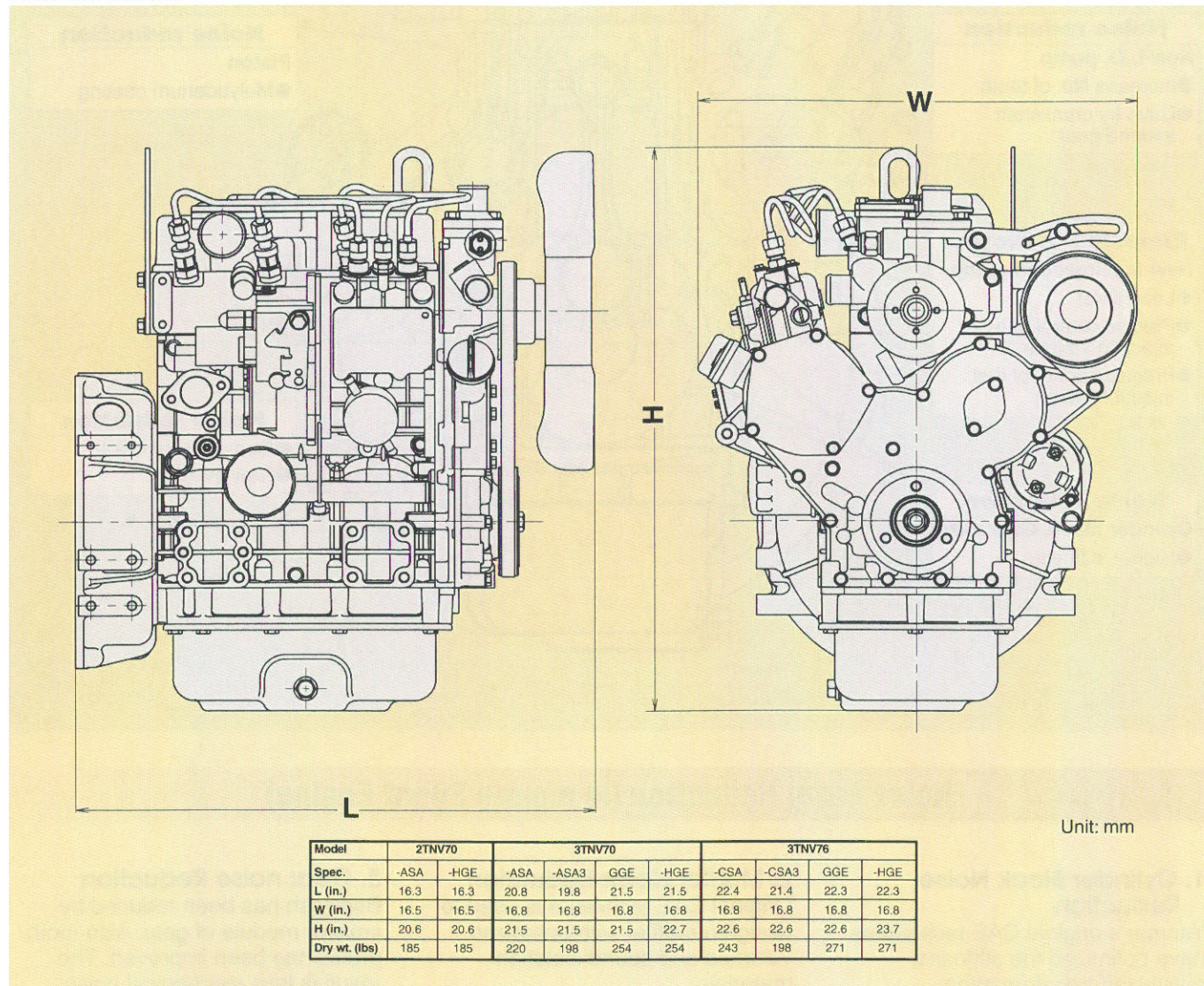


SPECIFICATIONS

Model	2TNV70		3TNV70			3TNV76			
	-ASA	-HGE	-ASA	-GGE	-HGE	-CSA	-GGE	-HGE	
Specification	Vertical Cylinder, Inline, 4-cycle, Water-Cooled Diesel Engine								
Type	Vertical Cylinder, Inline, 4-cycle, Water-Cooled Diesel Engine								
Combustion	IDI		IDI			IDI			
Aspiration	NA		NA			NA			
No. of cylinders	2		3			3			
Cyl. bore x stroke	mm 70x74		70x74			76x82			
Displacement	lit. 0.57		0.854			1.116			
Rated output	hp/rpm	13.7/3600	13.4/3600	21.9/3600	10.7/1800	21.5/3600	25/3200	14.3/1800	26.1/3600
Cooling system	Radiator		Radiator			Radiator			
Starting system	Electric		Electric			Electric			

DIMENSIONS



Note: All data subject to alteration without notice.

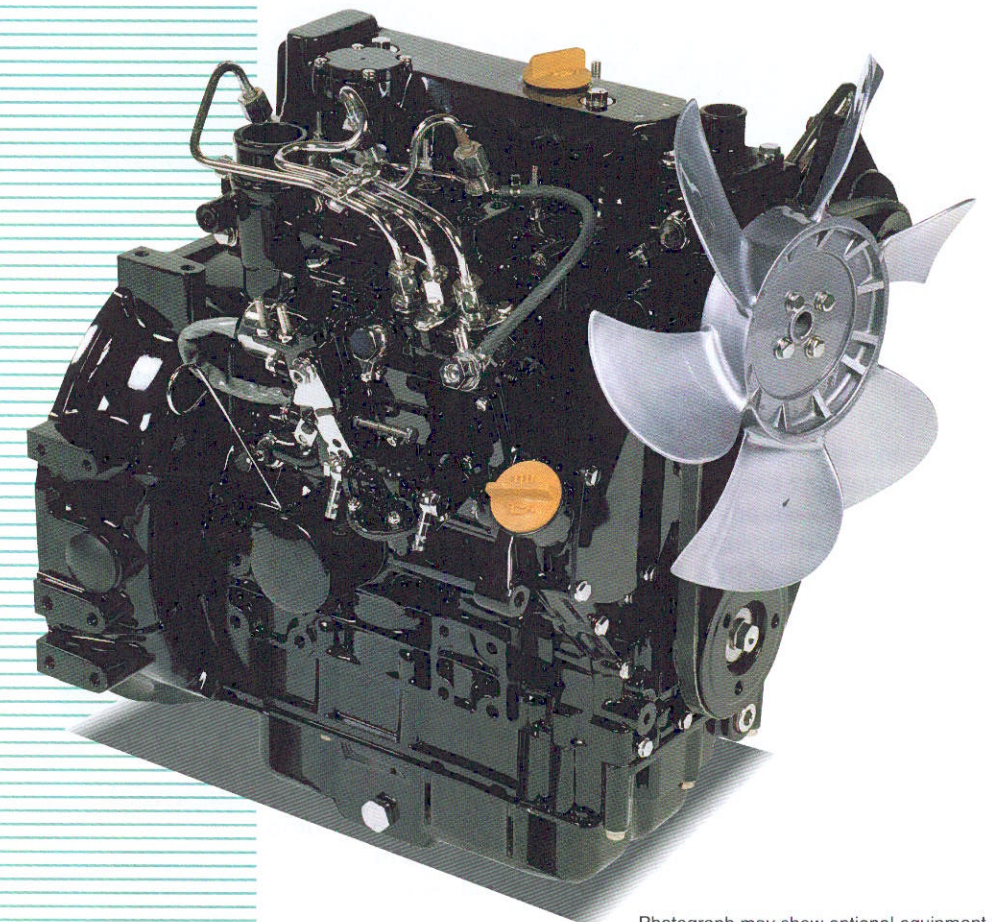
YANMAR

DIESEL ENGINES

TNV series-1

10.7 ~ 26.1 hp

2TNV70
3TNV70
3TNV76

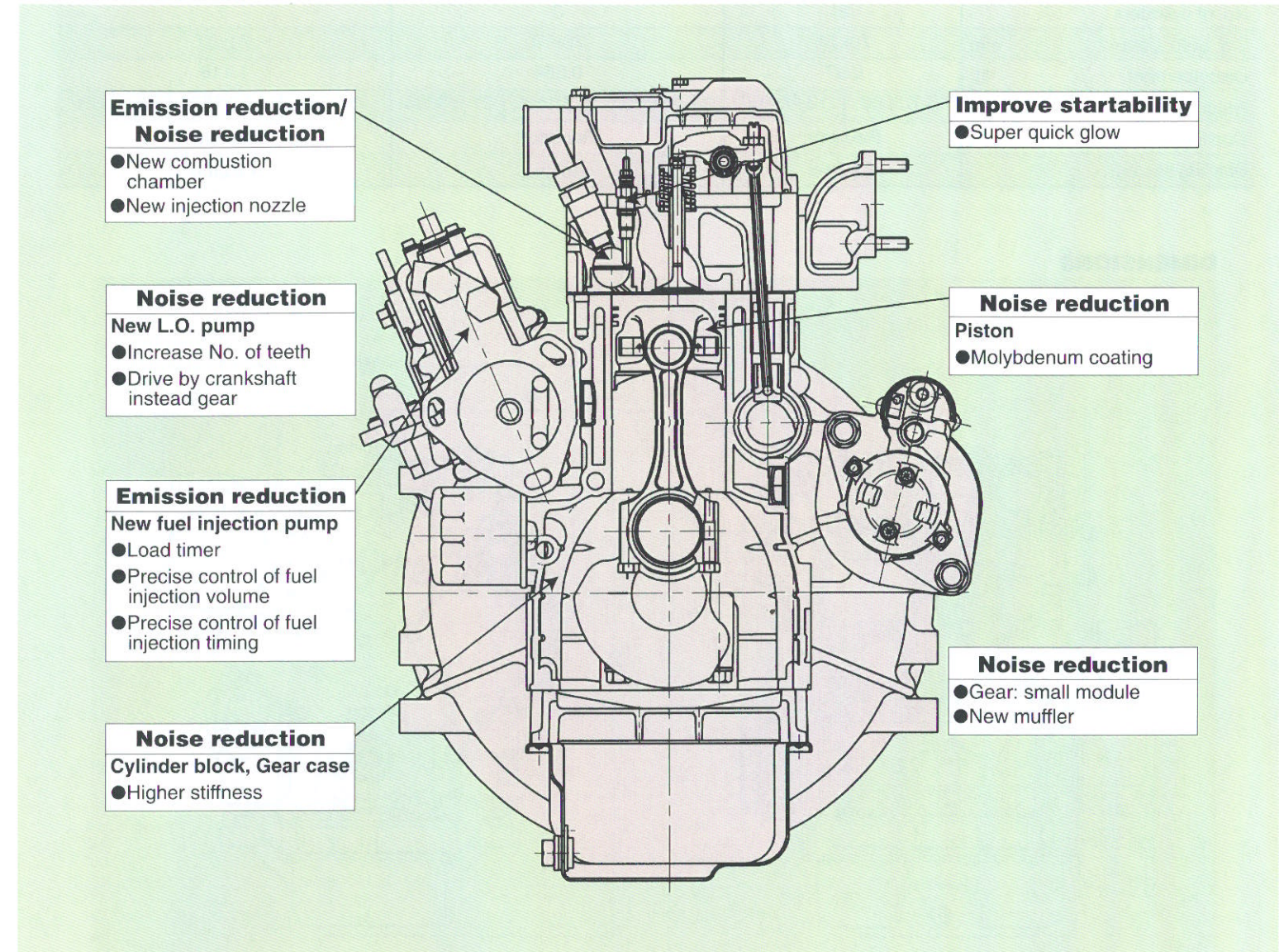


Photograph may show optional equipment.

YANMAR **YANMAR AMERICA CORP**
951 Corporate Grove Drive
Buffalo Grove IL 60089-4508, U.S.A.
TEL: 847/541-1900 FAX: 847/541-2161
www.yanmar.com

The TNV series adds a whole range of “goodies” that make this engine a mechanical “Work of art”

The much acclaimed “Clean and Silent” TNE series has just become even better. Its called the TNV, and it stands for Total New Value. Lets take a look.....



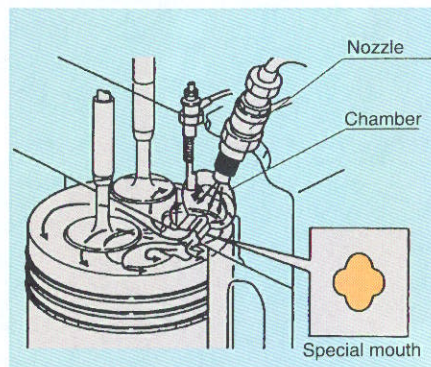
Emission Reduction (ie a Cleaner Engine)

Cleaner engines with even lower exhaust emissions are achieved by improving on the already excellent TNE base. Stricter emission standards are cleared by a wide margin.

1. Combustion Chamber

By investigating flow characteristics using experimental and numerical analysis methods, Yanmar research has achieved improved flow mixing in both the main chamber and the special mouth surrounding the injector. More efficient use of the incoming

air charge results in cleaner burn and lower exhaust emissions.



2. Fuel Injection Equipment Mechanical Pump

Instead of a PFR pump, a newly developed in-line pump has been used for the smaller TNV engines.

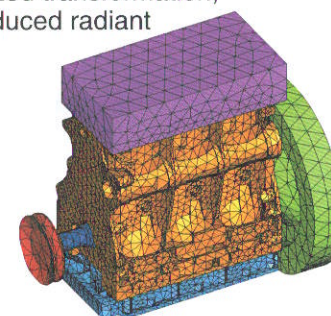
Adjustments are made solely in the Yanmar's own FIE factory ensuring precise compliance with regulations. Also the following features are incorporated:

- Increased force is applied by the governor to quicken the fuel controlling rack response time. Engine revs are more constant. Matching to a wide range of machinery is simplified.
- Emissions have been reduced by controlling fuel injection timing according to engine load.
- Cam profiles are matched to nozzle throttle needs, which give a better controlled injection rate. Emissions are reduced.

Noise Level Reduction (ie a more Silent Engine)

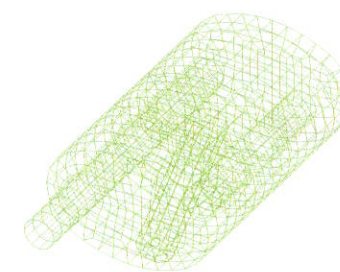
1. Cylinder Block Noise Reduction

Yanmar's original CAE techniques have optimized the stiffness, minimized transformation, and reduced radiant noise.



2. Muffler Noise Reduction

Original CAE technique is used to design a muffler with optimized volumes and sound isolation materials.



3. Gear noise Reduction

Backlash has been reduced by smaller module of gear. Also tooth profile has been improved. The result is less mechanical noise.

