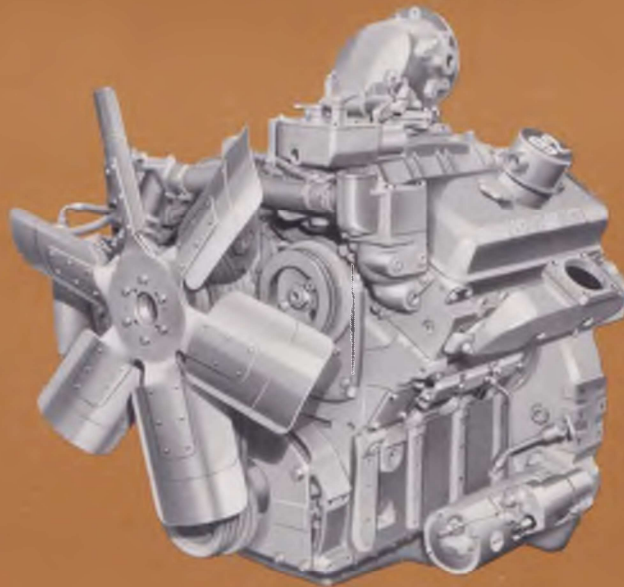


Detroit Diesel Engines

fan-to-flywheel models

6V-92
276 hp

6V-92T
322 hp



Model	
6V-92	8063-7000
6V-92T	8063-7300

Typical 6V-92
Fan-to-Flywheel Model

specifications

Basic Engine	6V-92 with 80 Injectors	6V-92T with 90 Injectors
Model	8063-7000	8063-7300
Engine Type	Two Cycle	Two Cycle
Number of Cylinders	6	6
Bore and Stroke	4.84 in. x 5 in. (123 mm x 127 mm)	4.84 in. x 5 in. (123 mm x 127 mm)
Two Cycle Displacement (Every Downstroke a Powerstroke)	552 cu. in. (9.05 litres)	552 cu. in. (9.05 litres)
Rated Power: 60°F and Sea Level (approx.) 85°F and 500 ft. (SAE) 29.4°C and 152.4 m (SAE)	276 BHP @ 2100 RPM 270 BHP @ 2100 RPM 201 kW @ 2100 RPM	— 322 BHP @ 2100 RPM 240 kW @ 2100 RPM
Continuous Power: 85° and 500 ft. (SAE) 29.4°C and 152.4 m (SAE)	225 BHP @ 1800 RPM 168 kW @ 1800 RPM	— —
Torque: 85° and 500 ft. (SAE) 29.4°C and 152.4 m (SAE)	737 lb. ft. @ 1400 RPM 999 N·m @ 1400 RPM	890 lb. ft. @ 1400 RPM 1207 N·m @ 1400 RPM
Compression Ratio	19 to 1	17 to 1
Approximate Dimensions:		
Length	41 in (1041 mm)	41 in (1041 mm)
Width	39 in. (991 mm)	39 in. (991 mm)
Height	47 in. (1194 mm)	52 in. (1321 mm)
Net Weight (Mass) (dry)	1960 lbs. (889 kg)	2005 lbs. (909 kg)

For complete dimensional information, refer to installation drawing 2SA393 for Model 8063-7000 and 2SA413 for Model 8063-7300.

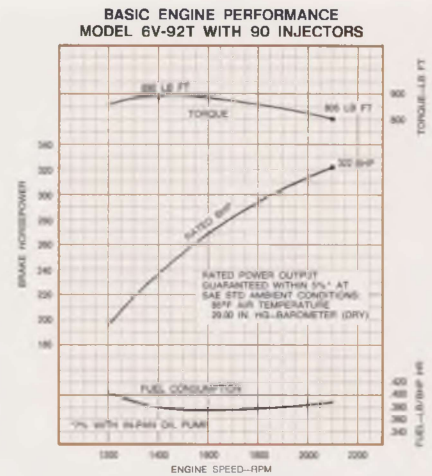
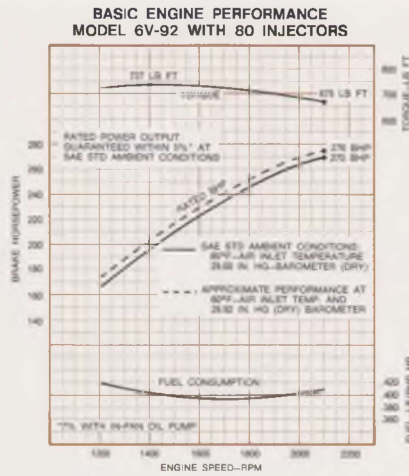
performance

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.

THESE RATINGS do not include power requirements for accessory and standard equipment.



standard equipment

- Air Inlet Housing—For manual shutdown
- Battery Charging Generator—12 volt, 62 amp, AC
- Exhaust Manifold—Flanged, vertical center outlet (8063-7000) — Horizontal, end outlet, Marmon flange (8063-7300)
- Fan—28", 6 blade, suction (8063-7000)
- 32", 8 blade, suction (8063-7300)
- Flywheel Housing—SAE #1
- Flywheel—SAE #1 for 14" clutch
- Fuel Distribution System—Disposable spin-on filter and strainer, flexible fuel lines

- Governor—Limiting speed
- Injectors—Cam-operated, unit type, clean tip
- Lube Oil Filter—Full flow, mounted
- Oil Pan & Distribution System—For 20° operation, rear sump
- Starting Motor—12 volt, sprag over-running clutch, high-output
- Throttle Delay (8063-7300)
- Turbocharger—Vaneless, top front center mounted (8063-7300)

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

Specifications subject to change without notice



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

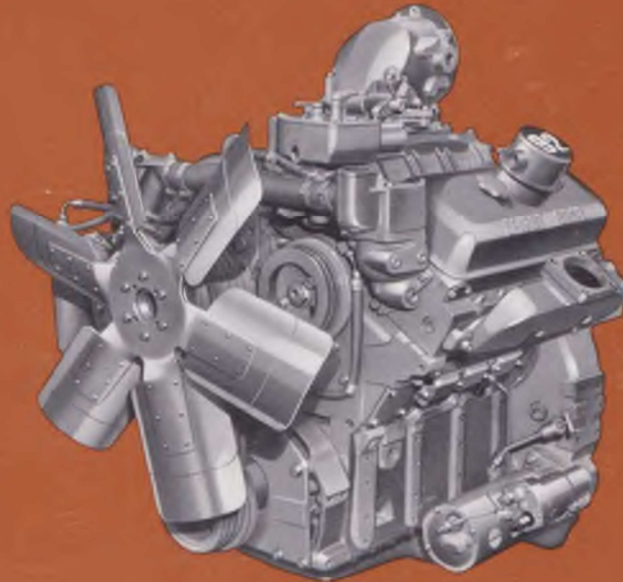


Detroit Diesel Engines

fan-to-flywheel models

6V-92
276 hp

6V-92T
322 hp



Typical 6V-92
Fan-to-Flywheel Model

Model	
6V-92	8063-7000
6V-92T	8063-7300

specifications

Basic Engine	6V-92 with 80 Injectors	6V-92T with 90 Injectors
Model	8063-7000	8063-7300
Engine Type	Two Cycle	Two Cycle
Number of Cylinders	6	6
Bore and Stroke	4.84 in. x 5 in. (123 mm x 127 mm)	4.84 in. x 5 in. (123 mm x 127 mm)
Two Cycle Displacement (Every Downstroke a Powerstroke)	552 cu. in. (9.05 litres)	552 cu. in. (9.05 litres)
Rated Power: 60°F and Sea Level (approx.) 85°F and 500 ft. (SAE) 29.4°C and 152.4 m (SAE)	276 BHP @ 2100 RPM 270 BHP @ 2100 RPM 201 kW @ 2100 RPM	— 322 BHP @ 2100 RPM 240 kW @ 2100 RPM
Continuous Power: 85° and 500 ft. (SAE) 29.4°C and 152.4 m (SAE)	225 BHP @ 1800 RPM 168 kW @ 1800 RPM	— —
Torque: 85° and 500 ft. (SAE) 29.4°C and 152.4 m (SAE)	737 lb. ft. @ 1400 RPM 999 N·m @ 1400 RPM	890 lb. ft. @ 1400 RPM 1207 N·m @ 1400 RPM
Compression Ratio	19 to 1	17 to 1
Approximate Dimensions:		
Length	41 in (1041 mm)	41 in (1041 mm)
Width	39 in. (991 mm)	39 in. (991 mm)
Height	47 in. (1194 mm)	52 in. (1321 mm)
Net Weight (Mass) (dry)	1960 lbs. (889 kg)	2005 lbs. (909 kg)

For complete dimensional information, refer to installation drawing 2SA393 for Model 8063-7000 and 2SA413 for Model 8063-7300.

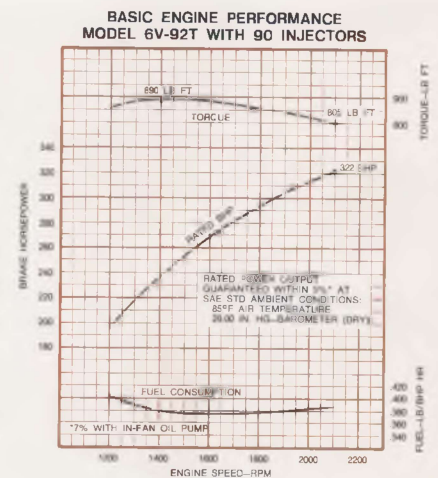
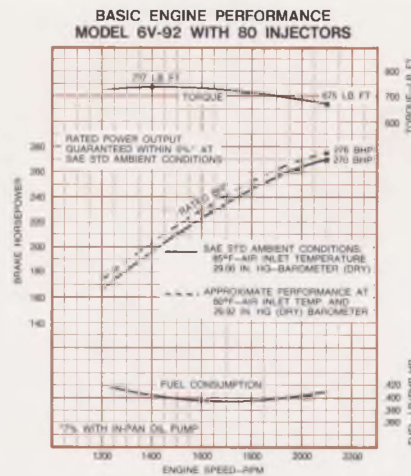
performance

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.

THESE RATINGS do not include power requirements for accessory and standard equipment.



standard equipment

Air Inlet Housing—For manual shutdown
 Battery Charging Generator—12 volt, 62 amp, AC
 Exhaust Manifold—Flanged, vertical center outlet (8063-7000) — Horizontal, end outlet, Marmon flange (8063-7300)
 Fan—28", 6 blade, suction (8063-7000)
 32", 8 blade, suction (8063-7300)
 Flywheel Housing—SAE #1
 Flywheel—SAE #1 for 14" clutch
 Fuel Distribution System—Disposable spin-on filter and strainer, flexible fuel lines

Governor—Limiting speed
 Injectors—Cam-operated, unit type, clean tip
 Lube Oil Filter—Full flow, mounted
 Oil Pan & Distribution System—For 20° operation, rear sump
 Starting Motor—12 volt, sprag over-running clutch, high-output
 Throttle Delay (8063-7300)
 Turbocharger—Vaneless, top front center mounted (8063-7300)

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

Specifications subject to change without notice



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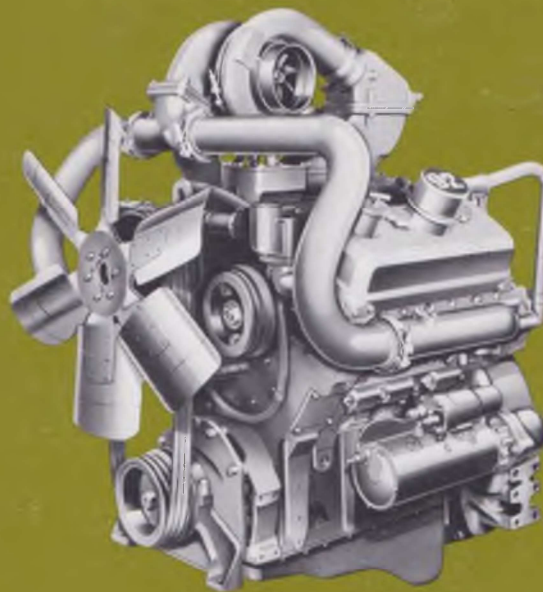


Detroit Diesel Engines

truck model

6V-92T

322 hp*



Typical 6V-92T
Truck Model

Model
6V-92T 8067-7340

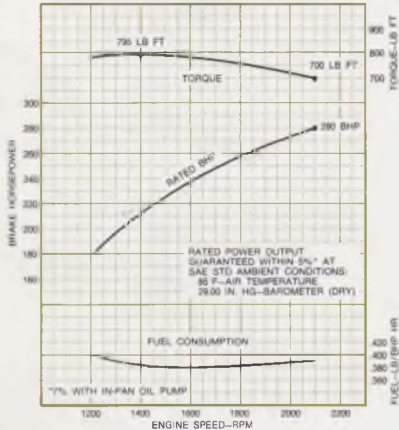
specifications

Basic Engine	6V-92T with 80 Injectors	6V-92T with 85 Injectors	6V-92T with 90 Injectors
Model	8067-7340	8067-7340	8067-7340
Engine Type	Two Cycle	Two Cycle	Two Cycle
Number of Cylinders	6	6	6
Bore and Stroke	4.84 in. x 5 in. (123 mm x 127 mm)	4.84 in. x 5 in. (123 mm x 127 mm)	4.84 in. x 5 in. (123 mm x 127 mm)
Two Cycle Displacement (Every Downstroke a Powerstroke)	552 cu. in. (9.05 litres)	552 cu. in. (9.05 litres)	552 cu. in. (9.05 litres)
Rated Power:			
*85°F and 500 ft. (SAE)	280 BHP @ 2100 RPM	300 BHP @ 2100 RPM	*322 BHP @ 2100 RPM
29.4°C and 152.4 m (SAE)	209 kW @ 2100 RPM	224 kW @ 2100 RPM	240 kW @ 2100 RPM
Torque:			
85°F and 500 ft. (SAE)	795 lb. ft. @ 1400 RPM	840 lb. ft. @ 1400 RPM	890 lb. ft. @ 1400 RPM
29.4°C and 152.4 m (SAE)	1078 N·m @ 1400 RPM	1139 N·m @ 1400 RPM	1207 N·m @ 1400 RPM
Compression Ratio	17 to 1	17 to 1	17 to 1
Approximate Dimensions:			
Length	48 in. (1219 mm)	48 in. (1219 mm)	48 in. (1219 mm)
Width	39 in. (991 mm)	39 in. (991 mm)	39 in. (991 mm)
Height	52 in. (1321 mm)	52 in. (1321 mm)	52 in. (1321 mm)
Net Weight (Mass) (dry)	2005 lbs. (909 kg)	2005 lbs. (909 kg)	2005 lbs. (909 kg)

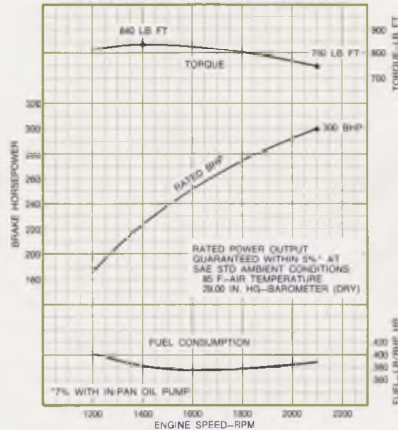
For complete dimensional information, refer to installation drawing 2SA421 for Model 8067-7340.

performance

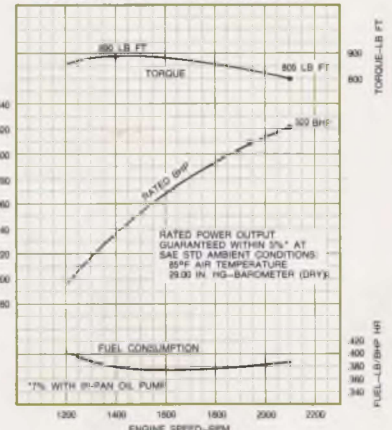
**BASIC ENGINE PERFORMANCE
MODEL 6V-92T WITH 80 INJECTORS**



**BASIC ENGINE PERFORMANCE
MODEL 6V-92T WITH 85 INJECTORS**



**BASIC ENGINE PERFORMANCE
MODEL 6V-92T WITH 90 INJECTORS**



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.

THESE RATINGS do 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.

standard equipment

Air Compressor—12 CFM, flange mounted
 Air Inlet Housing—For manual shutdown, 90" cable
 Battery Charging Generator—12 volt, 55 amp, AC
 Exhaust Manifold—Horizontal end outlet, Marmon flange
 Fan—28", 6 blade, suction
 Flywheel Housing—SAE # 1
 Flywheel—SAE # 1 for 14" clutch
 Fuel Distribution System—Disposable spin-on filter and strainer, flexible fuel lines

Governor—Limiting speed
 Injectors—Cam-operated, unit type, Clean Tip
 Lube Oil Filter—Full flow, mounted
 Mounts—Front trunnion
 Oil Pan & Distribution System—For 20° operation, rear sump
 Starting Motor—12 volt, sprag over-running clutch, high-output
 Throttle Delay
 Turbocharger—Vaneless

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

Specifications subject to change without notice



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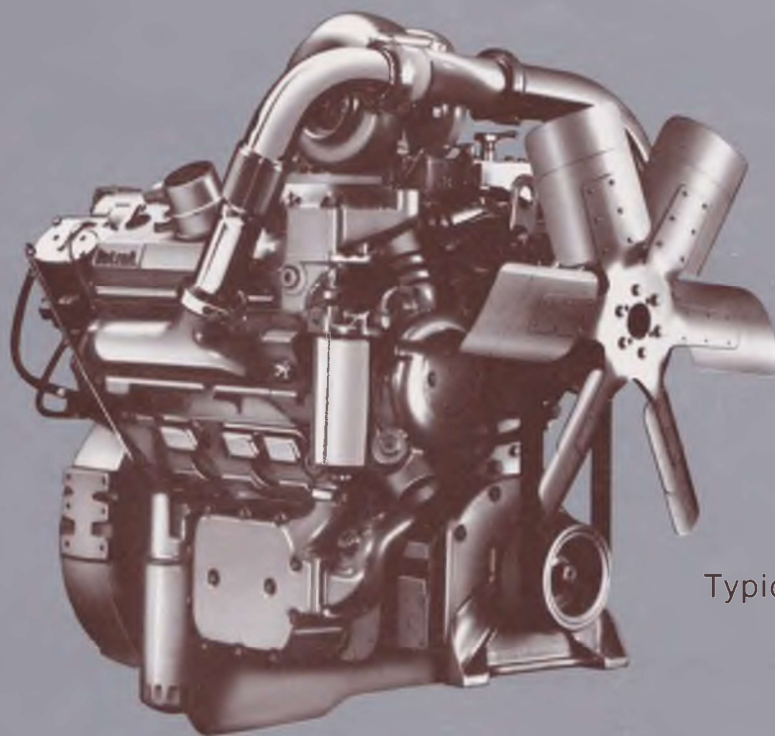
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Detroit Diesel Engines

INDUSTRIAL MODELS

6V-92T 6V-92TA



Typical 6V-92TA

GENERAL SPECIFICATIONS

Basic Engine	6V-92T	6V-92TA
Model	8063-7300	8063-7400
Number of Cylinders	6	6
Bore and Stroke	4.84 in × 5 in (123 mm × 127 mm)	4.84 in × 5 in (123 mm × 127 mm)
Displacement	552 cu in (9.05 liters)	552 cu in (9.05 liters)
Compression Ratio	17 to 1	17 to 1
Lube Oil System Capacity*	Low—16 qts (15.1 liters) High—20 qts (19.0 liters)	Low—16 qts (15.1 liters) High—20 qts (19.0 liters)
Coolant Capacity (engine only)	24.5 qts (23.2 liters)	24.5 qts (23.2 liters)
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)
Weight (dry)	2005 lbs (909 kg)	2020 lbs (920 kg)

*with standard oil pan

Approximate dimensions shown. For complete dimensional information, refer to installation drawing.

For complete coolant specifications, see publication 7SE298. For complete fuel and lubricating oil specifications, see publication 7SE270.

HORSEPOWER VERSATILITY

Basic Engine

6V-92T

6V-92TA

Injector	9G90	9G90
Rated Gross Power	345 BHP (257 kW) @ 2100 RPM	360 BHP (269 kW) @ 2100 RPM
Peak Torque	995 lb ft (1349 N•m) @ 1200 RPM	1000 lb ft (1356 N•m) @ 1200 RPM
Injector	9G85	9G85
Rated Gross Power	325 BHP (242 kW) @ 2100 RPM	340 BHP (254 kW) @ 2100 RPM
Peak Torque	940 lb ft (1275 N•m) @ 1200 RPM	945 lb ft (1281 N•m) @ 1200 RPM
Injector	9B80	9B85
Rated Gross Power	305 BHP (228 kW) @ 2100 RPM	320 BHP (239 kW) @ 2100 RPM
Peak Torque	880 lb ft (1193 N•m) @ 1200 RPM	880 lb ft (1193 N•m) @ 1200 RPM

(Continuous Rating)

Injector	9280	9B80
Rated Gross Power	260 BHP (194 kW) @ 1800 RPM	270 BHP (201 kW) @ 1800 RPM

Rating conditions of SAE: 77°F (25°C) and 29.31 in Hg (99 kPa) Barometer (Dry)
These ratings are subject to change without notice or obligation.

EQUIPMENT SPECIFICATIONS

Aftercooler—6V-92TA only

Alternator—24 volt, 65 amp

Blower—With bypass valve

Camshaft—Drop forged with induction hardened polished lobes

Connecting Rod—Rifle drilled, drop forging

Crankshaft—Drop forged, dynamically and statically balanced, induction hardened journals and fillets

Crankshaft Pulley

Cylinder Block—Cast iron alloy replaceable cylinder liners

Cylinder Head—Cast iron alloy, 4 exhaust valves per cylinder, replaceable valve seats

Engine Lifter Brackets

Fan—36 in (813 mm), 8 blade suction

Flywheel—SAE #1

Flywheel Housing—SAE #1

Fuel Filters—Spin-on type, includes both primary and secondary filter

Governor—Limiting speed

Injectors—Cam operated, unit type, clean tip

Lube Oil Cooler—Thermatic plate type

Lube Oil Filter—Spin-on, full-flow, no bypass filter required

Oil Pan—25° rear sump

Piston—Crosshead design, cast iron alloy

Starting Motor—12 volt, high output, with sprag over-running clutch

Turbocharger—Improved design, high efficiency model TV7511, 1.08 A/R

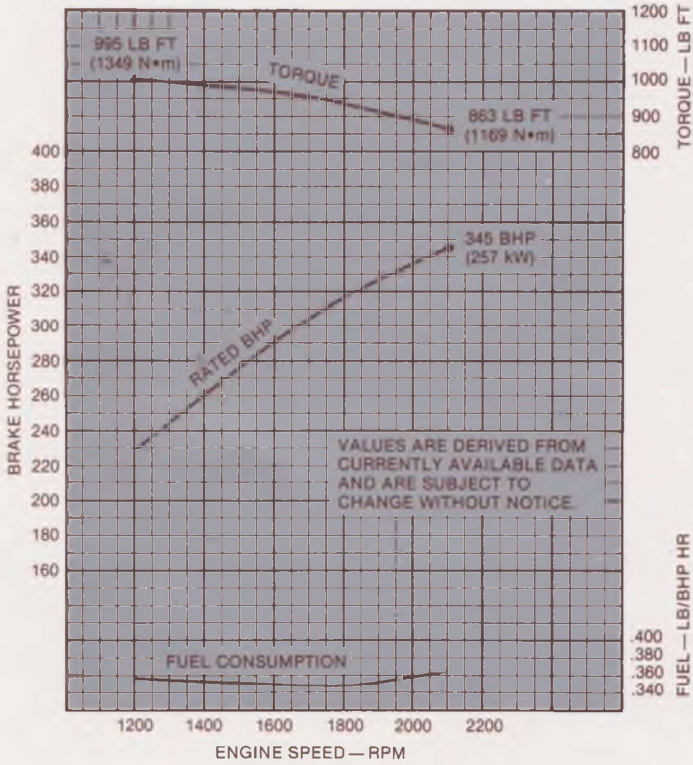
Water Pump—Impeller type with ceramic seal

Additional options are also available for most of these items. For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

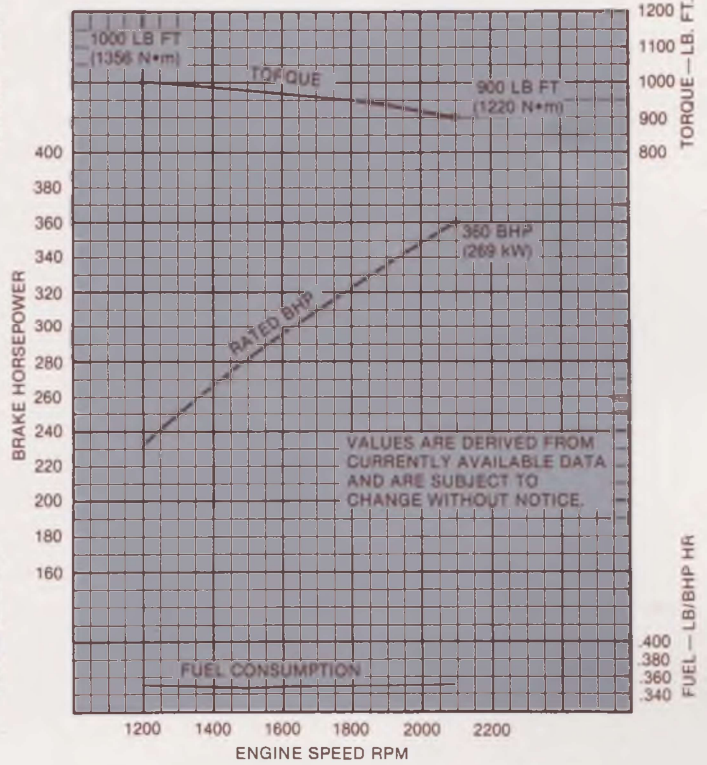


PERFORMANCE CURVES

**BASIC ENGINE PERFORMANCE
MODEL 6V-92T WITH 9G90 INJECTORS†**



**BASIC ENGINE PERFORMANCE
MODEL 6V-92TA WITH 9G90 INJECTORS†**



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.

POWER OUTPUT guaranteed within 5% at standard ambient conditions.

THIS RATING does not include power requirements for accessory and standard equipment. For complete engine specifications for your particular requirements, see your distributor or authorized Detroit Diesel Allison representative.

†Rating conditions of SAE: 77 °F (25 °C) and 29.31 in Hg (99 kPa) Barometer (Dry)

BDC



DESIGN FEATURES AND BENEFITS

Unit Injector Fuel System

The main components of this system are the simple and efficient Needle Valve Injectors that precisely meter the fuel individually to each cylinder.

The injector creates the high pressure needed for efficient combustion . . . meters and injects the fuel in the exact amount required at the correct time . . . and atomizes it for proper burning with the air in the combustion chamber.

The injectors in the Silver 92 engines aid combustion efficiency with modified plunger and bushing timing and improved spray tips.

Centrifugally Cast Liners

Closely controlled metallurgical and heat treatment specifications allow for precise machining. Liner working surfaces are processed to insure proper piston ring lubrication. Our heat treating method assures the liner has proper strength and geometry that promotes long piston and liner life.

In addition, the height and shape of the liner ports have been modified for optimum air inlet timing and maximum air swirl in the combustion chamber in conjunction with the newly timed camshaft.

Crosshead Piston

A key durability improvement is the use of crosshead pistons in all Silver 92 engines. This patented design features separate crown and skirt components that work independently of each other: the crown absorbs combustion forces while the skirt absorbs thrust loads. Proven in larger Detroit Diesel engines, crosshead pistons extend ring life and reduce cylinder bore wear.

New Piston Ring Designs

New, longer-wearing compression rings feature barrel-faced grooveless compression rings with hard molybdenum coating replacing conventional chrome rings. This new design extends ring life from 30-50%. The new rings reduce friction, thereby helping to improve fuel economy. Reduced oil consumption is an additional benefit.

Air Induction System

The Silver 92 air induction system, which incorporates a blower bypass valve and passage, reduces pumping losses and provides a savings of up to 7 horsepower. The design is essentially a spring loaded poppet type bypass valve in the blower end plate. At suitable engine speed and load, the valve opens, allowing air box pressure to equalize with blower inlet pressure, thus reducing pumping horsepower requirements. This optimizes thermal efficiency through improved air-fuel ratio control.

High-Efficiency Turbocharger

Silver 92 engines feature a new, more efficient family of turbochargers that more closely meet the air delivery requirements of the specific engine and its application. This improvement aids combustion efficiency, fuel economy, smoke control, and engine response.

Parts Interchangeability

Silver 92 engines offer up to 70% moving parts interchangeability. In addition, much of the external, optional equipment, such as starting systems, air compressors, and alternators, are also interchangeable throughout the Series. Your current engine can also be upgraded to Silver without major investment. As an owner you benefit four ways: 1) Reduced Parts Inventory, 2) Low Parts Cost, 3) Good Parts Availability, 4) Ease of Service.



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Detroit Diesel Allison

Division of General Motors

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Detroit Diesel Engines

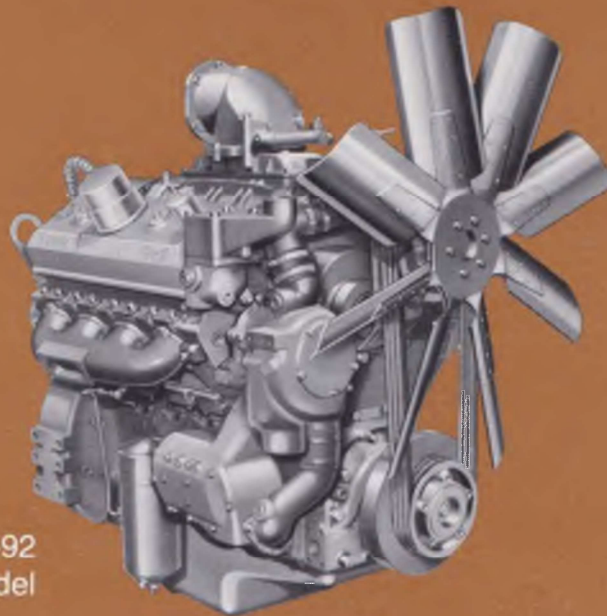
Fan-to-flywheel models

8V-92

368 hp

8V-92T

430 hp



Typical 8V-92
Fan-to-Flywheel Model

specifications

Basic Engine	8V-92 9280 Injectors	8V-92T 9290 Injectors
Model	8083-7000	8083-7300
Engine Type	Two Cycle	Two Cycle
Number of Cylinders	8	8
Bore and Stroke	4.84 in x 5 in (123 mm x 127 mm)	4.84 in x 5 in (123 mm x 127 mm)
Displacement	736 cu in (12.07 litres)	736 cu in (12.07 litres)
Rated Gross Power:		
60°F (15.6°C) and 29.92 in Hg (101.31 kPa) Bar. (Dry)	368 BHP (275 kW) @ 2100 RPM	—
SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar. (Dry)	360 BHP (269 kW) @ 2100 RPM	430 BHP (321 kW) @ 2100 RPM
Continuous Gross Power:		
SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar. (Dry)	300 BHP (224 kW) @ 1800 RPM	—
Torque:		
SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar. (Dry)	983 lb ft (1333 N·m) @ 1400 RPM	1186 lb ft (1608 N·m) @ 1400 RPM
Compression Ratio	19 to 1	17 to 1
Approximate Dimensions:		
Length	48 in (1219 mm)	48 in (1219 mm)
Width	39 in (991 mm)	39 in (991 mm)
Height	51 in (1295 mm)	52 in (1321 mm)
Net Weight (dry)	2345 lbs (1064 kg)	2395 lbs (1086 kg)

For complete dimensional information, refer to installation drawing 2SA394 for Model 8083-7000 and 2SA414 for Model 8083-7300.

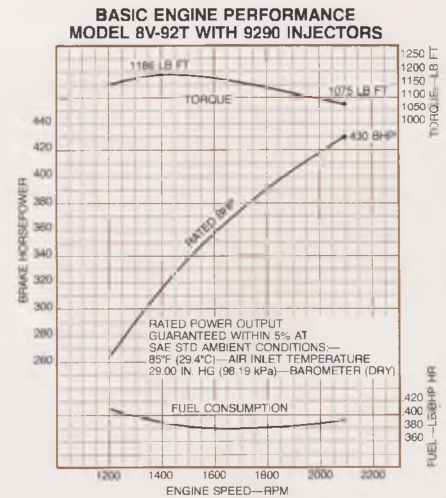
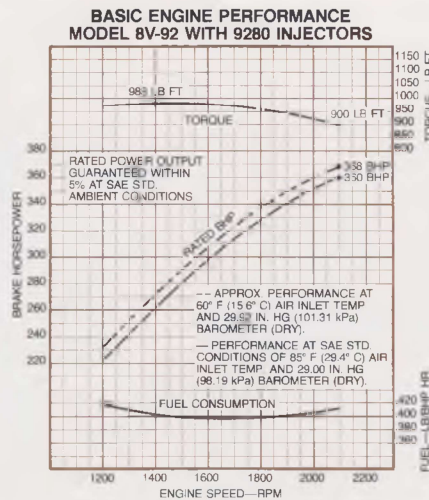
performance

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.

THESE RATINGS do not include power requirements for accessory and standard equipment.



standard equipment

Air Box Drain Tubes

Air Inlet Housing

Alternator—24V, 65 amp

Cast Aluminum Rocker Covers

Crankshaft Pulley

Engine Mounts

Exhaust Manifold

Fan—34 in (864 mm), 8 blades, suction

Flywheel—SAE #1

Flywheel Housing—SAE #1

Fuel Filters—Spin-on

Governor—Limiting Speed

Injectors—Cam operated, unit type, clean tip

Lube Oil Cooler

Lube Oil Filter—Full flow

Oil Pan—Stamped pan for 17° inclination angle, rear sump

Starting Motor—24 volt

Turbocharger—Model 8083-7300 only

Vibration Damper—Thick, heavy, viscous

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison Representative.

Specifications subject to change without notice



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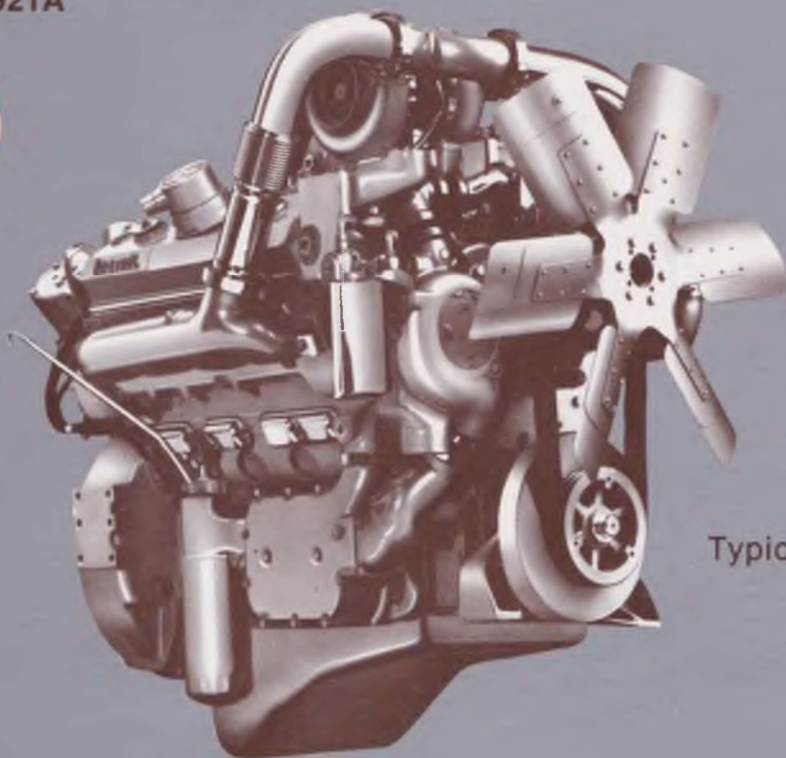
In Canada: Diesel Division, General Motors of Canada Limited London Ontario



Detroit Diesel Engines

INDUSTRIAL MODELS

8V-92T 8V-92TA



Typical 8V-92TA

GENERAL SPECIFICATIONS

Basic Engine	8V-92T	8V-92TA
Model	8083-7300	8083-7400
Number of Cylinders	8	8
Bore and Stroke	4.84 in × 5 in (123 mm × 127 mm)	4.84 in × 5 in (123 mm × 127 mm)
Displacement	736 cu in (12.1 liters)	736 cu in (12.1 liters)
Compression Ratio	17 to 1	17 to 1
Lube Oil System Capacity•	Low—17 qts (16.1 liters) High—23 qts (21.8 liters)	Low—19 qts (18.0 liters) High—25 qts (23.7 liters)
Coolant Capacity (engine only)	29 qts (27.4 liters)	29 qts (27.4 liters)
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)
Weight (dry)	2400 lbs (1091 kg)	2420 lbs (1100 kg)

•with standard oil pan

Approximate dimensions shown. For complete dimensional information, refer to installation drawing.

For complete coolant specifications, see publication 7SE298. For complete fuel and lubricating oil specifications, see publication 7SE270.

HORSEPOWER VERSATILITY

Basic Engine	8V-92T	8V-92TA
Injector	9E95	9E95
Rated Gross Power	465 BHP (347 kW) @ 2100 RPM	480 BHP (358 kW) @ 2100 RPM
Peak Torque	1285 lb ft (1742 N•m) @ 1300 RPM	1330 lb ft (1803 N•m) @ 1300 RPM
Injector	9G85	9G85
Rated Gross Power	440 BHP (328 kW) @ 2100 RPM	450 BHP (336 kW) @ 2100 RPM
Peak Torque	1215 lb ft (1648 N•m) @ 1300 RPM	1250 lb ft (1695 N•m) @ 1300 RPM
Injector	9A85	9A85
Rated Gross Power	415 BHP (306 kW) @ 2100 RPM	425 BHP (317 kW) @ 2100 RPM
Peak Torque	1150 lb ft (1563 N•m) @ 1300 RPM	1175 lb ft (1593 N•m) @ 1300 RPM

<i>(Continuous Rating)</i>		
Injector	9280	9A80
Rated Gross Power	340 BHP (254 kW) @ 1800 RPM	365 BHP (272 kW) @ 1800 RPM

Rating conditions of SAE: 77°F (25°C) and 29.31 in Hg (99 kPa) Barometer (Dry)
These ratings are subject to change without notice or obligation.

EQUIPMENT SPECIFICATIONS

Aftercooler—8V-92TA only

Alternator—24 volt, 65 amp

Blower—With bypass valve

Camshaft—Drop forged with induction hardened polished lobes

Connecting Rod—Rifle drilled, drop forging

Crankshaft—Drop forged, dynamically and statically balanced, induction hardened journals and fillets

Crankshaft Pulley

Cylinder Block—Cast iron alloy replaceable cylinder liners

Cylinder Head—Cast iron alloy, 4 exhaust valves per cylinder, replaceable valve seats

Engine Lifter Brackets

Fan—36 in (914 mm), 8 blade suction

Flywheel—SAE #1

Flywheel Housing—SAE #1

Fuel Filters—Spin-on type, includes both primary and secondary filter

Governor—Limiting speed

Injectors—Cam operated, unit type, clean tip

Lube Oil Cooler—Thermatic plate type

Lube Oil Filter—Spin-on, full-flow, no bypass filter required

Oil Pan—17° rear sump

Piston—Crosshead design, cast iron alloy

Starting Motor—24 volt, with sprag overrunning clutch

Turbocharger—Improved design, high efficiency model TV8511, 1.39 A/R

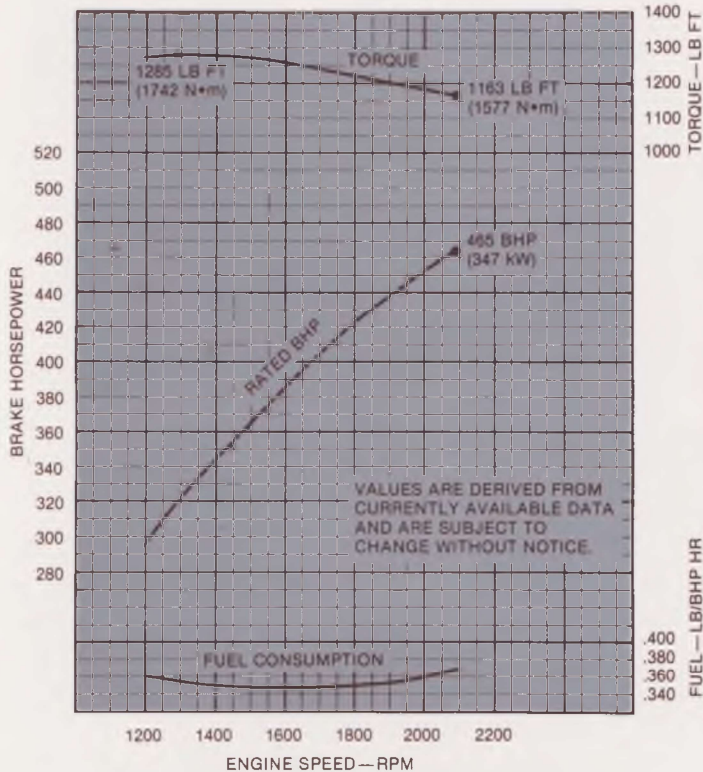
Water Pump—Impeller type with ceramic seal

Additional options are also available for most of these items. For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

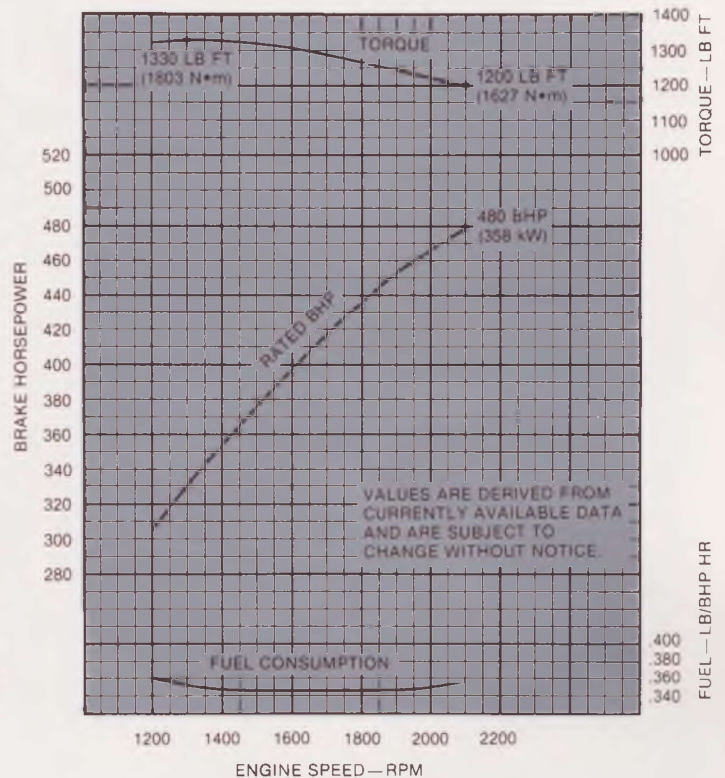


PERFORMANCE CURVES

**BASIC ENGINE PERFORMANCE
MODEL 8V-92T WITH 9E95 INJECTORS†**



**BASIC ENGINE PERFORMANCE
MODEL 8V-92TA WITH 9E95 INJECTORS†**



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. POWER OUTPUT guaranteed within 5% at standard ambient conditions.

THIS RATING does not include power requirements for accessory and standard equipment. For complete engine specifications for your particular requirements, see your distributor or authorized Detroit Diesel Allison representative.

†Rating conditions of SAE: 77°F (25°C) and 29.31 in Hg (99 kPa) Barometer (Dry)

BDC



DESIGN FEATURES AND BENEFITS

Unit Injector Fuel System

The main components of this system are the simple and efficient Needle Valve Injectors that precisely meter the fuel individually to each cylinder.

The injector creates the high pressure needed for efficient combustion . . . meters and injects the fuel in the exact amount required at the correct time . . . and atomizes it for proper burning with the air in the combustion chamber.

The injectors in the Silver 92 engines aid combustion efficiency with modified plunger and bushing timing and improved spray tips.

Centrifugally Cast Liners

Closely controlled metallurgical and heat treatment specifications allow for precise machining. Liner working surfaces are processed to insure proper piston ring lubrication. Our heat treating method assures the liner has proper strength and geometry that promotes long piston and liner life.

In addition, the height and shape of the liner ports have been modified for optimum air inlet timing and maximum air swirl in the combustion chamber in conjunction with the newly timed camshaft.

Crosshead Piston

A key durability improvement is the use of crosshead pistons in all Silver 92 engines. This patented design features separate crown and skirt components that work independently of each other: the crown absorbs combustion forces while the skirt absorbs thrust loads. Proven in larger Detroit Diesel engines, crosshead pistons extend ring life and reduce cylinder bore wear.

New Piston Ring Designs

New, longer-wearing compression rings feature barrel-faced grooveless compression rings with hard molybdenum coating replacing conventional chrome rings. This new design extends ring life from 30-50%. The new rings reduce friction, thereby helping to improve fuel economy. Reduced oil consumption is an additional benefit.

Air Induction System

The Silver 92 air induction system, which incorporates a blower bypass valve and passage, reduces pumping losses and provides a savings of up to 7 horsepower. The design is essentially a spring loaded poppet type bypass valve in the blower end plate. At suitable engine speed and load, the valve opens, allowing air box pressure to equalize with blower inlet pressure, thus reducing pumping horsepower requirements. This optimizes thermal efficiency through improved air-fuel ratio control.

High-Efficiency Turbocharger

Silver 92 engines feature a new, more efficient family of turbochargers that more closely meet the air delivery requirements of the specific engine and its application. This improvement aids combustion efficiency, fuel economy, smoke control, and engine response.

Parts Interchangeability

Silver 92 engines offer up to 70% moving parts interchangeability. In addition, much of the external, optional equipment, such as starting systems, air compressors, and alternators, are also interchangeable throughout the Series. Your current engine can also be upgraded to Silver without major investment. As an owner you benefit four ways: 1) Reduced Parts Inventory, 2) Low Parts Cost, 3) Good Parts Availability, 4) Ease of Service.

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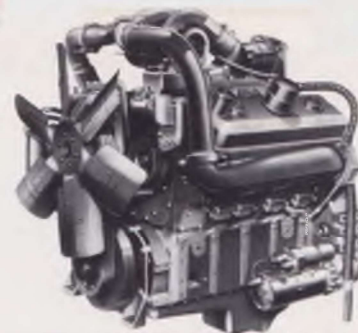
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Detroit Diesel Engines

BDC



8V-92TA TRUCK ENGINE

SILVER 355 HP

SILVER 365 HP

SILVER 445 HP

GENERAL SPECIFICATIONS

General Specifications

Number of Cylinders	8
Bore and Stroke	4.84 in x 5 in (123 mm x 127 mm)
Displacement	736 cu in (12.1 liters)
Compression Ratio	17:1
Injectors	355: 7G75 365: 9A90 445: 9A90
Brake Horsepower*	355 BHP (265 kW) @ 1800 RPM 365 BHP (272 kW) @ 1950 RPM 365 BHP (272 kW) @ 2100 RPM** 445 BHP (332 kW) @ 2100 RPM
Peak Torque*	355: 1150 lb ft (1559 N·m) @ 1200 RPM 365: 1250 lb ft (1695 N·m) @ 1300 RPM 445: 1250 lb ft (1695 N·m) @ 1300 RPM
Dimensions: (approx.)	
Length	44 in (1118 mm)
Width	38 in (965 mm)
Height	50 in (1270 mm)
Weight (dry)	2415 lbs (1095 kg)

*Rating Conditions of 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Barometer (dry)

**Recommended for on/off highway applications

For complete dimensional information, refer to installation drawing 2SA422.

STANDARD EQUIPMENT

Air Compressor—12 CFM, can be used with flange mounted alternator

Alternator—12 volt, 65 amp, includes self-contained regulator

Camshaft—Honed with Thielenhous process

Connecting Rod—Rifle drilled, drop forging

Crankshaft—Drop forged, dynamically and statically balanced, rolled fillets, induction hardened journals

Crankshaft Pulley—3 grooves, provides .82 to 1 ratio with 9.12 inch diameter fan pulley

Cylinder Block—.95 liner, aftercooler, 25° port angle liner

Cylinder Head—Cast iron alloy, trapezoidal arrangement of exhaust valves

Engine Lifter Bracket

Engine Mounts—Trunnion mount, includes support and cap

Flywheel—SAE #1 for 15½", 2-plate clutch

Flywheel Housing—SAE #1, cast iron

Fuel Filters—Spin-on type, includes both primary and secondary filter

Governor—Double weight, limiting speed, used with yield link

Injectors—Unit injector, clean tip, 9 holes

Lube Oil Cooler—24 plate

Lube Oil Filter—Single cannister, full flow, spin-on; no bypass filter required

Oil Distribution System—Oil pan: 17° inclination angle, rear sump; oil pump: right hand rotation, wide gears

Piston—Crosshead design, cast iron alloy

Starting Motor—24 volt, right hand rotation, includes insulated sprag overrunning clutch

Turbocharger

Vibration Damper—Viscous

Water Pump

8V-92TA OPERATING DATA

Airflow	Silver 355: 1115 CFM (31.58 m ³ /min) Silver 365: 1200 CFM (34.0 m ³ /min) (1950 RPM) Silver 365: 1270 CFM (35.97 m ³ /min) (2100 RPM) Silver 445: 1400 CFM (39.65 m ³ /min)
Air Intake Restriction (Dry type air cleaner) full load—dirty —clean	20.0 in H ₂ O (5.0 kPa) 12.0 in H ₂ O (3.0 kPa)
Coolant Capacity	28½ quarts (27.4 liters) (does not include radiator)
Coolant Flow	Silver 355: 160 GPM (606 liter/minute) Silver 365: 160 GPM (606 liter/minute) (1950 RPM) Silver 365: 179 GPM (678 liter/minute) (2100 RPM) Silver 445: 187 GPM (708 liter/minute)
Coolant Normal Operating Temperature	170°F-195°F (77°C-91°C)
Exhaust Flow	Silver 355: 2265 CFM (64.1 m ³ /min) Silver 365: 2445 CFM (69.2 m ³ /min) (1950 RPM) Silver 365: 2575 CFM (72.9 m ³ /min) (2100 RPM) Silver 445: 3079 CFM (87.2 m ³ /min)
Exhaust Back Pressure (full load)	3.0 in Hg (10.2 kPa)
Heat Rejection	Silver 355: 9500 BTU/min Silver 365: 9725 BTU/min (1950 RPM) Silver 365: 9725 BTU/min (2100 RPM) Silver 445: 13,525 BTU/min
Idle Range—normal idle —long idle	500 RPM 800—1000 RPM
Lubricating Oil Capacity	25 quarts (23.66 liters) (includes one full flow filter)
Lubricating Oil Pressure—normal —at idle	49-70 PSI (338-483 kPa) @ 1800-2100 RPM nominal
Lubricating Oil Temperature—in pan	200°F-250°F (93°C-121°C)

For complete coolant specifications, see publication 7SE298.

For complete fuel and lubricating oil specifications, see publication 7SE270.

HORSEPOWER FLEXIBILITY

445 HP @ 2100 RPM

On-highway and on/off-highway applications:

- 70,000—150,000 lbs GCW
- 80,000 lbs* at 42 MPH maximum on 3% grade
- 130,000 lbs* GCW at 27 MPH maximum on 3% grade
- 130,000 lbs* GCW at 64 MPH maximum on 0% grade

Fuel Economy Recommendations

- A. In on-highway applications gear vehicle to attain maximum desired cruising speed between 1600-1800 RPM for best fuel economy with 2100 RPM available for hill climbing.
- B. For on/off highway applications select transmission and axle ratios to attain needed off-road gradeability in low transmission ratio and optimum on-highway economy in high transmission ratio.
- C. Requires driver cooperation to maximize fuel economy.

365 HP @ 1950 RPM

On-highway applications:

- 2100 RPM setting available for on/off-highway applications

*Based on 13½' x 8' frontal area, bias tires, tandem axle, and clutch fan. The use of radial tires, air deflector, single axle, and or smaller frontal area will allow higher speeds
Speeds shown are vehicle capabilities

- 70,000—130,000 lbs GCW
- 80,000 lbs* GCW at 35 MPH maximum on 3% grade
- 80,000 lbs* GCW at 67 MPH maximum on 0% grade

Fuel Economy Recommendations

- A. Gear vehicle to attain maximum desired cruising speed between 1600-1800 RPM for best fuel economy
- B. Requires some driver cooperation for maximum fuel economy

355 HP @ 1800 RPM

On-highway applications:

- 70,000—120,000 lbs GCW
- 80,000 lbs* GCW at 34 MPH maximum on 3% grade
- 80,000 lbs* GCW at 66 MPH maximum on 0% grade

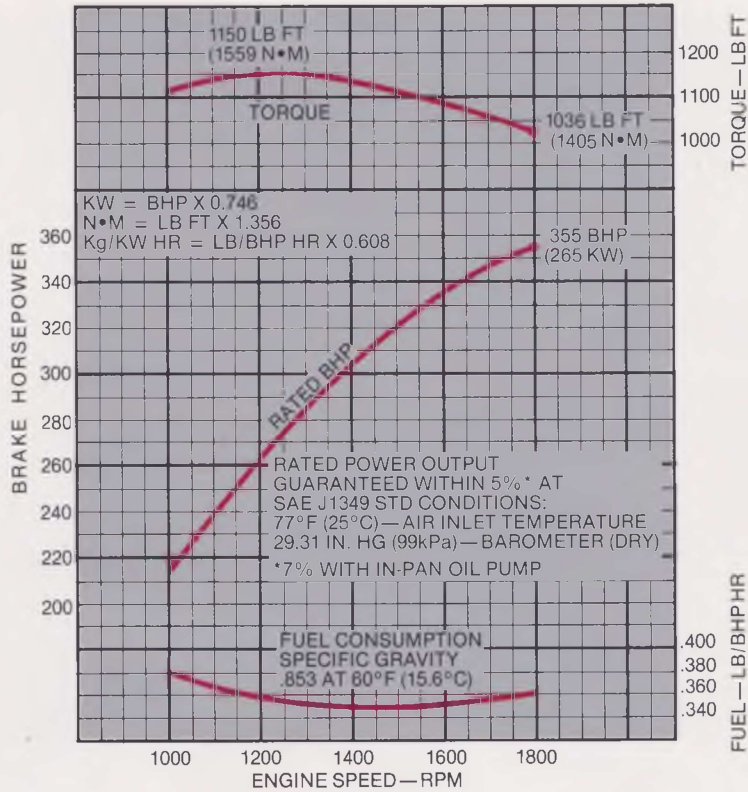
Fuel Economy Recommendations

- A. Gear vehicle to attain maximum desired cruising speed between 1600-1800 RPM for best fuel economy.
- B. Limits maximum engine RPM to more fuel efficient RPM range.



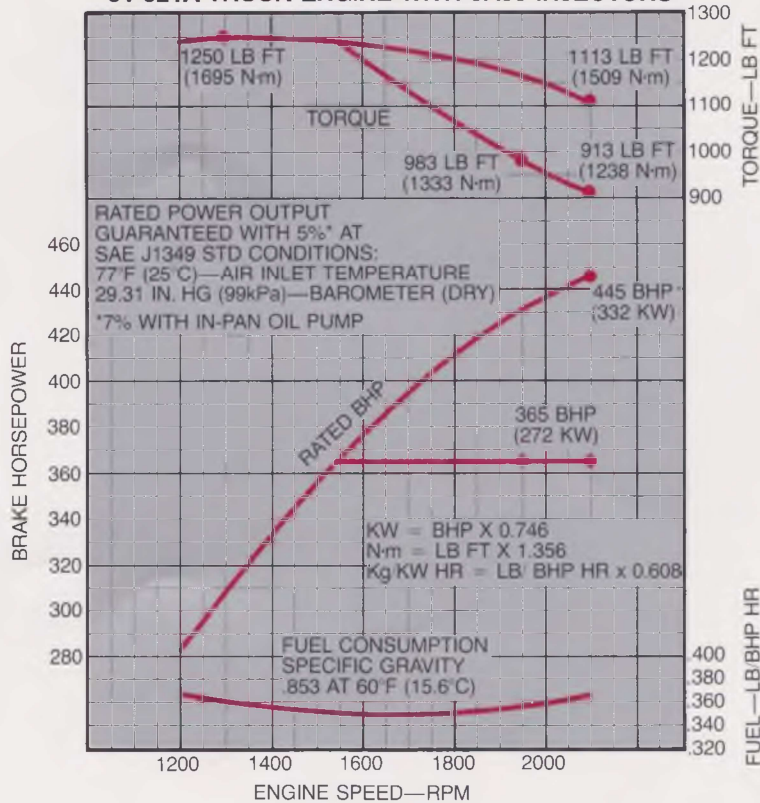
**SILVER
355**

**BASIC ENGINE PERFORMANCE
8V-92TA TRUCK ENGINE WITH 7G75 INJECTORS**



**SILVER
365
and
SILVER
445**

**BASIC ENGINE PERFORMANCE
8V-92TA TRUCK ENGINE WITH 9A90 INJECTORS**



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.

PERFORMANCE CAPABILITY

Governed RPM	Tire Size	Rear Axle	Full Load Governed Geared Road Speed	Vehicle Potential Speed Capability
8V-92TA @ 1800 RPM	10 x 20 11 x 22.5 (495 Revs/mile)	4.11	53.1 MPH	56 MPH
		3.90	55.9 MPH	59 MPH
		3.70	59.0 MPH	62 MPH
		3.55	61.5 MPH	65 MPH
8V-92TA @ 1950 RPM	10 x 22 11 x 24.5 (474 Revs/mile)	4.33	52.6 MPH	55 MPH
		4.11	55.4 MPH	58 MPH
		3.90	58.4 MPH	62 MPH
		4.33	54.6 MPH	57 MPH
8V-92TA @ 1950 RPM	10 x 22 11 x 24.5 (474 Revs/mile)	4.11	57.5 MPH	60 MPH
		3.90	60.6 MPH	64 MPH
		4.44	55.6 MPH	58 MPH
		4.33	57.0 MPH	60 MPH
8V-92TA @ 1950 RPM	10 x 22 11 x 24.5 (474 Revs/mile)	4.11	60.0 MPH	63 MPH
		3.90	63.3 MPH	67 MPH
		4.33	57.0 MPH	60 MPH
		4.11	60.0 MPH	63 MPH

- Engine Governor characteristics permit a vehicle speed in excess of the full load governed geared road speed — provided sufficient horsepower is available. ①
- Use "Vehicle Potential Speed Capability" column to select maximum desired cruise speed in order to limit engine RPM to a more fuel efficient maximum RPM.
- Check with truck dealer for exact tire revolutions per mile for your particular brand, model, and tire size.
- Full load governed Geared Road Speed = $\frac{\text{Governed RPM} \times 60}{\text{Tire Revs/mile} \times \text{Rear axle ratio}} = \frac{\text{Top drive ratio}}{\text{Top drive ratio}} = \text{MPH} \text{ } \textcircled{1}$
- Vehicle Potential = $\frac{(\text{Governed RPM} + 100) \times 60}{\text{Tire Revs/mile} \times \text{Rear axle ratio}} = \frac{\text{Top drive ratio}}{\text{Top drive ratio}} = \text{MPH} \text{ } \textcircled{1}$

① Check wheel HP chart

80,000 lbs GCW 13½' x 8' Frontal Area Wheel Horsepower Requirements on Grades*					
VEHICLE MPH	0.00%	0.50%	1.00%	3.00%	6.00%
25.0	50 HP	76 HP	103 HP	210 HP	369 HP
35.0	85	122	160	309	532
45.0	134	182	230	422	
55.0	200	259	318	533	
60.0	241	305	369		
65.0	287	357	426		

Horsepower requirements are shown with bias ply tires and no air deflector in a line haul truck.

*Check with truck manufacturer or dealer to determine driveline and accessory efficiency.

Specifications subject to change without notice.

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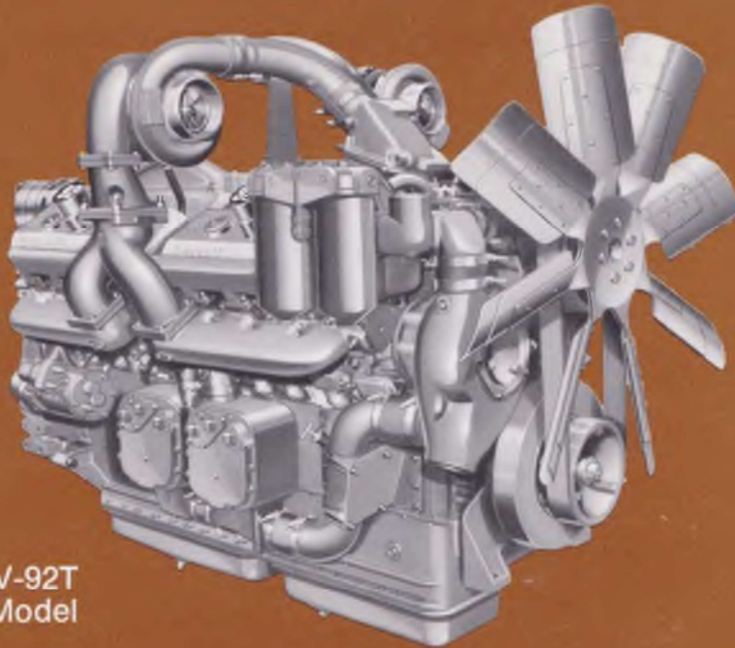
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Detroit Diesel Engines

fan-to-flywheel
models

16V-92
736 hp

16V-92T
860 hp



Typical 16V-92T
Fan-to-Flywheel Model

specifications

Basic Engine	16V-92 9280 Injectors	16V-92T 9290 Injectors
Model	8163-7000	8163-7300
Engine Type	Two Cycle	Two Cycle
Number of Cylinders	16	16
Bore and Stroke	4.84 in x 5 in (123 mm x 127 mm)	4.84 in x 5 in (123 mm x 127 mm)
Two Cycle Displacement	1472 cu in (24.14 litres)	1472 cu in (24.14 litres)
Rated Gross Power: 60°F (15.6°C) and 29.92 in Hg (101.31 kPa) Bar. (Dry)	736 BHP (549 kW) @ 2100 RPM	—
SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar. (Dry)	720 BHP (537 kW) @ 2100 RPM	860 BHP (642 kW) @ 2100 RPM
Continuous Gross Power: SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar. (Dry)	600 BHP (448 kW) @ 1800 RPM	—
Torque: SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar. (Dry)	1966 lb ft (2666 N·m) @ 1400 RPM	2372 lb ft (3216 N·m) @ 1400 RPM
Compression Ratio	19 to 1	17 to 1
Approximate Dimensions:		
Length	79 in (2007 mm)	79 in (2007 mm)
Width	44 in (1118 mm)	47 in (1194 mm)
Height	58 in (1473 mm)	59 in (1499 mm)
Net Weight (Mass) (Dry)	4600 lbs (2087 kg)	4800 lbs (2177 kg)

For complete dimensional information, refer to installation drawing 2SA423 for Model 8163-7000 and 2SA424 for Model 8163-7300.

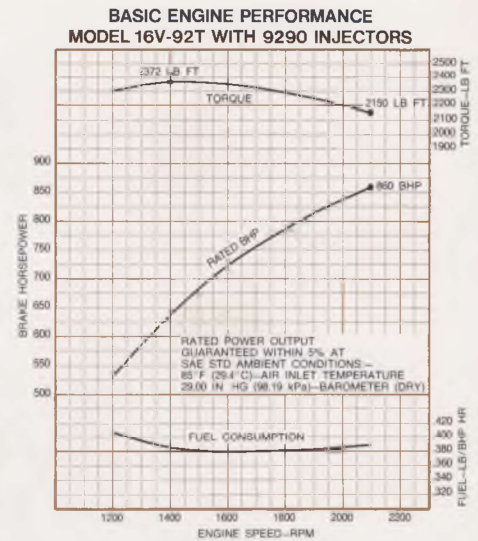
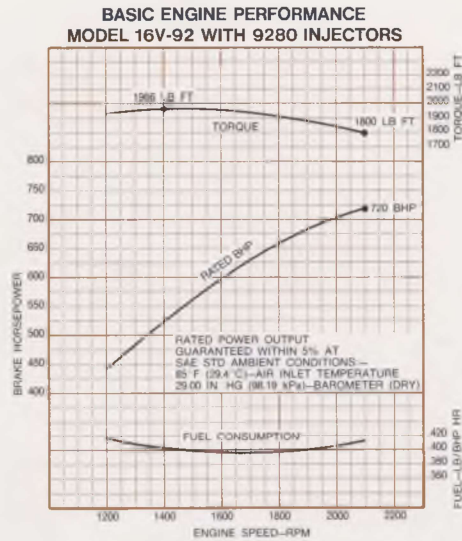
performance

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.

THESE RATINGS do not include power requirements for accessory and standard equipment.



standard equipment

Air Box Drain Tubes

Air Inlet Housing

Alternator—24v, 50 amp

Cast Aluminum Rocker Covers

Crankshaft Pulley

Engine Mounts

Exhaust Manifold

Fan—48 in (1219), 8 blades, suction

Flywheel—SAE #0

Flywheel Housing—SAE #0

Fuel Filters

Governor—Variable speed

Injectors—Cam operated, unit type, clean tip

Lube Oil Coolers

Lube Oil Filters

Oil Pan—Stamped pan for 20° inclination angle, dual sump

Starting Motor—Two 24 volt

Turbochargers—Model 8163-7300 only

Vibration Damper—Thick, heavy, viscous

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.



Detroit Diesel Allison

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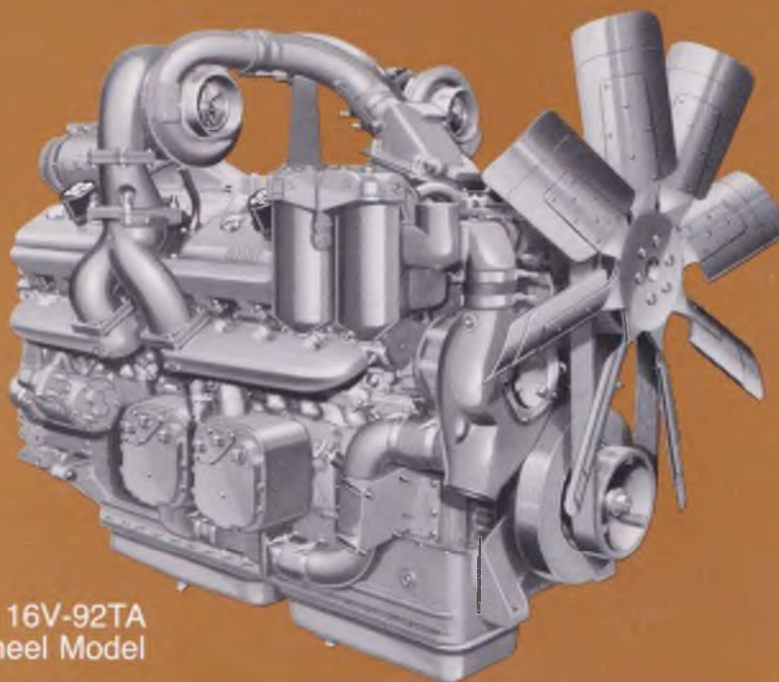
In Canada Diesel Division, General Motors of Canada Limited London Ontario

BDC

Detroit Diesel Engines

fan-to-flywheel
models

16V-92TA
880 hp



Typical 16V-92TA
Fan-to-Flywheel Model

specifications

Basic Engine

16V-92TA
9290 Injectors

Model	8163-7400
Engine Type	Two Cycle
Number of Cylinders	16
Bore and Stroke	4.84 in X 5 in (123 mm X 127 mm)
Displacement	1472 cu in (24.15 litres)
Rated Power:	
SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar (Dry)	880 BHP (656kW)
Torque:	
SAE: 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Bar (Dry)	2408 lb ft (3265 N·m) @ 1400 RPM
Compression Ratio	17 to 1
Approximate Dimensions:	
Length	79 in (2007 mm)
Width	47 in (1194 mm)
Height	58 in (1473 mm)
Net Weight (dry)	4840 lbs (2195 kg)

For complete dimensional information, refer to installation drawing 2SA434.

performance

Rating Explanation

RATED BHP—Basic engine gross power.

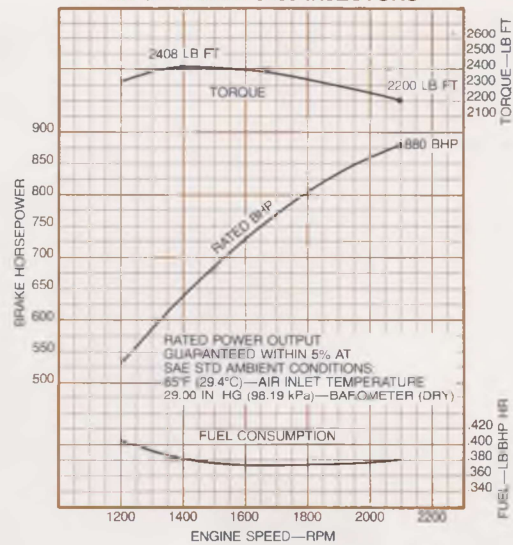
CONTINUOUS BHP—Rated power for applications operating under a constant load and speed for long periods of time.

FUEL CONSUMPTION CURVE—

Furl used in pounds per brake horsepower hour.

These ratings do not include power requirements for accessory and standard equipment.

**BASIC ENGINE PERFORMANCE
16V-92TA WITH 9290 INJECTORS**



standard equipment

Air Box Drain Tubes

Air Inlet Housing

Aftercoolers

Alternator—24v, 50 amp

Cast Aluminum Rocker Covers

Crankshaft Pulley

Engine Mounts

Exhaust Manifold

Fan—48 in (1219 mm), 8 blades, suction

Flywheel—SAE #0

Flywheel Housing—SAE #0

Fuel Filters

Governor—Variable speed

Injectors—Cam operated, unit type, clean tip

Lube Oil Coolers

Lube Oil Filters

Oil Pan—Stamped pan for 20° inclination angle, dual sump

Starting Motor—Two 24 volt

Turbochargers

Vibration Damper—Thick, heavy, viscous

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

Specifications subject to change without notice.



Detroit Diesel Allison
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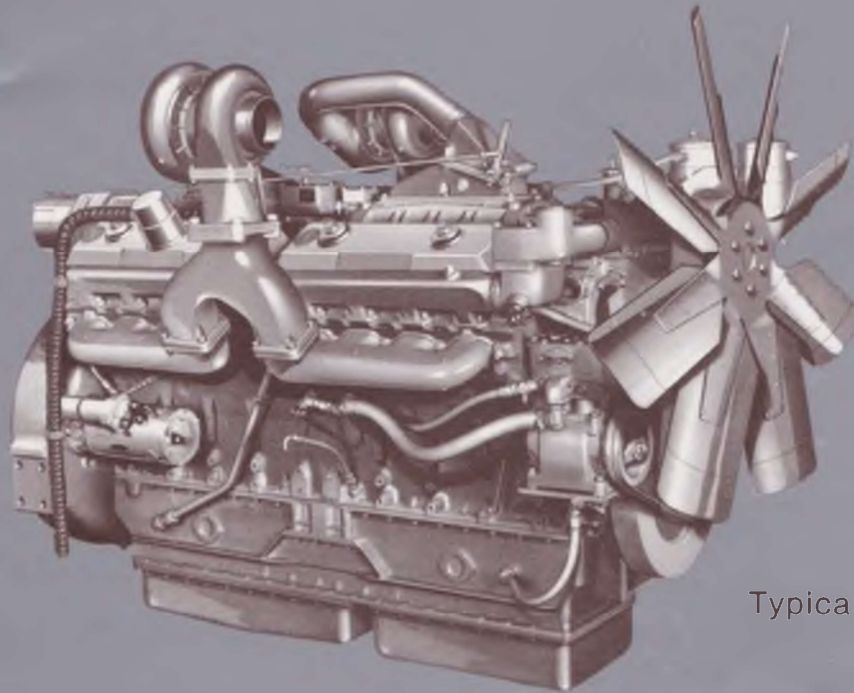
In Canada: Diesel Division, General Motors of Canada Limited, London Ontario

Detroit Diesel Engines



INDUSTRIAL MODELS

12V-92TA 16V-92TA



Typical 16V-92TA

GENERAL SPECIFICATIONS

Basic Engine	12V-92TA	16V-92TA
Model	8123-7400	8163-7400
Number of Cylinders	12	16
Bore and Stroke	4.84 in × 5 in (123 mm × 127 mm)	4.84 in × 5 in (123 mm × 127 mm)
Displacement	1104 cu in (18.1 liters)	1472 cu in (18.1 liters) <i>24.4</i>
Compression Ratio	17 to 1	17 to 1
Lube Oil System Capacity•	Low—28 qts (26.5 liters) High—36 qts (34.1 liters)	Low—55 qts (52.1 liters) High—65 qts (61.5 liters)
Coolant Capacity (engine only)	51 qts (48.3 liters)	60 qts (56.8 liters)
Length	68 in (1727 mm)	79 in (2007 mm)
Width	47 in (1194 mm)	47 in (1194 mm)
Height	54 in (1372 mm)	59 in (1499 mm)
Weight (dry)	4280 lbs (1941 kg)	4840 lbs (2195 kg)
•with standard oil pan		

Approximate dimensions shown. For complete dimensional information, refer to installation drawing.

For complete coolant specifications, see publication 7SE298. For complete fuel and lubricating oil specifications, see publication 7SE270.

HORSEPOWER VERSATILITY

Basic Engine

12V-92TA

16V-92TA

Injector	9G90	9A98
Rated Gross Power	700 BHP (522 kW) @ 2100 RPM	960 BHP (716 kW) @ 2100 RPM
Peak Torque	2040 lb ft (2766 N•m) @ 1200 RPM	2755 lb ft (3736 N•m) @ 1200 RPM
Injector	9G85	9G85
Rated Gross Power	675 BHP (504 kW) @ 2100 RPM	900 BHP (671 kW) @ 2100 RPM
Peak Torque	1950 lb ft (2644 N•m) @ 1200 RPM	2500 lb ft (3390 N•m) @ 1200 RPM
Injector	9A85	9A85
Rated Gross Power	625 BHP (466 kW) @ 2100 RPM	850 BHP (634 kW) @ 2100 RPM
Peak Torque	1845 lb ft (2502 N•m) @ 1200 RPM	2370 lb ft (3214 N•m) @ 1200 RPM

(Continuous Rating)

Injector	7E75	7E75
Rated Gross Power	520 BHP (388 kW) @ 1800 RPM	700 BHP (522 kW) @ 1800 RPM

Rating conditions of SAE: 77°F (25°C) and 29.31 in Hg (99 kPa) Barometer (Dry)
These ratings are subject to change without notice or obligation.

EQUIPMENT SPECIFICATIONS

Aftercooler

Alternator—24 volt, 50 amp

Blower—With bypass valve

Camshaft—Drop forged with induction hardened polished lobes

Connecting Rod—Rifle drilled, drop forging

Crankshaft—Drop forged, dynamically and statically balanced, induction hardened journals and fillets

Cylinder Block—Cast iron alloy replaceable cylinder liners

Cylinder Head—Cast iron alloy, 4 exhaust valves per cylinder, replaceable valve seats

Engine Lifter Brackets

Fan—44 in (1118 mm), 8 blade, 12V-92TA; 48 in (1219 mm), 8 blade, 16V-92TA

Flywheel—SAE #0

Flywheel Housing—SAE #0

Fuel Filters—Spin-on type, includes both primary and secondary filter

Governor—Variable speed

Injectors—Cam operated, unit type, clean tip

Lube Oil Cooler—Thermatic plate type

Lube Oil Filter—Spin-on, full-flow, no bypass filter required

Oil Pan—20° inclination angle

Piston—Crosshead design, cast iron alloy

Starting Motor—24 volt

Turbocharger—Improved design, high efficiency model, TV7301, 1.08 A/R 12V; TV8301, 1.39 A/R 16V

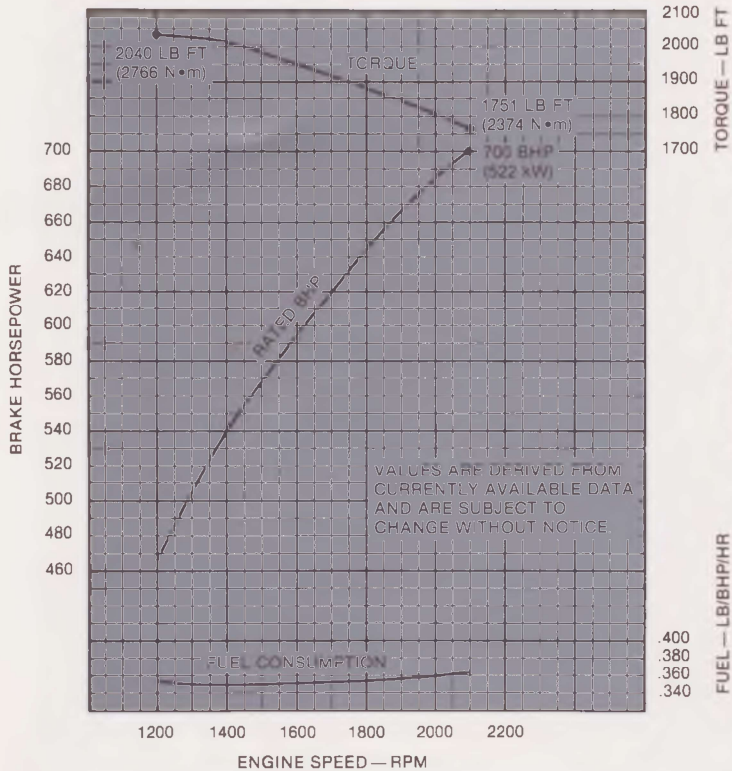
Vibration Damper

Water Pump—Impeller type with ceramic seal

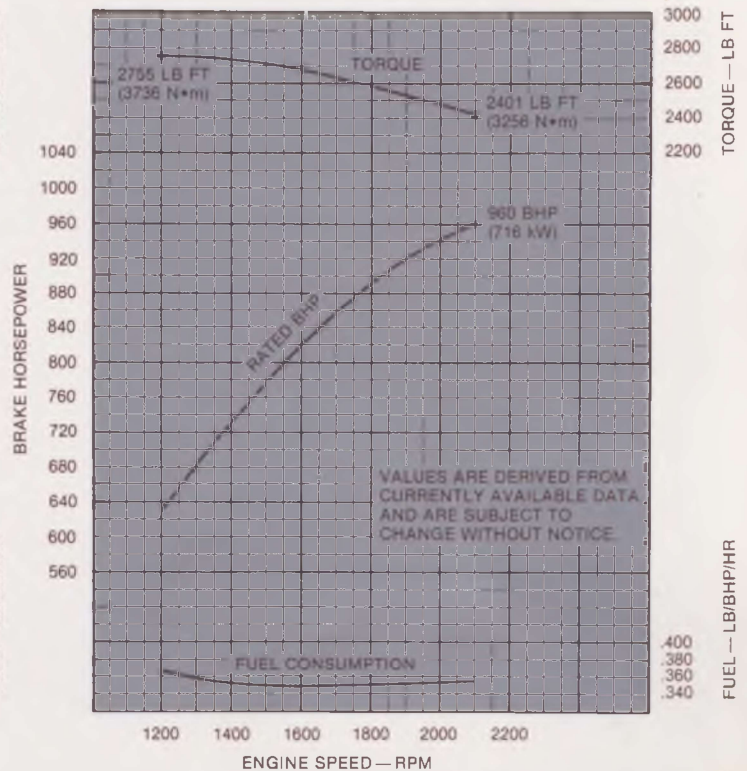
Additional options are also available for most of these items. For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

PERFORMANCE CURVES

**BASIC ENGINE PERFORMANCE
MODEL 12V-92TA WITH 9G90 INJECTORS†**



**BASIC ENGINE PERFORMANCE
MODEL 16V-92TA WITH 9A98 INJECTORS†**



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.

POWER OUTPUT guaranteed within 5% at standard ambient conditions.

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

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

†Rating conditions of SAE: 77 °F (25 °C) and 29.31 in Hg (99 kPa) Barometer (Dry)



DESIGN FEATURES AND BENEFITS

Unit Injector Fuel System

The main components of this system are the simple and efficient Needle Valve Injectors that precisely meter the fuel individually to each cylinder.

The injector creates the high pressure needed for efficient combustion . . . meters and injects the fuel in the exact amount required at the correct time . . . and atomizes it for proper burning with the air in the combustion chamber.

The injectors in the Silver 92 engines aid combustion efficiency with modified plunger and bushing timing and improved spray tips.

Centrifugally Cast Liners

Closely controlled metallurgical and heat treatment specifications allow for precise machining. Liner working surfaces are processed to insure proper piston ring lubrication. Our heat treating method assures the liner has proper strength and geometry that promotes long piston and liner life.

In addition, the height and shape of the liner ports have been modified for optimum air inlet timing and maximum air swirl in the combustion chamber in conjunction with the newly timed camshaft.

Crosshead Piston

A key durability improvement is the use of crosshead pistons in all Silver 92 engines. This patented design features separate crown and skirt components that work independently of each other: the crown absorbs combustion forces while the skirt absorbs thrust loads. Proven in larger Detroit Diesel engines, crosshead pistons extend ring life and reduce cylinder bore wear.

New Piston Ring Designs

New, longer-wearing compression rings feature barrel-faced grooveless compression rings with hard molybdenum coating replacing conventional chrome rings. This new design extends ring life from 30-50%. The new rings reduce friction, thereby helping to improve fuel economy. Reduced oil consumption is an additional benefit.

Air Induction System

The Silver 92 air induction system, which incorporates a blower bypass valve and passage, reduces pumping losses and provides a savings of up to 7 horsepower. The design is essentially a spring loaded poppet type bypass valve in the blower end plate. At suitable engine speed and load, the valve opens, allowing air box pressure to equalize with blower inlet pressure, thus reducing pumping horsepower requirements. This optimizes thermal efficiency through improved air-fuel ratio control.

High-Efficiency Turbocharger

Silver 92 engines feature a new, more efficient family of turbochargers that more closely meet the air delivery requirements of the specific engine and its application. This improvement aids combustion efficiency, fuel economy, smoke control, and engine response.

Parts Interchangeability

Silver 92 engines offer up to 70% moving parts interchangeability. In addition, much of the external, optional equipment, such as starting systems, air compressors, and alternators, are also interchangeable throughout the Series. Your current engine can also be upgraded to Silver without major investment. As an owner you benefit four ways: 1) Reduced Parts Inventory, 2) Low Parts Cost, 3) Good Parts Availability, 4) Ease of Service.



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