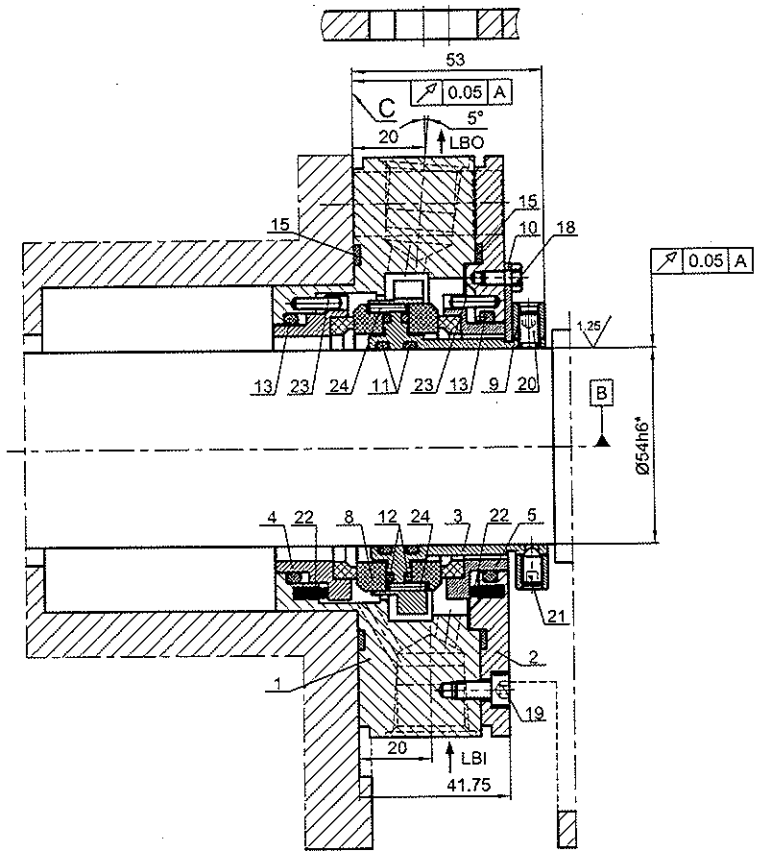
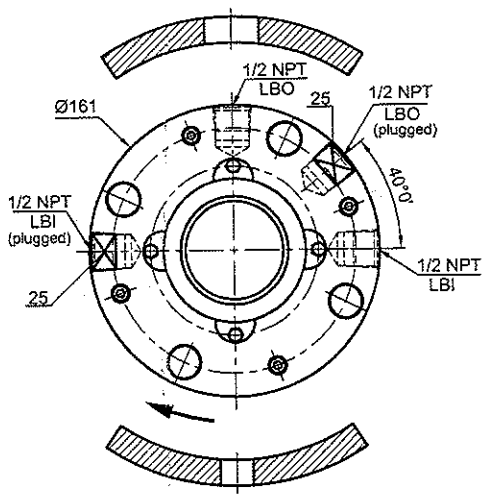
RDU-0540-6665

PUMPA P3A – HB.
Data: 15.11.2011

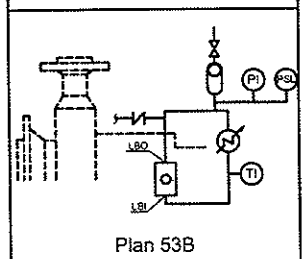
For offer		Version: 1 Date:
For approval		Coordinated: Date:
Final for delivery	X	Approved: Date:





Description:
LBI - liquid buffer inlet;
LBO - liquid buffer outlet;
PSL - pressure switch low;
PI - pressure indicator;
TI - temperature indicator;

PIPING REQUIREMENTS



Plan 53B

External piping provides fluid for the outer seal of a pressurized dual seal arrangement. Pre-pressurized bladder accumulator provides pressure to the circulation system. Flow is maintained by an internal pumping ring. Heat is removed from the circulation system by an air-cooled or water-cooled heat exchanger. This plan is used with an Arrangement 3 seal.

P3A HB

Item	Part No	Description	Q-ty	Material	Spares	Q-ty
1	49012	Gland	1	SS321		
2	49014	Gland	1	SS321		
3	49015	Sleeve	1	SS321		
4	49024	Mating Ring	1	SS321/Antimony Carbon	*	1
5	49031	Mating Ring	1	SS321/Antimony Carbon	*	1
8	49032	Mating Ring	2	R-SiC	*	2
9	49020	Lock Ring	1	SS321		
10	49021	Clip	4	SS420		
11	21476	O-Ring	2	Viton	*	2
12	23603	O-Ring	2	Viton	*	2
13	4122	O-Ring	2	Viton	*	2
15	22701	Gasket	2	Graphite	*	2
18	14294	Screw	4	A2	*	4
19	17909	Screw	4	A2	*	4
20	11701	Screw	6	A2	*	6
21	19621	Screw	3	A2	*	3
22	6205	Spring	36	Alloy C-276	*	36
23	21093	Pin	4	A4		
24	21359	Pin	4	A4		
25	23243	Plug	2	SS321		

1	Customer and equipment data		
1.1	Customer	LUKOIL PETROTEL	
1.2	End user	LUKOIL PETROTEL	
1.3	Unit	HB	
1.4	Equipment item number	03-P3A/R	
1.5	Equipment type	Pump	
1.6	Equipment model	TERMA 80x25/255	
1.7	Project No		
1.8	Seal Chamber		
1.9	Order N, date		
2	Working conditions		Units
2.1	RPM	3000	
2.2	Liquid	C3-C5 fraction	
2.3	Temperature	40	°C
2.4	Viscosity		cSt
2.5	Density		kg/m³
2.6	Suction pressure	10	bar
2.7	Discharge pressure	14.8	bar
2.8	Seal chamber pressure		bar
2.9	Saturation pressure		bar
3	Auxiliary		
3.1	API 682 Plans	53B	
3.2	Buffer liquid		
3.3	Orifice hole, mm		mm
3.4	Drawing of plans		
4	Mechanical seal		
4.1	Drawing N		
4.2	Seal Data		
4.3	Data of spare kit		
4.4	Contract, invoice		

1. Mechanical seal is supplied tested and securely packaged ready for installation.
2. * - Check dimensions before installation.
3. Before the installation make sure that the surface "C" is clean and free of scratches and lugs.
4. When tighten nuts of gland studs make sure that the gland fit the surface "C" of the pump completely without the gap all around the full circle.
5. Tighten set screws item 20 equally crosswise, in 4 steps. Final torque: 15 N·m.
6. Maximum axial movement (design) ± 2.2 mm.
7. Remove clips Item 10 before start-up.
8. Do not start-up pump with tank without barrier fluid.
9. Install clips item 10, before removing seal.

		Sign	Date
Designed	Zankin		22.06.1
Checked	Nechiporenko		22.06.1
Approved	Batenko		22.06.1

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Mechanical seal
Installation drawing and parts list

Mass	Scale
	–

JSC TREM Engineering

A2

Do not pass drawing on to third parties without written permission of TREM Engineering SC.