



PS MANUAL

STARTER TEST BENCH

1.0 Model **TB-1900S**

2.0 Description

Heavy Duty Industrial Starter Test Bench



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3.0 Features

- The Test Bench has Four major sections:

1. **Forward Control Panel:**

Mounted on the front of the traverse slide, the forward panel is ergonomically designed to ensure operator safety and ease of operation. Two separate starter operating push buttons are mounted on his panel and have to be pushed together. The safety feature keeps both hands safe and away from meshing pinions.

2. **Control Panel Top and Lower RH side:**

Digital meter displays, meter control and selection switches.

3. **Control Panel lower LH side and Centre:**

Battery Voltage selection switching bridge, battery warning light and output terminals.

4. **Transverse Slide and Input Gear:**

Simple design allows the starter to be quickly mounted and aligned with the input machine spindle and gear. Feed screw allows easy and accurate gear alignment.

- **Battery Isolation Solenoid Switch:** Main Battery is isolated by heavy duty solenoids which are activated by a single rocker switch mounted on the front consol.
- **Battery Isolation Light:** Indicates battery supply is connected and ready for testing.
- **Construction:** The rigid, ergonomically designed, free standing Test Bench frame, is constructed to allow perfect alignment and rigidity of the starter with reduced vibration while under test.
- **Battery Voltage Selector Switch:** The Three main voltages are 12Volt, 24Volt and "OTHER". by configuring batteries on "OTHER" to suit 6Volt or 32Volt allows testing of these units.

4.0 Physical and Dimensional Properties

- Each unit weighs approximately 400.0 Kg – in Crate 442.0Kg
- Width 1020 mm – in Crate 1210 mm
- Depth 950 mm – in Crate 1220 mm
- Height 1670 mm – in Crate 1890 mm

5.0 Performance

- Digital Volt Meter: 0-200 Volts DC, 3½ Digit display. Accuracy 0.25% ± 1 count.
Size: 96mm x 48mm. Two terminals are provided for connecting the Volt meter test leads.
- Digital Ammeter: 0-2000 Amps DC, 3½ Digit display. Accuracy 0.25%FS± 1 count.
Size: 96mm x 48mm. Ammeter is used to indicate current being delivered by the starter under test.



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- Digital Tachometer: 0-20,000 RPM Forward and Reverse, 3½ Digit display. Accuracy ± 10 RPM.
Size: 96mm x 48mm. By simply setting gear ratio switches, the automatic calculation circuit gives direct starter motor speed.
- Digital Load - Torque Meter: Ft Lb or Nm, 3½ Digit display. Accuracy ± 4 Nm or 5.5 Ft Lbs. Size: 96mm x 48mm Range 0 to ± 200 Nm or 0 to ± 271 Ft Lbs. Starter Motors under test gives direct imperial or Metric torque readings.
- Starter Gears Manufactured from high quality high carbon steel. Four gears are supplied as standard to cover the majority of applications, 33 Tooth, 36 Tooth, 39 Tooth, 59 Tooth, other custom gears to suit individual requirements available on request.

6.0 Uses

- Suitable for Automotive, Marine, Defence, Councils, TAFE.

7.0 Documentation

- Bar Code Number: **9346080001089**
- Product Specification Manual - PS 84
- Work Instruction Manual - WI 84
- Product Costing Manual - PC 84