



Assembling Flywheels using your Rowe USA Flywheel Truing Stand Part No. 09-1179-00

After correct connecting rod bearing fit has been attained, clean and assemble parts as follows:

Use a Rowe USA Flywheel Rebuild Jig, part number 09-1194-00, in a large vise.

Install sprocket shaft to left flywheel and pinion shaft and crank pin to right flywheel.

Check to make sure oil passages through pinion shaft, right flywheel and crank pin are clear by blowing compressed air into hole near end of pinion shaft.

Position right flywheel assembly in Jig, crank pin up. Wipe crank pin taper clean. Slip bearings and connecting rods over crank pin with forked rod to rear cylinder. Wipe crank pin hole in left flywheel clean and dry. Install left flywheel and tighten nut to Factory specifications while using the Channel Iron and Threaded Rod supplied with Jig.

Note on Threaded Rod: Do Not Overtighten use Finger and Thumb pressure only.

Install Flywheel Assembly in Rowe USA Flywheel Truing Stand.

Adjust so centers are snug. Wheels must turn freely but shafts may not be loose in centers.

If flywheel assembly is either loose or squeezed, indicators will not indicate accurately.

Adjust indicators to take reading as near to flywheels as possible, so pointers read at about the middle of the scales.

Turn flywheels slowly and observe the movement of indicator pointers. Movement toward flywheels indicate high points of shafts. Find highest point of each shaft and chalk-mark flywheel rims at those points.

Flywheels may be out of true three ways, A, B and C, Fig. 1 or a combination of two of the three ways.

When wheels are both out of true as indicated in "A," tighten a C-clamp on rims of wheels opposite crank pin and lightly tap the rim at the crank pin with brass hammer.

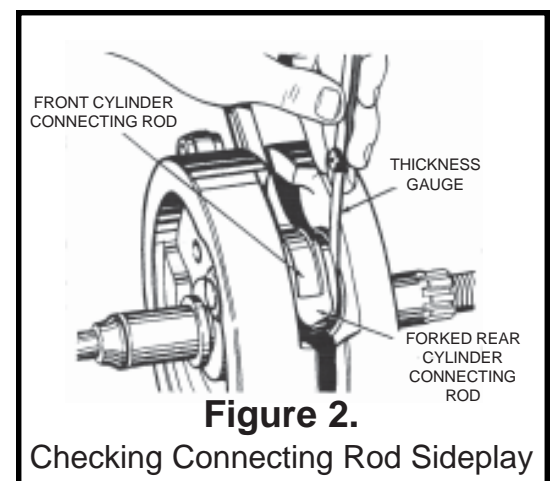
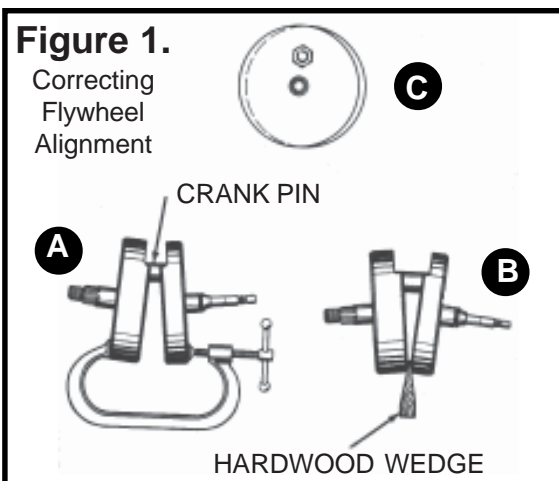
When wheels are both out of true as indicated in "B", drive a hardwood wedge between the wheels opposite the crank pin and lightly tap the rims near the crank pins with a brass hammer.

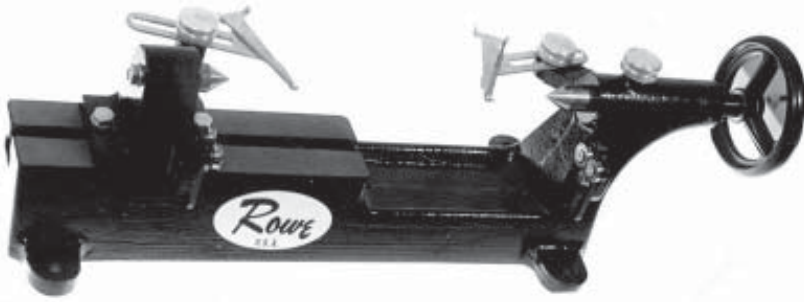
When wheels are out of true as indicated in "C," strike the rim of the wheel a firm blow at about 90 degrees from crank pin on high side after removing Flywheel Assembly from Truing Stand.

When wheels are out of true in a combination of any of conditions shown, correct A or B first, tapping rim of offending wheel only, and then correct condition C out of the Truing Stand.

The number of blows required and how hard they should be struck depends on how far shafts are out of true and how tight nuts are drawn. Never strike wheels a hard blow near crank pin. This could result in a broken crank pin.

Readjust centers, revolve wheels and take reading from indicator. Repeat truing operation until indicator run out does not exceed .001 in. (**each graduation on indicator is .002 in.**)





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If it is impossible to true wheels, check for a cracked flywheel, damaged or enlarged tapered hole, or a sprocket or pinion shaft worn out of round at surface where indicator reading is being taken. When wheels are true, position in Jig and draw crank pin nuts very tight using Flywheel Rebuild Jig and Flywheel Nut Wrench.

Check connecting rod side play with thickness gauge as shown in Fig. 2. If it is greater than tolerance allowable by manufacturer, draw up crank pin nuts until within tolerance. Insufficient play between rods and flywheel face is caused by one of following conditions:

1. Flywheels and crank pin assembled with oil on tapers and nuts overtightened. Disassemble, clean, reassemble.
2. New flywheel washers installed and not fully seated. Disassemble, inspect, replace deepest seating flywheel or exchange crank pin. As last resort, grind down width of forked rod.
3. Taper holes enlarged as a result of having been taken apart several times. Replace wheel seating deepest.
4. Cracked flywheel at tapered hole. Replace flywheel.

If sides of forked rod are ground to get desired clearance, backs of bearing retainers must be ground down to remain narrower than width of female rod. After rod sideplay is checked and adjusted, crank pin nut is torqued to Factory Specifications and lock plate and screw installed, again recheck wheel trueness on Truing Stand. Correct any run-out as above.

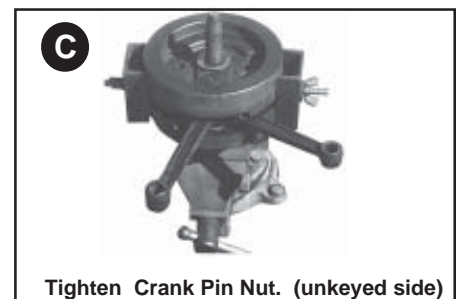
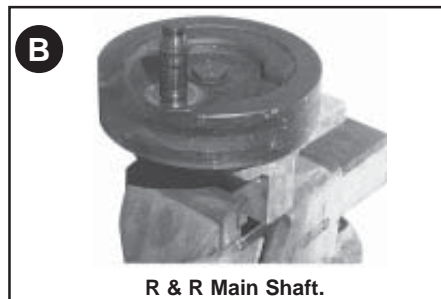
for additional ease of flywheel assembly use a Rowe USA flywheel rebuilding Jig

**Other Tools Required;
Sturdy Bench, Husky Vise, Brass Hammer,
Big Wedge, "C" clamp, Correct Wrenches.**

- Easy R & R of all shafts.
- Two 7/16 Allen set screws hold bottom keyed flywheel.
- Channel Iron keeps unkeyed top flywheel from moving.
- Very Little Truing of Flywheels Needed.
- Usually Squeeze with "C" Clamp or Spread with Wedge.



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