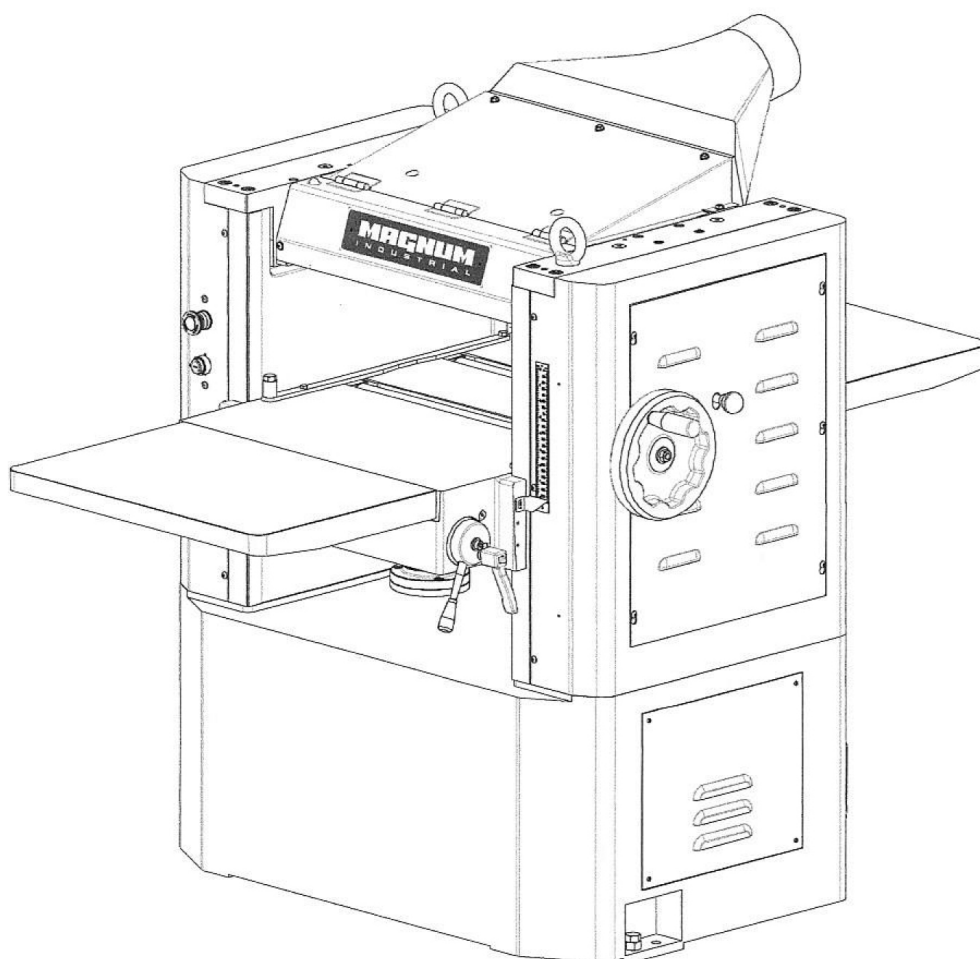


MAGNUM

I N D U S T R I A L

MODEL NO.: MI-31550 / MI-31552 / MI-31553



OPERATING MANUAL

RULES for SAFE OPERATION

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

To help ensure safe operation, please take a moment to learn the how to operate the machine and understand its applications and limitations, as well as potential hazards. KMS Tools and Equipment disclaims any real or implied warranty and holds itself harmless for any injury that may result from the improper use of its equipment.

- Do not operate the planer when tired, distracted or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness.
- Ensure your working area is well lit and free of debris.
- Keep children and visitors at a safe distance when the planer is in operation. Do not permit them to operate the planer.
- Prevent unauthorized or unsupervised use by child proofing and tamper proofing your shop and all machinery with locks, master electrical switches and switch keys.
- Stay alert! Give your work your undivided attention. Even a momentary distraction can lead to serious injury.
- Fine particulate dust is a carcinogen that can be hazardous to health. Work in a well-ventilated area and whenever possible use a dust collector. Protect your face, eyes, ears, lungs and body with suitable personal protective equipment.
- Do not wear loose clothing, gloves, bracelets, necklaces or other jewelry while the planer is in operation.
- Remove adjusting wrenches, tools and other clutter from the machine and the table surface before operating the machine.
- Keep hands well away from the cutterhead and all moving parts. Feed stock with a push stick, and use a brush, not your hands, to clear away chips and dust.
- Make sure carbide inserts are correctly and securely installed in the cutterhead.
- Inspect stock and remove all foreign objects before planing. Make sure that stock is clean and free of dirt, nails, staples, rocks or any other foreign objects that could damage the carbide inserts. Only process natural solid wood boards. Never plane MDF, particle board, plywood, laminates or any synthetic materials.
- Do not force material. The planer performs best when working at the manufacturer's intended rate.
- To minimize the risk of injury from kickback, which occurs when the workpiece is ejected by the force of the cutterhead, use proper feeding technique and stand to one side, out of the path of a potential kickback.
- Avoid working from awkward or off balance positions. Do not overreach and keep both feet on floor.
- Select appropriate feed speed for the stock being planed: Use high speed for soft wood and slow for hardwood.
- Place stock firmly against the table and use in-feed and out-feed support if stock is too long.
- Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, properly re-attach it before using the planer again.
- Never leave the planer unattended while it is running or with the power on.
- Never stand on machinery. Serious injury could result if the planer is tipped over or if the belt or disc is unintentionally contacted.
- Always disconnect the machine from the power source before changing inserts; performing maintenance, cleaning or servicing; or leaving the machine unattended.
- Ensure the switch is in the OFF position before plugging in the power cord.
- Make sure the machine is properly grounded. If equipped with a three-prong plug, use it with a three-pole receptacle. Never remove the third prong.
- Do not use this planer for other than its intended use. If used for other purposes, KMS Tools and Equipment disclaims any real or implied warranty and holds itself harmless for any injury that may result from that use.

TOOL OVERVIEW

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

BASIC FUNCTIONS

The Magnum Industrial 20" heavy-duty planer is designed for thickness planing of solid wood only. The unit is not designed to surface or prepare particle board, plywood, laminates, MDF, wood panelling or any other wood-based or non-wood based materials. This planer has the capacity to plane boards up to 20" wide with a maximum thickness of 8" and a minimum thickness of 3/16".

MAIN COMPONENTS

- (A) FRAME
- (B) ON/OFF SWITCH
- (C) TABLE EXTENSION
- (D) DUST CHUTE
- (E) GRADUATED SCALE
- (F) FEED SPEED ADJUSTMENT
- (G) CUTTING DEPTH ADJUSTMENT HANDWHEEL
- (H) TABLE ROLLER ADJUSTMENT LEVER

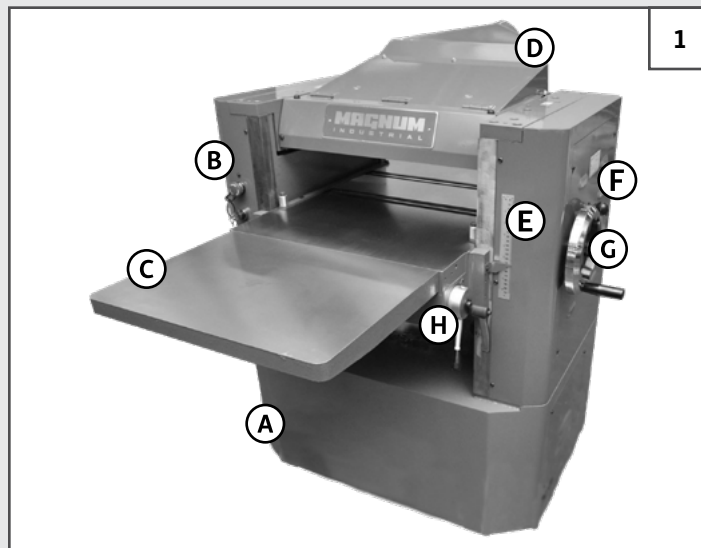


FIGURE 1: TOOL OVERVIEW

ELECTRICAL REQUIREMENTS

Before connecting the machine to the power source, verify that the voltage of your power supply corresponds with the voltage specified on the motor nameplate. A power source with greater voltage than needed can result in serious injury to the user as well as damage to the machine. If in doubt, contact a qualified electrician before connecting to the power source. This tool is for indoor use only. Do not expose to rain or use in wet or damp locations.

POWER CORD AND PLUG

Because each installation situation is unique, this machine is supplied without a power cord or plug. An appropriate power cord and plug must be installed by a qualified electrician. The machine must be connected to an electrical source using a power cord that has a grounding wire, which must also be properly connected to the grounding prong on the plug. The outlet must be properly installed and grounded and all electrical connections must be made in accordance with all local codes and regulations. A manual circuit breaker is also recommended.

CIRCUIT CAPACITY

Make sure that the wires in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician. If the circuit breaker trips or the fuse blows regularly, your machine may be operating on a circuit that is close to its amperage draw capacity.

ASSEMBLY INSTRUCTIONS

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

For your convenience this machine is shipped from the factory partially assembled and requires only minimal assembly and set up before being put into service.

- Before you assemble your band saw, review the parts breakdown and keep it ready for reference.
- Start by removing the parts from the packaging.
- Carefully check the packaging for small pieces before you continue.
- Lay out the parts on a large, clear and unobstructed area and ensure that all parts are accounted for.
- If you have any questions or require further information, please contact the KMS Tools Service Department at 604.395.4134 or email repairs@kmstools.com

LIST OF CONTENTS

For your convenience this sander is shipped from the factory partially assembled and requires only minimal assembly.

- **(A) DUST CHUTE**
- **(B) CUTTING DEPTH ADJUSTMENT HANDWHEEL**
- **(C) LIFTING HOOK (X2)**
- **(D) FOOT PAD (X4)**
- **(E) LOCK KNOB (DEPTH OF CUT HANDWHEEL)**
- **(F) FLAT WASHER (DEPTH OF CUT HANDWHEEL)**
- **(G) DUST CHUTE FLANGE BOLT (X6)**
- **(H) SCREWDRIVER**
- **(I) METRIC ALLEN KEYS (3, 4, 6 MM)**
- **(J) METRIC WRENCHES (10, 14, 19, 24 MM)**
- **(K) HANDLE (TABLE ROLLER ADJ. LEVER)**
- **(L) THREADED ROD (TABLE ROLLER ADJ. LEVER)**

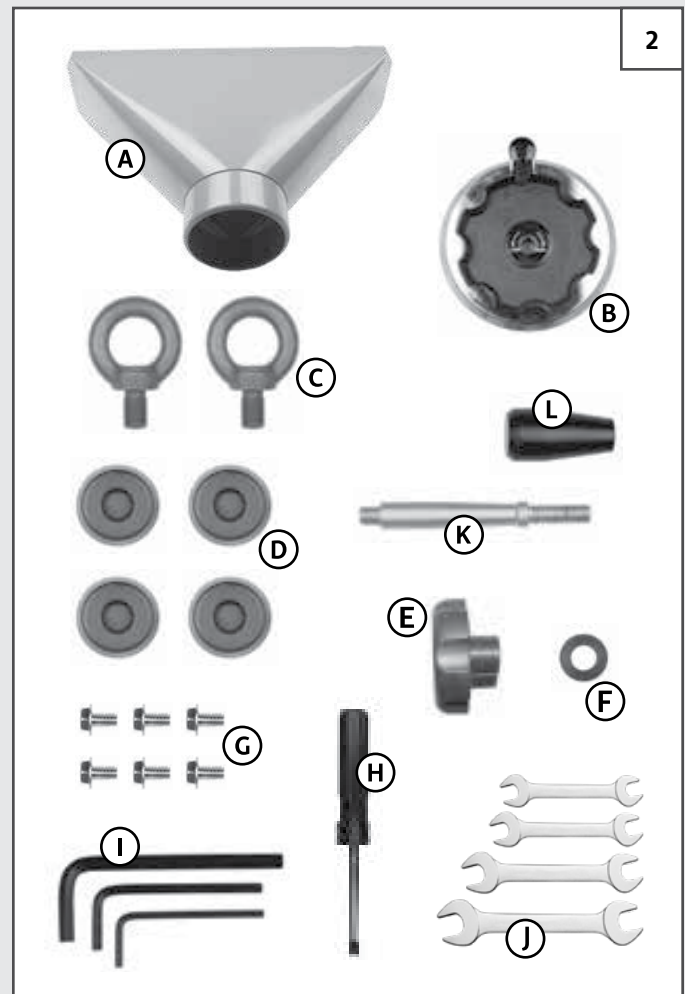


FIGURE 2: CONTENTS

ASSEMBLY INSTRUCTIONS

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

WARNING!

Before assembling the planer, make sure the power cord is unplugged and the switch is in the OFF position. Do not plug in or turn on the machine until you have fully assembled the machine.



FIGURE 3: INSTALLING CUTTING DEPTH ADJUSTMENT HANDWHEEL

INSTALLING THE CUTTING DEPTH ADJUSTMENT HANDWHEEL

1. Position the handwheel on the arbor. See Figure 3.
2. Slide the **FLAT WASHER (A)** onto the arbor and secure it in place with the **LOCK KNOB (B)**.

INSTALLING THE LIFT HOOKS

1. If needed, install the lift hooks on top of the machine. See Figure 4.

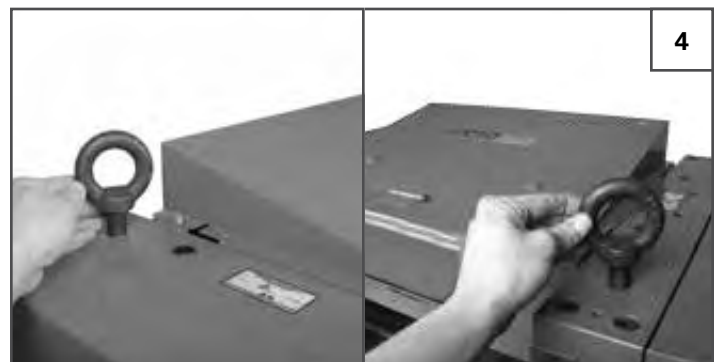


FIGURE 4: INSTALLING LIFT HOOKS

INSTALLING TABLE ROLLER ADJUSTMENT LEVER

1. Tighten the lever handle onto the shaft. Then tighten the **LEVER ASSEMBLY (C)** into the **BRACKET (D)**. See Figure 5.

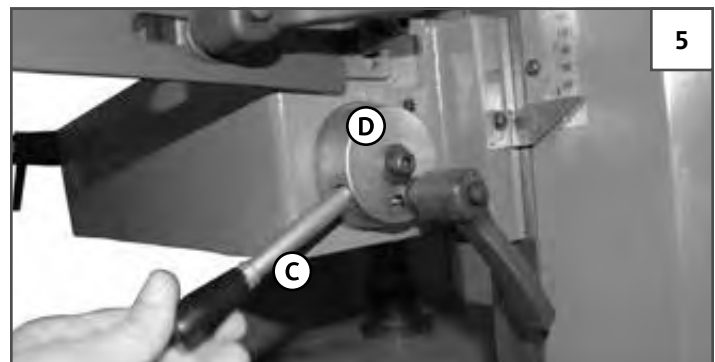


FIGURE 5: INSTALLING TABLE ROLLER ADJUSTMENT LEVER

INSTALLING THE DUST CHUTE

1. Place the dust chute against the opening in the back of the machine.
2. Align the **MOUNTING HOLES (E)** in the dust chute with the corresponding holes in the machine. Secure the chute with the six **FLANGE BOLTS (F)**. Use a 10 mm wrench. See Figure 6.

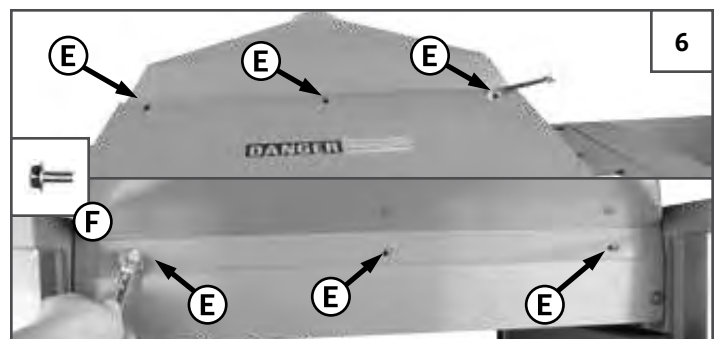


FIGURE 6: INSTALLING DUST CHUTE

CONNECTING TO A DUST COLLECTOR

The dust chute connects to a 5" hose. Make sure to use appropriate sized hose and fittings (not included). Check that all connections are sealed tightly to help minimize airborne dust.

BASIC ADJUSTMENTS

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER MI-31550 / MI-31552 / MI-31553

WARNING!

To reduce the risk of shock or fire do not operate the unit with a damaged power cord or plug. Replace damaged cord or plug immediately. To avoid unexpected or unintentional start-up, make sure that the power switch is in the OFF position before connecting to a power source.

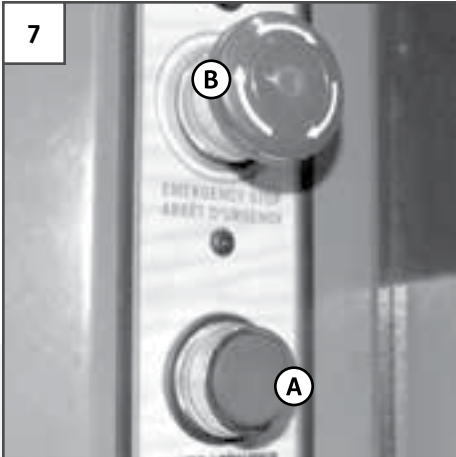


FIGURE 7: MAGNETIC SAFETY SWITCH

CONNECTING TO A POWER SOURCE

Once you have assembled the planer, plug the power cord into an appropriate outlet. Refer to the Electrical Requirements section and follow all requirements and grounding instructions.

MAGNETIC SAFETY SWITCH

This machine is equipped with a magnetic safety switch designed to protect the user from unintentional startup. The switch assembly features a green **START BUTTON (A)** and a red spring-loaded **STOP BUTTON (B)**. Once the **STOP BUTTON** has been pressed, restart the planer by turning the inner part of the button to the right. This releases the stop button. See Figure 7.



FIGURE 8: MOTOR DOOR

OVERLOAD PROTECTION

The magnetic safety switch is equipped with an overload protection feature. In the event of a spike in line voltage or amperage draw, the internal overload protector will automatically trip and cut off power to the motor.

Electrical overloads can be caused by the following:

- Overworking the motor by forcing thick, dense material through the planer. This causes an increase in power consumption and a spike in amperage draw.
- Using an electrical extension cord that is too long or not the correct gauge, which can also cause an increase in amperage draw. If you are unsure about choosing an appropriate power cord, contact a qualified electrician.
- Operating the machine on a circuit that is close to its amperage draw capacity. Make sure the circuit is capable of handling the amperage draw from this machine as well as any other electrical devices operating on the same circuit. If you are unsure, consult a qualified electrician.

To reset the overload protection switch after it has been tripped, follow these steps:

1. Unplug the machine.
2. Open the motor door in the back of the machine and remove electrical box cover. See Figure 8.
3. Press the **BUTTON (C)** to reset the overload protection. See Figure 9.
4. Before starting the machine, secure the cover box and close the motor door.

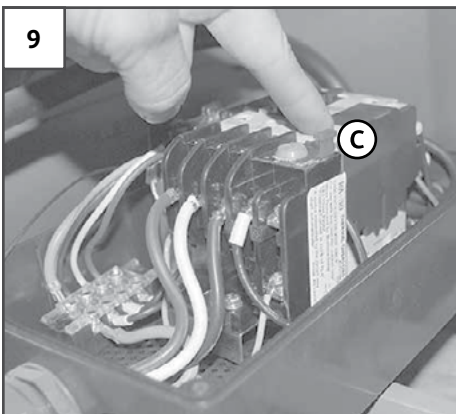


FIGURE 9: RESETTING OVERLOAD SWITCH

BASIC ADJUSTMENTS

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

WARNING!

Before making adjustments, make sure the power cord is unplugged and the switch is in the OFF position. Do not plug in or turn on the machine until you have fully assembled the machine.

ADJUSTING TABLE ROLLER HEIGHT

The planer features two adjustable **TABLE ROLLERS (A)** that help reduce friction when feeding stock. You can set the height of the rollers to suit personal preference as well as the type of stock. See Figure 10.

As a general rule when planing rough stock, set the rollers higher. When planing smooth stock, set the rollers lower.

To adjust the height of the table rollers follow these steps:

1. Loosen the **LOCK LEVER (B)** and turn the **ADJUSTMENT LEVER (C)** up or down as needed.
2. Tighten the **LOCK LEVER (B)** to secure the rollers at the desired height.

IMMOBILIZING THE PLANER

During operation, vibration can cause the planer to move, particularly when installed on an uneven surface.

Use the **ANCHOR BOLTS (D)** and pads to immobilize the planer. Either lower the bolts against the pads on the floor to act as points of contact with the floor, or for permanent installation, drill into the floor and bolt the machine in place. See Figure 11 for anchor bolt location.

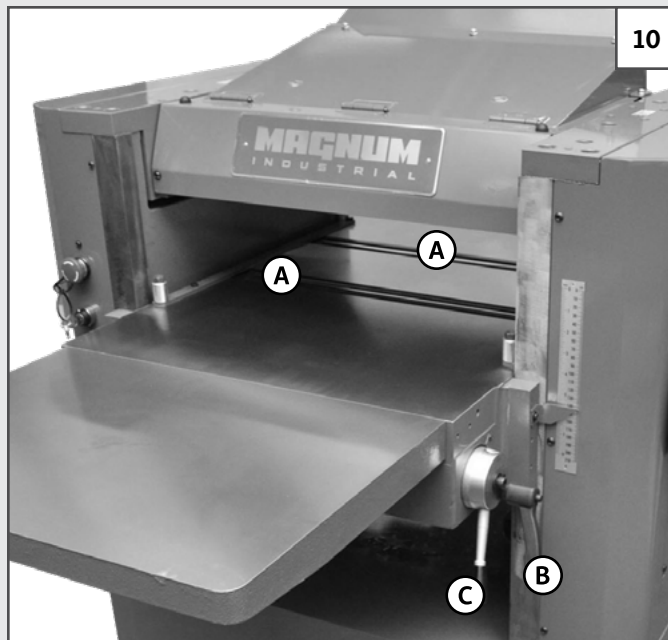


FIGURE 10: ADJUSTING TABLE ROLLERS



FIGURE 11: ANCHOR BOLTS

OPERATING INSTRUCTIONS

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

WARNING!

Always plane in the direction of the grain. Planing against the grain or planing end grain is dangerous.

BASIC PRINCIPLES OF PLANING

This planer is designed to remove material from the top face of a board in order to bring the board (or a series of boards) down to a specific desired shape or profile and thickness. To obtain uniform results across the length of a board, the stock being planed must have one face that has already been machined perfectly flat (usually on a jointer) and the stock should be fed with this flat face against the table.

SELECTING BOARDS

This planer is intended for use with solid woods or MDF only, and should not be used to plane or mould any other materials. The workpiece should always be fed through the machine in the general direction of the grain in the wood. Before being fed through the planer all lumber should be inspected for debris and foreign objects such as staples or nails.

Foreign objects embedded in your workpiece can be ejected from the machine at high speed, causing serious injury or damaging cutter knives. Remove all foreign objects from the wood before planing it. Select lumber carefully and avoid workpieces with loose or protruding knots. Also avoid workpieces that are twisted, severely deformed or warped.

Planing warped, twisted, damaged or fragile stock increases the risk of jamming or damaging the machine or cutters, as well as increasing the risk of injury to the operator or bystanders from kickback. Kickback occurs when the workpiece is forcefully or violently ejected from the machine.

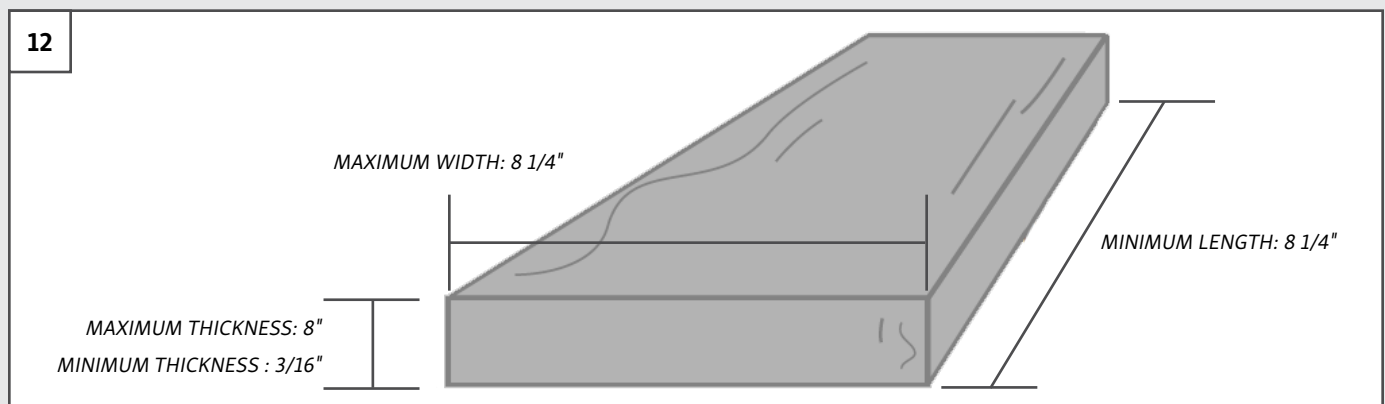


FIGURE 12: PLANER CAPACITY

WARNING!

Respect the rated capacity of this machine. Ignoring these ratings and feeding non-compatible stock into this planer can lead to serious injury to the user and/or bystanders and cause damage to the workpiece and/or the machine. See Figure 12.

OPERATING INSTRUCTIONS

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER

MI-31550 / MI-31552 / MI-31553

WARNING!

Before making any adjustments, ensure the power switch is OFF and the power cord is unplugged

ADJUSTING CUTTING DEPTH

You can adjust the cutting depth by turning the **HANDWHEEL (A)**. The maximum cutting depth on full width planing is 1/8".

For both hard and soft wood, the planer is more effective when removing less material per pass and taking multiple passes.

To adjust the cutting depth, follow these steps:

1. Turn off the machine.
2. Position the board under the infeed roller and adjust the position of the table with the handwheel so that the infeed roller touches the board.
3. Remove the board and adjust the cutting depth using the **SCALE (B)** by turning the handwheel clockwise.

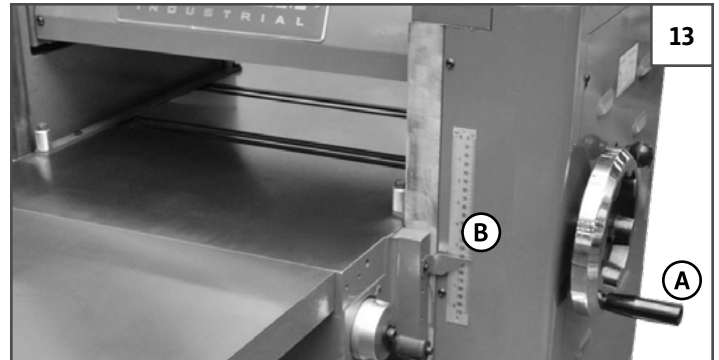


FIGURE 13: ADJUSTING CUTTING DEPTH

ADJUSTING FEED SPEED

The feed motor speed operates at 22 or 28 feet per minute. You can adjust the feed speed with the **FEED SPEED ADJUSTMENT KNOB (C)**, which is located on the right side of the planer. Choose the appropriate feed speed for the stock: use high speed for soft wood and slow for hardwood. Experiment with feed speeds to find the right speed for each workpiece.

To increase the feed speed, see Figure 14 and follow these steps:

1. To increase the feed rate to 28 fpm, pull the knob out.
2. To decrease the feed rate to 22 fpm, push the knob C in.
3. To set the gearbox to neutral, move the knob C to the middle position.

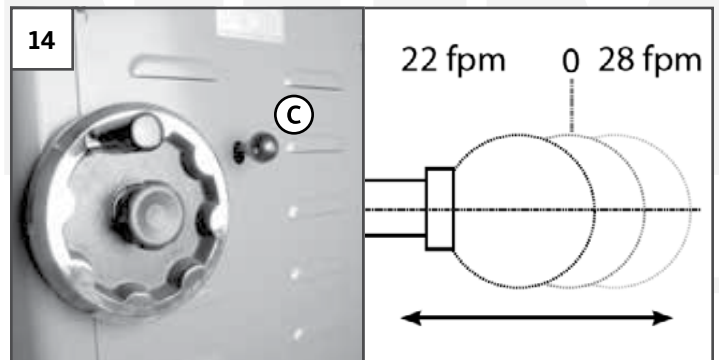


FIGURE 14: ADJUSTING FEED SPEED

WARNING!

To avoid damaging to the gearbox, change speeds only while the machine is running.

PLANING CHECKLIST

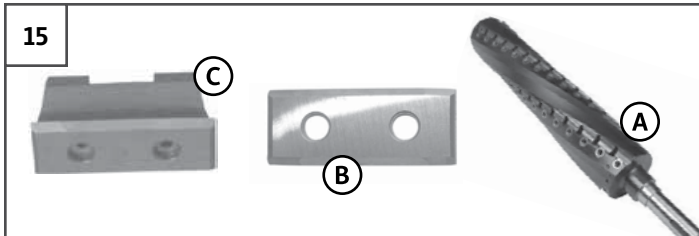
- Inspect the board and ensure it is suitable for planing.
- Wear appropriate workshop attire. Roll up long sleeves, secure long hair and remove any jewellery, watches, rings, bracelets or anything that could get caught in moving parts.
- Wear eye, hearing and respiratory protection.
- Check that all components, including fasteners and moving parts, are securely installed before starting the planer.
- When planing multiple boards, collect them on a nearby table within reach. To limit the potential for injury in the event of a kickback, avoid stepping in front of the planer to pick up the next workpiece.

MAINTENANCE

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER MI-31550 / MI-31552 / MI-31553

WARNING!

Before making any adjustments, ensure the power switch is OFF and the power cord is unplugged



REPLACING CUTTERHEAD INSERTS

The **HELICAL CUTTERHEAD (A)** has 58 reversible **CARBIDE INSERTS (B)**, installed at the factory. Over time and with normal use, these inserts need to be reversed and/or replaced. To inspect the inserts for wear, manually turn the cutterhead.

To maintain even wear, always reverse or replace all 58 inserts together.

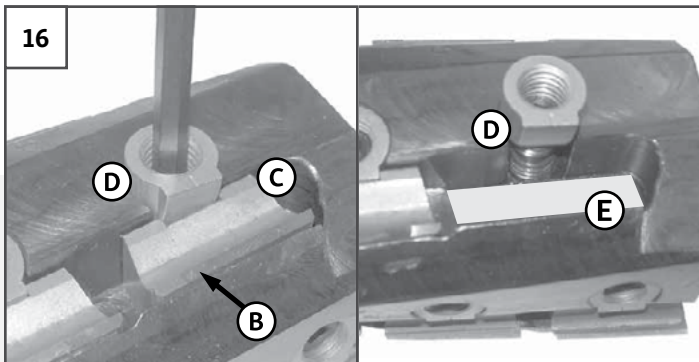
To service the cutterhead, follow these steps:

1. Using an Allen key, loosen but do not remove the **NUT AND SCREW (D)**. Remove the **INSERT HOLDER (C)** and **INSERT (B)**. See Figure 16.
2. Clean the **HOUSING (E)**, **INSERT HOLDER (C)** and **INSERT (B)** with lacquer thinner and a small brush. See Figure 16.
3. Reverse or replace the **INSERT** and reinstall with the **INSERT HOLDER** into the slot, then install the **NUT AND SCREW** but do not tighten them yet.
4. Center the **INSERT HOLDER (C)** with the flat edge of the **NUT** and fully tighten the **NUT AND SCREW**. See Figure 17.
5. Follow steps 1 to 4 with the remaining inserts.

The **NUTS AND SCREWS (D)** that secure the **INSERT HOLDERS** and **INSERTS** in the cutterhead do not have to be removed when reversing or replacing the **INSERTS**.

If the **NUTS AND SCREWS** are removed, follow these steps to ensure the chip breakers are secured at the same height:

1. Place the screw in the threaded hole and the nut on the screw. Don't tighten yet.
2. While holding the nut, tighten the screw. This will tighten both the screw and nut simultaneously
3. Do not thread the nut onto the screw before tightening the screw into the threaded hole in the cutter head.



FIGURES 15 and 16: REPLACING CARBIDE INSERTS

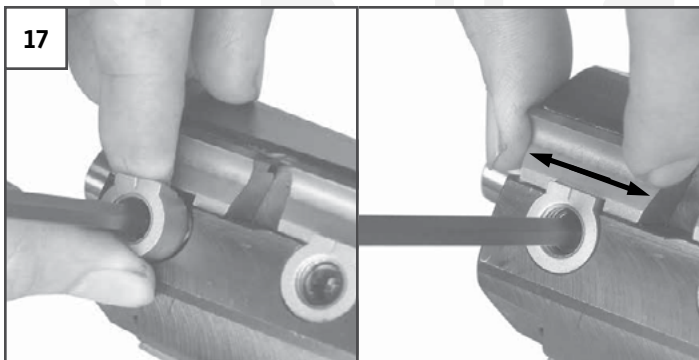


FIGURE 17: REPLACING CARBIDE INSERTS



FIGURE 18: REPLACING CARBIDE INSERTS

MAINTENANCE

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER MI-31550 / MI-31552 / MI-31553

WARNING!

Before performing any maintenance, ensure the power switch is OFF and the power cord is unplugged

PERIODIC MAINTENANCE

- Inspect the ON/OFF switches before each use. Do not operate the planer with a damaged switch. If you notice any damage to the ON/OFF switch, replace it immediately.
- Keep the machine and table clean and free of sawdust, wood chips, pitch or glue. Regularly, vacuum or brush off loose debris and wipe down the machine and the table.
- Occasionally apply a light coating of paste wax to help protect the table surface and reduce workpiece friction. Ask your local branch for suggestions on aftermarket surface cleaners and dry lubricants based on what is available in your area.
- Avoid using silicon-based products that could react with wood-finishing products such as varnishes and lacquers or oil-, solvent- or water-based stains.
- Periodically inspect the power cord and plug. To minimize the risk of electrical shock or fire, never operate the planer if you notice its power cord or plug is damaged. Replace a damaged power cord or plug at the first visible signs of damage.
- The drive gears, chain and elevation screws should be cleaned of wood chips, dust, debris and old grease. After cleaning, re-lubricate according to the lubrication instructions on page 11. Don't over lubricate.
- Regularly inspect planed workpieces for signs of damaged or worn inserts. Replace damaged or worn inserts immediately.

REPLACING GEARBOX OIL

You should change the gearbox oil after every 2,500 hours of operation. Use 80W-90 gear oil. To change the gearbox oil, follow these steps:

1. The gearbox is located behind the panel on the right side of the planer. To remove the panel, first remove the handwheel. Next unthread and remove the feed speed adjustment knob. Then remove the panel.
2. Place a container under the **DRAIN PLUG (A)** and remove it using a 14 mm wrench. Once the gearbox is drained, reinstall the **DRAIN PLUG (A)**, and then remove the **FILL PLUG (B)** using a 14 mm open wrench. See Figure 19.
3. Fill the gearbox with a 80W-90 gear oil until it reaches the hole. Reinstall the **FILL PLUG (B)**, and replace the panel, handwheel and feed speed adjustment knob.

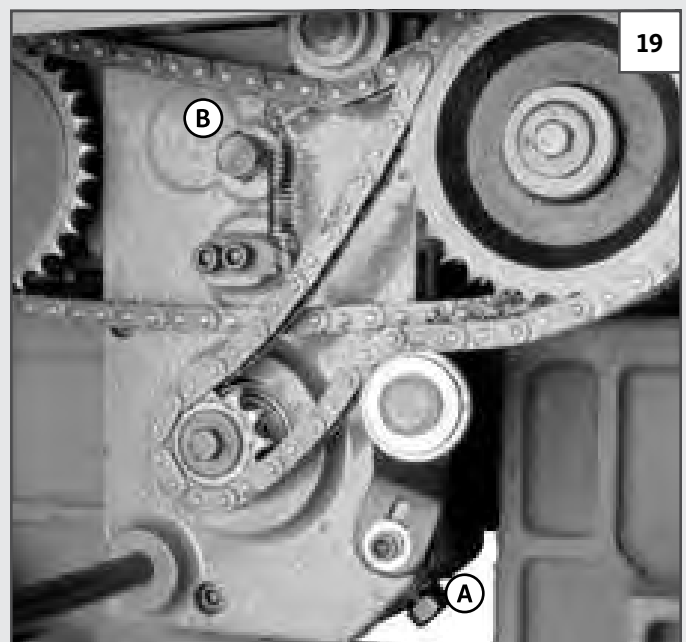


FIGURE 19: CHANGING THE GEAR OIL

LUBRICATION

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER MI-31550 / MI-31552 / MI-31553

LUBRICATION

- Lubricate the **ELEVATION SCREWS (A)**, **SLIDING SURFACES (B)** and **CHAINS (C)** every month. Use all-purpose grease for the **CHAINS** and **ELEVATION SCREWS**. Use all-purpose oil for the **SLIDING SURFACES**. See Figures 20 to 24.
- Lubricate the spring rollers via the four **SET SCREWS (D)** after every 30 hours of operation. Use all-purpose oil. See Figure 25.
- The cutterhead bearings are lubricated and sealed at the factory and require no further maintenance.

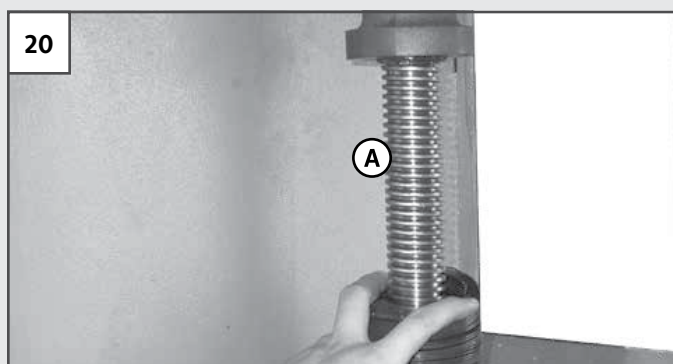


FIGURE 20: LUBRICATING ELEVATION SCREWS

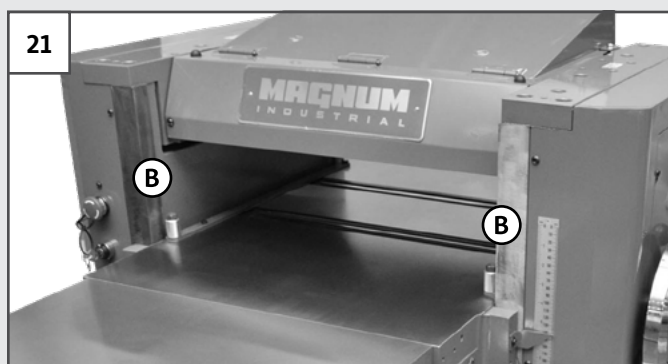


FIGURE 21: LUBRICATING SLIDING SURFACES

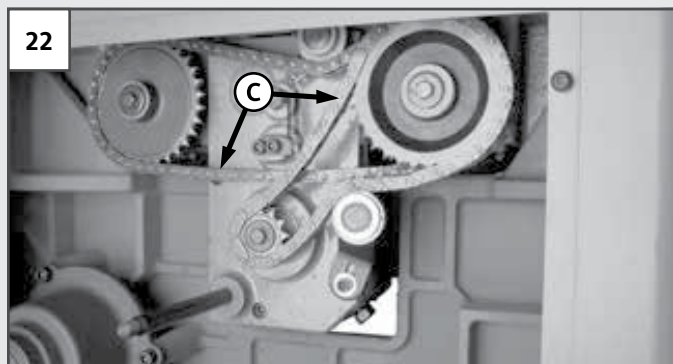


FIGURE 22: LUBRICATING CHAINS

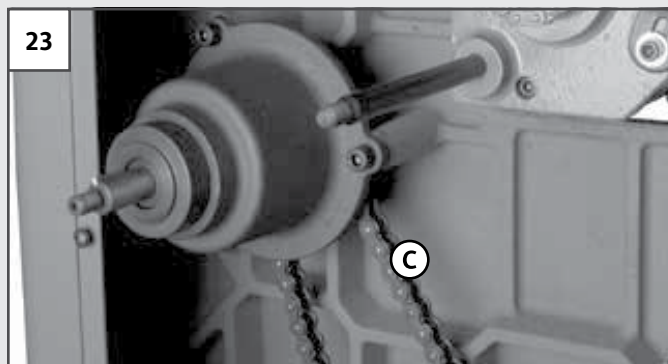


FIGURE 23: LUBRICATING CHAINS

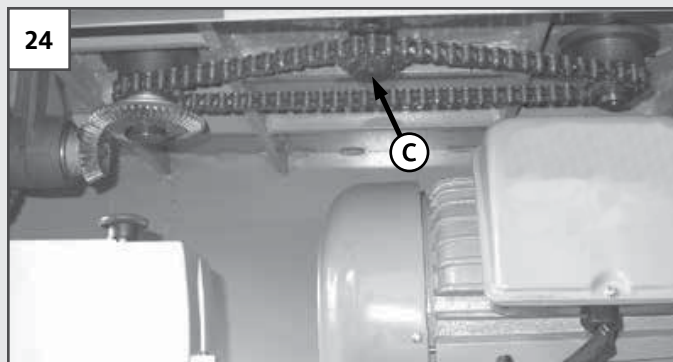


FIGURE 24: LUBRICATING CHAINS

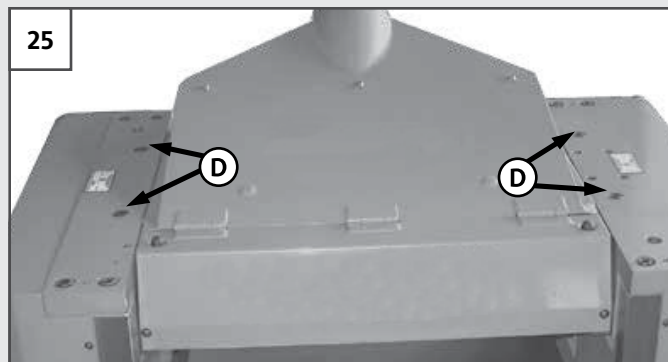


FIGURE 25: LUBRICATING ROLLER SPRINGS

MAINTENANCE

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER MI-31550 / MI-31552 / MI-31553

WARNING!

Before performing any maintenance, ensure the power switch is OFF and the power cord is unplugged

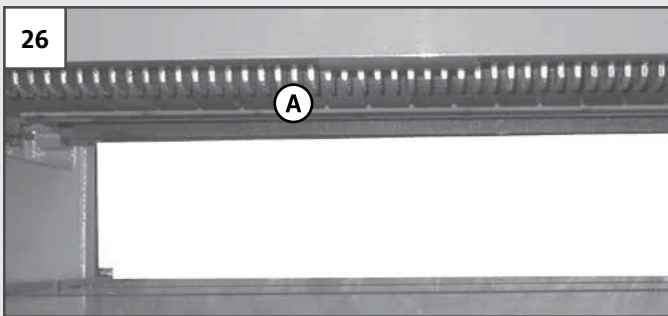


FIGURE 26: ANTI-KICKBACK FINGERS

CLEANING ANTI-KICKBACK FINGERS

This planer is equipped with **ANTI-KICKBACK FINGERS (A)** that help prevent the workpiece from being violently ejected from the machine. Check them periodically and ensure they are clean and clear so they can move freely and operate correctly. See Figure 26.



FIGURE 27: CHECKING BELT ALIGNMENT

ALIGNING PULLEYS

The drive belts and pulleys are located on the left side of the planer. To access them, remove the upper and lower panels on the left side of the planer using a 4 mm Allen key.

Using a straight edge, check that the pulleys are properly aligned. See Figure 27. If needed, align the pulleys by following these steps:

1. Open the motor access door.
2. Loosen the two **NUTS (B)** and the four **NUTS (C)** using 24 mm and 14 mm wrenches. See Figures 28 and 29.
3. Reposition the motor on its mounting plate to align the pulleys.
4. Retighten the four **NUTS (C)** and the belt tension **NUTS (B)**. Check tension by pushing the belt with your finger. The belt should not move more than 1/2".
5. Close the motor access door.

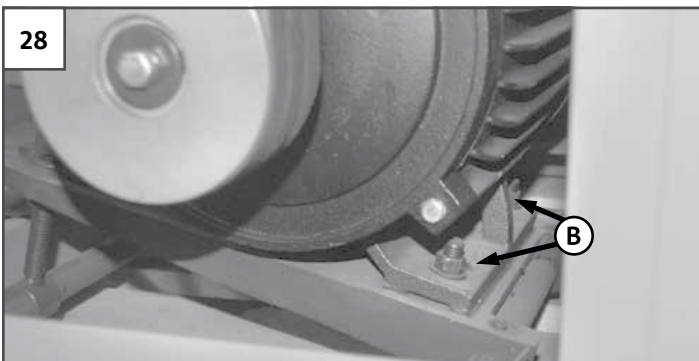


FIGURE 28: ALIGNING DRIVE PULLEYS

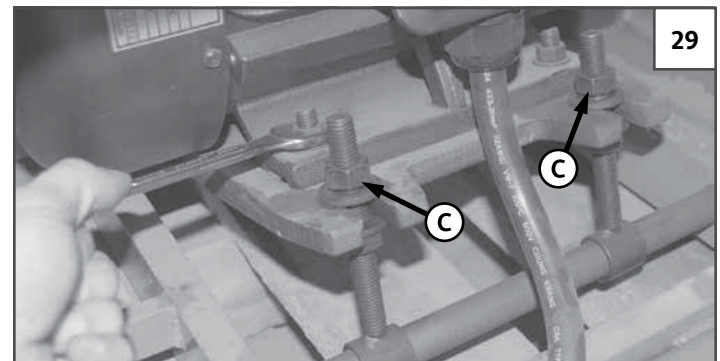


FIGURE 29: ALIGNING DRIVE PULLEYS

MAINTENANCE

MAGNUM INDUSTRIAL 20" HEAVY-DUTY PLANER MI-31550 / MI-31552 / MI-31553

WARNING!

Before performing any maintenance, ensure the power switch is OFF and the power cord is unplugged

ADJUSTING BELT TENSION

Inspect the belts after every 100 hours of use. To adjust belt tension, first remove the upper and lower panels on the left side of the planer (refer to the instructions on page 12). Check the belt tension by pushing the belt with your finger. The belt should not move more than 1/2". If the belt is too slack, adjust the tension:

1. Open the motor access panel. Loosen the two **JAM NUTS (A)** and then raise or lower the two **NUTS (B)** with a 19 mm wrench to increase or decrease belt tension. See Figure 30.
2. Retighten the **JAM NUTS (A)** against the motor mounting plate.
3. Close the motor access door.

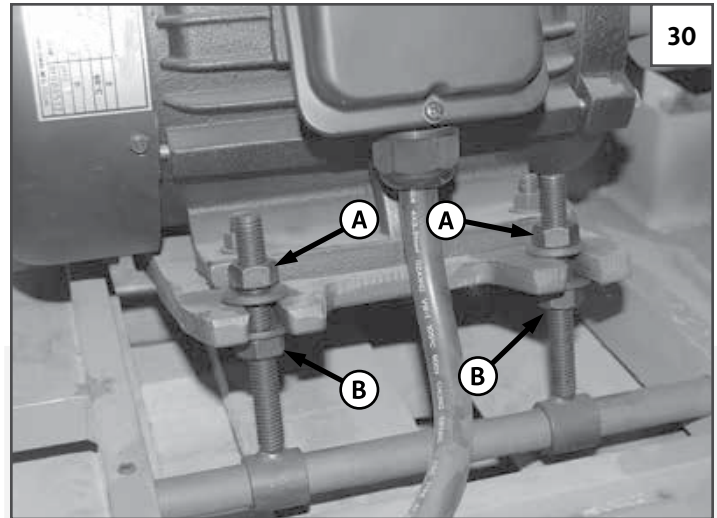
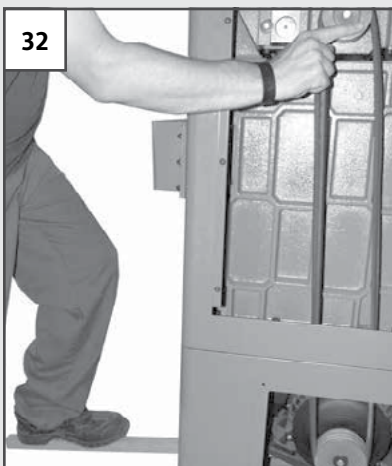


FIGURE 30: ALIGNING DRIVE PULLEYS



FIGURES 31 and 32: BELT INSTALLATION

CHANGING BELTS

If the belts show signs of wear, such as cracks or frays, replace them as soon as possible.

1. Remove the **NUTS (B)**.
2. Position a piece of wood under the motor base. See Figure 31.
3. Step on the wood to pivot the motor up, and then remove the belts from the upper pulley.
4. Install the new belts, starting with the lower pulley. Reinstall the **NUTS (B)**.
5. Adjust the tension (refer to the instructions in the section above).
6. Reinstall the left panels and close the motor access door before starting the machine.

MAGNUM INDUSTRIAL 5-YEAR LIMITED WARRANTY

Thank you for purchasing Magnum Industrial. Your new Magnum Industrial tool has been designed and manufactured to deliver high-quality performance and dependability over a long service life. Before leaving the factory, every Magnum Industrial product is tested and checked for quality.

5-YEAR LIMITED WARRANTY

Magnum Industrial woodworking and metalworking machinery is backed by a 5-year limited warranty. This warranty covers replacement parts against manufacturer's defect.

- This warranty does not cover parts that have been modified or damaged through misuse, lack of maintenance, negligence, accidents, natural disasters, inadequate dust collection or excessive production demands.
- This warranty does not cover consumable parts or parts that are subject to regular wear and tear during normal operation. Examples of wear and tear parts include drive belts, bearings and switches.
- This warranty does not cover parts damaged during shipping or transportation.

To make a warranty claim, the original purchaser must contact a Magnum Industrial representative and provide documented proof of purchase. Once the representative confirms that the damage has occurred due to manufacturer's defect, Magnum Industrial will ship a replacement part or parts prepaid to the original purchaser. The original purchaser may choose to install the replacement parts or transport the machinery to an authorized Magnum Industrial service centre for installation. Transportation costs are not covered by the warranty.

As determined on a case-by-case basis, parts may need to be inspected by an authorized Magnum Industrial representative before parts are eligible for warranty. In these cases, the original purchaser is responsible for transporting the parts to a representative or an authorized Magnum Industrial service centre.

LABOUR AND TRANSPORTATION COSTS

The original purchaser may choose to transport the machinery to an authorized Magnum Industrial service centre for warranty evaluation. Transportation costs and expenses related to moving machinery to and from carrier vehicles are not covered by the warranty.

Once the machinery has been evaluated by the authorized Magnum Industrial service centre, any parts damaged due to manufacturer's defect will be replaced and installed at no cost. Labour is covered by warranty only when completed by an authorized Magnum Industrial service centre. The warranty does not cover third-party repairs.

ORIGINAL PURCHASER OF THE PRODUCT

This warranty is non-transferable and applies to the original purchaser only. This warranty requires documented proof of purchase.

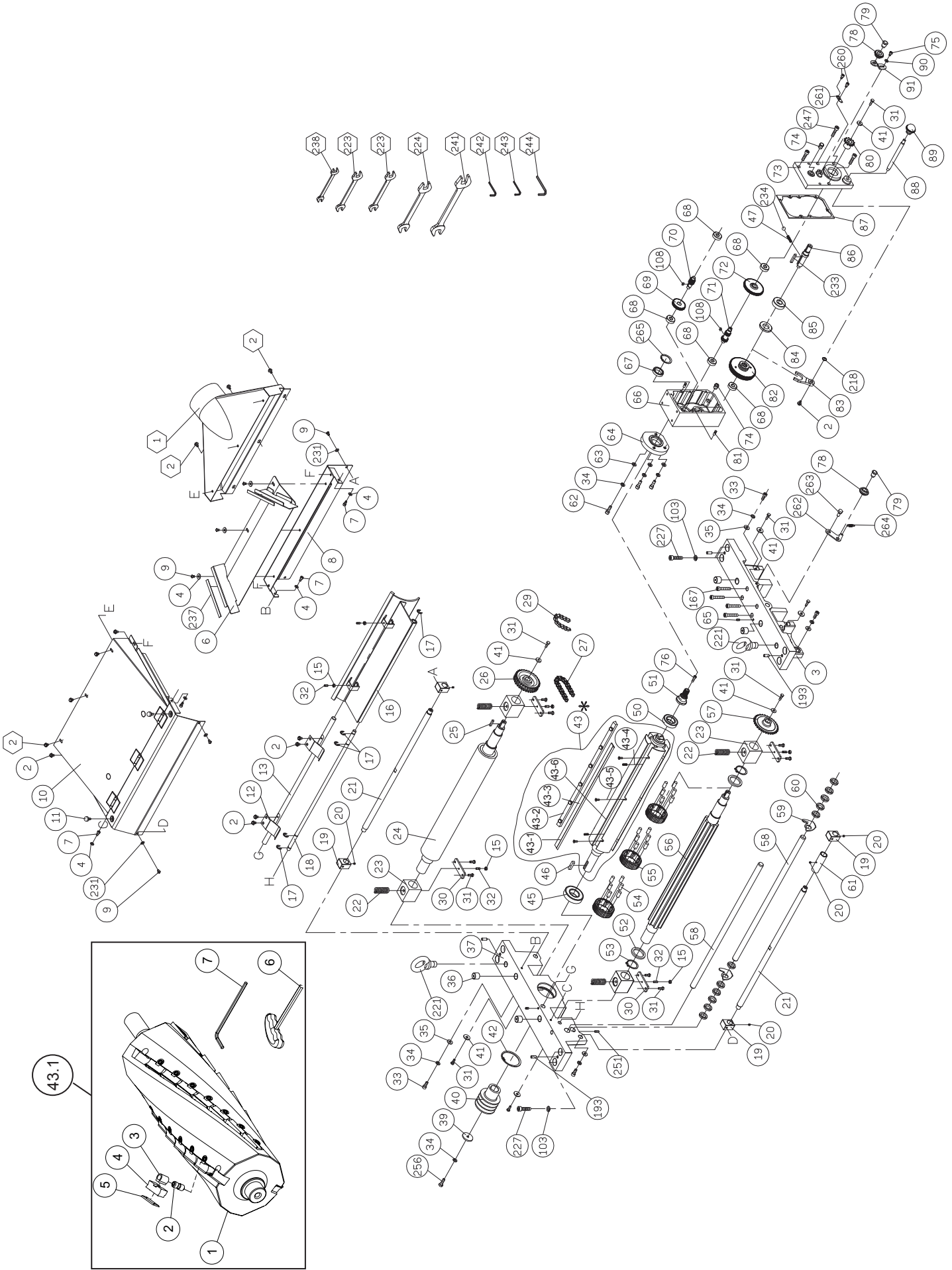
MANUAL

This manual is a guide for assembling and adjusting this product. It is not a woodworking or metalworking training manual. It is the end user's responsibility to understand how to safely set up, operate, and maintain woodworking and metalworking machinery. Because product specifications can change without notice, some details in this manual may not apply to the product you purchased.

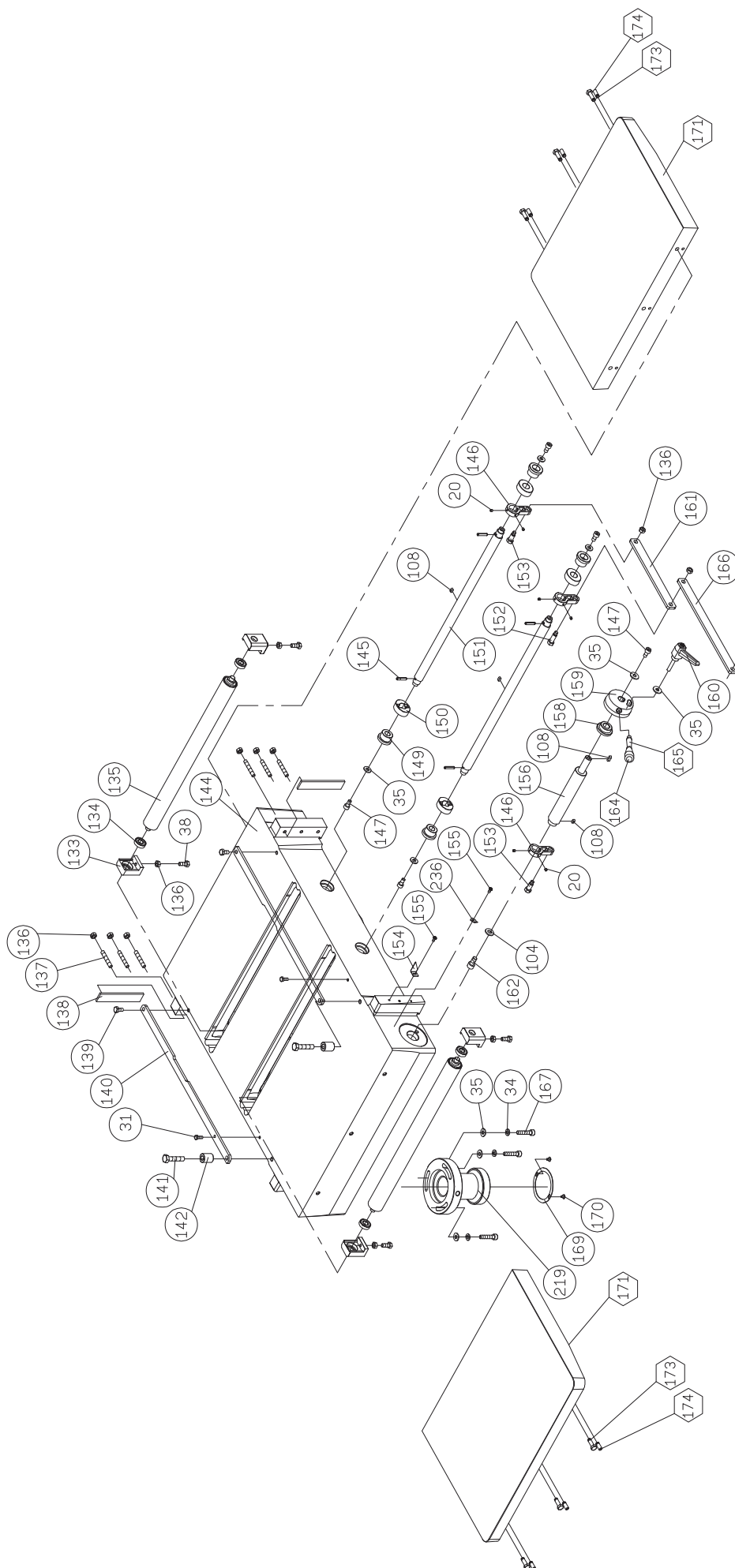
DISCLAIMER

KMS Tools and Equipment and Magnum Industrial holds itself harmless for any injury or property damage that may result from the use of this product.

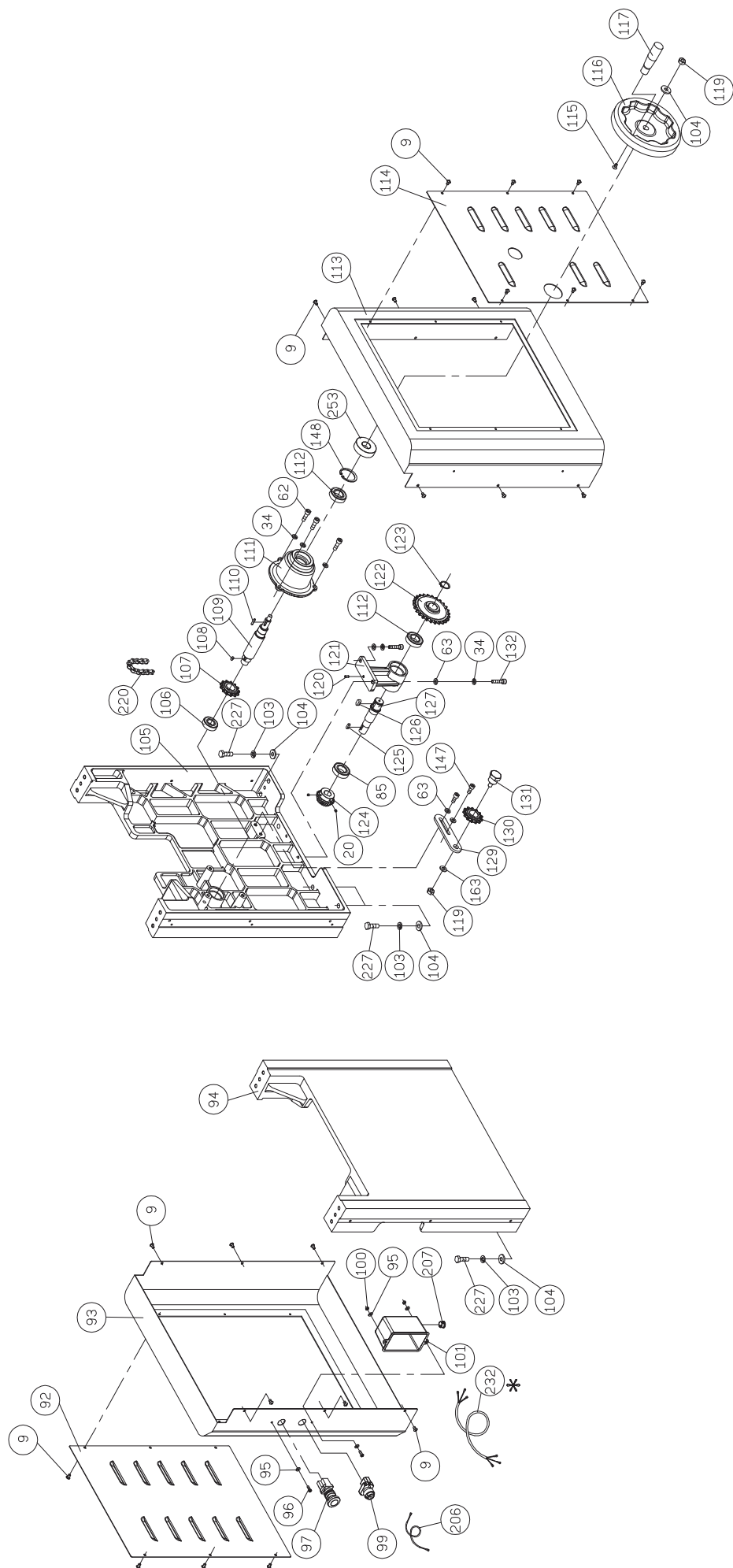
PARTS LIST FOR MI-31550 / MI-31552 / MI-31553



PARTS LIST FOR MI-31550 / MI-31552 / MI-31553



PARTS LIST FOR MI-31550 / MI-31552 / MI-31553



This diagram illustrates the exploded view of a mechanical assembly, likely a motorized device. The components are numbered as follows:

- Motor and Drive Components:** 204 (Motor), 210 (Shaft), 211 (Coupling), 212 (Bracket), 213 (Bushing), 214 (Nut), 215 (Washer), 216 (Pin), 217 (Pin).
- Structural and Mounting Components:** 190 (Panel), 189 (Bracket), 191 (Bracket), 192 (Bracket), 193 (Bracket), 194 (Bracket), 195 (Bracket), 196 (Bracket), 197 (Bracket), 198 (Bracket), 199 (Bracket), 200 (Bracket), 201 (Bracket), 202 (Bracket), 203 (Bracket), 204 (Bracket), 205 (Bracket).
- Fasteners and Hardware:** 170 (Washer), 171 (Washer), 172 (Washer), 173 (Washer), 174 (Washer), 175 (Washer), 176 (Washer), 177 (Washer), 178 (Washer), 179 (Washer), 180 (Washer), 181 (Washer), 182 (Washer), 183 (Washer), 184 (Washer), 185 (Washer), 186 (Washer), 187 (Washer), 188 (Washer), 189 (Washer), 190 (Washer), 191 (Washer), 192 (Washer), 193 (Washer), 194 (Washer), 195 (Washer), 196 (Washer), 197 (Washer), 198 (Washer), 199 (Washer), 200 (Washer), 201 (Washer), 202 (Washer), 203 (Washer), 204 (Washer), 205 (Washer).
- Internal Components:** 119 (Coil), 120 (Coil), 121 (Coil), 122 (Coil), 123 (Coil), 124 (Coil), 125 (Coil), 126 (Coil), 127 (Coil), 128 (Coil), 129 (Coil), 130 (Coil), 131 (Coil), 132 (Coil), 133 (Coil), 134 (Coil), 135 (Coil), 136 (Coil), 137 (Coil), 138 (Coil), 139 (Coil), 140 (Coil), 141 (Coil), 142 (Coil), 143 (Coil), 144 (Coil), 145 (Coil), 146 (Coil), 147 (Coil), 148 (Coil), 149 (Coil), 150 (Coil), 151 (Coil), 152 (Coil), 153 (Coil), 154 (Coil), 155 (Coil), 156 (Coil), 157 (Coil), 158 (Coil), 159 (Coil), 160 (Coil), 161 (Coil), 162 (Coil), 163 (Coil), 164 (Coil), 165 (Coil), 166 (Coil), 167 (Coil), 168 (Coil), 169 (Coil), 170 (Coil), 171 (Coil), 172 (Coil), 173 (Coil), 174 (Coil), 175 (Coil), 176 (Coil), 177 (Coil), 178 (Coil), 179 (Coil), 180 (Coil), 181 (Coil), 182 (Coil), 183 (Coil), 184 (Coil), 185 (Coil), 186 (Coil), 187 (Coil), 188 (Coil), 189 (Coil), 190 (Coil), 191 (Coil), 192 (Coil), 193 (Coil), 194 (Coil), 195 (Coil), 196 (Coil), 197 (Coil), 198 (Coil), 199 (Coil), 200 (Coil), 201 (Coil), 202 (Coil), 203 (Coil), 204 (Coil), 205 (Coil).

The diagram includes various assembly instructions and callouts:

- Assembly Instructions:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217.
- Callouts:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217.

PARTS LIST FOR MI-31550 / MI-31552 / MI-31553

ITEM NO.	DESCRIPTION	SPECIFICATION	QTY
MI-31550-1	DUST CHUTE		1
MI-31550-2	HEX SCREW W/WASHER	M6*1.0P*12	13
MI-31550-3	RIGHT+E25		1
MI-31550-4	FLAT WASHER	6.7*19*2.0t	7
MI-31550-6	CHIP PLATE		1
MI-31550-7	SOC HD CAP SCREW	M6*1.0P*12	4
MI-31550-8	REAR TOP COVER		1
MI-31550-9	ROUND HEAD HEX SCREW	M6*1.0P*10	39
MI-31550-10	FRONT TOP COVER		1
MI-31550-11	PAD		2
MI-31550-12	SPRING PLATE		2
MI-31550-13	SHAFT		1
MI-31550-15	HEX NUT	M6*1.0P(10B*5H)	6
MI-31550-16	CHIP BREAKER		1
MI-31550-17	RETAINING RING	ETW-10	4
MI-31550-18	SHAFT		1
MI-31550-19	FIXING PLATE		4
MI-31550-20	SET SCREW	M5*0.8P*5	13
MI-31550-21	FIXING SHAFT		2
MI-31550-22	SPRING		4
MI-31550-23	BUSHING		4
MI-31550-24	OUTFEED ROLLER		1
MI-31550-25	KEY	5*5*22	1
MI-31550-26	CHAIN SPROCKET		1
MI-31550-27	CHAIN	#06B*85P	1
MI-31550-29	CHAIN	#06B*58P	1
MI-31550-30	RETAINER PLATE		4
MI-31550-31	HEX. SCREW	M6*1.0P*16	17
MI-31550-32	SET SCREW	M6*1.0P*16	6
MI-31550-33	SOC HD CAP SCREW	M8*1.25P*20	6
MI-31550-34	SPRING WASHER	8.2*15.4	19
MI-31550-35	FLAT WASHER	8.5*23*2.0t	16
MI-31550-36	SCREW		4
MI-31550-37	LEFT SUPPORT SHAFT		1
MI-31550-38	HEX. SCREW	M8*1.25P*20	4
MI-31550-39	WASHER		1
MI-31550-40	CUTTERHEAD PULLEY		1
MI-31550-41	FLAT WASHER	6.2*22*3t	7
MI-31550-42	RETAINING RING	RTW-72	1
CUTTERHEAD			
MI-31502-43	CUTTERHEAD COMPLETE (MI-31502)		1
MI-31502-43-1	KNIFE		4
MI-31502-43-2	KNIFE LOCKING BAR		4
MI-31502-43-3	HEX HEAD BOLT	M8X1.25PX10	6
MI-31502-43-4	SPRING		9
MI-31502-43-5	HEX HEAD BOLT	M5X0.8PX12L	12
MI-31502-43-6	CUTTERHEAD		1
HELICAL CUTTERHEAD			
MI-31550-43.1	HELICAL CUTTREAD (MI-31550 / MI-31552 / MI-31553)		1
MI-31550-43.1-1	CUTTER HEAD		1
MI-31550-43.1-2	INSERT SCREW		58
MI-31550-43.1-3	NUT		58
MI-31550-43.1-4	KNIFE-HOLDER / CHIPBREAKER		58
MI-31550-43.1-5	CARBIDE INSERT	30X12X1.5MM (T)	58
MI-31550-43.1-6	"T" HANDLE ALLEN WRENCH	5 MM	1
MI-31550-43.1-7	ALLEN KEY	5 MM	1
MI-31550-45	BALL BEARING	6207	1
MI-31550-46	KEY	8*8*40	1
MI-31550-47	SPRING		1
MI-31550-50	BALL BEARING	6006	1
MI-31550-51	GEAR		1
MI-31550-52	WASHER	39*69*2t	2
MI-31550-53	RETAINING RING	STW-38	2
MI-31550-54	RUBBER PIN		120
MI-31550-55	INFEED ROLLER		20
MI-31550-56	INFEED ROLLER SHAFT		1
MI-31550-57	CHAIN SPROCKET		1
MI-31550-58	ANTI-KICK BACK SHAFT		2

PARTS LIST FOR MI-31550 / MI-31552 / MI-31553

MI-31550-59	ANTI-KICK BACK		56
MI-31550-60	SPACER		66
MI-31550-61	FIXING PLATE		1
MI-31550-62	SOC HD CAP SCREW	M8*1.25P*25	12
MI-31550-63	FLAT WASHER	8.5*16*2.0t	9
MI-31550-64	BEARING HOUSING		1
MI-31550-65	SET SCREW	M6*1.0P*6	2
MI-31550-66	GEARBOX		1
MI-31550-67	OIL SEAL	TCX4 28*40*8	1
MI-31550-68	BALL BEARING	6201	5
MI-31550-69	GEAR		1
MI-31550-70	SHAFT		1
MI-31550-71	SHAFT		1
MI-31550-72	GEAR		1
MI-31550-73	GEARBOX COVER		1
MI-31550-74	PLUG	PT1/4-19 "	2
MI-31550-75	SOC HD CAP SCREW	M6*1.0P*8	1
MI-31550-76	CAP LOCKING SCREW	M6*1.0P*20	1
MI-31550-78	CHAIN TENSIONER		2
MI-31550-79	CHAIN TENSIONER SHAFT		2
MI-31550-80	CHAIN SPROCKET		1
MI-31550-81	PIN		2
MI-31550-82	GEAR ASSEMBLY		1
MI-31550-83	SHIFTING CLAW		1
MI-31550-84	OIL SEAL	SC25*47*6	1
MI-31550-85	BALL BEARING	6204	3
MI-31550-86	SHAFT		1
MI-31550-87	GEARBOX GASKET		1
MI-31550-88	LEVER		1
MI-31550-89	KNOB		1
MI-31550-90	FLAT WASHER	6.6*13*1.0t	1
MI-31550-91	SHAFT		1
MI-31550-92	LEFT SIDE COVER		1
MI-31550-93	LEFT SIDE SUPPORT		1
MI-31550-94	LEFT SUPPORT PLATE		1
MI-31550-95	FLAT WASHER	5.3*12*1.0t	4
MI-31550-96	ROUND HD SCREW	M5*0.8P*16	4
MI-31550-97	STOP SWITCH		1
MI-31550-99	START SWITCH		1
MI-31550-100	HEX NUT	M5*0.8P(8B*4H)	2
MI-31550-101	SWITCH BOX		1
MI-31550-102	SOC HD CAP SCREW	M10*1.5P*30	6
MI-31550-103	SPRING WASHER	10.2*18.5	24
MI-31550-104	FLAT WASHER	10*25*3.0t	15
MI-31550-105	RIGHT SUPPORT PLATE		1
MI-31550-106	BALL BEARING	6004	1
MI-31550-107	SPROCKET		3
MI-31550-108	KEY	5*5*10	9
MI-31550-109	HANDWHEEL SHAFT		1
MI-31550-110	KEY	4*4*20	1
MI-31550-111	HANDWHEEL BUSHING		1
MI-31550-112	BALL BEARING	6005	2
MI-31550-113	RIGHT SIDE SUPPORT		1
MI-31550-114	RIGHT SIDE COVER		1
MI-31550-115	PAN HEAD SCREW	M6*1.0P*12	1
MI-31550-116	HAND WHEEL		1
MI-31550-117	FOLDING HANDLE		1
MI-31550-119	HEX NUT	M10*1.5P(17B*8H)	5
MI-31550-120	PIN		1
MI-31550-121	SHAFT		1
MI-31550-122	SPROCKET		1
MI-31550-123	RETAINING RING	STW-25	1
MI-31550-124	BEVEL GEAR		1
MI-31550-125	KEY	5*5*16	2
MI-31550-126	KEY	8*7*18	1
MI-31550-127	SHAFT		1
MI-31550-129	CHAIN TENSIONER BRACKET		2
MI-31550-130	IDLE		2
MI-31550-131	IDLE FIXING SHAFT		2
MI-31550-132	SOC HD CAP SCREW	M8*1.25P*35	2
MI-31550-133	ROLLER BRACKET		4
MI-31550-134	BALL BEARING	6001	4
MI-31550-135	TABLE ROLLER		2

PARTS LIST FOR MI-31550 / MI-31552 / MI-31553

MI-31550-136	HEX NUT	M8*1.25P(13B*6.5H)	13
MI-31550-137	SET SCREW	M8*1.25P*45	6
MI-31550-138	GIB		2
MI-31550-139	HEX. SCREW	M8*1.25P*16	2
MI-31550-140	LEAD PLATE		2
MI-31550-141	HEX. SCREW	M10*1.5P*50	2
MI-31550-142	FIXING POINT		2
MI-31550-144	TABLE		1
MI-31550-145	SPRING PIN	5*28	4
MI-31550-146	CONNECT PLATE		3
MI-31550-147	SOC HD CAP SCREW	M8*1.25P*16	7
MI-31550-148	RETAINING RING	RTW-47	1
MI-31550-149	CAM LOCK SHAFT		4
MI-31550-150	CAM LOCK		4
MI-31550-151	KNIFE SETTING GAGE SHAFT		2
MI-31550-152	SHOULDER SCREW		1
MI-31550-153	SHOULDER SCREW		2
MI-31550-154	POINTER		1
MI-31550-155	ROUND HD SCREW	M5*0.8P*10	6
MI-31550-156	SHAFT		1
MI-31550-158	BUSHING		1
MI-31550-159	ADJUST KNOB		1
MI-31550-160	HANDLE		1
MI-31550-161	FIXING PLATE		1
MI-31550-162	SOC HD CAP SCREW	M10*1.5P*20	1
MI-31550-163	FLAT WASHER	10.3*22*2.0t	15
MI-31550-164	KNOB		1
MI-31550-165	HANDEL SHAFT		1
MI-31550-166	FIXING PLATE		1
MI-31550-167	SOC HD CAP SCREW	M8*1.25P*45	10
MI-31550-169	FIXING BUSH		4
MI-31550-170	POUND HEAD SCREW W/FLAT WASHER	M4*0.7P*8/4*10*0.8t	8
MI-31550-171	EXTENSION TABLE		2
MI-31550-172	FLAT WASHER	13.5*28*2.0t	4
MI-31550-173	HEX. SCREW	M8*1.25P*25	6
MI-31550-174	SET SCREW	M8*1.25P*20	6
MI-31550-175	DIGITAL READ OUT ASSY	9 inch	1
MI-31550-176	RELIEF BUSHING	PGB21-16B	1
MI-31550-178	EXPANSION BEND		2
MI-31550-179	COLUMN SHAFT		1
MI-31550-180	RETAINING RING	RTW-68	2
MI-31550-181	BALL BEARING	6008	2
MI-31550-182	BEARING	51105	4
MI-31550-183	BUSHING		2
MI-31550-184	WASHER	25	2
MI-31550-185	NUT	M25*1.5P	2
MI-31550-186	CHAIN	#40*78P	1
MI-31550-187	ELEVATING SCREW		1
MI-31550-188	BEVEL GEAR		1
MI-31550-189	REAR DOOR		1
MI-31550-190	DOOR LATCH		1
MI-31550-191	BASE CASTING		1
MI-31550-192	BASE SIDE COVER		2
MI-31550-193	FIXING PIN		8
MI-31550-194	HEX. SCREW	M16*2.0P*60	4
MI-31550-195	HEX NUT	M16*2.0P(24B*13H)	4
MI-31550-196	FOOT		4

MAGNETIC SWITCH ASSEMBLY

MI-31552-197	MAGNETIC SWITCH ASSEMBLY (MI-31552)	7.5HP*208V*3PH	1
MI-31550-197	MAGNETIC SWITCH ASSEMBLY (MI-31550)	7.5HP*220V-240V*1PH	2
MI-31553-197	MAGNETIC SWITCH ASSEMBLY (MI-31553)	7.5HP*220V*3PH	3

MI-31550-198	BOX	540*145*400	1
MI-31550-199	TOOTH WASHER	5.3*10(BW-5)	3
MI-31550-201	ROUND HD SCREW	3/16-24NC*1/4" "	1
MI-31550-202	TERMNAL COVER		1

POWER CORD

MI-31552-203	POWER CORD (MI-31552 / MI-31553)	SJT10AWG*4C*850mm	1
MI-31550-203	POWER CORD (MI-31550)	SJT10AWG*3C*950mm	1

MOTOR ASSEMBLY

MI-31552-204	MOTOR ASSEMBLY (MI-31552)	7.5HP*208V*60HZ*3PH*2P*22A	1
MI-31550-204	MOTOR ASSEMBLY (MI-31550)	7.5HP*220-240V*60HZ*1PH*2P*34A	1
MI-31553-204	MOTOR ASSEMBLY (MI-31553)	7.5HP*220-240V*60HZ*3PH*2P*23A	1

SWITCH CORD

MI-31552-205	SWITCH CORD (MI-31552 / MI-31553)	SJT10AWG*4C*850mm	1
MI-31550-205	SWITCH CORD (MI-31550)	SJT10AWG*3C*850mm	1
MI-31550-206	CONNECT CORD		1
MI-31550-207	RELIEF BUSHING	NB-1216	1
MI-31550-209	SPACER		2
MI-31550-210	V-BELT	A73	3
MI-31550-211	MOTOR MOUNTING SHAFT		2
MI-31550-212	SET SCREW	M8*1.25P*12	5
MI-31550-213	MOTOR PLATE		1
MI-31550-214	HEX. SCREW	M10*1.5P*40	4
MI-31550-215	HEX NUT	M12*1.75P(19B*10H)	4
MI-31550-217	MOTOR MOUNT TENSION SHAFT		2
MI-31550-218	RETAINING RING	P12	1
MI-31550-219	FIXING SHAFT		2
MI-31550-220	CHAIN	#40*100P	1
MI-31550-221	EYE BOLT	M20*2.5P*30	2
MI-31550-223	WRENCH BOX	11*13	1
MI-31550-224	WRENCH BOX	17*19	1
MI-31550-227	HEX. SCREW	M10*1.5P*35	14
MI-31550-231	FLAT WASHER	6.3*13*1.0t	4
MI-31550-232	CONNECT CORD (MI-31550 / MI-31552 / MI-31553)	SJT18AWG*3C*1750mm	1
MI-31550-233	KEY	6*6*40	1
MI-31550-234	STEEL BALL	0.6	1
MI-31550-235	RELIEF BUSHING	PGA21-18B	3
MI-31550-236	POINTER		1
MI-31550-237	SIDE COVER PAD		4
MI-31550-238	WRENCH BOX	12*14	1
MI-31550-241	WRENCH BOX	22*24	1
MI-31550-242	HEX. WRENCH	3mm	1
MI-31550-243	HEX. WRENCH	4mm	1
MI-31550-244	HEX. WRENCH	6mm	1
MI-31550-247	SOC HD CAP SCREW	M6*1.0P*25	4
MI-31550-248	RELIEF BUSHING	NB-1722	1
MI-31550-249	WRENCH BOX	8*10	1
MI-31550-251	SET SCREW	M6*1.0P*12	1
MI-31550-253	BUSHING		1
MI-31550-254	CARTON	553*60*395	2
MI-31550-256	HEX HEAD SCREW	M8*1.25P*25	1
MI-31550-260	SOC HD CAP SCREW	M6*1.0P*10	2
MI-31550-261	HOOK		1
MI-31550-262	BRACKET		1
MI-31550-263	SHAFT		1
MI-31550-264	SPRING		1
MI-31550-265	RETAINING RING	RTW-40	1