

# DETROIT DIESEL

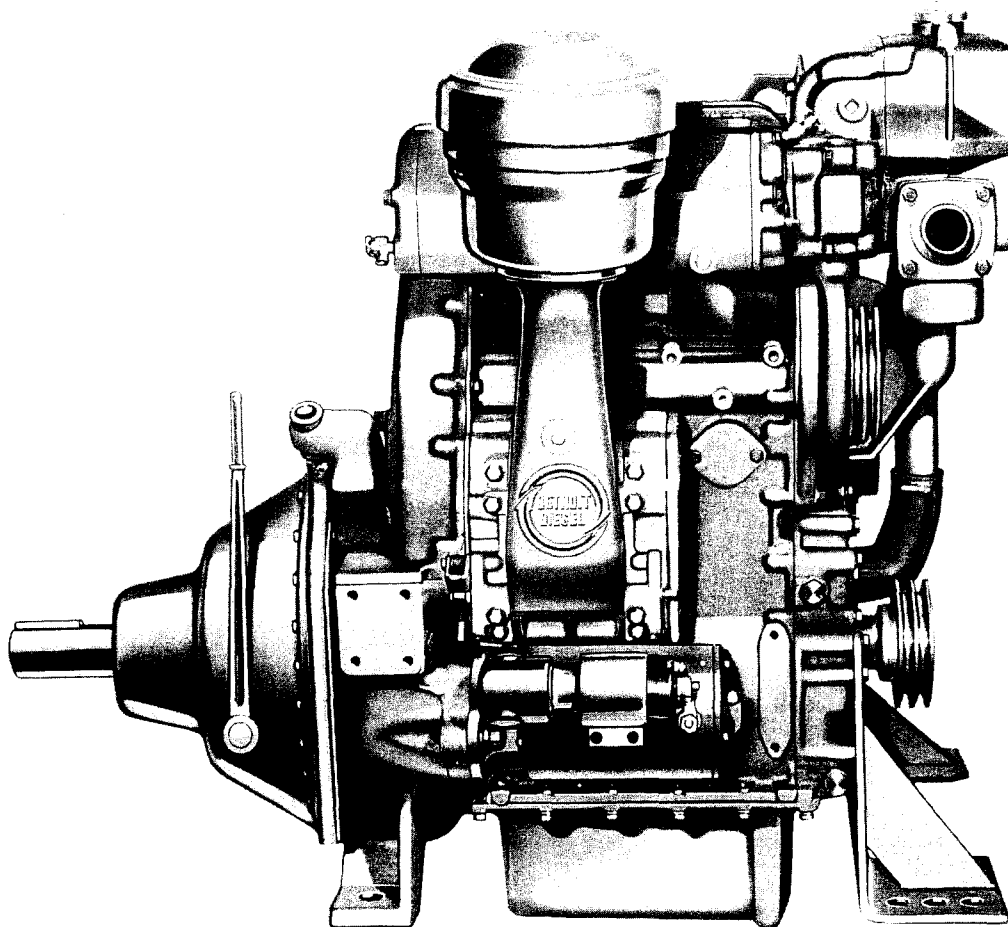
POWER UNITS  
HEAT EXCHANGER  
2-53 | 3-53 | 4-53  
2-1P | 3-1P | 4-1P

## MODEL

2-53 5024-8100

3-53 5034-8100

4-53 5044-8100



Model 5024 - 8100

A Power Product of General Motors



DETROIT  
DIESEL

# SPECIFICATIONS

	2-53	3-53	4-53
Model	5024-8100	5034-8100	5044-8100
Engine Type	Two Cycle	Two Cycle	Two Cycle
No. of Cylinders	2	3	4
Bore and Stroke	3 3/4 in. x 4 1/2 in.	3 3/4 in. x 4 1/2 in.	3 3/4 in. x 4 1/2 in.
Two Cycle Displacement (Every Downstroke a Power Stroke)	106 cu. in.	159 cu. in.	212 cu. in.
Maximum Brake Horsepower	—	97 at 2800 rpm	130 at 2800 rpm
Rated Brake Horsepower	47 at 2000 rpm	78 at 2200 rpm	108 at 2200 rpm
Continuous Brake Horsepower	35 at 1800 rpm	64 at 2200 rpm	87 at 2200 rpm
Torque	132 lb. ft. at 1000 rpm	208 lb. ft. at 1000 rpm	278 lb. ft. at 1000 rpm
Compression Ratio	17 to 1	17 to 1	17 to 1
Net Weight (Dry) with Standard Equipment—Approximate	930 lbs.	1160 lbs.	1340 lbs.

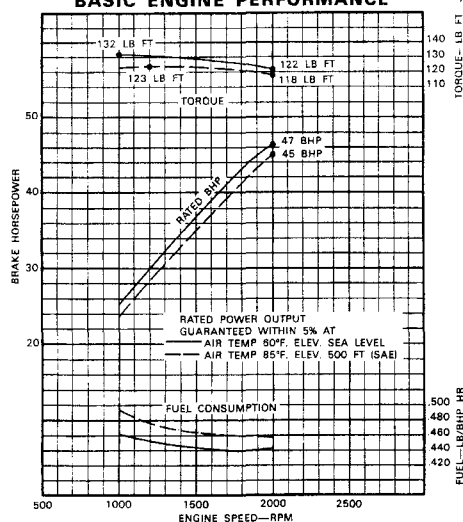
## STANDARD EQUIPMENT

Air Cleaner—Light duty oil bath  
 Air Inlet Housing—Manual shutdown with 50" control cable  
 Cooling System—Heat exchanger  
 Crankshaft Pulley—2 groove—5.38" diameter  
 Engine Mounts—Pedestal type  
 Exhaust Manifold Flange—For manual shutdown system  
 Flywheel—S.A.E. #4 with 10" clutch  
 Flywheel Housing—S.A.E. #4  
 Generator—12 volt—25 amp

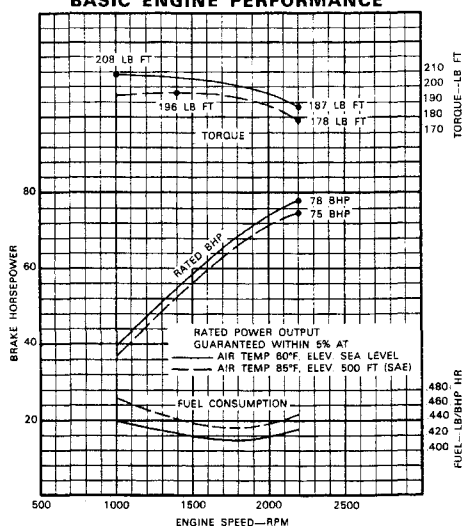
Governor—Variable speed  
 Injectors—Cam Operated, Unit type  
 Instruments—Includes ammeter, water temperature and oil pressure gauges, starter switch and wiring harness  
 Lube Oil Filter—Full flow filter  
 Power Take-Off—S.A.E. #4 short shaft  
 Starting Equipment—12 Volt Sprag Clutch  
 Throttle Controls—Cable for variable speed governor  
**OPTIONAL AND EXTRA EQUIPMENT AVAILABLE**

## PERFORMANCE

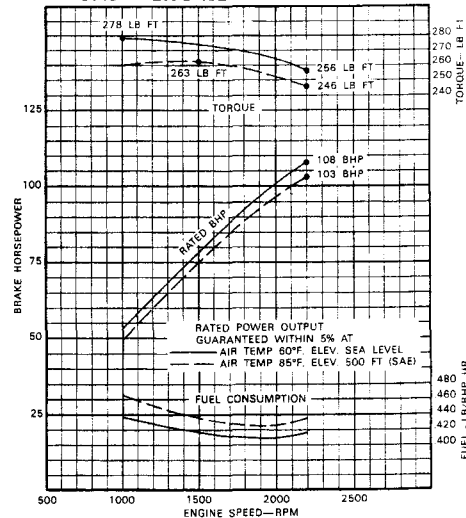
**MODEL 5024-8100  
BASIC ENGINE PERFORMANCE**



**MODEL 5034-8100  
BASIC ENGINE PERFORMANCE**



**MODEL 5044-8100  
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.

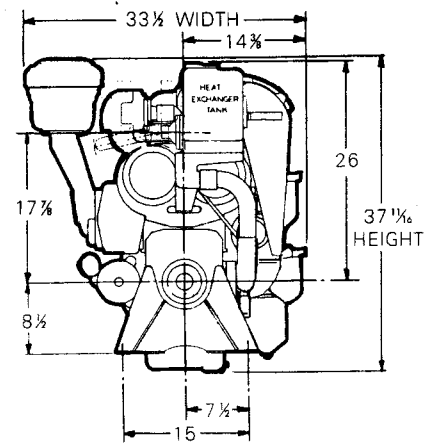
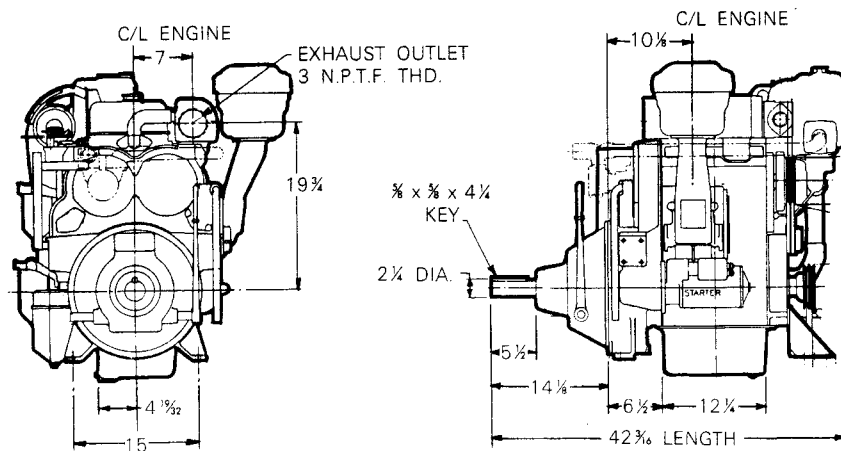
FUEL CONSUMPTION CURVE shows fuel used in pounds per brake horsepower hour.

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.

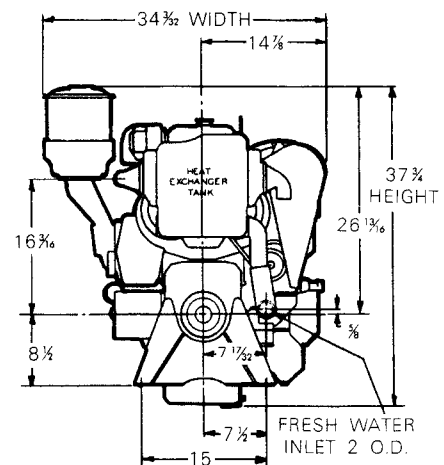
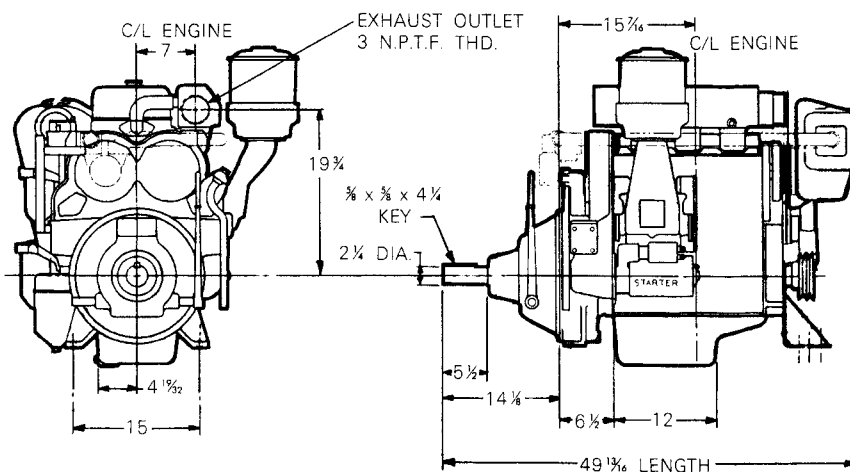
# PRINCIPAL DIMENSIONS

## 5024-8100



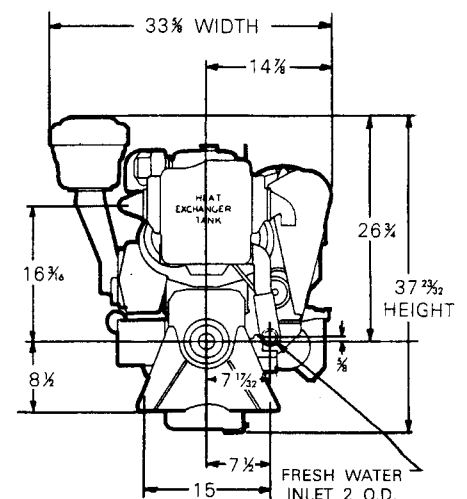
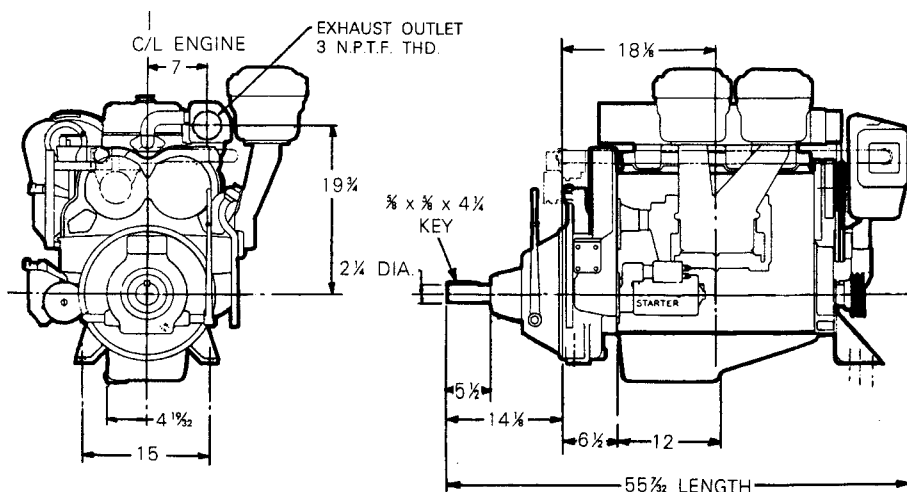
REFER TO INST. DWG. 2SA 276

## 5034-8100



REFER TO INST. DWG. 2SA 305

## 5044-8100



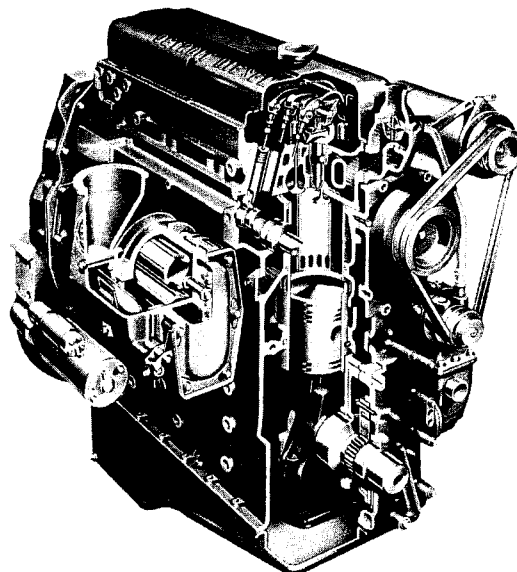
REFER TO INST. DWG. 2SA 306

# DETROIT DIESEL FEATURES

## Family of Engines

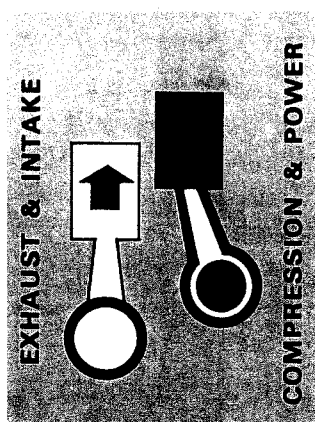
### RUGGED, PRECISION CONSTRUCTION

- Laminated metal compression rings and synthetic rubber washer-like seals provide leak proof bond between the cylinder head and block.
- Cylinder head is a sturdy distortion-resistant one-piece alloy iron casting. Hardened valve seats are pressed into the cylinder head for proper valve seating, longer head life and less valve grinding.
- One-piece drop forged camshaft with hardened cams and journals.
- Replaceable heat-treated cast iron cylinder liners with a hard scuff-resistant wearing surface.
- Precision machined pistons, ribbed for cooling and strength and tin plated for superior oil retention.
- Break-resistant hard chrome steel piston rings.
- Drop-forged steel connecting rods rifle-drilled for lubrication at the pin and for spray tip cooling of the piston head.
- Strong, durable, induction-hardened crankshaft, counter-weighted for proper static and dynamic balancing and drilled for pressure lubrication to main and connecting rod bearings.



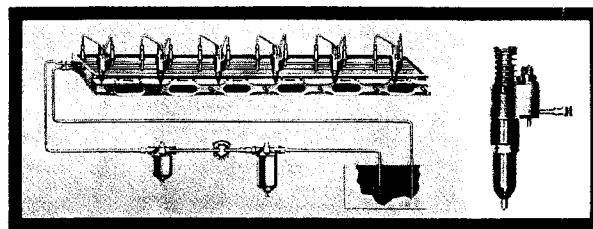
### UNMATCHED PARTS INTERCHANGEABILITY

### MODERN DESIGN



The four functions of intake, compression, power, and exhaust are accomplished 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. More work is done faster, more economically.

### UNIT INJECTION FUEL SYSTEM



The simplest, most efficient Diesel fuel system ever devised. Cam-actuated Unit Injectors (one per cylinder) meter, pressurize, atomize and inject the fuel in one operation. A simple low-pressure transfer pump circulates fuel through the lines, filters, and injectors.

### WORLD WIDE SALES, PARTS, AND SERVICE



## DETROIT DIESEL ENGINE DIVISION

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IN CANADA: GENERAL MOTORS DIESEL LIMITED ■ LONDON, ONTARIO