

Got A Worn-Out Engine? What Should You Do?

Warped heads. Blown gaskets. Rattling rods and leaking rings. It doesn't take much to turn an incredible hulk of an engine into a whining weakling or even a worthless wreck.

Your first thought when engine problems occur is to rebuild. If you have the right tools, some mechanical ability, and the right parts, rebuilding an engine should be a cinch.

Even if you don't have all the tools you need to do a complete rebuild, you can still do some of the work yourself and hire out the rest. The main thing you'll need, besides tools and experience, is good parts. Rebuild kits are available for most gasoline and diesel engines found on the farm. A "where to buy" list is printed below.

Rod Urich, owner of Don's Diesel Engine Kits, Lawrence, Kansas, has been selling engine parts for 20 years.

He figures just about anybody can rebuild an engine but he doesn't encourage everyone to try it.

He cautions that taking an engine apart and putting it back together is not the same thing as fixing what's wrong. "Most of the time, your best bet is to install an entire rebuild kit rather than trying to pinpoint a particular part that has gone bad. If you do a complete rebuild, there's less chance you'll have to do it again soon.

"Probably 75 or 80 percent of our kits go to independent mechanics," Rod says. "They're usually better prepared to handle the installation of sleeves, pistons and bearings than most individuals. Most importantly, they're able to recognize the need for machining on camshafts, crankshafts, heads, and

parts that an individual might not notice."

Rebuild kits range in price from a few hundred dollars to several thousand. It all depends on the type and size of engine and the extent of rebuilding necessary.

If you're rebuilding an engine, by yourself or with help from a neighborhood mechanic, be sure you fix everything that's wrong or could possibly go wrong while you have it torn down. "Our rebuild kits contain various parts for different engines, because we know what's likely to fail in that particular engine. So if the kit has a camshaft in it, chances are you should replace that shaft," Rod says.

Doug and Don Dickerhoff of TTP, Warsaw, Indiana, will sell you whatever parts you need to rebuild an engine. But their specialty is supplying ready-to-go remanufactured engines. "We can sell a remanufactured engine, delivered and ready to install, for only a little more than you can rebuild the engine yourself," Don says. "Some of our remanufactured engines actually cost less than you might spend to rebuild it yourself."

As an example, he cites the following costs for redoing one particular engine – a JD619:

Rebuild kit:	\$2000
Labor:	\$1500
Machining:	\$2600
Total:	\$6100

"For \$6,100, you would have a rebuilt engine but it would still be using the camshaft, lifters, oil pump and cooler, head, fuel pump, injectors and turbocharger that were on the



failed engine. Replacing or rebuilding those parts would add another \$6,000 or so to the bill, plus labor. However, everything mentioned above would be rebuilt or replaced on our remanufactured JD619 that sells for under \$8,000," he says.

You would still have to pay for shipping and labor to take out the old engine and put in the remanufactured one. But with the remanufactured engine from TTP, you also get load stress testing, initial break-in, and a limited warranty covering parts and labor. Dickerhoff advises farmers to ask about all these things before buying a rebuilt engine. You should probably check out warranties on engine parts if you're doing your own rebuild, he adds.

Rebuild kits from different suppliers may vary slightly, depending on availability of parts. Some parts, like rings, pistons, rods or inserts for a specific engine may be available from only one source. Other parts, like bearings, may be standard off-the-shelf products made by several different companies. In many cases, rebuild kits might be identical – only the price might be different, depending on the supplier.

Whether you're doing it yourself, having your mechanic do it, or buying a rebuilt or remanufactured engine, every kit supplier we talked with said the most important part of rebuilding is to start with the best quality parts. Look for parts built to ASAE or SAE standards.

Don's Diesel

2500 N 7th Street
Lawrence, KS 66044
800-345-6513
Rebuild kits for diesels of all ages

Mechanics Parts Warehouse

451 Taft St. NE
Minneapolis, MN 55413
800-456-5587
612-362-9925
612-362-9849
www.mpwengineparts.com
Rebuild kits, parts for gas or diesel, plus more.

Pow'r Seal

800-627-7171
Pistons and piston kits for antique and late model and antique tractor engines.

Southern Illinois Crankshaft Inc.

225 Kaskaskia Drive
Red Bud, IL 62278
618-282-4100, ext. 16
FAX: 618-282-4144
Cranks, blocks, rods, full service machine shop, diesel rebuilding, etc.

MEMO International

722 S. Kimball
South Lake, TX 76092
877-236-9945
817-421-0827
FAX: 800-541-6220
Rebuild kits and parts for Deutz air-cooled 3, 4, 5 or 6 cylinder engines; also new air-cooled engines.

Chapin Machine & Welding

RR 1, Box 58
Chapin, IL 62628
800-648-1083
217-472-5121
Repair or exchange cylinder heads and blocks.

Where To Buy Rebuild Kits, Engine Parts

Here's a list of dealers and manufacturers who sell engine repair parts, rebuild kits and even rebuilt engines. Several of the kit sellers are also rebuilders.

Standard Crankshaft Company

3827 Wilkinson Blvd.
Charlotte, NC 28208
888-337-1299
Remanufactured crankshafts and crankshaft repair kits.

United Parts Corp.

233 N.E. Columbia Blvd.
Portland, OR 97211
800-722-8111
503-285-6000
FAX: 503-240-0304
Engine rebuild kits and parts.

Bill Stone's Diesel Parts N.W. Inc.

14682 SE 82nd Drive
Clackamas, OR 97015
888-655-7373
503-655-7373
FAX: 503-655-2227
Diesel rebuild kits, parts; free advice.

Unied Engineering Works

Ramkumar Mills Compound
Saraspur, Ahmedabad -380018
(India)
91-79-2113719 or 91-79-2123001
FAX: 91-79-2113121
email: arora@ad1.vsnl.net.in
Engine parts for Perkins, Ford, Deere, Styer, Fiat, Rumania, International, Belarus, MF. Ships to North America.

TTP

Warsaw, IN
800-825-7711
Remanufactured engines, powertrains, machine work, rebuild kits and/or parts.

Automotive Machine Inc.

813-25th St. North
Great Falls, MT
800-428-7896
Rebuild kits, parts for gasoline truck & car engines.

Excelsweld USA

1231 16th Avenue
Oakland, CA 94606
800-743-HEADS
510-534-3303
FAX: 510-534-1107
Cylinder heads, other cast iron restoration; out of production guides, seats, valves, etc.

Kern County Tractor Parts

800-360-8529
FAX: 805-792-3533
Complete overhaul kits, parts; rebuild engines, short or long blocks; remanufactured clutches.

Central Plains Tractor Parts

712 North Main
Sioux Falls, SD
800-234-1968
Engine rebuild kits, new and rebuilt parts; rebuilt starters and turbochargers.

Farmland Tractor Supply Inc.

32427 Old Hwy. 34
Tangent, OR 973389
541-928-1646
FAX: 541-928-3741
E-mail: farmlandt@aol.com
Rebuild kits for most engines, also rebuilt turbochargers, injection pumps. Used parts available.

TISCO

200 Lothenbach Avenue
West Saint Paul, MN 55118
ph 651-455-6681
Rebuild kits for most tractors plus most parts.

Davis Tractor Parts

Rt. 2, Box 25-A
Andalusia, AL 36420 USA
FAX: 334-222-0025
www.davistractor.com
email: jd@davistractor.com
Engine kits for Long, Massey-Ferguson, Ford and other tractors. Also, repair manuals, owners manuals, other tractor books and repair videos.

Community Tractor & Equipment, Inc.

1360 Hwy 132 North
Natalia, TX. 78059
Phone: (877) 819-2828 (Toll-free)
(830) 665-6002 (San Antonio)
or (830) 663-2828 (Natalia/Devine)
Variety of parts. Call for details. Or shop Tractor Parts Direct online at <http://www.tractorpartsdirect.com/>

Additional information for older tractors

Hinrichs Repair

9830 Yorktown Rd.
Lyndon, IL 61261
815-778-1900
Rebuild kits for older tractors, and especially rebore kits for 2 cyl. Deere engines.

Sharp's Body Shop and Tractor Repair

4921 E. State Highway CC
Fair Grove, MO 65648
417-759-2567
FAX: 417-759-2616
www.oldjd4u.com
email: oldjd4u@aol.com
Old Deere tractors and parts, especially "H" tractors.

Yesterday's Tractors

On-line store
<http://www.yesterdaystractors.com/engreb.htm>
Rebuild kits and parts, plus tractor parts and location service.

Vintage Tractor Sales

P.O. Box 403
Metamora, MI 48455
(810) 664-4456
<http://www.tir.com/~oliver88/>
Tractor and engine parts and repair, restore videos.

Classic Ag Tractor Parts

On-Line Store
<http://www.classicag.com/bmv/vid.htm>
Wide assortment of tractor and engine parts for antiques, classics and collectibles. Also offers part location service and has repair/rebuild/restore videos for sale.

The Tractor Web Ring

If you have access to the Internet, check out The Tractor Web Ring, (Internet address is <http://www.webring.org/cgi-bin/webring?ring=tractor:list.>) You'll find 70 different web sites with everything from parts to pictures of restored tractors and equipment. It's a good place to start looking for information on restoring antique and collectible farm equipment.