straightpoint®

making the lifting industry a safer place

55t Test Machine

55t Test Machine manual

ATTENTION!

Heavy Components

Use care when lifting

It is crucial that you read and understand the literature from this instruction manual.

The 55T test machine produced by Straightpoint UK Ltd and Straightpoint Inc., are provided with the express understanding that the purchaser and user are thoroughly familiar with the safe use, proper care and application of the load cells being installed to it.

Responsibility for the safe use, proper care and application of the product rests with the user.

Failure of the product can occur due to misapplication, abuse, overloading, or improper care and maintenance.

Ratings shown in Straightpoint UK Ltd or Straightpoint, Inc. literature are only applicable to new or “as new condition” products.

Rated capacities define the greatest force or load a product can carry under usual or normal environmental conditions. Shock loading and extraordinary conditions must be taken into account whilst testing/calibrating the load cell.

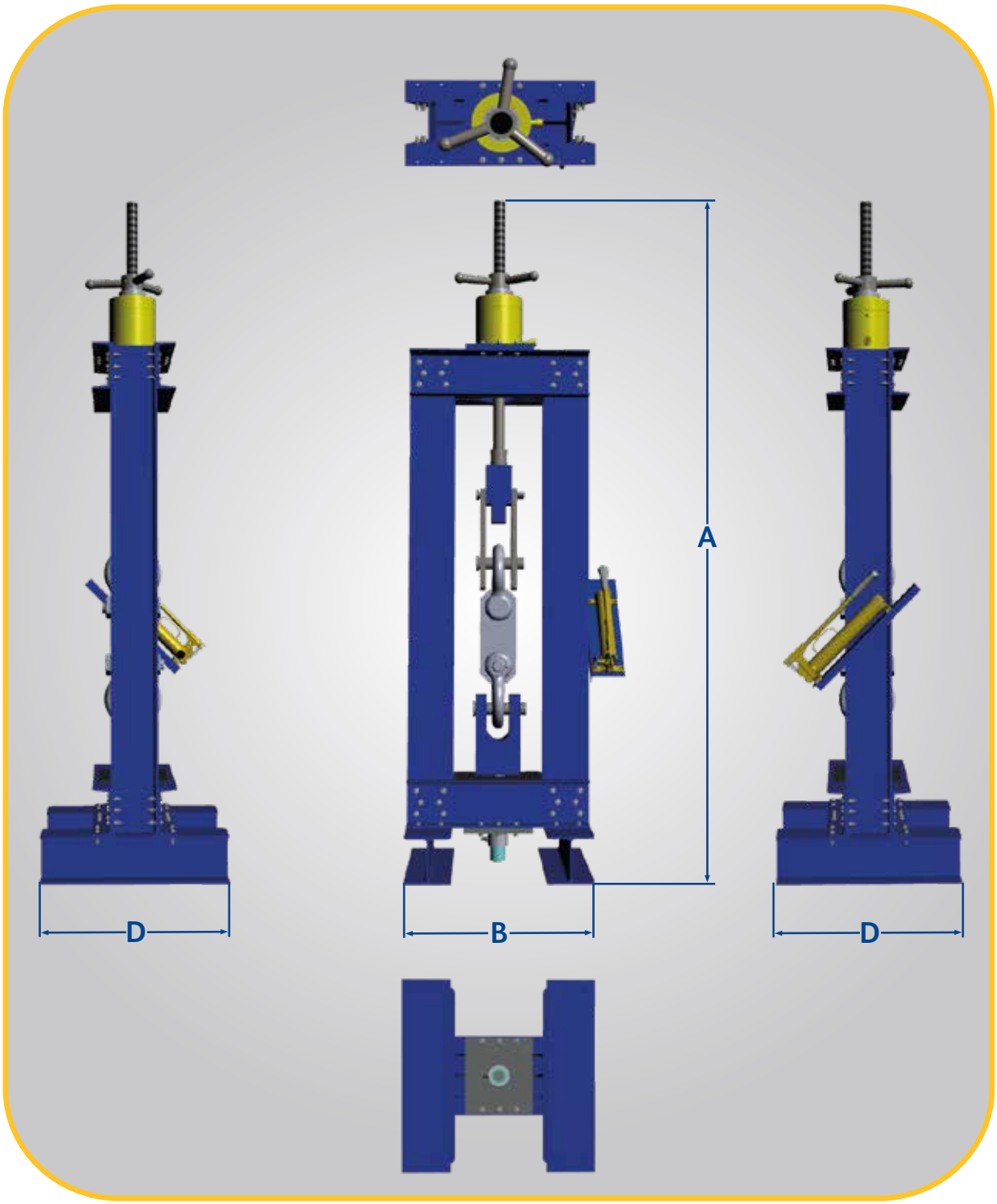
The rated capacity, design factor and efficiency rating of each Straightpoint UK Ltd and Straightpoint Inc. product may be affected by wear, misuse, overloading, corrosion, deformation, intentional alteration, age and other use conditions.

The recommended proof load on all items manufactured and sold by Straightpoint UK Ltd and Straightpoint Inc. is twice the working load limit (WLL), unless otherwise shown. Proof testing is included on all Straightpoint Ltd and Straightpoint Inc. load indicating products.

Part	Amount
M12 50mm Bolts	68
M12 50mm Nuts	68
M8X1.25 20mm Bolts	4
M8X1.25 20mm Nuts	4
M10X1.5 16mm Bolts	2
M10X1.5 16mm Nuts	2
M6X1 16mm Bolts	1
Hydraulic Cyclinder	1
Bottom Plate	1
HHP Mount Bracket	1
Cheek Plates	2
Mounting Pin	2
Loading Pins	2
Bottom Lock Nut	1
Height Adjustment Wheel	1
Top Transum	2
Bottom Transum	2
Top Loading Eye	1
Uprights	2
V66 Non Return Valve	1
Control Valve Line	1
Control Valve	1
Hand Pump	1
Bottom Clevis	1
Reference Load Cell	1
Legs	2
Top plate for hydraulic cylinder	1
Thread Bar (Top Shaft)	1
Thread Bar (Bottom Shaft)	1
Saddle	1
Spherical Washer	2
Top Shaft lock nut	2
Bottom Shackle Pin	1

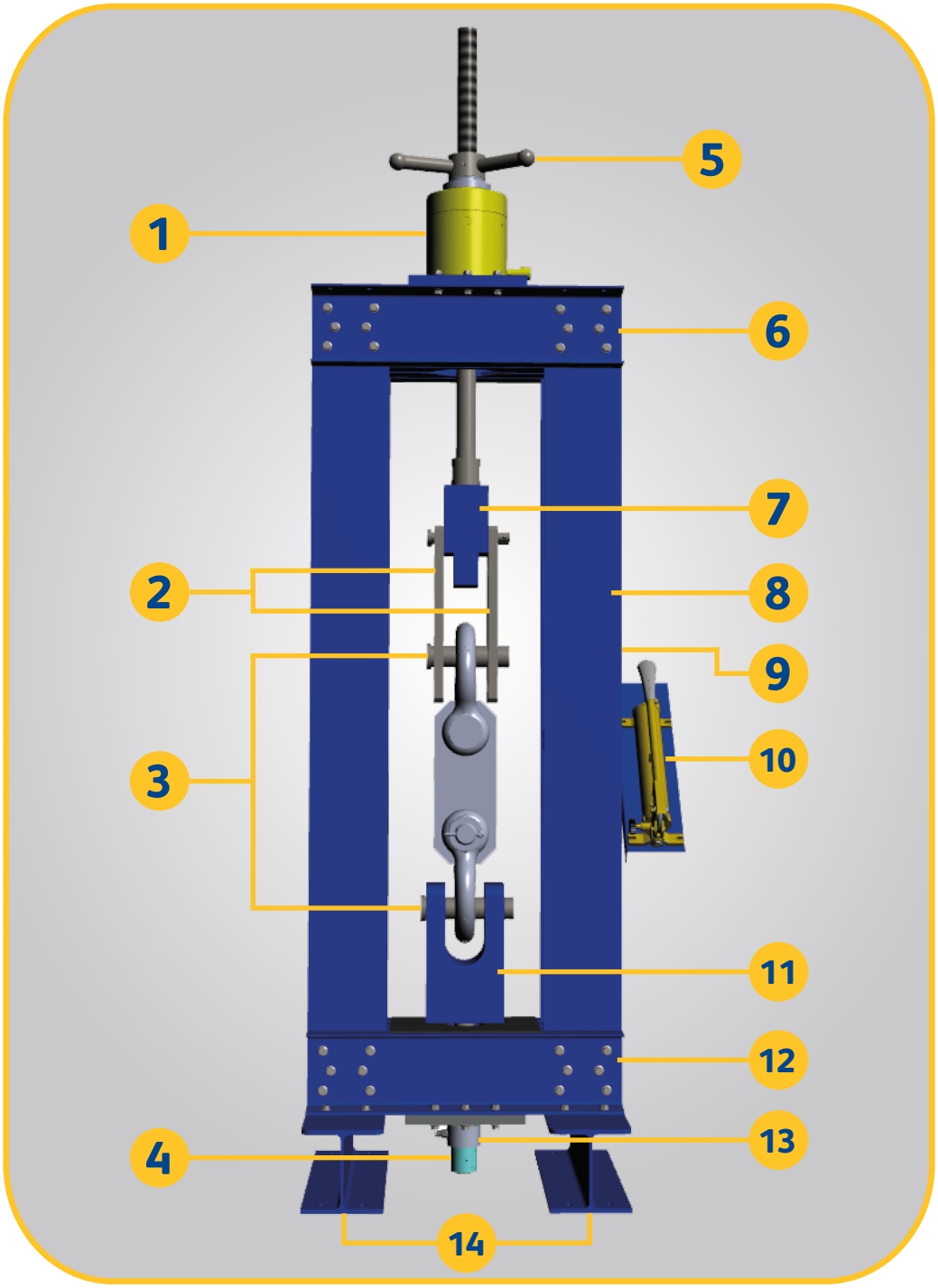
Test machine parts list

Product multi-view



A. Height including cylinder	3020 mm/118.90”
B. Width	800 mm/31.50”
C. Depth	800 mm/31.50”
Max Load	55 tonne / 121,000lbs

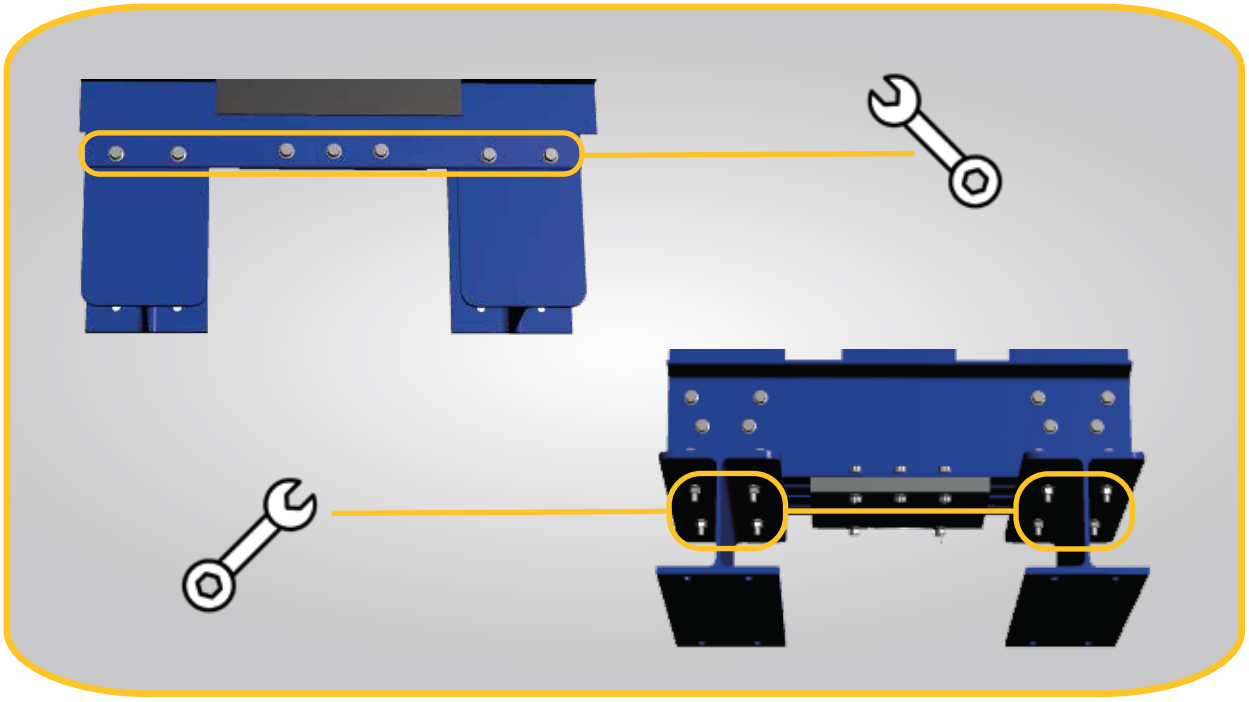
Product component key



1. Hydraulic cyclinder
2. Cheek plates
3. Loading pins
4. Bottom lock nut
5. Hydraulic adjustment wheel
6. Top transoms
7. Top loading eye
8. Uprights
9. Control Valve (to hold load)
10. Hand pump
11. Bottom clevis
12. Bottom transoms
13. Reference load cell
14. Legs

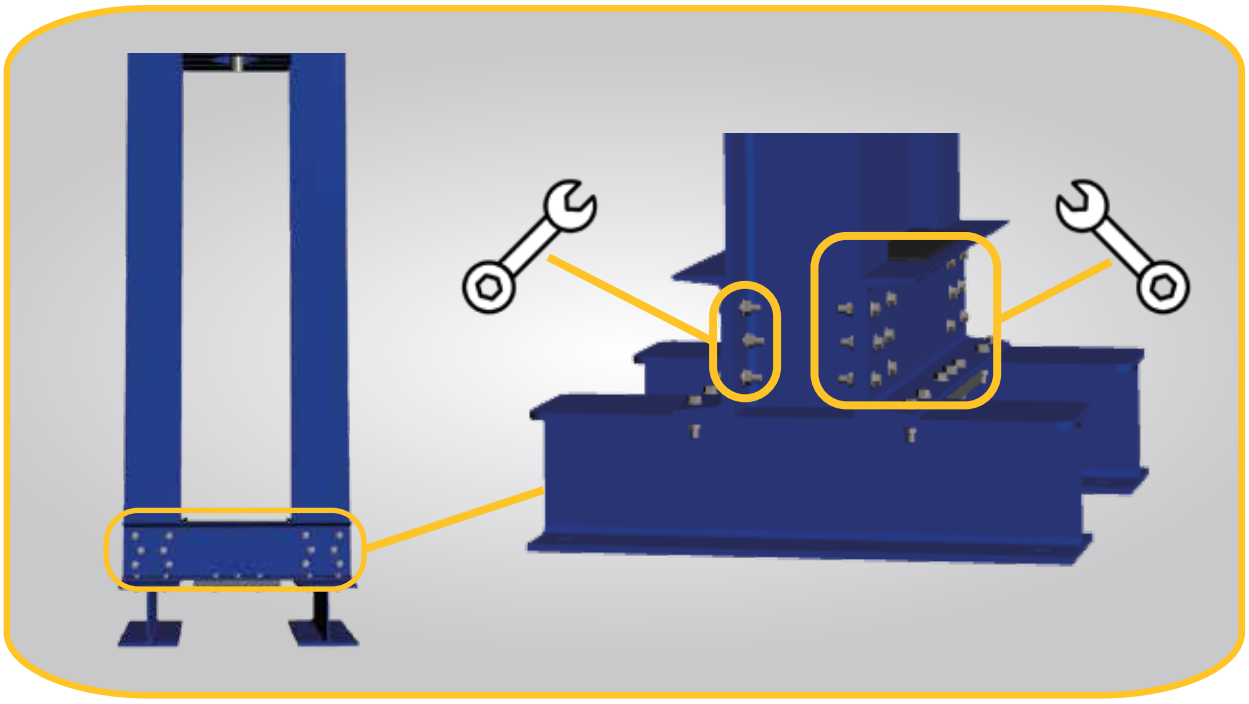
Step 1

Start building frame (using M12 50mm nuts and bolts) - Bolt **legs** (x2) to **bottom transoms (x2)**



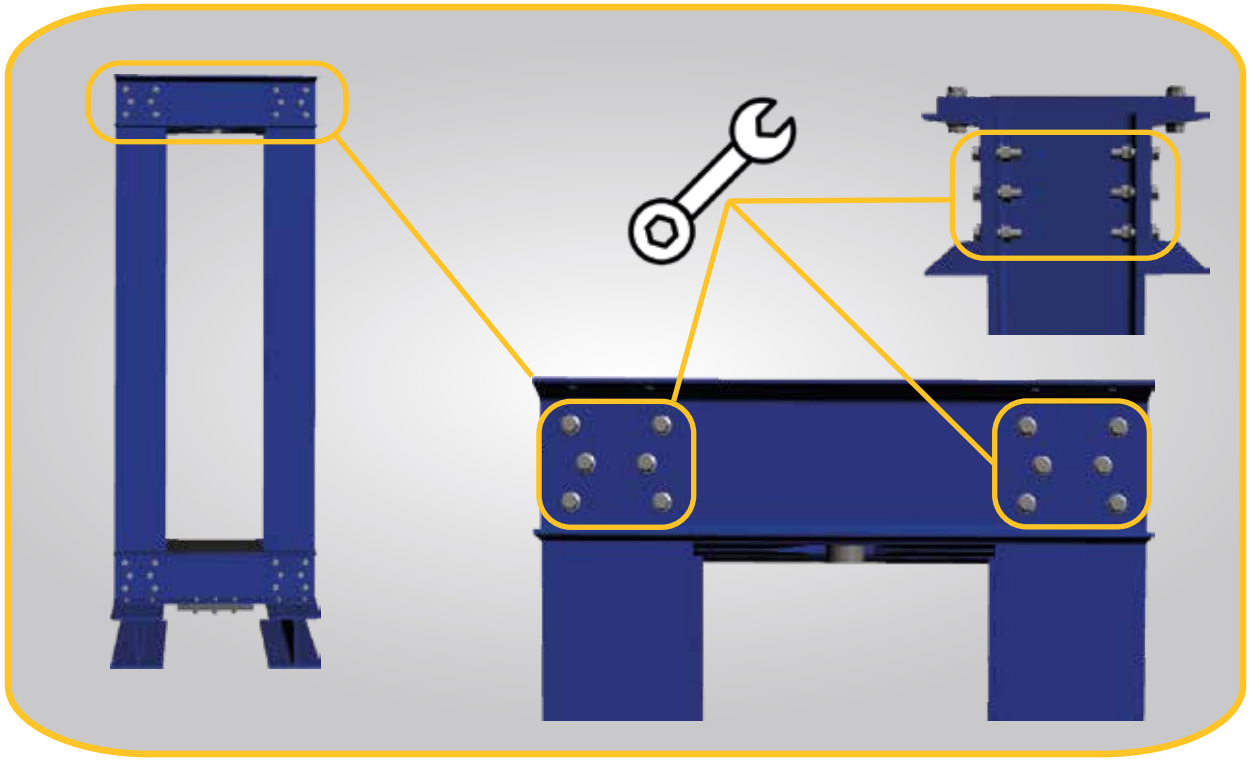
Step 2

Bolt **uprights** (x2) to the inner sides of the **bottom transoms**



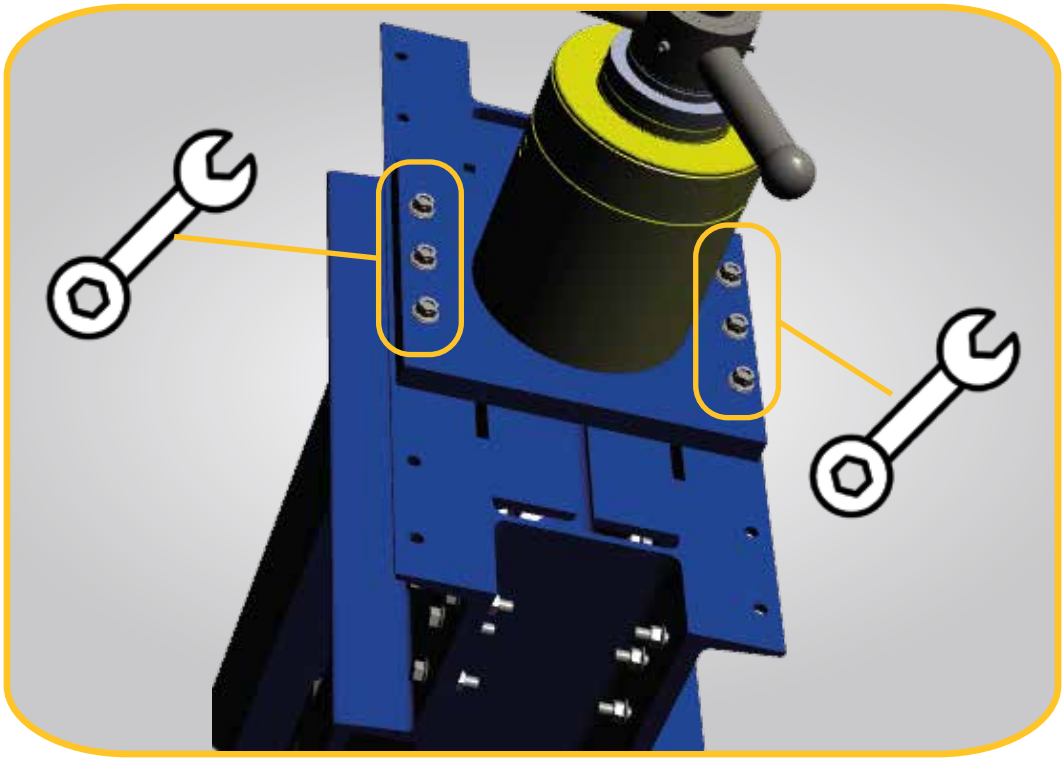
Step 3

Bolt **top transoms (x2)** to the other ends of the **uprights** (outer sides)



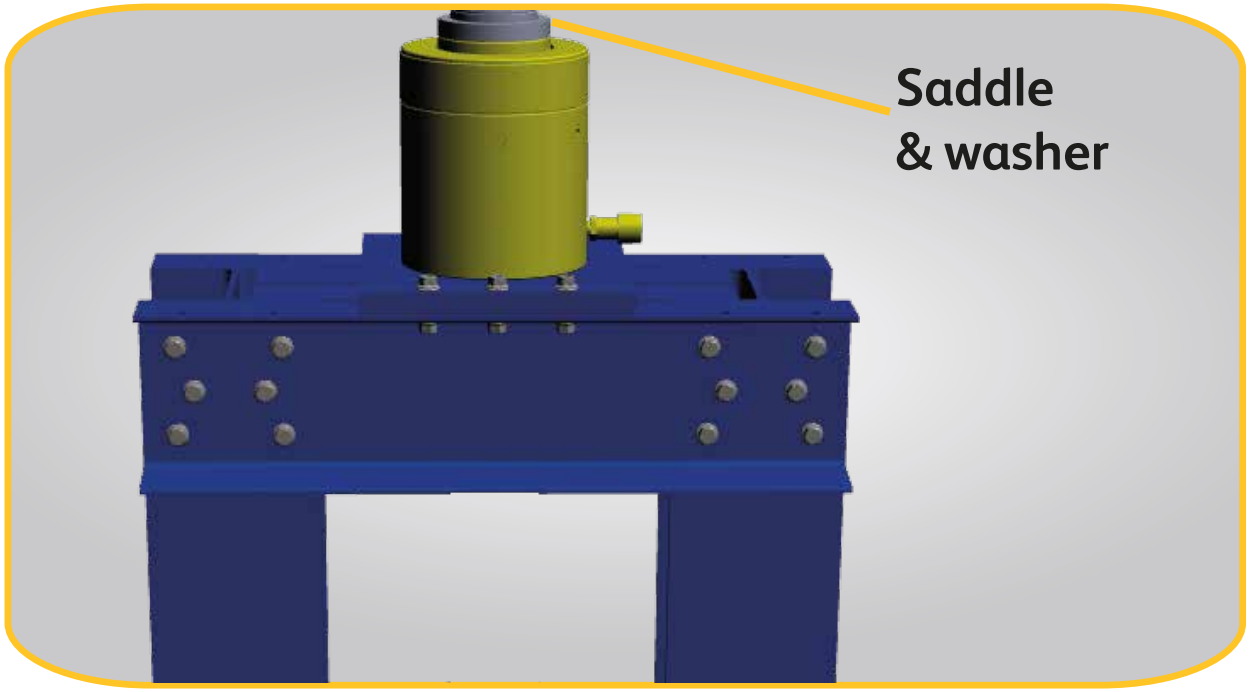
Step 4

Bolt **hydraulic cylinder's top plate** to the **top transoms**



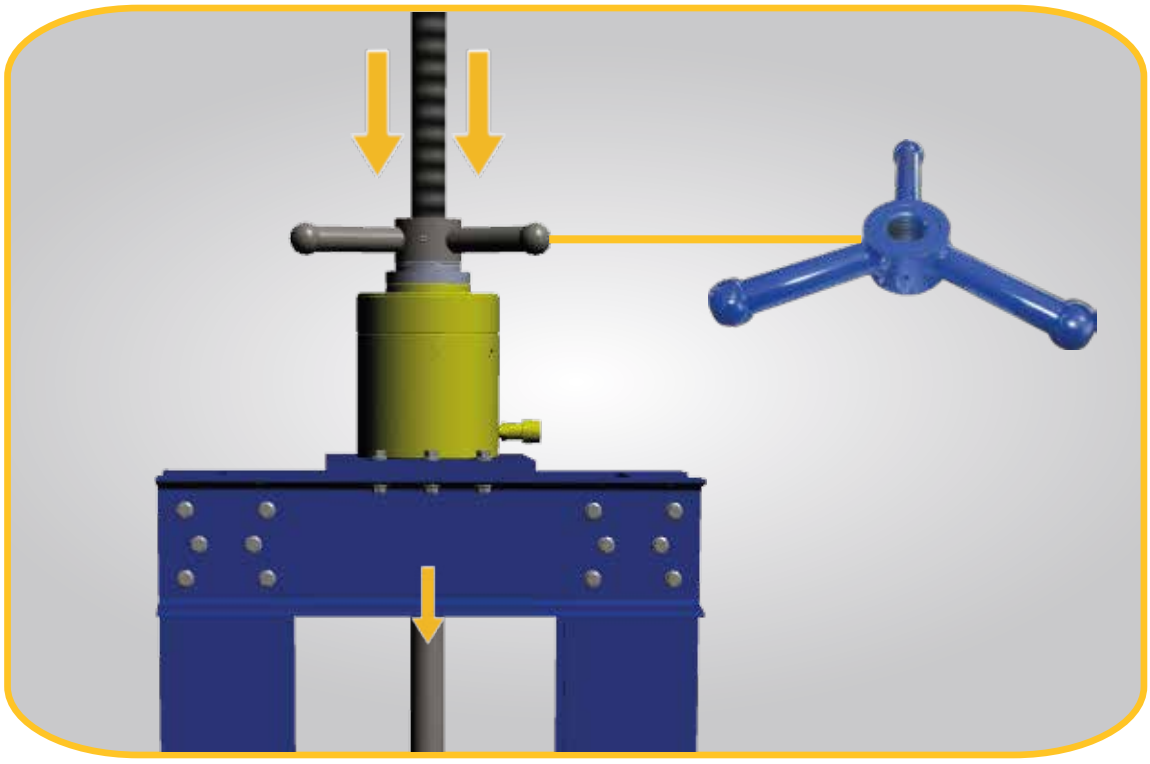
Step 5

Attach **hydraulic cylinder** to the **top plate.** Then place **saddle** over **cylinder's** top opening, and then place the **washer** on top



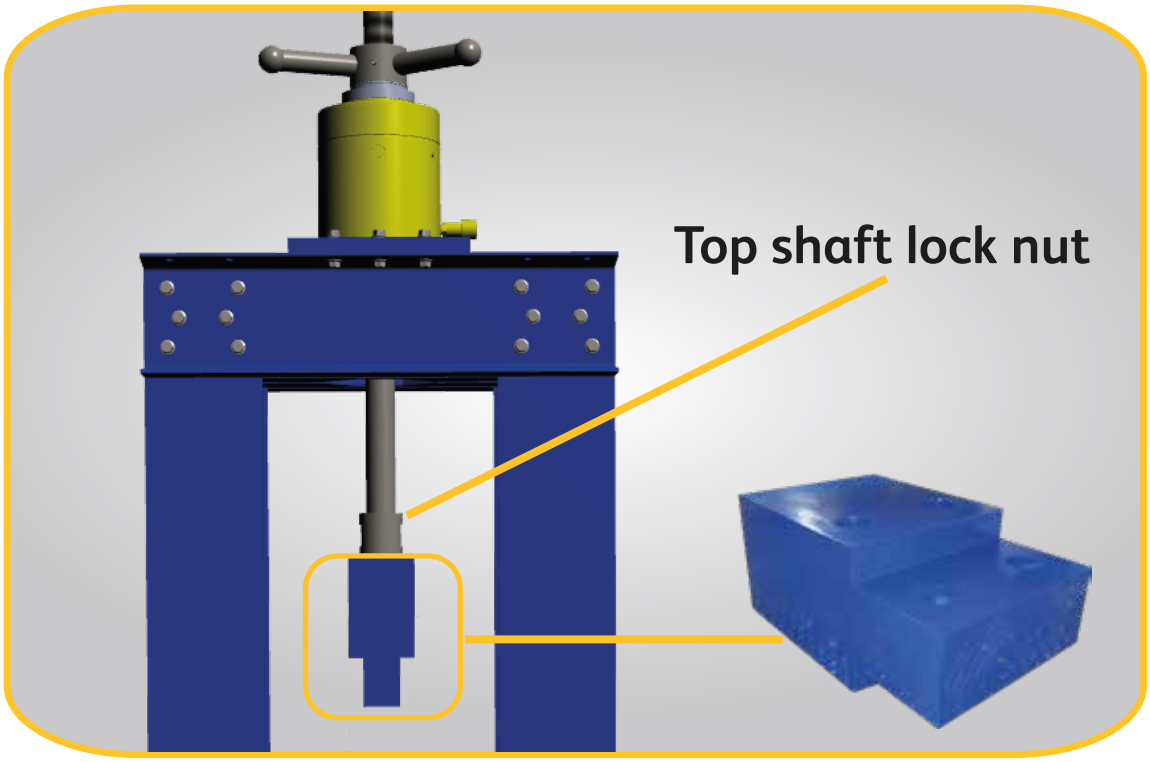
Step 6

Insert **thread bar (top shaft)** through the top of the **hydraulic cylinder** and slide/screw on the **hyraulic adjustment wheel** to **main screw** (fix to thread bar using **M6X1 16mm bolts**)



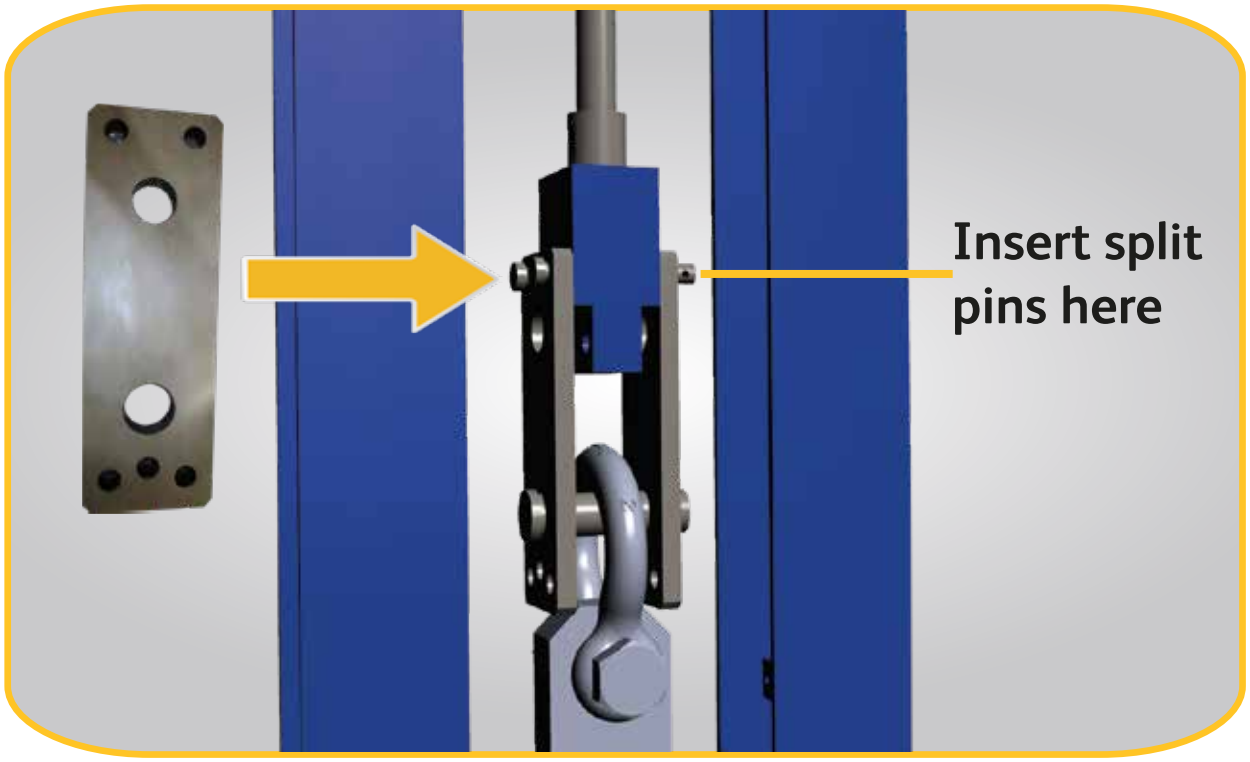
Step 7

Attach **top loading eye** to the bottom end of the **thread bar (top shaft)** using the **top shaft lock nut**



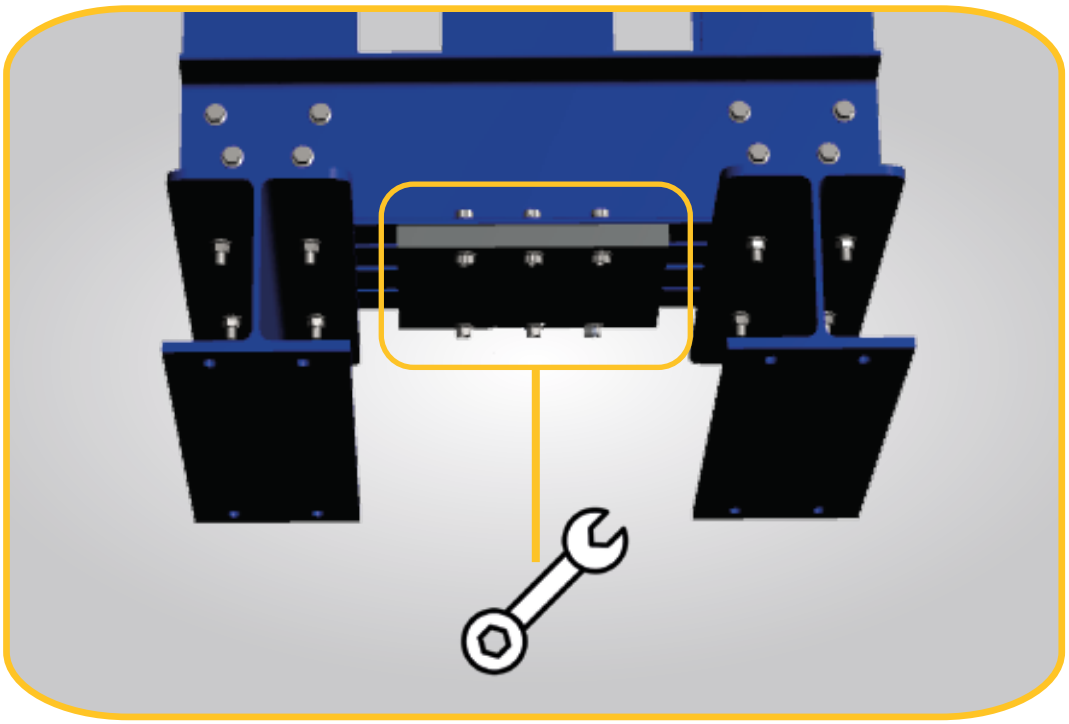
Step 8

Attach **cheek plates** to the **top loading eye** using **cheek plate pins** (x2) and split pins to hold pins in place



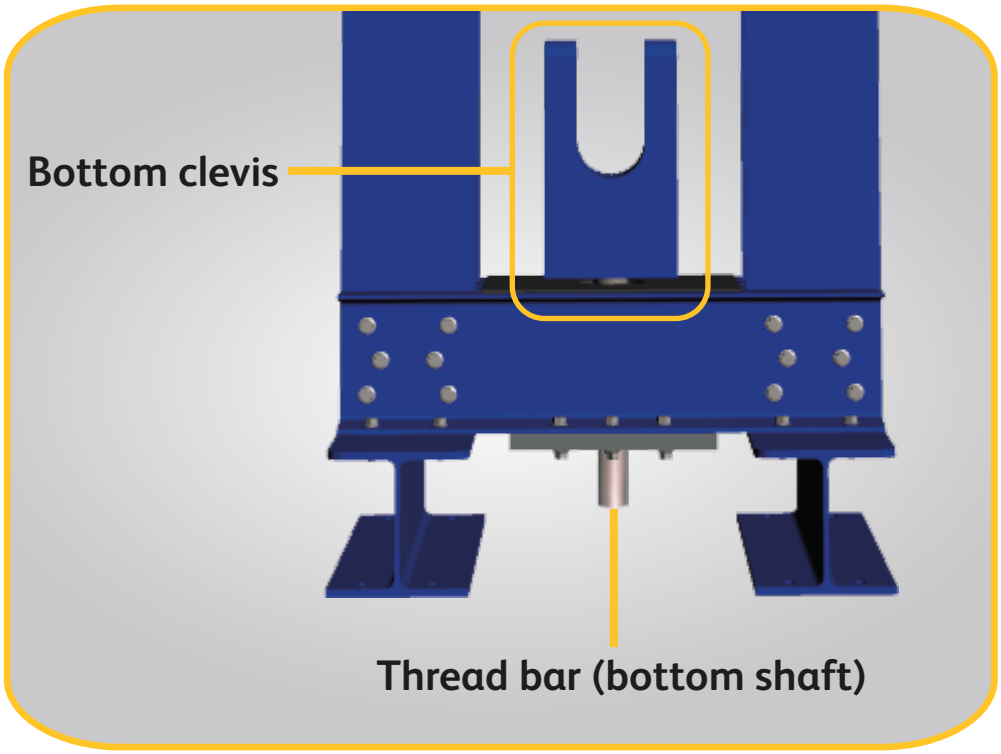
Step 9

Bolt **bottom plate** to the underside of the **bottom transoms (M12 50mm** nuts and bolts)



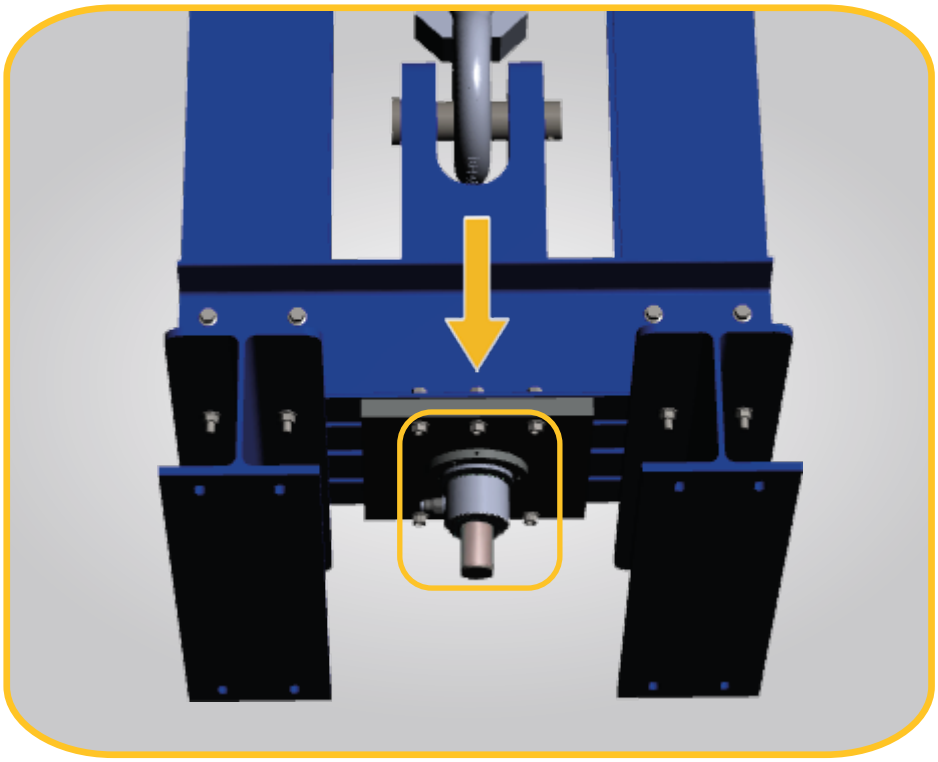
Step 10

Attach **bottom clevis** to one end of the **thread bar (bottom shaft)**



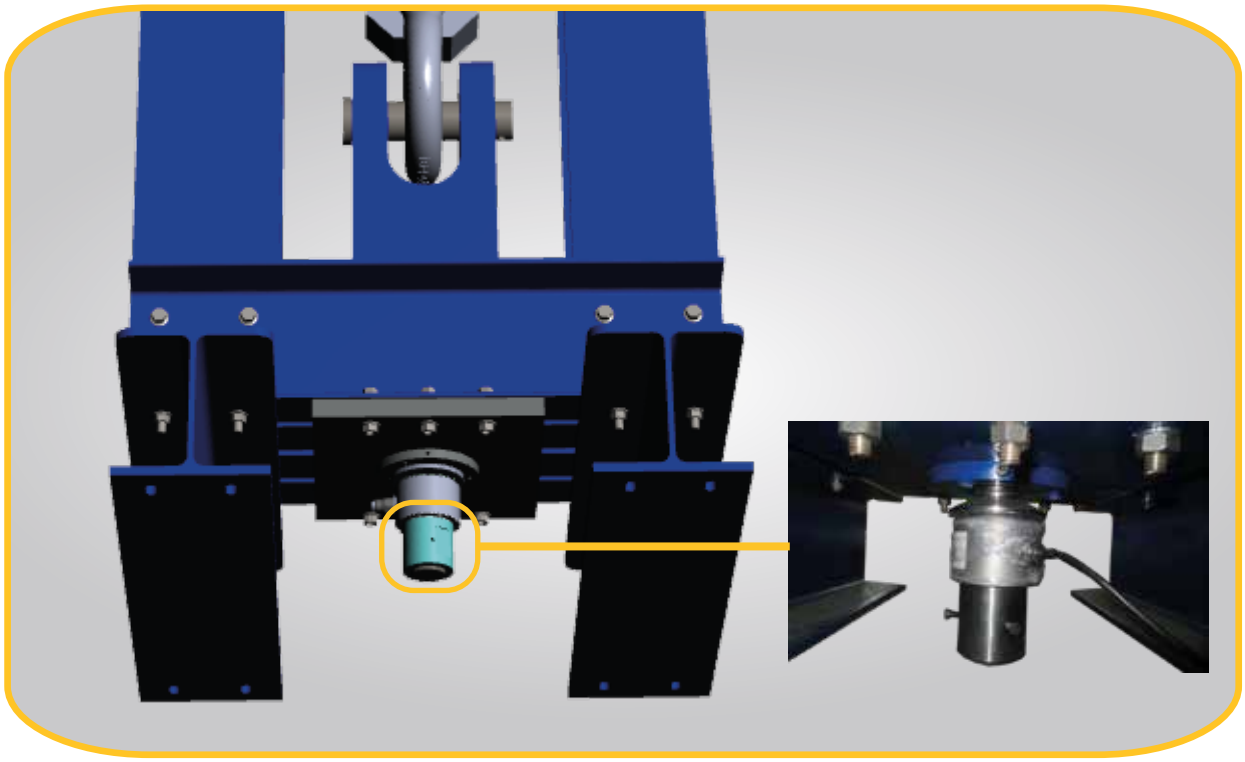
Step 11

Insert other end of the **thread bar (bottom shaft)** through **bottom transoms, bottom plate, spherical washer,** and **reference load cell**



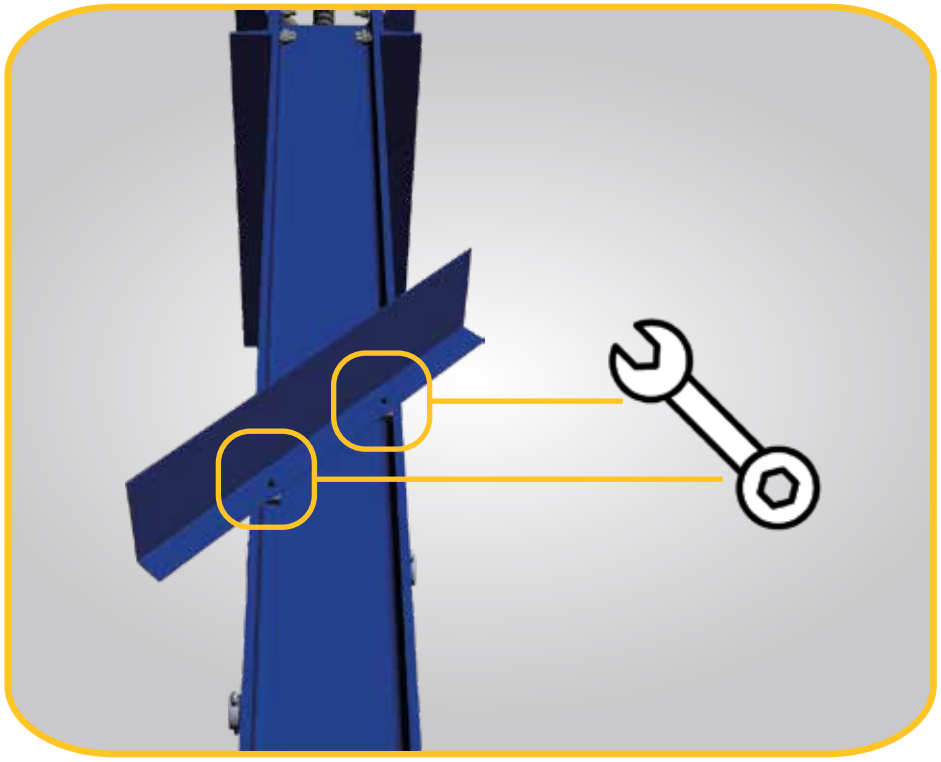
Step 12

Attach **bottom lock nut** to the end of the **thread bar (bottom shaft)** using **M6X1 16mm bolts**



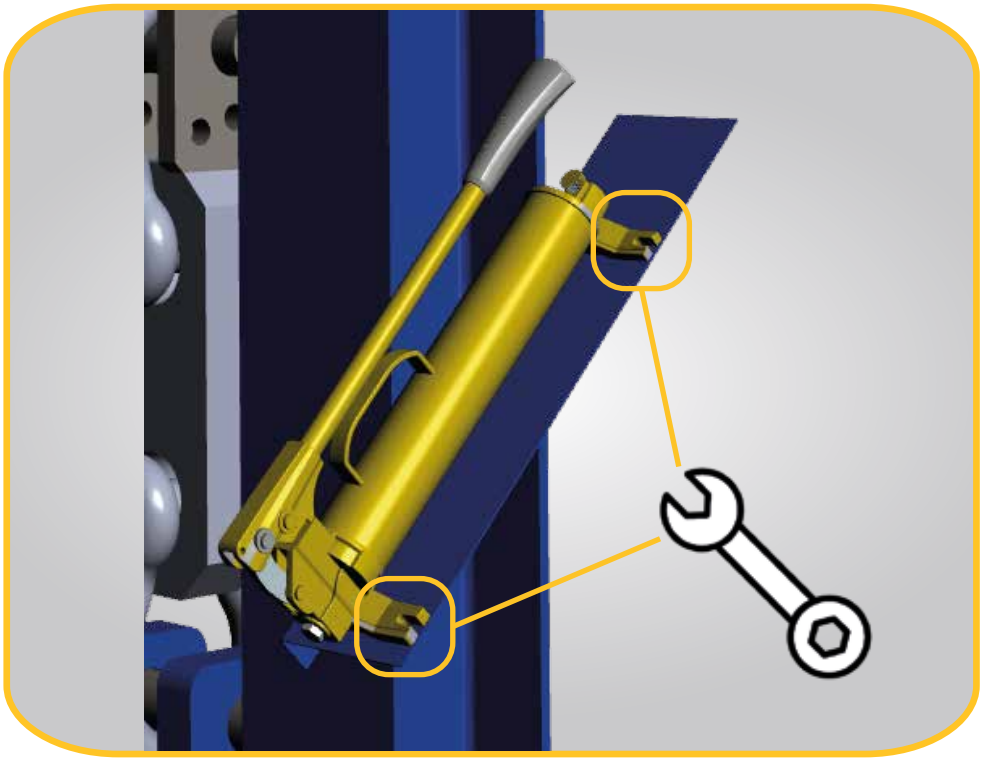
Step 13

Bolt **piston holder plate** to the **upright** via a couple of bolt holes half way down it (**M10X1.5 16mm bolt**)



Step 14

Bolt **hand pump** to **piston holder plate** (**M8X1.25 20mm** nuts & bolts)



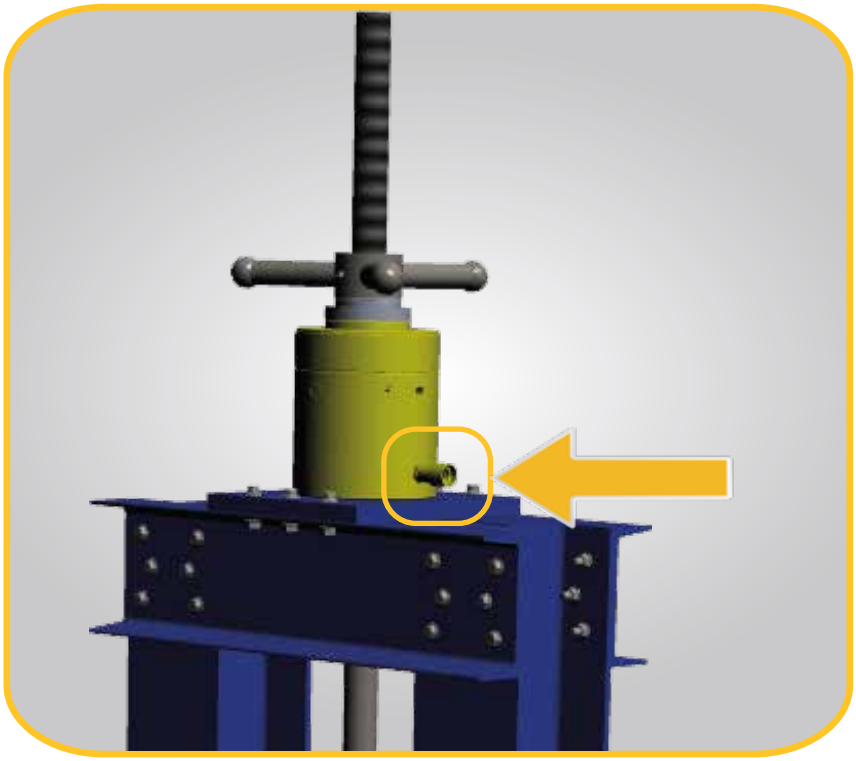
Step 15

Screw **V66 non return valve** to the **hand pump,** then attach the **control valve's line** to the **V66 valve. Seal the joints using PTFE tape**

IMPORTANT: V66 valve has to be connected the right way round to the hand pump for hydraulic fluid to work

Step 16

Attach other end of **control valve's line** to the **hydraulic cylinder**

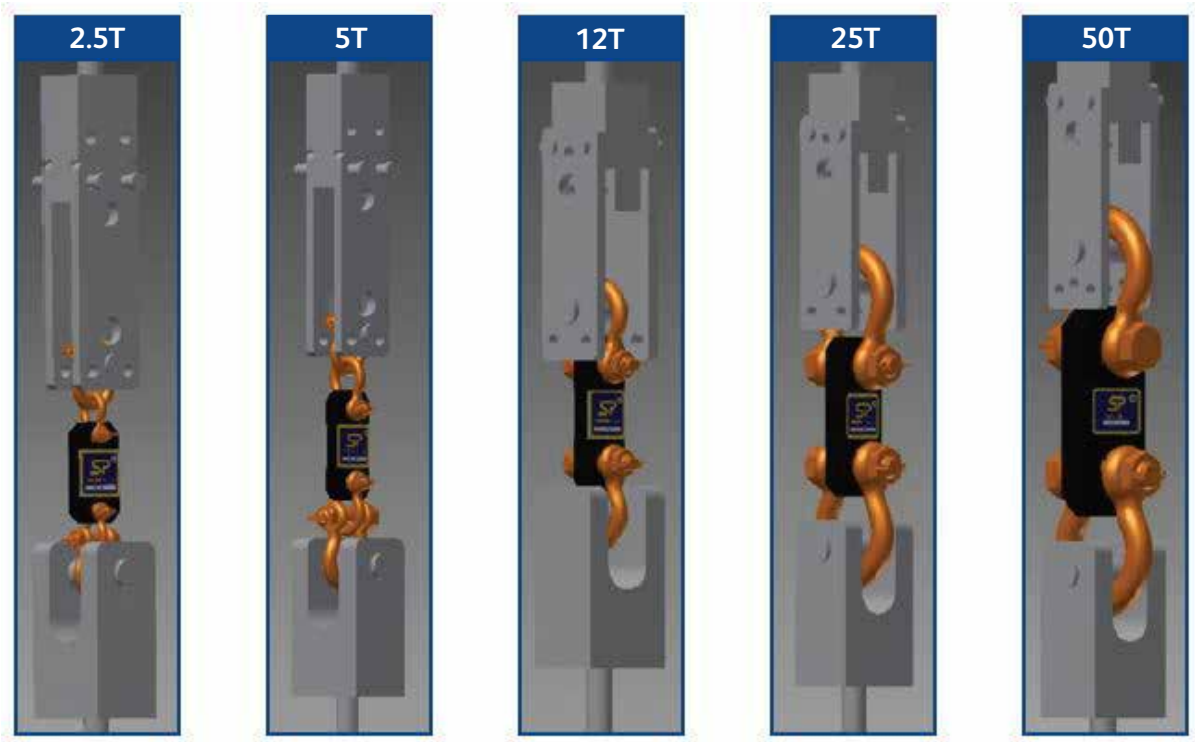


Step 17

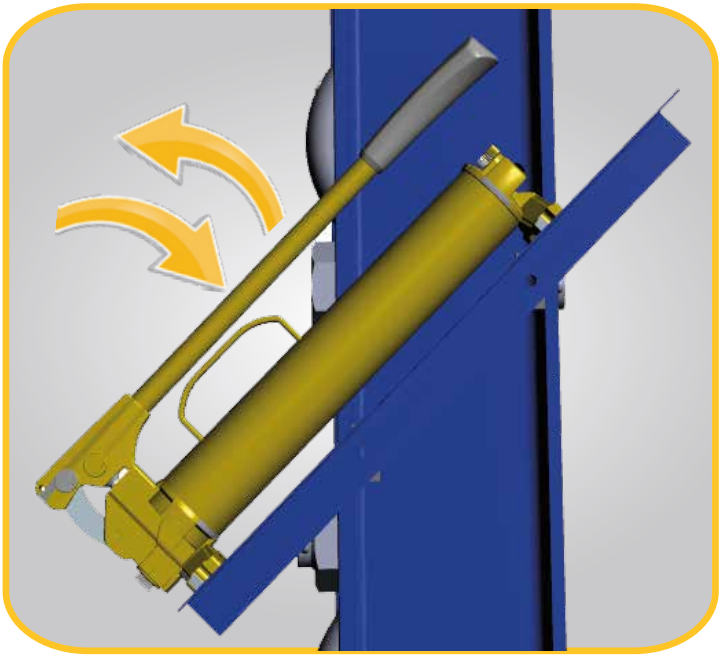
Finally, attach the **HHP mounting bracket** to where you can easily view HPP device. We recommend placing it on the upright that holds the hand pump in place.

Important:
Use the appropriate sized shackles for the load cell you are going to test or calibrate, otherwise this will cause the test results or recalibration to be inaccuate.

The visual guide below shows the amount you will need to adjust the thread bar (top shaft) for the different load cell capacities (2.5-55T).



Once installed correctly, apply tension force to the load cell by pulling the hand pump's lever back and forth whilst monitoring the display on the connected HHP.



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