

Digital Hydraulic Testers

Remote Input of Flow, Temperature and Speed

**Up to 125 lpm
Up to 420 bar
Bi-Directional**



Model DHC 50

The DHC Series Digital Tester with remote input accurately measures flow, pressure, temperature and speed. The tester conveniently checks the performance of the Hydraulic System and helps to quickly locate faults. The tester comprises of a turbine flowblock and large easy to read digital display which shows both flow and temperature. Speed and remote flow are selected by a switch when required. The flow readout is scaled in lpm, gpm and US gpm, selected by a push button.

The remote flow input can be easily calibrated by the operator for any Webster flow block. The remote input feature allows main hydraulic circuits and drain leakage flows to be measured simply at the turn of a switch.

Webster testers are designed for continuous monitoring or intermittent use commissioning and servicing hydraulic systems up to 420 bar, 6000 psi pressure.

Optional accessories for the tester include a phototachometer kit and a pressure loading valve with internal by-pass safety disc.

Features

- **ACCURATE** measurement of flow, with automatic linearisation giving an accuracy of 1% of reading over a wide range.
- **SAFE** to use in both directions of flow, Internal oil by-pass protects system, tester and operator against over-pressure.
- **BI-DIRECTIONAL** for unrestricted connection and simplified testing.
- **FAST** checks on pumps, valves, motors, cylinders; hydrostatic transmissions.
- **REMOTE INPUTS**
 - 1 - Flow
 - 1 - Temperature
 - 1 - Speed
- **ECONOMICAL** low power consumption from standard battery with automatic "Power Off".
- **PORTABLE AND LIGHTWEIGHT** with robust steel construction

Another quality product from the Webster Range

Specifications

Model No	Part No.	Normal Flow Range			Max. Flow Range LPM	Pressure Range	Temp Range
		LPM	GPM	US GPM			
DHC 50	FT6602-6	10- 60.0	2.2-12.0	2.6-15.0	2-60	0-420 bar	0-120 °C
DHC 125	FT6603-6	10-125.0	2.2-25.0	2.6-30.0	5-150	0-420 bar	0-120 °C

Connections

By flexible hoses (1 - 2 metres recommended length)
Inlet and Outlet ports.

DHC 50 3/4" BSPF
DHC125 314" BSPF

Adaptors

Adaptor Fitting Kit Part No. FT 6138 comprising 6 male-male adaptors and 2 bonded seals to provide 3/4" BSPF, 1/2" BSPF, 3/8" BSPF, Male connections.

Measurement and Indication

Flow

Measured by the electronic count of an axial turbine designed to minimise the effects of variation in temperature and viscosity. The large digital display reads in either lpm, gpm or US gpm, selected by push button and indicated by a cursor arrow on the display.

Accuracy $\pm 1\%$ of reading over normal flow range.

Pressure

Glycerine filled dual scale pressure gauge 0 - 420 bar, 0 - 6000 psi connected by capillary tube to the flowblock.

Accuracy $\pm 1.6\%$ of full scale.

Temperature

Sensed by a thermistor pick-up in the oil flow for fast response. Temperature is permanently displayed in °C or °F for either internal or external flow block.

Accuracy $\pm 1\text{ }^{\circ}\text{C}$, 2°F .

Speed

Rotational speed of motors shafts etc., can be measured by optional phototachometer programmed for one or more reflective marks.

Range 300-6000 rpm

Accuracy $\pm 1/4\%$ of full scale with one count per revolution.

Construction

Readout

DHC Testers are microprocessor based instruments providing flexibility and high accuracy with varying oil viscosity.

Data presentation is by 8 digit liquid crystal display with 8mm (0.32") high characters. Temperature is permanently displayed and internal / external flow or speed is selected by the rotary switch. Flow is scaled in LPM, GPM and US GPM. The readout is programmed to refresh the display each second.

"Fast" update 1/3 second, can be selected to show changing flow conditions when testing relief valves etc. Low power micro-circuitry minimises battery consumption while the tester is working and in case the operator forgets, an automatic switch turns the power off one hour from the last operation. The standard 9 volt battery is available worldwide and gives typically 6 months normal testing.

General

Loading Valve

Optional, the HV1 00 Loading Valve is directly connected to the Turbine Block to give progressive pressure loading in either flow direction. Replaceable safety discs relieve at 440 bar to internally by-pass the oil if the maximum pressure is exceeded.

Remote Inputs

An additional flow block can be connected into the panel. This input can easily be calibrated for any Webster flow block by switching to program mode and keying in the required calibration value supplied with each block.

Seals

Viton seals compatible with oil, water/oil emulsion are fitted as standard. EP seals for phosphate-ester are available to special order.

Operators Manual

Full instruction manual supplied with the tester.

Accessory Equipment

DHC Testers can be used with a wide range of accessories. tachometer, Loading Valve and Low Pressure Gauge. Please refer to the Optional Equipment Section.

Dimensions

191mm Wide, 225mm High, 84mm Deep, Mass 4kg.

How To Order

Specify model from table above together with optional equipment and adaptor fitting kit as required e.g. DHC125 with HV1 00, THi A, BAI 0, FT61 38 and FT5539 is a 10-125 lpm tester with loading valve, tachometer, magnetic base, adaptor kit and carrying case.



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