

2008 Model Tester

Operating Instructions



Hydrajaws® Limited

Hydrajaws 2008 Pull-Out Tester

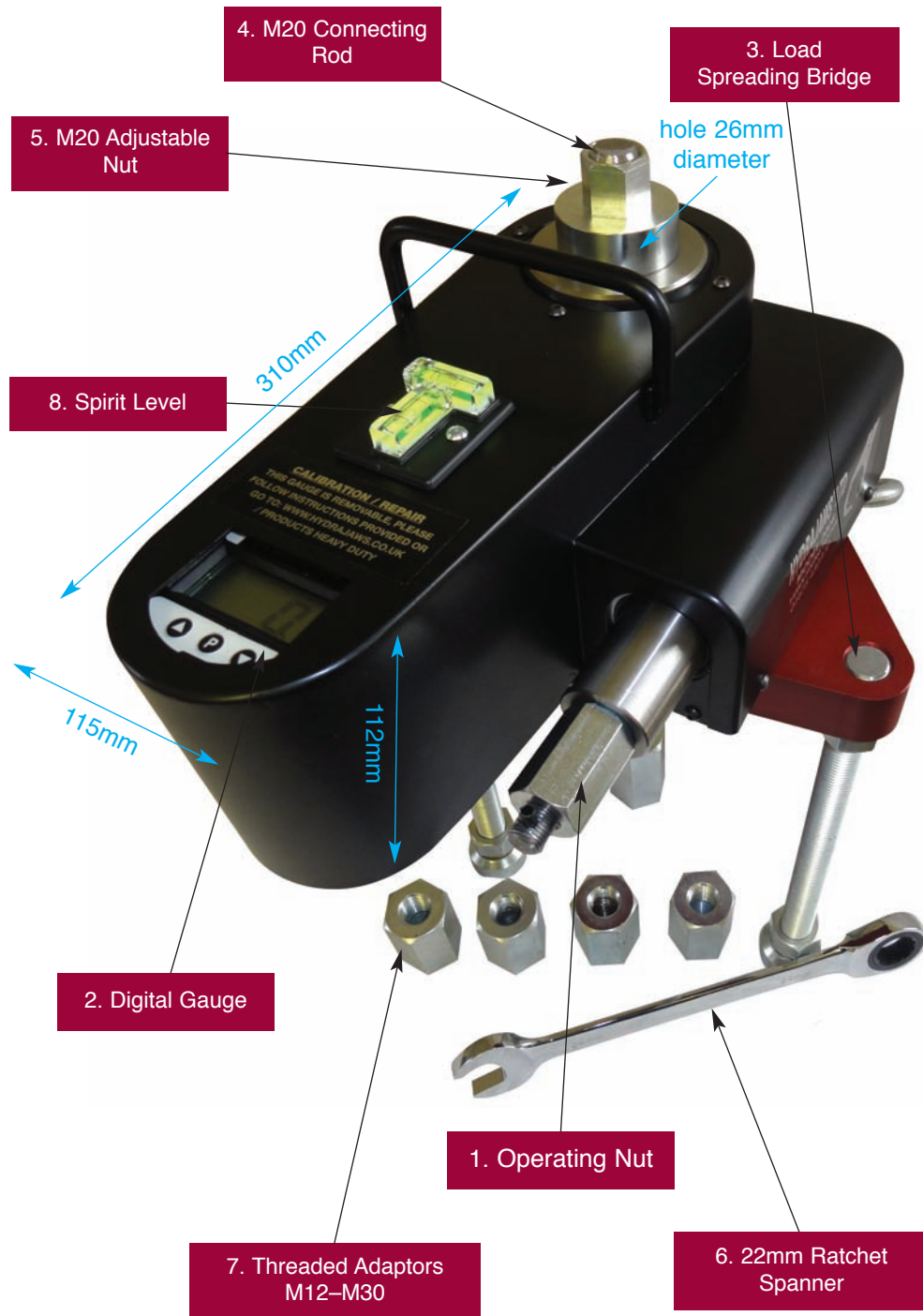


Figure 1

It is essential that the operating instructions are read before the tester is operated for the first time.

Always keep these operating instructions together with the tester.

Ensure that the operating instructions are with the tester when it is given to other persons.

Pull-out tester (Figure 1)

1. Operating nut
2. Digital gauge
3. Load spreading bridge
4. Connecting rod M20
5. M20 adjustable nut
6. 22mm ratchet spanner
7. Threaded adaptors M12-M30
8. Spirit level

Warning! Read the instructions before use!

CONTENTS

Description	1
General Operating Instructions	2-3
Changing the Battery	4
Calibration/Repair/Replacement of Gauge	4-5
Gauge Operating Instructions	6
Eyebolt Testing	7
Rebar Testing	8-9-10
Assembly to Larger Load Spreading Bridge	11

DESCRIPTION

The Hydrajaws model 2008 Heavy Duty Tester is designed for establishing linear loading of mechanical and resin anchors, eye type anchors, threaded bar, re-bar and structural bolts and fixings to a maximum load of 145kN.

USE OF THE TESTER AS DIRECTED

The tester is intended for use by skilled personnel with the appropriate training and knowledge of the applicable safety precautions.

SAFETY RULES



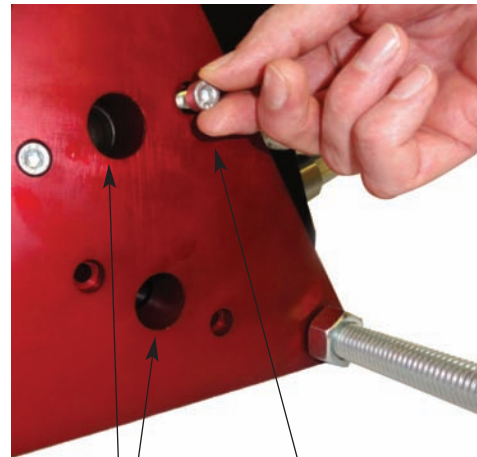
- Modification of the tester, or tampering with its parts is not permissible.
- Observe the information printed in the operating instructions applicable to operation care and maintenance.
- The tester and its accessories may present hazards when used incorrectly by untrained personnel or not as directed.
- Use only the genuine hydrajaws accessories or ancillary equipment listed in the operating instructions.

LOAD SPREADING BRIDGE

The lightweight triangular load spreading bridge has 2 mounting positions for the tester. The alternative mountings give two different close to edge testing distances in relationship to the fixing under test.

Attach the 3 x M20 legs to bridge and adjust the nut according to test required. Mount the tester in the required position and secure by inserting the cap screws provided through the underside of the bridge to connect with the threaded holes in the tester.

Figure 2



Two mounting positions for tester

Mounting screws to secure tester

SETTING UP FOR TEST

Position the tester and bridge over the fixing and using the M20 threaded rod pass this through the tester and bridge and connect to fixing using the threaded adaptors M12, M16, M20, M24 or M30.

Replace M20 adjusting nut on top of the threaded pull rod; adjust the travel on the 3 legs (with swivel feet) and the threaded pull rod so that the fixing under test remains connected with no movement between the connecting rod nut and the top of the tester.

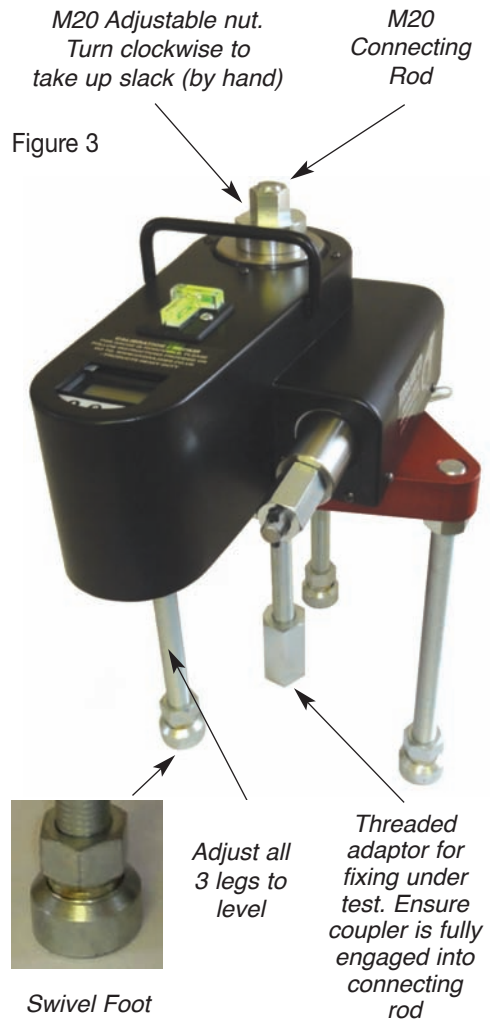


Figure 3

OPERATING THE TESTER

Switch the digital gauge on (see separate gauge operating instructions on page 6). Commence applying the load to the fixing by turning the hexagon nut on the end of the operating piston in a clockwise direction by hand until tight or reading appears on gauge.

Apply load using the ratchet spanner and observe the reading on the gauge until the required test load is reached. This reading could decay due to first movement or creep on the anchor. Continue to apply the load to the required reading and observe that the loading remains steady*. Should a serious drop in the indicated load occur again, the fixing is likely to be insecure and should be investigated.

*** DIGITAL GAUGES ARE VERY ACCURATE AND THE SECOND DECIMAL FIGURE MAY NOT ALWAYS REMAIN STEADY**

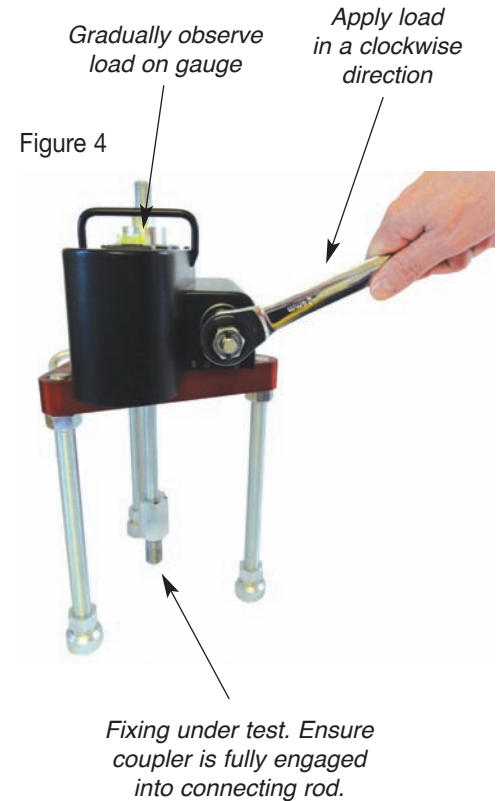


Figure 4

As the digital gauge is very accurate a drop off will be noticeable but this should stabilise after a period of time. If the reading continues to drop off, further investigation of the fixing would be required.

To release the load, reverse the ratchet ring spanner and turn the hexagon nut anti-clockwise and observe the load reading on the gauge until it approaches zero. Unwind the operating nut by hand until it is resting on the stop and unwind the adjustable nut and remove.

DO NOT CONTINUE TO UNWIND AGAINST THE STOP, OTHERWISE SERIOUS DAMAGE WILL OCCUR.

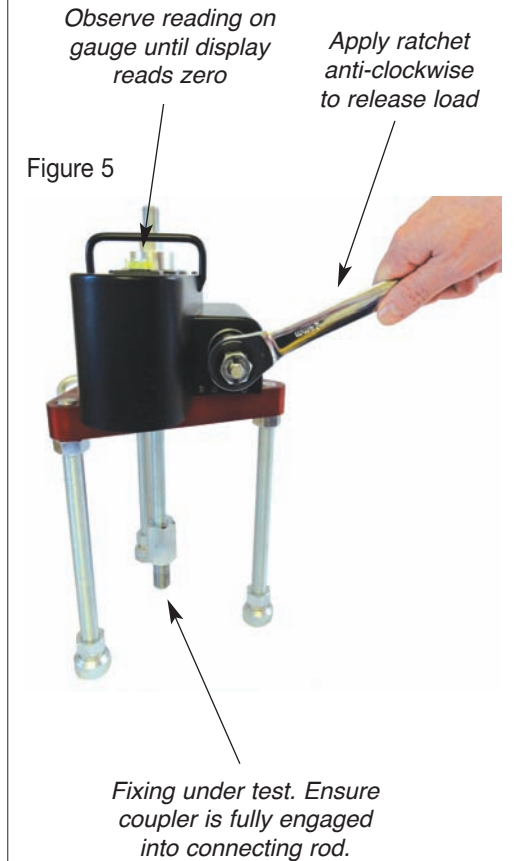
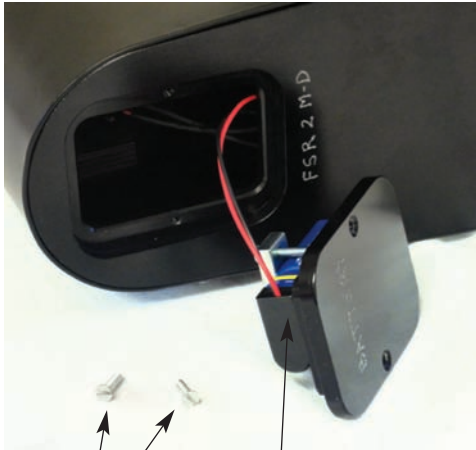


Figure 5

CHANGING THE GAUGE BATTERY

The battery (pp9) is changed by removing the battery cover (2 x M3 screws) in base of tester. Undo battery strap and remove battery by disconnecting. Replace battery and reassemble connections, do not over-tighten battery strap and replace cover.

Figure 6



x2 M3 screws

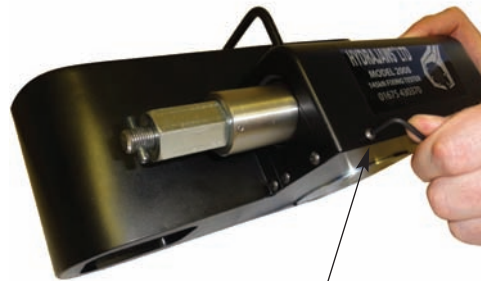
PP9 Battery

CALIBRATION / REPAIR / REPLACEMENT OF GAUGE

The gauge on this unit can be removed for calibration, repair or replacement, please follow the instructions below.

1. Remove the battery cover from the base by removing the x2 M2 screws and unplug the battery connection See Figure 6.
2. Using the 2.5mm allen key provided remove the 11 M4 button screws holding the cover to the base. See Figure 7.
3. Pull the cover off and remove the gauge from the quick release coupler. See Figures 8a, 8b, 8c and 9.
4. To re-assemble reverse procedure.

Figure 7



x11 M4 button screws

Figure 8a



Figure 8c



To release gauge, pull back on coupler

Figure 9



Figure 8b



To connect gauge, pull back coupler and insert gauge firmly. Release to fully connect. Pull back on gauge to ensure correct connection



OPERATING INSTRUCTIONS FOR DIGITAL GAUGE

1. Press button P to switch gauge on. The preset program will be in 'Normal rise and fall mode' This will give a load reading in kN rising as the operating handle on the tester is turned clockwise. By turning the handle anti clockwise the load will decrease and show the reading in kN.

2. To change mode to PEAK HOLD press ▼ then P. Display off will appear. Press ▲ twice to display MAX. Press P to display PASS. Press ▲ and ▼ together until display until small vertical ↑ appears in left hand side of screen. To zero reading press ▲ and wait 2 seconds. Gauge is now in peak hold mode and will display the maximum load achieved and retain this even when the load has decreased.

3. To return to normal mode press ▼ then P and display shows MAX. Then press ▲ and display reads OFF. Press P twice and display reads 0. Press ▲ and ▼ together until display reads - 000 (The last digit may not read 0 due to ambient temperature.)

4. Press P to switch gauge off

The maximum load capacity of the MAN-SD1S-C transducer at the base of the gauge is 0–145Kn and the gauge should not be loaded above this figure as permanent damage will occur.

Eventually the battery will require replacement (when warning indicator comes on) and the battery fitted under the removable cover on the back of the gauge. Replace with type PP9 9 volt unit.

Figure 10



INSTRUCTIONS TO ZERO GAUGE

If the gauge is reading 0.32 for example when no load is applied use the following instructions to re set the display to zero.

With gauge on press down arrow, display = PDU, Press P display = OFF, press P display = PASS, press P display = O, press the up arrow till reading reaches number 5, press P display = ZERO, press P, display = SET, press P = SET, press P display = 5, press P display = 0.00

EYEBOLT TESTING

1. Screw the M20 connecting rod into the heavy duty clevis and ensure the thread engages fully so is flush with the block.

2. Adjust the 3 legs on the bridge so that the pin lines up with the eye under test. Place the pin through the eye and secure the circlip and pin.

3. Apply the load by operating the ratchet spanner clockwise observing the reading on the gauge.

4. After the test release the load by operating the ratchet spanner anti-clockwise and remove the circlip and pin.

Figure 11



RE-BAR OPERATING INSTRUCTIONS MODEL 2008

1. The Model 2008 Portable Heavy Duty Tester will accept 6, 8, 10, 12, 16, 18, 20, 22 & 24mm re-bar directly through the cylinder.

2. Place the tester and triangular load spreading bridge directly over the re-bar by passing through the cylinder hole. See Figure 12a.

3. Place the tapered barrel over the re-bar with the smaller diameter to the bottom until it rests on top of the cylinder. Insert the collet (3pcs) into the barrel and this will sit flush or just inside. See Figure 12b.

4. Adjust the legs on the triangular load spreading bridge by turning each leg clockwise until all the slack is taken up and the collet has gripped onto the re-bar. Failure to do this procedure may result in the tester running out of stroke. (10mm). See Figure 12c.

5. Operate the tester by using the M24 ratchet spanner to the desired load. See Figure 12d.

6. Once the test is complete, release the load fully and lower the legs on the load spreading bridge by turning the legs anti clockwise. Full adjustment needs to be made so that the barrel can be removed from the collet. See Figures 12e and 12f.

7. Hit the top edges of the barrel with a hammer downwards until the collet can be removed, further adjustment to lower the bridge legs may be required. See Figures 13a, 13b and 13c.

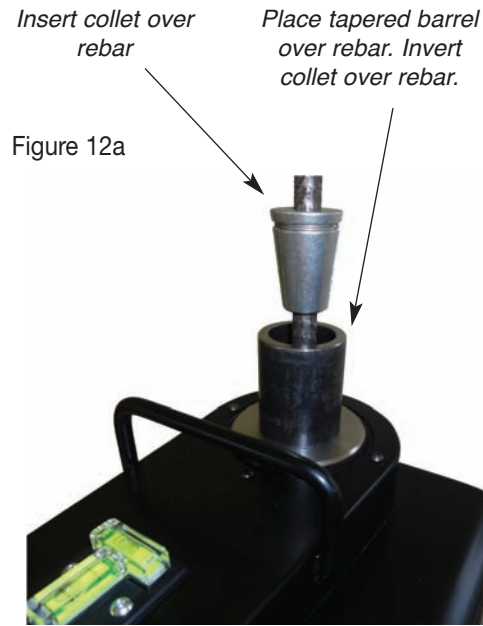


Figure 12a

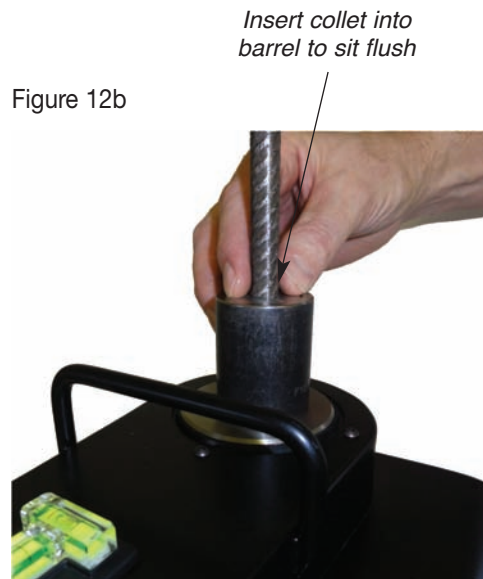


Figure 12b

Figure 12c



Adjust all three legs clockwise to take up slack.

Note: failure to complete this procedure may result in the tester running out of stroke (10mm)

Figure 12d



Figure 12e



After test, adjust all three legs anti-clockwise allowing a gap to appear between the top of the cylinder and the bottom of the barrel.

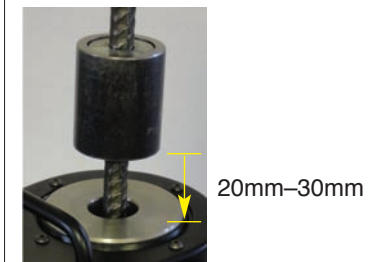
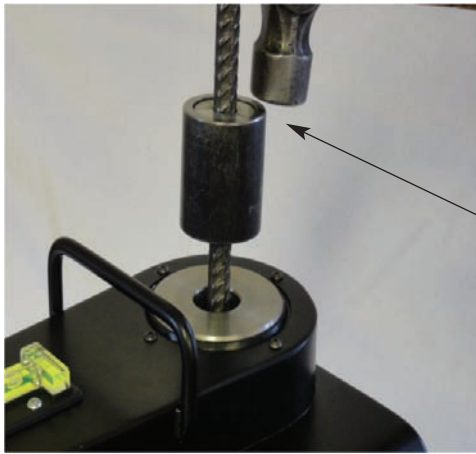


Figure 12f

Figure 13a



Tap the edge of the barrel to release and remove collet.

Figure 13b



Figure 13c



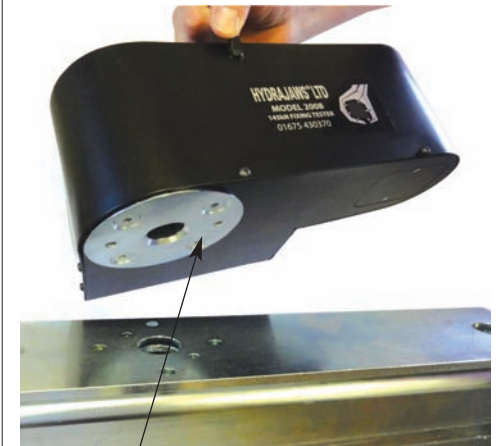
2008 MODEL TESTER ASSEMBLY TO 12.5 TON LOAD SPREADING BRIDGE

1. Screw the 2 M20 legs into the end with the two holes and screw the M24 leg into the other end adjusting to a level position. (Lock the X2 M20 & X1 M24 nuts to the underside of the bridge).
2. Remove the silver locating plate from the top of the bridge using the 5mm allen key and remove the 2 M8 x 15 counter sunk screws.
3. Secure the plate to the Model 2008 tester using holes marked A with the x 2 M8 x 25 counter sunk screws and this will allow the tester to be parallel when mounted on the bridge. See Figure 14a.
4. Holes marked B will allow the tester to be at 90 degrees to the bridge if required.
5. Secure the plate to the load spreading bridge with the x 2 M8 x 15 counter sunk screws. See Figure 14b.
6. Spare screws are also provided for the tester assembly and bridge assembly.

PLEASE NOTE THAT THE MAXIMUM CAPACITY OF THIS LOAD SPREADING BRIDGE IS 12.5 TON (125Kn). This load should not be exceeded.

Figure 14b

Figure 14a



Attach plate to the tester using two M8 screws.

Place tester on load spreading bridge aligning the two M8 mounting holes. Secure with screws using Allen key. To remove, reverse procedure.



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