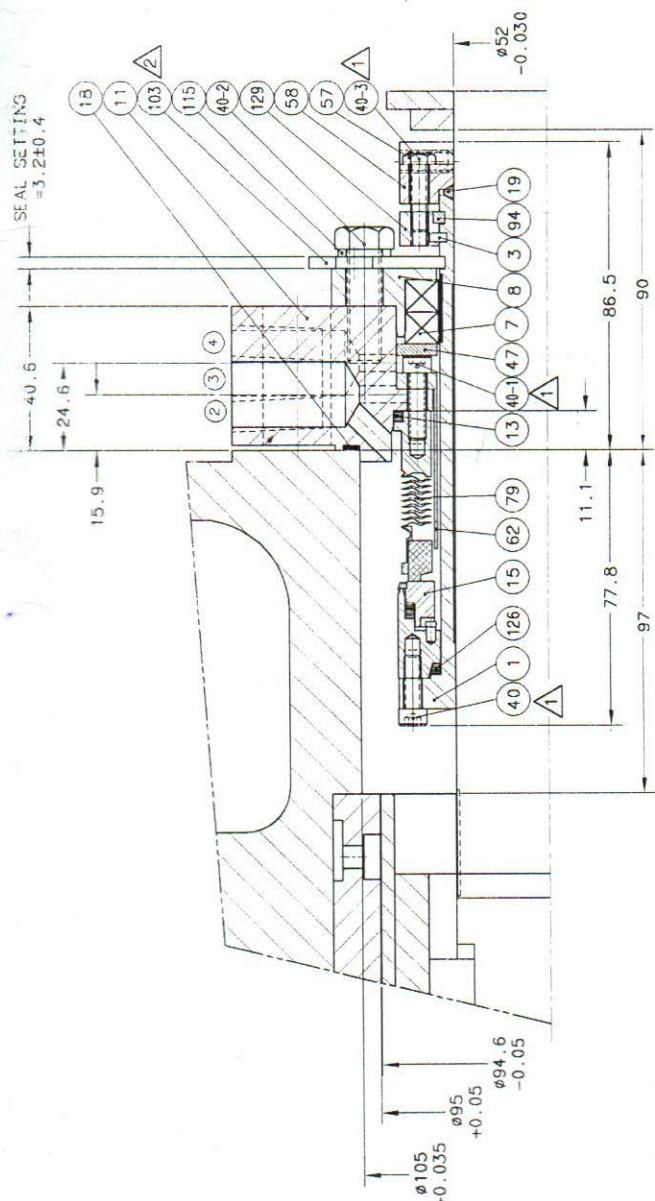


953932

A



**DRIVE END**  
(SEE 953932 SHEET 2 OF 2 FOR FREE END)

- ① INJECTION
- ② QUENCH
- ③ DRAIN

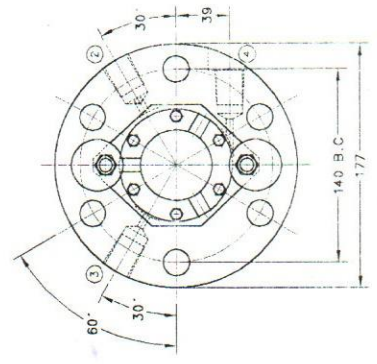
① TORQUE 10-32 UNF HEX. SOCKET HEAD CAPSCREWS TO 50 INCH POUNDS (5.6 Nm). TORQUE 10-32 UNF HEX. HEAD CAPSCREWS TO 40 INCH POUNDS (4.5 Nm) USE GREASE ON THREADS. HIGHER OR LOWER TORQUE VALUES MAY RESULT IN PREMATURE SEAL FAILURE OR IMPROPER SEAL FUNCTION.

② DISENGAGE SETTING PLATES BEFORE START-UP.  
3. FOR INSTALLATION AND OPERATING INSTRUCTIONS SEE SEPARATE MANUAL.

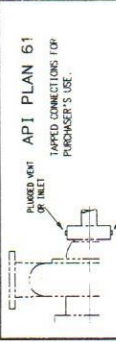
FINAL DRAWING  
RELEASE TO MANUFACTURING  
NO FURTHER CHANGES SHALL BE MADE  
BY THE VENDOR OR THE BUYER  
SIGNATURE: WPMAT DATE: 01/06/1983



END VIEW  
REDUCED SCALE:  
THIRD ANGLE  
ROTATION



PART NUMBER	QTY	DESCRIPTION	MATERIAL	*SUGGESTED SPARE PARTS
2N03521	1	SHAFT SLEEVE	316/COV.	
67404	DB	DRIVE PIN/KEY	316	
4R414	OF	PACKING RING	FLEX. GRAPHITE	
4N01532	FJ	AUXILIARY GLAND	BRONZE	69-301-019
11	D9	GLAND	316	
13	4R0508	GASKET (gland)	FLEX. GRAPHITE	
15	3R11421	SEAL FACE	316/GRAPHITE/COMPOSITE	69-301-017
18	4N00263	GASKET (face)	SILICON CARBIDE	
19	834153	GASKET (sleeve)	18-8	
40	4R1605	CAP SCREW	A-286	69-301-027
40.1	4R0902	CAP SCREW	SILVER PLTD.	69-301-01P
40.2	4R3489	CAP SCREW	SILVER PLTD.	
40.3	4R2848	CAP SCREW	18-8	
47	4R1366	BACKING RING	ALLOY STEEL	69-301-012
57	4R0429	SET SCREW	316	
58	4N03689	DRIVE COLLAR	ALLOY STEEL	
62	3R0950	ANTICOKE DEVICE	BRONZE	69-301-013
79	3R23040	BELLOWS ASSEMBLY	ALLOY 718/FENI	69-301-020
94	4R1298	SPLIT RING	ALLOY 316/T. CARB.	
103	666990	SETTING PLATE	316	
115	4N01984	LOCK WASHER	SPRING STEEL	
126	4R0807	GASKET	FLEX. GRAPHITE	
129	4R1278	ADJUSTING COLLAR	316	69-301-022



**PIPING REQUIREMENTS**

API PLAN 11  
RECIRCULATION FROM PUMP DISCHARGE THROUGH FLOW CONTROL ORIFICE TO SEAL

1. MAINTAIN SEAL CHAMBER PRESSURE 50 PSI (3.45) OR HIGHER TO PREVENT FLUSHING OF PACKING CONDITIONS TO PREVENT FLUSHING AT SEAL FACES.

2. INSTALL FLOW CONTROL ORIFICE AS FAR AS POSSIBLE FROM FLOW PUMP.

FLUSH (INJECTION) RATE: 1.9 GPM [7.1 LPM]

PIPING REQUIREMENTS  
CUSTOMER: WORTHINGTON NORD SPA  
ADDRESS: DESIO ITALY  
ULTIMATE USER: NATIONAL REFINERY LTD  
ADDRESS: KARACHI PAKISTAN  
CUSTOMER P.O.: 1545  
PRODUCT: TAR  
TEMP: 250-316°C  
SPEC GRAVITY: .915-.947  
VISCOSITY: 16 CST MAX

VAPOR PRES: 1.213 KG/CM<sup>2</sup> A  
DISCH PRES: 28.53 KG/CM<sup>2</sup> A  
RPM: 2950  
EQUIP SERIAL NO.: 10-01062  
EQUIP ITEM NO.: 212P03/035  
API PLAN: 11/61  
SUCT. PRES: 1.55 (MAX 5.08) KG/CM<sup>2</sup> A  
CHAMBER PRES: 1.55 (MAX 5.08) KG/CM<sup>2</sup> A

SEAL TYPE: BXRH  
SEAL SIZE: 2.375  
SEAL CONFIG: SINGLE INSIDE-CARTRIDGE  
MATERIAL CODE: GXCN  
EQUIP MFR: WORTHINGTON NORD SPA  
EQUIP MODEL: 1.5 HD 13.2 STAGE, HORIZONTAL  
EQUIP DWG: CM141854



SCALE: TO SCALE  
DRAWN: [blank]  
DATE: [blank]  
CHKD: [blank]  
APPVD: [blank]  
F.O. NO.: 953932

OPTIONS:  
FORM DWG: A2N02152  
ASSY/ORDER NO: [blank]  
REV: 1 OF 2 REV: A

REVISION: A DATE: 30-SEP-2005 BY: BRUKANTI  
REVISION NOTE: REDRAWN IN AUTOCAD, MATERIAL CODE WAS 5XCN

CHKD: VYASWANTHAN  
ECON NO: 05-11529

DIV'S ARE REF UNLESS C/22  
SPECIFIED OTHERWISE. 2000  
DIV'S IN: MILLIMETERS.