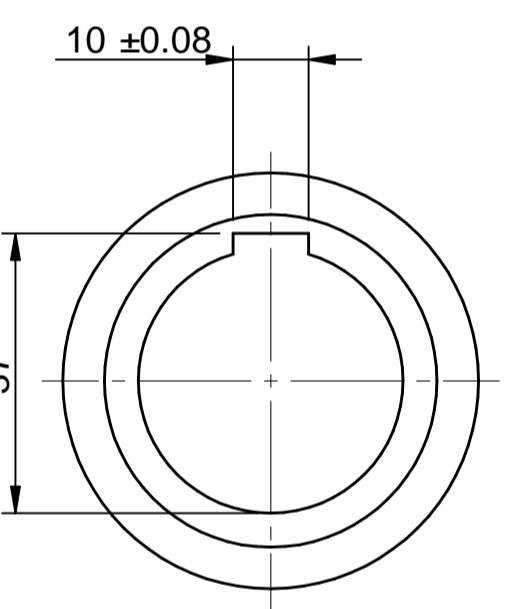
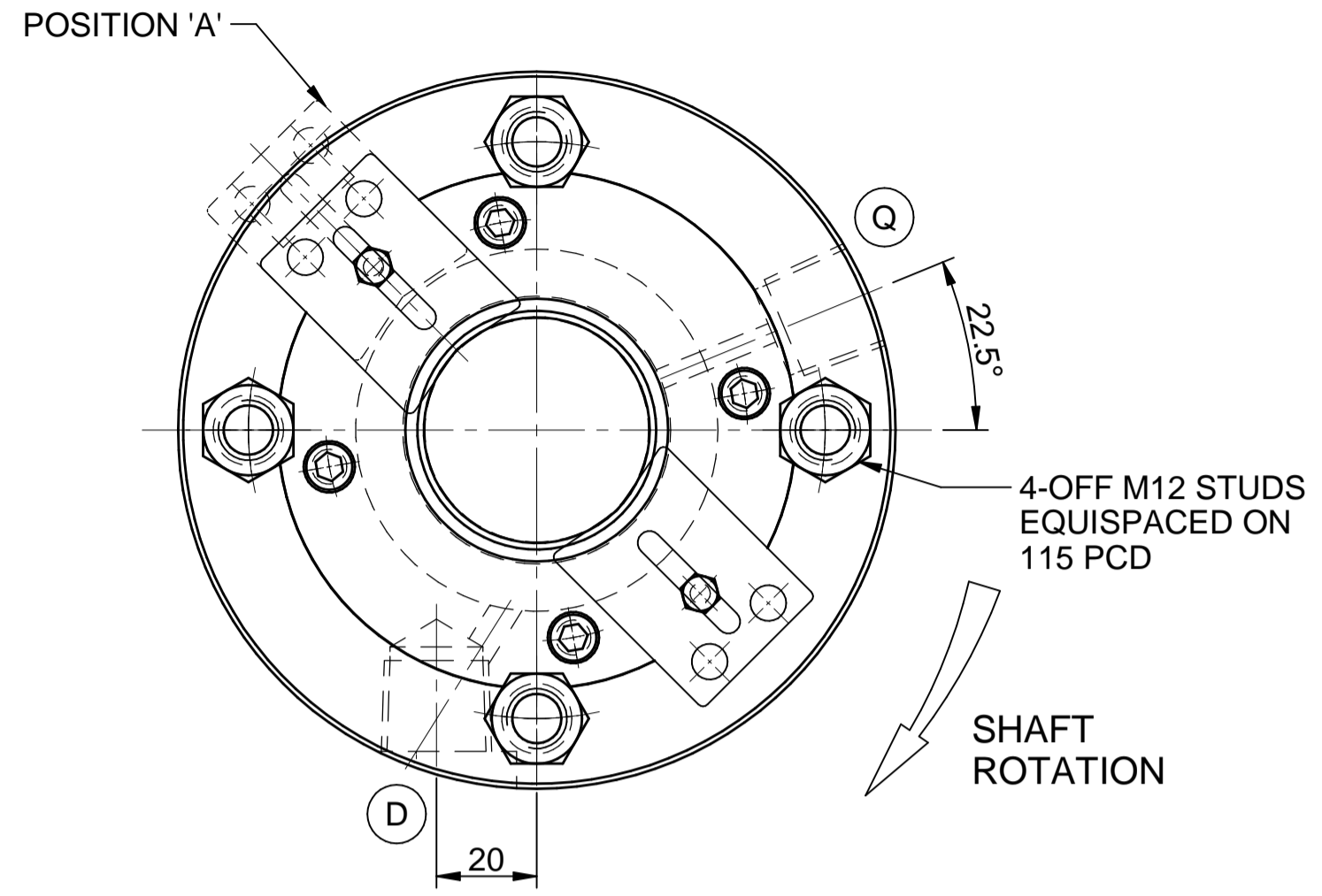
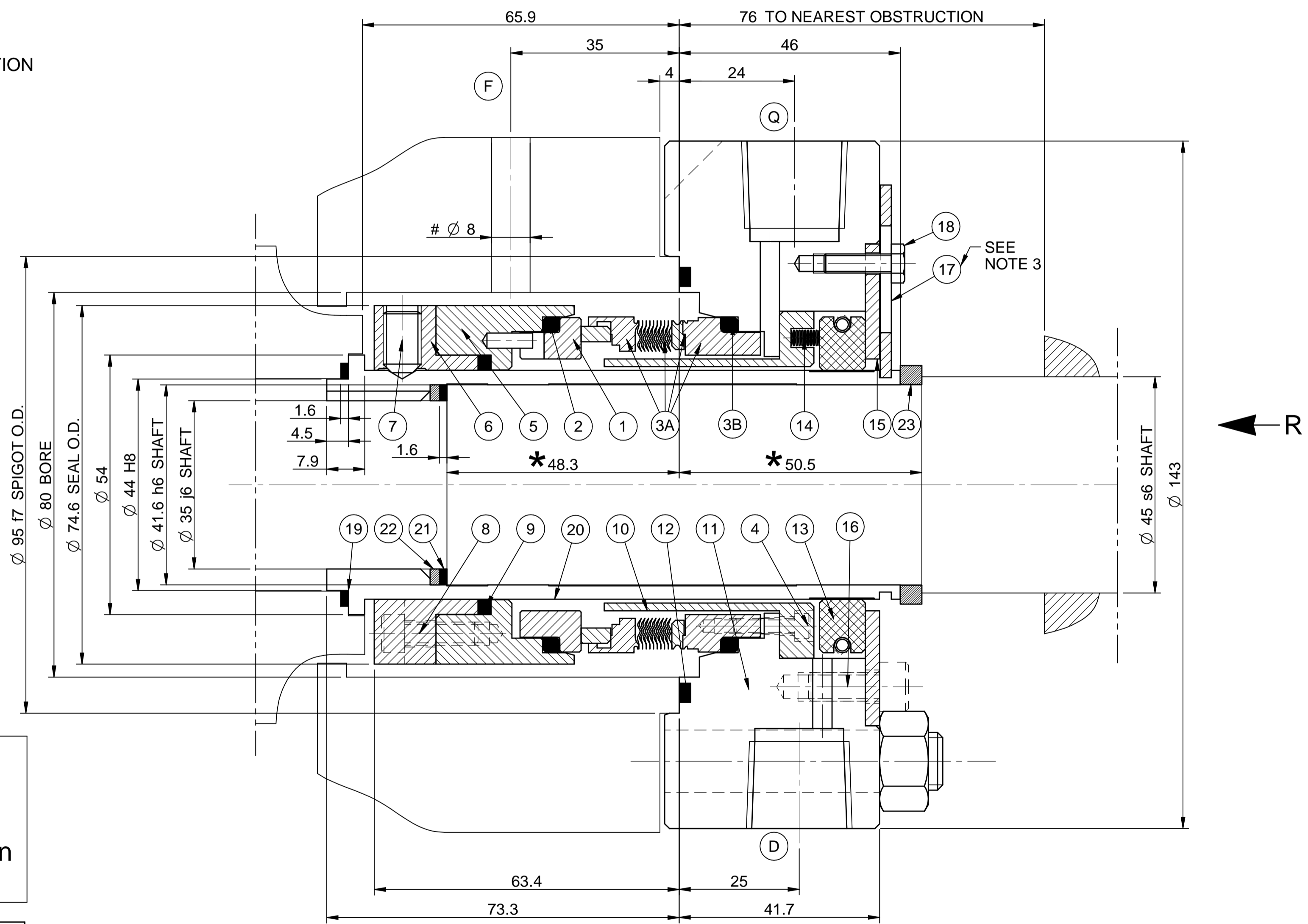


Projection

MODIFICATIONS:- ISSUE 'A' ORIGINAL. ISSUE 'B' : ITEM NO 8 CHANGED TO HEX HEAD SCREW. ITEM NO 7 SIZE CHANGED TO M8. ITEM NO 12 SIZE CHANGED. ITEM NO. 19 PART NO CHANGED . SEV.22MAY06. ISSUE 'C', ECN NO. 17283, 12APR12, LDS, ITEM NO.19 PART NUMBER WAS M/B8564/4/214, ITEM NO.8 PART CODE WAS 3405/300/001, STUFFING BOX AXIAL DIMENSIONS 50.5, 48.3, 66.3 & 73.3mm WAS 51.5, 53.5, 68 & 75mm RESPECTIVELY, DIMENSION 4.5 WAS 3.5mm, 1.6 & 7.9mm INCLUDED, Ø64mm HAS BEEN REMOVED, ITEM NO. 21, 22 & 23 INCLUDED, NOTE INCLUDED FOR AXIAL DIMENSIONS 48.3 & 50.5mm AND SCALLOP INCLUDED FOR GLAND PLATE.



KEY WAY DETAIL
VIEW S
(SCALE :- 1:1)



API PLAN 62 - CONTINUOUS DRY SATURATED STEAM QUENCH WITH A FLOWRATE OF 0.5 TO 1 LPM AND A PRESSURE OF 3 TO 7 PSIG SHOULD BE PROVIDED.

* Confirm dimension during seal installation. If incorrect, spacer (Item #23) may need adjustment. Ensure spacer (Item #23) is not loose when impeller nut has been tightened.

- MODIFICATIONS TO STUFFING BOX REQUIRED

- CONNECTIONS:
- (F) - Existing connection in stuffing box for Flush.
 - (Q) - 1/2" NPT connection for Quench
 - (D) - 1/2" NPT connection for Drain

3. Setting washers (item 17) are for correct positioning of seal only and must be moved to position 'A' before running the pump.
2. All dimensions are in millimeters unless otherwise stated.
1. Only parts itemised to be supplied by John Crane.

Notes :Refer to John CraneSeal and Installation Instructions - for recommended practice

PLANT ITEM NO.: 101-P3 A/B

REF.	PART No.	DESCRIPTION	MATERIALS	QTY.	SPARE
1	CS-H97-32	SEAT	SILICON CARBIDE	1	X
2	557400-32	PACKING	GRAFOIL	1	X
3	907620-34	SEAL HEAD ASSEMBLY	SEE BELOW	1	X
4	7504/301/001	CAP HEAD SCREW	316 S.S	4	
5	570892-05-S20	MATING RING ADAPTER	316 S.S	1	
6	MC1491/1/001	COMPRESSION RING	316 S.S	1	
7	8012/305/001	SET SCREW	316 S.S	4	X
8	3405/301/001	CAP HEAD SCREW	316 S.S	4	
9	557397-34	PACKING	GRAFOIL	1	X
10	818978-34	DEFLECTOR	BRONZE	1	
11	MC0876/1/001	GLAND PLATE	316 S.S	1	
12	556180-029	GASKET	GRAFOIL+304 S.S	1	X
13	*ADB-1372-187-9398	SEGMENTAL BUSH ASSEMBLY	CARBON + 316 S.S	1	X
14	3320/092/033	SPRING	HASTELLOY 'C	3	X
15	MC0877/1/001	AUXILIARY GLAND	316 S.S	1	
16	7916/301/001	CAP HEAD SCREW	316 S.S	4	
17	0381/J75/001	LOCKING WASHER	316 S.S	2	
18	7714/300/001	HEX. HEAD CAP SCREW	316 S.S	2	
19	MB8564/17/212	GASKET	GRAFOIL	1	X
20	MC0879/1/031	SLEEVE	316 S.S/CHROME OXIDE	1	
21	H-0420M-1086-7772	GASKET	GRAFOIL	1	X
22	H-0420M-1087-0550	SPACER RING	316 S.S	1	
23	H-0420M-1088-0550	SPACER	316 S.S	1	

FOR ITEMS 1 TO 23 COMPLETE ORDER:
0416/604/--/MC0812

0416/604/SK/MC0812 SPARES KIT INCLUDES 1 SET EACH OF ITEMS 1,2,3,7,9,12,13,14 & 19

FOR SPARE REFERENCE ONLY DO NOT SHOW IN PAL
SEAL HEAD ASSEMBLY 907620-34 CONSISTS OF :-

3A	599951-34	HEAD WELDMENT	CARPENTER/NIL042/INCO718/INC 00600/C59 CARBON	1	
3B	557400-32	PACKING	GRAFOIL	1	

SEAL DATA	SEAL ASSEMBLY CODE: 0416/604/--/MC0812	INTERNATIONAL SEAL CODE: BSARN
SEAL MATERIAL IDENTIFIER (INBOARD / OUTBOARD): 604BCG-SCP-34	PIPING PLAN: 02/21/62	SEAL FLUSH RATE: 8 TO 10 LPM
CUSTOMER DATA	FLUID SYSTEM DRG.: -	CUSTOMER: NATIONAL REFINERY LTD.
EQUIPMENT TYPE: OVERHUNG PUMP		END USER: NATIONAL REFINERY LTD.
OEM: KSB		SITE LOCATION: KARACHI PAKISTAN
MODEL/SIZE: RPU-100-315		PLANT: ATM DISTILLATION PLANT
PUMP DRG No./REV.:		PLANT ITEM No.: 101-P3 A/B

SERVICE DATA	PROCESS FLUID NAME: REDUCED CRUDE + 2.41 %S
PROCESS TEMPERATURE: 357°C MAX.	SHAFT SPEED: 3000 RPM
SUCTION PRESSURE: 23.2 PSI G	VISCOSITY AT P.T.: 1 cSt
DISCHARGE PRESSURE: 127 PSI G	V.P AT P.T.: 37 PSI A
CHAMBER PRESSURE: -	SPECIFIC GRAVITY: 0.735

REFERENCE DATA: E05-0045	INSTRUCTION MANUAL REF.: -
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TITLE :
INSTALLATION OF A 41.6mm SEMI CARTRIDGE SEAL TYPE 604/CS IN A KSB PUMP TYPE RPU-100-315

SCALE	DRG. LOCATION	BY	DATE	CHK'D	APP'D
1.5:1	IN02/AE01	RKB	18APR06	VT	CS

JohnCrane	CAT	DRG. No.	SHT. No.	ISSUE
	P	M/C0812	1	C