

Performance of 35% engine load

SERVICE DATA		Engine Type	12K98MC-C	Name of vessel: President Eisenhower															
		Eng.	HYUNDAI	Engine No.:	Yard:														
Layout kW:	68520	Layout RPM:	104	Sign.:	SHEM		Test No.:												
Turbocharger(s)		No. of TC:	4	Serial No.	No. of Cyl.:	12	Bore, m:	0.98	Stroke, m:	2.400									
Max. RPM:	10800	Max. Temp., °C:	550	1	XH001611	Cylinder Constant (kW,bar):		3.0172	Mean Friction. Press., bar:										
Compr. Slip Factor:		Compr. Diam., m:		2	XH001612	Lubrication Oil System (Tick box) <input type="checkbox"/> Internal <input type="checkbox"/> External from M. E. System <input type="checkbox"/> External from Gravity Tank													
TC specification:				3	XH001613														
				4	XH001614														
Observation No:																			
Fuel Oil Viscosity:		at: °C		Cylinder Oil		Brand		Type											
Bunker Station:				Circulating Oil															
Oil Brand:		Heat value, kJ/kg:		Turbo Oil															
Density kg/m³, at: °C		Sulphur, %:																	
Test Date	Test Hour	Load	Ambient Pressure	Engine RPM	Total Running Hours	Governor index	Speed Setting	VIT Control											
(yyyy-mm-dd)	(hh:mm)	%	mbar				bar	bar											
2018-06-28	22:40	35.0	1003	77.7		62	78.0	0.4											
Effective	Indicated Power	Eff. Fuel Consumption	Indicated Fuel Consumption	Draft Fore, m		Log Knots	Wind, m/s	Direction, °											
	kW	kW	g/kWh	g/kWh	4.1	21.8	9.0	180											
24182					Draft Aft, m	Obs. Knots	Wave Height, m	Direction, °											
					9.2	21.8	2.0	180											
Cylinder No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Ave.
Pi, bar	9.97	9.41	9.55	9.86	9.47	9.80	9.33	9.57	9.50	9.52	9.13	9.71							9.57
Pmax, bar	86.6	84.0	85.3	86.8	82.5	83.6	85.0	85.5	83.7	81.8	78.2	82.0							83.8
Ref. Pmax, bar	Transfer PMI pressure data																		
Pcomp, bar	58.6	58.8	59.5	59.6	59.3	60.1	60.4	59.8	59.9	58.7	58.0	57.6							59.2
Fuel Pump Index	78.0	78.0	78.0	78.0	80.0	80.0	78.0	77.0	78.0	77.0	78.0	78.0							78.2
VIT index	1.3	1.5	1.8	0.1	1.3	1.1	1.0	1.0	1.2	1.1	1.4	1.3							1.2
Exhaust Gas Temp., °C	327	325	315	314	349	336	308	327	300	314	315	324							321.2
Cooling Water Outlet Temp., °C	84	85	83	84	84	85	84	85	85	84	84	85							84.3
Piston Outlet Lub. Temp., °C	50	49	49	49	49	49	49	49	49	48	48	48							48.8
Cooling Water Temperature, °C			Exhaust Gas Temp., °C			Exhaust Pressure			Turbo Charger	Aux. Blower	Scavenge Air Pressure								
Air Cooler		Main Engine		Turbine		Receiver	Turb. Outl.	RPM	On/Off	▲p Filter	▲p Cooler	Receiver							
Inlet	Outlet	Inlet	Turb. Outlet	Inlet	Outlet	bar	mmWC			mmWc	mmWc	bar							
1	1	79	1	1	1		1	1	OFF	1	1	0.90							
36	46	Seaw. Temp.		388	307		50	7298	Axial Vibration	55	130								
2	2		2	2	2		2	2		2	2								
37	37	28		397	204		20	0	mm	0	0								
3	3		3	3	3		3	3	0.80	3	3								
35	45			381	306		50	7304		60	120								
4	4		4	4	4		4	4		4	4								
36	46			371	294		55	7342		55	110								
Ave.	Ave.		Ave.	Ave.	Ave.		Ave.	Ave.		Ave.	Ave.								
36	44			384	278		44	5486		43	90								
Scavenge Air Temperature, °C				Lubricating Oil				Fuel Oil Pressure											
Inlet Blower		Before Cooler		After Cooler		Pressure, bar	Temperature, °C	Temperature, °C		bar									
1		1		1		System Oil	Inlet Engine	TC Inlet / Blower end	TC Outlet / Turb. end	Before Filter									
35.0		110		40		3.00	41.0	1	1	After Filter									
2		2		2		Cooling Oil	Inlet Cam	44.0	55.0	6.9									
35.0		38		41		3.00	41.0	44.0	55.0	6.9									
3		3		3		Cam Shaft Oil	Outlet Cam	44.0	46.0	Temperature, °C									
35.0		112		41		2.40	47.0	44.0	46.0	Before Pumps									
4		4		4		Turbine Oil	Thrust Segment	3	3	138									
35.0		117		40		2.10	52.0	44.0	56.0										
Ave.		Ave.		Ave.				4	4										
35.0		94		41				44.0	56.0										
								Ave.	Ave.										
								44.0	53.3										

Remarks: