

# Sears

# owners manual



Reg. Trade Mark

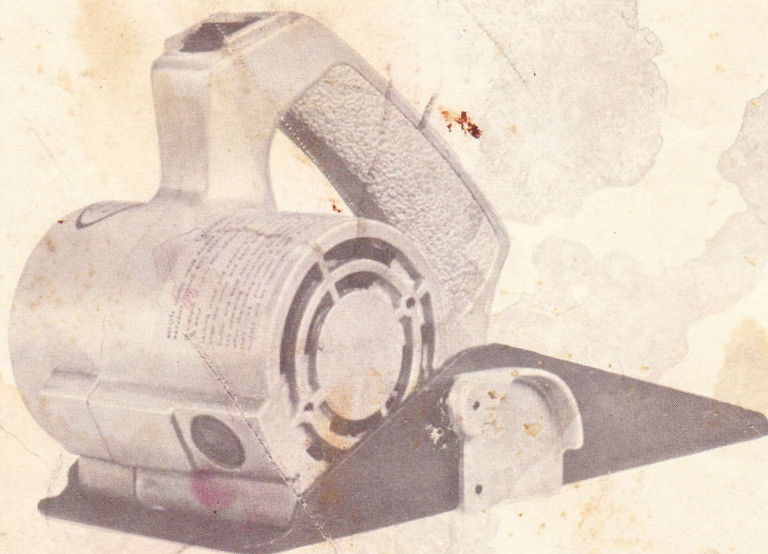
## POWER PLANE

MODEL NO.  
315.25020

### CAUTION:

Read Rules for  
Safe Operation  
and Instructions  
Carefully

- Introduction
- Operation
- Repair Parts



THIS SAFETY SEAL OF THE POWER TOOL INSTITUTE ASSURES YOU:



1. That the manufacturer's power tools, including the particular tool associated with the Seal, are produced in accordance with applicable Standards for Safety of Underwriters' Laboratories and American National Standards (ANSI).
2. That compliance with applicable safety standards is assured by independent inspection and testing conducted by Underwriters' Laboratories (UL).
3. That every motorized tool is inspected under power.
4. That every tool has with it adequate instructions and a list of safety rules for the protection of the user.
5. That the tool manufacturer is a member of the Power Tool Institute and is a sponsor of the Institute's Consumer Safety Education Program.

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Designed exclusively for and sold only by  
SEARS, ROEBUCK AND CO.—Chicago, Illinois 60607 U.S.A.  
and SIMPSON-SEARS LIMITED—Toronto



# introduction

Your Craftsman Power Plane was designed to do the many planing operations which cannot be performed conveniently or efficiently with a larger power plane. It is compact, lightweight, and can easily be operated with one hand. Properly handled, it takes the work out of planing, sizing, or beveling of doors, windows,

shutters, drawer slides, and other work. However, as with any powerful, high-speed tool, your Power Plane requires accurate set-up and handling—and you will need some practice—in order to turn out the quality work for which your tool is designed. It is suggested that practice cuts be made on scrap lumber before attempting to plane finished stock.

## GUARANTEE

During the first year, we will repair your Craftsman Portable Electric Tool, free of charge, if defective in material or workmanship.

This guarantee service is available by simply returning the tool to any Sears store throughout the United States or Canada.

SEARS, ROEBUCK AND CO. and SIMPSON-SEARS LTD.

## RULES FOR SAFE OPERATION



1. **KNOW YOUR POWER TOOL** — Read owner's manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **GROUND ALL TOOLS — UNLESS DOUBLE-INSULATED.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a **known** ground. (Usually the screw securing the receptacle cover plate.) **Never** remove third prong.
3. **KEEP GUARDS IN PLACE** and in working order.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **AVOID DANGEROUS ENVIRONMENT.** Don't use power tool in damp or wet locations. And keep work area well lit.
6. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
7. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, high or locked-up place—out of reach of children.
8. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool.
10. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
11. **USE SAFETY GLASSES** with most tools. Also face or dust mask if cutting operation is dusty.
12. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
13. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
14. **DON'T OVERREACH.** Keep proper footing and balance at all times.
15. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **DISCONNECT TOOLS.** When not in use, before servicing; when changing attachments, blades, bits, cutters, etc.
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
18. **AVOID ACCIDENTAL STARTING.** Don't carry plugged-in tool with finger on switch.

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## CUSTOMER INSTRUCTIONS

- DO** read thoroughly INTRODUCTION and OPERATING INSTRUCTIONS before using your POWER PLANE.
- DO** be sure switch is in "OFF" position before connecting tool to power supply.
- DO** disconnect power cord when cleaning or doing maintenance on tool.
- DO** be sure the voltage of the power supply agrees with the nameplate marking on the unit.
- DO** use correct size extension cord as recommended.
- DO** replace both brushes when either is worn to about  $\frac{1}{4}$  inch in length.
- DO** use only specified replacement parts.
- DO** disconnect from power source and store in a clean dry place.
- DO** sharpen cutter frequently.
- DO** be sure lumber is free of nails, corrugated fasteners, etc.
- DO** allow Power Plane to reach full speed before beginning cut.
- DO** hold Power Plane firmly when cutting.
- DON'T** use your POWER PLANE before reading thoroughly, INTRODUCTION and OPERATING INSTRUCTIONS.
- DON'T** leave Power Plane unattended before disconnecting from power source.
- DON'T** force tool, allow Power Plane to cut as it was designed.
- DON'T** allow children to operate Power Plane.
- DON'T** carry unit by power cord.
- DON'T** plug or cover air vents to keep dust from flying. Vents must be kept open to keep motor cool.
- DON'T** operate Power Plane carelessly or allow fingers to get too close to revolving cutter.
- DON'T** use dull or chipped cutter — this will overload motor and produce inferior work.
- DON'T** plane painted or varnished wood. Remove finish by sanding or other means. Paint is highly abrasive and will quickly dull cutter.

## CAUTION



The operation of any power tool 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 use over spectacles, or standard safety glasses . . . available at Sears retail or catalog stores.

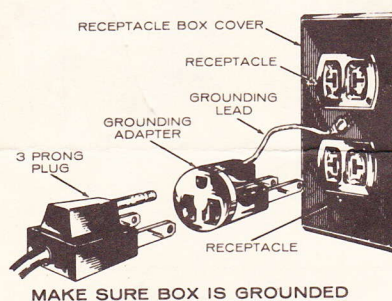
### READ CAUTION LABEL ON TOP OF TOOL

WHEN ELECTRIC TOOLS ARE USED ON FIBER-GLASS boats, sports cars, etc. it has been found that they are subject to accelerated wear and possible premature failure, as the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutator, etc. Consequently it is not recommended that this tool be used for continuous production work on any fiberglass material. During any use on fiberglass it is extremely important that the tool is cleaned frequently by blowing with an air jet.

THIS PRODUCT, or any electrical product, requires extreme care when service repairs are made. A dangerous electrical hazard can be created by tampering with the electrical or insulating systems or in the replacement or substitution of repair parts. Repairs should be made only by a qualified technician. If service is required we suggest you return the tool to your nearest Sears store for approved service with original factory replacement parts.

DISASSEMBLY of this tool can result in dangerous electrical hazard if any leads (wires) are pinched against metal surfaces or if grounding connection is not secure when tool is reassembled.

**GROUNDING**—This tool is equipped with an Underwriters' Laboratories approved 3 prong plug for your safety. If your outlet is a grounded 3-cavity type, your tool will be grounded automatically.



Since many receptacle boxes in present construction will not have 3-cavity receptacles, an \*adapter is packed with this tool. Make sure grounding lead is firmly

attached to a **grounded receptacle** box as shown above, before attempting to operate tool. Extension cords should also be 3-wire.

\*(Not used in Canada)

**EXTENSION CORDS**—The use of any Extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the MINIMUM wire size (A.W.G.) Extension Cord.

#### Extension Cord Length

25-100 Feet

#### Wire Size A.W.G.

16



# operating

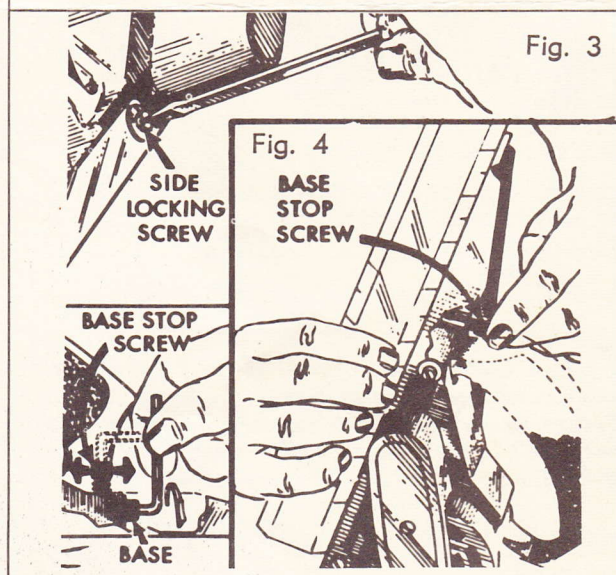
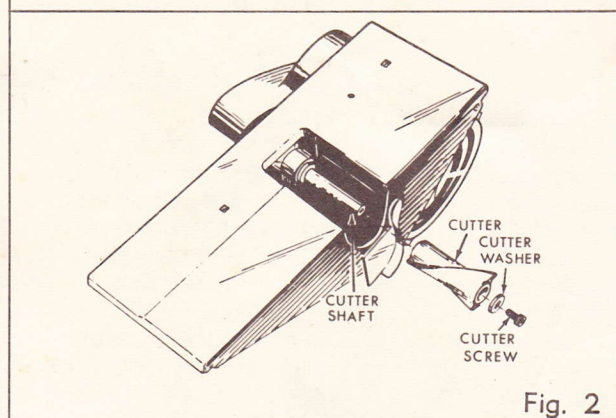
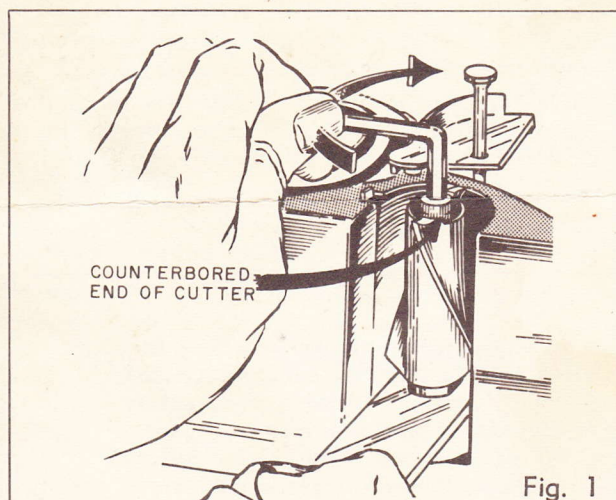
**GENERAL CUTTING:** No adjustments are necessary when making general cuts. Your plane is equipped with a cutter and the alignment of the cutter with the base is factory set and should **NOT** be changed until a new or resharpened cutter is installed.

When making a cut hold the plane firmly keeping the fence in contact with the edge of the work. As the end of the planed cut is reached, apply downward pressure toward the rear of the handle keeping the rear section of the base in contact with the work preventing the front of plane to dip downward causing a gouge in the cut.

Be careful not to hit nails or knots during planing operation. This might nick, crack, or damage cutter. It is wise to keep a supply of sharp cutters on hand. As soon as the one on your plane shows sign of becoming dull, replace it with a properly sharpened cutter.

Never subject the cutter tips to shock loads. It may crack or shatter.

Keep sap, wood dust, and chips cleaned off cutter. This can be done by removing the cutter and wiping it clean.



## TO INSTALL CUTTER

1. **IMPORTANT—BE SURE POWER CORD IS DISCONNECTED FROM POWER SUPPLY.**
2. Raise the cutter guard and insert a nail in the hole, as shown in Fig. 1 to hold guard in the "up" position.
3. Insert cutter shaft wrench on the flats of cutter shaft.
4. Slip cutter on shaft, making certain that counter bored end of cutter is up as shown in Fig. 1.
5. Place cutter washer on cutter screw and insert assembly in counter bore of cutter (See Fig. 2).
6. Tighten cutter screw securely with hexagon wrench furnished. The cutter screw has left-handed threads and must be turned counterclockwise to tighten.
7. Remove wrenches and nail before starting Power Plane.

## BASE ALIGNMENT

The base alignment must not be used as a depth of cut adjustment. The depth of cut is not adjustable. It is permanently built into the base. Only when a new or resharpened cutter is installed, it then becomes necessary to adjust base alignment from the original factory setting. To properly align the base after a new or resharpened cutter is installed use the following procedure:

1. **IMPORTANT—BE SURE POWER CORD IS DISCONNECTED FROM POWER SUPPLY.**
2. With hexagon wrench furnished, loosen base locking screw about one (1) turn (See Fig. 3).
3. With screwdriver, loosen side locking screw about one (1) turn (See Fig. 3).
4. Lay a straight edge (6" or longer) on rear section of base so it projects over the cutter as shown in Fig. 4.
5. Turn cutter one complete revolution and note whether the tips of the cutting edges touch straight edge.



6. If, when the cutter is turned, the tips of the cutting edges raise the straight edge from the surface of the base (See Fig. 5), move the base away from the cutter using base stop screw (See Fig. 4). Recheck to see if tips of cutter still raise the straight edge. Re-adjust, if necessary, until the tips of the cutting edges while it is resting on the rear section of the base (See Fig. 5). When alignment is satisfactory, tighten base locking screw, and side locking screw securely. Always apply pressure to base maintaining contact with base stop screw.
7. If, when the cutter is turned, the tips of the cutting edges are below the straight edge, loosen base stop screw to move base toward cutter. Recheck, and if necessary, adjust base stop screw until the tips of cutting edges just touch the straight edge as the cutter is turned. The base is properly aligned when the cutting edges of the cutter are in line with rear section of the base as shown in Fig. 5. When alignment is satisfactory, tighten base locking screw and side locking screw securely.

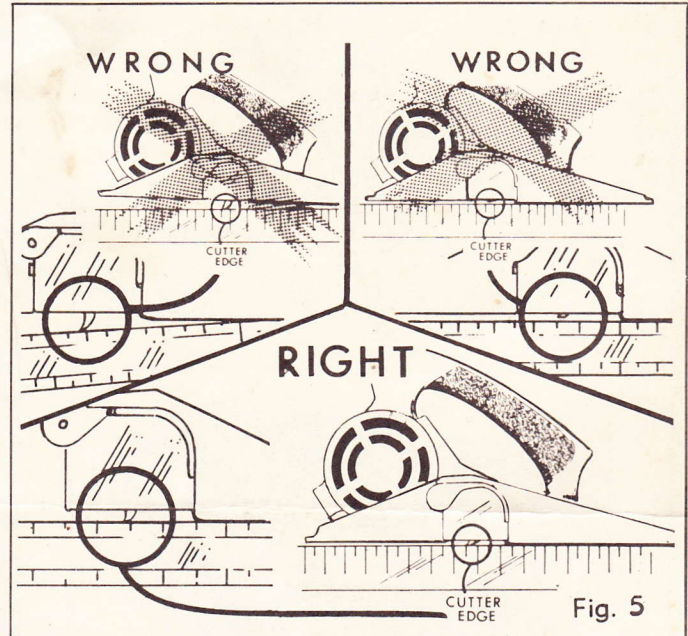


Fig. 5

THE BASE ALIGNMENT IS EXTREMELY IMPORTANT. IF THE CUTTING EDGES ARE EITHER ABOVE OR BELOW THE REAR SECTION OF THE BASE, A "WAVY" OR "UNEVEN" CUT WILL RESULT (See Fig. 6). ALSO, IF THE BASE IS INCORRECTLY ADJUSTED, THE BELT WILL BREAK OR THE BELT COGS WILL SHEAR OFF, THEREFORE, DO NOT EXCEED 1/64" DEEP CUT IN ONE PASS. STUDY FIG. 5 CAREFULLY BEFORE ATTEMPTING TO MAKE BASE ALIGNMENT.



Cut resulting from improperly aligned base

Fig. 6

**RATE OF FEED:** Do not overload the motor of your plane by "forced feeding." Clean, smooth planing can be done only when the cutter is revolving at a relatively high speed and is taking very small bites to produce tiny, cleanly severed chips. Advance plane very slowly when starting a cut.

The right feed is neither "forced" or too slow. It is the rate at which the cutter advances firmly and surely (without hesitation or noticeable laboring) through the work. Always let the plane get up to full speed before starting a cut.

**FENCES:** To install fence, position fence on plane base so the projections on fence fit into the square holes in the base as shown in Fig. 7. Insert thumb screw through hole in fence and screw it securely into the threaded hole in plane base.

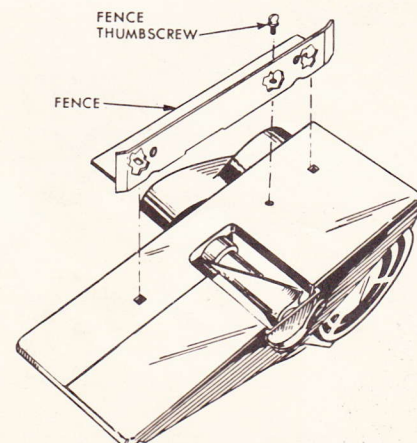


Fig. 7



## CRAFTSMAN POWER PLANE — MODEL NUMBER 315.25020

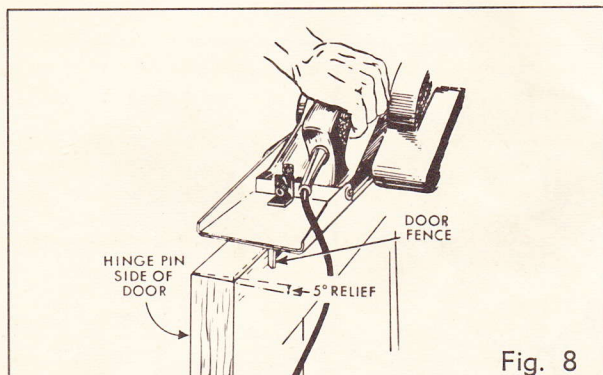


Fig. 8

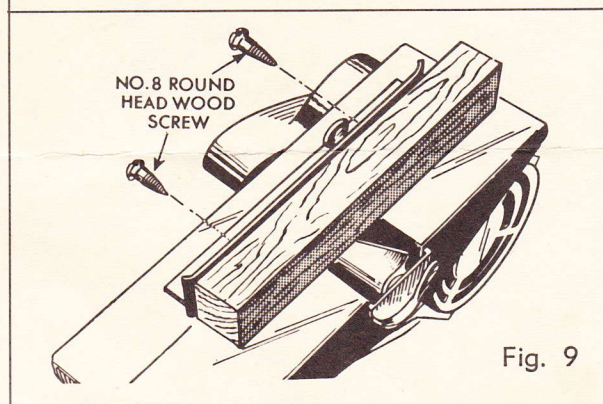


Fig. 9

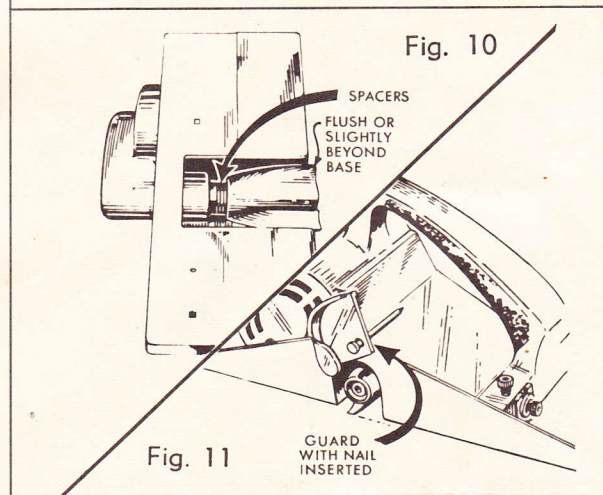


Fig. 10

Fig. 11

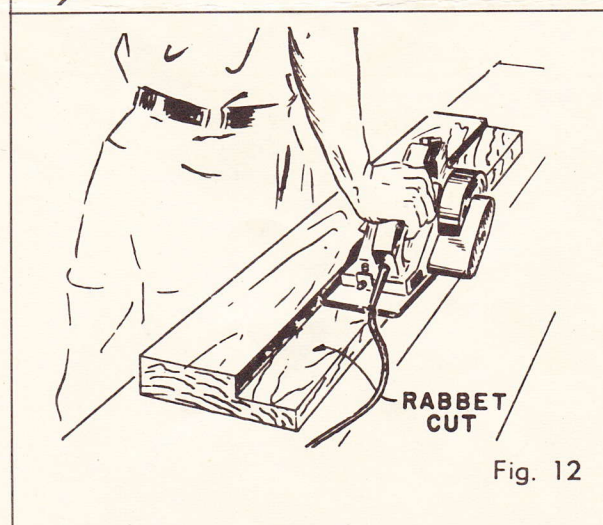


Fig. 12

Your Craftsman Power Plane is provided with two fences. One fence is marked "Door". This fence, when used on the Plane, will automatically provide a 5° relief on the edge of a door (See Fig. 8). The other fence which is unmarked has no relief and will provide straight or square cut.

**SPECIAL CUTTING:** Special cuts such as rabbets, steps and bevels can be made by fastening wood blocks to the fence. You can make your own wood blocks to guide the plane for such cuts. The wood blocks are attached to the fence by two small wood screws inserted through the holes provided in the fence as shown in Fig. 9.

**ADJUSTING CUTTER FOR RABBIT CUTS:** When making a rabbet cut, the outer (counter bored) end of the cutter must be flush with or extend slightly beyond the outer edge of the base. Cutter spacers, Key No. 36, (See parts list, page 9), to position the cutter so its outer end is flush or extends slightly beyond the base.

See section on removal of cutter. Remove the cutter from cutter shaft and slip on the number of spacers required to position the cutter flush or slightly beyond edge of the base (See Fig. 10).

When making a rabbet cut, the cutter guard should be held in the raised position with a nail as shown in Fig. 11. Fig. 12 illustrates a rabbet cut.

The fence should always be used when making rabbet cuts with or without wood block, as required.

**NOTE:** Use extreme care not to contact the plane cutter while making rabbet cuts. Remember, the cutter spacers are used only for making rabbet cuts. They should be removed and the cutter guard lowered as soon as the rabbet cut is finished.

**CLEANING OF PLANE—**After finishing each job, remove any accumulation of dust and wood chips from the plane. The motor air vent should always be kept clean and open. The chip chute should be kept clean and free of debris.



## CRAFTSMAN POWER PLANE — MODEL NUMBER 315.25020

### TO REMOVE CUTTER

1. **IMPORTANT—BE SURE POWER CORD IS DISCONNECTED FROM POWER SUPPLY.**
2. Raise the cutter guard and insert a nail in the hole as shown in Fig. 1 to hold the guard in the "up" position.
3. Insert cutter shaft wrench on the flats of cutter shaft.
4. Loosen the cutter screw with the hexagon wrench furnished. The cutter screw has left-hand threads and must be turned clockwise to loosen.
5. Slip cutter off cutter shaft. Retain cutter washer with cutter screw.

**TO REPLACE PULLEY BELTS:** Should the belt become worn or damaged it can be easily replaced as follows:

1. **IMPORTANT—BE SURE POWER CORD IS DISCONNECTED FROM POWER SUPPLY.**
2. Remove the screw and belt guard as shown in Fig. 13.
3. Force old belt off with a screwdriver, taking care not to damage pulleys.
4. Install new belt by lining up teeth on belt with the pulley grooves and evenly pressing the belt onto the pulleys.
5. Replace the belt guard and tighten the screw securely.

### LUBRICATION

All the bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions, therefore, no further lubrication is required.

### BRUSH REPLACEMENT

Periodically check the brushes for wear and replace both brushes when either is worn to about  $\frac{1}{4}$  inch in length. To check length of brushes they must be removed from tool (see instructions below). Replacement of these relatively inexpensive parts, when necessary, will keep your Power Plane operating more efficiently and prolong the life of the motor.

**IMPORTANT—BE SURE POWER CORD IS DISCONNECTED FROM POWER SUPPLY.** To replace carbon brushes, (See Fig. 14), Key No. 17, (See parts list, page 9) unscrew brush caps, Key No. 19, and remove old brush. Reassemble new brush assembly making sure curvature of brush matches curvature of the surface of the motor to which it is mated and that the brushes move freely inside brush holder. Be sure brush caps are securely tightened.

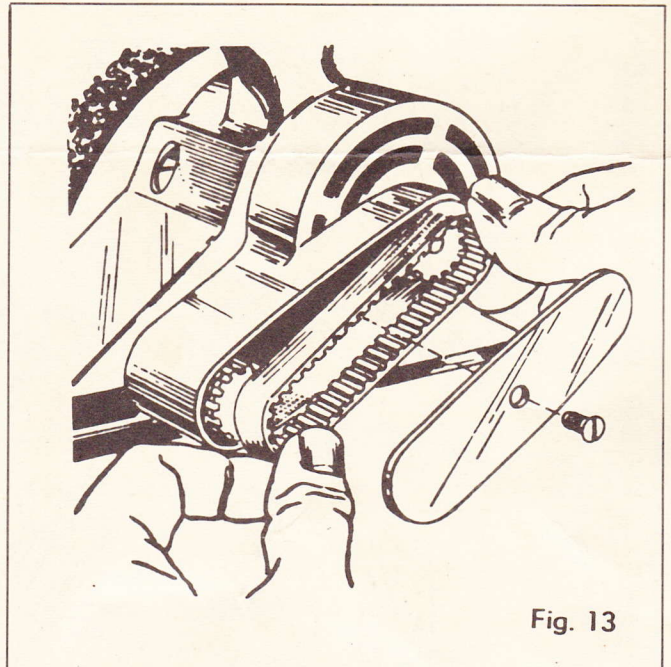


Fig. 13

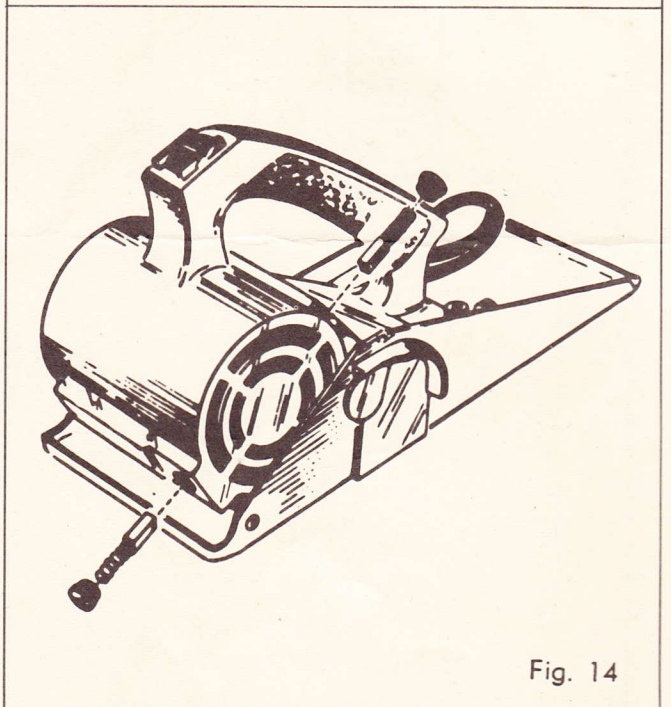
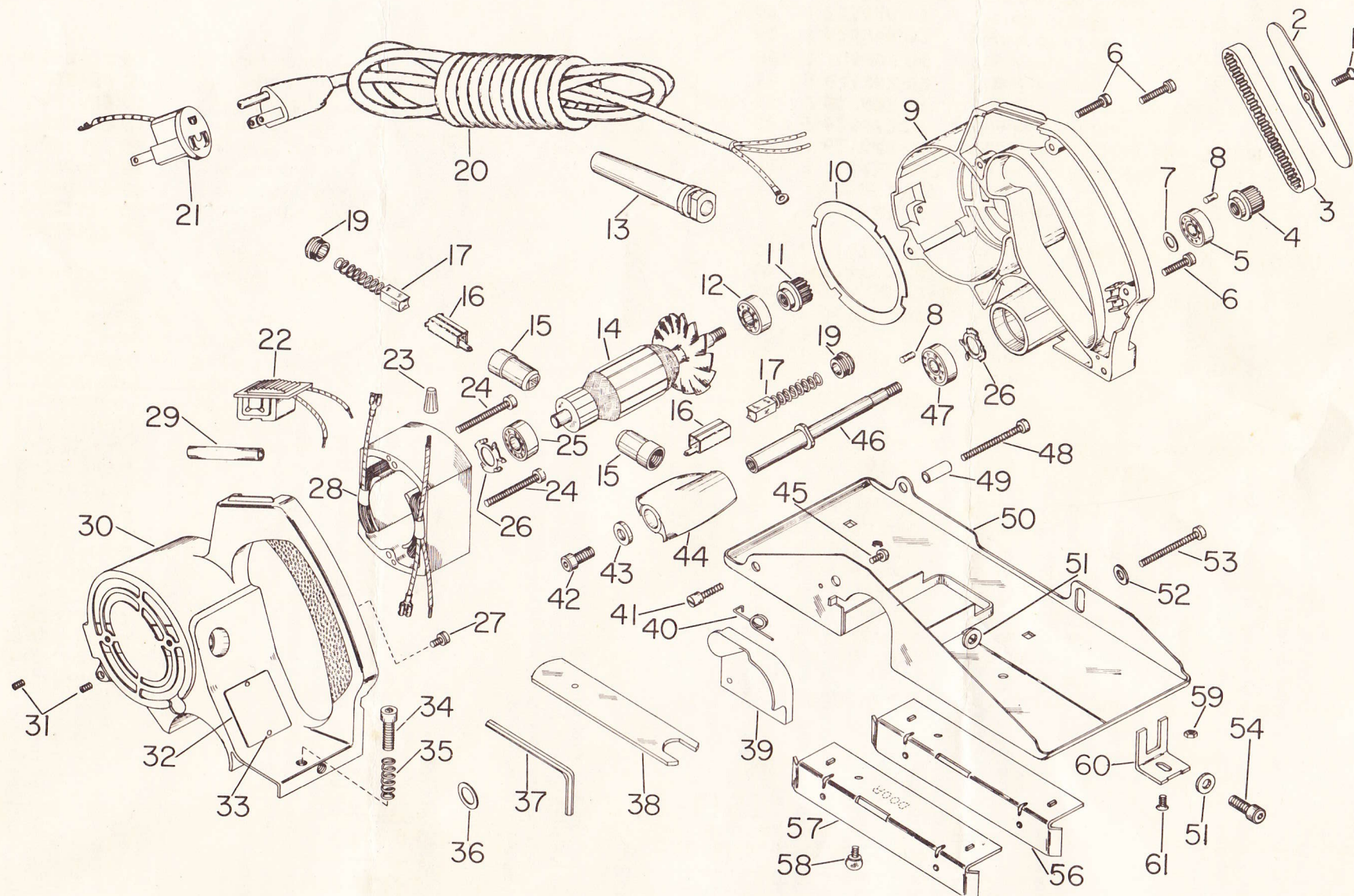


Fig. 14



# CRAFTSMAN POWER PLANE — MODEL NUMBER 315.25020





# CRAFTSMAN POWER PLANE — MODEL NUMBER 315.25020

The Model Number will be found on a plate attached to the Motor Housing.  
Always mention the Model Number in all correspondence regarding your  
**POWER PLANE** or when ordering repair parts.

SEE BACK PAGE FOR PARTS ORDERING INSTRUCTIONS

## PARTS LIST

Key No.	Part Number	Description	Quan.	Key No.	Part Number	Description	Quan.
1	1-703488-802	Screw (#8-32x3/8 Oval Hd.)	1	31	1-930687-02	*Set Screw (#8-32x3/16 Hex Socket Headless)	2
2	2-621629-01	Belt Guard	1	32	2-624027-01	Nameplate	1
3	2-622735-00	Timing Belt	1	33	1-795247-06	Drive Screw	2
4	2-622734-02	Cutter Pulley	1	34	1-621644-02	Screw (1/4-20x1 Hex Socket Hd.)	1
5	1-196630-01	Ball Bearing	1	35	1-622394-00	Spring	1
6	1-940038-804	Screw (#8-32x5/8 Fil. Hd.)	3	36	1-621618-00	Cutter Spacer	7
7	1-621616-00	Bearing Spacer	1	37	1-820193-07	Allen Hexagon Key (3/16" Hex.)	1
8	1-622795-02	Rubber Insert	2	38	1-621659-00	Wrench	1
9	3-624184-01	Drive Housing (Includes Key No. 10)	1	39	1-624173-03	Cutter Guard	1
10	2-621617-00	Baffle	1	40	1-621609-00	Guard Spring	1
11	2-622734-01	Drive Pulley	1	41	1-614203-02	Base Pivot Screw	1
12	1-622274-01	Ball Bearing	1	42	1-621646-01	Screw (1/4-20x1/2 Hex Socket Hd.-L.H. Thds.)	1
13	2-613651-01	Bend Relief	1	43	1-621612-00	Washer	1
14	2-624026-01	Armature Complete	1	44	**	Cutter	1
15	2-706484-05	Brush Holder	2	45	1-621645-01	Screw (#6-32x1/4 Truss Hd.)	1
16	2-620635-00	Brush Tube	2	46	2-621613-00	Cutter Shaft	1
17	1-614913-01	Brush Assembly	2	47	1-621221-01	Ball Bearing	1
19	1-886001-01	Brush Cap	2	48	1-940038-801	Screw (#8-32x15/8 Fil. Hd.)	1
20	2-622662-02	Cord	1	49	1-624174-01	Spacer	1
21	1-706875-00	Adapter (Not Supplied w/Canadian Tools)	1	50	6-614205-00	Base (Includes Key No's. 41, 59, 60 and 61)	1
22	2-622277-01	Switch	1	51	1-931744-67	Washer	2
23	1-623173-01	Wire Connector	3	52	1-931055-807	Washer	2
24	1-940049-08	Screw (#8-18x15/8 Fil. Hd. T.F.)	2	53	1-703432-948	Screw (#8-32x15/8 Fil. Hd.)	1
25	1-740943-01	Ball Bearing	1	54	1-621644-01	*Screw (1/4-20x1/2 Hex Socket Hd.)	1
26	1-621463-03	Loading Spring	2	56	2-624482-02	Fence (regular)	1
27	1-930993-01	Screw (#6-32x5/16 Pan Hd. T.C.)	1	57	2-624482-04	Fence (for planing doors only)	1
28	3-621625-01	Field Core Complete	1	58	1-621262-02	Thumb Screw	1
29	1-622286-01	Insulation Tubing	1	59	1-706404-06	*Hex Nut (#8-32)	1
30	4-624170-03	Motor Housing	1	60	1-624036-02	Lock Bracket	1
				61	1-703428-19	*Screw (#8-32x1/4 Flat Hd.)	1
					EN 634	Instruction Sheet	

\*Standard Hardware Item—May Be Purchased Locally.

\*\*Available As Cat. No. 9-25006 From Your Nearest Sears Catalog Order or Retail Store

FOR ILLUSTRATION—SEE PAGE 8



# Sears

# owners manual



Reg. Trade Mark

## POWER PLANE

### MODEL NO.

**315.25020**

### HOW TO ORDER REPAIR PARTS

**SEARS SERVICE  
IS AT YOUR SERVICE  
WHEREVER YOU LIVE  
OR MOVE  
IN THE U.S.A.**

The Model Number will be found on the plate attached to the motor housing. Always mention the Model Number when requesting service or repair parts for your Power Plane.

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. and SIMPSON-SEARS LIMITED. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER—315.25020
4. The NAME of ITEM—POWER PLANE

All fine tools, on occasion, may require service or the replacement of parts due to wear from normal use. To prolong the life of your tool when repairs are needed, call on your nearest Sears Catalog Order or Retail Store. Please do not risk possible electrical hazards, additional cost or damage to the tool through inexperienced repairs.

Your Sears merchandise takes on added value when you discover that Sears has over 2,000 Service Units throughout the country. Each is staffed by Sears — trained, professional technicians using Sears approved parts and methods.



SEARS, ROEBUCK AND CO.—Chicago, Illinois 60607 U.S.A.  
and SIMPSON-SEARS LIMITED—Toronto