



**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 A642  
Dated 10/81  
E.D. 10/81

# **INSTRUCTIONS & PARTS LIST FOR SIOUX MODEL 1942 [1/4"] DIE GRINDER**

## **SAFETY PRECAUTIONS**

### **MODEL 1942 1/4" DIE GRINDER—40,000 RPM NOMINAL GOVERNED SPEED**

To safely operate the Model 1942 1/4" 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 75,000 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 1/2" O.D. x 1/2" long or less.
9. Use only concentric burrs (carbide or steel) no greater than 3/8" O.D. x 1" long. 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 3/8" air inlet supply line and Hansen Series 5000, ARO high flow, or equivalent 3/8" couplings.

## **IMPORTANT OPERATIONAL AND SERVICE NOTES**

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. Do not exceed 100 psig at the tool.

The safe operation of these tools will require precautions 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 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 40,000 rpm. In the remote event of a governor failure, a speed of up to 75,000 rpm could be attained. Therefore, wheel or burr selection must be such, that only those having a safe rating at runaway speeds should be utilized, unless an additional shield is used which would permit use of wheels or burrs with a safe rating at the normal operating speed.

Select specified maximum wheel speeds as recommended by the wheel manufacturer for sizes and shapes which could be safely used in this tool, provided the installed overhang of 1/2 inch is not exceeded. This will be dependent on the wheel shape and strength. In no case should the maximum operating speed recommended by the wheel manufacturer be exceeded. This is the responsibility of the wheel user.

Use of any burr larger than the specified diameters requires the use of a special tool shield. No overhang is allowed in the use of the burrs of maximum diameters.

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

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 psig limit or excessive speeds may result in broken wheels and permanent tool damage.

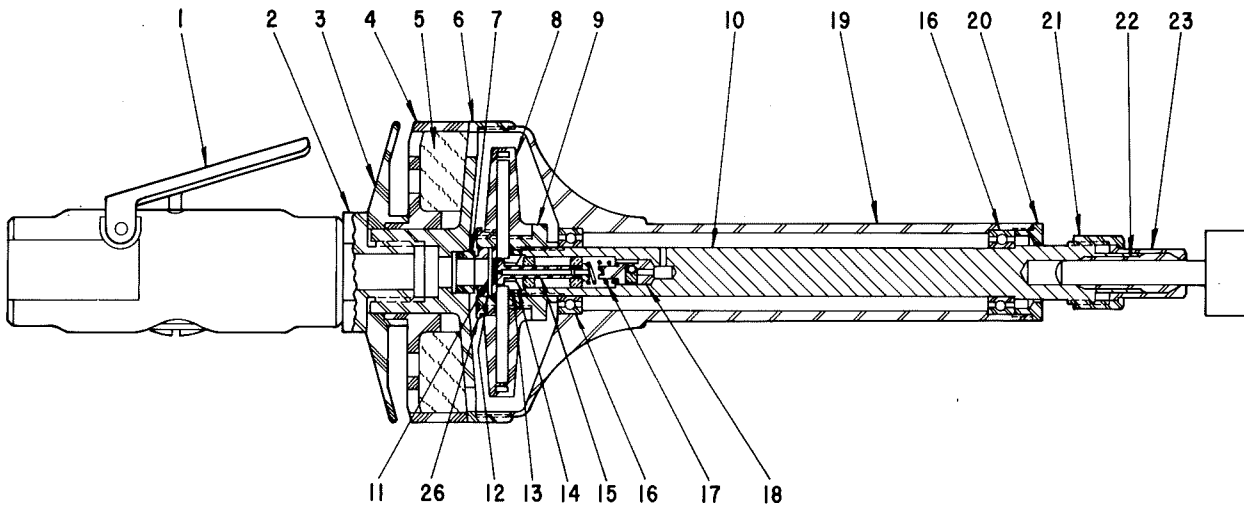
These precautions are given with the intent to aid in the safe use of this tool which would be considered good practice with any tool of this operating range.

## 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.

Transportation charges for tools returned to our factory or authorized service representative must be pre-paid.

Fig- ure	Part No.	Name	Fig- ure	Part No.	Name
1	72180	Ass'y.—Valve (ATT "Deadman" Type)	14	72193	Ring—Diaphragm Seating
2	72181	Adaptor—Valve	15	72194	Piston—Governor Ass'y.
3	72182	Cap—Deflector	16	72195	Bearing (Set of 2)
4	72183	Housing—Muffler	17	72196	Spring—Governor
5	72184	Pad—Baffle	18	72197	Ass'y.—Trigger
6	72185	Cap—End	19	72198	Ass'y.—Housing
7	72186	Seal	20	72199	Cover—Bearing
8	72187	Ass'y.—Rotor	21	72200	Nut—Collet
9	72188	End—Shaft	22	72201	Collet 1/4" or 6MM
10	72189	Shaft	23	72203	Nosepiece—Collet
11	72190	Pin—Deflector	24	72204	Wrenches—1/2 (Not Shown)
12	72191	Stop—Valve	25	72205	Wrenches—11/16 (Not Shown)
13	72192	Locknut—Diaphragm	26	72206	Nut—Lock



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This pdf incorporates the following model numbers:

1942