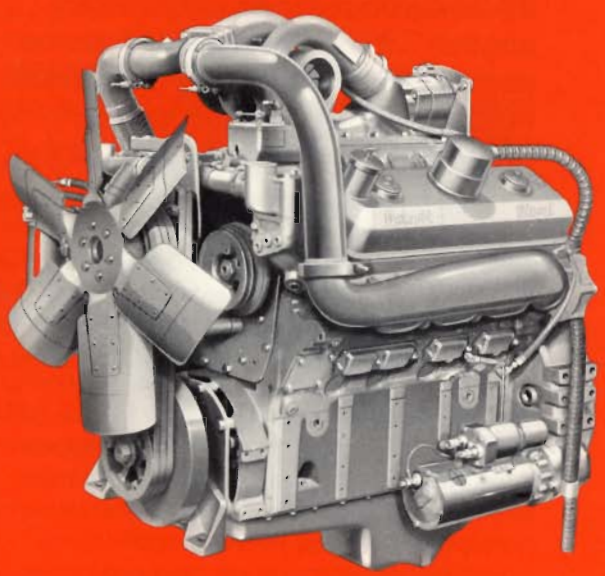
Detroit Diesel Engines

8V-92TA/TTA *Fuel Squeezer Plus*



Typical 8V-92TA

TOP PERFORMANCE
8V-92TA 435 HP @ 2100 RPM
8V-92TA 422 HP @ 1950 RPM

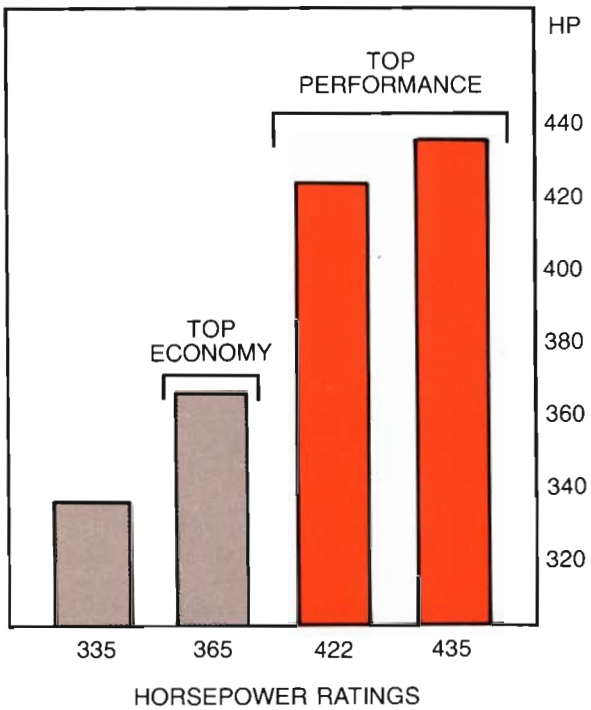
TOP ECONOMY
8V-92TTA 365 HP @ 1950 RPM

ON-OFF HIGHWAY
8V-92TTA 365 HP @ 2100 RPM

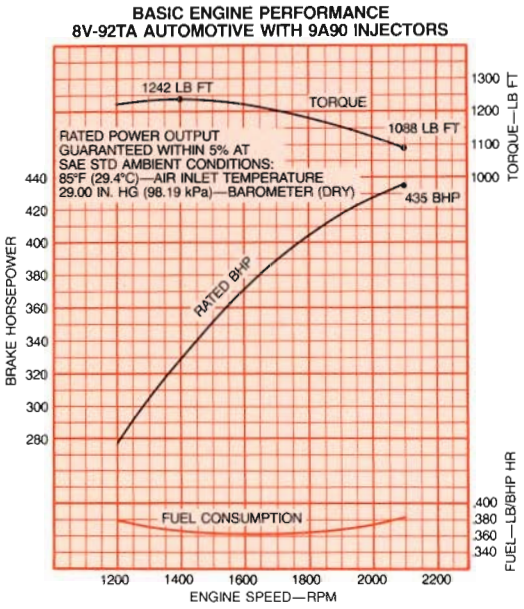
The Versatile 8V-92 Turbocharged Aftercooled Truck Engine Featuring Top Performance and Top Economy
OUTSTANDING WARRANTY...200,000 Miles...
100% Parts...100% Labor

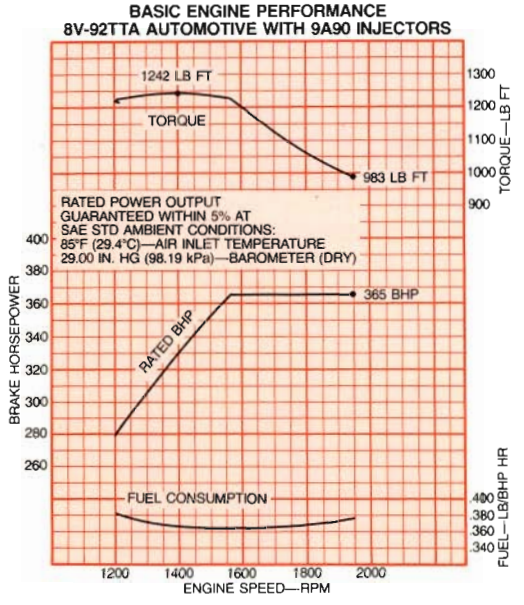
Pick Your Power

The 8V-92 turbocharged aftercooled truck engine gives you one of the broadest horsepower ranges of any truck engine on the market today offering top performance, top economy, and built-in dependability—*all from a single engine!* Available from 335 to 435 horsepower, this one truck engine is so versatile that it will master your trucking needs of today and can be tailored to meet your power demands of tomorrow. If your trucking needs today fall in the 365 horsepower range, then the 8V-92TTA Fuel Squeezer is the engine for you. However, in the future if you find that your power requirements increase, then the same engine you originally bought at 365 horsepower can be modified by your local dealer to give you 422-435 horsepower with no change in other driveline components. Imagine that! An engine that can be rated for top economy at 365 constant horsepower or top performance at 422-435 horsepower. The 8V-92 turbocharged aftercooled engine is built today and made for tomorrow. For the OEM truck dealer this means greater versatility with a lower inventory. You pick the power you need!



The Right Power...





The 8V-92TTA has been certified for constant horsepower operation at 2100 RPM for certain on-off highway applications.

Rating Explanation

RATED BHP is the power rating for variable speed and load applications where full power is required intermittently.

FUEL CONSUMPTION CURVE shows fuel used in pounds per brake horsepower hour.

THIS RATING does not include power requirements for accessory and standard equipment.

For complete engine specifications for your particular vehicle requirements, see your truck dealer or authorized Detroit Diesel Allison representative.

The super versatile Detroit Diesel 8V-92 turbocharged aftercooled engine...It can develop top power performance at a rating of 422-435 horsepower or top fuel economy at a rating of 365 *constant* horsepower.

Top Performance

Specifically designed for the trucking industry, the Top Performance 8V-92TA is an engine that is a rugged competitor in today's marketplace. This is an engine that will deliver the right power while maintaining good fuel economy. Depending upon customer need, the 8V-92TA can be rated at 435 conventional horsepower at 2100 RPM for applications where maximum performance is desired, or at 424 conventional horsepower at 1950 RPM for applications where fuel economy, noise, and engine life are of prime importance. Translated into dollars and sense this means heavy payloads and short trip times which should result in higher profits.

Top Economy

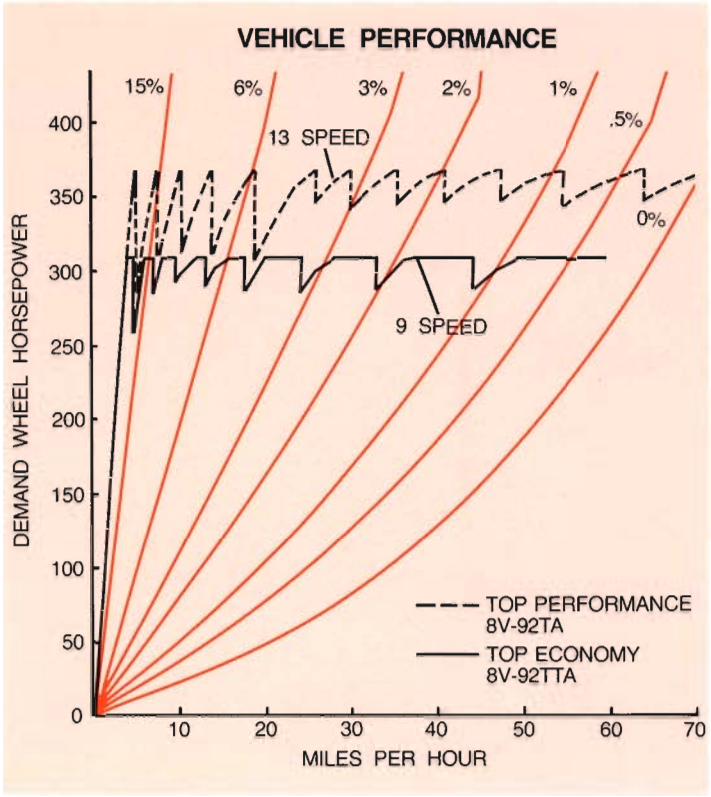
Imagine owning a diesel engine designed to squeeze extra miles out of fuel and put more profit into your trucking operation. The 8V-92TTA Fuel Squeezer is designed to do this very job. Governed at 1950 RPM at a rating of 365 *constant* horsepower, the 8V-92TTA improves fuel economy by 17.8% over standard 8V-92TA engines when compared at full load RPM settings. The 8V-92TTA has been certified for constant horsepower operation at 2100 RPM for certain on-off highway applications.

High Torque Rise and Constant Horsepower

The 8V-92TTA Fuel Squeezer is a high torque rise, constant horsepower, turbocharged aftercooled engine. The torque rise is 26.3% overall, with a rate of rise of 6.4% per 100 RPM in the constant horsepower segment. This gives the driver a "feeling" of an engine with much greater power than 365 horsepower. The high rate of torque rise is evident to the driver since the horsepower does not decline as the engine speed lugs down due to increasing grades or loads. This high torque rise characteristic encourages truck drivers to operate in the more efficient, lower RPM range.

Performance and Gradeability

This is a typical Vehicle Performance Requirement (VPR) chart of a Top Performance 8V-92TA and an 8V-92TTA Fuel Squeezer engine. The Top Performance 8V-92TA is a 435 horsepower engine governed at 2100 RPM with a 13-speed overdrive transmission. The 8V-92TTA Fuel Squeezer is a 365 constant horsepower engine governed at 1950 RPM with a 9-speed transmission. Both vehicles are using a 3.90:1 rear axle ratio, 10.00 x 20 steel belted radial tires, cab mounted air deflector, GCW of 110,000 lbs., and a 13½ ft. x 8 ft. (108 sq. ft. frontal area) van freight combination.



Tamper Resistant Governor

Our governor allows the engine to be set at the preferred HP and RPM setting and then made tamper resistant, if this feature is desired.
In use testing has proven that the hardened steel governor components and pinned spring pack cover prevent unauthorized tampering and assure the rating you select is maintained.

Rear Axle Ratio And Tire Size

The lower the numerical axle ratio, the slower the engine runs for a given vehicle road speed. This gives you the best fuel economy. A geared top speed in the range of 60 mph gives the best balance between economy, performance, and trip time.

Top Performance 8V-92TA

Tire Size*	Rear Axle	Geared Road Speed* @ 2100 RPM	Geared Road Speed* w/.87 Overdrive
10:00 x 20	4.11:1	60.8 mph	70.0 mph
or 11:00 x	3.90:1	64.1 mph	73.7 mph
22.5 (Tubeless)	3.70:1	67.6 mph	—
10:00 x 22	4.33:1	60.6 mph	69.7 mph
or 11:00 x	4.11:1	63.9 mph	73.4 mph
24.5 (Tubeless)	3.90:1	67.3 mph	—

Top Economy 8V-92TTA

Tire Size*	Rear Axle	Geared Road Speed* @ 1950 RPM
10:00 x 20	4.11:1	56.5 mph
or 11:00 x	3.90:1	59.5 mph
22.5 (Tubeless)	3.70:1	62.7 mph
10:00 x 22	4.33:1	56.3 mph
or 11:00 x	4.11:1	59.3 mph
24.5 (Tubeless)	3.90:1	62.5 mph

*Speeds shown are with bias ply tires.

Proper Component Selection

To achieve the most efficient operation of a Top Performance 8V-92TA or an 8V-92TTA Fuel Squeezer truck engine, components should be selected to provide maximum economy and performance. These components include: fan, transmission, rear axle (ratio and drive), and tire size. Additional recommended components are steel belted radial tires, cab mounted air deflectors, and a thermostatically controlled fan.

basic specifications

Basic Engine	Top Performance 8V-92TA	Top Economy 8V-92TTA
Model Number	8087-7440	8087-7840
Engine Type	Two Cycle	Two Cycle
Number or Cylinders	8	8
Approximate Dimensions:		
Length	44 in (1118 mm)	44 in (1118 mm)
Width	38 in (965 mm)	38 in (965 mm)
Height	50 in (1270 mm)	50 in (1270 mm)
Net Weight (dry)	2415 lbs (1095 kg)	2415 lbs (1095 kg)

power specifications

9290 Injectors		
Rated Gross Power*	435 BHP (324 kW) @ 2100 RPM 422 BHP (314 kW) @ 1950 RPM	335 BHP (250 kW) @ 1800 RPM 365 BHP (272 kW) @ 1950 RPM **365 BHP (272 kW) @ 2100 RPM
Torque*	1242 lb ft (1684 N•m) @ 1400 RPM	1242 lb ft (1684 N•m) @ 1400 RPM

*SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar (Dry)
**Recommended for on-off highway applications

For complete dimensional information, refer to installation drawing: 2SA422 for Model 8087-7440 and 2SA430 for Model 8087-7840

Talk About Your Benefits...100,000 Mile Oil Change Interval

Highway truck and intercity bus operators can now drive 100,000 miles before changing the lubricating oil in their Detroit Diesel Engines. The requirements are simple: (1) Use lubricating oil and fuel oil normally recommended for Detroit Diesels, and (2) Replace the full-flow filter element every 25,000 miles, maximum. The 100,000 mile oil change interval applies to all Series 53, 71, and 92 Engines used in highway trucks and intercity buses.

The 100,000 mile approval represents the longest oil change interval in the diesel engine industry. Therefore, these customer BENEFITS can be realized:

- Dollars saved on lube oil usage.
- Reduced down time by eliminating frequent oil changes.
- No bypass oil filters required.
- Less labor hours required for oil changes.
- Less used lube oil to dispose of or store.
- Considerable savings of oil energy resources.

200,000 Mile Warranty...Unequaled In The Trucking Industry

Our Warranty Backs You Up

Detroit Diesel Allison will repair any part of each new Series 71 and Series 92 engine and Optional Equipment which malfunctions due to defects in material or workmanship when used in normal on-highway service and properly maintained. The engine coverage is a full 24 months or 200,000 miles (321,000 km), whichever comes first. Optional equipment, includes each new generator, alternator, starting motor, voltage regulator, air compressor, hydraulic pump and vacuum pump installed on each Series 71 and Series 92 engine used in normal on-highway service and manufactured or supplied by Detroit Diesel Allison, is covered up to 24 months or 50,000 miles (80,450 km), whichever comes first.

Any authorized Detroit Diesel Allison service outlet will repair it. No charge for parts or labor.

Replacement of normal maintenance items, conditions resulting from misuse, negligence, alteration, accident or improper engine repair are not covered.

See your Detroit Diesel Allison Distributor for complete Warranty details.

Detroit Diesel Allison
Division of General Motors Corporation

13400 West Outer Drive Detroit, Michigan 48228

In Canada Diesel Division, General Motors of Canada Limited London Ontario