

HR21 MK2 HYB motor cradle update

Instruction No.: HR21_CI04

Product: HR21 MK2 HYB

Operation: Update the HR21 MK2 HYB motor cradle by replacing 2×P27510 with P32502

Health & Safety Considerations:



Standard Practices Only

Tools Required: 1x 17mm combination spanner, 1x ½”17mm socket, 1x ½” ratchet extension (250mm), 1x ½” ratchet, 1x Pry bar.

Consumables Required: None

Parts Required: P32502

Notes/Other References: None

[Disclaimer](#)

All update activities should be carried out by a competent MEWP service technician adhering to standard health and safety practices.

Whilst every effort has been made to include all information and details required to facilitate the above mentioned updates should you have any queries contact the Niftylift Service department via service@niftylift.com.

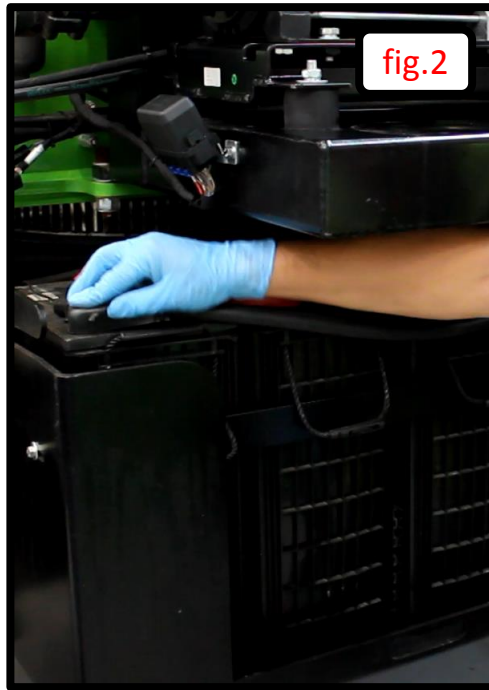
1. Isolate the machine.

Turn the machine Key switch to off (fig.1) and press the red isolator located on the chassis base by the rear left wheel (fig.2). Open the control side cover and unscrew the green battery isolator screw (fig.3).



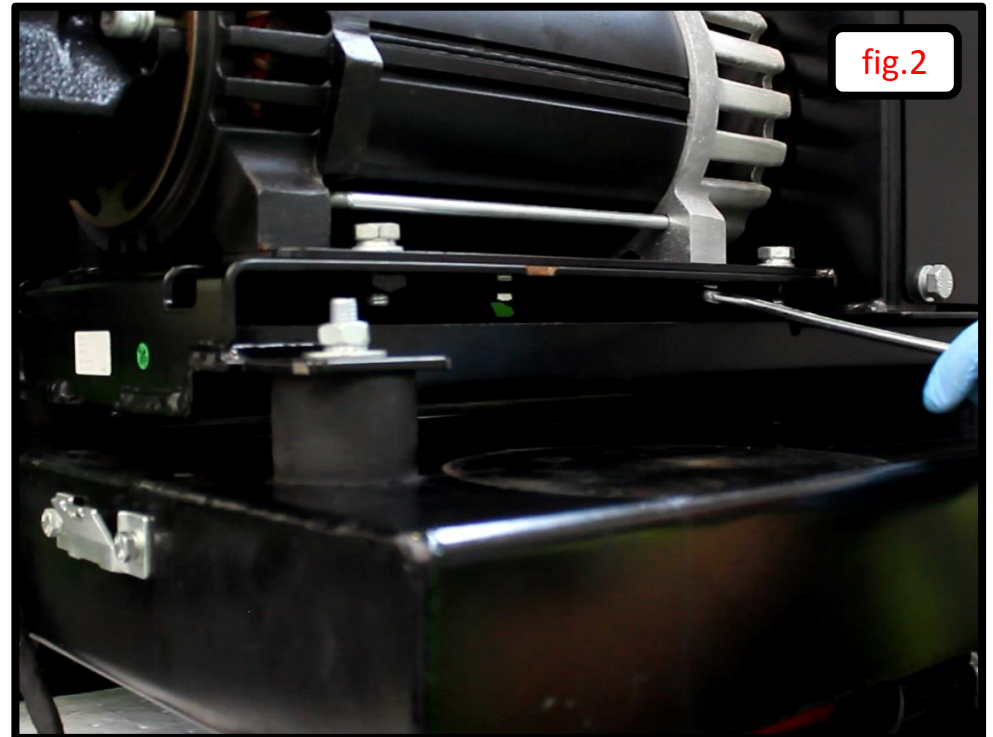
2. Remove the engine side battery cover.

After opening the engine canopy to allow for better access, remove the battery cover (fig.1). Check that all rubber battery post covers are in place (fig.2) and cover the top of the batteries to prevent debris falling inside the battery pod (fig.3) finally remove the fuse holder to prevent damage (fig.4).



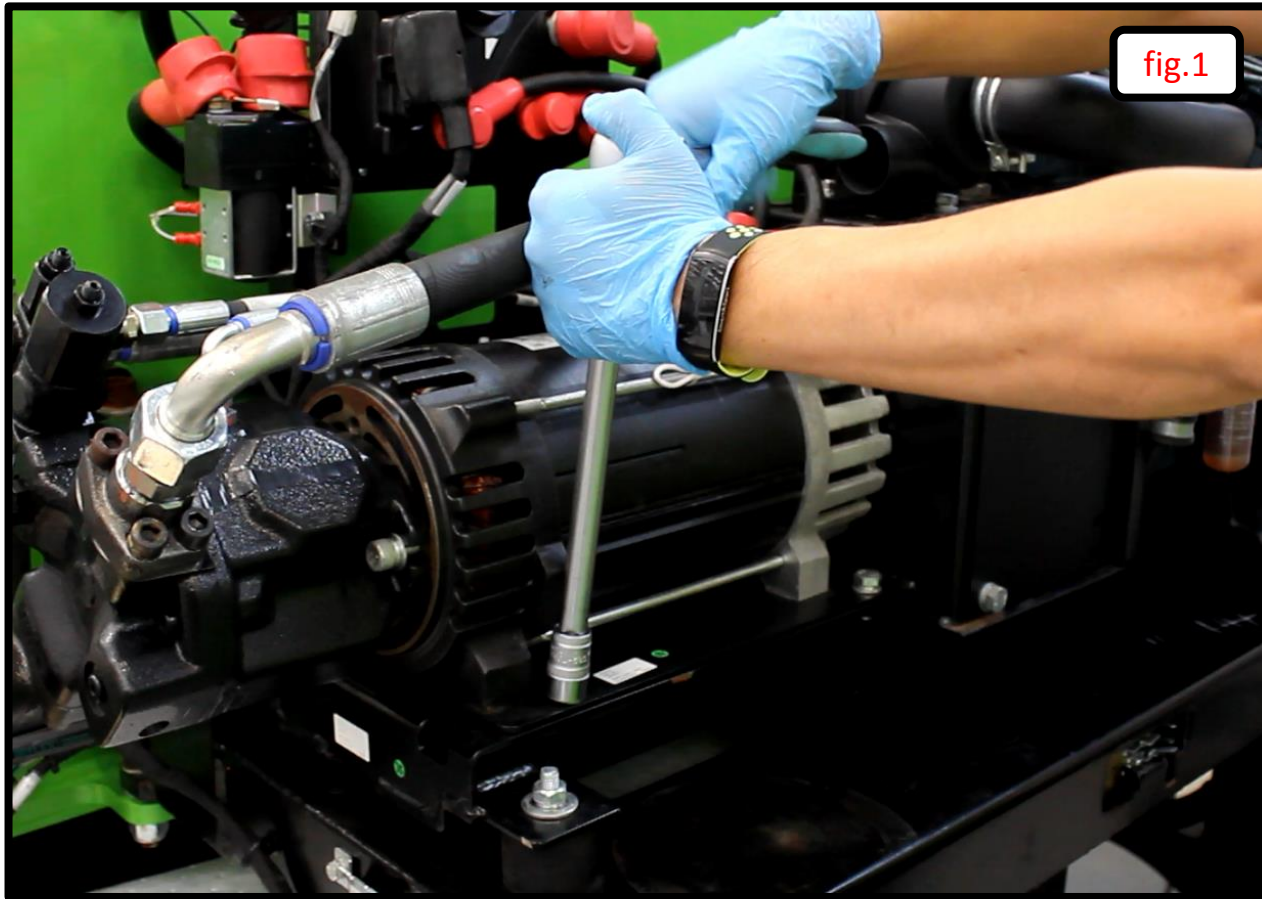
3. Undo the motor bolts

By gaining access from the underside of the engine tray (fig.1) undo the 4 bolts securing the motor to the 2×P27510 (mounting plates) using the 17mm combination spanner (fig.2).



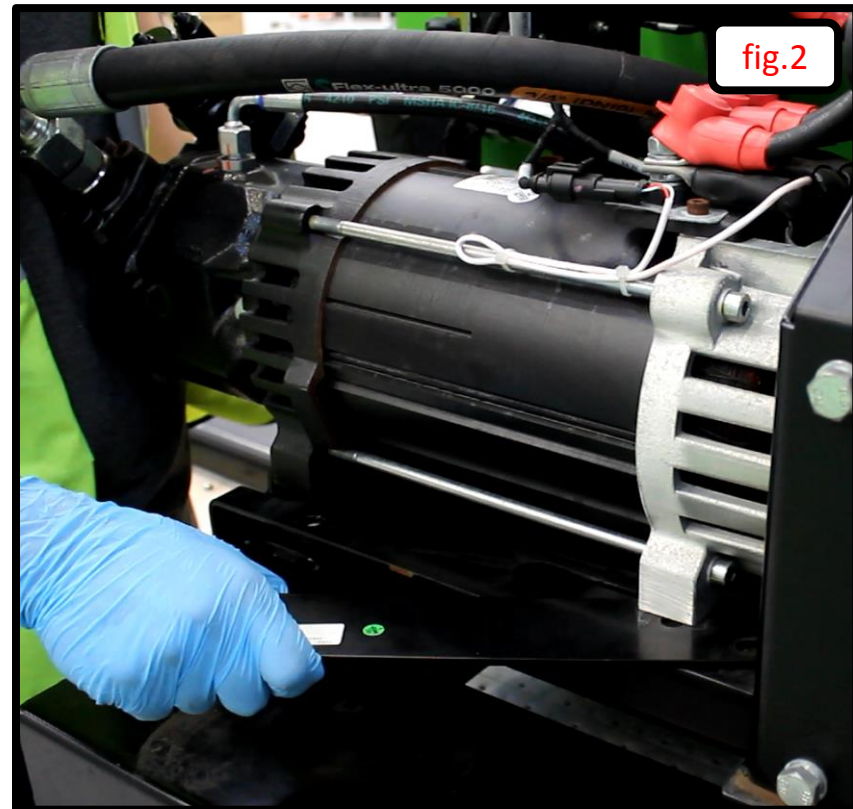
4. Undo the motor cradle bolts.

Using the ½"17mm socket with the ½" ratchet extension (250mm) and ½" ratchet undo the 4 bolts securing the 2xP27510 (mounting plates) to the motor cradle (fig.1).



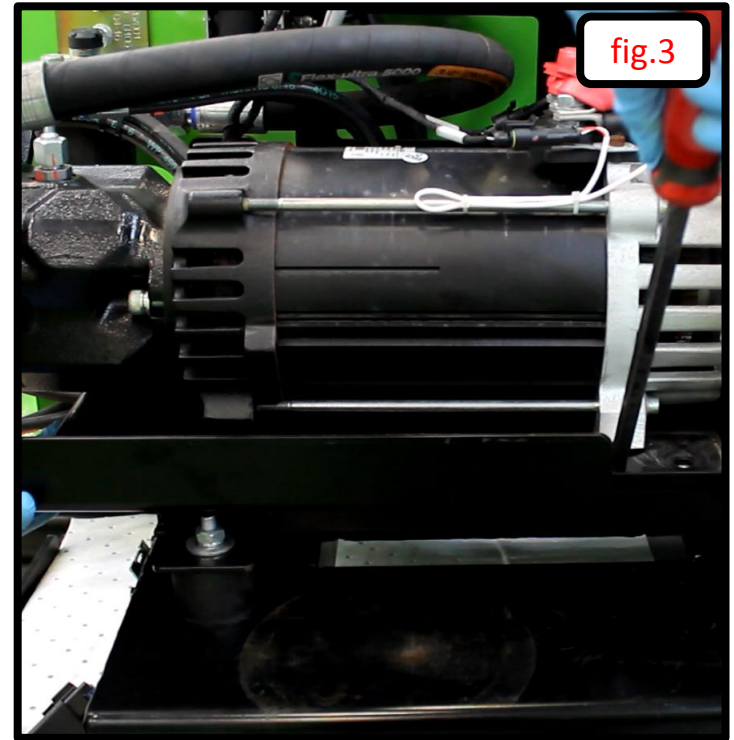
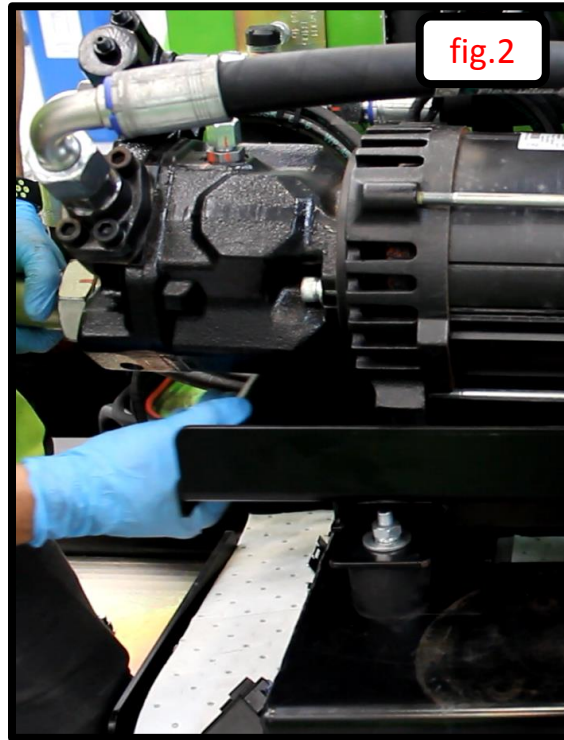
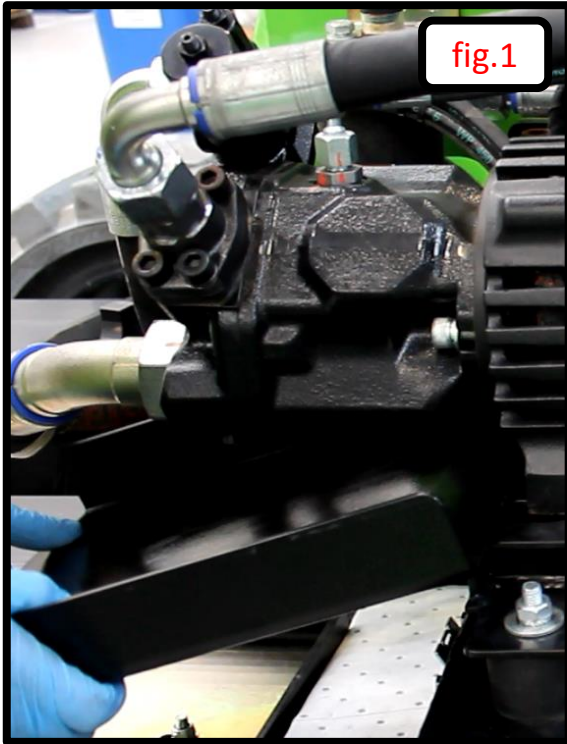
5. Remove the 2×P27510 (mounting plates)

With the all the bolts removed slightly lift the motor from the pump end (fig.1) and remove the 2×P27510 (mounting plates) (fig.2).



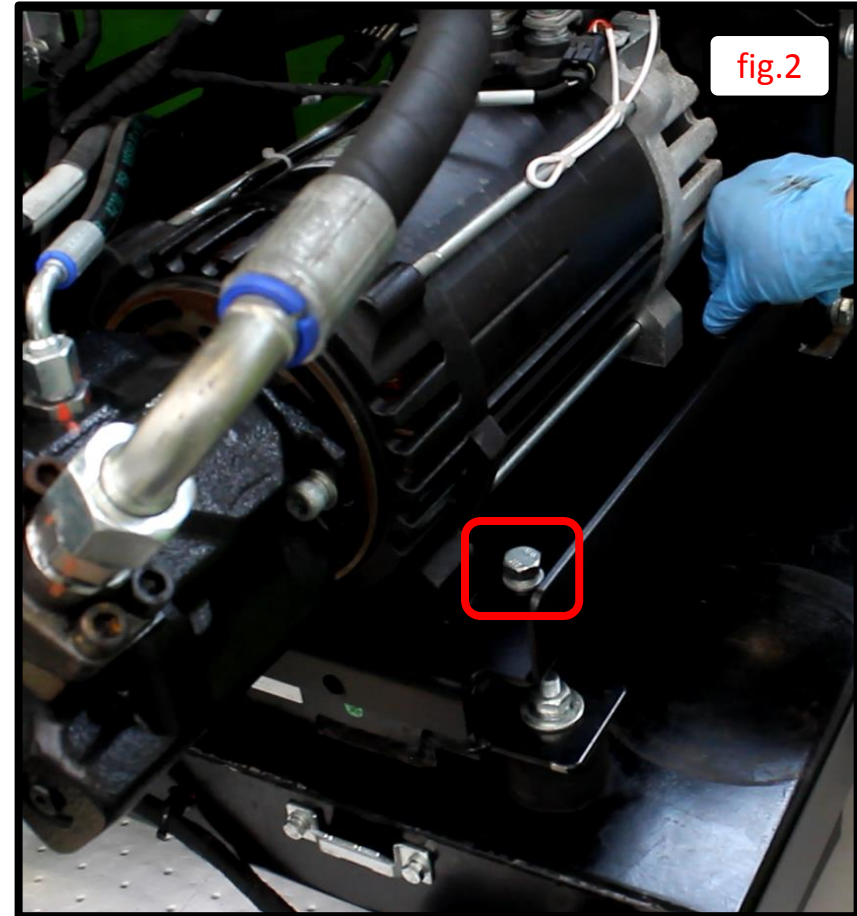
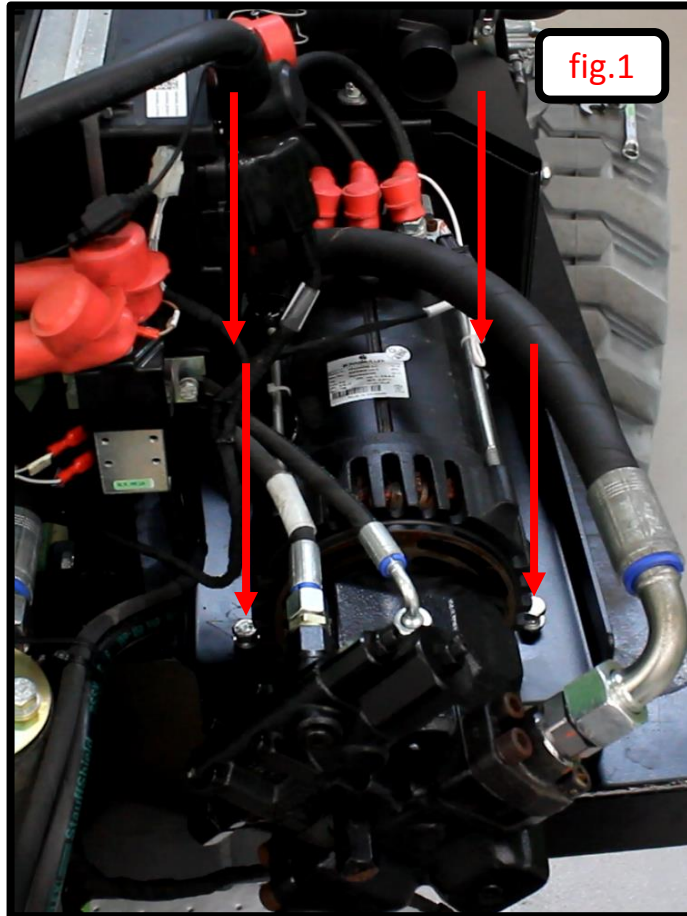
6. Fit the new P32502 motor mounting plate.

Fit the new P32502 in the orientation shown (fig.1), lift the pump end of the motor first (fig.2) and slide the tray forwards then use a pry bar to gently lift the other end of the motor (fig.3) to allow the new tray to locate correctly and line up with the holes in the engine tray.



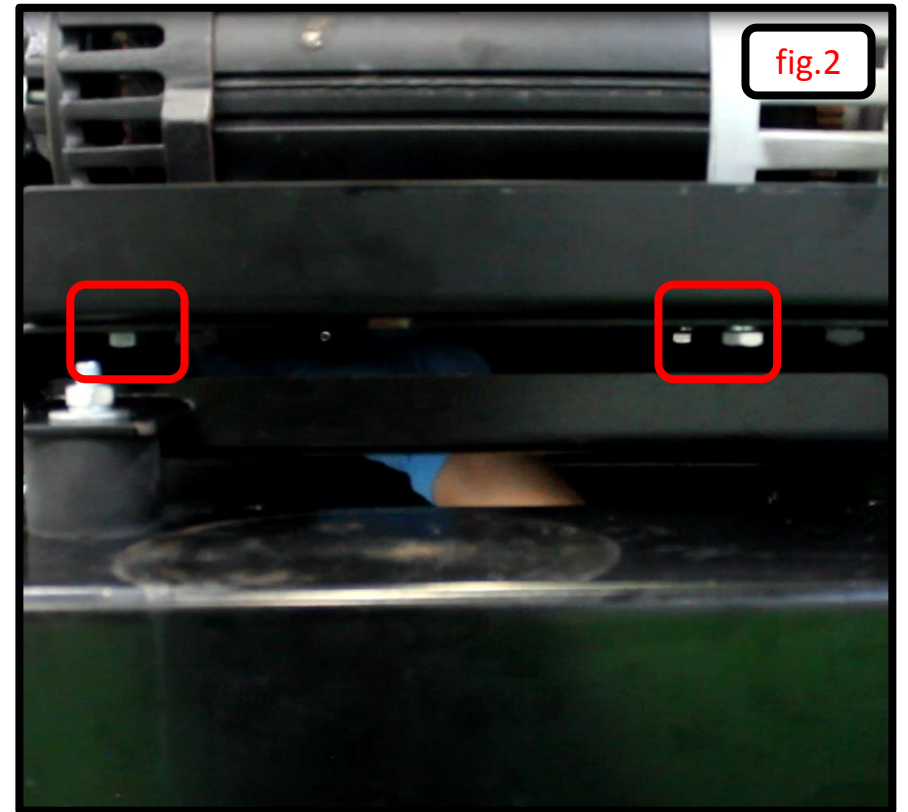
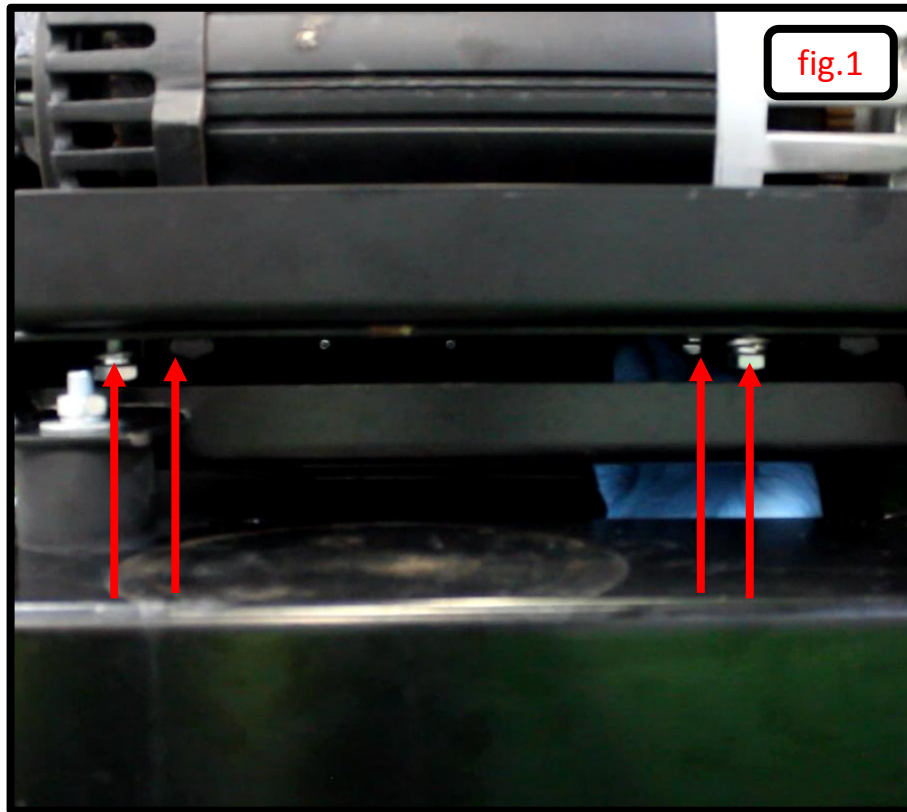
7. Re-fit the motor tray bolts.

Re-fit the 4 motor cradle bolts as shown (fig.1) and hand tighten (fig.2).



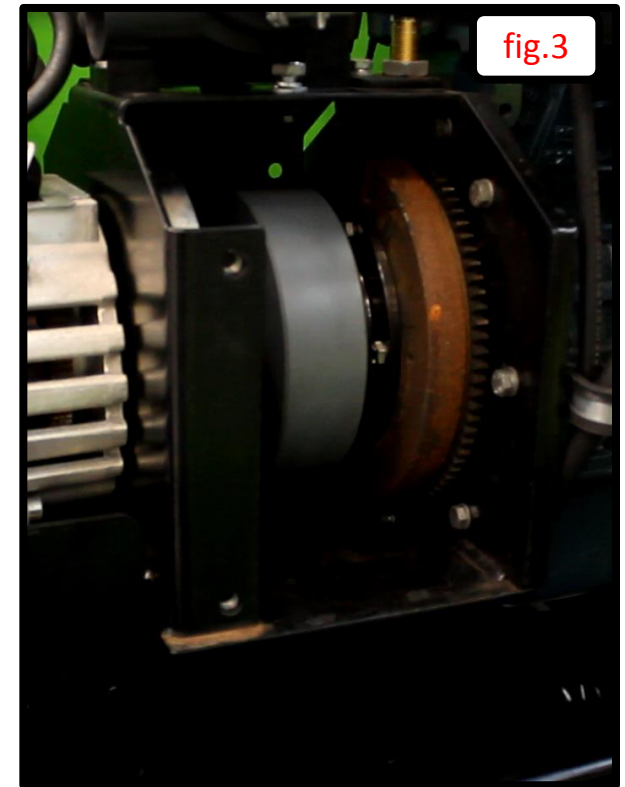
8. Re-fit the motor bolts.

Re-fit the 4 motor from below as shown (fig.1) and hand tighten (fig.2).



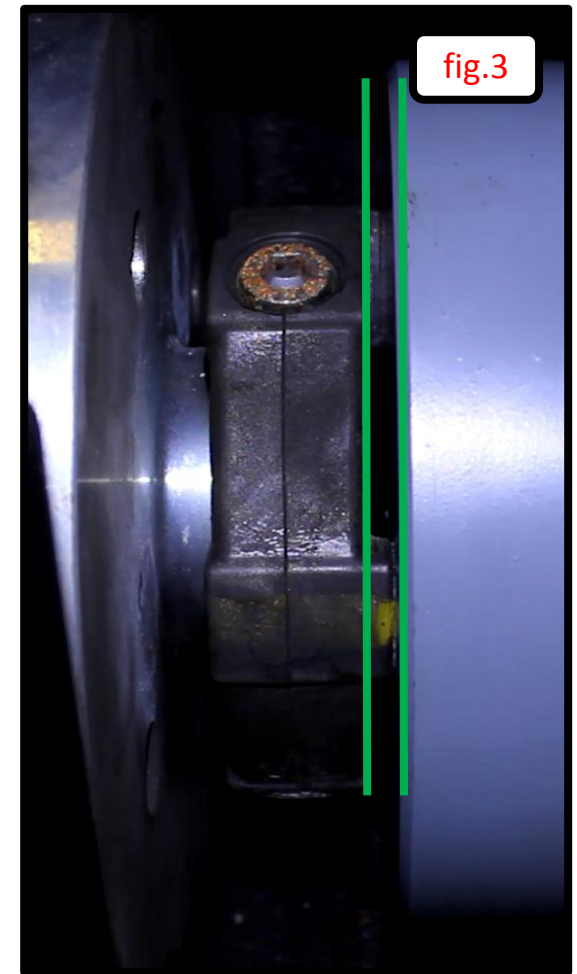
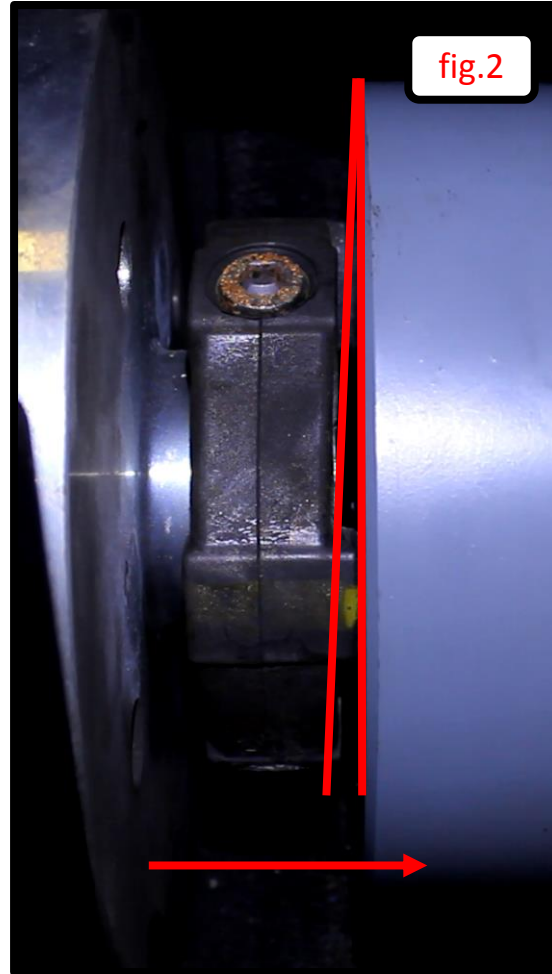
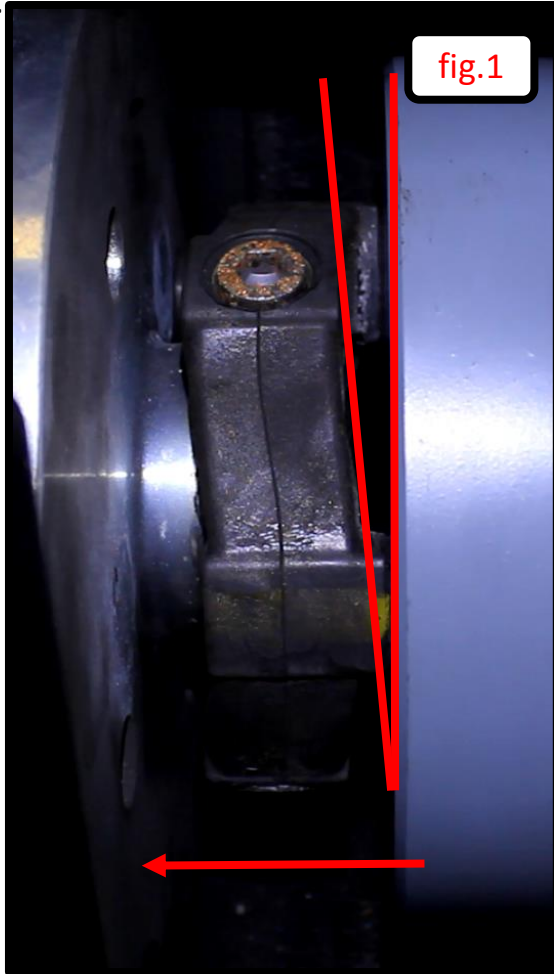
9. Remove the Clutch cover.

Using the ½"17mm socket with the ½" ratchet undo and remove the 2 bolts securing on the left hand side of the clutch cover (fig.1) and using the 17mm combination spanner undo the bolt on the top of the cover (fig.2). This will allow you to remove the clutch cover (fig.3).



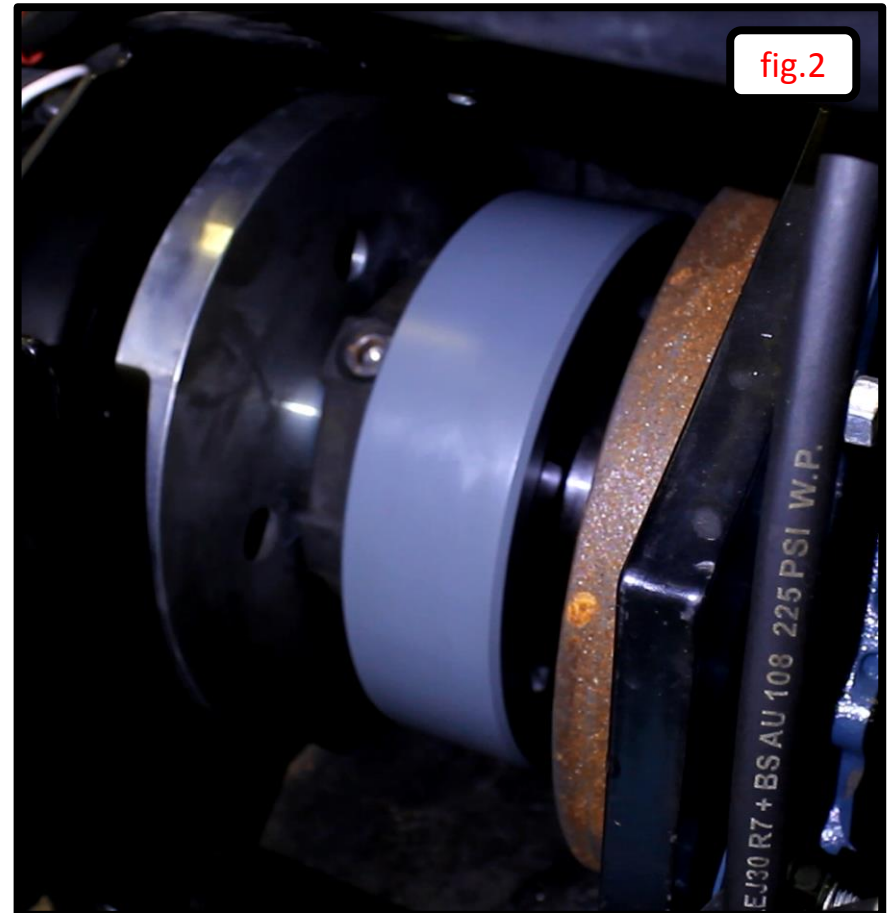
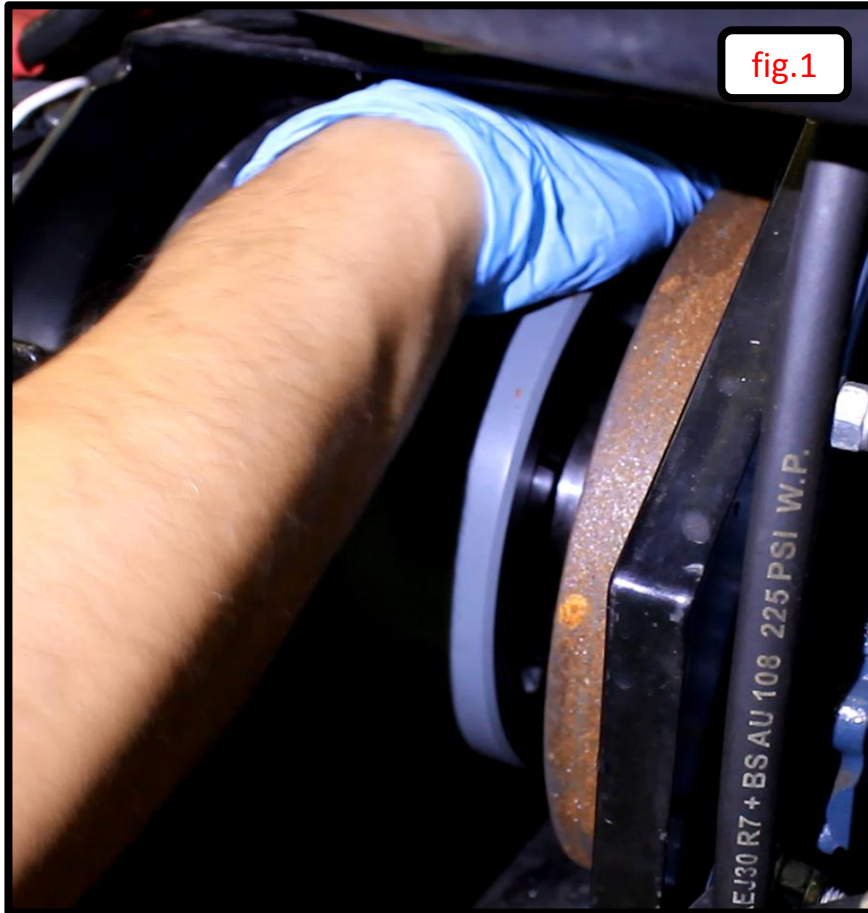
10. Check the clutch coupling.

Adjust the motor manually by pushing in and out with the tray bolts only hand tight, ensure the motor is not positioned too far out (fig.1) or in (fig.2). Visually check the rubber clutch coupling is running parallel to the clutch (fig.3).



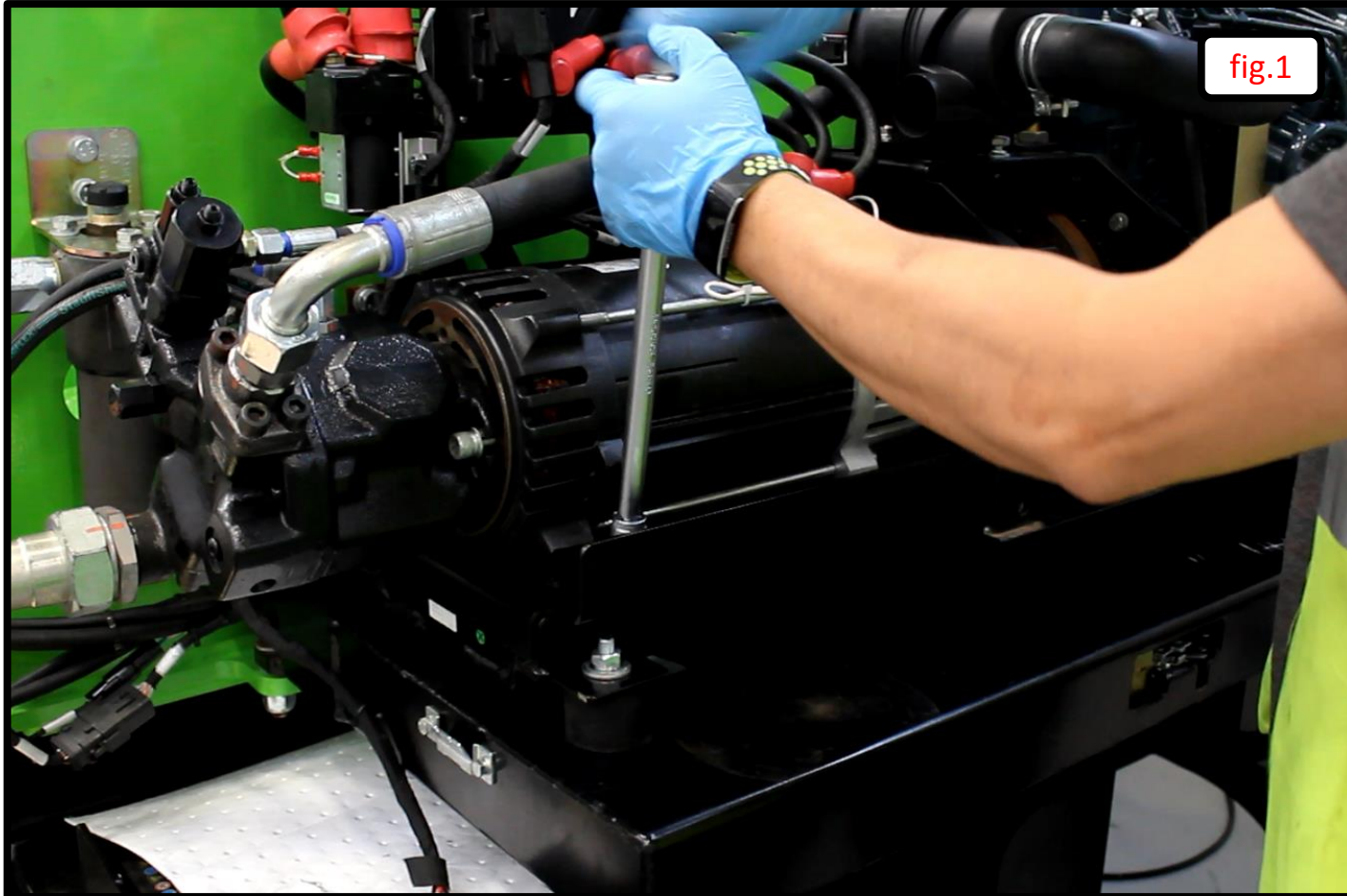
10. Check the clutch coupling continued.

Spin the clutch by hand to check that it is free moving (fig.1&2).



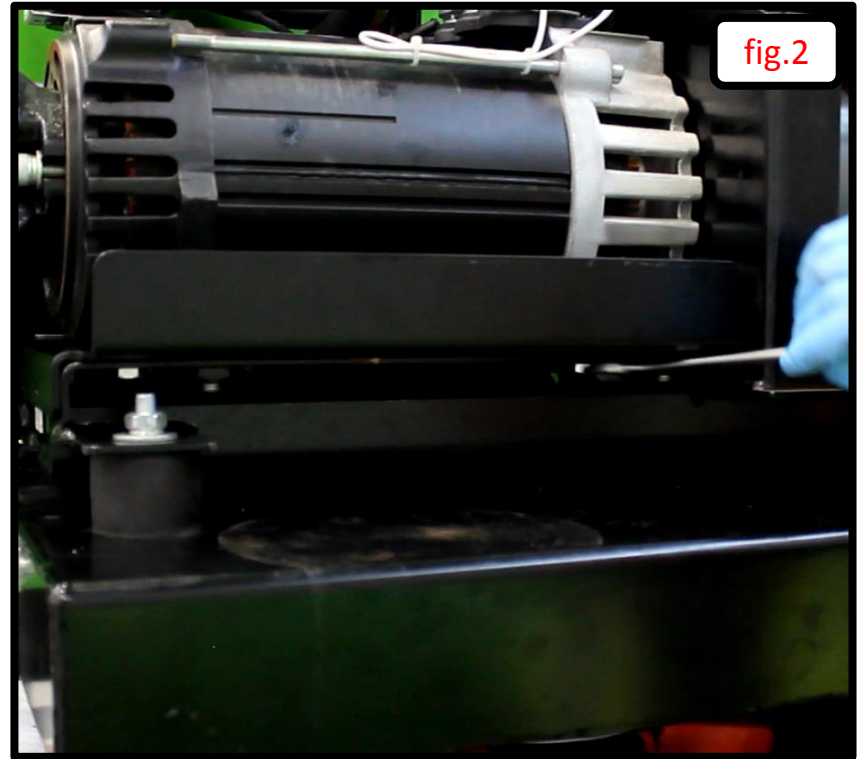
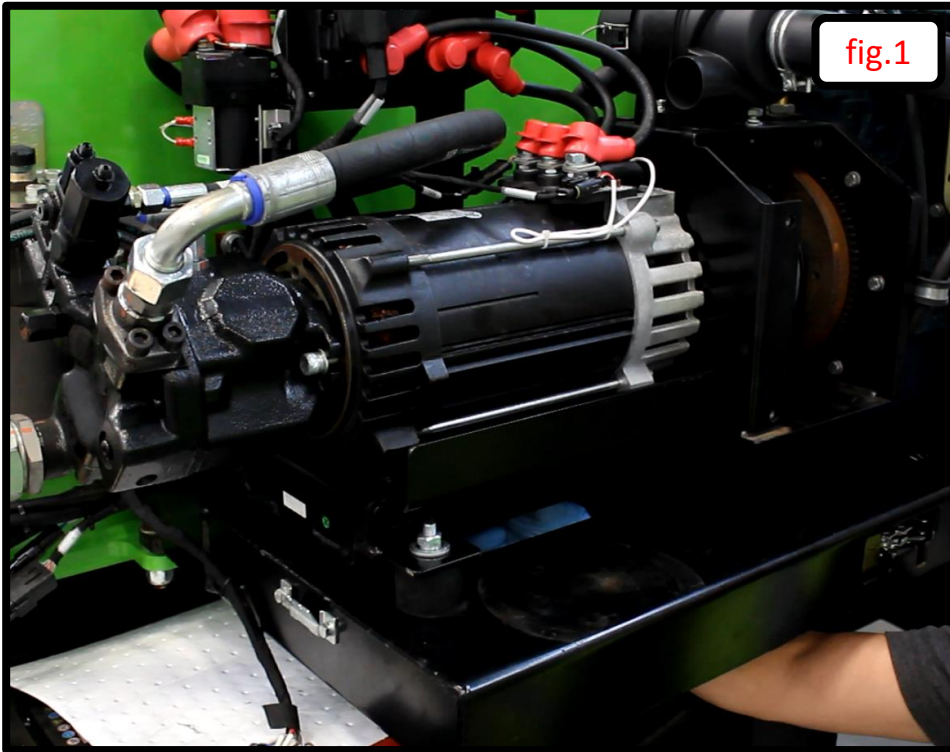
11. Tighten the motor tray bolts.

Using the ½"17mm socket with the ½" ratchet extension (250mm) and ½" ratchet tighten the 4 bolts securing the new P32502 to the motor cradle (**fig.1**).



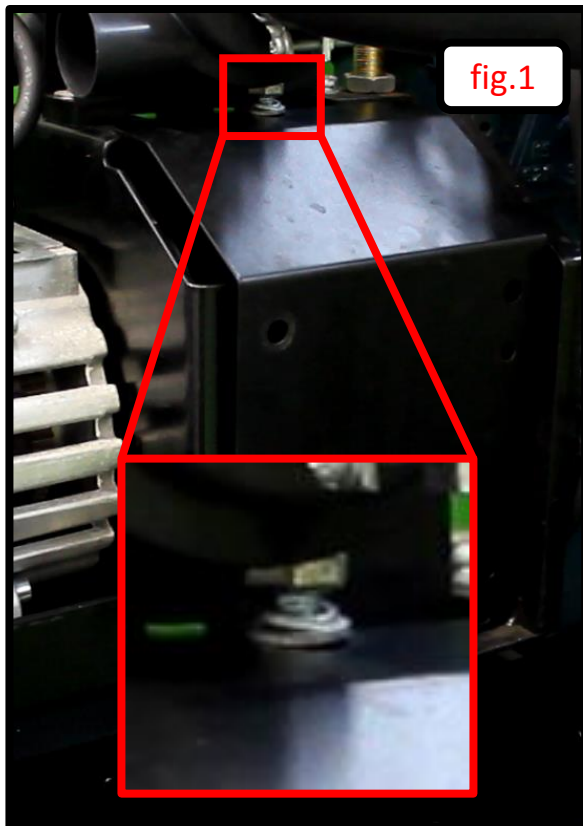
12. Tighten the motor bolts

By gaining access from the underside of the engine tray (fig.1) fully tighten the 4 bolts securing the motor to the P32502 using the 17mm combination spanner (fig.2).



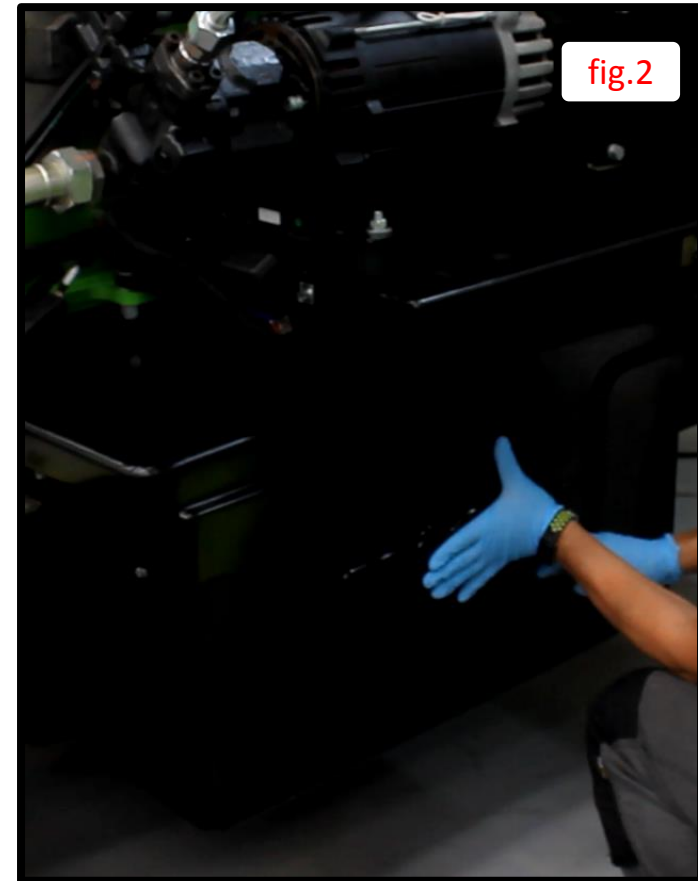
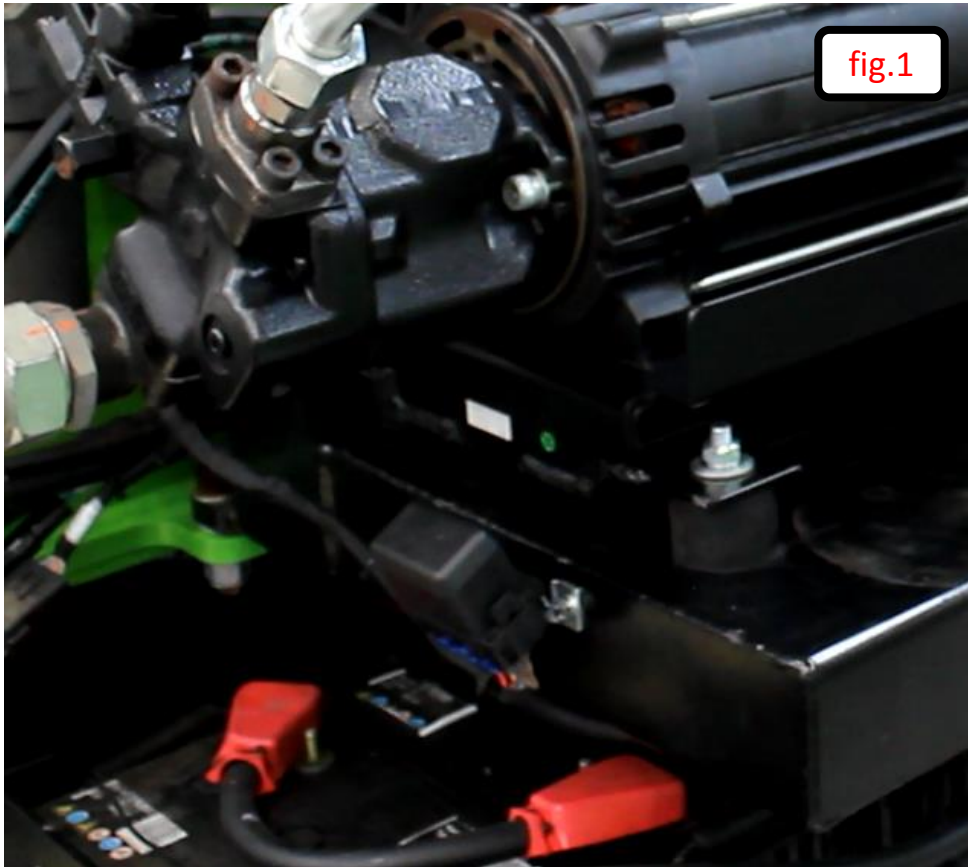
13. Replace the Clutch cover.

Replace the clutch cover ensuring the spring and flat washer sit on top of the cover plate (fig.1). Using the ½”17mm socket with the ½” ratchet or 17mm combination spanner tighten the 2 bolts securing on the left hand side of the clutch cover (fig.2) and using the 17mm combination spanner tighten the bolt on the top of the cover (fig.3).



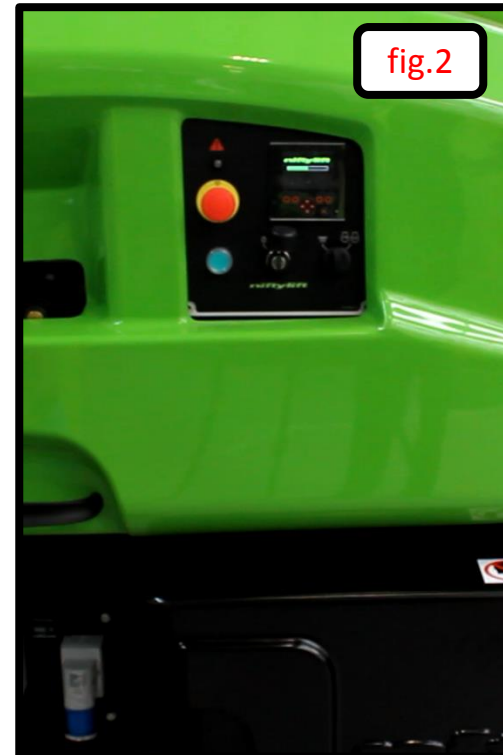
14. Replace the engine side battery cover.

Replace the fuse holder and remove the covers placed on top of the batteries to prevent debris falling inside the battery pod (fig.1) and replace the battery cover (fig.2).



15. Un-Isolate the machine.

Open the control side cover and tighten the green battery isolator screw pull out the red isolator located on the chassis base by the rear left wheel (fig.1). Turn the machine Key switch to on and let the machine load (fig.2).



16. Run the electric motor.

Once the machine has loaded run the electric motor by pressing the green button (fig.1). Listen for any unusual noises from the motor, if so the coupling alignment is incorrect, refer to steps 10 & 11.

