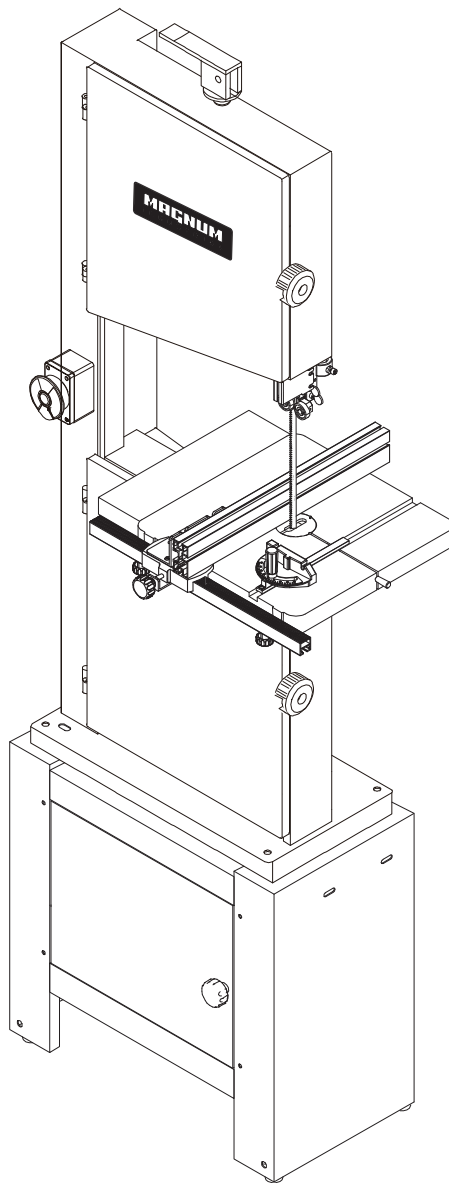


MAGNUM

INDUSTRIAL

MODEL NO.: MI-91400



PARTS BREAKDOWN

RULES for SAFE OPERATION

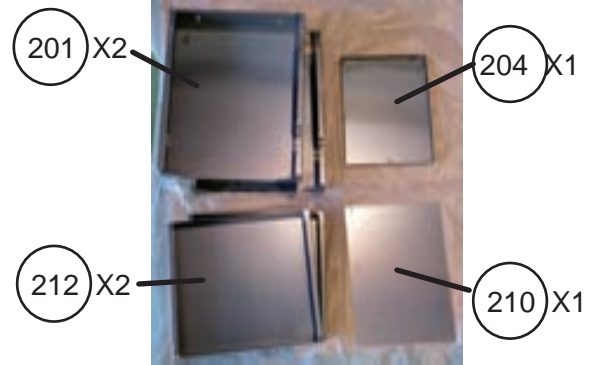
MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

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.

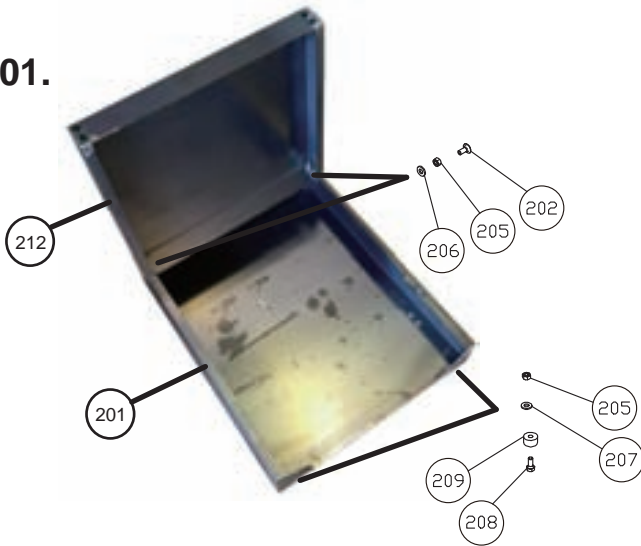
- Do not operate the band saw when tired, distracted or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness.
- Ensure your working area is well lit and free of debris.
- Keep children and visitors at a safe distance when the band saw is in operation. Do not permit them to operate the band saw.
- 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. Wear face, eye, ear, respiratory and body protection devices.
- Do not wear loose clothing, gloves, bracelets, necklaces or other jewelry while the band saw is in operation.
- Remove adjusting wrenches, tools and other clutter from the machine and the table surface before using the machine.
- Keep hands well away from the blade and all moving parts. Use a brush, not hands, to clear away chips and dust.
- Adjust and position upper and lower blade guides before cutting. Upper blade guide should be adjusted to approximately 1/8" above the material to be cut.
- Adjust blade tension and tracking before cutting.
- Saw teeth must point down toward the table.
- Be sure that the blade reaches full operating speed before starting your cut.
- Always use a clean, properly sharpened blade. Dirty or dull blades are unsafe and can lead to accidents.
- Use suitable workpiece support if the workpiece does not have a flat surface.
- Hold material firmly against the table.
- Do not work on long stock without adequate support on the outfeed end of the table.
- If using a power feeder, stop the feeder before stopping the band saw.
- Do not push or force stock into the blade. The band saw will perform better and more safely when working at the rate for which it was designed.
- Avoid working from awkward or off balance positions. Do not overreach and keep both feet on floor.
- Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, properly reattach it before using the tool again.
- Never leave the machine unattended while it is running or with the power on.
- Never stand on machinery. Serious injury could result if the tool is tipped over or if the cutting tool is unintentionally contacted.
- Always disconnect the machine from the power source before servicing or changing accessories such as blades, or before performing any maintenance or cleaning, or if the machine will be left unattended.
- Ensure the switch is in the OFF position before plugging in the power cord.
- Make sure the tool is properly grounded. If equipped with a three-prong plug it should be used with a three-pole receptacle. Never remove the third prong.
- Do not use this band saw 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.

ASSEMBLY INSTRUCTIONS

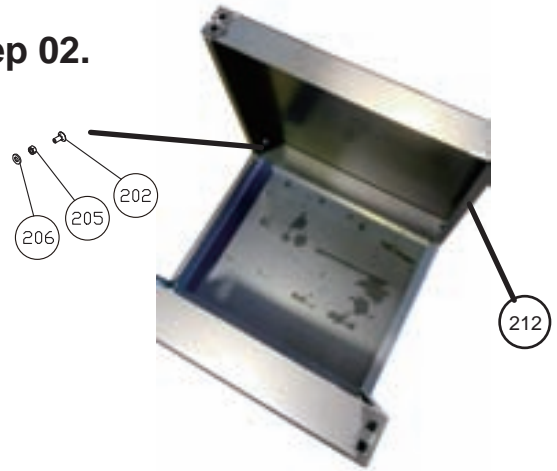
MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW



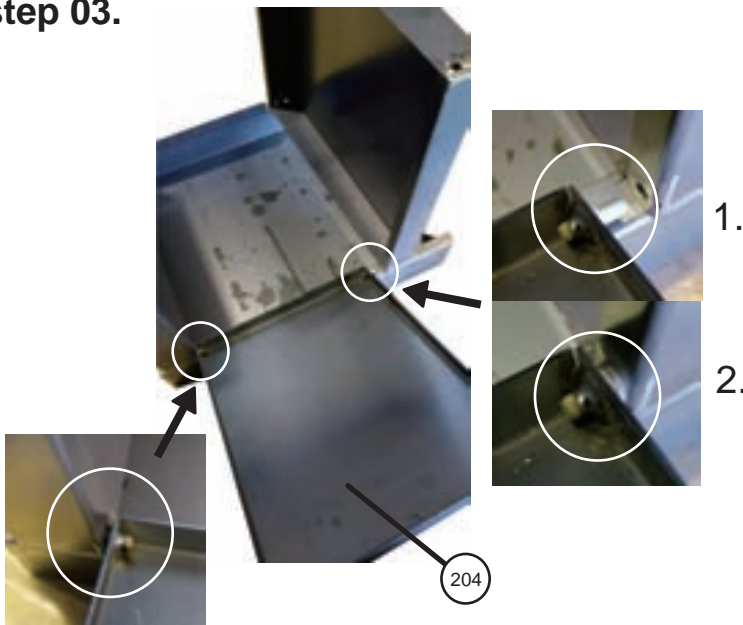
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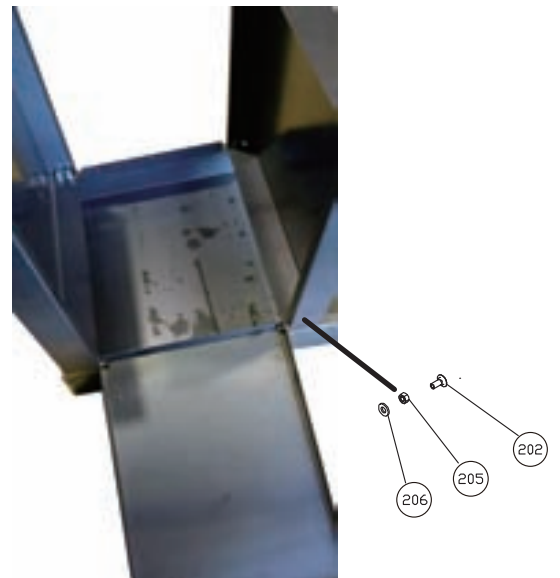
step 02.



step 03.



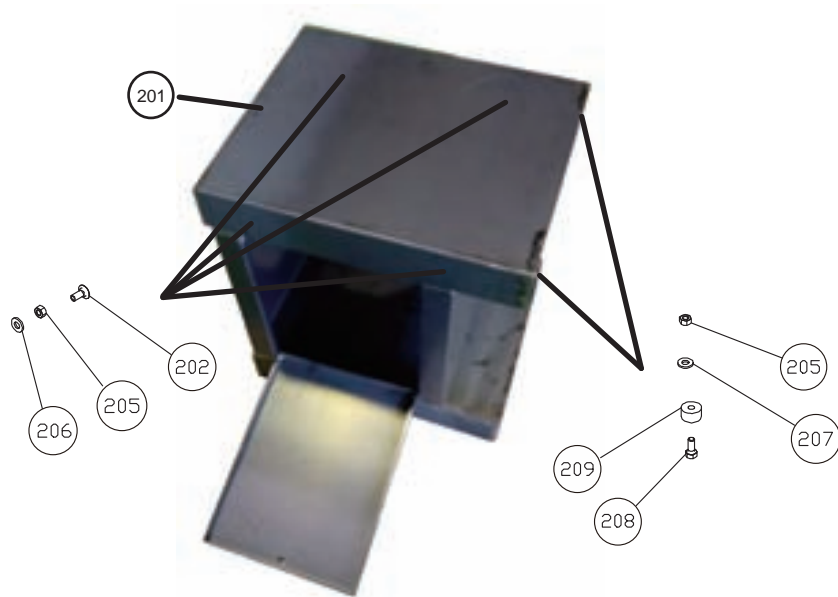
step 04.



ASSEMBLY INSTRUCTIONS

MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

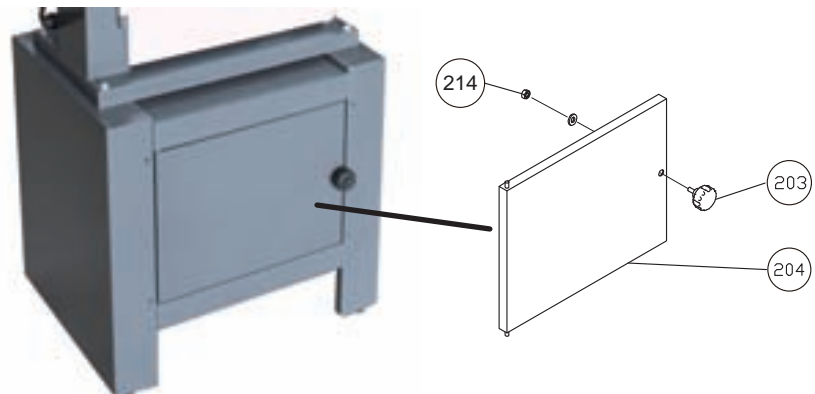
step 05.



step 06.



step 07

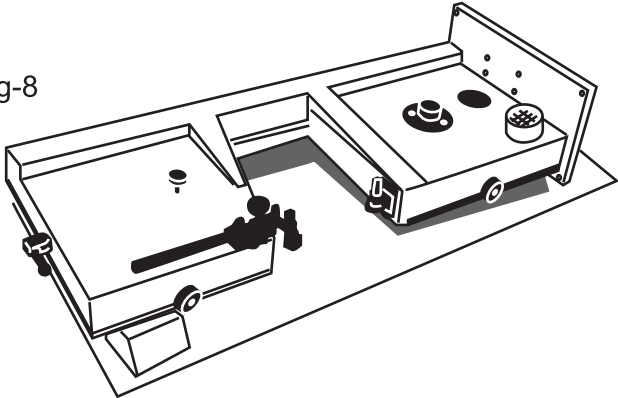


ASSEMBLY INSTRUCTIONS

MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

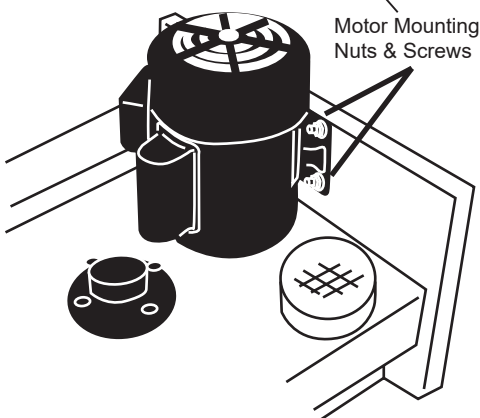
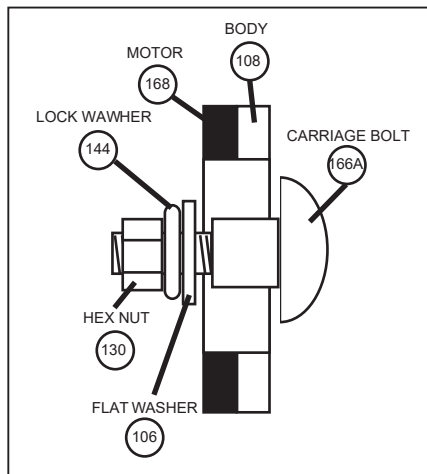
Take the band saw out of the box and lay it on its side on the floor with the motor mounting side up as shown in fig-8. You can place the carton on the floor under the band saw preventing it from getting scratched.

fig-8



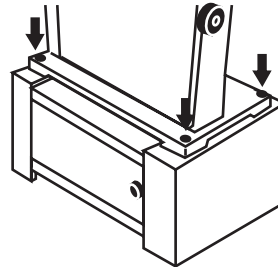
Position the motor on the band saw and carefully insert the motor pulley through the hole as shown in fig-9. Align the holes on the motor mounting bracket with the holes on the band saw base. Insert the carriage bolts from under the base through the holes, place washers, and tighten the nuts provided onto the carriage bolts. **Do not fully tighten the nuts at this time.**

fig-9



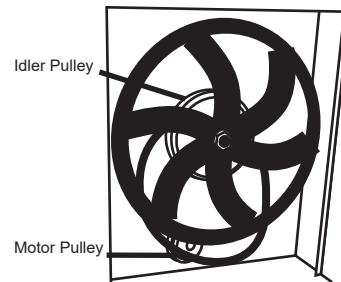
Place the stand and the band saw upright. Get the help of a friend or assistant and lift the machine and place it on the stand. Align the mounting holes on the machine with the holes on the stand and secure the machine on to the stand using washers and bolts provided. See fig-10.

fig-10



Open the lower cabinet door and position the V-belt onto one of the grooves on the idler pulley. Now pull the V-belt and position it onto the aligned groove on the motor pulley and tighten the motor mounting nuts shown in fig-11.

fig-11



Once the motor is mounted, connect the power coming from the motor to the power cord from the machine. Do not connect the machine to the power source at this time.

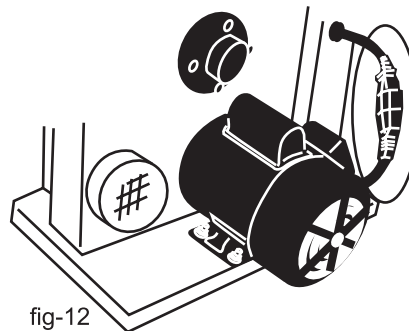


fig-12

NOTE:
MOTOR IS DUAL VOLTAGE 110/220
WHEN REWIRING FOR 220 FOLLOW THE
WIRING DIAGRAM LOCATED ON BACK OF
MOTOR COVER AND CHANGE PLUG END
TO 220 VOLT PLUG AND YOU MUST
CHANGE THERMAL RESET BUTTON WITH
THIS PART #MI-91400-168-1 220 VOLT
RESET BUTTON

ASSEMBLY INSTRUCTIONS

MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

ATTACHING THE TABLE

The worktable mounts on a bracket. This bracket can adjust from 0° to 45° to the right. These adjustments are easy to make with the angle scale and lock knobs.

1. Remove the RED INSERT (A) from the centre of the table and the TABLE ALIGNMENT PIN (B) from the table slot. See Figure 7.

2. Turn the table right side up. Verify that the LONG BOLTS (C) in the centre of each trunnion are pointing down. See Figure 8.

3. Carefully position the table over the TABLE-TILT BRACKET (D), guiding the saw blade through the TABLE SLOT (E). See Figures 9 and 10.

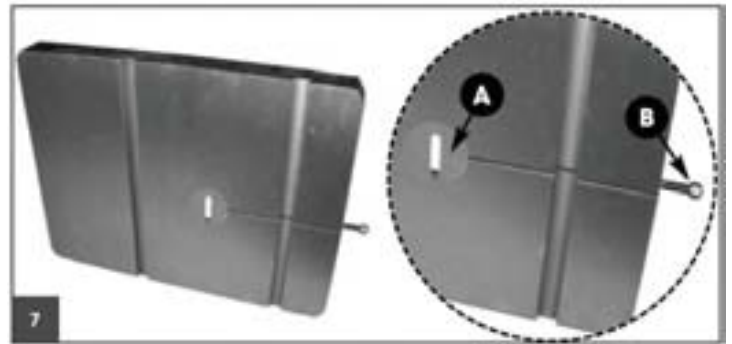
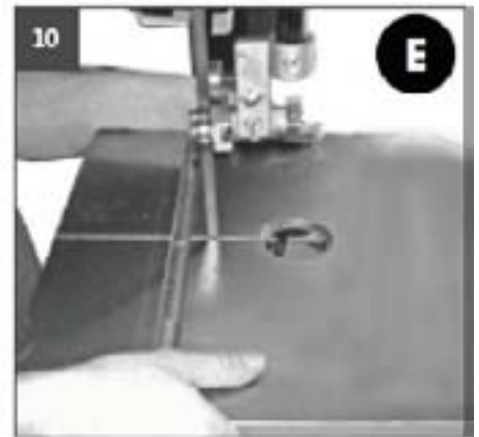
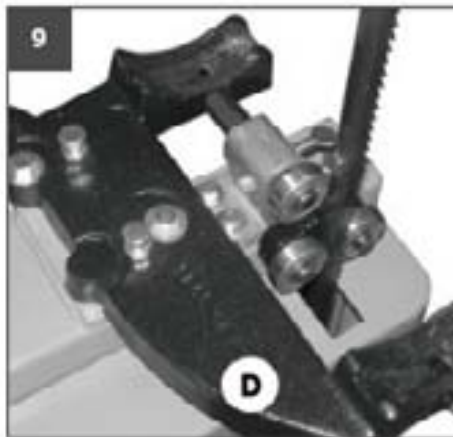


FIGURE 7: TABLE INSTALLATION

Note: If the long bolts have moved out of position, have an assistant tap them into place with a screwdriver.



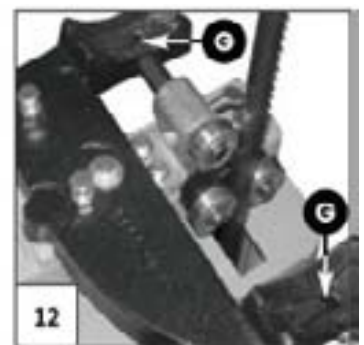
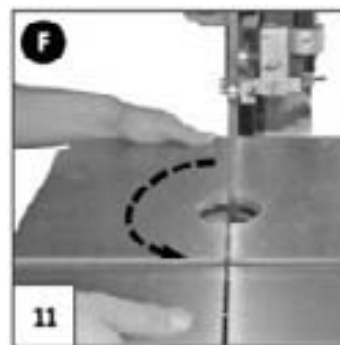
FIGURES 8, 9 and 10: TABLE INSTALLATION

ATTACHING THE TABLE CONTINUED

4. Rotate the table 1/4 turn counterclockwise so that the saw blade is now perpendicular to the TABLE SLOT (F). See Figure 11.

5. Gently lower the table onto the bracket so the LONG BOLTS (C) in the centre of the trunnions pass through the holes in the TABLE-TILT BRACKET (G). See Figure 12.

6. Thread the two small LOCK KNOBS (H) onto the LONG BOLTS (I) now protruding from the underside of the table tilt bracket and tighten carefully. See Figure 13.



FIGURES 11 and 12: TABLE INSTALLATION

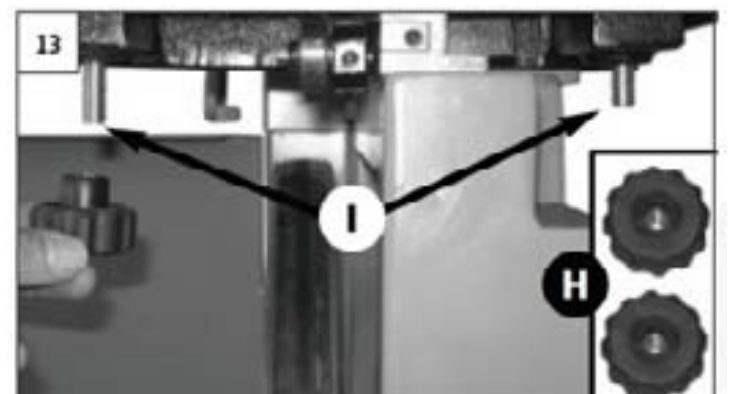


FIGURE 13: TABLE INSTALLATION

ASSEMBLY INSTRUCTIONS

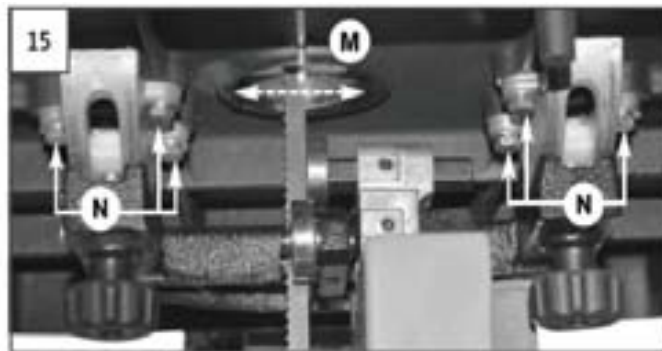
MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

7. Attach the TABLE TILT SUPPORT BRACKET (J) to the rear of the saw using the BIG LOCK KNOB (K) with the two FLAT WASHERS (L) already mounted on the frame. See Figure 14.

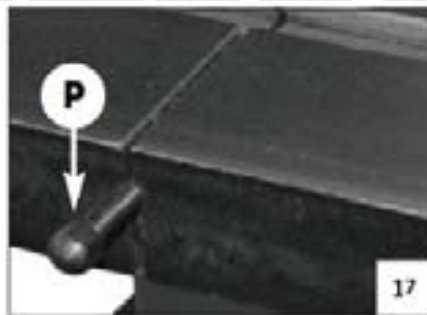
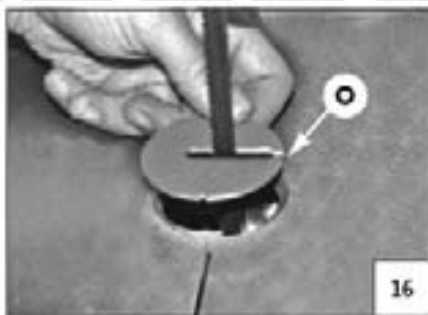
8. Make sure that the blade is centered in the TABLE OPENING (M). If the blade is not centered, slide the table back or forward until the blade is centered in the table opening. Then fully tighten the two LOCK KNOBS (H). See Figure 15.

9. Reinstall the insert into the centre of the table, with the opening in the SLOT (O) facing the rear of the saw. See Figure 16.

10. Reinstall the table alignment pin into the TABLE SLOT (P). See Figure 17.



FIGURES 15 : TABLE INSTALLATION



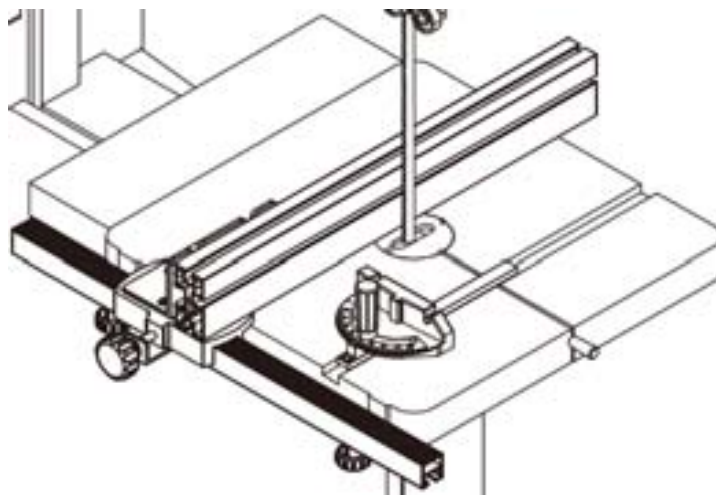
FIGURES 16 and 17: TABLE INSTALLATION

WARNING!

Serious personal injury could occur if you connect the saw to the power source before you have completed the installation and assembly steps!

INSTALLING THE FENCE ASSEMBLY

The MI-91400 is equipped with a deluxe JS-fence and guide rail system. Follow all assembly and adjustment instructions in the manual supplied in the box with the fence.



BASIC ADJUSTMENTS

MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

WARNING!

To avoid injury, ensure the power switch is OFF and the power cord is unplugged before adjusting the band saw.

TILTING THE TABLE

The table can tilt from 0° to 45° to the right to allow for bevel cutting. To set the table angle refer to the TABLE TILT ANGLE INDICATOR (A) located under the band saw table.

1. Loosen LOCK KNOBS (C) (See Figure 25) located under the band saw table.
2. Tilt the table to desired angle. Refer to the ANGLE INDICATOR (A).
3. Tighten the LOCK KNOBS to lock the table in position.

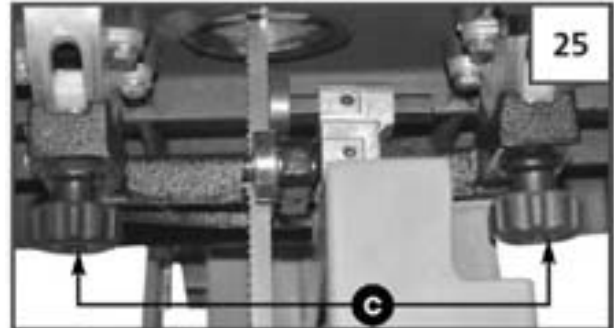
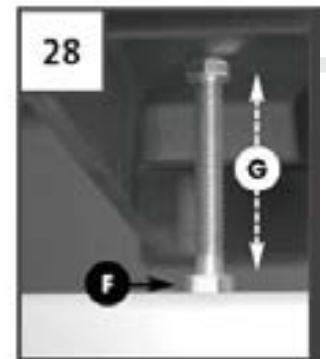
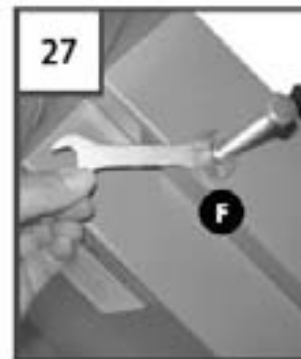
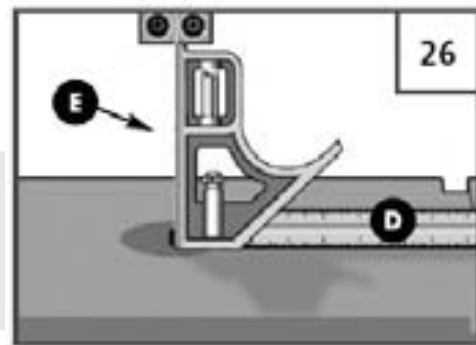


FIGURE 25: TABLE TILT ADJUSTMENT

ADJUSTING 90° TABLE STOP AND RE-ALIGNING ANGLE POINTER

To ensure accurate cuts, align the table so the angle pointer reads 0 when the table is set to 90°, the default position. Begin by setting the table-stop bolt:

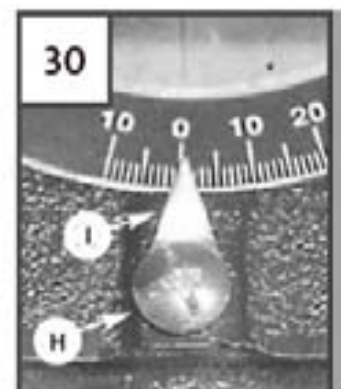
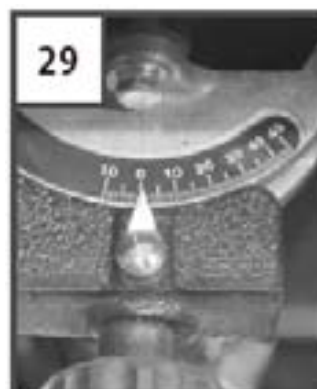
1. Loosen LOCK KNOBS (C) and LOCK KNOB (B).
2. Place a COMBINATION SQUARE (D) flat on the table with the heel of the square flat against the SAW BLADE (E). See Figure 26.
3. Level the table until it is exactly 90° to the blade, then tighten LOCK KNOBS.
4. Using the supplied open-end wrench, loosen the JAM NUT (F) on the 90° table-stop bolt then adjust the height of the BOLT (G) until it touches the underside of the table as shown in Figure 28.
5. Loosen the LOCK KNOBS (B AND C) and make sure the table is resting on the table-stop bolt.
6. Check the square and make sure the table is still at 90° to the blade. If not, re-adjust the table-stop bolt.
7. Re-tighten JAM NUT (F).



FIGURES 26, 27 and 28: ANGLE POINTER ADJUSTMENT

With the table set to 90° and the stop bolt at the correct height, check that the table tilt angle indicator pointer on the front trunnion is set to 0. See Figure 29.

To adjust the pointer, loosen the SCREW (H) on the pointer and align the POINTER (I) to 0 on the scale. Then re-tighten the screw to secure the pointer in place. See Figure 30. You will now be able to accurately return the table to the 90° position automatically without further adjustments and scale reading for any angle other than 0° will also be accurate.



FIGURES 29 and 30: ANGLE POINTER ADJUSTMENT

BASIC ADJUSTMENTS

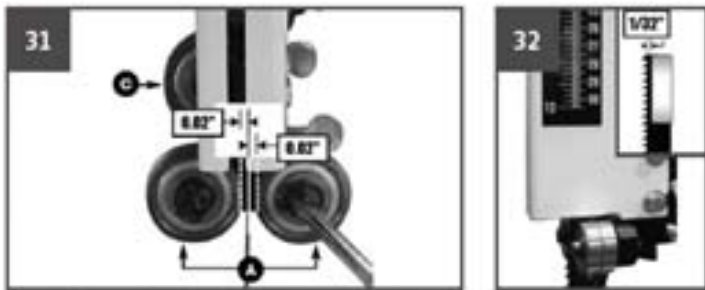
MAGNUM INDUSTRIAL MI-91400 DELUXE 14" BAND SAW

WARNING!

To avoid injury, ensure the power switch is OFF and the power cord is unplugged before adjusting the band saw.

ADJUSTING THE UPPER AND LOWER BLADE GUIDES

The GUIDE BEARINGS (A) keep the blade from moving from side to side during cutting and, to ensure accuracy, must be snug to the blade but not touching it. The space between each guide bearing and the blade must not exceed 0.02" (the thickness of a sheet of paper). If less space is left, the blade can jam between the bearings. This can cause the blade to overheat and break. See Figure 31. Also, the guide bearings must remain at least 1/32" behind the blade teeth to prevent damage to the blade. See Figure 32. The THRUST BEARING (C) keeps the blade from moving back and out of position when the work is being fed into the blade and must be very close to the back of the blade to prevent damage to the blade during cutting.

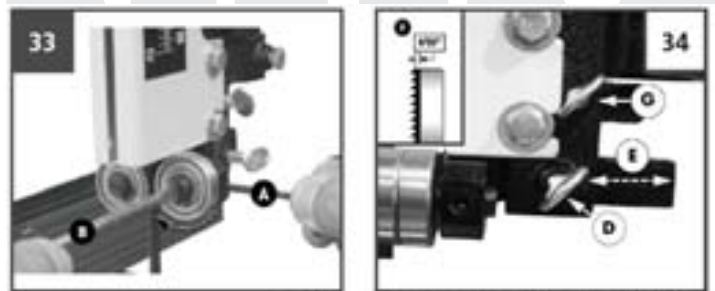


FIGURES 31 and 32: BLADE GUIDE ADJUSTMENT

To adjust the upper guide bearings, follow these steps:

1. Loosen SET SCREW (A) with the supplied 3 mm Allen key.
2. With a FLATHEAD SCREWDRIVER (B) rotate the bearing clockwise about one quarter turn until the gap between the bearing and blade is 0.02". See Figure 33. Use a feeler gauge or piece of paper to check the clearance.
3. Re-tighten SET SCREW (A) to secure the guide bearing.
4. Repeat Steps 1 to 3 with the other upper guide bearing.
5. Loosen the LOWER THUMB SCREW (D).
6. Move the UPPER GUIDE BEARING SHAFT (E) in or out until the guide bearing are at least 1/32" behind the BLADE TEETH (F). See Figure 34.
7. Re-tighten the LOWER THUMB SCREW (D).

Before adjusting the upper and lower blade guides assemblies, make sure the blade is tensioned and tracking properly. Adjust the upper and lower blade guides assemblies after each blade tension and tracking adjustment. Whenever the upper guide bearings and thrust bearing are adjusted, the lower guide bearings and thrust bearing should also be adjusted.



FIGURES 33 and 34: BLADE GUIDE ADJUSTMENT

Next adjust the upper thrust bearing:

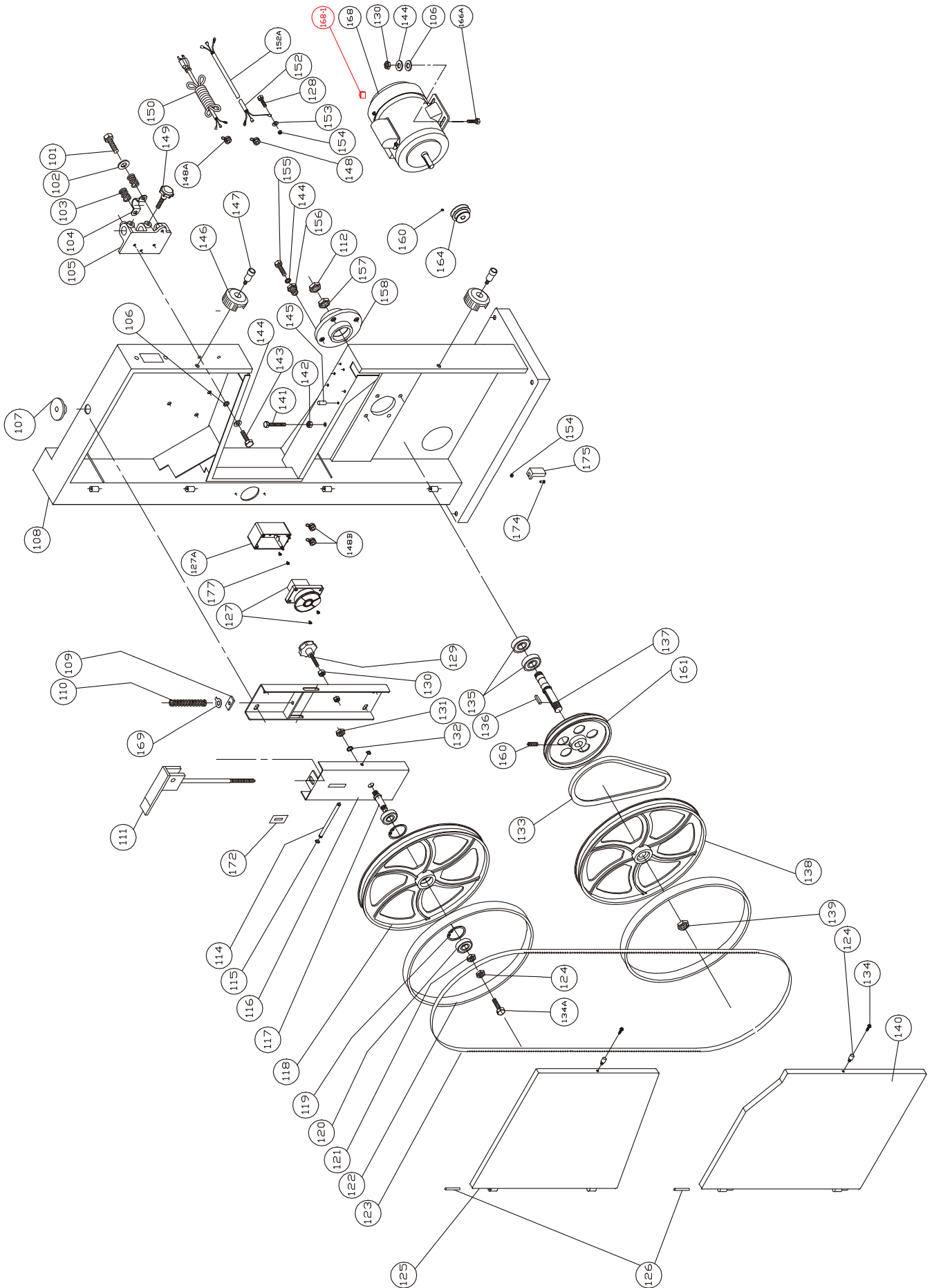
8. Loosen the UPPER THUMB SCREW (G).
9. Move the UPPER THRUST BEARING SHAFT (H) in or out until the thrust bearing barely touches the blade. (Should be 1/64" behind the back of the blade). See inset of Figure 35.
10. Re-tighten the UPPER THUMB SCREW (G).



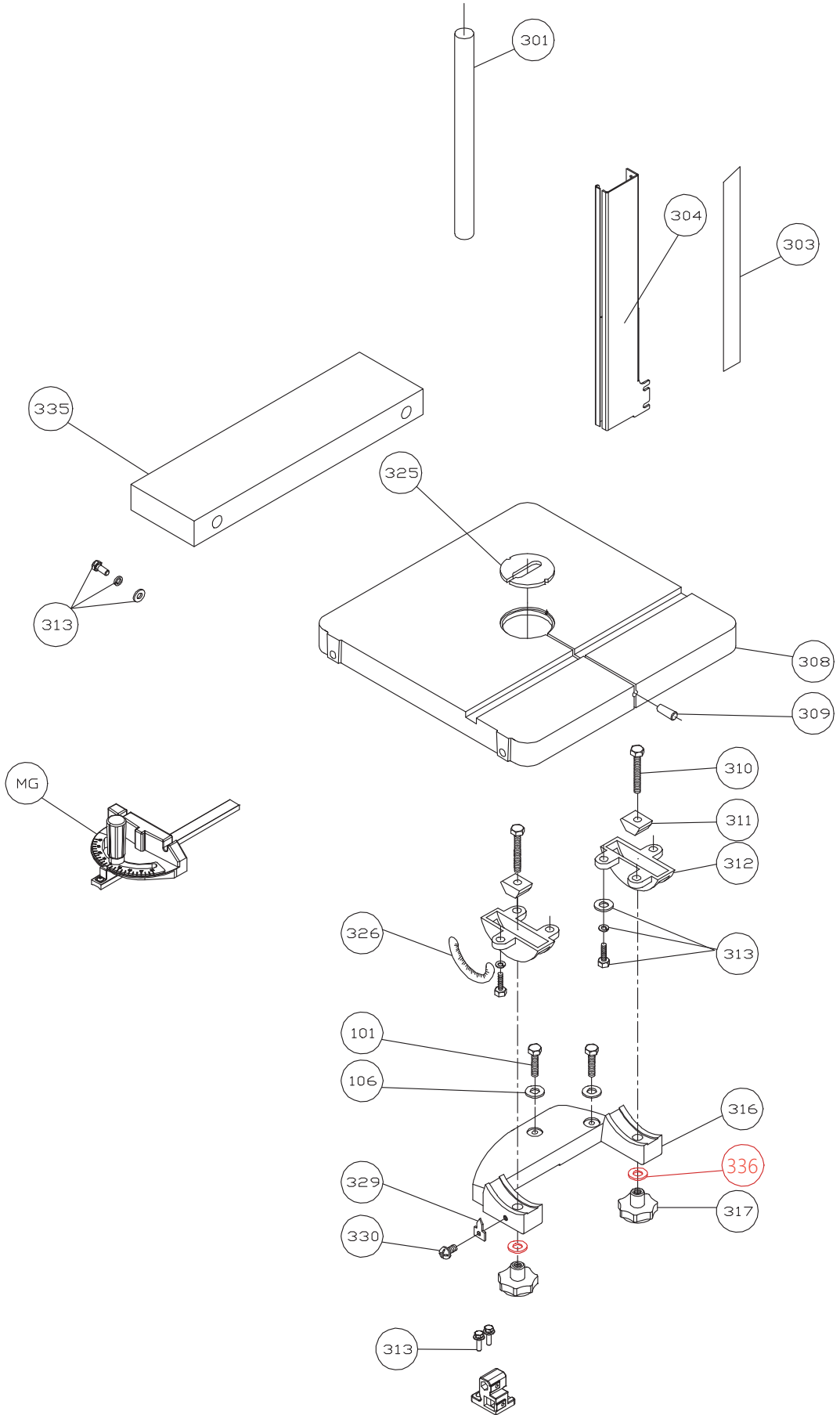
FIGURE 35: BLADE GUIDE ADJUSTMENT

To adjust the positioning of the lower guide bearings and thrust bearing, repeat steps 1 to 10 with the lower guide bearings and thrust bearing.

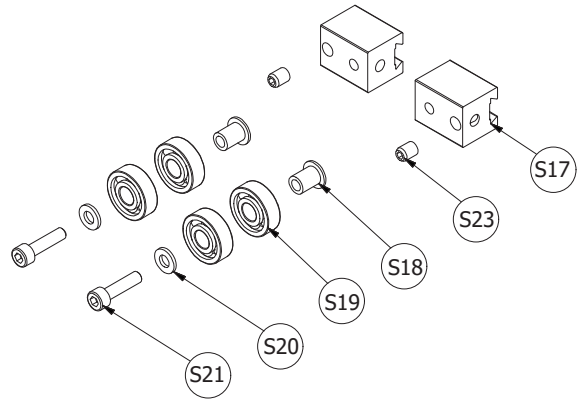
PARTS LIST FOR MI-91400



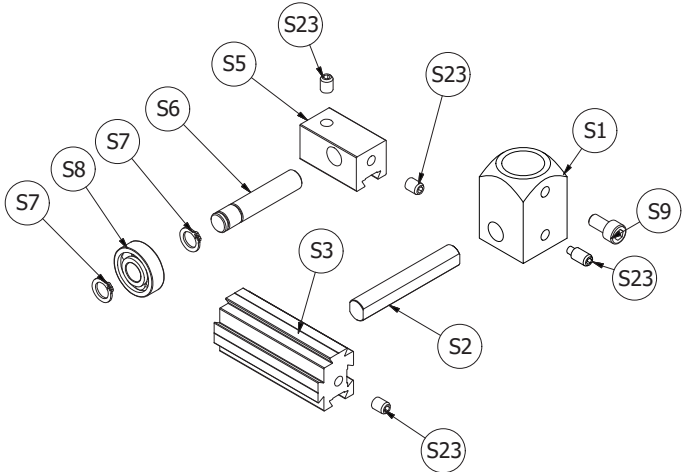
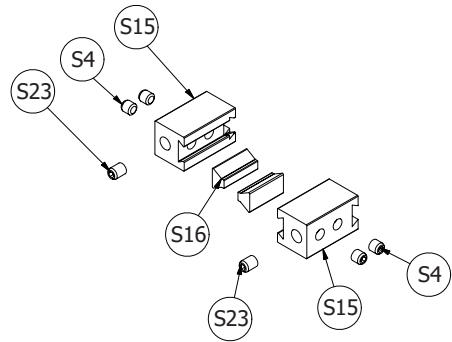
PARTS LIST FOR MI-91400



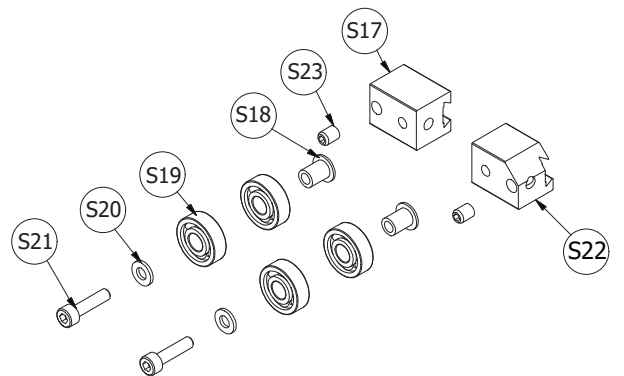
BALL BEARINGS KIT - STANDARD



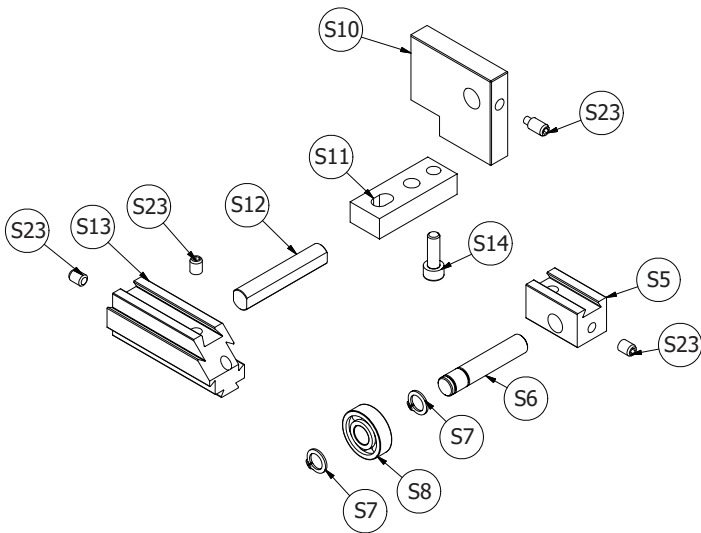
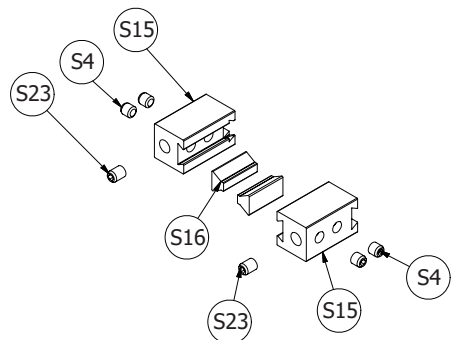
CERAMIC KIT - OPTIONAL (MI-99914)



BALL BEARINGS KIT - STANDARD

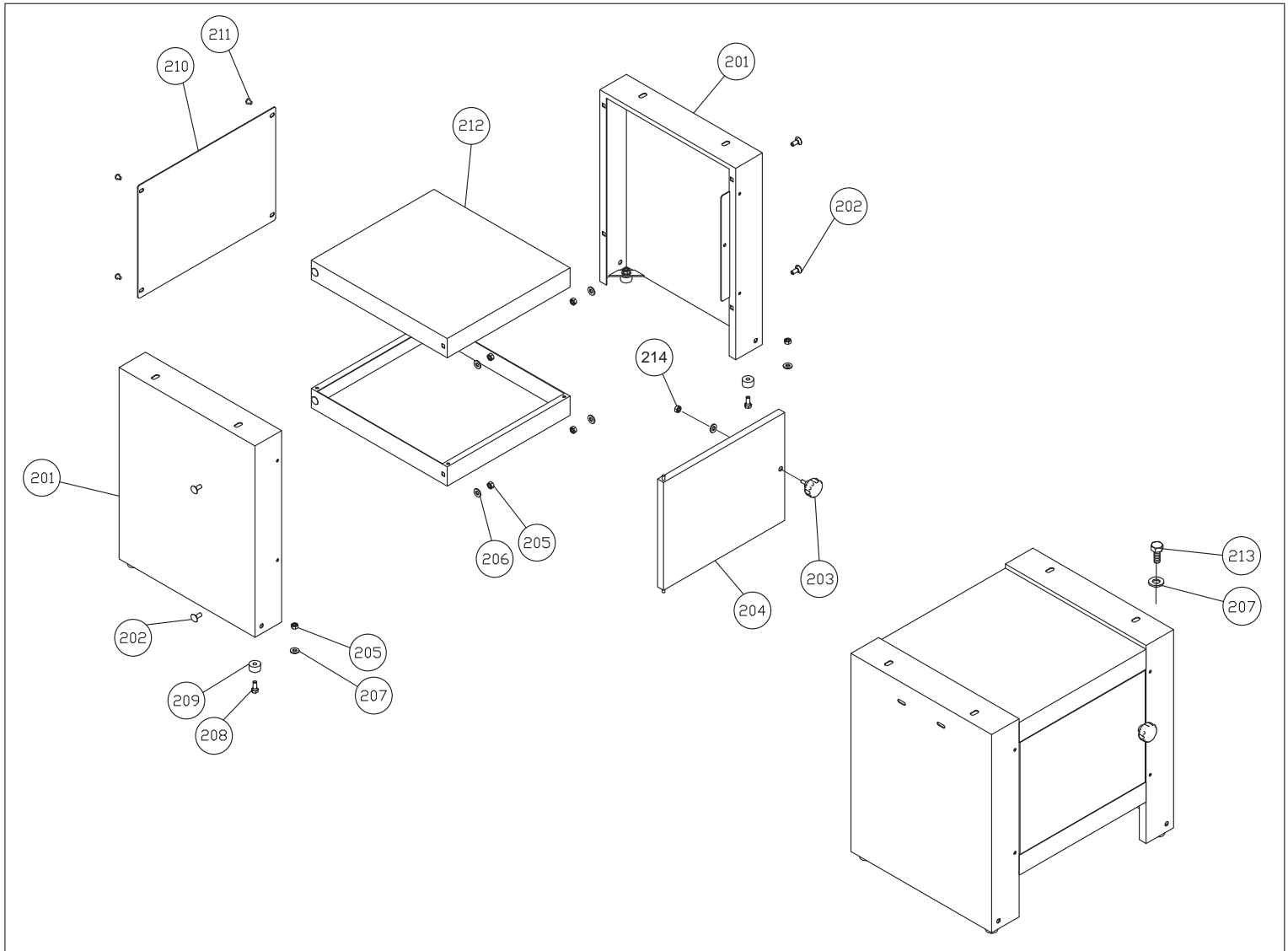


CERAMIC KIT - OPTIONAL (MI-99914)

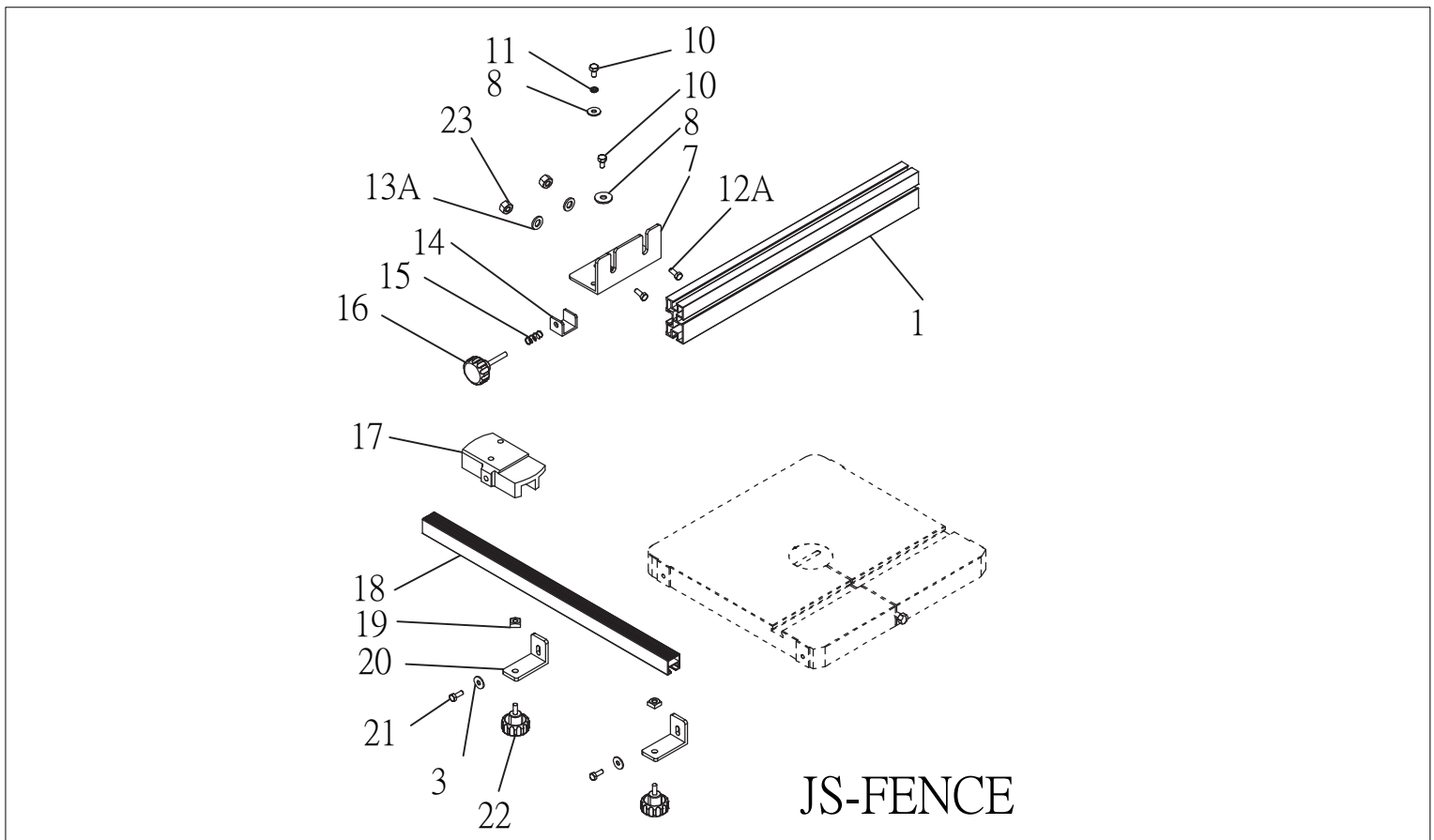


NO.	DESCRIPTION
S1	SLEEVE
S2	SHAFT
S3	DOVETAIL BLOCK
S4	SET SCREW 1/4" x 1/4"
S5	SLIDING BLOCK - L
S6	BEARING SHAFT
S7	EXTERNAL RETAINING RING S10
S8	BALL BEARING 6000ZZ
S9	CAP SCREW 1/4" x 1/2"
S10	BASE - B
S11	BASE - S
S12	SHAFT
S13	DOVETAIL BLOCK - CHAMFERING
S14	CAP SCREW 1/4" x 5/8"
S15	SLIDING BLOCK OF CERAMIC GUIDE
S16	CERAMIC GUIDE
S17	SLIDING BLOCK - S
S18	BUSHING
S19	BALL BEARING 608ZZ
S20	FLAT WASHER
S21	CAP SCREW M5*22mm
S22	SLIDING BLOCK - CHAMFERING
S23	SPECIAL SCREW 1/4" x 1/2"

PARTS LIST FOR MI-91400



PARTS LIST FOR MI-91400-JSF



PARTS LIST FOR MI-91400

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MI-91400-101	HEX BOLT	MI-91400-156	ADJUSTING SCREW
MI-91400-102	FLAT WASHER	MI-91400-157	HEX NUT
MI-91400-103	SPRING	MI-91400-158	BEARING HOUSING
MI-91400-104	BRACKET	MI-91400-160	SET SCREW
MI-91400-105	BAR SETTING PLATE	MI-91400-161	PULLEY
MI-91400-106	FLAT WASHER	MI-91400-164	MOTOR PULLEY
MI-91400-107	SPECIAL WASHER	MI-91400-166A	CARRIAGE BOLT
MI-91400-108	BODY	MI-91400-168	MOTOR
MI-91400-109	TOP WHEEL MOUNT NUT	MI-91400-168-1	RESET BUTTON
MI-91400-110	SPRING	MI-91400-169	BLADE TENSION POINTER
MI-91400-111	QUICK HANDLE BAR	MI-91400-172	TENSION LABEL
MI-91400-112	BEARING COVER	MI-91400-174	SCREW
MI-91400-114	HEX BOLT	MI-91400-175	BRUSH
MI-91400-115	NYLON NUT	MI-91400-177	PHILLIPS HEAD SCREW
MI-91400-116	BODY	MI-91400-201	HEX BOLT
MI-91400-117	UPPER WHEEL SHAFT	MI-91400-202	CARRIAGE BOLT
MI-91400-118	UPPER WHEEL	MI-91400-203	KNOB
MI-91400-119	INTERNAL RETAINING RING R35	MI-91400-204	DOOR
MI-91400-120	BEARING 6202ZZ	MI-91400-205	HEX NUT
MI-91400-121	FLAT WASHER	MI-91400-206	FLAT WASHER
MI-91400-122	TIRE RUBBER	MI-91400-207	FLAT WASHER
MI-91400-123	BLADE	MI-91400-208	HEX BOLT
MI-91400-124	LOCK WASHER 1/4"	MI-91400-209	RUBBER FEET
MI-91400-125	UPPER WHEEL GUARD	MI-91400-210	STAND BRACE
MI-91400-126	HINGE PIN	MI-91400-211	PHILLIPS FLAT HEAD SCREW
MI-91400-127	CIRCULAR STOP PLANE SWITCH	MI-91400-212	STAND SIDE
MI-91400-127A	SWITCH BOX	MI-91400-214	NYLON NUT
MI-91400-128	PHILLIPS HEAD SCREW	MI-91400-213	HEX BOLT
MI-91400-129	KNOB	MI-91400-301	GUIDE POST
MI-91400-130	HEX NUT	MI-91400-303	SCALE
MI-91400-131	HEX NUT 1/2"	MI-91400-304	BLADE COVER
MI-91400-132	LOCK WASHER	MI-91400-308	TALBE
MI-91400-133	BELT A36	MI-91400-309	TAPERED PIN
MI-91400-134A	HEX BOLT	MI-91400-310	HEX BOLT
MI-91400-134	CAP SCREW	MI-91400-311	TRUNNION CLAMPSHOE
MI-91400-135	BEARING	MI-91400-312	TRUNNION
MI-91400-136	KEY	MI-91400-313	HEX BOLT
MI-91400-137	LOWER SHAFT	MI-91400-316	TABLE BRACKET
MI-91400-138	LOWER WHEEL-CAST IRON	MI-91400-317	LOCK KNOB F/TABLE
MI-91400-139	HEX NUT (L.H.)	MI-91400-325	TABLE INSERT
MI-91400-140	LOWER DOOR	MI-91400-326	SCALE
MI-91400-141	HEX BOLT	MI-91400-329	POINTER
MI-91400-142	HEX NUT	MI-91400-330	PHILLIPS HEAD SCREW
MI-91400-143	HEX BOLT	MI-91400-335	EXTENSION TABLE
MI-91400-144	LOCK WAWHER	MI-91400-336	FLAT WASHER 3/8"-19
MI-91400-145	PIN		
MI-91400-146	GUARD LOCKING KNOB		
MI-91400-147	SPECIAL HIGH CAP SCREW		
MI-91400-148	STRAIN RELIEF		
MI-91400-148A	STRAIN RELIEF		
MI-91400-148B	STRAIN RELIEF		
MI-91400-149	KNOB BOL		
MI-91400-150	CORD		
MI-91400-152	CORD		
MI-91400-152A	CORD		
MI-91400-153	STAR WASHER		
MI-91400-154	HEX NUT		
MI-91400-155	HEX BOLT		

PARTS LIST FOR MI-91400

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
MI-91400-MG	MITER GAUGE	MI-91400-JSF	JS-FENCE
MI-91400-B1	SUPPORT BRACKET CAST IRON	MI-91400-F01	FENCE BODY
MI-91400-B2	SUPPORT BEARING SHAFT	MI-91400-F03	FLAT WASHER 1/4-16*1.2mm
MI-91400-B3	BEARING 6200ZZ	MI-91400-F07	ANGLE BASE
MI-91400-B4	EXTERNAL RETAINING RING S10	MI-91400-F08	FLAT WASHER 5/16"
MI-91400-B5	SET SCREW	MI-91400-F10	HEX BOLT 5/16*1/2"
MI-91400-B6	HEX BOLT	MI-91400-F11	LOCK WAWHER 5/16"
MI-91400-B7	NULL	MI-91400-F12	HEX BOLT 1/4"*5/8"
MI-91400-B8	HEX BOLT	MI-91400-F13	FLAT WASHER 1/4"-25
MI-91400-B9	FLAT WASHER	MI-91400-F14	U TYPE PLATE
MI-91400-B10	SUPPORT	MI-91400-F15	SPRING
MI-91400-B11	LOWER SUPPORT BRACKET	MI-91400-F16	KNOB BOLT
MI-91400-B12	BEARING SHAFT	MI-91400-F17	FENCE HEAD
		MI-91400-F18	REAR RAIL
		MI-91400-F19	SQUARE NUT 5/16"
		MI-91400-F20	BRACKET
		MI-91400-F21	HEX BOLT-M6*16mm
		MI-91400-F22	KNOB 5/16-18X5/8
		MI-91400-F23	HEX NUT 1/4"-20P