

AIR COOLED DIESEL ENGINE

Since 1969, YANMAR has been producing air cooled diesel engines ranging from 4.5 to 10.0 horsepower 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.

History



A / 2A Series 2.6 - 13.2kW [3.5 - 18.0hp] 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 [4.5hp] / 3000min⁻¹
Engine Weight : 49kg

L / 2L Series 2.6 - 14.7kW [3.5 - 20.0hp] 8 models



Main model : L65
Combustion system : Precombustion chamber type
Displacement : 0.238L
No. of Cylinders - Bore x Stroke : 1 - Φ 65mm x 72mm
Rated Output : 3.3kW [4.5hp] / 3000min⁻¹
Engine Weight : 46kg

L-A / L-EE Series 2.6 - 7.4kW [3.5 - 10.0hp] 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 [6.0hp] / 3600min⁻¹
Engine Weight : 39kg

L-N Series

L48N 3.5kW [4.7hp]
L70N 4.9kW [6.7hp]
L100N 7.4kW [10.0hp]

MAIN MARKETS
• Southeast Asia
• Middle East
• Africa



L-V Series

L70V 4.8kW [6.5hp]
L100V 6.8kW [9.3hp]

MAIN MARKETS
• E.U.
• Japan



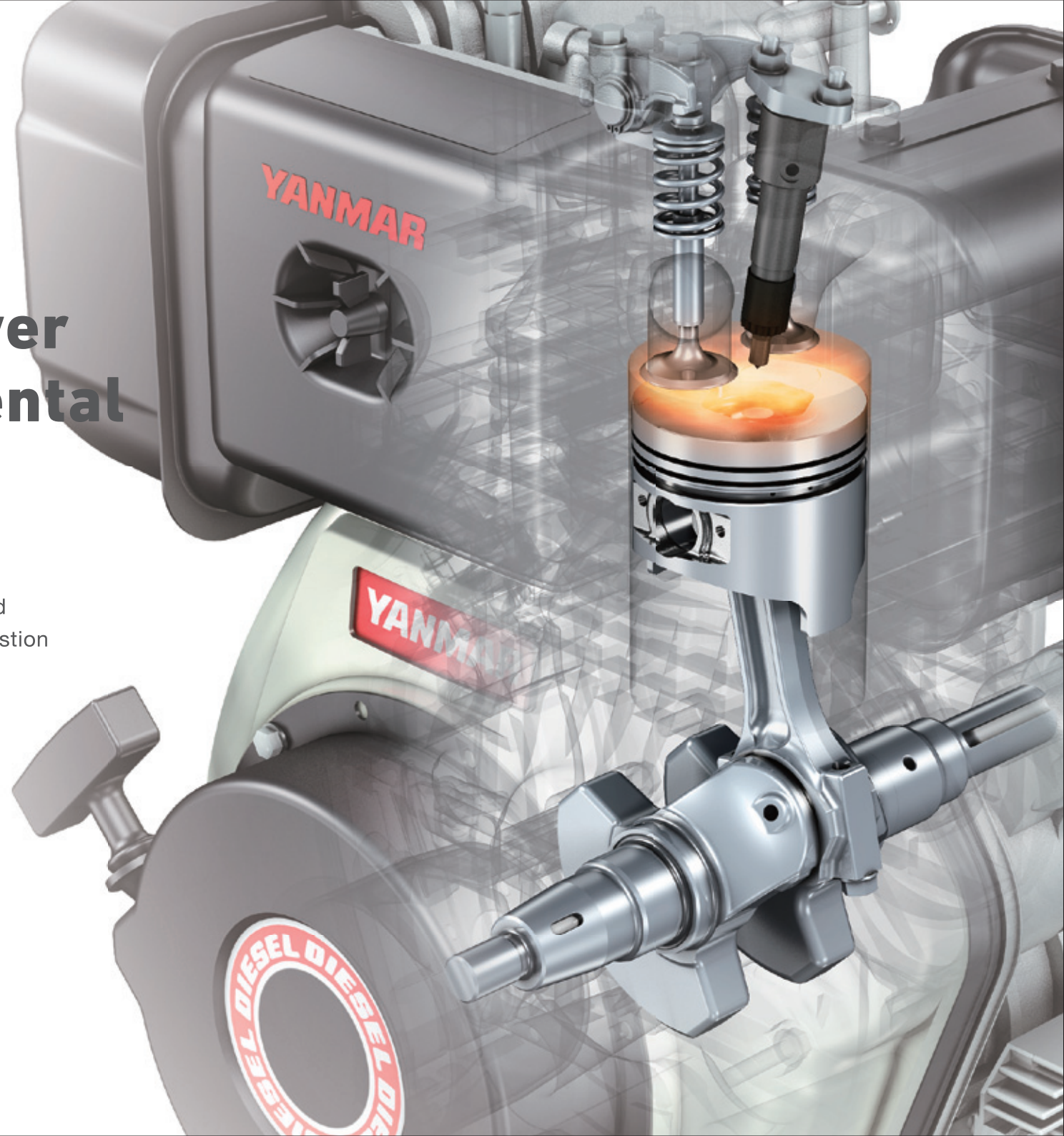
L-W Series

L70W 4.8kW [6.5hp]
L100W 6.8kW [9.3hp]

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 and Easy Start 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 miniaturized 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

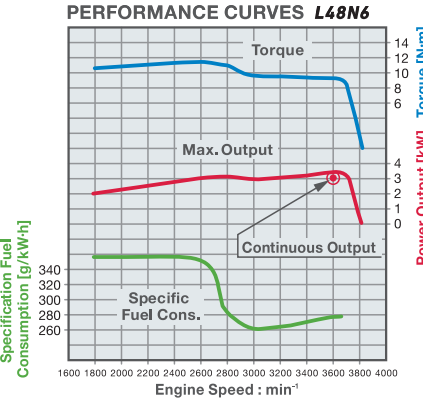
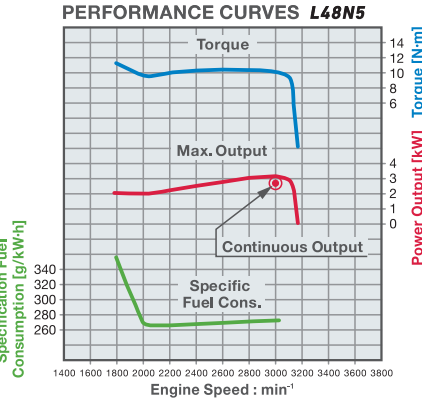
Series

Equivalent of EPA Tier 2

- Notes :
- As of 2015
 - For information about applications and each country's regulations, please contact your local YANMAR sales network.

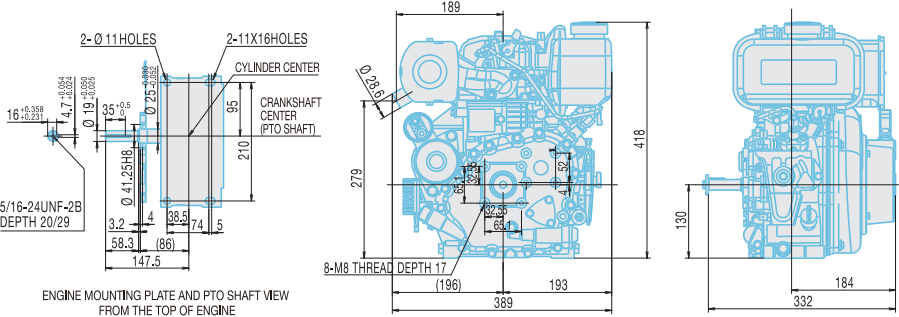
L48N

Rated Output (Gross)
3.5kW
[4.7hp]
/3600min⁻¹



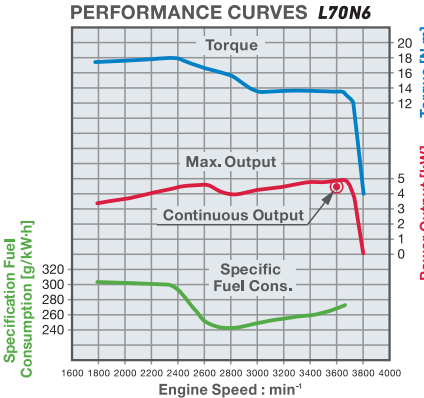
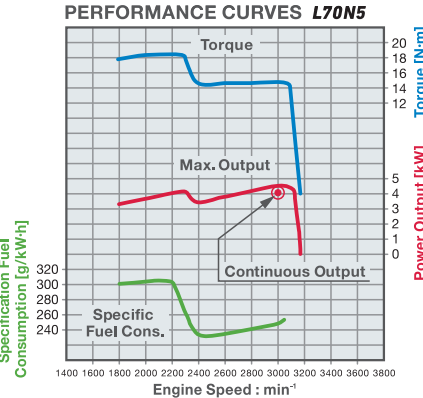
* Notes: Performance based on the following conditions.

DIMENSIONS



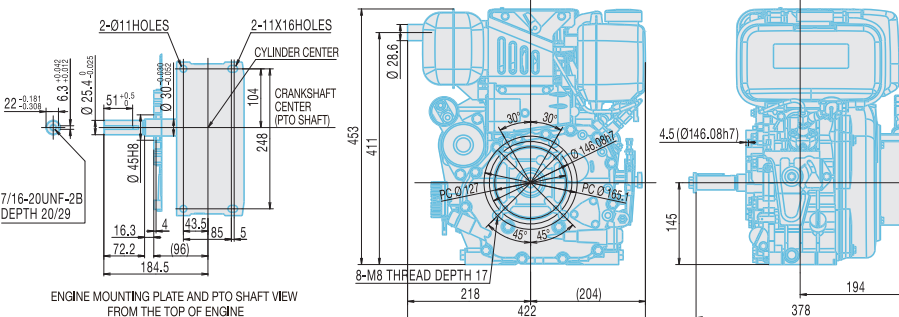
L70N

Rated Output (Gross)
4.9kW
[6.7hp]
/3600min⁻¹



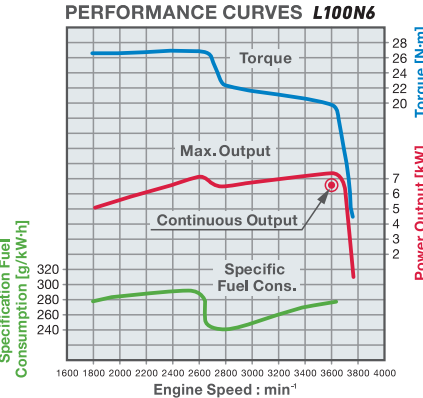
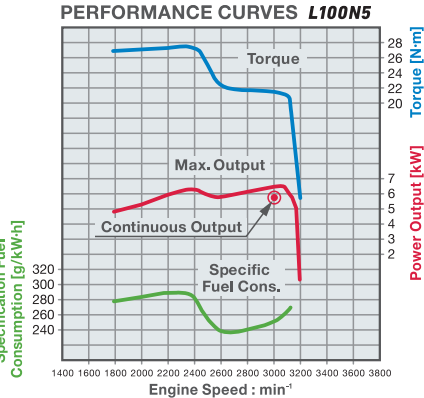
* Notes: Performance based on the following conditions.

DIMENSIONS



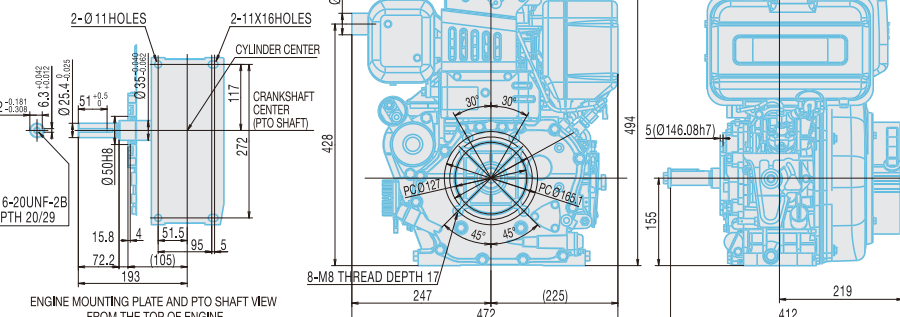
L100N

Rated Output (Gross)
7.4kW
[10.0hp]
/3600min⁻¹



* Notes: Performance based on the following conditions.

DIMENSIONS



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

AIR COOLED DIESEL ENGINE

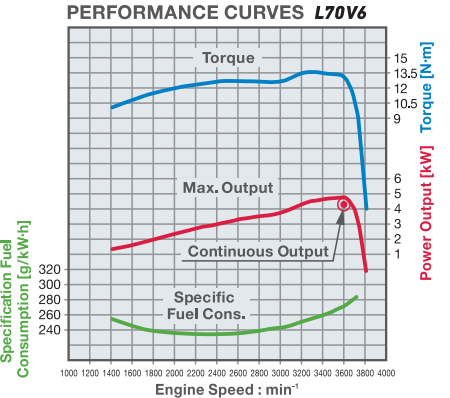
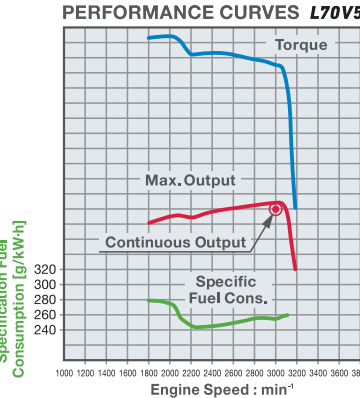
L-V Series

Equivalent of EPA Tier 4

- Notes :
- As of 2015
 - For information about applications and each country's regulations, please contact your local YANMAR sales network.

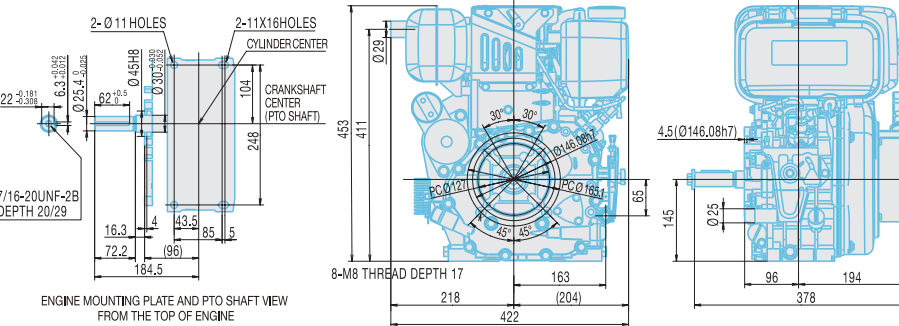
L70V

Rated Output (Gross)
4.8kW
[6.5hp]
/3600min⁻¹



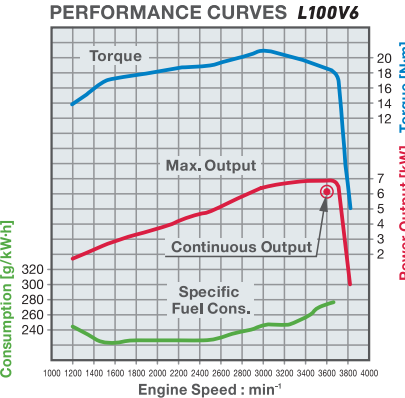
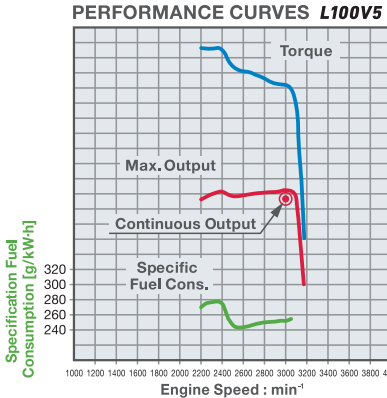
* Notes: Performance based on the following conditions.

DIMENSIONS



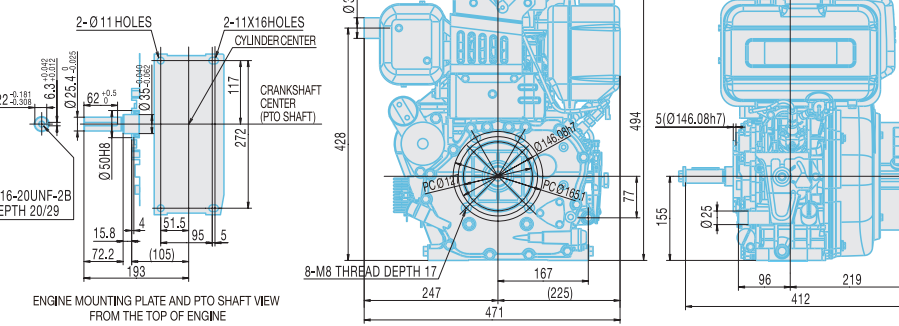
L100V

Rated Output (Gross)
6.8kW
[9.3hp]
/3600min⁻¹



* Notes: Performance based on the following conditions.

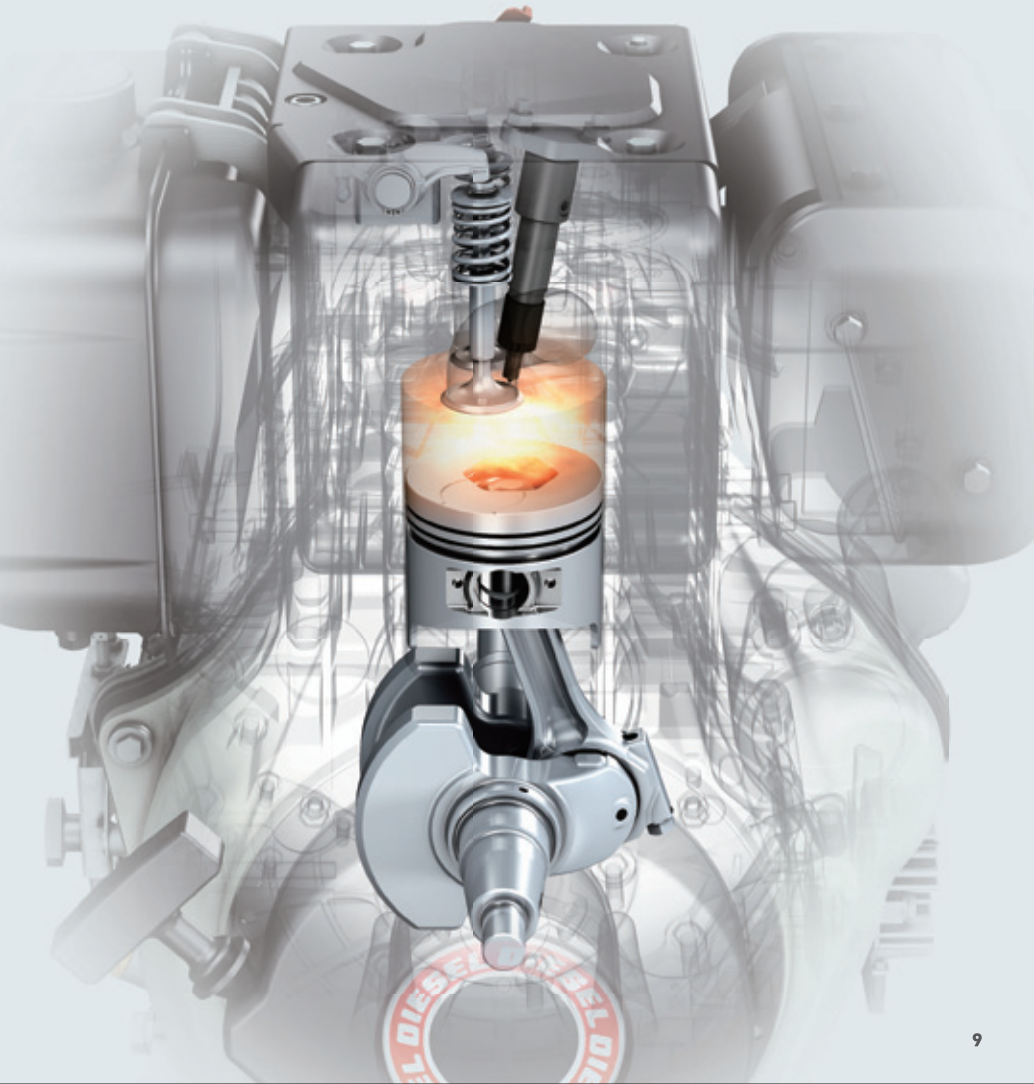
DIMENSIONS



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

An ideal match between the combustion system and the injection system

L-V series engines are superior to conventional L series engines in terms of minimization of fuel spray through high-pressure injection. In this series, the combustion chamber is also improved, and there is an EGR (Exhaust Gas Recirculation) system for recirculating some of the exhaust gas back into the air intake.



AIR COOLED DIESEL ENGINE

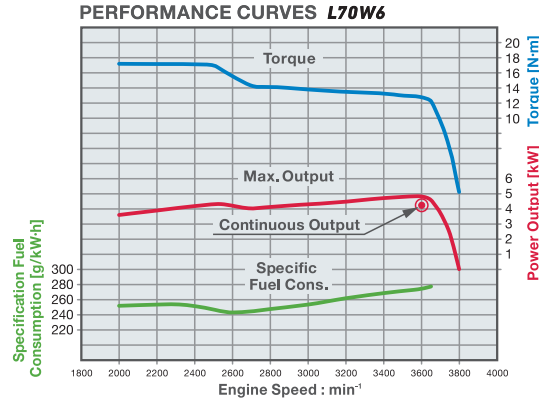
L-W Series

Equivalent of EPA Final Tier 4

- Notes :
- As of 2015
 - For information about applications and each country's regulations, please contact your local YANMAR sales network.

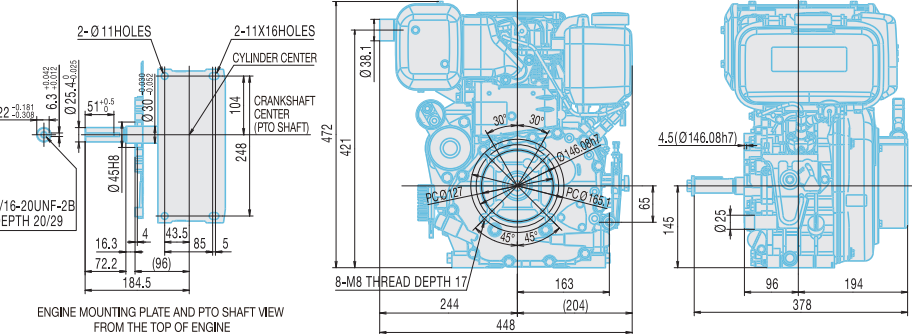
L70W

Rated Output (Gross)
4.8kW
[6.5hp]
/3600min⁻¹



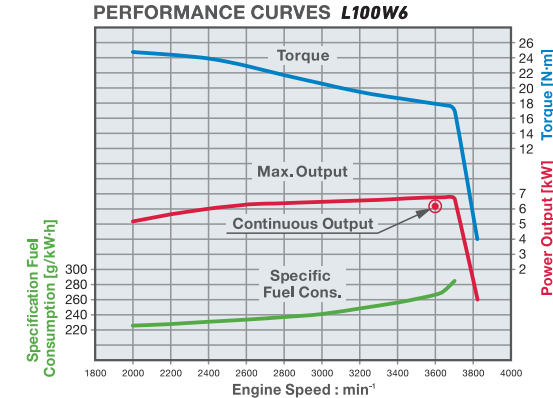
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DIMENSIONS



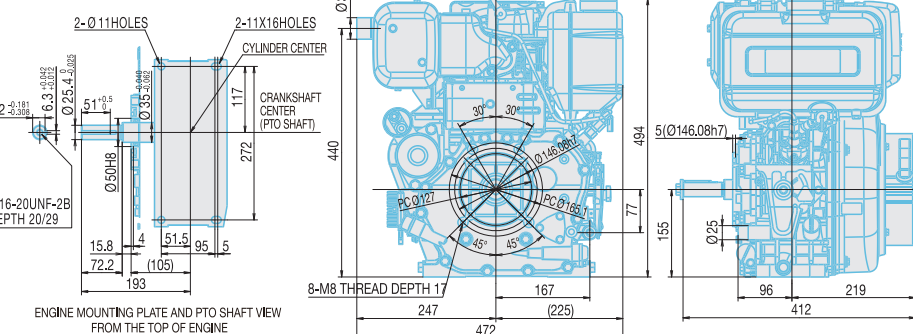
L100W

Rated Output (Gross)
6.8kW
[9.3hp]
/3600min⁻¹



* Notes: Performance based on the following conditions.

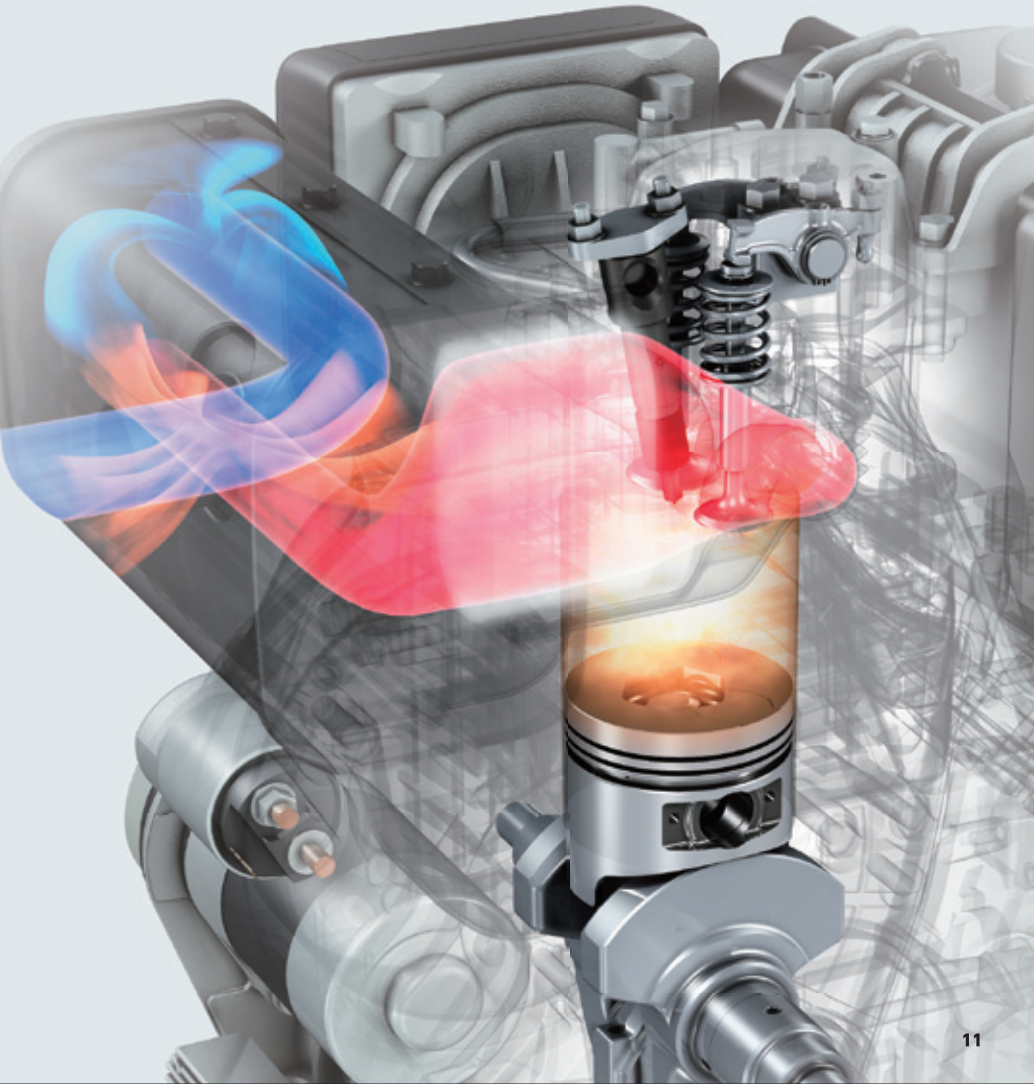
DIMENSIONS



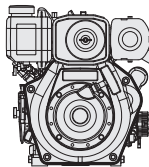
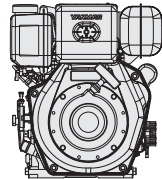
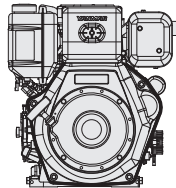
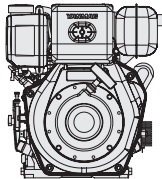
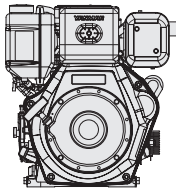
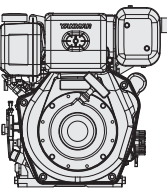
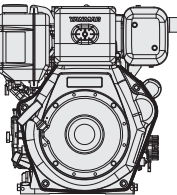
* • After 30 hrs. initial running • Atmospheric conditions: Temperature 298K(25° C) / Pressure 100kPa(750mmHg) / Humidity 30%

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 Oxide 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		L70V		L100V		L70W		L100W	
																
Type			4 stroke, vertical cylinder, air cooled diesel engine						4 stroke, vertical cylinder, air cooled diesel engine				4 stroke, vertical cylinder, air cooled diesel engine			
No. of Cylinders			1						1				1			
Bore x Stroke			mm		Φ70 x 57		Φ78 x 67		Φ86 x 75		Φ78 x 67		Φ86 x 75		Φ78 x 67	
Displacement			liter		0.219		0.320		0.435		0.320		0.435		0.320	
Continuous Rated Output	Engine Speed	rpm(min ⁻¹)	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000
	Output	kW[hp]	3.1 [4.2]	2.8 [3.8]	4.4 [6.0]	4.1 [5.5]	6.6 [9.0]	5.7 [7.7]	4.3 [5.9]	4.0 [5.4]	6.2 [8.4]	5.7 [7.7]	4.3 [5.9]	4.0 [5.4]	6.2 [8.4]	5.7 [7.7]
Maximum Rated Output	Engine Speed	rpm(min ⁻¹)	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000
	Output / Eng. Speed	kW[hp]	3.5 [4.7]	3.1 [4.2]	4.9 [6.7]	4.5 [6.1]	7.4 [10.0]	6.5 [8.8]	4.8 [6.5]	4.4 [6.0]	6.8 [9.3]	6.3 [8.5]	4.8 [6.5]	4.4 [6.0]	6.8 [9.3]	6.3 [8.5]
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
Engine Weight (Dry)	Electric Starter	kg	32.0		41.0		53.5		41.0		53.5		43.0		53.5	
	Recoil Start	kg	27.0		36.0		48.5		36.0		48.5		38.0		48.5	
Cooling System			Forced Air cooling by Flywheel Fan						Forced Air cooling by Flywheel Fan				Forced Air cooling by Flywheel Fan			
Lubricating System			Forced lubricating system						Forced lubricating system				Forced lubricating system			
Starting System			Electric start / Recoil start						Electric start / Recoil start				Electric start / Recoil start			
Dimension	Overall Length (L)	mm	332		378		412		378		412		395		429	
	Overall Width (W)	mm	384		422		472		422		472		448		472	
	Overall Height (H)	mm	417		453		494		453		494		472		494	
Lubricating System	Dispstick Upper Limit	liter	0.8		1.1		1.6		1.1		1.6		1.1		1.6	
	Dispstick Lower Limit	liter	0.6		0.7		1.0		0.7		1.0		0.7		1.0	
Fuel Oil Tank Capacity			liter		2.4		3.3		5.4		3.3		5.4		3.3	

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			L70V				L100V				L70W				L100W			
Category *		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)			○			○			○			○				○			○				○		○
	Thread (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 = Genral / GE = Generator / P = Pump / V = V-machine

PTO Dimensions

	Keyway shaft		Taper shaft			Thread shaft		PTO Flanges
Application code	E-D	D	E-DG	DG	E-DI	E-DP	DP	
L48N 48								
L70N L70V L70W 70								
L100N L100V L100W 100								