


<b>Boom Enable Valve Coupling Replacement</b>	
<b>Instruction No.:</b> HR21_CI03	<b>Product:</b> HR21 MK2
<b>Operation:</b> Replace the boom enable valve quick release coupling with a swivel coupling	
<b>Health &amp; Safety Considerations:</b>	 <span style="margin-left: 20px;">Standard Practices Only</span>
<b>Tools Required:</b> 32mm & 36mm Spanner, 50mm Adjustable Spanner, 32mm Crowfoot (16mm Spigot DR), 16mm Spigot Torque Wrench, ½” Ratchet, 17mm & 19mm ½” Socket, 200mm ½” Ext. Bar, Flathead Screwdriver	
<b>Consumables Required:</b> Panel Wipe Degreaser, Oil Spill Pads, Blue Roll, Nitrile Gloves	
<b>Parts Required:</b> 1x P31291 – Swivel Coupling	
<b>Notes/Other References:</b>	

[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](mailto:service@niftylift.com).

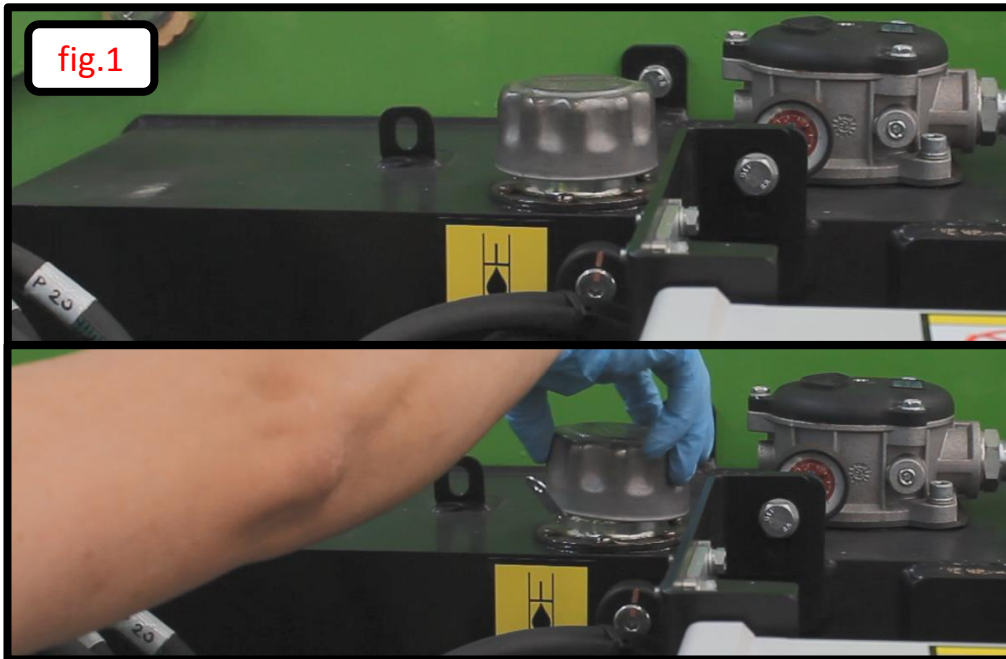
## 1. Isolate the machine.

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).



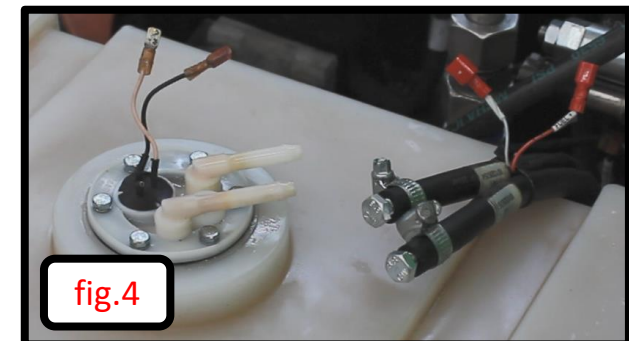
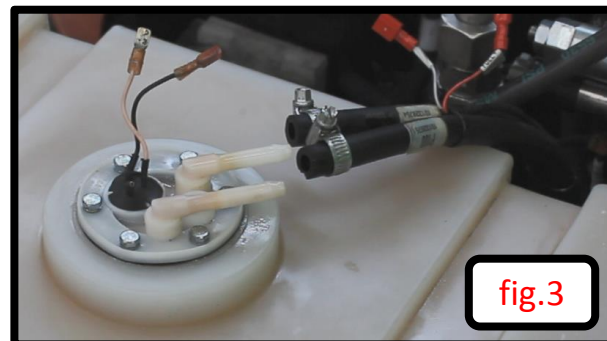
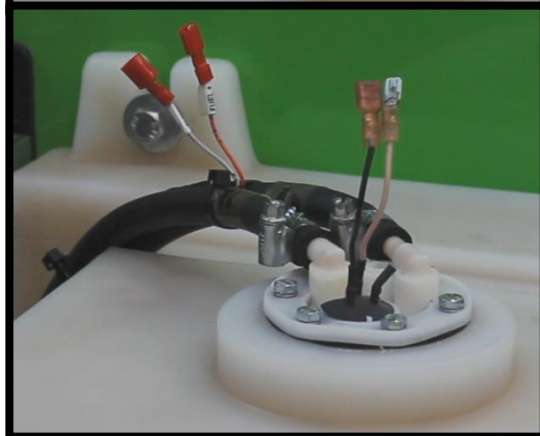
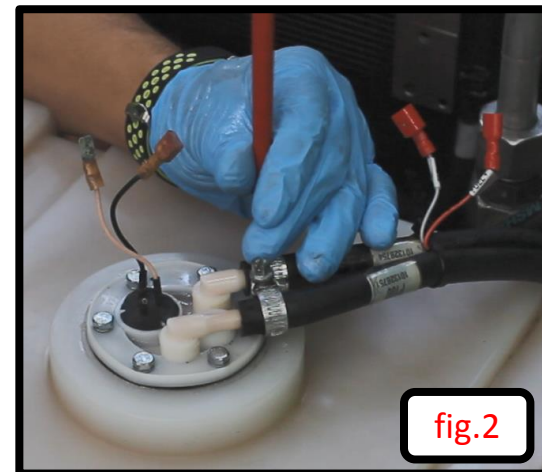
## 2. Release the pressure in both tanks

Unscrew the cap from the hydraulic oil tank (fig.1) and diesel tank (fig.2) to release the pressure in both systems.



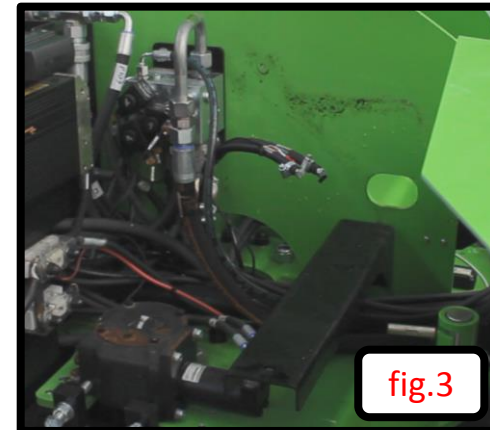
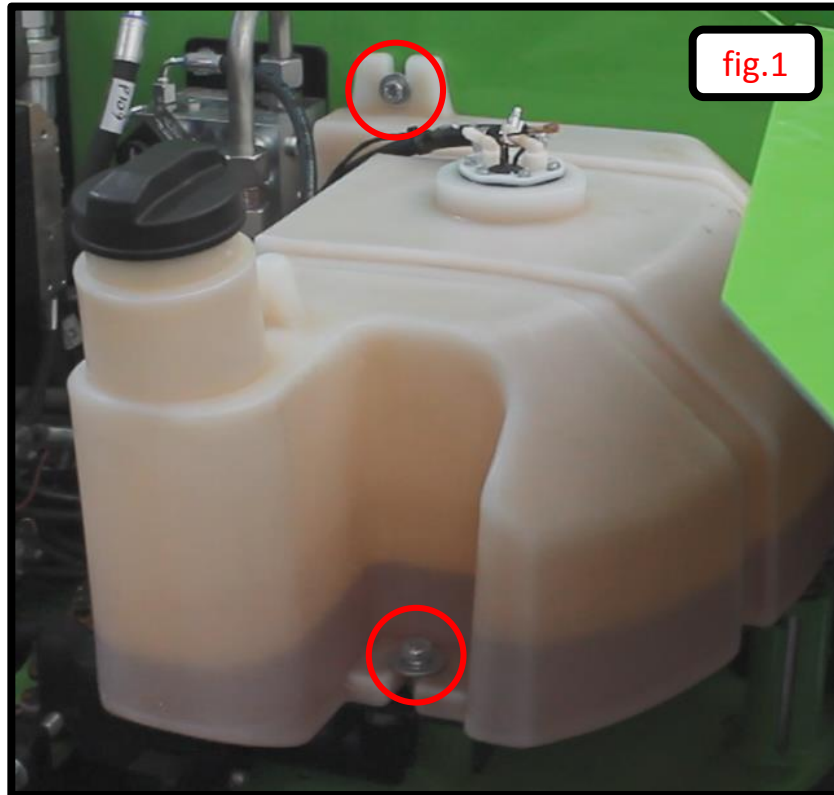
### 3. Disconnect the fuel lines and fuel sender wires

Disconnect the fuel sender wires (fig.1) and using the flathead screwdriver loosen the jubilee clips around the fuel lines (fig.2). Remove the fuel lines from the tank fuel sender (fig.3) and plug them using M8 bolts (fig.4).



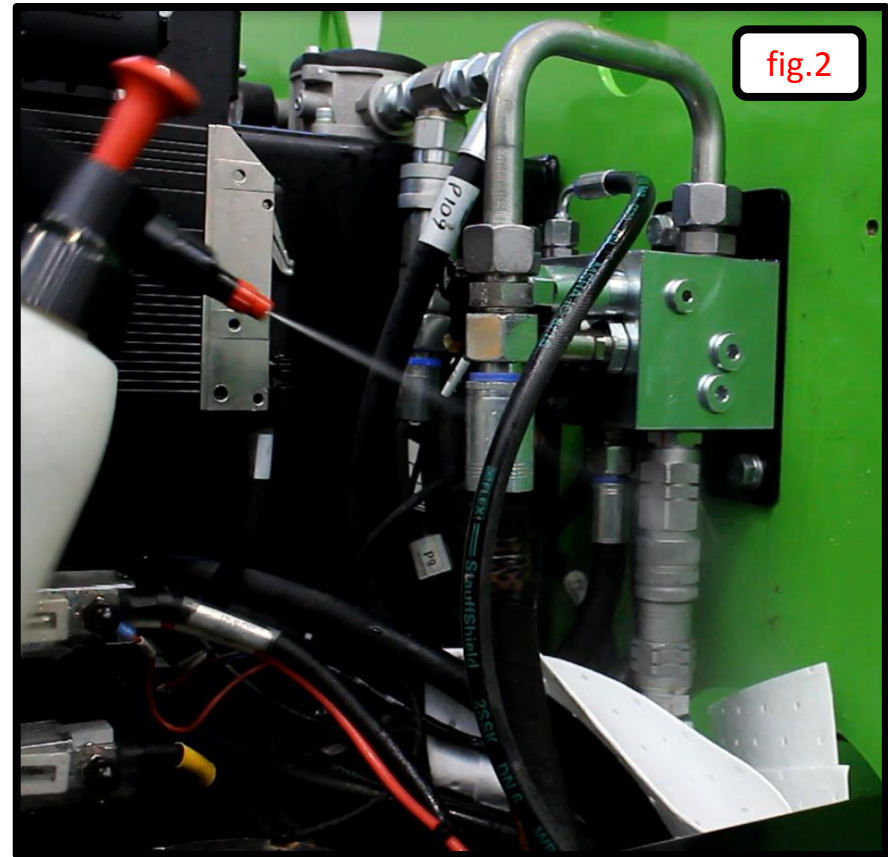
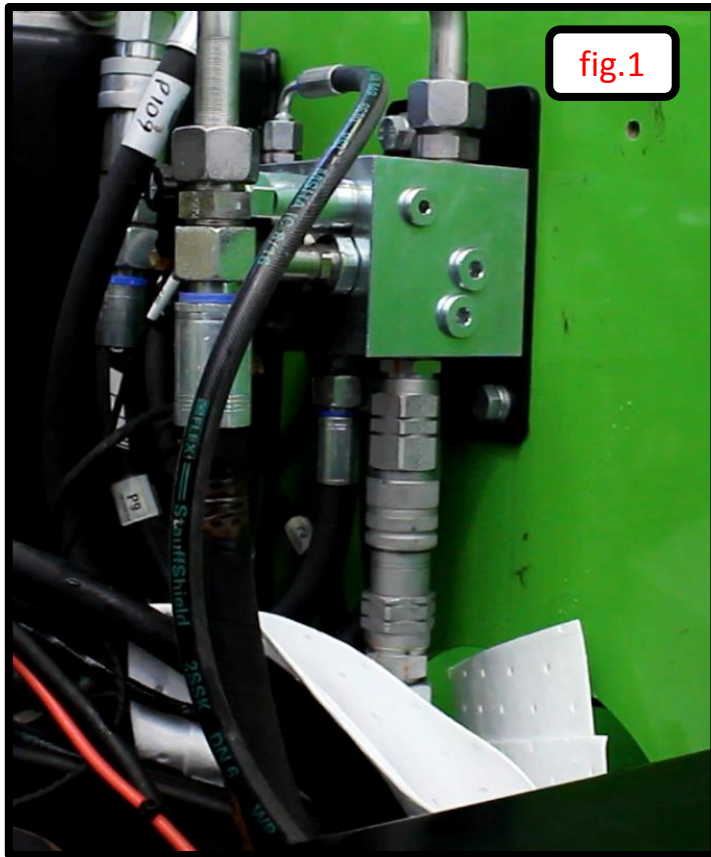
#### 4. Remove the diesel tank

Using the ½" Ratchet, ½" 200mm Extension & ½" 17mm Socket remove the two M10 tank mounting bolts (fig.1). Tighten the fuel tank cap back up (fig.2) and then remove the tank from the machine (fig.3).



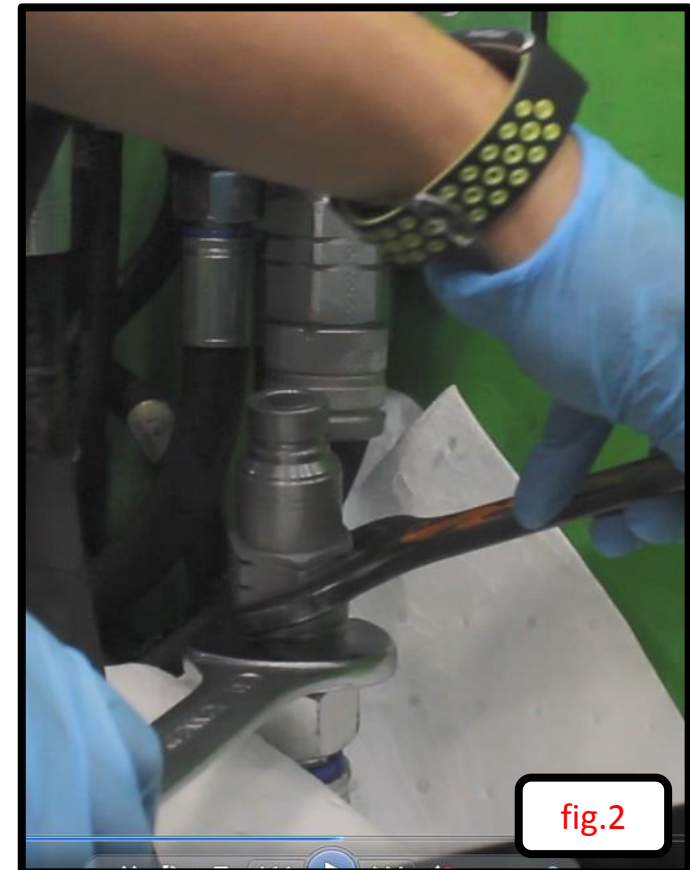
5. Clean the area

Place spill pads under and around the boom enable valve and disconnect the coupling (fig.1). Using “panel Wipe” or another suitable degreaser fluid clean the area of the booms enable valve and coupling (fig.2)



## 6. Disconnect and loosen the coupling

Disconnect the quick release coupling and using the 32mm spanner loosen the female end of the couplings fitting into the booms enable valve (fig.1). Using the 32mm & 36mm spanner loosen the male end of the coupling from the fitting (fig.2) leaving the fitting attached to the hose.



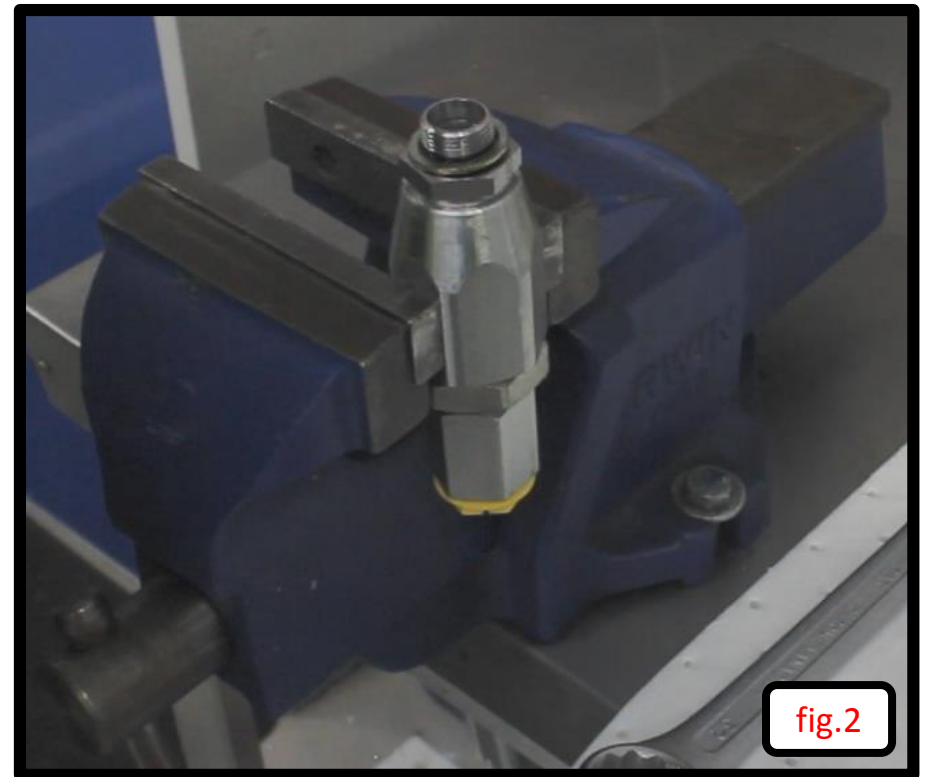
7. Remove the female component of the coupling

Place a drip tray under the female end of the coupling (fig.1) and then remove it from the boom enable valve (fig.2).



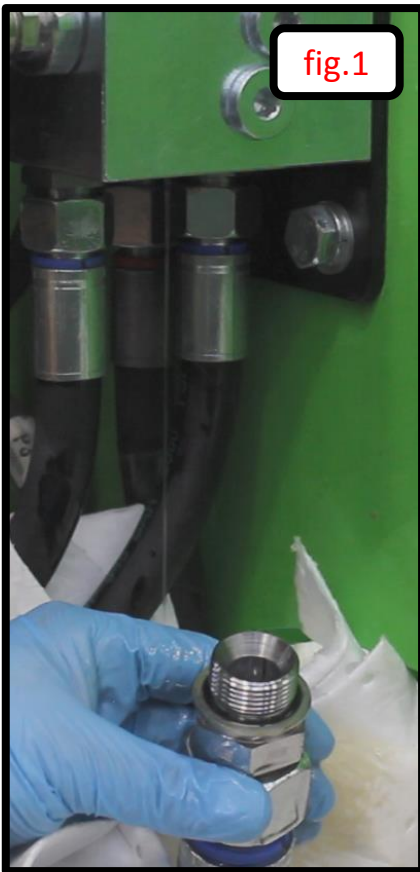
## 8. Reassemble the fitting to the new coupling

Place the removed coupling into a vice and using a 32mm spanner remove the fitting and dowty seal (fig.1). Place the new coupling (P31291) into the vice as shown and re-assemble the fitting and dowty seal (fig.2). Using the 60-300Nm 16mm spigot torque wrench and 32mm 16mm spigot crowfoot torque the fitting to 180Nm (fig.3).



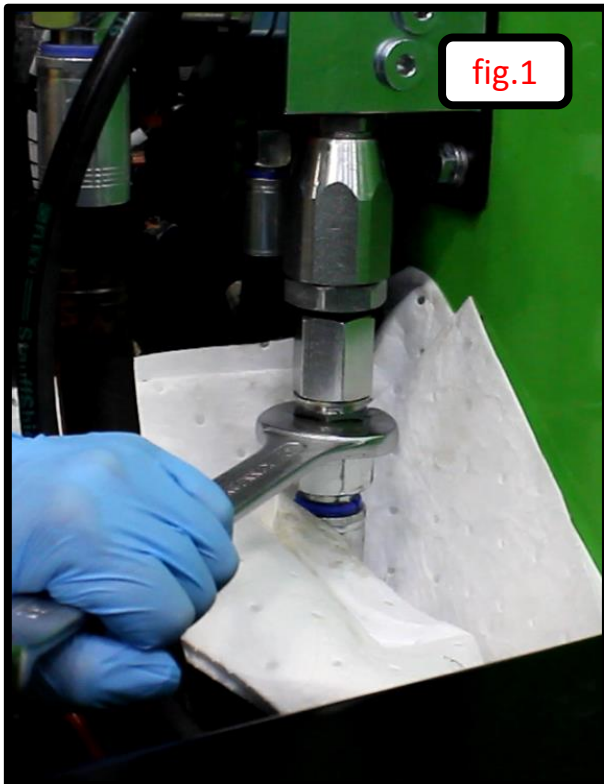
## 9. Fit the new coupling

Remove the male end of the old coupling leaving the dowty seal in place (fig.1) and replace with the new P31291 coupling (fig.2). Fit the other end of the coupling to the boom enable valve (fig.3).



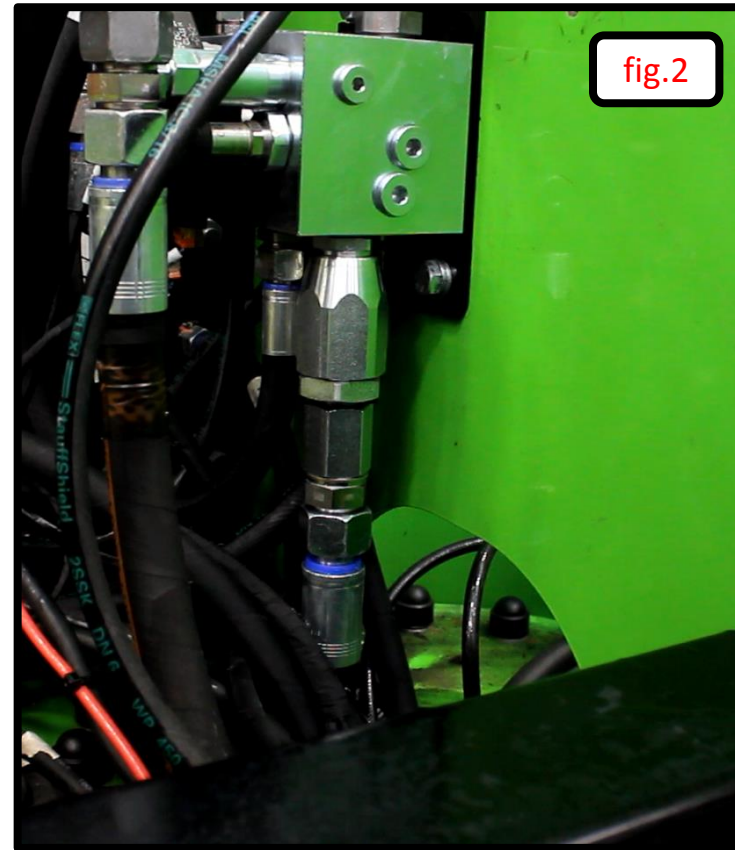
10. Tighten the fittings of the new coupling.

Using the 32mm spanner to hold the fitting from the hose (fig.1) tighten the bottom section of the coupling with the 50mm adjustable spanner (fig.2). Then Use the 32mm spanner to fully tighten the top fitting from the coupling into the booms enable valve (fig.3).



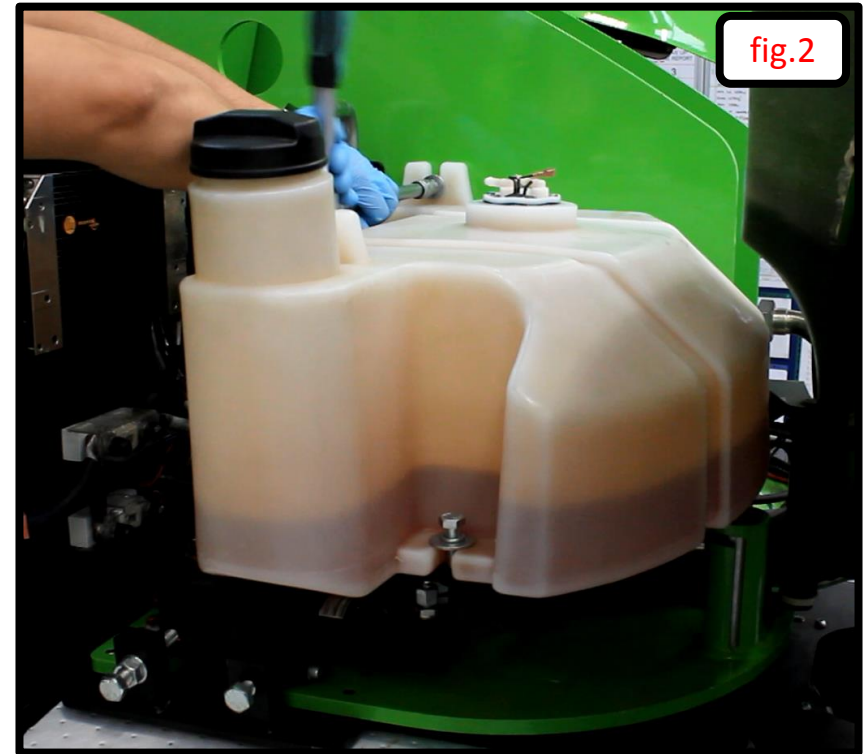
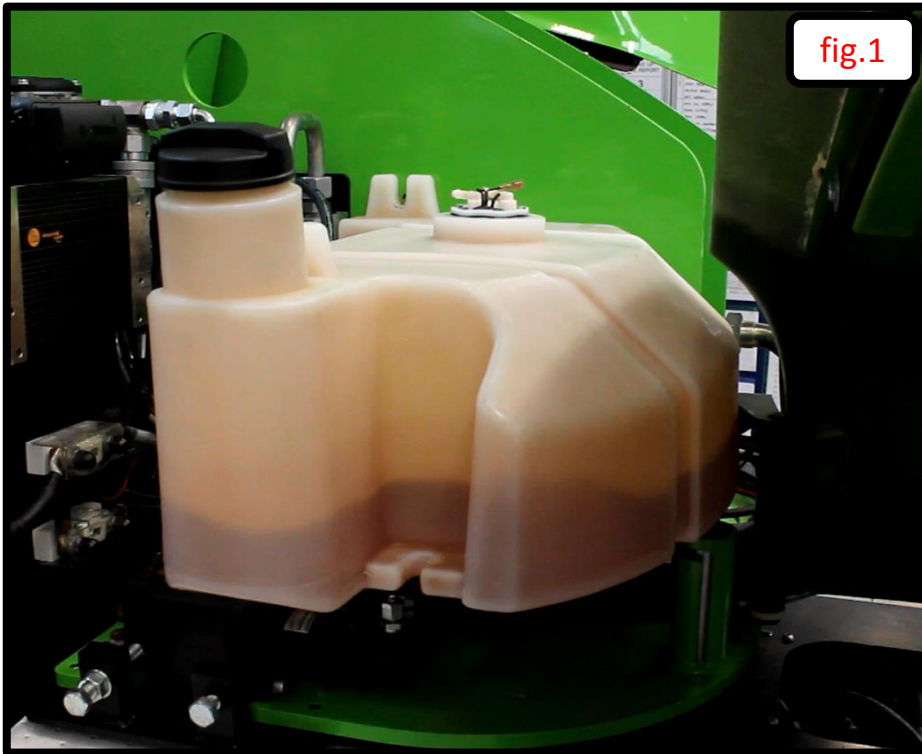
## 11. Clean the area

Using “panel Wipe” or another suitable degreaser fluid clean the area of the booms enable valve and coupling removing all excess hydraulic oil (fig.1) then remove the spill pads from around the boom enable valve (fig.2).



## 12. Replace the diesel tank

Relocate the diesel tank back on the machine (fig.1), replace the 2 mounting bolts and using the ½" Ratchet, ½" 200mm Extension & ½" 17mm Socket tighten the two M10 tank mounting bolts (fig.2).



## 13. Re-connect the fuel lines and fuel sender wires

Finally remove the m8 bolts used to cap the fuel lines and refit the fuel lines onto the tank fuel sender (**fig.1**), using the flathead screwdriver tighten the jubilee clips around the fuel lines (**fig.2**), then re-connect the fuel sender wires (**fig.3**).

