Changing the Screed Harness(1025751) for HD and HD Pro Screed – 8520C

03/18/2025

Designed with the Paving Professional in Mind.®

Use contact cleaner on any electrical connectors that must be cleaned, per the discretion of the technician.

Before connecting any electrical terminals, be sure to use the appropriate amount of dielectric grease on each terminal.

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Electrical Assembly Routing Best Practices

1. Zip ties should be used for support only in places where interference occurs during function of unit.
2. Zip ties should **NOT** be overtightened (no deflection of the harness and allowing movement through the securing mechanism)
3. Do not zip tie within 4" of a connector, no tension should be applied to a connector from the zip tie.
4. Do not fold over wires at point of connection.
5. Do not tie electrical wiring to hydraulic hoses.
6. Wiring harnesses should not be routed across sharp edges
7. Wiring harnesses shall not pool water into connectors
8. Where possible, wiring should be routed parallel to each other
9. When wires must be crossed due to space constraints, use stand-offs to prevent chaffing
10. Wires should run parallel through clamping mechanisms
11. All electrical connections should have a light coating of dielectric grease

Follow the stated "Best Practices" for electrical routings.

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1025751	HARNESS, SCREED, MAIN	1
1030263-C-180S-M10	CLAMP, P RATCHET, 180 TAB SHORT, .76-1.42, M10	6
1030263-D-180S-M10	CLAMP, P RATCHET, 180 TAB SHORT, 1.42-2.00, M10	8
100-6-16-16-5F	3/8"-16 X 1" HEX BOLTS	3
204-6-16-5	3/8"-16 STOVER LOCK NUTS	3

Parts needed for the repair .

- Open the screed extensions and remove the screed covers.
- Completely remove the Main Screed harness from the screed portion of the paver assembly

WELDING

If the machine has been damaged or metal parts worn due to extensive use, minor welding may be necessary for repair. Welding is very dangerous. Only individuals who are properly trained should weld in a dedicated area away from others as even looking at ultraviolet light from the flame can cause serious eye injury.

Welding hazards include toxic fumes, harmful dust, light radiation, burns, combustion from sparks and the potential for extensive damage to the eye. There is also a danger of electric shock. If combustible or flammable materials are nearby, the heat and sparks produced by welding can cause fires or explosions.

TURN THE BATTERY SWITCH OFF AND DISCONNECT BATTERY TERMINALS BEFORE WELDING ON THE MACHINE.

Electrical current can ignite fire or cause an explosion, therefore it is critical to turn off power to the machine. It is also important to grind off the paint to ensure proper ground on the area being welded.

DO NOT MAKE MODIFICATIONS TO THE MACHINE. ONLY weld if needed for repair purposes. Weldment modifications to the machine can void your warranty.

Before welding on the machine:

PREPARE:

- Clear the area of any fire hazards, flammable liquids and solids, or any items that could catch on fire.
- Ensure a fire extinguisher is available in the work area.
- Hang welding blanket(s) around and underneath the work area.
- Paint and rust should be removed from the welding area to prevent arcing in other areas or components. An indirect ground can cause arcing that will damage machine components. Only connect the ground to the component being welded. DO NOT connect the ground to other bolted assemblies, wheels, bearings, motors, tracks, torque hubs, etc.

DISCONNECT:

- Turn the master battery switch to the OFF position.
- Disconnect the battery positive and negative terminals.
- Disconnect Plus 1 controller(s).
- Disconnect engine ECU(s) controller (if equipped).
- Disconnect engine DEF controller (if equipped).
- If machine has truck chassis: Disconnect the battery positive and negative terminals and unplug the ECU(s) for the engine, transmission and ABS systems if equipped. Refer to the truck owner manual for any other recommendations.

When welding is required in the upcoming process, please follow the displayed steps to ensure the safety of you and others around you.

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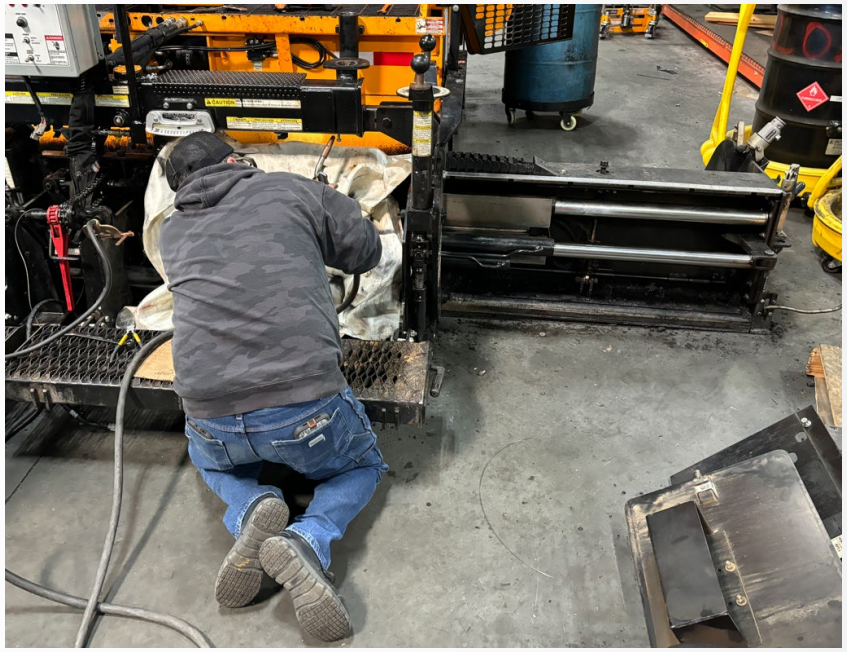

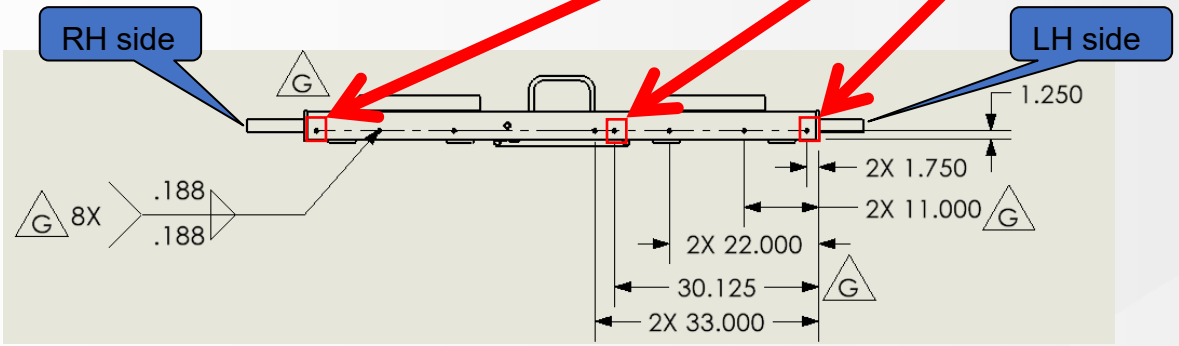

Locate the supplied 3/8”-16 X 1” hex bolts.

Use the given measurements to weld the bolts to the bottom of the citrus tank.

- **Before welding on the citrus tank, remove any liquid inside of tank and be sure to proceed with caution, due to flammable residue.**

Use mid-gloss, black, spray paint on the newly weld studs.

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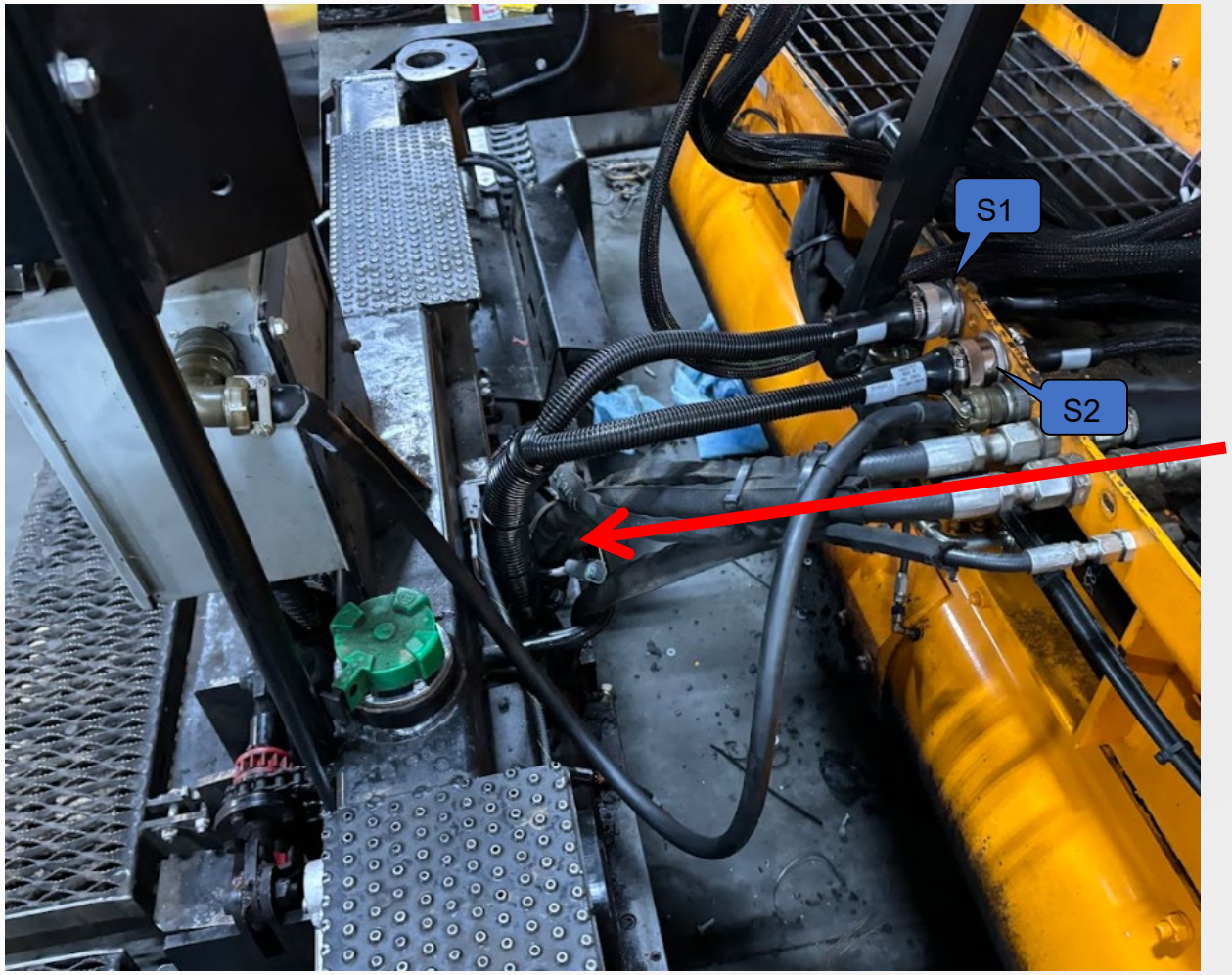

Locate the S1 and S2 terminals, within the main screed harness.

Pull the two breakouts through the opening in the back of the citrus tank.

Fasten the breakouts to their appropriate terminals.

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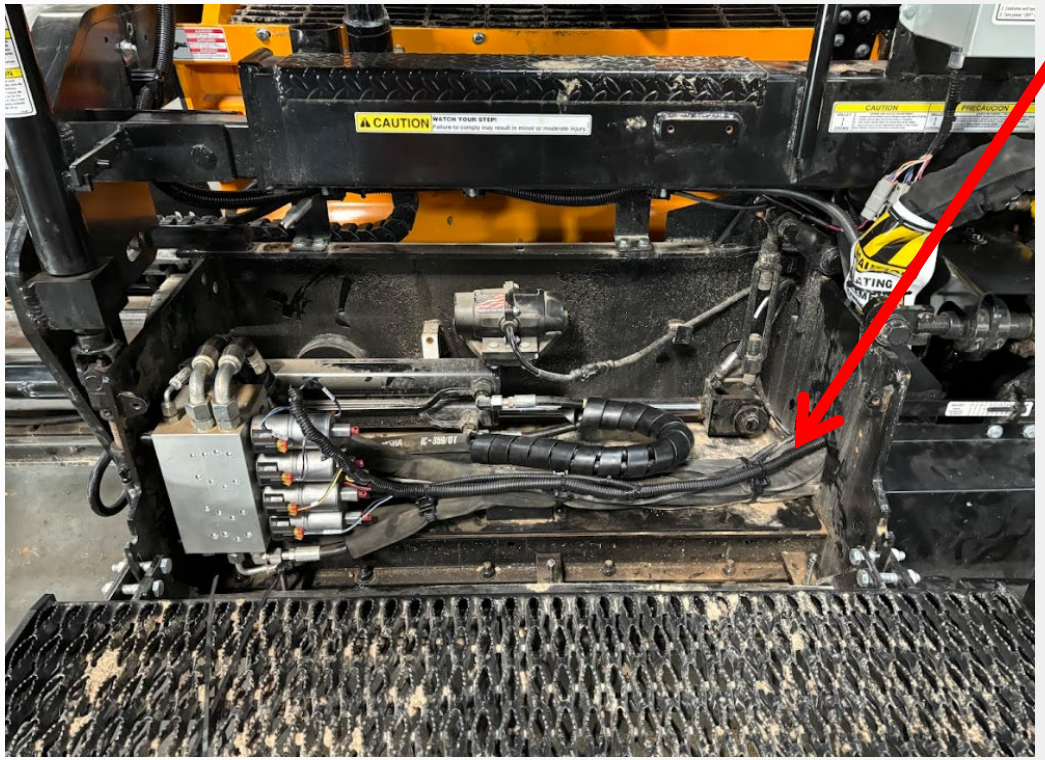
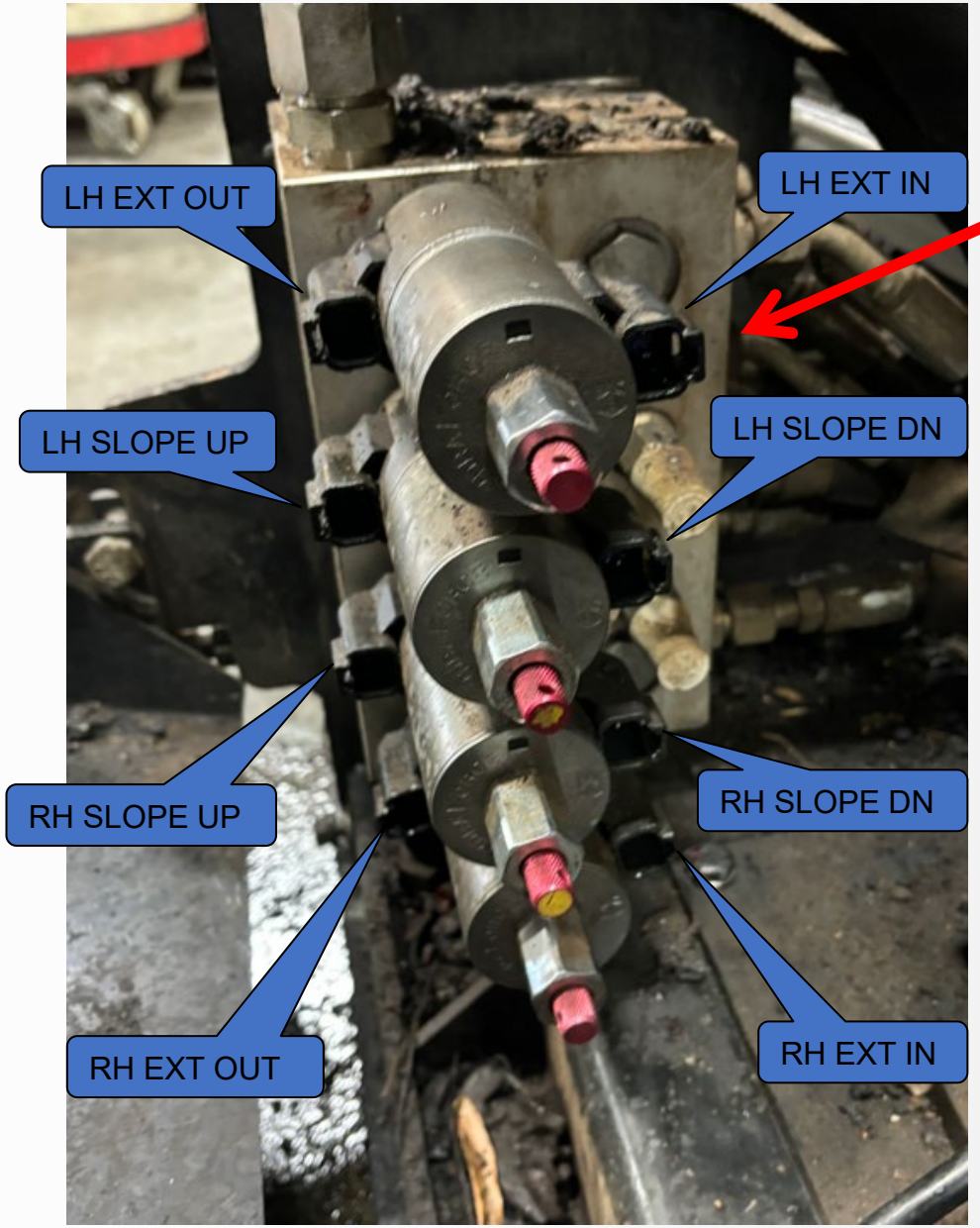
Change out cover plate for new longer one to protect harnesses and hoses

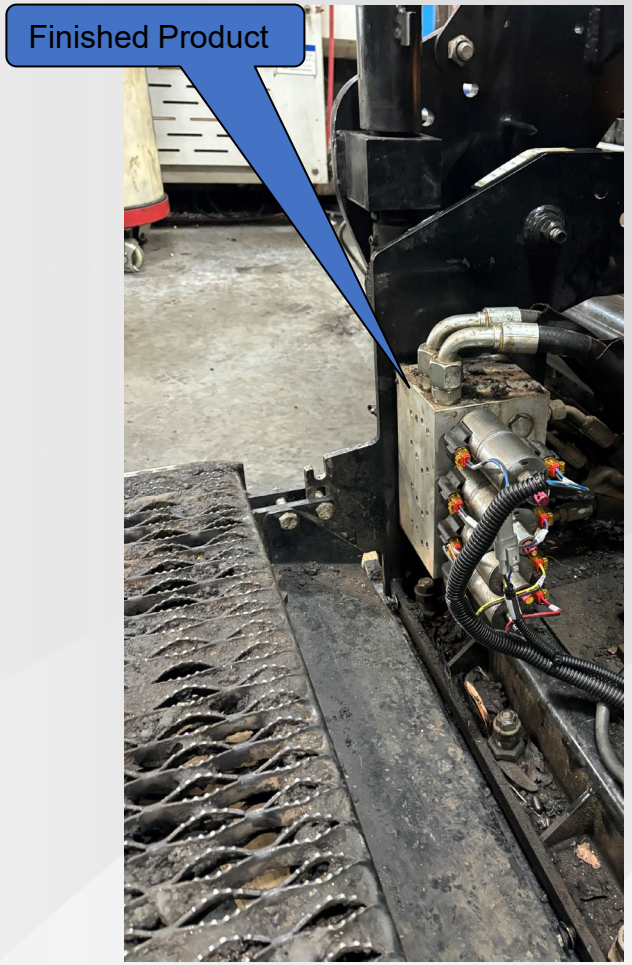


Route the following terminals, through the cutout in the inner screed frames:

- LH EXT IN
- LH EXT OUT
- LH SLOPE UP
- LH SLOPE DN
- RH SLOPE UP
- RH SLOPE DN
- RH EXT IN
- RH EXT OUT
- ROB LH SCREED STROBE
- LH VIB



Follow the diagram given, to make the proper connections for the screed manifold.



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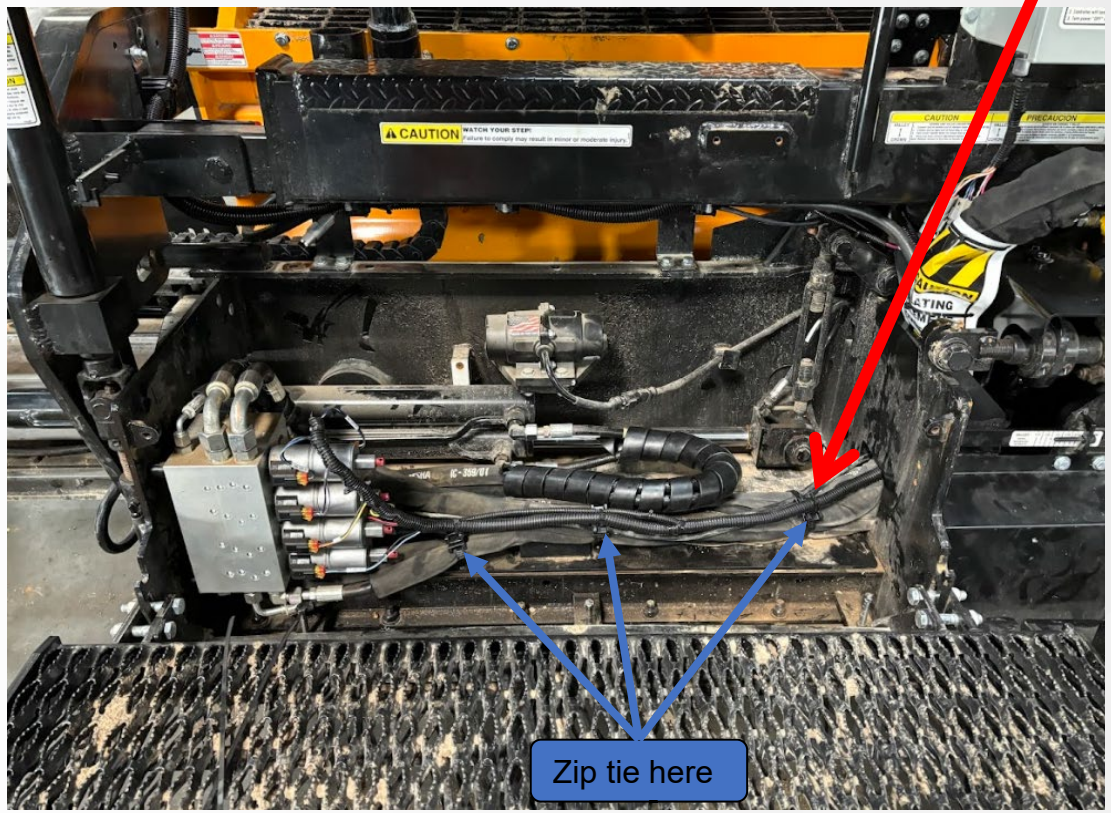
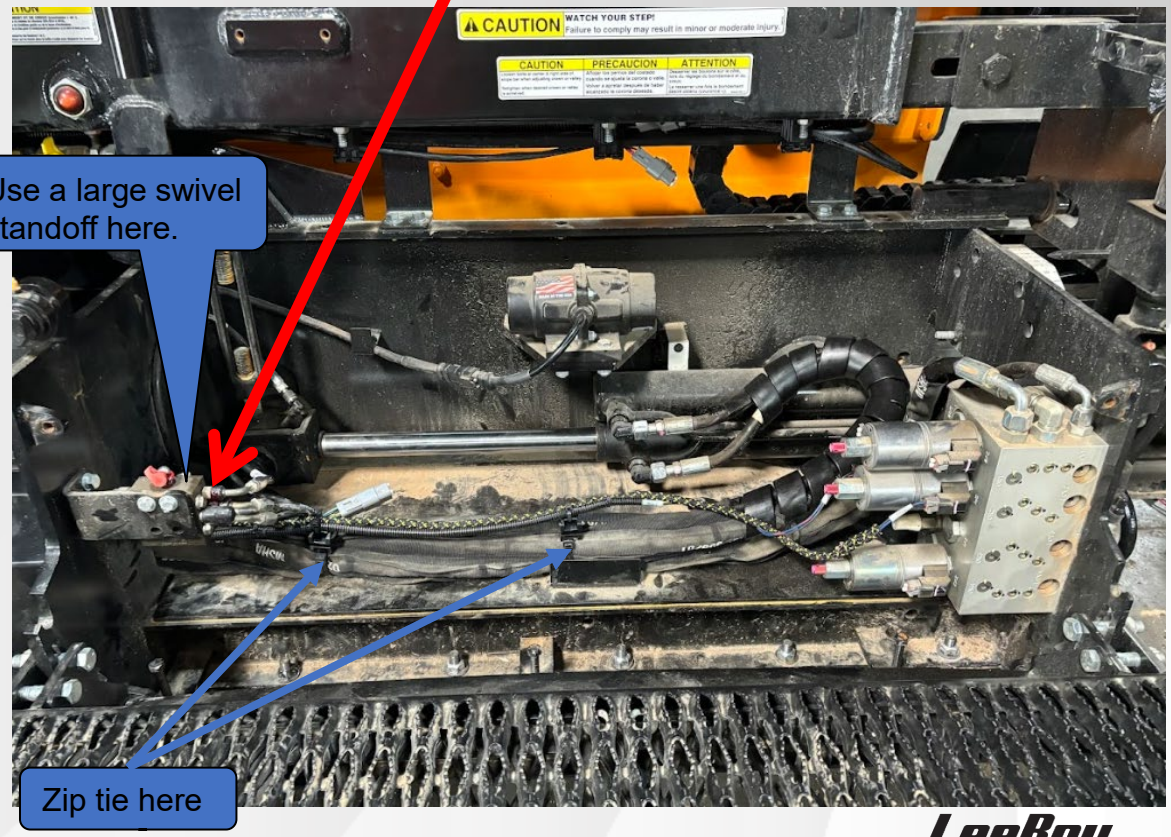
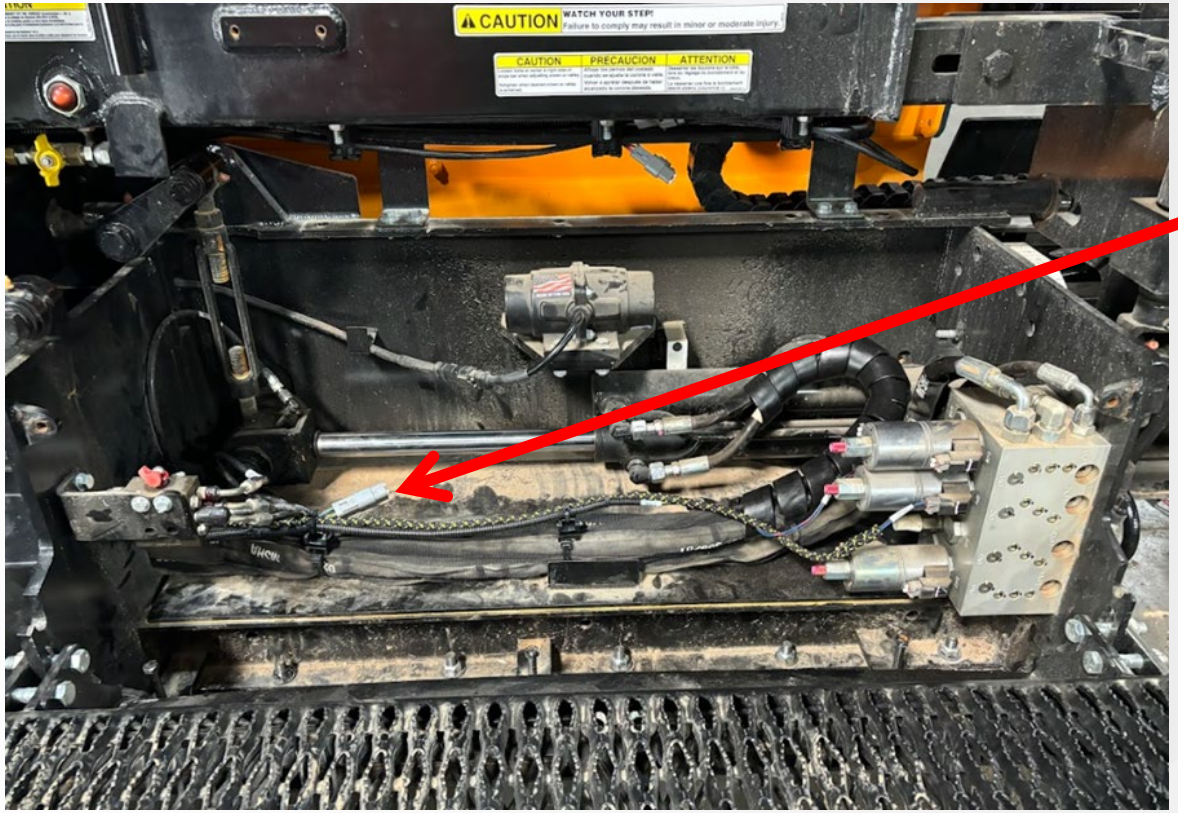
Use a large swivel standoff, where the wires, go across the hydraulic hoses.







If the following options are not used, cap off the end of the connector, to ensure that no loose debris can enter the terminal:

- ROB LH SCREED STROBE
- ROB RH SCREED STROBE

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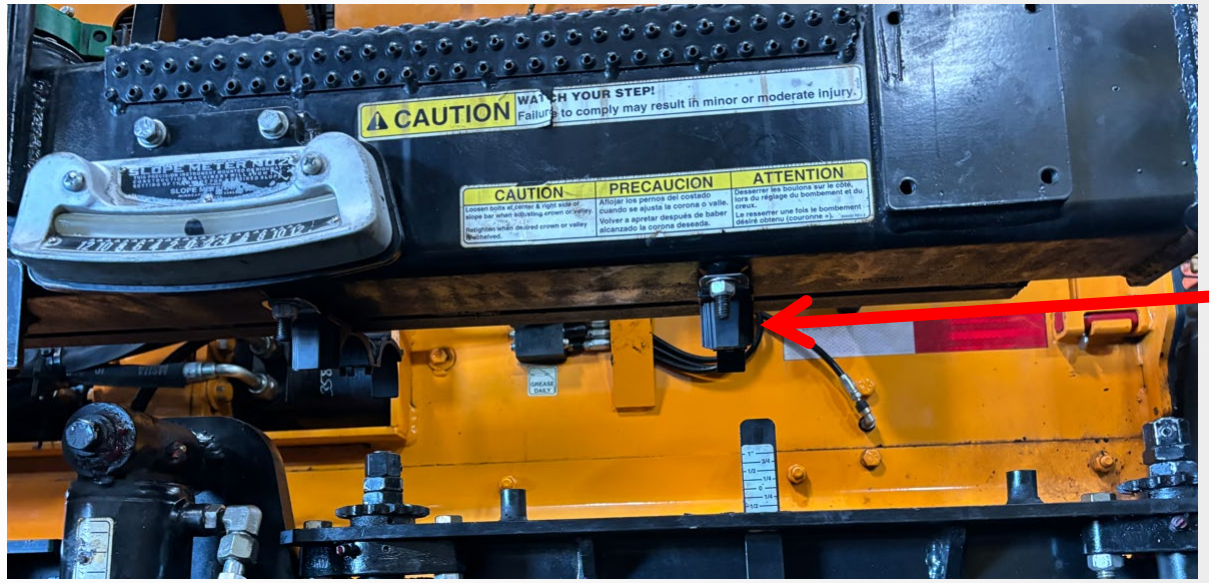

Locate the 1030263-D-180S-M10, ratcheting p-clamps, that came with the kit.

Orient the clamps, so that the open end is pointed toward the tractor assembly, as shown.

Use the following hardware to securely fasten the clamps to the welded studs:

- (8) 3/8” Flat Washers (PN# 300-6)
- (8) 3/8”-16 Stover Lock Nuts (PN# 204-6-16-5)

To successfully reopen the clamps, insert a zip tie or pin tool, in between the grooved strips and pull on the top jaw.

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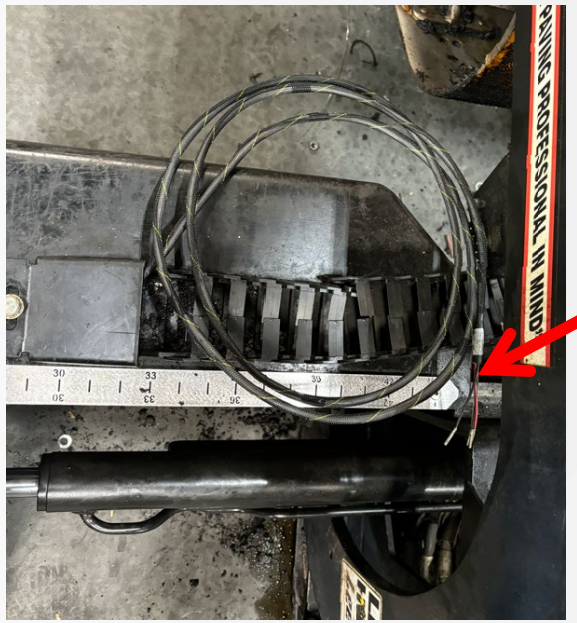
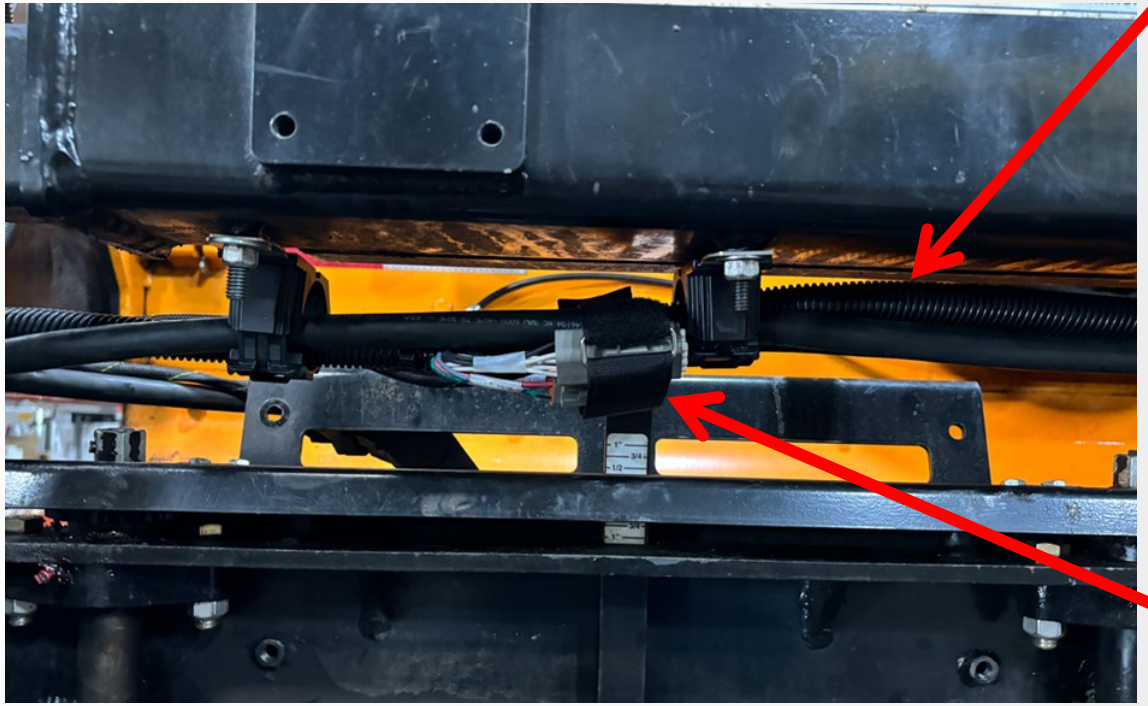


Locate the sonic sensor breakouts, included with the main screed harness.

Insert the end of the sonic breakout, that does not contain the connector, through the open end of the screed extension.

Pull the loose end through the opening in the top of the screed extension.

Route the loose end of the sonic wire through the e-chain, and through the ratcheting p-clamps along the bottom of the citrus tank.



Ensure that you have routed the following terminals, along the bottom of the citrus tank:

- LH SCREED
- LH SONIC WIRE
- RH SCREED
- RH SONIC WIRE

Any unused terminals underneath the citrus tank, us a 4” cinch strap to hold them to the rest of the harnesses.

Locate the 1030263-C-180S-M10, ratcheting p-clamps, that came with the kit.

Orient this clamp, so that the open jaw is pointed upward, as shown.

- Use existing hardware to mount.

Orient this clamp, so that the open jaw is pointed toward the center of the machine, as shown.

- Use a 3/8”-16 X 2” Hex Bolts, two flat washers and a stover locknut.

Orient this clamp, so that the open jaw is pointed downward, as shown.

- Use a 3/8”-16 X 2” Hex Bolts, two flat washers and a stover locknut.

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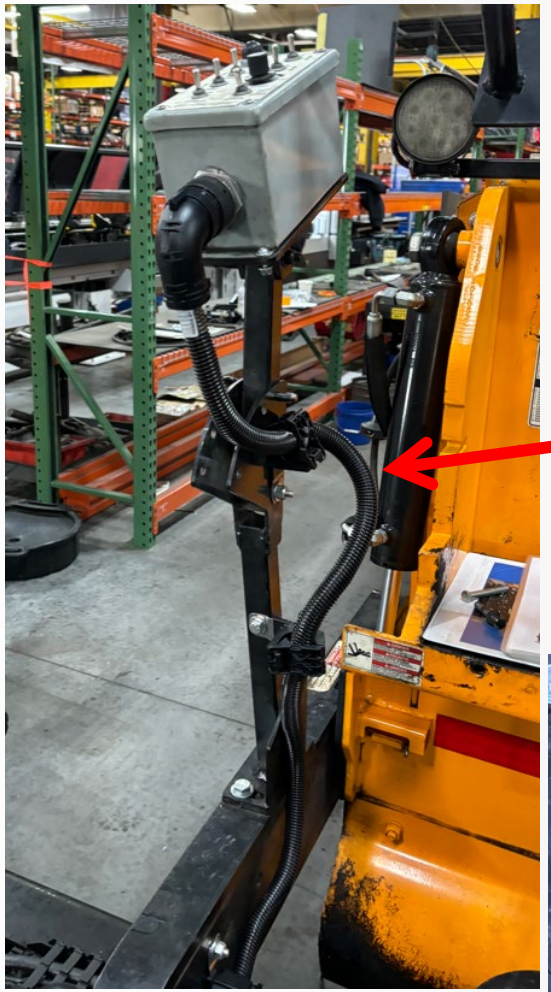

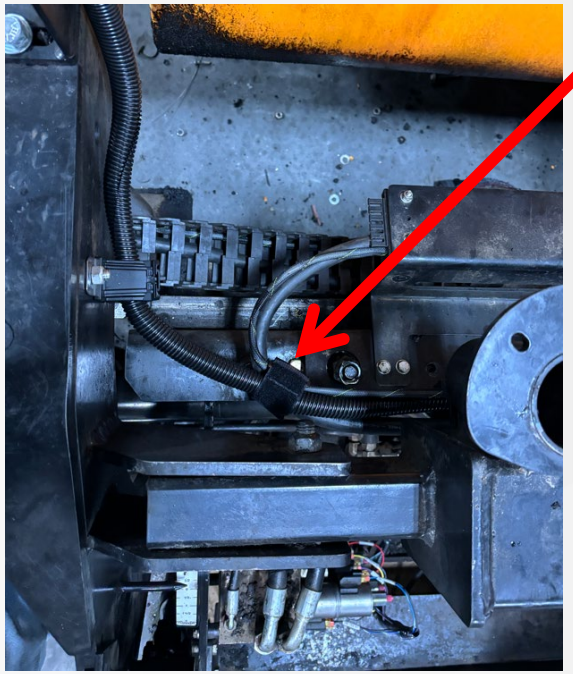

Route the LH screed harness through the previously attached, ratcheting p-clamps.

Use a 4” cinch strap, to hold the element harness, sonic harness and the LH screed breakout, in shown position.

Repeat the same process, for the RH extension and screed control box.

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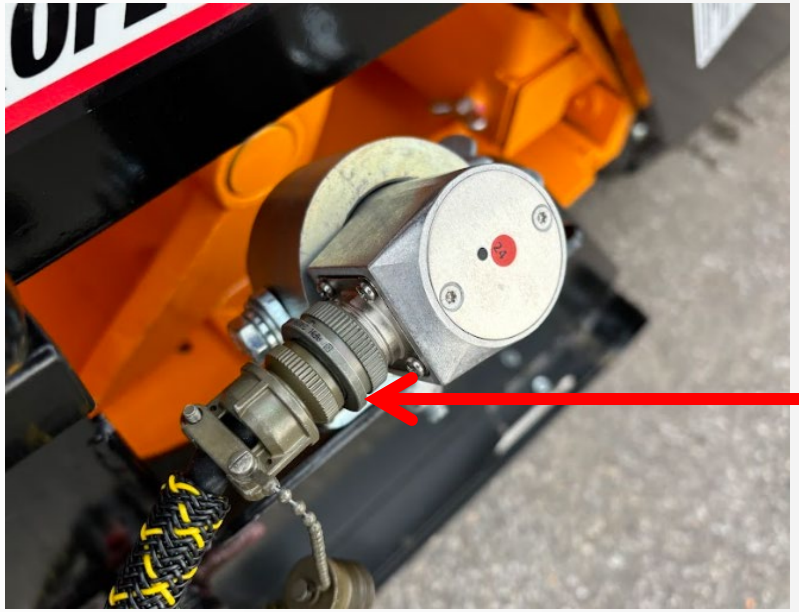

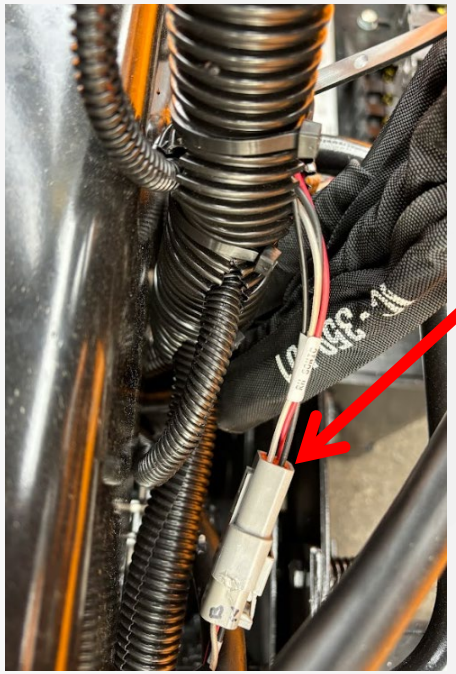

Fasten the end of the sonic harness to the sensor.

Attach a female Deutsch connector, to the open end of the sonic wires.

Connect the open ends of the sonic wires to their appropriate terminals, in the center of the citrus tank.

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Refasten the screed frame covers, back to the assembly.

Lift the screed up and test every function.