



DC Engine Pumps



DC80D



DCX150P



DC80P

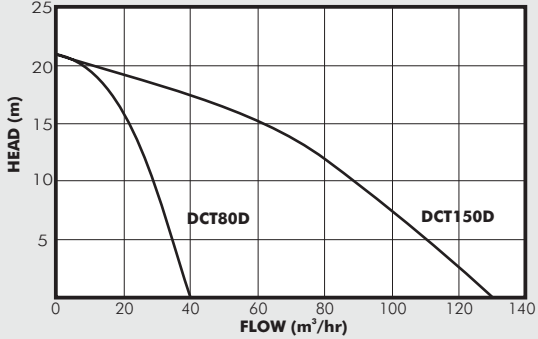
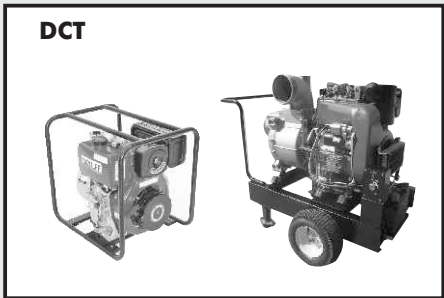
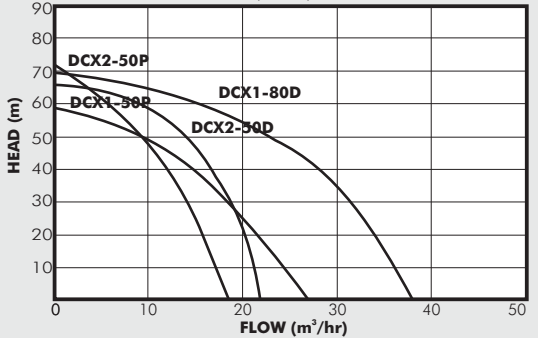
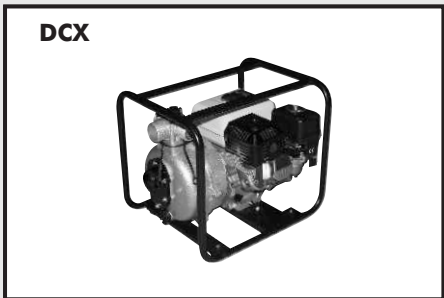
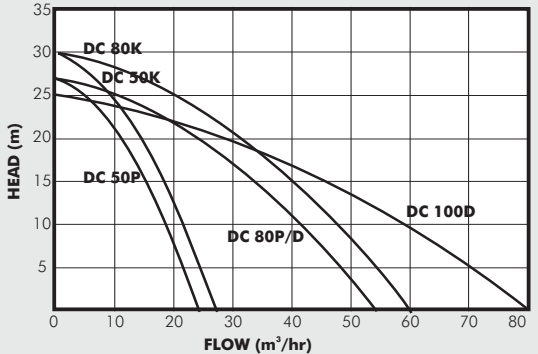
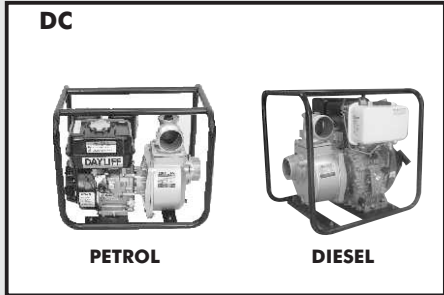
Installation & Operating Manual

INDEX

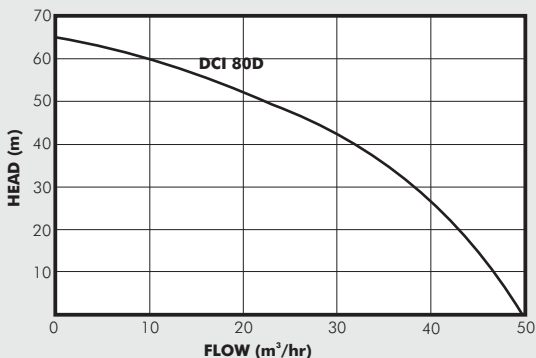
1. PUMP SPECIFICATIONS	1
2. SUCTION HOSE CONNECTIONS	3
3. PUMP OPERATIONS	4
4. ROUTINE MAINTENANCE	4
5. SAFETY WARNINGS	5
6. TROUBLE SHOOTING	6
7. WARRANTY	7

Thank you for choosing Dayliff DC engine pump. Both pump and engine have been manufactured to the highest standards and if operated correctly should give many years of efficient and trouble free service. Careful reading of this instruction manual is therefore extremely important and if you have any queries please refer them to your retailer.

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.

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 relate to the engine governor set at maximum speed 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.

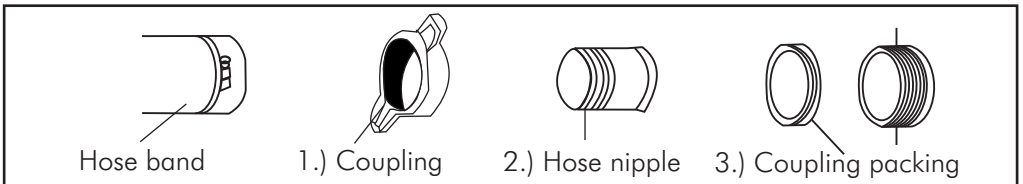
Model	Inlet & Outlet	Fuel/ Starter	Engine			Fuel		Dimensions (mm)			Gross weight (kg)
			Type	Capacity (cc)	Max. Power (HP)	Tank (ltr)	Consumption (lt/hr)	L	W	H	
DC 50P	2"	Petrol	LT200P	163	7.0	3.6	2.1	475	375	375	23
DC 50K	2"	Petrol	Kohler Sh265	196	6.5	3.6	1.96	480	395	384	23
DC 80P	3"	Petrol	LT200P	163	7.0	3.6	2.1	520	385	422	25
DC 80K	3"	Petrol	Kohler Sh265	196	6.5	3.6	1.96	520	385	422	25
DC 80D	3"	Diesel	LA178F	296	6.0	3.5	1.5	540	440	510	43
DC 100D	4"	Diesel	LA178F	406	10.0	5.5	2.5	590	450	530	64
DCX1 50P	2"	Petrol	LT200P	196	6.5	3.6	1.8	490	400	422	27
DCX1 80D	3"	Diesel	LA186F	406	10	5.5	2.0	645	475	605	62
DCX2 50P	2"	Petrol	LT200P	196	6.5	3.6	1.7	490	400	422	28
DCX2 50D	2"	Petrol	LA178FP	296	5.4	3.5	1.3	540	400	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	LA180	406	10	5.5	2.5	545	475	605	73

2. SUCTION HOSE CONNECTIONS



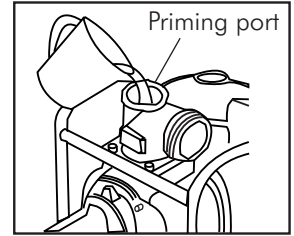
Airtight connection of the suction hose is essential or suction prime will be lost and the pump won't operate.

- 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.



3. 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).



4. 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 the 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.

5. SAFETY WARNINGS

		<p>Read and carefully understand the Instruction Manual before use.</p>
		<p>Avoid proximity to fire when refueling. Highly inflammable!</p>
		<p>Ensure good ventilation around the pump and do not operate indoors. Exhaust gases are very poisonous.</p>
		<p>Do not operate pump inside a well or pit. There will be an exhaust gas build up and the pump will overheat.</p>
		<p>Do not use pump on a slope. Fuel spillage may occur and cause a fire.</p>
		<p>Do not restrict the exhaust silencer. There is a danger of overheating and fire.</p>
		<p>Keep children away from pump when in operation.</p>
		<p>Ensure a competent trained person is used in case of overhaul.</p>

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
	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

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 month, less than a 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 & Shirtliff**

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www.dayliff.com

for details of the nearest branch or stockist