

**CASE 586/588G SERIES 3
FORKLIFT
INSTALLATION INSTRUCTIONS**

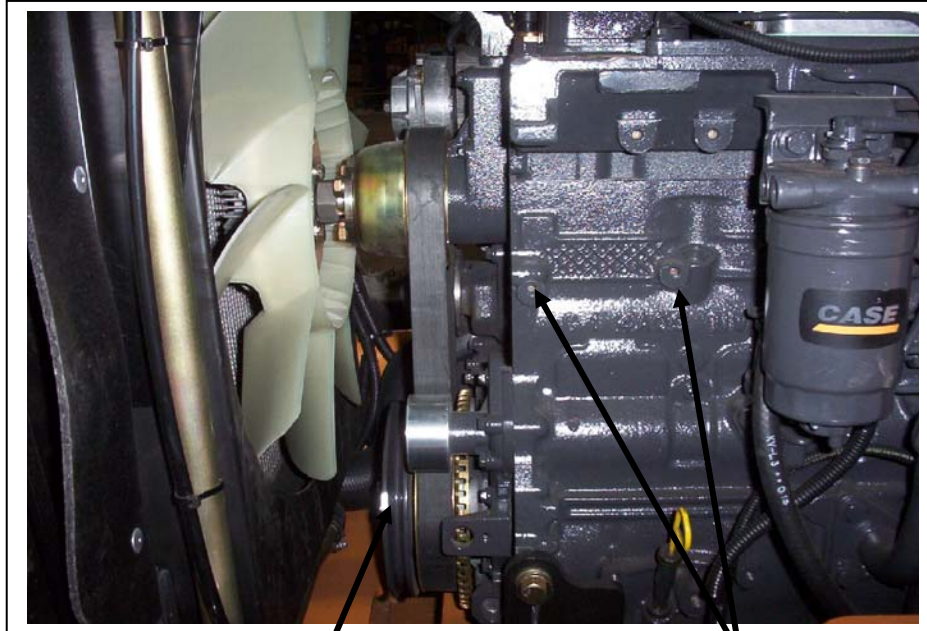


**PHONE: 1-800-267-2665
FAX: 1-888-265-3745**

COMPRESSOR MOUNT

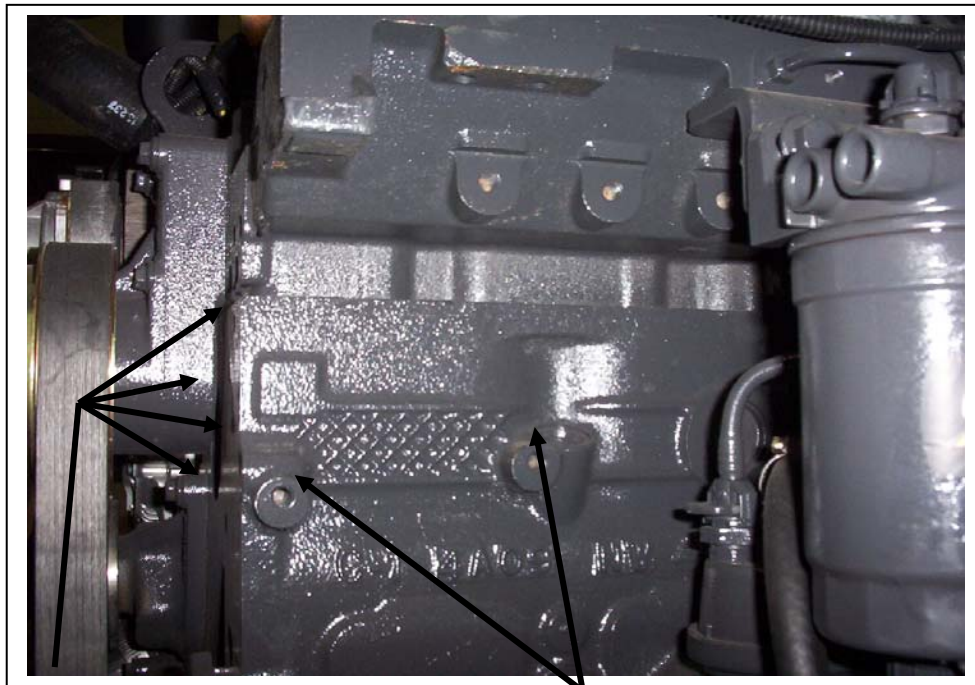
The compressor is mounted on the top left of the engine and is run off an existing pulley on the crank shaft.

1. Open the engine area to access the radiator fan and compressor mount area.



Existing pulley on crank

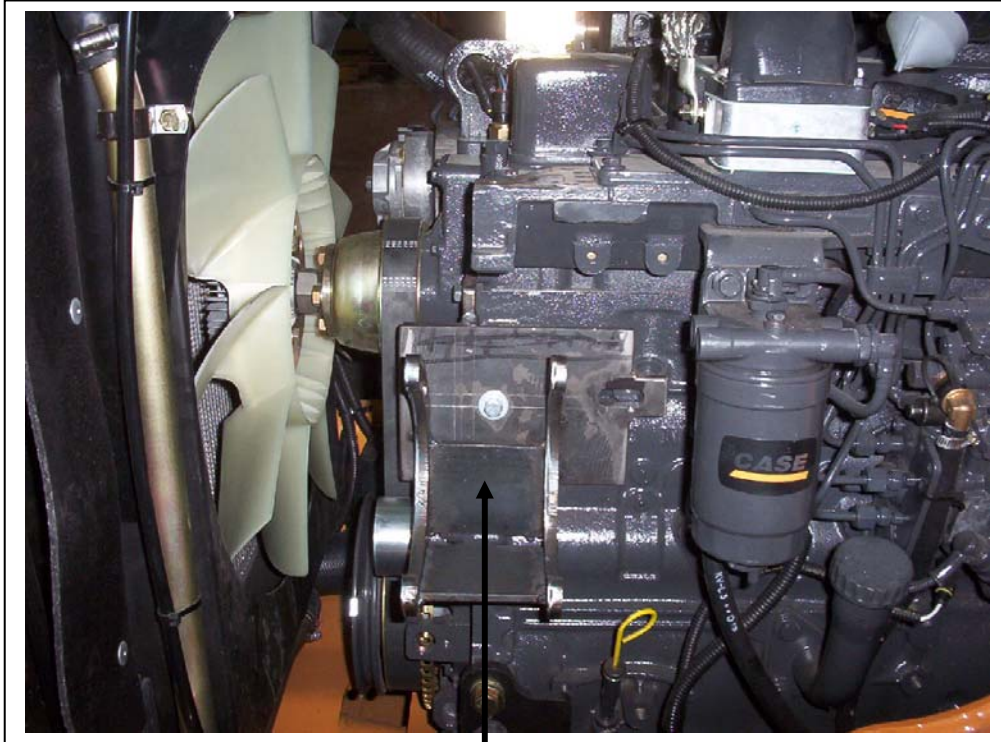
M8 mount holes on the side of the engine



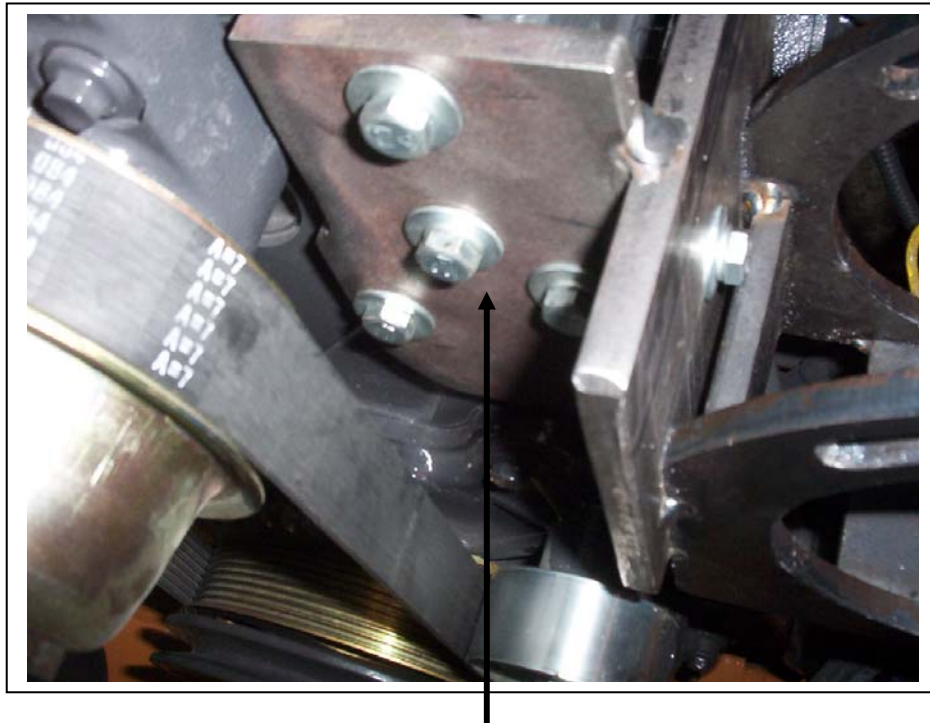
Four M8 mount holes on the front of the engine

Two M8 mount holes on the side of the engine

2. Set the compressor mount in place on the front left side of the engine and secure with the metric M8 hardware provided.

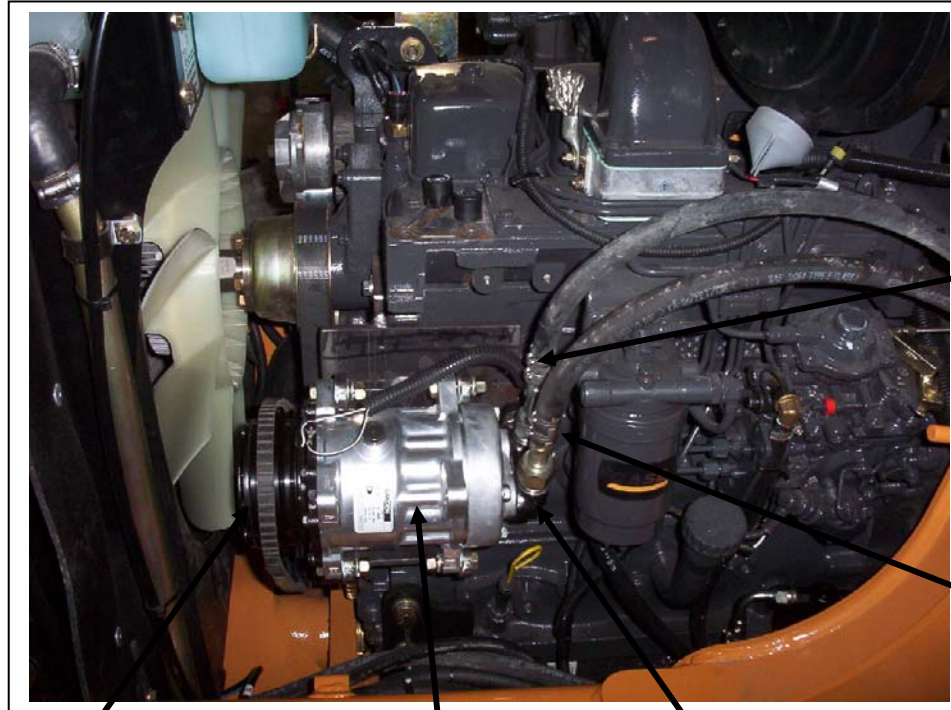


Compressor mount in place



Compressor mount showing the four M8 front mount bolts.

3. Install the vertical “O” ring pad fitting onto the ports on the back of the compressor. The binary switch will be attached to the high side port on the pad fitting.
4. Mount the compressor on the compressor mount and secure with the hardware provided. Ensure that the oil fill port is oriented 'UP'.



17450 belt in

Compressor mounted to

Vertical “O” ring
pad

Straight
13/32” fitting
with 134a
access port.

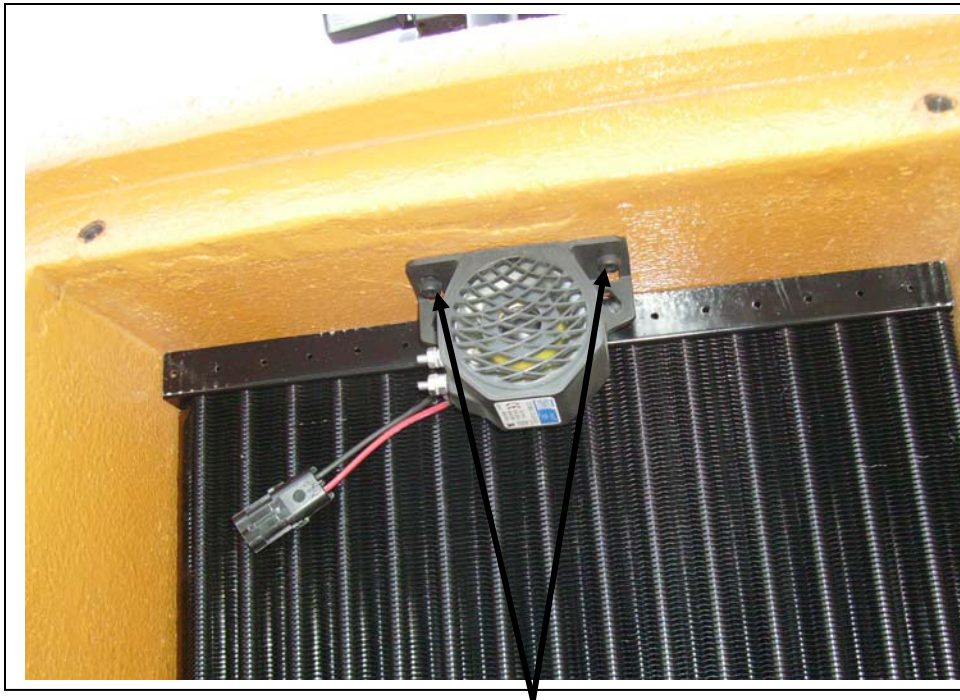
Straight 1/2”
fitting with
134a access
port.

5. Install the 17450 V-belt over the existing pulley on the crank and over the front groove on the compressor. Adjust to the desired tension and secure with the compressor mounting hardware. Check the belt alignment to ensure the mount is on straight.
6. Attach the A/C lines ensuring that the proper “O” rings are used. Use PAG oil on all contact surfaces and under the nut flange to make the installation easier.
7. Connect the clutch wire coming from the field coil to one side of the binary switch.



Female binary switch with wiring connected. Terminals must be bent at 90° to connect wires.

CONDENSER



The top condenser bracket will bolt to the counter weight underneath the backup alarm using the same bolts.

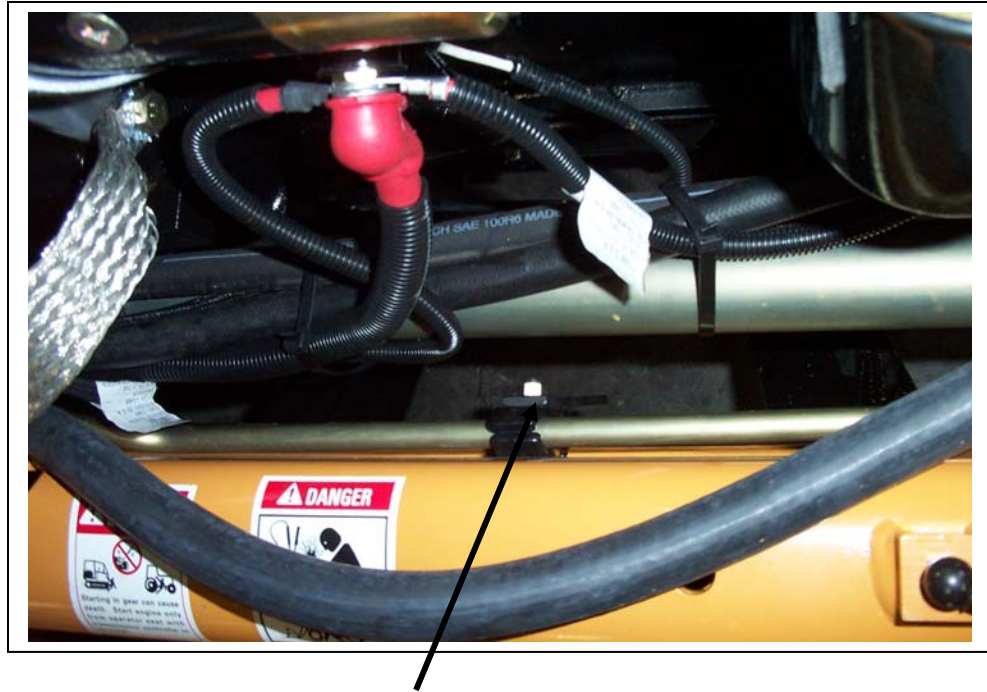


The bottom right condenser bracket will bolt to the condenser coil near the fitting and then to the counterweight using the existing M10 bolt.



The bottom left condenser bracket will bolt to the condenser coil near the 5/16" fitting and then to the counterweight using the existing M10 bolt.

RECEIVER DRIER



The receiver drier mount bracket bolts to existing pipe clamp bolt on the left hand main frame beam just below the starter.



Engine

Receiver drier. View from under the machine. Drier inlet points towards the back of the machine.

Drier mount bracket

EVAPORATOR



Evaporator box mounted to the engine firewall just below the skinkit cab enclosure.



Storage box on left side of seat.

1/2" hole for drain hose

1 1/8" holes for A/C hoses. Install supplied rubber grommets.



Storage box lid

Run drain hose through this existing hole

Bottom of storage box

Drill a large enough hole to get both the 5/16" and 1/2" A/C lines up through the floor.



Drain tube

1/2" A/C line

Grommets

5/16" A/C line

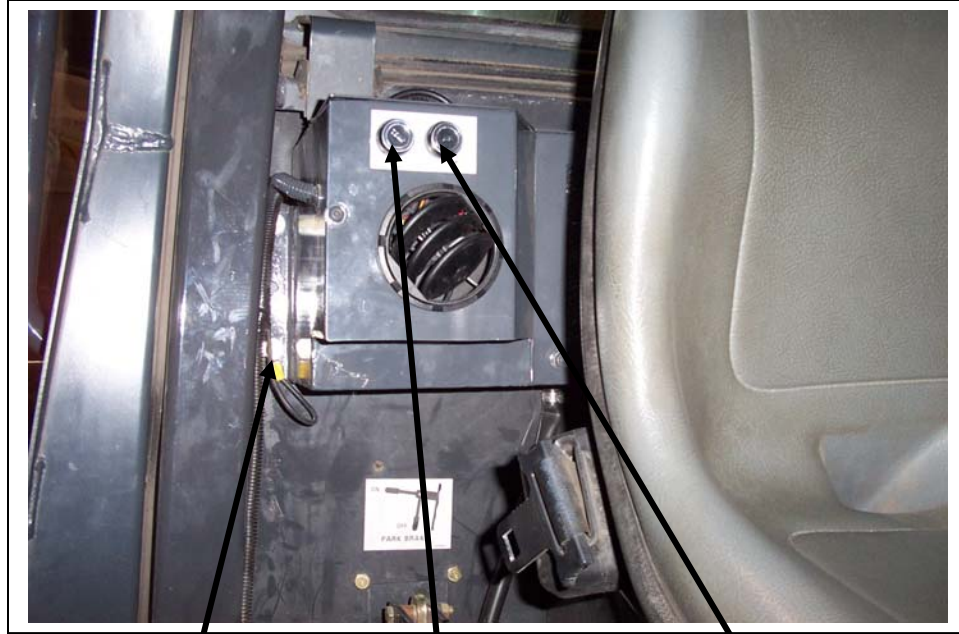


Hold the evaporator box against the engine firewall, just below the skinkit mount brackets and mark two mount holes on each end of the box. Drill 5/16" holes and bolt the box in place.

1/4" mounting hardware for the evaporator box.



1/4" mount hardware on backside of the engine firewall. Pull back the insulating foam to access the mount holes.



Bolt the ground wire to one of the mount bolts.

Thermostat control

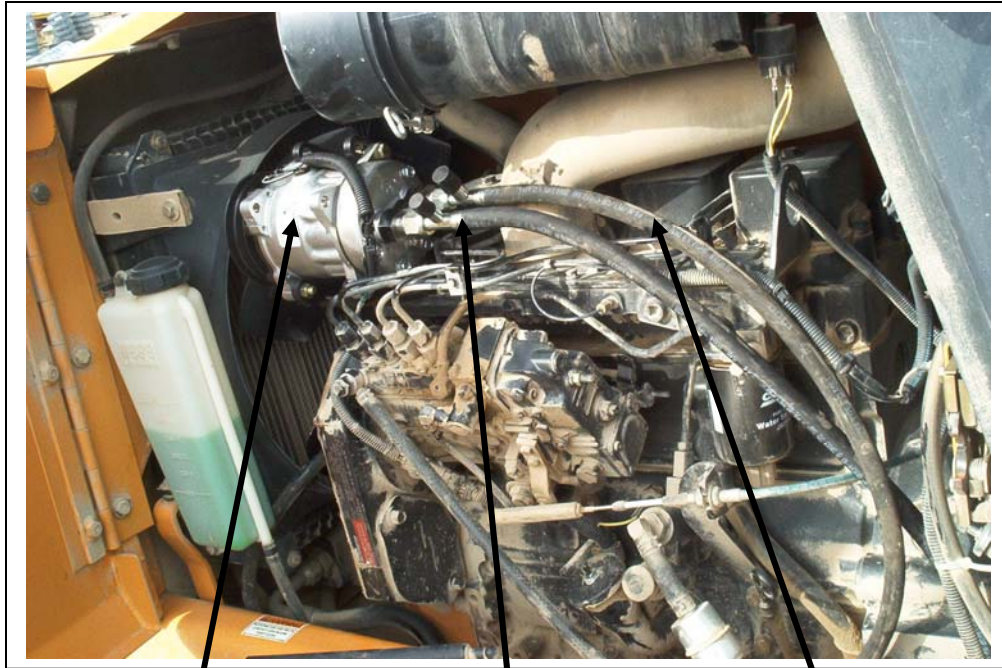
3 speed blower control

Remove the manual storage compartment from the back of the seat to make room for the evaporator box.



Drill a 1/2" hole in the floor for the drain tube.

HOSE RUNS



Compressor

1/2" hose

13/32" hose



13/32" hose running back along the frame rail and through the foam seal between the radiator and the counter weight.



13/32" hose connected to the 13/32" condenser fitting on the left side of the coil.

5/16" hose connected to the 5/16" condenser fitting on the right side of the coil



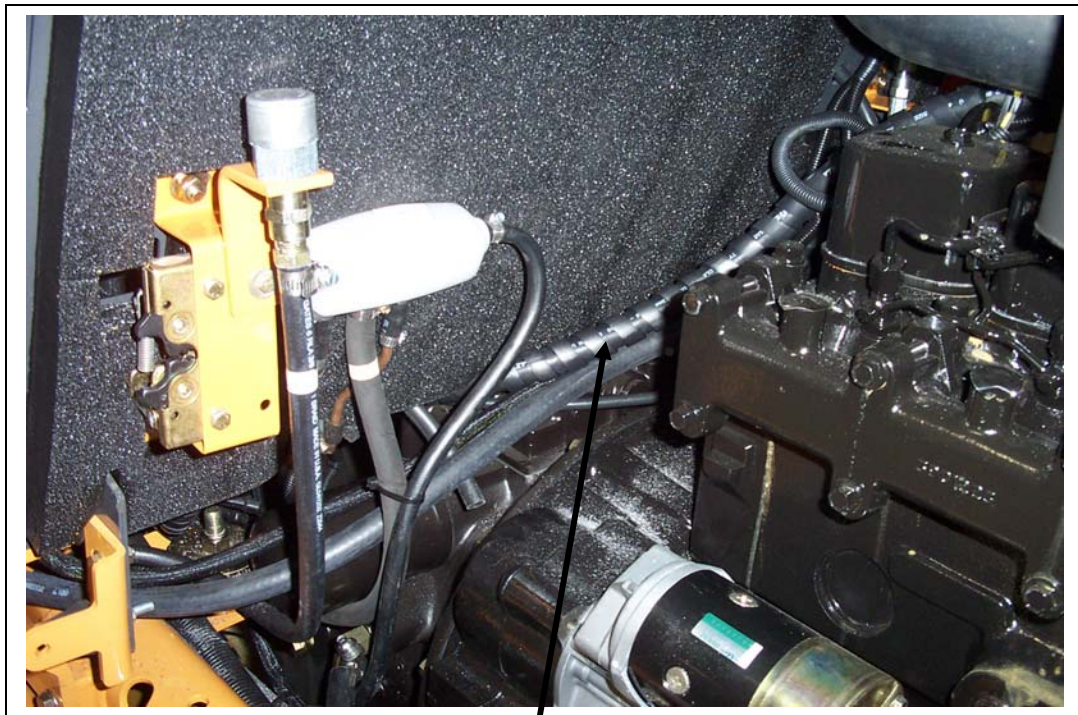
5/16" hose running forward from the condenser to the receiver drier.



5/16" hose from the drier outlet to the evaporator box in the cab.

Receiver drier

5/16" hose from the condenser to the drier inlet fitting.



1/2" hose crossing over the transmission to the left side of the cab.



5/16" hose from the drier going under the cab to the holes drilled in the bottom of the storage box.

1/2" hose from going under the cab to the holes drilled in the bottom of the storage box.



Drain tube

Grommets

1/2" hose

5/16" hose



1/2" hose connecting to the evaporator outlet with a straight fitting.

5/16" hose connecting to the expansion valve below the box

ELECTRICAL



Clutch wire and power wire running down from the evaporator box and out the floor of the cab.

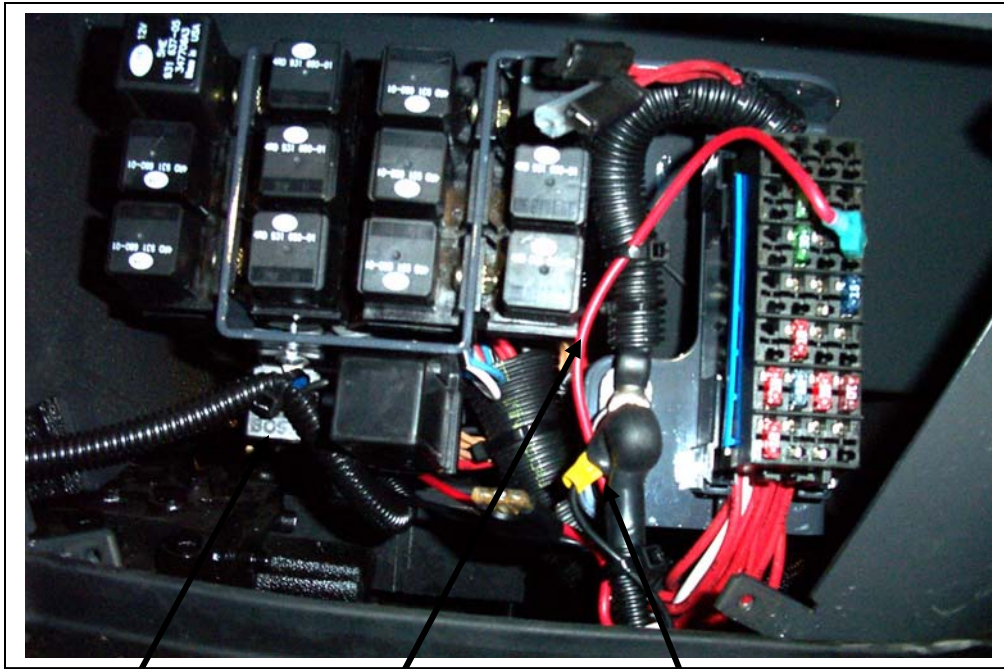
Ground wire



Power wire coming into the fuse and relay panel mounted under the seat pedestal on the right side.

30 Amp relay mounted using a self drilling screw.

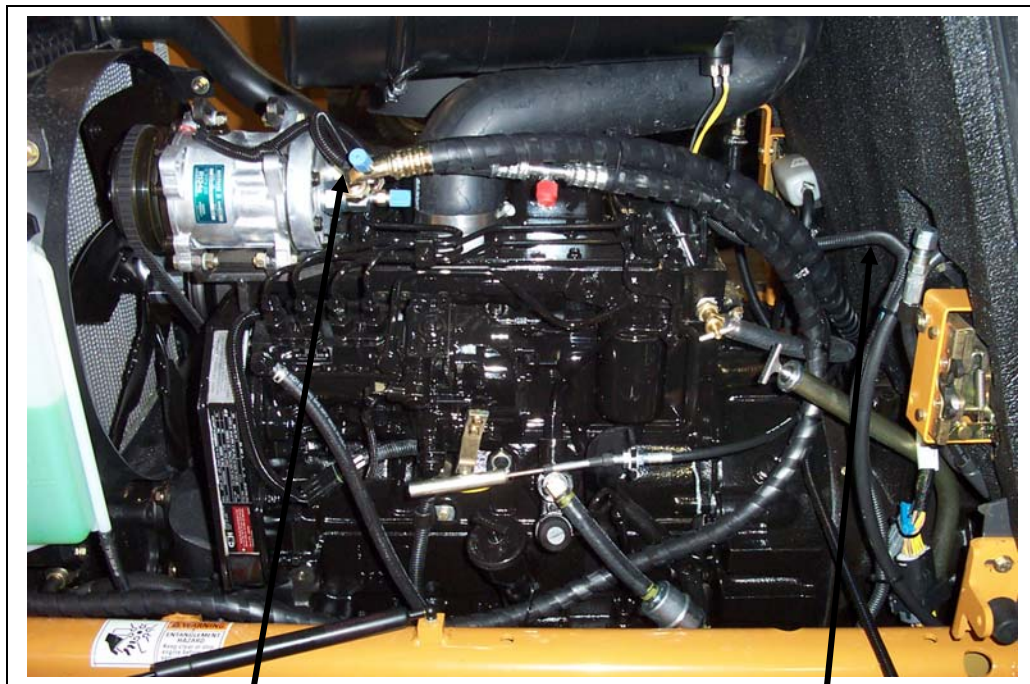
25 Amp ATO fuse supplying the relay.



Relay supplied with kit.

Ignition live power source

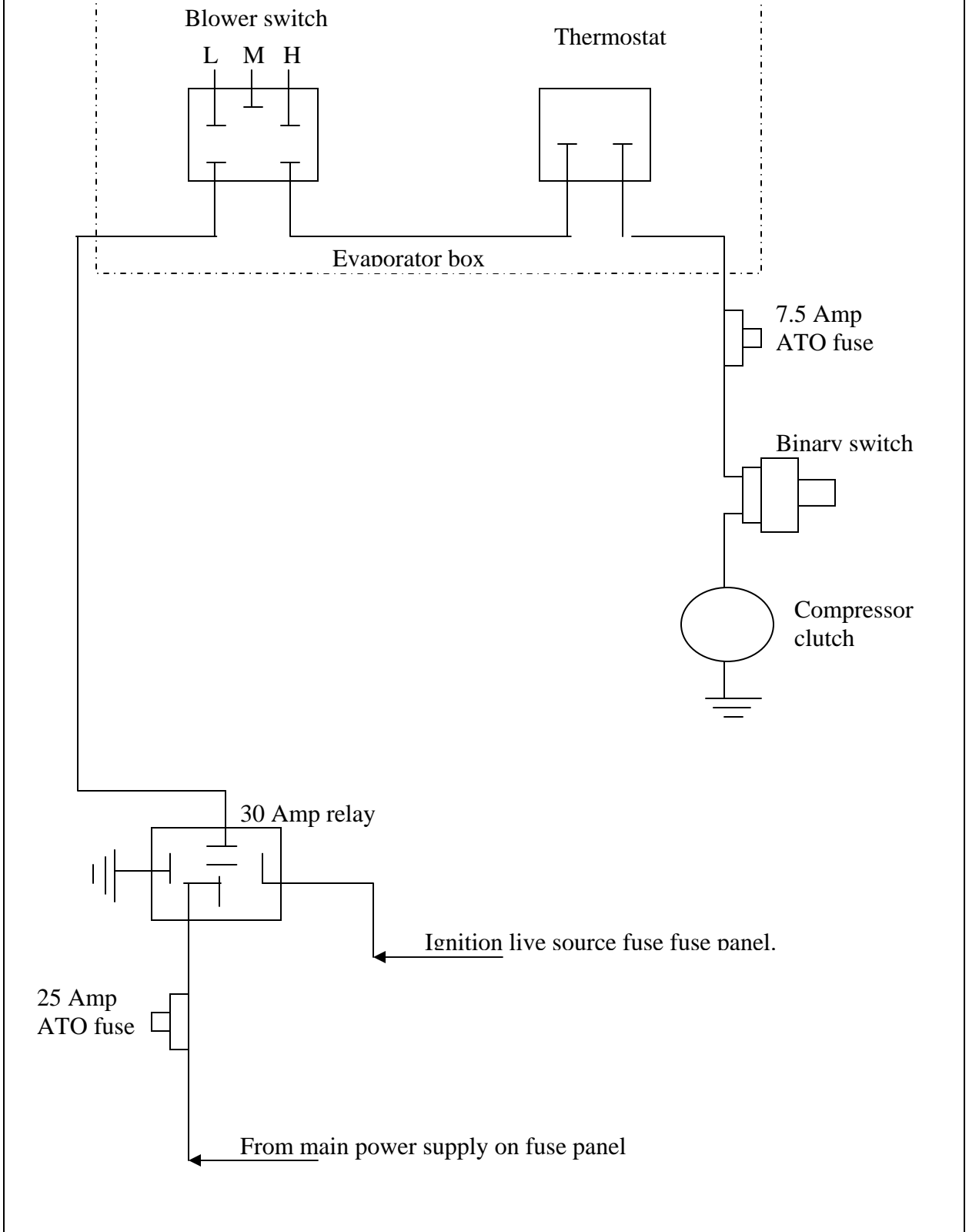
One end of the ATO fuse holder connected to the main power supply. The other end goes to terminal #30 on the relay.



Wiring connected to the binary pressure switch. (fittings on compressor now slightly different.)

Clutch wire coming from evaporator box in cab. Install 7.5 Amp ATO fuse and holder near the evaporator box.

586/588G Case Forklift Electrical

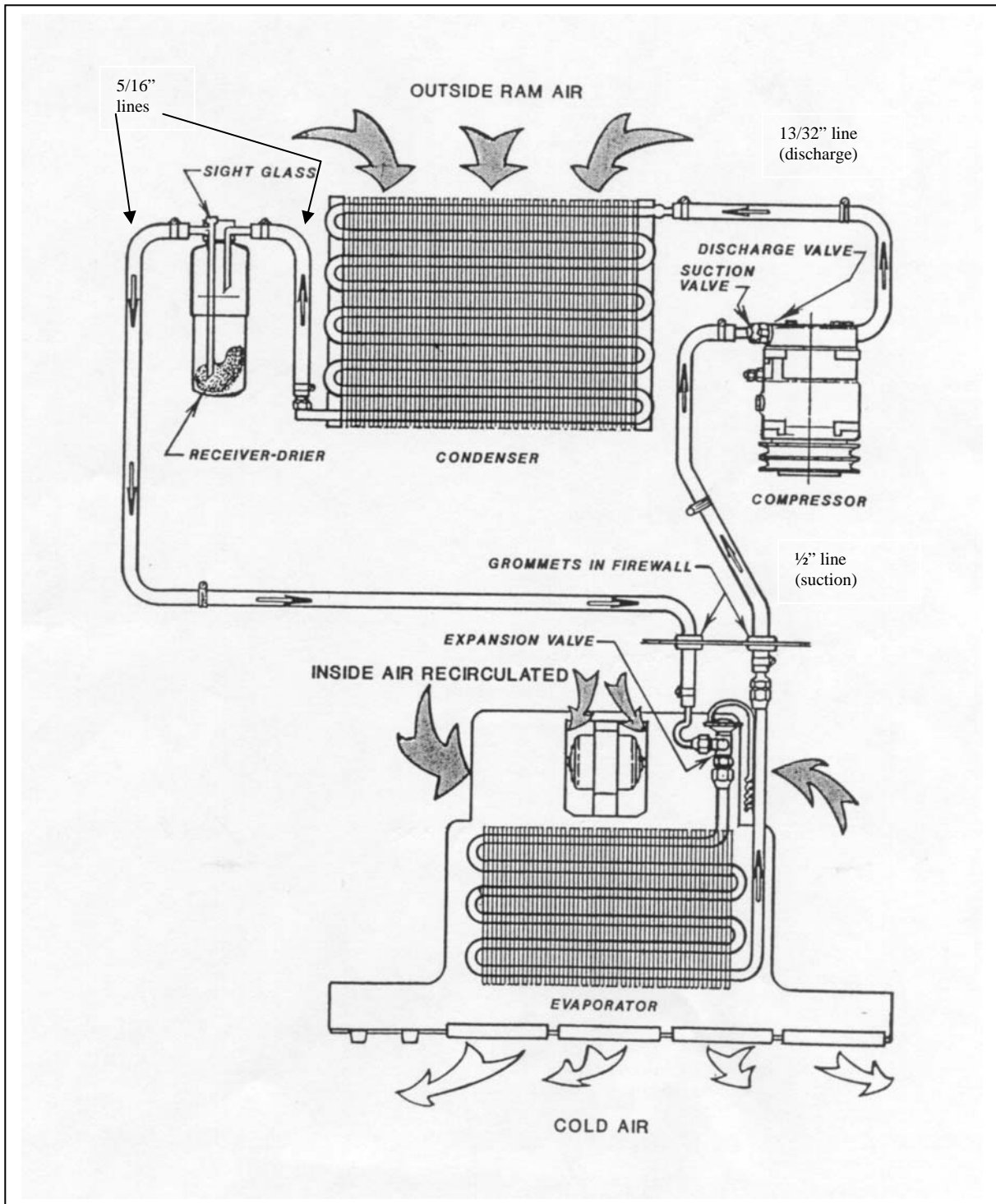


CHARGING

Ensure all hose connections have the correct size “O” ring installed and oiled. Pressure test system with dry nitrogen to check for leaks. Vacuum the system for at least ½ hr. The compressor comes pre-charged with oil therefore all that is required is an additional 2 ozs. of PAG oil.

Charge the system with 2.5 lbs of R134a refrigerant.

Refrigerant Flow Pattern in a Standard Air Conditioning System



Thermostat Setting Procedures

- 1) Thermostat types
 - a) preset
 - b) adjustable
 - a) A preset thermostat is adjusted to its specific cut in and cut out temperatures when manufactured and does not have a rotary adjustment for the operator.
 - b) An adjustable or rotary thermostat has been manufactured to a predetermined cut in and cut out temperatures, but it is also operator adjustable to achieve the desired comfort level.

Both types of thermostats can have their factory settings adjusted by turning the setting screws on the body of the thermostat. One body type has the setting screws mounted externally and labeled for direction of rotation. The other body type requires the removal of the plastic end plate to expose the set screw.

- 2) Thermostat probe location: The location of the thermostat probe in an evaporator coil can be very important to achieve the maximum cooling potential of the coil while also preventing coil freeze-up. There is no set location for the thermostat probe to be put that will be optimum for all systems, but several rules of thumb may be followed:
 - a) Insert the probe in the coldest area of the evaporator coil.
 - b) Insert the probe from the top of the coil down, if possible.
 - c) Make sure that at least the last 3" of the thermostat probe are in the coil.

To find the most likely area where the coil is the coldest, consider these factors:

- 1) Direction of air flow through the coil.
 - 2) The coil area likely to have the lowest air flow.
 - 3) The inlet locations of the refrigerant into the coil.
 - 4) The inlet of the hotter outside air into the coil area.
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- 1) Usually the coldest side of the evaporator coil will be the air outlet side. Often the thermostat probe can be inserted between the last and second last row of tubes.
 - 2) The lower air flow area of the evaporator coil in most systems tends to be near either end of the coil. These areas will be colder
 - 3) The area of the coil that the refrigerant inlet tube(s) occupy should be the coldest part of the coil.
 - 4) If the system is equipped with an outside air intake, where and how that air is brought into the evaporator area can have a large effect on the coil temperature. If all the outside air is piped into the evaporator in one area, that area will be considerably warmer in hot weather.

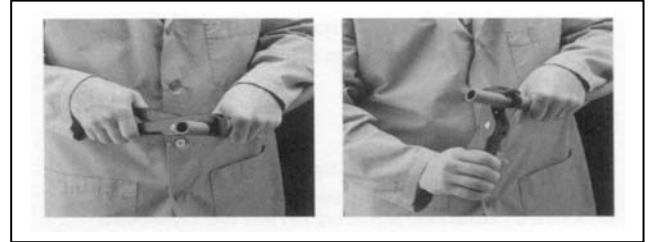
By looking at all these different factors, the area of an evaporator coil most likely to be the coldest can be determined.

Once the probe is inserted, the A/C system needs to be tested. Run the system to ensure that the thermostat is cycling the compressor off at the appropriate temperature. A core temperature ranging between 25° and 30° F should cause the thermostat to cycle off. The air temperature at the vent outlet closest to the evaporator coil should be between 38° F and 45° F when the compressor cycles off.

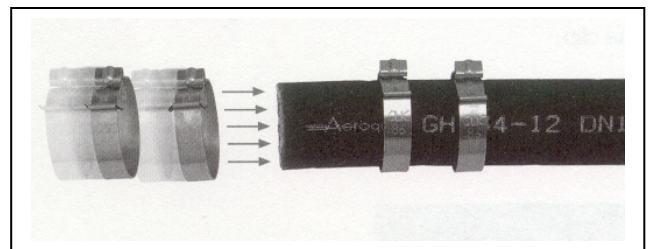
If the thermostat doesn't cycle off after a reasonable cool down period, and the air outlet temperature has dropped below 40° F, the cut in and cut out settings should be adjusted until the compressor is cycling on and off regularly. Let the system run for a decent time period (at least 15 min) and then check the evaporator coil for any signs of freezing.

Aeroquip E-Z Clip Assembly Instructions

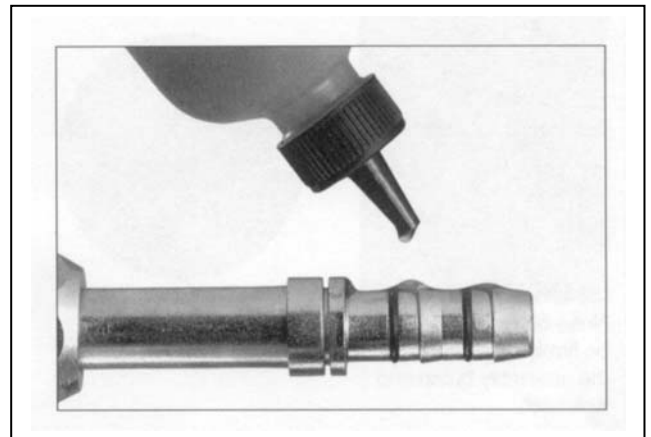
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



Step 2. Install two proper-sized clips onto the cut end of the hose. Orientation of the clips does not affect the performance of the connection. However, for ease of assembly, both clips should have the same orientation. NOTE: Failure to slide the clips over the hose at this time will require the clips to be stretched over the hose or fitting later. This may permanently damage the clip.



Step 3. Lubricate the nipple with a generous amount of the refrigeration or A/C system's compressor lubricating oil. This MUST be done to lower the force of nipple insertion.

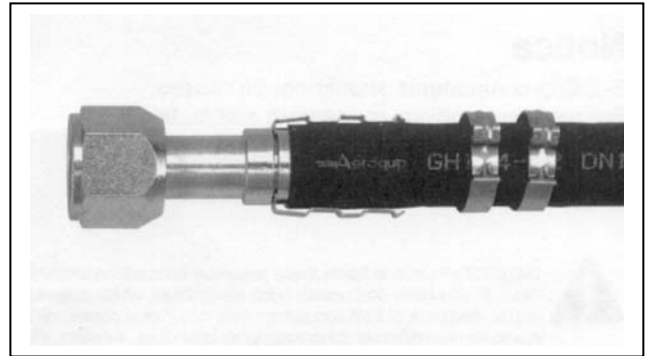


Step 4. Insert the nipple into the hose. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple. Care should be taken to avoid kinking or other damage to the hose during nipple insertion. NOTE: Be sure to wipe excess oil from the nipple and hose.

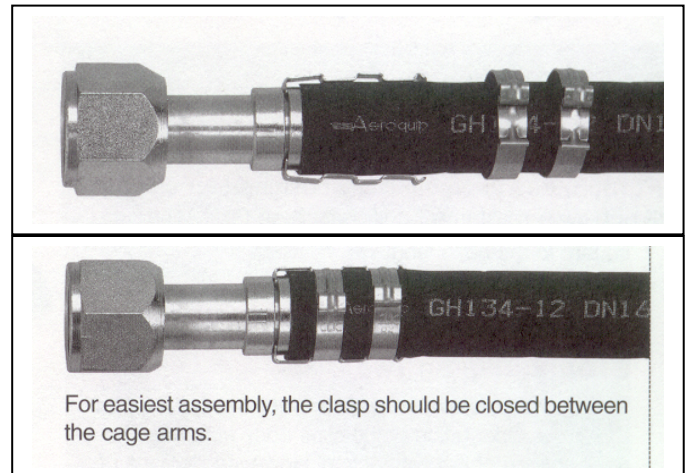


Step 5. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove. This step **MUST** be performed to ensure:

1. The clips will be located over the O-rings on the nipple.
2. The connection will be compatible with the connection's pressure rating.



Step 6. Slide the clips over the cage arms and into the channels on each arm.



Step 7. Use the pliers to close the clips. The pliers should be positioned squarely on the clip connection points and should remain square during the closing of the clip.

NOTICE: E-Z Clip components should not be reused.

