



ASSEMBLY INSTRUCTIONS

www.MastercoolParts.com

YORK TO SANDEN COMPRESSOR CONVERSION KITS

For Questions Call:
785-479-5918

READ THIS BEFORE INSTALLING!!

YORK TO SANDEN CONVERSION KIT COMPRESSOR WARRANTY/SERVICE GUIDELINES

An original copy of the repair order will be required to accompany all compressors returned for warranty. The order must show that proper installation procedures were followed as outlined below. Further requirements can be found under "policies" at mastercoolparts.com.

1. Check label of compressor for oil amount filled from factory. These kits utilize OEM Sanden compressors, which require SP-15 oil. If the compressor shipped empty, there will be a bottle of oil included with the kit. **Most systems will require the full bottle of oil to be added through the fill plug on the side of the compressor.** Check your manufacturers specifications to be sure of recommended oil volume.
2. Must flush a/c system with approved flush and flushing method. All old oil and any debris must be removed from the system.
3. Condenser must be replaced if it is a parallel flow or serpentine style, as they are not flushable. Tube and fin condensers are generally the only type that can be properly flushed.
4. Must replace receiver drier or accumulator.
5. Must replace expansion valve or orifice tube.
6. Condenser and radiator must be checked for proper airflow and cleaned or replaced if needed.
7. Evacuate system to deep vacuum for at least 45 minutes.
8. System must be charged only with R134a refrigerant. Use of refrigerant blends or hydrocarbon refrigerants of any kind are unacceptable and will void warranty.
9. Check voltage at compressor coil with the compressor running. A minimum of 11.5 volts must be present to prevent clutch failure.

**FAILURE TO FOLLOW THESE GUIDELINES COULD LIKELY RESULT IN A COMPRESSOR
FAILURE NOT COVERED BY WARRANTY**

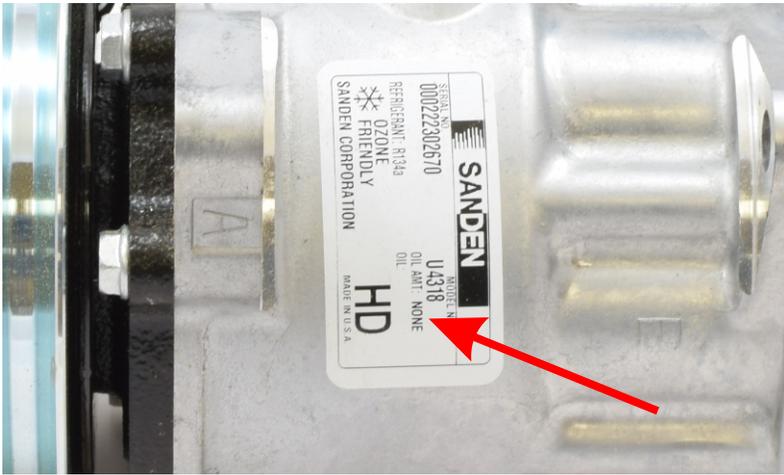


FIG. 1

CHECK COMPRESSOR LABEL FOR AMOUNT OF OIL PRE-FILLED. ADD OR REMOVE OIL IF NECESSARY.

OEM Sanden (USA)
Use SP-15 oil
PT# 51-78030

Aftermarket Sanden
Use PAG 46 oil
PT #51-50070

ALL AFTERMARKET COMPRESSORS MUST BE DRAINED AND REFILLED

OIL SHOULD BE ADDED THROUGH THE FILL PLUG ON THE SIDE OF THE COMPRESSOR OR DISTRIBUTED THROUGHOUT THE SYSTEM.

MEASURE GAUGE LINE OF OLD YORK COMPRESSOR AND COMPARE READING TO NEW SANDEN WITH BRACKETS.

Most applications will have the stamped numbers on top of the casting toward the rear of the compressor. (red arrow fig. 2)

There are numerous applications for the cast brackets. It is critical to determine their correct placement before further assembly.

Brackets # 29-00910, 29-00920, 29-00960, 29-00980, and 29-09610 will completely fill the space between the ears of the compressor (83mm).

Brackets # 29-09120 AND 29-09160 will require additional spacer(s) between the ears to obtain proper gauge line. (see fig. 3 thru 5)

DO NOT TIGHTEN BOLTS THROUGH EARS WITHOUT THE FULL 83MM SPACE FILLED WITH BRACKET AND SPACERS!!

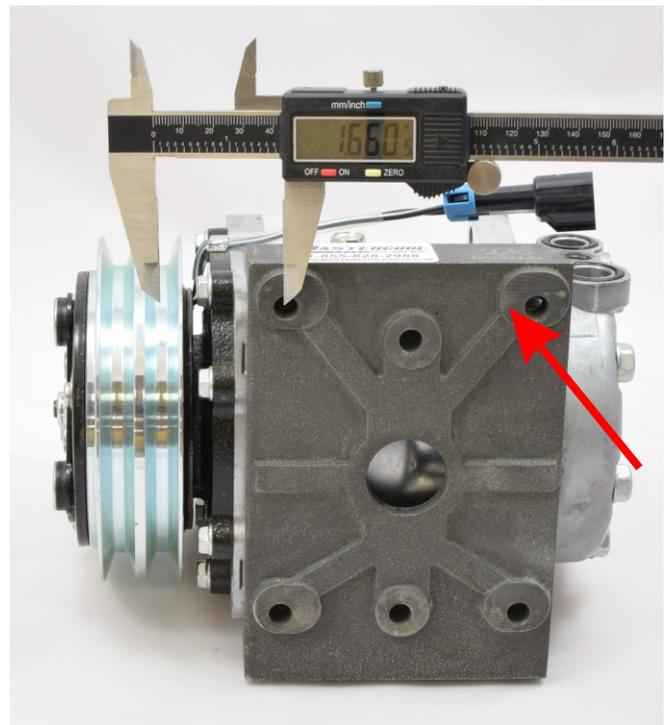


FIG. 2

29-09120 BRACKET REQUIRES ONE 3MM SPACER BETWEEN THE MOUNTING EARS OF THE COMPRESSOR.

Depending on application, spacer could be placed toward the front or rear of compressor. See fig. 3 and 4. Confirm gauge line with old York compressor to ensure proper placement.



FIG. 3



FIG. 4



FIG. 5

29-09160 BRACKET REQUIRES ONE 7MM SPACER BETWEEN THE MOUNTING EARS OF THE COMPRESSOR.

For most applications, the spacer will be towards the front of the compressor. See fig. 5. Confirm by comparing to gauge line of old York compressor.

FOR ALL APPLICATIONS, INSTALL ONE 3MM SPACER WASHER AT THE HEAD OF EACH M10-1.5X130 MM BOLT. BE SURE NOT TO CONFUSE 3MM SPACERS WITH THE FLAT WASHERS. SEE FIG. 6.



FIG. 6



FIG. 7

INSERT M10-1.5X130 MM BOLTS THROUGH COMPRESSOR EARS AND BRACKETS WITH THREADS POINTING TOWARDS COMPRESSOR CLUTCH. SEE FIG. 7.

BOLT MANIFOLD TO COMPRESSOR. SEE FIG. 8.



FIG. 8



FIG. 9

BOLT FRONT SUPPORT BRACKET TO COMPRESSOR AND MANIFOLD. SEE FIG. 9.

FOR SINGLE CLUTCH WIRE APPLICATIONS, USE REQUIRED PIGTAIL ADAPTER. BOLT GROUND WIRE TO THE M10-1.5X130 MM BOLT AT REAR OF COMPRESSOR.



FIG. 10

For Weatherpack tower connector use:
Pt# 65-17385
Fig. 10

For Weatherpack shroud connector use:
(Navistar / International)
Pt# 65-17390
Fig. 11



FIG. 11



FIG. 12

MOUNT ASSEMBLED COMPRESSOR TO THE EXISTING YORK BRACKETS ON ENGINE. USE THE FLANGE HEAD BOLTS PROVIDED, SELECTING A LENGTH THAT WILL NOT BOTTOM OUT IN HOLE. IF NECESSARY, USE WASHERS TO SHIM BOLT OUT.

USE RED THREADLOCKER ON ALL MOUNT BOLTS.

TROUBLESHOOTING

BELT ALIGNMENT IS OFF AND/OR MANIFOLD SUPPORT BRACKET INTERFERES WITH CAST BRACKETS

Check that the cast brackets are installed on the correct sides. The numbers stamped in the top should be towards the rear of the compressor.

CAST BRACKETS WILL NOT FIT ON COMPRESSOR

Due to tolerances in manufacturing and the precision fit of the brackets to the compressor, the brackets will usually be a tight fit. Sometimes a dead-blow hammer will be needed to tap the brackets into place. Be sure to keep the brackets straight with the compressor ears when installing. It may be necessary to remove a little material off the compressor ears with a file or emery cloth in some cases.

MANIFOLD WILL NOT BOLT ON OR TUBES CONTACT CAST BRACKETS

We have recently noticed some variances in the width of the tubes on the manifolds. This can result in the tubes rubbing against the cast bracket and causing the mounting bolt hole not to line up. We are working with manufacturing to correct this issue. Meanwhile, it may be necessary to mark the location where they interfere with the brackets and grind some material off the cast bracket to create sufficient clearance.

COMPRESSOR CONVERSION WILL NOT FIT ON SOME CATERPILLAR ENGINES

Some Caterpillar engines have a lifting bracket located directly behind the compressor. Since this bracket cannot be removed, it may be required to cut the bracket off at the bottom level of the compressor. A right angle grinder with a cut-off wheel or similar tool will do the job.

COMPRESSOR THROUGH BOLTS STRIKE COMPRESSOR PULLEY

The 3mm washer is missing from the head side of the bolts. Locate the 3mm washers in the included hardware.

LEAKING AT MANIFOLD-COMPRESSOR CONNECTION

The manifold must make full contact with the compressor head. If the manifold tubes are interfering with the cast brackets, it may cause the manifold to bind up and not clamp fully down. Mark the location where the tubes interfere with the cast brackets and grind some material off of the brackets to create sufficient clearance.

MOUNTING BOLTS TO ENGINE BRACKET WILL NOT FULLY TIGHTEN

The threaded mounting holes in the cast brackets are only 3/4" deep. Use the proper length of bolts included in the kit and/or add washers to ensure the bolts do not bottom out.