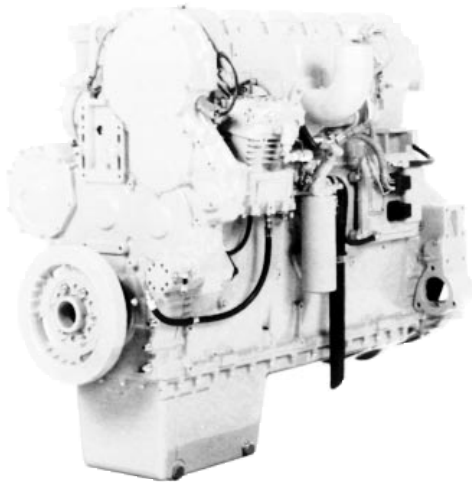




Diesel Truck Engine

3406E 550 hp



Shown with
Optional Equipment

SPECIFICATIONS

Bore—in (mm)..... 5.4 (137)
 Stroke—in (mm)..... 6.5 (165)
 Displacement—cu in (L)..... 893 (14.6)
 Aspiration..... Turbocharged for ATAAC¹
 Rotation (from flywheel end) ... Counterclockwise
 AMA Rating for USA Tax Purposes—hp 70
 Cooling System²—gal (L) 5.5 (20.8)
 Lube Oil System (refill)—gal (L) 10.0 (38)
 Weight, Net Dry (approx)—lb (kg)
 with standard equipment 2,867 (1300)

PERFORMANCE DATA

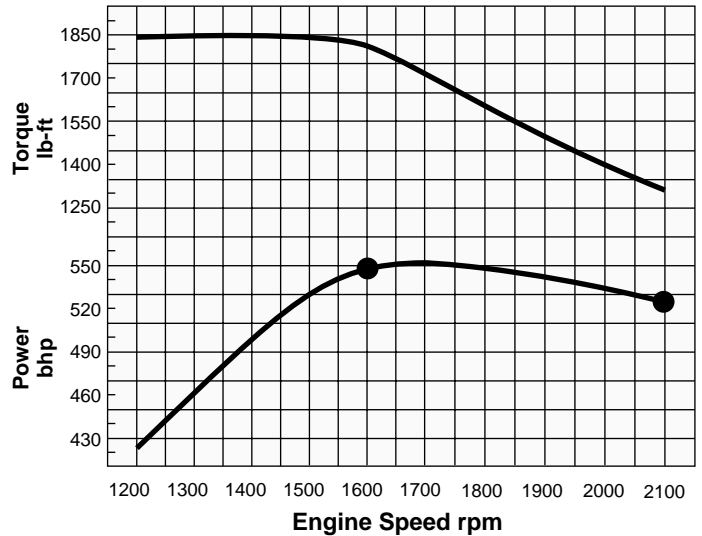
Operating Range (rpm)..... (1200-2100) 900
 Maximum Engine rpm..... 2120
 Advertised hp (kW)..... 550 (410)
 Max hp Range (rpm) 1600-1800
 Hp @ 2100 rpm Governed Speed..... 525 (392)
 Peak Torque—lb-ft (N•m)..... 1850 (2508)
 Peak Torque—rpm..... 1200
 Torque Rise (%) 41
 Altitude Capability—ft (m) 10,000 (3048)



¹ Air-to-Air AfterCooling

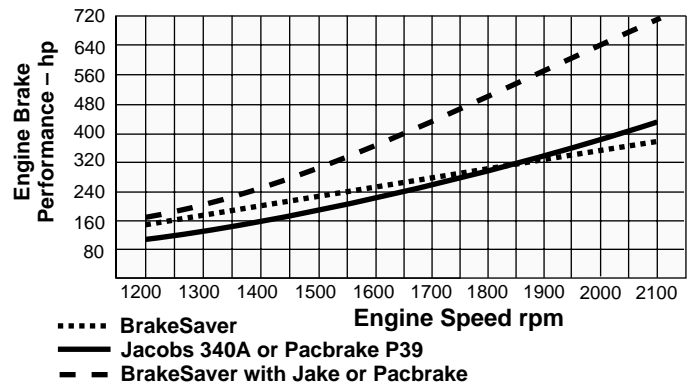
² Engine only. Capacity will vary with radiator size and use of cab

PERFORMANCE CURVES



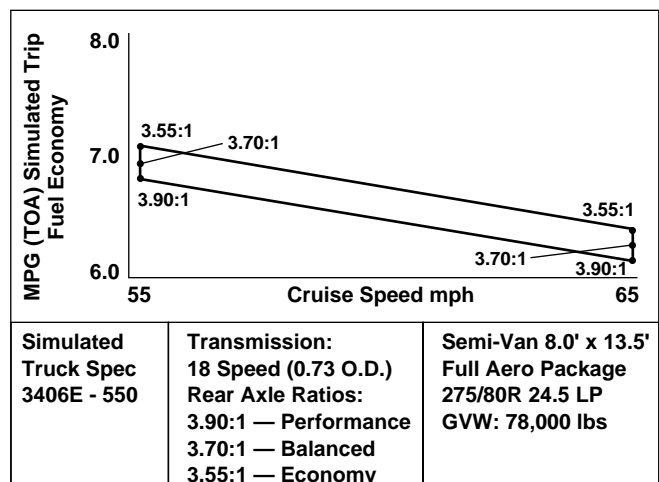
● Programmable Top Engine Limit

ENGINE RETARDATION*



Preliminary data provided by Jacobs Manufacturing for Model 340A.
 * Retarding performance per proposed SAE J1621 STD.

SIMULATED VEHICLE PERFORMANCE



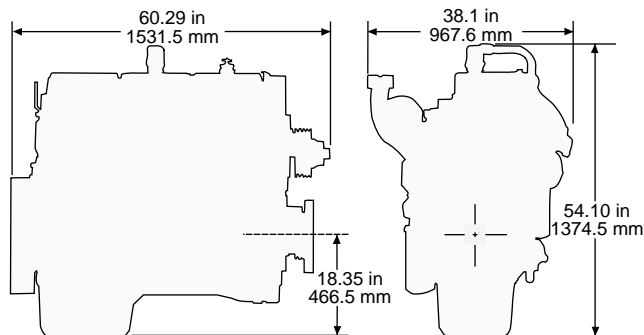
STANDARD EQUIPMENT

Air compressor, gear driven, 13.2 cfm (0.37 m³/min)
 Crankcase breather
 Electronic control module (ECM)
 Electronic data link, ATA/SAE
 Electronically controlled unit injector fuel system (EUI)
 Fan drive mounting bracket
 Flywheel and SAE No. 1 housing
 Front support
 Fuel – spin-on filter, priming and transfer pumps
 Gear driven jacket water pump
 Governor – full-range electronically controlled
 Hydraulic steering pump drive, SAE A
 Lifting eyes
 Lubricating – cooler, right hand filler, full flow filter,
 gear-driven pump, front or rear sump pan
 Turbocharger
 Vibration damper

ACCESSORY EQUIPMENT

Air compressor, gear driven 16.5 or 31 cfm
 Air inlet elbows
 Alternator (12 Volt-65 Amp, 24 Volt-45 Amp or 60 Amp)
 Auxiliary pulleys and drives
 BrakeSaver (hydraulic retarder) – front or rear sump
 Coolant conditioner, dry-charge
 Exhaust couplings
 Fan and fan accessories
 Fan drive, adjustable
 Jacobs engine brake model 340A
 Pacbrake P39
 Primary fuel filter
 Refrigerant compressor mounting
 Sound suppression panels – block
 Starter, 12 or 24 Volt
 Transmission mountings

DIMENSIONS



RATING CONDITIONS

Performance is based on SAE J1995 standard conditions of 29.61 in. Hg (100 kPa) and 77° F (25° C).

Fuel consumption is based on fuel oil having an LHV of 18,390 Btu/lb (42 780 kJ/kg) and weighing 7.001 lb/U.S. gal (839 g/L).

Materials and specifications are subject to change without notice.

LEHT5352 (6-95)

ELECTRONIC FEATURES

- Electronic self-diagnostics
- Electronically tabulated total fuel consumption, hours, and miles
- Electronically tabulated total idle time
- User-selectable, reprogrammable vehicle operating parameters – vehicle mph speed limiting, engine rpm speed limiting, cruise control, mph range, intermediate gears and low gear limits, geardown protection, PTO vehicle mph speed limit, PTO engine rpm speed limit, programmable idle rpm speed, idle shutdown timer, PTO ramp rate, top engine rpm limit, top engine rpm limit with droop.

GEARING CONSIDERATIONS

Caterpillar® 3406E ATAAC Truck Engines offer a wide operating range and high torque rise which promotes the use of transmissions with fewer gears. Even with this built-in feature, heavy/specialty haulers must remember their trucks should be geared to achieve the appropriate compromise between startability and desired road speed. Typical loads of 80,000 lb or less are less affected by improper drive train specing than are heavy haulers. In general, either application shares one similar recommendation – gear fast/run slow is essential for good fuel consumption.

If any of the following conditions are present, special attention should be given to proper transmission and axle specifications. A complete Caterpillar Truck Performance Analysis (TPA) is available from your local Caterpillar or truck dealer.

1. Poor road surface
2. Adverse grades – 8% plus
3. GVW in excess of 80,000 lb

General Gearing Recommendations

24.5 Low Profile Tires
 (502 rev/mile)

Transmission Gear	Ratio	100,000 GVW	120,000 GVW	140,000 GVW
18 spd	.73	3.55-4.33	3.90-4.56	3.90-4.56

The curves shown are for a standard engine without fan, but equipped with air compressor and fuel, lubricating oil and jacket water pumps.

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

The International System of Units (SI) is used in this publication.