



EGC1500C2/EGC1250C2

Fan Replacement

The following instructions are intended to assist the user in the fan replacement on the EGC1500C2 /EGC1250C2 containerized generators affected by Service Bulletin GSP20110126. Please read all instructions before installing the fan.

REQUIRED TOOLS

- 2- Way Water Pump
- Air Ratchet
- Flat blade screwdriver
- Jigsaw
- Reciprocating Saw
- Vacuum (Shop Vac)
- Torque Wrench
- 1/2-13 Tap
- Fork Lift
- Lifting Chain
- Lifting Strap

MATERIALS NEEDED

- 150-gallon Container
- Buckets
- Rags
- Square Pieces of Plywood
- 2 x 4 Piece of Wood
- Step Stool
- Portable Lighting
- Protective Glasses
- Blue Loctite
- 12-inch Tie Wraps
- Teflon Tape
- Work Gloves/Pads

PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1.

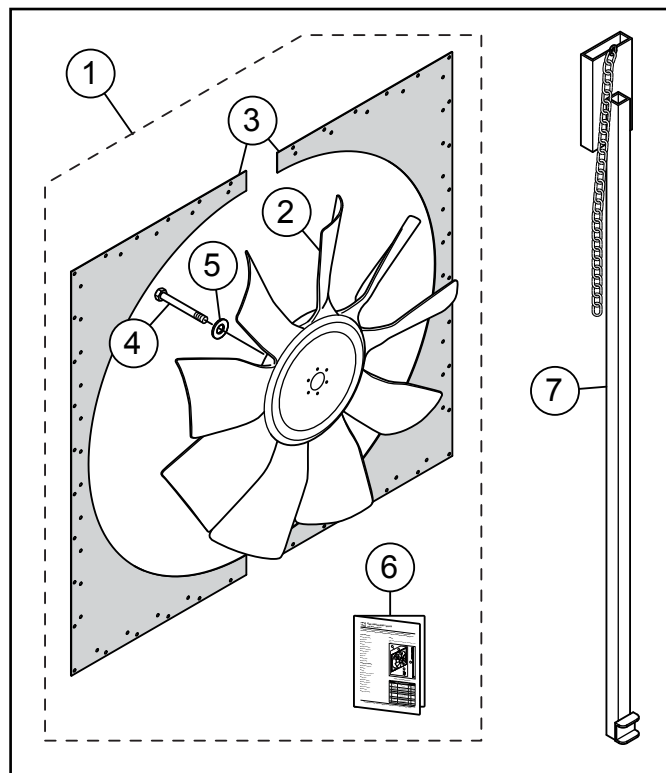


Figure 1. Fan Replacement Kit

Table 1. Fan Replacement Parts

Item No.	Part No.	Description	QTY.	Remarks
1	EE55730	Kit, Fan Replacement	1	Includes items 2-6
2	EE55375	Fan, 60 in.	1	
3	EE55376	Shroud, Left and Right	1	
4		Bolt, 1/2-13 x 7", Hex Head, Zinc Plated, Gr. 8.	6	
5		Washer, Flat, 1/2", Gr. 8.	6	
6	55738	Instructions, EGC1500C2 Fan Replacement	1	
7	EE55744	Fork Extension Tool	1	

WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

PREPARATION

1. Make sure generator is turned off and the engine is cool.
2. Turn off the battery ON/OFF switch. See Figure 2.

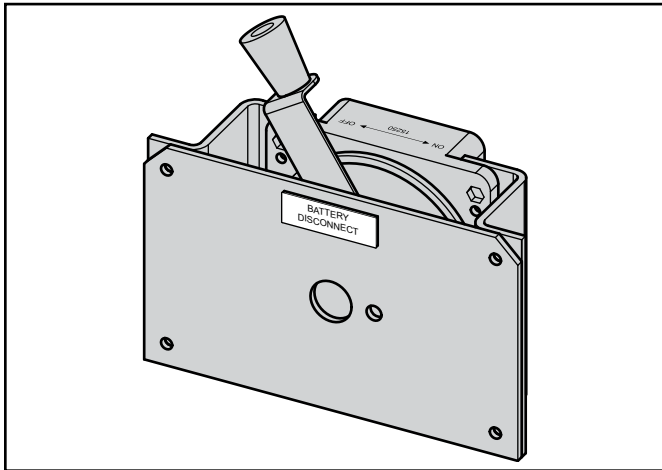


Figure 2. Battery ON/OFF Switch

3. Bring enough lighting inside the containerized generator from an external power source in order to perform installation safely.
4. Remove the radiator cap.
5. Using a pump, drain the coolant from the water drain outlet into a clean container which can hold approximately 150 gallons. The coolant will be reused. See Figure 3.

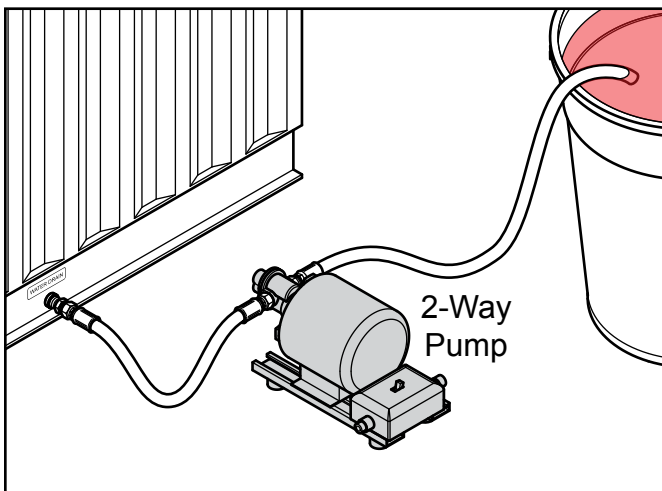


Figure 3. Draining Coolant

NOTICE

It is preferable to drain overnight to make sure that most of the coolant is drained before fan replacement procedure is started. This will prevent or reduce spills of excess coolant during the procedure.

6. Cut off tie wraps holding blue hoses against the radiator lines and disconnect blue hoses from radiator. See Figure 4.
7. Loosen radiator line clamps with air ratchet and watch out for coolant coming out of the lines. Have bucket and rags ready to catch spills. Loosen wraps with a screwdriver to get out any excess coolant. Wiggle each end until they become loose and remove. Repeat for the other 2 radiator lines. See Figure 4.

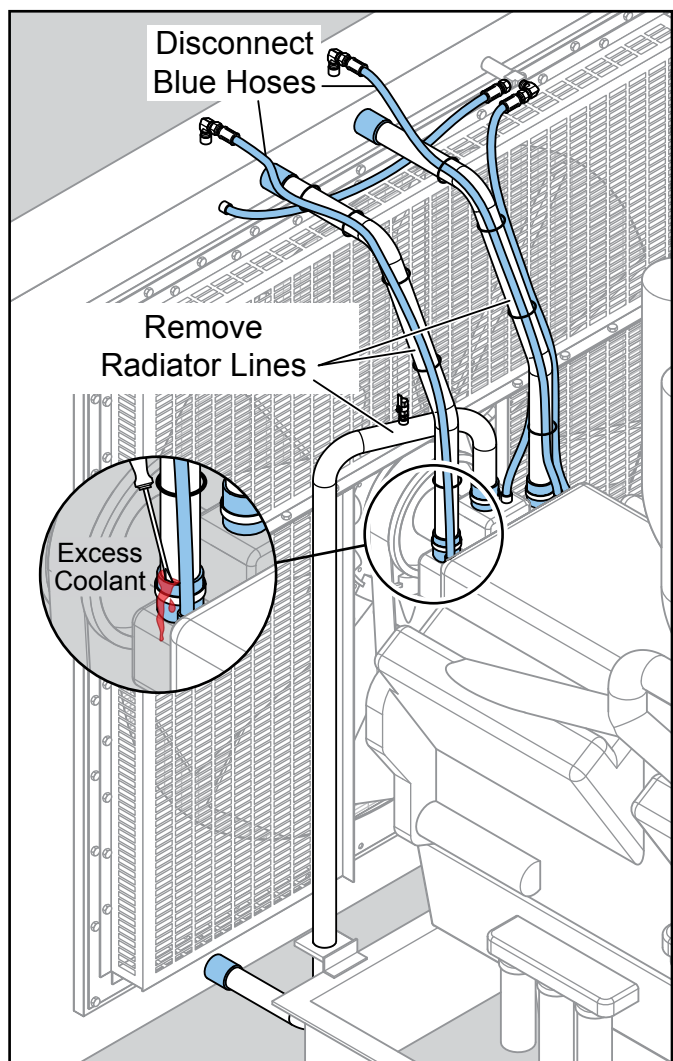


Figure 4. Removing Radiator Lines

8. Remove the mounting hardware holding the three grills in place then remove grills (one on each side and one on top) covering the fan. See Figure 5.

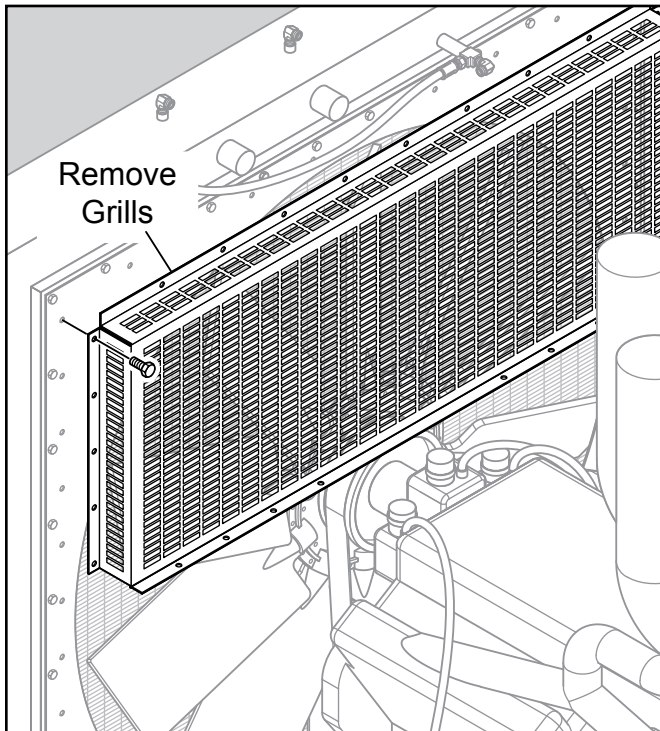


Figure 5. Removing Fan Grills

9. Remove the crankcase ventilation filter and ventilation hose on the right side of the container to make room to remove the shroud from the container generator. See Figure 6.

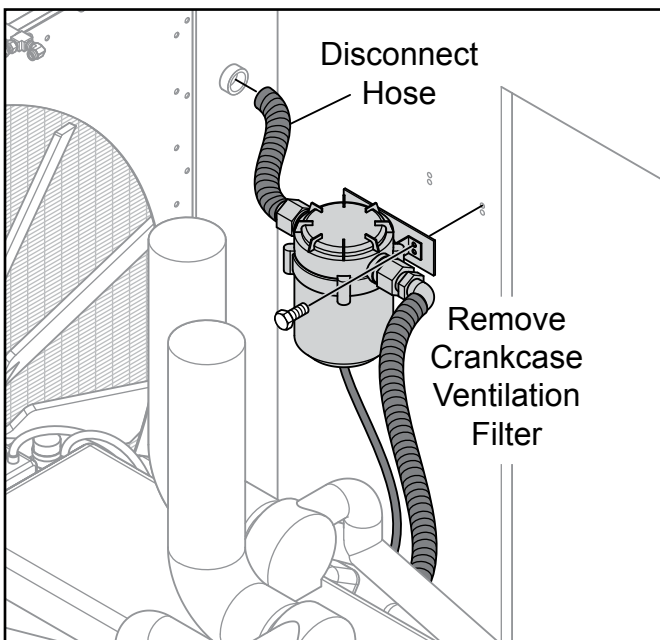


Figure 6. Crankcase Ventilation Filter Removal

FAN REMOVAL

NOTICE

The radiator fins can be easily damaged if the fan or shroud hit it while they are being installed. Because of the limited space to move parts around, utmost care should be taken when removing and installing the fan and shroud so that they do not hit the radiator fins. Use pieces of plywood (Figure 8) to temporarily protect the radiator fins during the removal and installation.

1. Cut the top blades of the fan with a reciprocating saw as close to the hub as possible to facilitate the removal of the fan. The three lower blades can be left on. See Figure 7.

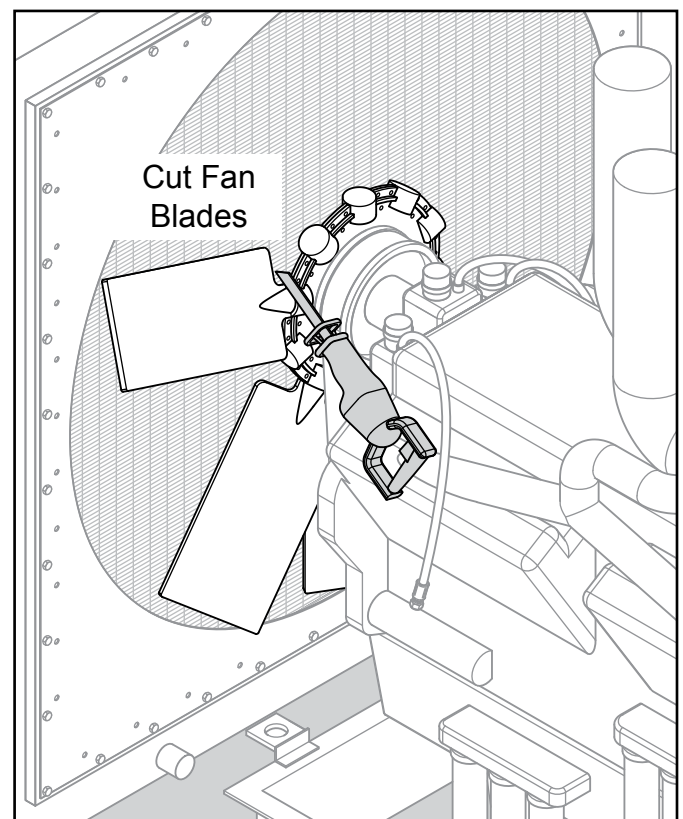


Figure 7. Cutting the Fan Blades

2. Remove the 6 bolts holding the fan hub in place then remove the 2 spacers (3-inch and 1-inch) behind the fan. The spacers will be reused but the bolts will be replaced in the installation of the new fan. See Figure 8.

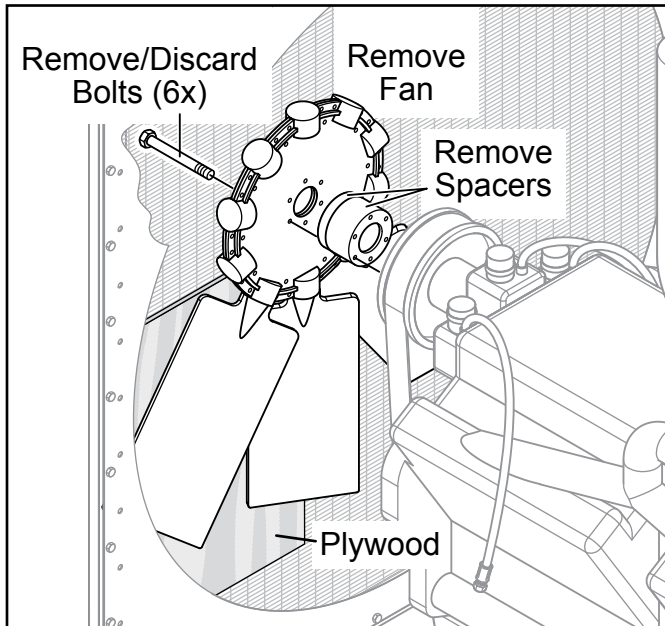


Figure 8. Removing the Fan

3. Carefully move the fan out of the container generator making sure that it does not hit the radiator fins.

SHROUD REMOVAL

1. Remove the mounting hardware securing the shroud to the frame at the top and bottom. Set hardware aside as it will be used in the new shroud installation. See Figure 9.
2. Cut the shroud into 2 pieces with a jigsaw at the top and bottom center. Make sure there is enough distance between the shroud and the radiator fins while cutting to prevent hitting the radiator fins with the saw. A piece of wood (2 x 4) can be lodged between the radiator fins and the shroud to create space between them. See Figure 9.
3. Remove the remaining mounting hardware securing the shroud to the frame.

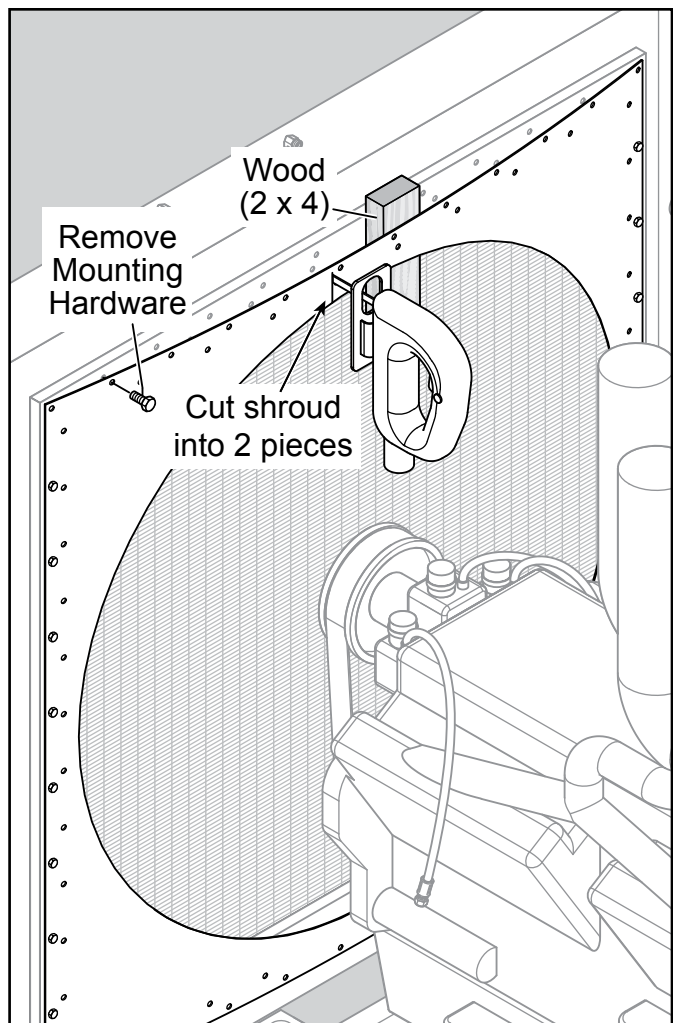


Figure 9. Shroud Removal

4. Carefully remove the shroud from the container making sure that the radiator fins are not hit. Each piece can be removed from the door closest to it.
5. After removing the shrouds, use a vacuum (shop vac) to remove all shavings from radiator fins and the floor.
6. Inspect for any leftover coolant spills and wet spots and clean with dry rags.

FAN INSTALLATION

1. Run a ½-13 tap on the six threaded holes on the upper pulley to remove any Loctite residue.
2. Place pieces of plywood to cover radiator fins to prevent the fan from hitting it.
3. Lift the new 60-inch fan into the container and set it down just inside the left door. Three persons may be needed to lift the fan. Work gloves or pads should be worn or used when lifting to prevent injury to the hands.

NOTICE

Make sure that the fan is brought in with the proper orientation so that the concave side of the blades will be facing the radiator fins when installed.

4. Install the fork extension tool to the fork lift at least midway through the fork. Install a lifting chain or strap to the fan and hang the chain on the cradle of the fork extension tool. See Figure 10.

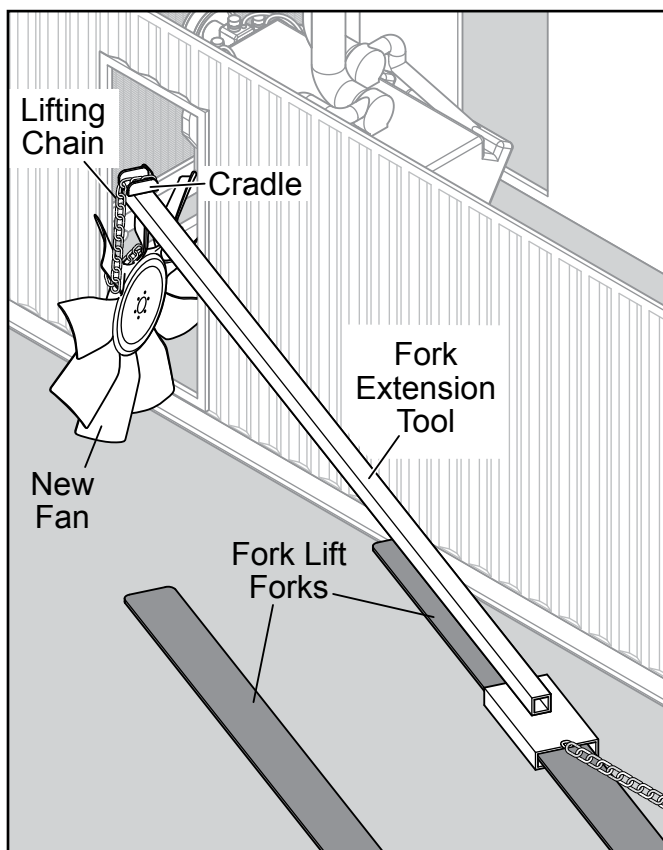


Figure 10. Installing Fan on the Fork Extension

5. The fork lift needs to be at an angle from the door in order to get the correct positioning. See Figure 10.
6. Set down the fan carefully in front of the upper pulley.

Make sure it does not touch the radiator fins.

7. Have the two fan spacers ready and close to the upper pulley.
8. Install the lifting chain on the fan again and secure the chain to the fork extension tool cradle. The distance from the top of the uppermost blade to the fork extension tool should be approximately 8 inches (Figure 11) so that the fan can be properly positioned and aligned in front of the upper pulley.

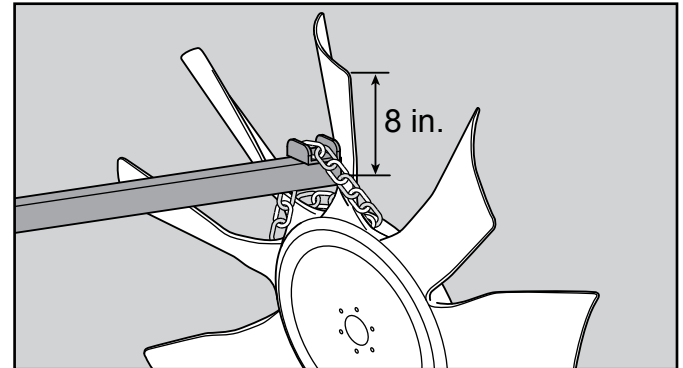


Figure 11. Reinstalling Lifting Chain

9. Lift the fan with the fork lift. Make sure that the six bolt holes on the fan are aligned with the holes on the upper pulley.
10. When fan is in proper position, hold the spacers between the upper pulley and the fan.
11. Manually install the six new 7-inch bolts and washers through the holes on the fan and through the holes on the two spacers. See Figure 12.

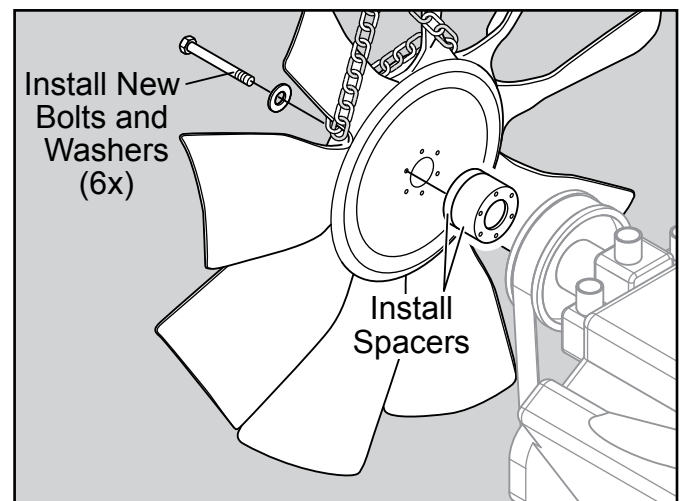


Figure 12. Installing Fan Bolts

12. Apply blue Loctite to the end of the bolt threads sticking out from the spacers.

13. Using an air ratchet, install and tighten the bolts to the upper pulley in a star sequence. See Figure 13.

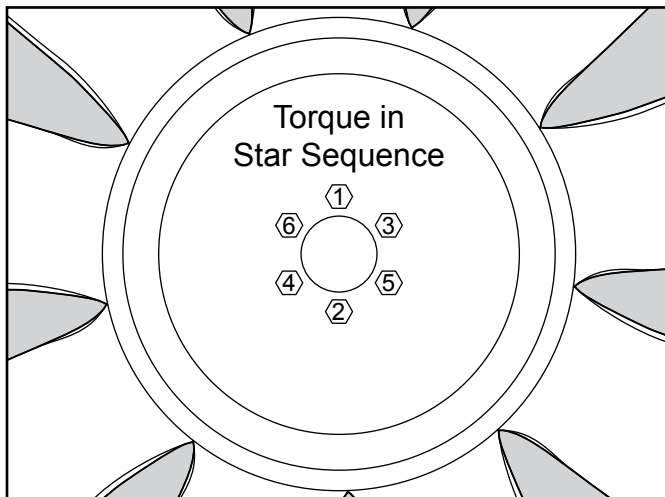


Figure 13. Tightening the Bolts

14. Using a torque wrench, tighten the bolts one final time with a torque of 90 ft-lbs (122 N·m) in a star sequence.

SHROUD INSTALLATION

Refer to Figure 14.

1. Place pieces of plywood to protect radiator fins.
2. Slowly bring in the new right side shroud (the bumps on the shroud should be facing the radiator fins) through the right door. Carefully remove the plywood then secure with the same mounting hardware that was removed from the old shroud.
3. Perform the same steps on the left side shroud from the left side door.

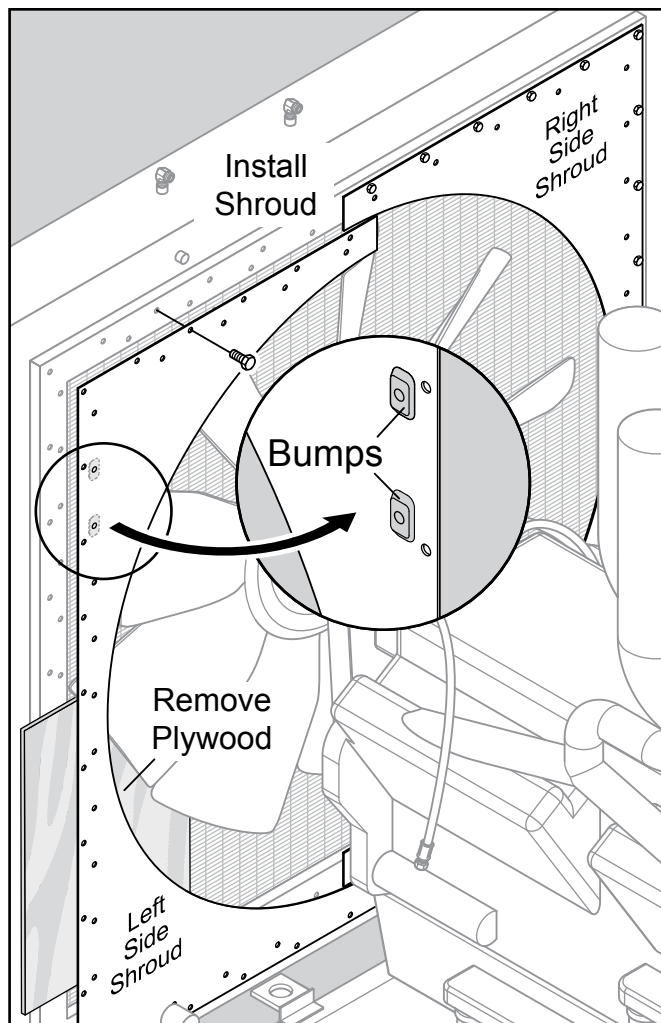


Figure 14. Installing Shroud

REASSEMBLY

1. Reinstall the ventilation hose and crankcase ventilation filter.
2. Reinstall the three fan grills.
3. Reinstall the three radiator lines, the blue hoses, and secure with tie wraps.
4. Pump coolant back into the container through the water drain. The two-way pump has a switch to direct the coolant back into the container. When all of the coolant is in, close the water drain plug. Apply some Teflon tape on the plug for a tight seal.
5. While coolant is being pumped back in, check the radiator lines to make sure that they were tightly reinstalled and that no coolant is leaking from them.
6. When no more coolant can be added, open the air relief valve switch on the main radiator line to let the trapped air out (Figure 15). A little coolant may come out with the air. Close the air relief valve.

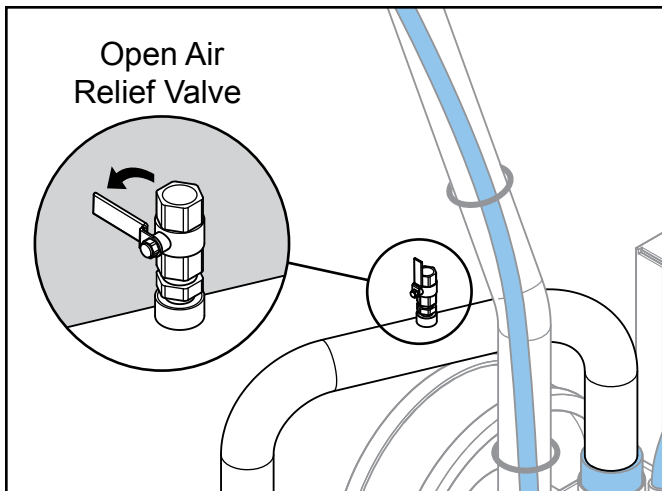


Figure 15. Air Relief Valve

7. Pump back more coolant until radiator is full.
8. Replace radiator cap.

TEST RUN

1. When everything is reinstalled properly, run the generator and visually observe that the new fan is working smoothly and is not wobbly or vibrating.



EGC1500C2/EGC1250C2

Fuel Return Modification

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

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Technical Assistance

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MQ Parts Department

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