

# CARCO H40R Installation Instructions

## John Deere

### 450K/550K/650K T4F With Ripper Controls



# General Notes

- Follow all safety procedures per dozer and winch service manuals.
- Confirm all parts are received as shown in bill of materials.
- Drain implement hydraulic reservoir or pull a hard vacuum to prevent oil loss during ripper removal and/or winch installation.
- Remove hydraulic implements from the rear of the tractor i.e. ripper and rear cover. Keep hydraulic hoses and bulkhead fittings.

**65306 SHIP LOOSE >**



**65307 CONTROL GROUP**

**65308 MOUNTING GROUP**

IF YOUR WINCH IS CONFIGURED WITH A DRAWBAR THE FOLLOWING ITEMS WILL ALSO BE INCLUDED:

- **111350 DRAWBAR PIN**
- **70148 COTTER PIN**

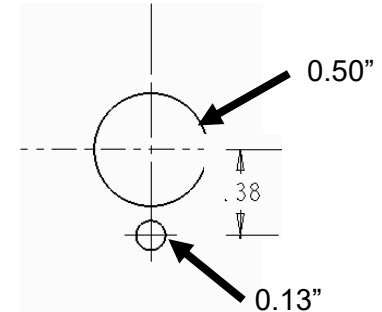
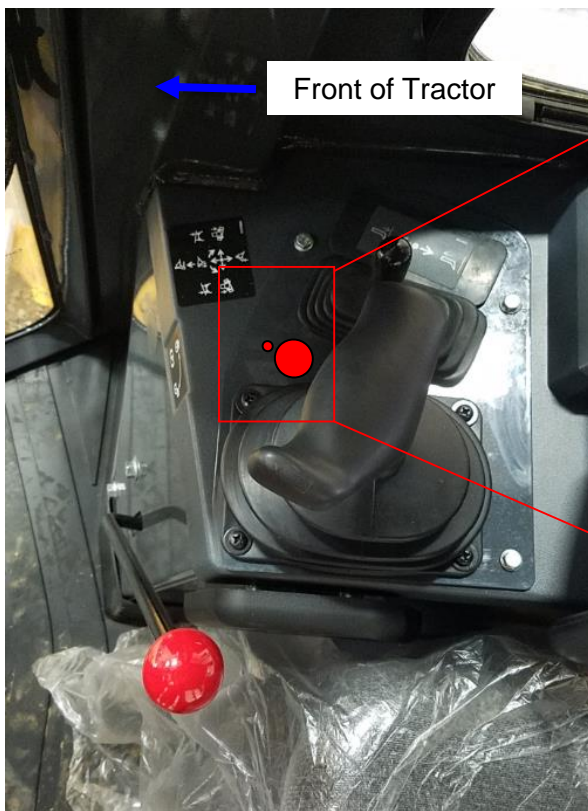
# 65307 – CONTROLS GROUP

## BILL OF MATERIALS

ITEM #	PART #	DESCRIPTION	QTY	NOTES
1	104507	HOSE ASSY, -6 ORFS X 76.0 LONG	1	
2	101299	TEE -12 ORFS/SWIVEL NUT RUN	1	
3	107345	REDUCER, -6 ORFS MALE/-8 ORFS FEMALE	1	
4	106394	REDUCER, -12 ORFS/-8 ORFS	1	
5	100945	ELBOW, 90 ORS SWIVEL NUT	1	
6	108113	CAPSCREW, HM20X2.5X30 GD 10.9 Z	2	
7	103261	WASHER, M20 HARD Z	2	
8	111661	CENTER COVER	1	
9	PA7N2353	SWITCH	1	Two Speed - Low and High Speed.
10	111708	WIRING HARNESS	1	
11	111788	CONTROL DECAL	1	Two speed & Reel In/Reel Out

# 2-Speed Switch Mounting

1. Remove the factory joystick cover as shown in Fig. 1.
2. Drill a 0.50" hole in the plastic cover approximately in the location shown.
3. Drill a 0.13" hole toward the outside of the tractor, 0.38" from the center of the 0.50" hole.



If this location is not available, find alternate suitable location.

Fig. 1 – Remove (6) screws to remove plastic console cover. Check for clearance to wiring before drilling holes.

## 2-Speed Switch Mounting

4. Fasten the switch (Item 9) onto console cover aligning the retaining tab through the 0.13 hole.
5. Connect the two small ring terminals of the wiring harness (Item 10) to the switch. See figure 2.
6. Route the wiring harness down into the RH console.

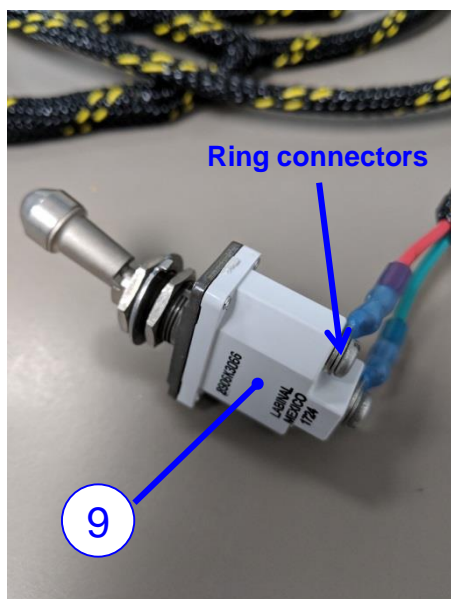


Fig. 2 – Toggle Switch and wiring harness ring connectors attached.

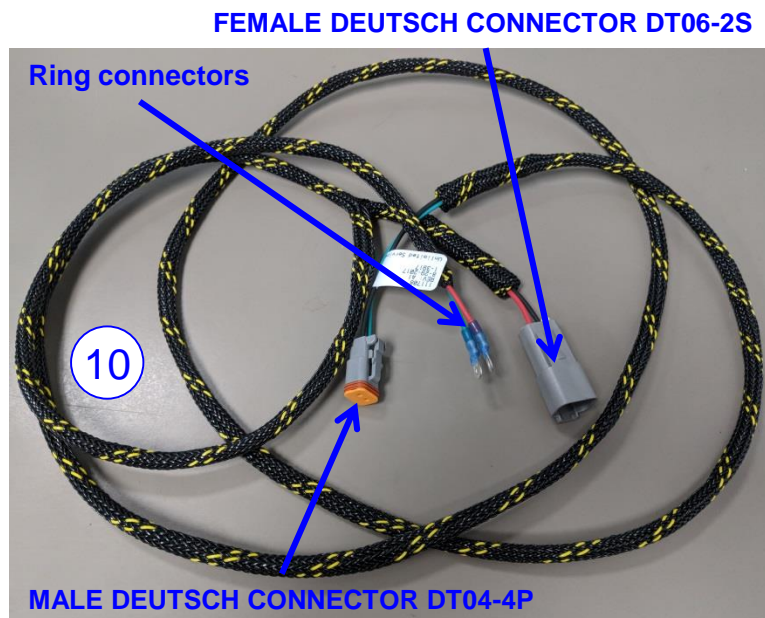


Fig. 3 – Wiring harness item 10.

# 2-Speed Switch Mounting

7. Locate the control decal and apply the individual stickers to visible and appropriate locations next to the two-speed switch and actuation lever inside the cab.

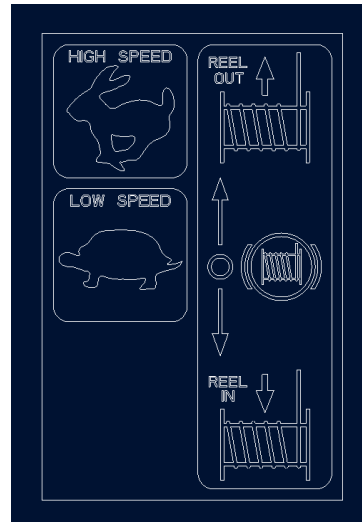


Fig: 3B – Item 11 Control Decal

# Wiring Harness Routing

8. Remove the hydraulic oil filter by removing the entire assembly from the bracket and laying it down out of the way. See figures 4 & 5.

Remove the ring connector on the front of the filter. Keep hardware safe.

Remove ring connector



Fig. 4 - Hydraulic Oil Filter Removal



Fig. 5 - Hydraulic Oil Filter Removal

# Wiring Harness Routing

9. Locate the tractor's Deutsch connector and disconnect the male from the female. See figure 6.
10. Plug the 2-pin female DT04-4P Deutsch connector from the Carco wiring harness (item 10) into the male Deutsch connector of the tractor. See figure 7.
11. Run the 2-pin male DT06-2S Deutsch connector on the wiring harness to the rear of the tractor in a suitable location ready to plug into the winch.
12. Zip-tie harness at suitable locations if necessary.





Fig. 6 – Tractor's Deutsch Connector.

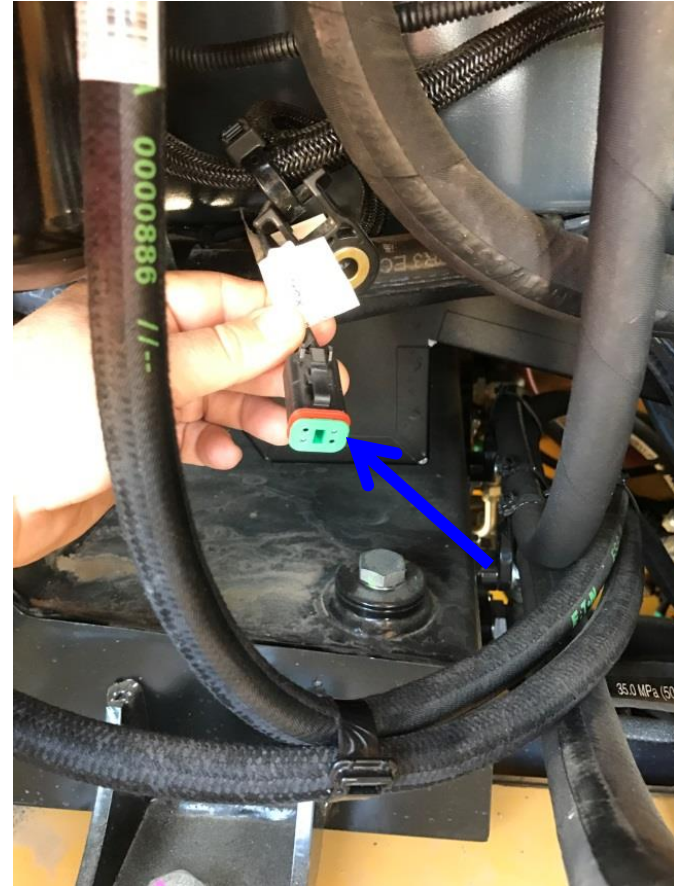


Fig. 7 – Tractor's Deutsch Connector. Male end shown.

# Tank Return Line Installation



13. Drain the hydraulic oil tank if necessary to prevent oil drainage and a huge mess.
14. Locate the hydraulic oil return lines as seen in figure 8.
15. Install item 2 tee, item 4 reducer, item 3 reducer and item 5 elbow as seen in figure 9.
16. Connect tank return line item 1 and run it out the back of the tractor as seen in figure 9.

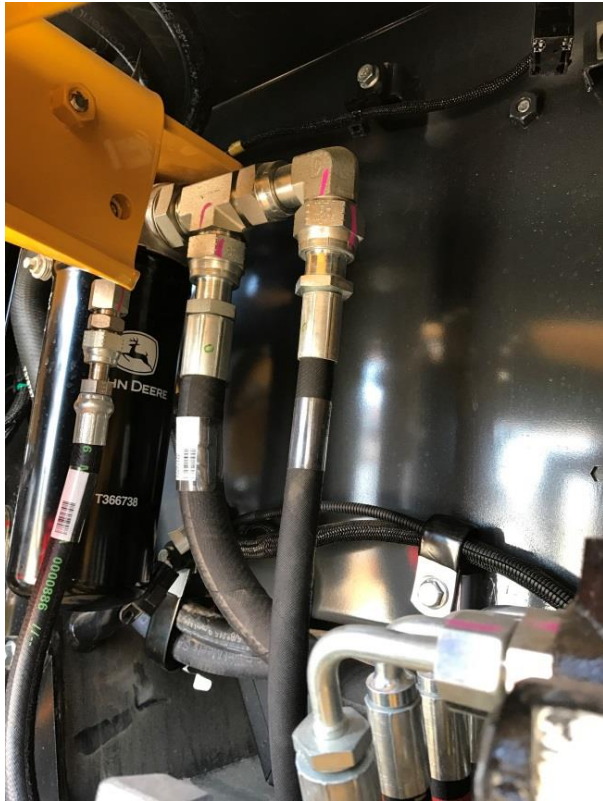


Fig. 8 - Tractor hydraulic return lines.

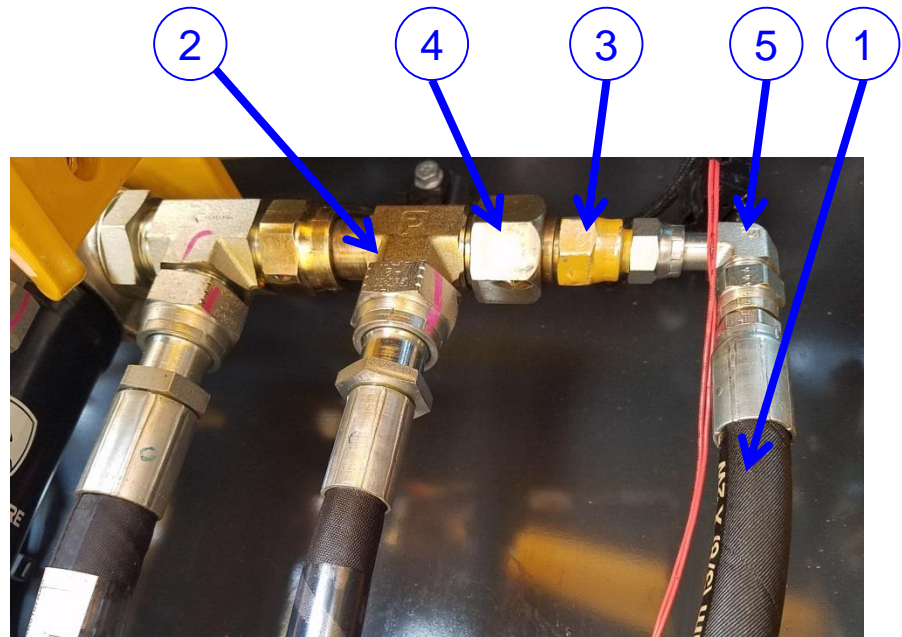


Fig. 9 - Tractor hydraulic return lines and adaptation fittings for winch Return line. Winch return line shown.

# Center Cover Installation

17. Install center cover item 8 to the rear face of the tractor using items 6 and 7 cap-screws and washers.

Torque cap screws to 650 N-M (500 LB-FT).

18. Route the tank return line and wiring harness approximately as shown. Use Zip-Ties to fasten them to the center cover.



Fig. 10 – Center cover installation.  
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# 65308 – MOUNTING GROUP

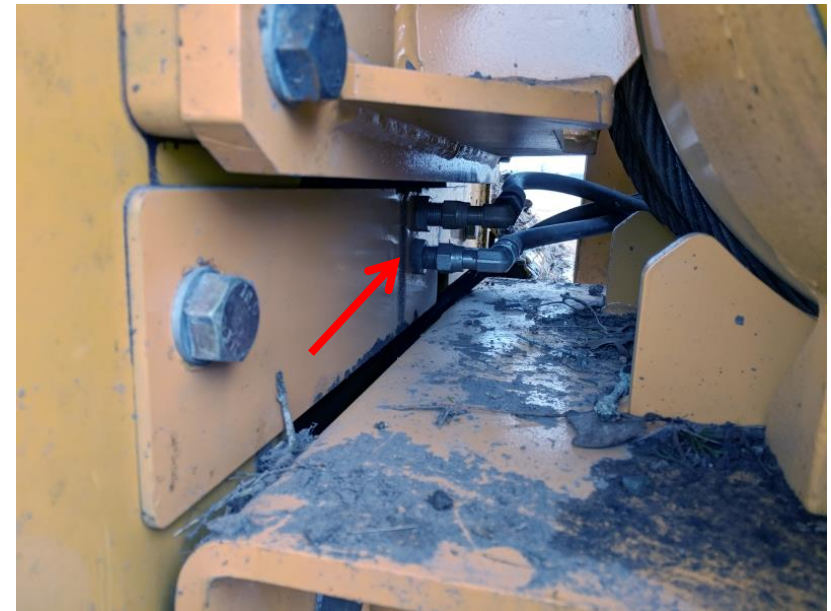
## BILL OF MATERIALS

ITEM #	PART #	DESCRIPTION	QTY	UNIT
1	109593	CAPSCREW HM20X2.5X70	14	EA
2	103261	WASHER M20 HARD Z	14	EA
4	101298	ELBOW 90	2	EA
5	106270	HOSE ASSY -8 ORFS X 17"	2	EA
6	29422	FERRULE	1	EA
7	111660	SPACER	4	EA
8	26868	REDUCER STRAIGHT THREAD ADAPT	1	EA
9	10074	RELIEF VALVE	1	EA

- Install existing tractor ripper A & B hoses to center cover using the existing tractor bulkhead fittings.
- Install item 4 elbow quantity 2 to bulkhead fittings on center cover.

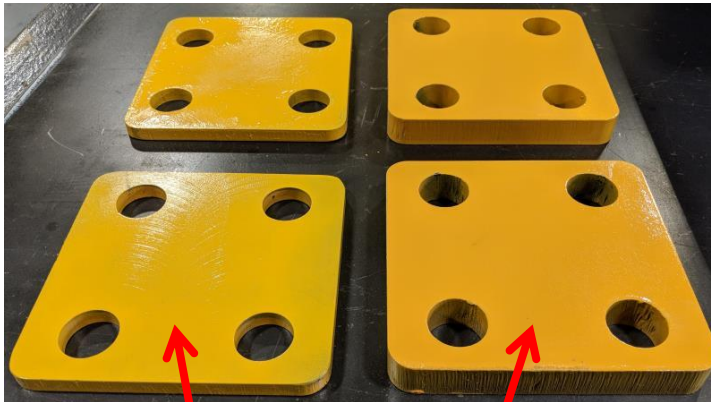


**INSTALL EXISTING TRACTOR HOSES & BULKHEAD FITTINGS**



**INSTALL ITEM 4; ELBOW TO BULKHEAD FITTINGS**

- Locate the upper and lower mounting spacers item 7. Depending on your winch's spacer requirements you may have any of the following conditions as shown in the figures below. Follow any enclosed directions.



**ITEM 7: LOWER SPACERS**

**ITEM 7: UPPER SPACERS**

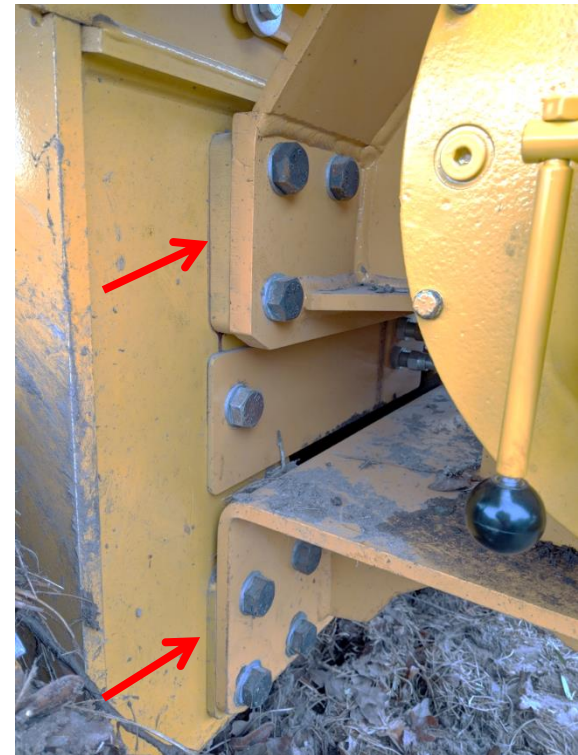


**ITEM 7: EQUAL THICKNESS  
SPACERS**

- Remove the motor cover from winch.
- Install spacers and winch with the supplied fasteners and washers in the locations shown in the figure below.
- Use items 1 & 2, capscrew and washer, qty 14 to mount the fully assembled winch to the tractor. Torque to 650 N-M (500 LB-FT).



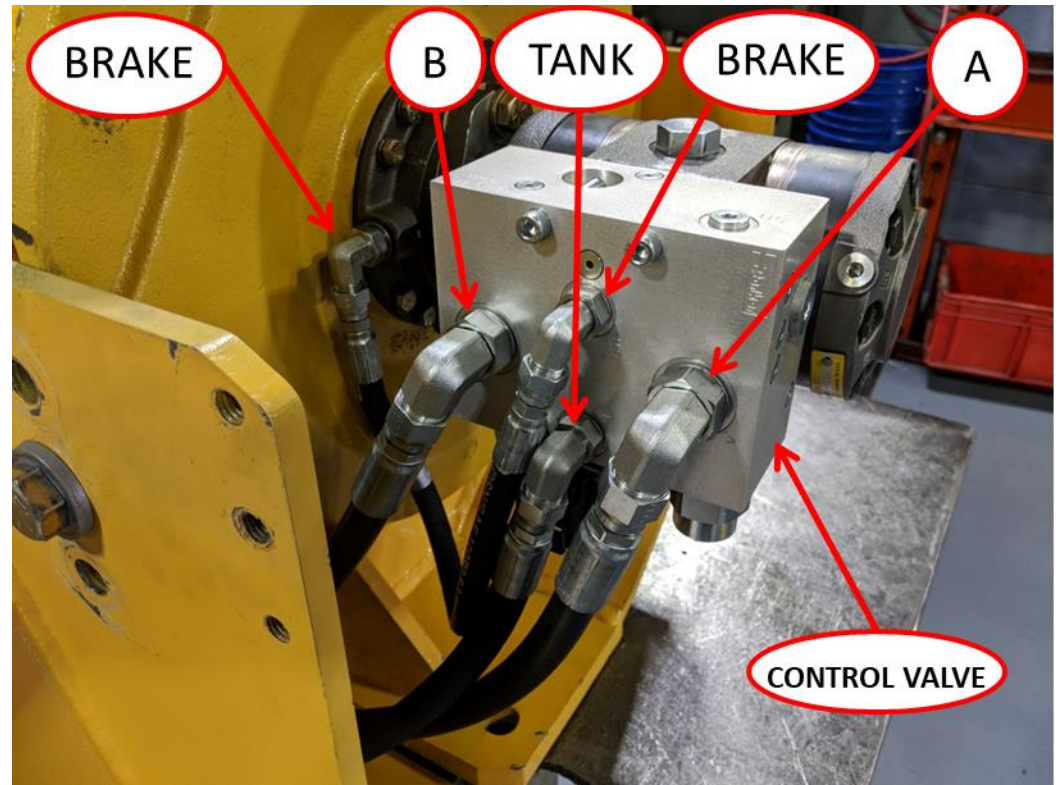
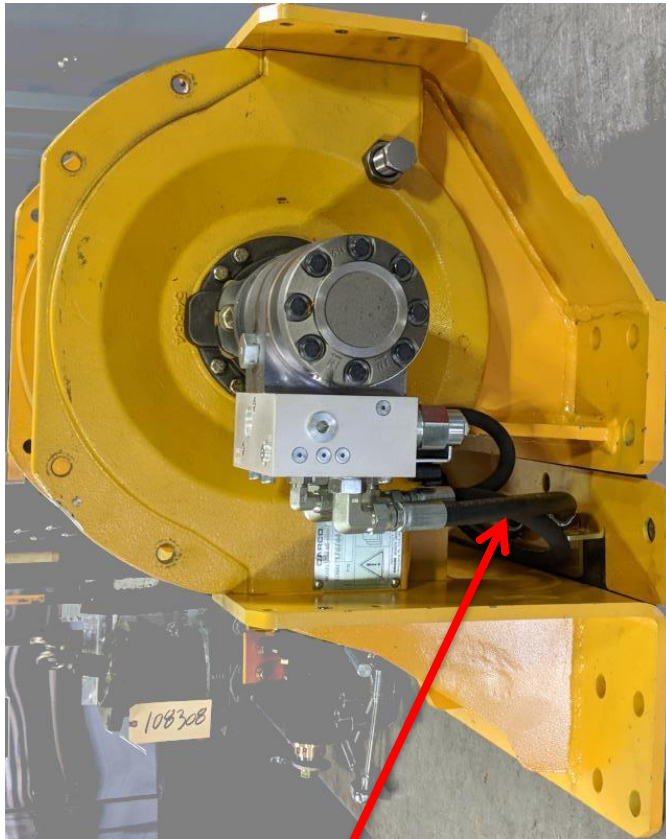
**ITEM 1 & 2; QTY 14 EACH**



**ITEM 7: SPACER LOCATIONS**



- Connect item 5 hose assemblies to A & B ports on the control valve and then onto the center cover. Note: You may reverse hose ports depending on the reel-in & out control configuration desired.
- Connect the tank return line to the T port on the control valve.



### ITEM 5 HOSES TO CENTER COVER

- Locate the air vent and thread adapter parts items 8 & 9 as shown in the figures below.
- Remove the shipping plug and install the air vent assembly. The air vent should be mounted at the 12 o'clock position on the cover.

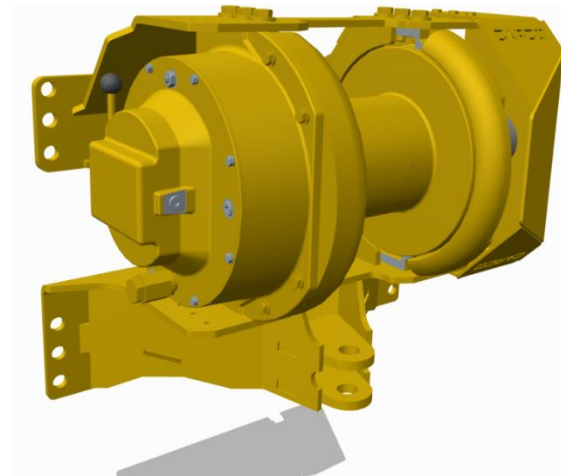
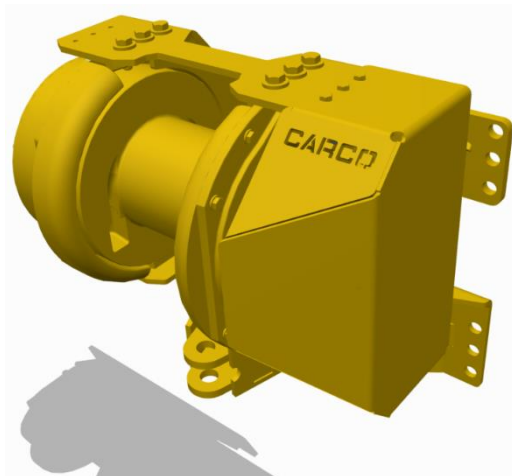


**REMOVE SHIPPING PLUG  
AND INSTALL THE AIR VENT**

# Final Assembly Steps

- Replace the hydraulic oil filter, re-fill the hydraulic reservoir or remove the vacuum from the tractor tank.
- Check the oil level of the winch. The oil level should be at or above the sight glass.
- Before reinstalling the motor cover:
  - Operate the winch in reel-in and out using both high and low speeds.
  - Check the functioning of the free-spool lever for disengagement and re-engagement. The lever will most always return half way, this is normal. Do not force the lever. Pull on the wire rope or rotate the drum to allow the lever to automatically re-engage the rest of the way.
  - Check all of the hoses and port connections for leaks.
- Reinstall the motor cover using the supplied hardware.
- If the winch has a draw bar, install the supplied draw bar pin using the supplied cotter pins.

# H40R



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