

SUPPLY AND DELIVERY OF A DIESEL ENGINE DRIVEN FOAM PUMP PACKAGE

PURPOSE

The purpose of this scope is for a supplier to procure a replacement diesel engine driven foam pump for Saldanha Terminal firefighting foam system.

The supplier shall supply a complete engine and pump package that equals or exceeds the performance, reliability, functionality and operational capability of the existing installation.

EXISTING INSTALLATION

Diesel Engine Make: Cummins Model: B3.3/C65 Serial Number: B33-68091644 Rated Power Output: 45 kW Operating Speed: 2450 RPM Starting Arrangement: Hydraulic Start	Foam Pump Make: Salweir Model: HE 50/9 Stage SDC Type: Horizontal Multistage Foam Pump Operating Speed: 2100 RPM Foam Concentrate Type: FP70 Foam Concentrate Proportioning Rate: 6% Existing Suction Arrangement 3" Class 150 suction connection. 3" Kite ball valve. 3" Y-type strainer fitted with a perforated strainer basket. Existing Discharge Arrangement 2" Class 150 discharge connection. 2" Kite ball valve. Non-return valve arrangement.
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SCOPE OF SUPPLY

The supplier shall select, supply and deliver a complete replacement diesel engine-driven foam pump package, including all components necessary for a complete operational unit.

1 x Diesel Engine

The engine shall:

Be new and unused.

Deliver a minimum continuous output of 45 kW.

Be suitable for driving the specified foam pump.

Be compatible with the existing hydraulic starting arrangement or be supplied with an equivalent approved non-electric starting arrangement suitable for firefighting service.

Be supplied complete with radiator, cooling fan, fuel tank, engine-mounted accessories and protection devices.

Be compatible with the existing exhaust system. Any adaptor plates, flanges or transition pieces required to connect to the existing exhaust system shall be included.

1 x Foam Pump

The pump shall:

Be new and unused.

Be a horizontal multistage pump suitable for firefighting foam concentrate service.

Be compatible with FP70 foam concentrate at a 6% proportioning rate.

Equal or exceed the hydraulic performance and operational capability of the existing foam pump installation.

Complete with bearings, mechanical seals, impellers and all internal components required for normal operation.

Base Frame

The engine and pump shall:

Be supplied mounted on a common fabricated steel base frame.

Be factory aligned prior to delivery.

Be fitted with lifting points for handling and installation.

Be suitable for installation onto the existing concrete foundation.

Should the dimensions of the proposed package exceed the existing concrete foundation, the supplier shall be responsible for the design, supply and installation of any required extensions, supports or modifications necessary to accommodate the equipment.

Coupling Assembly

The package shall include:

Flexible coupling.

Coupling guard.

Factory alignment between the engine and pump.

Instrumentation and Protection

The engine shall be supplied complete with:

Engine hour meter.

Oil pressure indication.

Coolant temperature indication.

Start pressure indication.

Low oil pressure shutdown.

High engine temperature shutdown.

Overspeed protection.

Emergency stop

REQUIREMENTS

- The assembled unit must be compatible with the existing 3" y-type with perforated strain Class 150 suction arrangement (suction) and the existing 2" Class 150 discharge arrangement. (Otherwise adjustments would need to be made)
- Suitable for pumping FP70 foam concentrate at a 6% proportioning rate.
- Suitable for operation within a coastal marine environment.

The installation is located within a Zone 1 hazardous area. All electrical, instrumentation and control equipment supplied as part of the package shall be certified for use in a Zone 1 hazardous area and comply with the applicable IECEx, ATEX or equivalent recognised Ex certification requirements. Copies of all Ex certificates shall be submitted with the technical proposal.

DOCUMENTATION

The supplier shall provide the following documentation with the equipment:

General Arrangement (GA) drawing.

Engine datasheet.

Pump datasheet.

Pump performance curves.

Operation and Maintenance Manual.

Spare Parts Manual.

Recommended critical spare parts list.

Ex certification for all applicable electrical and instrumentation equipment.

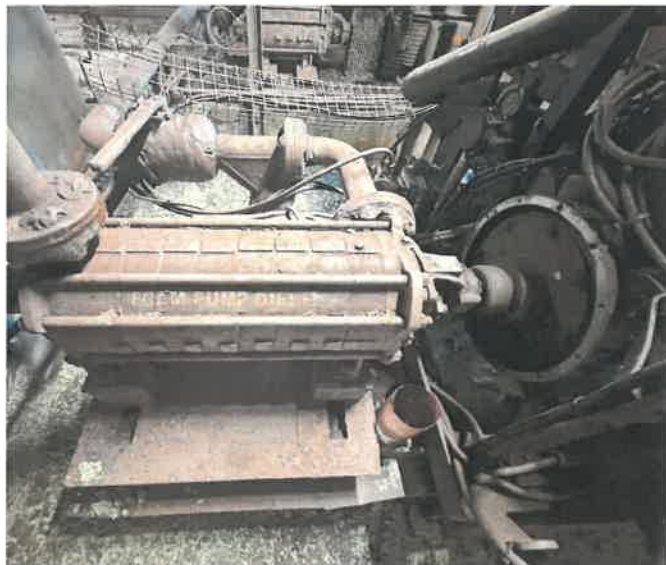
Warranty documentation.

WARRANTY

The complete engine and pump package shall be supplied with a minimum warranty period of twelve (12) months from commissioning.

DELIVERY

The complete assembled diesel engine driven foam pump package shall be delivered to SANPC Saldanha Oil Jetty and installed at caisson 15.



NB: Site visit compulsory

PPE for site visit: Helmets, safety boots, Diesel LDV bakkie, flame retardant PPE

NB: All costs to be included in quotation