

# DETROIT DIESEL

POWER  
UNITS

2-53

3-53

47 HP

91 HP

## MODELS

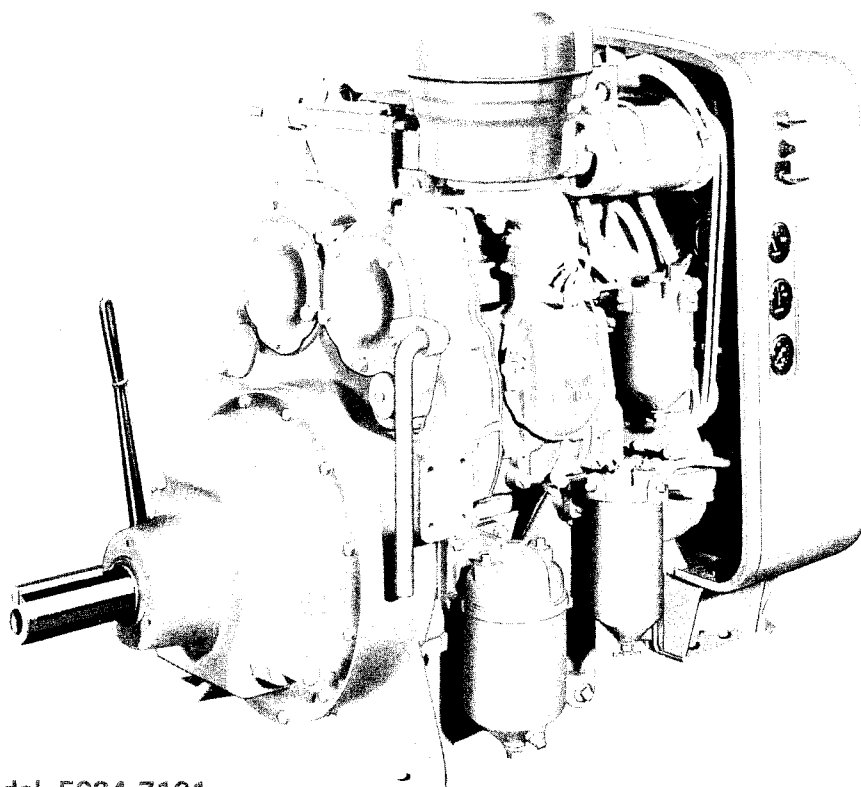
2-53

5024-7101

3-53

5034-7101

5034-7201



Typical Model 5024-7101

DETROIT  
DIESEL

A Power Product of General Motors



MARK OF EXCELLENCE

# SPECIFICATIONS

	2-53 2 Valve	3-53 2 Valve	3-53 4 Valve
Model . . . . .	5024-7101	5034-7101	5034-7201
Engine Type . . . . .	Two Cycle	Two Cycle	Two Cycle
No. of Cylinders . . . . .	2	3	3
Bore and Stroke . . . . .	3 $\frac{3}{8}$ in. x 4 $\frac{1}{2}$ in.	3 $\frac{3}{8}$ in. x 4 $\frac{1}{2}$ in.	3 $\frac{3}{8}$ in. x 4 $\frac{1}{2}$ in.
Two Cycle Displacement (Every Downstroke a Powerstroke) . . . . .	106 cu. in.	159 cu. in.	159 cu. in.
Maximum Brake Horsepower . . . . .	—	—	97 at 2800 rpm
Rated Brake Horsepower . . . . .	47 at 2000 rpm	78 at 2200 rpm	91 at 2500 rpm
Continuous Brake Horsepower . . . . .	35 at 1800 rpm	64 at 2200 rpm	64 at 2200 rpm
Torque—1000 rpm . . . . .	132 lb. ft.	208 lb. ft.	202 lb. ft.
Compression Ratio . . . . .	17 to 1	17 to 1	17 to 1
Net Weight (Dry) with Standard Equipment . . . . .	940 lbs.	1120 lbs.	1120 lbs.

## STANDARD EQUIPMENT

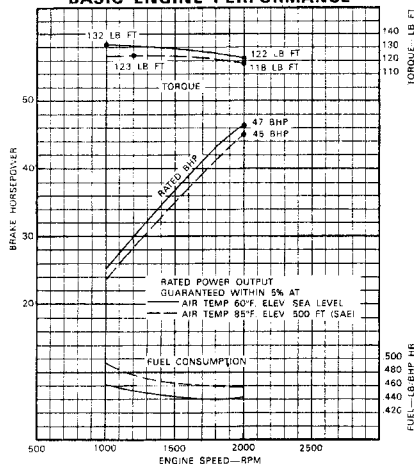
Air Inlet Housing—Manual shutdown with 50" control cable  
 Air Cleaner—Direct mounted oil bath  
 Engine Mounts—Pedestal type, SAE #4  
 Exhaust Connections—Exhaust manifold and exhaust outlet flange  
 Fan—17"—6 blade, suction, Model 5024  
       22"—5 blade, suction, Models 5034  
 Flywheel—SAE #4 for 10" clutch  
 Flywheel Housing—SAE #4  
 Generator—12 volt, 25 amp

Governor—Variable speed with throttle controls  
 Injectors—Cam operated, Unit type  
 Instrument Panel  
 Oil Pan and Oil Distribution System—  
       Stamped oil pan for 27° inclination, Model 5024  
       Stamped oil pan for 10° inclination, Models 5034  
 Power Take-Off—Single plate, 10" clutch  
 Radiator and Shell—Short hoods  
 Starting Equipment—12 volt, Sprag clutch

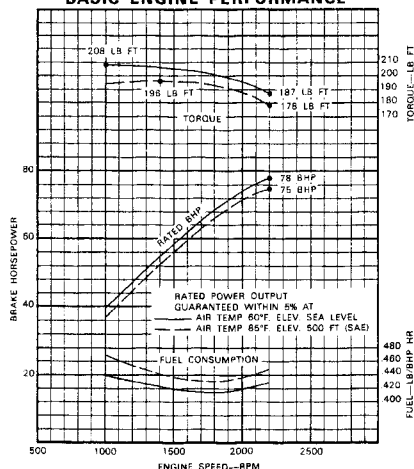
OPTIONAL AND EXTRA EQUIPMENT AVAILABLE

## PERFORMANCE

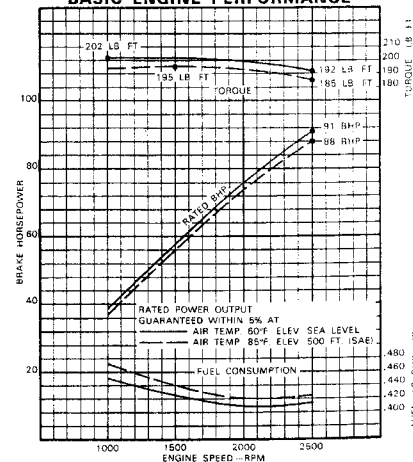
MODEL 5024-7101  
WITH 45 INJECTORS  
BASIC ENGINE PERFORMANCE



MODEL 5034-7101  
WITH S45 INJECTORS  
BASIC ENGINE PERFORMANCE



MODEL 5034-7201  
WITH S45 INJECTORS  
BASIC ENGINE PERFORMANCE



### Rating Explanation

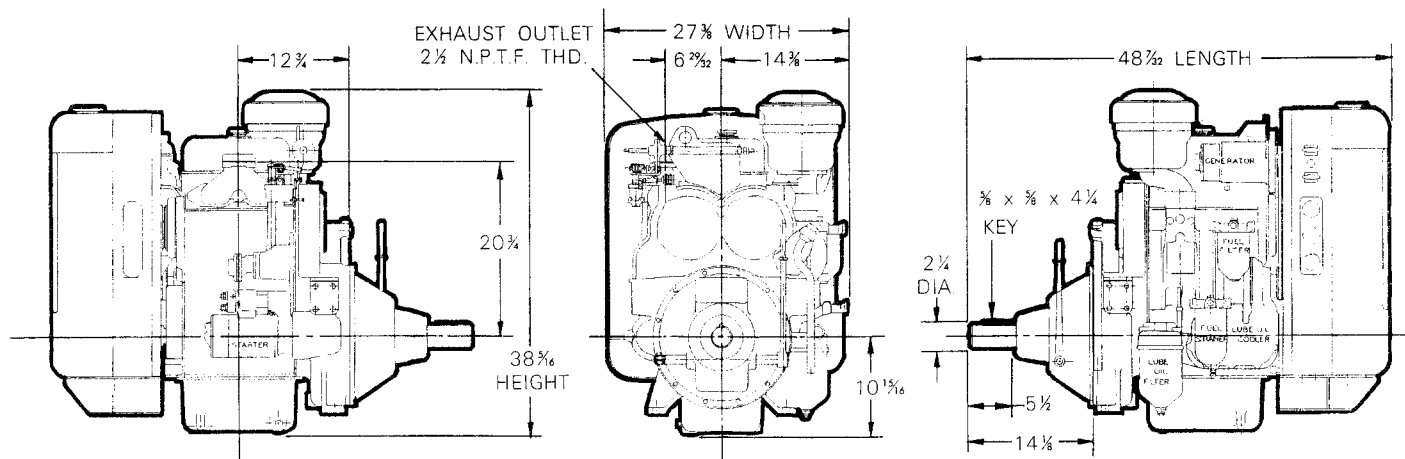
RATED BHP is the power rating for variable speed and load applications where full power is required intermittently. Performance may be derated to improve fuel economy and extend engine life.  
 CONTINUOUS BHP is the power rating for applications operating under a constant load and speed for long periods of time.

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 application, see your authorized Detroit Diesel representative.

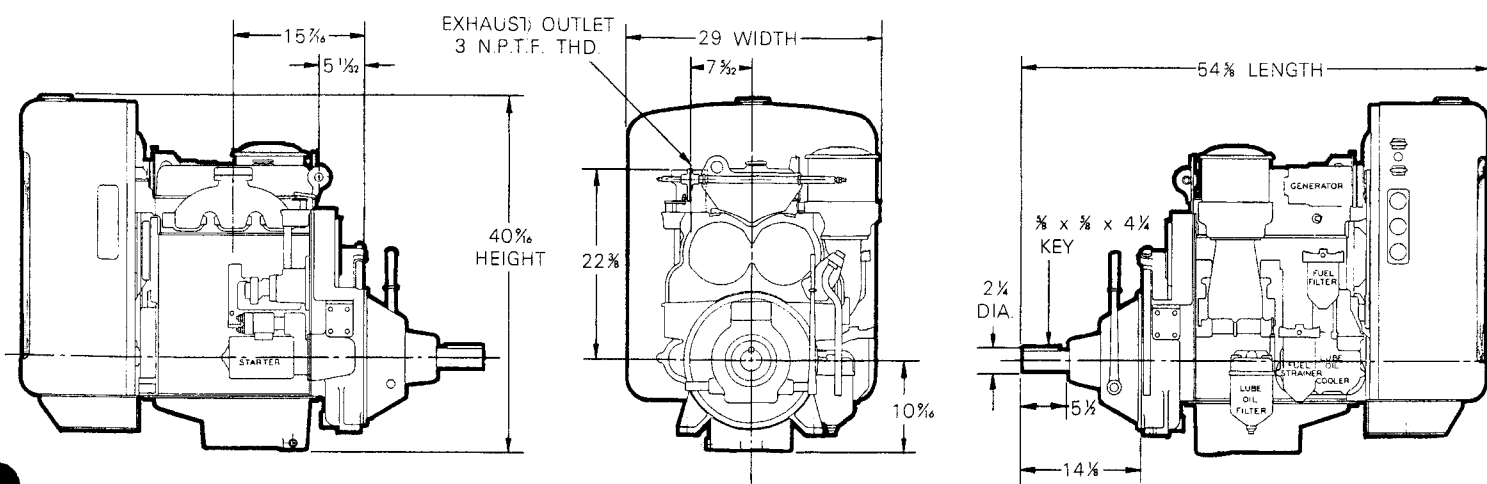
# PRINCIPAL DIMENSIONS

## 5024-7101



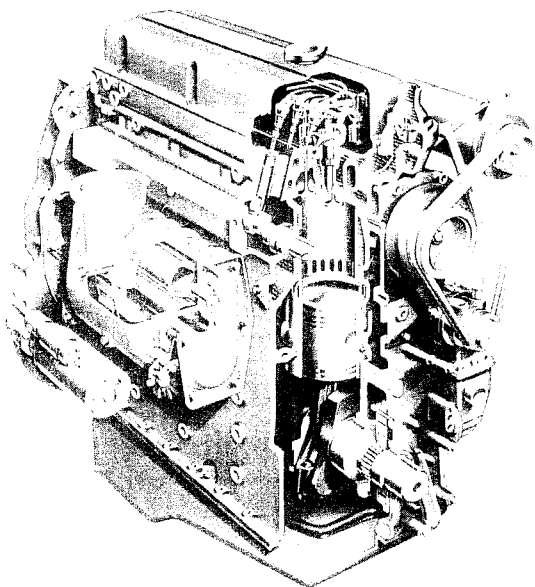
FOR COMPLETE DIMENSIONS REFER TO INST. DWG. 2SA200

## 5034-7101, 7201



FOR COMPLETE DIMENSIONS REFER TO INST. DWG. 2SA201

# DETROIT DIESEL FAMILY OF ENGINES 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

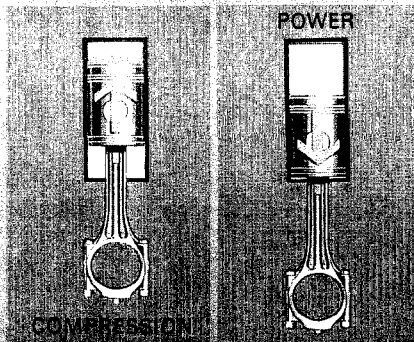
hard, scuff-resistant wearing surface, lengthening intervals between overhauls.

- 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.

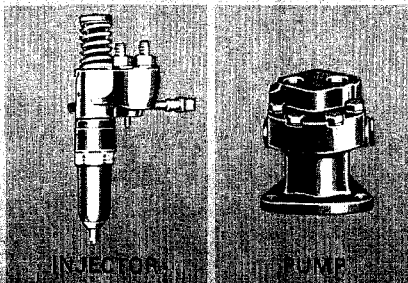
- The crankshaft is a drop-forged, induction-hardened unit giving maximum strength and better wear. It is statically and dynamically balanced for smooth operation.

## 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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