

Automated Steering Kit Installation Guide

Kit: EDX-CSTX2, P/N 911-2005-000


**Fits New Holland TJ and Case IH STX
Wheel and Quadtrac Models:**

275	325	425	500	T9020
280	330	430	530	T9030
	335	435	535	T9040
	375	440		T9050
	380	450		T9060
	385	480		
	485			



*The wheel angle sensor and steering wheel switch installations for Quadtrac machines is different than those for wheel machines. The Quadtrac alternative installations are **WAS 2** (page 17) and **SWS 2** (page 21)*

Read and Follow Safety Messages

- In these instructions, you will see the heading **WARNING** and the safety alert symbol . They indicate a hazardous situation that, if not avoided, could result in death or serious injury. The safety messages provide information to identify a hazard associated with potential injury.
- Before installing, operating, or performing maintenance or service on any part of the system:
 - Read and understand this installation guide and all of the safety information.
 - Read and understand the Automated Steering System User Guide.
- Do not allow anyone to operate without instruction.
- Keep these instructions and all related safety information with the manuals for your machine and other implements.

If you have questions or need assistance, contact your local dealer or distributor.

Overview

A series of equipment specific kits has been developed to work in conjunction with your automated steering system. For the machine models listed above, these kits contain the components for:

- the steering hydraulics
- the wheel angle sensor (WAS)
- the steering wheel switch (SWS - for steering override)

The items in each kit are detailed in the tables that follow the safety warnings on the next page. After the kit tables there are step-by-step installation sections, one for each of the kits.

Please read this manual thoroughly before beginning the installation.

⚠ WARNING:

To avoid serious injury or death during machine operation, install the appropriate kits for your machine make and model.

Machine Preparation

⚠ WARNING:

Inspect the machine and perform any needed maintenance (for example, contaminated hydraulic fluid) before installing the automated steering kit. This kit cannot perform as intended on a machine that is not maintained properly. Errors in performance increase the risk of operator and bystander injury or death.

Failure to maintain clean hydraulic fluid and operational hydraulic components can cause loss of directional control resulting in serious injury or death.

To avoid serious injury, wear hand and eye protection and use wood or cardboard when checking for leaks.

Turn off the machine and power off the automated steering controller when installing or performing maintenance.

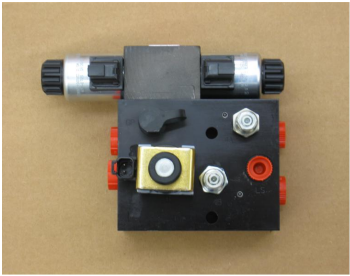


Before attempting to install any of the components, park the machine on a clean level floor with adequate clearance to work all around.


Before you perform any drilling, cutting or fastening, ensure that no other machine components, such as hydraulic hoses or electrical wiring, will be damaged. Failure to follow this warning may cause physical injury and/or damage to the machine.







To prevent hydraulic system contamination, it is essential to thoroughly clean hydraulic system fittings and hose connections prior to disconnecting or removing. Use a degreasing solvent spray cleaner such as a brake cleaner to prevent hydraulic system contamination. Note that o-rings used on ORB and ORFF type fittings, referred to in the Kit Contents section, may be damaged by degreasing solvent cleaners. If a fitting is to be cleaned internally, you should first remove and clean the o-ring with a fiberless cloth.

Kit Contents - Hydraulic Installation

Unpack the hydraulics installation kit and identify the required parts as shown. Kit items are A, B, C etc. with an H (Hydraulic) prefix.


REF	P/N	QTY	DESCRIPTION	PHOTOGRAPHS
HA	760-0021-000	1	Assy, hyd valve block - 35L/Proportional (Hydraulic steering block)	
Bag H1 contains HB, HC and HD				
HB	760-2058	1	Adapter, hyd 90 elbow - #6maleJIC x #6maleORB (LS port on hydraulic steering block)	
HC	760-2061-000	2	Adapter, hyd 90 elbow - #6maleJIC x #8maleORB (A and B ports on hydraulic steering block)	

REF	P/N	QTY	DESCRIPTION	PHOTOGRAPHS
HD	760-2080-000	2	Adapter, hyd 90 elbow - #8maleJIC x #8maleORB (P and T ports on hydraulic steering block)	
HE	640-0049	1	Hyd block mnt	
Bag H2 contains HF and HG				
HF	675-2006	2	Bolt - 3/8NC x 3-3/4" Gr5 ZP	
	678-1054	2	Washer, narrow flat - 3/4"OD x 13/32"ID x 1/16" thk ZP	
	676-1035	2	Nut, nylock - 3/8NC ZP	
HG	675-2004	2	Bolt - 3/8NC x 1-1/4" Gr5 ZP	
	678-1054	2	Washer, narrow flat - 3/4"OD x 13/32"ID x 1/16" thk ZP	
	676-1035	2	Nut, nylock - 3/8NC ZP	
Bag H4 contains HK, HL and HM				
HK	760-2086	2	Adapter, hyd run tee - M27femISO, M27maleISO	
HL	760-2022	2	Adapter, hyd - #12maleJIC x M27maleORB	
HM	760-2069	2	Adapter, hyd run tee - #8 ORFF	
Bag H5 contains HN, HO, HP and HQ				
HN	760-0002	1	Hyd load shuttle - #6femORB	
HO	760-2058	1	Adapter, hyd 90 elbow - #6maleJIC x #6maleORB	

REF	P/N	QTY	DESCRIPTION	PHOTOGRAPHS
HP	760-2040	1	Adapter, hyd 90 elbow - #6maleORB x #6femORFFswiv	
HQ	760-2048	1	Adapter, hyd - #6maleORFF x #6maleORB	
HR	760-1250	2	Hose, hyd - 3/8" x 210", #6femJIC x #8femORFF90swiv	
HS	760-1251	2	Hose, hyd - 1/2" x 70", #8femJIC x #12femJIC90swiv	
HT	760-1170	1	Hose, hyd - 1/4" x 65", #6femJIC x #6femJIC90swiv	
HU	677-2001	20	Tie strap, 11" heavy duty	

Kit Contents - Wheel Angle Sensor

Unpack the wheel angle sensor kit and identify the required parts as shown. Kit items are A, B, C etc. with a W (Wheel) prefix.

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
Bag 710-0099-000 contains WA to WJ				
WA	720-0045-000#	1	WAS assembly	
WB	750-5002-000	1	Sensor, dual output, BEI	
WC	602-1087-000	1	Connector arm, steering, long	
WD	675-1191-000	2	Screw, mach, 8-32 x 3" PPH ZP	
WE	676-1054-000	4	Nut, nylock - 8/32NC ZP	
WF	675-1150-000	2	Screw, 8-32 x 1", Allen socket cap, ZP	
WG	675-2031-000	1	Threaded rod, 5/16-24 x 12"	
WH	676-1053-000	4	Nut, 5/16-24 standard ZP	
WI	760-0018-000	2	Rod end swivel with stud, 5/16-24	
WJ	675-2010	2	Bolt - 5/16NC x 3/4" Gr5 ZP	
	678-1077-000	2	Washer, lock 5/16, ZP	

Kit Contents - Wheel Angle Sensor *(continued)*

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
Bag W3 contains WK, WL and WQ				
WK	675-2010	2	Bolt - 5/16NC x 3/4" Gr5 ZP	
	676-1036	2	Nut, nylock - 5/16NC ZP	
WL	675-2043-000	2	Cone point Allen, 3/8"-16 x 1-1/2", SSS, BO	
WQ	678-1092-000	1	Spacer, flat - 5/8" ID x 1" OD x 3/16" thick (Quadtrac only - use with WP2)	
WM	675-0126-000	1	Threadlocker, Loctite 242, single use	
WN	640-0073-000	1	Bracket, WAS assembly extension (Wheel machines only)	
WO	640-0085-000	1	Bracket, WAS assembly clamp (Wheel and Quadtrac)	
WP1	640-0074-000	1	Bracket, WAS link rod (Wheel machines only - see WP2)	
WP2	640-0112-000	1	Bracket, WAS link rod (Quadtrac only - see WP1)	

Kit Contents - Steering Wheel Switch

Unpack the steering wheel switch kit and identify the required parts as shown. Kit items are A, B, C etc. with an S (Switch) prefix.

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
SA	478-0008	2	Magnet, flex - 1/2"W x 1"L x 1/8"T, plain, 1 (Wheel machines only)	
SB	675-0077	1	Epoxy, Hardman 04001 - single double bub (Wheel machines only)	
SC	602-1062	1	Bracket, steering wheel switch mounting	
SD	726-1054 or 051-0443-10	1	Assy, steering wheel switch	
SE	677-2002	4	Tie strap, 7" releasable	

Installation - Automated Hydraulic Steering Kit

⚠ WARNING:

Before installing, disconnecting or repairing the hydraulic hoses and components, turn off the machine and relieve all pressure from the hydraulic system by turning the steering wheel left and right. Failure to remove the pressure can result in serious injury or death from unexpected machine movement.

To avoid burn injury when installing, disconnecting or repairing the hydraulic hoses and components, turn off the machine and allow the system to cool down prior to touching the parts of the machine that are heated.

1. Prepare the hydraulic steering block.



Make sure the hydraulic steering block is clean and dust free.

Prepare the hydraulic steering block **HA** as follows (Figure 1):

- Install adapter fitting **HB** in the **LS** port.
- Install adapter fittings **HC** in the **A** and **B** ports.
- Install adapter fittings **HD** in the **P** and **T** ports.

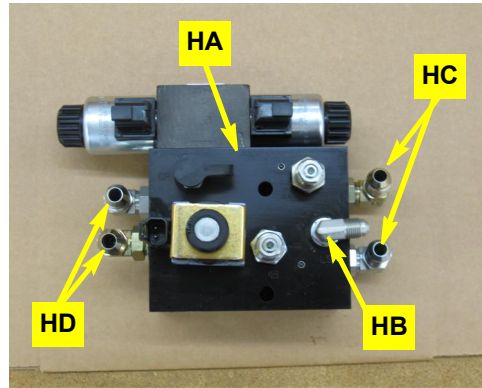


Figure 1: Prepared steering block

2. Install the hydraulic steering block mounting bracket.

- a. Locate the two bolts that hold the light bar mounting bracket on the right rear fender (Figure 2a) and remove them.

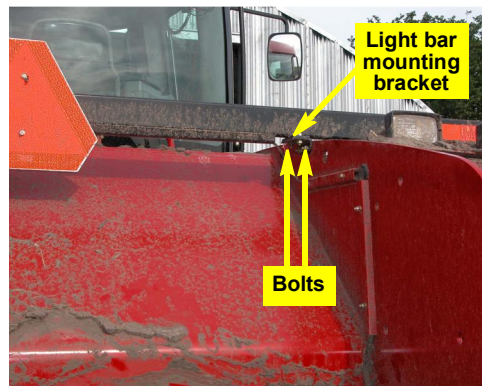


Figure 2a: Steering block mounting bracket location

- b. Using the two removed bolts, install the steering block mounting bracket **HE** at the light bar mounting bracket. If your tractor is not equipped with a light bar use the hardware **HG** to install bracket **HE** (Figure 2b).

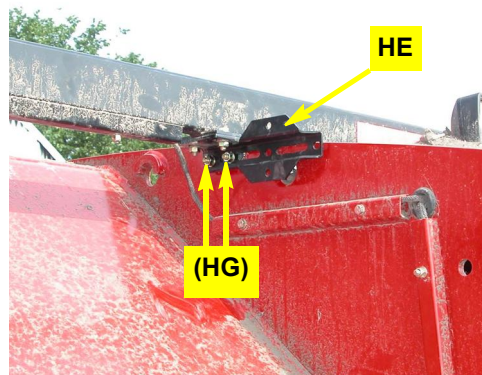


Figure 2b: Installed steering block mounting bracket (use HG if necessary)

3. Install the hydraulic steering block

- a. Place the hydraulic steering block **HA** against bracket **HE** and, using hardware **HF**, secure it
- b. Mount **HA** with its **A** and **B** ports in toward the tractor (Figure 3).
- c. Figure 3 shows a gray control box that is used with eDriveX/XC controllers only. For detailed install instructions refer to the eDriveX/XC ECU install guide

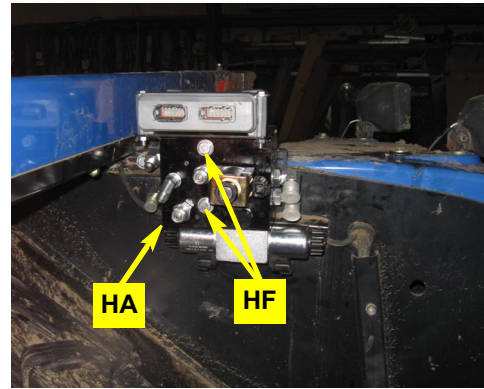


Figure 3: Installed steering block

4. Install the pressure and tank fittings.

- a. The hydraulic steering block will receive pressure from the bottom left port on the valve stack (Figure 4a). Some models have a quick coupler in this pressure port (Figure 4b).
- b. The tank connection is the bottom right port on the valve stack. Some models have a quick coupler in this tank (return) port (Figures 4a and 4b).

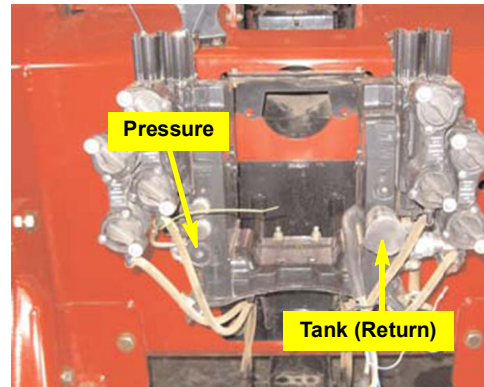


Figure 4a: Pressure and tank (return) port location

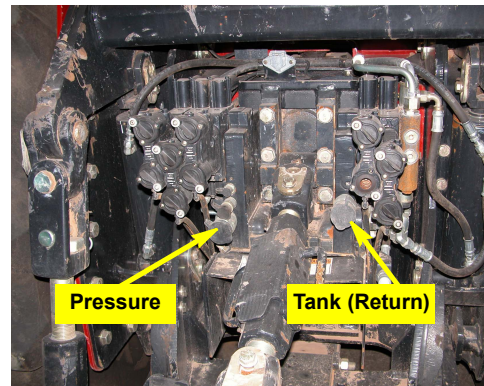


Figure 4b: Pressure and tank ports both with quick couplers

- c. Remove the pressure and tank plugs (or pressure and tank couplers) from the bottom left and bottom right ports respectively on the valve stack.

Install the run-tees **HK** and reinstall the plugs or couplers to the end of the run-tees. Install adapter fittings **HL** at the branch of the run-tees (Figure 4c).

NOTE:

Leave the run-tee fittings loose to allow for alignment when attaching hoses. Plastic caps placed on the open ends of the fittings will prevent excessive leakage prior to hose installation.

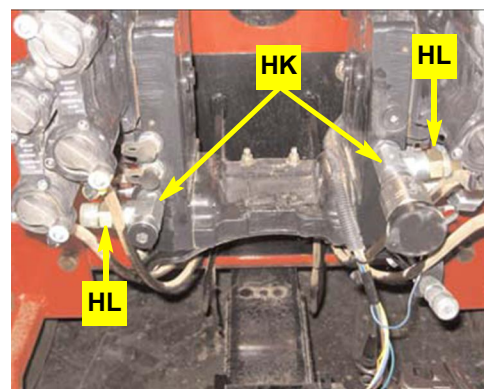


Figure 4c: Installed pressure and tank fittings

5. **Install the load sense shuttle.**

- a. Assemble the load sense shuttle **HN** with adapter fittings **HO**, **HP** and **HQ** (Figure 5a).

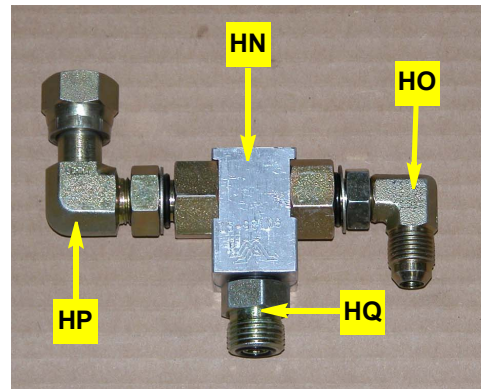


Figure 5a: Assembled load sense shuttle

- b. Locate the tractor load sense line on the back of the tractor; it is the lower left line on the valve stack (Figure 5b).

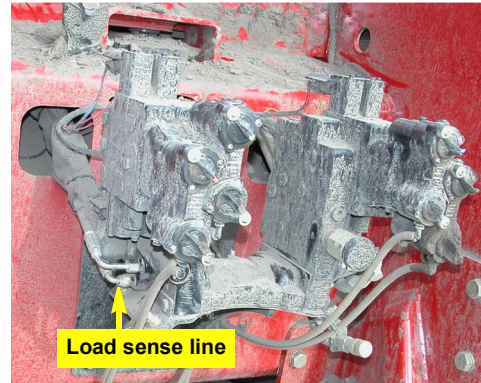


Figure 5b: Load sense line location

- c. Disconnect the load sense line from the valve stack then reconnect it to the center fitting **HQ** of the load sense shuttle. Connect adapter fitting **HP** on the load sense shuttle to the valve stack port (Figure 5c).

NOTE:

Leave the load sense shuttle connections loose to allow for easier installation and secure them after all connections are made.

6. **Install the pressure, tank, and load sense hoses.**

NOTE:

*All hoses should be routed with other tractor plumbing free from entanglement and secured with heavy tie straps **HU**.*

- a. Connect pressure and tank hoses **HS** to adapter fittings **HD** in the **P** and **T** ports of the hydraulic steering block (Figure 6a). Connect the load sense hose **HT** to adapter fitting **HB** in the load sense port of the steering block (Figure 6a).

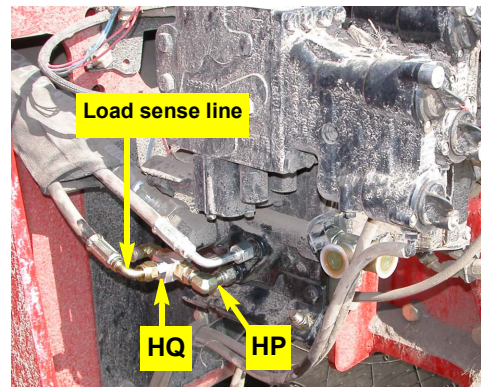


Figure 5c: Installed load sense shuttle

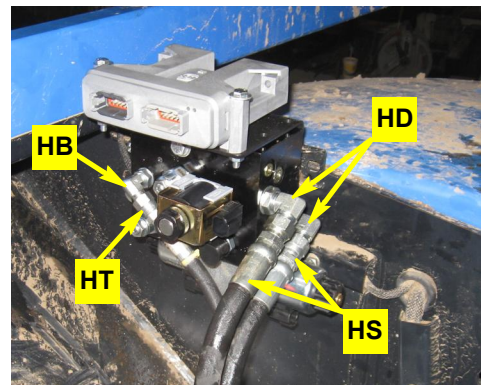


Figure 6a: Installed pressure, tank, and load sense hoses at the steering block

6. **Install the pressure, tank, and load sense hoses (continued).**

- b. Route the pressure hose **HS** and load sense hose **HT** to the left side of the valve stack. Connect the pressure hose **HS** to the fitting **HL** in the run-tee **HK** installed in the bottom left (**P**) port of the valve stack at step 4c (Figure 6b).

Connect the load sense hose **HT** to fitting **HO** in the load sense shuttle (Figure 6b).

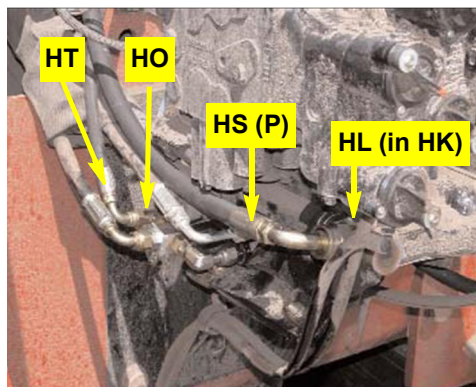


Figure 6b: Installed pressure and load sense hoses at the left side of the valve stack

- c. Route the tank hose **HS** to the right side of the valve stack. Connect it to adapter fitting **HL** in the run-tee **HK** installed in the bottom right (**T**) port of the valve stack at step 4c (Figure 6c).

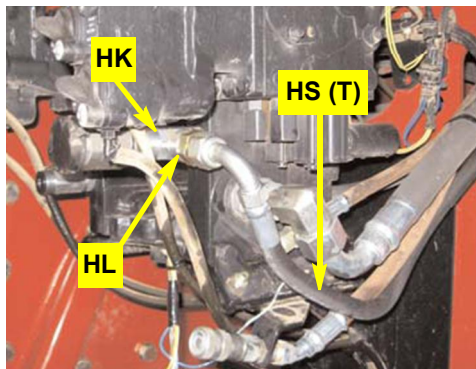


Figure 6c: Installed tank hose at the right side of the valve stack

7. **Install the steering output fittings.**

- a. Locate the right side steering cylinder lines in the middle of the tractor (Figure 7a) and disconnect them.

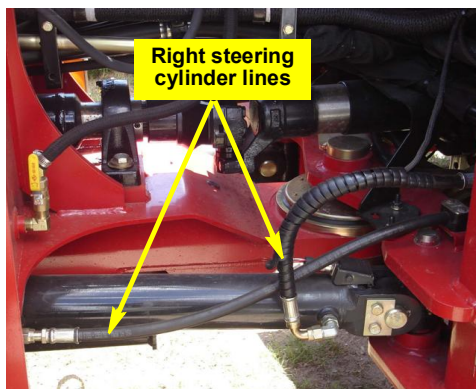


Figure 7a: Right steering cylinder lines

- b. Install the run-tees **HM** into the steering lines at each end of the steering cylinder then reconnect the steering lines (Figure 7b).

NOTE:

Leave the run-tee fittings loose to allow for alignment when attaching hoses. Plastic caps placed on the open ends of the fittings will prevent excessive leakage prior to hose installation.

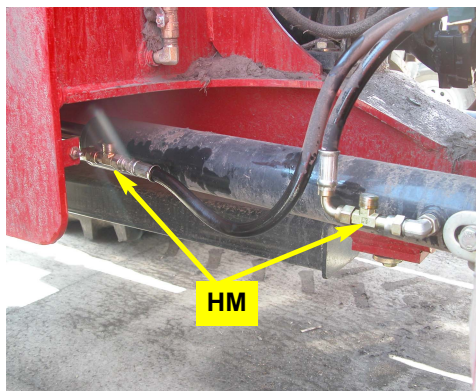


Figure 7b: Installed steering line run-tees

8. **Install the steering output hoses.**

- a. Connect the straight end fittings of steering output hoses **HR** to the adapter fittings **HC** in the **A** and **B** ports on the hydraulic steering block (Figure 8a).

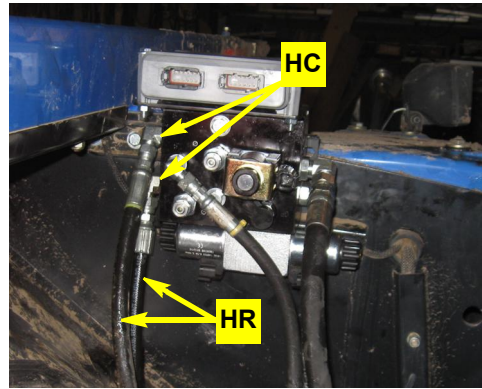


Figure 8a: Installed steering hoses at steering block

- b. Route the steering hoses from the hydraulic steering block down the back of the tractor, forward through the hole under the fuel tank, along the frame to in front of the articulation point, then down to the right steering cylinder (Figures 8b-i and 8b-ii).

NOTE: *All hoses should be routed with other tractor plumbing free from entanglement and secured with heavy tie straps **HU**.*

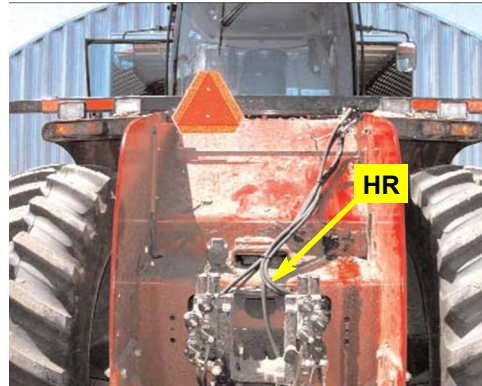


Figure 8b-i: Steering hoses routed from steering block

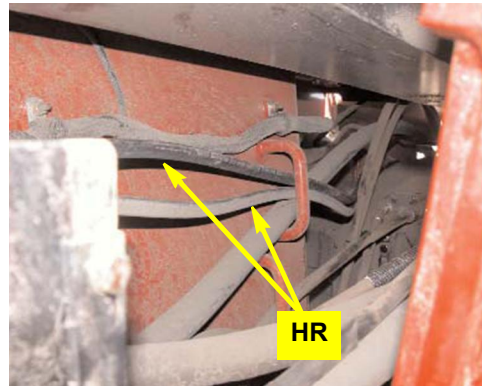


Figure 8b-ii: Steering hoses routed under fuel tank and along frame

- c. Connect the elbow fitting ends of the steering output hoses **HR** to the branches on the steering cylinder run-tees **HM** (Figure 8c).

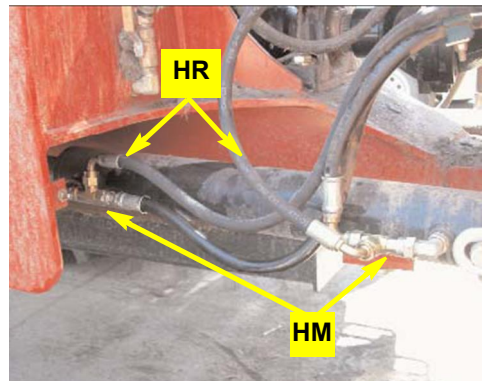


Figure 8c: Installed steering hoses at steering cylinder run-tees

9. **Verify operation.**

⚠ WARNING: *During tests of the hydraulic system, the machine may move unexpectedly. Be prepared for machine movement to avoid injury.*

Keep others away and stay clear of mechanical steering linkages to prevent serious injury or death from pinch point hazards while manually operating the hydraulic steering circuit.

- a. Tighten all connections and clean up the installation area around the tractor and make certain that it is safe to operate.
- b. Start the tractor and check hydraulic connections for any leaks.
- c. Rotate the steering wheel from one extreme to the other and back.

Installation - Wheel Angle Sensor 1 (Wheel Machines)

⚠ WARNING:

Switch off the machine's engine while installing or adjusting the WAS. Keep others away and stay clear of mechanical steering linkages to prevent serious injury or death from pinch point hazards while manually operating the hydraulic steering circuit.

1. Prepare the wheel angle sensor.

- a. Using the provided hardware **WE** (nuts) and **WD** (bolts - not shown), attach the WAS wire connector **WB** to the WAS housing **WA**. Install the bolts up through the bottom of the housing. Align the right edge of the connector (viewed from above, socket away from you) with the corner of the WAS housing (Figure 1a).

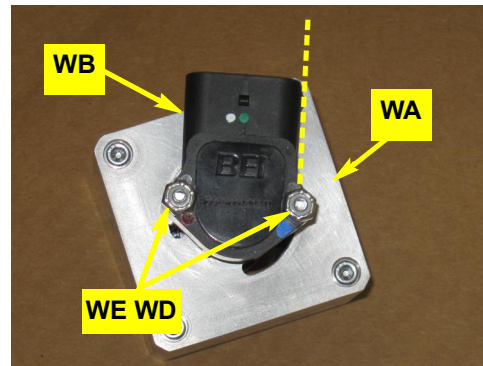


Figure 1a: Prepared WAS housing/connector

- b. Cut two holes off the WAS arm **WC** at the opposite end from the WAS shaft mounting hole (Figure 1b).

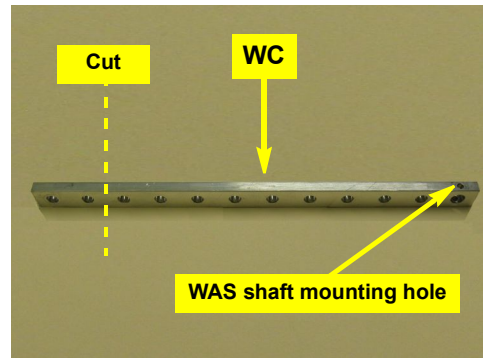


Figure 1b: WAS arm preparation

- c. Using hardware **WE** (nut) and **WF** (screw), attach the WAS arm **WC** to the WAS assembly. Mount the arm in the same direction as the WAS wire connector **WB** (Figure 1c).

NOTE:

*Before you cut the rod at step 1d, screw the provided nuts **WH** onto the rod so that they are inside the cut you will make. After you have cut the rod, the nuts can help clean the threads.*

- d. Cut the provided threaded rod **WG** 5 $\frac{3}{4}$ " long then screw the swivel rod ends **WI** onto the cut threaded rod to achieve a center-to-center stud measurement of 7" (Figures 1d-i and 1d-ii). Leave **WH** loose until you complete linkage adjustment at step 2f.

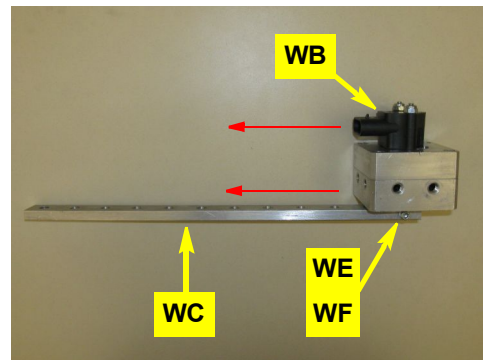


Figure 1c: Attached WAS arm

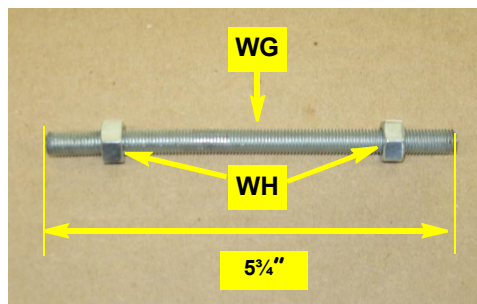


Figure 1d-i: Cut threaded rod

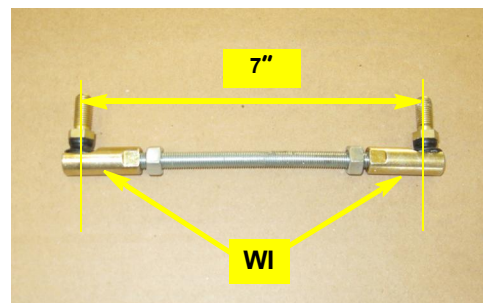


Figure 1d-ii: Assembled threaded rod

2. **Mount the wheel angle sensor.**
 - a. Using hardware **WK**, fasten clamp bracket **WO** to extension bracket **WN** with the welded nuts on **WO** at the bottom. Use the top holes in bracket **WO** (Figure 2a).
 - b. Locate the top frame brace near the articulation point of the tractor (Figure 2b).

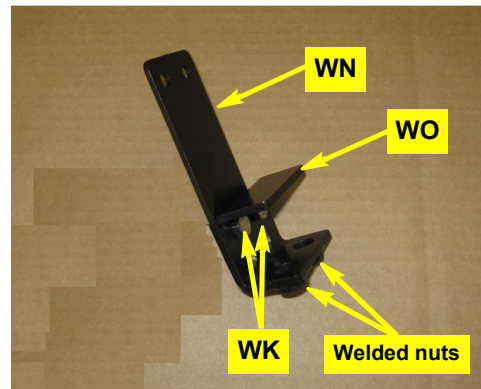


Figure 2a: Bracket assembly (WO and WN)

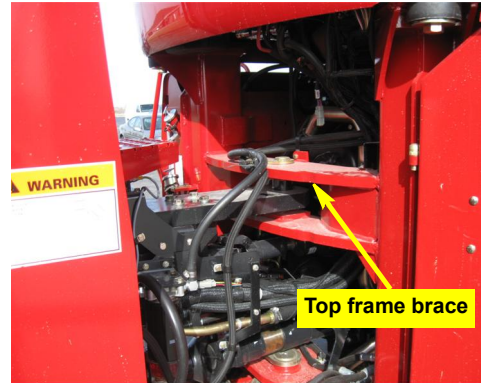


Figure 2b: Frame brace location

NOTE: To ensure a solid bracket mounting at step c, use the threadlocker exactly as recommended.

- c. Apply the recommended amount of threadlocker **WM** to the cone point Allen set screws **WL** and attach the **WN/WO** bracket assembly to the back lip of the top frame brace (Figure 2c-i). The center of the assembled brackets must be 7" from the center of the articulation point (Figure 2c-ii).
- Using hardware **WJ**, attach the WAS assembly from step 1, connector arm **WC** uppermost, to bracket **WN**. The wire connector **WB** must face the front right section of the tractor (Figure 2c-i).

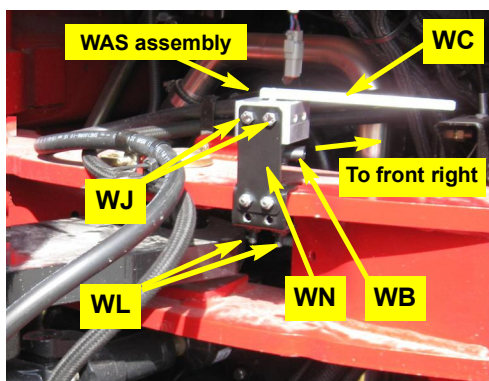


Figure 2c-i: Installed WAS bracket assembly and WAS assembly

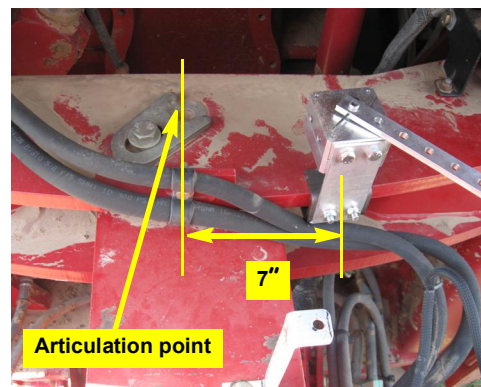


Figure 2c-ii: WAS assembled brackets location

2. **Mount the wheel angle sensor (continued).**
- d. Remove the front right bolt from the articulation linkage (Figure 2d-i) and use the bolt to install the WAS rod mounting bracket **WP1** (Figure 2d-ii). Set the bracket at 90° right to the articulation linkage (Figure 2d-ii).

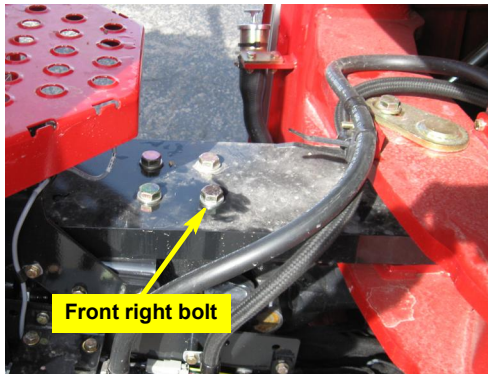


Figure 2d-i: Articulation linkage front right bolt

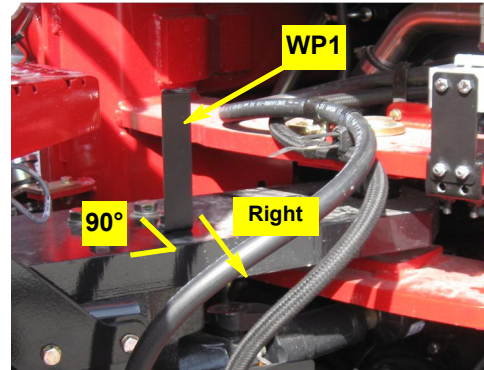


Figure 2d-ii: Installed WAS rod mounting bracket

- e. Using the remaining hardware **WH**, install the assembled WAS linkage from step 1d between the rod bracket **WP1** and the last hole in the WAS connector arm **WC**. Install the linkage with the swivel studs downward but leave the swivel stud nuts **WH** loose (Figure 2e).
- f. With all hardware **WH** loose, slowly turn the wheels full left lock then full right lock (Figures 2e and 2f). Check that the linkage moves freely without binding and adjust the linkage if necessary.

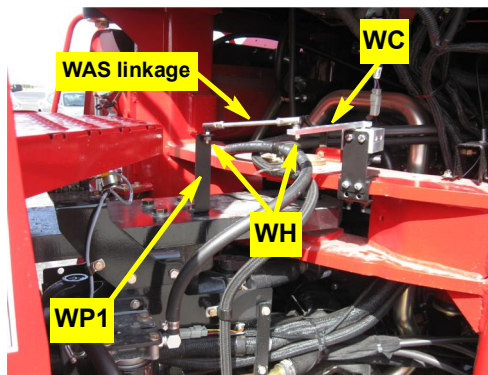


Figure 2e: Installed WAS linkage - full left lock



Figure 2f: Full right lock

- g. When the linkage does move freely and without binding, tighten hardware **WH** on the rod and the swivels.

Installation - Wheel Angle Sensor 2 (Quadtrac Machines)

⚠ WARNING:

Switch off the machine's engine while installing or adjusting the WAS. Keep others away and stay clear of mechanical steering linkages to prevent serious injury or death from pinch point hazards while manually operating the hydraulic steering circuit.

1. Prepare the wheel angle sensor.

- a. Using the provided hardware **WE** (nuts) and **WD** (bolts - not visible), attach the WAS wire connector **WB** to the WAS housing **WA**. Install the bolts up through the bottom of the housing. Mount the wire connector **WB** at 90° to any of the WAS housing **WA** sides (Figure 1a).

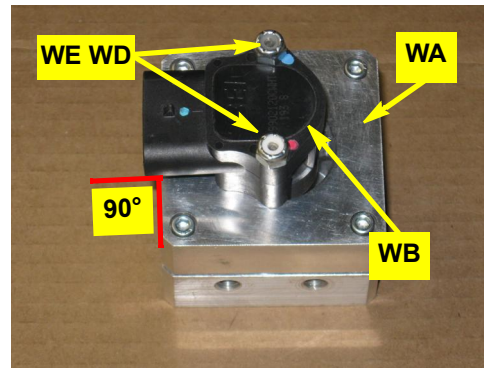


Figure 1a: Prepared WAS housing/connector

- b. Using hardware **WE** (nut) and **WF** (screw), attach the WAS connector arm **WC** to the WAS assembly. Mount the arm in the opposite direction to the WAS wire connector **WB** (Figure 1b. **Note:** The connector arm shown in Figure 1b has been shortened. For this installation, you will use the full length, uncut **WC**.)

NOTE:

*Before you cut the rod at step 1c, screw the provided nuts **WH** onto the rod so that they are inside the cut you will make. After you have cut the rod, the nuts can help clean the threads.*

- c. Cut the provided threaded rod **WG** 9¾" long then screw the swivel rod ends **WI** onto the cut threaded rod to achieve a center-to-center stud measurement of 11" (Figures 1c-i and 1c-ii). Leave **WH** loose until you complete linkage adjustment at step 2f.

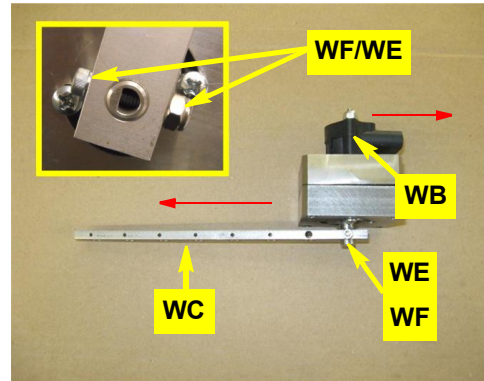


Figure 1b: Attached WAS arm

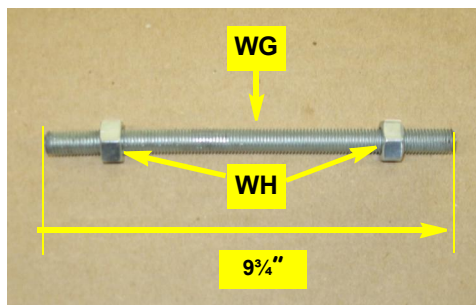


Figure 1c-i: Cut threaded rod

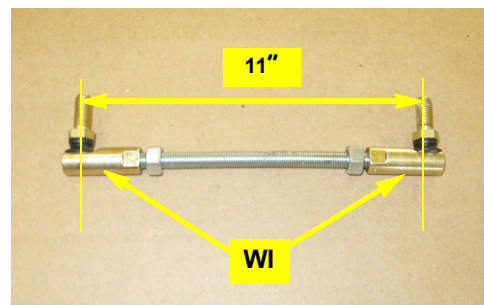


Figure 1c-ii: Assembled threaded rod

2. **Mount the wheel angle sensor.**

- a. Locate the top frame brace near the articulation point of the tractor. You will mount the WAS assembly on the right side of the articulation point (Figure 2a).

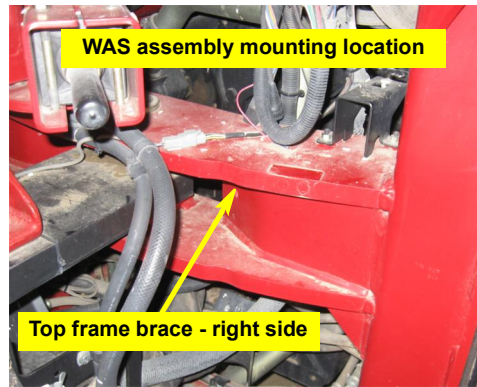


Figure 2a: WAS assembly mounting location

- b. Using hardware **WJ** (not visible), attach the WAS assembly from step 1 to bracket **WO** as follows (Figure 2b):

- Have bracket **WO**'s welded nuts at the bottom (Figure 2b inset)
- Put **WJ** through the top two holes of **WO**
- Have the connector arm **WC** uppermost and pointing away from **WO** (so when installed on the right side of the tractor, the wire connector **WB** will point inward).

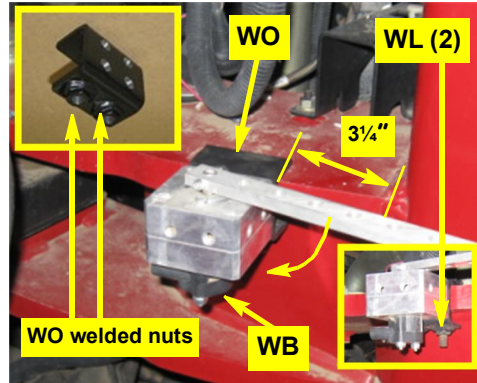


Figure 2b: WAS assembly installed

NOTE:

To ensure a solid bracket mounting at step c, use the threadlocker exactly as recommended.

- c. Apply threadlocker **WM** to the cone point Allen set screws **WL** and attach bracket **WO**, WAS assembly attached, to the back lip of the top frame brace. The right edge of **WO** must be $3\frac{1}{4}$ " from the nearest end of the frame brace (Figure 2b).
- d. Remove the rear bolt from the right side of the steps push arm assembly's clevis coupling on the machine's articulation center link (Figure 2c inset). Place spacer **WQ** in the recess in the clevis coupling, then, using the removed bolt, install WAS link rod bracket **WP2** on the clevis coupling (and spacer). Set **WP2** square to the clevis coupling and with its short leg outward (Figure 2c).

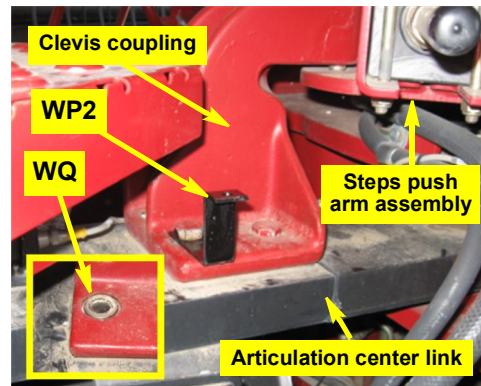


Figure 2c: WAS rod link bracket

2. **Mount the wheel angle sensor (*continued*).**
- e. Using the remaining hardware **WH**, install the assembled WAS linkage from step 1d between the rod bracket **WP2** and the last hole in the connector arm **WC**. Install the linkage with the swivel stud **WI** downward at the rod link bracket, upward at the connector arm. Leave the swivel stud nuts **WH** loose (Figure 2d).
- f. With all hardware **WH** loose, slowly turn the wheels full left lock then full right lock. Check that the linkage moves freely without binding and adjust the linkage if necessary.
- g. When the linkage does move freely and without binding, tighten hardware **WH** on the rod and the swivels.

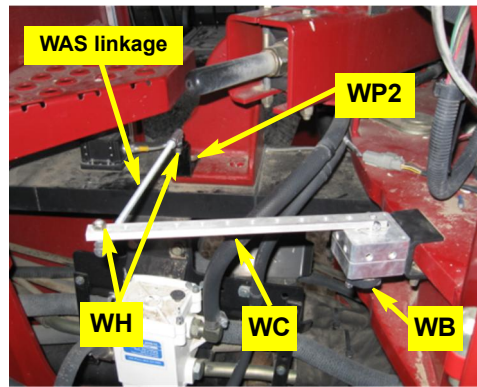


Figure 2d: Installed WAS linkage

Installation - Steering Wheel Switch 1 (Wheel Machines)

1. Install the steering wheel switch.

- a. Locate the steering shaft under the steering console near the cab floor. The shaft is surrounded by a metal shield (Figure 1a).

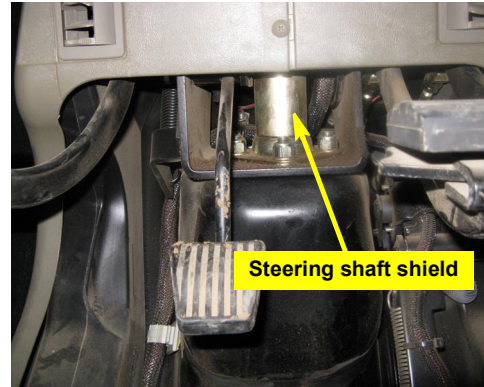


Figure 1a: Shielded steering shaft

- b. Drill a 3/8" hole in the sensor bracket **SC** at the opposite end from the sensor hole. Put a 90° bend in the end just drilled to 3/8" (Figure 1b).

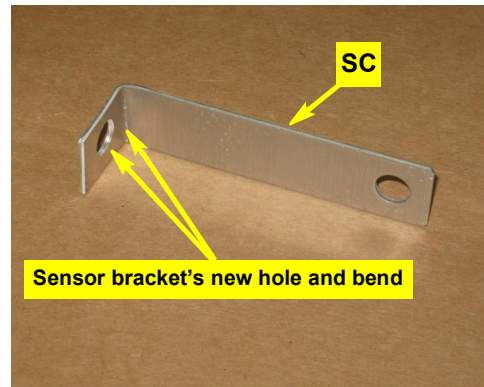


Figure 1b: Newly drilled/bent sensor bracket

- c. Remove the bottom steering shaft shield flange nut. Using the bent sensor arm as a template, drill a 1/2" hole in the steering shaft shield (Figure 1c).

Cut one of the magnets **SA** in half. Using the two-part epoxy **SB**, attach one half of the magnet to the inner steering shaft. Turn the shaft 180° and attach the other half magnet.

NOTE: *You do not need to use the second magnet on this installation.*

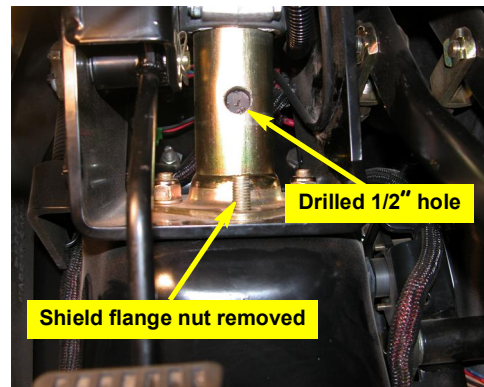


Figure 1c: Drilled shaft shield and installed magnets

- d. Attach sensor **SD** to the bracket **SC**. Fasten the sensor arm to the steering shaft shield flange with the nut removed at step 1c (Figure 1d).
- e. Align the sensor **SD** with the magnets and adjust the sensor face to 1/8" to 1/4" from the magnets.

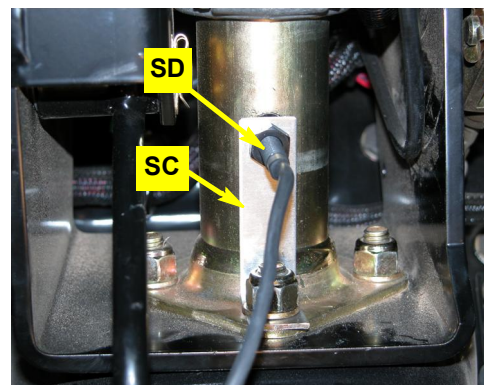


Figure 1d: Installed sensor arm

Installation - Steering Wheel Switch 2 (Quadtrac Machines)

1. Install the steering wheel switch.

- a. Cut the switch bracket **SC** in half (into 2" lengths). Discard the end without the pre-drilled switch hole.

Drill a 1/8" pilot hole in the opposite end from the switch hole, 3/8" from the cut end and 3/16" from the right edge. Put a 90° bend halfway along the bracket so that the new hole remains on the right on the internal bend side (Figure 1a).

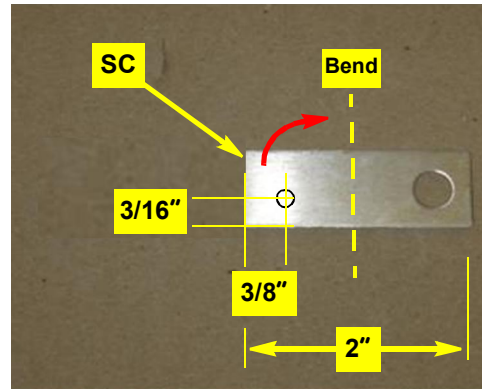


Figure 1a: Shielded steering shaft

- b. Remove the steering wheel center medallion cap and the steering wheel retaining nut and washer (Figure 1b left inset). Following the manufacturer's recommended procedure, remove the steering wheel (Figure 1b).

NOTE:

Consult your equipment dealer if you are unsure of the correct procedure for removing the steering wheel.

- c. Remove the cover screw to the right of the steering shaft (Figure 1b right inset) and swing the plastic cover clear.
- d. Remove the top screw (at the 11 o'clock position) and, using that screw, install switch bracket **SC** squarely facing the magnetic ring (Figure 1c).

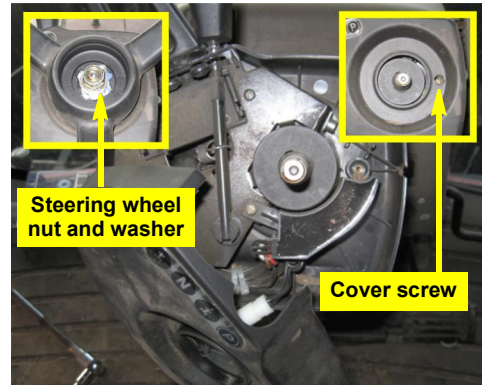


Figure 1b: Steering wheel and covers removed

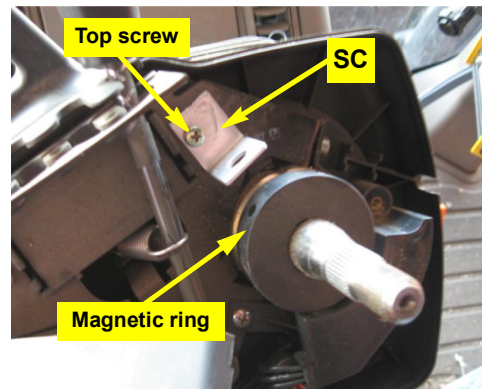


Figure 1c: Installed switch bracket

- e. Install switch **SD** in **SC** and adjust the sensor face to 1/8" to 1/4" from the magnetic ring (Figure 1d).
- f. Run **SD**'s cable out through the slot in the right edge of the lower plastic shroud (Figure 1d - circled).
- g. Refit the cover, steering wheel and medallion cap.

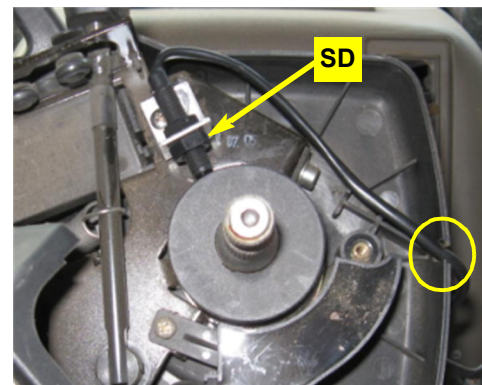


Figure 1d: Installed and adjusted switch