

SERVICE BULLETIN

ISSUE DATE: **8/93** MODEL: **Standby**
REVISION DATE:

SUBJECT: **Fan Alignment** NO.: **524**

Radiator Fan Alignment Procedure for 200-1000 kW Generator Sets

This service bulletin was created to inform generator set installation technicians that it may be necessary to adjust the radiator's position on the skid to allow for proper fan clearances.

Due to shipping and handling, the radiator fan may have become misaligned with the fan shroud. Improper alignment may cause the fan blades to scrape against the shroud, resulting in premature part failure and possible injury or death.

This procedure should be performed before adding coolant to the radiator.



Accidental starting.

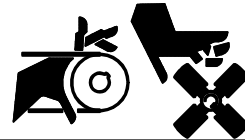
Can cause severe injury or death.

Disconnect battery cables before working on generator set (negative lead first and reconnect it last).

Accidental starting can cause severe injury or death.

Turn generator master switch to OFF position, disconnect power to battery charger, and remove battery cables (remove negative lead first and reconnect it last) to disable generator set before working on any equipment connected to generator. The generator set can be started by automatic transfer switch or remote start/stop switch unless these precautions are followed.

⚠ WARNING



Rotating parts.

Can cause severe injury or death.

Do not operate generator set without all guards, screens, or covers in place.

Exposed moving parts can cause severe injury or death. Keep hands, feet, hair, and clothing away from belts and pulleys when unit is running. Replace guards, covers, and screens before operating generator set.

⚠ WARNING

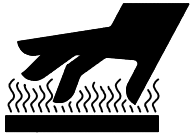


Hot coolant and steam.


Can cause severe injury or death.

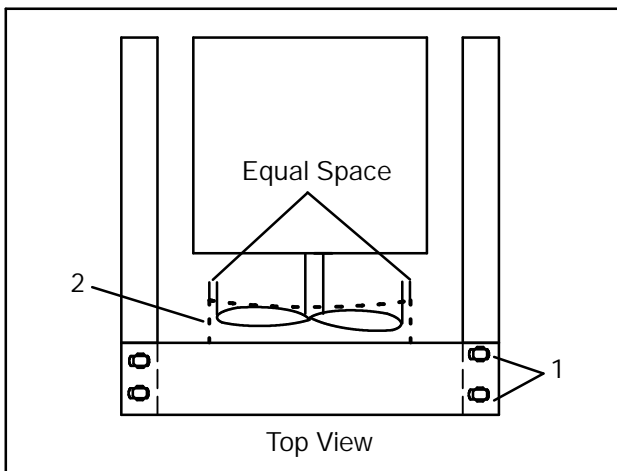
Before removing pressure cap stop generator, allow to cool and loosen pressure cap to relieve pressure.

Hot coolant can cause severe injury or death. Allow engine to cool and release pressure from cooling system before opening pressure cap. To release pressure, cover the pressure cap with a thick cloth then turn it slowly counterclockwise to the first stop. After pressure has been completely released and the engine has cooled, remove cap. If generator set is equipped with a coolant recovery tank, check coolant level at tank.

⚠ WARNING

<p>Hot engine and exhaust system. Can cause severe injury or death.</p> <p>Do not work on generator set until unit is allowed to cool.</p>

Hot parts can cause severe injury or death. Do not touch hot engine parts. An engine gets hot while running and exhaust system components get extremely hot.

⚠ WARNING

<p>Unbalanced weight. Improper lift can cause severe injury, death, or equipment damage.</p> <p>Do not use lifting eyes. Use lifting bars thru holes in skid to lift set.</p>



1. Radiator Bolts
2. Fan Shroud

Figure 1. Proper Fan Shroud Alignment

1. Disconnect the battery, negative lead first, before beginning the following procedure.
2. Check the alignment between the fan and its shroud. The fan should have an equal clearance of at least 1/8 in. on both sides of the shroud. If the alignment is unequal, go to step three. See Figure 1.

3. To provide proper alignment, it will be necessary to loosen the radiator mounting bolts. Refer to the radiator illustrations (Figures 2-4) for the proper bolts to loosen on each radiator model.

NOTE

Do not loosen the radiator strut.

4. Carefully slide the radiator until there is an equal distance between the fan and shroud. Refer to Figure 1 for proper alignment.

NOTE

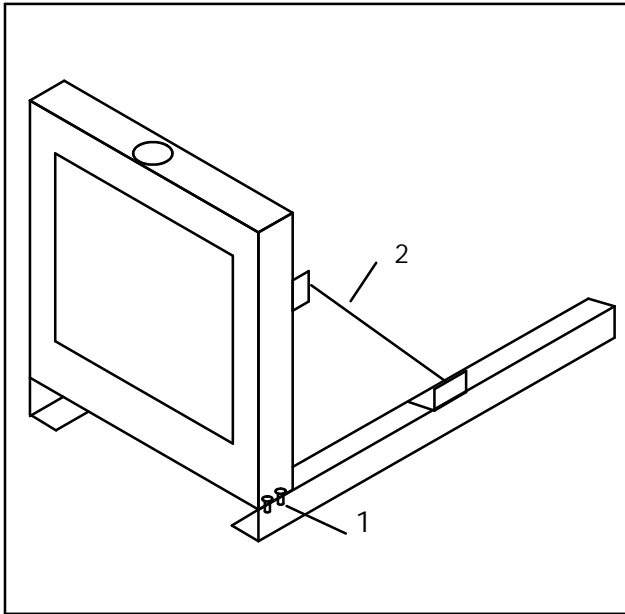
Adjust the radiator for uniform clearance between the fan and the shroud. **Do not damage radiator core when moving the radiator.**

5. Retighten the radiator mounting bolts by torquing 5/8 in. hardware to 180 ft. lbs. and 3/4 in. hardware to 245 ft. lbs.

NOTE

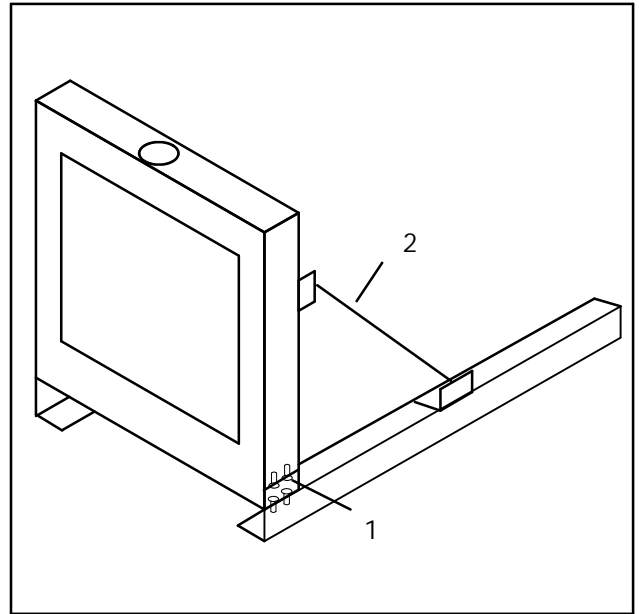
Refer to the installation instruction provided with the radiator kit when performing the following steps.

6. Be sure all radiator hose connections and petcocks are properly tightened.
7. Fill the radiator with coolant. Refer to the generator set operation or service manual for manufacturer's recommended coolant mixture.
8. Properly install all belt guards; then reconnect the battery negative lead last.
9. Start the generator set. If any contact between the fan and the shroud is noticed, immediately stop the generator and realign the radiator.



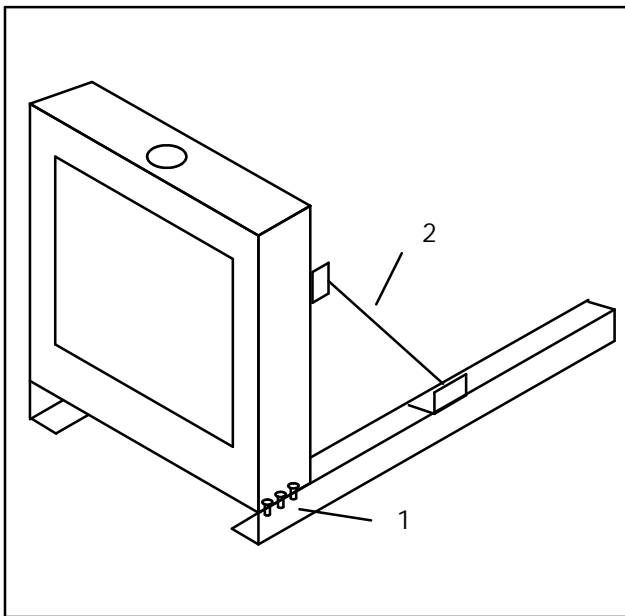
- 1. Radiator Bolts
- 2. Radiator Strut

Figure 2. 230-300 kW (6V-92TA engine) and 900-1000 kW (12V-149TI engine)



- 1. Only Loosen Top Radiator Bolts
- 2. Radiator Strut

Figure 4. 350-400 kW (8V-92TA engine)



- 1. Radiator Bolts
- 2. Radiator Strut

Figure 3. 450 kW (12V-71TA engine), 500-600 kW (12V-92TA engine), and 750-800 kW (16V-92TA engine)

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