

DAVEY

Firefighter®



Model Number: 5148YEY



FARM &
IRRIGATION

ECONOMICAL DIESEL POWERED SINGLE STAGE SELF PRIMING PUMP

APPLICATION

Ideal for firefighting, tank filling, irrigation, garden watering, water transfer and crop spraying.

FEATURES & BENEFITS

The 5148YEY has been specially designed with patented impeller inserts to provide high head performance at 3600rpm while still able to operate across the full pump curve without overloading the engine.

In fact, the maximum power usage of the pump end has been limited to ensure the engine has significant power reserves. In the event of adverse environmental conditions, such as extremes of temperature, altitude and/or humidity, power reserves are vital for the continued reliable operation of the engine.

Power reserve is very important in the event of bush or wildfire, where engine power reserves may be required for the safe and reliable operation of the pump unit.

The 5148Y features Davey's unique and patented clamped impeller design to enable longer impeller life, improved performance and easier disassembly in the case of blockage.

Published performance data actually shows real pump performance, which is regularly checked by Davey's ISO9001 certified QA department.

Thrust balanced impeller design to extend engine life.

Pump casing, diffusers and impellers manufactured from quality corrosion resistant marine grade aluminium for long life.

4 way discharge port providing easy installation with a choice of plumbing sizes.

Epoxy coated pump casing, exterior and interior, for added corrosion resistance.

Patented floating impeller neckrings front and back. The front neckring helps improve pumping efficiency, the back neckring helps extend seal life and dramatically reduce engine wear.

Self priming up to 5m at 3600rpm for more versatile installation options.

Large priming and drain port with bayonet fit plugs. Plugs have a safety retention system and are available with 1/4" tapping to accept pressure gauges or drain cocks.

All engines feature cast iron cylinder bore for long life.

Viton seal and o-ring for herbicide/insecticide spraying.

Self Priming Pumps

OPERATING LIMITS

Flow capacities to	400 lpm
Maximum total head	50m
Maximum suction lift	5m
Maximum water temperature	50°C
Minimum water temperature	1°C
Minimum suction pipe size	1 1/2"
Suction pipe strainer	Required
Inlet size	1 1/2" BSP(M)
Outlet sizes	2 x 1 1/2" BSP(M), 2 x 1" BSP(M)

ENGINE SPECIFICATIONS

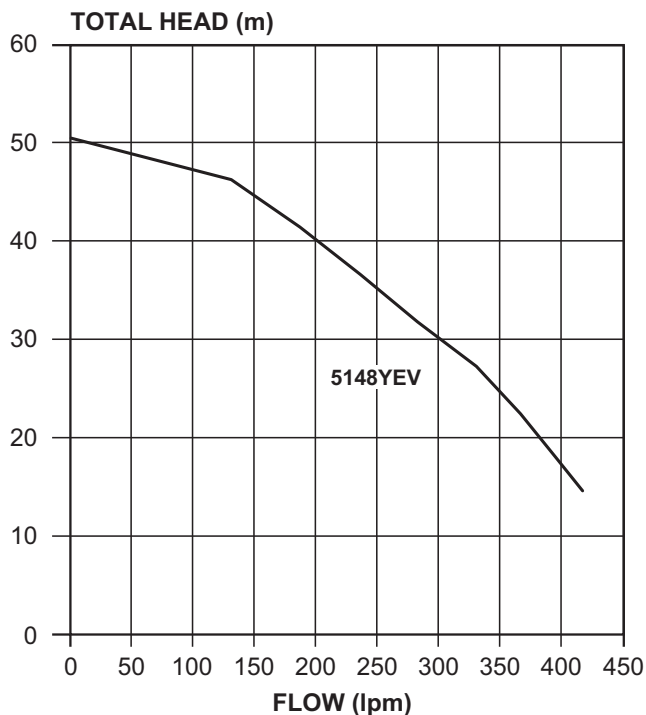
Engine brand	Yanmar
Engine Model	L48N6
Engine Type	Diesel
Displacement (cc)	219
Fuel Tank (litres)	2.4
Oil Capacity (litres)	0.8
Air Filter Type	Dry element
Spark Arrestor	No
Approx. fuel consumption @ full load @ 3600 rpm	1.4 l/hr
dBa @ 7m @ 3600 rpm @ full load	79.5

HYDRAULIC PERFORMANCE

Model 5148YEV are set with governors at 3600rpm "out of box" speed. At this speed the pump will not overload the engine under a variety of continuous pumping conditions, such as:-

Pumping fresh water	Pumping fresh water
Ambient temperature up to 40°C	Ambient temperature up to 30°C
Humidity up to 50%	Humidity up to 70%
Altitude up to 200 metres above sea level	Altitude up to 400 metres above sea level

The performance curve indicates the safe continuous pumping limits.



MATERIALS OF CONSTRUCTION

PART	MATERIAL
Suction cover	Marine grade aluminium (AS605)
Diffuser	Marine grade aluminium (AS605)
Impeller	Marine grade aluminium (AS605)
Casing / yoke	Marine grade aluminium (AS605)
Mechanical seal	Carbon/Ceramic with Viton Elastomers
4 way discharge	Marine grade aluminium (AS605)
Casing bolts	Zinc plated steel
Yoke bolts	Stainless steel
Flap valve / seal ring	Zinc body, Viton seal
Neck ring, priming and drain plug	Glass filled nylon
Casing, priming and drain plug o-ring	Viton seal
Discharge gasket	Viton
Paint finish	Baked polyester powder coat

USAGE GUIDE

These Diesel powered pumps are intended for portable applications. The use of long range fuel tanks is discouraged, since proper maintenance schedules are unlikely to be followed when such tanks are installed. Care must be taken to ensure the operator is fully briefed on safe operation of these pump units, especially in regards to the daily engine maintenance requirements.

SELF PRIMING PERFORMANCE

Self priming pumps work best when operated at higher speeds.

The L48N6 Yanmar diesel engines are set at 3600rpm "out of box" In normal operating conditions, where the pump is able to evacuate the air properly, the self priming times through a 40mm suction hose will be:-

Depth (metres)	Speed (rpm)	Time (seconds)
2	3600	30
3	3600	55
4	3600	85

DIMENSIONS (MM)

Model	A	B	C	D	E	Inlet BSP	Outlet BSP	Net Weight (kg)
5148YEV	520	448	390	195	324	1 1/2"M	2 x 1"M 2 x 1 1/2"M	35

