

DIESEL ELECTRIC BRITISH STANDARD B.S. 649: 1958 HORSEPOWER RATINGS
INDEX

<u>Engine</u>	<u>Injectors</u> <u>Int. - Max.</u> <u>& 10%</u>		<u>Intermit.- Max.</u>		<u>B.S. 649</u> <u>10% Overload</u>		<u>B.S. 649</u> <u>Continuous</u>		<u>Curve Number</u>	<u>Date</u>
	<u>Overload</u>	<u>Cont.</u>	<u>1500 RPM</u>	<u>1800 RPM</u>	<u>1500 RPM</u>	<u>1800 RPM</u>	<u>1500 RPM</u>	<u>1800 RPM</u>		
12V-149	130	120			660 (492)	770 (474)	600 (448)	700 (522)	E4-9125-12-5	5/15/79
12V-149T	-	-	980 (731)	1135 (847)	858 (640)	979 (730)	780 (582)	890 (664)	E4-9125-32-17	8/10/78
12V-149TI	-	-	980 (731)	1155 (862)	924 (689)	1067 (796)	840 (627)	970 (724)	E4-9125-32-18	5/14/79
16V-149	130	120			880 (656)	1025 (765)	800 (597)	930 (694)	E4-9165-12-4	5/15/79

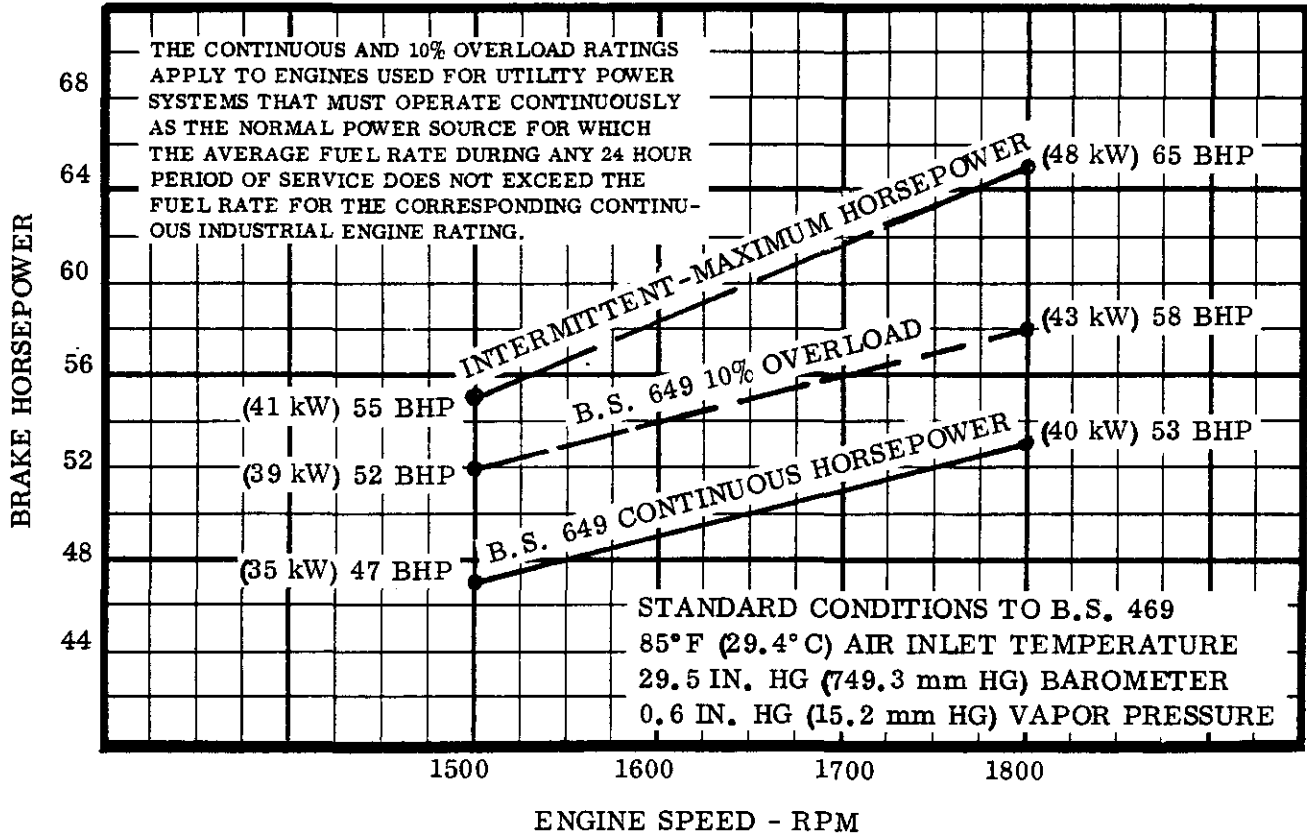
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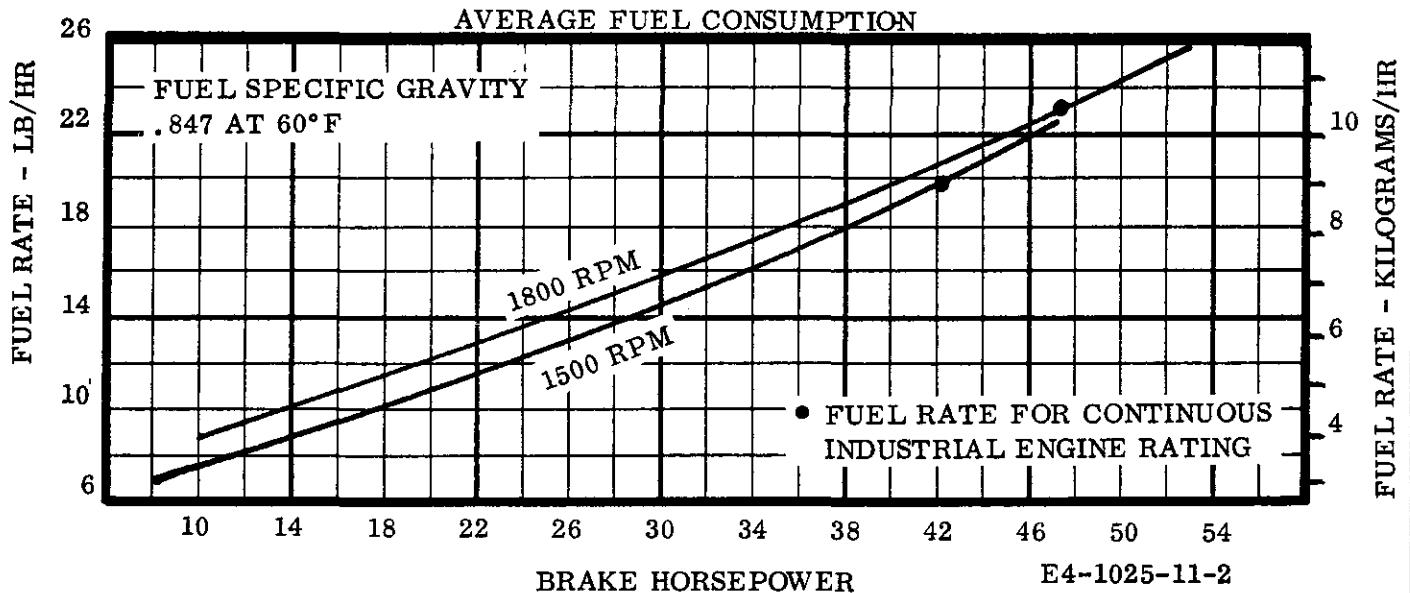
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 2-71
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5 PERCENT AT STANDARD CONDITIONS.



BRAKE HORSEPOWER

E4-1025-11-2
Rev. 5-18-79

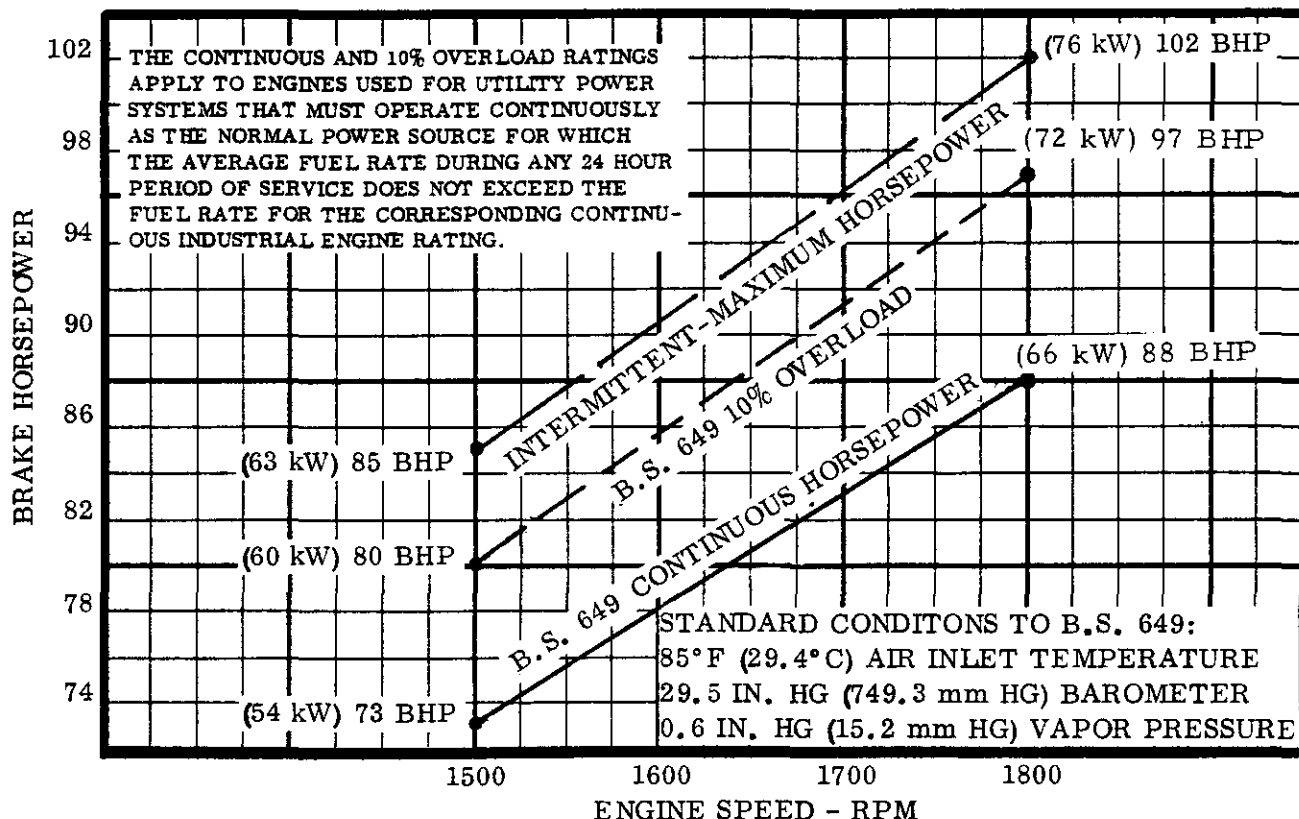
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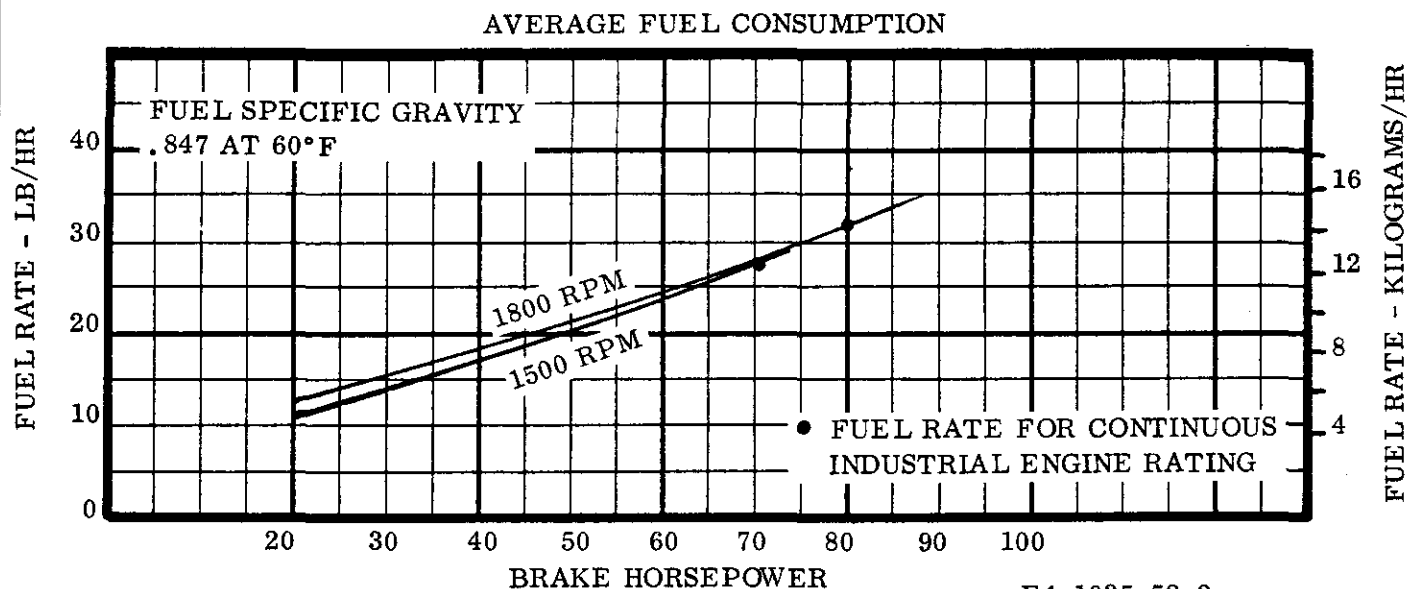
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 3-71
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS



DE 4033

ENGINEERING-TECHNICAL DATA DEPT.

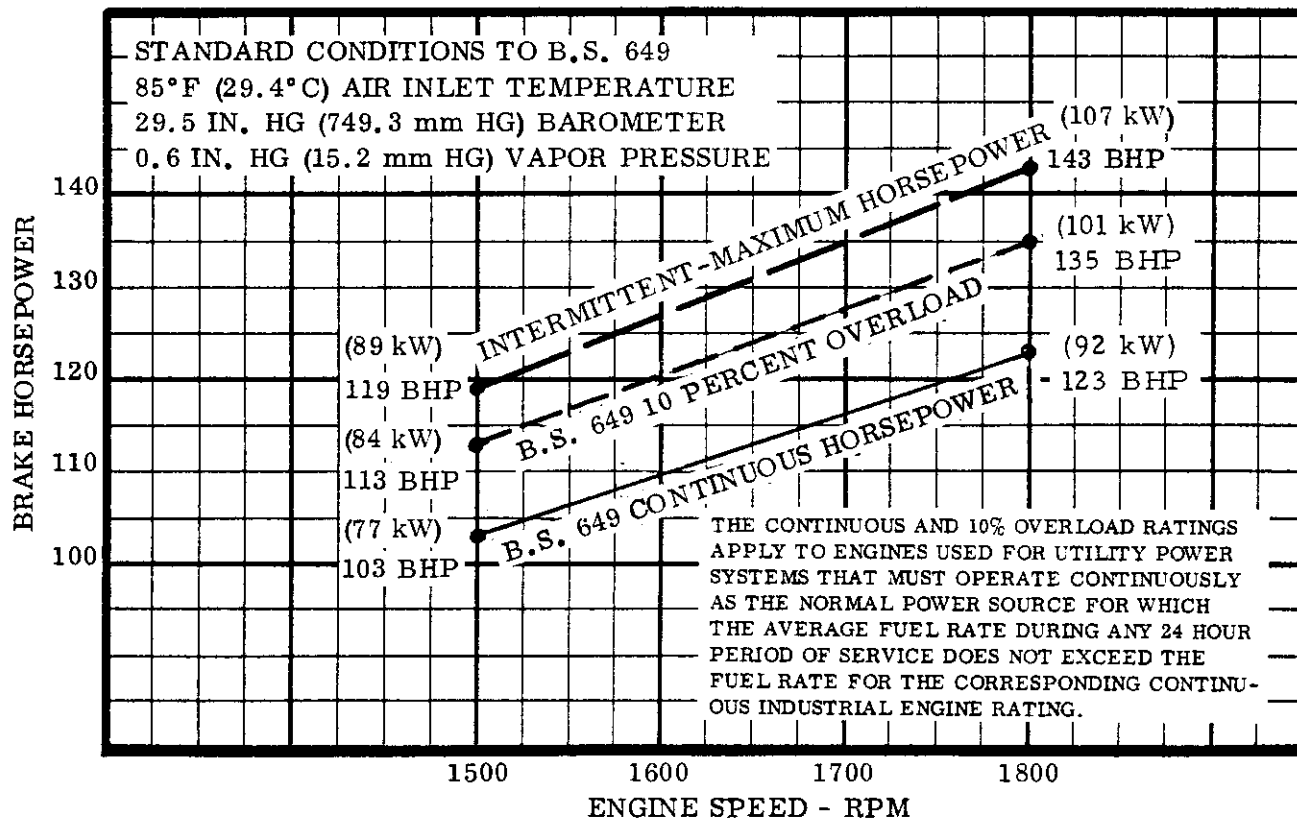
E4-1035-52-2
Rev. 11-18-80



Detroit Diesel Allison
Division of General Motors Corporation

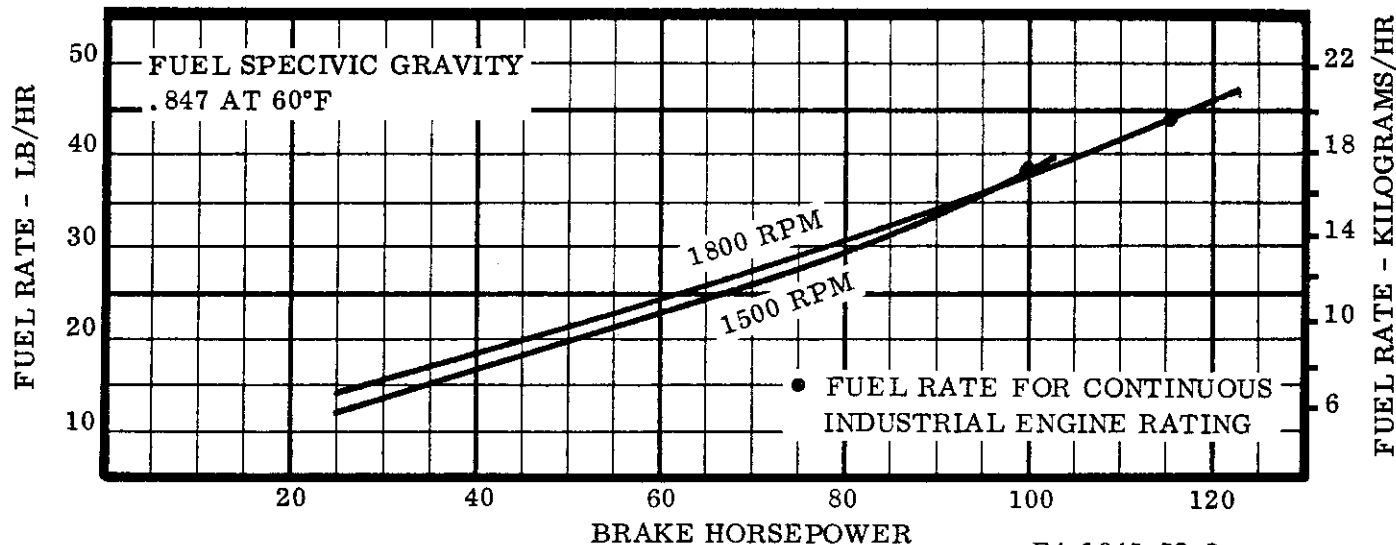
GENERATOR ENGINE PERFORMANCE

MODEL: 4-71N
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5 PERCENT AT STANDARD CONDITONS

AVERAGE FUEL CONSUMPTION

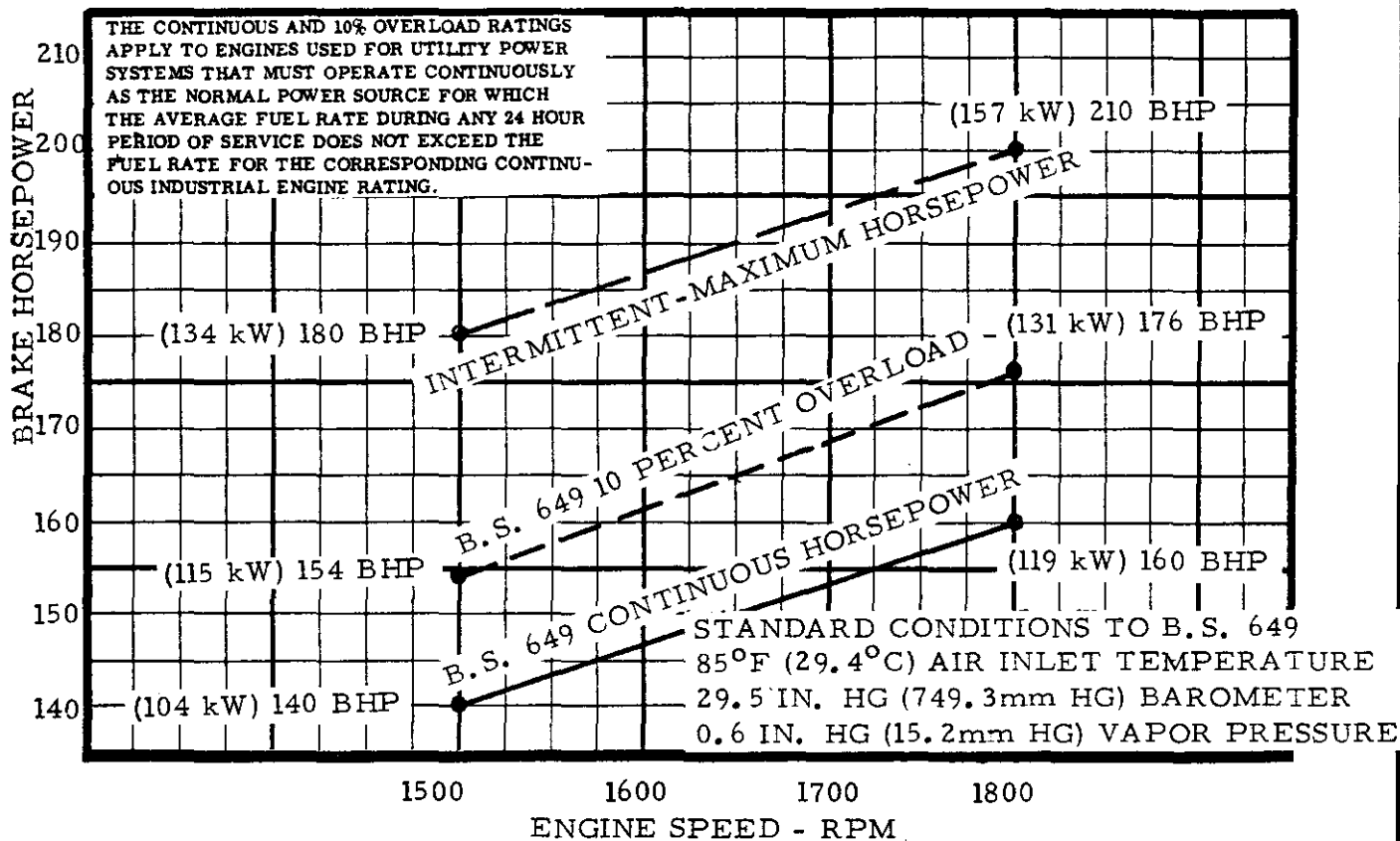




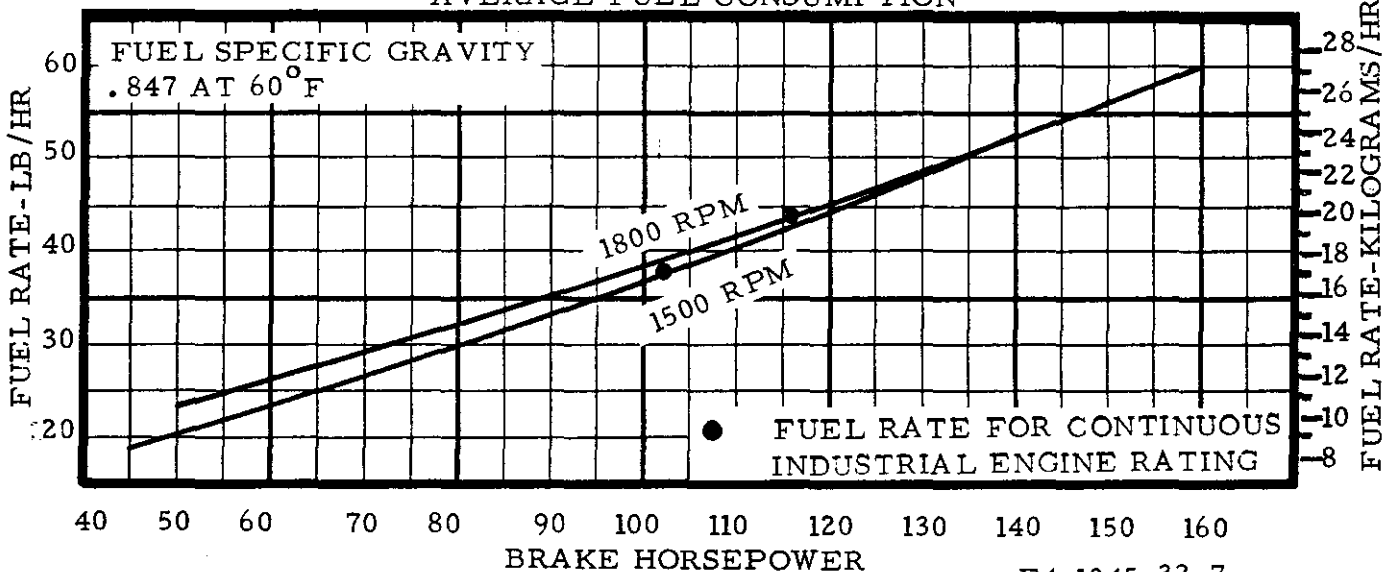
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 4-71T
APPLICATION: DIESEL ELECTRIC
TURBOCHARGER: T04B 98(1.14 A/R HSG.)
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5 PERCENT AT STANDARD CONDITIONS.
AVERAGE FUEL CONSUMPTION

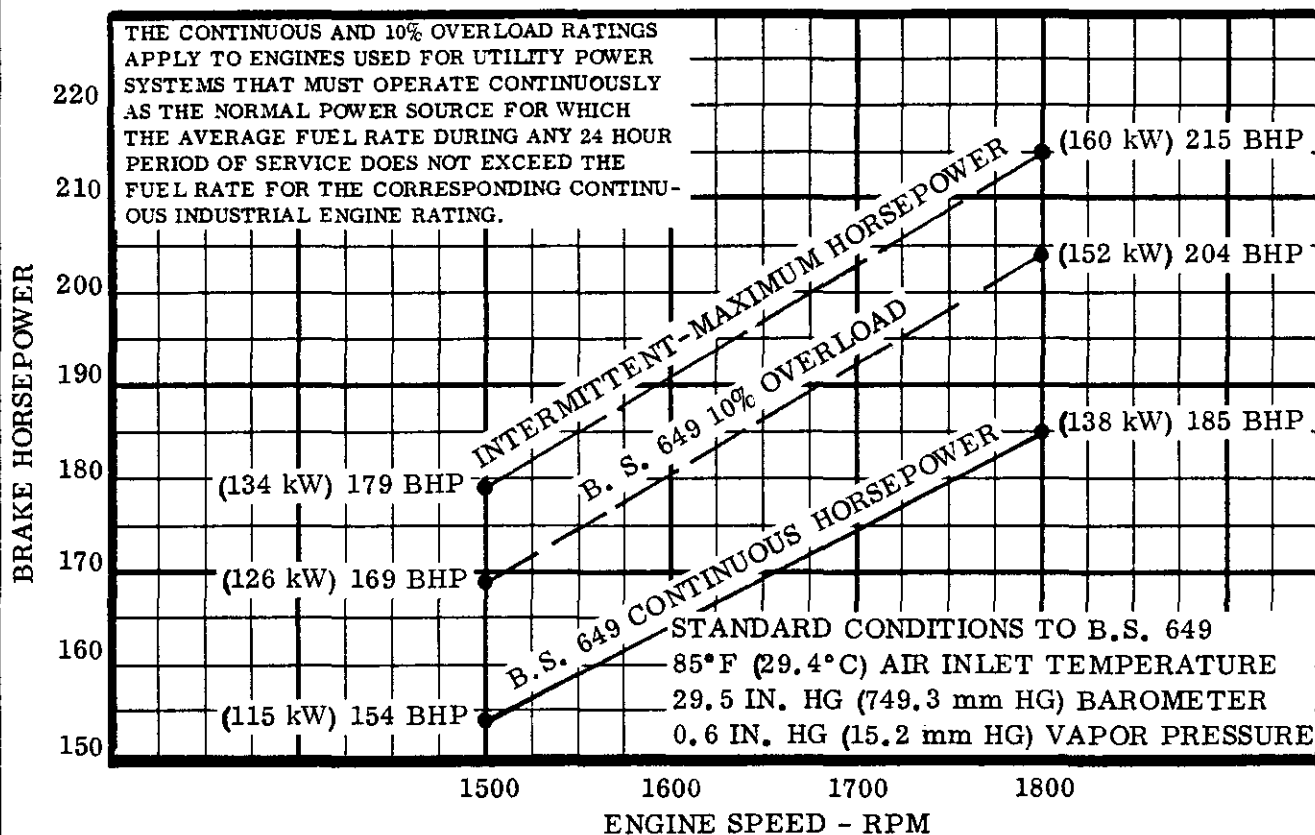




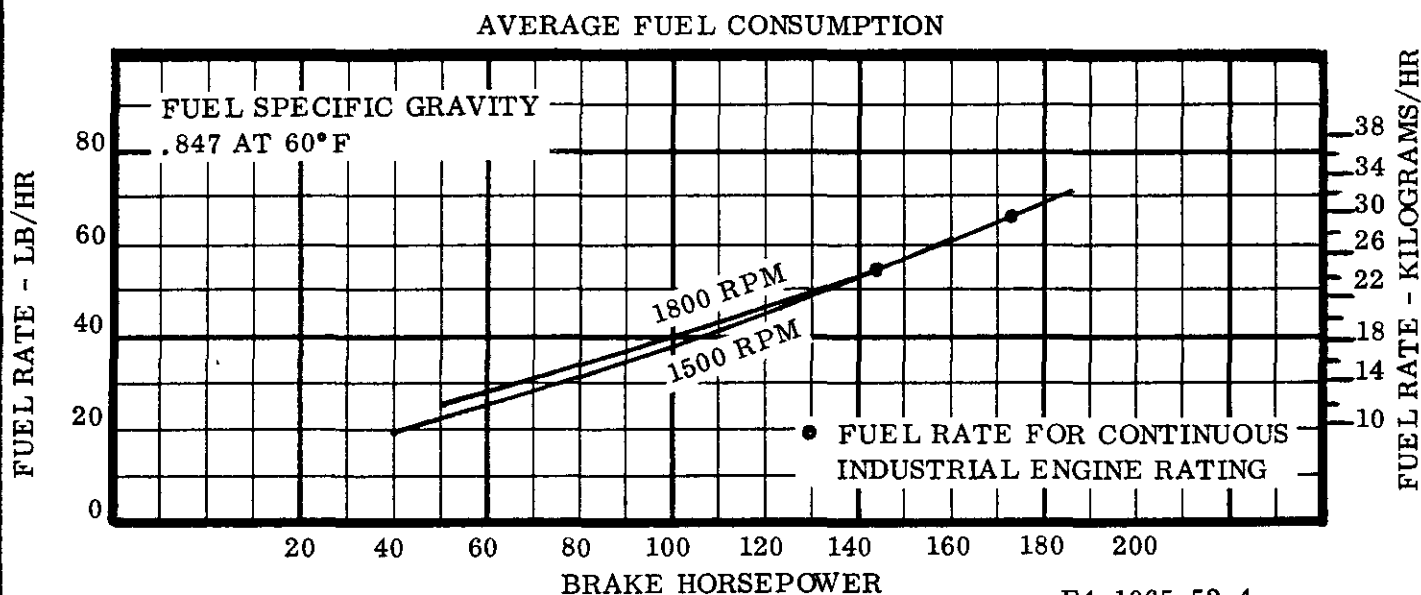
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 6-71N
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS

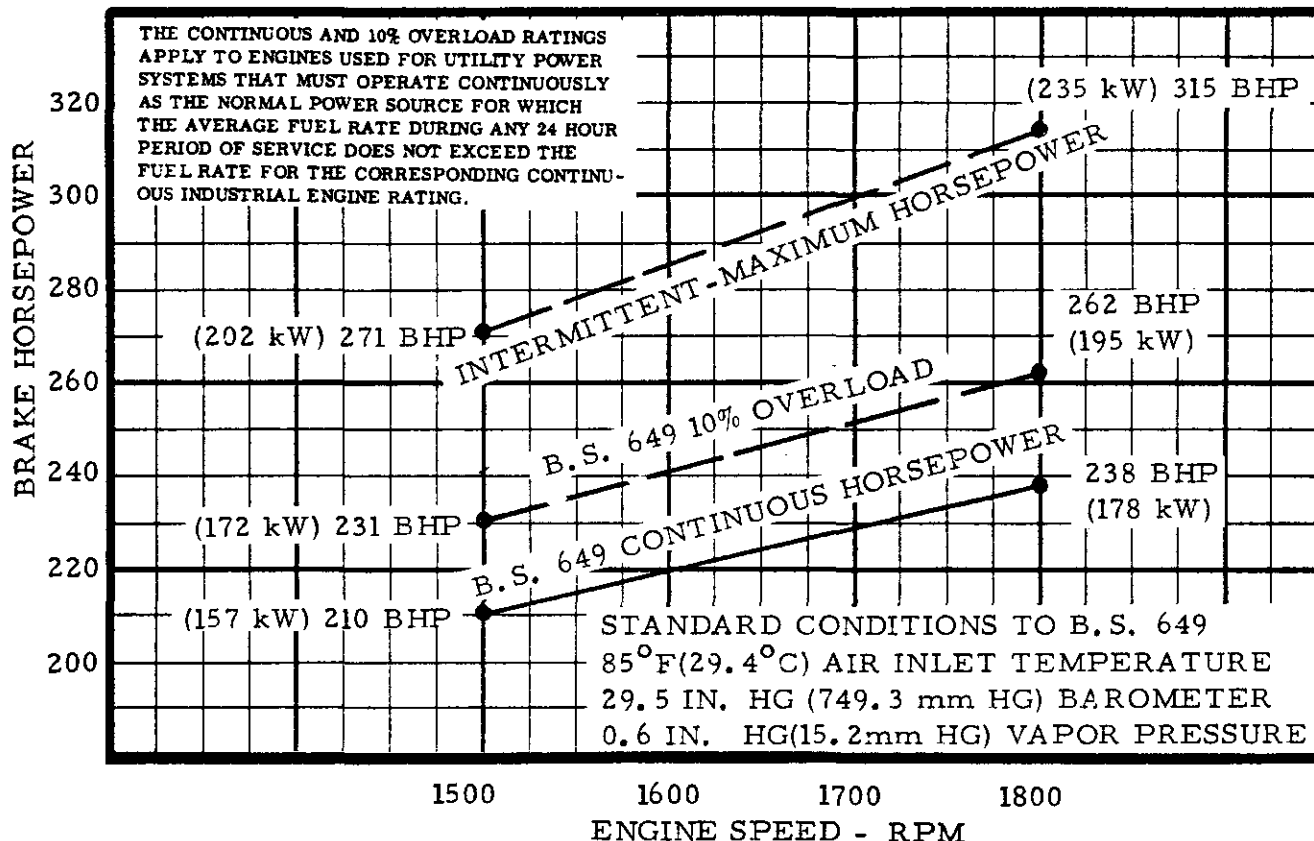




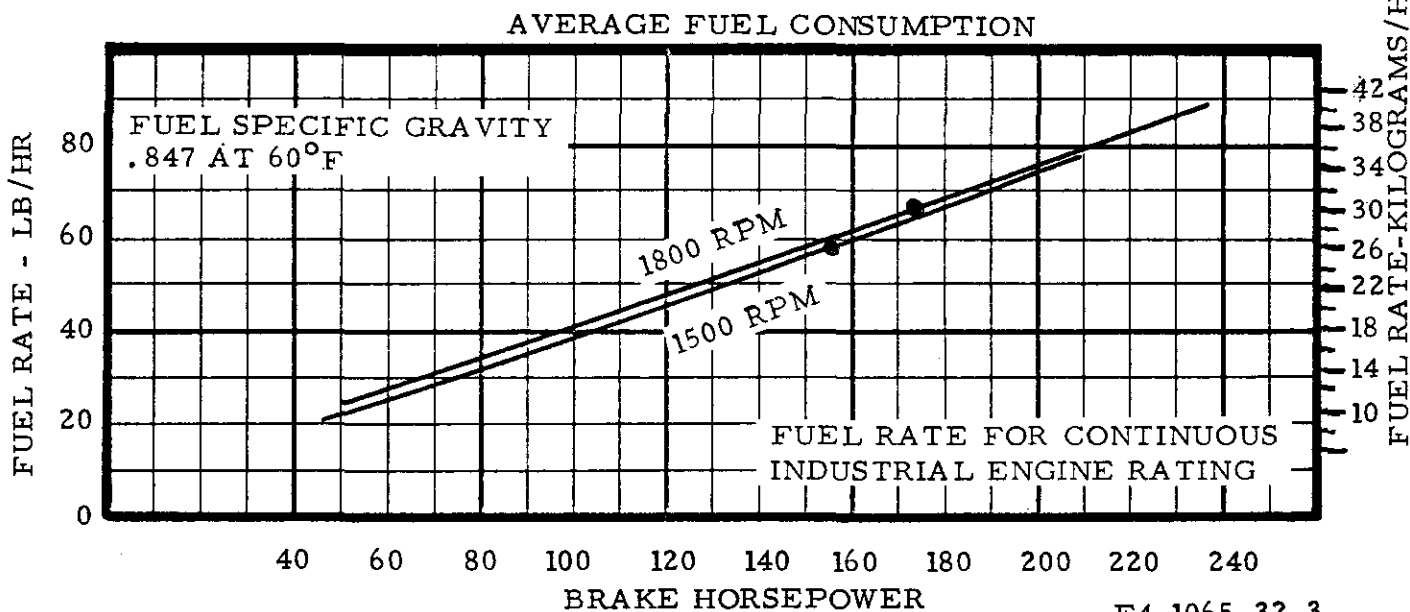
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 6L-71T
APPLICATION: DIESEL ELECTRIC
TURBOCHARGER: TV7101(1.39 A/R Hsg.)
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS.

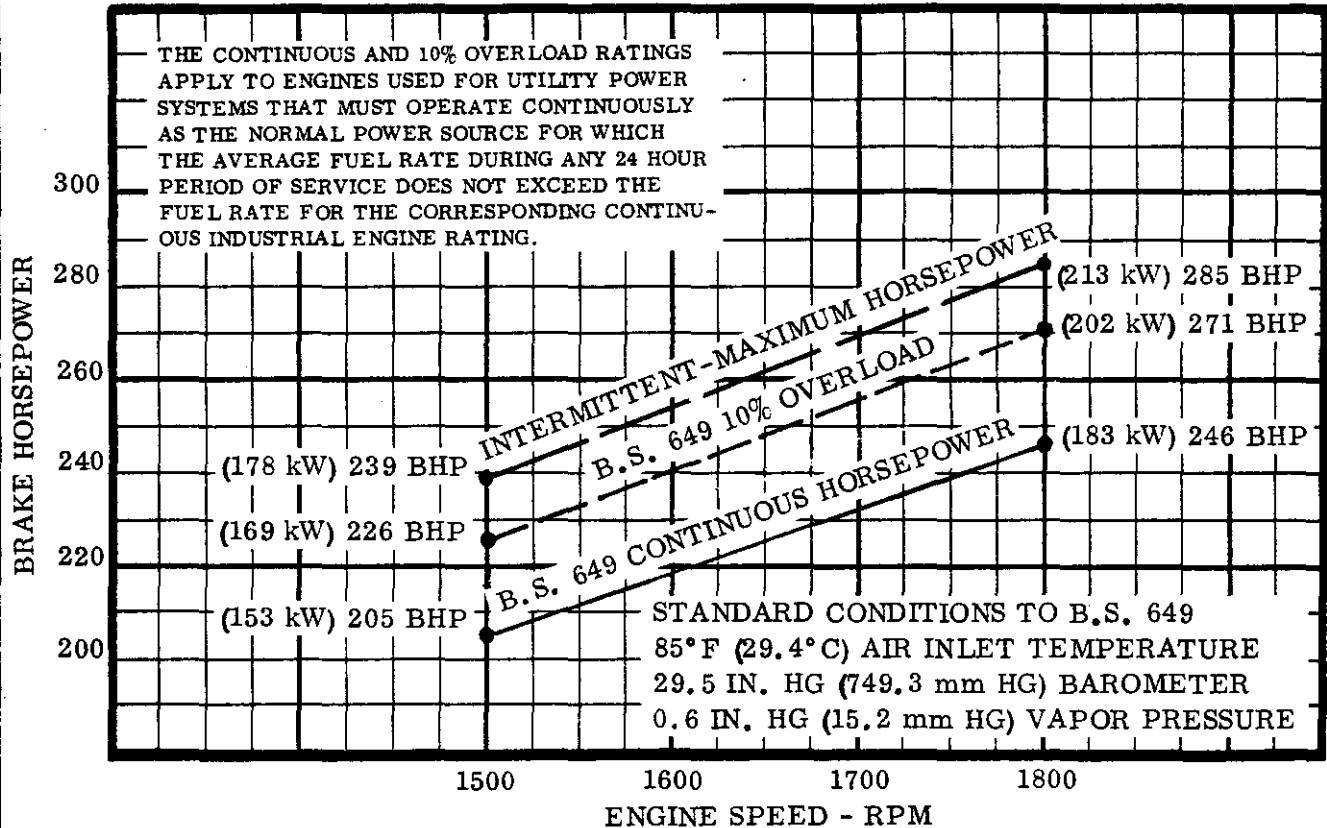




Detroit Diesel Allison
Division of General Motors Corporation

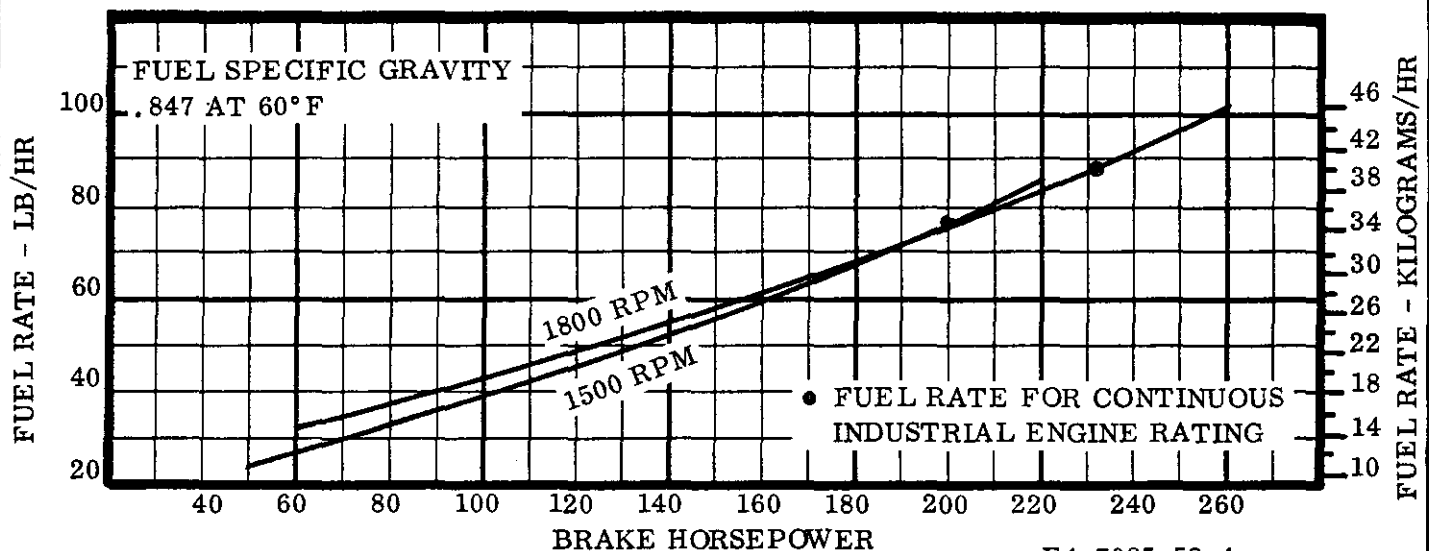
GENERATOR ENGINE PERFORMANCE

MODEL: 8V-71N
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS.

AVERAGE FUEL CONSUMPTION



DE 4033

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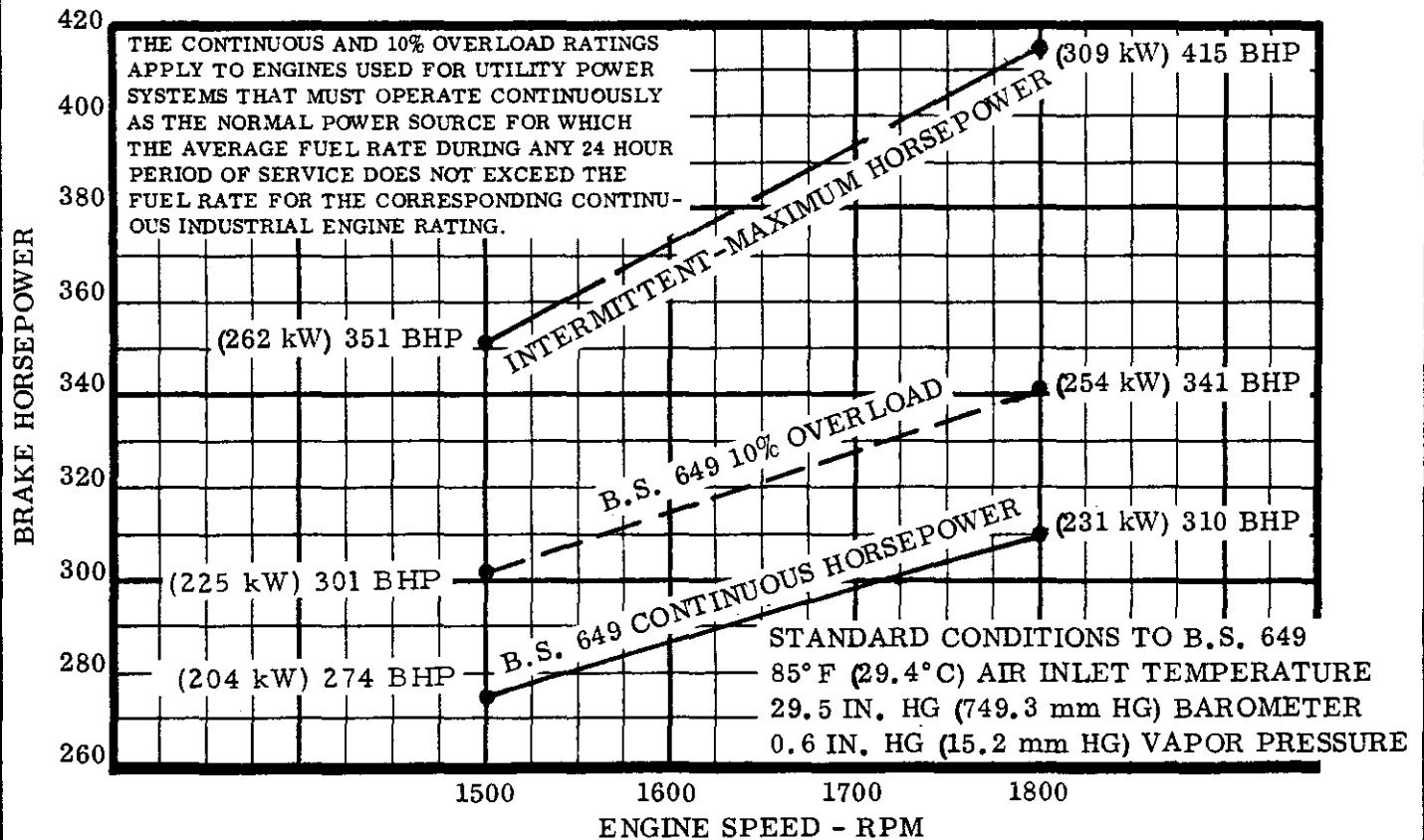
E4-7085-52-4
Rev. 5-23-79



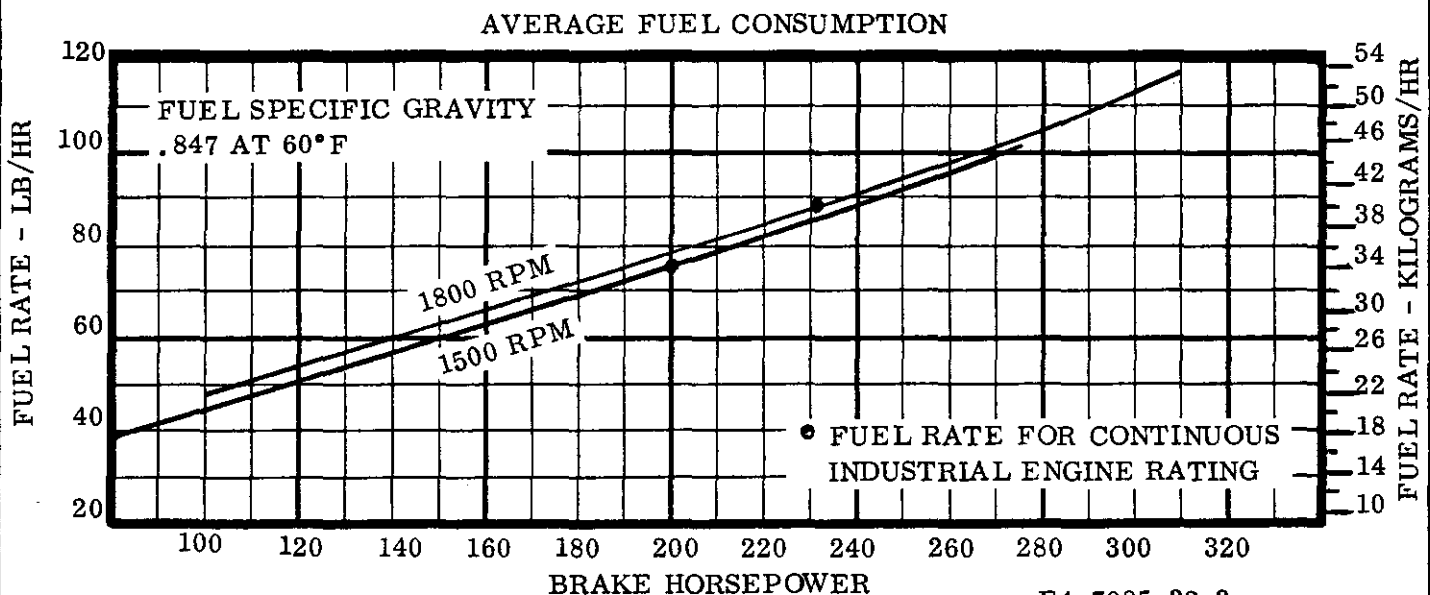
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 8V-71T
APPLICATION: DIESEL ELECTRIC
TURBOCHARGER: TV8101 (1.39 A/R Hsg.)
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS:

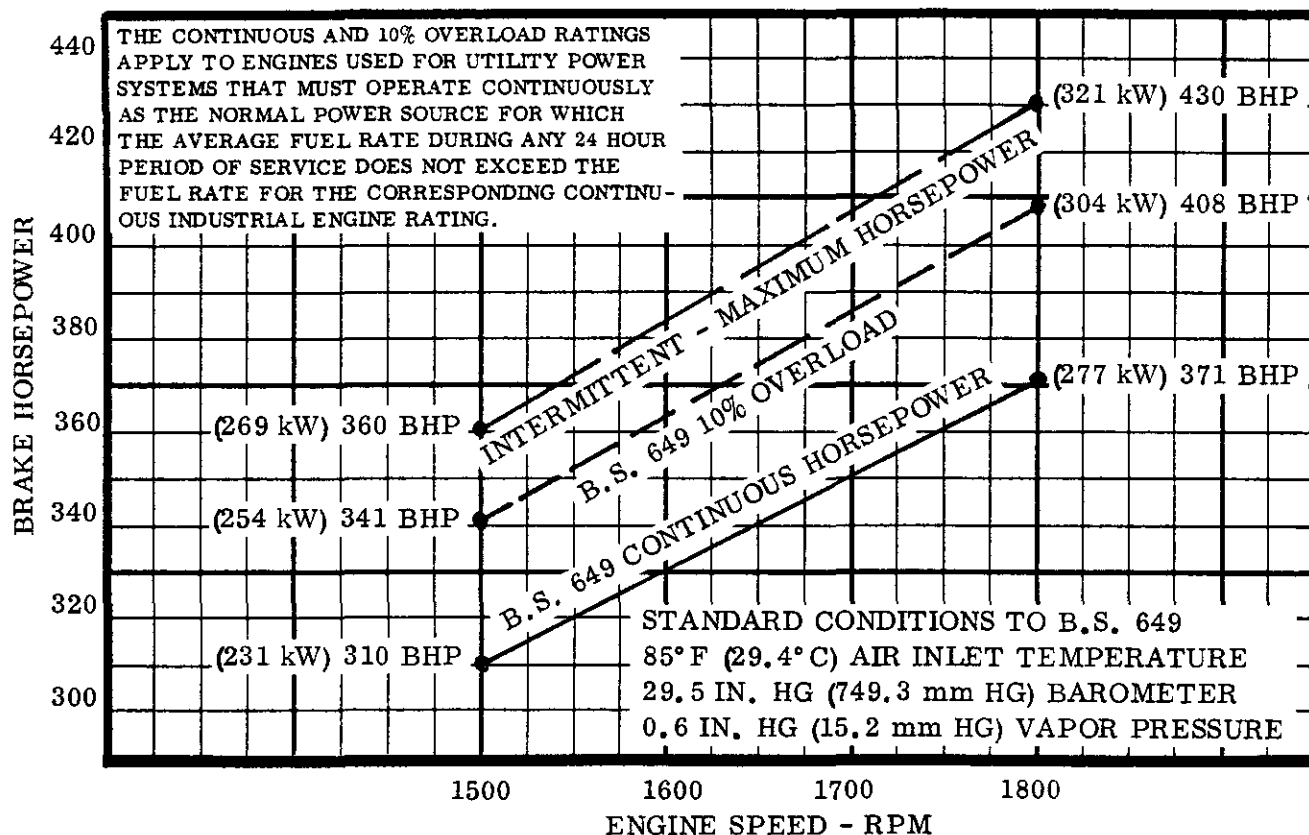




Detroit Diesel Allison
Division of General Motors Corporation

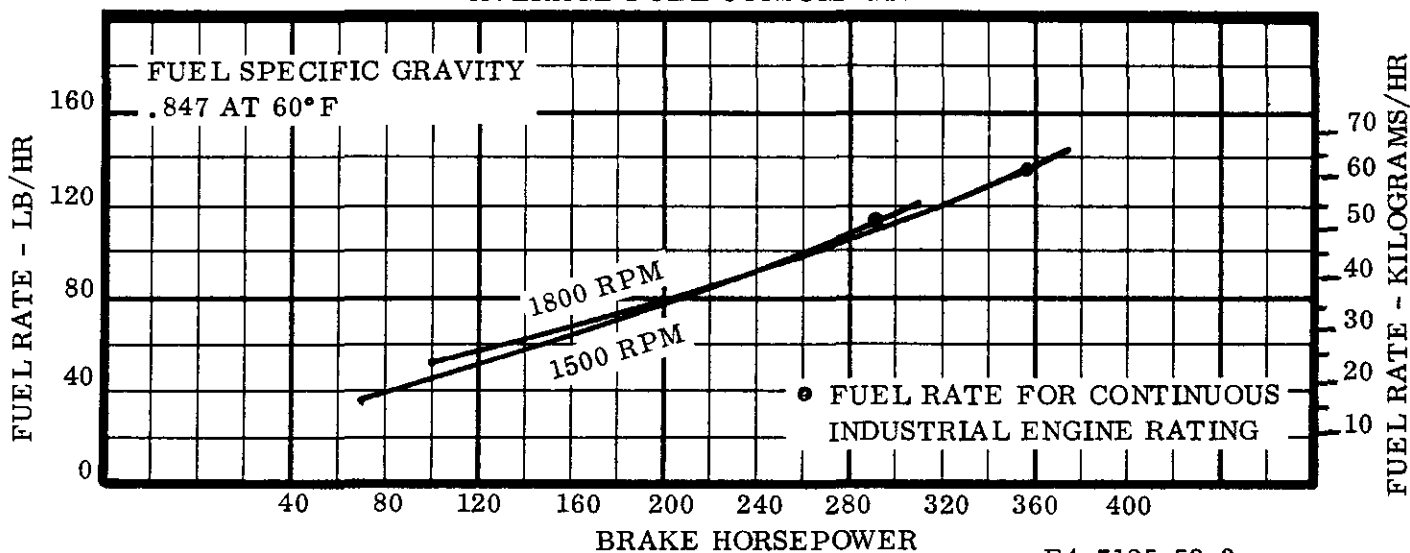
GENERATOR ENGINE PERFORMANCE

MODEL: 12V-71N
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS.

AVERAGE FUEL CONSUMPTION



E4-7125-52-3
Rev. 5-23-79

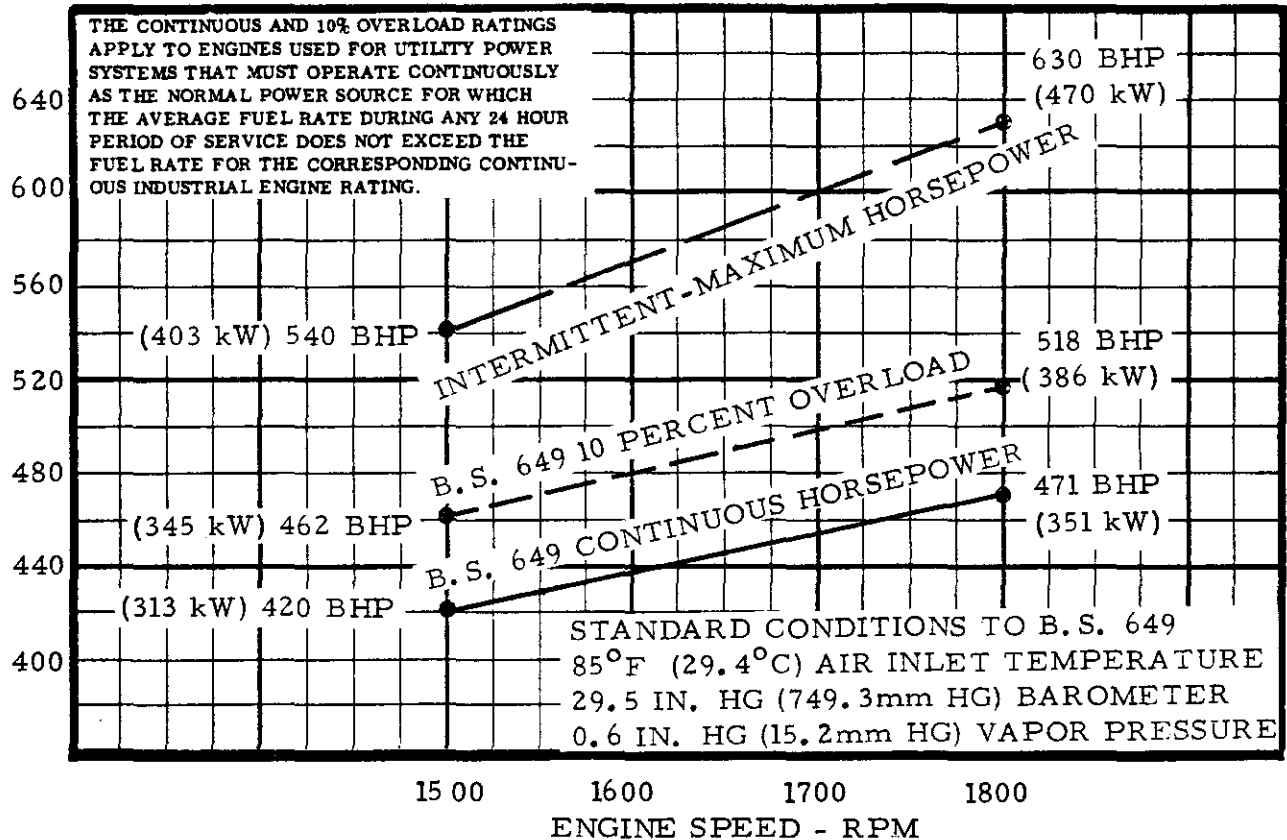
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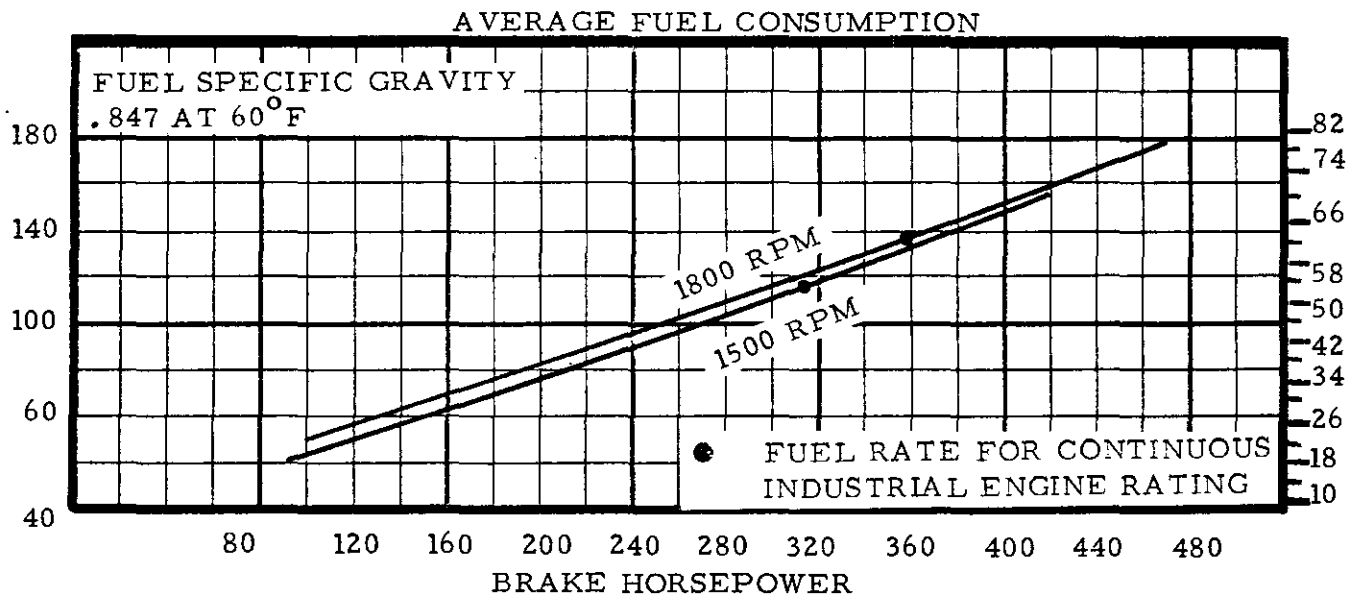
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 12V-71T
APPLICATION: DIESEL ELECTRIC
TURBOCHARGER: TV7101 (1.37 A/R Hsg.)
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS.

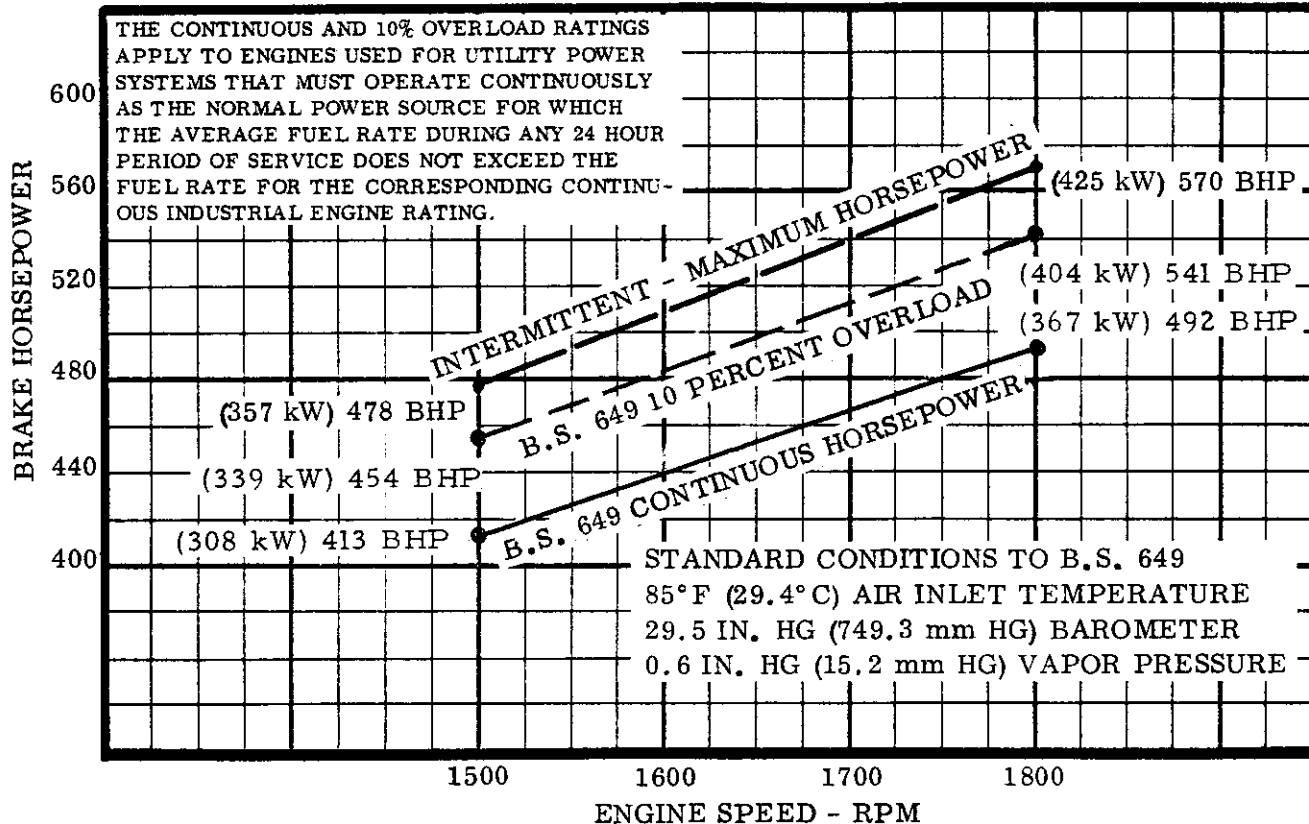




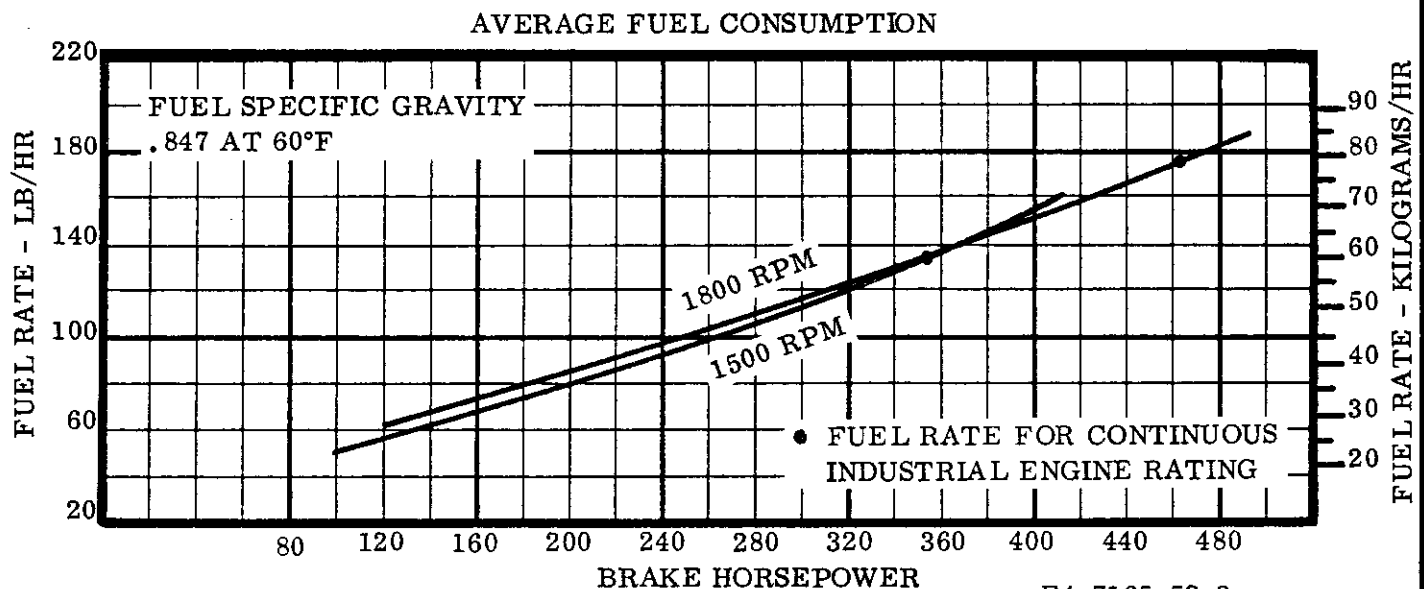
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 16V-71N
APPLICATION: DIESEL ELECTRIC
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5 PERCENT AT STANDARD CONDITIONS.



E4-7165-52-3
Rev. 11-18-80

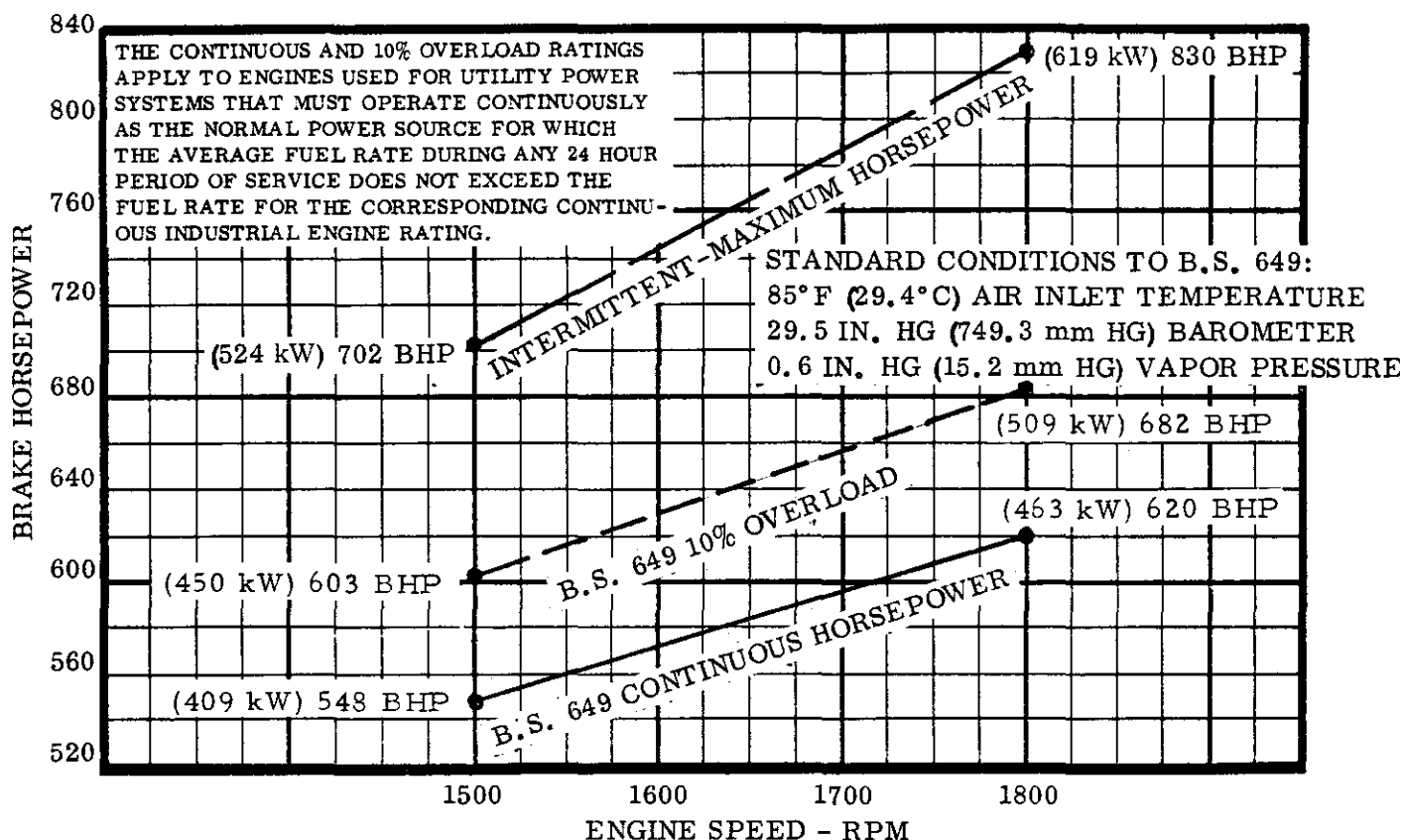
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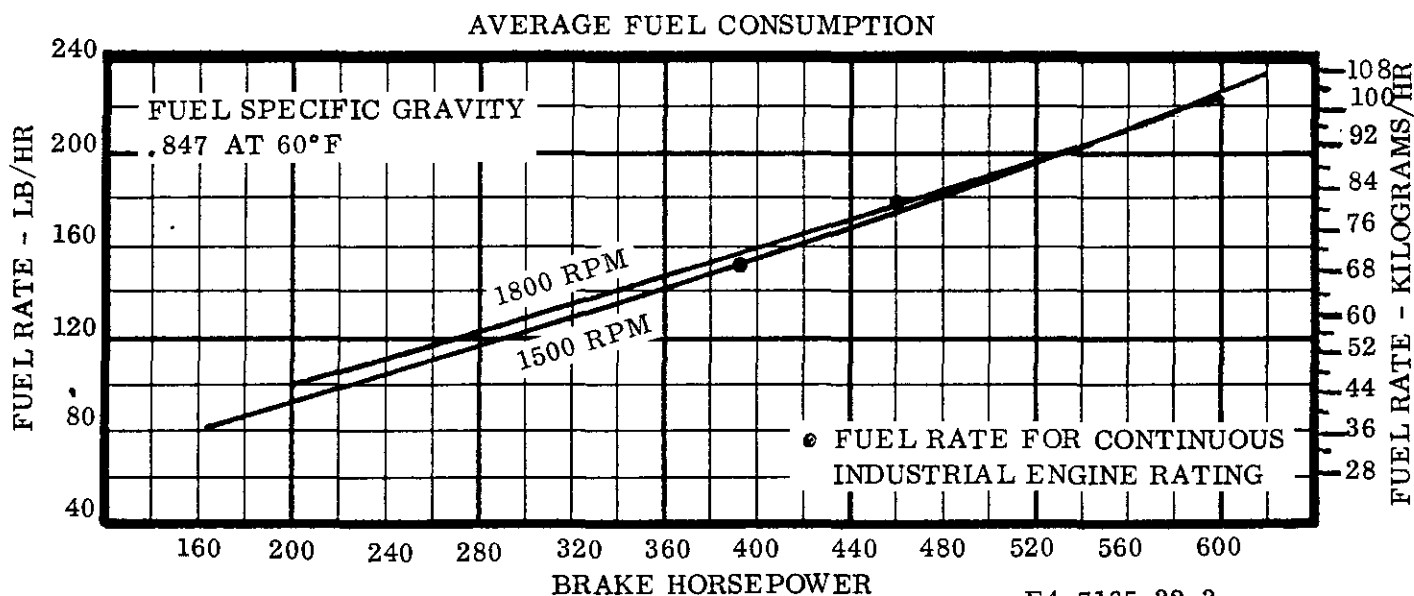
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 16V-71T
APPLICATION: DIESEL ELECTRIC
TURBOCHARGER: TV8101(1.39 A/R Hsg.)
RATING: B.S. 649: 1958
WITHOUT FAN



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS.



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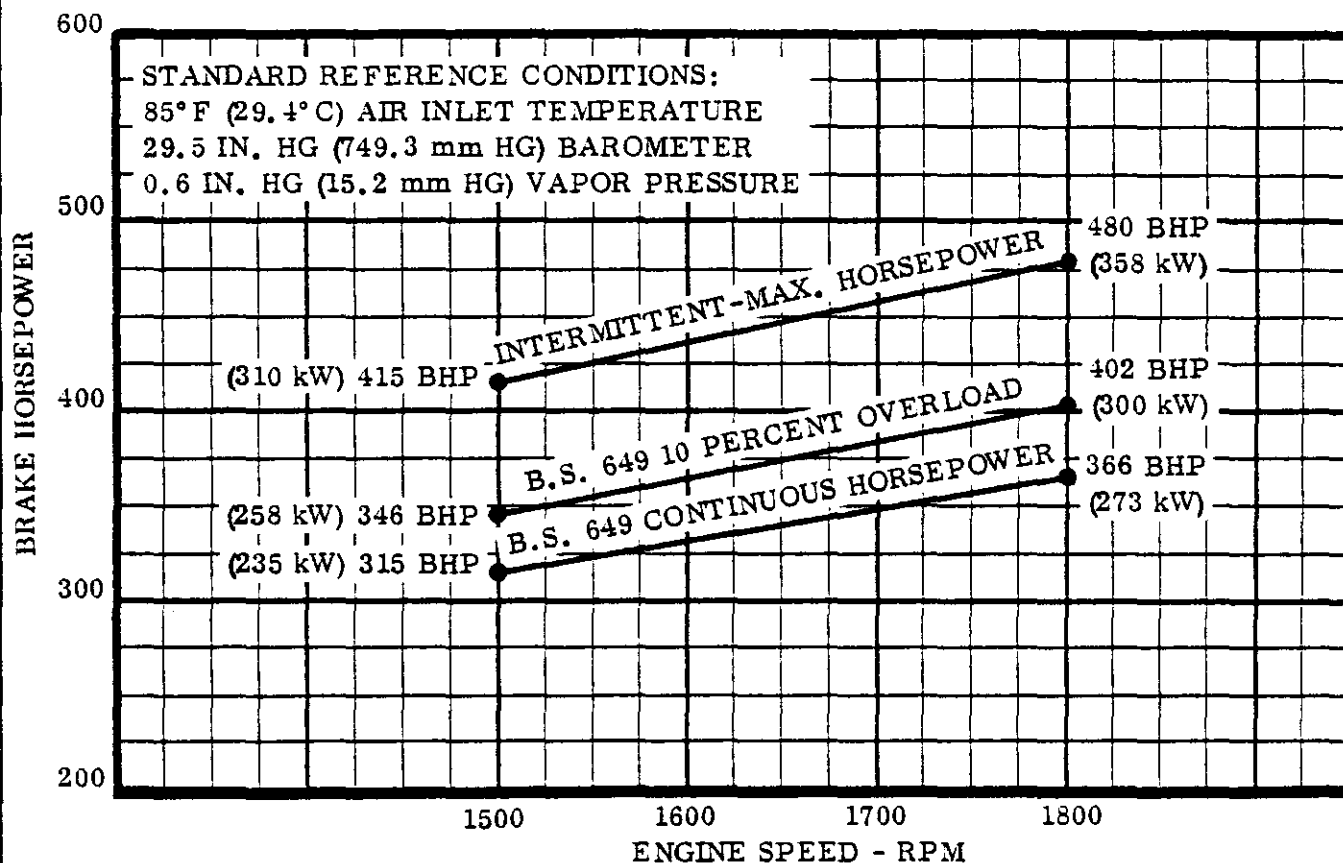
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E4-7165-32-3
Rev. 11-18-80

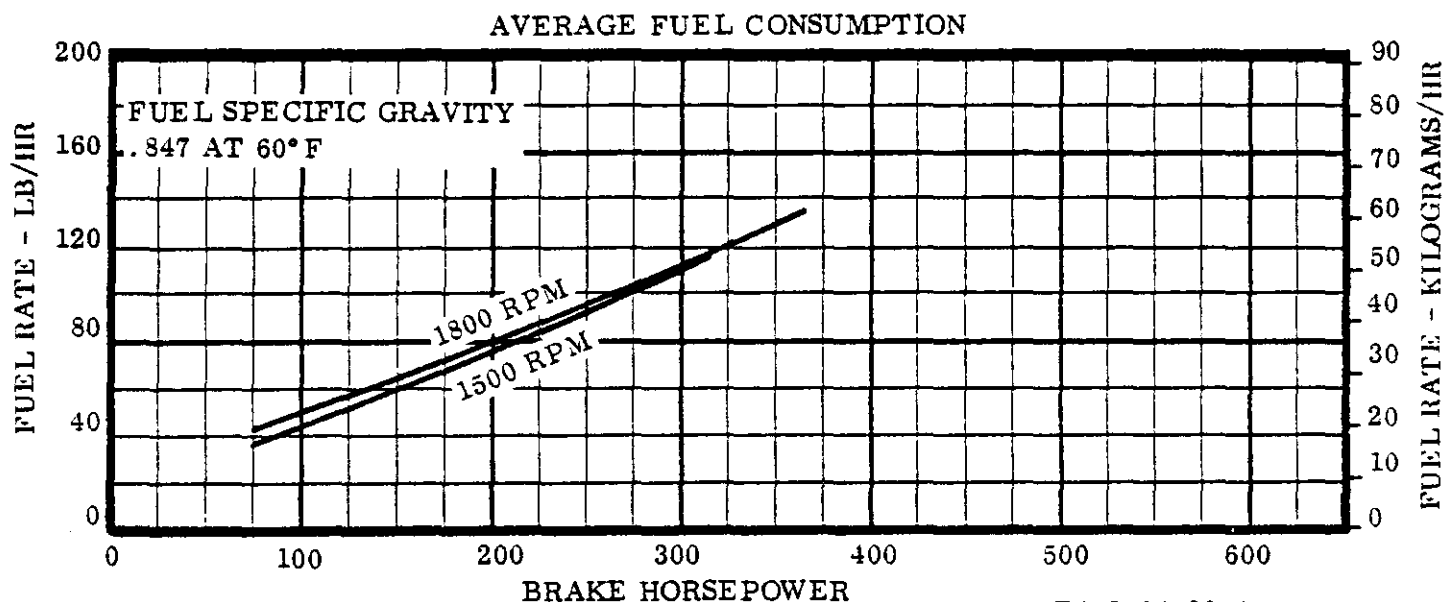


Detroit Diesel Allison
Division of General Motors Corporation

8V-92T
TV8101 (1.39 A/R HSG.) TURBOCHARGER
DIESEL ELECTRIC RATING
WITHOUT FAN TO
BRITISH STANDARD B.S. 649: 1958



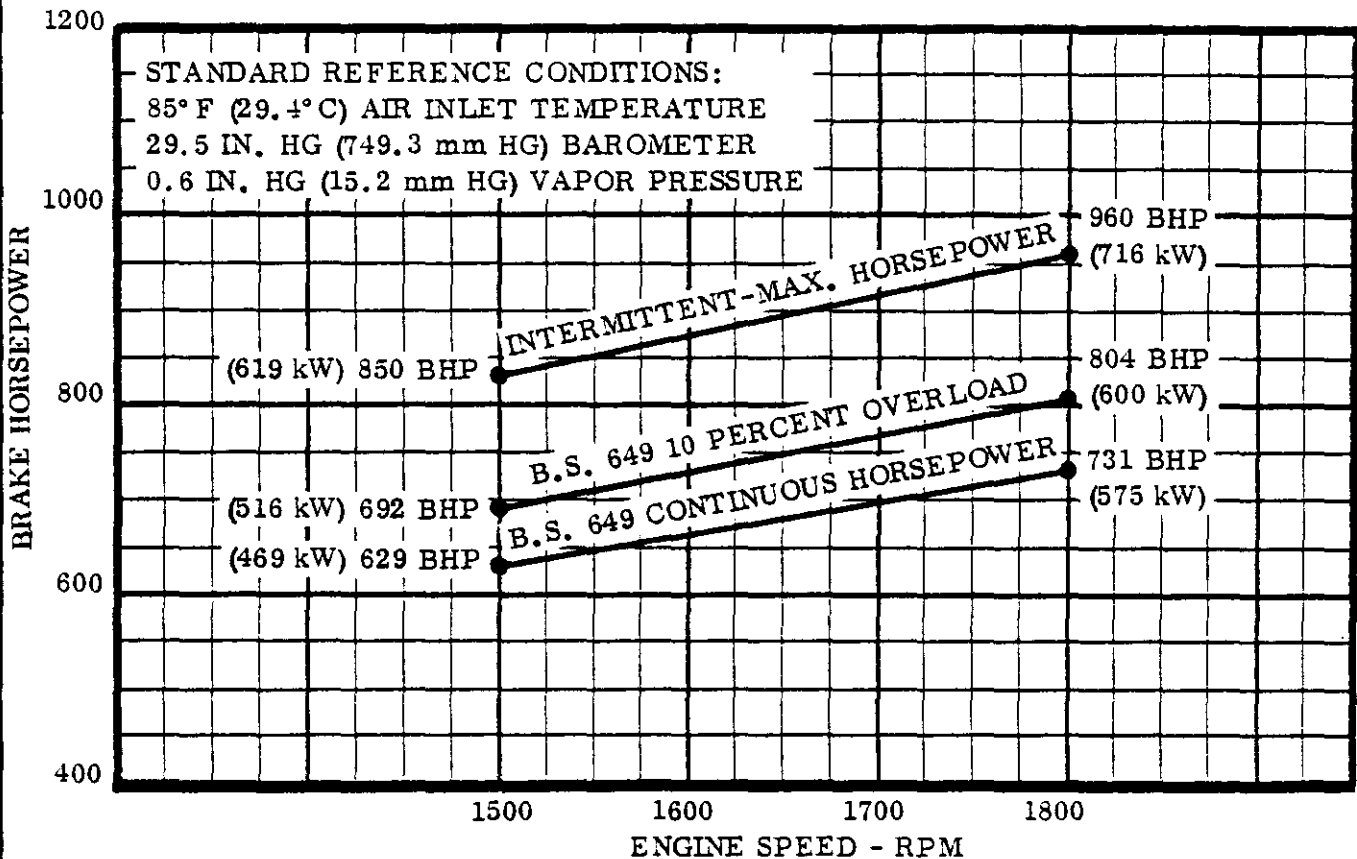
NOTE: THE MAXIMUM HORSEPOWER SHOWN IS
GUARANTEED WITHIN 5% AT STANDARD
CONDITIONS.



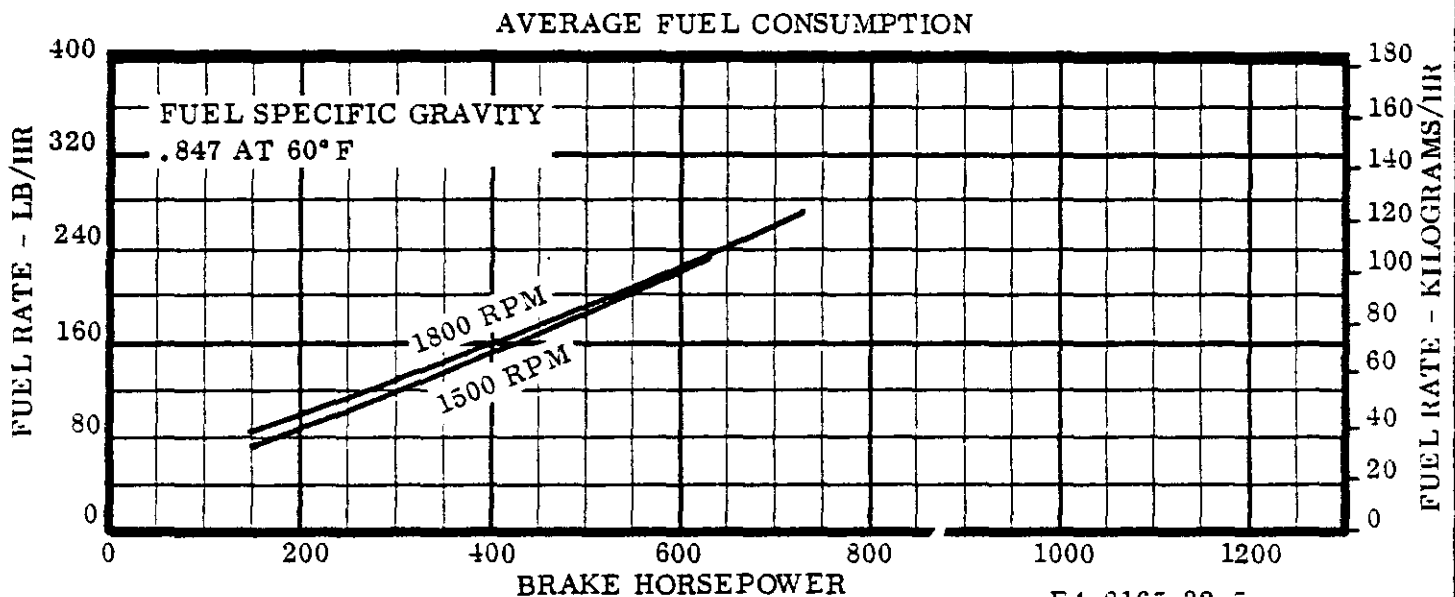


Detroit Diesel Allison
Division of General Motors Corporation

16V-92T
TV8101 (1.39 A/R HSG.) TURBOCHARGER
DIESEL ELECTRIC RATING
WITHOUT FAN TO
BRITISH STANDARD B.S. 649: 1958



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS
GUARANTEED WITHIN 5% AT STANDARD
CONDITIONS.



DE 4033

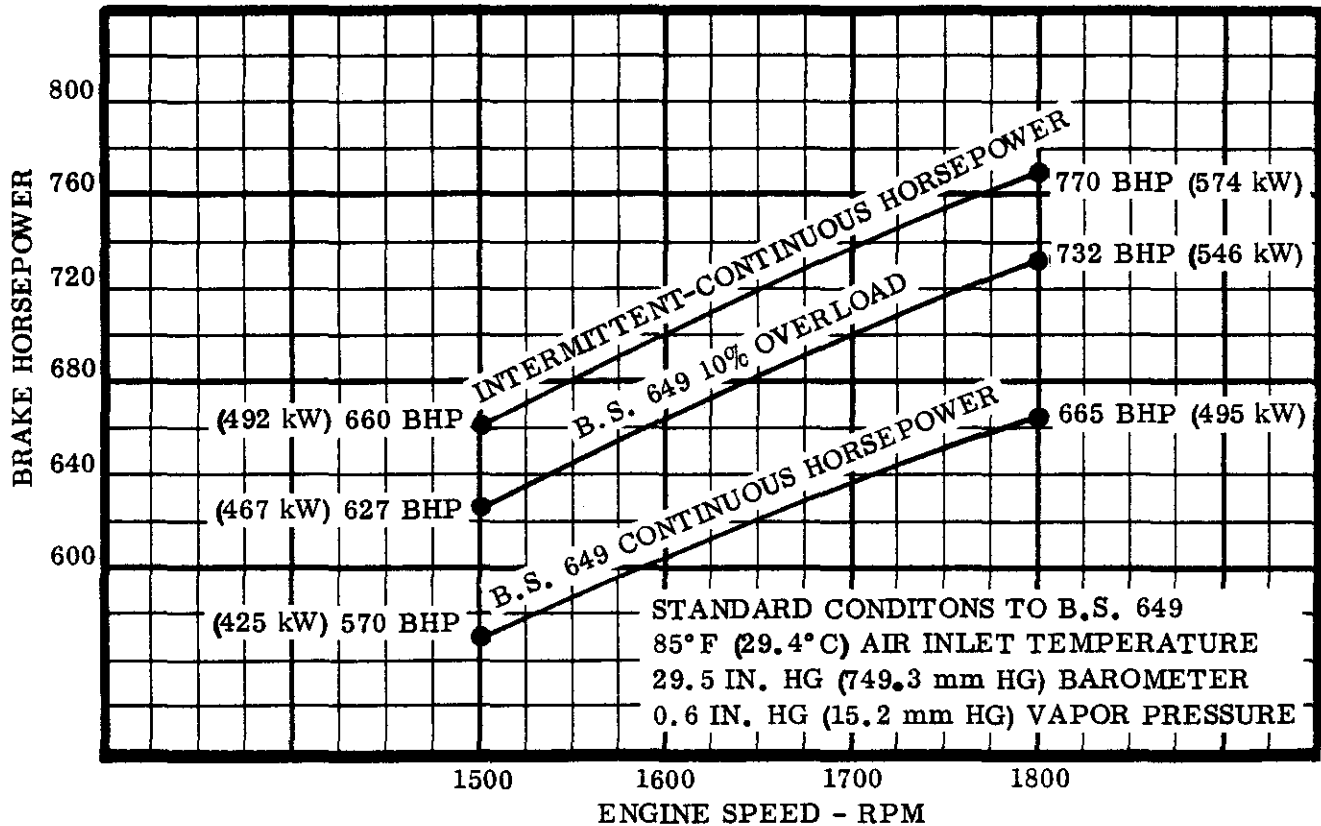
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E4-8165-32-5
Rev. 11-30-78



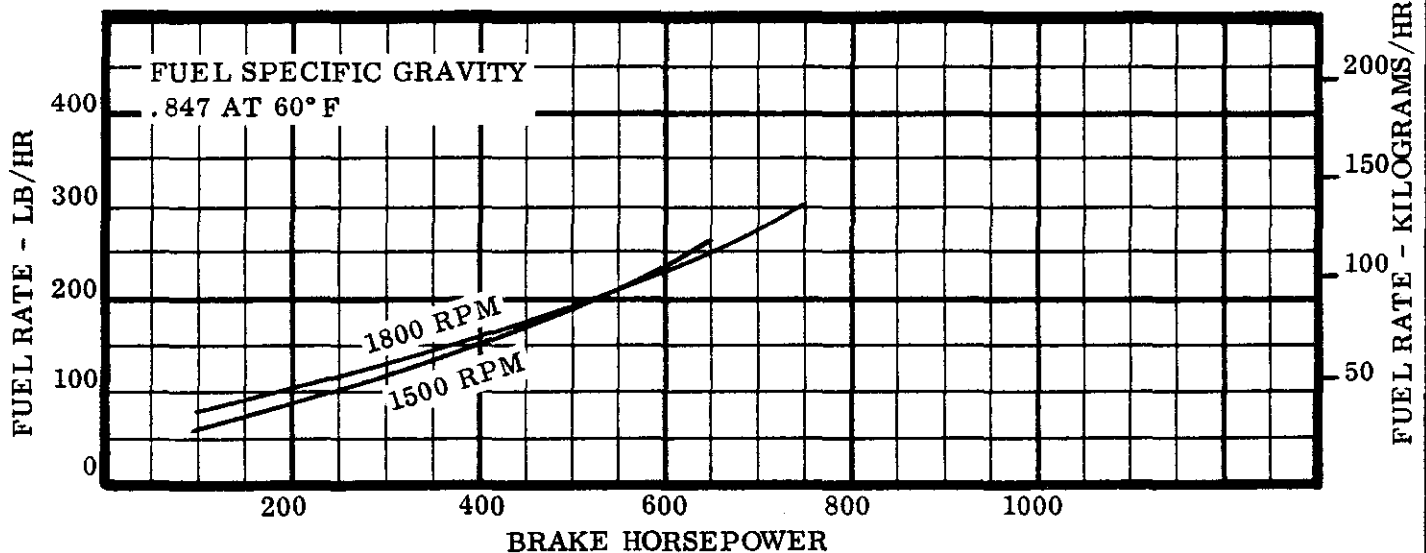
Detroit Diesel Allison
Division of General Motors Corporation

MODEL: 12V-149
APPLICATION: DIESEL ELECTRIC RATING
WITHOUT FAN
RATING: B.S. 649: 1958



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS
GUARANTEED WITHIN 5% AT STANDARD
CONDITIONS

AVERAGE FUEL CONSUMPTION



DE 4033

ENGINEERING-TECHNICAL DATA DEPT.

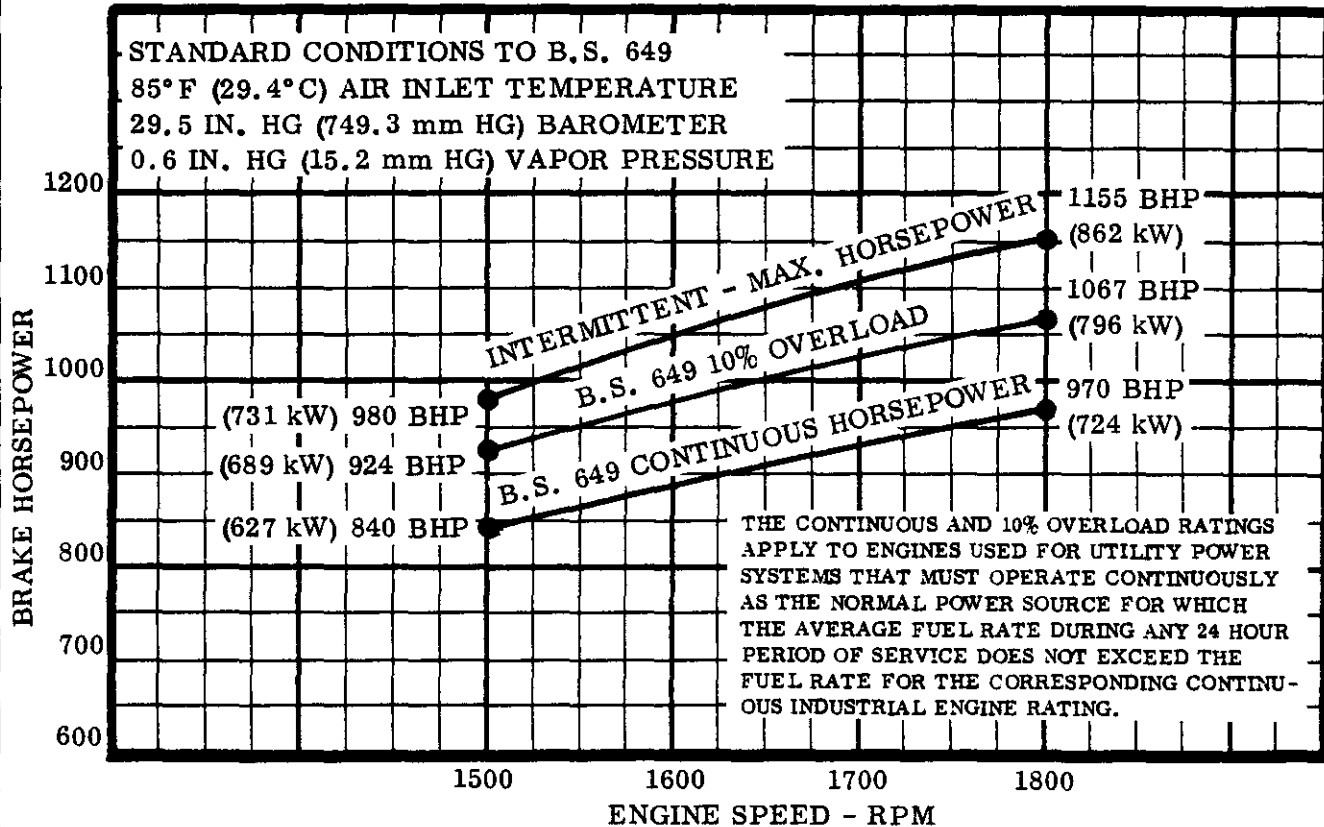
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Rev. 5-15-79



Detroit Diesel Allison
Division of General Motors Corporation

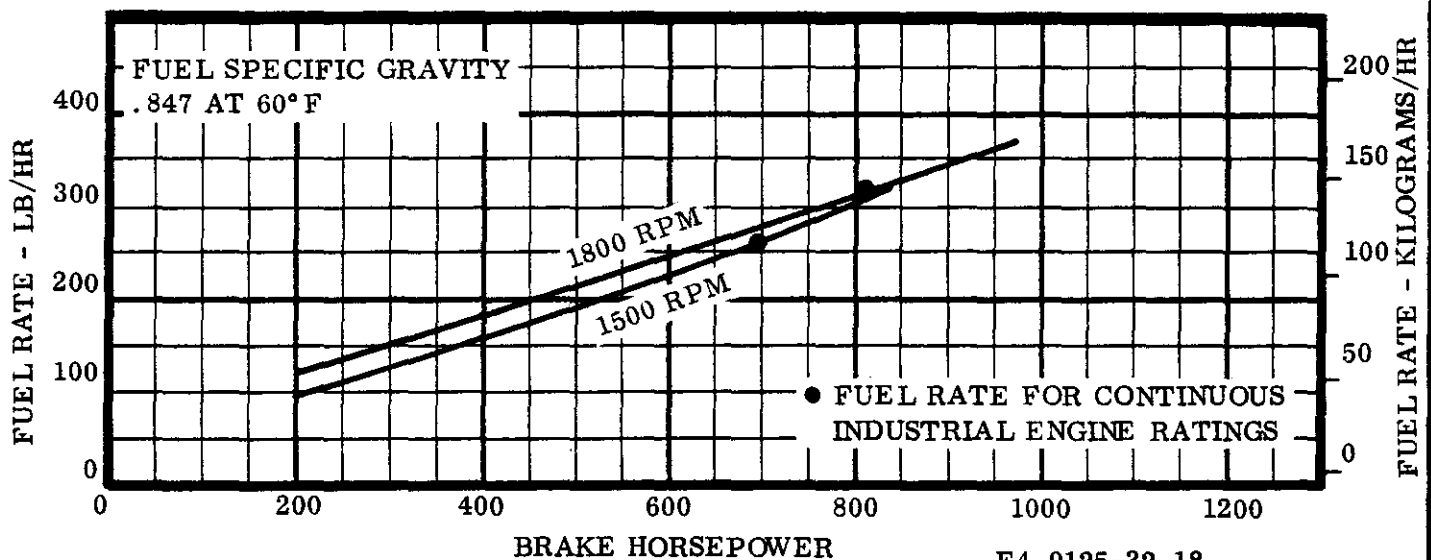
12V-149TI ENGINE
DIESEL ELECTRIC RATING
T18A40 TURBOCHARGER (1.0 A/R)
(WITHOUT FAN)

BRITISH STANDARD B.S. 649: 1958



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS GUARANTEED WITHIN 5% AT STANDARD CONDITIONS.

AVERAGE FUEL CONSUMPTION



ENGINEERING-TECHNICAL DATA DEPT.

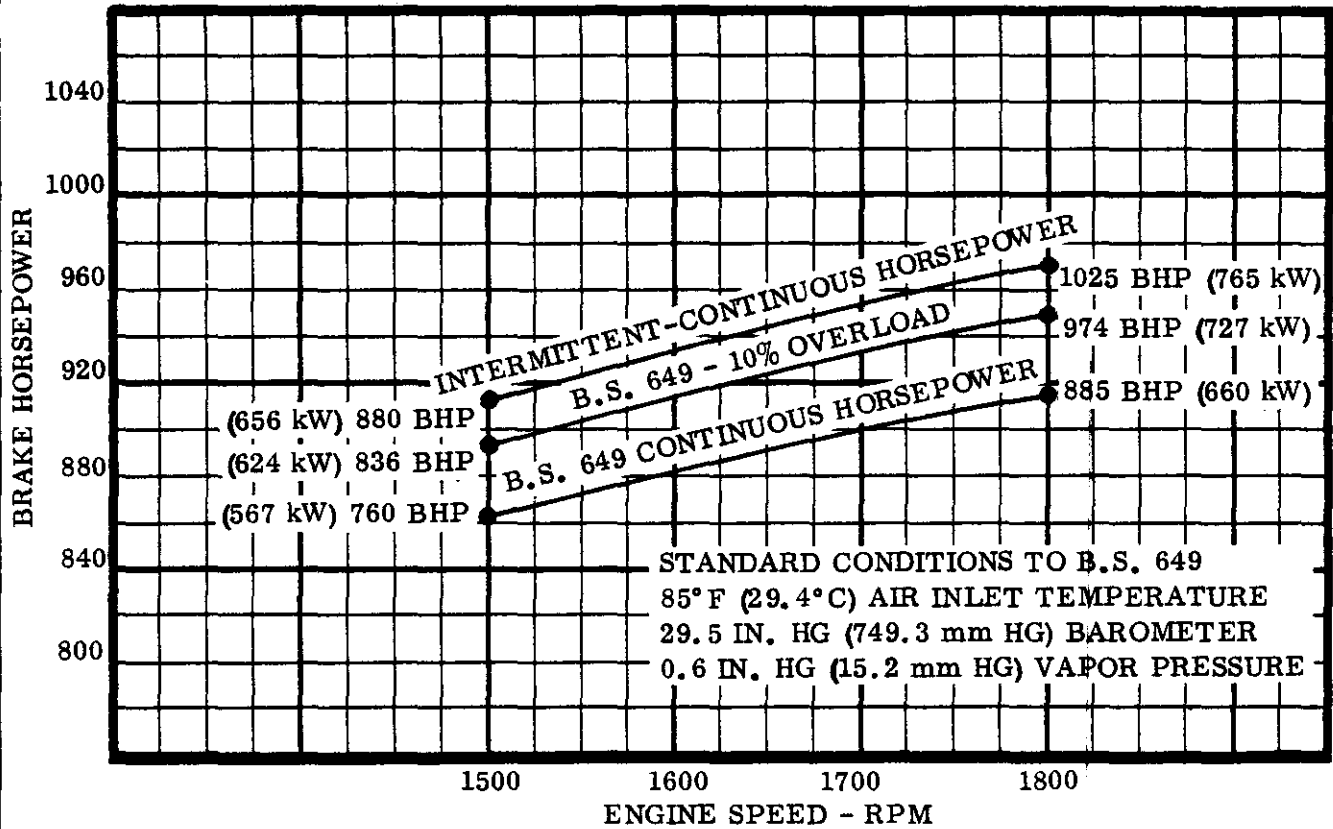
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Rev. 5-14-79



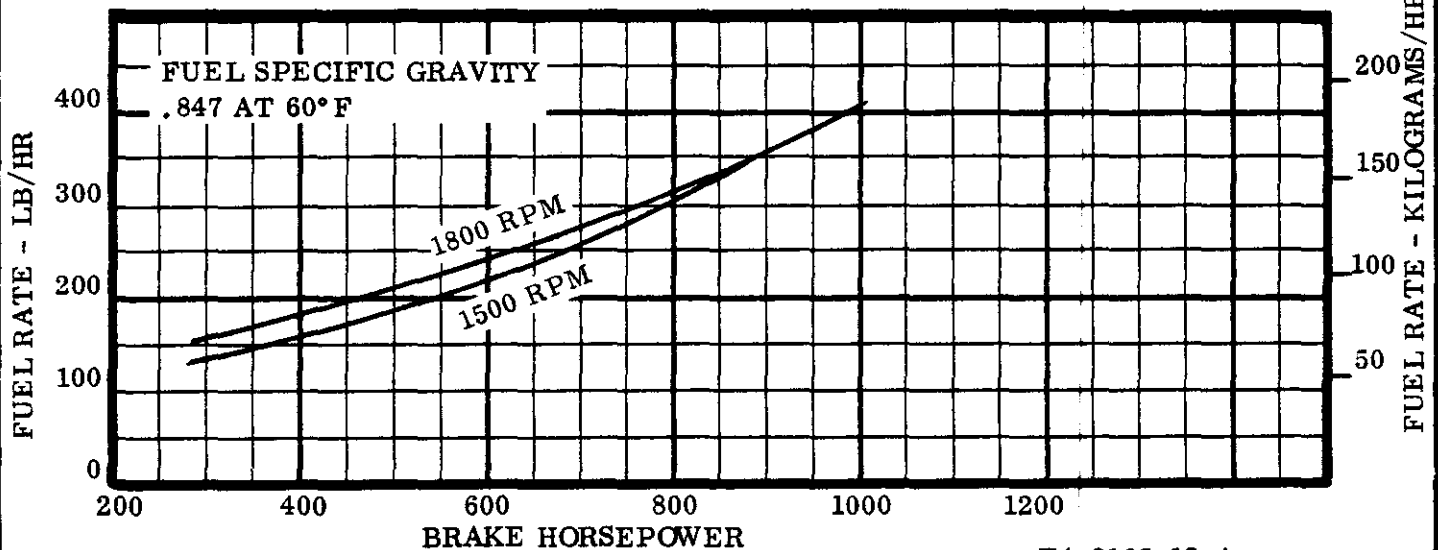
Detroit Diesel Allison
Division of General Motors Corporation

MODEL: 16V-149
APPLICATION: DIESEL ELECTRIC RATING
WITHOUT FAN
RATING: B.S. 649: 1958



NOTE: THE MAXIMUM HORSEPOWER SHOWN IS
GUARANTEED WITHIN 5% AT STANDARD
CONDITIONS

AVERAGE FUEL CONSUMPTION



DE 4033

ENGINEERING-TECHNICAL DATA DEPT.

E4-9165-12-4
Rev. 5-15-79



GENERATOR SETS - DIN 6270 RATING

INDEX

<u>ENGINE</u>	<u>INJECTOR</u>	<u>RATING</u>	<u>HORSEPOWER - PS (BHP)</u>		<u>CURVE NO.</u>	<u>DATE</u>	<u>NOTE</u>
			<u>1500 RPM</u>	<u>1800 RPM</u>			
3-53N	N50	STANDBY	60(59)	72(71)	E4-5035-52-2A	03-04-81	
4-53N	N50	STANDBY	80(79)	99(98)	E4-5045-52-2A	03-04-81	
2-71N	N70	STANDBY	56(55)	67(66)	E4-1025-11-1A	02-25-81	
3-71N	N70	STANDBY	87.5(86)	105(104)	E4-1035-52-1A	02-25-81	
4-71N	N70	STANDBY	122(120)	147(145)	E4-1045-52-1A	02-25-81	
6-71N	N70	STANDBY	184(181)	221(218)	E4-1065-52-2B	02-26-81	
8V-71N	N65	PRIME	223(220)	266(262)	E4-7085-52-3A	03-12-79	
8V-71N	N70	STANDBY	246(243)	293(289)	E4-7085-52-2A	02-26-81	
12V-71N	N60	PRIME	332(327)	386(381)	E4-7125-52-2A	03-12-79	
12V-71N	N70	STANDBY	373(368)	446(440)	E4-7125-52-1B	02-26-81	
16V-71N	N70	STANDBY	498(491)	595(587)	E4-7165-52-1A	02-26-81	
8V-92T	9215	STANDBY	421(415)	487(480)	E4-8085-32-6	10-01-81	
16V-92T	9215	STANDBY	842(830)	974(960)	E4-8165-32-7	10-01-81	
12V-149N	120	PRIME	621(612)	715(705)	E4-9125-12-4A	03-12-79	
12V-149N	130	STANDBY	675(666)	788(777)	E4-9125-12-2A	03-12-79	
12V-149T	170	STANDBY	963(950)	1146(1130)	E4-9125-32-24A	03-16-81	(R)
12V-149T	180	STANDBY	994(980)	1151(1135)	E4-9125-32-20	03-12-79	
12V-149TI	170	STANDBY	1029(1015)	1191(1175)	E4-9125-32-25A	03-16-81	(R)
16V-149N	120	PRIME	832(821)	950(937)	E4-9165-12-3A	03-12-79	
16V-149N	130	STANDBY	900(888)	1049(1035)	E4-9165-12-2A	03-12-79	

NOTE - (A) CURVE ADDED
(R) REVISED

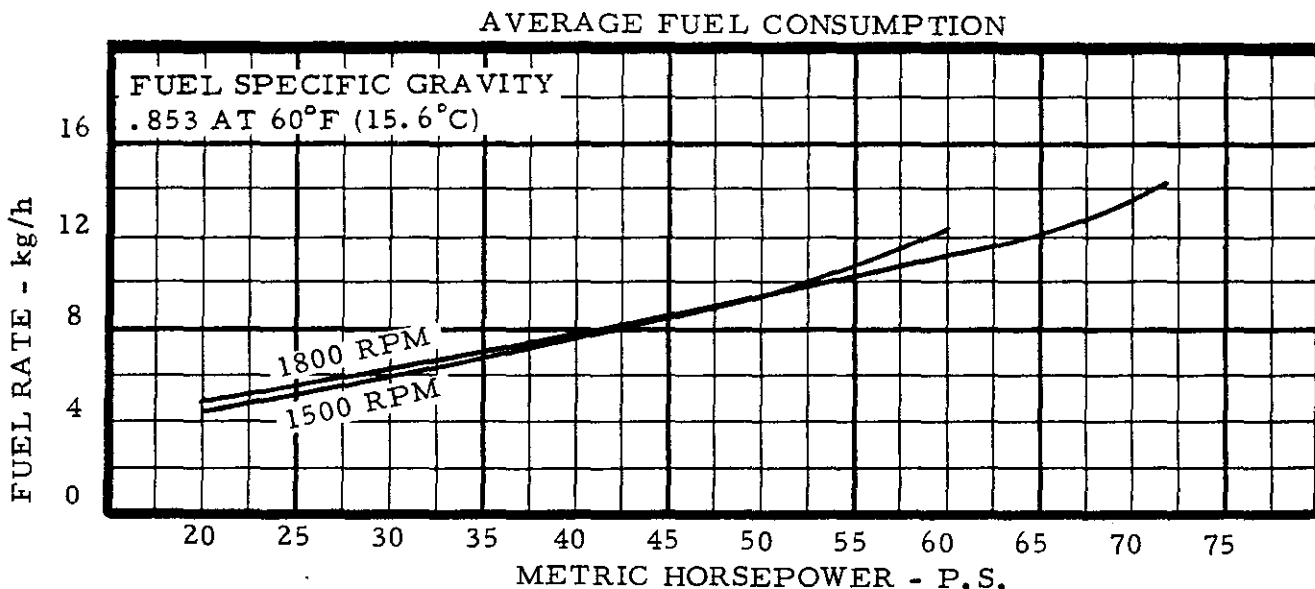
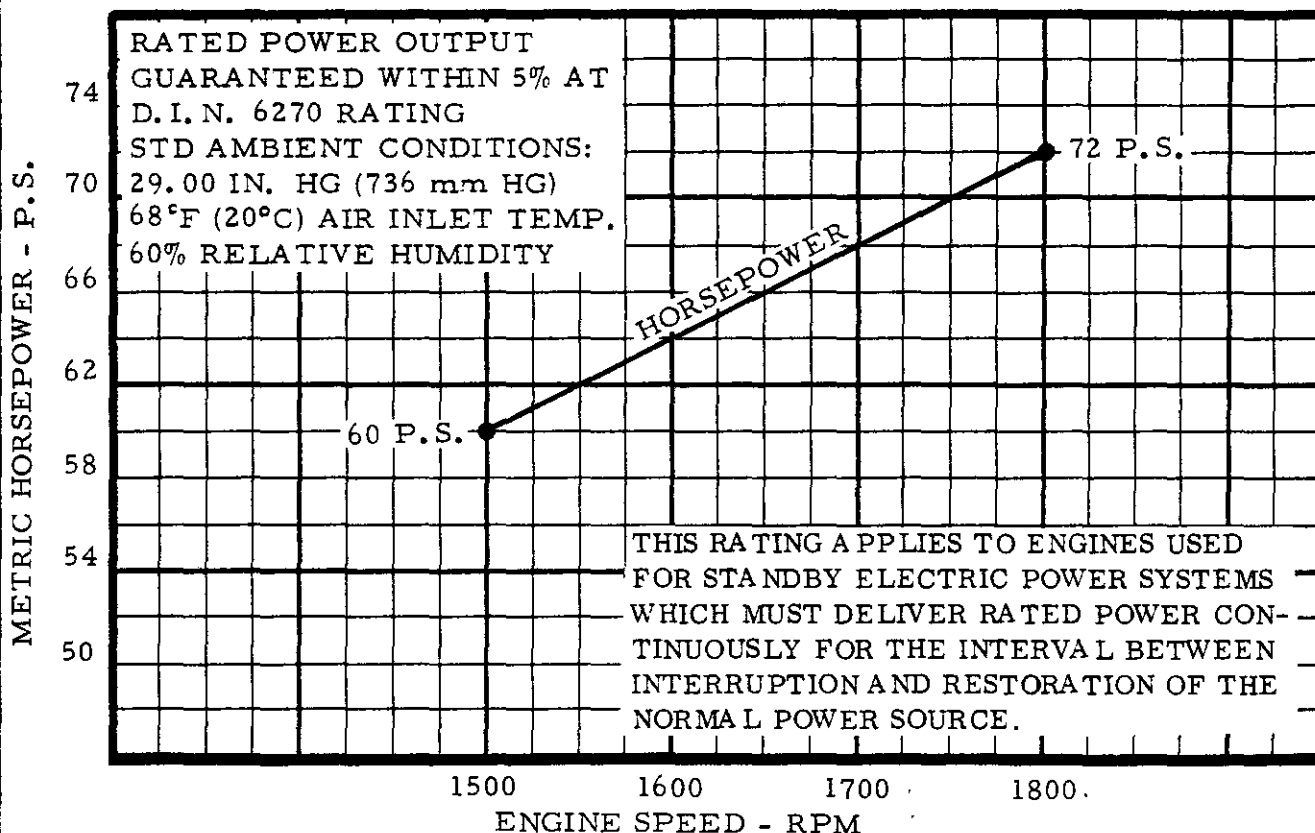
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~~E4-7125-32-5A~~, ~~E4-7125-32-2A~~, ~~E4-7165-32-4B~~, ~~E4-7165-32-5~~
~~E4-9165-32-25A~~, ~~E4-9165-32-22A~~



Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 3-53N (4V)
APPLICATION: STANDBY POWER
INJECTOR: N50 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN

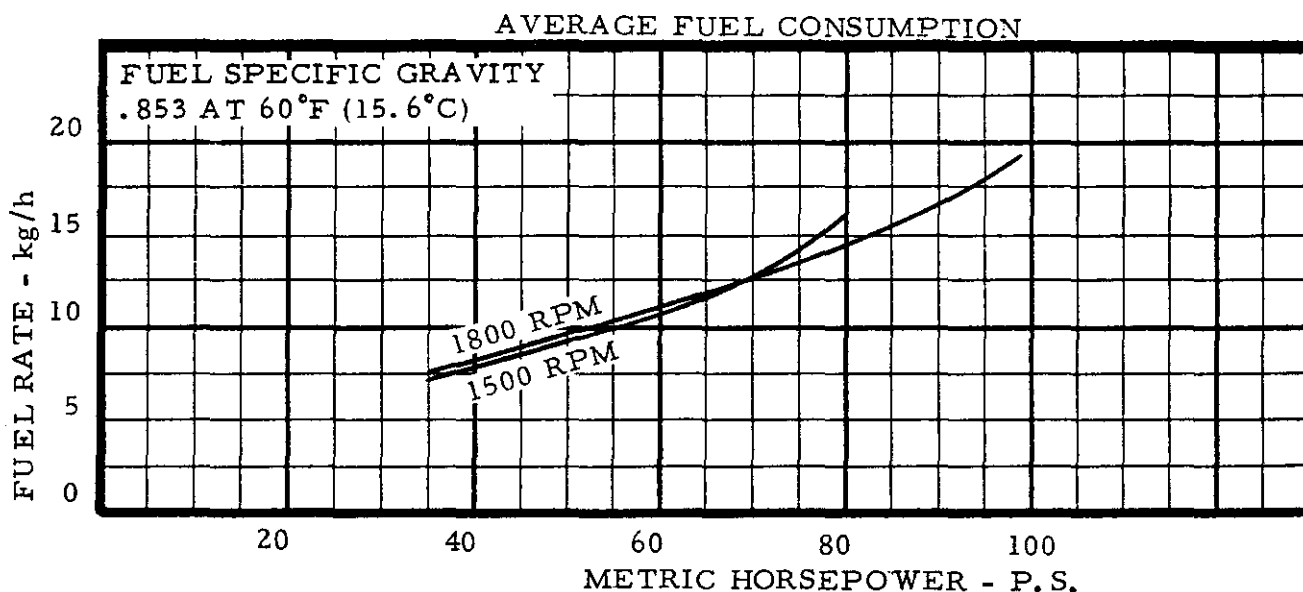
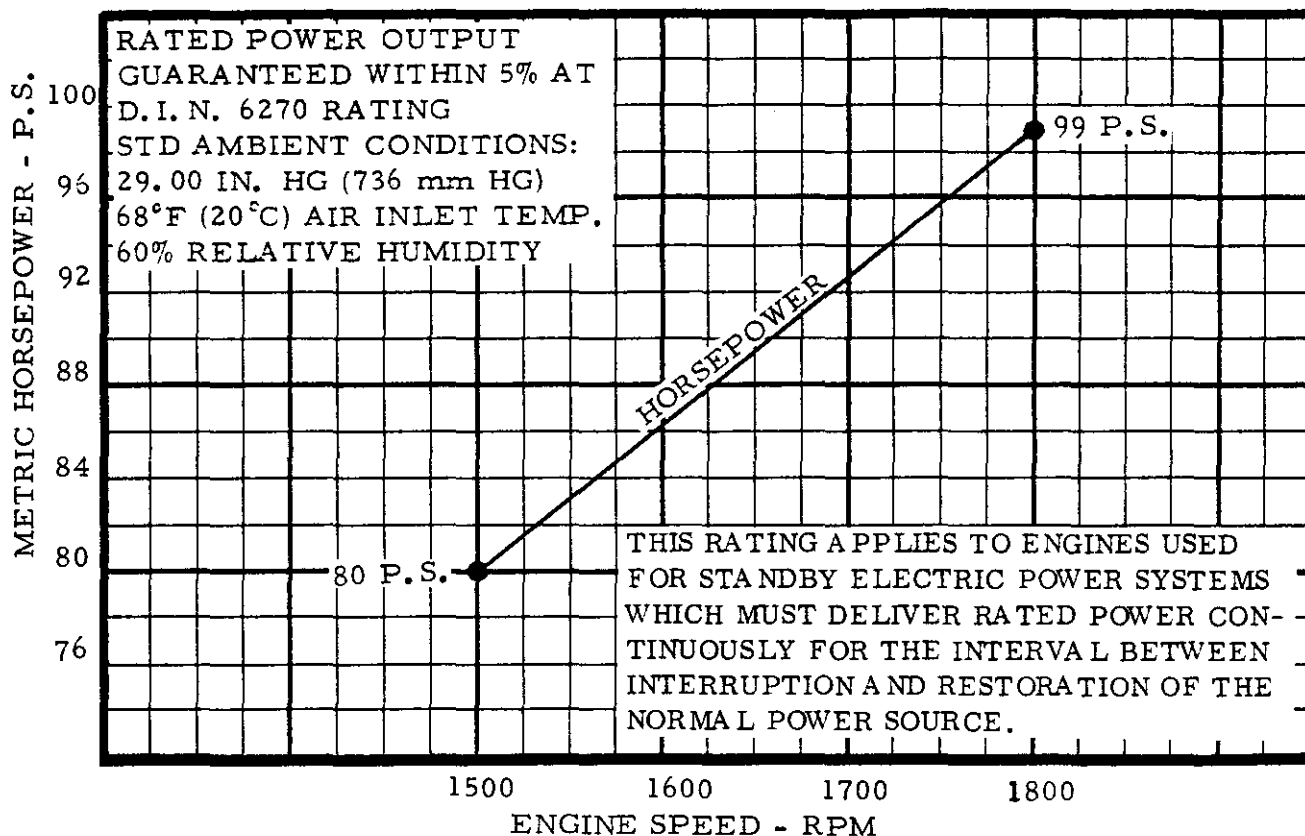




Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 4-53N (4V)
APPLICATION: STANDBY POWER
INJECTOR: N50 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN

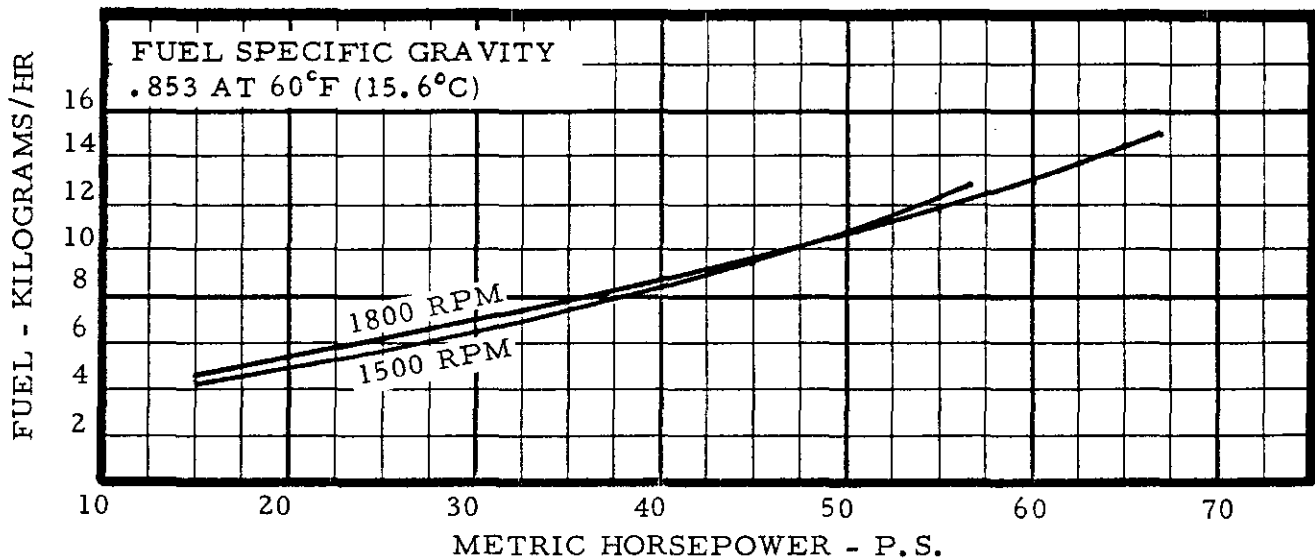
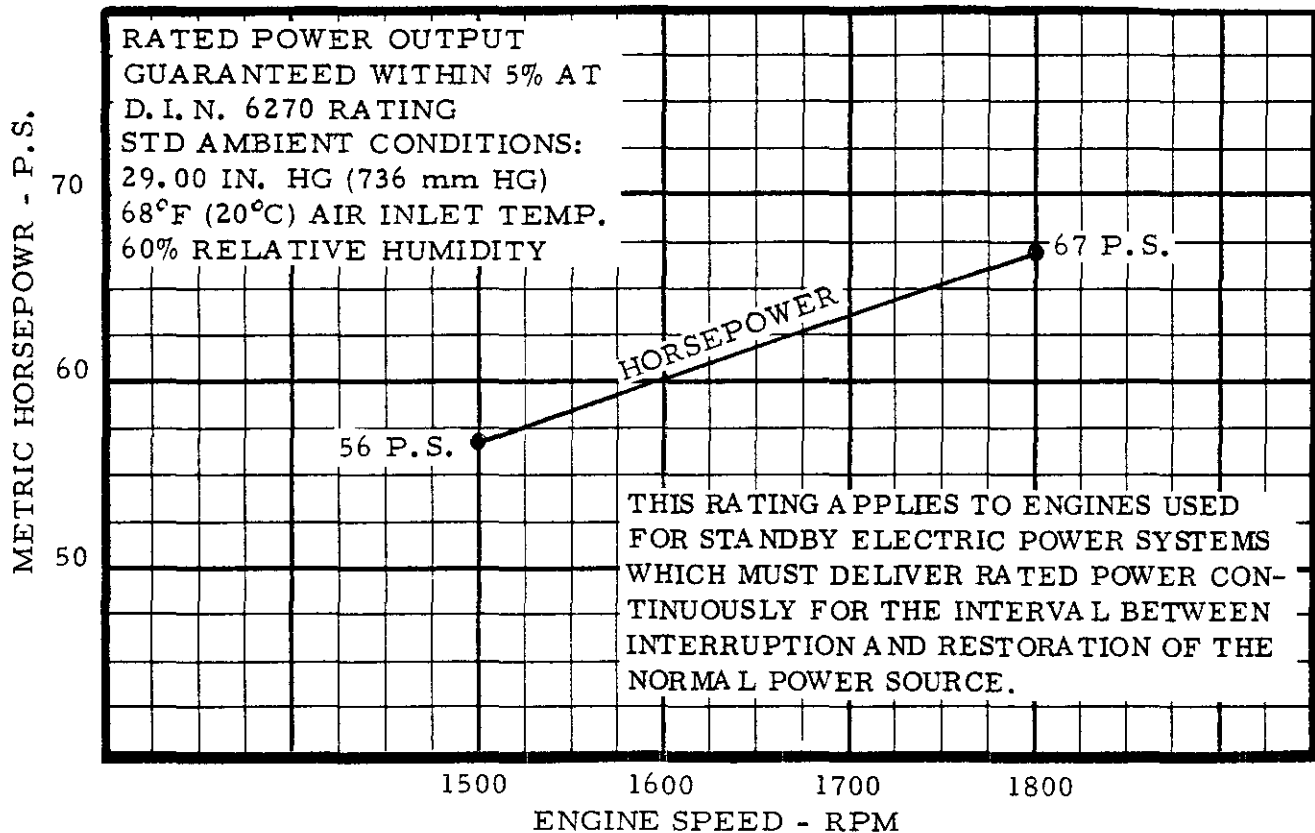




Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 2-71
APPLICATION: STANDBY POWER
INJECTOR: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN



DE 4033

ENGINEERING-TECHNICAL DATA DEPT.

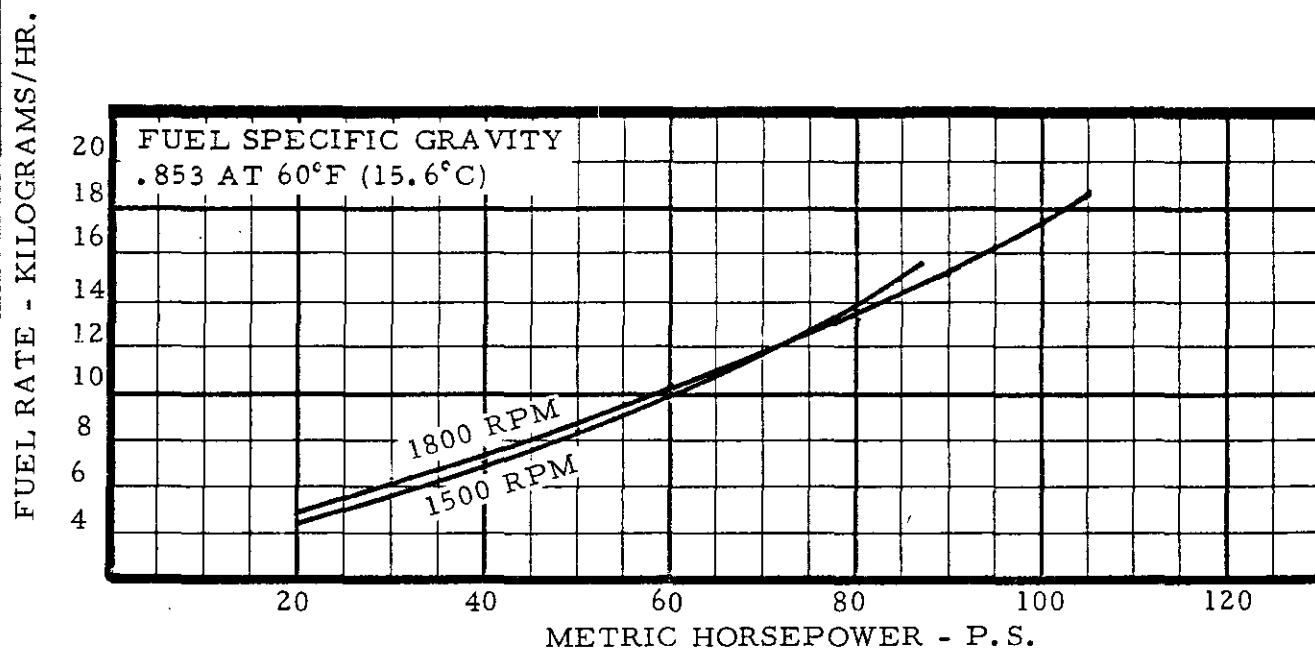
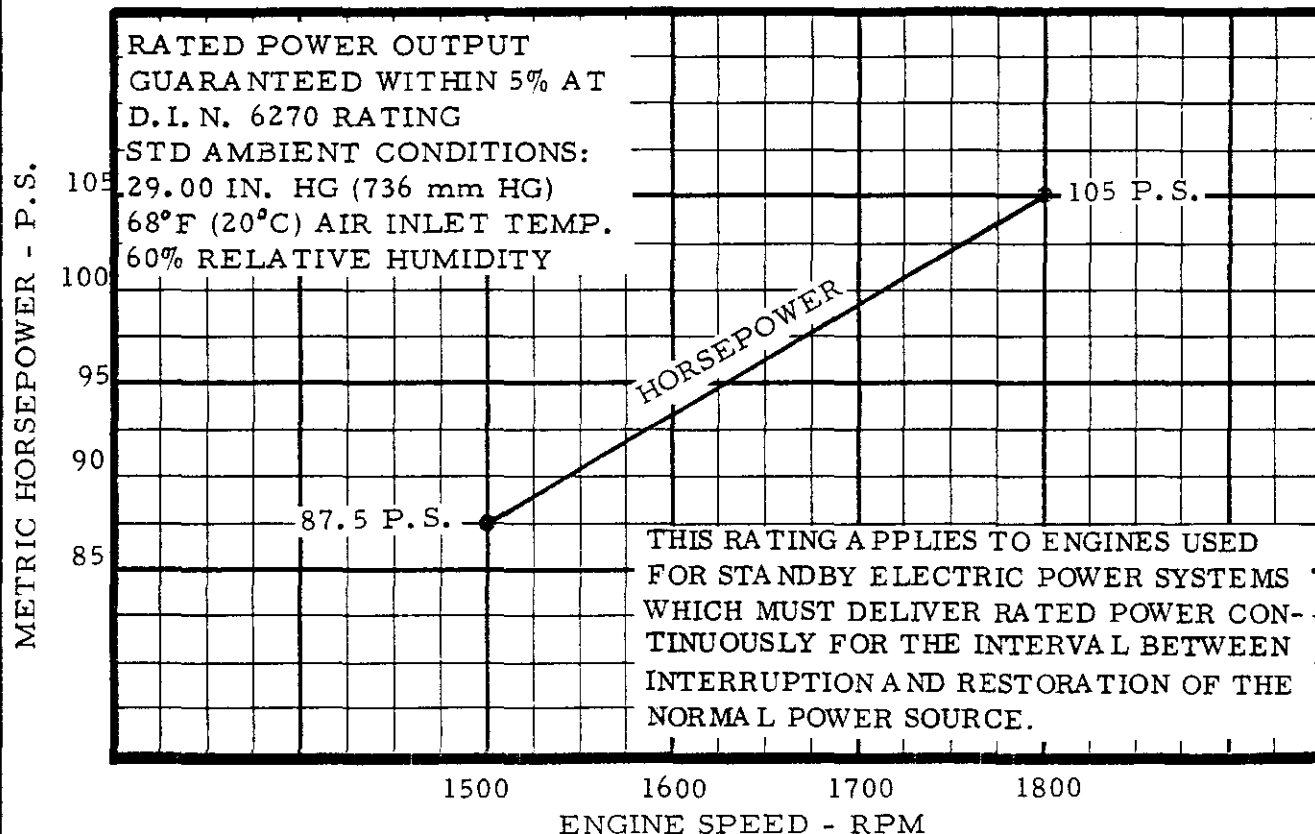
E4-1025-11-1A
2-25-81



Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 3-71N
APPLICATION: STANDBY POWER
INJECTORS: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN



DE 4033

ENGINEERING-TECHNICAL DATA DEPT.

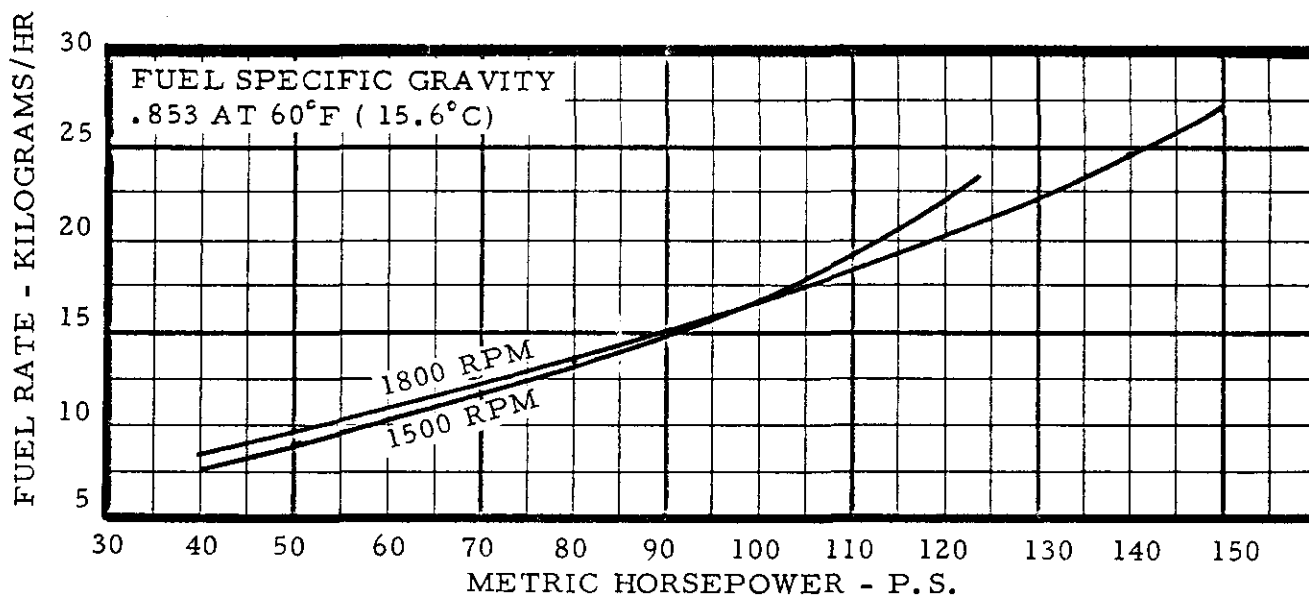
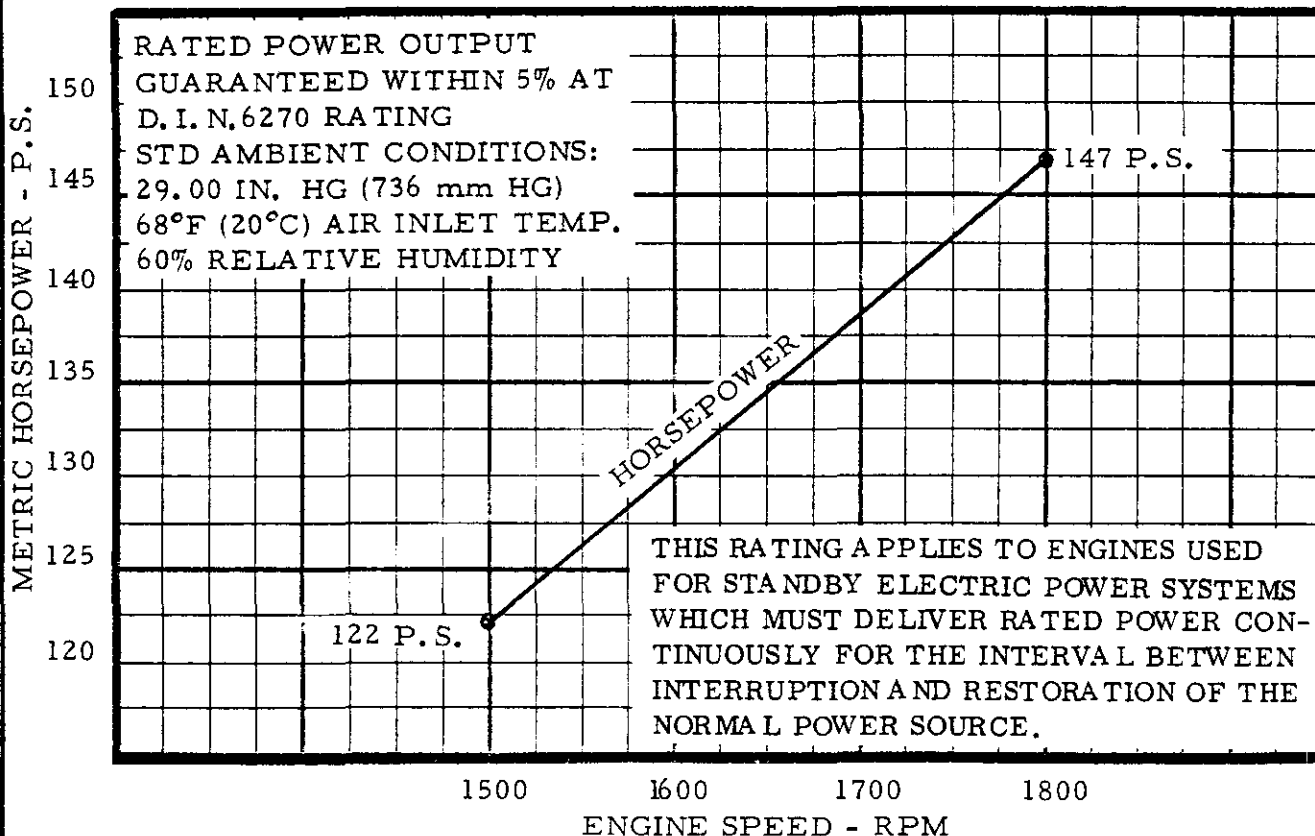
E4-1035-52-1A
2-25-81



Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 4-71 N
APPLICATION: STANDBY POWER
INJECTORS: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN

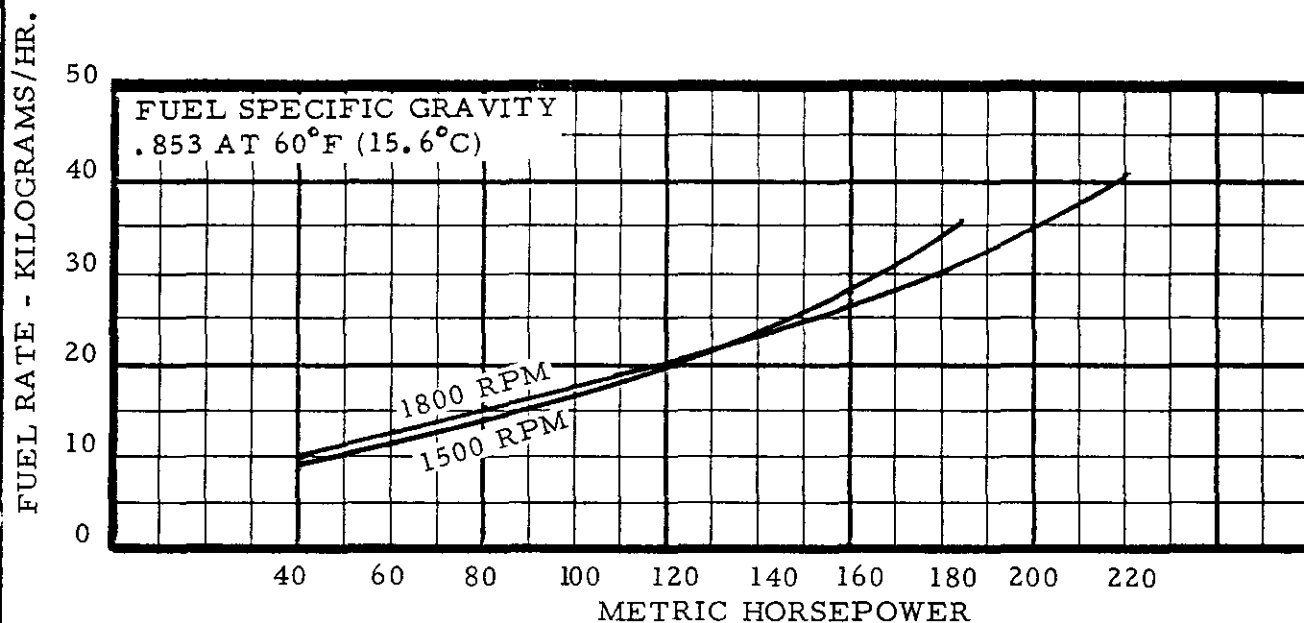
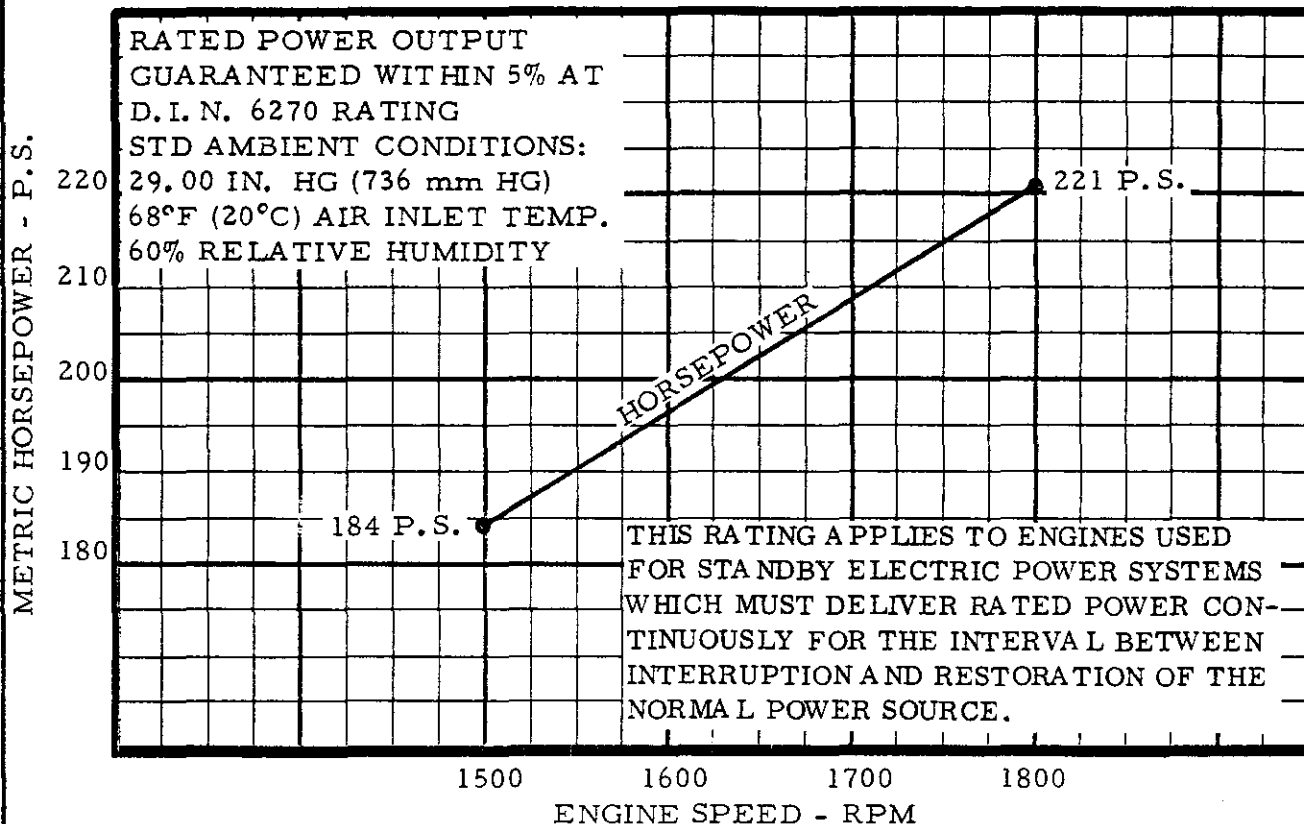




Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 6-71N
APPLICATION: STANDBY POWER
INJECTORS: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN

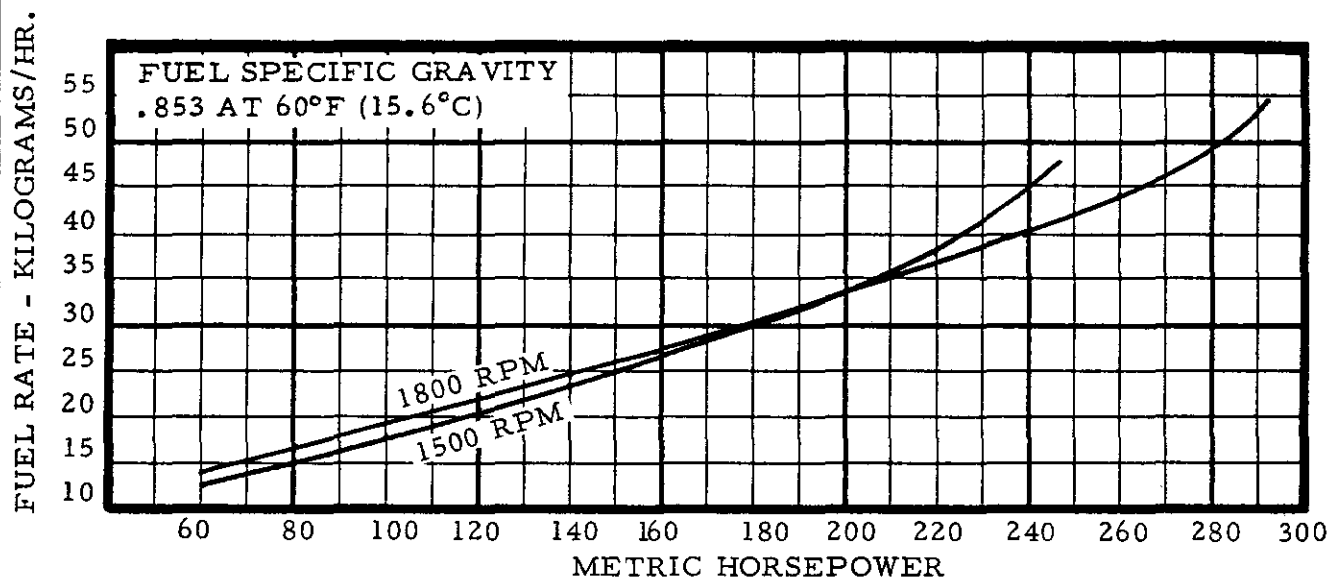
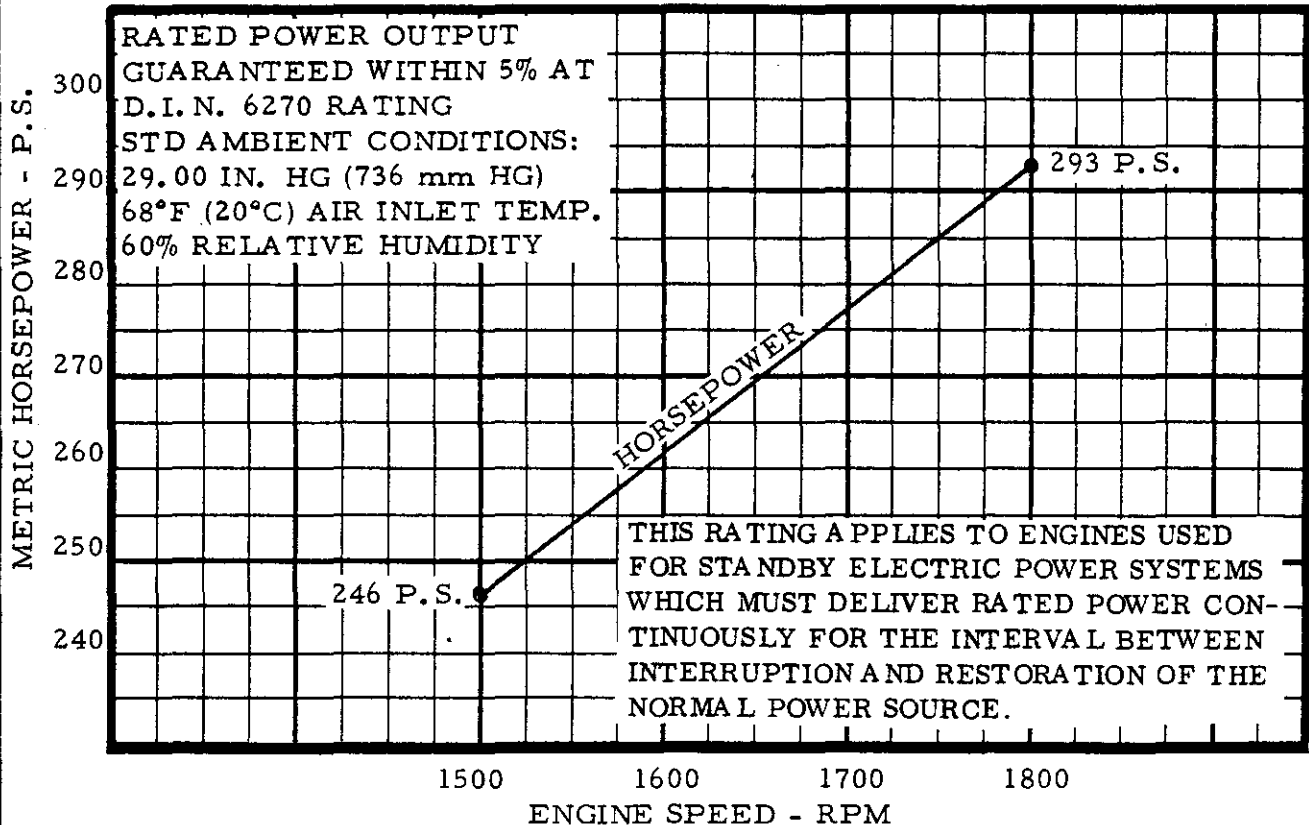




Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 8V-71N
APPLICATION: STANDBY POWER
INJECTOR: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN



ENGINEERING-TECHNICAL DATA DEPT.

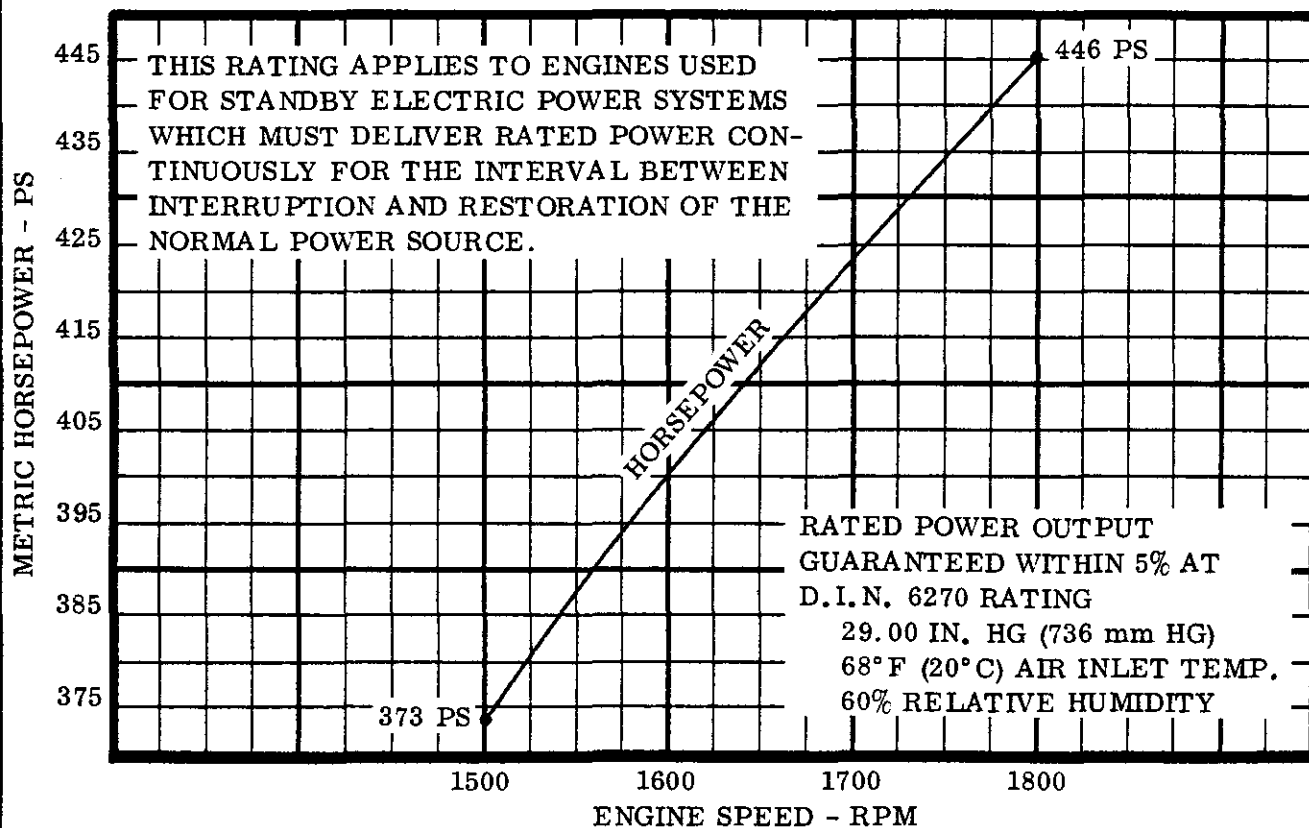
E4-7085-52-2A
Rev. 2-26-81



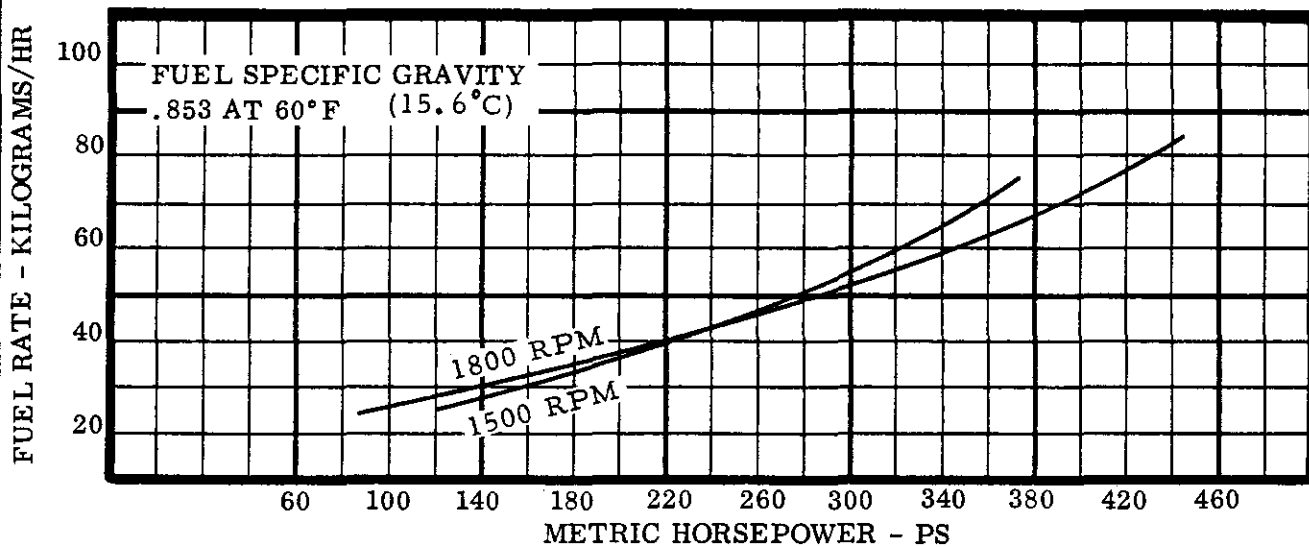
Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 12V-71N
APPLICATION: STANDBY POWER
INJECTORS: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN



AVERAGE FUEL CONSUMPTION

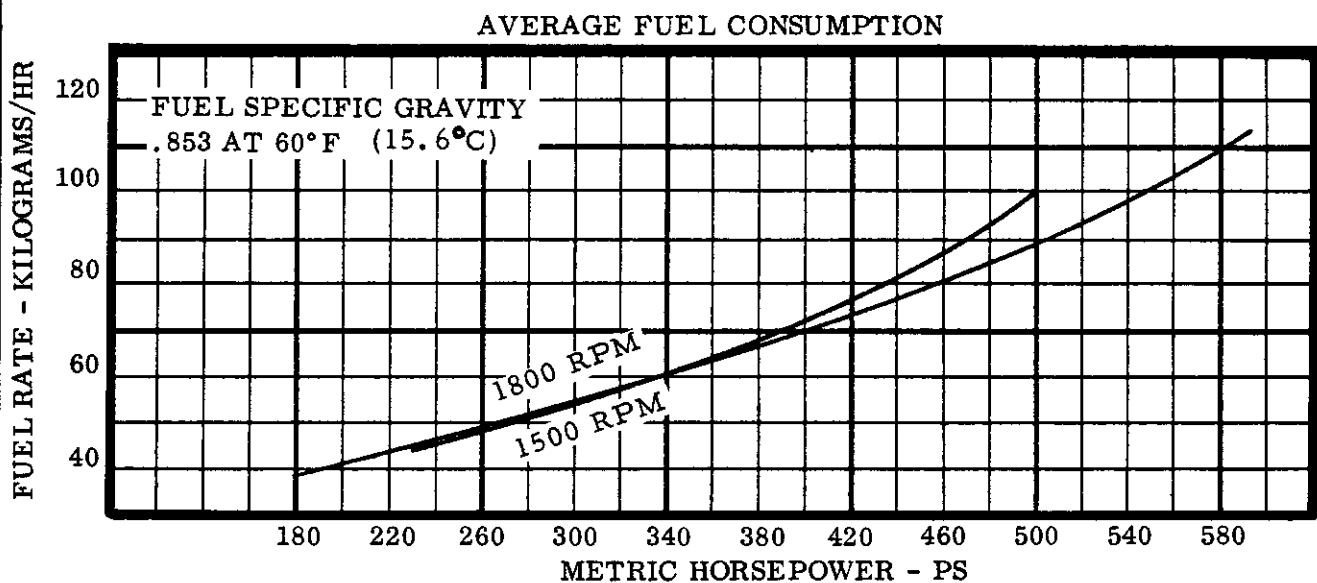
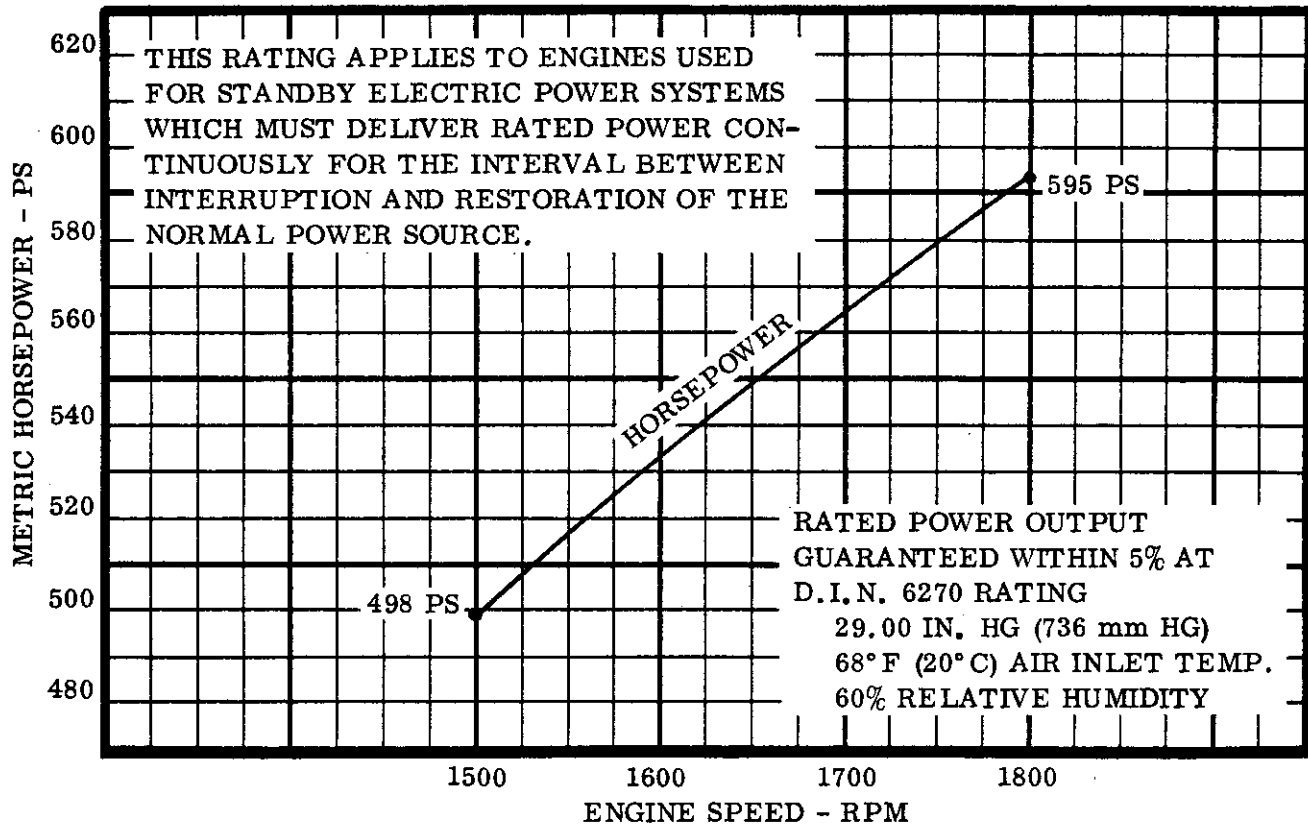




Detroit Diesel Allison
Division of General Motors Corporation

GENERATOR ENGINE PERFORMANCE

MODEL: 16V-71N
APPLICATION: STANDBY POWER
INJECTORS: N70 (1.460 TIMING)
NORM: DIN 6270 "B"
RATING: WITHOUT FAN



DE 4033

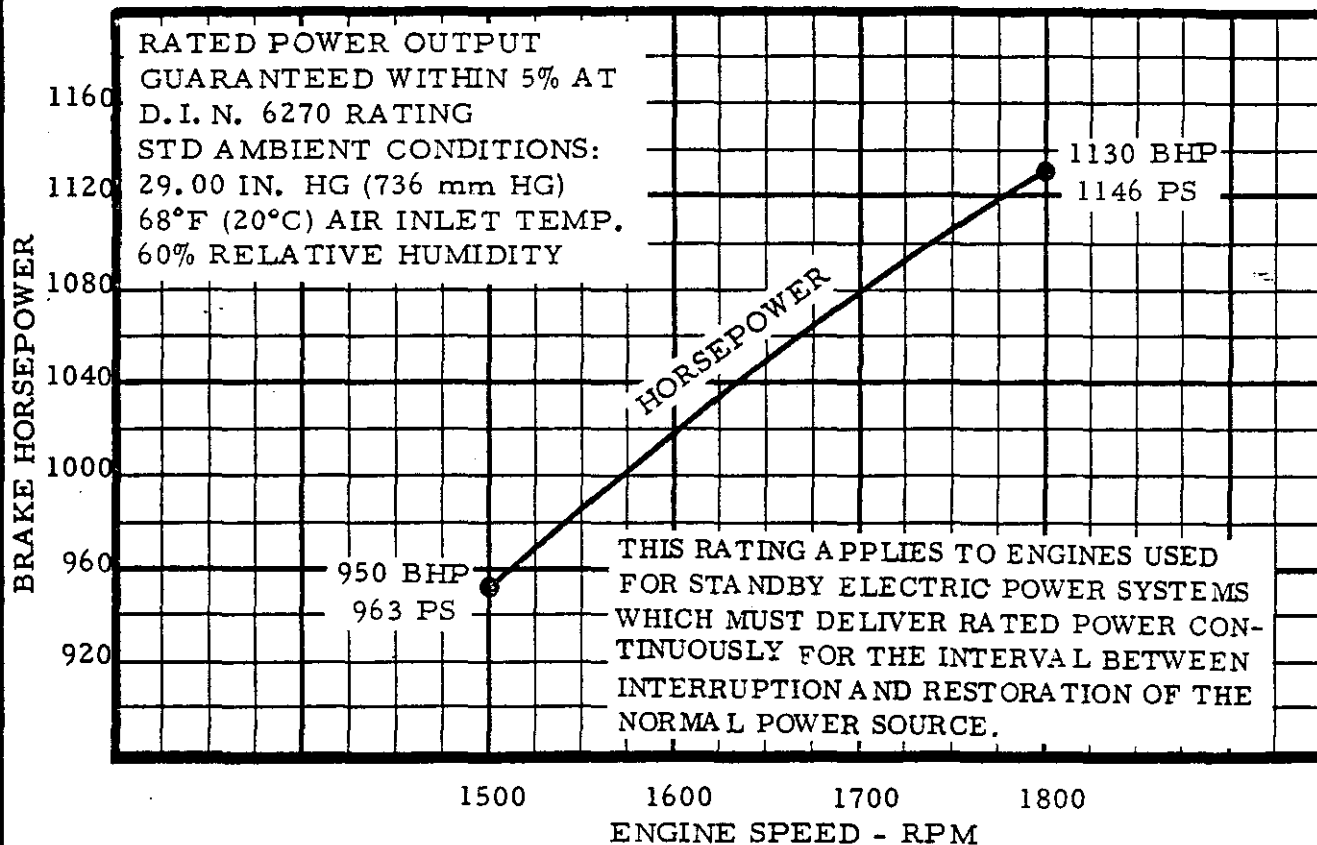
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E4-7165-52-1A
Rev. 2-26-81

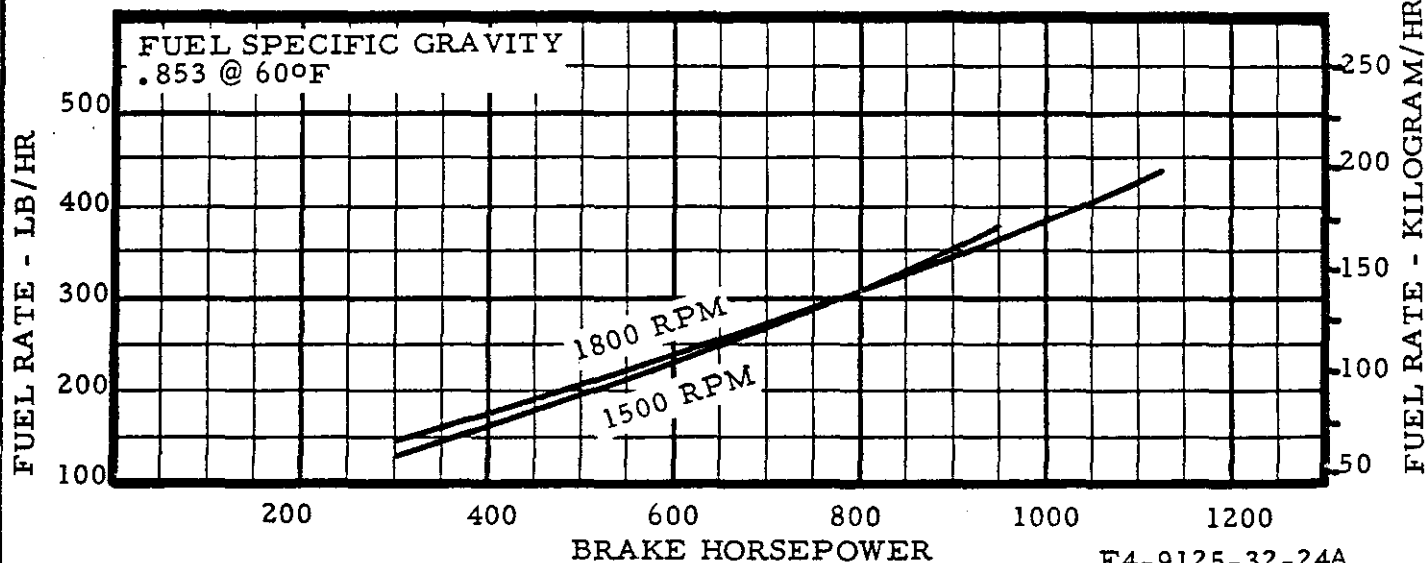


Detroit Diesel Allison
Division of General Motors Corporation

MODEL:	12V-149T ENGINE
APPLICATION:	STANDBY POWER
RATING:	WITHOUT FAN
INJECTOR:	170 (2.175 TIMING)
TURBO:	TV7101 (1.39 A/R)
NORM:	DIN 6270 "B"



AVERAGE FUEL CONSUMPTION



DE 4033

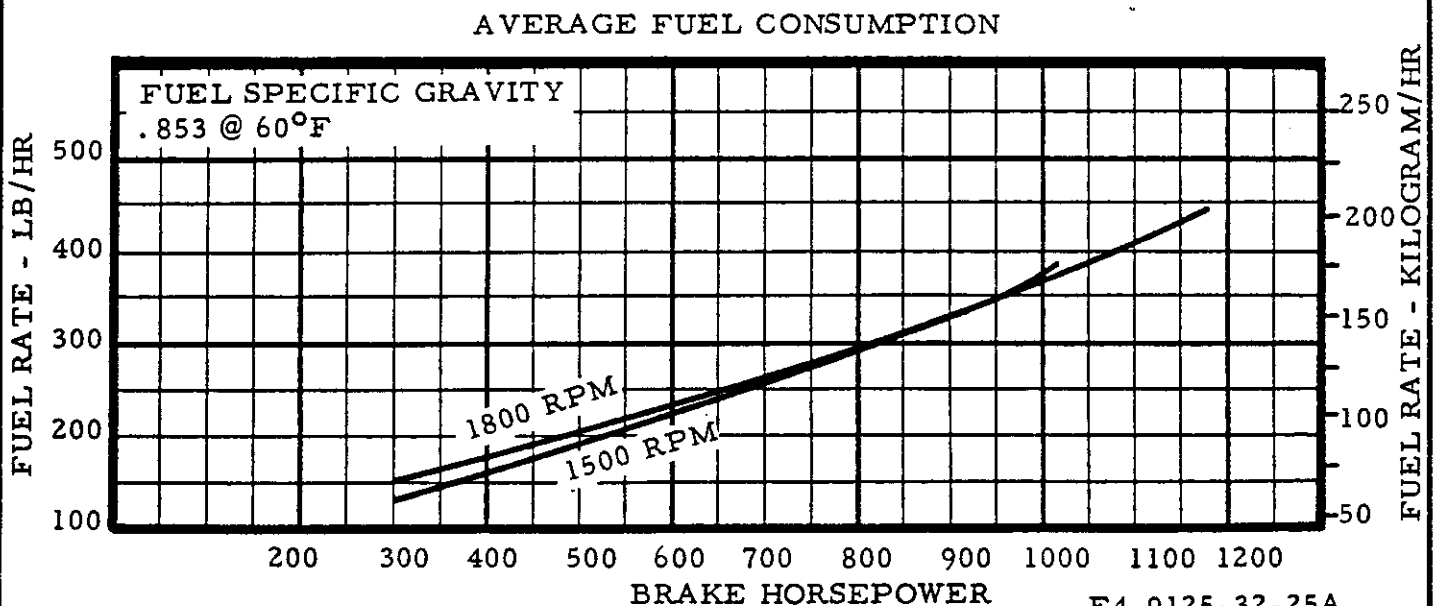
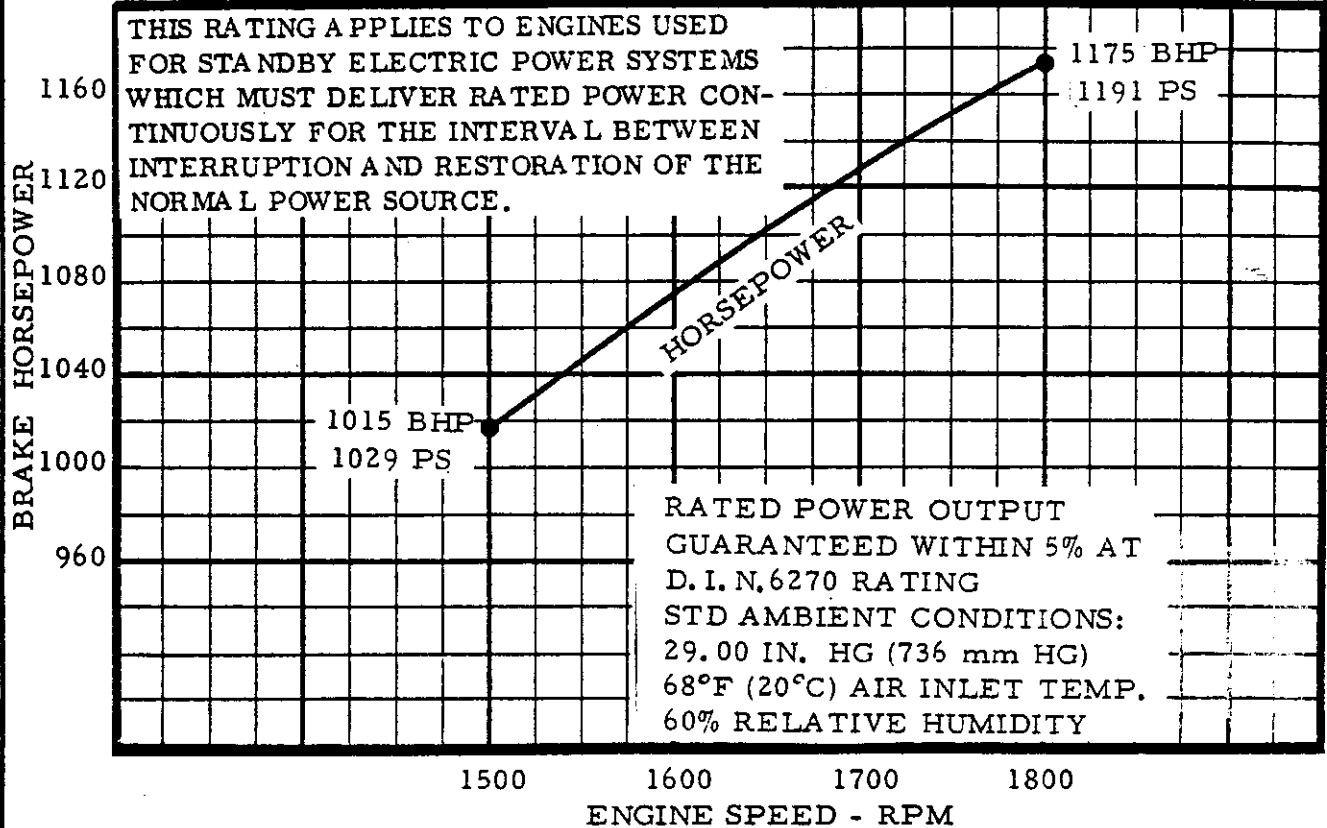
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E4-9125-32-24A
3-16-81



Detroit Diesel Allison
Division of General Motors Corporation

MODEL: 12V-149TI ENGINE
APPLICATION: STANDBY POWER
RATING: WITHOUT FAN
INJECTORS: 170 (2.205 TIMING)
TURBOCHARGER: TV7101 (1.39 A/R)
NORM: DIN 6270 "B"
JACKET WATER INTERCOOLED



DE 4033

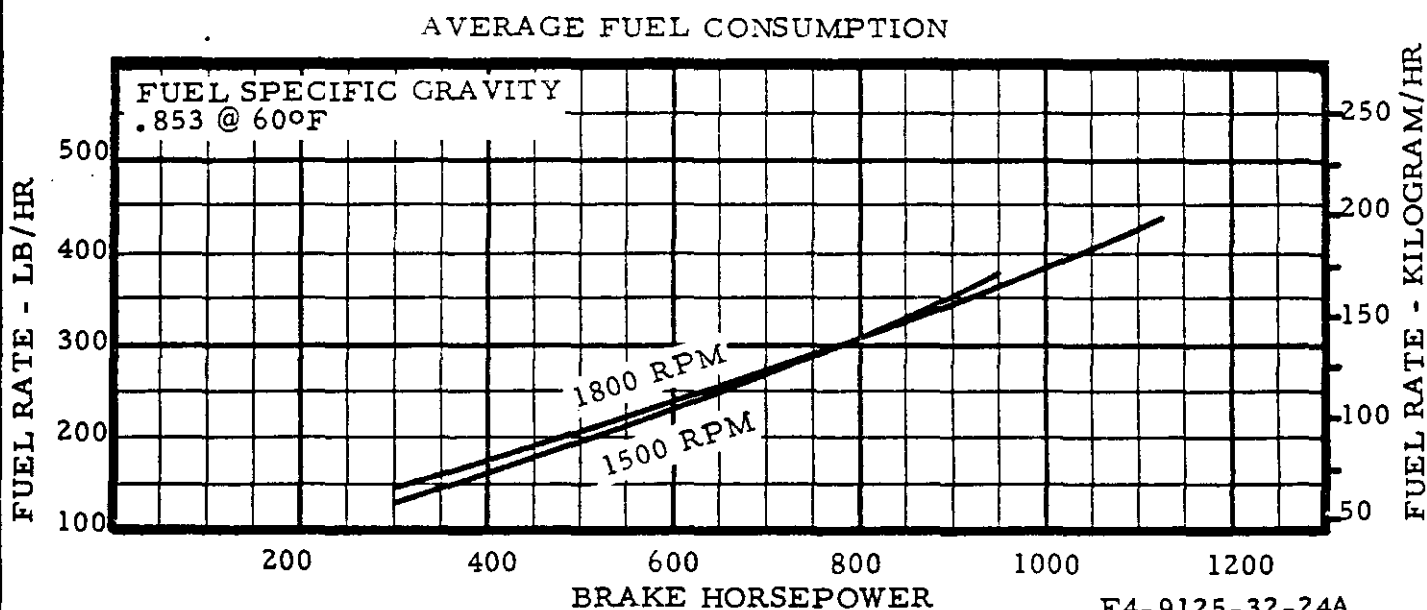
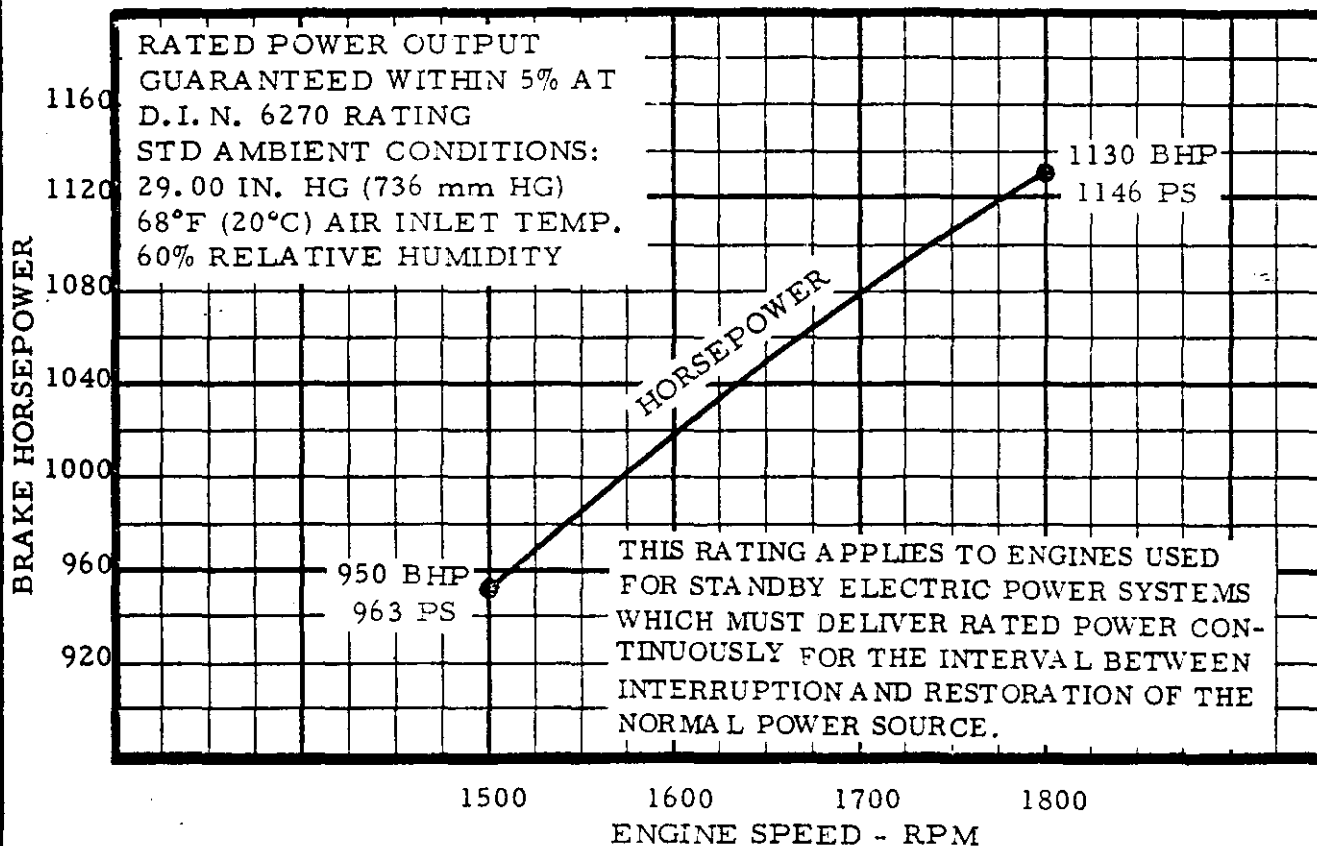
ENGINEERING-TECHNICAL DATA DEPT.

E4-9125-32-25A
3-16-81



Detroit Diesel Allison
Division of General Motors Corporation

MODEL:	12V-149T ENGINE
APPLICATION:	STANDBY POWER
RATING:	WITHOUT FAN
INJECTOR:	170 (2.175 TIMING)
TURBO:	TV7101 (1.39 A/R)
NORM:	DIN 6270 "B"



DE 4033

ENGINEERING-TECHNICAL DATA DEPT.

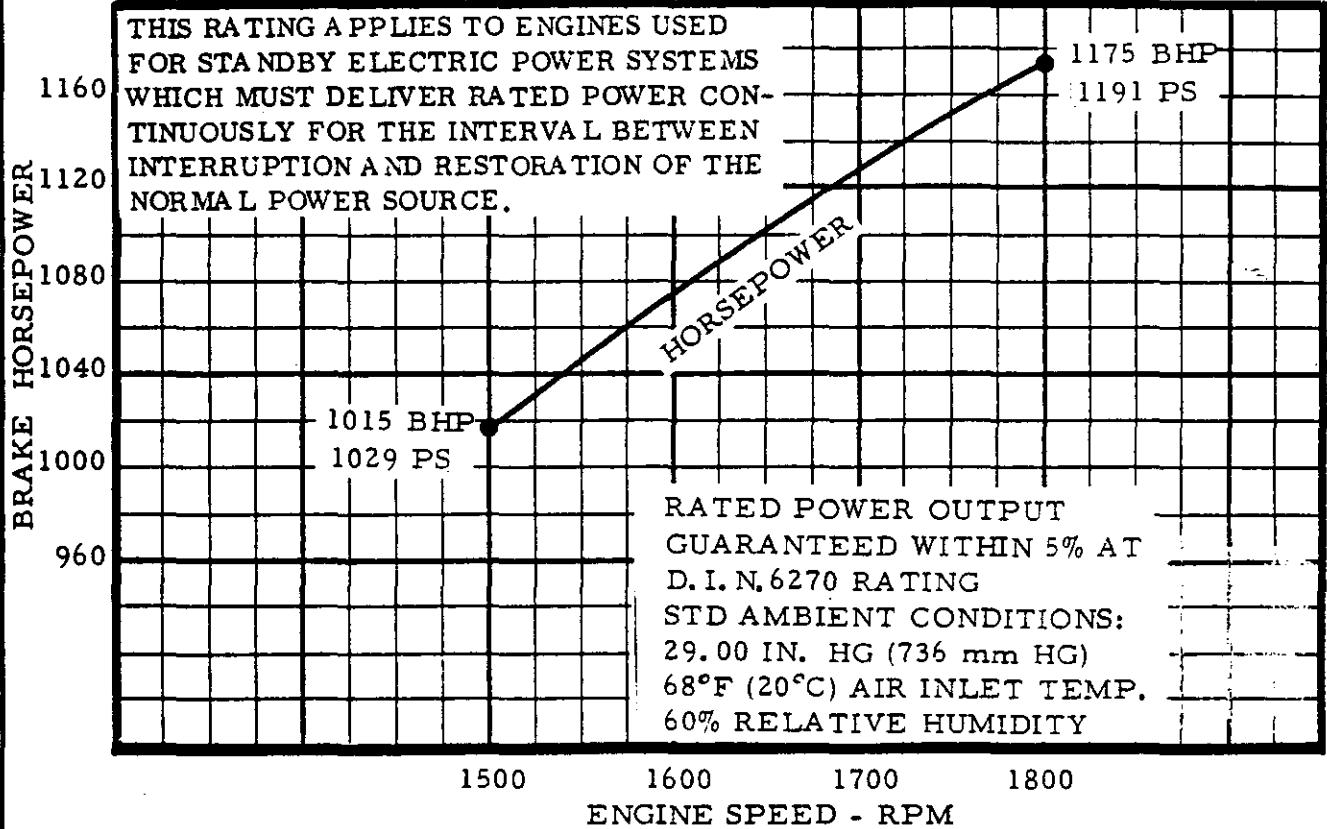
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3-16-81



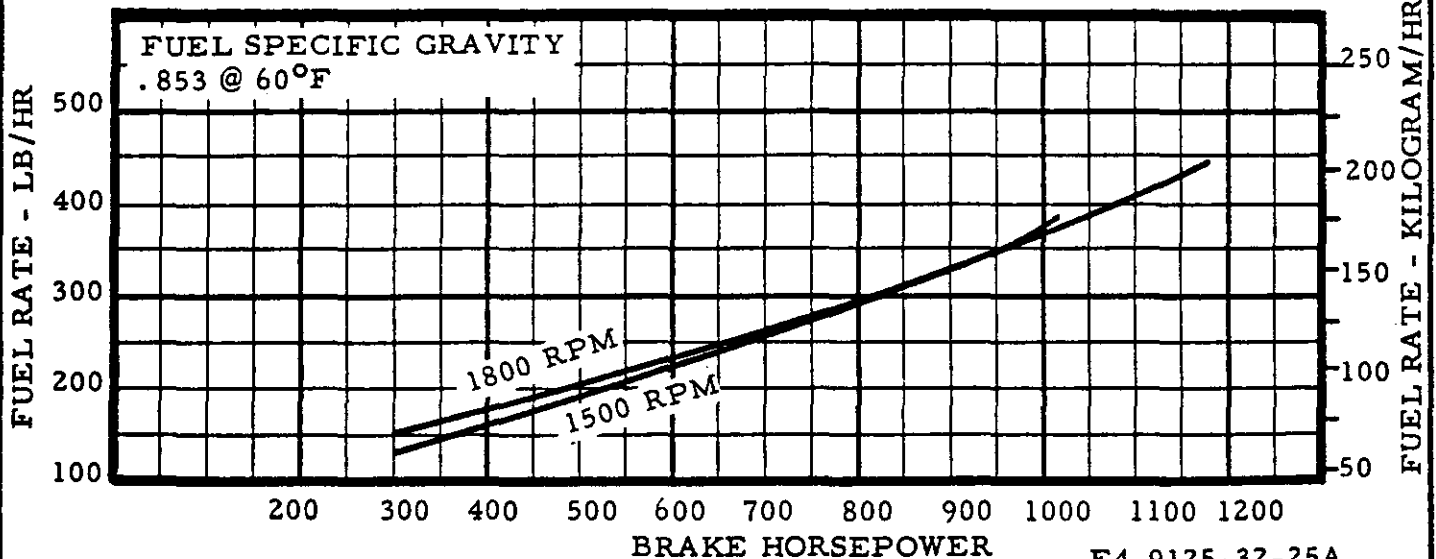
Detroit Diesel Allison
Division of General Motors Corporation

MODEL: 12V-149TI ENGINE
APPLICATION: STANDBY POWER
RATING: WITHOUT FAN
INJECTORS: 170 (2.205 TIMING)
TURBOCHARGER: TV7101 (1.39 A/R)
NORM: DIN 6270 "B"

JACKET WATER INTERCOOLED



AVERAGE FUEL CONSUMPTION



E4-9125-32-25A
3-16-81

ENGINEERING-TECHNICAL DATA DEPT.



GENERATOR SETS - ISO 3046 RATING

INDEX

ENGINE	INJECTOR	HORSEPOWER (KW)				CURVE NO.	DATE	SEE NOTE
		STANDBY		PRIME				
		1500 RPM	1800RPM	1500RPM	1800 RPM			
V8-8.2T	4C65	141(105)*	195(145)#	127(95)*	175(130)#	E4-4085-31-3	07-26-83	
4-71T	M95	170(127)	197(147)	153(114)	177(132)	E4-1045-32-08	12-22-82	
6-71T	M95	254(189)	295(220)	228(170)	265(198)	E4-1065-32-07	12-22-82	
8V-71T	M95	329(245)	393(293)	296(221)	354(264)	E4-7085-32-07	12-22-82	
12V-71T	M95	510(380)	598(446)	459(342)	538(401)	E4-7125-32-06	12-22-82	
16V-71T	M95	670(500)	787(587)	603(450)	708(528)	E4-7165-32-07	12-22-82	
12V-149T	165	935(698)	1085(809)	840(627)	975(727)	E4-9125-32-37	05-16-84	
12V-149TI	190	1040(776)	1215(906)	940(701)	1090(813)	E4-9125-32-36	05-18-84	
16V-149T	165	1135(847)	1335(996)	1020(761)	1175(877)	E4-9165-32-32	07-11-83	
16V-149T	165	1230(918)	1450(1082)	1110(828)	1305(974)	E4-9165-32-35	05-18-84	
16V-149TI	170	1285(959)	1480(1104)	1120(836)	1300(970)	E4-9165-32-31	07-11-83	
16V-149TI	190	1410(1052)	1630(1216)	1270(947)	1470(1097)	E4-9165-32-36	02-13-85	(R)
16V-149TI	270	1620(1209)	1895(1414)	1460(1089)	1705(1272)	E4-9165-32-37	02-13-85	(R)

* - 1800 RPM

- 3000 RPM

NOTE - (A) CURVE ADDED
(R) CURVE REVISED

E4M-0000-00-79

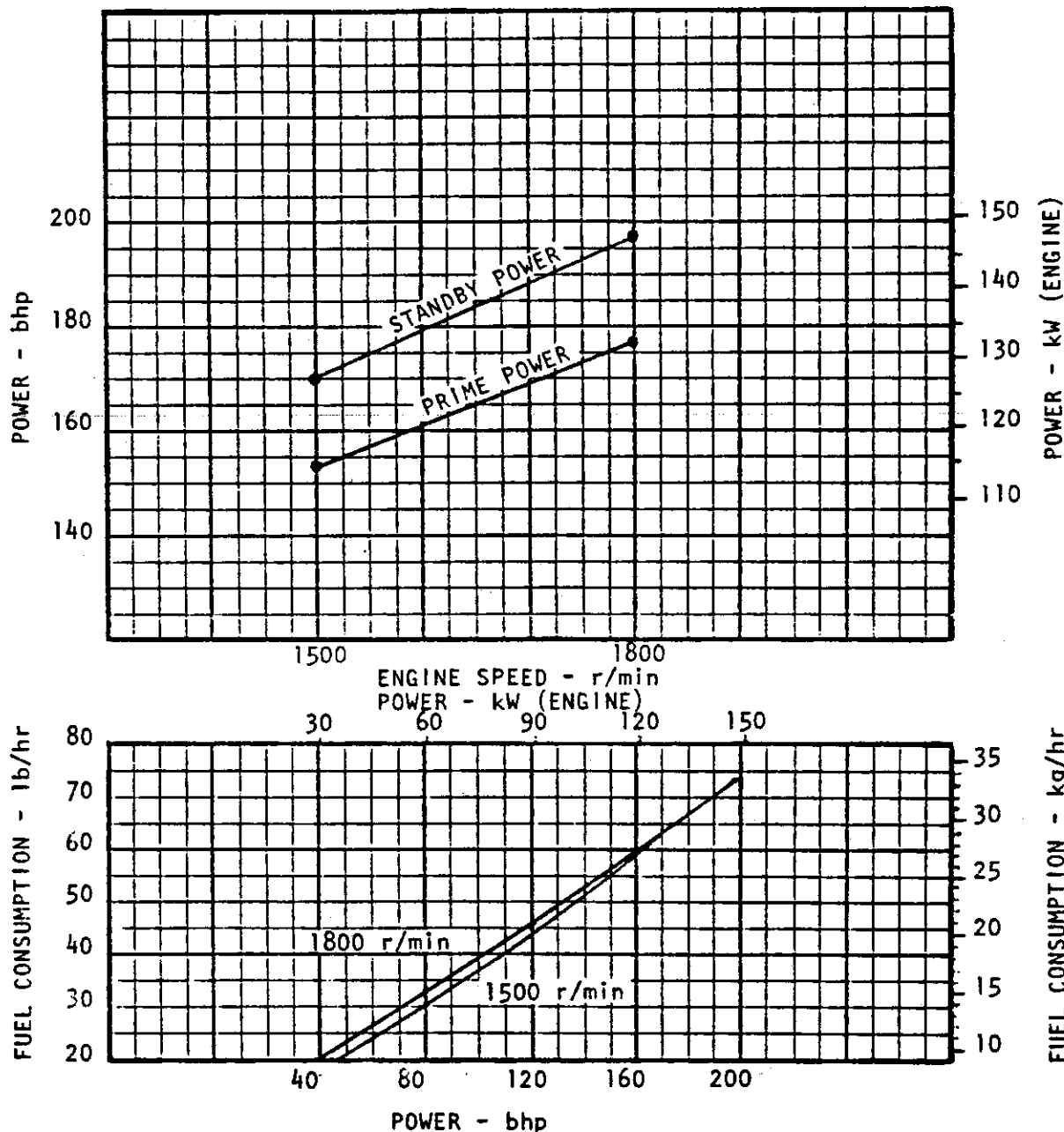
Rev.04-15-85



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 4-71T
STANDBY: 197 bhp (147 kW) @ 1800 r/min
170 bhp (127 kW) @ 1500 r/min
PRIME: 177 bhp (132 kW) @ 1800 r/min
153 bhp (114 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS
DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY
BS 649:1958 29.5 IN. HG. BARO PRESS, 500 FT ALTITUDE, 85°F AIR INLET, 0.6 IN. HG. VAPOR PRESS.
JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS
POWER KW = BHP x 0.746
FUEL KG/HR = LB/HR x 0.454

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY

Victor Perdue

STAFF ENGINEER

CURVE NO.

E4-1045-32-8

DATE: 12-22-82

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	4-71T
Number of cylinders	4
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	284 (4.66)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1-2-4-3
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	44.8 (1137)
Width - in. (mm)	32.0 (812)
Height - in. (mm)	45.8 (1164)
Weight - lbs. (kg)	1830 (830)

Technical Engine Specifications:

Injector (timing)	M95 STANDBY (1.460)	
Turbocharger	T04B98 (1.14 A/R HSG)	
Engine speed - r/min	1500	1800
Brake horsepower - bhp (kW) - min.	170 (127)	197 (147)
Bmep - lb/in. ² (kPa)	158.2 (1091)	152.8 (1053)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr) - min.	63.1 (28.6)	72.5 (32.9)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.371 (226)	.368 (234)
Fuel pump suction at pump inlet		
Maximum - in. Hg (kPa)		
Clean system	6 (20.3)	6 (20.3)
Dirty system	12 (40.6)	12 (40.6)
Airflow - ft ³ /min (m ³ /min)	575 (16.3)	680 (19.3)
Airbox pressure, min. - in. Hg (kPa)	32.0 (108.4)	42.4 (143.6)
Air intake restriction, max. - in. H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	10.5 (2.61)	14.5 (3.61)
- clean	6.2 (1.54)	8.7 (2.16)
Exhaust temp. - °F (°C)	820 (438)	810 (432)
Exhaust flow - ft ³ /min (m ³ /min)	1370 (38.8)	1610 (45.5)
Exhaust back press., max. - in. Hg (kPa)		
Full load	1.4 (4.74)	2.0 (6.77)
Coolant flow - gal/min (litre/min)	40 (151)	47.5 (180)
Coolant normal operating temp. - °F (°C)	160-185 (71-85)	160-185 (71-85)
Heat rejection - Btu/min (kW)	5190 (91.3)	6110 (107.4)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7)	3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	37-63 (255-434)	43-65 (296-448)
Lubricating oil temp., in-pan - °F (°C)	200-235 (93-113)	200-235 (93-113)

ENGINE SPECIFICATION

General Engine Description:

Model	4-71T
Number of cylinders	4
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	284 (4.66)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1-2-4-3
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	44.8 (1137)
Width - in. (mm)	32.0 (812)
Height - in. (mm)	45.8 (1164)
Weight - lbs. (kg)	1830 (830)

Technical Engine Specifications:

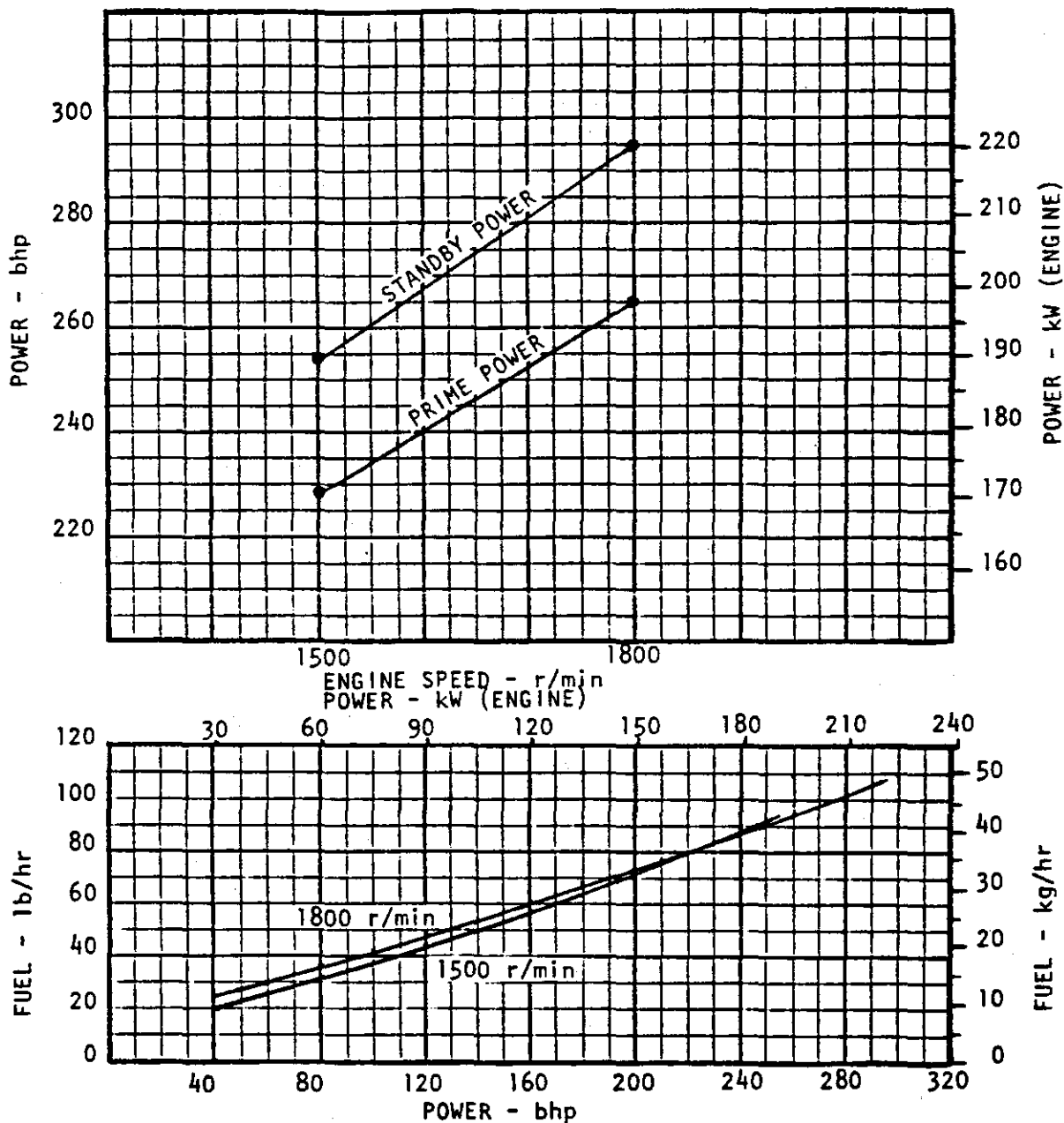
Injector (timing)	M95 PRIME (1.460)	
Turbocharger	T04B98 (1.14 A/R HSG)	
Engine speed - r/min	1500	1800
Brake horsepower - bhp (kW)	153 (114)	177 (132)
Bmep - lb/in. ² (kPa)	142.4 (982)	137.3 (947)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr) - min.	56.0 (25.4)	65.3 (29.6)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.366 (223)	.369 (225)
Fuel pump suction at pump inlet		
Maximum - in. Hg (kPa)		
Clean system	6 (20.3)	6 (20.3)
Dirty system	12 (40.6)	12 (40.6)
Airflow - ft ³ /min (m ³ /min)	505 (14.3)	610 (17.3)
Airbox pressure, min. - in. Hg (kPa)	24.4 (82.6)	34.2 (115.8)
Air intake restriction, max. - in. H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	10.5 (2.61)	14.5 (3.61)
- clean	6.2 (1.54)	8.7 (2.16)
Exhaust temp. - °F (°C)	760 (404)	750 (399)
Exhaust flow - ft ³ /min (m ³ /min)	1150 (32.5)	1375 (38.9)
Exhaust back press., max. - in. Hg (kPa)		
Full load	1.4 (4.74)	2.0 (6.77)
Coolant flow - gal/min (litre/min)	40 (151)	47.5 (180)
Coolant normal operating temp. - °F (°C)	160-185 (71-85)	160-185 (71-85)
Heat rejection - Btu/min (kW)	4670 (82.1)	5490 (96.5)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7)	3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	37-63 (255-434)	43-65 (296-448)
Lubricating oil temp., in-pan - °F (°C)	200-235 (93-113)	200-235 (93-113)



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 6-71T
STANDBY: 295 bhp (220 kW) @ 1800 r/min
254 bhp (189 kW) @ 1500 r/min
PRIME: 265 bhp (198 kW) @ 1800 r/min
228 bhp (170 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

BS 649:1958 29.5 IN. HG. BARO PRESS, 500 FT ALTITUDE, 85°F AIR INLET, 0.6 IN. HG. VAPOR PRESS.

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS

POWER KW = BHP x 0.746

FUEL KG/HR = LB/HR x 0.454

INDICATED PERFORMANCE IS BASED ON 10-IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

Peter L. Lewis
STAFF ENGINEER

CURVE NO.

E4-1065-32-7

DATE: 12-22-82

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	6-71T
Number of cylinders	6
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	426 (6.99)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1-5-3-6-2-4
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	55.9 (1421)
Width - in. (mm)	36.5 (927)
Height - in. (mm)	46.2 (1016)
Weight - lbs. (kg)	2240 (1016)

Technical Engine Specifications:

Injector (timing)	M95 STANDBY (1.460)	
Turbocharger	TV7101 (1.39 A/R HSG)	
Engine speed - r/min	1500	1800
Brake horsepower - bhp (kW) - min.	254 (189)	295 (220.0)
Bmep - lb/in. ² (kPa)	157.6 (1087)	152.5 (1052)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr) - min.	92.9 (42.1)	107.3 (48.7)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.366 (223)	.364 (221)
Fuel pump suction at pump inlet		
Maximum - in. Hg (kPa)		
Clean system	6 (20.3)	6 (20.3)
Dirty system	12 (40.6)	12 (40.6)
Airflow - ft ³ /min (m ³ /min)	850 (24.1)	1020 (28.9)
Airbox pressure, min. - in. Hg (kPa)	30.2 (102.3)	39.6 (134.1)
Air intake restriction, max. - in. H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	10.5 (2.61)	14.5 (3.61)
- clean	6.2 (1.54)	8.7 (2.16)
Exhaust temp. - °F (°C)	840 (449)	820 (438)
Exhaust flow - ft ³ /min (m ³ /min)	2060 (58.3)	2430 (68.9)
Exhaust back press., max. - in. Hg (kPa)		
Full load	1.4 (4.74)	2.0 (6.77)
Coolant flow - gal/min (litre/min)	58 (220)	68 (257)
Coolant normal operating temp. - °F (°C)	160-185 (71-85)	160-185 (71-85)
Heat rejection - Btu/min (kW)	7750 (136.3)	9150 (160.9)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7)	3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	37-63 (255-434)	43-65 (296-448)
Lubricating oil temp., in-pan - °F (°C)	200-235 (93-113)	200-235 (93-113)

ENGINE SPECIFICATION

General Engine Description:

Model	6-71T
Number of cylinders	6
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	426 (6.99)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1-5-3-6-2-4
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	55.9 (1421)
Width - in. (mm)	36.5 (927)
Height - in. (mm)	46.2 (1016)
Weight - lbs. (kg)	2240 (1016)

Technical Engine Specifications:

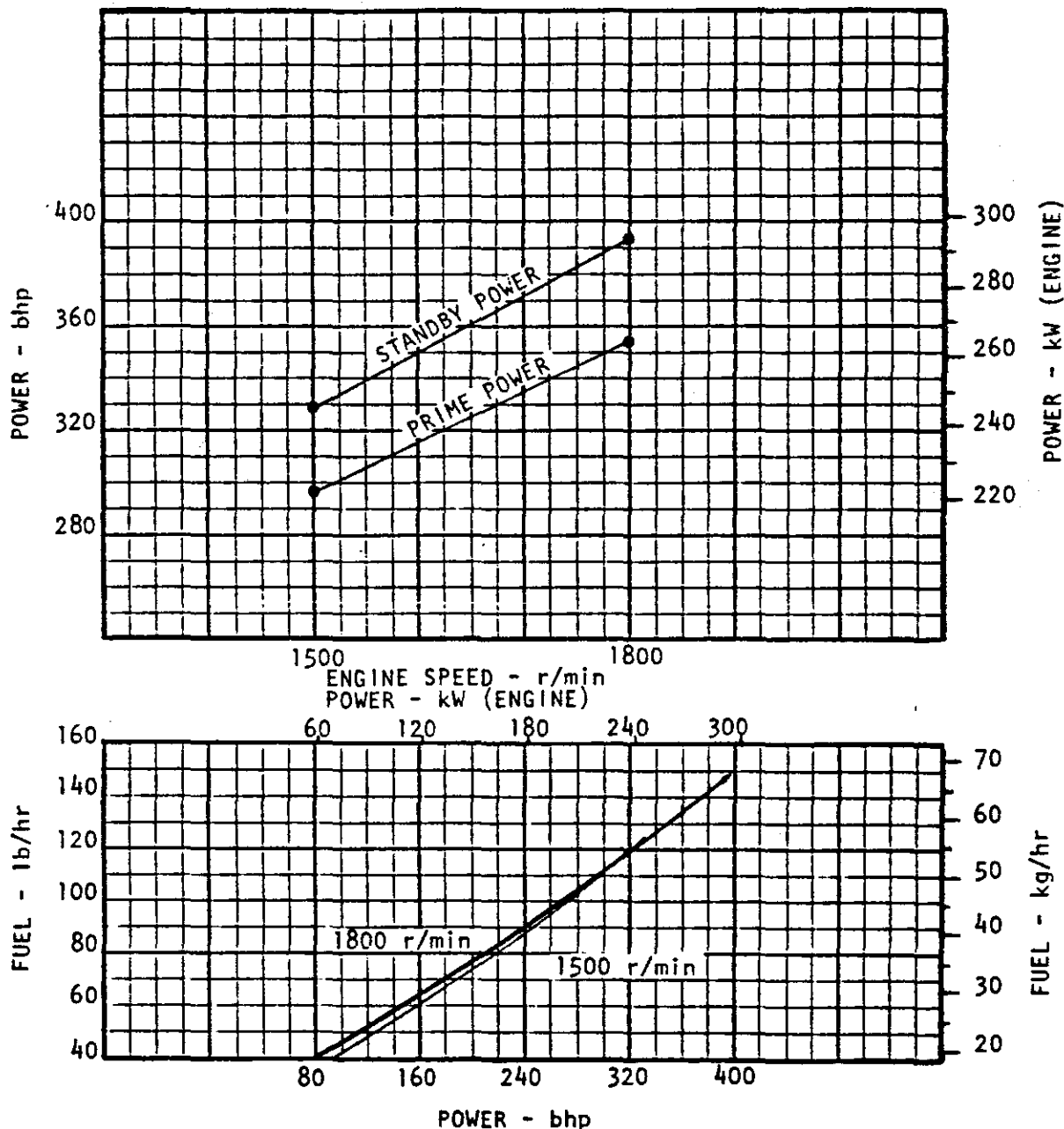
Injector (timing)	M95 PRIME (1.460)	
Turbocharger	TV7101 (1.39 A/R HSG)	
Engine speed - r/min	1500	1800
Brake horsepower - bhp (kW)	228 (170)	265 (198)
Bmep - lb/in. ² (kPa)	141.5 (975)	137.0 (945)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr) - min.	82.3 (37.3)	95.5 (43.3)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.361 (220)	.360 (219)
Fuel pump suction at pump inlet		
Maximum - in. Hg (kPa)		
Clean system	6 (20.3)	6 (20.3)
Dirty system	12 (40.6)	12 (40.6)
Airflow - ft ³ /min (m ³ /min)	770 (21.8)	935 (26.5)
Airbox pressure, min. - in. Hg (kPa)	23.9 (80.9)	33.0 (111.7)
Air intake restriction, max. - in. H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	10.5 (2.61)	14.5 (3.61)
- clean	6.2 (1.54)	8.7 (2.16)
Exhaust temp. - °F (°C)	780 (416)	760 (404)
Exhaust flow - ft ³ /min (m ³ /min)	1780 (50.4)	2120 (60.2)
Exhaust back press., max. - in. Hg (kPa)		
Full load	1.4 (4.74)	2.0 (6.77)
Coolant flow - gal/min (litre/min)	58 (220)	68 (257)
Coolant normal operating temp. - °F (°C)	160-185 (71-85)	160-185 (71-85)
Heat rejection - Btu/min (kW)	6950 (122.2)	8220 (144.5)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7)	3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	37-63 (255-434)	43-65 (296-448)
Lubricating oil temp., in-pan - °F (°C)	200-235 (93-113)	200-235 (93-113)



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 8V-71T
STANDBY: 393 bhp (293 kW) @ 1800 r/min
329 bhp (245 kW) @ 1500 r/min
PRIME: 354 bhp (264 kW) @ 1800 r/min
296 bhp (221 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

BS 649:1958 29.5 IN. HG. BARO PRESS, 500 FT ALTITUDE, 85°F AIR INLET, 0.6 IN. HG. VAPOR PRESS.

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS

POWER KW = BHP x 0.746

FUEL KG/HR = LB/HR x 0.454

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

Peter J. Perdue

STAFF ENGINEER

CURVE NO.

E4-7085-32-7

DATE: 12-22-82

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	8V-71T
Number of cylinders	8
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	568 (9.32)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1L-3R-3L-4R-4L-2R-2L-1R
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	49.8 (1265)
Width - in. (mm)	39.6 (1006)
Height - in. (mm)	51.6 (1311)
Weight - lbs. (kg)	2495 (1132)

Technical Engine Specifications:

Injector (timing)	M95 STANDBY (1.460)
Turbocharger	TV8101 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW) - min.	329 (245) 393 (293)
Bmep - lb/in. ² (kPa)	153.1 (1056) 152.4 (1051)
Peak torque - lb·ft (N·m) @ r/min	- -
Fuel consumption - lb/hr (kg/hr) - min.	123.8 (57.6) 146.4 (66.4)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.376 (229) .373 (227)
Fuel pump suction at pump inlet	
Maximum - in. Hg (kPa)	
Clean system	6 (20.3) 6 (20.3)
Dirty system	12 (40.6) 12 (40.6)
Airflow - ft ³ /min (m ³ /min)	1130 (32.0) 1400 (39.6)
Airbox pressure, min. - in. Hg (kPa)	33.0 (111.7) 42.0 (142.2)
Air intake restriction, max. - in. H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	10.5 (2.61) 14.5 (3.61)
- clean	6.2 (1.54) 8.7 (2.16)
Exhaust temp. - °F (°C)	800 (427) 780 (416)
Exhaust flow - ft ³ /min (m ³ /min)	2650 (75.1) 3230 (91.6)
Exhaust back press., max. - in. Hg (kPa)	
Full load	1.4 (4.74) 2.0 (6.77)
Coolant flow - gal/min (litre/min)	92 (348) 111 (420)
Coolant normal operating temp. - °F (°C)	160-185 (71-85) 160-185 (71-85)
Heat rejection - Btu/min (kW)	10030 (174.6) 12180 (214.1)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	42-70 (290-483) 50-70 (345-483)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121) 200-250 (93-121)

ENGINE SPECIFICATION

General Engine Description:

Model	8V-71T
Number of cylinders	8
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	568 (9.32)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1L-3R-3L-4R-4L-2R-2L-1R
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	49.8 (1265)
Width - in. (mm)	39.6 (1006)
Height - in. (mm)	51.6 (1311)
Weight - lbs. (kg)	2495 (1132)

Technical Engine Specifications:

Injector (timing)	M95 PRIME (1.460)
Turbocharger	TV8101 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	296 (221) 354 (264)
Bmep - lb/in. ² (kPa)	137.7 (950) 137.3 (947)
Peak torque - lb·ft (N·m) @ r/min	- -
Fuel consumption - lb/hr (kg/hr) - min.	110.0 (49.9) 131.5 (59.6)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.372 (226) .371 (226)
Fuel pump suction at pump inlet	
Maximum - in. Hg (kPa)	
Clean system	6 (20.3) 6 (20.3)
Dirty system	12 (40.6) 12 (40.6)
Airflow - ft ³ /min (m ³ /min)	980 (27.8) 1190 (33.7)
Airbox pressure, min. - in. Hg (kPa)	24.4 (82.6) 36.1 (122.2)
Air intake restriction, max. - in. H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	10.5 (2.61) 14.5 (3.61)
- clean	6.2 (1.54) 8.7 (2.16)
Exhaust temp. - °F (°C)	730 (388) 720 (382)
Exhaust flow - ft ³ /min (m ³ /min)	2170 (61.5) 2615 (74.1)
Exhaust back press., max. - in. Hg (kPa)	
Full load	1.4 (4.74) 2.0 (6.77)
Coolant flow - gal/min (litre/min)	92 (348) 111 (420)
Coolant normal operating temp. - °F (°C)	160-185 (71-85) 160-185 (71-85)
Heat rejection - Btu/min (kW)	9030 (158.8) 10970 (192.9)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	42-70 (290-483) 50-70 (345-483)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121) 200-250 (93-121)



ENGINE PERFORMANCE CURVE

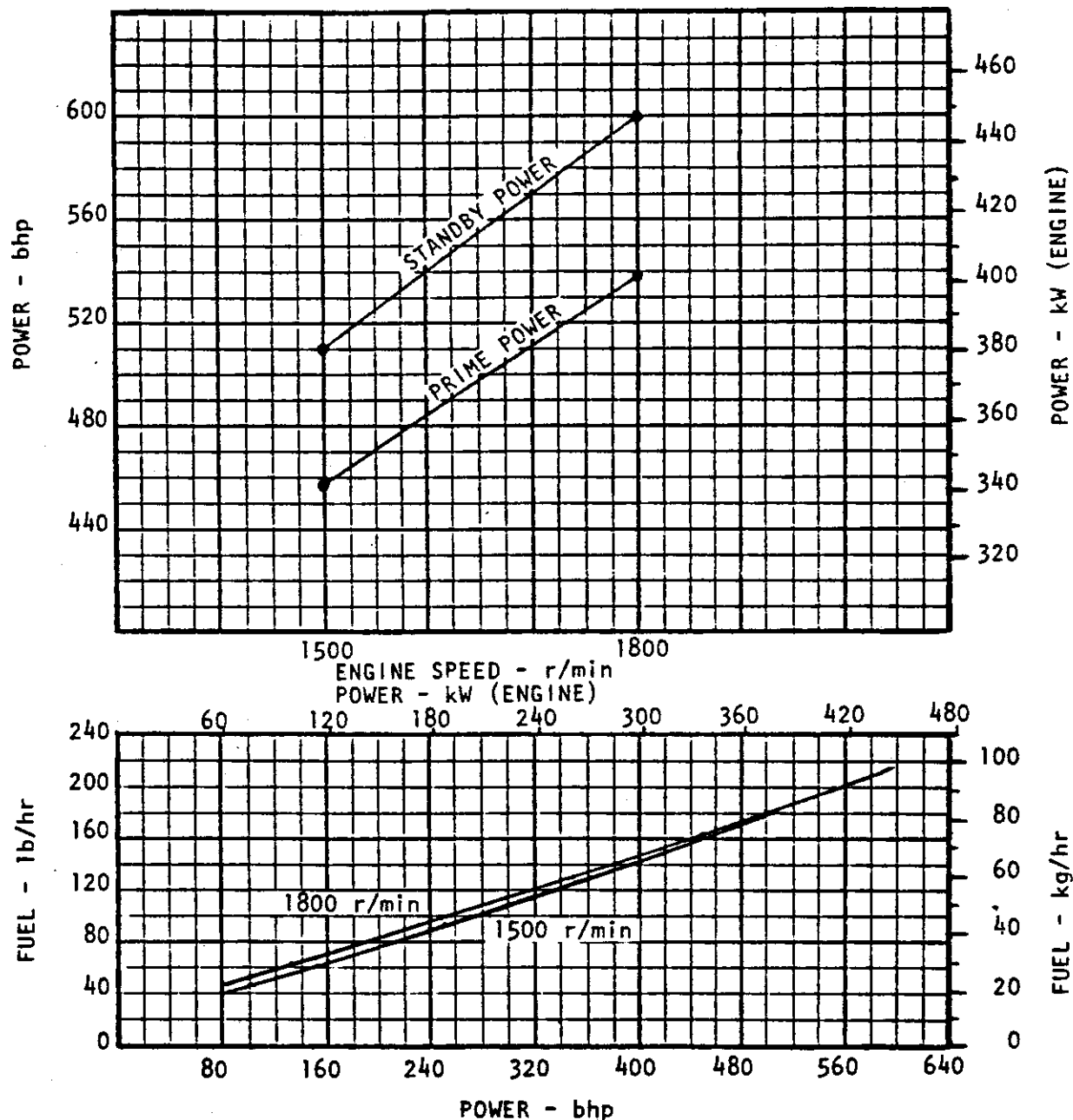
RATING: GUARANTEED AS SHOWN
WITHOUT FAN

APPLICATION: GENERATOR SET

MODEL: 12V-71T

STANDBY: 598 bhp (446 kW) @ 1800 r/min
510 bhp (380 kW) @ 1500 r/min

PRIME: 538 bhp (401 kW) @ 1800 r/min
459 bhp (342 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

BS 649:1958 29.5 IN. HG. BARO PRESS, 500 FT ALTITUDE, 85°F AIR INLET, 0.6 IN. HG. VAPOR PRESS.

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS

POWER KW = BHP × 0.746

FUEL KG/HR = LB/HR × 0.454

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

Peter A. Perdomo
STAFF ENGINEER

CURVE NO.

E4-7125-32-6

DATE: 12-22-82

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	12V-71T
Number of cylinders	12
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	852 (13.97)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1L-5L-3R-4R-3L-4L-2R-6R-2L-6L-1R-5R
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	62.0 (1575)
Width - in. (mm)	45.5 (1156)
Height - in. (mm)	50.8 (1290)
Weight - lbs. (kg)	3550 (1610)

Technical Engine Specifications:

Injector (timing)	M95 STANDBY (1.460)	
Turbocharger	TV7101 (1.39 A/R HSG)	
Engine speed - r/min	1500	1800
Brake horsepower - bhp (kW) - min.	510 (380)	598 (446)
Bmep - lb/in. ² (kPa)	158.2 (1091)	154.6 (1067)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr) - min.	184.0 (83.5)	214.6 (97.3)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.361 (220)	.359 (218)
Fuel pump suction at pump inlet		
Maximum - in. Hg (kPa)		
Clean system	6 (20.3)	6 (20.3)
Dirty system	12 (40.6)	12 (40.6)
Airflow - ft ³ /min (m ³ /min)	1580 (44.7)	1960 (55.5)
Airbox pressure, min. - in. Hg (kPa)	25.8 (87.4)	38.5 (130.4)
Air intake restriction, max. - in. H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	10.5 (2.61)	14.5 (3.61)
- clean	6.2 (1.54)	8.7 (2.16)
Exhaust temp. - °F (°C)	770 (410)	820 (438)
Exhaust flow - ft ³ /min (m ³ /min)	3620 (102.5)	4670 (132.3)
Exhaust back press., max. - in. Hg (kPa)		
Full load	1.4 (4.74)	2.0 (6.77)
Coolant flow - gal/min (litre/min)	178 (674)	213 (806)
Coolant normal operating temp. - °F (°C)	160-185 (71-85)	160-185 (71-85)
Heat rejection - Btu/min (kW)	15560 (273.6)	18540 (326.0)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7)	3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	42-70 (290-483)	50-70 (345-483)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121)	200-250 (93-121)

ENGINE SPECIFICATION

General Engine Description:

Model	12V-71T
Number of cylinders	12
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	852 (13.97)
Compression ratio	17.0:1
Firing order	
Clockwise rotation (RH)	1L-5L-3R-4R-3L-4L-2R-6R-2L-6L-1R-5R
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	62.0 (1575)
Width - in. (mm)	45.5 (1156)
Height - in. (mm)	50.8 (1290)
Weight - lbs. (kg)	3550 (1610)

Technical Engine Specifications:

Injector (timing)	M95 PRIME (1.460)
Turbocharger	TV7101 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	459 (342) 538 (401)
Bmep - lb/in. ² (kPa)	142.4 (982) 139.1 (959)
Peak torque - lb·ft (N·m) @ r/min	- -
Fuel consumption - lb/hr (kg/hr) - min.	163.1 (74.0) 193.1 (87.6)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.355 (216) .359 (218)
Fuel pump suction at pump inlet	
Maximum - in. Hg (kPa)	
Clean system	6 (20.3) 6 (20.3)
Dirty system	12 (40.6) 12 (40.6)
Airflow - ft ³ /min (m ³ /min)	1480 (41.9) 1860 (52.7)
Airbox pressure, min. - in. Hg (kPa)	23.5 (79.6) 34.5 (116.8)
Air intake restriction, max. - in. H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	10.5 (2.61) 14.5 (3.61)
- clean	6.2 (1.54) 8.7 (2.16)
Exhaust temp. - °F (°C)	730 (388) 790 (421)
Exhaust flow - ft ³ /min (m ³ /min)	3280 (92.9) 4330 (122.6)
Exhaust back press., max. - in. Hg (kPa)	
Full load	1.4 (4.74) 2.0 (6.77)
Coolant flow - gal/min (litre/min)	178 (674) 213 (806)
Coolant normal operating temp. - °F (°C)	160-185 (71-85) 160-185 (71-85)
Heat rejection - Btu/min (kW)	14000 (246.2) 16680 (293.3)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	42-70 (290-483) 50-70 (345-483)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121) 200-250 (93-121)



ENGINE PERFORMANCE CURVE

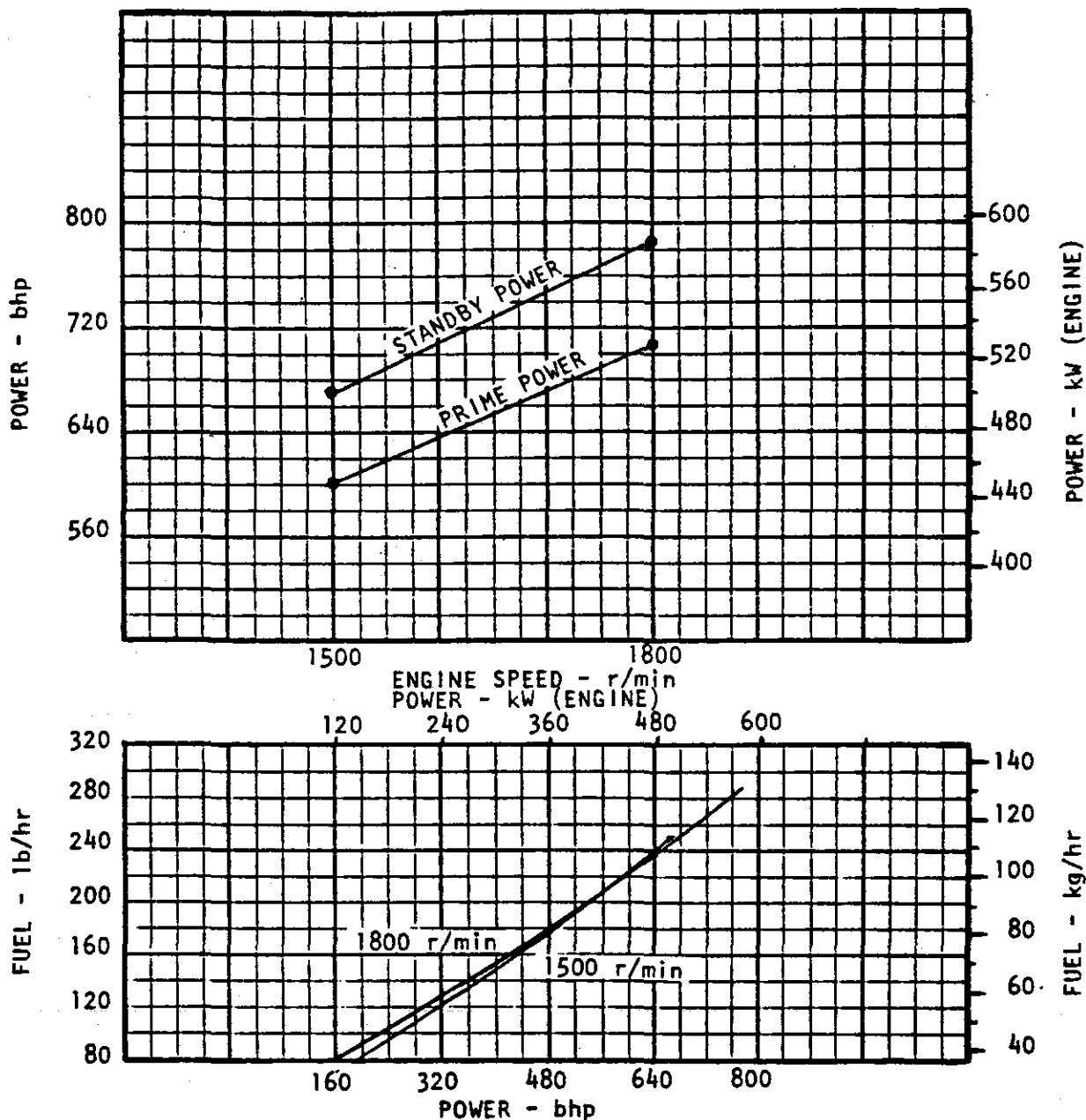
RATING: GUARANTEED AS SHOWN
WITHOUT FAN

APPLICATION: GENERATOR SET

MODEL: 16V-71T

STANDBY: 787 bhp (587 kW) @ 1800 r/min
670 bhp (500 kW) @ 1500 r/min

PRIME: 708 bhp (528 kW) @ 1800 r/min
603 bhp (450 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

BS 649:1958 29.5 IN. HG. BARO PRESS, 500 FT ALTITUDE, 85°F AIR INLET, 0.6 IN. HG. VAPOR PRESS.

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS

POWER KW = BHP x 0.746

FUEL KG/HR = LB/HR x 0.454

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C) LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

Steve Fisher
STAFF ENGINEER

CURVE NO.

E4-7165-32-7

DATE: 12-22-82

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	16V-71T
Number of cylinders	16
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	1136 (18.63)
Compression ratio	17.0:1
Firing order	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Clockwise rotation (RH)	-
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	79.4 (2018)
Width - in. (mm)	48.7 (1236)
Height - in. (mm)	59.5 (1510)
Weight - lbs. (kg)	4800 (2177)

Technical Engine Specifications:

Injector (timing)	M95 STANDBY (1.460)
Turbocharger	TV8101 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW) - min.	670 (500) 787 (587)
Bmep - lb/in. ² (kPa)	155.9 (1075) 152.6 (1052)
Peak torque - lb·ft (N·m) @ r/min	- -
Fuel consumption - lb/hr (kg/hr) - min.	252.2 (114.4) 291.6 (132.3)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.376 (229) .371 (225)
Fuel pump suction at pump inlet	
Maximum - in. Hg (kPa)	6 (20.3) 6 (20.3)
Clean system	12 (40.6) 12 (40.6)
Dirty system	2260 (64.0) 2790 (79.0)
Airflow - ft ³ /min (m ³ /min)	33.0 (111.7) 42.0 (142.2)
Airbox pressure, min. - in. Hg (kPa)	
Air intake restriction, max. - in. H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	10.5 (2.61) 14.5 (3.61)
- clean	6.2 (1.54) 8.7 (2.16)
Exhaust temp. - °F (°C)	800 (427) 780 (416)
Exhaust flow - ft ³ /min (m ³ /min)	5300 (150.2) 6440 (182.5)
Exhaust back press., max. - in. Hg (kPa)	
Full load	1.4 (4.74) 2.0 (6.77)
Coolant flow - gal/min (litre/min)	224 (848) 267 (1011)
Coolant normal operating temp. - °F (°C)	160-185 (71-85) 160-185 (71-85)
Heat rejection - Btu/min (kW)	20440 (359.4) 24400 (429.1)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	42-70 (290-483) 50-70 (345-483)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121) 200-250 (93-121)

ENGINE SPECIFICATION

General Engine Description:

Model	16V-71T
Number of cylinders	16
Bore and stroke - in. (mm)	4.25 x 5.0 (108 x 127)
Displacement - in. ³ (litre)	1136 (18.63)
Compression ratio	17.0:1
Firing order	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Clockwise rotation (RH)	-
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in. (mm)	79.4 (2018)
Width - in. (mm)	48.7 (1236)
Height - in. (mm)	59.5 (1510)
Weight - lbs. (kg)	4800 (2177)

Technical Engine Specifications:

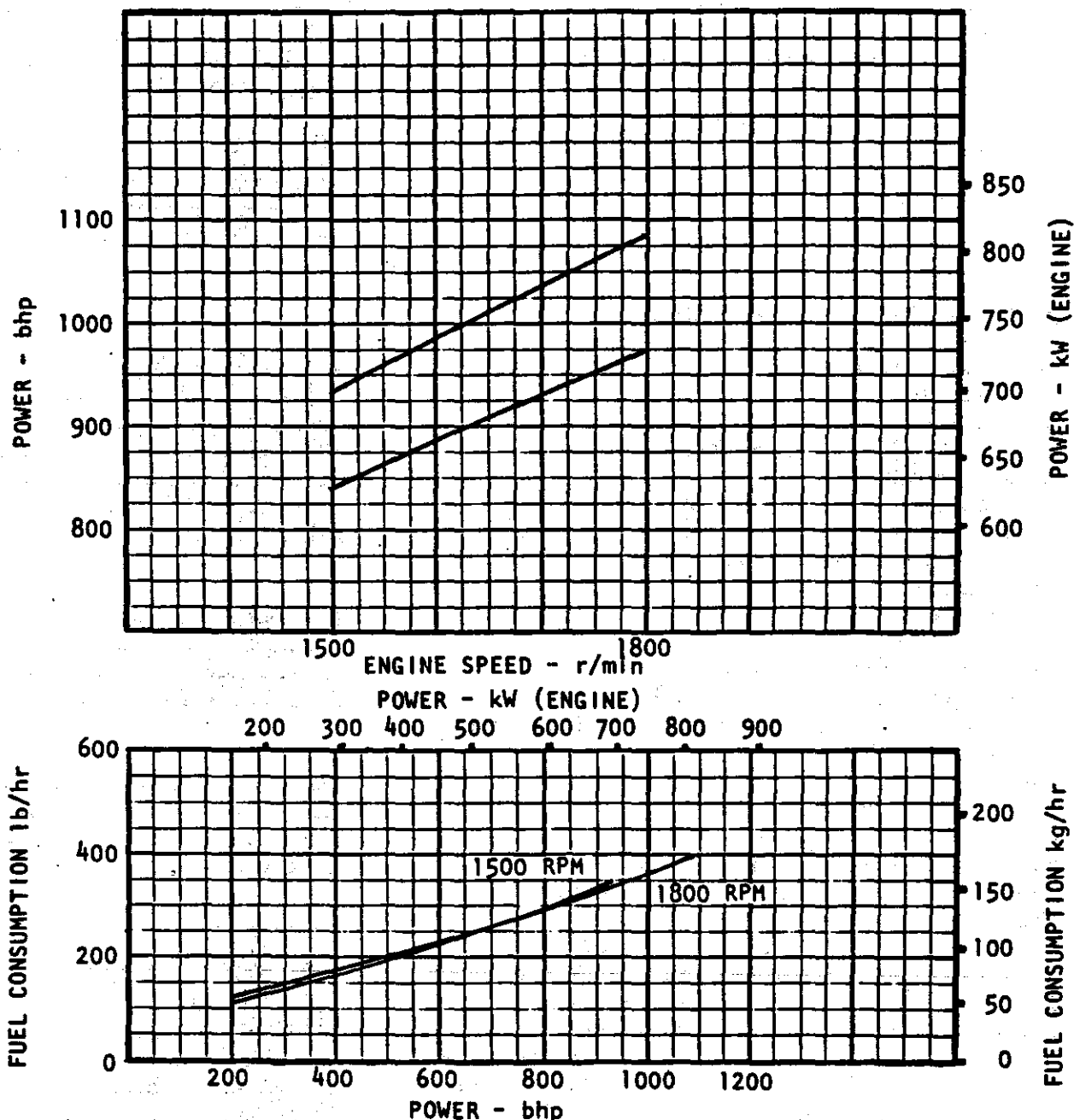
Injector (timing)	M95 PRIME (1.460)
Turbocharger	TV8101 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	603 (450) 708 (528)
Bmep - lb/in. ² (kPa)	140.3 (967) 137.3 (947)
Peak torque - lb·ft (N·m) @ r/min	- -
Fuel consumption - lb/hr (kg/hr) - min.	222.8 (101.1) 261.6 (118.7)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.369 (225) .369 (225)
Fuel pump suction at pump inlet	
Maximum - in. Hg (kPa)	
Clean system	6 (20.3) 6 (20.3)
Dirty system	12 (40.6) 12 (40.6)
Airflow - ft ³ /min (m ³ /min)	1940 (54.9) 2370 (67.1)
Airbox pressure, min. - in. Hg (kPa)	24.4 (82.6) 36.1 (122.2)
Air intake restriction, max. - in. H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	10.5 (2.61) 14.5 (3.61)
- clean	6.2 (1.54) 8.7 (2.16)
Exhaust temp. - °F (°C)	730 (388) 720 (382)
Exhaust flow - ft ³ /min (m ³ /min)	4300 (121.7) 5210 (147.5)
Exhaust back press., max. - in. Hg (kPa)	
Full load	1.4 (4.74) 2.0 (6.77)
Coolant flow - gal/min (litre/min)	224 (848) 267 (1011)
Coolant normal operating temp. - °F (°C)	160-185 (71-85) 160-185 (71-85)
Heat rejection - Btu/min (kW)	18390 (323.4) 21950 (386.0)
Coolant inlet restriction, max. - in. Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in. ² (kPa)	42-70 (290-483) 50-70 (345-483)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121) 200-250 (93-121)



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 12V-149T
STANDBY 1085 bhp (809 kW) @ 1800 r/min
935 bhp (698 kW) @ 1500 r/min
PRIME 975 bhp (727 kW) @ 1800 r/min
840 bhp (627 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS
DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY
JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:
POWER kW = BHP x 0.746
FUEL KG/KW-HR = LB/HR x 0.608
TORQUE N-M = LB-FT x 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D. L. Graham
6-10-84
STAFF ENGINEER

CURVE NO.

E4-9125-32-37
DATE: 5-16-84
REV./DATE:
SHT. 1 OF 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE 9123-7305

12
5.75 x 5.75 (146 x 146)
1792 (29.39)
17:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R
93 (2362)
62 (1575)
67.5 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	2460	5025	8520	10725	12320
CO	220	200	200	1400	4000
HC	560	695	610	625	850

165 (2.175) STANDBY
TV7111 (1.08 A/R HSG)
1800
1085 (809)
133 (917)
398.2 (180.6)
.367 (223)
6.0 (20.3)
12.0 (40.6)
3400 (96.3)
35.0 (118.5)
17.5 (4.4)
10.5 (2.6)
750 (399)
7346 (208)
2.2 (7.4)
335 (1268)
180 (82.2)
28750 (505)
4330 (76)
3.0 (10.2)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9125-32-37
Sht. 2 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
 Number of cylinders
 Bore and stroke - in (mm)
 Displacement - in³ (litre)
 Compression ratio
 Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
 Width - in (mm)
 Height - in (mm)
 Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE 9123-7305

12
 5.75 x 5.75 (146 x 146)
 1792 (29.39)
 17:1
 1L-5L-3R-4R-3L-4L
 2R-6R-2L-6L-1R-5R

93 (2362)
 62 (1575)
 67.5 (1778)
 9030 (4096)

Technical Engine Specifications:

Injector (timing)
 Turbocharger
 Engine speed - r/min
 Brake horsepower - bhp (kW)
 Bmep - lb/in² (kPa)
 Fuel consumption - lb/hr (kg/hr)
 Specific fuel cons. - lb/bhp hr (g/kW hr)
 Fuel pump suction at pump inlet
 Maximum - in Hg (kPa)
 Clean system
 Dirty system
 Airflow - ft³/min (m³/min)
 Airbox pressure - in Hg (kPa)
 Air intake restriction, max. - in H₂O (kPa)
 (Dry type air cleaner)
 Full load - dirty
 - clean
 Exhaust temp. - °F (°C)
 Exhaust flow - ft³/min (m³/min)
 Exhaust back press., max. - in Hg (kPa)
 Full load
 Coolant flow - gal/min (litre/min)
 Coolant normal operating temp. - °F (°C)
 Engine heat rejection - Btu/min (kW)
 Engine radiated heat - Btu/min (kW)
 Coolant inlet restriction, max. - in Hg (kPa)
 Lubricating oil press., normal - lb/in² (kPa)
 Lubricating oil temp., in-pan - °F (°C)
 Emissions - gm/hr (at per cent load)

165 (2,175) STANDBY
 TV7111 (1.08 A/R HSG)
 1500
 935 (698)
 138 (951)
 346.0 (156.9)
 .370 (225)

6.0 (20.3)
 12.0 (40.6)
 3050 (86)
 29.0 (97.9)

13.0 (3.2)
 7.5 (1.9)
 760 (404)
 6650 (188)

1.5 (5.1)
 275 (1041)
 180 (82.2)
 24310 (428)
 4290 (75)
 2.0 (6.7)
 40-60 (276-414)
 230 (110) MAX.

	0%	25%	50%	75%	100%
NO _x	1870	3370	6620	9745	12440
CO	240	200	200	1500	4650
HC	420	505	605	650	690

All values at rated speed and power and with
 standard engine hardware unless otherwise noted.

Curve No. E4-9125-32-37
 Sht. 3 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE 9123-7305

12
5.75 x 5.75 (146 x 146)
1792 (29.39)
17:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R

93 (2362)
62 (1575)
67.5 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
NO _x	2720	4660	7905	10110	11765
CO	330	300	200	950	2800
HC	580	700	620	605	760

165 (2.175) PRIME
TV7111 (1.08 A/R HSG)
1800
975 (727)
120 (827)
357.8 (162.3)
.367 (223)

6.0 (20.3)
12.0 (40.6)
3100 (87.8)
29.0 (98.2)

17.5 (4.4)
10.5 (2.6)
720 (382)
6530 (185)

2.2 (7.4)
335 (1268)
180 (82.2)
25840 (454)
3890 (68)
3.0 (10.2)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9125-32-37
Sht. 4 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9123-7305
12
5.75 x 5.75 (146 x 146)
1792 (29.39)
17:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R
93 (2362)
62 (1575)
67.5 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	2240	3555	6335	8945	11340
CO	305	250	150	850	3250
HC	420	490	585	640	670

165 (2.175) PRIME
TV7111 (1.08 A/R HSG)
1500
840 (627)
124 (855)
310.8 (141.0)
.370 (225)
6.0 (20.3)
12.0 (40.6)
2800 (79)
23.0 (77.9)
13.0 (3.2)
7.5 (1.9)
740 (393)
6000 (170)
1.5 (5.1)
275 (1041)
180 (82.2)
21840 (452)
3850 (68)
2.0 (6.7)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

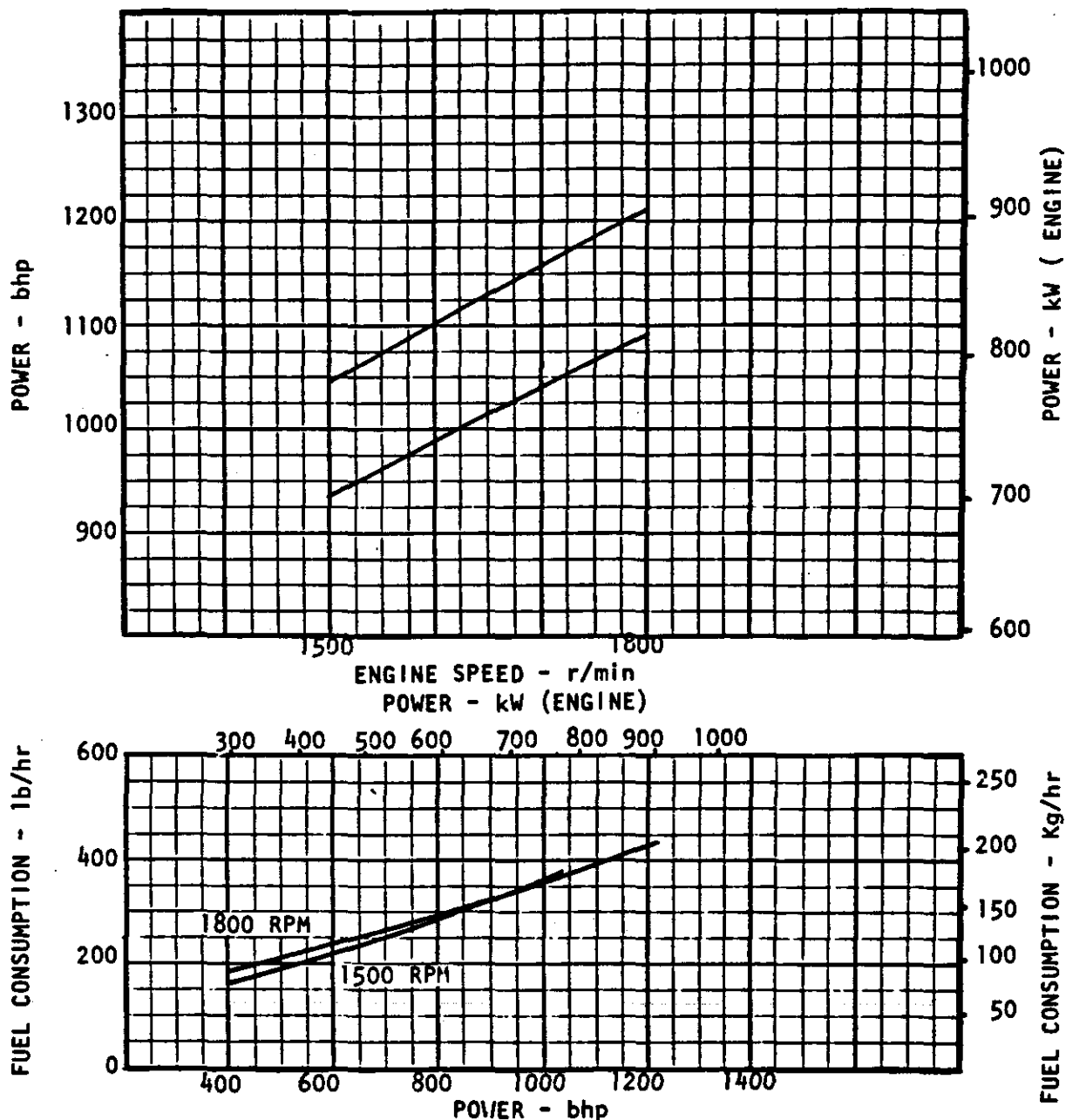
Curve No. E4-9125-32-37
Sht. 5 of 5



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 12V-149T1
STANDBY 1215 bhp (906 kW) @1800 r/min
1040 bhp (776 kW) @1500 r/min
PRIME 1090 bhp (813 kW) @1800 r/min
940 bhp (701 kW) @1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:

POWER KW = BHP $\times$ 0.746

FUEL KG/KW-HR = LB/HR $\times$ 0.608

TORQUE N-M = LB-FT $\times$ 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D. L. Graham
6-10-84
STAFF ENGINEER

CURVE NO.

E4-9125-32-36
DATE: 5-18-84
REV./DATE:
SHT. 1 OF 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9123-7306
12
5.75 x 5.75 (146 x 146)
1792 (29.39)
16:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R

93 (2362)
62 (1575)
70 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1225	2500	5800	8900	11300
CO	660	600	600	2000	4600
HC	760	940	970	930	690

190 (2.205) STANDBY
TV7111 (1.08 A/R HSG)
1800
1215 (906)
149 (1027)
430.7 (195.4)
.354 (216)

6.0 (20.3)
12.0 (40.6)
3500 (99)
41.7 (140.9)

17.5 (4.4)
10.5 (2.6)
770 (410)
7690 (218)

2.2 (7.4)
335 (1268)
180 (82.2)
32200 (566)
4680 (82)
3.0 (10.2)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9125-32-36
Sht. 2 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9123-7306
12
5.75 x 5.75 (146 x 146)
1792 (29.39)
16:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R

93 (2362)
62 (1575)
70 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	945	1700	5200	6800	8300
CO	610	500	500	3000	5600
HC	665	800	780	720	510

190 (2.205) STANDBY
TV7111 (1.08 A/R HSG)
1500
1040 (776)
153 (1055)
376.5 (170.8)
.362 (220)

6.0 (20.3)
12.0 (40.6)
3100 (88)
33.5 (113.4)

13.0 (3.2)
7.5 (1.9)
780 (416)
6860 (194)

1.5 (5.1)
275 (1041)
180 (82.2)
27040 (475)
4670 (82)
2.0 (6.7)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9125-32-36
Sht. 3 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9123-7306
12
5.75 x 5.75 (146 x 146)
1792 (29.39)
16:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R

93 (2362)
62 (1575)
70 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1225	2100	5000	8000	10300
CO _x	660	600	600	1250	3500
HC	760	920	960	980	800

190 (2.205) PRIME
TV7111 (1.08 A/R HSG)
1800
1090 (813)
134 (924)
384.8 (174.5)
.353 (215)

6.0 (20.3)
12.0 (40.6)
3200 (91)
34.6 (117.2)

17.5 (4.4)
10.5 (2.6)
755 (402)
6940 (197)

2.2 (7.4)
335 (1268)
180 (82.2)
28890 (508)
4180 (73)
3.0 (10.2)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9125-32-36
Sht. 4 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9123-7306
12
5.75 x 5.75 (146 x 146)
1792 (29,39)
16:1
1L-5L-3R-4R-3L-4L
2R-6R-2L-6L-1R-5R
93 (2362)
62 (1575)
70 (1778)
9030 (4096)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	945	1500	4800	6400	7700
CO	610	500	400	2250	4700
HC	665	780	790	740	630

190 (2,205) PRIME
TV7111 (1.08 A/R HSG)
1500
940 (701)
139 (958)
340.3 (154.4)
.362 (220)
6.0 (20.3)
12.0 (40.6)
2850 (81)
29.5 (99.9)
13.0 (3.2)
7.5 (1.9)
765 (407)
6230 (176)
1.5 (5.1)
275 (1041)
180 (82.2)
24440 (430)
4220 (74)
2.0 (6.7)
40-60 (276-414)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

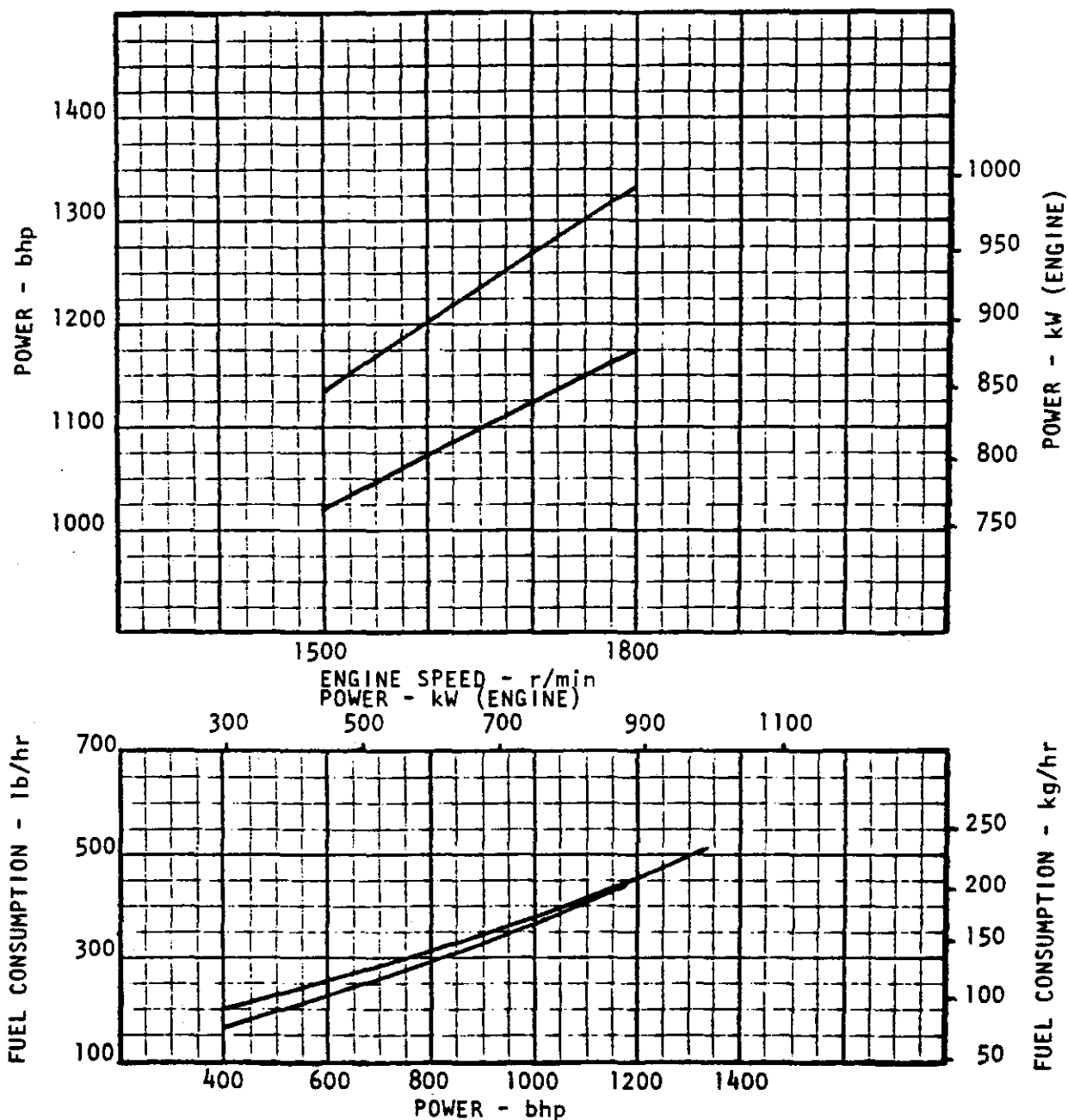
Curve No. E4-9125-32-36
Sht. 5 of 5



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 16V-149T
STANDBY: 1335 bhp (996 kW) @ 1800 r/min
1135 bhp (847 kW) @ 1500 r/min
PRIME: 1175 bhp (877 kW) @ 1800 r/min
1020 bhp (761 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:

POWER KW = BHP $\times$ 0.746

FUEL KG/KW-HR = LB/HR $\times$ 0.608

TORQUE N-M = LB-FT $\times$ 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D. L. Graham
7-21-83
STAFF ENGINEER

CURVE NO.

E4-9165-32-32
DATE: 7-11-83
REV./DATE:
SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	9165-7305
Number of cylinders	16
Bore and stroke - in (mm)	5.75 x 5.75 (146 x 146)
Displacement - in ³ (litre)	2389 (39.18)
Compression ratio	17:1
Firing order	
Clockwise rotation (RH)	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Counter clockwise rotation (LH)	NOT APPLICABLE
Dimensions & weight (approx.)	
Length - in (mm)	103 (2616)
Width - in (mm)	66 (1676)
Height - in (mm)	65 (1651)
Weight - lbs (kg)	10840 (4917)

Technical Engine Specifications:

Injector (timing)	165 (2.175) STANDBY
Turbocharger	TV8115 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	1135 (847) 1335 (996)
Bmep - lb/in ² (kPa)	125 (863) 123 (850)
Peak torque - lb·ft (N·m) @ r/min	NOT APPLICABLE NOT APPLICABLE
Fuel consumption - lb/hr (kg/hr)	430 (195) 507 (230)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.379 (.230) .380 (.231)
Fuel pump suction at pump inlet	
Maximum - in Hg (kPa)	
Clean system	6.0 (20.3) 6.0 (20.3)
Dirty system	12.0 (40.6) 12.0 (40.6)
Airflow - ft ³ /min (m ³ /min)	3650 (103.4) 4650 (131.7)
Airbox pressure, min. - in Hg (kPa)	24.5 (83.0) 35.0 (118.5)
Air intake restriction, max. - in H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	13.0 (3.2) 17.5 (4.4)
- clean	7.5 (1.9) 10.5 (2.6)
Exhaust temp. - °F (°C)	790 (421) 760 (404)
Exhaust flow - ft ³ /min (m ³ /min)	8140 (230.5) 10160 (287.7)
Exhaust back press., max. - in Hg (kPa)	
Full load	1.5 (5.1) 2.2 (7.4)
Coolant flow - gal/min (litre/min)	420 (1590) 494 (1870)
Coolant normal operating temp. - °F (°C)	180 (82.2) 180 (82.2)
Heat rejection - Btu/min (kW)	31800 (558) 40050 (703)
Coolant inlet restriction, max. - in Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in ² (kPa)	40-60 (276-414) 40-60 (276-414)
Lubricating oil temp., in-pan - °F (°C)	230 (110) max. 230 (110) max.

ENGINE SPECIFICATION

General Engine Description:

Model	9165-7305
Number of cylinders	16
Bore and stroke - in (mm)	5.75 x 5.75 (146 x 146)
Displacement - in ³ (litre)	2389 (39.18)
Compression ratio	17:1
Firing order	
Clockwise rotation (RH)	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Counter clockwise rotation (LH)	NOT APPLICABLE
Dimensions & weight (approx.)	
Length - in (mm)	103 (2616)
Width - in (mm)	66 (1676)
Height - in (mm)	65 (1651)
Weight - lbs (kg)	10840 (4917)

Technical Engine Specifications:

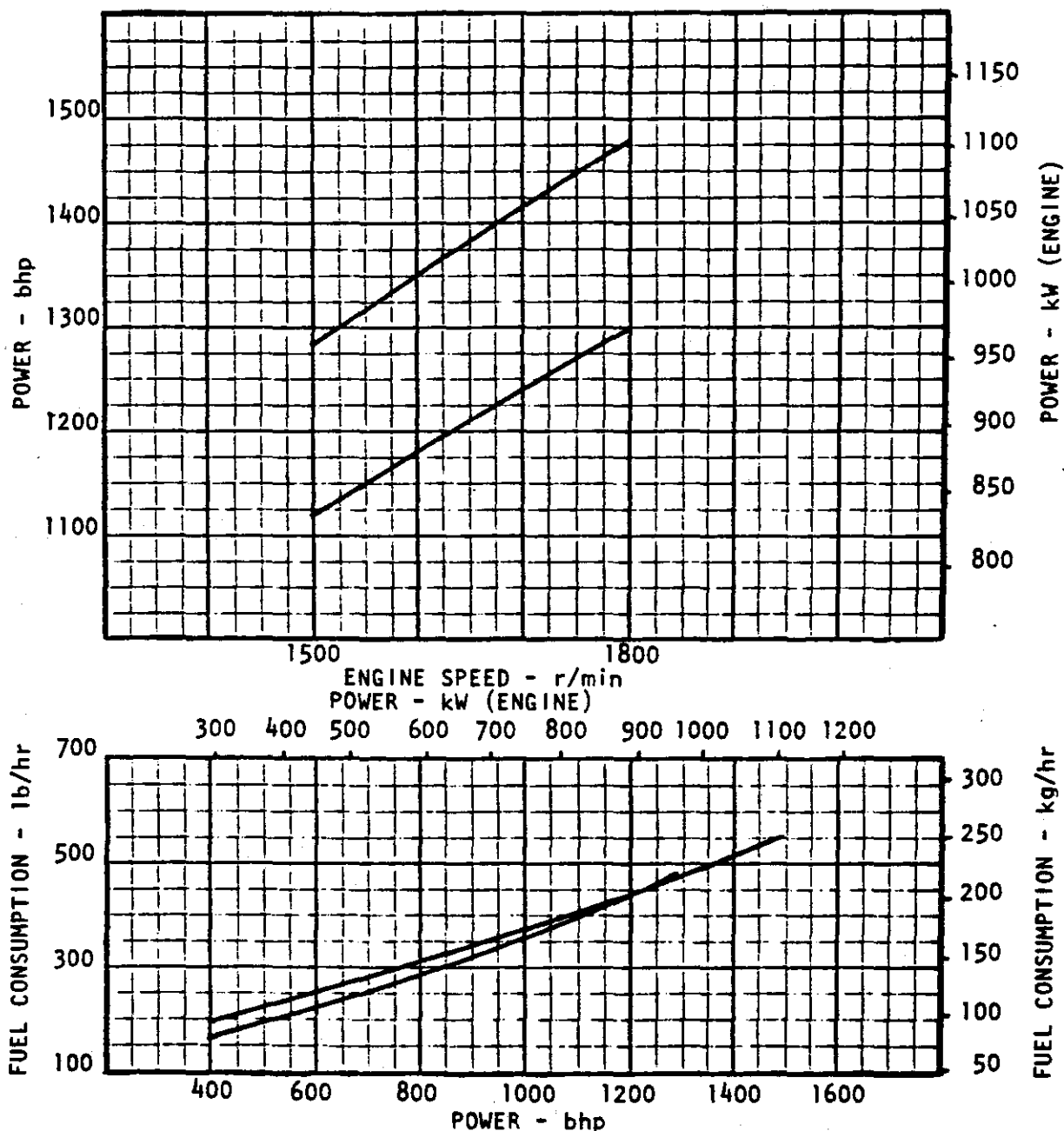
Injector (timing)	165 (2.175) PRIME
Turbocharger	TV8115 (1.39 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	1020 (761) 1175 (877)
Bmep - lb/in ² (kPa)	113 (781) 108 (746)
Peak torque - lb·ft (N·m) @ r/min	NOT APPLICABLE NOT APPLICABLE
Fuel consumption - lb/hr (kg/hr)	380 (172) 444 (202)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.373 (.227) .378 (.230)
Fuel pump suction at pump inlet	
Maximum - in Hg (kPa)	
Clean system	6.0 (20.3) 6.0 (20.3)
Dirty system	12.0 (40.6) 12.0 (40.6)
Airflow - ft ³ /min (m ³ /min)	3400 (96.3) 4300 (121.8)
Airbox pressure, min. - in Hg (kPa)	23.4 (79.2) 33.9 (114.8)
Air intake restriction, max. - in H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	13.0 (3.2) 17.5 (4.4)
- clean	7.5 (1.9) 10.5 (2.6)
Exhaust temp. - °F (°C)	750 (399) 710 (377)
Exhaust flow - ft ³ /min (m ³ /min)	7340 (207.9) 9020 (255.4)
Exhaust back press., max. - in Hg (kPa)	
Full load	1.5 (5.1) 2.2 (7.4)
Coolant flow - gal/min (litre/min)	420 (1590) 494 (1870)
Coolant normal operating temp. - °F (°C)	180 (82.2) 180 (82.2)
Heat rejection - Btu/min (kW)	28600 (502) 35300 (620)
Coolant inlet restriction, max. - in Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in ² (kPa)	40-60 (276-414) 40-60 (276-414)
Lubricating oil temp., in-pan - °F (°C)	230 (110) max. 230 (110) max.



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 16V-149T1
STANDBY: 1480 bhp (1104 kW) @ 1800 r/min
1285 bhp (959 kW) @ 1500 r/min
PRIME: 1300 bhp (970 kW) @ 1800 r/min
1120 bhp (836 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:

POWER KW = BHP x 0.746
FUEL KG/KW-HR = LB/HR x 0.608
TORQUE N-M = LB-FT x 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAY - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D. Graham

7-21-83
STAFF ENGINEER

CURVE NO.

E4-9165-32-31

DATE: 7-11-83

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	9163-7306
Number of cylinders	16
Bore and stroke - in (mm)	5.75 x 5.75 (146 x 146)
Displacement - in ³ (litre)	2389 (39.18)
Compression ratio	16:1
Firing order	
Clockwise rotation (RH)	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Counter clockwise rotation (LH)	NOT APPLICABLE
Dimensions & weight (approx.)	
Length - in (mm)	103 (2616)
Width - in (mm)	66 (1676)
Height - in (mm)	66 (1676)
Weight - lbs (kg)	10990 (4985)

Technical Engine Specifications:

Injector (timing)	170 (2.205) STANDBY
Turbocharger	TV8115 (1.60 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	1285 (959) 1480 (1104)
Bmep - lb/in ² (kPa)	142 (981) 137 (947)
Peak torque - lb·ft (N·m) @ r/min	NOT APPLICABLE NOT APPLICABLE
Fuel consumption - lb/hr (kg/hr)	483 (219) 552 (250)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.376 (.229) .373 (.227)
Fuel pump suction at pump inlet	
Maximum - in Hg (kPa)	
Clean system	6.0 (20.3) 6.0 (20.3)
Dirty system	12.0 (40.6) 12.0 (40.6)
Airflow - ft ³ /min (m ³ /min)	4300 (121.8) 5300 (150.1)
Airbox pressure, min. - in Hg (kPa)	25.5 (86) 36.1 (122)
Air intake restriction, max. - in H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	13.0 (3.2) 17.5 (4.4)
- clean	7.5 (1.9) 10.5 (2.6)
Exhaust temp. - °F (°C)	820 (438) 790 (421)
Exhaust flow - ft ³ /min (m ³ /min)	9820 (278.1) 11880 (336.4)
Exhaust back press., max. - in Hg (kPa)	
Full load	1.5 (5.1) 2.2 (7.4)
Coolant flow - gal/min (litre/min)	440 (1666) 530 (2006)
Coolant normal operating temp. - °F (°C)	180 (82.2) 180 (82.2)
Heat rejection - Btu/min (kW)	36000 (632) 44500 (781)
Coolant inlet restriction, max. - in Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in ² (kPa)	40-60 (276-414) 40-60 (276-414)
Lubricating oil temp., in-pan - °F (°C)	230 (110) max. 230 (110) max.

ENGINE SPECIFICATION

General Engine Description:

Model	9163-7306
Number of cylinders	16
Bore and stroke - in (mm)	5.75 x 5.75 (146 x 146)
Displacement - in ³ (litre)	2389 (39.18)
Compression ratio	16:1
Firing order	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Clockwise rotation (RH)	NOT APPLICABLE
Counter clockwise rotation (LH)	
Dimensions & weight (approx.)	
Length - in (mm)	103 (2616)
Width - in (mm)	66 (1676)
Height - in (mm)	66 (1676)
Weight - lbs (kg)	10990 (4985)

Technical Engine Specifications:

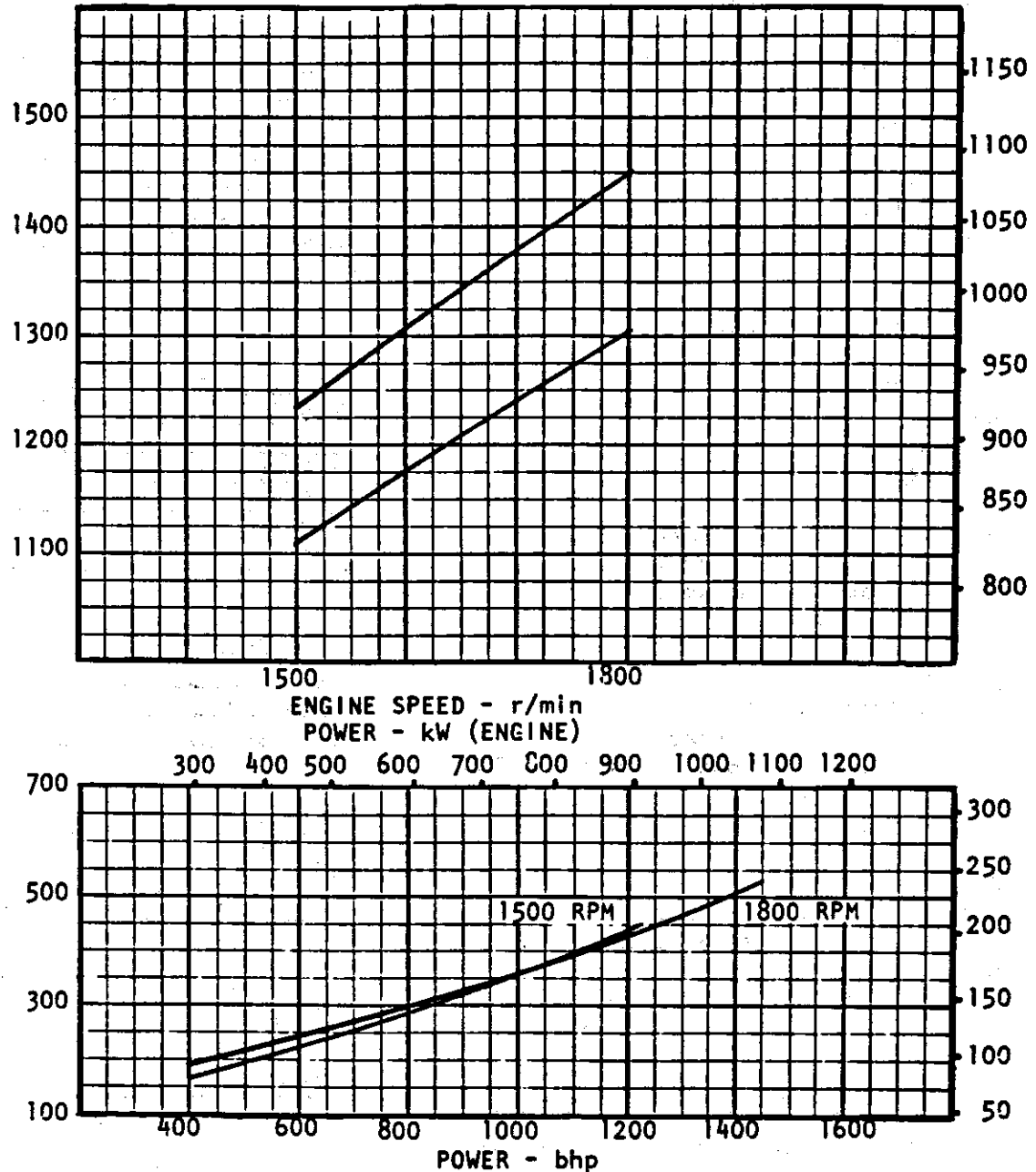
Injector (timing)	170 (2.205) PRIME
Turbocharger	TV8115 (1.60 A/R HSG)
Engine speed - r/min	1500 1800
Brake horsepower - bhp (kW)	1120 (836) 1300 (970)
Bmep - lb/in ² (kPa)	124 (857) 120 (829)
Peak torque - lb·ft (N·m) @ r/min	NOT APPLICABLE NOT APPLICABLE
Fuel consumption - lb/hr (kg/hr)	416 (189) 481 (218)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.371 (.226) .370 (.225)
Fuel pump suction at pump inlet	
Maximum - in Hg (kPa)	
Clean system	6.0 (20.3) 6.0 (20.3)
Dirty system	12.0 (40.6) 12.0 (40.6)
Airflow - ft ³ /min (m ³ /min)	4050 (114.7) 4950 (140.2)
Airbox pressure, min. - in Hg (kPa)	24.4 (83) 34.9 (118)
Air intake restriction, max. - in H ₂ O (kPa)	
(Dry type air cleaner)	
Full load - dirty	13.0 (3.2) 17.5 (4.4)
- clean	7.5 (1.9) 10.5 (2.6)
Exhaust temp. - °F (°C)	780 (416) 740 (393)
Exhaust flow - ft ³ /min (m ³ /min)	8960 (253.7) 10640 (301.3)
Exhaust back press., max. - in Hg (kPa)	
Full load	1.5 (5.1) 2.2 (7.4)
Coolant flow - gal/min (litre/min)	440 (1666) 530 (2006)
Coolant normal operating temp. - °F (°C)	180 (82.2) 180 (82.2)
Heat rejection - Btu/min (kW)	31350 (550) 39000 (685)
Coolant inlet restriction, max. - in Hg (kPa)	2.0 (6.7) 3.0 (10.2)
Lubricating oil press., normal - lb/in ² (kPa)	40-60 (276-414) 40-60 (276-414)
Lubricating oil temp., in-pan - °F (°C)	230 (110) max. 230 (110) max.



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 16V-149T
STANDBY 1450 bhp (1082 kW) @ 1800 r/min
1230 bhp (918 kW) @ 1500 r/min
PRIME 1305 bhp (974 kW) @ 1800 r/min
1110 bhp (828 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:

POWER KW = BHP $\times$ 0.746
FUEL KG/KW-HR = LB/HR $\times$ 0.608
TORQUE N-M = LB-FT $\times$ 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

Dr. Graham
6-10-84
STAFF ENGINEER

CURVE NO.

E4-9165-32-35

DATE: 5-18-84

REV./DATE:

SHT. 1 OF 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9163-7305
16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R
106 (2692)
64 (1626)
67 (1702)
10450 (4738)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1485	5820	10570	15625	22060
CO	445	500	350	1550	4450
HC	1315	765	850	885	1135

165 (2,175) STANDBY
TV8401 (1.23 A/R HSG)
1800
1450 (1082)
134 (924)
529.3 (240.1)
.365 (222)
6.0 (20.3)
12.0 (40.6)
4450 (126)
38.5 (218.2)
17.5 (4.4)
10.5 (2.6)
780 (416)
9850 (279)
2.5 (8.5)
530 (2006)
180 (82.2)
39880 (701)
5750 (101)
3.0 (10.2)
48-70 (331-463)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-35
Sht. 2 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE 9163-7305

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
67 (1702)
10450 (4738)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1735	4215	9960	14480	18995
CO	1095	650	200	1400	5750
HC	1005	550	635	685	1010

165 (2.175) STANDBY
TV8401 (1.23 A/R HSG)
1500
1230 (918)
136 (938)
452.6 (205.3)
.368 (224)

6.0 (20.3)
12.0 (40.6)
3850 (109)
30.0 (101.4)

13.0 (3.2)
7.5 (1.9)
755 (402)
8350 (236)

1.8 (6.1)
440 (1666)
180 (82.2)
33210 (584)
5610 (99)
2.0 (6.7)
48-70 (331-483)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-35
Sht. 3 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9163-7305
16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
67 (1702)
10450 (4738)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1480	5440	9960	14400	19685
CO	460	600	300	1200	3050
HC	1270	750	845	875	975

165 (2.175) PRIME
TV8401 (1.23 A/R HSG)
1800
1305 (974)
120 (827)
473.7 (214.9)
.363 (221)

6.0 (20.3)
12.0 (40.6)
4000 (113)
34 (114.9)

17.5 (4.4)
10.5 (2.6)
770 (410)
8790 (249)

2.5 (8.5)
530 (2006)
180 (82.2)
35890 (631)
5150 (91)
3.0 (10.2)
48-70 (331-483)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-35
Sht. 4 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE 9163-7305

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
67 (1702)
10450 (4738)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)

Clean system

Dirty system

Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty

- clean

Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)

Full load

Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1680	3675	9115	13175	17005
CO	1350	750	150	800	3200
HC	1075	540	625	665	770

165 (2.175) PRIME
TV8401 (1.23 A/R HSG)
1500
1110 (828)
123 (848)
400.7 (181.8)
.361 (219)

6.0 (20.3)
12.0 (40.6)
3600 (102)
27.7 (93.6)

13.0 (3.2)
7.5 (1.9)
750 (399)
7780 (220)

1.8 (6.1)
440 (1666)
180 (82.2)
29970 (527)
4970 (87)
2.0 (6.7)
48-70 (331-483)
230 (110) MAX.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

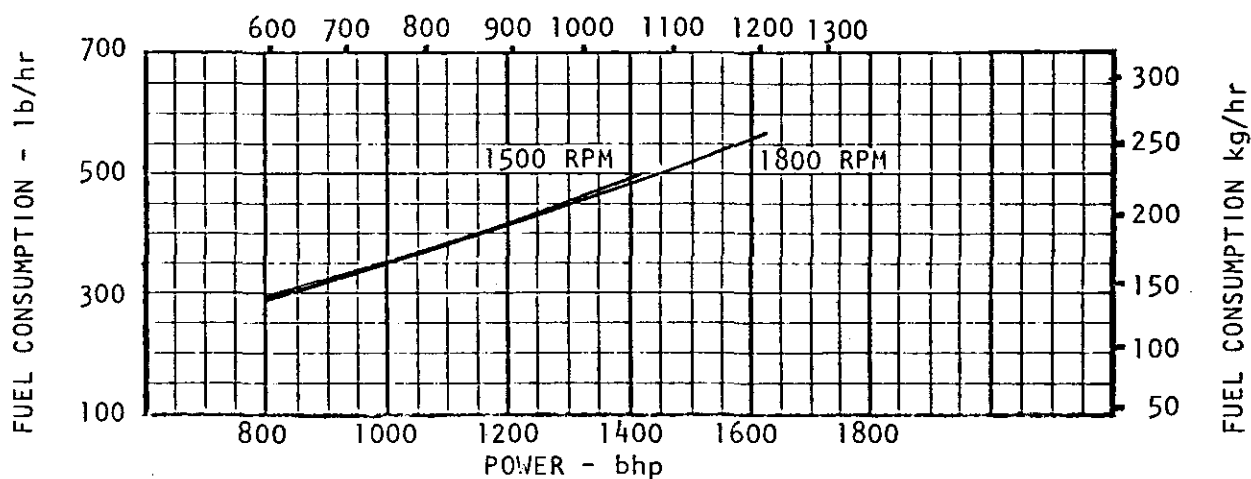
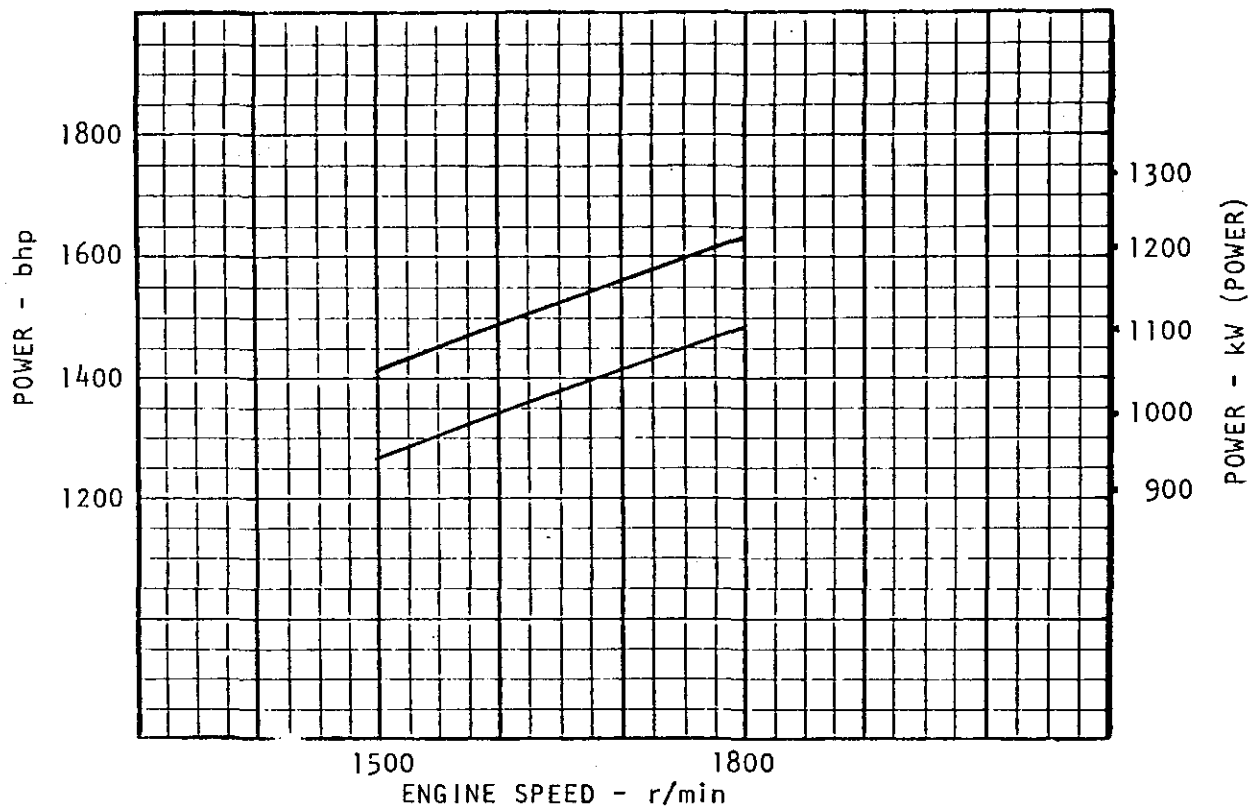
Curve No. E4-9165-32-35
Sht. 5 of 5

ENGINE PERFORMANCE CURVE



RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 16V-149T1
STANDBY 1630 bhp (1216 kW) @ 1800 r/min
1410 bhp (1052 kW) @ 1500 r/min
PRIME 1470 bhp (1097 kW) @ 1800 r/min
1270 bhp (947 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:

POWER KW = BHP × 0.746
FUEL KG/KW-HR = LB/HR × 0.608
TORQUE N-M = LB-FT × 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

A L Graham

6-10-84

STAFF ENGINEER

CURVE NO.

E4-9165-32-36

DATE: 5-16-84

REV./DATE: 1/2-13-85

SHT. 1 OF 5

ENGINE SPECIFICATION

General Engine Description:

Model
 Number of cylinders
 Bore and stroke - in (mm)
 Displacement - in³ (litre)
 Compression ratio
 Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
 Width - in (mm)
 Height - in (mm)
 Weight - lbs (kg)

NEW AIR INDUCTION WITH
 BLOWER PRESSURE RELIEF VALVE
 9163-7306

16
 5.75 x 5.75 (146 x 146)
 2389 (39.18)
 16:1
 1L-2R-8L-6R-2L-4R-6L-5R
 4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
 64 (1626)
 68 (1727)
 10970 (4976)

Technical Engine Specifications:

Injector (timing)
 Turbocharger
 Engine speed - r/min
 Brake horsepower - bhp (kW)
 Bmep - lb/in² (kPa)
 Fuel consumption - lb/hr (kg/hr)
 Specific fuel cons. - lb/bhp hr (g/kW hr)
 Fuel pump suction at pump inlet
 Maximum - in Hg (kPa)
 Clean system
 Dirty system
 Airflow - ft³/min (m³/min)
 Airbox pressure - in Hg (kPa)
 Air intake restriction, max. - in H₂O (kPa)
 (Dry type air cleaner)
 Full load - dirty
 - clean
 Exhaust temp. - °F (°C)
 Exhaust flow - ft³/min (m³/min)
 Exhaust back press., max. - in Hg (kPa)
 Full load
 Coolant flow - gal/min (litre/min)
 Coolant normal operating temp. - °F (°C)
 Engine heat rejection - Btu/min (kW)
 Engine radiated heat - Btu/min (kW)
 Coolant inlet restriction, max. - in Hg (kPa)
 Lubricating oil press., normal - lb/in² (kPa)
 Lubricating oil temp., in-pan - °F (°C)
 Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1635	6400	12300	21000	28700
CO _x	885	1000	600	1200	4300
HC	1015	590	570	855	650

190 (2,205) STANDBY
 TV8401 (1.23 A/R HSG)
 1800
 1630 (1216)
 150 (1034)
 572.1 (259.5)
 .351 (213.4)

6.0 (20.3)
 12.0 (40.6)
 4500 (127)
 43 (145.3)

17.5 (4.4)
 10.5 (2.6)
 730 (388)
 9560 (271)

2.2 (7.4)
 530 (2006)
 180 (82.2)
 48100 (846) *

6220 (109)
 3.0 (10.2)
 48-70 (331-483)
 230 (110) MAX.

* WITH TUBE AND SHELL OIL
 COOLER.

All values at rated speed and power and with
 standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-36
 Date: 5-16-84
 Rev./Date: 1/2-13-85
 Sht. 2 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
 Number of cylinders
 Bore and stroke - In (mm)
 Displacement - In³ (litre)
 Compression ratio
 Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - In (mm)
 Width - In (mm)
 Height - In (mm)
 Weight - lbs (kg)

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9163-7306
 16
 5.75 x 5.75 (146 x 146)
 2389 (39.18)
 16:1
 1L-2R-8L-6R-2L-4R-6L-5R
 4L-3R-5L-7R-3L-1R-7L-8R
 106 (2692)
 64 (1626)
 68 (1727)
 10970 (4976)

Technical Engine Specifications:

Injector (timing)
 Turbocharger
 Engine speed - r/min
 Brake horsepower - bhp (kW)
 Bmep - lb/in² (kPa)
 Fuel consumption - lb/hr (kg/hr)
 Specific fuel cons. - lb/bhp hr (g/kW hr)
 Fuel pump suction at pump inlet
 Maximum - In Hg (kPa)
 Clean system
 Dirty system
 Airflow - ft³/min (m³/min)
 Airbox pressure - In Hg (kPa)
 Air intake restriction, max. - In H₂O (kPa)
 (Dry type air cleaner)
 Full load - dirty
 - clean
 Exhaust temp. - °F (°C)
 Exhaust flow - ft³/min (m³/min)
 Exhaust back press., max. - In Hg (kPa)
 Full load
 Coolant flow - gal/min (litre/min)
 Coolant normal operating temp. - °F (°C)
 Engine heat rejection - Btu/min (kW)
 Engine radiated heat - Btu/min (kW)
 Coolant inlet restriction, max. - In Hg (kPa)
 Lubricating oil press., normal - lb/in² (kPa)
 Lubricating oil temp., in-pan - °F (°C)
 Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1260	3065	5970	9960	13480
CO _x	810	480	995	2700	6200
HC	885	440	505	695	490

190 (2.205) STANDBY
 TV8401 (1.23 A/R HSG)
 1500
 1410 (1052)
 156 (1076)
 494.9 (224.5)
 .351 (213.4)
 6.0 (20.3)
 12.0 (40.6)
 4300 (121.8)
 36 (121.7)
 13.0 (3.2)
 7.5 (1.9)
 735 (391)
 9180 (260.0)
 1.5 (5.1)
 440 (1666)
 180 (82.2)
 40900 (719) *
 6140 (108)
 2.0 (6.7)
 48-70 (331-483)
 230 (110) MAX.

* WITH TUBE AND SHELL OIL COOLER.

All values at rated speed and power and with standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-36
 Date: 5-16-84
 Rev./Date: 1/2-13-85
 Sht. 3 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
 Number of cylinders
 Bore and stroke - in (mm)
 Displacement - in³ (litre)
 Compression ratio
 Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
 Width - in (mm)
 Height - in (mm)
 Weight - lbs (kg)

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE
9163-7306

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
68 (1727)
10970 (4976)

Technical Engine Specifications:

Injector (timing)
 Turbocharger
 Engine speed - r/min
 Brake horsepower - bhp (kW)
 Bmep - lb/in² (kPa)
 Fuel consumption - lb/hr (kg/hr)
 Specific fuel cons. - lb/bhp hr (g/kW hr)
 Fuel pump suction at pump inlet
 Maximum - in Hg (kPa)
 Clean system
 Dirty system
 Airflow - ft³/min (m³/min)
 Airbox pressure - in Hg (kPa)
 Air intake restriction, max. - in H₂O (kPa)
 (Dry type air cleaner)
 Full load - dirty
 - clean
 Exhaust temp. - °F (°C)
 Exhaust flow - ft³/min (m³/min)
 Exhaust back press., max. - in Hg (kPa)
 Full load
 Coolant flow - gal/min (litre/min)
 Coolant normal operating temp. - °F (°C)
 Engine heat rejection - Btu/min (kW)
 Engine radiated heat - Btu/min (kW)
 Coolant inlet restriction, max. - in Hg (kPa)
 Lubricating oil press., normal - lb/in² (kPa)
 Lubricating oil temp., in-pan - °F (°C)
 Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1635	6000	11000	18300	23600
CO _x	885	1150	550	900	2600
HC	1015	600	555	775	1075

190 (2,205) PRIME
TV8401 (1.23 A/R HSG)
1800
1470 (1097)
135 (931)
508.6 (231)
.346 (210)

6.0 (20.3)
12.0 (40.6)
4500 (127)
37 (125)

17.5 (4.4)
10.5 (2.6)
720 (382)
9480 (268)

2.2 (7.4)
530 (2006)
180 (82.2)
43400 (763) *
5530 (97)
3.0 (10.2)
48-70 (331-483)
230 (110) MAX.

* WITH TUBE AND SHELL OIL
 COOLER.

All values at rated speed and power and with
 standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-36
 Date: 5-16-84
 Rev./Date: 1/2-13-85
 Sht. 4 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE
9163-7306

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
11-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
68 (1727)
10970 (4976)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1260	2760	5360	8580	12485
CO	810	450	850	200	4500
HC	885	445	485	670	825

190 (2,205) PRIME
TV8401 (1.23 A/R HSG)
1500
1270 (947)
140 (965)
442.0 (201)
.348 (212)

6.0 (20.3)
12.0 (40.6)
4300 (121.8)
31.5 (106.5)

13.0 (3.2)
7.5 (1.9)
730 (388)
9140 (259)

1.5 (5.1)
440 (1666)
180 (82.2)
36800 (647) *
5480 (96)
2.0 (6.7)
48-70 (331-483)
230 (110) MAX.

* WITH TUBE AND SHELL OIL
COOLER.

All values at rated speed and power and with...
standard engine hardware unless otherwise noted.

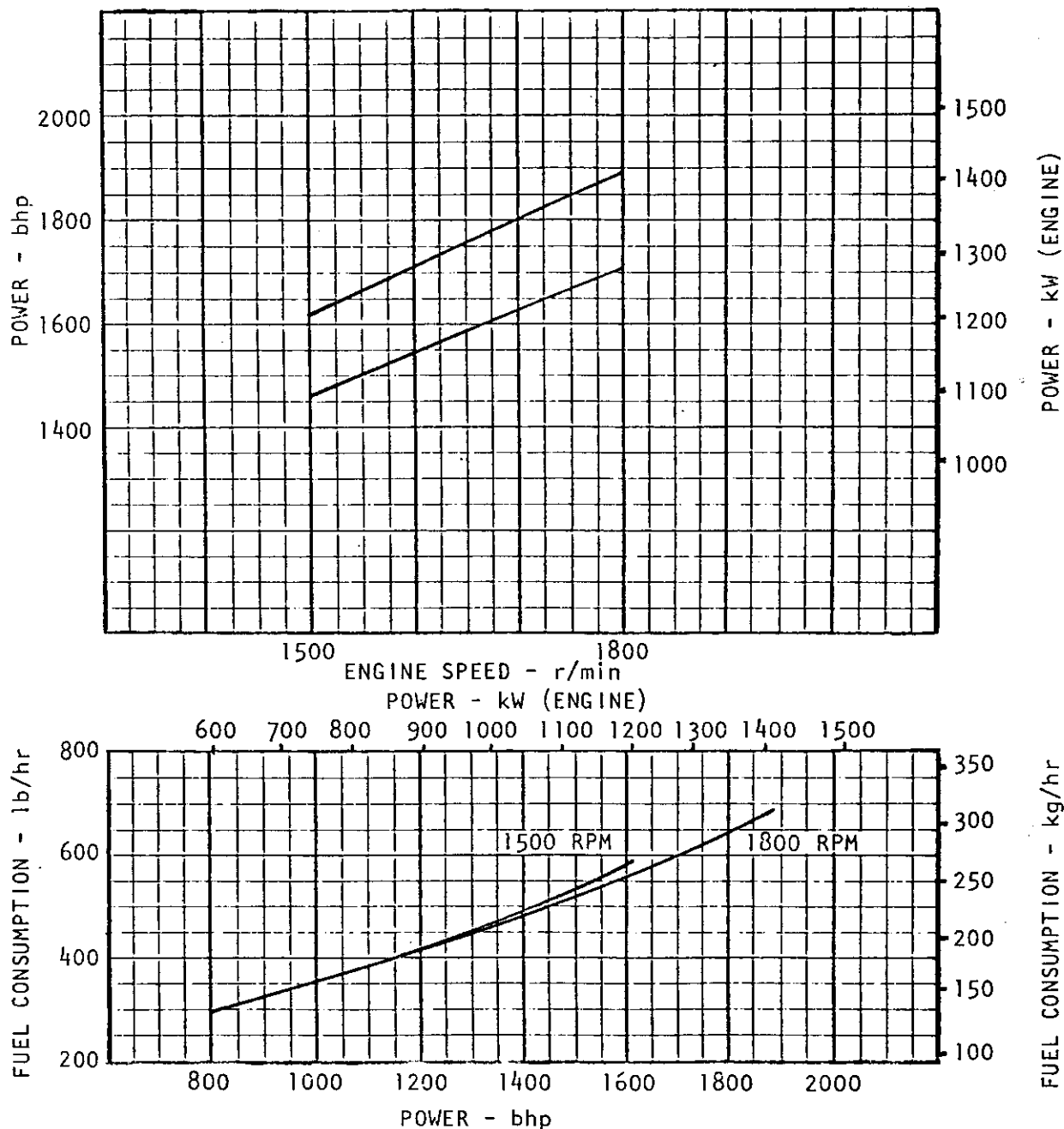
Curve No. E4-9165-32-36
Date: 5-16-84
Rev./Date: 1/2-13-85
Sht. 5 of 5



ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: 16V-149TI
STANDBY 1895 bhp (1414 kW) @ 1800 r/min
1620 bhp (1209 kW) @ 1500 r/min
PRIME 1705 bhp (1272 kW) @ 1800 r/min
1460 bhp (1089 kW) @ 1500 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS
DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY
JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:
POWER KW = BHP x 0.746
FUEL KG/KW-HR = LB/HR x 0.608
TORQUE N-M = LB-FT x 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:
W. Graham
6-10-84
STAFF ENGINEER

CURVE NO.
E4-9165-32-37
DATE: 5-17-84
REV./DATE: 1/2-13-85
SHT. 1 OF 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE
9163-7316

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
68 (1727)
10970 (4976)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
NO _x	1635	7500	15400	25000	33400
CO _x	885	650	700	2200	8300
HC	1015	570	640	1250	370

270 (2.185) STANDBY
TV8401 (1.23 A/R HSG)
1800
1895 (1414)
175 (1207)
684.1 (310.3)
.361 (220)

6.0 (20.3)
12.0 (40.6)
5100 (144.4)
49 (165.6)

17.5 (4.4)
10.5 (2.6)
805 (429)
11520 (326.2)

2.5 (8.5)
530 (2006)
180 (82.2)
55900 (983) *
7430 (130)
3.0 (10.2)
48-70 (331-483)
230 (110) MAX.

* WITH TUBE AND SHELL OIL
COOLER.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-37
Date: 5-17-84
Rev./Date: 1/2-13-85
Sht. 2 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE
9163-7316

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
68 (1727)
10970 (4976)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °F (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1260	3450	6970	11950	15090
CO _x	810	450	1250	4000	9200
HC	885	440	550	855	345

270 (2.185) STANDBY
TV8401 (1.23 A/R HSG)
1500
1620 (1209)
179 (1234)
586.4 (266.0)
.362 (220)

6.0 (20.3)
12.0 (40.6)
4600 (130.2)
42.7 (144.3)

13.0 (3.2)
7.5 (1.9)
760 (404)
10020 (283.8)

1.8 (6.1)
440 (1666)
180 (82.2)
47000 (826) *
7270 (127)
2.0 (6.7)
48-70 (331-483)
230 (110) MAX.

* WITH TUBE AND SHELL OIL
COOLER.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-37
Date: 5-17-84
Rev./Date: 1/2-13-85
Sht. 3 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight - lbs (kg)

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE
9163-7316

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
68 (1727)
10970 (4976)

Technical Engine Specifications:

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
Bmep - lb/in² (kPa)
Fuel consumption - lb/hr (kg/hr)
Specific fuel cons. - lb/bhp hr (g/kW hr)
Fuel pump suction at pump inlet
Maximum - in Hg (kPa)
Clean system
Dirty system
Airflow - ft³/min (m³/min)
Airbox pressure - in Hg (kPa)
Air intake restriction, max. - in H₂O (kPa)
(Dry type air cleaner)
Full load - dirty
- clean
Exhaust temp. - °E (°C)
Exhaust flow - ft³/min (m³/min)
Exhaust back press., max. - in Hg (kPa)
Full load
Coolant flow - gal/min (litre/min)
Coolant normal operating temp. - °F (°C)
Engine heat rejection - Btu/min (kW)
Engine radiated heat - Btu/min (kW)
Coolant inlet restriction, max. - in Hg (kPa)
Lubricating oil press., normal - lb/in² (kPa)
Lubricating oil temp., in-pan - °F (°C)
Emissions - gm/hr (at per cent load)

	0%	25%	50%	75%	100%
NO _x	1635	6800	12800	22200	30000
CO _x	885	700	600	1450	5250
HC	1015	580	580	1285	535

270 (2.185) PRIME
TV8401 (1.23 A/R HSG)
1800
1705 (1272)
157 (1082)
601.9 (273.0)
.353 (214.6)

6.0 (20.3)
12.0 (40.6)
4500 (127.4)
43.6 (147.4)

17.5 (4.4)
10.5 (2.6)
750 (399)
9720 (275.3)

2.5 (8.5)
530 (2006)
180 (82.2)
50300 (884) *
6540 (114)
3.0 (10.2)
48-70 (331-483)
230 (110) MAX.

* WITH TUBE AND SHELL OIL
COOLER.

All values at rated speed and power and with
standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-37
Date: 5-17-84
Rev/Date: 1/2-13-85
Sht. 4 of 5

ENGINE SPECIFICATION

General Engine Description:

Model
 Number of cylinders
 Bore and stroke - in (mm)
 Displacement - in³ (litre)
 Compression ratio
 Firing order - Clockwise rotation (RH)

Dimensions & weight (approx.)

Length - in (mm)
 Width - in (mm)
 Height - in (mm)
 Weight - lbs (kg)

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE
9163-7316

16
5.75 x 5.75 (146 x 146)
2389 (39.18)
16:1
1L-2R-8L-6R-2L-4R-6L-5R
4L-3R-5L-7R-3L-1R-7L-8R

106 (2692)
64 (1626)
68 (1727)
10970 (4976)

Technical Engine Specifications:

Injector (timing)
 Turbocharger
 Engine speed - r/min
 Brake horsepower - bhp (kW)
 Bmep - lb/in² (kPa)
 Fuel consumption - lb/hr (kg/hr)
 Specific fuel cons. - lb/bhp hr (g/kW hr)
 Fuel pump suction at pump inlet
 Maximum - in Hg (kPa)
 Clean system
 Dirty system
 Airflow - ft³/min (m³/min)
 Airbox pressure - in Hg (kPa)
 Air intake restriction, max. - in H₂O (kPa)
 (Dry type air cleaner)
 Full load - dirty
 - clean
 Exhaust temp. - °F (°C)
 Exhaust flow - ft³/min (m³/min)
 Exhaust back press., max. - in Hg (kPa)
 Full load
 Coolant flow - gal/min (litre/min)
 Coolant normal operating temp. - °F (°C)
 Engine heat rejection - Btu/min (kW)
 Engine radiated heat - Btu/min (kW)
 Coolant inlet restriction, max. - in Hg (kPa)
 Lubricating oil press., normal - lb/in² (kPa)
 Lubricating oil temp., in-pan - °F (°C)
 Emissions - gm/hr (at per cent load)

	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
NO _x	1260	3370	6130	10340	13940
CO ^x	810	500	1000	2950	6850
HC	885	440	510	850	435

270 (2.185) PRIME
TV8401 (1.23 A/R HSG)
1500
1460 (1089)
161 (1110)
516.8 (234.4)
.354 (215.2)

6.0 (20.3)
12.0 (40.6)
4200 (118.9)
37.0 (125.1)

13.0 (3.2)
7.5 (1.9)
740 (393)
9000 (254.9)

1.8 (6.1)
440 (1666)
180 (82.2)
42300 (744) *
6410 (112)
2.0 (6.7)
48-70 (331-483)
230 (110) MAX.

* WITH TUBE AND SHELL OIL
 COOLER.

All values at rated speed and power and with
 standard engine hardware unless otherwise noted.

Curve No. E4-9165-32-37
 Date: 5-17-84
 Rev./Date: 1/2-13-85
 Sht. 5 of 5



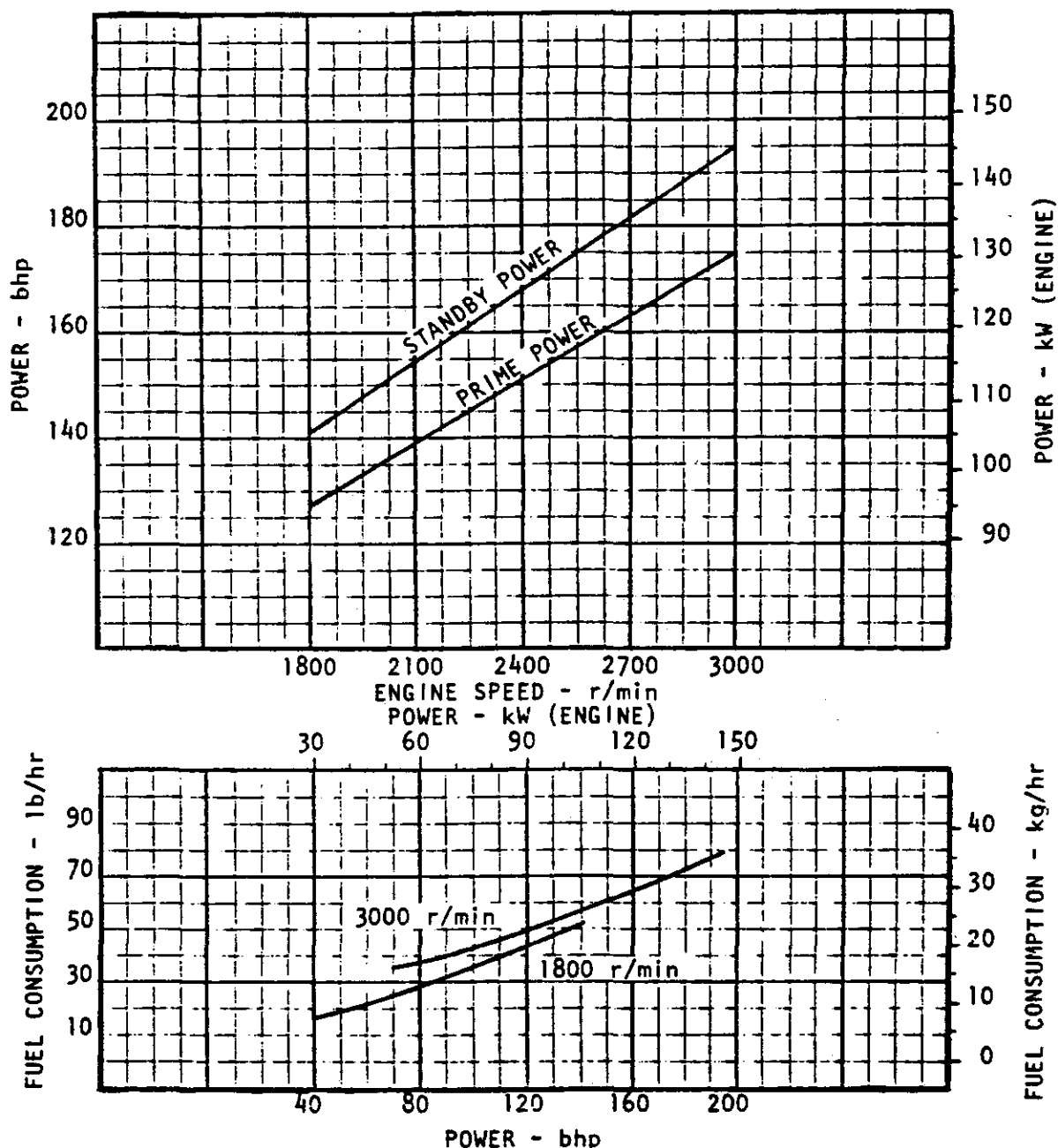
ENGINE PERFORMANCE CURVE

RATING: GUARANTEED AS SHOWN
WITHOUT FAN
APPLICATION: GENERATOR SET

MODEL: V8-8.2T

STANDBY: 195 bhp (145 kW) @ 3000 r/min
141 bhp (105 kW) @ 1800 r/min

PRIME: 175 bhp (130 kW) @ 3000 r/min
127 bhp (95 kW) @ 1800 r/min



RATED POWER OUTPUT SHOWN REPRESENTS ENGINE PERFORMANCE CAPABILITIES AT AMBIENT CONDITIONS EQUIVALENT TO ISO 3046, BS 5514: 100 KPA TOTAL BARO PRESS, 27°C AIR INLET, 60% RELATIVE HUMIDITY

CURVES ALSO REPRESENT CAPABILITIES AT THE FOLLOWING AMBIENT CONDITIONS

DIN 6270: 736 TORR BARO PRESS, 20°C AIR INLET, 60% RELATIVE HUMIDITY

JIS D1005-1976: 760 MM. HG. BARO PRESS, 20°C AIR INLET, 11.4 MM. HG. VAPOR PRESS.

CONVERSION FACTORS:

POWER KW = BHP x 0.746
FUEL KG/KW-HR = LB/HR x 0.608
TORQUE N-M = LB-FT x 1.356

INDICATED PERFORMANCE IS BASED ON 10 IN. H₂O (2.5 KPA) AIR INTAKE RESTRICTION, 15 IN. H₂O (3.73 KPA) EXHAUST BACK PRESSURE
FUEL: TEMP - 100°F (37.8°C), SPEC GRAV - 0.853 @ 60°F (15.6°C)
LOWER HEATING VALUE - 18370 BTU/LB (10210 CAL/GM).

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

S. R. K...
STAFF ENGINEER

CURVE NO.

E4-4085-31-3

DATE: 7-26-83

REV./DATE:

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	V8-8.2T
Number of cylinders	8
Bore and stroke - in (mm)	4.25 x 4.41 (108 x 112)
Displacement - in ³ (litre)	500.9 (8.2)
Compression ratio	16.9:1
Firing order	
Clockwise rotation (RH)	1-8-4-3-6-5-7-2
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in (mm)	35 (890)
Width - in (mm)	32.3 (821)
Height - in (mm)	32.7 (830)
Weight - lbs (kg)	1121 (508)

Technical Engine Specifications:

Injector (timing)	4C65 (44.75mm) STANDBY	
Turbocharger	3LM-403 (4.41 in ²)	
Engine speed - r/min	1800	3000
Brake horsepower - bhp (kW)	141 (105)	195 (145)
Bmep - lb/in ² (kPa)	124 (855)	103 (710)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr)	51.9 (23.5)	79.8 (36.2)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.368 (224)	.409 (249)
Fuel pump suction at pump inlet		
Maximum - in Hg (kPa)		
Clean system	6 (20)	6 (20)
Dirty system	12 (41)	12 (41)
Airflow - ft ³ /min (m ³ /min)	305 (8.6)	625 (17.7)
Airbox pressure, min. - in Hg (kPa)	-	-
Air intake restriction, max. - in H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	9 (2.2)	20 (5.0)
- clean	5 (1.25)	10 (2.5)
Exhaust temp. - °F (°C)	1130 (610)	1135 (613)
Exhaust flow - ft ³ /min (m ³ /min)	903 (25.6)	1856 (52.6)
Exhaust back press., max. - in Hg (kPa)		
Full load	1.5 (5)	3 (10)
Coolant flow - gal/min (litre/min)	45 (170)	72.5 (274)
Coolant normal operating temp. - °F (°C)	195 (91)	195 (91)
Heat rejection - Btu/min (kW)	3640 (64)	5670 (100)
Coolant inlet restriction, max. - in Hg (kPa)	2.0 (6.7)	3.0 (10.1)
Lubricating oil press., normal - lb/in ² (kPa)	35-50 (241-345)	35-50 (241-345)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121)	200-250 (93-121)

ENGINE SPECIFICATION

General Engine Description:

Model	V8-8.2T
Number of cylinders	8
Bore and stroke - in (mm)	4.25 x 4.41 (108 x 112)
Displacement - in ³ (litre)	500.9 (8.2)
Compression ratio	16.9:1
Firing order	
Clockwise rotation (RH)	1-8-4-3-6-5-7-2
Counter clockwise rotation (LH)	-
Dimensions & weight (approx.)	
Length - in (mm)	35 (890)
Width - in (mm)	32.3 (821)
Height - in (mm)	32.7 (830)
Weight - lbs (kg)	1121 (508)

Technical Engine Specifications:

Injector (timing)	4C65 (44.75mm) PRIME	
Turbocharger	3LM-403 (4.41 in ²)	
Engine speed - r/min	1800	3000
Brake horsepower - bhp (kW)	127 (95)	175 (130)
Bmep - lb/in ² (kPa)	111 (765)	92 (634)
Peak torque - lb·ft (N·m) @ r/min	-	-
Fuel consumption - lb/hr (kg/hr)	45.9 (20.8)	70.9 (32.2)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.361 (220)	.405 (246)
Fuel pump suction at pump inlet		
Maximum - in Hg (kPa)		
Clean system	6 (20)	6 (20)
Dirty system	12 (41)	12 (41)
Airflow - ft ³ /min (m ³ /min)	295 (8.4)	590 (16.7)
Airbox pressure, min. - in Hg (kPa)	-	-
Air intake restriction, max. - in H ₂ O (kPa)		
(Dry type air cleaner)		
Full load - dirty	9 (2.2)	20 (5.0)
- clean	5 (1.25)	10 (2.5)
Exhaust temp. - °F (°C)	1035 (557)	1060 (571)
Exhaust flow - ft ³ /min (m ³ /min)	821 (23.3)	1670 (47.3)
Exhaust back press., max. - in Hg (kPa)		
Full load	1.5 (5)	3 (10)
Coolant flow - gal/min (litre/min)	45 (170)	72.5 (274)
Coolant normal operating temp. - °F (°C)	195 (91)	195 (91)
Heat rejection - Btu/min (kW)	3130 (55)	5170 (91)
Coolant inlet restriction, max. - in Hg (kPa)	2.0 (6.7)	3.0 (10.1)
Lubricating oil press., normal - lb/in ² (kPa)	35-50 (241-345)	35-50 (241-345)
Lubricating oil temp., in-pan - °F (°C)	200-250 (93-121)	200-250 (93-121)