

(Enclosure to PRQD/001613/10-11, Dt.29-7-2010)

Specification for supply of Trailer mounted Diesel engine driven Fire fighting pump.

- 1. Scope:** The tenderer shall quote for supply of one number Trailer mounted diesel engine driven Fire fighting pump confirming to IS: 944 with latest amendments and as per the technical details given below.
- 2. Guarantee:** The supplied equipment with accessories shall be guaranteed for a minimum period of 12 months from the date of commissioning at HSL, against any defect noticed during the period shall be repaired/replaced free of cost within a reasonable period at HSL.
- 3. Drawings:** The tenderer shall supply five sets of operation & maintenance manuals including spare parts list along with the equipment. A detailed drawing with brochure of the offered model equipment shall be enclosed to the offer.
- 4. Test certificates:** Manufacturer's test certificates shall be supplied along with the equipment.
- 5. Technical details:**
 - 5.1** The trailer mounted diesel engine driven Fire fighting pump equipment shall confirm to IS: 944 with latest amendments if any. The Engine shall be of 4 cylinders, water cooled I.C. diesel engine of reputed make with alternator, Starter motor and capable of developing 55 HP at 2400 RPM.
 - 5.2** The pump shall be of single stage centrifugal type coupled with diesel driven engine with a flexible coupling.
 - 5.3** The pump shall have one male round threaded 4" (100 mm) for suction inlet and two 2½" (63 mm) instantaneous female controlled for delivery outlets.
 - 5.4** The pump capacity shall not be less than 1800 LPM min. at 7 Kgf./sq.cm. at 27° C and 760 mm Hg atmospheric pressure conditions.
 - 5.5** The pump casing shall be made of leaded tin bronze and a drain plug shall be provided at the bottom.
 - 5.6** The impeller shall be of leaded tin bronze mounted on a stainless steel shaft and shall run on two heavy duty ball bearings continuously lubricated in an oil bath. The impeller shall be dynamically balanced and leaded tin bronze renewable rings shall be provided at suction and drive side of impeller.
 - 5.7** Pump shaft seals shall be affected by a carbon face self adjustable type mechanical seal. The supplier shall provide one number suction 100 mm and two numbers 63 mm dia. Delivery valves.
 - 5.8** Pump primer shall be of automatic ring type capable to lift water from 7 meters of depth in less than 25 seconds.
 - 5.9** The cooling system shall be of high efficiency type heat exchanger for proper cooling.
 - 5.10** The engine shall be of four cylinder high speed diesel engine with matching characteristics of vertical type totally enclosed and water cooled type.
 - 5.11** The trailer shall be fabricated out of hot rolled M.S. section such as channels, angles, plates by metal arc welding suitably reinforced pressure points. The trailer shall be incorporated two semi elliptical springs, shock absorbers, and axle and cross country type pneumatic tyres of 6.00 X 16 size ply.

- 5.12** The engine fuel tank capacity shall be suitably designed to run the engine continuously for 5½ hours, with out re-filling.
- 5.13** The trailer pump shall have two jack legs in the rear and one in the front capable of being lowered in the position and adequately secured to provide a suitable base for the unit, when pumping or standing unattached.

6. Control panel:

The control panel shall be located in a suitable position for easy operation and shall consist starter switch (Key type), Throttle control, Ampere meter, Fuel gauge, Engine temperature gauge, Control panel light switch, Spot light switch, Engine stop switch etc.

7. General:

- 7.1** The trailer shall be arranged with tow bar to couple it with any motor vehicle, and shall be suitable to pull manually for a short distance.
- 7.2** The trailer shall be fitted with jacks and parking break.
- 7.3** The engine and pump shall be mounted on anti vibration mountings.
- 7.4** The engine shall be fitted with self starter motor, alternator for battery charging while engine running.
- 7.5** Suitable capacity battery of reputed make shall be provided on the trailer at convenient safe place.
- 7.6** An adjustable type spot light shall be provided on the trailer at convenient safe place for easy operation.
- 7.7** Rear light for number/caution board shall be provided.
- 7.8** The trailer engine shall be covered with sheet metal canopy and side opening covers with locking arrangements shall be made for inspection/servicing the engine.
- 7.9** The trailer tyres shall be pneumatic tyres of reputed make.
- 7.10** Essential tool kit shall be supplied along with the equipment.
- 7.11** The unit shall be painted in Fire red color.
- 7.12** Required spares shall be detailed in the offer, their price shall be quoted separately item wise in the price bid.
- 7.13** The tenderer shall give earlier supplied details of the offered model trailer pumps, with their performance reports from the users.