



# **MARINE COMMON RAIL ENGINES**

# **4LV** Series - 150 / 170 / 195

Configuration	4-stroke, vertical, water-cooled diesel engine				
Maximum output at crankshaft*	110 kW@3500 rpm	[150 mhp@3500 rpm]			
	125 kW@3500 rpm	[170 mhp@3500 rpm]			
	143 kW@3500 rpm	[195 mhp@3500 rpm]			
Displacement	2.755 L	[168 cu in]			
Bore x stroke	92 mm x 103.6 mm	[3.6 in x 4 in]			
Cylinders	4 in-line				
Combustion system	Direct injection with Denso common rail system				
Low idle rpm	750 rpm				
Aspiration	Turbocharger with charge-air cooler				
Starting sytem	Electric starting 12V – 2 kW				
Alternator	Denso 12V - 130A				
Cooling system	Fresh water cooling by centrifugal fresh water pump				
	Sea water cooling by rubber impeller seawater pump				
Lubrication system	Enclosed, forced lubricating system				
Direction of rotation [crankshaft]	Counterclockwise viewed from stern				
Dry weight without gear**	332 kg	[732 lbs]			
Emission compliance	EU: RCD 2, BSO II, EMC	US: EPA Tier 3			
Engine mounting	Rubber type flexible mounting				

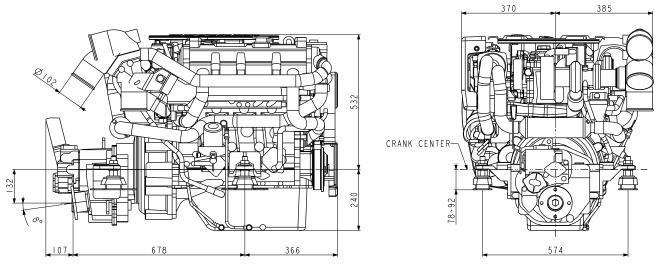
### NOTE:

Fuel condition: Density at  $15^{\circ}$ C = 0.84 g/cm<sup>3</sup>: 1 kW = 1.3596 mhp = 1.3410 HP

Technical data is according to ISO 8665: 2006

## DIMENSIONS

Right side view Rear view



4LV195 with KMH50A marine gear

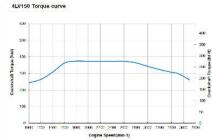
<sup>\*</sup> Fuel temperature 40°C at the inlet of the fuel injection pump [ISO 8665: 2006]

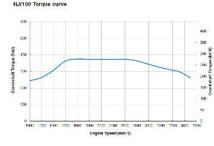
<sup>\*\*</sup> Including damper disk

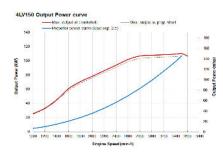


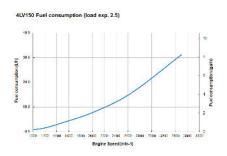


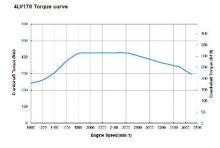
#### PERFORMANCE CURVES

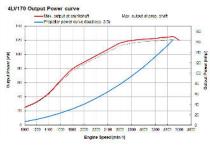


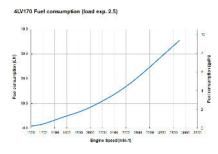


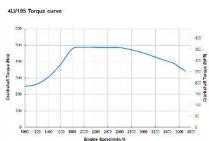


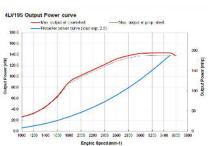


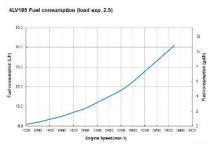












#### MARINE GEARS\*

Model	KMH50A [down angle: 8°]		KMH50V [V-drive, angle: 12°]				
Туре	Hydraulic, multi disk clutch		Hydraulic, multi disk clutch				
Dry Weight**	52 kg [115 lbs]		75 kg [165 lbs]				
Reduction Ratio [fwd/asn]	1.67/1.67	2.13/2.13	2.43/2.43	1.22/1.22	1.58/1.58	2.08/2.08	2.47/2.47
Propeller speed [fwd/asn]	2096/2096	1643/1643	1440/1440	2869/2869	2215/2215	1683/1683	1417/1417
Direction of rotation [viewed from stern]	Clockwise & counterclockwise		Clockwise & counterclockwise				
Dry weight - engine & gear	384 kg [846 lbs]		407 kg [897 lbs]				
Length engine and gear/drive	1151 mm [45.3 in]		1151 mm [45.3 in]				

<sup>\*</sup>For other configurations, consult your local Yanmar distributor. \*\*Dry weight includes cooler and brackets

# Standard Package

**ACCESSORIES** 

- Exhaust mixing elbow [L-type]
- Alternator 12V 130A
- B25 panel
- Oil sensor for instrument panel
- Mechanical throttle sensor
- Set of flexible engine mounts
- Fresh water expansion tank
- Belt safety cover
- Engine topcover for protection
- Operation manual

### Optional

- High-riser mixing elbow [instead of L-elbow]
- Secondary alternator 12V 150A or 24V 85A
- Multistage secondary alternator 12V 130A or 24V - 110A
- Semi 2-Pole Electrical Installation
- Hot water connection
- Opposite dipstick
- Fuel pre-filter with water separator
- C-Type Trolling Valve KMH50
- Extension harness [3m, 5m, 10m, 20m]
- C35 panel
- Mechanical sidemount control head

- VC10 Vessel Control System
- Second station
- NMEA2000 Engine monitoring system
- Electronic Side Mount CH instead of Top Mount
- SOLAS including Certificate (Factory fit only)
- Man Over Board Switch (single)
- On Board Spare Parts Kit 4LV
- Second station
- NMEA2000 Engine monitoring system
- JC20 Inboard Joystick