

Lister Type Diesel Engine

Our Lister Diesel Engines are precisely manufactured and are highly in demand in the international market for its quality, durability and performance. They are extremely simple to handle and are easy to maintain. These irrigation pump engines are widely used in agriculture sector.



POWER

The ASHWAMEGH Vertical Diesel Engines are rated on the effective HP at Engine crankshaft as a Maximum Load for continuous running. These powers are obtained at any Level of elevation up to 700 ft. (210 meters) above sea level with fuel Oil of not less than 18,000 B. Th. U's per Ib.

STARTING

One of the outstanding features of this irrigation pump engine is its ability to start instantly from cold without ancillary starting gear. Only hand starting is necessary without the aid of either heaters or cartridges even in the coldest climates.



TYPE

The ASHWAMEGH Lister diesel engines will give satisfactory service on almost any grade of oil, preferably, light diesel oil and are of compression ignition Type with direct fuel injection, four stroke, water-cooled diesel engine.

LUBRICATION

A splash system of lubrication is provided for all bearings and piston liner and other moving parts such as valve push-rods and rocker arm bearings are easily accessible and occasional oiling with an oil can is all that is necessary.

The cylinder head is made of high quality cast iron and great care has been taken in its design to ensure quick running and good fuel consumption. The cylinder head cover is easily removable to give complete access to the valve gear and atomizer

BEARINGS

All bearings on ASHWAMEGH engines are of bush bearing Type excepting the main bearing. The small end bearing and camshaft bearing are of high quality gun metal. The connecting rod bearings are of good quality white metal. The Cranshaft is fitted with taper-roller bearings as main bearings.

As an alternative arrangement, engine with bush bearings on cranshaft end can be supplied.

CYLINDER HEAD GOVERNOR

The lister diesel engine speed is controlled by a spring-loaded governor. The speed can be adjusted easily while the engine is running. The governor controls the fuel pump with variable delivery. It ensures that the required quantity of fuel for any given condition of running is accurately maintained.



FUEL-INJECTION EQUIPMENT

This equipment is of the well-tried MICO (Bosch) Type. Millions of this Type are in use throughout the world and invariably give very reliable service. They are ground to very fine tolerance and are lapped together. This ensures freedom oil leakages.

CYLINDER

The cylinder-liner is of the wet Type and is easily replaceable. It is made of close grained cast iron with special process of hard chrome and has an exceptionally long life. It is ground and lapped to very fine tolerance.

Engines with internal Type cylinder with liner can also supplied, if specially asked for.

PISTON

The piston is made of high-quality cast iron and is ground to ensure a good fit in the liner with adequate clearance for satisfactory running. It is fitted with four compression rings and one oil ring.



VALVES

Both the exhaust and inlet valves are made of heat resisting high quality silicon steel to ensure long life.

FUEL-FILTER

A large capacity fuel filter is fitted in the filtering medium being a special fabric which is easily cleaned or cheaply replaced. The use of this filter ensure long and trouble-free functioning of the fuel injection mechanism.

COOLING

The diesel engine is water cooled. The heat generated during the compression is suitably carried away by the water flowing through the cylinder block and cylinder head with suitable outlet provided in the systems.

FLYWHEELS

The engine is fitted with two well balanced cast iron flywheels which keep the speed variation to a minimum under the most fluctuation load conditions.

TESTING & INSPECTION

Every lester type diesel engine is tested on full load for power and fuel characteristics.

COMPONENT PARTS

Parts used in ASHWAMEGH Diesel oil engine are of best selected quality and subject to rigid test before assembly by skilled hands under expert supervision ASHWAMEGH Engines need minimum replacement of spare parts.



ISI MARK

Each ASHWAMEGH Engine is given ISI Mark after it passes through all the vigorous testes required under the Indian standards Specification No. IS : 11170

FREE EQUIPMENT WITH ENGINE

Following equipment are given free with the engine. Fuel Tank, Silencer, Starting handle, Spanner set. Foundation bolts, Oil-can, Screw Driver, Air Filter, Maintenance Booklet & Pulley.

Principal Dimensions INCHES / MM

	A	B	C	D	E	F
6/1, 8/1 HP	40"	13"	23".5	12 ½"	13"	35 ½"
	1016.0 m.m.	330.2 m.m.	600.075 m.m.	317.5 m.m.	330.2 m.m.	901.7 m.m.
10HP	41.5"	13"	20.078"	12 ½"	13"	35 ½"
	1054.1 m.m.	330.2 m.m.	510 m.m.	317.5 m.m.	330.2 m.m.	901.7 m.m.
14 & 15HP	39"	15"	24"	11.13/16"	22"	49 ½"
	990.6 m.m.	381.0 m.m.	60.9.6 m.m.	300.038 m.m.	558.8 m.m.	1250.95 m.m.
12 & 16HP	40"	15"	22 ¾"	12 ½"	22"	49 ½"
	1016.0 m.m.	381.0 m.m.	577.85 m.m.	317.5 m.m.	558.8 m.m.	1250.48 m.m.
20 & 25 HP	42".5	13"	23 ½"	12 ½"	13"	35.5"
	1080.0 m.m.					
30 HP	41"	15"	23 ½"	12 ½"	22"	49 ¼"
	1041.0					

m.m.

TYPE: Vertical -Four Stroke-Compression Ignition-Water Cooled.
FIE: Bosch -Starting: Cold Start -Rotation: Clockwise

Technical Specifications

H.P.	R.P.M.	Cylinder	Bore & Stroke	Compression Ratio	Specific Fuel Consumption	Lubrication	Bearing	Weight of the Engine	Remarks
K.W.									
6/4.4	650	Single	114.3 mm x 139.7 mm	18:01	268 g/kwh 197.1 g/bhp./hr.	Splash System	Tapper Roller	315 kg.	Also manufacturing Bush Bearing type with Lubricating Pump against order
8/5.9	850	Single	114.3 mm x 139.7 mm	18:01	268 g/kwh 197.1 g/bhp./hr.	Splash System	Tapper Roller	315 kh.	
10/7.35	1050	Single	114.3 mm x 139.7 mm	18:01	251 g/kwh 184.6 g/bhp./hr.	Splash & Pump System	Tapper Roller	340 kg.	Solid Block Type
10/7.35	1000	Single	114.3 mm x 139.7 mm	18:01	268 g/kwh 197.1 g/bhp./hr.	Splash & Pump System	Tapper Roller	340 kg.	
10/7.35	1000	Single	120 mm x 139.7 mm	18:01	268 g/kwh 197.1 g/bhp./hr.	Splash & Pump System	Tapper Roller	345 kg.	Counter Balance Weight type
14/10.3	1000	One	130 x 140 mm	16.7:1	230 gms/kw/hr	Splash & Pump System	Tapper Roller	400 kg.	Direct Injection (D.I)
15/11.03	1000	One	130 x 160 mm	16.7:1	240 gms/kw/hr	Splash & Pump System	Tapper Roller	400 kg.	---do---
12/8.8	650	Two	114.3 mm x 139.7 mm	18:01	268 g/kwh 197.1 g/bhp./hr.	Splash & Pump System	Bush	495 kg.	Counter Balance Weight type
16/11.8	850	Two	114.3 mm x 139.7 mm	18:01	268 g/kwh 197.1 g/bhp./hr.	Splash & Pump System	Bush	495 kg.	

20/ 14.7	1050	Two	114.3 mm x 139.7 mm	18:01	285 g/kwh 209.6 g/bhp./hr.	Splash & Pump System	Bush	525 kg.	
20/ 4.7	1000	Two	120 x 139.7 mm	18:01	285 gms/kw/h r	Splash & Pump System	Bush	540 kg.	Also Manufacturing with Tapper Roller Bearing against order
25/ 18.38	1000	Two	127 x 139.7 mm	18:01	285 gms/kw/h r	Splash & Pump System	Bush	540 kg.	----do---
30/ 22.06	1000	Two	130 x 145 mm	16.7:1	260 gms/kw/h r	Splash & Pump System	Bush	540 kg.	Direct Injection (D.I)

Approximate Shipping Specification

	6/1	8/1	10	14	15	12/2	16/2	20/ 2	20 H.P.	25 H.P.	30 H.P.
Nett Weight KG.	315	315	340	400	400	495	252	540	540	540	540
Gross Weight KG.	450	450	480	550	550	495	725	740	740	740	740
Dime nsions of Packing in MM	L. 1020	B. 737	H. 1170	L 1020	B 737	H 1170	L. 1195	B. 737	H. 1170		
	For 6 to 10 HP			For 14 & 15 HP			For 12 HP to 30 HP Twin Cylinder				