# CLIVION BOOK

# Thank you for purchasing a Daihatsu CLMD diesel engine.

Daihatsu CLMD series are compact and lightweight versions of water-cooled, in-line 3-cylinder type diesel engines featuring low fuel costs and high performance, as well as the reduced noise and vibration through the adoption of latest technologies.

This manual was compiled to familiarize users with major engine features, operational methods and adjustments to allow them to receive maximum performance and service life. Users are requested to read this manual carefully to insure proper engine operation.

We reserve the right to make modifications and/or change certain engine parts without prior notice to improve engine quality and performance. In such cases, certain parts of this manual may no longer be applicable. Users are therefore requested to contact dealers for supplementary information.

Please remember that the parts list includes some parts other than those actually installed, since it was prepared to cover various engine specifications.

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## A. MAJOR SPECIFICATIONS

### 1. Engine specifications

Model		CLMD25	CLMD30	
Type  Rated speed (rpm)  Rated power (PS)  No of cylinder × Bore × Stroke (mm)		Vertical, water cooled, 4-cycle, diesel engine		
		3600	3900	
		25	30	
		3×76×73		
Direction	Crankshaft	Clockwise as seen from the front		
of rotation	Propeller shaft	Clockwise as seen from the stern		
Combustion syste	m	Swirl combustion chamber		
Firing order		1-2-3		
Lubrication system		Forced-circulation (Trochoid pump)		
Lubrication	Engine	3.2 1.2		
volume (ℓ)	Reduction gear			
Cooling system & pump type  Fresh water cooling system capacity (ℓ)  Starting system  Reverse reduction gear  Control system		Sea water/Indirect cooling (F.W. centrifugal type S.W. rotary rubber type)  Approx. 6		
				Electric starting (standard) Hydraulic motor or spring starter (special)
		Oil operated, Multi-disc clutch		
		Push-pull remote control cable		

### 2. Adjustment

Valve clearance (cold with engine stopped)	mm	0.25 (intake valves)	
		0.30 (exhaust valves)	
Intake valve open (before T.D.C.)	deg (C.A.)	16	
Intake valve close (after B.D.C.)	IF.	40	
Exhaust valve open (before B.D.C.)	M	52	
Exhaust valve close (after T.D.C.)	н	14	
Fuel injection pressure (valve opening pressure)	Kg/cm <sup>2</sup>	140	