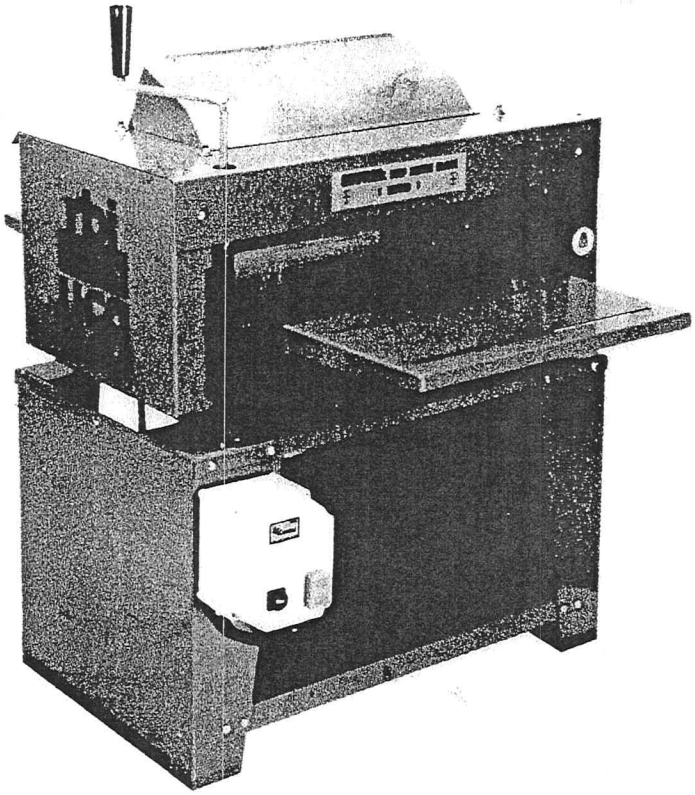
Bushton Manufacturing
Maker Of
Hawk Woodworking

FOR MODELS 812B, 816, & 820 PLANERS



SAFETY FIRST

READ THOROUGHLY BEFORE OPERATING

SAFETY FIRST

U.S. PATENTS
4,394,878
4,777,854

CODE #: 0299-250
MANUAL #: 703-2929

2

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SPECIFICATIONS

	Planer Model 812B	816	820
Planing	Max. Cutting Depth Per Pass	3/16"	5/16"	5/16"
	Max. Width of Cut	12-1/8"	16-1/4"	20-1/4"
	Max. Thickness of Stock	8"	8"	8"
	Min. Thickness of Stock	3/16"	3/16"	3/16"
	Shortest Piece of Stock	9"	10"	10"

	Planer Model 812B	816	820
Feed	Self Feeding by (2) Powered Urethane Rollers		
	Slow Speed (factory setting) ..... 12 FPM	15FPM	15 FPM
	Fast Speed ..... ———N/A—	44 FPM	44 FPM
Cuts/Inch	With Cutterhead at Full Speed		
	Slow Feed (factory setting) 114	103	103
	Fast Feed ..... —N/A—	33	33
Mach. Size	Assembled		
	Machine Width ..... 21.50"	28"	32"
	Machine Length (w/ext. tables) ..... 35"	44.50"	44.50"
	Machine Height ..... 37.75"	40.75"	40.75"
	Shipping Weight (w/std mtr) ..... 254 lbs	470 lbs	500 lbs
Cutterhead	Specifications		
	Speed ..... 5500 RPM	4600 RPM	4600 RPM
	Diameter ..... 2.75"	3.20"	3.20"
	No. of Planer Knife Slots 3	4	4
	Ball Bearings ..... 1"	1.5"	1.5"
Std. Motor	Horsepower ..... 3 HP	5 HP	5 HP
	Voltage ..... 220 V	220 V	220 V
	Phase ..... 1 PH	1 PH	1 PH
	Speed ..... 3450 RPM	1725 RPM	1725 RPM
Mtr. Pulley	Outside Diameter		
	For 3450 RPM Motor ..... 3.50"	———	———
	For 1725 RPM Motor ..... ———	7.75"	7.75
Variable Speed (Optional)	Speed ..... -----N/A--	2FPM to 18FPM (816 & 820 only)	

FORWARD

The RBI planers are designed for both the professional and hobby shop enthusiast. They are designed for ease of operation, maintenance, and adjustment by the operator with his safety in mind. Each rbi planer owner is responsible for the recommended service and maintenance of his particular machine. As with any piece of equipment the operator should become familiar with it. The operator's manual should be thoroughly read and understood. Any unanswered questions should be addressed to the RBI customer service department at 1-800-487-2623.

CAUTION: Safety doesn't just happen, it is planned!
Accidents don't just happen, they are caused!

Read and practice safety precautions! Follow the instructions provided in the operator's manual.

SAFETY

1. Read the operator's manual carefully. Be familiar with the operation of the equipment. Know where the controls are and how to operate them.
2. Never allow children to operate equipment. Never allow anyone to operate the equipment without proper instruction.
3. Keep the work area clear of other persons.
4. Maintain a clean uncluttered work area.
5. Never make any adjustments while the machine is running.
6. Keep hands and feet away from rotating parts. Keep clear of infeed and discharge openings.
7. Disconnect the electrical supply before doing any adjustments on the machine (unplug the machine).
8. Exercise caution when working on the cutterhead, as the knives are extremely sharp.
9. Remove all tools and equipment before starting the machine.
10. Wear proper clothing. Avoid loose fitted clothing, long sleeves, long hair, gloves, neck ties, jewelry, watches, rings, etc.
11. Wear safety goggles, ear protection (ear plugs or covers) and a mask in dusty operations.
12. Do not operate machine in a damp or wet area to avoid electrical shock.

13. Maintain all safety guards.
14. Do not operate the machine while under the influence of medication, alcohol, or drugs.
15. Never leave the machine running unattended.
16. Do not overload the machine. Follow the instructions in the operators manual.
17. Keep the equipment in proper working order. Follow recommended maintenance procedures in operator's manual. It is the owners responsibility to maintain equipment to RBI Manual Specifications.
18. Do not use lumber with loose knots or splintered surfaces.

UNPACKING AND ASSEMBLY INSTRUCTIONS

All planers are test run, checked, and adjusted at the factory before shipment. Shipping may cause some misalignment. Report all shipping damage to the carrier. The manufacturer is not responsible for shipping damage.

There is very little assembly required on the RBI planers. The extension tables must be installed, and the magnetic starter (if applicable) will need to be mounted. If you purchased one less the motor, it will need to be installed also.

NOTE: The planer should be set level, preferably on a level floor. If the floor is not level, leave the planer bolted to the shipping pallet and place shims under the pallet to level the planer.

1. Remove from shipping carton and check to see that all parts were received without damage.

NOTE: Damaged parts are to be reported directly to the transportation carrier. The manufacturer is not responsible for shipping damage.

Planer Carton Contents:

	Qty.
A. Planer Assembly	1
B. Extension Tables	2
C. Crank (Thickness Adjustment Crank)	1
D. 5/32 x 9" "T" Handle Allen Wrench	1
E. Fast Feed Belt (816 & 820 only)	1
F. Operators Manual	1
G. Molding Knife Patterns Catalog	1
H. Bolt Bag	1

Bolt Bag Contents: 812B Planer

A. 1/4 in. x 1/2 in. Hex Head Bolt	4
B. 1/4 in. Flat Washers	4
C. 1/4 in. Lock Washers	4
D. 1/4 - 20 x 1/4 in. Set Screw	4

Bolt Bag Contents: 816 & 820 Planers

A. 3/8 in. x 1 in. Hex Head Bolt	4
B. 3/8 in. Flat Washers	4
C. 3/8 in. Lock Washers	4
D. 1/4 - 20 x 1/4 in. Set Screw	4

EXTENSION TABLE INSTALLATION AND ADJUSTMENT

Tools required are: 9/16" wrench, 7/16" wrench (812B only), 1/8" Allen wrench, and a 3 ft. straight edge.

1. To install the extension tables first put (1) lock washer then (1) flat washer on each of the (4) bolts. Start the bolts into the threaded holes in the infeed and outfeed ends of the planer bed, leaving at least 1/4 in. between the planer bed and flat washer (see fig. A-1).
2. Slide the extension table down over the bolts, between the flat washers and the planer bed.
3. Snug the bolts (just enough to hold the extension table in place). Adjust the extension table even with the top of the planer bed by tapping it up or down (see fig. A-2). If it will not move, loosen the bolts until it will.

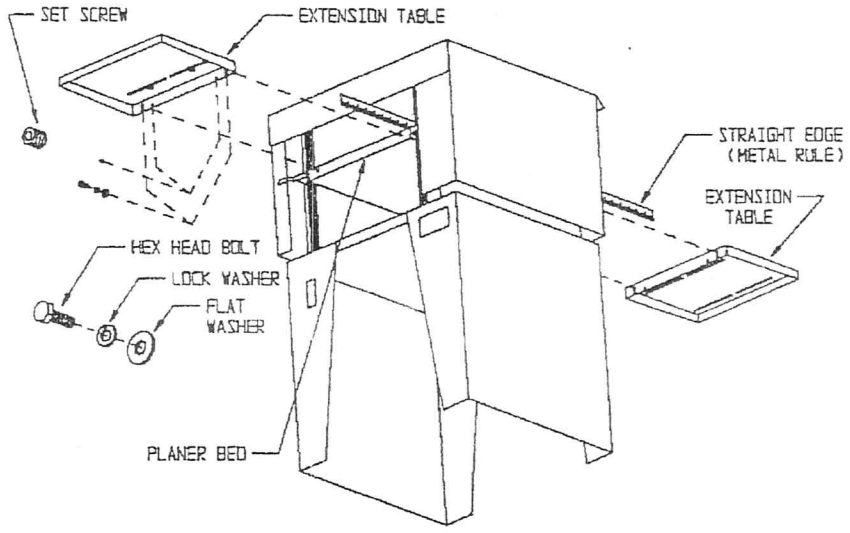


Fig. A-1

WARNING: Where the extension tables meet the planer bed, the infeed table must not be lower than the bed, and the outfeed table must not be higher than the bed, or the boards will catch and not feed through the planer.

4. Install (1) Allen set screw in each of the small holes near the extension table mounting bolts (see fig. A-1).
5. The outer ends of the extension tables should be elevated 1/8 in. to 3/16 in. to reduce snipe. Lay a straight edge across the planer bed and extension table then screw the set screws in to elevate the end of the extension table. Measure the gap between the straight edge and the planer bed where the extension tables meet the planer bed (see fig. A-2).

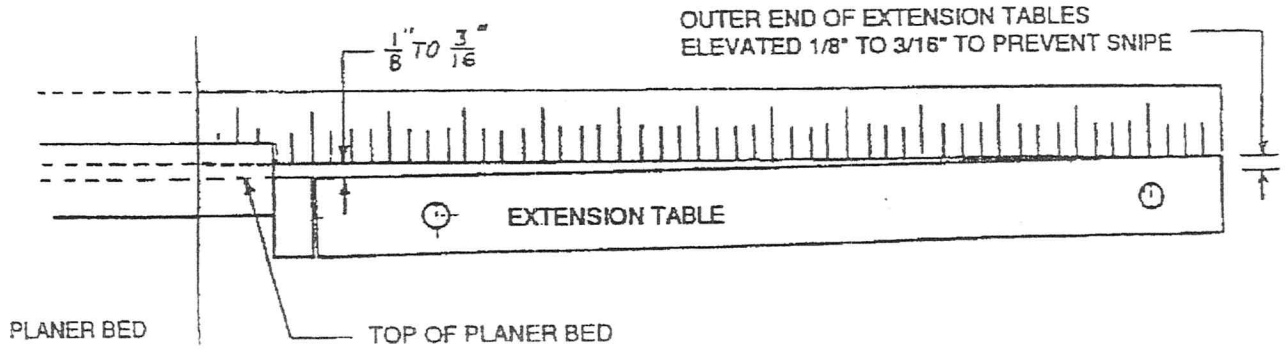


Fig. A-2

6. Tighten the extension table mounting bolts. This may change the adjustment of the elevation slightly. This step and the previous step may need to be done simultaneously to achieve the desired elevation.
7. Both extension tables need to be elevated, repeat steps 2 through 6 for the other extension table.
8. Check to see that all bolts and set screws are tight and all tools are removed from the machine before operating.

WARNING: Don't sit on the extension tables! Excess weight will bend them down and change the elevation of the table ends, which will cause snipe.

MOTOR INSTALLATION

Tools required are: 9/16" wrench, 3 ft. straight edge, and a standard screwdriver.

1. Remove the hood.
2. Set the motor in place on the motor mount bars.
3. To fasten the motor, install from the top (1) one of the 3/8"-16x1-1/4" hex head bolt in each corner of the motor's base. Secure by placing a flat washer, a lock washer, and a nut on each of the bolts. Leave these bolts loose for now.
4. Check to see that the motor pulley lines up with the cutterhead pulley, see fig. A-3 (if so proceed to next step). If the pulleys don't line up, loosen the bolts at each end of the motor mount bars and slide them to align the motor pulley with the cutterhead pulley. When the two pulleys are aligned retighten the bolts.
5. To install the belt, loop it over one of the pulleys and walk it onto the other one.
6. Slide the motor toward one end of the slots to tighten the belt, and tighten the bolts that mount the motor to the machine.
7. Replace the hood.

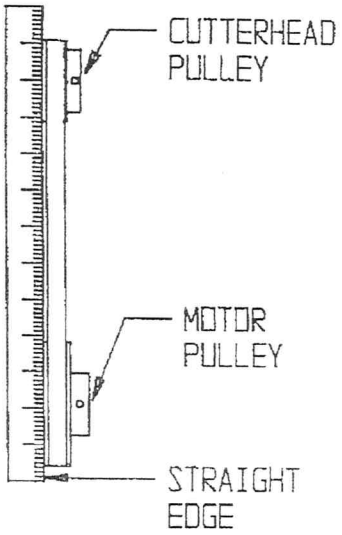


Fig. A-3

MOTOR PULLEY ALIGNMENT

MOTOR STARTER (SWITCH) INSTALLATION AND POWER REQUIREMENTS

On machines equipped with a magnetic starter remove the magnetic starter from its shipping box. Mount the magnetic starter on the left side of the machine using the (4) star washers and (4) 10-32 hex nuts provided. This requires a 3/8" wrench, and should not require opening the housing of the magnetic starter.
On the model 812B with the standard 3HP, single phase motor this machine requires a 230V, 20A electrical source and breaker. The plug installed on the machine requires a NEMA — 6-20R receptacle. On the model 816 and 820 with the standard 5HP, single phase motor, the machine requires a 230V, 30A electrical source and breaker. The plug installed on the machine requires a NEMA — 6-30R receptacle.

CAUTION: If an extension cord is necessary, be sure it is no less than 10 gauge with (3) three conductors. All connections must make good contact. Operating the motor on less than recommended voltage level will damage the motor.

CAUTION: This machine must be grounded while in use to protect the operator from electrical shock. The standard motor supplied with this machine is prewired with a power supply cord that has a male plug. Install the proper grounded receptacle for this plug. Do not remove the grounding prong from the plug.

CAUTION: Be sure the receptacles to be used are properly grounded and of adequate current rating. Have a certified electrician check the wiring if you are not sure.

OPERATING INSTRUCTIONS

1. Make sure all loose parts and tools have been removed from the machine.
2. With machine off, adjust the planer bed for the initial thickness of your board.
3. Place a board to be planed (minimum of 9" long on the 812B, and 10" on the 816 & 820) under the infeed roller.
4. Turn the crank handle to adjust the planer bed so the board just contacts the infeed roller.
5. Remove the board.
6. Turn the bed crank four turns up(clockwise). This will allow the top of the board to contact the cutterhead knives for the initial pass.

CAUTION: Do not stand in front of or behind machine while in operation.

7. Turn machine on.
8. Upon initial startup or knife replacement, run machine five minutes, retighten gib bolts or screws. Recheck after every 20 hours of use.
9. Start the board into the infeed roller such that it will travel through the machine straight.
10. Turn bed crank to desired depth of cut and feed board through again. Repeat, until you have the desired board thickness.
11. DEPTH OF CUT INFO: 1/4 crank handle turn = 1/64 in. cut
    1/2 crank handle turn = 1/32 in. cut
    1 crank handle turn = 1/16 in. cut

WARNING: Maximum cut depth per pass is 3/16" on the 812B and 5/16" on the model 816 and 820 planer.

BED HEIGHT ADJUSTMENT

The crank is used on the crank screw to raise and lower the bed. Turning clock-wise raises the bed and counter-clock-wise lowers the bed. Each complete turn raises or lowers the bed 1/16 in. (1/2 turn raises or lowers the bed 1/32 in., 1/4 turn raises or lowers the bed 1/64 in. ,etc.). The maximum cut per pass is 3/16 in. (3 full turns) for the 812B, and 5/16 in. (5 full turns) for the 816 and the 820.

REMOVING AND REPLACING THE CUTTERHEAD

Tools Required: 3/4" wrench (816 & 820 only), 9/16" wrench, 1/2" wrench (812B only), 5/32" Allen wrench (816 & 820 only), 1/8" Allen wrench (812B only)

1. Disconnect the electrical source (unplug the machine).
2. Remove the hood.
3. Walk the cutterhead drive belt off.
4. Remove the two bolts from the bearing housing on the motor drive side.
5. Loosen the locking collar for the bearing on the reduction unit drive side. On the 812B simply loosen the two set screws in the bearing collar to release the bearing from the shaft. The 816 and 820 planers have eccentric lock collars (see fig. A-4) on the bearings. To loosen a bearing with the eccentric lock collar reverse the steps in fig. A-4. First loosen the set screw in the locking collar (the reverse of step 5 in fig. A-4). Use a hammer and punch, in the other hole (not the set screw hole) in the collar to dislodge the lock collar. Release the lock collar by turning it opposite the normal shaft rotation (the reverse of step 4 in fig. A-4). Once the locking collar is broke loose, slide it back away from the bearing by hand (the reverse of step 3 in fig. A-4).
6. Push down on the cutterhead drive pulley, and rotate the bearing housing 90 degrees.
7. Lift up on the cutterhead drive pulley raising that end of the cutterhead. The bearing on the other end will rotate in its housing (see fig. A-5). This will release the tension on the belt for the reduction drive side.

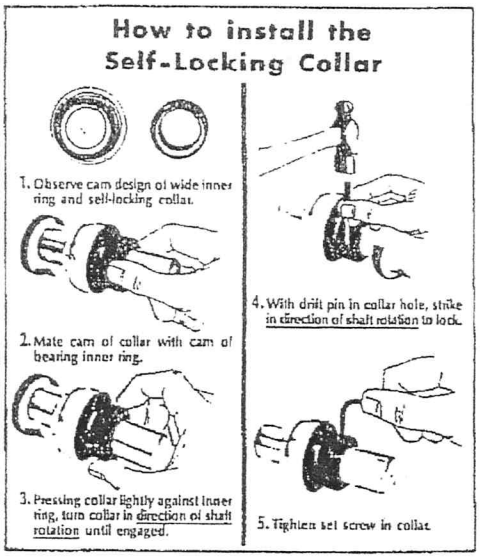


Fig. A-4

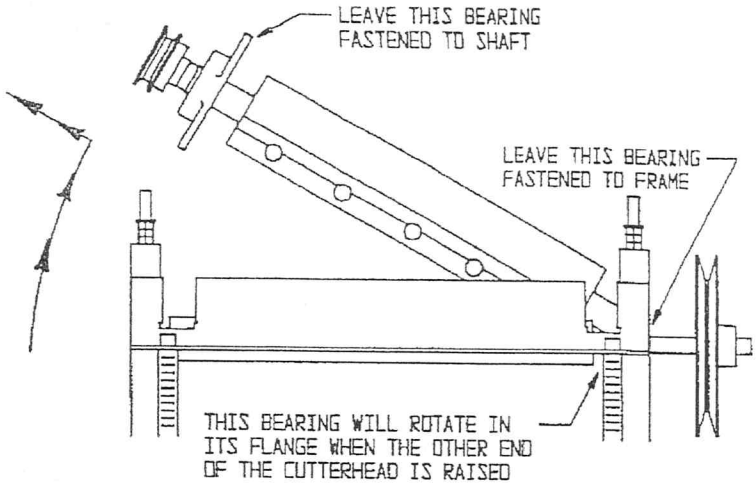


Fig. A-5

8. Walk the belt on the reduction drive side off. If the feed rollers are on fast speed (816 & 820), that will be the reduction unit drive belt. If the feed rollers are on slow speed (as shipped from the factory) this will be the dual "V" pulley drive belt.
9. Slide the cutterhead out of the bearing on the reduction drive side (see fig. A-5).

NOTE: The bearing on the cutterhead drive side will stay on the cutterhead, and the bearing on the reduction unit drive side will stay on the planer's frame.

NOTE: You may want to purchase the optional cutterhead stand to avoid damage to the cutterhead knives while it is out of the planer.

To reinstall the cutterhead reverse the above procedure. If you want to install a sanding, molding, or gang rip head simply replace the cutterhead with the optional head.

PLANER KNIFE REMOVAL

Tools Required: 5/32" "T" handle Allen wrench

NOTE: RB Industries is not responsible for damages due to neglect of routine maintenance as described below.

WARNING: Cutterhead knives are extremely sharp. Be extremely careful!

1. Disconnect electrical source.

WARNING: Never work on a machine that is plugged in.

2. Remove hood.
3. Mark (or number) the knives, gibs, and cutterhead so the knives and gibs may be returned to the same slot from which they were removed.
4. Turn the cutterhead so that one blade is upward.
5. Use the 5/32" "T" handle Allen wrench (by turning counter-clockwise) to loosen the set screws in the head which hold the gib in place.
6. Remove the gib, and the knife.
7. Roll the cutterhead and repeat steps 3 - 6 for the other knives in the cutterhead.

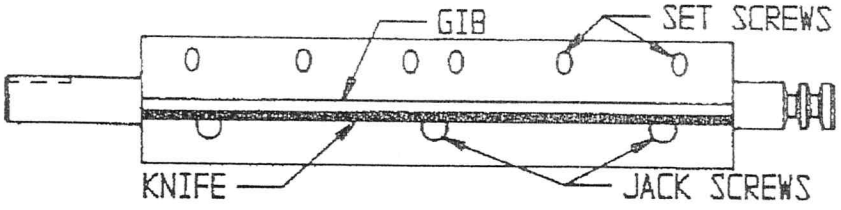


Fig. A-6

Fig. A-7

PLANER KNIFE SHARPENING

Major: The beveled edge of the knife should be ground to an angle between 30° and 45° the full length of the knife to remove all nicks and notches.

Minor: A hone may be used on the flat side of the knife cutting edge, evenly the full length of the knife.

PLANER KNIFE REPLACEMENT AND SETTING

Tools required: 5/32" "T" handle Allen wrench

1. Clean all gibs, knives, and slots with an oiled cloth.

NOTE: Return the knives and gibs to the same slot from which they were removed.

2. Turn the cutterhead so one knife slot is upward, but with knife jack screws slightly downhill so the knife will stay in place until the gib is installed.

NOTE: Make sure the jack screws are screwed in far enough to allow the knives to go down below maximum knife height adjustment, as determined by the knife gauge.

3. Lay the knife in the cutterhead slot on top of the jack screws, with the short side of the beveled edge on the same side as the jack screws (see fig. A-7).
4. Lay the gib in the slot with the dimples for the set screws away from the blade and jack screws (see fig. A-6).
5. Center the blade and gib in the cutterhead (make the ends even with the ends of the cutterhead).
6. Use the 5/32" "T" handle Allen wrench to tighten (by turning clockwise) the set screws in the head which hold the gib in place. Tighten just enough to hold the knife in place until it is set.
7. Adjust the knife gauge by loosening the set screw on the side of the knife gauge. Position the knife gauge on the cutterhead so the legs and the plunger rest on the cutterhead (not over the knife, or gib slot). Adjust the plunger guide so the plunger is 1/8" below the top of the plunger guide, retighten the set screw (see fig. A-8).

NOTE: The patented knife gauge is a necessary accessory and should be purchased.

8. Place the knife gauge over the knife with the bottom of the plunger on the knife edge (see fig. A-9).
9. Adjust the knife up by turning the adjusting jack screw counter-clock-wise until the knife gauge plunger is level with top of the plunger guide (see fig. A-9).
10. Check the full length of the knife for equal adjustment.

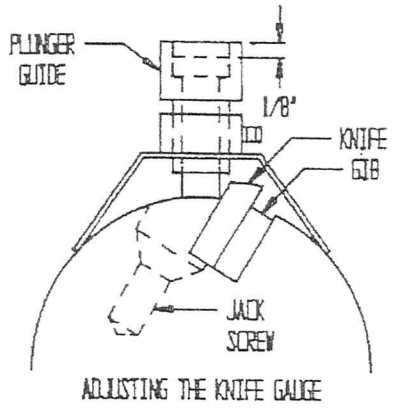


Fig. A-8

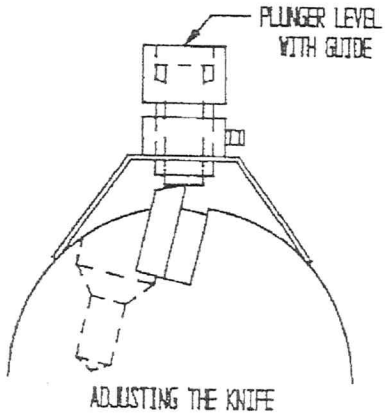


Fig. A-9

11. If uneven, check to see if the gib is too tight and binding knife movement.
12. When even, tighten the gibs. Then, recheck the full length of the knife for equal adjustment.
13. Follow the same procedure for each cutterhead slot.
14. Recheck all gibs for tightness before starting machine. Check to make sure all tools and equipment are re moved from machine prior to starting it.
15. Replace the hood.
16. Upon initial startup of knife replacement, run machine five minutes and retighten gib screws. Recheck after every 20 hours of use.

FEED ROLLER SPEED CHANGE

The model 816 & 820 planer is set on the slow feed rate when shipped from the factory. The slow feed rate gives more cuts per inch, which leaves a smoother finish on the board. Either the slow or fast feed rate (model 816 & 820) can be used for sanding. When sanding, the fast feed rate tends to reduce the chance of burning of the stock and helps keep the sandpaper cleaner. Customer preference dictates the speed setting to be used for sanding. The fast feed rate can be used for planing or molding when the finish is not of a concern.

For the fast feed rate the drive belts for the dual V-pulley and the reduction unit are removed (see fig. A-13). Then the reduction unit is driven directly from the cutterhead by a longer belt.

Tools Required: 9/16" wrench, 1/2" wrench, 7/16" wrench

1. Disconnect the electrical source (unplug the machine).
2. Remove the hood.
3. With the 7/16" wrench, reach under the planer's base top (down where the motor is) and loosen the two nuts that hold the reduction unit, enough that the reduction unit can slide up and down.
4. Release the tension on the feed roller drive belt. To do so use the 9/16" wrench on the bolt in the right idler as a lever (push to the right) to releases the tension on the feed roller drive belt. Remove the belt from one of the feed roller pulleys.
5. Remove the reduction unit drive belt. To do so use the 9/16" wrench on the bolt in the left idler as a lever (push to the left) to release the tension on the reduction unit drive belt. Remove the belt from the dual V-pulley. Push theeduction unit down and remove the belt.
6. With the 1/2" wrench, reach under the planer bed and loosen the bolt in the stub shaft that the dual V-pulley rides on. Remove the dual V-pulley drive belt. Retighten the bolt in the stub shaft.

7. Place one end of the fast speed reduction drive belt on the reduc tion unit, and the other in the outer V of the cutterhead shaft. The left side of the belt will ride in the small V of the dual V-pulley, this is normal (see fig. A-10).

8. To tension this belt use the 9/16" wrench on the bolt in the left idler as a lever (push to the left) and slide the belt behind the idler.

9. Replace the feed roller drive belt on the feed roller pulley and retension the belt. To do so use the 9/16" wrench on the bolt in the right idler as a lever (push to the right) and slide the belt behind the idler.

10. Retighten the mounting bolts for the reduction unit.

11. Variable speed option is available on both models 816 & 820.

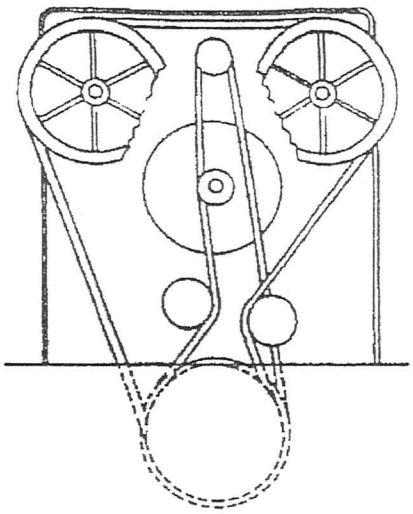


Fig. A-10

LUBRICATION

1. Oil corner screw and crank screw with 2 - 4 drops at the bed contact and bottom wear washer, as required for ease of turning the crank handle (see fig. A-11).
2. Oil feed roller bronze bushings with 2 - 4 drops on the side of the bronze bushing where it touches the machine frame, and where the shaft goes through the bushing every 20 hours of operation (see fig. A-12). Oil more often under severe use.

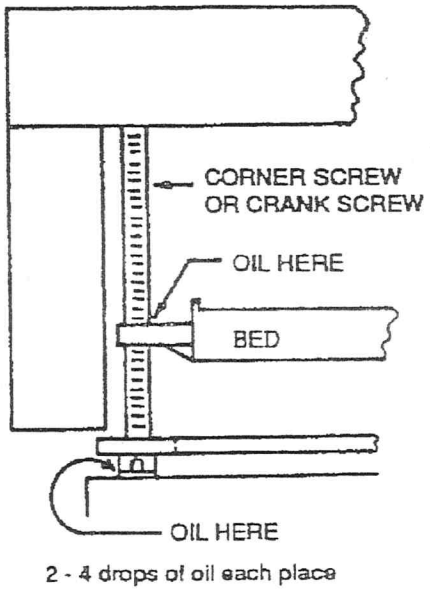


Fig. A-11

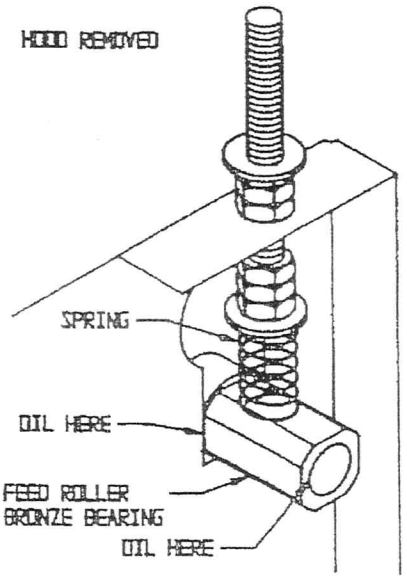


Fig. A-12

3. Oil bronze bushing for the dual "V" pulley 2 drops every 8 hours of operation.
4. Grease reduction unit every 35 hours of operation, not more than 8 pumps from a grease gun. Do not over grease as excess will cause belt slippage (see fig. A-13).
5. Grease regreasable bearing on cutterhead every 35 hours of operation, with 5-7 pumps from a grease gun (see fig.A-14). The grease supply interval is dependant on the kind and quality of the grease to be used as well as the operating conditions of the bearing. Do not over-grease!

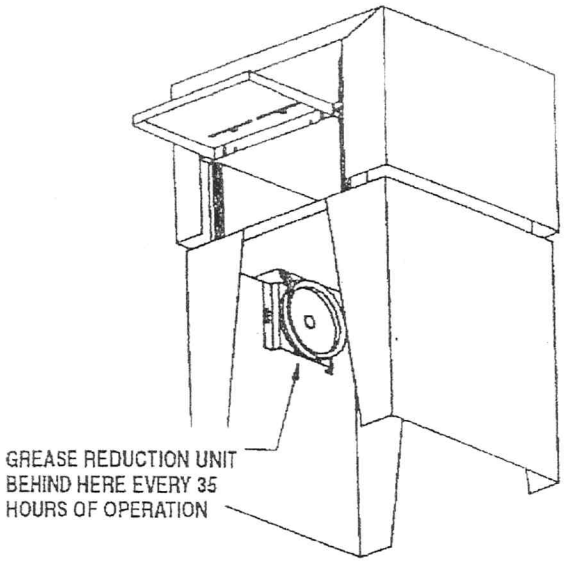


Fig. A-13

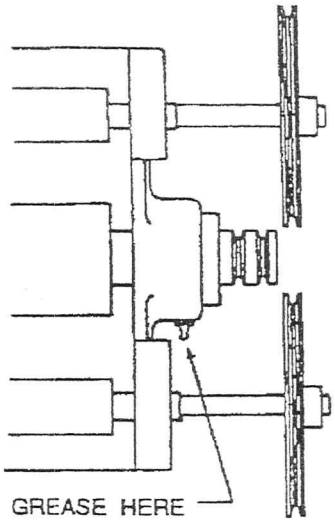


Fig. A-14

6. Electric motor lubrication:
   A. Sealed bearings - No further lubrication required, bearings are lubricated for the life of the bearing.
   B. For motors with grease plugs in end plates — Relubricate while motor is warm and at standstill. Remove and clean all grease plugs, insert grease fitting into upper hole adding a small amount of grease with a grease gun. Run motor 5 minutes before replacing plug.

CAUTION: Excessive amount of grease will overheat the bearings.

NOTE: RB Industries is not responsible for damages due to neglect of routine maintenance as described above.

FEED ROLLER CLEANING

After extended periods of time or under moist wood conditions, a build-up of wood resin can occur on the rollers. This can be removed by wiping with kerosene or mineral spirits or denatured alcohol.

ADJUSTING THE CUTTERHEAD DRIVE BELT

CAUTION: Loose belts can cause vibration.

1. Loosen the four bolts that mount the motor to the machine.
2. Slide the motor toward one end of the slots to tighten the belt, and tighten the bolts that mount the motor to the machine.

ADJUSTING THE FEED ROLLER DRIVE BELTS

Tools Requires: 9/16" wrench, 1/2" wrench

The belt that drives the dual V-pulley is the only feed roller drive belt that requires adjusting, the other two are spring tensioned and don't need adjusting.

1. Disconnect the electrical source and remove the hood.
2. With the 1/2" wrench reach under the planer bed and loosen the bolt in the stub shaft that the dual "V" pulley rides on.
3. Adjust the tension on the belt from the cutterhead to the dual V-pulley by pushing down on the dual V-pulley (see fig. A-15). The bolt in the stub shaft will slide down in the slot until the belt is tight. While keeping the belt tensioned, retighten the bolt in that stub shaft.

The belt that drives the reduction unit and the one that drives the feed rollers are spring tensioned and require no adjustment.

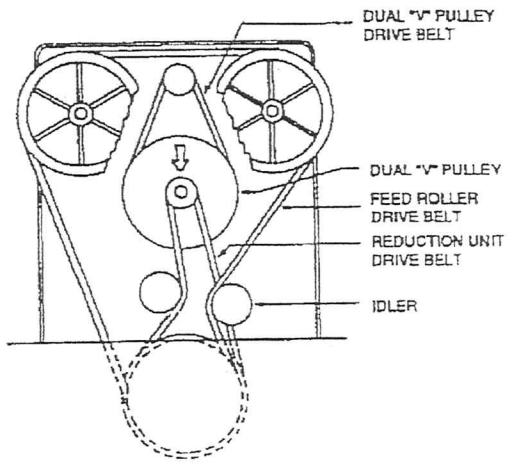


Fig. A-15

ADJUSTING THE ROLLER CHAIN

Tools Required: 9/16" wrench

1. Loosen the chain tightener.
2. Put the chain to the inside of the bracket and the pointed side of the bracket against the chain.
3. Slide the bracket in until the chain is not sloppy any more and retighten the nut.

NOTE: The chain should not be taut, as over tightening the chain will cause it to wear prematurely.

ADJUSTING INFEED AND OUTFEED ROLLER TENSION

Tools Required: (2) 9/16" open end wrenches

1. Disconnect the electrical source (unplug the machine).
2. Remove the hood.
3. Loosen jam nut, by holding the bottom nut with one wrench and loosen the jam nut with the other wrench (see fig. A-16).
4. To increase roller pressure screw the lower nut down (clockwise). To reduce roller pressure screw the lower nut up (counter-clock-wise).
5. Retighten the jam nut by holding the bottom nut with one wrench and tighten the jam nut down against the bottom nut with the other wrench.

Planer Model #	Infeed Reduction Side	Infeed Motor Side	Outfeed Reduction Side	Outfeed Motor Side
812B	3/4"	3/4"	3/4"	3/4"
816	1-1/4"	1-5/8"	1-3/8"	1-3/4"
820	1-1/4"	1-5/8"	1-3/8"	1-3/4"

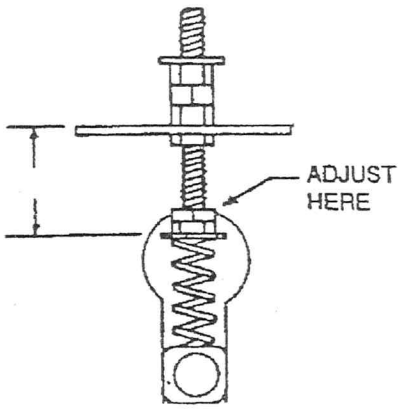


Fig. A-16

FEED ROLLER REPLACEMENT

Note: See the PARTS BREAKDOWN for identification of parts.

1. Remove the hood.
2. Remove the feed roller drive belt.
3. Remove the feed roller pulleys from the ends of the feed rollers. To do so loosen the set screws in the pulley and pull it off.
4. Reduce the tension on the feed roller tension spring by raising the jam nuts on the threaded rods (see fig. A-16).
5. Remove the spring.
6. Grasp the bronze feed roller bushings on the ends of the feed rollers and lift until the bushings are free of the square slots in the planer sides.
7. Slide the feed roller through the round holes in the planer sides.
8. Remove the feed roller bushings from the ends of the feed rollers.
9. Reverse the procedure to install the feed rollers. See ADJUSTING INFEED AND OUTFEED ROLLER TENSION to set the feed roller tension.

CORNER AND CRANK SCREW REPLACEMENT

1. Lower the planer's bed to its lowest position.
2. Drive the roll pin out of the sprocket on the corner screw that is to be removed.
3. Remove the top bar on the side where the screw is to be removed.
4. Grasp the corner screw with a pair of pliers or vise grips and screw it out of the planer's bed. If the crank screw is to be removed, use the crank handle to screw it out.
5. Reverse the procedure to replace. Check the planer bed for level, and adjust if needed (see PLANER BED LEVELING).

PLANER BED LEVELING

Tools Required: needle nose pliers, knife setting gauge.

1. Disconnect the electrical source (unplug the machine).
2. Adjust the knife setting gauge by removing the plunger, and raising the plunger guide as high as it will go and still have the set screw hold it securely (see fig. A-8 for parts identification).
3. Adjust the planer bed to obtain approximately six inches between the planer bed and the base top.
4. Set the knife setting gauge on the planer bed and slide it over near the cutterhead (see fig. A-17).

CAUTION: Don't adjust the planer bed with the knife setting gauge directly under the cutterhead.

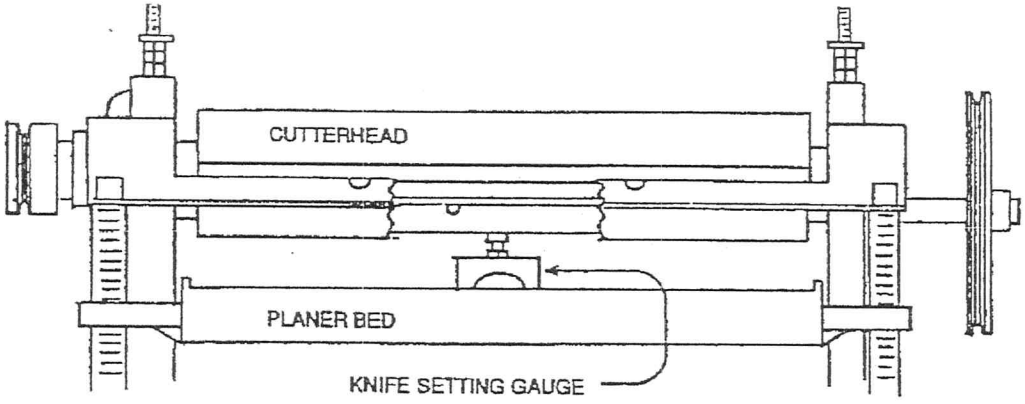


Fig. A-17

5. Adjust the planer table so the knife setting gauge will just touch the cutterhead on one end when slid back and forth under the cutterhead (if the knife setting gauge will just barely touch the cutterhead on both ends, the planer bed is level and doesn't need adjusting).
6. Remove the chain connector link (master link) and remove the chain from the corner screw sprockets.
7. Push down on each corner of the planer bed to check for movement. If any corner moves adjust the corner screw clock-wise until the corner screw sprockets rest evenly on the base top on all four corners.
8. Check the distance between the cutterhead (not the knives) and the planer bed on one side, then the other. If one side is more than 1/64 inch lower than the other, turn the two corner screws on the lower side clock-wise by hand until the knife setting gauge will barely touch the cutterhead on both ends when slid under it (be sure to turn both of the corner screws on the lower side equally so that adjustment is consistant).

NOTE: 1/4 turn of the corner screws clock-wise will rise the planer bed by 1/64 in.

9. When the planer bed is level, replace the chain, being careful not to move the corner sprockets (turning the corner screw sprockets changes the level of the table).

NOTE: Oiling the corner screws where they go through the planer bed and at the top and bottom (see LUBRICATION) will make the crank easier to turn.

TROUBLE-SHOOTING

PROBLEM: Feed rollers push board out.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Motor turning the wrong direction	Rewire motor to reverse rotation

PROBLEM: Feed rollers turn, but board does not feed.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Obstruction under feed roller bushing	Remove obstruction
Feed rollers worn or damaged	Replace
Build-up of resin on feed rollers	Clean feed rollers

PROBLEM: Feed rollers turn in a jumpy motion.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Cut too large	Reduce depth of cut
Feed rollers worn or damaged	Replace
Main drive belt loose or slipping	Adjust or replace as required

PROBLEM: Feed rollers slip on board.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Build-up of resin on feed rollers	Clean feed rollers
Feed roller spring tension too low	Adjust feed roller tension springs

PROBLEM: Board is excessively hard to start into the planer.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Cut too large	Reduce depth of cut
Feed roller spring tension too high	Adjust feed roller tension springs

PROBLEM: Feed rollers don't turn.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Belts loose, off, or broken	Adjust or replace as required

PROBLEM: Excessive mill marks in board.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Knives not set the same height	Reset the planer knives
Machine set on fast feed rate	Set on slow feed rate

PROBLEM: Ridge or groove along the length of the board.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Nick in the planer knives	Have knives resharpened or replaced

PROBLEM: Large chunks torn out of the board.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Cutting against the grain	Turn board end for end
Planer knives dull	Have knives resharpened or replaced

PROBLEM: Stripping or peeling of board.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Lumber green	Allow lumber to dry
Planer knives dull	Have knives resharpened or replaced

PROBLEM: Press marks in the wood.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Wood chips & resin on feed rollers	Clean feed rollers
Wood chips very large	Reduce the depth of cut

PROBLEM: Cutterhead slows down.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Planer knives dull	Have knives resharpened or replaced
Cut too large	Reduce depth of cut
Motor undersized	Replace motor with a larger motor
Low current to the motor	Have electrician check wiring
Cutterhead drive belt slipping	Adjust belt or replace as required

PROBLEM: Excess vibration.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Knives improperly adjusted	Adjust knives
Knives missing or damaged	Replace
Build-up on cutterhead	Clean cutterhead
Drive belt damaged or loose	Adjust belt or replace as required
Cutterhead bearings bad	Replace bearings
Motor, cutterhead, or pulleys loose	Tighten or replace as required

PROBLEM: Motor won't start.

POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Breaker bad or thrown	Reset breaker or replace
Thermal reset on motor thrown	Let motor cool, push reset button
	Check motor for clogged vents, clean using a vacuum or air hose

PROBLEM: Excess snipe (deeper cut at the end of a board).

Snipe is a deeper cut at the end of a board, usually the first and last two or three inches. All planers, regardless of make, tend to create snipe. Ranging in depth from almost imperceptible to 1/8". This is caused when a board enters the planer infeed roller, but has not yet reached the outfeed roller. While it is in this position and held down by only one feed roller, the planer blades tend to lift up the board as they cut, pulling it up into the blades (see illustrations A-18 — A-22). The same thing occurs when the board leaves the infeed roller and is held only by the outfeed roller. Feed roller pressure is adjustable to allow for different conditions, so it's possible to minimize or practically eliminate snipe in most cases.

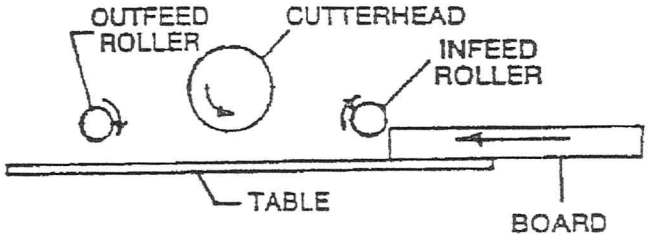


Fig. A-18

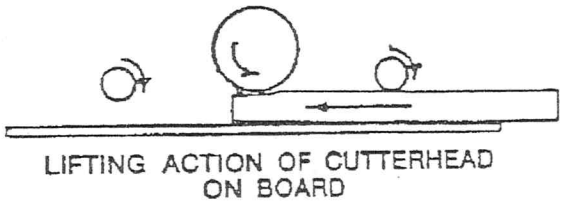


Fig. A-19

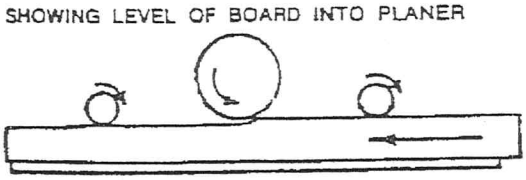


Fig. A-20

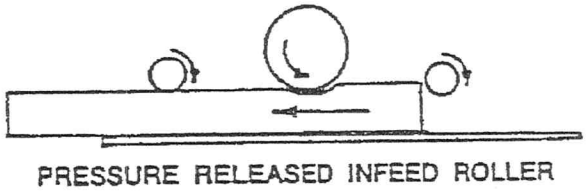


Fig. A-21

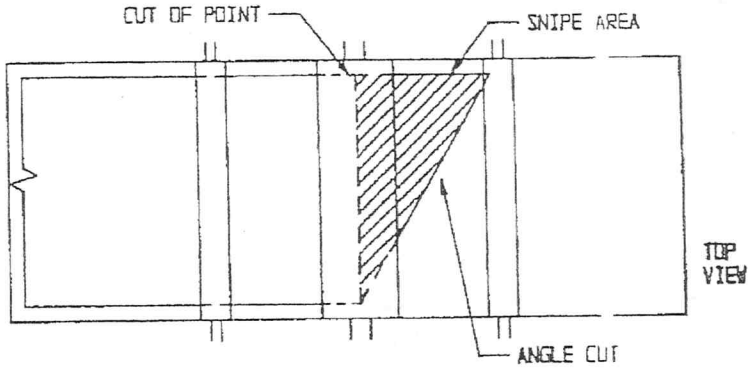
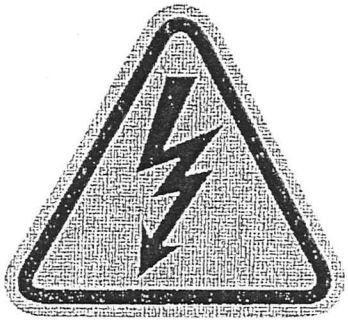


Fig. A-22

CONSULT THE PLANER OPERATORS MANUAL FOR PROPER SET-UP, MAINTENANCE, TENSIONING, LUBRICATION, AND OPERATIONAL PROCEDURES AS WELL AS A PROBLEM SOLVING GUIDE FOR VARIOUS COMMON OCCURRANCES.

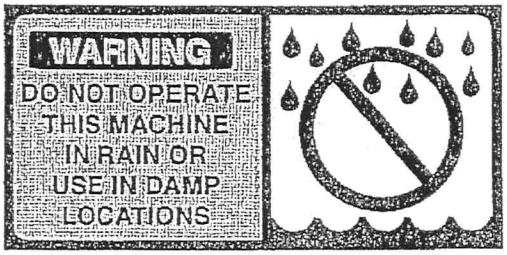
ALWAYS WEAR SAFETY GLASSES OR GOGGLES FOR PROPER EYE PROTECTION. EVERYDAY GLASSES ONLY HAVE IMPACT RESISTANT LENSES AND ARE NOT SAFETY GLASSES.

CAUTION!



ELECTRICAL SHOCK - ELECTROCUTION SYMBOL: UNPLUG THIS MACHINE BEFORE PERFORMING ANY MAINTENANCE OR REPAIR PROCEDURES. REPLACE ANY WORN OR DAMAGED ELECTRICAL CABLES. KEEP ALL ELECTRICAL GUARDS AND/OR SHIELDS IN PLACE.

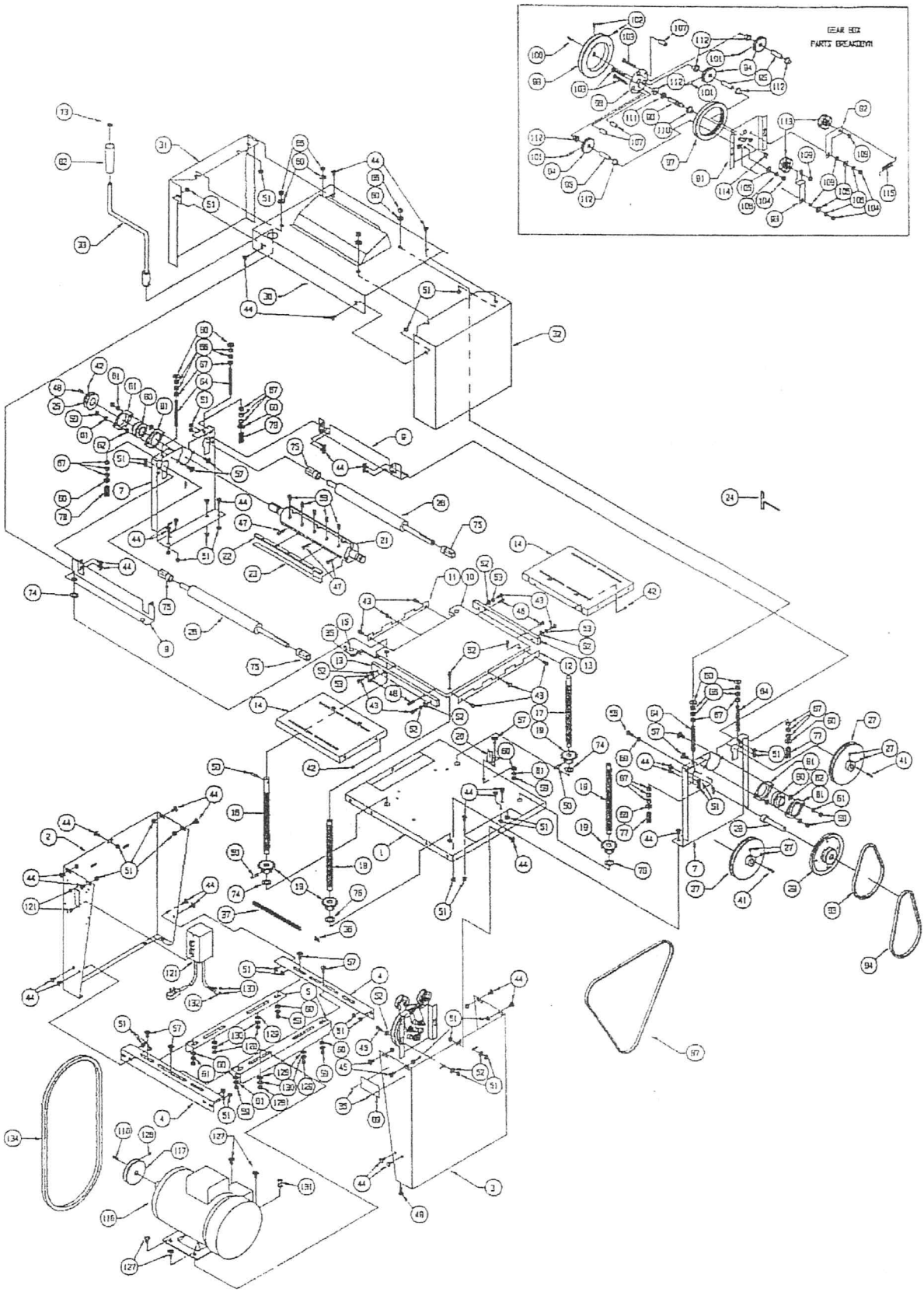
WARNING!



DO NOT OPERATE THIS MACHINE IN THE RAIN OR USE IN DAMP CONDITIONS OR STANDING WATER. FAILURE TO OBSERVE THIS WARNING MAY RESULT IN SERIOUS INJURY OR ELECTROCUTION!

WARNING!

PARTS BREAKDOWN
MODEL 812B PLANER



PARTS LIST MODEL 812B PLANER

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.
001	695-1006	BASE TOP	1
002	645-4137	SKIRT, L.H.SIDE, 812B	1
003	645-4136	SKIRT, R.H.SIDE, 812B	1
004	695-0053	MOTOR MOUNT SUPPORT	2
005	695-0054	MOTOR MOUNT BAR, 812B	2
007	695-2002	SIDE, 812B PLANER	2
009	695-0004	TOP BAR, #812B PLANER	2
010	695-3017	TABLE, #812B PLANER	1
011	695-1014	BED RAIL, LEFT SIDE, #812B	1
012	695-1015	BED RAIL, RIGHT SIDE	1
013	695-0016	EXTENSION TABLE ADJUSTMENT BAR	2
014	695-0001	EXTENSION TABLE WELDMENT	2
015	645-1074	POINTER, PLANER 812, 816, 820	1
016	695-0027	CRANK SCREW, #812/812B	1
017	695-0026	CORNER SCREW, #812/812B	1
018	695-0028	BED SCREW. #812/812B	2
019	665-0004	SPROCKET - THREADED	4
020	645-0045	CHAIN TIGHTENER	1
021	695-3019	PLANER HEAD, #812B	1
022	695-0057	GIB,RECTANGULAR STEEL, #812B	3
023	803-0001	12-1/2" PLANER BLADE, #812B	3
024	795-0059	5/32 T-HANDLE ALLEN WRENCH	1
025	695-0020	PULLEY, 2-1/4OD, 1ID	1
026	695-0067	FEED ROLLER, KEYED, #812B	2
027	745-2091	FEED ROLLER PULLEY,KEYED W/2SS	2
028	695-3022	SHOULDER STUB SHAFT	1
029	645-1153	DUAL V-PULLEY ASSEMBLY	1
030	695-3009	HOOD TOP WELDMENT	1
031	695-1010	HOOD, LH END	1
032	695-1011	HOOD, RH END	1
033	645-0279	CRANK WELDMENT	1
035	770-0052	#4 X 1/4 ROUND HD DRIVE SCREW	4
036	745-0410	#41 CHAIN MASTER CONNECT LINK	1
037	745-0313	#41 ROLLER CHAIN	5
041	745-0712	3/16 X 1 SQUARE KEY	2
042	770-0083	1/4-20 X 1/4 SSS (CUP POINT)	4
043	725-0043	1/4-20 X 1/2 HEX HEAD BOLT	10
044	745-0099	1/4-20 X 5/8 CARRIAGE BOLT	38
045	750-0206	1/4-20 X 3/4 HEX HEAD BOLT	2
046	735-0017	1/4-20 X 3/4 SKT HD CAP SCREW	6
047	770-0182	1/4-28 X 3/4 FL HD SKT CP SCREW	9
048	745-0093	1/4- X 3/4 SQUARE KEY	1
049	715-0166	1/4-20 X 1 CARRIAGE BOLT	4
050	770-0059	1/4 X 1-1/8 ROLL PIN	3
051	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	44
052	745-0177	1/4 FLAT WASHER	8
053	750-0207	1/4 SPLIT LOCK WASHER	4
056	795-0063	5/16-18 X 3/4 HEX HEAD BOLT	1
057	770-0179	5/16-18 X 3/4 CARRIAGE BOLT	9
058	795-0066	5/16-24 X 5/8 SSS, CP PT,UNBRAKO	15
059	770-0081	5/16-18 HEX NUT	9
060	745-0150	5/16 FLAT WASHER	18
061	770-0178	5/16 SPLIT LOCK WASHER	9
062	745-0720	5/16ID X 3/4OD X .01 NY.SPACER	4
064	745-0047	3/8-16 X 4 FULL THREAD STUD	4
066	770-0058	3/8-16 HEX NUT	12
067	770-0073	3/8-16 HEX JAM NUT	16
073	745-0164	1/2ID RETAINER, PLANER HANDLE	1
074	740-0549	5/8ID X 1-1/8OD X 18 GA.WASHER	4
075	765-0057	5/8ID FEED ROLLER BUSHING	4
076	733-0018	3/4ID X 1-1/4OD X 18 GA.WASHER	2
077	745-0113	COMPRESSION SPRING, #408/812B	2
078	765-0019	COMPRESSION SPRING, #816/820	2
080	765-1030	BEARING, 1"	2
081	745-0058	FLANGETTE, (FOR 1" BEARING)	4
082	745-0149	PLASTIC HANDLE GRIP	1
083	745-0162	V-BELT #1210-3/8 x 21	1
084	795-0060	V-BELT #1320-3/8 x 32	1
087	745-0305	V-BELT #1540-3/8 X 54	1
089	795-0055	SERIAL TAG, #812B	1
090	703-2929	MANUAL, RBI PLANERS	1
	703-0200	MANUAL, CUSTOM KNIFE CATALOG	1
	703-0700	WARRANTY CARD, GENERAL	1
	702-0008	DECAL, 7" PLANER SCALE	1
	702-0030	DECAL, CAUTION (1.75" X 2.5")	1
	745-0203	DECAL, CAUTION, PLANER IN-FEED	1
	702-0029	DECAL, COMMERCIAL MADE IN USA	2
	745-0205	DECAL, MADE IN USA-OCTAGON	1
	702-0007	DECAL, PATENT #D268843	1
	745-0202	DECAL, PLANER "UP"	1
	702-0002	DECAL, RBI MADE IN USA(ROUND)	1
	745-0204	DECAL CAUTION-KEEP HANDS CLEAR	2
	645-0316	CRANK HANDLE ASSEMBLY	1
	645-0156	GEARBOX ASSEMBLY	1
	745-0207	DECAL, WEAR EYE PROTECTION	1

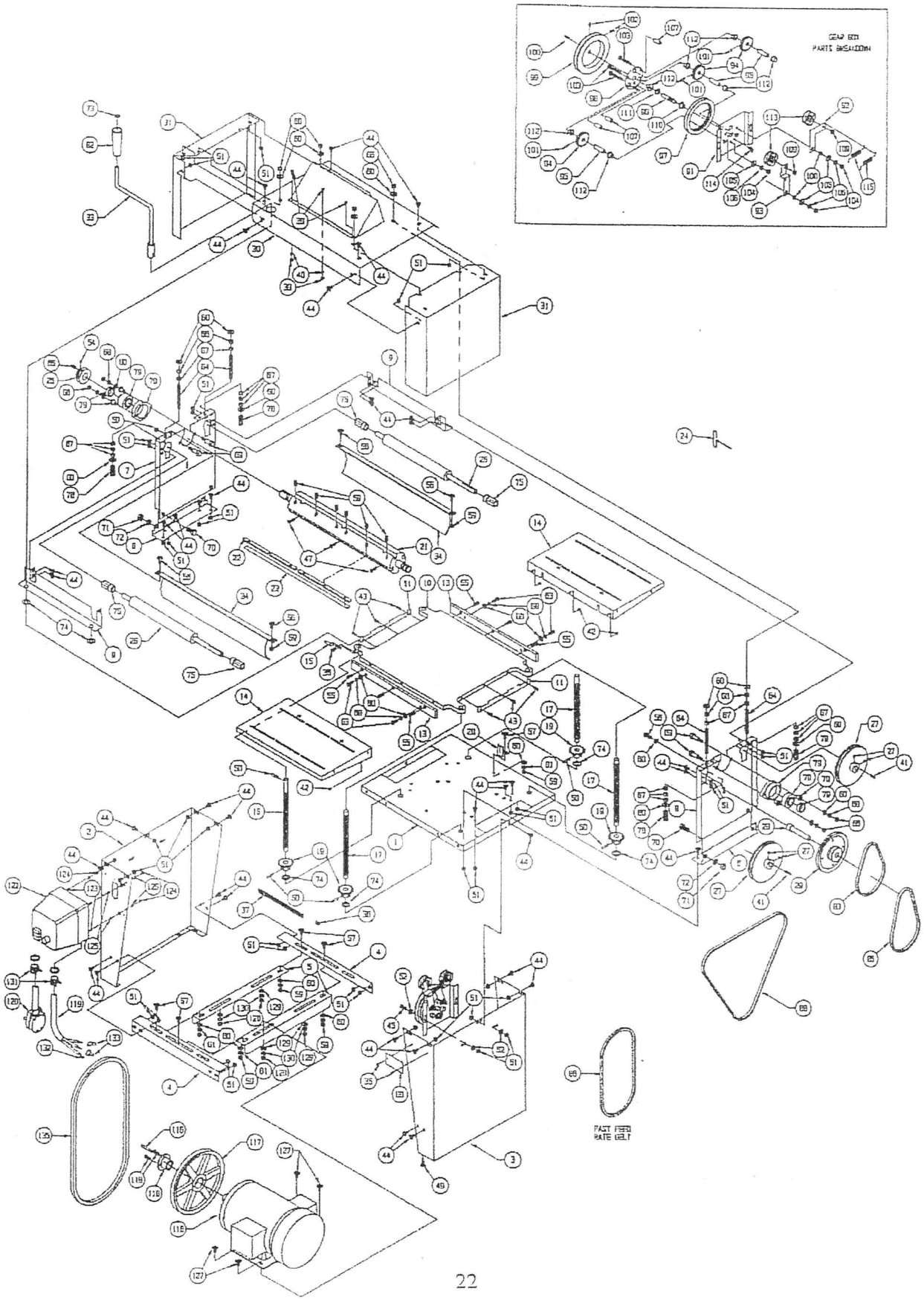
GEARBOX

091	645-0067	GEARBOX FACE PLATE	1
092	645-0145	GRBX INTERNAL ARM FD RL BRK	1
093	645-0146	GRBX REDUCTION DR IDLER ARM	1
094	645-0068	GEARBOX INTERNAL GEAR	3
095	645-0096	GEARBOX INTERNAL GEAR SHAFT	3
096	645-2090	GEARBOX DRIVE PINION	1
097	645-0095	GEARBOX INTERNAL GEAR SHEAVE	1
098	645-0089	GEARBOX BACK PLATE	1
099	645-2088	GRBX REDUCTION INPUT SHEAVE	1
100	745-0057	#5 WOODRUFF KEY	1
101	745-0071	3/16 X 1-1/4 ROLL PIN	3
102	745-0161	1/4-20 X 1/2 SKT ST SCR,FLT PT	2
103	750-0203	5/16-18 X 2 HEX HEAD BOLT	3
104	770-0081	5/16-18 HEX NUT	3
105	745-0150	5/16 FLAT WASHER	3
106	770-0178	5/16 SPLIT LOCK WASHER	3
107	745-0094	5/16 X 1-1/16 SPACER FOR GRBOX	3
108	745-0158	5/16ID X 1/2OD X 3/16 SPACER	2
109	770-0058	3/18-16 HEX NUT	2
110	745-0073	3/8ID FLANGED BRONZE BUSHING	1
111	745-0160	1/2ID X 7/8OD X 14 GA. BUSHING	1
112	740-0369	1/2ID FLANGED BRONZE BUSHING	7
113	745-0062	PULLEY, 2" IDLER	2
114	750-0210	GREASE ZERK, 90°	1
115	745-0063	TENSION SPRING, IDLER ARM	1

3HP MOTOR PACKAGE FOR 812B

116	704-1008	MOTOR, 3HP/1PH, BALDOR, REV.	1
117	695-0052	PULLEY, 3-1/2OD, 5/8ID	1
121	645-0328	PLANER POWER CORD & SWITCH	1
126	770-0083	1/4-20 X 1/4 SSS (CUP POINT)	1
127	770-0179	5/16-18 X 3/4 CARRIAGE BOLT	4
128	770-0081	5/16-18 HEX NUT	4
129	745-0150	5/16 FLAT WASHER	4
130	770-0178	5/16 SPLIT LOCK WASHER	4
131	795-0051	3/8" ROMEX CLAMP(FOR 7/8" HOLE)	1
132	745-0681	TERMINAL,SPADE,YELL,10-12AWG	1
133	745-0678	WIRE NUT, YELLOW, MAX. 3-#12	3
134	745-0702	V-BELT #6854-1/2 X 54 P.R.	1
	745-0226	DECAL, WARNING	1

PARTS BREAKDOWN
MODEL 816 PLANER



PARTS LIST MODEL 816 PLANER

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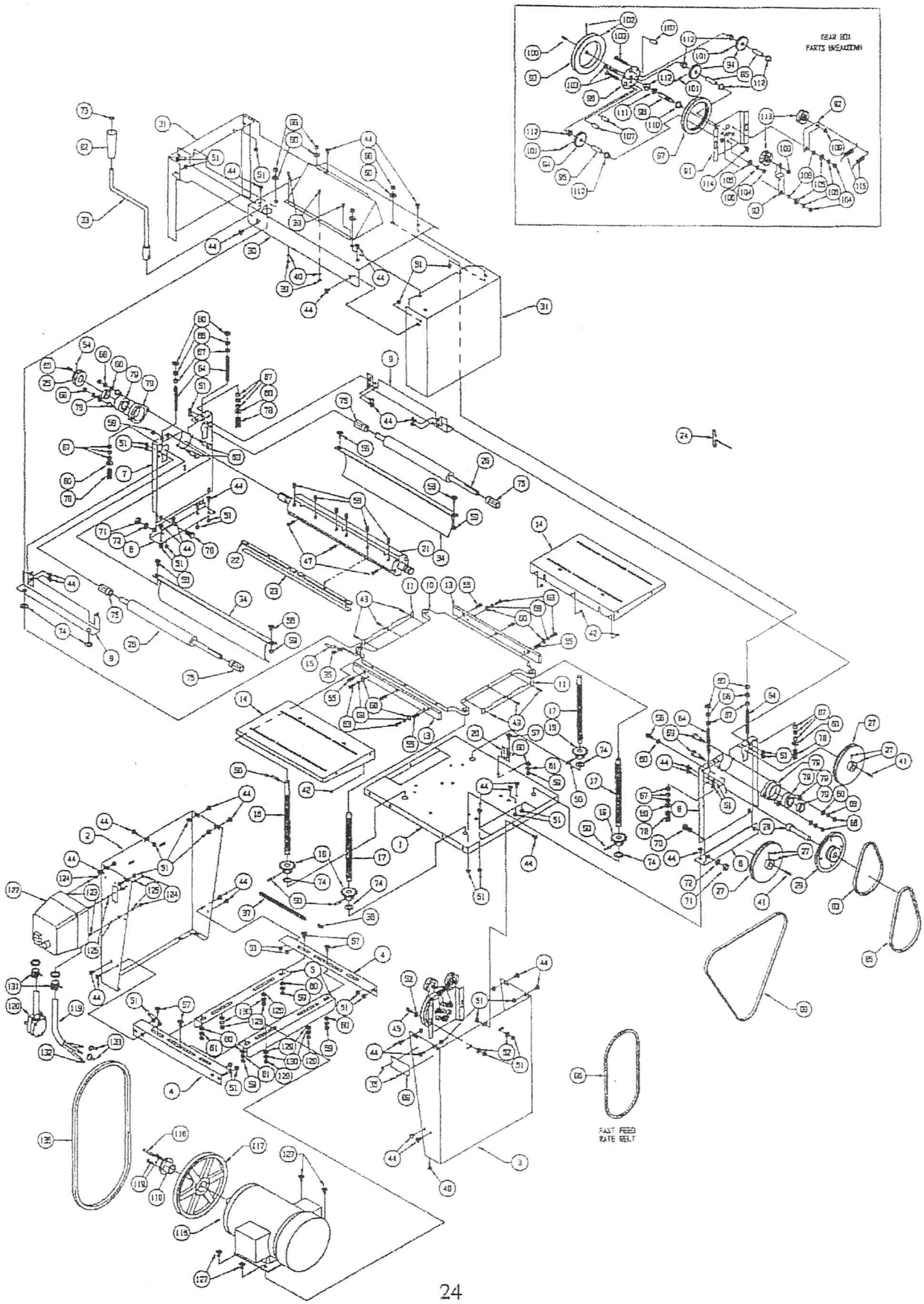
Key #	Part #	Description	Qty.
001	634-0003	BASE TOP,816	1
002	645-6270	LEFT SKIRT, 816/820	1
003	645-2271	RIGHT SKIRT, 816/820	1
004	634-0014	MOUN T SUPPORT	2
005	645-0291	MOTOR MOUNT BAR	2
006	664-0007	SIDE MOUNT BRACKET	2
007	645-2268	L.H. SIDE, 816/820	1
008	645-2265	R.H. SIDE, 816/820	1
009	634-0008	TOP BAR	2
010	634-0001	TABLE, 816	1
011	645-1297	PLANER BED RAIL	2
013	634-0013	EXT. TABLE ADJ. BAR	2
014	634-0012	EXT. TABLE WELDMENT	2
015	645-1074	POINTER, PLANERS	1
016	665-1034	CRANK SCREW, 816/820	1
017	665-1005	CORNER SCREW	3
019	665-0004	SPROCKET - THREADED	4
020	645-0045	CHAIN TIGHTENER	1
021	634-0002	816PLANER HEAD, 4-slot	1
022	634-0015	GIB, STEEL, 816	8
023	803-0003	16-1/2" PLANER BLADE, 816	4
024	795-0059	5/32 T-HANDLE ALLEN WRENCH	1
025	645-0662	PULLEY, 3-1/8"OD	1
026	634-0017	N/M 816 FD ROLLER, KEYED	2
027	745-2091	FD ROLLER PULLEY, KYD W/2SS	2
028	695-3022	SHOULDERED STUB SHAFT	1
029	645-1153	DUAL V-PULLEY ASSEMBLY	1
030	634-0004	HOOD TOP WELDMENT	1
031	645-1285	HOOD ENDS	2
033	645-0279	CRANK WELDMENT	1
034	634-1006	CHIP DEFLECTOR, 816	2
035	770-0052	#4 X 1/4 RD HD DR SCREW	4
036	745-0410	#41 CHAIN MASTER CONNECT LINK	1
037	745-0313	#41 ROLLER CHAIN	7
038	745-0106	10-32 X 1/2 RH MACH SCREW	3
039	745-0107	10-32 HEX NUT	3
040	715-0191	3/16 INTL LOCK WASHER	3
041	745-0712	3/16 X 1 SQUARE KEY	2
042	770-0083	1/4-20 X 1/4 SSS (CUP PT)	6
043	725-0043	1/4-20 X 1/2 HEX HD BOLT	6
044	745-0099	1/4-20 X 5/8 CARR. BOLT	40
045	750-0206	1/4-20 X 3/4 HX HD BOLT	2
047	770-0182	1/4-28 X 3/4 FL HD SKT CP SCREW	12
049	715-0166	1/4-20 X 1 CARR. BOLT	4
050	770-0059	1/4 X 1-1/8 ROLL PIN	5
051	745-0223	1/4-20 FLNGD LK/WHIZ NUT	46
052	745-0177	1/4 FLAT WASHER	4
054	770-0185	5/16-18 X 5/16 SOC.SS.CP.PT.	1
055	770-0092	5/16-18 X 5/8 SOC.HD.CAP SCREW	6
056	770-0181	5/16-18 X 1 HX HD BOLT	5
057	770-0179	5/16-18 X 3/4 CARR. BOLT	5
058	795-0066	5/16-24 X 5/8 SSS, CP PT, UNB	24
059	770-0081	5/16-18 HEX NUT	9
060	745-0150	5/16 FLAT WASHER	26
061	770-0178	5/16 SPLIT LOCK WASHER	5
063	750-0212	3/8-16 X 3/4 HX HD BOLT	4
064	745-0047	3/8-16 X 4 FULL THD STUD	4
065	770-0089	3/8 X 1 SQUARE KEY	1
066	770-0058	3/8-16 HEX NUT	12
067	770-0073	3/8-16 HEX JAM NUT	16
068	770-0071	3/8 SPLIT LOCK WASHER	8
069	745-0415	1/2 X 3/4 SHOULDER BOLT	4
070	745-0035	1/2-13 X 1 HEX HEAD BOLT	4
071	770-0069	1/2-13 HEX NUT	4
072	745-0011	1/2 SPLIT LOCK WASHER	4
073	745-0164	1/2ID RETAINER, PLANER HANDLE	1
074	740-0549	5/8ID X 1-1/8OD X 18GA.WASHER	8
075	765-0057	5/8ID FEED ROLLER BUSHING	4
078	765-0019	COMPRESSION SPRING, 816/8/20	4
079	660-0003	BEARING CLR, HSNG., 1-1/2"	2
082	745-0149	PLASTIC HANDLE GRIP	1
083	745-0162	V-BELT #1210-3/8 X 21	1
085	745-0065	V-BELT #1340-3/8 X 34	1
086	745-0147	V-BELT #1420-3/8 X 42	1
088	745-0307	V-BELT #1560-3/8 X 56	1
089	706-0816	SERIAL # TAG#816	1
090	703-2929	MANUAL, RBI PLANERS	1
	703-0200	MANUAL,CUSTOM KNIFE CATALOG	1
	703-0300	MANUAL, CUSTOM KNIFE PRICES	1
	703-0700	WARRANTY CARD GENERAL	1
	702-0008	DECAL, 7" PLANER SCALE	1
	702-0030	DECAL, CAUTION (1.75" X 2.5")	1
	745-0203	DECAL, CAUTION-PLANER IN-FEED	1
	702-0029	DECAL, COMMERCIAL MADE IN USA	2
	702-0027	DECAL, CUTTERHEAD BEARINGS	1
	745-0205	DECAL, MADE IN USA-OCTAGON	1
	702-0007	DECAL, PATENT #D268843	1
	745-0202	DECAL, PLANER "UP"	1
	702-0002	DECAL, RBI MADE IN USA (ROUND)	1
	745-0204	DECAL, CAUTION-KEEP HANDS CLR	2
	702-0015	DECAL, RBI MADE IN USA, 1.75" X 3"	1
	702-0032	DECAL, CUTTERHEAD WARNING	1
	702-0033	DECAL,RECHECK/TIGHTEN GID SCRWS	1
	645-0316	CRANK HANDLE ASSEMBLY	1
	645-0156	GEARBOX ASSEMBLY, 812B,816/820	1
	745-0207	DECAL, WEAR EYE PROTECTION	1

Key #	Part #	Description	Qty.
GEARBOX			
091	645-0067	GRBOX FACE PLATE	1
092	645-0145	GRBOX INTERNAL ARM FD RL BRKT	1
093	645-0146	GRBOX RED. DR IDLER ARM	1
094	645-0068	GRBOX INTERNAL GEAR	3
095	645-0096	GRBOX INTERNAL GEAR SHAFT	3
096	645-2090	GRBOX DRIVE PINION	1
097	645-0095	GRBOX INTERNAL GEAR SHEAVE	1
098	645-0089	GRBOX BACK PLATE	1
099	645-2088	GRBOX RED. INPUT SHEAVE	1
100	745-0057	#5 WOODRUFF KEY	1
101	745-0071	3/16 X 1-1/4 ROLL PIN	3
102	745-0161	1/4-20 X 1/2 SKT ST SCR, FLT PT.	2
103	750-0203	5/16-18 X 2 HEX HEAD BOLT	3
104	770-0081	5/16-18 HEX NUT	4
105	745-0150	5/16 FLAT WASHER	4
106	770-0178	5/16 SPLIT LOCK WASHER	4
107	745-0094	5/16 X 1-1/16 SPACER FOR GRBOX	3
108	745-0185	5/16ID X 1/2OD X 3/16 SPCR	2
109	770-0058	3/8-16 HEX NUT	2
110	745-0073	3/8ID FLNGD BRONZE BUSHING	1
111	745-0160	1/2ID X 7/8OD X 14GA.BUSHING	1
112	740-0369	1/2ID FLNGD BRONZE BUSHING	7
113	745-0062	PULLEY, 2" IDLER	2
114	795-0044	GREASE ZERK, 90°	1
115	745-0063	TENSION SPRING	2
5HP MOTOR PACKAGE for 816			
116	704-0003	MOTOR,5HP/1PH.220V.184 FRAME	1
117	745-0303	PULLEY, 7-3/4"OD (MOTOR)	1
118	745-0304	PULLEY REDUCER, 1-1/8ID	1
119	745-0700	WIRE,10-3 AMERICAN WIRE GAUGE	13
120	708-0008	PLUG 230V, 30/50 AMP (EAGLE)	1
122	745-0692	MAGNETIC 3 PHASE SWITCH	1
123	705-0084	10-32 X 3/4 RD HD MACH SCREW	4
124	745-0107	10-32 HEX NUT	8
125	715-0191	3/16 INTL LOCK WASHER	8
127	770-0179	5/16-18 X 3/4 CARR. BOLT	4
128	770-0081	5/16-18 HEX NUT	4
129	745-0150	5/16 FLAT WASHER	4
130	770-0178	5/16 SPLIT LOCK WASHER	4
131	745-0693	STRAIN RELIEF, 3/4" ROMEX	3
132	745-0681	TERMINAL,SPADE,YELLOW 10-2AWG	3
133	745-0679	WIRE NUT, RED, MAX. #5-12	2
	745-0678	WIRE NUT, YELLOW, MAX. #3-12	1
135	745-0665	V-BELT #6863-1/2 X 63 P.R.	1
	745-1226	DECAL, WARNING-POWER CORD	1

PARTS BREAKDOWN
MODEL 820 PLANER



PARTS LIST MODEL 820 PLANER

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.
001	608-2003	BASE TOP,820	1
002	645-6270	LEFT SKIRT, 816/820	1
003	645-2271	RIGHT SKIRT, 816/820	1
004	608-1004	MOUNT SUPPORT	2
005	645-0281	MOTOR MOUNT BAR	2
006	664-0007	SIDE MOUNT BRACKET	2
007	645-2268	L.H. SIDE, 816/820	1
008	645-2265	R.H. SIDE, 816/820	1
009	645-0269	TOP BAR	2
010	645-1262	TABLE, 820	1
011	645-1297	PLANER BED RAIL	2
013	645-0300	EXT. TABLE ADJ. BAR	2
014	645-0272	EXT. TABLE WELDMENT	2
015	645-1074	POINTER, PLANERS	1
016	665-1034	CRANK SCREW, 816/820	1
017	665-1005	CORNER SCREW	3
019	665-0004	SPROCKET - THREADED	4
020	645-0045	CHAIN TIGHTENER	1
021	608-3013	820 PLANER HEAD	1
022	645-0727	GIB, STEEL, 10-1/4" (820)	8
023	803-0002	20-1/2" PLANER BLADE, 820	4
024	795-0059	5/32 T-HANDLE ALLEN WRENCH	1
025	645-0662	PULLEY, 3-1/8"OD	1
026	645-0736	N/M 820 FD ROLLER, KEYED	2
027	745-2091	FD ROLLER PULLEY, KYD W/2SS	2
028	695-3022	SHOULDERED STUB SHAFT	1
029	645-1153	DUAL V-PULLEY ASSEMBLY	1
030	608-0047	HOOD TOP WELDMENT	1
031	645-1285	HOOD ENDS	2
033	645-0279	CRANK WELDMENT	1
034	608-0039	CHIP DEFLECTOR, 820	2
035	770-0052	#4 X 1/4 RD HD DR SCREW	4
036	745-0410	#41 CHAIN MASTER CONNECT LINK	1
037	745-0313	#41 ROLLER CHAIN	7
038	745-0106	10-32 X 1/2 RH MACH SCREW	3
039	745-0107	10-32 HEX NUT	3
040	715-0191	3/16 INTL LOCK WASHER	3
041	745-0712	3/16 X 1 SQUARE KEY	2
042	770-0083	1/4-20 X 1/4 SSS (CUP PT)	6
043	725-0043	1/4-20 X 1/2 HEX HD BOLT	6
044	745-0099	1/4-20 X 5/8 CARR. BOLT	40
045	750-0206	1/4-20 X 3/4 HX HD BOLT	2
047	770-0182	1/4-28 X 3/4 FL HD SKT CP SCREW	12
049	715-0166	1/4-20 X 1 CARR. BOLT	4
050	770-0059	1/4 X 1-1/8 ROLL PIN	5
051	745-0223	1/4-20 FLNGD LK/WHIZ NUT	46
052	745-0177	1/4 FLAT WASHER	4
054	770-0185	5/16-18 X 5/16 SOC.SS.CP.PT.	1
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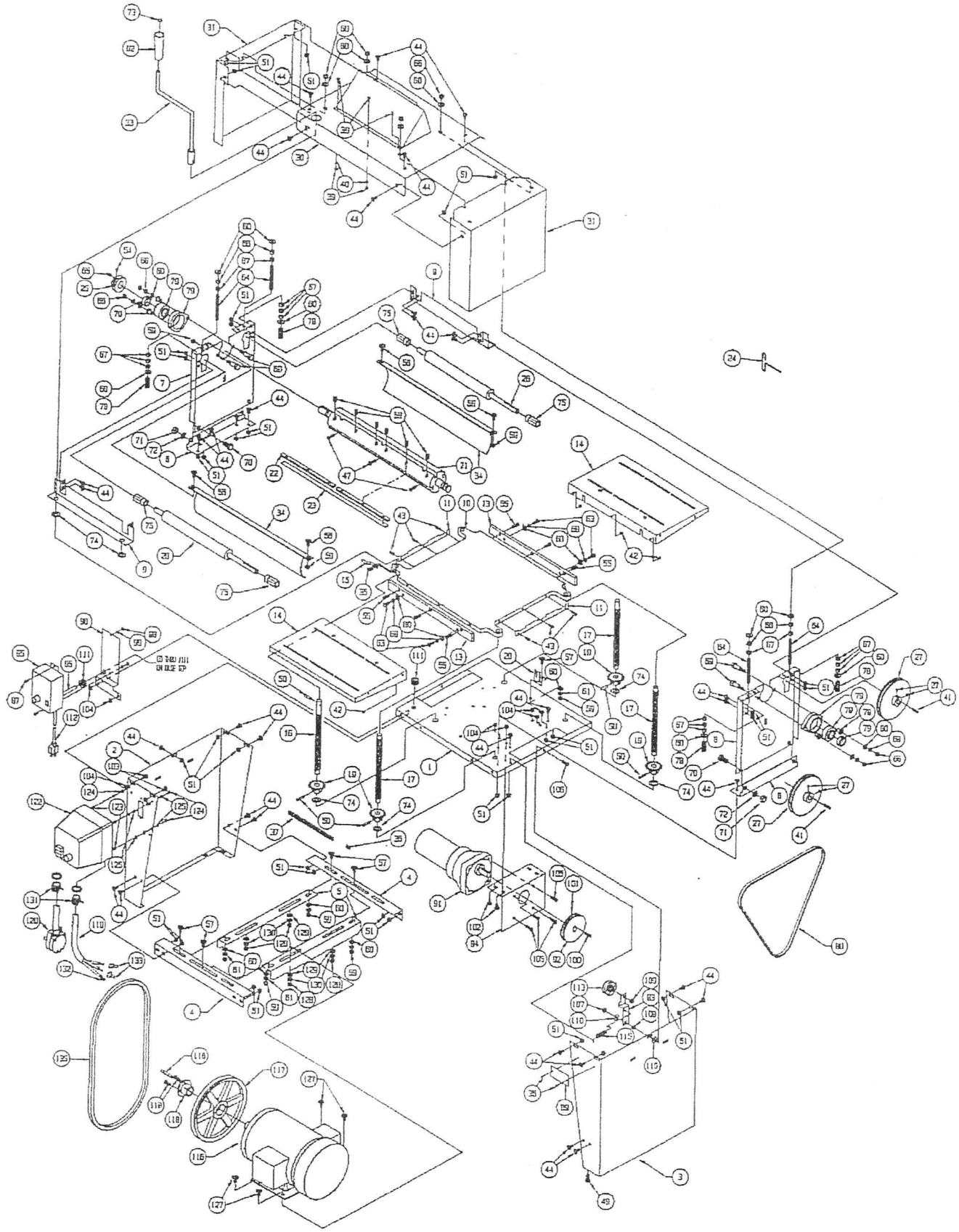
Part #	Description	Qty.
770-0092	5/16-18 X 5/8 SOC.HD.CAP SCREW	6
770-0181	5/16-18 X 1 HX HD BOLT	5
770-0179	5/16-18 X 3/4 CARR. BOLT	5
795-0066	5/16-24 X 5/8 SSS, CP PT, UNB	24
770-0081	5/16-18 HEX NUT	9
745-0150	5/16 FLAT WASHER	26
770-0178	5/16 SPLIT LOCK WASHER	5
750-0212	3/8-16 X 3/4 HX HD BOLT	4
745-0047	3/8-16 X 4 FULL THD STUD	4
770-0089	3/8 X 1 SQUARE KEY	1
770-0058	3/8-16 HEX NUT	12
770-0073	3/8-16 HEX JAM NUT	16
770-0071	3/8 SPLIT LOCK WASHER	8
745-0415	1/2 X 3/4 SHOULDER BOLT	4
745-0035	1/2-13 X 1 HEX HEAD BOLT	4
770-0069	1/2-13 HEX NUT	4
745-0011	1/2 SPLIT LOCK WASHER	4
745-0164	1/2ID RETAINER, PLANER HANDLE	1
740-0549	5/8ID X 1-1/8OD X 18GA.WASHER	8
765-0057	5/8ID FEED ROLLER BUSHING	4
765-0019	COMPRESSION SPRING, 816/820	4
660-0003	BEARING CLR, HSNG., 1-1/2"	2
745-0149	PLASTIC HANDLE GRIP	1
745-0162	V-BELT #1210-3/8 X 21	1
745-0065	V-BELT #1340-3/8 X 34	1
745-0147	V-BELT #1420-3/8 X 42	1
745-0307	V-BELT #1560-3/8 X 56	1
706-0820	SERIAL # TAG#820	1
703-2929	MANUAL, RBI PLANERS	1
703-0200	MANUAL,CUSTOM KNIFE CATALOG	1
703-0300	MANUAL, CUSTOM KNIFE PRICES	1
703-0700	WARRANTY CARD GENERAL	1
702-0008	DECAL, 7" PLANER SCALE	1
702-0030	DECAL, CAUTION (1.75" X 2.5")	1
745-0203	DECAL, CAUTION-PLANER IN-FEED	1
702-0029	DECAL, COMMERCIAL MADE IN USA	2
702-0027	DECAL, CUTTERHEAD BEARINGS	1
745-0205	DECAL, MADE IN USA-OCTAGON	1
702-0007	DECAL, PATENT #D268843	1
745-0202	DECAL, PLANER "UP"	1
702-0002	DECAL, RBI MADE IN USA (ROUND)	1
745-0204	DECAL, CAUTION-KEEP HANDS CLR	2
702-0015	DECAL, RBI MADE IN USA, 1.75" X 3"	1
702-0032	DECAL, CUTTERHEAD WARNING	1
702-0033	DECAL,RECHECK/TIGHTEN GID SCRWS	1
645-0316	CRANK HANDLE ASSEMBLY	1
645-0156	GEARBOX ASSEMBLY, 812B,816,820	1
745-0207	DECAL, WEAR EYE PROTECTION	1

Key #	Part #	Description	Qty.
GEARBOX			
091	645-0067	GRBOX FACE PLATE	1
092	645-0145	GRBOX INTERNAL ARM FD RL BRKT	1
093	645-0146	GRBOX RED. DR IDLER ARM	1
094	645-0068	GRBOX INTERNAL GEAR	3
095	645-0096	GRBOX INTERNAL GEAR SHAFT	3
096	645-2090	GRBOX DRIVE PINION	1
097	645-0095	GRBOX INTERNAL GEAR SHEAVE	1
098	645-0089	GRBOX BACK PLATE	1
099	645-2088	GRBOX RED. INPUT SHEAVE	1
100	745-0057	#5 WOODRUFF KEY	1
101	745-0071	3/16 X 1-1/4 ROLL PIN	3
102	745-0161	1/4-20 X 1/2 SKT ST SCR, FLT PT.	2
103	750-0203	5/16-18 X 2 HEX HEAD BOLT	3
104	770-0081	5/16-18 HEX NUT	4
105	745-0150	5/16 FLAT WASHER	4
106	770-0178	5/16 SPLIT LOCK WASHER	4
107	745-0094	5/16 X 1-1/16 SPACER FOR GRBOX	3
108	745-0185	5/16ID X 1/2OD X 3/16 SPCR	2
109	770-0058	3/8-16 HEX NUT	2
110	745-0073	3/8ID FLNGD BRONZE BUSHING	1
111	745-0160	1/2ID X 7/8OD X 14GA.BUSHING	1
112	740-0369	1/2ID FLNGD BRONZE BUSHING	7
113	745-0062	PULLEY, 2" IDLER	2
114	795-0044	GREASE ZERK, 90°	1
115	745-0063	TENSION SPRING	2
5HP MOTOR PACKAGE for 820			
116	704-0003	MOTOR,5HP/1PH.220V,184 FRAME	1
117	745-0303	PULLEY, 7-3/4"OD (MOTOR)	1
118	745-0304	PULLEY REDUCER, 1-1/8ID	1
119	745-0700	WIRE,10-3 AMERICAN WIRE GAUGE	13
120	708-0008	PLUG 230V, 30/50 AMP (EAGLE)	1
122	745-0692	MAGNETIC 3 PHASE SWITCH	1
123	705-0084	10-32 X 3/4 RD HD MACH SCREW	4
124	745-0107	10-32 HEX NUT	8
125	715-0191	3/16 INTL LOCK WASHER	8
127	770-0179	5/16-18 X 3/4 CARR. BOLT	4
128	770-0081	5/16-18 HEX NUT	4
129	745-0150	5/16 FLAT WASHER	4
130	770-0178	5/16 SPLIT LOCK WASHER	4
131	745-0693	STRAIN RELIEF, 3/4" ROMEX	3
132	745-0681	TERMINAL,SPADE,YELLOW 10-2AWG	3
133	745-0679	WIRE NUT, RED, MAX. #5-12	2
	745-0678	WIRE NUT, YELLOW, MAX. #3-12	1
135	745-0665	V-BELT #6863-1/2 X 63 P.R.	1
	745-1226	DECAL, WARNING-POWER CORD	1

PARTS BREAKDOWN
MODEL 816 VS PLANER



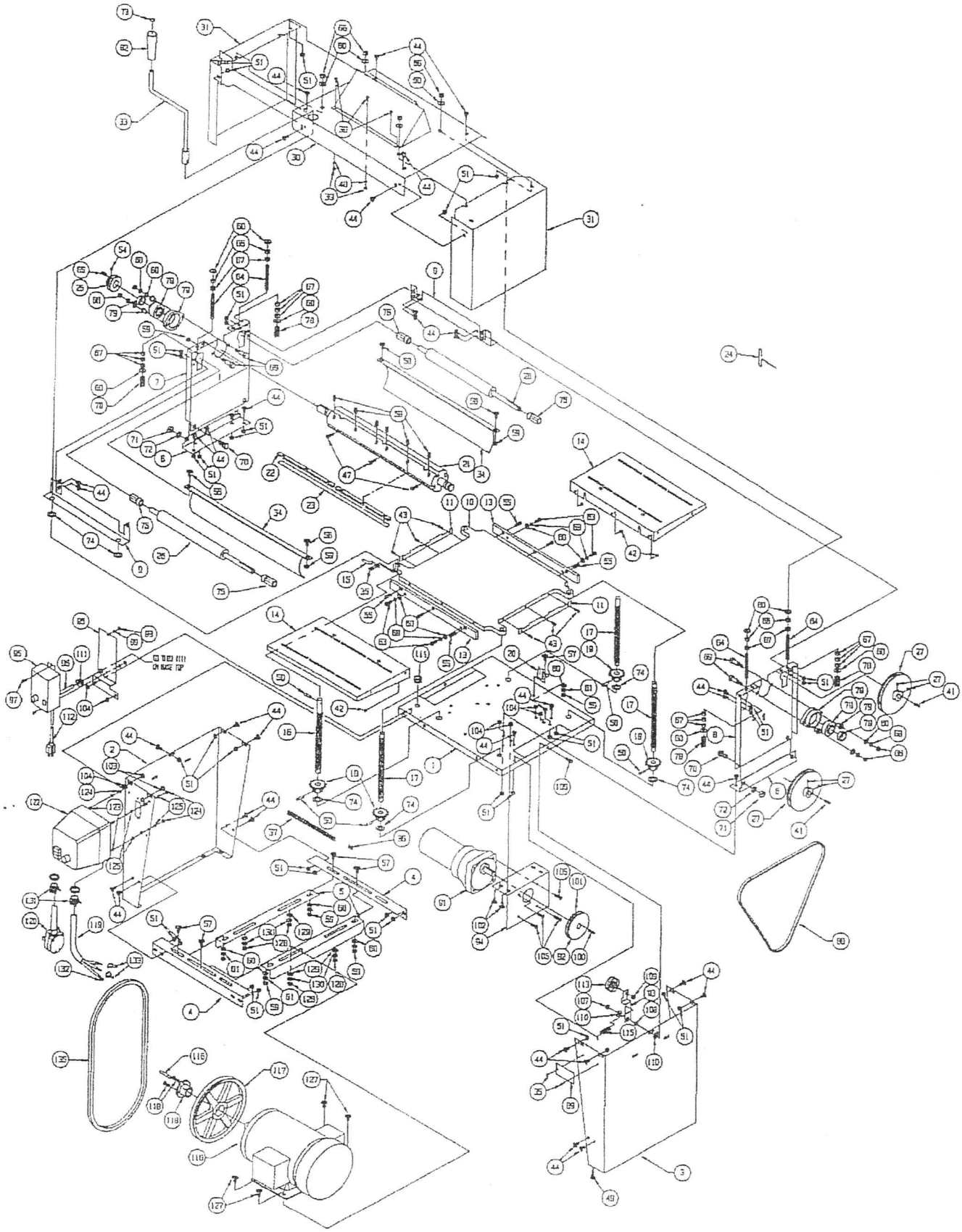
PARTS LIST MODEL 816 VS PLANER

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use the key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.
001	634-0003	BASE TOP	1
002	645-6270	LEFT SKIRT, #816/820	1
003	645-2271	RIGHT SKIRT, #816/820	1
004	634-0014	MOUNT SUPPORT	2
005	645-0281	MOTOR MOUNT BAR	2
006	664-0007	SIDE MOUNT BRACKET	2
007	645-2268	L.H. SIDE, #816/820	1
008	645-2265	R.H. SIDE, #816/820	1
009	634-0008	TOP BAR	2
010	634-0001	TABLE, #816	1
011	645-1297	PLANER BED RAIL	2
013	634-0013	EXT. TABLE ADJ. BAR	2
014	634-0012	EXT. TABLE WELDMENT	2
015	645-1074	POINTER, PLANERS	1
016	665-1034	CRANK SCREW, #816/820	1
017	665-1005	CORNER SCREW, #816/820	3
019	665-0004	SPROCKET - THREADED	4
020	645-0045	CHAIN TIGHTENER	1
021	634-0002	#816 PLANER HEAD	1
022	634-0015	GIB, STEEL, 8-1/4" (#816)	8
023	803-0003	16-1/2" PLANER BLADE, 816	4
024	795-0059	5/32 T-HANDLE ALLEN WRENCH	1
025	645-0662	PULLEY, 3-1/8OD	1
026	634-0017	N/M #816 FD ROLLER, KEYED	2
027	745-2091	FD ROLLER PULLEY, KYD W/2SS	2
030	634-0004	HOOD TOP WELDMENT	1
031	645-1285	HOOD ENDS	2
033	645-0279	CRANK WELDMENT	1
034	634-1006	CHIP DEFLECTOR, #816	2
035	770-0052	#4X1/4 RD HD DR SCRW	4
036	745-0410	#41 CHAIN MASTER CONNECT LINK	1
037	745-0313	#41 ROLLER CHAIN	7
038	745-0106	10-32 X 1/2 RH MACH SCRW	3
039	745-0107	10-32 HEX NUT	3
040	715-0191	3/16 INTL LOCK WASHER	3
041	745-0712	3/16 X 1 SQUARE KEY	2
042	770-0083	1/4-20 X 1/4 SSS (CUP PT)	6
043	725-0043	1/4-20 X 1/2 HEX HD BOLT	6
044	745-0099	1/4-20 X 5/8 CARR. BOLT	37
047	770-0182	1/4-28 X 3/4 FL HD SKT CP SCREW	12
049	715-0166	1/4-20 X 1 CARR. BOLT	4
050	770-0059	1/4 X 1-1/8 ROLL PIN	5
051	745-0223	1/4-20 FLNGD LK/WHIZ NT	45
054	770-0185	5/16-18 X 5/16 SOC.SS,CP PT.	1
055	770-0092	5/16-18 X 5/8 SOC.HD.CAP SCREW	6
056	770-0181	5/16-18 X 1 HX HD BOLT	4
057	770-0179	5/16-18 X 3/4 CARR. BOLT	5
058	795-0066	5/16-24 X 5/8 SSS, CP PT, UNB	24
059	770-0081	5/16-18 HEX NUT	9
060	745-0150	5/16 FLAT WASHER	25
061	770-0178	5/16 SPLIT LOCK WASHER	5
063	750-0212	3/8-16 X 3/4 HX HD BOLT	4
064	745-0047	3/8-16 X 4 FULL THD STUD	4
065	770-0089	3/8 X 1 SQUARE KEY	1
066	770-0058	3/8-16 HEX NUT	12
067	770-0073	3/8-16 HEX JAM NUT	16
068	770-0071	3/8 SPLIT LOCK WASHER	8
069	745-0415	1/2 X 3/4 SHOULDER BOLT	4
070	745-0035	1/2-13 X 1 HEX HEAD BOLT	4
071	770-0069	1/2-13 HEX NUT	4
072	745-0011	1/2 SPLIT LOCK WASHER	4
073	745-0164	1/2ID RETAINER, PLANER HANDLE	1
074	740-0549	5/8ID X 1-1/8OD X 18GA. WASHER	8
075	765-0057	5/8ID FEED ROLLER BUSHING	4
078	765-0019	COMPRESSION SPRING, #816/820	4
079	660-0003	BEARING CLR, HSNG., 1-1/2"	2
082	745-0149	PLASTIC HANDLE GRIP	1
086	745-0147	V-BELT#1420-3/8 X 42	1
088	745-0148	V-BELT #1550-3/8 X 55"	
089	706-0816	SERIAL # TAG 816	1
090	703-2929	MANUAL, RBI PLANERS	1
	703-0200	MANUAL,CUSTOM KNIFE CATALOG	1
	703-0300	MANUAL, CUSTOM KNIFE PRICES	1
	703-0700	WARRANTY CARD GENERAL	1
	702-0008	DECAL, 7" PLANER SCALE	1
	702-0030	DECAL, CAUTION (1.75" X 2.5")	1
	745-0203	DECAL, CAUTION, PLANER IN-FEED	1
	702-0029	DECAL, COMMERCIAL MADE IN USA	2
	702-0027	DECAL, CUTTERHEAD BEARINGS	1
	745-0205	DECAL, MADE IN USA-OCTAGON	1
	702-0007	DECAL, PATENT #D268843	1
	745-0202	DECAL, PLANER "UP"	1
	702-0002	DECAL, RBI MADE IN USA (ROUND)	1
	745-0204	DECAL, CAUTION-KEEP HANDS CLR	2
	702-0015	DECAL, RBI MADE IN USA, 1.75" X 3"	1
	702-0032	DECAL, CUTTERHEAD WARNING	1
	702-0033	DECAL, RECHECK/TIGHTEN GIB SCRWS	1
	645-0316	CRANK HANDLE ASSEMBLY	1
	745-0207	DECAL, WEAR EYE PROTECTION	1

Key #	Part #	Description	Qty.
GEAR MOTOR PACKAGE			
091	745-0775	GEAR MOTOR	1
092	634-1021	GEAR MOTOR PULLEY, 4" DIA	1
093	645-0146	GBOX RED. DR IDLER ARM	1
094	608-2044	GEAR MOTOR MOUNT	1
095	745-0770	GEAR MOTOR CONTROLLER	1
096	626-1027	CONTROL MNT. BACK PLATE	1
097	745-0106	10-32 X 1/2 RH MACH SCRW	2
098	745-0107	10-32 HEX NUT	2
099	715-0191	3/16 INTL LOCK WASHER	2
100	745-0712	3/16 X 1 SQUARE KEY	1
101	770-0083	1/4-20 X 1/4 SSS (CUP PT)	1
102	745-0099	1/4-20 X 5/8 CARR. BOLT	4
103	735-0029	1/4-20 X 3/4 CARR. BOLT	2
104	745-0223	1/4-20 FLNGD LK/WHIZ NUT	8
105	715-0280	1/4-28 X 3/4 HEX HEAD BOLT	4
106	795-0063	5/16-18 X 3/4HEX HD BOLT	1
107	770-0081	5/16-18 HEX NUT	1
108	745-0158	5/16ID X 1/2OD X 3/16 SPACER	1
109	770-0058	3/8-16 HEX NUT	1
110	745-0150	5/16 FLAT WASHER	2
111	715-0230	RUBBER GROMMET	2
113	745-0062	PULLEY, 2" IDLER	1
115	745-0063	TENSION SPRING	1
5HP MOTOR PACKAGE for 816			
116	704-0003	MOTOR, 5HP/1PH. , 220V, 184 FRAME	1
117	745-0303	PULLEY, 7-3/4OD (MOTOR)	1
118	745-0304	PULLEY REDUCER, 1-1/8ID	1
119	745-0700	WIRE,10-3 AMERICAN WIRE GAUGE	13
120	708-0008	PLUG 230V, 30/50 AMP (EAGLE)	1
122	745-0692	MAGNETIC 3 PHASE SWITCH	1
123	705-0084	10-32 X 3/4 RD HD MACH SCREW	4
124	745-0107	10-32 HEX NUT	8
125	715-0191	3/16 INTL LOCK WASHER	8
127	770-0179	5/16-18 X 3/4 CARR. BOLT	4
128	770-0081	5/16-18 HEX NUT	4
129	745-0150	5/16 FLAT WASHER	4
130	770-0178	5/16 SPLIT LOCK WASHER	4
131	745-0693	STRAIN RELIEF, 3/4" ROMEX	3
132	745-0681	TERMINAL,SPADE,YELLOW 10-2AWG	3
133	745-0679	WIRE NUT, RED, MAX. 5-#12	2
	745-0678	WIRE NUT, YELLOW, MAX. #3-12	1
135	745-0665	V-BELT #6863-1/2 X 63 P.R.	1
	745-1226	DECAL, WARNING-POWER CORD	1

PARTS BREAKDOWN
MODEL 820 VS PLANER



PARTS LIST MODEL 820 VS PLANER

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use the key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.
001	608-2003	BASE TOP, #816/820	1
002	645-6270	LEFT SKIRT, #816/820	1
003	645-2271	RIGHT SKIRT, #816/820	1
004	608-1004	MOUNT SUPPORT	2
005	645-0281	MOTOR MOUNT BAR	2
006	664-0007	SIDE MOUNT BRACKET	2
007	645-2268	L.H. SIDE, #816/820	1
008	645-2265	R.H. SIDE, #816/820	1
009	645-0269	TOP BAR	2
010	645-1262	TABLE, #820	1
011	645-1297	PLANER BED RAIL	2
013	645-0300	EXT. TABLE ADJ. BAR	2
014	645-0272	EXT. TABLE WELDMENT	2
015	645-1074	POINTER, PLANERS	1
016	665-1034	CRANK SCREW, #816/820	1
017	665-1005	CORNER SCREW, #816/820	3
019	665-0004	SPROCKET - THREADED	4
020	645-0045	CHAIN TIGHTENER	1
021	608-3013	#820 PLANER HEAD	1
022	645-0727	GIB, STEEL, 10-1/4" (#820)	8
023	803-0002	20-1/2" PLANER BLADE, 820	4
024	795-0059	5/32 T-HANDLE ALLEN WRENCH	1
025	645-0662	PULLEY, 3-1/8OD	1
026	645-0736	N/M #820 FD ROLLER, KEYED	2
027	745-2091	FD ROLLER PULLEY, KYD W/2SS	2
030	608-3001	HOOD TOP WELDMENT	1
031	645-1285	HOOD ENDS	2
033	645-0279	CRANK WELDMENT	1
034	608-1039	CHIP DEFLECTOR, #820	2
035	770-0052	#4X1/4 RD HD DR SCRW	4
036	745-0410	#41 CHAIN MASTER CONNECT LINK	1
037	745-0313	#41 ROLLER CHAIN	7
038	745-0106	10-32 X 1/2 RH MACH SCRW	3
039	745-0107	10-32 HEX NUT	3
040	715-0191	3/16 INTL LOCK WASHER	3
041	745-0712	3/16 X 1 SQUARE KEY	2
042	770-0083	1/4-20 X 1/4 SSS (CUP PT)	6
043	725-0043	1/4-20 X 1/2 HEX HD BOLT	6
044	745-0099	1/4-20 X 5/8 CARR. BOLT	37
047	770-0182	1/4-28 X 3/4 FL HD SKT CP SCREW	12
049	715-0166	1/4-20 X 1 CARR. BOLT	4
050	770-0059	1/4 X 1-1/8 ROLL PIN	5
051	745-0223	1/4-20 FLNGD LK/WHIZ NT	45
054	770-0185	5/16-18 X 5/16 SOC.SS,CP PT.	1

Key #	Part #	Description	Qty.
055	770-0092	5/16-18 X 5/8 SOC.HD.CAP SCREW	6
056	770-0181	5/16-18 X 1 HX HD BOLT	4
057	770-0179	5/16-18 X 3/4 CARR. BOLT	5
058	795-0066	5/16-24 X 5/8 SSS, CP PT, UNB	24
059	770-0081	5/16-18 HEX NUT	9
060	745-0150	5/16 FLAT WASHER	25
061	770-0178	5/16 SPLIT LOCK WASHER	5
063	750-0212	3/8-16 X 3/4 HX HD BOLT	4
064	745-0047	3/8-16 X 4 FULL THD STUD	4
065	770-0089	3/8 X 1 SQUARE KEY	1
066	770-0058	3/8-16 HEX NUT	12
067	770-0073	3/8-16 HEX JAM NUT	16
068	770-0071	3/8 SPLIT LOCK WASHER	8
069	745-0415	1/2 X 3/4 SHOULDER BOLT	4
070	745-0035	1/2-13 X 1 HEX HEAD BOLT	4
071	770-0069	1/2-13 HEX NUT	4
072	745-0011	1/2 SPLIT LOCK WASHER	4
073	745-0164	1/2ID RETAINER, PLANER HANDLE	1
074	740-0549	5/8ID X 1-1/8OD X 18GA. WASHER	8
075	765-0057	5/8ID FEED ROLLER BUSHING	4
078	765-0019	COMPRESSION SPRING, #816/820	4
079	660-0003	BEARING CLR, HSNG., 1-1/2"	2
082	745-0149	PLASTIC HANDLE GRIP	1
086	745-0147	V-BELT #1420-3/8 X 42	1
088	745-0148	V-BELT #1550-3/8 X 55"	
089	706-0820	SERIAL # TAG 820	1
090	703-2929	MANUAL, RBI PLANERS	1
	703-0200	MANUAL,CUSTOM KNIFE CATALOG	1
	703-0300	MANUAL, CUSTOM KNIFE PRICES	1
	703-0700	WARRANTY CARD GENERAL	1
	702-0008	DECAL, 7" PLANER SCALE	1
	702-0030	DECAL, CAUTION (1.75" X 2.5")	1
	745-0203	DECAL, CAUTION, PLANER IN-FEED	1
	702-0029	DECAL, COMMERCIAL MADE IN USA	2
	702-0027	DECAL, CUTTERHEAD BEARINGS	1
	745-0205	DECAL, MADE IN USA-OCTAGON	1
	702-0007	DECAL, PATENT #D268843	1
	745-0202	DECAL, PLANER "UP"	1
	702-0002	DECAL, RBI MADE IN USA (ROUND)	1
	745-0204	DECAL, CAUTION-KEEP HANDS CLR	2
	702-0015	DECAL, RBI MADE IN USA, 1.75" X 3"	1
	702-0032	DECAL, CUTTERHEAD WARNING	1
	702-0033	DECAL, RECHECK/TIGHTEN GIB SCRWS	1
	645-0316	CRANK HANDLE ASSEMBLY	1
	645-0726	GEAR MOTOR PACKAGE, 816&820	1

Key #	Part #	Description	Qty.
GEAR MOTOR PACKAGE			
091	745-0775	GEAR MOTOR	1
092	634-1021	GEAR MOTOR PULLEY, 4" DIA	1
093	645-0146	GBOX RED. DR IDLER ARM	1
094	608-2044	GEAR MOTOR MOUNT	1
095	745-0770	GEAR MOTOR CONTROLLER	1
096	626-1027	CONTROL MNT. BACK PLATE	1
097	745-0106	10-32 X 1/2 RH MACH SCRW	2
098	745-0107	10-32 HEX NUT	2
099	715-0191	3/16 INTL LOCK WASHER	2
100	745-0712	3/16 X 1 SQUARE KEY	1
101	770-0083	1/4-20 X 1/4 SSS (CUP PT)	1
102	745-0099	1/4-20 X 5/8 CARR. BOLT	4
103	735-0029	1/4-20 X 3/4 CARR. BOLT	2
104	745-0223	1/4-20 FLNGD LK/WHIZ NUT	8
105	715-0280	1/4-28 X 3/4 HEX HEAD BOLT	4
106	795-0063	5/16-18 X 3/4HEX HD BOLT	1
107	770-0081	5/16-18 HEX NUT	1
108	745-0158	5/16ID X 1/2OD X 3/16 SPACER	1
109	770-0058	3/8-16 HEX NUT	1
110	745-0150	5/16 FLAT WASHER	2
111	715-0230	RUBBER GROMMET, 1/2"ID	2
113	745-0062	PULLEY, 2" IDLER	1
115	745-0063	TENSION SPRING	1
5HP MOTOR PACKAGE for 820			
116	704-0003	MOTOR, 5HP/1PH., 220V, 184 FRAME	1
117	745-0303	PULLEY, 7-3/4OD (MOTOR)	1
118	745-0304	PULLEY REDUCER, 1-1/8ID	1
119	745-0700	WIRE,10-3 AMERICAN WIRE GAUGE	13
120	708-0008	PLUG 230V, 30/50 AMP (EAGLE)	1
122	745-0692	MAGNETIC 3 PHASE SWITCH	1
123	705-0084	10-32 X 3/4 RD HD MACH SCREW	4
124	745-0107	10-32 HEX NUT	8
125	715-0191	3/16 INTL LOCK WASHER	8
127	770-0179	5/16-18 X 3/4 CARR. BOLT	4
128	770-0081	5/16-18 HEX NUT	4
129	745-0150	5/16 FLAT WASHER	4
130	770-0178	5/16 SPLIT LOCK WASHER	4
131	745-0693	STRAIN RELIEF, 3/4" ROMEX	3
132	745-0681	TERMINAL,SPADE,YELLOW 10-2AWG	3
133	745-0679	WIRE NUT, RED, MAX. 5-#12	2
	745-0678	WIRE NUT, YELLOW, MAX. #3-12	1
135	745-0665	V-BELT #6863-1/2 X 63 P.R.	1
	745-1226	DECAL, WARNING-POWER CORD	1

MOLDING ACCESSORIES

MOLDING ACCESSORIES FOR THE RBI PLANER-MOLDERS

There are a wide range of molding accessories available for the RBI planers to make them versatile molders. Wider knives must be ran in custom knife holders. There is a wide variety of custom knife holders. These include single slot knife holders to run a single knife or holders to run multiple knives of the same profile. There are separate versions for flat backed and corrugated backed knives.

RBI has over 400 knives in stock (Custom Stock Knives), to cut crowns, coves, beds, half rounds, base shoe, panel moldings, battens, picture molding, base caps, quarter rounds, wainscot, chair rails, casing, base molding, etc. Ask for our custom molding pattern knives catalog.

RBIndustries can also custom grind special knives to your pattern (Custom Special Knives). You can create your own custom moldings, decorative picture frames, etc. Call us for a free quote.

To guide the stock through the machine RBIndustries offers a Guide Board Assembly for each machine, which can be used with any of our molding head assemblies.

When ordering Custom Knives please specify the following, to make sure we send the right spacers and counterbalance weights for your applications: model number of your planer, if the knife will be used in a Custom Knife Holder and which model knife holder.

MOLDING HEAD ASSEMBLY

1. Disconnect the electrical source (unplug the machine).
2. Install the Guide Board Assembly (see GUIDE BOARD ASSEMBLY).
3. Remove the planers cutterhead, or the Quick Change Molding Head assembly from the planer (see REMOVING AND REPLACING THE CUTTERHEAD).
4. Install the Custom Knife Holder on the Quick Change Molding Head assembly (see fig. B-1).

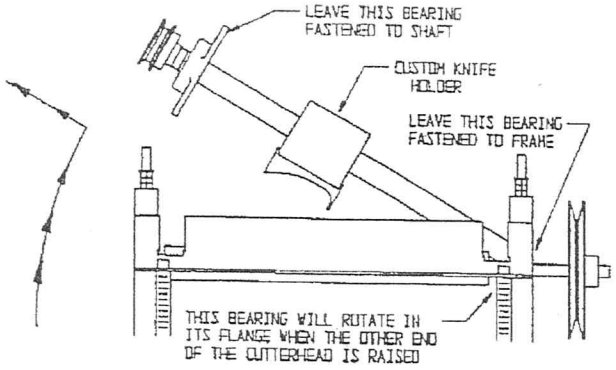


Fig. B-1

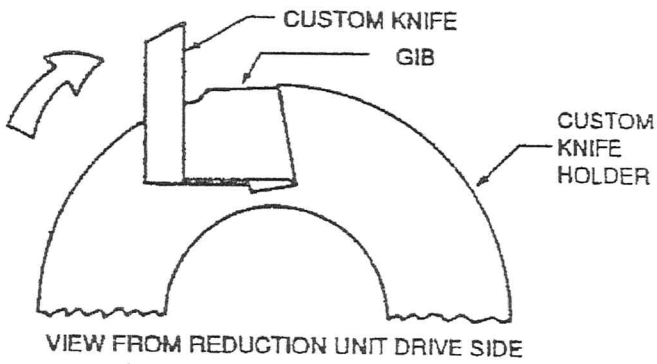


Fig. B-2

5. Reinstall the Quick Change Molding Head assembly in the planer (see REMOVING AND REPLACING THE CUTTERHEAD).
6. To install the knife in the Custom Knife Holder, first place the gib in the slot, on the side with the groove at the bottom. Make sure the set screw heads in the gib are up, and the radius on the gib is next to where the knife will be. On corrugated backed knives, the knife should be installed first, then the gib should be slid in from the end.
7. Place the knife in the slot next to the gib, with the leading edge next to the gib (see fig. B-2).
8. Tighten the set screws in the gib and make sure the gib doesn't pull the knife up in the slot.
9. See POSITIONING STOCK UNDER CUSTOM KNIFE.

For setting up multi-slot knife holders follow the procedure for the single slot knife holder, except step 6, step 7, and step 8 will need to be repeated for the other slot(s). Line the other knife(s) up side to side with the first knife by measuring from the side of the planer to the inside of the leg on the knife.

CORRUGATED MOLDING HEAD ASSEMBLY PARTS LIST

900-9301 for the 812B

Key #	Part #	Description	Qty.
01	695-1034	ACCESSORY SHAFT, 812B	1
02	695-0020	PULLEY, 2-1/4OD, 1ID	1
03	695-0064	CUSTOM KNIFE HOLDER, 405-C	2
04	770-0083	1/4-20 X 1/4 SSS (CUP PT)	5
05	745-0093	1/4 X 3/4 SQUARE KEY	5
06	770-0179	5/16-18 X 3/4 CARRIAGE BOLT	2
07	770-0081	5/16 HEX NUT	2
08	770-0178	5/16 SPLIT LOCKWASHER	2
09	770-0072	5/16ID X 3/4OD X .01 NYSPACER	2
10	795-1030	BEARING 1"	1
11	745-0058	FLANGETTE(FOR 1" BEARING)	2

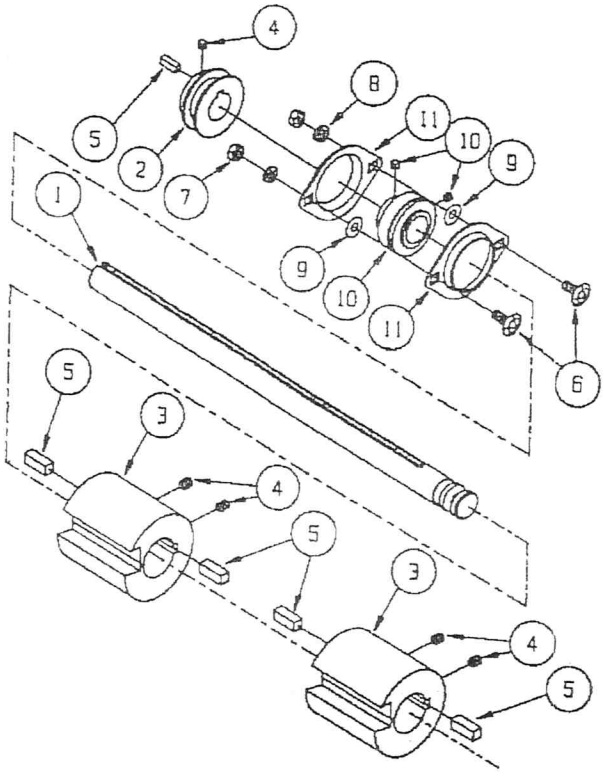
900-0824 for the 816

Key #	Part #	Description	Qty.
01	634-0019	ACCESSORY SHAFT, 816	1
02	645-0662	PULLEY, 3-1/8OD, 1-1/2ID	1
03	608-0035	CUSTOM KNIFE HOLDER,605-C	2
04	770-0185	5/16-18 X 5/16 SSS (CUP PT)	5
05	770-0089	3/8 X 1 SQUARE KEY	5
06	660-0003	BEARING, COLLAR,HSNG,1-1/2"	1

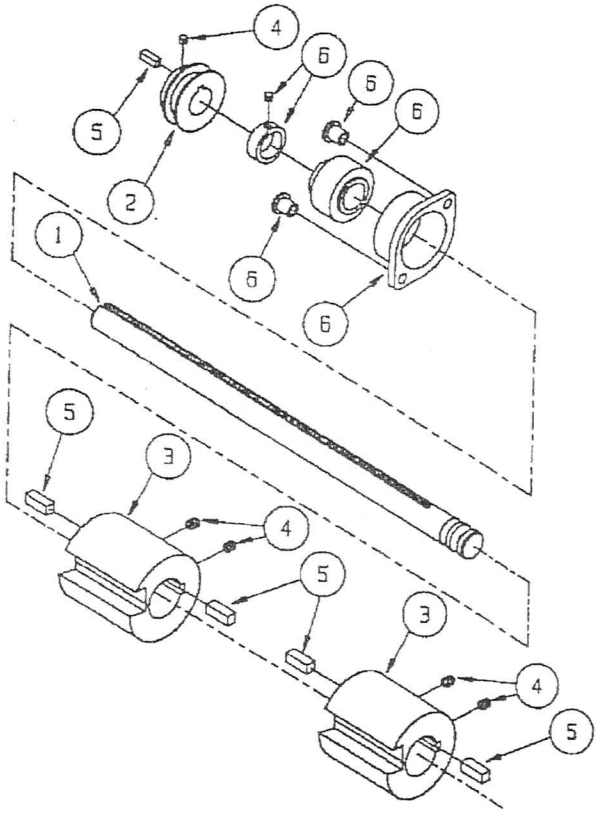
900-0101 for the 820

KEY #	Part #	Description	Qty.
01	608-0016	ACCESSORY SHAFT, 820	1
02	645-0662	PULLEY, 3-1/8OD, 1-1/2ID	1
03	608-0035	CUSTOM KNIFE HOLDER, 605-C	2
04	770-0185	5/16-18 X 5/16 SSS (CUP PT)	5
05	770-0089	3/8 X 1 SQUARE KEY	5
06	660-0003	BEARING, COLLAR,HSNG,1-1/2"	1

MOLDING HEAD ASSEMBLY PARTS BREAKDOWN



Parts Breakdown Molding Head Assembly
for the 812B



Parts Breakdown Molding Head Assembly
for the 816 and 820

CUSTOM KNIFE HOLDERS

Custom Stock Knives (knives we keep in stock) or Custom Special Knives (knives ground to your design) may be used in the Custom Knife Holders.

Custom knives should be mounted and ran in the custom knife holders. There is a wide variety of custom knife holders, these include single slot knife holders to run a single knife or holders to run multiple knives of the same profile. There are versions for flat backed knives and ones for corrugated backed knives. Please see the chart on the following page.

Custom Stock Knives and Custom Special Knives must be used with the gib supplied with that particular knife due to balancing. Custom Knives must be run in the manner that they were balanced for. Custom knives are packed in individual packages. This package shows the P.O. # and application information for that knife. The purchase order number is important on custom special knives, if you ever want that knife sharpened or another knife made we will need the original P.O. #. It is a good idea to return the knife to the package for storage. This keeps the knife and gib together and with the application information for that knife.

When running two custom knife holders side by side with a single longer knife across the two holders, tighten the knife in the holders before locking the knife holders to the shaft. There is some tolerance in the keyway on the knife holders so they will slide on the shaft easily. If you tighten the knife holders on the shaft first, there may be some misalignment between the two holders. This will make the knife prone to breaking between the two holders.

CAUTION: The single slot Custom Knife Holder can not be run without knife and gib installed, due to balancing.

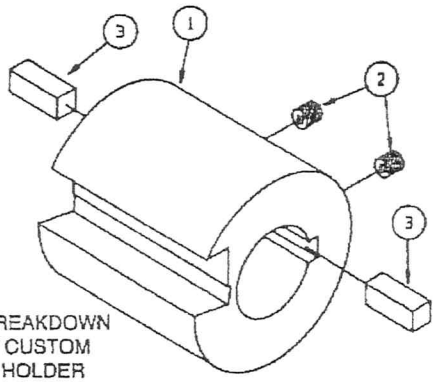
CAUTION: Tighten the set screws in the molding knife gibs very tight. Recheck each set screw before running. After the machine has run about five minutes recheck the gibs again. A molding knife not properly installed in the head may be thrown from the head causing damage to the knife and gib, guideboard, molding, and any person in its path.

CAUTION: Custom Knives are not to overhang the ends of the Custom Knife Holder by more than 3/8 inch. Otherwise the knife will be prone to breaking. For longer knives two Custom Knife Holders must be run side by side.

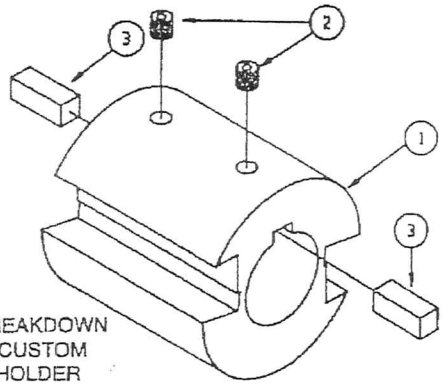
CUSTOM KNIFE HOLDERS

Holder Model #	Holder Part #	No. of Knives	Type of Knife	Machine Model #
402-C	903-0002	1	Flat	812B
802-C	901-0500	2	Flat	812B
602-C	901-2500	1	Flat	816 & 820
502-C	901-2501	2	Flat	816 & 820
702-C	901-2600	3	Flat	816 & 820
405-C	901-0501	1	Corr.	812B
805-C	901-0502	2	Corr.	812B
605-C	901-0503	1	Corr.	816 & 820
505-C	901-0504	2	Corr.	816 & 820
705-C	901-0505	3	Corr.	816 & 820

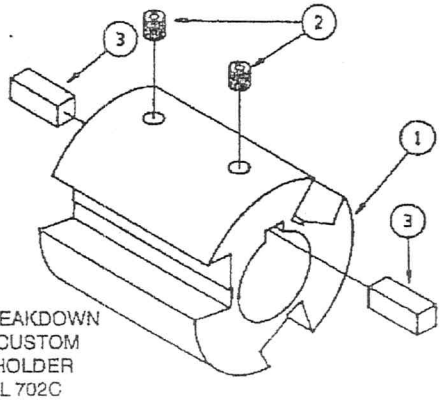
CUSTOM KNIFE HOLDER PARTS BREAKDOWN



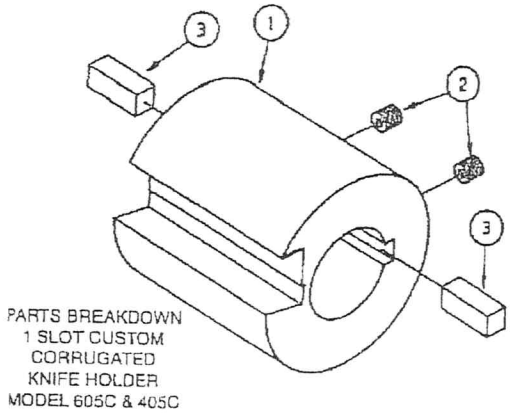
PARTS BREAKDOWN
1 SLOT CUSTOM
KNIFE HOLDER
MODEL 402C & MODEL 602C

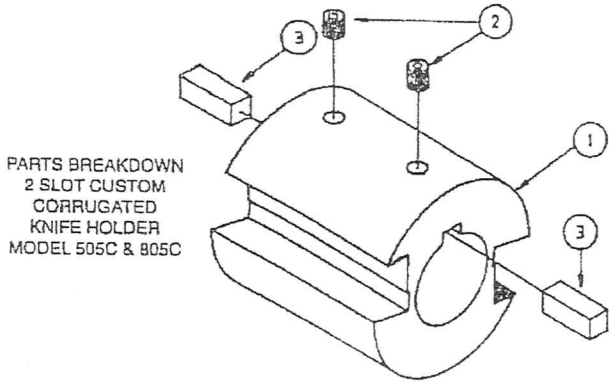


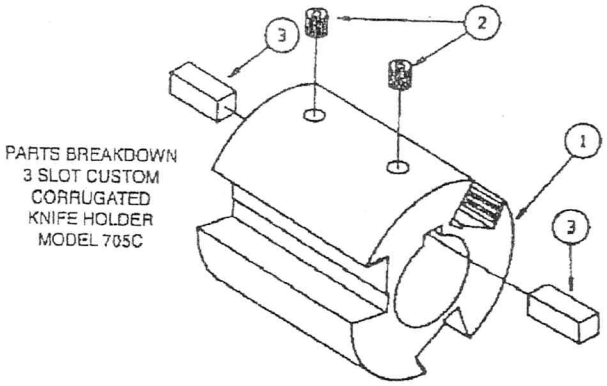
PARTS BREAKDOWN
2 SLOT CUSTOM
KNIFE HOLDER
MODEL 802C & 502C



PARTS BREAKDOWN
3 SLOT CUSTOM
KNIFE HOLDER
MODEL 702C







CUSTOM KNIFE HOLDER PARTS LIST

901-2500 Model 602C, 1 slot, for 816/820

Key #	Part #	Description	Qty.
1	645-0040	CUSTOM KNIFE HOLDER,602-C	1
2	770-1850	5/16-18 X 5/16 SOC.SS,CUP PT.	2
3	770-0089	3/8 X 1 SQUARE KEY	2

901-2501 Model 502C, 2 slot for 816/820

Key #	Part #	Description	Qty.
1	645-0667	CUSTOM KNIFE HOLDER,502-C	1
2	770-1850	5/16-18 X 5/16 SOC.SS,CUP PT.	2
3	770-0089	3/8 X 1 SQUARE KEY	2

901-2600 Model 702C, 3 slot for 816/820

Key #	Part #	Description	Qty.
1	645-0323	CUSTOM KNIFE HOLDER,702-C	1
2	770-1850	5/16-18 X 5/16 SOC.SS,CUP PT.	2
3	770-0089	3/8 X 1 SQUARE KEY	2

903-0002 Model 402C, 1 slot for 812B

Key #	Part #	Description	Qty.
1	645-3402	CUSTOM KNIFE HOLDER,402-C	1
2	770-0083	1/4-20 X 1/4 SOC.SS,CUP PT.	2
3	745-0093	1/4 X 3/4 SQUARE KEY	2

901-0500 Model 802C, 2 slot for 812B

Key #	Part #	Description	Qty.
1	695-0035	CUSTOM KNIFE HOLDER, 802-C	1
2	770-0083	1/4-20 X 1/4 SOC.SS,CUP PT.	2
3	745-0093	1/4 X 3/4 SQUARE KEY	2

901-0503 Model 605C, 1 slot, for 816/820

Key #	Part #	Description	Qty.
1	608-0035	CUSTOM CORRUGATED KNIFE HOLDER,605-C	1
2	770-1850	5/16-18 X 5/16 SOC.SS,CUP PT.	2
3	770-0089	3/8 X 1 SQUARE KEY	2

901-0504 Model 505C, 2 slot, for 816/820

Key #	Part #	Description	Qty.
1	608-0036	CUSTOM CORRUGATED KNIFE HOLDER,505-C	1
2	770-1850	5/16-18 X 5/16 SOC.SS,CUP PT.	2
3	770-0089	3/8 X 1 SQUARE KEY	2

901-0505 Model 705C, 3 slot, for 816/820

Key #	Part #	Description	Qty.
1	608-0037	CUSTOM CORRUGATED KNIFE HOLDER,705-C	1
2	770-1850	5/16-18 X 5/16 SOC.SS,CUP PT.	2
3	770-0089	3/8 X 1 SQUARE KEY	2

901-0501 Model 405C, 1 slot, for 812B

Key #	Part #	Description	Qty.
1	695-0064	CUSTOM CORRUGATED KNIFE HOLDER,405-C	1
2	770-0083	1/4-20 X 1/4 SOC.SS,CUP PT.	2
3	745-0093	1/4 X 3/4 SQUARE KEY	2

901-0502 Model 805C, 2 slot, for 812B

Key #	Part #	Description	Qty.
1	695-0035	CUSTOM CORRUGATED KNIFE HOLDER,805-C	1
2	770-0083	1/4-20 X 1/4 SOC.SS,CUP PT.	2
3	745-0093	1/4 X 3/4 SQUARE KEY	2

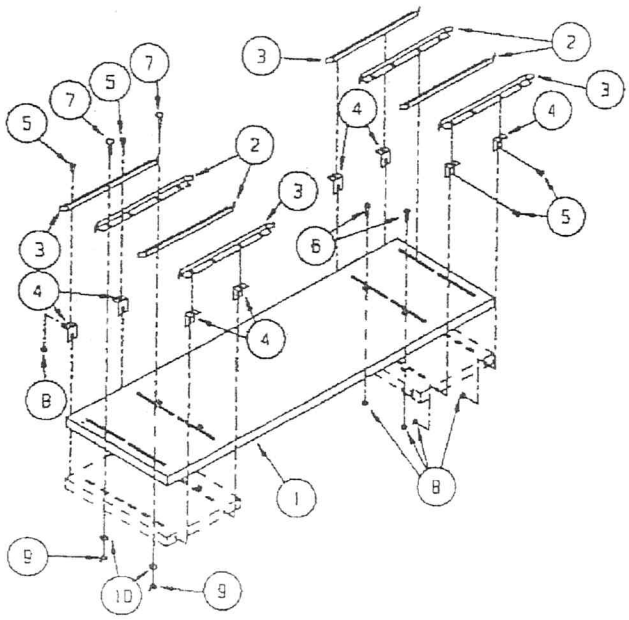
GUIDE BOARD ASSEMBLY

The following instructions are provided for installation of the guide board assembly. See the GUIDE BOARD ASSEMBLY PARTS BREAKDOWN for identification of parts.

1. Unpack the guide board assembly and make sure all of the parts were received, see GUIDE BOARD ASSEMBLY PARTS LIST.
2. Unplug the machine.
3. Lower the planer bed to its lowest possible position.
4. Slide the guide board base through the planer and position it over the bed and extension tables. Tilting the guide board base may be necessary to insert it through the planer.
5. Mount the (8) eight rail brackets to the sides of the planer extension tables with the 1/4-20 x 1/2 Hex Head Bolts and whiz nuts. Put the long side of the rail bracket against the extension table, and adjust so the top is flush with the top of the guide board base.
6. Place the guide rails on the base and position the square mounting holes over the slots in the guide board base. Use the set of holes that positions the guide rails closest to the planer. The outside guide rails will be positioned over the rail brackets and not over the guide board base.
7. Secure the center guide rails using 1/4-20 x 1-1/4 carriage bolts. Install the carriage bolts through the guide rails, guide board base, and extension tables. Install the flat washers and secure with wing nuts.
8. Secure the outside guide rails to the rail brackets with the 1/4-20 x 1/2 Hex Head Bolts and whiz nuts.
9. Next secure the assembly to the planer using the (4) 1/4-20 x 1 hex head bolts and whiz nuts. There are (4) four holes in the guide board base for this purpose.
10. Adjust the height of the outside guide rails by raising or lowering the extension table brackets.

The guide board assembly is now ready for operation. Adjust the position and spacing of the guide rails as needed. See POSITIONING STOCK UNDER CUSTOM KNIFE HOLDER.

GUIDE BOARD ASSEMBLY PARTS BREAKDOWN



GUIDE BOARD ASSEMBLY PARTS LIST

903-1700 for the 812B

Key #	Part #	Description	Qty.
01	695-2040	GUIDE BOARD BASE, #812B	1
02	695-0041	GUIDE RAILS, #812/812B	8
04	645-1332	SIDE RAIL BRACKETS	8
05	725-0043	1/4-20 X 1/2 HEX HEAD BOLT	16
06	715-0072	1/4-20 X 1 FLAT HEAD CAP SCREW	4
07	750-0211	1/4-20 X 1-1/4 CARRIAGE BOLT	8
08	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	20
09	745-0176	1/4-20 FORGED WING NUT	8
10	745-0177	1/4-20 FLAT WASHER	8

900-0829 for the 816

Key #	Part #	Description	Qty.
01	634-0018	GUIDE BOARD BASE, #816	1
02	645-1258	GUIDE RAILS, #816/820	8
03	645-1260	SIDE GUIDE RAILS, #816/820	4
04	645-1332	SIDE RAIL BRACKETS	8
05	725-0043	1/4-20 X 1/2 HEX HEAD BOLT	16
06	715-0072	1/4-20 X 1 FLAT HEAD CAP SCREW	4
07	750-0211	1/4-20 X 1-1/4 CARRIAGE BOLT	16
08	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	20
09	745-0176	1/4-20 FORGED WING NUT	16
10	745-0177	1/4-20 FLAT WASHER	16

900-2300 for the 820

Key #	Part #	Description	Qty.
01	645-0325	GUIDE BOARD BASE, #816	1
02	645-1258	GUIDE RAILS, #816/820	8
03	645-1260	SIDE GUIDE RAILS, #816/820	4
04	645-1332	SIDE RAIL BRACKETS	8
05	725-0043	1/4-20 X 1/2 HEX HEAD BOLT	16
06	715-0072	1/4-20 X 1 FLAT HEAD CAP SCREW	4
07	750-0211	1/4-20 X 1-1/4 CARRIAGE BOLT	16
08	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	20
09	745-0176	1/4-20 FORGED WING NUT	16
10	745-0177	1/4-20 FLAT WASHER	16

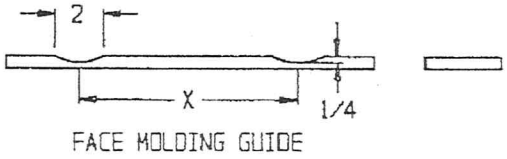
MAKING A GUIDE BOARD

If you elect not to purchase the Guide Board Assembly the following instructions are provided.

1. Table Preparation
   A. Disconnect the electrical source (unplug the machine).
   B. Place a board (1/2" plywood is fine) across the planer table and extension tables. This should be the same width as the planer table and extend to the ends of the extension tables.
   C. Secure the board to the extension tables using bolts or "C" clamps.

2. Face Molding Guides
   A. Use 1" x 1" or wider boards that extend to the ends of the extension tables.
   B. Center under the cutterhead and mark the feed roller locations on the boards.
   C. Cut 1/4" deep arcs to allow clearance of the feed rollers (see fig. B-8).
   D. Place the guides under the cutterhead and secure to the extension tables using bolts or "C" clamps.

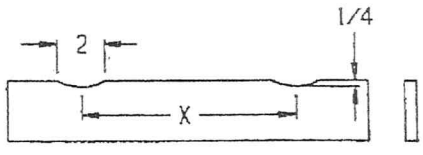
X = 8" for 812B



FACE MOLDING GUIDE

Fig. B-8

X = 9" for 816 &



EDGE MOLDING GUIDE

Fig. B-9

3. Edge Molding Guides
   A. Use 1" thick boards, 1/2" narrower than the board to be edge molded.
   B. Center under the cutterhead and mark the location of the feed rollers on the edge of the board.
   C. Cut 1/4" deep arcs to allow clearance of the feed rollers (see fig. B-9).
   D. Place the guides on edge under the cutterhead and secure with bolts or clamps.

POSITIONING STOCK UNDER THE CUSTOM KNIFE

CAUTION: You must use a board (plywood will work) over the planer table, or use the Guide Board Assembly. This will prevent the knives from hitting the planer table and allow the knives to cut into the guide board to clean up the sides of the molding.

1. Disconnect the electrical source (unplug the machine).
2. Remove the hood.
3. Adjust the guides on the guide board to the width of the stock to be molded and secure. Make sure the guides are at 90° to the cutterhead.

NOTE: If your knife has parting legs, lower the planer table until the parting legs on the knife will just clear the guide board base. Turn the machine on and raise the table 1/8" (2 complete turns of the crank). Turn the machine off and then proceed with the following steps.

4. Dimension wood stock to be molded to no more than 1/8 inch wider than width between knife legs. Attempting to remove excess stock with knife legs can result in knife breakage.
5. Lower the planer table until the stock to be molded will just barely slide under the infeed roller.
6. Position one knife straight down.
7. Slide the board to be molded under the infeed roller until the leading end of the board is against the knife.
8. Raise the bed up until the desired depth of cut is reached on the stock to be molded. This must be at least three full turns of the crank to produce ample feed roller pressure on the stock. On knives which have parting legs, the legs should be cutting 1/32" to 1/16" deep into the guideboard.

CAUTION: Without ample feed roller pressure on the stock, kickback will occur!

9. Slide the custom molding head along the shaft for proper alignment with the stock and tighten the set screws.
10. Crank the table down until the board will slide from under the feed rollers. Count the number of turns of the crank that are required.
11. Remove the stock.
12. Crank the table up the same number of turns that it was cranked down in step #9.
13. Be sure all bolts, set screws, etc. are tight.
14. Replace the hood and connect the electrical source. Make sure all tools, etc. are removed.
15. Turn the machine on and feed the stock to be molded into the machine.
16. Minor adjustments may be required.

SANDING ACCESSORIES

SANDPAPER INSTALLATION

Remove the planer head and install the sanding head, see REMOVING AND REPLACING THE CUTTERHEAD. Use either slow or fast feed rate for sanding, see FEED ROLLER SPEED CHANGE. The sandpaper can be installed with the sanding head in the machine or sitting on the cutterhead stand.

To install the velcro tape, follow the same procedure as sandpaper installation.

1. Remove old paper and the velcro tape (if the tape is bad). If the velcro tape is removed use mineral spirits or "Goo Gone™" to clean old glue from the head.
2. Unwind three or four feet of sandpaper.

NOTE: If velcro tape is not already installed on your sanding head, you will need to install it before the sandpaper.

3. Wrap the sandpaper around the head one time and mark where it meets the end (see fig. C-1).
4. Remove from the head and mark on the diagonal using a straight line. Then cut on the line (see fig. C-2).

	812B	816	820
Velcro	6.0'	9.0'	10.0'
Sandpaper	4.0'	6.0'	7.0'

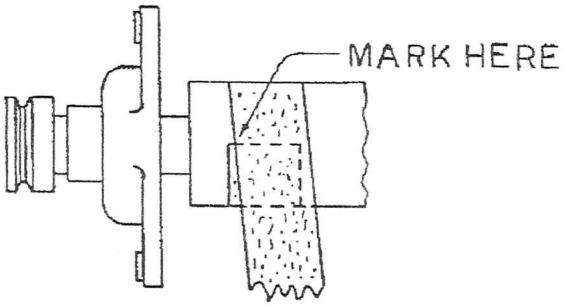


Fig. C-1

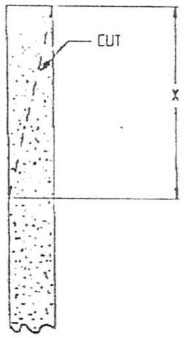


Fig. C-2

5. Apply the sandpaper to the head in a spiral. Start the cut edge at the drive end of the cutterhead and turn the cutterhead one revolution (see fig. C-3). Then align with the edge of the sandpaper and continue to turn the cutterhead (see fig. C-4). Be sure to get the sandpaper wrapped tightly.

NOTE: As you apply the velcro tape to the head, remove the paper from the back to expose the adhesive side.

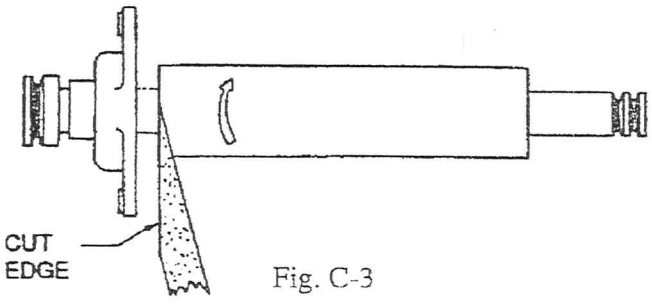


Fig. C-3

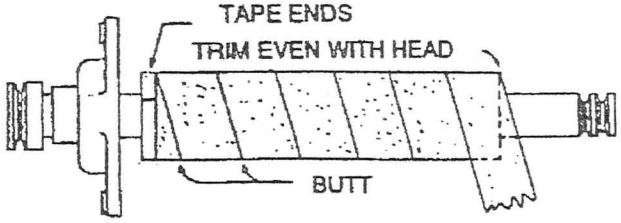


Fig. C-4

6. At the opposite end, trim the sandpaper even with the end of the sanding head.
7. To keep the ends from coming loose, wrap tape around both ends.
8. Replace the hood and connect the electrical source.

SANDING

Some woods, such as pine, which have large amounts of gums and resins will load up the sandpaper almost immediately and give poor results. These types of woods are not recommended for sanding. An "Open Kote" sandpaper is recommended for sanding high resin wood.

Use the sanding head to finish predimensioned boards or to remove up to 1/32" of material. Multiple passes may be necessary to acheive the desired amount of removal. Lighter sanding passes will produce smoother surface texture.

To remove loaded material from the sandpaper, use the abrasive belt cleaner, see USING THE ABRASIVE BELT CLEANER.

WITH THE MACHINE TURNED OFF:
1. Place the board to be sanded (min. length 9") under the roller.
2. Raise the planer table so the board just contacts the roller.
3. Remove the board.
4. Turn the planer crank up four turns. This will allow the board to be close to the sanding head.

TURN THE MACHINE ON:
5. Start the board into the machine straight.
6. After the board is under the cutterhead, slowly raise the table until the board contacts the sanding head (1 - 3 turns).

WARNING: Trying to take off too much will tear up the sandpaper.

7. Feed the board through again, raising the table no more than 1/8 turn of crank (.0075") for each pass. A lighter sanding pass will produce a smoother surface. As the sandpaper wears down, the finish will improve.

WARNING: Do not sand wood with nails or other metal objects in them, due to fire and dust explosion hazard.

USING THE ABRASIVE BELT CLEANER

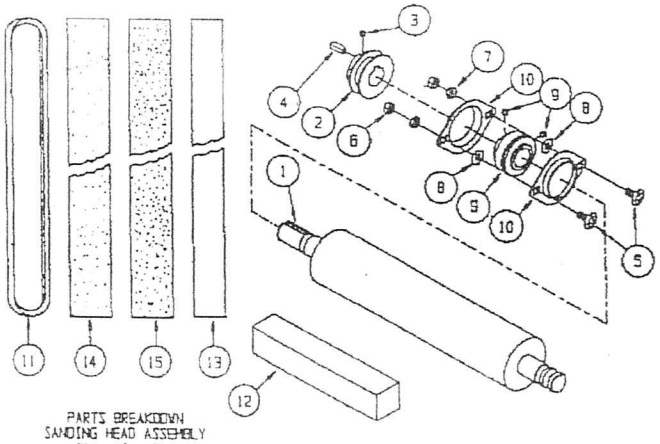
1. Remove the hood.
2. Turn the machine on.
3. Hold the abrasive cleaner stick against the turning sanding head and move it back and forth.
4. Turn the machine off.
5. Replace the hood.

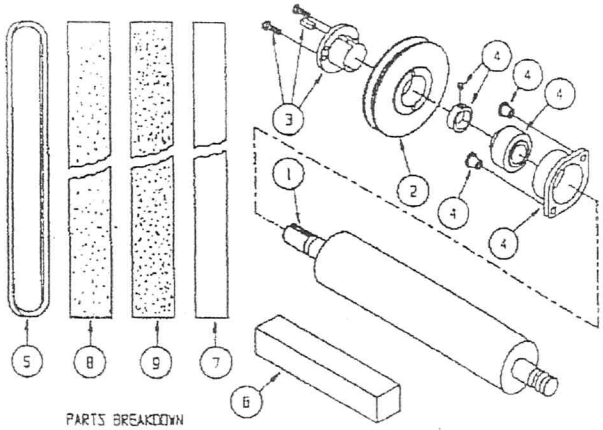
Paper sanding belts are very fragile and should be handled with care. If the edge becomes nicked or damaged, the belt may still be used by cutting the nick out, thereby leaving a long half-moon shaped cut on the side of the belt. A piece of nylon reinforced tape may also be placed on the back side of the belt, thus reinforcing the weakened area and keeping the nick from getting larger.

The following is an approximate material size chart to be used in the selection of the proper size sandpaper grit sturcture for your sanding application:

60 grit = .0131 average particle size in inches
80 grit = .0105 average particle size in inches
100 grit = .0068 average particle size in inches
150 grit = .0048 average particle size in inches
180 grit = .0034 average particle size in inches
220 grit = .0026 average particle size in inches

SANDING HEAD PARTS BREAKDOWN





SANDING HEAD PARTS LIST

900-9550 for the 812B

Key #	Part #	Description	Qty.
1	695-2037	812B SANDER HEAD	1
2	695-0036	812 B SANDER HEAD PULLEY	1
3	770-0083	1/4-20 X 1/4 SSS (CUP POINT)	1
4	745-0093	1/4 X 3/4 SQUARE KEY	1
5	770-0179	5/16-18 X 3/4 CARRIAGE BOLT	2
6	770-0081	5/16-18 HEX NUT	2
7	770-0178	5/16 SPLIT LOCK WASHER	2
8	745-0720	5/16ID X 3/4OD X .01 NY.SPACER	2
9	795-1030	BEARING, 1"	1
10	745-0058	FLANGETTE (FOR 1" BEARING)	2
11	745-0671	V-BELT #6858 1/2 X 58 P.R.	1
12	801-0800	SANDING HEAD CLEANER STICK	1
13	801-2000	VELCRO=2"X75' ROLL(ADHES.BKD)	6FT.
14	801-2080	80 GRIT SANDPAPER=3" X 150' RL.	4FT.
15	801-2180	180 GRIT SANDPAPER=3" X 150' RL.	4FT.

900-6400 for the 820

Key #	Part #	Description	Qty.
1	608-0009	820 SANDER HEAD	1
2	745-0718	PULLEY, 5"OD (W/O REDUCER)	1
3	745-0719	PULLEY REDUCER FOR #745-0718	1
4	660-0003	BEARING, COLLAR,, HSNG., 1-1/2"	1
5	745-0669	V-BELT #6866-1/2 X 66 P.R.	1
6	801-0800	SANDING HEAD CLEANER STICK	1
7	801-2000	VELCRO=2"X75' ROLL(ADHES.BKD)	10FT.
8	801-2080	80 GRIT SANDPAPER=3" X 150' RL.	7FT.
9	801-2180	180 GRIT SANDPAPER=3" X 150' RL.	7FT.

900-0822 for the 816

Key #	Part #	Description	Qty.
1	634-0020	816 SANDER HEAD	1
2	745-0718	PULLEY, 5"OD (W/O REDUCER)	1
3	745-0719	PULLEY REDUCER FOR #745-0718	1
4	660-0003	BEARING, COLLAR,, HSNG., 1-1/2"	1
5	745-0669	V-BELT #6866-1/2 X 66 P.R.	1
6	801-0800	SANDING HEAD CLEANER STICK	1
7	801-2000	VELCRO=2"X75' ROLL(ADHES.BKD)	9FT.
8	801-2080	80 GRIT SANDPAPER=3" X 150' RL.	6FT.
9	801-2180	180 GRIT SANDPAPER=3" X 150' RL.	6FT.

QUICK CHANGE GANG RIP INSTALLATION AND OPERATION

Gang rip accessories are not available for the model 812B planer. We have gang rip assemblies available for the model 816 and 820 planers.

NOTE: The maximum number of blades you can run at once depends upon the horsepower of your motor, thickness of the stock to be ripped, type of wood, etc. A general rule of thumb is do not use more than one blade per motor horsepower.

CAUTION: A guide board must be used to prevent damage to the saw blades and planer table when gang ripping. Do not run the sawblades through the guide board base and into the table. When ripping thin stock, use a thicker guide board base or put another piece of plywood under the guide board base so the blades may be run further into the guide board base without hitting the planer table.

NOTE: Lumber to be gang ripped needs to have one true edge.

1. Remove planer head and replace with gang rip assembly, see REMOVING AND REPLACING THE CUTTERHEAD. Make sure that the blade is installed on the shaft so that the teeth point toward the direction of travel, see QUICK CHANGE GANG RIP PARTS BREAKDOWN.
2. Install the guide board assembly, see GUIDE BOARD ASSEMBLY.

3A. If the lumber to be ripped has both sides true and is of uniform width, the guides on the guide board may be used to position the board under the blades. Adjust the guide board rails and guides to the desired position. Be sure the stock will not be bind as it passes through the machine.

3B. If the lumber to be ripped has only one true side, a feather board will need to be used in place of the guide on that side. The feather board may be bolted or clamped to the guide board assembly (see fig. D-1). Adjust the guide board rails or guides and the feather board to the desired position. Be sure the stock will not bind as it passes through the machine.

NOTE: The feather board is not available from RBIndustries but can be easily made.

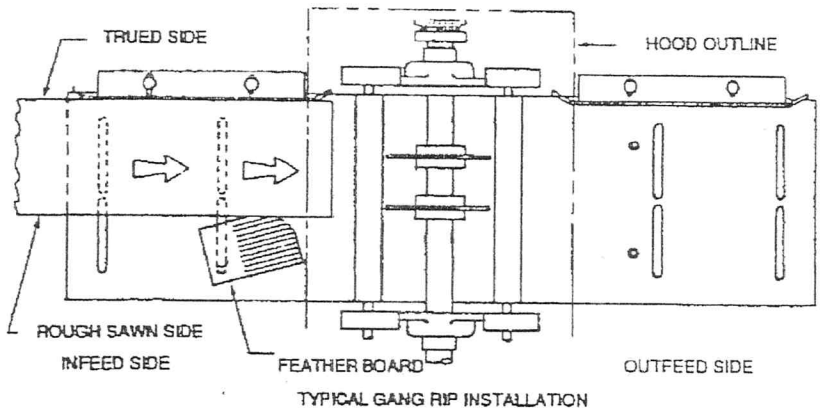
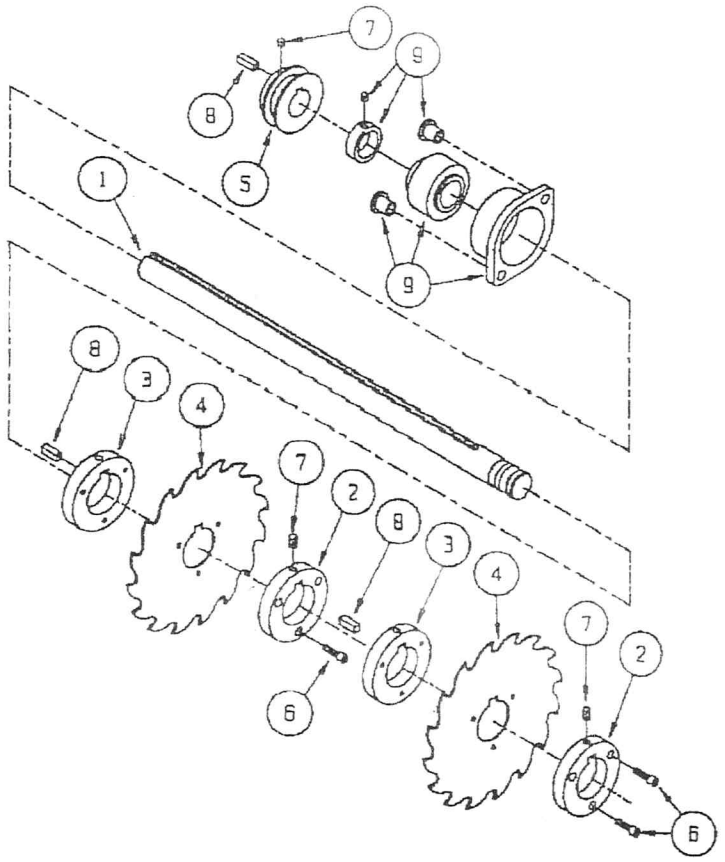


Fig. D-1

4. Loosen the hub set screws and position the saw blades as desired. When spacing the blades, always measure from the edge of the carbide tips. Remember the saw kerf is 1/8" wide.

QUICK CHANGE GANG RIP ASSEMBLY PART BREAKDOWN



QUICK CHANGE GANG RIP ASSEMBLY PARTS LIST

900-0825 for the 816

Key #	Part #	Description	Qty.
1	634-0019	ACCESSORY SHAFT, #816	1
2	645-0407	GANG RIP FACE PLATE	3
3	645-0408	GANG RIP MOUNTING PLATE	3
4	745-0412	6.5" CARBIDE SAW BLADE (1.5"ID)	3
5	645-0662	PULLEY, 3-1/8OD, 1-1/2ID	1
6	770-0091	10-32 X 3/4 SOC HD CAP SCREW	9
7	770-0185	5/16-18 X 5/16 SOC.SS, CUP PT.	4
8	770-0089	3/8 X 1 SQUARE KEY	4
9	660-0003	BEARING, COLLAR, HSNG., 1-1/2"	1

900-6500 for the 820

Key #	Part.#	Description	Qty.
1	608-0016	ACCESSORY SHAFT, #820	1
2	645-0407	GANG RIP FACE PLATE	3
3	645-0408	GANG RIP MOUNTING PLATE	3
4	745-0412	6.5" CARBIDE SAW BLADE (1.5"ID)	3
5	645-0662	PULLEY, 3-1/8OD, 1-1/2ID	1
6	770-0091	10-32 X 3/4 SOC HD CAP SCREW	9
7	770-0185	5/16-18 X 5/16 SOC.SS, CUP PT.	4
8	770-0089	3/8 X 1 SQUARE KEY	4
9	660-0003	BEARING, COLLAR, HSNG., 1-1/2"	1

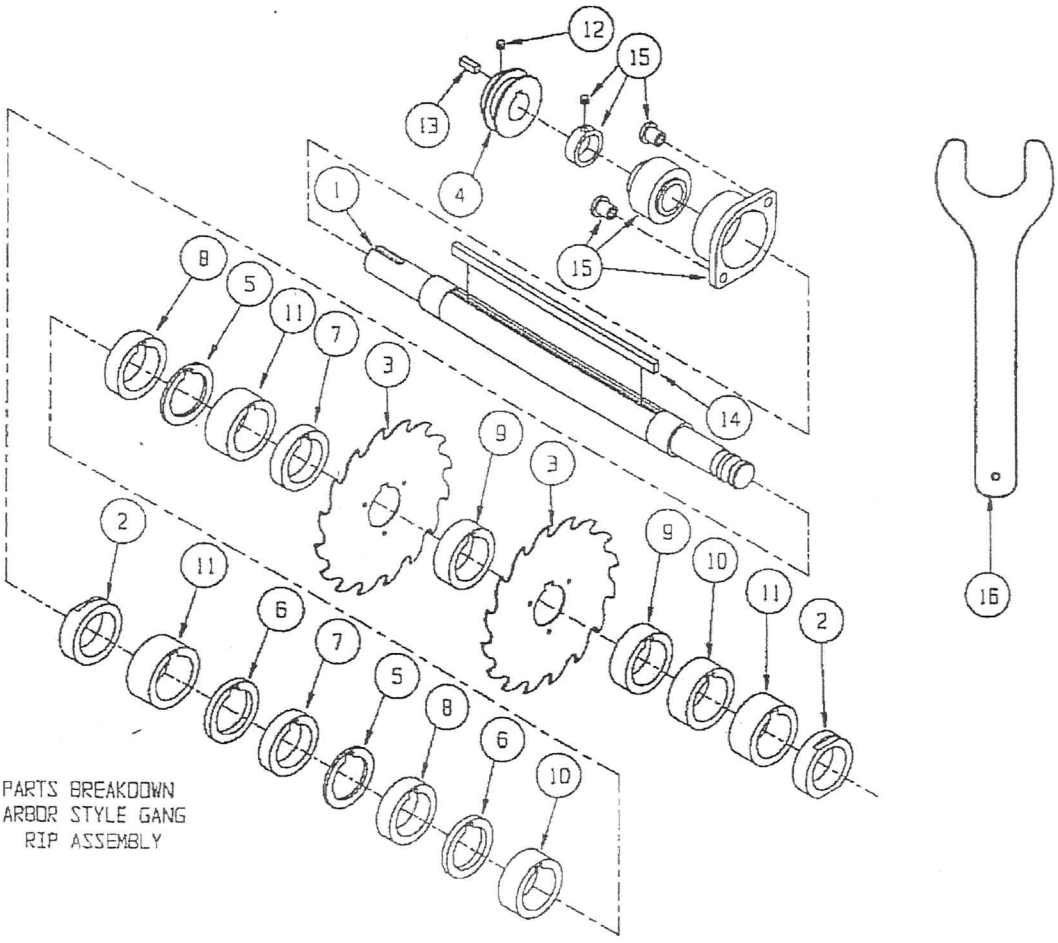
ARBOR STYLE GANG RIP ASSEMBLY

Arbor style gang rip accessories are not available for the models 812B & 816 planers. The arbor style gang rip assembly is available for the model 820 planer only!

The arbor style gang rip is installed and operated similar to the quick change gang rip. Observe the same cautions and notes as the quick change gang rip. The main difference is in setting the spacing on the blades. The arbor style gang rip assembly must be removed from the machine to reset the blade spacing.

1. Set the spacing of the blades on the gang rip assembly. This must be done with the assembly out of the machine.
2. Remove the locking nut on the reduction drive end, then remove the gang rip blades and the spacers.
3. Determine the combination of spacers to give the desired rip width and reassemble. Remember to account for the saw kerf. Replace the locking nut and tighten it. The arbor style gang rip can then be installed and run similar to the quick change gang rip assembly.

ARBOR STYLE GANG RIP ASSEMBLY PARTS BREAKDOWN



PARTS BREAKDOWN
ARBOR STYLE GANG
RIP ASSEMBLY

ARBOR STYLE GANG RIP PARTS LIST

900-6900 for the 820

Key #	Part #	Description	Qty.	Key #	Part #	Description	Qty.
1	645-1672	ARBOR GANG-RIP SHAFT, #820	1	9	645-0659	ARBOR SPACER, 3/4"	3
2	645-0654	ARBOR NUT	2	10	645-0660	ARBOR SPACER, 7/8"	4
3	745-0707	6.5"CARBIDE SAW BLADE(1.625"ID)	3	11	645-0661	ARBOR SPACER, 1"	7
4	645-0662	PULLEY, 3-1/8OD, 1-1/2ID	1	12	770-0185	5/16-18 X 5/16 SOC.SS,CUP PT.	1
5	645-0655	ARBOR SPACER, 1/8"	3	13	770-0089	3/8 X 1 SQUARE KEY	1
6	645-0656	ARBOR SPACER, 1/4"	3	14	645-0689	820 ARBOR GANG RIP KEY	1
7	645-0657	ARBOR SPACER, 1/2"	3	15	660-0003	BEARING, COLLAR, HSNG., 1-1/2"	1
8	645-0658	ARBOR SPACER, 5/8"	3	16	645-0668	ARBOR GANG SAW WRENCHES	2