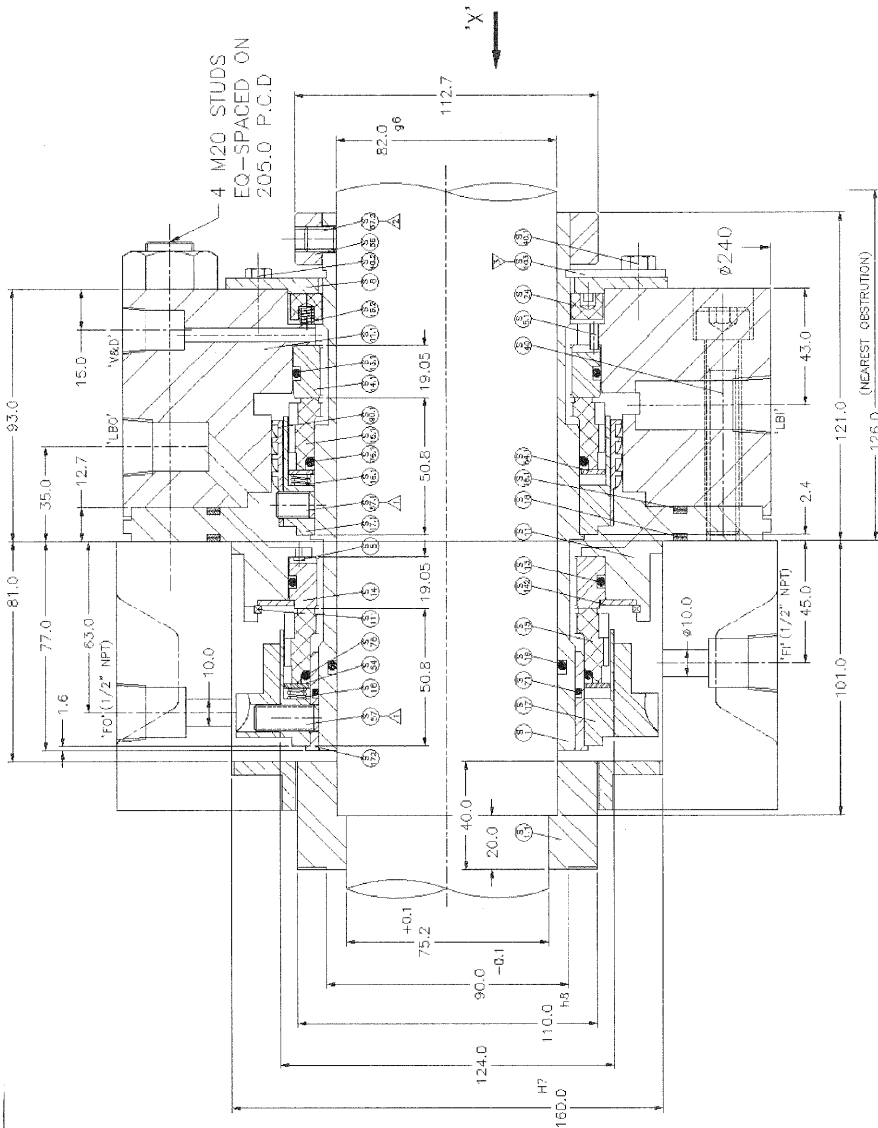


ORDER PARTS BY BOM NUMBER :

* RECOMMENDED SPARE PARTS

BILL OF MATERIAL CONSISTS OF

S/P NO.	DESCRIPTION	MATERIAL	PART CODE	QTY.
1	SHIRT SLEEVE	316 SS		1
1.1	SHIRT SLEEVE	316 SS		1
6	LOG PIN	316 SS		1
5.1	LOG PIN	316 SS		1
8	ADJUSTER CLAND	316 SS		1
11	FLANGE	316 SS		1
11.1	FLANGE	316 SS		1
13	GASKET	FFM		1
13.1	GASKET	FFM		1
14	SEA FACE	SIL OIL		1
14.1	SEA FACE	SIL OIL		1
15	SEA FACE	CARBON		1
15.1	SEA FACE	CARBON		1
16	COIL SPRING	ALLOY C-276		8
16.1	COIL SPRING	ALLOY C-276		8
18.2	COIL SPRING	ALLOY C-276		4
17	SPRING PLATE	316 SS		1
17.1	SPRING PLATE	316 SS/6040L		1
18.1	GASKET	316 SS/6040L		1
19	GASKET	FFM		1
24	FLOATING BUSH	CARBON		1
40	ONE SCREW	304 SS		2
40.1	HEL. HD. BOLT	304 SS		2
40.2	HEL. HD. BOLT	304 SS		2
54	RETAINING RING	316 SS		1
54.1	RETAINING RING	316 SS		1
57	SET SCREW	316 SS		4
57.1	SET SCREW	316 SS		4
57.2	SET SCREW	ALLOY STEEL		6
58	BRIDE COLLAR	316 SS		1
71	GASKET	FFM		1
76	GASKET	FFM		1
76.1	GASKET	FFM		1
90	PUMPING RING	316 SS		1
90.1	PUMPING RING	316 SS		1
103	SETTING FLUID	316 SS		2
111	SNAG RING	UNS. M2719		1
142	REINER	316 SS		1
172	SUPPORT	316 SS		1



PART NO.	ALLEN KEY SIZE
S-47/571	3/16"
9-57/2	3/16"

API 682 - II	EDITION
20W-20W-FL	
C2-2A233B61	

MAXIMUM ALLOWABLE SPEED	1500 RPM
SHIRT TO BOX BORE DIA. - OUT	0.125 MM TIR
BOX TO SHIRT OD DIA. - OUT	0.125 MM TIR

MAWP OF SEAL - 51.7 bar G

MAWP OF SEAL - 327°C

SPECIAL NOTES:-

- Tighten set screws equally, crosswise, in 4 steps. First torque 8.5 Nm / 75 Lbf.inch.
- Tighten set screws equally, crosswise, in 4 steps. First torque 33 Nm / 240 Lbf.inch.
- disengage setting plates before start up.

PIPE CONNECTIONS:-

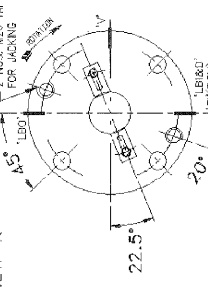
- [F] BOX - 1 NO. 500" NPT FOR FLUSH IN
- [F] BOX - 1 NO. 500" NPT FOR FLUSH OUT
- [L] - 1 NO. 750" NPT FOR BUFFER IN
- [L] - 1 NO. 750" NPT FOR BUFFER OUT
- [C] - 1 NO. 375" NPT FOR OIL IN
- [D] - 1 NO. 375" NPT FOR OIL OUT

AIR TEST PRESSURE-2.0KG/SQ.CM

SEAL CAN WITHSTAND 400°C DURING 30 SECONDS.

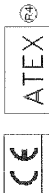
SEAL SURFACE THICKNESS	0.1
UNDER DRIVE COLLAR	4.8 MM
DIAMETRIC CLEARANCE OF FLANTING	0.125 MM
THROTTLE BUSH	0.125 MM

VIEW-X



FLUID	TEMPERATURE	SEAL TYPE
HOT OIL	400°C	QBO/QBO
DOWNHEIM A/		
TEMPERATURE	12 (RATED)-17 (MAX)	
SUCTON PRESSURE	29.4 (RATED)-34.5 (MAX)	
DISCHARGE PRESSURE	29.4 (RATED)-34.5 (MAX)	
BOX PRESSURE	6 (MIN)-16.4 (MAX)	
VAPOUR PRESSURE	1.6 (MIN)-3.6 (MAX)	
TEMPERATURE	20 (MIN)-302 (MAX)	
SPECIFIC GRAVITY	0.804/0.773	
VISCOSITY	0.13/0.217 cP	
RPM	3200	

Please note that special manufacturing and delivery specifications are required for the seal to be used in this application. Only O-rings delivered by Flowserve are tested and released.



S/P PROJECT NO. : 100019

W.D.NO. : 816028/03

SEAL TYPE QBO/QBO
SEAL SIZE 4.000"/3.875"
ARRANGEMENT DUAL UNPRESSURIZED CAP
MATERIAL CODE 5 A K X