



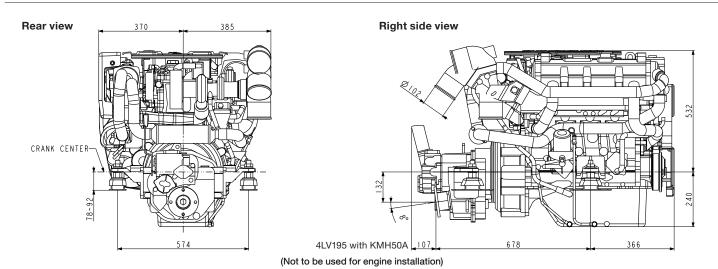
## **MARINE COMMON RAIL ENGINES**

# 4LV Series - 150 / 170 / 195

Configuration	In-line, 4-stroke, vertical, water-cooled diesel engine				
Max. output at crankshaft*	110 kW@3500 rpm 125 kW@3500 rpm 143 kW@3500 rpm	[150 mhp@3500 rpm] [170 mhp@3500 rpm] [195 mhp@3500 rpm]			
No. of cylinders	4 cylinder				
Displacement	2.755 L	[168 cu in]			
Bore x stroke	92 mm x 103.6 mm	[3.6 in x 4 in]			
Aspiration	Turbocharged & intercooled				
Combustion system	Direct injection, Denso common rail system				
Starting system	Electric starting 12V – 2 kW				
Engine management	Electronic				
Cooling system	Fresh water cooling by centrifugal fresh water pump Seawater cooling by rubber impeller seawater pump				
Alternator	Denso 12V - 130A				
Lubrication system	Enclosed, forced lubricating system				
Lubrication system  Engine lube oil specifications	Enclosed, forced lubricating system  API class: CD or higher, SAE grade: 15	W-40			
•					
Engine lube oil specifications	API class: CD or higher, SAE grade: 15 Counterclockwise (CCW) viewed from				
Engine lube oil specifications  Direction of rotation at crankshaft	API class: CD or higher, SAE grade: 15 Counterclockwise (CCW) viewed from	stern			
Engine lube oil specifications  Direction of rotation at crankshaft  Dry weight without gear	API class: CD or higher, SAE grade: 15 Counterclockwise (CCW) viewed from 334 kg	stern			
Engine lube oil specifications  Direction of rotation at crankshaft  Dry weight without gear  Engine dimensions† L x W x H	API class: CD or higher, SAE grade: 15 Counterclockwise (CCW) viewed from 334 kg [7 1151 x 755 x 772 mm	stern 736 lbs]			
Engine lube oil specifications  Direction of rotation at crankshaft  Dry weight without gear  Engine dimensions† L x W x H  Emission compliance	API class: CD or higher, SAE grade: 15 Counterclockwise (CCW) viewed from 334 kg [7 1151 x 755 x 772 mm EU: RCD 2, BSO II, IMO,^ EMC	stern 736 lbs]			

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

#### **DIMENSIONS**



Technical data is according to ISO 8665: 2006

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

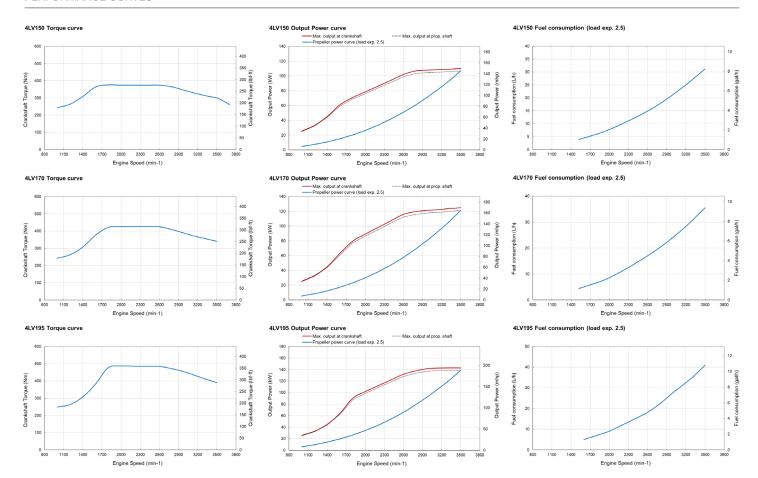
<sup>†</sup>Length includes KMH50A marine gear (Dimensions may vary with other gears/elbow)

<sup>^4</sup>LV195 only





#### PERFORMANCE CURVES



#### MARINE GEAR\*

Model	KMH50A [down angle: 8°]		KMH50V [V-drive, angle: 12°]				
Clutch type	Hydraulic multi-disc		Hydraulic multi-disc				
Dry weight	54 kg [119 lbs]		77 kg [165 lbs]				
Reduction ratio [fwd/asn]	1.67/1.67 2.13/2.13	2.43/2.43	1.22	2/1.22	1.58/1.58	2.08/2.08	2.47/2.47
Direction of rotation [viewed from stern]	Clockwise & counterclockwise		Clockwise & counterclockwise				
Lubrication system	Forced lubrication		Forced lubrication				
Lube oil specifications	API class: CF or higher, SAE grade: #30		API class: CF or higher, SAE grade: #30				
Max. lube oil capacity	1.8 L		5.4 L				
Dry weight - engine & gear	388 kg [855 lbs]		411 kg [906 lbs]				

 $<sup>^{\</sup>star}\,\text{Other marine gearboxes and configurations available upon request.}\,\text{Contact your local supplier for more information}$ 

### ACCESSORIES

#### Standard engine package

- Exhaust mixing elbow [L-type]
- Alternator 12V 130A
- B25 panel
- Flexible mounts
- Mechanical throttle sensor
- Fresh water expansion tank

#### **Optional accessories**

- High-riser mixing elbow [instead of L-elbow]
- Secondary alternator 12V 130A or 24V 110A including smart regulator
- C35 panel
- Extension harness [3m, 5m, 10m, 20m]
- Second station
- Sidemount control head
- VC20 Vessel Control System

- JC20 Inboard Joystick
- NMEA2000 Engine monitoring system
- Semi 2-pole
- SOLAS including Certificate [factory fit only]
- Hot water connection
- Water separator
- Man Over Board Switch [single]
- C-Type trolling [KMH50 only]
- On-board spare parts kit