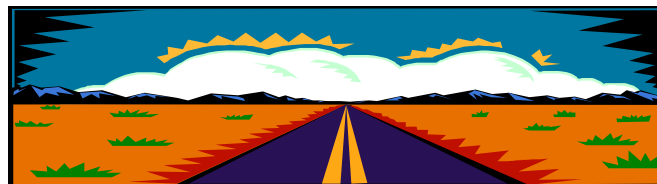


**MUNDRA PANIPAT PIPELINE
Kot (Rajasthan)**

Unit Profile

Kot Pump Station consists of three pipelines namely Salaya-Mathura (SMPL) cross country crude oil pipeline, Mundra Panipat (MPPL) cross country crude oil pipeline and Koyali Sanganer (KSPL) cross country product pipeline of Indian Oil Corporation Limited passes through the Marwar region of Arawali Hills range in the state of Rajasthan. Kot Boosting Station is located in the State of Rajasthan, 145 Kms south from Jodhpur.



Kot was a scrapper station of SMPL in 1981. In the year 1988 it was converted to SMPL Pump station. It was further augmented as a scrapper station for KBPL in 1997 and then converted to a Pump station of KBPL in 2002. In 2005 Kot was augmented as Pump station of KSPL.

Presently WRPL, KOT is a T-Point for Branch Pipeline to Salawas and an intermediate pump station of:

- SMPL - Crude Oil Pipeline.
- MPPL - Crude Oil Pipeline.
- KSPL- Product Pipeline

Kot pump station is located approximately 7 kms from Bali Colony. The colony has quarters to offer residential facilities to the families of the employees and a Pipeline House to accommodate the guests visiting Kot for official purpose or on vacation. The nearest railway station, Falna is 9 km away from Bali. Falna is a town in Pali District of Rajasthan. It is an important railway station on Ahmedabad-Jaipur railway line. Falna is 75 km from the district headquarters of Pali.

True picture of rural Indian life can be seen in this area. Smiling local folk seem to welcome whole heartedly, though with a tinge of blush.

Equipment Details

There are nine Mainline Pumping units at Kot Pump Station which are three set each for MPPL, KSPL and SMPL lines respectively. SMPL and MPPL is engine driven and KSPL is motor driven intermediate pumping stations. The station is designed for two running and one standby unit.

Three numbers of Main line pumping unit – Max. 2 running at a time and one as a stand by

- Diesel Generator 400 kVA & 500 kVA
- Fire fighting system
- Four engine driven F/F Pump and two motor driven capacity with two numbers fire water above ground tanks of capacity 965 KLs each and 1 fire pond of 2250 KL .
- Jockey pump
- HSD tanks Two nos. of 100 Kls FOT, one no of 80 KL FOT and 1250 KL Crude oil FOT.
- Oil Water Separator(OWS)
- Diesel unloading Pump (DUP)
- Complete fire hydrant system
- Pig receiving and launching facilities.
- Sump tank with sump pump and motor, re-injection and truck tanker unloading facilities.
- Automatic Fire alarm/detection system.
- Station electrical system including PMCC etc.
- Scraper RTU.
- Telecom facilities.
- SCADA system

MAINLINE PUMPS AND ENGINES

SMPL has three numbers of identical mainline centrifugal pump M/s BPCL, Naini having 2050 m³/hour flow rate at 323 meters head and 3000 rpm. These pumps are coupled with M/s. Allen, UK make 2353 HP, 750 rpm. 6 cylinders, 325 mm bore/370 stroke Crude start and run engines. To provide requisite rpm to maintain pumps a speed increaser gearbox unit of M/s Allen, UK made with gear ration 4.4 (2345 HP) is installed between mainline pumps and Engines. The mainline pump will have a differential head of 323 meters at 2050 KLs flow rate.

MPPL has diesel Engine Wartsila 6L32 is four stroke, direct injected, turbocharged and intercooled design with internal accessories, control system, coupling and external fuel oil cooling exhaust and charge air system connected to WEIR make pump of capacity 1250 Kls/hr head-43 meters and a rated power of 1580 kW.

KSPL has Flame proof, 3phase, sq.cage induction motor, Continuous Duty as per IEC Standards operating at 510 kW at a voltage of 6.6 kV at a current of 51.9 Amp respectively. The motor is coupled to Pump of make BPCL with rated capacity of 500 m³/hr a head of 360M at an RPM of 2835.

All the three pumps are connected in series and two Pumps will be running and one is standby when the line is operating at full capacity.

Diesel Unloading Pump

One no. diesel unloading pump having 2 KL/Hr capacity supplied by M/s Ingersoll Rand India Ltd. New Delhi has been installed to facilities unloading of diesel from the tankers to the fuel oil tank.

Fire Fighting Pumps

One no engine driven fire fighting pump having capacity 360 KL/hr was supplied by M/s Mother & Platt. India Ltd of Make Cummins rated RPM-2100 and rated BHP-188. One nos. motor driven pumping units of the capacity 360 KL/Hr, supplied by M/s Flow more Pvt, Ltd has been installed at the station, Its run by and ABB make motor of rating 150 KW and a full load current of 250 Amp

SMPL unit consists of M/s. Kirloskar make engine 4 cylinder 115 HP rated RPM -1500 RPM. The engine driven unit is connected to M/s. Fairbank Morse make pumps of capacity 76.7 HP of Flow rate -170 Kl/hr and a head of 100 meters. The motor is M/s. Kirloskar Electrical make of 70 KW and rated current of 70 Amps connected to M/s. Worthington Pump make Vertical turbine type pump of RPM 1470 and flow of 170 kl/hr and rated power of 60 kW.



WATER CURTAIN FORMATION FOR FIRE PROTECTION



FIRE WATER TANKS

JOCKEY PUMP

Two no. Jockey pump of 10 KL/Hr capacity supplied by M/s Flow more Pvt. Ltd. has been installed at the station.

COMPRESSOR SYSTEM

2 nos. of motor Driven Compressor & 1 No. Of engine Driven Compressor connected to a common air header are installed at Pump station to meet the starting air requirements of the Mainline Engines & Fire-Fighting Engine besides meeting the requirements of Instrumentation air. The First outlet of common header is connected to 2 air vessels of capacity 1.5 cum which supplies air for starting fire fighting engine. The second outlet of the common header is connected to 2 other air receivers of capacity 1.5 Cum Meant for instrument air & maintenance air in control building. The air from this receiver passes to the unit control panel and Pneumatic operated valves.

One no. engine driven air compressor of capacity 60 CUM/Hr, supplied by M/s Ingersoll Rand India Ltd. provided in the station and two nos. motor driven air compressors of 60 CUM/Hr capacity supplied by Siemens.

One no of M/s ELGI Equipment Ltd. of capacity 40 cum/Hr and two motor based compressor by M/s Kirloskar Electric Corporation.



ELECTRICAL SWITCH YARD



MOTORISED OPERATED VALVES