

# CARCO®

## INSTALLATION AND PARTS MANUAL

### MODEL 30B

FOR

NEW HOLLAND DC75, DC85, DC95X

**NOTE:** This manual covers mounting and control group installation, and parts specific to this winch on the specified tractor. For all other winch parts, refer to Winch Parts Manual, Publication LIT2116.

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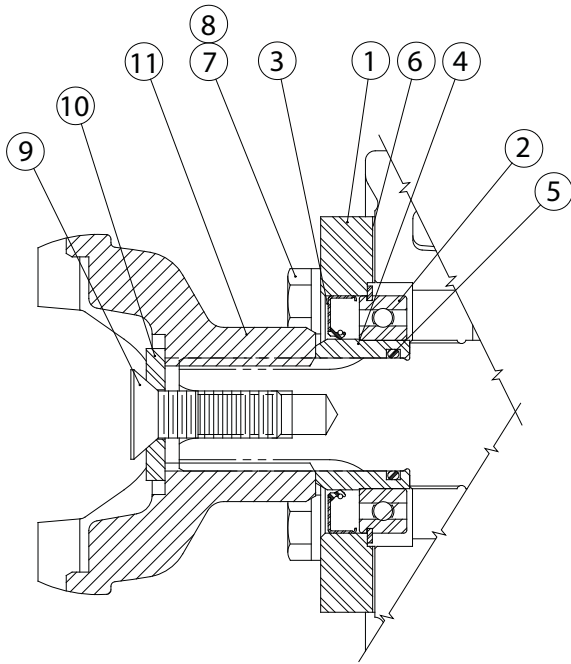
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### MODEL NUMBER DESCRIPTION

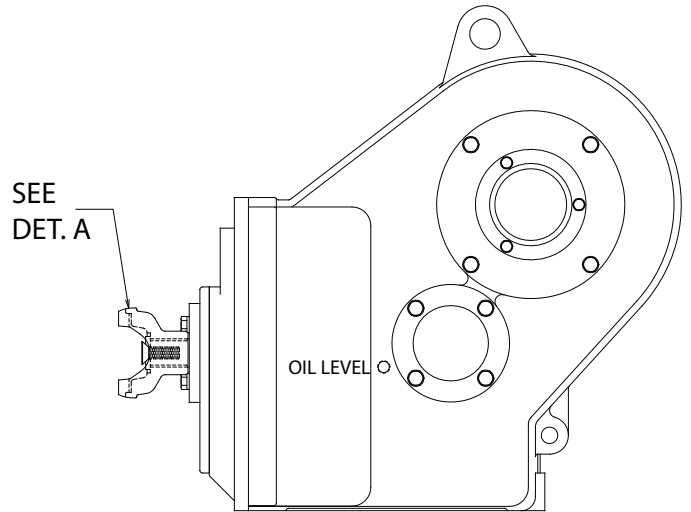
<b>30B-PS</b>	<b>C</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Basic Winch Model	Bevel Gear Ratio C-1.64:1 D-2.11:1 E-2.79:1	0-OVERWIND	0-HAUL-IN 1-PAY-OUT	0-WITHOUT TOWING HITCH 1-WITH TOWING HITCH	0-FOUR SHAFT WINCH (31.047 base ratio) 1-THREE SHAFT WINCH (17.249 base ratio)	0-NO FAIRLEAD 3 - 3 ROLLER 4 - 4 ROLLER

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# ADAPTER GROUP

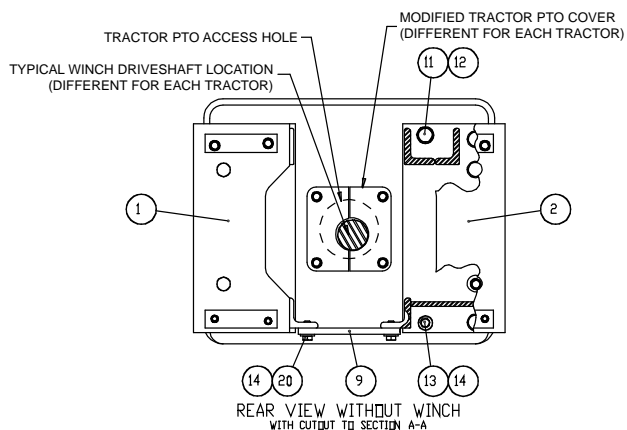
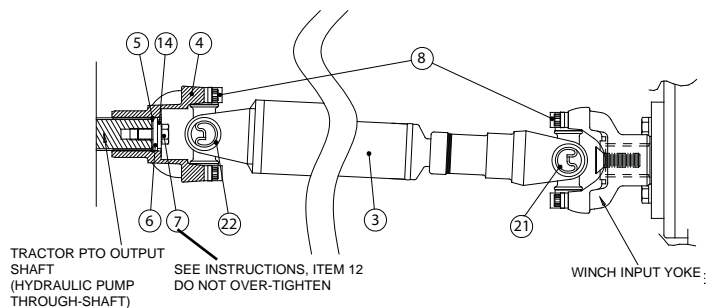
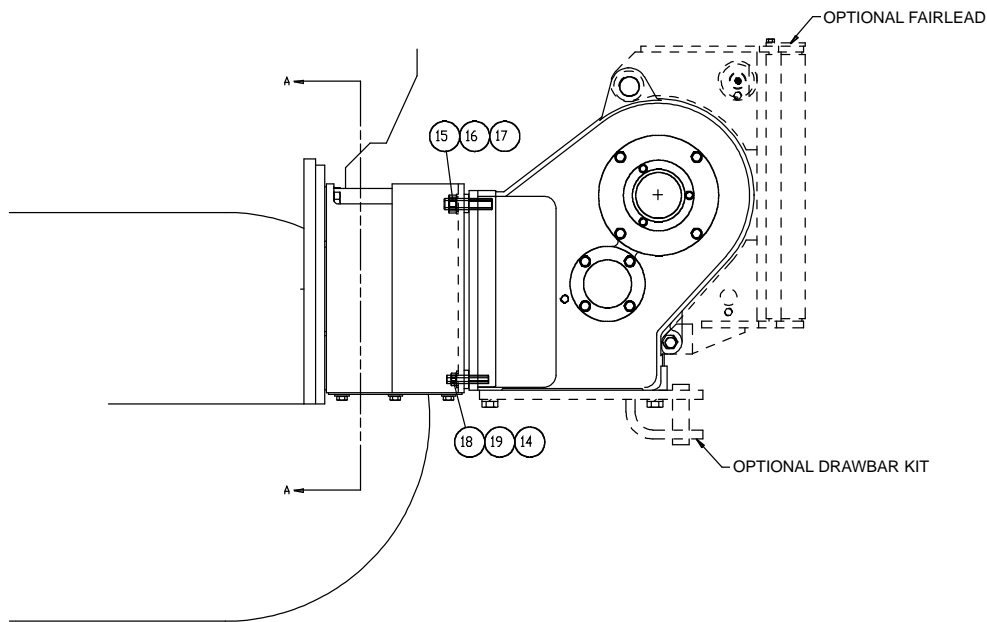


DETAIL A



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	26133	PTO PILOT	1
2	72251	BEARING	1
3	26165	SEAL	1
4	26128	SLEEVE	1
5	13838	O-RING	1
6	26169	GASKET, PTO PILOT	1
7	104174	CAPSCREW, HEX HD (1/2 - 13 X 1 1/4, G8)	4
8	11026	LOCKWASHER (1/2)	4
9	25491	CAPSCREW, FLAT HD (5/8 - 11 X 2 in., G8)	1
10	100984	RETAINER	1
11	104990	YOKE	1

# MOUNTING GROUP



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	105720	BRACKET, LH	1
2	105721	BRACKET, RH	1
3	104995	DRIVESHAFT	1
4	103822	END YOKE	1
5	106290	RETAINING RING	1
6	105678	WASHER	1
7	104691	SCREW, METRIC, HEX SOCKET FLAT HD (M12 X 1.75 X 25 MM, 10.9)	1
8	101838	BEARING STRAP & BOLT KIT	2
9	104417	GUARD	1
11	105683	SCREW, METRIC HEX HD (M20 X 2.50 X 60 MM, 10.9)	10
12	103261	WASHER, HARD (M20)	10
13	104893	SCREW, METRIC HEX HD (M12 X 1.75 X 50 MM, 10.9)	2
14	102987	WASHER, HARD (1/2)	13
15	103258	STUD	4
16	100856	WASHER, HARD (3/4)	4
17	103259	NUT, HEX (3/4)	4
18	103257	STUD	4
19	101439	NUT, HEX (1/2)	4
20	104174	CAPSCREW, HEX HD (1/2 - 13 X 1-1/4, G8)	6
21	101337	U-JOINT, BEARING KIT (WINCH END)	1
22	27045	U-JOINT, BEARING KIT (TRACTOR END)	1

## MOUNTING GROUP INSTALLATION INSTRUCTIONS:

1. Observe general service methods and safety precautions given in Case / New Holland Tractor Service Manual.
2. Dimensions in inches (mm).
3. PTO rotation is counter-clockwise (CCW) as viewed from the rear of the tractor.
4. Remove paint, rust, dirt and oil from mounting surfaces of tractor, winch and winch mounting brackets. Clean threads in mounting fastener holes in winch and rear face of tractor. Use a tap if necessary. Make certain all mounting fastener holes are clean and dry.
5. Tighten all fasteners to the torque values listed in the following chart, unless otherwise noted.

TORQUE SPECIFICATIONS		
FASTENER SIZE	TORQUE (FT-LB)	TORQUE (N-M)
3/4 - 10 UNC GR8	280	379
1/2 - 13 UNC GR8	80	108
5/16 - 24 UNF GR8	18	25
M20X2.5 GR10.9	340	460
M12X1.75 GR10.9	74	100

6. Remove (8) shipping fasteners from the front face of the winch (outer 2 bolts on each side of top and bottom rows of bolts).
7. Apply Loctite 243 or equivalent to the clean, dry threads of studs (items 15 & 18), and install into the winch such that the studs bottom out in the holes. If the studs supplied have a heavier chamfer on one end, install the end with the heavier chamfer into the winch. The studs MUST bottom out in the holes.

 **CAUTION** 

Each mounting bracket weighs approximately 95 lbs. (43 kg). Use proper safety precautions when handling to prevent injury.



8. Test fit the winch mounting brackets (items 1 & 2) to the winch. Check for interference between the brackets and winch adapter casting, specifically near the winch center. Lightly grind the brackets and winch adapter casting as required to provide the clearance needed to allow the mounting brackets to bolt flush to the winch.

9. Remove any installed accessories from the rear face that will interfere with winch mounting. Remove the tractor rear cover and retain the bolts for later use. Remove the small PTO cover from the tractor rear cover and retain the bolts for later use.
10. Assemble the retaining ring (item 5) into the yoke (item 4) as shown.
11. Coat the splines of the tractor PTO shaft and the yoke (item 4) with multi-purpose grease. Install the yoke onto the tractor shaft as shown.
12. Install the large washer (item 6) against the retaining ring. Then install the smaller washer (item 14) onto the bolt. Apply Loctite 243 or equivalent to bolt threads.
13. Attach the driveshaft (item 3) to the yoke assembly as shown, using the cap and bolt kit (item 8). Apply Loctite 243 or equivalent to the bolt threads.
14. Guide driveshaft through PTO access opening in tractor rear cover and reinstall the rear cover to the tractor using the existing fasteners. Do not replace fasteners that will interfere with the winch mounting brackets.
15. Ensure that the driveshaft is fully retracted and resting on the bottom of the PTO access opening in the tractor rear cover.

 **CAUTION** 

Each mounting bracket weighs approximately 95 lbs. (43 kg). Use proper safety precautions when handling to prevent injury.

16. Install the winch mounting brackets (item 1 & 2) to the tractor rear face as shown, using capscrews (items 11 & 13) and washers (items 12 & 14). Torque the mounting bolts per note 5.

 **WARNING** 

A CARCO 30B winch weighs approximately 1,000 lbs. (454 kg) without oil, cable, tractor adapters and accessories. Make certain your lifting equipment has adequate capacity. Attempting to lift the winch with inadequate equipment may result in personal injury or damage to the winch or property.

## MOUNTING GROUP

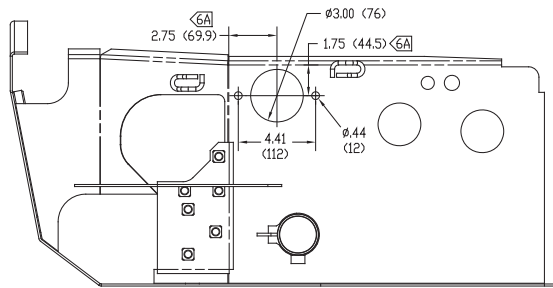
17. Guide the winch into position on the winch mounting brackets.
18. Fasten the winch to the brackets using the nuts (items 17 & 19) and washers (items 14 & 16). Torque the nuts per note 5.
19. Attach the winch driveshaft to the winch input yoke using the cap and bolt kit (item 8). Apply Loctite 243 or equivalent to the bolt threads.
20. Measure the vertical and horizontal position of the winch driveshaft as it passes through the tractor rear cover relative to the mounting holes for the small tractor PTO access opening cover. NOTE: The driveshaft typically will NOT be centered within the PTO access opening and the location of the driveshaft can vary between tractors.
21. Transfer the measured dimensions to the PTO access cover and cut a hole that is  $\frac{1}{4}$  in. (6 mm) larger than the largest diameter of the driveshaft at the point that it passes through the tractor rear face. If required, grind clearance in the tractor rear face cover.
22. Using a saw, cut the PTO access opening cover in half vertically to allow for installation around the drive-shaft. Install the PTO access cover to the tractor rear face using the existing hardware.
23. Install the bottom guard (item 9) as shown, using fasteners (items 14 & 20).
24. Before operating the winch, be sure the winch is filled to the proper level with the recommended oil.

### **CAUTION**

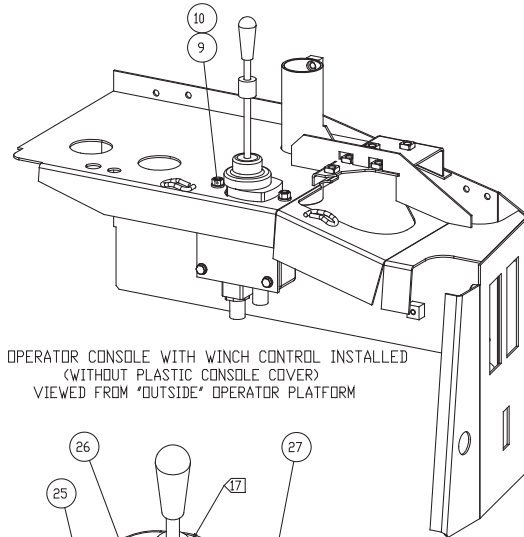
To prevent serious damage to winch, do not run the tractor engine without oil in the winch.

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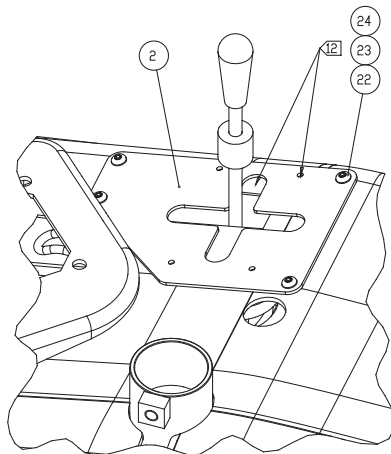
# CONTROL GROUP



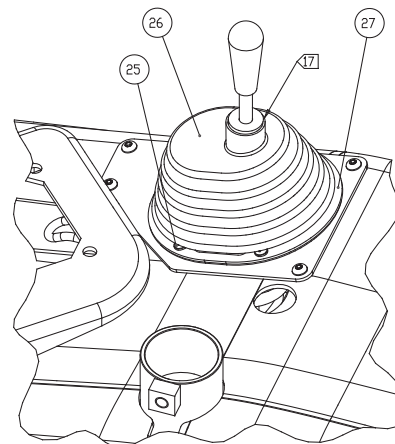
MODIFICATIONS TO RIGHT OPERATOR CONSOLE STEEL FRAME



RIGHT OPERATOR CONSOLE WITH WINCH CONTROL INSTALLED  
(WITHOUT PLASTIC CONSOLE COVER)  
VIEWED FROM "OUTSIDE" OPERATOR PLATFORM



VIEW A

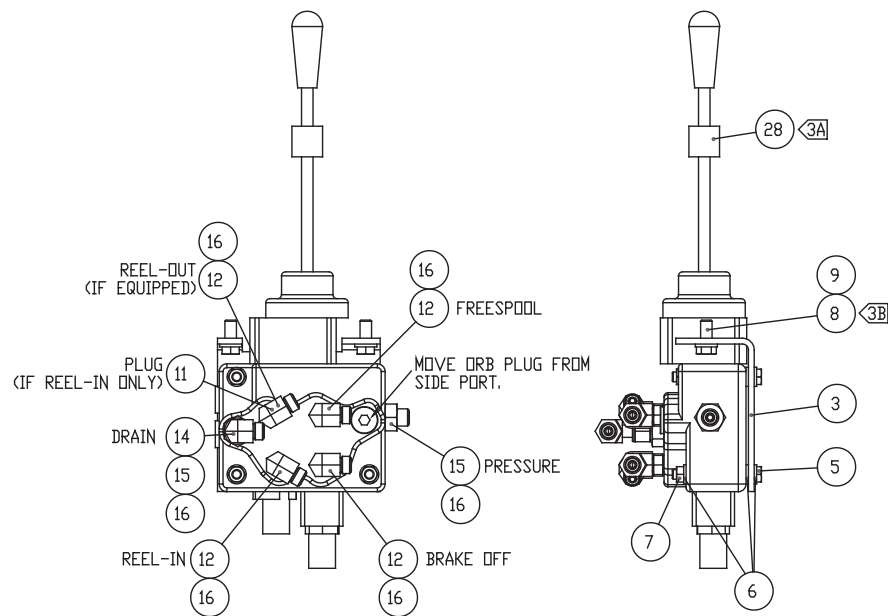


VIEW B

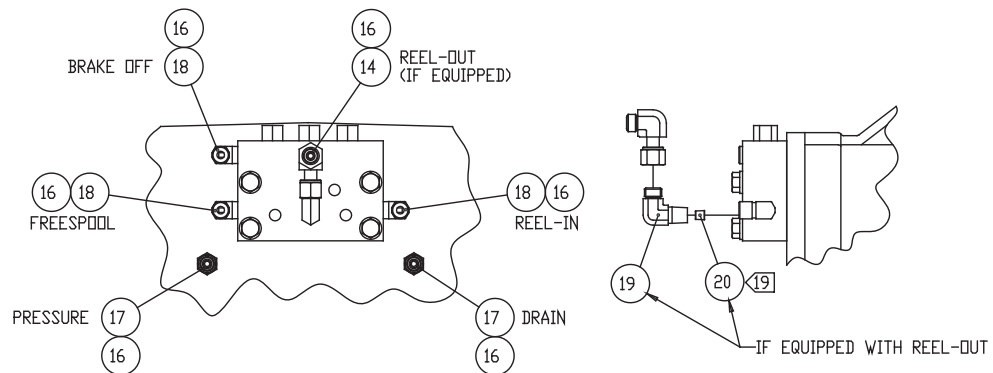
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D	
			63469	63470
1	26214	VALVE ASSEMBLY	1	1
2	105006	PLATE	1	1
3	104383	BRACKET	1	1
4		DECAL		1
	104381	DECAL	1	
5	104253	CAPSCREW, 5/16 UNC X 2 3/4, GRB, Z	3	3
6	100858	WASHER, 5/16 NOM, HARD, Z	9	9
7	104254	NUT, HEX, 5/16 UNC, GR8, Z	3	3
8	103749	CAPSCREW, 3/8 UNC X 7/8, GRB, Z	2	2
9	101440	WASHER, 3/8 NOM, HARD, Z	4	4
10	PA6V8801	NUT, HEX, 3/8 UNC, GR8, Z	2	2
11	25665	PLUG, -6ORB		1
12	26680	ELBOW 90, -4ORFS/-4ORFS	4	3
14	26682	ELBOW 90, -4ORFS/-4ORFS	2	1
15	26681	ADAPTER, -80RB/-4ORFS	2	2
16	105028	HOSE ASSY, -4ORFS X 106"	6	5
17	26678	ADAPTER, -4NPT/-4ORFS	2	2
18	104255	ELBOW 90, -4NPT/-4ORFS	3	3
19	104261	ELBOW 90, SPECIAL FOR ORIFICE PLUG	1	
20	105056	ORIFICE PLUG, $\phi$ . 070	1	
22	40240	CAPSCREW, BUTTON HEAD, 1/4 UNC X 1, Z	4	4
23	100857	WASHER, 1/4 NOM, HARD Z	4	4
24	105012	NUT, HEX, 1/4 UNC, GR8 Z	4	4
25	105011	SCREW, SELF TAPPING, #10 X 1/2	4	4
26	105003	BOOT, RUBBER	1	1
27	105004	PLATE	1	1
28	105013	BUSHING, RUBBER	1	1
29	32235	ZIP TIE	6	6



## CONTROL GROUP



CONTROL JOYSTICK AND MOUNTING BRACKET ASSEMBLY  
DETAIL C



WINCH CONTROL MANIFOLD  
(VIEWED FROM FRONT OF WINCH)  
DETAIL D

## CONTROL GROUP INSTALLATION INSTRUCTIONS

1. Observe general service methods and safety precautions given in Case / New Holland tractor service manual.
2. Access to space below operator platform may be gained by tilting the operator platform per the tractor service manual.
3. Assemble the winch controller as shown in Detail C. Leave the control handle loose. NOTE: A) It may be easier to install the rubber bushing (item 28) by removing the knob and slipping the bushing over the small threads at the top end of the rod. B) The cap-screws and washers (items 8 & 9) are loose, but captured in their holes by the top of the valve body.
4. Remove the top plastic cover from the RH tractor console.
5. For EROPS machines only, remove the ashtray, steel ashtray opening surround, and cigar lighter assembly from the plastic console cover.
6. With a 3 in. (76 mm) hole saw, cut the opening in the console top steel plate, as defined. Drill the mounting holes using a 7/16 in. (12 mm) drill bit. NOTE: A) Dimensions are measured from the start of the indicated bend in the console top plate. B) On EROPS tractors only, it will be necessary to trim the foam insulation away from the winch controller mounting area on both the top and bottom of the console top plate.

## CONTROL GROUP

7. Install the winch controller assembly into the tractor console opening using nuts and washers (items 9 & 10).
  8. Remove the winch controller handle from the assembly.
  9. Test fit the plastic console cover to the RH console.
- i** **NOTE:** *On EROPS tractors, the winch controller assembly will be visible through the ashtray opening in the plastic console cover. On OROPS tractors, the winch controller assembly will not be visible.*
10. On OROPS tractors, mark the approximate location where the winch controller handle, in its neutral position, will protrude through the console cover. Cut a 3 in. (76 mm) diameter opening in the plastic cover using a hole saw or suitable method.
  11. Temporarily replace the winch controller handle into the control assembly.
  12. While ensuring the controller handle is in the neutral position, center the gate plate (item 2) over the controller handle as shown in View A. Once positioned, use the gate plate as a template to transfer the mounting hole locations (4 holes) to the plastic console cover. Drill (4) 5/16 in. (8 mm) holes in the locations marked. Also, be sure to remove any excess plastic beneath the gate plate within the shift pattern.
  13. Modify the cigar lighter boss as required to allow the gate plate to fit flush to the top of the console cover.
  14. Install the gate plate to the plastic cover with cap-screw, washers and nuts (items 22, 23 and 24) as shown in View A.
  15. Re-install the controller handle into the control valve assembly and tighten the jam nut.
  16. Install the boot and boot retainer plate (items 26 & 27) to the gate plate using self-tapping screws (item 25) as shown in View B.
  17. Stretch the top of the rubber boot over the rubber bushing previously installed on the handle, and attach the boot to the bushing to seal and retain the top of the boot.
  18. Affix the decal (item 4) to the console near the winch controller, or to the inside of the window. The operator's view of the decal **MUST** be clear and unobstructed.
  19. Install hydraulic fittings to the winch face and control manifold, as shown in Detail "D".
- i** **NOTE:** *If the winch is equipped Reel-Out, then install the orifice plug (item 20) into the special elbow (item 19) using Loctite 572 or equivalent.*
20. Tilt the cab as outlined in the tractor manual.
  21. Install the winch control hoses (item 16) to the proper ports as defined in Details "C" and "D". Route the hoses around the rear of the operator platform, downward near the cab tilt hinge on the LH side of the tractor, then back to the center of the tractor to pass under the fuel tank to the winch. Ensure that the hoses will not be stretched or pinched, or otherwise interfere in any way with the tilting of the cab during regular servicing.
  22. Test the cab tilt function to validate the hose routing. When satisfied, bundle and affix the hoses as appropriate using the tie straps (item 19).