



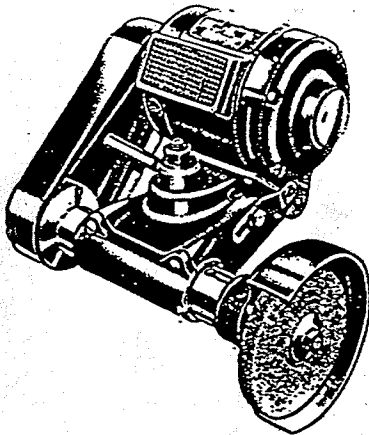
SERIES 5 TOOL POST GRINDER

OPERATING INSTRUCTIONS AND PARTS LIST

MODELS 8072 & 8103

Model No. is first 4 digits of Serial No. on name plate

OPERATING INSTRUCTIONS



GROUNDING

In line with the latest requirements set forth by the Underwriters' Laboratories and the National Electrical Code on Safety, the Series 5 Tool Post Grinder is equipped with a three prong grounding plug. We strongly recommend that suitable grounded outlets be provided to receive this plug.

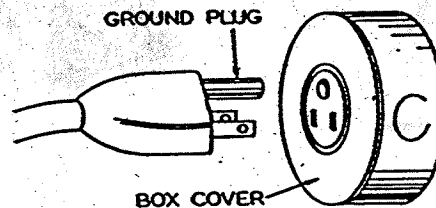


FIG. 1

SPECIFICATIONS

Motor -- 1/2 H.P., Series, Universal
Distributed Field
Spindle Speed Range -- 4,600 to 42,500 RPM
Grinding Wheel Capacity -- 1/8" to 5"
(Varies with Quill used.)
Internal Grinding Capacity -- 18" deep at diameter
of 1-7/8". (Varies with Quill used.)
Mounting -- T Bolt

DIMENSIONS:

Center line of spindle to base -- 1-1/8"
Center line of spindle to center line of mounting
post -- 1-3/4"

OPERATION

Voltage -- Normally 115 Volts -- 230 Volts Available.

POWER SUPPLY -- The Dumore Grinder is equipped with a high speed, universal motor which can operate on AC or DC (0 to 60 cycle) current. Be sure that the voltage of the power supply agrees with the voltage shown on the motor nameplate.

The Series 5 Grinder is designed for use on lathes with a 13" to 18" swing. All tool post grinding is done with the grinding spindle center adjusted to the exact height of the work center. Therefore, the distance from the top of the compound to the center line of the lathe, "X", (Fig. 2) must always be equal to or greater than the distance from the base of a grinder frame to center line of spindle (commonly referred to as the minimum mounting distance.) If this condition does not exist, grinder will not fit lathe, because the grinding spindle cannot be set work center. If the grinder is being used on a lathe specifically, a good time-saving idea is to make a metal spacer plate to fit between the mounting post base and the base of the grinder frame so the tool automatically lines up with the work center.

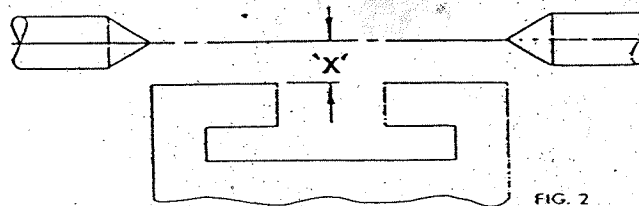


FIG. 2

DUMORE PRECISION TOOLS

THE DUMORE COMPANY

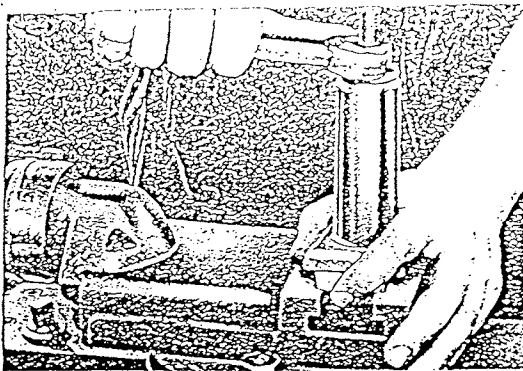


FIG. 3

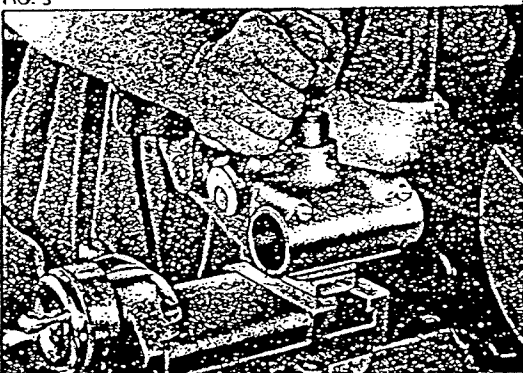


FIG. 4

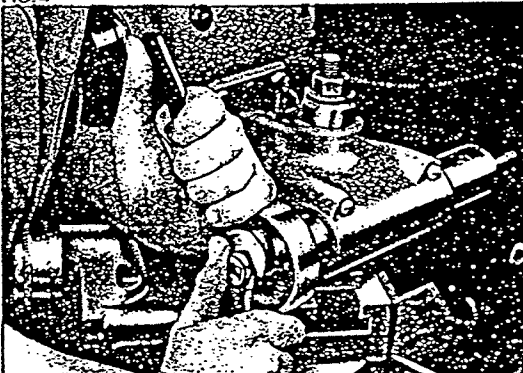


FIG. 5

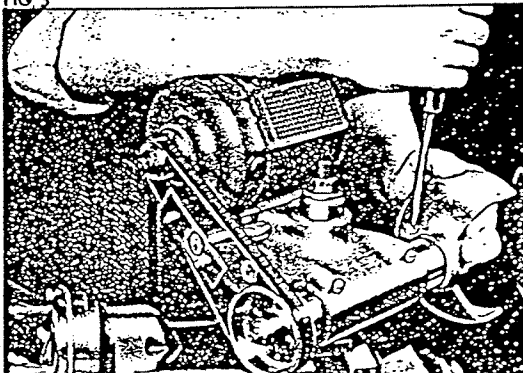


FIG. 6

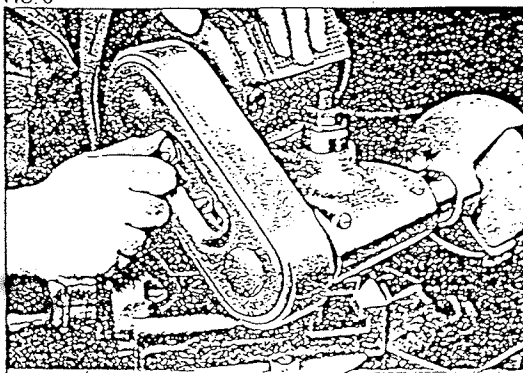


FIG. 7

SETTING UP ON A LATHE -- Before setting the grinder up on a lathe, mount the workpiece either in a chuck, collet or between centers. The Series 5 Grinder is designed to fit in the T-slot of a lathe compound. To set up, remove the mounting post from the grinder by loosening the lock nut on the right side of the frame and pulling the post free. Insert the T-bolt of the mounting post into the T-slot of the lathe compound and tighten nut at the top as illustrated in Fig. 3.

After the mounting post is tightened, set the lathe compound at any angle listed on the chart, Fig. 8. The starred 60° angle setting seems to be ideal as the feed is set at .001" and the actual cut into the work is .0005 while the reduction in the diameter of the workpiece is .0010". The graduations on a lathe compound dial are in thousands and your work will often call for accuracies of tenths of thousands. This chart will be helpful in determining how much stock is being removed, the actual cut, and approximately what reduction is being made in the diameter of the work.

Next slip the grinder onto the mounting post and tighten the lock nut, Fig. 4. Loosen the two screws on the front of the grinder and insert the quill into the grinder with the stop screw on the quill engaged in the slot in the grinder. Tighten the two screws on the front of the grinder.

Now loosen the lock nut and position the tool so that the spindle is parallel with the workpiece. Set the center line of the spindle at the approximate center line of the workpiece and tighten the lock nut.

Select the proper pulleys for the wheel size to be used and install pulleys on motor and quill as shown in Fig. 5. Check the motor nameplate for proper pulley recommendations for each wheel size.

WARNING: DO NOT EXCEED WHEEL SPEED RECOMMENDATIONS. The wheel guard is assembled to the grinder by slipping it over the quill and tightening the screw as illustrated in Fig. 6.

WARNING: DO NOT EXCEED MAXIMUM RECOMMENDED WHEEL SPEEDS AS MARKED ON EACH GRINDING WHEEL. RING TEST EACH WHEEL FOR CRACKS PRIOR TO ASSEMBLY ON THE SPINDLE. OBSERVE CAREFUL HANDLING AND STORAGE OF GRINDING WHEELS AT ALL TIMES. ALL NEW WHEELS SHOULD BE RUN AT FULL OPERATING SPEED WITH SAFETY GUARD IN PLACE FOR AT LEAST ONE MINUTE BEFORE APPLYING WORK, DURING WHICH TIME, AND PARTICULARLY WHEN STARTING, THE OPERATOR SHOULD STAND AT ONE SIDE.

With a collar on each side, place the large straight wheel on the spindle and tighten nut to hold wheel and collars in place. This is for external grinding. **FOR YOUR PROTECTION, ALWAYS USE THE WHEEL GUARD ON EXTERNAL GRINDING OPERATIONS.**

The Series 5 Grinder has automatic belt adjustment by means of a tension spring. Since the motor pivots on a tension shaft, the belt can be assembled by pushing the motor forward and slipping the belt over the pulleys. By releasing the motor, the belt automatically becomes taut. Attach belt guard hanger to frame and add belt guards as shown in Fig. 7.

Next, dress the wheel to make the grinding face parallel with the workpiece. This is done by clamping the diamond dresser to the workpiece as illustrated in Fig. 9. This is for external grinding. Dressing for internal grinding and facing is described later. Turn the grinder switch on and make a very light pass over the diamond nib using the hand wheel to traverse. Make several passes back and forth over the nib without resetting depth dial. Since wheels are costly and have to be replaced as they wear down, always take a very light pass over the diamond nib.

ANGLE SETTING OF LATHE COMPOUND	FEED ON COMPOUND IN INCHES	ACTUAL CUT TAKEN INTO THE WORK	REDUCTION IN WORK DIAMETER
30°	.001	.00086	.00172
45°	.001	.00070	.00140
*60°	*.001	*.00050	*.00100
70°	.001	.00034	.00068
75°	.001	.000259	.000518
80°	.001	.00017	.00034
84°	.001	.00014	.00028

FIG. 8

After removing the dresser, set the work speed of the lathe for approximately 50 RPM which is a normal operating speed and ideal for most grinding conditions. Although this speed is suitable for many operations, the work RPM can be set to meet any requirements. Advance grinder slowly until wheel barely touches surface to be ground.

Upon wheel contact with the workpiece, increase the feed on the lathe compound to .001" or any suitable feed selected and engage the traverse mechanism. When grinding to very close tolerances, redress the wheel as outlined above before making the final grind over the stock. Allow the wheel to spark out on this final grind by taking several passes back and forth over the piece, using the hand wheel to traverse the carriage.

Occasionally, when grinding the full length of a piece mounted between lathe centers, the grinder must be positioned to allow pulley end to clear tail stock. To do this, loosen mounting post lock screw (43), and turn wheel end in toward workpiece sufficiently to clear tail stock with pulley. Lock grinder in position and dress wheel face parallel with workpiece.

FACE GRINDING -- When face grinding, it is necessary to dress the wheel so that the surface contacting the workpiece is bevelled, as shown in Fig. 13. Clamp the diamond dresser onto the workpiece or a piece of stock chucked in the lathe with the diamond nib facing the operator. Remove the nib by loosening the locking set screw and insert the diamond into the right side slot so that it extends about 1/8" beyond the holder and faces to the operator's right as illustrated in Figure 12. Pass the wheel lightly back and forth over the nib until a suitable bevel for the particular grinding operation is obtained: The grinding operation will determine the amount of bevel required. However, a small bevelled face will break down faster than a wider face and consequently will require redressing oftener.

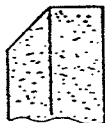


FIG. 13

INTERNAL GRINDING -- To grind internally, remove the Wheel guard, grinding wheel, collars, and quill, and insert an internal quill, the selection of which is determined by the depth of the hole to be ground. For more information of internal grinding, see "Selecting the Proper Quill." A wheel from 2/3 to 3/4 the diameter of the hole to be ground is recommended.

DRESSING A WHEEL -- INTERNAL GRINDING -- To dress a wheel for internal grinding, clamp the diamond dresser onto the workpiece or a piece of stock chucked in the lathe. The diamond will normally face away from the

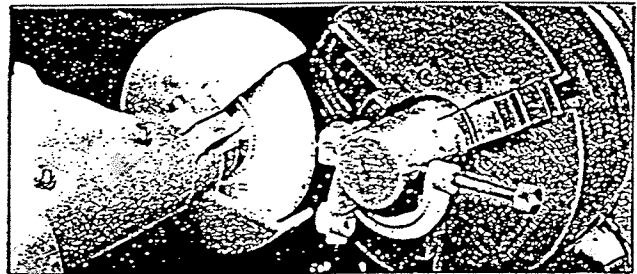


FIG. 10

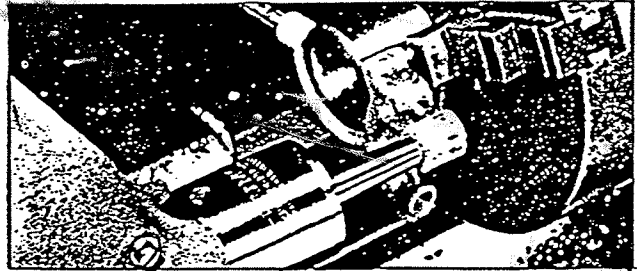


FIG. 11

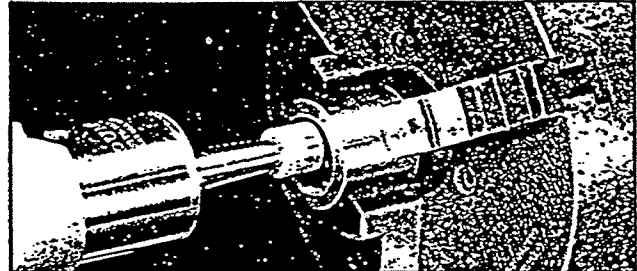


FIG. 12



FIG. 13

Fig. 10. With the grinder running, make several very light passes over the nib using the hand wheel to traverse. You now have dressed the wheel face nearest you. Therefore, this face should contact your workpiece when grinding internally as shown in Fig. 11. THE SIDE ON WHICH THE WHEEL IS DRESSED IS ALWAYS THE CONTACT FACE.

SELECTING THE PROPER WHEEL -- Probably no other single factor is more important to achieving good grinding results than the selection of a proper wheel. An ideal wheel is one in which the bond wears away as fast as the wheel grains are dulled. If the grains dull or wear down faster than the bond, the wheel is too hard and it will glaze. If the bond wears away before

These conditions can be overcome to a certain extent by speed adjustment. If the wheel appears too hard, increase the work speed. If it appears too soft, increase the wheel speed. However, the better solution to the problem is the selection of the proper wheel for the job.

The grain size and grit of a wheel generally determines the type of finish to be obtained. A coarse wheel is desirable for rapid stock removal. The grains deeply anchored in the bond allow greater depth of cut. Also, the greater porosity of a coarse wheel assures a cool cut. While an experienced operator can get a reasonably fine finish with a coarse wheel, a fine finish is easier with a finer grained wheel. On finishing grinds, allow the wheel to cut freely with a minimum feed. Heavy feed or pressure on finish grinds may cause overheating and possibly work distortion.

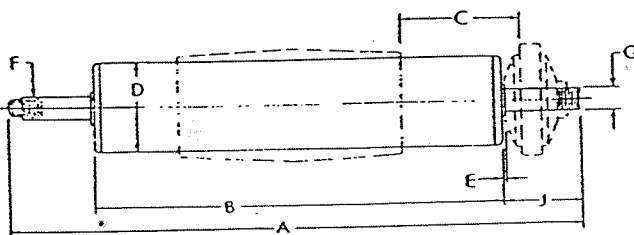
IMPORTANCE OF BALANCED WHEELS - The selection of a balanced wheel is essential to precision grinding. Balanced wheels facilitate grinding to precision tolerances and in many instances prevent unnecessary service costs. Always use Dumore Balanced Wheels.

SELECTING THE PROPER QUILL

Accuracy, quality of finish and metal removal rate depend upon the selection of the right quill for a specific grinding job. Complete dimensions and specifications of all Dumore Quills appear in the table at the right. Select the quill for your grinding job by dimension and type as given in the table. Two or more quills in a model series may meet the dimensional requirements of your grinding application. Always choose the quill with the greatest rigidity for greater accuracy, finer finish and longer wheel life. For internal grinding, select a three-bearing quill whenever possible. If job size limits the selection to two-bearing insert type quills, select the insert spindle with the shortest practical extension, (dimension E). For all types of grinding, choose the quill that offers the largest possible wheel diameter. Larger wheels operate at lower speeds, run cooler, last longer and provide greater accuracy and finer finishes.

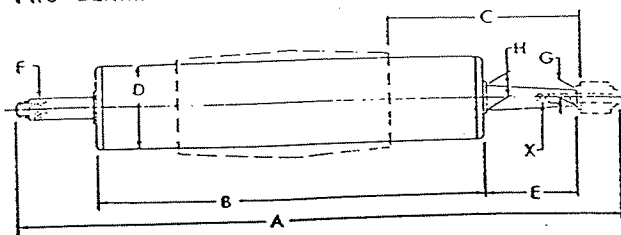
Model 8103 Grinder is reverse rotation and must use the 5X-350 R Quill.

EXTERNAL TYPE



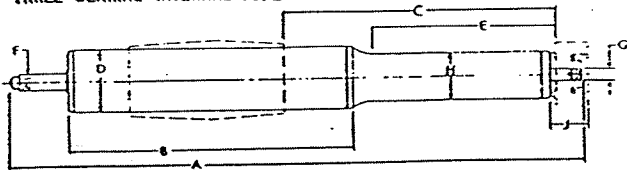
Handles all external grinding within limits of lathe or machine on which it is mounted. Also used for internal grinding in shallow holes or surface grinding on shaper or planer. Matched, pre-loaded duplex bearing at wheel end of quill permits higher radial loading. Grease packed sealed bearings provide long life, continued precision performance.

TWO-BEARING INTERNAL TYPE



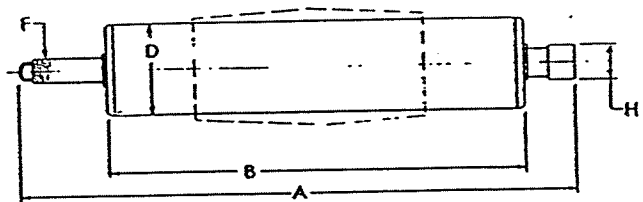
Solid-spindle type quill used for internal grinding small holes up to 6" in depth. Extension and shaft are one-piece. Recommended for production use.

THREE-BEARING INTERNAL TYPE



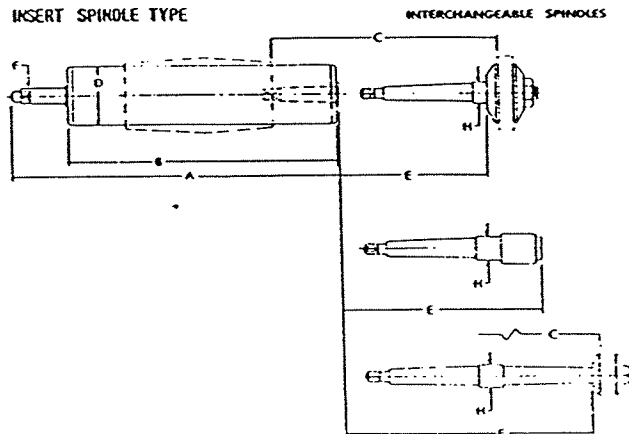
A solid-spindle one-piece quill used for deep internal grinding. A third outboard support bearing eliminates shaft whip caused by extensions longer than 6".

MOUNTED WHEEL TYPE



Used for internal grinding of small holes, for high-speed production drilling, and for light burring. Furnished with chucks and interchangeable collets to accommodate 1/8" and 1/4" mounted wheels and accessories. For Series S and SS.

INSERT SPINDLE TYPE

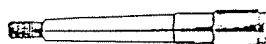


Has an internal tapered, threaded socket to receive various insert spindles for external and small internal grinding up to depths of 6". Interchangeable spindles in a single quill take the place of the complete set of quills; simplifies changing from one type of work to another. Insert spindles seat accurately in the quill.

7 INTERCHANGEABLE SPINDLES

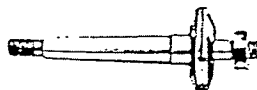
TN-3

TC MOUNTED-WHEEL TYPE INSERT SPINDLE



Complete with chuck, one each 1/8" and 1/4" precision collet and four assorted mounted wheels. For internal grinding small holes with mounted wheels. Maximum recommended speed 42,500 rpm.

TX EXTERNAL TYPE INSERT SPINDLE

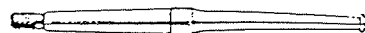


Complete with two balanced wheel collars and three general-purpose balanced wheels. For external grinding with wheels up to 5" dia. Maximum recommended speed 15,000 rpm.

TN-1 5/8" INTERNAL TYPE INSERT SPINDLE



Complete with two balanced wheel collars and three general-purpose wheels. For internal grinding down to 5/8" dia. and 1-5/8" deep. Maximum recommended speed 32,500 rpm.



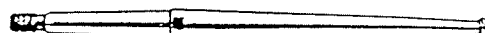
Same as TN-1-5/8 but for internal grinding down to 5/8" dia. and 3" deep. Maximum recommended speed 25,000 rpm.

TN-4



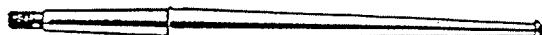
Same as TN-1-5/8 but for internal grinding down to 5/8" dia. and 4" deep. Maximum recommended speed 15,000 rpm.

TN-5



Same as TN-1-5/8 but for internal grinding down to 5/8" dia. and 4" deep. Maximum recommended speed 15,000 rpm.

TN-6



Same as TN-1-5/8 but for internal grinding down to 5/8" dia. and 6" deep. Maximum recommended speed 15,000 rpm.

Type	Catalog No.	A	B	C	D	E	F	G	H	I	X	Max. Recommended Speed	Max. * Wheel Dia.
2 Bearing External	SX-350	12-1/8	8-15/16	3-1/4	1.750	39/64	1/2-20	3/8-24	-	1-53/64	-	15,000	5
2 Bearing External Reverse Rotation For Model 8103 Only	SX-350 R	12-1/8	8-15/16	3-1/4	1.750	39/64	1/2-20 L.H.	3/8-24 L.H.	-	1-53/64	-	15,000	5
2 Bearing Internal	SN-202	12-1/4	8-13/16	4-3/8	1.750	2-5/64	1/2-20	.368	5/8	-	1/4-28	32,500	1-1/2
3 Bearing Internal	SN-305	17	8-13/16	8-3/16	1.750	5-3/16	1/2-20	3/8-24	1-1/2	1-13/64	-	15,000	2-1/2
3 Bearing Internal	SN-306	17-1/4	8-13/16	9	1.750	6	1/2-20	1/4-32	3/4	5/8	-	18,000	1-1/4
3 Bearing Internal	SN-310	21-3/4	8-13/16	13-1/4	1.750	10-5/16	1/2-20	1/4-32	1-1/8	7/8	-	15,000	1-1/2
3 Bearing Internal	SN-315	27	8-13/16	18-3/16	1.750	15-3/16	1/2-20	3/8-24	1-1/2	1-13/64	-	15,000	2-1/2
Mounted Wheel	SC-260	11-3/32	8-13/16	3-15/32	1.750	1-1/8	1/2-20	-	.650	-	-	42,500	Mtd. Wheels
Insert Spindle	ST-200	10-21/64	8-13/16	-	1.750	-	1/2-20	-	-	-	-	See Insert Spindles	
Insert Spindle	ST-300	10-21/64	8-15/16	-	1.750	-	1/2-20	-	-	-	-	See Insert Spindles	
Interchangeable Insert Spindles	TX	-	-	3-5/32	-	5/8	-	3/8-24	.375	-	-	15,000	5
	TN-1-5/8	-	-	4-23/32	-	2-1/4	-	.368	.563	-	1/4-28	32,500	1-1/2
	TN-3	-	-	6	-	3-9/16	-	.250	.563	-	5-40	25,000	1
	TN-4	-	-	7	-	4-9/16	-	.250	.563	-	5-40	15,000	1
	TN-5	-	-	8	-	5-9/16	-	.250	.563	-	5-40	15,000	1
	TN-6	-	-	9	-	6-9/16	-	.250	.563	-	5-40	15,000	1
TC	-	-	-	3-7/8	-	1-9/16	-	-	.563	-	-	42,500	Mtd. Wheels

* The maximum wheel diameter is the largest wheel recommended. In most cases the largest wheel CANNOT be safely operated at the maximum recommended speed. Never exceed the maximum RPM as marked on each wheel.

For safe operation of mounted wheels, refer to ASA B7.1-1964 available from The American Standards Association, 70 East 45th Street, New York 17, New York.



GRINDING WHEELS

Dumore Wheels are available in four types for grinding various materials. Each type is designated by a code number shown in the column after the Dumore part number. Explanation of the code number is as follows:

- 1) General purpose; steels of hardness up to Rockwell C-45.
- 2) Cast iron; brass and non-ferrous metals.
- 3) Stainless steels; steels of Rockwell C-45 to C-59.
- 4) Steels of Rockwell C-60 and harder.

Wheel listing is arranged according to the O.D. of wheel.

Part No.	Code	O.D.	Width	Hole	Recess
R-774-0001	1	3/8	1/4	.125	1/4 x 1/8
R-774-0002	1	1/2	1/4	.125	1/4 x 1/8
R-774-0189	3	1/2	1/4	.125	1/4 x 1/8
R-774-0003	1	1/2	1/2	.250	
R-774-0004	2	1/2	1/2	.250	
R-774-0005	1	5/8	1/4	.125	1/4 x 1/8
R-774-0194	4	5/8	1/4	.125	1/4 x 1/8
R-774-0006	1	5/8	1/2	.250	
R-774-0007	2	5/8	1/2	.250	
R-774-0008	1	3/4	1/4	.125	1/4 x 1/8
R-774-0009	2	3/4	1/2	.250	
R-774-0010	3	3/4	1/2	.250	
R-774-0011	2	3/4	3/4	.250	
R-774-0012	1	3/4	3/4	.250	
R-774-0190	3	3/4	3/4	.250	
R-774-0013	2	7/8	1/4	.125	1/4 x 1/8
R-774-0014	3	7/8	1/4	.125	1/4 x 1/8
R-774-0018	1	1	1/4	.125	1/4 x 1/8
R-774-0019	1	1	1/4	.250	
R-774-0020	2	1	1/4	.250	
R-774-0191	3	1	1/4	.250	
R-774-0195	4	1	1/4	.250	
R-774-0179	1	1	1/4	.375	46 Grit
R-774-0184	1	1	1/4	.375	60 Grit
R-774-0174	1	1	3/8	.375	
R-774-0021	1	1	1	.250	1/2 x 3/8
R-774-0022	2	1	1	.250	1/2 x 3/8
774-0023	1	1-1/4	1/4	.250	
774-0024	1	1-1/4	1/4	.250	
774-0025	2	1-1/4	1/4	.250	
774-0026	1	1-1/4	1/2	.250	5/8 x 1/4
774-0029	1	1-1/2	1/4	.250	
774-0196	4	1-1/2	1/4	.250	
774-0030	1	1-1/2	3/8	.250	
774-0180	1	1-1/2	3/8	.375	
774-0183	1	1-1/2	3/8	.375	

Part No.	Code	O.D.	Width	Hole	Recess
774-0031	1	1-1/2	1/2	.250	5/8 x 1/4
774-0032	2	1-1/2	1/2	.250	5/8 x 1/4
774-0033	3	1-1/2	1/2	.250	5/8 x 1/4
774-0197	4	1-1/2	1/2	.250	5/8 x 1/4
774-0034	1	1-1/2	1	.250	5/8 x 3/8
774-0035	2	1-1/2	1	.250	5/8 x 3/8
774-0040	1	2	1/4	.250	54 Grit
774-0041	1	2	1/4	.250	80 Grit
774-0042	2	2	1/4	.250	
774-0043	3	2	1/4	.250	
774-0198	4	2	1/4	.250	
774-0045	1	2	3/8	.250	
774-0166	1	2	3/8	.250	
774-0046	1	2	3/8	.375	Resinoid
774-0047	1	2	3/8	.375	
774-0048	2	2	3/8	.375	
774-0049	3	2	3/8	.375	
774-0173	1	2	3/8	.375	
774-0050	1	2	1/2	.375	
774-0051	2	2	1/2	.375	
774-0052	3	2	1/2	.375	
774-0053	1	2	1	.375	1-1/4 x 1/2
774-0055	1	2	1	.375	1-1/4 x 1/2
774-0061	1	2-1/2	1/4	.250	
774-0062	1	2-1/2	1/4	.375	
774-0063	1	2-1/2	3/8	.375	Resinoid
774-0064	2	2-1/2	3/8	.375	
774-0065	1	2-1/2	3/8	.375	
774-0192	3	2-1/2	3/8	.375	
774-0199	4	2-1/2	3/8	.375	
774-0068	1	2-1/2	1	.375	1-3/4 x 1/2
774-0069	1	3	3/32	.250	Cut-off
774-0070	1	3	3/32	.375	Cut-off
774-0073	1	3	3/8	.375	
774-0074	2	3	3/8	.375	
774-0075	3	3	3/8	.375	
774-0200	4	3	3/8	.375	
774-0078	1	3	1/2	.375	
774-0079	2	3	1/2	.375	
774-0080	3	3	1/2	.375	
774-0086	1	3	1	.375	2 x 1/2
774-0088	2	3	1	.375	2 x 1/2
774-0092	1	3-1/2	3/8	.375	
774-0093	1	4	3/8	.375	
774-0094	2	4	3/8	.375	
774-0095	3	4	3/8	.375	
774-0201	4	4	3/8	.375	
774-0098	1	4	1/2	.375	
774-0099	2	4	1/2	.375	
774-0100	3	4	1/2	.375	
774-0110	1	5	3/8	.375	
774-0111	1	5	1/2	.375	
774-0112	2	5	1/2	.375	
774-0113	3	5	1/2	.375	
774-0203	4	5	1/2	.375	

PULLEY COMBINATION CHART

DIAMETER OF WHEEL	IDLING SPINDLE SPEED	PULLEY ON SPINDLE	PULLEY ON MOTOR	BELT NUMBER
1/8 TO 1/2	42,500	#1	#4	R-429-0010
5/8 TO 3/4	32,500	1	3	R-429-0009
1 TO 1 5/8	14,600	2	2	R-429-0009
1 3/4 TO 2 3/4	8,600	3	2	R-429-0010
3 TO 3 1/2	6,500	4	2	R-429-0010
4 TO 5	4,600	4	1	R-429-0010

MAINTENANCE INSTRUCTIONS

LUBRICATION -- The motor requires no lubrication, since it is equipped with grease sealed ball bearings.

Quills -- Some Dumore Quills are equipped with ball bearings packed with grease in assembly. These require no lubrication. They can be operated in any position.

Other quills are made with "Fog of Oil" lubricating system, and are identified by the plug marked "OIL." Before these quills are put into use, and also after having been stored for a long time, 180 drops (1 tablespoon) of Spindle Oil should be added. Oil quills regularly but not to excess since too much oil causes the quills to overheat. Allow no dirt to enter when adding oil.

All Dumore precision quills are equipped with water and dust throwers. When used for wet grinding, always start the spindle rotating before coolant is turned on; and turn coolant off before stopping the spindle. Never allow coolant to flow on quill when spindle is not rotating.

BRUSHES -- Normal brush life varies from 500 to 2000 hours depending on the severity and continuity of service. Inspect brushes periodically and wipe clean before returning them to their respective brush holders if they are long enough for additional use. Each brush should be returned to its exact position as before removal to prevent changes in the brush seating. Brushes should be replaced when worn to 1/4" length.

Whenever brushes are replaced, the commutator should be turned down and undercut. New brushes on a badly worn commutator will spark excessively, giving very little life and will have to be replaced again shortly.

REPAIR SERVICE -- This grinder is made with the highest quality material and workmanship, and if not abused should give long and trouble-free service. If, for any reason, this grinder does not operate satisfactorily after the above precautions have been taken, return it to your nearest Dumore service station or direct to The Dumore Company, Racine, Wisconsin, to secure prompt and efficient service.

GUARANTEE

All Dumore products are thoroughly checked and tested before shipment.

THE DUMORE COMPANY guarantees this product against imperfections in workmanship and material for a period of 90 days after purchase, and will replace without charge any part that proves defective during that period. Guarantee does not apply to parts failing due to ordinary wear, abuse, or accidental damage, and does not apply if the tool has been tampered with in any way. Defective materials in warranty should be returned PREPAID to THE DUMORE COMPANY - RACINE, WISCONSIN, or to an authorized service station.

THE DUMORE COMPANY

Racine, Wisconsin

INSTRUCTIONS FOR ORDERING PARTS

All parts listed herein may be ordered from your Dumore Distributor, from any authorized Dumore Service Station, or direct from the factory. When ordering repair parts, always give the following information.

- 1) The part number in this list.
- 2) The part name in this list.
- 3) The catalog and serial number.

Filing this list for future reference will assure your obtaining proper parts for service.

PARTS LIST

ITEM	PART NUMBER	REQ.	PART NAME
MOTOR ASSEMBLY			
	430-0037-210	1	No. 5 Motor, 115 Volts - For Model 8072
	430-0037-218	1	No. 5 Motor, 230 Volts - For Model 8072
	430-0065-240	1	No. 5 Motor, 115 Volts - For Model 8103
	430-0065-248	1	No. 5 Motor, 230 Volts - For Model 8103
1	R-517-0124	1	Cord, 115 Volts
	517-0148	1	Cord, 230 Volts
2	R-751-0038	1	Switch
3	R-449-0018	1	Brush Clip
4	R-496-0005	1	Cord Guard Body
4A	R-720-0063	1	Compression Sleeve
4B	R-572-0020	1	Cord Guard Spring
5	R-827-0713	2	Lock Screw, #10-24 x 3/8 Headless Set
5A	R-827-0718	1	Headless Set Screw, 1/4-20 x 3/8
6	766-0352-026	2	Brush Holder Washer
7	451-0009	2	Brush Holder Assembly
8	R-457-0800	2	Carbon Brush Assembly
9	R-456-0040	2	Brush Plug
10	645-0049	1	Nut, 1/2-20 L.H. - For Model 8072
	645-0048	1	Nut, 1/2-20 R.H. - For Model 8103
11	R-476-0069	1	Bearing Cap - Brush End
12	R-686-0045	2	Tru-Arc Ring
13	729-0126	1	Spacer
14	R-426-0146	2	Ball Bearing
15	771-0013	2	Strip Washer
16	589-0266	1	Brush End Housing
17	RS-643-0627	1	Nameplate
18	R-808-0001	4	Nameplate Screw - #2 x 1/8" Drive
19	R-821-0309	1	Binding Hd. Screw, #6-32 x 3/16"
	R-769-0003		Shakeproof Lock Washer - Not Shown
20	548-0005-210	1	Field Assembly, 115 Volts - For Model 8072
	548-0005-218	1	Field Assembly, 230 Volts - For Model 8072
	548-0184-240	1	Field Assembly, 115 Volts - For Model 8103
	548-0184-248	1	Field Assembly, 230 Volts - For Model 8103
21	414-0013	1	Baffle Plate
22	405-0005	2	Field Anchor
23	R-810-2713	2	Field Screw, 10-24 x 2" Fil. Hd.
24	408-0396-210	1	Armature Assembly, 115 Volts - For Model 8072
	408-0396-218	1	Armature Assembly, 230 Volts - For Model 8072
	408-0410-240	1	Armature Assembly, 115 Volts - For Model 8103
	408-0410-248	1	Armature Assembly, 230 Volts - For Model 8103
25	599-0189	1	Plain End Housing
26	R-734-0019	1	Flat Spring
27	R-766-0435	1	Washer
28	R-476-0068	1	Bearing Cap, Plain End
29	R-810-2215	4	Housing Screw, #12-24 x 1-1/2 Fil. Hd.
30	584-0006	1	Filter Housing
31	R-819-0909	1	Filter Cap Screw, 6-32 x 1/2 Round Hd.
32	R-819-1109	1	Filter Cap Screw, 6-32 x 5/8
33	R-695-0017	2	Filter Screen
34	R-552-0009	1	Filter Pad
35	475-0033	1	Filter Cap

ITEM	PART NUMBER	REQ.	PART NAME
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GRINDER FRAME WITH MOUNTING POST, "T" BOLT, AND MOTOR SADDLE

	555-0002	1	Grinder Frame Complete
36	694-0003	1	Motor Saddle
37	655-0037	1	Saddle Pin
38	R-769-0010	4	Lock Washer - Shakeproof
39	R-815-1118	4	Hex. Hd. Screw, 1/4-20 x 5/8
40	R-735-0003	1	Tension Spring
41	646-0031	1	Spring Tension Tube
42	702-0006	1	Motor Tension Shaft
43	R-815-3732	1	Hex. Hd. Cap Screw, 1/2-13 x 2-3/4
44	766-0227	1	Washer
45	468-0007	1	Mounting Post Lock Bushing
46	558-0003	1	Grinder Frame
47	R-827-0718	2	Headless Set Screw, 1/4-20 x 3/8
48	766-0118-077	2	Washer
49	744-0003	1	Motor Lock Strap
50	R-815-1322	1	Lock Strap Screw, 5/16-18 x 3/4 Hex. Hd.
52	R-809-1718	2	Fil. Hd. Cap Screw, 1/4-20 x 1"
53	442-0002	1	Tee Bolt
54	668-0012	1	Mounting Post
55	766-0227-078	2	Washer
56	R-645-0047	1	Nut, 1/2-20 x 5/16 x 3/4 Hex

MISCELLANEOUS EQUIPMENT

57	572-0008	1	Wheel Guard Assembly w/Screw
58	R-809-1722	1	Wheel Guard Screw
	572-0011		Belt Guard Assembly, Complete
59	R-645-0020	2	Wing Nut
60	766-0118-077	2	Washer
61	571-0006	1	Belt Guard
62	578-0009	1	Hanger Bracket
63	R-769-0013	2	Shakeproof Lock Washer
64	R-810-1122	2	Fil. Hd. Screw, 5/16-18 x 5/8"
65	R-429-0009	1	Belt, Short
65	R-429-0010	1	Belt, Long
66	671-0006	1	No. 1 Pulley
67	671-0007	2	No. 2 Pulley
68	671-0008	1	No. 3 Pulley
69	671-0009	1	No. 4 Pulley
70	R-479-0002	1	Steel Carrying Case
71	R-788-0029	1	Wrench, 5/8 x 3/4 Double End
72	R-788-0003	1	Wrench, 1/2" Single End
73	R-788-0017	1	Wrench, 3/8" Box
	Cat. S-110		Diamond Dresser Assembly
74	R-529-0001	1	Mounted Diamond
75	R-827-0718	2	Headless Set Screw, 1/4-20 x 3/8"
76	558-0001	1	Dresser Body
77	699-5001	1	Clamp Screw, 5/16-24 x 2-1/2"
	Cat. 50-011	1	#0 Dumore Spindle Oil
	R-884-0019	1	Parts List and Operating Instructions