



# WHEN IT COMES TO CARB TIER 2, NOTHING BEATS REVIVA REMAN

## ***WHY REVIVA ENGINES FOR YOUR TRANSPORTATION REFRIGERATION UNIT?***

Reviva is a privately owned gas and diesel engine remanufacturer located in Minneapolis, MN. Since 1945, Reviva has been remanufacturing engines and engine components for OEMs, direct national fleet accounts and independent distributors using the latest in remanufacturing processes and technologies.

Kubota V2203 TV



- **Exceeds CARB Tier 2 emissions standard**
- **Eliminates the need to trash perfectly good engines**
- **Remanufactured to meet or beat OEM specs**
- **Every engine is dyno tested**
- **Same day shipping**
- **No hassle core return**

<b><i>ENGINE TYPE*</i></b>	<b><i>CARRIER TRU MODELS</i></b>
Kubota V2203 DI	Extra, Extra XT, Genesis TM900/TM1000, Mach 10, Smart Air, Ultima, Ultima Advance, Ultima 53, Ultima XTC, Ultra XL, Ultra XT, Ultra XTC, Vector,
Kubota V2203 TV	Extra, Genesis TM900/TM1000, Maxima II, Ultra, Ultra CE, Ultra Multitemp,
Kubota V1903 TV	Extra, Extra XT
Kubota V1505 TV	Optima

\* TRU Model # required to identify correct engine type



## **Warranty Coverage** **1yr/Unlimited hours.**

Some restrictions apply, see limited warranty details or call for more information.

**877-599-4805**  
**www.reviva.com**



# YOU CAN DO BETTER THAN NEW



## ENGINES OVERVIEW

These Kubota® engines are used in Carrier Transicold® transport refrigeration units for trailer and rail applications.

## NEW & REMANUFACTURED COMPONENTS

Reviva uses only OEM or equivalent components. Components listed below are replaced with 100% new in every engine.

- |                                   |                           |
|-----------------------------------|---------------------------|
| • Bearings, main & rod            | • Oil pump                |
| • Exhaust stud nuts               | • OPRV spring             |
| • Gaskets & seals                 | • Pistons                 |
| • Hoses                           | • Piston rings & clips    |
| • Injection pump <sup>1</sup>     | • Rod bushings            |
| • Inj. pump camshaft <sup>1</sup> | • Thermostat              |
| • Injector nozzles                | • Water pump <sup>2</sup> |
| • Oil filter                      |                           |

<sup>1</sup>2203 TV Only

<sup>2</sup>Except 1505

All other parts are remanufactured using precise, accurate processes to bring them back to OE specifications.

## DYNAMOMETER TESTING

All of Reviva's Complete Drop-In engines are 100% dyno tested prior to shipment. Computer controls ensure that each engine dyno test is conducted under standard, repeatable settings. Every engine is run through a warm up cycle; three separate cruise segments simulating light, medium and heavy throttle conditions; maximum torque and horsepower tests; both high and low idle tests; and a black light leak detection test with dyed oil, coolant and fuel.

For more information contact:

**REVIVA**

www.reviva.com

5130 Main Street NE  
Minneapolis, MN 55421  
877-599-4805

## TIER 2 EMISSIONS COMPLIANT

Through extensive research, Reviva determined that many key components, including the engine block, cylinder head, crankshaft, and camshaft as well as many other components are the same in these Kubota Tier 1 and Tier 2 engines. Parts changed to make the engine Tier 2 compliant are:

- Injection pump components
- Injector nozzles
- Combustion chambers
- Pistons
- Piston rings
- Other miscellaneous items

The above set of "matched components" along with all other materials and calibrations meeting the OE original specifications make every engine Tier 2 compliant. After working with Reviva, the California Air Resources Board (CARB), added remanufactured engines as an option for Tier 2 compliance. More information can be found at [www.arb.ca.gov/diesel/tru.htm](http://www.arb.ca.gov/diesel/tru.htm).

To verify emission standards, Reviva retained the services of a nationally recognized emission testing facility. This facility conducted a verification test on our remanufactured Kubota engines. The test results verified that Reviva engines are well within the Tier 2 compliance specifications. These engines are looked upon as 2007 model year engines for purposes of the transport refrigeration unit Airborne Toxic Control Measures and will be compliant until January 1, 2015.



As awarded by Manufacturer's Alliance

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