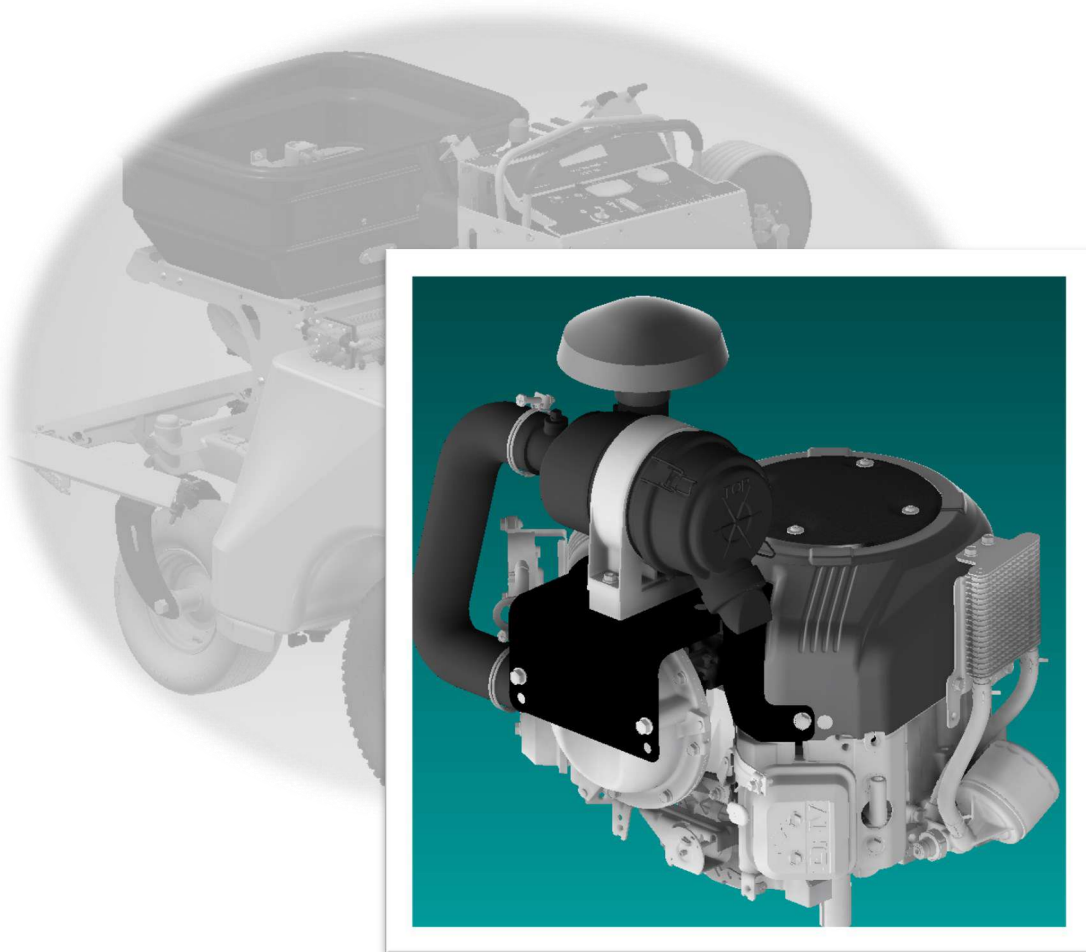


INSTRUCTION MANUAL

ENGINE SWAP

Models: SG36, SG42, SG46, & SG52



ENGINE SWAP INSTRUCTIONS

NOTE:

- *The engine swap process will be easier if you have access to an atv lift.*
- *Before proceeding with the following steps be sure the tank is drained or hopper is empty.*

STEP ONE:

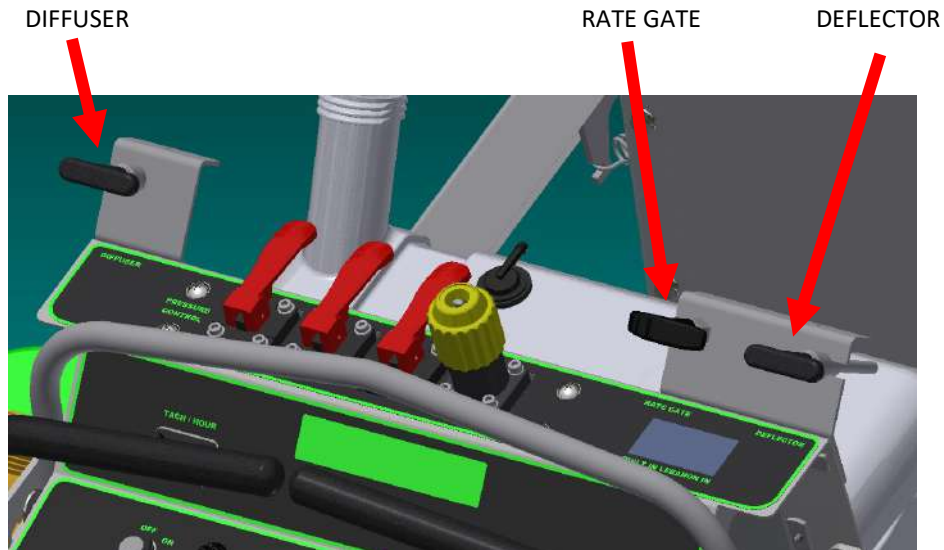
- Disconnect the battery, *ground* first and then *power* wire.
- Remove the battery from the battery box.



GROUND

POWER

STEP TWO: Disconnect the three cables from the dash.



ENGINE SWAP INSTRUCTIONS

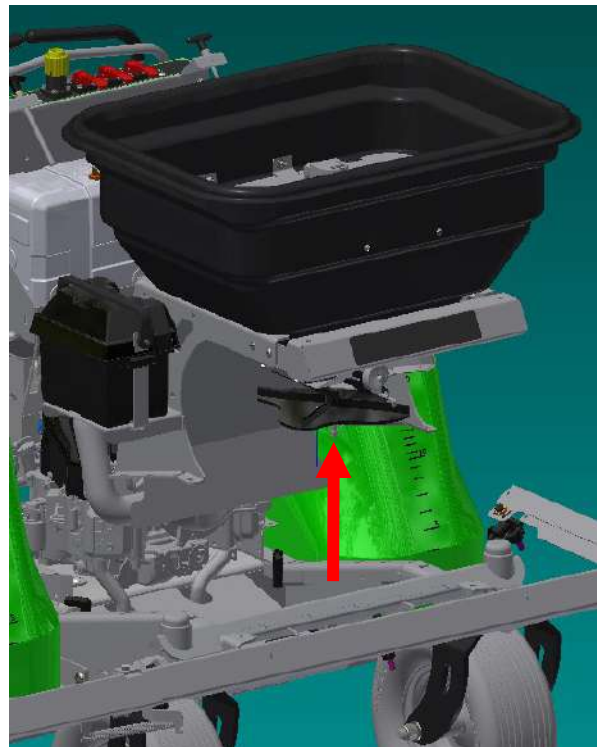
NOTE: Proceed to steps five & six if the unit is equipped with fluid tank.

STEP THREE: Disconnect the hoses from the hopper and connect the plug fittings to the end of the hoses.

NOTE: Hold the hoses up to prevent oil spillage.

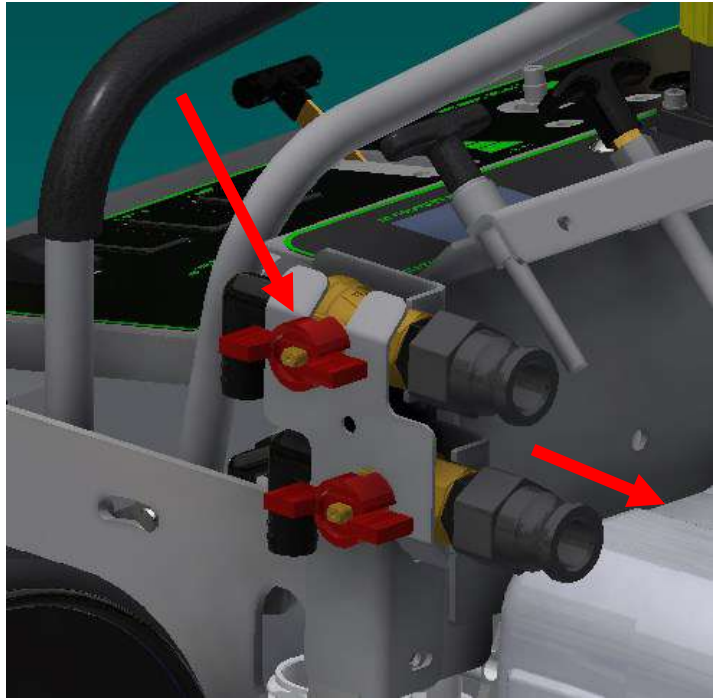


STEP FOUR: Remove the six bolts from the frame and lift the hopper assembly off of the frame.

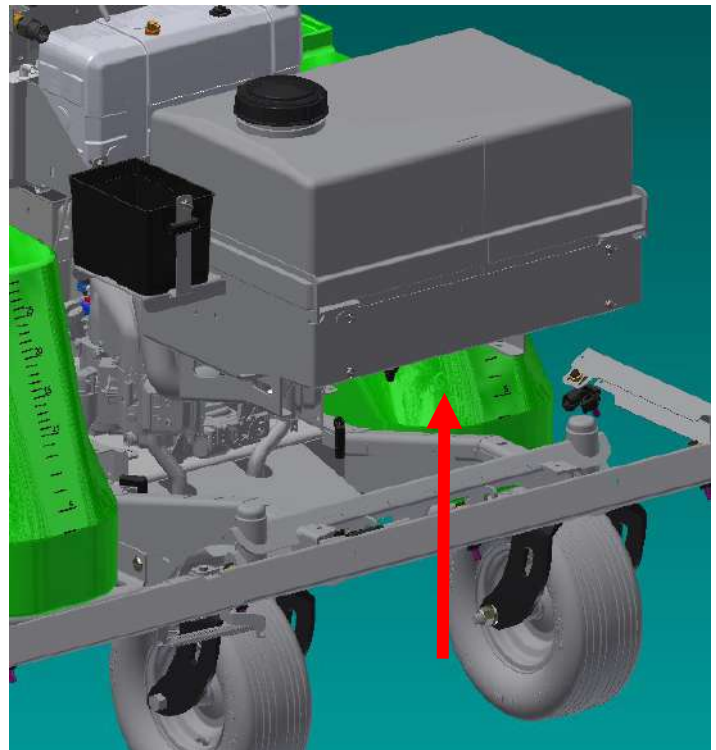


ENGINE SWAP INSTRUCTIONS

STEP FIVE: Be sure both valves are closed and disconnect the two hoses.



STEP SIX: Remove the six bolts from the frame and lift the tank assembly off of the frame.



ENGINE SWAP INSTRUCTIONS

STEP SEVEN:

- Squeeze the hose clamp and slide it back.
- Disconnect both fuel lines.

CAUTION!

- Beware of excess fuel in the lines.
- Fuel spillage.

WARNING!

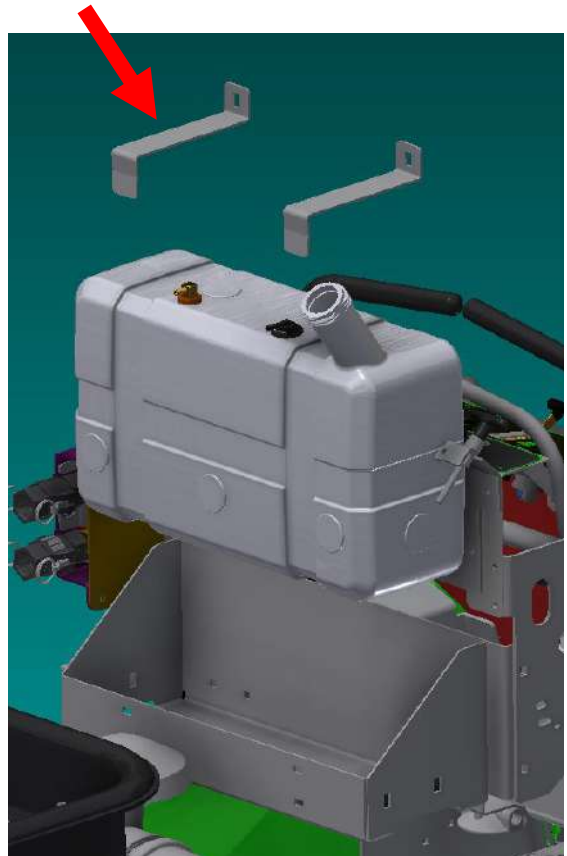
- Flammable gas.

Engine supply line

Pressure relief

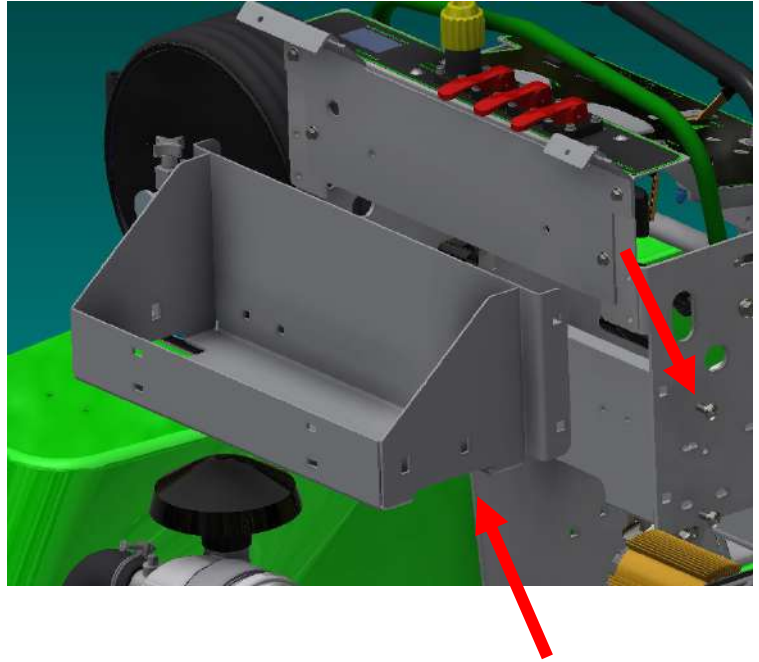


STEP EIGHT: Disconnect the gas tank straps and remove the tank.

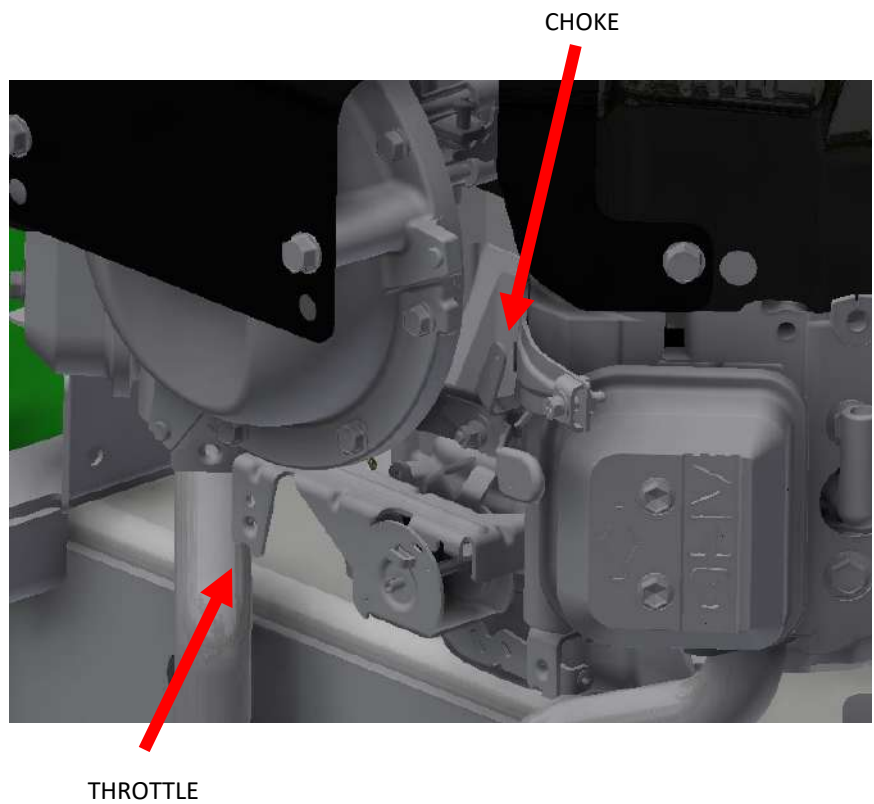


ENGINE SWAP INSTRUCTIONS

STEP NINE: Remove the four bolts and fuel cell tray.

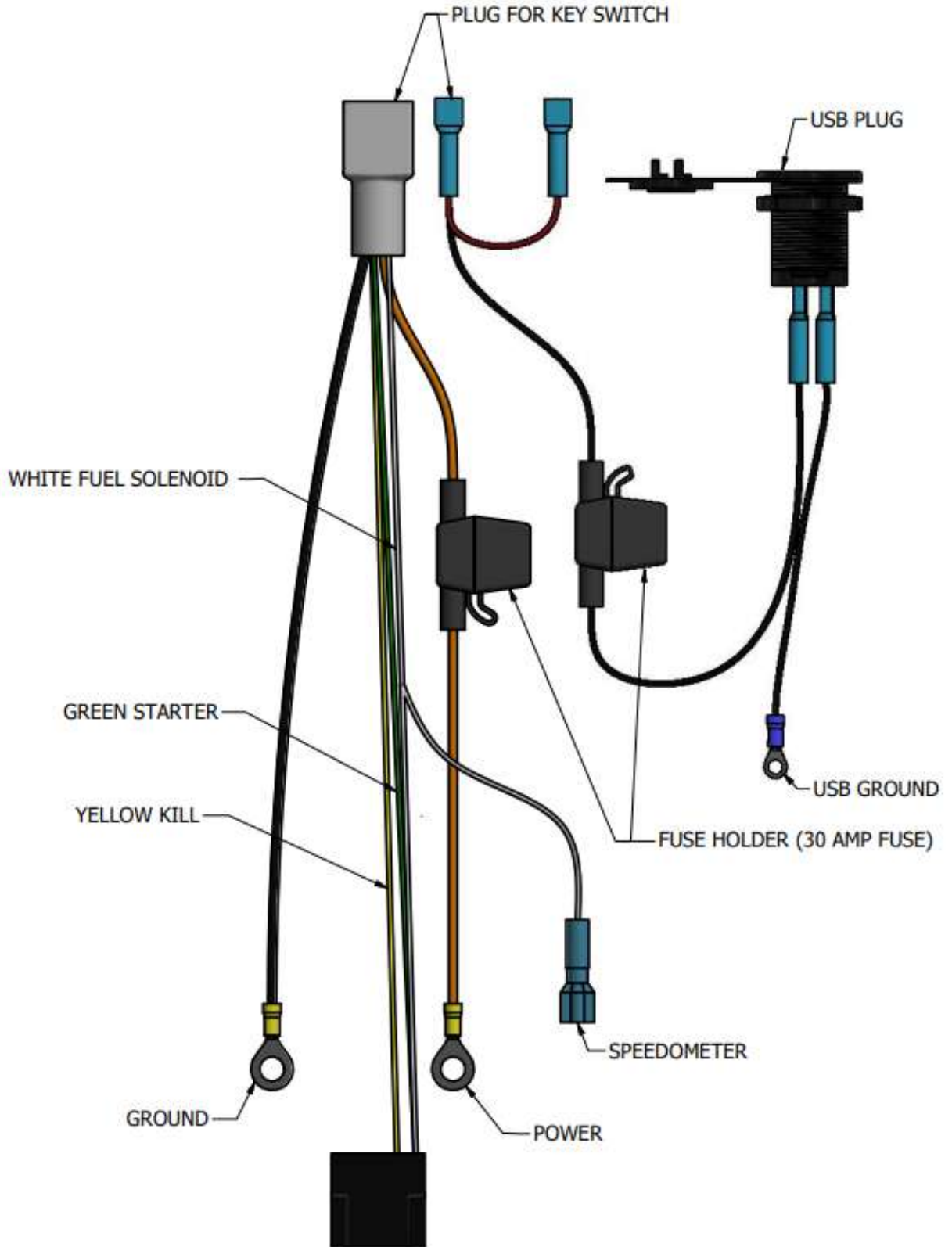


STEP TEN: Disconnect the throttle and choke cables.



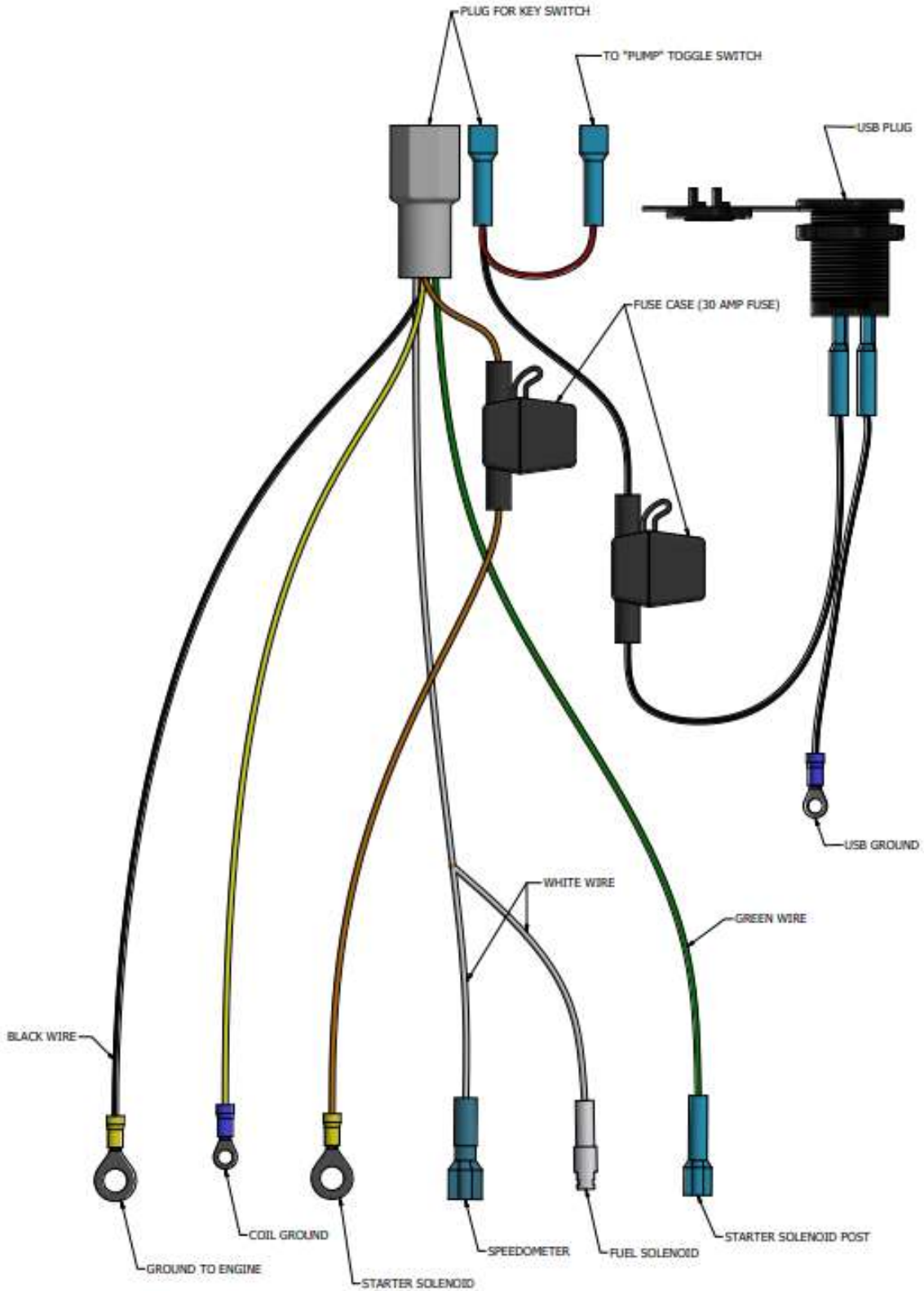
ENGINE SWAP INSTRUCTIONS

KAWASAKI WIRING DIAGRAM



ENGINE SWAP INSTRUCTIONS

BRIGGS WIRING DIAGRAM

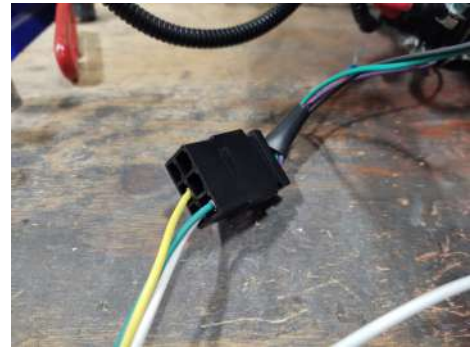


ENGINE SWAP INSTRUCTIONS

KAWASAKI

STEP ELEVEN: Disconnect all the electrical connections from the wiring harness and battery.

NOTE: For Briggs engine skip to page 12.

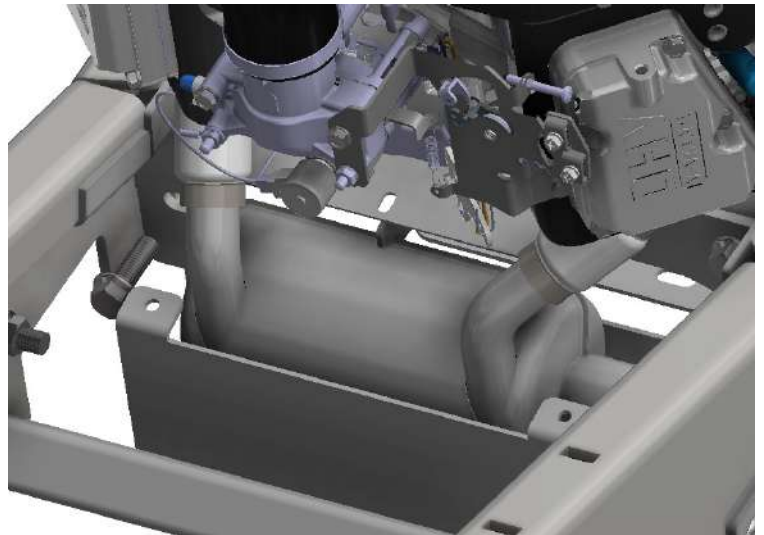
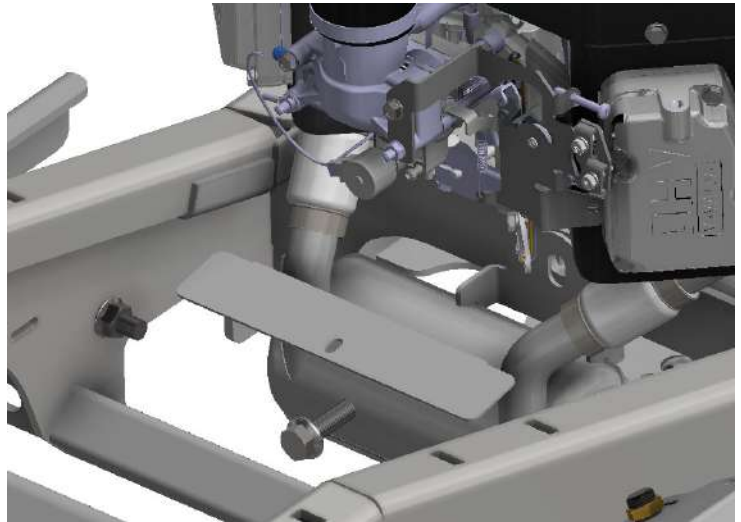


NOTE: For easier access, remove the right rear tire.



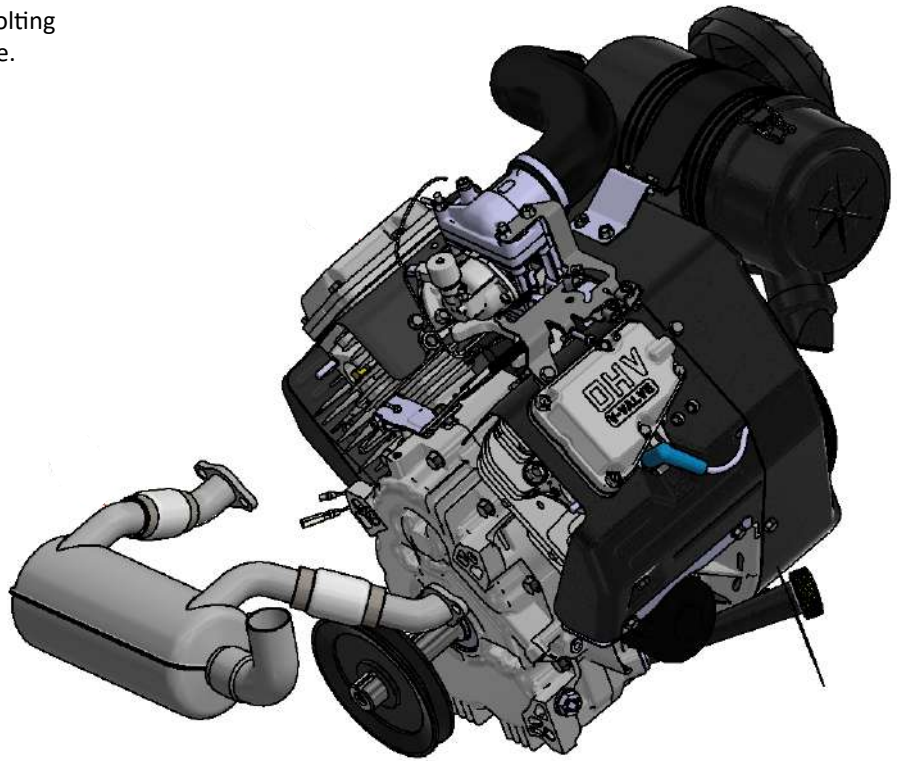
ENGINE SWAP INSTRUCTIONS

STEP TWELVE: Remove the heat shields from the chassis.



ENGINE SWAP INSTRUCTIONS

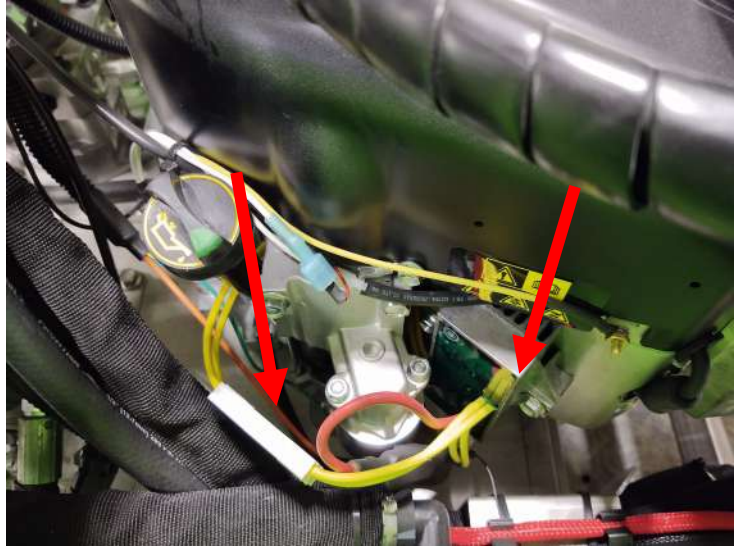
STEP THIRTEEN: Remove the muffler by unbolting it from the engine manifold and chassis brace.



ENGINE SWAP INSTRUCTIONS

BRIGGS

STEP ELEVEN: Disconnect all the electrical connections from the wiring harness and battery.

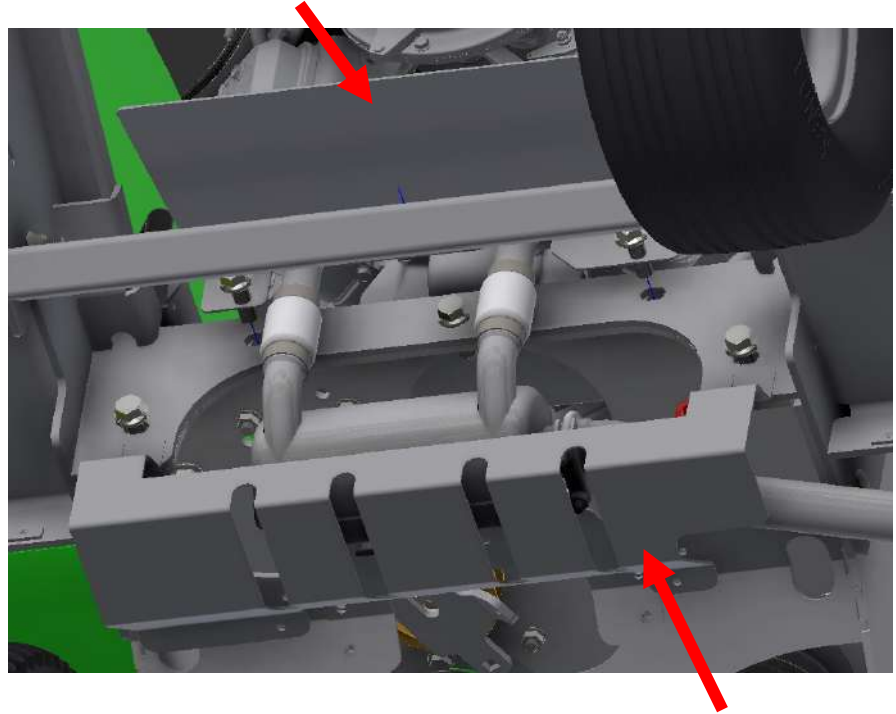


NOTE: For easier access, remove the right rear tire.



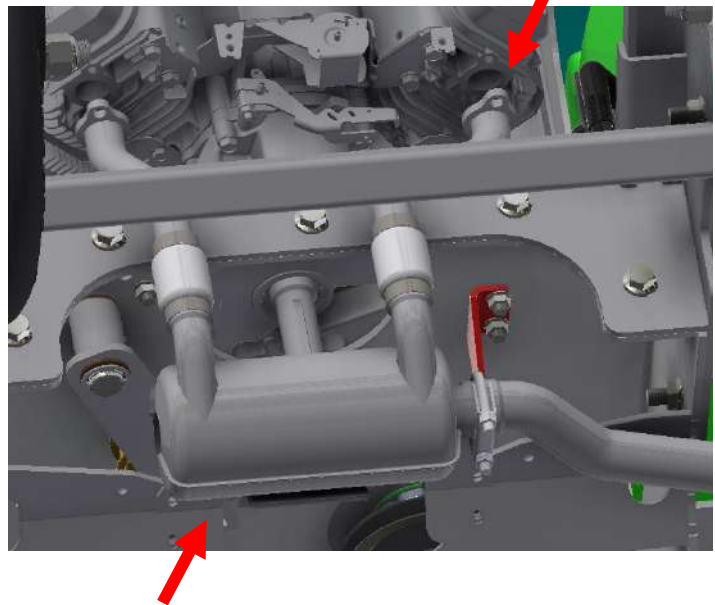
ENGINE SWAP INSTRUCTIONS

STEP TWELVE: Remove the heat shields from the chassis.



STEP THIRTEEN: Remove the muffler by unbolting it from the engine manifold and chassis brace.

NOTE: For easier access to the manifold bolts, remove the four bolts securing the engine to the chassis. This will allow the motor to be moved forward.



ENGINE SWAP INSTRUCTIONS

STEP FOURTEEN: Remove the spring from the idler arm and remove the drive belt.

NOTE:

The square hole in the idler arm can be used with a 3/8" ratchet to move the idler arm.

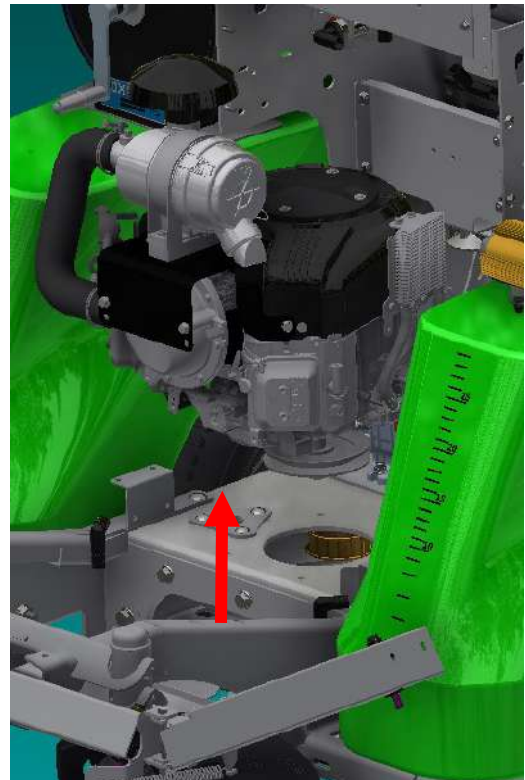
Instructions are the same for Briggs & Kawasaki



STEP FIFTEEN: Remove the four bolts securing the engine to the chassis (if not done in step thirteen) and lift the engine from the machine using a hoist or 2 people if lifting by hand.

NOTE: *Instructions are the same for Briggs & Kawasaki.*

LIFTING POINTS



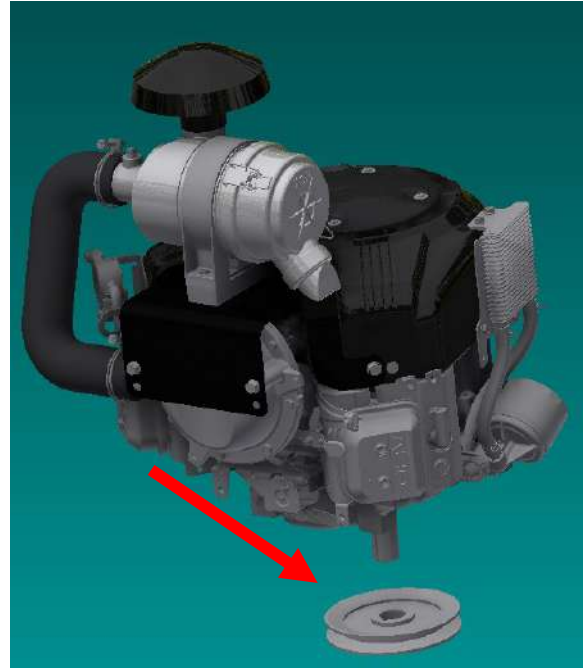
ENGINE SWAP INSTRUCTIONS

STEP SIXTEEN: Remove the engine pulley and install it on the new engine.

NOTE:

Install the pulley on the new engine ensuring it is at the same position on crank to keep the belt in alignment with hydro pulleys.

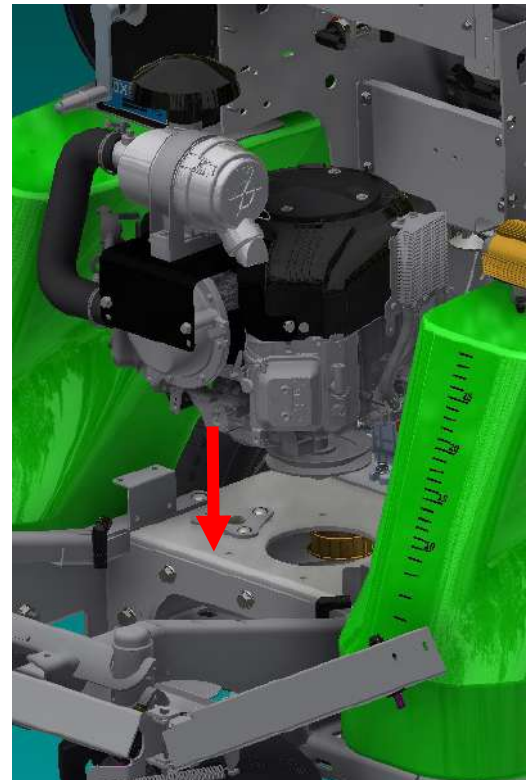
Instructions are the same for Briggs & Kawasaki.



STEP SEVENTEEN:

- Lower the engine onto the chassis using a hoist or 2 people if lifting by hand.
- Attach the engine to the frame with the four engine bolts.

NOTE: *Instructions are the same for Briggs & Kawasaki.*



LIFTING POINTS



ENGINE SWAP INSTRUCTIONS

NOTE:

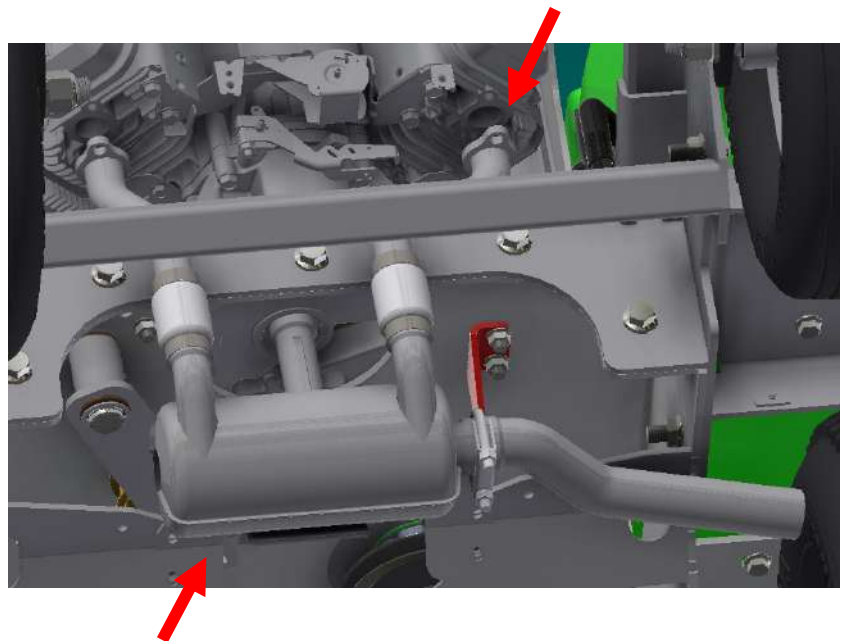
Steps 18—31 the instructions are the same for Briggs & Kawasaki

The square hole in the idler arm can be used with a 3/8" ratchet to move the idler arm.

STEP EIGHTEEN: Reinstall the drive belt and idler arm spring.

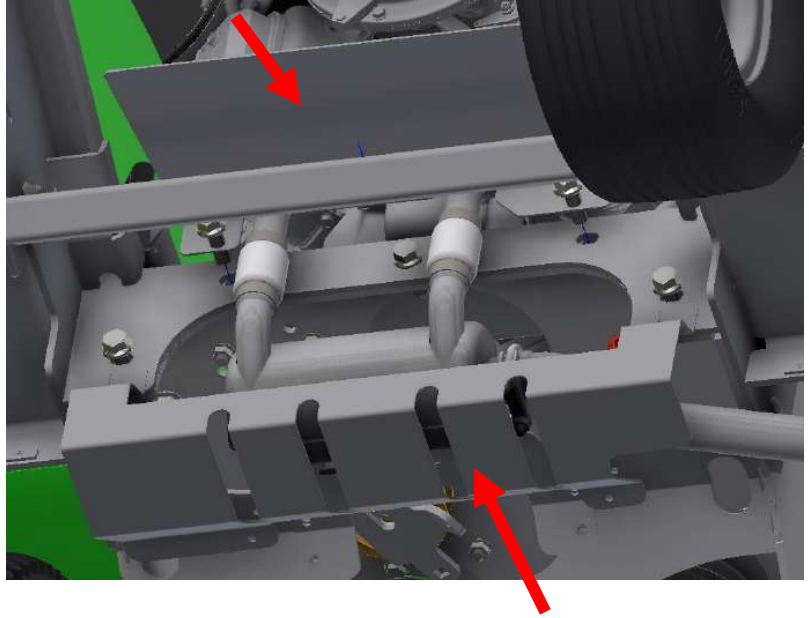


STEP NINETEEN: Reinstall the muffler.



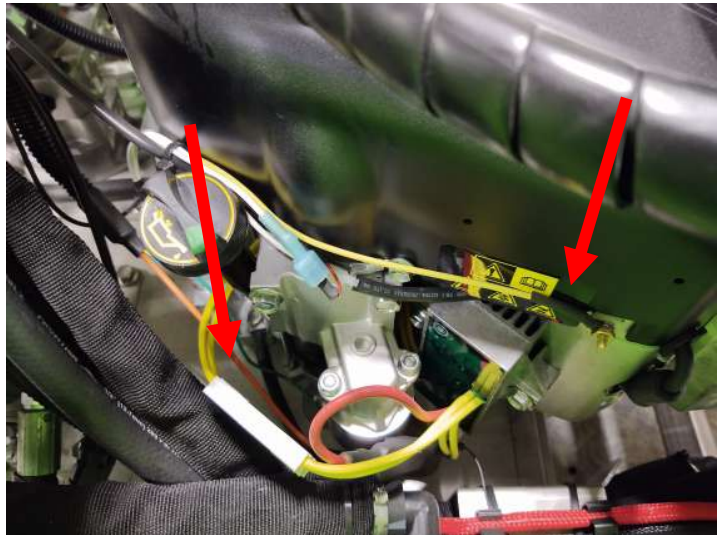
ENGINE SWAP INSTRUCTIONS

STEP TWENTY: Reinstall the heat shields.



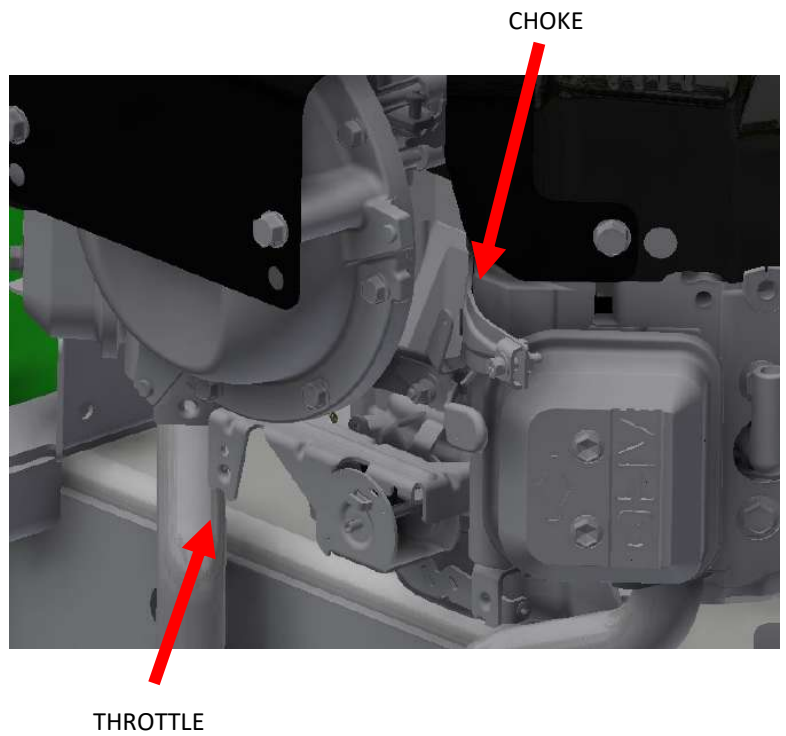
STEP TWENTY ONE: Reconnect all the electrical connections to the motor.

NOTE: Reference page 7 & 8 for wiring diagrams.

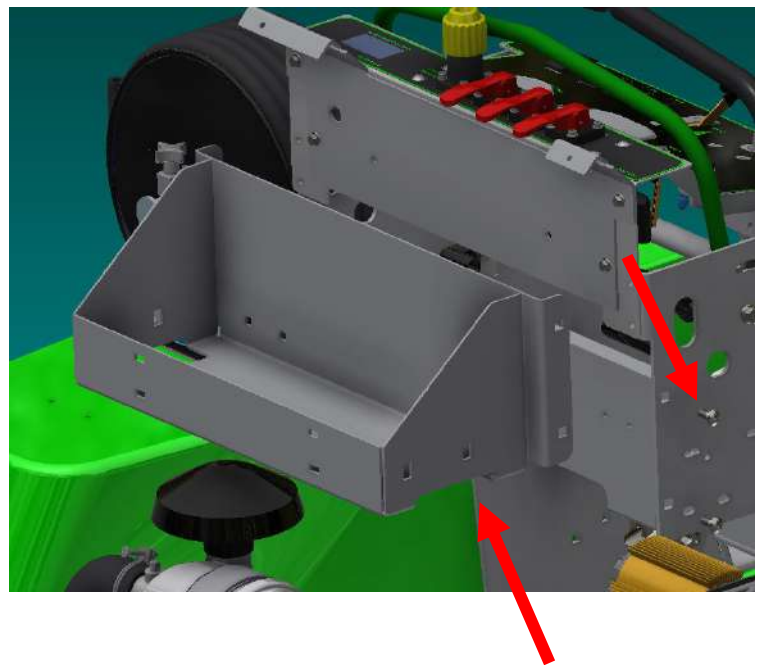


ENGINE SWAP INSTRUCTIONS

STEP TWENTY TWO: Reattach the throttle and choke cables.

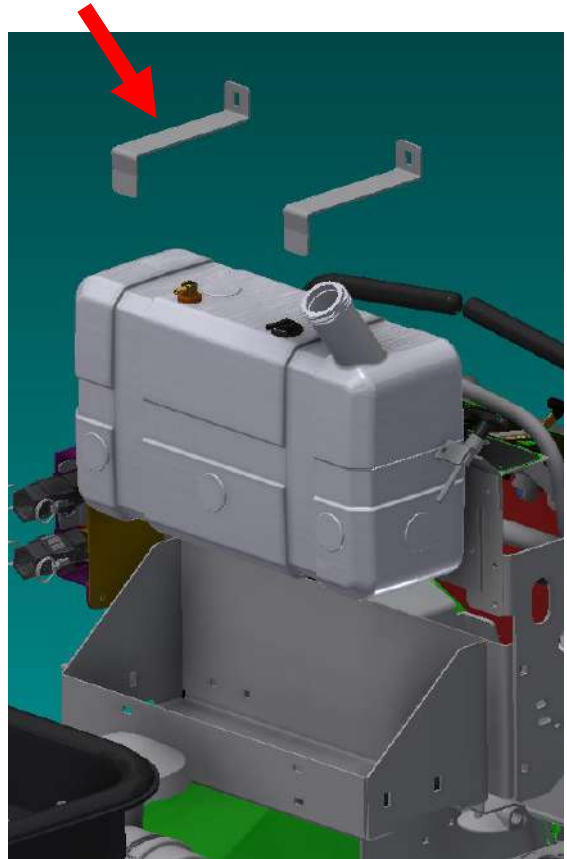


STEP TWENTY THREE: Reattach the fuel tank tray.



ENGINE SWAP INSTRUCTIONS

STEP TWENTY FOUR: Reinstall the fuel tank and reconnect the gas tank straps.



STEP TWENTY FIVE:

- Reconnect both fuel lines.
- Re secure the hose clamps.

CAUTION!

- Beware of excess fuel in the lines.
- Fuel spillage.

WARNING!

- Flammable gas.

Engine supply line

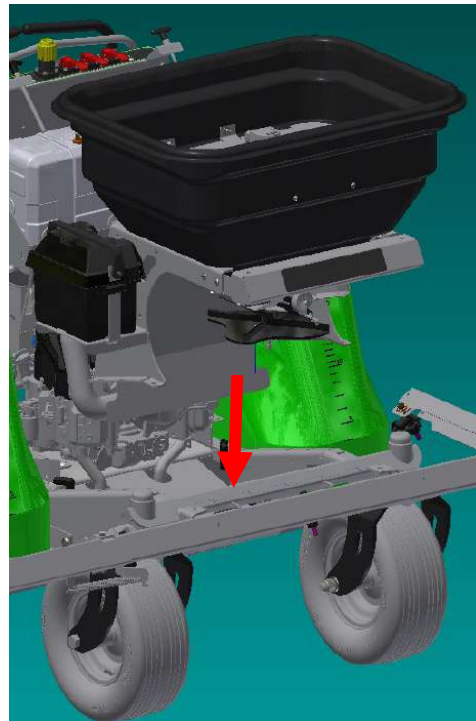
Pressure relief



ENGINE SWAP INSTRUCTIONS

NOTE: Proceed to steps twenty nine & thirty if the unit is equipped with fluid tank.

STEP TWENTY SIX: Reinstall the hopper assembly and secure it to the frame with the six bolts.



STEP TWENTY SEVEN: Reconnect the hydraulic hoses to the hopper.

NOTE: Hold the hoses up to prevent oil spillage.

Motor Input

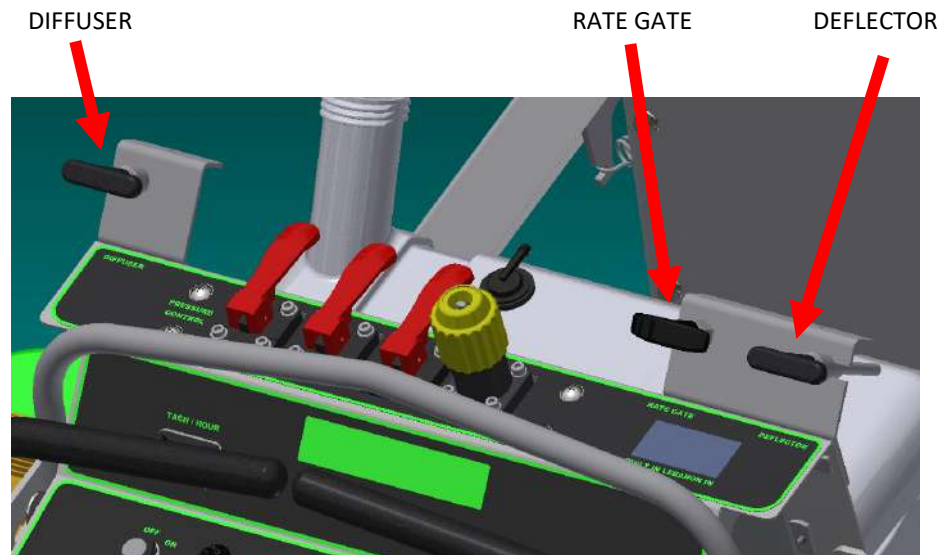
Motor Output



ENGINE SWAP INSTRUCTIONS

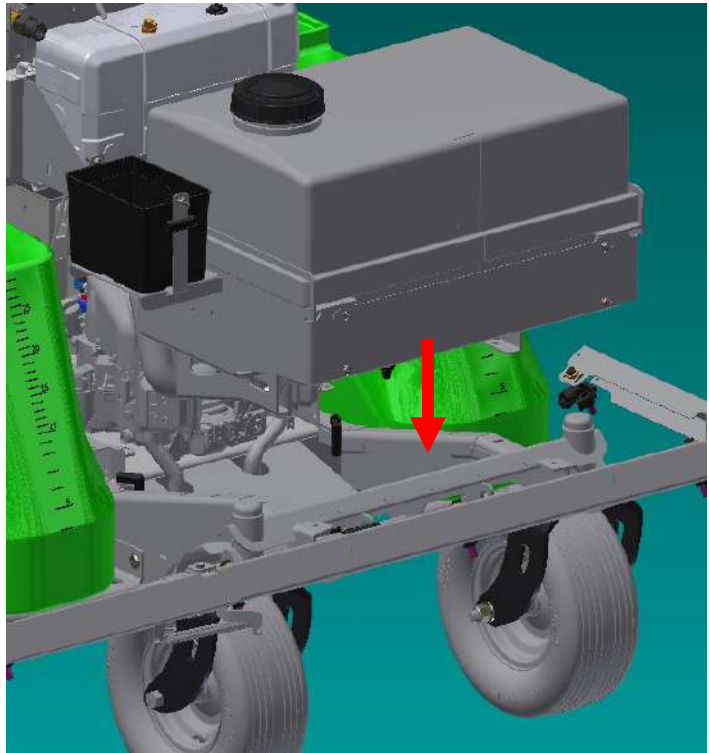
STEP TWENTY EIGHT:

- Reconnect the cables from the dash.



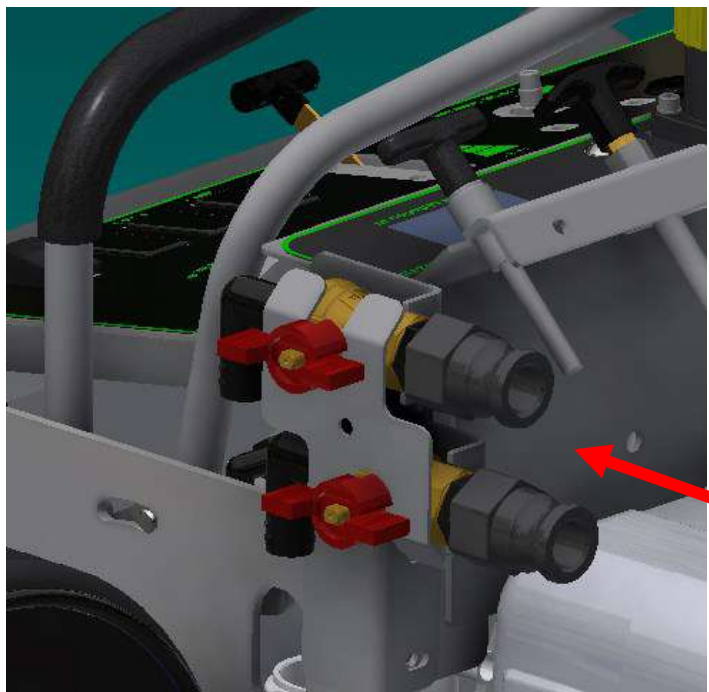
ENGINE SWAP INSTRUCTIONS

STEP TWENTY NINE: Set the 35 gallon tank on the frame and attach it with the six bolts.



STEP THIRTY: Connect the hoses to the valves.

- Top valve is ***Suction***.
- Bottom valve is ***Return***.



ENGINE SWAP INSTRUCTIONS

STEP THIRTY ONE:

- Set the battery in the battery box.
- Reconnect the battery cables, power cable and wires first followed by the ground wire.
- Attach the battery box cover and bungee strap.



GROUND

POWER



Steel Green Mfg.
824 S State Road 39
Lebanon, IN 46052
(765)-481-2890
www.steelgreenmfg.com

MANUAL PART NO.	MANUAL REV.	DESCRIPTION
SGM-018	B	ENGINE SWAP