



DC

Engine Pumps



DC80D



DCX1-50P



DC80P

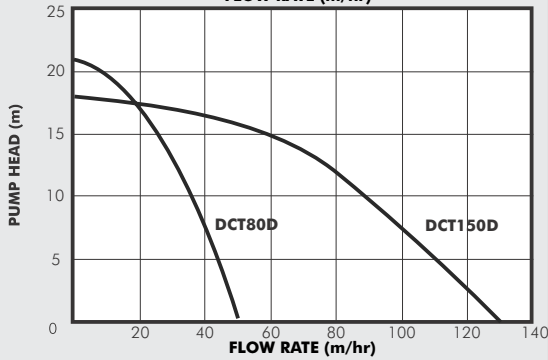
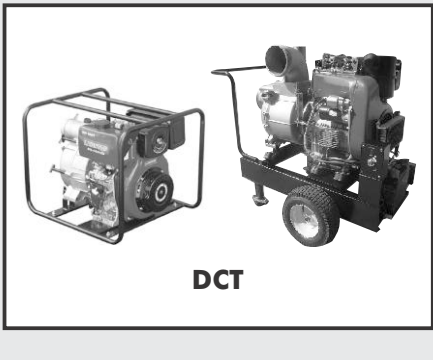
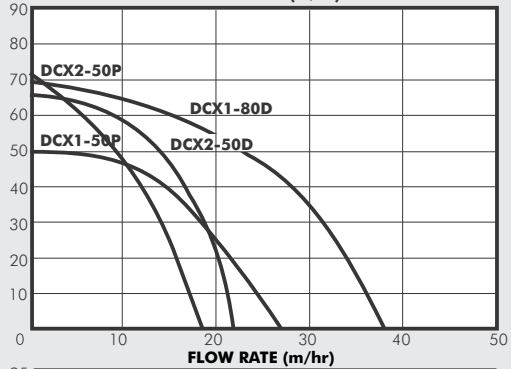
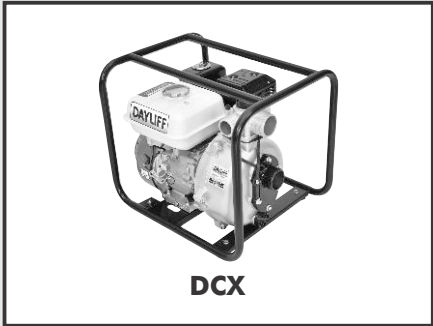
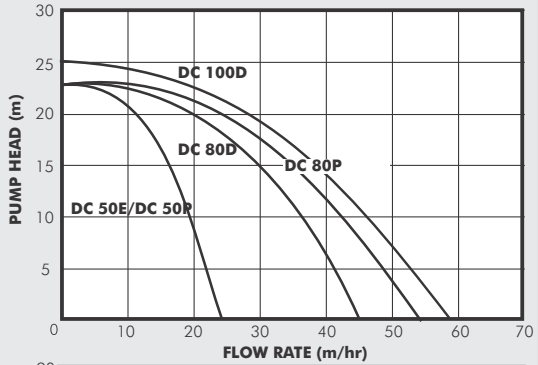
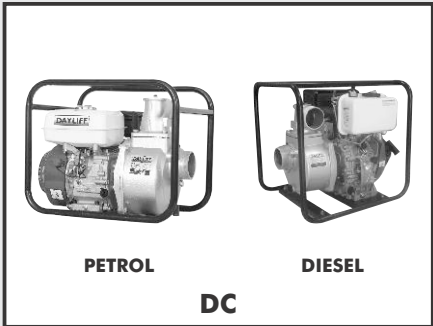
**Installation &
Operating Manual**

INDEX

1. PUMP SPECIFICATIONS	1
2. SAFETY WARNINGS	3
3. SUCTION HOSE CONNECTIONS	4
4. PUMP OPERATION	4
5. ROUTINE MAINTENANCE	5
6. TROUBLE SHOOTING	6
7. WARRANTY	7

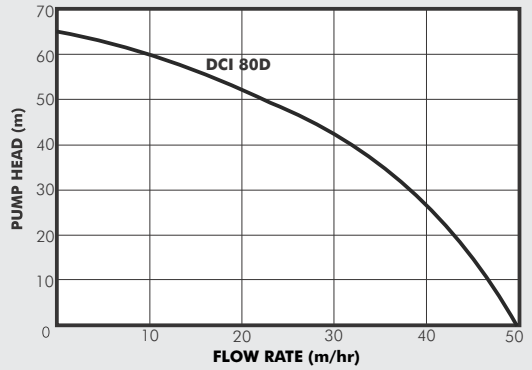
Congratulations on selecting a Dayliff DC Engine Pumps. They are manufactured to the highest standards and if installed and operated correctly will give many years of efficient and trouble free service. Careful reading of this Installation Manual is therefore important, though should there be any queries they should be referred to the equipment supplier.

1. PUMP SPECIFICATIONS





DCI



The DAYLIFF DC range of self priming engines pumps are of fully portable design suitable for irrigation, dewatering and general pumping duties.

All pump bodies and impellers are manufactured from high grade cast aluminium. Also included are quick-couple hose connectors and suction strainers. Maximum suction is 8m at sea level, though this will be reduced at altitudes.

DC

All models feature open impellers suitable for pumping lightly silted water and a sturdy carrying and protection frame.

ECONO models use different specification components and are recommended for light duties and shorter operating periods.

DCX

High specification high pressure pump with option of single or twin impeller.

DCT

Robust diesel pumps for pumping polluted water and sewage.

DCI

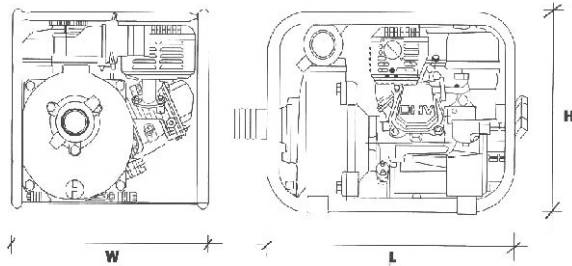
Cast iron engine pumps for heavy duty dewatering.



Note that performance curves for all engines relate to the engine governor set at maximum speed of 3600rpm to achieve maximum rated power output. To prolong engine life pumps should only be run under maximum power conditions for short periods and for extended duty the throttle setting should be reduced to approximately three-quarters power. Pump performance will then be reduced accordingly.



SPECIFICATIONS

Model	Inlet & Outlet (")	Fuel	Engine			Fuel		Dimensions (mm)			Weight (kg)
			Type	Capacity (cc)	Max Power (HP)	Tank (ltr)	Consumption (l/hr)	L	W	H	
DC 50E/DC 50P	2	Petrol	LV210/GK210P	208/210	7.0	3.6	1.7	475/450	375	375	23
DC 80P	3	Petrol	GK210	212	7.0	3.6	1.7	510	385	435	25
DC 80D	3	Diesel	LA178F	296	6.0	3.5	1.5	540	440	510	43
DC 100D	4	Diesel	LA186F	406	10.0	5.5	2.5	590	450	530	64
DCX1 50P	2	Petrol	GK210	212	7	3.6	1.7	490	400	422	27
DCX1 80D	3	Diesel	LA186F	406	10	5.5	2.0	645	475	605	62
DCX2 50P	2	Petrol	GK210	212	7	3.6	1.7	490	400	422	28
DCX2 50D	2	Diesel	LA178FP	296	5.4	3.5	1.3	540	440	540	47
DCT 80D	3	Recoil	LA178FP	406	10	3.5	1.5	590	450	530	65
DCT 150D	6	Electric	LA290	954	20	28	4	920	560	800	180
DCI 80D	3	Diesel	LA186	406	10	5.5	2.5	545	475	605	73



2. SAFETY WARNINGS

	Read and carefully understand the Instruction Manual before use.
	Avoid proximity to fire when refueling. Highly inflammable!
	Ensure good ventilation around the pump and do not operate indoors. Exhaust gases are very poisonous.
	Do not operate pump inside a well or pit. There will be an exhaust gas build up and the pump will overheat.
	Do not use pump on a slope. Fuel spillage may occur and cause a fire.
	Do not restrict the exhaust silencer. There is a danger of overheating and fire.

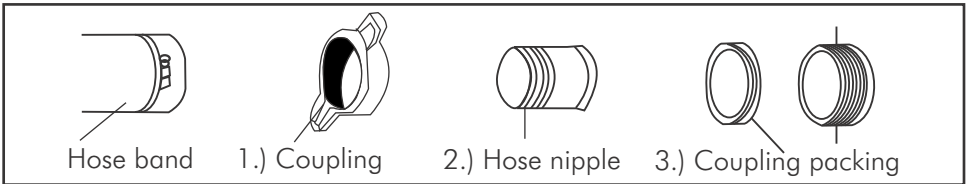
	<p>Keep children away from pump when in operation.</p>
	<p>Ensure a competent trained person is used in case of overhaul.</p>

3. SUCTION HOSE CONNECTIONS



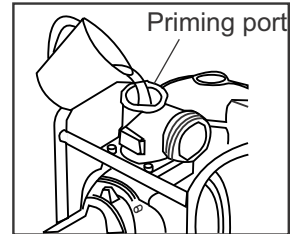
Airtight connection of the suction hose is essential or suction prime will be lost and the pump won't operate.

- Ensure the suction hose is of the rigid type and it should be of the same diameter as the pump inlet and fitted with the correct connectors.
- Connect suction hose to the pump as indicated.



4. PUMP OPERATION

- CHECK ENGINE OIL. Operating without oil will cause severe engine damage and invalidate the warranty.
- Fill the pump chamber to overflowing with water through the priming port. Insufficient water will cause pump damage and limit suction performance.
- Check that the suction hose strainer is immersed in water and above the water source bed to avoid sucking mud, silt or sand. The foot valve must be set not less than 300mm below the water surface.
- Ensure the delivery hose is unimpeded and laid without obstruction or kinks to the delivery point.
- Start engine by pulling starter cord. Ensure ignition switch 'on', fuel valve 'on' and throttle at max speed. Close fuel valve whenever pump is not operating.
- Suction lift should be minimised to obtain maximum pump performance. Maximum suction lift is 8m at sea level, though for acceptable pump performance it should be limited below 4m.
- Ensure the delivery head is within the performance capacity of the pump (see pump curve).



5. ROUTINE MAINTENANCE

For Diesel pumps see separate engine manual. The below instructions apply to petrol versions only.

ENGINE OIL

Check engine oil daily. If low refill with SAE30.

Change engine oil after first month or after 20hrs operation and thereafter every 3 months or 50 hours of operation, in both cases whichever is sooner.

AIR CLEANER

Check the air cleaner every 3 months or after 50 hours operations, whichever is sooner. Clean by blowing away accumulated dust and soaking in kerosene.

SPARK PLUG

A correctly set spark plug in good condition is essential for efficient engine operation. Check the plug every 3 months or after 50 hours operation, clean with a wire brush and set the electrode gap to 0.7-0.8mm. If general conduction is unsatisfactory it should be changed with a NGK (BPR5ES) or similar.

PUMP HOUSING

Drain water from pump housing after use by releasing the drain plug.

6. TROUBLE SHOOTING

PROBLEM

POSSIBLE CAUSE

SOLUTION

Cannot pull or hard to pull Recoil starter

Rusting inside engine

Overhaul Engine

Engine jammed

Jammed Impeller

Dismantle & clean the impeller

Insufficient delivery or no output

Delivery head exceeds pump capacity

Reduce delivery head

Air leakage from suction side

Specify different pump

Output power down from engine

Check suction hose

Suction lift is high

Check and Repair engine

Suction pipe is too long or small in diameter

Reduce suction lift

Leakage of water from delivery hose or pipe

Shorten suction pipe or enlarge diameter

Blocked Impeller

Check delivery hose

Worn impeller

Dismantle & clean the impeller

Replace impeller

Pump does not prime water

Air in suction line

Check suction piping

Insufficient priming water inside pump casing

Add water to prime pump

Drain plug is not tightened

Tighten drain plug

Low engine speed

Adjust engine speed

Damaged mechanical seal

Replace mechanical seal

Incorrect suction hose

Replace suction hose

Engine does not start

Carburettor is blocked

Clean carburettor

Spark plug is wet / dirty

Clean and adjust plug

Air cleaner dirty

Clean air cleaner

Too much engine oil

Adjust engine oil to suitable level

Insufficient engine oil

Oil sensor is activated. Add oil (oil sensor prevents engine from running if oil level is low)

No fuel

Check fuel cock if open

Oil leakage from muffler or air cleaner

Engine has tipped over

Right engine & allow oil to drain

7. TERMS OF WARRANTY

i) General Liability

- In lieu of any warranty, condition or liability implied by law, the liability of Davis & Shirliff (hereafter called the Company) in respect of any defect or failure of equipment supplied **is limited to making good by replacement or repair** (at the Company's discretion) defects which under proper use appear therein and arise solely from faulty design, materials or workmanship within a specified period. This period commences **immediately after the equipment has been delivered to the customer** and at its termination all liability ceases. Also the warranty period will be assessed **on the basis of the date that the Company is informed of the failure.**
- This warranty applies solely to equipment supplied and **no claim for consequential damages**, however arising, will be entertained. Also the warranty specifically excludes defects caused by fair wear and tear, the effects of careless handling, lack of maintenance, faulty installation, incompetence on the part of the equipment user, Acts of God or any other cause beyond the Company's reasonable control. Also, any repair or attempt at repair carried out by any other party **invalidates all warranties.**

ii) Standard Warranty

General Terms

If equipment failure occurs in the normal course of service having been competently installed and when operating within its specified duty limits warranty will be provided as follows:-

- **Up to six months - The item will be replaced or repaired at no charge.**
- **Over 6 months, less than one year - The item will be replaced or repaired at a cost to the customer of 50% of the Davis & Shirliff market price.**

The warranty on equipment supplied or installed by others is conditional upon the defective unit **being promptly returned free to a Davis & Shirliff office** and collected thereafter when repaired. No element of site repair is included in the warranty and any site attendance costs will be payable in full at standard chargeout rates. Also proof of purchase including the purchase invoice must be provided for a warranty claim to be considered.

DAYLIFF is a brand of **Davis & Shirliff**

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for details of the nearest branch or stockist