SCARIFIERS

Hand-held & Walk-behind

NEEDLE SCALERS

Hand-held & Extended Reach

GRINDERS/SANDERS

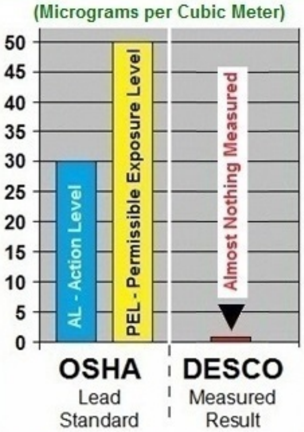
Hand-held & Extended Reach

INDUSTRIAL VACUUMS

Hazmat & Radiological

OSHA Compliant*

(Micrograms per Cubic Meter)



*Industrial Hygiene report results for tools tested.

7" Sander

Pneumatic

151.110, 151.119

151.210, 151.217,
151.219 151.2179

Configurations

Part	Description	Dust Shroud	Backup Pad (Abrasive)
151.110	7" Sander	None	Hook & Loop (Conditioning Disc)
151.119	7" Sander	None	Center Nut (Coated Abrasive)
151.210	7" Sander	Floating Round	Hook & Loop (Conditioning Disc)
151.219	7" Sander	Floating Round	Center Nut (Coated Abrasive)
151.217	7" Sander System	Floating Round	Hook & Loop (Conditioning Disc)
151.2179	7" Sander System	Floating Round	Center Nut (Coated Abrasive)

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1-Desco_Grinder-Sander-7in-Pneumatic-Manual_Sep2023.PDF
September 2023

Contents

Introduction

The Desco Pneumatic 7" Sander is a quality power tool available with highly effective dust collection. The tool is lightweight and affords the user maximum ease and efficiency in a variety of applications. As with any product of a quality manufacture, service life largely depends on correct handling. These instructions are prepared to help you obtain maximum safety and performance at all times.

Main Applications

- De-slagging welds
- Stripping paint
- Cleaning castings
- Removing rust & corrosion
- Feathering edges

Technical Specifications

Air required	90 psi @ 18 cfm
Air inlet	1/4" NPT
Weight	4.6 lbs
Length	12.5"
Speed, no load	4,500rpm
Spindle size	5/8"-11

Important Safety Information

Read and understand all of the safety precautions, warnings and operating instructions in the instruction manual before operating or maintaining this power tool.

Most accidents that result from power tool operation and maintenance are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures

Basic safety precautions are outlined in the Safety section of this instruction manual and in the section which contain the operation and maintenance instructions.

Hazards that must be avoided to prevent bodily injury or machine damage are identified by warnings on the power tool and in this instruction manual.

Basic Safety Rules

WARNING Read and understand all instructions
Failure to follow all instructions listed below may result in damage to the tool and/or serious personal injury.

Work Area

1. **Keep work area clean and well lit**. Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres**, such as in the presence of flammable liquids, gasses, or dust. Power tools create sparks which may ignite dust or fumes.
3. **Keep bystanders away** while operating a power tool.

Personal Safety

1. **Stay alert**, watch what you are doing and use common sense when operating a power tool. Do not operate tool when tired or substance impaired.
2. **Dress properly.** Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing and hands away from moving parts.
3. **Use safety equipment**. Always wear eye protection. Other precautions may be required depending on the situation. These include: ear protection (ear plugs) vibration protection (gloves), steel toe shoes or hard hats.
4. **Avoid accidental starting**. Be sure the switch is off before attaching to power source.
5. **Do not overreach**. Keep proper footing and balance at all times.

Tool Use and Care

1. **Secure the work.** Use clamps or other securing method to firmly hold work to a stable platform. Do not attempt to hold work in one hand and operate the tool with the other hand.
2. **Do not force tool.** Apply light hold down pressure and let the tool do the work. Use the correct tool for your application.
3. **Do not tape trigger closed** to fashion a trigger lock. If you drop or otherwise loose control of the tool, it will continue to run and may cause dangerous results.
4. **Disconnect from power source before making adjustments** or changing accessories. Failure to disconnect may result in injury if the tool were to accidentally start while adjusting.
5. **Store tools out of reach of untrained persons.** Tools are dangerous in the hands of untrained users.
6. **Maintain tools with care**. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
7. **Check for misaligned or binding of moving parts**, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

Operation

Prior to Operation

1) **Check your work environment** – Ensure the following before operation:
   - No flammable gas or liquid at worksite.
   - Work piece secured to prevent unwanted movement
   - Area cleared of children or unauthorized personnel.
2) **Observe abrasive speed rating** – Use only abrasives rated to run at 4,500 rpm or greater.
3) **Check air supply**
   - *Air Pressure and Volume* – 80-90 PSI air pressure at a minimum of 18 CFM is recommended for the most efficient performance. Air pressure that is too high will shorten the tool's life.
   - *Dry and Clean Air* – For proper performance and tool life, it's critical to provide clean, dry air to the tool. If moisture is present, utilize filter/dryer at air station or between compressor and air hook-up.
   - *Air Hose and Fittings* – Insure hoses and fittings are in good condition with no leaks in fittings or hose. Due to static pressure drop with increased hose length, ½" or ¾" hoses are recommended whenever exceeding 50 feet in length. Larger ½" body fittings are also recommended as they allow more airflow and are less restrictive**.**

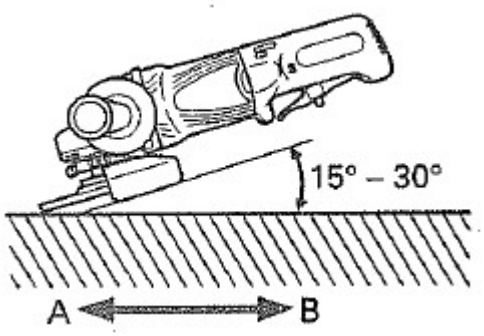
Grinder Operation

1) **Hold the grinder firmly with both hands**. One hand on the tool body handle and the other on the side handle.
2) **Safety Lock-off Lever Operation** – The power control throttle valve is operated by a safety lock-off lever. Pull the lever to start the tool and release the lever to stop the tool. A lock-off safety feature is mounted on the lever to prevent accidental starting. To override the lock-off, push the lock-off backward as indicated by the arrows below.

3) **Use light grinding pressure** – There is no need to press hard when grinding. Usually the grinder's own weight is sufficient to allow the required light contact with the surface to be grinded. Let the tool do the work.

WARNING: Do not press the grinder forcibly against the surface to be ground. Heavy pressure can result in wheel breakage and serious injury. It can also damage the surface being ground or damage the grinder's motor.

4) **Use proper grinding angle and motion:**
   - Grind only with the wheel's edge by lifting the grinder 15° to 30° as shown below.
   - Move the grinder in the proper direction. When using a new abrasive wheel in direction A, the wheel edge may cut into the work piece. In this case, grind in direction B. Once the wheel edge is worn, the work piece can be ground in both directions.



Inspection and Preventative Maintenance Schedule

Routine inspection and lubrication can be done by a person with a mechanical ability but otherwise no special training. However, maintenance procedures which require tool **dis-assembly and re-assembly should be done by a qualified pneumatic tool technician**.

Interval	Item	Maintenance Procedure
Daily	Lubrication	Always use factory in-line filter lubricator. Fill reservoir after each use or after 8 hours of operation with 2135th or equal lubricating oil. Insert 3-4 drops of oil in tool air inlet before storing.
Daily	Guard Bolts and Fasteners	Make sure all bolts and fasteners are properly tightened.
Daily	Double Safety Lock-off Lever	Check the “ON/OFF” handle to make sure double lock-off lever is operating properly. Replace if broken.
Daily	Hoses	If leaks are discovered, hose should be replaced. If leaks are around fittings, hose may be repairable.
30 Days	Filter	Replace when cartridge is dirty or does not allow air to pass through freely.
30-60 Days	Air Motor: Cylinder	Examine ID of cylinder for rough circular grooves. If grooves are in excess of .005” deep, replace cylinder. Minor scoring and rust can be removed with a fly-bur tool.
30-60 Days	Rotor	Examine the spline or gear teeth at the driving end of the rotor. If they have become so worn that a step can be seen next to mating surfaces, the rotor should be replaced.
30-60 Days	Bevel Gears	Grease air motor bevel gears after every 250 hours of operation.
30-60 Days	Endplates	Examine both the front and rear endplates for wear. If the face shows wear greater than a depth .005”, the endplates should be replaced.
30-60 Days	Bearings	Hold the inner race and rotate the outer race of the bearing by hand. If rough movement or substantial play are detected, replace bearing.
30-60 Days	Rotor Blades	Compare the width of an old rotor blade with the width of a new blade. If the old blades show 20% or more wear, they should be replaced.
30-60 Days	O-Rings	If o-rings become hard or cracked, they should be replaced. To prevent drying out, always coat o-rings with lubricant such as petroleum jelly before installation.

Changing Abrasives

Changing abrasives is a simple procedure as described below. However, when you change abrasive type, additional setup is often required. For example, if you change from coated abrasives to conditioning discs, you will also need to change the backup pad and shaft extension. For more information on this topic, see *Backup Pad and Shaft Extension Usage* later in this document.

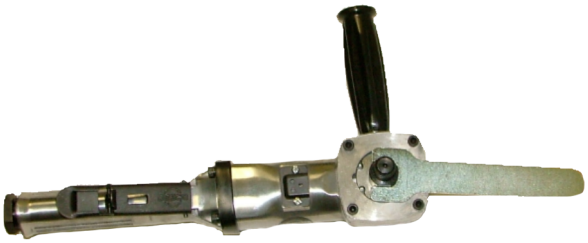
Setup for Coated Abrasives

1) Disconnect tool from power source.
2) Tools required are a spindle wrench and center nut wrench.

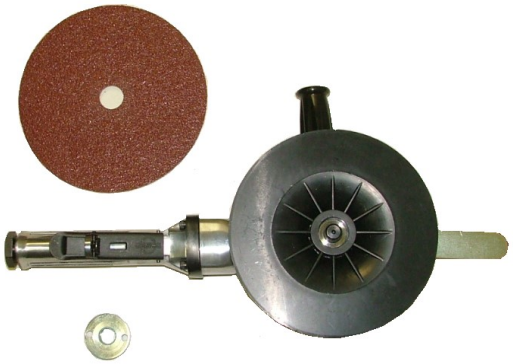
Spindle Wrench

Center Nut Wrench

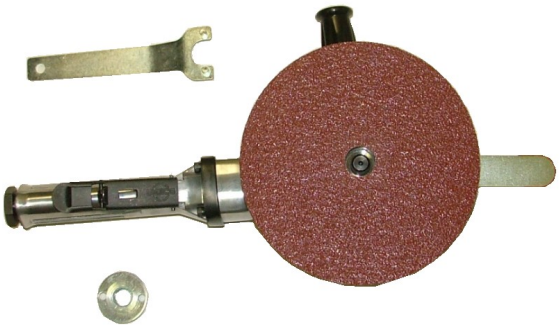
3) Lock the spindle. On a suitable bench, lay the tool on its back. Then insert the supplied spindle wrench onto the spindle to hold it in place.



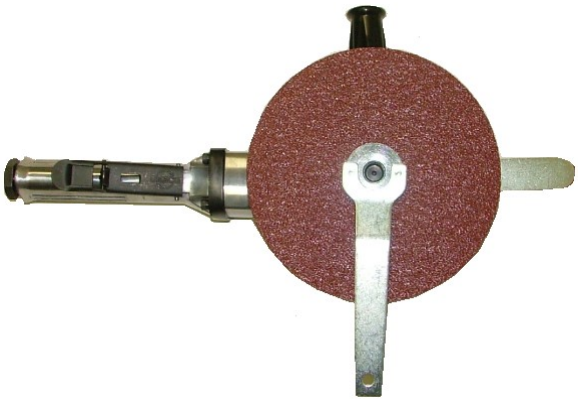
4) Mount the center nut style back pad by threading in on the spindle while holding the spindle in place with the spindle wrench.



5) Place the coated abrasive disc centered on the backup pad.



6) Install the center nut and tighten with the supplied spanner wrench. While tightening, you need to hold the spindle in place with the spindle wrench.

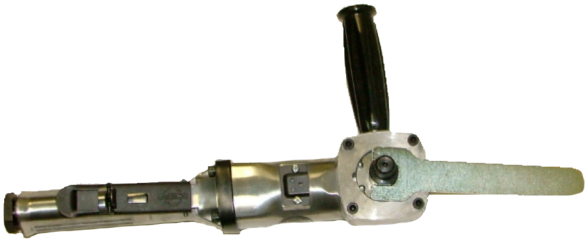


Setup for Conditioning Discs

1) Disconnect tool from power source.
2) Tools required are a spindle wrench.

Spindle Wrench

3) Lock the spindle. On a suitable bench, lay the tool on its back. Then insert the supplied spindle wrench onto the spindle to hold it in place.



4) Mount the hook and loop style back pad by threading in on the spindle while holding the spindle in place with the flat wrench.

5) Mount the conditioning disc centered on the back up pad. Once installed, place tool face down with abrasive on a flat surface and apply pressure to the head of the tool to fully engage and secure the disc to the back up pad. Failure to center the disc and secure to back up pad may cause the tool to vibrate and cause the disc to fly off the tool.

Backup Pad and Shaft Extension Usage

To ensure effective dust collection, the dust shroud must be in contact with the work surface during operation. However, backup pads and abrasive discs vary in thickness. Shaft extensions of various lengths were developed to accommodate this variable thickness. Please see the table below for shaft extension usage.

7" Grinder Setup, Round and Bullnose Shroud

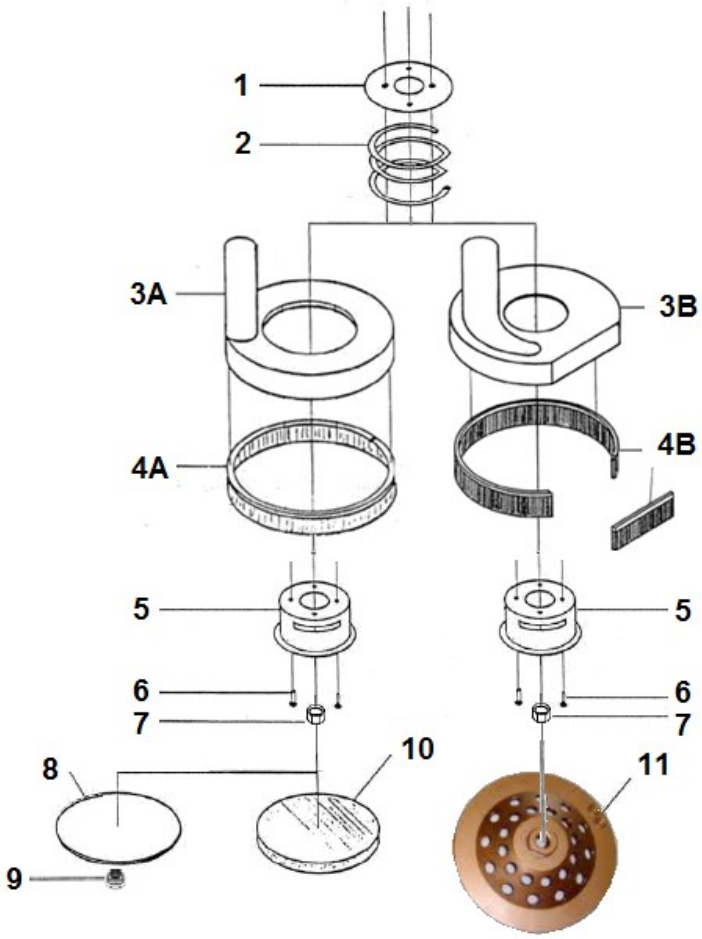
Backup Pad	Abrasive		Shaft Setup	
	Type	Part	Air Tool	Electric Tool
Hook&Loop (820.009)	BPH Disc	810.751	**N/A**	Jam Nut (500.002)
Hook&Loop (820.009)	Conditioning Disc	810.710 810.711 810.712 810.714 810.715	Jam Nut (500.002)	Jam Nut (500.002)
2 Piece Center Nut (850.035)	Diamond Disc	850.006 850.007 850.010 850.011	Jam Nut (500.002)	Jam Nut (500.002) & Brass Spacer (200.012)
200.016 w/Center Nut (500.071)	Coated Abrasive	815.7416 815.7424 815.7436 815.7450 815.7480	Shaft "E" (500.235)	Shaft "C" (500.230)
200.016 w/Center Nut (500.071)	Rip Disc	200.017	Shaft "E" (500.235)	Shaft "C" (500.230)

Tool Stowage

Avoid storing tools in locations subject to high humidity. If tool is stored in such environment over extended duration without proper lubrication, residual internal moisture will result in corrosion. After operation and before storing, always wipe down tool to make sure it is free of grease, dirt and grime. Immediately following, place 2 drops of oil in tool air inlet and run motor for 1 to 2 seconds to spread lubrication throughout motor.

Schematics

7" Dust Collector Schematic (Pneumatic)

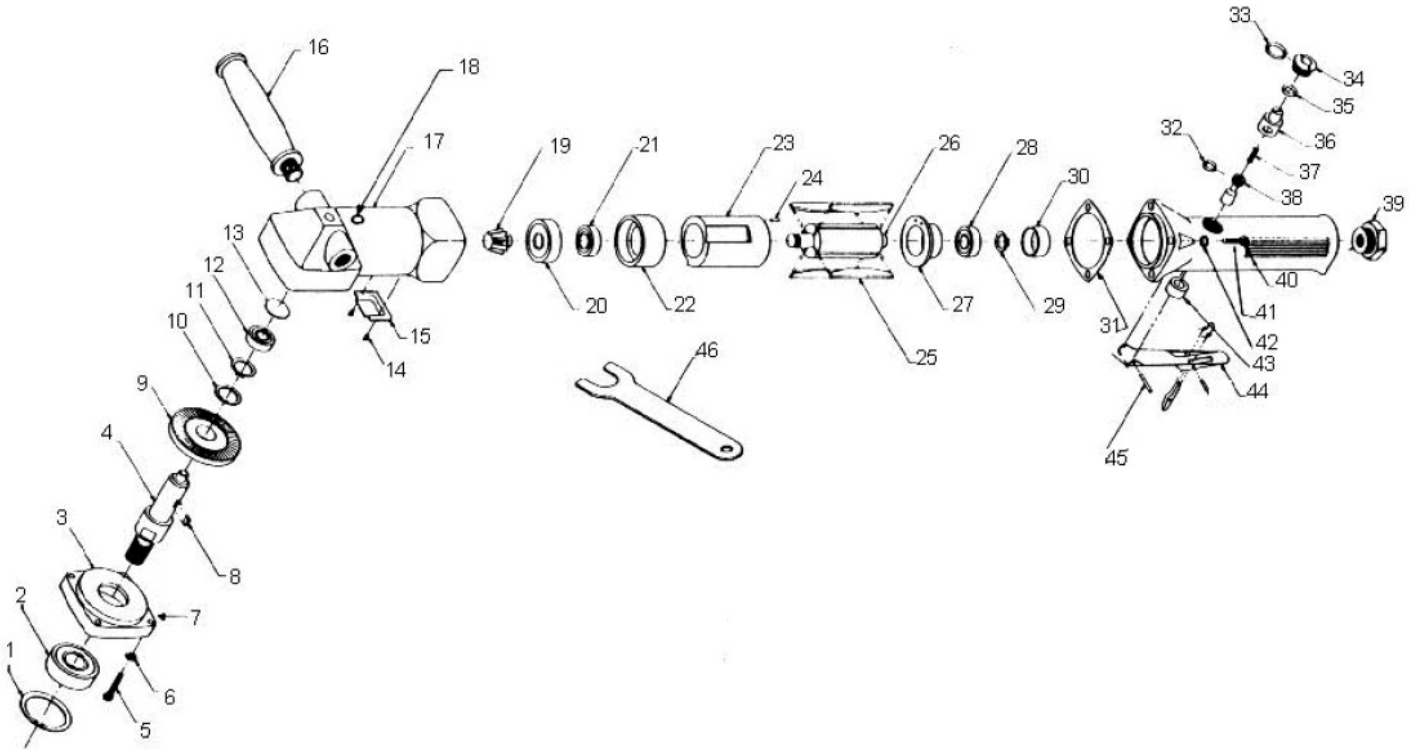


Ref	Part	Description
1	151.004	Retaining Plate
2	151.006	Spring
3A	151.007	Dust Shroud, Round
3B	200.004	Dust Shroud, Bullnose
4A	150.003	Brush, Round
4B	200.010	Brush, Bullnose
5	151.002	Cup Adapter
6	750.075	Bolt (4 req)
7	500.002	Jam Nut
8	500.153	Backup pad, 7", center nut style (for coated abrasives)
9	500.071	Center nut
10*	820.009	Backup pad, 7", hook & loop style (for conditioning discs)
11	850.series	Diamond cup wheel, 7", (only abrasive available for bullnose)

*__Note__: When using 810.751 Clean N' Strip disc (10), remove jam nut (7)

Grinder Schematic

Air Motor Part: 151.044
Used in Parts: 101.212, 151.110, 151.119, 151.210, 151.219, 151.217, 151.2179



Ref	Part	Description
1	550.354	Retaining ring
2	550.353	Ball bearing
3	550.352	Housing cap
4	550.350	Spindle
5	550.364	Screw (4)
6	550.363	Washer (4)
7	550.368	Gasket
8	550.351	Woodruff key
9	550.349	Bevel gear
10	550.362	Wave washer
11	550.361	Retaining ring
12	550.337	Ball bearing
13	550.358	Bearing plate
14	550.360	Deflector screw (2)
15	550.590	Exhaust deflector
16	550.355	Side handle

Ref	Part	Description
17	550.347	Motor housing
18	500.044	Flush grease fitting
19	550.346	Pinion gear
20	550.345	Ball bearing
21	550.337	Ball bearing
22	550.343	Front end plate
23	550.342	Cylinder
24	550.341	Cylinder pin
25	550.339	Rotor blade (4)
26	550.340	Rotor
27	550.338	Rear end plate
28	550.337	Ball bearing
29	550.336	Retaining ring
30	550.335	Rear bearing plate
31	550.367	Gasket
32	550.330	"O" ring

Ref	Part	Description
33	550.333	"O" ring
34	550.334	Valve screw
35	550.365	"O" ring
36	550.332	Air controller
37	550.331	Valve spring
38	550.329	Valve stem
39	550.326	Air inlet
40	550.327	Handle body
41	550.357	Cap screw (4)
42	750.122	Washer (4)
43	550.328	Valve bushing
44	550.522	Throttle lever
45	550.521	Lever pin
46	550.366	Wrench
47	555.088	Bearing shield