PALMGREN®

10″ / 12″
Radial Arm Saw

Read carefully and follow all safety rules and operating instructions before first use of this product.

964420501 - 1022

GETTING STARTED

STRUCTURAL REQUIREMENTS

Make sure all supporting structures and load attaching devices are strong enough to hold your intended loads. If in doubt, consult a qualified structural engineer.

ELECTRICAL REQUIREMENTS

The power supply to the Radial Arm Saw needs to be 120 volt/ 14 amp, single phase, 60 Hz. The standard allowable voltage variation is plus or minus 10%.

TOOLS NEEDED

Standard mechanic's hand tool set.

UNPACKING

WARNING: Be careful not to touch overhead power lines, piping, lighting, etc. if lifting equipment is used. Radial Arm Saw weighs approximately 333 lbs, proper tools, equipment and qualified personnel should be employed in all phases of unpacking and installation.

Crates should be handled with care to avoid damage from dropping, bumping, etc. Store and unpack crates with correct side up. After uncrating Radial Arm Saw, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. If any damage or loss has occurred, claim must be filed with carrier immediately. Check for completeness. Immediately report missing parts to dealer.

Radial Arm Saw is shipped partially assembled. End user will need to assemble loose parts to machine.

IMPORTANT: The tool has been coated with a protective coating. In order to ensure proper fit and operation, the coating must be removed. Remove coating with mild solvents such as mineral spirits and a soft cloth. Nonflammable solvents are recommended. After cleaning, cover all exposed metal surfaces with a light coating of oil.

CAUTION: Never use highly volatile solvents. Avoid getting cleaning solution on paint as it may tend to deteriorate these finishes. Use soap and water on painted components.

CONTENTS

- Radial arm saw w/ table assembly(1)
- Leg (4)
- Brace (4)
- Support (2)
- Saw blade (1)
- Worktable board set (1)
- Hardware bag (1)
- Operating Instructions and Parts Manual (1)

UNPACK

• Unbolt saw from pallet and carefully lift saw from pallet using appropriate hoisting equipment. Do not discard packing materials until after machine has been inspected for damage and completeness. Locate loose parts and set aside.

INSPECT

- After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.
- All tools should be visually inspected before use, in addition to regular periodic maintenance inspections.
- Be sure that the voltage labeled on the unit matches your power supply.

SPECIFICATIONS

Motor:	1HP, 115V, 14A, 60Hz, 3400RPM
Blade diameter:	10″ or 12″
Arbor size:	1″
Rip capacity (inboard):	19.5″
Rip capacity (outboard):	11.75 – 31.5″
Depth of cut @ 90º:	1.5″ (2.5″)
Depth of cut @ 45º:	0.75″ (1.75″)
Crosscut capacity @ 90º:	16.5″
Miter @ 45º:	11.7″
Miter stops:	45º L, 0º, 45º R
Bevel capacity:	0 - 90º
Bevel stops:	0º, 22.5º, 45º, 90º
Table size:	$39^{3}/_{4}$″ x $22^{7}/_{8}$″
Table height:	33″
Overall dimensions:	$39^{3}/_{4}$″ x $38^{1}/_{2}$″ x 64″
Weight:	333 lbs.
Shipping weight:	355 lbs.

SAFETY RULES

WARNING: For your own safety, read all of the instructions and precautions before operating tool.

PROPOSITION 65 WARNING: Some dust created by using power tools contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

WARNING: Always follow proper operating procedures as defined in this manual even if you are familiar with the use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

BE PREPARED FOR JOB

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.

SAFETY RULES (CONTINUED)

- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

PREPARE WORK AREA FOR JOB

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lighted.
- Proper electrical receptacle should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL SHOULD BE MAINTAINED

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool lubricated and clean for safest operation.
- Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
- Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect a tool's operation.
- A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order repair parts.)

KNOW HOW TO USE TOOL

- Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing the blade.
- Avoid accidental start-up. Make sure that the tool is in the OFF position before plugging in.
- Do not force tool. It will work most efficiently at the rate for which it was designed.
- Keep hands away from moving parts and cutting surfaces.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Keep proper footing and balance.
- Never stand on tool. Serious injury could occur if tool is tipped or if blade is unintentionally contacted.
- Know your tool. Learn the tool's operation, application and specific limitations.
- Use recommended accessories only. Use of improper accessories may cause risk of injury to persons.
- Handle workpiece correctly. Protect hands from possible injury.
- Turn machine off if it jams. Blade jams when it digs too deeply into workpiece. (Motor force keeps it stuck in the work.) Do not remove jammed or cut off pieces until the saw is turned off, unplugged and the blade has stopped.

CAUTION: Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

ADDITIONAL SAFETY RULES FOR RADIAL ARM SAWS

- ALWAYS USE SAFETY GLASSES. Everyday glasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty.
- ALWAYS wear certified safety equipment:
  - ANSI A87.1 eye protection (CAN/CSA Z94.3)
  - ANSI S12.6 (S3.19) hearing protection
  - NIOSH/OSHA respiratory protection
- AVOID AWKWARD POSITIONS where a sudden slip could cause a hand to move into a saw blade or other cutting tool.
- KEEP ARMS, HANDS, AND FINGERS AWAY from the blade to prevent serious injury.
- USE A PUSH STICK OR PUSH BLOCK THAT IS APPROPRIATE TO THE APPLICATION TO PUSH WORKPIECES THROUGH THE SAW. A push stick is a wooden or non-metallic stick, usually homemade that should be used whenever the size or shape of the workpiece would cause you to place your hands within six inches of the blade.
- DO NOT PERFORM RIPPING, CROSSCUTTING, OR ANY OTHER OPERATION FREEHAND.
- NEVER reach around or over the saw blade.
- STABILITY. Make sure that the radial arm saw is firmly mounted to a secure surface before use and does not move.
- NEVER CUT FERROUS METALS (those with iron or steel content) or masonry. Damage to the saw and personal injury may result.
- USE THE CORRECT SAW BLADE FOR THE INTENDED OPERATION. Follow instructions in operation section of the manual for proper procedure for any kind of cut. Always tighten the blade arbor nut securely. Before use, inspect the blade for cracks or missing teeth. Do not use a damaged blade.
- NEVER ATTEMPT TO FREE A STALLED SAW BLADE WITHOUT FIRST TURNING THE MACHINE OFF. If a workpiece or cut-off piece becomes trapped inside the guard, turn the saw off, disconnect the machine from the power source and wait for the blade to stop before lifting the guard and removing the piece.
- NEVER START THE MACHINE with the workpiece against the blade to reduce the risk of a thrown workpiece and personal injury.
- NEVER run the workpiece between the fence and a molding cutterhead to reduce the risk of a thrown workpiece and personal injury.
- AVOID AWKWARD OPERATIONS AND HAND POSITIONS where a sudden slip could cause a hand to move into the blade.
- NEVER HAVE ANY PART OF YOUR BODY IN LINE WITH THE PATH OF THE SAW BLADE. Personal injury may occur.
- NEVER PERFORM LAYOUT, ASSEMBLY, OR SET-UP WORK on the table/work area when the machine is running. A sudden slip could cause a hand to move into the blade. Severe injury can result.
- CLEAN THE TABLE/WORK AREA BEFORE LEAVING THE MACHINE. Lock the switch in the "OFF" position to prevent unauthorized use.

ADDITIONAL SAFETY RULES FOR RADIAL ARM SAWS (CONTINUED)

- DO NOT LEAVE A LONG BOARD (OR OTHER WORKPIECE) UNSUPPORTED SO THE SPRING OF THE BOARD CAUSES IT TO SHIFT ON THE TABLE RESULTING IN LOSS OF CONTROL AND POSSIBLE INJURY. Provide proper support for the workpiece, based on its size and the type of operation to be performed. Hold the work firmly against the fence and down against the table surface. If supports are attached to the saw, be certain that the saw will not tip under the load.
- DO NOT OPERATE THIS MACHINE until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
- OBTAIN ADVICE from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
- ADDITIONAL INFORMATION regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2581 (www.powertoolinstitute.com).

Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

The lower retractable blade guard provides operator protection along the sides of the saw blade. To reduce the risk of potential hazards, use the following rules:

- KEEP YOUR HANDS AWAY FROM THE GUARD. As the blade cuts, the guard will lift and leave part of the blade exposed.
- TURN THE UNIT OFF AND DISCONNECT THE MACHINE FROM THE POWER SOURCE BEFORE FREEING A JAMMED LOWER GUARD. The guard can get jammed in previous kerfs in the table or fence. Always anticipate the path of the guard.
- USE CAUTION when making bevel cuts to be sure that the lower guard is never pinched toward the blade.
- THE LOWER GUARD CAN JAM AGAINST THE FENCE DURING NARROW IN-RIPS. Should the guard jam against the fence, disconnect the saw from the power, wait for the blade to stop, then lift the blade guard and rest it on top of the fence.

TERMS

The following terms will be used throughout the manual and you should become familiar with them.

- Through-sawing refers to any cut that completely severs the work piece.
- Push Stick refers to a wooden stick, usually homemade, that is used to push small work piece through the saw and keeps the operator's hands clear of the blade.
- Kickback occurs when the saw blade binds in the cut and violently thrusts the work piece back toward the operator.
- Freehand refers to cutting without the use of a miter gauge or rip fence or any other means of guiding or holding the work piece other than the operator's hand.

SAW BLADE GUARD AND SPLITTER

Your radial arm saw is equipped with a blade guard, splitter and anti-kickback fingers. The splitter fits into the cut made by the saw blade when ripping and effectively fights kickback by lessening the tendency of the blade to bind in the cut. Use the spreader and blade guard for all cuts. Two anti-kickback pawls are located on the sides of the splitter that allow the wood to pass through the blade in the cutting direction, but lock if the wood tries to move backward toward the operator.

KICKBACKS

How to avoid them and protect yourself from possible injury.

- Be certain that the rip fence is parallel to the saw blade.
- Do not rip by applying the feed force to the section of the workpiece that will become the cut-off (free) piece. Feed force when ripping should always be applied between the saw blade and the fence. Use a push stick for short work, 6" (152 mm) wide or less.
- Keep saw blade guard, splitter, and anti-kickback teeth in place and operating properly. Keep teeth sharp. If teeth are not operational, replace. The splitter must be in alignment with the saw blade and the teeth must stop a kickback once it has started. Check their action before ripping by pushing the wood under the anti-kickback teeth. The teeth must prevent the wood from being pulled toward the front of the saw.
- Plastic and composition (like hardboard) materials may be cut on your saw. However, since these are usually quite hard and slippery, the anti-kickback pawls may not stop a kickback. Therefore, be especially attentive to following proper set-up and cutting procedures for ripping.
- Use saw blade guard for every operation for which it can be used, including all through-sawing.
- Push the workpiece past the saw blade prior to release when ripping.
- NEVER rip a workpiece that is twisted or warped, or does not have a straight edge to guide along the fence.
- NEVER saw a large workpiece that cannot be controlled.
- NEVER saw a workpiece with loose knots, flaws, nails, or other foreign objects.
- NEVER rip a workpiece shorter than 10".
- Always use anti-kickback fingers when ripping. Lower the guard on the infeed end and adjust the anti-kickback

ASSEMBLY

Refer to Figures 1 through 25.

CAUTION: Do not attempt assembly if parts are missing. Use this manual to order repair parts.

After removing the machine from its packing, proceed with assembly in the following way:

1) Fix the legs, making use of the screws (1) and the relative nuts (2) and washers (3) (see fig.1) Fix the two screws TE M10×30 (4) and its nut at the foot of the leg. The operation must be done on two legs of the same on the bench side. After having put the machine on a plane surface by working on the screws (4) lock the lock-nut (5) (see fig. 1.)

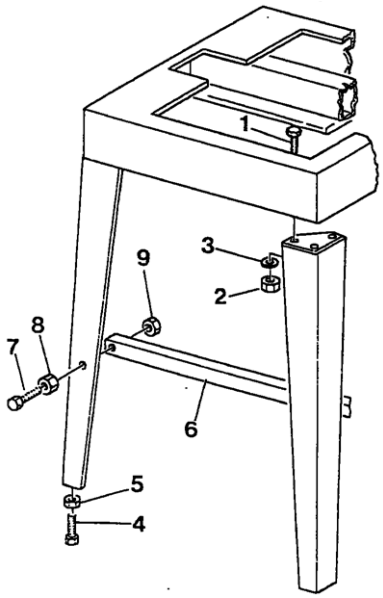


Fig. 1

2. Connect the four spacer bars (6) to the legs by means of the screws (7) and relative washers (8) and nuts (9).
3. Position and fix the group to the bench (10): BASIS COLUMN ARM by using the screws (11) with the relative nuts (12) and washers (13) (see fig. 2)

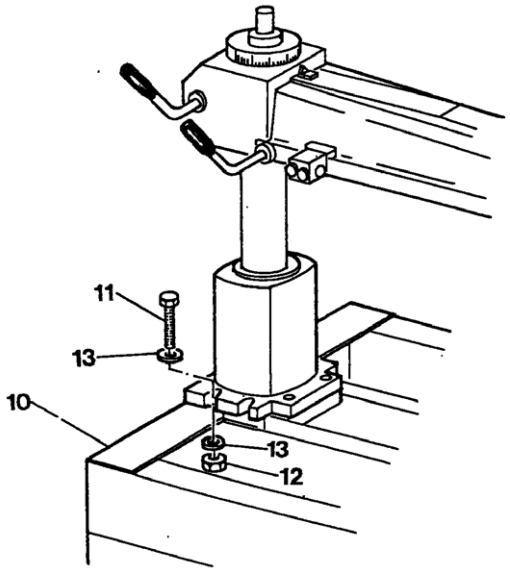


Fig. 2

4. Remove the cover (16) from the top of the arm (see fig. 4)

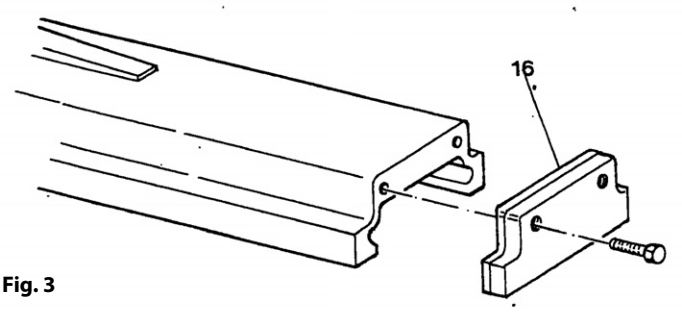


Fig. 3

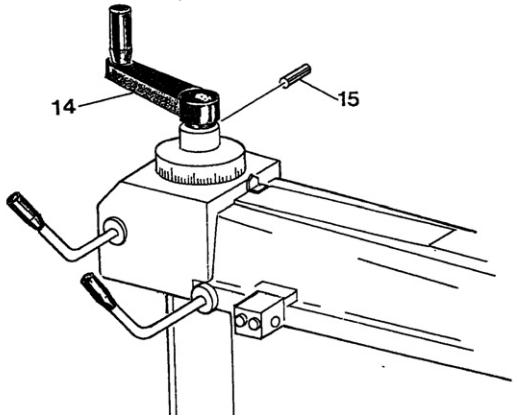


Fig. 4

5) Insert the working assembly (tool rest, fork, motor) into the seat (see fig. A5). The working assembly is inspected by our quality control department. Eliminate play if any as follows. Release the nut (13) By 19mm open wrench, turn the screw (14) and tightly draw the nut (15). Tighten the nut (15) and nut (13) when the adjustment is complete (see fig. A6).

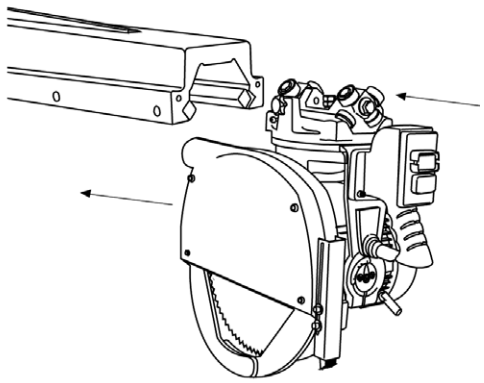


Fig. A5

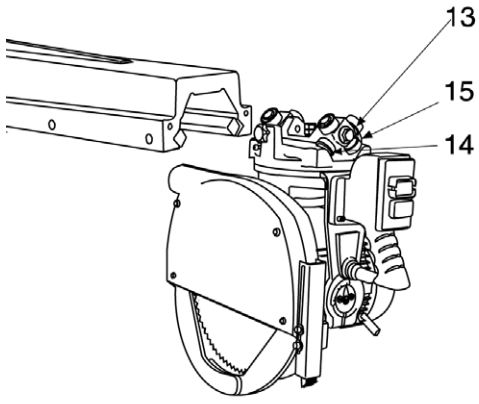


Fig. A6

ASSEMBLY (CONTINUED)

6) Connect table holder squares with screws (21) TE M10×20 and relative (22) and washers (23) (see fig. 8).

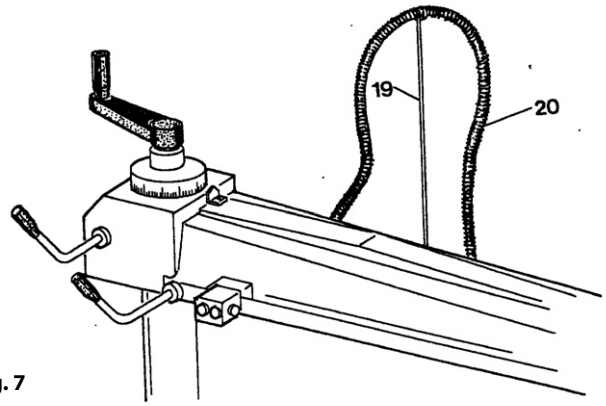


Fig. 7

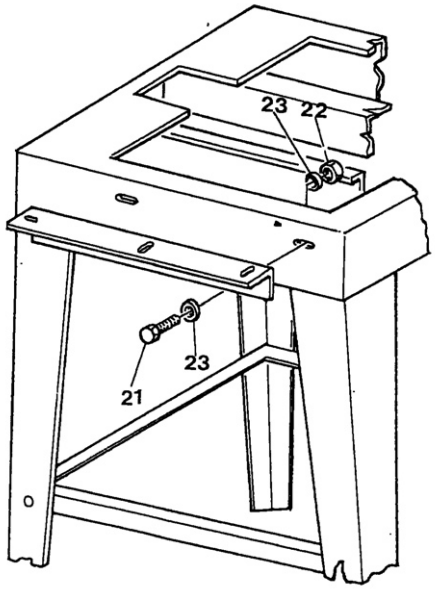


Fig. 8

REGULATION OF TABLE HOLDER SQUARE PARALLELISM

Rotate the motor in a vertical position as follows:

1) release the handle (25) (see fig. 9), pulling the lever (24) towards the operators so that the motor is released and rotate it in a vertical position until the lever (24) is inserted in its seat. To obtain radial rotation of the arm, disengage the lever (27) and loosen the locking lever (26) (see fig. 10).

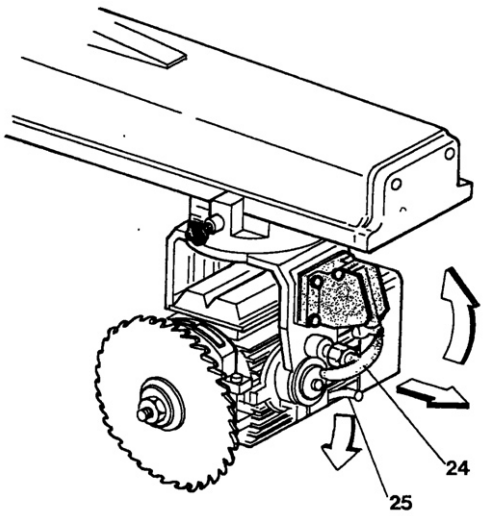


Fig. 9

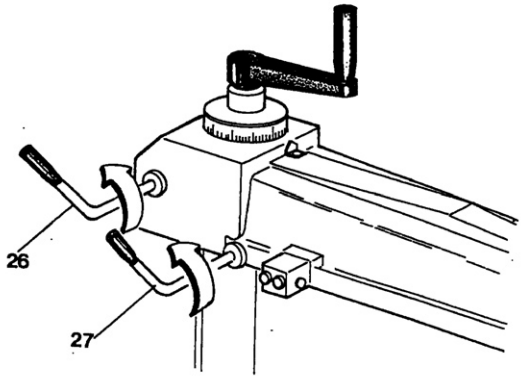


Fig. 10

2) With the motor shaft, skim the surfaces of the table holder squares, moving the handle (28) (see fig.11-a and 11-b) and slide the motor unit along the arm until it also skims the lateral squares. Work on the latter until parallelism is obtained and lock them with the appropriate screws (29) (see fig. 12).

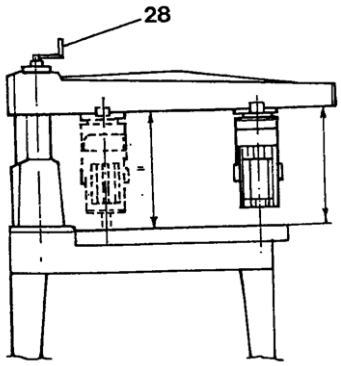


Fig. 11-a

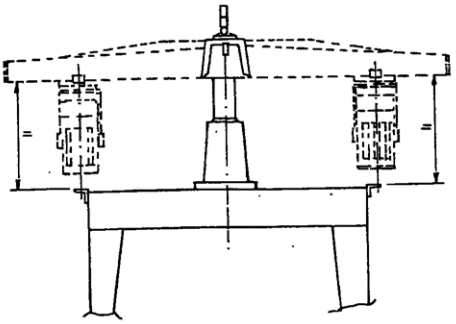


Fig. 11-b

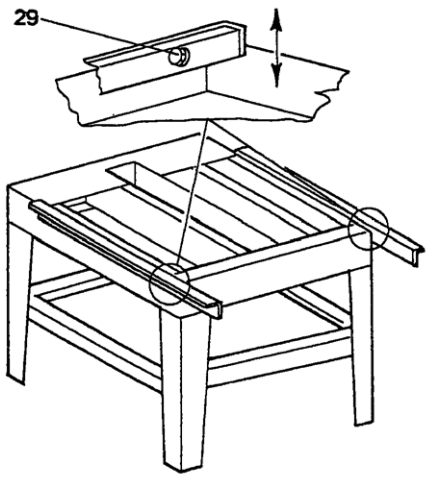


Fig. 12

ASSEMBLY (CONTINUED)

POSITIONING OF WORK TABLE

The work table (30) should be positioned by means of means of the screws (31) TE M8×35 and the relative nuts (32) and washers (33) (see fig. 13) and afterwards:

1) Insert the perpendicular supporting bar (34) 60mm wide.
2) Insert 2 rods (35) behind the supporting bar, 60mm wide.
3) Fix them to work table by means of the wing nuts (36).

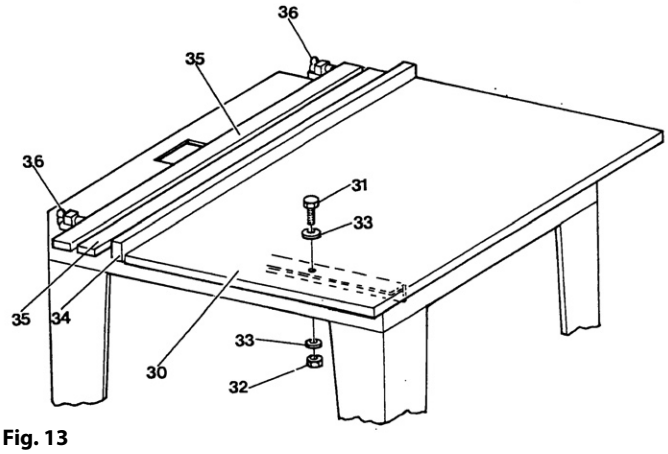


Fig. 13

PERPENDICULARITY OF WORK TABLE WITH TOOL

Fix the blade (37) to the driving shaft between the rear flange (38) and the front flange (39) bearing in mind that the stop nut (40) and the driving shaft both have left handed threads (see fig.14).

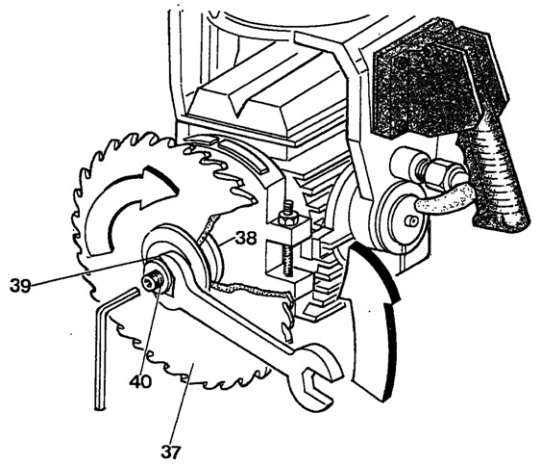


Fig. 14

Now, using a square make sure that the blade is perfectly perpendicular with the table (see fig. 15). If this should not be so, work on the nuts (41) and dowels (42) with the 13mm open wrench and the 5 mm. set screw wrench.

Having obtained perpendicularity with the work table, check and if necessary, regulate the index (43) loosening the screw (44) and bringing the black line to coincide with position zero (see fig.16).

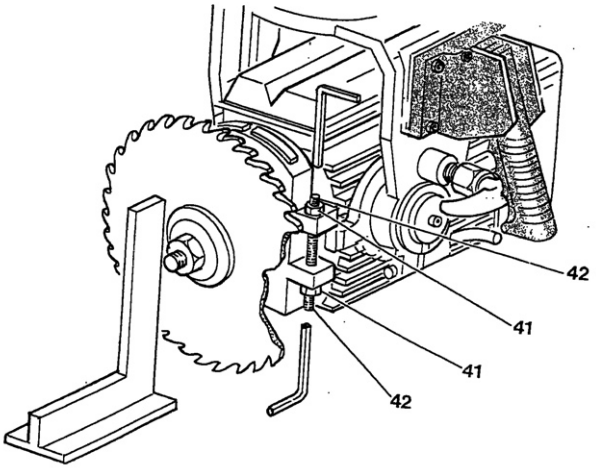


Fig. 15

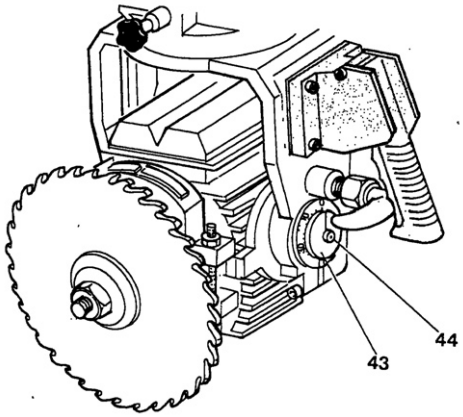


Fig. 16

ASSEMBLY OF THE GUARD

After removing the blade, separate the two half blade guards by means of the screws (45). Apply the half guard to the motor with the screw (46) TE M8×35 (see fig. 17). Remount the blade, locking it firmly with the stop nut and the remount the other half guard using corresponding screws. The accident prevention guards and should also be regulated (47 and 48).

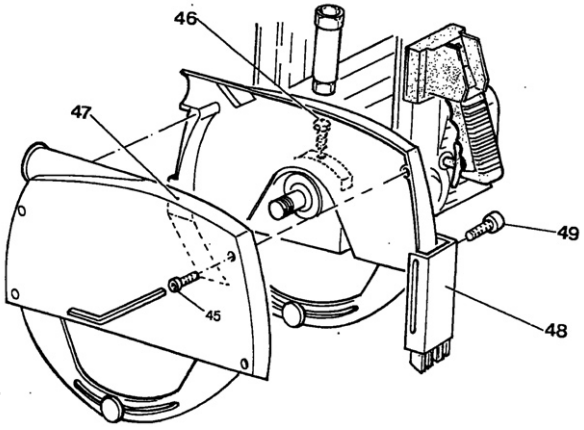


Fig. 17

ASSEMBLY (CONTINUED)

SQUARING UP ARM WITH SUPPORTING BAR

Align in parallel the blade to the supporting bar (see fig. 18). Insert the arm positioning lever in the column (27) sector and lock the lever (26) (see fig. 20). Place a board against the supporting bar, cut it along the whole carriage stroke and check that the cut is at right angles (see fig. 19).

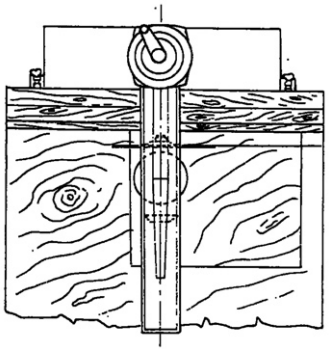


Fig. 18

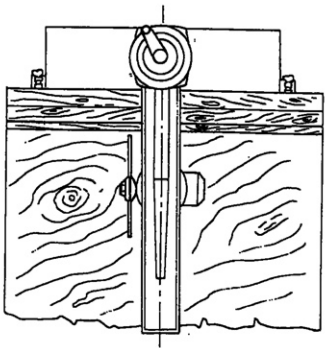


Fig. 19

If there should be any defects in squaring, act as follows:

1) Release the arm locking handle (26) (see fig. 20) working on the adjusting dowels (50), position in the right direction in order to eliminate the defect verified. Subsequently, tighten the nuts making sure that the positioning (27) lever is well inserted in the column sector and tighten the locking lever (26).

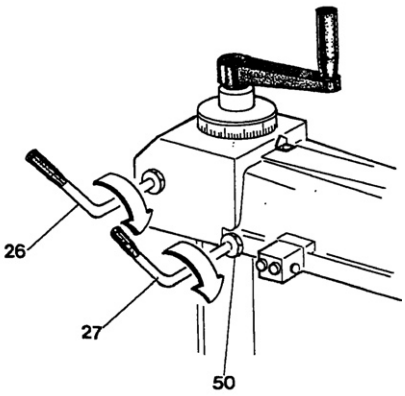


Fig. 20

If it should prove impossible to eliminate the defect with the adjusting screws, loosen the screws (51) (see fig. 21) of the base (52) and rotate it slightly. Once the arm has been brought perpendicular with the supporting bar, proceed with the final positioning of the index placed on the arm (see fig. 22). Loosen the screw (53) and bring the index (54) in coincidence with position zero of the graduated vernier scale.I

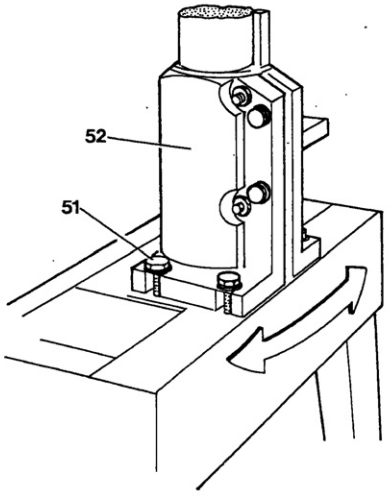


Fig. 21

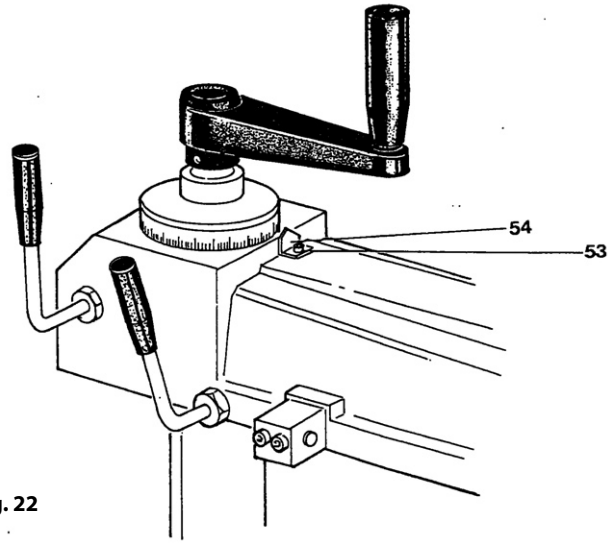


Fig. 22

PARALLELISM OF THE BLADE WITH RESPECT TO THE CARRIAGE STROKE

If the cutting width came out wider than the thickness of the blade and the rear side of the cut marked, it would be due to teeth's kid. To eliminate this defect, place a square on the supporting bar (see fig.23) loosen the lever (55) and the nuts (56) and work on the adjusting screws (57) until perfect parallelism of the blade as regards to the square. Lock everything when this operation is over.

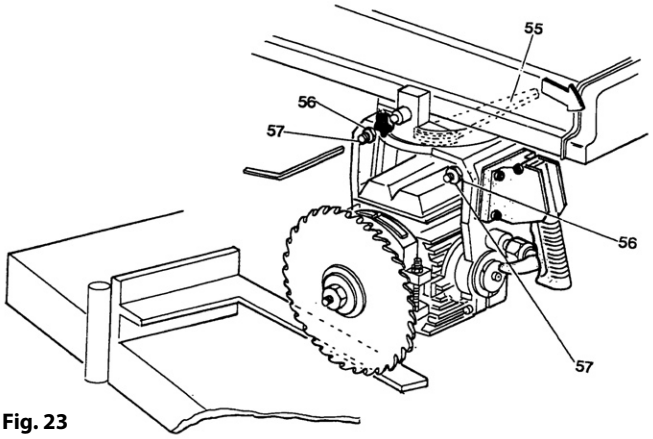


Fig. 23

ASSEMBLY (CONTINUED)

INTERNAL RIPPING

Position the rods as illustrated in fig. 24. Loosening the lever (55) and keeping the lever (58) pulled (see fig. 24) the FORK-MOTOR unit will be released. Rotate the unit until the blade is in front of the column release the lever (58) and make sure that it is accurately housed in its seat after which, block the lever (55) bring the blade alongside the supporting bar and check that the BLACK index is at the zero of the lower scale. If it does not coincide, work on the screw (59) to regulate the anti-return unit (48) work on the screws (49) (see fig. 17) in such a way that the safety teeth come into contact with the piece to be cut. These teeth have the specific function of preventing the return of the piece against the operator.

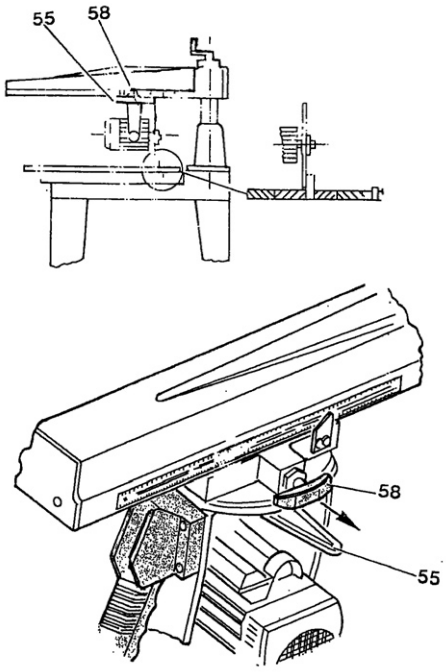


Fig. 24

EXTERNAL RIPPING

Position the rods as illustrated in fig. 25. Loosening the lever (55) and keeping the lever (58) pulled (see fig. 25) the FORK-MOTOR unit will be released. Rotate the unit until the blade is in the same position as in fig. 25, towards the outside. Locate the engine power unit so that between the inner edge of the blade and the rod there are 230 mm. Bring the ORANGE index to coincide with position (23) of the upper scale working on the screw (59).

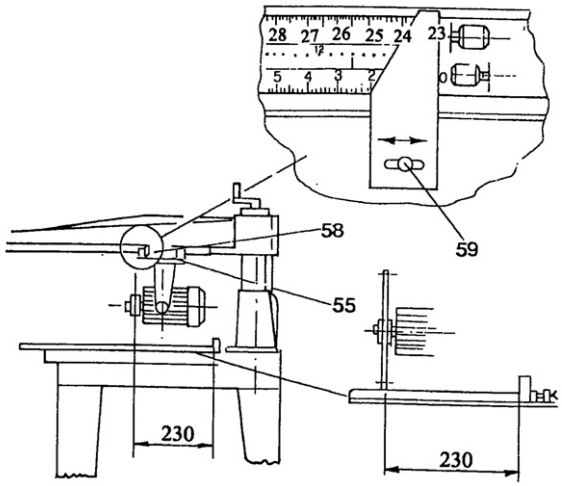


Fig. 25

OPERATION

STARTING AND STOPPING

WARNING: Make sure that the switch is in the "OFF" position before plugging cord into outlet. Do not touch the plug's metal prongs when unplugging or plugging in the cord.

Before using the saw, verify the following each and every time:

1. ALWAYS wear proper eye, hearing, and respiratory equipment.
2. Blade is tight.
3. Bevel angle and height lock knobs are tight.
4. If ripping, ensure fence lock lever is tight and fence is parallel to the blade.
5. The blade guard is properly attached and the anti-kick teeth are functioning.
6. ALWAYS inspect the guard and splitter for proper alignment operation and clearance with saw blade.

WARNING: Failure to adhere to these common safety rules can greatly increase the likelihood of injury.

To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.

Before connecting the radial arm saw to the power source or operating the saw, always inspect the guard and splitter for proper operation alignment and clearance with saw blade. Personal injury may result.

If your saw makes an unfamiliar noise, or if it vibrates excessively, cease operating immediately until the source has been located and the problem corrected.

MACHINE USE

To reduce the risk of injury, turn unit off and disconnect the machine from the power source before installing and removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.

Before connecting the radial arm saw to the power source or operating the saw, always inspect the guard and splitter for proper operation alignment and clearance with the saw blade. Personal injury may result.

CROSS-CUTTING

WARNING: To reduce the risk of injury, turn unit off and disconnect the machine from the power source before installing and removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.

NEVER touch the "free end" of the workpiece or a "free piece" that is cut off while the power is "ON" and/or the saw blade is rotating. The piece may contact the blade resulting in a thrown workpiece and possible injury.

NEVER use a length stop on the free end of the workpiece when crosscutting. In short, the cut-off piece in any through-sawing (cutting completely through the workpiece) operation must never be confined - it must be allowed to move away from the saw blade to prevent contact with the blade resulting in a thrown workpiece and possibly injury.

Use caution when starting the cut to prevent binding of the guard against the workpiece resulting in damage to the saw and possible injury.

MACHINE USE (CONTINUED)

To cross-cut, support the workpiece against the fence and pull the saw blade through the material at right angles to it.

When cross-cutting, set the track arm at "0" and tighten the track arm clamp handle. Clamp the fence between the table boards. Make sure that the saw blade is on the left and behind the fence. Place the workpiece on the table and butt it against the fence. Make sure that the saw blade is clear of the fence and the table when the machine is turned "ON". Lower the saw blade until it lightly cuts into the table surface. Position your body a little to the left of the machine for better visibility. Pull the saw blade across the work, just far enough to complete the cut, then return the saw blade to its starting position. Turn the machine off, and wait for the blade to stop before touching the cut-off piece.

Always be conscious of your hand position. Make sure that your hands are clear of the blade and that you are holding the workpiece firmly.

Additionally, you can turn the anti-kickback rod upside down and lock it in place so that the rod just clears the workpiece.

The rod can act as a guard from the exposed teeth of the blade.

Always return the cutterhead carriage to the full rear position after each cross-cut operation.

NOTE: When cross-cutting material more than 1" thick, position the fence immediately behind the fixed front table board.

MITER CUTTING

To cross-cut, support the workpiece against the fence and pull the saw blade through the material at right angles to it.

When cross-cutting, set the track arm at "0" and tighten the track arm clamp handle. Clamp the fence between the table boards. Make sure that the saw blade is on the left and behind the fence. Place the workpiece on the table and butt it against the fence. Make sure that the saw blade is clear of the fence and the table when the machine is turned "ON". Lower the saw blade until it lightly cuts into the table surface. Position your body a little to the left of the machine for better visibility. Pull the saw blade across the work, just far enough to complete the cut, then return the saw blade to its starting position. Turn the machine off, and wait for the blade to stop before touching the cut-off piece.

Always be conscious of your hand position. Make sure that your hands are clear of the blade and that you are holding the workpiece firmly.

Miter cutting is similar to cross-cutting except the workpiece is cut at an angle (up to 45° right or left). Perform the settings and operation in the same manner as cross-cutting except first position the track arm to the desired angle on the miter scale before you clamp it in place. Position your hand that holds the workpiece on the opposite side of the direction of the miter so that the blade is pulled through the workpiece and away from your hand.

To reduce the risk of injury, turn unit off and disconnect the machine from the power source before installing and removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.

Use caution when starting the cut to prevent binding of the guard against the workpiece resulting in damage to the saw and possible personal injury.

Before connecting the radial arm saw to the power source or operating the saw, always inspect the guard and splitter for proper operation alignment and clearance with the saw blade. Check the alignment after each change.

COMPOUND MITER CUTTING

WARNING: To reduce the risk of injury, turn unit off and disconnect the machine from the power source before installing and removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.

WARNING: Use caution when starting the cut to prevent binding of the guard against the workpiece resulting in damage to the saw and possible personal injury.

Before connecting the radial arm saw to the power source or operating the saw, always inspect the guard and splitter for proper operation alignment and clearance with the saw blade. Check the alignment after each change of bevel angle.

Compound miter cutting is performed the same as miter cutting except that the saw blade is tilted to the desired angle on the bevel scale and clamped for a bevel cut.

RIPPING

WARNING: To reduce the risk of injury, turn unit off and disconnect the machine from the power source before installing and removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.

WARNING: Use caution when starting the cut to prevent binding of the guard against the workpiece resulting in damage to the saw and possible personal injury.

Before connecting the radial arm saw to the power source or operating the saw, always inspect the guard and splitter for proper operation alignment and clearance with the saw blade. Check the alignment after each change of bevel angle.

NEVER touch the "free end" of the workpiece or a "free Piece" that is cut off while the power is "ON" and/or the saw blade is rotating. The piece may contact the blade resulting in a thrown workpiece and possible injury.

Keep the saw blade guard, splitter, and anti-kickback teeth in place and operating properly. Keep teeth sharp. If teeth are not operational, replace. The splitter must be in alignment with the saw blade and the teeth must stop a kickback once it has started. Check their action

before ripping by pushing the wood under the anti-kickback teeth. The teeth must prevent the wood from being pulled toward the front of the saw.

A rip fence should ALWAYS be used for ripping operations to prevent loss of control and personal injury.

NEVER perform a ripping operation freehand. ALWAYS be sure the fence is locked down.

Keep all push sticks, feather boards, etc. handy so that you can reach them without having to get near the blade.

Ripping involves making a lengthwise cut through a board along the grain. Clamp the track arm at "0" on the miter scale.

Position and clamp the yoke so that the blade is parallel to the fence in either the in-rip or out-rip position. When feeding the workpiece, make sure that one edge rides against the fence with the flat side resting on the table. Lower the guard on the in-feed side until it almost touches the workpiece.

Keep your hands well away from, and to the side of the blade. When ripping narrow work, always use a push stick to push the work between the fence and blade.

The workpiece must have one straight edge to follow the fence. If the board is bowed, place the hollow side down.

Securely tighten the cutting head clamp knob for all ripping operations.

Never feed the workpiece into the outfeed end of the blade guard.

MACHINE USE (CONTINUED)

OUT-RIPPING

Out-ripping is generally the same as ripping except that you clamp the yoke at a right angle to the track arm with the blade guard facing the front of the machine. Position the cuttinghead on the out-rip scale to the desired setting and clamp it in position. Feed the workpiece from the left side of the saw.

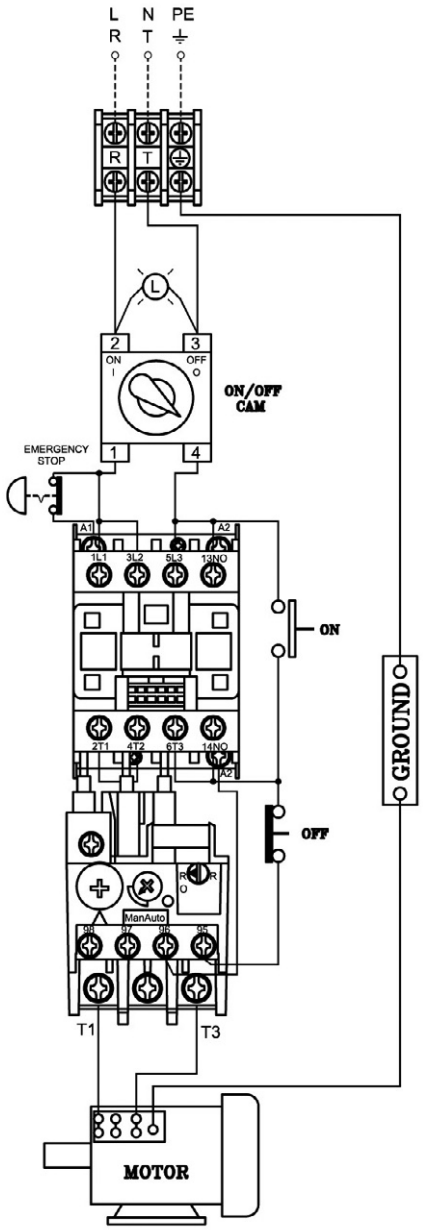
IN-RIPPING

In-ripping is generally the same as ripping except that you clamp the yoke at a right angle to the track arm with the blade guard facing the rear of the machine. Position the cuttinghead on the in-rip scale to the desired setting and clamp it in position. Feed the workpiece from the right side of the saw.

When ripping a workpiece less than 6" wide, use a push stick to complete the feed.

In order to operate your radial arm saw safely, you must use a push-stick whenever the size or shape of the workpiece would cause your hands to be within 6" (152mm) of the saw blade or other cutter.

No special wood is needed to make a push-stick as long as it's sturdy and long enough. A length of 12" (305mm) is recommended with a notch that fits against the edge of the workpiece to prevent slipping. It's a good idea to have several push-sticks of the same length [12" (305 mm) with different size notches for different workpiece thicknesses.



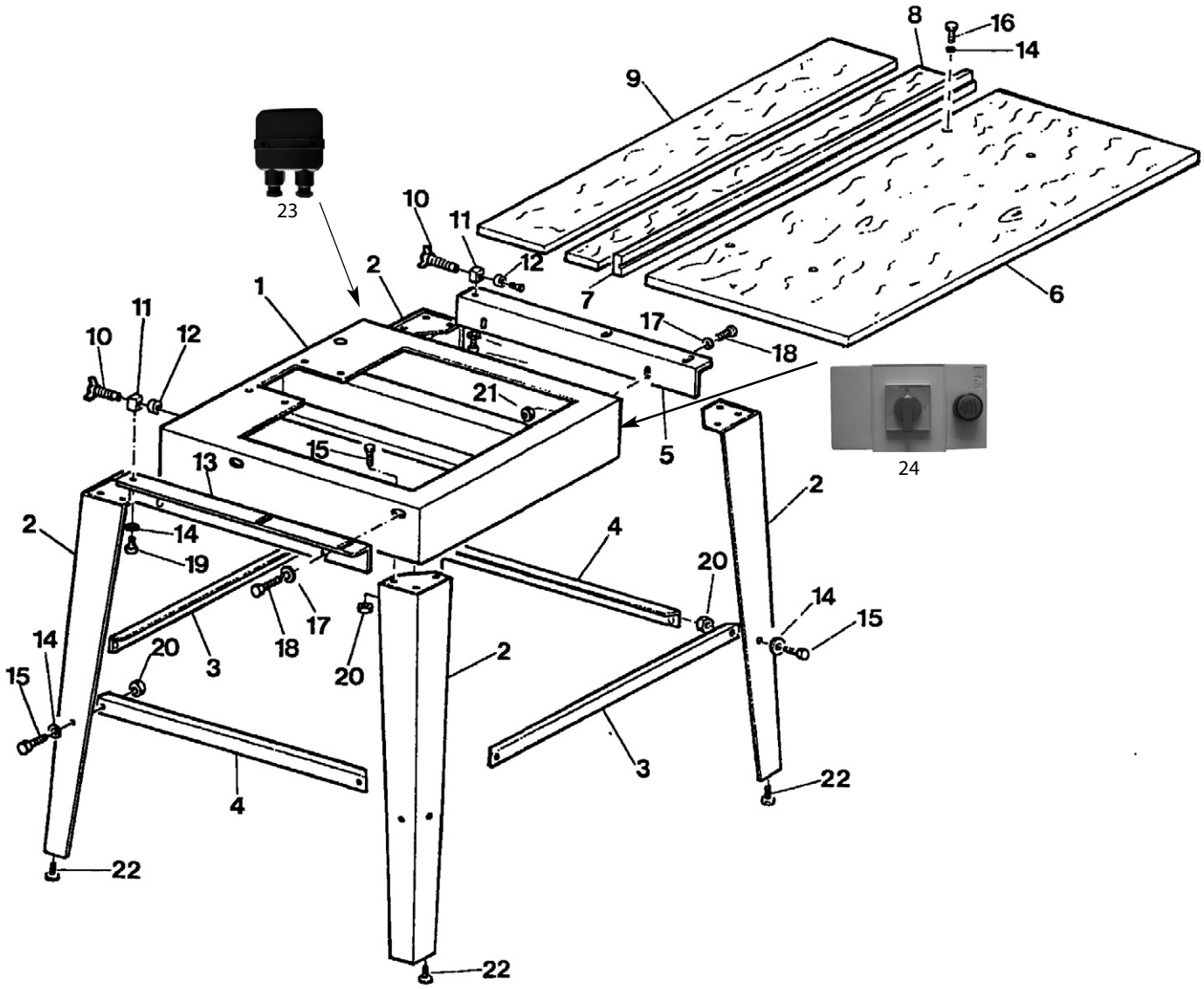


Figure 26 - Replacement Parts Illustration for Stand

REPLACEMENT PARTS LIST FOR STAND

Ref. No.	Description	Part Number	Qty.
1	Main Support	N/A	1
2	Leg	963722200	4
3	Short Brace	963722300	2
4	Long Brace	963722400	2
5	Right Support	963722500	1
6	Main Worktable	963722600	1
7	Fence	963722700	1
8	Small Space Board	963722800	1
9	Large Rear Board	963722900	1
10	Knob	963723000	2
11	Block	963723100	2
12	Bumper	963723200	2
13	Left Support	963723300	1
14	Washer	*	14
15	Bolt	*	16
16	Bolt	*	4
17	Washer	*	4
18	Bolt	*	4
19	Bolt	*	2
20	Hex Nut	*	16
21	Hex Nut	*	4
22	Bolt	*	4
23	Junction Box	963723400	1
24	Main Power Switchbox	963723500	1
Δ	Table Board Set (Includes Ref. Nos. 6–9)	963723600	1

(Δ) Not shown. (N/A) Not available as repair part. (*) Standard hardware item, available locally.

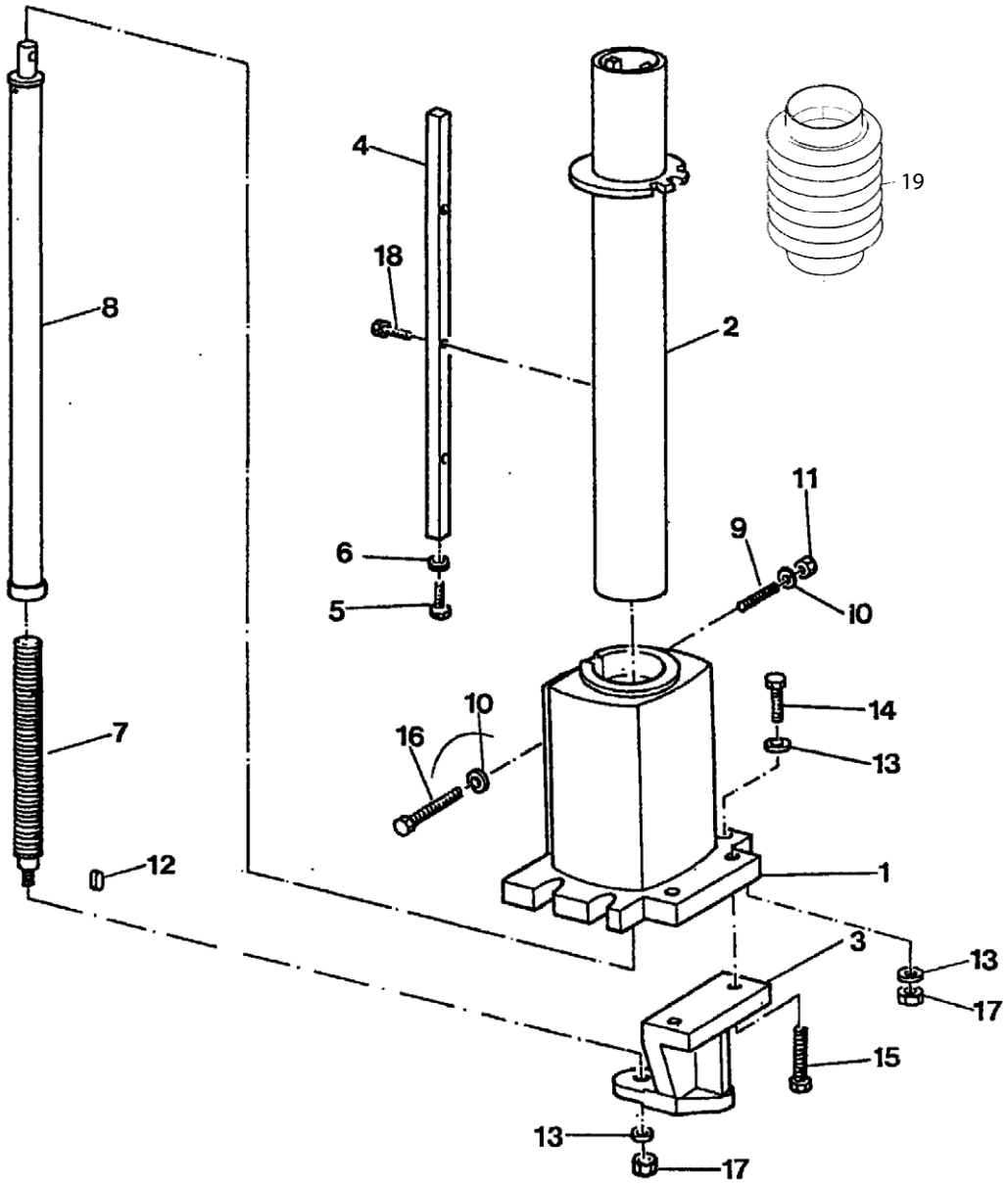


Figure 27 - Replacement Parts Illustration for Column

REPLACEMENT PARTS LIST FOR COLUMN

Ref. No.	Description	Part Number	Qty.
1	Base	963719500	1
2	Column Assembly	963719600	1
3	Support	963719700	1
4	Key	963719800	1
5	Screw	*	1
6	Washer	*	1
7	Elevation Screw	963719900	1
8	Elevation Nut	963720000	1
9	Screw	*	1
10	Washer	*	2
11	Hex Nut	*	1
12	Key	*	1
13	Washer	*	9
14	Bolt	*	4
15	Bolt	*	2
16	Screw	*	1
17	Hex Nut	*	5
18	Bolt	*	3
19	Dustproof Cover	963720100	1

(Δ) Not shown. (N/A) Not available as repair part. (*) Standard hardware item, available locally.

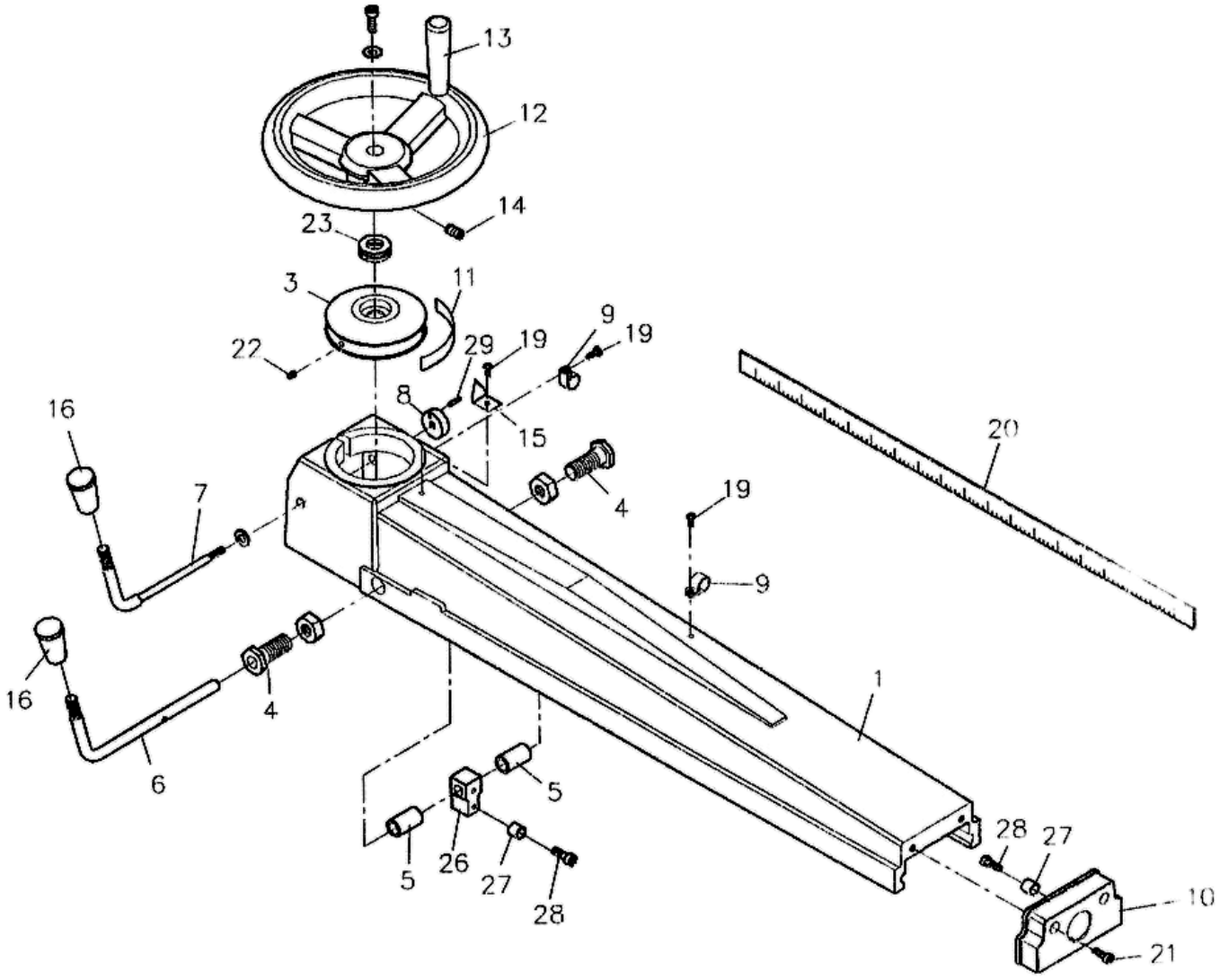


Figure 28 - Replacement Parts Illustration for Arm

REPLACEMENT PARTS LIST FOR ARM

Ref. No.	Description	Part Number	Qty.
1	Arm	N/A	1
2	Pin	*	1
3	Cap	963717800	1
4	Sleeve Bolt	963717900	2
5	Spacer	963718000	2
6	Lever	963718100	1
7	Lever	963718200	1
8	Cam	963718300	1
9	Clamp	963718400	2
10	Cover	963718500	1
11	Miter Scale	963718600	1
12	Handwheel	963718700	1
13	Handle	963718800	1
14	Set Screw	*	1
15	Indicator	963718900	1
16	Knob	963719000	2
17	Screw	*	2
18	Bushing	963719100	2
19	Screw	*	3
20	Scale	*	1
21	Screw	963719200	2
22	Set Screw	*	1
23	Bearing	*	1
24	Adjusting Block	963719300	1
25	Laser Assembly	963719400	1
30	Mounting Bracket for Laser	963801200	1

(Δ) Not shown. (N/A) Not available as repair part. (*) Standard hardware item, available locally.

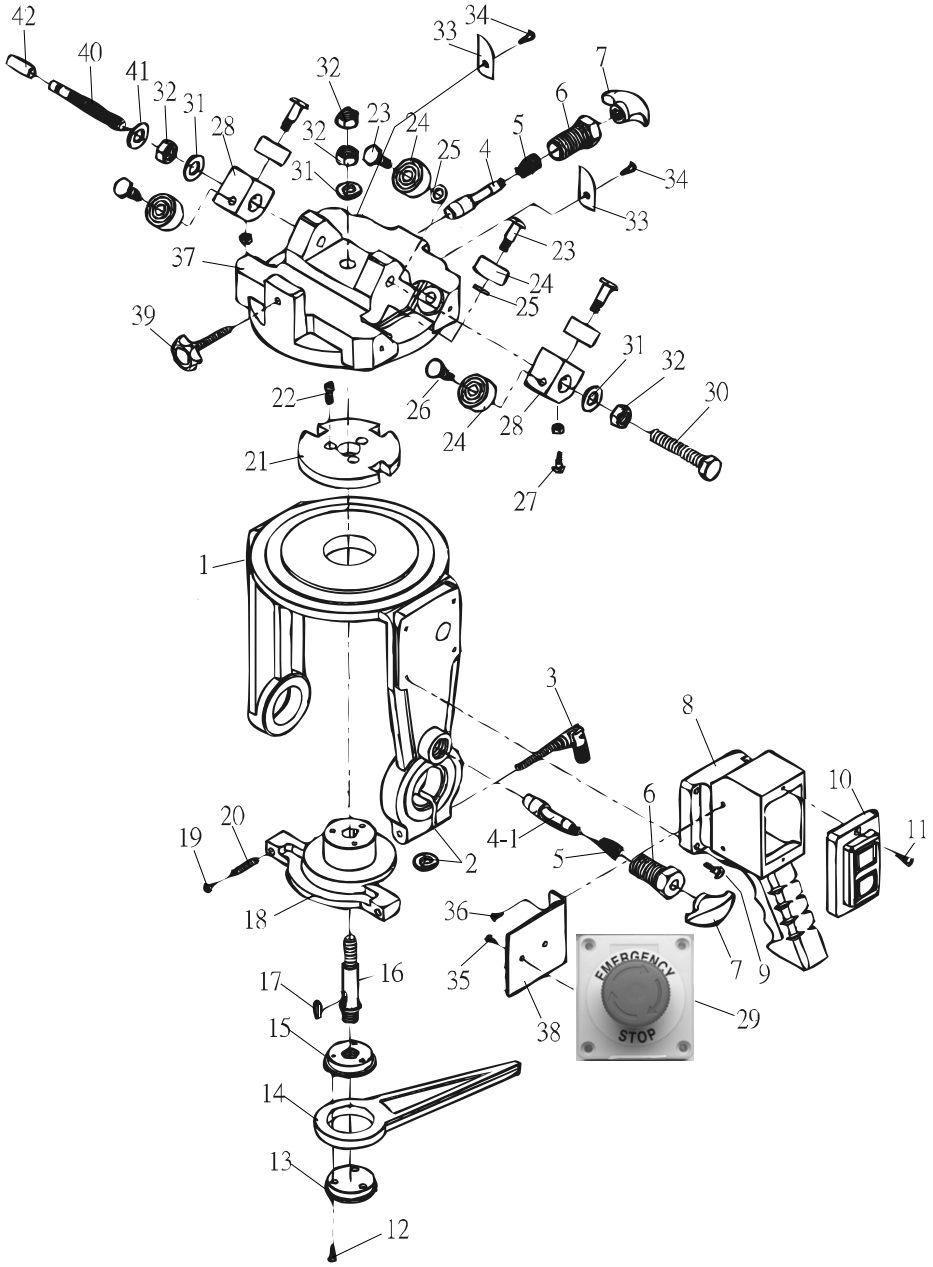


Figure 29 - Replacement Parts Illustration for Yoke

REPLACEMENT PARTS LIST FOR YOKE

Ref. No.	Description	Part Number	Qty.
1	Yoke	N/A	1
2	Washer	*	1
3	Locking Handle	963720200	1
4	Plunge Pin	963720300	2
5	Spring	963720400	2
6	Sleeve Nut	963720500	2
7	Handle	963720600	2
8	Switch Handle	N/A	1
9	Screw	*	4
10	Switch	963720700	1
11	Screw	*	2
12	Screw	*	3
13	Lever Plate	963720800	1
14	Lever	963720900	1
15	Lever Nut	963721000	1
16	Screw	963721100	1
17	Key	*	1
18	Rotary Plate	963721200	1
19	Hex Nut	*	2
20	Set Screw	*	2
21	Rotary Adjusting Plate	963721300	1
22	Screw	*	3
23	Bearing Shaft	963721400	2
24	Bearing	*	6
25	Washer	*	2
26	Bearing Adjust Shaft	963721500	4
27	Screw	*	2
28	Bearing Seat	963721600	2
29	Emergency Stop Switch	963721700	1
30	Bolt	*	1
31	Washer	*	3
32	Hex Nut	*	4
33	Indicator	963721800	2
34	Screw	*	2
35	Screw	*	2
36	Screw	*	2
37	Yoke Seat	N/A	1
38	Switch Plate	963721900	1
39	Knob	963722000	1
40	Bolt	*	1
41	Washer	*	1
42	Tube	963722100	1

(Δ) Not shown. (N/A) Not available as repair part. (*) Standard hardware item, available locally.

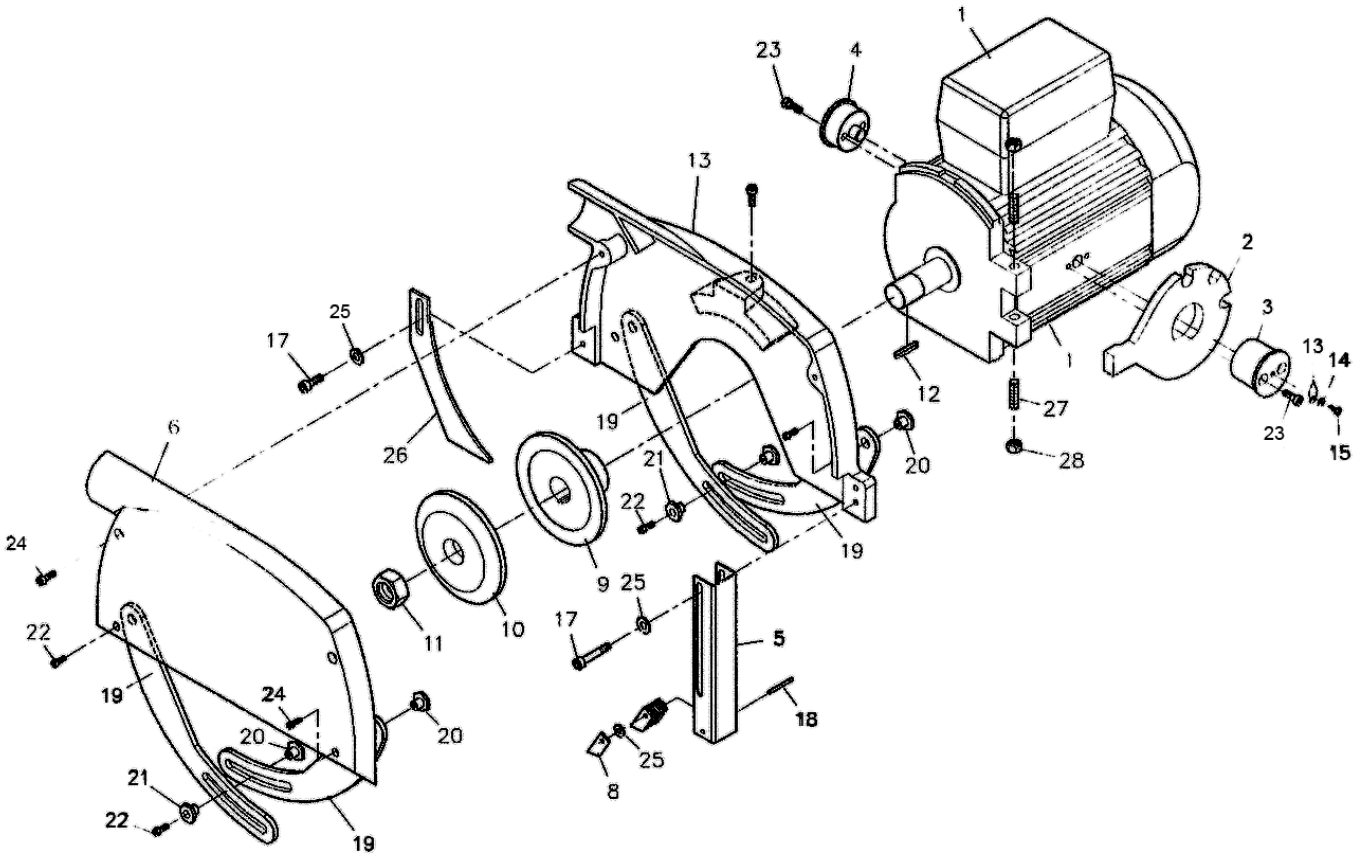


Figure 30 - Replacement Parts Illustration for Motor

REPLACEMENT PARTS LIST FOR MOTOR

Ref. No.	Description	Part Number	Qty.
1	Motor	963716000	1
2	Bevel Setting Disc	963716100	1
3	Front Pivot	963716200	1
4	Rear Pivot	963716300	1
5	Pawl Carrier	963716400	1
6	Blade Guard Assembly	963716500	1
7	Socket Head Bolt M8x35	*	1
8	Anti-Kickback Pawl Set	963801100	1
9	Inner Flange	963716800	1
10	Outer Flange	963716900	1
11	Arbor Nut	963717000	1
12	Key	*	1
13	Bevel Angle Indicator	963717100	1
14	Washer	*	1
15	Screw	*	1
16	Screw	*	2
17	Screw	*	1
18	Pin	*	1
19	Lower Guard Set	963717200	1
20	Bushing	963717300	4
21	Bushing	963717400	2
22	Screw	*	4
23	Screw	*	2
24	Screw	*	2
25	Washer	*	4
26	Riving Knife	963717500	1
27	Set Screw	*	2
28	Hex Nut	*	2
Δ	Capacitor	963717600	1
Δ	Rectifier	963717700	1
Δ	Arbor Wrench	963723700	1

(Δ) Not shown. (N/A) Not available as repair part. (*) Standard hardware item, available locally.

NOTES

NOTES

PALMGREN WARRANTY

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which is was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

The Palmgren branded items carry the following warranties on parts:

All arbor presses, vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.

All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, abrasive finishing machines and work stands - 3 YEARS.

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental , special or consequential damages including loss of profits in any way elated to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

PALMGREN®

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2000 N. Aurora Rd., Naperville, IL 60563 U.S.A.
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