

Electric Depressed Center Wheel Grinder

Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Models:







40588 – 4-1/2" Depressed
Center Wheel Grinder



⚠ WARNING

Read and understand this tool manual before operating your tool. Follow all safety rules for the protection of operating personnel as well as adjacent areas. For safety information, refer to Safety Requirements for the Use, Care and Protection of Abrasive Wheels – ANSI B7.1, Code of Federal Regulation – CFR 29 Part 1910, European Committee for Standards (EN) Hand Held Electric Motor Operated Tools – Safety Requirements and applicable State and Local Regulations.

SAFETY LEGEND

	⚠ WARNING Read and understand tool manual before work starts to reduce risk of injury to operator, visitors, and tool.	⚠ WARNING Practice safety requirements. Work alert, have proper attire, and do not operate tools under the influence of alcohol or drugs.	
	⚠ WARNING Eye protection must be worn at all times, eye protection to conform to ANSI Z87.1.	⚠ WARNING Ear protection to be worn when exposure to sound, exceeds the limits of applicable Federal, State or local statutes, ordinances and/or regulations.	
	⚠ WARNING Respiratory protection to be used when exposed to contaminants that exceed the applicable threshold limit values required by law.	⚠ WARNING Electric shock hazard. Avoid bodily contact with grounded objects, bodies of water. Do not damage cord set.	

GENERAL SAFETY INSTRUCTIONS

Carefully Read and save all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.

Products offered by Dynabrade are not to be modified, converted or otherwise alerted from the original design without expressed written consent from Dynabrade, Inc.

Warning: When using electric tools, basic safety precautions should always be followed to reduce the risk of a fire, electric shock, and personal injury, including the following:

1. **Keep work area clean.** Cluttered areas and benches invite accidents.
2. **Consider work area environment.** Do not expose tools to rain. Keep work area well lit. Do not use power tools in damp or wet locations. Do not use tools in the presence of flammable liquids or gases.
3. **Guard against electric shock.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
4. **Keep children away.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
5. **Store idle tools.** When not in use, tools should be stored in a dry, or locked place - out of the reach of children.
6. **Do not force tool.** It will do a better and safer job at its intended rate.
7. **Use the right tool.** Do not force a small tool or attachment to do the job of a heavy duty tool. Do not use tool for purposes not intended.
8. **Dress properly.** Do not wear loose fitting clothing or jewelry. Clothes can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
9. **Use safety glasses.** Also use face-shield or dust mask if operation area is dusty.
10. **Do not abuse cord.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
11. **Secure work.** Use clamps or a vice to hold workpiece. It's safer than using your hand and it frees up both hands to operate tool.
12. **Do not overreach.** Keep proper footing and balance at all times.

(continued on next page)

13. **Maintain tools with care.** Keep tools clean for better use and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
14. **Do not leave tool running.** Disconnect tools when not in use, before servicing, when changing belts, contact arms, etc.
15. **Remove keys and wrenches.** Form a habit of checking to see that all keys and adjusting wrenches are removed from tool before turning it on.
16. **Avoid accidental starting.** Do not carry around plugged in tool with finger on slide switch. Be sure switch is off when plugging in.
17. **Out-door use extension cords.** When tool is used outdoors, use only extension cord suitable for outdoor use. They should be marked with the suffix W-A (for UL) or W (for CSA in Canada).
18. **Stay alert.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. **Check damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, breakage of moving parts, binding of moving parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced. Do not use tool if switch does not turn tool on or off.
20. **Avoid gaseous areas.** Do not operate portable electric tools in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks can ignite fumes.
21. **Do not alter or misuse tool.** This tool is precision built. Any alteration or modification not specified is misuse and may result in a dangerous condition. Only these accessories and attachments that are found in this instruction manual are acceptable for use with this tool. The use of any other accessory or attachment might present a risk to the operator.
22. **Replacement parts.** When servicing, use only identical replacement parts. When ordering replacement parts, please specify model and serial numbers of your machine.

Voltage Warning

Before connecting the tool to a power source (receptacle, outlet, etc.), be sure the voltage supplied is the same as what is specified on the nameplate of the tool. A power source with greater than that specified for tool can result in **serious injury** to the user as well as damage to the tool. Using a power source with voltage less than the nameplate rating is harmful to the tool's motor. If in doubt, **do not plug in the tool.**

Double Insulation

Your Electric Dynabrade Tool is **double-insulated** to give you added safety. This means that the tool is constructed throughout with two separate "layers" of electrical insulation, or one double thickness of insulation between you and the tool's electrical system. Tools built with this type of insulation system are not intended to be grounded. As a result, your Electric Dynabrade Tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

Note: Double-insulation does not take the place of normal safety precautions when operating this tool. The insulation system is added for protection against injury resulting from a possible electrical insulation failure within the tool.

Caution: When servicing double-insulated tools, **use only identical replacement parts.** Repair or replace damaged cords.

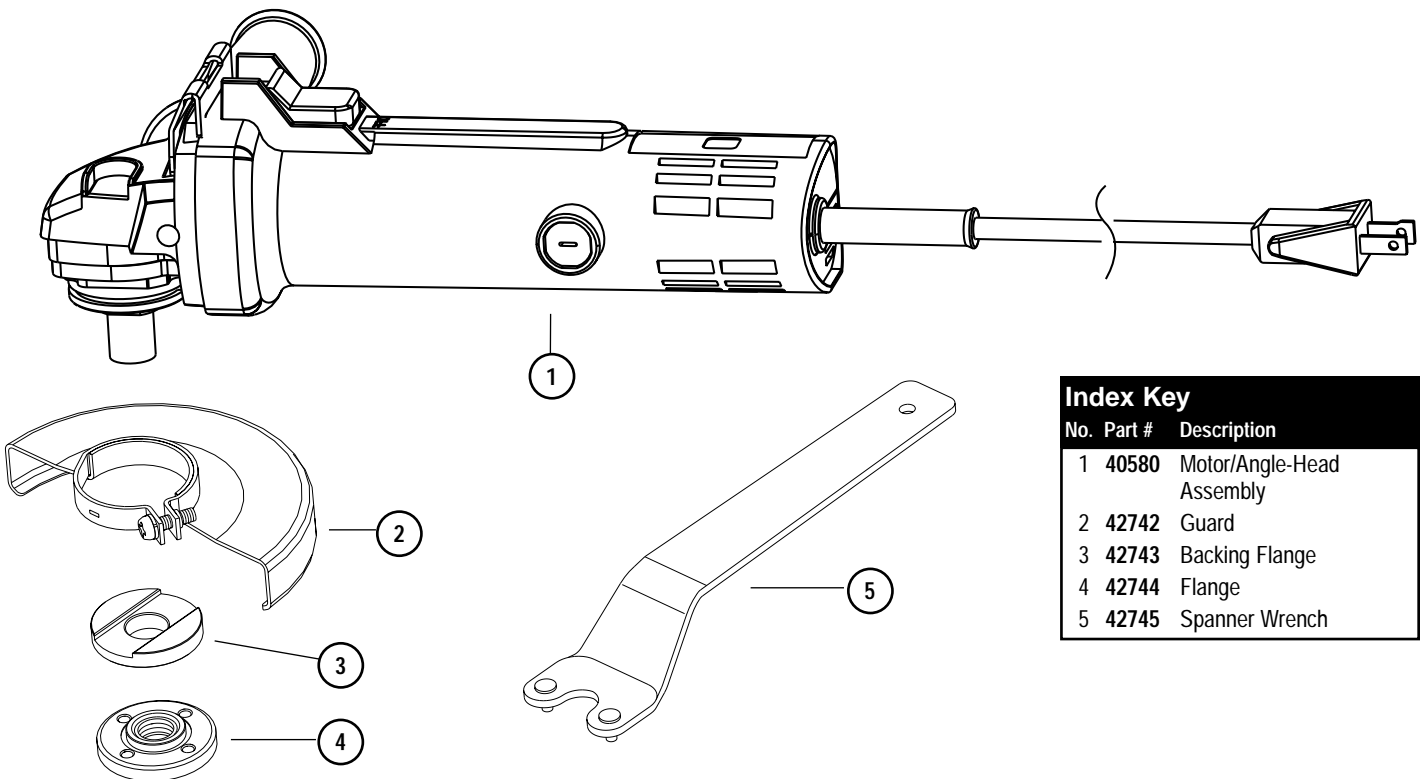
Extension Cords

Double-insulated tools have two-wire cords, and can be used with either two-wire or three-wire extension cords. Only round jacketed extension cords should be used, and we recommend that they be listed by Underwriters Laboratories (UL) - (CSA in Canada). If the extension cords will be used outside, the cord must be suitable for outdoor use. They should be marked with the suffix W-A (for UL) or W (for CSA in Canada). Any cord marked as an outdoor cord can also be used for indoor work.

Polarized Plugs: To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

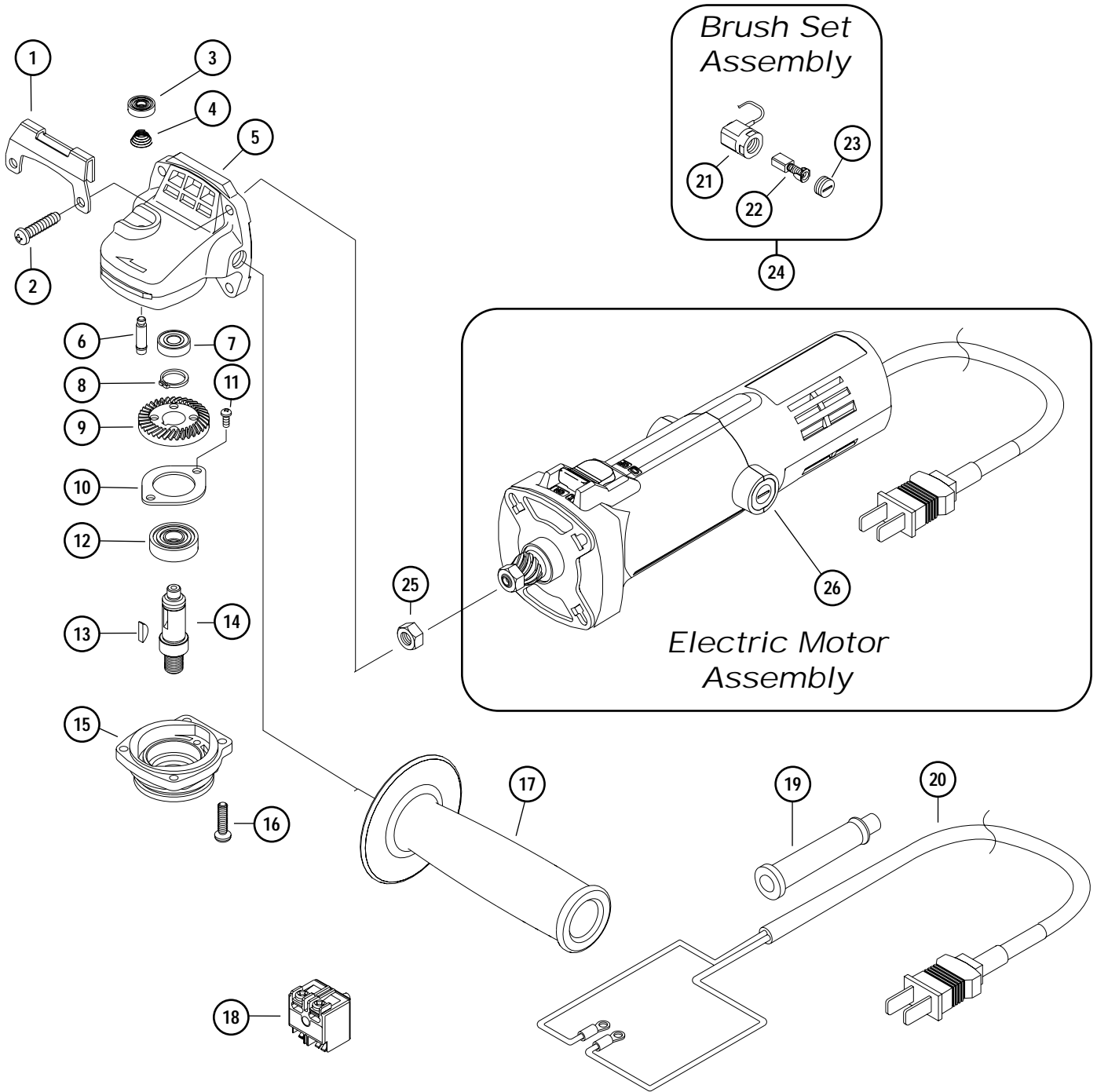
Warning: Keep extension away from the immediate working area.

Depressed Center Wheel Grinder and Motor/Angle-Head Assembly



Index Key		
No.	Part #	Description
1	40580	Motor/Angle-Head Assembly
2	42742	Guard
3	42743	Backing Flange
4	42744	Flange
5	42745	Spanner Wrench

Angle-Head and Assemblies



To order replacement parts, specify model number and serial number of your machine.

Index Key		
No.	Part #	Description
1	42741	Guard Plate
2	42722	Screw (4)
3	42725	Lock Button
4	42724	Lock Spring
5	42723	Gear Case Assembly (Includes: #3, #4 & #6)
6	42721	Lock Pin
7	42720	Upper Spindle Bearing
8	42719	Retaining Ring
9	42718	Gear/Pinion Set
10	42716	Bearing Retainer
11	42715	Screw (2)
12	42714	Lower Spindle Bearing
13	42713	Key
14	42737	Spindle 5/8"-11
15	42711	Gear Case Cover
16	42710	Screw (4)
17	42726	Side Handle
18	42729	Switch
19	42730	Cord Protector
20	42731	Power Supply Cord
21	42732	Brush Holder (2)
22	42733	Brush (2)
23	42734	Brush Cap (2)
24	42735	Brush Set
25	42746	Nut
26	42728	Electric Motor Assembly (Includes 42718 Gear/Pinion Set)

Important Operating and Safety Instructions

Carefully read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.

Warning: Hand, wrist and arm injury may result from repetitive work motion and overexposure to vibration.

Operating Instructions:

Warning: Eye, face, respiratory, sound and body protection must be worn while operating power tools. Failure to do so may result in serious injury or death. Follow safety procedures posted in workplace.

1. With power source disconnected from tool, securely fasten abrasive/accessory on tool. The rated RPM of the accessory must be equal to or greater than the rated RPM of the tool.
2. Connect power source to tool. Be careful not to depress switch in the process.
3. Hold tool by the motor housing and the side handle. Do Not hold tool by head/housing assembly. Keep hands away from all grinding/sanding edges and moving parts.
4. Slide and rock slide switch forward to start tool. Touch rear of side switch to release.

Maintenance Instructions

Important: A Preventative Maintenance Program is recommended whenever portable power tools are used.

- Use only genuine Dynabrade replacement parts to insure quality. To order replacement parts, specify **Model #**, **Serial #** and **RPM** of your tool.

Routine Preventative Maintenance: Check free speed of Electric Dynabrade Tool using a tachometer.

- Mineral spirits are recommended when cleaning the sanding heads. Do not use on electrical components or clean tool or parts with any solvents or oils containing acids, esters, ketones, chlorinated hydrocarbons or nitro carbons. Blow the dirt from electrical components with air.
- **DO NOT** clean or maintain tools with chemicals that have a low flash point (example: WD-40®).
- Tool labels must be kept legible at all times, if not, reorder label(s) and replace. User is responsible for maintaining specification information i.e.: Model #, S/N, and RPM. (See Assembly Breakdown)
- Visually inspect plugs and cords for frays, visible damage and signs of deterioration. Replace damaged or worn components.
- Refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. **95903**) for safety information.
- Brush Changing – When the brushes wear down to a predetermined length, the tool is automatically shut off to prevent damage to the armature. Unplug tool and remove brush caps (item #23) and replace brushes (item #22). Replace brush caps.

After maintenance is performed on tool check for excessive tool vibration. Check for excessive current leakage at 550 volts with a current leakage checker on all screws and the gear case, if the electrical components have been disturbed during repair.

Handling and Storage:

- Use of tool rests, hangers and/or balancers is recommended.
- **DO NOT** carry tool by cord.
- Protect abrasive accessories from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.
- Store accessories in protective racks or compartments to prevent damage.

Machine Specifications

Model Number	Motor RPM	Motor HP	Pad Diameter Inch (mm)	Voltage	Current	Phase	Frequency	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
40588	12,000	1	4-1/2 (114)	120 V (AC)	5 Amps	1	60 Hz	4.8 (2.2)	11 (279)	4-3/4 (121)

One Year Warranty

Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within one year from the date of purchase, all equipment of our manufacture is warranted against defects in workmanship and materials under normal use and service. We shall repair or replace at our factory, any equipment or part thereof which shall, within one year after delivery to the original purchaser, indicate upon our examination to have been defective. Our obligation is contingent upon proper use of Dynabrade tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment which has been subject to misuse, negligence, accident or tampering in any way so as to affect its normal performance. Normally wearable parts such as bearings, contact wheels, rotor blades, etc., are not covered under this warranty.

Reference Contact Information

1. **American National Safety Institute – ANSI**
24 West 43rd Street
Fourth Floor
New York, NY 10036
Tel: 1 (212) 642-4900
Fax: 1 (212) 398-0023
2. **Government Printing Office – GPO**
Superintendent of Documents
Attn. New Orders
P.O. Box 371954
Pittsburgh, PA 15250-7954
Tel: 1 (202) 512-1803
3. **European Committee for Standardization**
Rue de Stassart 36
B - 1050 Brussels, Belgium



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