Installation Manual

MUD HOG®

Model JD38358
2-Speed Rear Wheel Drive
For
John Deere
S660 & S670
Pro Drive Combines with
Serial Number after 785000
and
S760 & S770
Pro Drive Combines

October 2021

D107577-01

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Instructions and Specifications

INTRODUCTION

This manual provides instructions for installing the **Mud Hog®** Drive System on hydrostatic machines. Various machine options such as rear axle width and front tire size affect **Mud Hog®** adaptation. These differences are specifically referred to in these instructions. Always follow the instructions which refer to the exact option configuration on the machine being converted.

A complete pictorial breakdown of all the individual parts in the **Mud Hog®** Drive System can be found in the **Mud Hog®** Parts Catalog. Refer to this catalog for proper identification of parts required for service.

GENERAL

The terms right and left in these instructions are the same as the operators right and left hand when positioned in the operator's seat facing forward. IMPORTANT: Cleanliness is essential when installing or servicing hydraulic components. When making hydraulic connections, areas surrounding the connection should be steam cleaned or washed with solvent so that contamination will not enter the system. Always keep hoses and connectors and ports suitably capped or covered to keep contamination out of the system. CAUTION: Make sure that system pressure is relieved before disconnecting any lines or connections. Pressurized fluid escaping from the system can cause serious personal injury.

TORQUE SPECIFICATIONS RECOMMENDED FOR USE WITH Mud Hog® FASTENERS

Recheck all bolt & nut torque after 1 hour's use and again after first day of use. Periodically check tightness every 100 hours of use thereafter. Note: bolts that require Loctite should not be re-tightened once Loctite has had time to cure. Note: When using original equipment fasteners, adhere to manufacturers' recommended specifications.

[1] Torque to be applied to Grade 8 or (Class 10.9) bolts.

Grade 8 (Class 10.9 Metric) Bolts & Grade C (Class 10 Metric) Locknuts			Hydraulic Fittings, Hose Ends & Tube Nuts		
Size (S.A.E.)	Bolt Torque [1] (ft.lbs.)	Locknut Torque [2] (ft.lbs.)	Dash Size (S.A.E.)	Thread Size (S.A.E.)	Torque [3] (ft.lbs.)
1/4-20	10-13	7-10	-4	7/16-20	9-12
5/16-18	18-25	15-18	-6	9/16-16	21-24
3/8-16	35-45	30-35	-8	3/4-16	35-40
7/16-14	55-70	45-55	-10	7/8-14	55-60
1/2-13	90-110	60-80	-12	1 1/16-12	77-82
9/16-12	120-150	90-110	-16	1 5/16-12	110-120
5/8-11	180-200	150-170			
3/4-10	300-350	250-280			
7/8-9	400-450	350-380			
M10-1.5	35-45	30-35			
M16-2.0	180-200	150-170			
M20-2.5	400-450	350-380			

[2] Torque to be applied to Grade C or (Class 10) locknuts.
[3] Torque to be applied to S.A.E. straight thread O-Ring Boss (ORB) fittings/locknuts and 37 degree flared type (J.I.C.) fittings/hose ends and tube nuts.

Safety Procedures

READ THESE PROCEDURES COMPLETELY. Make sure you fully understand all controls BEFORE operating the system.

The safety information given does not replace safety codes, insurance needs, or federal, state, and local laws.

Standard safety procedures should be observed and practiced when operating or servicing the **Mud Hog®** system. **CAUTION** should be practiced at all times.

All components MUST be securely and correctly mounted and connected BEFORE operating the system.

In the event of any malfunction in the system, the **Mud Hog®** should be shut "OFF" immediately and not restarted until the machine is correctly serviced.

When raising the machine, make sure that a dependable left device is used to adequate capacity. Use suitable jack stands to support machine. Apply "PARK" or "EMERGENCY BRAKE" and block the front wheels to prevent the machine from rolling.

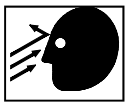
DANGER – Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Fluid escaping from a small hole can be almost invisible. Use a piece of cardboard or wood rather than your hands, to search for suspected leaks.

DO NOT extend the axles beyond the distance stated in the instructions.

DO NOT alter axles in ANY manner – alterations may reduce strength resulting in possible damage or personal injury.

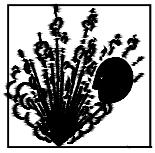
DO NOT alter any component of the **Mud Hog®** system. Unauthorized modification may result in possible damage or personal injury.

DANGER – Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious bodily injury. DO NOT attempt to mount a tire unless you have the proper equipment and experience to perform the job safely.



WARNING – Decals MUST be obeyed completely to prevent possible damage or injury. If decals are destroyed, lost damaged or cannot be read, replace immediately.

WARNING – Any damaged hi-pressure hose should be replaced with a comparable 4-wire braid hose (DO NOT use a 2 or 3-wire braid hose).



REAR WHEEL ASSIST

The purpose of the Rear Wheel Assist Axle is to provide power to the steering wheels for the purpose of increasing total tractive effort and to improve steering in extreme ground conditions.

OPERATING PRINCIPLE

The Rear Wheel Assist Axle is equipped with dual-displacement motors. When the Rear Wheel Assist is engaged, the amount of wheel torque obtained is strictly a function of hydrostatic pressure. The higher your gear selection, the higher your hydrostatic pressure will be. You will get a higher percentage of Rear Wheel Assist in the higher gear ranges.

It is very important to maintain traction with your front wheels.

The pressure to develop wheel torque and the flow to synchronize the speed of the rear wheels with the front wheels is obtained from the main hydrostatic transmission.

If a front wheel loses traction (spins out), the hydrostatic pressure drops and the amount of power assist from the Rear Wheel Assist is reduced. Shifting to the next higher gear ratio may then be helpful to reduce the amount of torque on the front wheels, or lightly touching the brakes to stop front wheel spin-out.

It is recommended that you use your Rear Wheel Assist at all times when working in the field. You gain several advantages, including:

- You will be operating at lower system pressure, thereby tending to extend the life of your hydrostatic trans mission and gear train.

- Running at lower system pressure will normally lower hydrostatic oil temperature.

OPERATION

There are two(2) push buttons located on the control panel in the cab to turn the RWA ON and OFF and to change motor displacement. “See page 25 & 26”. Operating with the “half displacement button depressed (rabbit)” puts the motors in their smaller displacement. This has the effect of still getting some tractive effort from the rear wheels while at the same time allowing greater speed than the ”full displacement (turtle)”, which offers the greatest tractive effort from the rear wheels, and the lowest speed.

The system can be engaged, “on the Go”. When either of the push buttons are depressed to the “On” position. The combine will slow and the hydrostatic control lever must be moved forward to maintain the same ground speed.

With the RWA “On”, the combine maximum speed will be less than the speed with the RWA “Off”, since the rear wheels take some of the flow from the hydrostatic transmission. This has the effect of a 3-speed device in each gear with more reduction, therefore, less speed and more tractive effort when the RWA is on.

When the RWA is turned off, the combine will accelerate.

The system can be engaged or disengaged on the “Go”. However it will extend the life of your hydrostatic system to do so at lower pressures and speeds.

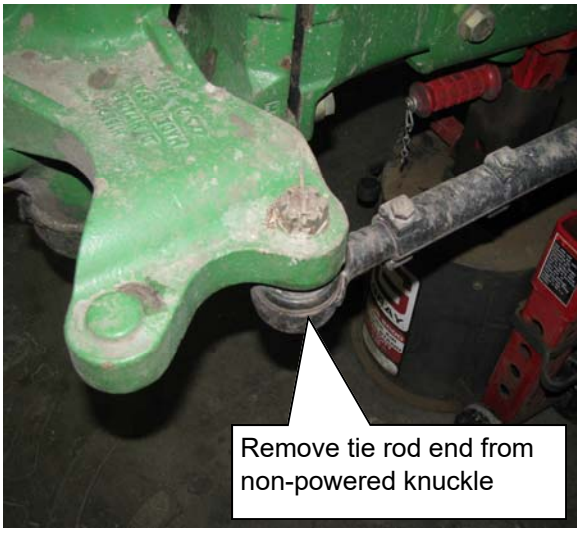
WARNING: The RWA should not be engaged or disengaged while traveling at high road speeds since the sudden speed change could cause loss of control and this practice also introduces pressure spikes into the hydrostatic circuit that can be detrimental to the components.

PREPARE COMBINE

Park combine. Apply parking brake. Disconnect battery terminals, ground cable first. Remove oil, dirt, and crop material form the area where the work is to be done. Lower feeder housing fully to the ground. Drain the hydraulic reservoir.

REMOVAL OF ORIGINAL COMPONENTS

NOTE: Always refer to John Deere “Technical Manual” when disassembling any John Deere components. Using suitable lift device, jack or hoist, raise rear of machine so that rear tires are several inches off the ground. Place jack stands securely under the machine’s rear center section. Remove rear tires, keep lug bolts with non-powered knuckle, they will not be used on powered wheel drives. Remove tie rod tapered ball joints from non-powered knuckle. Do not remove ball joints from existing tie rods

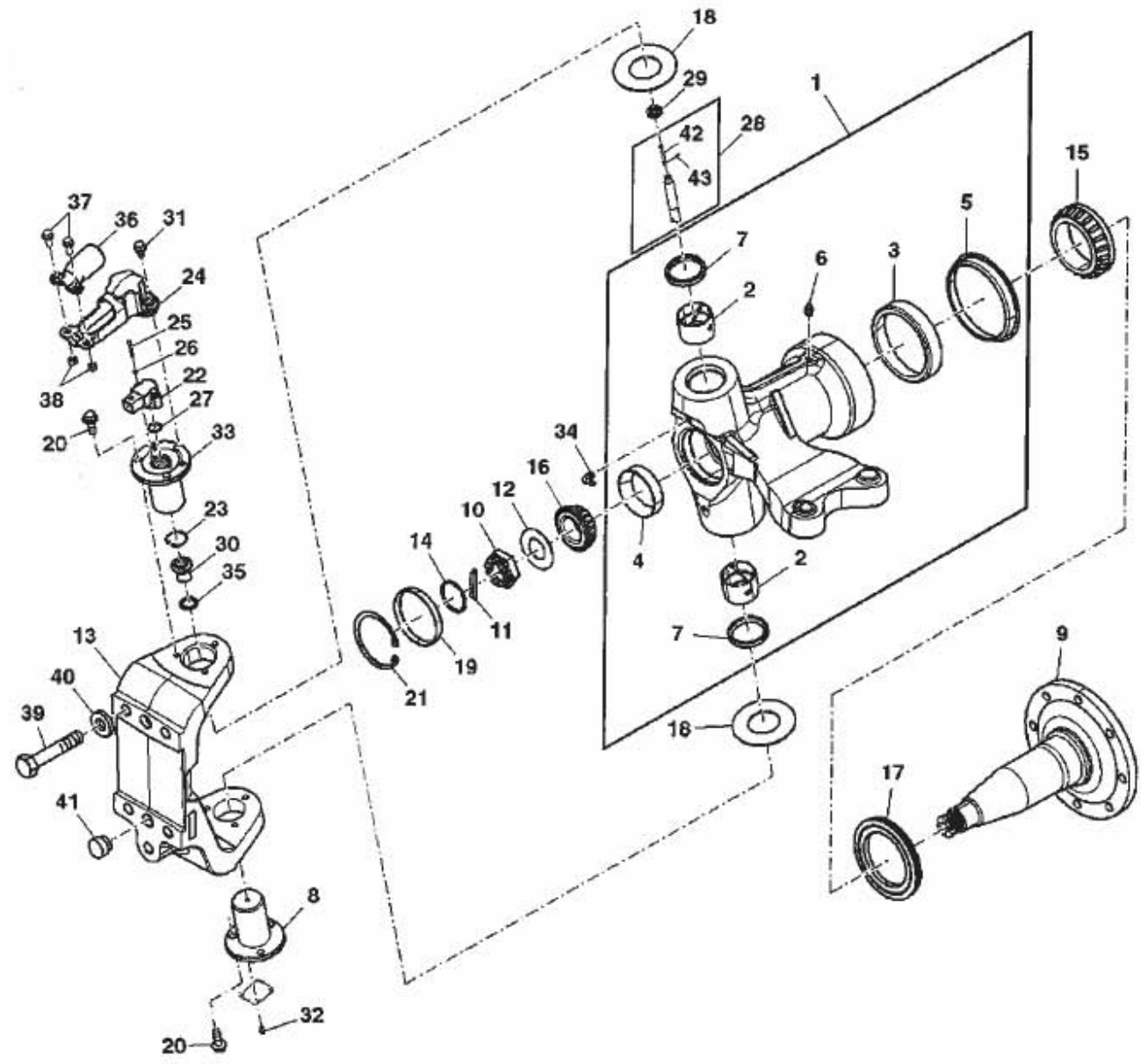


REMOVAL OF ORIGINAL COMPONENTS

CAUTION: non-powered knuckles are very heavy. Support the non-powered knuckle with a suitable lift device and remove knuckle mount bolts, spacers and knuckles. Set knuckles, spacers and mount bolts aside.

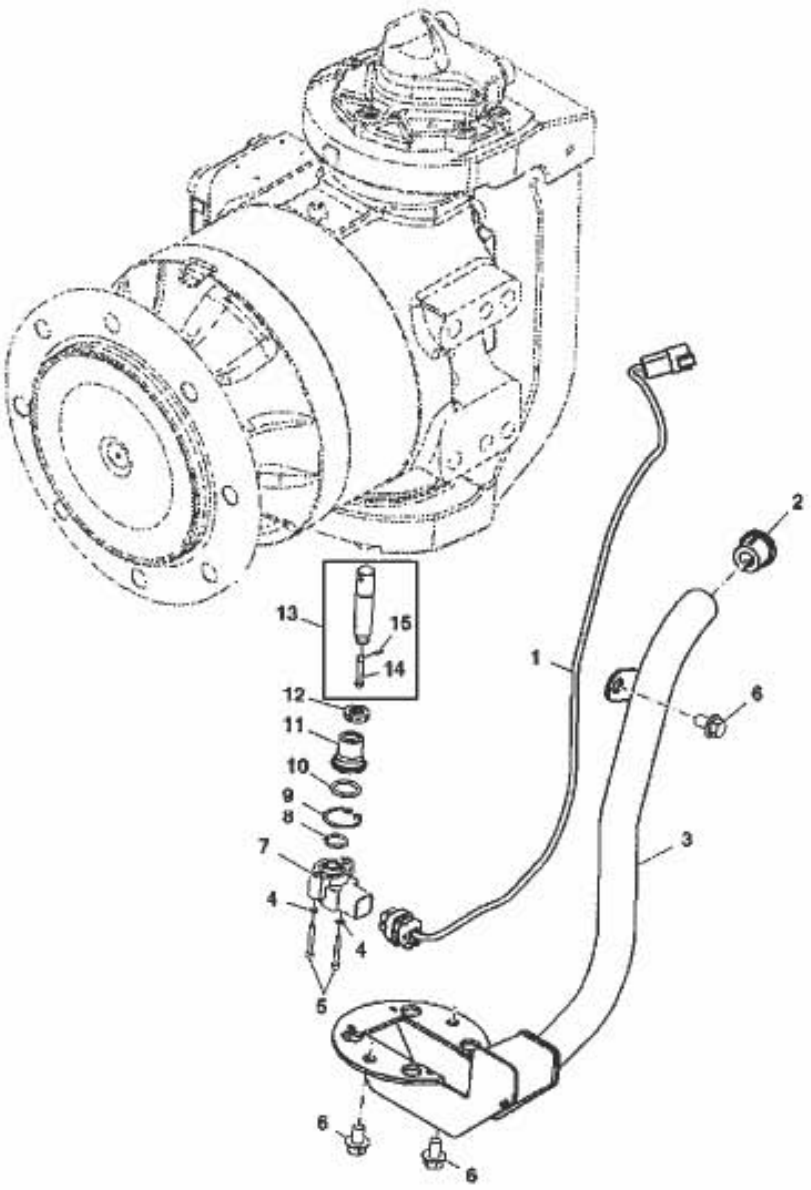
JOHN DEERE AUTOTRAC SYSTEM

If the John Deere Autotrac system is on the machine, then item numbers 23 snap ring, 25 M4x30 screws, 26 lock washers, 27 o-ring, 29 seal, 30 bushing and 35 o-ring need to be removed from the non-powered wheel drive and saved for later use on the powered wheel drive.



INSTALLATION OF JOHN DEERE AUTOTRAC SYSTEM

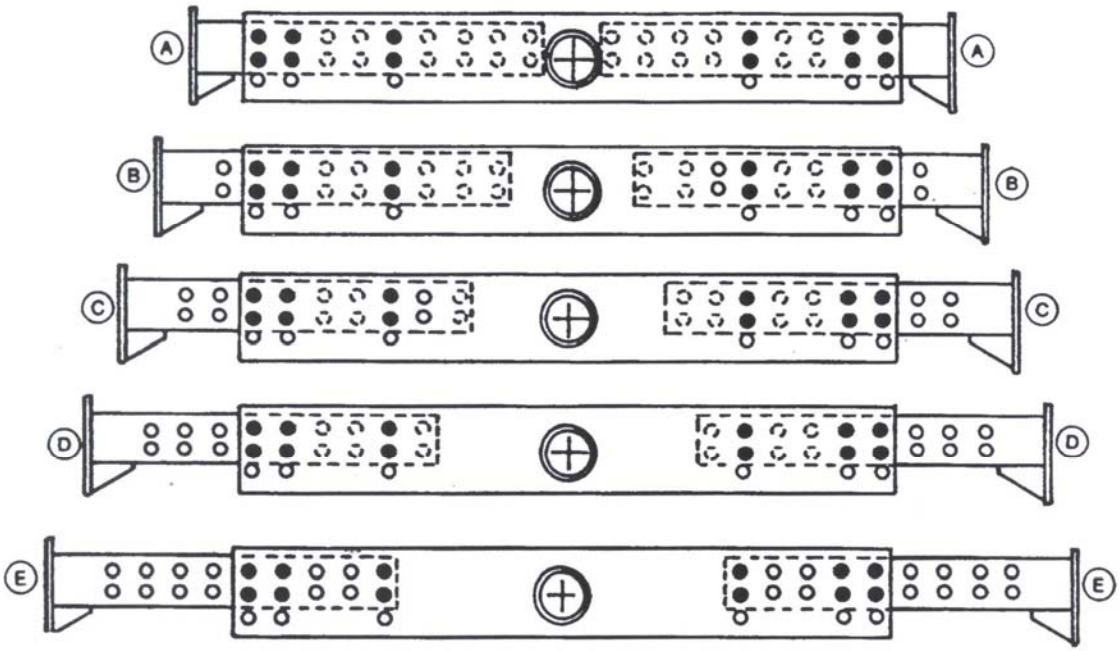
Parts shown in the illustration below need to be installed in the bottom of the left hand wheel drive. Items 1, 2, 3, 6, 7 and 13 are provided. Items 4, 5, 8, 9, 10, 11 and 12 can be re-used from the parts removed from the non-powered knuckles. New o-rings and seal are provided if the existing ones can't be re-used. Refer to John Deere instructions for proper installation. Dealer will need to re-calibrate AutoTrac system.

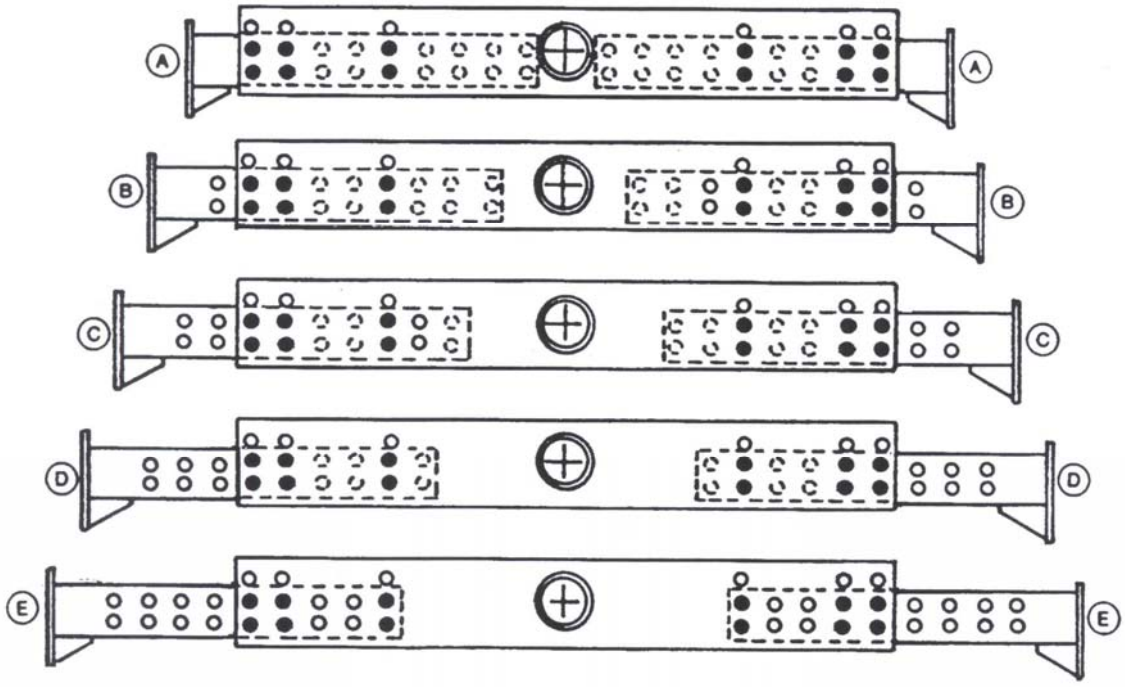


TREAD CENTER ADJUSTMENTS

Available tread center settings are A: 122”, B: 130”, C: 138”, D: 146” and E: 154”. Tread settings can be adjusted by sliding stub axles inside of center section.

The first figure shows the standard rear axle assembly. The second figure shows the axle in the high clearance position. **Note:** 18.4 x 26 or larger tires may require wider tread settings for proper clearance and steering. See John Deere Manual for further information.





TIRES AND FRAME HEIGHTS

DRIVE AXLE		
Tire Size	SLR	Front Frame Height
35.5L-32 R2	36.8	26.1
76x50-32 HF3	36.1	25.4
20.8R-42 R2	36.0	25.3
800/70R38 R1W	35.5	24.8
900/65R32 R2	34.8	24.1
20.8R-42 R1	34.2	23.5
520/85R38	32.5	21.8
18.4R-42 R1	32.3	21.6
20.8R-38 R1	32.2	21.5
800/65R32 R1W	31.8	21.1
30.5LR-32 R1	31.0	20.3

STEERING AXLE			
		Stub Axle Bottom Holes	Stub Axle Top Holes
Tire Size	SLR	Rear Frame Height	Rear Frame Height
28L-26 R2	28.5	24.4	22.0
28L-26 R1	28.3	24.2	21.8
18.4-30 R2	28.2	24.1	21.7
18.4-30 R1	27.0	22.9	20.5
600/65R28 R1W	26.4	22.3	19.9
18.4R-26 R1	25.1	21.0	18.7

Static Loaded Radius (SLR) AND Frame Heights are in inches and for reference only.

Front Frame Height is measured from bottom of frame to ground directly behind the front axle.

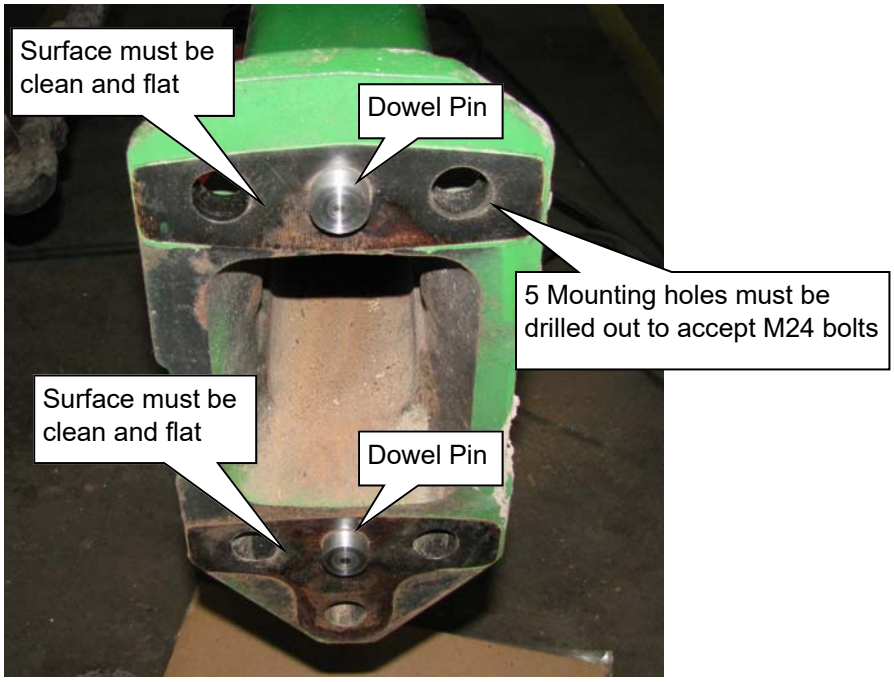
Rear Frame Height is measured from bottom of frame to ground at rear jack point on frame in front of rear axle.

Wheel Motor identification

At installation or in the event a wheel motor is removed from the axle to be serviced or replaced, please note that 2 speed wheel motors have a preferred rotation and care must be taken to ensure they are on the correct side of the machine. The following information can be used to aid in determining which wheel motor you have and which side of the machine it should be installed on. The wheel motors have a tag on them with various pieces of information. The 710294-01 means that this wheel motor goes onto the left hand side of the machine when standing behind it and looking at the rear of the machine. The 710294-02 means that this motor goes onto the right hand side. Failure to get the wheel motors on the correct side of the machine can result in heat build-up and pre-mature failure of the wheel motor, etc.

INSTALLATION OF WHEEL DRIVES

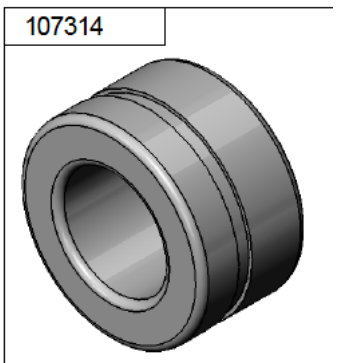
Excess paint/rust must be removed from JD stub axle endplate before assembly. Check stub axle endplate for flatness prior to installation to ensure proper clamp load is achieved. If endplate is not flat, axle must be replaced prior to Mud Hog installation. John Deere cast stub axle with 5 bolt pattern is required for this installation. Install new, supplied dowel pins into stub axles.



CAUTION: Wheel Drive assemblies are extremely heavy, use a lift device of adequate capacity.

CAUTION: **DO NOT** re-use original M20 mount bolts.

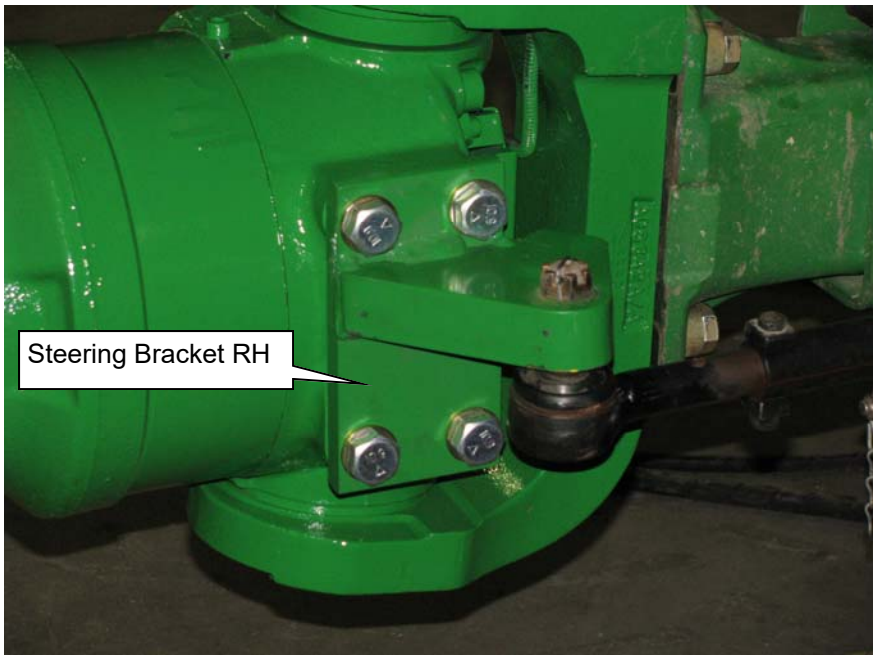
NOTE: Pay close attention to the thickness of the flange on the stub axle extension and how much bolt sticks thru the spacer and flange in order to get enough thread engagement. Some machines have been upgraded to use the XHD 2WD axle from the S680/690 series. These axles have a thicker flange, reported to be 1.56" thick where the spacer seats. For these axles, the supplied M24-3 x 100mm CL10.9 bolts must be used to get enough thread engagement. For axles with the thinner flange shown below, the supplied M24-3 x 80mm CL10.9 bolts are to be used. After checking to ensure you will have enough thread engagement, apply permanent Loctite # 271 to threads of bolts, mount wheel drives to stub axles using the correct supplied M24 hex head bolts and supplied spacers with identifying ring as shown below. Torque hex head bolts to 680 ft lbs.

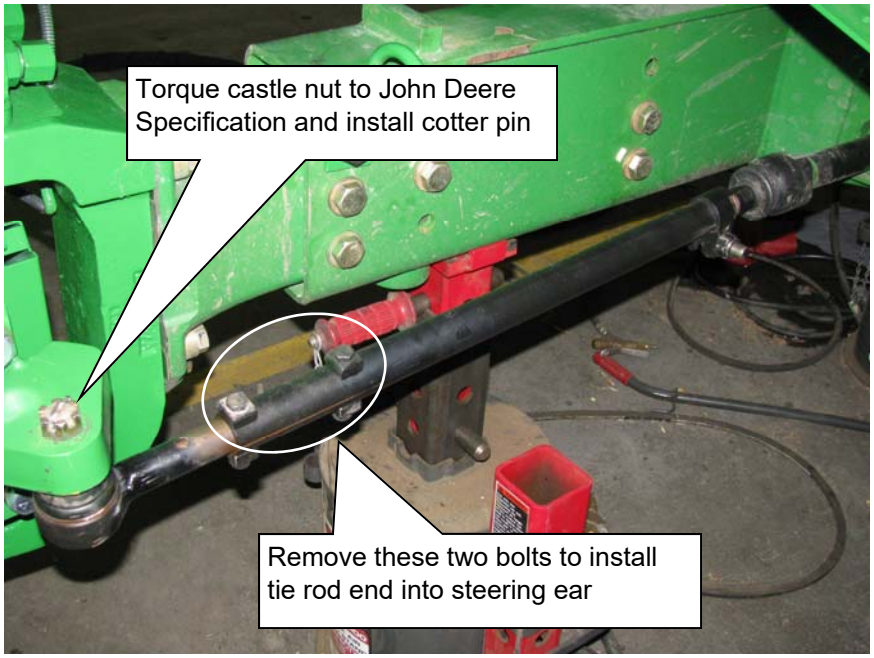


INSTALLATION OF STEERING COMPONENTS

Install supplied steering bracket to each wheel drive. Apply Loctite #271 to the supplied bolts and install the hardened washers and bolts and torque to 300-350 ft.lbs.

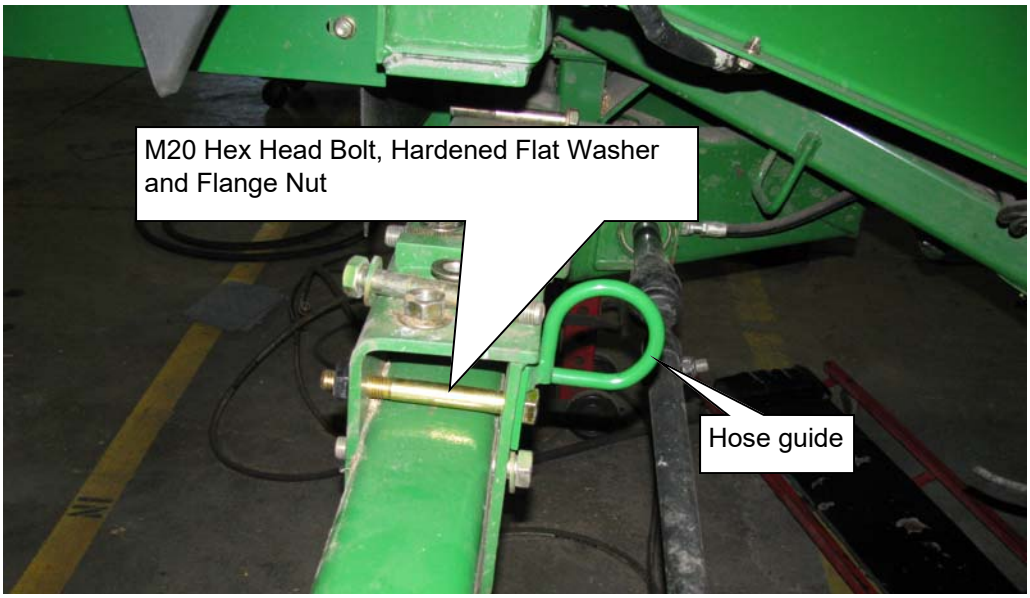
With the wheel drive positioned straight forward, remove bolts from tie rod and adjust the tie rod to match the axle extension width. Install tie rod tapered ball joints into steering brackets on wheel drives. Install original slotted hex nuts and torque to original specification as noted in John Deere manual. Install cotter pins. Secure tie rod using original bolts, clamp halves and nuts. Do not torque at this time. This will be done after setting toe-in at the end of the installation.





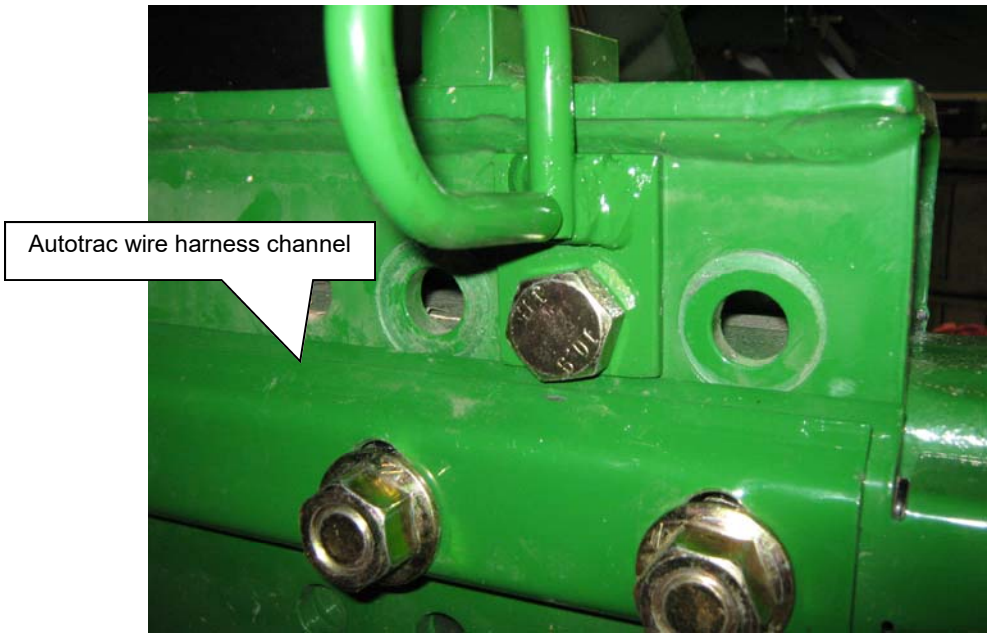
INSTALLATION OF HOSE GUIDES

Install hose guides into second hole from the end of the center section, as shown. If the stub axles are in the top position use supplied bolt through center section and stub axle. See page 3 for torque specifications.



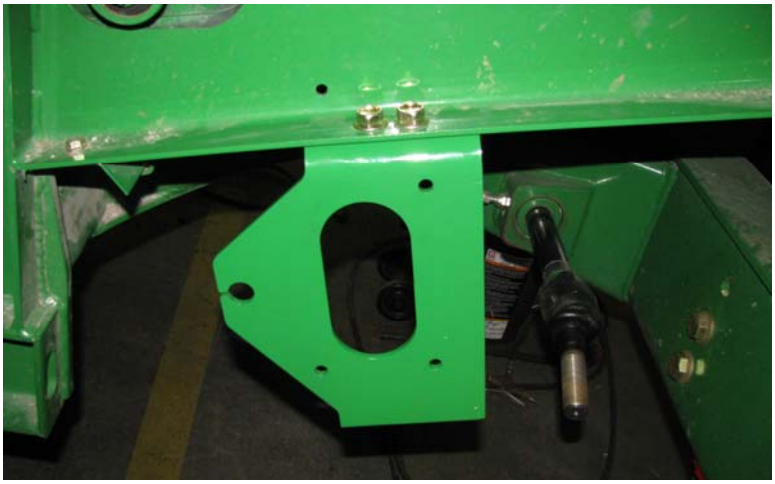
INSTALLATION OF HOSE GUIDES WITH AUTOTRAC WIRE HARNESS

Install hose guides into second hole from the end of the center section as shown. If the stub axles are in the top position, mount the hose guides on top of the wire harness channel on the second bolt from the end of the center section. Torque the wire harness channel flange nuts to original specification as noted in the John Deere manual.



VALVE BRACKET INSTALLATION

Mount valve bracket to combine using existing holes in left rear side of combine in front of rear axle. Note that your valve bracket might have 2 sets of mounting holes. In the case of narrow tread widths, the bracket might need to be installed further under the frame to avoid interference with tire. Use supplied 1/2" flange head bolts, nuts and washers. Torque locknuts to 60—80 ft.lbs.



VALVE INSTALLATION

Before installing valve into valve bracket, remove steel caps from 90 degree elbows. Loosen jam nuts on elbows and rotate elbows as shown in picture below. This is to facilitate routing high pressure hoses to pump on top of combine. Tighten jam nuts and re-install steel caps. Mount valve to valve bracket using three (3) supplied M10x100 bolts, M10 locknuts and flat washers. Torque locknuts to 30 - 35 ft. lbs. Check for adequate clearance between solenoid and shaker shield. Valve Bracket may need lowered if there isn't enough clearance.

INSTALLATION OF MANIFOLD BLOCK AND TEE

Completely remove the high pressure hose shown in the below 3 pictures.

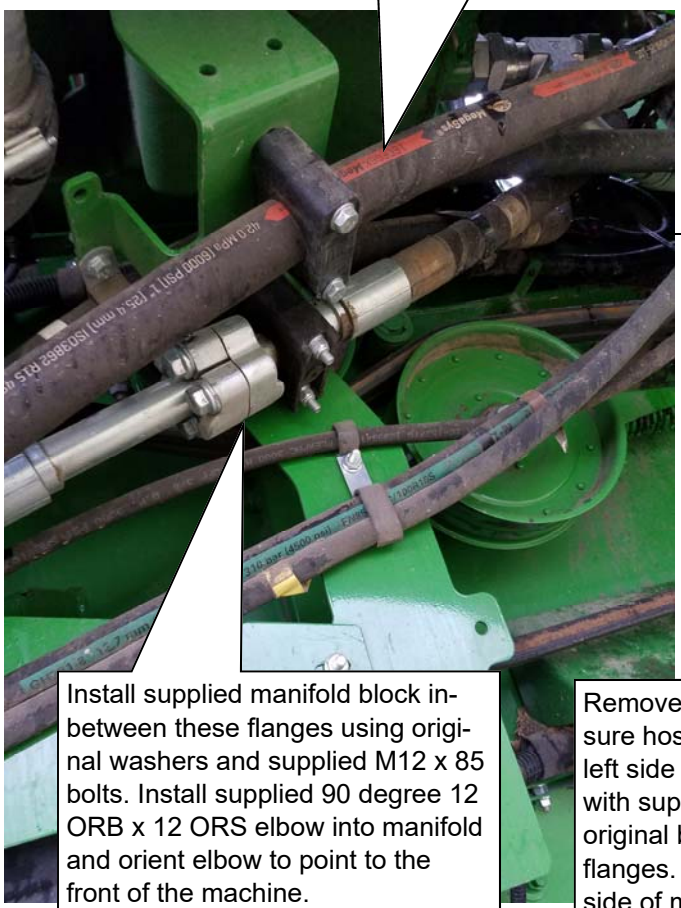
Install supplied manifold block and 90 elbow in existing split of remaining high pressure hose as noted at picture. This should be the Reverse pressure line.

Install the two new supplied hoses as noted at pictures. Install supplied –16 ORS tee into the two new hoses with the middle part of the tee pointing down. This should be the Forward pressure line.

At all locations on this page, apply Loctite 545 to the threads and torque M12 bolts to 90-95 ft.lbs. using a torque wrench. Do NOT over-tighten!

Remove this hose as seen from left side of combine. Install supplied Code 62/16 ORS 45 degree adapter using original split flanges and bolts and washers. Later, install supplied 32” hose and route to clamp shown in next picture.

Remove the High Pressure hose from clamp. Later, replace with supplied 32” hose from hydro pump and install in clamp.

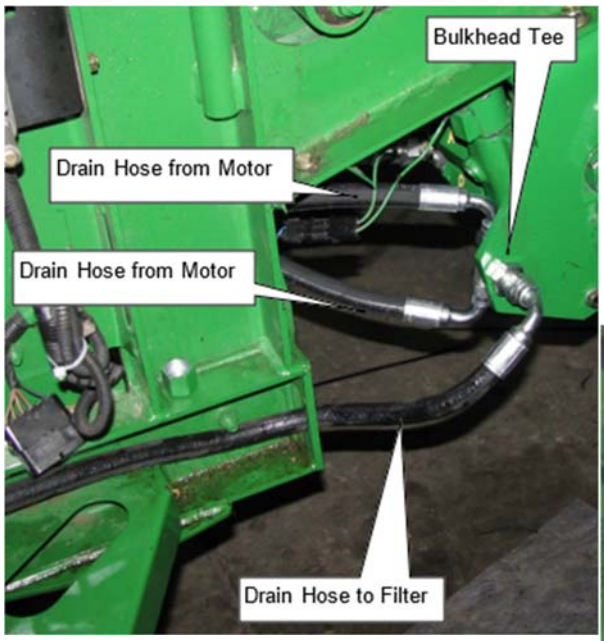


Install supplied manifold block in-between these flanges using original washers and supplied M12 x 85 bolts. Install supplied 90 degree 12 ORB x 12 ORS elbow into manifold and orient elbow to point to the front of the machine.

Remove this end of the High Pressure hose from hydro motor at front left side of combine. Later, replace with supplied 182” hose. Install with original bolts, washers and split flanges. Route hose back the left side of machine where the original hose was just removed from.

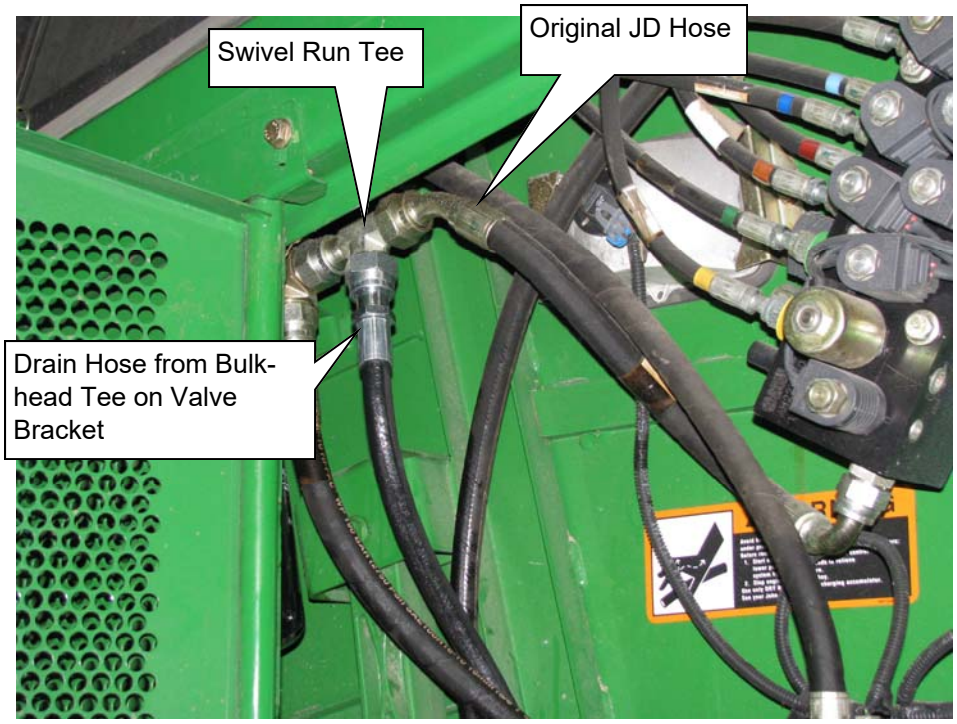
HOSE ROUTING

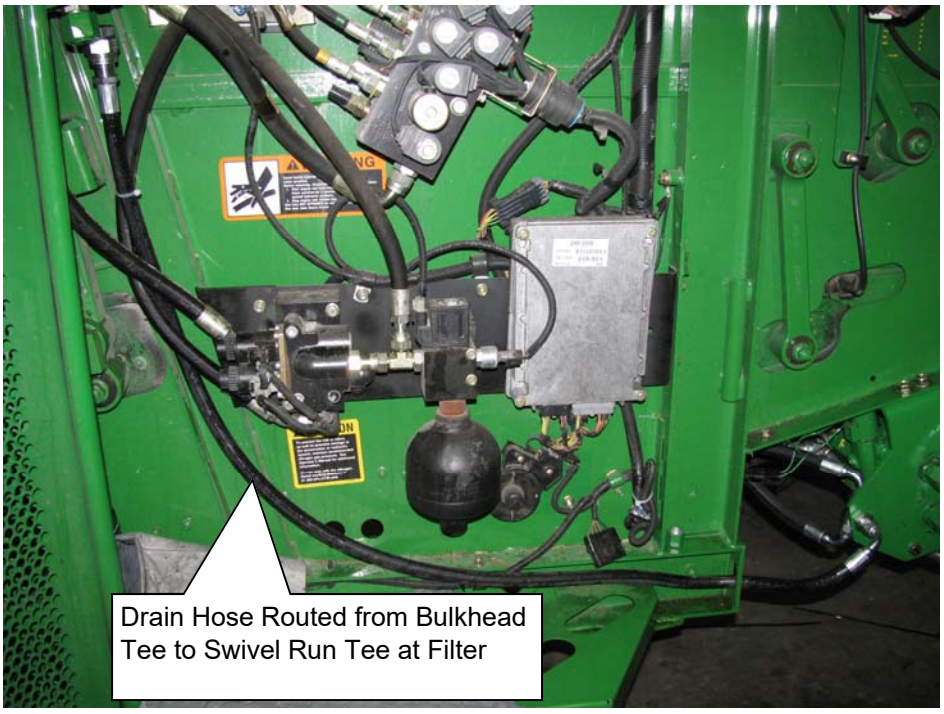
Install supplied bulkhead tee into valve bracket. Note that in the case of narrow tread widths, an extra bracket (shown at right) might need to be installed to move the bulkhead tee and drain hose further under the frame to avoid interference with tire. A 1/2 x 1 1/4 bolt and nut and 2 flat washers have been provided to use with this bracket. Route drain hose through hole in frame, connect drain hose to bulkhead tee. Do not tighten at this time. See page 18 for motor drain hose routing and attaching to filter. After installing swivel run tee at filter and connecting drain hose to swivel run tee, tighten drain hose connection at bulkhead tee. See page 19 & 20 for valve drain hose routing and reservoir connection. Connect the supplied high pressure hoses with the two –12 straight ends to the 90° elbow at manifold block and the other hose with the –16 90° end to the –16 ORS tee, do not tighten at this time. Route hoses forward from connections and below existing Hydro hoses and then down to valve. Connect high pressure hoses to elbows on valve as shown below. Tighten all high pressure hose connections. Connect valve drain hose to bottom of valve as shown on page 20. Connect valve drain hose to reservoir. See page 19 for reservoir connection. Tighten all valve drain hose connections. Secure high pressure hoses and valve drain hose using supplied tie straps. See page 3 for torque specifications.



DRAIN HOSE ROUTING

Disconnect original John Deere hose and install supplied –12 ORS Swivel Run Tee, Re-attach JD hose to tee, as shown below. Install supplied drain hose from swivel run tee to bulkhead tee on valve bracket. See page 3 for hose end torque specifications.





VALVE DRAIN AND HOSE ROUTING

See page 3 for hose end torque specifications.

Remove plug and install M16-1.5 x 08 ORS adapter into reservoir drain port shown below and attach valve drain hose from bottom of valve to adapter installed in reservoir.

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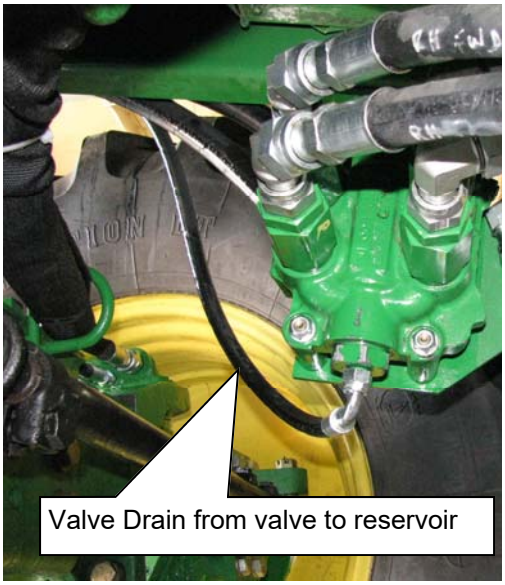
VALVE DRAIN AND HOSE ROUTING

See page 3 for hose end torque specifications.

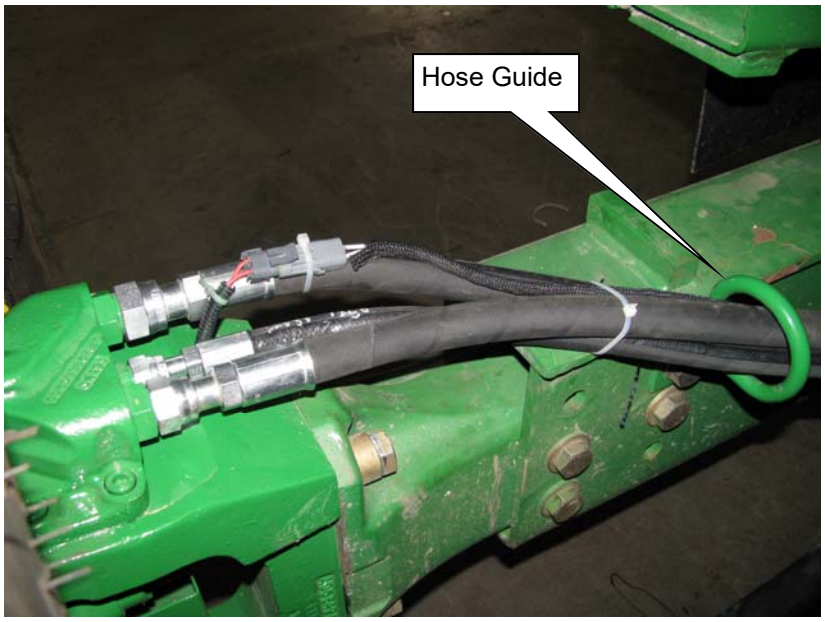
Remove plug in reservoir and install –12ORB x –08ORS Reducer.

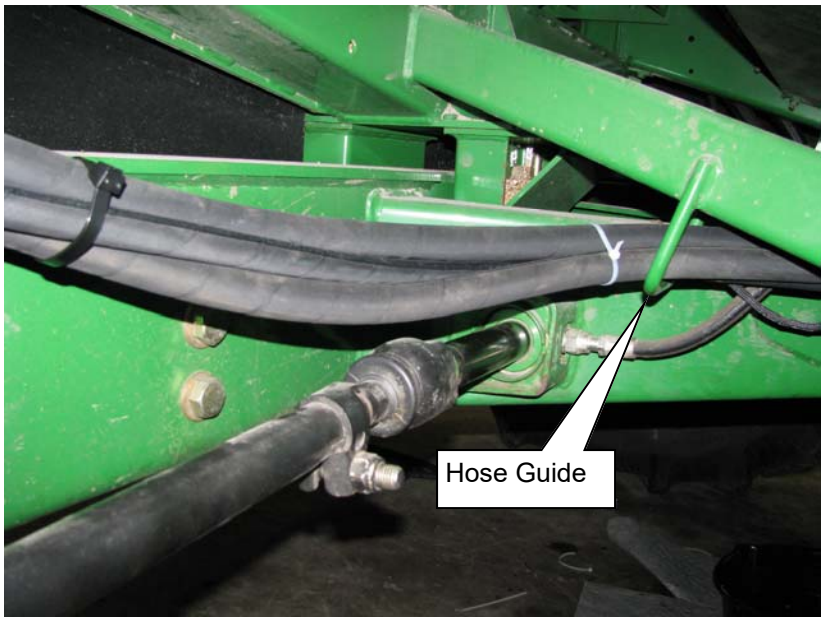
Route hydraulic hoses away from moving parts and secure hoses with supplied tie straps.



HOSE ROUTING, RIGHT HAND WHEEL MOTOR

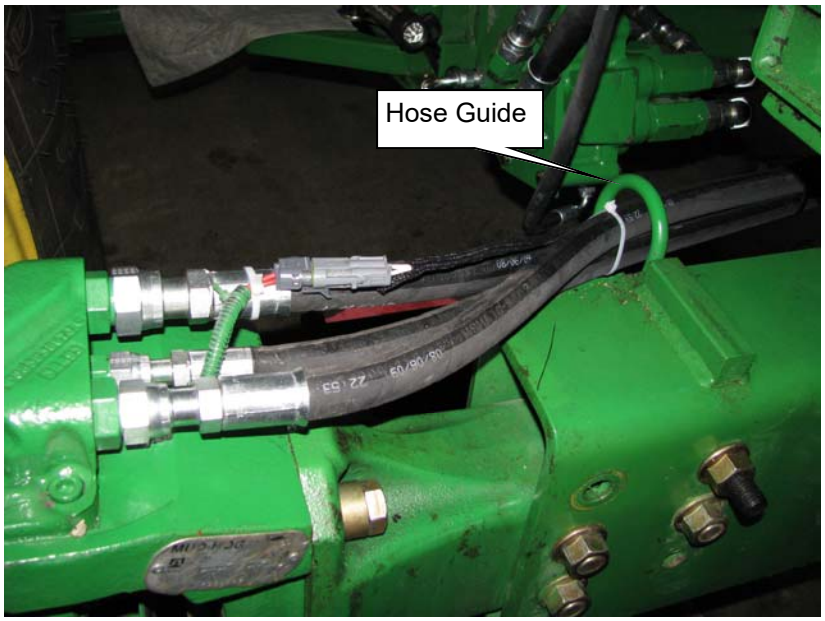
Locate high pressure hose with –10 nipple on one end and –12 nipple on the other, this will be the reverse hose. Label the –12 nipple, for identification of the reverse hose at the valve. The two (2) long high pressure hoses and the long drain hose with 90 degree elbow on one end are the right hand wheel motor to valve hoses. The straight nipples on all of these hose go to the wheel motor. Route the three (3) hoses through the welded hose guide on the bottom of the combine, as shown in the bottom picture on this page. Lay the hoses on top of the frame as shown on page 21. Pull the hoses through the hose guide bolted to the rear axle as shown below in the top picture. Connect the hoses to the appropriate fitting. Do not tighten at this time.





HOSE ROUTING, LEFT HAND WHEEL MOTOR

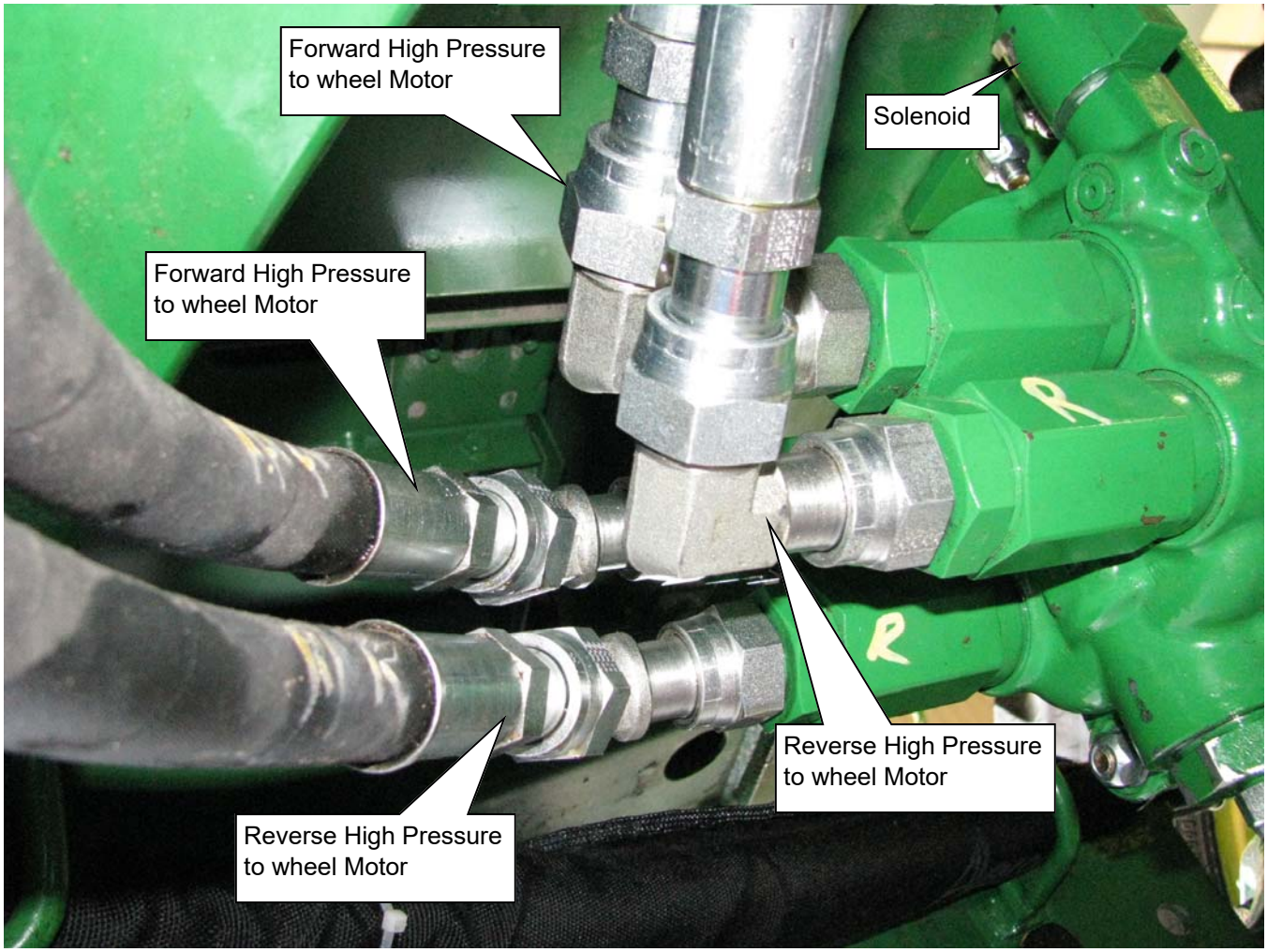
Locate high pressure hose with –10 nipple on one end and –12 nipple on the other, this will be the reverse hose. Label the –12 nipple, for identification of the reverse hose at the valve. The two (2) short high pressure hoses and the short drain hose with 90 degree elbow on one end are the left hand wheel motor to valve hoses. The straight nipples on all of these hose go to the wheel motor. Route the three (3) hoses through the welded hose guide on the bottom of the combine, as shown in the top picture on this page. Lay the hoses on top of the frame as shown on page 21. Pull the hoses through the hose guide bolted to the rear axle as shown below in the top picture. Connect the hoses to the appropriate fitting. Do not tighten at this time.



HOSE ROUTING, WHEEL MOTORS TO VALVE

HOSE ROUTING, WHEEL MOTORS TO VALVE

Install the two (2) supplied –12 ORS/-12 ORS-Female Swivel 90 degree elbows and the two (2) supplied –12ORS/-12 ORS-Female Swivel 45 degree elbows onto the valve as shown. Do not tighten at this time. The previously labeled reverse hoses will connect to the bottom ports and the unmarked forward hoses will connect to the top ports. Tighten all elbows and hose ends at the valve and wheel ends at this time. See page 3 for torque specifications.



ELECTRICAL WIRE HARNESSES

2 Speed Wire Harness

From wheel motors to either 2 pin connector on 4 pin wire harness or 2 pin connector on 3 pin wire harness

4 pin Wire Harness

From combine to 2 speed wire harness and valve solenoid

ADAPTING 4 PIN WIRE HARNESS TO 8 PIN WIRE HARNESS

Locate wire harness on left hand side of machine behind wire mesh door. There will be an 8 pin connector that has 4 wires already being used for the AutoTrac. The 4 ports with plugs in them will be used for the RWD.

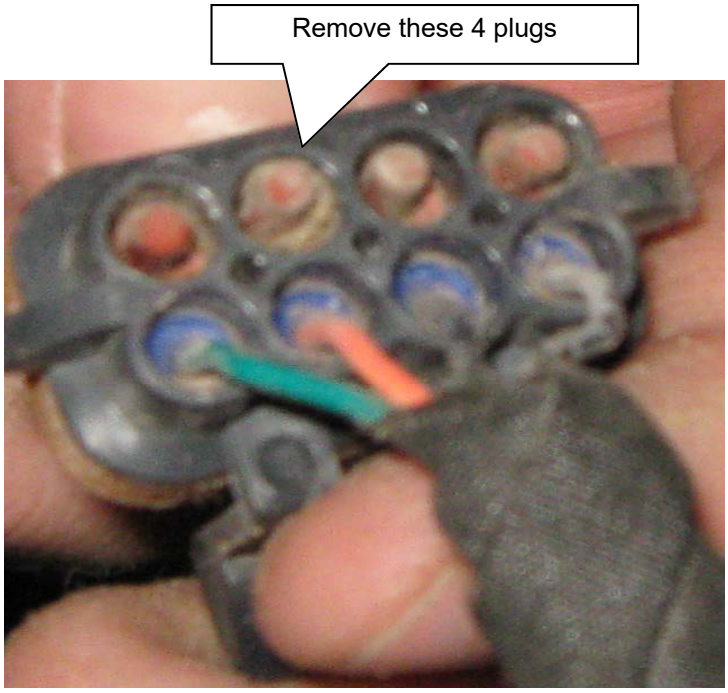
Remove 4 plugs from 8 pin connector on combine wire harness located on side of combine. See illustration below

Insert wire terminals into 8 pin connector: BLUE = A(010)

YELLOW = B (201)

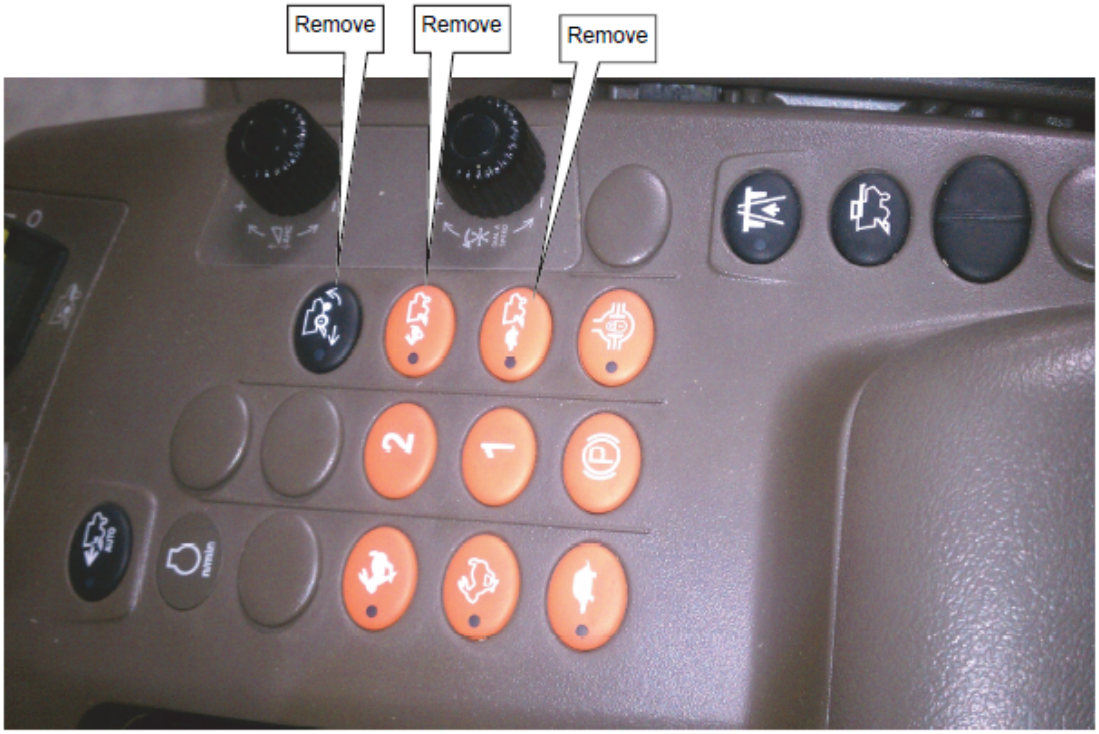
GREEN = C (203)

YELLOW = D(204)



Electrical, Cab

Remove the three button covers indicated below for access to Mud Hog powered rear axle and speed control. Note that newer machines have switches as shown in bottom picture.



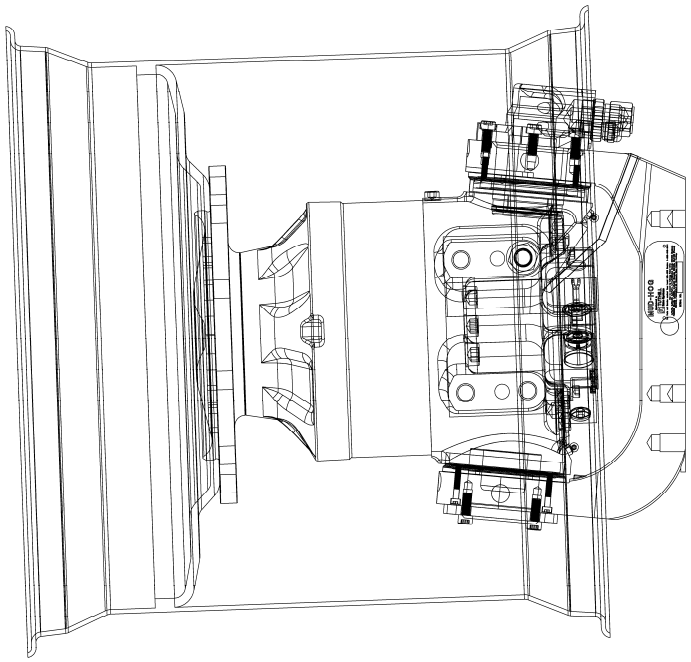
MOUNTING WHEEL

Mount the wheels onto the wheel motor hub flanges with the center of the wheel in-board of the wheel motor flange. **NOTE**: Installing the wheels “dished-out” with the center of the wheel outside of the mounting flange on the motors will **VOID** your warranty. **NOTE**: the wheel for a **28L-26** tire will likely have the center disc inverted from the position found in most other wheels. This wheel should be mounted as shown in order to keep the center of the wheel in-board of the wheel motor mounting flange.

Install the lug bolts and spacers, torque to original JD specification. Note that there are 2 different types of lug bolts that could be included in this kit. A flange head bolt or a regular hex head bolt. If this kit contains the regular hex head bolts, then the supplied hardened flat washers are to be used between the head of the bolt and the spacers. If the flange head bolts are in the kit, then hardened washers are not required to be used and are not supplied.

IMPORTANT: After first hour of operation, re-torque lug bolts. Repeat this operation at short intervals during the first few weeks and yearly thereafter.

28L-26 Wheel with inverted disc



ADJUSTING TOE IN

Make sure that the steering cylinder rod is centered in the cylinder housing. Place both wheel motor drive assemblies in straight ahead position. Set toe-in 1/4 to 3/8" closer together in the front than in the rear. Measure toe-in from center of tire to center of tire, preferably at the height of wheel center; at the same height from the ground in the front and in the rear. If necessary, loosen tie-rod clamp, and remove bolts from adjustable tie-rod and turn outer tie-rod tube to adjust toe-in. Replace bolts and re-measure toe-in. NOTE: Attempt to maintain equal amounts of exposed threads on both tie-rods. Torque tie rod bolts to John Deere specification.

PRE-START PROCEDURES

Check that all bolts, nuts and hydraulic connections are at proper torque specification.

Check that all hoses and wires are properly routed, free and clear of moving parts and suitably secured.

Check wiring. Turn ignition switch "ON". **DO NOT** start engine. Operate both half displacement (fast) and full displacement (slow) Mud Hog buttons. Listen for a soft clicking sound at the valve solenoid and wheel motors to insure proper wiring function.

Fill hydrostatic reservoir. Follow John Deere specifications and recommendations concerning hydrostatic fluid and the servicing of filters.

Contact your John Deere dealer for information pertaining to programming the computer of your machine to activate the rear wheel drive.

START-UP PROCEDURE FOR REAR WHEEL DRIVE SYSTEM

After having completed the installation or servicing of the rear wheel drive system on a hydrostatic drive machine, the following start-up procedure must be performed to insure adequate bleeding and flushing of the newly installed or serviced hydraulic components. This procedure also serves to check proper plumbing of the hydraulic circuit.

IT IS IMPORTANT THAT THESE INSTRUCTIONS BE CARRIED OUT AS SPECIFIED. Any alteration of this procedure will defeat its purpose, which is to bleed air out of the system and flush any possible contamination from the closed loop. Special attention must be given to the ½ inch limited movement of the hydrostatic control lever, as it is critical not to allow excessive oil flow during this procedure. If at any time while performing this procedure a malfunction occurs that causes the hydrostatic system to be reopened, such as disconnecting a hose of fitting, it is necessary to begin the procedure again at STEP 1. See further instructions and chart on page 27.

Steps 1-7 of this procedure are performed with the front drive wheels of the machine on the ground and chocked securely, and the *MUD HOG RWD* axle raised and secured such that the rear wheels remain off the ground with sufficient clearance around the machine. At all times maintain proper fluid level in the hydrostatic reservoir

Steps 8-9 of this procedure are performed with the front drive wheels and the rear wheels of the machine on the ground. Front drive wheels should still be chocked securely.

MUD HOG *ON—Full Displacement (slow)

STEP	ENGINE SPEED	GEAR SELECTOR	MUD HOG	HYDRO LEVER	TIME	COMMENTS
1	1/2 SPEED	NEUTRAL	*ON	NEUTRAL	3 MIN	BLEED AIR ENTIRE SYSTEM
2	HIGH IDLE	NEUTRAL	OFF	1/2 INCH FORWARD	2 MIN	FLUSH FORWARD MAIN SYSTEM
3	HIGH IDLE	NEUTRAL	OFF	1/2 INCH REVERSE	2 MIN	FLUSH REVERSE MAIN SYSTEM
4	HIGH IDLE	NEUTRAL	*ON	1/2 INCH REVERSE	30 SEC	CHECK CORRECT ROTATION OF MUD HOG
NOTE: A. If wheel(s) rotate reverse, go to step 6 B. If no rotation, go to step 5 (DO NOT repeat, check valve) C. If wrong rotation, correct forward/reverse circuit, go to step 1 D. 2 Speed Motors, activate displacement control buttons, check for change of speed of MUD HOG.						
5	LOW IDLE	HIGH GEAR HOLD BRAKES	*ON	1/2 INCH REVERSE MAXIMUM	15 SEC MAXIMUM	CHECK CORRECT ROTATION OF MUD HOG
6	HIGH IDLE	HIGH GEAR HOLD BRAKES	*ON	1/2 INCH FORWARD	4 MIN	FLUSH FORWARD MUD HOG SYSTEM
7	HIGH IDLE	HIGH GEAR HOLD BRAKES	*ON	1/2 INCH REVERSE	4 MIN	FLUSH REVERSE MUD HOG SYSTEM
8	1/2 SPEED	HIGH GEAR HOLD BRAKES	*ON	1/4 INCH FORWARD	15 SEC MAXIMUM	FORWARD PRESSURE CHECK FOR LEAKS
9	1/2 SPEED	HIGH GEAR HOLD BRAKES	*ON	1/4 INCH REVERSE	15 SEC MAXIMUM	REVERSE PRESSURE CHECK FOR LEAKS

4WD Mud Hog® Vinyl Decal Application Instructions

To apply your decal, please follow the instructions below:

Clean area above rear wheel on ladder side of machine to remove dirt and grime.

Without removing the paper backing, position decal on surface exactly where you want it.

Once the decal is in position, place a piece of masking tape along the top edge to hold the decal in place.

The decal should be sitting on the surface like a flap. Lift up the decal and remove the paper backing.

With the backing paper completely removed from the decal & transfer tape, gently lower the decal with the transfer tape back down to the surface and rub it down lightly with your hand.

The transfer tape should still be on the side of the decal facing you. This allows you to rub the decal without scratching or damaging the decal. Take a squeegee or credit card and firmly rub the transfer tape and thus the decal until it is firmly adhered to the surface.

Finally, peel off the transfer tape and masking tape gently. The decal will adhere to the surface much more aggressively than the transfer tape. The transfer tape should lift easily leaving behind no sticky residue.

Your decal installation is complete. If there are bubbles present under the decal that cannot be removed by working them to edge, a small needle or pin can be used to puncture the bubble and remove the air. A small pin hole will not be seen after the air bubble has been worked out.

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