

**ENGINE TEST RECORD (DNV/LR)**

CUSTOMER

MTEE

Test Date 3 - Aug - 2018

Model Serial No.	S16R2-T2MPTAW-3 SN <sub>o</sub> 31148
No. of Cyl. × Bore × Stroke	16 × 170 mm × 220 mm
Injection Timing	19° B.T.D.C
Rated Output	1450 kW / 1350 min <sup>-1</sup>
Total St. Vol.	79.9 l
Comp. Ratio	14.0 : 1
Barometric Press	991.0 hPa
Weather	Fine, Cloudy, Rainy

F.O.		S.G.	
Gas Oil		0.814 / 27 °C	
Governor ( Actuator ) No.		21192395	
Without Fan			
Injection Pump No.	L	PS8A-HL-25	35233
	R	PS8A-HR-25	35235
Turbo Charger No. TD10L2-40MRC	L	180613001	
		180613001	
	R	180613001	
		180613001	
Actual Timing	L	18.9°	
	R	19.5°	

1. Governor Test	100% Rated Load 1350 min <sup>-1</sup> → No Load 1425 min <sup>-1</sup> (5.6%)
2. Rack Set & Gov. Set	1450 kW 1350 min <sup>-1</sup> No Load Max.Speed 1430 min <sup>-1</sup>
3. Remark	NOx Mode Value : E3 — ppm  Test Bench No 313

ENGINE QUALITY ASSURANCE SECTION  
QUALITY ASSURANCE DEPARTMENT

MITSUBISHI HEAVY INDUSTRIES ENGINE & TURBOCHARGER, LTD.

Approved By

新井 隆

Checked By

K. Kawahara

Tested By

J. Tanaka

## ENGINE TEST RECORD

Model Serial No. S16R2-T2MPTAW-3- 31148

Test Date 3- Aug - 2018

## 1. Load Test (E3 Mode)

Time	hour : min	13:10 13:20	13:30	13:40	13:50	14:00	14:30	15:00	15:20	15:25	
Load	%	0	25	50	75	90	100	100	110	Idle	
Eng. Speed	min <sup>-1</sup>	600	851	1071	1227	1303	1350	1350	1393	600	
Brake Load	N	0	4266	6769	8867	10015	10740	10740	11450	0	
Output	kW	0	363	725	1088	1305	1450	1450	1595	-	
Fuel Consumption	cm <sup>3</sup>	-	512.1	1005.0	1500.2	1860.1	2078.3	2076.0	2343.7	-	
	sec.	-	20.0	20.0	20.0	20.0	20.0	20.0	20.0	-	
	ℓ/h	-	97.2	180.9	270.0	324.8	374.1	373.7	421.9	-	
	g/kWh	-	206.7	203.1	202.0	208.8	210.0	209.8	215.3	-	
	Revised F.C.	-	-	-	-	-	-	-	-	-	
J/W Temp.	Out °C	59	80	80	80	80	80	80	80	77	
A/C Coolant	Temp.	In °C	26	38	38	38	37	38	38	39	34
	Flow	l/min	-	250	250	250	250	250	250	250	-
Lub.Oil	Temp.	°C	66	90	92	92	93	92	92	93	88
	Press.	MPa	0.54	0.50	0.54	0.56	0.58	0.58	0.58	0.58	0.35
Exh.Gas Temp.	T/C in (L)	°C	89	412	486	506	529	546	551	585	221
	T/C in (R)	°C	91	421	491	509	533	553	556	595	217
	T/C out	°C	78	382	418	398	398	403	407	429	236
Intake Air	Temp.	°C	25.9	25.8	25.8	25.9	26.0	25.8	25.7	25.9	25.8
	Humi.	%	54.8	53.1	54.6	54.5	54.7	55.6	55.5	54.8	53.5
Charging Air	Temp.	°C	31	44	44	49	53	55	55	59	42
	Press.	MPa	-	0.013	0.061	0.133	0.183	0.201	0.201	0.223	-
F/O Temp.	°C	31	39	40	40	38	36	37	37	38	
NOx	ppm	-	948	844	676	-	580	577	-	-	
O <sub>2</sub>	%	-	11.93	11.45	12.17	-	11.93	12.01	-	-	
Rack Scale 0 base	mm	77.0	78.0	80.0	82.0	84.0	85.0	85.0	87.0	77.0	
Smoke	Bosch	-	0.2	0.2	0.1	0.1	0.1	0.1	0.2	-	
Room Temp.	Dry.	°C	29	34	35	35	35	34	35	35	34
	Wet.	°C	23	27	27	27	27	26	26	27	27

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Remark

Order No. : GBK 812

# ENGINE TEST RECORD

Model Serial No. S16R2-T2MPTAW-8-31148

Test Date 3-Aug-2018

**1. Load Test (E2 Mode)**

Time	hour : min	15:30 15:40	15:50	16:00	16:10	16:20	16:50	17:20	17:40
Load	%	0	25	50	75	90	100	100	110
Eng. Speed	min <sup>-1</sup>	1350	1350	1350	1350	1350	1350	1350	1350
Brake Load	N	0	2689	5370	8059	9667	10740	10740	11815
Output	kW	0	363	725	1088	1305	1450	1450	1595
Fuel Consumption	cm <sup>3</sup>	—	606.8	1054.3	1537.1	1861.0	2051.4	2080.7	2324.0
	sec.	—	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	l/h	—	109.2	189.8	276.7	335.0	374.7	374.5	418.3
	g/kWh	—	244.9	213.1	207.0	208.9	210.3	210.3	213.5
	Revised F.C.								
J/W Temp.	Out °C	78	80	80	80	80	80	80	80
A/C Coolant	Temp. In °C	37	38	38	38	38	38	38	37
	Flow l/min	—	250	250	250	250	250	250	250
Lub.Oil	Temp. °C	89	91	92	93	93	93	93	93
	Press. MPa	0.62	0.60	0.59	0.58	0.58	0.58	0.58	0.58
Exh.Gas Temp.	T/C in (L) °C	245	371	445	496	531	552	556	585
	T/C in (R) °C	234	374	445	496	532	556	558	592
	T/C out °C	236	323	363	382	397	407	410	430
Intake Air	Temp. °C	26.1	26.3	26.4	26.7	26.7	26.2	26.4	26.5
	Humi. %	54.1	54.2	54.7	54.7	54.2	55.3	54.6	54.1
Charging Air	Temp. °C	43	45	46	51	54	55	55	57
	Press. MPa	—	0.038	0.082	0.147	0.183	0.203	0.203	0.222
F/O Temp.	°C	46	46	44	42	41	39	39	39
NOx	ppm	—	275	429	509	—	560	555	—
O <sub>2</sub>	%	—	15.34	13.63	13.09	—	12.00	11.99	—
Rack Scale 0 base	mm	75.0	77.0	79.0	82.0	83.0	85.0	85.0	87.0
Smoke	Bosch	—	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Room Temp.	Dry. °C	36	36	37	38	38	36	36	37
	Wet. °C	28	28	29	29	29	28	28	28

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