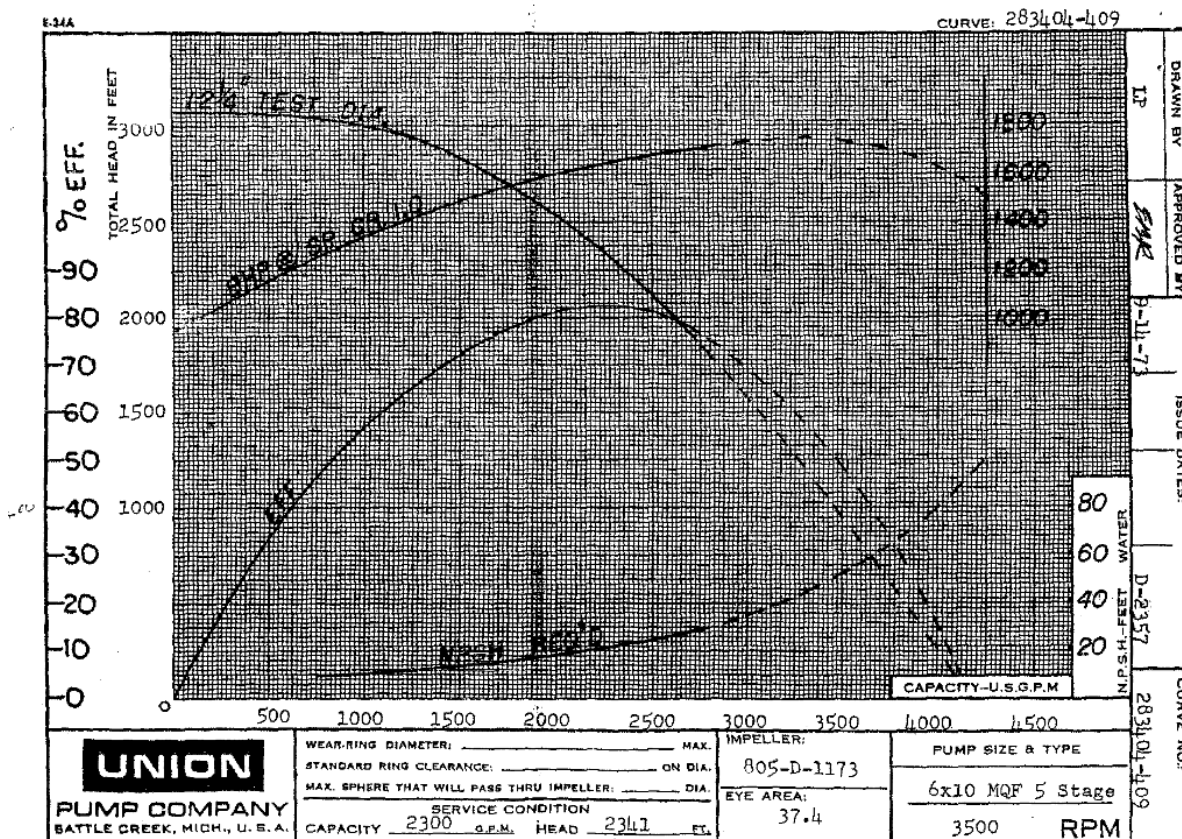


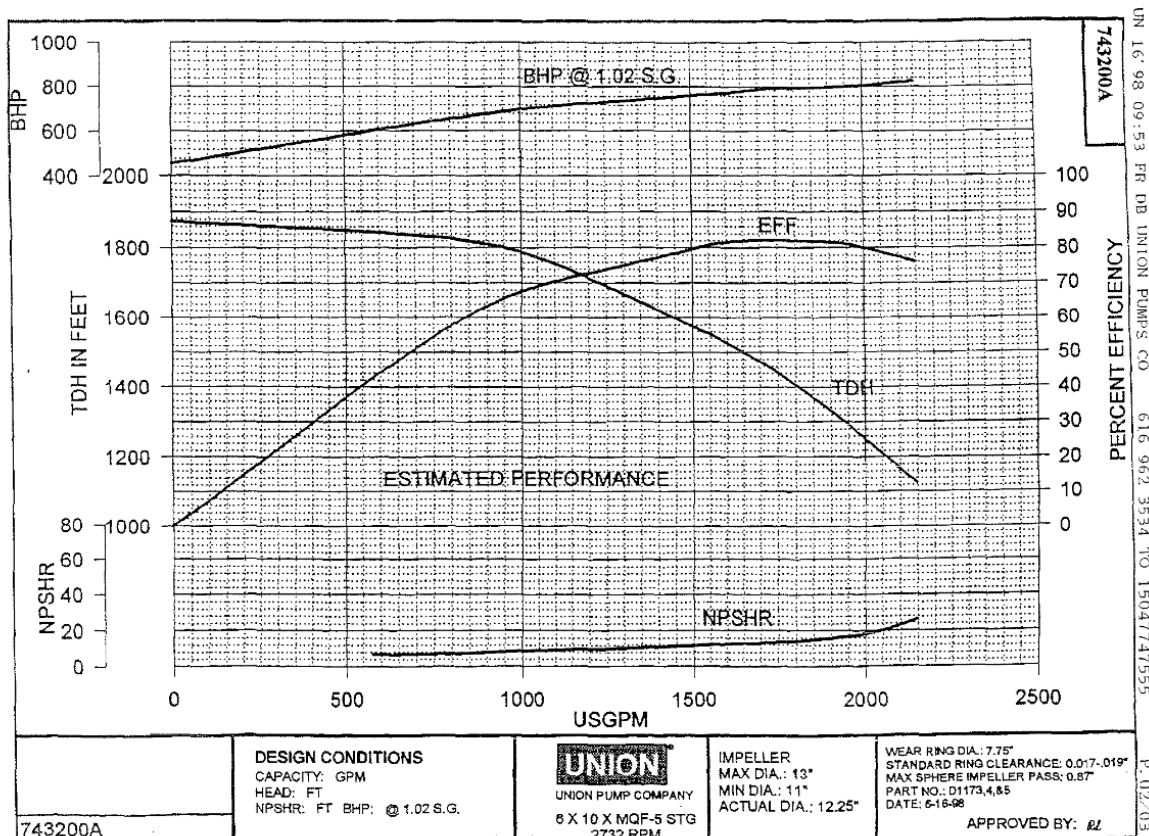
Union Pump Specifications

Make	-	Union Pump Company
Model	-	MFQ
Size & Type	-	6x 10 MQF 5 stages
Suction Flange	-	10" x 900#
Discharge Flange	-	6" x 900#
Nominal speed	-	3500 rpm
Lubrication	-	Forced or Oil ring splash
Best Efficiency Point (BEP)	-	2300 gpm @ 2342 Ft @ 3500 rpm with 5 stages.



Pump Operating speed - 2732 rpm

Operating Efficiency - 1950gpm @ 1350Ft @ 2732 rpm with 5 stages



Pump Operating Curve @ 2732 RPM

High Pressure 4 Stage / High flow Slow Pump Skids with V12/V16 Engine Power Train

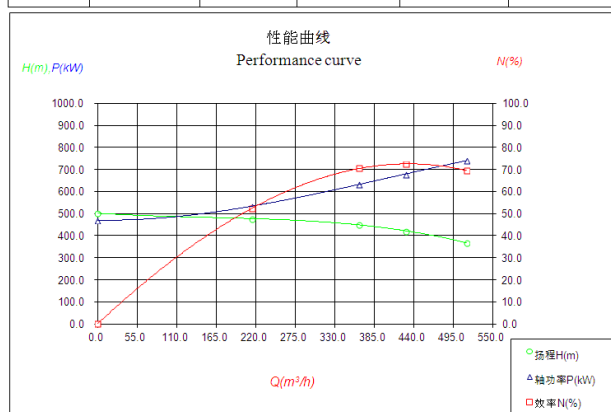
High Pressure 4 stage (250SLD450-60x4) centrifugal pumps are used for providing high pressure water required for jetting and pre-commissioning activities. / High Flow – single stage (Slow 250-550) are used as Feed pumps to supply water to high pressure pumps. Pumps are driven by General Motors 12V149 diesel Engine. V16 Diesel Engine can be used to power the pumps based on future project requirements.

Skid design will be carried out considering bigger size V16 engine compatibility for future use, so effectively any combination of V12/V16 drive train & 4 Stage/Slow pump can be accommodated in skid frame structure.

4 stage Pump Curve & 12V149 Engine performance curve are as below:

水泵检测数据表
(PUMP INSPECTION REPORT)

水泵型号type pump	250SLD450-60*4	流量 (m³/h) Capacity	429	功率 (kW) Power	843
泵效率Pump Eff(%)	72.0%	扬程 (m) Head	420	转速 (r/min) Speed	1900
序号NO	流量 Capacity (m³/h)	扬程 Head (m)	轴功率 Driver shaft power(kw)	泵效 Pump Eff(%)	换算至额定转速 transfer to rating speed
1	0.00	501.95	470.07	0.0	
2	214.44	477.06	533.17	52.3	
3	363.83	449.74	631.76	70.5	
4	429.29	420.91	679.87	72.4	
5	513.83	367.60	739.81	69.5	



结论: 合格
Conclusion: conformity

测试: 胡学刚
testing: HXG

日期: 2010年1月
date: Jan / 10

DETROIT DIESEL
CORPORATION

12V-149Ti
Industrial
Rated BHP
1130 BHP @ 1900 RPM
3178 LB-FT @ 1400 RPM
Injector: 150
Turbocharger: TV7111 (1.08 A/R)

