

Item #68201

8" HEAVY DUTY 1HP BENCH GRINDER

ASSEMBLY AND OPERATING INSTRUCTIONS

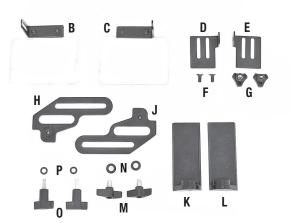


The **EASTWOOD 8" HEAVY DUTY 1HP BENCH GRINDER** is a powerful, high-quality bench grinder that comes equipped with an 8" grinding wheel, for heavy grinding, and a crimped wire wheel for quick clean-up tasks. The precision balanced motor assembly, paired with heavy castings and rubber feet, make sure you won't be vibrating everything off your workbench. Easy to remove Wheel Guard Sides reduce Wheel changeover time. Thumbscrew adjustable tool rests and shields let you fine tune your setup for the job. High output 1HP motor has the power to muscle through heavy metal grinding.

INCLUDES

- (1) Eastwood 8" Heavy Duty 1HP Bench Grinder Assembly with 6' (1.8m) Cord (Grinding Wheel, Wire Wheel, Guards installed) [A]
- (1) Eye Shield Left [B]
- (1) Eye Shield Right [C]
- (1) Spark Arrestor Left [D]
- (1) Spark Arrestor Right [E]
- (2) M6x12 Carriage Screw [F]
- **(2)** M6 Thumbnut **[G]**
- (1) Tool Rest Bracket Left [H]
- (1) Tool Rest Bracket Right [J]
- (1) Tool Rest Left [K]
- (1) Tool Rest Right [L]
- (2) M8x12 Thumbscrew [M]
- (2) M8 Washer [N]
- (2) M6x16 Thumbscrew [0]
- (2) M6 Washer [P]





SPECIFICATIONS

Power Input: 120 VAC, 60Hz, 1Ph, 8A

Motor Power Output: 750W (1HP)
Maximum Motor Speed (no load): 3580 RPM
Rated Motor Speed: 3450 RPM
Arbor Size: 5/8"

Arbor Thread: M16 x 2.00

Grinding Wheel Size: Ø8" x 1" Width x 5/8" Arbor

Grinding Wheel Grit: 36 grit

Wire Wheel Size: Ø7.87" x 0.63" Width x 5/8" Arbor Wire Wheel Type: Brass coated steel wire, crimped

Overall Assembled Dimensions

(W x D x H): 17.63" x 10.63" x 11.81" [448 x 270 x 300mm]

Base Footprint: 8.86" [225mm] x 6.25" [159mm]

Assembled Weight: 44.5 lbs. [20.1kg]

SAFETY INFORMATION

The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

A DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

A NOTICE

NOTICE is used to address practices not related to personal injury.

GENERAL SAFETY RULES

READ INSTRUCTIONS!

- Thoroughly read and understand these product instructions before using.
- Keep these product instructions for future reference.

1) WORK AREA SAFETY

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- **b)** Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you
 to lose control.

2) ELECTRICAL SAFETY

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electrical shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase risk of electrical shock.
- d) Do not abuse the power cord. Never use the power cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

3) PERSONAL SAFETY

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Avoid accidental starting. Ensure the switch is in the OFF position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- **d)** Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **e)** Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- **g)** If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

4) POWER TOOL USE AND CARE

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.



A DANGER

ELECTRIC SHOCK CAN CAUSE INJURY OR DEATH!

Wet power tools pose an increased risk of electrical shock. Always operate the Bench Grinder in a clean, dry, well ventilated area. Do not operate in humid, wet, rainy or poorly ventilated areas.



A WARNING HEALTH AND INJURY HAZARDS!

- Dust and fine particles are generated while grinding which can contain hazardous or toxic substances. Breathing this dust can cause many serious respiratory health conditions. Always use NIOSH approved respiratory protection while using this Bench Grinder.
- This Bench Grinder will eject particles, dust and sparks at high velocity during operation. Use a face shield, ANSI approved safety glasses and wear skin protection at all times while operating.
- Grinding with this Bench Grinder can generate excessive noise. Wear appropriate hearing protection while grinding.
- The rotating Grinding or Wire Wheels can quickly catch loose clothing, long hair or jewelry causing serious personal injury. Keep all loose clothing, long hair and jewelry away from the Bench Grinder during operation.
- Do not operate the Bench Grinder without all machine guards in place. Missing or unsecured guards could result in serious injury.
- The rotating Wheels can suddenly grab the work piece with great force causing serious injury. Keep fingers away while operating. Only grind resting the workpiece on the included tool rests and ensure they are as close as possible to the Wheels.
- If accidentally switched on while plugged in to the electrical power supply. this Bench Grinder can quickly start up and cause serious personal injury. Always unplug the tool from the electrical supply when not in use and before changing Wheels or performing maintenance.
- Sharp metal edges can cut and grinding will rapidly heat work piece. Always wear thick, well-fitting protective work gloves while operating the Bench Grinder and handling materials.
- Rotating Grinding or Wire Wheels can quickly cause cuts. Keep hands and fingers away from rotating Wheels.
- This Bench Grinder can quickly and violently propel a workpiece at over 80 MPH while operating causing injury or property damage. Always wear a face shield and ANSI approved eye protection when grinding to protect face and eves.



Damaged or improperly used Grinding Wheels can disintegrate at high speed causing personal injury or property damage. NEVER grind on the side of a Grinding Wheel as this can compromise its integrity. If excessive vibration is felt, discontinue use immediately and disconnect tool from electrical supply. Verify Grinding Wheel integrity by performing a ring test and inspect Bench Grinder components for damage. Do not resume use until resolution is found.



FIRE HAZARD! **▲** WARNING

• This Bench Grinder will eject sparks which can ignite flammable materials. Do not operate in the vicinity of flammable materials.



A CAUTION INJURY HAZARD!

- Workpieces may shift from your grip and suddenly drop when grinding. Maintain a firm grip and always wear closed toe shoes when grinding.
- Grinding dust may result in slippery surfaces in the area of operations. Always be sure-footed and well balanced when working around the Bench Grinder. Wear appropriate footwear to increase grip.
 - This Bench Grinder will eject particles, dust and sparks at high velocity which can injure others nearby. Keep all persons and pets away from the work area.



- Grinding wheels, wire wheels and other accessories mounted to the Bench Grinder must be rated for a minimum of 3580RPM. Exceeding an accessory rated speed could result in it violently breaking apart and causing injury.
- Wire Wheels will lose wire bristles in normal operation. Flying bristles can easily penetrate light clothing and skin. Avoid applying excessive pressure to the Wire Wheel to minimize this.



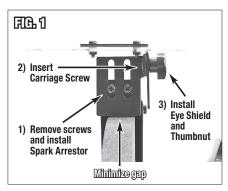
HEAVY WEIGHT! A CAUTION

The Bench Grinder is heavy and unsecured operation could result in it tipping or falling. The Bench Grinder must be secured to a suitable workbench or pedestal before use.



ASSEMBLY

- Remove the two screws installed at the top side of the left Grinding Wheel Guard (FIG 1). Hold the corresponding Spark Arrestor Left **[D]** in place and start refastening the screws.
- Adjust the bracket as close as possible to the Grinding Wheel, without contacting it, and tighten the screws (FIG 1).
- Install an M6x12 Carriage Screw [F], Eye Shield Left [B] and M6 Thumbnut [G] to the Spark Arrestor as shown in (FIG 1).
- Fasten the Tool Rest Bracket Left [H] to the Guard with an M8x12 Thumbscrew [M] and M8 Washer [N] (FIG 2).
- Install the Tool Rest Left [K] (denoted by an "L" on the underside) to the Bracket and fasten it with the M6x16 Thumbscrew [0] and M6 Washer [P] (FIG 3).
- Repeat the previous steps using the remaining hardware and "Right" side components.







SET UP

LOCATION

- Heavy grinding will throw a great deal of particles, dust and sparks into the air and on the ground in the vicinity of the Grinder. Make sure the area is clear of any flammables, well ventilated, capable of accepting grinding dust and easily cleaned.
- Allow sufficient room around Bench Grinder for workpieces of various size, motion as you grind, and easy access to the Guard Sides for wheel changes.
- Keep the power cord away from the Grinder and securely route to minimize risk of damage. The unit is equipped with a 6' [1.8m] long, grounded power cord. When ready for operation, the Grinder will need to be plugged into a properly grounded, 15 Amp outlet. If an extension cord is required, use 14 ga. or heavier. Do not exceed 25' [7.5m]. We recommend using our Heavy Duty Extension Cord for optimal performance: Eastwood item #31739 25ft Heavy Duty 110V Extension Cord.

MOUNTING

- The Bench Grinder must be mounted to a sturdy workbench or pedestal before operation.
- When mounting to a pedestal, the pedestal must be securely bolted to the floor.
- If mounting to a workbench, check for anything on the underside of the table that may impede mounting or pose a hazard.
- The use of 3/8" (M10) hardware through-bolted to the mounting surface via the centerline holes (7.57" [192mm] center to center) at either side of the base is strongly recommended.
- The hardware should be long enough to extend 1" (25mm) on the underside for secure mounting. Use washers at both ends to distribute force and utilize a lock washer or locking nut.
- Periodically check tightness of the bolts and retighten if necessary.

To order parts and supplies: 800.343.9353 >> eastwood.com

OPERATION

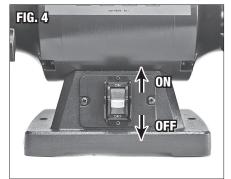
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 or toxic substances. Breathing this dust can cause many serious respiratory health
 conditions. Always use NIOSH approved respiratory protection while using this
 Bench Grinder.
- This Bench Grinder will eject particles, dust and sparks at high velocity during operation. Use a face shield, ANSI approved safety glasses and wear skin protection at all times while operating.
- The rotating Grinding or Wire Wheels can quickly catch loose clothing, long hair or jewelry causing serious personal injury. Keep all loose clothing, long hair and jewelry away from the Bench Grinder during operation.
- Do not operate the Bench Grinder without all machine guards in place.
 Missing or unsecured guards could result in serious injury.
- The rotating Wheels can suddenly grab the work piece with great force causing serious injury. Keep fingers away while operating. Only grind resting the workpiece on the included tool rests and ensure they are as close as possible to the Wheels.
- This Bench Grinder can quickly and violently propel a workpiece at over 80 MPH while operating causing injury or property damage. Always wear a face shield and ANSI approved eye protection when grinding to protect face and eyes.
- To prevent serious injury from accidental operation, make sure that the Rocker Switch is in the OFF position, safety key is removed, and unplug the tool from the electrical supply when performing maintenance or not in use.

A WARNING FIRE HAZARD!

This Bench Grinder will eject sparks which can ignite flammable materials. Do not operate in the vicinity of flammable materials.

- Check that the Rocker Switch is down in the OFF position and remove safety key (FIG 4).
- Verify the Spark Arrestors are adjusted tightly to the Wheels (FIG 1).
- Adjust the Tool Rests to your desired angle and slide them to within 1/8" (3mm) of the Wheels (FIG 3). Too large a gap will result in the workpiece being violently grabbed by the Wheel and drug in.
- Adjust the Eye Shields to help protect you from flying sparks and debris.
- Plug into a properly grounded, 15 Amp outlet.
- Verify the safety key is installed and move the Rocker Switch up to the **ON** position.
- The motor will begin to rotate. Allow approximately 10 seconds for the motor to "spool up" to operating speed before use.
- Switch **OFF** when finished grinding and remove safety key.



BEST GRINDING PRACTICES

- Only work off the properly adjusted Tool Rests. Improper adjustment or an unsupported workpiece can result in the Wheel quickly tearing the item from the operator's hands and may result in personal injury, damage to the workpiece, and damage to the Grinder.
- Use extreme caution when grinding around edges. When grinding to an edge always position the workpiece such that the Wheel is rotating off the edge (FIG 5), not into it. Grinding into the edge will result in it catching and tearing from your grip.
- Only grind on the circumference of the Grinding Wheel. NEVER grind on the sides because it
 will create a weak spot that promotes violent disintegration of the Wheel at speed (FIG 3).
- The included vitrified aluminum oxide Grinding Wheel is only suitable for hard metals like steel. Soft metal, such as aluminum, will clog the pores of the Wheel resulting in reduced effectiveness and possible fragmentation.
- After you have finished grinding and switched the Grinder OFF and before you walk away, use the workpiece or a piece of scrap metal to brake the Wheel until motor rotation stops. Rotational inertia will keep the motor spinning for a long period which invites accidents.



MAINTENANCE

INSPECTION

- Check the tightness of the mounting hardware regularly. Vibration from operation will loosen hardware over time.
- Inspect the position of the Spark Arrestors and Tool Rests before each use. Adjust them closer
 as the Wheels wear down.
- Verify the Wheels are in good condition. If a Wheel appears to have damage, cracks, or abnormal vibration discontinue use immediately and replace.

WHEEL REPLACEMENT

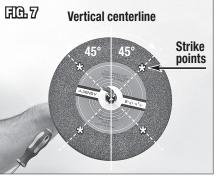
- Verify the Bench Grinder is switched OFF and disconnected from the electrical power supply.
- If the Wheel is worn down significantly, adjust the Spark Arrestor and Tool Rest outward to allow space for the new Wheel.
- Remove the Guard Side by unfastening the three retaining screws (FIG 6).
- Use a suitable wrench or socket to remove the large nut holding the wheel on.
 NOTE: The right side shaft is standard thread, while the left side is reverse threaded.
- Remove the nut, support flange, and Wheel from the shaft.
- The replacement wheel must be rated for a minimum of 3580RPM, Ø8" diameter max., 1" Width max., 5/8" Arbor size, and suitable for edge grinding.
- Before fitting a new Grinding Wheel, perform a ring test. This is an easy test to
 - determine if the wheel is structurally sound. Perform by holding the Wheel up on a rod or dowel and tapping it with a nonmetallic object (e.g. screwdriver handle). Tap the Wheel approximately 45° from the vertical centerline at the top and bottom on both sides (FIG 7).
- If the Wheel makes a distinct ring each time it is structurally sound. If the Wheel does not ring
 and instead emanates a clunk or thud, discard the Wheel immediately as it is likely cracked or
 damaged.
- Install the ring test verified Wheel to the shaft.
- Reinstall support flange and refasten the nut. When tightening hold on the Wheel with one hand and tighten with the other. The Wheels only need to be hand snugged with a wrench.
- · Reinstall the Guard Side. Readjust the Spark Arrestor and Tool Rest.
- Even when purchased from a reputable supplier and ring test verified, it is good practice to
 test the Wheel before using. Stand out of plane with the new Wheel, turn the grinder on, and
 supervise as it runs for one minute.
- Most defects will reveal themselves within a minute. If the Wheel passes it is ready for use.

STORAGE

- Unplug from the electrical power source.
- Wrap cord securely around the Bench Grinder.
- Store in a clean, dry, dampness free area preferably covered with plastic sheeting.



NOTES



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NOTES

Eastwood Technical Assistance: 800.343.9353 >> tech@eastwood.com

TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION				
Motor Overheats or Stalls	Excessive Pressure Being Applied to Wheel While Grinding	Reduce force being applied to Grinding Wheel.				
Grinding Wheel is not Effectively Removing Material	Grinding Wheel Clogged with Soft Metals	Do not use the included grinding wheels on soft metals (aluminum, brass, copper, etc.). Replace clogged grinding wheel. Alternatively, use a suitable abrasive wheel dresser tool to dress the Wheel. This will remove the contaminated layer of abrasive.				
Workpiece is "Bouncing" or "Shuddering" Against the Wheel	Wheel Out of Round or Damaged	Loosen the shaft nut and adjust the Wheel to be more closely concentrically aligned with the shaft, then retighten the nut and test again. Alternatively, use a suitable abrasive wheel dresser tool to true the Wheel. The tool will make it concentric and eliminate balance issues.				
Wheel Is Wearing Too Quickly	Too Much Pressure Being Applied on Wheel	Reduce force being applied to Grinding Wheel. High levels of force and heavy grinds will wear out the wheel faster than low and medium force grinds.				

ADDITIONAL ITEMS

R&D MUST-HAVE ACCESSORIES

#68198

Eastwood Versa-Grind 2" x 36" Belt Grinder Attachment

#68199

Eastwood Versa-Grind 2" x 48" Belt Grinder Attachment

#68200

Eastwood Versa-Grind 2" x 48" Big Wheel Belt Grinder Attachment

Grinder sold separately

OPTIONAL ITEMS

#31739 Eastwood 25ft Heavy Duty 110V Extension Cord

#43090 Safety Goggles

#31573 Rockwood Clear Face Shield

#31575 Rockwood Valved Dust Mask (10-Pack) #55070 / 55071 Leather MIG Welding Gloves (M / L) #55068 / 55068 Leather TIG Welding Gloves (M / L)

Visit eastwood.com for complete info and pricing.

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.343.9353 >> email: tech@eastwood.com
PDF version of this manual is available at eastwood.com
The Eastwood Company 263 Shoemaker Road, Pottstown, PA 19464, USA
800.343.9353 eastwood.com