



16575011
Edition 2
August 2008

Random Orbital Sander

RO2()B - () Series

Maintenance Information



Save These Instructions

 **Ingersoll Rand**

 **WARNING**

Always wear eye protection when operating or performing maintenance on this tool.

Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool or before performing any maintenance on this tool.

Note: When reading the instructions, refer to exploded diagrams in parts Information Manuals when applicable (see under Related Documentation for form numbers).

Disassembly

General Instructions

1. Never apply excessive pressure by a holding device which may cause distortion of a part.
2. Apply pressure evenly to parts, which have a press fit.
3. Apply even pressure to the bearing race that will be press fitted to the mating part.
4. Use correct tools and fixtures when servicing this tool.
5. Don't damage "O" Rings when servicing this tool.
6. Use only genuine **Ingersoll Rand** replacement parts for this tool.
7. When ordering, specify part number, description, tool model number and serial number.

Disassembly of Motor

1. Remove Sanding Pad (34).
2. Remove Lock Ring (27) and pull Motor and Seal (22) from Housing.
3. Remove Retaining Ring (18).
4. Using special brass blocks to fit around outside diameter of Cylinder, clamp around Cylinder and press Shaft of Counterbalance through Bearing (19) and End Plate (20).
5. Remove Blades (24), Rotor (23), and Key (28).
6. Remove End Plate (25) and Bearing (19).

Assembly

Assembly of Motor

1. Grease and assemble "O" Ring (26) to Lock Ring (27).
2. Assemble Lock Ring over Counterbalance (29).
3. Assemble Bearing (19) into End Plate (25), pressing on outer race of Bearing.
4. Assemble End Plate (25) onto Shaft of Counterbalance, pressing on inner race of Bearing.
5. Install Key (28) in key slot.
6. Assemble Rotor (23) to Counterbalance, aligning key-way to Key (28).
7. Assemble Five rotor blades (24) to Rotor Slots.
8. Assemble Cylinder (21) over Rotor, aligning Roll Pin in Cylinder with slot in End Plate.
9. Assemble Bearing (19) into End Plate (20), pressing on outer race of Bearing.
10. Assemble End Plate (20), with Bearing (19), to Counterbalance, pressing on inner race of Bearing.
Note: Align slot in End Plate with Roll Pin in Cylinder.
11. Install Retaining Ring (18) to groove in Counterbalance, with bow in ring positioned as shown in parts illustration page.
12. Assemble Seal (22) to grooves in Cylinder.
13. Assemble Motor to Housing, aligning Seal (22) with air inlet.
14. Tighten Lock Ring (27), securing Motor Assembly.
15. Assemble Sanding Pad (34) and tighten securely.

Throttle Assembly

1. Coat Valve Stem (6) with **Ingersoll Rand** 29665 spindle oil and assemble into Housing with hole in Valve Stem in line with Housing to accept Valve (11).

Related Documentation

For additional information refer to:

Product Safety Information Manual 04580387.

Product Information Manual 04578399.

Parts Information Manual 16573933.

Manuals can be downloaded from www.irtools.com

Vacuum Adapter Removal

1. **25 mm size:** While pressing in on the tabs on the side, pull vacuum adapter out.w
2. **To remove the 28 and 32 mm size:** Remove muffler and pull vacuum adapter out.

Throttle Disassembly

1. Remove Vacuum Adapter (15).
2. Remove Inlet Adapter (13), releasing Spring (12) & Valve (11).
Note: Do not remove seat (10) unless damage is evident.
3. Remove Muffler (14).
4. To remove Valve Stem (6), remove Roll Pin (8) and Lever (7).

Regulator Disassembly

1. Remove Lever (7) by removing Roll Pin (8).
2. Remove Snap Ring (5) from Regulator (3).
3. Remove regulator assembly (3) - includes 2 "O" Rings (4).

2. Assemble Seat (10) into Housing with rounded corners into housing first.
3. Coat Valve (11) with **Ingersoll Rand** 29665 spindle oil and assemble into housing, securing Valve Stem (6).
4. Assemble Spring (12) into Housing.
5. Assemble Inlet Adapter (13) to Housing, securing throttle components.
6. Assemble Lever (7) to Housing, securing with Roll Pin (8).
7. Assemble Vacuum Adapter (15) or Plug (16) to Housing.

Vacuum Adapter installation

1. **25 mm size:** Push into housing until tabs on Vacuum Adapter snap into Housing.
2. **To install 28 and 32 mm size:** Remove muffler. Push adapter into housing and align ring on vacuum adapter with exhaust. Push muffler through ring on vacuum adapter and screw muffler to housing.

Regulator Assembly

1. Assemble Regulator (3) and 2 "O" Rings (4).
2. Insert Regulator assembly (3) into Housing (1).
3. Assemble Snap-Ring (5) into groove on regulator assembly (3).
4. Install Lever (7) by adding Roll Pin (8).

Notes:

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