



YANMAR

AIR-COOLED DIESEL ENGINES

L-N / L-V / L-W Series

3.5 kW [4.7 HP] – 6.8 kW [9.3 HP]



AIR-COOLED DIESEL ENGINE

Since 1959, YANMAR has been producing a wide range of compact air-cooled diesel engines ranging in size from 2.6 to 14.7 kW, with total production reaching more than 1.5 million units. Today, these air-cooled diesel engines are powering leading-edge mobile and stationary off-highway equipment around the world.



L-N Series

L48N 3.5kW

L70N 4.9kW

L100N 7.4kW

MAIN MARKETS

- Southeast Asia
- Middle East
- Africa

History

1959 —————> 1966 1966 —————> 1971 1989 —————> 2010

A / 2A Series 2.6 - 13.2kW 8 models



Main model : A3
Combustion system : Special swirl chamber type
Displacement : 0.239L
No. of Cylinders - Bore x Stroke : 1 - Φ 65mm x 72mm
Rated Output : 3.3kW / 3000min⁻¹
Engine Weight : 49kg

L / 2L Series 2.6 - 14.7kW 8 models



Main model : L65
Combustion system : Pre-combustion chamber type
Displacement : 0.238L
No. of Cylinders - Bore x Stroke : 1 - Φ 65mm x 72mm
Rated Output : 3.3kW / 3000min⁻¹
Engine Weight : 46kg

L-A / L-EE Series 2.6 - 7.4kW 12 models



Main model : L60A
Combustion system : Direct injection type
Displacement : 0.273L
No. of Cylinders - Bore x Stroke : 1 - Φ 75mm x 62mm
Rated Output : 4.4kW / 3600min⁻¹
Engine Weight : 39kg



L-V Series

L48V 3.4kW
L70V 4.8kW
L100V 6.8kW

MAIN MARKETS

- E.U.
- Japan



L-W Series

L70W 4.8kW
L100W 6.8kW

MAIN MARKET

- U.S.A.

Exceeding Power and Environmental Expectations.

Designed with YANMAR's proprietary direct injection technology, maximum combustion efficiency is achieved through an ideal match between the combustion chamber and injection system. This means a powerful, yet environmentally friendly engine.



Compact, Direct Injection Engine = Easy Installation & Low Fuel Consumption

Keeping with the traditional compact design, the L series engines are simple to install by fitting into cramped spaces without sacrificing power and performance. YANMAR's proprietary direct injection technology allows the engine to sip rather than gorge on fuel, which means lower running costs in the world of rising fuel prices.

Quick, Easy Starting With Standard Recoil

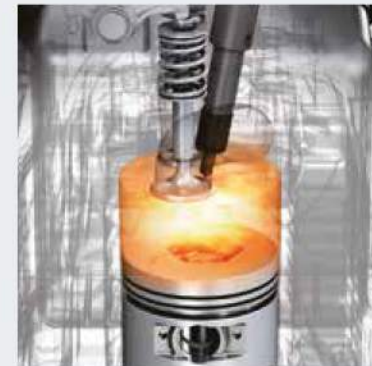
A special auto-return decompressor and YANMAR's own efficient combustion system breeze through starting with electric starting also offered as an option.

Low Vibration and Noise

Superior vibration and noise reduction is achieved through the use of precision balancers, which leads to operating comfort even during long work hours.

The Total FIE Expertise Only a Complete Diesel Engine Manufacturer Can Provide

YANMAR developed one of the world's smallest fuel injection systems. We have since raised it to a level of efficiency that ensures maximum power from every drop of diesel. Its extraordinarily low fuel consumption is a result of our super-precise FIE, and our direct injection system, the first to ever go into this type of engine.



AIR-COOLED DIESEL ENGINE

L-N Series

For regions not subject to emissions regulations

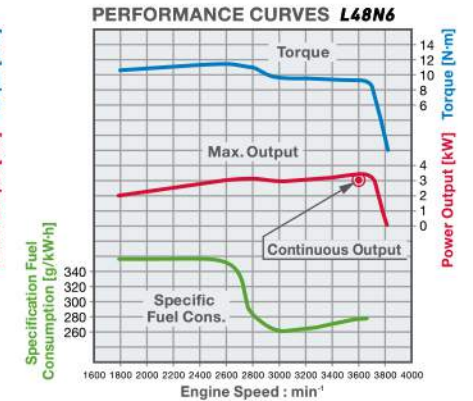
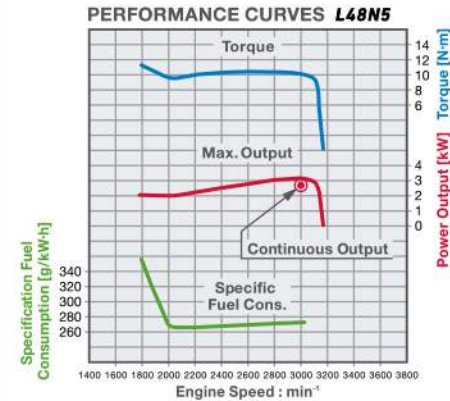
Notes :

- As of 2019
- For information about applications and each country's regulations, please contact your local YANMAR sales network.

L48N

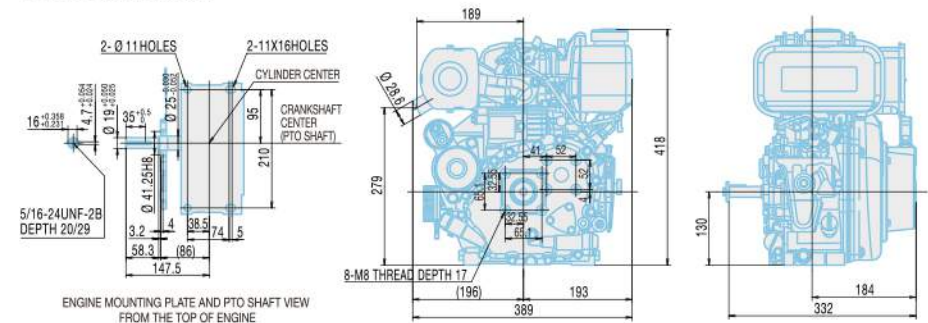
Rated Output (Gross)

3.5kW
/3600min⁻¹



* Note: Performance based on the following conditions.

DIMENSIONS [mm]



L70N

Rated Output (Gross)

4.9kW

/3600min⁻¹



L100N

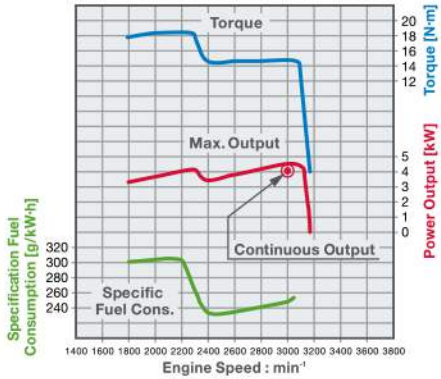
Rated Output (Gross)

7.4kW

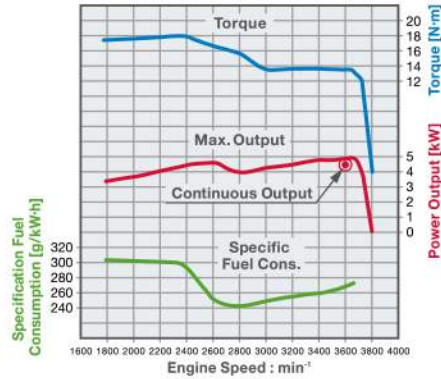
/3600min⁻¹



PERFORMANCE CURVES L70N5

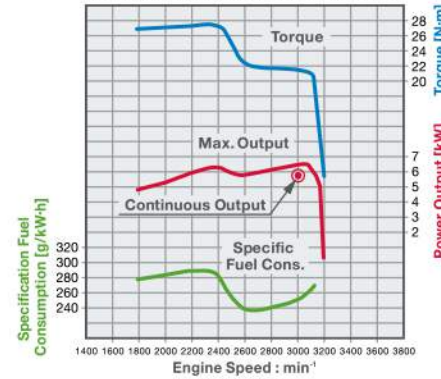


PERFORMANCE CURVES L70N6

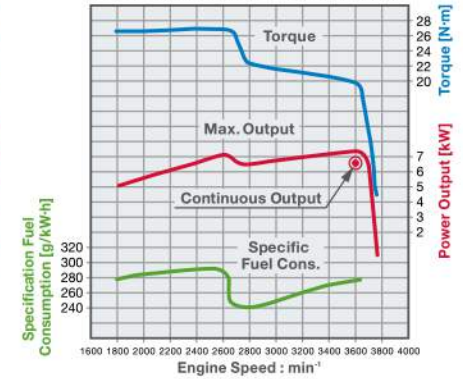


* Note: Performance based on the following conditions.

PERFORMANCE CURVES L100N5

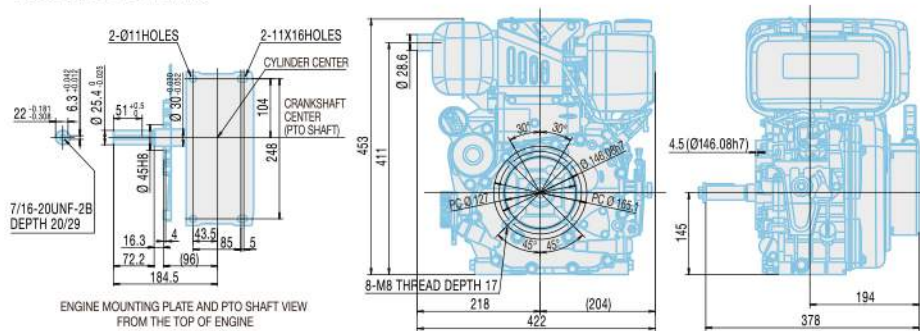


PERFORMANCE CURVES L100N6

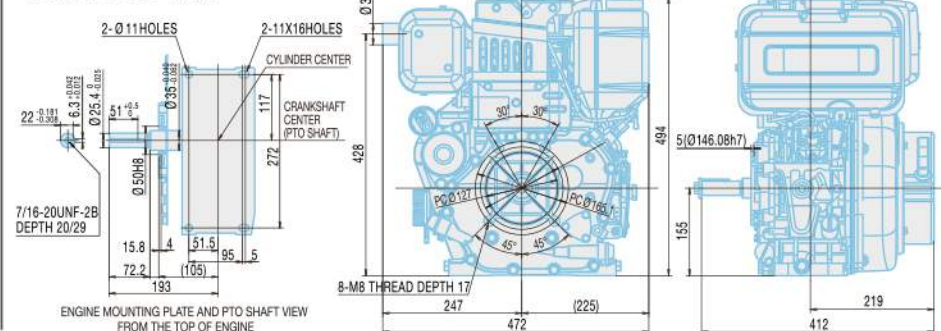


* Note: Performance based on the following conditions.

DIMENSIONS [mm]



DIMENSIONS [mm]



* After 30 hrs. initial running • Atmospheric conditions: Temperature 298K(25° C) / Pressure 100kPa (750mmHg) / Humidity 30%

AIR-COOLED DIESEL ENGINE

L-V Series

EU Stage V

Notes :

- As of 2019
- For information about applications and each country's regulations, please contact your local YANMAR sales network.

An ideal match between the combustion system and the injection system

Boasting many features superior to the conventional L series, L-V series engines also achieve lower levels of emissions through technology. High-pressure injection technology minimizes the fuel required for ignition, while the combustion chamber itself is also improved, and there is an EGR(Exhaust Gas Recirculation) system for recirculating some of the exhaust gas back into the air intake. Only L48V reduces exhaust emission using a DOC(Diesel Oxydation Catalyst).



L48V

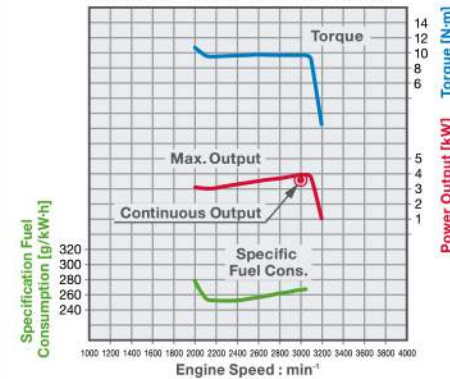
Rated Output (Gross)

3.4kW

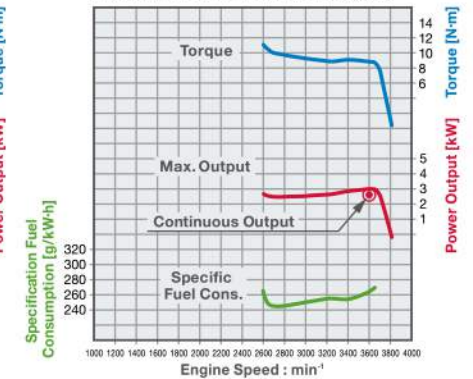
/3600min⁻¹



PERFORMANCE CURVES L48V5

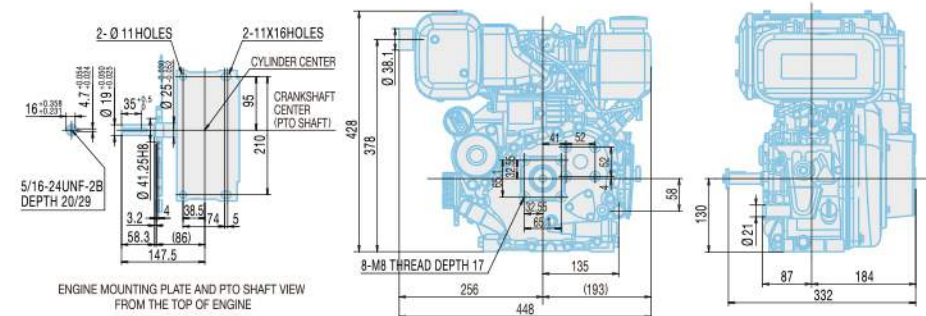


PERFORMANCE CURVES L48V6



* Note: Performance based on the following conditions.

DIMENSIONS [mm]



L70V

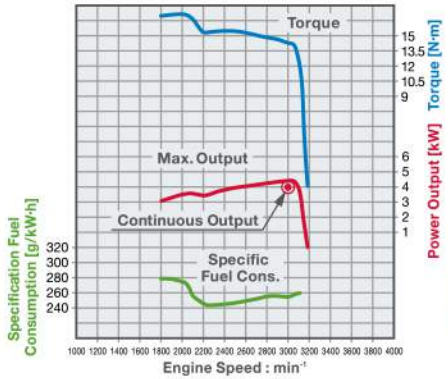
Rated Output (Gross)

4.8kW

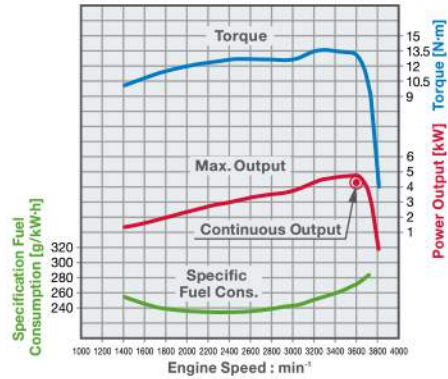
/3600min⁻¹



PERFORMANCE CURVES L70V5

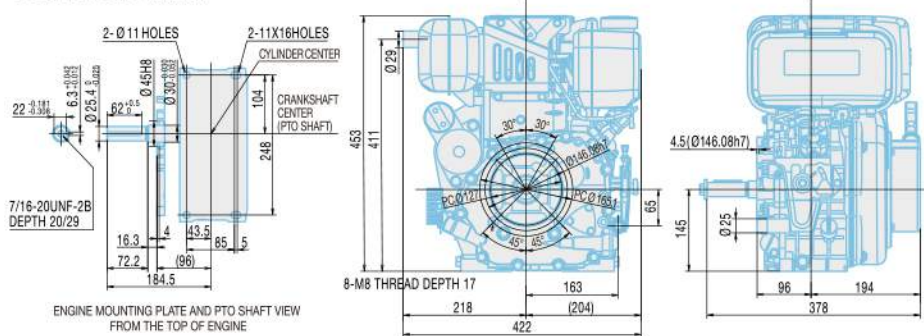


PERFORMANCE CURVES L70V6



* Note: Performance based on the following conditions.

DIMENSIONS [mm]



L100V

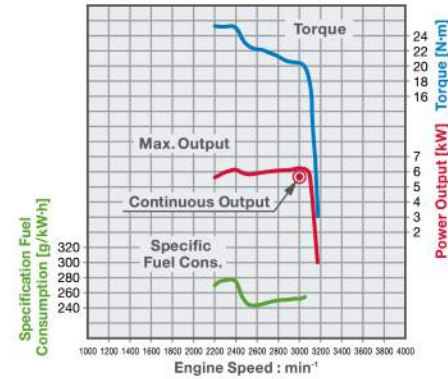
Rated Output (Gross)

6.8kW

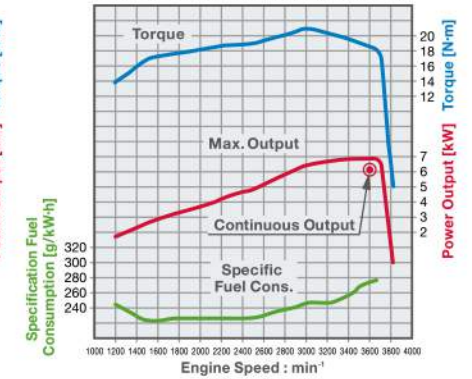
/3600min⁻¹



PERFORMANCE CURVES L100V5

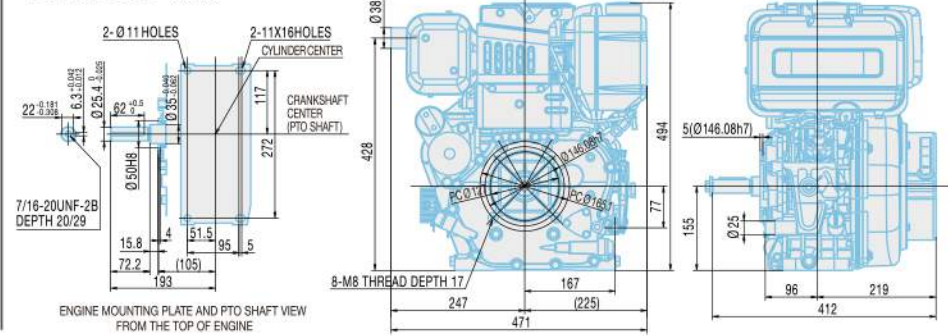


PERFORMANCE CURVES L100V6



* Note: Performance based on the following conditions.

DIMENSIONS [mm]



* After 30 hrs. initial running • Atmospheric conditions: Temperature 298K(25° C) / Pressure 100kPa(750mmHg) / Humidity 30%

AIR-COOLED DIESEL ENGINE

L-W

Series

EPA Final Tier 4

Notes :

- As of 2019
- For information about applications and each country's regulations, please contact your local YANMAR sales network.

L70W

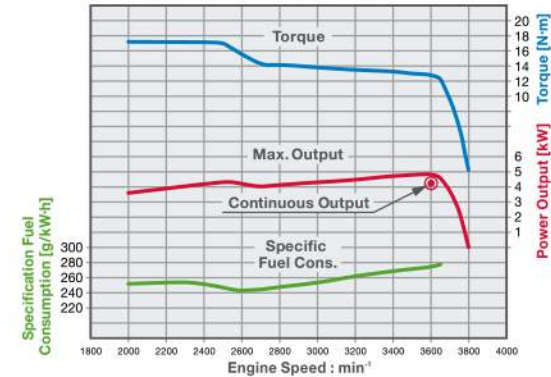
Rated Output (Gross)

4.8kW

/3600min⁻¹

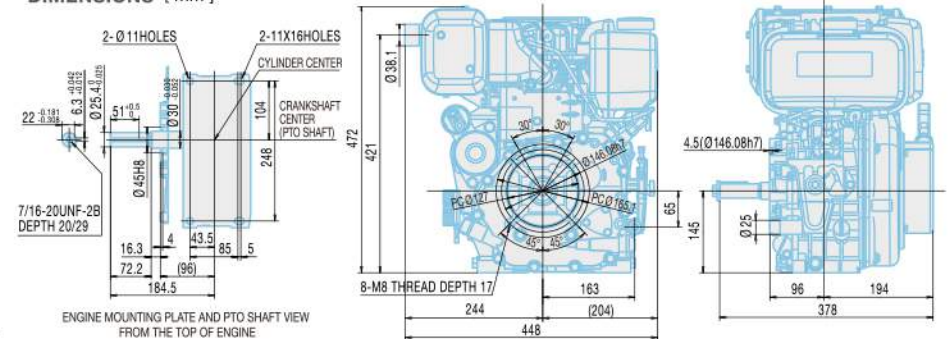


PERFORMANCE CURVES L70W6



* Note: Performance based on the following conditions.

DIMENSIONS [mm]



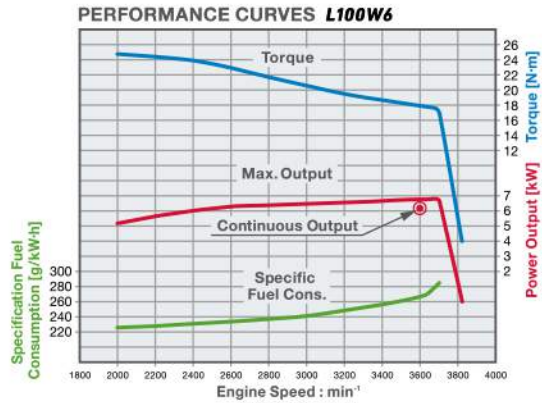
L100W



Rated Output (Gross)

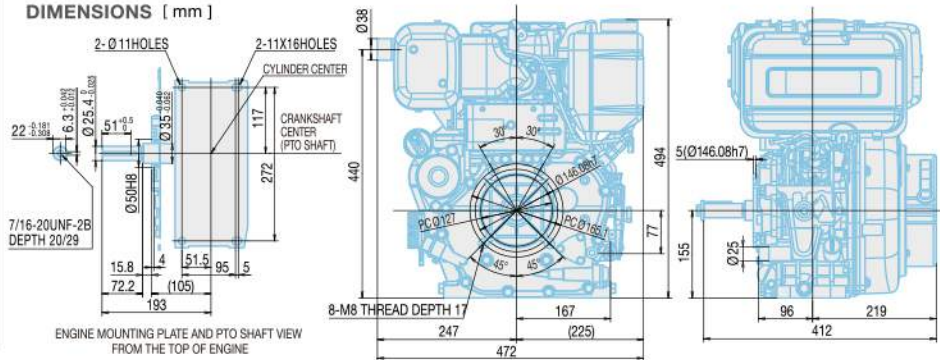
6.8kW

/3600min⁻¹



* Note: Performance based on the following conditions.

DIMENSIONS [mm]

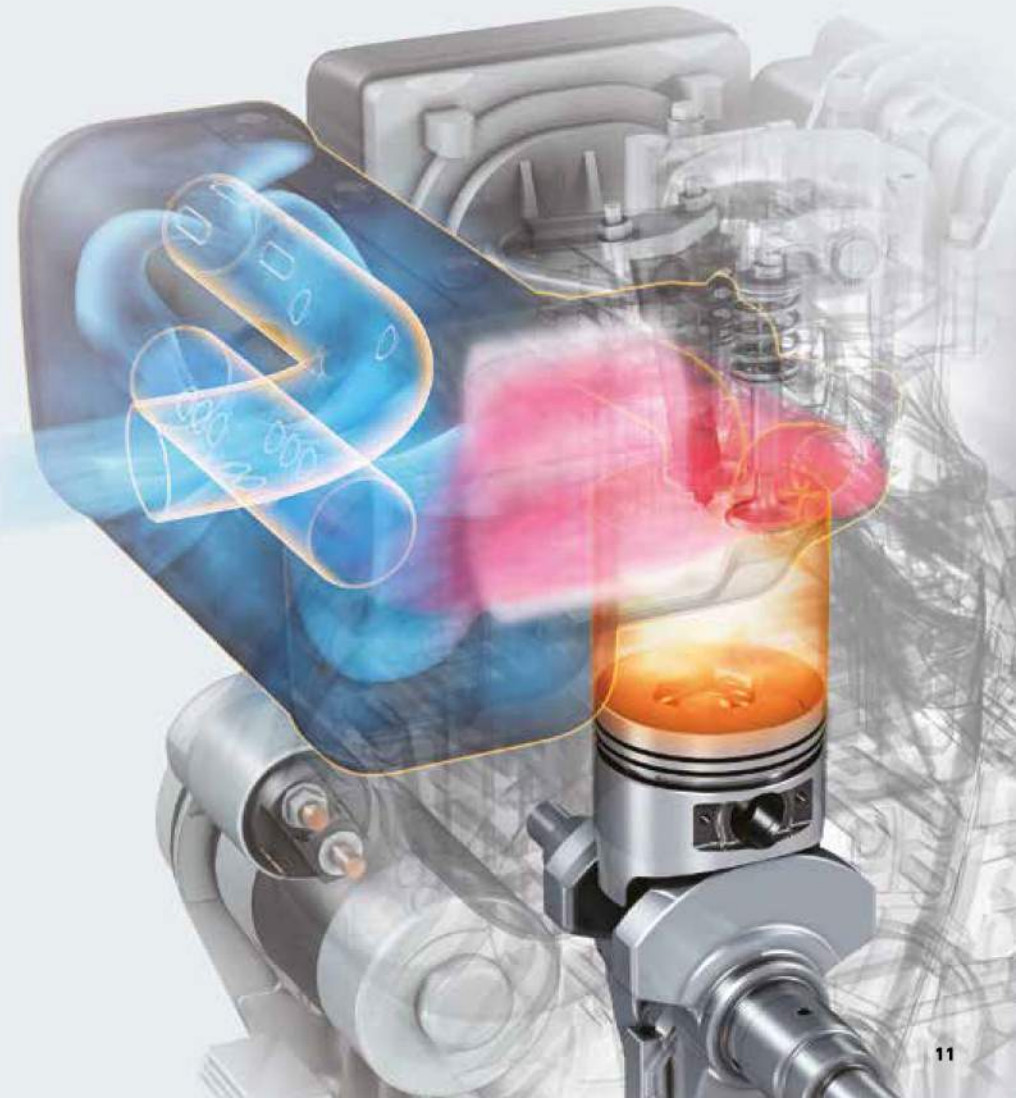


* • After 30 hrs. initial running • Atmospheric conditions: Temperature 298K(25°C) / Pressure 100kPa(750mmHg) / Humidity 30%

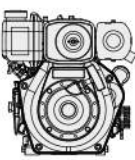
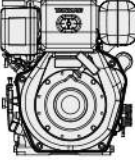
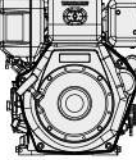
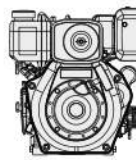
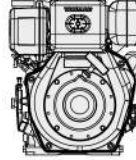
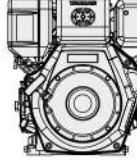
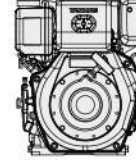
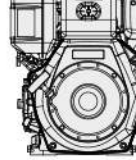
Powerful and clean engines for a new generation

Taking over the combustion system of L-V series engines, the L-W series engines reduce exhaust emissions using a Diesel Oxidation Catalyst.

YANMAR continues to improve our technology, and contribute to the future of the Earth.



Engine Specifications

| Engine Series | | L-N Series | | | | | | L-V Series | | | | | | L-W Series | | | | | |
|-----------------------------|-----------------------|---|--|---|---------|---|---------|---|---------|---|---------|---|---------|---|---------|---|---------|----------|---------|
| Engine Model | | L48N | | L70N | | L100N | | L48V | | L70V | | L100V | | L70W | | L100W | | | |
| | |  | |  | |  | |  | |  | |  | |  | |  | | | |
| Type | | 4 stroke, vertical cylinder, air-cooled diesel engine | | | | | | | | | | | | | | | | | |
| ATS(After Treatment System) | | - | | | | | | DOC | | - | | | | | | | | | |
| No. of Cylinders | | 1 | | | | | | | | | | | | | | | | | |
| Bore x Stroke | | mm | | Φ70 × 57 | | Φ78 × 67 | | Φ86 × 75 | | Φ70 × 57 | | Φ78 × 67 | | Φ86 × 75 | | Φ78 × 67 | | Φ86 × 75 | |
| Displacement | | liter | | 0.219 | | 0.320 | | 0.435 | | 0.219 | | 0.320 | | 0.435 | | 0.320 | | 0.435 | |
| Continuous Rated Output | Engine Speed | rpm(min ⁻¹) | | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 |
| | Output | kW | | 3.1 | 2.8 | 4.4 | 4.1 | 6.6 | 5.7 | 3.1 | 2.7 | 4.3 | 4.0 | 6.2 | 5.7 | 4.3 | 3.9 | 6.2 | 5.7 |
| Maximum Rated Output | Engine Speed | rpm(min ⁻¹) | | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 | 3600 | 3000 |
| | Output / Eng. Speed | kW | | 3.5 | 3.1 | 4.9 | 4.5 | 7.4 | 6.5 | 3.4 | 3.0 | 4.8 | 4.4 | 6.8 | 6.3 | 4.8 | 4.3 | 6.8 | 6.3 |
| High Idling | | rpm(min ⁻¹) | | 3800±30 | 3175±30 | 3800±30 | 3175±30 | 3800±30 | 3175±30 | 3800±30 | 3175±30 | 3800±30 | 3175±30 | 3800±30 | 3175±30 | 3800±30 | 3175±30 | 3800±30 | 3175±30 |
| Engine Weight (Dry) | Electric Starter | kg | | 32.0 | | 41.0 | | 53.5 | | 34.5 | | 41.0 | | 53.5 | | 43.0 | | 53.5 | |
| | Recoil Start | kg | | 27.0 | | 36.0 | | 48.5 | | 29.5 | | 36.0 | | 48.5 | | 38.0 | | 48.5 | |
| Cooling System | | Forced air-cooling by flywheel fan | | | | | | | | | | | | | | | | | |
| Lubricating System | | Forced lubricating system | | | | | | | | | | | | | | | | | |
| Starting System | | Electric start / Recoil start | | | | | | | | | | | | | | | | | |
| Dimension | Overall Length (L) | mm | | 332 | | 378 | | 412 | | 332 | | 378 | | 412 | | 395 | | 429 | |
| | Overall Width (W) | mm | | 384 | | 422 | | 472 | | 448 | | 422 | | 472 | | 448 | | 472 | |
| | Overall Height (H) | mm | | 417 | | 453 | | 494 | | 425 | | 453 | | 494 | | 472 | | 494 | |
| Lubricating System | Dispstick Upper Limit | liter | | 0.8 | | 1.1 | | 1.6 | | 0.8 | | 1.1 | | 1.6 | | 1.1 | | 1.6 | |
| | Dispstick Lower Limit | liter | | 0.6 | | 0.7 | | 1.0 | | 0.6 | | 0.7 | | 1.0 | | 0.7 | | 1.0 | |
| Fuel Oil Tank Capacity | | liter | | 2.4 | | 3.3 | | 5.4 | | 2.4 | | 3.3 | | 5.4 | | 3.3 | | 5.4 | |

Note : Specifications are subject to change depending on the engine parts and optional kits selected.

Accessories

○ = Standard
△ = Option

| Engine Series | | L-N Series | | | | | | | | | L-V Series | | | | | | | | L-W Series | | | | | | | | | | |
|----------------------|-----------------------------------|------------|----|---|------|----|---|-------|----|---|------------|----|---|------|----|---|-------|---|------------|---|------|---|----|---|-------|---|----|---|---|
| Engine Model | | L48N | | | L70N | | | L100N | | | L48V | | | L70V | | | L100V | | | | L70W | | | | L100W | | | | |
| Category * | | G | GE | P | G | GE | P | G | GE | P | G | GE | P | G | GE | P | V | G | GE | P | V | G | GE | P | V | G | GE | P | V |
| Fuel system | Fuel tank (2.4 liter) | ○ | ○ | ○ | | | | | | | ○ | ○ | ○ | | | | | | | | | | | | | | | | |
| | Fuel tank (3.3 liter) | | | | ○ | ○ | ○ | | | | | | | ○ | ○ | ○ | ○ | | | | | ○ | ○ | ○ | ○ | | | | |
| | Fuel tank (5.4 liter) | | | | | | | ○ | ○ | ○ | | | | | | | | ○ | ○ | ○ | ○ | | | | | ○ | ○ | ○ | ○ |
| | w/o Fuel tank | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ |
| Starting system | Starting motor (w/Recoil starter) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Recoil starter | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | |
| | Key switch | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○ | ○ | ○ | △ | ○ | ○ | ○ | △ | ○ | ○ | ○ | △ | |
| | w/o Key switch | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | |
| Electric system | Charging dynamo (12V-15A) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Charging dynamo (12V-1A) | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | |
| | w/o Charging dynamo | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | |
| PTO system | Straight (E-D) | ○ | | | ○ | | | ○ | | | ○ | | | ○ | | | △ | ○ | | | △ | ○ | | | △ | ○ | | △ | |
| | Straight (D) | △ | | | △ | | | △ | | | △ | | | △ | | | ○ | △ | | | ○ | △ | | | ○ | △ | | ○ | |
| | Taper (E-DG) | | ○ | | | ○ | | | ○ | | | ○ | | | ○ | | | | ○ | | | | ○ | | | ○ | | | |
| | Taper (DG) | | △ | | | △ | | | △ | | | △ | | | △ | | | | △ | | | | △ | | | △ | | | |
| | Taper (E-DI) | | △ | | | △ | | | △ | | | △ | | | △ | | | | △ | | | | △ | | | △ | | | |
| | Thread (E-DP) | | | ○ | | | ○ | | | ○ | | | ○ | | | ○ | | | | ○ | | | | ○ | | | ○ | | |
| Speed control device | General use (by remote & hand) | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | |
| | Constant speed type (by hand) | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | |
| | Friction plate type (by hand) | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | |
| | Remote control type | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | △ | △ | △ | ○ | |
| Maintenance tools | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |

* : G = General / GE = Generator / P = Pump / V = V-machine
Note: For other accessories, please contact your YANMAR sales network.

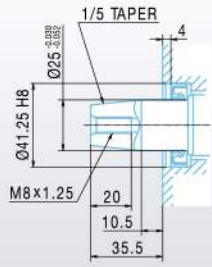
PTO Dimensions [mm]

| Application code | Keyway shaft | | Taper shaft |
|--|--------------|---|-------------|
| | E-D | D | E-DG |
| L48N L48V <h1>48</h1> | | | |
| L70N L70V L70W <h1>70</h1> | | | |
| L100N L100V L100W <h1>100</h1> | | | |

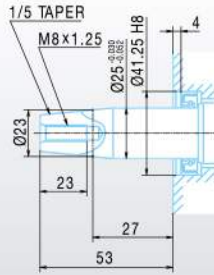
Thread shaft

PTO Flanges

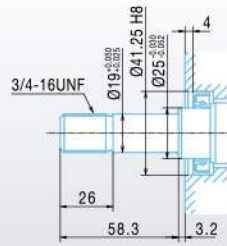
DG



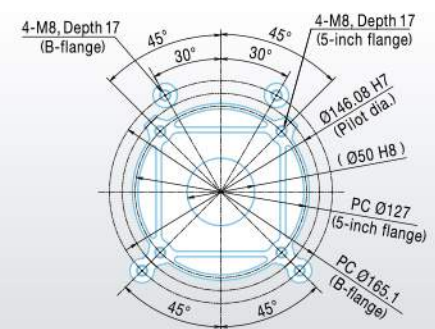
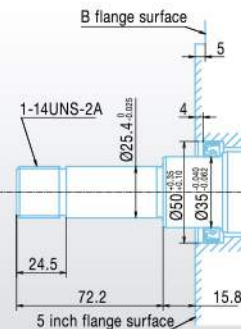
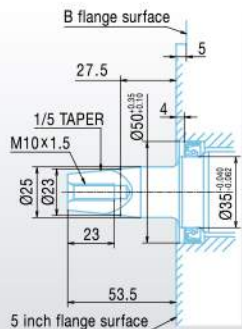
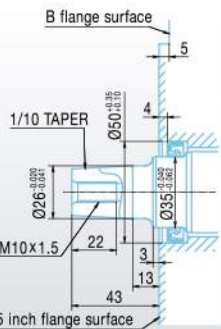
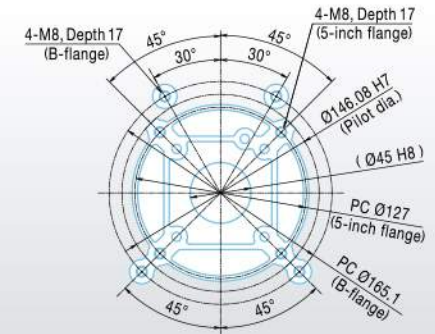
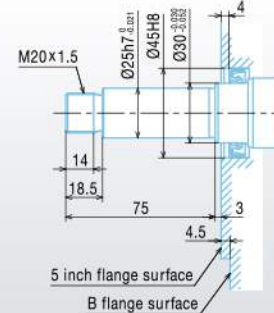
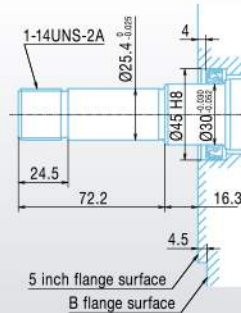
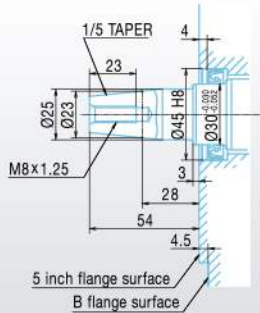
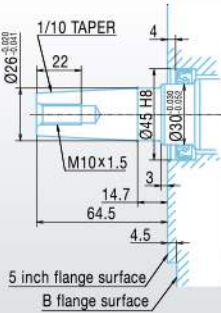
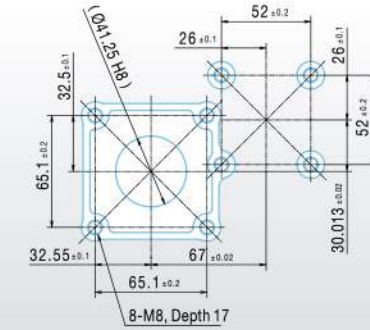
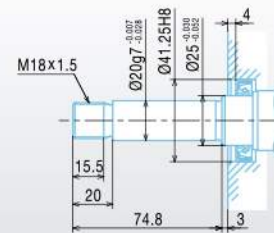
E-DI



E-DP



DP





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