ENGINE PERFORMANCE REPORT

APL ANTWERP

Engine : Main Engine

Performance Date : Jul 3rd 2023

Evaluation Report

Evaluation Report - Main Report

Parameter	Alerts	Comments / Recommendation
Pscav	Low	1. Check the turbocharger casings assembly. 2. Clean the turbocharger filter. 3. Chemical cleaning required for Air coolers. 4. Check the compressor axial clearance because during overhauling the bearing assembly are not correct.
Tscav	Normal	
Pmax	Very High	1. Exhaust valve opening too late.i.e incorrect exhaust valve timing/Check the Exhaust valve opening timing. 2. Overload of the engine/Check the load of the engine.
Pcomp	Very Low	1. Piston rings (leaking)/Replace the Piston Rings. 2. Piston crown (Burnt)/Check the piston crown by means of the template. 3. Cylinder liner (Worn)/Check the liner by means of the measuring tool. 4. Leaking Exhaust Valve/ Replace or overhaul the valve. 5. Exhaust valve (Timing) may be wrong/Check the valve Timing. 6. Piston rod and stuffing box (leaking)/ Overhaul the stuffing box.
Exhaust Temperature	Very Low	1. Falling scavenge air temperature./Check the sea water system thermostat valve is functioning correctly. 2. Air/gas/steam in fuel system./Check the suction side of the supply pump for air leakage, Check the fuel oil supply pump and circulating pump pressures, Check the function of the de-aerating valve,Check the fuel oil preheater for steam leakage.
Exhaust Gas Temperature T/C Inlet	Normal	
Exhaust Gas Temperature T/C Outlet	Normal	
SFOC	Normal	
TC Inlet-TC Outlet	Very Low	
Torque Rich Index	Within Range	

Evaluation Report - Unit wise Report

Parameter	Alerts	Comments / Recommendation

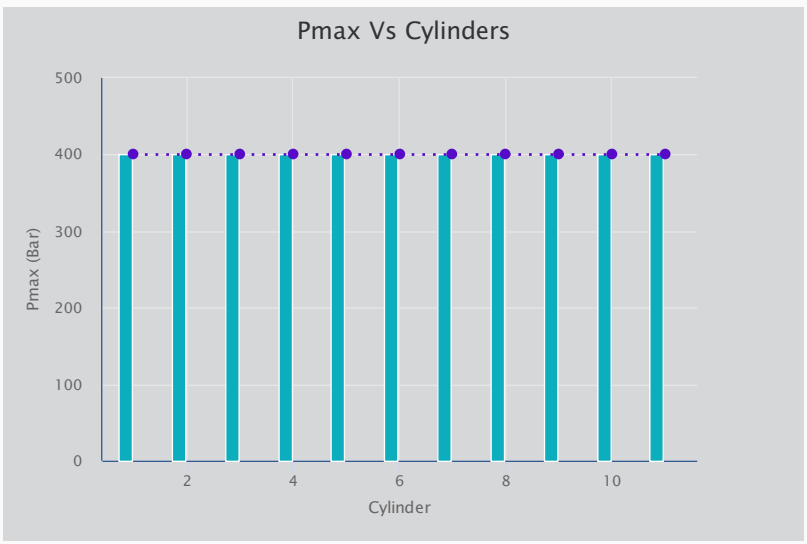
No records found

Performance Chart

Group
All Group Selected

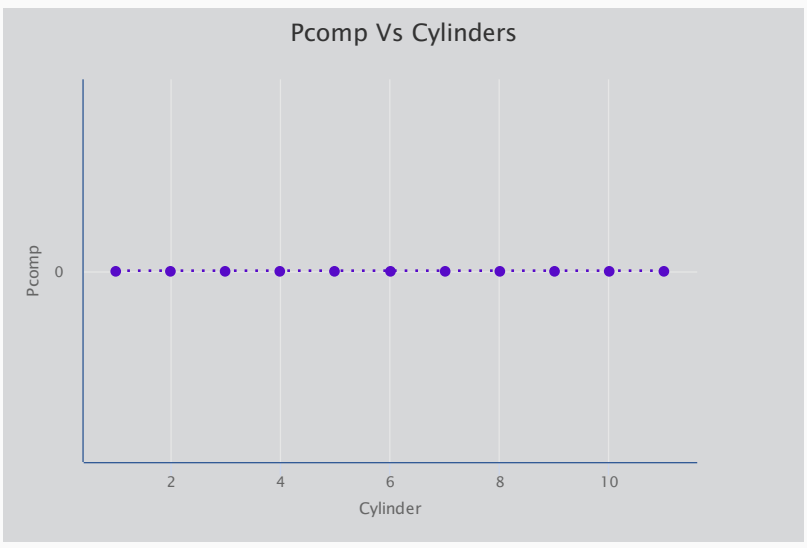
Chart
All Chart Selected

Pmax Vs Cylinders



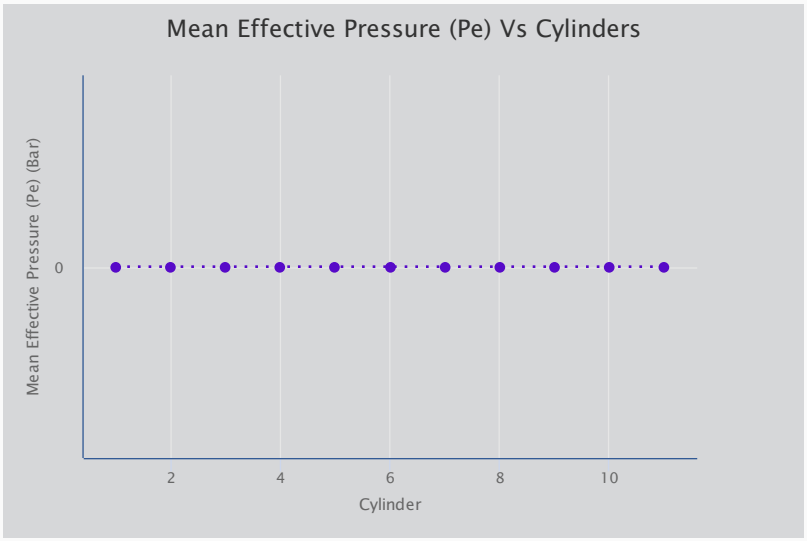
Cylinder	Pmax (Bar)		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1	400	400	0
2	400	400	0
3	400	400	0
4	400	400	0
5	400	400	0
6	400	400	0
7	400	400	0
8	400	400	0

Pcomp Vs Cylinders



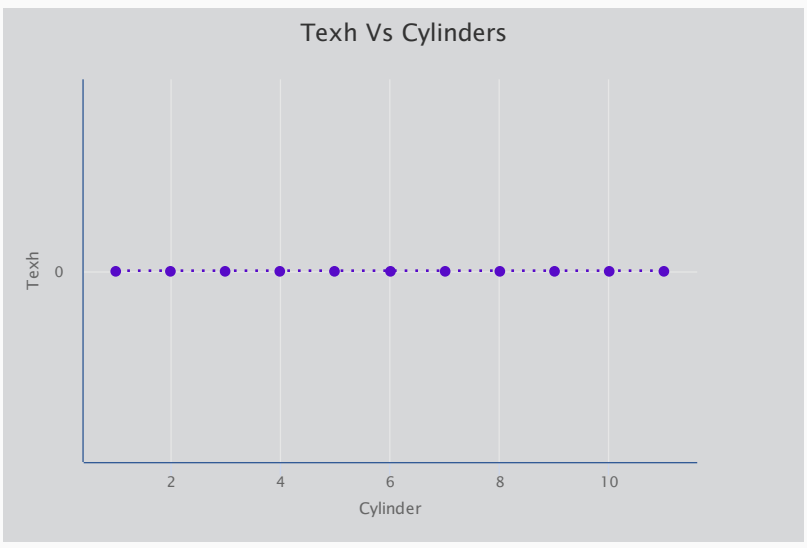
Cylinder	Pcomp		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1		0	0
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0

Mean Effective Pressure (Pe) Vs Cylinders



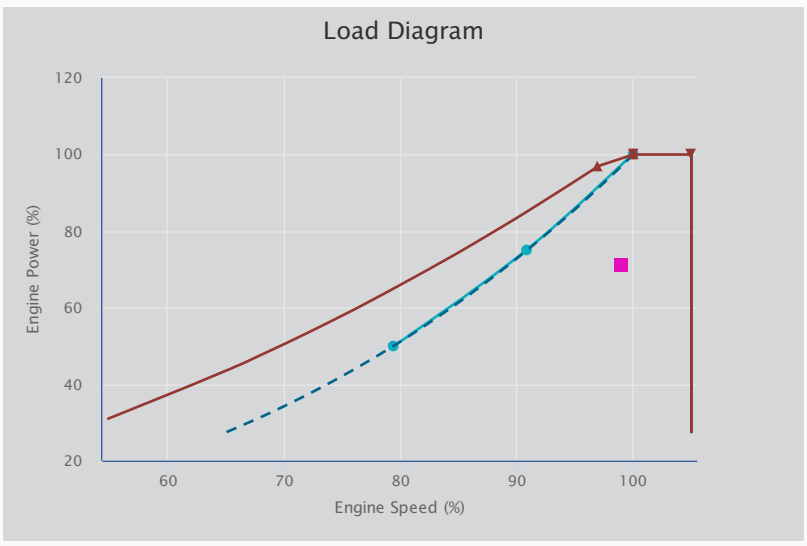
Cylinder	Mean Effective Pressure (Pe) (Bar)		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1		0	0
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0

Texh Vs Cylinders



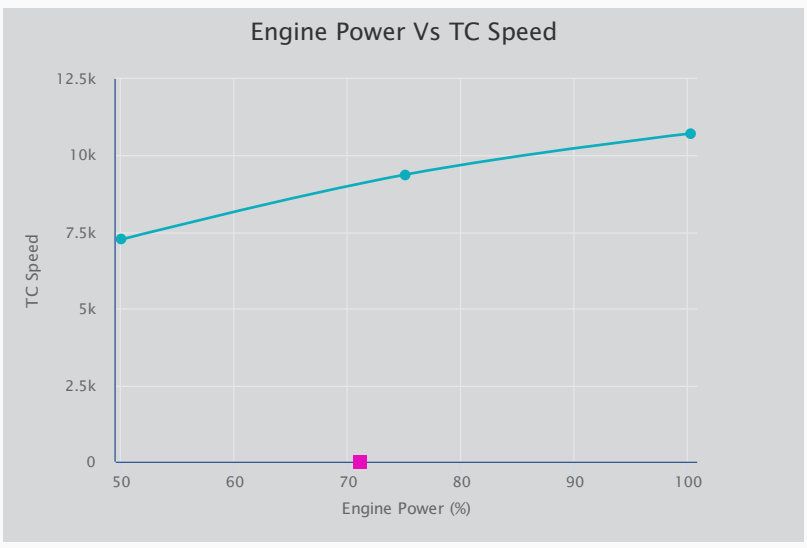
Cylinder	Texh		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1		0	0
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0

Load Diagram



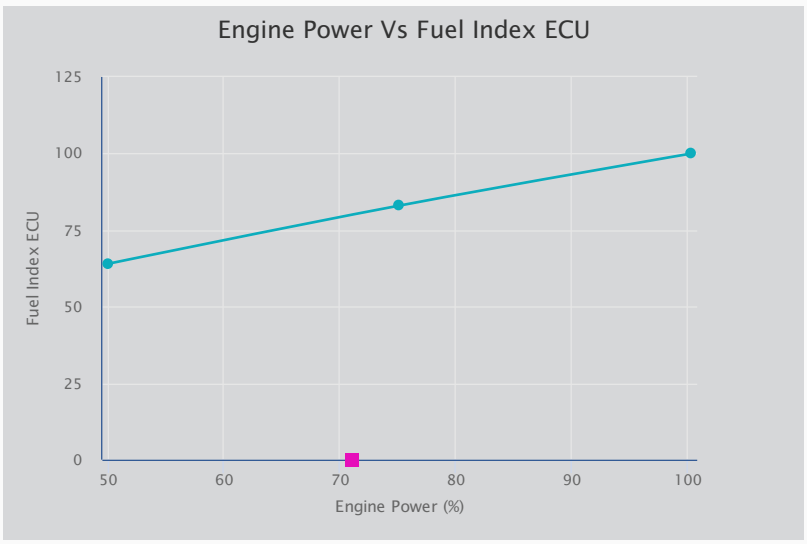
Performance Date	Engine		
	Speed	Speed (%)	Power (%)
Shop Trial			
15-Oct-2012	77	79.38	49.98
15-Oct-2012	88.1	90.82	75.09
15-Oct-2012	97	100	100.27
Performance Value			
03-Jul-2023	96	98.97	71.09

Engine Power Vs TC Speed



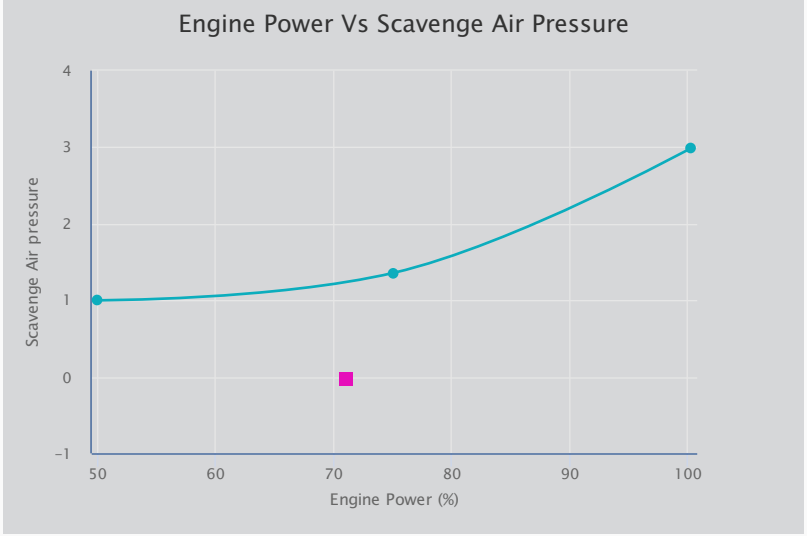
Performance Date	Engine Power (%)	TC Speed	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	7200	7258.78
15-Oct-2012	75.09	9350	9382.43
15-Oct-2012	100.27	10833.33	10724.03
Performance Value			
03-Jul-2023	71.09	0	0

Engine Power Vs Fuel Index ECU



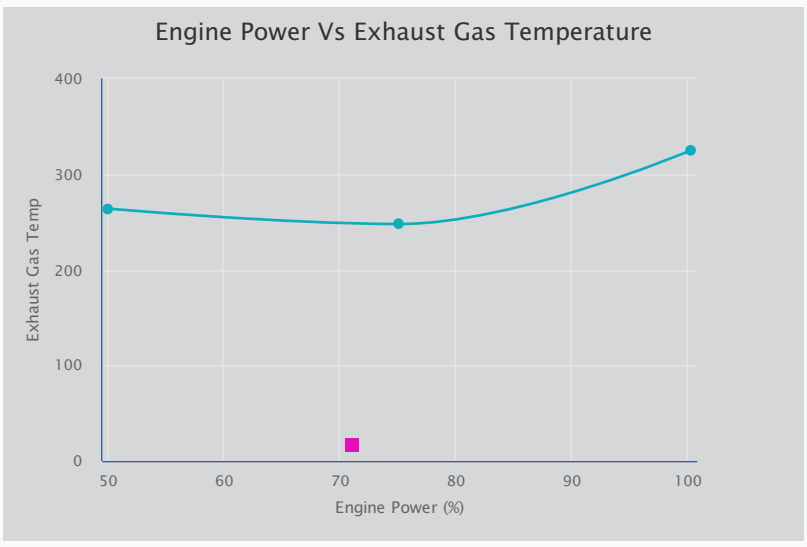
Performance Date	Engine Power (%)	Fuel Index ECU	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	64	0
15-Oct-2012	75.09	83	0
15-Oct-2012	100.27	100	0
Performance Value			
03-Jul-2023	71.09	0	0

Engine Power Vs Scavenge Air Pressure



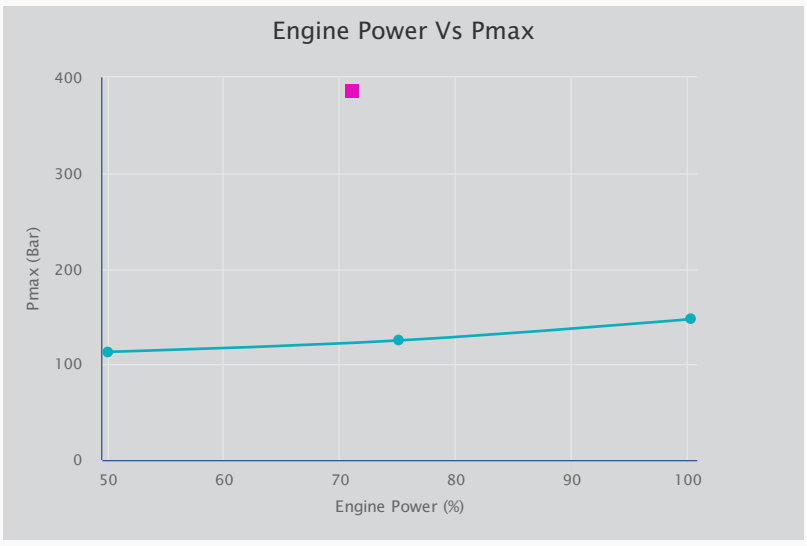
Performance Date	Engine Power (%)	Scavenge Air pressure	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	1.04	1
15-Oct-2012	75.09	2.1	1.36
15-Oct-2012	100.27	3.1	2.99
Performance Value			
03-Jul-2023	71.09	0	-0.02

Engine Power Vs Exhaust Gas Temperature



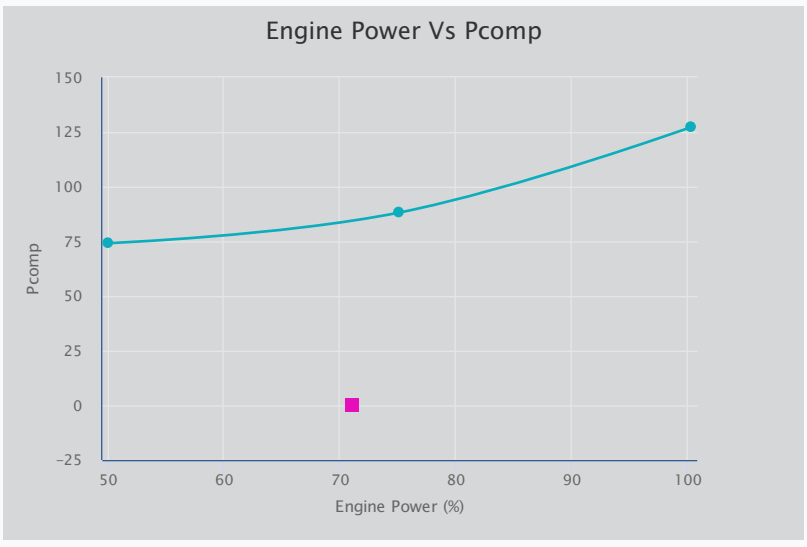
Performance Date	Engine Power (%)	Exhaust Gas Temp	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	272.18	263.85
15-Oct-2012	75.09	289.73	247.74
15-Oct-2012	100.27	338.91	324.95
Performance Value			
03-Jul-2023	71.09	0	16.83

Engine Power Vs Pmax



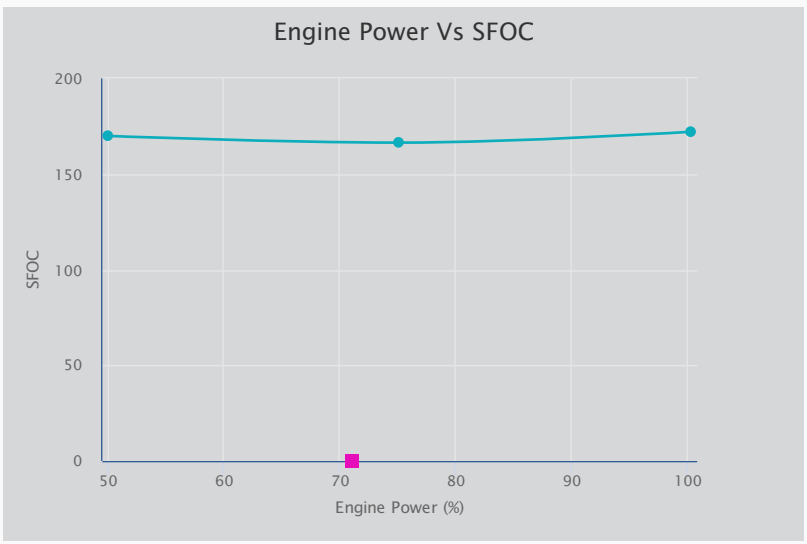
Performance Date	Engine Power (%)	Pmax (Bar)	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	114.18	113.11
15-Oct-2012	75.09	137.27	125.03
15-Oct-2012	100.27	148.73	147.32
Performance Value			
03-Jul-2023	71.09	400	386.09

Engine Power Vs Pcomp



Performance Date	Engine Power (%)	Pcomp	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	75.36	74.16
15-Oct-2012	75.09	105.91	88.18
15-Oct-2012	100.27	129.64	127.28
Performance Value			
03-Jul-2023	71.09	0	-0.04

Engine Power Vs SFOC



Performance Date	Engine Power (%)	SFOC	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	169.9	0
15-Oct-2012	75.09	166.4	0
15-Oct-2012	100.27	172.1	0
Performance Value			
03-Jul-2023	71.09	0	0

Performance Data

General Parameters

Vessel Name
APL Antwerp

Engine

Main Engine

Maker

Model Type

Performance Date

Hours From

Hours To

Duration (Hrs)

Voyage Parameters

Loaded Ballast

Total Cargo on Board

Voyage Number

Voyage From

Voyage To

Trim

M

Draft Fore

Draft Aft

Draft Midship

Weather

Wind Direct

Wind Force

Wave Height

State of Sea

Log Knots

Slip %

Sea Margin

Speed by O.G

Speed by Pitch

Displacement

Engine Room Temperature

Sea Water Temperature

Barometric Press at Engine ...

Engine Parameters - General Parameters

Total Running Hour

	UOM	REF	ISO	MEAS
PScav		1.30	-0.02	
TScav				
Mean Effective Pressure	Bar			
Econmiser Pressure Drop				

Engine Parameters - Engine Power & Engine Speed

	UOM	By WAM	By TCRpm	By Fuel Index	By Pscav	By MEP
Effective Power	KW					

Select Method
By MEP

Engine Rpm

Load
%

Auto Tunning

Running Mode

Governor Mode

VIT + FQS

Engine Parameters - Fuel injection Parameters

	UOM	REF	ISO	AVG	Cyl 1	Cyl 2	Cyl 3	Cyl 4	Cyl 5	Cyl 6	Cyl 7	Cyl 8	Cyl 9	C
Load Indicator														
Fuel Index ECU (%)														
Pump Mark / Fuel index														
Pump Mark / Fuel index Deviation					0	0	0	0	0	0	0	0	0	
VIT Index														
Fuel Offset High load														
Fuel Offset Low load														

Engine Parameters - Engine Limit Parameters

	UOM	REF	ISO	AVG	Cyl 1	Cyl 2	Cyl 3	Cyl 4	Cyl 5	Cyl 6	Cyl 7	Cyl 8	Cyl 9	Cy
Pmax	Bar													
Pmax Deviation	Bar				0	0	0	0	0	0	0	0	0	
Pcomp														
Pcomp Deviation					0	0	0	0	0	0	0	0	0	
Indicated Pressure														
Indicated Pressure Deviation														
Indicated Power														
Exhaust Temperature														
Exhaust Temperature Deviation					0	0	0	0	0	0	0	0	0	
VIT Index														
Fw Inlet Temperature														
Fw Outlet Temperature														

P.C.O Outlet Temperature	
Stuffing Box Drain	
Mean Effective Pressure (Pe)	
Cyl.Oil Feed Amount (Unit wise)	
Fuel Offset High load	
Fuel Offset Low load	
Pmax Offset	
PComp / PScav Offset	
Exh.v/v open Offset	

Engine Parameters - Turbo Charger Parameters

	UOM	REF	ISO	AVG	TC 1	TC 2	TC 3
TC Serial Number							
Turbo Charger Cutoff							
Turbo Charger Rpm							
Exhaust Gas Temperature T/C Inlet							
Exhaust Gas Temperature T/C Outlet							
Air Temperature - T/C Suction Temperature							
Pressure Drop Across T/C							
LO Pressure T/C Inlet							
LO Temperature T/C Inlet							

Engine Parameters - Air Cooler Parameters

	UOM	REF	ISO	AVG	AC 1	AC 2	AC 3	AC 4	AC 5
AC Serial Number									
CW Temperature Air Cooler Inlet									
CW Temperature Air Cooler Outlet									
Pressure Drop Across Air Cooler									
Air Temperature Air Cooler Inlet									
Air Temperature Air Cooler Outlet									

Engine Parameters - Fo Parameters

FO Received At

FO Grade

FO LCV

FO Density @15 Deg C

FO Vis @50deg C

FO Mass

FO Sulphur

FO Consumption

SFOC remark

	UOM	REF	ISO	MEAS

SFOC				
FO Temperature				
FO Pressure				

Engine Parameters - Cylinder Lo Parameters

Cyl.Oil Feed Amount

Cyl.Oil maker/Type

Cyl.Lo Density @15 Deg C

Cyl oil Consumption

Cyl. Lo feed rate setting

Cyl. Lo Sulphur

ACC Factor

Mep% (Fuel Index)

rxxx (Total Inj - /min)

Specify Cly. Lo Consumption

	UOM	REF	ISO	MEAS
Specify Cylinder Lo Consumption				

Engine Parameters -System Lo Parameters

LO Pressure Engine Inlet

LO Temperature Engine Inlet

LO Temperature Engine Outlet

Camshaft LO Pressure

LO Temperature Camshaft Inlet

LO Temperature Camshaft O…

Thrust Bearing LO Temperature

Engine Parameters - Other Parameters

Variable Turbine Area, Actua…

%

Exhaust Bybass Value

(open/close/nothing)

Mitsubishi VTI

(open/close/nothing)

Aux.Blower

Valve Opening

%

Variable Valve

(open/close/nothing)

Engine Parameters - Emission Details

Carbon Dioxide Emission (To…

Sulphur Oxide Emission

Authorization

Performance Updated Date

Updated By (User)

Updated By (Rank)

Comments

Comments

File Bucket