	340-197	3 1/2" CARBIDE PLUNGER
	340-288	3 3/8" CARBIDE PLUNGER

250T – 5M

340-196	3 1/4" CARBIDE PLUNGER
340-297	3 1/8" CARBIDE PLUNGER
340-195	3" CARBIDE PLUNGER
340-298	2 7/8" CARBIDE PLUNGER
340-194	2 3/4" CARBIDE PLUNGER
340-193	2 5/8" CARBIDE PLUNGER
340-192	2 1/2" CARBIDE PLUNGER
340-191	2 3/8" CARBIDE PLUNGER

250T – 5H

340-190	2 1/4" CARBIDE PLUNGER
340-189	2 1/8" CARBIDE PLUNGER
L340-188	2" CARBIDE PLUNGER
L340-187	1 7/8" CARBIDE PLUNGER

PLUNGERS FOR STRAIGHT / TAPER CLAMPS

250T – 5L

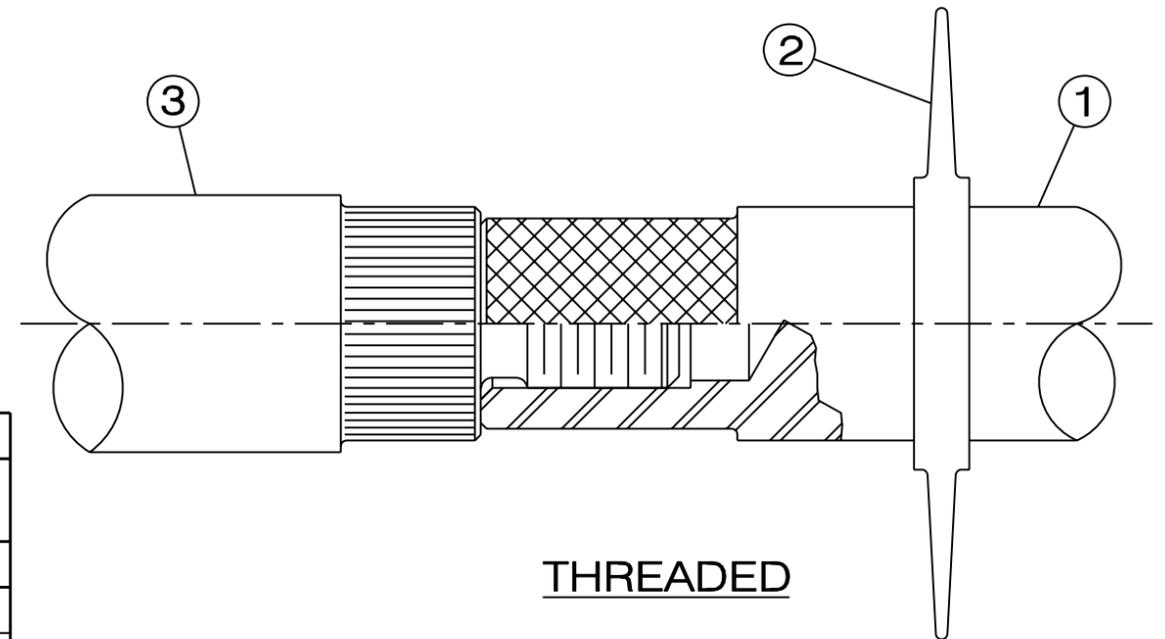
ITEM	PART NO.	DESCRIPTION
3	1713715	4 1/2" CERAMIC PLUNGER
	1713714	4 3/8" CERAMIC PLUNGER
	1713713	4 1/4" CERAMIC PLUNGER
	1713712	4 1/8" CERAMIC PLUNGER
	1712082	4" CERAMIC PLUNGER
	1713711	3 7/8" CERAMIC PLUNGER
	1712081	3 3/4" CERAMIC PLUNGER
	1713710	3 5/8" CERAMIC PLUNGER
	1712080	3 1/2" CERAMIC PLUNGER
	1713709	3 3/8" CERAMIC PLUNGER

250T – 5M

1712079	3 1/4" CERAMIC PLUNGER
1713716	3 1/8" CERAMIC PLUNGER
1712078	3" CERAMIC PLUNGER
1713717	2 7/8" CERAMIC PLUNGER
1712042	2 3/4" CERAMIC PLUNGER
1712588	2 5/8" CERAMIC PLUNGER
1712041	2 1/2" CERAMIC PLUNGER
1712337	2 3/8" CERAMIC PLUNGER

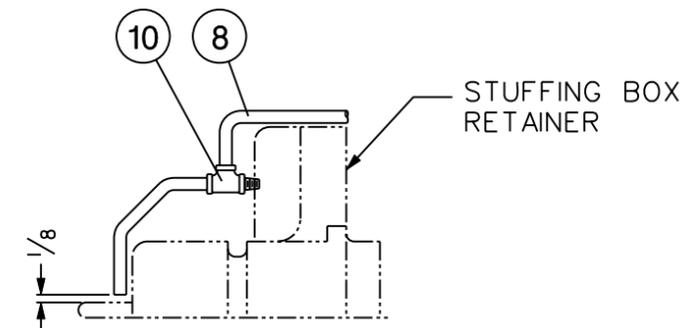
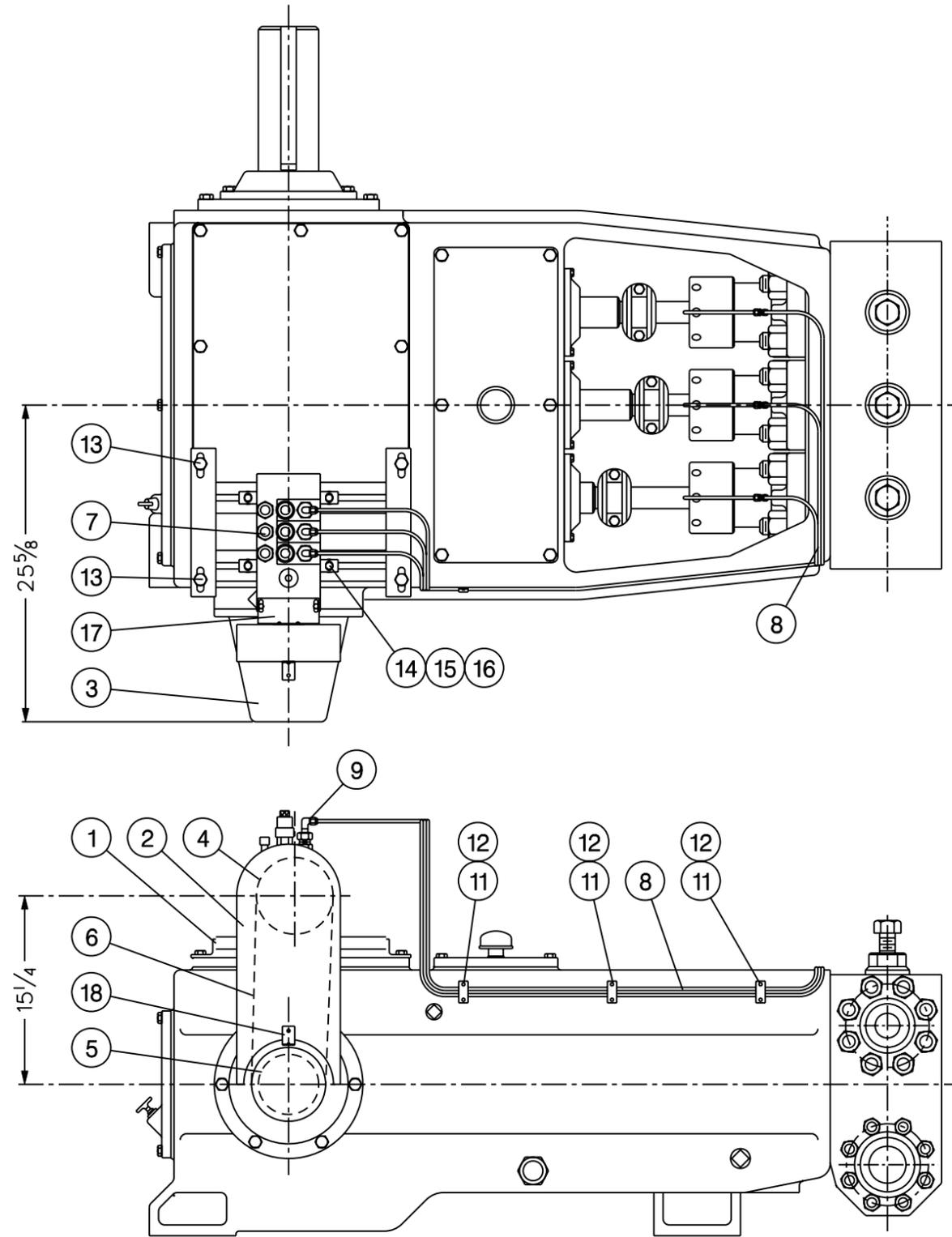
250T – 5H

1712040	2 1/4" CERAMIC PLUNGER
1712331	2 1/8" CERAMIC PLUNGER
1712039	2" CERAMIC PLUNGER
1712459	1 7/8" CERAMIC PLUNGER



NOV NATIONAL OILWELL VARCO			
HOUSTON, TEXAS U.S.A.		ENGINEERING, McALESTER, OKLAHOMA	
TITLE PLUNGER/INTERMEDIATE ROD ASSY. THREADED PLUNGER 250T-5 PLUNGER PUMP			
SIZE B	REFERENCE No.	DRAWING No. 1713989	REV
SCALE 1 / 2	EST WT	SHEET 1 OF 1	

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
A	WAS 1710125	DCP	RPQ	1.25.05	JCA	



QTY REQ'D	PART No.	DESCRIPTION / MATERIAL / SPECIFICATION	ITEM NO.
1	1790074	1790074 BRACKET, LUBRICATOR GUARD - BOTTOM	18
1	1790051	1790051 BRACKET, LUBRICATOR GUARD - TOP	17
4	6300070	6300070 NUT, HEX 7/16"	16
20	7600032	7600032 WASHER, 1/2" N TYPE A 1.062 O.D.	15
4	7000260-11	7000260-11 SCREW, HEX HEAD CAP 7/16x 2" LG.	14
4	7000306-11	7000306-11 SCREW, HEX HEAD CAP 1/2" x 1 3/4" LG.	13
6	7168073	7168073 SCREW, HEX HEAD *8-32 x 1/4" TYPE F SELF TAPPING	12
3	7802200	7802200 CLIP, MULTI-LINE TUBING	11
3	25854704	TEE, 1/4" TUBE x 1/4" TUBE x 1/4" N.P.T. - S.S.	10
		G7819165 TEE, 1/4" TUBE x 1/4" TUBE x 1/4" N.P.T.	
3	64226988	ELBOW, 90° x 1/4" TUBE x 1/8" N.P.T. - S.S.	9
		7804080 ELBOW, 90° x 1/4" TUBE x 1/8" N.P.T.	
25 FT	64699402	TUBING, STAINLESS STEEL 1/4" O.D. x .035 WALL	8
		7400420 TUBING, COPPER 1/4" O.D. x .032 WALL	
1	7811072	7811072 LUBRICATOR, 3 FEED (LH)	7
		7811071 LUBRICATOR, 3 FEED (RH)	
1	4712530	4712530 BELT, V - 2530	6
1	1713021	1713021 SHEAVE, DRIVER 6" PD	5
1	7200020	7200020 SHEAVE, LUBRICATOR 6.2" PD	4
1	1713112	1713112 COVER, CRANKSHAFT EXTENSION	3
1	1717216	1717216 GUARD, LUBRICATOR BELT (INCL. ITEMS 17 & 18)	2
1	G1717615	G1717615 BRACKET, LUBRICATOR	1
		LUBRICATOR ASSY. COMPLETE WITH STAINLESS STEEL LINES P/N 1717422RSS	
		LUBRICATOR ASSY. COMPLETE WITH COPPER LINES P/N 1717422R	

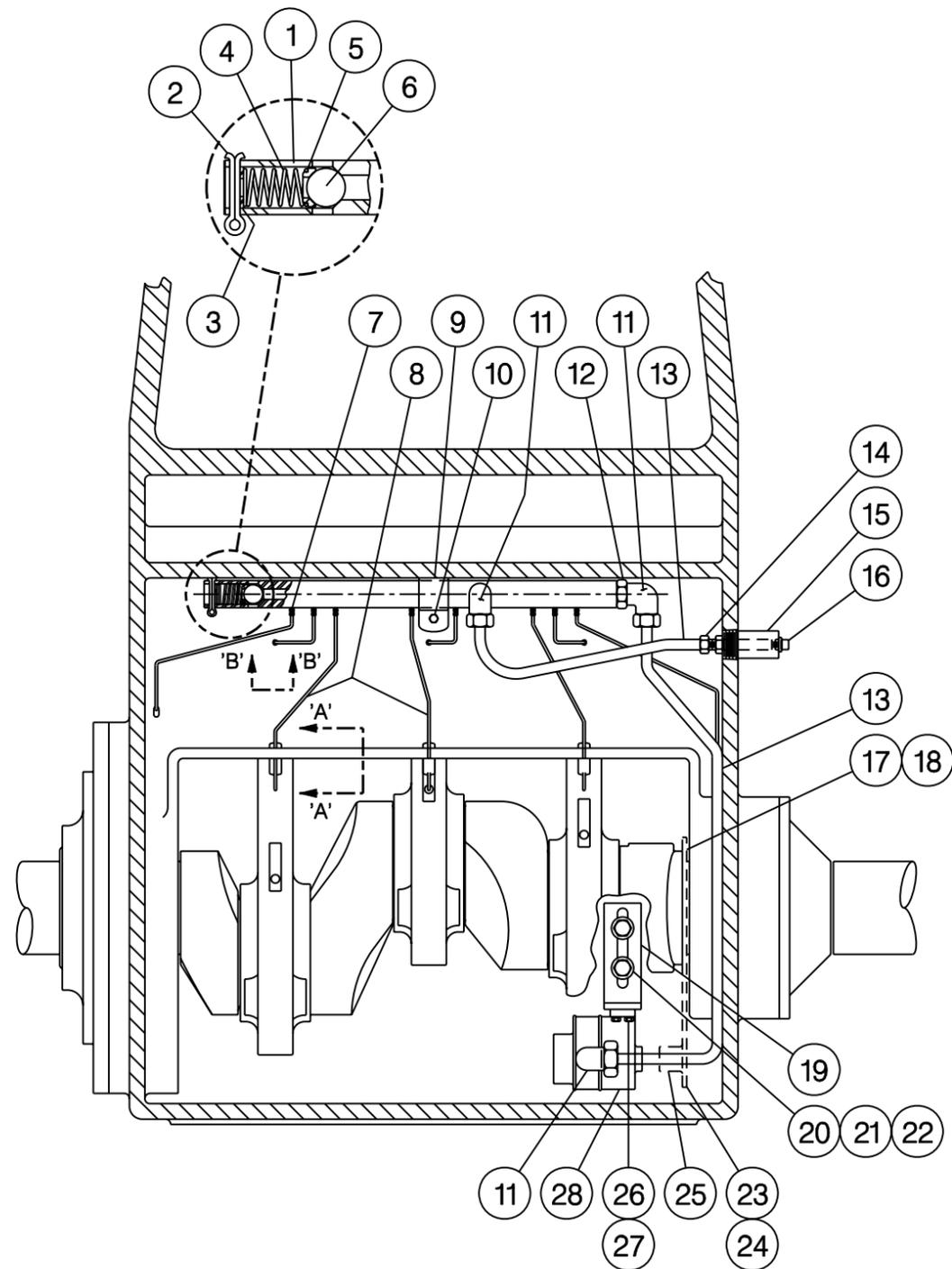
LIST OF MATERIAL

NOTE:
R.H. LUBRICATOR SHOWN
L.H. OPPOSITE

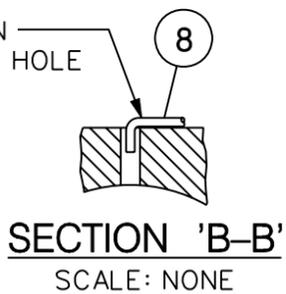
NOV NATIONAL OILWELL VARCO

TITLE
ASSEMBLY, LUBRICATOR PIPING
LUBRICATOR, 3 FEED (R.H. OR L.H.)
250T/200T TRIPLEX PUMP

SIZE B	REFERENCE No.	DRAWING No. 1713990	REV A
SCALE NONE	EST WT	SHEET	



FIT TUBING AS SHOWN
INSERT 5/8" TO 3/4" IN HOLE



1	7815073	PUMP, #1S-B & S*713-10-2	28
4	7619041	WASHER, 3/8" SPRING LOCK	27
4	7000208-11	SCREW, 3/8" X 1" HEX HD CAP	26
1	2404083	KEY, 1/8" X 1/8" X 5/8" RD. ONE DEN	25
1	7027088	SCREW, *10 - 24 X 3/8" CUP POINT SET	24
1	G-7818143	SPROCKET, 13T - 1/2" PITCH - SINGLE	23
2	7600034	WASHER, 1/2" W TYPE A-1.375" OD	22
2	7619050	WASHER, 1/2" SPRING LOCK	21
2	7000304-11	SCREW, 1/2" X 1/4" HEX HD CAP	20
1	1717021	SUPPORT, PUMP MOUNTING	19
1	5802101	LINK, CONNECTING 1/2" SINGLE RC40	18
1	G5700021076	CHAIN, 3/8" SINGLE - 76 PITCHES - RC40	17
1	6874003	PLUG, 3/8" SQ. HD. SOLID PIPE	16
1	G-1717032	ADAPTER, GAUGE CONNECTION	15
1	G-7802483	CONNECTOR, *1468 X 8K (3/8" PIPE X 1/2" TUBE)	14
1	G-7819150	TUBING, 1/2" SYN FLEX (4'-0")	13
1	6800042	BUSHING, 1/2" X 3/8" STD. PIPE	12
3	G-7804234	ELBOW, *1469 X 8K (3/8" PIPE X 1/2" TUBE)	11
1	7000104-11	SCREW, 1/4" X 1/2" HEX HEAD CAP	10
1	7802065	CLAMP, 1" STD. PIPE	9
1	G-7400320	TUBING, 3/16" COPPER (6'-0")	8
8	G-7802484	CONNECTOR, *68 X 3 (1/8" X 3/16" TUBE)	7
1	1012093	BALL, VALVE	6
1	1709105	RETAINER, SPRING	5
1	1709103	SPRING, BALL VALVE	4
1	7600026	WASHER, 3/8" W TYPE A-1" OD STL	3
1	6501612	PIN, 1/4" X 1 1/2" COTTER	2
1	G-1717031	PIPE, POWER END LUBRICATION	1
QTY REQ'D	PART NO.	DESCRIPTION / MATERIAL / SPECIFICATION	ITEM NO.

LIST OF MATERIAL

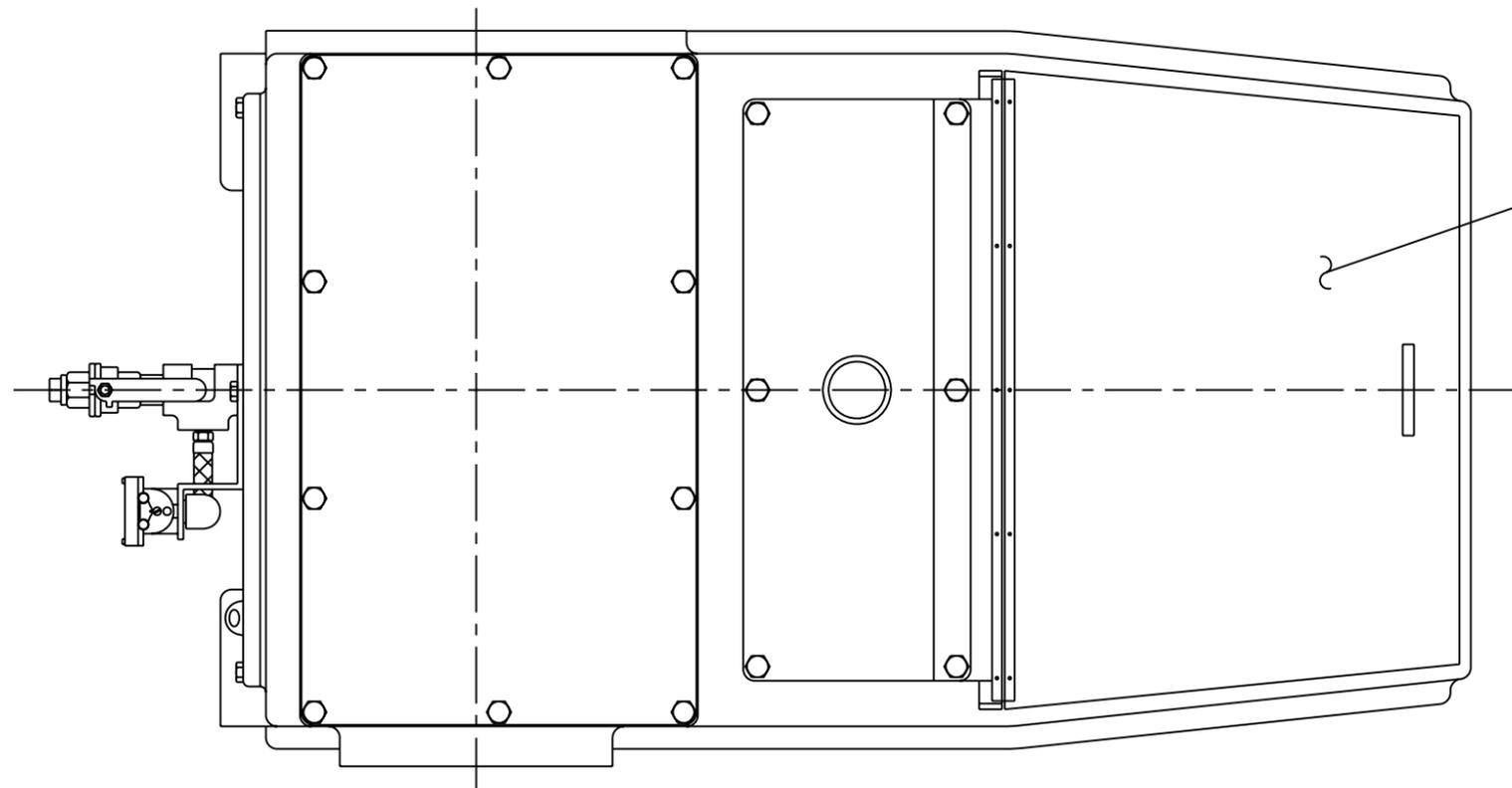
REF. B/M G1717620

NOV NATIONAL OILWELL VARCO

TITLE
LOW SPEED LUBRICATION
200T-5/250T-5/JWS-300/340 PLUNGER PUMP

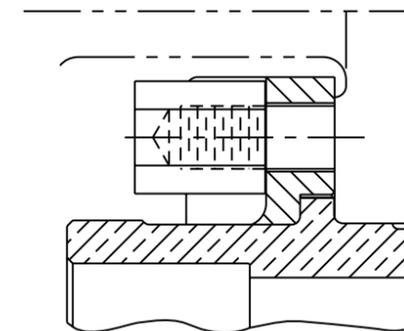
SIZE B REFERENCE No. DRAWING No. 1713991 REV

SCALE 1/8 EST WT SHEET 1 OF 1

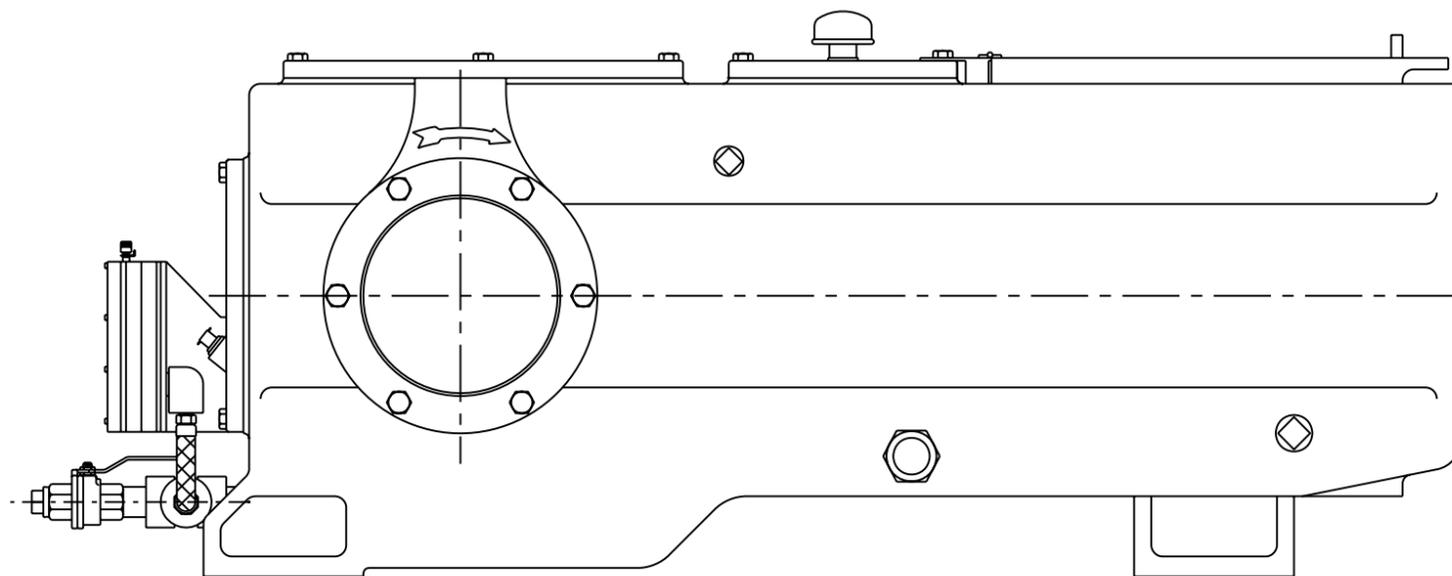


PLUNGER CHAMBER COVER
P/N 1717344 (14 GA. STL.)

STUFFING BOX RETAINER
1 3/8" ACORN NUT OPTION
P/N 1712024 (ALUM. BRZ.)

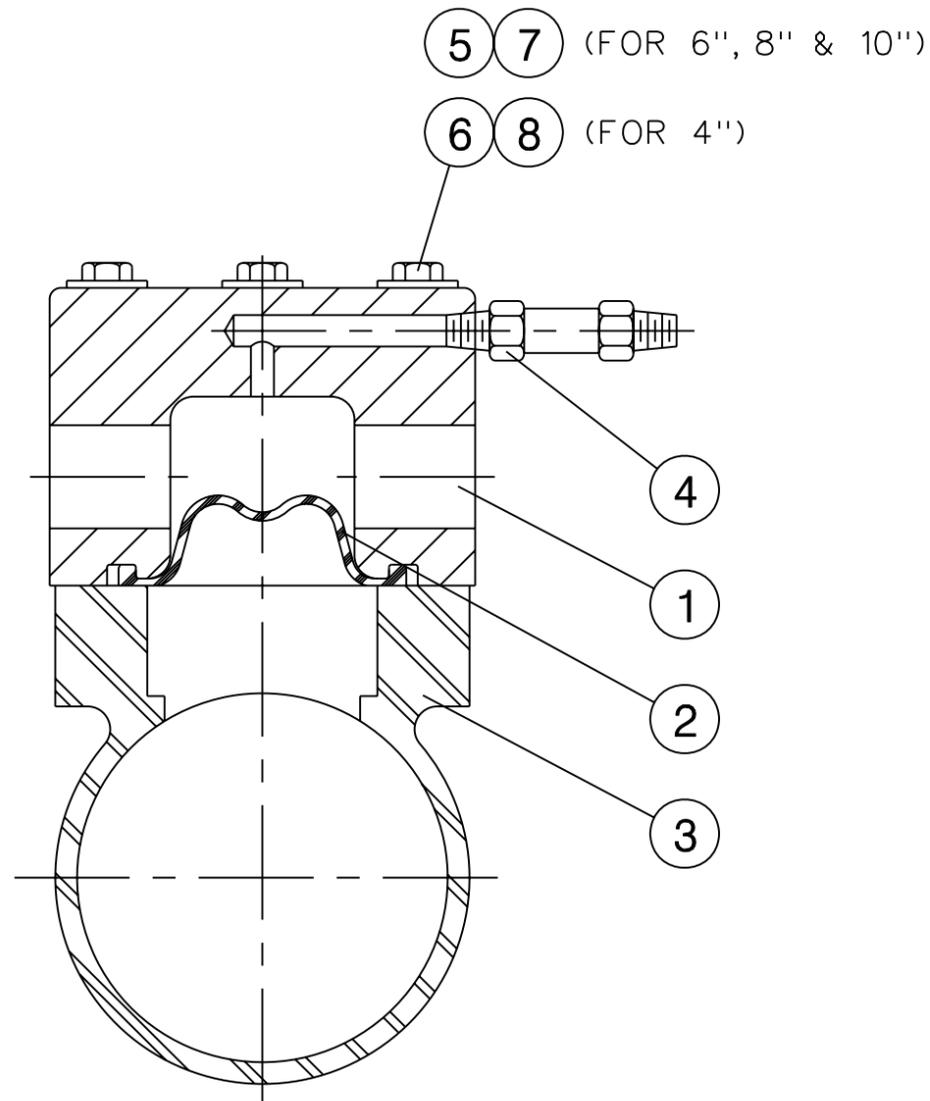


(STUFFING BOX & RETAINER SHOWN
ARE REPRESENTATIVE ONLY)



OIL LEVEL SWITCH ASSY.
(TYPICAL ARRANGEMENT)
MURPHY L-129 SHOWN
SWITCH MODEL, LOCATION & PIPING ARRANGEMENT
WILL VARY DEPENDING ON APPLICATION

NOV NATIONAL OILWELL VARCO			
TITLE OPTIONAL ACCESSORIES 250T-5 TRIPLEX PLUNGER PUMP			
SIZE B	REFERENCE No.	DRAWING No. 1713992	REV
SCALE 1/8	EST WT	SHEET 1 OF 1	



14	7600020	WASHER, 5/16" (FOR 4")	14
18	7600032	WASHER, 1/2" (FOR 6", 8" & 10")	13
14	7000157-11	CAPSCREW, 5/16-18 x 1" LG. (FOR 4")	12
18	7000304-11	CAPSCREW, 1/2-13 x 1/4" LG. (FOR 6", 8" & 10")	11
1	1712218	GASKET, BLANKING PLATE (FOR 6", 8" & 10")	10
1	6000004	GASKET, BLANKING PLATE (FOR 4")	9
1	1712217	PLATE, BLANKING (FOR 6", 8" & 10")	8
1	X17-1569	PLATE, BLANKING (FOR 4")	7
14	7600020	WASHER, 5/16" (FOR 4")	6
18	7600032	WASHER, 1/2" (FOR 6", 8" & 10")	5
14	7000168-11	CAPSCREW, 5/16-18 x 3 3/4" LG. (FOR 4")	4
18	7000316-11	CAPSCREW, 1/2-13 x 4" LG. (FOR 6", 8" & 10")	3
1	7500021	CHECK VALVE, 1/8" (FOR 4", 6", 8" & 10")	2
1	1713201	10" PIPE BODY	1
1	1712501	8" PIPE BODY	
1	1712251	6" PIPE BODY	
1	1712250	4" PIPE BODY	
1	1712327	10" DIAPHRAGM	
1	1712327	8" DIAPHRAGM	
1	1712327	6" DIAPHRAGM	
1	1712262	4" DIAPHRAGM	
1	1712329	10" DAMPENER	
1	1712329	8" DAMPENER	
1	1712329	6" DAMPENER	
1	1712290	4" DAMPENER	
	1713200	DAMPENER COMPLETE - 10" (29" LG.)	
	1712502	DAMPENER COMPLETE - 8" (29" LG.)	
	1712253	DAMPENER COMPLETE - 6" (28" LG.)	
	1712252	DAMPENER COMPLETE - 4" (25 1/2" LG.)	
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.

*

LIST OF MATERIAL

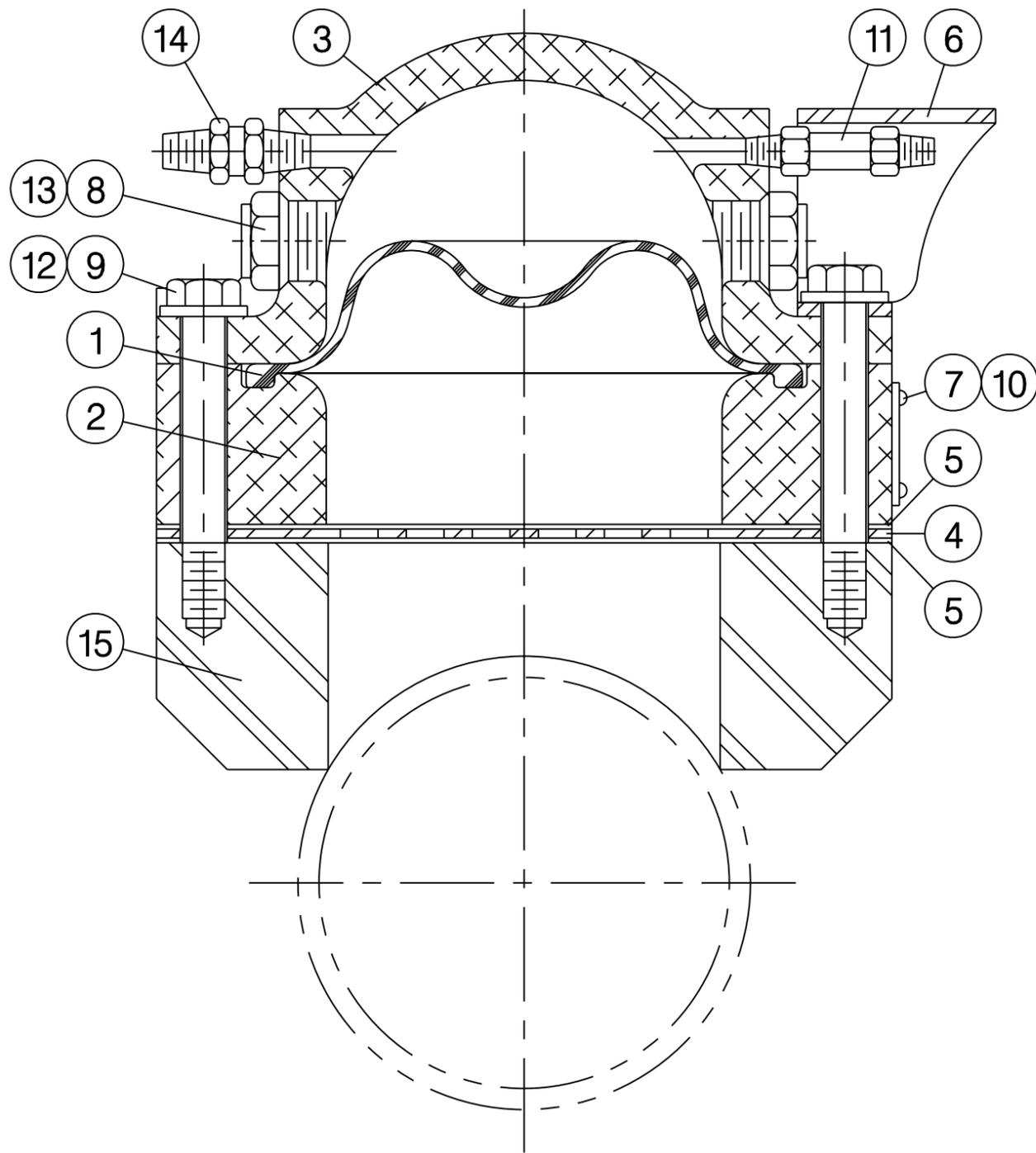
* L/M FOR BLANKING PLATE ASSEMBLY
ITEMS * THRU *14 ARE NOT SHOWN

NOV NATIONAL OILWELL VARCO

TITLE LOW PRESSURE PLASTIC BODY
IN-LINE SUCTION DAMPENER (WELD-ON)
PLUNGER PUMPS

SIZE REFERENCE No. DRAWING No. REV
B 1713993

SCALE 1/2 EST WT SHEET 1 OF 1



*

1	1292234	PLATE, MOUNTING (FOR 12")	15
1	1290209	PLATE, MOUNTING (FOR 10")	
1	1290211	PLATE, MOUNTING (FOR 8")	
1	1291271	PLATE, MOUNTING (FOR 6")	
1	7500396	VALVE, RELIEF 1/4" NPT #559B-2M-70	14
1	7815106	PLUG, SIGHT TEDECO #W-54	13
32	7600036	WASHER, 9/16 N TYPE "A" 1.159 O.D.	12
1	7500021	VALVE, CHECK - DILL #02500-100AA-643VC	11
8	7178025	DRIVESCREW, #2 x 1/4" LG. ROUND HD.	10
32	7000361-11	CAPSCREW, 9/16-12UNC x 4" LG. HEX HD.	9
2	2410031-024	PACKING, SIGHT PLUG	8
1	2407136	PLATE, INSTRUCTION	7
1	1290228	GUARD, AIR VALVE	6
2	1290199	GASKET	5
1	1290198	RETAINER	4
1	1290197	COVER	3
1	1290196	SPACER	2
1	1290195	DIAPHRAGM	1
	1292233	DAMPENER COMPLETE - 12" (34 1/2" LG.)	
	1290208	DAMPENER COMPLETE - 10" (34 1/2" LG.)	
	1290210	DAMPENER COMPLETE - 8" (34 1/2" LG.)	
	1291270	DAMPENER COMPLETE - 6" (34 1/2" LG.)	
QTY REQ'D	PART NO.	DESCRIPTION	ITEM NO.

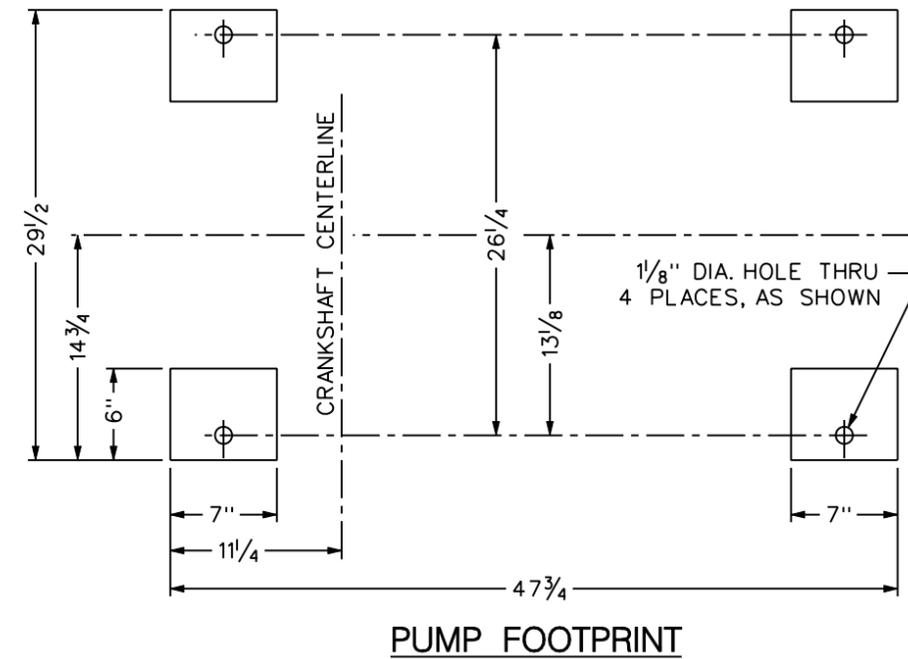
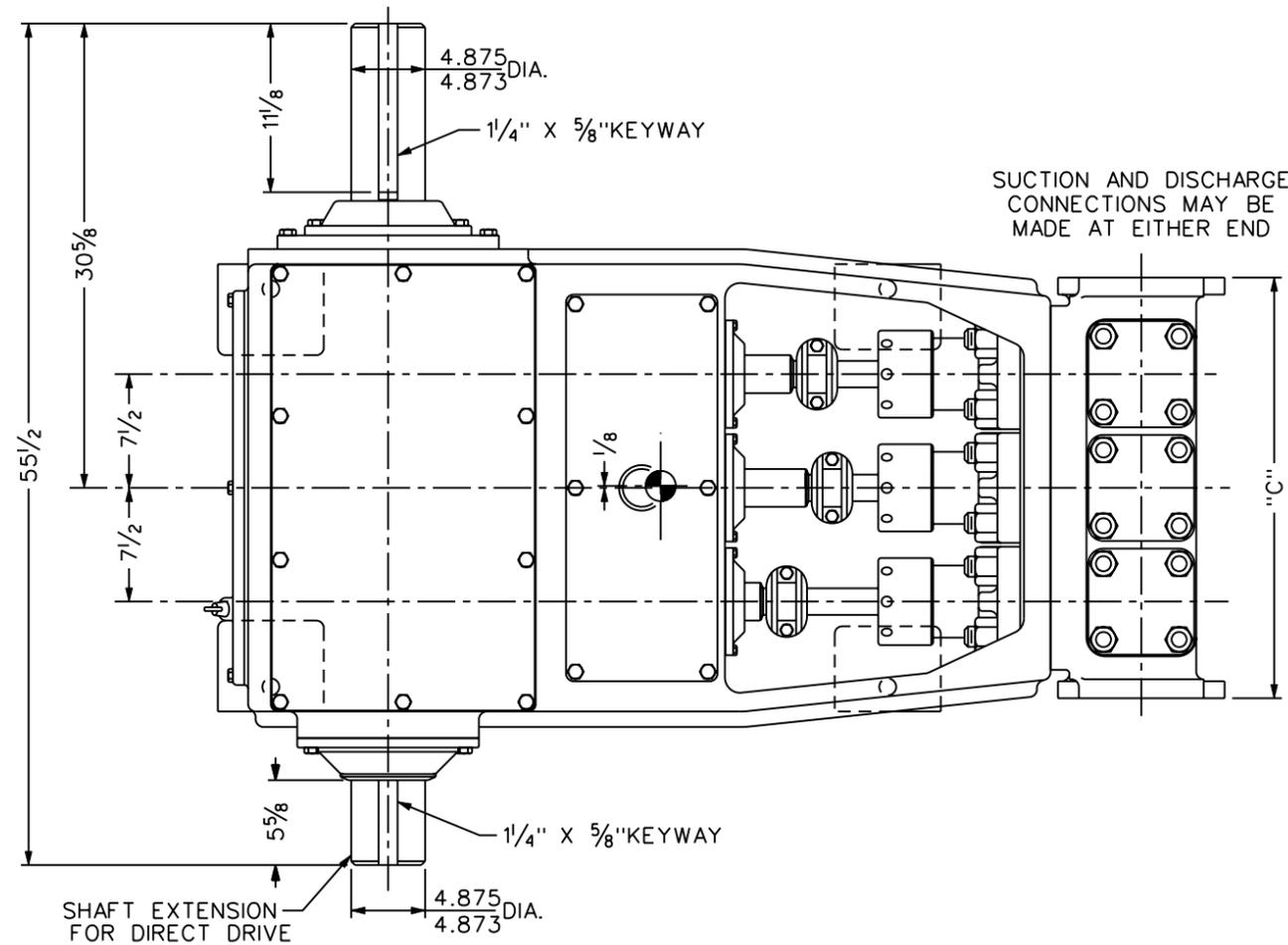
LIST OF MATERIAL

* FOR 6", 8", 10" & 12" DIA. DAMPENERS

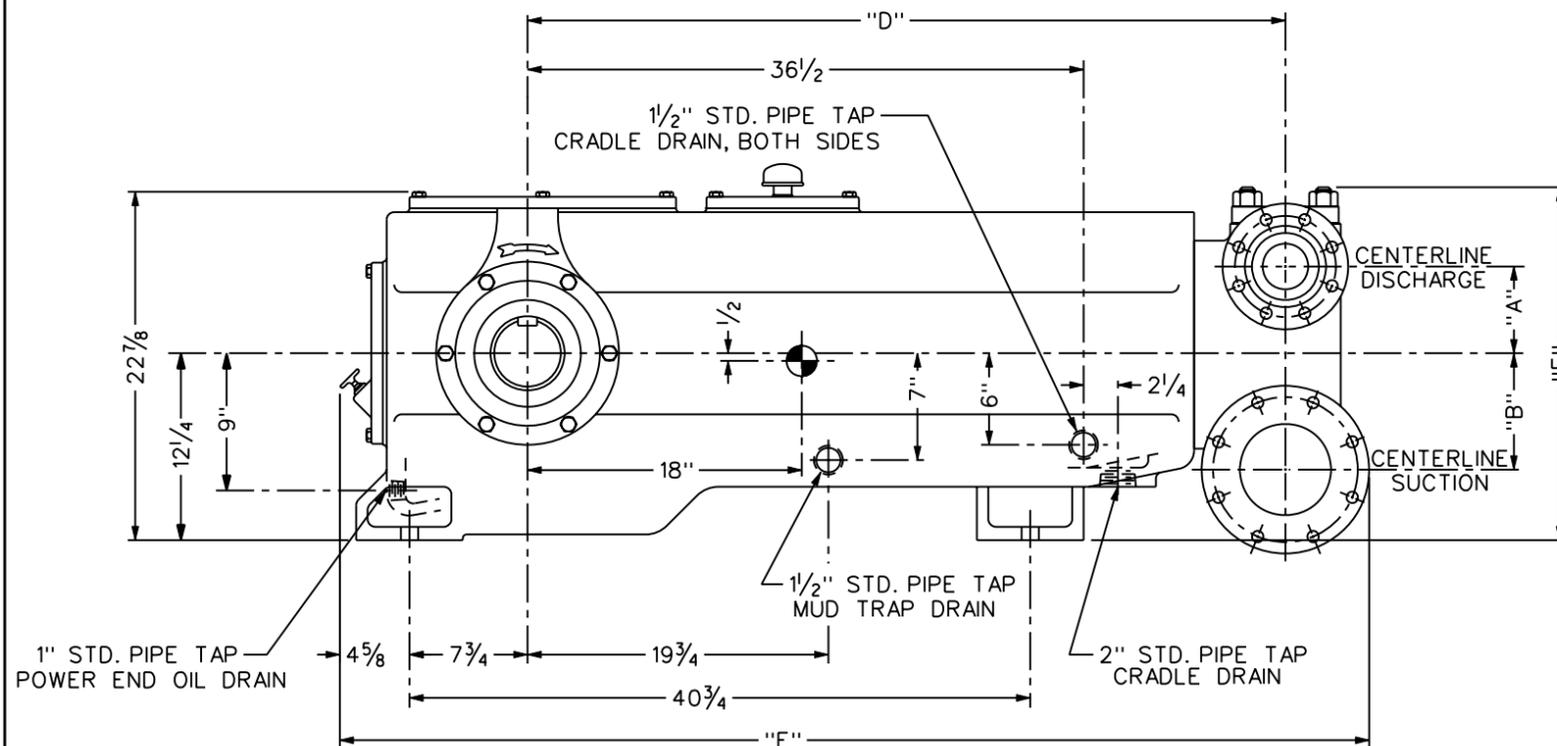
NOV NATIONAL OILWELL VARCO

TITLE HIGH PRESSURE ALUMINUM BODY
IN-LINE SUCTION DAMPENER (WELD-ON)
PLUNGER PUMPS

SIZE	REFERENCE No.	DRAWING No.	REV
B		1713994	
SCALE	EST WT	SHEET 1 OF 1	
1/2			



NOTE: CG IS APPROXIMATE



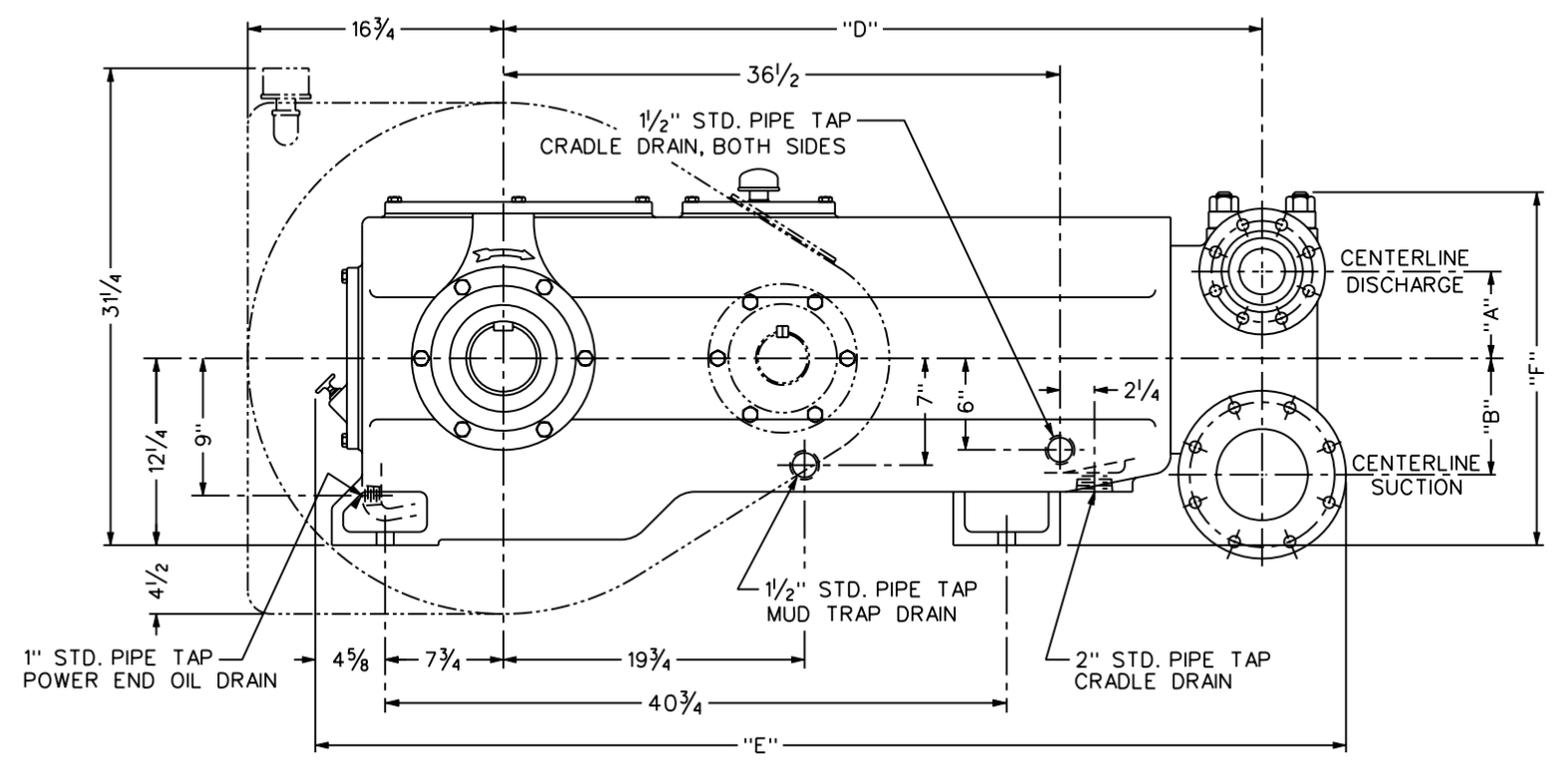
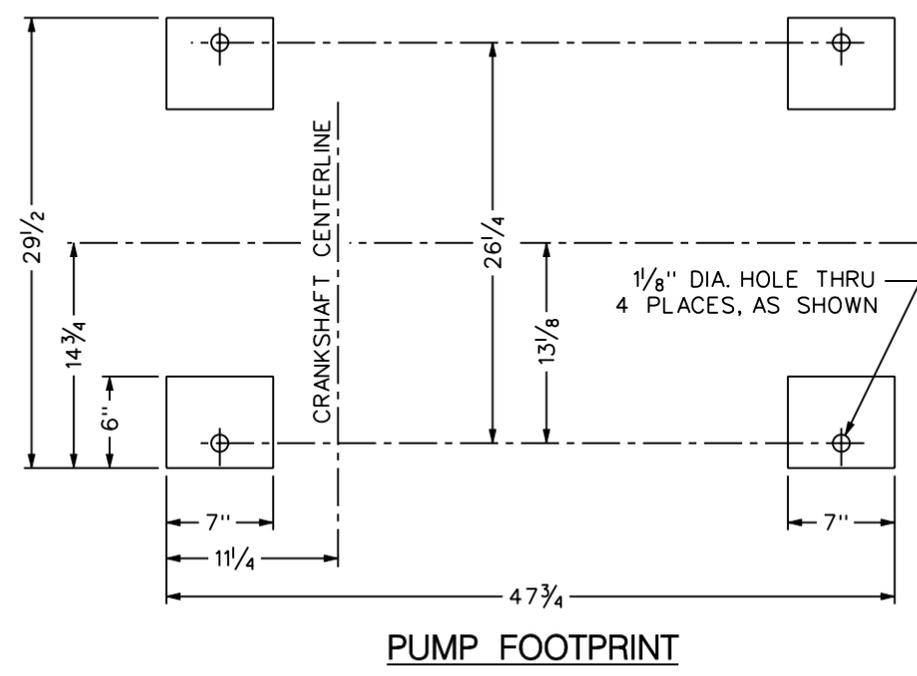
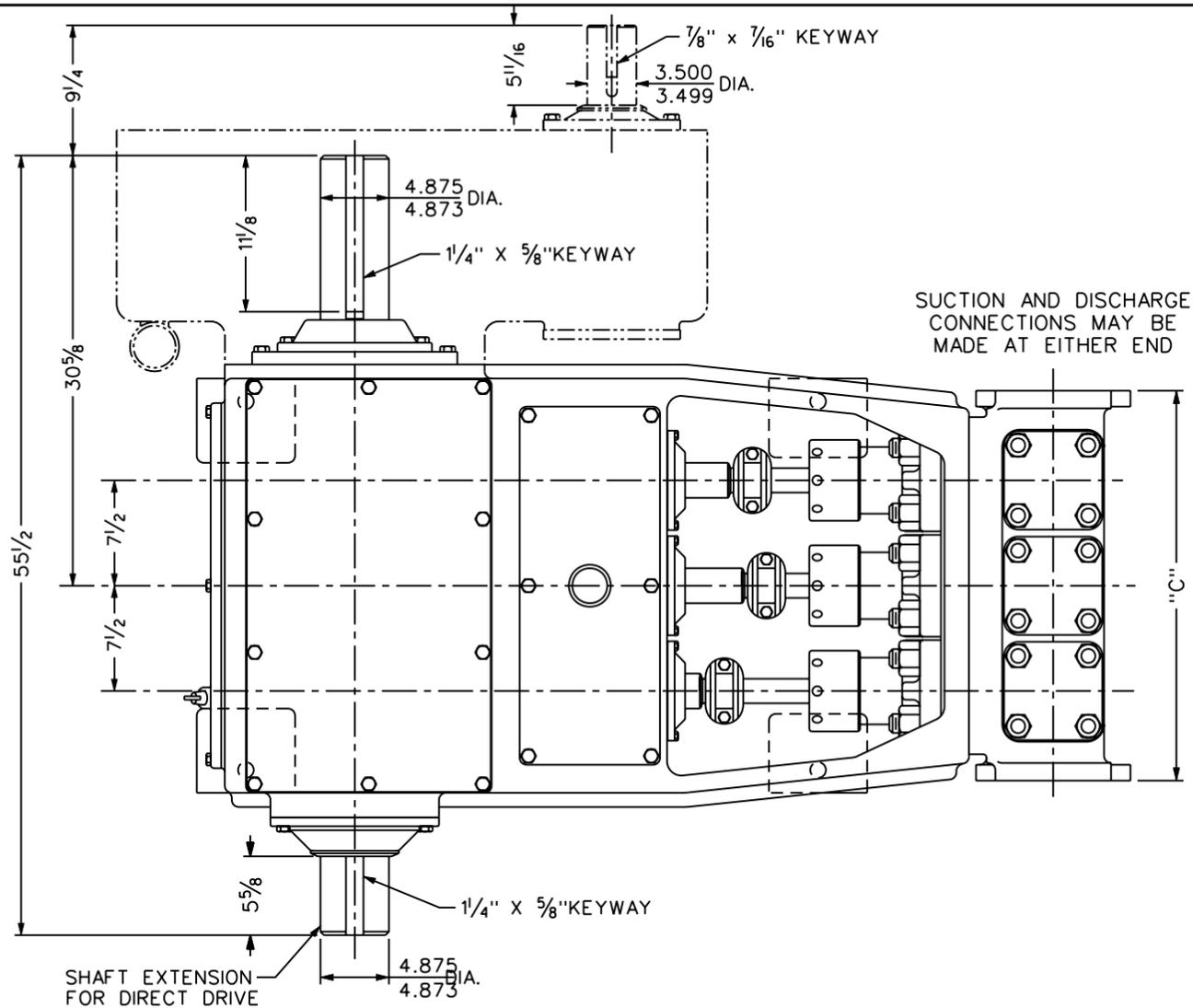
PUMP TYPE	DISCHARGE CONNECTION	SUCTION CONNECTION	DIMENSIONS IN INCHES					
			A	B	C	D	E	F
250T-5L	3" API-2000* R.J	6" ANSI-150* F.F.	5 11/16	7 5/8	27 3/4	49 3/4	66 3/4	23 1/8
250T-5M	2" API-5000* R.J	4" ANSI-150* F.F.	4 3/4	6 1/2	26 1/2	49 3/8	65 7/8	25 5/16
250T-5H	2" ANSI-2500* R.J	3" API-2000* R.J	4 3/4	6 1/2	26 1/2	49 3/8	65 1/4	25 5/16

250T-5L MODEL IS SHOWN

NOV NATIONAL OILWELL VARCO

TITLE
OUTLINE DRAWING
250T-5 TRIPLEX PUMP
WITH OUT GEAR REDUCER

SIZE B	REFERENCE No.	DRAWING No. 1713998	REV
SCALE 1/12	EST WT 4578#	SHEET 1 OF 1	



PUMP TYPE	DISCHARGE CONNECTION	SUCTION CONNECTION	DIMENSIONS IN INCHES					
			A	B	C	D	E	F
250T-5L	3" API-2000* R.J	6" ANSI-150* F.F.	5 11/16	7 5/8	27 3/4	49 3/4	66 3/4	23 1/8
250T-5M	2" API-5000* R.J	4" ANSI-150* F.F.	4 3/4	6 1/2	26 1/2	49 3/8	65 7/8	25 5/16
250T-5H	2" ANSI-2500* R.J	3" API-2000* R.J	4 3/4	6 1/2	26 1/2	49 3/8	65 1/4	25 5/16

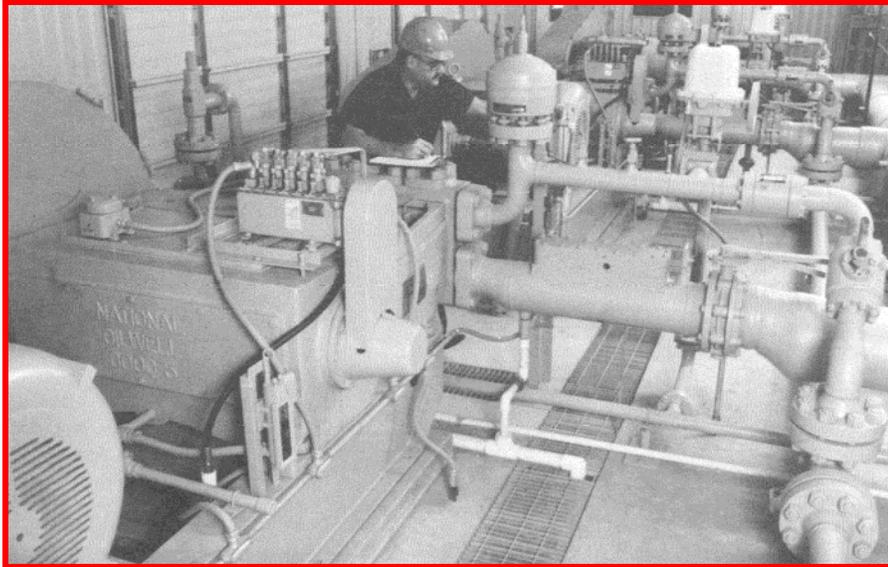
250T-5L MODEL IS SHOWN

NOV NATIONAL OILWELL VARCO

TITLE: OUTLINE DRAWING
 250T-5 TRIPLEX PUMP
 WITH GEAR REDUCER

SIZE B	REFERENCE No.	DRAWING No. 1713999	REV
SCALE 1/12	EST WT 5678#	SHEET 1 OF 1	

NATIONAL OILWELL VARCO



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