

# TNV DI Series Industrial Diesel Engine



Image shown may not be actual engine

## **Features**

### **Clean Emissions**

Building off the proven TNE design, Yanmar has achieved superior exhaust emissions by improving the combustion chamber and fuel injection equipment design. Engines are compliant with EPA Interim Tier 4 and EU stage III A exhaust emissions regulations.

### **Reliable and Durable**

The TNV engines now proudly take up the running as Yanmar's premium small industrial diesel. They offer even more enhanced durability due to better block cooling, a stiffer crank and pistons, finer tolerance in the journal, and more. CAE analysis has brought lower vibrations and higher strength to the mounting structure for even better reliability in heavy-duty jobs.

## **Fuel Delivery and Economy**

A newly designed, MP distributor type fuel injector pump is utilized to assure more precise fuel delivery and control. The result is reduced emissions, improved performance over a wide range of applications and good fuel economy which assures that Yanmar's reputation for superior starting characteristics continues.

## **Noise Level Reduction**

Yanmar's original CAE techniques have optimized the stiffness, minimized transformation, and reduced radiant noise in the cylinder block. Gear noise reduction is achieved through an improved gear tooth profile resulting in less mechanical noise.

## Additional Information

Yanmar America Corp 951 Corporate Grove Drive Buffalo Grove, IL 60089 www.yanmar.com Distributed By:

## 3TNV88-BGGE General Specification 21.9 HP (16.3 kW) @ 1800 rated rpm\*

Type• • • 3 Cylinder, 4-Cycle, Liquid Cooled Diesel Engine		
Bore • • • • • • • • • • • • • • • • • • •	88 mm	
Stroke • • • • • • • • • • • • • • • • • • •	90 mm	
Displacement • • • • • • • • • • • • • • • • • •		
Aspiration • • • • • • • • • • • • Naturally A	spirated	
Combustion System • • • • • • • • • • Direct Injection		
Rotation (from flywheel end) ••• • • Counterclockwise		
<b>Dry Weight</b> • • • • • • • • • • • • 348 lbs	(158 kg)	

## **Standard Engine Equipment**

#### General

Intake & Exhaust Manifold Muffler/Exhaust Pipe Gasket (shipped loose)

#### Lubrication System

6.7 L Capacity Deep Oil Pan, Side Drain Trochoid Oil Pump Paper Element Oil Filter Oil Pressure Switch Crankcase Breather, Closed Type

#### Electrical System

12V, 40 Amp Alternator 12V Starter Motor 12V, 400W Glow Plugs Preheat Relay (shipped loose) Preheat Timer (shipped loose) Stop Solenoid Timer (shipped loose)

#### Fuel System

MP2 Distributor Type Fuel Injection Pump 12V Electric Fuel Pump (shipped loose) Paper Element Fuel Filter Water Separator (shipped loose) Stop Solenoid, Integral to Fuel Injection Pump

#### **Cooling System**

Water Pump, Belt Driven 6-Blade, 360mm Cooling Fan—Pusher Type 21° C (160° F) Thermostat Temperature Switch Fan Belt

#### Power Take Off

Flywheel, SAE 7 1/2" Flywheel Housing, semi SAE #4 (105 mm deep)

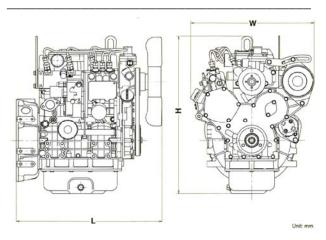


**3TNV88-BGGE** 

Industrial Diesel Engine

## Performance Data

#### Dimensions



 Length
 23.6 in (600 mm)

 Width
 20.7 in (526 mm)

 Height
 26.3 in (667 mm)

Note: Dimensions depend on final specifications.

kW to Hp conversion used is expressed as: HP = (kW value) x 1.34

Please Contact Yanmar for Details

Rated Speed (rpm)	Net rated kW	Net rated HP
1800	16.3	21.9

## **Ratings Definitions and Conditions**

\*Rated power listed is NET engine output. The engine operating environment and driven machine conditions must be studied carefully when selecting an engine in order to ensure correct engine selection, maximize engine performance, extend engine service life and improve machine capacity.

Consult the TNV Application Manual for additional engine ratings and engine application information. Application standards for Yanmar industrial engines: Inlet air standard conditions with a total barometric pressure of 100kPa (29.5 in. Hg), with a vapor pressure of 1 kPa (.295 in. Hg), and 25°C (77°F).

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