



OCS owned feed pump (8V92 engine driven) units are skid mounted pumping unit that can be used for low pressure feed water. Main type of operations performed using these units are pipeline pre-commissioning, Pipeline post burial (Trenching) and Pile remedial operations using Jet/Airlift techniques. Two of the skids have been designed for low pressure/ high volume fluid ends (SLOW350-380B) to provide feed water to OCS high pressure / volume 4 stage pressure pumps. These are of course depends on the type of services required for.

The power train used for this pump skids is a Detroit 8V92 diesel driven engine. The Detroit Diesel Series 92 is a two-stroke cycle, V-block diesel engine, produced with versions ranging from six to 16 cylinders. 8V92 engine is an 8 cylinder engine with 92 cubic inches volume per cylinder producing 285BHP (212.5kW) @1200 RPM and up to 450BHP (336kW)@2100RPM. In order to prevent overstressing the engine is usually run at approximately 1600RPM. The fuel consumption rate varies from 14 USG/hr @1200 RPM to 19 USG/hr @ 1800 RPM

The performance characteristics for the 8V92 driven fluid ends employed by OCS are as follows:

| Feed pump specifications | |
|---------------------------------|-------------------------------------|
| Fluid End | SLOW350-3808 |
| Flow Rating | 1590m ³ /Hr (7000 USgpm) |
| Suction Inlet | 16", #150 |
| Discharge | 12", #150 |
| Power Train | GM 8V-92TA 2 Stroke Diesel Engine |
| Power Output bhp (kW) | 450 (336) @ 2100rpm |
| Peak Torque -lb ft (N.m) | 1250 (1695) @1300rpm |
| Skid Framing | 3800 x 1500 x 2420mm x 5MT |
| No Of Units | 2 |

The pumps skids of the units have been designed to comply with DNV criteria (DNV 2.7-3) for offshore portable equipment lifting operations

OCS has Equipment passports for individual Engine, Skids and Fluid Ends which must be reviewed before each project to assess the status. The equipment passport gives the working history, maintenance and certification history for Engines, Fluid Ends and Pump skids.

It is important to regularly review the list of critical spare parts of the equipment before each project.

Where failures occur during operations Equipment bulletins will be issued to document the problem and the remediation solutions applied. The equipment bulletin will be circulated to all field engineers to be informed about the possible failure that can occur during the operation and thereby avoid future failure.

This equipment file remains a live document and will be constantly updated by the equipment department.

水泵检测数据表 水泵编号Number:
(PUMP INSPECTION REPORT)

| | | | | | |
|----------------|-----------------------------------|-----------------------------------|----------------------------|--------------------|-------------------------------------|
| 水泵型号type pump | SLOW350-380B | 流量 (m ³ /h) Capacity | 1590 | 功率 (kW) Power | 174 |
| 泵效率Pump Eff(%) | 75.0% | 扬程 (m) Head | 25 | 转速 (r/min) Speed | 1800 |
| 序号NO | 流量 Capacity (m ³ /h) | 扬程 (m) Head | 轴功率 Driver shaft power(kw) | 泵效 Pump Eff(%) | 换算至额定转速 transfer to rating speed |
| 1 | 0.0 | 29.91 | 100.48 | 0.0 | |
| 2 | 792.5 | 28.46 | 114.24 | 53.8 | |
| 3 | 1345.6 | 26.81 | 135.05 | 72.7 | |
| 4 | 1592.2 | 25.22 | 145.58 | 75.1 | |
| 5 | 1905.2 | 22.05 | 158.28 | 72.3 | |

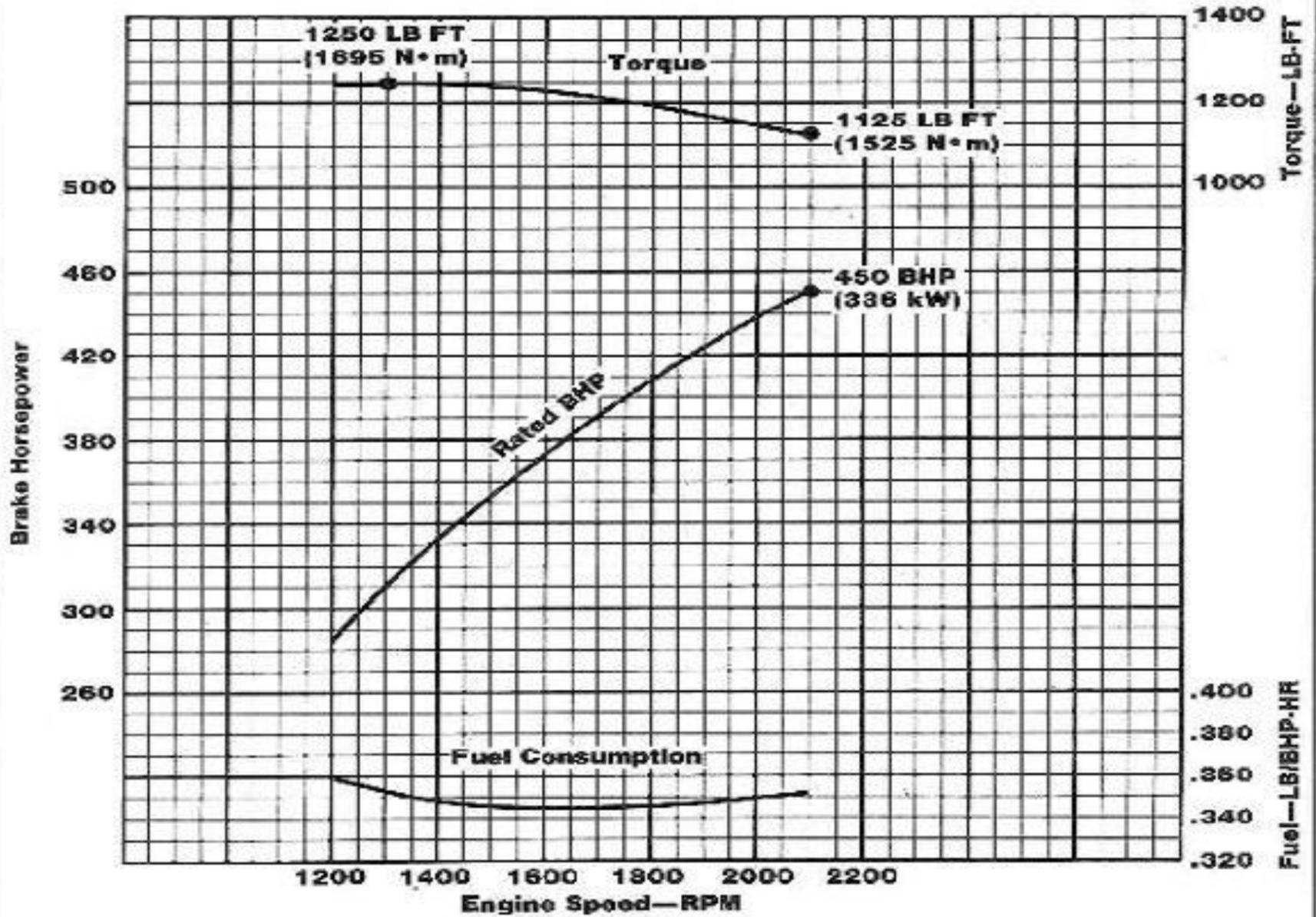


结论: 合格 **测试: 胡学刚** **日期: 2010年1月**
Conclusion: conformity testing: HXG date: Jan / 10



8V-92TA
Industrial
Rated BHP
450 BHP @ 2100 RPM
1250 LB-FT @ 1300 RPM
Injector: 9G85
Turbocharger: TV8511 (1.39 A/R)

ENGINE PERFORMANCE CURVE



Air Intake Restriction - in. H₂O (kPa) . . 10 (2.5) **Exhaust Back Pressure - in. H₂O (kPa) . . 15 (3.7)**

■ Power output guaranteed within 5% of SAE J1349 conditions:
 77°F (25°C) air inlet temperature; 29.92 in. Hg (99kPa) dry barometer;
 100°F (38°C) fuel inlet temperature (JIS specific gravity at 50°F).

■ Conversion factors: Power: kW = chp x 0.746
 Fuel: kg/kwhr = bhp/hr x 0.068
 Torque: Nm = lb-ft x 1.356

■ Values derived are from currently available data and are subject to change without notice.

Certified by:
B. S. ...

Curve No.
E4-8083-32-8
Date: 7-25-84
Rev./Date:
Sht. 1 of 2