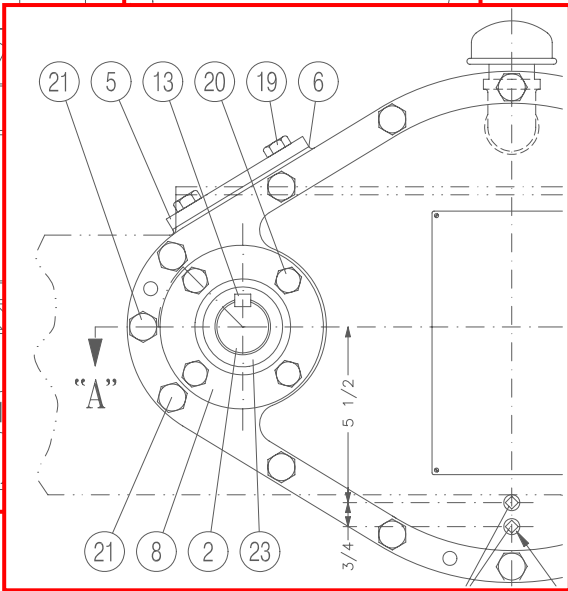
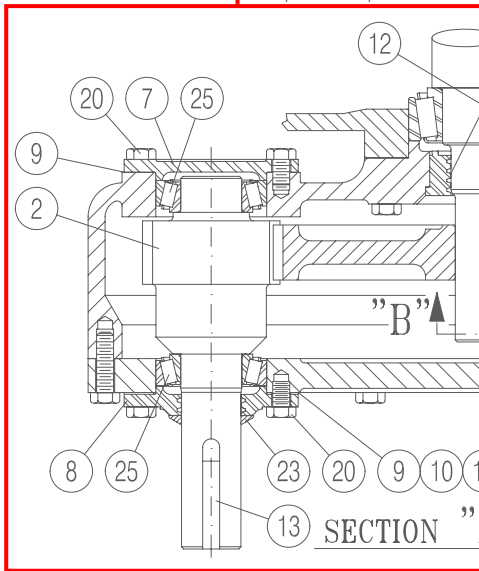
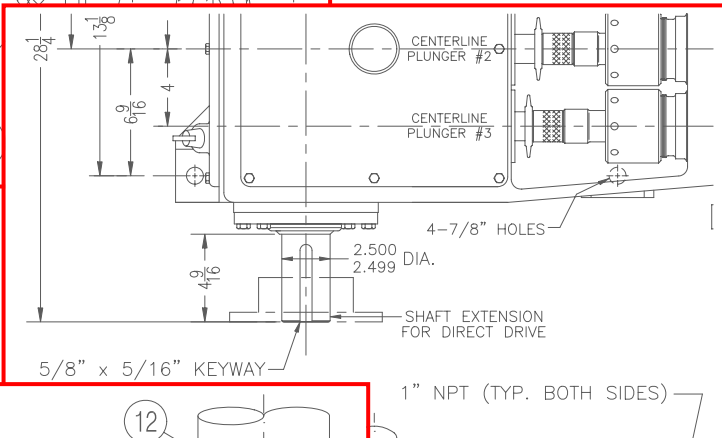
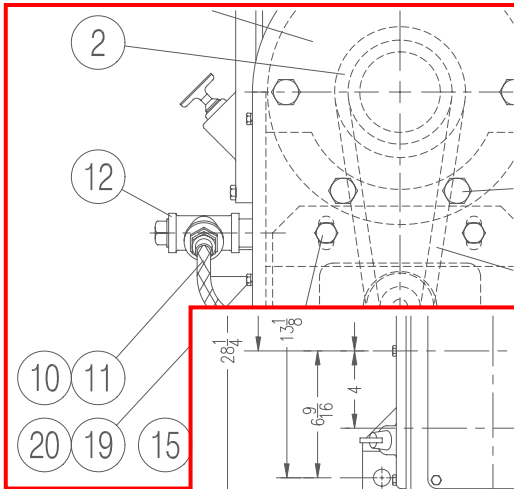
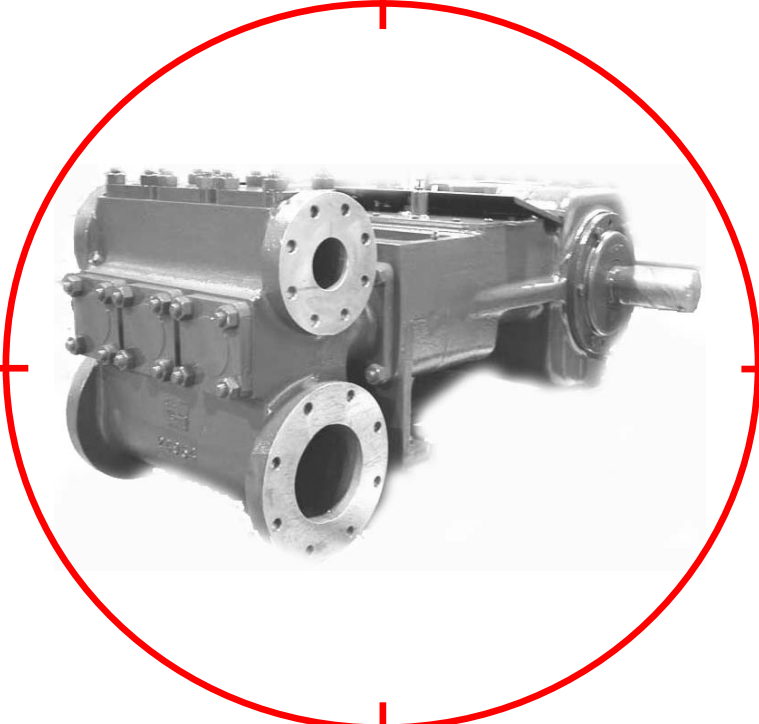


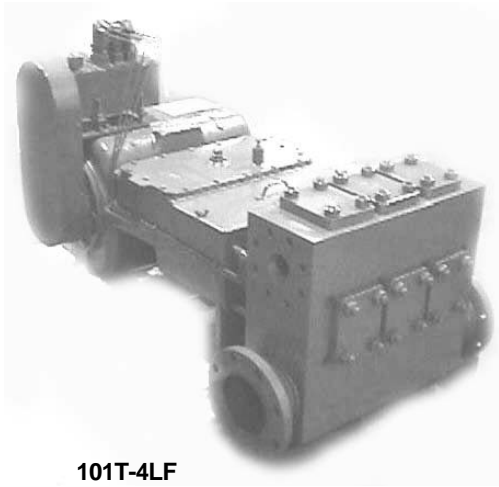
# 101T-4 Multiplex Plunger Pumps Parts List



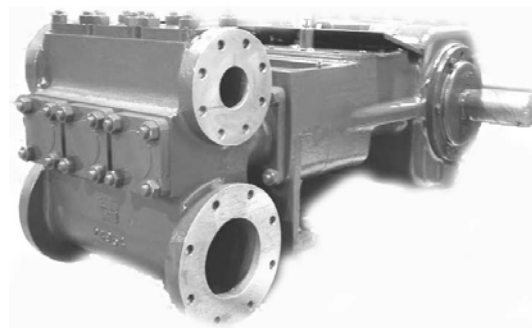
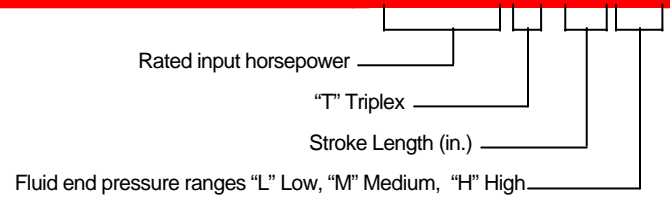
**Types:**  
**101T-4L**  
**101T-4M**  
**101T-4MC**  
**101T-4H**

**Sales / Technical Information**

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



101T-4LF



101T-4L

### Index and Check List:

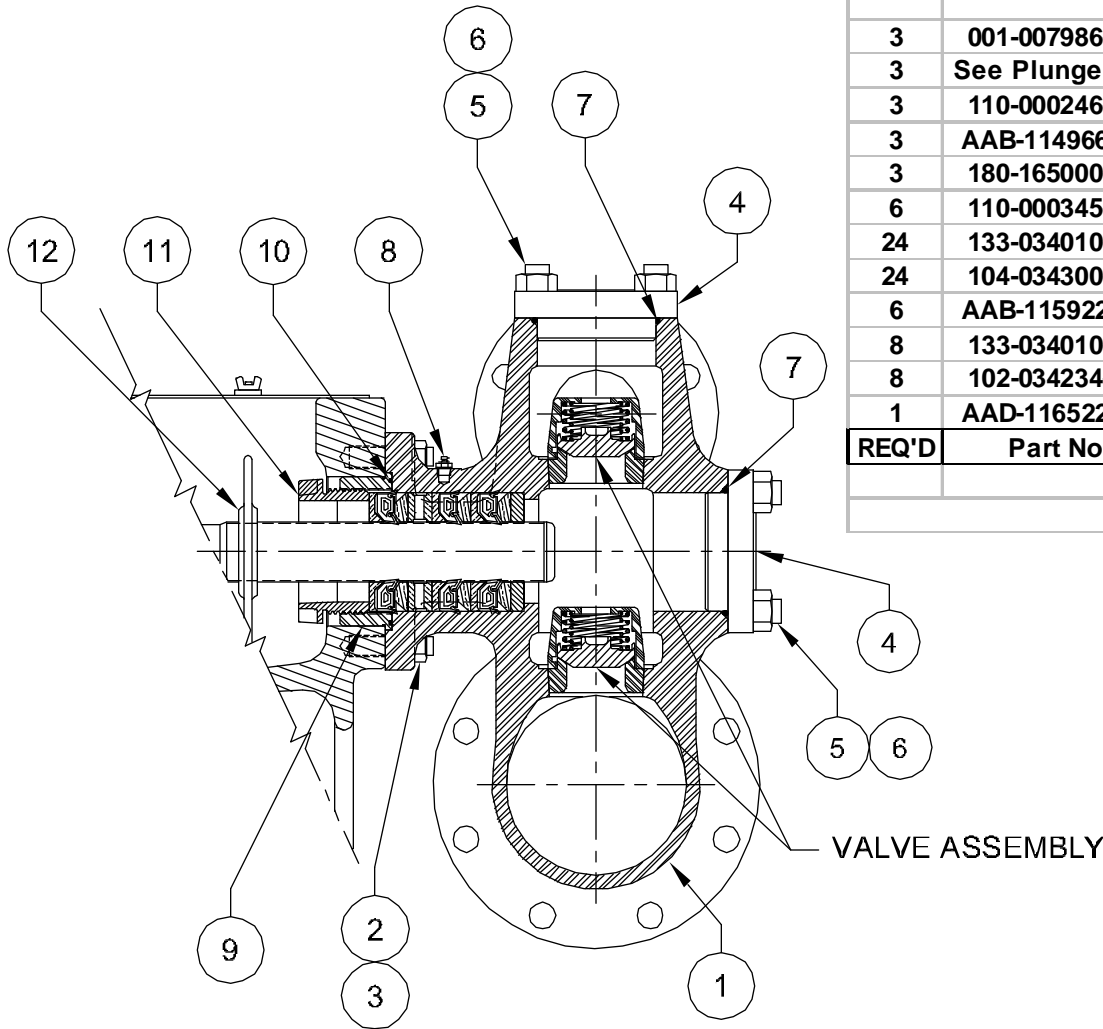
PAGE	DWG. NUMBER	DESCRIPTION	SERIES OF ISSUE	DATE OF ISSUE
1	118283	ASSEMBLY, CAST FLUID END, BRONZE (L)	FIRST	07-28-06
2	118282	ASSEMBLY, CAST FLUID END, STAINLESS STEEL (L)	FIRST	07-28-06
3	118284	ASSEMBLY, CAST FLUID END, DUCTILE IRON (L)	FIRST	07-28-06
4	118285	ASSEMBLY, STEEL BILLET FLUID END (L)	FIRST	07-28-06
5	118287	ASSEMBLY, CAST FLUID END, BRONZE (M) FLANGED CONNECTION	FIRST	07-28-06
6	118286	ASSEMBLY, CAST FLUID END, STAINLESS STEEL (M) FLANGED CONNECTION	FIRST	07-28-06
7	118391	ASSEMBLY, CAST FLUID END, DUCTILE IRON (M) THREADED CONNECTION	FIRST	07-28-06
8	118288	ASSEMBLY, BLOCK FLUID END, STEEL (M) FLANGED CONNECTION	FIRST	07-28-06
9	118289	ASSEMBLY, BLOCK FLUID END, CLAMPED STUFFING BOX, STEEL (MC) FLANGED	FIRST	07-28-06
10	118291	ASSEMBLY, BLOCK FLUID END, CLAMPED STUFFING BOX, STEEL (H) FLANGED	FIRST	07-28-06
11	118290	ASSEMBLY, BLOCK FLUID END, CLAMPED STUFFING BOX, STAINLESS STEEL (H) FLANGED	FIRST	07-28-06
12	118280	ASSEMBLY, POWER END, 101T-4	FIRST	07-28-06
13	118281	ASSEMBLY, CRANKSHAFT POWER END, 101T-4	FIRST	07-28-06
14	118292	ASSEMBLY, GEAR REDUCER UNIT, 101T-4	FIRST	07-28-06
16	118295	ASSEMBLY, SPHERICAL VALVE, (L)	FIRST	07-28-06
17	118296	ASSEMBLY, SPHERICAL VALVE, SEVERE DUTY (L)	FIRST	07-28-06
18	118297	ASSEMBLY, DISC VALVE (L)	FIRST	07-28-06
19	118299	ASSEMBLY, SEVERE DUTY VALVE (L)	FIRST	07-28-06
20	118300	ASSEMBLY, SPHERICAL VALVE (M & MC)	FIRST	07-28-06
21	118301	ASSEMBLY, SPHERICAL VALVE, SEVERE DUTY (M & MC)	FIRST	07-28-06
22	118302	ASSEMBLY, DISC VALVE (M & MC)	FIRST	07-28-06

## Index and Check List Multiplex Plunger Pump (Continued)



PAGE	DWG. NUMBER	DESCRIPTION	SERIES OF ISSUE	DATE OF ISSUE
23	118304	ASSEMBLY, SEVERE DUTY VALVE (M & MC)	FIRST	07-28-06
24	118462	ASSEMBLY, SPHERICAL VALVE (H)	FIRST	07-28-06
25	118463	ASSEMBLY, SPHERICAL VALVE, SEVERE DUTY (H)	FIRST	07-28-06
26	118461	ASSEMBLY, DISC VALVE (H)	FIRST	07-28-06
27	118305	ASSEMBLY, SEVERE DUTY VALVE (H)	FIRST	07-28-06
28	118298	TOOL KIT, (L) CLASS FLUID END	FIRST	07-28-06
29	118303	TOOL KIT, (M) CLASS FLUID END	FIRST	07-28-06
30	118318	TOOL KIT, (H) CLASS FLUID END	FIRST	07-28-06
31	118306	ASSEMBLY, PLUNGER KIT 2-3/4" – 3-3/8" J-STYLE PACKING (L)	FIRST	07-28-06
37	118307	ASSEMBLY, PLUNGER KIT 2-3/4" – 3-3/8" BRAID STYLE PACKING (L)	FIRST	07-28-06
43	118308	ASSEMBLY, PLUNGER KIT 2-3/4" – 3-3/8" SSF-4 STYLE PACKING (L)	FIRST	07-28-06
49	118309	ASSEMBLY, PLUNGER KIT 1-5/8" – 2-1/2" J-STYLE PACKING (M)	FIRST	07-28-06
57	118310	ASSEMBLY, PLUNGER KIT 1-5/8" – 2-1/2" BRAID STYLE PACKING (M)	FIRST	07-28-06
65	118311	ASSEMBLY, PLUNGER KIT 1-5/8" – 2-1/2" SSF-4 STYLE PACKING (M)	FIRST	07-28-06
73	118312	ASSEMBLY, PLUNGER KIT 1-5/8" – 2-1/2" J-STYLE PACKING, "MC" STYLE FLUID END	FIRST	07-28-06
81	118313	ASSY, PLUNGER KIT 1-5/8" – 2-1/2" BRAID STYLE PACKING, "MC" STYLE FLUID END	FIRST	07-28-06
89	118394	ASSEMBLY, PLUNGER KIT 1-5/8" – 2-1/2" SSF-4 STYLE PACKING, "MC" STYLE FLUID END	FIRST	07-28-06
97	118314	ASSEMBLY, PLUNGER KIT 1-1/4" – 1-3/4" SSF-4 STYLE PACKING, "H" CLASS FLUID END	FIRST	07-28-06
102	118315	PLUNGERS, 2-3/4" THRU 3-3/8", HARD SURFACE (L)	FIRST	07-28-06
103	118316	PLUNGERS, 2-3/4" THRU 3-3/8", CERAMIC (L)	FIRST	07-28-06
104	118317	PLUNGERS, 1-5/8" THRU 2-1/2", HARD SURFACE (M & MC)	FIRST	07-28-06
105	118319	PLUNGERS, 1-5/8" THRU 2-1/2", CERAMIC (M & MC)	FIRST	07-28-06
106	118320	PLUNGERS, 1-1/4" THRU 1-3/4", HARD SURFACE (H)	FIRST	07-28-06
107	118293	ASSEMBLY, PACKING LUBRICATOR, 101T-4	FIRST	07-28-06
108	118294	ASSEMBLY, D.O.H. LUBRICATOR, 101T-4	FIRST	07-28-06
109	118321	GENERAL DIMENSION, RHD, 101T-4L	FIRST	07-28-06
110	118322	GENERAL DIMENSION, RHD, 101T-4M, 101T-4MC	FIRST	07-28-06
111	118323	GENERAL DIMENSION, RHD, 101T-4H	FIRST	07-28-06
112	118279	GENERAL DIMENSION, LHD, 101T-4 W/GEAR REDUCER	FIRST	07-28-06
113	118278	GENERAL DIMENSION, LHD, 101T-4 WGEAR REDUCER AND LUBRICATOR	FIRST	07-28-06

6	118299	SEVERE DUTY - (AR)	
6	118296	SPHERICAL VALVE - SEVERE DUTY	
6	118295	SPHERICAL VALVE	
6	118297	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	001-007986-201	BAFFLE DISC	12
3	See Plunger Kits	GLAND NUT, 2-3/4" THRU 3-3/8"	11
3	110-000246-200	O-RING ( ADAPTER )	10
3	AAB-114966-316	POWER END / FLUID END ADAPTER	9
3	180-165000-220	LUBE FITTING	8
6	110-000345-201	O-RING ( VALVE COVER / CYLINDER HEAD )	7
24	133-034010-286	NUT	6
24	104-034300-286	STUD	5
6	AAB-115922-316	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	102-034234-286	STUD	2
1	AAD-116522-316	FLUID END, CAST BRONZE	1
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>	<b>ITEM</b>
<b>BILL OF MATERIAL</b>			



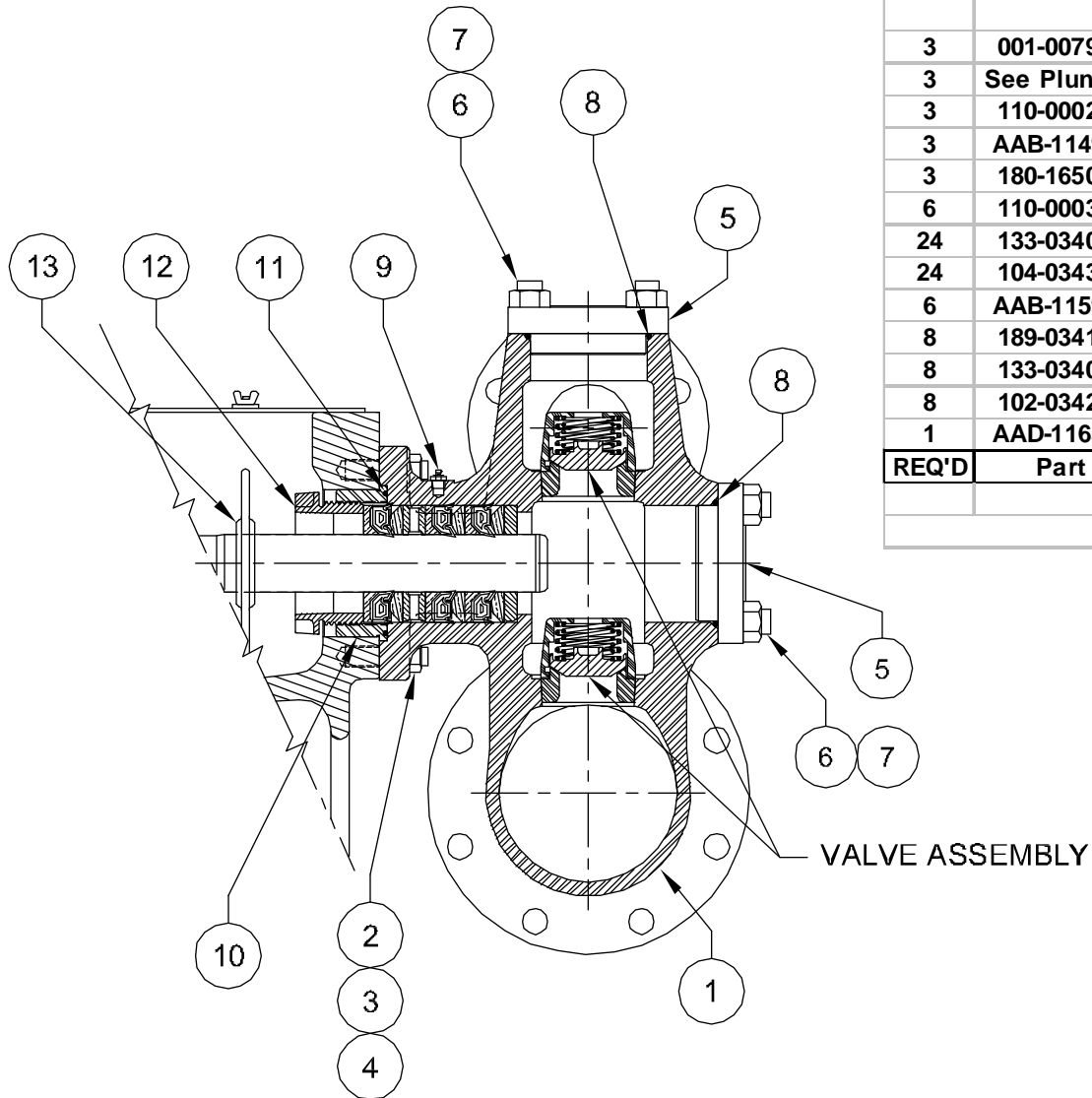
1

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

TITLE:  
**ASSEMBLY, CAST FLUID END  
BRONZE, 2-3/4" THRU 3-3/8" PLUNGER  
101T-4L, 133T-4L (T100-4, T140-4)**

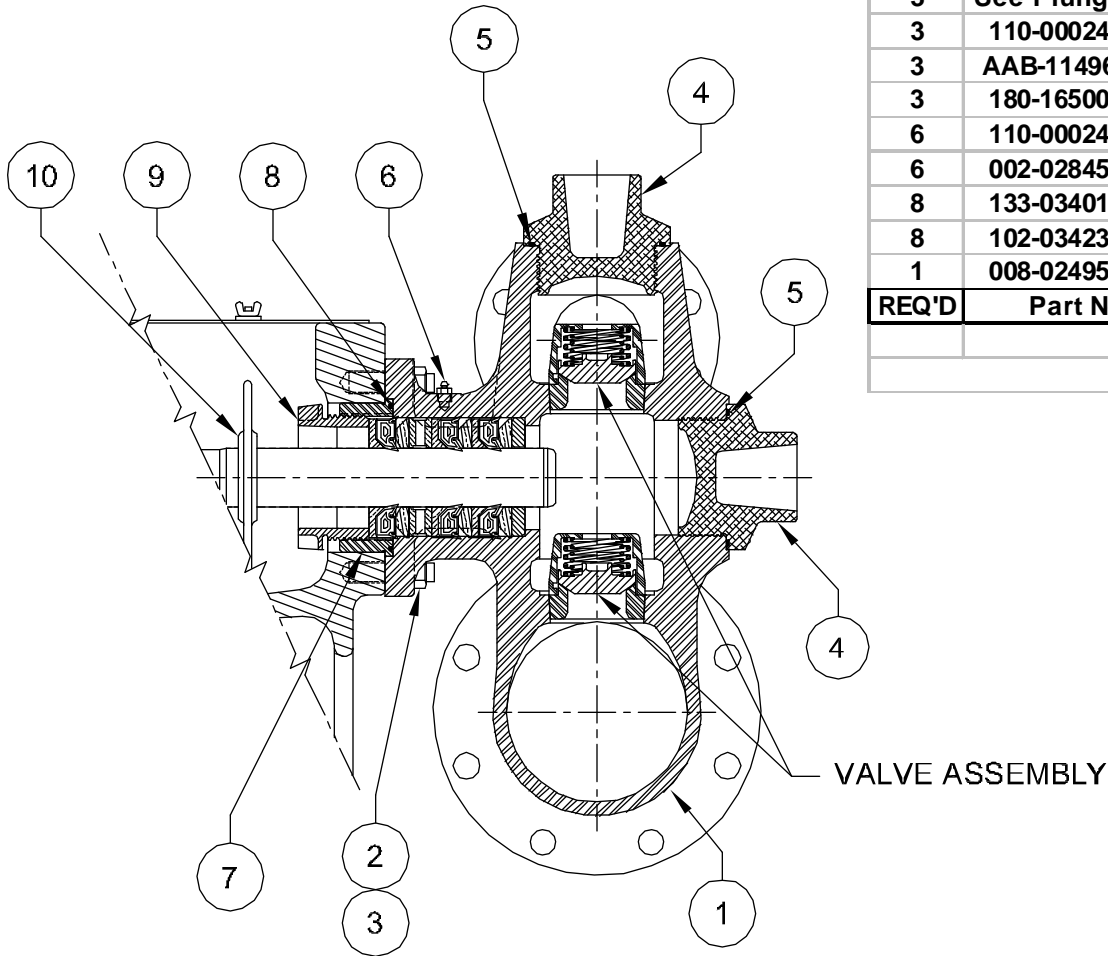
DWG No.:	118283	SCALE:	NONE	REV	A	SHT.:	1 OF 1
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6	118299	SEVERE DUTY - (AR)	
6	118296	SPHERICAL VALVE - SEVERE DUTY	
6	118295	SPHERICAL VALVE	
6	118297	DISC VALVE	
	<b>DRAWING No:</b>	<b>VALVE ASSEMBLY:</b>	
3	001-007986-201	BAFFLE DISC	13
3	See Plunger Kits	GLAND NUT, 2-3/4" THRU 3-3/8"	12
3	110-000246-200	O-RING ( ADAPTER )	11
3	AAB-114966-278	POWER END / FLUID END ADAPTER	10
3	180-165000-220	LUBE FITTING	9
6	110-000345-201	O-RING ( VALVE COVER / CYLINDER HEAD )	8
24	133-034010-278	NUT	7
24	104-034300-287	STUD	6
6	AAB-115922-594	CYLINDER HEAD / VALVE COVER	5
8	189-034112-405	WASHER	4
8	133-034010-278	NUT	3
8	102-034234-287	STUD	2
1	AAD-116522-594	FLUID END, CAST STAINLESS STEEL	1
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>	<b>ITEM</b>
<b>BILL OF MATERIAL</b>			



2

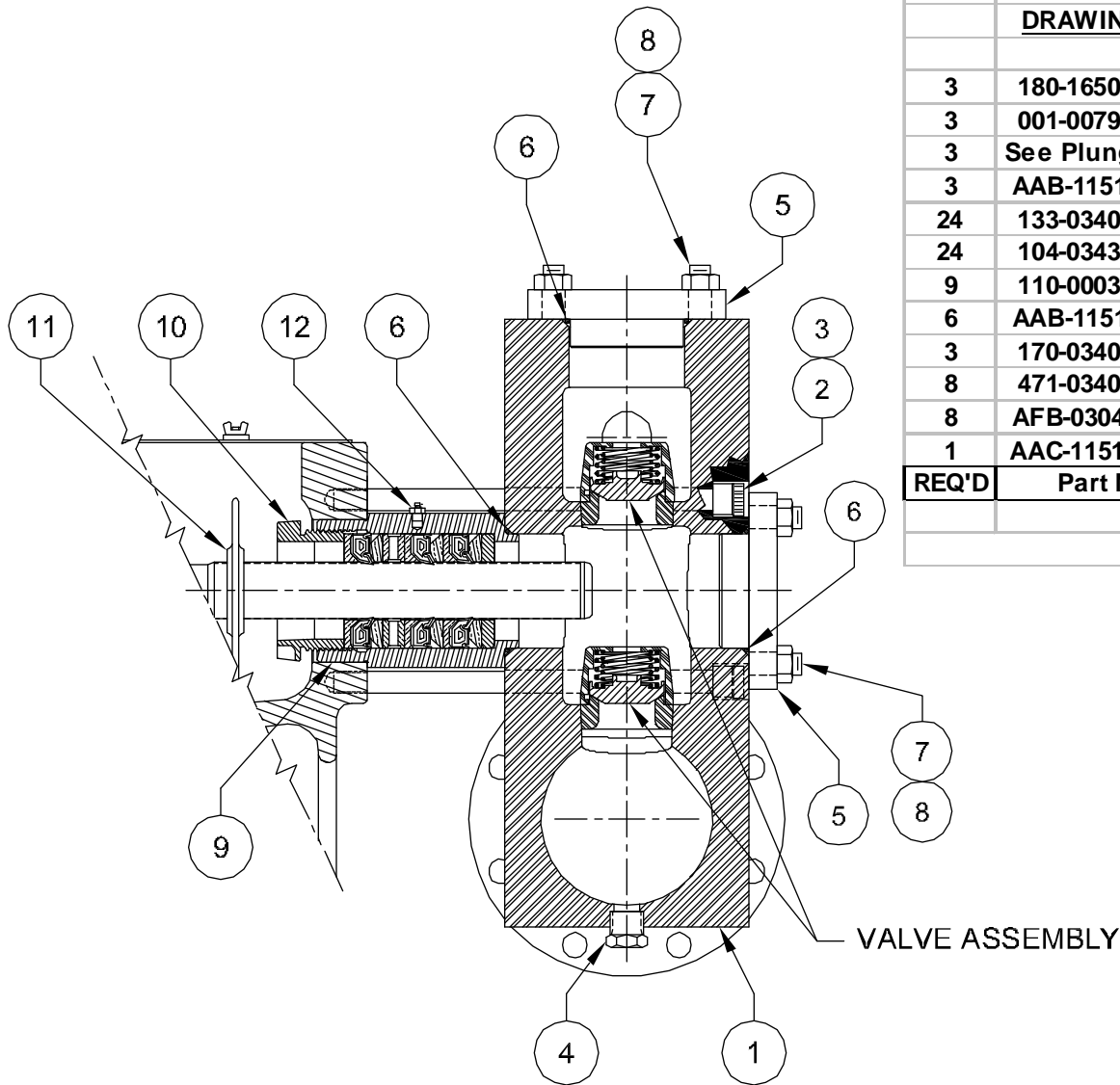
<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, CAST FLUID END STAINLESS STEEL, 2-3/4" THRU 3-3/8" PLUNGER, 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	SCALE:	REV	SHT.:
118282	NONE	A	1 OF 1



6	118299	SEVERE DUTY - (AR)	
6	118296	SPHERICAL VALVE - SEVERE DUTY	
6	118295	SPHERICAL VALVE	
6	118297	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	001-007986-201	BAFFLE DISC	10
3	See Plunger Kits	GLAND NUT, 2-3/4" THRU 3-3/8"	9
3	110-000246-200	O-RING ( ADAPTER )	8
3	AAB-114966-236	POWER END / FLUID END ADAPTER	7
3	180-165000-220	LUBE FITTING	6
6	110-000244-200	O-RING ( VALVE COVER / CYLINDER HEAD )	5
6	002-028452-351	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	102-034234-286	STUD	2
1	008-024954-351	FLUID END, CAST DUCTILE IRON	1
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>	<b>ITEM</b>
BILL OF MATERIAL			

3

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: <b>ASSEMBLY, CAST FLUID END DUCTILE IRON, 2-3/4" THRU 3-3/8" PLUNGER 101T-4L, 133T-4L (T100-4, T140-4)</b>			
DWG No.:	118284	SCALE:	NONE
REV:	A	SHT.:	1 OF 1



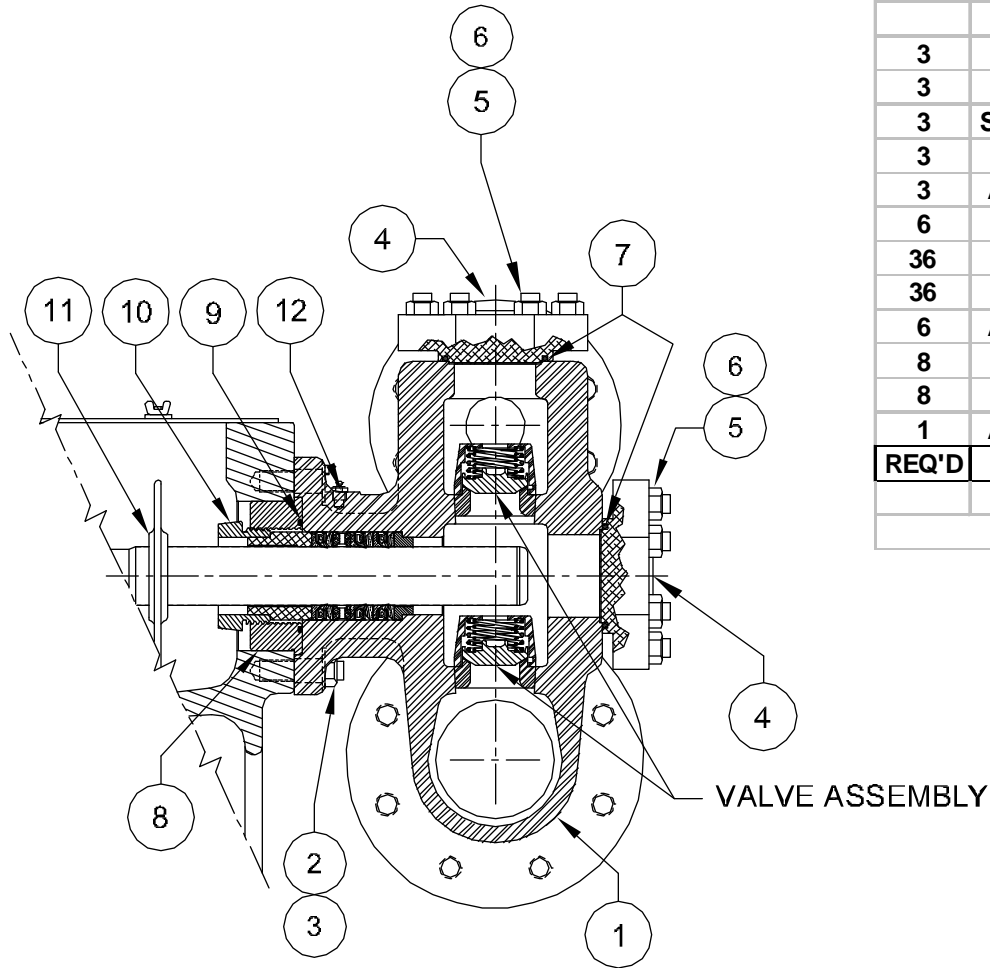
6	118299	SEVERE DUTY - (AR)	
6	118296	SPHERICAL VALVE - SEVERE DUTY	
6	118295	SPHERICAL VALVE	
6	118297	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 2-3/4" THRU 3-3/8"	10
3	AAB-115134-270	STUFFING BOX	9
24	133-034010-286	NUT ( VALVE COVER / CYLINDER HEAD)	8
24	104-034300-286	STUD ( VALVE COVER / CYLINDER HEAD)	7
9	110-000345-200	O-RING	6
6	AAB-115133-231	CYLINDER HEAD / VALVE COVER	5
3	170-034002-405	PLUG ( HEX)	4
8	471-034010-999	NUT	3
8	AFB-030410-286	STUD	2
1	AAC-115135-H02	FLUID END	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

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

TITLE:  
 ASSEMBLY, BILLET FLUID END  
 STEEL, 2-3/4" THRU 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:	118285	SCALE:	NONE	REV	A	SHT.:	1 OF 1
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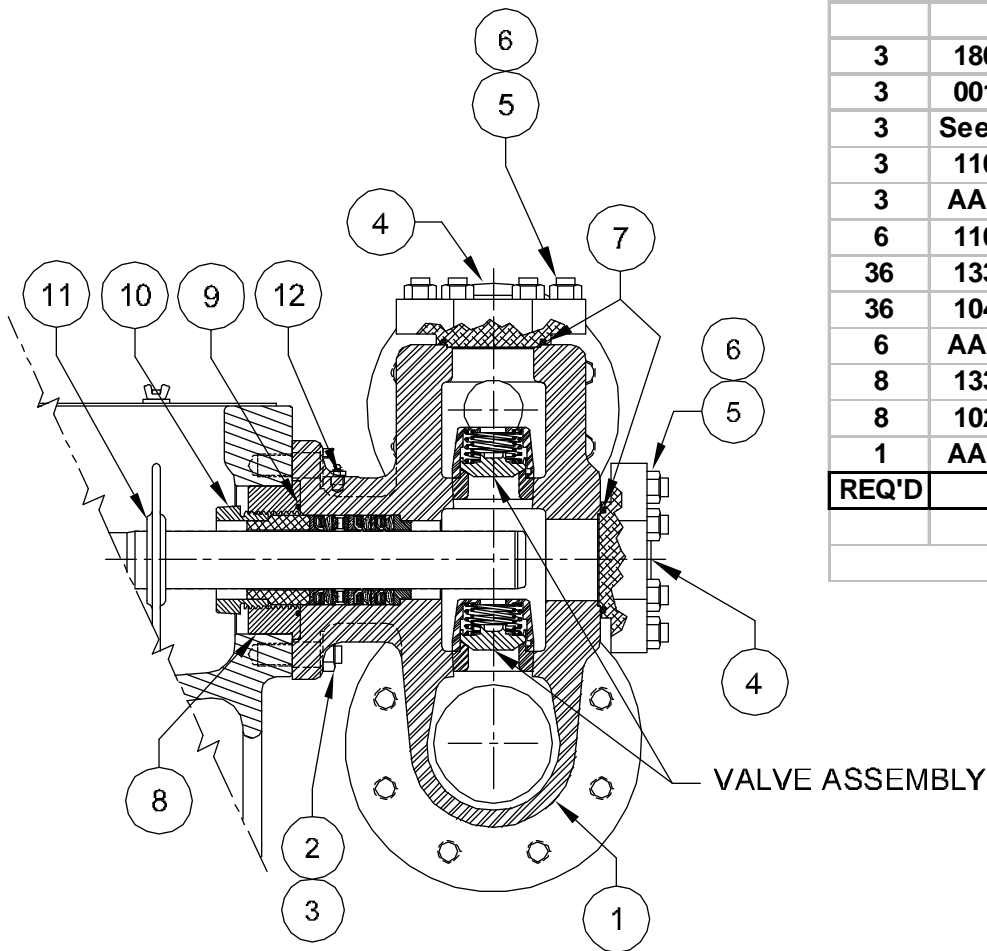


6	118304	SEVERE DUTY - (AR)	
6	118301	SPHERICAL VALVE - SEVERE DUTY	
6	118300	SPHERICAL VALVE	
6	118302	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 1-5/8" THRU 2-1/2"	10
3	110-000238-200	O-RING ( ADAPTER)	9
3	AAB-114964-316	POWER END / FLUID END ADAPTER	8
6	110-000236-200	O-RING	7
36	133-034010-286	NUT ( VALVE COVER / CYLINDER HEAD)	6
36	104-034314-286	STUD ( VALVE COVER / CYLINDER HEAD)	5
6	AAB-029608-316	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	102-034234-286	STUD	2
1	AAD-029703-316	FLUID END, CAST BRONZE	1
<b>REQ'D</b>	<b>Part No.</b>		<b>ITEM</b>
BILL OF MATERIAL			

<b>NOV NATIONAL OILWELL VARCO</b>	
HOUSTON, TEXAS, U.S.A.	ENGINEERING, TULSA, OKLAHOMA
TITLE: ASSEMBLY, CAST FLUID END BRONZE, 1-5/8" THRU 2-1/2" PLUNGER 101T-4M, 133T-4M (T100-3, T140-3)	
DWG No.: 118287	SCALE: NONE
REV A	SHT.: 1 OF 1

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6	118304	SEVERE DUTY - (AR)	
6	118301	SPHERICAL VALVE - SEVERE DUTY	
6	118300	SPHERICAL VALVE	
6	118302	DISC VALVE	
	<b>DRAWING No:</b>	<b>VALVE ASSEMBLY:</b>	
3	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 1-5/8" THRU 2-1/2"	10
3	110-000238-200	O-RING ( ADAPTER )	9
3	AAB-114964-278	POWER END / FLUID END ADAPTER	8
6	110-000236-200	O-RING	7
36	133-034010-287	NUT ( VALVE COVER / CYLINDER HEAD )	6
36	104-034314-287	STUD ( VALVE COVER / CYLINDER HEAD )	5
6	AAB-029608-594	CYLINDER HEAD / VALVE COVER	4
8	133-034010-287	NUT	3
8	102-034234-287	STUD	2
1	AAD-029703-594	FLUID END, CAST - STAINLESS STEEL	1
<b>REQ'D</b>	<b>Part No.</b>		<b>ITEM</b>
<b>BILL OF MATERIAL</b>			

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

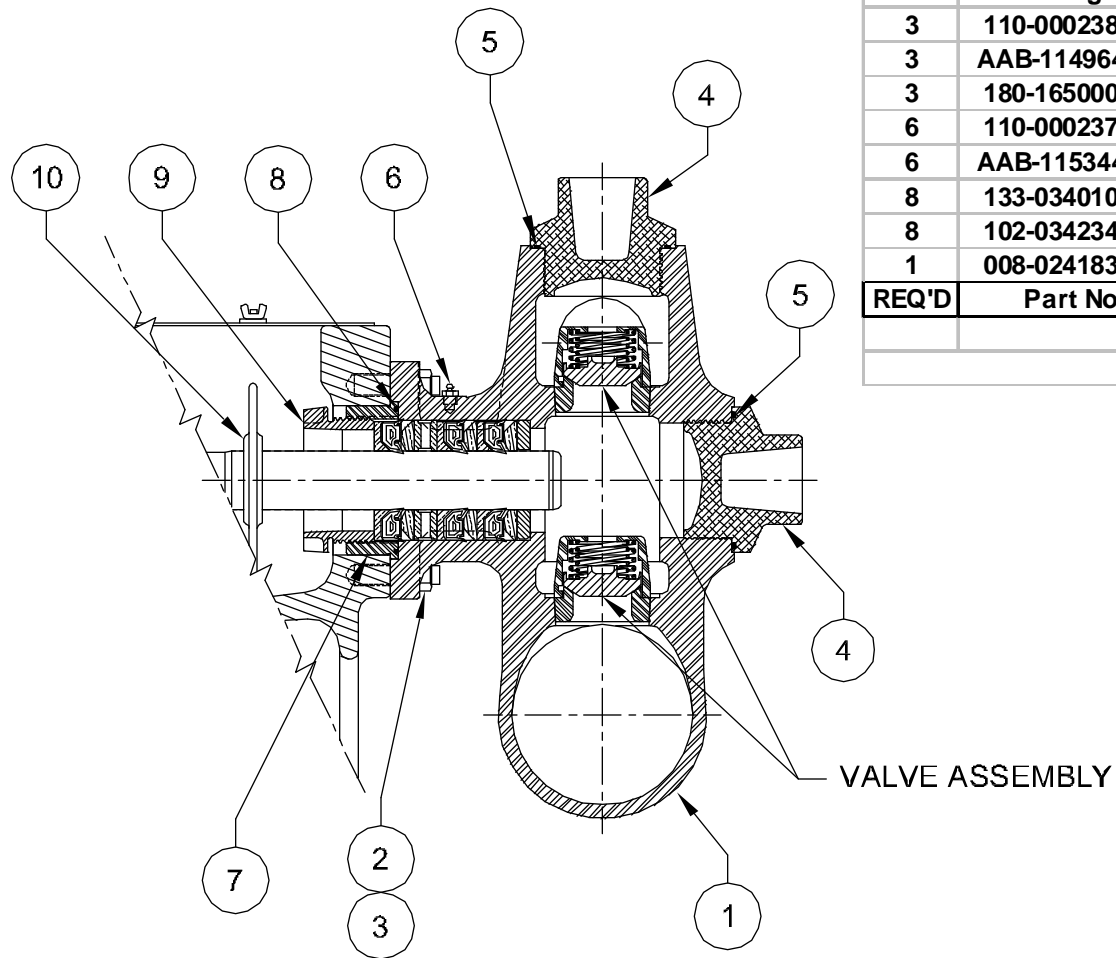
ASSEMBLY, CAST FLUID END  
STAIN. STEEL, 1-5/8" THRU 2-1/2" PLUNGER  
101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118286

SCALE: NONE

REV A

SHT.: 1 OF 1



6	118304	SEVERE DUTY - (AR)	
6	118301	SPHERICAL VALVE - SEVERE DUTY	
6	118300	SPHERICAL VALVE	
6	118302	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	001-007986-201	BAFFLE DISC	10
3	See Plunger Kits	GLAND NUT, 1-5/8" THRU 2-1/2"	9
3	110-000238-200	O-RING ( ADAPTER )	8
3	AAB-114964-236	POWER END / FLUID END ADAPTER	7
3	180-165000-220	LUBE FITTING	6
6	110-000237-200	O-RING ( VALVE COVER / CYLINDER HEAD )	5
6	AAB-115344-351	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	102-034234-286	STUD	2
1	008-024183-351	FLUID END, CAST DUCTILE IRON	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

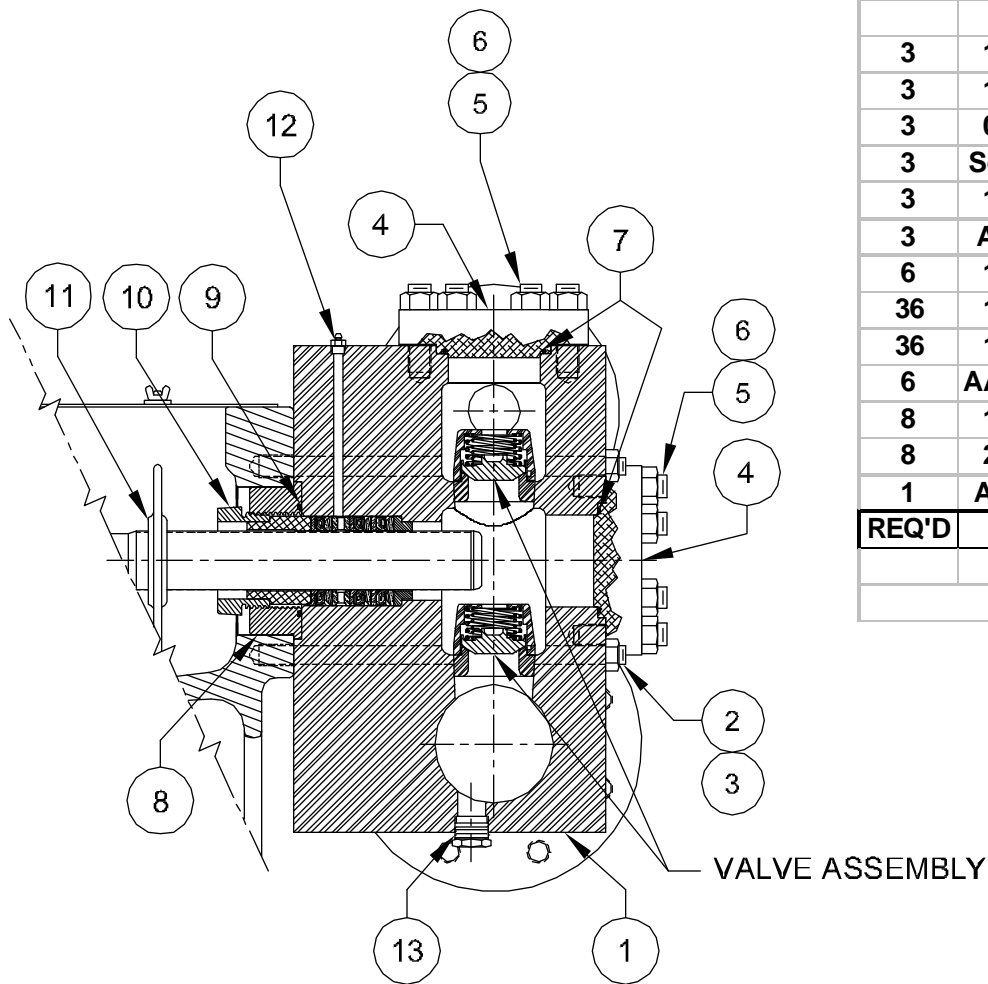
7

**NOV NATIONAL OILWELL VARCO**

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

TITLE:  
**ASSEMBLY, CAST FLUID END  
 DUCTILE IRON, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4M, 133T-4M (T100-3, T140-3)**

DWG No.: 118391	SCALE: NONE	REV A	SHT.: 1 OF 1
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6	118304	SEVERE DUTY - (AR)	
6	118301	SPHERICAL VALVE - SEVERE DUTY	
6	118300	SPHERICAL VALVE	
6	118302	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	170-034002-278	PIPE PLUG	13
3	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 1-5/8" THRU 2-1/2"	10
3	110-000238-200	O-RING ( ADAPTER )	9
3	AAB-114964-236	POWER END / FLUID END ADAPTER	8
6	110-000236-200	O-RING	7
36	133-034010-286	NUT ( VALVE COVER / CYLINDER HEAD )	6
36	104-034314-286	STUD ( VALVE COVER / CYLINDER HEAD )	5
6	AAB-115123-231	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	253-034124-286	STUD	2
1	AAC-115146-H02	FLUID END, PLATE STEEL	1
REQ'D	Part No.		ITEM

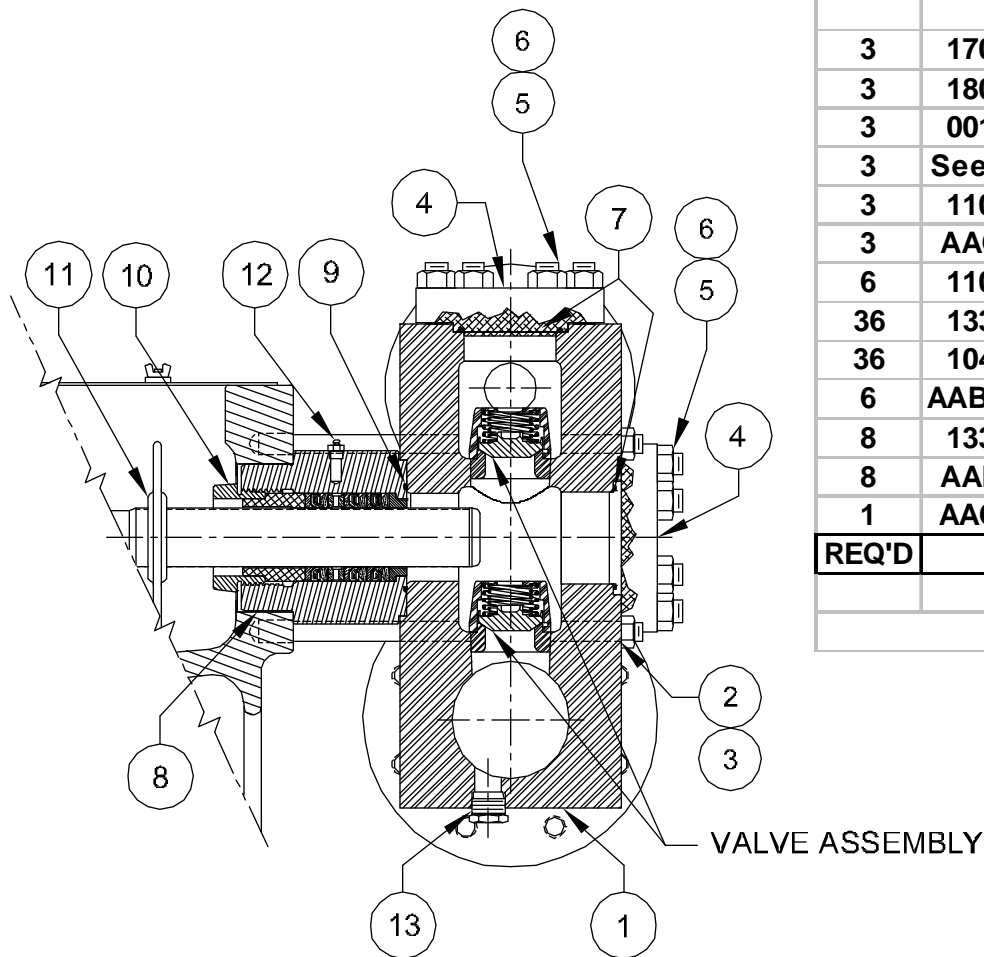
BILL OF MATERIAL

8

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

TITLE:  
 ASSEMBLY, BLOCK FLUID END  
 STEEL, INTEGRAL STUFFING BOX  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118288	SCALE: NONE	REV A	SHT.: 1 OF 1
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6	118304	SEVERE DUTY - (AR)	
6	118301	SPHERICAL VALVE - SEVERE DUTY	
6	118300	SPHERICAL VALVE	
6	118302	DISC VALVE	
<b>DRAWING No:</b>		<b>VALVE ASSEMBLY:</b>	
3	170-034002-278	PIPE PLUG	13
3	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 1-5/8" THRU 2-1/2"	10
3	110-000237-200	O-RING ( STUFFING BOX )	9
3	AAC-117036-270	STUFFING BOX	8
6	110-000236-200	O-RING	7
36	133-034010-286	NUT ( VALVE COVER / CYLINDER HEAD )	6
36	104-034314-286	STUD ( VALVE COVER / CYLINDER HEAD )	5
6	AAB-115123-231	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	AAB-030410-286	STUD	2
1	AAC-115676-H02	FLUID END, PLATE STEEL	1
<b>REQ'D</b>	<b>Part No.</b>		<b>ITEM</b>
<b>BILL OF MATERIAL</b>			

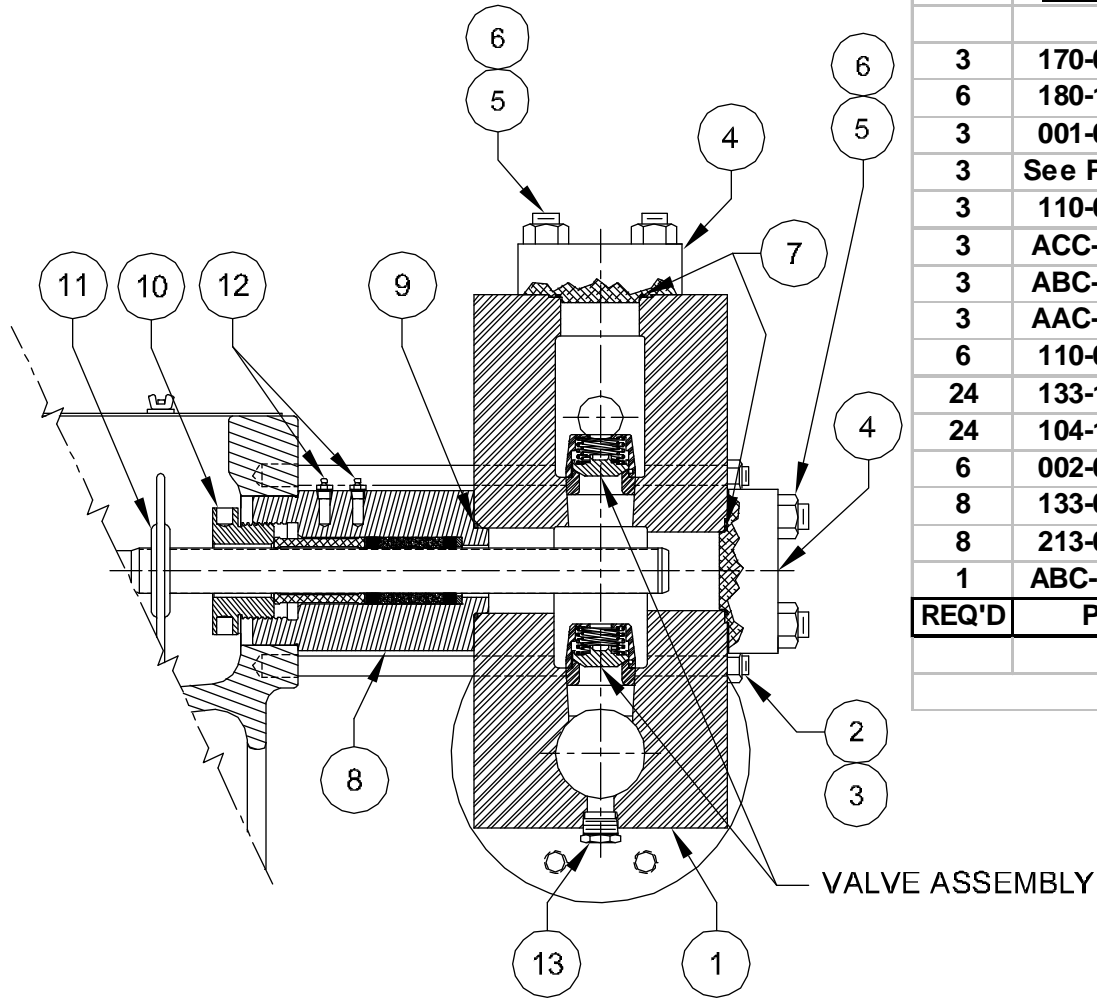
9



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

TITLE:  
 ASSEMBLY, BLOCK FLUID END  
 STEEL, SEPERATE STUFFING BOX  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	118289	SCALE:	NONE	REV	A	SHT.:	1	OF	1
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6	118305	SEVERE DUTY - (AR)	
6	118463	SPHERICAL VALVE - SEVERE DUTY	
6	118462	SPHERICAL VALVE	
6	118461	DISC VALVE	
	<u>DRAWING No:</u>	<u>VALVE ASSEMBLY:</u>	
3	170-034002-278	PIPE PLUG	13
6	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 1-1/4" THRU 1-3/4"	10
3	110-000238-200	O-RING ( STUFFING BOX )	9
3	ACC-115411-270	STUFFING BOX ( 1-3/4" PLGR )	
3	ABC-115411-270	STUFFING BOX ( 1-1/2" THRU 1-5/8" PLGR )	
3	AAC-115411-270	STUFFING BOX ( 1-1/4" THRU 1-3/8" PLGR )	8
6	110-000232-200	O-RING	7
24	133-100008-286	NUT ( VALVE COVER / CYLINDER HEAD )	6
24	104-100400-286	STUD ( VALVE COVER / CYLINDER HEAD )	5
6	002-029044-231	CYLINDER HEAD / VALVE COVER	4
8	133-034010-286	NUT	3
8	213-034164-286	STUD	2
1	ABC-115410-H02	FLUID END, STEEL	1
REQ'D	Part No.		ITEM
BILL OF MATERIAL			

10



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

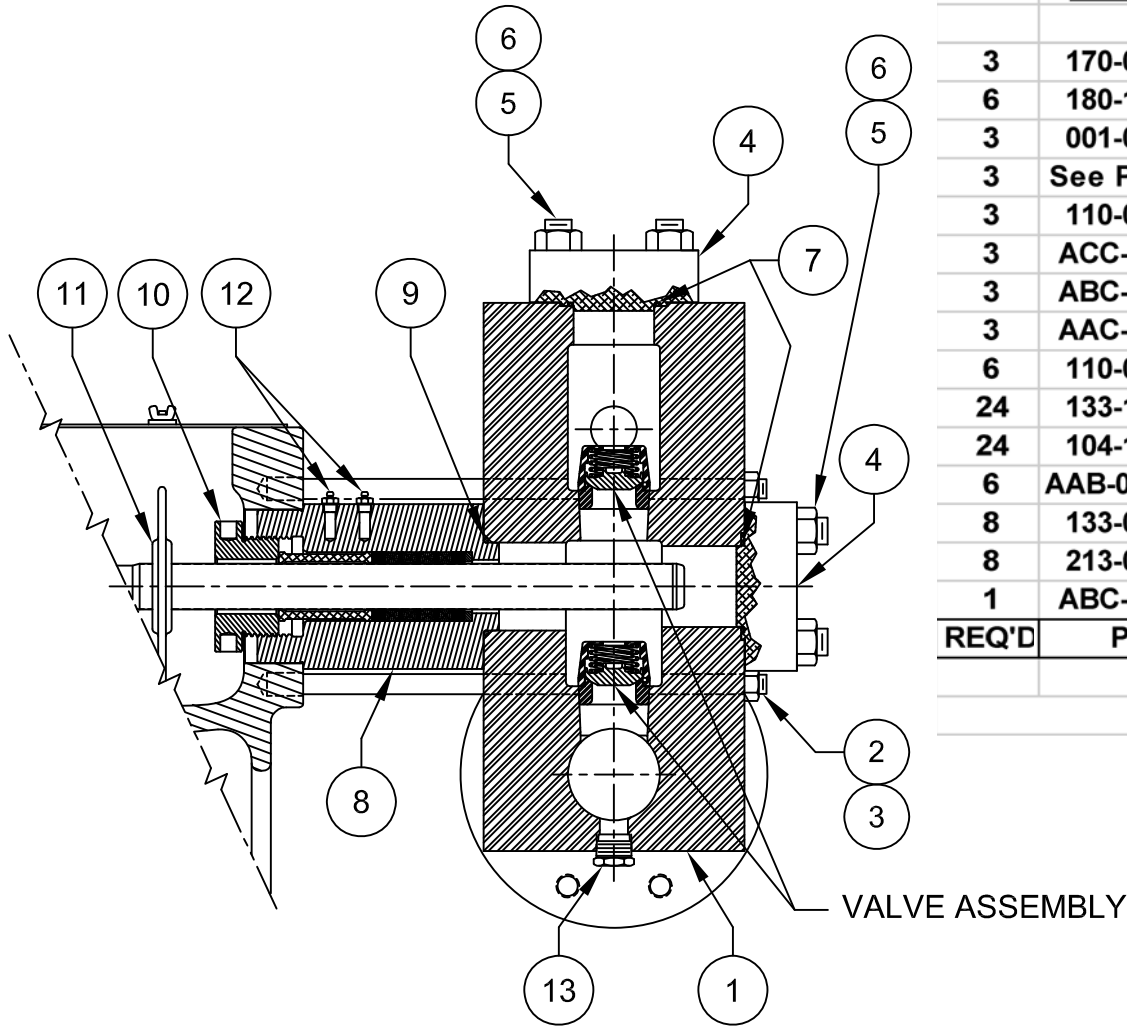
ASSEMBLY, BLOCK FLUID END  
STEEL, SEPERATE STUFFING BOX  
101T-4H, 133T-4H ( T100-2, T140-2)

DWG No.: 118291

SCALE: NONE

REV A

SHT.: 1 OF 1

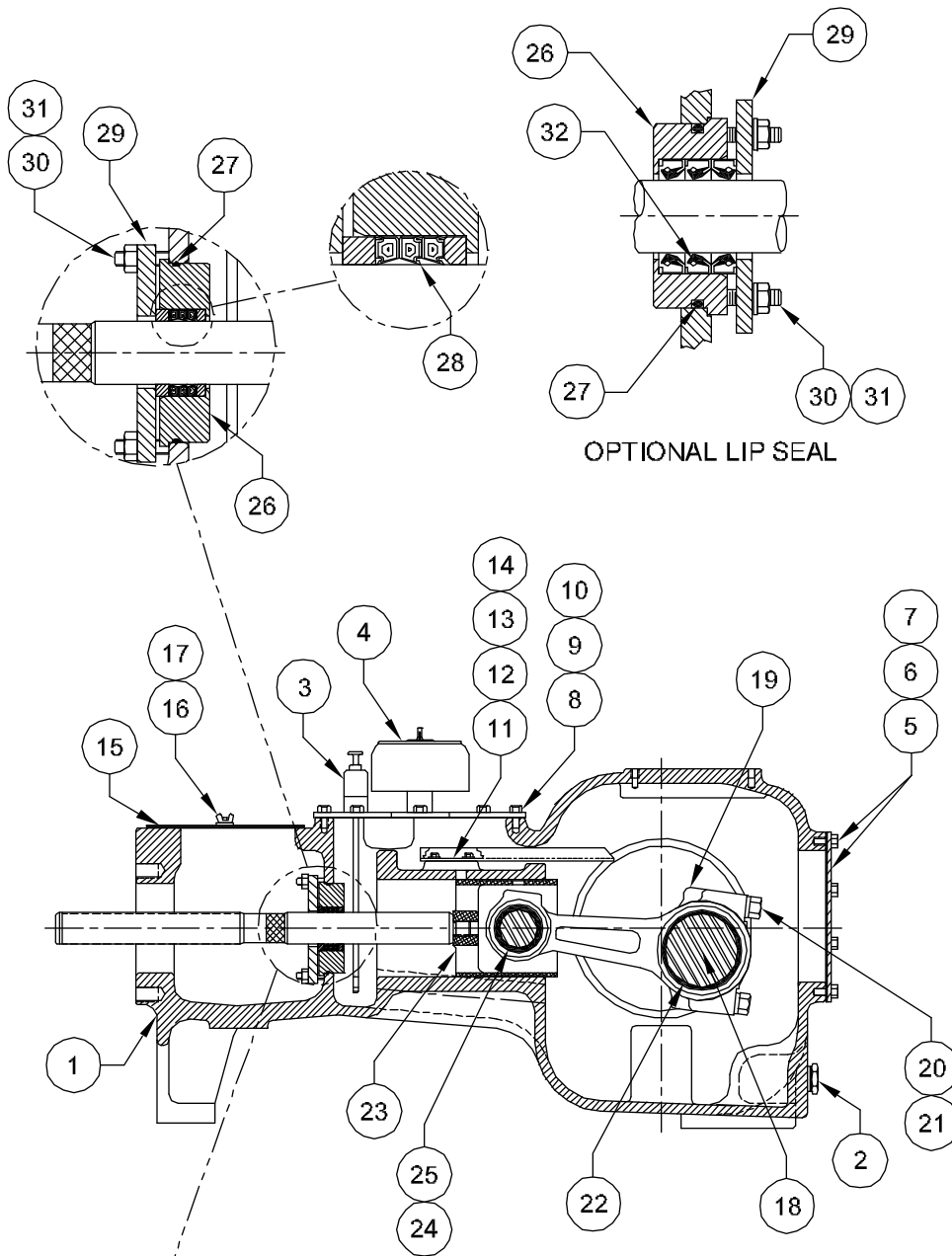


6	118305	SEVERE DUTY - (AR)	
6	118463	SPHERICAL VALVE - SEVERE DUTY	
6	118462	SPHERICAL VALVE	
6	118461	DISC VALVE	
<u>DRAWING No:</u>		<u>VALVE ASSEMBLY:</u>	
3	170-034002-278	PIPE PLUG	13
6	180-165000-220	LUBE FITTING	12
3	001-007986-201	BAFFLE DISC	11
3	See Plunger Kits	GLAND NUT, 1-1/4" THRU 1-3/4"	10
3	110-000336-200	O-RING ( STUFFING BOX )	9
3	ACC-115411-278	STUFFING BOX ( 1-3/4" PLGR )	
3	ABC-115411-278	STUFFING BOX ( 1-1/2" ..... 1-5/8" PLGR )	
3	AAC-115411-278	STUFFING BOX ( 1-1/4" ..... 1-3/8" PLGR )	8
6	110-000232-200	O-RING	7
24	133-100008-287	NUT ( VALVE COVER / CYLINDER HEAD )	6
24	104-100400-287	STUD ( VALVE COVER / CYLINDER HEAD )	5
6	AAB-029044-594	CYLINDER HEAD / VALVE COVER	4
8	133-034010-287	NUT	3
8	213-034164-287	STUD	2
1	ABC-115410-594	FLUID END, STAINLESS STEEL	1
<b>REQ'D</b>	<b>Part No.</b>		<b>ITEM</b>

**BILL OF MATERIAL**

11

**NOV NATIONAL OILWELL VARCO**  
 HOUSTON, TEXAS, U.S.A. ENGINEERING, TULSA, OKLAHOMA  
 TITLE: ASSEMBLY, BLOCK FLUID END  
 STAINLESS STEEL, SEPERATE STUFF BOX  
 101T-4H, 133T-4H ( T100-2, T140-2 )  
 DWG No.: 118290 SCALE: NONE REV A SHT.: 1 OF 1



STANDARD P.E. PACKING  
FOR LIP SEAL DESIGN SEE  
OPTIONAL P.E. LIP PACKING

9	145-158238-999	OIL SEAL (WIPER BOX - OPTIONAL)	32
6	150-038016-306	LOCK NUT ( GLAND)	31
6	102-038134-286	STUD ( GLAND)	30
3	002-025365-231	GLAND	29
3	001-028755-370	PACKING	28
3	110-000248-201	O-RING ( WIPER BOX)	27
3	002-025366-237	WIPER BOX	26
3	001-023129-302	BUSHING ( CONNECTING ROD)	25
3	001-023128-236	WRIST PIN	24
3	004-023127-359	CROSSHEAD	23
3	002-028392-999	SHELL BEARING ( CONNECTING ROD)	22
6	154-058108-286	WASHER ( CONNECTING ROD)	21
6	100-058314-290	CAP SCREW ( CONNECTING ROD)	20
3	998-810000-002	CONNECTING ROD (COMPLETE) - SEE NOTE	19
1	008-023061-348	CRANKSHAFT	18
2	187-038016-286	WING NUT ( CRADLE COVER)	17
2	104-038100-286	STUD ( CRADLE COVER)	16
1	AAB-114959-231	CRADLE COVER	15
4	154-038068-286	LOCK WASHER ( OIL TROUGH)	14
4	155-038100-286	WASHER ( OIL TROUGH)	13
4	100-038034-290	CAP SCREW ( OIL TROUGH)	12
2	AAB-114958-231	OIL TROUGH	11
16	100-038034-290	CAP SCREW ( OIL CHEST COVER)	10
1	AAB-114957-204	GASKET ( OIL CHEST COVER)	9
1	AAC-114956-220	OIL CHEST COVER	8
12	100-038034-290	CAP SCREW ( CRANKCASE COVER)	7
1	AAB-114955-204	GASKET ( CRANKCASE COVER)	6
1	AAB-114954-231	CRANK CASE COVER	5
1	AAB-113766-000	AIR BREATHER	4
1	AAB-114967-999	DIP STICK	3
1	170-100005-353	DRAIN PLUG	2
1	AAD-114952-A01	POWER FRAME	1
REQ'D	Part No.	DESCRIPTION	ITEM

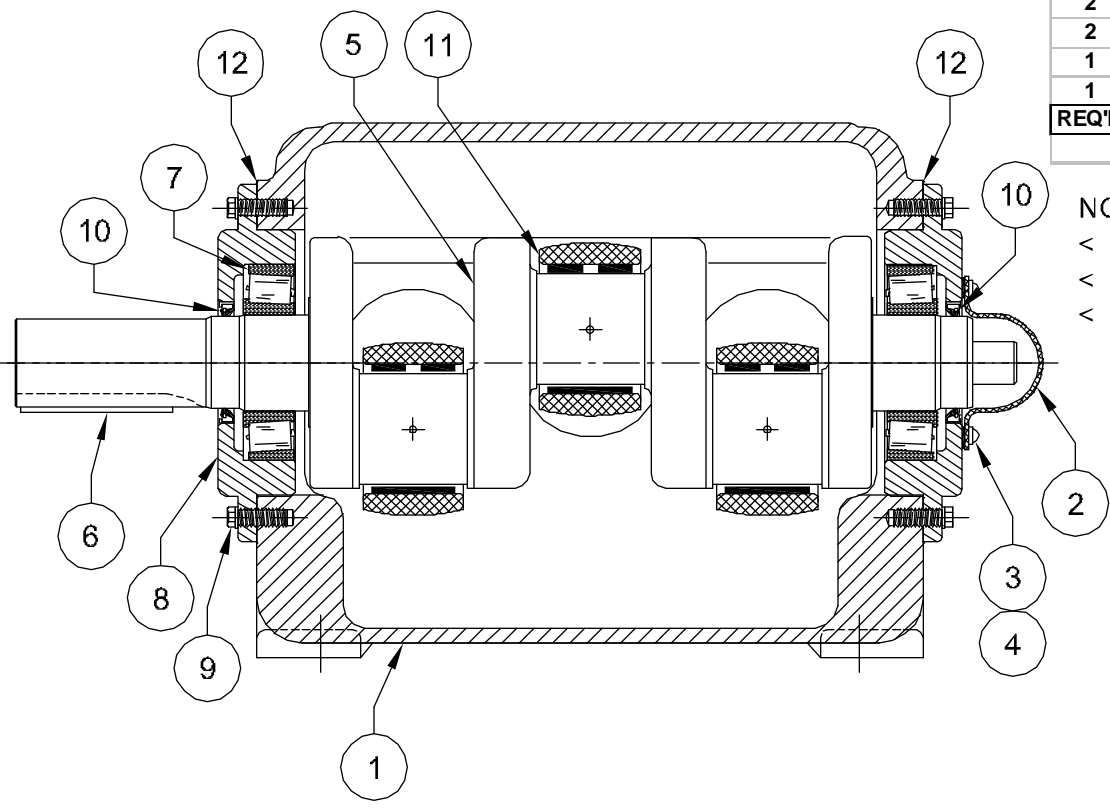
**BILL OF MATERIAL**

NOTE: INCLUDES ITEMS 20, 21, & 25

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: <b>ASSEMBLY, POWER END 101T-4 ( T100 )</b>			
DWG No.:	118280	SCALE:	NONE
REV	A	SHT.:	1 OF 1

3	998-810000-007	CONNECTING ROD W/ NDL BEARING < * >	DD
3	998-T10000-037	WIPER BOX KIT < * >	BB
1	998-T10000-038	POWER END GASKET KIT < * >	AA
REQ'D	Part No.	DESCRIPTION	OPTION
<b>OPTIONAL PARTS AND KITS</b>			
1	998-810000-037	SHIM / GASKET KIT ( BEARING HOUSING )	12
3	998-810000-002	CONNECTING ROD ( COMPLETE )	11
2	145-318418-999	OIL SEAL ( CRANKSHAFT )	10
12	100-058112-290	CAP SCREW ( BEARING HOUSING )	9
2	002-023230-359	BEARING HOUSING	8
2	120-325066-999	END BEARING < *** >	7
1	146-034500-236	KEY ( CRANKSHAFT )	6
1	008-023061-348	CRANKSHAFT	5
2	154-014049-220	LOCK WASHER ( GUARD ) < ** >	4
2	113-014038-220	MACHINE SCREW ( GUARD ) < ** >	3
1	001-023575-282	EXTENSION GUARD < ** >	2
1	AAD-114952-A01	POWER FRAME	1
REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**



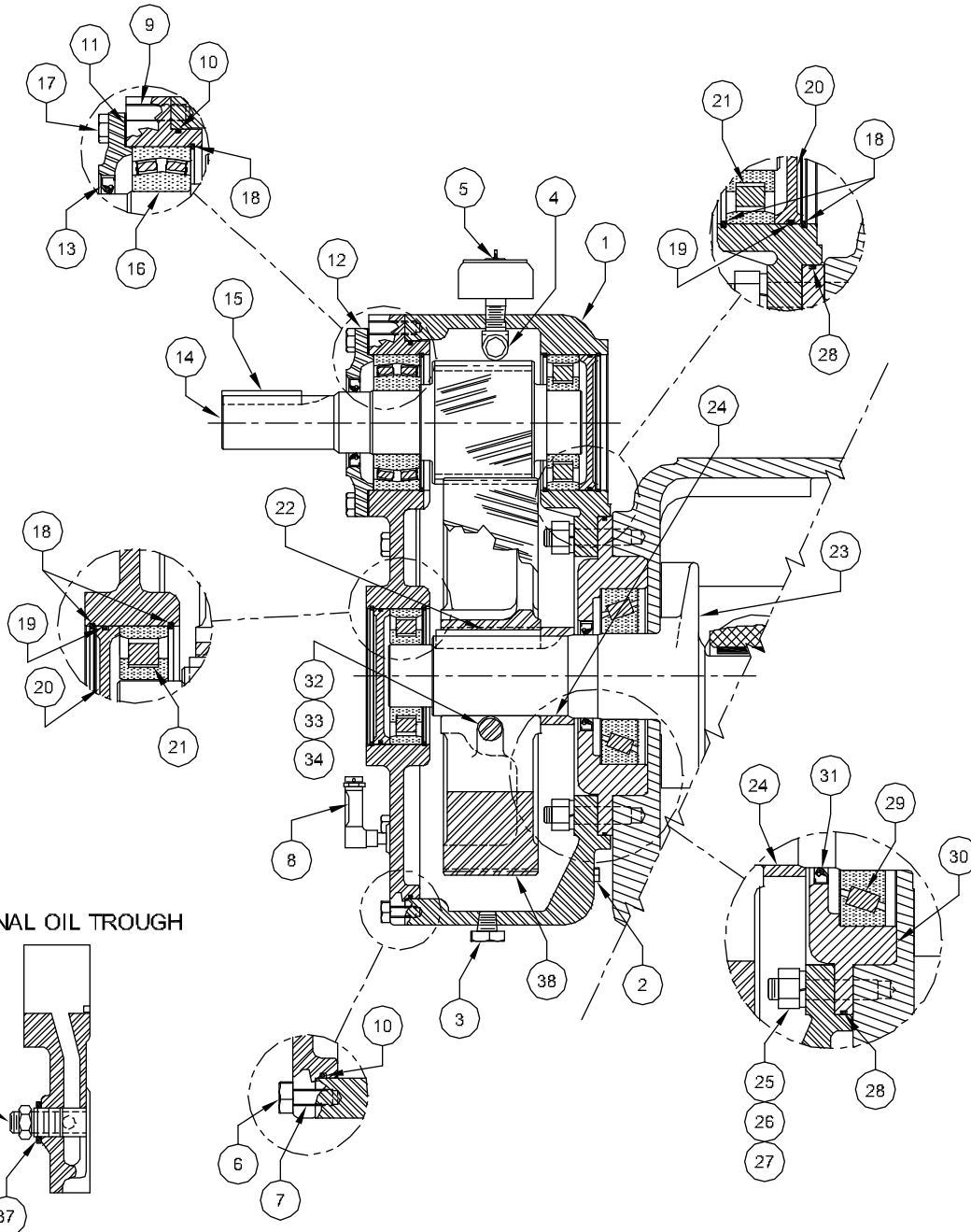
NOTE:  
 < \* > NOT SHOWN ON PARTS DRAWING  
 < \*\* > OMIT WHEN LUBRICATOR IS USED  
 < \*\*\* > SEE DWG. 118292 WHEN USING A GEAR REDUCER

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: <b>ASSEMBLY, CRANKSHAFT POWER END 101T-4 ( T100 )</b>			
DWG No.:	SCALE:	REV	SHT.:
118281	NONE	A	1 OF 1



**NOTE:**

- 1.) FOR RATIOS, LUBRICATION INFORMATION, & NOTES SEE SHEET 2 OF 2.
- 2.) GEAR REDUCER ASSEMBLY IS LEFT HAND (LH) DRIVE ONLY.
- 3.) INCLUDES ITEMS 6, 7, & 9.



INTERNAL OIL TROUGH

1	SEE SHEET 2	BULL GEAR	38
1	001-012117-999	THREADED SEAL (OIL SCOOP)	37
1	170-012003-220	PLUG (OIL SCOOP)	36
1	001-012104-305	OIL SCOOP	35
1	133-034010-243	NUT (BULL GEAR)	34
1	100-034400-290	CAP SCREW (BULL GEAR)	33
1	154-034127-220	LOCK WASHER (BULL GEAR)	32
2	145-318418-999	OIL SEAL (CRANKSHAFT)	31
1	002-025579-359	BEARING HOUSING, MAIN (CRANKSHAFT)	30
2	120-325066-999	END BEARING (CRANKSHAFT)	29
1	110-000277-201	O-RING (BEARING HOUSING, MAIN)	28
6	154-058108-220	LOCK WASHER (CASING, GEAR REDUCER)	27
6	GAS-103962-000	LOCK NUT (CASING, GEAR REDUCER)	26
6	102-058314-286	STUD (CASING, GEAR REDUCER)	25
1	001-012105-220	SPACER	24
1	008-025573-348	CRANKSHAFT	23
1	146-034312-236	KEY (CRANKSHAFT)	22
2	121-236051-999	ROLLER BEARING	21
2	001-012052-350	BEARING RETAINER	20
2	110-000248-201	O-RING (BEARING RETAINER)	19
5	177-000500-999	RETAINING RING	18
6	100-012114-290	CAP SCREW (PINION RETAINER)	17
1	255-236051-999	BEARING SPHERICAL (PINION GEAR)	16
1	146-012300-236	KEY (PINION GEAR)	15
1	SEE SHEET 2	PINION GEAR	14
1	145-214338-999	SEAL (PINION SHAFT)	13
1	002-012038-350	PINION BEARING HOUSING (SHAFT SIDE)	12
1	001-012103-204	GASKET (BEARING RETAINER COVER)	11
1	254-200034-201	O-RING (COVER, GEAR REDUCER)	10
1	147-038200-220	DOWELL PIN	9
1	001-010803-999	OIL LEVEL GAUGE	8
1	147-038100-220	DOWELL PIN (COVER, GEAR REDUCER)	7
12	100-012114-290	CAP SCREW	6
1	001-011039-999	AIR BREATHER	5
1	167-034015-353	STREET ELBOW	4
1	170-034005-220	PLUG (CASING, GEAR REDUCER)	3
1	170-014002-220	PLUG (CASING, GEAR REDUCER)	2
1	008-025572-350	GEAR CASE ASSEMBLY < SEE NOTE 3 >	1
REQ'D	Part No.		ITEM

BILL OF MATERIAL

14



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

TITLE:  
**GEAR REDUCER UNIT**  
**POWER END, LEFT HAND DRIVE**  
**101T-4 (T100)**

DWG No.:	118292	SCALE:	NONE	REV:	A	SHT.:	1 OF 2
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5.17 : 1	24	004-013022-274	124	008-013021-355
4.93 : 1	25	004-012057-274	123	008-012062-355
4.69 : 1	26	004-012551-274	122	008-012550-355
4.48 : 1	27	004-012795-274	121	008-012794-355
4.29 : 1	28	-	120	-
4.11 : 1	29	004-012813-274	119	008-012812-355
3.94 : 1	30	004-027864-274	118	008-027863-355
3.78 : 1	31	004-014352-274	117	008-015785-355
3.62 : 1	32	004-025037-274	116	008-025036-355
3.49 : 1	33	004-012595-274	115	008-012596-355
3.36 : 1	34	AAC-117490-274	114	AAD-117489-355
3.23 : 1	35	-	113	-
3.12 : 1	36	004-015339-274	112	008-015400-355
3.00 : 1	37	004-021725-274	111	008-021726-355
GEAR RATIO	No. TEETH	PART No.	No. TEETH	PART No.
	PINION SHAFT		BULL GEAR	
<b>GEAR CHART 101T-4</b>				

**LUBRICATION:**

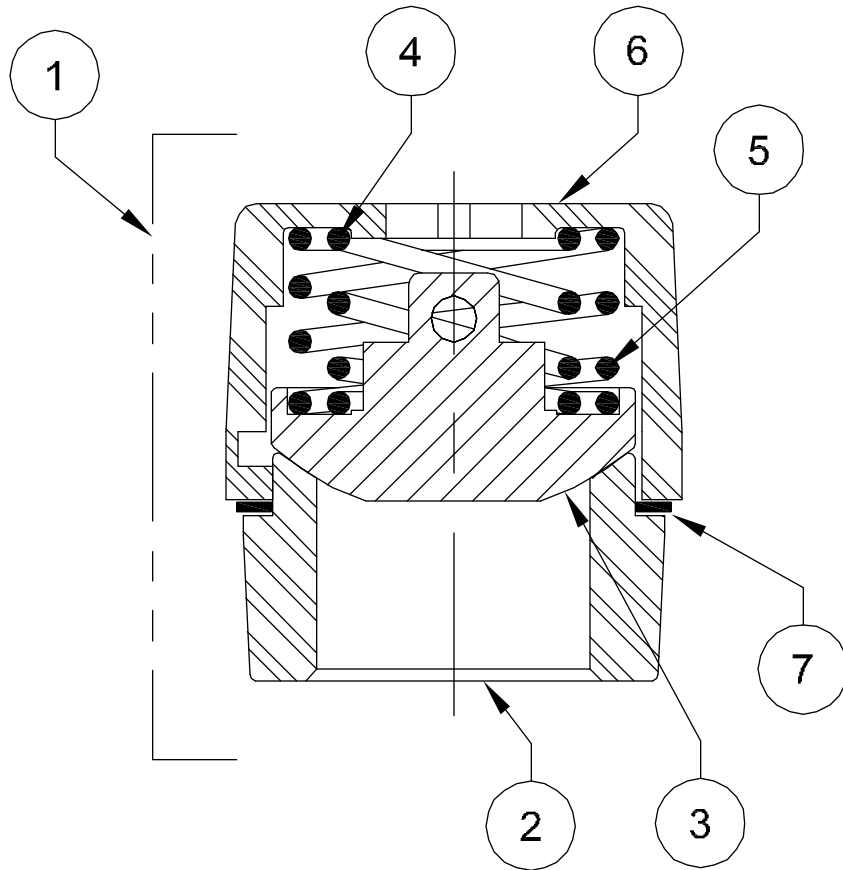
- 1.) USE EXTREME PRESSURE GEAR LUBRICANT PER A.G.M.A. STD., 252.01 AGMA, LUBRICANT No. 4EP YEAR ROUND.
- 2.) LUBRICANT IS SEPARATE FROM PUMP CRANKCASE OIL.
- 3.) PINION SHAFT BEARINGS ARE FED FROM OIL TROUGHS. THE TROUGHS COLLECT OIL FROM GEAR MESH FLOWS.
- 4.) DRAIN FLUSH & REFILL AFTER FIRST TWO WEEKS OF OPERATION, THEN EVERY 6 MONTHS THEREAFTER.

**NOTES:**

- 1.) CRANKSHAFT PART NO.: **008-025573-348** MUST BE USED WITH GEAR REDUCER.
- 2.) PINION MAY BE REMOVED IF DESIRED WITHOUT PULLING GEAR OR DISTURBING CRANKSHAFT.
- 3.) PINION SHAFT IS NOT DESIGNED FOR OVERHUNG LOADS.

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: <b>GEAR RATIO CHART FOR BULL GEAR &amp; PINION GEAR 101T-4 ( T100 )</b>			
DWG No.:	118292	SCALE:	NONE
REV	A	SHT.:	2 OF 2

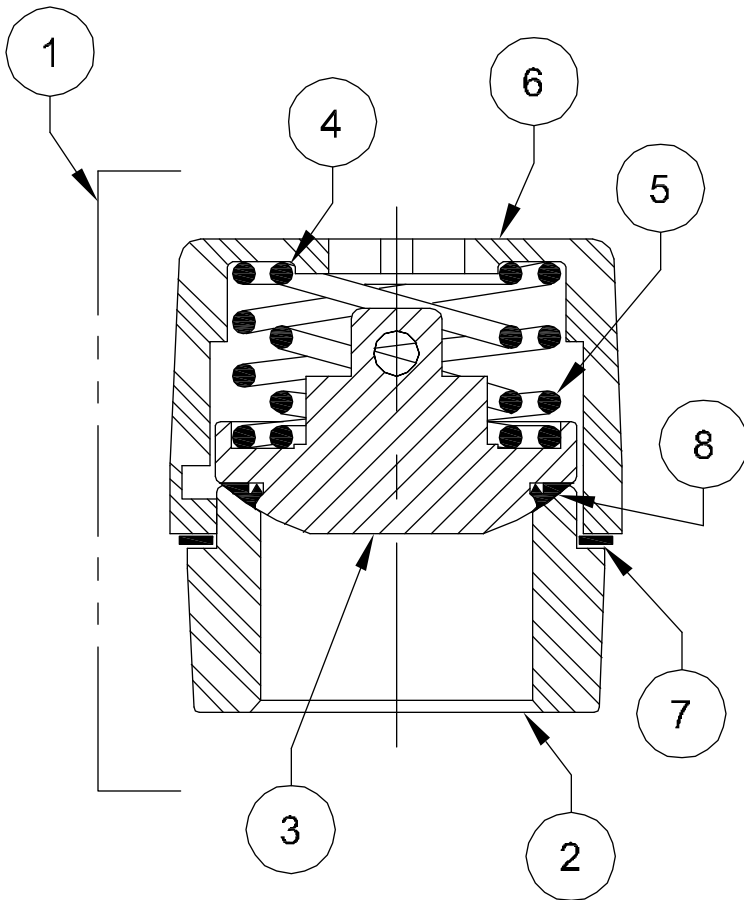
1	9707082	WAVE RING	7
1	17930246WX	RETAINER	6
1	1793025	SPRING, OUTER	5
1	1793026	SPRING, INNER	4
1	179302725	BODY ( VALVE) < * >	3
1	179303725	SEAT < * >	2
1	179303625W	ASSEMBLY, SPHERICAL VALVE	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			



< \* > NOT SOLD SEPERATELY

16

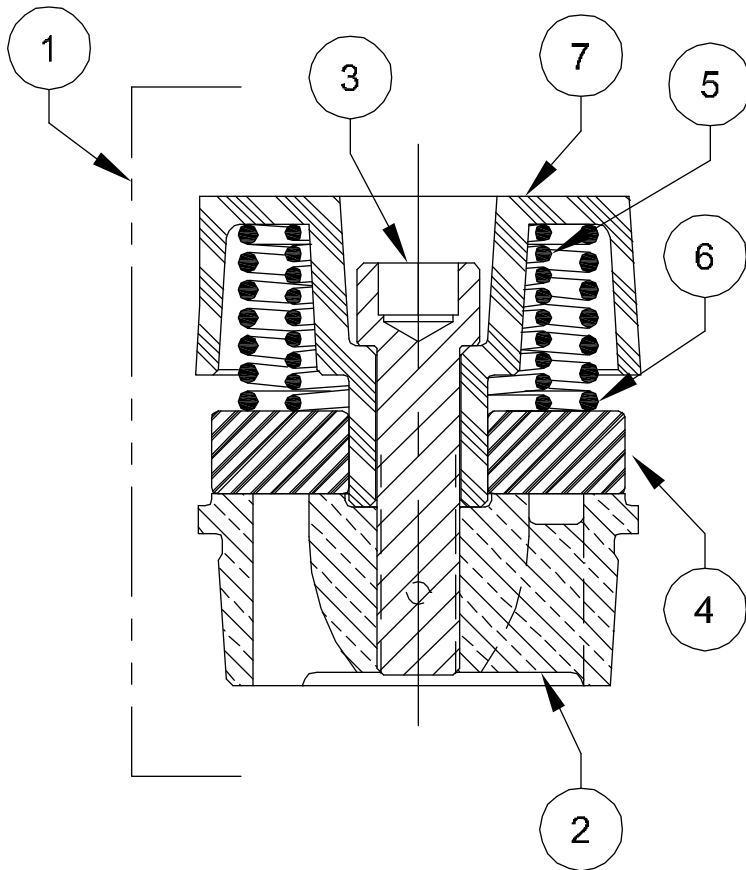
<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, SPHERICAL VALVE 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No:	SCALE:	REV	SHT.:
118295	NONE	A	1 OF 1



1	9707086	VAVLE INSERT	8
1	9707082	WAVE RING	7
1	17930246WX	RETAINER	6
1	1793025	SPRING, OUTER	5
1	1793026	SPRING, INNER	4
1	179302725SD	BODY ( VALVE) < * >	3
1	179303725	SEAT < * >	2
1	179303625SD	ASSEMBLY, SPHERICAL, SEVERE DUTY	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

< \* > NOT SOLD SEPERATELY

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, SPHERICAL VALVE SEVERE DUTY 101T-4L, 133T-4 (T100-4, T140-4)			
DWG No.:	118296	SCALE:	NONE
REV	A	SHT.:	1 OF 1



1	SR01S	RETAINER	7
1	IS011	SPRING, OUTER	6
1	IS022	SPRING, INNER	5
1	TP08	DISC - TITANIUM	4
1	38178M	FASTENER	3
1	0010809	SEAT	2
		( TITANIUM )	
1	00ITP0809	ASSEMBLY, TI/CF8M DISC VALVE	1
REQ'D	Part No.	DESCRIPTION	ITEM
1	SR01S	RETAINER	7
1	IS011	SPRING, OUTER	6
1	IS022	SPRING, INNER	5
1	DP08	DISC - DELRIN	4
1	38178M	FASTENER	3
1	0010809	SEAT	2
		( DELRIN )	
1	001DP0809	ASSEMBLY, DEL/CF8M DISC VALVE	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

18

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

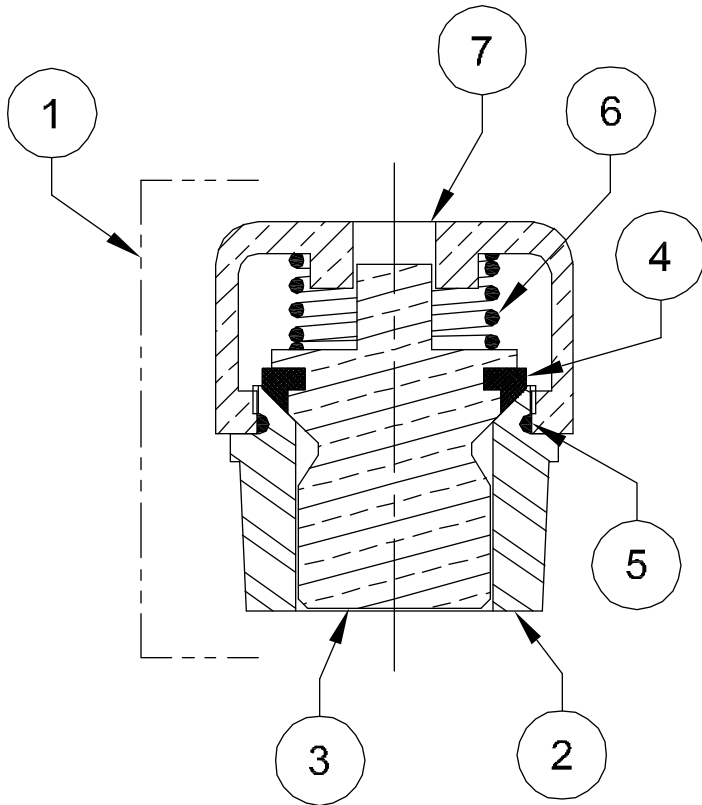
TITLE:  
 ASSEMBLY, DISC VALVE  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.: 118297 SCALE: NONE REV A SHT.: 1 OF 1

1	SDR08	RETAINER	7
1	IS011	SPRING	6
1	SDL09	THREAD LOCK	5
1	SDI08	INSERT	4
1	SD08	VALVE L/INSERT	3
1	1000809	SEAT	2
1	100SD0809	ASSEMBLY, SEVERE DUTY	1

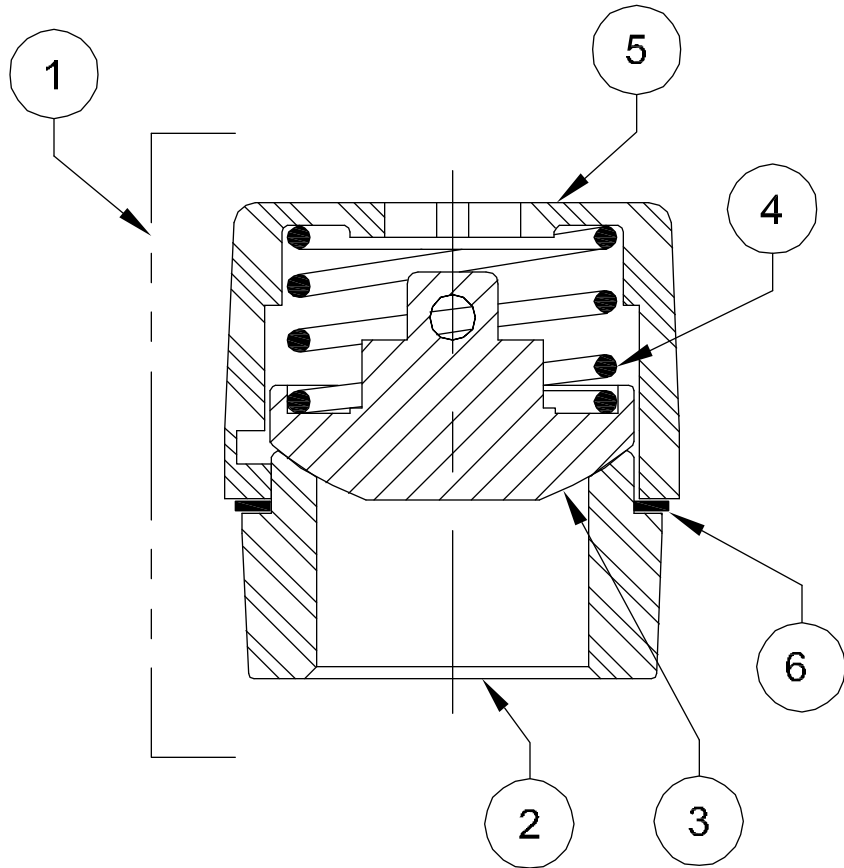
REQ'D	Part No.	DESCRIPTION	ITEM
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**BILL OF MATERIAL**



<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, SEVERE DUTY 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	SCALE:	REV	SHT.:
118299	NONE	A	1 OF 1

1	9707083	WAVE RING	6
1	17925246W	RETAINER	5
1	1792525	SPRING	4
1	179252725	BODY ( VALVE ) < * >	3
1	179253525	SEAT < * >	2
1	179253425W	ASSEMBLY, SPHERICAL VALVE	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			



< \* > NOT SOLD SEPERATELY

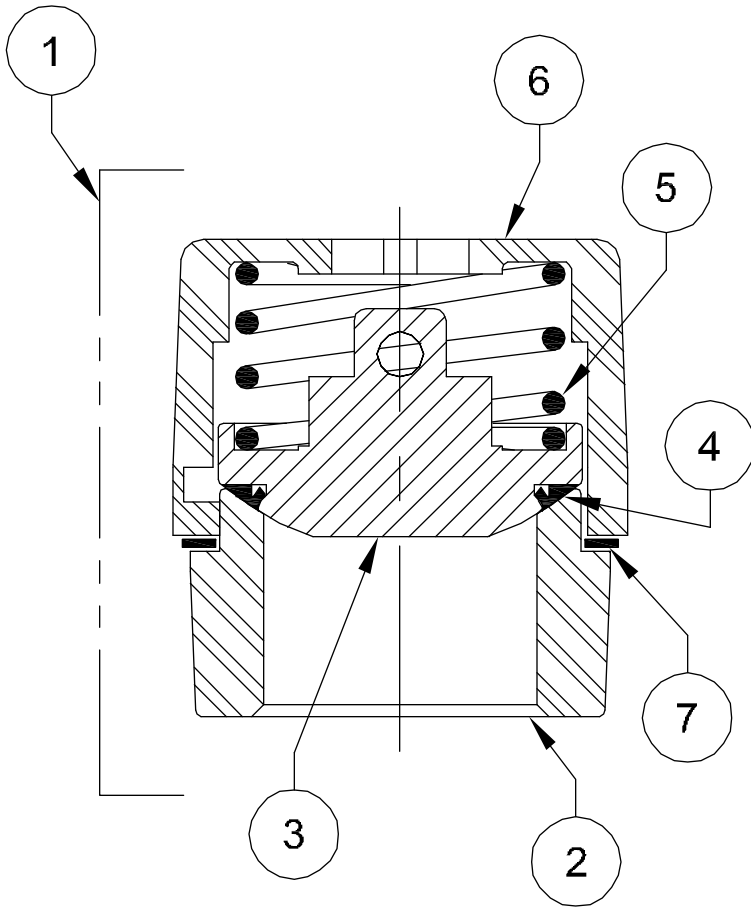


HOUSTON, TEXAS, U.S.A. ENGINEERING, TULSA, OKLAHOMA

TITLE:  
 ASSEMBLY, SPHERICAL VALVE  
 101T-4M, 133T-4M (T100-3, T140-3)  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	118300	SCALE:	NONE	REV	A	SHT.:	1 OF 1
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1	9707083	WAVE RING	7
1	17925246W	RETAINER	6
1	1792525	SPRING	5
1	9707087	VAVLE INSERT	4
1	179252725SD	BODY ( VALVE) < * >	3
1	179253525SD	SEAT < * >	2
1	179253425SD	ASSEMBLY, SPHERICAL, SEVERE DUTY	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			



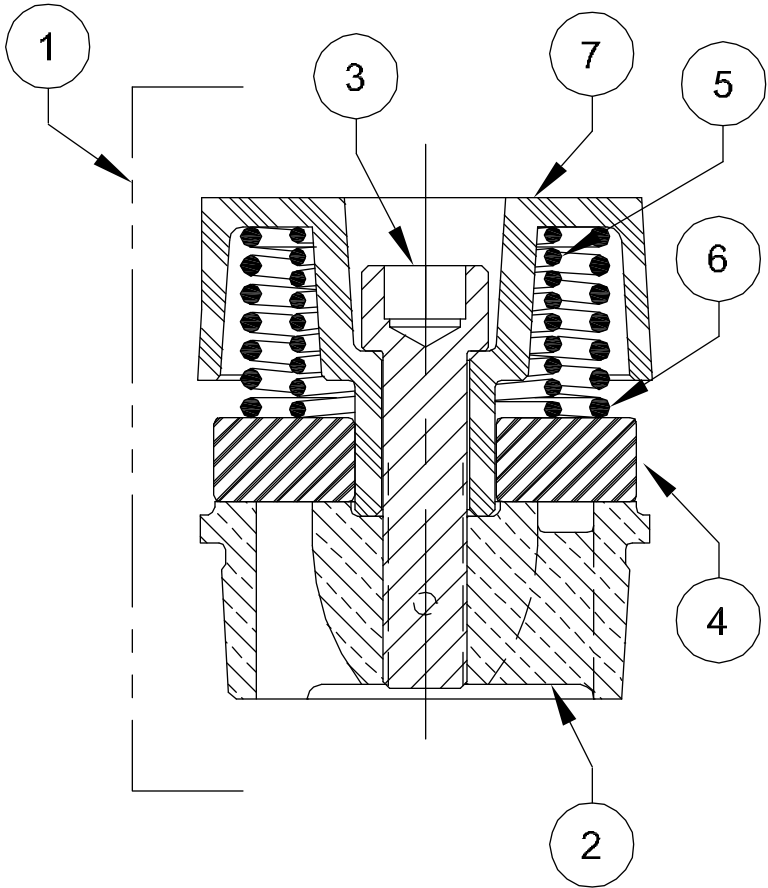
< \* > NOT SOLD SEPERATELY

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

TITLE:  
ASSEMBLY, SPHERICAL VALVE  
SEVERE DUTY  
101T-4M/MC, 133T-4M/MC (T100-3, T140-3)

DWG No:	118301	SCALE:	NONE	REV	A	SHT.:	1	OF	1
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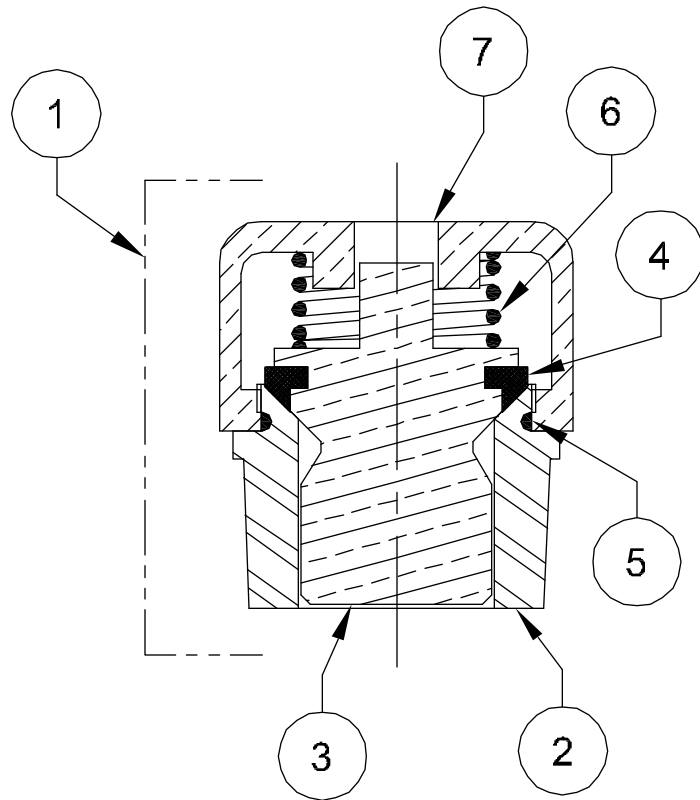
1	SR01S	RETAINER	7
1	IS011	SPRING, OUTER	6
1	IS022	SPRING, INNER	5
1	TP07	DISC - TITANIUM	4
1	38178M	FASTENER	3
1	0010402	SEAT	2
( TITANIUM )			
1	00ITP0402	ASSEMBLY, TI/CF8M DISC VALVE	1
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>	<b>ITEM</b>
1	SR01S	RETAINER	7
1	IS011	SPRING, OUTER	6
1	IS022	SPRING, INNER	5
1	DP07	DISC - DELRIN	4
1	38178M	FASTENER	3
1	0010402	SEAT	2
( DELRIN )			
1	001DP0402	ASSEMBLY, DEL/CF8M DISC VALVE	1
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>	<b>ITEM</b>

**BILL OF MATERIAL**

22

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, DISC VALVE 101T-4M, 133T-4M (T100-3, T140-3) 101T-4MC, 133T-4MC (T100-A3, T140-A3)			
DWG No.:	SCALE:	REV:	SHT.:
118302	NONE	A	1 OF 1

1	SDR07	RETAINER	7
1	SDS071	SPRING	6
1	SDL07	THREAD LOCK	5
1	SDI07	INSERT	4
1	SD07	VALVE L/INSERT	3
1	1000402	SEAT	2
1	100SD0402	ASSEMBLY, SEVERE DUTY	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			



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

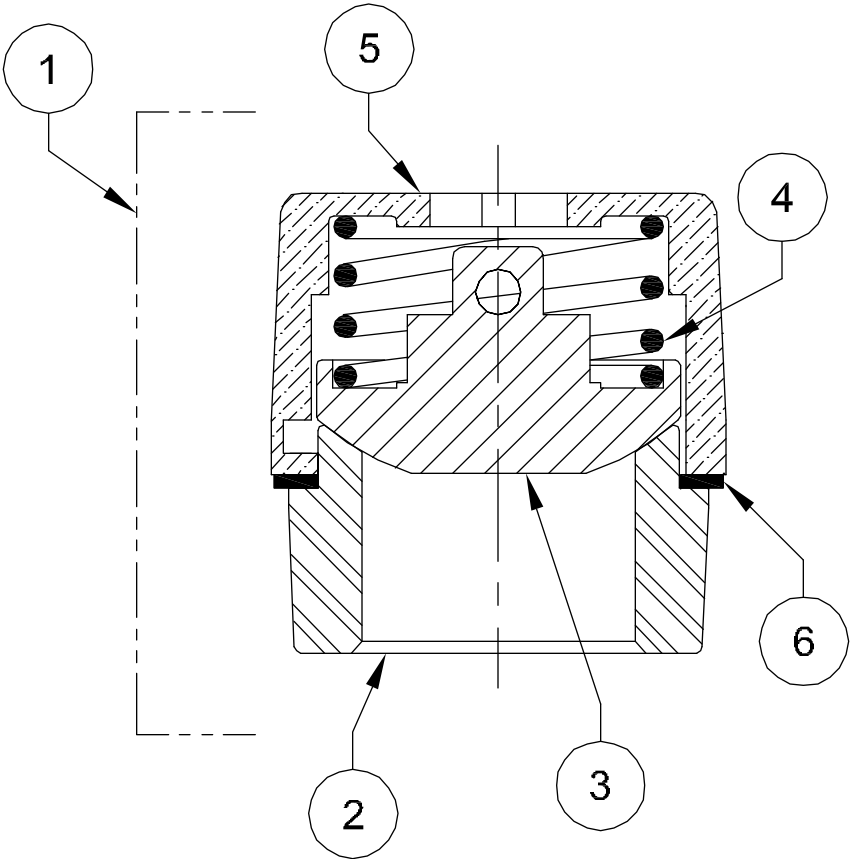
TITLE:  
**ASSEMBLY, SEVERE DUTY**  
101T-4M, 133T-4M (T100-3, T140-3)  
101T-4MC, 133T-4MC (T100-A3, T140-A3)


DWG No.:	SCALE:	REV	SHT.:
118304	NONE	A	1 OF 1

1	9707072	WAVE RING	6
1	17910036W	RETAINER	5
1	1792525	SPRING	4
1	179100225	BODY ( VALVE ) <*>	3
1	179100125M	SEAT <*>	2
1	179100025M	ASSEMBLY, SPHERICAL VALVE	1
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>	<b>ITEM</b>

BILL OF MATERIAL

<\*> NOT SOLD SEPERATELY

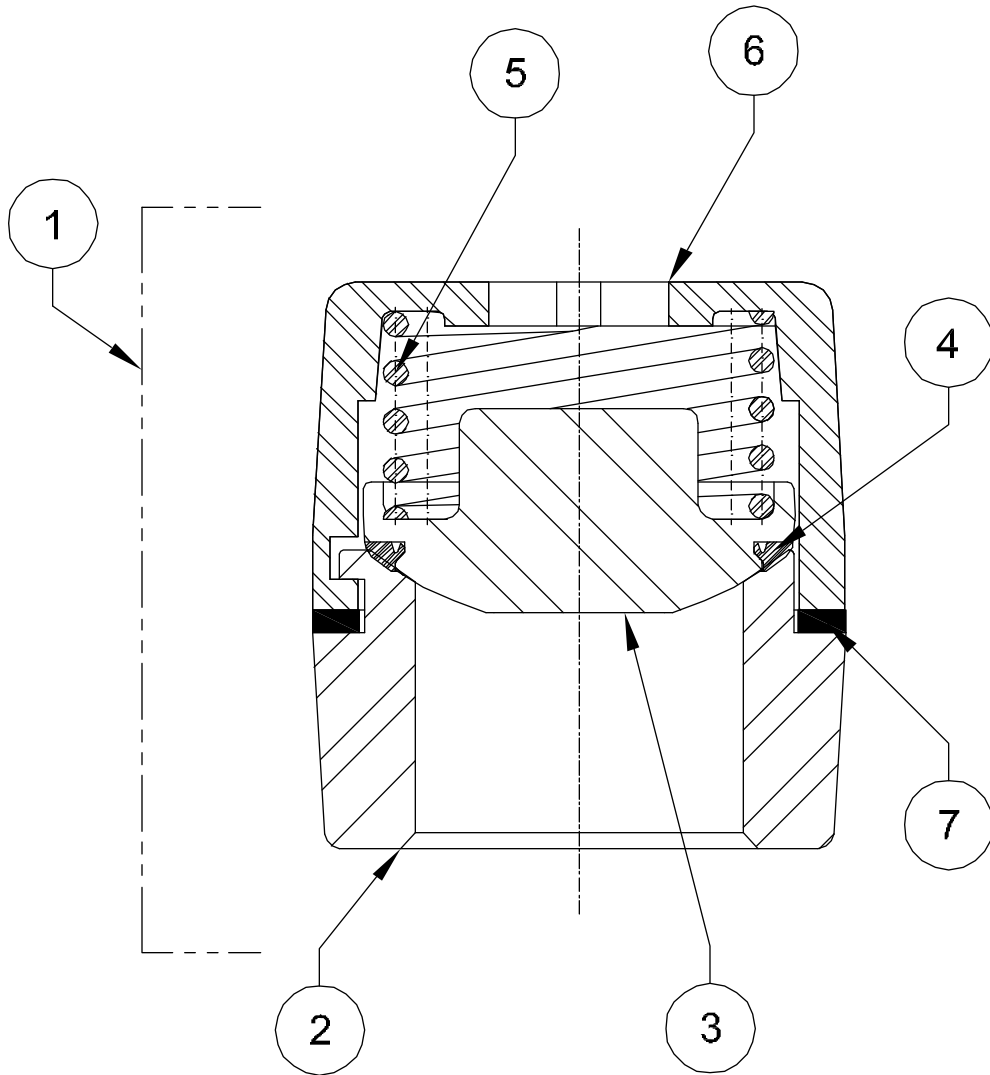


 <b>NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, SPHERICAL VALVE 101T-4H, 133T-4H (T100-2, T140-2)			
DWG No.:	SCALE:	REV	SH1.:
118462	NONE	A	1 OF 1

1	9707072	WAVE RING	7
1	17910036W	RETAINER	6
1	1792525	SPRING	5
1	9707071	VALVE INSERT	4
1	179100225SD	BODY ( VALVE ) <*>	3
1	179100125M	SEAT <*>	2
1	179100025SDM	ASSEMBLY, SPHERICAL, SEVERE DUTY	1
REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

<\*> NOT SOLD SEPERATELY



25

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, SPHERICAL VALVE  
"SEVERE DUTY"

101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:

118463

SCALE:

NONE

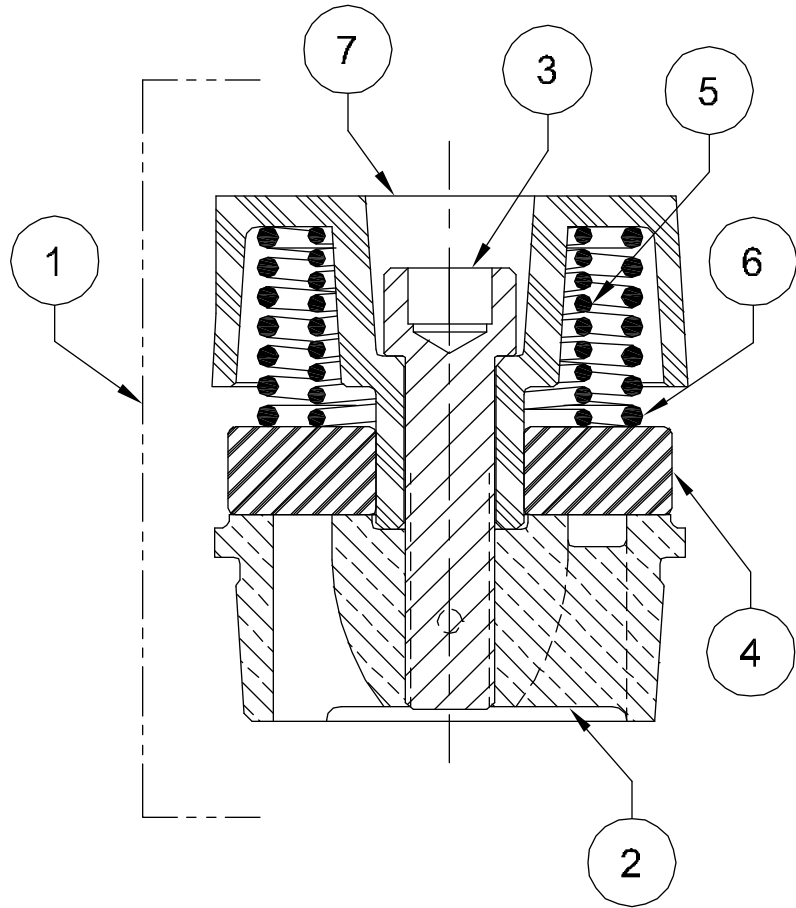
REV

A

SHT.:

1 OF 1

1	CAA-RT36S0-000	RETAINER	7
1	IS011	SPRING, OUTER	6
1	IS022	SPRING, INNER	5
1	TP05	DISC ( TITANIUM )	4
1	38178M	FASTENER	3
1	CAA-X5S130-000	SEAT	2
		(TITANIUM)	
1	CAA-X5ST2S-130	ASSEMBLY, TI/CF8M DISC VALVE	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			



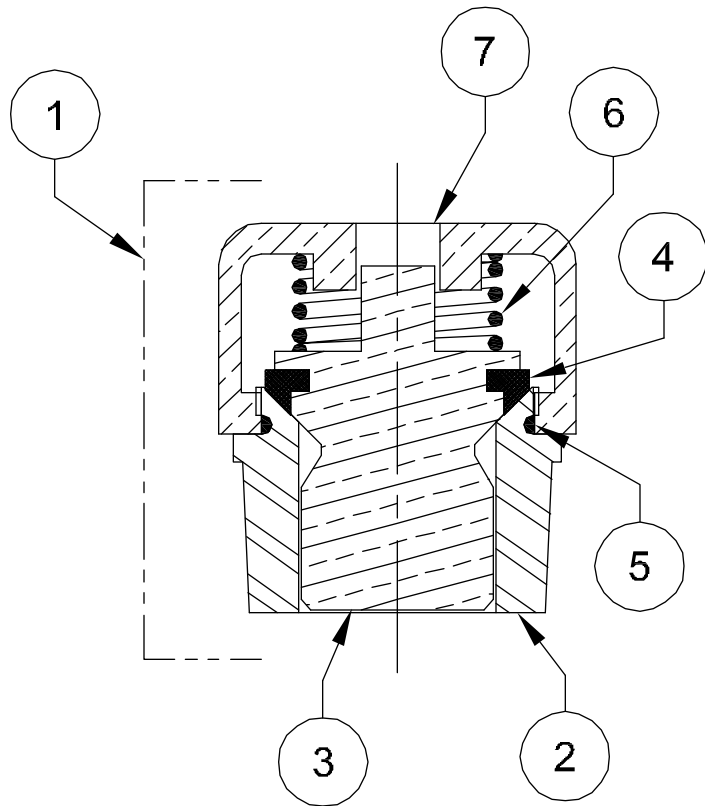
26

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

TITLE: ASSEMBLY, DISC VALVE  
101T-4H, 133T-4H (T100-2, T140-2)

DWG No.: 118461	SCALE: NONE	REV A	SHT.: 1 OF 1
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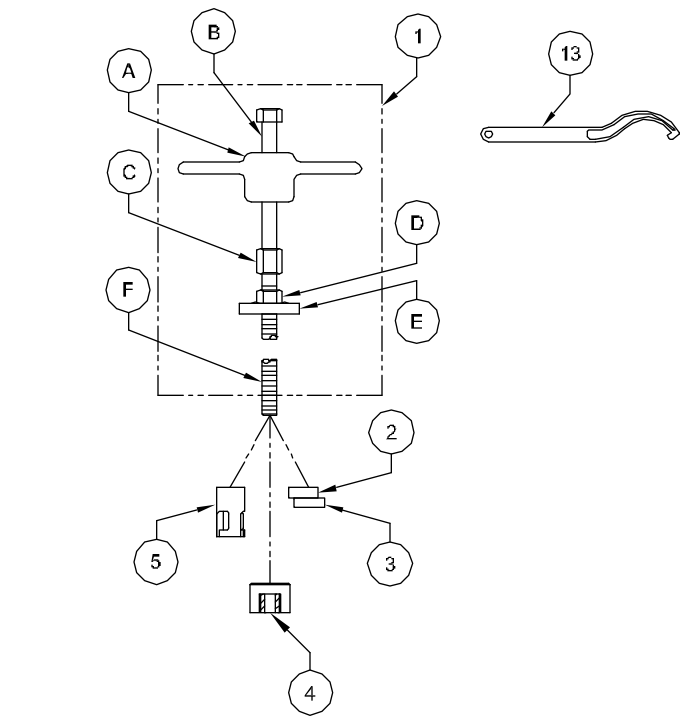
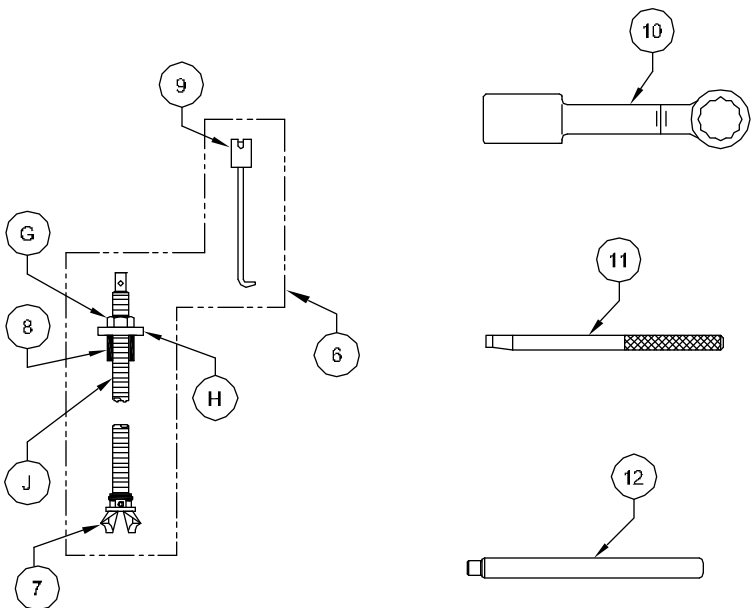
1	SDR05	RETAINER	7
1	SDS051	SPRING	6
1	SDL05	THREAD LOCK	5
1	SDI05	INSERT	4
1	SD05	VALVE L/INSERT	3
1	1000513	SEAT	2
1	100SD0513	ASSEMBLY, SEVERE DUTY	1
REQ'D	Part No.	DESCRIPTION	ITEM
<b>BILL OF MATERIAL</b>			



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

TITLE:  
**ASSEMBLY, SEVERE DUTY**  
101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:	118305	SCALE:	NONE	REV	A	SHT.:	1	OF	1
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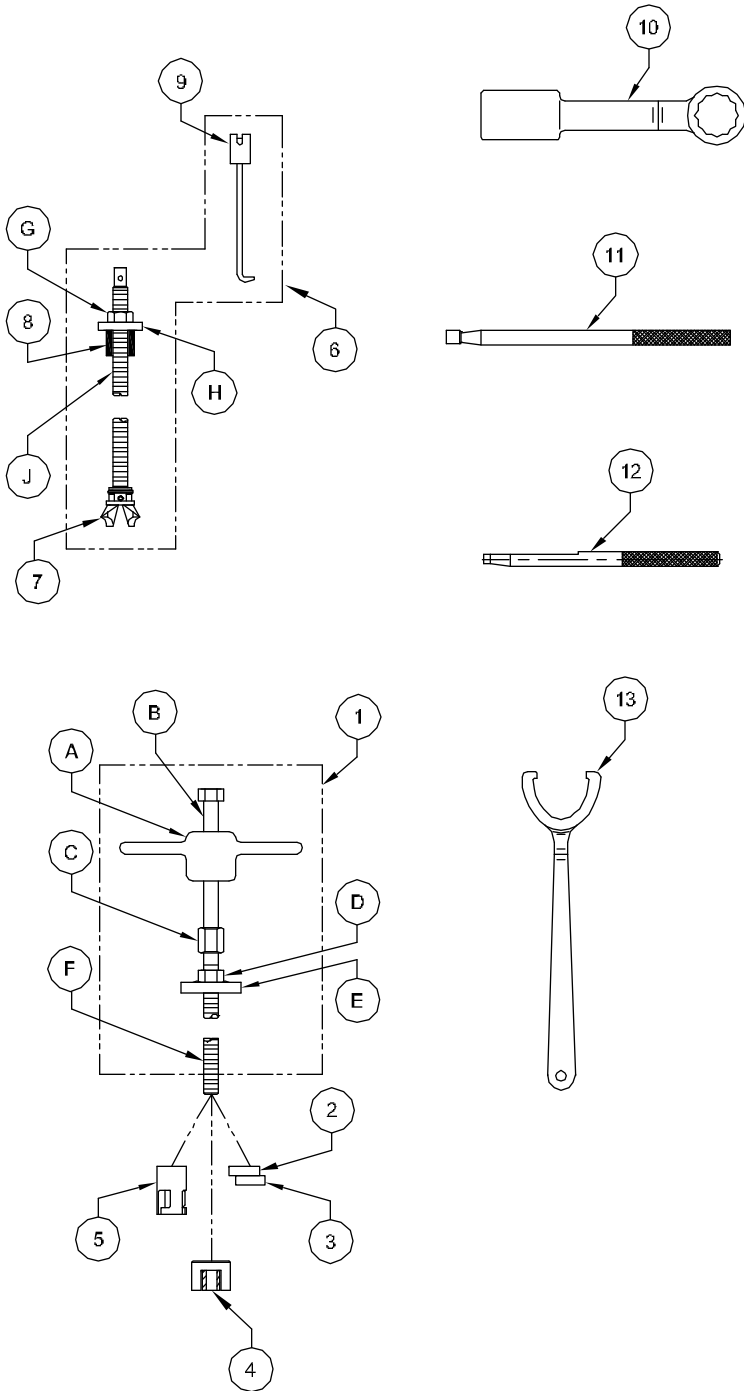


1	002-025720-231	WRENCH, GLAND NUT ( STD. SPANNER )	13
1	AAB-117875-270	WRENCH, GLAND NUT ( PIN TYPE - 0.750 HOLE )	12
1	AAB-051293-274	WRENCH, GLAND NUT ( PIN TYPE - 0.545 HOLE )	11
1	001-027585-999	WRENCH, VALVE COVER ( HAMMER WRENCH )	10
1	1790034	RETRIEVER	9
1	181205709	SPACER	8
1	181259300	PULLER HEAD	7
1	20220159	PULLER STEM	J
1	20220194	STRONG BACK	H
1	75518308	HOLD DOWN NUT	G
1	180104127	ASSEMBLY, VALVE SEAT PULLER - ( SPHERICAL )	6
1	AAC-011956-275	PULLER HEAD	5
1	008-028546-005	PULLER STEM	F
1	008-028546-035	STRONG BACK	E
1	008-028546-013	HOLD DOWN NUT	D
1	008-028546-016	ADAPTER NUT	C
1	008-028546-002	BUMPER STEM	B
1	008-028546-001	BUMPER	A
1	998-Q4240L-092	ASSEMBLY, VALVE SEAT PULLER - ( DISC VALVE )	1
1	008-028546-044	CAGE TOOL	4
1	008-028546-030	PULLER GUIDE	3
1	008-028546-022	ECCENTRIC, PULLER	2
1	008-028546-005	PULLER STEM	F
1	008-028546-035	STRONG BACK	E
1	008-028546-013	HOLD DOWN NUT	D
1	008-028546-016	ADAPTER NUT	C
1	008-028546-002	BUMPER STEM	B
1	008-028546-001	BUMPER	A
1	998-Q4240L-091	ASSEMBLY, VALVE SEAT PULLER - ( SEVERE DUTY )	1
REQ'D	Part No.	DESCRIPTION	ITEM
<b>BILL OF MATERIAL</b>			

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

TITLE:  
**TOOL SERVICE KIT**  
**"L" - CLASS FLUID ENDS**  
**101T-4L, 133T-4L (T100-4, T140-4)**

DWG No.: 118298 SCALE: NONE REV A SHT.: 1 OF 1



1	002-027780-351	WRENCH, GLAND NUT ( DUCTILE IRON)	13
1	AAB-030945-274	WRENCH, GLAND NUT ( PINTYPE - 0.531 HOLE)	12
1	002-051293-274	WRENCH, GLAND NUT ( PINTYPE - 0.545 HOLE)	11
1	001-027584-999	WRENCH, VALVE COVER ( HAMMER WRENCH)	10
1	1790034	RETRIEVER	9
1	181205709	SPACER	8
1	181259250	PULLER HEAD	7
1	20220159	PULLER STEM	J
1	20220194	STRONG BACK	H
1	75518308	HOLD DOWN NUT	G
1	180104119	ASSEMBLY, VALVE SEAT PULLER - ( SPHERICAL )	6
1	001-012497-274	PULLER HEAD	5
1	008-028546-004	PULLER STEM	F
1	008-028546-035	STRONG BACK	E
1	008-028546-012	HOLD DOWN NUT	D
1	008-028546-015	ADAPTER NUT	C
1	008-028546-002	BUMPER STEM	B
1	008-028546-001	BUMPER	A
1	998-Q4240M-092	ASSEMBLY, VALVE SEAT PULLER - ( DISC VALVE )	1
1	008-028546-043	CAGE TOOL	4
1	008-028546-027	PULLER GUIDE	3
1	008-028546-019	ECCENTRIC, PULLER	2
1	008-028546-005	PULLER STEM	F
1	008-028546-035	STRONG BACK	E
1	008-028546-013	HOLD DOWN NUT	D
1	008-028546-016	ADAPTER NUT	C
1	008-028546-002	BUMPER STEM	B
1	008-028546-001	BUMPER	A
1	998-Q4240M-091	ASSEMBLY, VALVE SEAT PULLER - ( SEVERE DUTY )	1
REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

TOOL SERVICE KIT  
"M" - CLASS FLUID ENDS  
101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118303

SCALE:

NONE

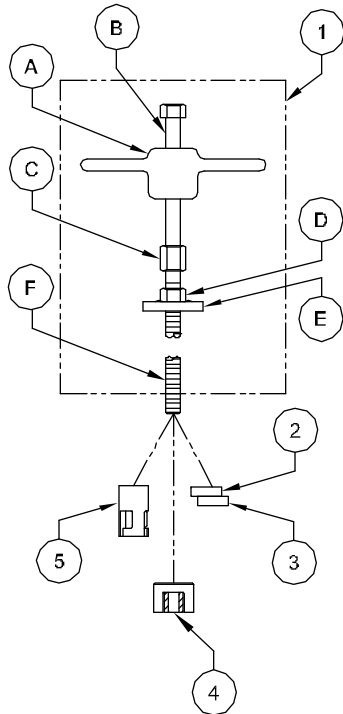
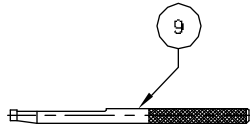
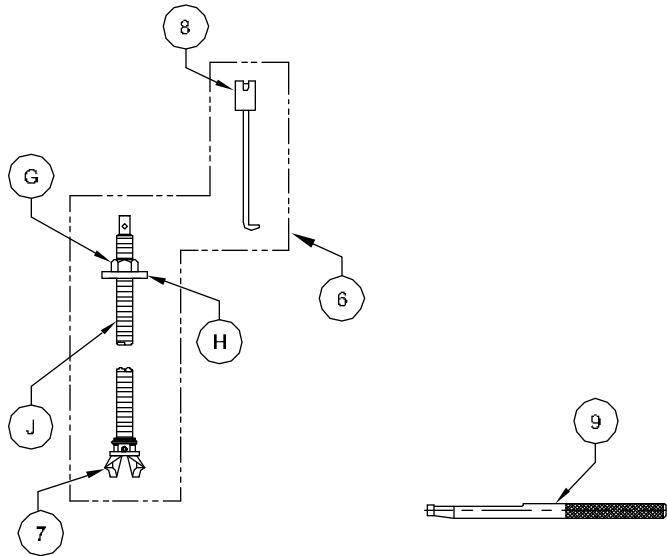
REV

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SHT.:

1 OF 1





1	AAB-030945-274	WRENCH, GLAND NUT ( PIN TYPE - 0.531 HOLE)	9
1	1790034	RETRIEVER	8
1	181259225	PULLER HEAD	7
1	20220331	PULLER STEM	J
1	20220332	STRONG BACK	H
1	75510312	HOLD DOWN NUT	G
1	181259226	ASSEMBLY, VALVE SEAT PULLER - ( SPHERICAL )	6
1	001-019433-274	PULLER HEAD	5
1	008-028546-005	PULLER STEM	F
1	008-028546-035	STRONG BACK	E
1	008-028546-013	HOLD DOWN NUT	D
1	008-028546-016	ADAPTER NUT	C
1	008-028546-002	BUMPER STEM	B
1	008-028546-001	BUMPER	A
1	998-Q3150M-092	ASSEMBLY, VALVE SEAT PULLER - ( DISC VALVE )	1
1	008-028546-043	CAGE TOOL	4
1	008-028546-028	PULLER GUIDE	3
1	008-028546-020	ECCENTRIC, PULLER	2
1	008-028546-004	PULLER STEM	F
1	008-028546-035	STRONG BACK	E
1	008-028546-012	HOLD DOWN NUT	D
1	008-028546-015	ADAPTER NUT	C
1	008-028546-002	BUMPER STEM	B
1	008-028546-001	BUMPER	A
1	998-Q3150M-091	ASSEMBLY, VALVE SEAT PULLER - ( SEVERE DUTY )	1
REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

30

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

TOOL SERVICE KIT  
 "H" - CLASS FLUID ENDS  
 101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:

118318

SCALE:

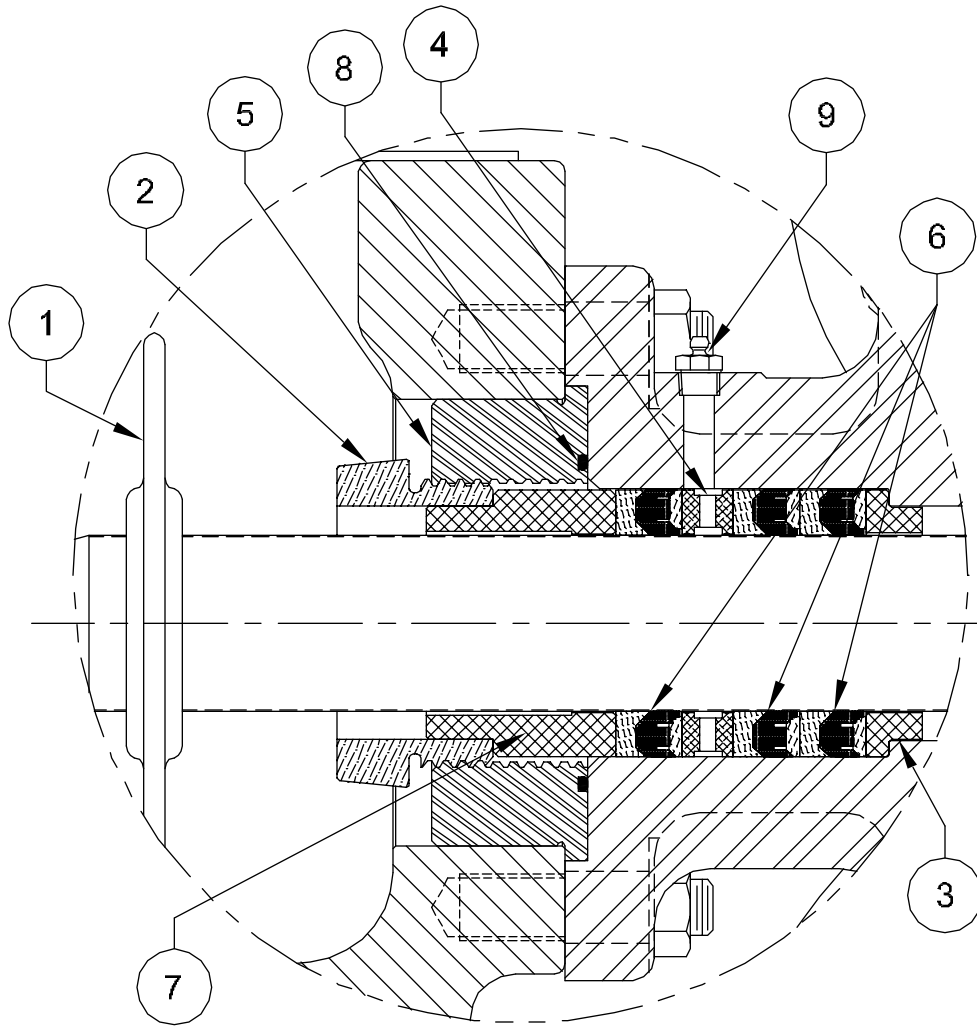
NONE

REV:

A

SHT.:

1 OF 1



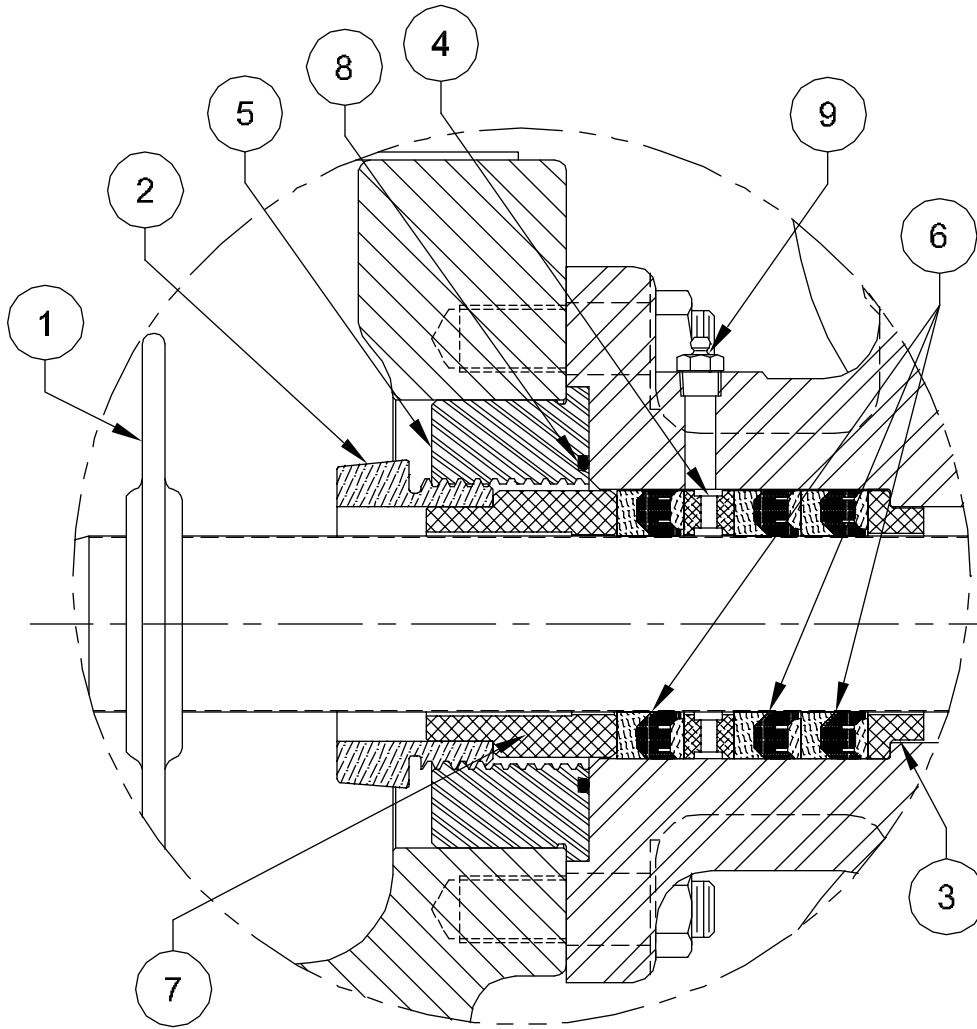
NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118306,  
 SHEETS 1 THRU 6.

3	180-165000-220	LUBE FITTING		9
3	110-000246-200	O-RING		8
3	AJC-114965-575		(SS)	
3	AJC-114965-235		(STL)	
3	AJC-114965-302	FOLLOWER	(BRZ)	7
3	218-234318-477		858	
3	218-234318-374		845	
3	218-234318-386		842	
3	218-234318-370	PACKING	838	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	001-024972-575		(SS)	
3	001-024972-235		(STL)	
3	001-024972-302	LANTERN RING	(BRZ)	4
3	AAC-115428-575		(SS)	
3	AAC-115428-235		(STL)	
3	AAC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
( 2-3/4" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

31

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, PLUNGER KIT "J"-STYLE PKG, 2-3/4" THRU 3-3/8" PLUNGER 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	118306	SCALE:	NONE
REV	A	SHT.:	1 OF 6



NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118306,  
 SHEETS 1 THRU 6.

3	180-165000-220	LUBE FITTING		9
3	110-000246-200	O-RING		8
3	AKC-114965-575		(SS)	7
3	AKC-114965-235		(STL)	
3	AKC-114965-302	FOLLOWER	(BRZ)	7
3	218-278318-477		858	
3	218-278318-374		845	
3	218-278318-386		842	
3	218-278318-370	PACKING	838	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	001-011194-575		(SS)	
3	001-011194-235		(STL)	
3	001-011194-302	LANTERN RING	(BRZ)	4
3	ABC-115428-575		(SS)	
3	ABC-115428-235		(STL)	
3	ABC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030944-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
( 2-7/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

32

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 2-3/4" THRU 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:

118306

SCALE:

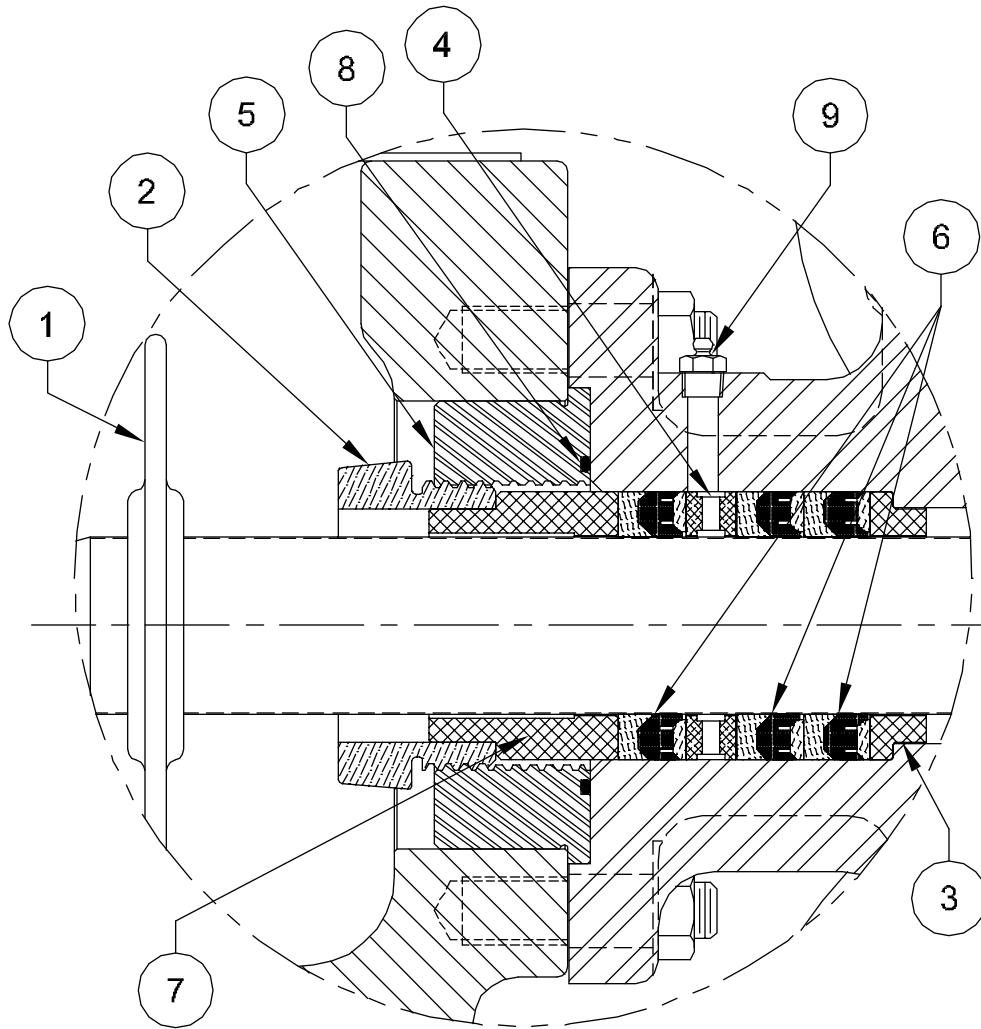
NONE

REV

A

SHT.:

2 OF 6

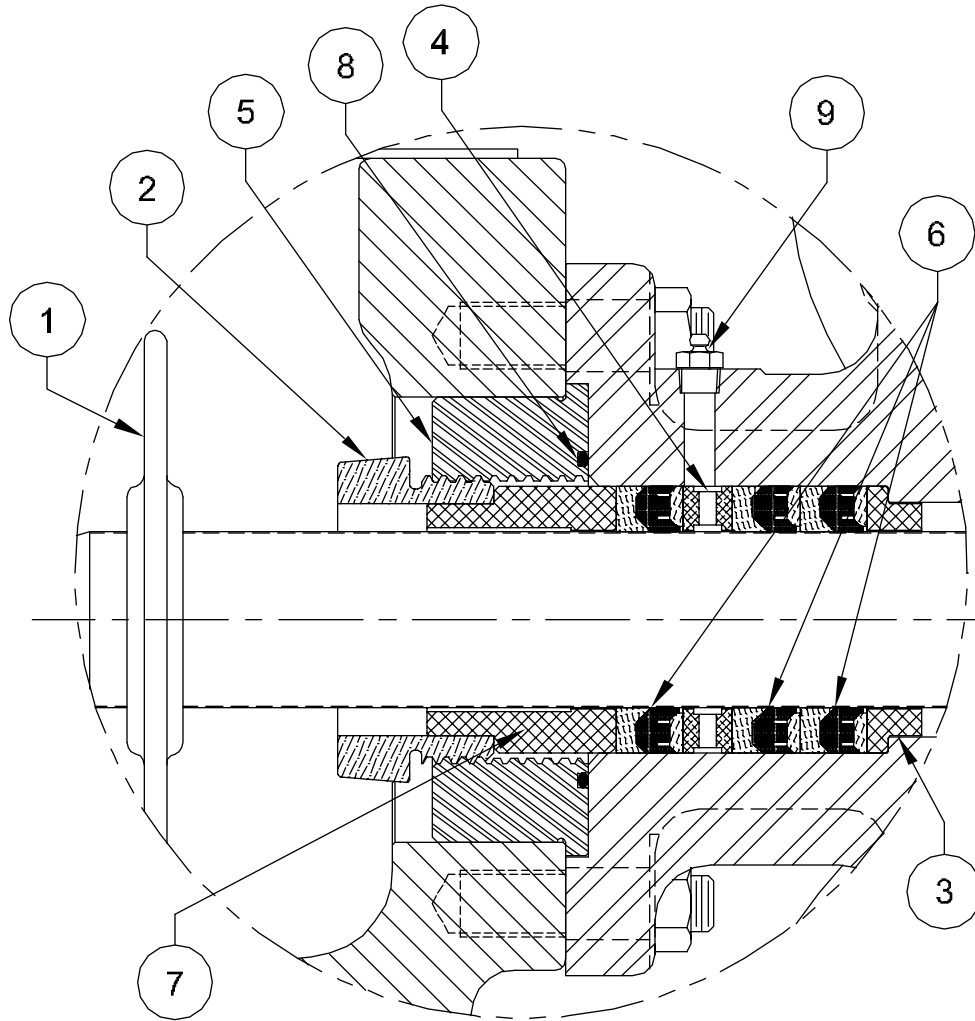


NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118306,  
 SHEETS 1 THRU 6.

3	180-165000-220	LUBE FITTING		9
3	110-000246-200	O-RING		8
3	ALC-114965-575		(SS)	
3	ALC-114965-235		(STL)	
3	ALC-114965-302	FOLLOWER	(BRZ)	7
3	218-300281-477		858	
3	218-300281-374		845	
3	218-300281-386		842	
3	218-300281-370	PACKING	838	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	001-011195-575		(SS)	
3	001-011195-235		(STL)	
3	001-011195-302	LANTERN RING	(BRZ)	4
3	ACC-115428-575		(SS)	
3	ACC-115428-235		(STL)	
3	ACC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
( 3" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, PLUNGER KIT "J"-STYLE PKG, 2-3/4" THRU 3-3/8" PLUNGER 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	118306	SCALE:	NONE
REV	A	SHT.:	3 OF 6



3	180-165000-220	LUBE FITTING		9
3	110-000246-200	O-RING		8
3	AMC-114965-575		(SS)	
3	AMC-114965-235		(STL)	
3	AMC-114965-302	FOLLOWER	(BRZ)	7
3	218-318258-477		858	
3	218-318258-374		845	
3	218-318258-386		842	
3	218-318258-370	PACKING	838	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	001-011196-575		(SS)	
3	001-011196-235		(STL)	
3	001-011196-302	LANTERN RING	(BRZ)	4
3	ADC-115428-575		(SS)	
3	ADC-115428-235		(STL)	
3	ADC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 3-1/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

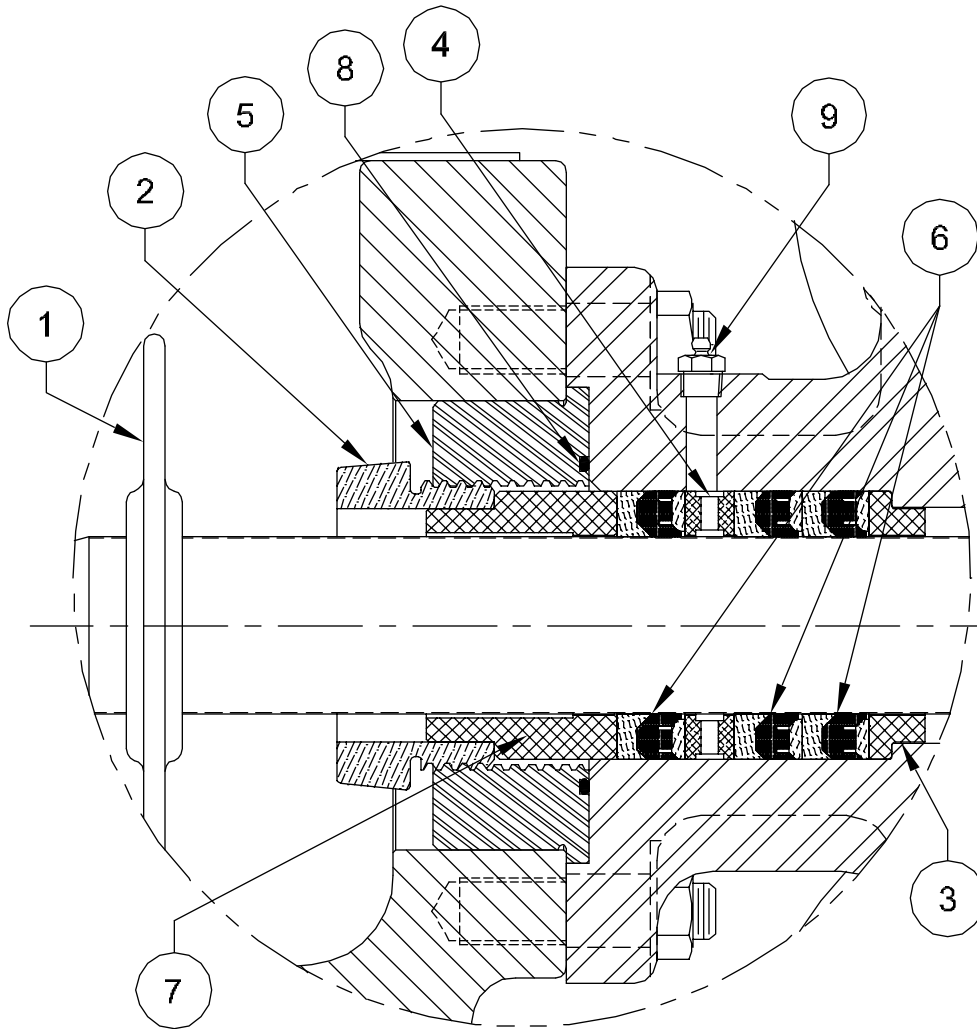
<\*> COATED STAINLESS STEEL

NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118306,  
 SHEETS 1 THRU 6.

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 2-3/4" THRU 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:	118306	SCALE:	NONE	REV	A	SHT.:	4 OF 6
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**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118306, SHEETS 1 THRU 6.

3	180-165000-220	LUBE FITTING		9
3	110-000246-200	O-RING		8
3	ANC-114965-575		(SS)	
3	ANC-114965-235		(STL)	
3	ANC-114965-302	FOLLOWER	(BRZ)	7
3	218-314214-477		858	
3	218-314214-374		845	
3	218-314214-386		842	
3	218-314214-370	PACKING	838	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	001-011197-575		(SS)	
3	001-011197-235		(STL)	
3	001-011197-302	LANTERN RING	(BRZ)	4
3	AEC-115428-575		(SS)	
3	AEC-115428-235		(STL)	
3	AEC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 3-1/4" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

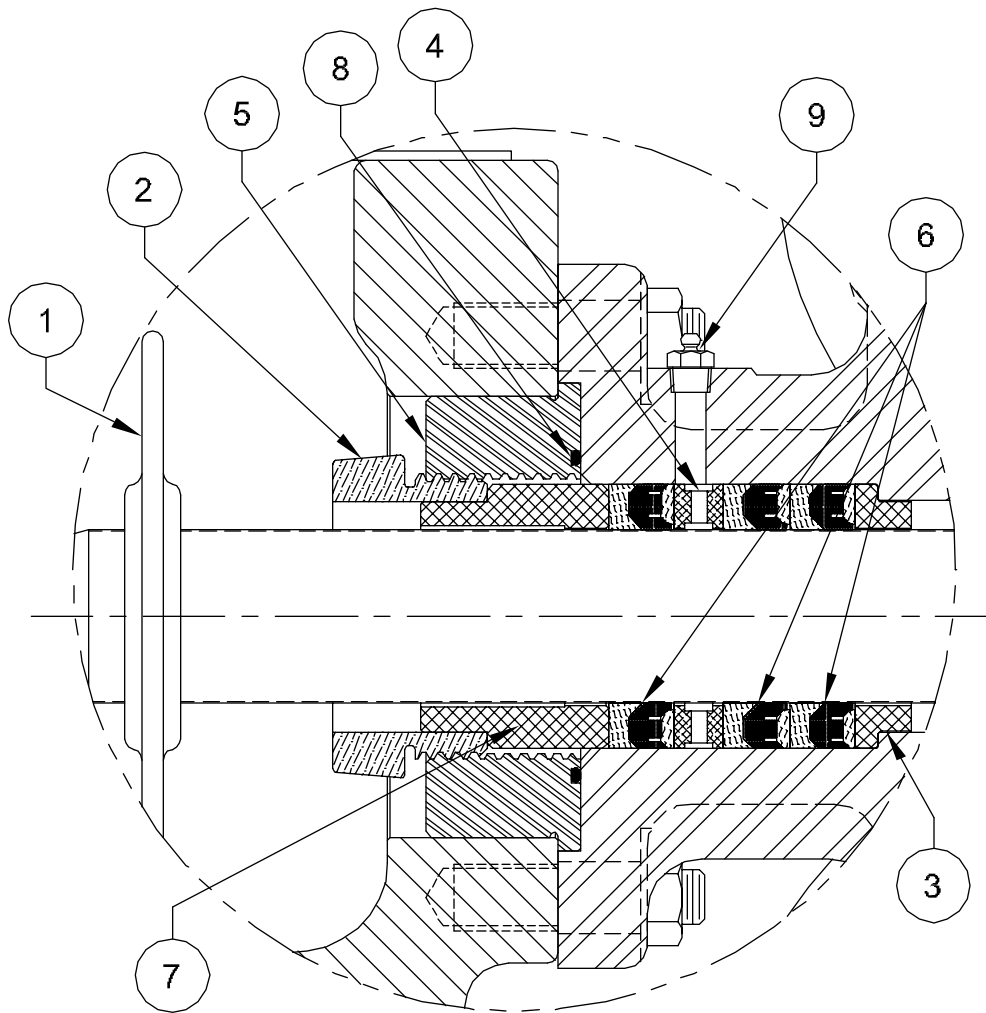
35



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**"J"-STYLE PKG, 2-3/4" THRU 3-3/8" PLUNGER**  
**101T-4L, 133T-4L (T100-4, T140-4)**

DWG No.:	118306	SCALE:	NONE	REV	A	SHT.:	5 OF 6
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NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118306,  
 SHEETS 1 THRU 6.

3	180-165000220	LUBE FITTING		9
3	110-000246-200	O-RING		8
3	LRC-103259-575		(SS)	
3	LRC-114965-235		(STL)	
3	LRC-114965-302	FOLLOWER	(BRZ)	7
3	218-338214-477		858	
3	218-338214-374		845	
3	218-338214-386		842	
3	218-338214-370	PACKING	838	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	001-024975-575		(SS)	
3	001-024975-235		(STL)	
3	001-024975-302	LANTERN RING	(BRZ)	4
3	001-024976-575		(SS)	
3	001-024976-235		(STL)	
3	001-024976-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 3-3/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

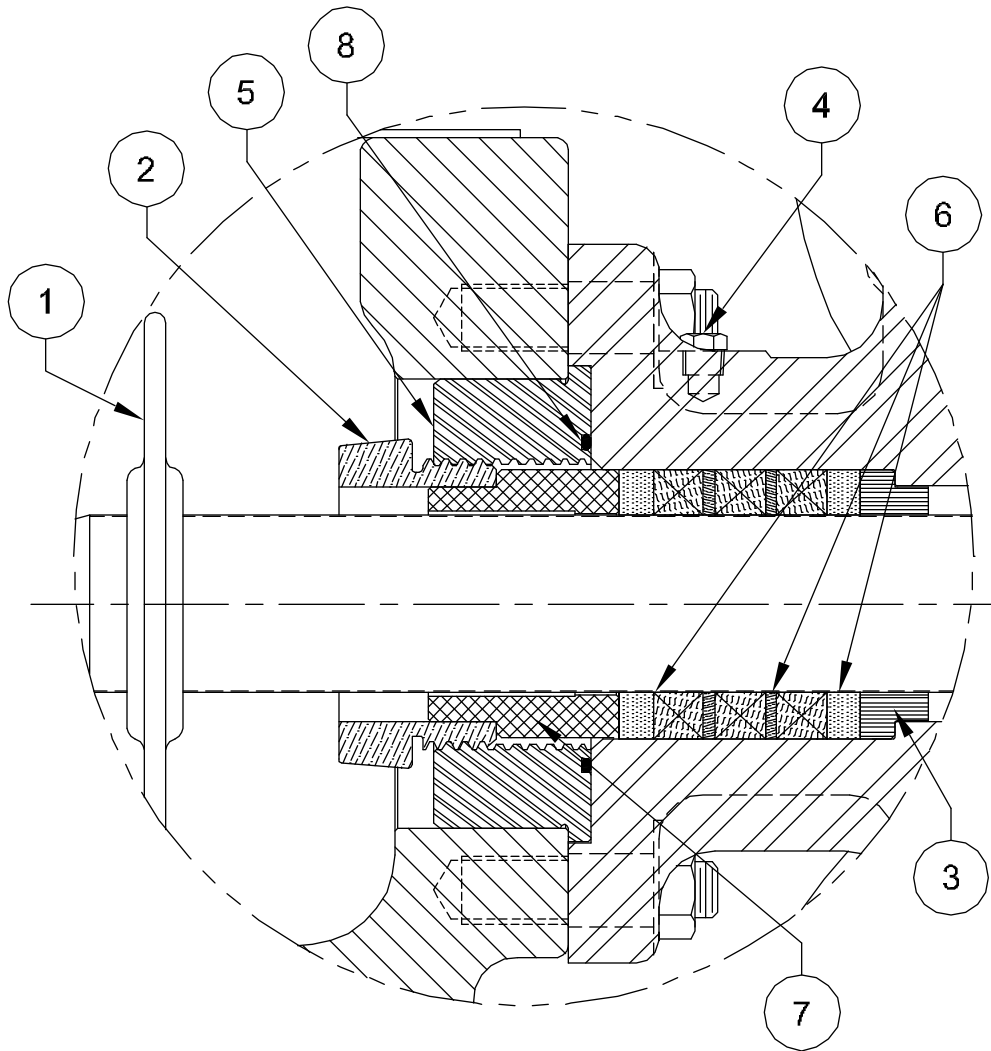
<\*> COATED STAINLESS STEEL

36

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 2-3/4" THRU 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:	SCALE:	REV	SHT.:
118306	NONE	A	6 OF 6



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118307,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	AJC-114965-575		(SS)	
3	AJC-114965-235		(STL)	
3	AJC-114965-302	FOLLOWER	(BRZ)	7
3	437-234334-458		8921-K	
3	437-234334-339		249	
3	437-234334-337		241	
3	437-234334-395	PACKING	238	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	AAC-115428-575		(SS)	
3	AAC-115428-235		(STL)	
3	AAC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 2-3/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM
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BILL OF MATERIAL

<\*> COATED STAINLESS STEEL



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 2-3/4" - 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:

118307

SCALE:

NONE

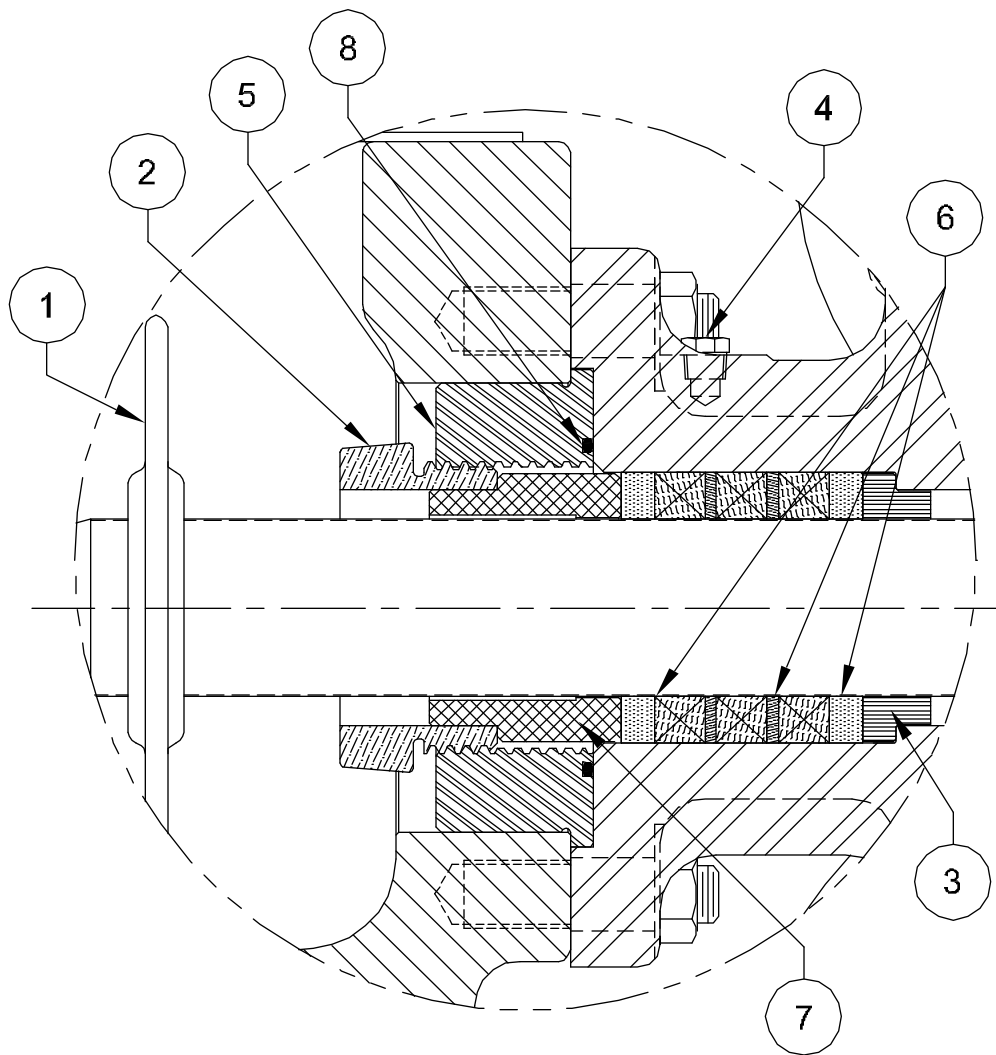
REV

A

SHT.:

1 OF 6





**NOTE**

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118307, SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	AKC-114965-575		(SS)	
3	AKC-114965-235		(STL)	
3	AKC-114965-302	FOLLOWER	(BRZ)	7
3	437-278334-458		8921-K	
3	437-278334-339		249	
3	437-278334-337		241	
3	437-278334-395	PACKING	238	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	ABC-115428-575		(SS)	
3	ABC-115428-235		(STL)	
3	ABC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 2-7/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM
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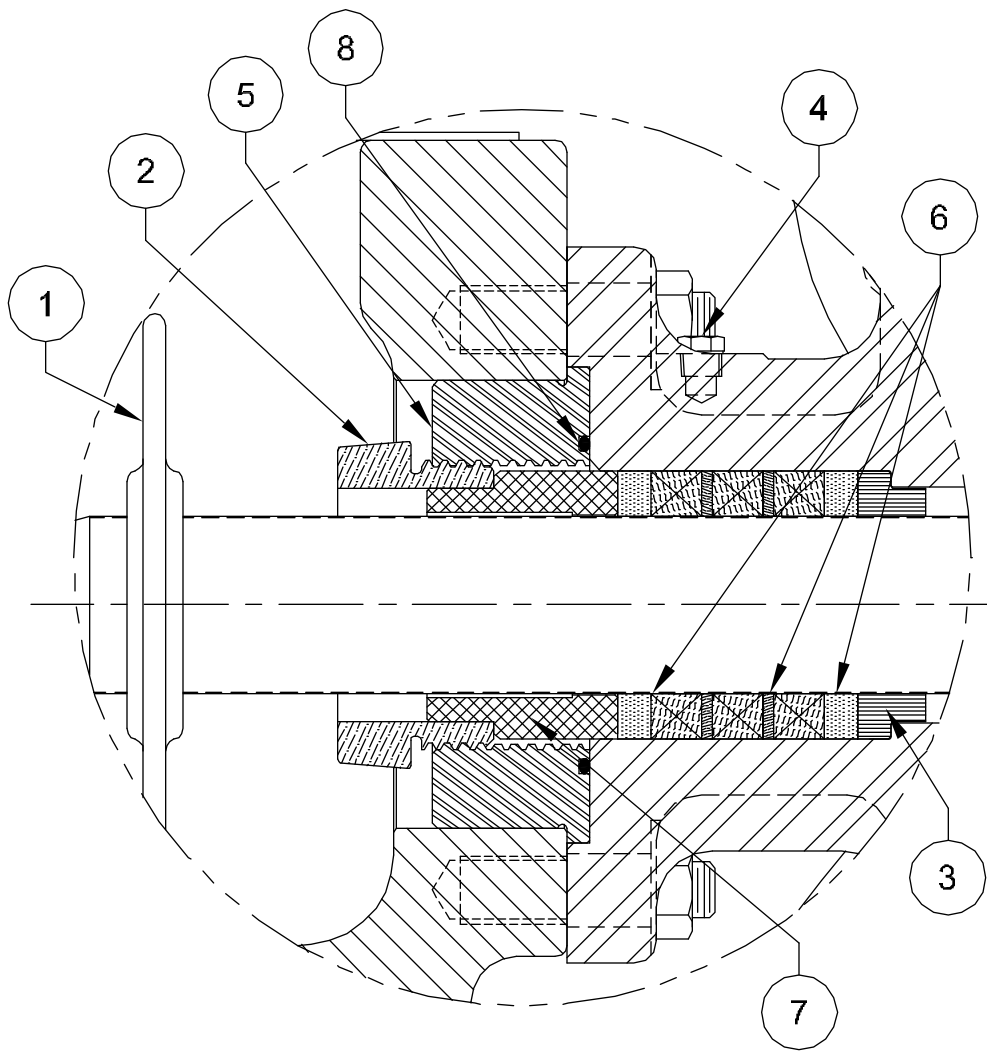
**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**BRAID STYLE PKG, 2-3/4" - 3-3/8" PLUNGER**  
**101T-4L, 133T-4L (T100-4, T140-4)**

DWG No.: 118307	SCALE: NONE	REV A	SHT.: 2 OF 6
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NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118307,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	ALC-114965-575		(SS)	
3	ALC-114965-235		(STL)	
3	ALC-114965-302	FOLLOWER	(BRZ)	7
3	437-300358-458		8921-K	
3	437-300358-339		249	
3	437-300358-337		241	
3	437-300358-395	PACKING	238	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	ACC-115428-575		(SS)	
3	ACC-115428-235		(STL)	
3	ACC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
( 3" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM

BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

39

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 2-3/4" - 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:

118307

SCALE:

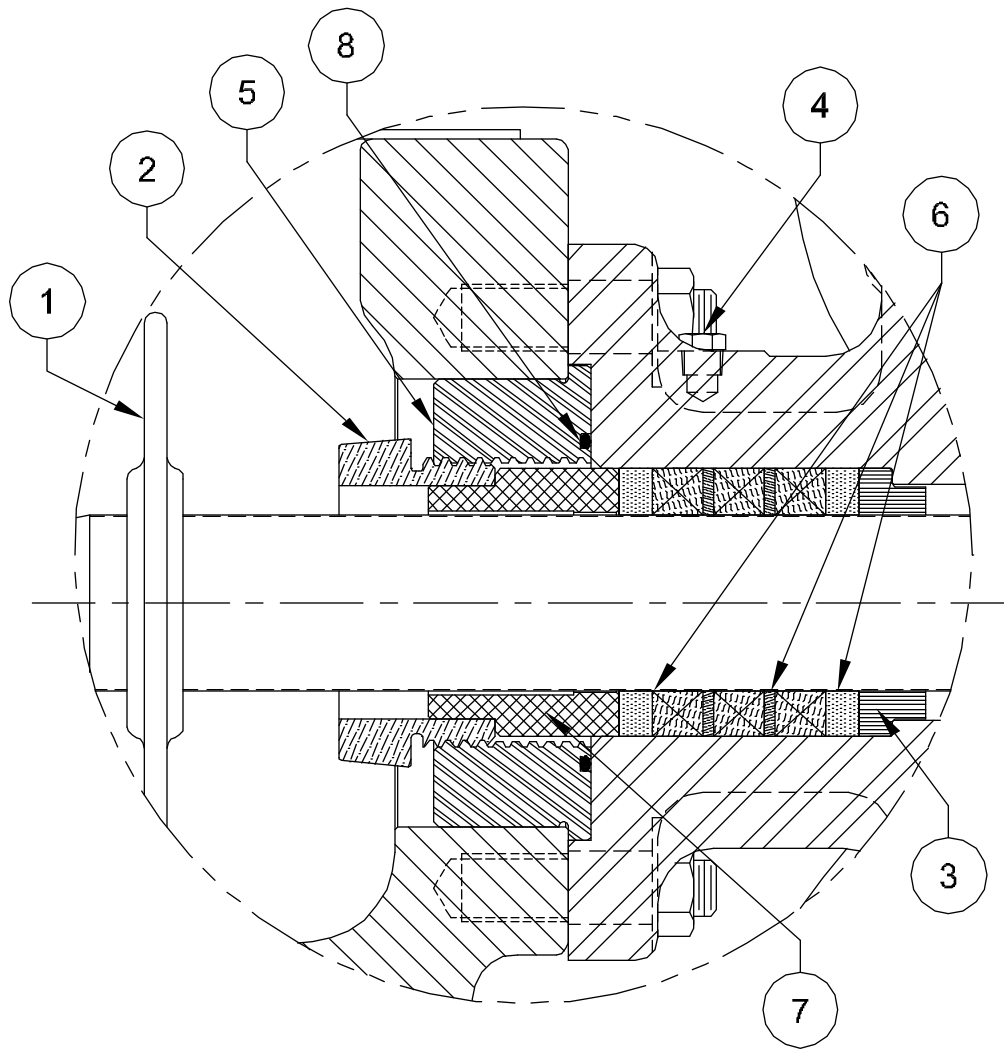
NONE

REV

A

SHT.:

3 OF 6



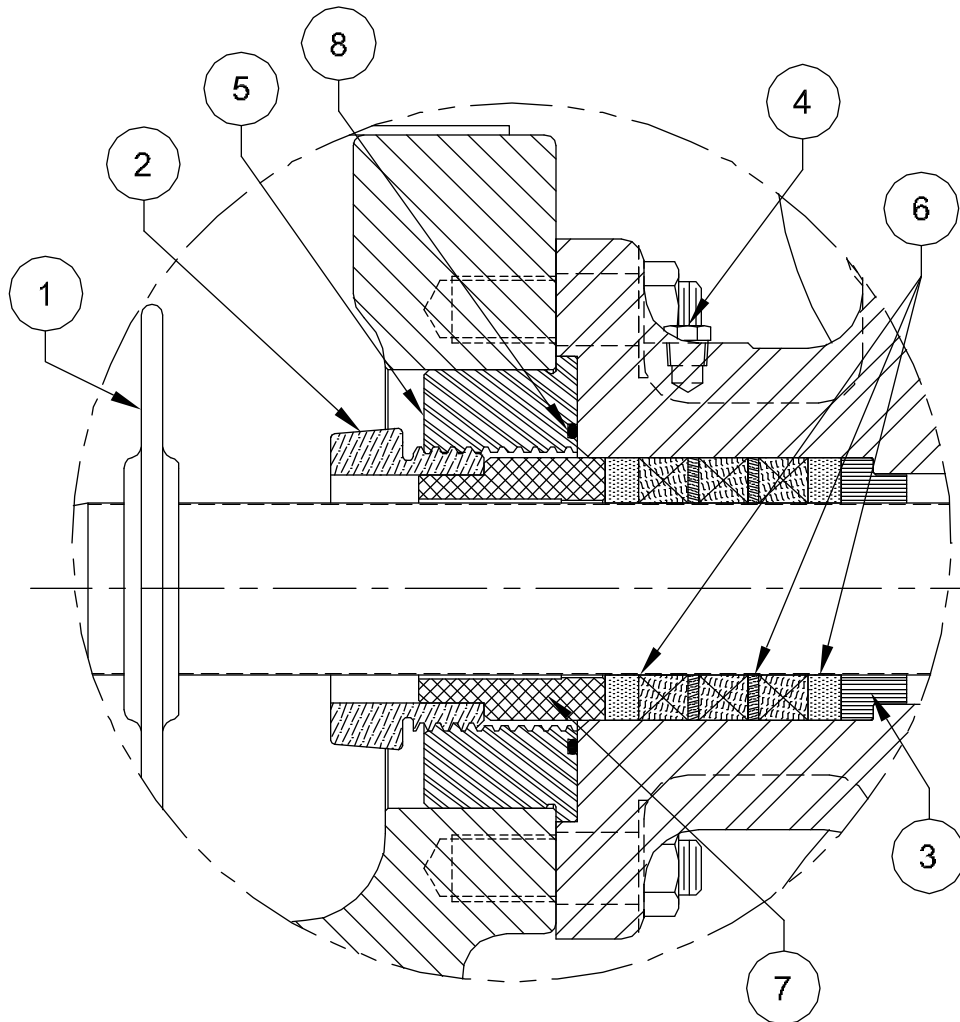
**NOTE**

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118307, SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	AMC-114965-575		(SS)	
3	AMC-114965-235		(STL)	
3	AMC-114965-302	FOLLOWER	(BRZ)	7
3	437-318334-458		8921-K	
3	437-318334-339		249	
3	437-318334-337		241	
3	437-318334-395	PACKING	238	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	ADC-115428-575		(SS)	
3	ADC-115428-235		(STL)	
3	ADC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 3-1/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, PLUNGER KIT BRAID STYLE PKG, 2-3/4" - 3-3/8" PLUNGER 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	SCALE:	REV	SHT.:
118307	NONE	A	4 OF 6



3	110-000246-200	O-RING		8
3	ANC-114965-575		(SS)	
3	ANC-114965-235		(STL)	
3	ANC-114965-302	FOLLOWER	(BRZ)	7
3	437-314314-458		8921-K	
3	437-314314-339		249	
3	437-314314-337		241	
3	437-314314-395	PACKING	238	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	AEC-115428-575		(SS)	
3	AEC-115428-235		(STL)	
3	AEC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 3-1/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

**NOTE**

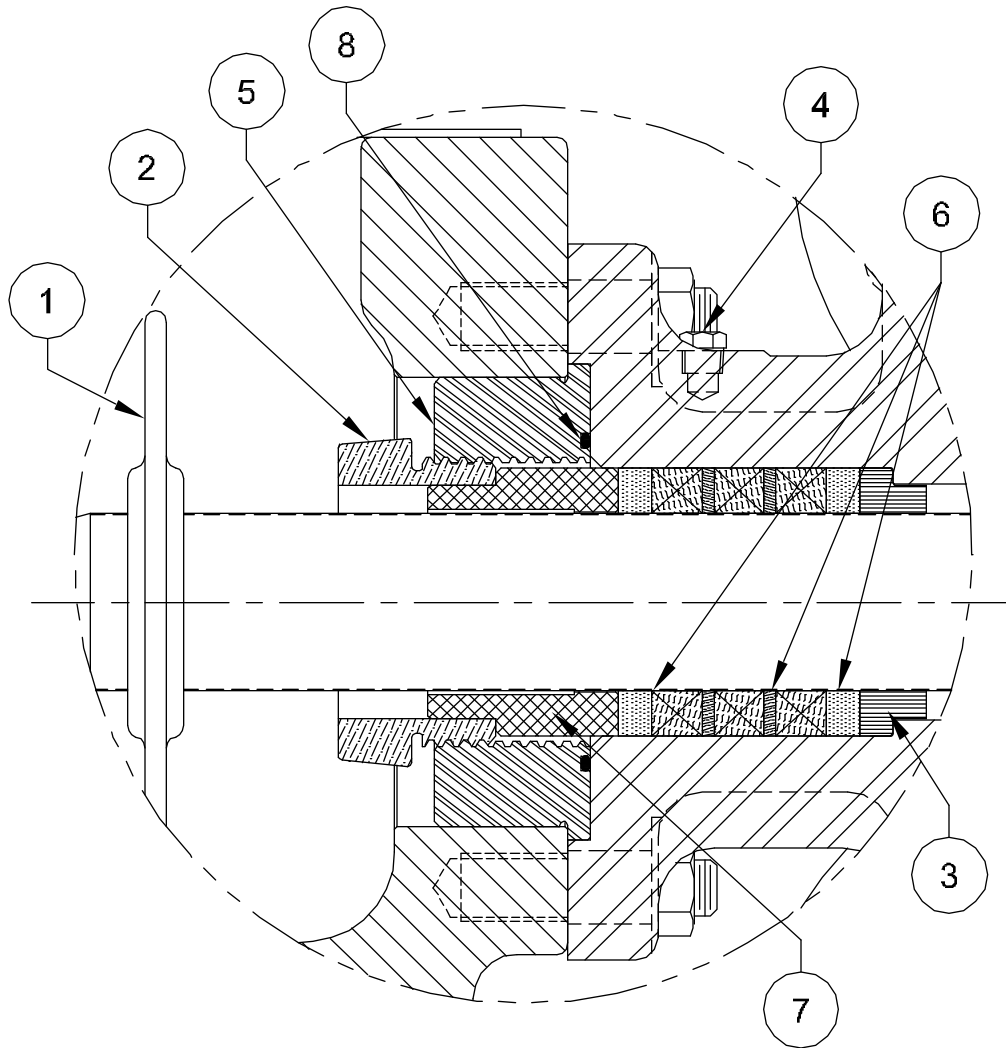
1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118307, SHEETS 1 THRU 6.

41

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**BRAID STYLE PKG, 2-3/4" - 3-3/8" PLUNGER**  
**101T-4L, 133T-4L ( T100-4, T140-4)**

DWG No.: 118307    SCALE: NONE    REV: A    SHT.: 5 OF 6



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118307,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	LRC-103259-575		(SS)	
3	LRC-103259-235		(STL)	
3	LRC-103259-302	FOLLOWER	(BRZ)	7
3	437-338338-458		8921-K	
3	437-338338-339		249	
3	437-338338-337		241	
3	437-338338-395	PACKING	238	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-024976-575		(SS)	
3	001-024976-235		(STL)	
3	001-024976-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 3-3/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

42

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 2-3/4" - 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:

118307

SCALE:

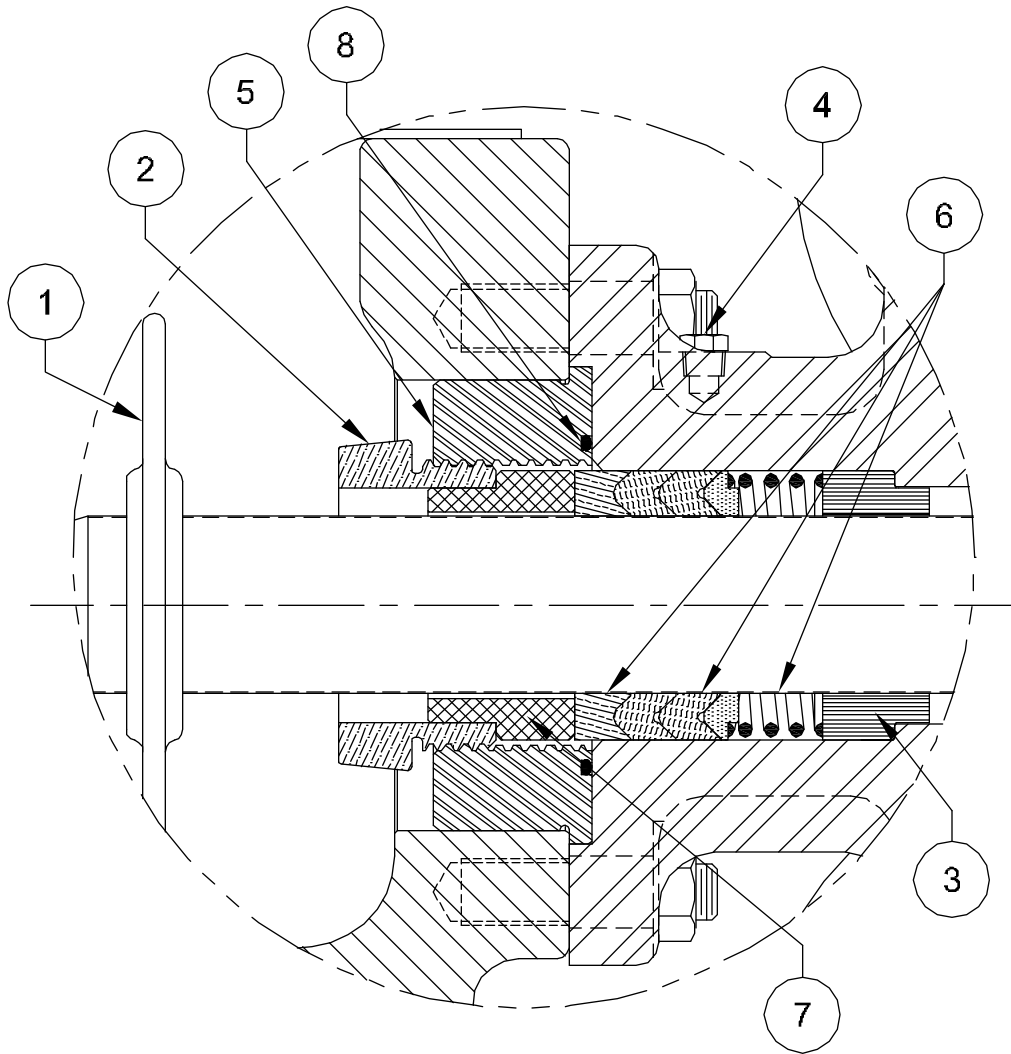
NONE

REV

A

SHT.:

6 OF 6



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118308,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	AAC-115556-575		(SS)	
3	AAC-115556-235		(STL)	
3	AAC-115556-302	FOLLOWER	(BRZ)	7
3	430-234378-473		1043-4	
3	430-234378-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	AAC-115428-575		(SS)	
3	AAC-115428-235		(STL)	
3	AAC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 2-3/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

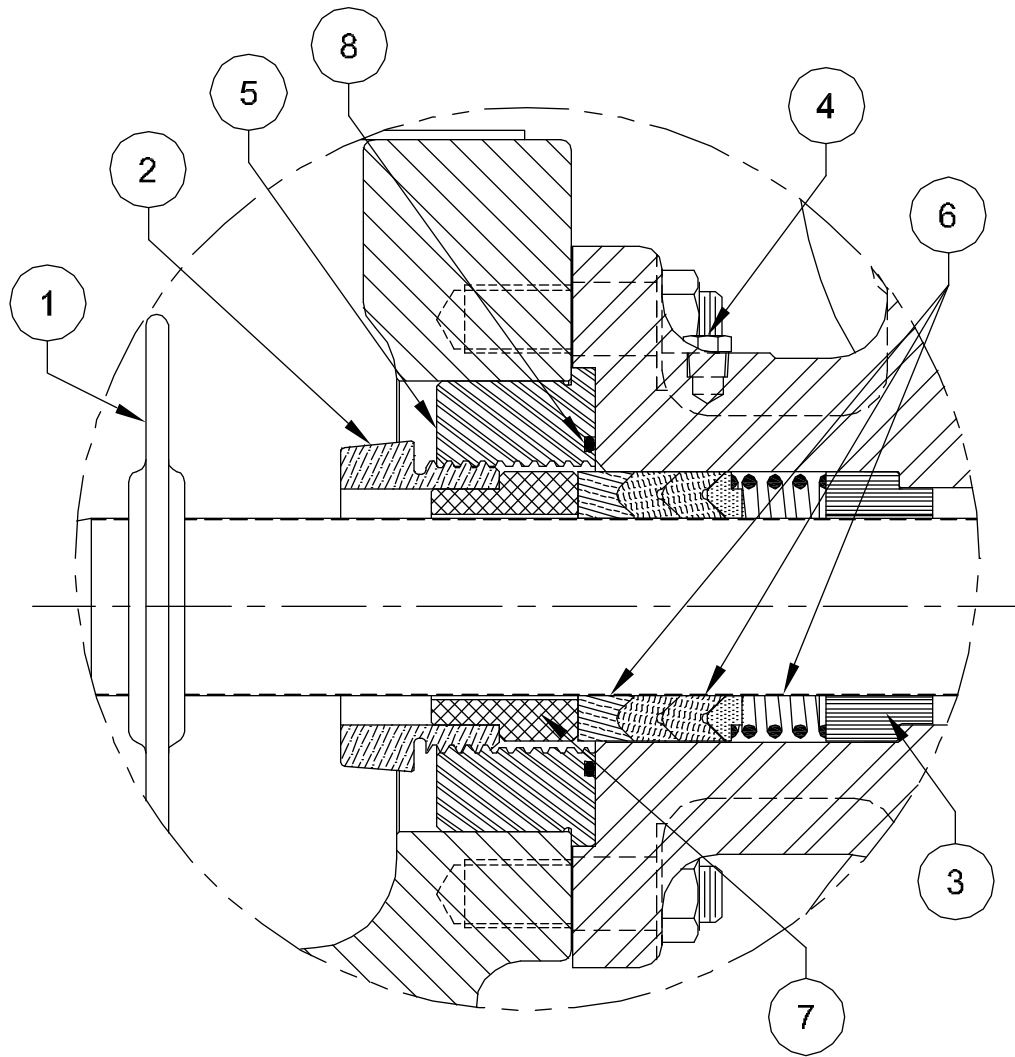
**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**"SSF-4" STYLE PKG, 2-3/4" - 3-3/8" PLUNGER**  
**101T-4L, 133T-4L (T100-4, T140-4)**

DWG No.: 118308 SCALE: NONE REV A SHT.: 1 OF 6



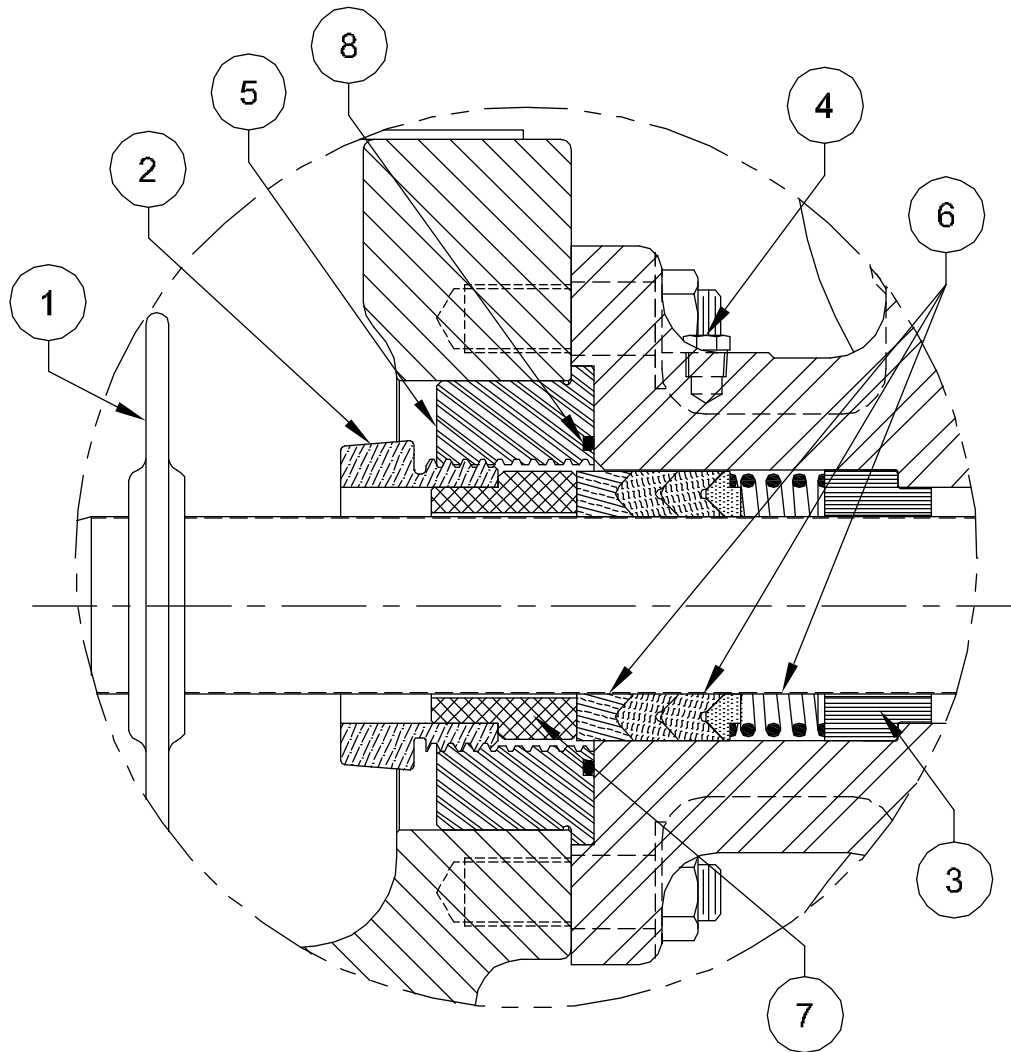
NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118308,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	ABC-115556-575		(SS)	
3	ABC-115556-235		(STL)	
3	ABC-115556-302	FOLLOWER	(BRZ)	7
3	430-278338-473		1043-4	
3	430-278356-430	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	ABC-115428-575		(SS)	
3	ABC-115428-235		(STL)	
3	ABC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-7/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

44

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, PLUNGER KIT "SSF-4" STYLE PKG, 2-3/4" - 3-3/8" PLUNGER 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	118308	SCALE:	NONE
REV	A	SHT.:	2 OF 6



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118308,  
 SHEETS 1 THRU 6.

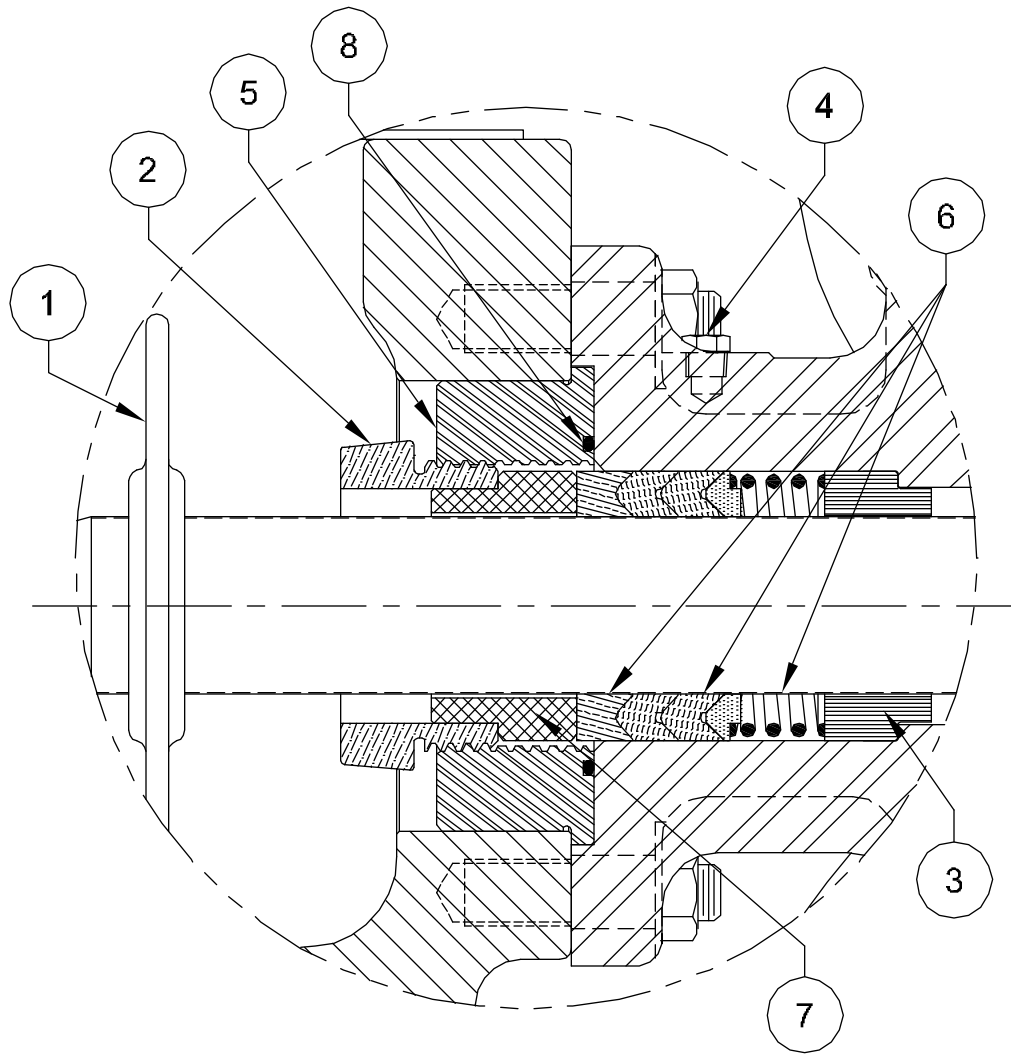
3	110-000246-200	O-RING		8
3	ACC-115556-575		(SS)	
3	ACC-115556-235		(STL)	
3	ACC-115556-302	FOLLOWER	(BRZ)	7
3	430-300358-473		1043-4	
3	430-300358-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	ACC-115428-575		(SS)	
3	ACC-115428-235		(STL)	
3	ACC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 3" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

45

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, PLUNGER KIT "SSF-4" STYLE PKG, 2-3/4" - 3-3/8" PLUNGER 101T-4L, 133T-4L (T100-4, T140-4)			
DWG No.:	SCALE:	REV:	SHT.:
118308	NONE	A	3 OF 6





NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118308,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	ADC-115556-575		(SS)	
3	ADC-115556-235		(STL)	
3	ADC-115556-302	FOLLOWER	(BRZ)	7
3	430-318331-473		1043-4	
3	430-318331-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	ADC-115428-575		(SS)	
3	ADC-115428-235		(STL)	
3	ADC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1
( 3-1/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

46

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT

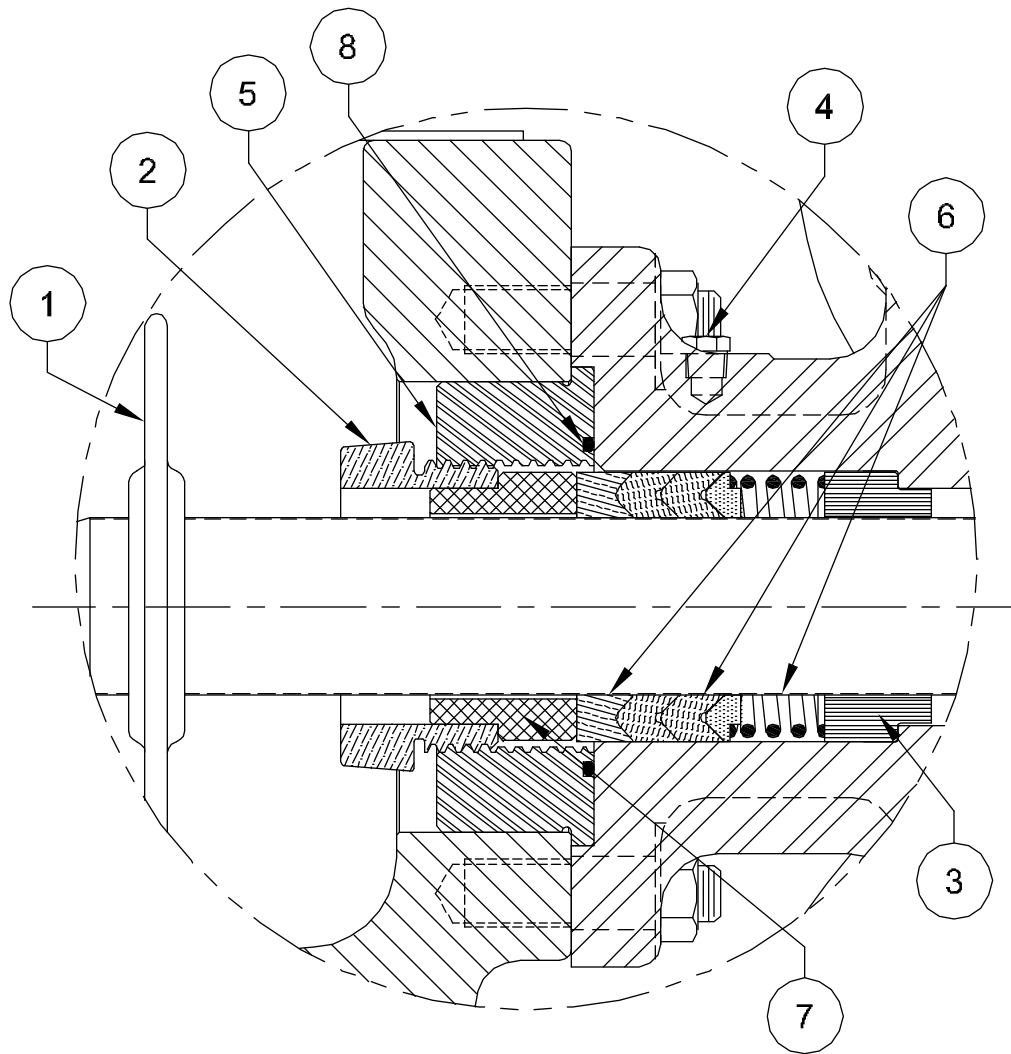
"SSF-4" STYLE PKG, 2-3/4" - 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.: 118308

SCALE: NONE

REV A

SHT.: 4 OF 6



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118308,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	AEC-115556-575		(SS)	
3	AEC-115556-235		(STL)	
3	AEC-115556-302	FOLLOWER	(BRZ)	7
3	430-314300-473		1043-4	
3	430-314300-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	AEC-115428-575		(SS)	
3	AEC-115428-235		(STL)	
3	AEC-115428-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 3-1/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

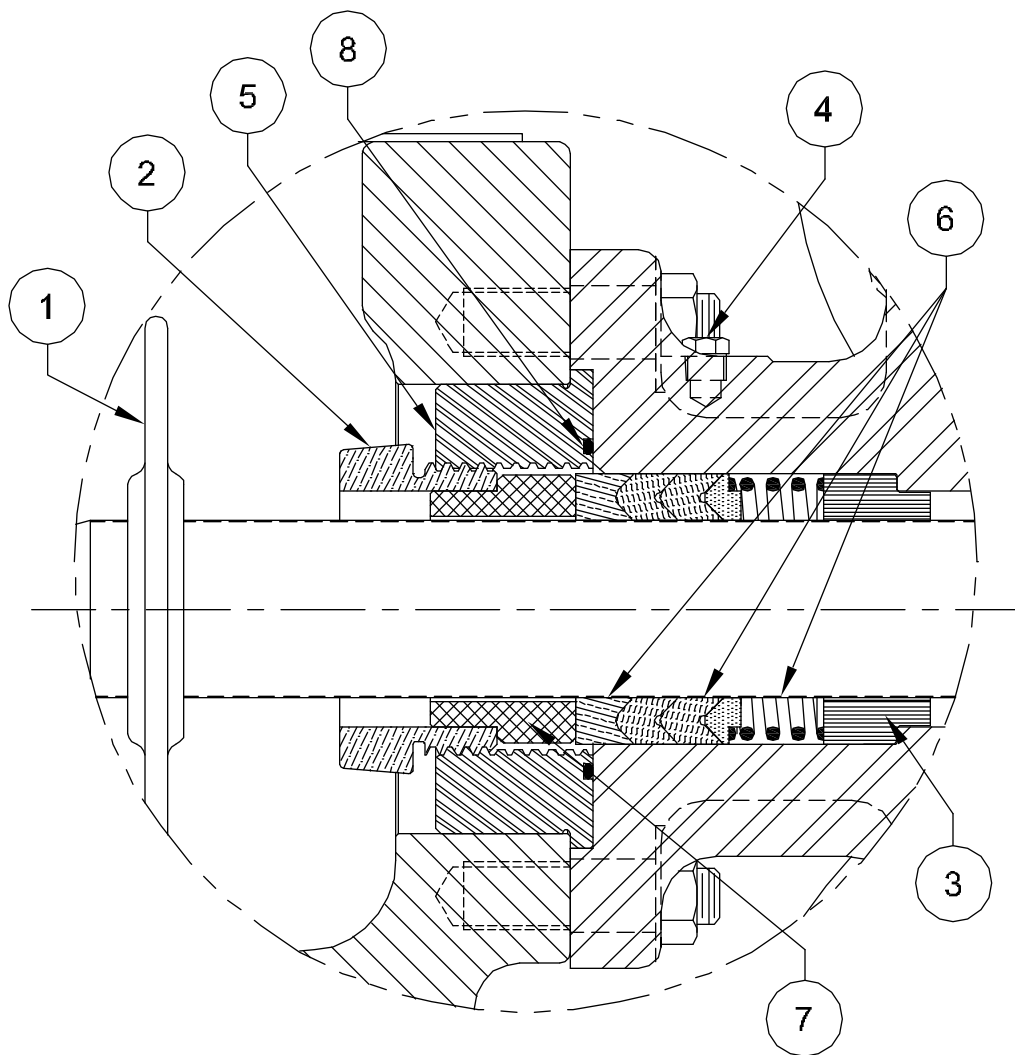
<\*> COATED STAINLESS STEEL



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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 2-3/4" - 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.: 118308	SCALE: NONE	REV A	SHT.: 5 OF 6
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NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118308,  
 SHEETS 1 THRU 6.

3	110-000246-200	O-RING		8
3	AAB-115557-575		(SS)	
3	AAB-115557-235		(STL)	
3	AAB-115557-302	FOLLOWER	(BRZ)	7
3	430-338319-473		1043-4	
3	430-338319-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-220		(STL)	
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-024976-575		(SS)	
3	001-024976-235		(STL)	
3	001-024976-302	THROAT BUSHING	(BRZ)	3
3	AAB-030494-E16	<*>	(XSS)	
3	001-014155-351		(DI)	
3	001-014155-310	GLAND NUT	(BRZ)	2
3	001-007986-201	BAFFLE DISC		1

( 3-3/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

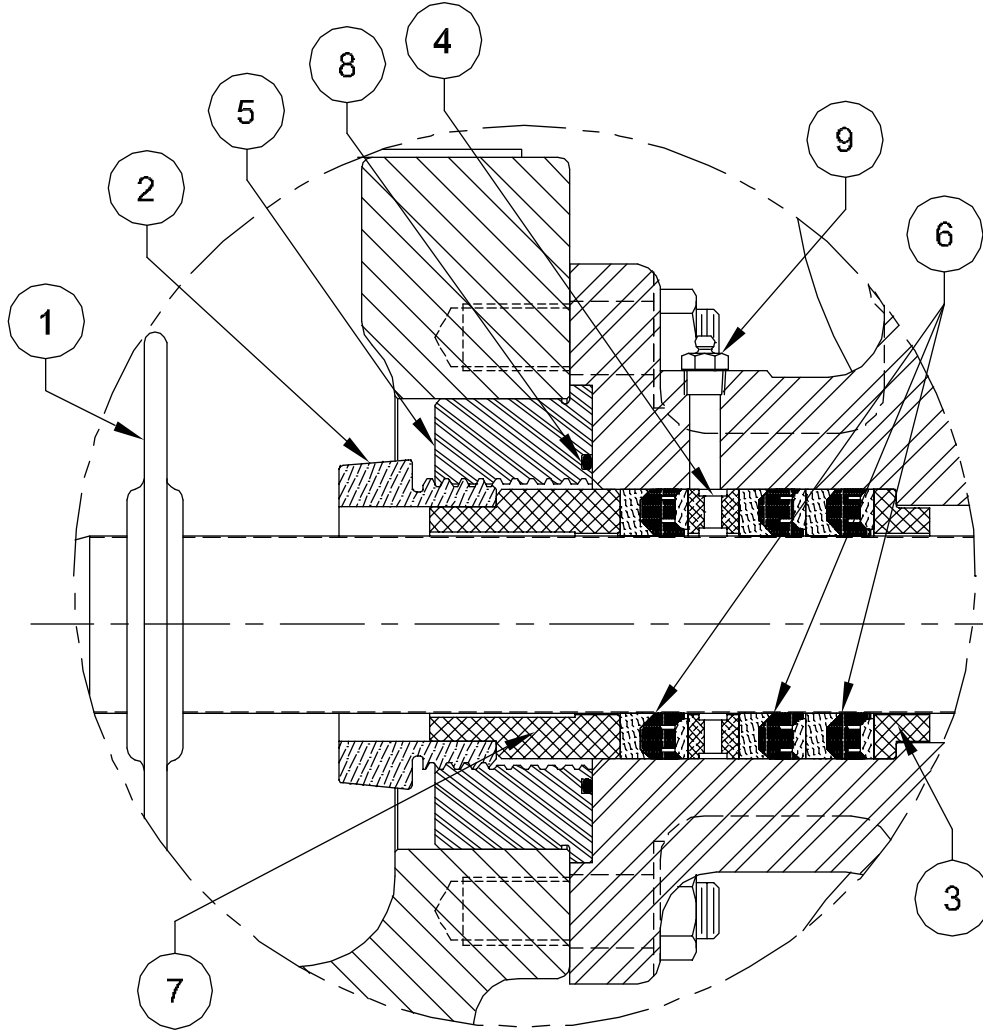
<\*> COATED STAINLESS STEEL



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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 2-3/4" - 3-3/8" PLUNGER  
 101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:	118308	SCALE:	NONE	REV	A	SHT.:	6 of 6
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NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	AAC-114965-575		(SS)	
3	AAC-114965-235		(STL)	
3	AAC-114965-302	FOLLOWER	(BRZ)	7
3	181-158253-477			858
3	181-158253-374			845
3	181-158253-386			842
3	181-158253-370	PACKING		838
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-023663-575		(SS)	
3	001-023663-235		(STL)	
3	001-023663-302	LANTERN RING	(BRZ)	4
3	001-023662-575		(SS)	
3	001-023662-235		(STL)	
3	001-023662-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-5/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

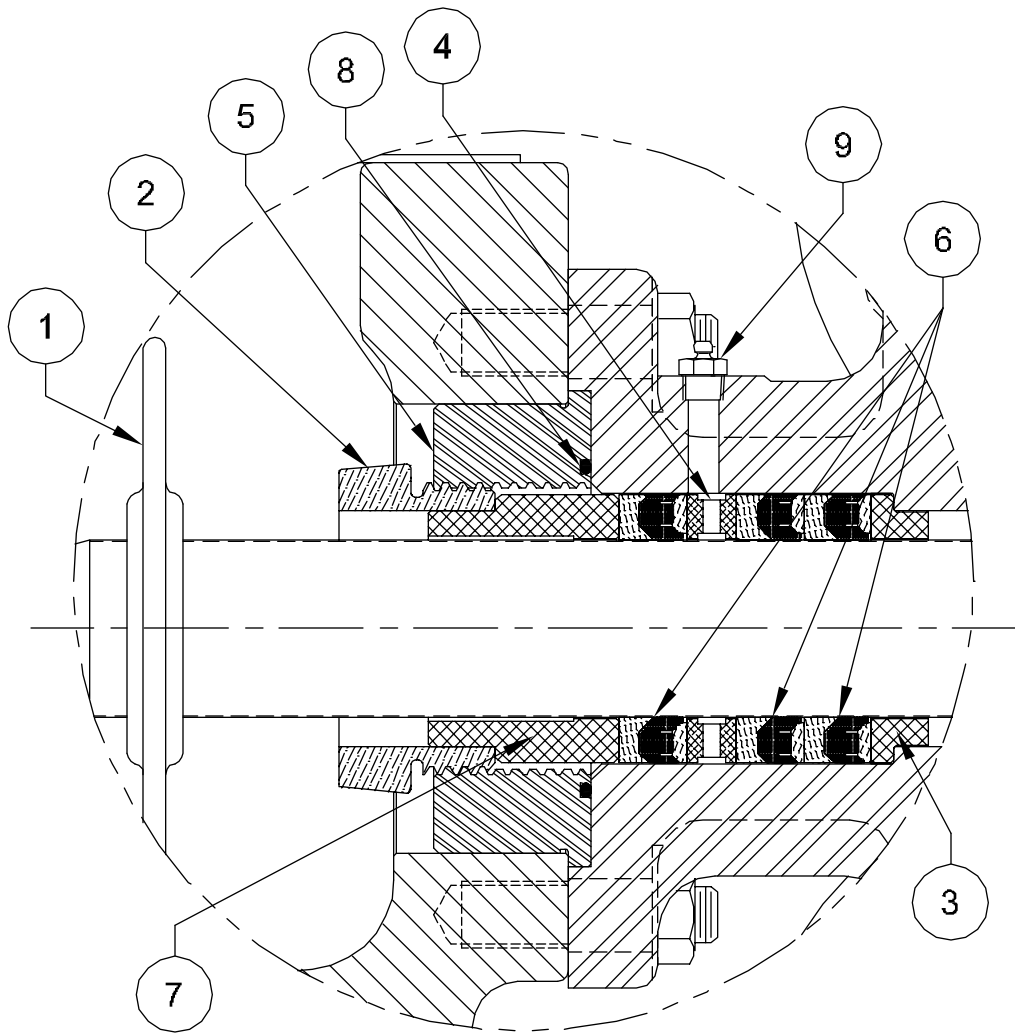
49



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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4M, 133T-4M ( T100-3, T140-3)

DWG No.: 118309	SCALE: NONE	REV A	SHT.: 1 of 8
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NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	ABC-114965-575		(SS)	
3	ABC-114965-235		(STL)	
3	ABC-114965-302	FOLLOWER	(BRZ)	7
3	181-134244-477		858	
3	181-134244-374		845	
3	181-134244-386		842	
3	181-134244-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-010990-575		(SS)	
3	001-010990-235		(STL)	
3	001-010990-302	LANTERN RING	(BRZ)	4
3	001-010897-575		(SS)	
3	001-010897-235		(STL)	
3	001-010897-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 1-3/4" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

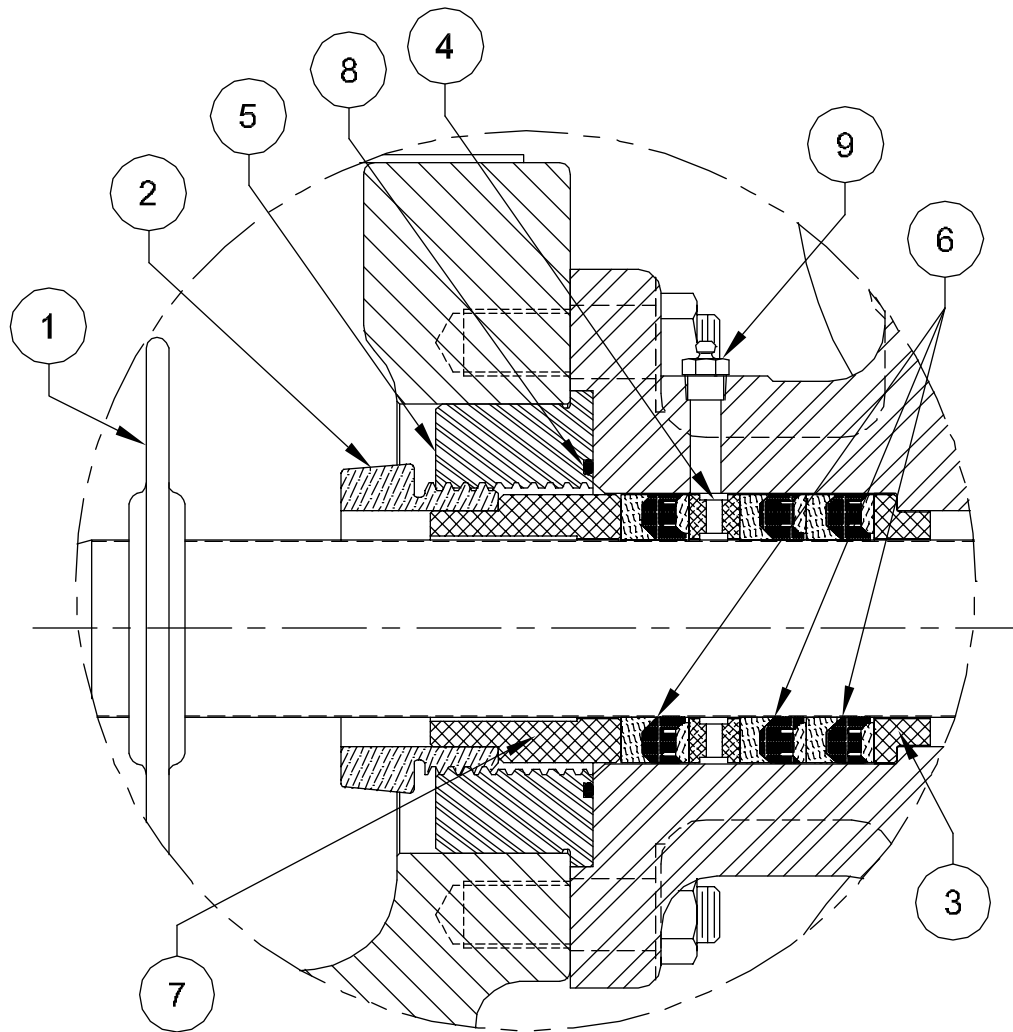
50



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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4M, 133T-4M ( T100-3, T140-3)

DWG No.: 118309 SCALE: NONE REV A SHT: 2 OF 8



**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309, SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	ACC-114965-575		(SS)	
3	ACC-114965-235		(STL)	
3	ACC-114965-302	FOLLOWER	(BRZ)	7
3	181-178244-477		858	
3	181-178244-374		845	
3	181-178244-386		842	
3	181-178244-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-014457-575		(SS)	
3	001-014457-235		(STL)	
3	001-014457-302	LANTERN RING	(BRZ)	4
3	001-010899-575		(SS)	
3	001-010899-235		(STL)	
3	001-010899-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-7/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

<\*> COATED STAINLESS STEEL

51



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4M, 133T-4M ( T100-3, T140-3)

DWG No.:

118309

SCALE:

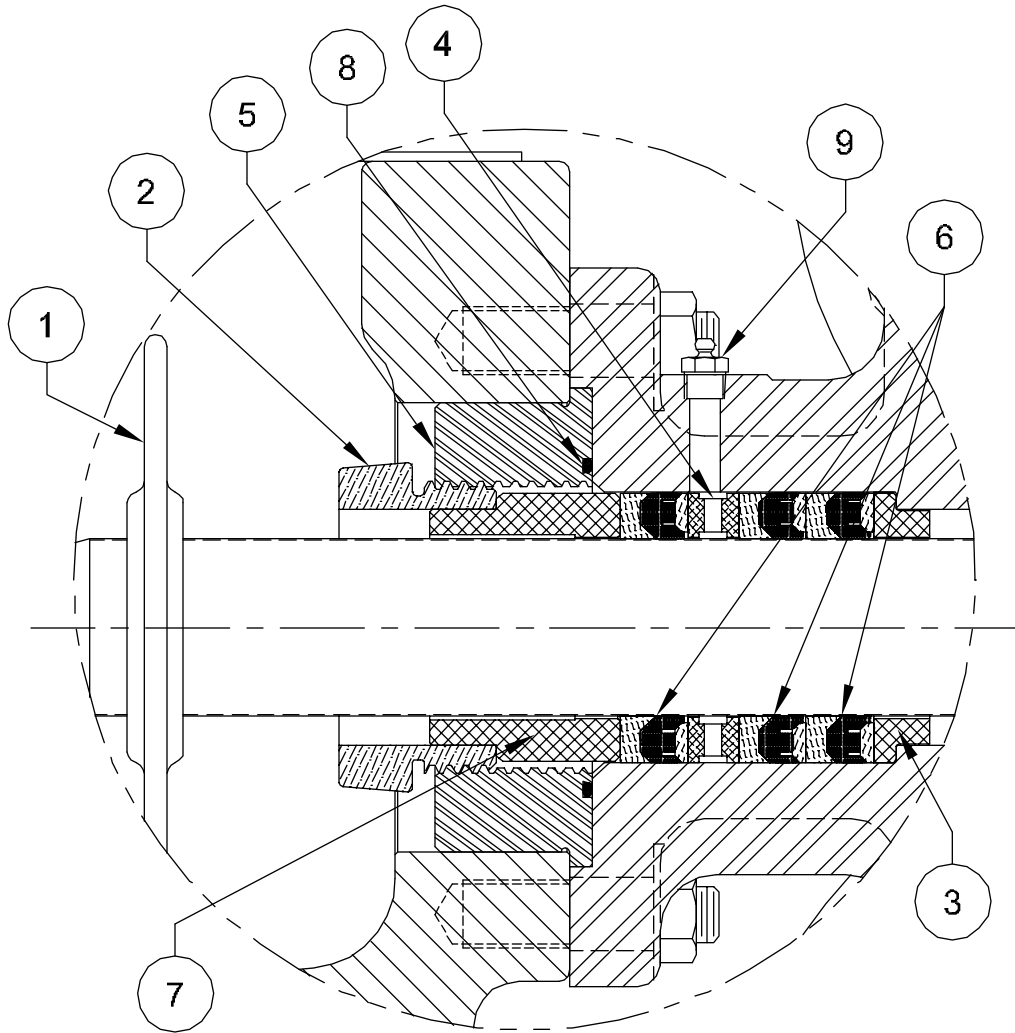
NONE

REV

A

SHI.:

3 OF 8



NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	ADC-114965-575		(SS)	
3	ADC-114965-235		(STL)	
3	ADC-114965-302	FOLLOWER	(BRZ)	7
3	181-200214-477		858	
3	181-200214-374		845	
3	181-200214-386		842	
3	181-200214-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-010991-575		(SS)	
3	001-010991-235		(STL)	
3	001-010991-302	LANTERN RING	(BRZ)	4
3	001-010901-575		(SS)	
3	001-010901-235		(STL)	
3	001-010901-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

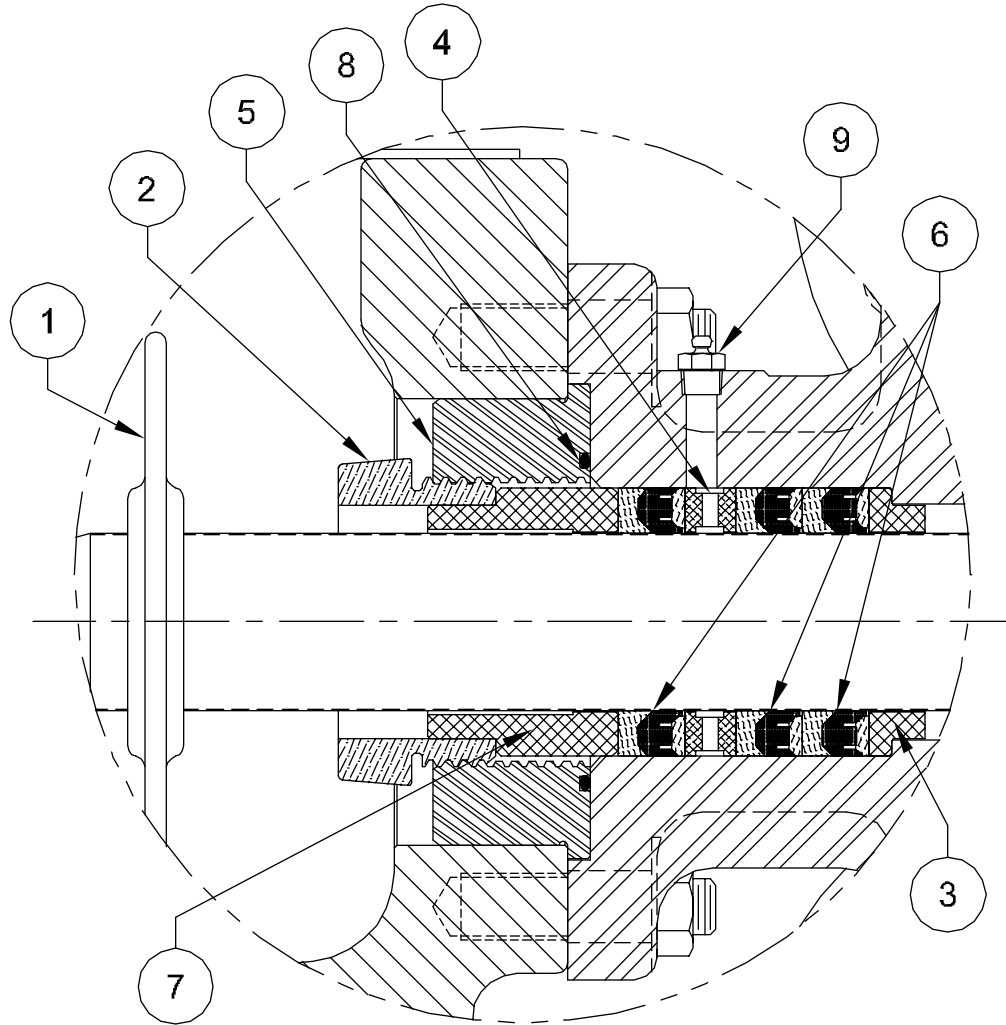
52



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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118309	SCALE: NONE	REV A	SHT.: 4 OF 8
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**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309, SHEETS 1 THRU 8.

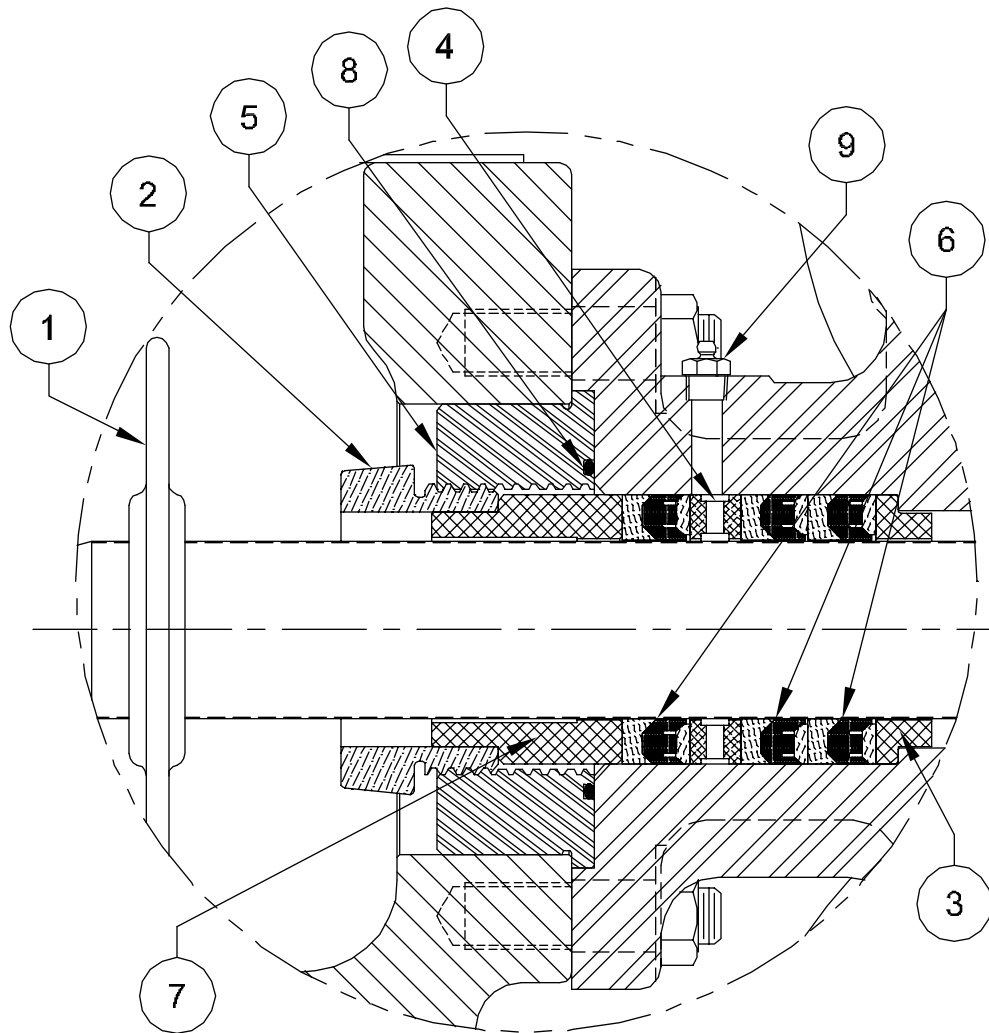
3	180-165002-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	AEC-114965-575		(SS)	
3	AEC-114965-235		(STL)	
3	AEC-114965-302	FOLLOWER	(BRZ)	7
3	181-218214-477		858	
3	181-218214-374		845	
3	181-218214-386		842	
3	181-218214-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-014456-575		(SS)	
3	001-014456-235		(STL)	
3	001-014456-302	LANTERN RING	(BRZ)	4
3	001-010902-575		(SS)	
3	001-010902-235		(STL)	
3	001-010902-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-1/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, PLUNGER KIT "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER 101T-4M, 133T-4M (T100-3, T140-3)			
DWG No.:	SCALE:	REV:	SHT.:
118309	NONE	A	5 OF 8





**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309, SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	AFC-114965-575		(SS)	
3	AFC-114965-235		(STL)	
3	AFC-114965-302	FOLLOWER	(BRZ)	7
3	181-214214-477		858	
3	181-214214-374		845	
3	181-214214-386		842	
3	181-214214-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-010266-578		(SS)	
3	001-010266-235		(STL)	
3	001-010266-302	LANTERN RING	(BRZ)	4
3	001-007977-575		(SS)	
3	001-007979-235		(STL)	
3	001-007979-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/4" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

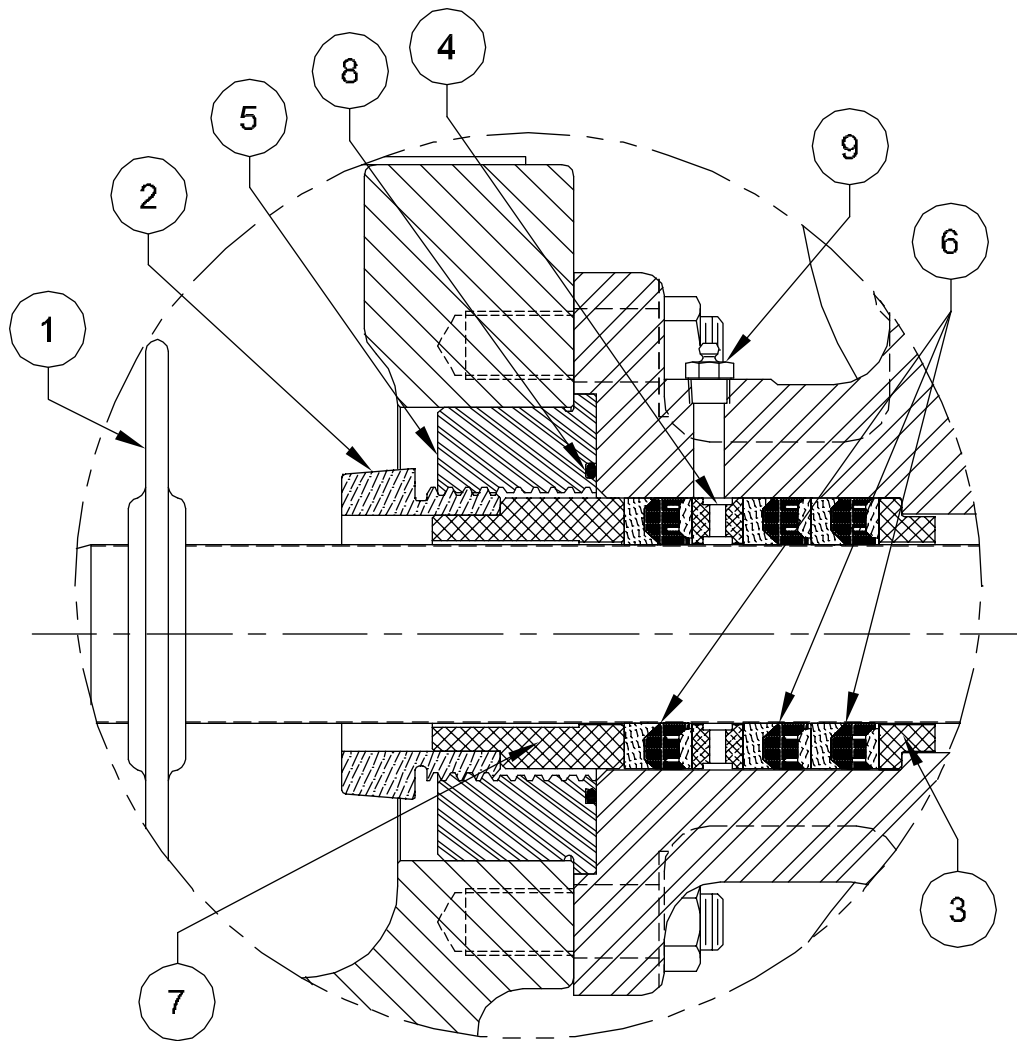
<\*> COATED STAINLESS STEEL

**NOV NATIONAL OILWELL VARCO**

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**"J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER**  
**101T-4M, 133T-4M (T100-3, T140-3)**

DWG No.:	SCALE:	REV:	SHT.:
118309	NONE	A	6 OF 8



**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309, SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	AGC-114965-575		(SS)	
3	AGC-114965-235		(STL)	
3	AGC-114965-302	FOLLOWER	(BRZ)	7
3	181-238206-477		858	
3	181-238206-374		845	
3	181-238206-386		842	
3	181-238206-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	AAB-115149-575		(SS)	
3	AAB-115149-235		(STL)	
3	AAB-115149-302	LANTERN RING	(BRZ)	4
3	001-024394-575		(SS)	
3	001-024394-235		(STL)	
3	001-024394-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-3/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM
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**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

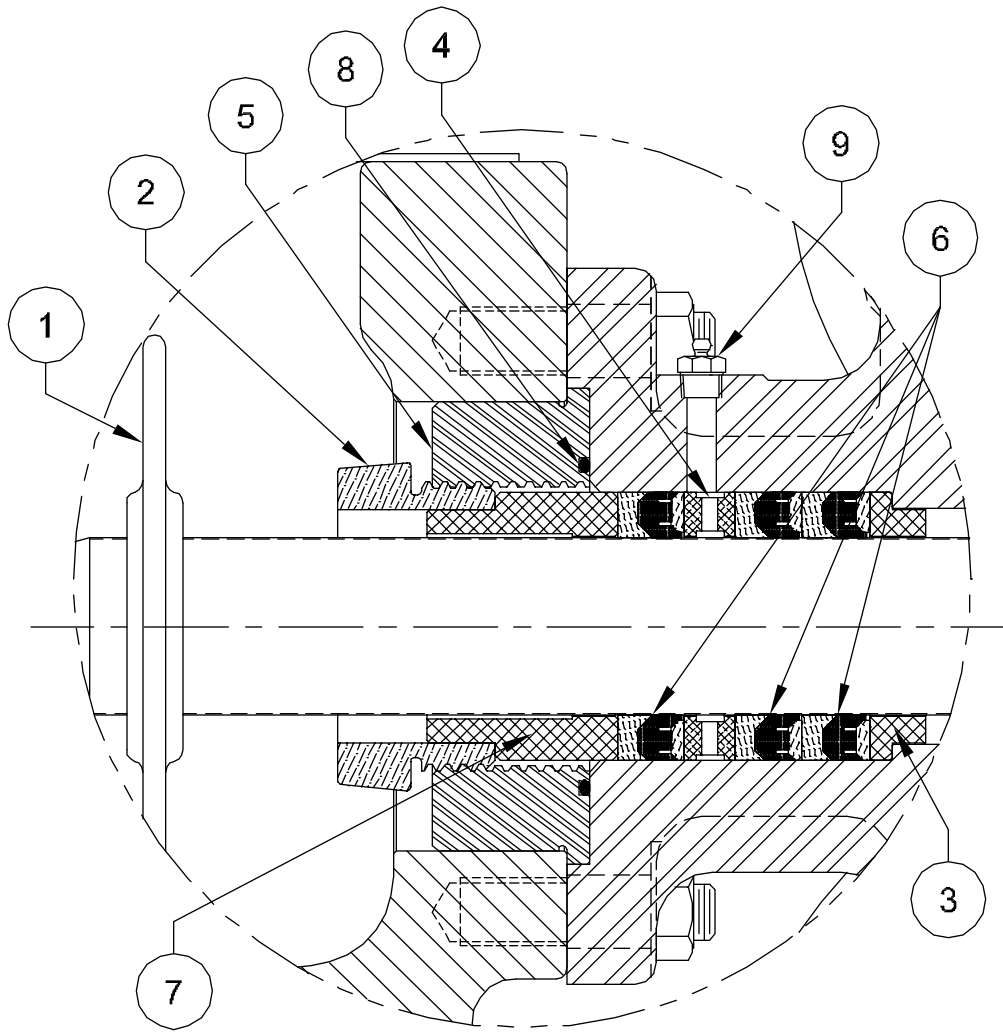
55



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118309	SCALE: NONE	REV A	SHT.: 7 OF 8
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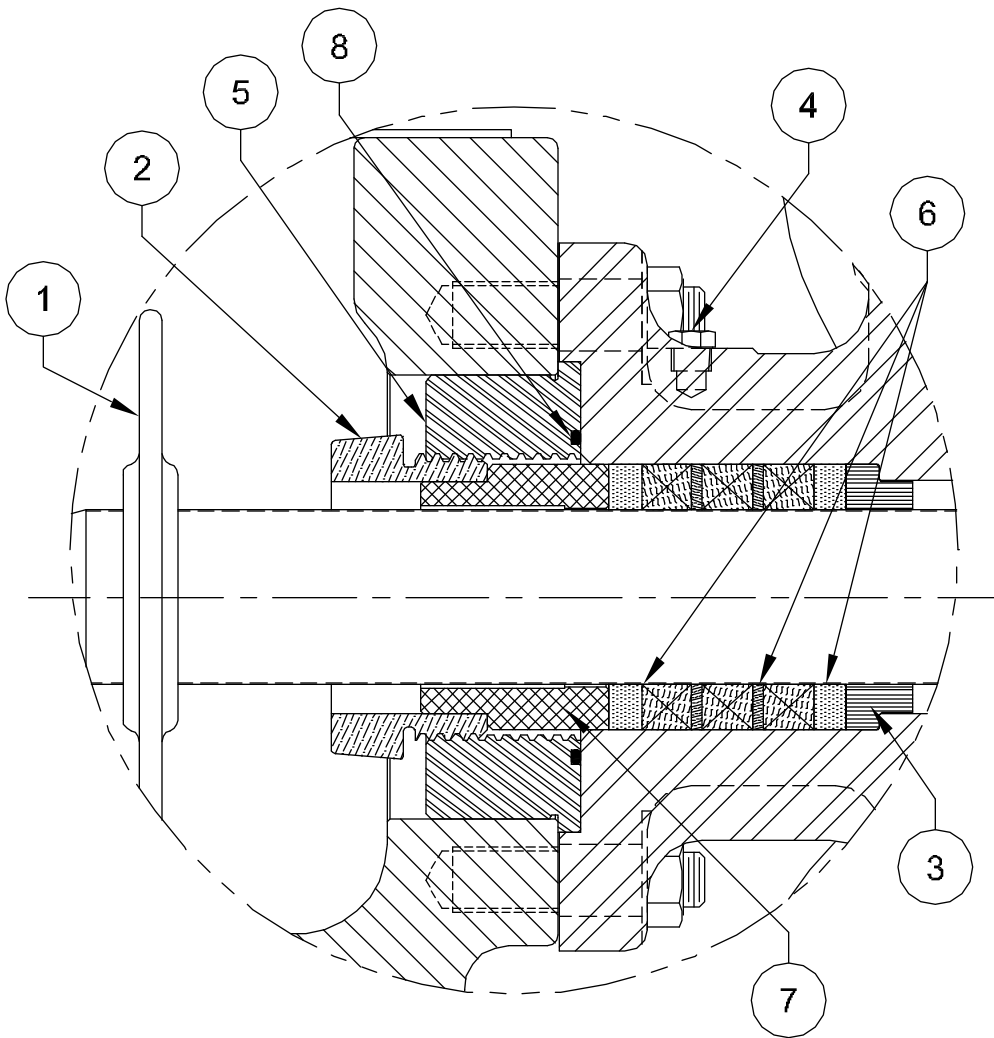
NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118309,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000238-200	O-RING		8
3	LQC-103259-575		(SS)	
3	LQC-103259-235		(STL)	
3	LQC-103259-302	FOLLOWER	(BRZ)	7
3	181-212178-477		858	
3	181-212178-374		845	
3	181-212178-386		842	
3	181-212178-370	PACKING	838	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	001-010904-575		(SS)	
3	001-010904-235		(STL)	
3	001-010904-302	LANTERN RING	(BRZ)	4
3	001-025918-575		(SS)	
3	001-025918-235		(STL)	
3	001-025918-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/2" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

56

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, PLUNGER KIT "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER 101T-4M, 133T-4M (T100-3, T140-3)			
DWG No.:	118309	SCALE:	NONE
REV	A	SHT.:	8 OF 8



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AAC-114965-575		(SS)	
3	AAC-114965-235		(STL)	
3	AAC-114965-302	FOLLOWER	(BRZ)	7
3	288-158278-458		8921-K	
3	288-158278-339		249	
3	288-158278-337		241	
3	288-158278-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-023662-575		(SS)	
3	001-023662-235		(STL)	
3	001-023662-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-5/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM

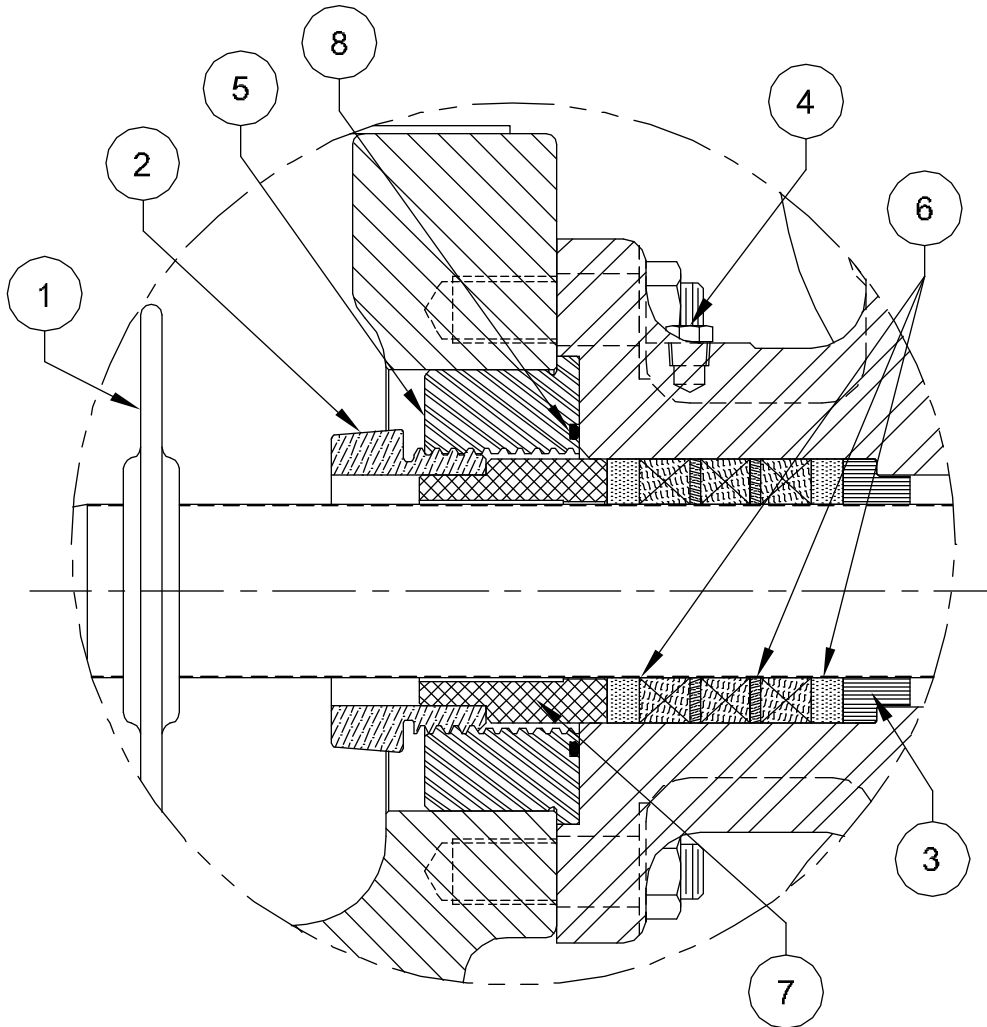
**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR**  
**101T-4M, 133T-4M ( T100-3, T140-3)**

DWG No.:	118310	SCALE:	NONE	REV:	A	SHT.:	1 OF 8
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3	110-000238-200	O-RING		8
3	ABC-114965-575		(SS)	
3	ABC-114965-235		(STL)	
3	ABC-114965-302	FOLLOWER	(BRZ)	7
3	288-134258-458		8921-K	
3	288-134258-339		249	
3	288-134258-337		241	
3	288-134258-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010897-575		(SS)	
3	001-010897-235		(STL)	
3	001-010897-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-3/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

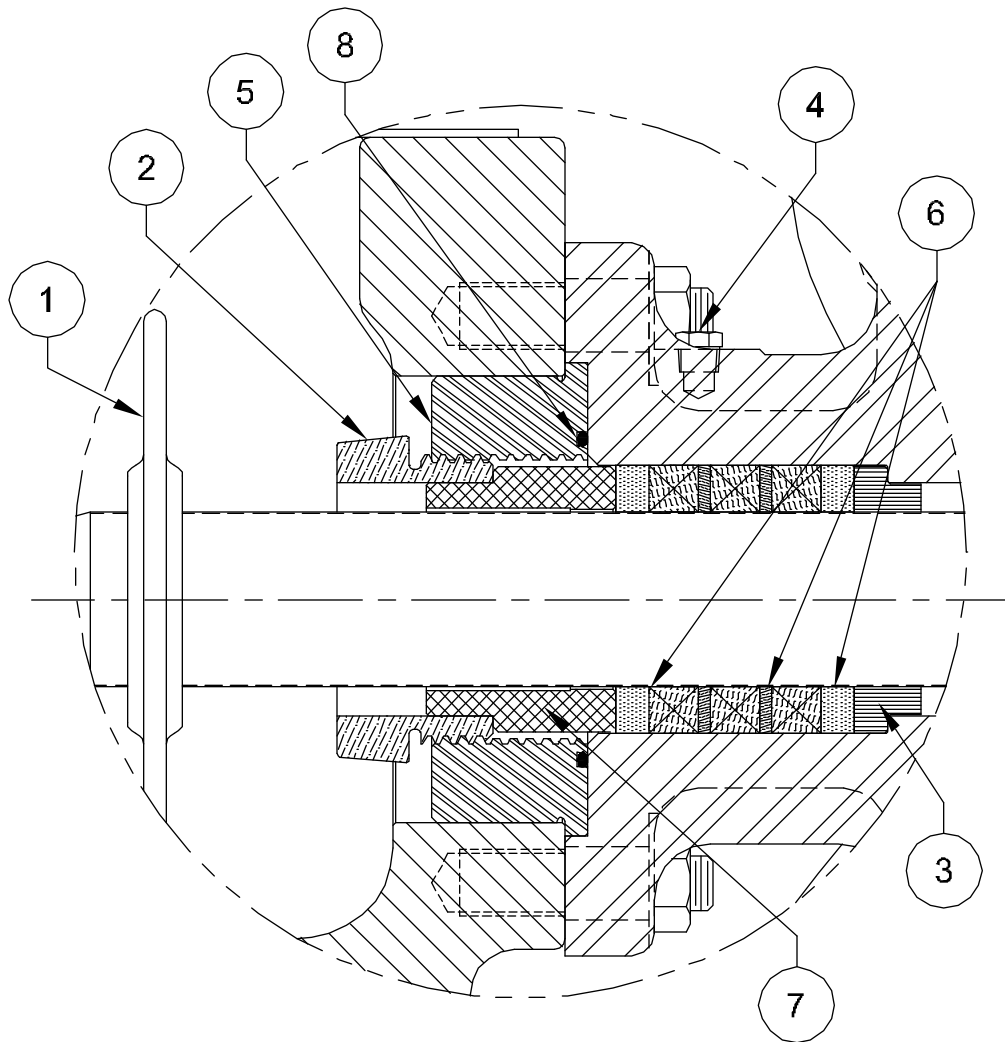
<\*> COATED STAINLESS STEEL

**NOTE**  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310,  
 SHEETS 1 THRU 8.

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-3M (T100-3, T140-3)

DWG No.: 118310 SCALE: NONE REV A SHT.: 2 OF 8



3	110-000238-200	O-RING		8
3	ACC-114965-575		(SS)	
3	ACC-114965-235		(STL)	
3	ACC-114965-302	FOLLOWER	(BRZ)	7
3	288-178258-458		8921-K	
3	288-178258-339		249	
3	288-178258-337		241	
3	288-178258-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010899-575		(SS)	
3	001-010899-235		(STL)	
3	001-010899-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-7/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

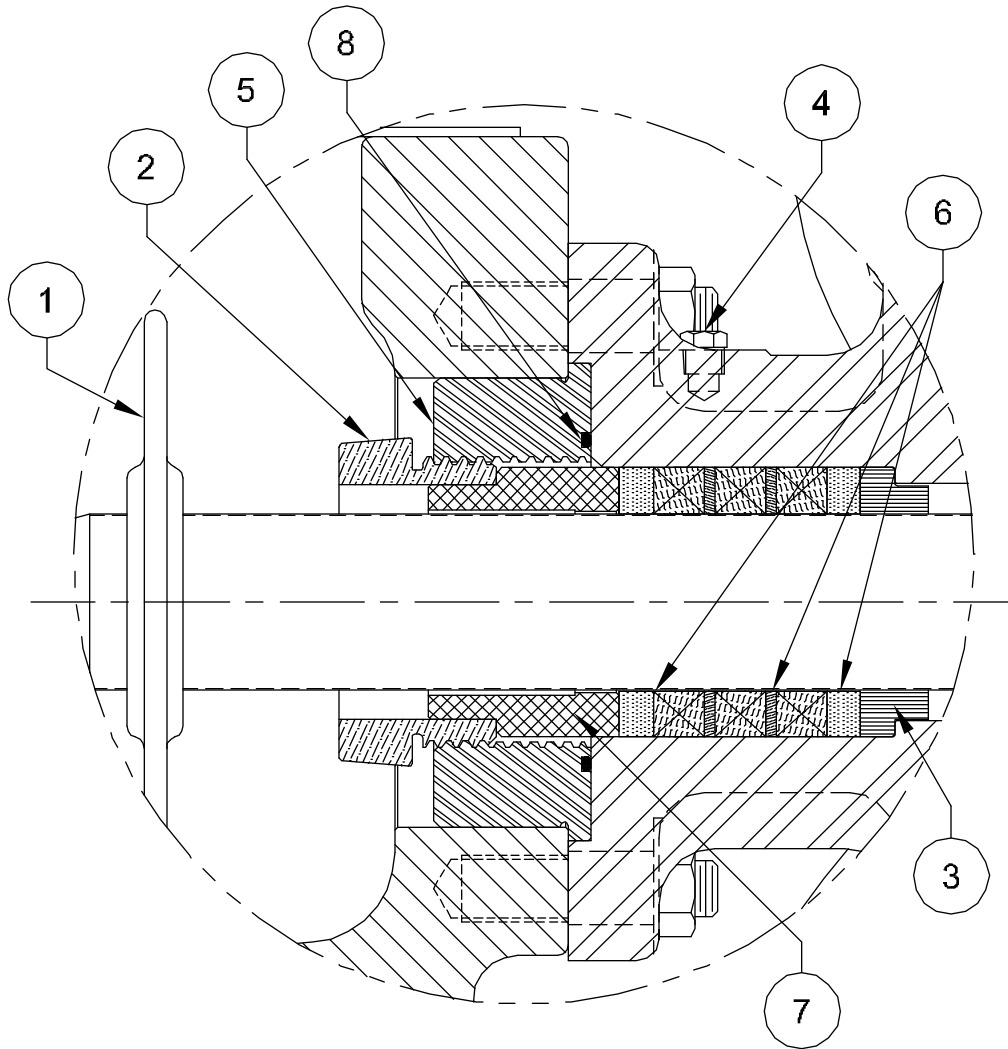
**NOTE**

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310, SHEETS 1 THRU 8.

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

TITLE: ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118310 SCALE: NONE REV A SHT.: 3 OF 8



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	ADC-114965-575		(SS)	
3	ADC-114965-235		(STL)	
3	ADC-114965-302	FOLLOWER	(BRZ)	7
3	288-200258-458		8921-K	
3	288-200258-339		249	
3	288-200258-337		241	
3	288-200258-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010901-575		(SS)	
3	001-010901-235		(STL)	
3	001-010901-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2" PLUNGER )</b>				
DDA	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

60

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118310

SCALE:

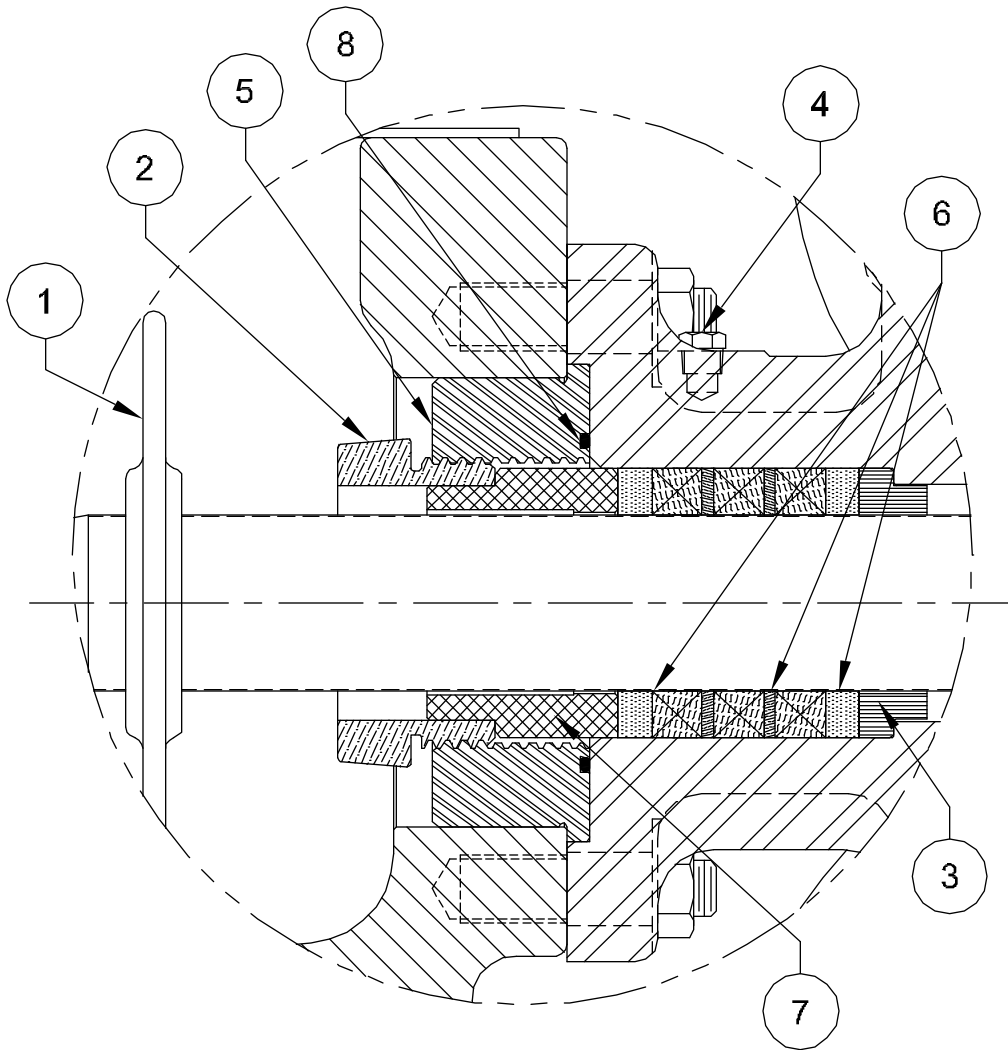
NONE

REV

A

SHT.:

4 OF 8



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AEC-114965-575		(SS)	
3	AEC-114965-235		(STL)	
3	AEC-114965-302	FOLLOWER	(BRZ)	7
3	288-218258-458		8921-K	
3	288-218258-339		249	
3	288-218258-337		241	
3	288-218258-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010902-575		(SS)	
3	001-010902-235		(STL)	
3	001-010902-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/8" PLUNGER )</b>				
DDA	Part No.	DESCRIPTION		ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

61

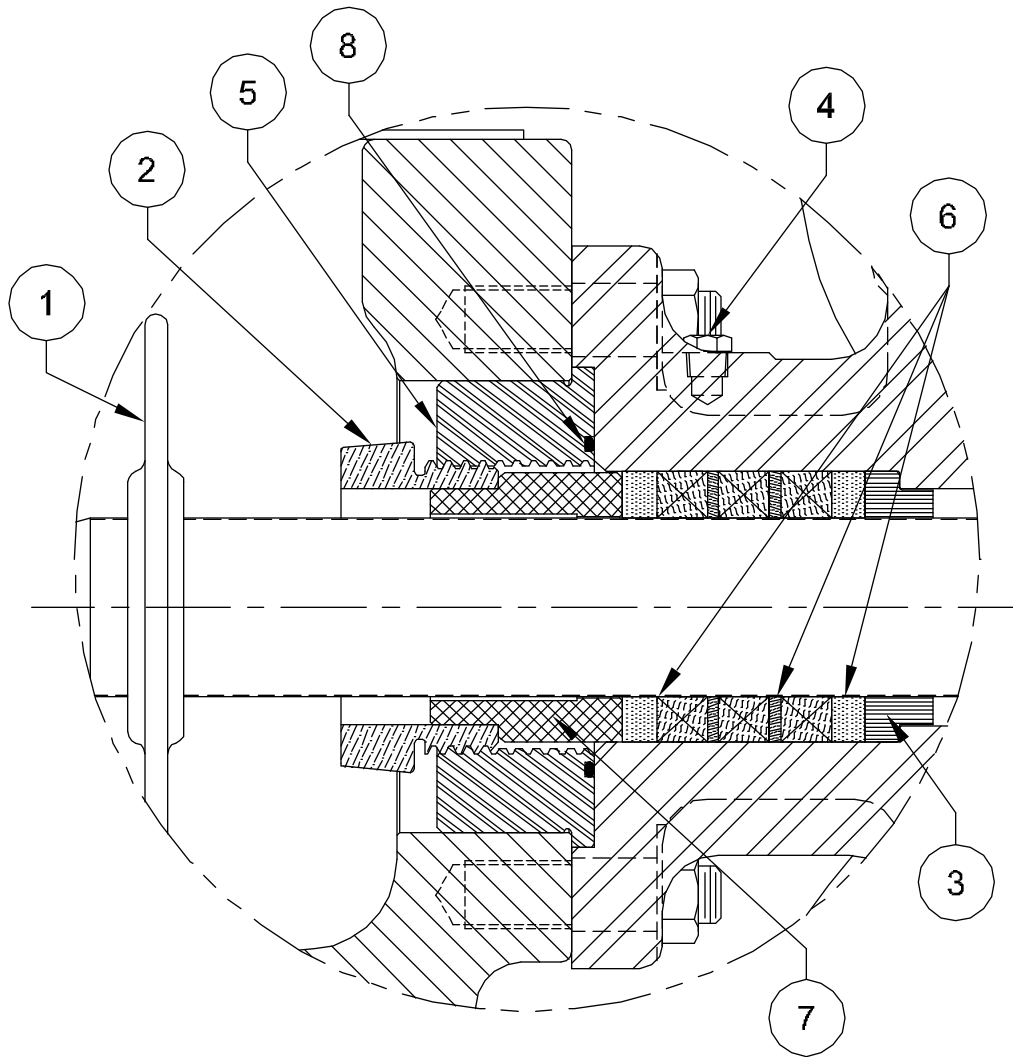


HOUSTON, TEXAS, U.S.A. ENGINEERING, TULSA, OKLAHOMA

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118310 SCALE: NONE REV A SH1.: 5 OF 8





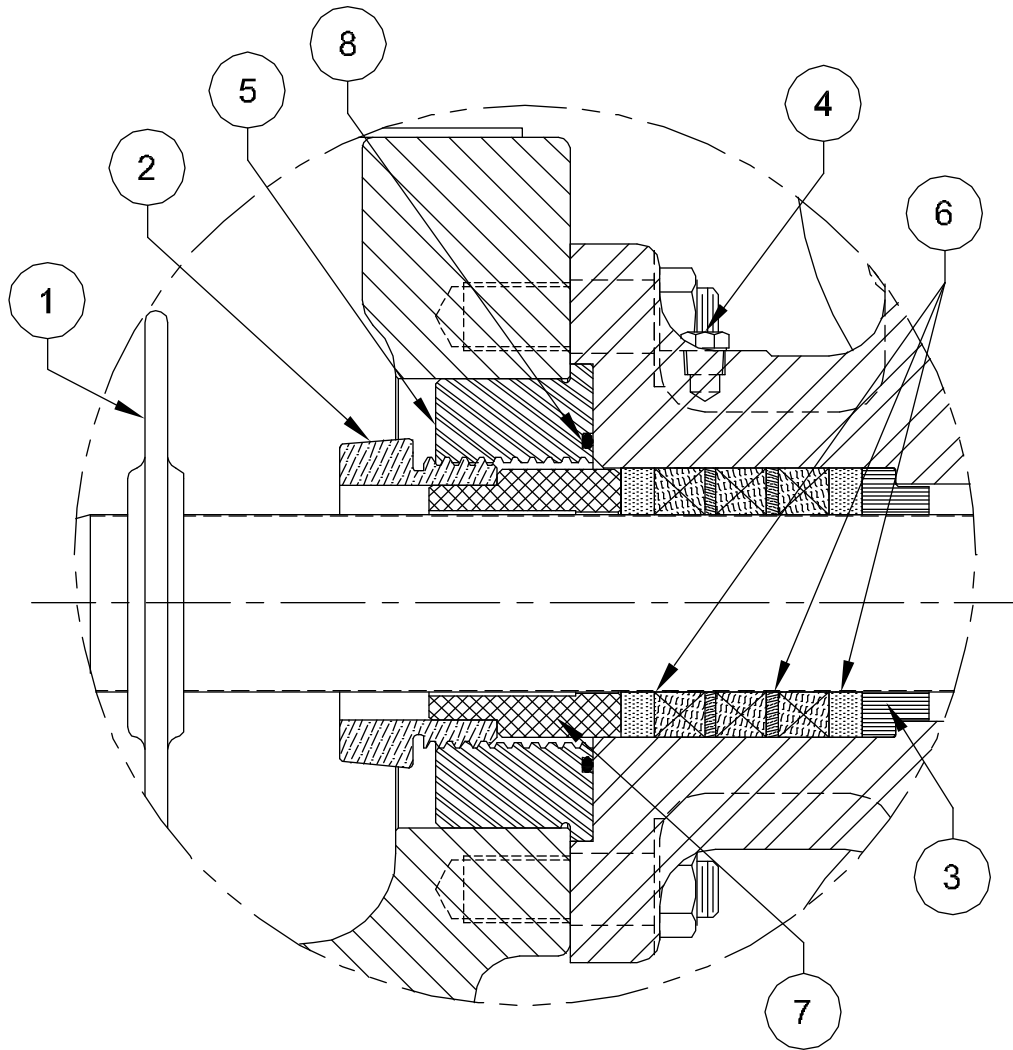
NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AFC-114965-575		(SS)	
3	AFC-114965-235		(STL)	
3	AFC-114965-302	FOLLOWER	(BRZ)	7
3	288-214258-458		8921-K	
3	288-214258-339		249	
3	288-214258-337		241	
3	288-214258-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-007979-575		(SS)	
3	001-007979-235		(STL)	
3	001-007979-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/4" PLUNGER )</b>				
DDA	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

62

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
ASSEMBLY, PLUNGER KIT BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR 101T-4M, 133T-4M (T100-3, T140-3)			
DWG No.:	SCALE:	REV	SHT.:
118310	NONE	A	6 OF 8



**NOTE**

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310, SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AGC-114965-575		(SS)	
3	AGC-114965-235		(STL)	
3	AGC-114965-302	FOLLOWER	(BRZ)	7
3	288-238258-458		8921-K	
3	288-238258-339		249	
3	288-238258-337		241	
3	288-238258-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-024394-575		(SS)	
3	001-024394-235		(STL)	
3	001-024394-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-3/8" PLUNGER )

DDA	Part No.	DESCRIPTION	ITEM
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**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

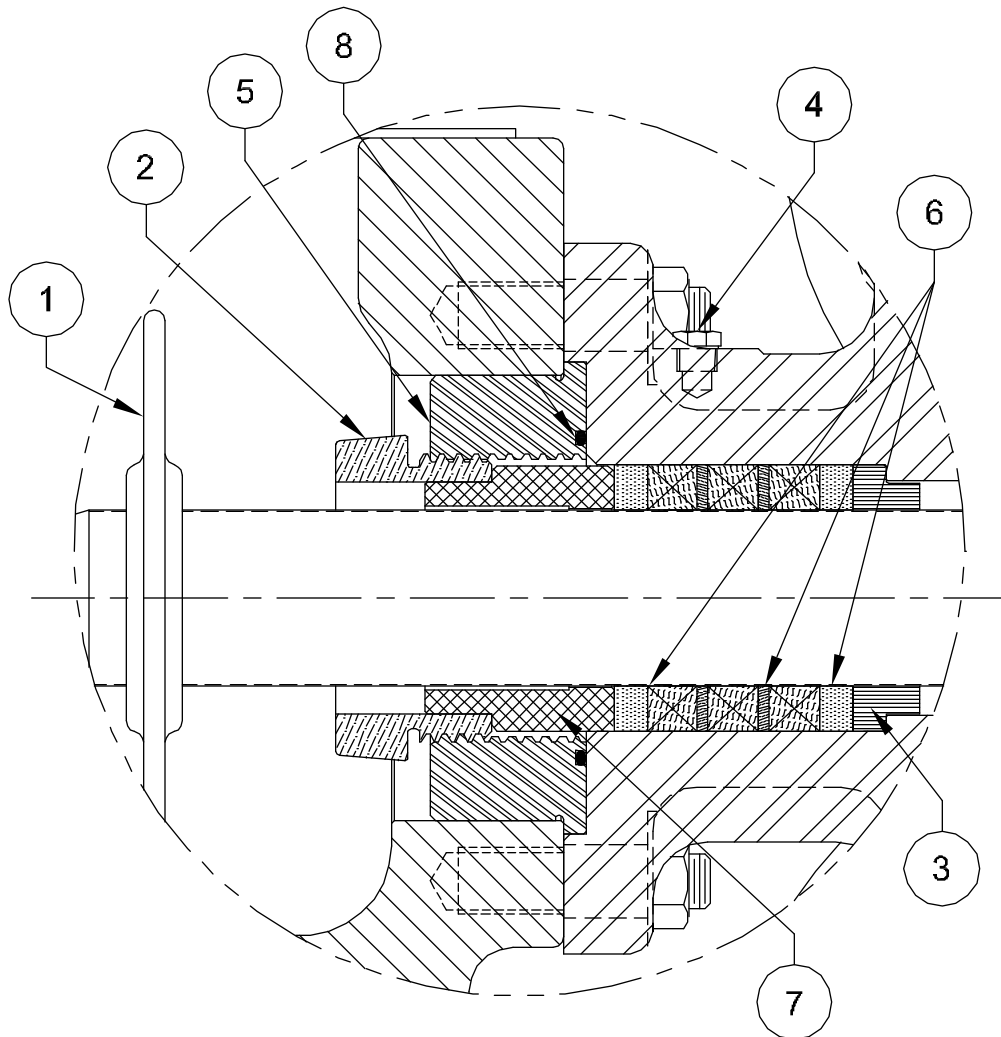
63



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**BRAID STYLE PKG, 1-5/8" - 2-1/2" PLGR**  
**101T-4M, 133T-4M (T100-3, T140-3)**

DWG No.:	SCALE:	REV	SHT.:
118310	NONE	A	7 OF 8



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118310,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	LQC-103259-575		(SS)	
3	LQC-103259-235		(STL)	
3	LQC-103259-302	FOLLOWER	(BRZ)	7
3	288-212234-458		8921-K	
3	288-212234-339		249	
3	288-212234-337		241	
3	288-212234-395	PACKING	238	6
3	AAB-114964-278		(SS)	
3	AAB-114964-236		(STL)	
3	AAB-114964-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-025918-575		(SS)	
3	001-025918-235		(STL)	
3	001-025918-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-1/2" PLUNGER )

DDA	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

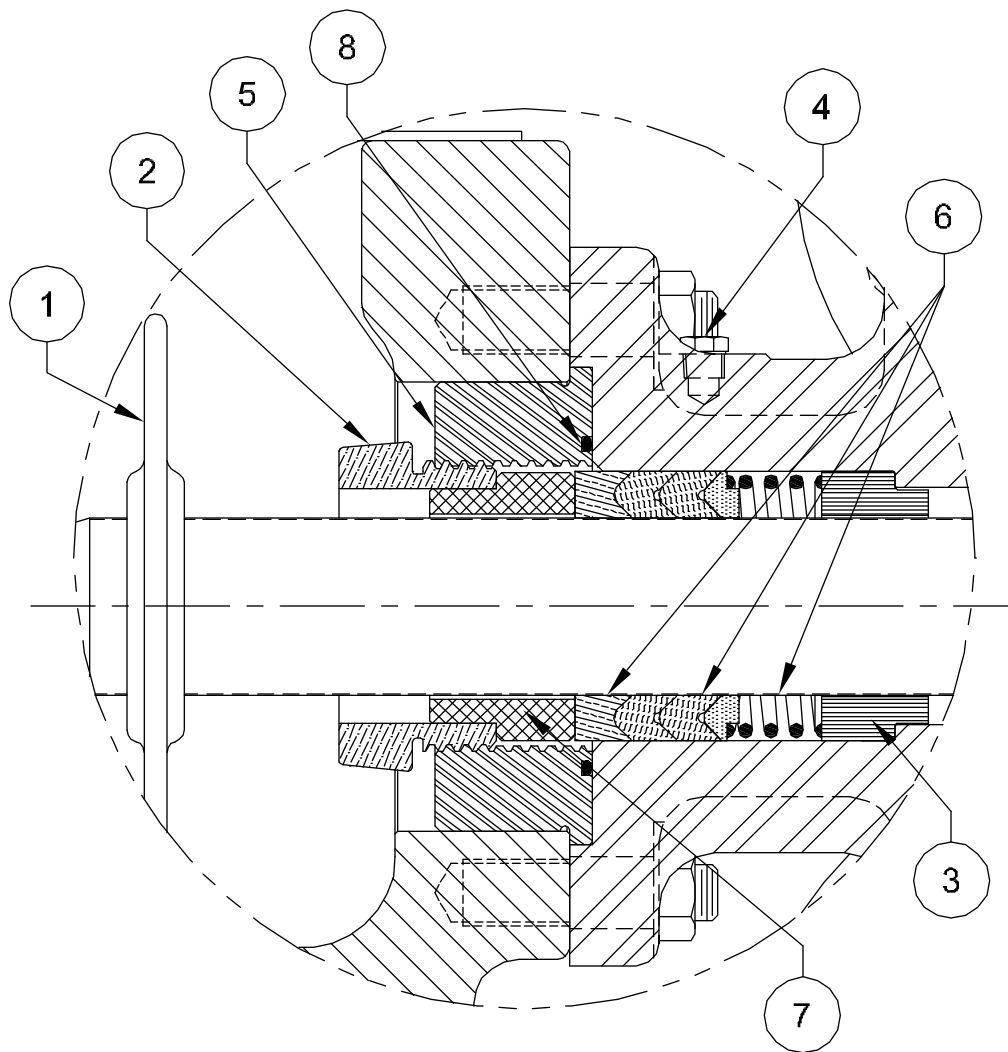
<\*> COATED STAINLESS STEEL

**NOV NATIONAL OILWELL VARCO**

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118310	SCALE: NONE	REV A	SHT.: 8 OF 8
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NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AAC-117104-575		(SS)	
3	AAC-117104-235		(STL)	
3	AAC-117104-302	FOLLOWER	(BRZ)	7
3	428-158212-473		1043-4	
3	428-158212-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-023662-575		(SS)	
3	001-023662-235		(STL)	
3	001-023662-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 1-5/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

65

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118311

SCALE:

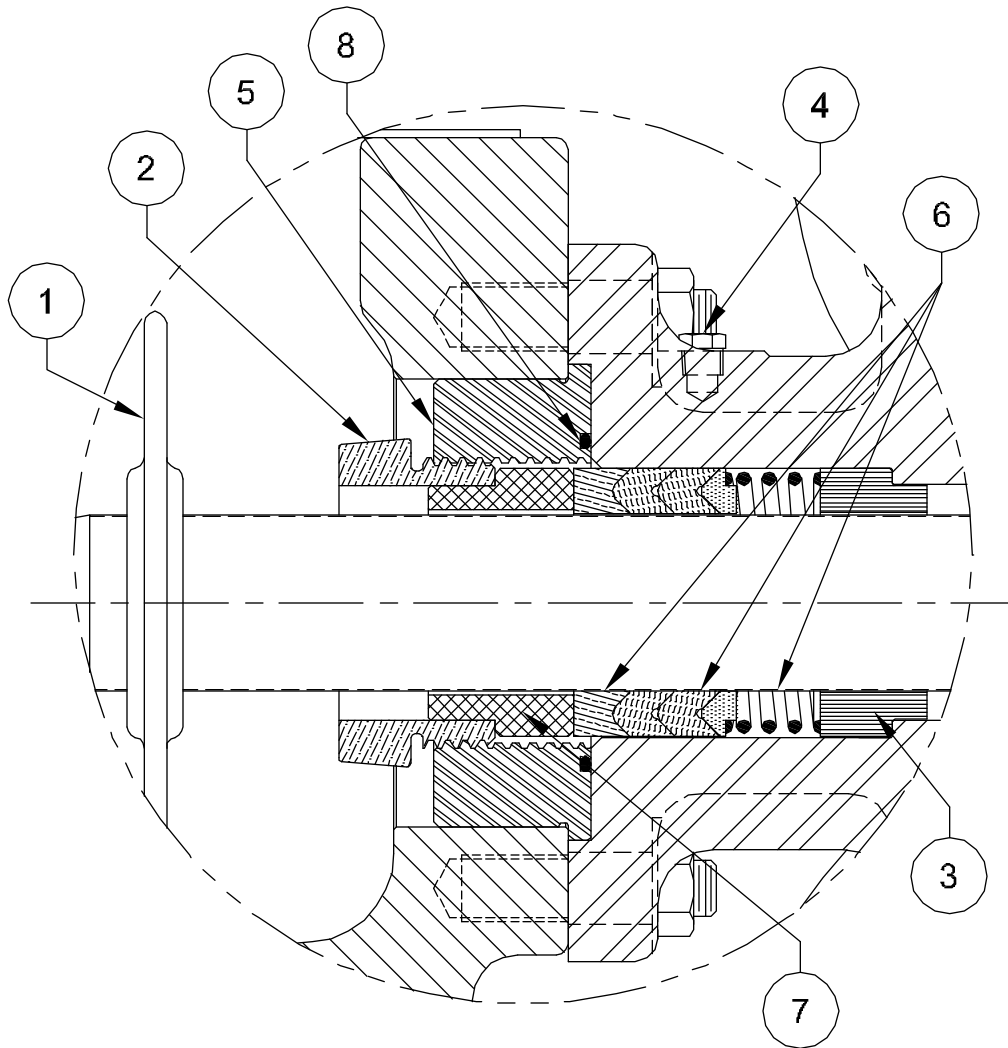
NONE

REV

A

SHT.:

1 OF 8



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	ABC-117104-575			
3	ABC-117104-235		(STL)	
3	ABC-117104-302	FOLLOWER	(BRZ)	7
3	428-134318-473		1043-4	
3	428-134318-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010897-575		(SS)	
3	001-010897-235		(STL)	
3	001-010897-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<->	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-3/4" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

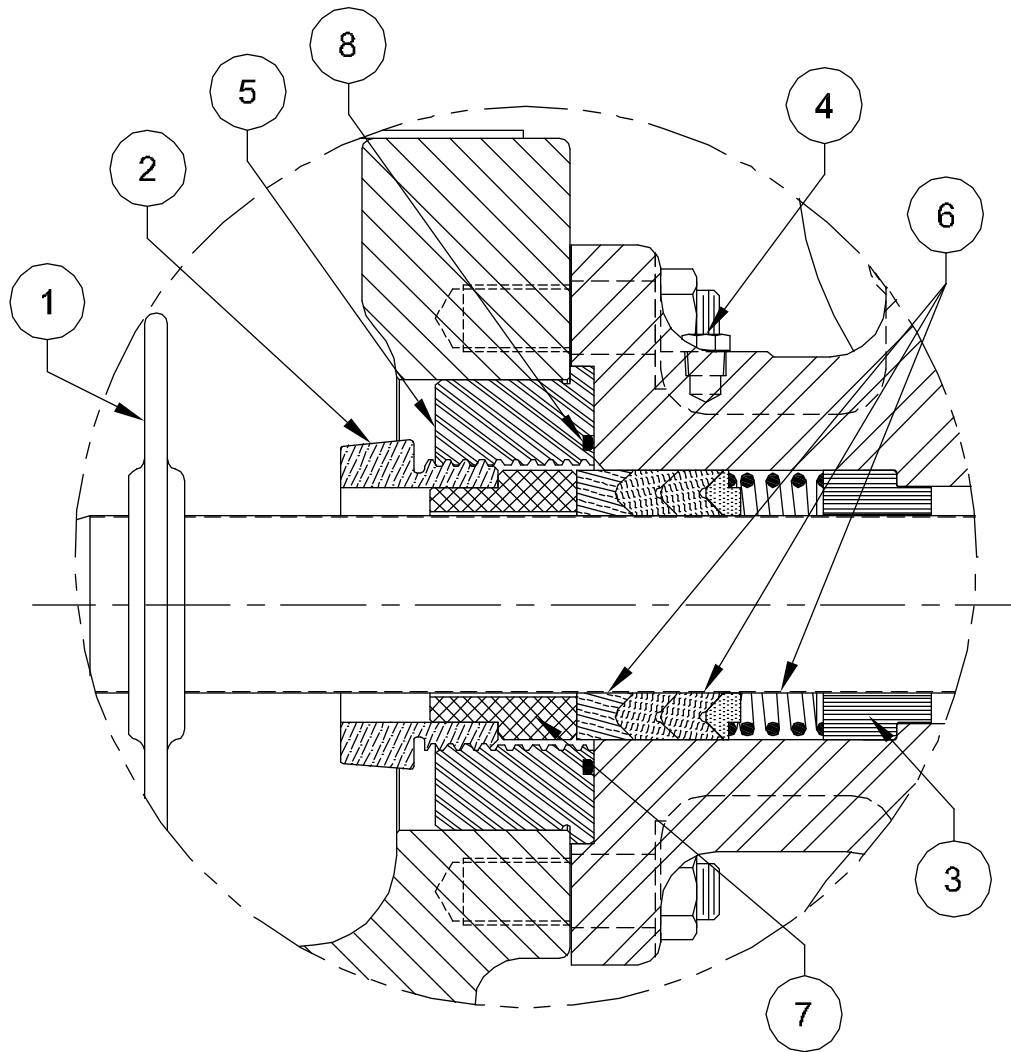
<-> COATES STAINLESS STEEL



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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118311	SCALE: NONE	REV A	SHT.: 2 OF 8
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NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	ACC-117104-575		(SS)	
3	ACC-117104-235		(STL)	
3	ACC-117104-302	FOLLOWER	(BRZ)	7
3	428-178212-473		1043-4	
3	428-178212-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010899-575		(SS)	
3	001-010899-235		(STL)	
3	001-010899-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-7/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

67

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT

"SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118311

SCALE:

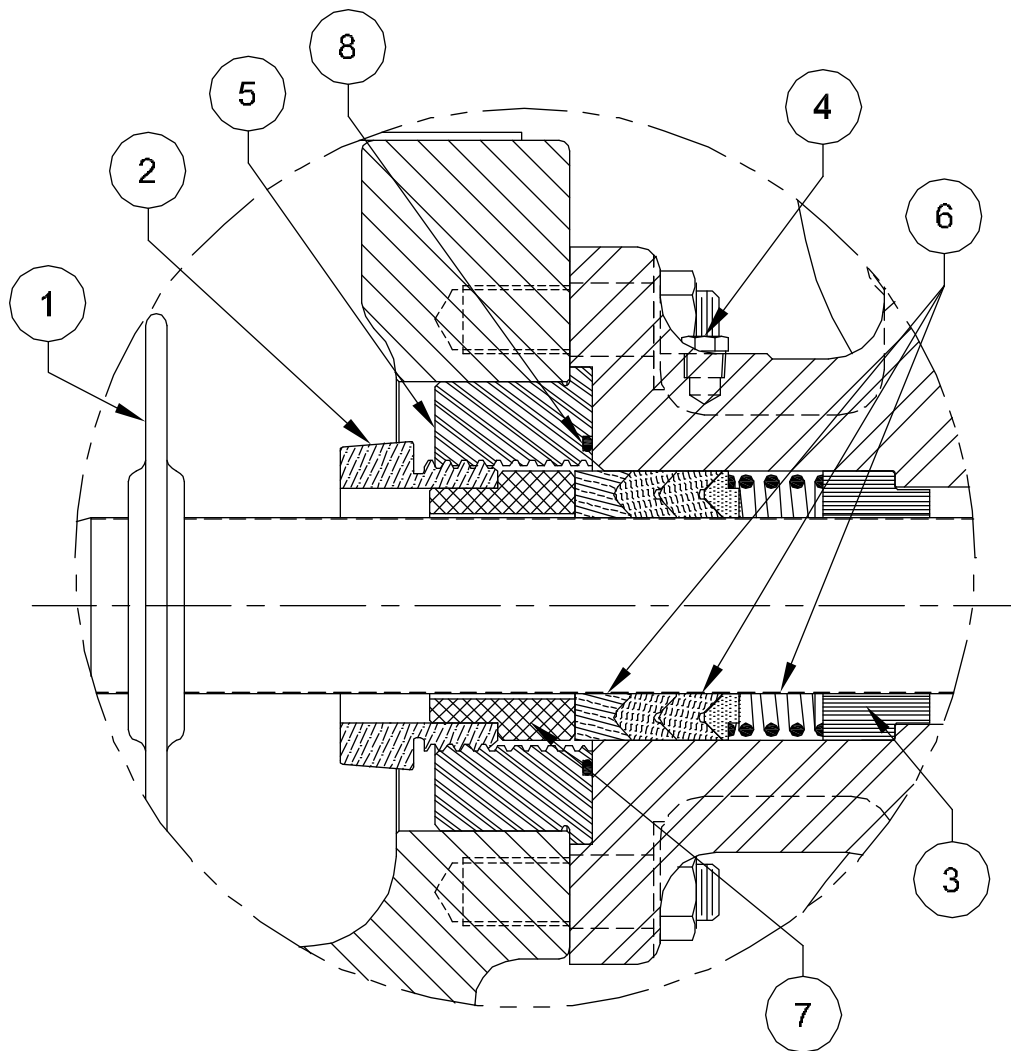
NONE

REV

A

SHT.:

3 OF 8



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	ADC-117104-575		(SS)	
3	ADC-117104-235		(STL)	
3	ADC-117104-302	FOLLOWER	(BRZ)	7
3	428-200238-473		1043-4	
3	428-200238-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010901-575		(SS)	
3	001-010901-235		(STL)	
3	001-010901-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

68

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118311

SCALE:

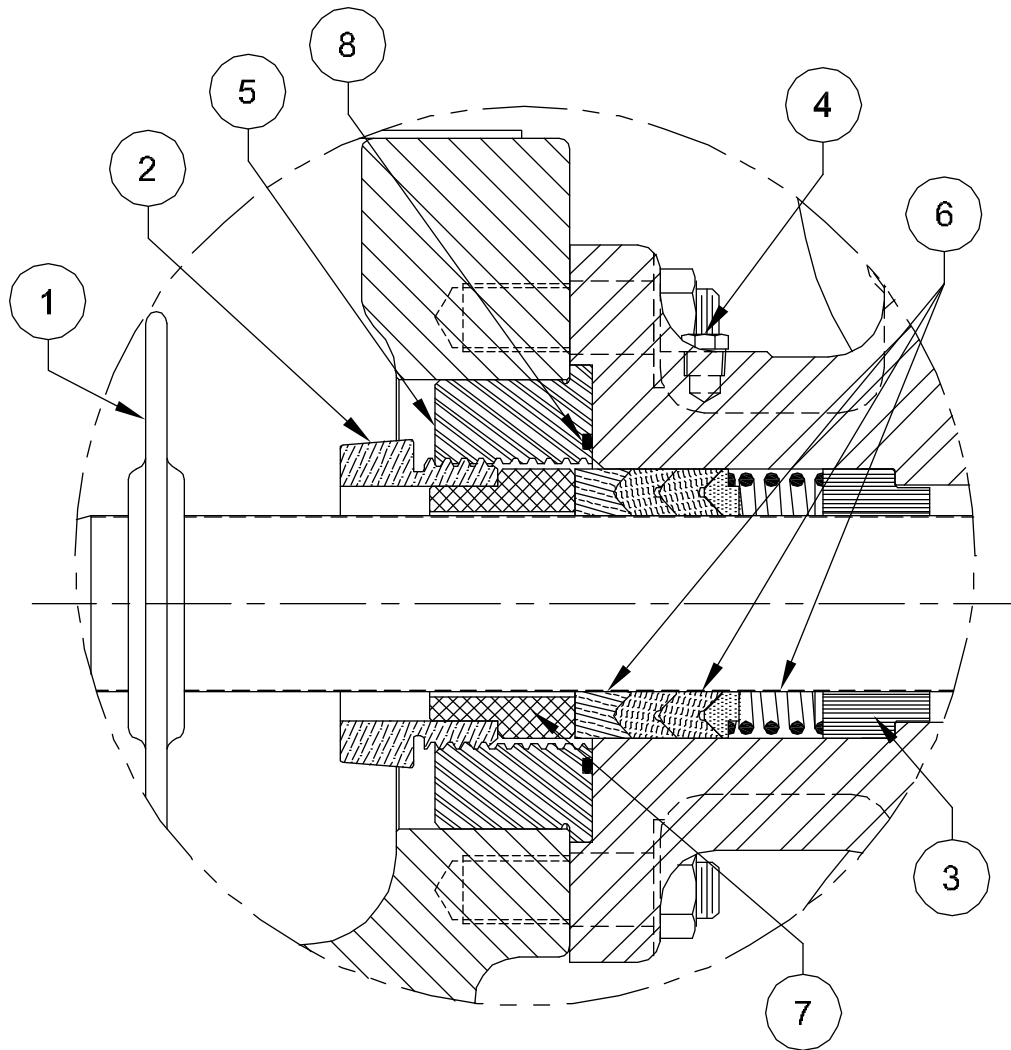
NONE

REV

A

SHT.:

4 OF 8



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AEC-117104-575		(SS)	
3	AEC-117104-235		(STL)	
3	AEC-117104-302	FOLLOWER	(BRZ)	7
3	428-218212-473		1043-4	
3	428-218212-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010902-575		(SS)	
3	001-010902-235		(STL)	
3	001-010902-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-1/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

69

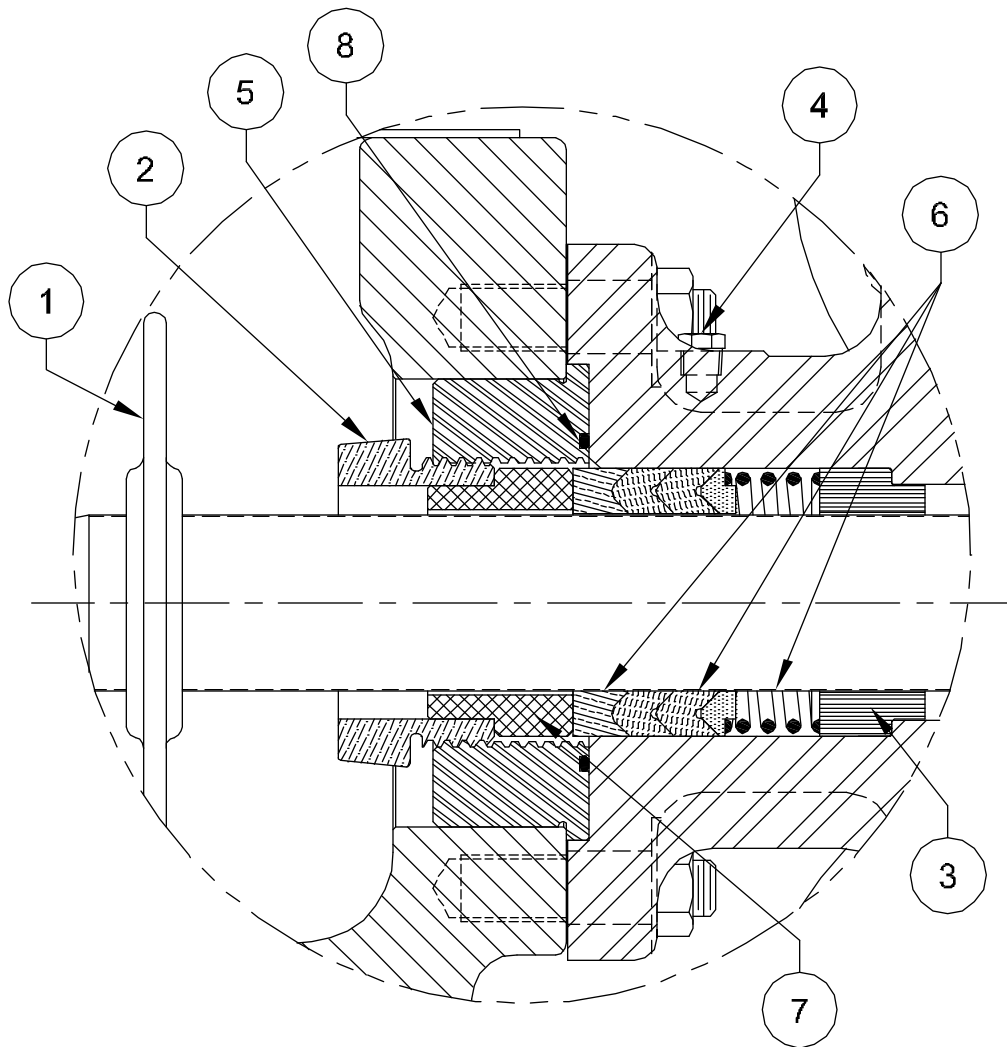


HOUSTON, TEXAS, U.S.A. ENGINEERING, TULSA, OKLAHOMA

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWVG No.:	SCALE:	REV	SHT.:
118311	NONE	A	5 OF 8





NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AFC-117104-575		(SS)	
3	AFC-117104-235		(STL)	
3	AFC-117104-302	FOLLOWER	(BRZ)	7
3	428-214212-473		1043-4	
3	428-214212-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-007979-575		(SS)	
3	001-007979-235		(STL)	
3	001-007979-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/4" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

70

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118311

SCALE:

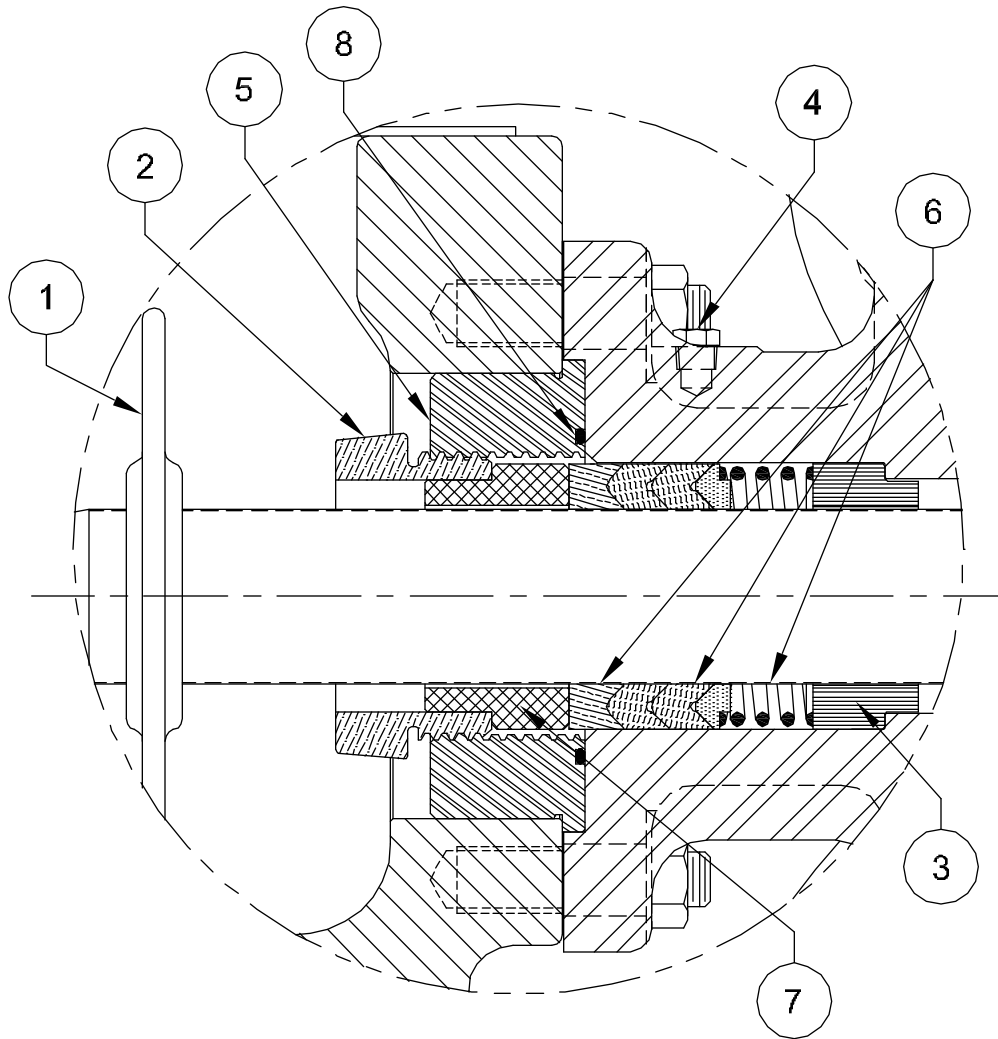
NONE

REV

A

SHT.:

6 OF 8



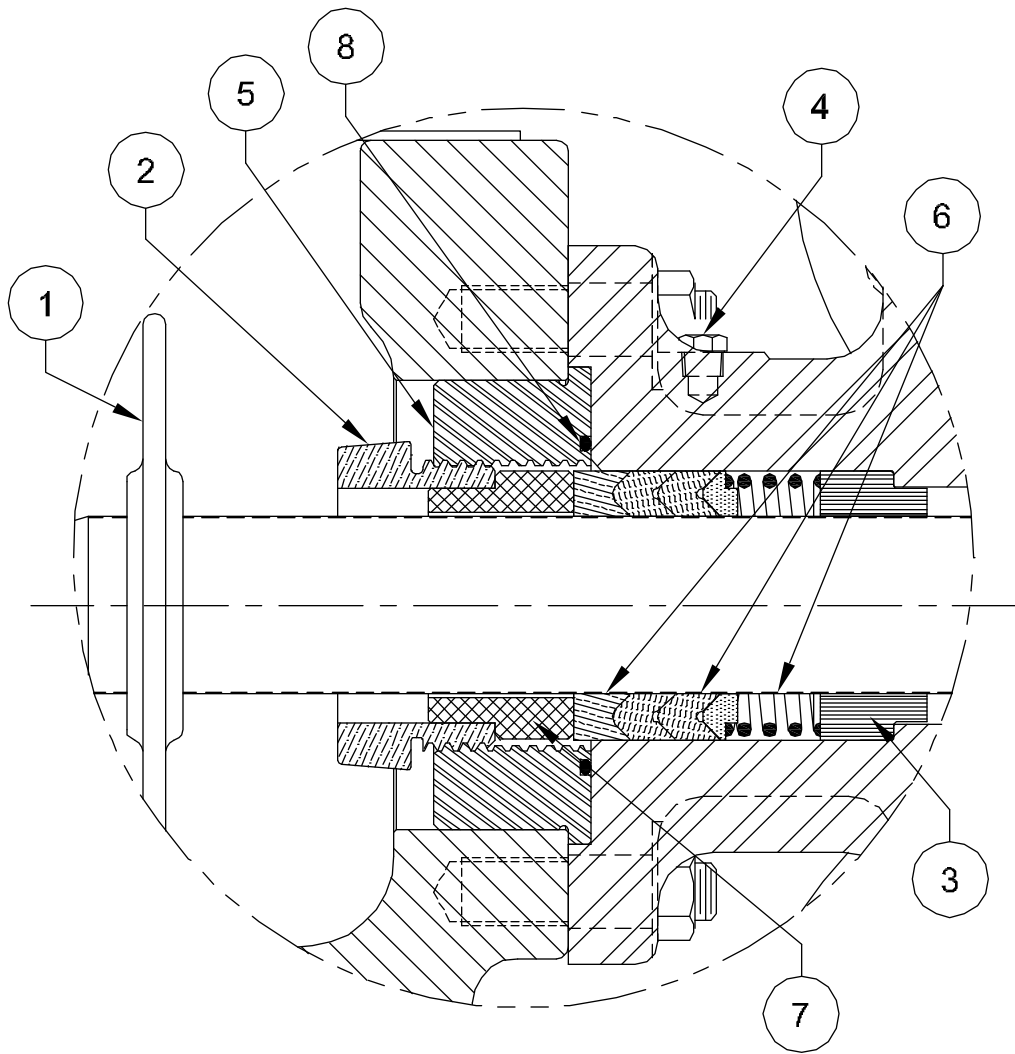
NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

3	110-000238-200	O-RING		8
3	AGC-117104-575		(SS)	
3	AGC-117104-235		(STL)	
3	AGC-117104-302	FOLLOWER	(BRZ)	7
3	428-238268-473		1043-R	
3	428-238268-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-024394-575		(SS)	
3	001-024394-235		(STL)	
3	001-024394-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-3/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

71

<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, PLUNGER KIT "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR 101T-4M, 133T-4M (T100-3, T140-3)			
DWG No.:	SCALE:	REV:	SHT.:
118311	NONE	A	7 OF 8



NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118311,  
 SHEETS 1 THRU 8.

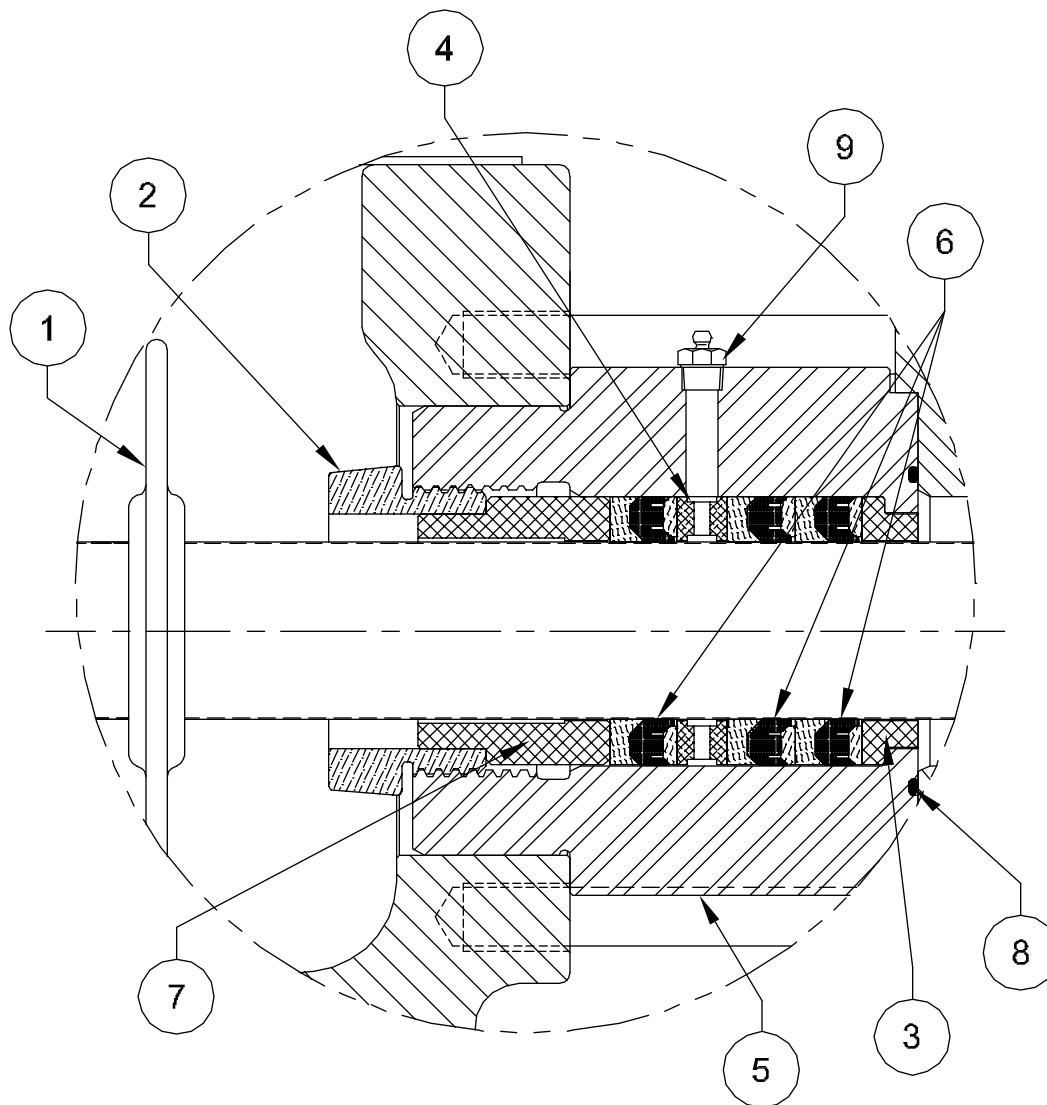
3	110-000238-200	O-RING		8
3	LQC-103259-575		(SS)	
3	LQC-103259-235		(STL)	
3	LQC-103259-302	FOLLOWER	(BRZ)	7
3	428-212244-473		1043-4	
3	428-212244-340	PACKING	1068-4	6
3	AAB-114966-278		(SS)	
3	AAB-114966-236		(STL)	
3	AAB-114966-316	ADAPTER	(BRZ)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-025918-575		(SS)	
3	001-025918-235		(STL)	
3	001-025918-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/2" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118311	SCALE: NONE	REV A	SHT.: 8 OF 8
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NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	AAC-114965-575		(SS)	
3	AAC-114965-235		(STL)	
3	AAC-114965-302	FOLLOWER	(BRZ)	7
3	181-158253-477		858	
3	181-158253-374		845	
3	181-158253-386		842	
3	181-158253-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-023663-575		(SS)	
3	001-023663-235		(STL)	
3	001-023663-302	LANTERN RING	(BRZ)	4
3	001-023662-575		(SS)	
3	001-023662-235		(STL)	
3	001-023662-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-5/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

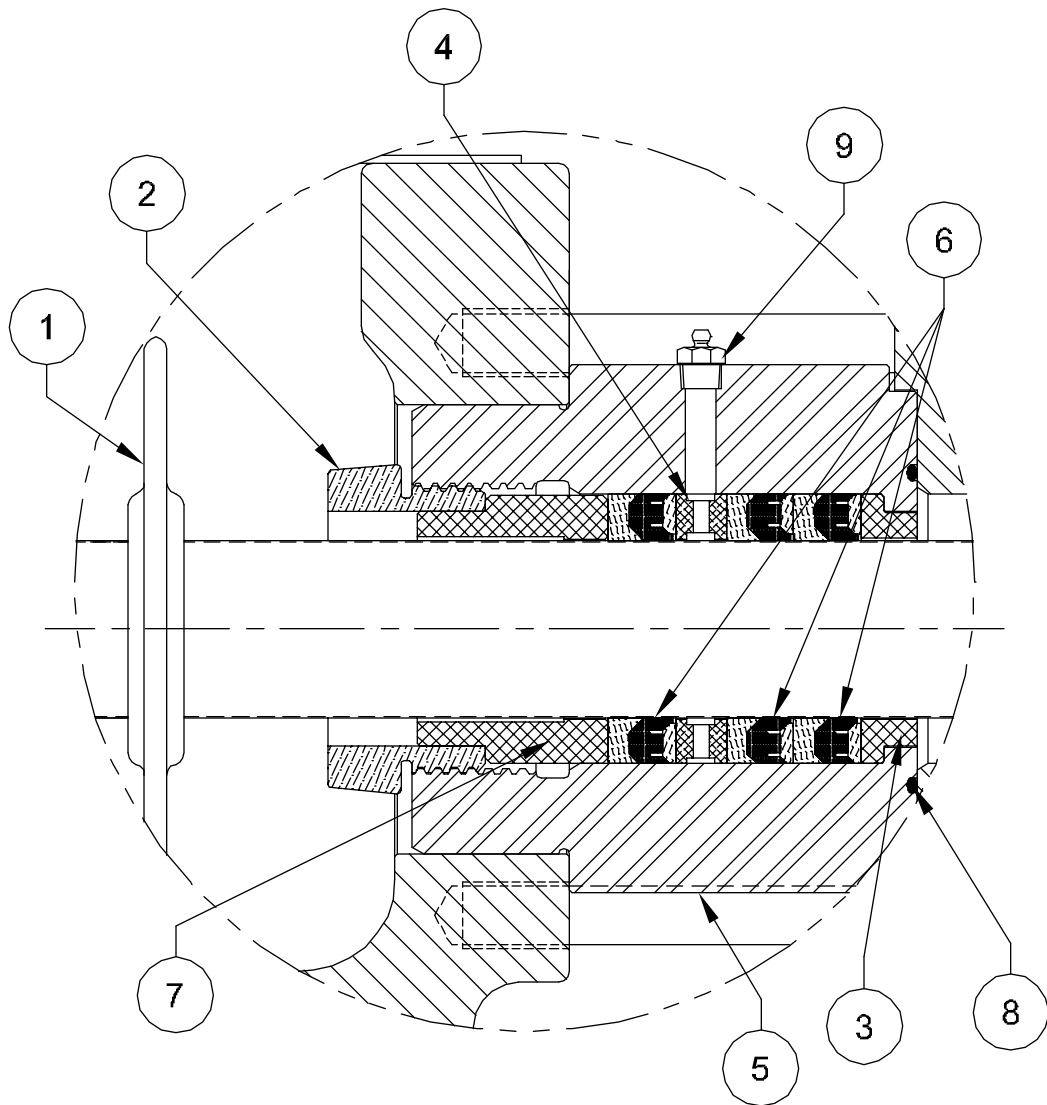
BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**"J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER**  
**101T-4MC, 133T-4MC (T100-A3, T140-A3)**

DWG No.: 118312	SCALE: NONE	REV A	SHT.: 1 OF 8
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NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312,  
 SHEETS 1 THRU 8.

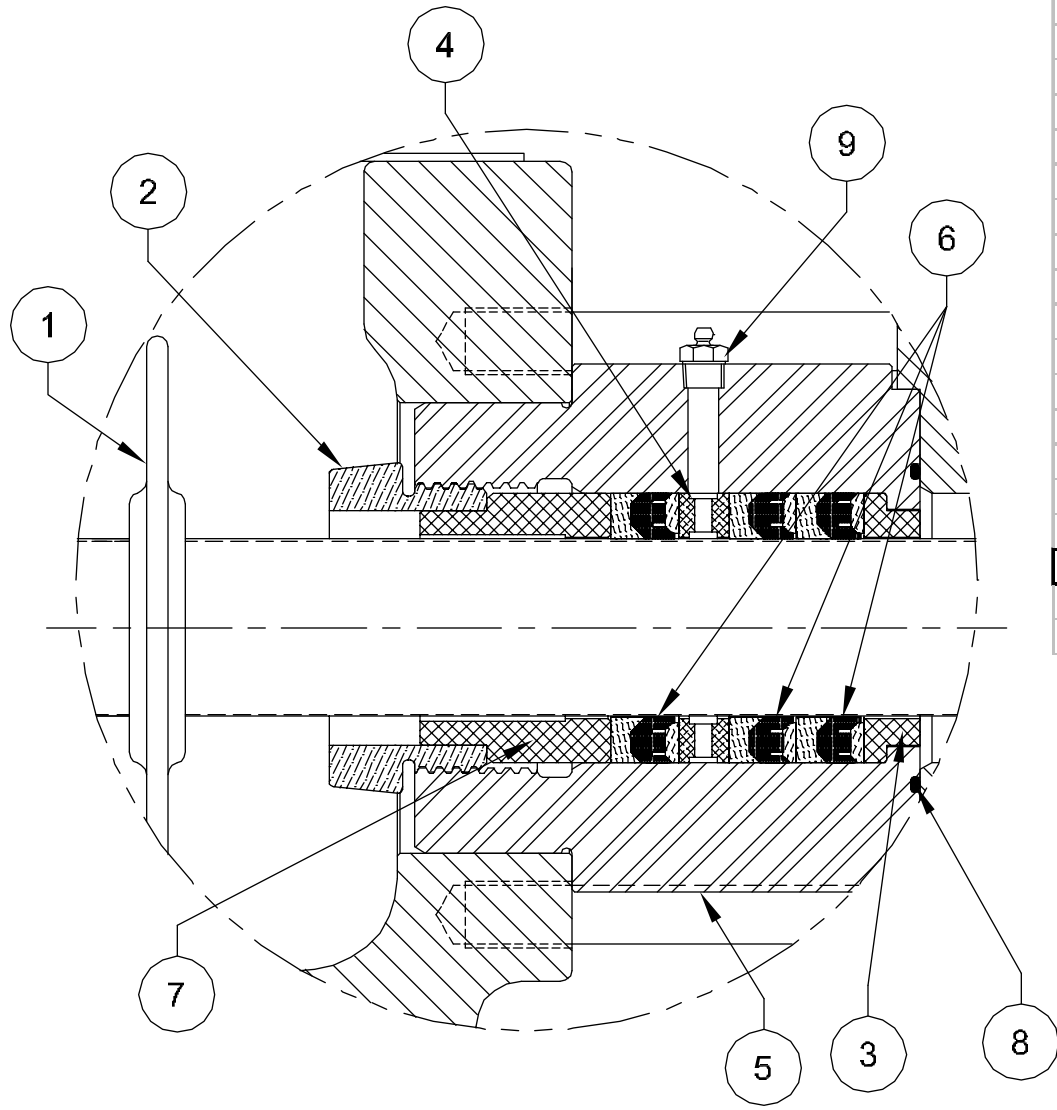
3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	ABC-114965-575		(SS)	
3	ABC-114965-235		(STL)	
3	ABC-114965-302	FOLLOWER	(BRZ)	7
3	181-134244-477		858	
3	181-134244-374		845	
3	181-134244-386		842	
3	181-134244-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-010990-575		(SS)	
3	001-010990-235		(STL)	
3	001-010990-302	LANTERN RING	(BRZ)	4
3	001-010897-575		(SS)	
3	001-010897-235		(STL)	
3	001-010897-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-3/4" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

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<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: ASSEMBLY, PLUNGER KIT "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER 101T-4MC, 133T-4MC (T100-A3, T140-A3)			
DWG No.:	118312	SCALE:	NONE
REV	A	SHT.:	2 OF 8



NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	ACC-114965-575		(SS)	
3	ACC-114965-235		(STL)	
3	ACC-114965-302	FOLLOWER	(BRZ)	7
3	181-178244-477		858	
3	181-178244-374		845	
3	181-178244-386		842	
3	181-178244-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-014457-575		(SS)	
3	001-014457-235		(STL)	
3	001-014457-302	LANTERN RING	(BRZ)	4
3	001-010899-575		(SS)	
3	001-010899-235		(STL)	
3	001-010899-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-7/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

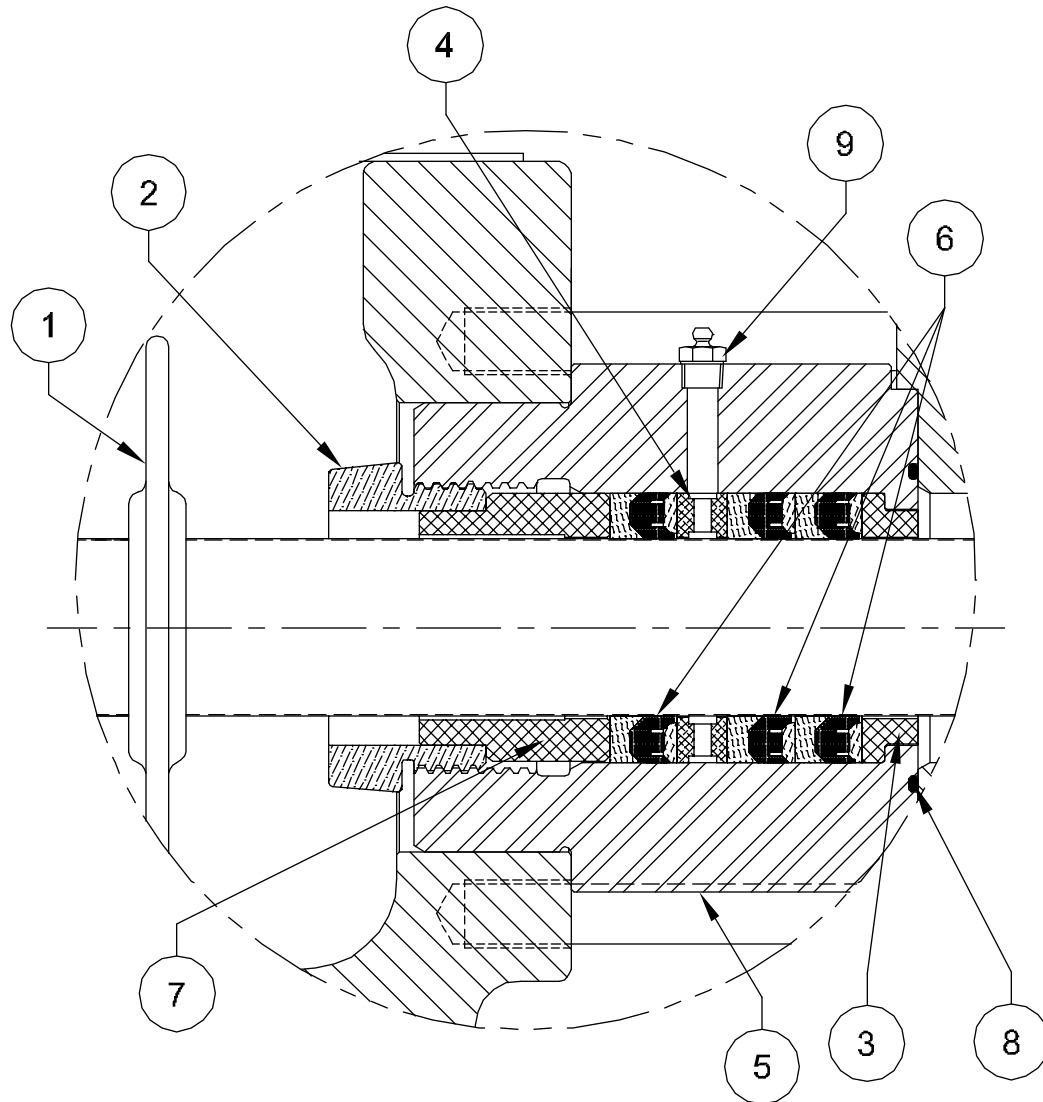
BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.: 118312	SCALE: NONE	REV A	SHT.: 3 OF 8
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**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312, SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	ADC-114965-575		(SS)	
3	ADC-114965-235		(STL)	
3	ADC-114965-302	FOLLOWER	(BRZ)	7
3	181-200214-477		858	
3	181-200214-374		845	
3	181-200214-386		842	
3	181-200214-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-010991-575		(SS)	
3	001-010991-235		(STL)	
3	001-010991-302	LANTERN RING	(BRZ)	4
3	001-010901-575		(SS)	
3	001-010901-235		(STL)	
3	001-010901-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2" PLUNGER )</b>				
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>		<b>ITEM</b>
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

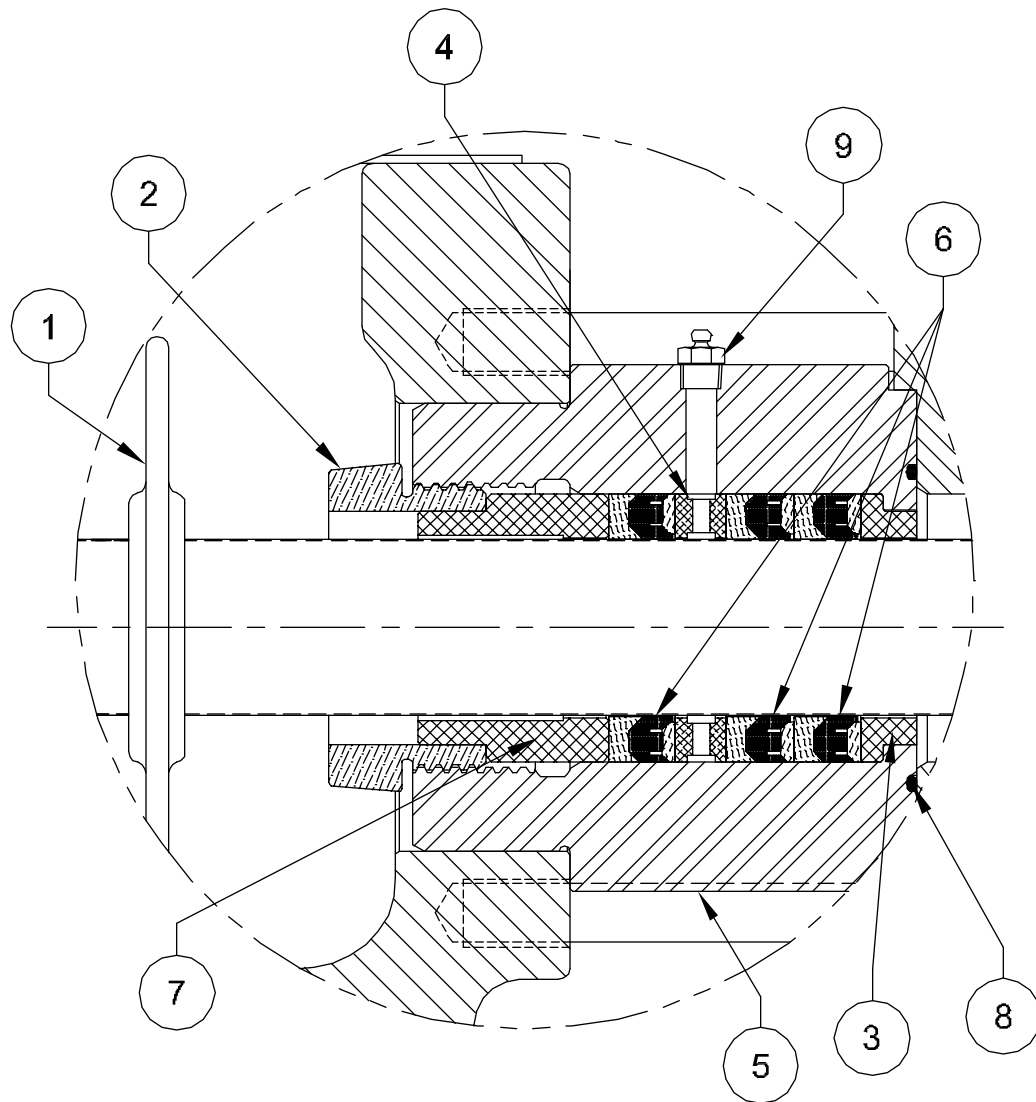
ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.: 118312

SCALE: NONE

REV A

SHT.: 4 OF 8



NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	AEC-114965-575		(SS)	
3	AEC-114965-235		(STL)	
3	AEC-114965-302	FOLLOWER	(BRZ)	7
3	181-218214-477		858	
3	181-218214-374		845	
3	181-218214-386		842	
3	181-218214-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-014456-575		(SS)	
3	001-014456-235		(STL)	
3	001-014456-302	LANTERN RING	(BRZ)	4
3	001-010902-575		(SS)	
3	001-010902-235		(STL)	
3	001-010902-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-1/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

<\*> COATED STAINLESS STEEL

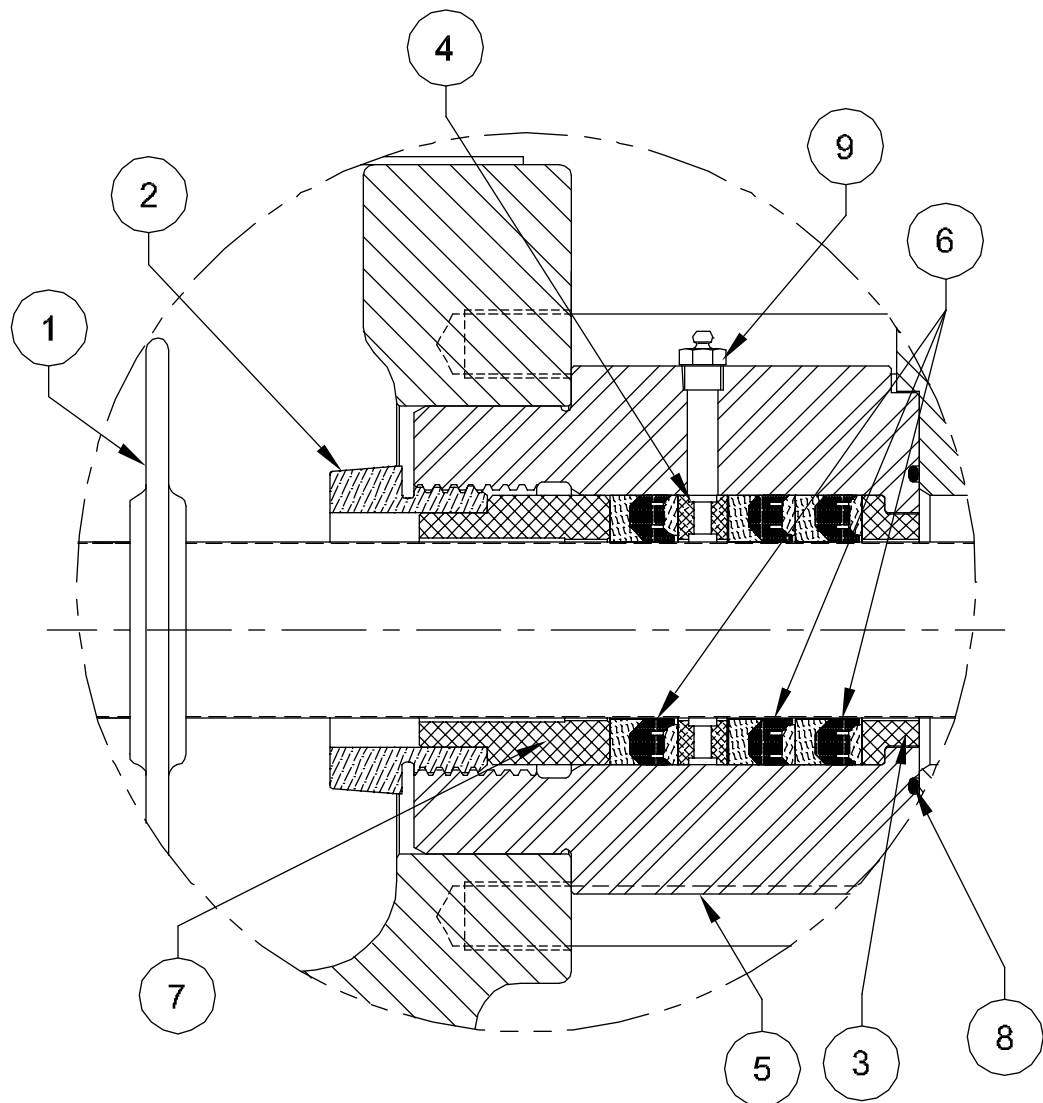
**NOV NATIONAL OILWELL VARCO**

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	118312	SCALE:	NONE	REV	A	SH1.:	5 of 8
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NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	AFC-114965-575		(SS)	
3	AFC-114965-235		(STL)	
3	AFC-114965-302	FOLLOWER	(BRZ)	7
3	181-214214-477		858	
3	181-214214-374		845	
3	181-214214-386		842	
3	181-214214-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-010266-575		(SS)	
3	001-010266-235		(STL)	
3	001-010266-302	LANTERN RING	(BRZ)	4
3	001-007979-575		(SS)	
3	001-007979-235		(STL)	
3	001-007979-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-1/4" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM

BILL OF MATERIAL

<\*> COATED STAINLESS STEEL



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT

"J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4MC, 133T-4MC ( T100-A3, T140-A3)

DWG No.:

118312

SCALE:

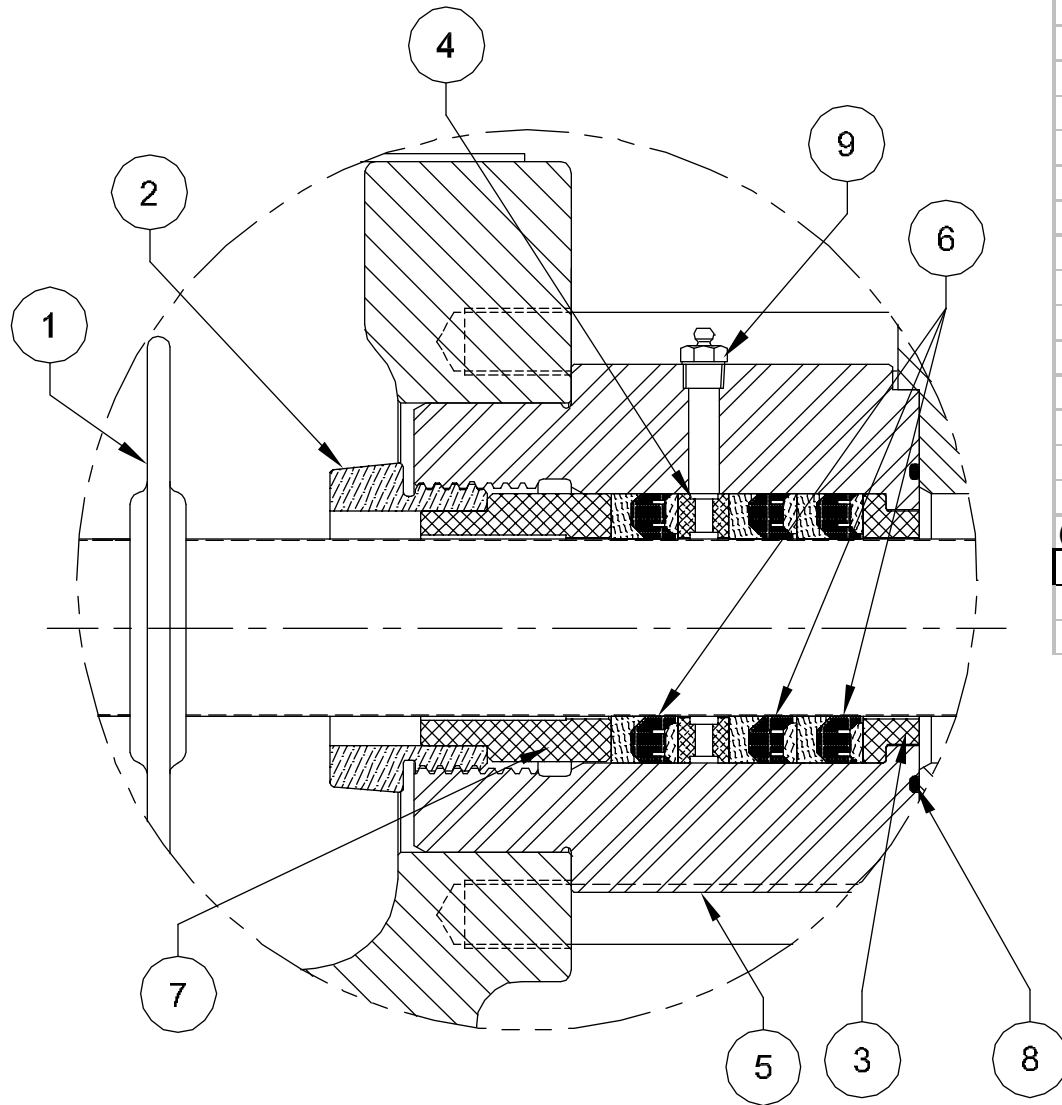
NONE

REV

A

SHT.:

6 OF 8



NOTE  
 1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312,  
 SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	AGC-114965-575		(SS)	
3	AGC-114965-235		(STL)	
3	AGC-114965-302	FOLLOWER	(BRZ)	7
3	181-238206-477		858	
3	181-238206-374		845	
3	181-238206-386		842	
3	181-238206-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	AAB-115149-575		(SS)	
3	AAB-115149-235		(STL)	
3	AAB-115149-302	LANTERN RING	(BRZ)	4
3	001-024394-575		(SS)	
3	001-024394-235		(STL)	
3	001-024394-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-3/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT

"J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118312

SCALE:

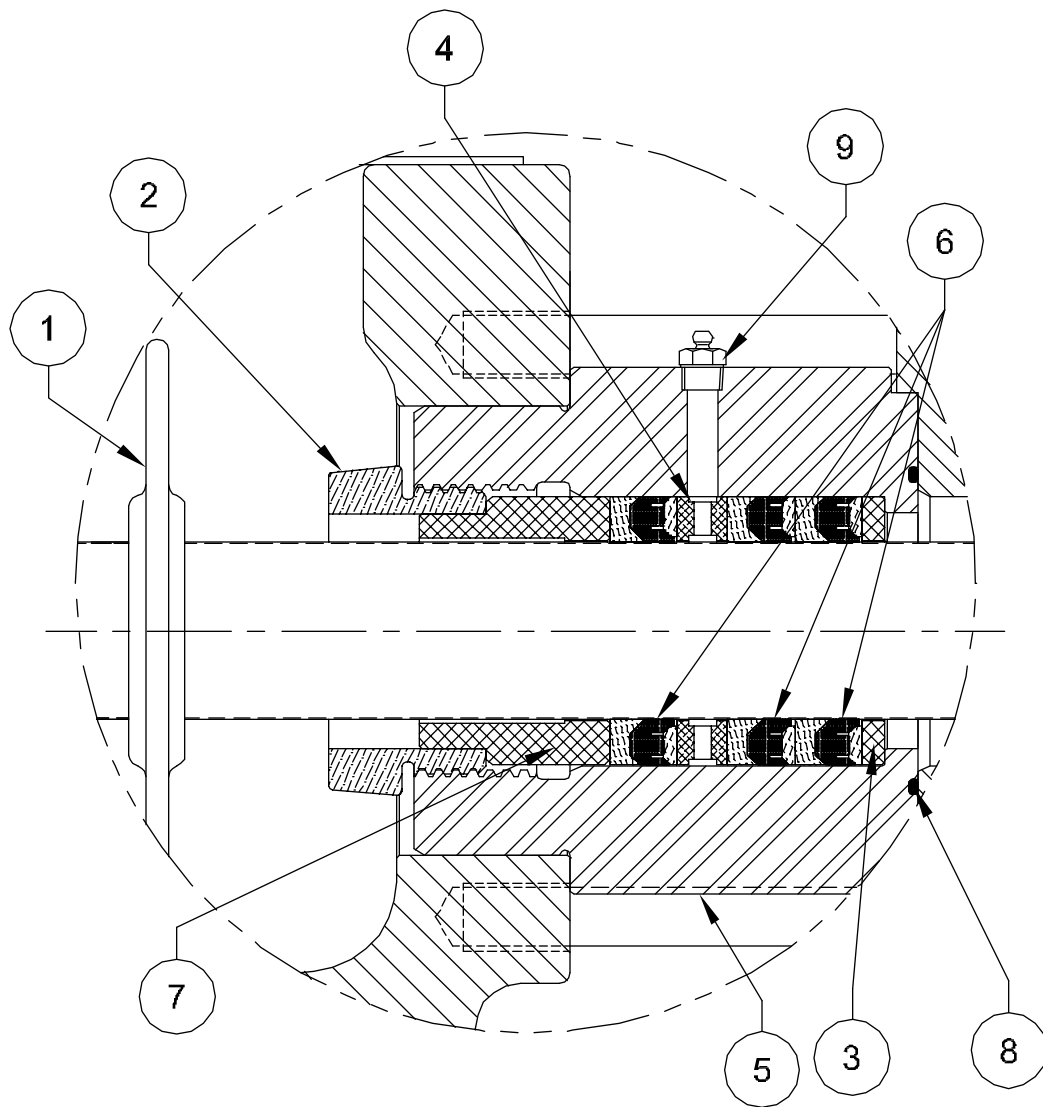
NONE

REV

A

SHT.:

7 OF 8



**NOTE**

1) FOR ALL " J " STYLE PACKING SEE DRAWING 118312, SHEETS 1 THRU 8.

3	180-165000-220	LUBE FITTING	(STL)	9
3	110-000237-200	O-RING		8
3	LQC-103259-575		(SS)	
3	LQC-103259-235		(STL)	
3	LQC-103259-302	FOLLOWER	(BRZ)	7
3	181-212178-477		858	
3	181-212178-374		845	
3	181-212178-386		842	
3	181-212178-370	PACKING	838	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	001-010904-575		(SS)	
3	001-010904-235		(STL)	
3	001-010904-302	LANTERN RING	(BRZ)	4
3	001-025918-575		(SS)	
3	001-025918-235		(STL)	
3	001-025918-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-1/2" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

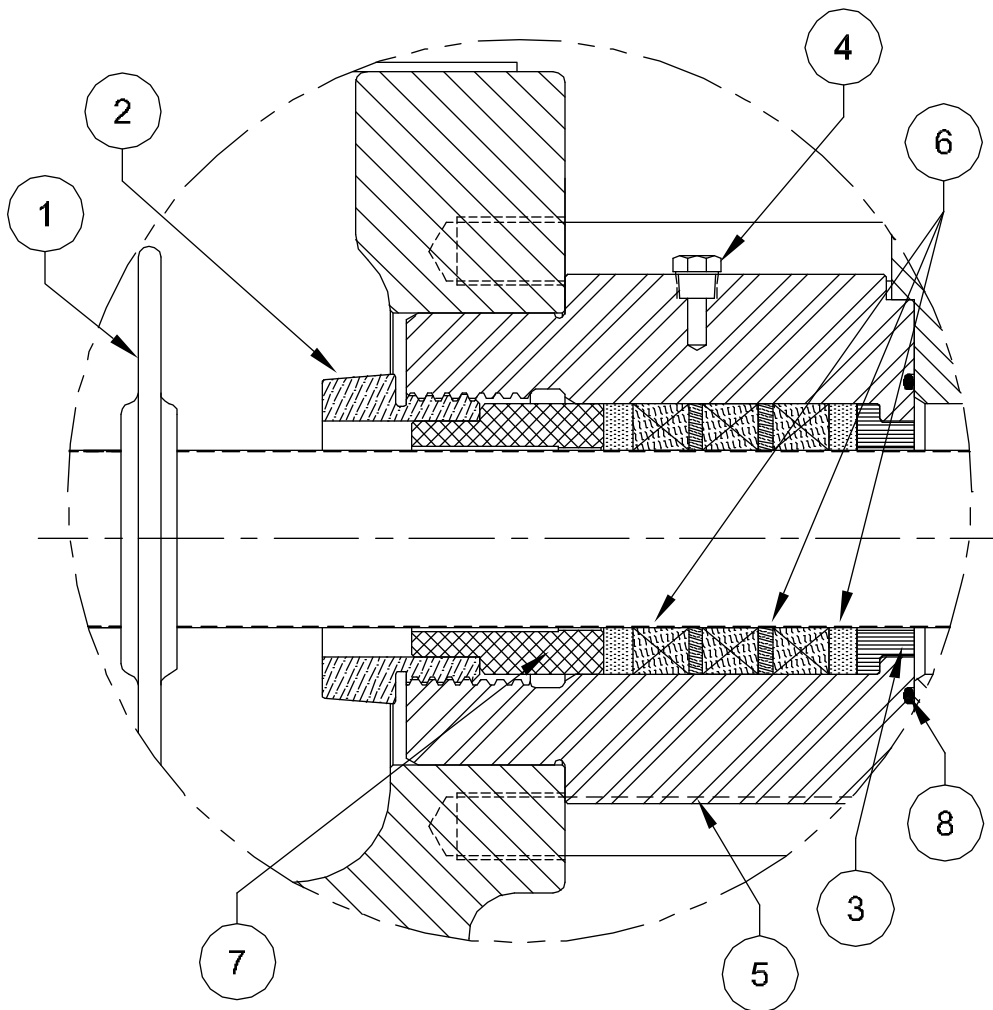
<\*> COATED STAINLESS STEEL



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
 "J"-STYLE PKG, 1-5/8" THRU 2-1/2" PLUNGER  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.: 118312	SCALE: NONE	REV A	SHT.: 8 OF 8
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NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313,  
 SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	AAC-114965-575		(SS)	
3	AAC-114965-235		(STL)	
3	AAC-114965-302	FOLLOWER	(BRZ)	7
3	288-158278-458		8921-K	
3	288-158278-339		249	
3	288-158278-337		241	
3	288-158278-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-023662-575		(SS)	
3	001-023662-235		(STL)	
3	001-023662-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-5/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

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**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118313

SCALE:

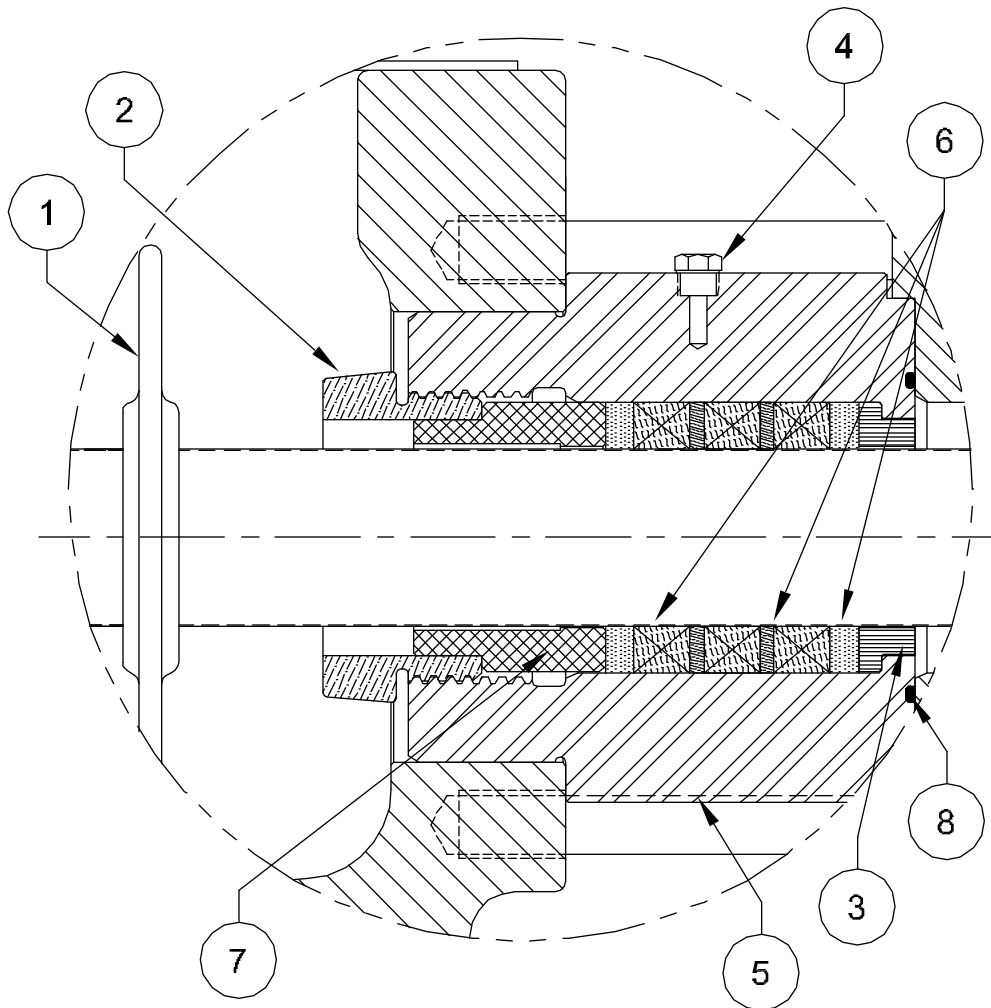
NONE

REV

A

SHT.:

1 OF 8



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313,  
 SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	ABC-114965-575		(SS)	
3	ABC-114965-235		(STL)	
3	ABC-114965-302	FOLLOWER	(BRZ)	7
3	288-134258-458		8921-K	
3	288-134258-339		249	
3	288-134258-337		241	
3	288-134258-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010897-575		(SS)	
3	001-010897-235		(STL)	
3	001-010897-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 1-3/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

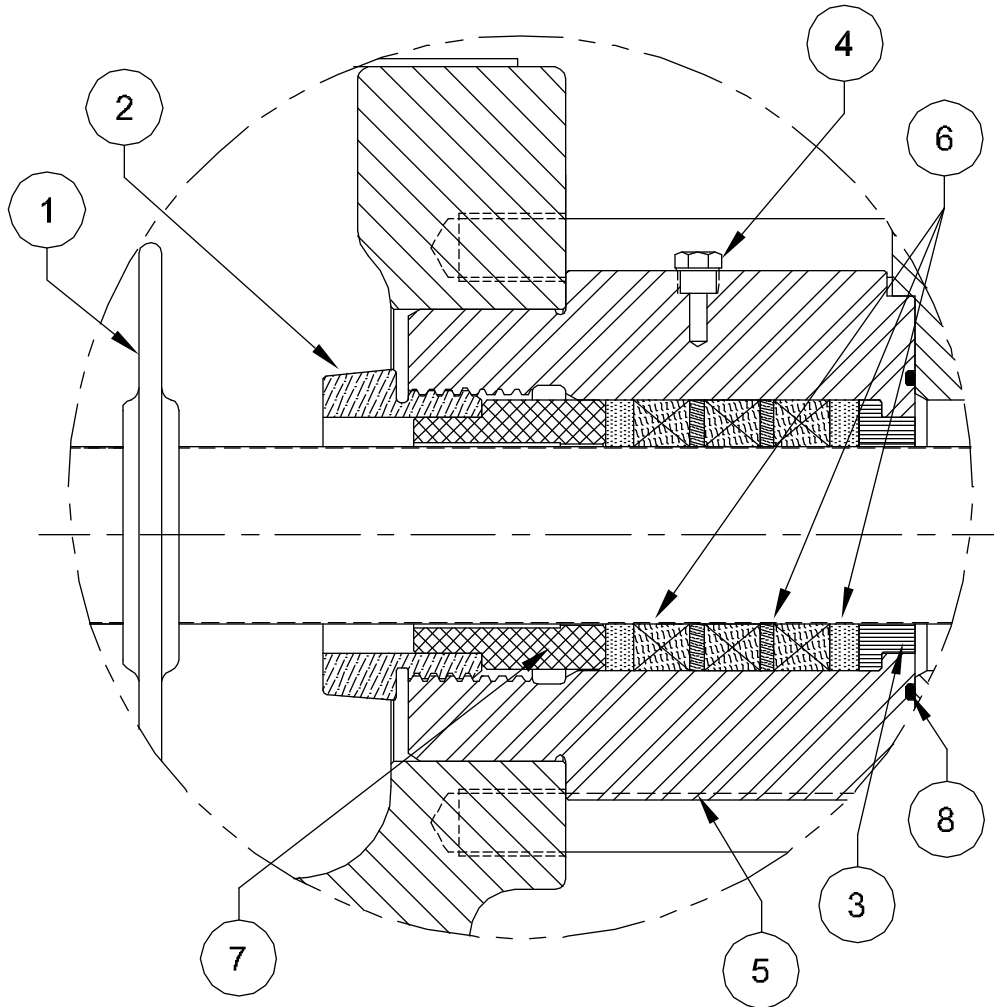
BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	118313	SCALE:	NONE	REV	A	SHT.:	2 OF 8
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NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313,  
 SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	ACC-114965-575		(SS)	
3	ACC-114965-235		(STL)	
3	ACC-114965-302	FOLLOWER	(BRZ)	7
3	288-178258-458		8921-K	
3	288-178258-339		249	
3	288-178258-337		241	
3	288-178258-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010899-575		(SS)	
3	001-010899-235		(STL)	
3	001-010899-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-7/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118313

SCALE:

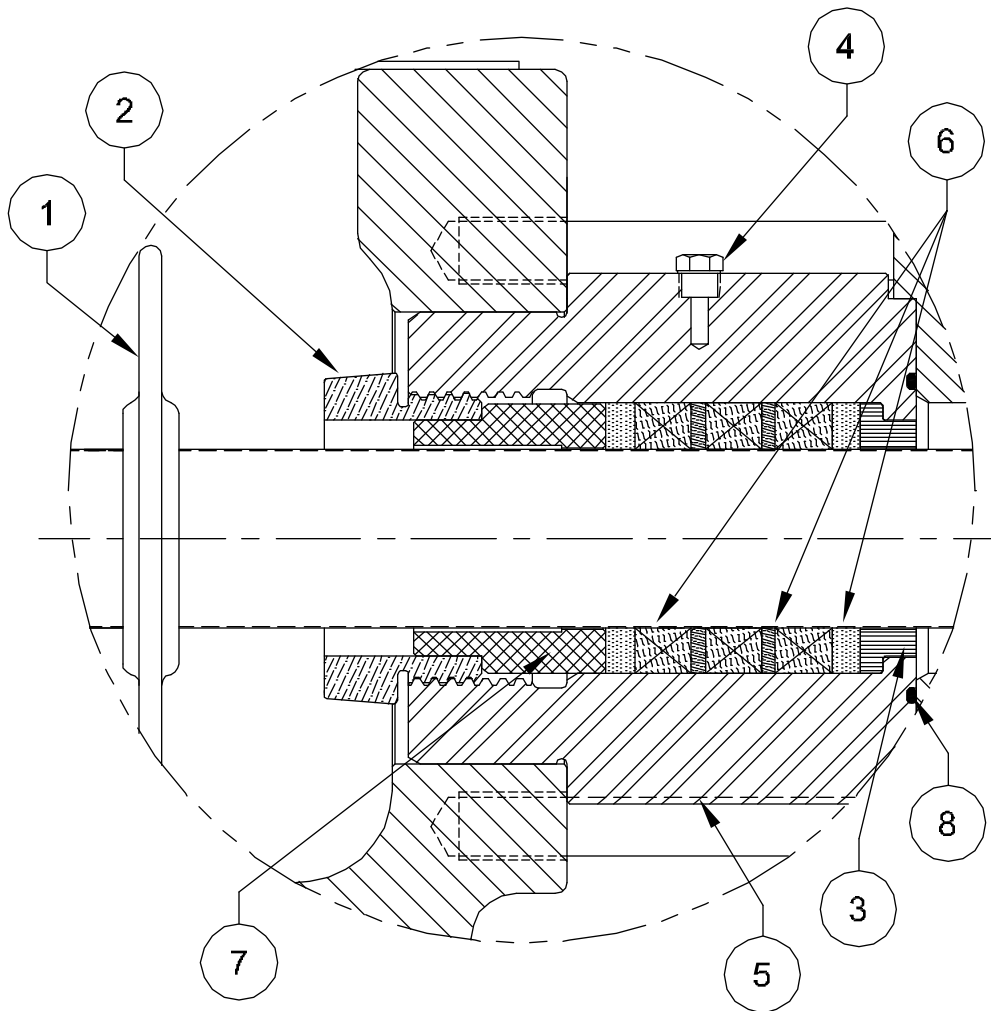
NONE

REV

A

SHT.:

3 OF 8



**NOTE**

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313, SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	ADC-114965-575		(SS)	
3	ADC-114965-235		(STL)	
3	ADC-114965-302	FOLLOWER	(BRZ)	7
3	288-200258-458		8921-K	
3	288-200258-339		249	
3	288-200258-337		241	
3	288-200258-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010901-575		(SS)	
3	001-010901-235		(STL)	
3	001-010901-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2" PLUNGER )

DDA	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

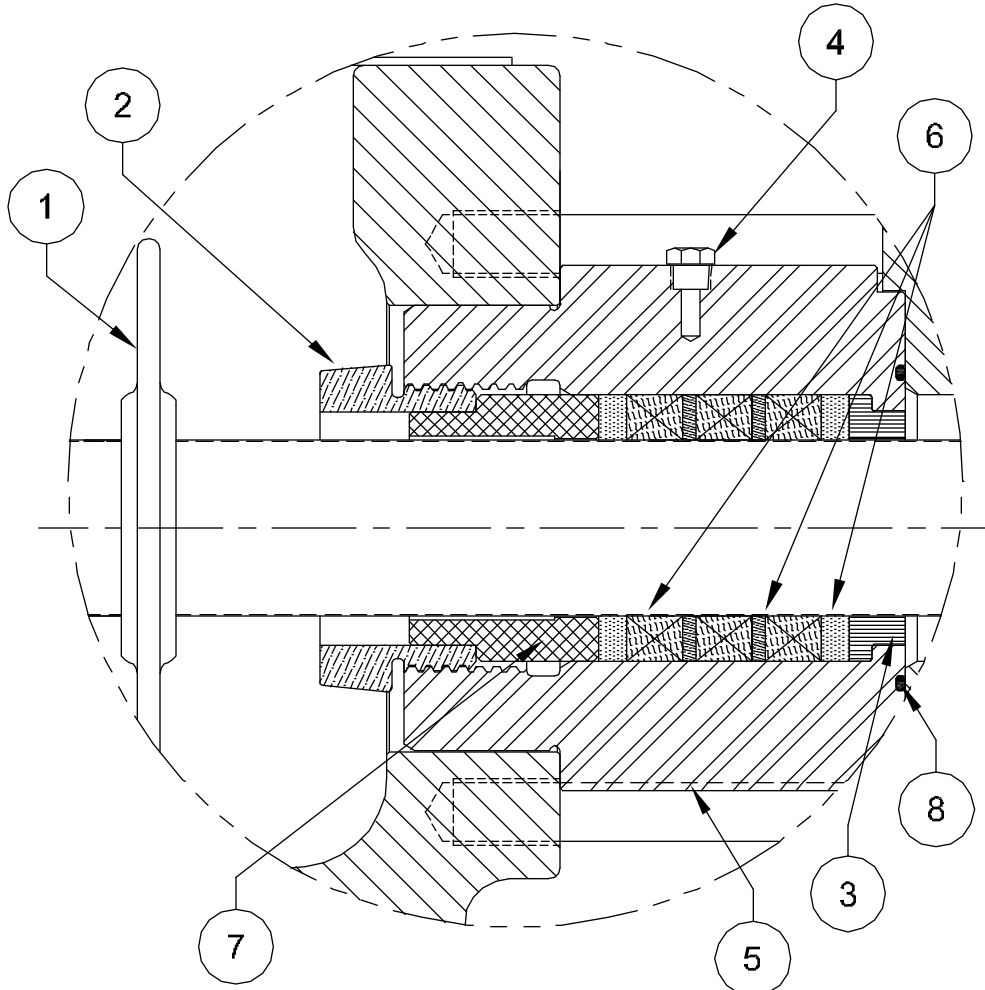
<\*> COATED STAINLESS STEEL



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR**  
**101T-4MC, 133T-4MC (T100-A3, T140-A3)**

DWG No.:	SCALE:	REV	SHT.:
118313	NONE	A	4 OF 8



3	110-000237-200	O-RING		8
3	AEC-114965-575		(SS)	
3	AEC-114965-235		(STL)	
3	AEC-114965-302	FOLLOWER	(BRZ)	7
3	288-218258-458		8921-K	
3	288-218258-339		249	
3	288-218258-337		241	
3	288-218258-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010902-575		(SS)	
3	001-010902-235		(STL)	
3	001-010902-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16		(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-1/8" PLUNGER )				
DDA	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

NOTE

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313, SHEETS 1 THRU 8.

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118313

SCALE:

NONE

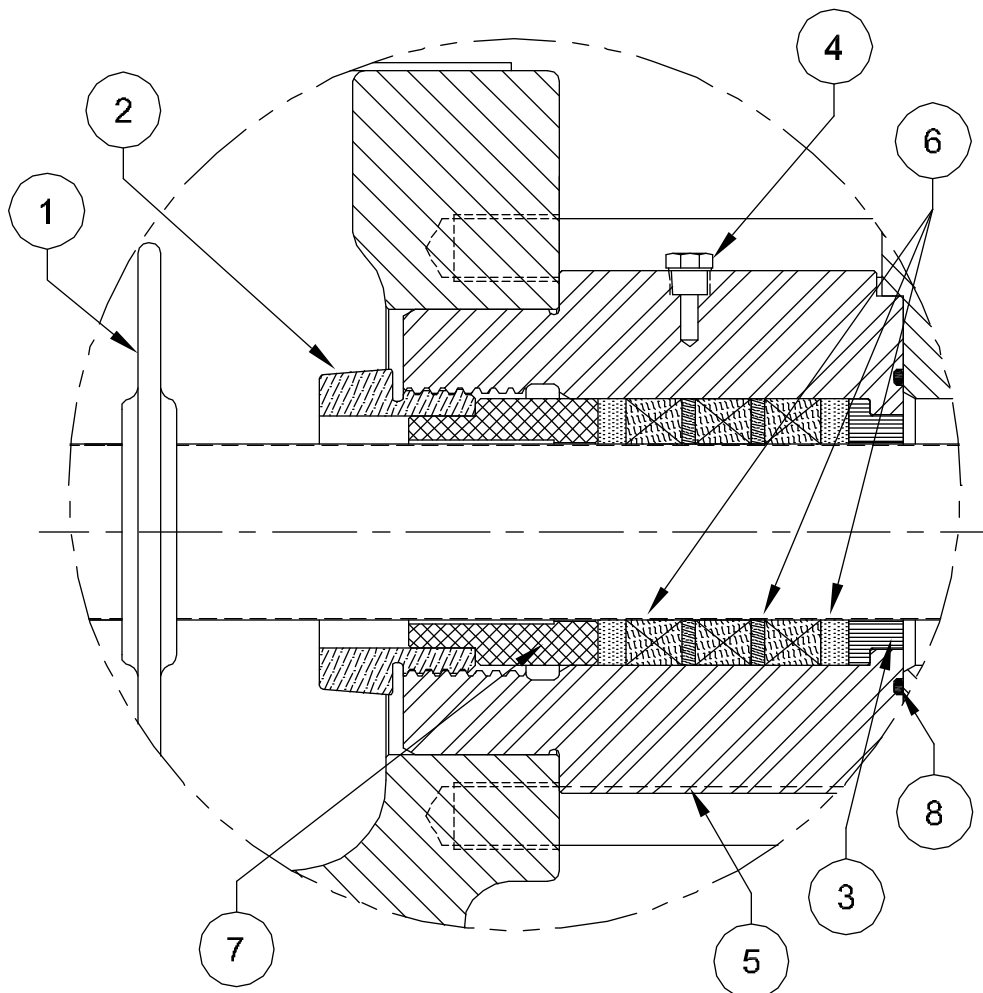
REV

A

SHT.:

5 of 8





NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313,  
 SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	AFC-114965-575		(SS)	
3	AFC-114965-235		(STL)	
3	AFC-114965-302	FOLLOWER	(BRZ)	7
3	288-214258-458		8921-K	
3	288-214258-339		249	
3	288-214258-337		241	
3	288-214258-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-007979-575		(SS)	
3	001-007979-235		(STL)	
3	001-007979-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-1/4" PLUNGER )				
DDA	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

86

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT

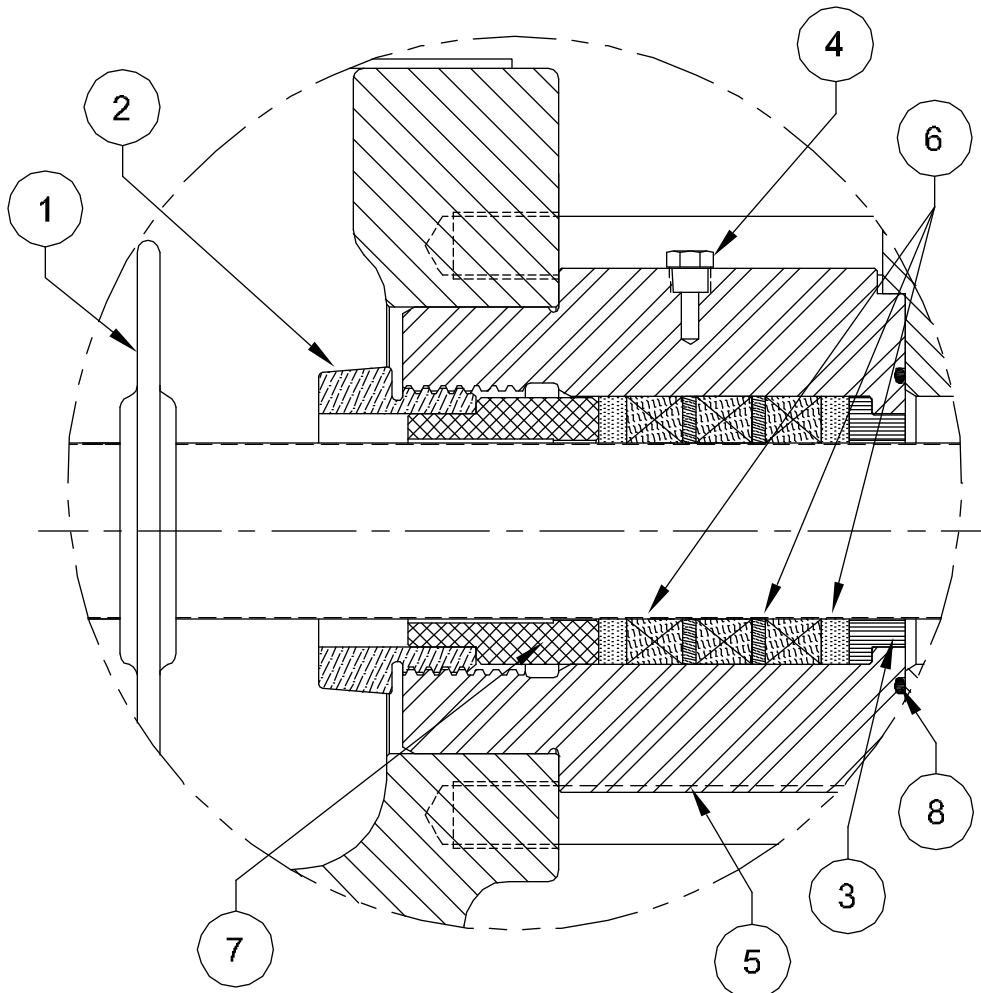
BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.: 118313

SCALE: NONE

REV A

SHT.: 6 OF 8



NOTE  
 1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313,  
 SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	AGC-114965-575		(SS)	
3	AGC-114965-235		(STL)	
3	AGC-114965-302	FOLLOWER	(BRZ)	7
3	288-238258-458		8921-K	
3	288-238258-339		249	
3	288-238258-337		241	
3	288-238258-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-024394-575		(SS)	
3	001-024394-235		(STL)	
3	001-024394-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
( 2-3/8" PLUNGER )				
DDA	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

<\*> COATED STAINLESS STEEL

87

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118313

SCALE:

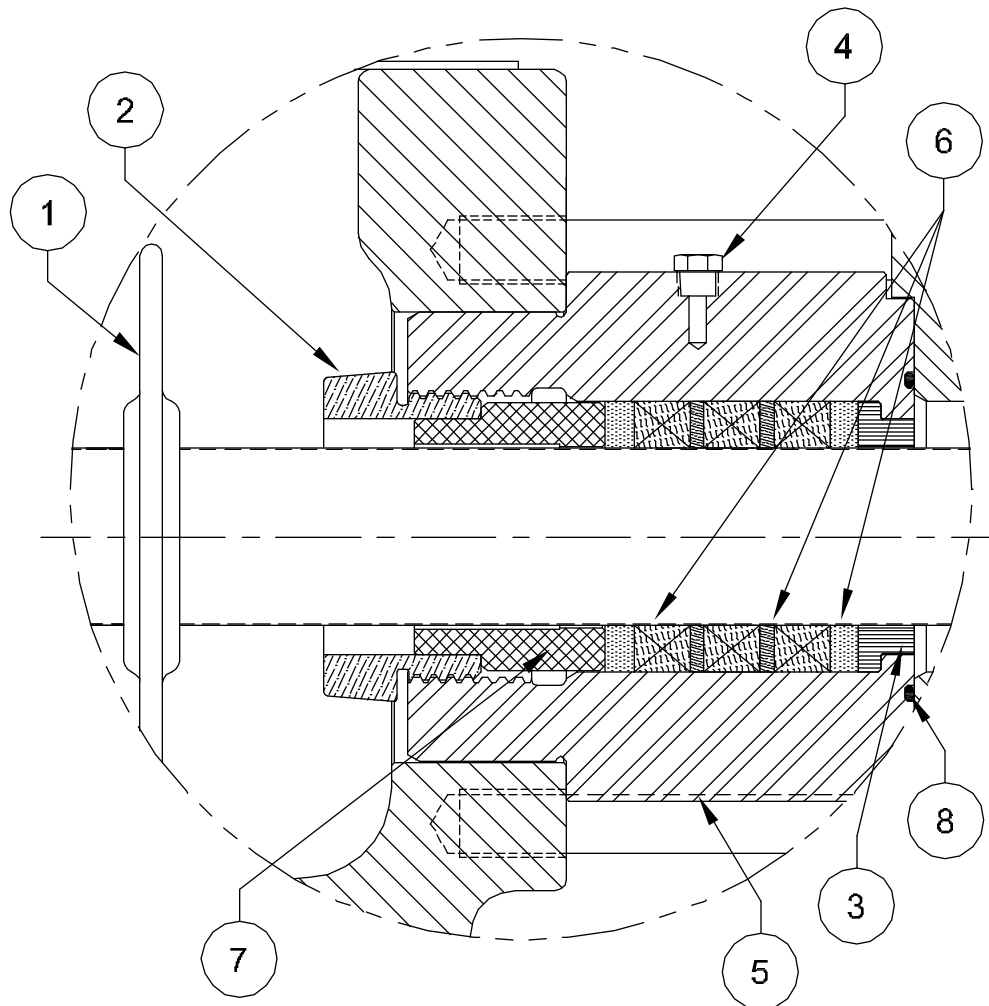
NONE

REV

A

SHT.:

7 OF 8



**NOTE**

1) FOR ALL " BRAID " STYLE PACKING SEE DRAWING 118313, SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	LQC-106259-575		(SS)	
3	LQC-103259-235		(STL)	
3	LQC-103259-302	FOLLOWER	(BRZ)	7
3	288-212234-458		8921-K	
3	288-212234-339		249	
3	288-212234-337		241	
3	288-212234-395	PACKING	238	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-025918-575		(SS)	
3	001-025918-235		(STL)	
3	001-025918-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/2" PLUNGER )</b>				
DDA	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
BRAID STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118313

SCALE:

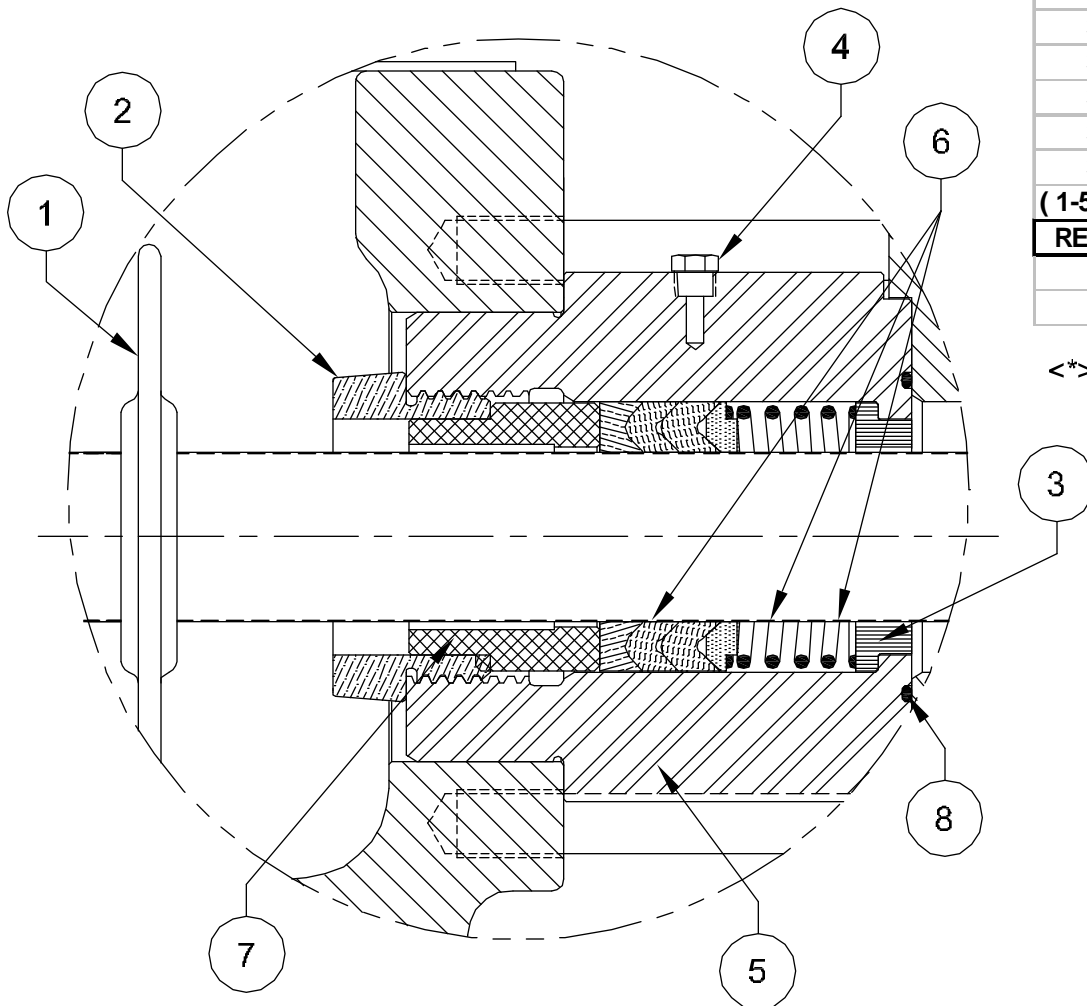
NONE

REV

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SH1.:

8 OF 8



**NOTE**

1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394, SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	AAC-117104-575		(SS)	
3	AAC-117104-235		(STL)	
3	AAC-117104-302	FOLLOWER	(BRZ)	7
3	428-158212-473		1043-4	
3	428-158212-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-023662-575		(SS)	
3	001-023662-235		(STL)	
3	001-023662-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-5/8" PLUNGER )</b>				
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>		<b>ITEM</b>
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118394

SCALE:

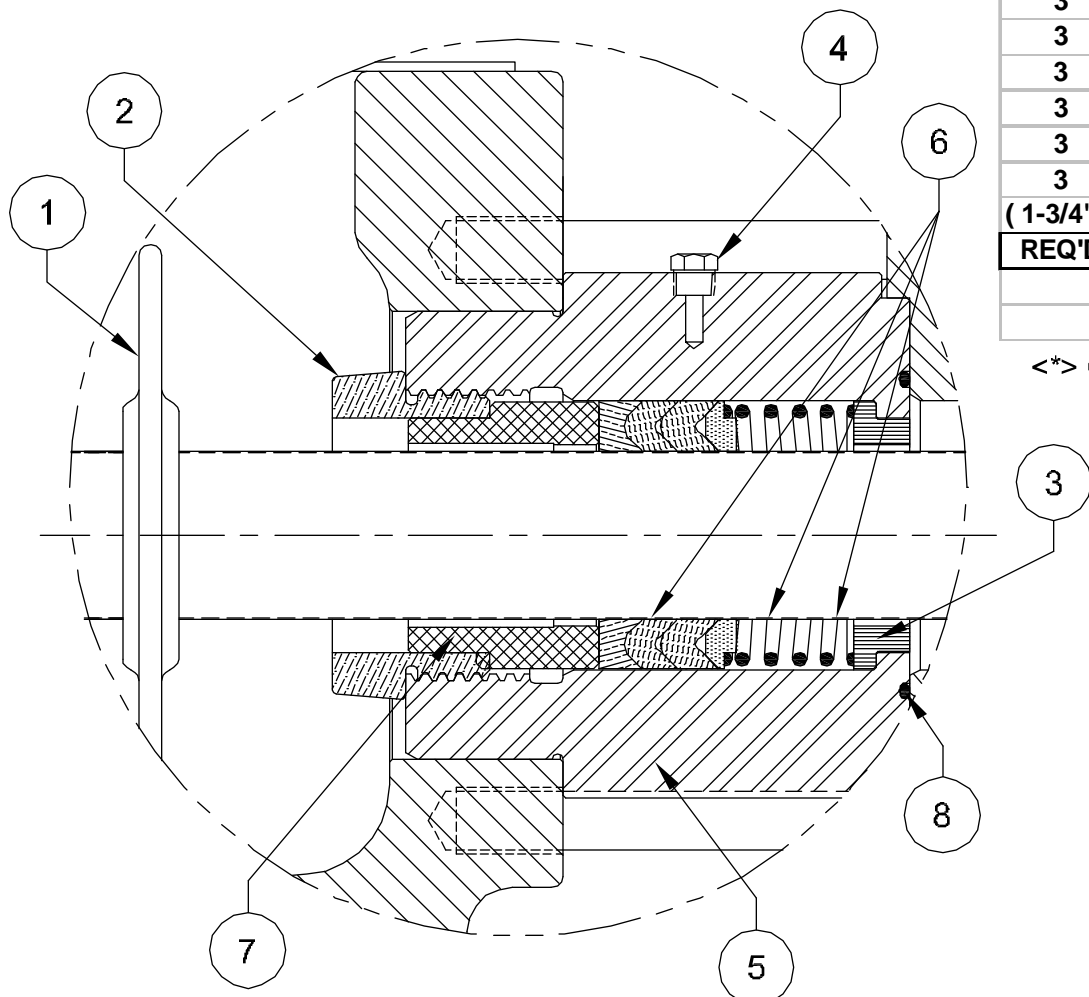
NONE

REV

A

SHT.:

1 OF 8



3	110-000237-200	O-RING		8
3	ABC-117104-575		(SS)	
3	ABC-117104-235		(STL)	
3	ABC-117104-302	FOLLOWER	(BRZ)	7
3	428-134318-473		1043-4	
3	428-134318-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010897-575		(SS)	
3	001-010897-235		(STL)	
3	001-010897-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

(1-3/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

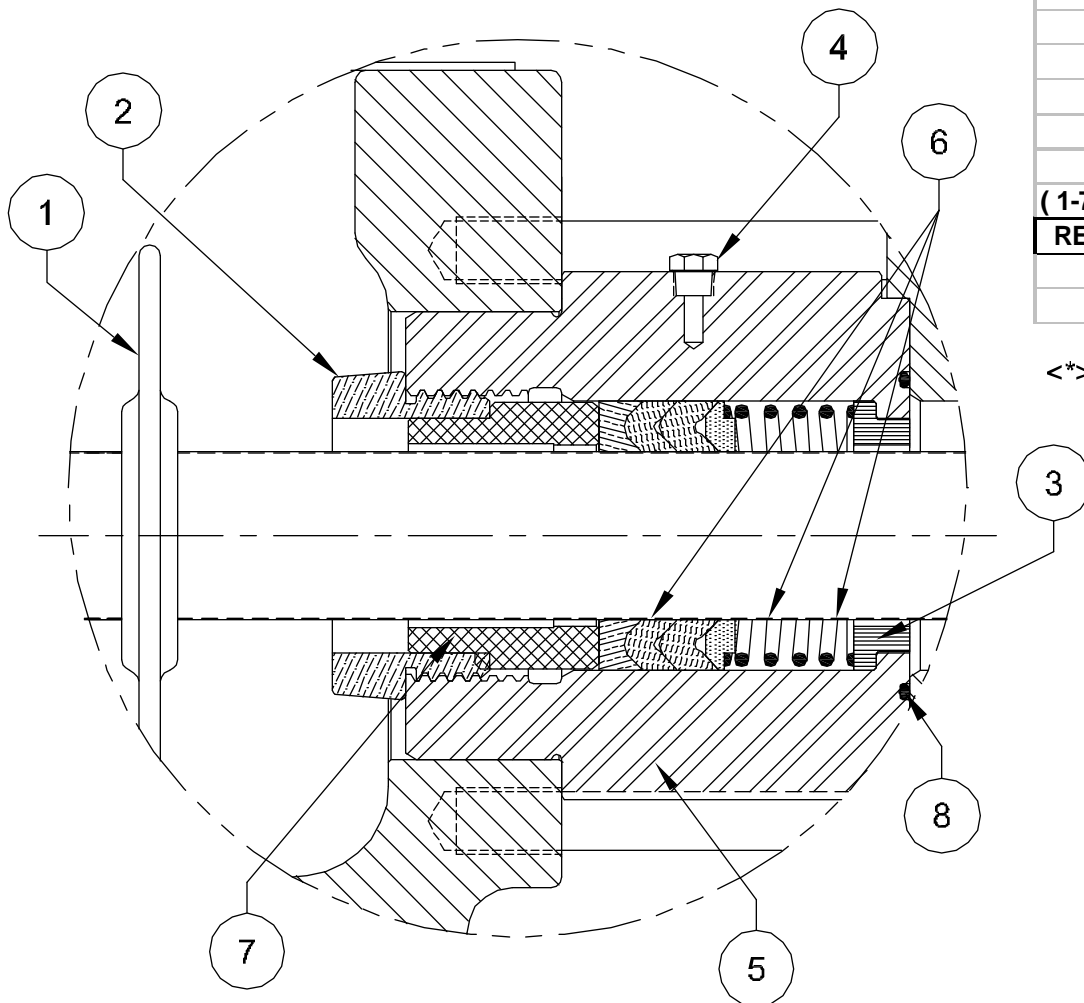
<\*> COATED STAINLESS STEEL

**NOTE**  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394, SHEETS 1 THRU 8.

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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**"SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR**  
**101T-4MC, 133T-4MC (T100-A3, T140-A3)**

DWG No.: 118394	SCALE: NONE	REV A	SHT.: 2 OF 8
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NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394,  
 SHEETS 1 THRU 8.

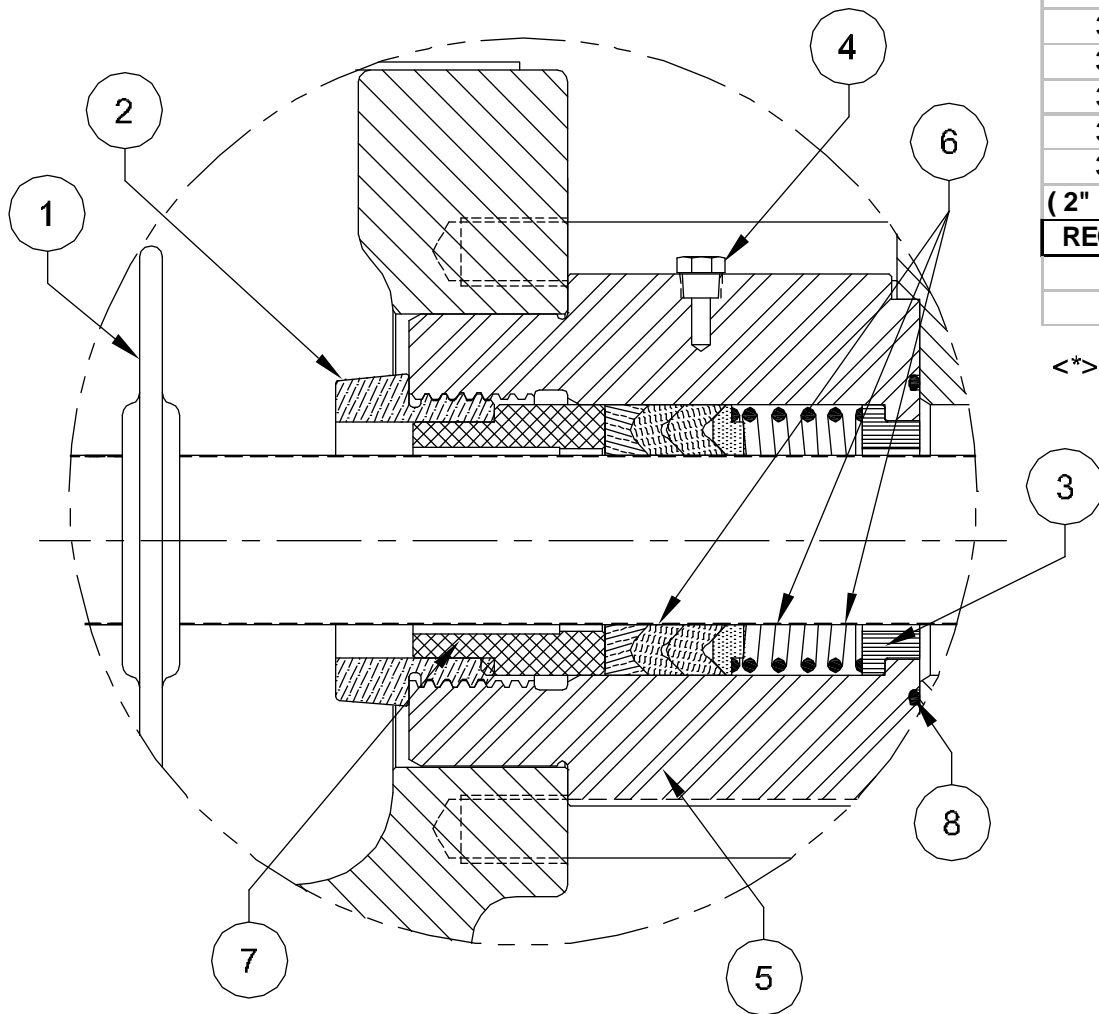
3	110-000237-200	O-RING		8
3	ACC-117104-575		(SS)	
3	ACC-117104-235		(STL)	
3	ACC-117104-302	FOLLOWER	(BRZ)	7
3	428-178212-473		1043-4	
3	428-178212-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010899-575		(SS)	
3	001-010899-235		(STL)	
3	001-010899-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-7/8" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.: 118394	SCALE: NONE	REV A	SHT.: 3 OF 8
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**NOTE**

1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394, SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	ADC-117104-575		(SS)	
3	ADC-117104-235		(STL)	
3	ADC-117104-302	FOLLOWER	(BRZ)	7
3	428-200238-473		1043-4	
3	428-200238-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010901-575		(SS)	
3	001-010901-235		(STL)	
3	001-010901-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

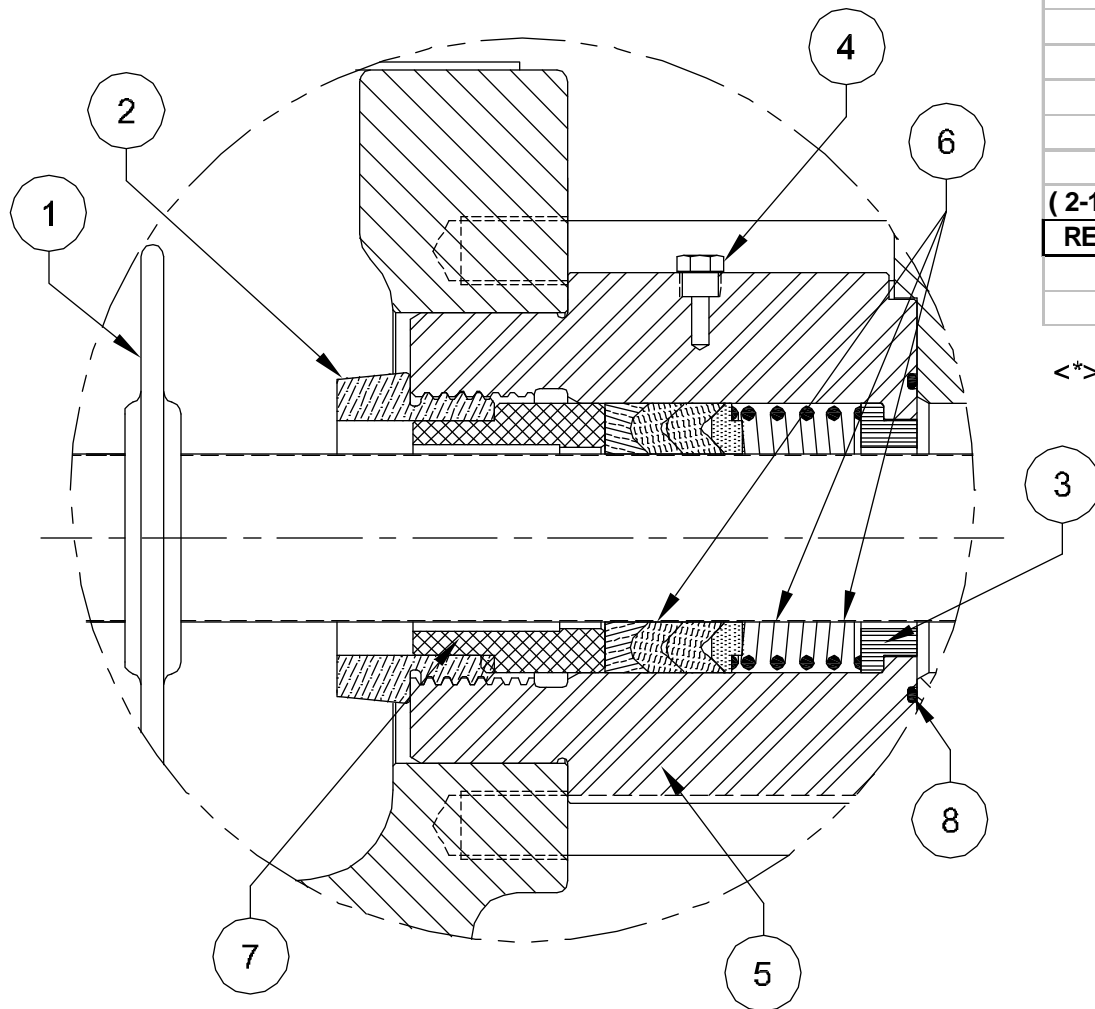
<\*> COATED STAINLESS STEEL



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

TITLE: ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	SCALE:	REV:	SHT.:
118394	NONE	A	4 OF 8



3	110-000237-200	O-RING		8
3	AEC-117104-575		(SS)	
3	AEC-117104-235		(STL)	
3	AEC-117104-302	FOLLOWER	(BRZ)	7
3	428-218212-473		1043-4	
3	428-218212-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-010902-575		(SS)	
3	001-010902-235		(STL)	
3	001-010902-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-1/8" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

<\*> COATED STAINLESS STEEL

NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394,  
 SHEETS 1 THRU 8.

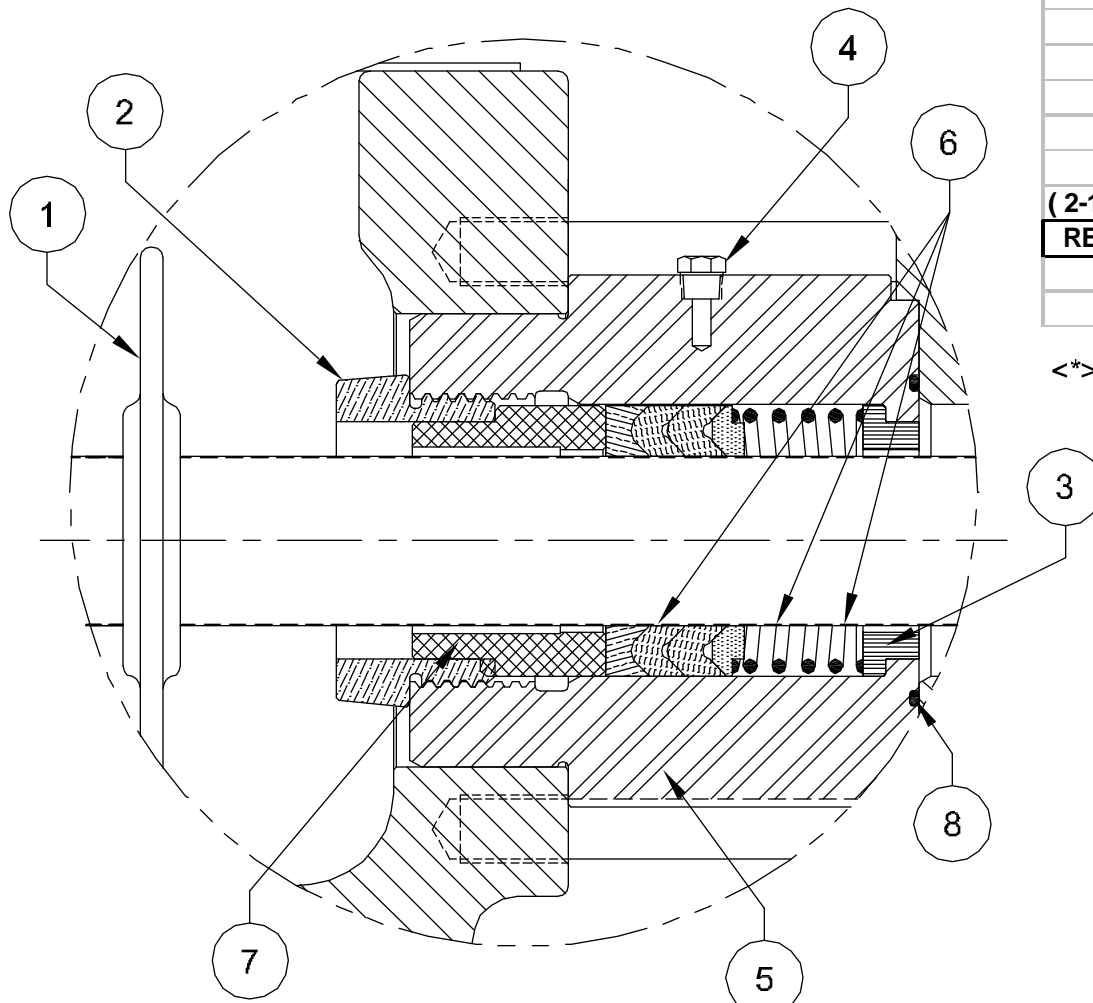


HOUSTON, TEXAS. U.S.A. ENGINEERING, TULSA, OKLAHOMA

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	118394	SCALE:	NONE	REV	A	SHT.:	5	OF	8
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3	110-000237-200	O-RING		8
3	AFC-117104-575		(SS)	
3	AFC-117104-235		(STL)	
3	AFC-117104-302	FOLLOWER	(BRZ)	7
3	428-214212-473		1043-4	
3	428-214212-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-007979-575		(SS)	
3	001-007979-235		(STL)	
3	001-007979-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1

( 2-1/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

<\*> COATED STAINLESS STEEL

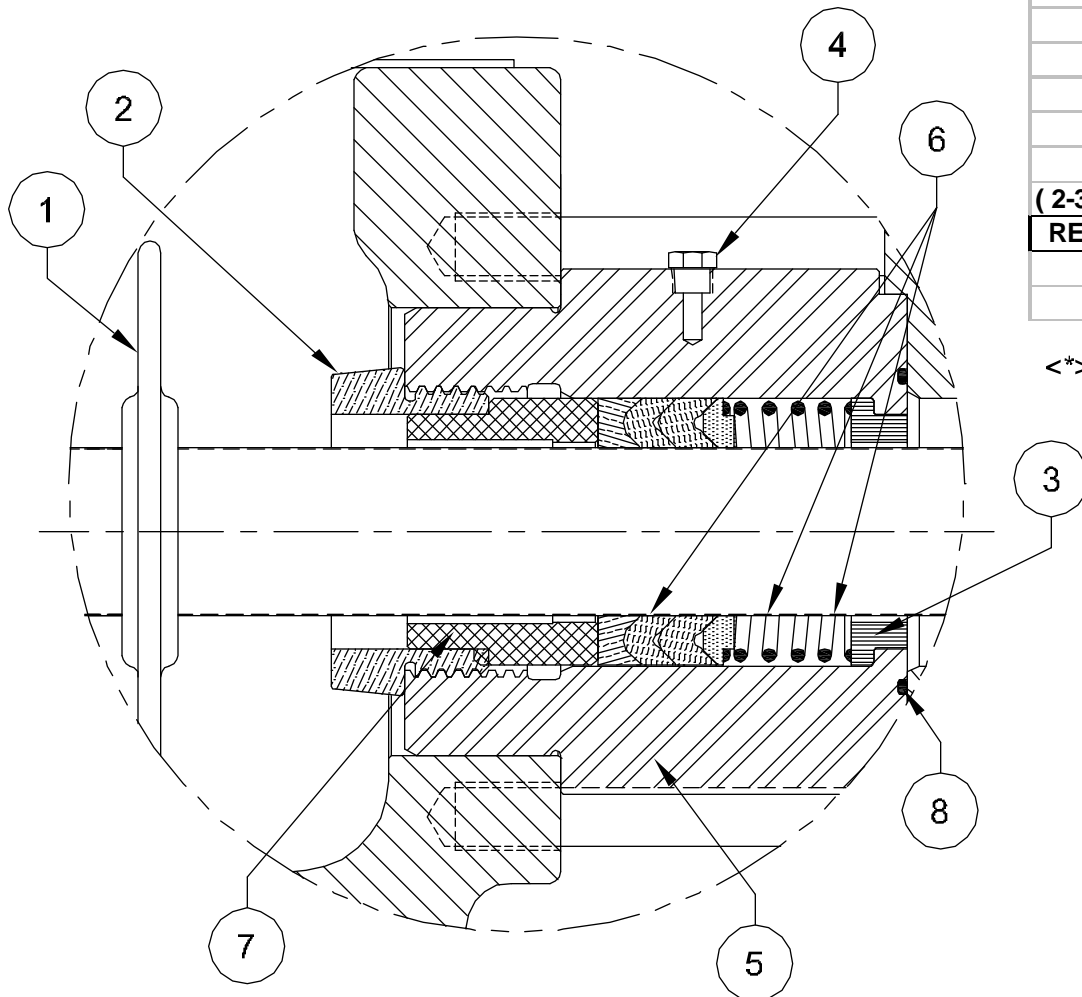
NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394,  
 SHEETS 1 THRU 8.



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:	SCALE:	REV	SHT.:
118394	NONE	A	6 OF 8



3	110-000237-200	O-RING		8
3	AGC-117104-575		(SS)	
3	AGC-117104-235		(STL)	
3	AGC-117104-302	FOLLOWER	(BRZ)	7
3	428-238268-473		1043-R	
3	428-238268-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-024394-575		(SS)	
3	001-024394-235		(STL)	
3	001-024394-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-3/8" PLUNGER )</b>				
<b>REQ'D</b>	<b>Part No.</b>	<b>DESCRIPTION</b>		<b>ITEM</b>
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

**NOTE**

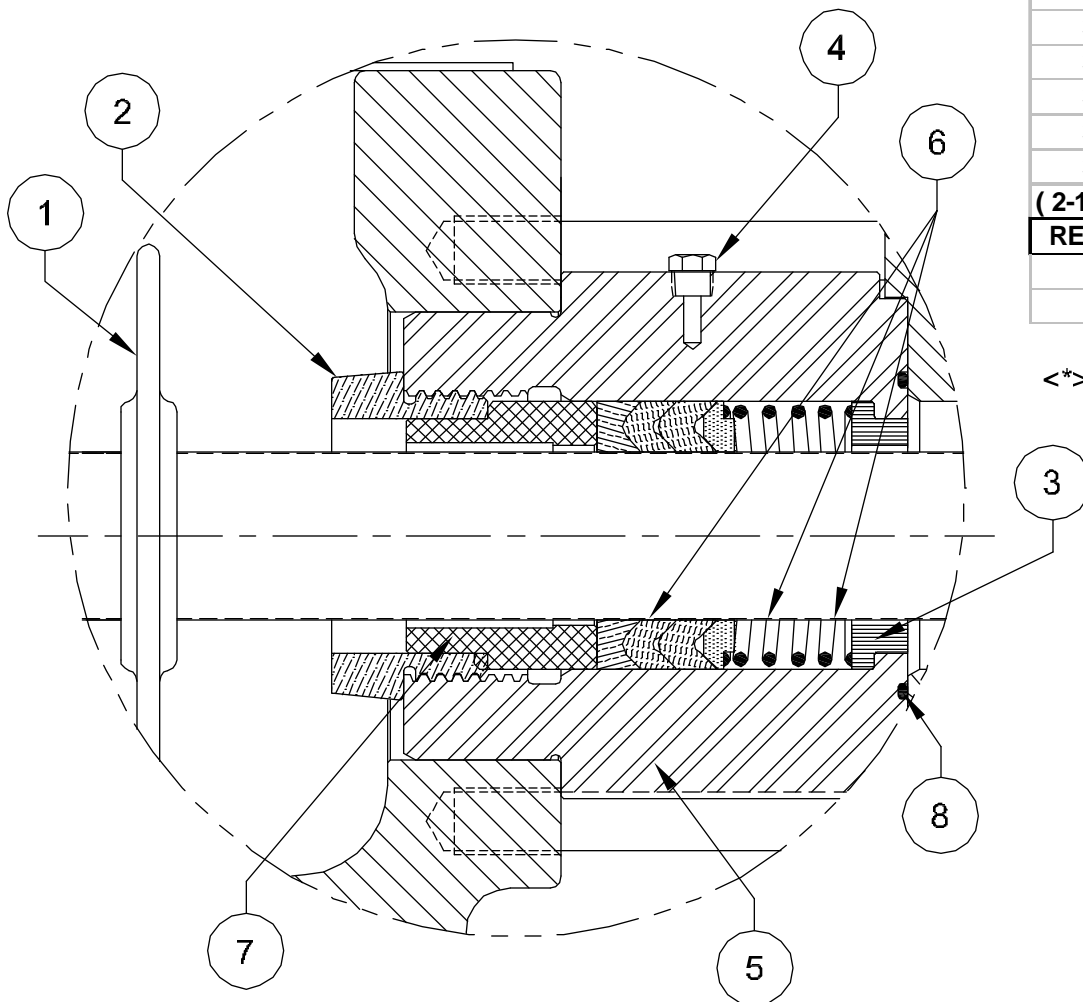
1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394, SHEETS 1 THRU 8.



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

TITLE:  
**ASSEMBLY, PLUNGER KIT**  
**"SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR**  
**101T-4MC, 133T-4MC (T100-A3, T140-A3)**

DWG No.:	118394	SCALE:	NONE	REV	A	SHT.:	7	OF	8
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NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118394,  
 SHEETS 1 THRU 8.

3	110-000237-200	O-RING		8
3	LQC-103259-575		(SS)	
3	LQC-103259-235		(STL)	
3	LQC-103259-302	FOLLOWER	(BRZ)	7
3	428-212244-473		1043-4	
3	428-212244-340	PACKING	1068-4	6
3	AAC-117036-270	STUFFING BOX	(STL)	5
3	170-018002-278	PIPE PLUG	(SS)	4
3	001-025918-575		(SS)	
3	001-025918-235		(STL)	
3	001-025918-302	THROAT BUSHING	(BRZ)	3
3	002-007977-E16	<*>	(XSS)	
3	001-007977-351		(DI)	
3	002-007977-261	GLAND NUT	(SS)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 2-1/2" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
<b>BILL OF MATERIAL</b>				

<\*> COATED STAINLESS STEEL

96

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-5/8" THRU 2-1/2" PLGR  
 101T-4MC, 133T-4MC (T100-A3, T140-A3)

DWG No.:

118394

SCALE:

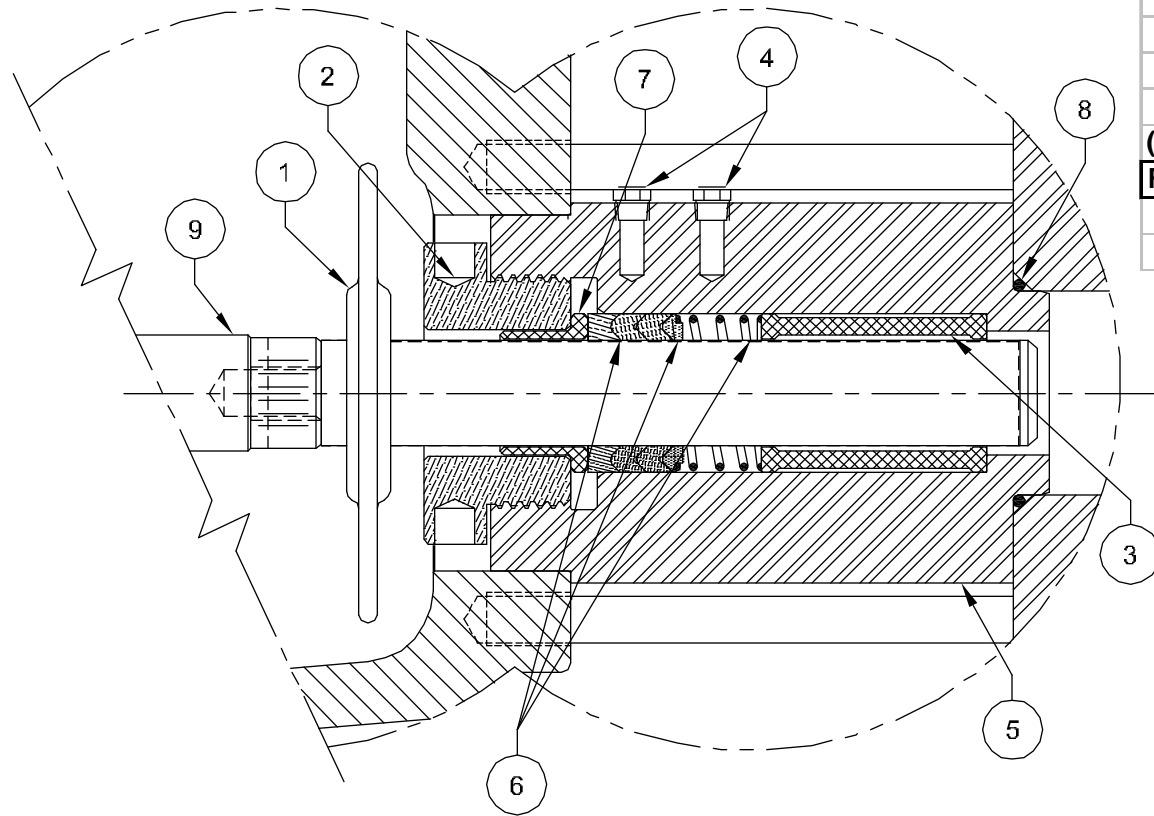
NONE

REV

A

SHT.:

8 OF 8



3	001-028470-402	ADAPTER ROD	(SS)	9
3	110-000336-200	O-RING		8
3	AAB-115437-235		(STL)	
3	AAB-115437-302	FOLLOWER	(BRZ)	7
3	Contact - NOV		1043-4	
3	Contact - NOV	PACKING	1068-4	6
3	AAC-115411-278		(SS)	
3	AAC-115411-270	STUFFING BOX	(STL)	5
6	170-018002-278	PIPE PLUG	(SS)	4
3	AYC-103259-235		(STL)	
3	AYC-103259-302	THROAT BUSHING	(BRZ)	3
3	AAB-115422-E16		(SS)	
3	AAB-115422-270	GLAND NUT	(STL)	2
3	001-007986-201	BAFFLE DISC		1
( 1-1/4" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

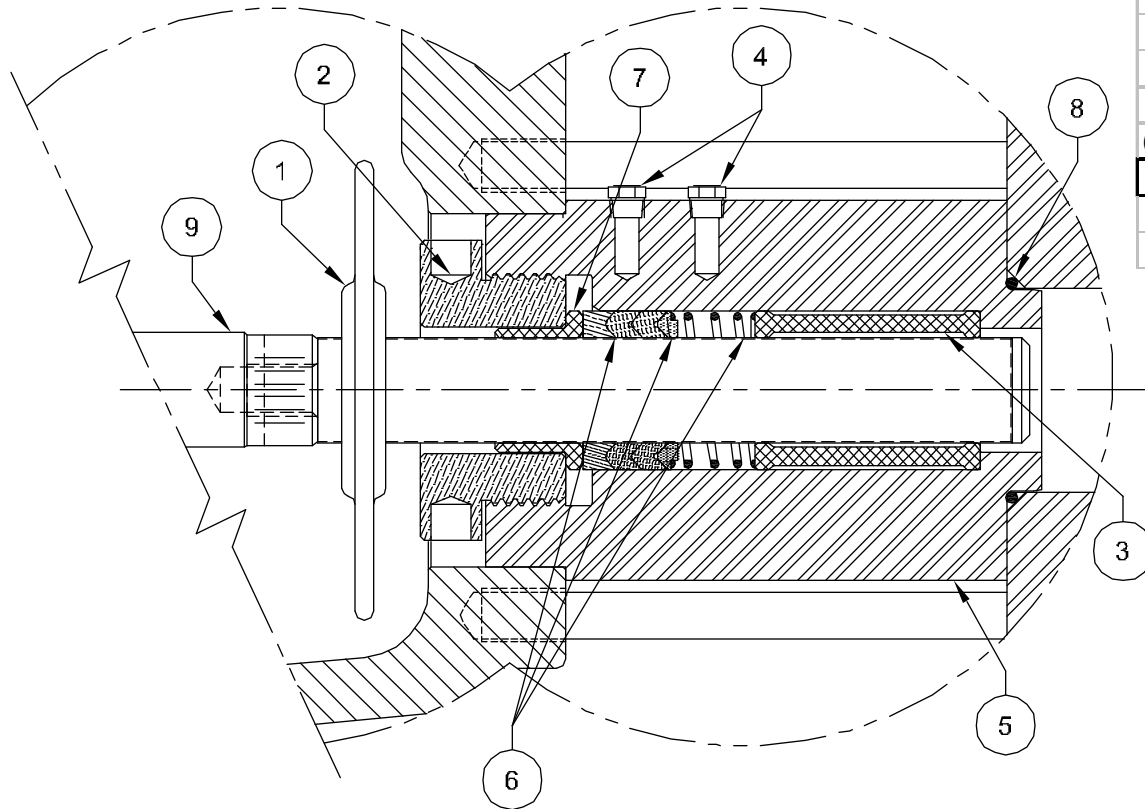
**NOTE**

1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118314, SHEETS 1 THRU 5.

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-1/4" THRU 1-3/4" PLGR  
 101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:	SCALE:	REV	SHT.:
118314	NONE	A	1 OF 5



3	001-028470-402	ADAPTER ROD	(SS)	9
3	110-000336-200	O-RING		8
3	ABB-115437-235		(STL)	
3	ABB-115437-302	FOLLOWER	(BRZ)	7
3	Contact - NOV		1043-4	
3	Contact - NOV	PACKING	1068-4	6
3	AAC-115411-278		(SS)	
3	AAC-115411-270	STUFFING BOX	(STL)	5
6	170-018002-278	PIPE PLUG	(SS)	4
3	BJC-103259-235		(STL)	
3	BJC-103259-302	THROAT BUSHING	(BRZ)	3
3	AAB-115422-E16		(SS)	
3	AAB-115422-270	GLAND NUT	(STL)	2
3	001-007986-201	BAFFLE DISC		1
( 1-3/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

98

**NOTE**

1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118314, SHEETS 1 THRU 5.

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-1/4" THRU 1-3/4" PLGR  
 101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:

118314

SCALE:

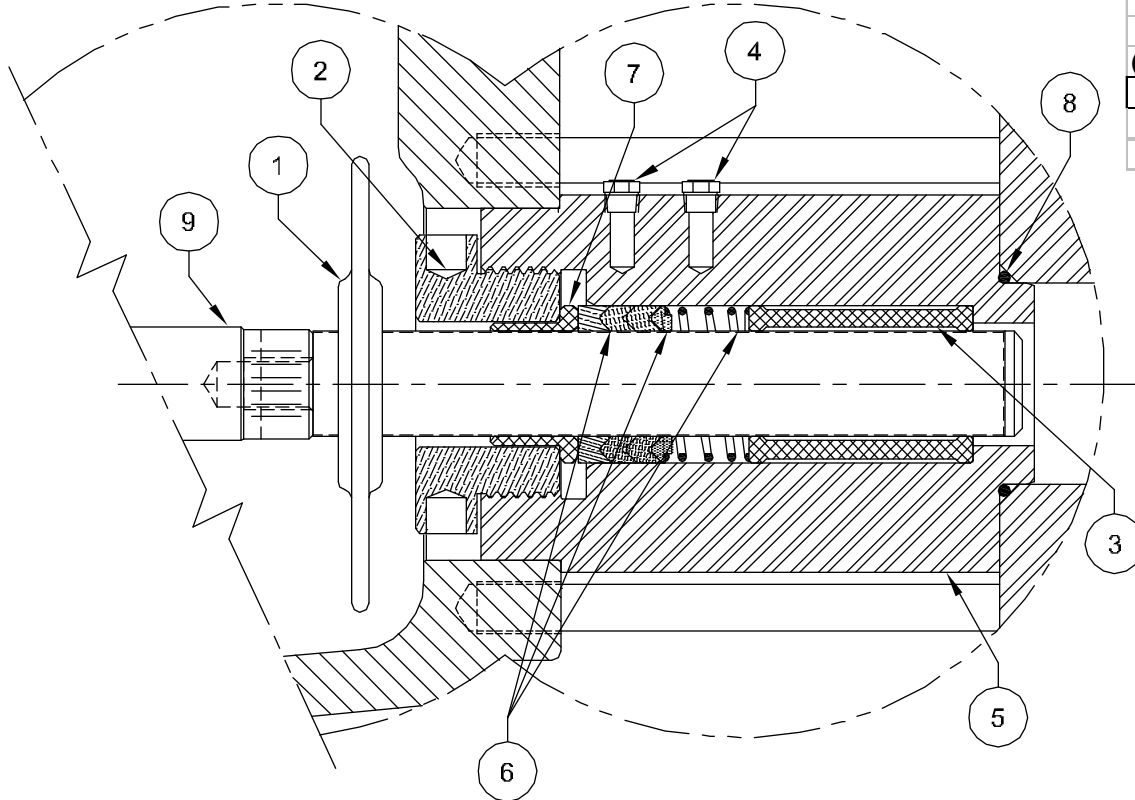
NONE

REV

A

SHT.:

2 OF 5



3	001-028470-402	ADAPTER ROD	(SS)	9
3	110-000336-200	O-RING		8
3	ACB-115437-235		(STL)	
3	ACB-115437-302	FOLLOWER	(BRZ)	7
3	432-112238-473	PACKING	1043-4	
3	432-112238-340	PACKING	1068-4	6
3	ABC-115411-278		(SS)	
3	ABC-115411-270	STUFFING BOX	(STL)	5
6	170-018002-278	PIPE PLUG	(SS)	4
3	ACB-117441-235		(STL)	
3	ACB-117441-302	THROAT BUSHING	(BRZ)	3
3	AAB-115422-E16		(SS)	
3	AAB-115422-270	GLAND NUT	(STL)	2
3	001-007986-201	BAFFLE DISC		1
<b>( 1-1/2" PLUNGER )</b>				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

99

**NOTE**

1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118314, SHEETS 1 THRU 5.



HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-1/4" THRU 1-3/4" PLGR  
 101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:

118314

SCALE:

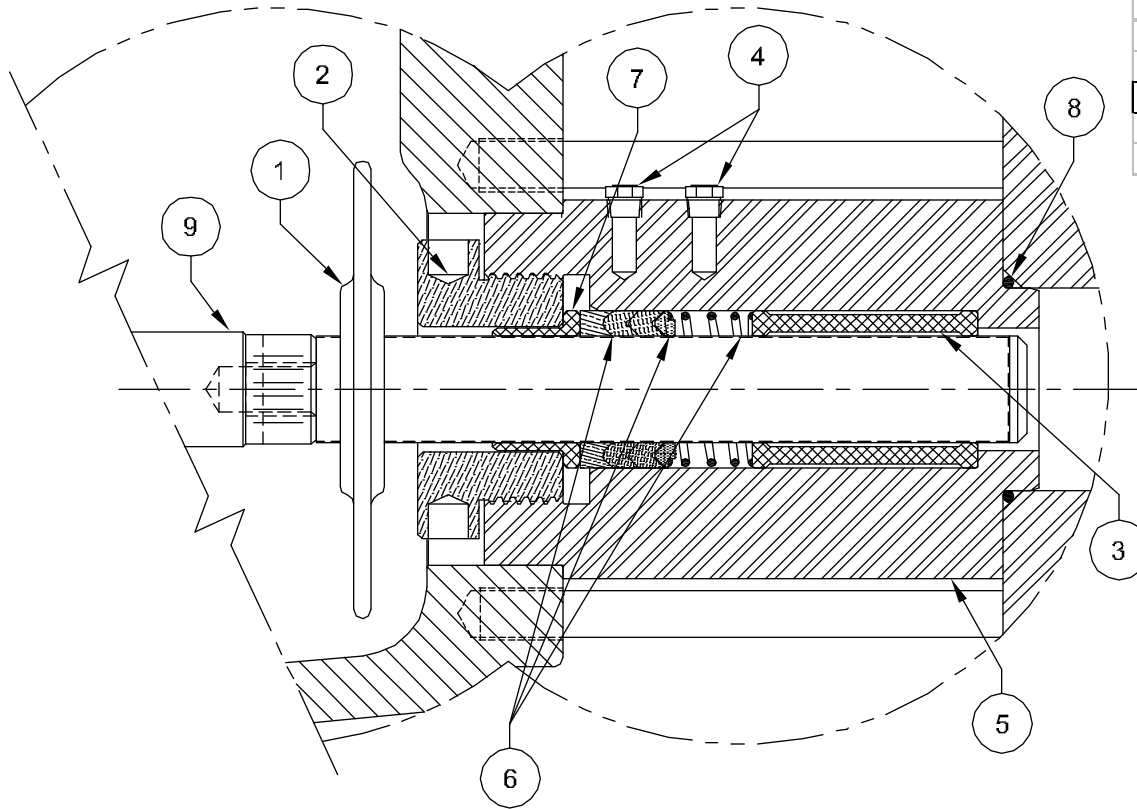
NONE

REV

A

SHT.:

3 of 5



3	001-028470-402	ADAPTER ROD	(SS)	9
3	110-000336-200	O-RING		8
3	CNC-103259-235		(STL)	
3	CNC-103259-302	FOLLOWER	(BRZ)	7
3	432-158238-473		1043-4	
3	432-158238-340	PACKING	1068-4	6
3	ABC-115411-278		(SS)	
3	ABC-115411-270	STUFFING BOX	(STL)	5
6	170-018002-278	PIPE PLUG	(SS)	4
3	ADB-117441-235		(STL)	
3	ADB-117441-302	THROAT BUSHING	(BRZ)	3
3	AAB-115422-E16		(SS)	
3	AAB-115422-270	GLAND NUT	(STL)	2
3	001-007986-201	BAFFLE DISC		1
( 1-5/8" PLUNGER )				
REQ'D	Part No.	DESCRIPTION		ITEM
BILL OF MATERIAL				

100

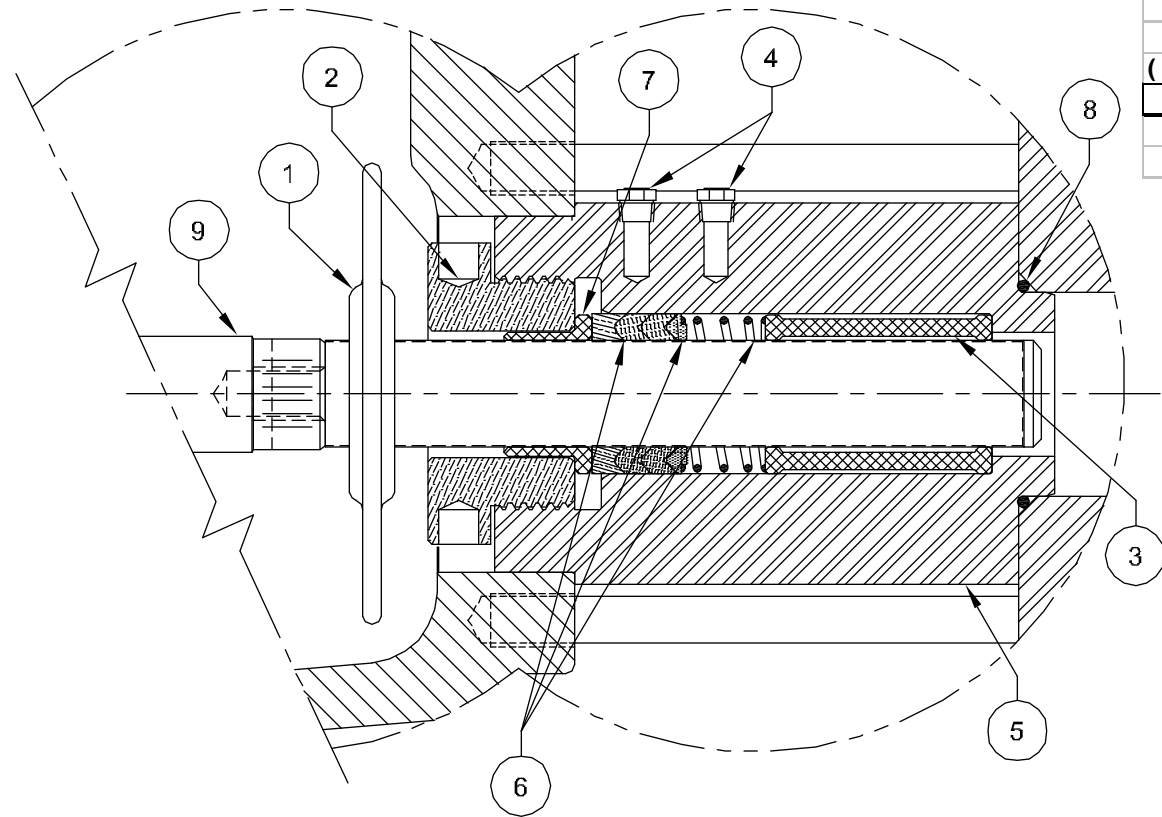
**NOTE**

1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118314, SHEETS 1 THRU 5.

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

TITLE: ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-1/4" THRU 1-3/4" PLGR  
 101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:	118314	SCALE:	NONE	REV	A	SHT.:	4	OF	5
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3	001-028470-402	ADAPTER ROD	(SS)	9
3	110-000336-200	O-RING		8
3	CVC-103259-235		(STL)	
3	CVC-103259-302	FOLLOWER	(BRZ)	7
3	222-134231-473		1043-4	
3	222-134231-340	PACKING	1068-4	6
3	ACC-115411-278		(SS)	
3	ACC-115411-270	STUFFING BOX	(STL)	5
6	170-018002-278	PIPE PLUG	(SS)	4
3	AEB-117441-235		(STL)	
3	AEB-117441-302	THROAT BUSHING	(BRZ)	3
3	AAB-115422-E16		(SS)	
3	AAB-115422-270	GLAND NUT	(STL)	2
3	001-007986-201	BAFFLE DISC		1

( 1-3/4" PLUNGER )

REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

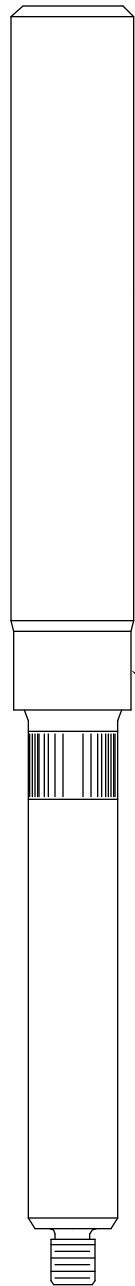
NOTE  
 1) FOR ALL " SSF-4 " STYLE PACKING SEE DRAWING 118314,  
 SHEETS 1 THRU 5.

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

TITLE:  
 ASSEMBLY, PLUNGER KIT  
 "SSF-4" STYLE PKG, 1-1/4" THRU 1-3/4" PLGR  
 101T-4H, 133T-4H (T100-2, T140-2)

DWG No.:	118314	SCALE:	NONE	REV	A	SHT.:	5 OF 5
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PLUNGER DIA.  
(REF.)

1

3	AFC-114989-E24	3-3/8" DIA. PLUNGER, CHROME OXIDE	
3	AFC-114989-E23	3-3/8" DIA. PLUNGER, COBALT	
3	AFC-114989-E22	3-3/8" DIA. PLUNGER, TUNGSTEN	
3	AFC-114989-E26	3-3/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AEC-114989-E24	3-1/4" DIA. PLUNGER, CHROME OXIDE	
3	AEC-114989-E23	3-1/4" DIA. PLUNGER, COBALT	
3	AEC-114989-E22	3-1/4" DIA. PLUNGER, TUNGSTEN	
3	AEC-114989-E26	3-1/4" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	ADC-114989-E24	3-1/8" DIA. PLUNGER, CHROME OXIDE	
3	ADC-114989-E23	3-1/8" DIA. PLUNGER, COBALT	
3	ADC-114989-E22	3-1/8" DIA. PLUNGER, TUNGSTEN	
3	ADC-114989-E26	3-1/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	ACC-114989-E24	3" DIA. PLUNGER, CHROME OXIDE	
3	ACC-114989-E23	3" DIA. PLUNGER, COBALT	
3	ACC-114989-E22	3" DIA. PLUNGER, TUNGSTEN	
3	ACC-114989-E26	3" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	ABC-114989-E24	2-7/8" DIA. PLUNGER, CHROME OXIDE	
3	ABC-114989-E23	2-7/8" DIA. PLUNGER, COBALT	
3	ABC-114989-E22	2-7/8" DIA. PLUNGER, TUNGSTEN	
3	ABC-114989-E26	2-7/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAC-114989-E24	2-3/4" DIA. PLUNGER, CHROME OXIDE	
3	AAC-114989-E23	2-3/4" DIA. PLUNGER, COBALT	
3	AAC-114989-E22	2-3/4" DIA. PLUNGER, TUNGSTEN	
3	AAC-114989-E26	2-3/4" DIA. PLUNGER, PREMIUM TUNGSTEN	1
REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

102

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

PLUNGERS 2-3/4" THRU 3-3/8"  
HARD SURFACE  
101T-4L, 133T-4L (T100-4, T140-4)

DWG No.:

118315

SCALE:

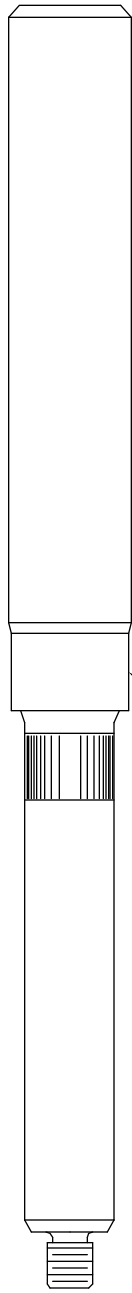
NONE

REV

A

SHT.:

1 OF 1



PLUNGER DIA.  
(REF.)

1

3	AFC-114990-E33	3-3/8" DIA. PLUNGER, CERAMIC	1
3	AEC-114990-E33	3-1/4" DIA. PLUNGER, CERAMIC	1
3	ADC-114990-E33	3-1/8" DIA. PLUNGER, CERAMIC	1
3	ACC-114990-E33	3" DIA. PLUNGER, CERAMIC	1
3	ABC-114990-E33	2-7/8" DIA. PLUNGER, CERAMIC	1
3	AAC-114990-E33	2-3/4" DIA. PLUNGER, CERAMIC	1
REQ'D	Part No.	DESCRIPTION	ITEM
<b>BILL OF MATERIAL</b>			

103

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

PLUNGERS 2-3/4" THRU 3-3/8"

CERAMIC

101T-4L, 133T-4. (T100-4, T140-4)

DWG No.:

118316

SCALE:

NONE

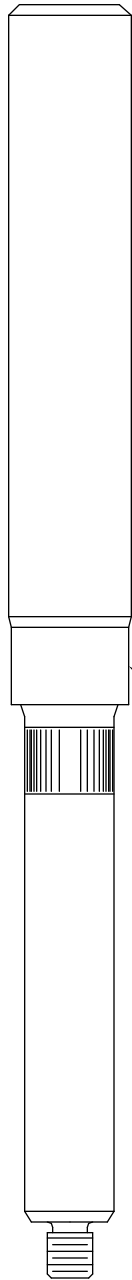
REV

A

SHT.:

1

OF 1



PLUNGER DIA.  
(REF.)

1

3	AAB-114981-E24	2-1/2" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114981-E23	2-1/2" DIA. PLUNGER, COBALT	
3	AAB-114981-E22	2-1/2" DIA. PLUNGER, TUNGSTEN	
3	AAB-114981-E26	2-1/2" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114980-E24	2-3/8" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114980-E23	2-3/8" DIA. PLUNGER, COBALT	
3	AAB-114980-E22	2-3/8" DIA. PLUNGER, TUNGSTEN	
3	AAB-114980-E26	2-3/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114979-E24	2-1/4" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114979-E23	2-1/4" DIA. PLUNGER, COBALT	
3	AAB-114979-E22	2-1/4" DIA. PLUNGER, TUNGSTEN	
3	AAB-114979-E26	2-1/4" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114978-E24	2-1/8" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114978-E23	2-1/8" DIA. PLUNGER, COBALT	
3	AAB-114978-E22	2-1/8" DIA. PLUNGER, TUNGSTEN	
3	AAB-114978-E26	2-1/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114977-E24	2" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114977-E23	2" DIA. PLUNGER, COBALT	
3	AAB-114977-E22	2" DIA. PLUNGER, TUNGSTEN	
3	AAB-114977-E26	2" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114976-E24	1-7/8" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114976-E23	1-7/8" DIA. PLUNGER, COBALT	
3	AAB-114976-E22	1-7/8" DIA. PLUNGER, TUNGSTEN	
3	AAB-114976-E26	1-7/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114975-E24	1-3/4" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114975-E23	1-3/4" DIA. PLUNGER, COBALT	
3	AAB-114975-E22	1-3/4" DIA. PLUNGER, TUNGSTEN	
3	ABB-114975-E26	1-3/4" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAB-114974-E24	1-5/8" DIA. PLUNGER, CHROME OXIDE	
3	AAB-114974-E23	1-5/8" DIA. PLUNGER, COBALT	
3	AAB-114974-E22	1-5/8" DIA. PLUNGER, TUNGSTEN	
3	AAB-114974-E26	1-5/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
REQ'D	Part No.	DESCRIPTION	ITEM

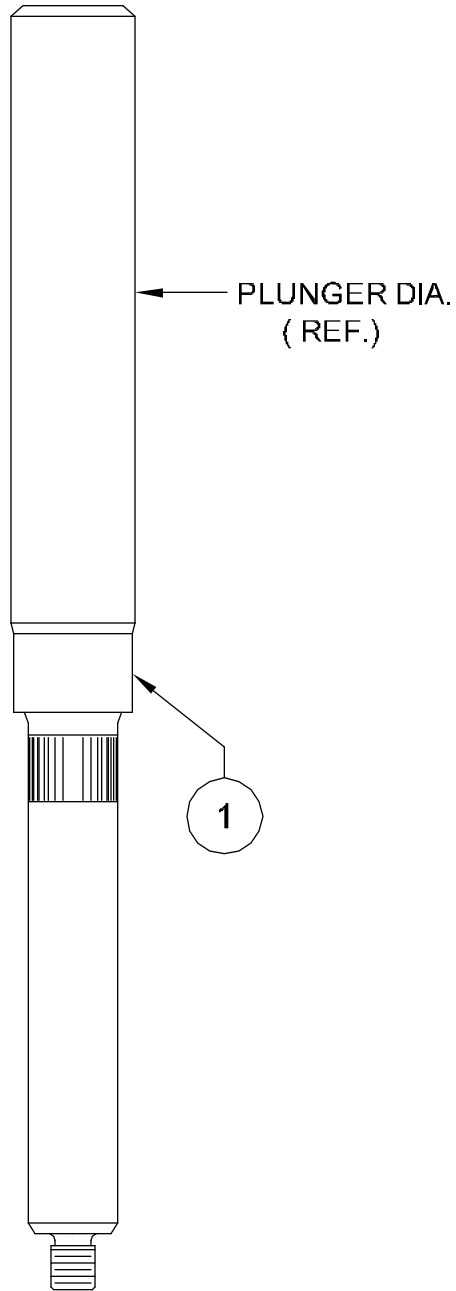
BILL OF MATERIAL

104

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

TITLE:  
 PLUNGERS 1-5/8" THRU 2-1/2"  
 HARD SURFACE  
 101T-4M, 133T-4M (T100-3, T140-3)

DWG No.: 118317 SCALE: NONE REV A SHT.: 1 OF 1



3	AAB-114998-E33	2-1/2" DIA. PLUNGER, CERAMIC	1
3	AAB-115150-E33	2-3/8" DIA. PLUNGER, CERAMIC	1
3	AAB-114987-E33	2-1/4" DIA. PLUNGER, CERAMIC	1
3	AAB-114986-E33	2-1/8" DIA. PLUNGER, CERAMIC	1
3	AAB-114985-E33	2" DIA. PLUNGER, CERAMIC	1
3	AAB-114984-E33	1-7/8" DIA. PLUNGER, CERAMIC	1
3	AAB-114983-E33	1-3/4" DIA. PLUNGER, CERAMIC	1
3	AAB-114982-E33	1-5/8" DIA. PLUNGER, CERAMIC	1
REQ'D	Part No.	DESCRIPTION	ITEM
BILL OF MATERIAL			

105

**NOV NATIONAL OILWELL VARCO**

HOUSTON, TEXAS, U.S.A.

ENGINEERING, TULSA, OKLAHOMA

TITLE:

PLUNGERS 1-5/8" THRU 2-1/2"  
CERAMIC  
101T-4M, 133T-4M (T100-3, T140-3)

DWG No.:

118319

SCALE:

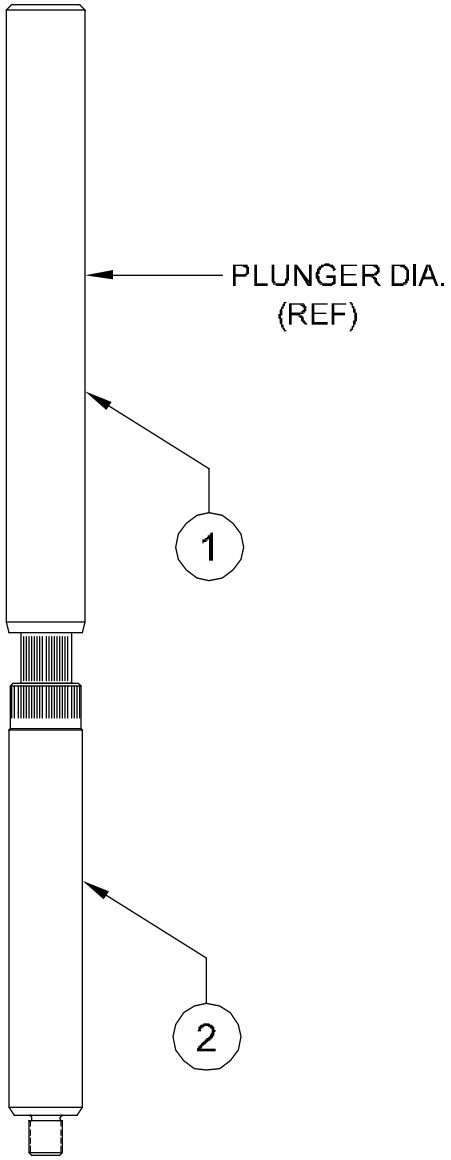
NONE

REV

A

SHT.:

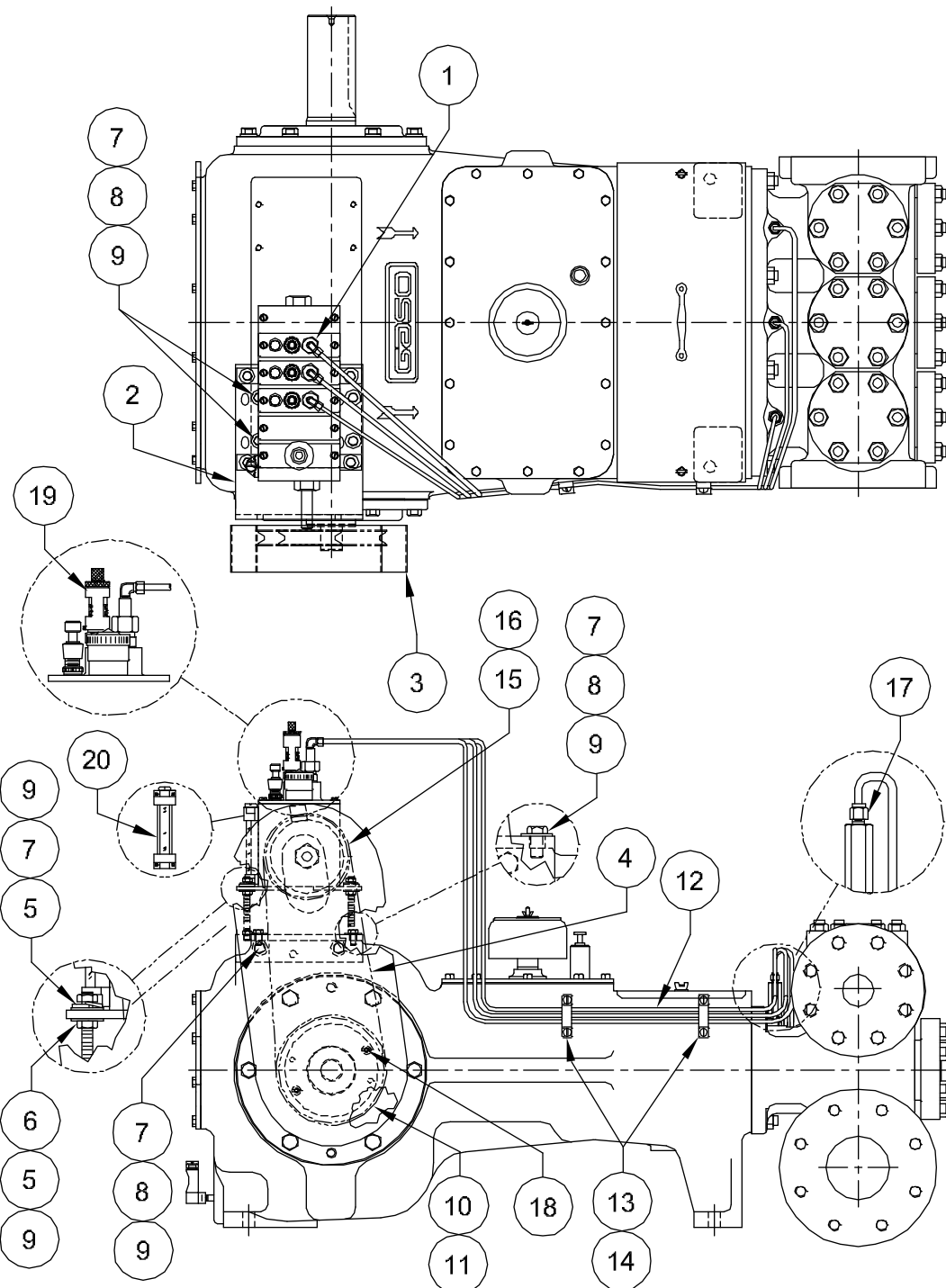
1 OF 1



3	001-028470-402	ADAPTER ROD	2
3	AEC-115412-E24	1-3/4" DIA. PLUNGER, CHROME OXIDE	
3	AEC-115412-E23	1-3/4" DIA. PLUNGER, COBALT	
3	AEC-115412-E22	1-3/4" DIA. PLUNGER, TUNGSTEN	
3	AEC-115412-E26	1-3/4" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	ADC-115412-E24	1-5/8" DIA. PLUNGER, CHROME OXIDE	
3	ADC-115412-E23	1-5/8" DIA. PLUNGER, COBALT	
3	ADC-115412-E22	1-5/8" DIA. PLUNGER, TUNGSTEN	
3	ADC-115412-E26	1-5/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	ACC-115412-E24	1-1/2" DIA. PLUNGER, CHROME OXIDE	
3	ACC-115412-E23	1-1/2" DIA. PLUNGER, COBALT	
3	ACC-115412-E22	1-1/2" DIA. PLUNGER, TUNGSTEN	
3	ACC-115412-E26	1-1/2" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	ABC-115412-E24	1-3/8" DIA. PLUNGER, CHROME OXIDE	
3	ABC-115412-E23	1-3/8" DIA. PLUNGER, COBALT	
3	ABC-115412-E22	1-3/8" DIA. PLUNGER, TUNGSTEN	
3	ABC-115412-E26	1-3/8" DIA. PLUNGER, PREMIUM TUNGSTEN	1
3	AAC-115412-E24	1-1/4" DIA. PLUNGER, CHROME OXIDE	
3	AAC-115412-E23	1-1/4" DIA. PLUNGER, COBALT	
3	AAC-115412-E22	1-1/4" DIA. PLUNGER, TUNGSTEN	
3	AAC-115412-E26	1-1/4" DIA. PLUNGER, PREMIUM TUNGSTEN	1
REQ'D	Part No.	DESCRIPTION	ITEM

**BILL OF MATERIAL**

HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE:			
PLUNGERS 1-1/4" THRU 1-3/4" HARD SURFACE 101T-4H, 133T-4H (T100-2, T140-2)			
DWG No.:	SCALE:	REV	SHT.:
118320	NONE	A	1 OF 1



1	GAS-105265-000	SIGHT GLASS	20
1	GAS-105264-000	PUMP ASSEMBLY w/ GASKET	19
<b>REPLACEMENT PARTS</b>			
2	113-014038-220	MACHINE SCREW, 1/4" X 3/8"	18
3	GAS-105240-000	CHECK VALVE, 1/8" NPT	17
1	419-101070-999	SHEAVE DRIVEN 7" OD	16
1	420-020509-019	HUB, LUBRICATOR DRIVEN 5/8" BORE	15
4	126-006516-405	DRIVE SCREW, #6 X 5/16"	14
2	001-008783-405	LINE CLAMP	13
96"	330-002003-365	TUBING, 1/4"	12
1	419-101050-999	SHEAVE, LUBRICATOR DRIVER 5" OD	11
1	420-021900-999	HUB, PUMP DRIVER 1-7/16" BORE	10
14	155-038100-286	FLAT WASHER, 3/8"	9
6	100-038034-290	CAP SCREW 3/8" x 3/4" LG.	8
10	154-038068-286	LOCK WASHER 3/8"	7
4	104-038400-286	STUD, 3/8" x 4" LG.	6
12	133-038016-286	NUT, ZINC PLATED 3/8"	5
1	421-100420-001	V-BELT	4
1	AAB-114961-231	BELT GUARD	3
1	AAB-114960-231	LUBRICATOR BRACKET LH/RH	2
1	GAS-105228-000	LUBRICATOR, RHD, (3) FEED	
1	GAS-105227-000	LUBRICATOR, LHD, (3) FEED	1
REQ'D	Part No.	DESCRIPTION	ITEM
<b>BILL OF MATERIAL</b>			

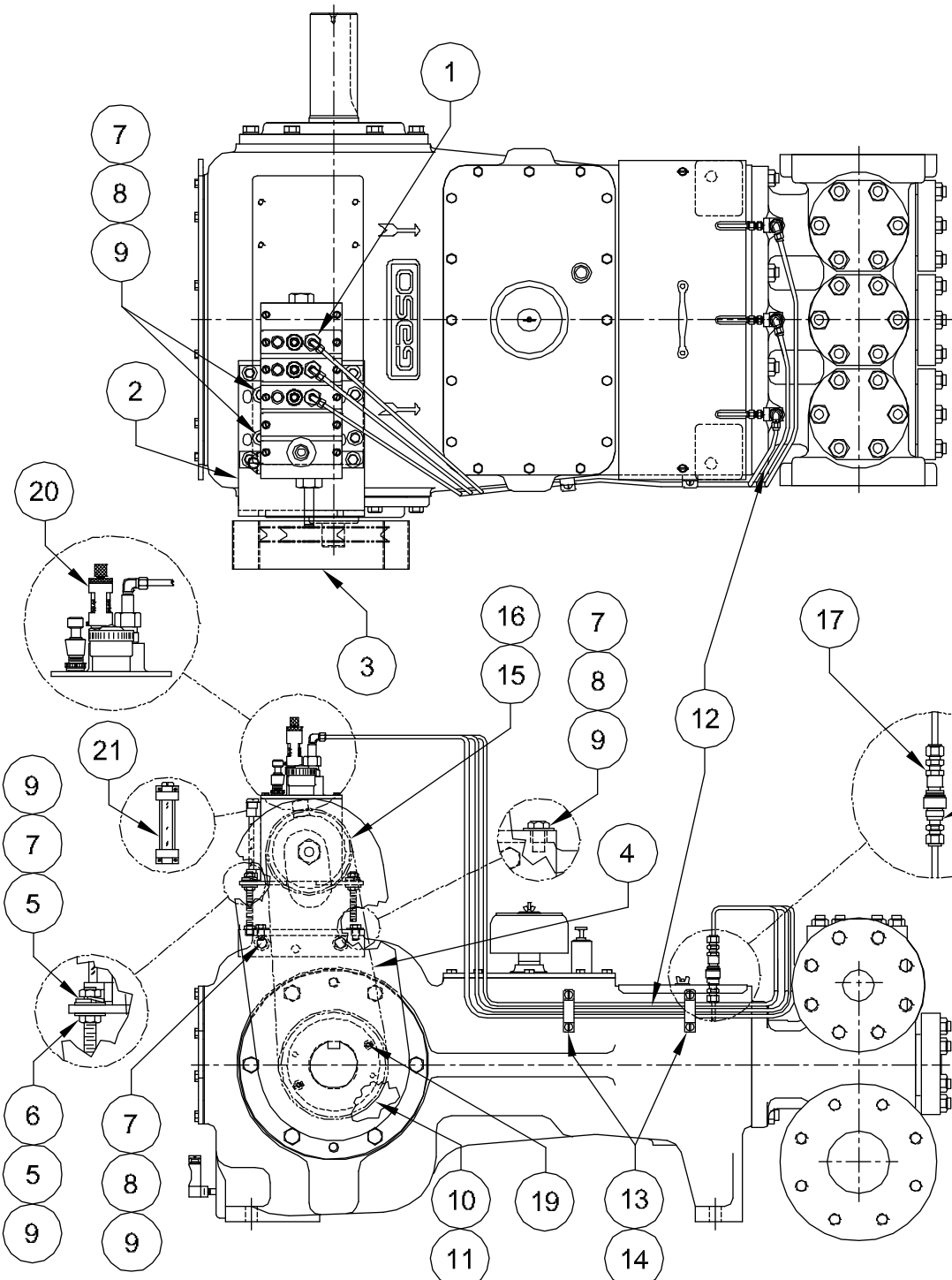
NOTE:  
LEFT HAND DRIVE POWER PUMP (SHOWN) REQUIRES  
RIGHT HAND DRIVE LUBRICATOR.

SAME PLUMBING FOR CASTINGS AND BILLETS (CASTING SHOWN).

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

TITLE:  
**ASSEMBLY, PACKING LUBRICATOR  
(RHD OR LHD) LHD SHOWN  
101T-4 (T100)**

DWG No.: 118293	SCALE: NONE	REV A	SHT.: 1 OF 1
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1	GAS-105265-000	SIGHT GLASS	21
1	GAS-105264-000	PUMP ASSEMBLY w/ GASKET	20
REPLACEMENT PARTS			
2	113-014038-220	MACHINE SCREW, 1/4" X 3/8"	19
3	GAS-110968-000	QUICK DISCONNECT, FEMALE HALF	18
3	GAS-110967-000	QUICK DISCONNECT, MALE HALF	17
1	419-101070-999	DRIVEN SHEAVE 7" OD	16
1	420-020509-019	HUB, LUBRICATOR DRIVEN 5/8" BORE	15
4	126-006516-405	DRIVE SCREW, #6 X 5/16"	14
2	001-008783-405	LINE CLAMP	13
96"	330-002003-365	TUBING, 1/4"	12
1	419-101050-999	SHEAVE, LUBRICATOR DRIVER 5" OD	11
1	420-021900-999	HUB, PUMP DRIVER 1-7/16" BORE	10
14	155-038100-286	FLAT WASHER, 3/8"	9
6	100-038034-290	CAP SCREW 3/8" x 3/4" LG.	8
10	154-038068-286	LOCK WASHER 3/8"	7
4	104-038400-286	STUD, 3/8" x 4" LG	6
12	133-038016-286	NUT, ZINC PLATED 3/8"	5
1	421-100420-001	V-BELT	4
1	AAB-114961-231	BELT GUARD	3
1	AAB-114960-231	LUBRICATOR BRACKET LH/RH	2
1	GAS-105228-000	LUBRICATOR, RHD, (3) FEED	
1	GAS-105227-000	LUBRICATOR, LHD, (3) FEED	1
REQ'D	Part No.	DESCRIPTION	ITEM

BILL OF MATERIAL

NOTE:  
LEFT HAND DRIVE POWER PUMP (SHOWN) REQUIRES  
RIGHT HAND DRIVE LUBRICATOR.

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TITLE:  
**ASSEMBLY, D.O.H. LUBRICATOR  
(DRIP ON THE HEEL) - (RHD OR LHD)  
LHD SHOWN, 101T-4 (T100)**

DWG No.:	118294	SCALE:	NONE
REV:	A	SHT.:	1 OF 1

SAME PLUMBING FOR CASTINGS AND BILLETS (CASTING SHOWN).

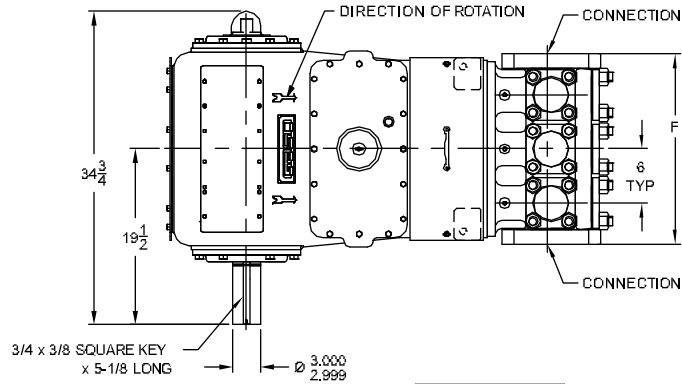
**NOTES:**

1. RIGHT HAND DRIVE SHOWN, FOR LEFT HAND DRIVE MOVE SHAFT AND DIMENSIONS TO THE OPPOSITE SIDE SHOWN.
2. DIMENSIONS SHOWN ARE FOR INSTALLATION PURPOSES.

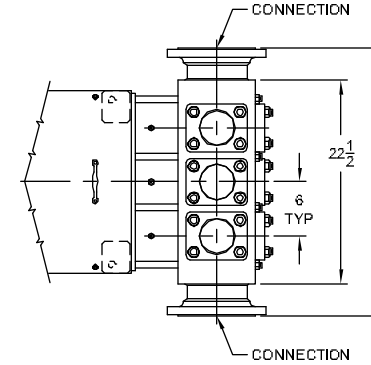
**FIELD CONNECTIONS**

PUMP TYPE	DIMENSIONS IN INCHES	
	DISCHARGE CONNECTION SIZE	SUCTION CONNECTION SIZE
101T-4L	3" - 600# ANSI	6" - 150# ANSI

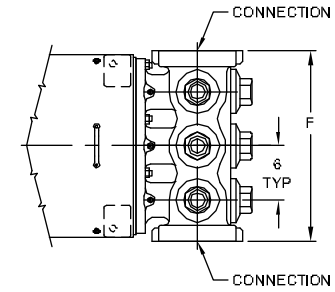
PUMP TYPE	DIMENSIONS IN INCHES					
	A	B	C	D	E	F
CAST, BOLTED COVERS	4-5/8	7-7/8	10-3/8	49-3/8	33-3/4	21
FORGED BOLTED, COVERS	5-3/8	8	11-1/2	50-3/4	35-11/16	29-5/8
CAST, THREADED COVERS	4-5/8	7-7/8	10-1/4	49-5/16	33-3/4	21



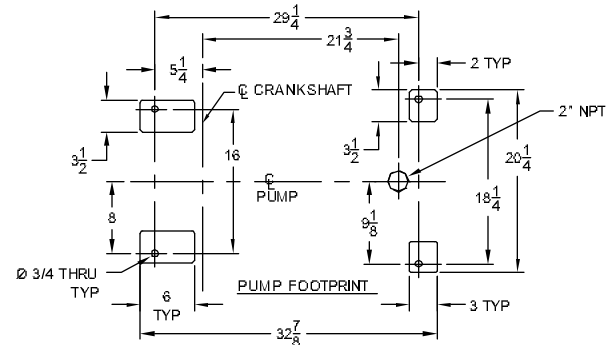
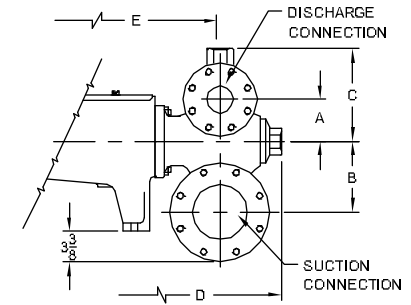
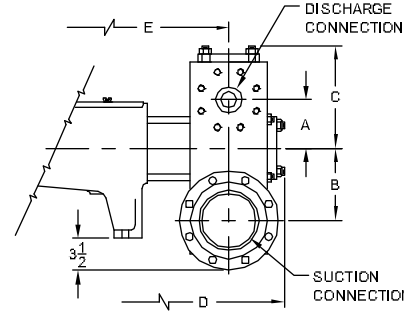
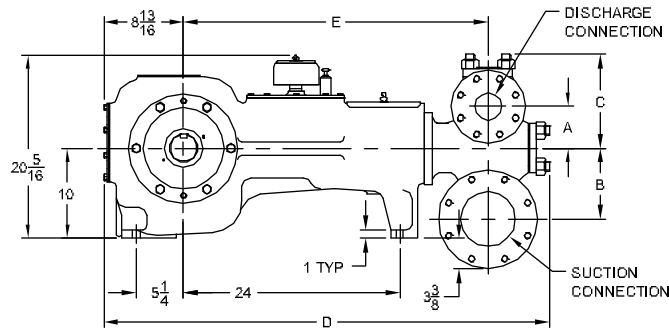
CAST BOLTED COVERS



FORGED BOLTED COVERS FLANGED



CAST THREADED COVERS



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ENGINEERING, TULSA, OKLAHOMA

TITLE:

GENERAL DIMENSION, RHD  
"L" CLASS FLUID END  
101T-4L ( T100-4 )

DWG No.:

118321

SCALE:

NONE

REV

A

SHT.:

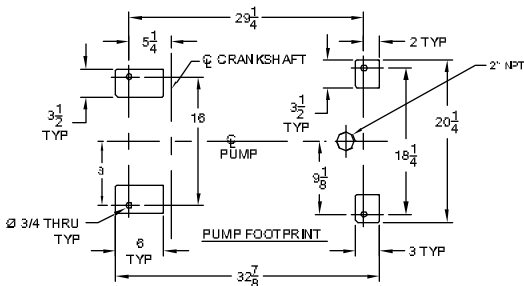
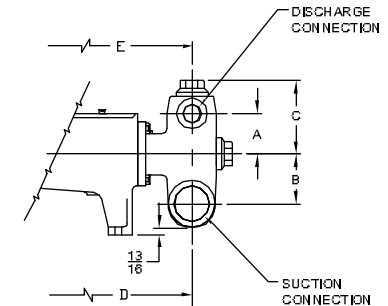
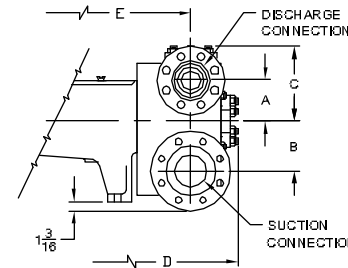
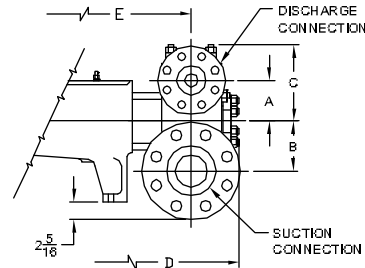
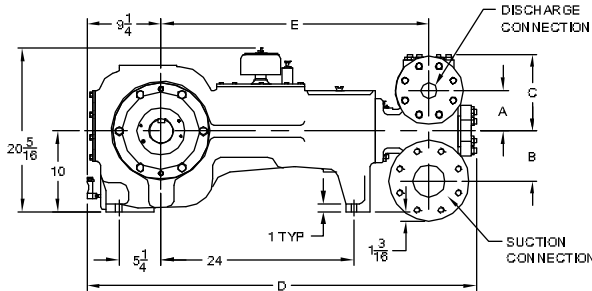
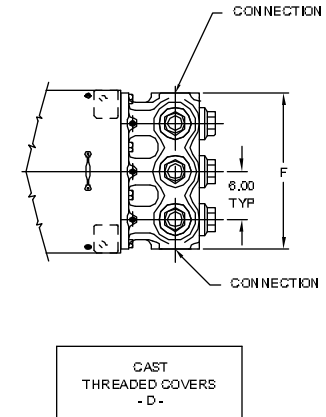
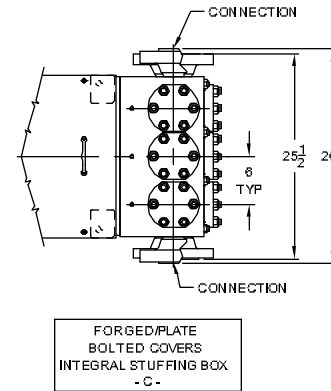
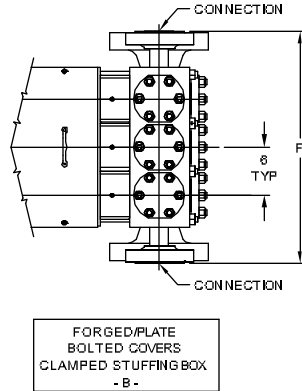
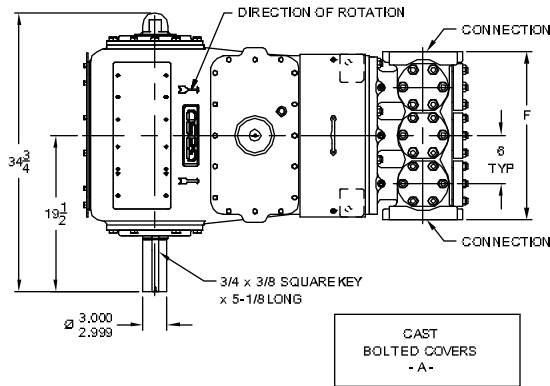
1 OF 1



**NOTES:**

1. RIGHT HAND DRIVE SHOWN, FOR LEFT HAND DRIVE MOVE SHAFT AND DIMENSIONS TO THE OPPOSITE SIDE SHOWN.
2. DIMENSIONS SHOWN ARE FOR INSTALLATION PURPOSES.

PUMP TYPE	DIMENSIONS IN INCHES					
	A	B	C	D	E	F
CAST, BOLTED COVERS (-A-)	5-1/16	6-3/16	3-3/4	48-11/16	33-3/8	21
FORGED/PLATE, CLAMPED BOXES (-B-)	5-1/16	6-3/16	3-1/2	49-5/16	34	29
FORGED/PLATE, BOLTED COVERS (-C-)	5-1/16	6-3/16	3-1/2	46-1/2	33-3/8	-
CAST, THREADED COVERS (-D-)	5-1/16	6-3/16	3-1/4	47-5/8	33-3/8	19-1/2



**FIELD CONNECTIONS**

PUMP TYPE		DIMENSIONS IN INCHES	
		DISCHARGE CONNECTION SIZE	SUCTION CONNECTION SIZE
101T-4M	- A -	2" - 1500# ANSI	4" - 300# ANSI
101T-4MC	- B -	2" - 1500# ANSI	4" - 1500# ANSI
101T-4M	- C -	2" - 1500# ANSI	4" - 300# ANSI
101T-4M	- D -	2" NPT	4" NPT



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TITLE:

**GENERAL DIMENSION, RHD**  
**"M" CLASS FLUID END**  
**101T-4M, 101T-4MC ( T100-3, T100-A3 )**

DWG No.: 118322

SCALE: NONE

REV A

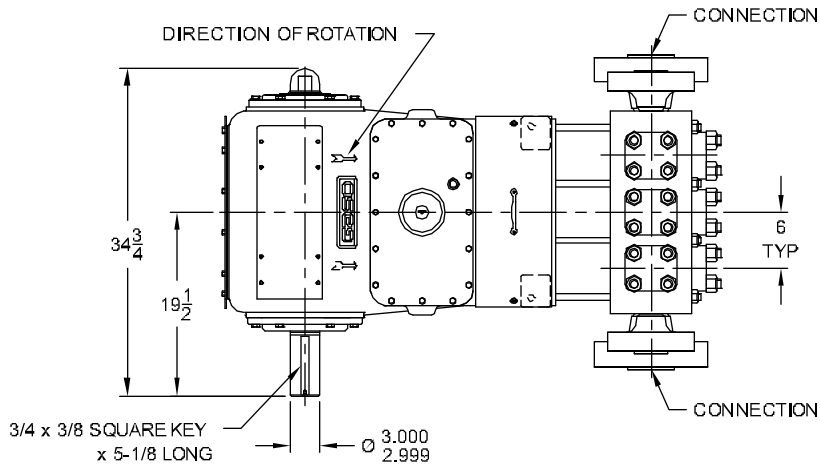
SHT.: 1 OF 1

**NOTES:**

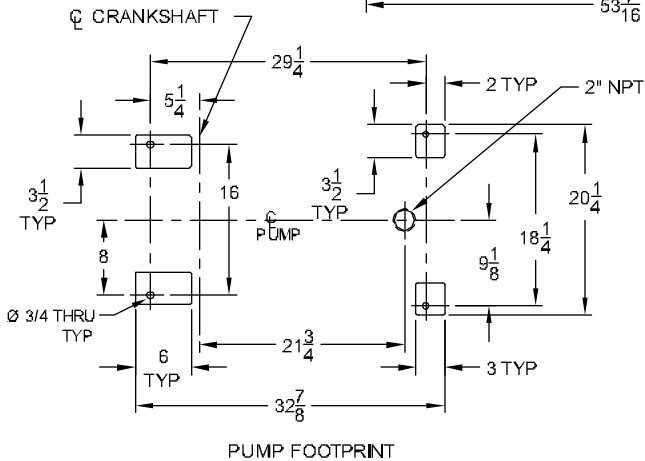
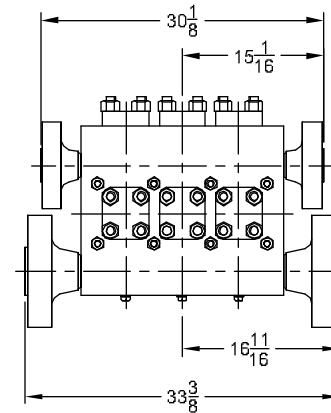
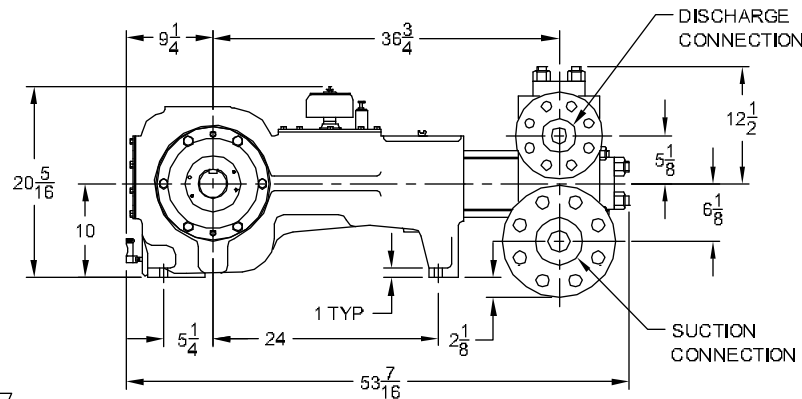
1. RIGHT HAND DRIVE SHOWN, FOR LEFT HAND DRIVE  
MOVE SHAFT AND DIMENSIONS TO THE OPPOSITE SIDE SHOWN.
2. DIMENSIONS SHOWN ARE FOR INSTALLATION PURPOSES.

**FIELD CONNECTIONS**

PUMP TYPE	DIMENSIONS IN INCHES	
	DISCHARGE CONNECTION SIZE	SUCTION CONNECTION SIZE
101T-4H	2" - 2500# ANSI	3" - 2500# ANSI



FORGED  
BOLTED COVERS  
FLANGED



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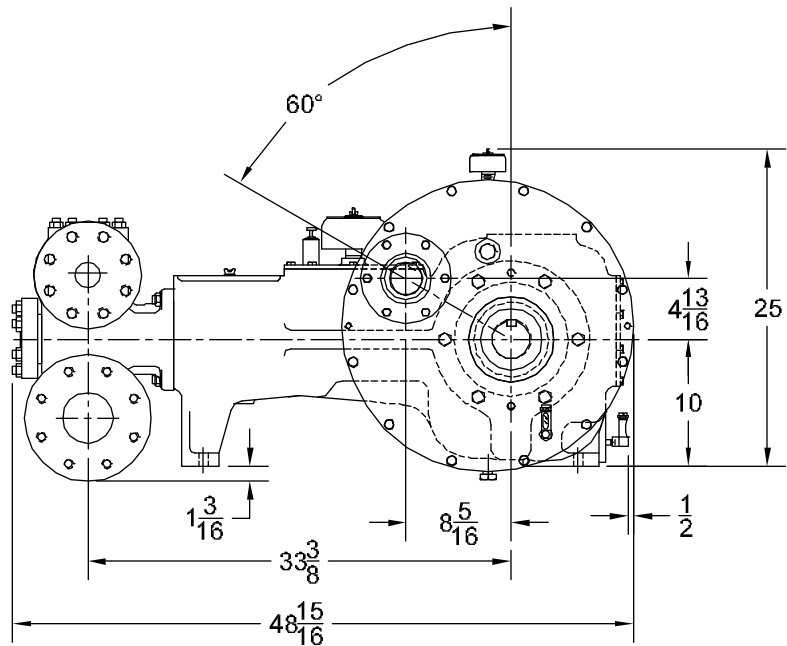
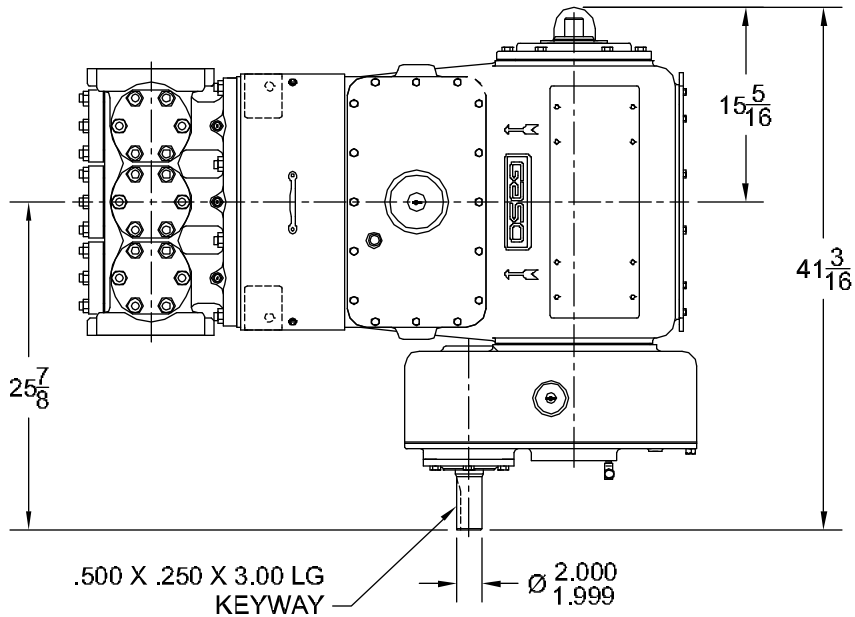
TITLE:

GENERAL DIMENSION, RHD  
"H" CLASS FLUID END  
101T-4H ( T100-2)

DWG No.: <b>118323</b>	SCALE: <b>NONE</b>	REV <b>A</b>	SHT.: <b>1</b> OF <b>1</b>
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NOTE:

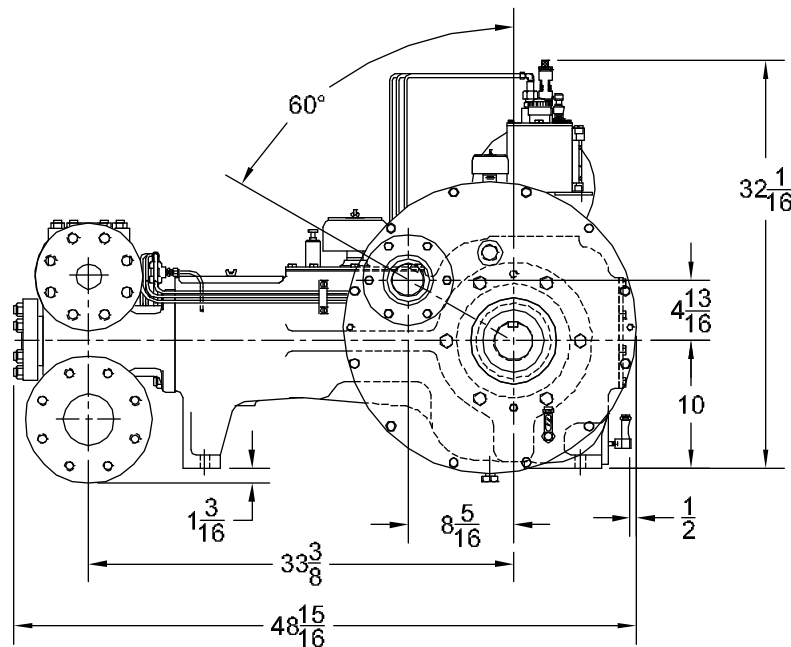
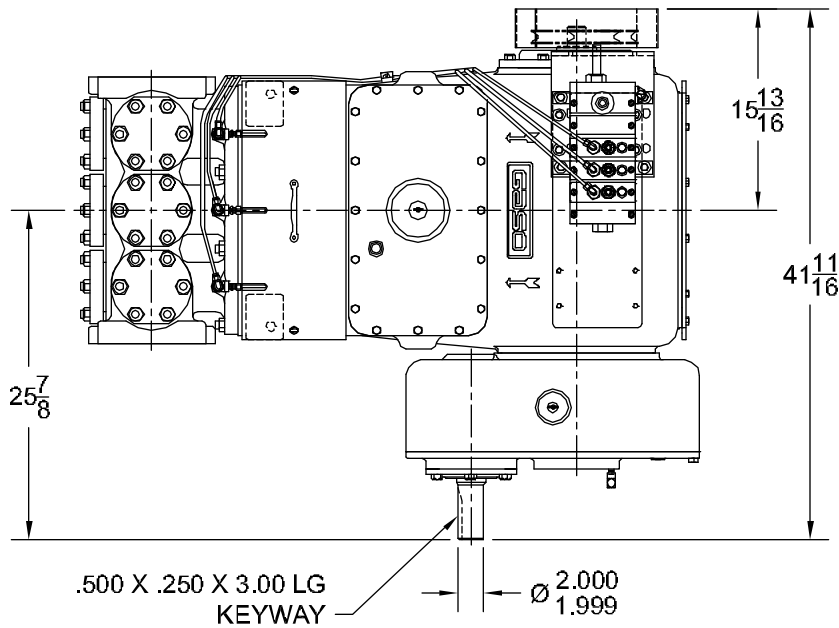
1. LEFT HAND DRIVE POWER PUMP (SHOWN) REQUIRES RIGHT HAND DRIVE LUBRICATOR.
2. ALL GEAR REDUCER DRIVEN PUMPS ARE LEFT HAND DRIVE ONLY.
3. "M" CLASS CAST FLUID END SHOWN. FOR OTHER CLASS FLUID ENDS AND OTHER DIMENSIONS SEE DRAWINGS 118321, 118322, AND 118323.



<b>NOV NATIONAL OILWELL VARCO</b>	
HOUSTON, TEXAS, U.S.A.	ENGINEERING, TULSA, OKLAHOMA
TITLE: GENERAL DIMENSION HELICAL GEAR REDUCER MODEL: 101T-4 ( T100 )	
DWG No.: 118279	SCALE: NONE
REV: A	SHT.: 1 OF 1

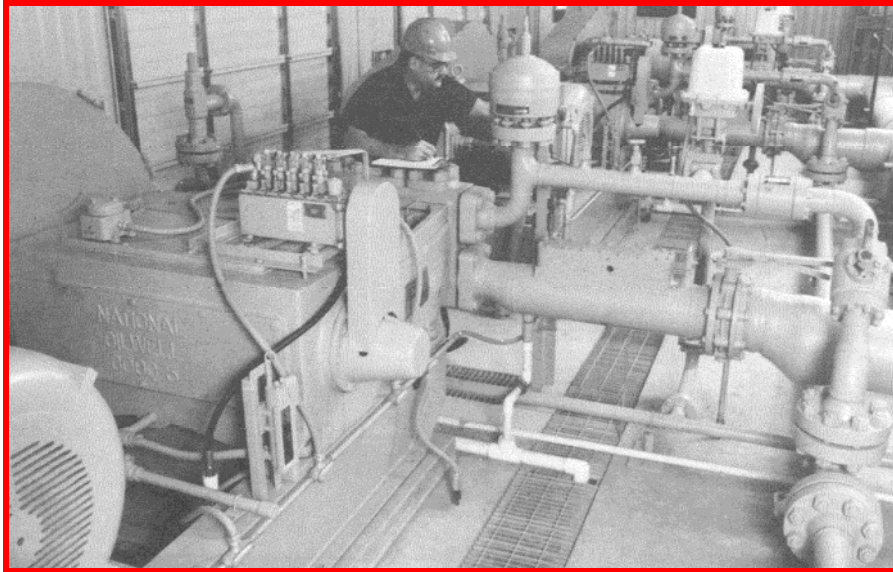
NOTE:

1. LEFT HAND DRIVE POWER PUMP (SHOWN) REQUIRES RIGHT HAND DRIVE LUBRICATOR.
2. ALL GEAR REDUCER DRIVEN PUMPS ARE LEFT HAND DRIVE ONLY.
3. "M" CLASS CAST FLUID END SHOWN. FOR OTHER CLASS FLUID ENDS AND OTHER DIMENSIONS SEE DRAWINGS 118321, 118322, AND 118323.



<b>NOV NATIONAL OILWELL VARCO</b>			
HOUSTON, TEXAS, U.S.A.		ENGINEERING, TULSA, OKLAHOMA	
TITLE: GENERAL DIMENSION, GEAR REDUCER W/LUBRICATOR (LHD) MODEL: 101T-4 ( T100 )			
DWG No:	118278	SCALE:	NONE
REV:	A	SHT.:	1 OF 1

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