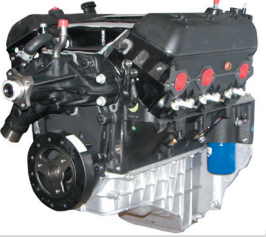


Remanufactured Transmissions



Remanufactured Engines



Remanufactured Torque Converters



Engine & Transmission Overhaul Kits



800-321-9983

www.joseph.com

Applications:

Allis Chalmers
Baker
Borg Warner
Case
Caterpillar
Chrysler
Clark
Clark Hurth / Dana Spicer
Continental
Daewoo
David Brown
Deutz
Ford
Funk
GMC
Hesston
Hercules
Hyster
Ingersoll Rand
International
Isuzu
ITL
JCB
John Deere
Kalmar - Allis Chalmers
Kubota
Lancer Boss
Lansing Bagnall
Lion Liftall
Manitou
Massey Ferguson
Mazda
Minneapolis Moline
Mitsubishi
Mitsubishi Caterpillar
Nissan
Oliver
Perkins
TCM
Toyota
White Lift truck
Wiggins
Windham
Yale

For Material Handling, Construction & Agricultural Equipment

REMANUFACTURING is a process by which assemblies are renewed to "like new" condition. In this process, the whole assembly is completely disassembled down to its main parts or noble components as they are called. The wear parts are discarded at this time. The noble components are thoroughly cleaned, inspected and reconditioned. The unit is then reassembled using all new wear items such as bearings, clutches, separator plates, springs, thrust washers, gaskets and seals, etc. The item is then fully inspected and tested. This process yields the "like new" performance most customers expect from remanufactured products.

VS.

REBUILDING is a process of repairing or "fixing" an assembly to make it serviceable or "useable" again. In this process, the item is not restored to "like new" condition. Wear parts such as bearings, thrust washers, springs, friction plates, separator plates may get reused again if they are "OK" or just within service limits. Only the worn-out parts get replaced in this method of repair and usually only the minimum needed to make it work again. This type of product is hardly what most customers expect!

QUALITY REMAN COMPONENTS & PARTS FOR MATERIAL HANDLING, CONSTRUCTION & AG EQUIP

Quality components and workmanship make the difference!

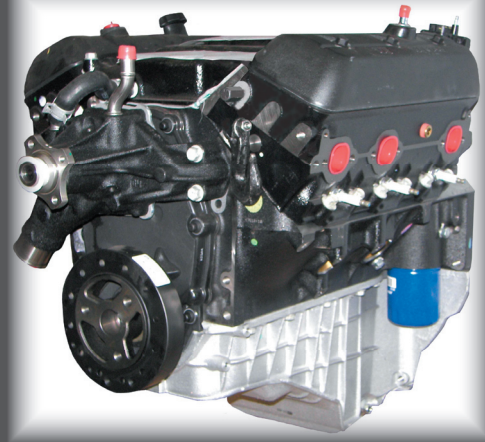


The engine and transmission are the heart of the driveline of any equipment and deserve the best care and maintenance you can provide. When considering the purchase of a remanufactured engine or transmission you can be sure that **JOSEPH INDUSTRIES** has taken every precaution to assure the quality and integrity of the product. Every engine, transmission and torque converter is remanufactured to original equipment specifications using only the finest precision components available. All cylinders are machined to the same tolerance and crankshaft journals are ground to factory specs. All NEW components such as pistons, bearings, valve seats, valve guides, gaskets, and rod bushings are used. These critical components are NEVER reused. Every remanufactured engine, transmission and torque converter from **JOSEPH INDUSTRIES** is ready to install and when given the proper maintenance, will provide years of trouble-free service. Attention to detail and pride in our workmanship makes the difference. Detailed manufacturing records are kept for every remanufactured engine, transmission and torque converter we build.

Engine Overhaul Kits



We offer engine overhaul kits made from the same quality components used in our own remanufacturing, for those who choose to do their own overhaul.



ENGINES

Every **JOSEPH INDUSTRIES** remanufactured engine is thoroughly tested for performance, including compression, vacuum and oil pressure, oil and water leaks. Engines are tested and run-in prior to shipping and each engine must pass stringent Quality Control procedures before it is ready to be installed. All diesel engines are "hot run".

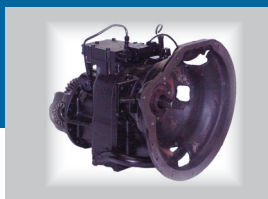
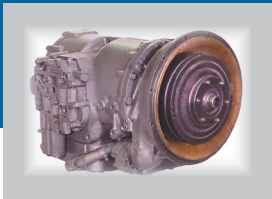
- **Pistons** - New pistons are checked for equal weight and balance.
- **Rods** - Connecting Rods are remanufactured to equal tolerances to maintain proper balance.
- **Crankshaft** - All journals are ground and polished to factory specifications.
- **Valves** - New valve guides, seals and springs are installed and valves are replaced as necessary.
- **Cylinder Head** - Completely reconditioned, resurfaced and checked for cracks.
- **Cylinders** - Always bored and honed to insure proper piston and ring fit.
- **Camshaft** - Reconditioned or reground.
- **Lifters** - All valve lifters are reground or replaced.

Exchange or Remanufacture and Return

We offer both exchange and remanufacture of your own engines. Most popular applications are kept on the shelf, ready to ship, relieving the dealer of the responsibility of keeping the unnecessary inventory on hand. We will stock the remanufactured units and free your service shop to do the exchange work. We will, if you prefer, remanufacture your unit and return it to you.

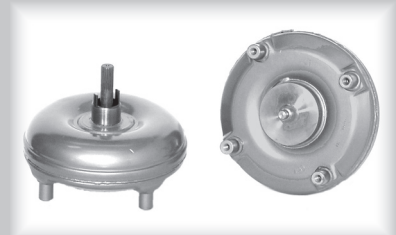
TRANSMISSIONS

JOSEPH INDUSTRIES remanufactures transmissions using only the finest components available. All units are pressure tested and run-in as part of the remanufacturing process. Every **JOSEPH INDUSTRIES** remanufactured transmission has been "Hot Run" tested after final assembly and every part has been checked for wear against OEM specifications and tolerances. Wearable items such as bearings, seals and gaskets are ALWAYS replaced. Major components such as clutch packs, pumps, and control valves are inspected and tested individually to assure proper operation before they can be reused. Ring and pinion gears are matched sets and must always remain together. If one is bad, both must be replaced. Cleanliness is of primary concern during the reassembly process and every part is kept clean and free of dirt and contamination.



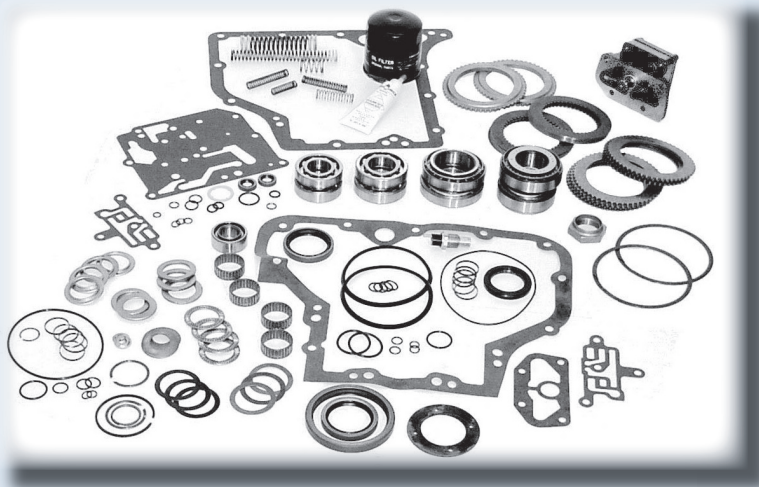
TORQUE CONVERTERS

The torque converter must always be replaced when the transmission is remanufactured or replaced. There is always some degree of contamination present in a used torque converter and if reused, will find its way into the transmission through oil lines. Metal and lining particles may be trapped in the converter and cannot be seen. Every torque converter from **JOSEPH INDUSTRIES** has been disassembled and carefully checked prior to reassembly. Tolerances are checked against OEM specifications and the converter is checked for runout using a dial indicator gauge and computer-balanced to within 5 grams or less.



TRANSMISSION OVERHAUL KITS

We offer overhaul kits made from the same OEM quality components used in our remanufacturing, for those who choose to do their own overhaul.



EXCHANGE or REMANUFACTURE and RETURN

We offer both exchange and remanufacture of your own transmission and torque converter. Most popular applications are kept on the shelf, ready to ship, relieving the dealer of the responsibility of keeping unnecessary inventory on hand. We will stock the remanufactured units and free your service shop to do other work. We will, if you prefer, remanufacture your unit and return it to you.

Joseph Industries can supply you with a wide variety of Aftermarket parts for a wide variety of equipment



QUALITY REMAN COMPONENTS & PARTS FOR MATERIAL HANDLING, CONSTRUCTION & AG EQUIP

BACKHOES, TELEHANDLERS AND ROUGH TERRAIN FORKLIFTS

JCB

CATERPILLAR

MANITOU

**INGERSOLL
RAND**



REMANUFACTURED TRANSMISSIONS, ENGINES &
TORQUE CONVERTERS • PUMPS • TRANSMISSION
& ENGINE OVERHAUL KITS • AFTERMARKET PARTS

JOSEPH
INDUSTRIES, INC.®

QUALITY REMAN COMPONENTS & PARTS FOR MATERIAL HANDLING, CONSTRUCTION & AG EQUIP



Warranty Policy

Joseph Industries warrants to the original purchaser, its parts and remanufactured products to be free from defects in material and workmanship. This warranty does not cover failures caused by improper application, improper installation, abuse, misuse, accident, contamination, electrical overload, improper wiring, etc. If a product is determined by Joseph to be defective, Joseph will, at its discretion, repair or replace the product as specified, and therefore not be liable for any other costs or damages.

Remanufactured transmissions and torque converters are warranted to be free from defects for a period of six (6) months from the date of installation. Remanufactured engines are warranted to be free from defects for a period of twelve (12) months, with the exception of remanufactured engine cylinder heads, which are warranted for a three (3) month period. Engine and transmission fluid leaks are covered for three (3) months.

New and remanufactured alternators, starters and electric motors are warranted to be free from defects for a period of three (3) months from the date of installation unless otherwise stated. All other parts including electrical components, i.e. contactors and contact tips, are warranted for a period of three (3) months from date of purchase. Normal wear excepted. This warranty is expressed in lieu of all other obligations or liabilities on its part and Joseph Industries, Inc. neither assumes or authorizes any other person to assume for it any liability in connection with the sale of its products.

For remanufactured engine, transmission and torque converter product only, that is proven to be defective, Joseph will consider reimbursement only for labor costs not including fluids, travel, diagnostic, rental or down time. To be considered, the customer must follow the procedure below and receive written approval from Joseph in advance. Labor costs that are approved will be issued as a credit toward future purchases at a rate not to exceed 50% of the dealer's internal labor rate. Reasonable labor time, not to exceed 15 hours, will be determined by Joseph Industries.

Warranty Procedure:

- When a suspected warranty problem occurs, contact Joseph Industries at 888-465-6737 as soon as possible and ask for the Warranty Administrator who will give you further instructions... DO NOT repair or disassemble the product without prior authorization by the Joseph Warranty Administrator or you will void the warranty. You will be asked to provide details of the problem including:

Product Description

Installation date

Verification of purchase

Problem Description

Product Serial Number (engines & transmissions only)

Verification of internal labor rate

- If you are asked to return the part to Joseph for analysis, you will be issued a Warranty Return Authorization number that is to be clearly attached to either the part or the shipping container. Failure to do so will delay processing and may result in denial of your claim.
- In many cases, especially with engines and transmissions, the problem may be solved without having to return the product or even remove it. If we believe this is possible, we will provide the necessary parts and authorize the necessary labor to replace/repair the failed component according to our labor reimbursement policy. Joseph, however, must authorize this type of repair, before any work is done.
- Once the failed component is analyzed, you will be informed of our findings. If the problem is a failure in material or workmanship, you will be issued credit according to our Limited Warranty.



QUALITY FEATURES AND BENEFITS

JOSEPH INDUSTRIES REMANUFACTURED TRANSMISSIONS

All transmission cores are completely disassembled and cleaned in an industrial pressure washing machine. Any dirt, grease, grime and residue from the previous failure is completely removed to insure that the remanufactured unit will be perfectly clean inside. All "wear items" such as bearings, seals, sealing rings, clutches, separator plates, springs, and thrust washers are automatically discarded and are always replaced. No "marginal" components are reused. Each remanufactured transmission assembly is fully hot run tested up to normal operating temperatures to verify that the unit performs at proper operating pressure specs and is free of oil leaks and unusual noises. A test pressure verification card is shipped with every unit. All remanufactured transmissions carry a 6 month/1000 hour limited warranty. All remanufactured transmissions shipped from stock (cores) carry a minimum 50% core credit guarantee.

JOSEPH INDUSTRIES REMANUFACTURED ENGINES

Engine cores are completely disassembled, cleaned and inspected. Castings are tested for cracks. Block decks and cylinder heads are checked for flatness and resurfaced. Crankshafts are ground and polished. Camshafts are reconditioned or replaced. Connecting rods are reconditioned. Cylinders are bored and pistons are matched and fitted to the cylinders by honing to final size and new piston rings are fitted and installed. All valves are replaced and fitted to the guides and seats. All bearings, seals, gaskets and freeze plugs are replaced. Oil pumps are reconditioned or replaced. The engine is then fully assembled. Valve timing and lash is set. Gas/LPG engines are Syms tested to verify timing, compression, and oil pressure. Diesel engine fuel pumps, injectors and turbos, if applicable, are fully reconditioned and all diesel engines are hot run tested to verify proper operation. All engines are equipped with a heat tab and a high temperature indicating scale. The remainder of the engine gasket set not used in our remanufacturing process is supplied along with the engine for installation of customer accessory components. All engines are remanufactured by AERA (Automotive Engine Rebuilders Association) Certified mechanics according to the standards established by the AERA. All remanufactured engines carry a 1 year/1000 hour limited warranty.

JOSEPH INDUSTRIES REMANUFACTURED TORQUE CONVERTERS

All welded torque converter cores are cut open, chemically cleaned, and inspected for internal damage. Critical wear items such as bearings, sprag clutches and thrust washers are always discarded and replaced to restore units to their proper internal clearances. Pilots, drive lugs and thrust surfaces are renewed to their original specifications. Converters are then welded together using state of the art automated equipment to insure weld integrity and unit concentricity. Once assembled, converters are plugged, pressurized with air to 100 PSI, and submerged in water to test for leaks. Each converter is then computer balanced to within 5 grams or less and dial indicated to verify that runout is maintained within OE specifications. Finally, converters are electrostatically painted with a high quality industrial enamel to inhibit rust and corrosion. The finished assembly is packaged in a specially reinforced heavy-duty carton to protect it during shipping. All remanufactured torque converters carry a 6 month/1000 hour limited warranty.

JOSEPH INDUSTRIES OVERHAUL KITS

Complete transmission and engine overhaul kits are available for most popular transmission and engine models. These overhaul kits are designed to save you time and money. Instead of wasting hours, identifying, sourcing and purchasing all of the many individual parts, our master overhaul kits allow you to order only one part number. Our master overhaul kits contain all of the wear parts needed to get the job done at a cost averaging 5~10% less than purchasing the parts individually.

What sets Joseph Industries apart from ALL the rest

- 1 For over **60 years**, Joseph Industries has been supplying remanufactured products to the Automotive, Material Handling, Construction and Agricultural Industries.
- 2 Joseph Industries offers Remanufactured Engines, Torque Converters, Transmissions, Complete Engine and Transmission Overhaul Kits, and Aftermarket Parts. Joseph Industries is your **Complete Driveline Source!**
- 3 Joseph Industries provides remanufactured product, centralized billing and core management for more OEM factory programs than any other remanufacturer or Aftermarket vendor. Programs include Hyster, Yale, Mitsubishi Caterpillar Forklift, Clark Material Handling, Nissan, TCM, Case / New Holland.
- 4 Joseph Industries has the **largest** selection of Industrial Torque Converters in North America. Our expertise is unsurpassed, thousands of models to choose from.
- 5 Joseph Industries has developed the largest selection of **complete** Industrial Transmission overhaul kits. They contain all the parts you need for a professional overhaul, proven to save you money.
- 6 Joseph Industries has regionalized distribution with shipping points in California, Ohio and Pennsylvania that provides you with **unmatched** logistic options. Our California distribution and Torque Converter service center allows us to provide your west coast dealers with a wide selection of products along with a 1-2 day remanufacturing service for their torque converter cores that **others can't offer.**
- 7 As Joseph Industries increases its presence beyond material handling applications, you can be assured that your dealers can enjoy the same quality products for their **Rough Terrain Forklifts, Telehandlers, Light Construction and Agricultural Equipment requirements.**

