



141-MX48

Power Feeder 230V

Operating instructions



Distributor:
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2022-09-15

141-MX48 Power Feeder 230V Manual EN v1.1.00 A4ob



Operating instructions EN

Please read this manual thoroughly and follow the safety instructions in it! Technical changes and printing errors reserved!

Dear customer,
This manual contains important instructions and information for the installation and proper use of MX48 Power feeder.

This manual is a part of the machine and therefore it should not be kept elsewhere than in the vicinity of the machine so that you can be consulted at any time by you or other persons operating the machine.



Please read and follow the safety instructions!

Carefully read these instructions before using the machine. Operation of the machine will be simpler and you will also lower the risk of injury while eliminating the probability of incorrect operation and possible damage to the machine. Because of our policy of constant improvement, the design, construction or pictures may differ slightly. Should you discover any mistakes, please contact us at podpora@igm.cz.

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1. DECLARATION OF CONFORMITY

The undersigned: IGM nástroje a stroje s.r.o.
Address: Ke Kopanině 560
Tuchoměřice, Praha-západ, PSČ 252 67
Czech Republic, EU
Tel. +420 220 950 910

Certifies

Product: Power Feeder
Model: **MX48**

Manufacturer: CO-MATIC Machinery Co., Ltd.,No.
473-16,
San Feng Road, Houli District, Taichung
City,Taiwan, R.O.C. 42156

We declare under our sole responsibility that the product described in this manual is in conformity with the following standards: EN ISO 12100, EN ISO 13857, EN 349, EN 953, EN 60204-1, EN ISO 11202,

EN 55014-1, EN 55014-2 podle s ustanoveními směrnic 2006/42/EC, 2004/108/EC, 2006/95/EC, 2002/95/EC.

Signed: Ivo Mlej
Managing Director



2. WARRANTY SERVICE

The warranty is subject to Terms and Conditions and Warranty Conditions of IGM nástroje a stroje s.r.o., the current version of which are available at www.igmtools.com.

3. SAFETY INSTRUCTIONS

3.1 Notice

This machine is designed for work with wood and wooden materials.
Proper use also includes compliance with the regular operational and maintenance work described in this manual.

The machine can be operated only by persons familiar with the operation procedures, maintenance and are aware of potential risks involved.
Comply with the minimum age limits specified by law. The machine may only be used when in perfect technical condition.
All safety and protective components must be installed when operating the machine.

Besides these instructions, also adhere to the safety instructions of your country and to the generally recognized technical practices concerning the operation of woodworking machinery.

The manufacturer or the supplier is not responsible for any damage resulting from improper use.
Every user is responsible for their own actions.

The warranty cannot be claimed if any of the following principles are broken:

- Unsuitable work environment: high humidity, contamination.
- Damage caused by an improper assembly and/or improper storage.
- Use of damaged machinery.
- Failure to follow the operating instructions: transport, storage, assembly, putting into operation, cleaning and maintenance of the machine.
- Use of unauthorized spare parts.

3.2 General safety instructions

The machine can pose danger when improperly operated.

Completely read the operating instructions before working with the machine and follow all the instructions in this manual.

Keep this user manual clean and protect it from dirt and moisture; in case of re-selling, pass the manual onto the new owner.

Any alterations or changes to the machine are prohibited.

Daily try out if the machine runs smoothly and check the function of protective covers before operating the machine. Replace any deficiencies and immediately remove any damaged parts like covers.
The machine may only be used when in perfect technical condition.

Use a hairnet or a hat to protect long hair. Wear tight-fitting clothes, remove all bracelets, rings, necklaces or ties. Wear work boots only, do not wear casual shoes or sandals during work. Abide by the regulations for personal protection.

Always wear safety eyewear. Always use hearing protection. The tools are sharp and can cause severe injury, use them with care.

Keep in mind the necessary space for operation when installing and positioning the machine. The machine must stand on a stable surface and must be adequately lit.

Always use respiratory protection when working in a dusty environment.

Make sure you have good lighting.

Make sure the power cord is not in your way when working. Keep your work area clean. Never touch the machine when it's running.

Make sure you are concentrating and paying attention. Use caution. Never work under the influence of drugs and/or alcohol.

Make sure there are no children around when working with the machine.

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Never leave the machine unattended. Always switch the machine off when leaving the workspace.

Watch your fingers and other body parts when working. Never walk away from a machine without protective guards.

Do not place anything on the machine.

Electrical connections malfunctions can be repaired by an electrician only. Damaged electric cord must be replaced immediately.

Any adjustments and maintenance may be carried out when the machine is disconnected from the power source.

3.3 Risks

Risks may arise even during proper and prescribed use of the machine.

The danger of a workpiece flying off. Beware of noise and dust.

Wear eye, ear and dust protection.

Use a suitable dust extraction device! Watch out for damaged electrical cords.

3.4 Important notice

Only use the feeder in an appropriate environment.

Keep your workspace well ventilated and lighted, avoid wet or damp environments.

Only operate the machines under temperatures ranging from +5°to +40°C. Humidity from 30% to 95%.

3.5 Safety rules

The tool must reach working speed before feeding. Do not overload the machine by feeding material too quickly.

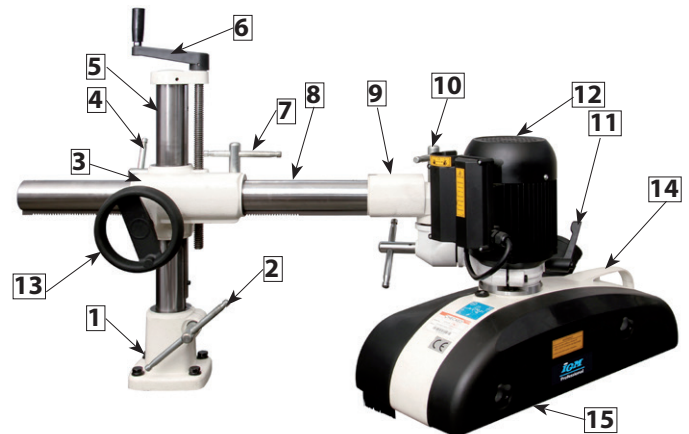
ALWAYS keep your hands away from rotating parts. Provide additional support and stability for larger workpieces.

Always switch off the feeder first, only then switch off the machine that is being fed material.

Always disconnect the power cord before any repairs or adjustments.

4. SPECIFICATIONS OF THE MACHINE

4.1 Machine description



- 1 base
- 2 locking lever (turning)
- 3 height-adjustable arm
- 4 locking lever (height adjustment)
- 5 stand
- 6 height control (turning alters height)
- 7 locking lever (protrusion)
- 8 feeder arm
- 9 screws (positioning joint)
- 10 locking lever (turning)
- 11 locking lever (angle of the feeder)
- 12 motor
- 13 control wheel of arm protrusion (turning moves the arm)
- 14 feeder grip
- 15 rollers housing

4.2 Technical data

Type	MX48
Motor power (230V)	750W
Horizontal Movement	460mm
Vertical Movement	250mm
No. of rollers	4
Size of rollers	120x60mm
Feed speed	3.5-32m/min
Weight with stand	62kg

4.3 The package includes

- feeder
- feeder stand arm
- quick adjustment joint
- plan for base drilling 1:1 manual

5. TRANSPORT, UNPACKING AND ASSEMBLY

5.1 Transport and unpacking

The machine is not assembled due to transport. Remove the feeder from the packaging and place on a flat surface. Check for any apparent transport damages, these could damage the machine or your health.

5.2 Assembly

We recommend to greasing the metal parts before assembly.

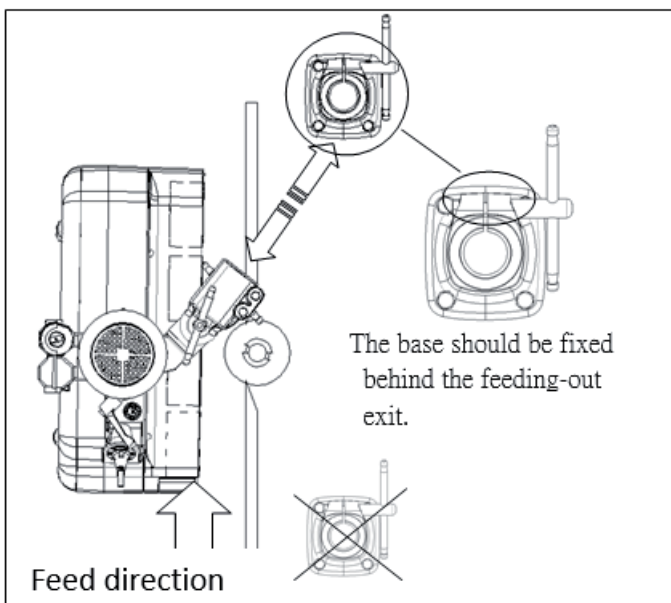
5.3 Tool Required

- Power drill, 10.2mm Drill, M12 Tapping (Tapper) Tool kits.
- Open-end wrench 13", 14", 17", 19MM
- Allen Key 4MM
- M12 x 50MM Long Screw and 4 sets of M12 Spring washers attached with packages.

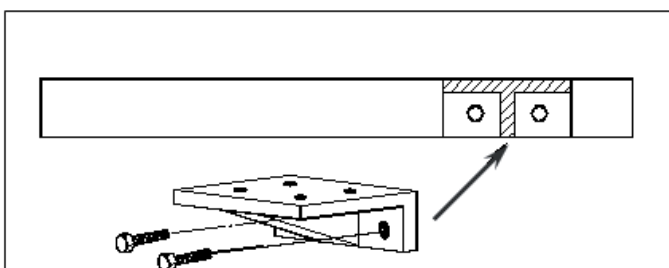
5.4 Installation Steps

NOTE: Ensure there is sufficient weight support to prevent power feeder tilted while Swing aside.

1. Confirmation of Power Feeder stand base mounting position:



For small machine table, an extension bracket (no provided) is recommended.

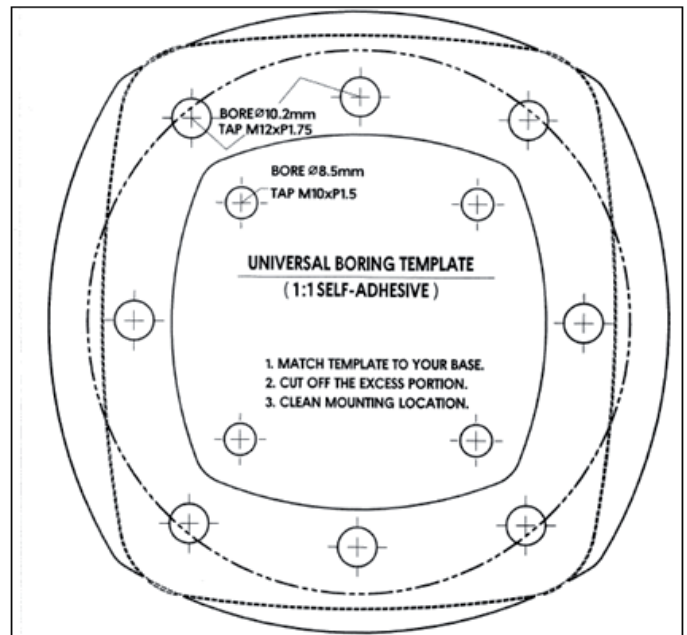


2. Locate boring position

For your boring convenience and accuracy, a SCALE 1:1 SELF-ADHESIVE DRILLING TEMPLATE is provided and enclosed in the package.

Clean location free from oil. Tape SELF-ADHESIVE DRILLING TEMPLATE to desire position. Mark it with centre punch; Avoid table rib and support underneath the table.

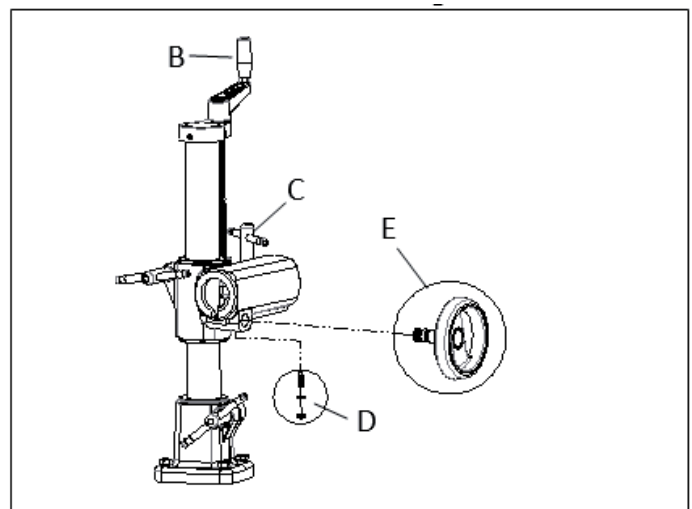
Prepare 4 sets of M12 bolts & spring washers (not provided).



5.5 Assembling

NOTE: Get help! Feeder is heavy. Do not try to do it on your own.

Fasten base to table attached with 4 sets of M12 screws, spring washer.



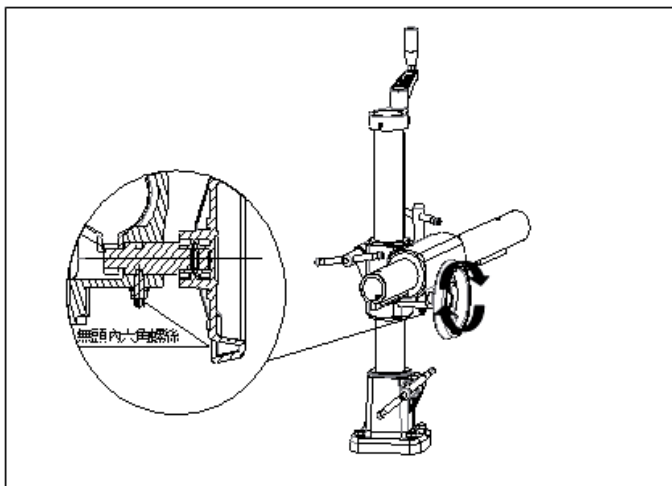
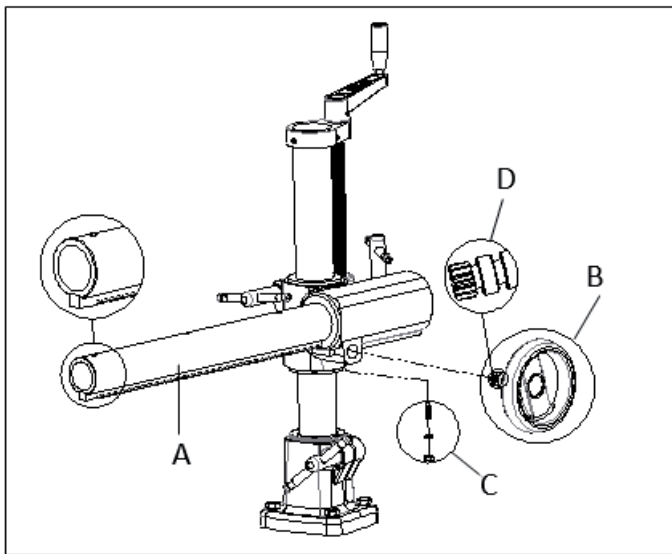
Insert "STAND" to BASE. Assemble Handle.

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Insert OVER-ARM into ELEVATING-BRACKET. Turn wheel a few turns. Tighten LEVER.

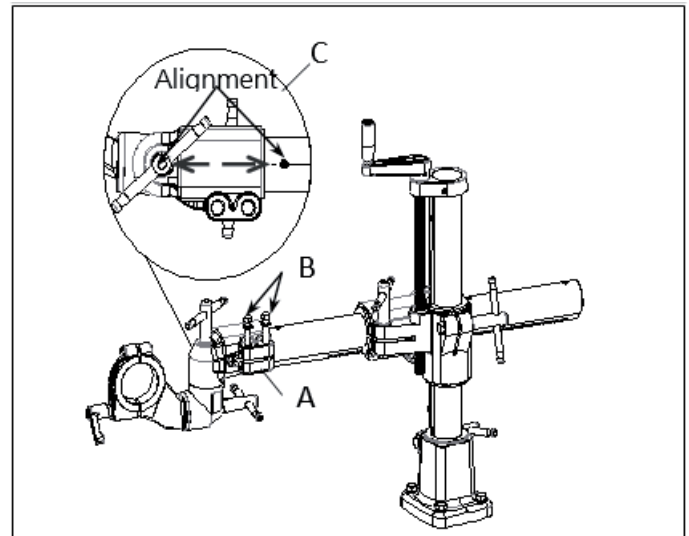
Insert the extension tube (A) into cross slide vise, push (B) hand-wheel into cross slide vise and rotating while push-in, ensure the hand-wheel kit are intermeshing with extension tube kit properly.

Lock the headless hex-screw in to cross slide vise (C), the rotating the handle-wheel and insert it into hand-wheel gear groove (D) to ensure the gears can be rotating smoothly, lock the hex-screw to complete the installation.

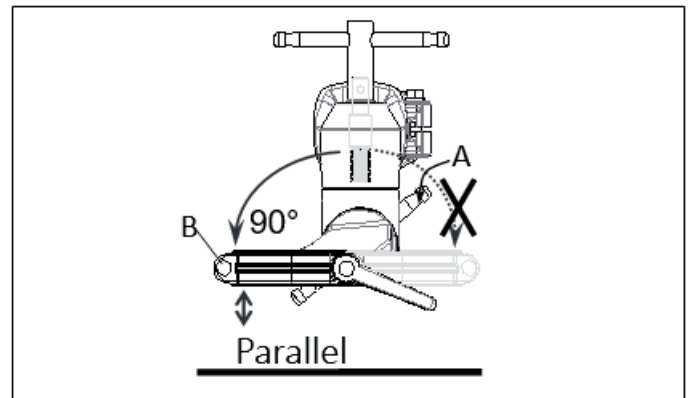


Install control-joint: To slip the end side of the extension tube into swivel cone (A) and ensure the alignment of the lever and extension tube centre line (C) lock with 2 attached screw. (B)

NOTE: The parallelism of the feeder rollers can be affected by the angle of swivel cone.

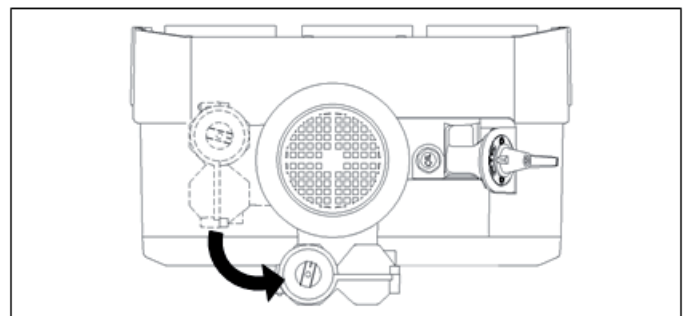


Adjust the motor suspension: Loosen the lever(A) to push motor suspension to the left side of the table horizontally.

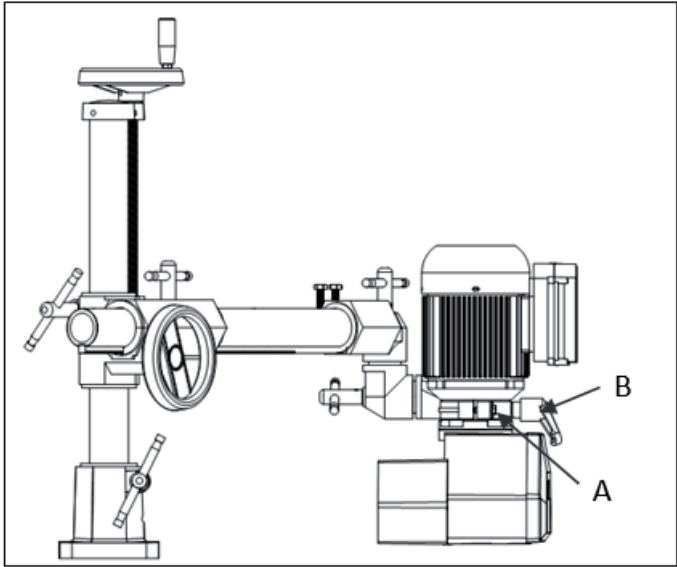


NOTE: Motor suspension level can stable the feeder and parallel to the worktable.

Power switch positioning: Due to the packaging and shipping consideration, the power switch was placed aside. Loosen the attached 4 Hex screw to move the motor to the front for more convenient operation.

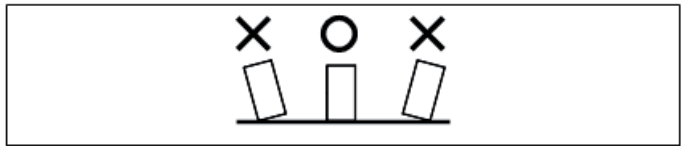


Machine body installation: Loosen the hex-screw(A) and quick release grip (B), and take off the motor clamp.

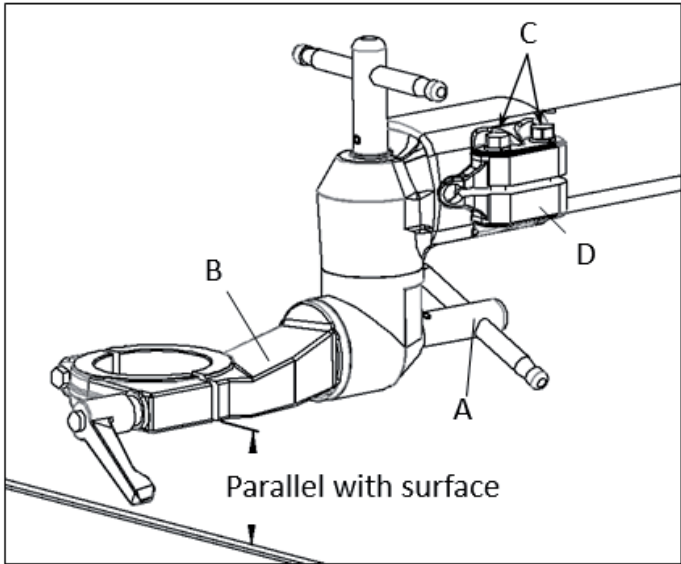


Confirmation:

- Locked the hex-screw (A) and quick release handle grip (B) to even the gap of two end. Loosen the quick release lever to rotate the machine body.

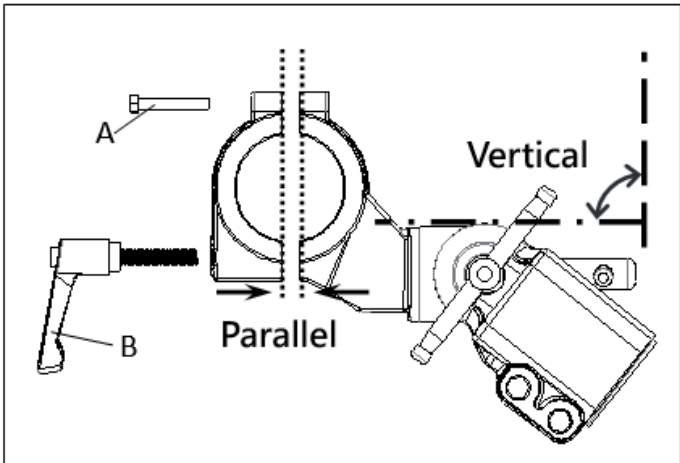


- Loosen two attached screws(C), and adjust the motor suspension angle (D).

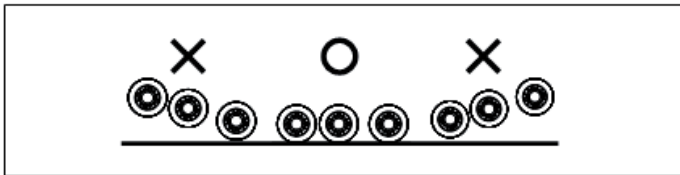
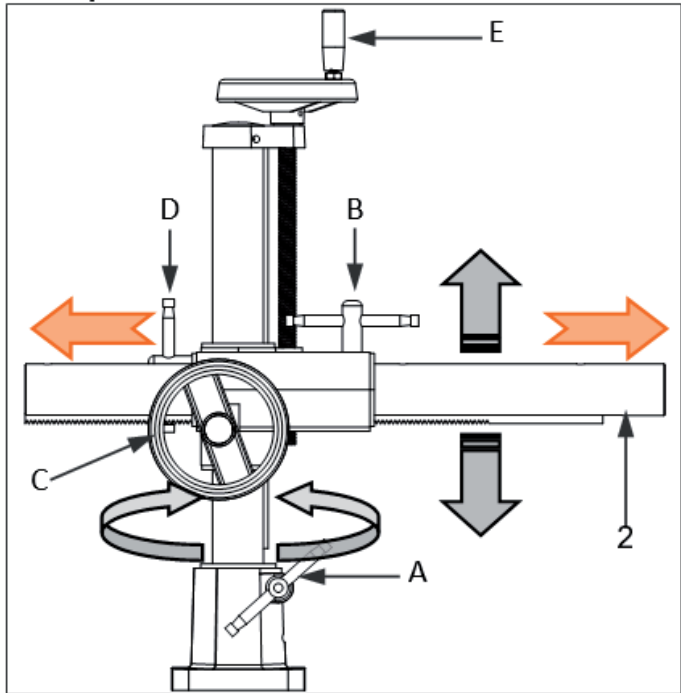


To complete the installation: Confirm all the handle and screws are locked properly.

6. OPERATION CONTROL



- Feeder angle adjustment, Loosen the stand handle (A) and lower the feeder to adjust the rollers and worktable until them horizontally.(B)
- Feeder roller level positioning: Lower feeder to table, alignment "slight off" is acceptable.
- offset by indendent suspension.



- Loosen the handle grip (A), adjusting the motor suspension level (B)

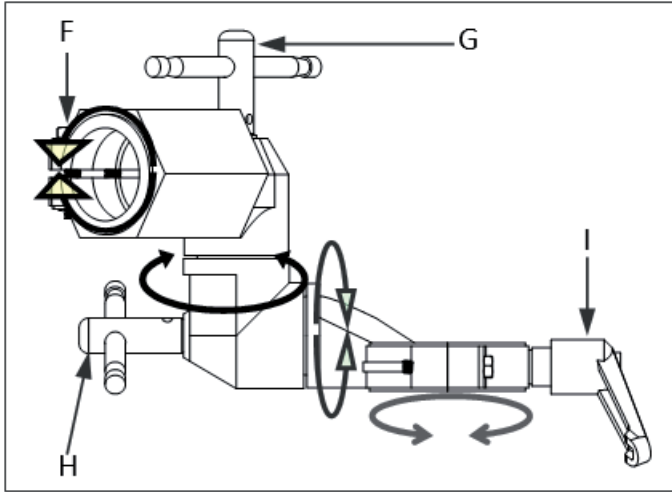
6.1 Stand

- Over-Arm rotation: Loosen lever. (A)
- Over-Arm extension: Loosen Lever (B),


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rotate side-wheel. (C)


Over-Arm elevation:  Loosen Lever (D), rotate TOP-Wheel. (E)




6.2 Control- Joint

Arm-bracket: Loosen 2 attached screws (F) 

Angle Joint: Loosen Lever (G) 

Motor clamp: Loosen Lever (H) 

Machine body: Loosen quick release (I) 

6.3 Feeding

Loosen Level (A), then swing the feeder aside then locked the lever til tight

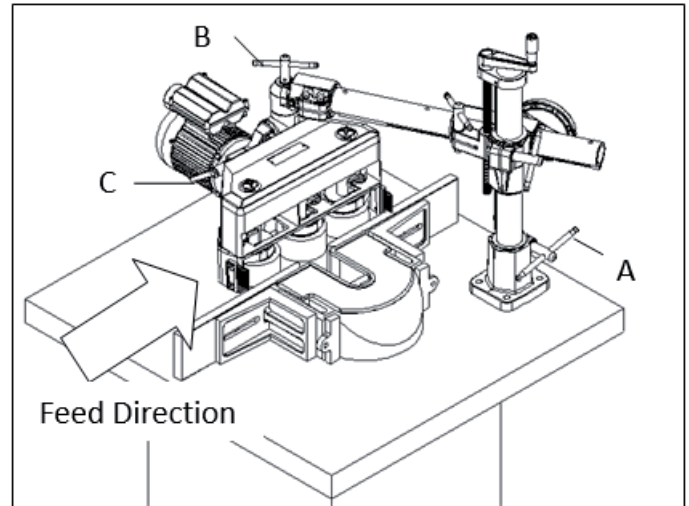
NOTE: Ensure there is sufficient weight support to prevent power feeder tilted while Swing aside.

Loosen LEVER (B), rotate the machine to left side 90° (vertical to the ground), rollers faced to right, motor to left then lock the lever.

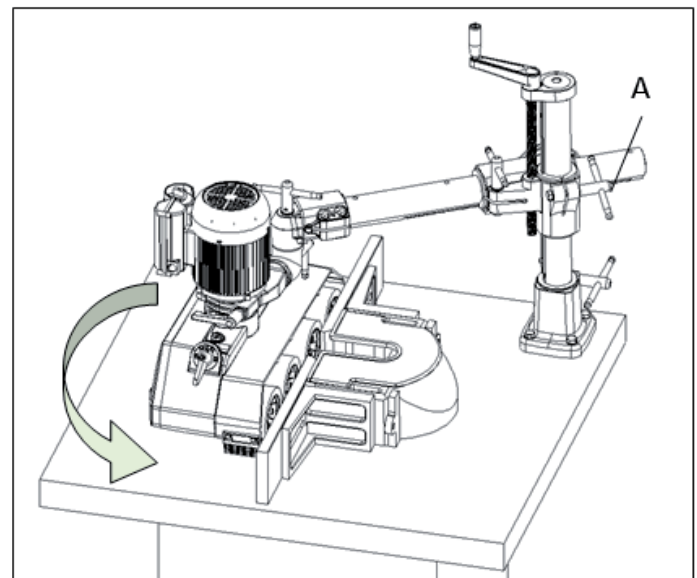
Loosen LEVER (C), rotate the machine 90° (Parallel to the ground) power switch on top, roller at the bottom the lock the lever.

Loosen LEVER (A), push the machine back to worktable, position the roller opposite to the guide plate then lock the lever.

Lock all ther lever properly to complete the adjustment.



NOTICE: The purpose of elevating kits tolerance gap is to allow smooth operation while elevating the feeder; Please pull back machine body to feed-in direction after elevating adjustment and lock the hand lever to tight at the meantime (A).



7. POWER CONNECTION AND GROUNDING

NOTE: Read the motor specification to ensure the power source and voltage is compatible. (Range: ±5%)

Ensure power switch is (OFF) before connect the power source.

Requirement:

- Connected to the repectively non-fuse circuit or motor circuit breaker.
- The external power switch cord cannot be less than 12AWG.
- Switch required wired in compliance with your national or local electrical regulation.

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Using the extension cable if needed: 30M or under using 12AWG cable, 46M or above using 10AWG cable.

Ensure all the grounding wires connected properly; inappropriate connection may cause the damage to the motor.

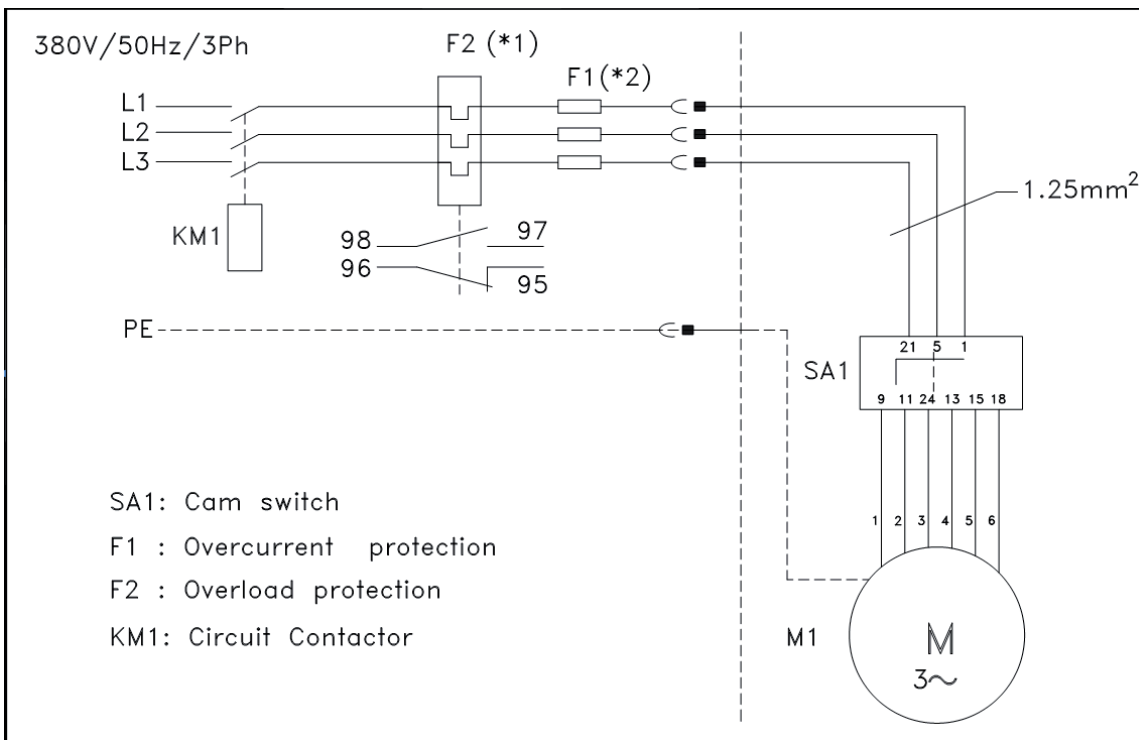
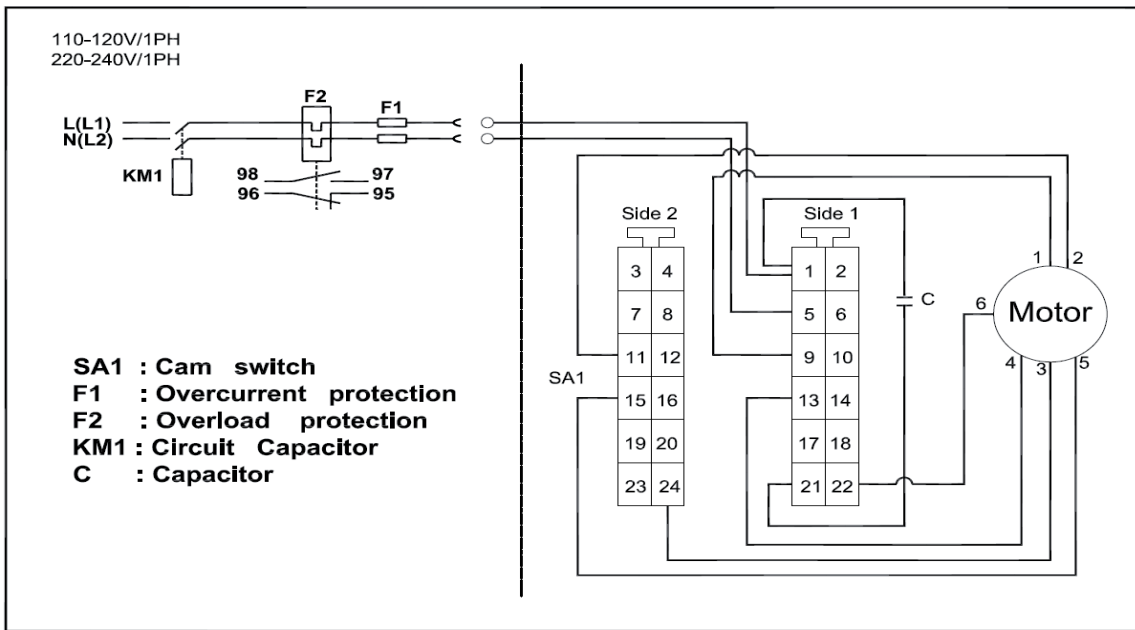
Ensure the grouping wire of the motor (green or yellow) connected technician for any further assistance.

Please contact professional technician for any further assistance.

Rated current reference:

Specification	Rated current
1PH 110V~120V	10.35A
1PH 220V~240V	5.0A
3PH 220V~240V	3.5A
3PH 380V~420V	1.8A
3PH 550V~600V	1.9A

• 34/38/44/48/04/MX



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8. SPEED CONTROL

Notice: cut out the power before adjustment
 Appropriate feeding speed rate and well sharpened cutting blade can cause the procedure process quality and efficiency.

Determine the correct feeding speed by the hardness of the work-piece, material and the desired cutting procedure.

Listen attentively while feeder rotating and re-check the sample after procedure process then adjust setting to desired result.

Maintain the cutting blade and keep it sharp all the time.

SPIN SPEED OBJECT THICKNESS	UNIT: METER/MIN								
	6000 RPM			8000 RPM			10000 RPM		
# OF BLADE FEED SPEED									
6cm	9	15	23	9	15	23	15	23	23
10cm	8	12	15	8	15	15	12	15	15
20cm	5	9	12	6	12	12	8	12	12
25cm	3	5	6	5	6	8	6	8	9

Speed shifting: Cut out the power before shifting.

Rotate the rollers while switch the speed to allow the clutch and derailleur get engaged properly.

Derailleur and gear settle

- Model 34/44/04
(A) +Derailleur control(Fig 16-1)
- Model 38/48 (3PH)
(A) +(C)+ Derailleur control (Fig 16-2)
- Model 38/48 (1PH)
(B) +(C)+Derailleur control (Fig 16-2)
- Model MX
(A) +Derailleur(Fig 16-3)

	Switch
A	
B	
C	
D	

Mot	Min.	Gear	Min.	Gear
L	4M(13Ft.)		10M(33Ft.)	
H	8M(26Ft.)		20M(66Ft.)	

(Fig 16-1)

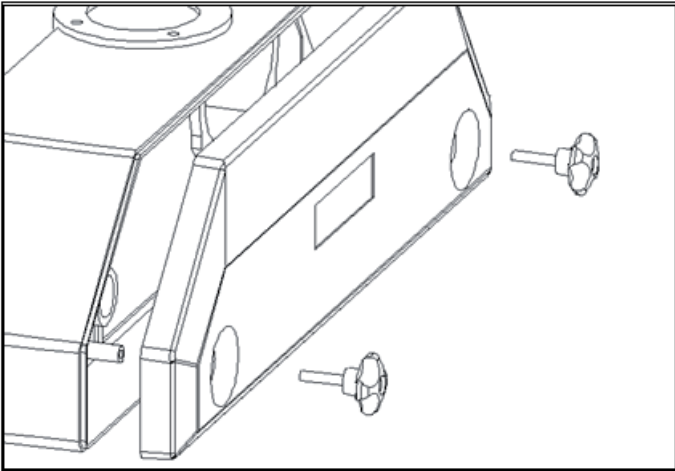
8 Speed Power Feeder				
	2M (6.5FT.)	6.7M (22FT.)	4M (13FT.)	13M (43FT.)
	5.5M (18FT.)	16.5M (55FT.)	11M (36FT.)	33M (108FT.)

(Fig 16-2)

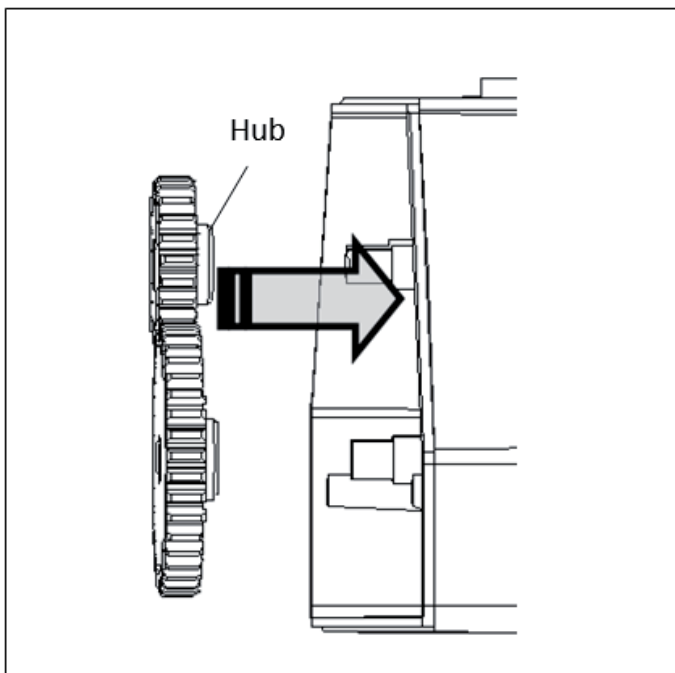
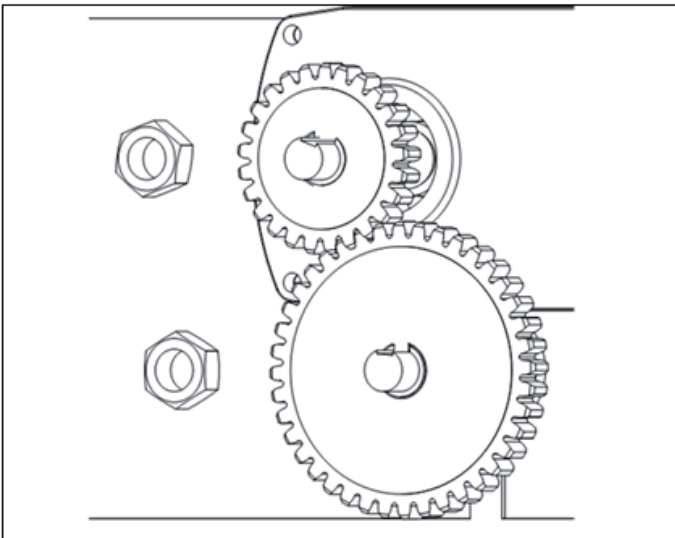
MX Feeding Speed		
Gear	Switch	
21 	3.5 M/Min (11.5 Ft/Min)	7 M/Min (23 Ft/Min)
25 	5 M/Min (16.5 Ft/Min)	10 M/Min (32.5 Ft/Min)
40 	12.5 M/Min (40.5 Ft/Min)	25 M/Min (81.5 Ft/Min)
44 	16 M/Min (52 Ft/Min)	32 M/Min (104 Ft/Min)

(Fig 16-3)

Gear replacement instruction.
Loosen two attached screws to take off the cover.



Loosen the Hex screw to replace the gear set.



NOTE: The hub of the gear should be turned inward to avoid possible interference.

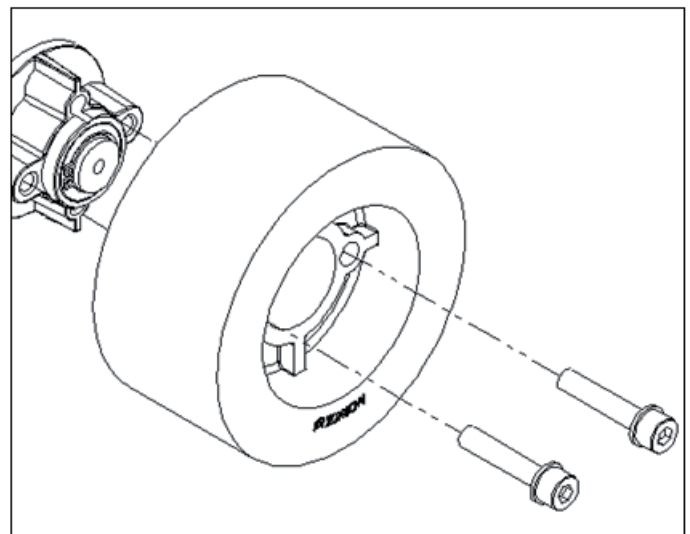
NOTE: Optional gear set available
34/44/04/54 model speed(4+4=8)
38/48/68model speed(8+8=16)

9. Roller replacement

Notice: cut off the power source before operation.

Loosen 2 attached M8 screws.

Replace with brand new rollers then tighten the screws to complete the replacement.



Notice: Confirm all the screws are locked properly after first operation.

The rubbers have been tested by high standard QC control and durability test.

- Its traction friction and durability is incomparable to other brands. Please replace with Co-matic made Roller.

10. MAINTENANCE

Notice: Cut off the power source before operation.

Rollers:

Grease rollers and chains every 200 hours or 30 days through fittings by using grease gun.

Chain wheel and chain should be maintained regularly.

Recommended Grease:

- SHELL Alvania (SHELL Alvania R. 2);
- (SHELL GADUS S2 V220 2);

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- (MOBILUX EP 2);
- (FUCHS RENOLIT EP 2);
- (BP ENERGREASE MM-EP 2)

Turbine oil:

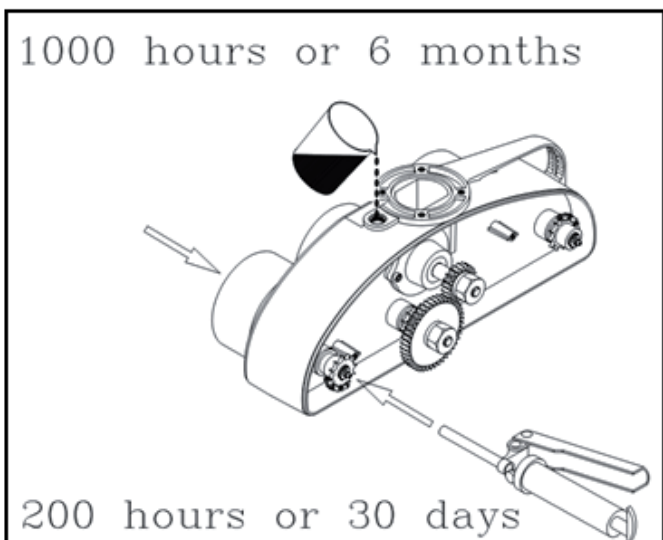
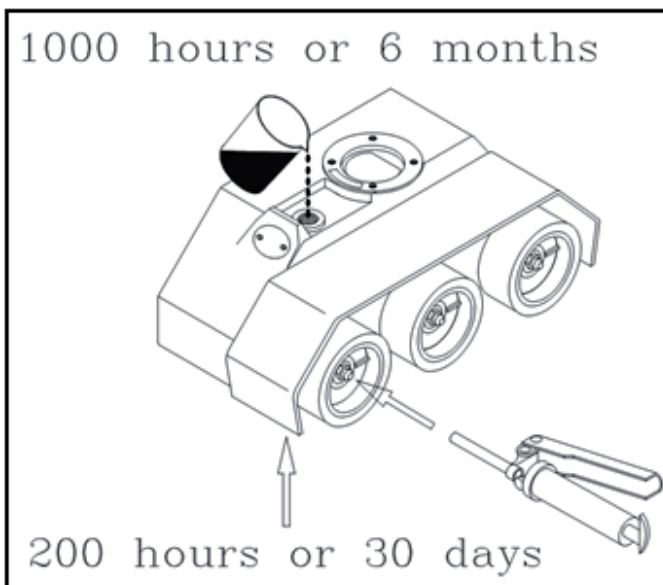
Exchange turbine oil first 200 hours of 30 day while first starts the machine. Change oil after 1000 working hours or 90 days after purchase of new feeder.

Using same brand of turbo oil or equivalent oil as following:

- MOBIL - MOBILGEAR 630;
- SHELL - OMALA 150;
- BP - ENGERGOL GR-SP 150

Turbine oil replacement:

Refer to page 7: operation and adjustment please pay attention to the balance of the feeder and worktable while moving the feeder aside, then flip it over and open the oil plug to allow the oil flow out, follow the instruction to fill up the turbo oil.

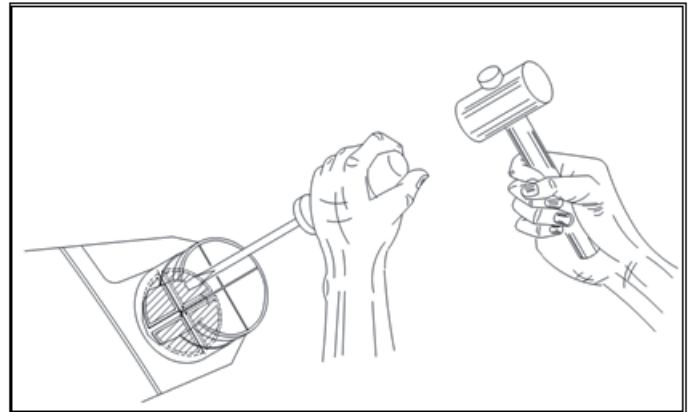


Turbine oil filled up standard

- 38/48 300CC (38mm, 1-1/2")
- MX 200CC (38mm, 1-1/2")

Using wind gun to maintain the feeder after every operation.

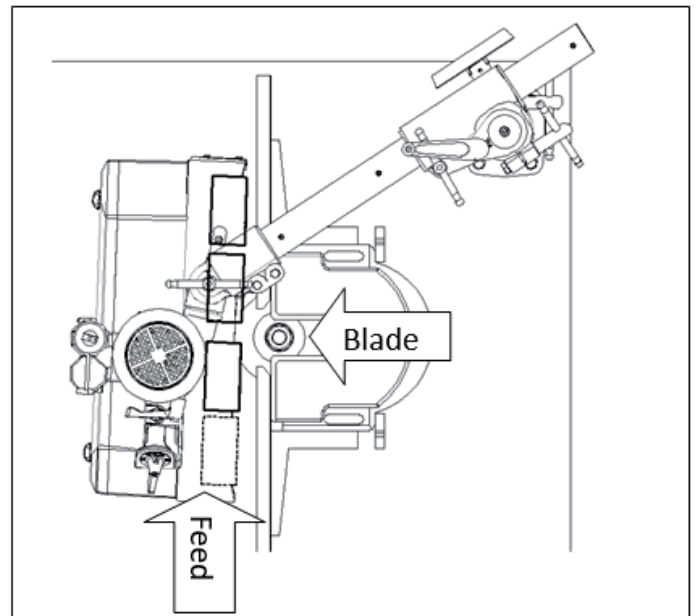
Model MX: Using tool to pry open inside of dust collector ; Please seal up with tape while not in use.



11. FEEDER OPERATION INSTRUCTION

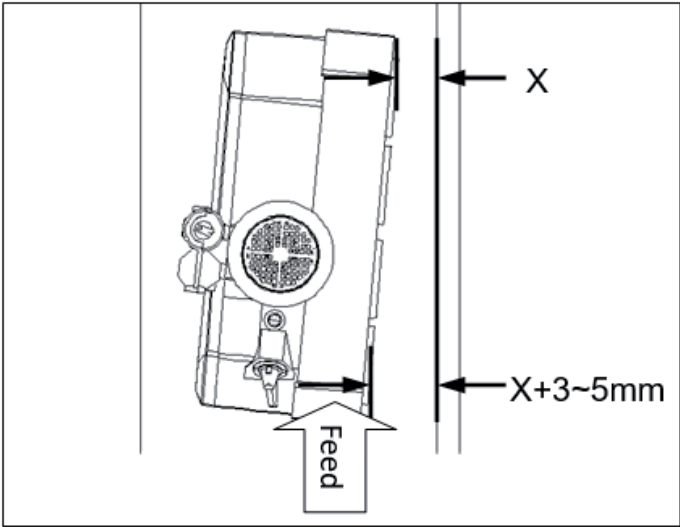
Jointer operation:

- Rollers & cutting blade:



Pic. 11-1

- Feeder position & guiding plate:

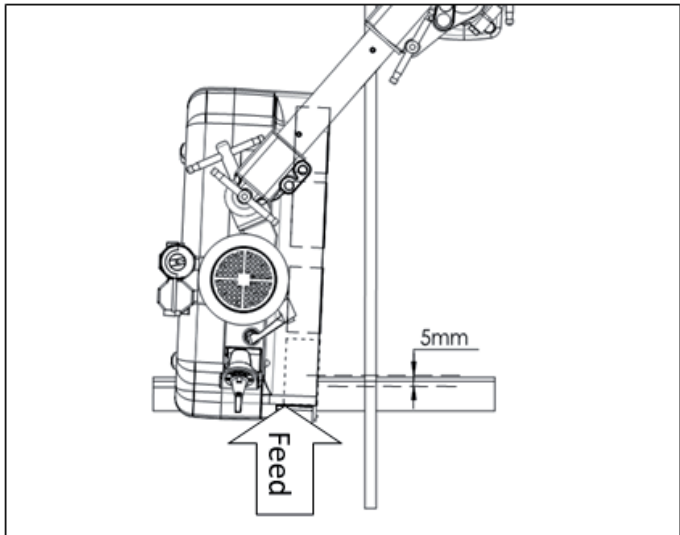


Pic. 11-2

- Feeder position & guiding plate (pic. 11-2).
- Feeding pressure & Work-piece (pic. 11-3).

Manual operation

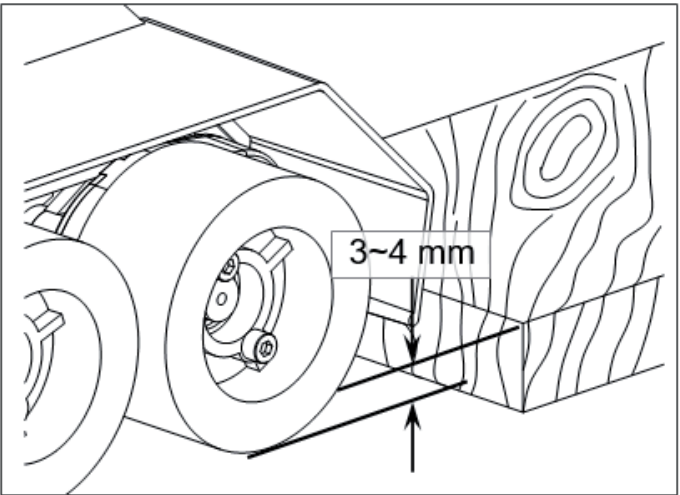
- Rollers & cutting blade:



- Feeder position & guiding plate (pic. 11-2)
- Feeding pressure & Work-piece: light pressure.

NOTE: The space between feed-in rollers and the guide plate could be at least 3~5mm wider than Feed-out rollers to ensure the roller can fully cover and give enough pressure to the work-piece.

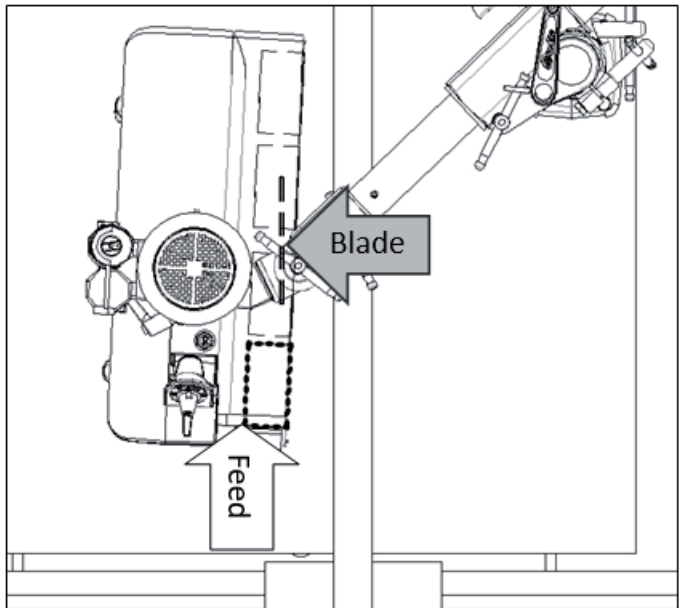
- Feeding pressure & Work-piece:



Pic. 11-3

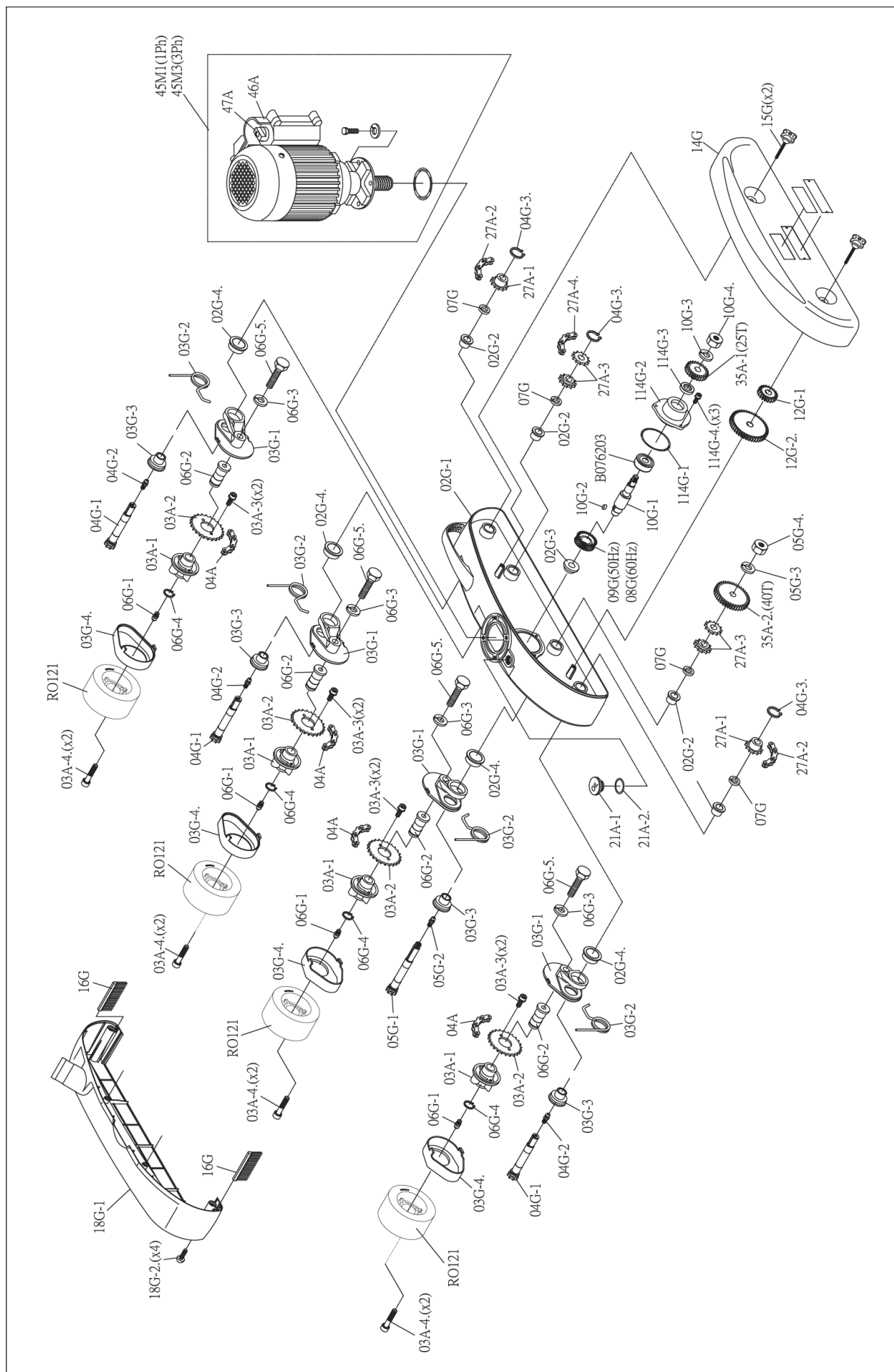
Table-saw operation:

- Rollers & cutting blade:

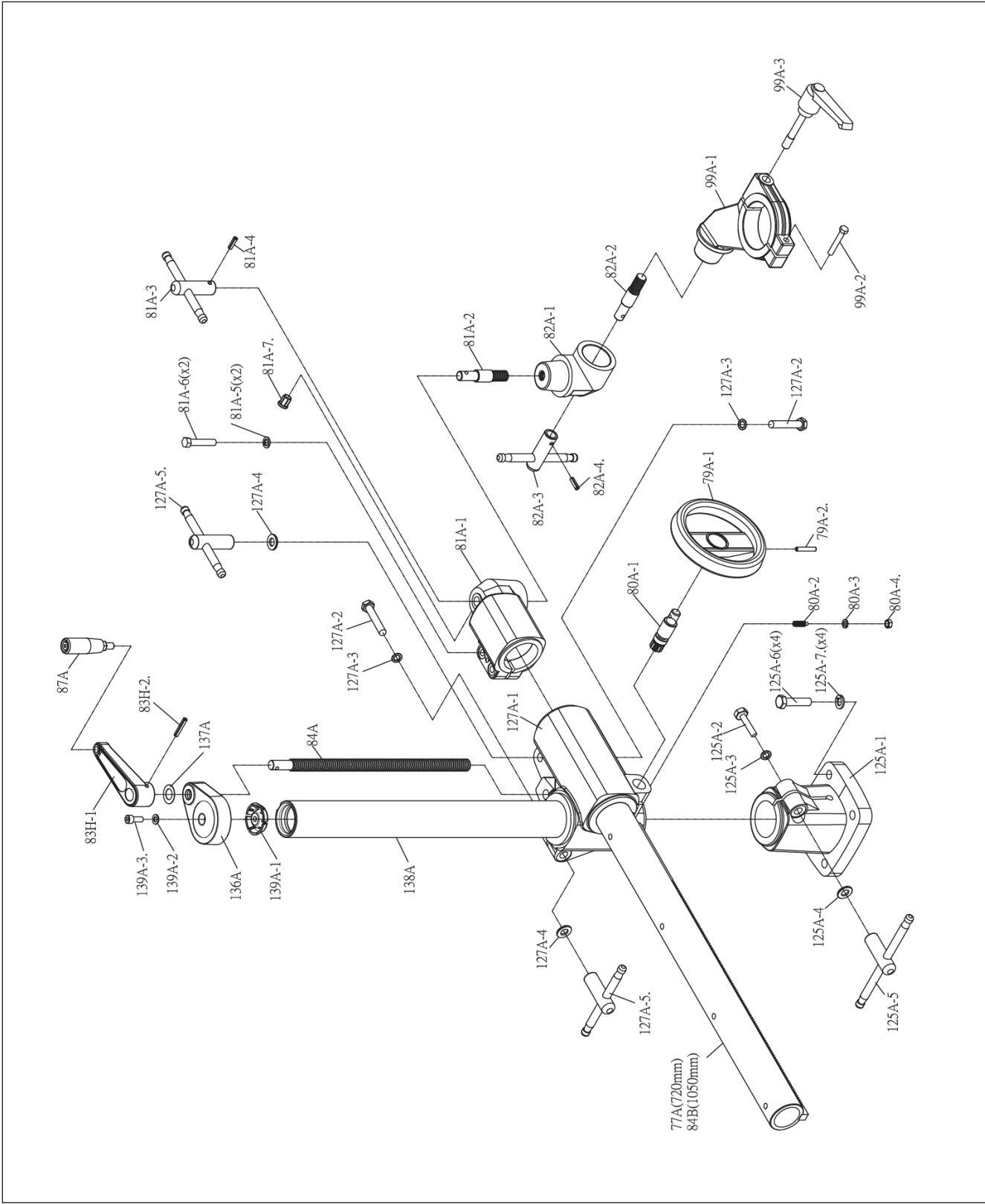


Pic. 11-4

12. MX48B HOUSING ASSEMBLY



HEAVY-DUTY UNIVERSAL STAND ASSEMBLY



Operating instructions EN

MX48 HOUSING PARTS LIST

Part No.	Code No.	Description	QTY
B076203	B076203	Bearing	1
02G	02G	Housing Frame Kit	1
02G-1	C020037	Housing Frame	1
02G-2	A500302	Bushing	4
02G-3	A500301	Bushing	1
02G-4.	A500347	Bushing	4
03A	03A	Roller Supporter Kit	4
03A-1	C020333A	Roller Supporter	1
03A-2	A500309	Sprocket	1
03A-3	S060616	Cap Screw	2
03A-4.	S060840	Cap Screw	2
03G	03G	Sprocket Case Kit	4
03G-1	C020349A	Sprocket Case	1
03G-2	N950004	Spring	1
03G-3	A500359	Bushing	1
03G-4.	U010052	Case Cap	1
04A	K330026	Chain	4
04G	04G	Sprocket Shaft Kit	3
04G-1	G320023	Sprocket Shaft	1
04G-2	T315106	Grease Nipple	1
04G-3.	N510015	Snap Ring	1
05G	05G	Main Sprocket Shaft Kit	1
05G-1	G320025	Main Sprocket Shaft	1
05G-2	T315106	Grease Nipple	1
05G-3	N011225	Flat Washer	1
05G-4.	N11012H	Nut	1
06G	06G	Roller Spindle Kit	4
06G-1	T315106	Grease Nipple	1
06G-2	G320028	Roller Spindle	1
06G-3	N030012	Spring Washer	1
06G-4	N510020	Snap Ring	1
06G-5.	S601250	Hex Screw	1
07G	A500308	Bushing	4
08G	C120005	Worm Gear	1
09G	C120011	Worm Gear	1
10G	10G	Worm Gear Shaft Kit	1
10G-1	G320026	Wormgear Shaft	1
10G-2	K420612	Key	1
10G-3	N011225	Flat Washer	1
10G-4.	N11012H	Nut	1
12G	12G	GEAR SET	1
12G-1	A500344	Gear	1
12G-2.	A500345	Gear	1
14G	U010078	Housing Cover	1
15G	U010087	Knob	2
16G	U010014	Brush	2
18G	18G	Roller Cover Kit	1
18G-1	U010080	Roller Cover	1
18G-2.	S500512	PH. Screw	4
21A	21A	Oil-Cap Kit	1
21A-1	U010008	Oil Cap	1
21A-2.	Q010012	"O" Ring	1
27A	27A	Transmission Kit	1
27A-1	A500303	Sprocket	2
27A-2	K330040	Chain	2
27A-3	A500307	Double-Sprocket	4
27A-4.	K330062	Chain	1
35A	35A	Gear Kit	1
35A-1	A500310	Gear	1
35A-2.	A500311	Gear	1
45M1	45M1	Motor w/ Switch	1
45M3	45M3	Motor w/ Switch	1
46A	46A	Switch Box	1
47A	47A	Switch Kit	1
114G	114G	Wormgear Box Cover Kit	1
114G-1	Q010065	"O" Ring	1
114G-2	C020350	Wormgear Box Cover	1
114G-3	Q021701	Oil Seal	1
114G-4.	S060616	Cap Screw	3
RO121	RO121	Roller tire	4

HEAVY-DUTY STAND PARTS LIST

Part No.	Code No.	Description	QTY
77A	E580002A	Over Arm Kit	1
79A	79A	Handwheel Kit	1
79A-1	U010082	Handwheel	1
79A-2.	N810636	Lock Pin	1
80A	80A	Pinion Kit	1
80A-1	G020001	Pinion	1
80A-2	G000007	Screw	1
80A-3	N030008	Spring Washer	1
80A-4.	N11008R	Nut	1
81A	81A	Over Arm Cone Kit	1
81A-1	A250403	Over Arm Cone	1
81A-2	G020005	Stud	1
81A-3	G020007A	Handle	1
81A-4	N810622	Lock Pin	1
81A-5	N030010	Washer	2
81A-6	S601050	Screw	2
81A-7.	U010119	Cord Sheath	1
82A	82A	Swivel Cone Kit	1
82A-1	A200304	Swivel Cone	1
82A-2	G020005	Stud	1
82A-3	G020007A	Handle	1
82A-4.	N810622	Lock Pin	1
83H	83H	Handle Kit	1
83H-1	U010139A	Handle w/ Bushing	1
83H-2.	N810636	Lock Pin	1
84A	G320090	Elevating Screw	1
84B	E580003A	Over Arm Kit	1
87A	U010011	Handle-Grip	1
99A	99A	Motor Clamp kit	1
99A-1	A200305	Motor Clamp	1
99A-2	S600850	Screw	1
99A-3.	T060003	Pull Handle	1
125A	125A	Base Kit	1
125A-1	A250401	Column Base	1
125A-2	S601275	Hex Screw	1
125A-3	N050012	Lock Washer	1
125A-4	N011225	Washer	1
125A-5	G020010A	Handle	1
125A-6	S601250	Hex Screw	4
125A-7.	N030012	Spring Washer	4
127A	127A	Elevating Bracket Kit	1
127A-1	A250402	Elevating Bracket	1
127A-2	S601275	Hex Screw	2
127A-3	N050012	Lock Washer	2
127A-4	N011225	Washer	2
127A-5.	G020006A	Handle	2
136A	C020110A	Column Cape	1
137A	G150031	Washer	1
138A	E580013A	Vertical Column Kit	1
139A	139A	Fastener Kit	1
139A-1	U010279	Fastener	1
139A-2	N015816	Flat Washer	1
139A-3.	S900825	Cap Screw	1

