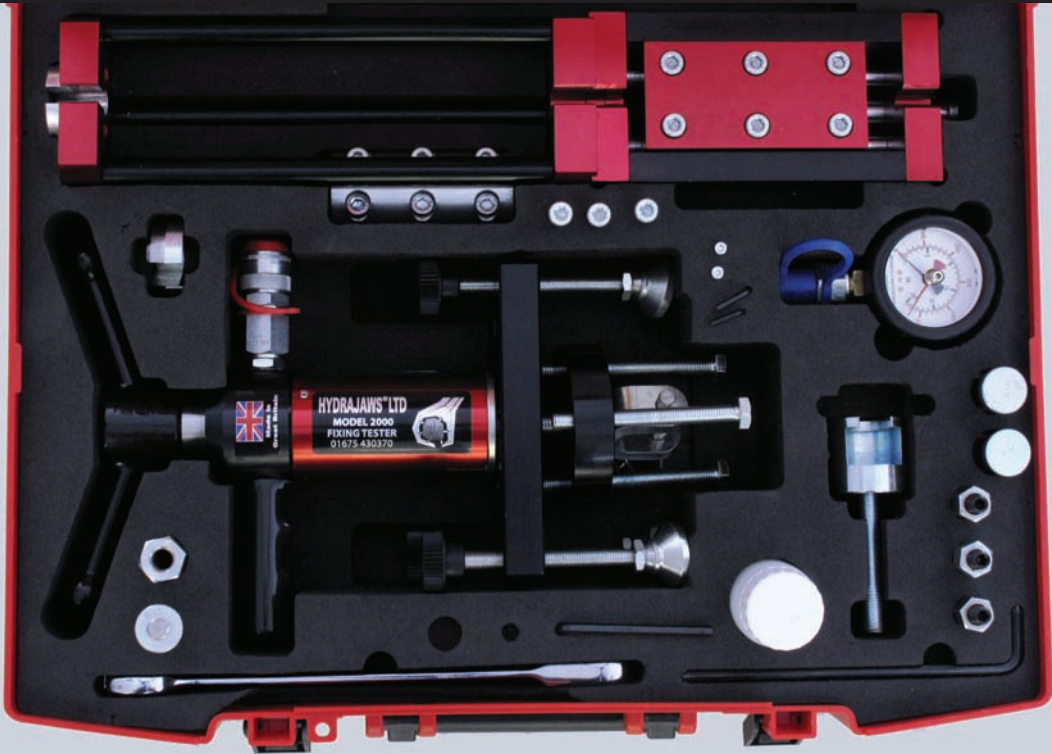


Hydrajaws Safety Lifeline Tester

Operating Instruction



Hydrajaws® Limited

1. With the cable tester clamp side up, remove the 6 cap head screws and the top plate clamp using the 6mm Allen key. (Figures 1 and 2).

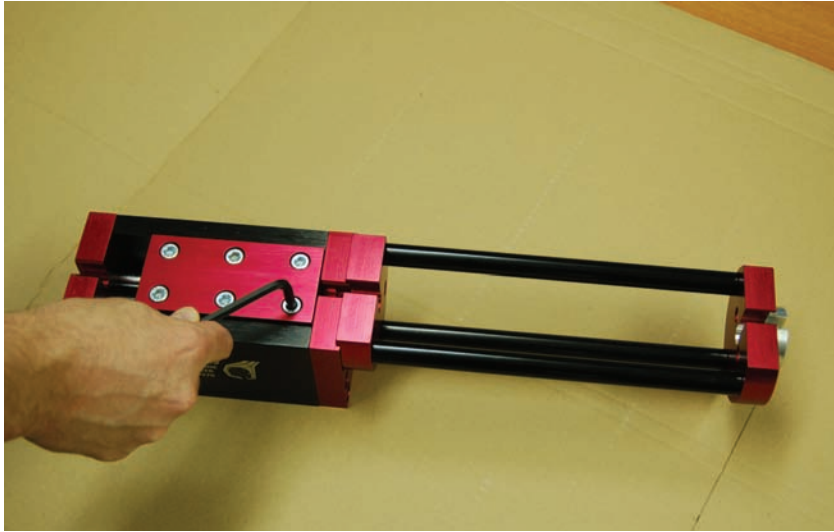


Figure 1

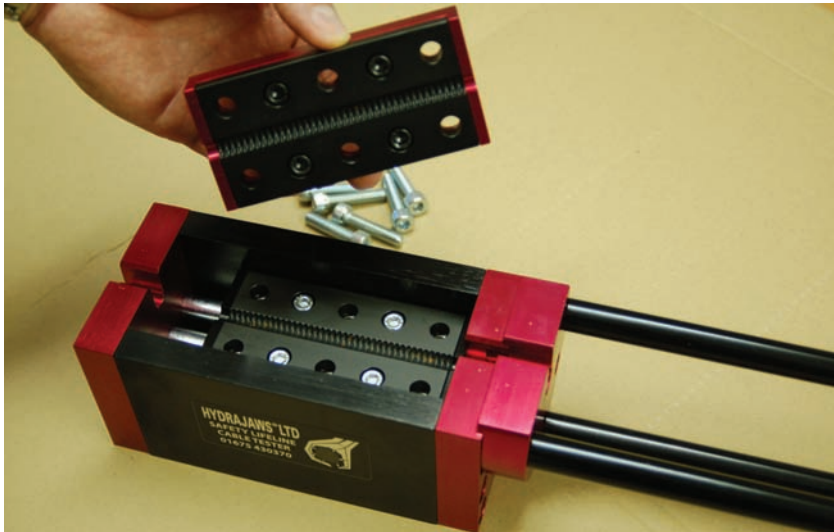


Figure 2

2. Slide the cable through the slots, replace the top clamp plate and the 6 cap head screws and tighten up using the 6mm Allen key. Note the position of the clamp in Figure 4.



Figure 3

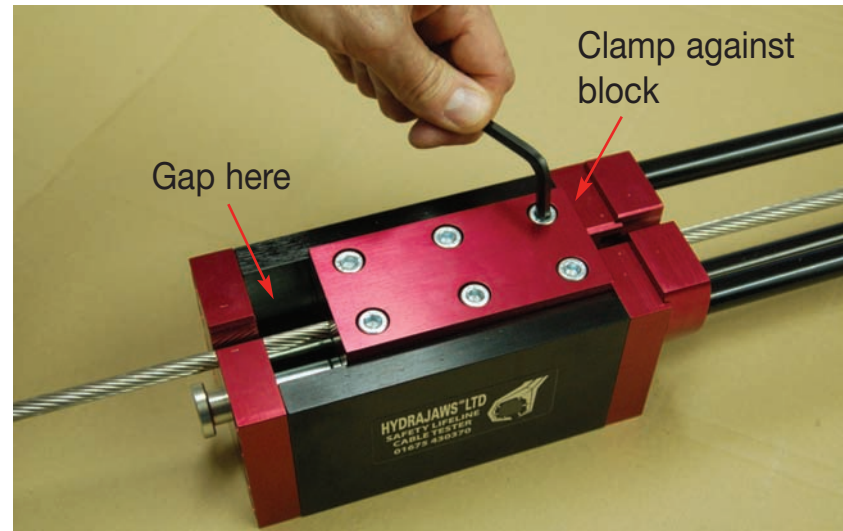


Figure 4

3. Remove the 150 load spreading bridge with adjustable feet by unscrewing the 2 M4 cap screws on the underside of the unit. (Figure 5).



Figure 5

4. Make sure that the jaw on the tester is fully closed. Check this by looking at the mm scale on the main body of the tester which should be near the zero indicator. (Figure 6).



Figure 6

5. Remove the M12 round locking adaptor from the inside slot on the bottom of the portable tensioner by first unlocking / slackening the allen screw. (Figures 7 and 8).



Figure 7



Figure 8

6. Remove the operating ball handle from the tester by unscrewing anti-clockwise taking care not to remove the bearing and pressure washers. (Figures 9, 10, 11 and 12).



Figure 9



Figure 10



Figure 11



Figure 12

7. Fit the M22/AF hexagon operating nut in place of the handle. (Figures 13 and 14).



Figure 13



Figure 14

8. Attach the 0-25kN gauge to the Model 2000/C tester by pulling back on the body coupler and clicking into place. Turning the gauge will allow for easy reading (gauge only moveable with coupler system fitted). (Figures 15 and 16).



Figure 15



Figure 16

9. The Model 2000/C test should be located over the button adaptor on the opposite end to the swage under test. (Figures 17 and 18).



Figure 17

Turn operating nut by hand to apply enough tension to secure tester.

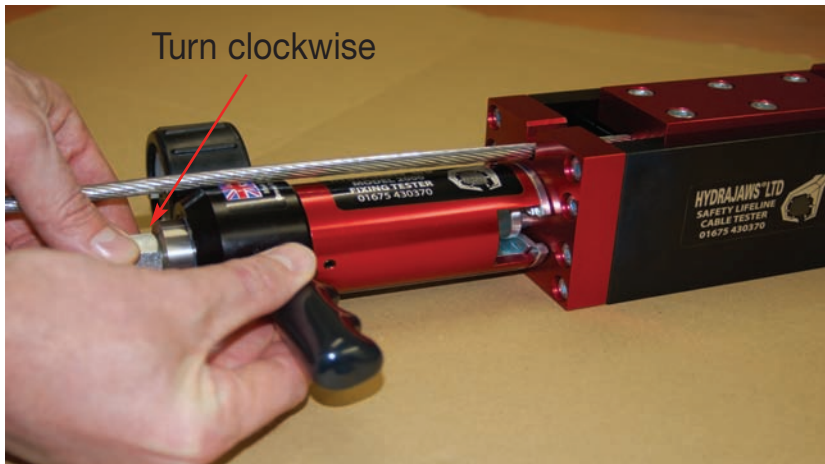


Figure 18

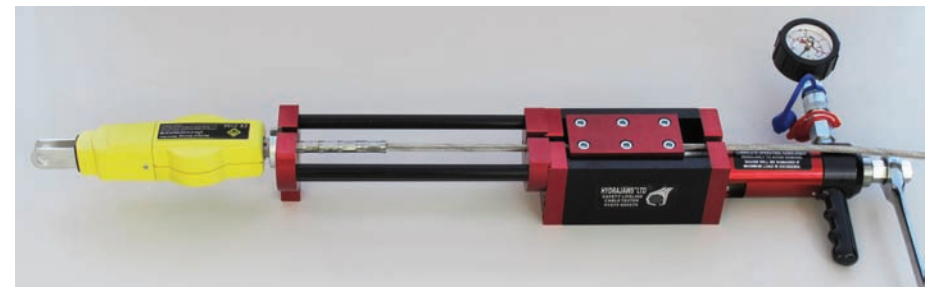
10. Operate with the M22 ratchet spanner to progressively increase the load on the swage and note the readings on the gauge. (Figure 19).



Figure 19

11. Testing procedures using Latchway part numbers. The following can be used with no added components to the standard test frame.

- 85535-00 6kN Coil Absorber
- 85536-00 6kN Coil Absorber
- 85530-00 V-Xtenda
- 85540-00 H-Xtenda
- 85700-00 18kN Absorber Grey
- 87050-00 18kN Absorber Yellow
- 85090-00 Long Run Line Tensor
- 85391-00 Swage and Clevis Unit
- 85057-00 Swage Toggle



12. The following can be used with the appropriate L/H or R/H nut. (Figure 21).

- 85160-00 R/H threaded swage
- 85162-00 L/H threaded swage
- 20502-00 Extended L/H swage



Figure 21

13. The following can be used with the supplied collar. (Figures 22, 23, 24).



Figure 22

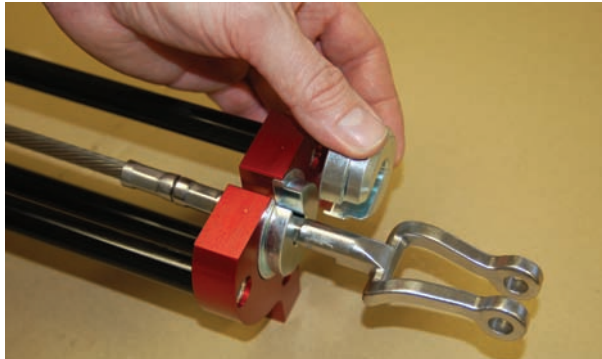


Figure 23

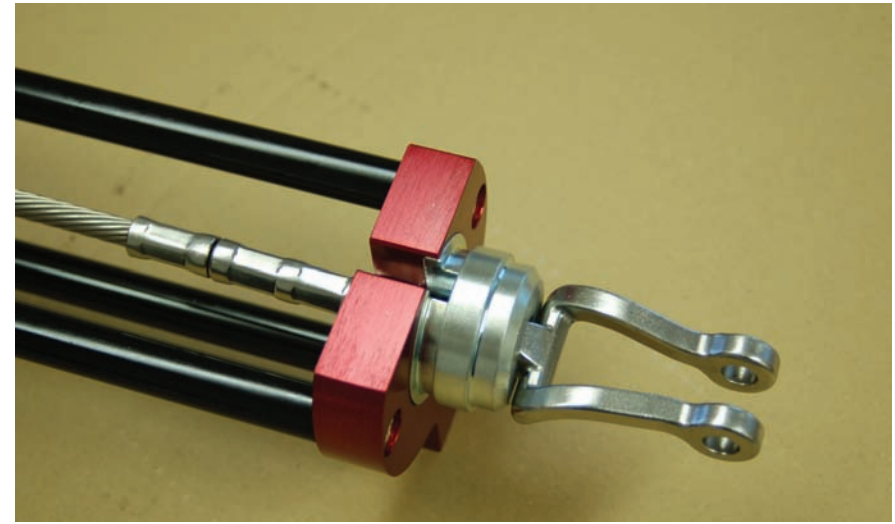


Figure 24

- 85020-00 Entry Terminal
- 85260-00 Climbatch closable entry terminal swage to trend with tension indicator
- 85262-00 Climbatch closable entry terminal swage to yoke
- 85263-00 Climbatch bottom open entry terminal swage to thread with tension indicator
- 85265-00 Climbatch bottom open entry terminal swage to bolt fixing
- 85550-00 Climbatch closable entry terminal swage to V-Xtenda with tension indicator
- 85090-00 Climbatch mid entry terminal swage to swage
- 85211-00 Climbatch wire junction
- 85311-00 2 way turn table
- 85310-00 3 way turn table
- 85300-00 4 way turn table

14. Swage Joiner: use of the extra cable clamp is required. (Figures 25, 26, 27, 28). Please note the difference of the ends of the clamp as it is designed to locate slightly over the end block.

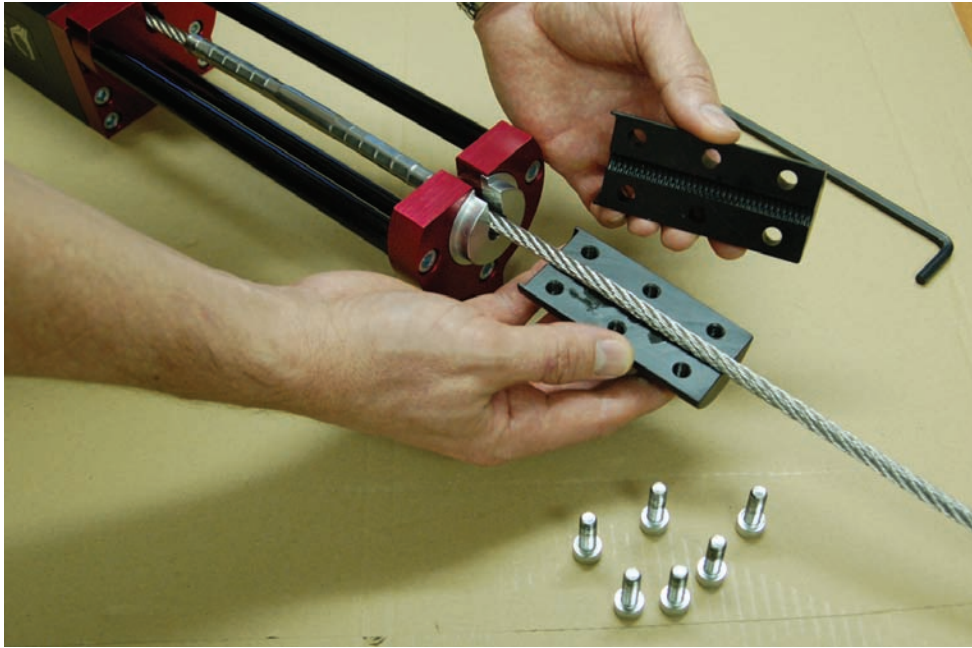


Figure 25

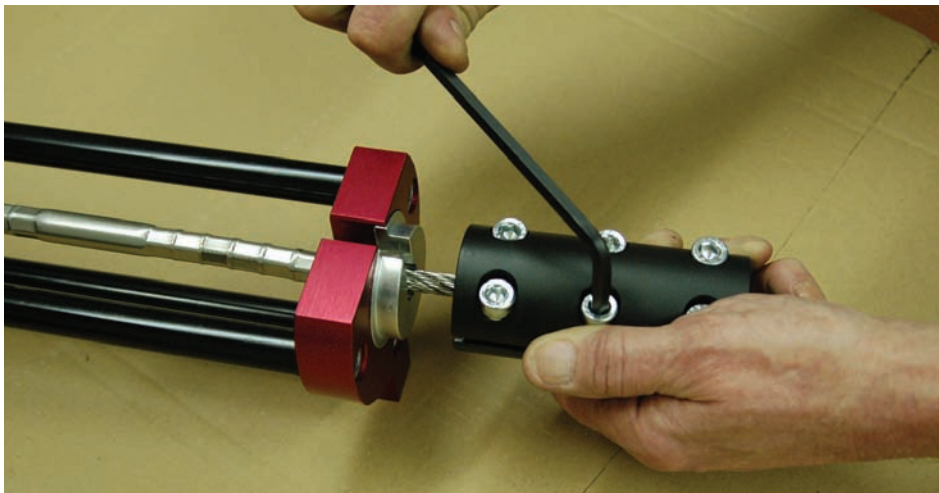


Figure 26

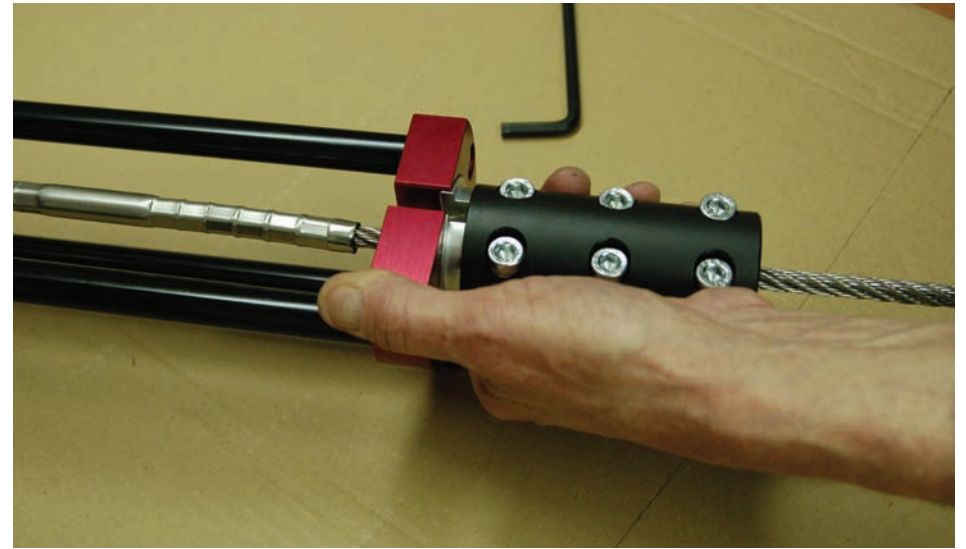


Figure 27

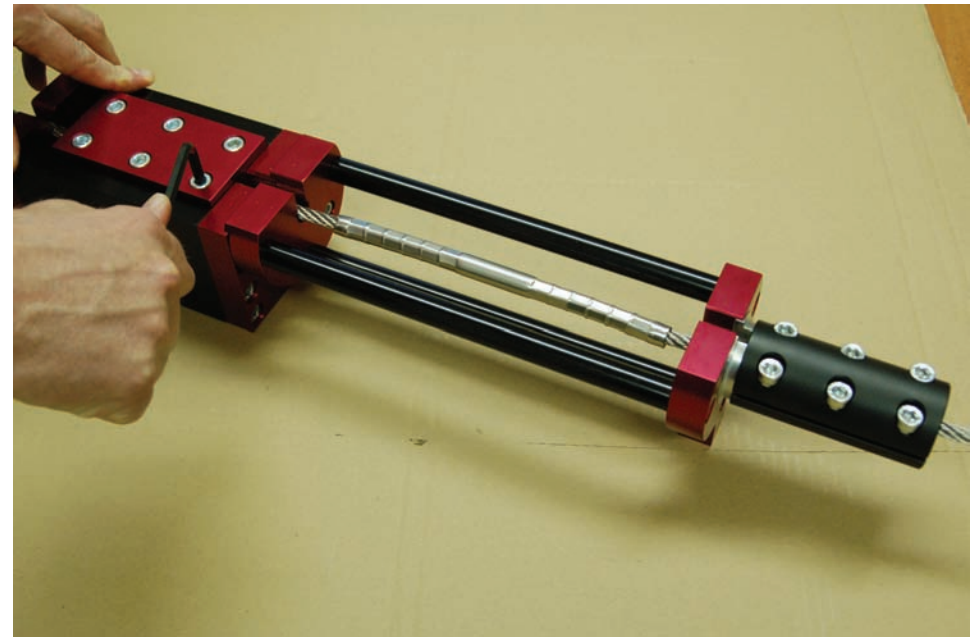


Figure 28

15. Latchway Test Load

For systems supplied in kit form by Latchways with the swage components ready swaged and marked with an “L”, the swaged connections between the absorber or termination and cable has been proof tested to 15kN. Therefore, the system can be directly installed on to the structure without the need for proof testing on site provided the maximum predicted end load does not exceed 15 kN. If the predicted end load is greater than 15 kN then a proof test to the maximum predicted end load shall be carried out as described below.

For systems supplied as individual parts the swage connection will need to be completed on site using the recommended hexagonal dies with a minimum of 3 swage bites. The connection shall be proof tested to the maximum predicted end load before installation of the system. After swaging it is recommended that the across flats dimension is checked. The maximum across flats dimension is 11.2 mm. Any swages greater than 11.2 mm must be rejected.

It is recommended that the Hydrajaws test kit is used to perform all the proof tests described below.

For swage testing, apply the recommended test load and hold for 3 minutes, checking for any slippage of the cable from the swage. This will be indicated by the gauge not holding load and separation of the swage slip indicator (85025) away from the end of the swage termination.

If any signs of slippage are detected the swage joint must be rejected and replaced.

For end anchors secured using resin/chemically fixed anchor bolts, the fixing shall be subjected to an axial pull test of 10kN. This load shall be held for 3 minutes. End anchor fixings not sustaining the test load must be rejected and replaced. For intermediate anchors using resin/chemically fixed anchor bolt(s), the fixing shall be subjected to an axial pull test of 5kN. This load shall be held for 3 minutes. Intermediate anchors not sustaining the test load must be rejected and replaced.

For mechanically fixed end and intermediate anchors secured to structural steelwork the fixing bolts shall be subjected to a torque check to the recommended values. If the tightening torque value is not achieved the fixing bolts shall be replaced.

For end anchors secured using expansion anchor bolts the fixing shall be subjected to an axial pull test to 10kN. This load shall be held for 3 minutes. For intermediate anchors secured using expansion anchor bolts the fixing shall be subjected to an axial pull test to 5kN. This load shall be held for 3 minutes.

All single point anchors, PushLock SafeRing etc. should be subjected to an axial pull test of 6 kN. this load shall be held for 3 minutes.

16. Testing procedure of non “slip indicator” cable swages. (Figures 29, 30, 31, 32, 33). Remove the extension bars by unscrewing the 2 6mm cap head screws using the 5mm ball driver.

Place the knurled adaptor into the end of the block and fix with the 3mm countersunk screw and collar. Do not overtighten the 3mm screw as the knurled adaptor should be free to rotate.

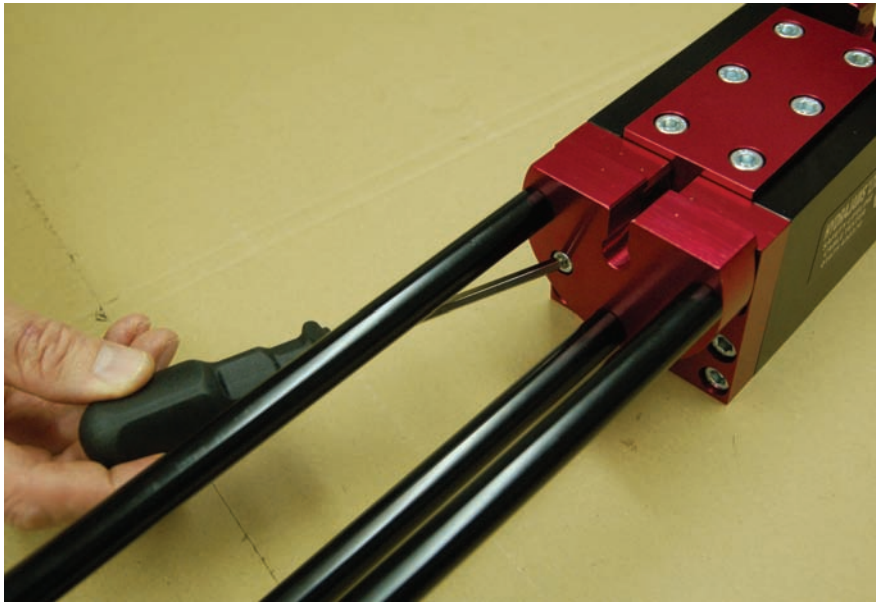


Figure 29

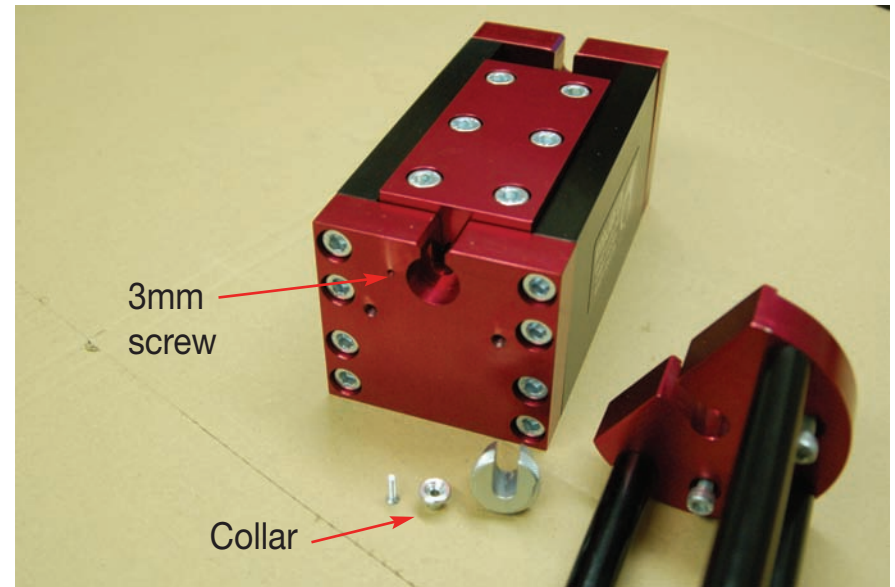


Figure 30

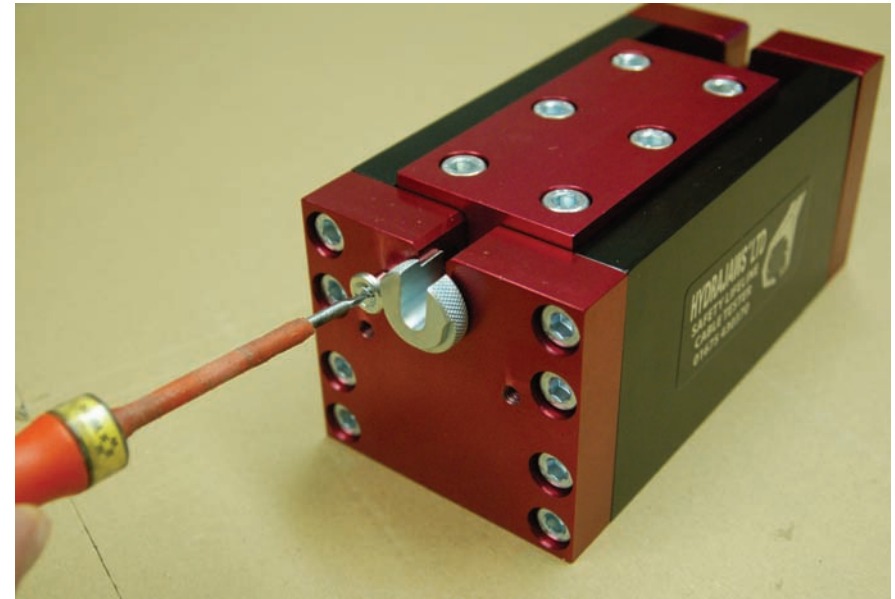


Figure 31

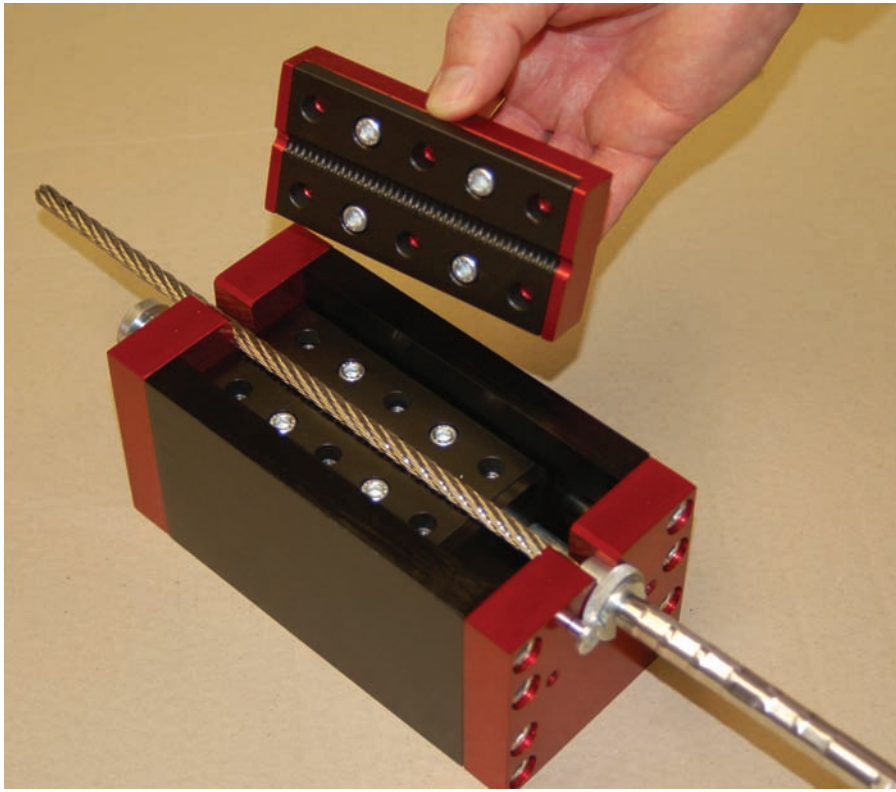


Figure 32

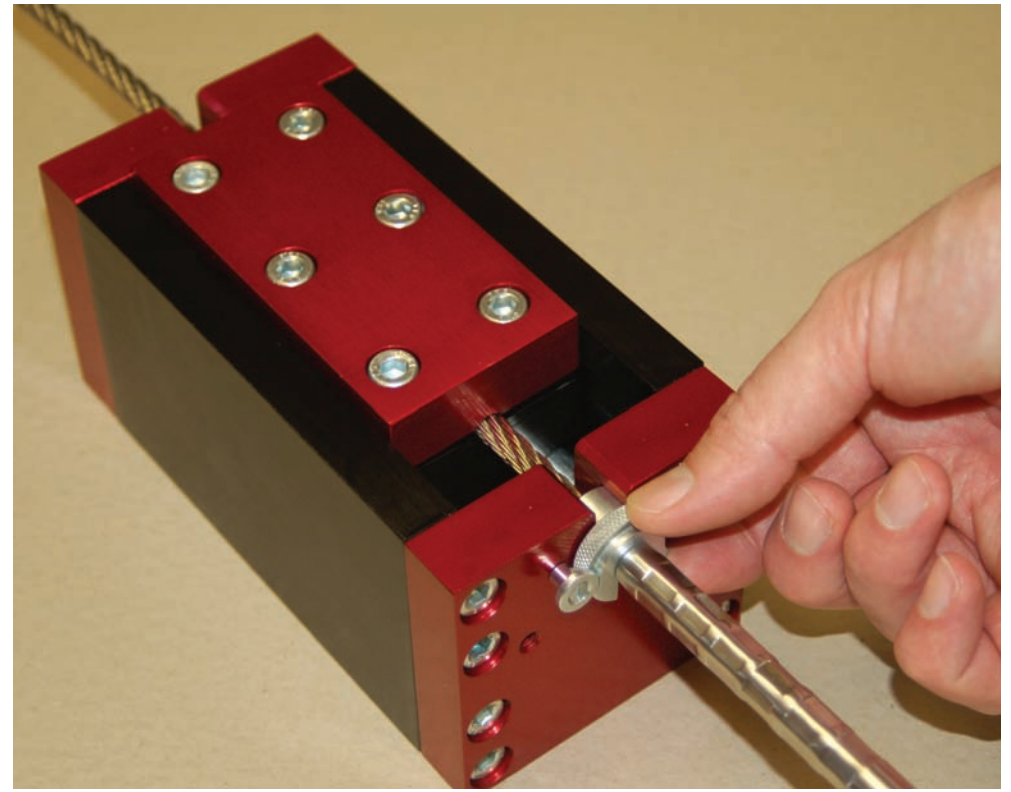


Figure 33

17. Assembly Instructions of 600mm Load Spreading Bridge to Model 2000/C

1. Take off the lock nuts which are connected to the bottom of the threaded rod.
2. Thread the legs through the blocks to the desired height.
3. Screw the lock nuts back on a few turns
4. Screw the legs into the feet and just nip up the lock nuts against the foot.
5. To mount the Model 2000 tester to the bridge remove the existing bridge and make sure the M12 locking adaptor is located in the operating jaw.
6. Turn the bridge upside down with the feet in the air.
7. By using the same screws you removed from the other bridge line up the holes and use the 3mm ball driver which was supplied with the bridge.
8. Supplied with the bridge is a M12 coupler, this needs to be screwed into the locking adaptor and the other end will accept the M12 ringbolt adaptor clevis.

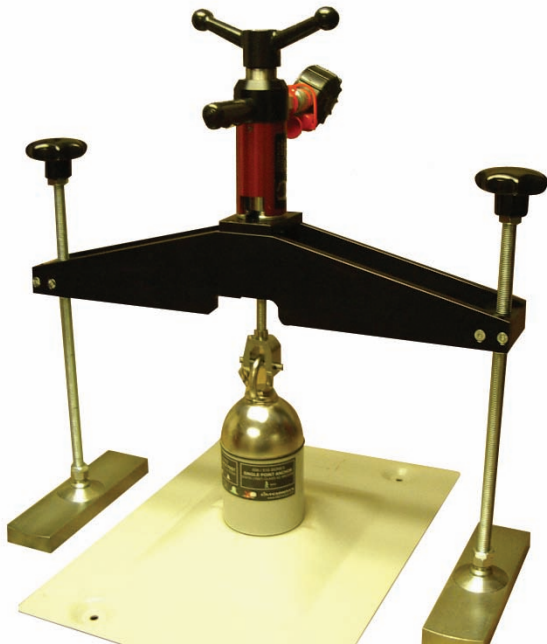


Figure 34
Constant force
post application

CARE OF TESTER

Unscrew and remove operating handle. Take care to avoid moving the washer and bearing below. Grease surfaces and threads before re-assembly.

Some Testers have a removable gauge connected via a hydraulic coupler. Frequent removal and reconnection to the gauge will cause the oil reservoir level to drop and will eventually affect the amount of oil available to operate the gauge. When this happens, the oil piston between the operating handle and the black tester body will have retracted within the body.

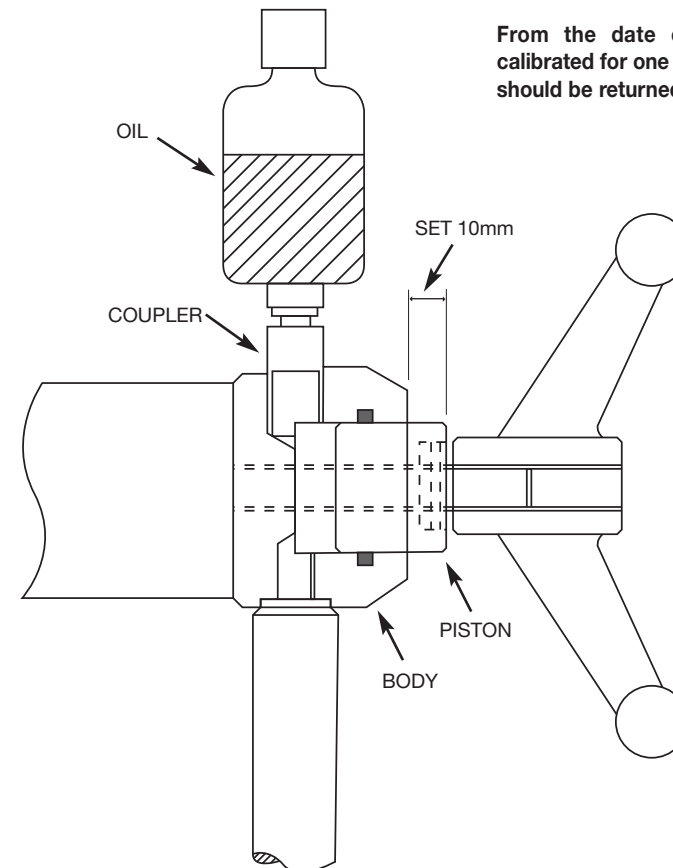
TO FILL THE TESTER WITH OIL (model with removable gauge only)

Clamp the Tester in a vice with the oil coupler in the vertical position. Connect the oil bottle containing light hydraulic oil to the coupler on the Tester. Force any air out of the system by pushing the piston in fully. Pull on the turning handle until the front of the stainless piston is 10mm from the end of the body. Push this piston back in fully, using thumbs, pull out again and repeat until all air bubbles are expelled into the oil bottle. The piston should be set 10mm from the face of the body to give maximum oil capacity. Remove oil bottle to complete filling operation.

A TESTER WITH A FIXED GAUGE CANNOT BE FILLED WITH OIL BY THE OPERATOR.

Recommended oil: light mineral type DTE.
Illustrated filling instructions are on our website www.hydradjaws.co.uk

From the date of purchase, your tester is calibrated for one year. After this time, the Tester should be returned for calibration.



Hydrajaws® Limited
1 The Courtyard
Roman Way
Coleshill
Birmingham B46 1HQ

Telephone +44 (0)1675 430370
Fax +44 (0)1675 465950

email: tester@hydrajaws.co.uk
www.hydrajaws.co.uk