

# HT 2 Series Analogue Hydraulic Testers

Measure Flow, Pressure and  
Temperature

Input for remote speed measurement

- Up to 800 lpm
- Up to 480 bar
- Bi-Directional



*HT 2 Series Analogue  
Hydraulic Tester*

The Webster HT 2 Series Analogue Hydraulic Testers are designed for testing hydraulic pumps, motors, valves and hydrostatic transmissions. This easy to use diagnostic unit can pin point hydraulic system faults, reducing downtime and help in preventive maintenance.

Accurately measuring flow, pressure and temperature, testers are ideal for conveniently checking, hydraulic system performance or locating faults while operating directional control valves or adjusting valve settings. Webster turbines are designed for continuous monitoring or intermittent use commissioning and servicing hydraulic systems up to 480 bar, 7000 psi pressure.

The pressure loading valve with internal by-pass safety discs, allows progressive build up of pressure to check the flow throughout the working range.

## Features

- **ACCURATE** measurement of flow, pressure, temperature and speed.
- **BUILT-IN** loading valve.
- **BI-DIRECTIONAL** for unrestricted connection and simplified testing.
- **SAFE** to use in both directions of flow. Internal oil by-pass protects the tester and system against overpressure.
- **ECONOMICAL** low power consumption from standard battery. Automatic "Power Off".
- **PORTABLE AND LIGHTWEIGHT** with angled case for easier viewing and cleaning.
- **INFRA-RED PHOTOTACHOMETER** with 'On Target' Indicator.

***Another quality product from the Webster Range***



# Distributor

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## Specifications

Model Number	Flow Range (lpm)	Flow Scales (lpm)		Pressure Range (bar)	Temperature Range (°C)	Speed (rpm)	Inlet/Outlet Ports
		Low	High				
HT302-B-6	8 - 300	0 - 75	0 - 300	0 - 420	10 - 120	300 - 3000	1" BSPF
HT402-B-6	10 - 400	0 - 100	0 - 400	0 - 420	10 - 120	300 - 4000	1" BSPF
HT602-S-7	20 - 600	0 - 150	0 - 600	0 - 480	10 - 120	300 - 6000	1-7/8" -12 UN
HT802-S-7	20 - 800	0 - 200	0 - 800	0 - 480	10 - 120	300 - 5000	1-7/8" -12 UN

### Connections

By flexible hoses (1 - 2 metre minimum length) care should be taken to avoid constrictions at the inlet or outlet port.

### Adaptors

Adaptor Fitting and flanges are available to suit the range of flow blocks. Consult the sales office

## 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 analogue readout meter has high / low scales selected by a switch.

**Accuracy** ± 1% of full scale

### Pressure

Glycerine filled dual scale pressure gauge 420 bar/6000 psi (480 bar for HT602/802) connected via a shuttle valve built into the flow block thereby always indicating the high pressure side of the valve regardless of flow direction.

**Accuracy** ± 1.6% of full scale.

### Temperature

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

**Accuracy** ± 2°C.

### Speed

Rotational speed of motors, shafts etc., can be measured by optional infra-red phototachometer using one or more retro-reflective marks.

Range: See Table.

**Accuracy** ± 2% of full scale.

## Construction

### Readout

HT Series Testers comprise a turbine flow block, pressure gauge and temperature sensor built into a steel case complete with read-out panel, selector switch, integral loading valve and connections for optional infra-red tachometer. For clear accurate readings the tester has both High and Low scales.

Low power micro-circuitry minimises battery consumption. An automatic switch turns the power off one hour after the last operation. The standard 9 volt battery is available worldwide and gives 12 months of normal testing.

### Turbine Block

High tensile aluminium block houses a six blade turbine rotating on a stainless steel bearing and shaft. Built-in flow straightener reduce turbulence and allow accurate flow measurement in both directions.

## General

### Loading Valve

The integral loading valve gives progressive pressure loading in either flow direction. Replaceable safety discs relieve to **internally by-pass** the oil if the maximum pressure is exceeded by ~ 5%. Safety discs with different pressure ranges up to 480 bar are available. Consult sales office for further information.

### Seals

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

### Dimensions (Millimetres)

**HT302/402:** 240 Wide, 200 Deep, 200 High

Weight: Unpacked 6.5 kg, Shipped 7 kg (Approx)

**HT602/802:** 245 Wide, 225 Deep, 225 High

Weight: Unpacked 10 kg, Shipped 11 kg (Approx)

### Operators Manual

Full instructions are supplied with each tester.

### Accessory Equipment

HT testers can be used with a wide range of accessories e.g. infra-red Phototachometer and low pressure gauge. For further information, see the optional equipment section.

### How to Order

Specify model from table above together with any optional equipment and adaptor fitting kit as required e.g. HT402-B-6 tester with tachometer adaptor kit.



Certificate No.8242