D. Emission test sheet for parent engine

Engine type (Parent Engine)	Engine No. (Parent Engine)	Power kW	Speed rpm	No.of cyl.	Bore mm	Stroke mm	Comp Ratio
7L21/31	SB7L21-7476	1540	900	7	210	310	15.5
Fuel	**Hu kcal/kg**	**Density g/mℓ**	**Hydrogen %**	**Carbon %**	**Sulphur %**	**Nitrogen %**	**Oxygen %**
ISO-F-DMC	10146	0.8692	11.55	87.51	0.160	0.06	0

Remark : worst condition test

Mode	5	4	3	2	1
Load , %	10	25	50	75	100
Speed, %	100	100	100	100	100
Time at beginning of mode	10:50	10:30	10:10	9:50	9:30
Test date	2008.08.20	2008.08.20	2008.08.20	2008.08.20	2008.08.20
Ambient Data					
Pressure, bar.abs	1.006	1.006	1.006	1.006	1.006
Temperature, ℃	31.8	31.5	31.3	30.3	30.0
Relative humidity, RH %	38.8	42.3	43.9	44.7	44.7
Absolute humidity, g/kg	11.51	12.35	12.68	12.19	11.97
Emission Data					
Uncorrected spec.fuel consumption, g/kWh	315.6	229.9	198.7	194.5	195.4
Exhaust flow (GEXHW), kg/h	2716.6	3674.7	5527.5	7799.5	9821.7
Air flow (GAIRW), kg/h	2668.0	3586.2	5374.5	7574.8	9520.8
NOx concentration (dry), ppm	532.5	875.8	969.1	940.9	924.1
CO concnetration (dry), ppm	127.7	94.2	75.7	73.0	59.9
CO_2 concentration (dry), %	3.77	5.19	6.02	6.28	6.70
O_2 concentration (dry), %	15.55	13.64	12.49	12.14	11.54
THC concentration (wet), ppmC_1	279.9	298.6	261.6	255.7	209.6
Dry/wet correction factor, (KWEXH)	0.9541	0.9428	0.9365	0.9354	0.9328
NOx Humi.&Temp. correction factor	1.0291	1.0390	1.0427	1.0334	1.0298
NOx(15% O_2), ppm	586.7	712.9	681.6	635.5	584.3
NOx mass flow, g/h	2254	5003	8301	11257	13836
CO mass flow, g/h	320	315	379	514	530
CO_2 mass flow, g/h	148429	273124	473372	695960	932409
O_2 mass flow, g/h	445361	522169	714452	978697	1168267
THC mass flow, g/h	364	526	693	955	986
NOx specific, g/kWh	14.64	13.00	10.78	9.75	8.98
CO specific, g/kWh	2.08	0.82	0.49	0.45	0.34
CO_2 specific, g/kWh	964	709	615	603	605
O_2 specific, g/kWh	2892	1356	928	847	759
THC specific, g/kWh	2.365	1.365	0.900	0.827	0.640
Cycle D2 NOx specific, g/kWh	10.61		IMO Limit =	11.54	g/kWh