

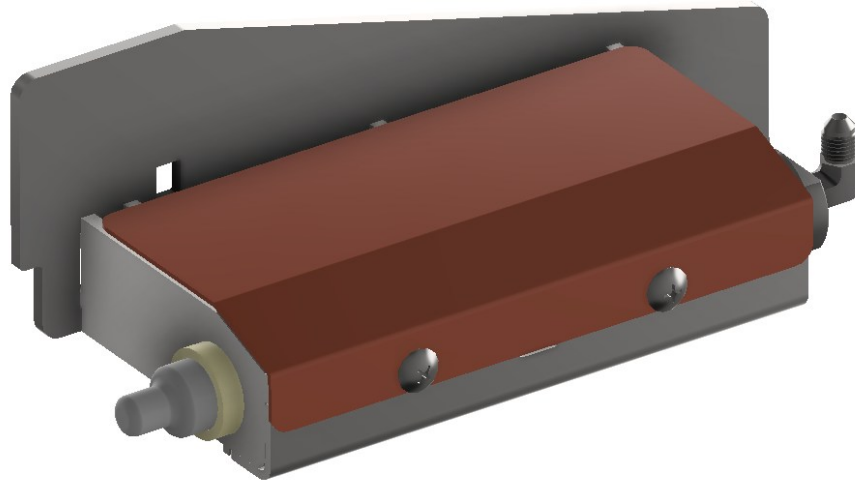
# STEELGREEN<sup>™</sup>

## MANUFACTURING

### INSTRUCTION MANUAL

#### HILL SIDE ASSIST ATTACHMENT PRE FUSE BLOCK WIRING SYSTEM

**Models:** SG36, SG42, SG46, & SG52



# HILL SIDE ASSIST INSTALLATION

**STEP 1:** Disconnect the battery, *ground* first and then *power* wire.



GROUND

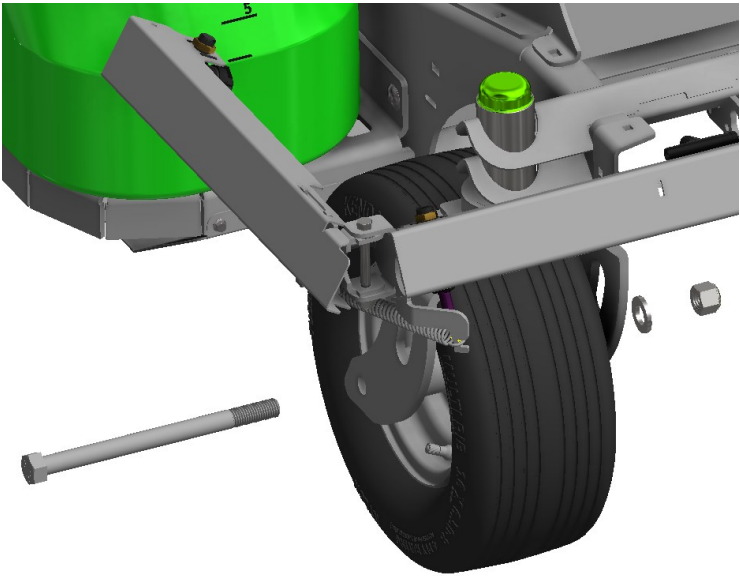
POWER

## NOTICE

- *If your machine was built after November 2023, Skip to step 4.*
- *Repeat steps 2&3 for the other side.*

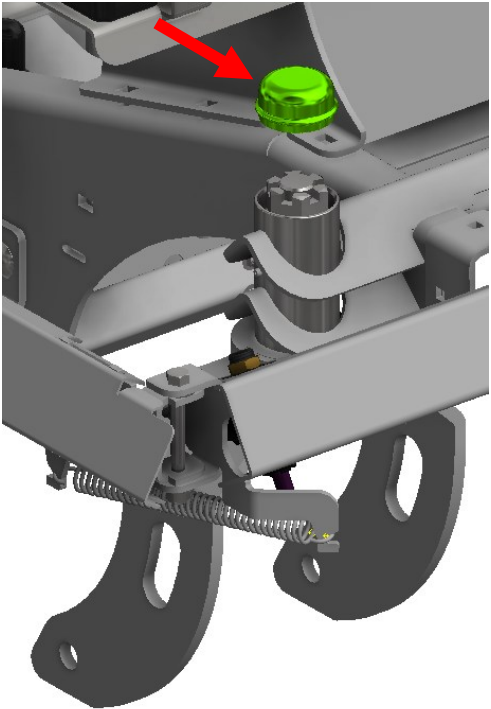
**STEP 2:**

- Remove the bolt and front tire.

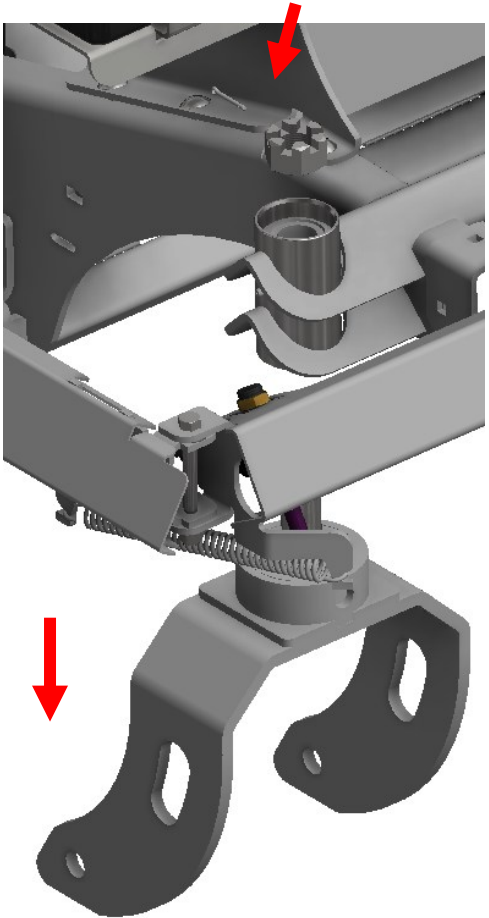


# HILL SIDE ASSIST INSTALLATION

- Remove the dust cover.



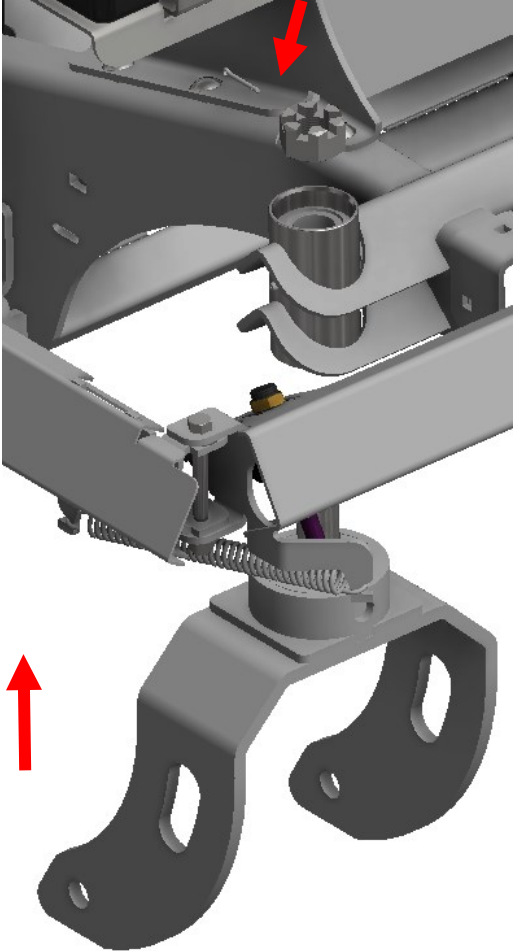
- Remove the cotter pin and nut which will release the yoke through the bottom.



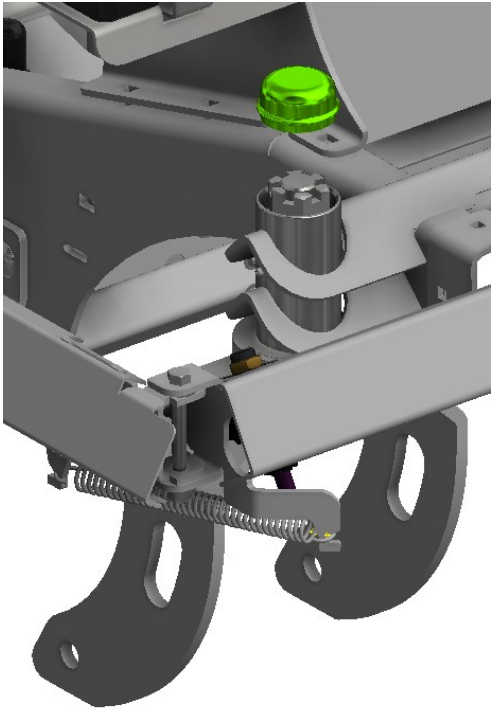
# HILL SIDE ASSIST INSTALLATION

**STEP 3:**

- Install the yokes W22-144 provided with the kit.
- Secure the yoke with the nut and carter pin.



- Re-install the dust cover.

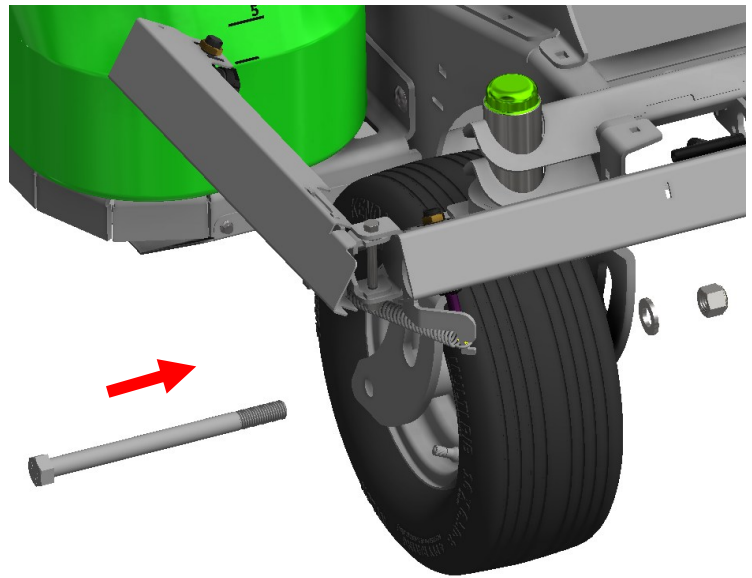


## HILL SIDE ASSIST INSTALLATION

- Re-install the front tire.

### NOTICE

Regrease the bearings and housing.



**STEP 4:** Use the 5/16 x 1 carriage bolts and 3/8 nuts provided with the kit and attach the cylinder assemblies to the side of the chassis.

### NOTICE

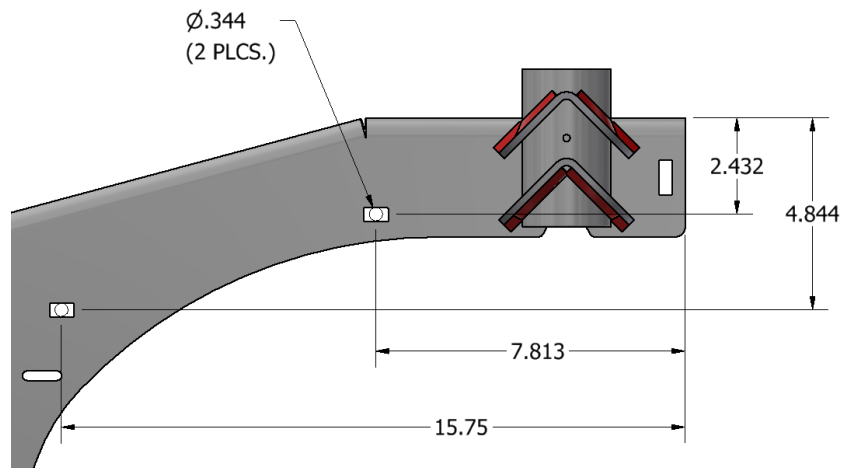
*If your machine is older than mid October 2021: You will need to either*

- *Drill mounting holes in BOTH SIDES of the chassis using the dimensions in (Fig 1) or attach the cylinder assembly to the top of the chassis (STEPS 4&5) and use the bracket as a templet.*
- *Or weld the side of the cylinder assemblies to the chassis.*

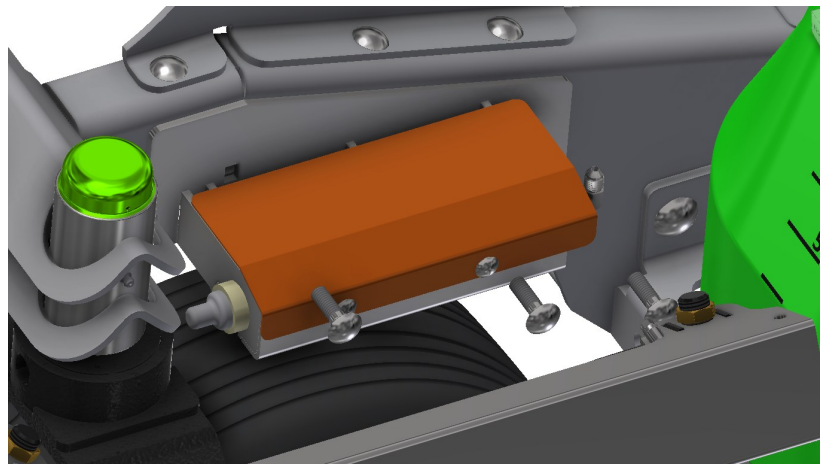
*The cylinder assembly MUST be properly secured from the side or warranty could be void.*

### NOTICE

*If you have a previous cylinder design, You will need to loosen the hopper and attach the cylinder under the hopper frame.*



**Fig 1**



## HILL SIDE ASSIST INSTALLATION

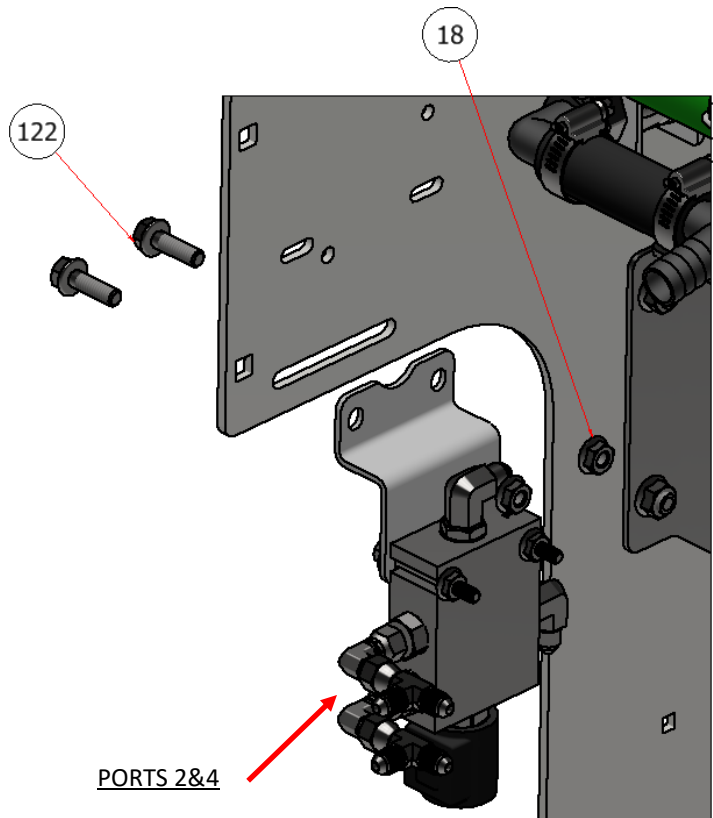
**STEP 5:** Attach the solenoid valve assembly (provided with the kit) to the upright on the **RIGHT SIDE**. Using the 5/16 X 1 hex bolts, & nuts provided with the kit.

### NOTICE

- Some parts not shown for clarity.
- The orientation of the valve, ports 2 & 4 face forward.

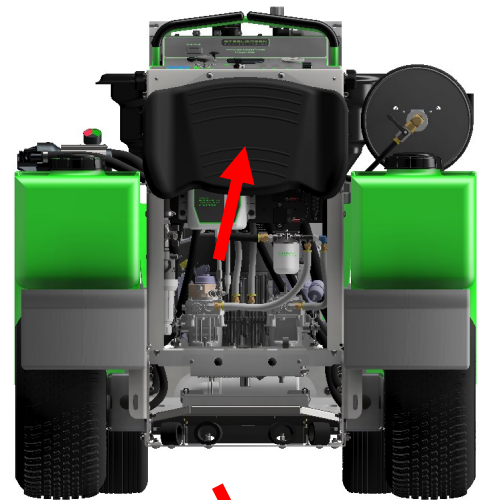
#### PARTS LIST

ITEM	QTY	PART NUMBER	TITLE
18	8	HFNCS-516S	HEX NUT, 5/16" SS
122	2	HFSSC-3131	HEX FLANGE BOLT, SS - 5/16 X 1

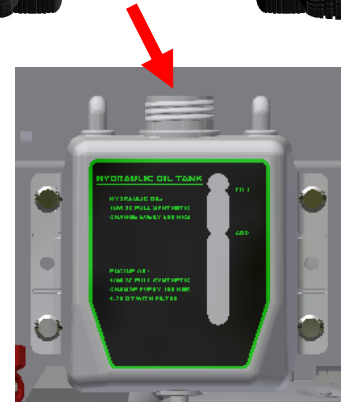


### STEP 6:

- Remove the knee pad to access the hydraulic oil reservoir.

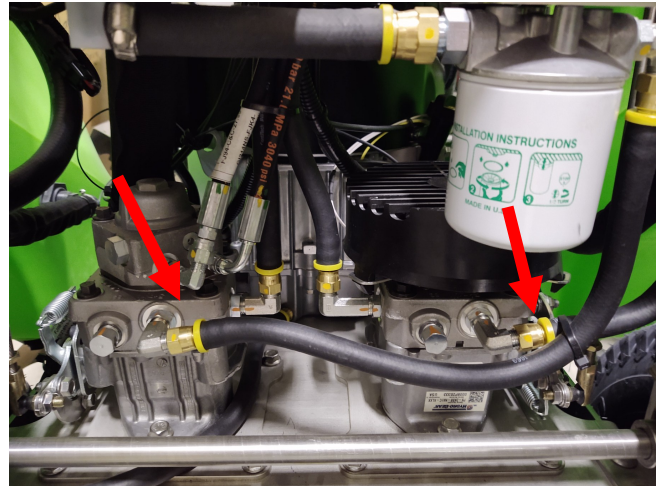


- Loosen and remove the cap from the hydraulic oil reservoir.



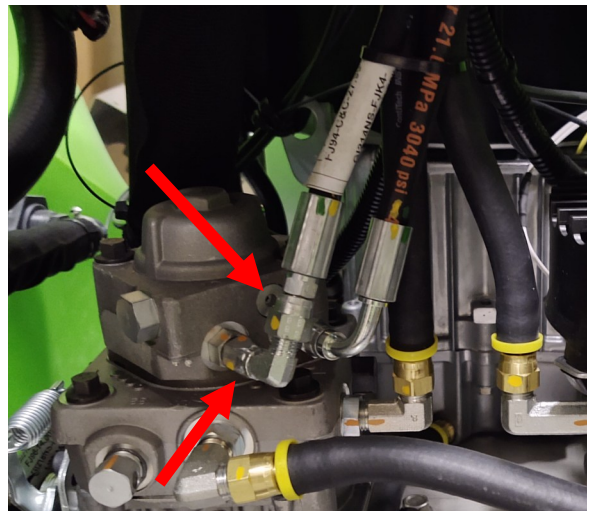
## HILL SIDE ASSIST INSTALLATION

- Disconnect the rear hoses from the hydraulic pumps, place the hoses over a proper container draining the hydraulic oil.
- Once the oil has been drained, reconnect the hoses to the pumps.

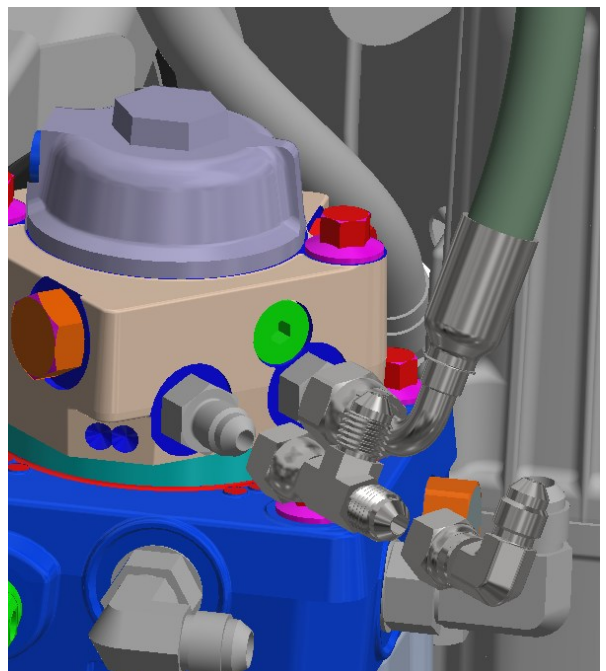


### STEP 7:

- Disconnect the return hose and fitting from the pump.

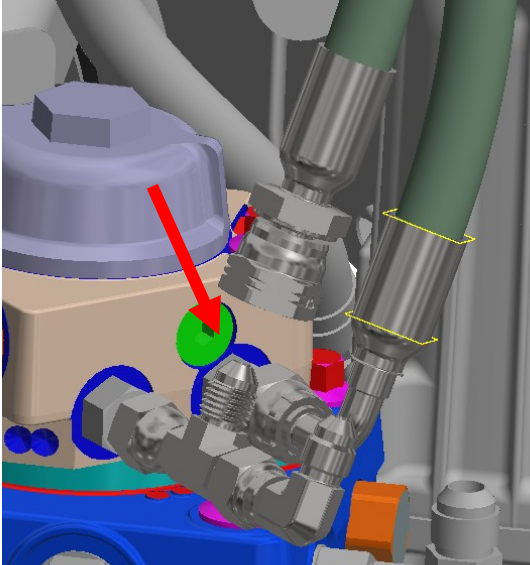


- Connect 1 H84031 “swivel tee fitting” (provided with the kit) to the return port.
- Reconnect the “swivel elbow fitting to the end of the “swivel tee fitting”.



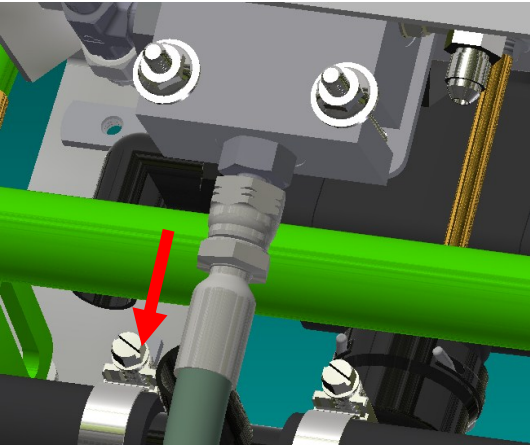
# HILL SIDE ASSIST INSTALLATION

- Reconnect the return hose to “swivel tee fitting”.

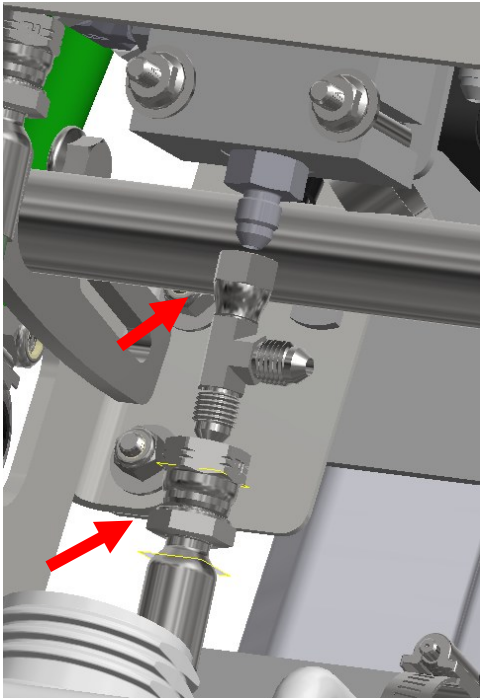


**STEP 8:**

- Disconnect the supply hose.



- Connect 1 (H84031) “swivel tee fitting”, (provided with the kit) to the control valve .
- Reconnect the supply hose.



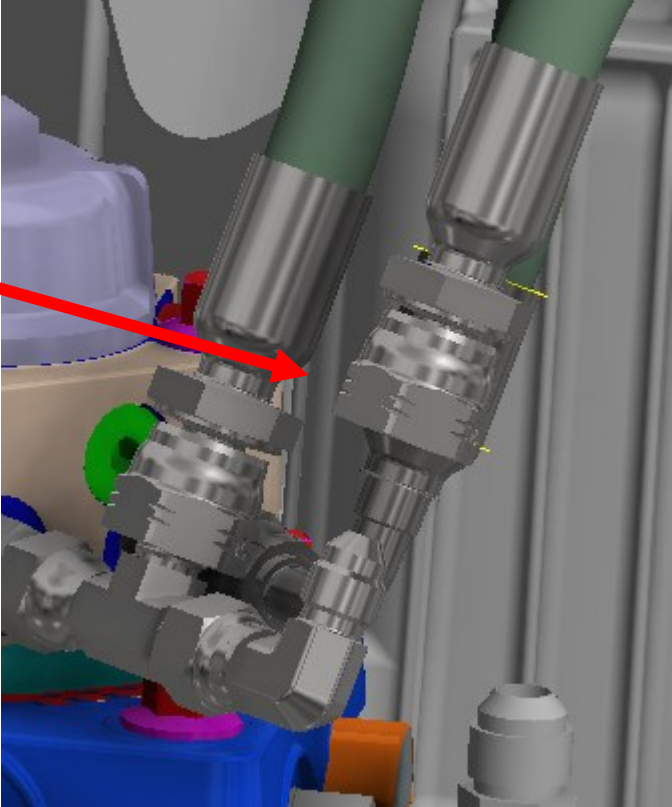
# HILL SIDE ASSIST INSTALLATION

## HOSE ROUTING

### STEP 9:

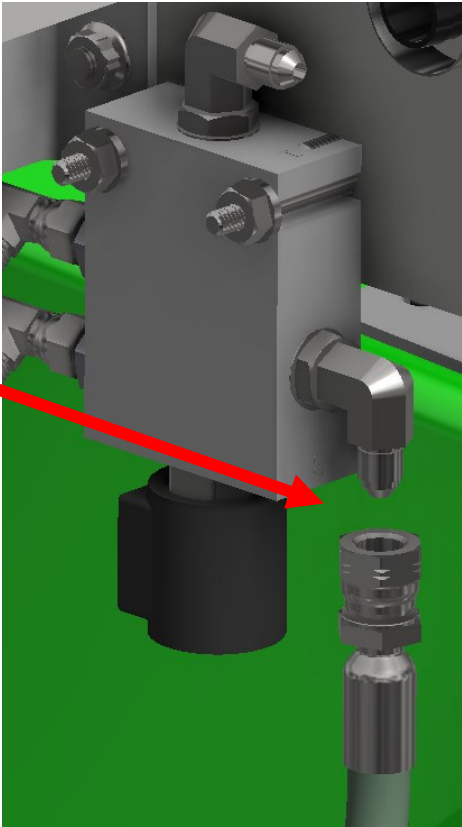
- Connect one end of hose with “orange wrap” to the elbow fitting on the hydro pump.

**ORANGE**



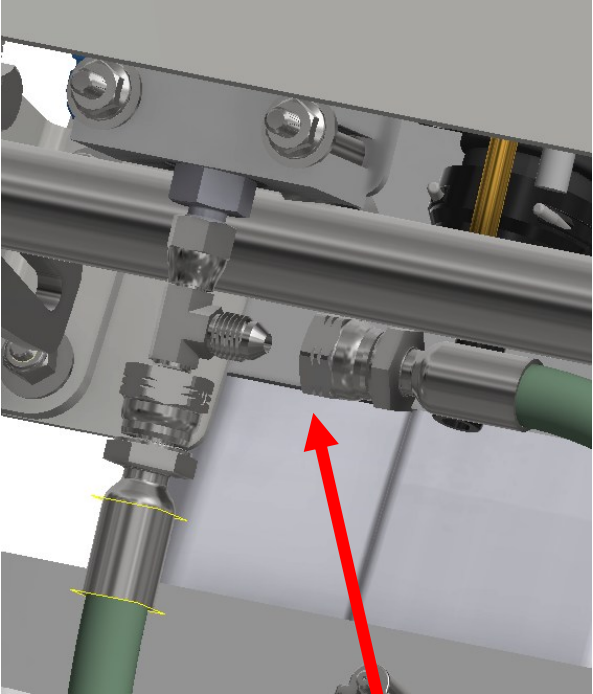
- Connect the other end of hose with “orange wrap” to port 3 of the solenoid valve.

**ORANGE**



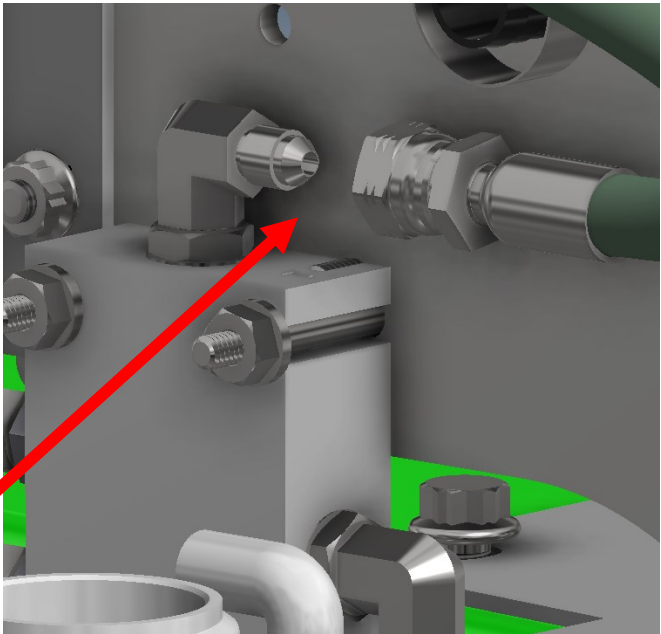
## HILL SIDE ASSIST INSTALLATION

- Connect one end of hose with “red wrap” to the swivel tee fitting on the hydraulic control valve.



**RED**

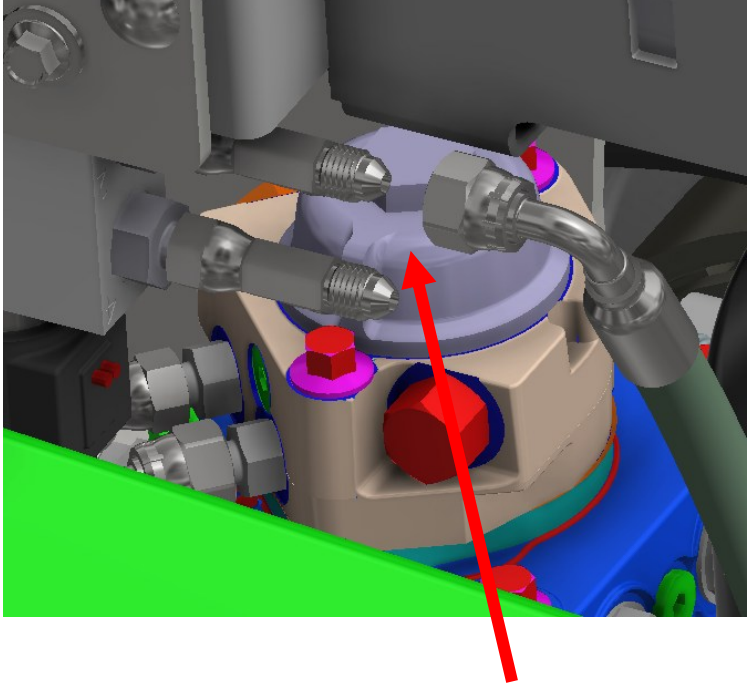
- Connect the other end of hose with “red wrap” to port “1” on the solenoid valve.



**RED**

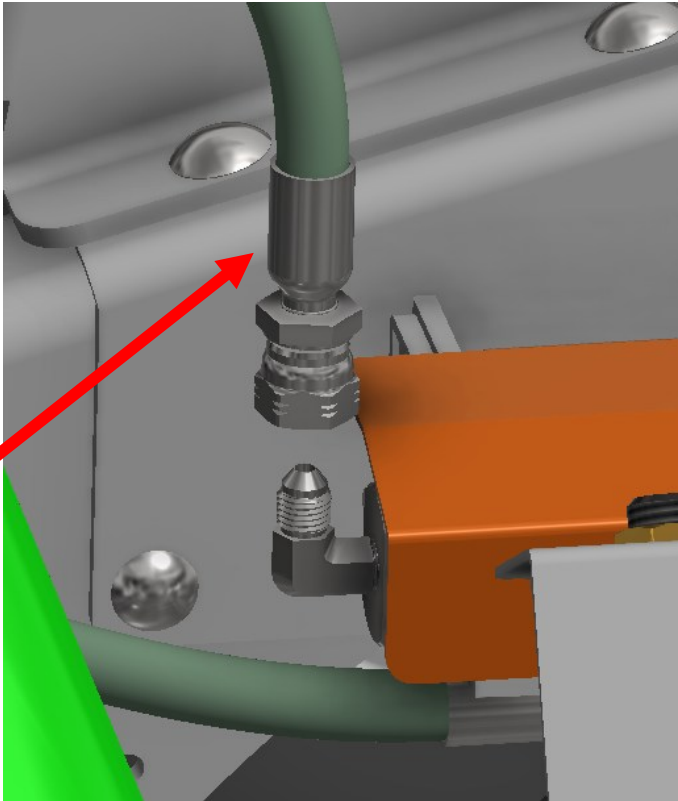
# HILL SIDE ASSIST INSTALLATION

- Connect the elbow end of hose with “blue wrap” to port 2 on the solenoid valve.



**BLUE**

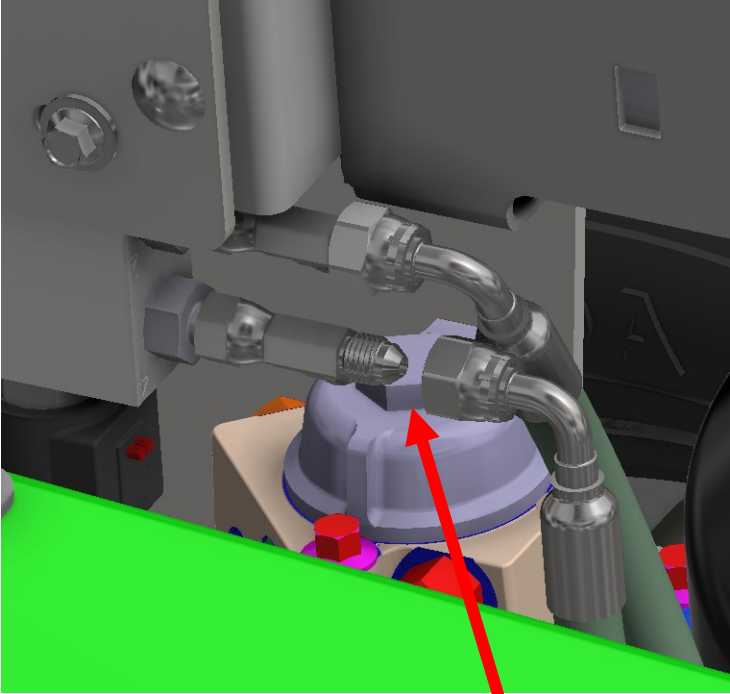
- Connect the straight end of hose with “blue wrap” to the elbow fitting on the end of the cylinder (RIGHT SIDE OF THE MACHINE).



**BLUE**

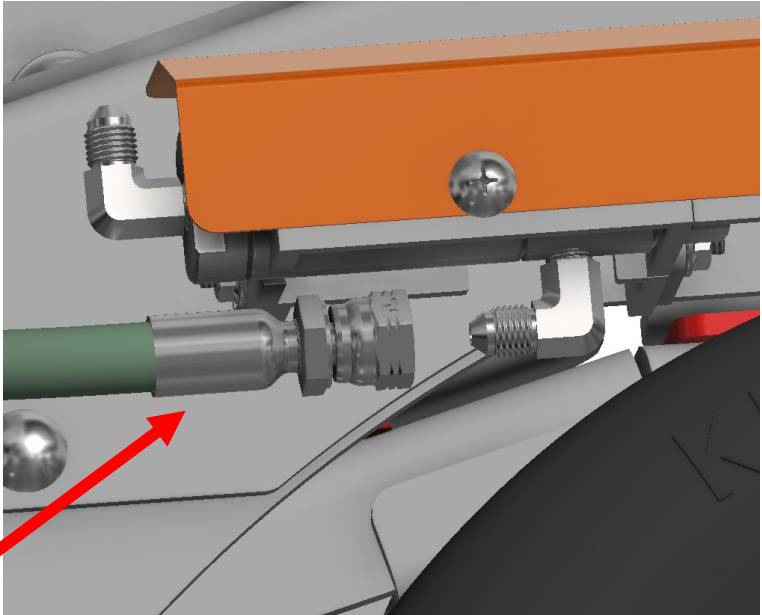
# HILL SIDE ASSIST INSTALLATION

- Connect the elbow end of hose with "green wrap" to port 4 on the solenoid valve.



**GREEN**

- Connect the straight end of hose with "green wrap" to the elbow fitting on the bottom of the cylinder (RIGHT SIDE OF THE MACHINE).

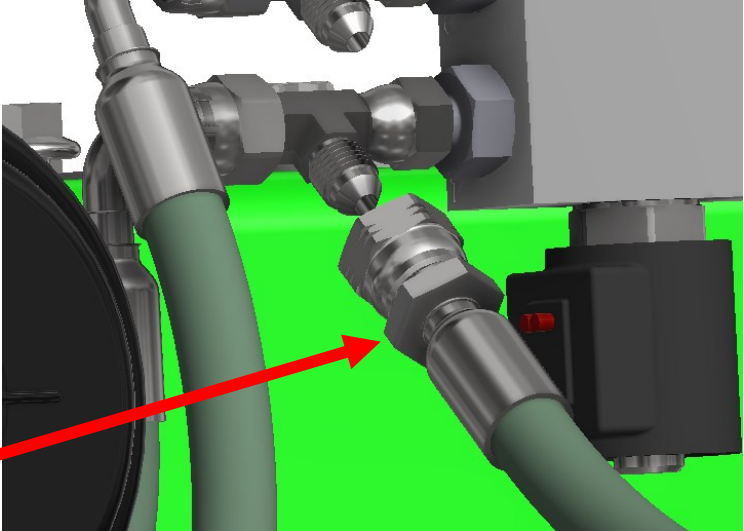


**GREEN**

# HILL SIDE ASSIST INSTALLATION

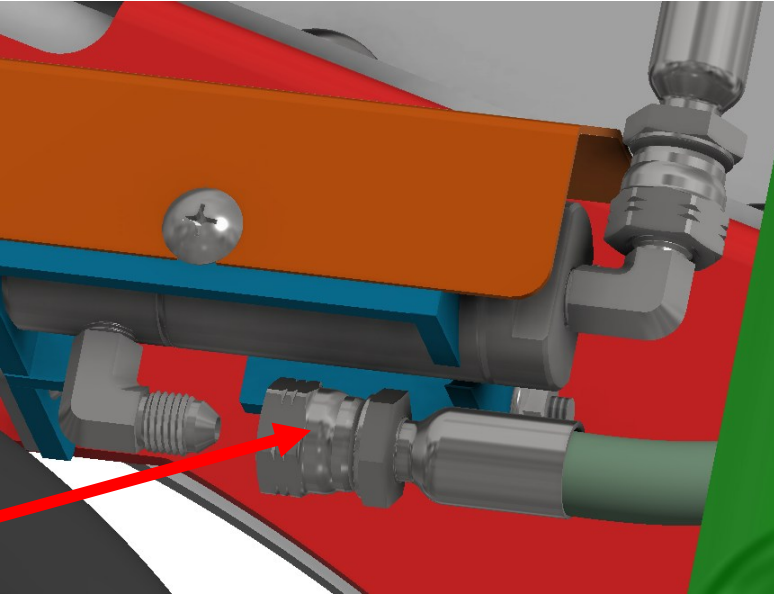
- Connect the end of hose with “black wrap” to the swivel tee fitting (PORT 4).

**BLACK**



- Route the hose behind and around the engine and connect the other end of hose with “black wrap” to the elbow fitting on the bottom of the cylinder (LEFT SIDE OF THE MACHINE).

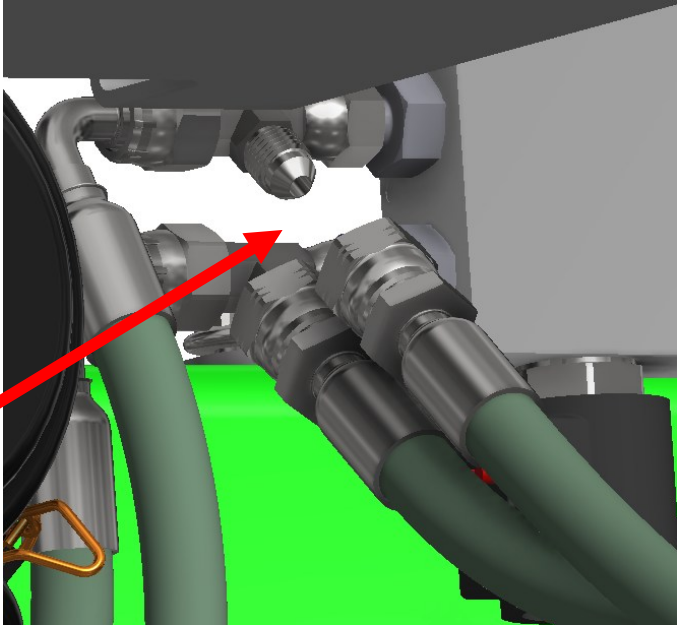
**BLACK**



# HILL SIDE ASSIST INSTALLATION

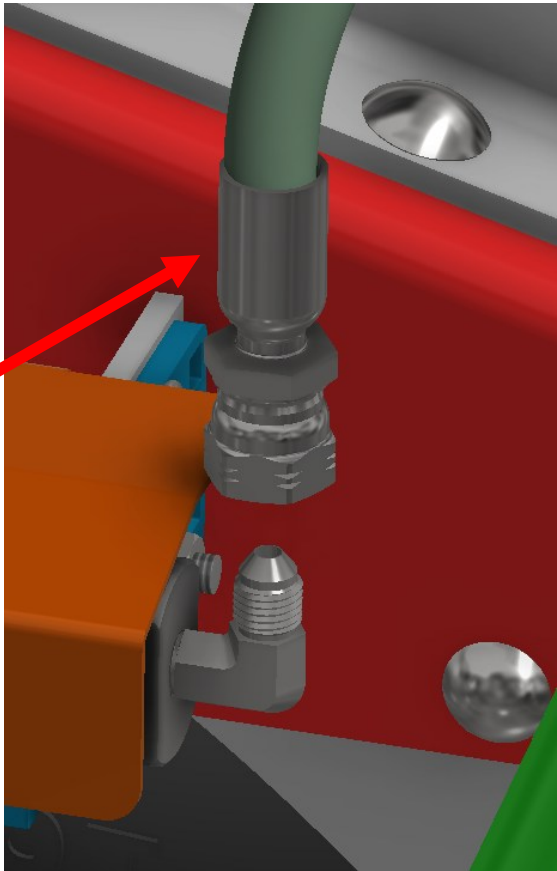
- Connect one end of hose with “white wrap” to the swivel tee fitting (PORT 2).

**WHITE**



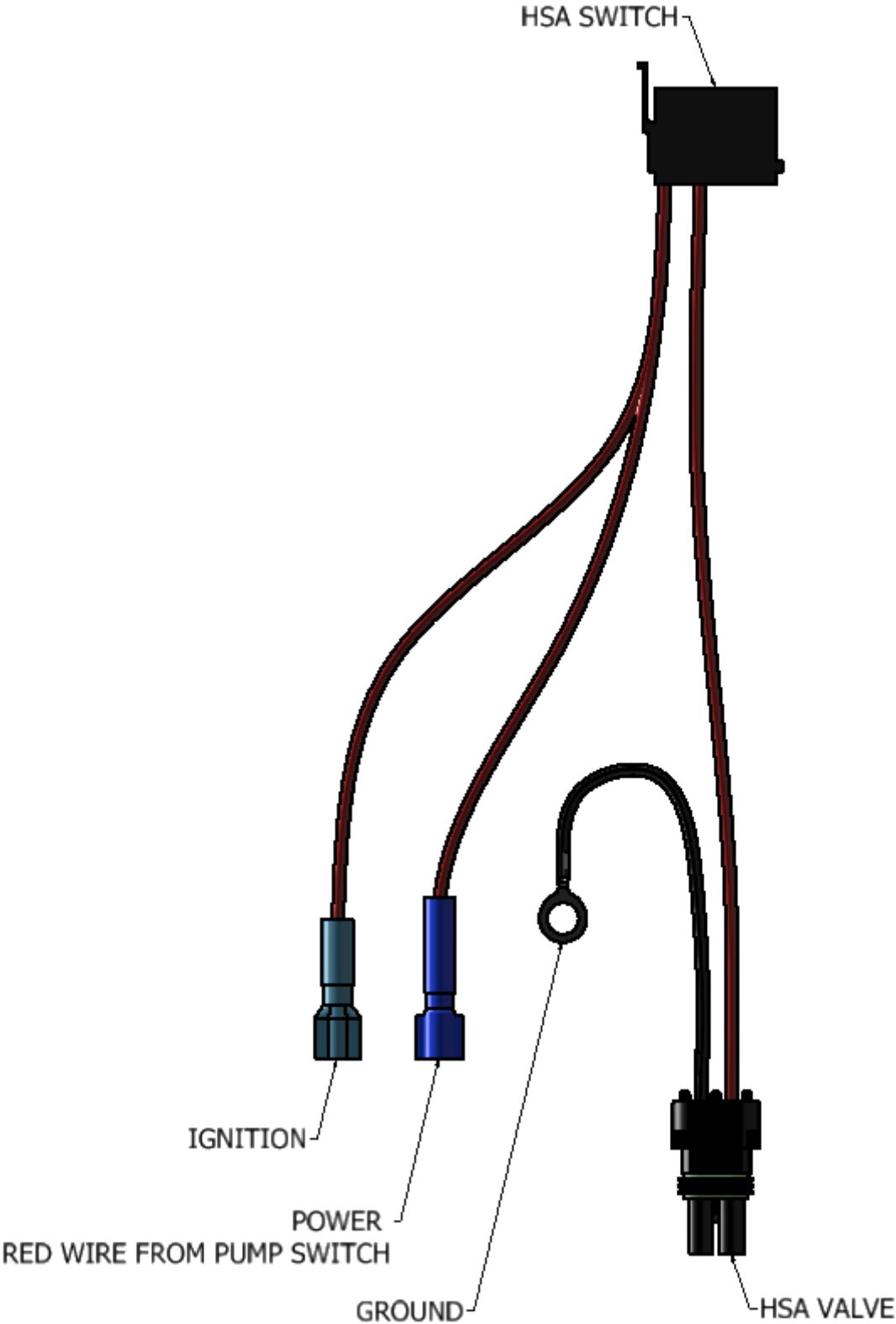
- Route the hose behind and around the engine and connect the other end of hose with “white wrap” to the elbow fitting on the end of the cylinder (LEFT SIDE OF THE MACHINE).

**WHITE**



# HILL SIDE ASSIST INSTALLATION

## SG-HSA

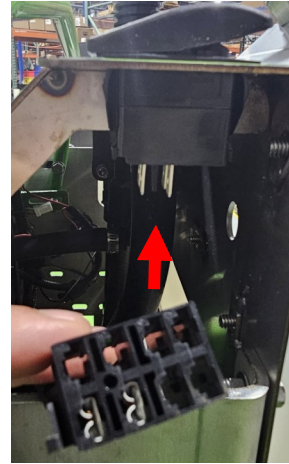


## HILL SIDE ASSIST INSTALLATION

### ELECTRICAL

#### STEP 10:

- Connect the end of the wire harness to the bottom of the hsa rocker switch.



- Connect the ground wire from the harness to the ground nut on the cross member..

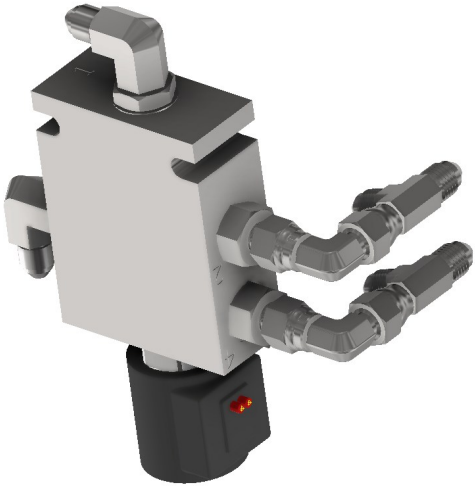
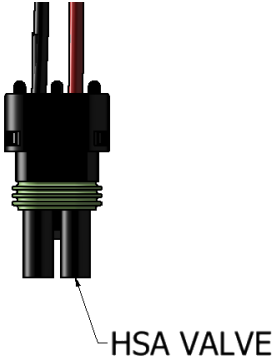


- Route the harness down the bundle with the other wire harnesses and neatly zip tie them together.

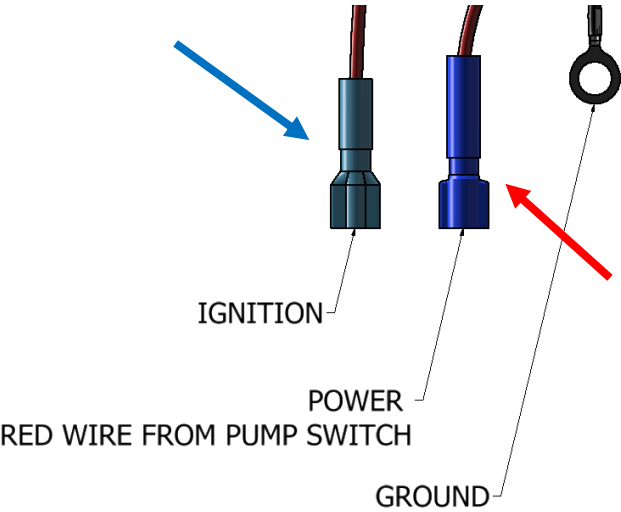


# HILL SIDE ASSIST INSTALLATION

- Connect the pump plug from wire harness to the hsa valve.



- Connect the power wire from the wire harness to the engine solenoid.



- Connect the ignition wire from the harness to the spade connector on the ignition switch.



## HILL SIDE ASSIST INSTALLATION

**STEP 11:** Reconnect the battery, *ground* first and then *power* wire.

**NOTE:** Check that all hose connections are tight.

**STEP 12:**

- Refill the hydraulic oil to the proper level.
- Start the machine and activate the hill side assist a couple times or until the oil is through the system and the cylinders are functioning.
- Turn the machine off and refill the oil to the proper level.

**STEP 13:**

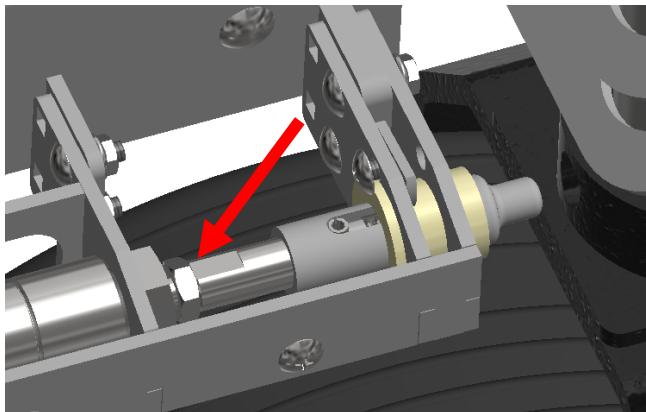
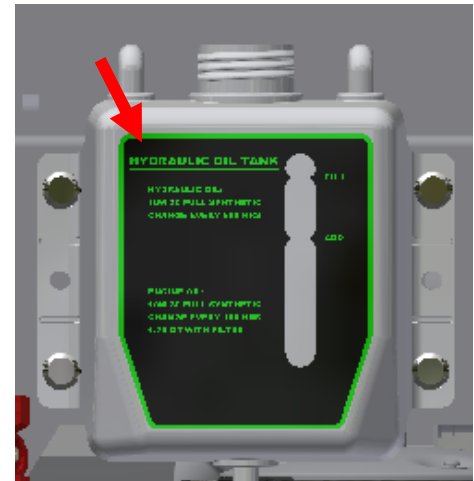
- Loosen the adjustment nut (11/16") on both cylinders. *Fig. 1*
- The cylinder is to be set at 1/2" inch from the end of the plunger to the edge of the yoke. *Fig. 2*

**TIP** Turn the tire so the hole is facing away from the cylinder shaft and use a 1/2" rod or bolt between the yoke and cylinder shaft.

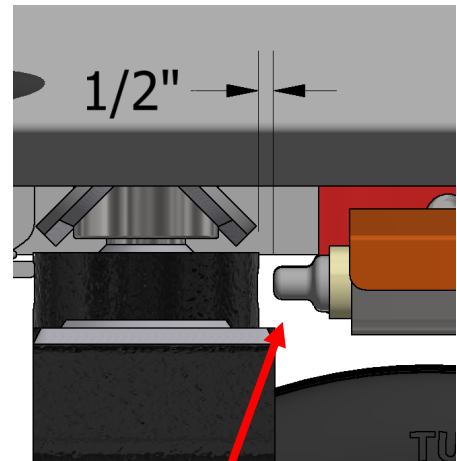


GROUND

POWER



*Fig. 1*



*Fig. 2*

**HILL SIDE ASSIST INSTALLATION**

NOTES



Steel Green Mfg.  
 824 S State Road 39  
 Lebanon, IN 46052  
[Steelgreenmfg.com](http://Steelgreenmfg.com)  
 (765)-481-2890

MANUAL PART NO.	MANUAL REV.	DESCRIPTION	KIT PART NO.
SGM-023		SG HILL SIDE ASSIST	A10040 A10040-36