

# DETROIT DIESEL

FAN-TO-  
FLYWHEEL  
ENGINES

12V-71T

525HP

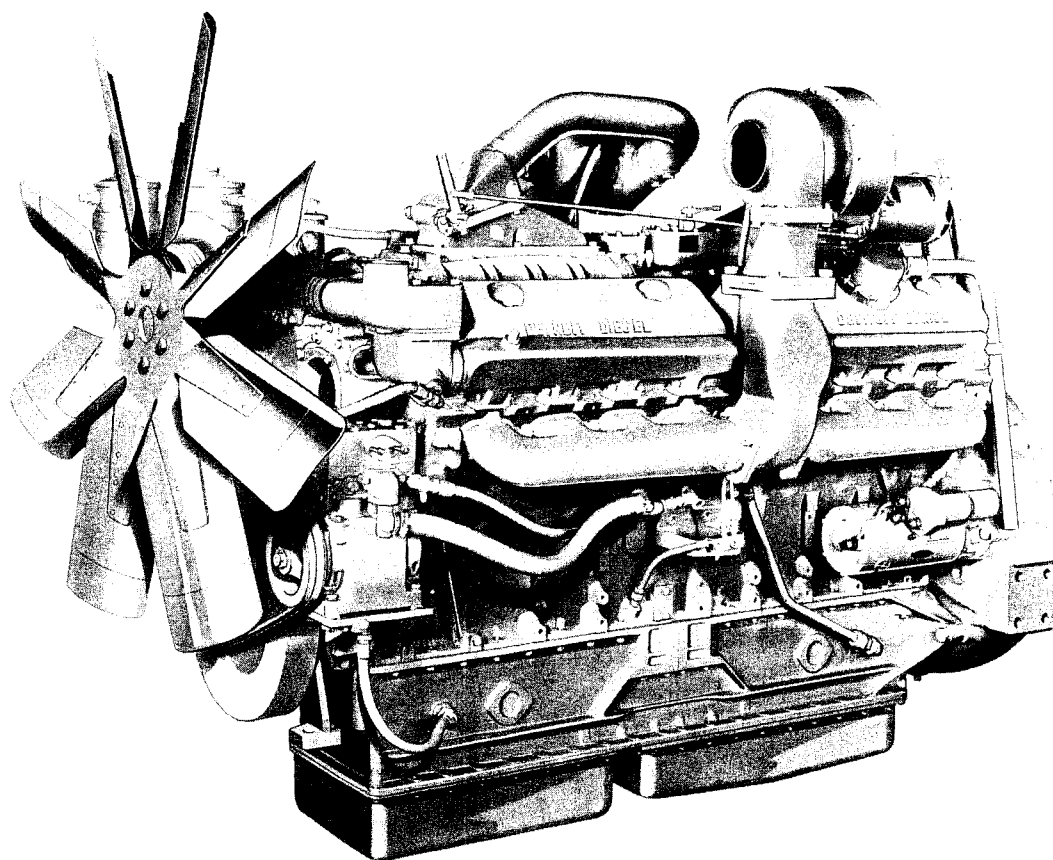
16V-71T

700HP

## MODEL

12V-71T 7123-7300

16V-71T 7163-7300



Model 7163-7300



A Power Product of General Motors



## SPECIFICATIONS

	<b>12V-71T</b>	<b>16V-71T</b>
Model . . . . .	7123-7300	7163-7300
Engine Type . . . . .	Two Cycle	Two Cycle
No. of Cylinders . . . . .	12	16
Bore and Stroke . . . . .	4 1/4 in. x 5 in.	4 1/4 in. x 5 in.
Two Cycle Displacement (Every Downstroke a Powerstroke) . . . . .	852 cu. in.	1136 cu. in.
Rated Brake Horsepower—2100 RPM . . . . .	525	700
Torque—1600 RPM. . . . .	1450 lb. ft.	1930 lb. ft.
Compression Ratio . . . . .	17 to 1	17 to 1
Net Weight (Dry) with Standard Equipment . . . . .	3550 lbs.	4800 lbs.

## STANDARD EQUIPMENT

Air Inlet Housing—Manual shutdown

Crankshaft Pulley—3 grooves—6.84" dia. and 1 groove—  
7.50" dia.—Model 7123-7300  
9" dia. Poly and 2 grooves—  
7.50" dia.—Model 7163-7300

Engine Mounts—Stationary Model 7163-7300

Exhaust Manifold

Fan—36"—8 blade suction Model 7123-7300  
40"—8 blade suction Model 7163-7300

Flywheel—SAE #1/2 for 18" clutch

Flywheel Housing—SAE #1/2

Generator—24 volt, 20 amp, Model 7123-7300  
24 volt, 30 amp, Model 7163-7300

Governor—Limiting Speed, Model 7123-7300  
Variable Speed, Model 7163-7300

Injectors—Cam operated, Unit Type

Lube Oil Filter—Full Flow Filter

Oil Pan and Distribution System—For 20 degree inclination

Starting Equipment—24 volt, Sprag clutch

Turbocharger—Two turbochargers with air inlet connections

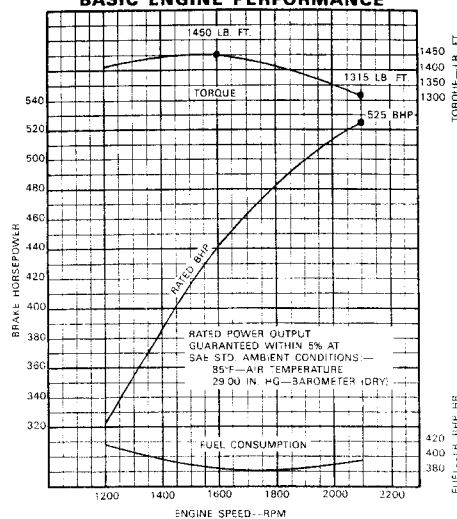
Vibration Damper—Single, heavy viscous

Instruments—Includes ammeter, water and oil temperature gauges,  
and starter button—Model 7123-7300

OPTIONAL AND EXTRA EQUIPMENT AVAILABLE

## PERFORMANCE

**MODEL 7123-7300  
BASIC ENGINE PERFORMANCE**



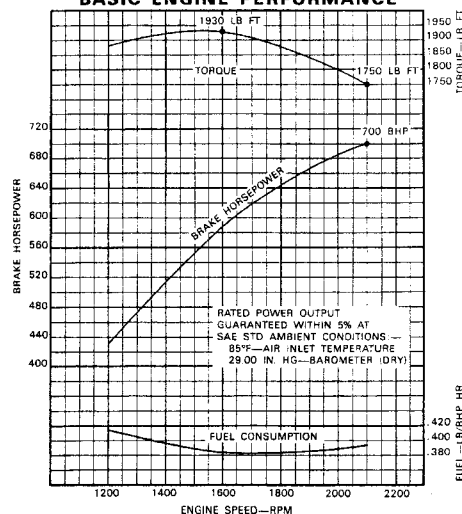
### Rating Explanation

RATED BHP is the power rating for variable speed applications where full power is required throughout the operating range.

ALTITUDE PERFORMANCE—These ratings represent the basic engine performance of Detroit Diesel 12V-71 and 16V-71 turbocharged engines at the conditions indicated. The engine will develop power up to altitudes of 4000 ft. and torque derating is indicated in a 4000 ft. altitude chart.

DETROIT DIESEL will not be held responsible for any deviation and standard equipment.

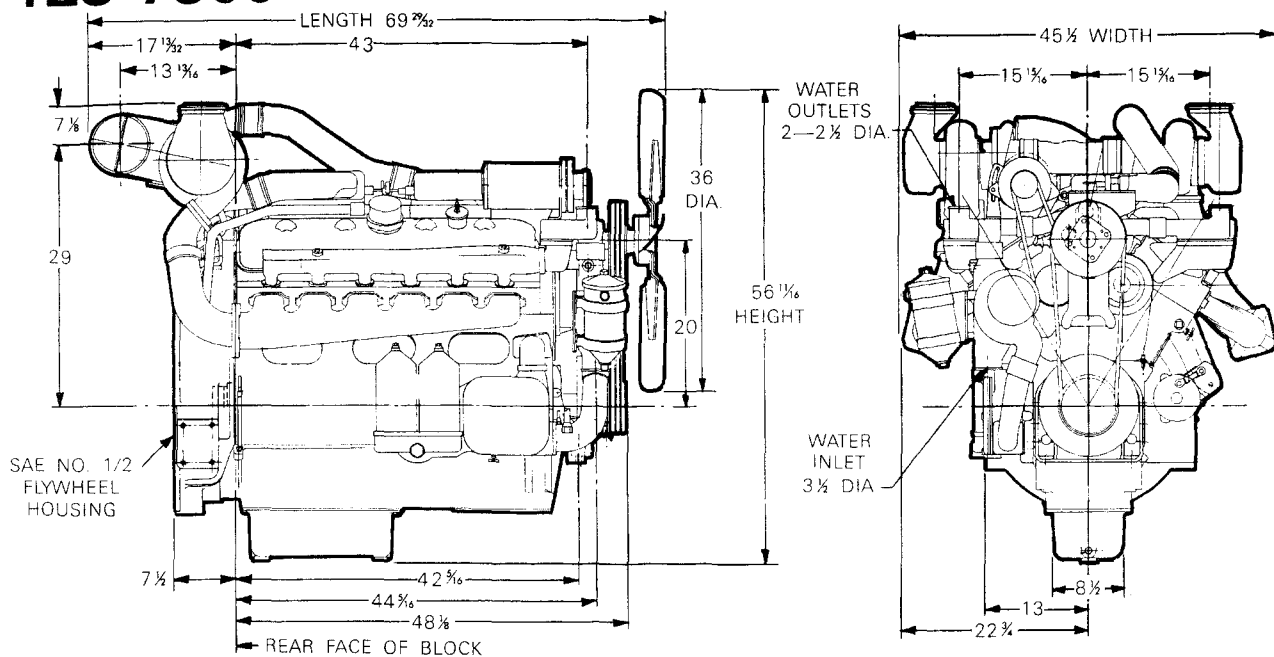
**MODEL 7163-7300  
BASIC ENGINE PERFORMANCE**



For complete engine specifications for your particular application, see your authorized Detroit Diesel representative.

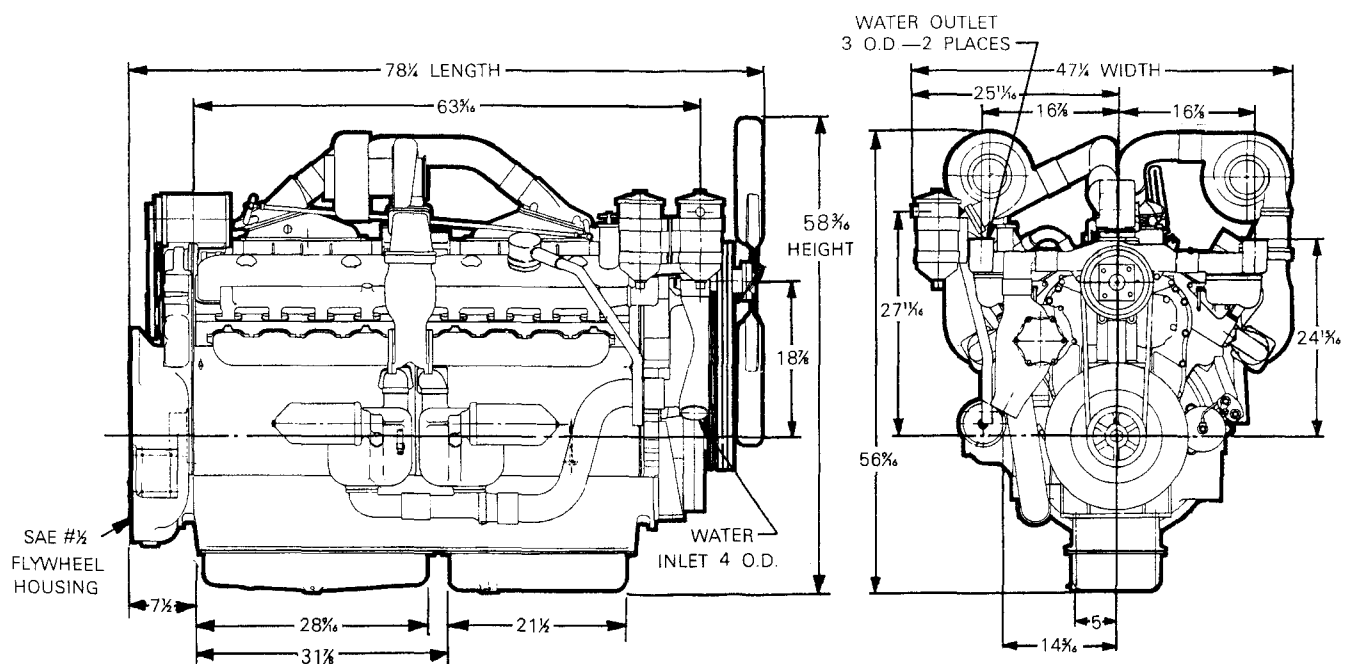
# PRINCIPAL DIMENSIONS

## 7123-7300



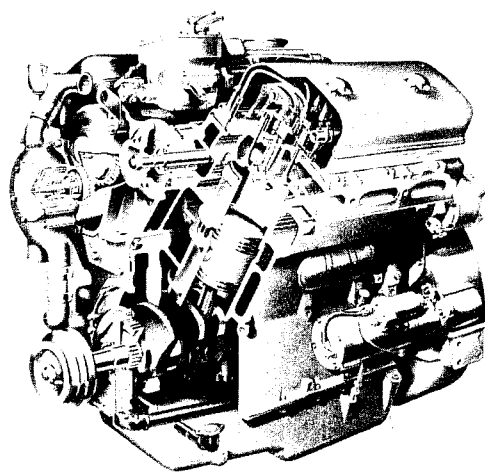
FOR COMPLETE DIMENSIONS REFER TO INST. DWG. 2SA 370

## 7163-7300



FOR COMPLETE DIMENSIONS REFER TO INST. DWG. 2SA 344

# DETROIT DIESEL FAMILY OF ENGINE ADVANTAGES



## Rugged, precision construction

- Laminated metal compression gaskets and synthetic rubber water and oil seals provide a longer-lived, leakproof bond between the cylinder head and block. The resulting metal-to-metal contact gives better heat transfer, preventing head cracking.
- Distortion-resistance is built into the cast iron cylinder head. Hardened valve seats are pressed into the head for proper valve seating and longer head and valve life.
- Long life, resistance to deflection and precise performance are accomplished by the drop-forged camshaft with hardened cams and journals.
- Easily replaceable, heat-treated cast iron cylinder liners provide a

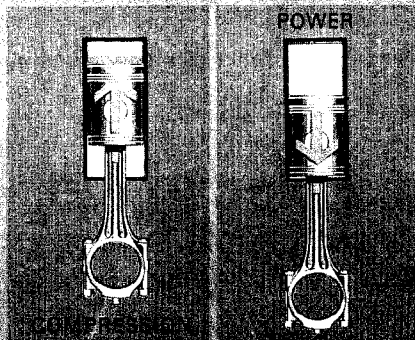
hard, scuff-resistant wearing surface, lengthening intervals between overhauls.

■ The pistons are ribbed for cooling and strength and tin-plated for superior oil retention, giving longer life. Rings are of break-resistant, chrome-plated steel.

■ Durability of connecting rods is provided by drop-forged steel construction. Rifle-drilled oil passages provide piston pin lubrication and spray cooling of the piston under-head.

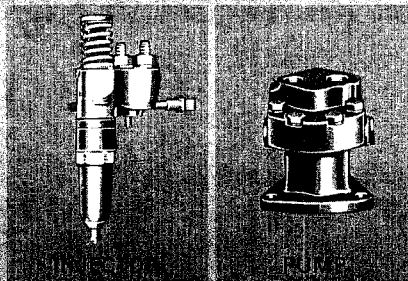
■ The crankshaft is a drop-forged, induction-hardened unit giving maximum strength and better wear. It is statically and dynamically balanced for smooth operation.

## Two cycle design



Each cylinder performs the four functions of intake, compression, power and exhaust in one crankshaft revolution. Every piston downstroke is a powerstroke. This design makes Detroit Diesels lightest in weight, smallest in size and fastest in acceleration of all diesels. Work is done faster, more economically.

## Unit injector fuel system



The Unit Injector fuel system provides maximum fuel economy from fast, complete combustion and affords excellent serviceability because of its simple, efficient design. Cam-actuated Unit Injectors meter, pressurize, atomize and inject the fuel in one precise operation. A simple low pressure transfer pump circulates fuel through the lines, filters and injectors.

## Unmatched parts interchangeability

Only Detroit Diesel builds engines with maximum parts interchangeability (up to 70% within a Series). This means that parts are readily available, inventories can be held to a minimum, and parts cost less as a benefit of volume production.

## World-Wide sales, parts and service

Detroit Diesels are sold, installed and serviced by a world-wide network of over 1400 distributors and dealers. They are experienced "engine people" who know and understand your problems and are equipped to give you complete service. You can count on dependable parts and reliable service if you own a Detroit Diesel engine.



## DETROIT DIESEL ENGINE DIVISION

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