# **Detroit Diesel Engines**

### 6V-92TA/TTA

Fuel Squeezer Plus



TOP PERFORMANCE 6V-92TA 335 HP @ 2100 RPM

6V-92TA 322 HP @ 1950 RPM

TOP ECONOMY

6V-92TTA 270 HP @ 1950 RPM

6V-92TTA 307 HP @ 1900 RPM

**ON-OFF HIGHWAY** 

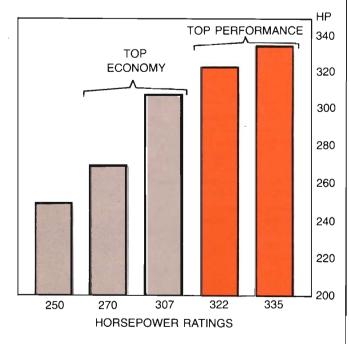
6V-92TTA 270 HP @ 2100 RPM

Typical 6V-92TA

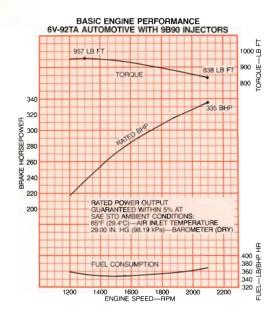
The Versatile 6V-92 Turbocharged Aftercooled Truck Engine Featuring Top Performance and Top Economy OUTSTANDING WARRANTY...200,000 Miles...
100% Parts...100% Labor

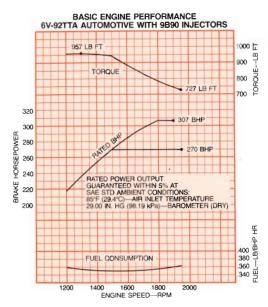
#### Pick Your Power

The 6V-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 dependabilityall from a single engine! Available from 250 to 335 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 270 horsepower range then the 6V-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 270 horsepower can be modified by your local dealer to give you 335 horsepower with no change in other driveline components. Imagine that! An engine that can be rated for top economy at 270 constant horsepower or top performance at 322-335 horsepower. For the OEM truck dealer this means greater versatility with a lower inventory.



# The Right Power...





The 6V-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 6V-92 turbocharged aftercooled engine...It can develop top power performance at a rating of 322-335 horsepower or top fuel economy at a rating of 270 constant horsepower.

#### **Top Performance**

Specifically designed for the trucking industry, the Top Performance 6V-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 6V-92TA can be rated at 335 conventional horsepower at 2100 RPM for applications where maximum performance is desired, or at 322 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 6V-92TTA Fuel Squeezer is designed to do this very job. Governed at 1950 RPM at a rating of 270 constant horsepower, the 6V-92TTA improves fuel economy by 20.7% over standard 6V-92TA engines when compared at full load RPM settings. The 6V-92TTA has been certified for constant horsepower operation at 2100 RPM for certain on-off highway applications.

#### High Torque Rise and Constant Horsepower

The 6V-92TTA Fuel Squeezer is a high torque rise, constant horsepower, turbocharged aftercooled engine. At the 270 horsepower rating the torque rise is 31.6% overall, with a rate of rise of 6.7% per 100 RPM in the constant horsepower segment. This gives the driver a "feeling" of an engine with much greater power than 270 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.

# ...Pays Off

#### Performance and Gradeability

This is a typical Vehicle Performance Requirement (VPR) chart of a Top Performance 6V-92TA and a 6V-92TTA Fuel Squeezer engine. The Top Performance 6V-92TA is a 335 horsepower engine governed at 2100 RPM with a 13-speed overdrive transmission. The 6V-92TTA Fuel Squeezer is a 270 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 73,280 lbs., and a 13½ x 8 van freight combination.

#### **Tamper Resistant Governor**

Our governor allows the engine to be set at the preferred 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

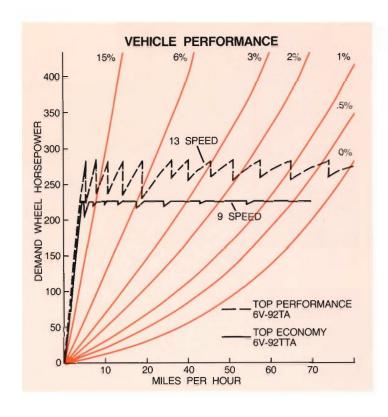
assure the rating you select is maintained.



The lower the numerical rear 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.

#### **Proper Component Selection**

To achieve the most efficient operation of a Top Performance 6V-92TA or a 6V-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 components we recommend are steel belted radial tires, cab-mounted air deflectors, and a thermostatically controlled fan.



#### Top Performance 6V-92TA

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

#### Top Economy 6V-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

<sup>\*</sup>Speeds shown are with bias ply tires.

### basic specifications

Basic Engine	Top Performance 6V-92TA	Top Economy 6V-92TTA
Engine Type	Two Cycle	Two Cycle
Number of Cylinders	6	6
Approximate Dimensions:		
Length	38 in (965 mm)	38 in (965 mm)
Width	38 in (965 mm)	38 in (965 mm)
Height	48 in (1219 mm)	48 in (1219 mm)
Net Weight (dry)	2020 lbs (916 kg)	2020 lbs (916 kg)

### power specifications

9290 Injectors		
Rated Gross Power*	335 BHP (250 kW) @ 2100 RPM 322 BHP (240 kW) @ 1950 RPM	250 BHP (187 kW) @ 1800 RPM 270 BHP (201 kW) @ 1950 RPM **270 BHP (201 kW)
		@ 2100 RPM 307 BHP (229 kW) @ 1900 RPM
Torque*	957 lb ft (1298 N•m) @ 1300 RPM	957 lb ft (1298 N•m) @ 1300 RPM

<sup>\*</sup>SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar (Dry)

For complete dimensional information, refer to installation drawings: 2SA421 for Model 8067-7340 (OTM version), 2SA429 for Model 8067-7740.

## 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.



## **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

## 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,

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.

<sup>\*\*</sup>Recommended for on-off highway applications