

# Technician 7.5

## Diesel Fuel Injection Pump Calibration Stand



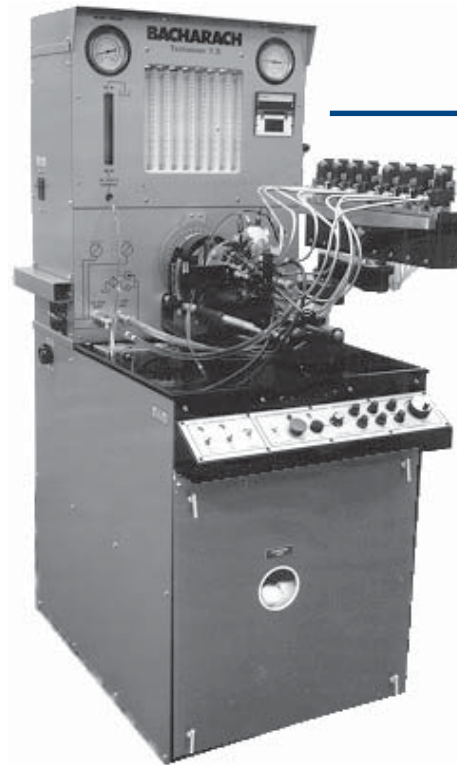
### Features

- 7.5 HP AC Motor and Variable Frequency Controller.
- Continuously variable speed 70-3500 RPM.
- Rotary dial speed control with six preselectable speeds.
- Single block accumulator, mountable on either side of stand.
- Provides minimum restrictions for testing Cummins pumps.
- Return fuel flowmeter 140-1400 cc/min.
- Dual mode digital tachometer and stroke counter.
- 8 acrylic pyramidal measuring graduates.
- Zero backlash flexible coupling.
- Oil resistant heavy duty push button switches.

### Description

The Technician 7.5 is a diesel injection pump calibration stand designed to calibrate light to medium duty injection pumps used in agricultural, automotive and construction applications. Its low cost, compact design and simple operation make the Technician 7.5 an ideal choice for a new or expanding diesel fuel injection shop.

The Technician 7.5 is driven by a 7.5 HP AC Motor and Variable Frequency Controller. The speed is controlled by a rotary potentiometer.



All controls are conveniently located on the calibration stand console panel. The gauges are at eye level and have English and metric scales. The calibration fluid collection and measuring system consists of a swiveling single block accumulator, attachable to either side of the calibration stand, feeding into 8 graduates of 160 cc capacity. The calibration fluid tank cover has a spout with a built-in dipstick for measuring fluid level.

### Specifications

#### Drive

- 7.5 HP main drive motor.
- Variable frequency AC motor controller with braking; field programmable with self diagnostics.
- Rotary dial speed control with six preselectable speeds.

- Backlash free flexible coupling; laminated disc design (Light Duty).
- Flywheel moment of inertia:  $WR^2 = 1145 \text{ lb. in}^2$  (0.336  $\text{kgm}^2$ ).
- Acceleration/Deceleration factory set at 200 RPM/Sec.

#### Calibration Fluid Supply System

- Meets Cummins minimum flow restriction requirements for high flow pumps.
- Reservoir capacity 13 gallons (50 liters).
- Large 10 micron submersed reservoir filter.
- Automatic temperature control of calibration fluid to  $\pm 1^\circ\text{C}$  ( $\pm 1.8^\circ\text{F}$ ); heating by electric submersible heaters, cooling by flowing tap water through copper finned tubing in reservoir.



- Transfer pump driven by a separate 1/3 horsepower motor at a rate of 150 GPH (9.5 liter/min) at zero pressure; valves for controlling fuel supply pressure and for suction testing of injection pumps with integral transfer pumps.

### Instrumentation

- Dual mode digital tachometer and stroke counter, automatic shift from tachometer to stroke count; accuracy  $\pm 1$  RPM,  $\pm 1$  count.
- Compound pressure/vacuum gauge, range: 0-30" Hg (0-76 cm Hg) vacuum; 0-100 psi (0-6.9 bar) pressure; measured in fuel supply line.
- Fuel inlet temperature gauge: Range 40° - 140°F (5-60°C).

### Calibration Fluid Collection and Reading

- Single block 8 unit accumulator.
- Accumulator mounts on either side of stand for ease of pump connection.
- Accommodates "S" and "T" size nozzles.
- 8 collection graduates, 160 cc clear acrylic pyramidal design with 0.5 cc subdivisions 0-35 cc and 1 cc subdivisions from 35-160 cc.
- Manually operated graduate drain

### Dimensions/Weight

- Width: 28" (.71m)
- Height: 68" (1.73m)
- Depth: 40" (1.02m)
- Weight: 1200 lbs (545 kg)

### Services Required

- Electrical: 230 volts, 3 phase, 60 Hz, 50 amperes (standard).
- Water: Cold tap, approximately 1.2 GPM (4.5 liter/min), gravity drain.

### Accessories

- Common hardware, fittings and hoses included.
- Accessories consisting of mounting brackets, fuel lines, test nozzle holders, adapter rings, drive hubs and fittings are available for a wide variety of fuel pump applications. Consult the Accessory Set and Fuel Line Summaries for specific requirements.
- The dimension of the drive shaft centerline to the centerline of the mounting rails (11.25", 26 cm) permits use of accessories from other early production rail mount Bacharach stands.
- Final Stage Filter and Gauge Kit 67-7610: Contains hoses, spin-on 2 micron filter, mounting hardware including gauge (range 0-100 psi, 0-7 kg/cm<sup>2</sup>) for customer installation.
- Pressure Lube System 67-7227: Complete with self-contained lube supply, filter, hoses and quick disconnects.
- Portable High Pressure Timing Unit 72-7010 and High Pressure Valves (8) 67-2824: Contains high pressure pump and reservoir with separate filter. Required for timing and phasing many in-line multi-plunger injection pumps.

### Ordering Information

- 67-7682** Technician 7.5 230V, 3 Ph. 60 Hz (Note 1)
- 67-7683** Technician 7.5 460V, 3 Ph. 60 Hz (Note 2)
- 67-7684** Technician 7.5 380V, 3 Ph. 50 Hz (Note 2)
- 67-7685** Technician 7.5 208V, 3 Ph. 60 Hz
- 67-7686** Technician 7.5 220V, 3 Ph. 50 Hz

*Note 1: Standard production unit; stands with other voltages are available through special order.*  
*Note 2: Stands for 380V, 460V, and 575V also require a separate 20 Amp 220/230V, single phase, 50/60 Hz input.*



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