

# Hydraulic Test Bench

## HTB Hydraulic Test Bench



### Description



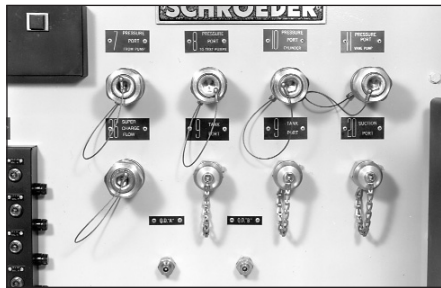
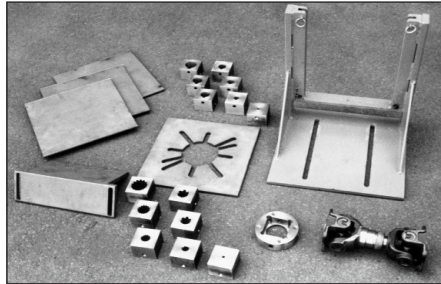
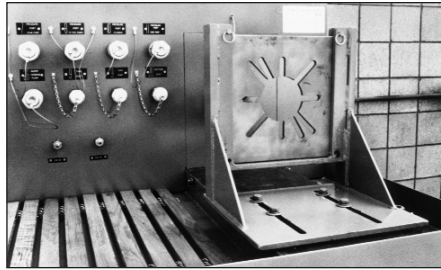
The Schroeder Model HTB hydraulic test bench is the ultimate diagnostic tool, capable of thoroughly testing a vast array of new or rebuilt components and subassemblies prior to their installation in a working system. Test bench instrumentation has been designed to make diagnosis fast and accurate, with virtually no requirement for connecting external instruments. The bench panel includes a digital flow gauge, a tachometer to measure the speed of tested pumps or motors, and a reservoir temperature gauge. Individual gauges measure pressure on the test bench main pump, the pump or motor being tested, the test bench load pump, the cylinder and valve pressure port, and the test bench super charge pump.

Every HTB includes efficient Schroeder hydraulic filters to keep the bench oil at optimum cleanliness, providing assurance that newly rebuilt components will not be subjected to harmful levels of dirt. To keep filters operating at peak efficiency, the instrument panel includes a red pilot light that signals the operator when any bench filter needs a new element.

These benches have been refined for over 30 years by Schroeder engineers, based on the comments and requests of over 700 test bench owners. The versatile hydraulic circuitry present in each of the three models can shorten troubleshooting time and take the guesswork out of diagnoses. Current models are powerful, compact units that pay for themselves quickly in saved maintenance time and expenses.

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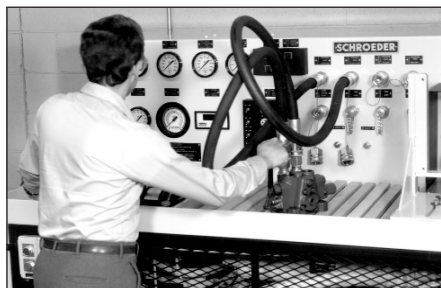
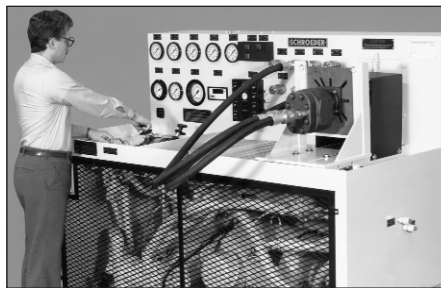
- An ingenious universal mounting bracket makes mounting pumps and motors on the bench a simple, quick operation
- Mounting plates are furnished to accommodate flange-mounted and foot-mounted pumps or motors
- Drive adapter equipment includes inserts for keyed shafts, an insert chuck and a universal drive shaft
- Quick disconnect porting on the bench provides convenient hook-up for test components
- Includes a factory-trained technician for a two-day, on-site training session
- Two complete operating manuals are supplied with each bench
- Kits and spare parts available for upgrades and maintenance



**Pumps and motors** can be tested dynamically. Pump and motor testing is aided by the wide speed and torque ranges built into the bench and by the universal mounting bracket and mounting accessories that come with the bench. An open loop hydrostatic variable volume hydraulic system provides the power and speed control for the drive shaft. Motors can be dynamically tested, under load, for operating efficiency. Pumps can be tested for external leakage and volumetric efficiency in either direction, at speeds from 100 to 2400 rpm. The test bench can also be used to break-in pumps and motors to manufacturer's specifications before they are installed in a system.

**Cylinder leaks** are easy to find. Double-acting cylinders may be cycled, and tested for both internal and external leakage at any point of piston travel. Scored cylinder walls and defective packing are easily detected. Single-acting cylinders are tested at maximum stroke.

**Valve testing** time is minimized. Pressures can be set, external and internal leakage spotted, flow and pressure data can be generated and checked against operating requirements and overall valve efficiency determined. Optional electrical and pilot pressure supplies are available on the bench for testing solenoid-actuated and pilot-operated valves.



## Features

- TCM
- TCM-FC
- TSU
- TMU
- TPM
- TIM
- TMS
- CTU
- TWS-C
- ET-100-6
- HMG 3000
- EPK
- HTB**
- GS

Trouble  
Check Plus

Test Points

Adapters

Hose  
Joiners

Microflex  
Hose

## Applications

Pressure  
Limiters

Pressure  
Gauges

Test Kits

Probalizer

Filtration  
Station

MFS, MFD

AMS, AMD

KLS, KLD

AKS, AKD

KLC

X Series

MTS

HFS

SVD

TDS-A

TDS-E

IXU

Appendix

# Hydraulic Test Bench

**HTB**

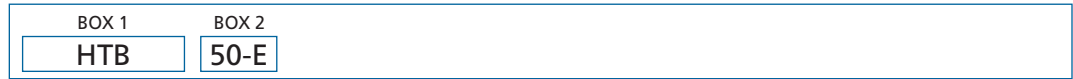
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## Specifications and Model Numbers

### How to Build a Valid Model Number for a Schroeder HTB:



**Example:** NOTE: One option per box



BOX 1	BOX 2
Model Number	Options
HTB	50-E 100-E 150-E

Notes: Box 2: See chart for explanation of options.

	Model HTB-50-E	Model HTB-100-E	Model HTB-150-E
Speed Range <i>in either direction</i>	100 to 2400 rpm	100 to 2400 rpm	100 to 2400 rpm
Power Available <i>For testing pumps</i> <i>Expressed torque</i>	275 ft-lbs to 1200 rpm	458 ft-lbs to 1200 rpm <i>(decreasing proportionately to 2400 rpm)</i>	670 ft-lbs to 1200 rpm
<i>Expressed in horsepower</i>	60 hp at 1200 rpm	115 hp at 1200 rpm <i>(with constant hp to 2400 rpm)</i>	150 hp at 1200 rpm
Test Pressure	0 to 5000 psi (345 bar)	0 to 5000 psi (345 bar)	0 to 5000 psi (345 bar)
Test Motor Load <i>Maximum in either direction</i>	275 ft-lbs	458 ft-lbs	670 ft-lbs
Electrical Drive <i>Motor-230/460V, 1800 rpm;</i> <i>3 phase, 60 hertz.</i> <i>A start-stop push button is mounted on the bench.</i> <i>Starter(s) is/are not included. Customer must advise</i> <i>type of starter(s) and service voltage he will use.</i>	50 hp	100 hp	100 hp and 50 hp
Hydraulics			
<i>Main Bench Pump</i> <i>(variable piston)</i>	23 gpm/5000 psi (87 L/min/345 bar)	38 gpm/5000 psi (144 L/min/345 bar)	38 gpm/5000 psi (144 L/min/345 bar)
<i>Auxiliary Main Pump</i> <i>(variable piston)</i>	N/A	N/A	23 gpm/5000 psi (87 L/min/345 bar)
<i>Supplemental Pump</i>	20 gpm/2000 psi (76 L/min/138 bar)	20 gpm/2000 psi (76 L/min/138 bar)	20 gpm/2000 psi (76 L/min/138 bar)
<i>Pressure and Return Ports</i>	1" quick disconnects	1" quick disconnects	1" quick disconnects
<i>Suction Porting</i>	1" & 2" quick disconnects	1" & 2" quick disconnects	1" & 2" quick disconnects
<i>Flow Gauge Scales</i>	Three Scales: 2 to 14; 8 to 36; 24 to 100 gpm (all models)		
<i>Reservoir Capacity</i>	100 gallons (378 L)	100 gallons (378 L)	200 gallons (757 L)
General	Full flow 3 micron filtration maintains excellent system cleanliness level; bench includes a 30" x 30" work pan, oil level gauge, fill cap mesh strainer, digital tachometer.		
Bench Dimensions and Weight	62" H x 76" L x 43" W 4100 lbs (1860 kg)	62" H x 76" L x 43" W 4500 lbs (2041 kg)	62" H x 76" L x 55" W 6000 lbs (2722 kg)  Auxiliary Power Unit 30" H x 50" L x 30" W 900 lbs (408 kg)

## Accessories



- Suction and pressure hose and fittings group (contains hose connection with female quick disconnects on both ends, plus a series of separate national pipe thread, straight thread, and SAE four-bolt flange adapters, ranging in size from 3/8" through 2", equipped with male quick disconnects) (A-TB-2170)
- Oil cooler (A-TB-1661)
- Solenoid and pilot-operated valve test group (A-TB-1738)
- Spline shaft adapter kit (A-TB-2172)
- Jib crane (A-TB-1739)
- Fully digital instrumentation package (contact factory)