

**Perf No: DM7701**

**Change Level: 02**

[General](#)   [Heat Rejection](#)   [Emissions](#)   [Regulatory](#)   [Altitude Derate](#)   [Cross Reference](#)   [Perf Param Ref](#)

[View PDF](#)

<b>SALES MODEL:</b>	C18	<b>COMBUSTION:</b>	DIRECT INJECTION
<b>BRAND:</b>	CAT	<b>ENGINE SPEED (RPM):</b>	2,100
<b>MACHINE SALES MODEL:</b>		<b>PEAK TORQUE SPEED (RPM):</b>	1,400
<b>ENGINE POWER (BHP):</b>	765	<b>TORQUE RISE (%):</b>	34
<b>PEAK TORQUE (FT-LB):</b>	2,577.8	<b>ASPIRATION:</b>	TA
<b>COMPRESSION RATIO:</b>	16.3	<b>AFTERCOOLER TYPE:</b>	ATAAC
<b>RATING LEVEL:</b>	INDUSTRIAL D	<b>AFTERCOOLER CIRCUIT TYPE:</b>	JW+OC, AC
<b>PUMP QUANTITY:</b>	1	<b>INLET MANIFOLD AIR TEMP (F):</b>	120
<b>FUEL TYPE:</b>	DIESEL	<b>JACKET WATER TEMP (F):</b>	210.2
<b>MANIFOLD TYPE:</b>	DRY	<b>TURBO CONFIGURATION:</b>	PARALLEL
<b>GOVERNOR TYPE:</b>	ELEC	<b>TURBO QUANTITY:</b>	2
<b>CAMSHAFT TYPE:</b>	STANDARD	<b>TURBOCHARGER MODEL:</b>	S310S089-1.00
<b>IGNITION TYPE:</b>	CI	<b>CERTIFICATION YEAR:</b>	2006
<b>INJECTOR TYPE:</b>	EUI	<b>PISTON SPD @ RATED ENG SPD (FT/MIN):</b>	2,521.7
<b>REF EXH STACK DIAMETER (IN):</b>	6		
<b>MAX OPERATING ALTITUDE (FT):</b>	8,858		

INDUSTRY	SubIndustry	APPLICATION
INDUSTRIAL	CONSTRUCTION	INDUSTRIAL
INDUSTRIAL	AGRICULTURE	INDUSTRIAL
INDUSTRIAL	MATERIAL HANDLING	INDUSTRIAL
OIL AND GAS	LAND DRILLING	INDUSTRIAL
INDUSTRIAL	GENERAL INDUSTRIAL	INDUSTRIAL
OIL AND GAS	LAND PRODUCTION	INDUSTRIAL
INDUSTRIAL	MINING	INDUSTRIAL
INDUSTRIAL	FORESTRY	INDUSTRIAL

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

ENGINE SPEED	ENGINE POWER	ENGINE TORQUE	BRAKE MEAN EFF PRES (BMEP)	BRAKE SPEC FUEL CONSUMPTN (BSFC)	ISO BRAKE SPEC FUEL CONSUMPTN (BSFC)	VOL FUEL CONSUMPTN (VFC)	ISO VOL FUEL CONSUMPTN (VFC)
RPM	BHP	LB-FT	PSI	LB/BHP-HR	LB/BHP-HR	GAL/HR	GAL/HR
2,100	765	1,913	261	0.344	0.339	37.1	36.5
2,000	765	2,009	274	0.338	0.333	36.4	35.9
1,900	765	2,115	288	0.332	0.328	35.9	35.3
1,800	765	2,232	304	0.330	0.325	35.5	35.0
1,700	757	2,338	319	0.329	0.324	35.1	34.6
1,600	740	2,431	331	0.328	0.324	34.3	33.8
1,500	718	2,514	343	0.328	0.323	33.2	32.7
1,400	687	2,578	351	0.329	0.324	31.8	31.4
1,300	630	2,545	347	0.327	0.323	29.1	28.7
1,200	503	2,200	300	0.329	0.324	23.3	23.0
1,100	421	2,009	274	0.333	0.328	19.7	19.5

  

ENGINE SPEED	ENGINE POWER	INLET MFLD PRES	INLET MFLD TEMP	EXH MFLD TEMP	EXH MFLD PRES	ENGINE OUTLET TEMP	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP
RPM	BHP	IN-HG	DEG F	DEG F	IN-HG	DEG F	IN-HG	DEG F
2,100	765	61.0	120.5	1,150.7	63.6	855.8	66	388.0
2,000	765	61.4	121.0	1,155.9	60.5	866.4	66	383.6
1,900	765	61.6	116.7	1,162.2	57.4	876.8	66	378.8
1,800	765	62.2	116.0	1,182.2	54.4	898.7	66	377.9
1,700	757	63.0	115.5	1,205.6	51.3	924.2	66	376.4
1,600	740	62.1	110.5	1,229.8	46.9	953.8	65	373.1
1,500	718	60.1	110.5	1,269.8	41.7	997.3	63	368.6
1,400	687	57.1	104.8	1,305.3	37.1	1,039.1	59	361.2

ENGINE SPEED	ENGINE POWER	INLET MFLD PRES	INLET MFLD TEMP	EXH MFLD TEMP	EXH MFLD PRES	ENGINE OUTLET TEMP	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP
1,300	630	51.1	100.0	1,329.9	30.7	1,073.3	53	343.2
1,200	503	37.8	94.6	1,323.0	20.5	1,093.4	39	294.0
1,100	421	29.5	89.9	1,331.8	14.6	1,124.3	31	261.9

  

ENGINE SPEED	ENGINE POWER	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)
RPM	BHP	CFM	CFM	LB/HR	LB/HR	FT3/MIN	FT3/MIN
2,100	765	1,773.1	4,456.7	7,651.1	7,914.1	1,665.8	1,531.1
2,000	765	1,708.3	4,321.2	7,353.7	7,611.9	1,602.2	1,470.6
1,900	765	1,646.8	4,189.6	7,068.0	7,322.3	1,541.3	1,411.9
1,800	765	1,585.7	4,103.4	6,804.2	7,056.4	1,485.2	1,358.3
1,700	757	1,522.6	4,007.3	6,514.6	6,763.5	1,423.7	1,298.8
1,600	740	1,437.3	3,862.1	6,138.9	6,382.1	1,343.4	1,222.6
1,500	718	1,325.4	3,668.2	5,645.6	5,880.9	1,237.9	1,121.5
1,400	687	1,212.9	3,450.1	5,151.2	5,377.0	1,131.8	1,021.6
1,300	630	1,058.8	3,075.3	4,479.6	4,685.8	986.3	885.8
1,200	503	825.8	2,422.2	3,477.8	3,643.0	766.8	687.0
1,100	421	666.2	1,995.6	2,802.5	2,942.7	619.4	552.2

### Heat Rejection Data [Top](#)

ENGINE SPEED	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
RPM	BHP	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN
2,100	765	10,126	3,816	31,293	16,884	4,294	8,196	32,444	80,614	85,875
2,000	765	9,847	3,771	30,587	16,605	4,219	7,735	32,444	79,214	84,383
1,900	765	9,621	3,663	29,913	16,323	4,153	7,418	32,444	77,970	83,058
1,800	765	9,479	3,635	29,655	16,425	4,118	7,137	32,444	77,306	82,350
1,700	757	9,314	3,720	29,393	16,524	4,066	6,805	32,095	76,344	81,326
1,600	740	9,076	3,702	28,771	16,452	3,970	6,456	31,401	74,542	79,406
1,500	718	8,887	3,728	27,930	16,334	3,841	5,834	30,447	72,120	76,826
1,400	687	8,720	3,770	26,821	15,978	3,687	5,288	29,146	69,227	73,744
1,300	630	8,153	3,786	24,347	14,682	3,368	4,363	26,717	63,239	67,365

### Emissions Data [Top](#)

Units Filter

DIESEL

RATED SPEED NOMINAL DATA: 2100 RPM

ENGINE POWER	BHP	765	574	383	191	76.5
PERCENT LOAD	%	100	75	50	25	10
TOTAL NOX (AS NO2)	G/HR	4,231	1,955	1,097	815	793
TOTAL CO	G/HR	178	117	133	268	280
TOTAL HC	G/HR	21	46	46	40	38
TOTAL CO2	KG/HR	373	297	210	115	64
PART MATTER	G/HR	31.5	33.0	39.9	83.4	29.3
TOTAL NOX (AS NO2)	(CORR 5% O2) MG/NM3	2,585.3	1,493.6	1,186.9	1,585.1	2,704.8
TOTAL CO	(CORR 5% O2) MG/NM3	108.7	89.4	143.7	523.8	959.0
TOTAL HC	(CORR 5% O2) MG/NM3	11.3	30.7	42.6	68.0	113.5
PART MATTER	(CORR 5% O2) MG/NM3	16.2	21.7	38.1	145.6	101.2
TOTAL NOX (AS NO2)	(CORR 5% O2) PPM	1,259	728	578	772	1,317
TOTAL CO	(CORR 5% O2) PPM	87	72	115	419	767
TOTAL HC	(CORR 5% O2) PPM	21	57	80	127	212
TOTAL NOX (AS NO2)	G/HP-HR	5.56	3.42	2.88	4.26	10.37
TOTAL CO	G/HP-HR	0.23	0.21	0.35	1.40	3.66
TOTAL HC	G/HP-HR	0.03	0.08	0.12	0.21	0.50
PART MATTER	G/HP-HR	0.04	0.06	0.10	0.44	0.38
TOTAL NOX (AS NO2)	LB/HR	9.33	4.31	2.42	1.80	1.75
TOTAL CO	LB/HR	0.39	0.26	0.29	0.59	0.62
TOTAL HC	LB/HR	0.05	0.10	0.10	0.09	0.08
TOTAL CO2	LB/HR	823	655	462	253	140
PART MATTER	LB/HR	0.07	0.07	0.09	0.18	0.06
OXYGEN IN EXH	%	10.8	12.2	13.6	15.0	16.8
DRY SMOKE OPACITY	%	0.5	0.6	1.0	2.7	1.2

ENGINE POWER	BHP	765	574	383	191	76.5
PERCENT LOAD	%	100	75	50	25	10
BOSCH SMOKE NUMBER		0.18	0.33	0.65	1.63	0.83

RATED SPEED POTENTIAL SITE VARIATION: 2100 RPM

ENGINE POWER	BHP	765	574	383	191	76.5
PERCENT LOAD	%	100	75	50	25	10
TOTAL NOX (AS NO2)	G/HR	4,570	2,111	1,185	881	857
TOTAL CO	G/HR	333	220	249	502	523
TOTAL HC	G/HR	40	88	86	76	72
PART MATTER	G/HR	61.5	64.4	77.9	162.6	57.1
TOTAL NOX (AS NO2)	(CORR 5% O2) MG/NM3	2,792.1	1,613.0	1,281.9	1,712.0	2,921.1
TOTAL CO	(CORR 5% O2) MG/NM3	203.3	167.2	268.7	979.6	1,793.3
TOTAL HC	(CORR 5% O2) MG/NM3	21.4	57.9	80.6	128.4	214.4
PART MATTER	(CORR 5% O2) MG/NM3	31.7	42.3	74.2	284.0	197.3
TOTAL NOX (AS NO2)	(CORR 5% O2) PPM	1,360	786	624	834	1,423
TOTAL CO	(CORR 5% O2) PPM	163	134	215	784	1,435
TOTAL HC	(CORR 5% O2) PPM	40	108	150	240	400
TOTAL NOX (AS NO2)	G/HP-HR	6.00	3.69	3.11	4.61	11.20
TOTAL CO	G/HP-HR	0.44	0.38	0.65	2.62	6.83
TOTAL HC	G/HP-HR	0.05	0.15	0.23	0.40	0.95
PART MATTER	G/HP-HR	0.08	0.11	0.20	0.85	0.75
TOTAL NOX (AS NO2)	LB/HR	10.07	4.65	2.61	1.94	1.89
TOTAL CO	LB/HR	0.74	0.48	0.55	1.11	1.15
TOTAL HC	LB/HR	0.09	0.19	0.19	0.17	0.16
PART MATTER	LB/HR	0.14	0.14	0.17	0.36	0.13

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

CHINA STAGE 3 2015 - ----

THIS ENGINE HAS BEEN TESTED IN ACCORDANCE WITH THE PROVISIONS OF THE PEOPLE'S REPUBLIC OF CHINA NATIONAL STANDARD # GB 20891-2014, AND COMPLIES WITH THE STATED LIMITS OF CO, HC, NOX, AND PM FOR STAGE III

Locality	Agency	Regulation	Tier/Stage	Max Limits - G/BKW - HR
CHINA	CHINA	NON-ROAD	STAGE 3	CO: 3.5 NOx + HC: 6.4 PM: 0.20

EPA TIER 2 2006 - 2010

GASEOUS EMISSIONS DATA MEASUREMENTS PROVIDED TO THE EPA ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 89 SUBPART D 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 NON-ROAD REGULATIONS.

Locality	Agency	Regulation	Tier/Stage	Max Limits - G/BKW - HR
U.S. (INCL CALIF)	EPA	NON-ROAD	TIER 2	CO: 3.5 NOx + HC: 6.4 PM: 0.20

EPA EMERGENCY STATIONARY 2011 - ----

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.

Locality	Agency	Regulation	Tier/Stage	Max Limits - G/BKW - HR
U.S. (INCL CALIF)	EPA	STATIONARY	EMERGENCY STATIONARY	CO: 3.5 NOx + HC: 6.4 PM: 0.20

IMO II 2011 - ----

GASEOUS EMISSIONS DATA MEASUREMENTS ARE CONSISTENT WITH THOSE DESCRIBED IN REGULATION 13 OF REVISED ANNEX VI OF MARPOL 73/78 AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. THIS ENGINE CONFORMS TO INTERNATIONAL MARINE ORGANIZATION'S (IMO) MARINE COMPRESSION-IGNITION EMISSION REGULATIONS.

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

STANDARD

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	765	765	765	765	765	765	765	765	765	765	765	765	765
1,000	765	765	765	765	765	765	765	765	765	765	765	765	765
2,000	765	765	765	765	765	765	765	765	765	765	765	765	765
3,000	765	765	765	765	765	765	765	765	765	765	765	765	765
4,000	765	765	765	765	765	765	765	765	765	765	765	765	765
5,000	765	765	765	765	765	765	765	765	765	765	765	765	765
6,000	765	765	765	765	765	765	765	765	765	765	765	765	765
7,000	765	765	765	765	765	765	765	765	765	763	750	738	765
8,000	765	765	765	765	765	765	765	759	746	733	721	709	765
9,000	765	765	765	765	765	756	743	729	717	704	692	681	765
10,000	765	765	765	754	740	726	713	700	688	676	665	653	765
11,000	765	753	738	724	710	697	684	672	660	649	638	627	754
12,000	737	722	708	694	681	668	656	645	633	622	612	602	728
13,000	706	692	679	666	653	641	629	618	607	597	587	577	703
14,000	677	663	650	638	626	614	603	592	582	572	562	553	679
15,000	649	636	623	611	600	588	578	567	557	548	539	530	655

Cross Reference [Top](#)

Test Spec	Setting	Engine Arrangement	Engineering Model	Engineering Model Version	Start Effective Serial Number	End Effective Serial Number
0K4936	PP5364	2543817	E709	-	WJH00001	
0K4936	PP5364	3591886	E709	-	WJH00001	
0K4936	PP5364	3591886	E709	-	WRH00001	
0K4936	PP5364	3665522	E709	-	WRH00001	
4577273	PP7749	5181550	EE384	-	PK800001	
4150761	NAP	6185699	PT236	-	HNS00001	
6351914	PP7612	6547361	E709	-	WRH00001	
6351916	PP7622	6554745	EE384	-	PK800001	
0K4936	PP5364	6564109	E709	-	WRH00001	
6674139	HH0056	6682575	EE384	D	P8Y00001	
6728695	NAP	6682575	EE384	D	P8Y00001	
6674139	HH0056	6743143	EE384	-	P8Y00001	
6728695	NAP	6743143	EE384	-	P8Y00001	
6674139	HH0056	6743143	EE384	D	P8Y00001	
6728695	NAP	6743143	EE384	D	P8Y00001	

Performance Parameter Reference [Top](#)

Parameters Reference: DM9600 - 15  
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% Specific fuel consumption (C7-C18) +/- 4% 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.

**Parameters Reference: DM9600 - 15**  
**PERFORMANCE DEFINITIONS**

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.

On 3500 and C175 engines, at speeds below Peak Torque 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 out put 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.

**WET & DRY EXHAUST/EMISSIONS DESCRIPTION:** Wet - Total exhaust flow or concentration of total exhaust flow Dry - Total exhaust flow minus water vapor or concentration of exhaust flow with water vapor excluded

**Parameters Reference: DM9600 - 15  
PERFORMANCE DEFINITIONS**

**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 : 03/12/24**

---

Caterpillar Confidential: **Green**

Content Owner: Commercial Processes Division

Web Master(s): [PSG Web Based Systems Support](#)

Current Date: 3/17/2026, 8:47:26 AM

© Caterpillar Inc. 2026 All Rights Reserved.

Privacy.

[Cookie-instellingen](#)