



**NOTE: Parts are no longer available for this tool.**

**The manual will continue on the next page.**



**SIoux  
TOOLS INC.**

2901 FLOYD BOULEVARD ■ SIOUX CITY, IOWA 51102 ■

Form A641  
Dated 5/80

# **INSTRUCTIONS & PARTS LIST FOR SIOUX**

## **MODEL 1940 [1/8"] DIE GRINDER**

65,000 RPM NOMINAL GOVERNED SPEED

### **SAFETY PRECAUTIONS**

To safely operate the Model 1940 1/8" Turbine Die Grinder:

1. Read and follow section 10 American National Standard ANSI B7.1.
2. Always use O.S.H.A. approved eye & face protection.
3. **Never** use a wheel or burr rated for less than 103,000 rpm and keep shank within overhang limits. If in doubt, chuck wheel as deep as possible in collet.
4. Check air supply pressure to insure the pressure is no greater than 100 PSI gauge.
5. Be sure collet is tight.
6. Always run tool and wheel up to speed in a protected area. This precaution will prevent injury to the operator and other personnel near by in case of wheel or burr failure.
7. Whenever possible, operate tool in a protected area.
8. If you are in doubt, dress wheel down to a size 3/8" O.D. x 3/8" long or less.
9. Use only concentric burrs (carbide or steel) no greater than 1/8" O.D. If burr vibrates **DO NOT USE—CHECK COLLET—BE SURE IT STAYS TIGHT.**
10. If governed turbine tool overspeeds during run-up, return to Sioux Tools Inc. **DO NOT USE TOOL WITH FAULTY GOVERNOR.**
11. Use common sense—remember this is a **powerful** tool—use with **caution.**

Note: Small fittings and hoses will restrict power at full load. use 1/4" Air Inlet Supply Line.

### **OPERATING INSTRUCTIONS**

Air pressure of 90 to 100 pounds per square inch is required for the proper operation of this tool. The air pressure should be filtered and as dry as possible for longer bearing life. The line should be blown out before attaching to tool.

### **CAUTION**

No lubrication is required due to the use of prelubricated and sealed bearings. Tool should not be flushed with any solvent or oil. No greasing or oiling of this tool is necessary.

Use proper wrenches supplied with the tool when adjusting the collet nut upon inserting or removing wheel shafts.

The coned end of the collet must be inserted into the coned seat in the tool shaft for proper locking of the wheel shaft.

Do not use a wheel larger than 3/8 inch diameter unless an additional tool shield is utilized, and then do not exceed 1/2 inch diameter. Do not exceed a 1/2 inch overhang. (distance from Collet Locknut to wheel)

Do not squeeze the tool in a vise or permanent damage may result to the tool.

Do not run at air pressure above the recommended 100 PSI limit or excessive speeds may result in broken wheels and permanent tool damage.

These precautions are given with the intent to aid in the safe use of this tool which would be considered good practice with any tool of this operating range.

### **SERVICE INSTRUCTIONS**

The parts of this tool are small and require careful handling hence we recommend that it be returned to the factory or an authorized service representative for repair. The governor mechanism adjustment is such that any tampering may prevent proper operation of the tool and void any warranty.

Air line pressure should not exceed 100 PSI. Largest size wheel without shield 3/8 x 3/8 with no overhang. Largest size burr 1/4 diameter x 3/8 long; no overhang.

For more detailed information please read these service instructions.

The safe operation of this tool will require precaution in the proper selection of the mounted wheel and burr diameter size plus their proper installation in the tool to prevent excessive overhung loads. Either item can result in broken wheels or mandrels, which can result in personal injury and possible permanent damage to the tool. Use and handling of this tool should be in full compliance with the American Standard Safety Code Regulations as described in the ASA Bulletin B7.1-1970. (The Use, Care and Protection of Abrasive Wheels) Safety Goggles or a face shield must be worn when using this tool and use of the tool should be such that other people are not endangered in the event of a broken wheel or burr.

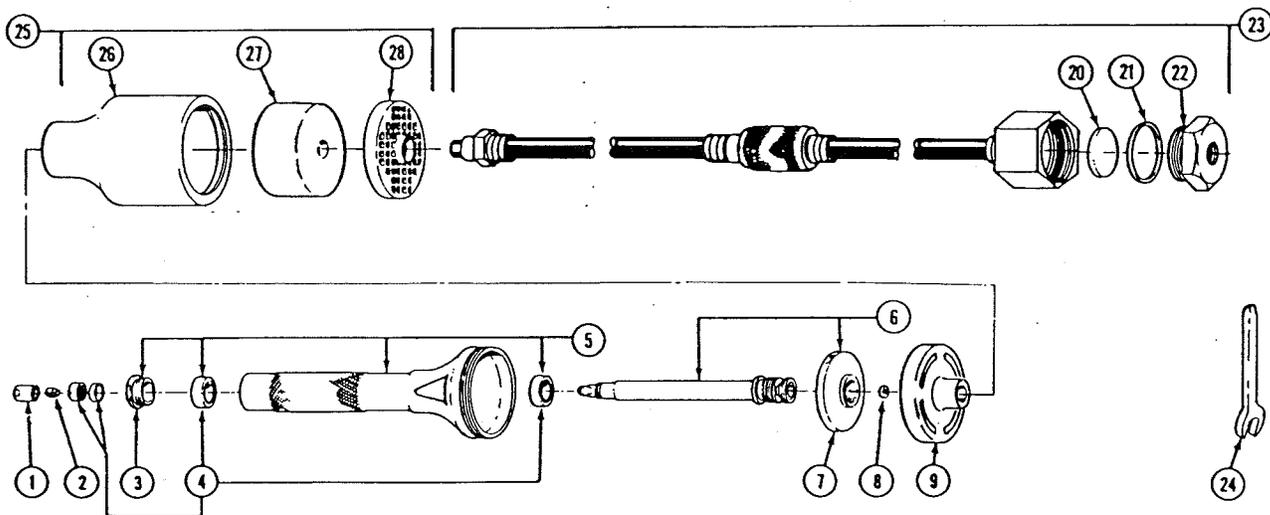
When operated with the required 90 to 100 pounds per square inch air pressure the governor built into the tool will regulate the speed to approximately 65,000 RPM. In the event of governor failure, a maximum speed of 103,000 RPM could be attained. Therefore, wheel or burr selection must be such, that only those having a safe rating of a minimum of 103,000 RPM should be utilized, unless an additional shield is used which would permit use of wheels or burrs with a safe rating to 65,000 RPM.

Use of any carbide or other type of burr must be limited to a maximum 1/4 inch diameter and 3/8 inch long, or 1/8 inch diameter and 1/2 inch long envelope and a maximum runout of outside diameter to the mandrel of .0005 T.I.R.

Use of any burr larger than 1/4 diameter requires the use of a special tool shield. No overhang is allowed in the use of the burrs.

Figure	Part No.	Name	Figure	Part No.	Name
1	72145	Nut—Collet	20	72165	Filter
2	72146	Collet	21	72166	Filter—"O" Ring
3	72147	Cover—Bearing	22	72167	Filter—Housing Rear
4	72148	Bearing Ass'y.	23	72168	Ass'y.—Air Supply
5	72149	Barrel & Bearings	24	72169	Wrenches (2)*
6	72150	Ass'y.—Power Producer	25	72170	Ass'y.—Muffler
7	72151	Rotor	26	72171	Boot—Rubber
8	72152	Seal	27	72172	Pad—Baffle
9	72153	End—Cap	28	72173	Screen

\* Order Quantity as Needed



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This pdf incorporates the following model numbers:

1940