

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

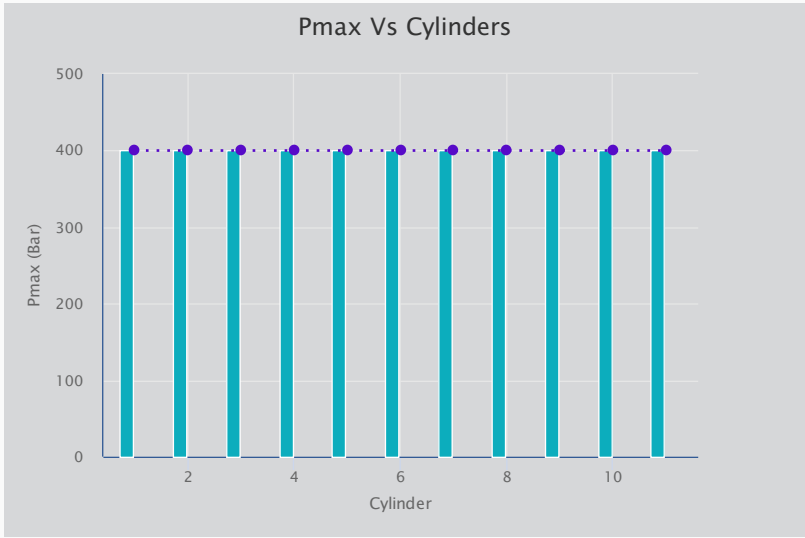
Group

All Group Selected

Chart

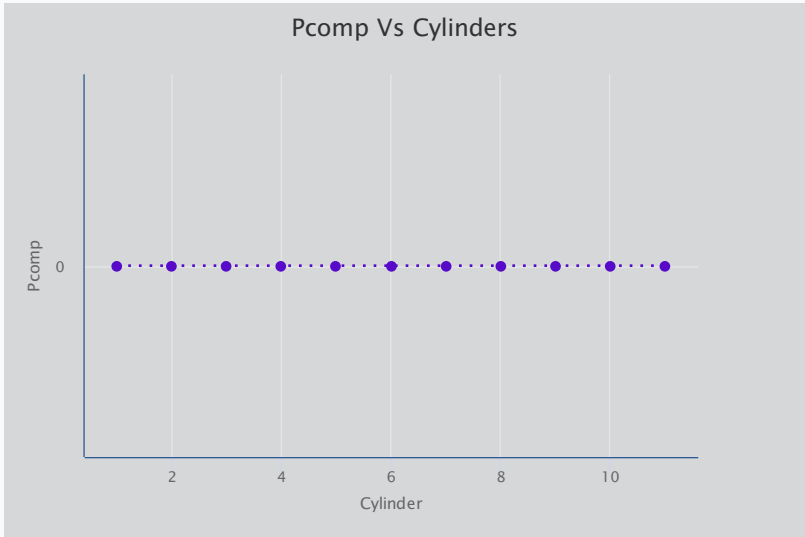
All Chart Selected

Pmax Vs Cylinders



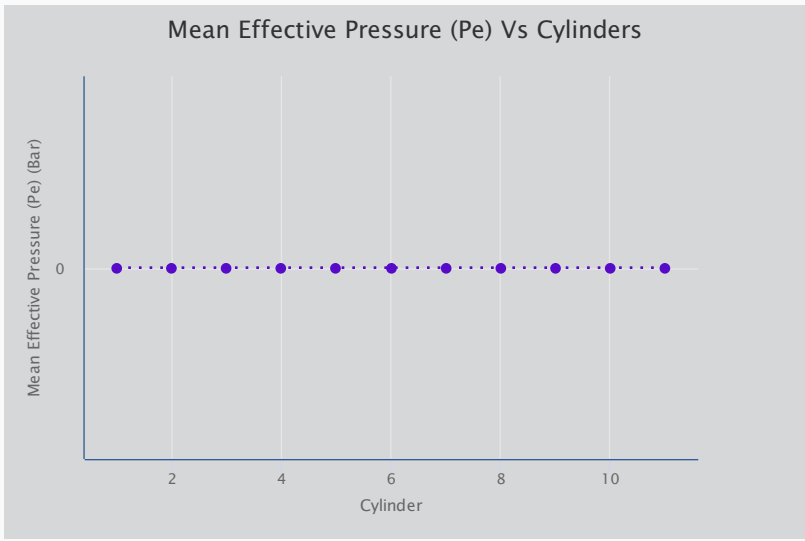
Cylinder	Pmax (Bar)		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1	400	400	0
2	400	400	0
3	400	400	0
4	400	400	0
5	400	400	0
6	400	400	0
7	400	400	0
8	400	400	0

Pcomp Vs Cylinders



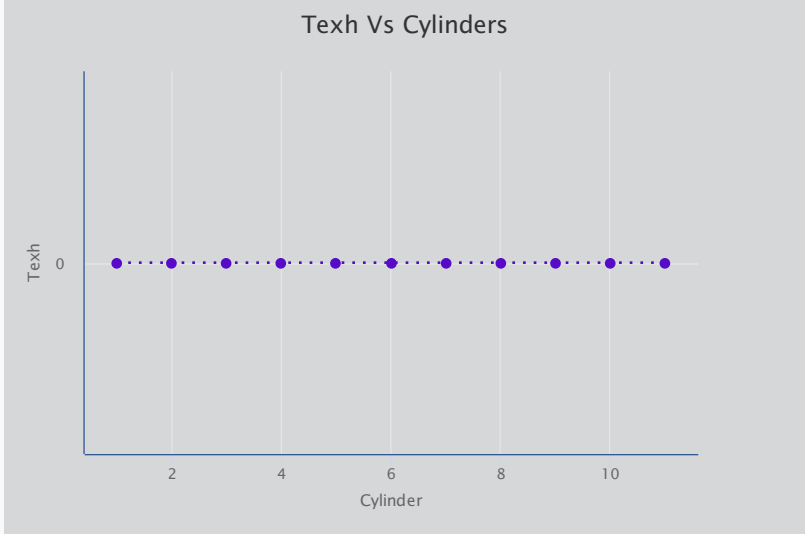
Cylinder	Pcomp		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1		0	0
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0

Mean Effective Pressure (Pe) Vs Cylinders



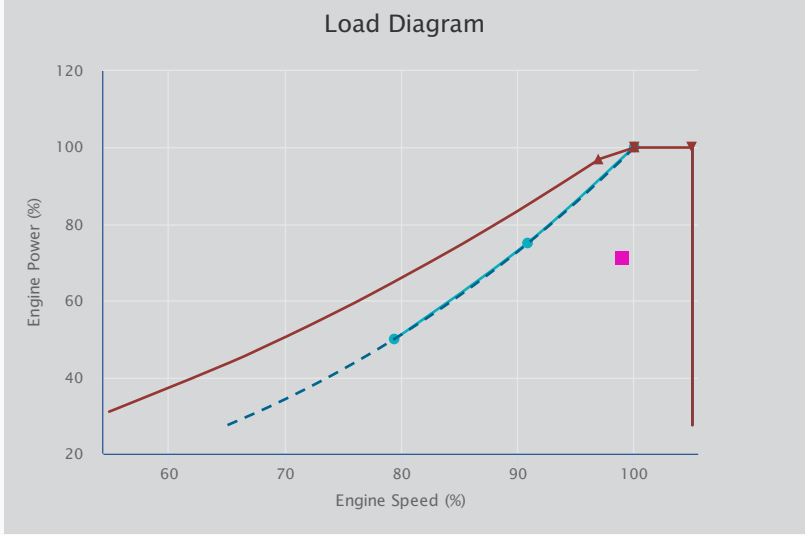
Cylinder	Mean Effective Pressure (Pe) (Bar)		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1		0	0
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0

Texh Vs Cylinders



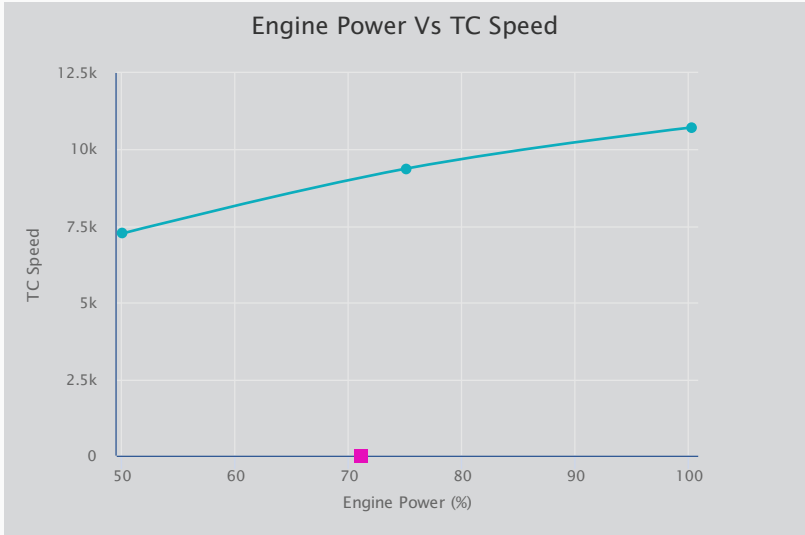
Cylinder	Texh		
	Measured	Average	Deviation
Performance Date - 03-Jul-2023			
1		0	0
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0

Load Diagram



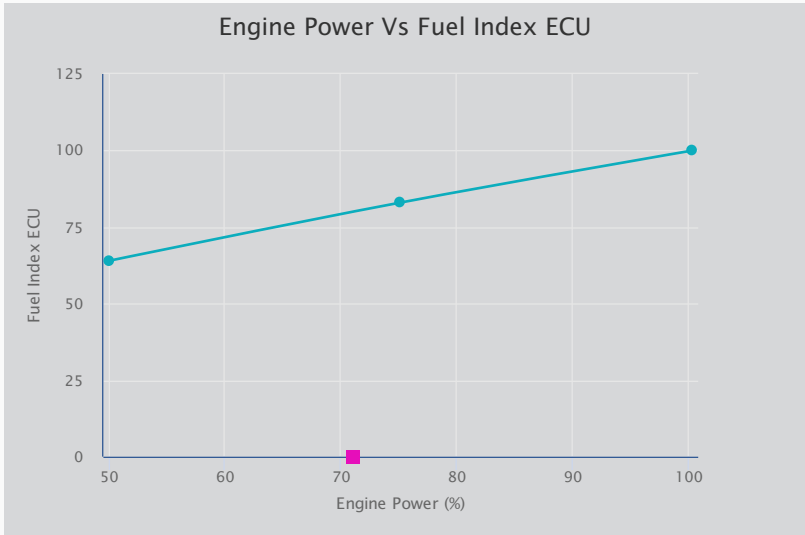
Performance Date	Engine		
	Speed	Speed (%)	Power (%)
Shop Trial			
15-Oct-2012	77	79.38	49.98
15-Oct-2012	88.1	90.82	75.09
15-Oct-2012	97	100	100.27
Performance Value			
<div></div> 03-Jul-2023	96	98.97	71.09

Engine Power Vs TC Speed



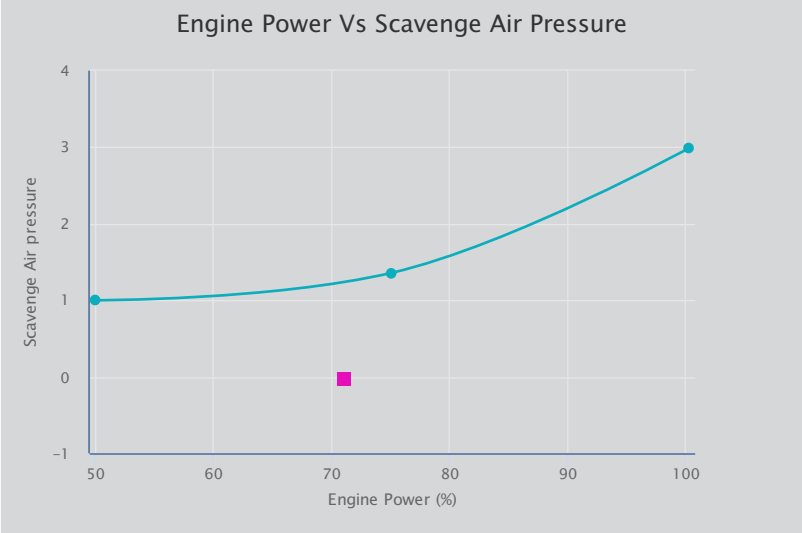
Performance Date	Engine Power (%)	TC Speed	
		Measured	ISO Corrected
Shop Trial			
15-Oct-2012	49.98	7200	7258.78
15-Oct-2012	75.09	9350	9382.43
15-Oct-2012	100.27	10833.33	10724.03
Performance Value			
<div>03-Jul-2023</div>	71.09	0	0

Engine Power Vs Fuel Index ECU



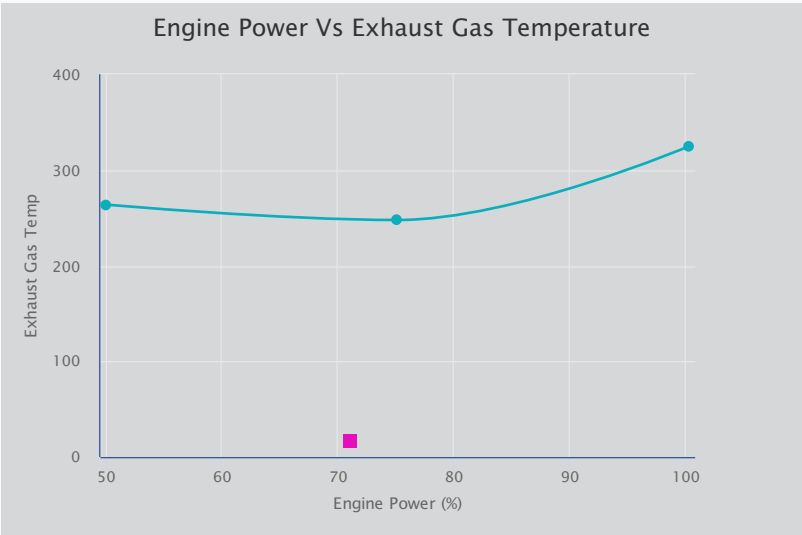
Performance Date		Engine Power (%)	Fuel Index ECU	
			Measured	ISO Corrected
Shop Trial				
15-Oct-2012	49.98	64	0	
15-Oct-2012	75.09	83	0	
15-Oct-2012	100.27	100	0	
Performance Value				
<div>03-Jul-2023</div>	71.09	0	0	

Engine Power Vs Scavenge Air Pressure



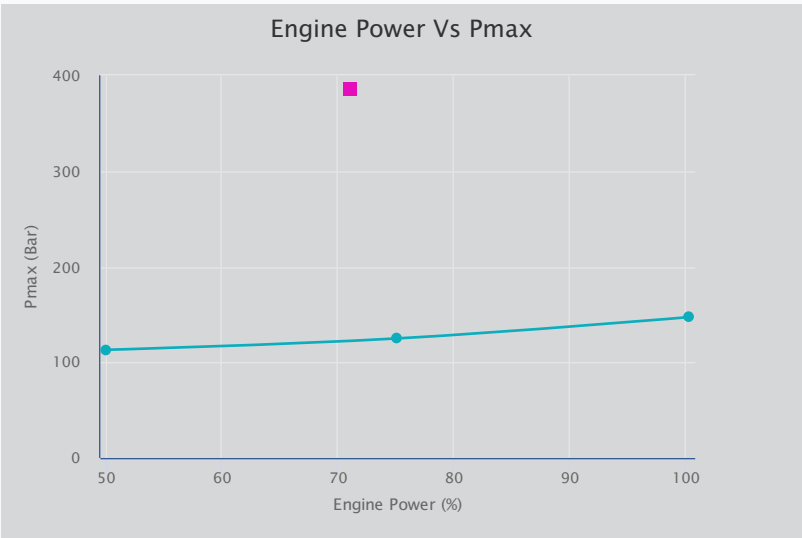
Performance Date		Engine Power (%)	Scavenge Air pressure	
			Measured	ISO Corrected
Shop Trial				
15-Oct-2012	49.98	1.04	1	
15-Oct-2012	75.09	2.1	1.36	
15-Oct-2012	100.27	3.1	2.99	
Performance Value				
<div><div></div></div> 03-Jul-2023	71.09	0	-0.02	

Engine Power Vs Exhaust Gas Temperature



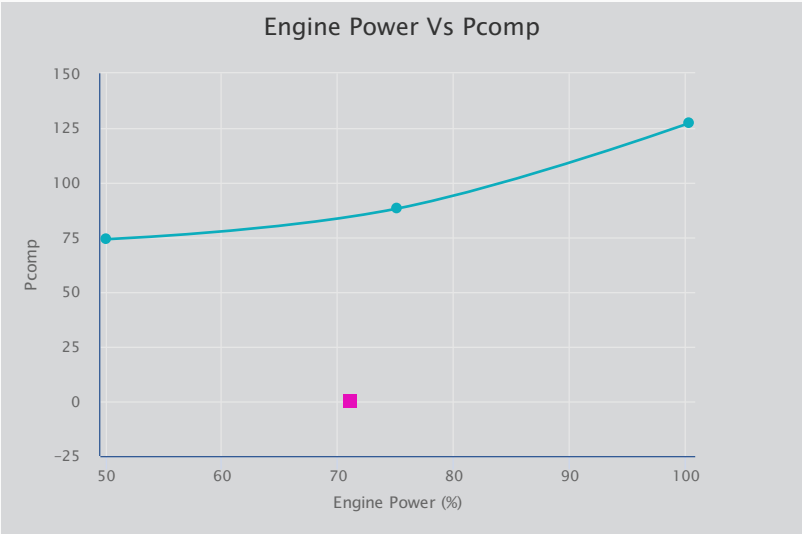
Performance Date		Engine Power (%)	Exhaust Gas Temp	
			Measured	ISO Corrected
Shop Trial				
15-Oct-2012	49.98	272.18	263.85	
15-Oct-2012	75.09	289.73	247.74	
15-Oct-2012	100.27	338.91	324.95	
Performance Value				
<div>03-Jul-2023</div>	71.09	0	16.83	

Engine Power Vs Pmax



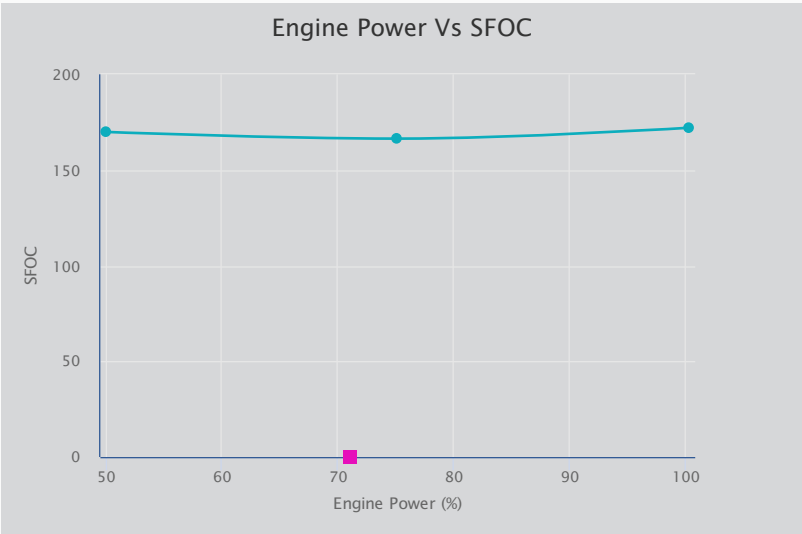
Performance Date		Engine Power (%)	Pmax (Bar)	
			Measured	ISO Corrected
Shop Trial				
15-Oct-2012	49.98	114.18	113.11	
15-Oct-2012	75.09	137.27	125.03	
15-Oct-2012	100.27	148.73	147.32	
Performance Value				
<div></div> 03-Jul-2023	71.09	400	386.09	

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				
<div></div> 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				
<div><div></div></div> 03-Jul-2023	71.09	0	0	

Performance Data

General Parameters

Vessel Name

ATL Arrow

Engines
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

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.vlv 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)

xxxx (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

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