SEARS

Owner's Manual

MODEL NO.

257.190460
257.190470
257.190480

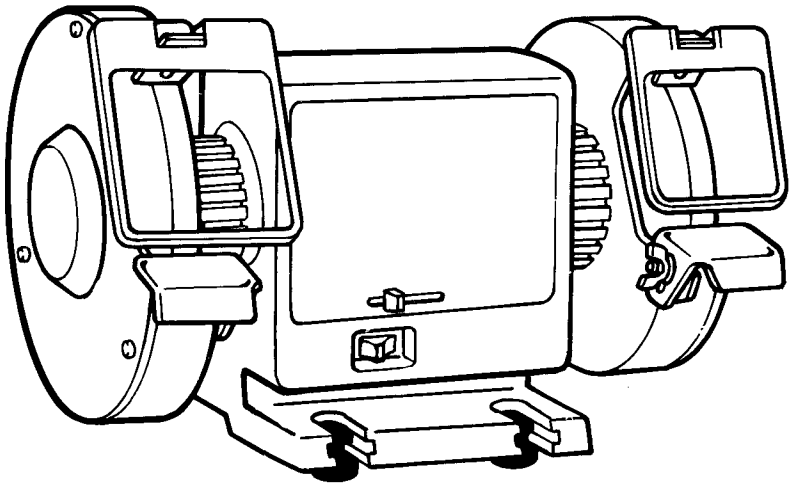
SERIAL
NO. _____

MODEL AND SERIAL NUMBER MAY BE FOUND ON THE NAMEPLATE LOCATED ON THE FRONT OF THE TOOL.

YOU SHOULD RECORD BOTH MODEL AND SERIAL NUMBER AND RETAIN IN A SAFE PLACE FOR FUTURE USE.

WARNING

Read and understand RULES FOR SAFE OPERATION and instructions carefully before operating.



CRAFTSMAN

VARIABLE SPEED
BENCH GRINDER
6″ WHEEL

3800 RPM NO LOAD MAX. • 1/2″ GRINDING WHEEL ARBOR
USE ONLY GRINDING WHEELS RATED AT 3800 RPM OR HIGHER.

- **Assembly**
- **Operation**
- **Installation**
- **Repair Parts**

Sold by SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A.

FORM 88-578-00

Rev. B 0787

RULES FOR SAFE OPERATION

Read and understand rules for safe operation and instructions contained herein carefully before operating grinder. Failure to do so can result in serious injury to operator or spectators.

FOR BENCH GRINDERS

1. **EXAMINE GRINDING WHEELS FOR CRACKS** or other damage before operating.
   REPLACE CRACKED WHEEL IMMEDIATELY.
2. **DO NOT OVER-TIGHTEN WHEEL NUTS.**
3. **USE ONLY WHEEL FLANGES FURNISHED WITH GRINDER.** Use of other flanges may cause damage or breakage to the grinding wheel and result in injury to the operator.
4. **MOUNT THE GRINDER SECURELY** to prevent damage. See "INSTALLATION" page.
5. **DO NOT FORCE WORK** against the grinding wheel! Excessive pressure may cause damage or breakage of the grinding wheel, resulting in injury to the operator or bystander.
6. **STOP GRINDER BEFORE MAKING ADJUSTMENTS.**
7. **ALWAYS USE GUARDS AND EYESHIELDS.**
8. **ADJUST DISTANCE BETWEEN WHEEL AND WORK REST** to maintain 1/16 inch or less separation as the diameter of the wheel decreases with use.
9. **USE GRINDING WHEEL SUITABLE FOR SPEED OF GRINDER.**
10. **DO NOT OPERATE GRINDER WHEN FLAMMABLE FUMES ARE PRESENT.** Sparks from the grinding wheel or motor brush could ignite fumes.

FOR ALL TOOLS

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. **KEEP CHILDREN AWAY.** All visitors should be kept a safe distance from work area.
6. **MAKE WORKSHOP KID-PROOF** with padlocks, master switches or by removing starter keys.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
9. **WEAR PROPER APPAREL.** No loose clothing, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
10. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eye-glasses only have impact resistant lenses, they are **NOT** safety glasses.
11. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
14. **DISCONNECT TOOLS** before servicing; when changing accessories such as blades, bits, cutters, etc.
15. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
16. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
17. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
18. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to assure that it will operate properly and perform its intended function—check for alignment of moving parts, binding of moving parts, breaking of 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.
19. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
20. **NEVER LEAVE TOOL RUNNING UNATTENDED.**

pti power tool institute, inc.

FULL ONE-YEAR WARRANTY

For one year from the date of purchase, if this Craftsman homeowner bench grinder fails to work properly due to a defect in material or workmanship, Sears will repair it, free of charge.

If this Craftsman homeowner bench grinder is used for commercial or rental purposes, this warranty applies only for 90 days from the date of purchase.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE CRAFTSMAN HOMEOWNER BENCH GRINDER TO THE NEAREST SEARS SERVICE CENTER / DEPARTMENT IN THE UNITED STATES.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

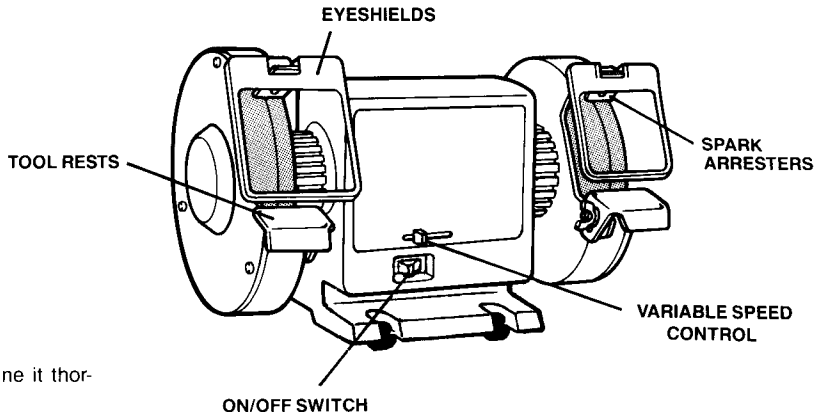
SEARS, ROEBUCK AND CO., DEPT. 698/731A, SEARS TOWER, CHICAGO, IL. 60684

BOX CONTENTS

THIS BOX SHOULD CONTAIN:

1 257.190460, 257.190470 or 257.190480 Bench Grinder
1 Loose Parts Kit Containing:
- 4 ea. Base Bushings
- 2 ea. Spark Arresters
- 2 ea. Tool Rests
- 2 ea. Eyeshields
- 2 ea. Wingnuts 1/4-20
- 2 ea. Washers 1/4 Flat
- 2 ea. Screws
- 2 ea. Bolts 1/4-20 x 5/8
- 3 ea. Spacer Washers

1 ea. Owner's Manual



Remove Grinder from carton and examine it thoroughly to make sure it is not damaged.

TOOLS NEEDED FOR ASSEMBLY
- Phillips Blade Screwdriver
- Standard Pliers

CUSTOMER'S RESPONSIBILITIES

This grinder will start and operate on a 120 V.A.C. electrical circuit. Use a 15 ampere "Delayed Action" fuse.

WARNING: MAKE SURE RECEPTACLE BOX IS PROPERLY GROUNDED. OPERATION WITHOUT GROUNDING CAN CAUSE SERIOUS ELECTRICAL SHOCK WHICH MIGHT BE FATAL.

GROUNDING INSTRUCTIONS

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided—if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary,do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

CUSTOMER'S RESPONSIBILITIES (Cont.)

If necessary to use an extension, use only 3-wire cords which have 3-prong grounding type plugs and 3-pole receptacles which accept the tool's plug. The following chart of lengths and wire sizes must be followed for safe operation.

Length of Extention	Wire Size Required (American Wire Gauge No.)
15 feet or less	No. 16
50 feet or less	No. 14
100 feet or less	No. 12

Repair or replace damaged or worn cord immediately.

This grinder is equipped with an approved three-conductor cord and a three-prong grounding type lug and it is intended for use on a grounded outlet circuit. The proper plug and outlet box are illustrated in figure 1.

A temporary adapter, as illustrated in figure 2, may be used to connect this plug to a 2-pole receptacle as shown in figure 3 if a properly grounded outlet is not available. THE TEMPORARY ADAPTER SHOULD BE USED ONLY UNTIL A PROPERLY GROUNDED OUTLET CAN BE INSTALLED BY A QUALIFIED ELECTRICIAN. The green-colored rigid ear, lug, etc. extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

FIGURE 1

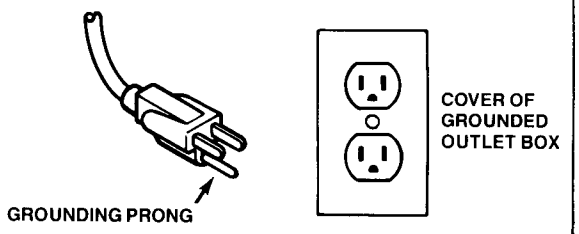


FIGURE 2

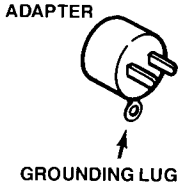
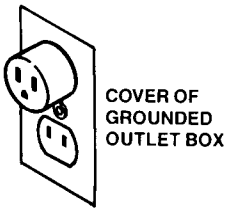


FIGURE 3



THE OPERATION OF ANY GRINDER CAN RESULT IN FOREIGN OBJECTS BEING THROWN INTO THE EYES, WHICH CAN RESULT IN SEVERE EYE DAMAGE. ALWAYS WEAR SAFETY GLASSES OR EYE SHIELDS BEFORE COMMENCING POWER TOOL OPERATION. WE RECOMMEND WIDE VISION SAFETY MASK FOR OVER SPECTACLES OR STANDARD SAFETY GLASSES AVAILABLE AT SEARS RETAIL OR CATALOG STORES.

ASSEMBLY

INSPECT GRINDING WHEELS FOR DAMAGE BEFORE USING.

STEP 1.

Using pliers, snap eyeshield into slot at top front of wheel guard. Attach spark arrester using 8-32x1/2 screw as shown. Turn screw into nut trapped in slot of wheel guard. Adjust spark arrester to 1/16 inch from wheel and tighten screw. Repeat for other side. (See Figure 4.)

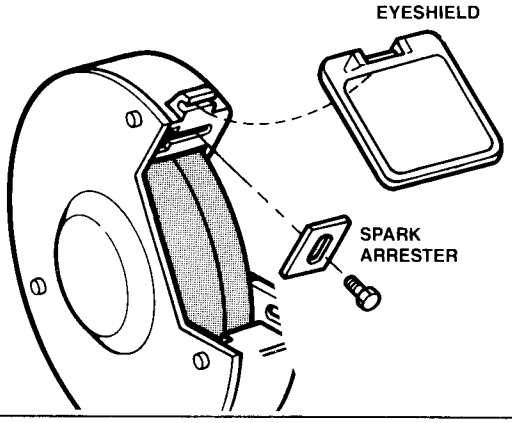
STEP 2.

Attach tool rests to bottom front of wheel guards inserting bolts as shown. Add washers and wing nuts. See figure 5. Adjust tool rests to within 1/16-inch from wheel (See Maintenance-Item 8.) Repeat for other side.

STEP 3.

Insert 4 base bushings in slots provided underneath base of grinder (Figure 6).

FIGURE 4



INSTALLATION

GRINDER MUST BE MOUNTED ON HORIZONTAL SURFACE.

The Craftsman grinder pedestal stand (ºº296300) available at your Sears retail or catalog store is designed especially for your grinder. Use of the pedestal stand will permit greater accessibility to your unit for grinding, buffing and many other uses.

To mount your grinder to the pedestal, align slots in base with corresponding holes in table of the pedestal. Use four #10 bolts 1-1/2 inches long with flat washers beneath the heads. Tighten nuts until space between grinder base and pedestal is 3/16 inch. See figure 7.

Using a second nut on each bolt, jam-tighten against the first to prevent loosening by vibration.

A Craftsman Workbench provides a good mounting surface for your grinder.

To mount your grinder to the bench top use four #10 round head wood Screws 1-1/2 inches long with flat washer beneath the heads. Tighten screws until clearance between base and surface of bench is 3/16 inch. See figure 7.

FIGURE 5

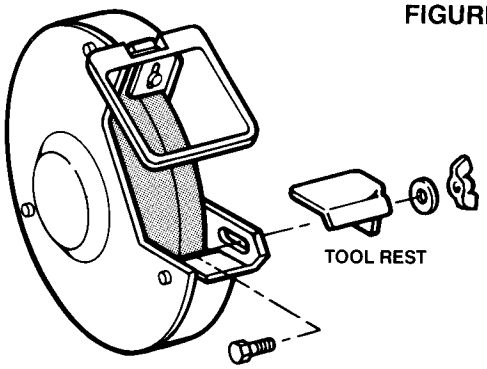
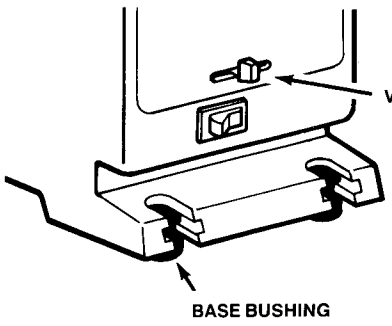


FIGURE 6



OPERATION

1. **WARNING:** Be safe! Protect your eyes. Wear safety goggles at all times while operating grinder. Make sure eyeshields are attached before operation.

2. Make sure the variable-speed slide (fig. 6) is set at the mid point or higher. Move ON/OFF switch to 'ON' position. If the grinder does not start immediately, and the speed control is set no lower than mid point, disconnect the power cord and check voltage at power source.

3. Although the grinder might not start with the speed control slide set lower than mid point, it can be adjusted to a slower speed once it is running.

4. Using the speed control slide, you may adjust the rpm of the grinder to suit the work you wish to do.

   Full speed will grind more quickly for rough shaping your work.

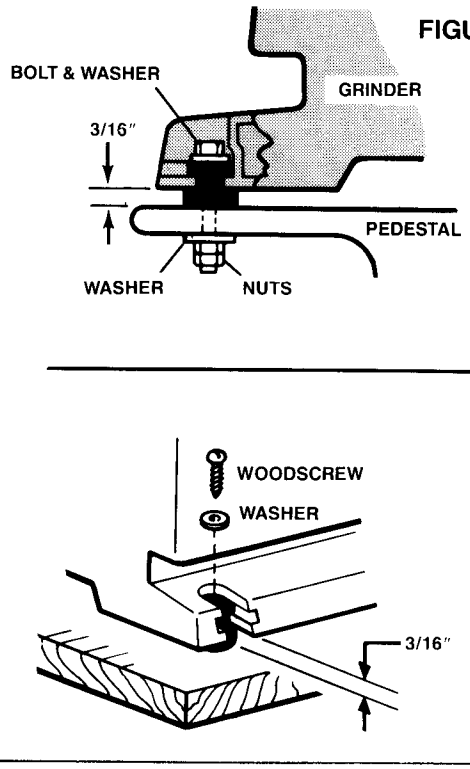
   Lower speeds permit more careful and controlled grinding with less heat. This allows the fine finishing of your work without a "blueing," or overheating which might result in a change of hardness and strength of your finished part.

5. Caution: do not use the speed control to turn the grinder off. The ON-OFF switch should always be used as the circuit will be still be live if the power switch is on, even if the motor is not turning.

6. **WARNING:** tool rest, or other mechanical adjustments should be made only when grinder has stopped to protect against injury.

7. **WARNING:** do not grind on side of wheel. Do not force work against the grinding wheel! Excessive pressure may cause damage or breakage to the grinding wheel, resulting in injury to the operator or bystander.

FIGURE 7



MAINTENANCE

- Replace cracked wheel immediately.
- Always use guards and eye shields.
- Do not over tighten wheel nut.
- Use only flanges funished with this grinder.

1. When vitrified wheels become irregular or glazed from use, they may be trued and cleaned, returning them to near-new condition with the cutting face fresh and square. Use a Sears wheel dresser to keep your wheels in good condition. Available at Sears retail stores or through catalog.

WARNING: WHEEL GUARD AND COVER MUST BE ASSEMBLED WHEN WHEEL DRESSER IS USED TO PROTECT OPERATOR FROM INJURY.

2. Clean out any accumulation of cuttings and abrasive each time outer wheel cover is removed.

3. Replace grinding wheel when diameter has been reduced 1" through wear. Undersize wheels are a hazard to operator safety as proper spark arrester and tool rest adjustments cannot be maintained with undersize wheels. (Refer to Note 8.) Replacement wheels are available at Sears retail or catalog stores.

4. Examine replacement grinding wheel for cracks or other damage before assembling to spindle.

5. Figure 8 shows how to properly mount a buffing wheel or wire brush when using spacer washers. **SPACER WASHERS ARE NOT REQUIRED WHEN INSTALLING A REPLACEMENT GRINDING WHEEL.** Note the orientation of flanged washers. Large diameter of washer should bear against wheel. Do not reverse washers. When mounting wheels DO NOT OVER-TIGHTEN NUT. EXCESSIVE PRESSURE CAN DAMAGE WHEEL. We recommend that wheel nuts be tightened to 55 inch pounds. Be sure the maximum speed rating of your replacement wheel corresponds to or exceeds the rating of your grinder nameplate.

   NOTE: Wheel nut on left hand side of grinder is left hand thread.

6. WHEEL WOBBLE: This bench Grinder has been inspected for excessive wheel wobble. However, it is inherent in this type of tool to have some wheel wobble due to manufacturing variations in the parts. Wheel wobble has no effect on grinding ability since grinding is only done on the outside diameter and not on the sides. Before trying to reduce wheel wobble make sure it is actually wheel wobble and not an optical illusion caused by the wheel blotter. The wheel blotter is the paper ring on the wheel which cushions the wheel from direct contact with the flange washer. Wheel wobble may be reduced by loosening the nut and rotating the wheel flange and/or the grinder wheel 1/2 turn and then re-tightening the nut.

7. Lubrication was provided at the factory for the life of the bearings.

8. Keep spark arrester and tool rests adjusted to within 1/16 inch from wheel. When grinding wheel has worn to a point where 1/16 inch adjustment cannot be maintained, replace wheel with new 6-inch diameter wheel. See Step 1 and 2).

   Adjust the tool rests so that the material to be ground will contact the wheel slightly above center-line of shaft at desired angle as shown in Figure 9.

FIGURE 9

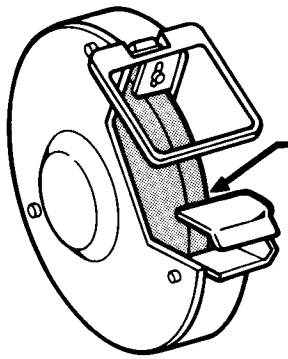
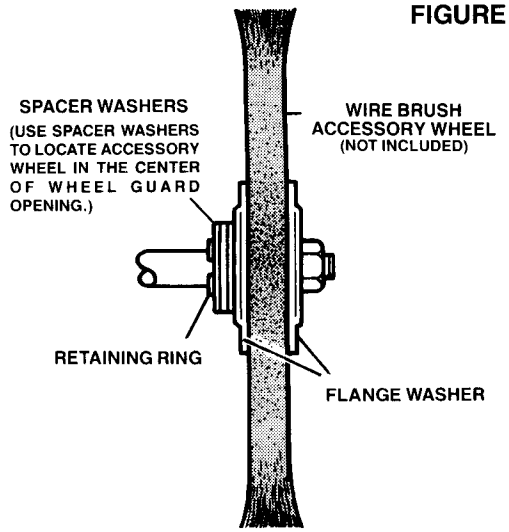


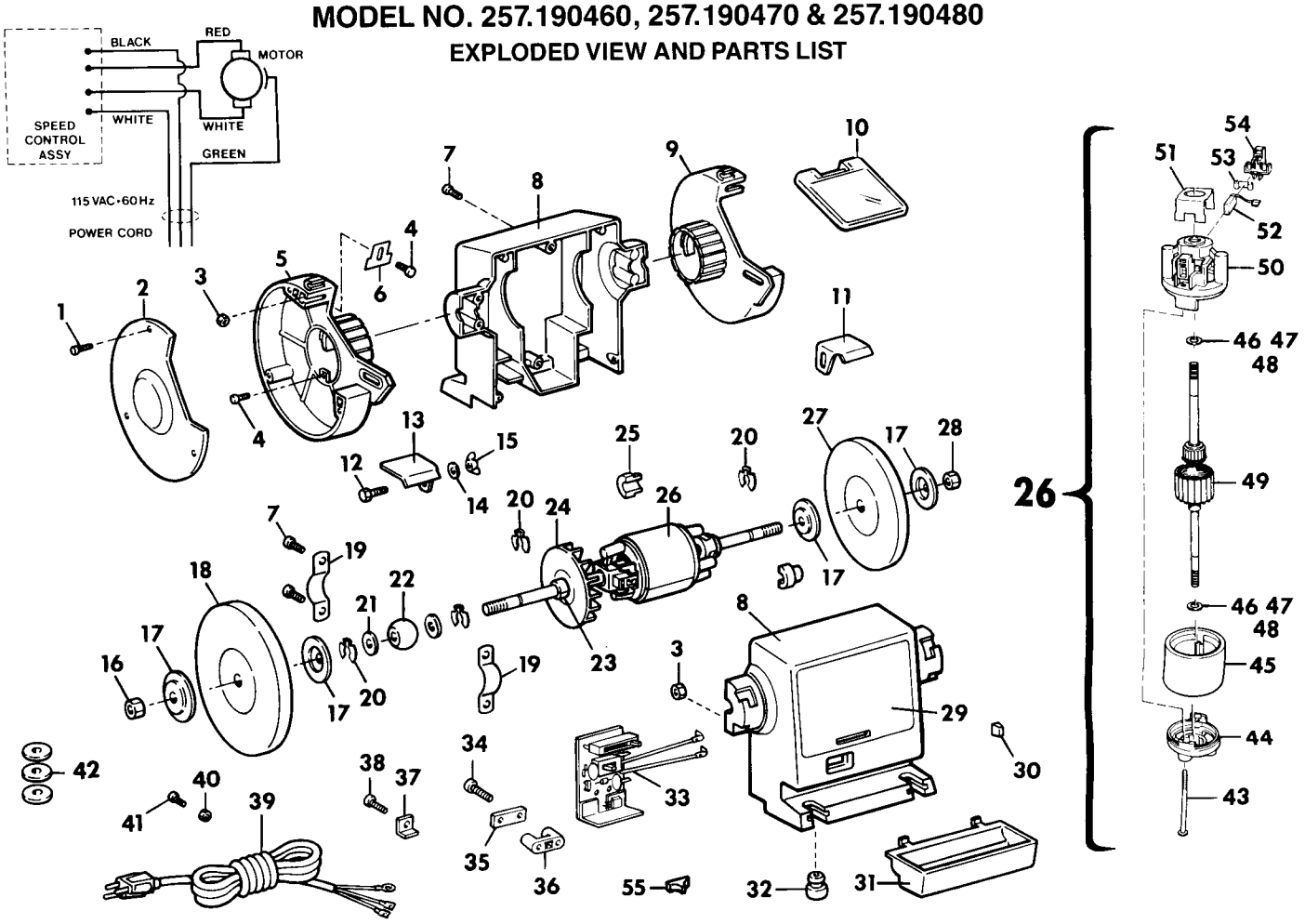
FIGURE 8



BE SAFE - OBSERVE ALL THE RULES FOR SAFE OPERATION

MODEL NO. 257.190460, 257.190470 & 257.190480

EXPLODED VIEW AND PARTS LIST



KEY	PART NO.	PART NAME	QTY.
1.	1937	Screw, 8-18 11 x ½ Phil	6
2.	5310-0-27	Wheel Cover	2
3.	5625	Nut, Square, 8-32	4
4.	5626	Screw, 8-32 x ½	4
5.	5323-15	Wheel Guard, L.H.	1
6.	5312-1	Spark Arrester	2
7.	7903-1	Screw, 10-16 x ¾ THD Form	8
8.	7822	Housing (set)	1
9.	5322-15	Wheel Guard, R.H.	1
10.	5772-0-15	Eyeshield	2
11.	5314-1	Tool Rest, R.H.	1
12.	STD522506	Bolt, ¼-20 x ⅝	2
13.	5313-1	Tool Rest, L.H.	1
14.	STD551025	Washer, .281 I.D.	2
15.	STD541625	Wing Nut, ¼-20	2
16.	9428172	Nut, ½-20 L.H.	1
17.	22014716	Flange	4
18.	5201093	Grinding Wheel (36 grit)	1
19.	5225-1	Bearing Retainer	2
20.	2467-4	Retaining Ring	4
21.	620-2	Washer, .010 Shim	2
22.	5316	Bearing	1
23.	5601-1	Clamp	1
24.	5268-15	Fan	1
25.	5300	Motor Mount	2
26.	7416-1	Motor Assy. (190460)	1
	7416-3	Motor Assy. (190470)	
	7845	Motor Assy. (190480)	
27.	5201092	Grinding Wheel (60 grit)	1
28.	STD541350	Nut, ½-20 R.H.	1
29.	7565-1	Label, Nameplate (190460)	1
	7562-1	Label, Nameplate (190470)	
	7560-1	Label, Nameplate (190480)	
30.	5301-05	Knob	1

KEY	PART NO.	PART NAME	QTY.
31.	5315-05	Quench Tray (Optional)	
32.	22013911	Base Bushing	4
33.	7785	Speed Control Assy.	1
34.	1937-1	Screw, 8-18, 11 x 1 THD Form	2
35.	5461-05	Lockbar	1
36.	7784-05	Bracket, Cord Lock	1
37.	5473-05	Clamp, Retainer	1
38.	9437722	Screw, 6-20 x ½, Hex Slot	1
39.	7788	Power Cord	1
40.	STD551208	Lockwasher #8 Int. Tooth	1
41.	624-1	Screw, 8-32 x ¼ Self Tap	1
42.	STD551050	Washer, Spacer, .531 I.D.	3
43.	2287	Screw, 10-32 x 3⅛ (190460)	2
	2287-7	Screw, 10-32 x 4¼ (190470)	
	2287-8	Screw, 10-32 x 4 ¾ (190480)	
44.	2276-2	Endbell Assy. (drive)	1
45.	2270-7	Field Assy. (190460)	1
	2270-8	Field Assy. (190470)	
	2270-9	Field Assy. (190480)	
46.	620-1	Washer, .005 Shim (as required)	2 avg.
47.	620-2	Washer, .010 Shim (as required)	2 avg.
48.	620-4	Washer, .025 Shim (as required)	1 avg.
49.	7591	Armature Assy. (190460)	1
	7590	Armature Assy. (190470)	
	7844	Armature Assy. (190480)	
50.	2275-4	Endbell Assy. (brush)	1
51.	2260	Insulator	1
52.	2278	Brush	2
53.	2280	Brush Spring	2
54.	2277	Brush Holder	2
55.	3251	Cap, Switch	1
56.	88-578-00	Owners Manual	

SEARS

Owner's Manual

MODEL NO.

257.190460
257.190470
257.190480

SEARS

SERVICE is at YOUR SERVICE

How to Order Repair Parts

The Model Number will be found on the nameplate attached to the front of your grinder. Always mention the Model Number when requesting service or repair parts for your Craftsman Grinder.

All parts listed herein may be ordered from any SEARS, ROEBUCK AND CO. retail or catalog store.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION.

1. PART NUMBER
2. PART DESCRIPTION
3. MODEL NUMBER—257.190460, 257.190470 OR 257.190480
4. NAME OF ITEM—BENCH GRINDER

USE ONLY SEARS REPLACEMENT PARTS.

If the parts you need are not stocked locally, your order will be electrically transmitted to a Sears Repair Parts Distribution Center for expedited handling.

Your Sears merchandise has added value when you consider that Sears has service units staffed with Sears trained technicians . . . professional technicians specifically trained on Sears products, having the parts, tools and equipment to insure that we meet our pledge to you . . . we service what we sell.

Sold by SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A.

FORM 88-578-00

Printed in U.S.A.