

**OHIO HEAT TRANSFER, LTD.
55130 NATIONAL ROAD
LANSING, OH 43934**

**PRODUCT WARRANTY
INFORMATION**

CHARGED-AIR-COOLER INFORMATION

The charged-air-cooler, also known as a pre-cooler and/or after-cooler plays a vital part in your truck's performance and fuel efficiency. Currently there are several standards used by original equipment manufacturers that allow for imperfect or defective charged-air-coolers to be installed on your trucks. We at **Ohio Heat Transfer, Ltd.** have come to know this as the "Acceptable Leak-down Standard". Such standards adversely affect your truck's fuel mileage and performance by the constant loss of boost. Electronically controlled engines will attempt to adjust the fuel/air mixtures to compensate for this problem but the outcome is still lower fuel mileage and loss of power.

Acceptable Leak-down Standard for the OEM

Engine OEM	Allowable Leak	Test Rate
Caterpillar	5 PSI @ 15 Sec.	30 PSI
Detroit Diesel	5 PSI @ 15 Sec.	25 PSI
Cummins	7 PSI @ 15 Sec.	30 PSI
Mack	5 PSI @ 15 Sec.	30 PSI

These figures reflect data obtained from individual manufacturers in 1996

It is believed that this standard was implemented due to the failure rates from the manufacturers of these charged air coolers. As long as their products do not exceed these specifications, it is believed to be acceptable.

We at **Ohio Heat Transfer, Ltd.** understand your need to harness every ounce of power, efficiency and fuel economy from your truck. It is for this reason we have set our own standards for all new, re-manufactured and repaired charged-air-coolers.

Acceptable Leak-down Standard for Ohio Heat Transfer, Ltd.

All Units 0 PSI @ 45 Sec. 35 PSI

We set for ourselves this standard as a way to guarantee our customer a reliable and cost effective product. Each and every charge-air-cooler that leaves our facility, whether it be a repaired unit or a complete new unit will be tested to this standard that we set for ourselves giving you the satisfaction of a much greater potential for increased fuel economy, power and efficiency from your truck.

Toll Free: (877) 633-0391 Fax: (740) 633-0473

**LIMITED LIFETIME WARRANTY
BAR & PLATE DESIGNED CHARGED-AIR COOLERS**

1. Ohio Heat Transfer, Ltd. warrants that all heavy and severe duty new, Bar & Plate style charged-air-coolers shall be free from defects in material and workmanship under proper installation and proper use for the lifetime of the vehicle or given application, while under the original ownership.
2. Subjected to misuse, abuse, negligence, or operating conditions that are in excess of those designed by the original equipment manufacturer
3. Installation by someone other than qualified personnel
4. Warranty shall not exceed 5 years from original date of purchase or 1 million miles which ever comes first

At no time shall **Ohio Heat Transfer, Ltd.** be liable for consequential or incidental damages arising from breach of this warranty, including labor expenses, lost profits, or injuries to persons or property

**LIMITED WARRANTY
ORIGINAL EQUIPMENT DESIGNED CHARGED-AIR-COOLERS**

Ohio Heat Transfer, Ltd. warrants that all heavy and severe duty new original equipment style charged-air-coolers shall be free from defects in material and workmanship under proper installation and proper use for the period of two (2) years and/or 250,000 miles, which ever comes first, from the date of sale. **Ohio Heat Transfer, Ltd.** warrants that all heavy and severe duty, remanufactured, original equipment style charged-air-coolers shall be free from defects in material and workmanship under proper installation and proper use for the period of one (1) year and/or 150,000 miles, which ever comes first, from the date of sale. This warranty does not apply to cooling system products that have been:

1. Altered outside of **Ohio Heat Transfer, Ltd.** in any way as to negatively affect its performance and/or function.
2. Subjected to misuse, abuse, negligence, or operating conditions that are in excess of those designed by the original equipment manufacturer
3. Installation by someone other than qualified personnel

At no time shall **Ohio Heat Transfer, Ltd.** be liable for consequential or incidental damages arising from breach of this warranty including labor expenses, lost profits, or injuries to persons or property.

This warranty is the only warranty applicable to **Ohio Heat Transfer, Ltd.** heavy and severe duty cooling system products and is expressly in lieu of any other warranties, expressed or implied. There are no expressed or implied warranties of merchantability or fitness for a particular purpose and no other warranties, which extend beyond the description of limited warranty on face hereof. **Ohio Heat Transfer, Ltd.** does not authorize any person to create for it any other obligation or liability in connection to its products.

**LIMITED WARRANTY
BAR AND PLATE, SHELL AND BUNDLE STYLE
HEAT EXCHANGERS**

Ohio Heat Transfer, Ltd. warrants that all bar and plate, shell and bundle type heat exchangers will be free of defects in material and craftsmanship for a period not to exceed 12 months from original date of sale and is not responsible for any failure as a result of modifying or altering our product in any way and is not responsible for labor charges or related parts failure.