

INSTALLATION INSTRUCTIONS

Original Issue Date: 3/00

Model: 20-40ROZK and 20-40ROZS

Market: Industrial

Subject: Ether Starting Aid Kit GM11404-KP1

Introduction

The Ether Starting Aid Kit automatically injects ether directly into the intake manifold making starting easier when outside temperatures are below 4°C (40°F).

The ether cylinder and valve gasket are not supplied with this kit. Use an 18 oz. (approx. 80 cold starts) or a 21 oz. (approx. 90 cold starts) DOT39NRC starting system fluid cylinder with a 25 mm (1 in.) neck only. Follow the manufacturer's installation instructions and safety precautions included with the ether starting fluid cylinder.

Read the entire installation procedure and compare the kit parts with the parts list at the end of this publication before beginning installation. Perform the steps in the order shown.

See Figure 1 for the installed kit illustration.

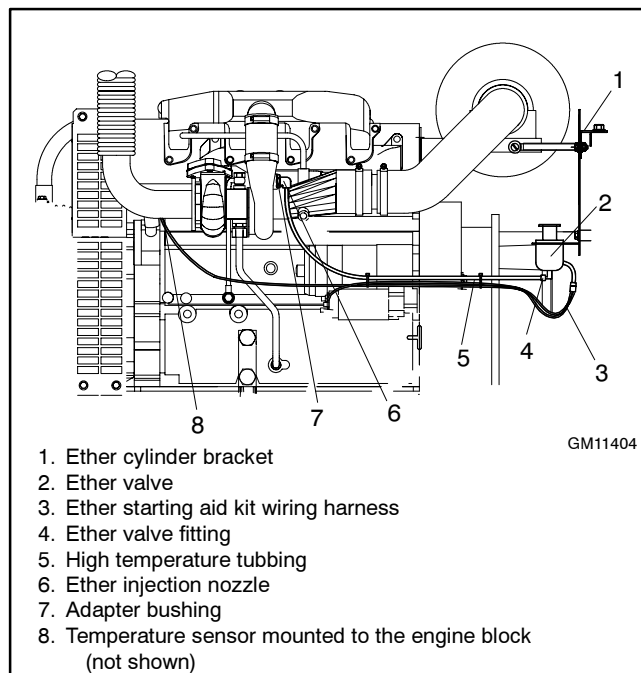
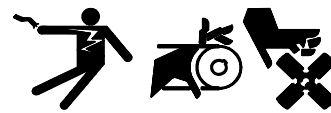


Figure 1 Ether Starting Aid Kit

Safety Precautions

Observe the following safety precautions while installing the kit.

⚠ WARNING



Accidental starting.
Can cause severe injury or death.

Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.

Disabling the generator set. Accidental starting can cause severe injury or death. Before working on the generator set or connected equipment, disable the generator set as follows: (1) Move the generator set master switch to the OFF position. (2) Disconnect the power to the battery charger. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent starting of the generator set by an automatic transfer switch, remote start/stop switch, or engine start command from a remote computer.

Installation All Models

1. Place the generator set master switch in the OFF position.
2. Disconnect the power to the battery charger, if equipped.
3. Disconnect the generator set engine starting battery(ies), negative (-) lead first.
4. Proceed with installation using the following instructions based on your generator model.

20/30ROZK and 20/27ROZS

1. Remove the pipe plug from the intake manifold closest to the air cleaner. See Figure 2.
2. Install the adapter bushing and ether injection nozzle into the intake manifold with the spray tip facing the oncoming air flow (toward the air cleaner). Proceed to step 3 under 40ROZK/ROZS.

40ROZK/ROZS

1. Remove the pipe plug from the pressure side of the turbo charger. See Figure 2.
2. Install the adapter bushing and ether injection nozzle into the pressure side of the turbocharger with the spray tip facing the oncoming air.
3. Mount the cylinder bracket to the generator housing. See Figure 3, View A-A and B-B.
4. Install the fitting into the ether valve finger tight, then tighten an additional one to two turns. See Figure 2 for location.
5. Connect the white lead from the ether valve to the starter solenoid as shown in Figure 3, View C-C.
6. Mount the temperature sensor to the engine block as shown in Figure 3, View D-D.
7. Route the high temperature tubing and connect the tubing to the ether injection nozzle and the ether solenoid as shown in Figure 3.
8. Secure the ether starting aid kit leads to the high temperature tubing with the cable ties.

9. Clean and dry the surface of the controller cover and attach the cold starting decal to the cover. See Figure 3.
10. Clean and dry the surface of the junction box cover and attach decal GM13809 to the cover. See Figure 3.
11. Clean and dry the surface of the air filter cover and attach the air filter label to the cover. See Figure 3.
12. Reconnect the generator set engine starting battery, negative (-) lead last.
13. Reconnect the power to the battery charger, if equipped.

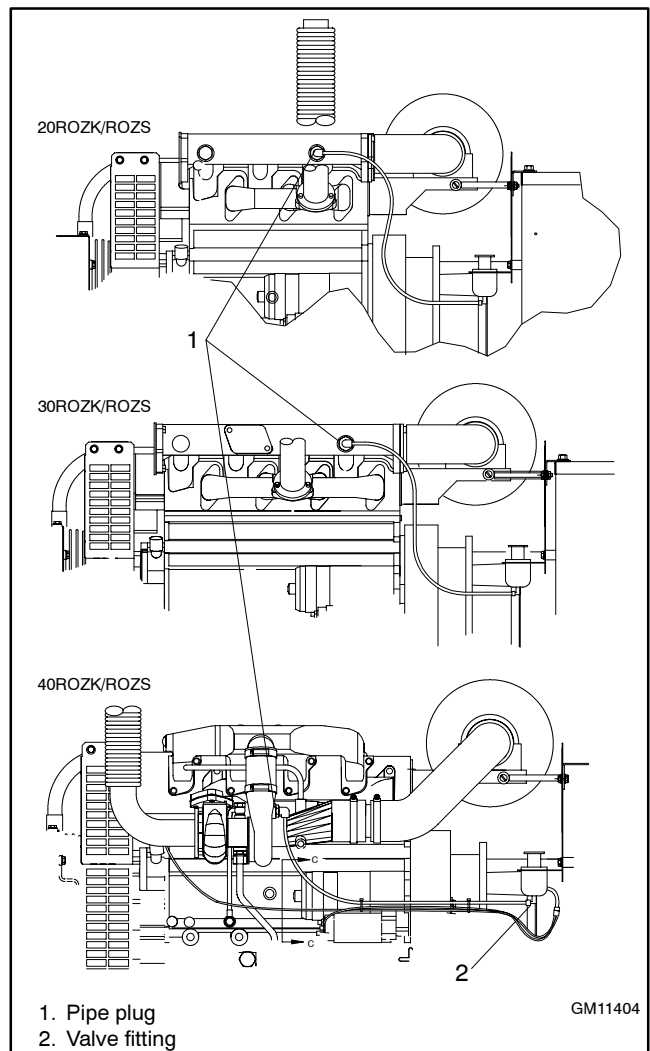


Figure 2 Pipe plug location

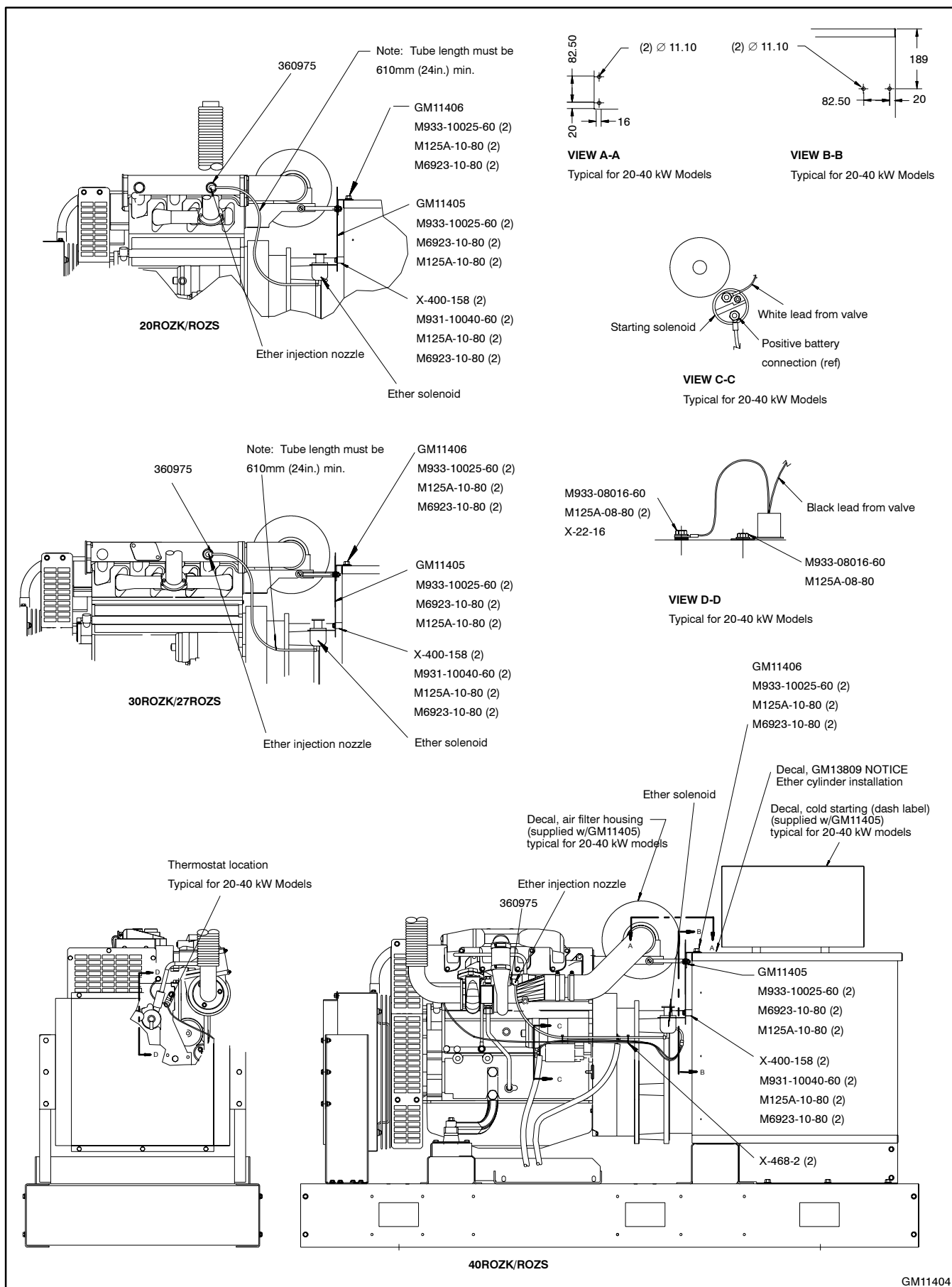


Figure 3 Ether Starting Aid Kit

Parts Lists

Ether Starting Aid Kit

Parts List		
Kit: GM11404-KP1		
Qty.	Description	Part Number
1	Adapter, bushing	360975
1	Starting aid (ether) kit	GM11405
1	Bracket	GM11406
3	Washer, plain #8	M125A-08-80
6	Washer, plain #10	M125A-10-80
6	Nut, hex 10 mm	M6923-10-80
4	Screw, hex cap 10 x 25 mm	M933-10025-60
2	Screw, hex cap 10 x 40 mm	M931-10040-60
2	Screw, hex cap 8 x 16 mm	M933-08016-60
1	Washer, lock	X-22-16
2	Spacer, .437 ID x .75 OD x .658 in.	X-400-158
2	Cable tie	X-468-2
1	Decal, NOTICE ether cyl. installation	GM13809