

412 and 618 Rolling Generator Retrofit Kit

A1880401

Overview

Retrofit kit to convert 412 and 618 fusion machines with MDC00003 Baldor Pow'r Guard generator to a T1217801 412/618/T28 GFCI Generator Assembly, due to availability of the MDC00003 generator.

This kit will replace the following items; generator, muffler, muffler guard, drive belts, generator sheave and hub, engine linkage cover, choke cable, start switch panel and add a GFCI receptacle assembly.

Tools Required

- 5/8" Wrench
- 9/16" wrench
- 1/2" wrench
- 13mm wrench
- 5/8" socket
- 3/4" socket
- 1/2" socket
- 9/16" socket
- 13mm socket
- Universal joint / swivel joint socket adapter
- 3/8" drive socket wrench
- Phillips head screw driver
- Pry bar
- 18+ inch Straight edge
- 5/16" nut driver
- 3/16" Allen wrench
- Pliers

Kit Contains

Qty	Part Number	Description
1	816342	SAFETY INSTRUCTIONS MANUAL LABEL
1	816348	MOTOR ON/OFF/START/CHOKE LABEL
1	1824502	ENGINE LINKAGE COVER
1	1826001	MUFFLER GUARD BASKET WELDMENT
1	1826101	MUFFLER GUARD LEFT LEG WELDMENT
1	1826201	MUFFLER GUARD RIGHT LEG WELDMENT
1	1879802	412/618 GFCI RECEPTACLE ASSEMBLY
1	1880401	START CHOKE GFCI MOUNTING BRACKET
1	1880501	GENERATOR ADAPTER PLATE
1	8163121	MCELROY LABEL
1	8163123	MCELROY LABEL
2	MAB00003	1/4-20NC x 3/4 LG HHCS
2	MAB00004	1/4-20NC x 1 LG HHCS
4	MAB00064	3/8-16NC x 1 LG HHCS
2	MAB00065	3/8-16NC x 1-1/4 LG HHCS
4	MAB00076	3/8-16NC x 2-1/4 LG HHCS
2	MAB00099	7/16-14NC x 1-1/4 LG HHCS
1	MAB00157	5/16-24NF x 1" LG HHCS
4	MAH00109	1/4-20NC x 3/4 LG HWH TC SCREW
2	MAL00022	M5 .8 X 16 MMLG THREAD FORMING SCREW
4	MBA00005	1/4-20NC FNSH HEX NUT
10	MBA00007	3/8-16NC FNSH HEX NUT
2	MBA00008	7/16-14NC FNSH HEX NUT
1	MBA00026	5/16-24NF FINISH HEX NUT
4	MBE00005	1/4 REG SPLIT LOCK WASHER
1	MBE00006	5/16 SPLIT LOCK WASHER
10	MBE00007	3/8 REG SPLIT LOCK WASHER
2	MBE00008	7/16 REG SPLIT LOCK WASHER
2	MBF00005	1/4 TYPE 'A' WIDE FLAT WASHER

Qty	Part Number	Description
1	MBF00006	5/16 TYPE 'A' WIDE FLAT WASHER
14	MBF00007	3/8 TYPE 'A' WIDE FLAT WASHER
2	MBF00008	7/16 TYPE 'A' WIDE FLAT WASHER
4	MBG00031	1/4" FENDER WASHER
2	MCH00001	1/8 DIA. x 1 LG. COTTER PIN
1	MDA00035	CHOKE CABLE
1	MDA00037	MUFFLER
1	MDD00054	V-GROOVE SHEAVE, 3V, 2GR, 3.65 O.D., T.L.
2	MDE00010	V-BELT, 3VX-425
2	MDE00029	V-BELT, 3VX-335
1	MDI00018	#1610, 24mm, TL HUB
12"	MDL00242	EDGE TRIM
1	MJQ00260	STANDARD 8 1/2 x 11 LITERATURE COMPARTMENT
1	MLJ00071	1/2" LOOP CLAMP
4	MLN00112	BLACK CABLE TIE 11.5" X .19"
2	MLN00175	1/4 X 1/2 OD SEAL WASHER
1	T1217801	412/618/T28 GFCI GEN ASSY

Procedure: Generator Removal

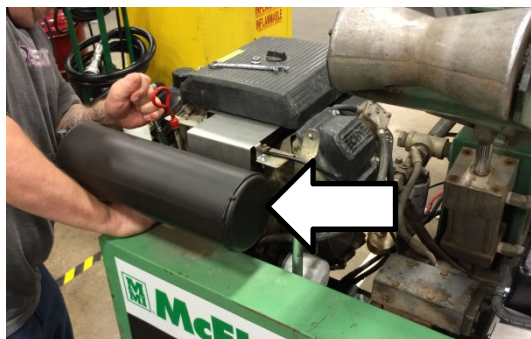
1. Turn engine off and disconnect the battery.

Remove the old muffler guard and mounting hardware.



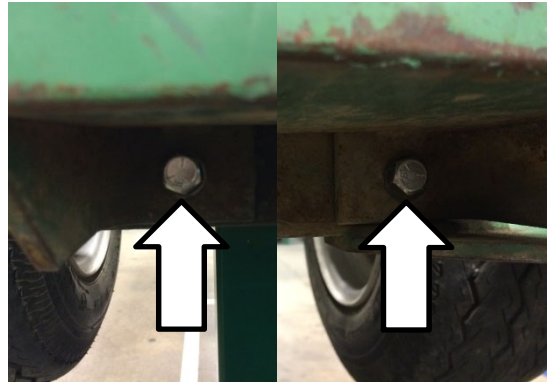
PH05299-10-30-14

2. Remove the muffler using (13mm socket/wrench)



PH05263-10-30-14

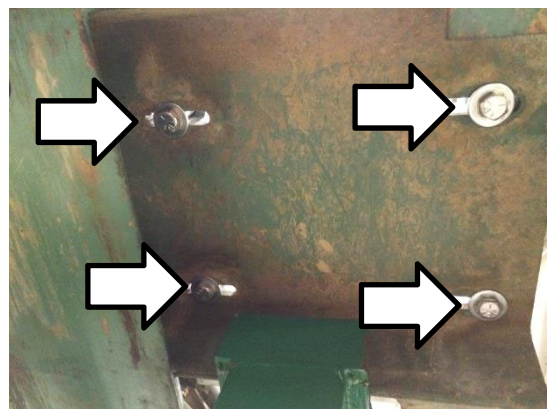
3. Remove two 3/8" bolts on the underside of the belt guard.
Remove belt guard and set aside.



PH05265-10-30-14 PH05296-10-30-14

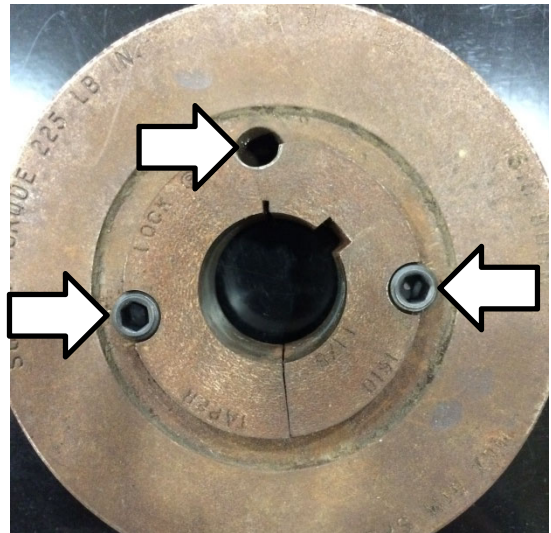
4. Slide backing plate up and remove it from the unit.
Note the orientation of the plate.

5. Loosen generator bolts (4) to release tension on belts.



PH05271-10-30-14

6. Remove the two set screws on the face of the generator pulley. (3/16" Allen wrench) Reinstall one of the set screws in the middle (3rd unused hole) on the face of the pulley. This releases the pressure on the pulley collar allowing the pulley to slide off.



7. Once the pulley is off, remove set screw.



8. Remove generator bolts (4) and remove generator from chassis.



Procedure: Generator Installation

1. Place $7/16"$ – $1\ 1/4"$ bolts (2) with washers under the adapter plate into the appropriate slots.



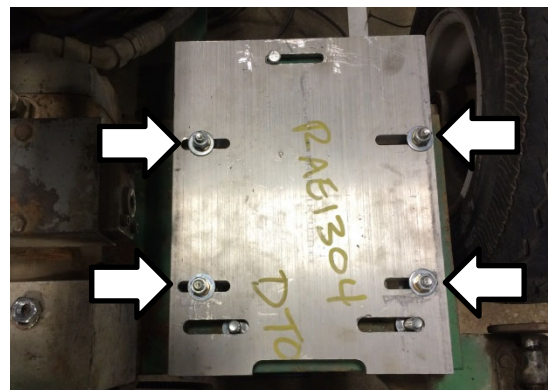
PH05268-10-30-14

2. Position adapter plate approximately $3/4"$ from the edge of the chassis, on the side nearest the tire.



PH05269-10-30-14

3. Bolt down adapter plate using $3/8"$ – $2\ 1/4"$ bolts with washers and lock washers. Note the position of the 4 mounting bolts to the outside of the plate slots.



PH05270-10-30-14

4. Remove side louver cover plates on both sides from the new generator using Phillips screw drive.



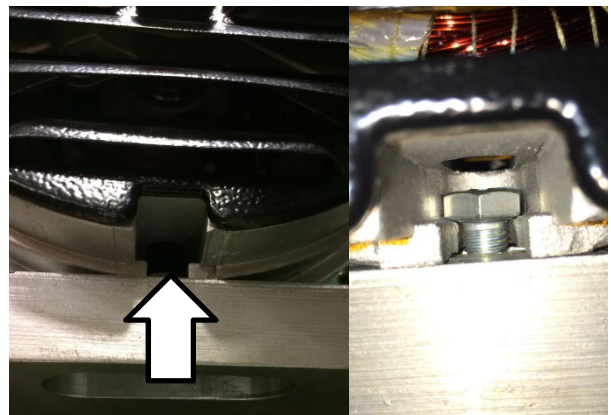
PH05279-10-30-14

5. Put the generator in place on the two front 7/16" bolts using lock washers and hex nuts. Do not tighten hex nuts at this time.



PH05273-10-30-14

6. Tilt generator from the rear and slide the 5/16" bolt head into the slot cut into the generator and lower the generator so the bolt slides into the groove. Loosely fasten with a nut, flat washer, and lock washer.



PH05298-10-30-14

PH05272-10-30-14

7. Install hub and sheave to generator, the sheave will be 1/16" past flush with the end of the generator shaft. Torque setscrews to 175 lb-in.



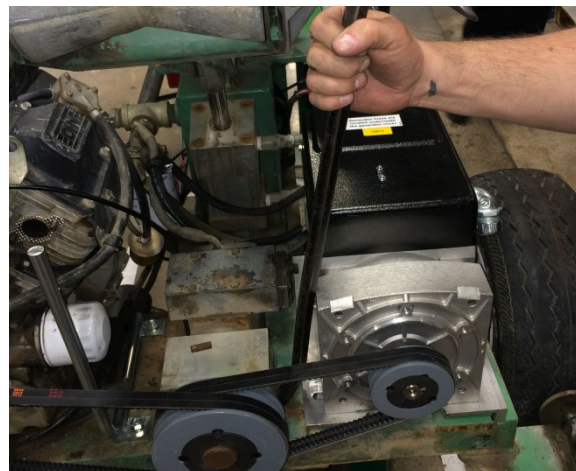
PH05266-10-30-14

8. Install belts to the new generator and engine.



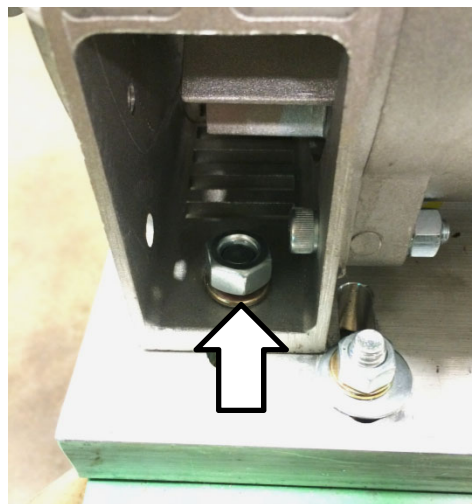
PH05274-10-30-14

9. Position a pry bar against the generator and pull to apply tension on belts.



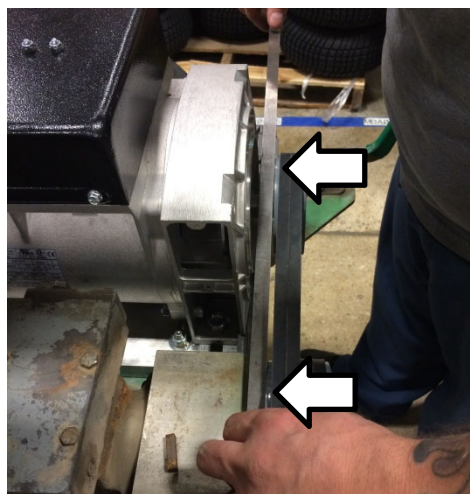
PH05275-10-30-14

10. Have an additional person tighten the generator mounting bolts (2 bolts in the front and 1 bolt at the rear) so it will hold tension on the belts.



PH05273-10-30-14

11. Use a straight edge and position it against the edge of the generator pulley and the hydraulic pump pulley. Make sure the pulley is aligned in relation to the hydraulic pump pulley.



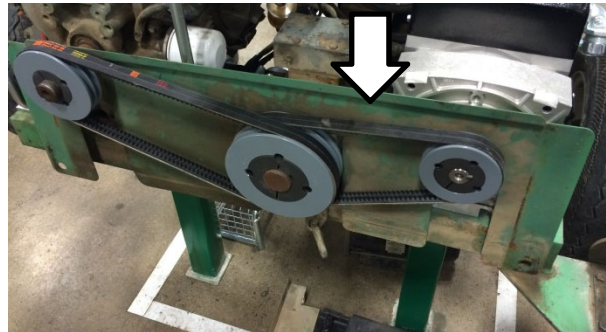
PH05276-10-30-14

12. When both pulleys are aligned properly, tighten down the 3 bolts holding the generator to the adapter plate.

412 and 618 Rolling Generator Retrofit Kit

A1880401

13. Slip the backing plate behind all 3 pulleys and position it so it is equally spaced around the 3 shafts. Ensure the backing plate is oriented the correct way. Add edge trim to bottom tabs of backing plate.



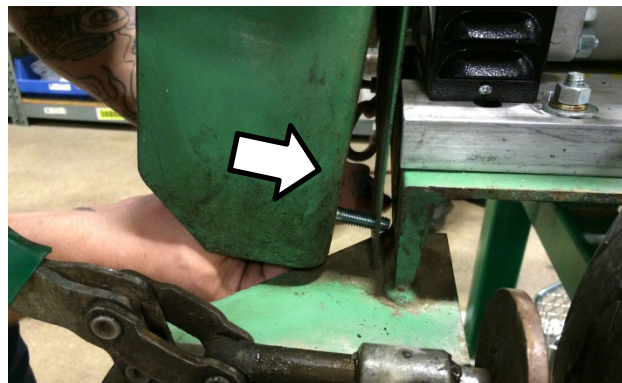
PH05280-10-30-14

14. Position machine literature compartment in its new location using $\frac{1}{4}$ - $\frac{3}{4}$ hex washer head thread cutting screws and $\frac{1}{4}$ fender washers. Place safety instructions label on literature compartment.



PH05288-10-30-14

15. Attach belt guard onto the backing plate and bolt it back to the chassis using $\frac{3}{8}$ -1 $\frac{1}{4}$ screws, lock washers, flat washers, and nuts.



PH05287-10-30-14

16. Install the new muffler.



PH05300-10-30-14

17. Install the new muffler guard and mounting hardware using $\frac{3}{8}$ -1 screws, lock washers, flat washers, and hex nuts.



PH05299-10-30-14

18. Apply new decals.



PH05290-10-30-14



PH05289-10-30-14

Procedure: Bracket Removal

1. Disconnect battery. Remove ignition switch retaining nut and push switch out from the bracket.



PH05301-10-30-14

2. Remove two 1/4" bolts holding bracket to chassis.



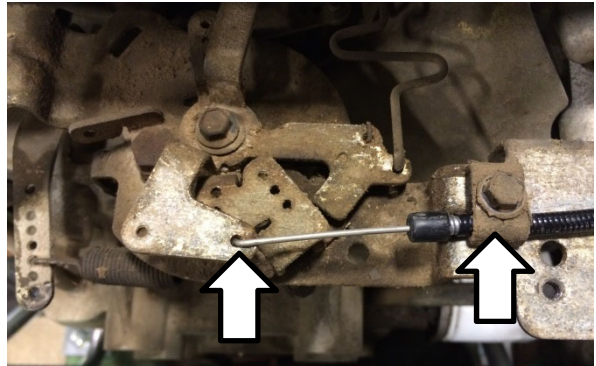
PH05277-10-30-14

3. Remove throttle/choke cover using 5/16" nut driver.



PH05291-10-30-14

4. Loosen and remove choke cable from machine.



PH05292-10-30-14

5. Remove bracket/choke cable assembly.



PH05293-10-30-14

Procedure: GFCI Bracket Installation

1. Install new bracket using the 2 new supplied 1/4" - 1 bolts, 2 washers, 2 lock washers, and 2 nuts.



PH05278-10-30-14

- Put decal on bracket.



PH05278-10-30-14

- Reinstall ignition switch.

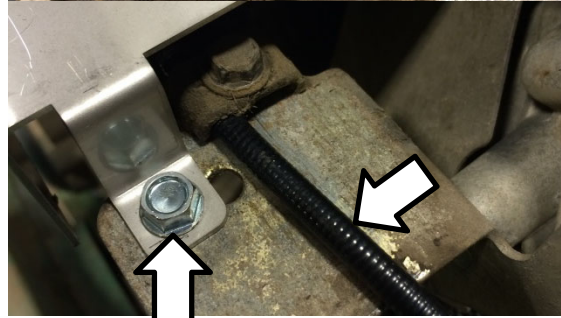


PH05295-10-30-14

- Using the new choke cable, insert the cable through the new bracket and route the cable away from any moving parts. Fasten in its original location on the engine and install the engine linkage cover using M5 screws.



PH05292-10-30-14



PH05291-10-30-14

412 and 618 Rolling Generator Retrofit Kit

A1880401

5. Using 2 supplied 1/4" - 1 bolts, seal washers, flat washers, lock washers and nuts, and install the GFCI box to the new extended bracket. Note seal washers mount inside GFCI box.



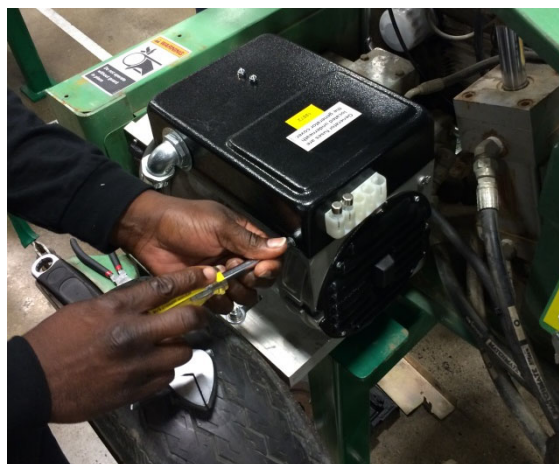
PH05294-10-30-14

6. Route power cable away from moving parts.



PH05297-10-30-14

7. Remove generator cover using 5/16" nut driver.



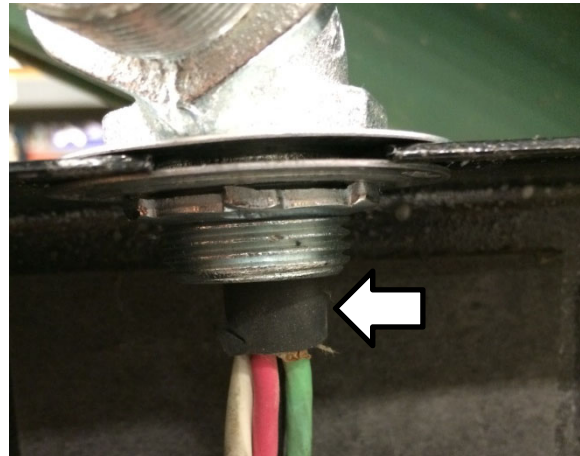
PH05264-10-30-14

8. Remove 90° elbow retaining nut, black plastic washer and rubber stopper and push them over the large power wire from the GFCI box about 4 inches back.



PH05281-10-30-14

9. Push wire through 90° elbow until 1/2" of black insulation is showing and reinstall retaining nut, washer and rubber stopper.

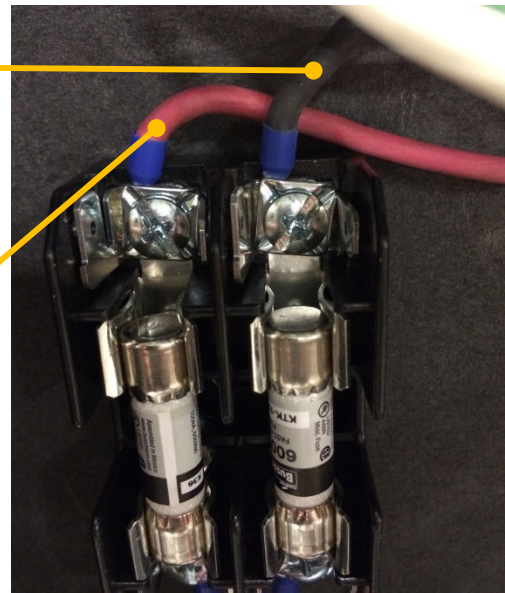


PH05282-10-30-14

10. Using a Phillips screw driver, connect black wire to the black wire side of the fuse block on the generator cover. Connect the red wire to the red wire side of the fuse block on the generator cover.

Black Wire

Red Wire

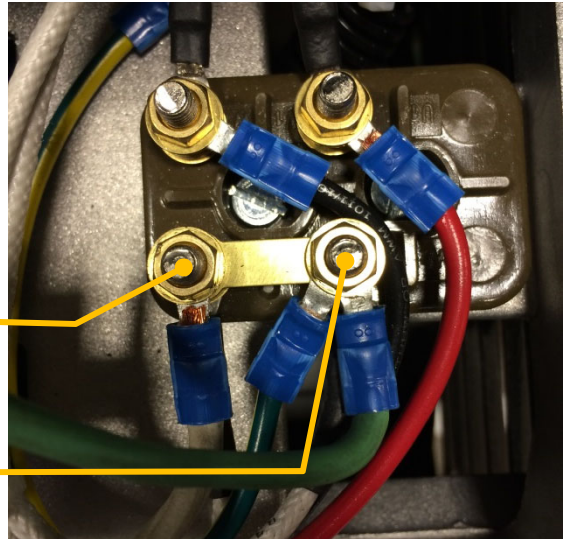


PH05283-10-30-14

11. Use a 5/16" nut driver to remove the retaining nut and install the green wire to the terminal with the other green wire.
Install the white wire to the other terminal with the white wire.

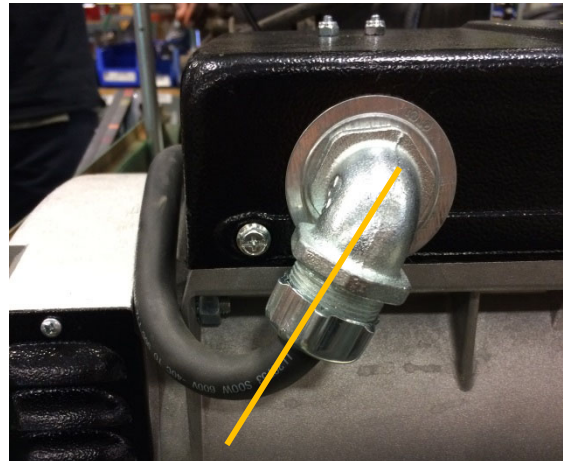
White Wire

Green Wire



PH05284-10-30-14

12. Tie back wires and reinstall generator cover with 90° elbow clocked to the 7 o'clock position.



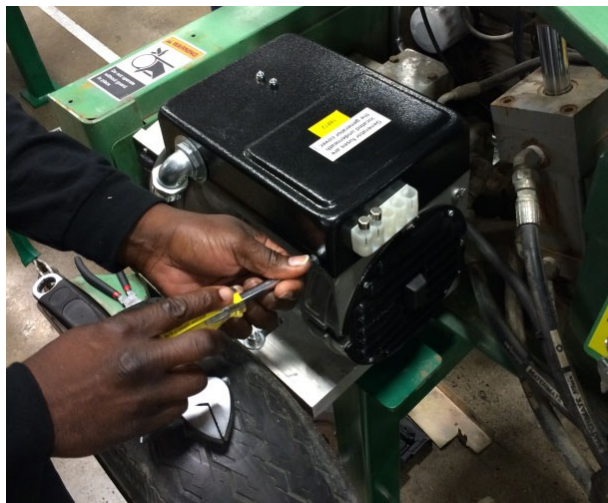
PH05285-10-30-14

13. Route the wire around the generator and install 1/2" loop clamp using a generator cover screw. Use plastic cable ties to secure wire in place.



PH05286-10-30-14

14. Reinstall generator cover.



PH05264-10-30-14

Adjust Generator Output Voltage

1. **DANGER**
PELIGRO
ОПАСНОСТЬ

All electrical equipment and power sources must be located in a nonexplosive atmosphere. Failure to do so can result in serious injury or death.

Reconnect the Battery.

Open facer valve and disconnect heater before starting engine. Pull choke control out and turn ignition key to start engine. Release key when engine starts. Gradually push choke control in as engine starts and warms up.

2. Remove engine linkage cover to gain access to throttle adjusting screw. Verify receptacles have proper voltages. Reinstall the engine linkage cover.



PH05345-02-18-15

3. Test GFCI per label instructions attached to the front of the GFCI assembly. Verify voltage is removed from receptacles. Reset GFCI per instructions. Verify the receptacles again have the proper voltages.



PH05294-10-30-14

INSTRUCTION SHEET REVISION HISTORY LISTING

PART NO: 188040101

DESCRIPTION: 412 AND 618 ROLLING GENERATOR RETROFIT KIT

ORIGINATOR: BEA **CHECK:** SRB **APPRV'D:** JAL **RELEASED:** 2/26/15

<u>CHK/APR</u>	<u>REV</u>	<u>DATE</u>	<u>BY</u>	<u>DESCRIPTION OF REVISION</u>
BEA/BWJ	A	02/10/22	BEA	CHANGED GFCI RECEPTACLE ASSEMBLY FROM 1879801 TO 1879802 DUE TO OBSOLESCENCE.