

**PERFORMANCE DATA [512DRC5]****JULY 13, 2020**For Help Desk Phone Numbers [Click here](#)

Perf No: EM1898

Change Level: 00

[General](#)[Heat Rejection](#)[Sound](#)[Emissions](#)[Regulatory](#)[Altitude Derate](#)[Cross Reference](#)[Supplementary Data](#)[Perf Param Ref](#)[View PDF](#)

<b>SALES MODEL:</b>	3512C	<b>COMBUSTION:</b>	DIRECT INJECTION
<b>BRAND:</b>	CAT	<b>ENGINE SPEED (RPM):</b>	1,800
<b>ENGINE POWER (BHP):</b>	2,206	<b>HERTZ:</b>	60
<b>GEN POWER WITH FAN (EKW):</b>	1,500.0	<b>FAN POWER (HP):</b>	88.5
<b>COMPRESSION RATIO:</b>	14.7	<b>ASPIRATION:</b>	TA
<b>RATING LEVEL:</b>	STANDBY	<b>AFTERCOOLER TYPE:</b>	ATAAC
<b>PUMP QUANTITY:</b>	1	<b>AFTERCOOLER CIRCUIT TYPE:</b>	JW+OC, ATAAC
<b>FUEL TYPE:</b>	DIESEL	<b>INLET MANIFOLD AIR TEMP (F):</b>	122
<b>MANIFOLD TYPE:</b>	DRY	<b>JACKET WATER TEMP (F):</b>	210.2
<b>GOVERNOR TYPE:</b>	ADEM3	<b>TURBO CONFIGURATION:</b>	PARALLEL
<b>ELECTRONICS TYPE:</b>	ADEM3	<b>TURBO QUANTITY:</b>	4
<b>CAMSHAFT TYPE:</b>	STANDARD	<b>TURBOCHARGER MODEL:</b>	GTB4708BN-52T-0.96
<b>IGNITION TYPE:</b>	CI	<b>CERTIFICATION YEAR:</b>	2006
<b>INJECTOR TYPE:</b>	EUI	<b>CRANKCASE BLOWBY RATE (FT3/HR):</b>	2,203.4
<b>FUEL INJECTOR:</b>	3920220	<b>FUEL RATE (RATED RPM) NO LOAD (GAL/HR):</b>	9.8
<b>UNIT INJECTOR TIMING (IN):</b>	64.34	<b>PISTON SPD @ RATED ENG SPD (FT/MIN):</b>	2,244.1
<b>REF EXH STACK DIAMETER (IN):</b>	10		
<b>MAX OPERATING ALTITUDE (FT):</b>	3,937		

INDUSTRY	SUB INDUSTRY	APPLICATION
ELECTRIC POWER	STANDARD	PACKAGED GENSET
OIL AND GAS	LAND PRODUCTION	PACKAGED GENSET

**General Performance Data [Top](#)****Note(s)**

THIS STANDBY RATING IS FOR A STANDBY ONLY ENGINE ARRANGEMENT. RERATING THE ENGINE TO A PRIME OR CONTINUOUS RATING IS NOT PERMITTED.

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	BRAKE MEAN EFF PRES (BMEP)	BRAKE SPEC FUEL CONSUMPTN (BSFC)	VOL FUEL CONSUMPTN (VFC)	INLET MFLD PRES	INLET MFLD TEMP	EXH MFLD TEMP	EXH MFLD PRES	ENGINE OUTLET TEMP
EKW	%	BHP	PSI	LB/BHP-HR	GAL/HR	IN-HG	DEG F	DEG F	IN-HG	DEG F
1,500.0	100	2,206	307	0.332	103.2	77.5	120.9	1,145.6	74.6	756.6
1,350.0	90	1,983	276	0.336	94.0	72.2	116.1	1,102.7	68.8	727.5
1,200.0	80	1,768	246	0.343	85.5	66.9	113.2	1,069.1	63.0	713.4
1,125.0	75	1,662	232	0.346	81.0	63.4	111.5	1,052.3	59.5	706.7
1,050.0	70	1,556	217	0.348	76.4	59.7	109.8	1,035.2	55.8	700.0
900.0	60	1,349	188	0.352	67.0	51.1	107.1	1,000.5	47.6	687.3
750.0	50	1,144	159	0.355	57.3	40.6	107.5	963.6	38.4	696.7
600.0	40	940	131	0.359	47.6	30.0	108.4	921.9	29.4	702.2
450.0	30	736	103	0.368	38.1	20.9	107.1	856.0	21.9	685.3
375.0	25	632	88	0.376	33.5	16.9	106.2	809.5	18.8	664.9
300.0	20	527	73	0.388	28.8	13.3	105.2	754.5	16.0	636.4
150.0	10	312	43	0.443	19.5	7.3	103.2	609.7	11.4	540.6

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP	WET INLET AIR VOL FLOW RATE	ENGINE OUTLET WET EXH GAS VOL FLOW RATE	WET INLET AIR MASS FLOW RATE	WET EXH GAS MASS FLOW RATE	WET EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)	DRY EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP	WET INLET AIR VOL FLOW RATE	ENGINE OUTLET WET EXH GAS VOL FLOW RATE	WET INLET AIR MASS FLOW RATE	WET EXH GAS MASS FLOW RATE	WET EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)	DRY EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)
EKW	%	BHP	IN-HG	DEG F	CFM	CFM	LB/HR	LB/HR	FT3/MIN	FT3/MIN
1,500.0	100	2,206	82	449.8	4,937.2	11,734.1	21,796.5	22,529.1	4,743.3	4,317.6
1,350.0	90	1,983	77	428.8	4,734.5	10,945.3	20,885.8	21,551.9	4,532.9	4,136.4
1,200.0	80	1,768	71	409.0	4,506.7	10,265.9	19,853.4	20,459.8	4,302.7	3,938.4
1,125.0	75	1,662	68	396.6	4,371.2	9,868.8	19,223.0	19,797.6	4,160.2	3,812.8
1,050.0	70	1,556	64	382.6	4,218.1	9,442.4	18,511.1	19,053.3	4,003.2	3,672.9
900.0	60	1,349	55	350.3	3,862.4	8,508.3	16,857.2	17,332.4	3,647.3	3,352.3
750.0	50	1,144	44	309.9	3,375.7	7,435.0	14,666.1	15,072.5	3,161.3	2,907.1
600.0	40	940	33	266.6	2,868.4	6,329.0	12,406.6	12,744.3	2,678.2	2,465.5
450.0	30	736	23	224.6	2,431.9	5,278.8	10,481.3	10,752.0	2,266.9	2,093.3
375.0	25	632	19	204.3	2,243.0	4,776.5	9,654.1	9,891.7	2,088.3	1,933.3
300.0	20	527	15	184.2	2,069.9	4,283.3	8,899.4	9,103.9	1,921.3	1,784.5
150.0	10	312	9	148.8	1,782.1	3,338.5	7,648.3	7,786.4	1,641.0	1,539.0

## Heat Rejection Data [Top](#)

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	REJECTION TO JACKET WATER	REJECTION TO ATMOSPHERE	REJECTION TO EXH	EXHAUST RECOVERY TO 350F	FROM OIL COOLER	FROM AFTERCOOLER	WORK ENERGY	LOW HEAT VALUE ENERGY	HIGH HEAT VALUE ENERGY
EKW	%	BHP	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN
1,500.0	100	2,206	28,541	7,072	79,477	38,355	11,956	29,539	93,547	224,476	239,123
1,350.0	90	1,983	26,761	6,706	72,346	33,940	10,882	26,874	84,110	204,315	217,647
1,200.0	80	1,768	25,085	6,393	66,713	30,942	9,897	24,071	74,958	185,825	197,950
1,125.0	75	1,662	24,176	6,249	63,549	29,350	9,376	22,404	70,466	176,039	187,526
1,050.0	70	1,556	23,227	6,110	60,309	27,693	8,845	20,631	66,004	166,069	176,905
900.0	60	1,349	21,222	5,841	53,634	24,225	7,759	16,788	57,205	145,683	155,189
750.0	50	1,144	19,059	5,564	46,826	21,662	6,636	12,311	48,509	124,586	132,716
600.0	40	940	16,790	5,286	39,874	18,604	5,512	8,066	39,882	103,489	110,241
450.0	30	736	14,427	4,840	32,601	14,897	4,416	4,955	31,201	82,917	88,327
375.0	25	632	13,189	4,570	28,900	12,838	3,876	3,774	26,809	72,772	77,520
300.0	20	527	11,900	4,299	25,149	10,707	3,336	2,793	22,353	62,628	66,715
150.0	10	312	9,090	3,818	17,468	6,020	2,253	1,375	13,214	42,301	45,061

## Sound Data [Top](#)

**Note(s)**

SOUND PRESSURE DATA FOR THIS RATING CAN BE FOUND IN PERFORMANCE NUMBER - DM8779.

## Emissions Data [Top](#)

Units Filter All Units

**RATED SPEED POTENTIAL SITE VARIATION: 1800 RPM**

GENSET POWER WITH FAN	EKW	1,500.0	1,125.0	750.0	375.0	150.0
ENGINE POWER	BHP	2,206	1,662	1,144	632	312
PERCENT LOAD	%	100	75	50	25	10
TOTAL NOX (AS NO2)	G/HR	14,366	7,266	4,835	3,673	2,831
TOTAL CO	G/HR	1,890	1,176	1,665	1,965	1,898
TOTAL HC	G/HR	351	381	358	283	329
PART MATTER	G/HR	97.6	99.1	150.9	184.0	112.2
TOTAL NOX (AS NO2)	(CORR 5% O2) MG/NM3	2,848.7	1,803.1	1,671.1	2,214.1	2,967.2
TOTAL CO	(CORR 5% O2) MG/NM3	427.2	336.3	712.5	1,486.6	2,381.4
TOTAL HC	(CORR 5% O2) MG/NM3	68.8	95.6	123.3	175.3	360.2
PART MATTER	(CORR 5% O2) MG/NM3	18.2	23.5	54.8	110.0	115.7
TOTAL NOX (AS NO2)	(CORR 5% O2) PPM	1,388	878	814	1,078	1,445
TOTAL CO	(CORR 5% O2) PPM	342	269	570	1,189	1,905
TOTAL HC	(CORR 5% O2) PPM	128	178	230	327	672
TOTAL NOX (AS NO2)	G/HP-HR	6.58	4.41	4.26	5.85	9.14

<b>GENSET POWER WITH FAN</b>	<b>EKW</b>	<b>1,500.0</b>	<b>1,125.0</b>	<b>750.0</b>	<b>375.0</b>	<b>150.0</b>
<b>ENGINE POWER</b>	<b>BHP</b>	<b>2,206</b>	<b>1,662</b>	<b>1,144</b>	<b>632</b>	<b>312</b>
<b>PERCENT LOAD</b>	<b>%</b>	<b>100</b>	<b>75</b>	<b>50</b>	<b>25</b>	<b>10</b>
TOTAL CO	G/HP-HR	0.87	0.71	1.47	3.13	6.13
TOTAL HC	G/HP-HR	0.16	0.23	0.32	0.45	1.06
PART MATTER	G/HP-HR	0.04	0.06	0.13	0.29	0.36
TOTAL NOX (AS NO2)	LB/HR	31.67	16.02	10.66	8.10	6.24
TOTAL CO	LB/HR	4.17	2.59	3.67	4.33	4.18
TOTAL HC	LB/HR	0.77	0.84	0.79	0.62	0.73
PART MATTER	LB/HR	0.22	0.22	0.33	0.41	0.25

**RATED SPEED NOMINAL DATA: 1800 RPM**

<b>GENSET POWER WITH FAN</b>	<b>EKW</b>	<b>1,500.0</b>	<b>1,125.0</b>	<b>750.0</b>	<b>375.0</b>	<b>150.0</b>
<b>ENGINE POWER</b>	<b>BHP</b>	<b>2,206</b>	<b>1,662</b>	<b>1,144</b>	<b>632</b>	<b>312</b>
<b>PERCENT LOAD</b>	<b>%</b>	<b>100</b>	<b>75</b>	<b>50</b>	<b>25</b>	<b>10</b>
TOTAL NOX (AS NO2)	G/HR	11,972	6,055	4,029	3,061	2,359
TOTAL CO	G/HR	1,050	653	925	1,092	1,055
TOTAL HC	G/HR	264	286	269	213	248
TOTAL CO2	KG/HR	1,096	853	602	352	204
PART MATTER	G/HR	69.7	70.8	107.8	131.4	80.1
TOTAL NOX (AS NO2)	(CORR 5% O2) MG/NM3	2,373.9	1,502.6	1,392.6	1,845.1	2,472.7
TOTAL CO	(CORR 5% O2) MG/NM3	237.3	186.8	395.9	825.9	1,323.0
TOTAL HC	(CORR 5% O2) MG/NM3	51.7	71.9	92.7	131.8	270.9
PART MATTER	(CORR 5% O2) MG/NM3	13.0	16.8	39.1	78.6	82.6
TOTAL NOX (AS NO2)	(CORR 5% O2) PPM	1,156	732	678	899	1,204
TOTAL CO	(CORR 5% O2) PPM	190	149	317	661	1,058
TOTAL HC	(CORR 5% O2) PPM	97	134	173	246	506
TOTAL NOX (AS NO2)	G/HP-HR	5.48	3.68	3.55	4.87	7.62
TOTAL CO	G/HP-HR	0.48	0.40	0.81	1.74	3.40
TOTAL HC	G/HP-HR	0.12	0.17	0.24	0.34	0.80
PART MATTER	G/HP-HR	0.03	0.04	0.09	0.21	0.26
TOTAL NOX (AS NO2)	LB/HR	26.39	13.35	8.88	6.75	5.20
TOTAL CO	LB/HR	2.32	1.44	2.04	2.41	2.32
TOTAL HC	LB/HR	0.58	0.63	0.59	0.47	0.55
TOTAL CO2	LB/HR	2,417	1,881	1,327	776	449
PART MATTER	LB/HR	0.15	0.16	0.24	0.29	0.18
OXYGEN IN EXH	%	11.2	12.3	12.9	13.9	15.8
DRY SMOKE OPACITY	%	1.0	1.3	2.9	5.0	3.0
BOSCH SMOKE NUMBER		0.37	0.45	1.06	1.60	1.11

**Regulatory Information [Top](#)**

<b>EPA EMERGENCY STATIONARY</b>		<b>2011 - ----</b>	
GASEOUS EMISSIONS DATA MEASUREMENTS PROVIDED TO THE EPA ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 60 SUBPART IIII AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. THE "MAX LIMITS" SHOWN BELOW ARE WEIGHTED CYCLE AVERAGES AND ARE IN COMPLIANCE WITH THE EMERGENCY STATIONARY REGULATIONS.			
<b>Locality</b>	<b>Agency</b>	<b>Regulation</b>	<b>Tier/Stage</b>
U.S. (INCL CALIF)	EPA	STATIONARY	EMERGENCY STATIONARY
			<b>Max Limits - G/BKW - HR</b>
			CO: 3.5 NOx + HC: 6.4 PM: 0.20

**Altitude Derate Data [Top](#)**

**ALTITUDE CORRECTED POWER CAPABILITY (BHP)**

AMBIENT OPERATING TEMP (F)	30	40	50	60	70	80	90	100	110	120	130	140	NORMAL
ALTITUDE (FT)													
0	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,096	2,206
1,000	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,162	2,074	2,206
2,000	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,206	2,176	2,118	2,007	2,206
3,000	2,206	2,206	2,206	2,206	2,206	2,206	2,173	2,135	2,098	2,052	1,919	2,206	
4,000	2,201	2,201	2,201	2,201	2,201	2,171	2,132	2,094	2,057	2,021	1,963	1,831	2,201
5,000	2,129	2,129	2,129	2,129	2,129	2,092	2,054	2,017	1,982	1,947	1,875	1,743	2,129
6,000	2,059	2,059	2,059	2,059	2,053	2,015	1,978	1,943	1,909	1,876	1,765	1,677	2,059
7,000	1,992	1,992	1,992	1,992	1,976	1,940	1,904	1,870	1,838	1,787	1,677	1,588	1,992
8,000	1,927	1,927	1,927	1,927	1,902	1,867	1,833	1,800	1,769	1,699	1,610	1,522	1,927
9,000	1,865	1,865	1,865	1,865	1,831	1,797	1,764	1,733	1,699	1,610	1,522	1,412	1,865
10,000	1,805	1,805	1,805	1,795	1,761	1,729	1,697	1,667	1,610	1,522	1,368	1,279	1,805
11,000	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,434	1,324	1,213	1,125	1,522
12,000	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,390	1,279	1,169	1,081	993	1,478
13,000	1,434	1,434	1,434	1,434	1,434	1,434	1,346	1,235	1,147	1,037	971	882	1,434
14,000	1,390	1,390	1,390	1,390	1,390	1,279	1,191	1,103	1,015	927	860	794	1,390

AMBIENT OPERATING TEMP (F)	30	40	50	60	70	80	90	100	110	120	130	140	NORMAL
15,000	1,346	1,346	1,346	1,346	1,235	1,147	1,059	971	882	816	772	728	1,346

## Cross Reference [Top](#)

Test Spec	Setting	Engine Arrangement	Engineering Model	Engineering Model Version	Start Effective Serial Number	End Effective Serial Number
4577179	LL1861	5084278	GS656	LS	CT200463	
4577179	LL1861	5157729	PG242	-	LYH00001	

## Supplementary Data [Top](#)

Type	Classification	Performance Number
SOUND	SOUND PRESSURE	<a href="#">DM8779</a>

## Performance Parameter Reference [Top](#)

Parameters Reference: **DM9600 - 12**

### PERFORMANCE DEFINITIONS

### PERFORMANCE DEFINITIONS DM9600

**APPLICATION:** Engine performance tolerance values below are representative of a typical production engine tested in a calibrated dynamometer test cell at SAE J1995 standard reference conditions. Caterpillar maintains ISO9001:2000 certified quality management systems for engine test Facilities to assure accurate calibration of test equipment. Engine test data is corrected in accordance with SAE J1995. Additional reference material SAE J1228, J1349, ISO 8665, 3046-1:2002E, 3046-3:1989, 1585, 2534, 2288, and 9249 may apply in part or are similar to SAE J1995. Special engine rating request (SERR) test data shall be noted.

**PERFORMANCE PARAMETER TOLERANCE FACTORS:** Power +/- 3% Torque +/- 3% Exhaust stack temperature +/- 8% Inlet airflow +/- 5% Intake manifold pressure-gage +/- 10% Exhaust flow +/- 6% Specific fuel consumption +/- 3% Fuel rate +/- 5% Specific DEF consumption +/- 3% DEF rate +/- 5% Heat rejection +/- 5% Heat rejection exhaust only +/- 10% Heat rejection CEM only +/- 10%

Heat Rejection values based on using treated water.

Torque is included for truck and industrial applications, do not use for Gen Set or steady state applications.

On C7 - C18 engines, at speeds of 1100 RPM and under these values are provided for reference only, and may not meet the tolerance listed.

These values do not apply to C280/3600. For these models, see the tolerances listed below.

**C280/3600 HEAT REJECTION TOLERANCE FACTORS:** Heat rejection +/- 10% Heat rejection to Atmosphere +/- 50% Heat rejection to Lube Oil +/- 20% Heat rejection to Aftercooler +/- 5%

**TEST CELL TRANSDUCER TOLERANCE FACTORS:** Torque +/- 0.5% Speed +/- 0.2% Fuel flow +/- 1.0% Temperature +/- 2.0 C degrees Intake manifold pressure +/- 0.1 kPa

OBSERVED ENGINE PERFORMANCE IS CORRECTED TO SAE J1995 REFERENCE AIR AND FUEL CONDITIONS.

**REFERENCE ATMOSPHERIC INLET AIR FOR 3500 ENGINES AND SMALLER** SAE J1228 AUG2002 for marine engines, and J1995 JAN2014 for other engines, reference atmospheric pressure is 100 KPA (29.61 in hg), and standard temperature is 25deg C (77 deg F) at 30% relative humidity at the stated aftercooler water temp, or inlet manifold temp.

**FOR 3600 ENGINES** Engine rating obtained and presented in accordance with ISO 3046/1 and SAE J1995 JANJAN2014 reference atmospheric pressure is 100 KPA (29.61 in hg), and standard temperature is 25deg C (77 deg F) at 30% relative humidity and 150M altitude at the stated aftercooler water temperature.

**MEASUREMENT LOCATION FOR INLET AIR TEMPERATURE** Location for air temperature measurement air cleaner inlet at stabilized operating conditions.

**REFERENCE EXHAUST STACK DIAMETER** The Reference Exhaust Stack Diameter published with this dataset is only used for the calculation of Smoke Opacity values displayed in this dataset. This value does not necessarily represent the actual stack diameter of the engine due to the variety of exhaust stack adapter options available. Consult the price list, engine order or general dimension drawings for the actual stack diameter size ordered or options available.

**REFERENCE FUEL DIESEL** Reference fuel is #2 distillate diesel with a 35API gravity; A lower heating value is 42,780 KJ/KG (18,390 BTU/LB) when used at 15 deg C (59 deg F), where the density is 850 G/Liter (7.0936 Lbs/Gal).

**GAS** Reference natural gas fuel has a lower heating value of 33.74 KJ/L (905 BTU/CU Ft). Low BTU ratings are based on 18.64 KJ/L (500 BTU/CU FT) lower heating value gas. Propane ratings are based on 87.56 KJ/L (2350 BTU/CU Ft) lower heating value gas.

**ENGINE POWER (NET) IS THE CORRECTED FLYWHEEL POWER (GROSS) LESS EXTERNAL AUXILIARY LOAD** Engine

corrected gross output includes the power required to drive standard equipment; lube oil, scavenge lube oil, fuel transfer, common rail fuel, separate circuit aftercooler and jacket water pumps. Engine net power available for the external (flywheel) load is calculated by subtracting the sum of auxiliary load from the corrected gross flywheel output power. Typical auxiliary loads are radiator cooling fans, hydraulic pumps, air compressors and battery charging alternators. For Tier 4 ratings additional Parasitic losses would also include Intake, and Exhaust Restrictions.

**ALTITUDE CAPABILITY** Altitude capability is the maximum altitude above sea level at standard temperature and standard pressure at which the engine could develop full rated output power on the current performance data set. Standard temperature values versus altitude could be seen on TM2001.

When viewing the altitude capability chart the ambient temperature is the inlet air temp at the compressor inlet.

Engines with ADEM MEUI and HEUI fuel systems operating at conditions above the defined altitude capability derate for atmospheric pressure and temperature conditions outside the values defined, see TM2001.

Mechanical governor controlled unit injector engines require a setting change for operation at conditions above the altitude defined on the engine performance sheet. See your Caterpillar technical representative for non standard ratings.

**REGULATIONS AND PRODUCT COMPLIANCE** TMI Emissions information is presented at 'nominal' and 'Potential Site Variation' values for standard ratings. No tolerances are applied to the emissions data. These values are subject to change at any time. The controlling federal and local emission requirements need to be verified by your Caterpillar technical representative. Customer's may have special emission site requirements that need to be verified by the Caterpillar Product Group engineer.

**EMISSION CYCLE LIMITS:** Cycle emissions Max Limits apply to cycle-weighted averages only. Emissions at individual load points may exceed the cycle-weighted limit.

**EMISSIONS DEFINITIONS:** Emissions : DM1176

**EMISSION CYCLE DEFINITIONS**

1. For constant-speed marine engines for ship main propulsion, including,diesel-electric drive, test cycle E2 shall be applied, for controllable-pitch propeller sets test cycle E2 shall be applied.
2. For propeller-law-operated main and propeller-law-operated auxiliary engines the test cycle E3 shall be applied.
3. For constant-speed auxiliary engines test cycle D2 shall be applied.
4. For variable-speed, variable-load auxiliary engines, not included above, test cycle C1 shall be applied.

**HEAT REJECTION DEFINITIONS:** Diesel Circuit Type and HHV Balance : DM9500

**HIGH DISPLACEMENT (HD) DEFINITIONS:** 3500: EM1500

**RATING DEFINITIONS:** Agriculture : TM6008

Fire Pump : TM6009

Generator Set : TM6035

Generator (Gas) : TM6041

Industrial Diesel : TM6010

Industrial (Gas) : TM6040

Irrigation : TM5749

Locomotive : TM6037

Marine Auxiliary : TM6036

Marine Prop (Except 3600) : TM5747

Marine Prop (3600 only) : TM5748

MSHA : TM6042

Oil Field (Petroleum) : TM6011

Off-Highway Truck : TM6039

On-Highway Truck : TM6038

**SOUND DEFINITIONS:** Sound Power : DM8702

Sound Pressure : TM7080

Date Released : 07/10/19