

Image shown may not be actual engine

**3TNV70-HGE General Specification  
21.5 HP (16.0 kW) @ 3600 rated rpm\***

Type	• • 3 Cylinder, 4-Cycle, Liquid Cooled Diesel Engine
Bore	• • • • • 70 mm
Stroke	• • • • • 74 mm
Displacement	• • • • • .854 L
Aspiration	• • • • • Naturally Aspirated
Combustion System	• • • • • Indirect Injection
Rotation (from flywheel end)	• • • • Counterclockwise
Dry Weight	• • • • • 253 lbs (114kg)

**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 2008 EPA 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, in-line ML 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**

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**Standard Engine Equipment**
**General**

- Intake & Exhaust Manifold
- Exhaust Manifold Gasket (shipped loose)

**Lubrication System**

- 1.7 L Capacity Shallow Oil Pan
- Trochoid Oil Pump
- Paper Element Oil Filter
- Oil Pressure Switch
- Crankcase Breather, Closed Type

**Electrical System**

- 12V, 40 Amp Alternator
- 12V Starter Motor
- 12V Super Quick Glow Plugs
- Preheat Relay (shipped loose)
- Preheat Timer, 15 second (shipped loose)
- Stop Solenoid Timer, 1 second (shipped loose)

**Fuel System**

- In-line ML Fuel Injection Pump
- 12V Electric Fuel Pump (shipped loose)
- Paper Element Fuel Filter
- Water Separator (shipped loose)
- Stop Solenoid, Integral to Fuel Injection Pump (shipped loose)

**Cooling System**

- Water Pump, Belt Driven
- 5-Blade, 270mm Cooling Fan—Puller Type
- 70° F (21° C) Thermostat
- Temperature Switch
- Fan Belt

**Power Take Off**

- Flywheel, SAE 7 1/2"
- Flywheel Housing, SAE #5

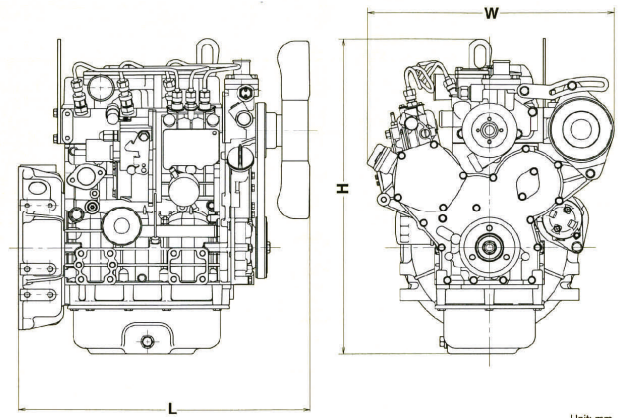
### Performance Data

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### Dimensions

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Please Contact Yanmar for Details



Unit: mm

Length	21.5 in (547 mm)
Width	16.2 in (413 mm)
Height	22.6 in (576 mm)

Note: Dimensions depend on final specifications.

kW to Hp conversion used is expressed as:  $HP = (kW \text{ value}) \times 1.34$

Rated Speed (rpm)	Net rated kW	Net rated HP	Max. Torque (ft-lb)
3600	16.0	21.5	Call Yanmar

### Ratings Definitions and Conditions

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\*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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