



ENGINE PERFORMANCE CURVE

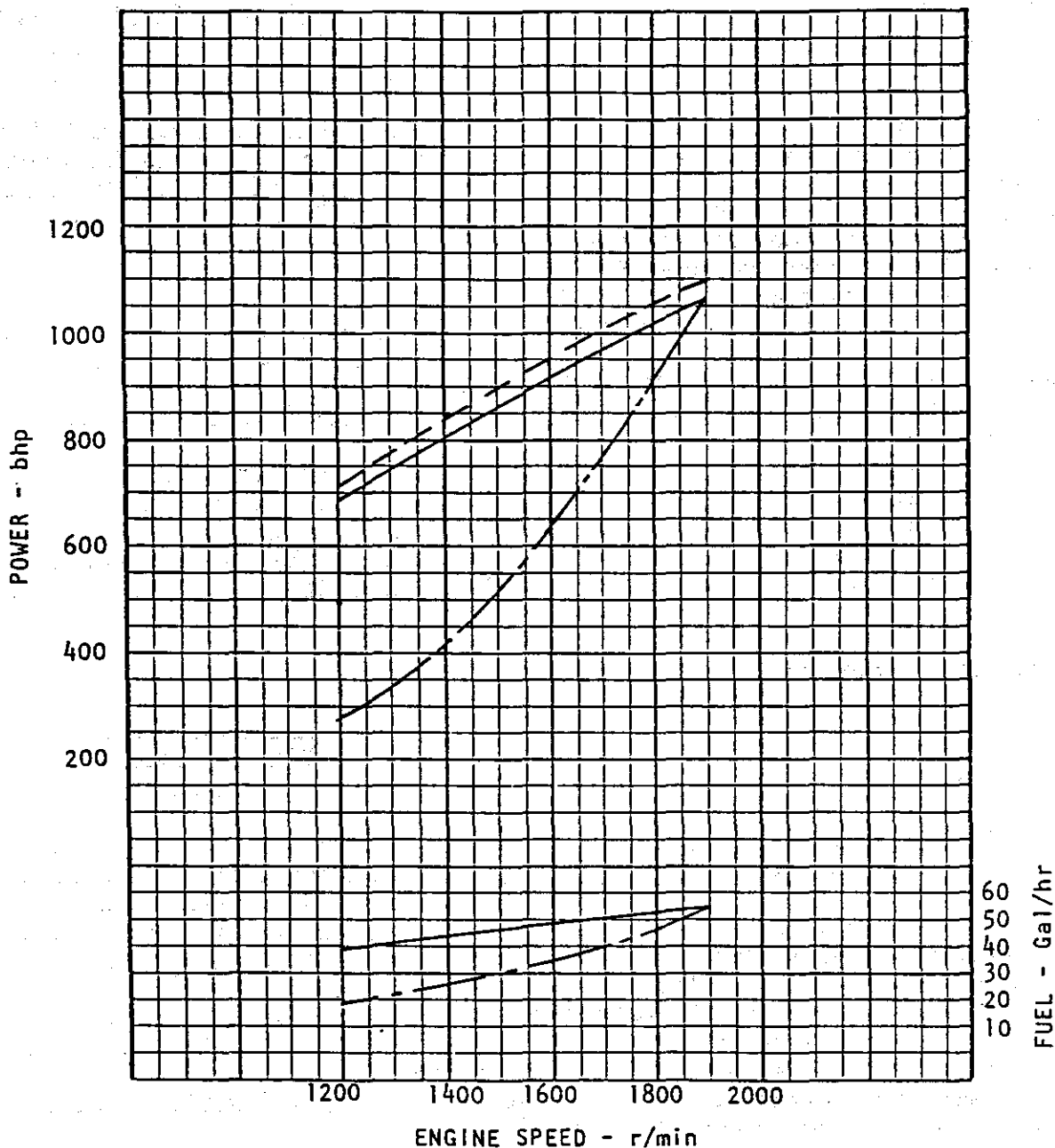
RATING: NET POWER

APPLICATION: MARINE - INTERMITTENT

MODEL: 12V-149TI

1100 bhp @ 1900 r/min

1064 shp @ 1900 r/min



AIR INTAKE RESTRICTION - in. H₂O (mm H₂O) . . . 10 (250)
EXHAUST RESTRICTION - in. H₂O (mm H₂O) . . . 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
STAFF ENGINEER

CURVE NO.

E4-9122-32-15
DATE: 10-24-83
REV./DATE: 1/9-10-85
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
9122-7301
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
TWIN DISC MG-540
7:1, 6.18:1, 5.17:1, 4.6:1

138 (65.3)
24 VOLTS

950

93 (2362)
62 (1575)
70 (1778)
13950 (6330) W/GEAR
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)

145 (2.205)
TV7111 (1.08 A/R)
1900

1100 (821)
1064 (794)
128 (881)
3170 (4299) @ 1400
387.5 (175)
55.4 (209.7)
.352 (214)
3250 (93) *

312 (2014)

30 (17)

* Must use outside air supply.

Curve No. E4-9122-32-15
 Date: 10-24-83
 Rev./Date: 1/9-10-85
 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)	33550 (590) *
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)	241.1 (109.4)
Exhaust temperature - °F (°C)	700 (371)
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.

* With 30 plate oil cooler.

Curve No. E4-9122-32-15
Date: 10-24-83
Rev./Date: 1/9-10-85
Sht. 3 of 3



ENGINE PERFORMANCE CURVE

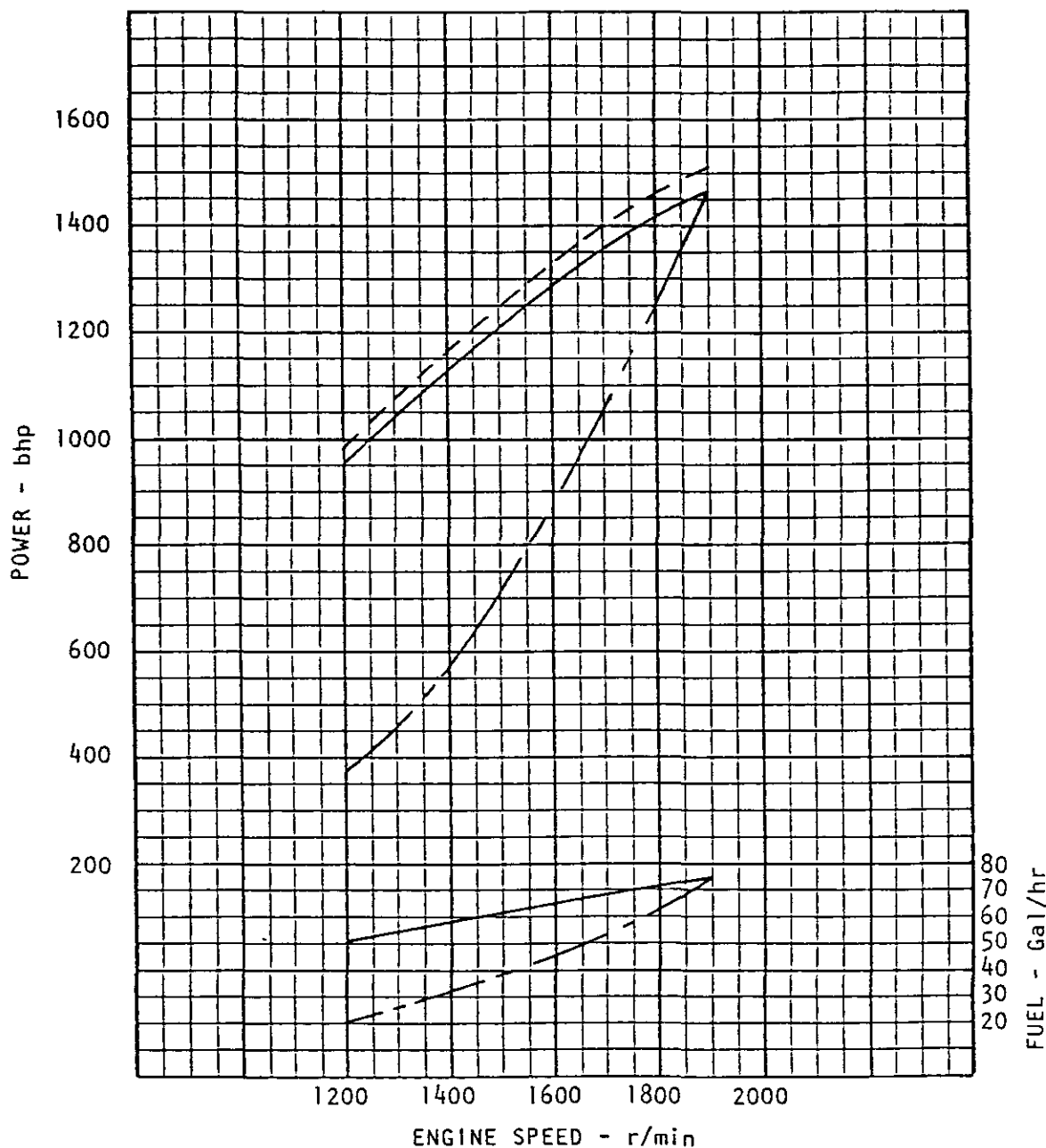
RATING: NET POWER

APPLICATION: MARINE - INTERMITTENT

MODEL: 16V-149T1

1515 bhp @ 1900 r/min

1466 shp @ 1900 r/min

AIR INTAKE RESTRICTION - in. H₂O (mmH₂O) . . . 10 (250)EXHAUST RESTRICTION - in. H₂O (mmH₂O) . . . 15 (380)

ACCESSORIES: TWO RAW WATER PUMPS = MARINE GEAR 3% LOSS

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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.

E4-9162-32-20

DATE: 10-24-83

REV./DATE: 1/9-20-85

SHT. 1 OF 3

PORTABLE AIR COMPRESSOR (NOT MANIFOLDED) PERFORMANCE CURVES

<u>Engine</u>	<u>Injector</u>	<u>BHP @ RPM</u>	<u>Curve Number</u>	<u>Date</u>
3-53N (4V)	N50	80/2800	E4-5031-52-26	4-11-78
3L-53T	N65	76/1500	E4-5031-52-29	8-12-80
4-53N (4V)	N50	109/2800	E4-5041-52-37	4-4-78
4L-53T	N65	104/2500	E4-5041-52-43	8-12-80
6V-53N	N50	163/2800	E4-5061-52-38	4-11-78
6V-53T	5A55	155/2500	E4-5061-52-39	8-12-80
4L-71N	N65	133/2100	E4-1041-52-27	2-4-81
6V-71N	C65	179/1800	E4-7061-52-33	2-2-81
6V-71N	C65	200/2100	E4-7061-52-30	2-2-81
16V-71N (4V)	C65	532/2100	E4-7161-52-13	11-13-79
6V-92	9270	243/2200*	E4-8061-12-12	11-5-75
6V-92	9275	259/2200*	E4-8061-12-13	11-5-75
6V-92	9280	263/2200	E4-8061-12-14	11-5-75
6V-92T	9280	263/2200	E4-8061-32-4	11-5-75
6V-92T	9285	263/2200	E4-8061-32-5	11-5-75
8V-92	9270	324/2200*	E4-8081-12-12	11-5-75
8V-92	9275	345/2200	E4-8081-12-13	11-5-75
8V-92	9280	350/2200	E4-8081-12-14	11-5-75
8V-92T	9280	350/2200	E4-8081-32-4	11-5-75
8V-92T	9285	350/2200	E4-8081-32-5	11-5-75
12V-92	9275	505/2100	E4-8121-12-9	3-9-81
16V-92	9280	690/2100	E4-8161-12-14	9-9-76
16V-92T	9280	690/2100	E4-8161-32-5	12-4-75
16V-92T	9285	690/2100	E4-8161-32-6	12-4-75

*100% Load

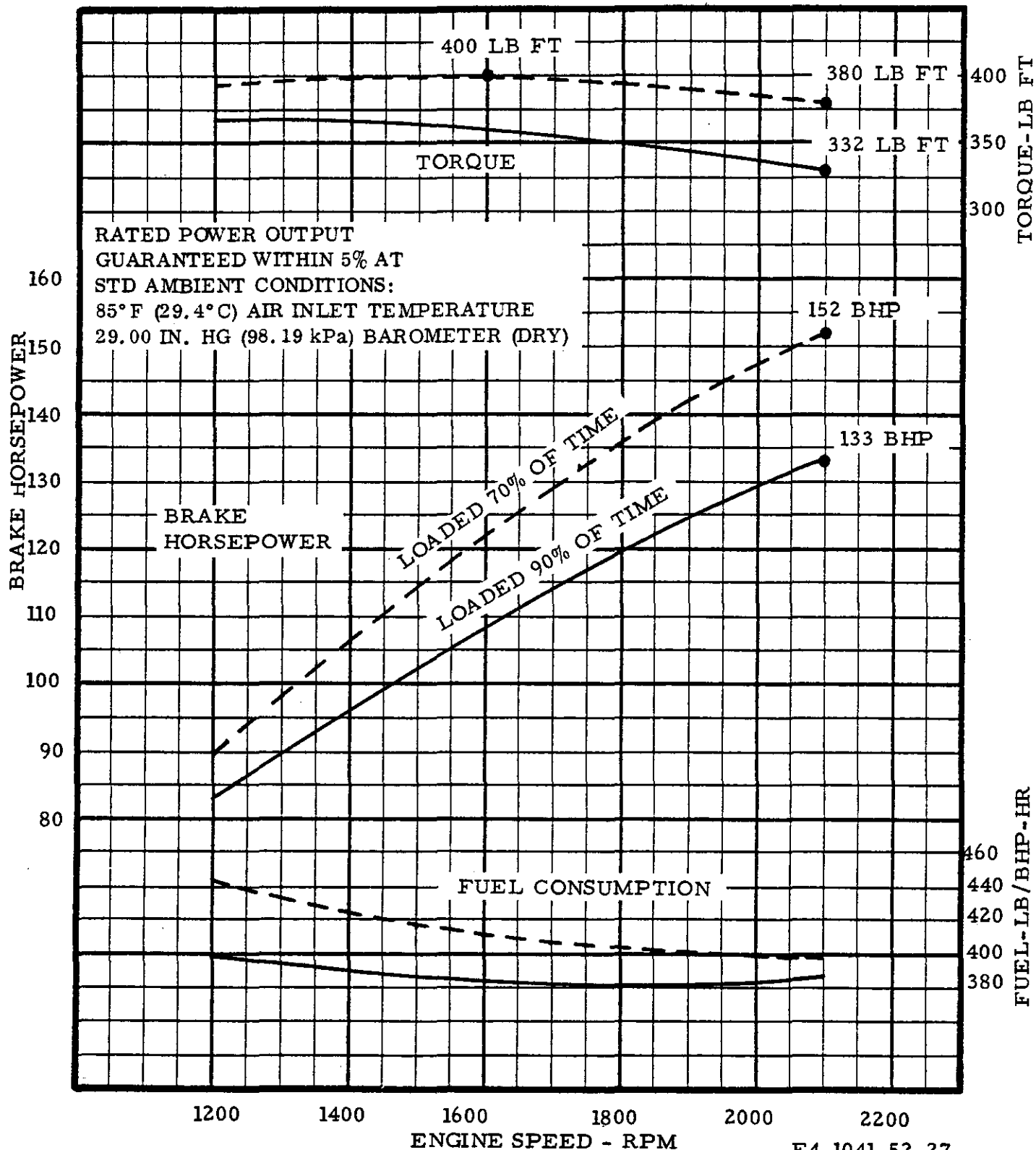
E4M-000-00-21
WPD 1559A
Rev. 05/15/81



Detroit Diesel Allison
Division of General Motors Corporation

BASIC ENGINE PERFORMANCE

MODEL: 4-71N
APPLICATION: SINGLE UNIT PORT.
AIR COMPRESSOR
NOT MANIFOLDED
INJECTOR: N65 (1.484 Timing)
CAMSHAFT: ADVANCED



ENGINEERING-TECHNICAL DATA DEPT.

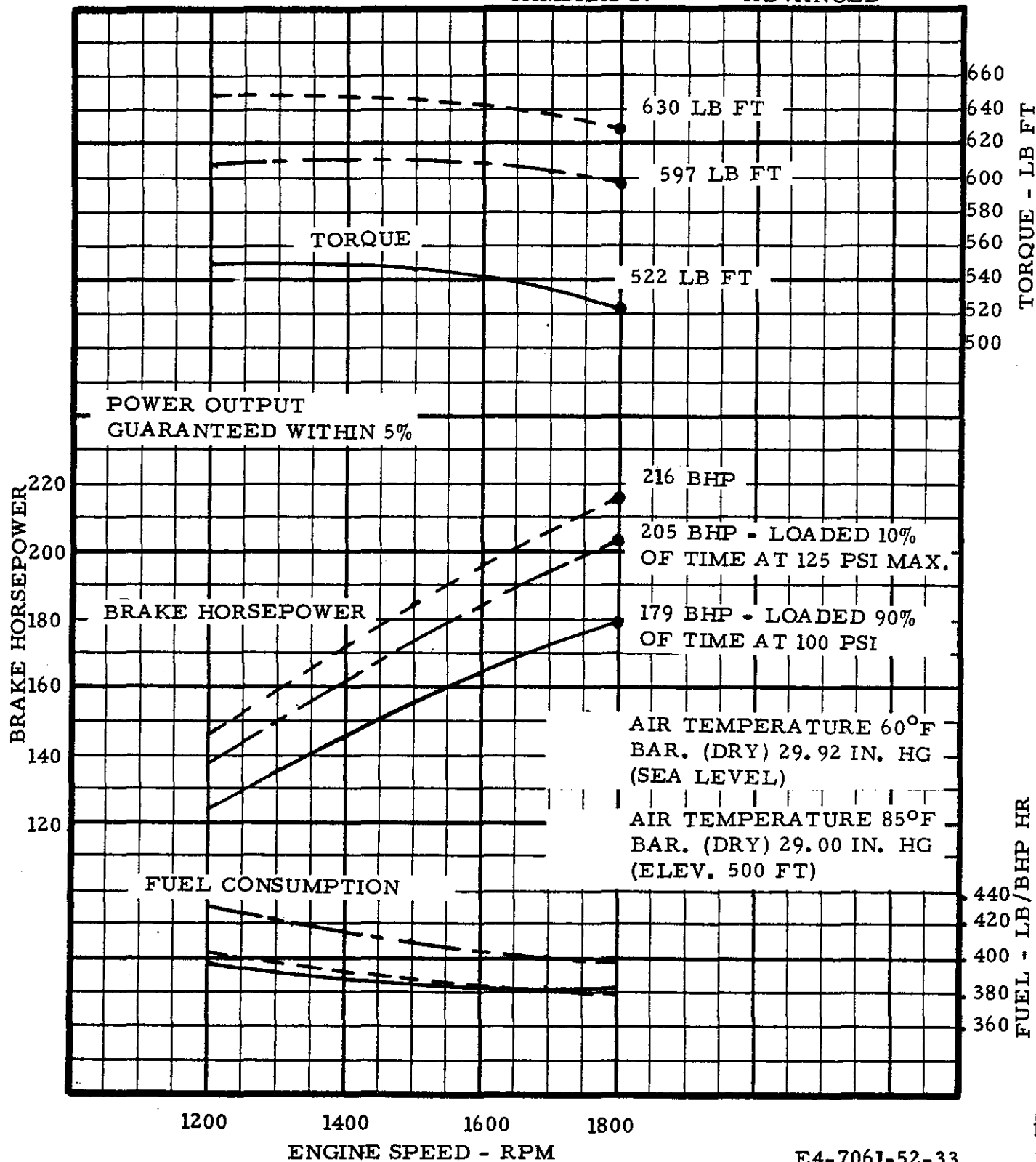
E4-1041-52-27
2-4-81



Detroit Diesel Allison
Division of General Motors Corporation

BASIC ENGINE PERFORMANCE

MODEL: 6V-71N
APPLICATION: SINGLE UNIT
PORTABLE AIR COMP.
NOT MANIFOLDED
INJECTORS: C65 (1.484 Timing)
CAMSHAFT: ADVANCED

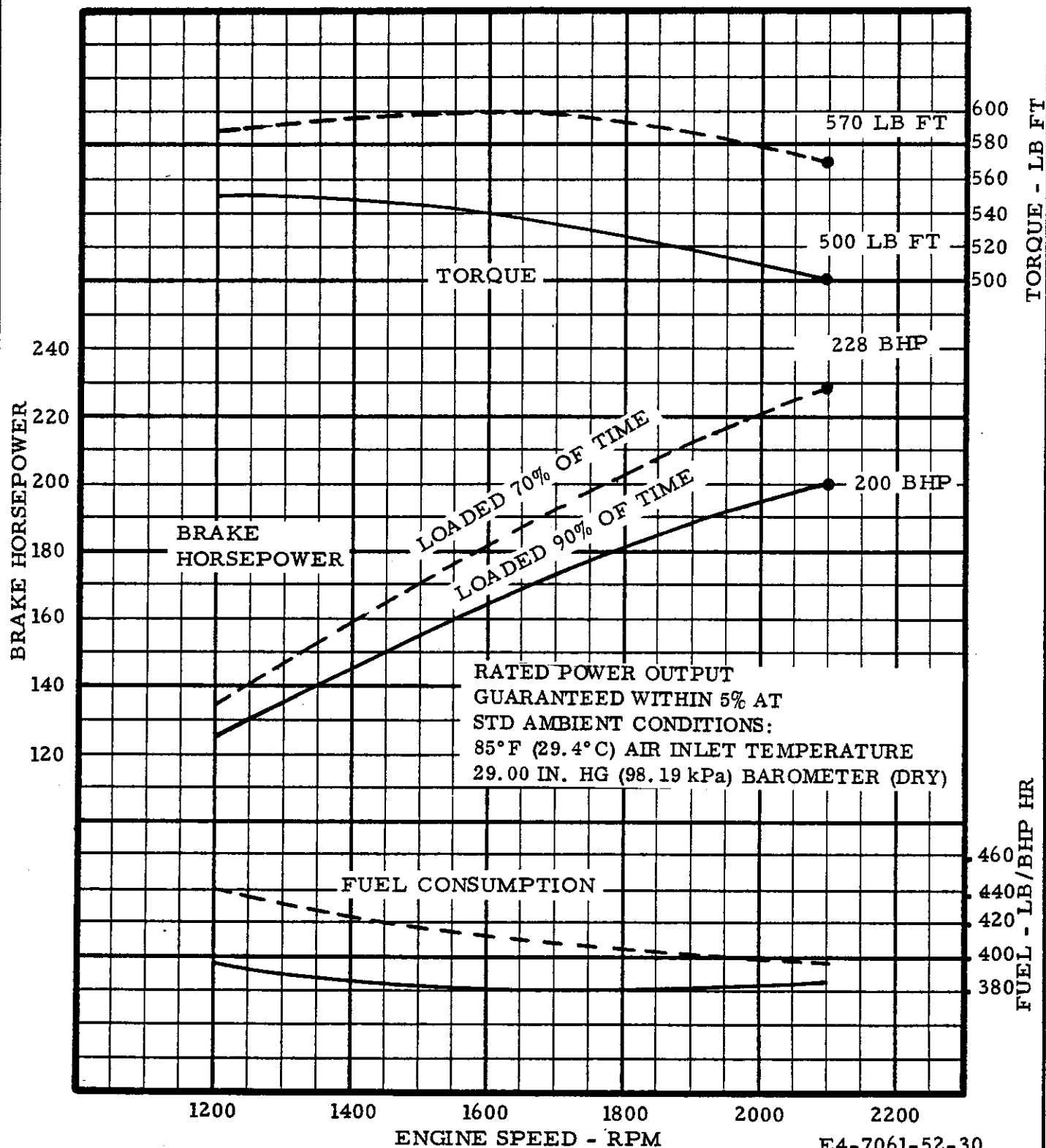




Detroit Diesel Allison
Division of General Motors Corporation

BASIC ENGINE PERFORMANCE

MODEL: 6V-71N
APPLICATION: SINGLE UNIT
PORTABLE AIR COMP.
NOT MANIFOLDED
INJECTORS: C65 (1.484 Timing)
CAMSHAFT: ADVANCED



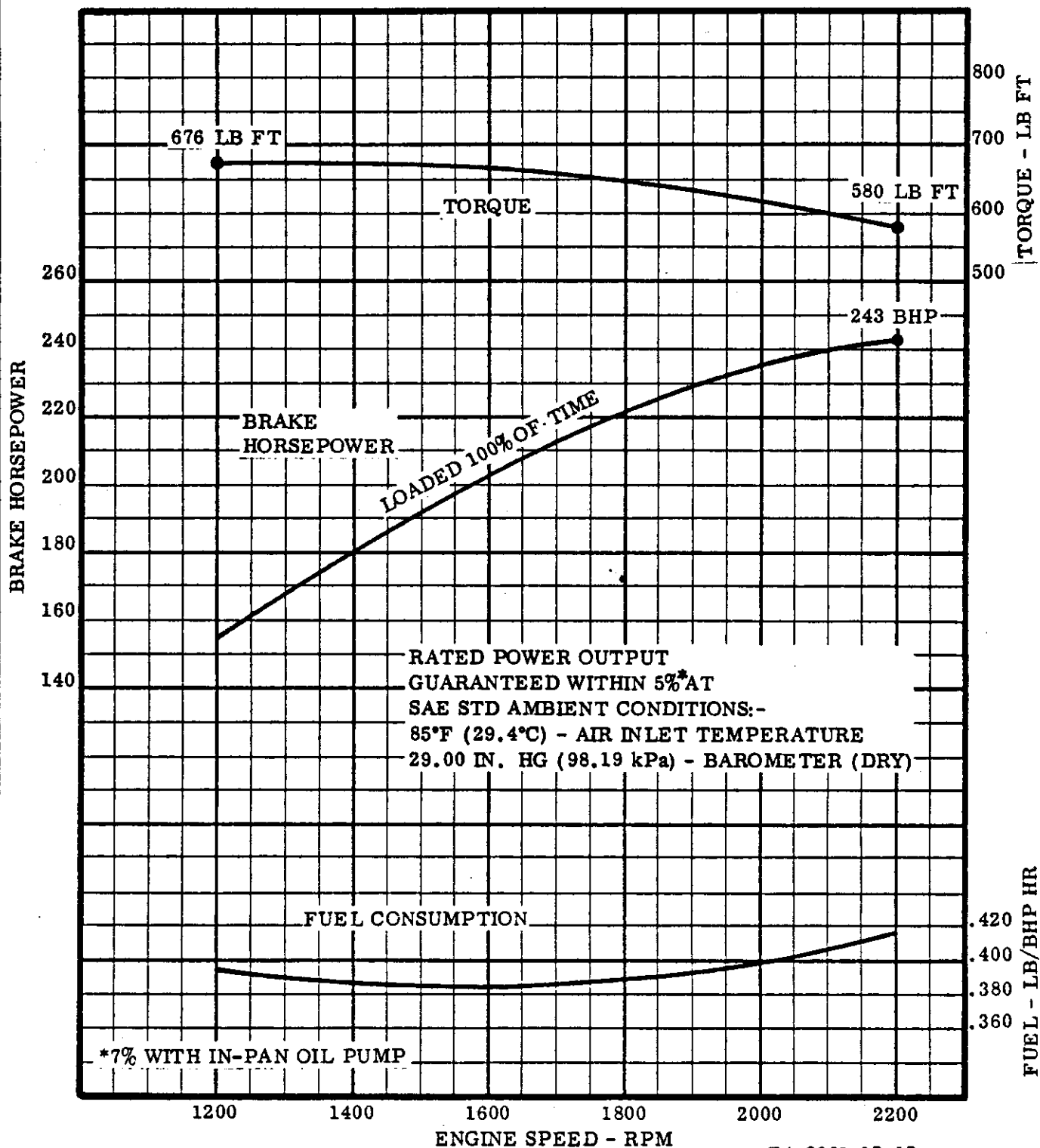
ENGINEERING-TECHNICAL DATA DEPT.

E4-7061-52-30
2-2-81



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Division of General Motors Corporation

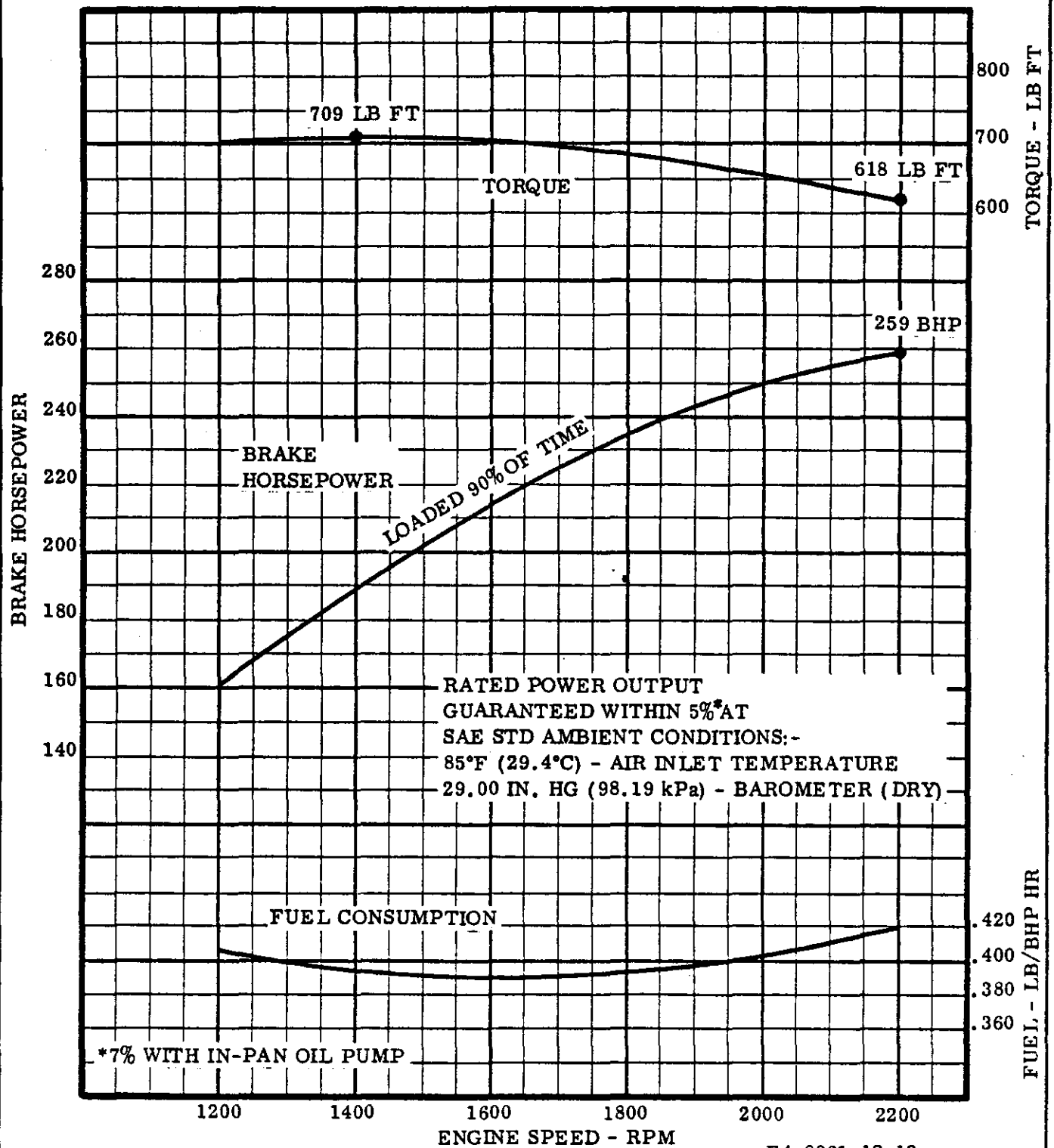
6V-92
BASIC ENGINE
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9270 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

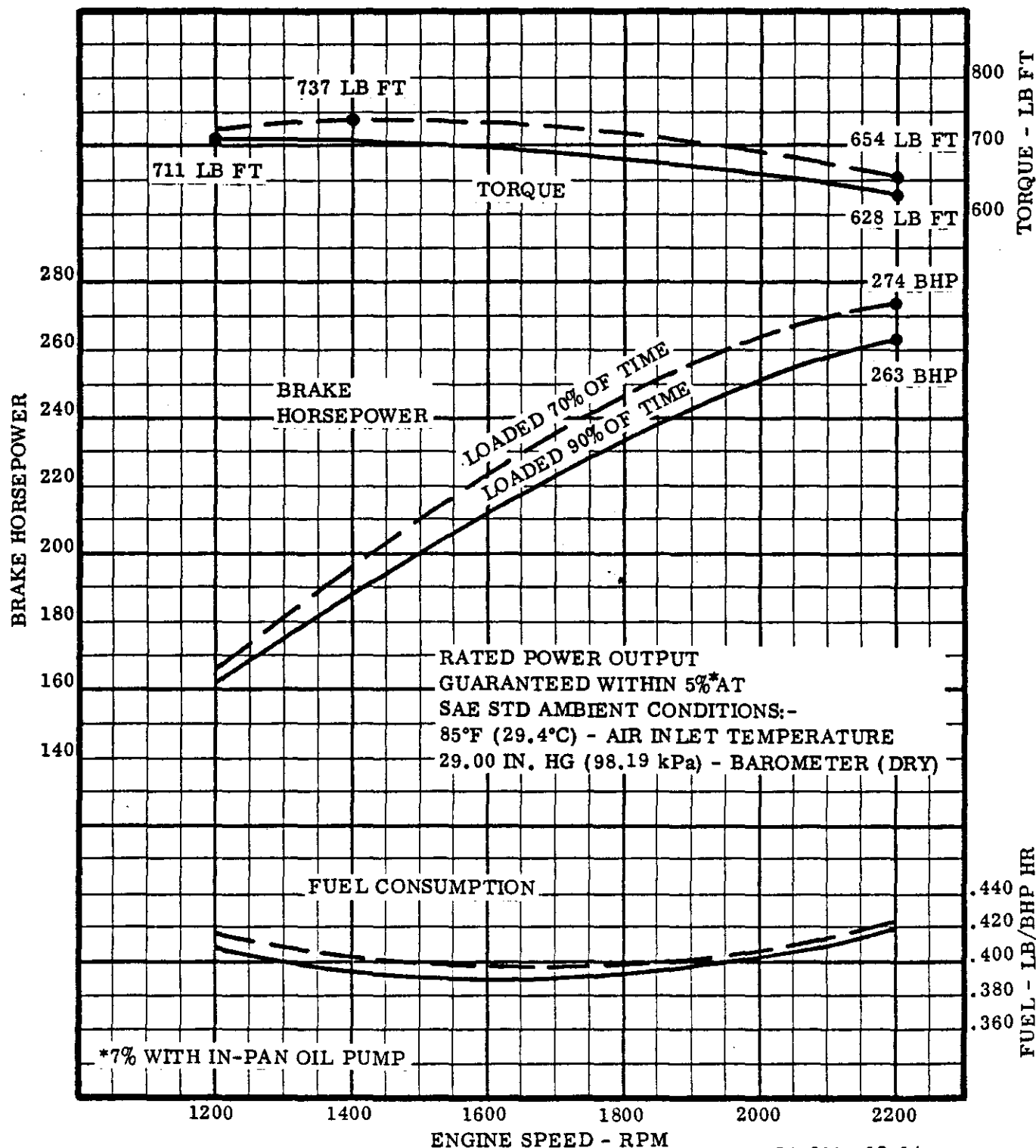
6V-92
BASIC ENGINE
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9275 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

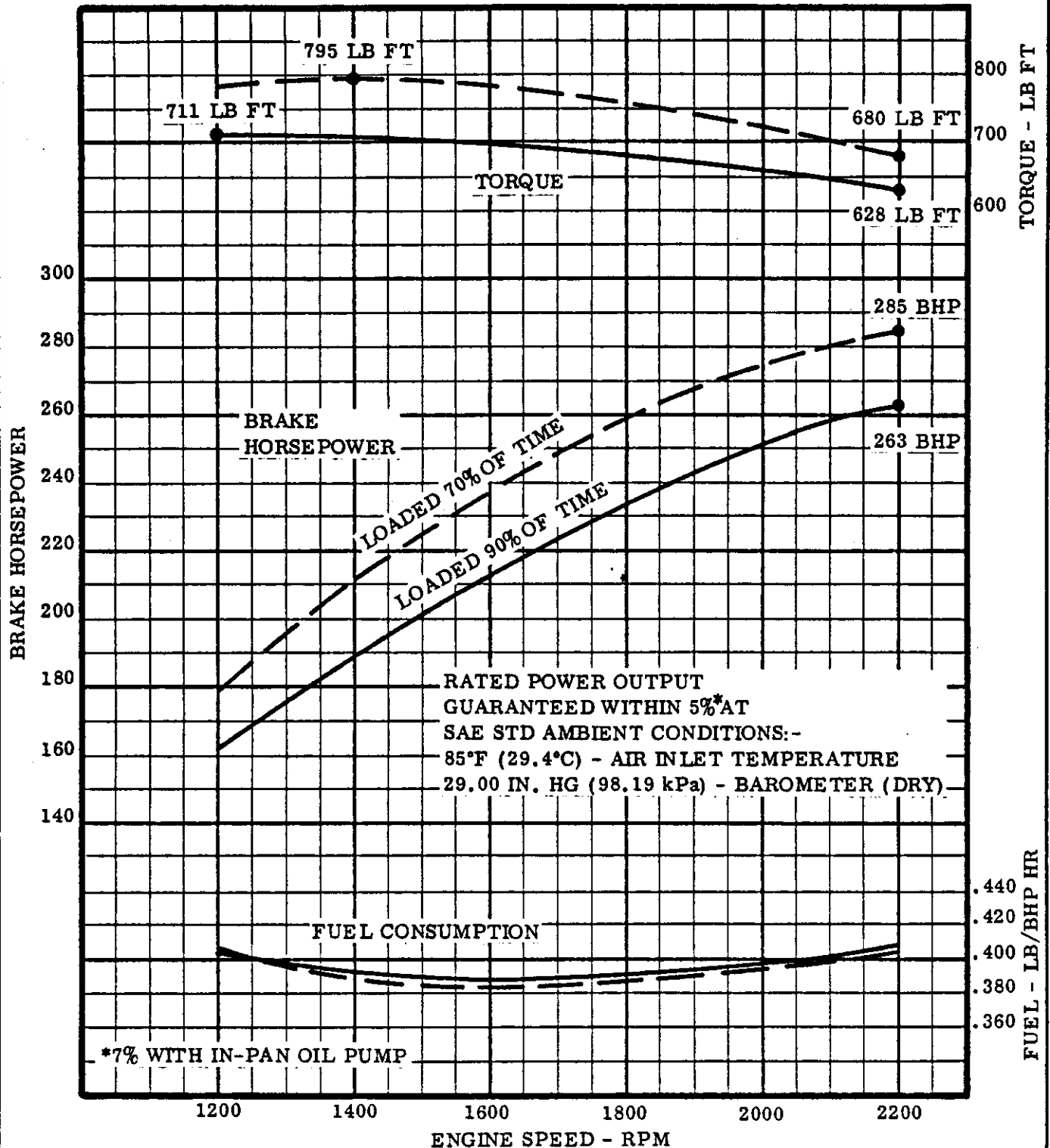
6V-92
BASIC ENGINE
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9280 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

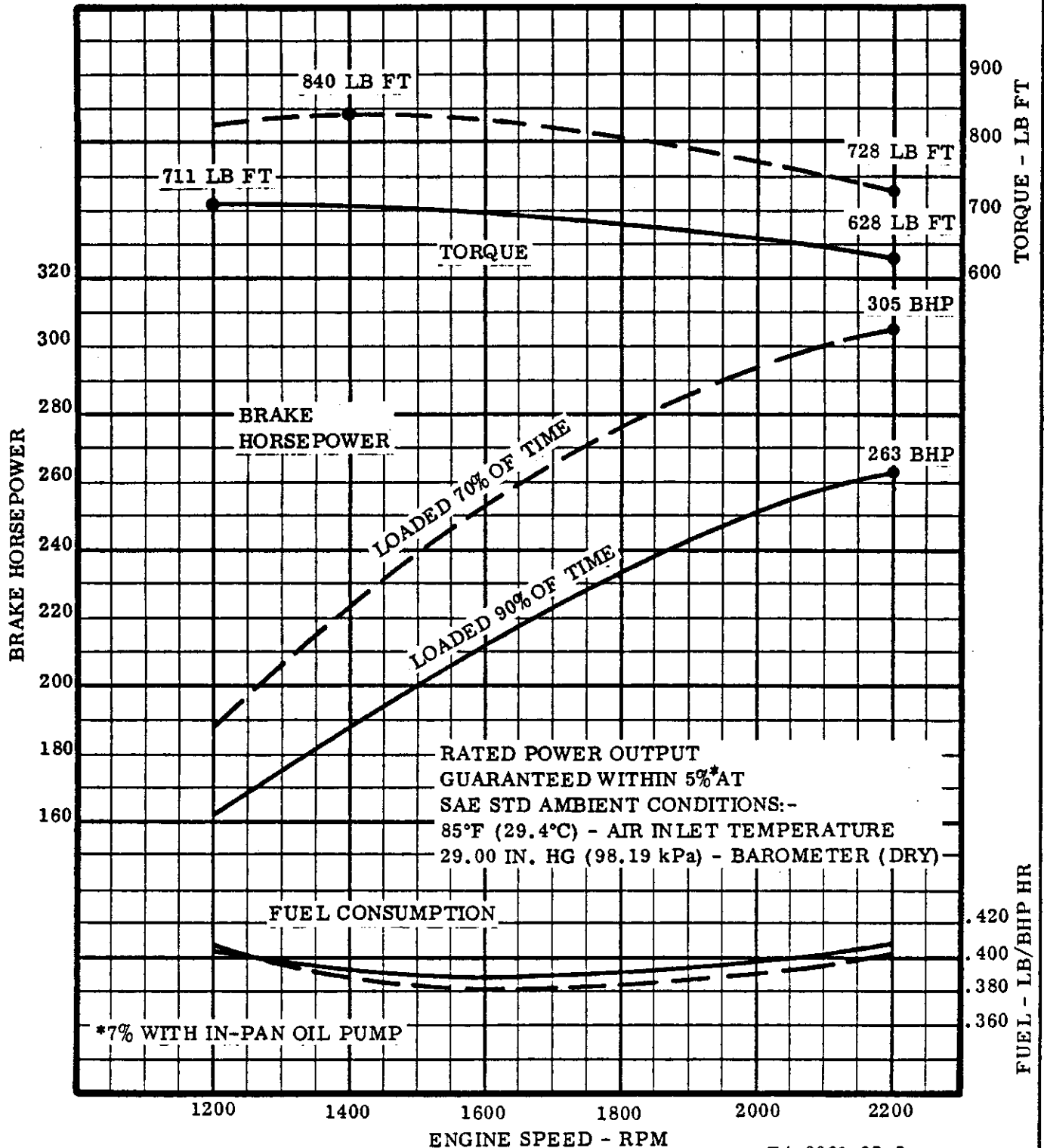
6V-92T
BASIC ENGINE
T18A40 (1.14 A/R HSG.) TURBOCHARGER
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9280 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

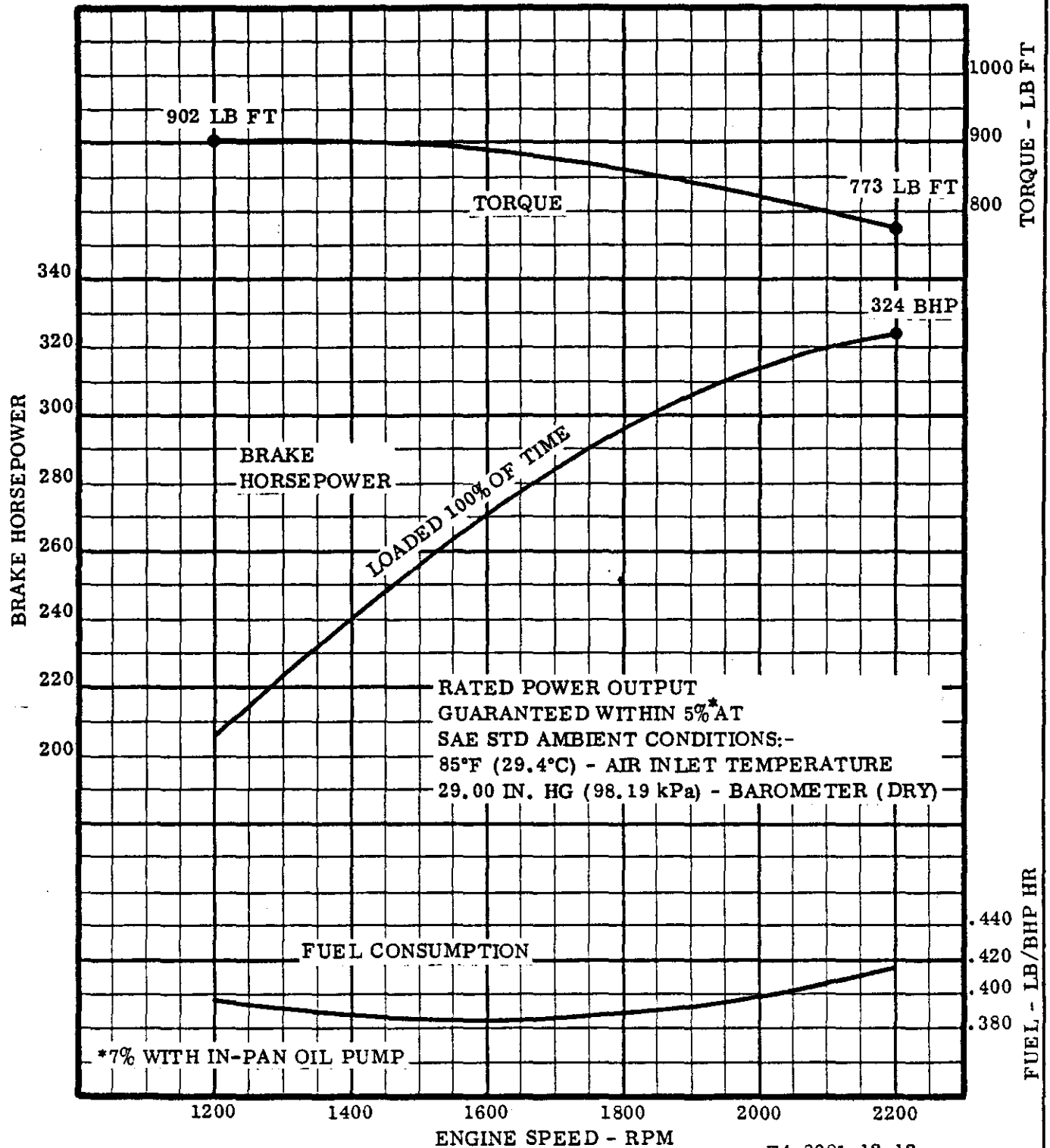
6V-92T
BASIC ENGINE
T18A40 (1.14 A/R HSG.) TURBOCHARGER
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9285 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

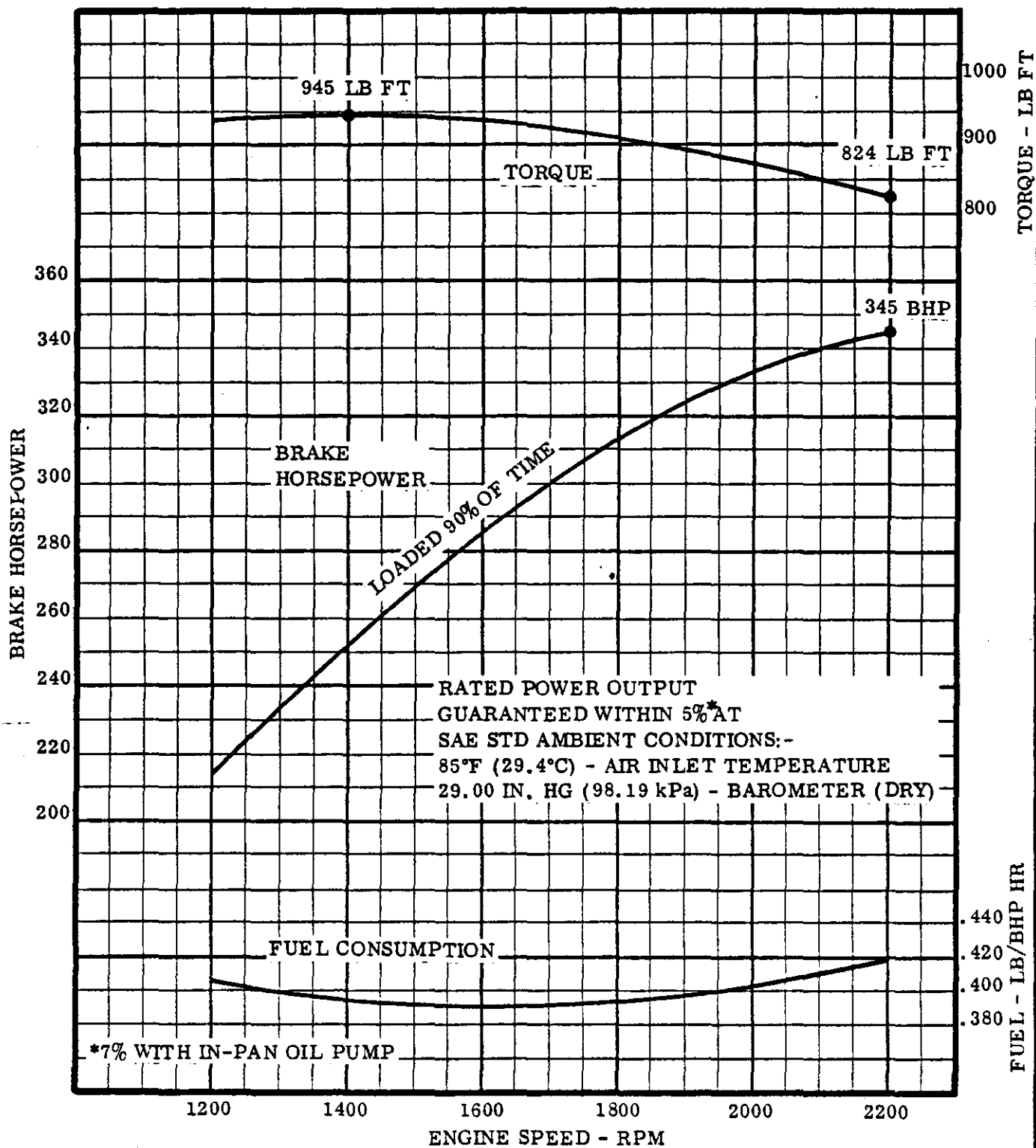
8V-92
BASIC ENGINE
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9270 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

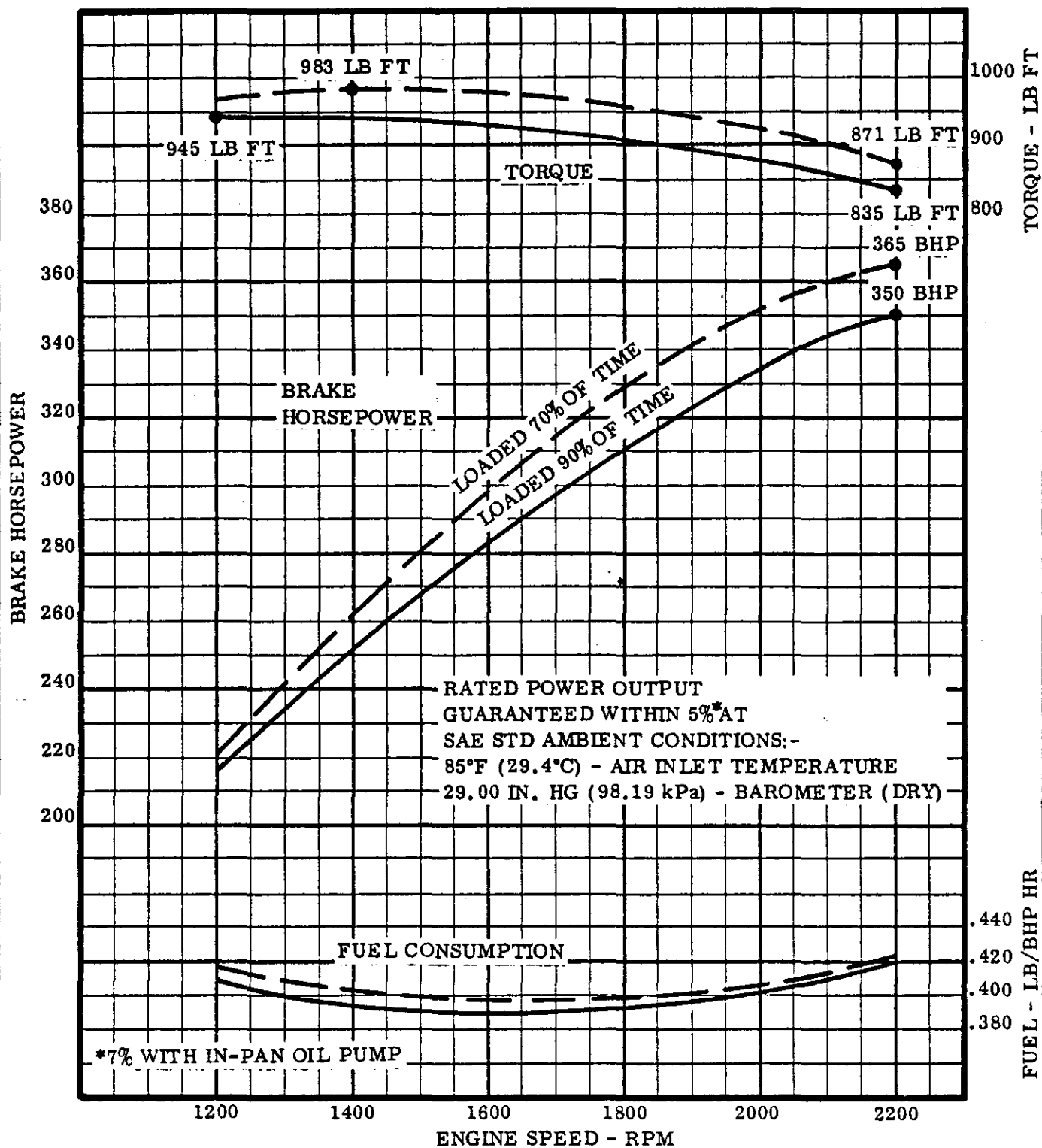
8V-92
BASIC ENGINE
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9275 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

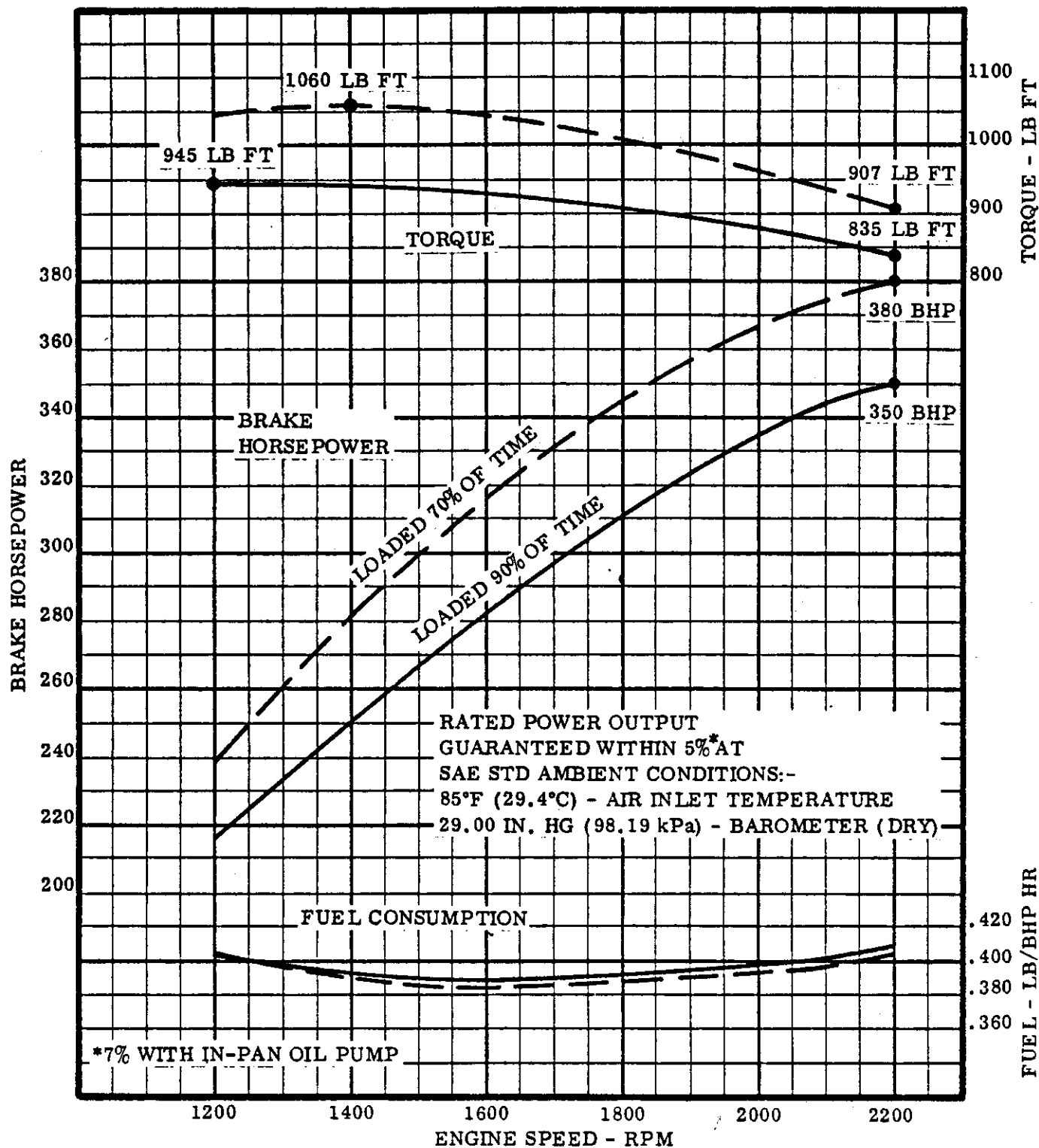
8V-92
BASIC ENGINE
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9280 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

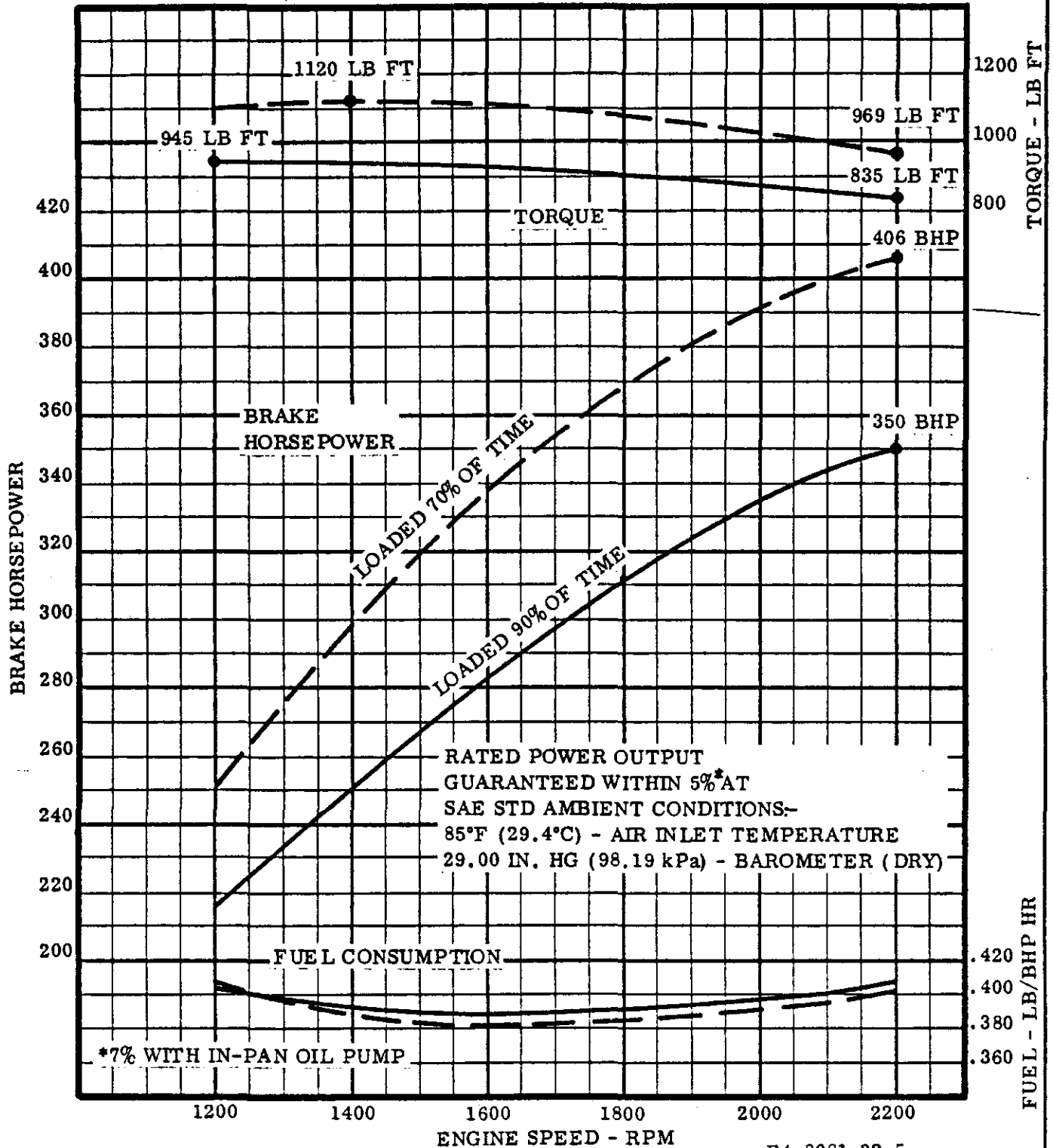
8V-92T
BASIC ENGINE
T18A90 (1.5 A/R HSG.) TURBOCHARGER
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9280 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

8V-92T
BASIC ENGINE
T18A90 (1.5 A/R HSG.) TURBOCHARGER
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9285 INJECTORS

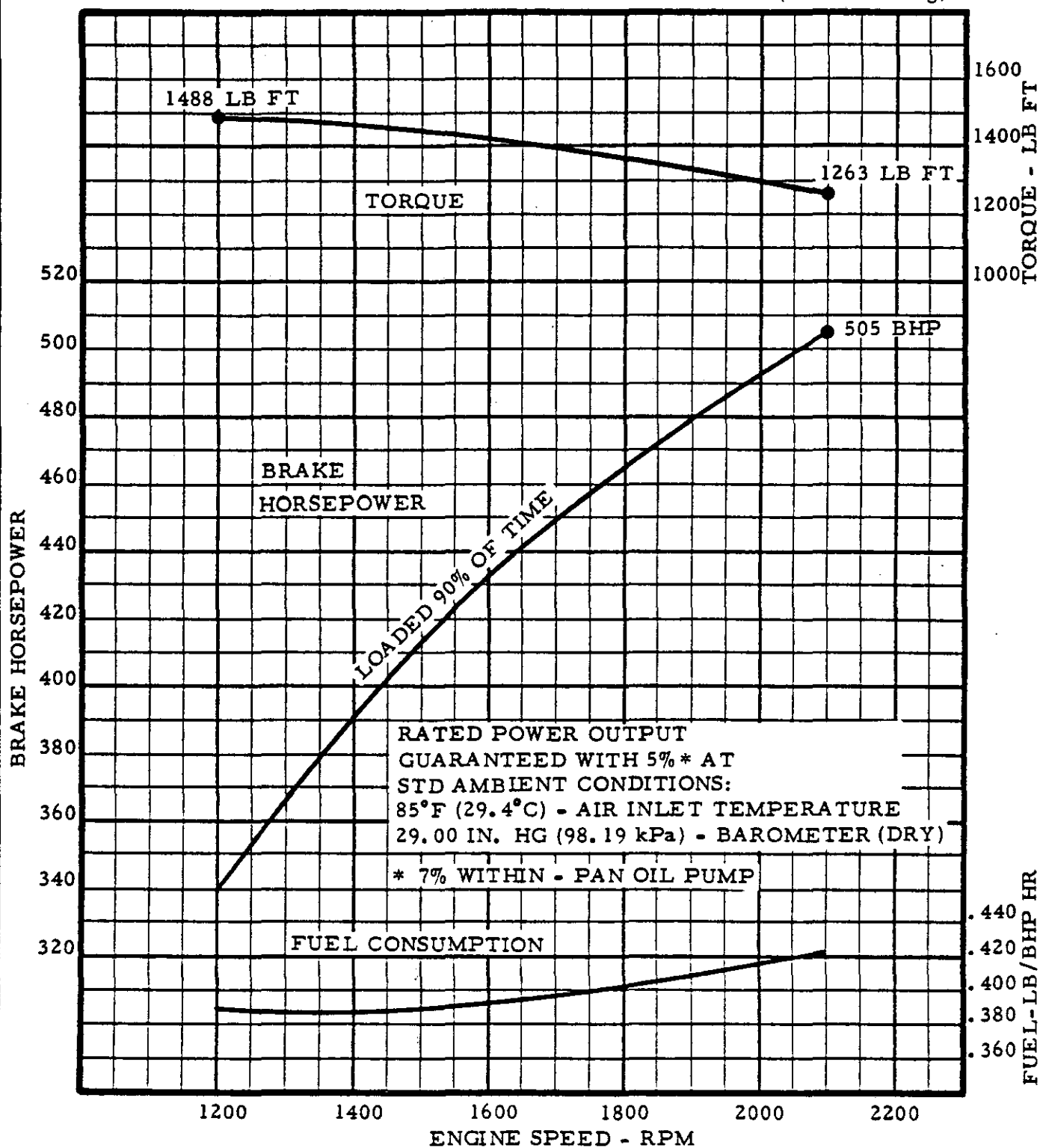




Detroit Diesel Allison
Division of General Motors Corporation

BASIC ENGINE PERFORMANCE

MODEL: 12V-92
APPLICATION: SINGLE UNIT PORTABLE
AIR COMPRESSOR NOT
MANIFOLDED
INJECTORS: 9275 (1.460 Timing)





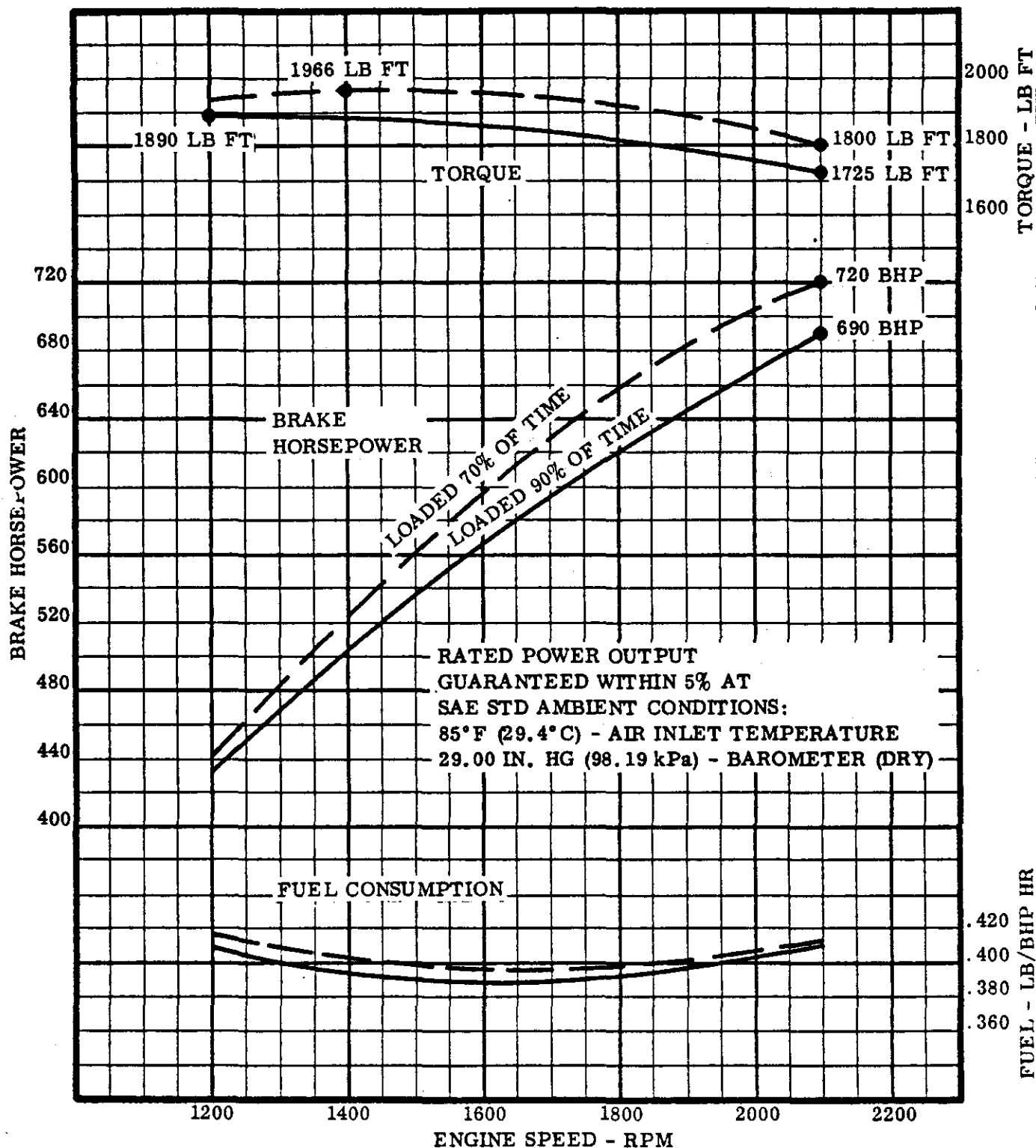
Detroit Diesel Allison

Division of General Motors Corporation

16V-92

BASIC ENGINE

SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9280 INJECTORS



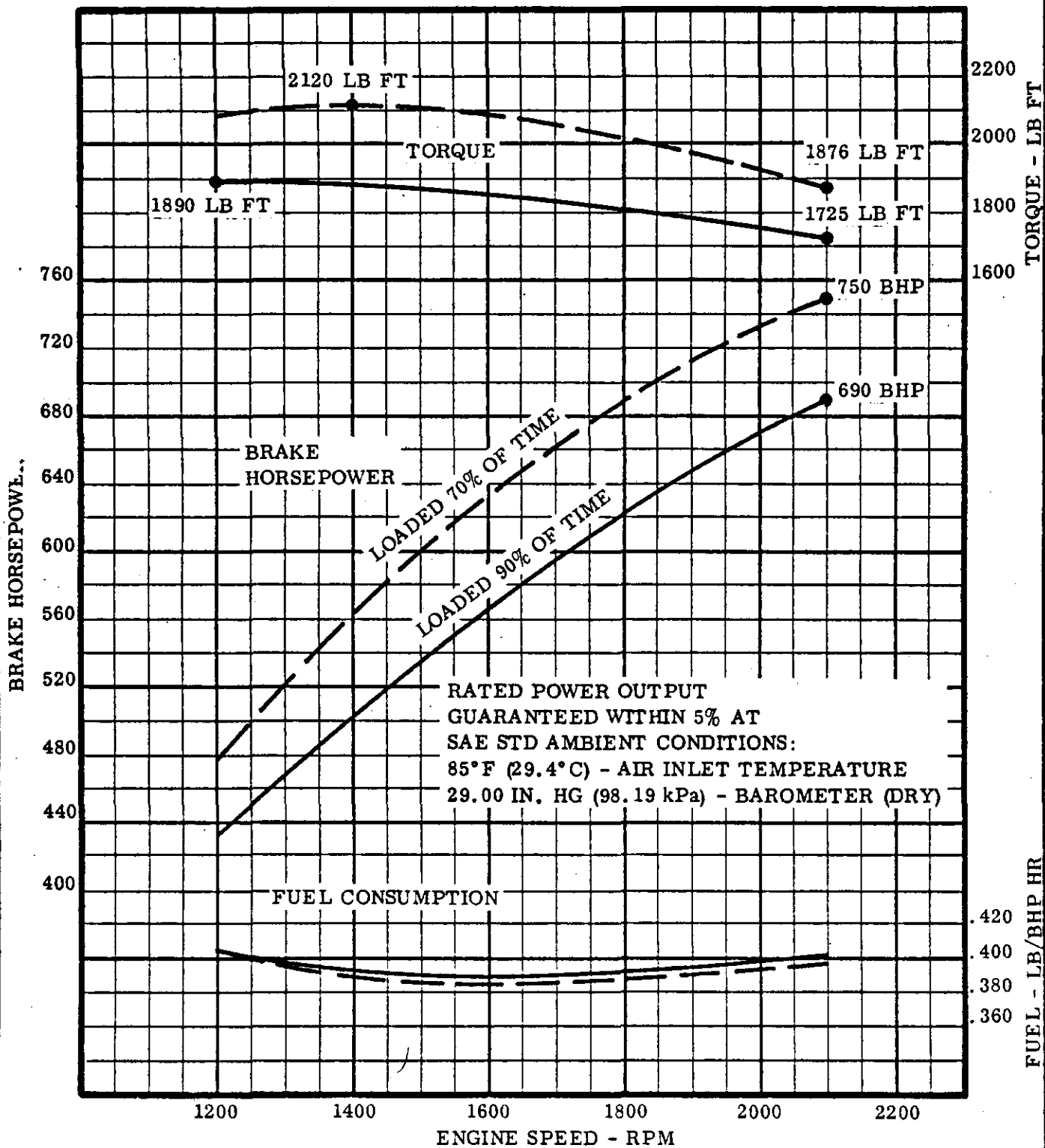
ENGINEERING-TECHNICAL DATA DEPT.

E4-8161-12-14
9-9-76



Detroit Diesel Allison
Division of General Motors Corporation

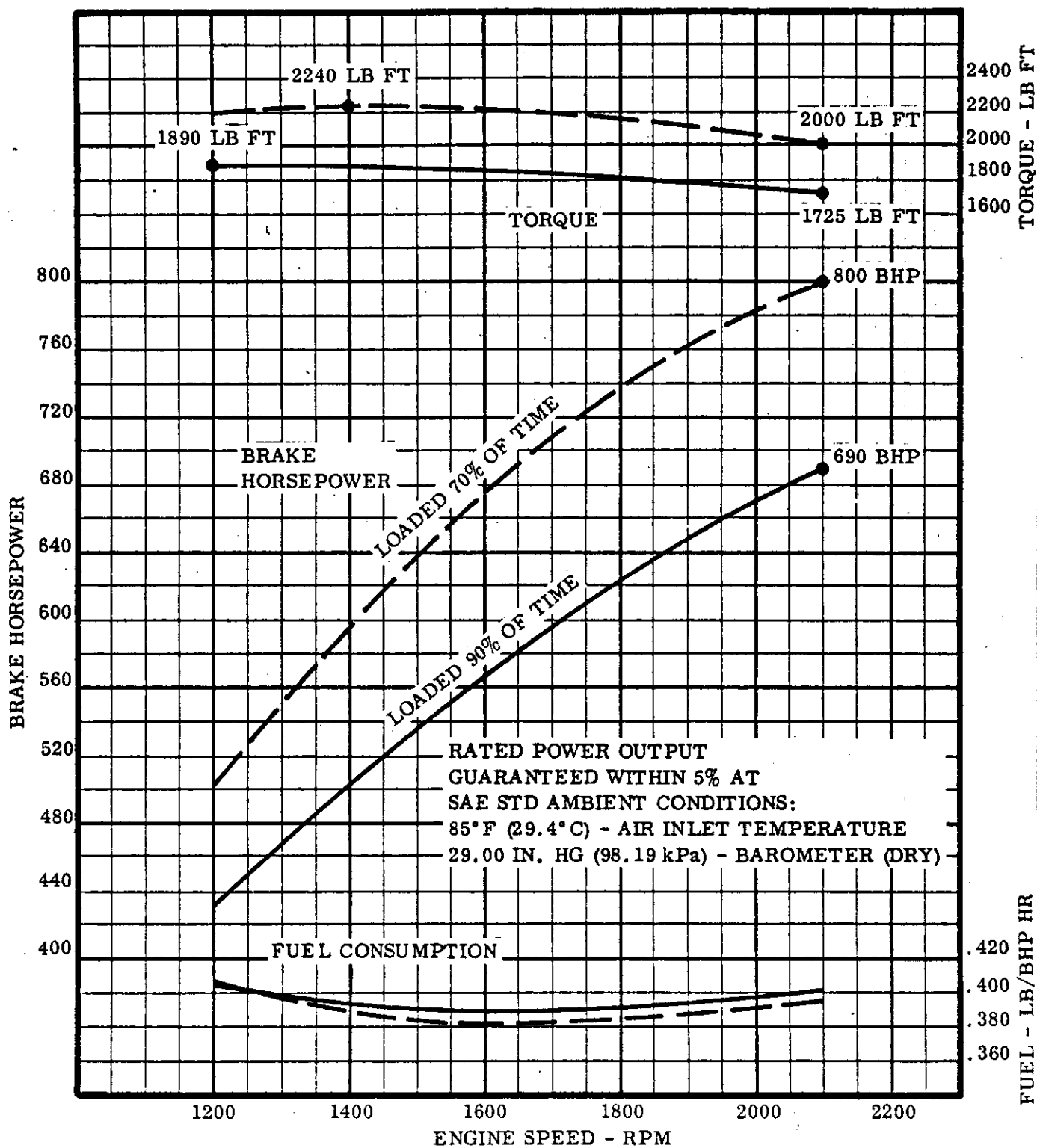
16V-92T
BASIC ENGINE
T18A90 (1.5 A/R HSG.) TURBOCHARGER
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9280 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

16V-92T
BASIC ENGINE
T18A90 (1.5 A/R HSG.) TURBOCHARGER
SINGLE UNIT PORTABLE AIR
COMPRESSOR NOT MANIFOLDED
9285 INJECTORS



PORTABLE DRILL RIGS PERFORMANCE CURVES

<u>Engine</u>	<u>Injector</u>	<u>BHP @ RPM*</u>	<u>Torque @ RPM*</u>	<u>Curve Number</u>	<u>Date</u>
3-71N	N65	109/2100	299/1400	E4-1031-52-10	06/28/79
4-71N	N65	152/2100	400/1600	E4-1041-52-22	06/28/79
4-71T	N70	167/2100	460/1600	E4-1041-32-7	06/28/79
6-71N	N65	228/2100	600/1600	E4-1061-52-27	02/10/81
6-71T	N70	250/2100	690/1400	E4-1061-32-9	06/28/79
6V-71N	C65	228/2100	600/1600	E4-7061-52-31	02/02/81
6V-71T	N70	250/2100	690/1400	E4-7061-32-7	06/28/79
8V-71N	N65	304/2100	800/1600	E4-7081-52-58	06/28/79
8V-71T	N70	333/2100	920/1600	E4-7081-32-22	06/28/79
12V-71N	N65	456/2100	1200/1600	E4-7121-52-30	06/28/79
12V-71T	N70	500/2100	1380/1400	E4-7121-32-8	06/28/79
16V-71N	N65	608/2100	1600/1600	E4-7161-52-17	06/28/79
16V-71T	N70	665/2100	1840/1600	E4-7161-32-5	06/28/79
6V-92	9280	270/2100	737/1400	E4-8061-12-16	06/28/79
6V-92T	9285	300/2100	840/1400	E4-8061-32-16	06/28/79
8V-92	9280	360/2100	983/1400	E4-8081-12-16	06/28/79
8V-92T	9285	400/2100	1120/1400	E4-8081-32-16	06/28/79
16V-92	9280	720/2100	1966/1400	E4-8161-12-13	06/28/79
16V-92T	9285	800/2100	2240/1400	E4-8161-32-4	06/28/79

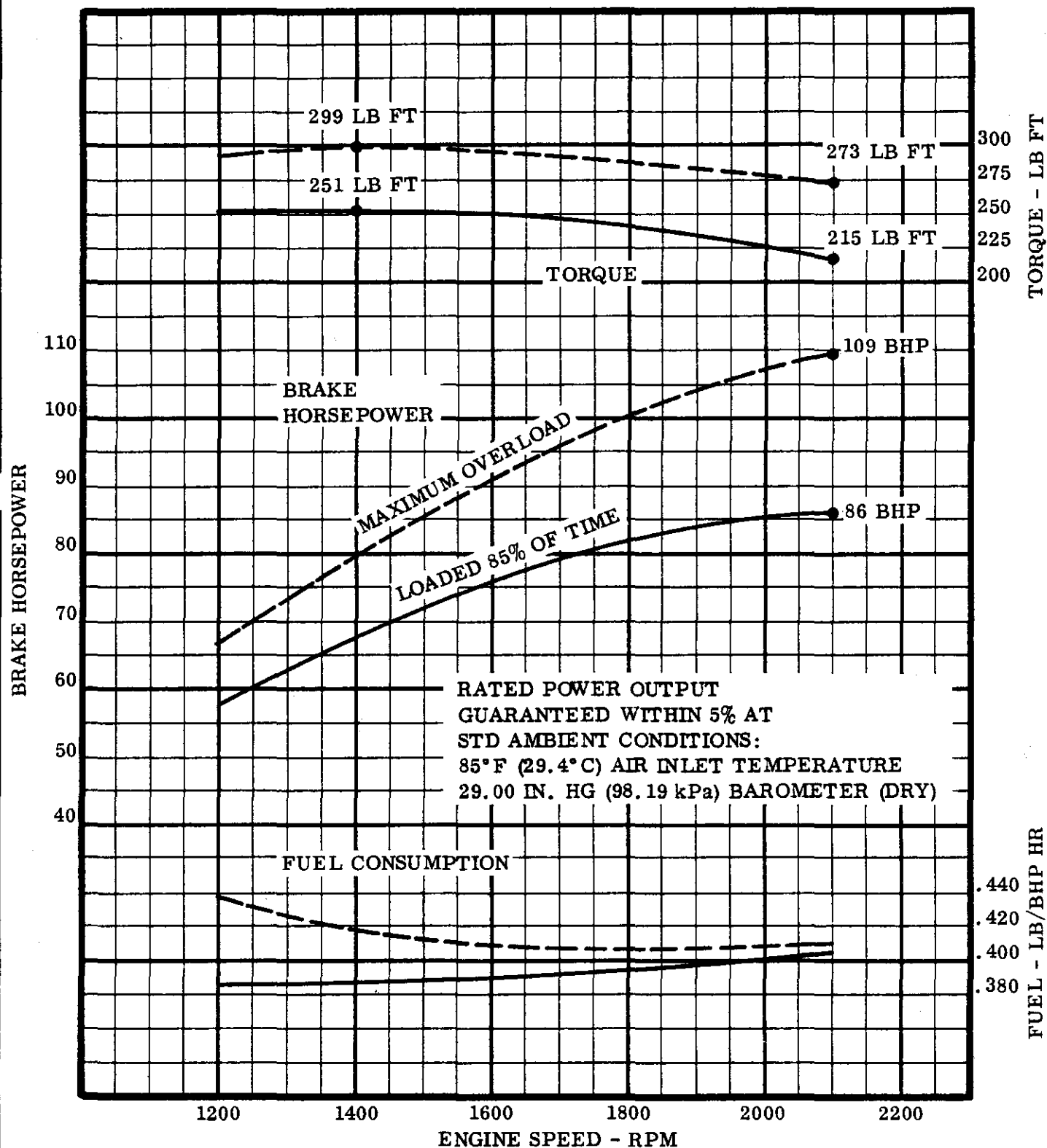
* Maximum overload rating

E4M-0000-00-27
WPD 1560A
Rev. 03/19/81



Detroit Diesel Allison
Division of General Motors Corporation

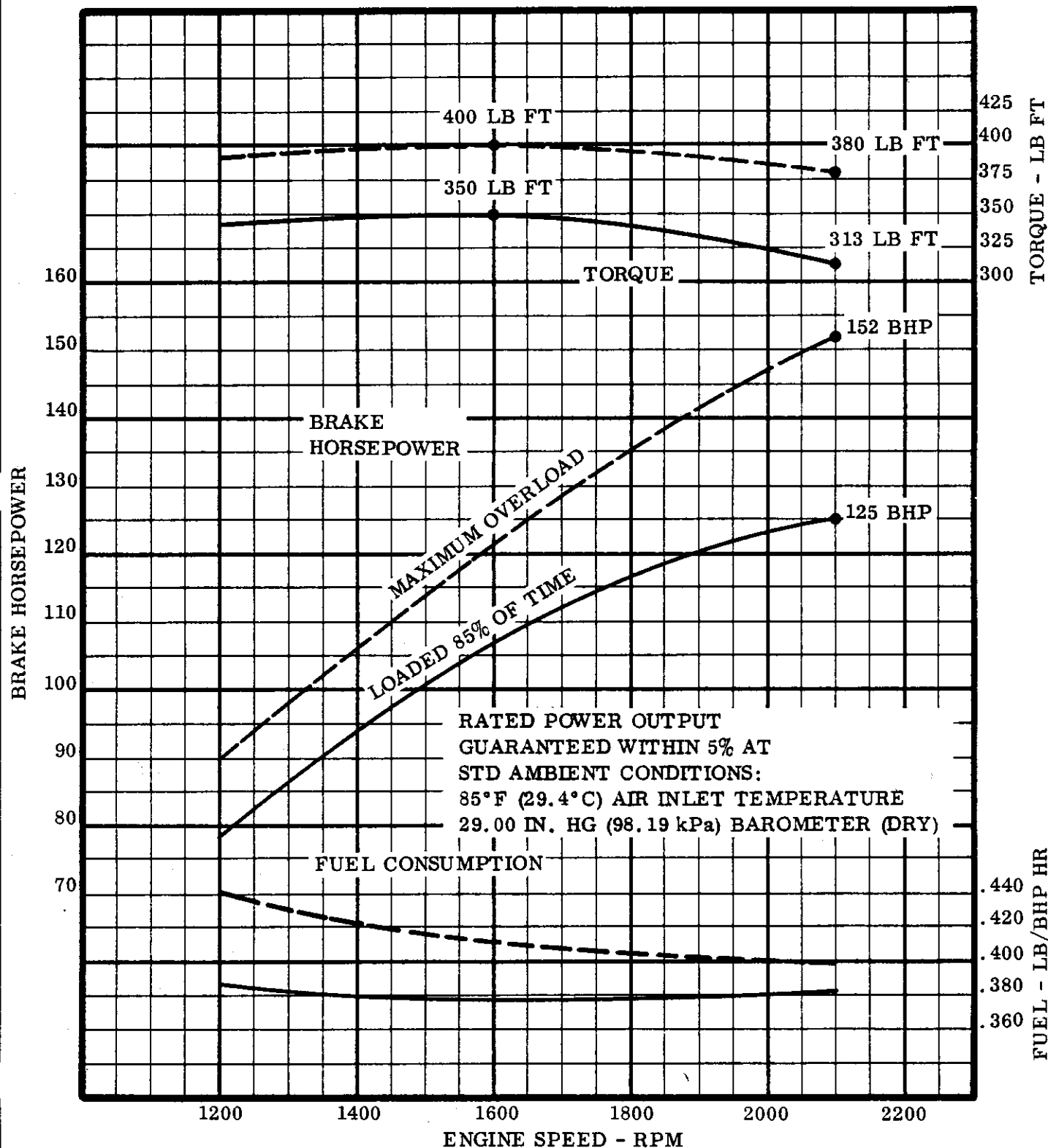
3-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING





Detroit Diesel Allison
Division of General Motors Corporation

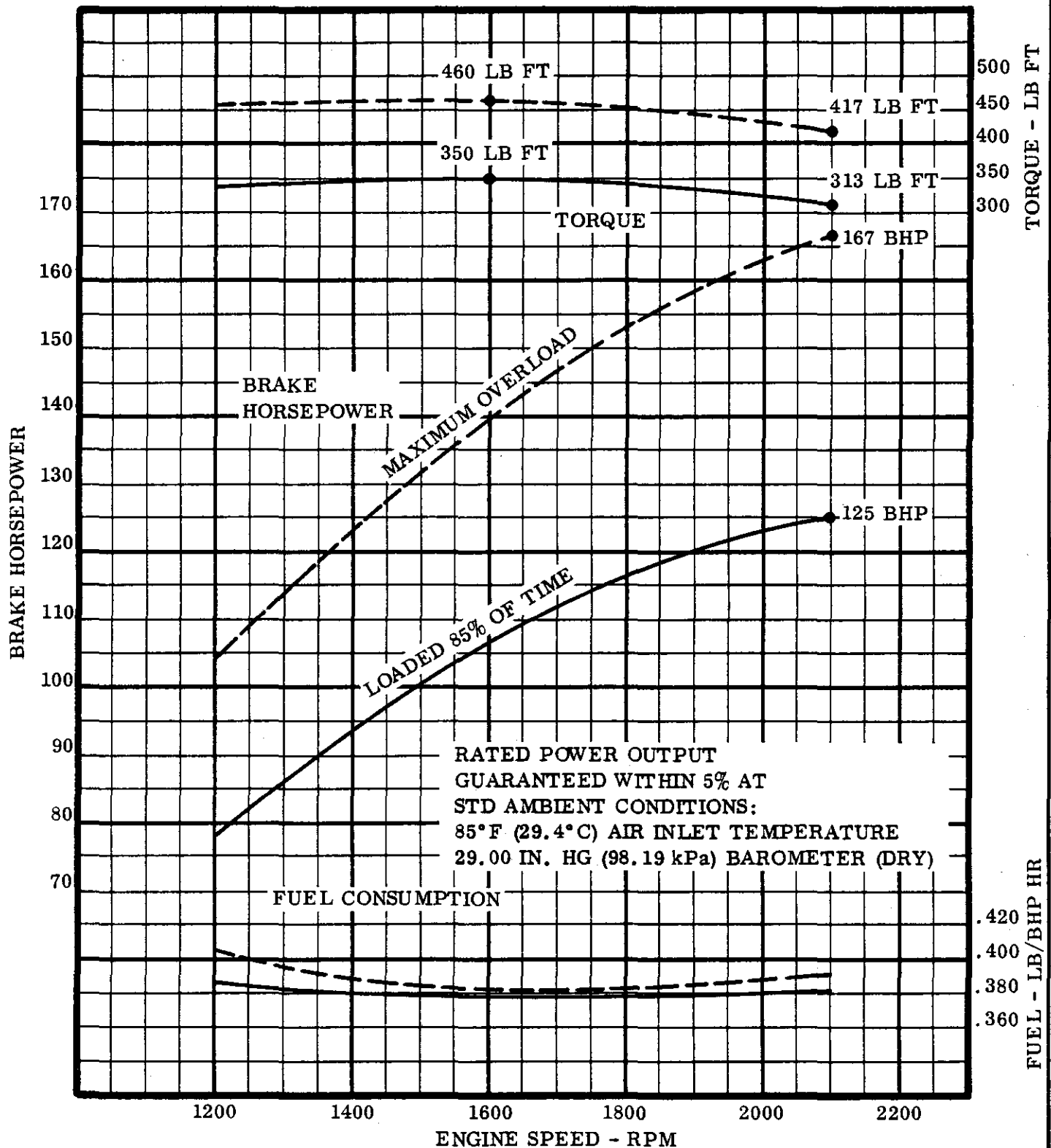
4-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING





Detroit Diesel Allison
Division of General Motors Corporation

4-71T
BASIC ENGINE
PORTABLE DRILL RIG
N70 INJECTORS



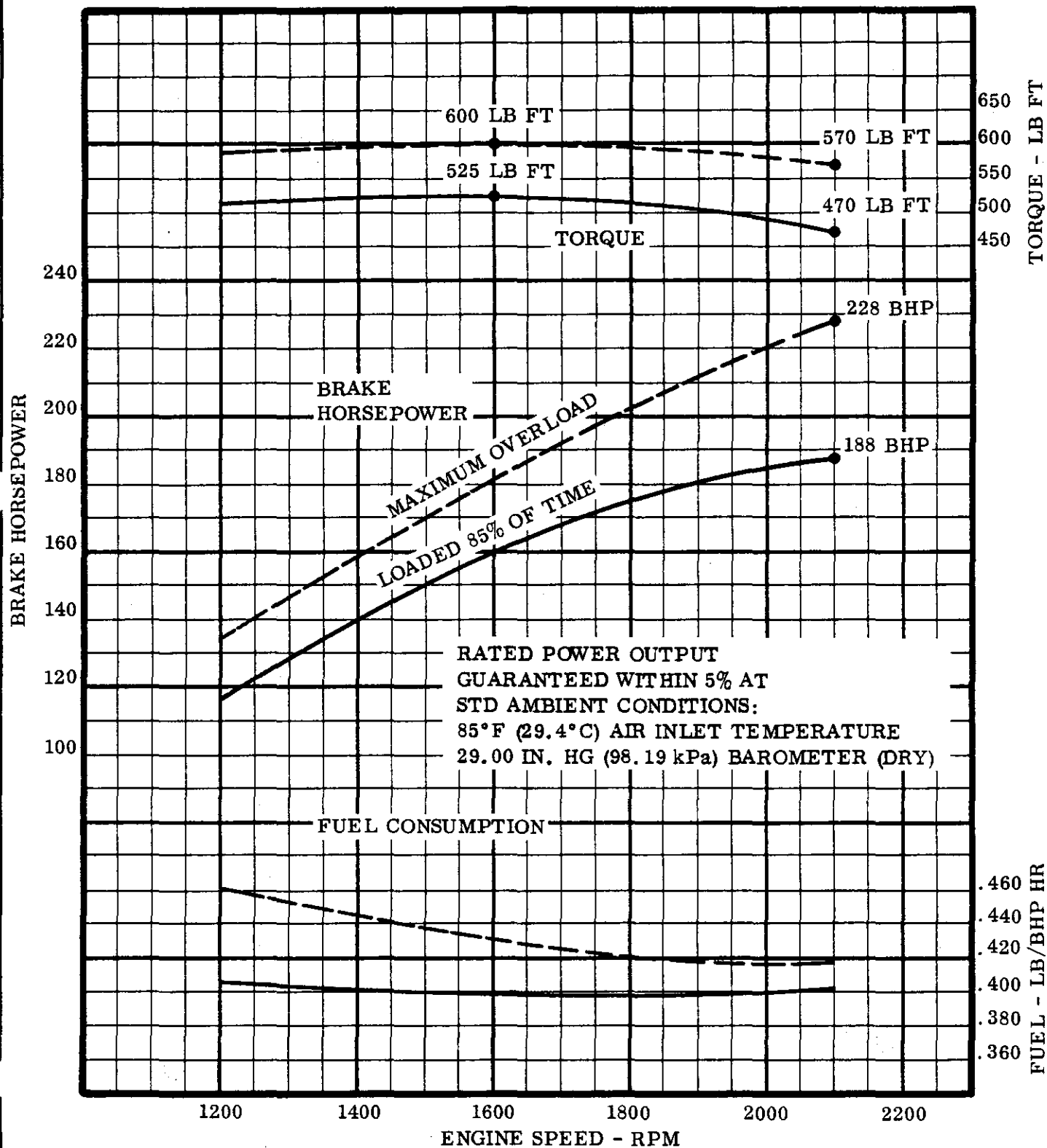
ENGINEERING-TECHNICAL DATA DEPT.

E4-1041-32-7
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

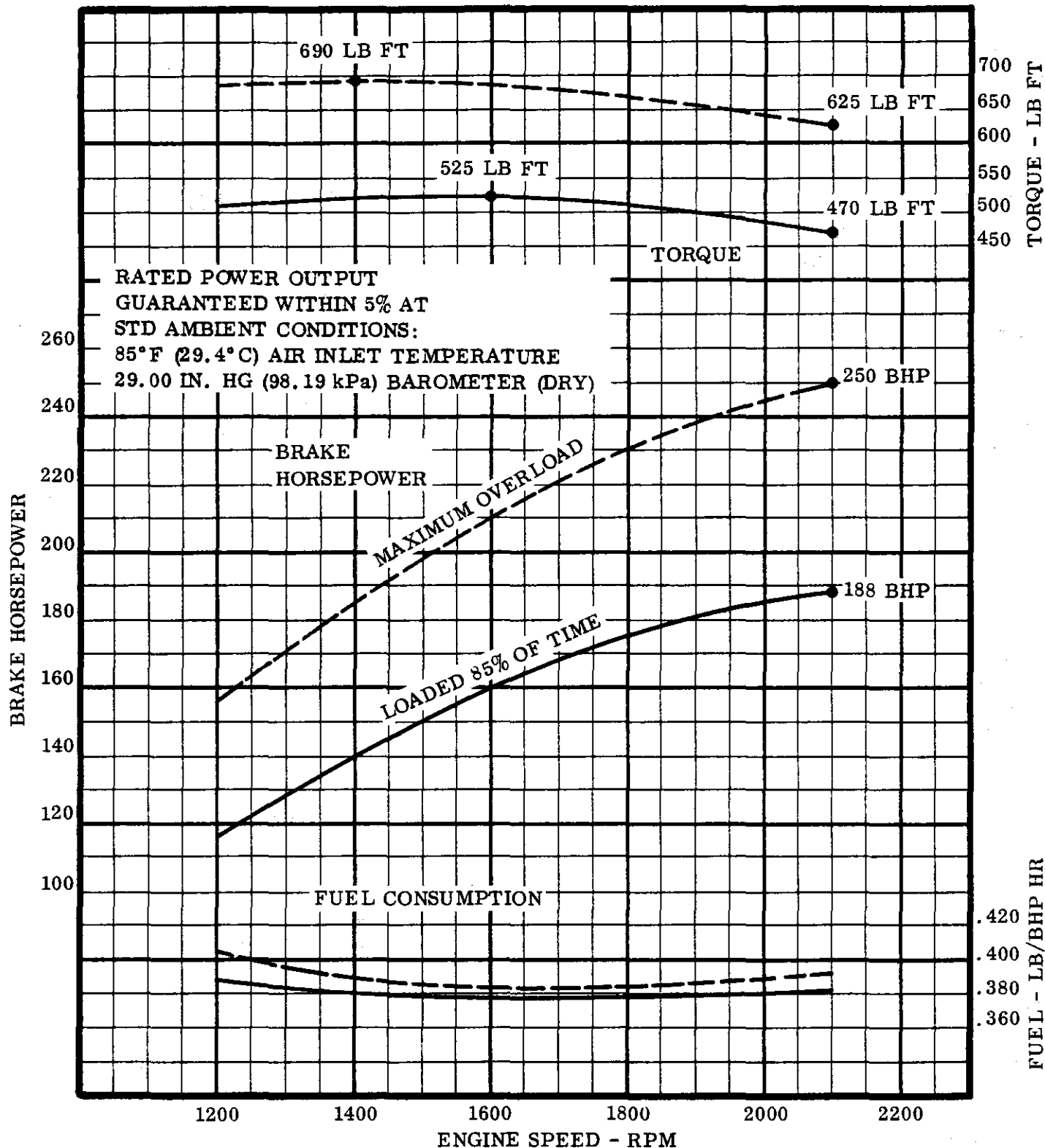
6-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING





Detroit Diesel Allison
Division of General Motors Corporation

6-71T
BASIC ENGINE
PORTABLE DRILL RIG
N70 INJECTORS



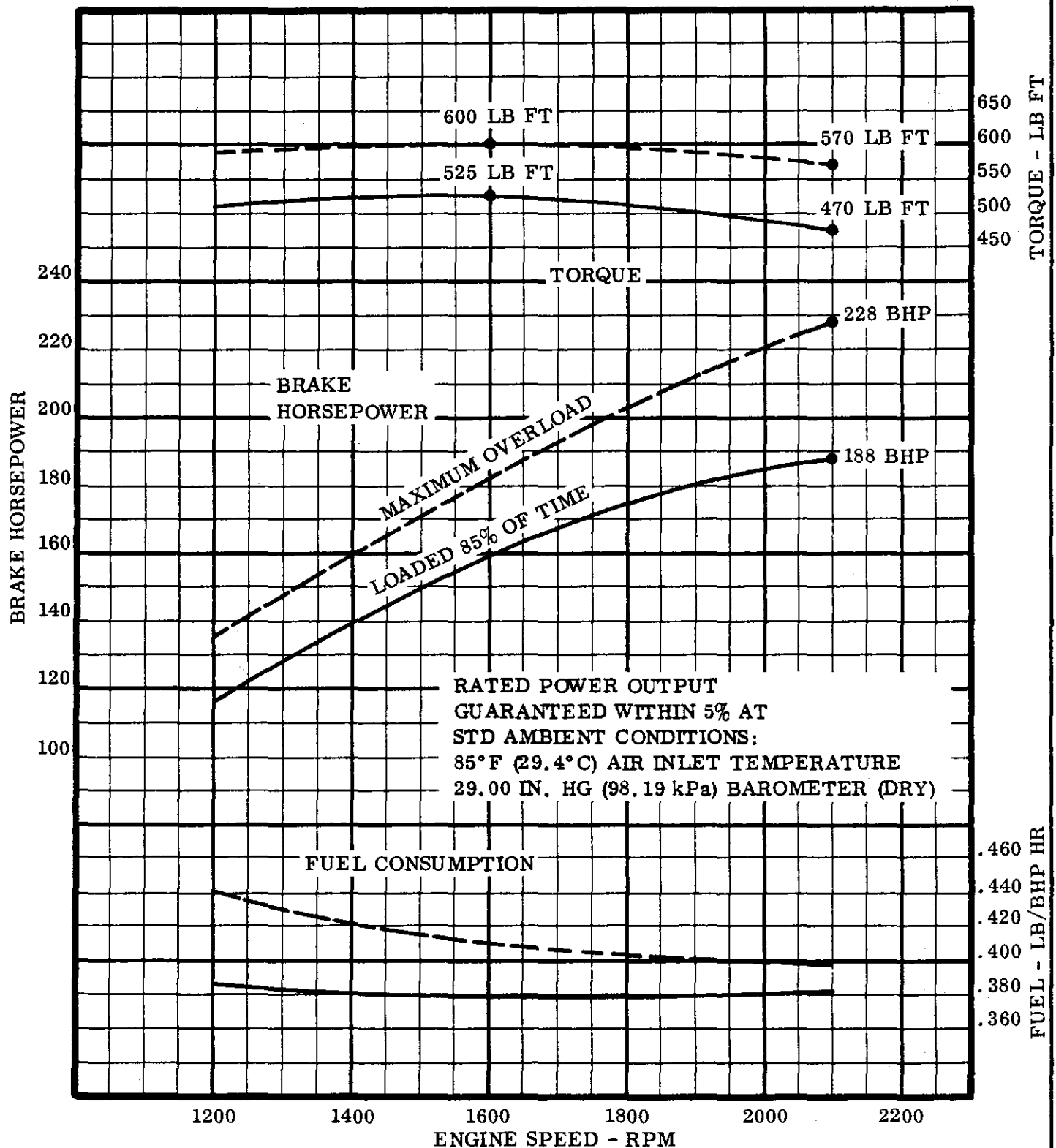
ENGINEERING-TECHNICAL DATA DEPT.

E4-1061-32-9
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

6V-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING



ENGINEERING-TECHNICAL DATA DEPT.

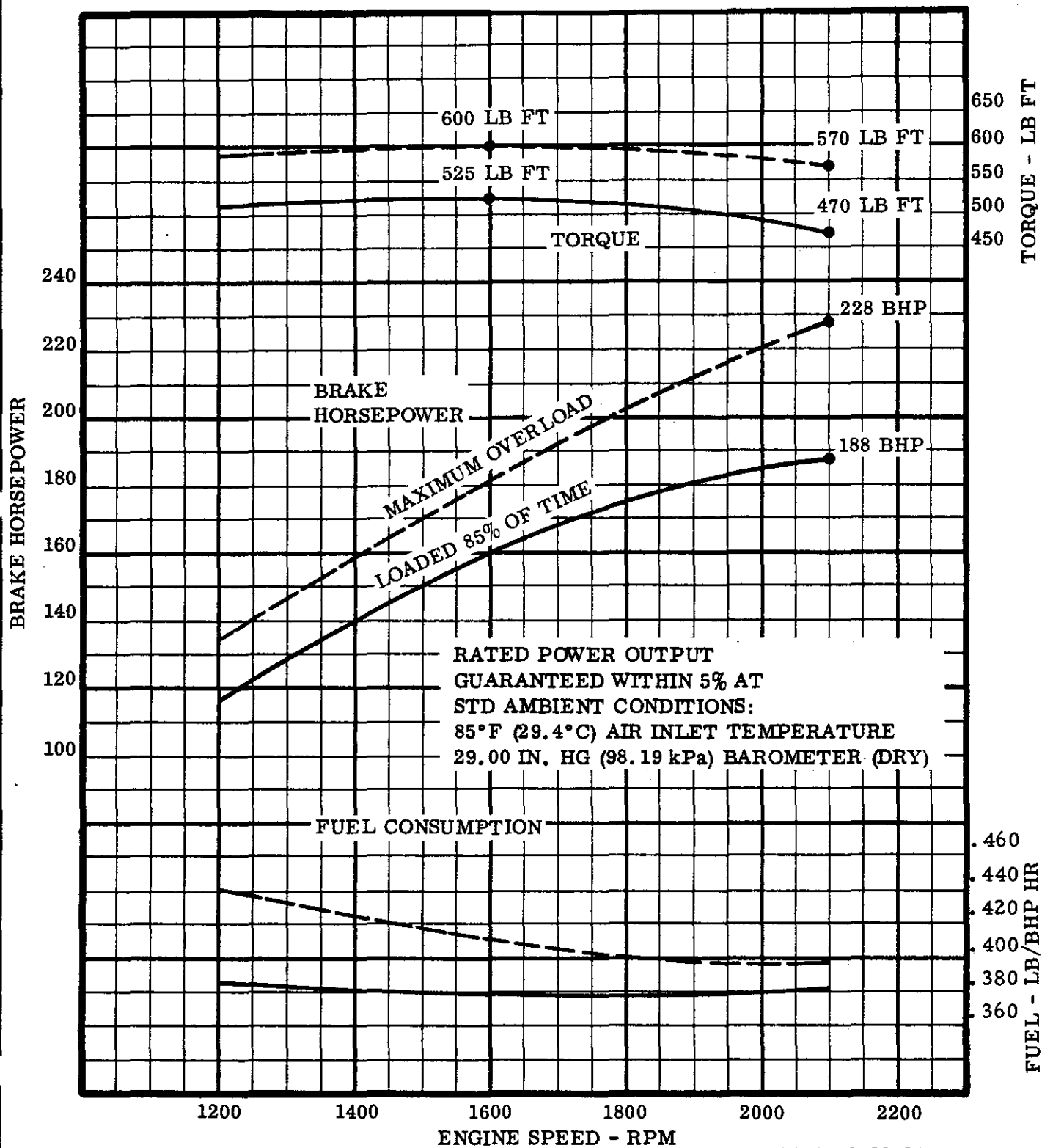
E4-7061-52-24
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

BASIC ENGINE PERFORMANCE

MODEL: 6-71N
APPLICATION: PORTABLE DRILL RIG
INJECTORS: N65 (1.484 TIMING)
CAMSHAFT: ADVANCED



ENGINEERING-TECHNICAL DATA DEPT.

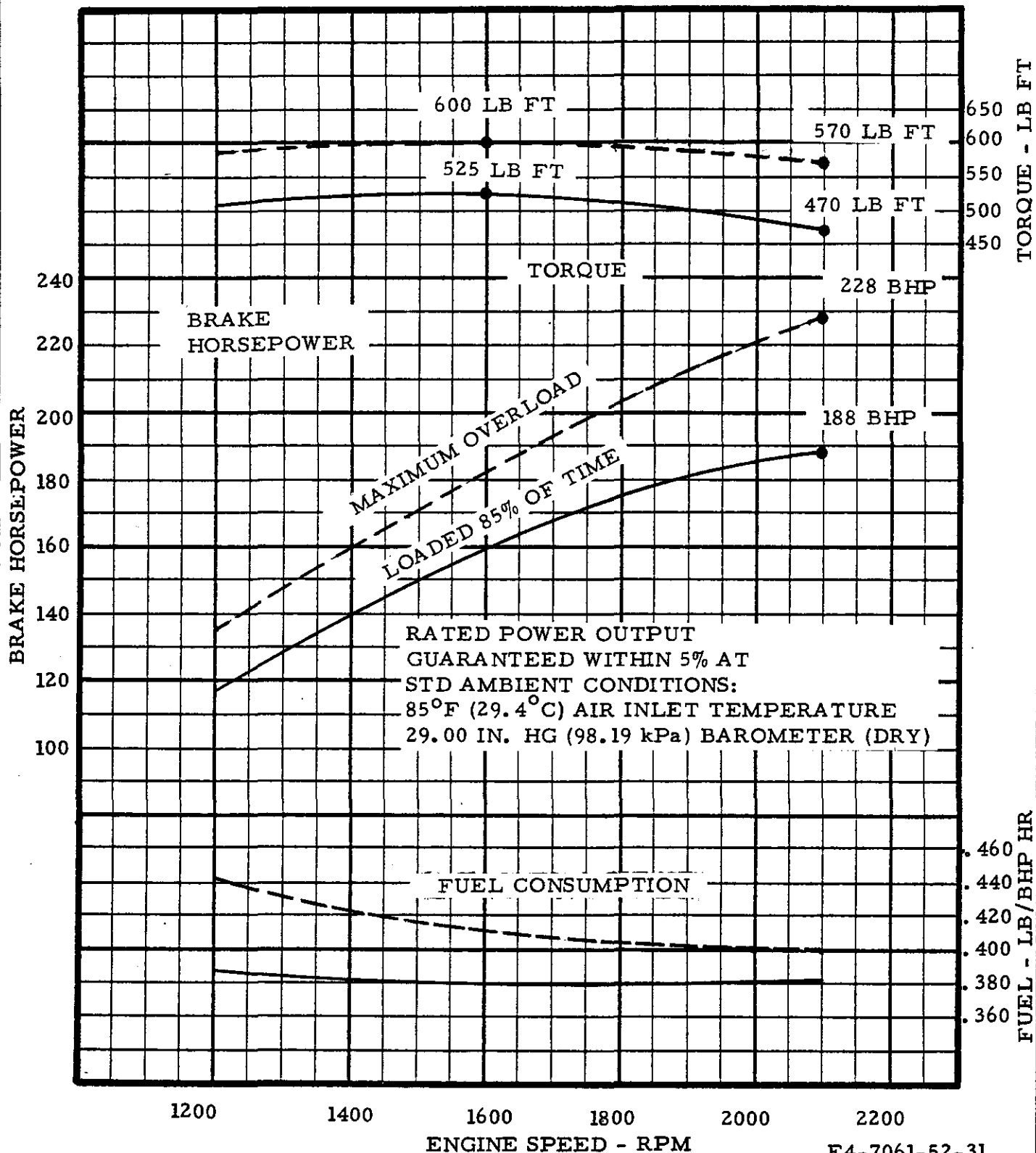
E4-1061-52-27
Rev. 2-10-81



Detroit Diesel Allison
Division of General Motors Corporation

BASIC ENGINE PERFORMANCE

MODEL: 6V-71N
APPLICATION: PORTABLE DRILL RIG
INJECTORS: C65 (1.484 Timing)
CAMSHAFT: ADVANCED



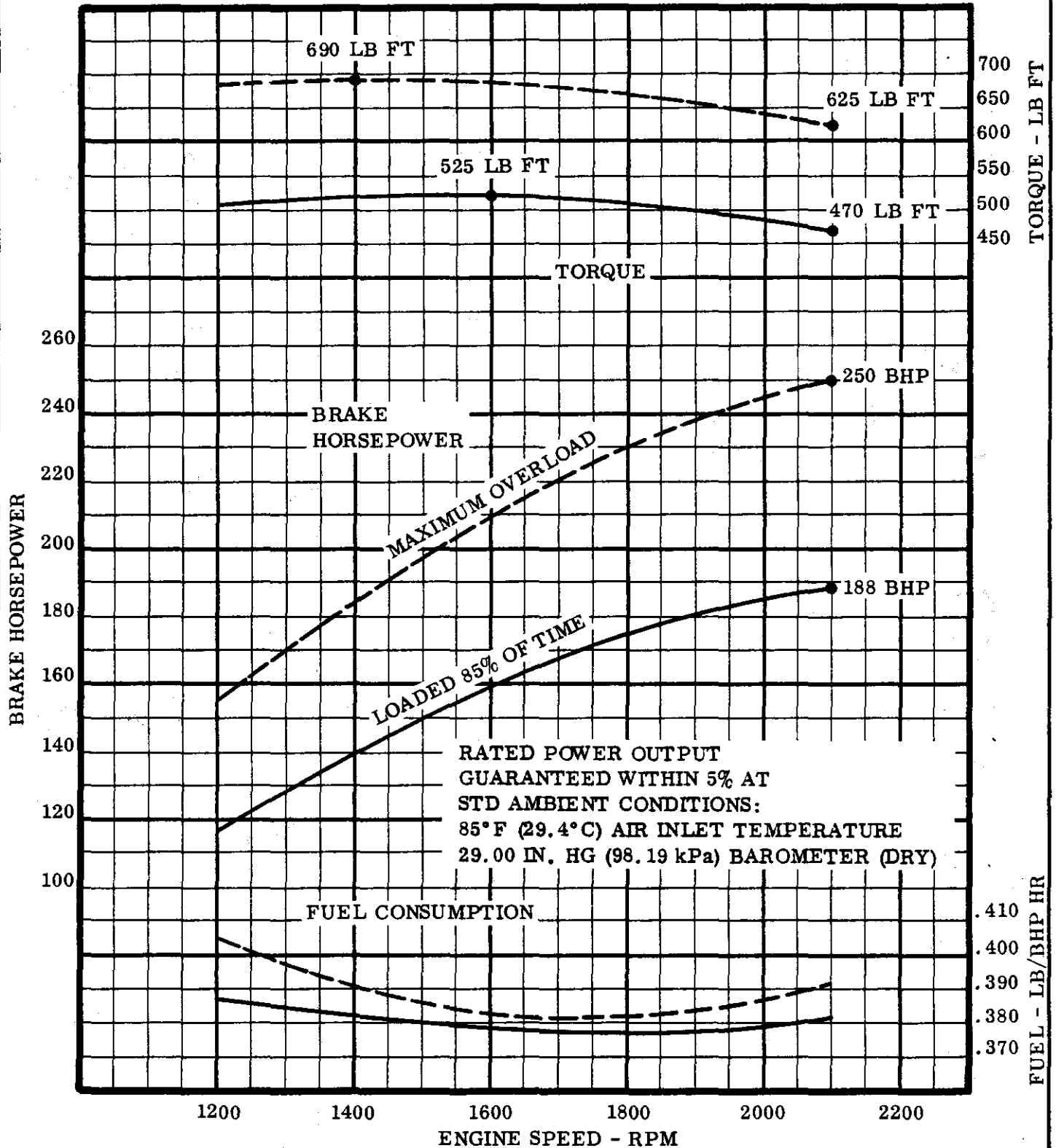
ENGINEERING-TECHNICAL DATA DEPT.

E4-7061-52-31
2-2-81



Detroit Diesel Allison
Division of General Motors Corporation

6V-71T
BASIC ENGINE
PORTABLE DRILL RIG
N70 INJECTORS



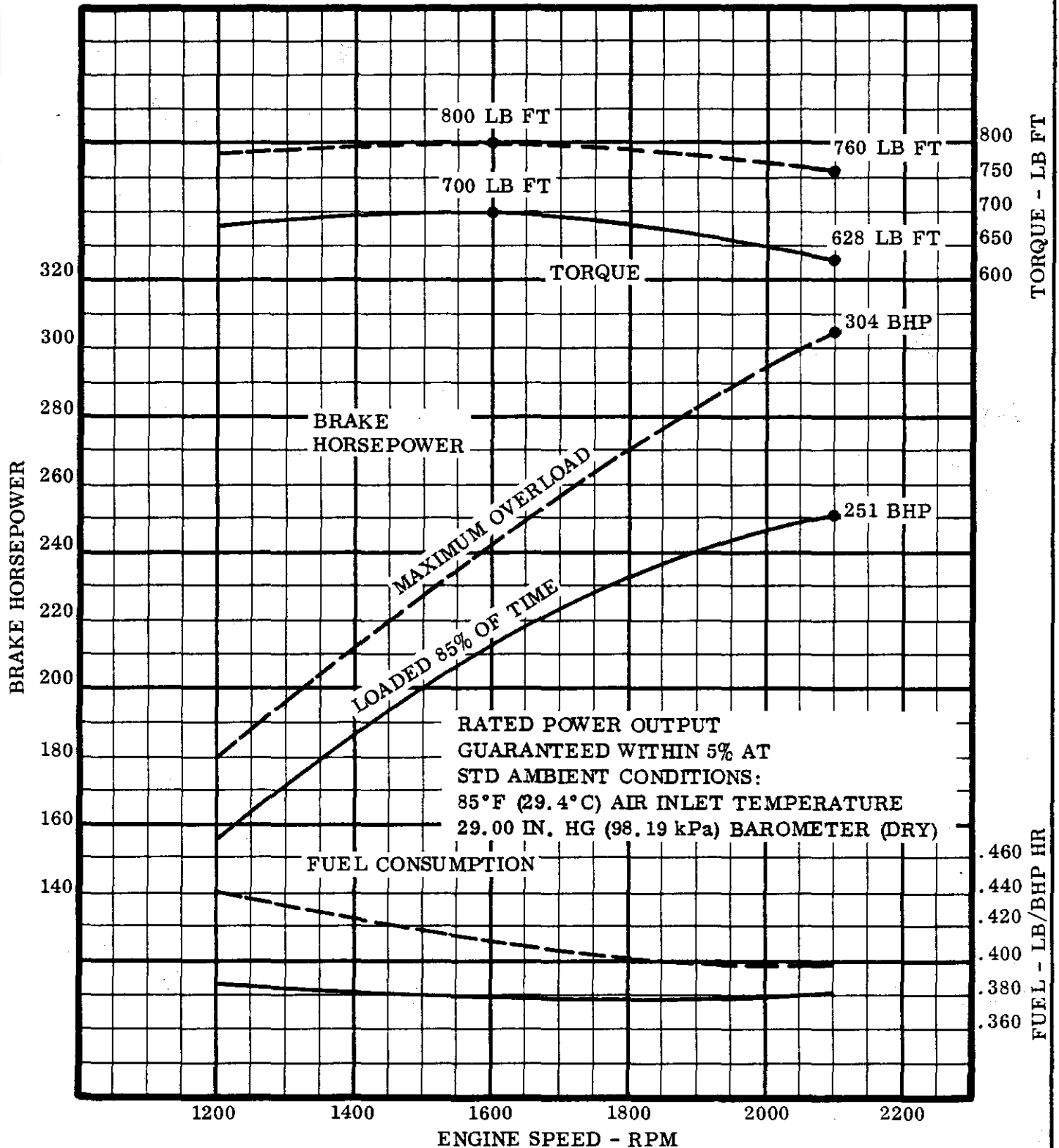
ENGINEERING-TECHNICAL DATA DEPT.

E4-7061-32-7
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

8V-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING



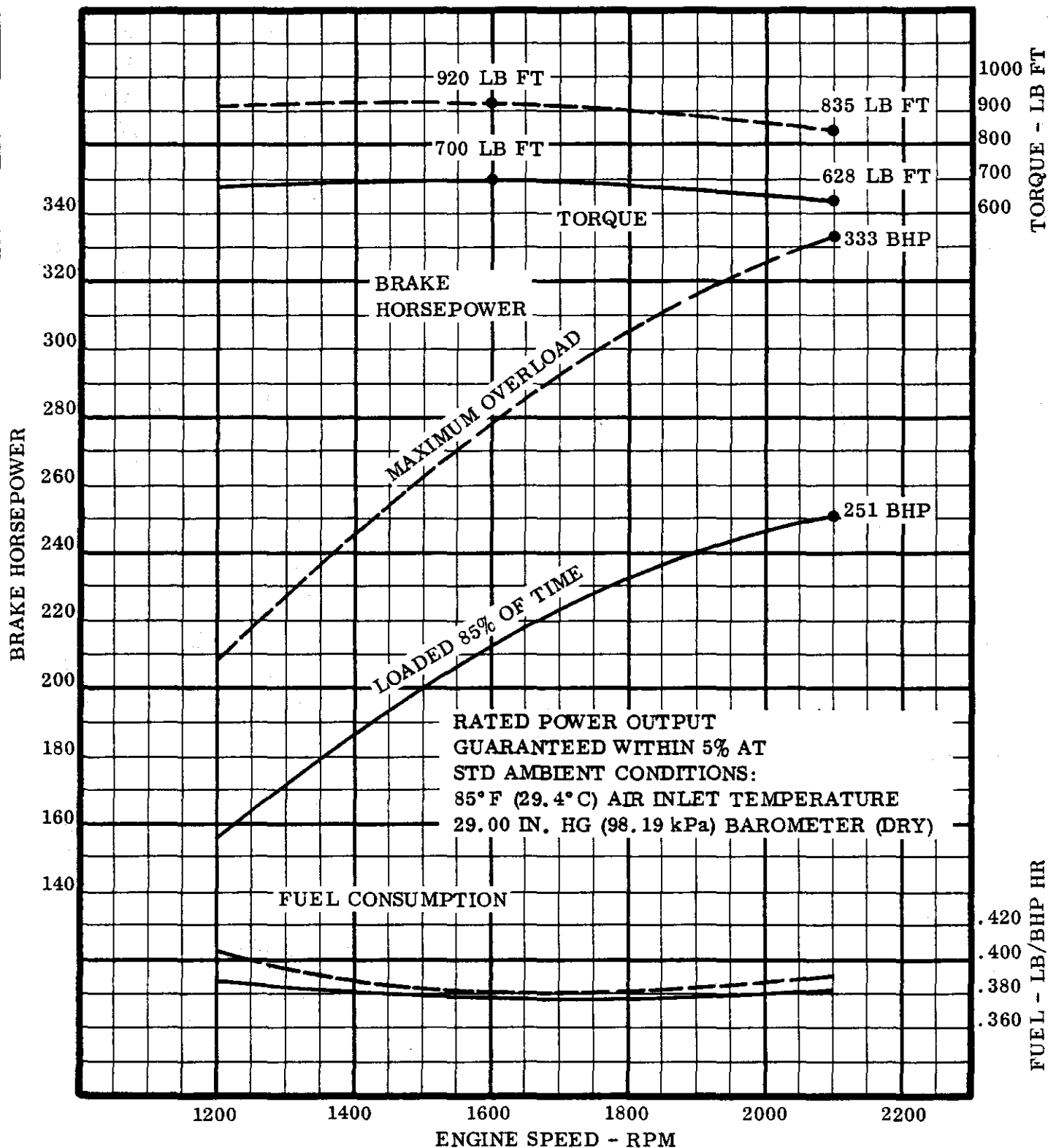
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E4-7081-52-58
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

8V-71T
BASIC ENGINE
PORTABLE DRILL RIG
N70 INJECTORS



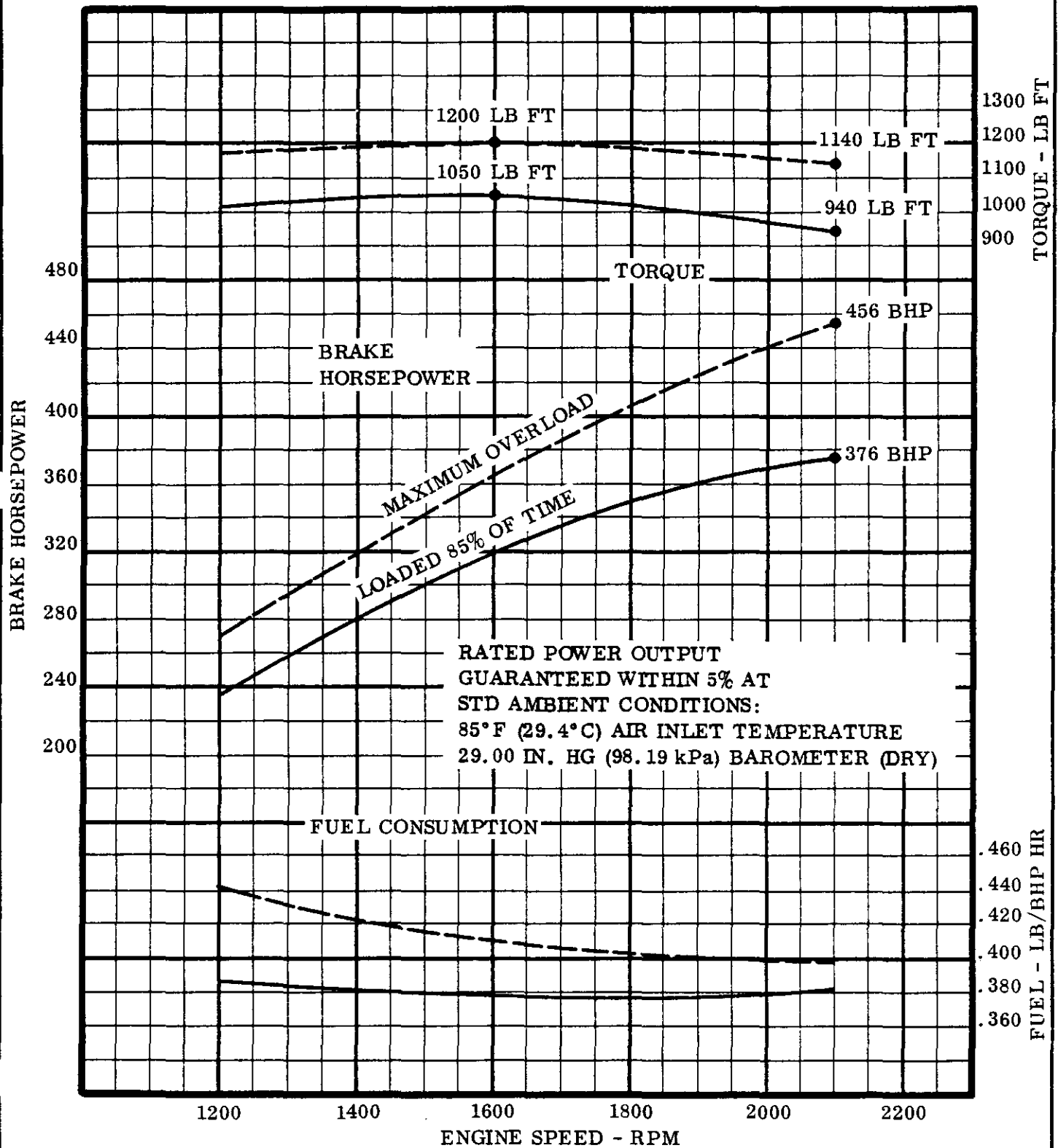
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E4-7081-32-22
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

12V-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING



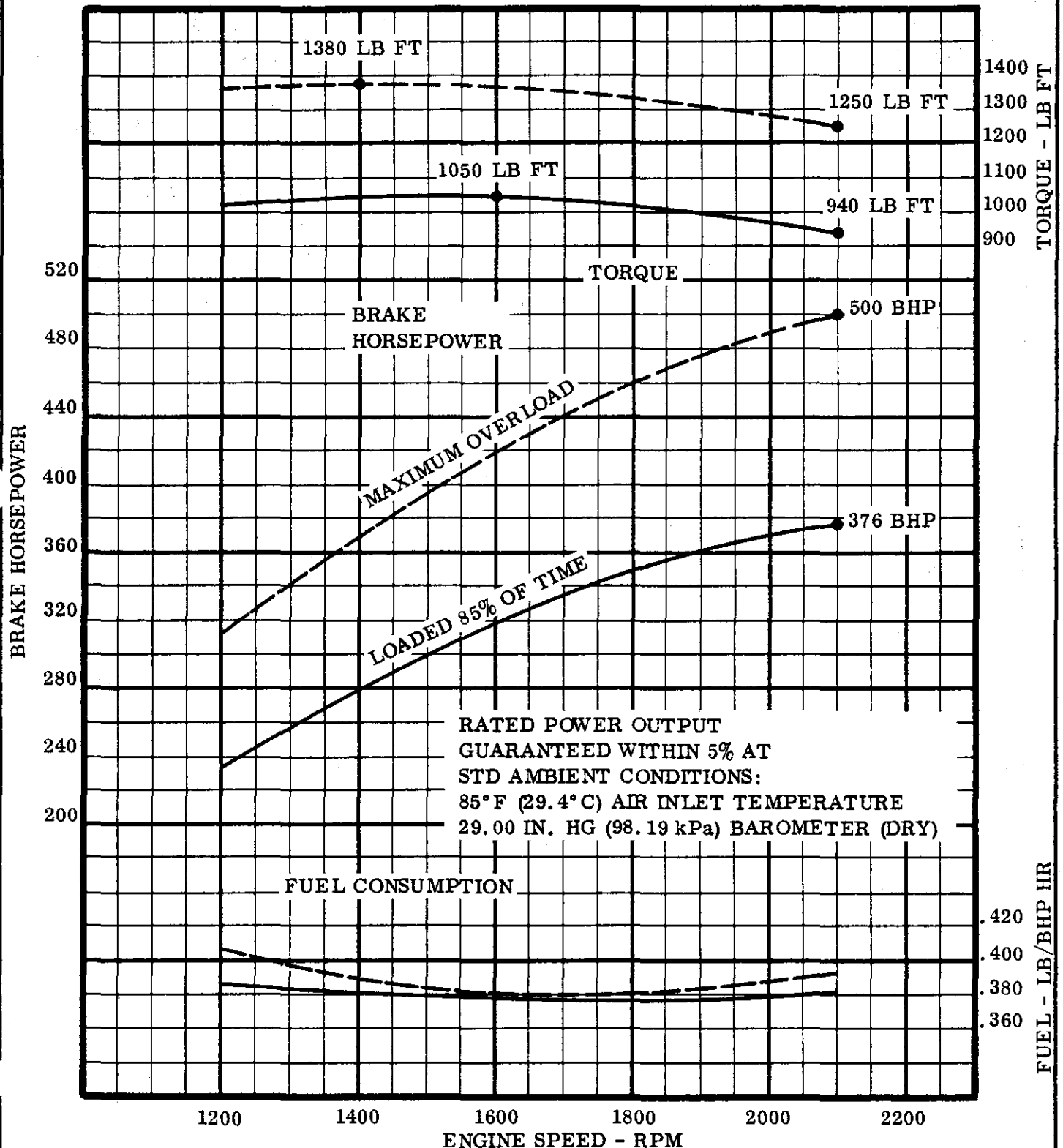
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E4-7121-52-30
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

12V-71T
BASIC ENGINE
PORTABLE DRILL RIG
N70 INJECTORS



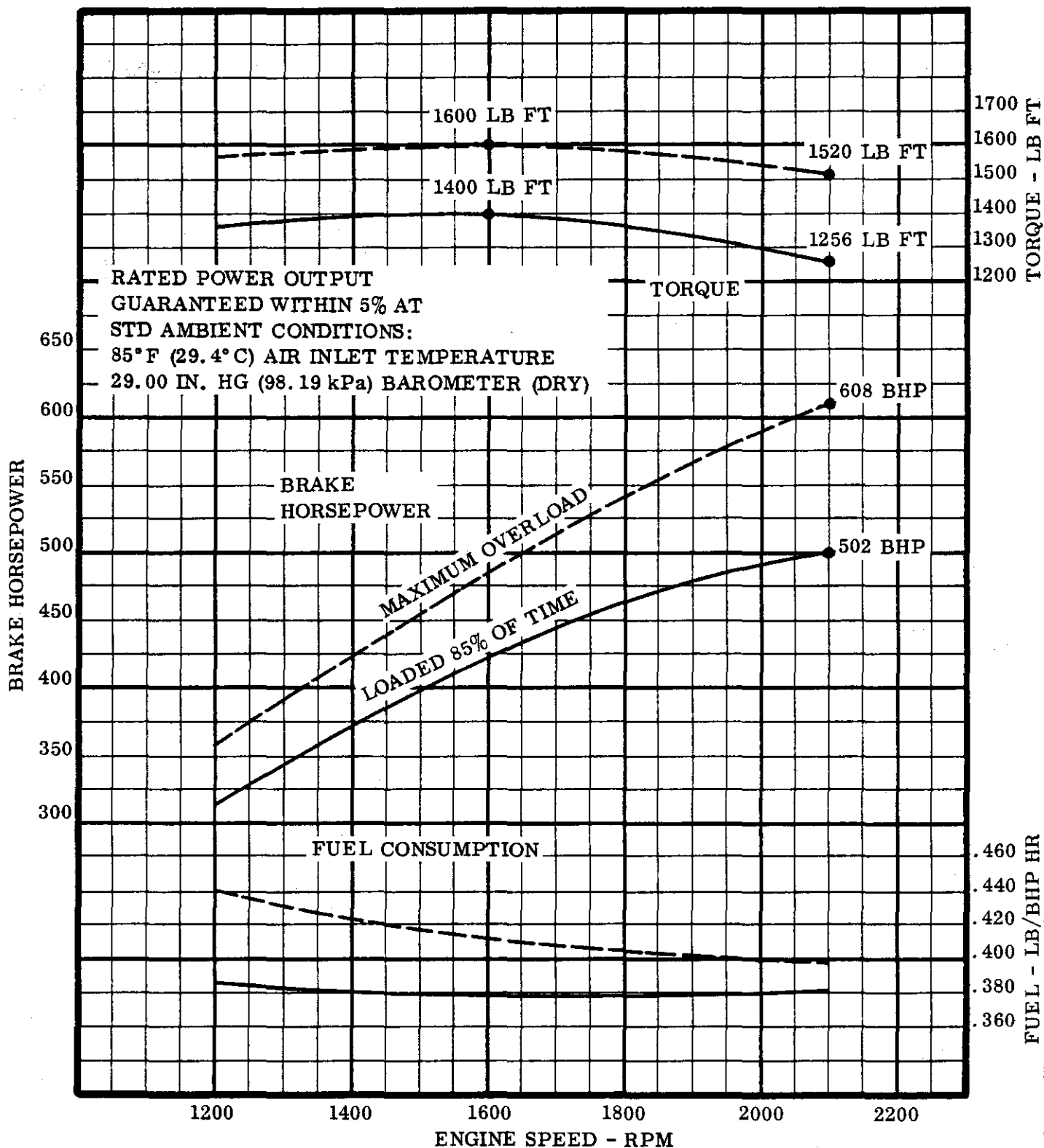
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E4-7121-32-8
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

16V-71N
BASIC ENGINE
PORTABLE DRILL RIG
N65 INJECTORS
ADVANCED CAMSHAFT TIMING



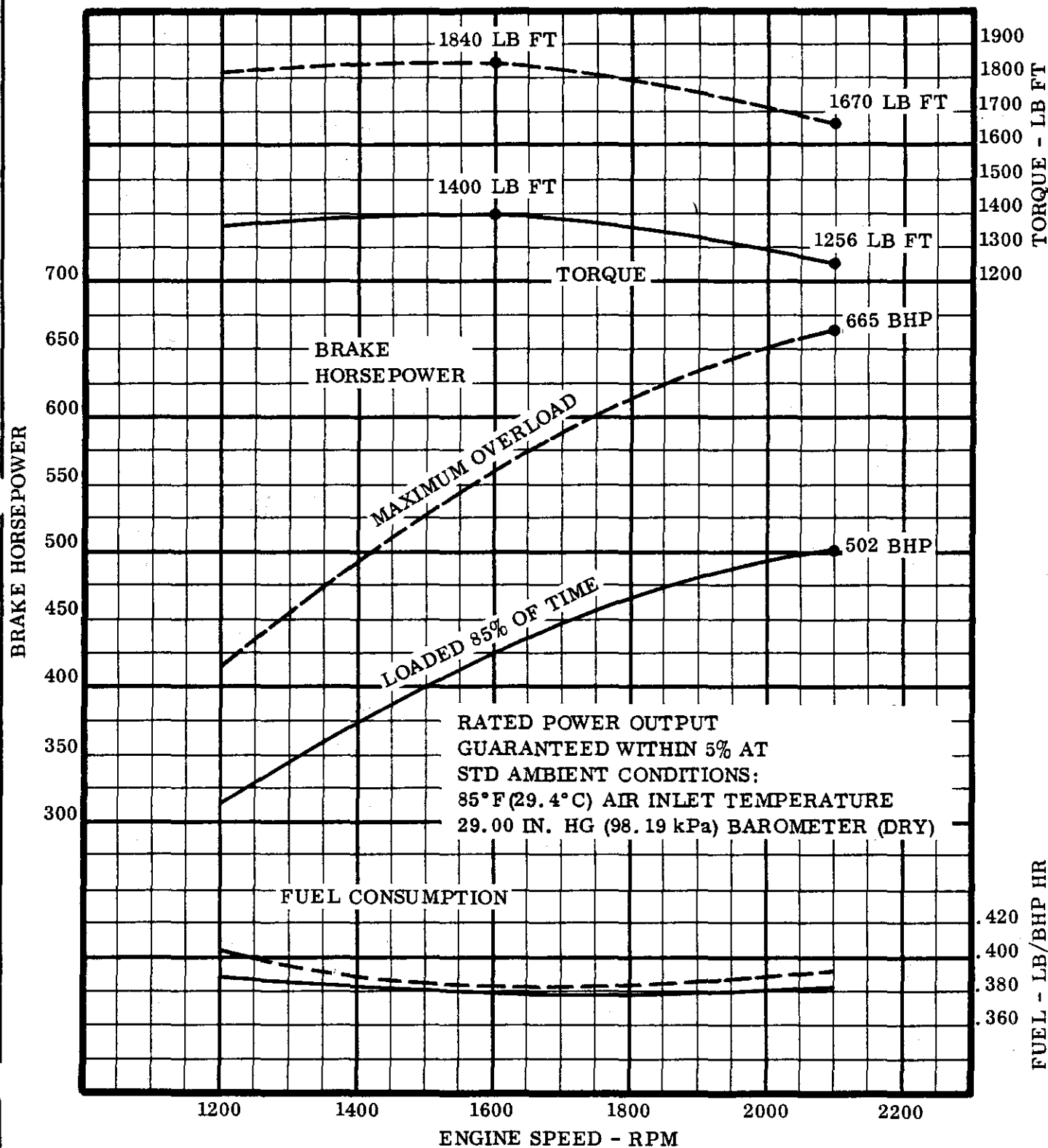
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E4-7161-52-17
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

16V-71T
BASIC ENGINE
PORTABLE DRILL RIG
N70 INJECTORS



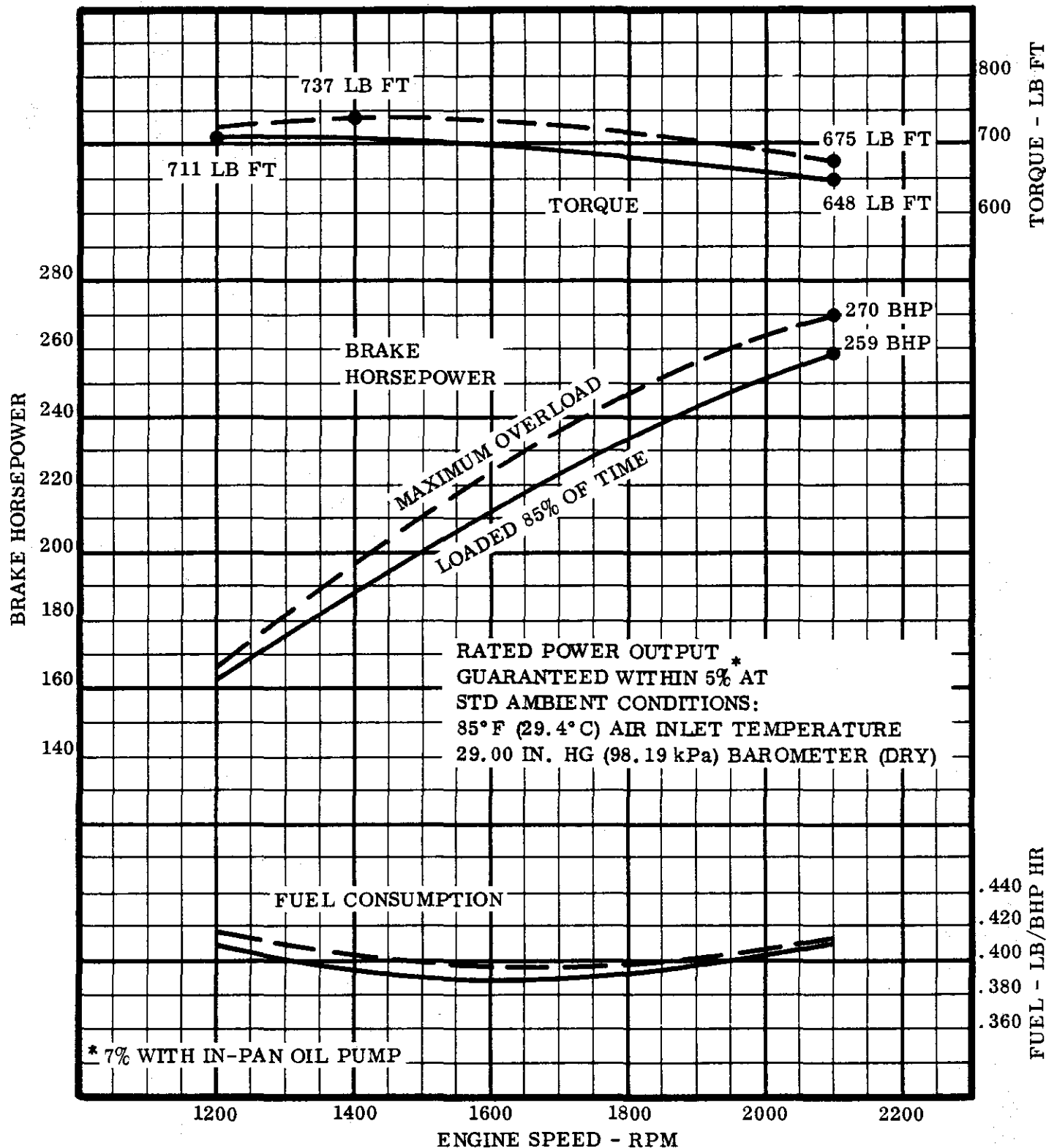
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E4-7161-32-5
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

6V-92
BASIC ENGINE
PORTABLE DRILL RIG
9280 INJECTORS



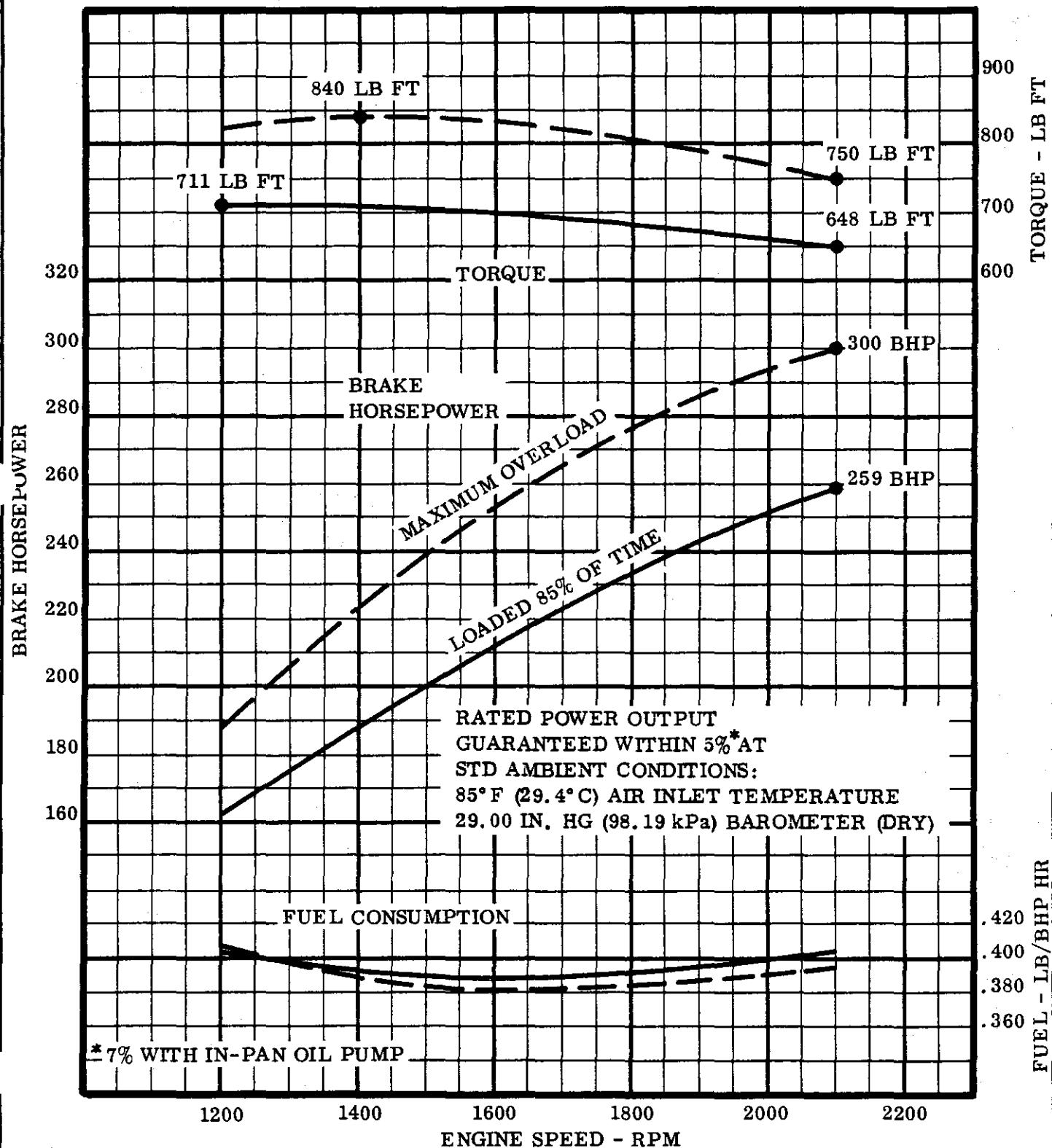
ENGINEERING-TECHNICAL DATA DEPT.

E4-8061-12-16
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

6V-92T
BASIC ENGINE
T18A40 (1.14 A/R HSG.) TURBOCHARGER
PORTABLE DRILL RIG
9285 INJECTORS



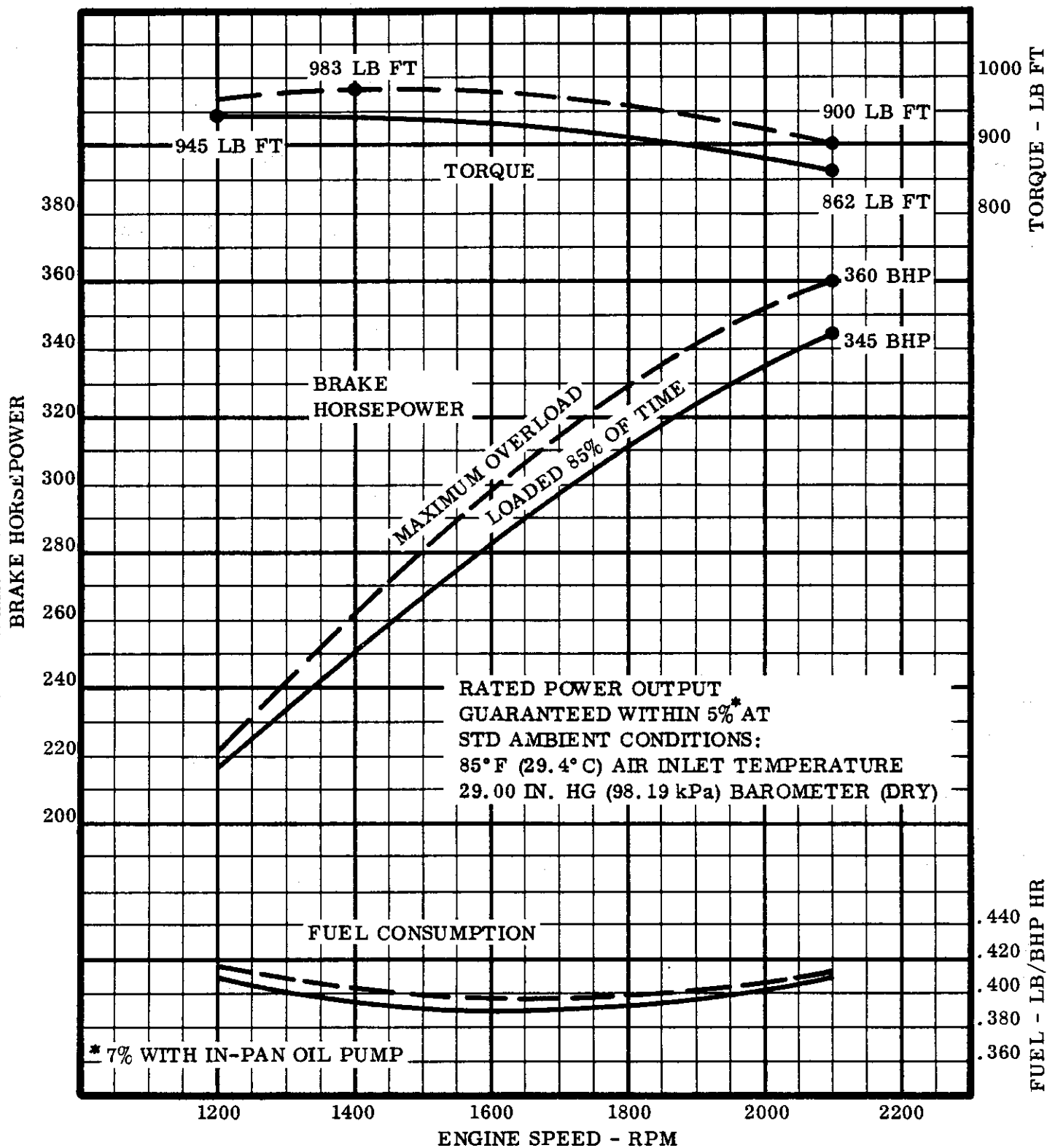
ENGINEERING-TECHNICAL DATA DEPT.

E4-8061-32-16
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

8V-92
BASIC ENGINE
PORTABLE DRILL RIG
9280 INJECTORS



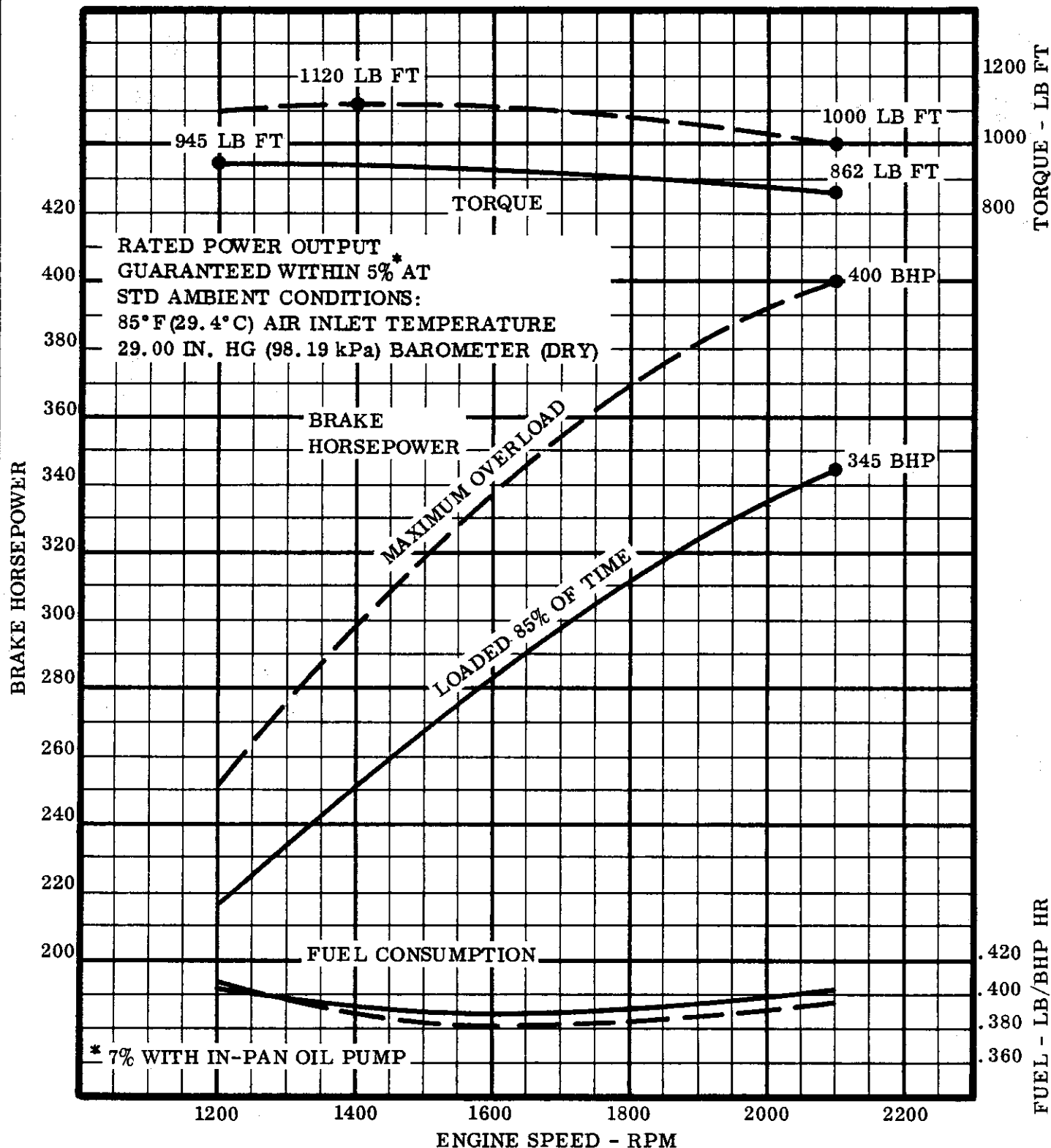
ENGINEERING-TECHNICAL DATA DEPT.

E4-8081-12-16
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

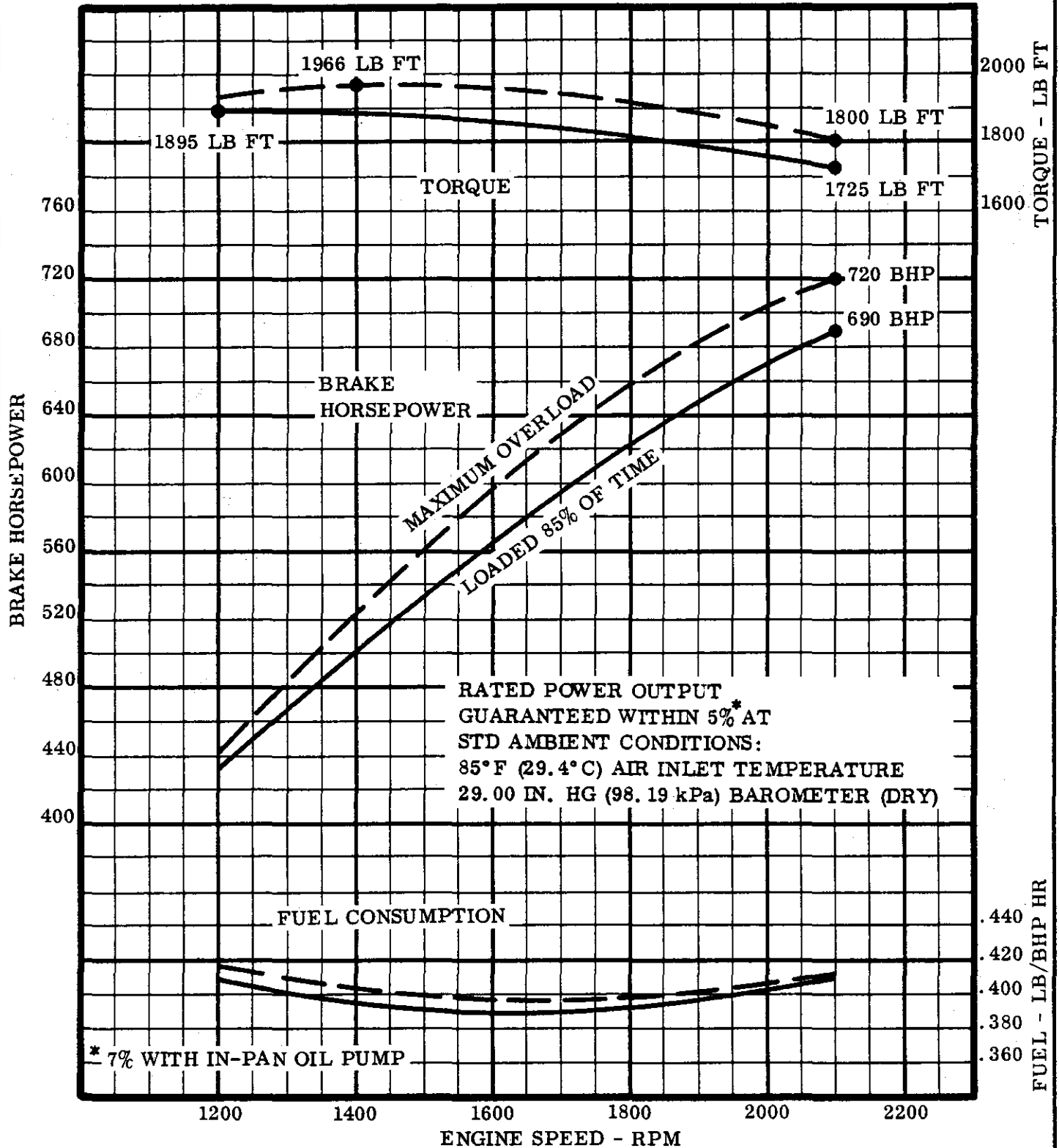
8V-92T
BASIC ENGINE
T18A90 (1.5 A/R HSG.) TURBOCHARGER
PORTABLE DRILL RIG
9285 INJECTORS





Detroit Diesel Allison
Division of General Motors Corporation

16V-92
BASIC ENGINE
PORTABLE DRILL RIG
9280 INJECTORS



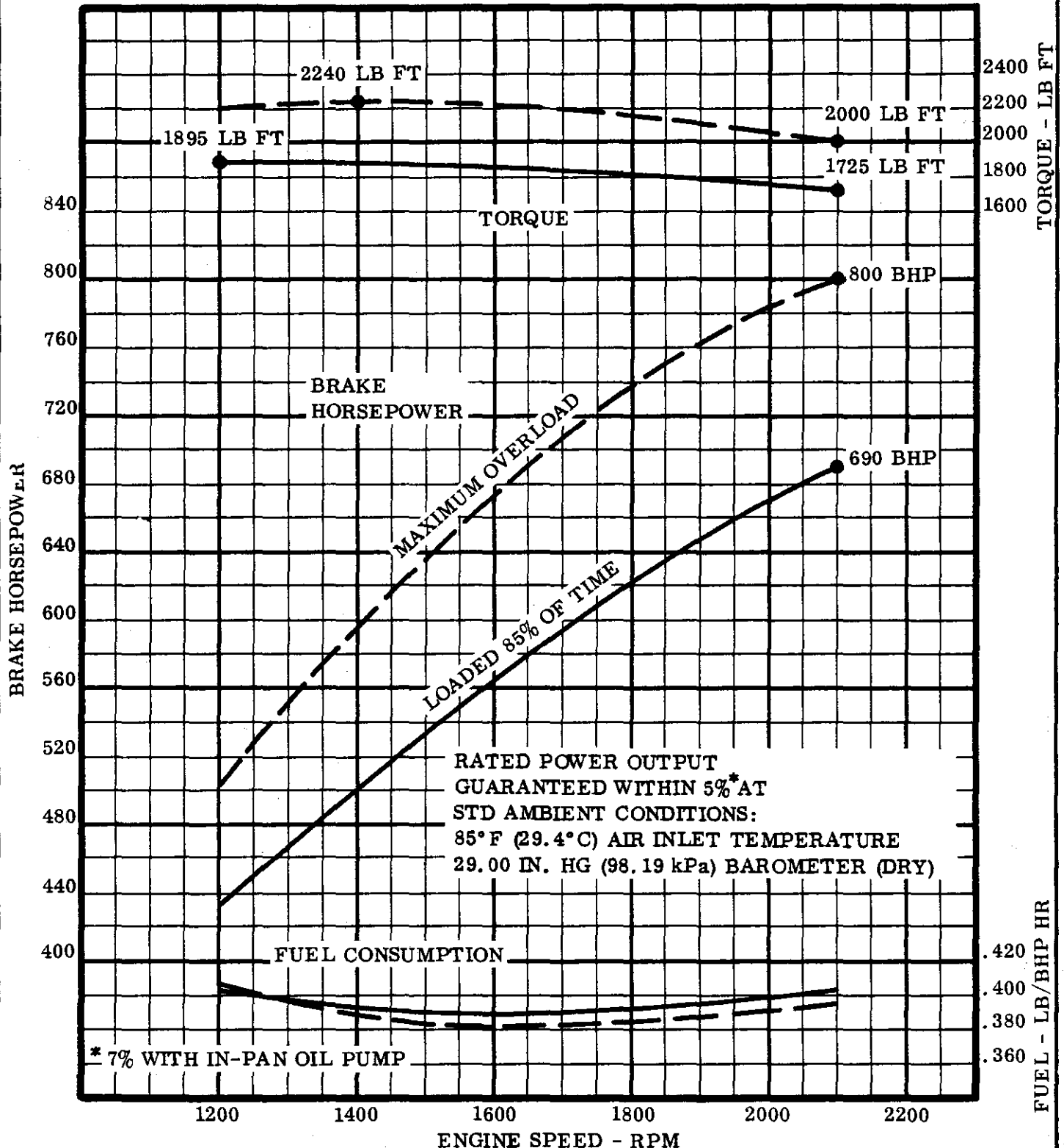
ENGINEERING-TECHNICAL DATA DEPT.

E4-8161-12-13
Rev. 6-28-79



Detroit Diesel Allison
Division of General Motors Corporation

16V-92T
BASIC ENGINE
T18A90 (1.5 A/R HSG.) TURBOCHARGER
PORTABLE DRILL RIG
9285 INJECTORS



ENGINEERING-TECHNICAL DATA DEPT.

E4-8161-32-4
Rev. 6-28-79