

JET[®]

OWNER'S MANUAL JWP-208 Planer



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This manual has been prepared for the owner and operators of a JET Model JWP-208 Planer. Its purpose, aside from proper machine operation, is to promote safety through the use of accepted operating and maintenance procedures. Completely read the safety and maintenance instructions before operating or servicing the machine. To obtain maximum life and efficiency from your planer, and to aid in using the machine safely, read this manual thoroughly and follow all instructions carefully.

Warranty & Service

WMH Tool Group warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Repair Stations located throughout the United States can give you quick service.

In most cases, any one of these WMH Tool Group Repair Stations can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET, Performax, Powermatic or Wilton tools.

For the name of an Authorized Repair Station in your area, call 1-800-274-6848.

More Information

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WMH Tool Group (including JET, Performax, Powermatic and Wilton brands) makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship as follows: 1 YEAR LIMITED WARRANTY ON ALL PRODUCTS UNLESS SPECIFIED OTHERWISE. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, repair or alterations outside our facilities, or to a lack of maintenance.

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To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to an Authorized Repair Station designated by our office. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, WMH Tool Group will either repair or replace the product, or refund the purchase price if we cannot readily and quickly provide a repair or replacement, if you are willing to accept a refund. WMH Tool Group will return repaired product or replacement at our expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of our warranty, then the user must bear the cost of storing and returning the product. This warranty gives you specific legal rights; you may also have other rights, which vary from state to state.

WMH Tool Group sells through distributors only. WMH Tool Group reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

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, WARNING

Read the manual. Always read the owner’s manual carefully before attempting to use the machine. Know the limitations and hazards associated with the use of this planer.

Installation. If mounting machine to the floor, use high quality anchor bolts through the mounting holes on the base. If using a mobile base, be sure to lock the wheels.

Eye protection. Always wear approved safety goggles, glasses, or a face shield when operating this machine. NOTE: Common eyeglasses are only impact resistant, they are not safety glasses. Also use face or dust mask if the cutting operation is dusty.

Dress code. Do not wear loose clothing, neckties, jewelry, or gloves that can get caught in moving parts. Confine long hair. Keep sleeves above the elbow.

Placement. Place machine so that potential kickback area is not in line with aisles, doorways, wash stations or other work areas. Do not use machine in a damp or wet location, or expose to rain. Keep work area well lighted.

Electrical grounding. Your machine must be electrically grounded. If a cord and plug are used, make certain the grounding lug connects to a suitable ground. Follow the grounding procedure indicated by the National Electrical Code.

Guards. Be sure machine guards are in place and in good working order. Do not operate while gear cover is open. If a guard must be removed for adjustments or maintenance, it should be reinstalled immediately upon completion of the procedure and before operating the machine.

Housekeeping. Before turning on machine, remove all extra equipment such as keys, wrenches, scrap, stock, and cleaning rags from the machine. Keep the area around machine clean and free of scrap material and sawdust to minimize the danger of slipping.

Power off. Make sure the machine is either unplugged or electrically disconnected and locked out when performing maintenance or service work. Also, make sure switch is in OFF position before plugging in power cord. Never leave the machine running unattended. Do not leave machine until it comes to a complete stop.

Cutterhead. Keep knives sharp and free of all rust and pitch. Make sure gib screws are tightened securely.

Work piece. Check material for loose knots, nails and other defects that can damage knives and pose a safety hazard for the operator.

Keep hands away from feed rollers and cutterhead while operating.

Use the proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersize cord will cause a drop in line voltage resulting in loss of power and overheating. For runs up to 25 feet, use an 18 AWG or larger gauge cord.

Do not operate this machine while under the influence of drugs, alcohol or any medication.

If you are not thoroughly familiar with the operation of wood planers, obtain advice from your supervisor, instructor or other qualified person.

Health hazards. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- * Lead from lead-based paint.
- * Crystalline silica from bricks and cement and other masonry products.

* Arsenic and chromium from chemically-treated lumber.
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles.

, Safety Decals

Familiarize yourself with the location and content of these decals on your planer.

⚠ WARNING	
<ol style="list-style-type: none">1. Read instruction manual before operating machine.2. Do not operate without all guards properly installed.3. Remove or fasten loose articles of clothing such as neckties, etc. Contain long hair.4. Remove jewelry such as finger rings, watches, bracelets, etc.5. Use approved safety glasses and/or face shield to protect eyes, and use other personal safety equipment as required. Do not wear gloves.	<ol style="list-style-type: none">6. Disconnect machine from power source before making any adjustments or cleaning chips away from machine.7. Keep the floor around machine clean and free from scraps, sawdust, oil and grease to minimize the danger of slipping.8. Do not operate this machine while under the influence of alcohol or drugs.9. Failure to comply with these warnings may result in serious personal injury.
DO NOT REMOVE OR OBSCURE THIS LABEL	

Fig. 1

WARNING
DO NOT attempt to remove this cover while machine is running. Failure to comply may result in personal injury.

Features – JWP-208 Planer

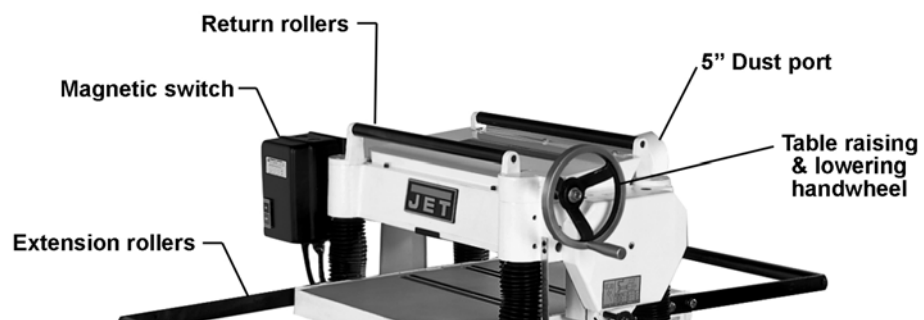


Fig. 2

Specifications:	JWP-208-1	JWP-208-3
Stock Number	708528	708584
Table Area (D x W/in.)	25-3/4 x 20	25-3/4 x 20
Maximum Planing (W/in.).....	20	20
Maximum Planing (T/in.).....	6	6
Full Width Cutting Depth (in.).....	3/32	3/32
Minimum Planing Depth (in.)	6-3/4	6-3/4
Knives	4	4
Blade Size (L x W x T/in.)	20 x 1 x 1/8	20 x 1 x 1/8
Cutterhead Speed (RPM)	5,000	5,000
Cuts per Minute.....	20,000	20,000
Cutterhead Diameter (dia/in.)	3-3/16	3-3/16
Feed Rate (FPM)	24 & 31	24 & 31
Dust Chute Diameter (dia/in.)	5	5
Overall Dimensions (L x W x H/in.).....	26 x 36-5/8 x 41-3/8	26 x 36-5/8 x 41-3/8
Motor	3HP, 1Ph,230V only	5HP, 3Ph, 230/460V (prewired 230V)
Overall Dimensions (L x W x H/in.).....	26 x 36-5/8 x 41-3/8	26 x 36-5/8 x 41-3/8
Net Weight (approx. lbs.)	640	640

The specifications in this manual are given as general information and are not binding. WMH Tool Group reserves the right to effect, at any time and without prior notice, alterations to parts, fittings, and accessory equipment deemed necessary for any reason whatsoever.

Receiving

Carefully unpack the planer and any loose items from the wood crate and inspect for damage. Any damage should be reported immediately to your

distributor and shipping agent. Before proceeding further, read your manual thoroughly to familiarize yourself with proper assembly, maintenance and safety procedures.

Remove the screws that hold the planer to the shipping skid. Remove the protective coating from the table, bed rolls, feed rolls, cutterhead and loose items packed with the machine, including lifting handles and motor pulley. This coating may be removed with a soft cloth moistened with Kerosene. Do not use acetone, gasoline or lacquer thinner for this purpose. Do not use solvents on plastic parts.

, CAUTION
Use care when cleaning the cutterhead,
the knives are very sharp.

Installation & Assembly

1. There are four lifting handles (Fig. 3) on the machine. Pull the handles out for use, push in when not in use.
2. If a sling or forklift is used to lift the machine, be sure to lift by the handles only. See Fig. 3. Make sure machine is kept in level position while lifting.
3. For best planing performance, locate planer on a solid, level foundation and anchor to the floor with good quality lag screws. Do not tighten screws completely yet.
4. With machine in position, test table surface lengthwise and crosswise with machinist's level. Place metal shims under low corners.
5. Check that all four corners are supported, then tighten lag screws.
6. Re-test level of table surface in both directions and adjust if necessary.

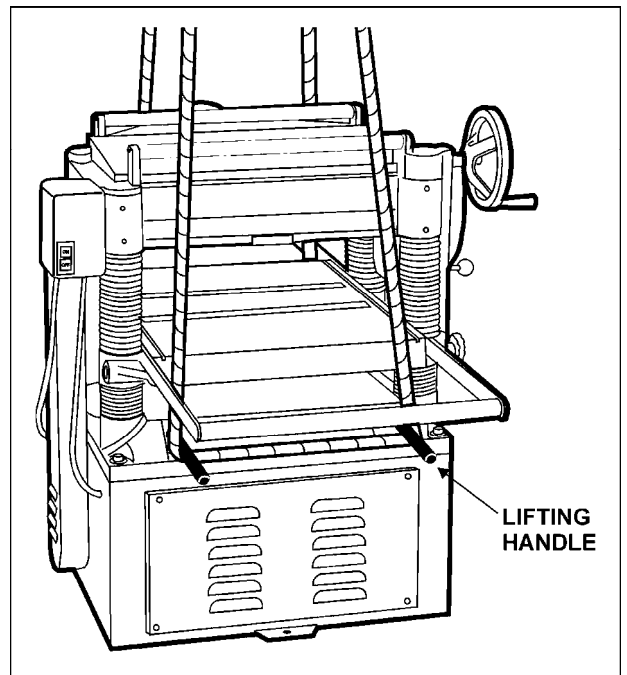
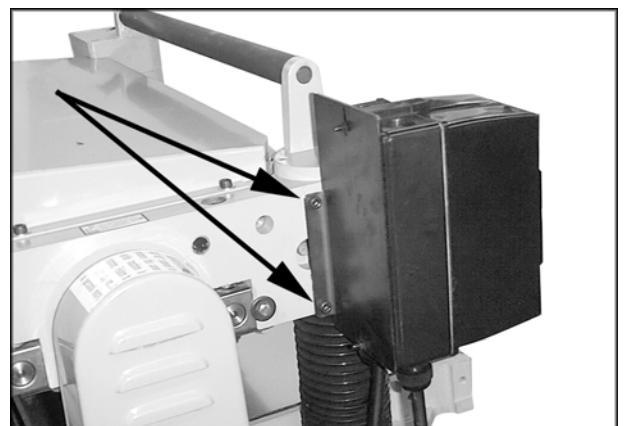


Fig. 3

Starter Box

Mount the starter box at the left side of the machine with two socket head cap screws (Fig. 4).



Handwheel

1. Remove the nut and washer from the gearbox shaft, and place the handwheel onto the shaft (Fig. 5), making sure it is oriented so the handwheel slips over the key.
2. Place flat washer and hex nut on shaft and tighten with wrench.
3. Mount the handle in the threaded hole in the handwheel, and tighten with a wrench placed over the flat on the handle.

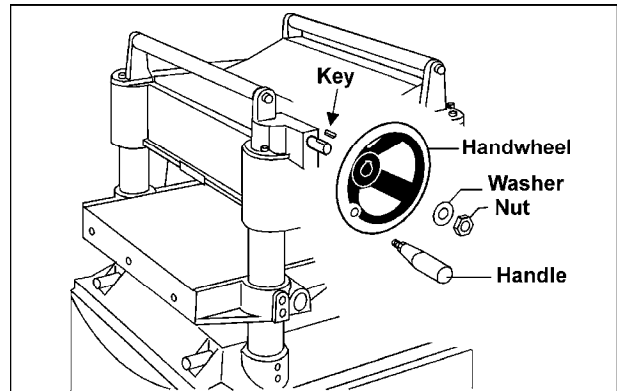


Fig. 5

Table Extension Rollers

Mount the table extension rollers to the table using the provided hex cap screws and washers (A, Fig. 6). The rollers should be adjusted before operating the planer; see "Adjusting Table Extension Rollers", page 11.

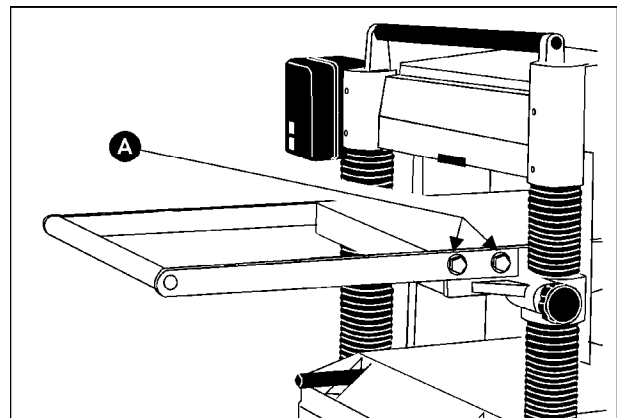


Fig. 6

Dust Collection Hood

The dust collection hood (Fig. 6A) comes standard with the model JWP-208 planer, and helps maintain a clean and safe work area. It is assembled to the planer with the screws and washers as shown.

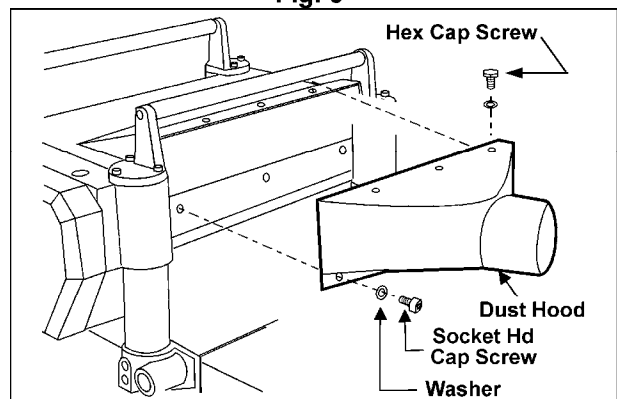


Fig. 6A

Electrical Connections

WARNING

Rated amps	Length of cord		
	25 ft.	50 ft.	100 ft.
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	Not recommended

Fig. 7

Electrical connections must be made by a qualified electrician in compliance with all relevant codes. The machine must be properly grounded to help prevent electrical shock and possible fatal injury.

A power plug is not provided with the 209 planer. You may either connect one or "hard-wire" the machine directly to your electrical panel provided there is a disconnect near the machine. Consult the wiring diagrams on pages 36-37 for further clarification of wiring setup.

This machine must be grounded. Grounding provides a path of least resistance to help divert current away from the operator in case of electrical malfunction.

Make sure the voltage of your power supply matches the specifications on the motor plate of the machine.

Extension Cords

The use of an extension cord is not recommended for this machine, but if one is necessary make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersize cord will cause a drop in line voltage resulting in loss of power and overheating.

The chart in Figure 7 shows the correct size cord to use based on cord length and motor plate amp rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.

Adjustments

Belt and Pulleys

1. Using a straight edge, align the motor pulley (A, Fig. 8) and cutterhead pulley (B, Fig. 8). The motor plate can be moved for alignment by loosening the set screws (C, Fig. 9) in the motor plate.
2. Check belt tension. Proper tension is obtained when there is approximately 1/4" deflection of the center span of the pulleys using light finger pressure (Fig. 10).
3. If adjustment of belt tension is necessary, loosen one pair of hex nuts (E & F, Fig. 11) and turn the other pair to raise or lower the motor plate. Re-tighten nuts.

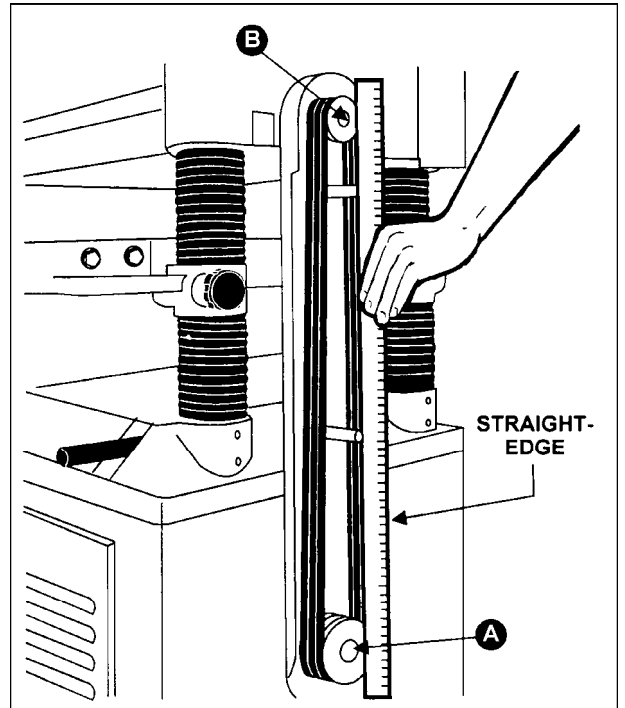


Fig. 8

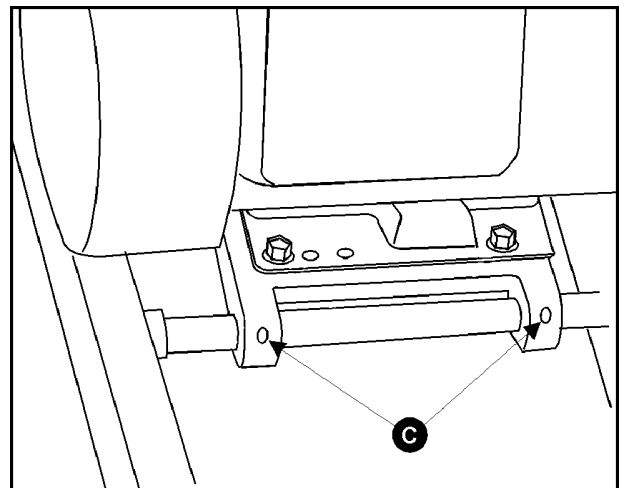


Fig. 9

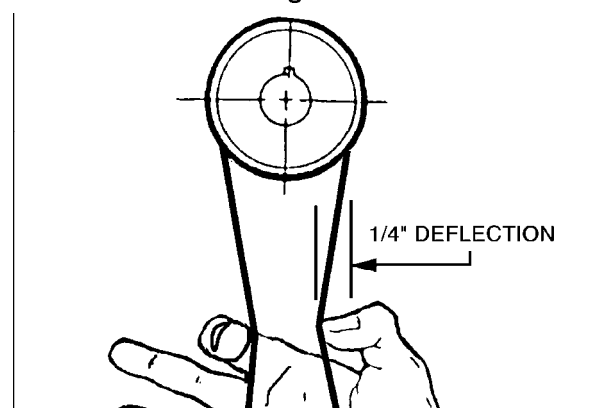


Table Rollers

Your planer is supplied with two table rollers (A, Fig. 12) which turn as the stock is fed into the planer, thus reducing friction. It is not possible to give exact dimensions on the proper height setting of the table rollers because each type of wood behaves differently.

As a general rule, however, when planing rough stock, the table rollers should be set at high position. When planing smooth stock the rollers should be set at low position.

NOTE: When raising the roller higher above the table, the available range is from .003" to .006" See Fig. 13.

The table rollers are factory set for average planing and are parallel to the table surface. If you desire to adjust the table rollers higher or lower, proceed as follows:

1. Disconnect machine from power source.
2. Lay a straight edge (B, Fig. 14) across both rollers.
3. On one side of the table, loosen the screws (C, Fig. 14) with a hex wrench, and turn the

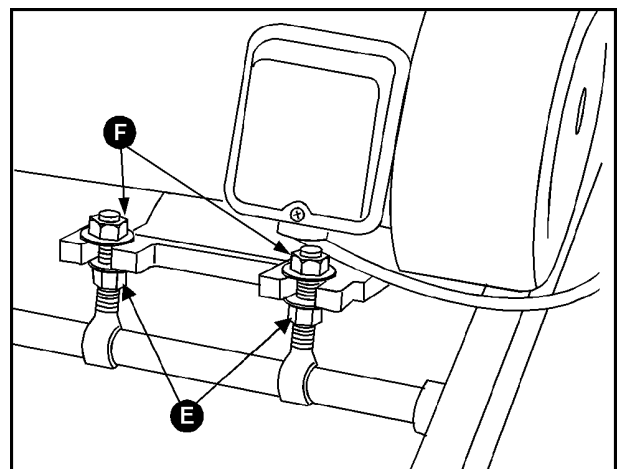


Fig. 11

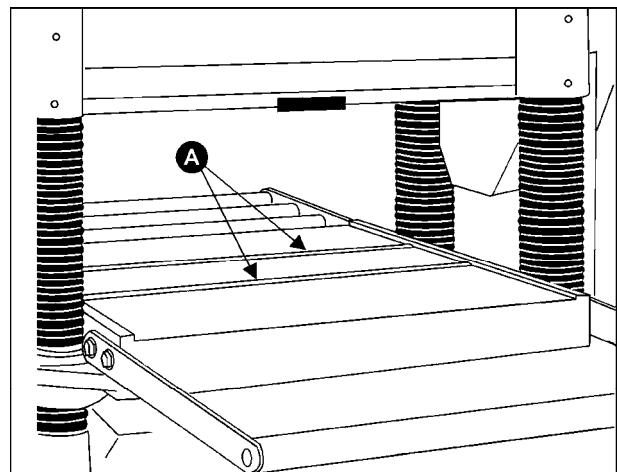


Fig. 12

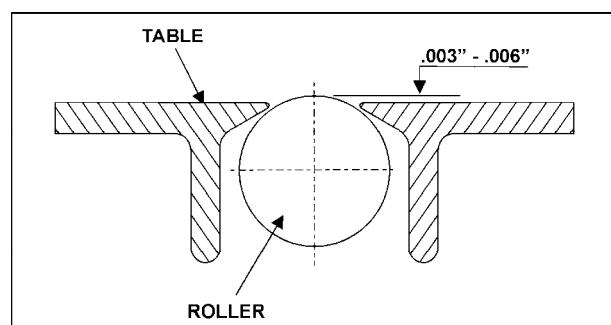


Fig. 13

eccentric shafts (D, Fig. 14) to raise or lower the rollers.

4. When the proper height is achieved, tighten screws (C, Fig. 14).
5. Adjust the rollers from the opposite side of the table in the same manner.

IMPORTANT: Be sure that the height of front and rear rollers are the same. The table rollers must always be set parallel to the table.

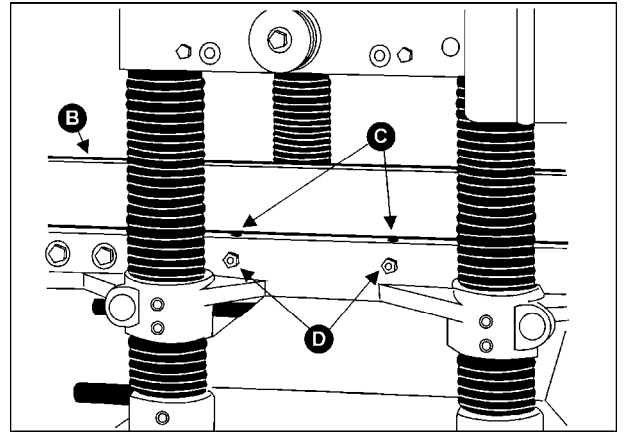


Fig. 14

Adjusting Table Extension Rollers

1. Place a straight edge over the extension roller and the table, as shown in Fig. 15, to make sure the extension roller and table are at the same height. If necessary, adjust the table extension rollers as follows:
2. Loosen the screws and washers (A, Fig. 15) to move the extension roller to the proper position, then retighten the screws.
3. Adjust both front and rear extension rollers in the same manner.

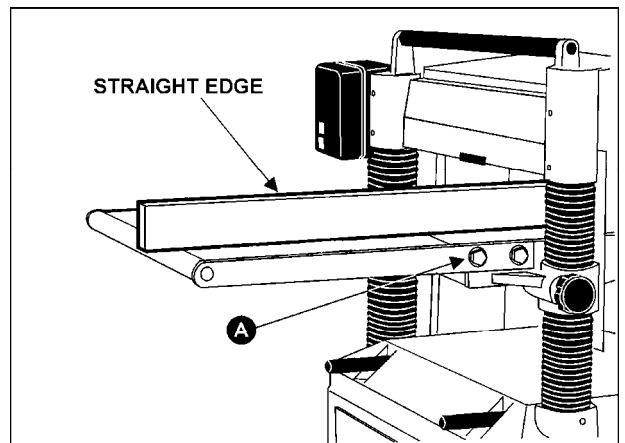
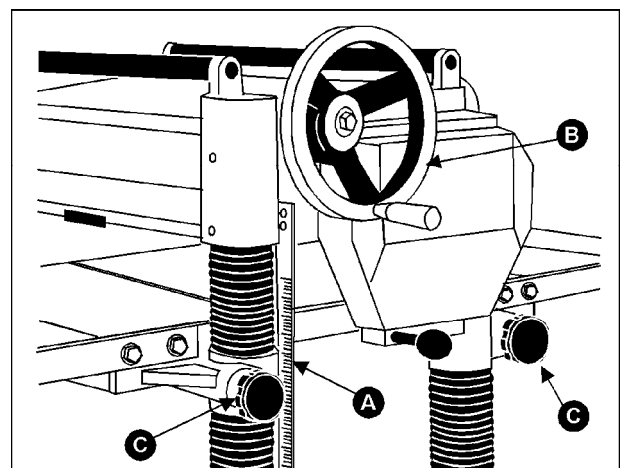


Fig. 15

Adjusting Depth of Cut

The cutting depth scale (A, Fig. 16) is a combination inch/metric scale with a cutting range from 0 to 8" (204mm). The distance of upward or downward movement is controlled by the handwheel (B, Fig. 16). One revolution of the handwheel is .059" (1.5mm). Before moving the table up or down,



loosen the lock nuts (C, Fig. 16). After obtaining the proper table position, tighten the lock nuts (C, Fig. 16).

, WARNING
Always tighten the lock nuts before operating the planer.

Cutterhead Adjustment

Although your planer was carefully adjusted at the factory, it should be checked before being put into operation. Any inaccuracies due to rough handling in transit can easily be corrected by following these directions.

To check the adjustments you will need a straight edge, feeler gauge, and a home made gauge block made of hardwood. This gauge block can be made by following the dimensions shown in Fig. 17.

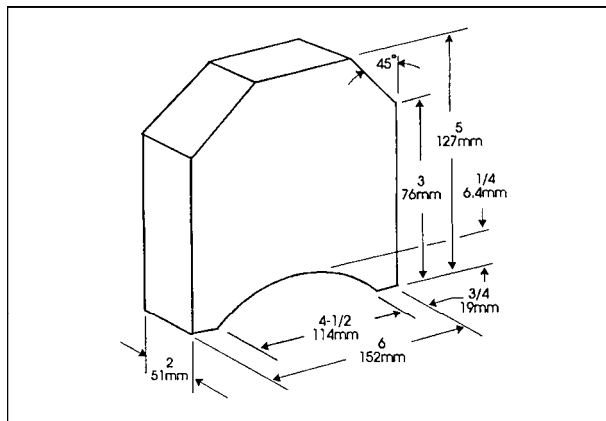


Fig. 17

Knife Adjustment

When checking or adjusting the cutterhead knives, proceed as follows:

1. Disconnect machine from power source.
2. Remove the six screws (A, Fig. 18) and remove upper cover (B, Fig. 18).
3. To check and adjust knives, use the provided knife gauge (Fig. 19 & 20) and check all four knives. Knives should just contact the bottom of the center protrusion (D, Fig. 19) of the knife gauge.
4. If an adjustment to one or more of the knives is necessary, slightly loosen the knife gib (E, Fig. 19) by turning the six locking screws (F, Fig. 19) into the gib. Turn the screws just enough to relieve stress in the cutterhead without disturbing the setting of the knives. Do this for all four knives at the same time.
5. With the gauge in place over a knife (G, Fig. 19) continue to loosen the locking screws (F, Fig. 19) until the springs (H, Fig. 19) begin raising the knife. When knife comes into contact with the center protrusion (D, Fig. 19) of the gauge, snug up the gib by lightly backing out the six locking screws (F, Fig. 19) against the slot. NOTE: At

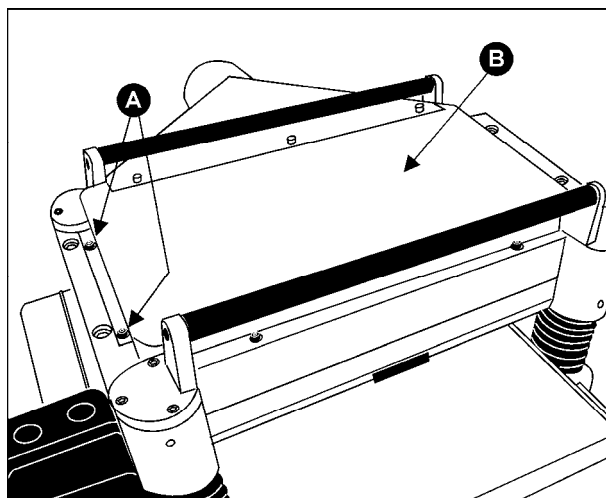
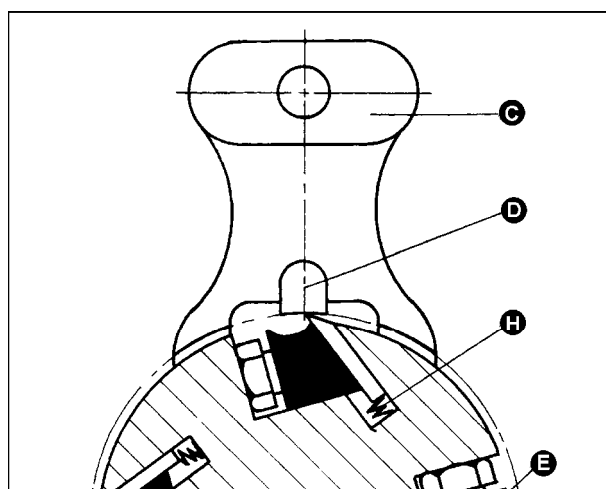


Fig. 18



this time, only tighten the knife in the slot just enough to hold knife in position.

6. If additional knives must be reset, repeat step 5.
7. After all four knives are set with screws just snug, back out and tighten the six locking screws (F, Fig. 19 & 20), against the slot starting with the end screws first, then the center screws, until the knife is securely held in the cutterhead. Tighten remaining three knives in the same manner.

Important: Double check all screws for tightness.

Replacing & Resetting Knives

If the knives are removed for sharpening, care must be exercise in replacing and resetting them. Proceed as follows:

1. Disconnect machine from power source.
2. Remove six screws and upper cover (see Fig. 18).
3. To remove knife, loosen the gib (E, Fig. 19) by turning the six locking screws (F, Fig. 19) into the gib. Remove gib (E, Fig. 19), knife (G, Fig. 16) and springs (H, Fig. 19). NOTE: The inner two springs may pop out when the knife and gib are removed.
4. Remove the remaining three knives in the same manner.
5. Thoroughly clean the knife slots, gibs, springs and locking screws. Check the locking screws; if the threads appear worn or stripped or if the heads are becoming rounded, replace them.
6. Inspect the cutting edge of the knives for nicks or wire edge. Hone the knives slightly using a stone, or if the knives are to be sharpened, maintain a cutting angle of 35 degrees.
7. Insert springs, knives and gib into slot of cutterhead. Back out locking screws just enough to hold the knife in the cutterhead.
8. Place knife gauge (C, Fig. 19) over knife.
9. While holding down on the knife gauge, loosen all six locking screws (F) by turning them into the gib (E) until cutting edge of knife comes into contact with the protrusion (D) of the gauge. Snug up the gib by slightly backing out the six locking screws against the slot.

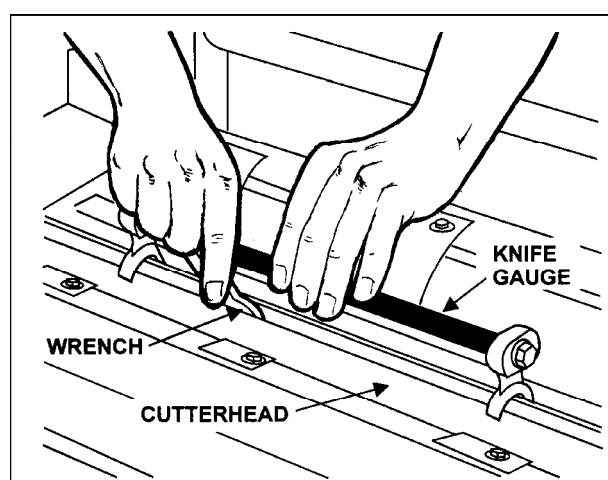


Fig. 20

NOTE: At this time, only tighten the knife into the slot just enough to hold the knife in position.

10. Replace and reset the other three knives in the same manner.
11. After all four knives are set with the screws just snug, back out and tighten the six screws (F) against the slot starting with the end screws first and then the center screws until the knife is securely held in the cutterhead. Tighten the remaining three knives in the same manner.

, WARNING

After replacing and checking knives, CHECK AGAIN carefully. Make certain the direction of knives is correct and all twenty-four locking screws are tightened securely.

Checking Work Table Parallel to Cutterhead

The work table is set parallel to the cutterhead at the factory and no further adjustment should be needed. If your machine is planing a taper, first check to see if the knives are set properly in the cutterhead. Then check to see if the work table is set parallel to the cutterhead. Proceed as follows:

1. Disconnect machine from power source.
2. Place the gauge block (A, Fig. 21) on the work table directly under front edge of head casting (B, Fig. 21). Make slight contact by gently raising table.
3. Move the gauge block to opposite end of working table. NOTE: Distance from the working table to edge of the head casting should be the same.
4. Check the back of the work table in the same manner.

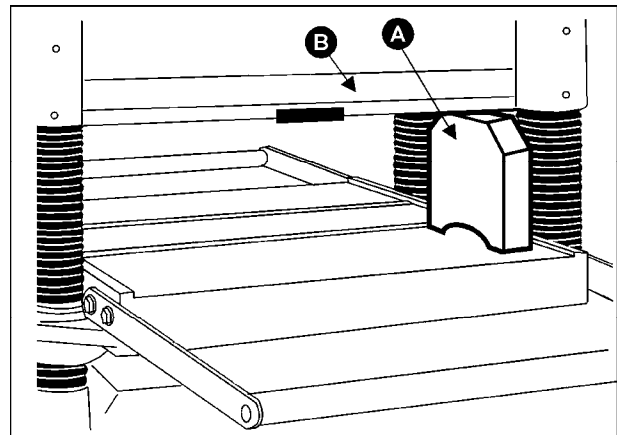
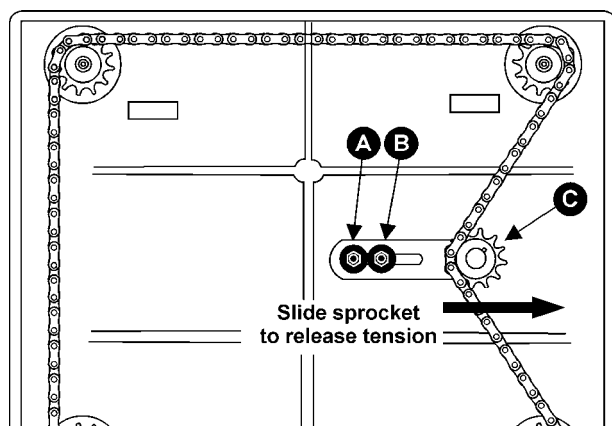


Fig. 21

Adjusting Work Table Parallel to Cutterhead

If the work table is not parallel to the cutterhead, perform the adjustment procedure as follows:

1. Disconnect the machine from power source.
2. Tilt planer on its side to expose underside of base, as shown in Fig. 22.



3. Remove bolt (A, Fig. 22) and loosen bolt (B, Fig. 22) which will allow you to move the idler sprocket assembly (C, Fig. 22) far enough to release tension on the chain.
4. Remove chain from the particular sprocket on corner of base that must be adjusted.
5. Turn the sprocket by hand to bring that corner into adjustment with the other three corners.
NOTE: Turning sprocket clockwise will increase the distance between the working table and headcasting; counter-clockwise will decrease the distance. This adjustment is very sensitive and it should not be necessary to turn the sprocket more than one or two teeth.
6. When adjustments are correct, replace chain around corner sprocket, slide sprocket (C, Fig. 22) back to re-tension chain, tighten bolt (B, Fig. 22) and replace and tighten bolt (A, Fig. 22).

Know the Transmitting Rollers of Your Planer

- A. Anti-Kickback Fingers
- B. Infeed Roller
- C. Chipbreaker
- D. Cutterhead
- E. Pressure Bar
- F. Outfeed Roller

The infeed roller (B, Fig. 23) and outfeed roller (F, Fig. 23) are those parts of your planer that feed the stock while it is being planed. The infeed and outfeed rollers are under spring tension and this tension must be sufficient to feed the stock uniformly through the planer without slipping but should not be so tight that it causes damage to the board. The tension should be equal at both ends of each roller.

Adjusting Infeed & Outfeed Roller Spring Tension

To adjust the spring tension of the infeed and outfeed rollers, turn screws (G & H, Fig. 24) with a hex wrench. Turn screws on opposite end of infeed/outfeed rollers in the same manner.

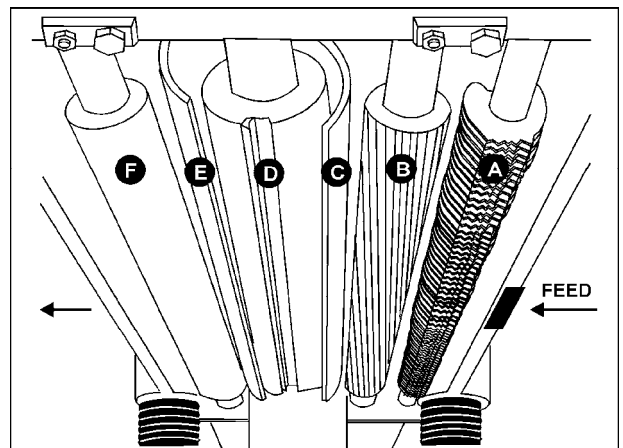


Fig. 23

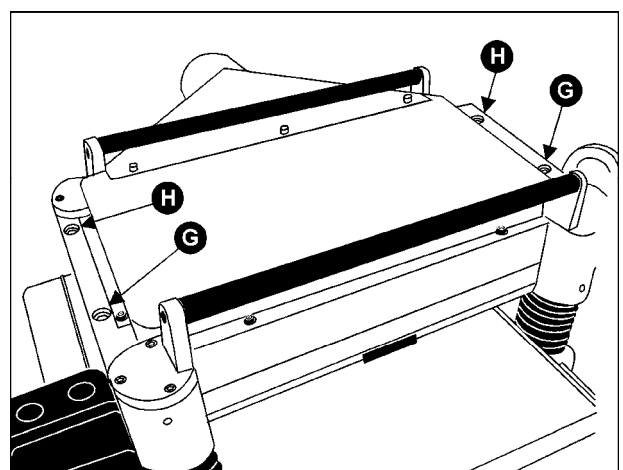


Fig. 24

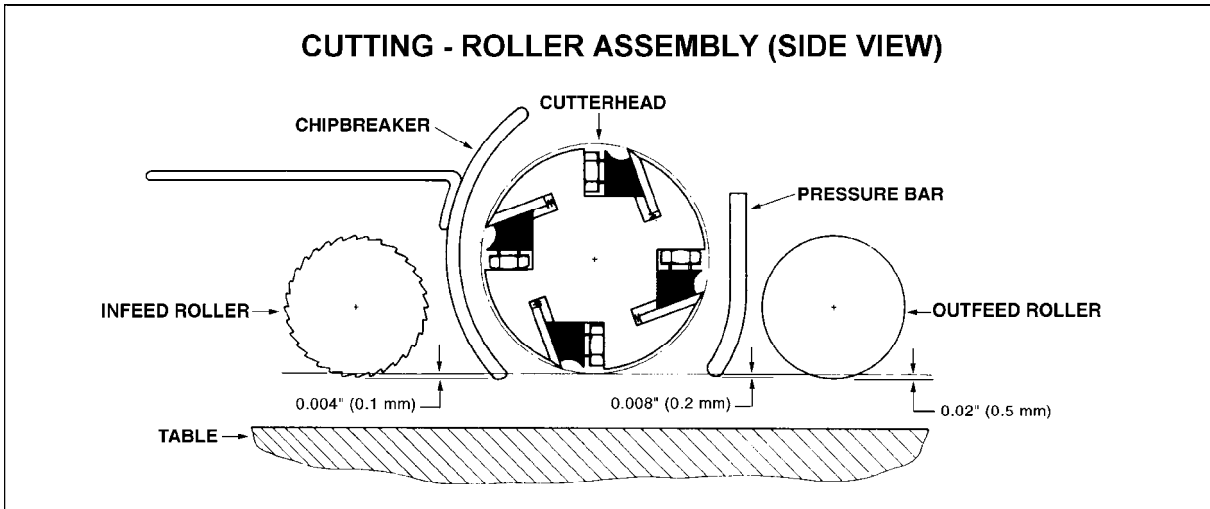


Fig. 25

Anti-Kickback Fingers

The anti-kickback fingers (A, Fig 23) help prevent kickback of stock. They operate by gravity and it is necessary to inspect them occasionally to make sure they are free of gum and pitch, so that they move independently and operate correctly.

Height of Infeed Roller, Chipbreaker, Pressure Bar & Outfeed Roller

The infeed roller, chipbreaker, pressure bar and outfeed roller are adjusted at the factory. The infeed roller and the chipbreaker should be set at 0.004" (0.1mm) below the cutting circle; and the outfeed roller should be set at 0.02" (0.5mm) below the cutting circle. See Fig. 25.

If an adjustment to the infeed roller, chipbreaker, pressure bar or outfeed roller is necessary, use the following steps as an example of procedure.

To check and adjust the outfeed roller below the cutting circle, proceed as follows:

1. Disconnect machine from power source.
2. Make sure the knives are adjusted properly as previously explained under "Checking & Adjusting of Knives."
3. Place the gauge block (J, Fig. 26) on the table directly underneath the cutterhead (D, Fig. 26). Using a 0.02" (0.5mm) feeler gauge (K, Fig. 26) placed on top of the gauge block, raise the working table until the knife just touches the feeler gauge when the knife is at its lowest point. Do not move the working table any further until the outfeed roller is adjusted.

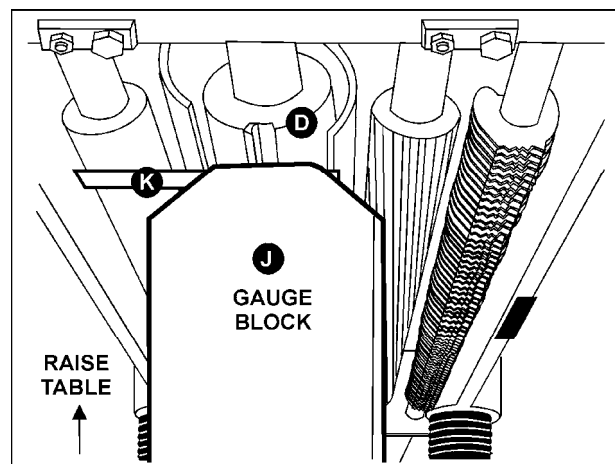


Fig. 26

4. Move the gauge block (J, Fig. 27) under one end of the outfeed roller (F, Fig. 27). The bottom of the outfeed roller should just touch the top of the gauge block. If an adjustment to the outfeed roller is necessary, loosen the lock nut (L, Fig. 27) and turn screw (M, Fig. 27) until the outfeed roller just touches the gauge block. Then tighten lock nut (L, Fig. 27).
5. Check and adjust opposite end of the outfeed roller in the same manner.

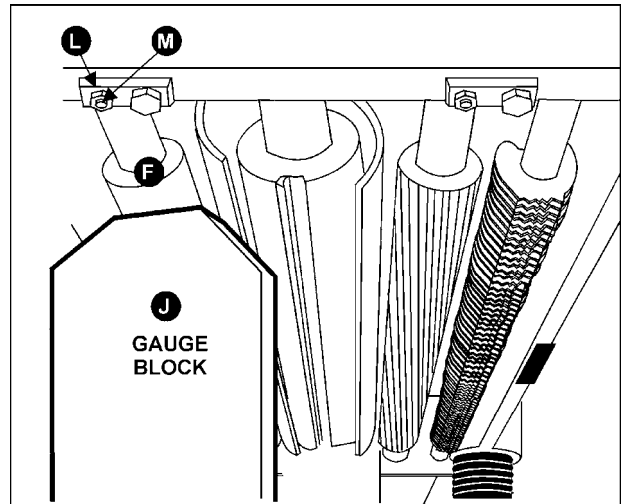


Fig. 27

Feed Speed Control

Your machine is equipped with a spiral, serrated infeed roller and a solid outfeed roller. When the feed rollers are engaged, they turn to feed the stock. The feed rollers slow automatically when the machine is under heavy load for best planing in all conditions. The feed rollers are driven by chains (A, Fig. 28) and sprockets (B, Fig. 28) which take power directly from the cutterhead through the oil bath gear box (C, Fig. 28).

The gear box has two feed speeds. These are set by pulling out or pushing in the shift lever (D, Fig. 28) while the machine is running. The feed speed range is shown in Fig. 29.

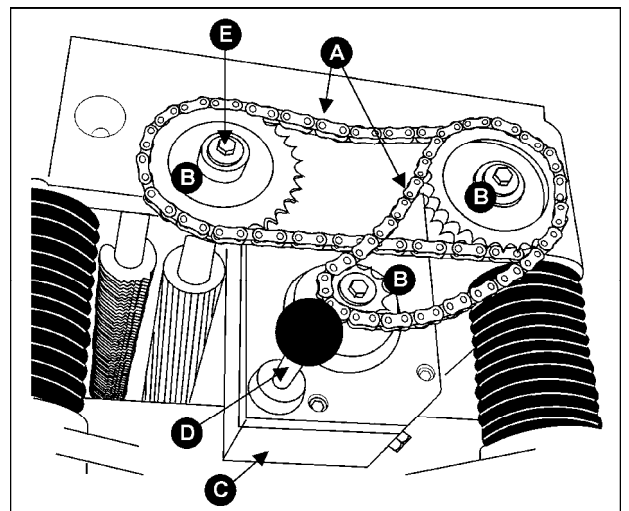


Fig. 28

Changing Accessories for Lowest Feed Speed

The lowest feed speed for your planer (16.2 fpm & 20.7 fpm) can be obtained by replacing the lower (gear shaft) sprocket and the chain. See Fig. 29. To change the sprocket and the chain on your machine, proceed as follows:

1. Disconnect machine from power source.
2. Remove the three hex cap screws and washers (E, Fig. 28).
3. Remove the three sprockets (B, Fig. 28) from the infeed roller, outfeed roller and the gear shaft at the same time.

4. When the sprockets (B, Fig. 28) are removed, replace the lower sprocket which will be assembled on the gear shaft.
5. Assemble the three sprockets and chains to the shafts, and tighten the hex cap screws (E, Fig. 28).

Return Rollers

The two return rollers on the top of the machine serve as a convenient rest for stock. They save time and motion for the operator as the stock is returned to the infeed side.

Maintenance

Periodic or regular inspections are required to ensure that the machine is in proper adjustment, that all screws are tight, that belts are in good condition, that dust has not accumulated in the electrical enclosures, and that there are no worn or loose electrical connections.

Buildup of sawdust and other debris can cause your machine to plane inaccurately. Periodic cleaning is not only recommended but mandatory for accurate planing.

Close-fitting parts, such as the cutterhead slot and gibs, should be cleaned with a cloth or brush and non-flammable solvent, and freed from clinging foreign matter.

Remove resin and other accumulations from feed rollers and table with a soft rag and non-flammable solvent.

Periodically check all the chains for proper tension and adjust accordingly if required.

TIP: If a foreign object nicks the knives, instead of throwing them away or trying to grind out the deep nick, simply stagger the knives in the head, moving one knife no more than 1/4" to the right and another knife no more than 1/4" to the left. The nick should no longer be noticeable.

The table should be kept clean and free of rust. Some users prefer a paste wax coating. Another option is talcum powder applied with a blackboard eraser rubbed in vigorously once a week; this will fill casting pores and form a moisture barrier. This method provides a table top that is slick and allows rust rings to be easily wiped from the surface. Important also is the fact that talcum powder will not stain wood or mar finishes as wax pickup does.

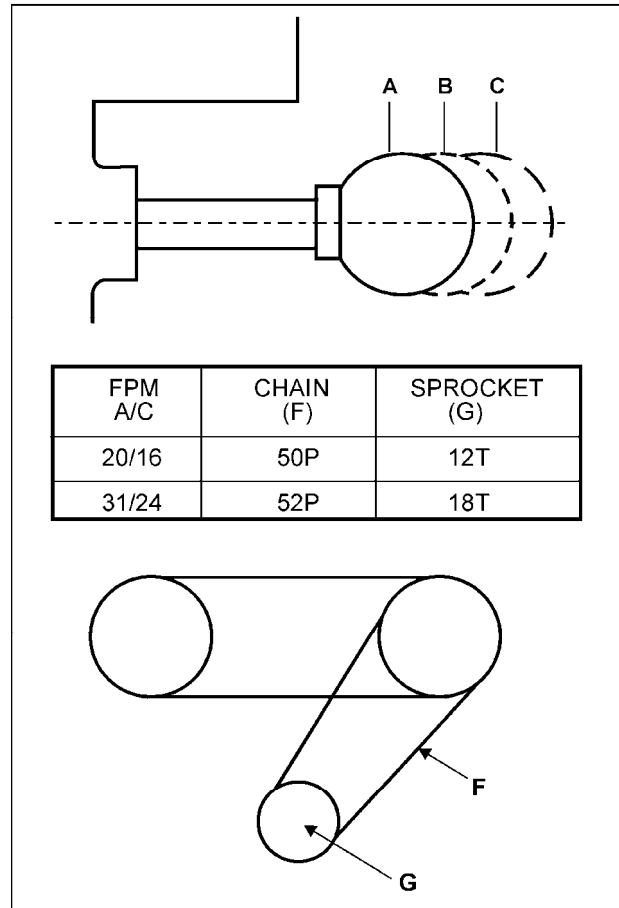


Fig. 29

Lubrication

The bearings on the cutterhead are factory lubricated and sealed for life – no lubrication required.

The lubricant in the gearbox must be replaced every 2,500 hours. Multi-purpose gearbox lubricant will be suitable.

To replace the gearbox lubricant:

1. Remove the drain plug (A, Fig. 30), and filler cap (B, Fig. 30). Drain dirty oil thoroughly.
2. Tighten the drain plug (A, Fig. 30).
3. Fill with clean lubricant through hole (B, Fig. 30).
4. Tighten filler cap (B, Fig. 30).

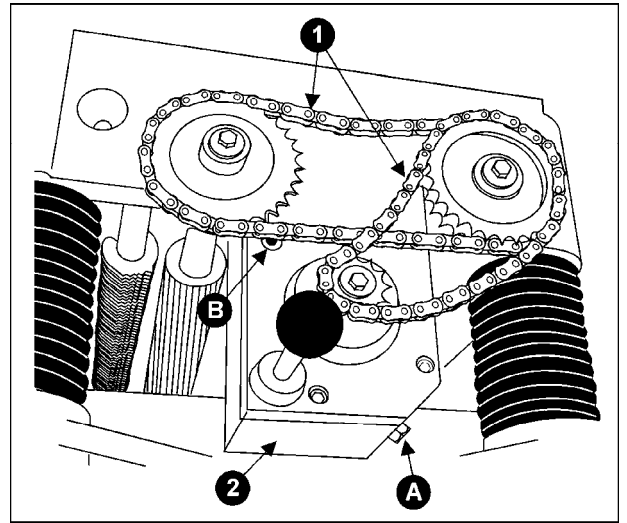


Fig. 30

[The item numbers on this chart are referenced with the accompanying illustrations.]

No.	Position	Interval	Suitable Types of Lubricant	Fig. No.
1	Drive Chain	Frequently	Grease	30
2	Gear Box	When operated more than 2,500 hours	HD-100, Mobil Gear 627, Shell Omala 100, ESSO Spartan EP-100	30
3	Return Rollers	Frequently	SAE-30	32
4	Worm Gear	Frequently	Grease	33
5	Lead Screw	Frequently	Grease	33
6	Column	Frequently	Clean and SAE-30	33
7	Table Chain	Frequently	Grease	34
8	Feed Rollers	Frequently	SAE-30	35

Fig. 31

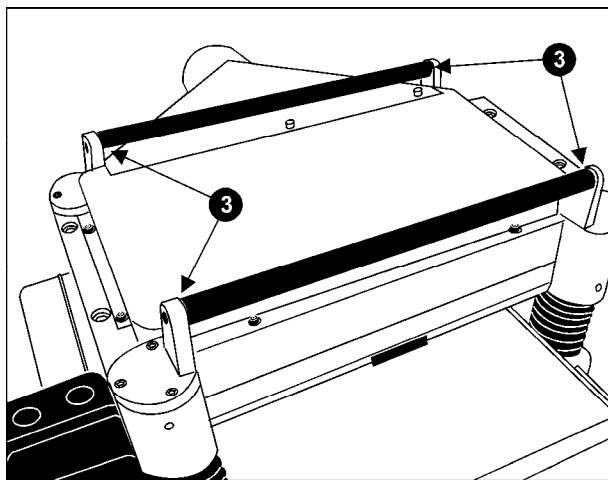


Fig. 32

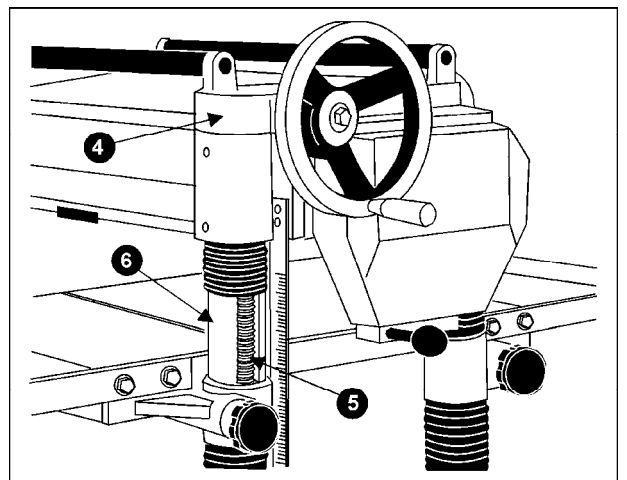
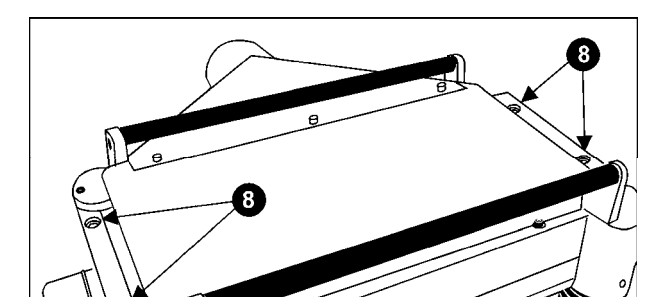
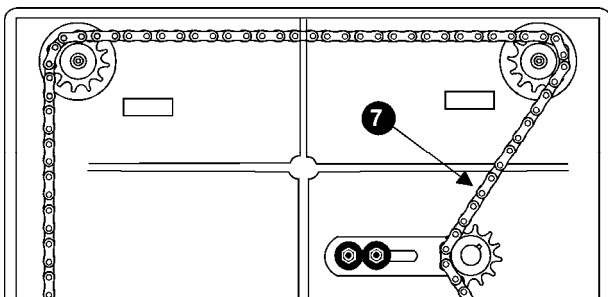


Fig. 33



Optional Accessories (JWP-209 Planer)

708808 Knives, Single Sided (set of 4)
708583 Low Speed Gear Kit

TROUBLE-SHOOTING: Operating Problems (JWP-208 Planer)

PROBLEM	POSSIBLE CAUSE	SOLUTION
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Snipe. (NOTE: Snipe can be minimized but not eliminated)	<ol style="list-style-type: none"> 1. Table rollers not set properly. 2. Inadequate support of long boards. 3. Uneven feed roller pressure front to back. 4. Dull knives. 5. Lumber not butted properly. 	<ol style="list-style-type: none"> 1. Adjust rollers to proper height. 2. Support long boards with extension rollers. 3. Adjust feed roller tension. 4. Sharpen knives. 5. Butt end to end each piece of stock as they pass through.
Fuzzy Grain	<ol style="list-style-type: none"> 1. Planing wood with a high moisture content. 2. Dull knives. 	<ol style="list-style-type: none"> 1. Remove high moisture content from wood by drying. 2. Sharpen or replace.
Torn Grain	<ol style="list-style-type: none"> 1. Too heavy a cut. 2. Knives cutting against grain. 3. Dull knives. 	<ol style="list-style-type: none"> 1. Adjust proper depth of cut. 2. Cut along the grain. 3. Sharpen knives.
Rough/Raised Grain	<ol style="list-style-type: none"> 1. Dull knives. 2. Too heavy a cut. 3. Moisture content too high. 	<ol style="list-style-type: none"> 1. Sharpen knives. 2. Adjust proper depth. 3. Remove high moisture content from wood by drying.
Rounded, glossy surface	<ol style="list-style-type: none"> 1. Dull knives. 2. Feed speed too slow. 3. Cutting depth too shallow. 	<ol style="list-style-type: none"> 1. Sharpen or replace knives. 2. Increase speed. 3. Increase depth.
Poor feeding of lumber.	<ol style="list-style-type: none"> 1. Inadequate feed roller pressure. 2. Planer bed rough or dirty. 3. Transmission v-belt slipping. 4. Surface of feed rollers too smooth. 	<ol style="list-style-type: none"> 1. Adjust feed roller tension. If proper tension cannot be achieved, replace feed rollers. 2. Clean pitch and residue, and wax planer table. 3. Tighten transmission v-belt. 4. Lightly roughen the feed roller surface with sandpaper.

TROUBLE-SHOOTING: Mechanical & Electrical Problems (JWP-208 Planer)

PROBLEM	POSSIBLE CAUSE	SOLUTION
Uneven depth of cut side to side.	<ol style="list-style-type: none"> 1. Knife projection. 2. Cutterhead not level with bed. 	<ol style="list-style-type: none"> 1. Adjust knife projection. 2. Level bed.
Board thickness does not match depth of cut scale.	<ol style="list-style-type: none"> 1. Depth of cut scale incorrect. 	<ol style="list-style-type: none"> 1. Adjust depth of cut scale.
Chain jumping.	<ol style="list-style-type: none"> 1. Inadequate tension. 2. Sprockets misaligned. 3. Sprockets worn. 	<ol style="list-style-type: none"> 1. Adjust chain tension. 2. Align sprockets. 3. Replace sprockets.
Machine will not start/restart or repeatedly trips circuit breaker or blows fuses	<ol style="list-style-type: none"> 1. No incoming power. 2. Overload automatic reset has not reset. 3. Planer frequently trips. 4. Building circuit breaker trips or fuse blows 5. Loose electrical connections. 	<ol style="list-style-type: none"> 1. Verify unit is connected to power. 2. When planer overloads on the circuit breaker built into the motor starter, it takes time for the machine to cool down before restart. Allow unit to adequately cool before attempting restart. If problem persists, check amp setting on the motor starter inside the electrical box. 3. One cause of overloading trips which are not electrical in nature is too heavy a cut. The solution is to take a lighter cut. If too deep a cut is not the problem, then check the amp setting on the overload relay. Match the full load amps on the motor as noted on the motor plate. If amp setting is correct then there is probably a loose electrical lead. Check amp setting on motor starter. 4. Verify that planer is on a circuit of correct size. If circuit size is correct, there is probably a loose electrical lead. Check amp setting on motor starter. 5. Go through all the electrical connections on the planer including motor connections, verifying the tightness of each. Look for any signs of electrical arcing which is a sure indicator of loose connections or circuit overload.

Machine will not start/
restart or repeatedly
trips circuit breaker
or blows fuses.

6. Motor starter failure.

6. (continued)

Examine motor starter for burned or failed components. If damage is found, replace motor starter. If motor starter looks okay but is still suspect, you have two options: have a qualified electrician test the motor starter for function, or purchase a new starter and establish if that was the problem on changeout.

6. Motor starter failure.

6. If you have access to a voltmeter, you can separate a starter failure from a motor failure by first, verifying incoming voltage at 220+/-20 and second, checking the voltage between starter and motor at 220+/-20. If incoming voltage is incorrect, you have a power supply problem. If voltage between starter and motor is incorrect, you have a starter problem. If voltage between starter and motor is correct, you have a motor problem.

7. Motor failure.

7. If electric motor is suspect, you have two options: Have a qualified electrician test the motor for function or remove the motor and take it to a quality electric motor repair shop and have it tested.

8. Miswiring of the unit.

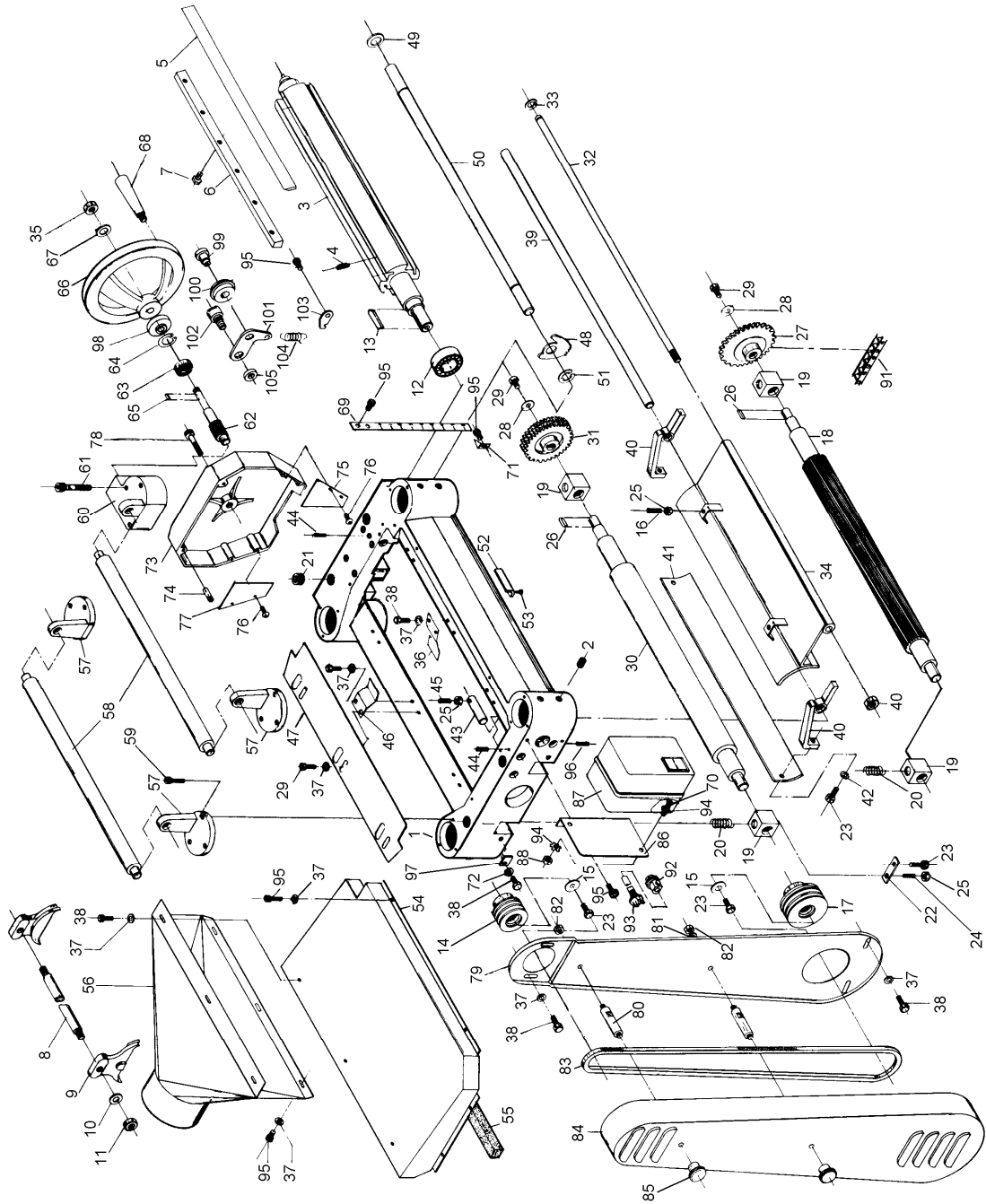
8. Double check to confirm all electrical connections are correct and properly tight. The electrical connections other than the motor are pre-assembled and tested at the factory. Therefore, the motor connections should be double checked as the highest probability for error. If problems persist, double check the factory wiring.

9. On/off switch failure.

9. If the on/off switch is suspect, you have two options: Have a qualified electrician test the switch for function, or purchase a new on/off switch and establish if that was the problem on changeout.

Parts Breakdown for the JWP-208 Planer

Head Assembly



Parts List for the JWP-208 Planer

Head Assembly

Index No.	Part No.	Description	Size	Qty.
1.....	JWP208-001.....	Head Casting.....		1
2.....	JWP208-002.....	Set Screw.....	M10 x 1.5P x 12.....	8
3.....	JWP208-003.....	Cutterhead.....		1
4.....	PA-C05.....	Spring.....		8
5.....	708808.....	Knife.....		4
6.....	JWP208-006.....	Knife Gib.....		4
7.....	PA-C04.....	Hex Cap Bolt.....	M8 x 10.....	24
8.....	JWP208-008.....	Knife Gauge Bar.....		1
9.....	JWP208-009.....	Knife Gauge.....		2
10.....	JWP208-010.....	Washer.....	3/8.....	2
11.....	JWP208-011.....	Nut.....	M10.....	2
12.....	BB-6206ZZ.....	Ball Bearing.....		1
13.....	JWP208-013.....	Key.....	8 x 8 x 36.....	1
14.....	PA-C09.....	Pulley.....		1
15.....	PA-C11.....	Washer.....		2
16.....	JWP208-016.....	Set Screw.....	M6 x 25.....	2
17.....	JWP208-017.....	Motor Pulley.....		1
18.....	JWP208-018.....	Infeed Roller.....		1
19.....	JWP208-019.....	Bushing.....		4
20.....	JWP208-020.....	Spring.....		4
21.....	JWP208-021.....	Screw.....	M22 x 20.....	4
22.....	JWP208-022.....	Plate.....		4
23.....	JWP208-023.....	Screw.....	M8 x 20.....	8
24.....	JWP208-024.....	Set Screw.....	M6 x 16.....	4
25.....	TS-1540041.....	Hex Nut.....	M6.....	8
26.....	JWP208-026.....	Key.....	5 x 5 x 23.....	2
27.....	PA-C17.....	Sprocket.....		1
28.....	PA-C18.....	Washer.....		2
29.....	JWP208-029.....	Hex Cap Bolt.....	M6 x 16.....	5
30.....	JWP208-030.....	Outfeed Roller.....		1
31.....	PA-C20.....	Sprocket.....		1
32.....	JWP208-032.....	Locking Bolt.....		1
33.....	JWP208-033.....	Retaining Ring.....		1
34.....	JWP208-034.....	Chip Breaker.....		1
35.....	JWP208-035.....	Nut.....	M12.....	2
36.....	JWP208-036.....	Plate Springs.....		3
37.....	JWP208-037.....	Washer.....	1/4.....	26
38.....	JWP208-038.....	Hex Cap Bolt.....	M6 x 12.....	20
39.....	JWP208-039.....	Shaft.....		1
40.....	JWP208-040.....	Bracket.....		2
41.....	JWP208-041.....	Pressure Plate.....		1
42.....	JWP208-042.....	Lock Washer.....	M8.....	2
43.....	JWP208-043.....	Shaft.....		1
44.....	JWP208-044.....	Set Screw.....	M6 x 12.....	3
45.....	JWP208-045.....	Set Screw.....	M6 x 20.....	2
46.....	JWP208-046.....	Plate Spring.....		3
47.....	JWP208-047.....	Chip Deflector Plate.....		1

Parts List for the JWP-208 Planer

Head Assembly

Index No.	Part No.	Description	Size	Qty.
48	PA-C30	Anti-Kickback Finger		87
49	PA-C31	Collar		88
50	JWP208-050	Shaft		1
51	JWP208-051	Retaining Ring		2
52	PA-C33	Cut Limit Plate		1
53	JWP208-053	Flat Head Machine Screw	M6 x 12	2
54	JWP208-054	Upper Cover		1
55	JWP208-055	Gasket		1
56	JWP208-056	Collector Tube		1
57	JWP208-057	Roller Stand		3
58	JWP208-058	Roller		3
59	JWP208-059	Hex Socket Cap Screw	M6 x 16	9
60	JWP208-060	Worm Gear Box		1
61	JWP208-061	Hex Socket Cap Screw	M6 x 50	3
62	JWP208-062	Worm		1
63	BB-6201Z	Ball Bearing		1
64	JWP208-064	Retaining Ring		1
65	JWP208-065	Key	4 x 4 x 10	1
66	JWP208-066	Hand Wheel		1
67	JWP208-067	Washer	1/2	1
68	PA-C42	Handle		1
69	JWP208-069	Scale		1
70	JWP208-070	Machine Screw	M5 x 10	2
71	JWP208-071	Pointer		1
72	JWP208-072	Lock Washer	M6	3
73	JWP208-073	Cover		1
74	JWP208-074	Spring Pin	6 x 20	1
75	JWP208-075	Safety Plate		1
76	JWP208-076	Machine Screw	M6 x 8	4
77	JWP208-077	Safety Latch		1
78	JWP208-078	Hex Socket Cap Screw	M8 x 40	1
79	JWP208-079	Pulley Guard		1
80	TS-0680031	Bolt		2
81	JWP208-081	Washer	5/16	2
82	TS-0570021	Nut	5/16	2
83	VB-M60E	V-Belt 50Hz		3
84	JWP208-084	Pulley Cover		1
85	TS-0570021	Nut	5/16	2
86	JWP208-086	Switch Mounting Plate		1
87	JWP208-087E	Switch (3HP, 1Ph, 230V, 50Hz)		1
	JWP208-087AE	Switch (5HP, 3Ph, 400V, 50Hz)		1
88	JWP208-088	Nut	M5 x 8	2
91	JWP208-091	Chain		1
92	JWP208-092	Relief Bushing		2
93	JWP208-093	Power Cord		1
94	JWP208-094	Tooth Washer		4
95	JWP208-095	Hex Socket Cap Screw	M6 x 10	12

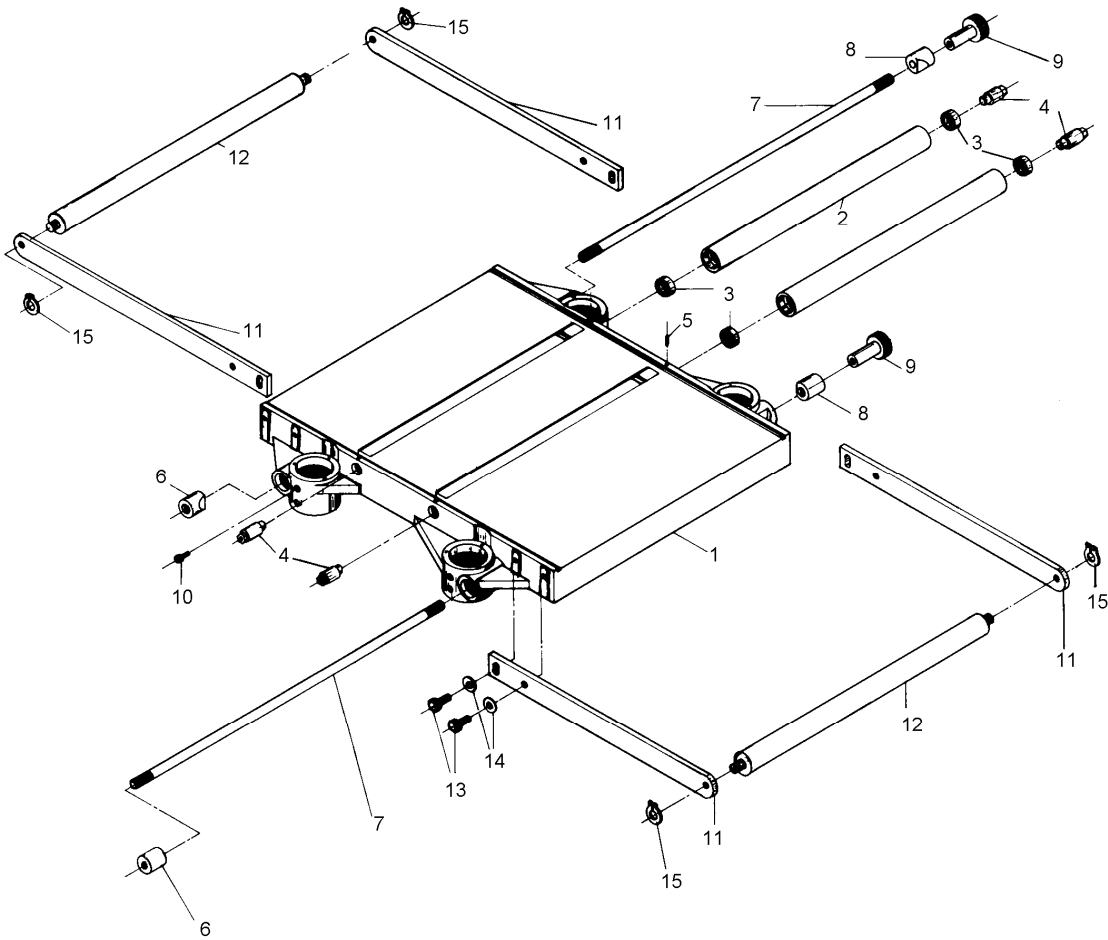
Parts List for the JWP-208 Planer

Head Assembly

Index No.	Part No.	Description	Size	Qty.
96.....	JWP208-096.....	Set Screw.....	M8 x 8.....	1
97.....	JWP208-097.....	Plate.....		4
98.....	JWP208-098.....	Collar.....		1
99.....	PA-C65.....	Shaft.....		1
100.....	PA-C59.....	Idler Pulley.....		1
101.....	PA-C58.....	Bracket.....		1
102.....	PA-C59.....	Shaft.....		1
103.....	PA-C60.....	Hanger.....		1
104.....	PA-C61.....	Spring.....		1
105.....	PA-C62.....	Collar.....		1
	JWP208-106.....	Chain Tensioning Assy (not shown).....		1
	JWP208-087A.....	Magnetic Start Switch Assy (not shown).....		1
	MS-SA20-24V.....	Magnetic Contactor (not shown).....		1
	JWP208-087C.....	Thermal Relay (not shown).....	TH18.....	1
	PG-M02.....	JET Plaque.....		1
	6012192.....	Warning Label (not shown).....		1
	6292819.....	Lubrication Label (not shown).....		1
	6292820.....	Guard Label (not shown).....		1

Parts Breakdown for the JWP-208 Planer

Table and Roller Assembly



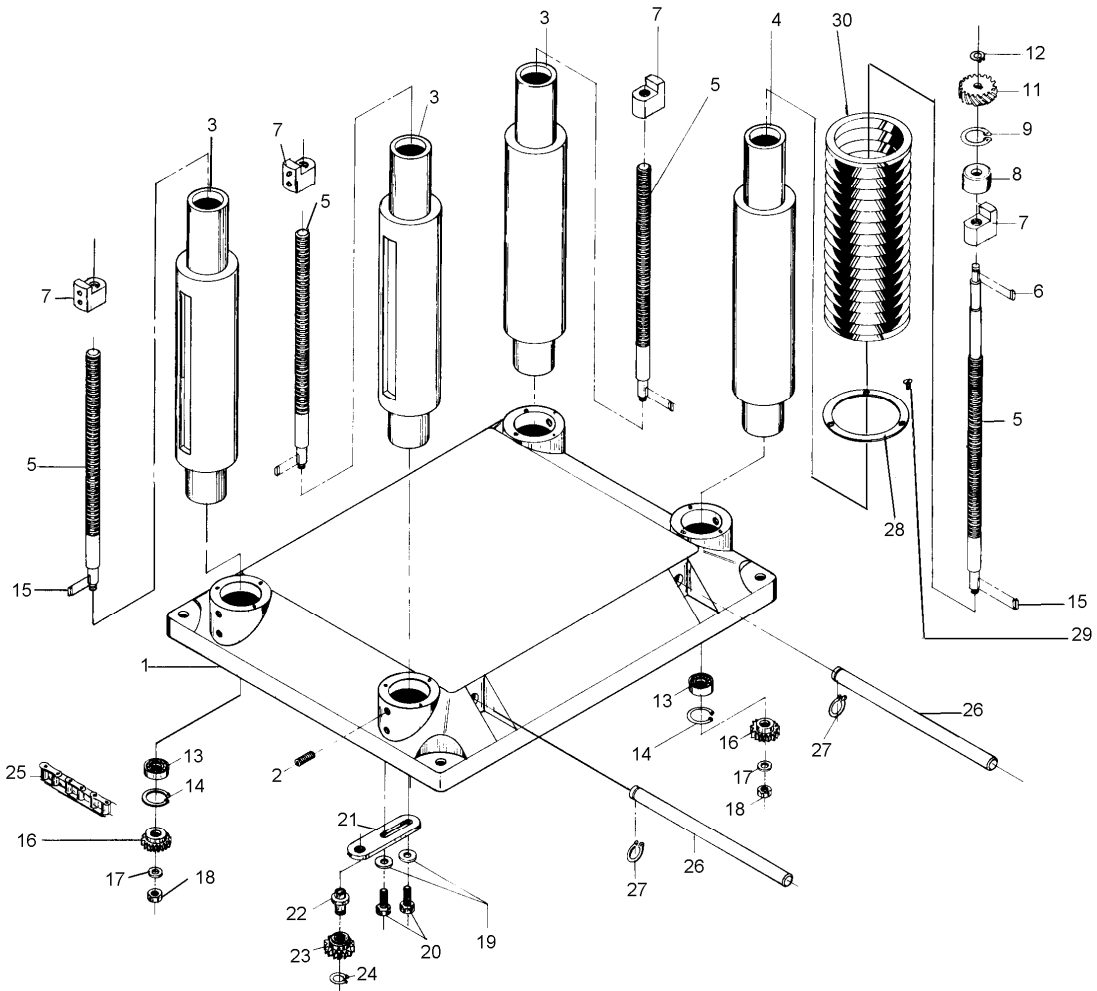
Parts List for the JWP-208 Planer

Table and Roller Assembly

Index No.	Part No.	Description	Size	Qty.
1.....	JWP208-201.....	Middle Table		1
2.....	JWP208-202.....	Roller.....		2
3.....	BB-6201Z	Ball Bearing.....		4
4.....	JWP208-204.....	Eccentric Shaft.....		1
5.....	JWP208-205.....	Set Screw.....	M6 x 12	4
6.....	JWP208-206.....	Lock Bar		2
7.....	PA-T04	Lock Bolt		2
8.....	PA-T05	Lock Bushing (no thread)		2
9.....	5B-F001.....	Knob.....		2
10.....	JWP208-210.....	Hex Socket Cap Screw.....	M8 x 20	8
11.....	JWP208-211.....	Roller Frame		4
12.....	JWP208-212.....	Roller.....		
13.....	TS-1461041.....	Hex Cap Screw	M10 x 35	8
14.....	TS-0680041.....	Washer.....	3/8	8
15.....	JWP208-215.....	Retaining Ring		4

Parts Breakdown for the JWP-208 Planer

Base and Column Assembly



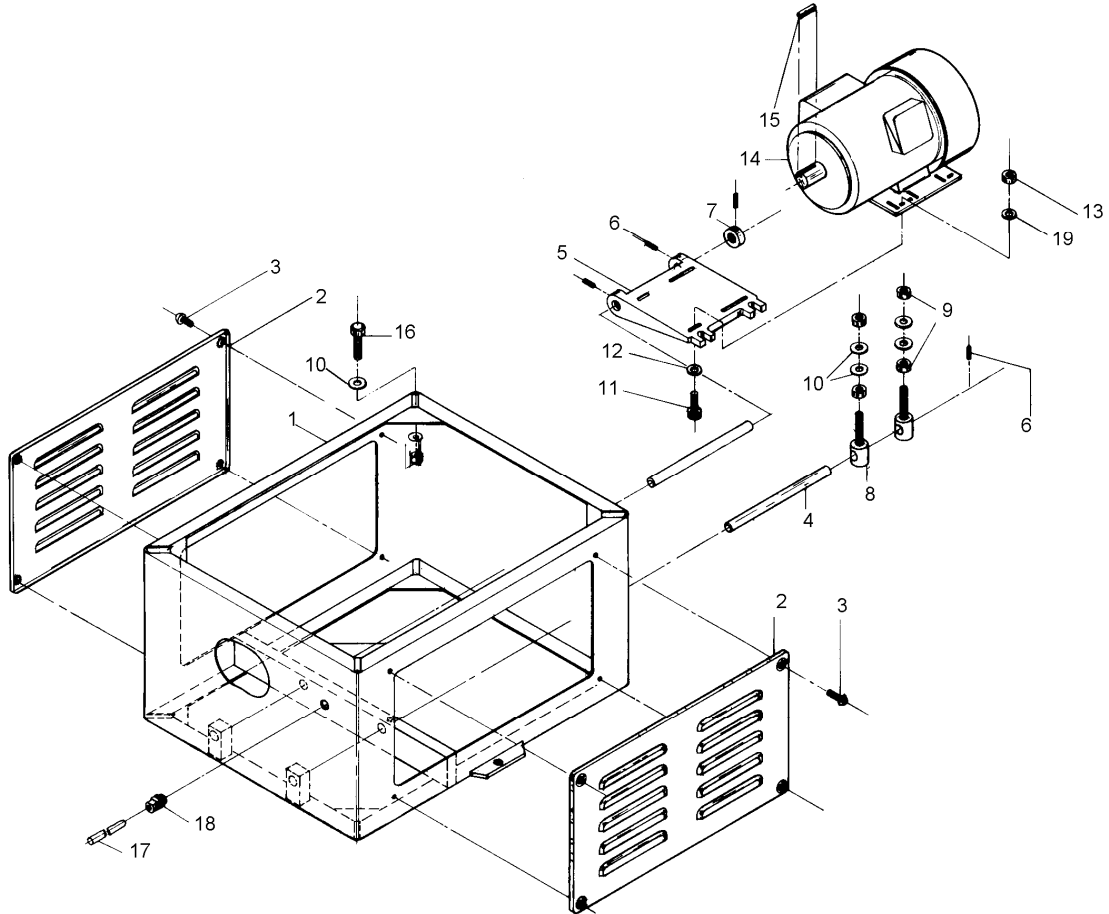
Parts List for the JWP-208 Planer

Base and Column Assembly

Index No.	Part No.	Description	Size	Qty.
1.....	JWP208-301.....	Base.....		1
2.....	JWP208-302.....	Set Screw.....	M10 x 12	8
3.....	JWP208-303.....	Column.....		3
4.....	JWP208-304.....	Column.....		1
5.....	JWP208-305.....	Lead Screw.....		3
6.....	JWP208-306.....	Lead Screw.....		1
7.....	JWP208-307.....	Nut		4
8.....	JWP208-308.....	Bushing.....		1
9.....	JWP208-309.....	Retaining Ring		1
10.....	JWP208-310.....	Key.....	4 x 4 x 10.....	1
11.....	JWP208-311.....	Gear.....	24T	1
12.....	JWP208-312.....	Retaining Ring		1
13.....	BB-6202Z	Ball Bearing.....		4
14.....	JWP208-314.....	Retaining Ring		4
15.....	JWP208-315.....	Key.....	5 x 5 x 16.....	4
16.....	JWP208-316.....	Sprocket.....	10T	4
17.....	JWP208-317.....	Washer.....	3/8	4
18.....	JWP208-318.....	Nut	M10	4
19.....	JWP208-319.....	Washer.....		2
20.....	JWP208-320.....	Hex Cap Bolt.....	M8 x 25	2
21.....	PA-B11	Idler Bracket.....		1
22.....	JWP208-322.....	Shaft.....		1
23.....	PF-B10	Sprocket.....	10T	1
24.....	JWP208-324.....	Retaining Ring		1
25.....	JWP208-325.....	Chain.....		1
26.....	JWP208-326.....	Carry Handle.....		4
27.....	JWP208-327.....	Retaining Ring		4
28.....	JWP208-328.....	Pipe Band		16
29.....	JWP208-329.....	Machine Screw	M5 x 8	32
30.....	JWP208-330.....	Expansion Band.....		8

Parts Breakdown for the JWP-208 Planer

Stand and Motor Assembly

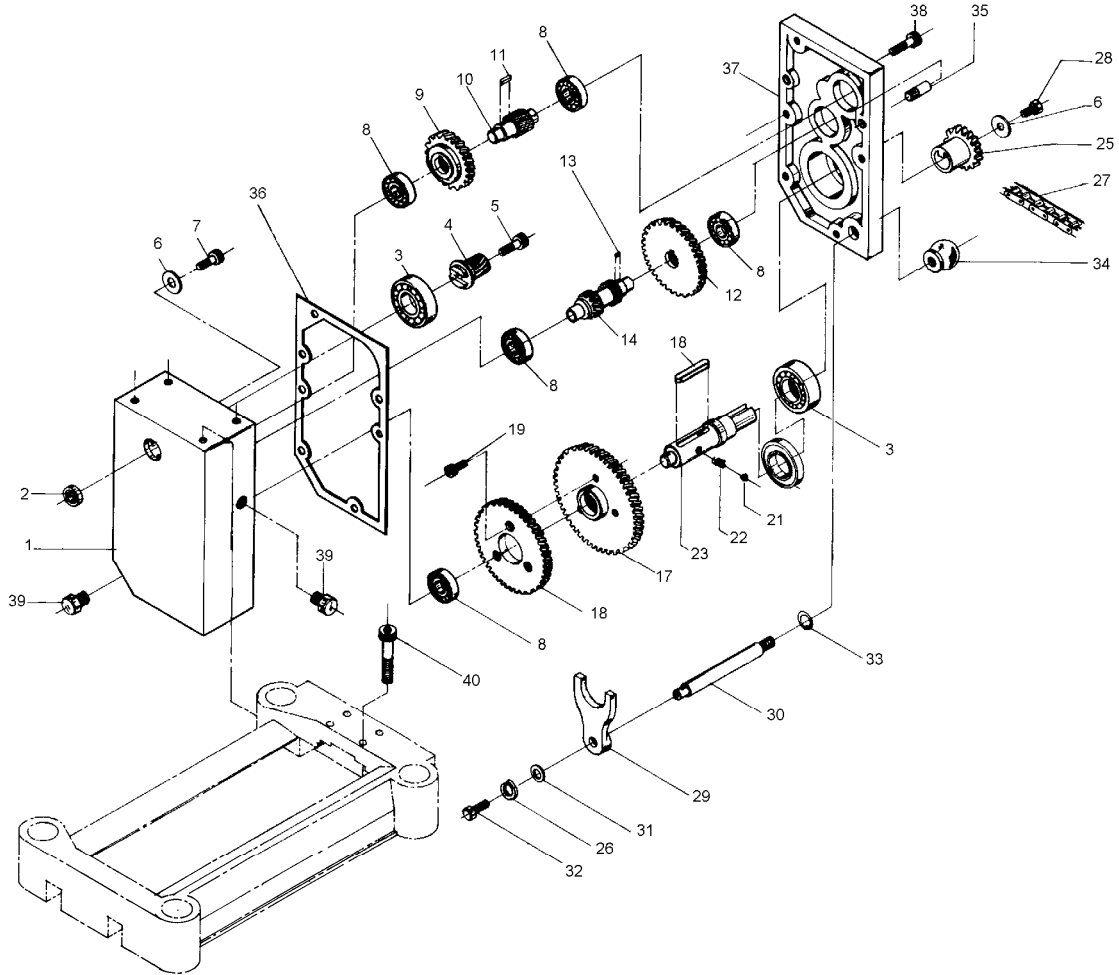


Parts List for the JWP-208 Planer
Stand and Motor Assembly

Index No.	Part No.	Description	Size	Qty.
1.....	JWP208-401.....	Stand.....		1
2.....	JWP208-402.....	Cover (re:JWP208-401).....		2
3.....	JWP208-403.....	Machine Screw	M6 x 20	8
4.....	PF-M03.....	Bar		2
5.....	JWP208-405.....	Motor Mount.....		1
6.....	JWP208-406.....	Set Screw.....	M8 x 8	4
7.....	JWP208-407.....	Collar.....		1
8.....	JWP208-408.....	Adjust Bolt.....		2
9.....	JWP208-409.....	Nut	M12	8
10.....	TS-0680061.....	Washer.....	1/2	4
11.....	JWP208-411.....	Hex Cap Bolt.....	M8 x 35	4
12.....	TS-0680031.....	Washer.....	5/16	4
13.....	JWP208-413.....	Nut	M8	4
14.....	PF-M09E	Motor (3HP,1Ph, 230V, 50Hz).....		1
.....	JWP208-414AE.....	Motor (5HP,3Ph, 400V, 50Hz).....		1
15.....	JWP208-415.....	Key		1
16.....	JWP208-416.....	Hex Cap Bolt.....	M12 x 60	4
17.....	JWP208-417.....	Power Cord.....		1
18.....	JWP208-418.....	Strain Relief		1
19.....	JWP208-419.....	Washer.....	5/16	4

Parts Breakdown for the JWP-208 Planer

Gearbox Assembly

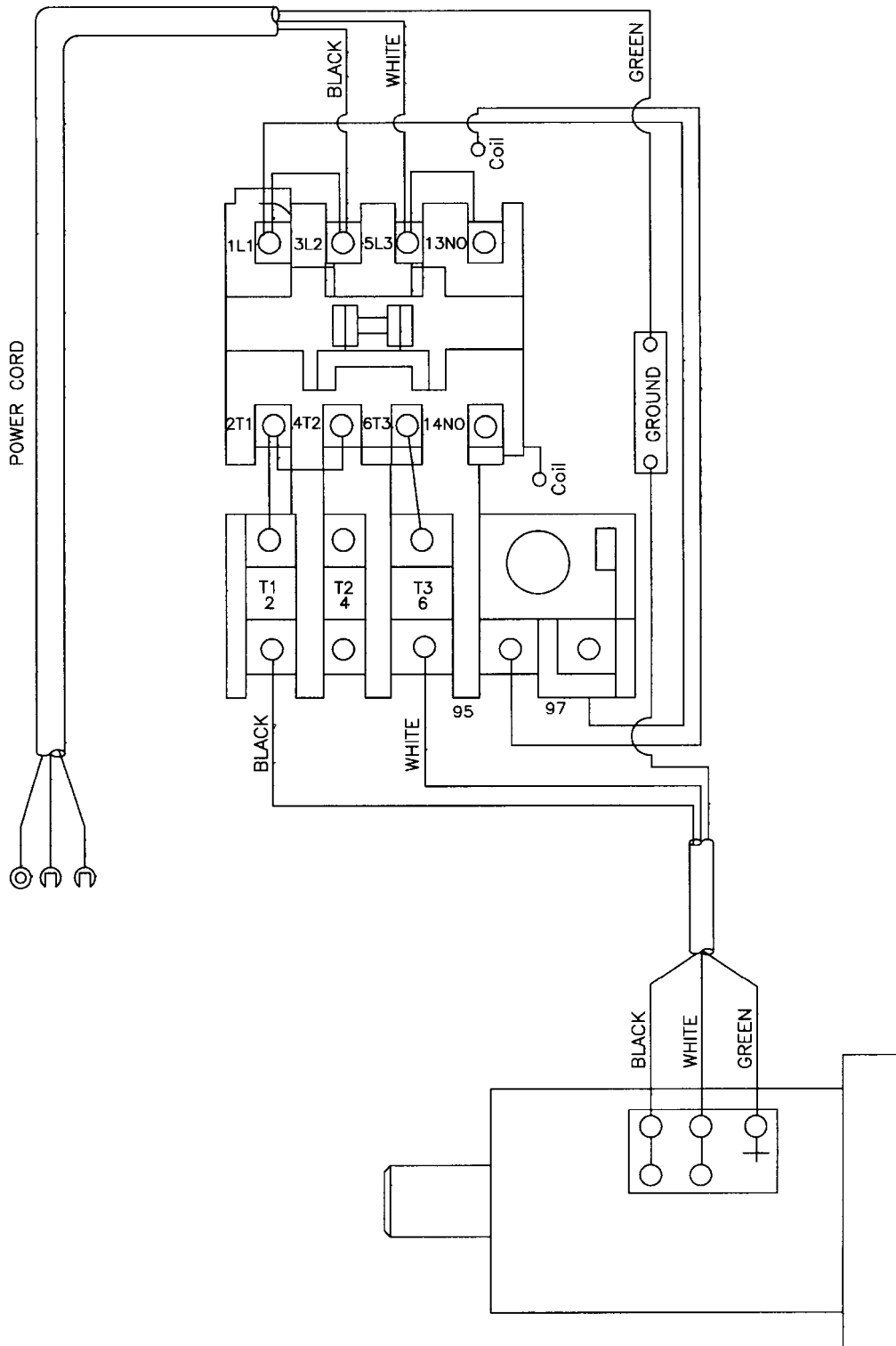


Parts List for the JWP-208 Planer

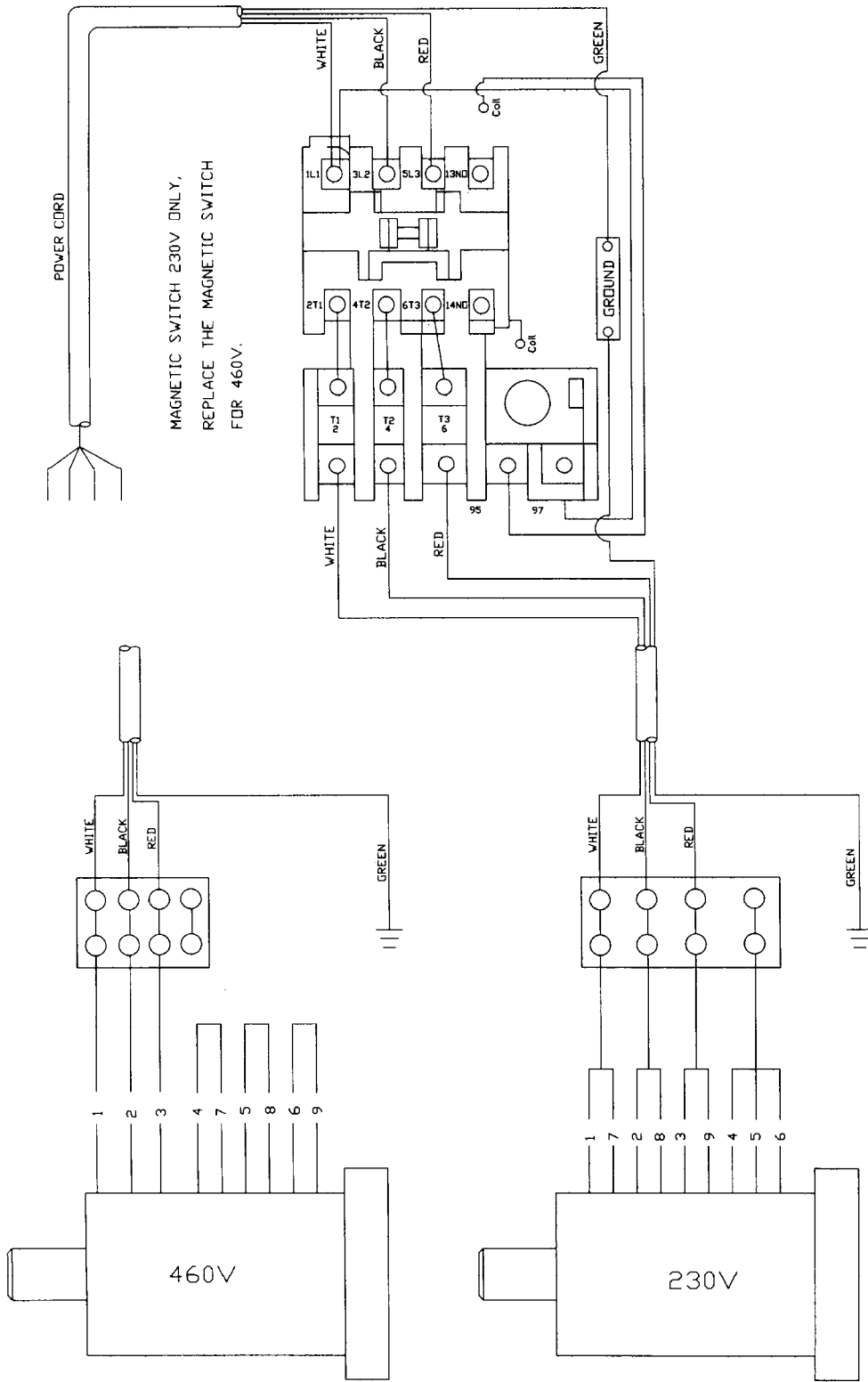
Gearbox Assembly

Index No.	Part No.	Description	Size	Qty.
1.....	PA-G01.....	Gear Box.....		1
2.....	OS-28408.....	Oil Seal.....		1
3.....	BB-6204ZZ.....	Ball Bearing.....	6204.....	2
4.....	PA-G02.....	Gear.....	16T.....	1
5.....	JWP208-505.....	Hex Socket Cap Screw.....	M6 x 16.....	1
6.....	JWP208-506.....	Washer.....		2
7.....	JWP208-507.....	Hex Socket Cap Screw.....	M6 x 12.....	1
8.....	BB-6201.....	Ball Bearing.....	6201.....	5
9.....	PA-G03.....	Gear.....	47T.....	1
10.....	PA-G04.....	Shaft.....	18T.....	1
11.....	JWP208-511.....	Key.....	5 x 5 x 12.....	1
12.....	PA-G05.....	Gear.....	71T.....	1
13.....	JWP208-513.....	Key.....	5 x 5 x 10.....	1
14.....	JWP15H-314.....	Shaft.....	18T/22T.....	1
17.....	PA-G07.....	Gear.....	96T/92T.....	1
18.....	PA-G07.....	Gear.....	92T.....	1
19.....	JWP208-519.....	Hex Socket Cap Screw.....	M6 x 10.....	3
20.....	JWP208-520.....	Key.....	6 x 6 x 40.....	1
21.....	JWP208-521.....	Ball.....		1
22.....	PA-G10.....	Spring.....		1
23.....	PA-G09.....	Shaft.....		1
24.....	OS-25476.....	Oil Seal.....		1
25.....	JWP208-525.....	Sprocket.....	18T.....	1
.....	JWP208-525A.....	Sprocket.....	12T.....	1
26.....	JWP208-526.....	Lock Washer.....	M6.....	1
27.....	JWP208-527.....	Chain.....		1
28.....	JWP208-528.....	Hex Cap Bolt.....	M6 x 16.....	1
29.....	PA-G11.....	Clutch.....		1
30.....	PA-G12.....	Handle.....		1
31.....	JWP208-531.....	Washer.....	1/4.....	1
32.....	JWP208-532.....	Hex Cap Bolt.....	M6 x 12.....	1
33.....	JWP208-533.....	Oil Ring.....		1
34.....	PA-G13.....	Knob.....		1
35.....	PA-G14.....	Pin.....		2
36.....	PA-G15.....	Packing.....		1
37.....	PA-G17.....	Cover.....		1
38.....	JWP208-538.....	Hex Socket Cap Screw.....	M6 x 25.....	5
39.....	JWP208-539.....	Oil Plug.....		1
40.....	JWP208-540.....	Hex Socket Cap Screw.....	M8 x 50.....	4
.....	JWP208-GB.....	Gear Box CP (not shown).....		1
.....	JWP208-550.....	Knife Gauge Bar.....		1
.....	JWP208-551.....	Open End Wrench (not shown).....		1
.....	JWP208-552.....	Hex Wrench Set (not shown).....		1

Wiring Diagram: JWP-208-1 Planer (Single Phase)



Wiring Diagram: JWP-208-3 Planer (Three Phase)





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