

# Dynorbital-Spirit® Drop-In Motor

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## Replacement Instructions

For Serial No. 14H1000H + Higher

For All Dynorbital-Spirit® Random Orbital Sanders



Orbit Dia.	3"	3.5"	5"	6"
3/8"	59512	59485	59497	59500
3/16"	59513	59486	59498	59501
3/32"	59514	59487	59499	59502

### Replacement Instructions

Drop-In Motor Repair Kit P/N 59459 is available which includes special repair tools for the correct removal and replacement of the air motor (see below).

**Disconnect tool from power source before motor exchange**

#### Removal:

1. Disconnect the sander from the air supply.
2. Invert the sander, and place the **57092** Repair Collar (supplied in the **59459** Drop-In Motor Repair Kit) around the housing and secure in a vise. Padding can be used on the vise jaws to protect the housing.  
**Important:** Do not over tighten the sander in the vise. If the sander is held too tight the removal of the lock ring and air motor will be difficult.
3. Remove the sanding pad with the **50679** Open-end Wrench (26 mm, supplied with Dynorbital-Spirit®).
4. Insert the **56058** Lock Ring Tool (supplied in the **59459** Drop-In Motor Repair Kit) into the corresponding tabs of the lock ring. Loosen the **59058** Lock Ring turning it counterclockwise.
5. Remove the **59058** Lock Ring from the air motor assembly (**Note:** Applies only to 3/16" and 3/32" diameter orbits).
6. Discard the air motor assembly.

#### Installation:

**Important:** Clean and inspect the housing, valve mechanism, and exhaust assembly. Replace any valve, muffler, or vacuum components as is necessary.

Follow all torque and lubrication specifications (see Parts Page Manual supplied with sander).

1. Place the **59058** Lock Ring over the motor shaft balancer (**Note:** Applies only to 3/16" and 3/32" diameter orbits).
2. Apply 1 drop of oil to the **01024** O-Ring (supplied with the drop-in air motor assembly).
3. With the sander housing secured in a vise (use the **57092** Repair Collar or padding on the jaws of the vise to protect the housing) slide the drop-in motor into the housing aligning the line-up post with the notch on the inside of the housing. **Note:** Make certain that the line-up post enters the notch in the housing and that the **01024** O-Ring remains seated in the side of the cylinder.
4. Tighten the lock ring with the **56058** Lock Ring tool (Torque to 23 N•m/ 200 in.-lbs.).
5. Install a Dynabrade weight-mated sanding pad.

#### Drop-In Motor Replacement Complete

**Important:** Before connecting the sander to the air supply, depress the throttle lever and place 2-3 drops of **95842** Dynabrade Air Lube directly into the air inlet. The sander should now be tested at 90 PSIG operating pressure at the sander. Operate the sander for 30 seconds to determine if it is operating properly and to allow the lubricating oil to permeate the air motor.

**Waste Disposal:** Use standard landfill methods consistent with applicable Federal, State, Provincial and local laws.

## Optional Dynabrade Accessories

#### 10 Pack of Drop-In Motors

- 59503** 3-1/2" Dia., 3/8" Orbit
- 59504** 3-1/2" Dia., 3/16" Orbit
- 59505** 3-1/2" Dia., 3/32" Orbit
- 59506** 5" Dia., 3/8" Orbit
- 59507** 5" Dia., 3/16" Orbit
- 59508** 5" Dia., 3/32" Orbit
- 59509** 6" Dia., 3/8" Orbit
- 59510** 6" Dia., 3/16" Orbit
- 59511** 6" Dia., 3/32" Orbit

#### 59459 Drop-In Motor Repair Kit

Special tools for proper removal and installation of the Dynorbital-Spirit® drop-in motor.

- 57092** Repair Collar
- 56058** Lock Ring Wrench



#### 57098 Full Service Repair Kit

Special tools for proper disassembly/assembly of the Dynorbital-Spirit® sander.

- 57092** Repair Collar
- 56058** Lock Ring Wrench
- 56056** Bearing Puller
- 57091** Bearing Press Tool
- 57099** Bearing Puller
- 96034** 12 mm Hex Wrench
- 96066** 3/4" Socket



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