

Houston, Texas 77210-4638

ISSUE: OCTOBER 23, 2003



Rated input horsepower -

"T" Triplex —

Stroke Length (in.) ----

Fluid end pressure ranges -

"L" Low, "M" Medium, "H" High

100T-4



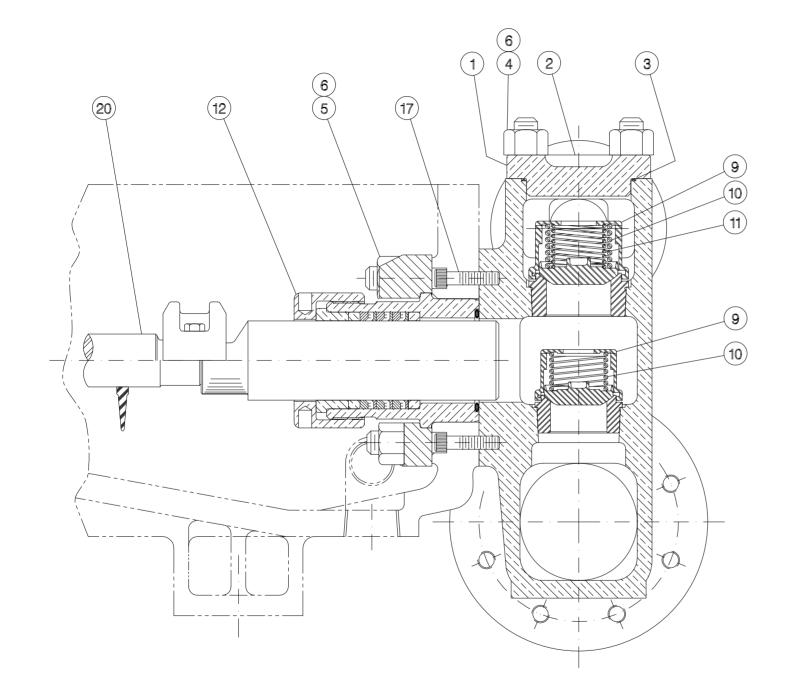
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25	1711895	MISC. OPTIONAL PARTS	FIRST	8-31-99
26	1711896	100T-4 OUTLINE DRAWING WITHOUT GEAR REDUCER	FIRST	8-31-99
27	1711897	100T-4 OUTLINE DRAWING WITH GEAR REDUCER	FIRST	8-31-99

Parts List

Triplex Plunger Pump

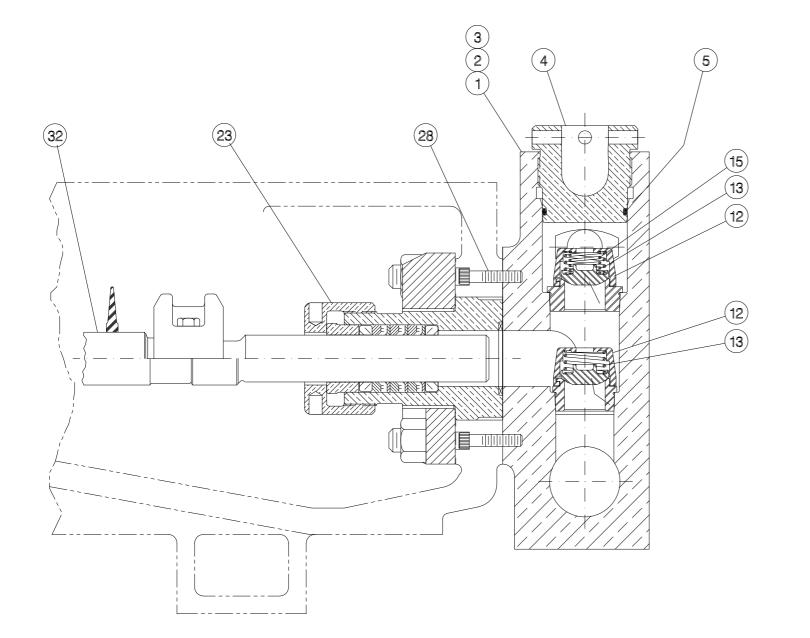
Revisions effective June 18, 2009 - revised pages 5 and 19.



* [1	1710270	1710270	BAR, STUFFING BOX ADJUSTING NUT	21
	3	SEE PAGES	5 18 & 19	ROD, INTMD (CLAMP OR THD TYPE LISTING)	20
	16	700044211	700044211	SCREW, $\frac{3}{4}$ "-10 x 2 ¹ / ₂ " HEX HD CAP (DISCH. CONN.)	19
	16	700044011	700044011	SCREW, $\frac{3}{4}$ " x 2" HEX HD CAP (SUCTION CONN.)	18
	4	7006309	7006309	SCREW, $\frac{1}{2}$ "-13 x 2 $\frac{1}{4}$ " HEX SOC HD CAP	17
	2	6908019	6908019	RING, OVAL JOINT R-26	16
	2	6010021	6010021	GASKET, 5" FLAT RING - 150*	15
\otimes	2	* 1080	#1080	CAPLUG	14
\otimes	2	#44	#44	CAPLUG	13
	3	SEE PAGES	5 14-17	STD. PLUNGER KIT LISTING	12
	1		1793526	SPRING, INNER	11
	1		1793525	SPRING, OUTER	10
	1		1793524-6	RETAINER, SPRING	9
	3		1793522-25	VALVE CPT, SPHERICAL DISCH.	8
	3		1793520-25	VALVE CPT, SPHERICAL SUCT.	7
	12	6300160	6300160	NUT, 1"-8 HVY. HEX	6
	12	49003081	49003081	STUD, 1"-8 x 6"	5
	12	10000185	10000185	STUD, 1" x 3¾"	4
	3	2410031247	2410031247	SEAL, TOP COVER	3
	1	1711073	1711073	COVER, CYLINDER TOP	2
	1	171135714	171135714	CYLINDER ONLY, FLUID	1
	QTY REQ'D		NO.	DESCRIPTION	ITEM NO.
		171135514 (NILAI _BR7)ASSV	171135514-S (NI-AL-BRZ)ASSY.	* ITEM NOT SHOWN FOR CLARITY	
		WITH DISC T.S.	WITH SPHERICAL	\otimes FOR SHIPPING PURPOSES ONLY	
		VALVES	VALVES	SHIPPED SEPERATELY	
				LIST OF MATERIAL	

RGY NATIONAL OILW	ELL VARCO
ASSY. FLU	IID END
100T-4L (J-10	0-L14CF)
SIZE REFERENCE No. DRAWING No.	REV
D 17'	11871 A
SCALE NONE EST WT	SHEET 1 OF 1

LTR	DESCRIPTION OF CHANGE	MADE CHKD	DATE	APPROVED	м	NO
A	REMOVED DURABLA VALVES	MTH RPQ	8.21.07			
A1	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH OPO	8 21 07			



				LIST
		171142314 (NI-AL-BRZ)ASSY. WITH DISC T.S. VALVES	171142314-S (NI-AL-BRZ)ASSY. WITH SPHERICAL VALVES	
	QTY REQ'D	PART	NO.	
	1	171142214	171142214	CYLINE
	1	171141214	171141214	CYLIND
	12	49003081	49003081	STUD,
	3	1711417	1711417	COVER
	3	99609339	99609339	0-RING
	3		1792520-25	VALVE
	3		1792522-25	VALVE
	1		17925246	RETAIN
	1		1792525	SPRING
	1		1792526	SPRING
	3	SEE PAGES	5 14-17	STD. F
	2	# 15	#15	CAPLU
	2	*55-A	#55-A	CAPLU
A		6010019	6010019	GASKE
A	2	6908004	6908004	RING,
	4	7006309	7006309	SCREW
\otimes	8	700052510	700052510	SCREW
\otimes	8	700039711	700039711	SCREW
	3	SEE PAGES		ROD, I
ж	1	1710270	1710270	BAR, S

NOY NATIONAL GILWELL VARCO
ASSY. FLUID END
100T-4M (J-100-MI4CF)
SIZE REFERENCE NO. DRAWING NO. 1711872 A
SCALENONE EST WT SHEET 1 OF 1

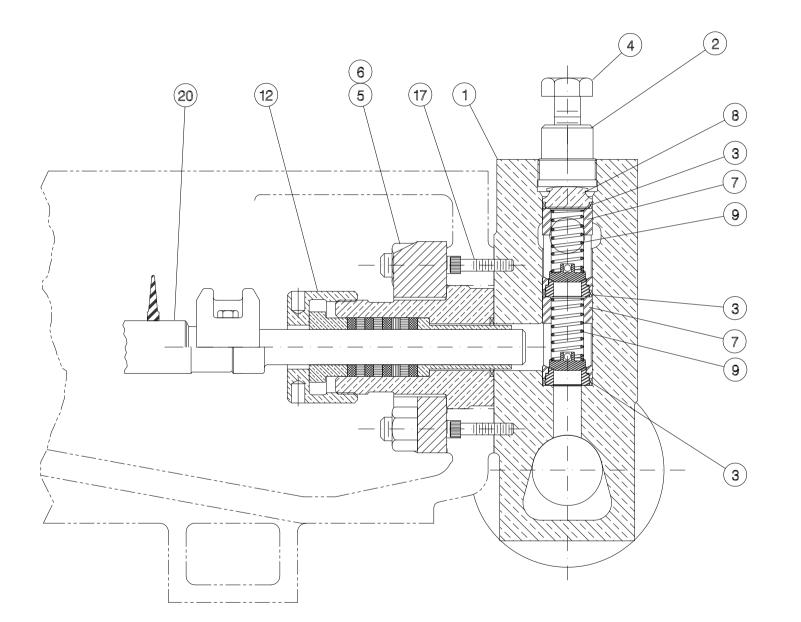
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OF	MATERIAI
01	

RING RING TAIN VE VE RING VER JD, LIND $\stackrel{\wedge}{\bigtriangleup}$ shipped seperately

R, STUFFING BOX ADJUSTIN NUT	20
D, INTMD (CLAMP OR THD TYPE LISTING)	19
REW,5%"x 2" HEX HD CAP (SUCT. CONN.)	18
REW, 1" x 2 ³ / ₄ " HEX HD CAP (DISCH. CONN.)	17
REW, 1/2"x 21/4" HEX SOC HD CAP	16
IG, OVAL JOINT R-20	15
SKET, 3" FLAT RING	14
PLUG	13
PLUG	12
D. PLUNGER KIT LISTING	11
RING, INNER	10
RING, OUTER	9
TAINER, SPRING	8
LVE CPT, SPHERICAL DISCH.	7
LVE CPT, SPHERICAL SUCT.	6
RING 3 ⁵ / ₈ ''x 3 ¹ / ₄ ''x ³ / ₁₆ ''	5
VER, VALVE	4
JD, 1"-8 x 6"	3
LINDER ONLY, FULID	2
LINDER STUDDED, FLUID (INCL. 2 & 3)	1
DESCRIPTION	ITEM NO.
* ITEM NOT SHOWN FOR CLARITY	
\otimes FOR SHIPPING PURPOSES ONLY	

LTR	DESCRIPTION OF CHANGE	MADE CHKD	DATE	APPROVED	м	NO
Α	REMOVED DURABLA VALVES	MTH RPQ	8.21.07			_
A1	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH RPQ	8.21.07			

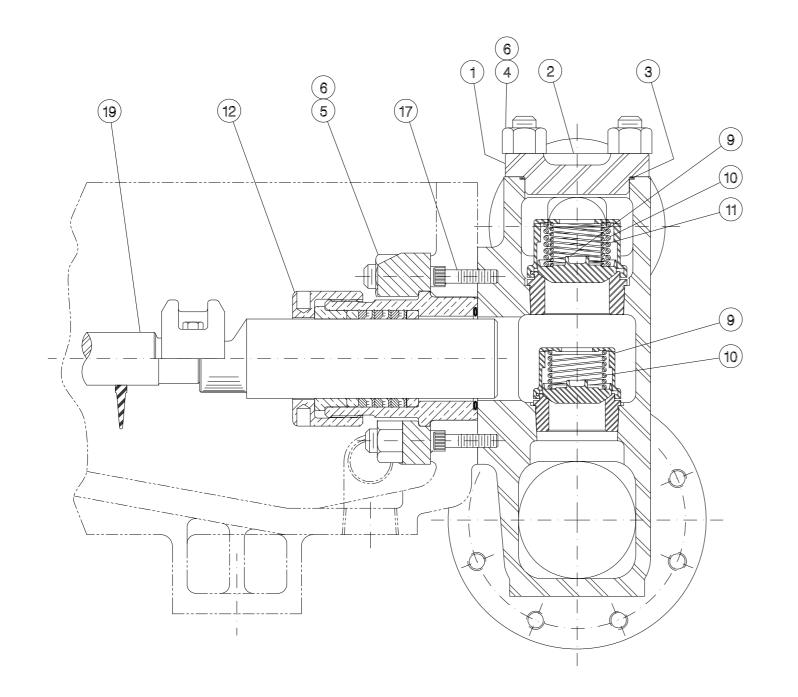


				LIST OF MATERIAL	
		171129214 (NI-AL-BRZ)ASSY. WITH DISC T.S. VALVES	171129214-S (NI-AL-BRZ)ASSY. WITH SPHERICAL VALVES	* ITEM NOT SHOWN FOR CLARITY \otimes FOR SHIPPING PURPOSES ONLY \triangle SHIPPED SEPERATELY	
C	TY REQ'D		NO.	DESCRIPTION	ITEM NC
	1	171129414	171129414	CYLINDER ONLY, FULID	1
	3	17113882	17113882	COVER CYLINDER TOP	2
	9	1711112	1711112	SEAL, VALVE CAGE	3
	3	1713410	1713410	SCREW, CAGE LOADING	4
	12	49003081	49003081	STUD, 1"-8 x 6"	5
	12	6300160	6300160	NUT, 1"-8 HVY. HEX	6
Ī	6	17114054	17114054	CAGE, BALL VALVE	7
f	3	17113872	17113872	RETAINER, VALVE CAGE	8
f	6	1711306	1711306	SPRING, BALL VALVE	9
f	6		171145025	VALVE CPT, SPHERICAL	10
f	6	171150025		VALVE CPT, BOTTOM GUIDED	11
ł	3	SEE PAGES		STD. PLUNGER KIT LISTING	12
∍ †	2	#1050	#1050	CAPLUG	13
∍ †	2	*210	#210	CAPLUG	14
2	2	6010020		GASKET, 3" FLAT RING	15
2	2	6908011		RING, OVAL JOINT R-23	16
_	4	7006309		SCREW, $\frac{1}{2}$ "-13 x $\frac{2}{4}$ " HEC SOC HD CAP	10
āŀ	16	700038810	700036810	SCREW, $1/_8$ " x 4 HEX HD CAP (DISCH. CONN.) SCREW, $\frac{3}{4}$ " x $2^{1}/_{2}$ " HEX HD CAP (SUCT. CONN.)	13
ъŀ	8	700056810		ROD, INT. (CLAMP OR THRD. TYPE	19
ŀ	∠ 3	SEE PAGES			20
КΓ	2	1710270	1710270	BAR. STUFFING BOX ADJUSTING NUT	21

	AL OILWELL VARCO
	., FLUID END 100-H14AF)B.G.
SIZE REFERENCE No. DRAWI	NG NO. 1711873 A
SCALENONE EST WT	SHEET 1 OF 1

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

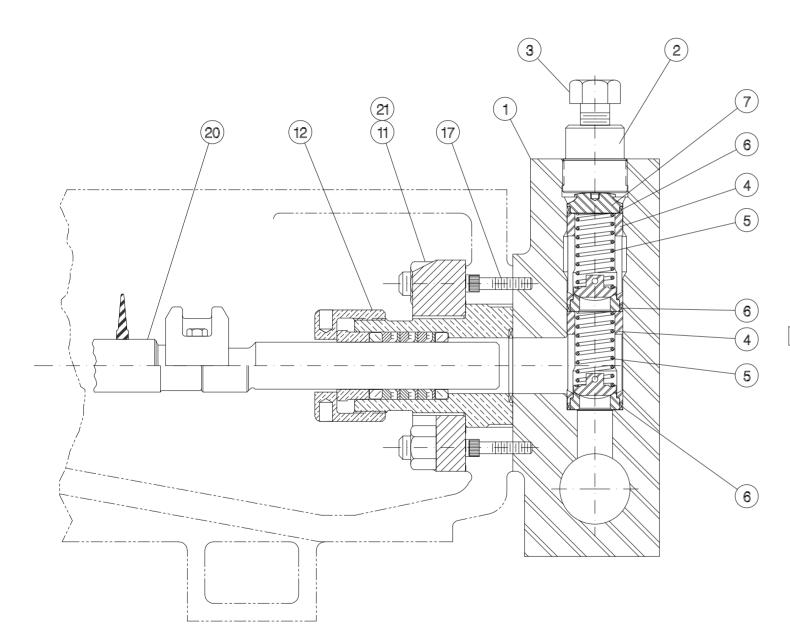


				LIST OF MATERIAL	
		316 S.S. ASSY. WITH DISC T.S. VALVES	316 S.S. ASSY.	 ➢ FOR SHIPPING PURPOSES ONLY ▲ SHIPPED SEPERATELY 	
Ľ	UT KEUD		17114216-S	* ITEM NOT SHOWN FOR CLARITY	TIEM NU.
ł	1 QTY REQ'D	17114116 PART	17114116	CYLINDER ONLY, FULID DESCRIPTION	1 ITEM NO.
ŀ	3		1711239	COVER, CYLINDER TOP	2
-	3		2410031247	SEAL, TOP COVER	3
ŀ	12		10000185	STUD, 1" x 3¾"	4
-	12		49003081	STUD, 1"-8 x 6"	5
ļ	12	6300160	6300160	NUT, HVY. HEX	6
ļ	3		1793520-25	VALVE CPT, SPHERICAL SUCT.	7
	3		1793522-25	VALVE CPT, SPHERICAL DISCH.	8
	1		1793524-6	RETAINER, SPRING	9
[1		1793525	SPRING, OUTER	10
[1		1793526	SPRING, INNER	11
ſ	3	SEE PAGES	5 14-17	STD. PLUNGER KIT LISTING	12
\otimes	2	#44	#44	CAPLUG	13
\otimes	2	#1080	#1080	CAPLUG	14
Ā	2	6010022	6010022	GASKET, 5" FLAT RING	15
A	2		6908019	RING, OVAL JOINT R-26	16
	4	7006309	7006309	SCREW, $\frac{1}{2}$ ''-13 x $\frac{2}{4}$ '' HEX SOC HD CAP	17
A	32	700044211		SCREW, $\frac{3}{4}$ "-10 x 2 $\frac{1}{2}$ " HEX HD CAP	18
ł	3	SEE PAGES		ROD. INTMD (CLAMP OR THD TYPE LISTING)	19
ж [1	1710270	1710270	BAR. STUFFING BOX ADJUSTING NUT	20

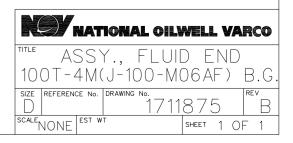
ROY NATIONAL CILL	WELL VARCO
^{™™} ASSY. FLUIE 100T-4L (J-100	
SIZE REFERENCE NO. DRAWING NO.	874 A
SCALENONE EST WT	SHEET 1 OF 1

OF	MATERIAL

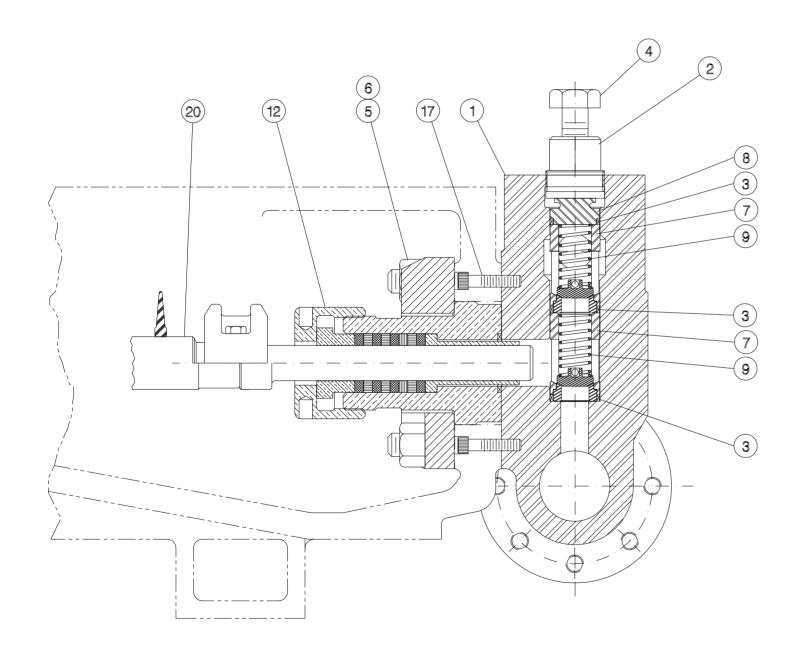
LTR	DESCRIPTION OF CHANGE	MADE CHKD	DATE	APPROVED	M NO
Α	REMOVED DURABLA VALVES	MTH RPO	8.21.07		
A1	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH RPQ	8.21.07		



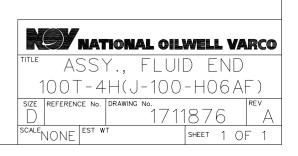
	12	6300160	6300160	NUT, 1" -8 HVY HEX	21
	3	SEE PAGES 18 8	4 19	ROD, INT. (CLAMP OR THD. TYPE)	20
A	8	700039711	700039711	SCREW, $\frac{5}{8}$ " x 2 HX HD CAP (SUCTION CONNECTION)	19
A	8	700052510	700052510	SCREW, 1" x 2 ³ / ₄ " HEX HD CAP (DISCHARGE CONNECTION)	18
	4	7006309	7006309	SCREW, 1/2" x 21/4" HEX SOC HD CAP	17
A	2	6908004	6908004	RING,OVAL JOINT R-20	16
A	2	6010019	6010019	GASKET, 3" FLAT RING	15
\otimes	2	#45-A	#45-A	CAPLUG	14
\otimes	2	#1097	#1097	CAPLUG	13
	3	SEE PAGES 14-1	7	STD. PLUNGER KIT LISTINGS	12
	12	49003081	49003081	STUD, 1" x 6"	11
ж	1	1710270	1710270	BAR, STUFFING BOX ADJUSTING NUT	10
	6	171708025		VALVE CPT, BG CAGE	9
	6		1717090-25	VALVE CPT, SPHERICAL	8
	3	17134174	17134174	RETAINER, VALVE CAGE	7
B	9	1712373	17123873	SEAL, VALVE CAGE	6
	12	1712486	1712486	SPRING, BALL VALVE	5
	12	17125854	17125854	CAGE, VALVE	4
	3	1713410	1713410	SCREW, CAGE LOADING	3
	3	17094844	17094844	COVER, CYLINDER TOP	2
	1	17119166	17119166	CYLINDER ONLY, FLUID	1
	QTY REQ'D	PART N	UMBERS	MATERIAL/SPECIFICATION	ITEM NO.
		17119366 (316 S.S.) ASSY.	17119366-S	* ITEM NOT SHOWN FOR CLARITY	
		w/BG CAGE VALVES	ASSY. WITH	\otimes FOR SHIPPING PURPOSES ONLY	
			SPHERICAL VALVES	▲ SHIPPED SEPERATELY	
				LIST OF MATERIAL	



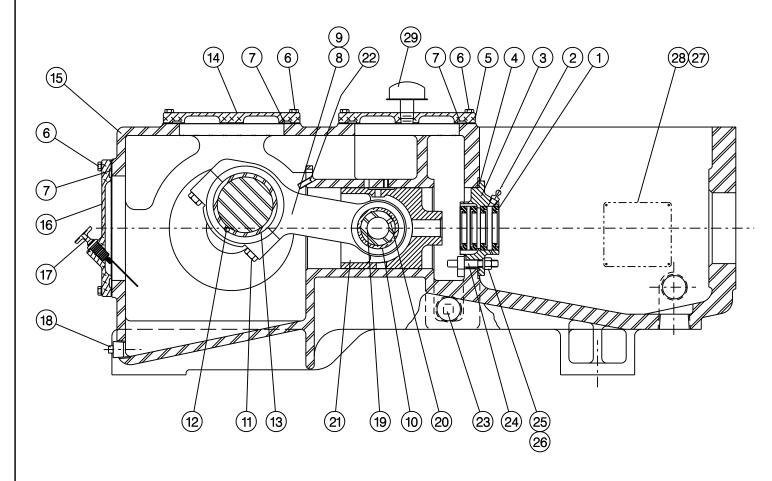
	DESCRIPTION OF CHANGE	MADE CHKD	DATE	APPROVED	M NO
A	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH RPQ	8.21.07	GRL	
В	WAS P/N 1712383	RPQ DCP	10.2.08	GRL	



1	1710270	1710270	BAR. STUFFING BOX ADJUSTING NUT	21
3	SEE PAGES 18 8		ROD, INT. (CLAMP OR THD. TYPE)	20
8	700056810	700056810	SCREW, $1/_{8}$ '' x 4 HEX HD CAP (DISCH. CONN.)	19
16	700044211	700030810	SCREW, $\frac{1}{2}$ × $\frac{1}{2}$ HEX HD CAP (SUCTION CONN.)	18
4	7006309	7006309	SCREW, $\frac{1}{2}$ "-13 x $\frac{2}{4}$ " HEX SOC HD CAP	17
2	6908011	6908011	RING.OVAL JOINT R-23	16
2	60100020	60100020	GASKET. 3" FLAT RING	15
2	#210	#210	CAPI UG	14
2	#1050	*1050	CAPLUG	13
3	SEE PAGES 14-1		STD. PLUNGER KIT LISTING	12
6	171150025		VALVE CPT, BOTTOM GUIDED	11
6		171145025	VALVE CPT, SPHERICAL	10
6	1711306	1711306	SPRING, BALL VALVE	9
3	G17113876	G17113876	RETAINER, VALVE CAGE	8
6	17114054	17114054	CAGE, BALL VALVE	7
12	6300160	6300160	NUT, 1"-8 HVY. HEX	6
12	49003081	49003081	STUD, 1"-8 x 6"	5
3	1713410	1713410	SCREW, CAGE LOADING	4
9	171112	1711112	SEAL, VALVE CAGE	3
3	17113882	17113882	COVER, CYLINDER TOP	2
1	G17112946	G17112946	CYLINDER ONLY, FLUID	1
QTY REQ'	D PART N	UMBERS	MATERIAL/SPECIFICATION	ITEM NC
	17112926		* ITEM NOT SHOWN FOR CLARITY	
	(316 S.S.) ASSY. w/BG CAGE VALVES		⊗ FOR SHIPPING PURPOSES ONLY	
		SPHERICAL VALVES	A SHIPPED SEPERATELY	
		1	LIST OF MATERIAL	

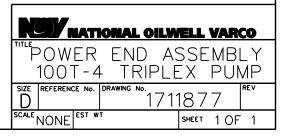


LTR	DESCRIPTION OF CHANGE	MADE CHKD	DATE	APPROVED	м	N
Α	REMOVED INDIVIDUAL VALVE AND SEAT PART NUMBERS	MTH RPQ	8.21.07			

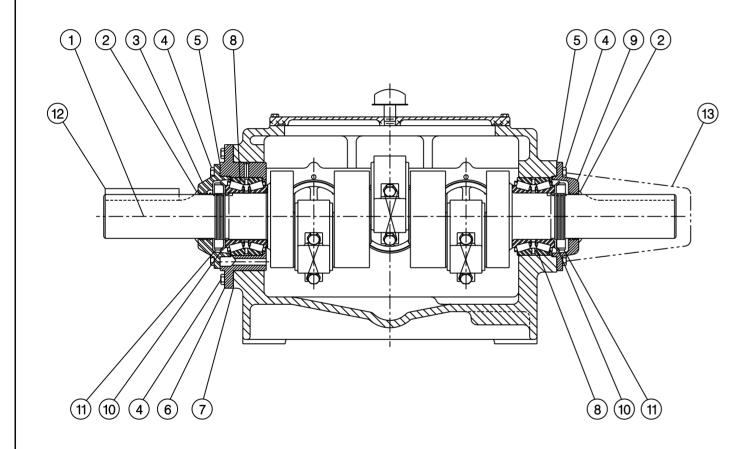


1	7802020	BREATHER CAP
1	G2407274	PLATE, WARNING
8	25854647	SCREW, RD. HD. DRIVE
6	7618018	WASHER, 1/2" STAT-O-SEAL
6	6308080	NUT, 1/2" STAINLESS LOC
6	1716031	BOLT, INTERMEDIATE HOOK
1	6874012	PLUG, 11/2" STD. PIPE
3	6572420	PIN, SPRING ROLL
3	1711005	CROSSHEAD
1	H7028104	SCREW, 1/4"x 1/2" SOC. HD. CONE PT. SET
3	1711008	PIN, CROSSHEAD (INCLUDES ITEM #20)
2	6874008	PLUG, 1" STD. PIPE
1	2400054	GAUGE, DIPSTICK OIL
1	1711015	PLATE, POWER END REAR COVER
1	1711001	FRAME, MAIN
1	1711013	PLATE, POWER END TOP COVER
6	1711117	BUSHING, ALUM.
1	6510504	PIN, 5/16" × 1/2" DOWEL
2	1711116	BOLT, CONN. ROD
1	1711010P	BUSHING, BRONZE
1	1711113	ROD ONLY, CONN.
3	G-1711114	ROD COMPLETE (INCLUDES ITEMS *9 THRU
1		GASKET, REAR COVER PLATE
1	1711435	GASKET, TOP COVER PLATE
1		GASKET, CROSSHEAD COVER PLATE
LISTED	7000209-11	SCREW, 3/8" × 11/4" HEX HEAD CAP
1	1711014	PLATE, CROSSHEAD COVER
3	G-2410031-258	SEAL, INT. ROD WIPER RETAINER
3	G-1711309	RETAINER, INT. ROD WIPER
3	7805052	FITTING, ALEMITE 1/8"
12	7822034	WIPER, INT. ROD
qty req'd	PART NO.	DESCRIPTION/MAT

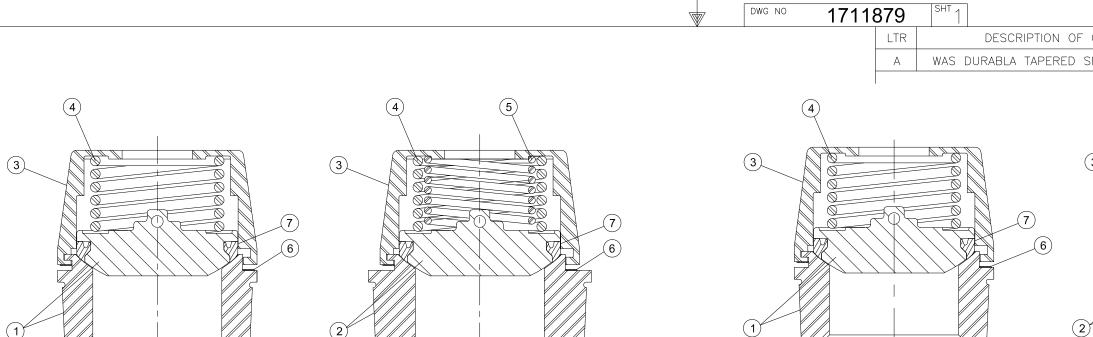
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TERIAL	ITEM NO
	1
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<u> 127 </u>	8
*12)	9
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	29 28



LTR	DESCRIPTION OF	CHANGE	MADE	СНКО	DATE	APPROVED	М	NO
Α	QTY. REQ'D. WAS 'LIST	ED'	DCP	RPQ	10-27-00			
В	WAS PART No. G-1711	002	-	RPQ	03.02.07			
	SHAFT EXT. (SLOTTED LUBRIC	CATOR)				13	٦	
	(SHAFT EXT.(SOLID) IAFT ‰x‰x 6 SQ.					12	-	
	TAN-20 LOCK					11		
	EN NO. TW-120 LOCK					10		
	NKSHFT BEARING NKSHAFT ROLLER					9	1	\bigcap
	BEARING CAGE					7	1	(8)
AIN BE	ARING					6	1	\sim
	KSHAFT BEARING RETAINERS					5	4	
	11/2" DRILLED HD.					4	-	
	NKSHAFT BRG. RT (1-ONLY W/G. REDUCER)					2	-	
SHAFT	(I (I-ONET W/G. KEDOCEK)					1		
	DESCRIPTION/MA	TERIAL				ITEM No) .	
	LIST OF MAT	ERIAL						
NO REQUIF	RED							
			ATION	AL	OILWE	L L VA R	RC	
		TITLE			<u> </u>			
		CR 10	ANKSHA 0T-4	AF T T R I F	ASSE PLEX F	MBLY YUMP		
							REV	
		B ^{SCALE} 1/8	EST WT			<u>0/0</u> 10	[F	$\frac{1}{1}$
		170			SHEI	- 10	1	



		LTR	DESCRIPTION OF	CHANGE	MADE	СНКО	DATE	APPROVED	M	NO
		A	QTY. REQ'D. WAS 'LIS	STED'	DCP		10-27-00			
		В	WAS PART No. G-1711	1002	DCP	/	03.02.07			
									_	
k 1	1711129		SHAFT EXT. (SLOTTED LUBRI	ICATOR)				13		
r 1 1	1711128 2404027		SHAFT EXT.(SOLID) AFT ½×½×6 SQ.					12	-	
2	6304040	NUT, TIMKEN T						12	1	
2	7610042		EN NO. TW-120 LOCK					10	1	
1	1711022		NKSHFT BEARING					9		
2	ZT-4006		KSHAFT ROLLER					8		(c
1	1711614		BEARING CAGE					7		(8
	1711617	CAGE, MAIN BE						6		\searrow
1	1711617		KET, CRANKSHAFT BEARING RETAINERS 5							
2	1703960	GASKET, CRAN							4	
2 20	1703960 2401510	GASKET, CRAN SCREW, 1/2" ×	11/2" DRILLED HD.					4		
2 20 1	1703960 2401510 1711618	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA	1½" DRILLED HD. NKSHAFT BRG.					4		
2 20 1 2	1703960 2401510 1711618 1704800	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR	11/2" DRILLED HD.					4 3 2		
2 20 1 2 1	1703960 2401510 1711618 1704800 171100213	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER)					4 3 2 1		
2 20 1 2	1703960 2401510 1711618 1704800 171100213	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR	11/2" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M.	ATERIAL				4 3 2	-	
2 20 1 2 1	1703960 2401510 1711618 1704800 171100213	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER)	ATERIAL				4 3 2 1		
2 20 1 2 1 1	1703960 2401510 1711618 1704800 171100213	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR	11/2" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M.	ATERIAL				4 3 2 1	-	
2 20 1 2 1 0TY REQD	1703960 2401510 1711618 1704800 171100213	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT	11/2" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M.	ATERIAL				4 3 2 1	- - - - -	
2 20 1 2 1 01Y REQ10	1703960 2401510 1711618 1704800 171100213 PART No.	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No.	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1		
2 20 1 2 1 01Y REQ0 * FUR ACC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1 ITEM No		
2 20 1 2 01Y REQ0 4 4 CC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL				4 3 2 1 ITEM No		
2 20 1 2 01Y REQ0 4 4 CC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL	VINATION		OILWE	4 3 2 1 ITEM No		
2 20 1 2 1 0TY REQ10 * FUR ACC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL	ATION		OILWE	4 3 2 1 ITEM No		•
2 20 1 2 01Y REQ0 4 4 CC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL TERIAL				4 3 2 1 ITEM No		•
2 20 1 2 01Y REQ0 4 4 CC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL TERIAL	CRANKSH	AF T	ASSE	4 3 2 1 ITEM NO ITEM NO		•
2 20 1 2 1 01Y REQ0 * FUR ACC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL TERIAL	CRANKSH 100T-4	AF T T R IF	ASSE Plex f	4 3 2 1 ITEM No ITEM No PUMP		
2 20 1 2 1 01Y REQ0 * FUR ACC	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL TERIAL TERIAL	CRANKSH	AF T T R IF	ASSE Plex f	4 3 2 1 ITEM No ITEM No PUMP		
2 20 1 2 1 01Y REQ10 * FUR	1703960 2401510 1711618 1704800 171100213 PART No. NISHED ONLY ESSORY DRIV	GASKET, CRAN SCREW, 1/2" × RETAINER, CRA EXCLUDER, DIR CRANKSHAFT WHEN NO (ES ARE REQUIF	1½" DRILLED HD. NKSHAFT BRG. T (1-ONLY W/G. REDUCER) DESCRIPTION/M. LIST OF MA	ATERIAL TERIAL	CRANKSH 100T-4	AF T T R IF	ASSE Plex f	4 3 2 1 ITEM No ITEM No PUMP		



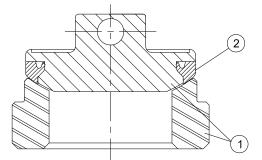
DISCHARGE

1711879	SHT 1					
LTR	DESCRIPTION C	DF CHANGE	MADE CHKD	DATE	APPROVED	M NO
A	WAS DURABLA TAPERED) SEAT VALVE ASSY	WFL RPQ	8.21.07		
					7	
SUCTION	<u>1</u>		DISCHARGE			
1 9707087 1 9707083 1 1792526 1 1792525 1 1792524-6W 1 1792522-25SD 1 1792520-25SD 1 1792520-25SD QTY REQ'D PART No.		RE DUTY	7 5 5 4 3 2 4 Mo.			9
2)						
1						
2 RE DUTY 1 ITEM No.		houston, texas u.s.a. TITLE SEVE	RE DUTY	ENGINEERI	NG, MCALESTER, OKI	
		SIZE REFERENCE NO	DRAWING No.		1879	REV A

1	9707075	SEAL / INSERT	7
1	9707081	WAVE RING	6
1	1793526	SPRING, INNER	5
1	1793525	SPRING, OUTER	4
1	1793524-6W	RETAINER, SPRING	3
1	1793522-25SD	VALVE CPT., DISCHARGE - SEVERE DUTY	2
1	1793520-25SD	VALVE CPT., SUCTION - SEVERE DUTY	1
QTY REQ'D	PART No.	DESCRIPTION	ITEM No.

SUCTION

<u>100T-4L</u> <u>TAPERED SEAT</u> <u>SPHERICAL SD TYPE</u>



SUCTION & DISCHARGE

1	9707090	SEAL / INSERT	2
1	1711450-25SD	VALVE CPT., SUCTION & DISCHARGE - SEVERE DUTY	1
QTY REQ'D	PART No.	DESCRIPTION	ITEM No.

<u>100T-4H</u> CAGE TYPE SPHERICAL SD TYPE

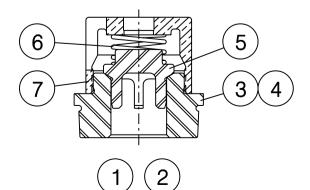
Ā

1	1712373	1711112	SEAL	6
1	1712372	1711105	RETAINER, SPRING	5
1	1712371	1711103	SPRING	4
1	1712370-4	1711101-6	CAGE	3
1	1712367	1711106	VALVE & SEAT (DISCHARGE)	2
1	1712367	1711106	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART No. 100T-4M	PART No. 100T-4H	DESCRIPTION	ITEM NO.
		LIST O	F MATERIAL	

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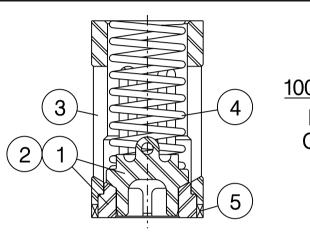
100T – 4M &
<u>100T – 4H</u>
CAGE TYPE
BALL VALVE

1	17930426	179250426	RETAINER, SPRING	7
1	1793505P	1792505P	SPRING	6
1	1790067	1790066	VALVE	5
1		17925034	SEAT, VALVE - DISCHARGE	4
1		17925014	SEAT, VALVE - SUCTION	4
1	17935034		SEAT, VALVE - DISCHARGE	3
1	17935014		SEAT, VALVE - SUCTION	5
1	1793502-4	1792502-4	VALVE CPT DISCHARGE	2
1	1793500-4	1792500-4	VALVE CPT SUCTION	1
QTY REQ'D	PART No. 100T-4L	PART No. 100T-4M	DESCRIPTION	ITEM NO.
		LIST OF	MATERIAL	

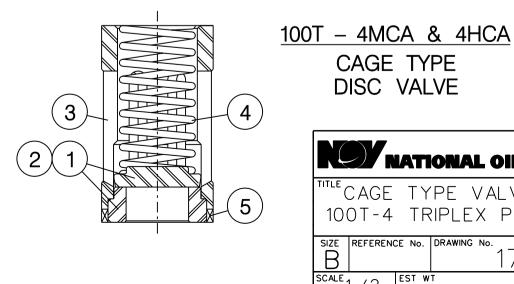


<u>100T – 4L & 4M</u> BOTTOM GUIDED TAPERED SEAT VALVE

1	1712373	1711112	SEAL	5
1	1712486	1711306	SPRING	4
1	17125854	17114054	CAGE	3
1	1717080-25	1711500-25	VALVE & SEAT (DISCHARGE)	2
1	1717080-25	1711500-25	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART No. 100T-4M	PART No. 100T-4H	DESCRIPTION	ITEM NO.
		LIST OF	MATERIAL	



1	1712373	1711112	SEAL	5
1	1712486	1711306	SPRING	4
1	17125854	17113054	CAGE	3
1	1712582	1711332	VALVE & SEAT (DISCHARGE)	2
1	1712580	1711330	VALVE & SEAT (SUCTION)	1
QTY REQ'D	PART No. 100T-4M	PART No. 100T-4H	DESCRIPTION	ITEM NO.
		LIST OF	MATERIAL	



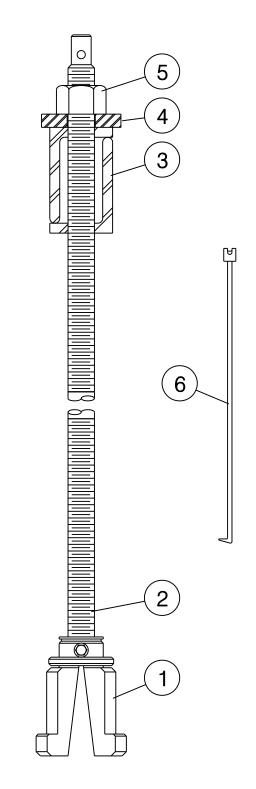
<u>100T – 4MCA & 4HCA</u> BOTTOM GUIDED CAGE TYPE VALVE

CAGE TYPE

D	ISC	VAL	VE			
		AT	onal oili	VELL	VAR	co
			PE VALVE PIPLEX PL			
SIZE	REFERENC	CE No.	drawing no. 17	1188	0	REV
SCALE	1/2	EST W	т	SHEET	1 0	F 1

(10)





SPHERICAL TAPERED SEAT VALVE KIT

	100T–4L						
ITEM NO.	PART No.	DESCRIPTION	QTY. REQD.				
	180104135	VALVE KIT COMPLETE	1				
1	181259359	HEAD	1				
2	20220159	STEM	1				
3	181205709	SPACER	1				
4	75518308	NUT, 1''-8	1				
5	20220194	WASHER	1				
6	1790034	RETRIEVER	1				

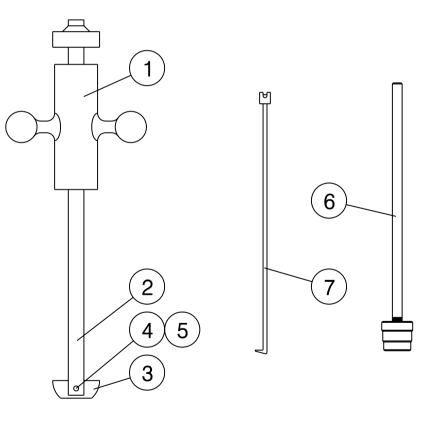
	100T–4M									
ITEM NO.	PART No.	DESCRIPTION	QTY. REQD.							
	180104119	VALVE KIT COMPLETE	1							
1	18259250	HEAD	1							
2	20220159	STEM	1							
3	181205709	SPACER	1							
4	75518308	NUT, 1''-8	1							
5	20220194	WASHER	1							
6	1790034	RETRIEVER	1							

DESCRIPTION OF	CHANGE	MADE CHKD	DATE	APPROVED	M NO	
REMOVED DURABLA	VALVES	MTH RPO	8.21.07			
					(1	1
						1)
	FIONAL	OILW		VAR	CO	
T.T. C						
	E SEI	$\forall V ($		$\sum_{i=1}^{i}$		
100T-4		<u>ING</u> E	K I		ΛP	
SIZE REFERENCE No.	DRAWING No.	1711	001	RE	× _	
		<u>1711</u>			A	
scale 3/16 est		S	неет 1	OF .]	

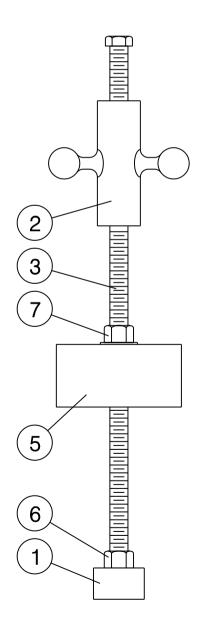
	100T – 4HCA /4 PO									
ITEM NO.	PART No.	DESCRIPTION	QTY. REQD.							
	1711251	VALVE KIT COMPLETE	1							
	1711249	BAR CPT. (INCL. 2-5)	1							
1	1790080	BUMPER	1							
2	1710250	BAR	1							
3	1711252	PLATE	1							
4	6572016	PIN	1							
5	6571216	PIN	1							
6	1790041	DRIVER	1							
7	1790034	RETRIEVER	1							

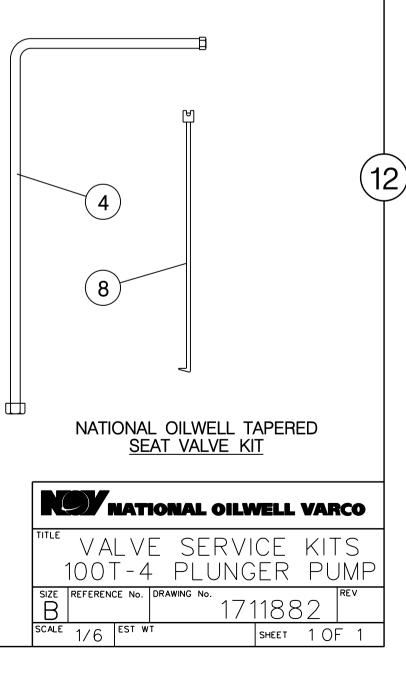
	100	DT – 4MCA	
ITEM NO.	PART No.	DESCRIPTION	QTY. REQD.
	1712342	VALVE KIT COMPLETE	1
	1712242	BAR CPT. (INCL. 2-5)	1
1	1790080	BUMPER	1
2	1710250	BAR	1
3	1712263	PLATE	1
4	6572016	PIN	1
5	6571216	PIN	1
6	1790042	DRIVER	1
7	1790034	RETRIEVER	1

	100T – 4MC						100T-4LC	
ITEM NO.	PART No.	DESCRIPTION	QTY. REQD.		ITEM NO.	PART No.	DESCRIPTION	QTY. REQD.
	1792507	VALVE KIT COMPLETE	1			1793507	VALVE KIT COMPLETE	1
1	1792506	HEAD	1		1	1793507	HEAD	1
2	1790080	BUMPER	1		2	1790080	BUMPER	1
3	1790081	BAR	1		3	1790081	BAR	1
4	1790082	WRENCH	1		4	1790082	WRENCH	1
5	1713109	SUPPORT	1		5	1713109	SUPPORT	1
6	6300160	NUT	1		6	6300160	NUT	1
7	6314002	NUT	1		7	6314002	NUT	1
8	1790034	RETRIEVER	1		8	1790034	RETRIEVER	1

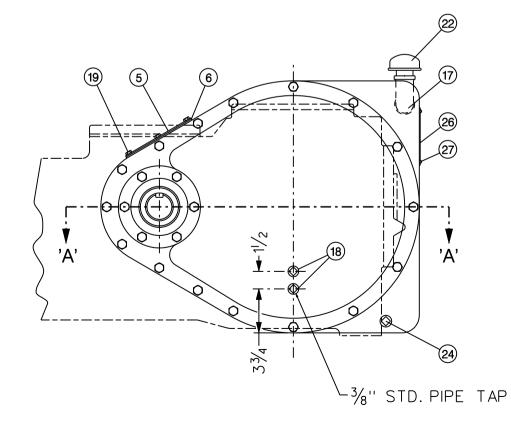


CAGE TYPE VALVE KIT (SPHERICAL, BOTTOM GUIDED, DISC, OR BALL)

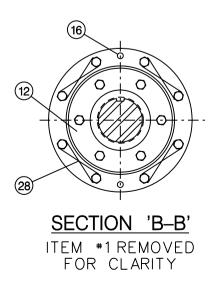




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21 (1)(1)(9)(8) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2
13 SECTION 'A-A'

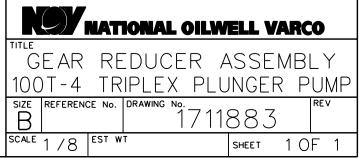


3 FT.			59800					LOCKWIRE, *16 GA. ANNEALED	28	
4			71780					SCREW, RD HD DRIVE #2 x 1/4"	27	
1			171160					PLATE, NAME & INSTRUCTION	26	
2			ZT-25					BEARING, PINION SHAFT	25	
1			78150	59				PLUG, MAGNETIC DRAIN 11/4"	24	
1			1119310)				EXCLUDER, BRG	23	
1			78020)20				CAP, BREATHER #S-183	22	
16			70003	309-11				SCREW, HEX HD CAP $\frac{1}{2}$ " x $\frac{2}{4}$ "	21	
12			70003	304-11				SCREW, HEX HD CAP 1/2" x 1/4"	20	
4			70002	206-11				SCREW, HEX HD CAP 3/8'' x3/4''	19	
2			68740)03				PLUG, STD PIPE 3/8"	18	
1			68290	800				ELBOW, STD 1" x 90° STREET	17	
2			65808	352				PIN, TAPER #8 x 3 ¹ /4''	16	
1			24040)45				KEY, GEAR 7/8" x 7/8" x 3"	15	
8			24055	529				SCREW, HEX HD DRLD 1/2" x 31/4"	14	
1	- + + + + + + +		24023	2330			KEY, PINION 5/8" x 5/8" x 4"	13		
1			171162	2				RETAINER, CRANKSHAFT BRG		
6			171162	1711627				SHIM, BEARING RETAINER .007	11	
6				1712625				SHIM, BEARING RETAINER .005	10	
2				1711620				SHIM, BEARING RETAINER .020	9	
1			171160					CAP, H.S. PINION BRG OPEN	8	
1			171160					CAP, H.S. PINION BRG BLIND	7	
1			1711619					GASKET, INSPECTION COVER	6	
1			110560					COVER, INSPECTION	5	
1				00-68				GASKET, LOCTITE PLASTIC	4	
1	1711602	1711	602	17116	02	1711602	1711602	HOUSING CPT, GEAR REDUCER	3	
1	1711616		1615	17116		1711613	1711612	PINION	2	
1	1711608		609	17116		1711610	1711611	GEAR	1	
QTY REQ'D			T NO.	PART	-	PART NO.	PART NO.	DESCRIPTION	ITEM NO.	
	1711633	171	11632	1711	634	1711631	1711630			
	4.269:1 RATIO	3.89:	1 RATIO	3.42:1	RATIO	3.15: RATIO	2.60:1 RATIO			
	GEAR RED	UCER	ASSY.	COMP	LETE E	3/M No.'s				



REVISED 10-23-03

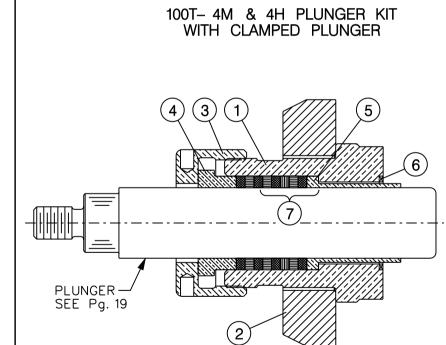
(13)



		1 49012041	2 ¹ /4" - 850-N UNIVERSAL PACKING		1	6422317	15/8'' 85
		1 6422331	2 ³ / ₈ " - 850-N UNIVERSAL PACKING		1	6422318	13⁄4'' 85
		1 6422336	25/8" - 850-N UNIVERSAL PACKING		1	6422321	11/8" 85
		1 6422339	2 ⁷ / ₈ " - 850-N UNIVERSAL PACKING	8	1	6422323	2" 850
	\sim \sim \sim	1 6422341	3 ¹ /8" - 850-N UNIVERSAL PACKING		1	6422325	2 ¹ /8'' 8
	(4)(5)(1) (6)	1 49010923	3 ¹ /4" - 850-N UNIVERSAL PACKING		1	2410031-335	SEAL, S
		1 6422344	3 ³ / ₈ '' - 850-N UNIVERSAL PACKING		1	1711154	15⁄8'' SL
	(7)	1 2410031-335	5 2 ¹ /4" SEAL, STUFFING BOX	7	1	1711155	13⁄4'' SL
		1 2410031-345	5 3 ³ / ₈ ''- 2 ³ / ₈ '' SEAL, STUFFING BOX	,	1	1711156	17⁄8'' SL
		1 1711858	2 ¹ /4" SLEEVE WASHER		1	1711157	2" SLE
↓		1 1711161	2¾" SLEEVE WASHER		1	1711158	2 ¹ /8'' SI
	_	1 1711162	25/8" SLEEVE WASHER		2	1712163	15/8'' W/
		1 1711163	27/8" SLEEVE WASHER	6	2	1712056	1 ³ ⁄4'' W/
PLUNGER/		1 1711164	3 ¹ /8" SLEEVE WASHER		2	1711058	17⁄8'' W/
SEE Pg. 18		1 1711070	3 ¹ /4" SLEEVE WASHER		2	1711059	2" WAS
		1 1711165	3¾" SLEEVE WASHER		2	1711060	2 ¹ /8" W
	3 2	2 1711856	2 ¹ /4" WASHER		1	1711050	15/8'' GL
		2 1711096	2 ³ / ₈ " WASHER		1	1711051	1 <u>3/4</u> '' GL
	100T– 4L & 4M PLUNGER KIT	2 1711097	25/8" WASHER			1711052	17⁄8'' GL
	WITH CLAMPED PLUNGER	2 1711098	2 ⁷ / ₈ " WASHER	5		1711053	2" GLA
		2 1711099	3 ¹ / ₈ " WASHER		1	1711054	2 ¹ /8" G
		2 1711072	3 ¹ /4" WASHER			1711298	13/4''-15/
		2 1711100	3 ³ / ₈ " WASHER			1711025	21/8''-17
		1 1711857	21/4" GLAND			1711416-1	RETAIN
	\sim \sim \sim	1 1711093	2 ³ / ₈ " GLAND			1711497-2	1 <u>5/8</u> '' PL
	(4)(5)(1) (6)	1 1711092	25/8" GLAND			1711497-2	1 ³ ⁄ ₄ '' PL
		1 1711091	2 ⁷ / ₈ " GLAND	4		1711493-2	17⁄8'' PL
	$\left(\begin{array}{c} \end{array} \right) $	1 1711090	3 ¹ / ₈ " GLAND			1711493-2	2" PLG
		1 1711071	3 ¹ / ₄ ^{''} GLAND			1711493-2	2 ¹ /8" P
		1 1711089	3 ³ / ₈ ^{''} GLAND		QTY REQ'I	D PART NO.	
	8	1 1711025	2 ¹ / ₄ ¹¹ NUT, ADJUSTING	3	.		LIS
		1 1711065	2 ³ / ₈ "-3 ³ / ₈ " NUT, ADJUSTING				
		1 1711416-1	RETAINER, STUFFING BOX 21/4"	2		100)T- 4N
1		1 1711316	RETAINER, STUFFING BOX 2 ³ / ₈ "-3 ³ / ₈ "	_			
PLUNGER —		1 1711493-2	$2^{1}/4^{"}$ PLG'R × $2^{7}/8^{"}$ BORE STUFFING BOX				
SEE Pg. 19		1 1711494-2	2 ³ / ₈ " PLG'R × 3 ¹ / ₈ " BORE STUFFING BOX			•	
	(3) (2)	<u>1711495-2</u> 1 1711495-2	$2\frac{5}{8}$ " PLG'R × $3\frac{5}{8}$ " BORE STUFFING BOX $2\frac{7}{8}$ " PLG'R × $3\frac{5}{8}$ " BORE STUFFING BOX	1			USE ONL
	\bigcirc \bigcirc	1 1711495-2					ACE ONE
		1 1711496-2	$3^{1}/_{8}$ " PLG'R x $4^{1}/_{8}$ " BORE STUFFING BOX $3^{1}/_{4}$ " PLG'R x $4^{1}/_{8}$ " BORE STUFFING BOX				
		1 1711496-2	$3\frac{7}{8}$ " PLG'R x $4\frac{7}{8}$ BORE STOFFING BOX				
	100T– 4L & 4M PLUNGER KIT	QTY REQ'D PART NO.	DESCRIPTION	ITEM NO.			
	WITH THREADED PLUNGER		LIST OF MATERIAL				
					l		TITLE
		10	0T– 4L PLUNGER KIT		1		
					l		10
							SIZE B SCALE

' 850-N UNIVERSAL PACKING			
' 850-N UNIVERSAL PACKING			
' 850-N UNIVERSAL PACKING	8		
850-N UNIVERSAL PACKING			
" 850-N UNIVERSAL PACKING			
L, STUFFING BOX	7		
' SLEEVE WASHER	•		
SLEEVE WASHER	$\left \right\rangle_{6}$		
SLEEVE WASHER	<u> </u>		
SLEEVE WASHER			
" SLEEVE WASHER			
' WASHER	_		
' WASHER ' WASHER	5		
WASHER			
WASHER			
' GLAND			
' GLAND			
' GLAND	4		
GLAND	4		
" GLAND			
'-15/8'' NUT, ADJUSTING			~
''-1 ⁷ / ₈ '' NUT, ADJUSTING	3	(1	<u> </u>
AINER, STUFFING BOX	2	1/1	4)
' PLG'R x $2\frac{1}{2}$ " BORE STUFFING BOX			_
' PLG'R x 21/2" BORE STUFFING BOX			
' PLG'R x 21/8" BORE STUFFING BOX	1		
PLG'R x 2 $\frac{7}{8}$ " BORE STUFFING BOX			
" PLG'R x 2 $\%$ " BORE STUFFING BOX			
DESCRIPTION	ITEM NO.		
LIST OF MATERIAL			
4M PLUNGER KIT			
ONLY WITH CERAMIC PLUNGER. ONE OF ITEM *5 WITH ITEM *6.			
		0	
100T-4L & 4M TRIPLEX		ЛР	
SIZE REFERENCE No. DRAWING No.	REV		
B 1711884			
		1	
SCALE NONE EST WT SHEET	1 OF		

100T– 4M & 4H PLUNGER KIT WITH THREADED PLUNGER



(2)

(3)(1)

5

7

6

(4)

PLUNGER —/ SEE Pg. 18

1	6420464	11/4" - 1045 UNIVERSAL PACKING						
1	6420438	1 ³ / ₈ " - 1045 UNIVERSAL PACKING						
1	6420459	11/2" - 1045 UNIVERSAL PACKING	1 7					
1	6420460	15/8" - 1045 UNIVERSAL PACKING						
1	6420461	1¾'' - 1045 UNIVERSAL PACKING	1					
1	2410031-330	SEAL, STUFFING BOX	6					
1		11/4" SLEEVE WASHER						
1		1 ³ / ₈ " SLEEVE WASHER						
1	1711153	11/2" SLEEVE WASHER	/5\					
1	1711154	15/8" SLEEVE WASHER	1					
1	1711155	1 ³ / ₄ " SLEEVE WASHER						
1	1710303	1 ^I / ₄ '' GLAND						
1	1710304	1 ³ / ₈ '' GLAND		1	6420460	15/8'' 1045 UNIVERSAL PACKING	7	
1	1711049	1 ¹ / ₂ '' GLAND	4	1	6420461	$1\frac{3}{4}$ " 1045 UNIVERSAL PACKING] ′	
1	1711050	15/8'' GLAND		1	2410031-335	SEAL STUFFING BOX	6	
1	1711051	1 ³ / ₄ " GLAND		1	1711154	15/6'' SLEEVE WASHER	- 15	
1	1711298	NUT, ADJUSTING	3	1	1711155	1¾'' SLEEVE WASHER		
1	1711416-1	RETAINER, STUFFING BOX	2	1	1711050	15/8'' GLAND	4	(15)
1	1711491-2	$1^{1}/_{4}$ " PLG'R x $2^{1}/_{8}$ " BORE STUFFING BOX		1	1711051	1¾'' GLAND		
1	1711491-2	$1\frac{3}{8}$ " PLG'R x $2\frac{1}{8}$ " BORE STUFFING BOX		1	1711298	NUT, ADJUSTING	3	ΙT
1	1711492-2	$1\frac{1}{2}$ " PLG'R x $2\frac{1}{2}$ " BORE STUFFING BOX	1	1	1711416-1	RETAINER, STUFFING BOX	2	
1	1711492-2	15/8" PLG'R x 21/2" BORE STUFFING BOX		1	1711497-2	$1\frac{5}{8}$ " PLG'R x $2\frac{1}{2}$ " BORE STUFFING BOX		
1	1711492-2	$1\frac{3}{4}$ " PLG'R x $2\frac{1}{2}$ " BORE STUFFING BOX		1	1711497-2	$1\frac{3}{4}$ " PLG'R x $2\frac{1}{2}$ " BORE STUFFING BOX		
QTY REC	D PART NO.	DESCRIPTION	ITEM NO.	QTY REQ'(PART NO.	DESCRIPTION	ITEM NO.	
		LIST OF MATERIAL				LIST OF MATERIAL		
	100	T– 4H PLUNGER KIT			100	T– 4M PLUNGER KIT		

ONL		0LIN		201101				
			ona	L Oli	LW	/ELL	VAF	RCO
TITLE	ASS)0T-	ЕMЕ	βLΥ,	PLU	JN	GER	ΚI	Т
size B	REFERENC	CE No.	DRAWING	^{No.} 17	11	88	5	REV
SCALE	1/4	EST W	Т			SHEET	1 C)F 1

S USE ONLY WITH CERAMIC PLUNGER.

	A	REVISED BORE SIZE	6/9/04	RPQ
				<u> </u>
(3) (4) (2) (1) (6) (7) (9) (1) $(2410031-342)$ $(3'')$ $(21/4)''$ SEAL, STUFFING BOX				
$(8) \frac{1}{1} \frac{2410031 \cdot 342}{2410031 \cdot 345} \frac{274}{3\%} \cdot \frac{31}{8} \cdot \frac{31}{8$				
PLUNGER 1 2410031 343 378 378 378 32AL, STOLLING BOX				
PLUNGER 1 342-000 21/2" - 21/4" SPRING SEE Pg. 18 1 342-270 25/8" SPRING 7				
$\frac{1}{1} \frac{342-008}{342-008} \frac{31}{31} - \frac{23}{4}$				
$\frac{1}{1} \frac{342-268}{3^{2}} \frac{3^{2}}{3^{2}} $				
$ \begin{bmatrix} 1 \\ 342-001 \\ 2'/4'' FOLLOWER \end{bmatrix} $				
1 342-354 2 ³ / ₄ " FOLLOWER				
100T-4M (1%1'-21/8'') PLUNGER 1 342-002 21/2'' FOLLOWER				
PLUNGER KIT WITH CLAMPED PLUNGER 1 342-355 25/8" FOLLOWER			9	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		AINER, STUFFING BOX 15%'' SEAL, STUFFING BOX		
1 342-356 278 FULLOWER		SEAL, STUFFING BOX	8	
	$\frac{11-3+2}{2/8}$	- 15/8" SPRING		
		- 1% '' SPRING	- 7	
	345 156''	FOLLOWER		
\sim PLUNGER J \sim Kevlar Packing \sim	$346 1^{3}/_{4}''$	FOLLOWER		
		FOLLOWER	6	
		OLLOWER		
1 342-733 2 <u>78 KEVLAR PACKING</u>		FOLLOWER		
		KEVLAR PACKING		
		KEVLAR PACKING		
	767 1 <u>7/</u> 8''	KEVLAR PACKING	5	
1 342-756 336" KEVLAR PACKING		EVLAR PACKING		
$1 342-005 2^{1}/3^{1}$ $342-73$		KEVLAR PACKING		(1)
$(3) \perp (4) (2) (1) (6) (7) = 1 342-122 236'' GLAND = 1 1342-52$		GLAND		(1)
$1 \frac{342-006}{2!6!!}$ CLAND		GLAND		\sim
1 342-123 25" GLAND		GLAND	4	
- PLUNGER $1 + P/P/P/P/A + P/P/P/P + C = 0.22 + 23/4 + 0.22 + 0.22 + 23/4 + 0.22 +$				
SEE Pg. 18 1 4 1 342-124 27/8" GLAND 4 1 342-124 1 342-144 1 342-1		GLAND		
$\frac{1}{1} \frac{342 \cdot 023}{342 \cdot 023} \frac{311}{342 \cdot 0$			3	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		ADJUSTING PLG'R x $2\frac{1}{2}$ " BORE STUFFING BO		
		PLGR x $2/2$ BORE STOFFING BU PLG'R x $2/2$ '' BORE STUFFING BU		
1 342-930 3% - 2% 4 PIN LUCKING 5 1 1 1 240.0		PLG'R x 2 ⁷ / ₂ BORE STOFFING BO		
		$LG'R \times 2\frac{3}{4}$ " BORE STUFFING BOX		
PLUNCER KIT WITH CLAMPED PLUNCER 1 342-928 3", 278", & 274" NUT, ADJUSTING 2 1 342.04		PLG'R x 21/4" BORE STUFFING BO		
1 342-927 3%'' & 3%'' NUT, ADJUSTING		DESCRIPTION	ITEM NO.	
1 342-925 2'/4" PLG'R x 3'/4" BORE STOFFING BOX		IST OF MATERIAL		
$(3) + (4) (2) (1) (6) (7) \qquad 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} BORE STUFFING BOX = 1 342-925 23''_{8''} PLG'R \times 3'_{4''} PLG'R $	100T	– 4M PLUNGER KIT		
1 342-925 21/2" PLG'R × 31/4" BORE STUFFING BOX 1 342-949 25%" PLG'R × 35%" BORE STUFFING BOX	1001	- 4W FLONGLA KI		
SEE Pg. 19 1 $342-926$ $2\frac{3}{4}$ " PLG'R x $3\frac{3}{4}$ " BORE STUFFING BOX 1 SEE Pg. 19 1 $342-926$ $2\frac{3}{8}$ " PLG'R x $3\frac{3}{4}$ " BORE STUFFING BOX				
$\frac{1}{342 \cdot 926} \frac{278}{278} \frac{1}{274} \frac{1}{342 \cdot 926} \frac{1}{374} \frac{1}{3} \frac{1}{342 \cdot 926} \frac{1}{374} \frac{1}{3} $				
$\begin{bmatrix} 1 & 342-950 & 31/6" & PLC'R \times 41/6" & BORE STUEFING BOX \end{bmatrix}$	Г			
$(5) \qquad \qquad$				
_ I WI W J I J		NOT NATIONAL OILWE	LL VARC	,0
LIST OF MATERIAL	ŀ	ASSEMBLY, SS PLUNGE		
	1		VING	
PLUNGER KIT WITH THREADED PLUNGER 100T – 4L PLUNGER KIT		WITH KEVLAR PACK		
PLUNGER KIT WITH THREADED PLUNGER		100T-4L/4M TRIPLEX	PUMP	.
PLUNGER KIT WITH THREADED PLUNGER		100T-4L/4M TRIPLEX SIZE REFERENCE NO. DRAWING NO.	PUMP	EV
PLUNGER KIT WITH THREADED PLUNGER	Î	100T-4L/4M TRIPLEX SIZE REFERENCE NO. DRAWING NO. 17118	PUMP	A

BY

DATE

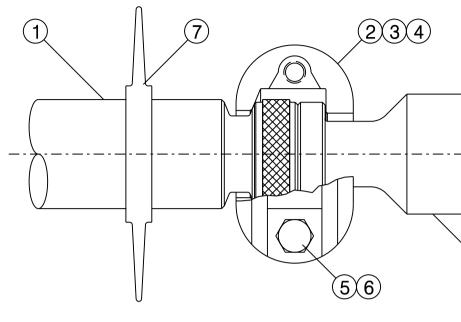
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DESCRIPTION OF CHANGE

PLUNGER SEE Pg. 18 1001 AU DUNGED MI	
100T-4H PLUNGER KIT WITH CLAMPED PLUNGER	
3 4 2 1 6 7 9 PLUNGER 4 2 1 6 7 9 SEE Pg. 19 7 9 8 100T-4H PLUNGER 5	

	1	00T – 4H PLU
		LIST OF MATER
UTY REQ'D	PART NO.	DES
1	342-919	$1\frac{3}{4}$ " PLG'R x 2 ¹ /2"
1	342-919	15/8" PLG'R x 2 $1/2$ "
11	342-919	$1^{1}/_{2}^{1}$ PLG'R x $2^{1}/_{2}^{1}$
1	L342-904	$1\frac{3}{8}$ " PLG'R x 2 ¹ /8"
	L342-904	$1^{1}/_{4}^{1}$ PLG'R x $2^{1}/_{8}^{1}$
	L342-913	$1\frac{3}{4}$ '' - $1\frac{1}{2}$ '' NUT, AC
1	L342-912	$1\frac{3}{8}$ '' - $1\frac{1}{4}$ '' NUT, AD
1	342-914	PIN, LOCKING
1	L342-546	1 ³ / ₄ " GLAND
1	L342-545	15/8" GLAND
1	L342-544	1 ¹ /2'' GLAND
1	L342-113	1 ³ / ₈ '' GLAND
<u> </u>	L342-112	$1^{1}/4^{11}$ GLAND
11	L342-746	1 ³ / ₄ " KEVLAR PACK
11	L342-745	15/8" KEVLAR PACK
<u> </u>	L342-744	11/2" KEVLAR PACK
1	L342-713	1 ³ / ₈ " KEVLAR PACK
1	L342-712	1 ¹ /4" KEVLAR PACK
1	L342-346	1 ³ / ₄ " FOLLOWER
1	L342-345	15/8" FOLLOWER
1	L342-313	1 ¹ / ₂ " FOLLOWER
1	L342-312	1 ³ / ₈ " FOLLOWER
<u>1</u> 1	L342-240 L342-312	$1^{1}/_{4}$ " FOLLOWER
1	L342-210	$1\frac{3}{4}$ - $1\frac{1}{2}$ SPRING
1	2410031-334	SEAL, STUFFING BC 1 ³ / ₈ '' - 1 ¹ / ₄ '' SPRING
1	L342-910	$1\frac{3}{4}$ '' - $1\frac{1}{2}$ '' RETAINE
1	L342-903	$1\frac{3}{8}$ " - $1\frac{1}{4}$ " RETAINE

NER, STUFFING BOX	9		
NER, STUFFING BOX	3		
BOX	8		
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ADJUSTING	2		
ADJUSTING	2		
" BORE STUFFING BOX			
" BORE STUFFING BOX			
" BORE STUFFING BOX	1		
" BORE STUFFING BOX			
" BORE STUFFING BOX			
SCRIPTION	ITEM NO.		
ERIAL			
JNGER KIT			
	J		
[
NOV NATIONAL OIL	MELL V	ARCO	
TITLE ASSEMBLY, SS PLUN			
WITH KEVLAR PA	ACKING	- 5	
100T-4H TRIPLEX			
B REFERENCE No. DRAWING No. 17	11887	7 Rev	
scale NONE est wt	SHEET 1	OF 1	



<u>STRAIGHT / TAPER CLAMP</u>

	BILL OF MATERIAL					
ITEM	ITEM PART No. DESCRIPTION					
1 340-018 INTERMEDIATED ROD STAINLESS						
2	1716037	CLAMP, COMPLETE				
3	3 1716035 BOLT HALF					
4						
5 700031211 SCREW, H.H. CAP						
6 7616050 WASHER, SPRING LOCK						
7 1711018 BAFFLE, INTERMEDIATE						

Р	PLUNGERS FOR STRAIGHT /TAPER CLAMPS							
100T–4L								
ITEM	*PART No.*	PART No.	DESCRIPTION					
8	1711520	340-131	3¾" CARBIDE PLUNGER					
		340-274	3 ¹ /4" CARBIDE PLUNGER					
	1711519	340-143	3 ¹ /8" CARBIDE PLUNGER					
		340-017	3'' CARBIDE PLUNGER					
	1711518	340-142	2 ⁷ / ₈ " CARBIDE PLUNGER					
		340-016	2¾'' CARBIDE PLUNGER					
	1711517	340-141	25/8" CARBIDE PLUNGER					
		340-015	2 ¹ / ₂ " CARBIDE PLUNGER					
	1711516	340-140	2 ³ / ₈ " CARBIDE PLUNGER					
		340-014	2 ¹ /4" CARBIDE PLUNGER					
	100T–4M							
	1711515	340-139	2 ¹ / ₈ " CARBIDE PLUNGER					
	1711514	340-138	2'' CARBIDE PLUNGER					
	1711513	340-137	17/8" CARBIDE PLUNGER					
	1711512	340-136	1⅔'' CARBIDE PLUNGER					
	1711511	L340-135	15/8'' CARBIDE PLUNGER					
	100T–4H							
	1711512	340-136	1¾'' CARBIDE PLUNGER					
	1711511	L340-135	15/8" CARBIDE PLUNGER					
	1711510	340-134	1 ¹ /2" CARBIDE PLUNGER					
	1711509	340-133	1 ³ / ₈ " CARBIDE PLUNGER					
	1711508	340-132	1 ¹ /4'' CARBIDE PLUNGER					

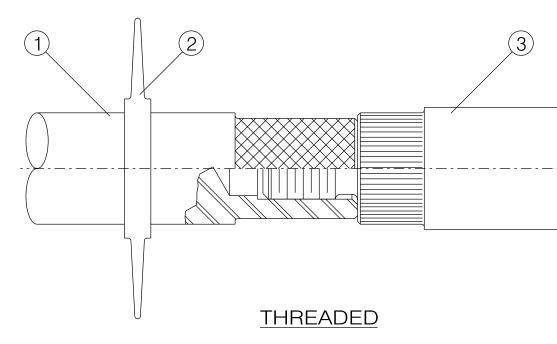
PLUN	LUNGERS FOR STRAIGHT /TAPER CLAMPS							
	100T–4L							
ITEM								
8	1711490	3¾'' CERAMIC PLUNGER						
	1711462	3 ¹ /4" CERAMIC PLUNGER						
	1711489	3 ¹ /8'' CERAMIC PLUNGER						
	1711466	3'' CERAMIC PLUNGER						
	1711488	2 ⁷ 8" CERAMIC PLUNGER						
	1711465	2¾'' CERAMIC PLUNGER						
	1711487	2%" CERAMIC PLUNGER						
	1711464	2 ¹ /2 ¹¹ CERAMIC PLUNGER						
	1711486	2 ³ / ₈ " CERAMIC PLUNGER						
1711463 2 ¹ /4" CERAMIC PLUNGER								
100T–4M								
	1711485	2 ¹ /8" CERAMIC PLUNGER						
	1711484	2'' CERAMIC PLUNGER						
	1711483	1 ⁷ / ₈ " CERAMIC PLUNGER						
	1711482	1¾'' CERAMIC PLUNGER						
	1711481	15/8" CERAMIC PLUNGER						
100T-4H								
	1711482	1¾'' CERAMIC PLUNGER						
	1711481	15/8'' CERAMIC PLUNGER						
	1711480	1 ¹ /2" CERAMIC PLUNGER						
		1 ³ / ₈ " CERAMIC PLUNGER						
		1 ¹ /4'' CERAMIC PLUNGER						

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TITLE	PLUN S	[RAI	'INTEF GHT , -4 F	/ T	APE	R	CL.	AMF	D	
BIZE	REFERENC	CE No.	DRAWING	No.	17	118	38	38	R	EV
SCALE	NONE	EST W	Т			SHEE	τĺ	1 Of	-	1

*LISTED PART NUMBERS WERE PREVIOUSLY HARD COAT PLUNGERS.

(18)



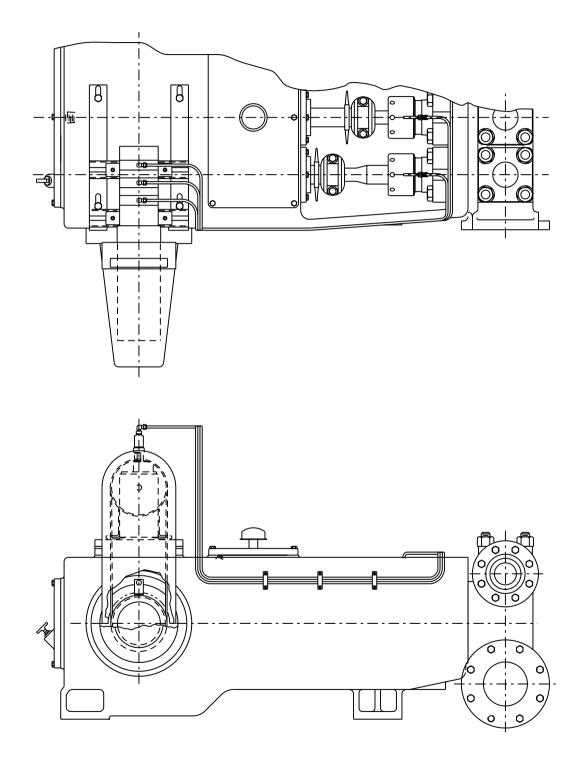


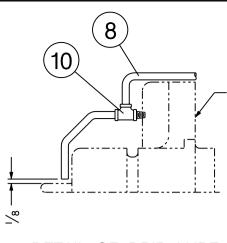
	BILL OF MATERIAL						
	ITEM PART No. DESCRIPTION						
	1	340-022	INTERMEDIATED ROD STAINLESS				
Α	2	1711018	BAFFLE, INTERMEDIATE ROD				

	THREADED PLUNGERS							
	100T-4L							
ITEM	*PART No.*	PART No.	DESCRIPTION					
3	1711088	340-311	3⅔'' CARBIDE PLUNGER					
	1711462		3 ¹ /4'' CARBIDE PLUNGER					
	1711087	340-310	31/8" CARBIDE PLUNGER					
	1711466	340-309	3'' CARBIDE PLUNGER					
	1711086	340-308	27/8" CARBIDE PLUNGER					
	1711465	340-307	2¾'' CARBIDE PLUNGER					
	1711085	340-306	25/8" CARBIDE PLUNGER					
	1711464 340-182 21/2" CARBIDE PLUNGER							
	1711084	340-181	2 ³ / ₈ " CARBIDE PLUNGER					
	1711463 340-180 2 ¹ / ₄ " CARBIDE PLUNG							
	100T–4M							
	1711048	1711048 340-179 2 ¹ /8" CARBIDE PLUNGER						
	1711047	340-178	2'' CARBIDE PLUNGER					
	1711046	L340-177						
	1711045	L340-176	1¾'' CARBIDE PLUNGER					
	1711044	340-175	15/8" CARBIDE PLUNGER					
	100T–4H							
	1711045	L340-176	1¾'' CARBIDE PLUNGER					
	1711044	340-175	15/8" CARBIDE PLUNGER					
	1711043	340-174	11/2" CARBIDE PLUNGER					
	1711342	340-173	1 ³ / ₈ " CARBIDE PLUNGER					
A	1711341	L340-172	1 ¹ /4" CARBIDE PLUNGER					

	THREADED PLUNGERS							
	100T–4L							
ITEM	PART No.	PART No. DESCRIPTION						
3	1711082	3 ³ / ₈ " CERAMIC PLUNGER						
	1711148	3 ¹ /4" CERAMIC PLUNGER						
	1711081	3 ¹ /8" CERAMIC PLUNGER						
	1711147 3" CERAMIC PLUNGER							
	1711080	2 ⁷ / ₈ " CERAMIC PLUNGER						
	1711146	2¾" CERAMIC PLUNGER						
	1711079	2 ⁵ / ₈ '' CERAMIC PLUNGER						
	1711145	2 ¹ /2" CERAMIC PLUNGER						
	1711078	2 ³ / ₈ " CERAMIC PLUNGER						
	1711144	144 2 ¹ /4" CERAMIC PLUNGER						
	100T–4M							
	1711042	2 ¹ /8" CERAMIC PLUNGER						
	1711041	2'' CERAMIC PLUNGER						
	1711040	17/8" CERAMIC PLUNGER						
	1711039	1¾'' CERAMIC PLUNGER						
	1711038	15/8" CERAMIC PLUNGER						
	100T–4H							
	1711039	1¾" CERAMIC PLUNGER						
	1711038	15/8" CERAMIC PLUNGER						
	1711037	1 ¹ /2" CERAMIC PLUNGER						
		1 ³ / ₈ " CERAMIC PLUNGER						
		11/4" CERAMIC PLUNGER						

					(1)	a
fed part Viously f	HARD CO	OAT PL	UNGER	VELL VA	RCO ASSY.	





DETAIL OF DRIP LUBE PIPING

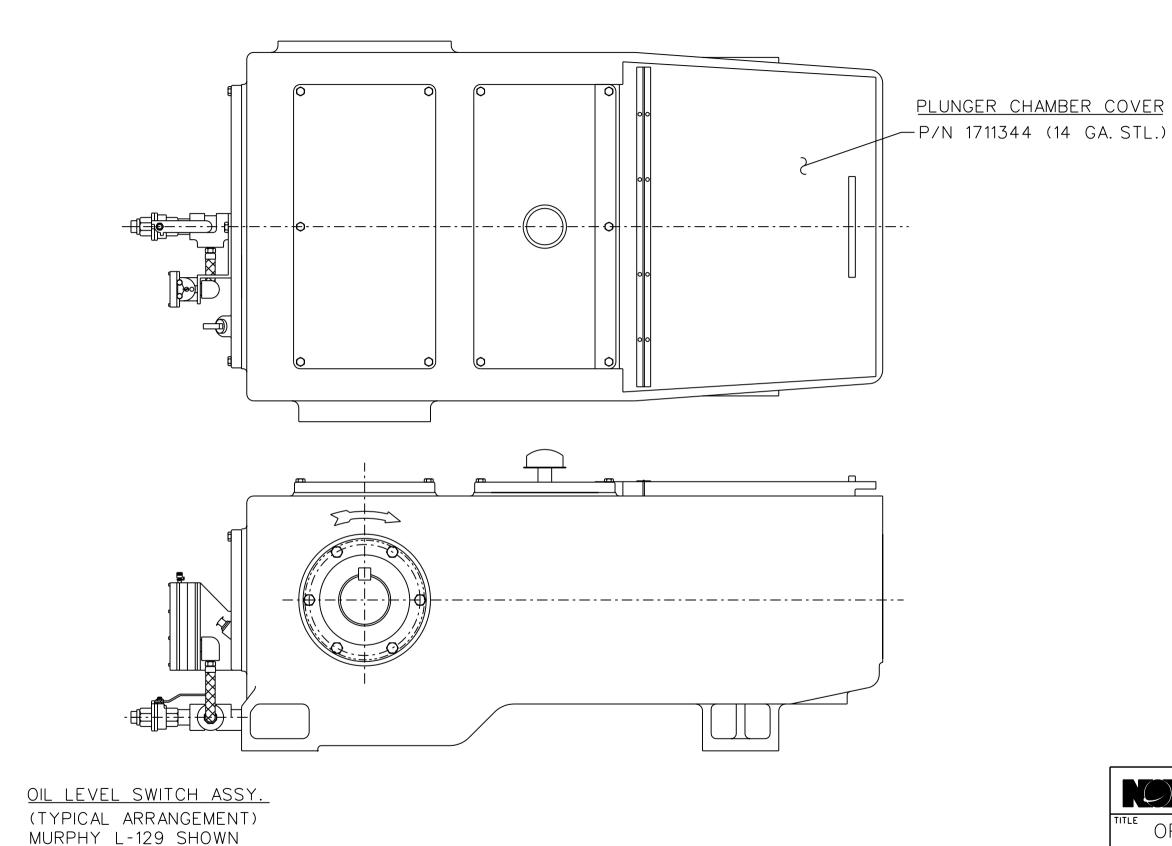
SCALE : NONE

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	7600028	7600028	WASHER, 7/6" N TYPE A .922 O.D.	15	
4	7000258-11	7000258-11	SCREW, HEX HEAD CAP $\frac{7}{16} \times \frac{1}{2}$ LG.	14	
4	7000210-11	7000210-11	SCREW, HEX HEAD CAP $\frac{3}{8}$ '' x $\frac{1}{2}$ '' 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	
	25854704		TEE, 1/4" TUBE x 1/4" TUBE x 1/4" N.P.T S.S.	10	
3		G7819165	TEE, 1/4" TUBE x 1/4" TUBE x 1/4" N.P.T.	- 10	
3	64226988		ELBOW, 90° × 1/4" TUBE × 1/8" N.P.T S.S.		
3		7804080	ELBOW, 90° × 1/4" TUBE × 1/8" N.P.T.	9	
	64699402		TUBING, STAINLESS STEEL 1/4" O.D. x .035 WALL	- 8	
25 FT		7400420	TUBING, COPPER 1/4" O.D. x .032 WALL	7 °	
1	7811072	7811072	LUBRICATOR, 3 FEED (LH)	7	
1	7811071	7811071	LUBRICATOR, 3 FEED (RH)	1 ′	
1	4712480	4712480	BELT, V - 2480	6	
1	1711021	1711021	SHEAVE, DRIVER 5.25" PD	5	
1	7200020	7200020	SHEAVE, LUBRICATOR 6.2" PD	4	
1	1711129	1711129	COVER, CRANKSHAFT EXTENSION	3	
1	1710125	1710125	GUARD, LUBRICATOR BELT (INCL. ITEMS 17 & 18)	2	
1	1711315	1711315	BRACKET, LUBRICATOR	1	
QTY REQ'D	PART	No.	DESCRIPTION / MATERIAL / SPECIFICATION	ITEM NO.	
	LUBRICATOR ASSY. COMPLETE WITH STAINLESS STEEL LINES P/N 1711222RS	LUBRICATOR ASSY. COMPLETE WITH COPPER LINES P/N 1711222			
			LIST OF MATERIAL		

NOTE: R.H. LUBRICATOR SHOWN L.H. OPPOSITE STUFFING BOX RETAINER

	9 / _n	ATIO		. 01	LV	MEL	LV	/A\	RCO
	LUBRIC					- · ·			
	100T-4								
D D	REFERENCE	-	NG No		1	189	90		REV
SCALE	NONE	т wт				SHEET	1 (OF	1

(20)



SWITCH MODEL, LOCATION & PIPING ARRANGEMENT WILL VARY DEPENDING ON APPLICATION



NOY NATIONAL OIL	WELL VARCO
OPTIONAL ACCES 100T-4 TRIPLEX PLU	
B REFERENCE NO. DRAWING NO.	1891 Rev
SCALE NONE EST WT	SHEET 1 OF 1

(21)

57 (FOR 6", 8" & 10") 68 (FOR 4")
3

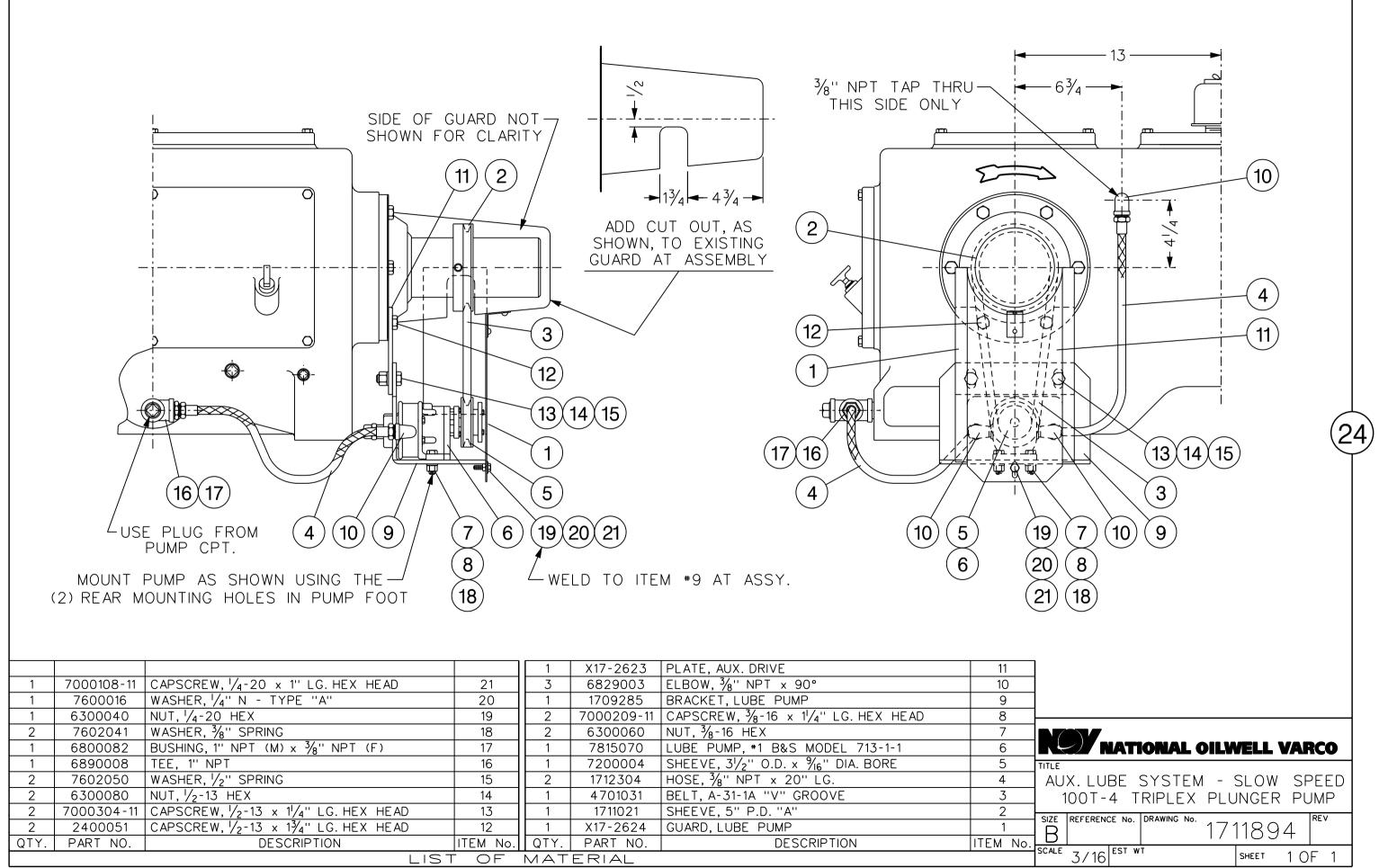
ſ	14	7600020	WASHER, 5/16" (FOR 4")
	18	7600020	WASHER, 5/16'' (FOR 6'', CAPSCREW, 5/16-18 x 1''
	14	7000157-11	
┺┘	18	7000158-11	CAPSCREW, 5/16-18 x 11/4"
^]	1	1712218	GASKET, BLANKING PLAT
	1	6000004	GASKET, BLANKING PLAT
	1	1712217	PLATE, BLANKING (FOR
Ĺ	1	X17-1569	PLATE, BLANKING (FOR
	14	7600020	WASHER, 5/16'' (FOR 4'')
	18	760020	WASHER, 5/16" (FOR 6",
	14	7000168-11	<u> Capscrew, 5/16-18 x 33/</u>
	18	7000169-11	<u> Capscrew, 7₁₆-18 x 4''</u>
	1	7500021	CHECK VALVE, 1/8" (FO
	1	1713201	10" PIPE BODY
	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 -
		1712502	DAMPENER COMPLETE -
		1712253	DAMPENER COMPLETE -
		1712252	DAMPENER COMPLETE -
	QTY REQ'D	PART NO.	DESCRIF
			LIST OF MATE

★ L/M FOR BLANKING PLATE ASSEMBLY ITEMS #9 THRU #14 ARE NOT SHOWN

)	14	1	
	13		
,8" & 10") LG. (FOR 4")	12		
TE (FOR 6'', 8'' & 10'') TE (FOR 4'')	- 10		
"LG. (FOR 6", 8" & 10" TE (FOR 6", 8" & 10") TE (FOR 4") & 6", 8" & 10")) & 4")) , 8" & 10") /4"LG. (FOR 4") LG. (FOR 6", 8" & 10") OR 4", 6", 8" & 10")	9		
)	8		
<u>/</u> 8'' & 10'')	8 7 6 ') 5 4		
$\frac{1}{4}$ $\frac{1}{1}$ $\frac{1}{6}$ (FOR 4'')	6		
'LG. (FOR 6'', 8'' & 10''	<u>ין 5</u>		
$\frac{1}{10000000000000000000000000000000000$	/ <u>J</u>		
51(4,0,0 & 10)	_		
	3	2	2)
	2		
	1		
- 10" (29" LG.) - 8" (29" LG.) - 6" (28" LG.) - 4" (25 ¹ / ₂ " LG.) PTION - RIAL	ITEM NO.		
NOV NATIONAL OIL			
IN-LINE SUCTION DAMPENE PLUNGER PUM	ER (WELD		
	892	REV	
CALENONE ST WT	SHEET 10	F 1	

(14) (3) (11) (6)			
	1	1202274	
		1292234 1290209	PLATE, MOUNTING (FOR PLATE, MOUNTING (FOR
	1	1290211	PLATE, MOUNTING (FOR
	1	1291271	PLATE, MOUNTING (FOR
	$\left(\begin{array}{c} 1 \end{array}\right)$	7500396	VALVE, RELIEF 1/4" NPT
	1	7815106	PLUG, SIGHT TEDECO #V
	32	7600036	WASHER, %6 N TYPE "/
	1	7500021	VALVE, CHECK - DILL #01
	8	7178025	DRIVESCREW, #2 x 1/4" L
	32	7000361-11	CAPSCREW, 9/16-12UNC x
	2	2410031-024	
	1	2407136	PLATE, INSTRUCTION
	1	1290228	GUARD, AIR VALVE
	2	1290199	GASKET
		1290198	RETAINER
		1290197	COVER
		1290196	SPACER
		1290195	DIAPHRAGM
		1292233	DAMPENER COMPLETE
		1290208 1290210	DAMPENER COMPLETE
		1291270	DAMPENER COMPLETE - 2 DAMPENER COMPLETE - 0
	QTY REQ'		DAMILENEIX COMILETE
			LIST OF MATERIAL
	L		
	FUR 6",	8",10" & 12"	DIA. DAMPENERS

R 12'')			
R 10'')	15		
8")	15		
R 12'') R 10'') R 8'') R 6'') T #559B-2M-70			
T #559B-2M-70	14		
₩W-54	13		
''A'' 1.159 O.D.	13 12		
02500-100AA-643VC	11		
LG. ROUND HD.	10		
× 4" LG. HEX HD.		(2	3)
	8		ン
	7		
	6		
	5		
	9 8 7 6 5 4		
	3 2 1		
	2		
	1		
12" (34 <mark>/</mark> 2" LG.)			
10" (34 ¹ / ₂ " LG.)			
8" (34 ¹ / ₂ " LG.) 6" (34 ¹ / ₂ " LG.)			
6" (34 ¹ / ₂ " LG.)			
PTION	ITEM NO.		
NOV NATIONAL OILWE			
	ill Vai	RCO	
ITLE HIGH PRESSURE ALUMIN			
IN-LINE SUCTION DAMPENER PLUNGER PUMPS			
size reference no. drawing no. 17118	393	REV	
ICALE NONE	εт 10	F 1	
· · · · ·			



1	7600016	WASHER, 1/4" N - TYPE "A"	20	1	1709285	BRACKET, LUBE PUMP	9	
1	6300040	NUT, 1/4-20 HEX	19	2	7000209-11	CAPSCREW, 3/8-16 x 1 ¹ /4" LG. HEX HEAD	8	
2	7602041	WASHER, 3/8" SPRING	18	2	6300060	NUT, 3/8-16 HEX	7	
1	6800082	BUSHING, 1" NPT (M) x $\frac{3}{8}$ " NPT (F)	17	1		LUBE PUMP, #1 B&S MODEL 713-1-1	6	
1	6890008	TEE, 1" NPT	16	1	7200004	SHEEVE, $3\frac{1}{2}$ " O.D. x $\frac{9}{16}$ " DIA. BORE	5	TITL
2	7602050	WASHER, 1/2" SPRING	15	2	1712304	HOSE, 🔏" NPT × 20" LG.	4] A
2	6300080	NUT, 1/2-13 HEX	14	1	4701031	BELT, A-31-1A "V" GROOVE	3	
2	7000304-11	CAPSCREW, $\frac{1}{2}$ -13 x 1 $\frac{1}{4}$ " LG. HEX HEAD	13	1	1711021	SHEEVE, 5" P.D. "A"	2	SIZ
2	2400051	CAPSCREW, $\frac{1}{2}$ -13 x 1 $\frac{3}{4}$ " LG. HEX HEAD	12	1	X17-2624	GUARD, LUBE PUMP	1	
QTY	. PART NO.	DESCRIPTION	ITEM No.	QTY.	PART NO.	DESCRIPTION	ITEM No.	
		LIST	f of	MAT	ERIAL			

FOR HIGH SUCTION PRESSURE SERVICE

49-011-885 - CONN. ROD CPT. w/ NEEDLE BEARING

49-011-883 - PIN, CROSSHEAD FOR NEEDLE BEARING

49-011-884 - CROSSHEAD

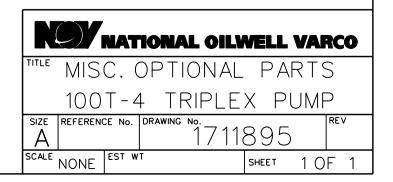
ABRASION RESISTANT VALVES

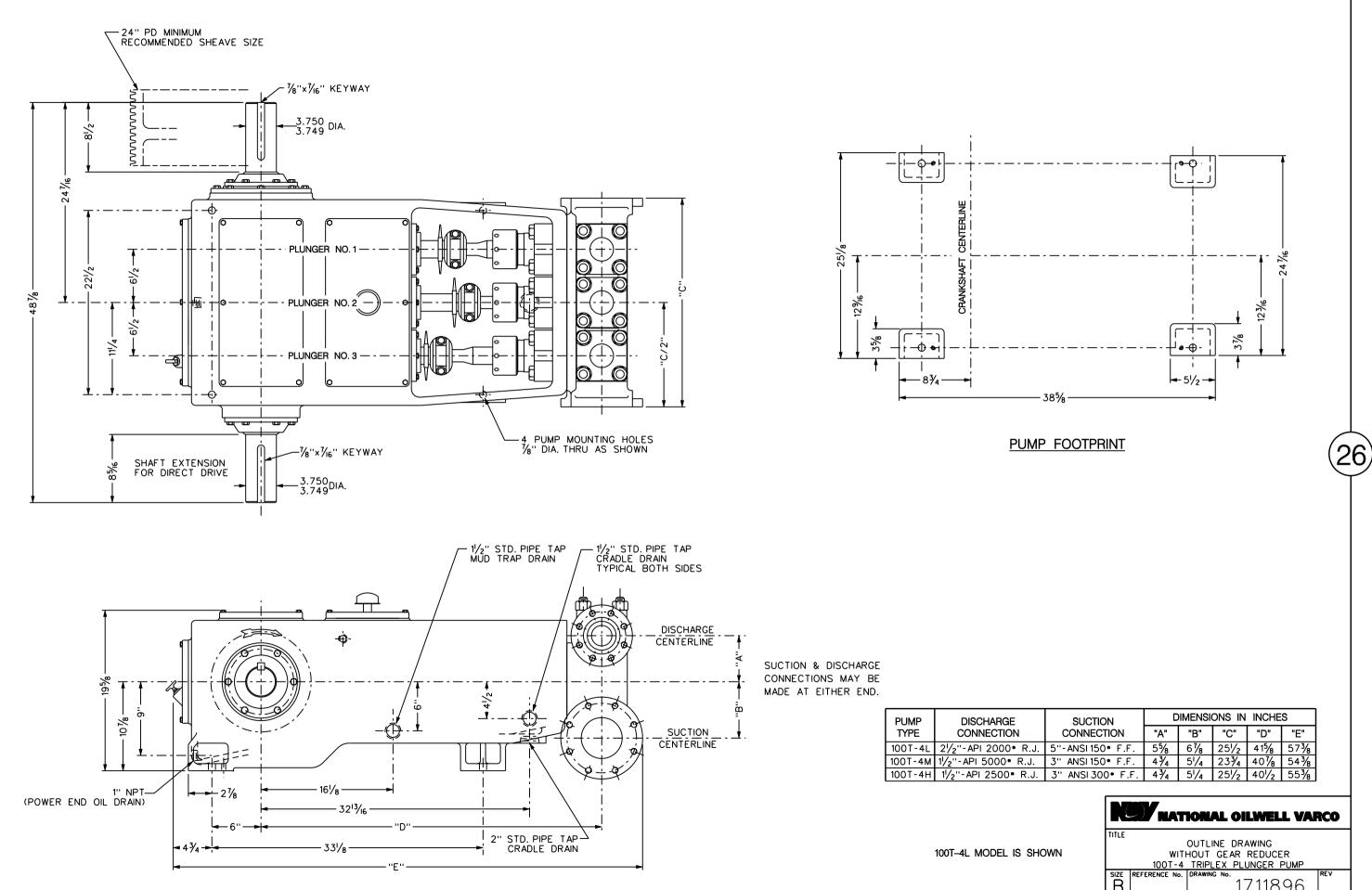
100T-4L TAPERED SEAT - 07951772 & 07951773

100T-4M TAPERED SEAT - 07316189 & 07316492

ASTM A105 FORGED STEEL FLUID CYLINDER

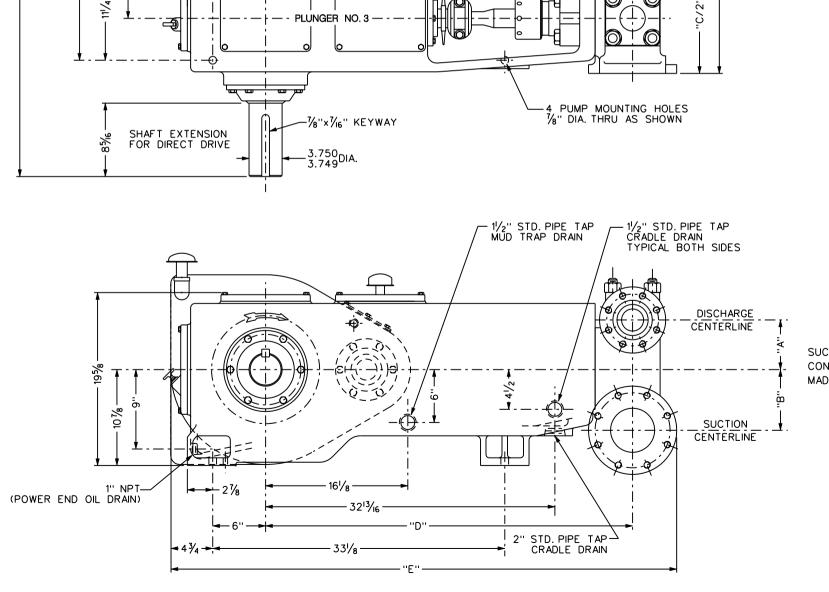
P/N 1711411-12 WITH 5" ANSI-300# FF SUCTION & 2"-3000# RJ DISCHARGE





	SUCTION	DIMENSIONS IN INCHES						
	CONNECTION	"A"	"B"	"C"	"D"	"E"		
₹.J.	5''-ANSI 150* F.F.	5 %	61/8	25 ¹ /2	4 15/8	573/8		
.J.	3" ANSI 150* F.F.	4¾	5 ¹ /4	233⁄4	40 1/8	543/8		
۶.J.	3" ANSI 300* F.F.	4¾	5 ¹ /4	25 ¹ /2	40½	553/8		

		LAT	ion/	L O	ILV	ÆLL	VAI	RCO
TITLE								
			OUTLIN	NE DR	RAMI	NG		
		WITI	HOUT	GE AR	REI	DUCER		
	10	0T-4	TRIPL	EX PL	UNG	ER PL	JMP	
SIZE	REFEREN	CE No.	DRAWING	No.				REV
B				1	71	189	96	
SCALE	NONE	EST W	Т			SHEET	1 OF	1



-5/8"×5/16" KEYWAY

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2.375 _{DIA.} 2.374 ^{DIA.}

61/2

- 117/₁₆ --

-- PLUNGER NO.1

- PLUNGER NO. 2 -

lfe

9<u>∛</u>8

247/i6

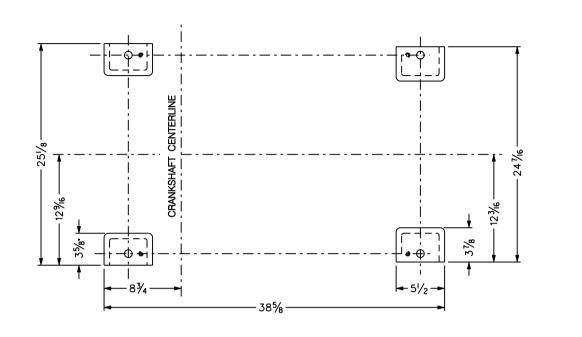
581/4

81/2

221/2

61/2

6¹/2



SUCTION & DISCHARGE CONNECTIONS MAY BE MADE AT EITHER END.

PUMP	DISCHARGE	SUCTION	DIMENSIONS IN INCHES						
TYPE	CONNECTION	CONNECTION	"A"	"B"	"C"	"D"	"E"		
100T-4L	2 ¹ / ₂ ''-API 2000* R.J.	5''-ANSI 150* F.F.	5 %	6 1/8	25 ¹ /2	415/8	573/8		
100T-4M	1 /2''-API 5000• R.J.	3" ANSI 150* F.F.	4¾	5 ¹ /4	233⁄4	401/8	54 <u></u> %		
100T-4H	11/2"-API 2500• R.J.	3" ANSI 300* F.F.	4¾	5 ¹ /4	25 ¹ /2	40 ¹ /2	553/8		

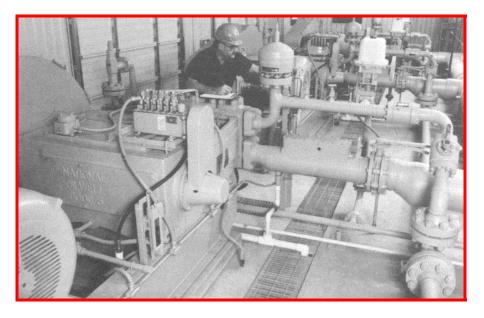
100T-4L MODEL IS SH

PUMP FOOTPRINT

	NOV NATIONAL OILWELL VARCO
SHOWN	™ [™] OUTLINE DRAWING WITH GEAR REDUCER 100T-4 TRIPLEX PLUNGER PUMP
	Size reference no. Drawing no. 1711897
	SCALE NONE EST WT SHEET 1 OF 1

(27)





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Internet:	http://www.nov.com	pumps, We also your flu Informa directly Texas. are ava around authoriz

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