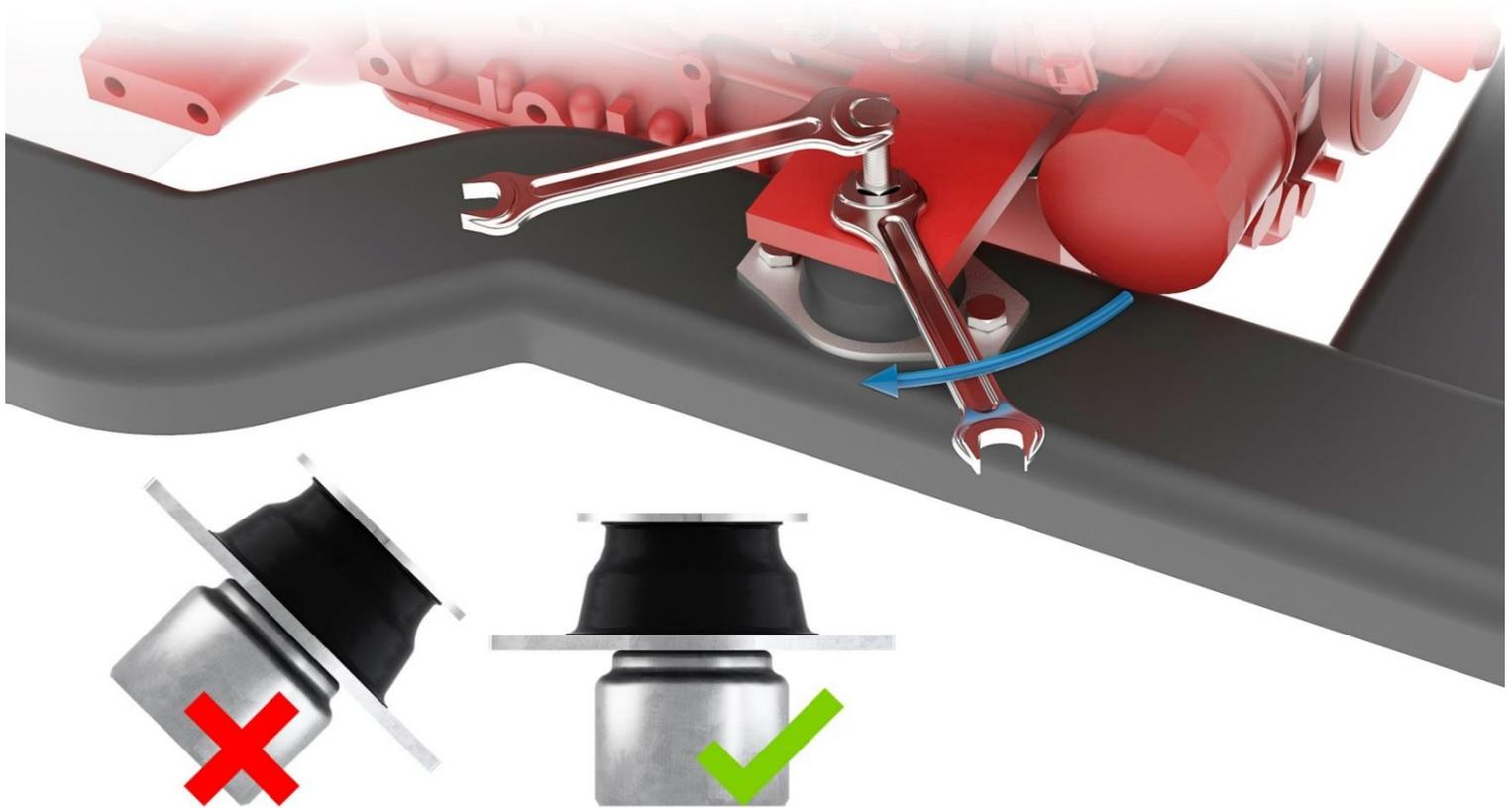


INSTALLATION ADVICE FOR HYDRAULIC MOUNTS

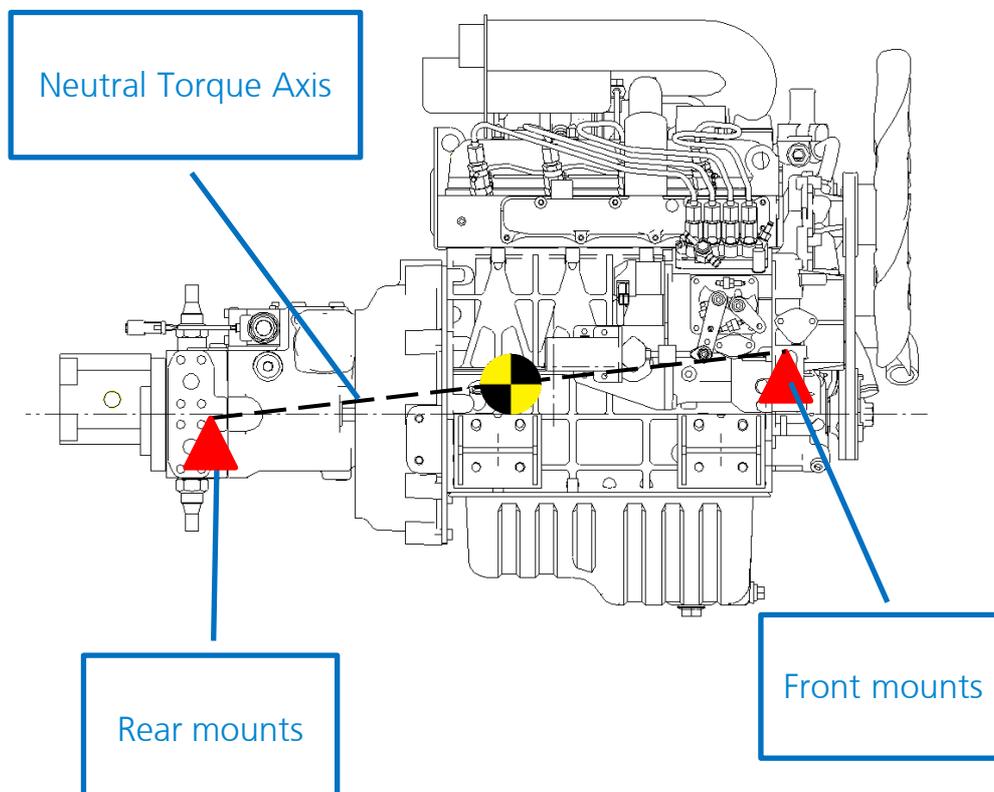


The correct installation of anti-vibration mounts is very important to optimize the vibration isolation, the stability of the system and also the long-term durability of the mounts.



The correct position of the mounts will affect the vibration modes and reduce the natural frequencies of the suspended element, therefore increasing the vibration isolation. Key factors to consider are:

- All the mounts should withstand a similar static load. In the longitudinal direction, the mounts should be installed symmetrically around the total COG.
- To achieve the lowest natural frequencies possible and to improve dynamic load distribution, the mounts should be installed symmetrically around the total COG in the transverse direction.
- To minimize the dynamic forces transmitted by the mounts, it is recommended to install the mounts on the imaginary Neutral Torque Axis (referred to as the NTA), this connects the front & rear mounts with the total centre of gravity.
- If the mounts are soft (to minimize the transmitted forces) and they are installed on the NTA, the dynamic forces can be effectively isolated.



It is recommended to install the Hydraulic Mounts in the upright vertical position. If they are installed in an inclined position, the weight of the suspended equipment would create a static radial load. This could result in the internal piston directly contacting on the internal wall of the hydraulic chamber, this would dramatically increase the mounts stiffness and therefore reduce the vibration isolation.

Another effect of an inclined installation is that it can create an unwanted hammering effect, due to the piston hitting the internal wall of the hydraulic chamber.

Due to this, AMC recommends installing Hydraulic Mounts in the upright vertical position, so the weight of the suspended system acts in the axial direction of the mounts.

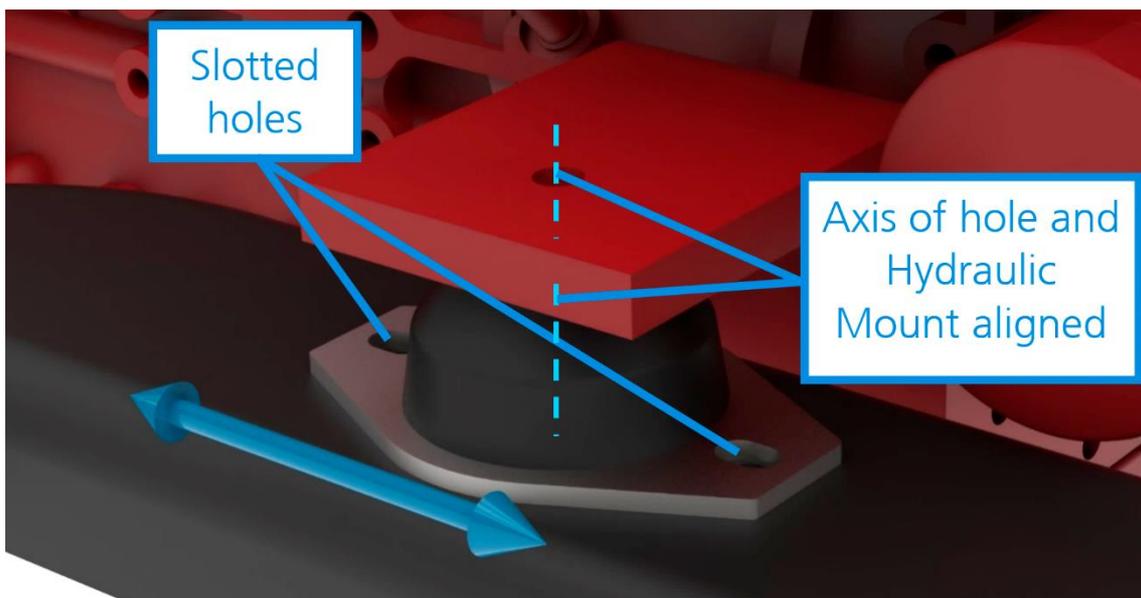


It is important to keep the alignment between the anti-vibration mount and the fixation brackets.

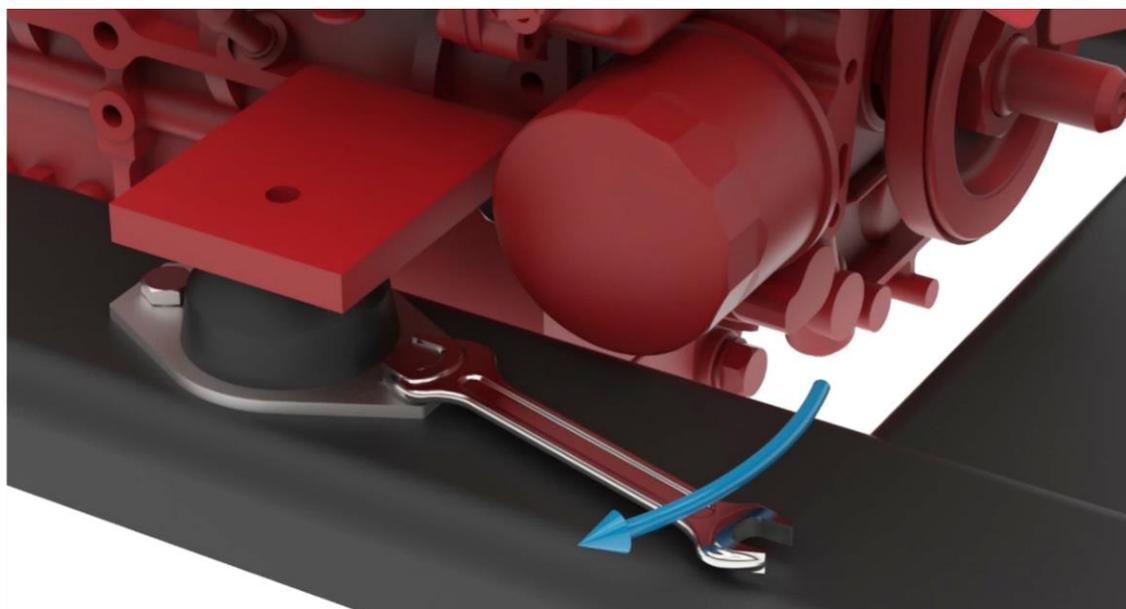
Fastening the mounts misaligned can result in the internal piston of the Hydraulic Mounts touching the internal wall of the hydraulic chamber, dramatically increasing the mounts stiffness and therefore reducing the vibration isolation. It can also produce a hammering effect.

Furthermore any misalignment in the installation is absorbed by the rubber element itself, this places additional unwanted stress on to it.

The slotted holes help to accommodate the position of the Hydraulic Mounts to keep the alignment correct.



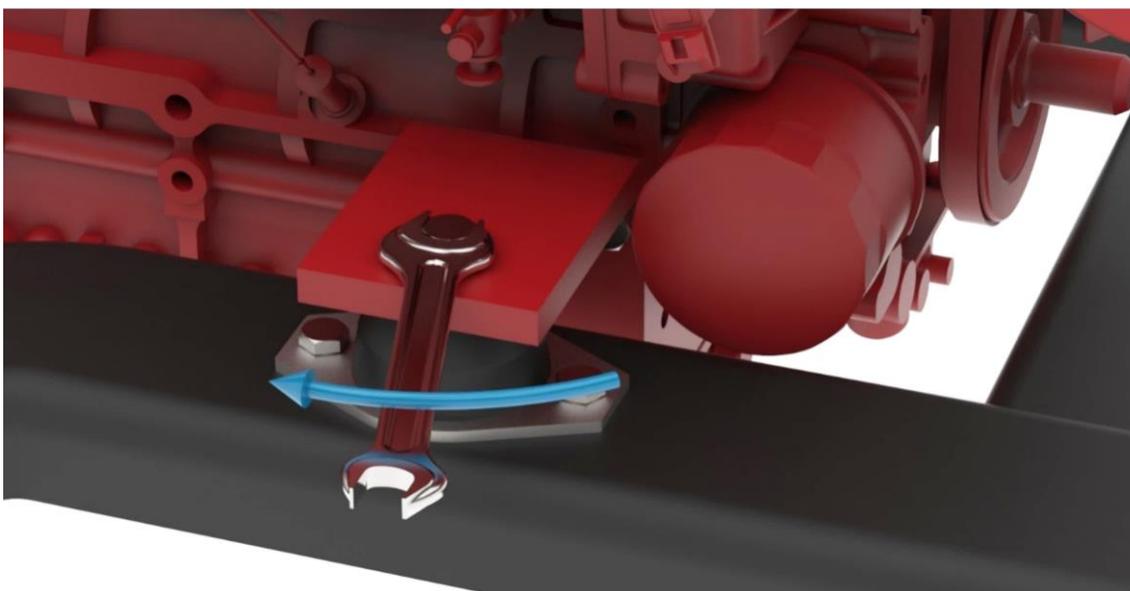
Once aligned, the flange of the Hydraulic Mounts can be fastened:



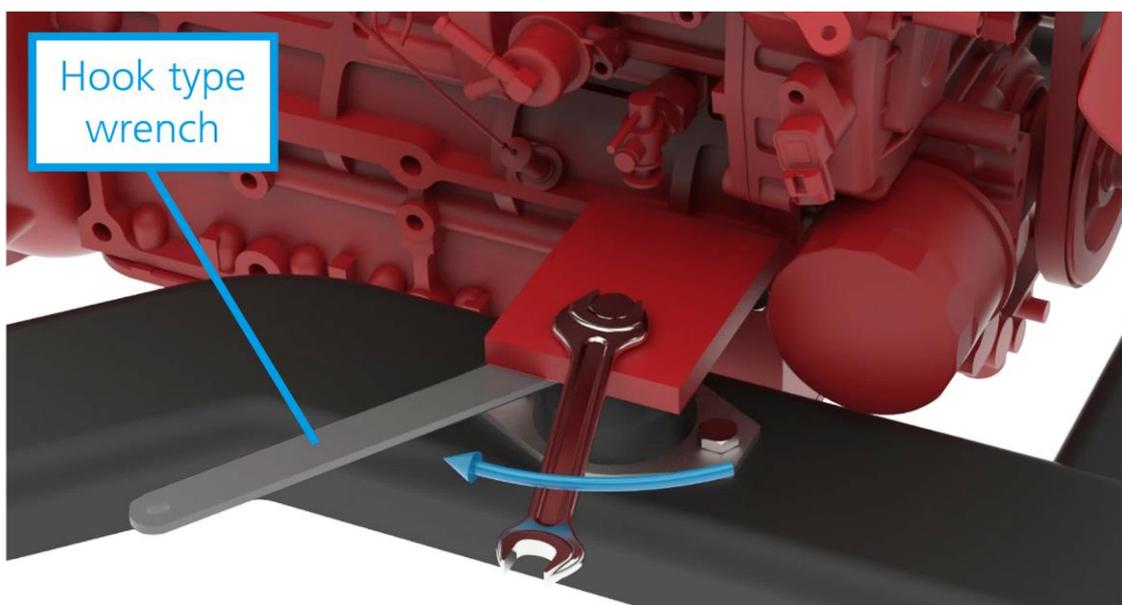
During the fastening of the top screw, it is important to not twist the rubber. Twisting the rubber unnecessarily increases the stress on the rubber and can introduce damage to the bonding surfaces. This might lead to premature appearance of cracks or premature failure of the adhesion between the rubber and the metal parts.

To avoid the twisting of the rubber, there are several methods:

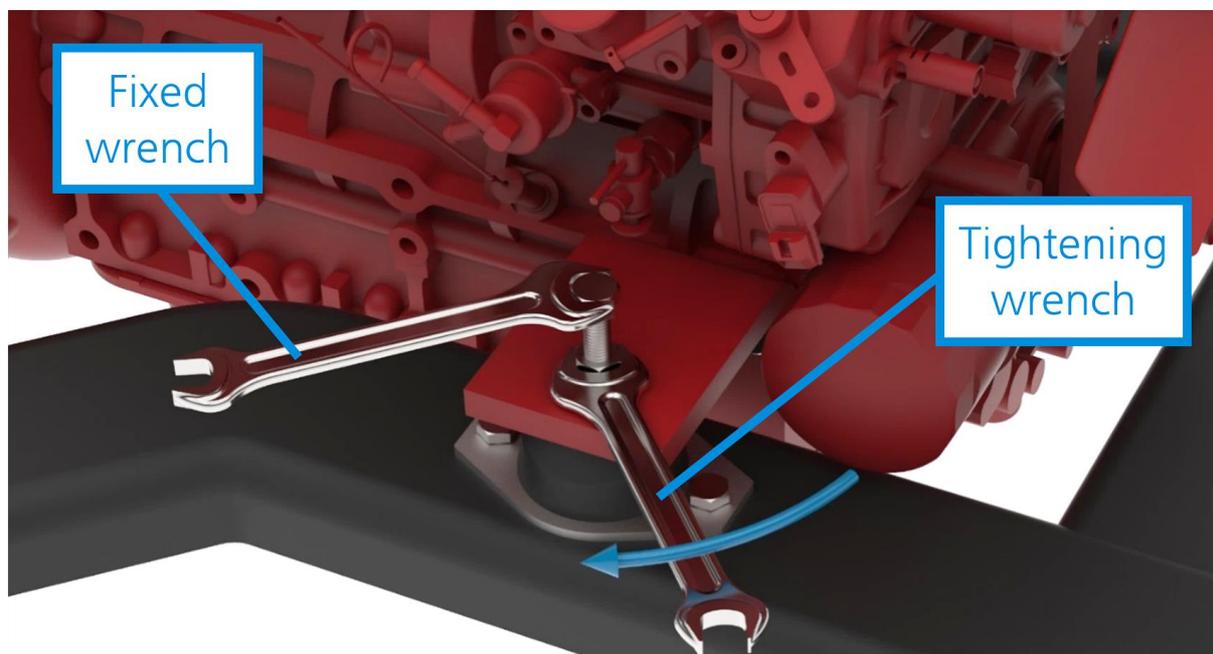
- 1) Sometimes the friction between surfaces is enough to avoid twisting the rubber.



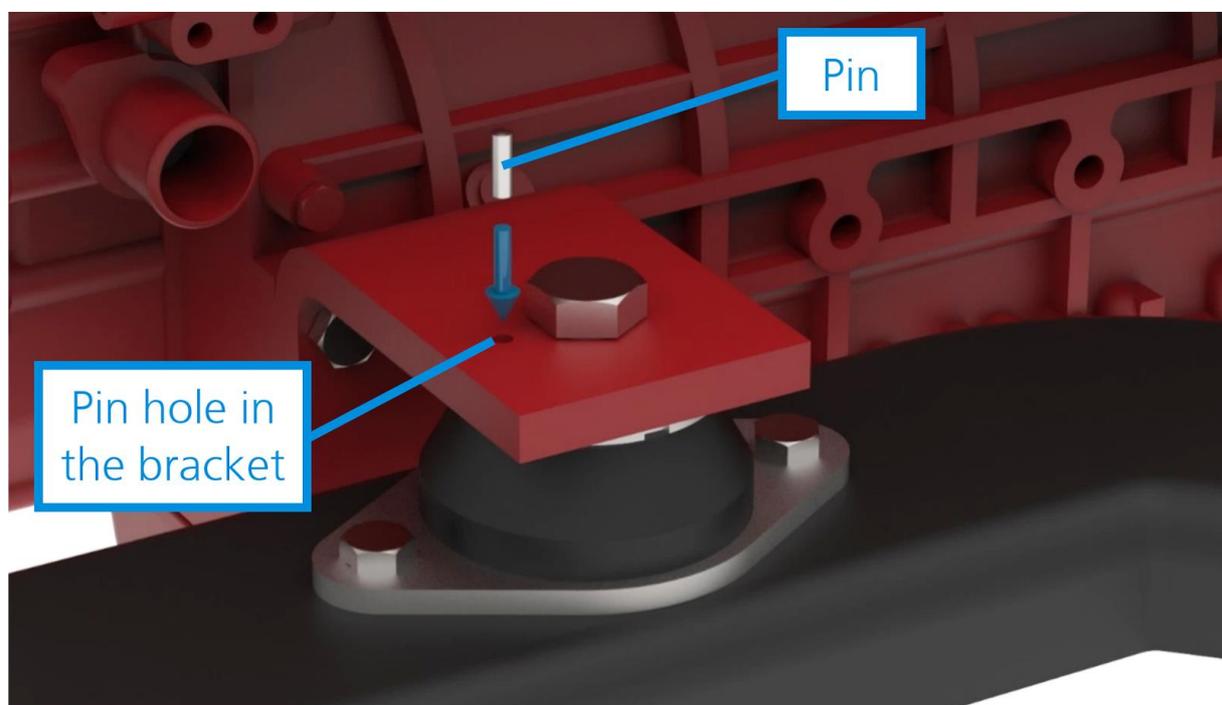
- 2) Hold the top washer with a hook type wrench, using the slots of the top washer.

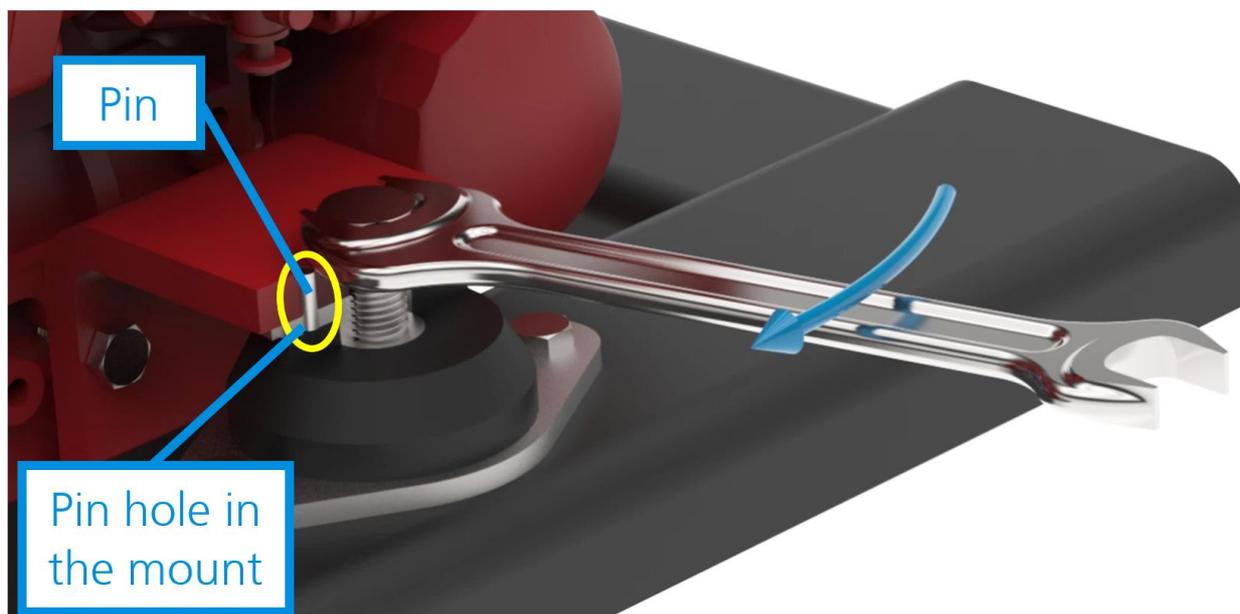


3) Tighten the top screw using a pair of wrenches. While one wrench holds the bolt, the other can tighten the nut.

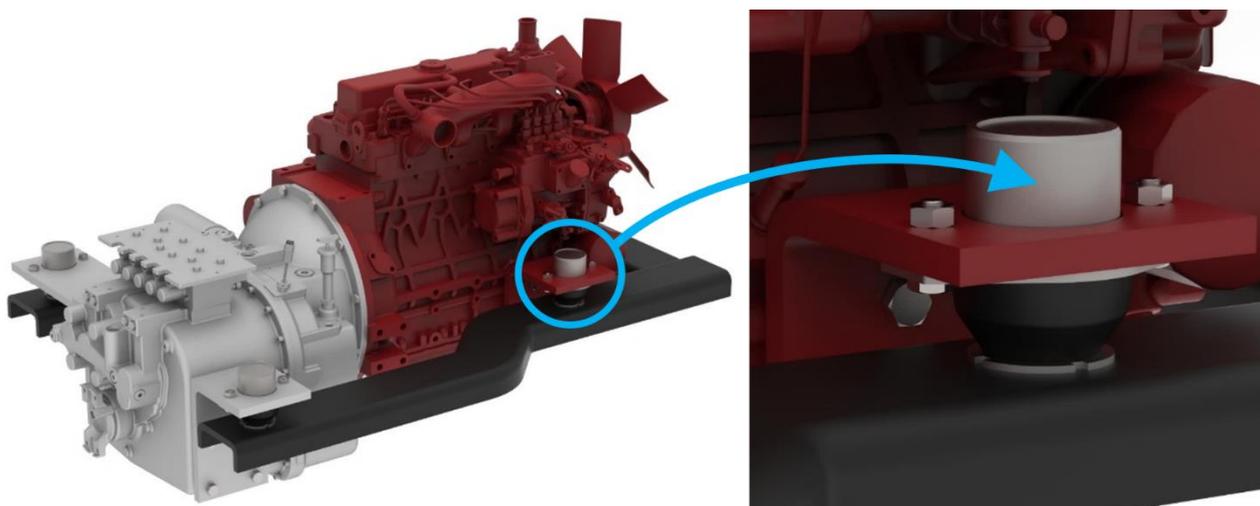


4) The Hydraulic Mounts Large are provided with pin holes. Using them prevents the twisting of the rubber.





The Hydraulic Mounts can also be installed upside down, providing that they are still working in compression. However it is important to note that the damping fluid inside the hydraulic chamber will tend to go downward due to the gravity. Although this factor is not critical to the mounts performance, it might somehow reduce the damping level provided by the mount.



Do not hesitate to contact our application engineers for more information on the installation of Hydraulic Mounts.