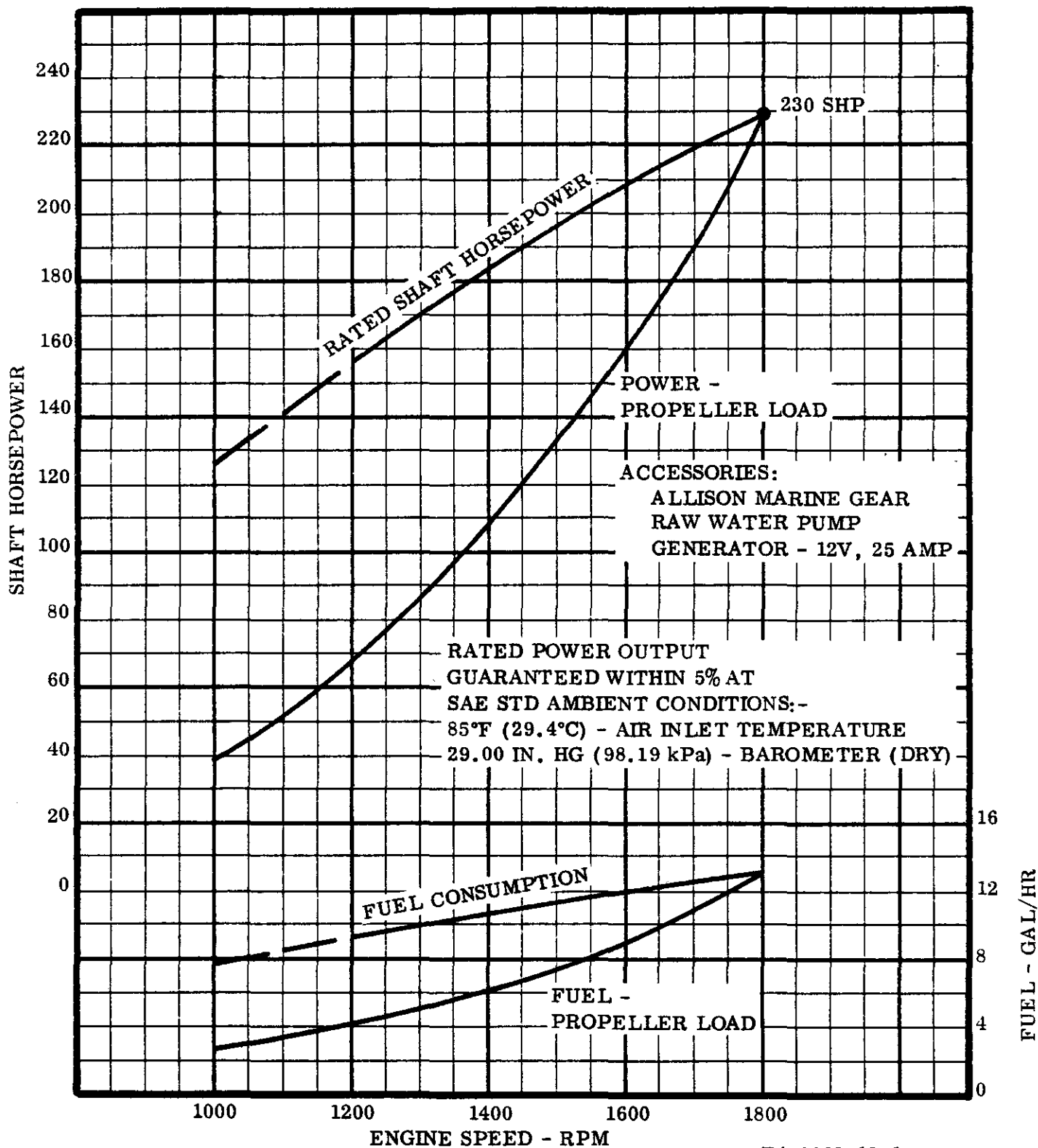




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 6V-92
APPLICATION: MARINE
INJECTOR: 9275 (1.460 TIMING)
RATING: WORK BOAT



ENGINEERING-TECHNICAL DATA DEPT.

E4-8062-12-1

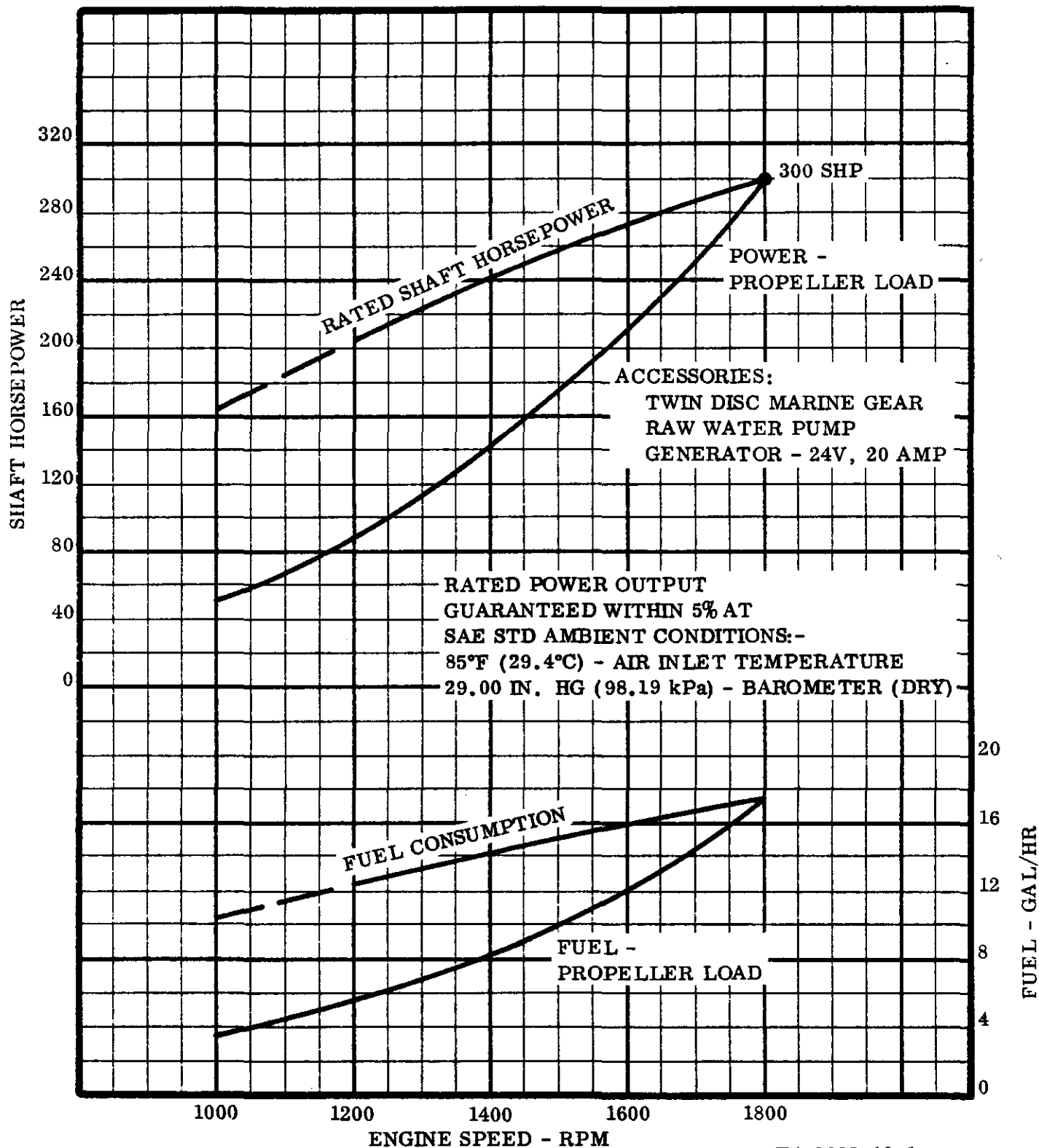
Rev. 3-24-80



Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 8V-92
APPLICATION: MARINE
INJECTOR: 9275 (1.460 TIMING)
RATING: WORK BOAT

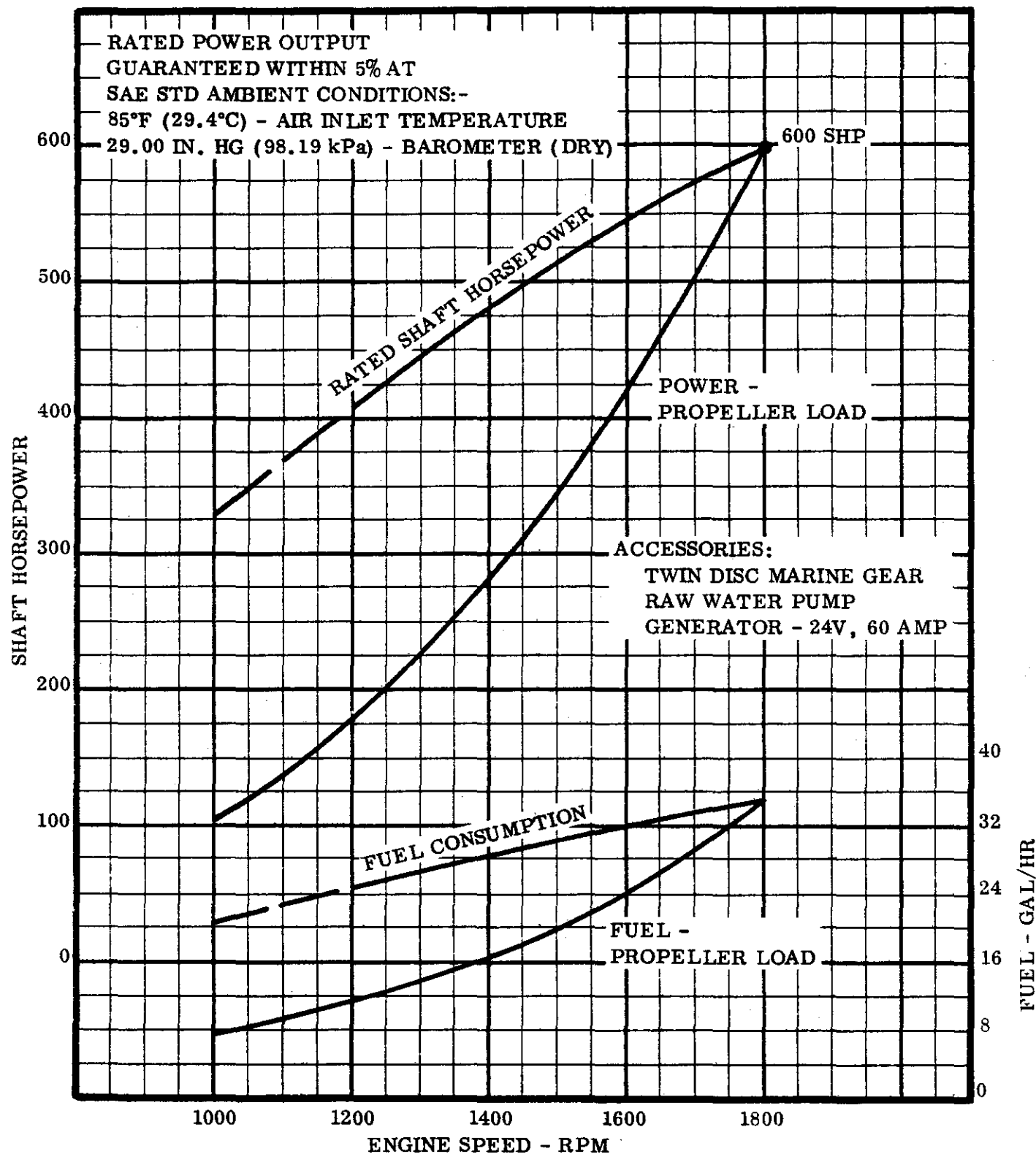




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 16V-92
APPLICATION: MARINE
INJECTOR: 9275 (1.460 TIMING)
RATING: WORK BOAT



ENGINEERING-TECHNICAL DATA DEPT.

E4-8162-12-1
Rev. 3-24-80

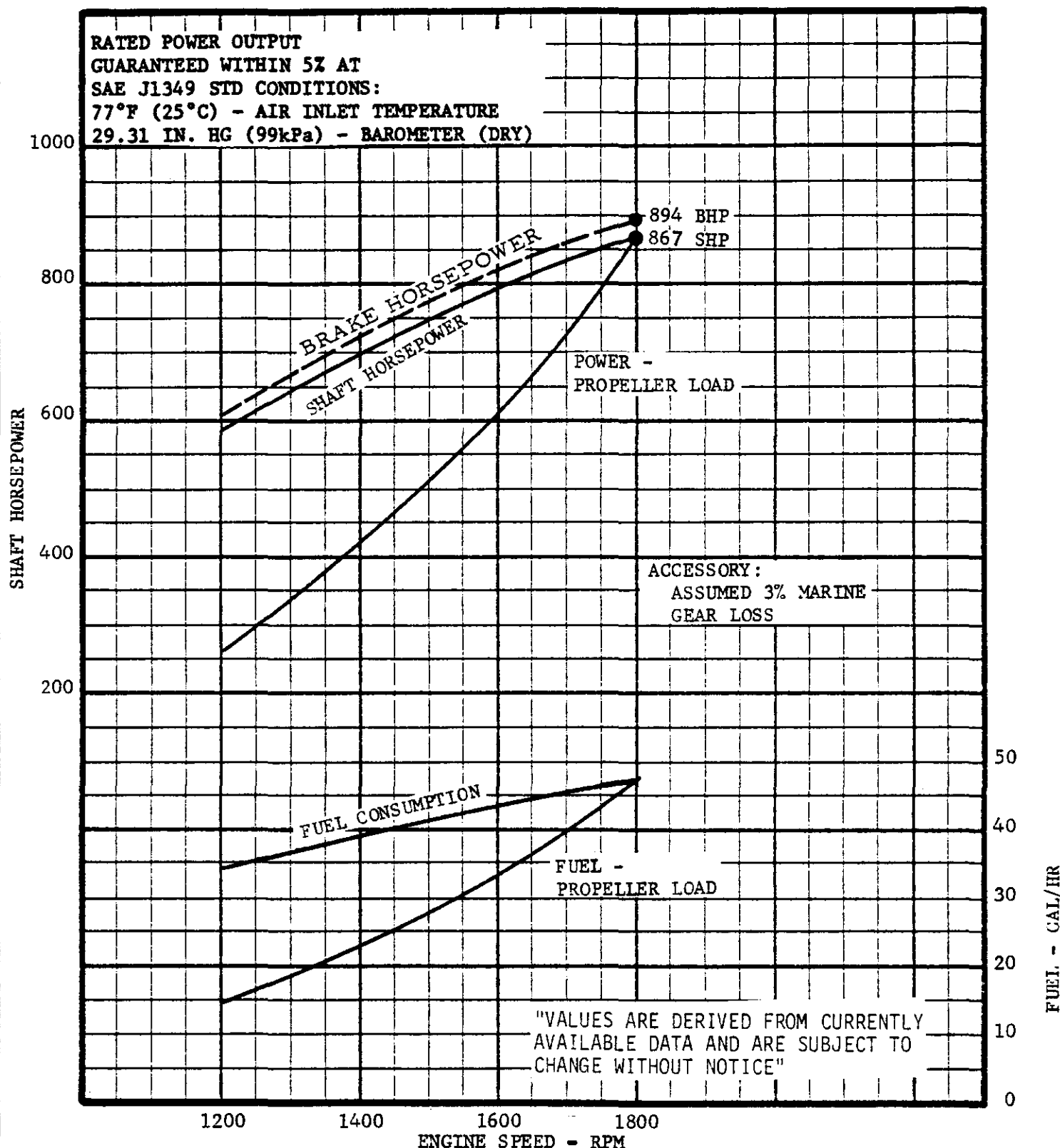


Detroit Diesel Allison

Division of General Motors Corporation

ENGINE PERFORMANCE

MODEL: 12V-149T
APPLICATION: MARINE CONTINUOUS
INJECTOR: 140 (2.205 TIMING)
TURBOCHARGER: TV7101 (1.39 A/R HSG.)
RATING: NET POWER

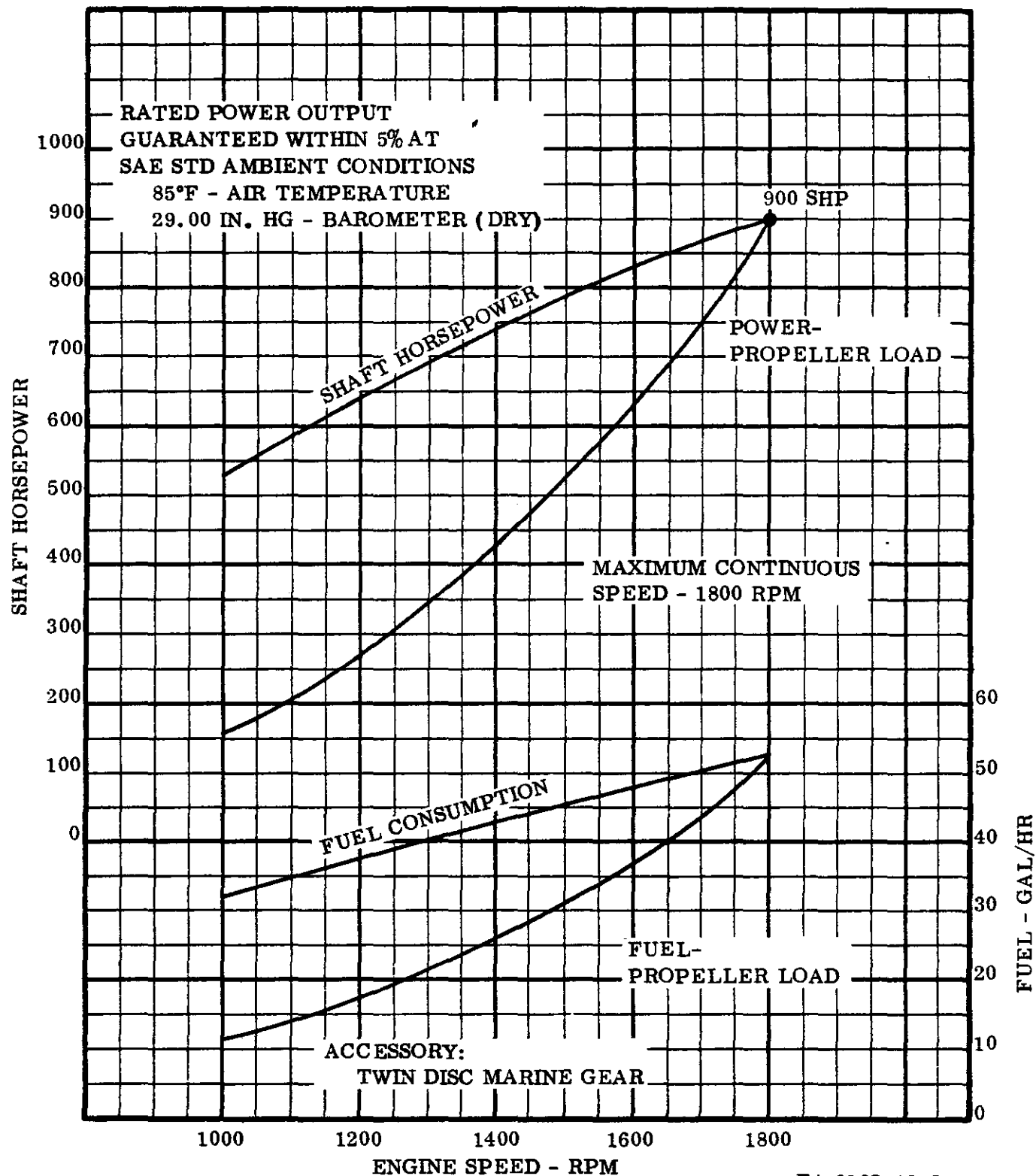




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 16V-149
APPLICATION: MARINE
INJECTOR: 120
RATING: WORK BOAT

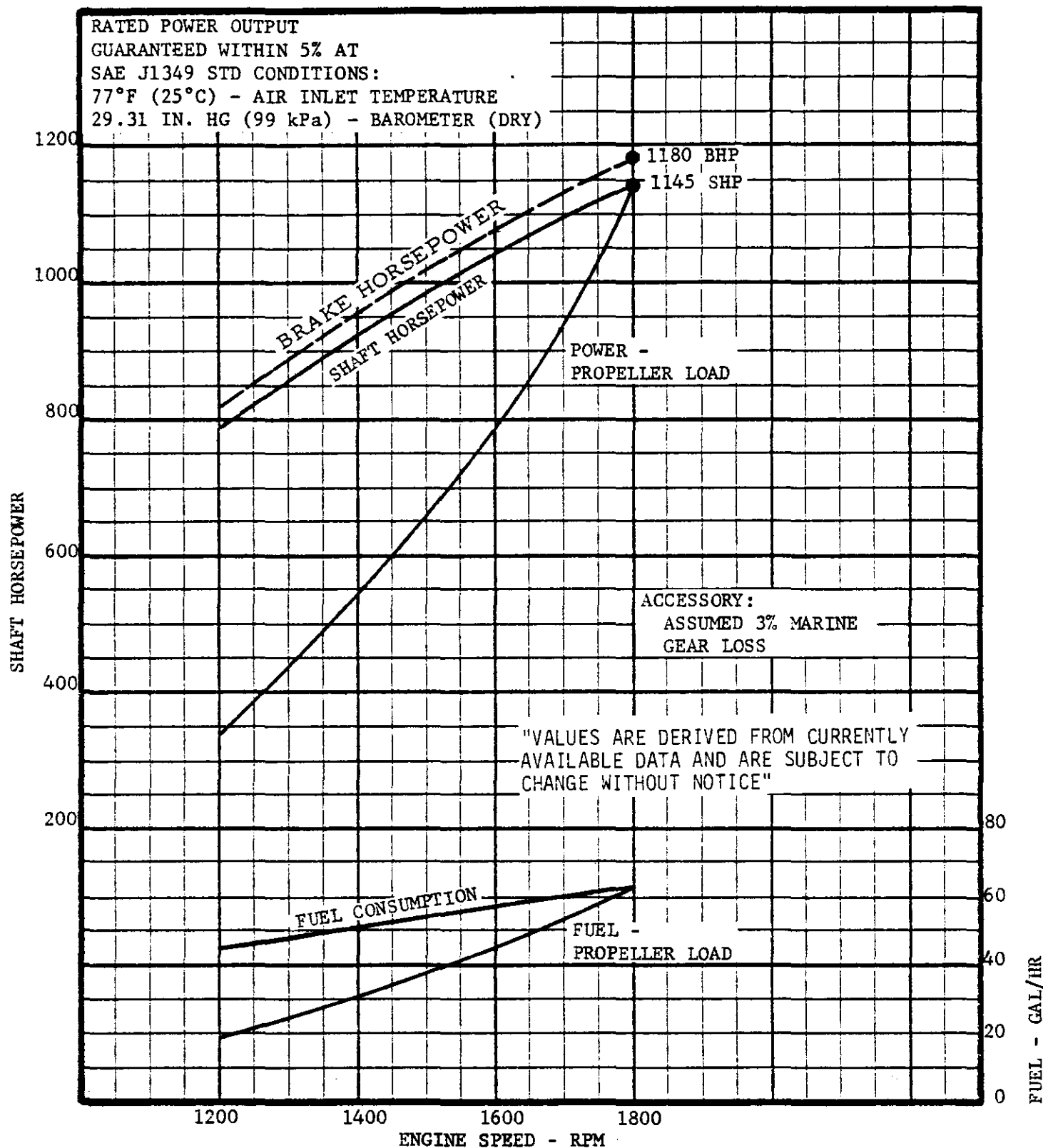




Detroit Diesel Allison
Division of General Motors Corporation

ENGINE PERFORMANCE

MODEL: 16V-149T
APPLICATION: MARINE CONTINUOUS
INJECTOR: 140 (2.205 TIMING)
TURBOCHARGER: TV8115 (1.39 A/R HSG.)
RATING: NET POWER



ENGINEERING-TECHNICAL DATA DEPT.

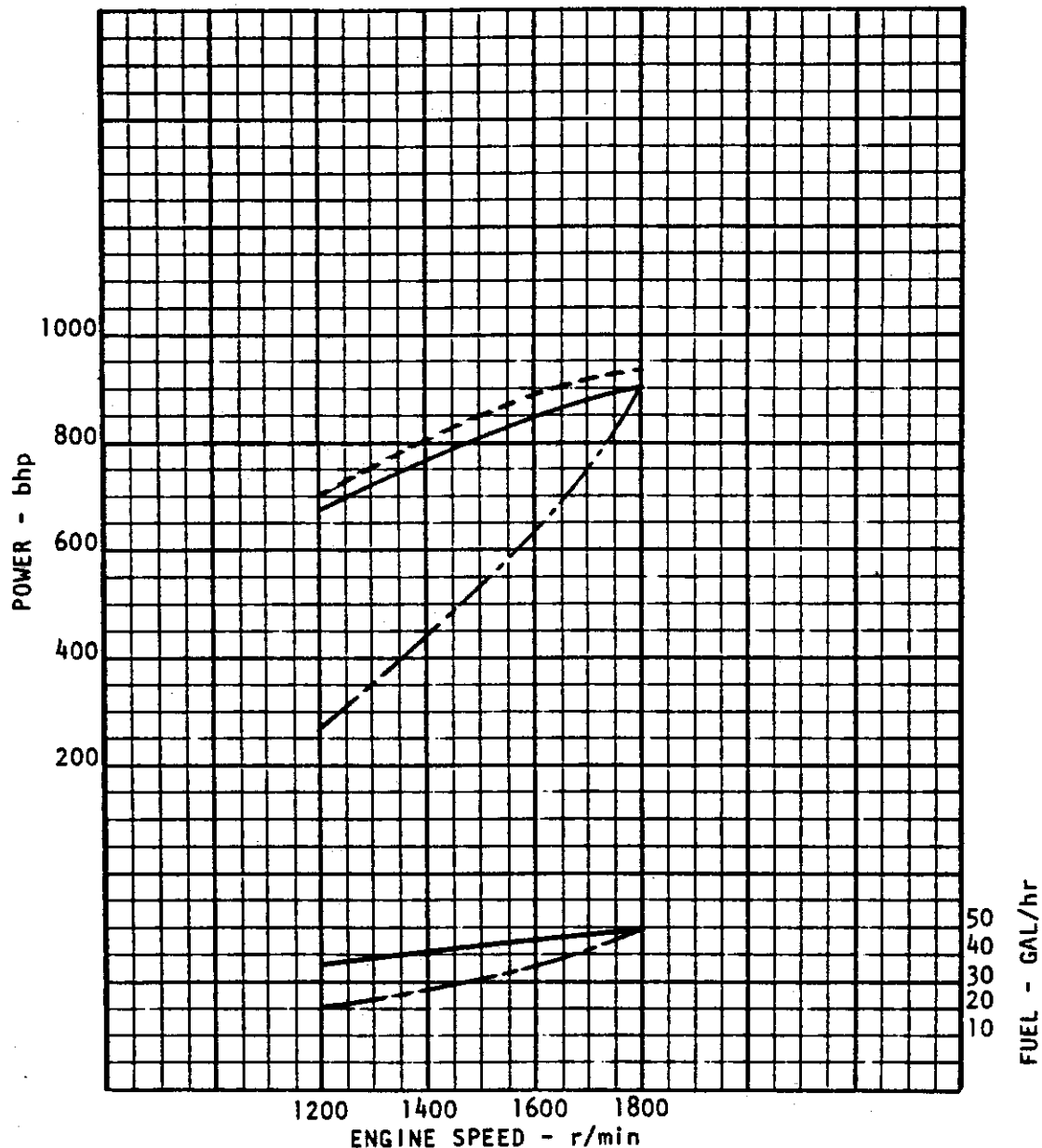
E4-9162-32-9
Rev. 5-5-82



ENGINE PERFORMANCE CURVE

RATING: NET POWER
PRELIMINARY
APPLICATION: MARINE - CONTINUOUS

MODEL: 16V-149T
930 bhp @ 1800 r/min
902 shp @ 1800 r/min



----- BRAKE HORSEPOWER
————— SHAFT HORSEPOWER
..... PROPELLER LOAD

ACCESSORIES: MARINE GEAR - 3% LOSS
AIR INTAKE RESTRICTION - in. H₂O (mm H₂O) 10 (250)
EXHAUST RESTRICTION - in. H₂O (mm H₂O) 15 (380)

• POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BAROMETER;
100°F (39°C) FUEL INLET TEMPERATURE (.85) SPECIFIC GRAVITY AT 60°F).
• CONVERSION FACTORS: POWER: kW = bhp x 0.746
FUEL: kg/kW-hr = lb/bhp-hr x 0.608
TORQUE: N-m = lb-ft x 1.356
• VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:
D.L. Graham
10-10-83
STAFF ENGINEER

CURVE NO.
E4-9162-32-18
DATE: 10-3-83
REV./DATE:
SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	NEW AIR INDUCTION
Number of cylinders	WITH BLOWER PRESSURE RELIEF VALVE
Bore and stroke - in (mm)	9162-7300
Displacement - in ³ (litre)	16
Compression ratio	5.75 x 5.75 (146 x 146)
Firing order	2389 (39.18)
Clockwise rotation (RH)	16:1
Counter clockwise rotation (LH)	1L-2R-8L-6R-2L-4R-6L-5R-4L-3R-5L-7R-3L-1R-7L-8R
Marine gear type	1L-8R-7L-1R-3L-7R-5L-3R-4L-5R-6L-4R-2L-6R-8L-2R
Marine gear reduction ratios	NOT DETERMINED
Marine gear lube oil capacity approx. (Does not include heat exchanger & connections used externally) - pts (litre) (Marine gear must use straight viscosity oil)	NOT DETERMINED
Electrical system	24 VOLTS
Recommended battery capacity (CCA @ 0°F (-18°C)) 24 Volt system above 32°F (0°C)	950
Dimensions & weight	
Length - in (mm)	106 (2692)
Width - in (mm)	64 (1625)
Height - in (mm)	67 (1702)
Weight, dry - lbs (kg)	11750 (5330)
Maximum installation angle	15°

Technical Engine Specification

Injector (timing)	115 (2.205)
Turbocharger	TV8401 (1.23 A/R)
Engine speed - r/min	1800
Brake horsepower - bhp (kW) 77°F, 29.31 in Hg (Dry) Bar., J-1349	930 (693.8)
Shaft horsepower - shp (kW)	902 (672.9)
BMEP - lb/in (kPa)	86 (593)
Peak torque - lb-ft (N·m) @ r/min	3064 (4155) @ 1200
Fuel consumption - lb/hr (kg/hr)	342.2 (154.9)
Fuel consumption - gal/hr (litre/hr)	49.0 (185.5)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.368 (224)
Air consumption - ft ³ /min (m ³ /min)	3480 (98.9)
Suggested minimum engine room vent area - in ² (cm ²)	334 (2153)
Maximum engine room depression 0.2 in. H ₂ O	
Maximum allowable temperature rise (Outside air to engine inlet) - °F (°C)	30 (17)

Curve No. E4-9162-32-18
Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger

Fresh water capacity - gal (litre)	182 (172.2)
Heat rejection to coolant - Btu/min (kW)	29060 (512)
Fresh water flow - gal/min (litre/min)	530 (2006)
Raw water flow - gal/min (litre/min)	172 (651)
Maximum inlet restriction at raw water pump - in Hg (kPa)	5 (16.93)
Maximum raw water pump pressure - lb/in ² (kPa)	10 (68.95)
Suggested raw water pipe size - in (mm)	2.5 (63.5)
Suggested sea strainer size - simplex - in (mm)	3 (76)
- duplex - in (mm)	4 (102)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	330 (1249)
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	6 (20.32)
Supply line dia. - in (mm)	1 (25.4) min.

Exhaust System

Gas flow - lb/min (kg/min)	251.0 (113.9)
Exhaust temperature - °F (°C)	680 (360)
Maximum exhaust back pressure at turbocharger outlet (full load) - in Hg (kPa)	2.5 (8.47)

Lubrication System

Engine lube oil capacity - qts (litre)	176 (166.6)
Lubrication oil press., normal - lb/in ² (kPa)	65-85 (449-587)
Lubrication oil temp., in-pan - °F (°C)	230 (110) max.



ENGINE PERFORMANCE CURVE

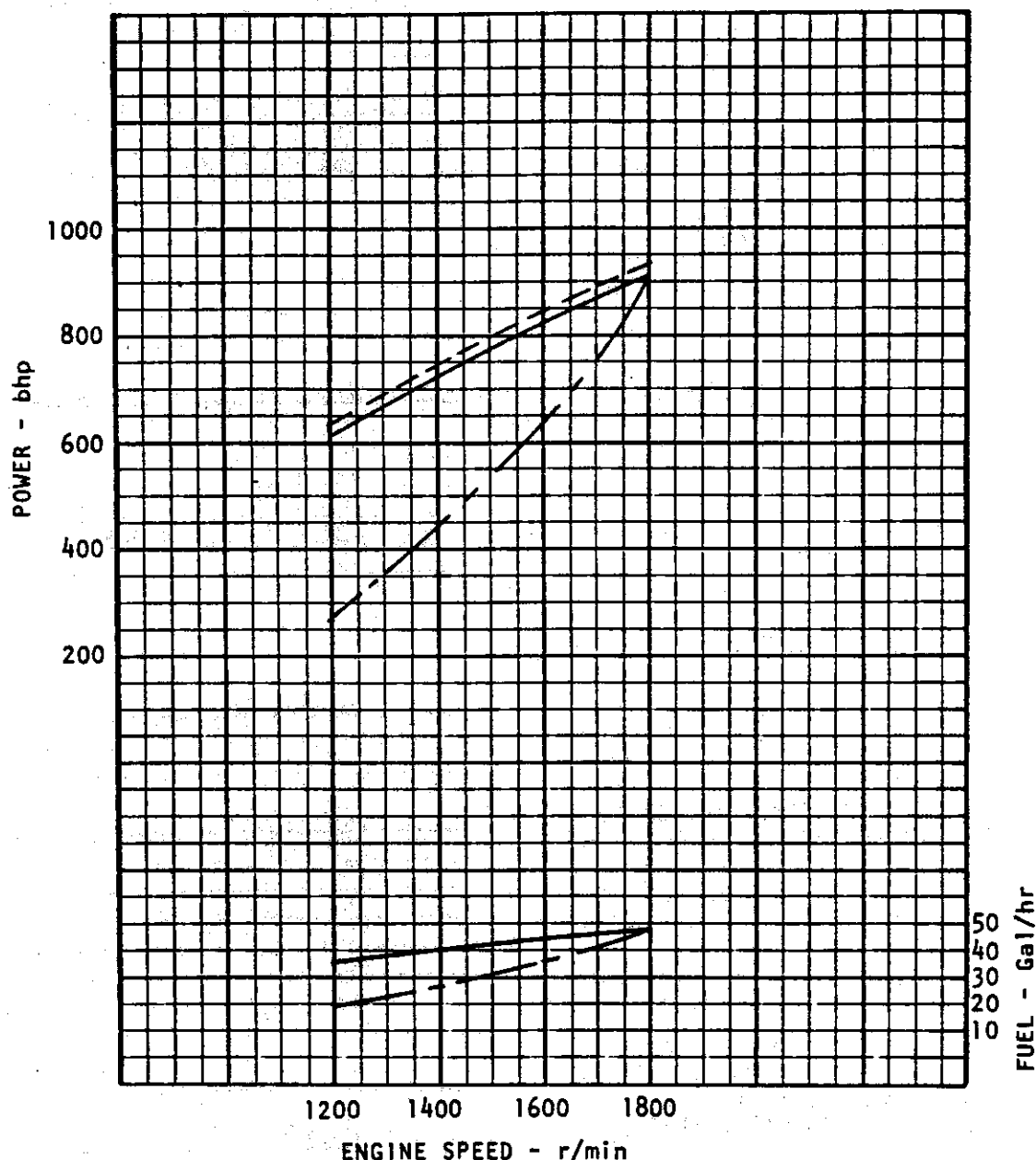
RATING: NET POWER

APPLICATION: MARINE - CONTINUOUS

MODEL: 12V-149TI

940 bhp @ 1800 r/min

912 shp @ 1800 r/min



----- BRAKE HORSEPOWER
————— SHAFT HORSEPOWER
----- PROPELLER LOAD

AIR INTAKE RESTRICTION - in. H₂O (mmH₂O) 10 (250)
EXHAUST RESTRICTION - in. H₂O (mmH₂O) 15 (380)
ACCESSORIES: MARINE GEAR - 3% LOSS

- POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BAROMETER;
100°F (39°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: kW = bhp x 0.746
FUEL: kg/kW-hr = lb/bhp-hr x 0.608
TORQUE: N-m = lb-ft x 1.356
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D.L. Graham
11-27-83
STAFF ENGINEER

CURVE NO.

E4-9122-32-14
DATE: 10-24-83
REV./DATE:
SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE 9122-7301
Number of cylinders	12
Bore and stroke - in (mm)	5.75 x 5.75 (146 x 146)
Displacement - in ³ (litre)	1792 (29.39)
Compression ratio	16:1
Firing order	1L-5L-3R-4R-3L-4L-2R-6R-2L-6L-1R-5R
Clockwise rotation (RH)	1L-5R-1R-6L-2L-6R-2R-4L-3L-4R-3R-5L
Counter clockwise rotation (LH)	TWIN DISC MG-540
Marine gear type	7:1.6.18:1.5.17:1.4.6:1
Marine gear reduction ratios	
Marine gear lube oil capacity approx. (Does not include heat exchanger & connections used externally) - pts (litre) (Marine gear must use straight viscosity oil)	138 (65.3)
Electrical system	24 VOLTS
Recommended battery capacity (CCA @ 0°F (-18°C)) 24 Volt system above 32°F (0°C)	950
Dimensions & weight	
Length - in (mm)	93 (2362)
Width - in (mm)	62 (1575)
Height - in (mm)	70 (1778)
Weight, dry - lbs (kg)	13950 (6330) W/GEAR
Maximum installation angle	15°

Technical Engine Specification

Injector (timing)	140 (2.205)
Turbocharger	TV7111 (1.08 A/R)
Engine speed - r/min	1800
Brake horsepower - bhp (kW) 77°F, 29.31 in Hg (Dry) Bar., J-1349	940 (701)
Shaft horsepower - shp (kW)	912 (680)
BMEP - lb/in (kPa)	115 (792)
Peak torque - lb·ft (N·m) @ r/min	2851 (3866) @ 1400
Fuel consumption - lb/hr (kg/hr)	335.6 (151.6)
Fuel consumption - gal/hr (litre/hr)	48.0 (181.7)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.357 (217)
Air consumption - ft ³ /min (m ³ /min)	2750 (79)
Suggested minimum engine room vent area - in ² (cm ²) Maximum engine room depression 0.2 in. H ₂ O	264 (1704)
Maximum allowable temperature rise (Outside air to engine inlet) - °F (°C)	30 (17)

Curve No. E4-9122-32-14
Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger

Fresh water capacity - gal (litre)	37 (140.1)
Heat rejection to coolant - Btu/min (kW)	28430 (500)
Fresh water flow - gal/min (litre/min)	360 (1363)
Raw water flow - gal/min (litre/min)	172 (651)
Maximum inlet restriction at raw water pump - in Hg (kPa)	5 (16.93)
Maximum raw water pump pressure - lb/in ² (kPa)	10 (68.95)
Suggested raw water pipe size - in (mm)	2.5 (63.5)
Suggested sea strainer size - simplex - in (mm)	3 (76)
- duplex - in (mm)	4 (102)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	370 (1400)
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	6 (20.32)
Supply line dia. - in (mm)	1 (25.4) min.

Exhaust System

Gas flow - lb/min (kg/min)	199.5 (90.5)
Exhaust temperature - °F (°C)	735 (391)
Maximum exhaust back pressure at turbocharger outlet (full load) - in Hg (kPa)	2.5 (8.47)

Lubrication System

Engine lube oil capacity - qts (litre)	136 (128.7)
Lubrication oil press., normal - lb/in ² (kPa)	48-70 (331-483)
Lubrication oil temp., in-pan - °F (°C)	230 (110) max.



ENGINE PERFORMANCE CURVE

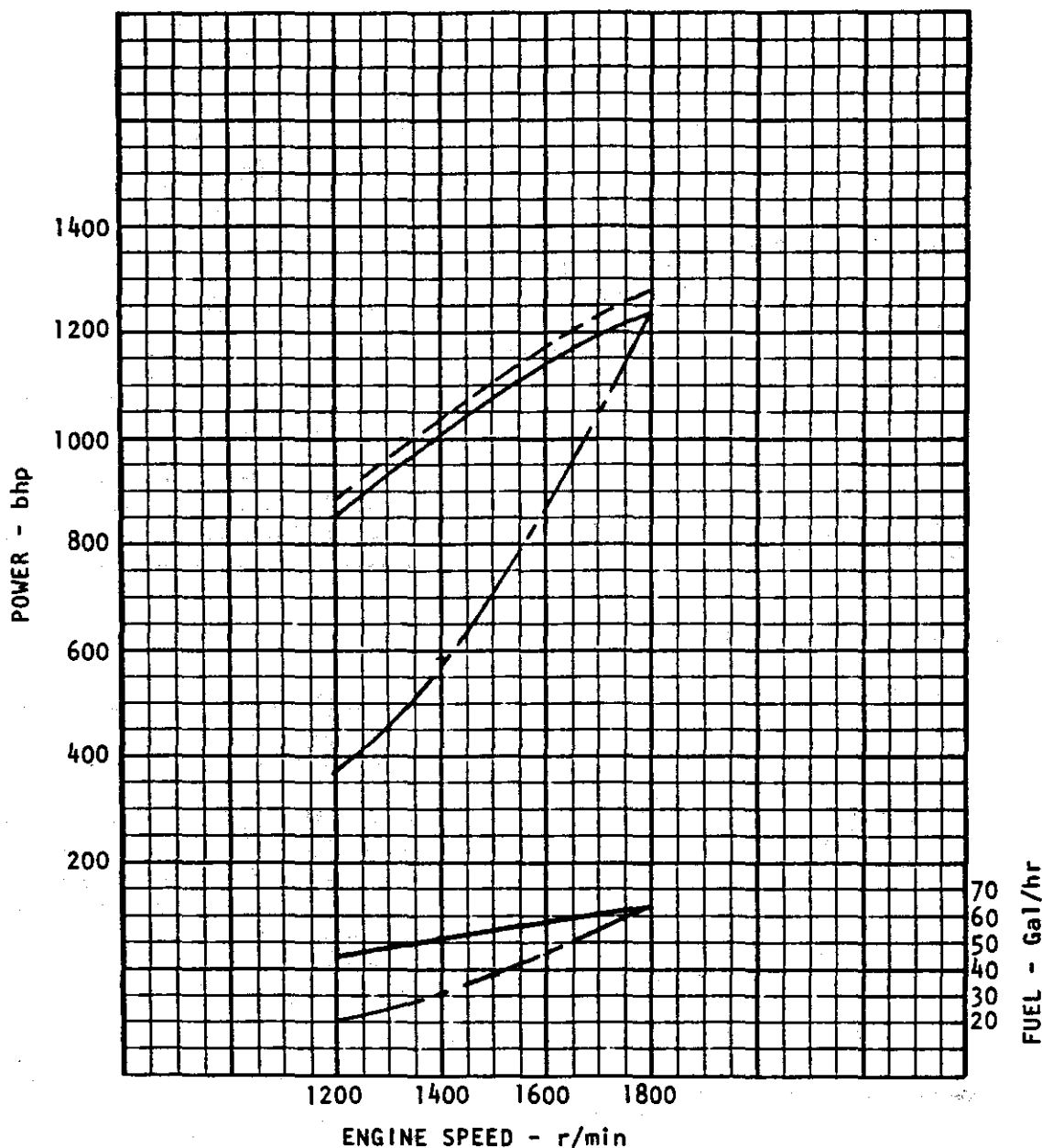
RATING: NET POWER

APPLICATION: MARINE CONTINUOUS

MODEL: 16V-149TI

1280 bhp @ 1800 r/min

1242 shp @ 1800 r/min



--- BRAKE HORSEPOWER
— SHAFT HORSEPOWER
--- PROPELLER LOAD

AIR INTAKE RESTRICTION - in. H₂O (mmH₂O) : : : 10 (250)
EXHAUST RESTRICTION - in. H₂O (mmH₂O) : : : 15 (380)
ACCESSORIES: MARINE GEAR 3% LOSS

- POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BAROMETER;
100°F (39°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: kW = bhp × 0.746
FUEL: kg/kW-hr = lb/bhp-hr × 0.608
TORQUE: N·m = lb-ft × 1.356
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D. L. Graham
11-27-83
STAFF ENGINEER

CURVE NO.

E4-9162-32-19
DATE: 10-24-83
REV./DATE:
SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

NEW AIR INDUCTION

WITH BLOWER PRESSURE RELIEF VALVE

Model	9162-7301
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)	1L-8R-7L-1R-3L-7R-5L-3R-4L-5R-6L-4R-2L-6R-8L-2R
Marine gear type	NOT DETERMINED
Marine gear reduction ratios	NOT DETERMINED
Marine gear lube oil capacity approx. (Does not include heat exchanger & connections used externally) - pts (litre) (Marine gear must use straight viscosity oil)	NOT DETERMINED
Electrical system	24 VOLTS
Recommended battery capacity (CCA @ 0°F (-18°C)) 24 Volt system above 32°F (0°C)	950
Dimensions & weight	
Length - in (mm)	106 (2692)
Width - in (mm)	64 (1625)
Height - in (mm)	68 (1727)
Weight, dry - lbs (kg)	11950 (5431)
Maximum installation angle	15°

Technical Engine Specification

Injector (timing)	140 (2.205)
Turbocharger	TV8401
Engine speed - r/min	1800
Brake horsepower - bhp (kW) 77°F, 29.31 in Hg (Dry) Bar., J-1349	1280 (955)
Shaft horsepower - shp (kW)	1242 (927)
BMEP - lb/in (kPa)	119 (822)
Peak torque - lb·ft (N·m) @ r/min	3875 (5255) @ 1400
Fuel consumption - lb/hr (kg/hr)	442 (200)
Fuel consumption - gal/hr (litre/hr)	63.2 (239.1)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.345 (210)
Air consumption - ft ³ /min (m ³ /min)	3900 (111)
Suggested minimum engine room vent area - in ² (cm ²)	
Maximum engine room depression 0.2 in. H ₂ O	374 (2413)
Maximum allowable temperature rise (Outside air to engine inlet) - °F (°C)	30 (17)

Curve No. E4-9162-32-19
Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger

Fresh water capacity - gal (litre)	45.5 (172.2)
Heat rejection to coolant - Btu/min (kW)	40000 (703)
Fresh water flow - gal/min (litre/min)	530 (2006)
Raw water flow - gal/min (litre/min)	172 (651)
Maximum inlet restriction at raw water pump - in Hg (kPa)	5 (16.93)
Maximum raw water pump pressure - lb/in ² (kPa)	10 (68.95)
Suggested raw water pipe size - in (mm)	2.5 (63.5)
Suggested sea strainer size - simplex - in (mm)	3 (76)
- duplex - in (mm)	4 (102)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	370 (1400)
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	6 (20.32)
Supply line dia. - in (mm)	1 (25.4) min.

Exhaust System

Gas flow - lb/min (kg/min)	282.4 (128.1)
Exhaust temperature - °F (°C)	685 (363)
Maximum exhaust back pressure at turbocharger outlet (full load) - in Hg (kPa)	2.5 (8.47)

Lubrication System

Engine lube oil capacity - qts (litre)	176 (166.6)
Lubrication oil press., normal - lb/in ² (kPa)	48-70 (331-483)
Lubrication oil temp., in-pan - °F (°C)	230 (110) max.



MARINE INTERMITTENT RATING

INDEX

<u>ENGINE</u>	<u>INJECTOR</u>	<u>BHP/ SHP @ RPM</u>	<u>CURVE NUMBER</u>	<u>DATE</u>	<u>SEE NOTE</u>
8V-8.2N	4A53	165/ 157 @ 2800	E4-4082-11-03	11-13-84	
8V-8.2T	4C65	200/ 191 @ 2800	E4-4082-31-06	09-28-84	
8V-8.2T	4C65	205/ 195 @ 3000	E4-4082-31-05	09-28-84	
4-53N	N45	- / 112 @ 2500	E4-5042-52-03	06-21-79	
6V-53N	N45	- / 173 @ 2500	E4-5062-52-03	06-11-73	
4-71N	N60	140/ 135 @ 2100	E4-1042-52-03	03-04-85	
4-71N	N65	- / 146 @ 2100	E4-1042-52-04	12-07-81	
6-71N	N60	210/ 203 @ 2100	E4-1062-52-02	08-14-85	(R)
6-71N	N65	- / 221 @ 2100	E4-1062-52-04	01-04-82	
6-71TI	N70	- / 260 @ 2100	E4-1062-32-05	01-04-82	
16V-71N(2V)	N60	- / 502 @ 2100	E4-7162-51-02	04-08-81	
6V-71N	N60	- / 203 @ 2100	E4-7062-52-02	01-04-82	
6V-71N	N65	- / 221 @ 2100	E4-7062-52-04	01-04-82	
8V-71N	N60	- / 272 @ 2100	E4-7082-52-02	01-04-82	
8V-71N	N65	- / 296 @ 2100	E4-7082-52-05	01-05-82	
12V-71N	N60	- / 400 @ 2100	E4-7122-52-02	01-05-82	
12V-71N	N65	- / 437 @ 2100	E4-7122-52-06	01-05-82	
16V-71N	N60	- / 538 @ 2100	E4-7162-52-04	01-05-82	
16V-71N	C65	- / 583 @ 2100	E4-7162-52-05	01-05-82	
6V-71TA	N70	260/ 246 @ 2100	E4-7062-32-05	09-20-83	
8V-71TI	N70	- / 340 @ 2100	E4-7082-32-02	01-05-82	
12V-71TI	N70	- / 510 @ 2100	E4-7122-32-01	01-05-82	
6V-92N	9280	- / 260 @ 2100	E4-8062-12-04	09-28-76	
8V-92N	9280	- / 350 @ 2100	E4-8082-12-04	09-28-76	
16V-92N	9280	- / 690 @ 2100	E4-8162-12-05	10-05-76	
6V-92TA	9290	- / 325 @ 2100	E4-8062-32-01	01-04-78	
6V-92TA	9290	334/ 325 @ 2100	E4-8062-32-05	08-10-83	
8V-92TI	9290	- / 435 @ 2100	E4-8082-32-03	01-06-77	
8V-92TI	9290	471/ 450 @ 2100	E4-8082-32-11	08-10-83	
8V-92TI	9290	471/ 460 @ 2100	E4-8082-32-10	08-10-83	
12V-149N	130	- / 770 @ 1900	E4-9122-12-02	02-08-80	

E4M-0000-00-30

12-01-85

Sheet 1 of 2

MARINE INTERMITTENT RATING

INDEX

<u>ENGINE</u>	<u>INJECTOR</u>	<u>BHP/ SHP @ RPM</u>	<u>CURVE NUMBER</u>	<u>DATE</u>	<u>SEE NOTE</u>
12V-149T	140	930/ 902 @ 1900	E4-9122-32-10	05-05-82	
12V-149T	140	930/ 900 @ 1900	E4-9122-32-19	01-25-85	
16V-149T	140	- /1160 @ 1900	E4-9162-32-07	08-06-76	
16V-149T	140	1215/1180 @ 1900	E4-9162-32-15	05-05-82	
16V-149T	140	1260/1220 @ 1900	E4-9162-32-24	07-17-84	
8V-149TI	150	760/ 734 @ 1900	E4-9082-32-03	09-30-85	(R)
12V-149TI	145	1100/1064 @ 1900	E4-9122-32-15	09-10-85	(R)
16V-149TI	150	1515/1466 @ 1900	E4-9162-32-20	09-20-85	(R)

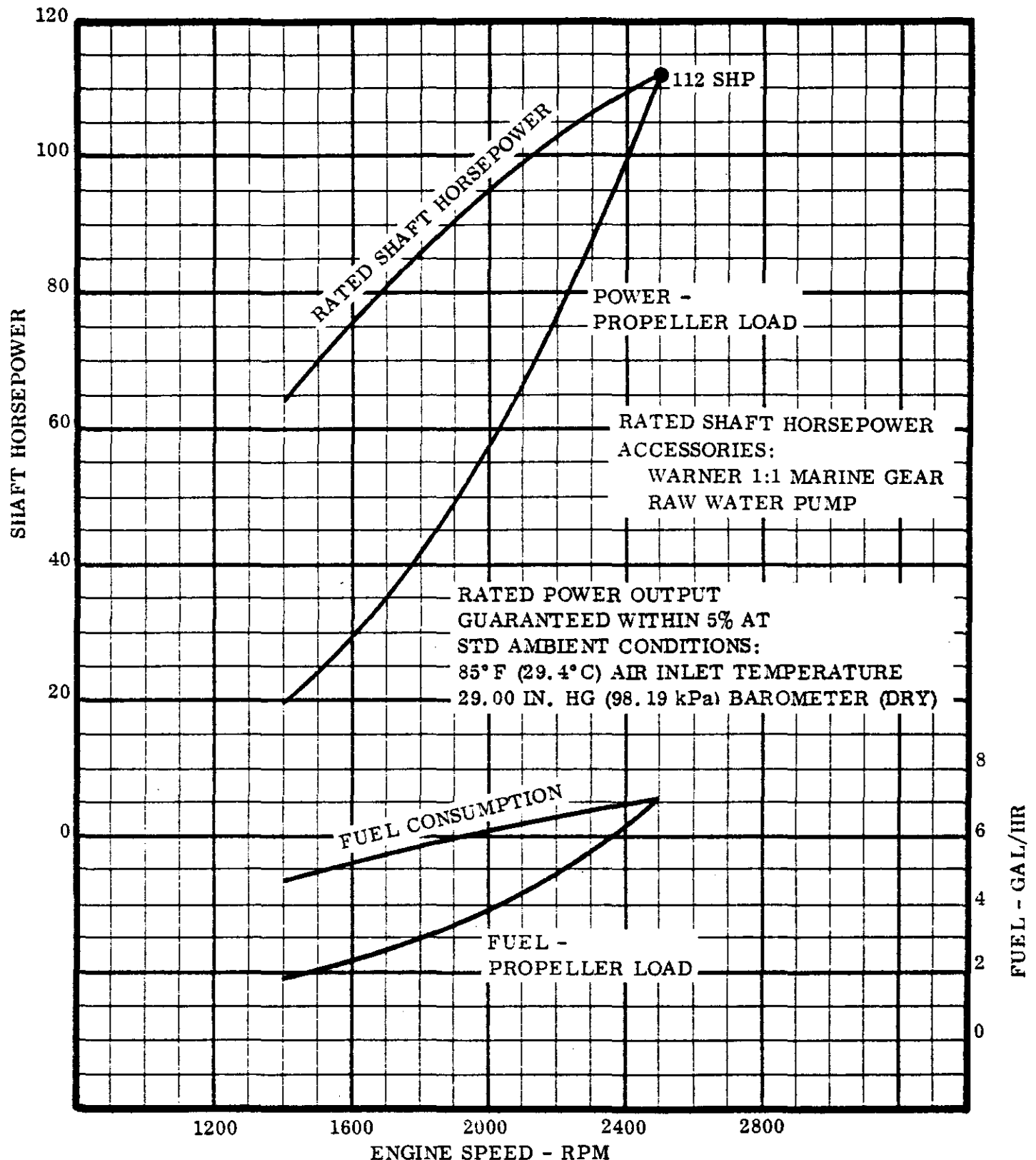
NOTE - (A) - CURVE ADDED
(R) - REVISED



Detroit Diesel Allison
Division of General Motors Corporation

MARINE ENGINE PERFORMANCE

MODEL: 4-53N
APPLICATION: CREW BOAT
RATING: INTERMITTENT
INJECTORS: N45



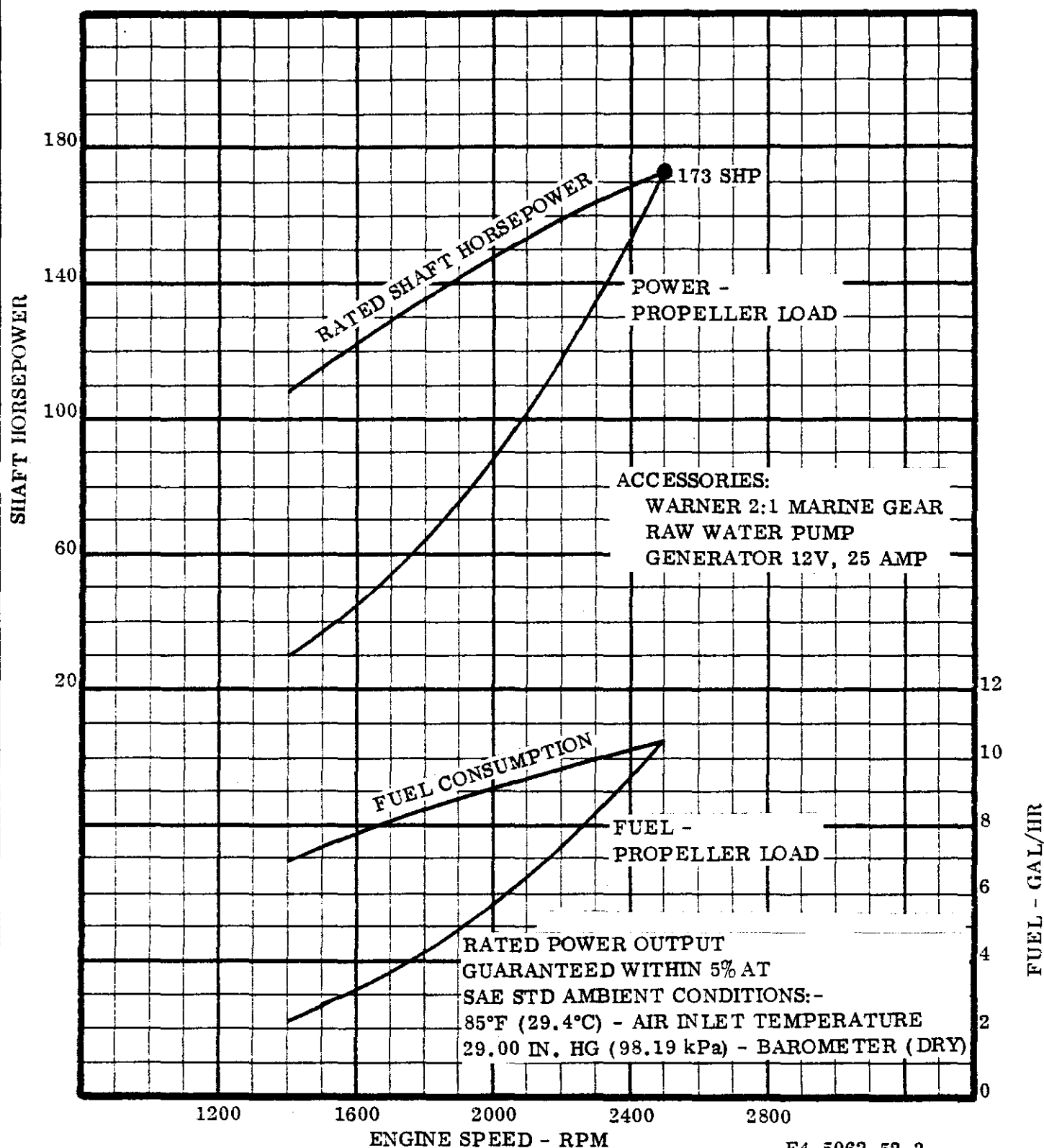
ENGINEERING-TECHNICAL DATA DEPT.

E4-5042-52-3
Rev. 6-21-79



Detroit Diesel Allison
Division of General Motors Corporation

SERIES V53 MARINE
6V-53N CREW BOAT
N45 INJECTORS

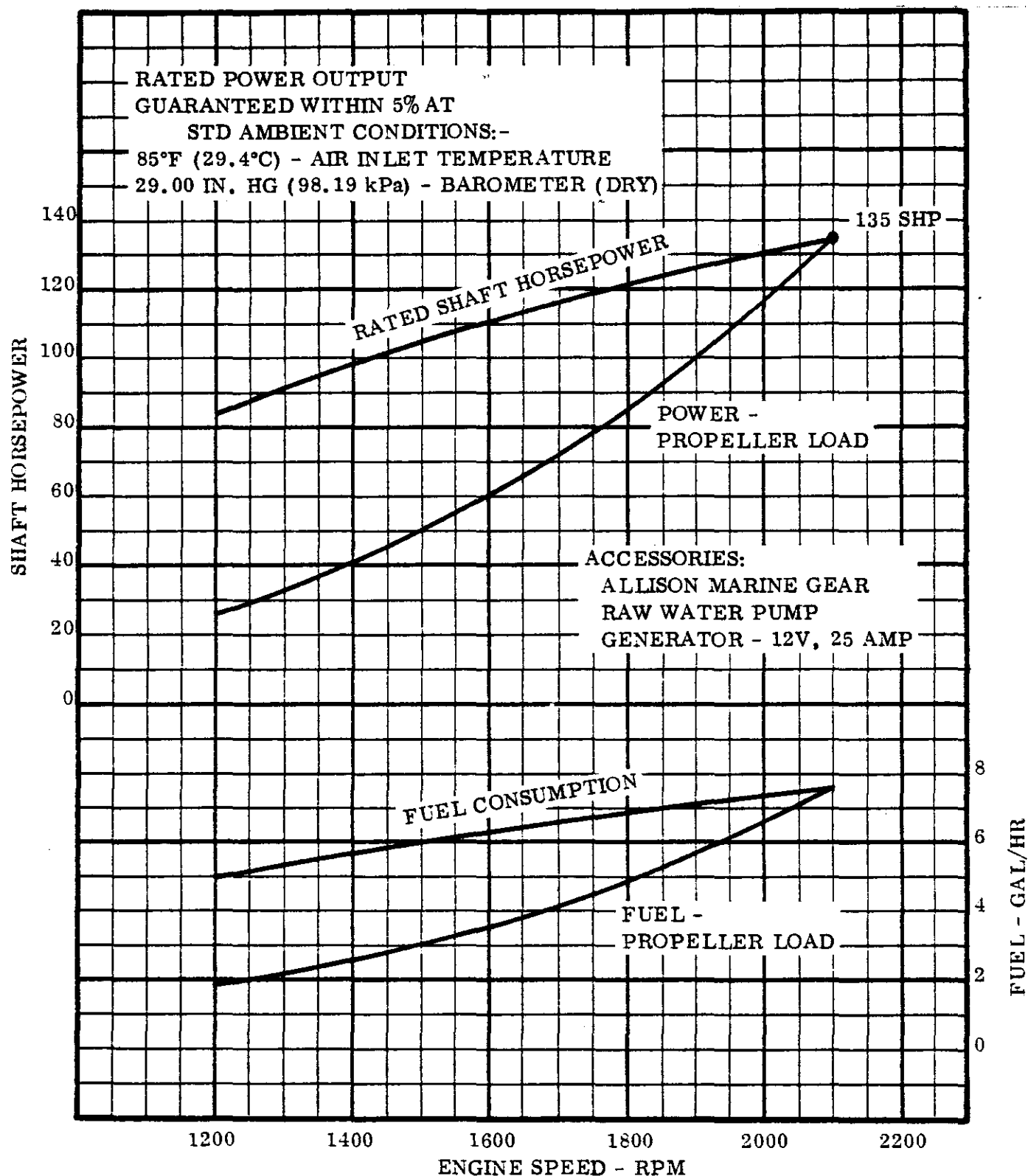




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 4-71N
APPLICATION: MARINE
INJECTORS: N60 (1.460 Timing)
RATING: INTERMITTENT
(CREW BOAT)

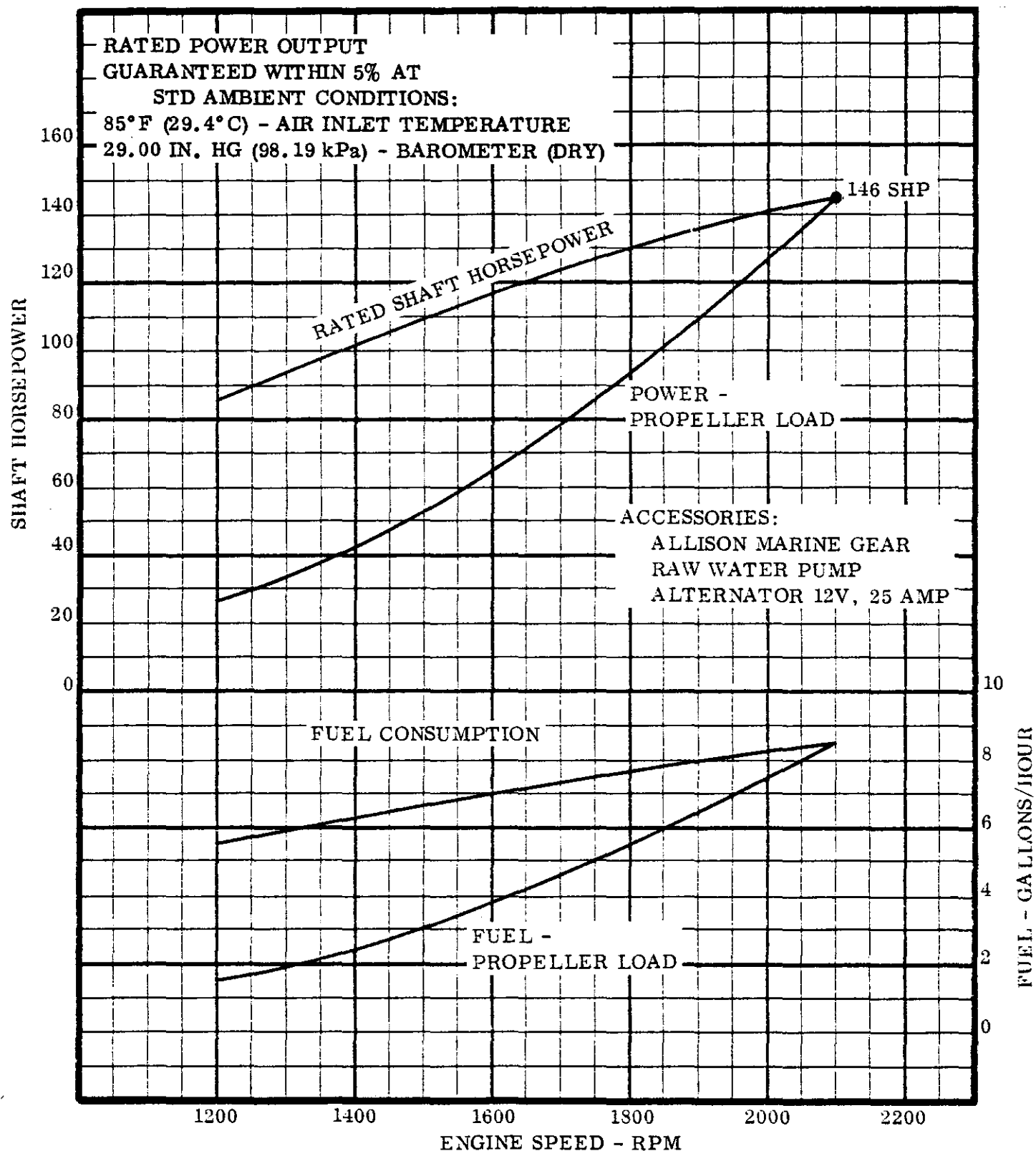




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 4-71N
APPLICATION: MARINE
INJECTORS: N65 (1.484 Timing)
CAM TIMING: ADVANCED
RATING: INTERMITTENT
(CREW BOAT)





ENGINE PERFORMANCE CURVE

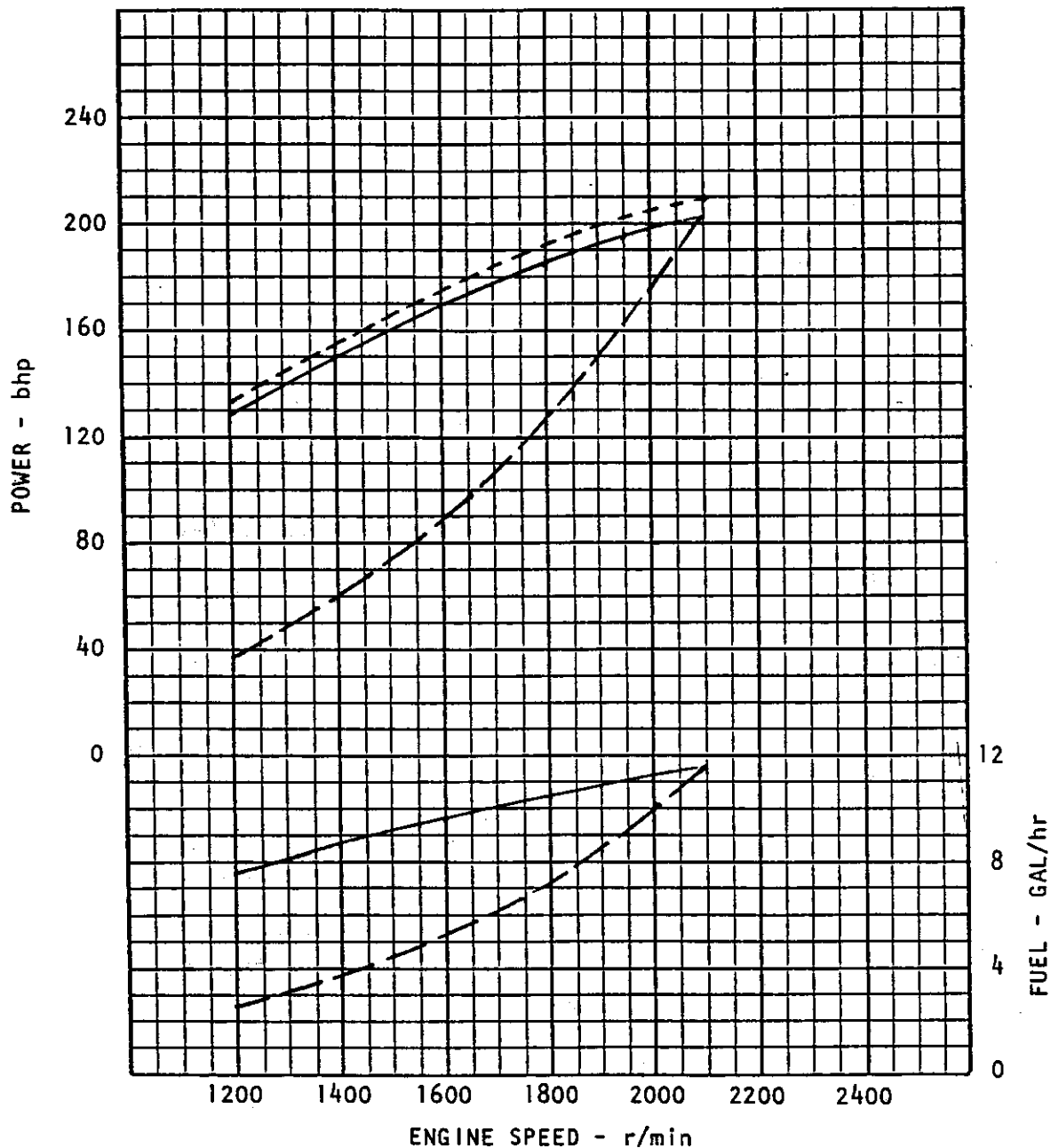
RATING: NET POWER - SEE BELOW

APPLICATION: MARINE - INTERMITTENT
CREW BOAT

MODEL: 6-71

210 bhp @ 2100 r/min

203 shp @ 2100 r/min



----- RATED BRAKE HORSEPOWER
———— RATED SHAFT HORSEPOWER
----- PROPELLER LOAD

ACCESSORIES: ALLISON M GEAR, RAW WATER PUMP, ALTERNATOR 12V42A
CONVERSION FACTOR: LITERS/hr = GAL/hr x 3.785

- POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BAROMETER;
100°F (39°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: kW = bhp x 0.746
FUEL: kg/kW-hr = lb/bhp-hr x 0.608
TORQUE: N-m = lb-ft x 1.356
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO
CHANGE WITHOUT NOTICE.

CERTIFIED BY:

STAFF ENGINEER

CURVE NO.

E4-1062-52-2

DATE: 4-18-69

REV./DATE: 2/8-14-85

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	1062-3000, 5000
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	18.7:1
Firing order	
Clockwise rotation (RH)	1-5-3-6-2-4
Counter clockwise rotation (LH)	1-4-2-6-3-5
Marine gear type	ALLISON M
Marine gear reduction ratios	2.05:1, 1.52:1, 1.06:1
Marine gear lube oil capacity approx. (Does not include heat exchanger & connections used externally) - pts (litre) (Marine gear must use straight viscosity oil)	12 (5.7)
Electrical system	12 VOLT
Recommended battery capacity (CCA @ 0°F (-18°C)) 12 Volt system above 32°F (0°C)	950
Dimensions & weight	
Length - in (mm)	68.4 (1737)
Width - in (mm)	35.5 (902)
Height - in (mm)	43.7 (1110)
Weight, dry - lbs (kg)	2740 (1243)
Maximum installation angle	16°

Technical Engine Specification

Injector (timing)	N60 (1.460)
Turbocharger	NOT APPLICABLE
Engine speed - r/min	2100
Brake horsepower - bhp (kW) 77°F, 29.31 in Hg (Dry) Bar., J-1349	210 (157)
Shaft horsepower - shp (kW)	203 (151)
BMEP - lb/in ² (kPa)	93.0 (641)
Peak torque - lb ft (N m) @ r/min	584 (792) @ 1200
Fuel consumption - lb/hr (kg/hr)	80.7 (36.6)
Fuel consumption - gal/hr (litre/hr)	11.6 (43.7)
Specific fuel cons. - lb/bhp hr (g/kW hr)	.384 (234)
Air consumption - ft ³ /min (m ³ /min)	660 (18.7)
Suggested minimum engine room vent area - in ² (cm ²) Maximum engine room depression 0.2 in. H ₂ O	63 (406)
Maximum allowable temperature rise (Outside air to engine inlet) - °F (°C)	30 (16.7)

Curve No. E4-1062-52-2
Date: 4-18-69
Rev./Date: 2/8-14-85
Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger or Keel Cooler

Fresh water capacity - gal (litre)	8 (30.3)
Heat rejection to coolant - Btu/min (kW)	6800 (119.6)
Fresh water flow - gal/min (litre/min)	64.0 (242)
Raw water flow - gal/min (litre/min)	67 (254)
Maximum inlet restriction at raw water pump - in Hg (kPa)	5.0 (16.9)
Maximum raw water pump pressure - lb/in ² (kPa)	10.0 (69.0)
Suggested raw water pipe size - in (mm)	2.0 (50.8)
Suggested sea strainer size - simplex - in (mm)	2.5 (63.5)
- duplex - in (mm)	3.0 (76.2)
Max. press. drop thru keel cooler - lb/in ² (kPa)	2.5 (17.2)
Maximum water out temperature - °F (°C)	200 (93)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	90 (341)
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	6 (20.3)
Supply line dia. - in (mm)	0.5 (12.7)

Exhaust System

Gas flow - lb/min (kg/min)	49.0 (22.2)
Exhaust temperature - °F (°C)	820 (438)
Maximum exhaust back pressure at manifold outlet (full load) - in Hg (kPa)	4.5 (15.2)

Lubrication System

Engine lube oil capacity - qts (litre)	31 (29.3)
Lubrication oil press., normal - lb/in ² (kPa)	40-60 (276-414)
Lubrication oil temp., in-pan - °F (°C)	200-235 (93-113)

Curve No. E4-1062-52-2

Date: 4-18-69

Rev./Date: 2/8-14-85

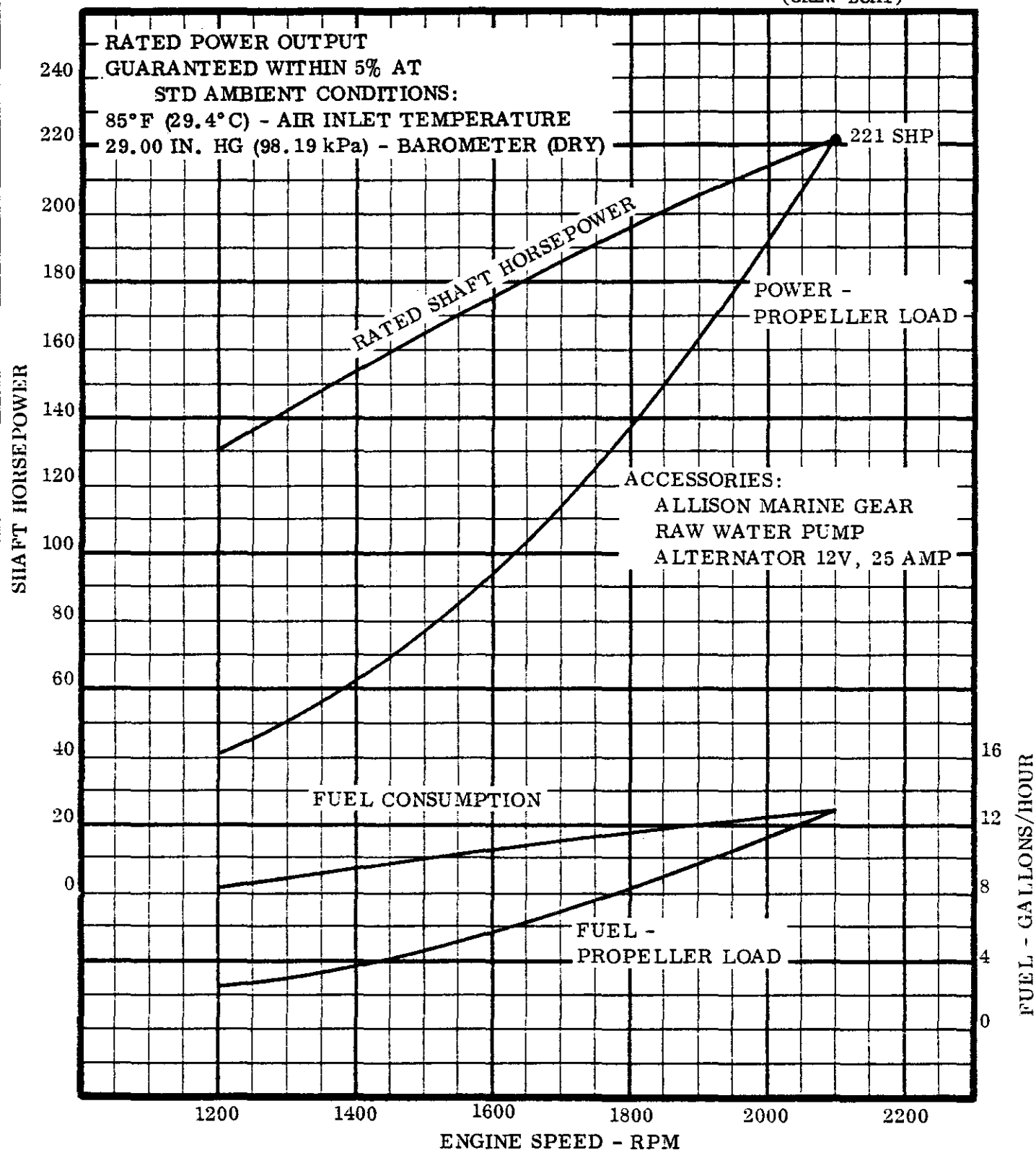
Sht. 3 of 3



Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 6-71N
APPLICATION: MARINE
INJECTORS: N65 (1.484 TIMING)
CAM TIMING: ADVANCED
RATING: INTERMITTENT
(CREW BOAT)



ENGINEERING-TECHNICAL DATA DEPT.

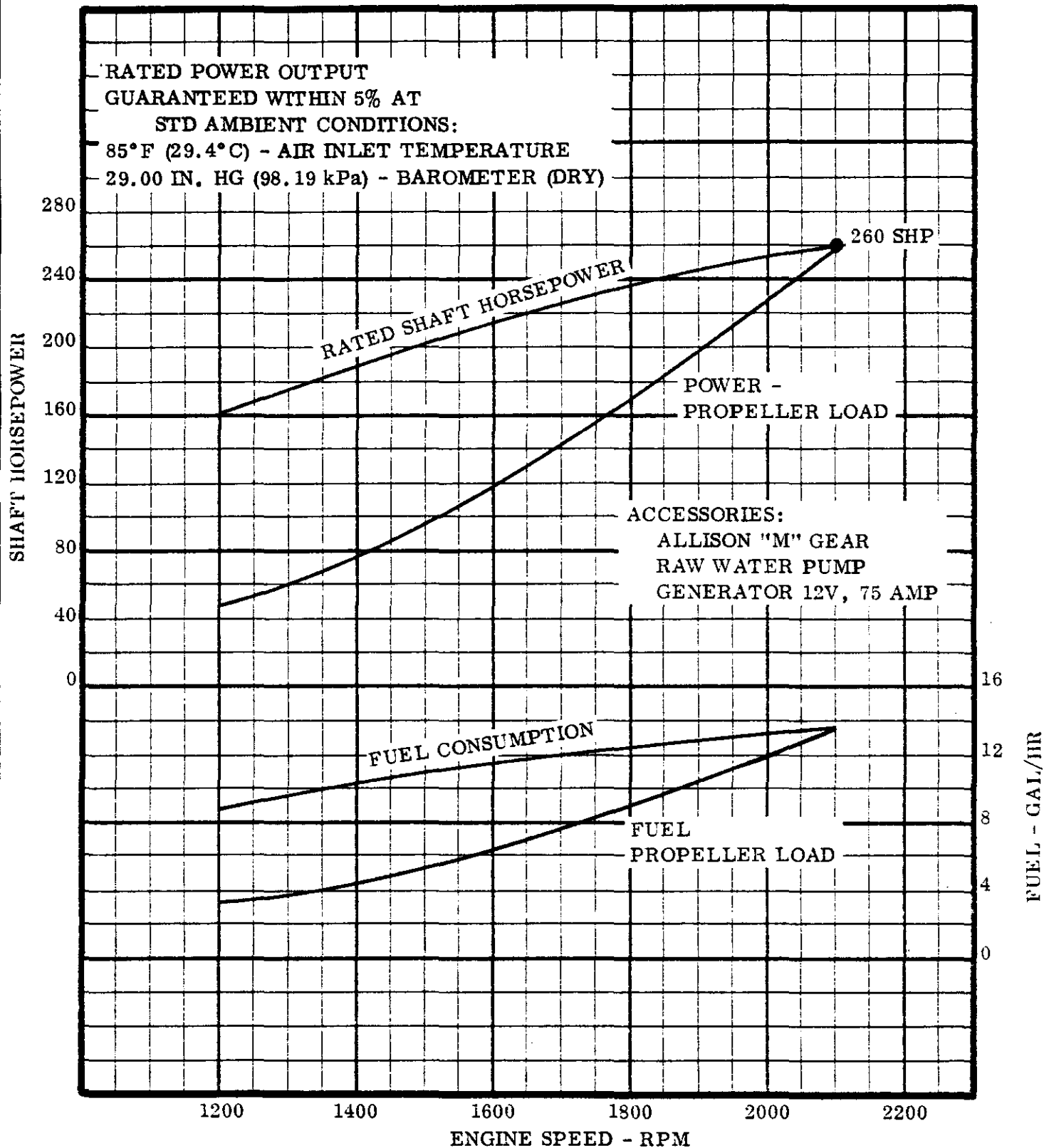
E4-1062-52-4
Rev. 1-4-82



Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 6-71TI
APPLICATION: MARINE
INJECTORS: N70 (1.460 TIMING)
TURBOCHARGER: T18A40 (1.32 A/R HOUSING)
RATING: INTERMITTENT
(CREW BOAT)



ENGINEERING-TECHNICAL DATA DEPT.

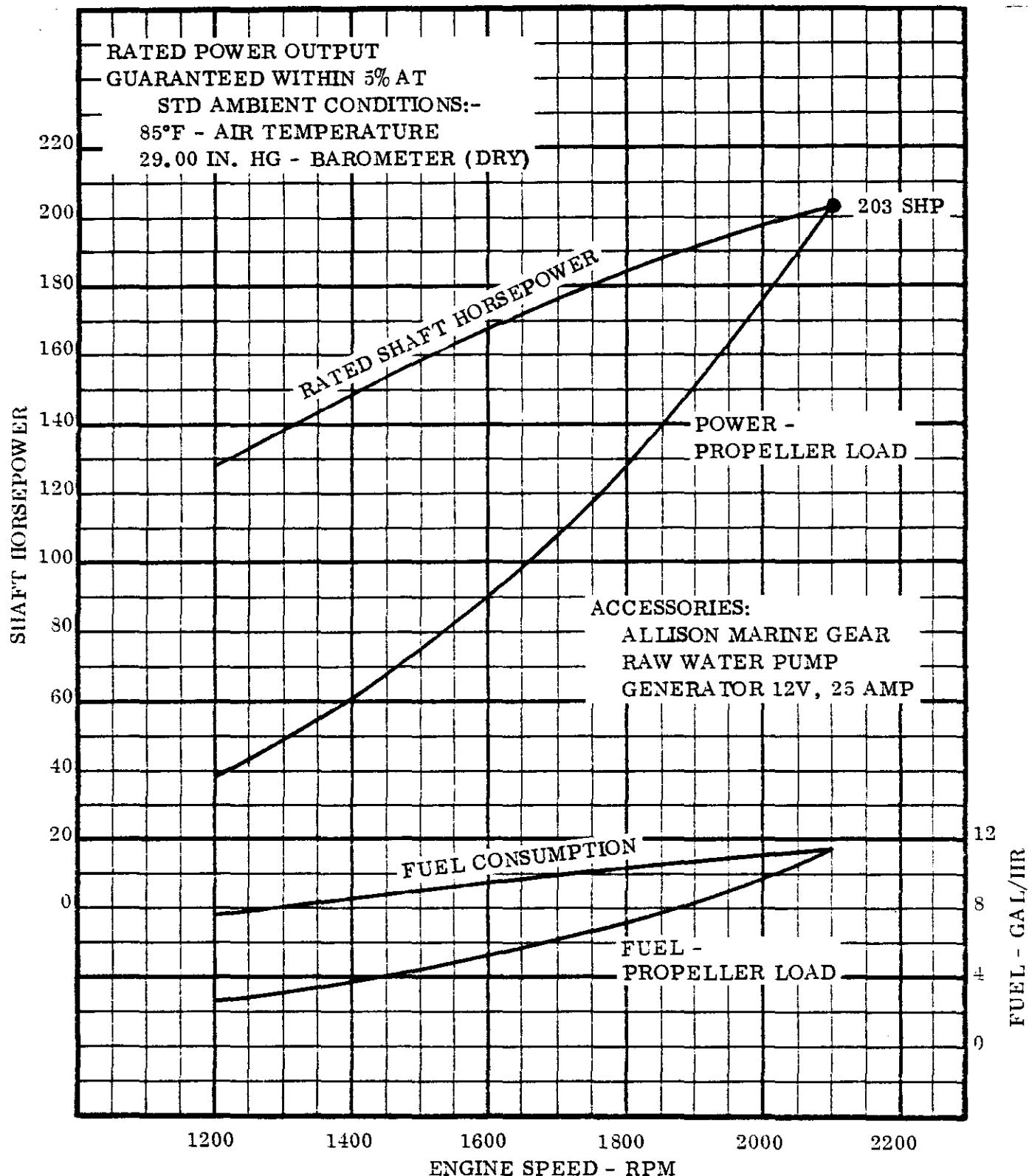
E4-1062-32-5
Rev. 1-4-82



Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 6V-71N
APPLICATION: MARINE
INJECTORS: N60 (1.460 TIMING)
RATING: INTERMITTENT
(CREW BOAT)

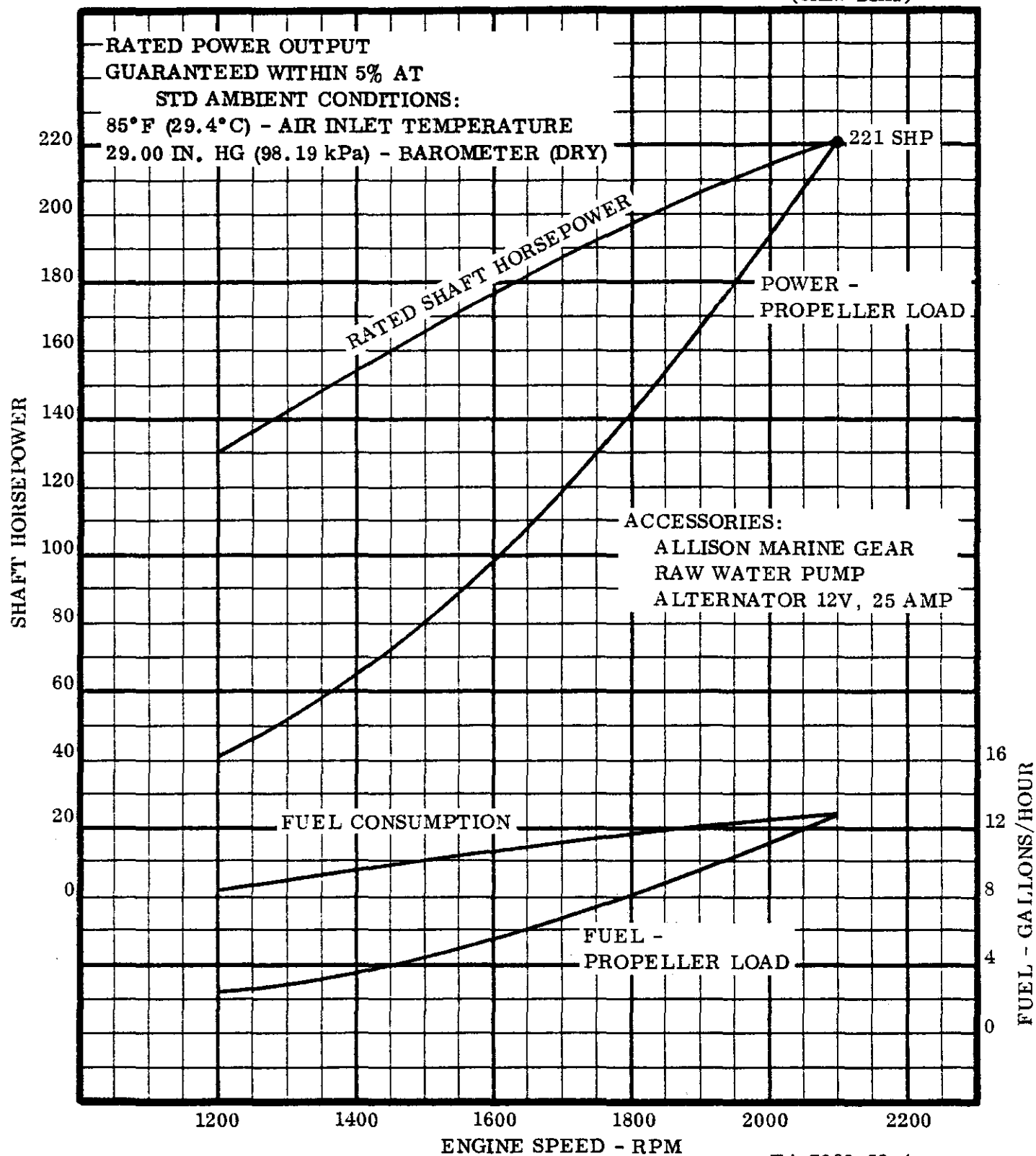




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 6V-71N
APPLICATION: MARINE
INJECTORS: N65 (1.484 TIMING)
CAM TIMING: ADVANCED
RATING: INTERMITTENT
(CREW BOAT)

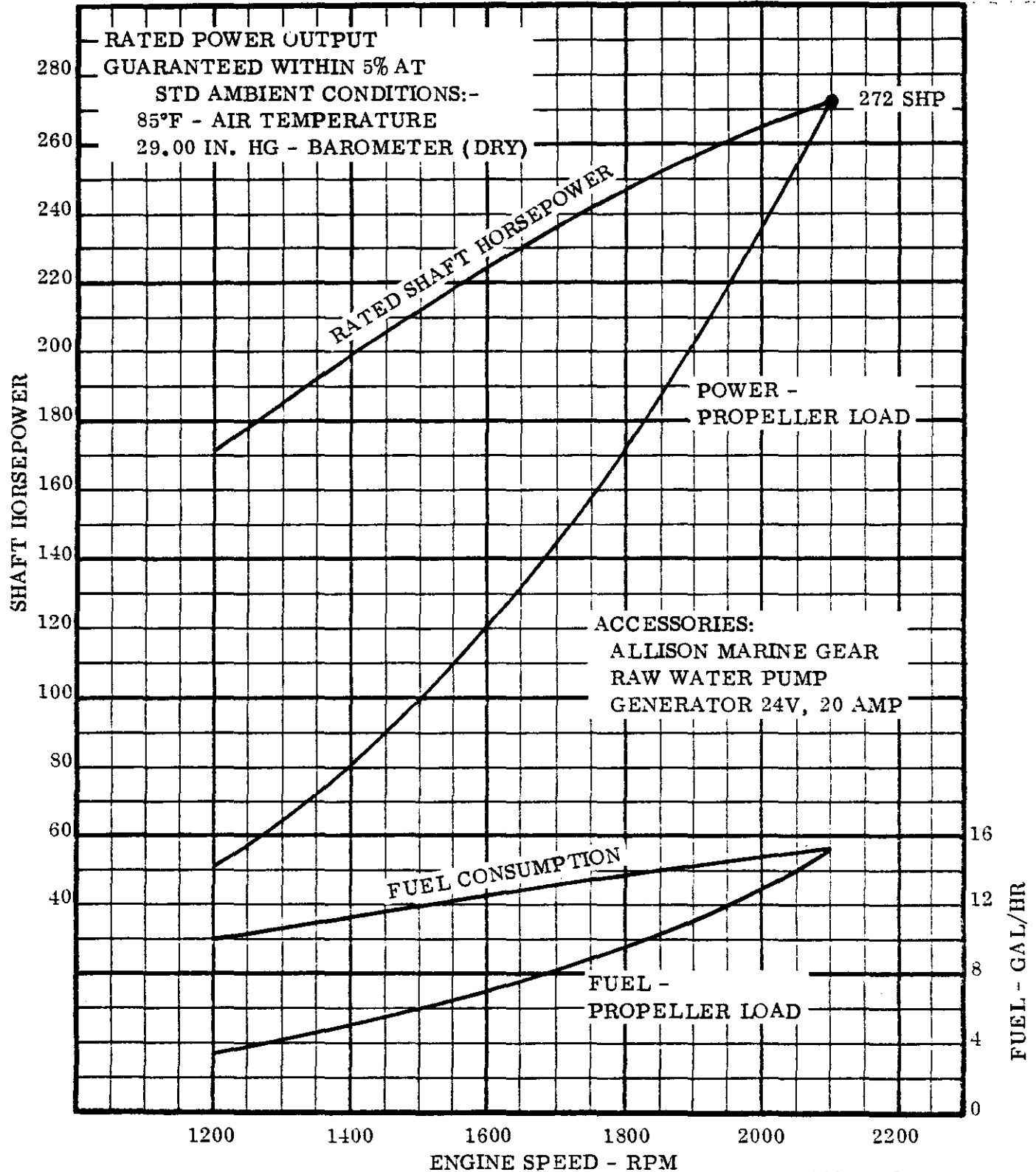




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 8V-71N
APPLICATION: MARINE
INJECTORS: N60 (1.460 TIMING)
RATING: INTERMITTENT
(CREW BOAT)

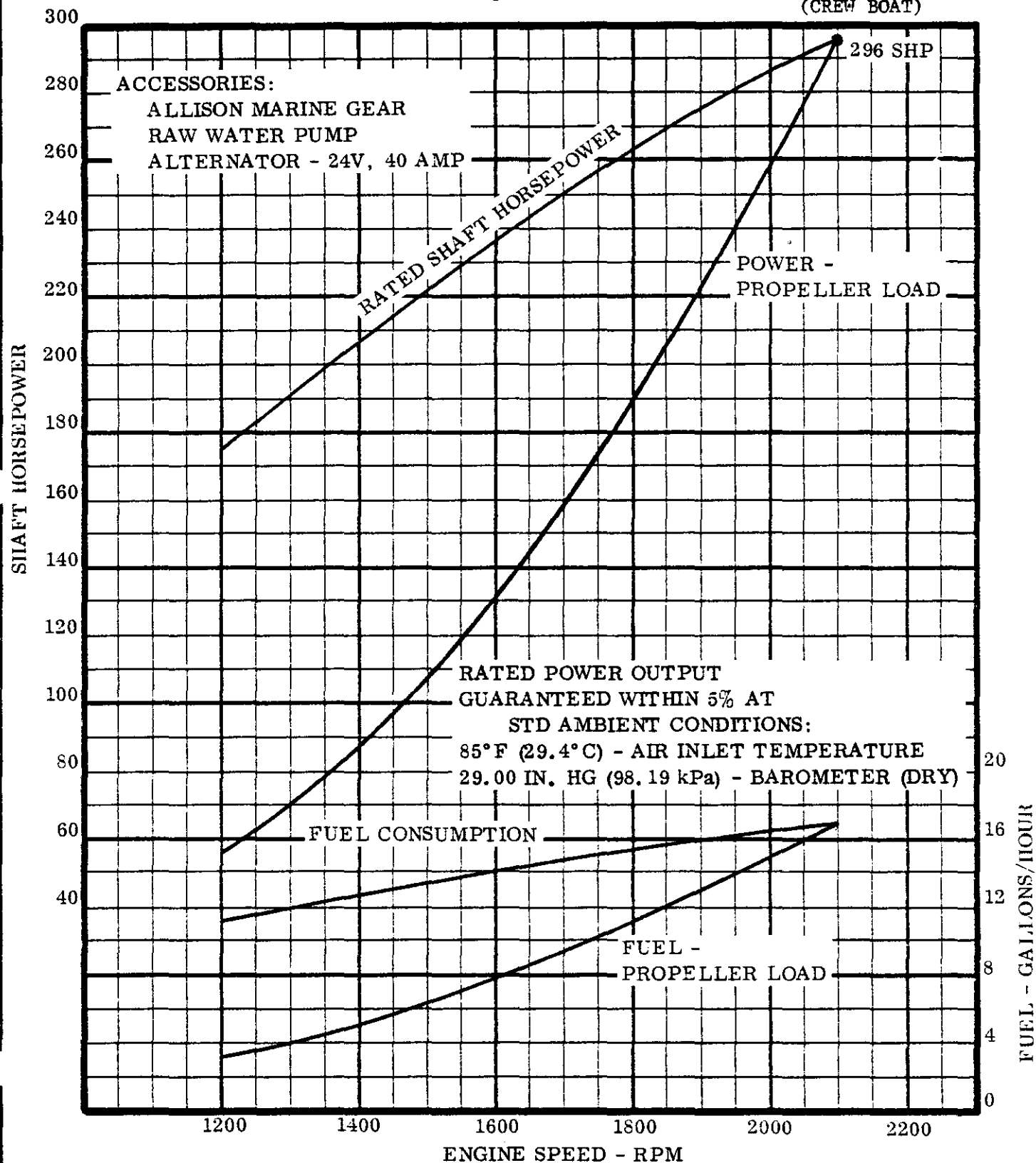




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 8V-71N
APPLICATION: MARINE
INJECTORS: N65 (1.484 TIMING)
CAM TIMING: ADVANCED
RATING: INTERMITTENT
(CREW BOAT)



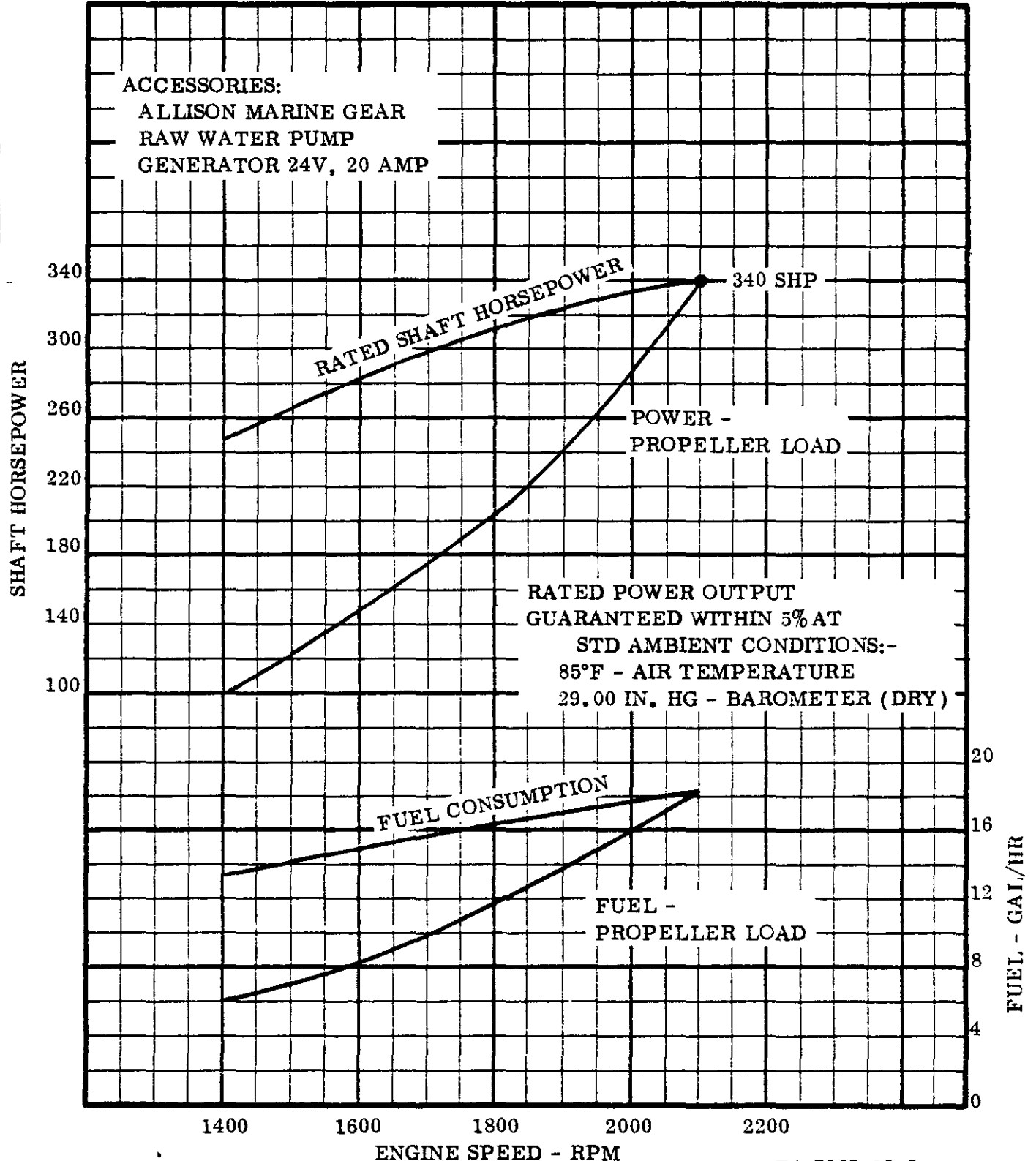


Detroit Diesel Allison

Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 8V-71TI
APPLICATION: MARINE
INJECTORS: N70 (1.460 TIMING)
TURBOCHARGER: TH08A (.96 A/R HSG.)
RATING: INTERMITTENT
(CREW BOAT)

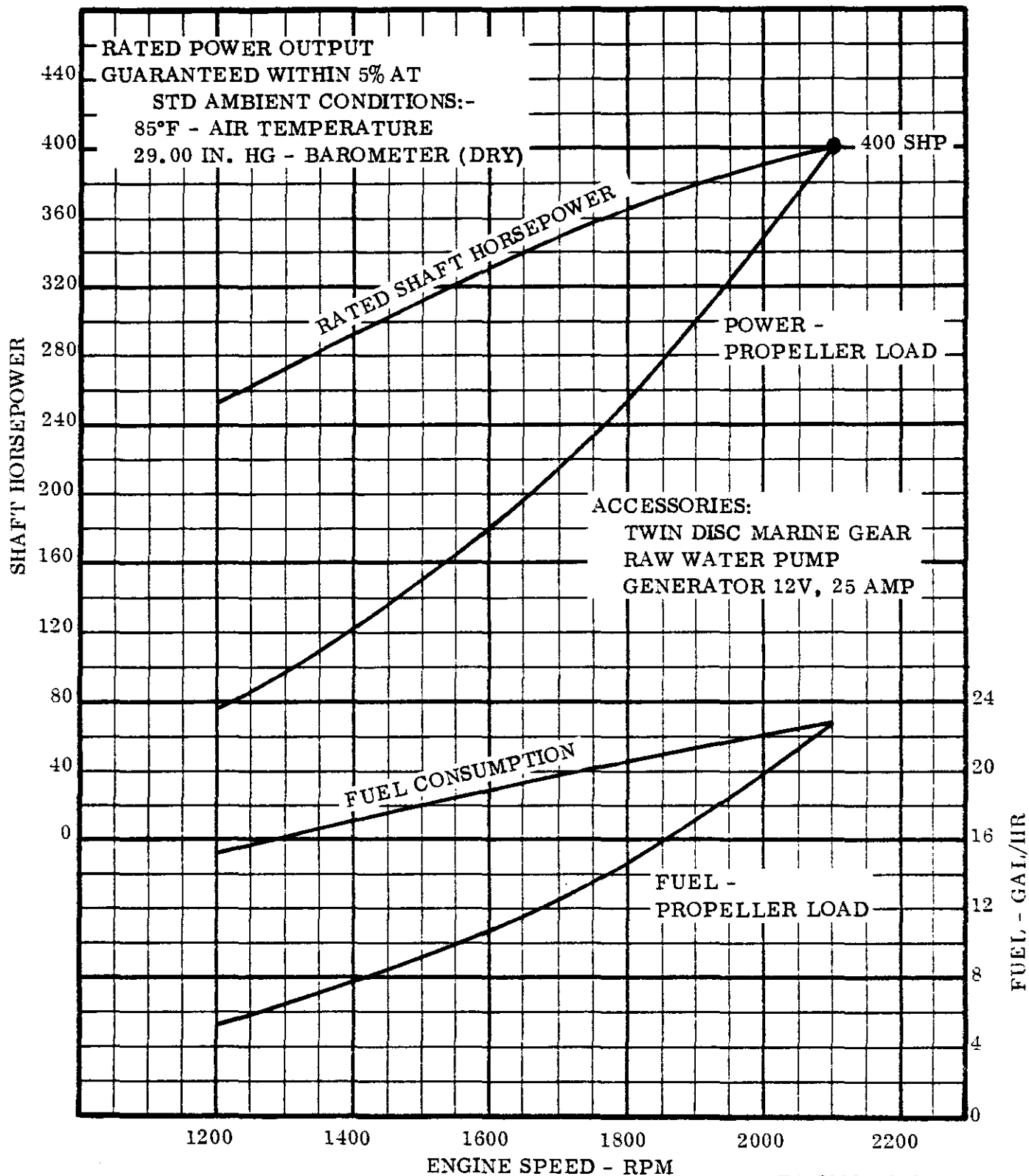




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 12V-71N
APPLICATION: MARINE
INJECTORS: N60 (1.460 TIMING)
RATING: INTERMITTENT
(CREW BOAT)

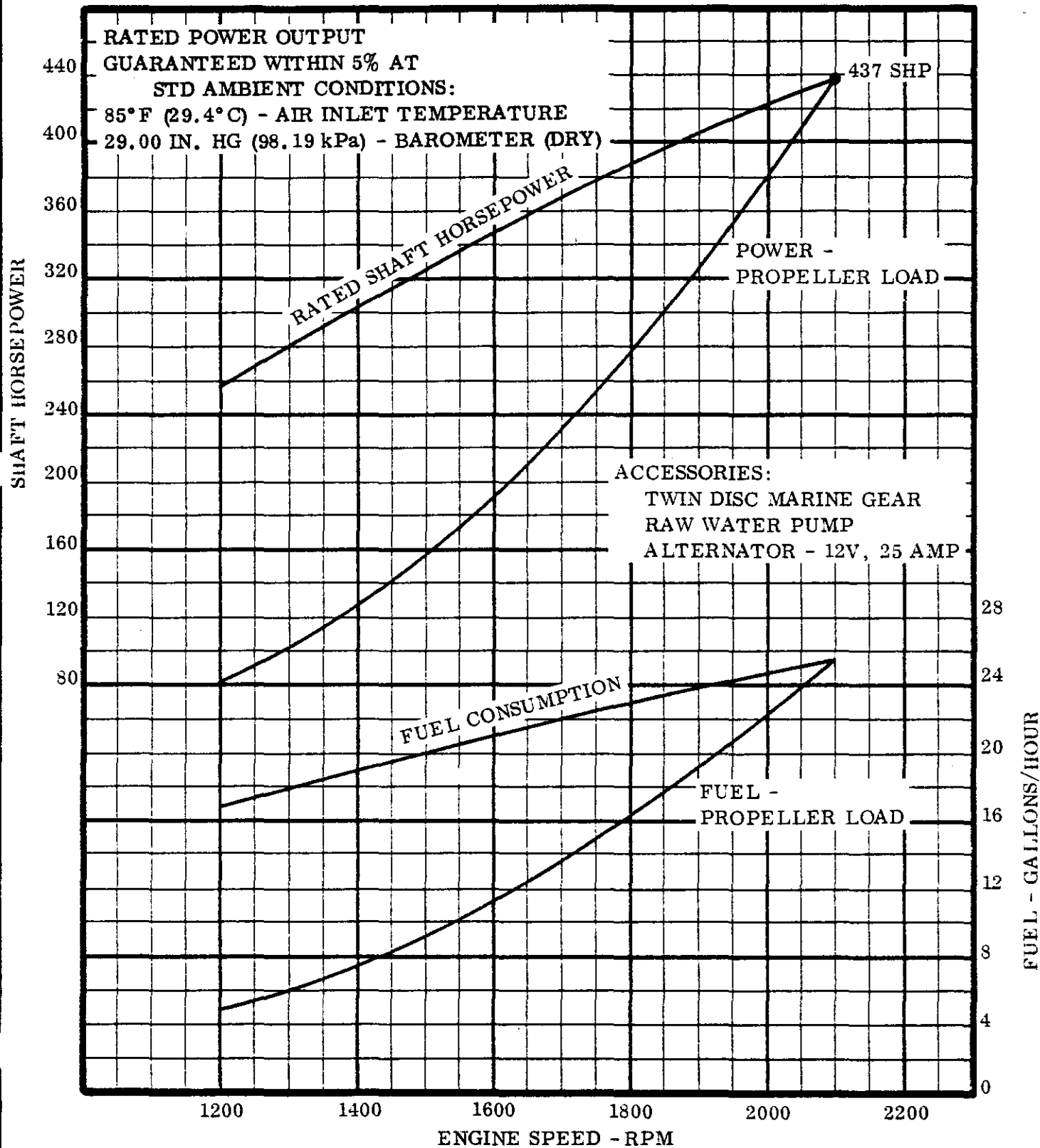




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 12V-71N
APPLICATION: MARINE
INJECTORS: N65 (1.484 TIMING)
CAM TIMING: ADVANCED
RATING: INTERMITTENT
(CREW BOAT)

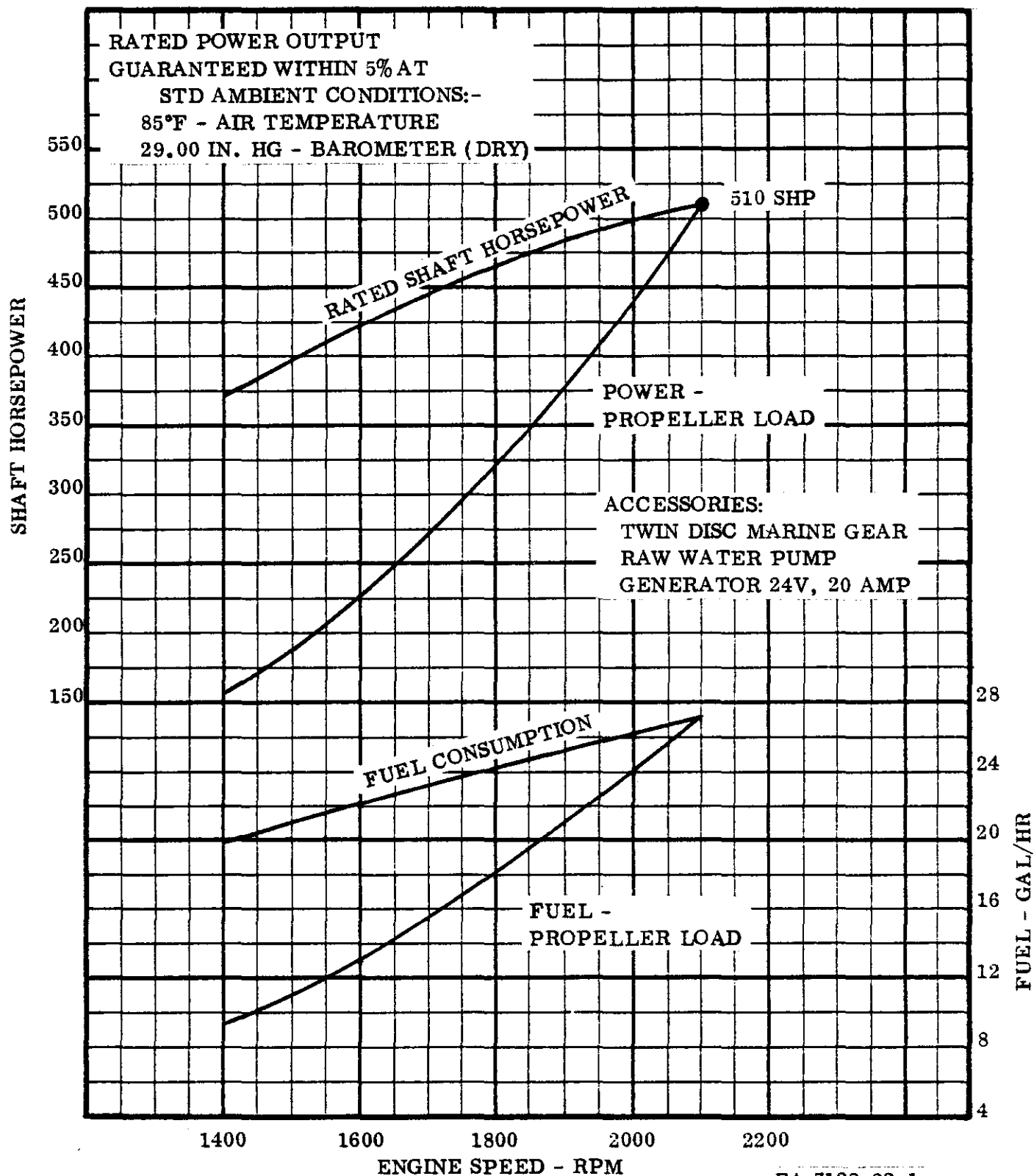




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 12V-71TI
APPLICATION: MARINE
INJECTORS: N70 (1.460 TIMING)
TURBOCHARGER: T18A40 (1.32 A/R HSG.)
RATING: INTERMITTENT
(CREW BOAT)

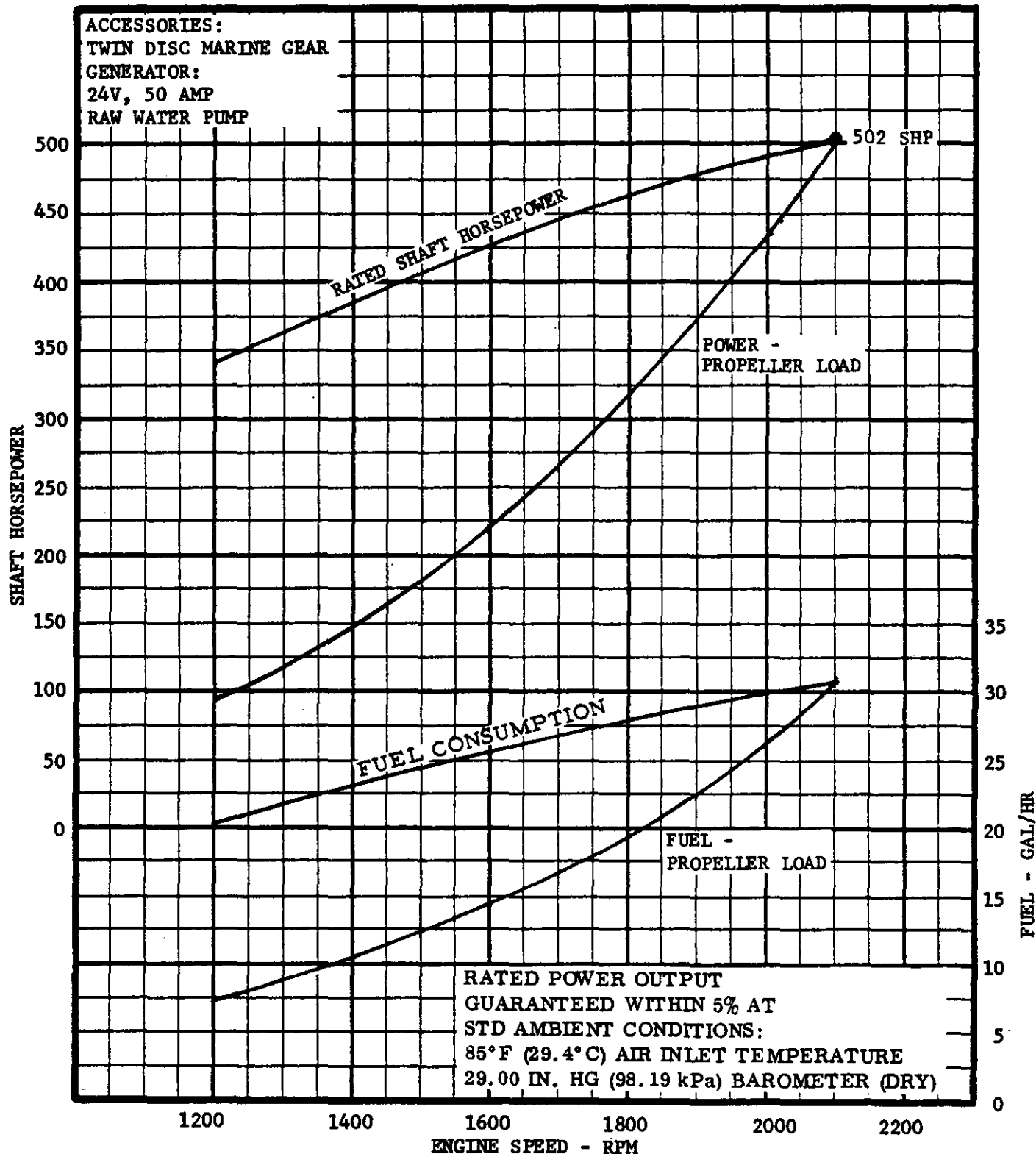




Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 16V-71N (2V)
APPLICATION: MARINE
INJECTOR: N60 (1.460 TIMING)
RATING: CREW BOAT



ENGINEERING-TECHNICAL DATA DEPT.

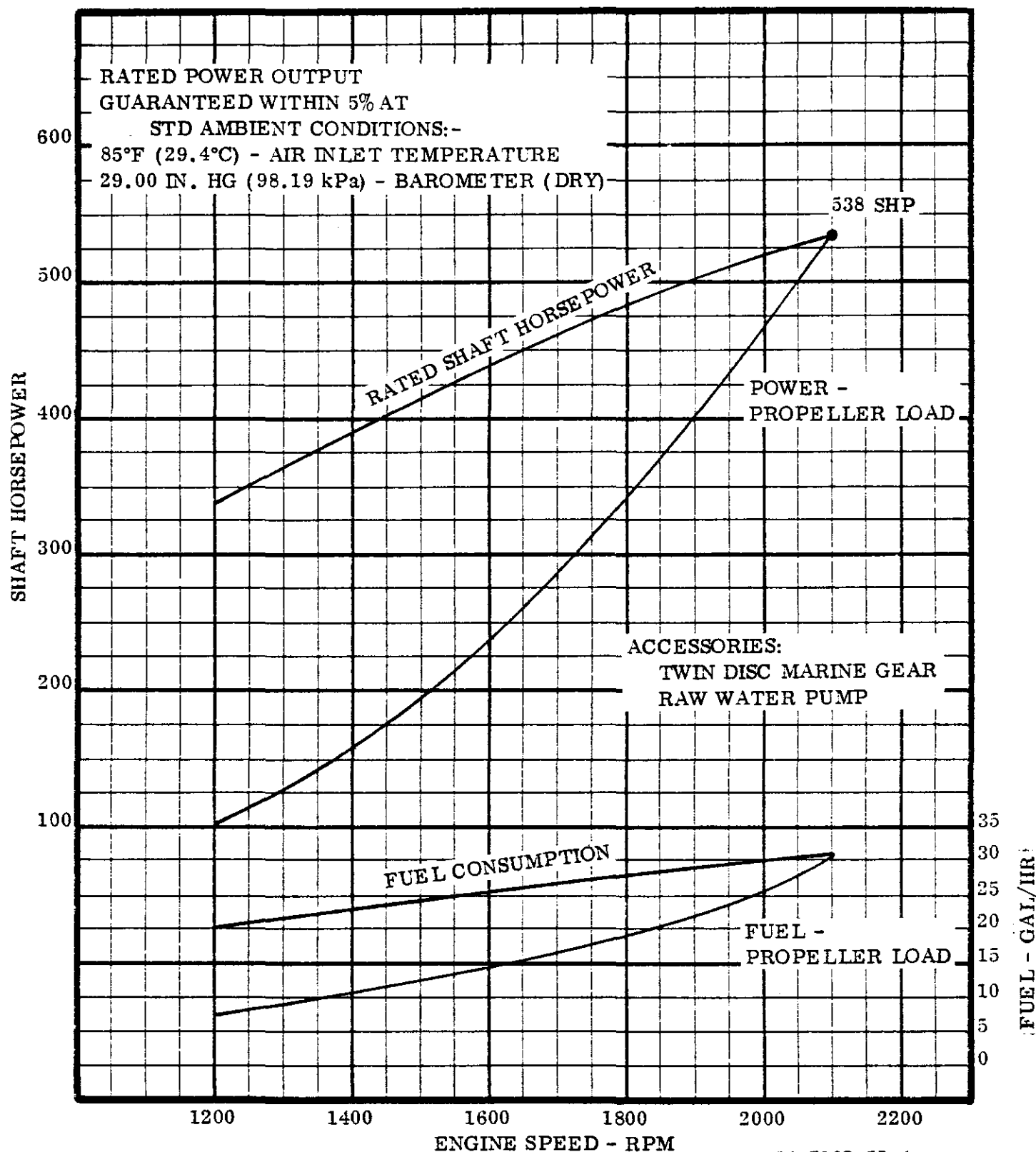
E4-7162-51-2
4-8-81



Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

MODEL: 16V-71N
APPLICATION: MARINE
INJECTORS: N60 (1.460 TIMING)
RATING: INTERMITTENT
(CREW BOAT)



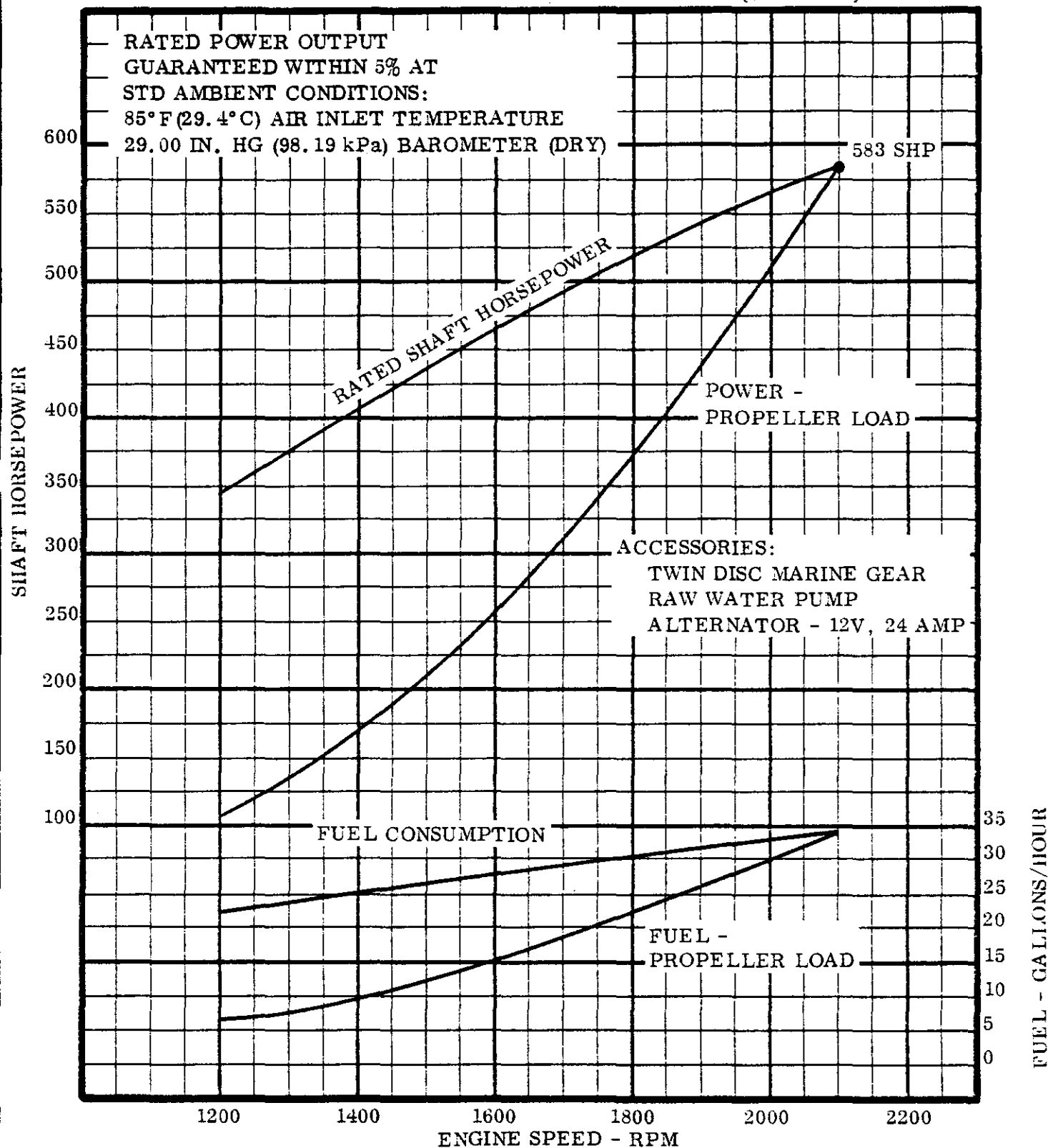
E4-7162-52-4
Rev. 1-5-82



Detroit Diesel Allison
Division of General Motors Corporation

NET ENGINE PERFORMANCE

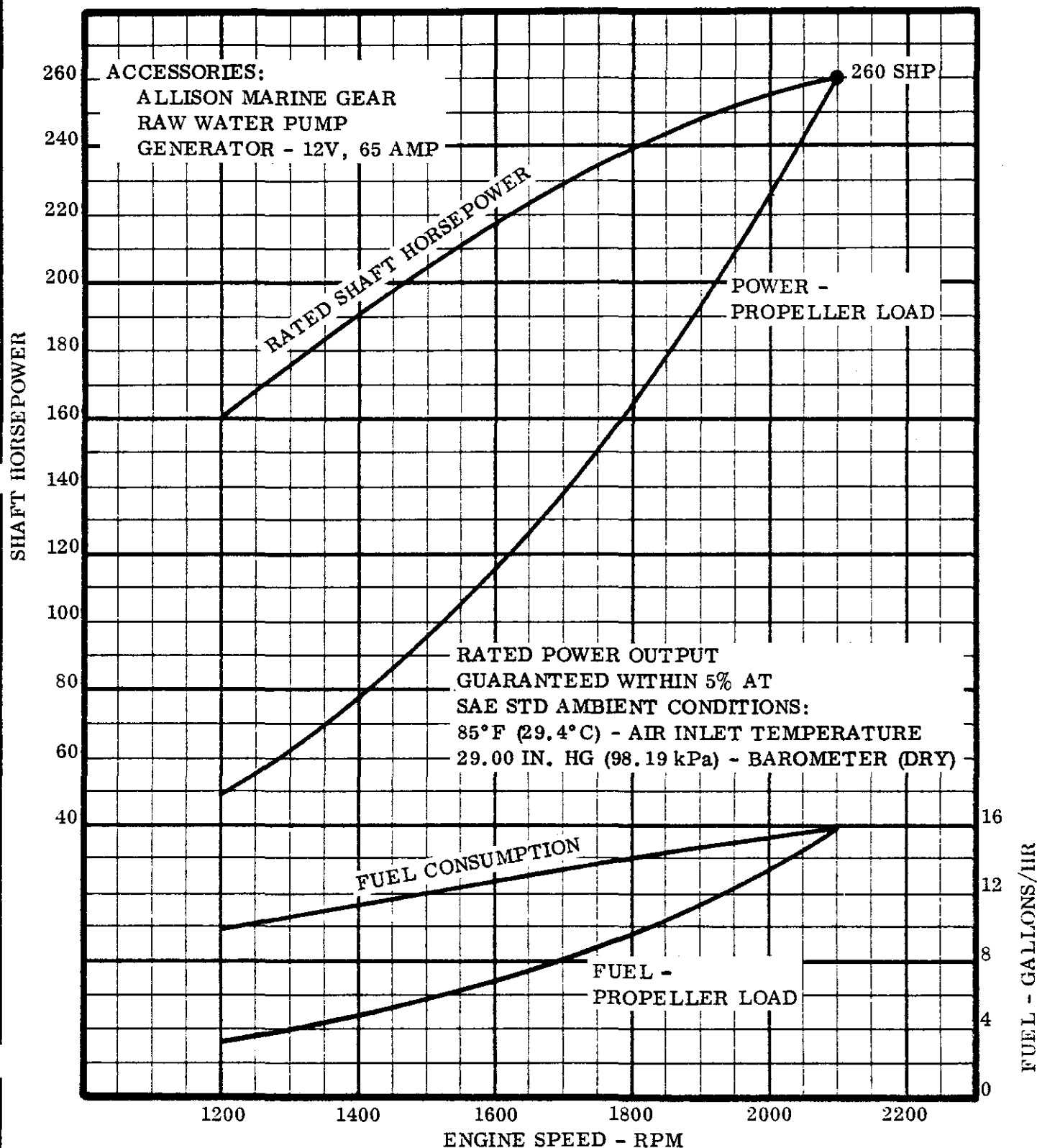
MODEL: 16V-71N
APPLICATION: MARINE
INJECTOR: C65 (1.484 TIMING)
CAMSHAFT: ADVANCED
RATING: INTERMITTENT
(CREW BOAT)





Detroit Diesel Allison
Division of General Motors Corporation

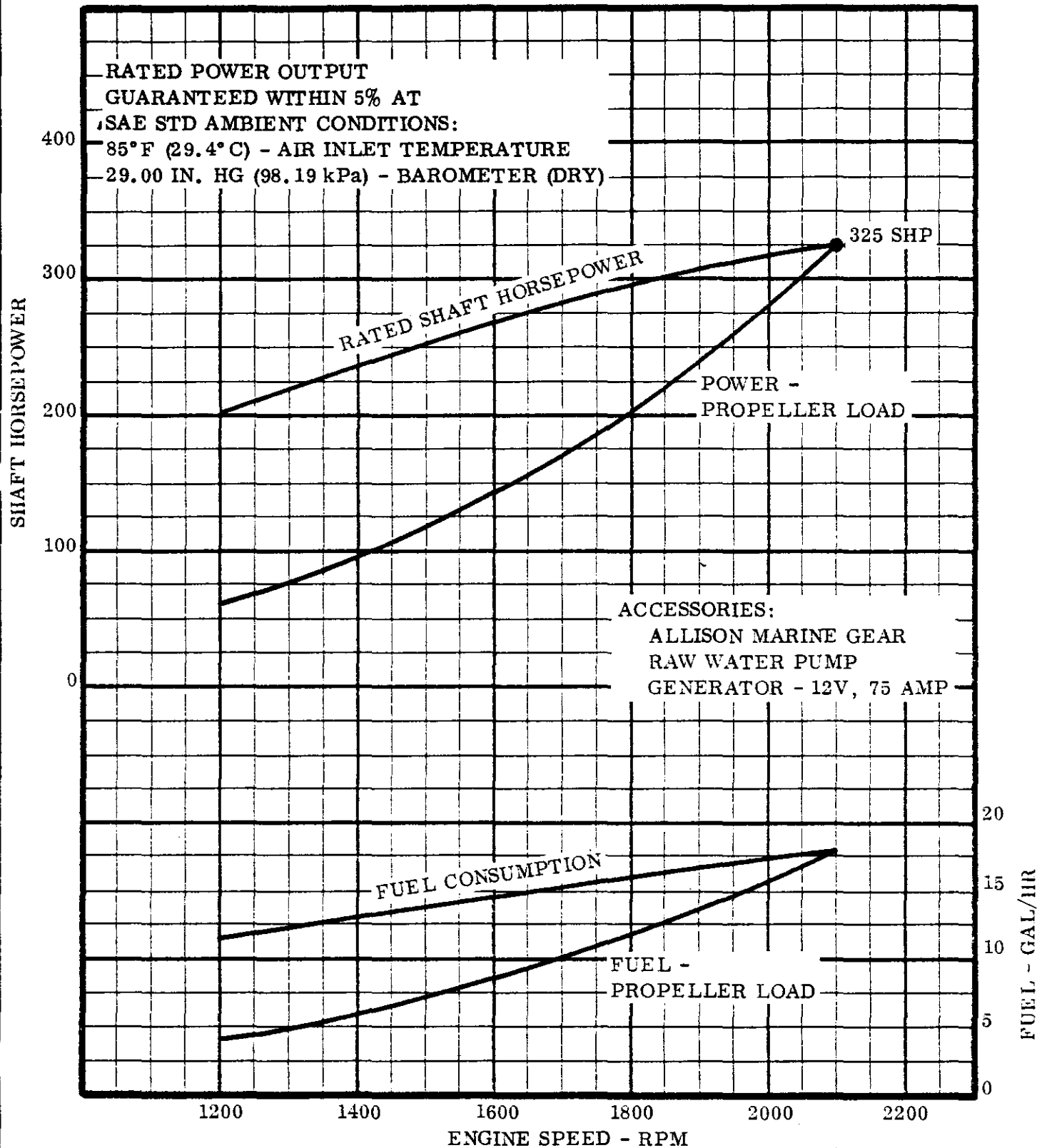
6V-92
MARINE INTERMITTENT RATING
9280 INJECTORS
(CREW BOAT)





Detroit Diesel Allison
Division of General Motors Corporation

6V-92TA
MARINE INTERMITTENT RATING
TO4B (.96 A/R) TURBOCHARGERS
9290 INJECTORS
(CREW BOAT)



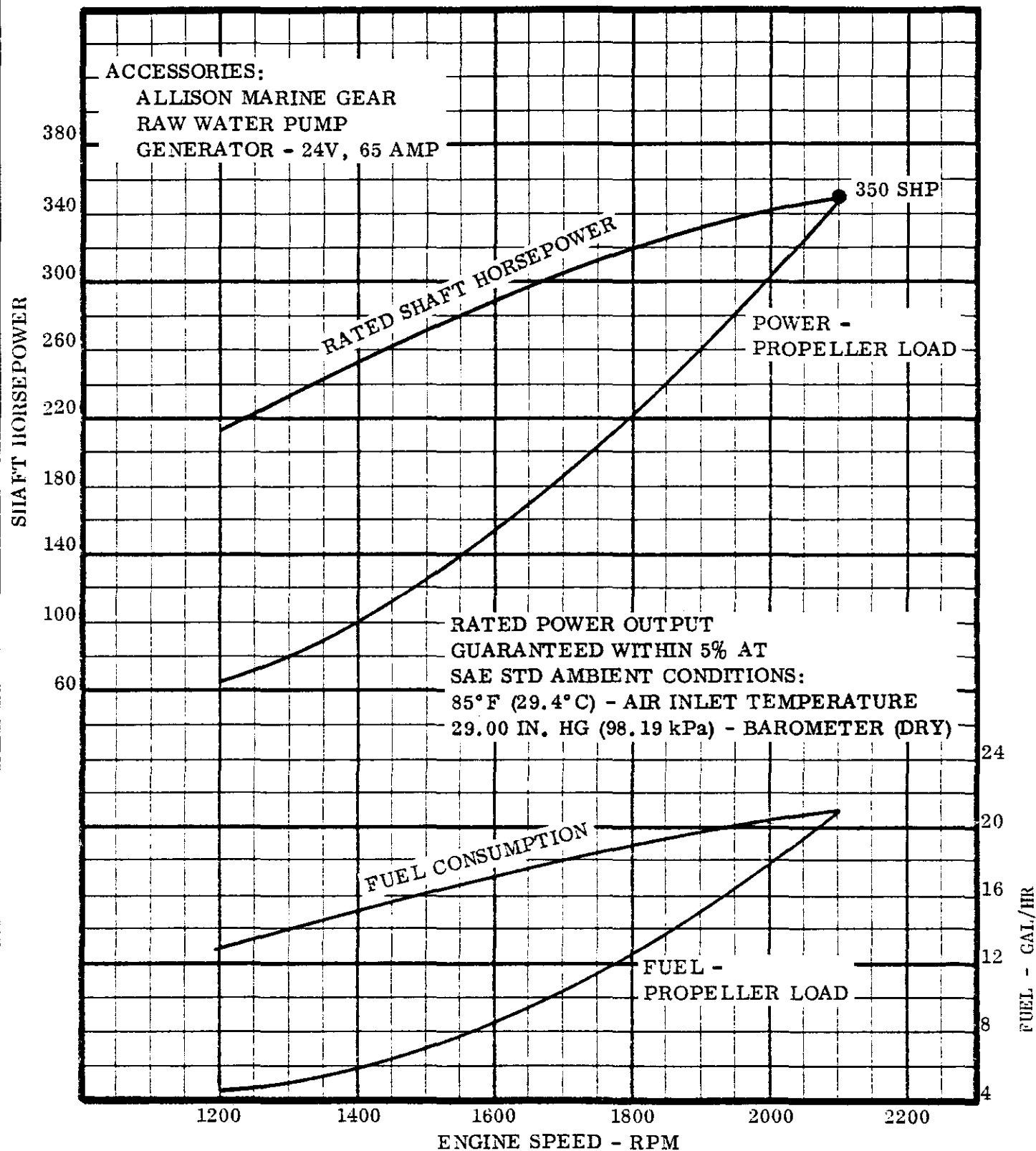
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E4-8062-32-1
Rev. 1-4-78



Detroit Diesel Allison
Division of General Motors Corporation

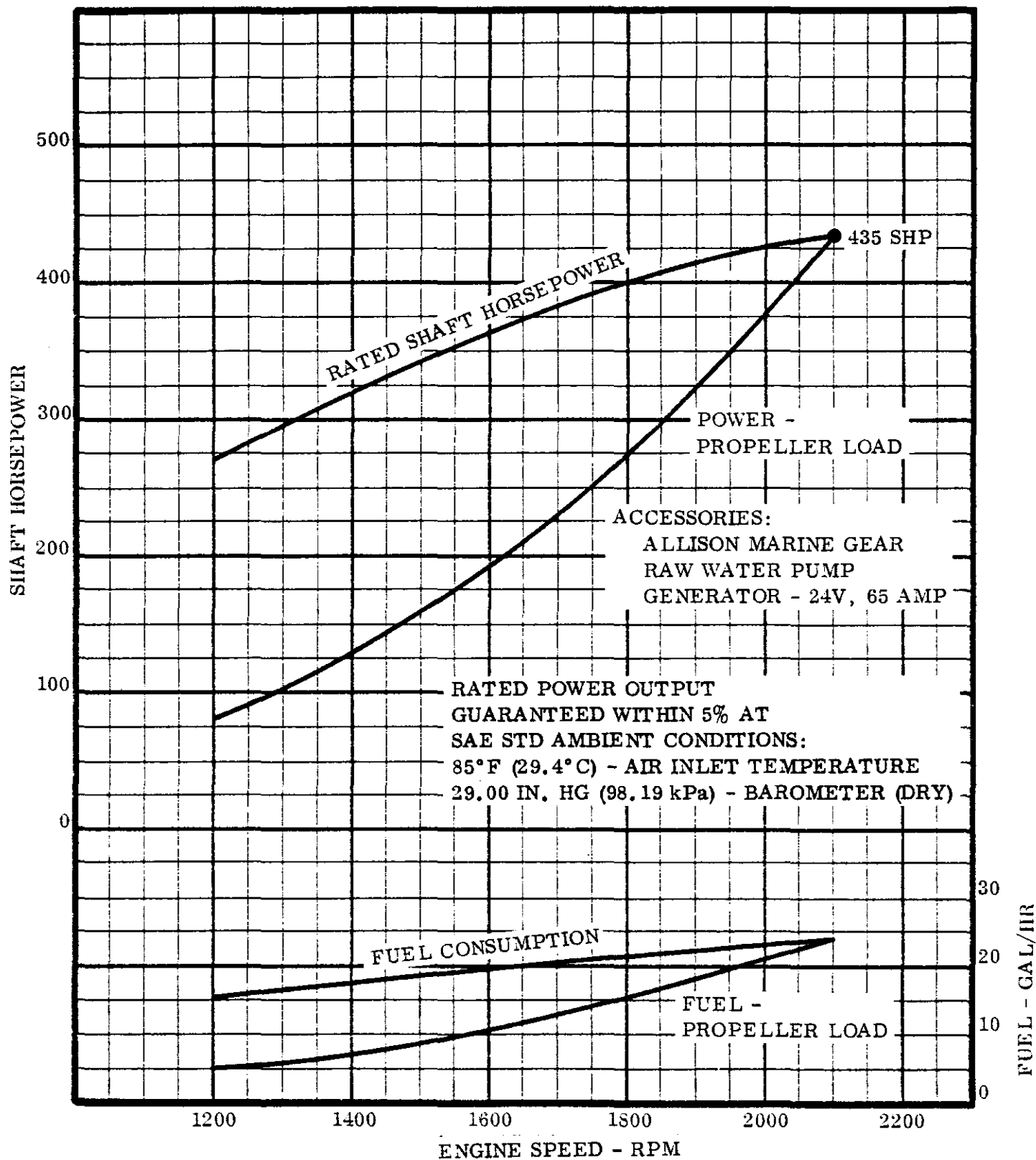
8V-92
MARINE INTERMITTENT RATING
9280 INJECTORS
(CREW BOAT)





Detroit Diesel Allison
Division of General Motors Corporation

8V-92TI
MARINE INTERMITTENT RATING
TH08A (.96 A/R) TURBOCHARGERS
9290 INJECTORS
(CREW BOAT)



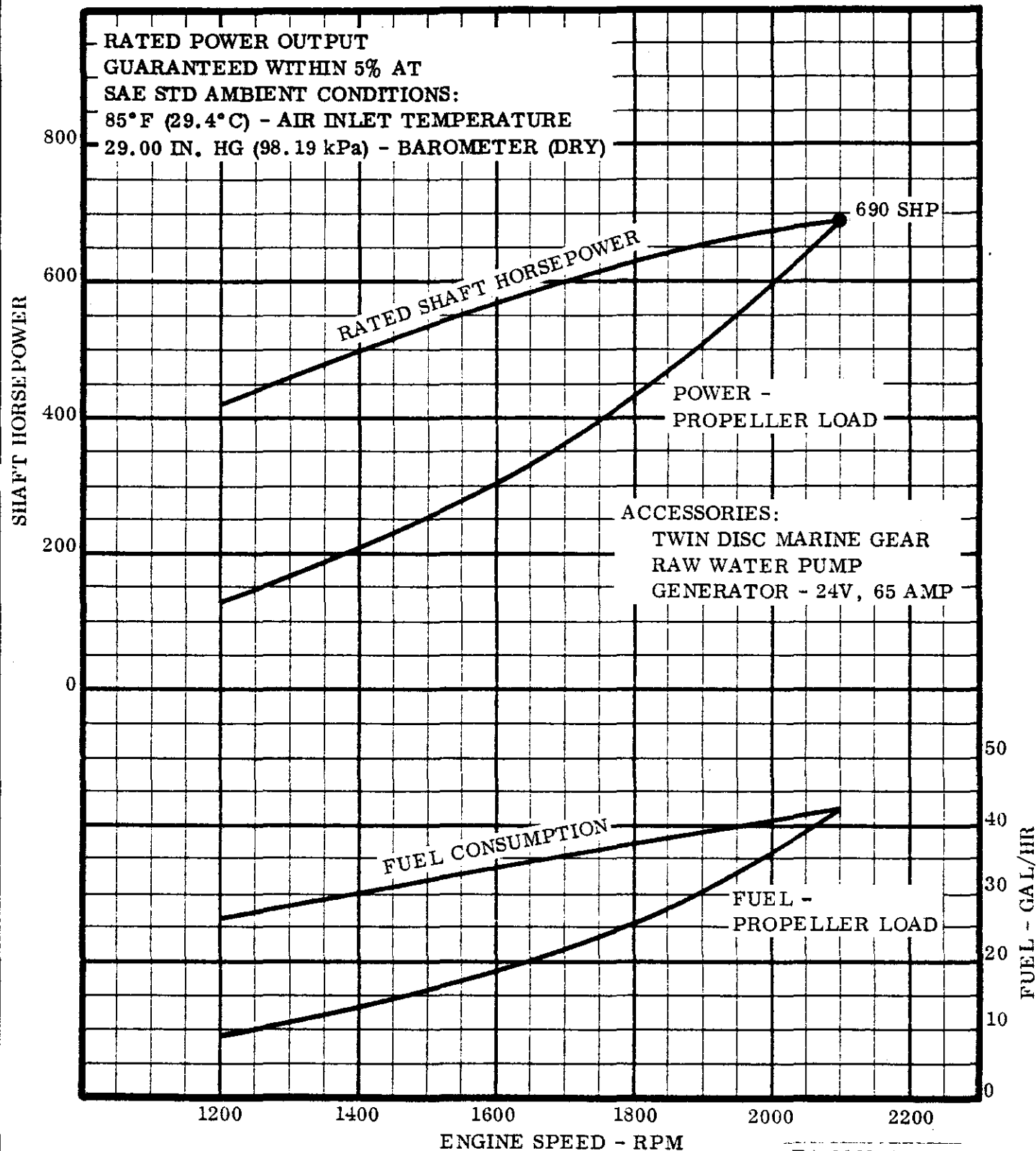
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E4-8082-32-3
1-6-77



Detroit Diesel Allison
Division of General Motors Corporation

16V-92
MARINE INTERMITTENT RATING
9280 INJECTORS
(CREW BOAT)



ENGINEERING-TECHNICAL DATA DEPT.

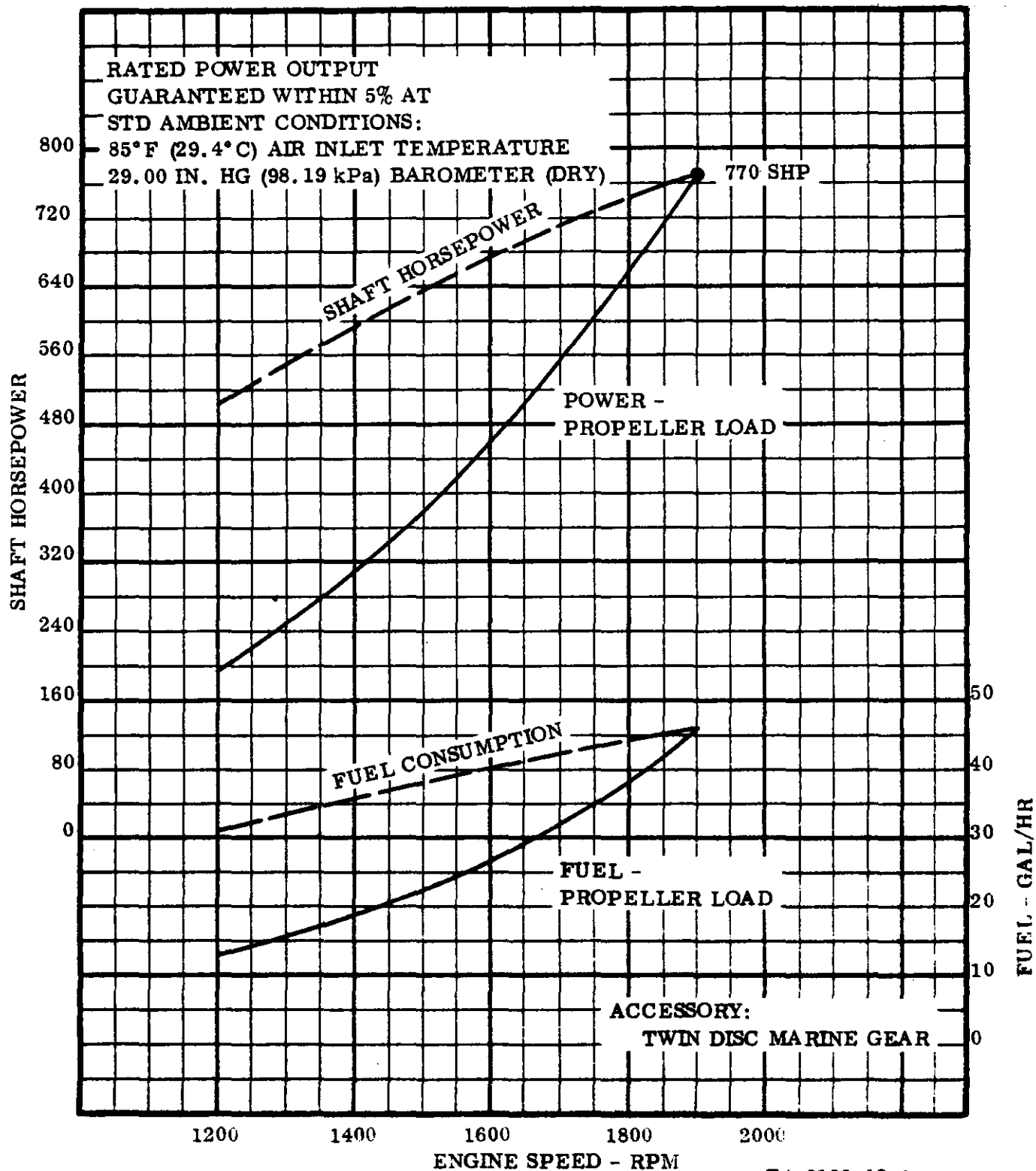
E4-8162-12-5

10-5-76



Detroit Diesel Allison
Division of General Motors Corporation

MODEL: 12V-149
APPLICATION: MARINE CREW BOAT
INJECTORS: 130
RATING: INTERMITTENT

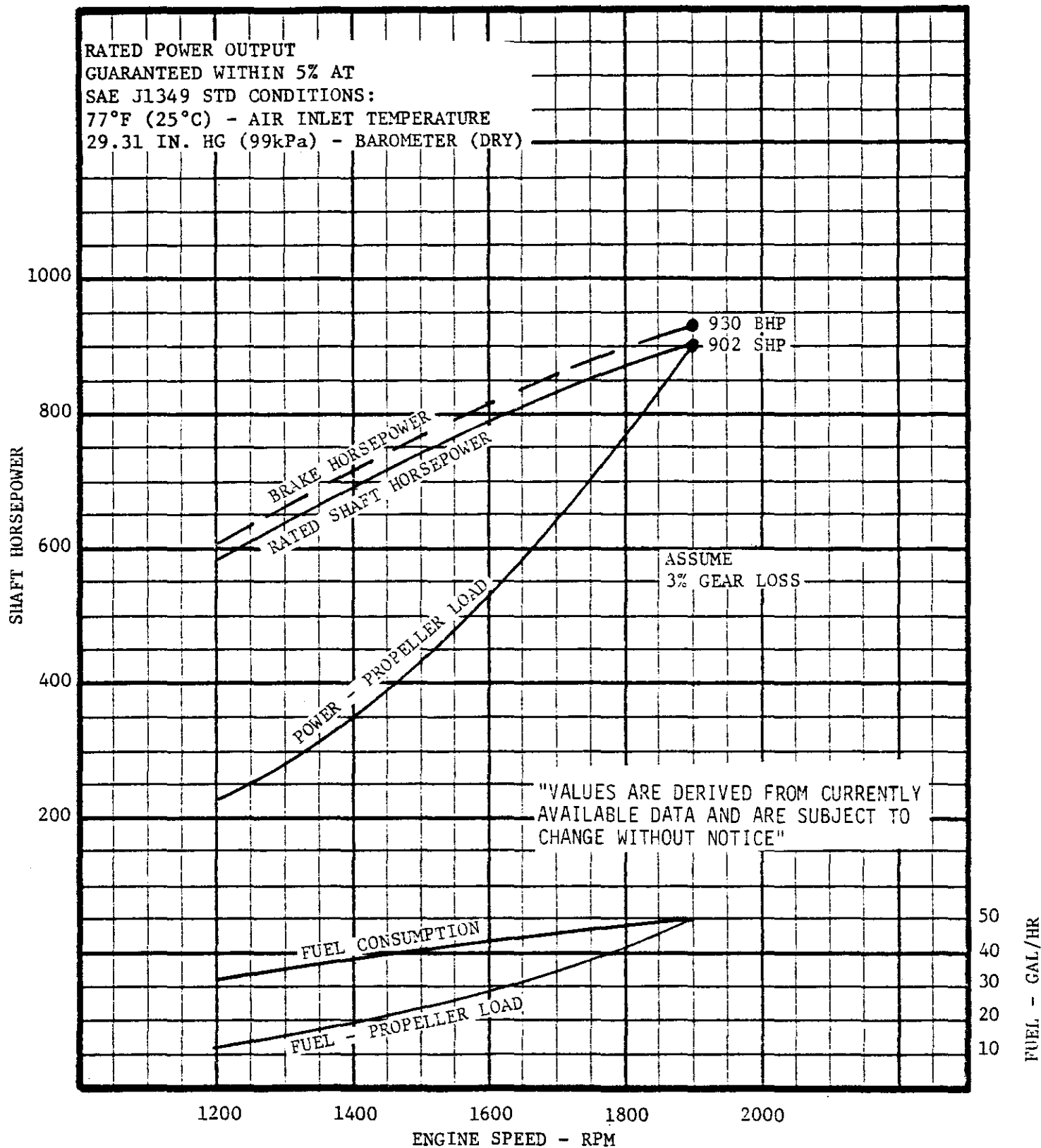




Detroit Diesel Allison
Division of General Motors Corporation

ENGINE PERFORMANCE

MODEL: 12V-149T
APPLICATION: MARINE INTERMITTENT
INJECTOR: 140 (2.205 TIMING)
TURBOCHARGER: TV7101 (1.39 A/R HSG)
RATING: NET POWER





ENGINE PERFORMANCE CURVE

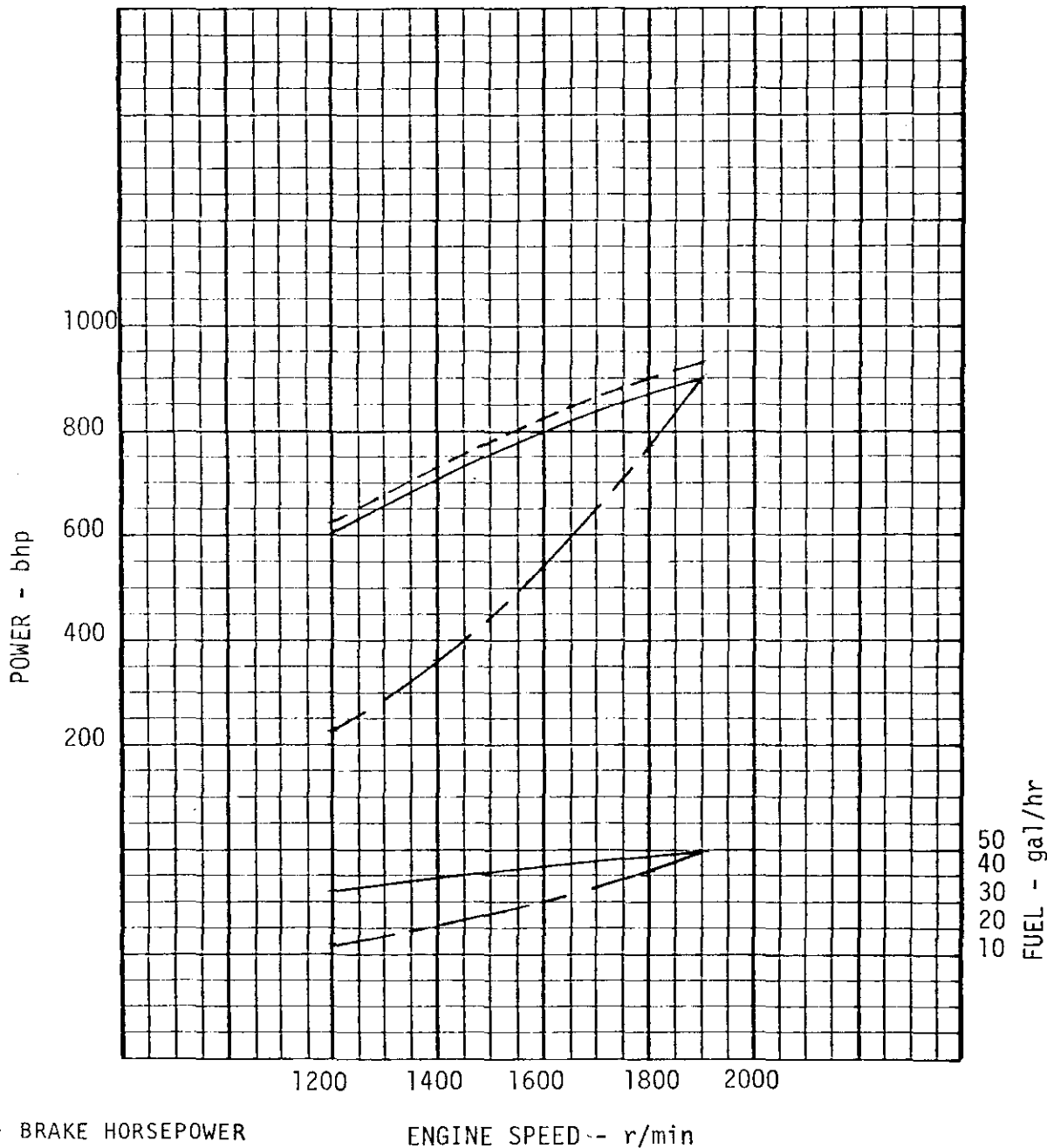
RATING: NET POWER

APPLICATION: MARINE - INTERMITTENT

MODEL: 12V-149T

930 bhp @ 1900 r/min

900 shp @ 1900 r/min



----- BRAKE HORSEPOWER
 ----- SHAFT HORSEPOWER
 PROPELLER LOAD

ENGINE SPEED -- r/min

ACCESSORIES - MARINE GEAR - 3% LOSS
 AIR INTAKE RESTRICTION - in. H₂O (kPa) 10 (2.5)
 EXHAUST BACK PRESSURE - in. H₂O (kPa) 15 (3.7)

- POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
 77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BARGHETER;
 100°F (39°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: kW = bhp x 0.746
 FUEL: kg/kW-hr = lb/bhp-hr x 0.608
 TORQUE: N-m = lb-ft x 1.356
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

J. L. L. 3/16/85

STAFF ENGINEER

CURVE NO.

E4-9122-32-19

DATE: 7-17-84

REV./DATE: 1/1-25-85

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model

Number of cylinders

Bore and stroke - in (mm)

Displacement - in³ (litre)

Compression ratio

Firing order

Clockwise rotation (RH)

Counter clockwise rotation (LH)

Marine gear type

Marine gear reduction ratios

Marine gear lube oil capacity approx.

(Does not include heat exchanger & connections used externally) - pts (litre)

(Marine gear must use straight viscosity oil)

Electrical system

Recommended battery capacity (CCA @ 0°F (-18°C))

24 Volt system above 32°F (0°C)

Dimensions & weight

Length - in (mm)

Width - in (mm)

Height - in (mm)

Weight, dry - lbs (kg)

Maximum installation angle

NEW AIR INDUCTION WITH
BLOWER PRESSURE RELIEF VALVE

9122-7300

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

1L-5R-1R-6L-2L-6R-2R-4L-3L-4R-3R-5L

NOT DETERMINED

NOT DETERMINED

NOT DETERMINED

24 VOLTS

950

93 (2362)

62 (1575)

67.5 (1715)

10090 (4577)

15°

Technical Engine Specification

Injector (timing)

Turbocharger

Engine speed - r/min

Brake horsepower - bhp (kW)

77°F, 29.31 in Hg (Dry) Bar., J-1349

Shaft horsepower - shp (kW)

BMEP - lb/in² (kPa)

Peak torque - lb ft (N m) @ r/min

Fuel consumption - lb/hr (kg/hr)

Fuel consumption - gal/hr (litre/hr)

Specific fuel cons. - lb/bhp hr (g/kW hr)

Air consumption - ft³/min (m³/min)

Suggested minimum engine room vent area - in² (cm²)

Maximum engine room depression 0.2 in. H₂O

Maximum allowable temperature rise

(Outside air to engine inlet) - °F (°C)

140 (2,205)

TV7111 (1.08 A/R)

1900

930 (694)

900 (671)

108 (743)

2750 (3729) @ 1400

341.2 (154.8)

49.0 (185.5)

.367 (223)

2900 (83)

278 (1795)

30 (17)

Curve No. E4-9122-32-19

Date: 7-17-84

Rev./Date: 1/1-25-85

Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger or Keel Cooler

Fresh water capacity - gal (litre)	37 (140.1)
Heat rejection to coolant - Btu/min (kW)	28370 (499)
Fresh water flow - gal/min (litre/min)	380 (1438)
Raw water flow - gal/min (litre/min)	172 (651)
Maximum inlet restriction at raw water pump - in Hg (kPa)	5 (16.93)
Maximum raw water pump pressure - lb/in ² (kPa)	10 (68.95)
Suggested raw water pipe size - in (mm)	2.5 (63.5)
Suggested sea strainer size - simplex - in (mm)	3 (76)
- duplex - in (mm)	4 (102)
Max. press. drop thru keel cooler - lb/in ² (kPa)	6 (41)
Maximum water out temperature - °F (°C)	200 (93)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	370 (1400)
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	6 (20.32)
Supply line dia. - in (mm)	1 (25.4) min.

Exhaust System

Gas flow - lb/min (kg/min)	215.1 (97.6)
Exhaust temperature - °F (°C)	705 (374)
Maximum exhaust back pressure at turbocharger outlet (full load) - in Hg (kPa)	2.5 (8.47)

Lubrication System

Engine lube oil capacity - qts (litre)	136 (128.7)
Lubrication oil press., normal - lb/in ² (kPa)	48-70 (331-483)
Lubrication oil temp., in-pan - °F (°C)	230 (110) max.



ENGINE PERFORMANCE CURVE

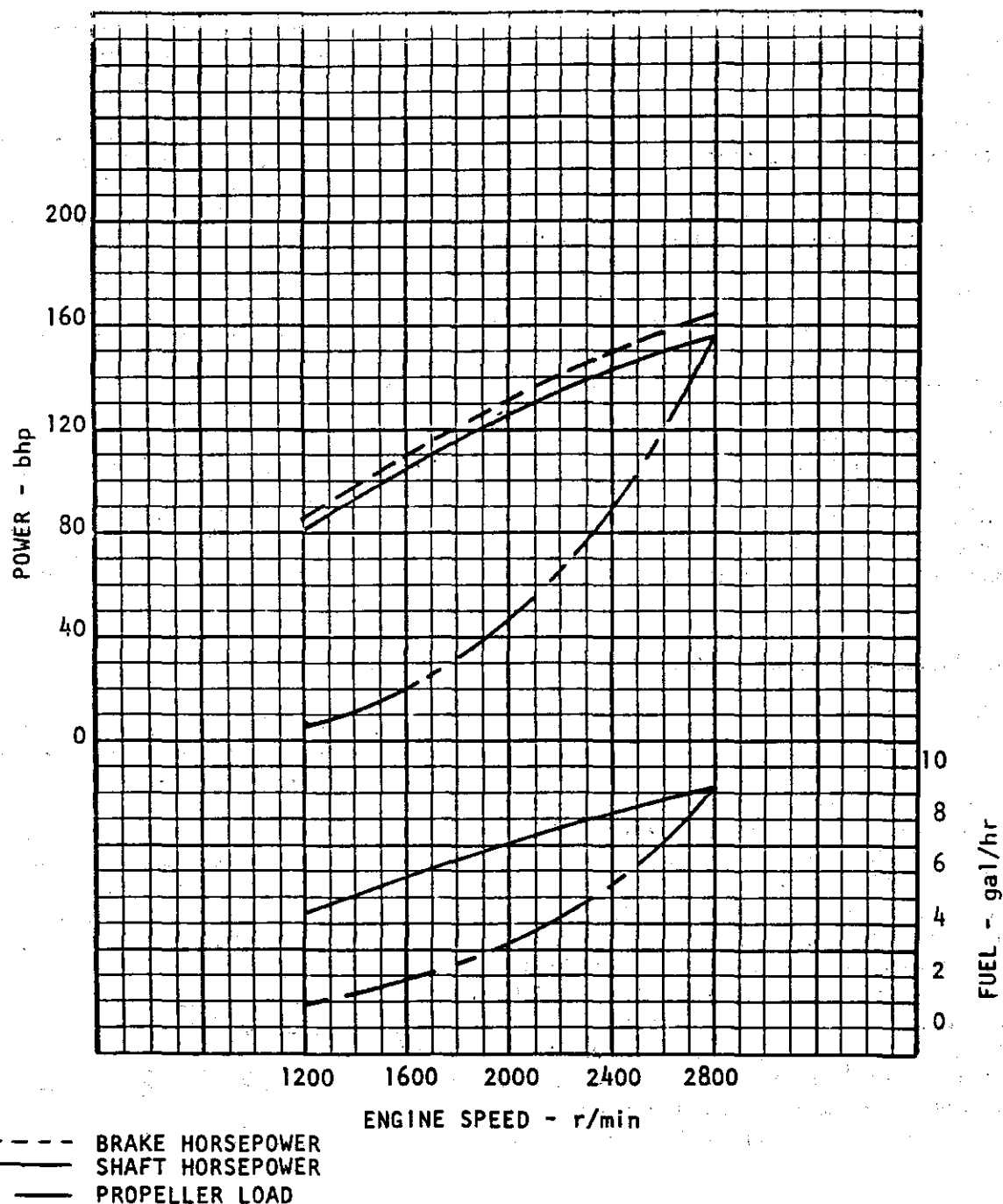
RATING: NET POWER - SEE BELOW

APPLICATION: MARINE - INTERMITTENT

MODEL: V8-8.2

165 bhp @ 2800 r/min

157 shp @ 2800 r/min



ACCESSORIES: TWIN DISC MG 502 MARINE GEAR
BATTERY CHARGING ALTERNATOR 12V, 42AMP
RAW WATER PUMP, EXHAUST BACK PRESSURE, 15 IN. H₂O, INLET RESTRICTION, 10 IN. H₂O

- POWER OUTPUT AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BAROMETER;
100°F (39°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: kW = bhp x 0.746
FUEL: kg/kW-hr = lb/bhp-hr x 0.608
TORQUE: N-m = lb-ft x 1.356
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

STAFF ENGINEER

CURVE NO.

E4-4082-11-3

DATE: 9-27-84

REV./DATE: 1/11-13-84

SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	4082-8100
Number of cylinders	2
Bore and stroke - in (mm)	4.25 X 4.41 (108 X 112)
Displacement - in ³ (litre)	500.9 (8.2)
Compression ratio	18.7:1
Firing order	
Clockwise rotation (RH)	1-8-4-3-6-5-7-2
Counter clockwise rotation (LH)	NOT APPLICABLE
Marine gear type	TWIN DISC MG-502
Marine gear reduction ratios	1.54:1, 2.00:1
Marine gear lube oil capacity approx. (Does not include heat exchanger & connections used externally) - pts (litre) (Marine gear must use straight viscosity oil)	3.5 (1.66)
Electrical system	12 VOLTS
Recommended battery capacity (CCA @ 0°F (-18°C)) 12 Volt system above 32°F (0°C)	900
Dimensions & weight	
Length - in (mm)	54.5 (1384)
Width - in (mm)	31.0 (787)
Height - in (mm)	30.4 (772)
Weight, dry - lbs (kg)	1560 (708)
Maximum installation angle	7° ENGINE - 17° PROPELLER SHAFT

Technical Engine Specification

Injector (timing)	4A53 (43.80mm)
Turbocharger	NOT APPLICABLE
Engine speed - r/min	2800
Brake horsepower - bhp (kW) 77°F, 29.31 in Hg (Dry) Bar., J-1349	165 (123)
Shaft horsepower - shp (kW)	157 (117)
BMEP - lb/in ² (kPa)	93 (641)
Peak torque - lb ft (N m) @ r/min	372 (504) @ 1200
Fuel consumption - lb/hr (kg/hr)	65.2 (29.6)
Fuel consumption - gal/hr (litre/hr)	9.3 (35.2)
Specific fuel cons. = lb/bhp hr (g/kW hr)	.395 (240)
Air consumption - ft ³ /min (m ³ /min)	330 (9.3)
Suggested minimum engine room vent area - in ² (cm ²)	
Maximum engine room depression 0.2 in. H ₂ O	31.7 (205)
Maximum allowable temperature rise (Outside air to engine inlet) - °F (°C)	30 (16.7)

Curve No. E4-4082-11-3
Date: 9-27-84
Rev./Date: 1/11-13-84
Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger or Keel Cooler

Fresh water capacity - gal (litre)	8 (30.3)
Heat rejection to coolant - Btu/min (kW)	4550 (82)
Fresh water flow - gal/min (litre/min)	68 (257)
Raw water flow - gal/min (litre/min)	29 (110)
Maximum inlet restriction at raw water pump - In Hg (kPa)	5 (16.9)
Maximum raw water pump pressure - lb/in ² (kPa)	10 (69)
Suggested raw water pipe size - in (mm)	1.5 (38.1)
Suggested sea strainer size - simplex - in (mm) - duplex - in (mm)	1.5 (38.1) NOT APPLICABLE
Max. press. drop thru keel cooler - lb/in ² (kPa)	200 (93)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	79.4 (300)
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	6 (20)
Supply line dia. - in (mm)	0.5 (12.7)

Exhaust System

Gas flow - lb/min (kg/min)	24.9 (11.3)
Exhaust temperature - °F (°C)	1080 (580)
Maximum exhaust back pressure at turbocharger outlet (full load) - in Hg (kPa)	NOT APPLICABLE

Lubrication System

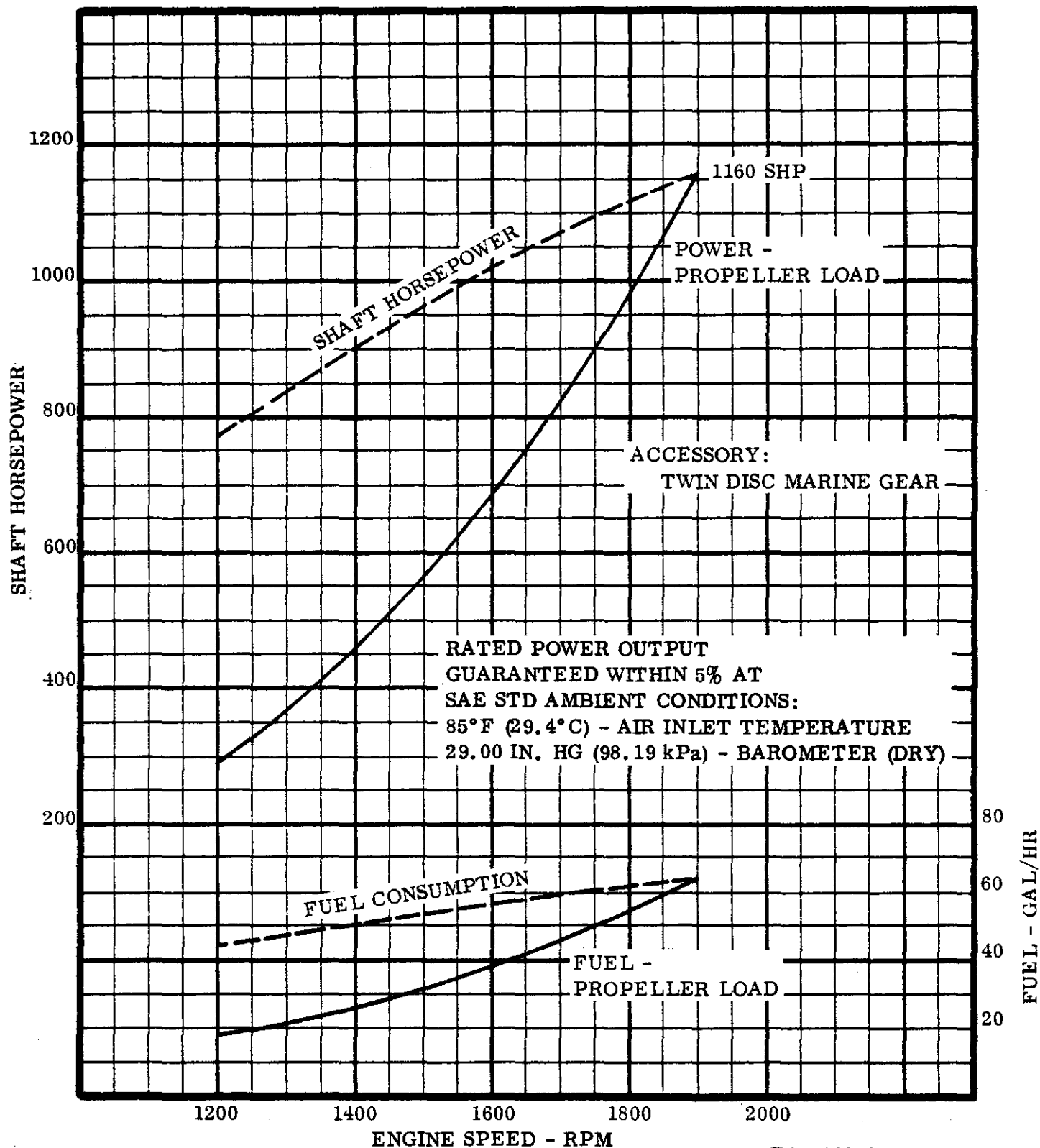
Engine lube oil capacity - qts (litre)	11 (10.4)
Lubrication oil press., normal - lb/in ² (kPa)	35-55 (241-379)
Lubrication oil temp., in-pan - °F (°C)	200-250 (93-121)

Curve No. E4-4082-11-3
Date: 9-27-84
Rev./Date: 1/11-13-84
Sht. 3 of 3



Detroit Diesel Allison
Division of General Motors Corporation

SERIES V-149
MODEL 16V-149T
MARINE INTERMITTENT RATING
140 INJECTORS
(CREW BOAT)



ENGINEERING-TECHNICAL DATA DEPT.

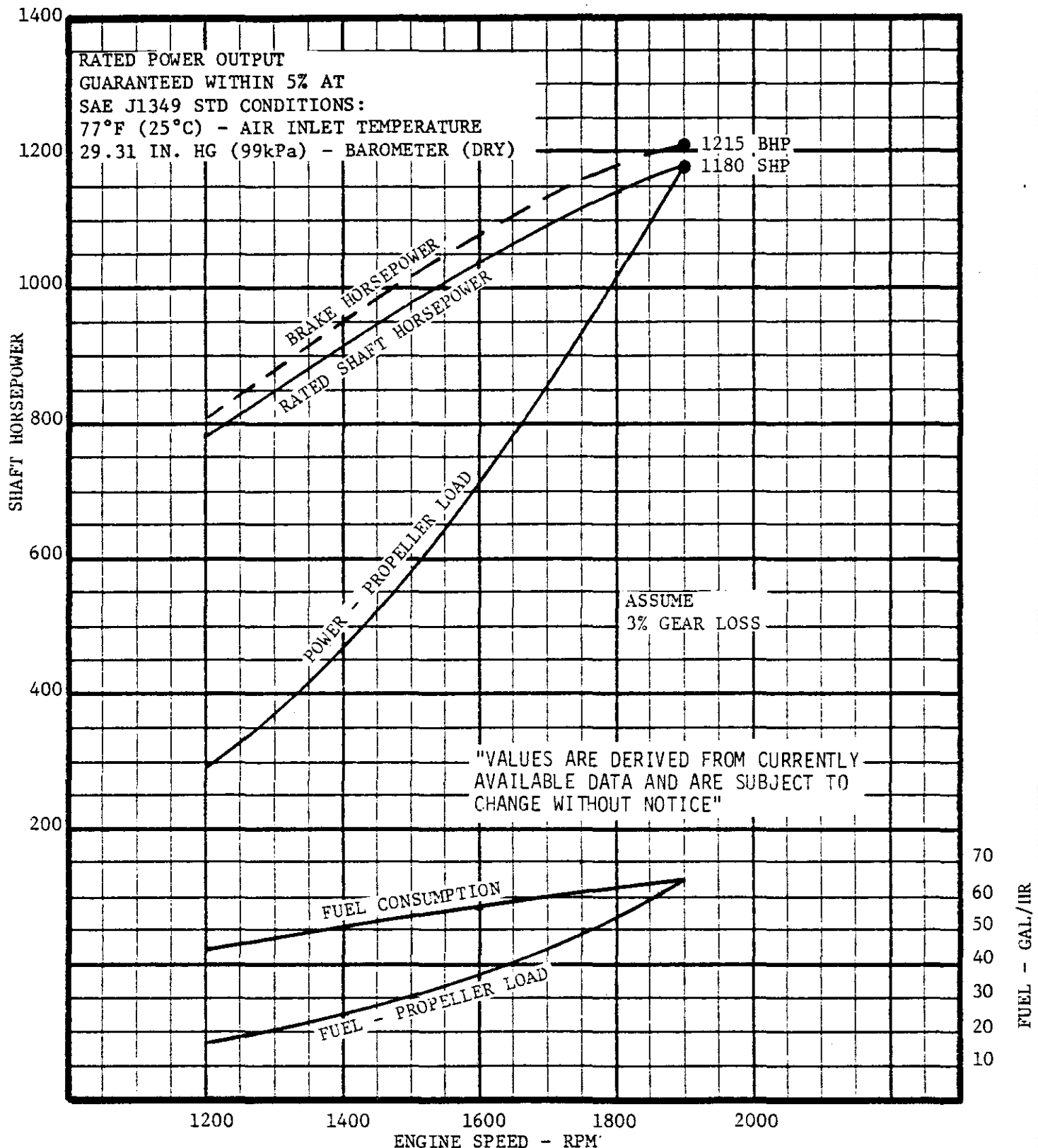
E4-9162-32-7
8-6-76



Detroit Diesel Allison
Division of General Motors Corporation

ENGINE PERFORMANCE

MODEL: 16V-149T
APPLICATION: MARINE INTERMITTENT
INJECTOR: 140 (2.205 TIMING)
TURBOCHARGER: TV8115 (1.39 A/R HSG)
RATING: NET POWER





ENGINE PERFORMANCE CURVE

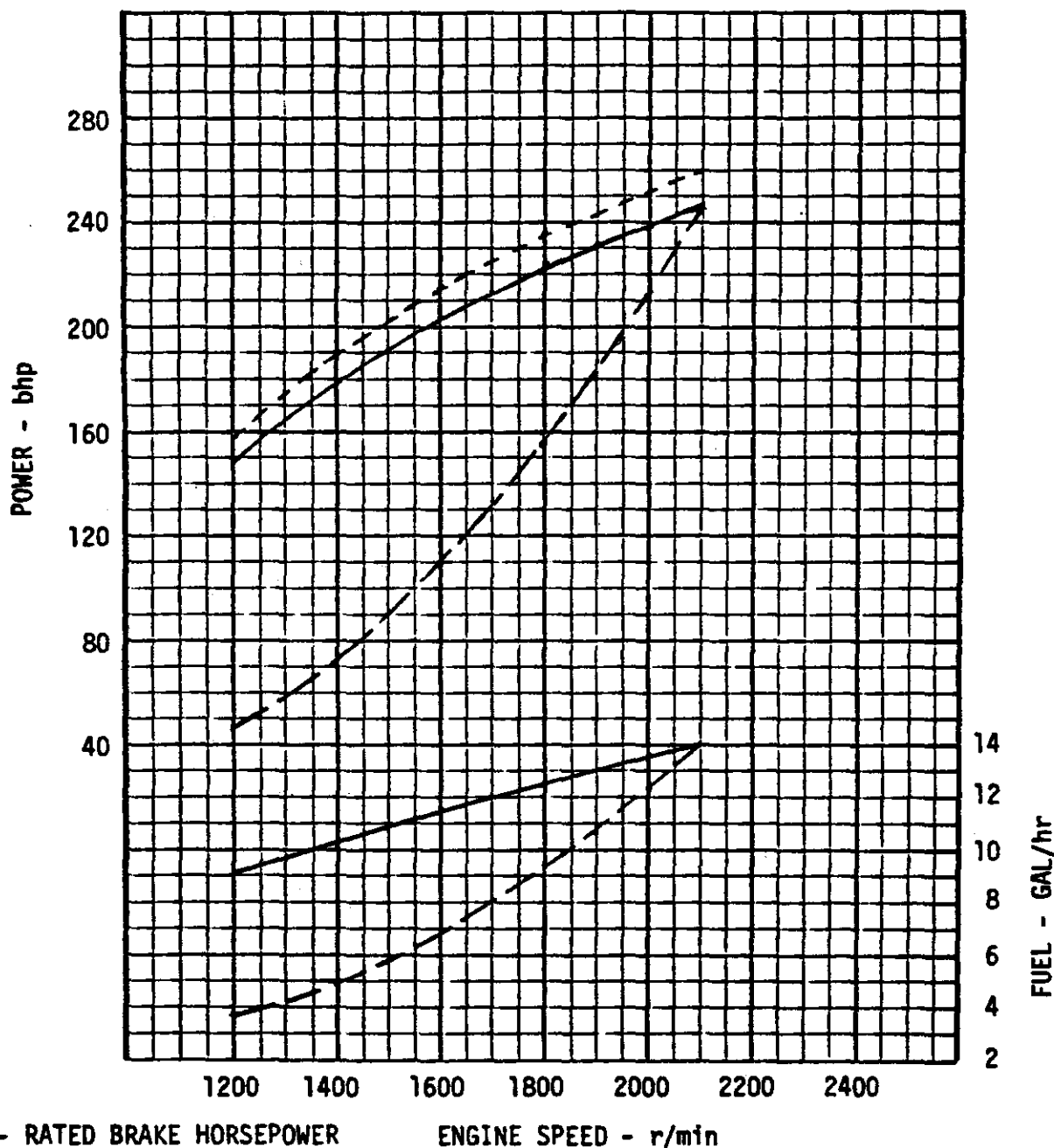
RATING: NET POWER - SEE BELOW

APPLICATION: MARINE - INTERMITTENT
CREW BOAT

MODEL: 6V-71TA

260 bhp @ 2100 r/min

246 shp @ 2100 r/min



--- RATED BRAKE HORSEPOWER
—— RATED SHAFT HORSEPOWER
--- PROPELLER LOAD

ENGINE SPEED - r/min

ACCESSORIES: TWIN DISC GEAR MG 507, RAW WATER PUMP, ALTERNATOR 14V75A
CONVERSION FACTOR: LITERS/hr = GAL/hr x 3.785

- POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BARMETER;
100°F (38°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: $kW = bhp \times 0.746$
FUEL: $kg/kW\cdot hr = lb/bhp\cdot hr \times 0.608$
TORQUE: $N\cdot m = lb\cdot ft \times 1.356$
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO
CHANGE WITHOUT NOTICE.

CERTIFIED BY:

Peter L. Berdine
10-17-83
STAFF ENGINEER

CURVE NO.

E4-7062-32-5
DATE: 9-20-83
REV./DATE:
SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model	7062-7600, 3600
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)	1L-3R-3L-2R-2L-1R
Counter clockwise rotation (LH)	1L-1R-2L-2R-3L-3R
Marine gear type	TWIN DISC MG507
Marine gear reduction ratios	2.0:1, 2.54:1
Marine gear lube oil capacity approx. (Does not include heat exchanger & connections used externally) - pts (litre) (Marine gear must use straight viscosity oil)	12 (5.7)
Electrical system	12 Volt
Recommended battery capacity (CCA @ 0°F (-18°C)) 12 Volt system above 32°F (0°C)	950
Dimensions & weight	
Length - in (mm)	57 (1448)
Width - in (mm)	37 (940)
Height - in (mm)	46 (1168)
Weight, dry - lbs (kg)	2800 (1270)
Maximum installation angle	15°

Technical Engine Specification

Injector (timing)	N70 (1.460)
Turbocharger	T04B98 (.81 A/R HSG)
Engine speed - r/min	2100
Brake horsepower - bhp (kW) 77°F, 29.31 in Hg (Dry) Bar., J-1349	260 (194)
Shaft horsepower - shp (kW)	246 (184)
BMEP - lb/in ² (kPa)	115.2 (794)
Peak torque - lb·ft (N·m) @ r/min	709 (961) @ 1400
Fuel consumption - lb/hr (kg/hr)	98.3 (44.6)
Fuel consumption - gal/hr (litre/hr)	14.1 (53.2)
Specific fuel cons. - lb/bhp·hr (g/kW·hr)	.378 (230)
Air consumption - ft ³ /min (m ³ /min)	910 (25.77)
Suggested minimum engine room vent area - in ² (cm ²)	90 (13.95)
Maximum engine room depression 0.2 in. H ₂ O	
Maximum allowable temperature rise (Outside air to engine inlet) - °F (°C)	30 (16.7)

ENGINE SPECIFICATION

Cooling System - Heat Exchanger

Fresh water capacity - gal (litre)
Heat rejection to coolant - Btu/min (kW)
Fresh water flow - gal/min (litre/min)
Raw water flow - gal/min (litre/min)
Maximum inlet restriction at raw water pump -
in Hg (kPa)
Maximum raw water pump pressure - lb in² (kPa)
Suggested raw water pipe size - in (mm)
Suggested sea strainer size - simplex - in (mm)
- duplex - in (mm)

13 (49.2)
10660 (187.4)
110 (416)
67 (254)
5.0 (16.9)
10.0 (69.0)
2.5 (63.5)
3 (76.2)
4 (101.6)

Fuel System

Fuel pump flow - gal/hr (litre/hr)
Maximum inlet restriction at pump - in Hg (kPa)
(clean filters)
Suggested pipe size - in (mm)

90 (341)
6 (20.3)
0.5 (12.7)

Exhaust System

Gas flow - lb/min (kg/min)
Exhaust temperature - °F (°C)
Maximum exhaust back pressure at turbocharger
outlet (full load) - in Hg (kPa)

67.3 (30.5)
620 (327)
2.5 (8.5)

Lubrication System

Engine lube oil capacity - qts (litre)
Lubrication oil press., normal - lb/in² (kPa)
Lubrication oil temp., in-pan - °F (°C)

21 (19.9)
50-70 (345-483)
200-250 (93-121)



ENGINE PERFORMANCE CURVE

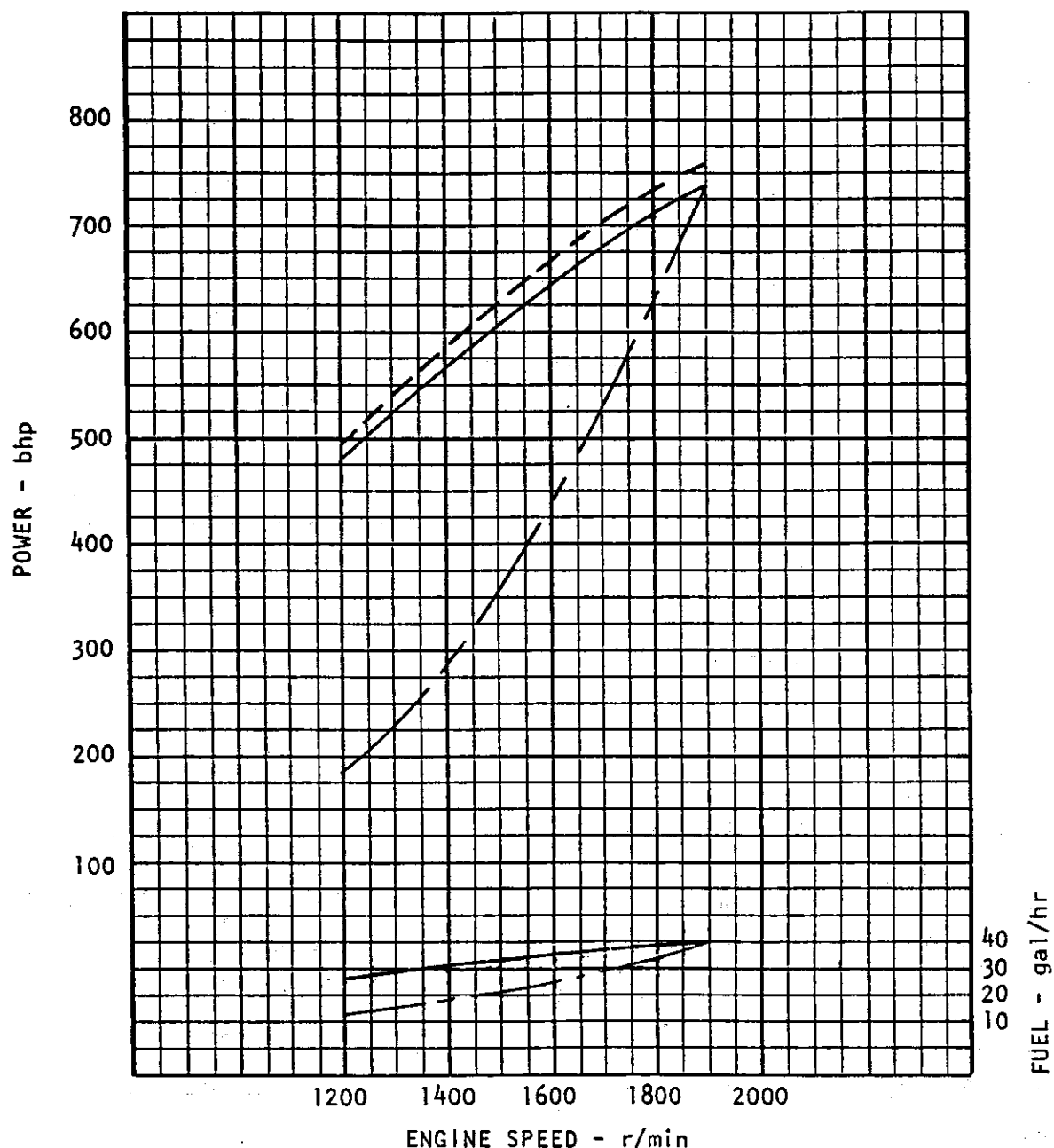
RATING: NET POWER

APPLICATION: MARINE INTERMITTENT

MODEL: 8V-149T1

760 bhp @ 1900 r/min

734 shp @ 1900 r/min



--- BRAKE HORSEPOWER
— SHAFT HORSEPOWER
--- PROPELLER LOAD

AIR INTAKE RESTRICTION - in. H₂O (mmH₂O) . . . 10 (250)
EXHAUST RESTRICTION - in. H₂O (mmH₂O) . . . 15 (380)
ACCESSORIES: TWO RAW WATER PUMPS - MARINE GEAR 3% LOSS

- POWER OUTPUT GUARANTEED WITHIN 5% AT SAE J1349 CONDITIONS:
77°F (25°C) AIR INLET TEMPERATURE; 29.31 in. Hg (99kPa) DRY BAROMETER;
100°F (39°C) FUEL INLET TEMPERATURE (.853 SPECIFIC GRAVITY AT 60°F).
- CONVERSION FACTORS: POWER: kW = bhp × 0.746
FUEL: kg/kW-hr = lb/bhp-hr × 0.608
TORQUE: N-m = lb-ft × 1.356
- VALUES DERIVED ARE FROM CURRENTLY AVAILABLE DATA AND SUBJECT TO CHANGE WITHOUT NOTICE.

CERTIFIED BY:

D. L. Graham
11-27-83 10/1/85
STAFF ENGINEER

CURVE NO.

E4-9082-32-3
DATE: 10-24-83
REV./DATE: 3/9-30-85
SHT. 1 OF 3

ENGINE SPECIFICATION

General Engine Description:

Model

Number of cylinders
Bore and stroke - in (mm)
Displacement - in³ (litre)
Compression ratio
Firing order
Clockwise rotation (RH)
Counter clockwise rotation (LH)
Marine gear type
Marine gear reduction ratios
Marine gear lube oil capacity approx.
(Does not include heat exchanger &
connections used externally) - pts (litre)
(Marine gear must use straight viscosity oil)
Electrical system
Recommended battery capacity (CCA @ 0°F (-18°C))
24 Volt system above 32°F (0°C)
Dimensions & weight
Length - in (mm)
Width - in (mm)
Height - in (mm)
Weight, dry - lbs (kg)
Maximum installation angle

NEW AIR INDUCTION WITH BLOWER PRESSURE RELIEF VALVE

9082-7301

8

5.75 X 5.75 (146 X 146)

1195 (19.6)

16:1

1L-3R-3L-4R-4L-2R-2L-1R

1L-1R-2L-2R-4L-4R-3L-3R

NOT DETERMINED

NOT DETERMINED

NOT DETERMINED

24 VOLTS

950

64 (1625)

64 (1625)

68 (1727)

6000 (2727)

10°

Technical Engine Specification

Injector (timing)
Turbocharger
Engine speed - r/min
Brake horsepower - bhp (kW)
77°F, 29.31 in Hg (Dry) Bar., J-1349
Shaft horsepower - shp (kW)
BMEP - lb/in² (kPa)
Peak torque - lb ft (N m) @ r/min
Fuel consumption - lb/hr (kg/hr)
Fuel consumption - gal/hr (litre/hr)
Specific fuel cons. - lb/bhp_{hr} (g/kW hr)
Air consumption - ft³/min (m³/min)
Suggested minimum engine room vent area - in² (cm²)
Maximum engine room depression 0.2 in. H₂O
Maximum allowable temperature rise
(Outside air to engine inlet) - °F (°C)

150 (2,205)

TV8401 (1.23 A/R)

1900

760 (567)

734 (548)

132 (912)

2183 (2960) @ 1400

280.2 (127.1)

40.1 (151.8)

.369 (224)

2100 (60) *

202 (1304)

30 (17)

* Must use outside air supply.

Curve No. E4-9082-32-3

Date: 10-24-83

Rev./Date: 3/9-30-85

Sht. 2 of 3

ENGINE SPECIFICATION

Cooling System - Heat Exchanger or Keel Cooler

Fresh water capacity - gal (litre)	22.8 (86.1)
Heat rejection to coolant - Btu/min (kW)	26600 (468) *
Fresh water flow - gal/min (litre/min)	278 (1052)
Raw water flow - gal/min (litre/min)	192 (727)
Maximum inlet restriction at raw water pump - In Hg (kPa)	5 (16.9)
Maximum raw water pump pressure - lb/in ² (kPa)	10 (69.0)
Suggested raw water pipe size - in (mm)	2.5 (63.5)
Suggested sea strainer size - simplex - in (mm)	3 (76)
- duplex - in (mm)	4 (102)
Max. press. drop thru keel cooler - lb/in ² (kPa)	6 (41)
Maximum water out temperature - °F (°C)	200 (93)

Fuel System

Fuel pump flow - gal/hr (litre/hr)	<u>370 (1400)</u>
Maximum inlet restriction at pump - in Hg (kPa) (clean filters)	<u>6 (20.3)</u>
Supply line dia. - in (mm)	<u>1 (25.4) min.</u>

Exhaust System

Gas flow - lb/min (kg/min)	<u>156.3 (70.9)</u>
Exhaust temperature - °F (°C)	<u>680 (360)</u>
Maximum exhaust back pressure at turbocharger outlet (full load) - in Hg (kPa)	<u>2.5 (8.5)</u>

Lubrication System

Engine lube oil capacity - qts (litre)	124 (117.3) *
Lubrication oil press., normal - lb/in ² (kPa)	48-75 (331-517) *
Lubrication oil temp., in-pan - °F (°C)	230 (110) max.

* Must use tube and shell oil cooler.