INSTRUCTION MANUAL

S L – 3 5 0 V

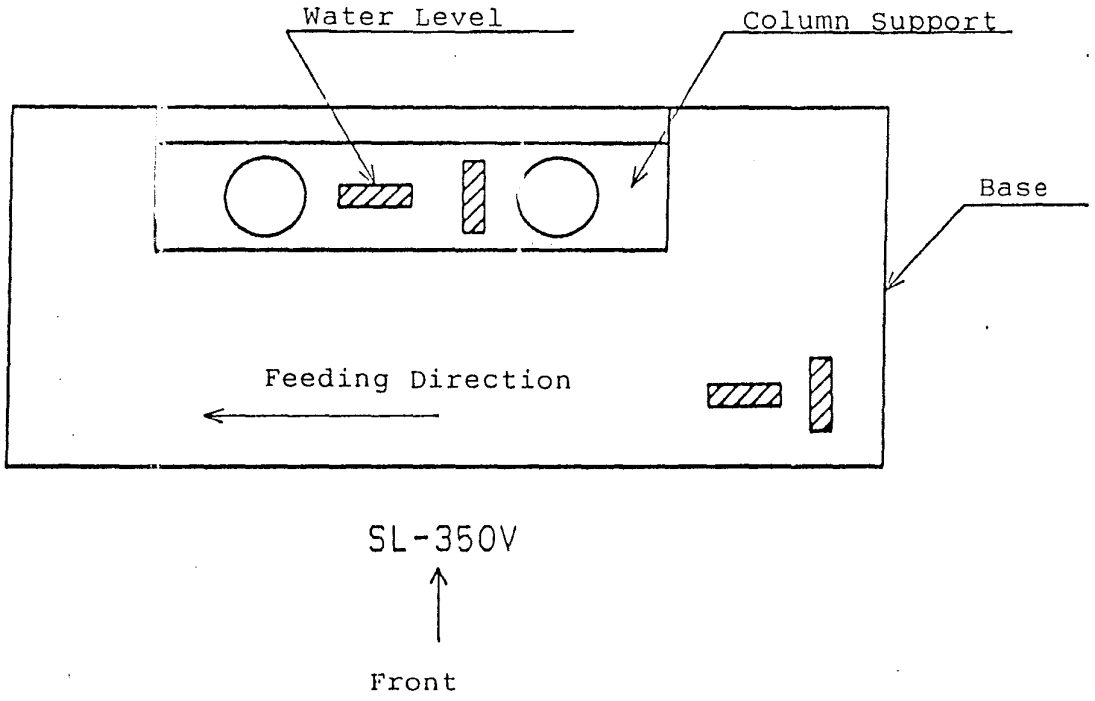
MARUNAKA TEKKOSHO INC.

1. Machine Installation

Machine should be placed on 100 mm thick concrete floor bearable at more than 4000 kg/M^2.

2. Leveling

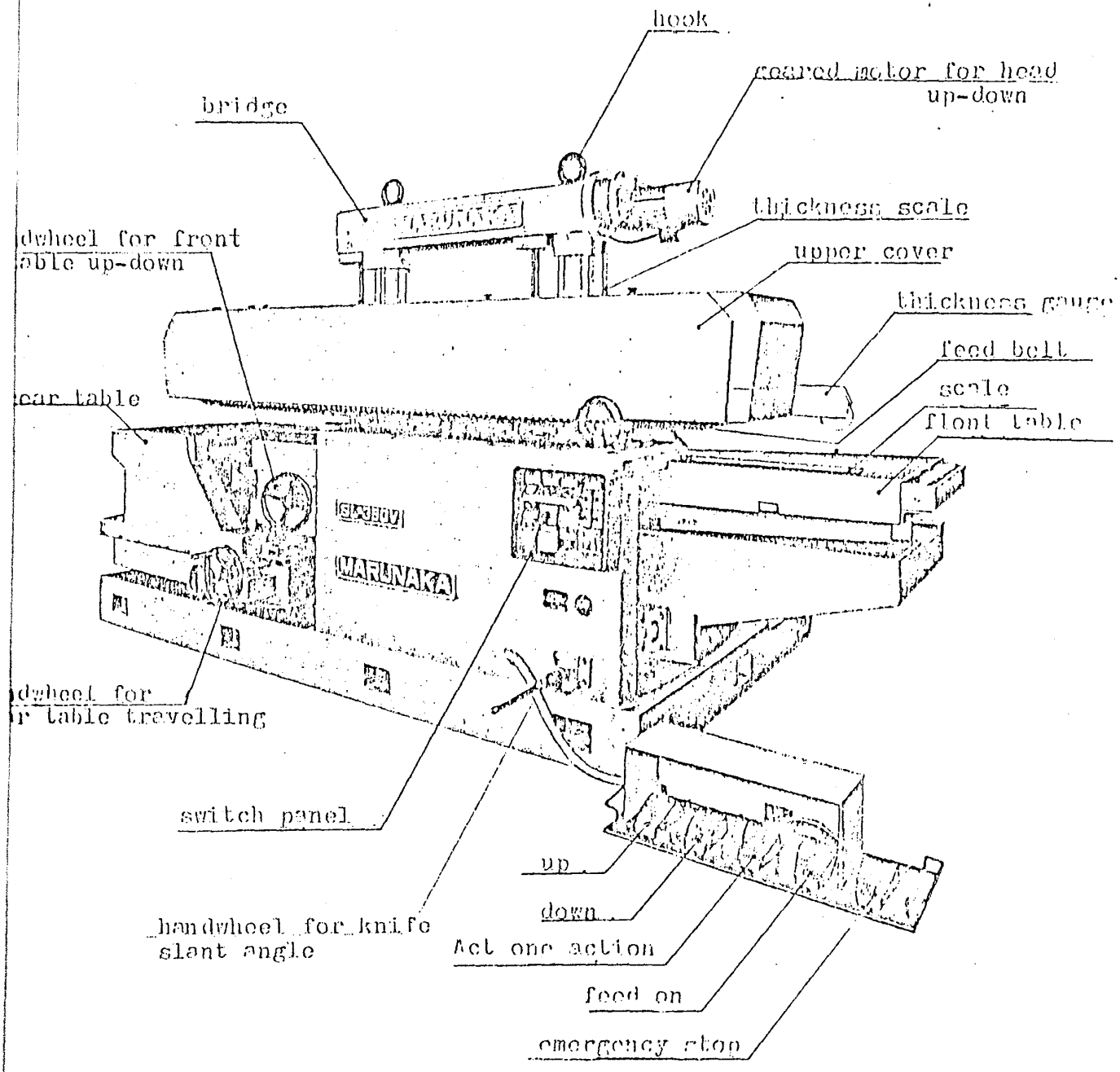
Machine must be leveled for a long term accuracy as follows.



CONTENTS

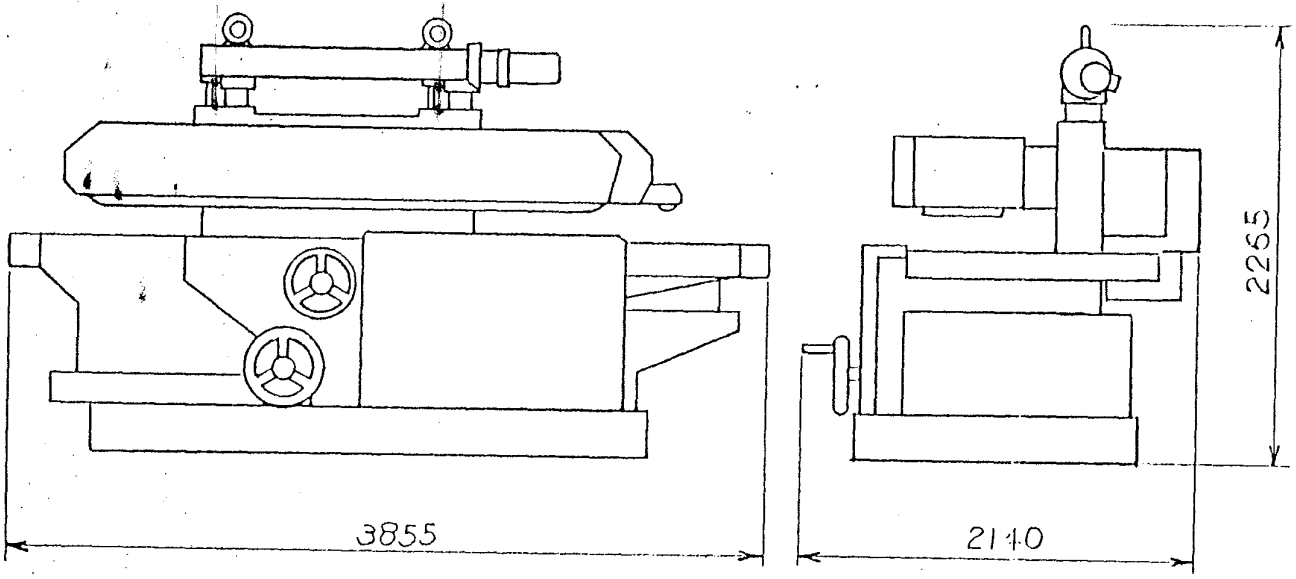
1. Names of Machine Parts

fig. 1



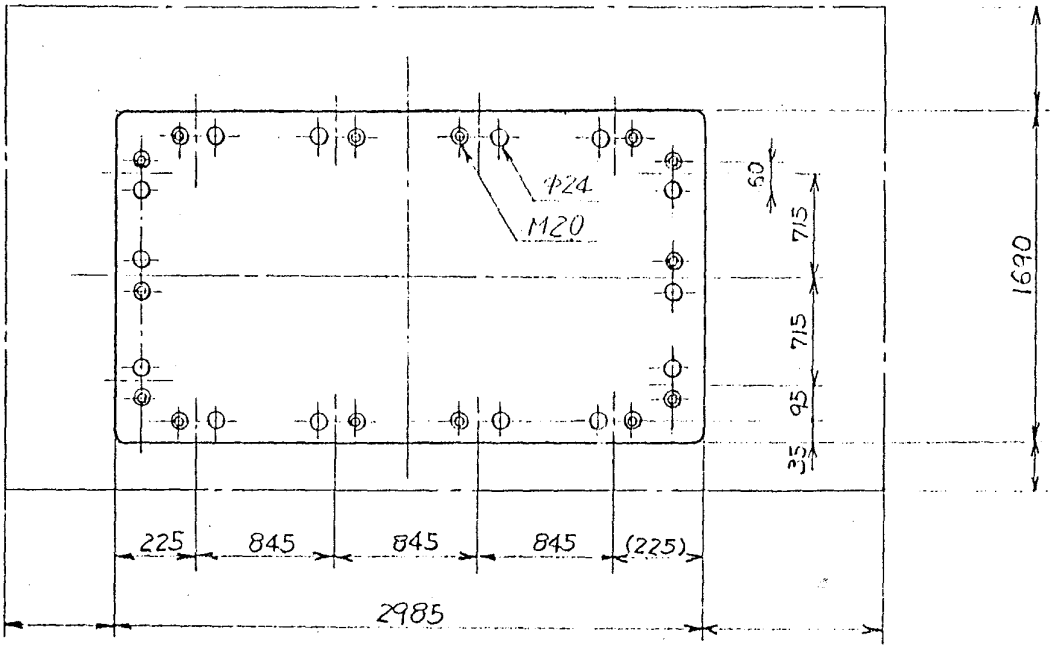
2. Dimensional Drawing

fig. 2



3. Installation Drawing

fig. 3



4. Specifications

Motor for feed (with brake)	15KW, 4P 3ph.
Motor for head up-down (with brake)	1.5KW, 4/8P 3ph.
Work capacity	
Max. work width	350mm(75°)
Max. thickness	300mm
Feed speed	m/min.
Knife slant angle	75° - 85° (variable)
Table height	900mm
Machine size W x L x H	2,140 x 3,855 x 2, mm
Net weight	10730kg

5. Standard Accessories

Hexagonal wrench key (2 - 17)	1 set
Box wrench 30	1 pc.
Single ended wrench 24, 30	1 pc. each
Double ended wrench 10 x 13, 17 x 19, 19 x 24	1 pc. each
Offset wrench 30	1 pc.
Ratchet wrench 19 x 19	1 pc.
T-shape screw (knife carrier)	2 pcs.
Hexagon socket headless set screw for knife adjusting	44 pcs.
Dial gauge with magnet base (unit: 0.01mm)	1 set
Screw driver (+ & -)	1 pc. each
Silicone spray	1 pc.
Water stone	1 pc.
King deluxe	1 pc.
Tool box	1 pc.

6. Lubrication Instructions

The machine must be oiled before operation. Be careful that wood chips or dust are not mixed in the oil.

1) Reduction Gear

Prior to shipment, oil is enough supplied for operation. If not enough, add gear oil up to the level indicated on the oil gauge. The first oil change shoule be done after 500 hours operation. Hereforth, oil should be changed every 2,500 hours or after every 6 months' operation. When changing the oil, clean the reduction gear with a cleaning solvent to provide the machine with longer life and higher performance for a long period. The grease for input shaft of the reduction gear is replenished in advance. Grease replenishment is necessary once a year.

	Lubricating Oil			Grease
Atomospheric temp.	-10°C - 10°C	11°C - 35°C	36°C - 55°C	-10°C - 55°C
JIS	Gear Type 2 #3	Gear Type 2 #4	Gear Type 2 #5, #6	Roller Bearing 2 #2
Esso	Pen-o-Red EP-2	Pen-o-Red EP-2	EP-3, EP-4	Nebula EP-2
Idemitsu Kosan	Daphne CE Compound #65	Daphne CE Compound #75	Daphne CE Compound #85-90 #105-115	Coronex Grease No.2
Mitsubishi Sekiyu	Diamond #630	Diamond #640	Diamond #650,#660	Diamond-multi-purpose Grease No.2
Mobil Oil	Mobil Compound BB	Mobil Compound BB	Mobil Compound DD,EE	Mobilux Grease No.2
Nihon Sekiyu	Bonnoc Lubricant #2	Bonnoc Lubricant #2	Bonnoc Lubricant #3, #4	Epinoc Grease #2
Shell Oil	Shell Macoma Oil #68	Shell Macoma Oil #69	Shell Macoma Oil #72, "73 - #75	Shell Alvania Grease No.2

2) Geared Motor for Head up-down

The reduction gear of the geared motor, located at the head support, is of grease lubrication system which requires no replenishment. (The grease should be replaced every 4-5 years, or after 10,000 hour's operation.)

3) Column Lubrication

Lubricate the column at a proper time by the grease pump located at the head support.
For head cushion, lubricate the oil appropriately by the oil pump.

4) Table up-down

Take off stainless plate on table, then replenish grease at inner screw and gear.

5) Front-back movement of rear table

Oil supply is done through two oil cups at left and right sliding face.

6) Lubricate grease or gear oil including extreme pressure additive to the screws of head up & down by means of the oil pump, located under the motor for head up & down.

7. Preparation for Operation

Prior to operation, preparation must be done in the following order. When the machine is used after a long period of non-operation, trial run is recommended.

7-1. Preparation for Trial Operation

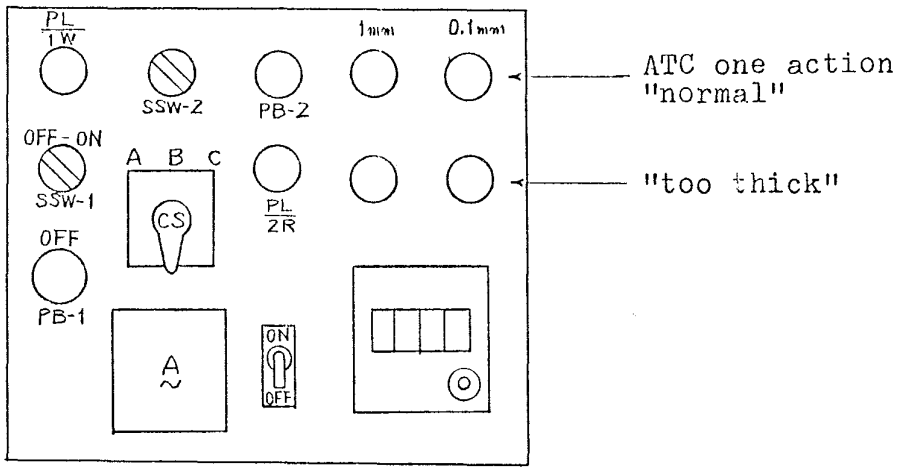
1) Earth the green lead wire.
2) Connect the lead wire to the power source.
3) Check the proper insulation.
4) Turn on the switch and check to see the head moves up-down correctly by pressing foot switch.
5) Clean the table and machine.
6) Check the amount of specified lubricant in the reduction gear.
7) Check the feed belt (endless rubber belt) for proper tension.

7-2. Daily Preparation for Operation

1) Keep all tools and materials clear off the machine.
2) Oil all lubrication points.
3) Check the feed belt for proper tension and friction of its surface.
4) Check the proper knife setting and inspect the knife edge for sharpness and for nicks.

8. Machine Adjustment & Operation

fig. 5



8-1. Switch Panel and Display Device

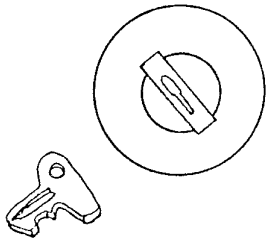
1) Power source switch(SSW-1)

Select switch(SSW-1) is for controlling the entire power source. When it is turned off toward left, the machine stops all its operation. When it is turned on toward right, the pilot lamp(PL-1W) is lighted on and the machine can be operated. The blown fuse or the blown filament of PL-1W cause the lamp off. In such case, check the power source switch amplifier.

2) Emergency Stop Button(PB-1)

Press the red push button with key when something abnormal happens during operation or when stop the operation.
If this button is pressed strongly, emergency stop is locked and the machine can not be operated again unless the lock is released.

fig. 6



3) Select Switch(SSW-2) and Cam Switch(CS)

Operation of both switches is instructed in the following chart.

SSW-2	CS	Movement
Auto	Auto Return (A)	Thickness control acts after workpiece returns and released from belt. (Belt returns to forward feed.)
	Forward only (B)	Thickness control acts after workpiece is held off at the opposite end. (Belt remains in the forward feed.)
	Return to Repeat (C)	Workpiece returns and is held between the feed belt and the table, and then the thickness control acts. After this, belt does forward feed.
Manu.	Auto Return (A)	Workpiece returns and is held off. Thickness control does not act. (Belt returns to forward feed.)
	Forward only (B)	Workpiece is held off at the opposite end. Thickness control does not act. (Belt remains in the forward feed.)
	Return to Repeat (C)	Workpiece returns and is held between the feed belt and the table. The thickness control does not act. (Belt returns to forward feed.)

*Auto-Manual of switch(SSW-2) determines automatic movement of thickness control.

4) Reverse button(PB-2)

Workpiece is reversed to feed with this PB-2 pressed. When released, reversing feed belt is stopped. PB-2 must not be pressed during the feed belt is forwarding or during operation. Make sure to press this button after pressing stop button.

5) - 1. Thickness Control

fig. 7

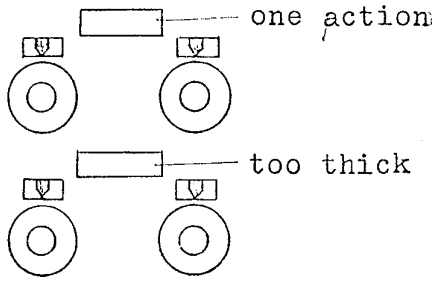
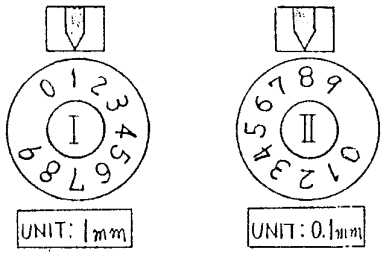


fig. 8
(Ex. :when sliced sheet is of)
(1.8mm thickness.)



Thickness is controlled by setting two dials located at the right sided upward in switch panel.
For instance, in production of 1.8mm thickness, set the dial I to "1", and the dial II to "8", and the head drops in proportion to the thickness of the product.

5) - 2. Thickness Control at "too thick"

When the head is over cushioned during operation, automatic thickness control does not work for machine protection. Then, sometimes enough pressure to feed the workpiece can not be obtained. In such case the lower thickness controller works and compensates the pressure with these lower two dials' set value. This dial set value is determined according to the thickness detector.(Refer to 8-7.)

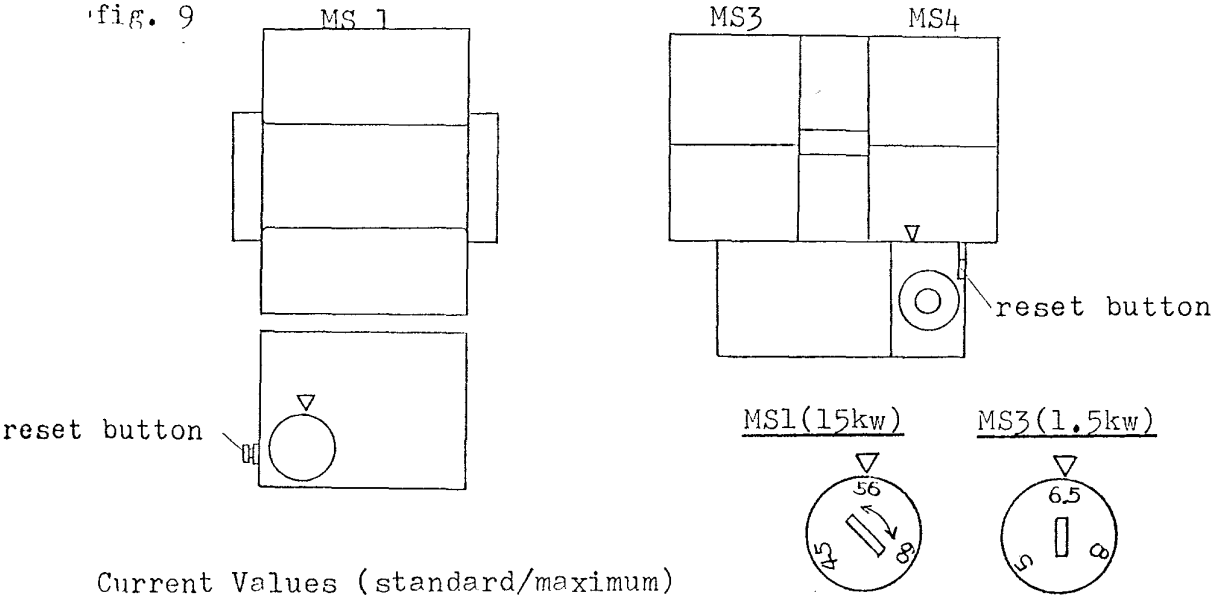
Remarks:

1. Don't operate with the combination of I at "0" and II at "0", for it will cause a trouble with the cycle counter in control box.
2. Be sure to set the dials appropriately for the thickness of the product.
3. The head may drop 0.2mm lower than set value in case of automatic operation. So, set the dial taking this into consideration.

6) Thermal Work Lamp(PL-2R)

When the thermal work lamp(PL-2R) is lighted, either the motor for feed or for the head up-down movement, or the both of them will not work due to over-heating.
Remove the cover of control box at the back side of the base and push the white thermal relay button setted below the magnet switch. When the white reset button is pushed several times and the lamp is still lighted, wait for several minutes and push it again.

fig. 9



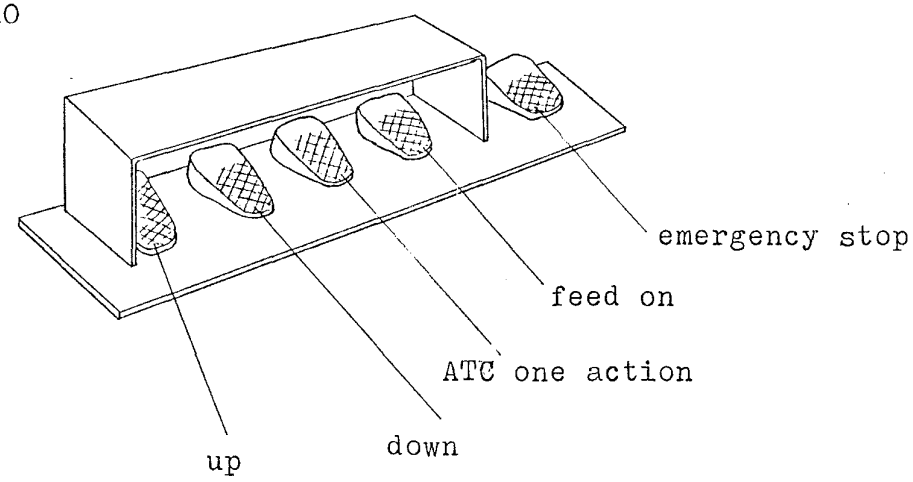
Current Values (standard/maximum)

Voltage		200	200	220
Hz		50	60	60
Current	1.5kw	6.2	6.3	6.2
	15kw	55	54	50

Remarks: Thermal relay works when the ampere comes up to a set value in white disk of magnet switch. (MS1, MS3)

8-2. Foot Switch

fig. 10



1) "Up" and "Down"

These foot switches control the up and down movements of the head when they are pressed.
Limit switches act at the top and bottom position of the head, and the position of their dogs are movable.

fig. 11

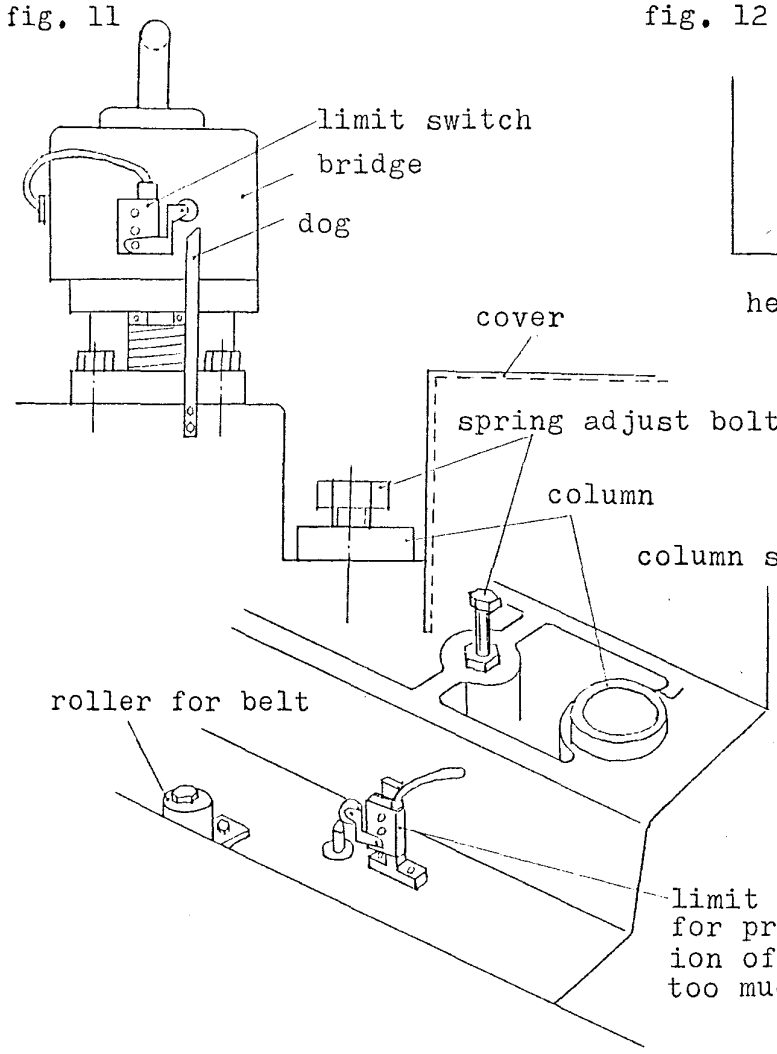
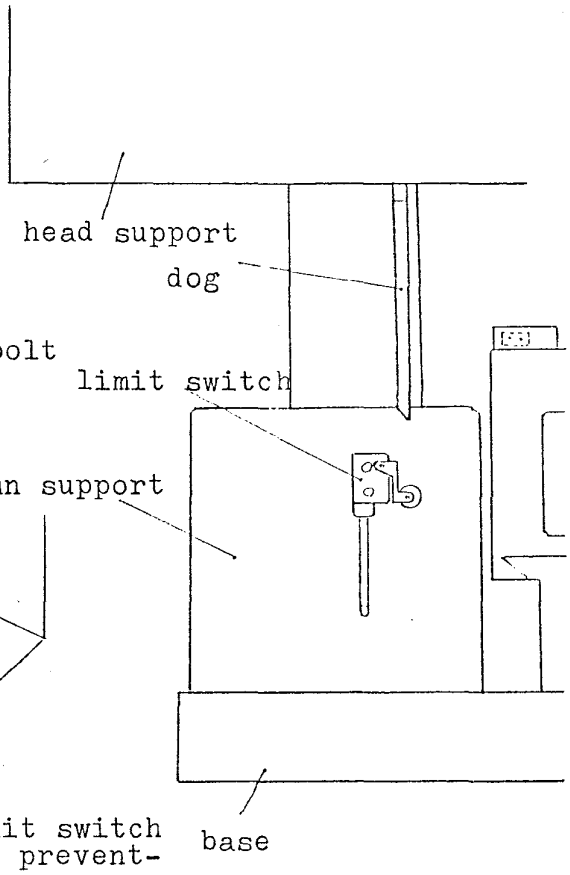


fig. 12



2) ATC (Automatic Thickness Control) One Action

This foot switch, to be used for especially "Manual operation", drops the head every one pressing to a set value of the upper two dials on the switch panel.

3) Feed On

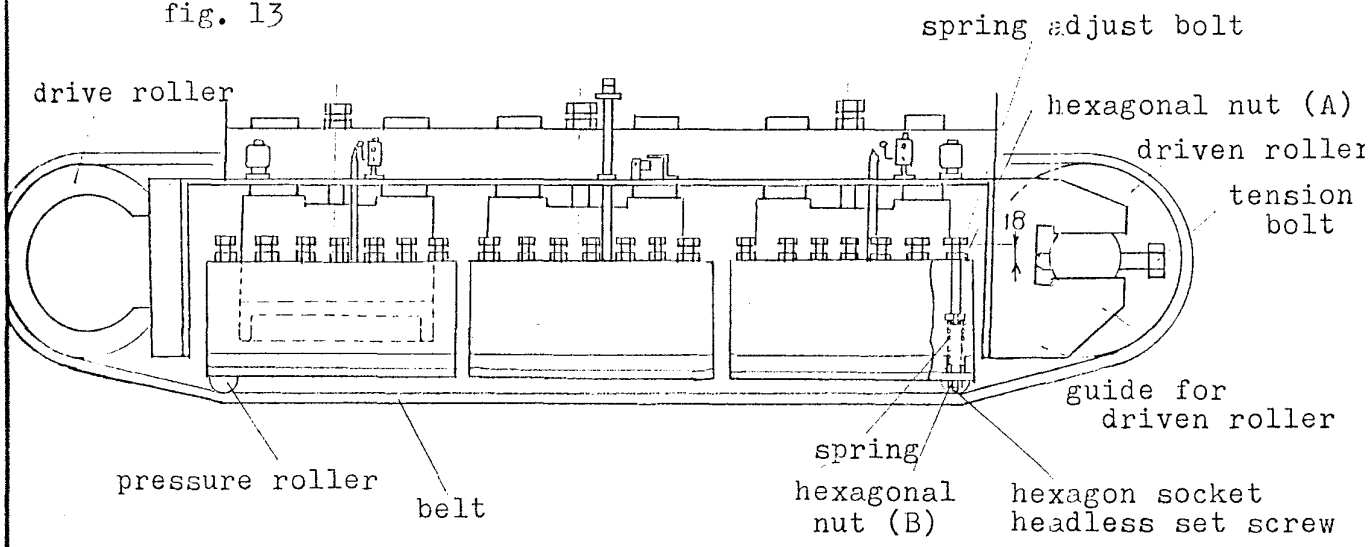
When start the feed belt operation, press this foot switch. To stop, use "Emergency stop" foot switch or emergency stop button on the switch panel.

4) Emergency Stop

This foot switch functions same as the emergency stop button on the switch panel. Everything will stop by pressing this foot switch.

8-3. Adjustment of Pressure Rollers

fig. 13



To keep the belt surface flat and to press the workpiece evenly, pressure rollers are provided between the drive and the driven rollers. To adjust the pressure rollers, though the adjustment is done prior to the shipment, pay attention to the under mentioned;

1) Cushion Adjustment of Pressure Rollers

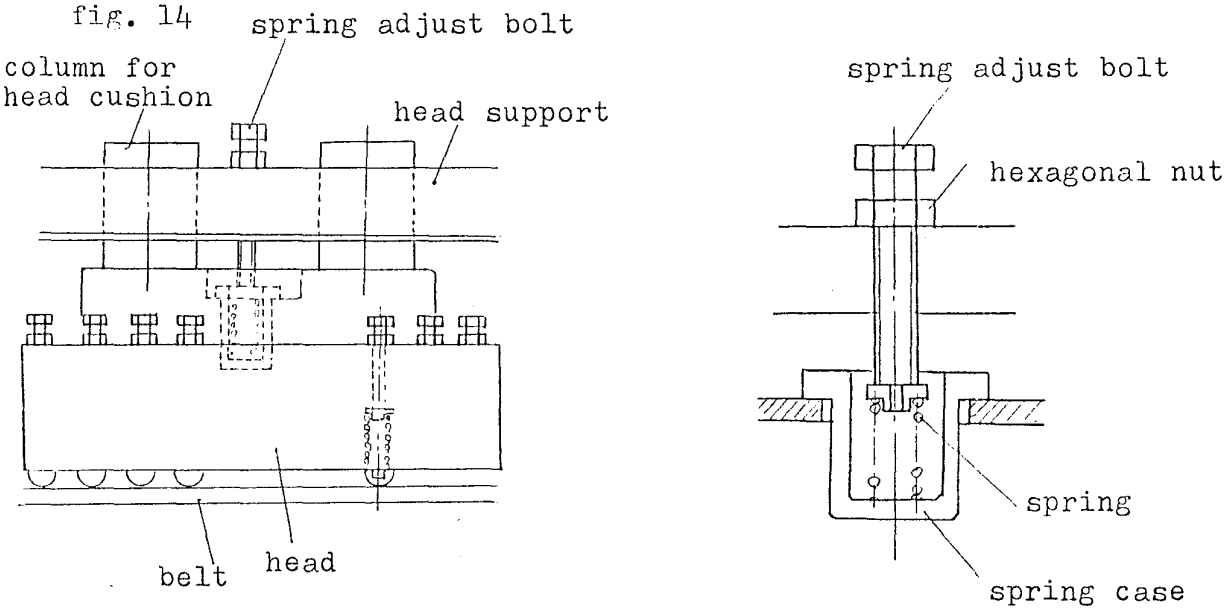
These pressure rollers are held respectively with springs so that the belt will cushion against the workpiece of uneven thickness. To adjust the spring tenshion, loosen the hexagon nut (A) and turn the adjusting bolt. Clockwise turn is for tightening, and the reverse is for loosening. The proper tension will be obtained when the head of adjusting bolt is 18mm above from the top of the head. Repeat this on each spring of the rollers and when finishing the adjustment, retighten the hexagon nut (A).

2) Height Adjustment of Pressure Rollers

To feed workpiece correctly, the pressure rollers should be 5mm below the drive and the driven rollers' bottom sides. To adjust the location, loosen the hexagon nut (B) and turn the hexagon socket headless set screw.
The clockwise turn moves the rollers upwards and the counter clockwise downwards.
Repeat for each roller's location and when finishing the adjustment, lock the hexagon nut (B). (Refer to fig. 13.)

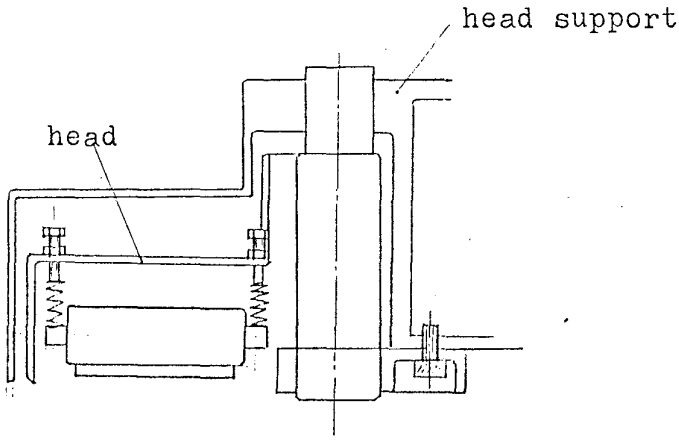
8-4. Head Cushion

fig. 14



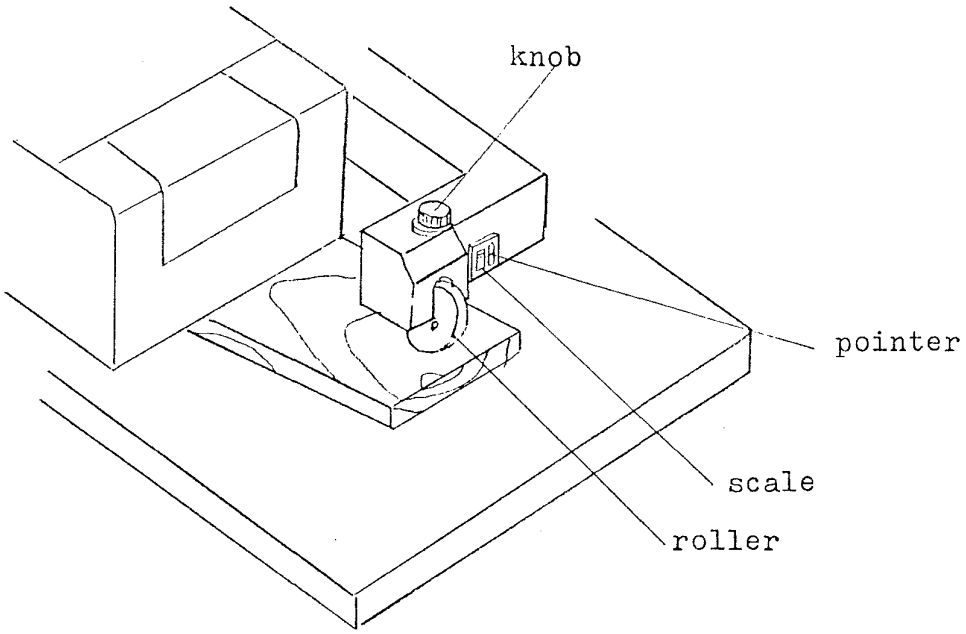
The head is supported by spring so that it cushions against the workpiece of uneven thickness and prevents the excess load to the knife. Rigidly supported by the two columns, the buffer action on head side operates smoothly without any relation to the weight of workpiece. (Head support does not move.)
The proper head cushion is obtained by tightening adjusting nut loosely with hand. Clockwise turn makes spring heavy, and counter clockwise turn makes spring light.

fig. 15



8-5. Thickness Gauge

fig. 16



The thickness gauge is used to adjust the head height in accordance with the workpiece thickness.
For proper feeding, the bottom face of the roller is set 2mm higher than the feed belt bottom side.
Before operation, place a workpiece under the feed belt and the thickness gauge. Then turn the upper knob of the thickness gauge until the roller touches the workpiece surface, and check the limit switch work properly.
After this, raise the roller by 2mm watching the scale. (Turn the knob right.)
Press the "Down" foot switch to lower the head until the roller touches the workpiece surface lightly.

8-6. Feed Belt

The feed belt used on this machine is of specially made endless belt, composed of the belt core of synthetic fiber, the outer peripheral of friction proof elastic rubber and inner peripheral of wear proof synthetic rubber.

fig. 17

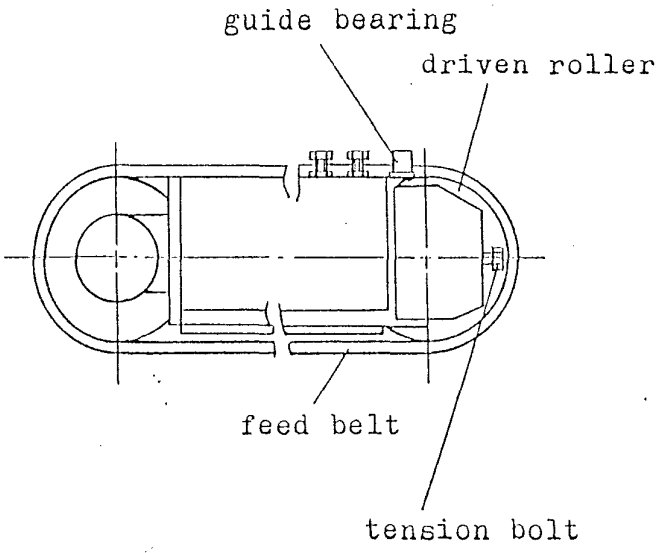
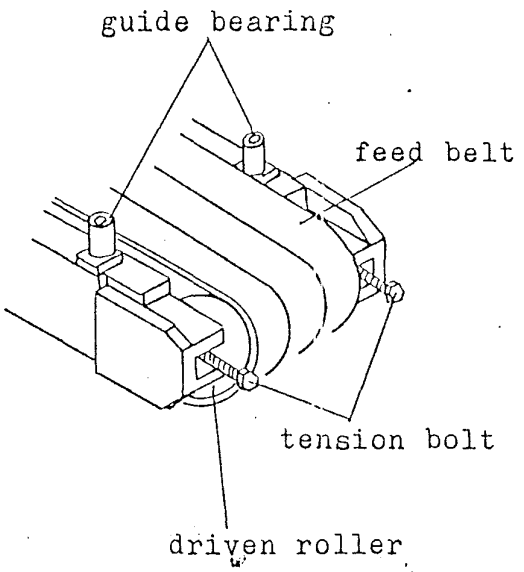


fig. 18



1) Adjusting Feed Belt Tension

The feed belt tension is adjusted with tension bolts on both sides, while belt is operating. The proper tension is 5 - 6mm between presuure rollers and inside surface of feed belt. The guide bearings are provided on both sides of the drive and driven rollers and its periphery lightly touches the feed belt. This prevent the belt from slipping off and keeps it between the bearings.

2) Correction of the Feed Belt Position

The feed belt should always run between the guide bearings. When the belt is one-sided to the right, correct it by clockwise turn of the tension bolt located at the righ side of the driven roller, and when one-sided to the left, conrect it with clockwise turn of the tension bolt at the left side. Do it while the belt is operating and gradually adjust the belt tension.

3) Exchange the Feed Belt

To exchange the worn-out feed belt, first remove the left side tension bolt (completely loose right side tension) and push the driven roller towards the drive roller. In this way, the feed belt can easily be removed. When doing this, be sure to turn off the power source switch.

8-7. Adjustment of Thickness Control Detector

This device detects the proper feed belt position in relation to the workpiece.

fig. 19

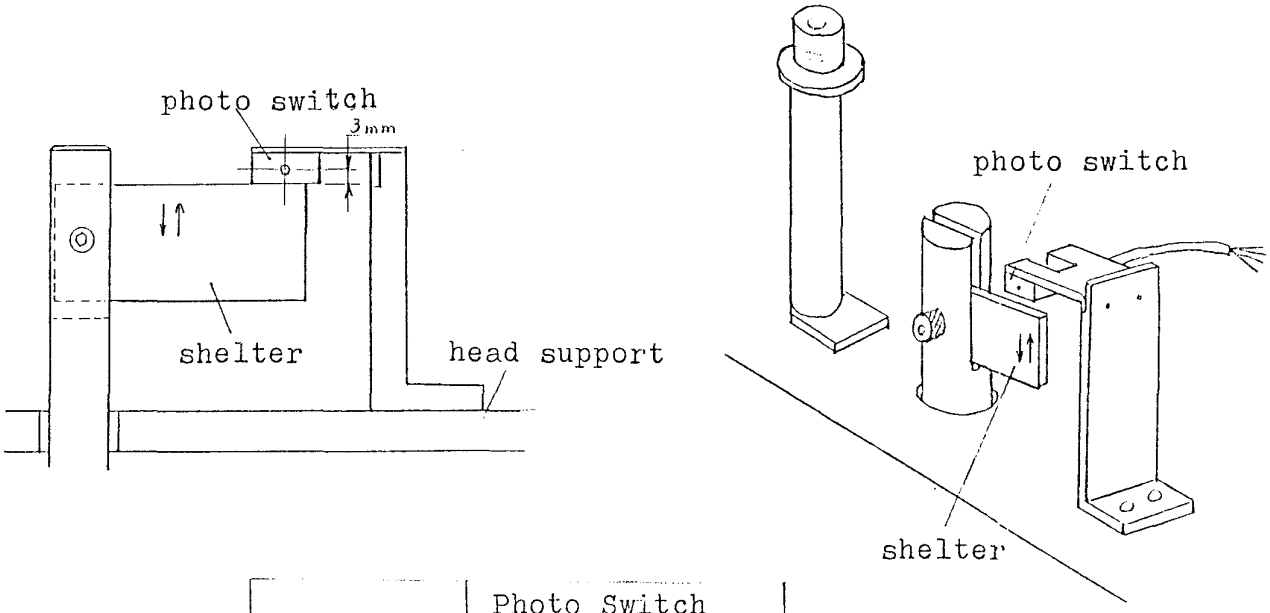


	Photo Switch
too thick	sheltered
normal	not sheltered

1) Too Thick

The head cushions when the workpiece is held between belt and table. When the photo switch (named H1 in wiring diagram) is sheltered, it is indicated that the feed belt position is too low (the head drops too much.)
In this case the head will descend according to set values of thickness controler (right sided lower two dials on switch panel).

The followings sometimes cause "too thick".

a. Head descends more than the thickness of sliced sheet.

b. Hard wood is sliced thin.

c. Head position is too low against the workpiece.

2) Normal

If the photo switch is not sheltered when the head, holding down the workpiece, cushions, it is indicated that the feed belt position is proper. The head descends according to set values of thickness controler (right sided upper two dials on switch panel).

The position of the shelter against the photo switch is adjusted at the time of delivery. Set the shelter 3mm below the center of the beam of the photo switch.

a. Alter the position according to the thickness of the product, hardness of the workpiece, etc.

b. The cable for the light source of the photo switch is the one connected with a red wire.

Example of thickness control dial set:

sheet thickness	1.8	2.5	4.0	0.5	1.0
upper dials	1.8	2.5	4.0	0.5	1.0
lower dials	1.0	1.3	2.0	0.1	0.5
(a)	3.0	4.0	5.0	3.0	3.0

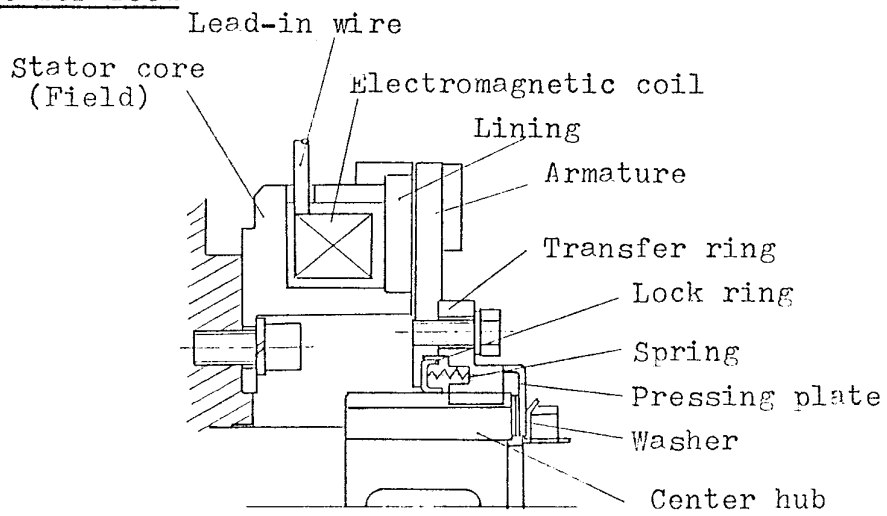
*(a) means the distance between shelter and photo switch.

8-8. Brake Adjustment

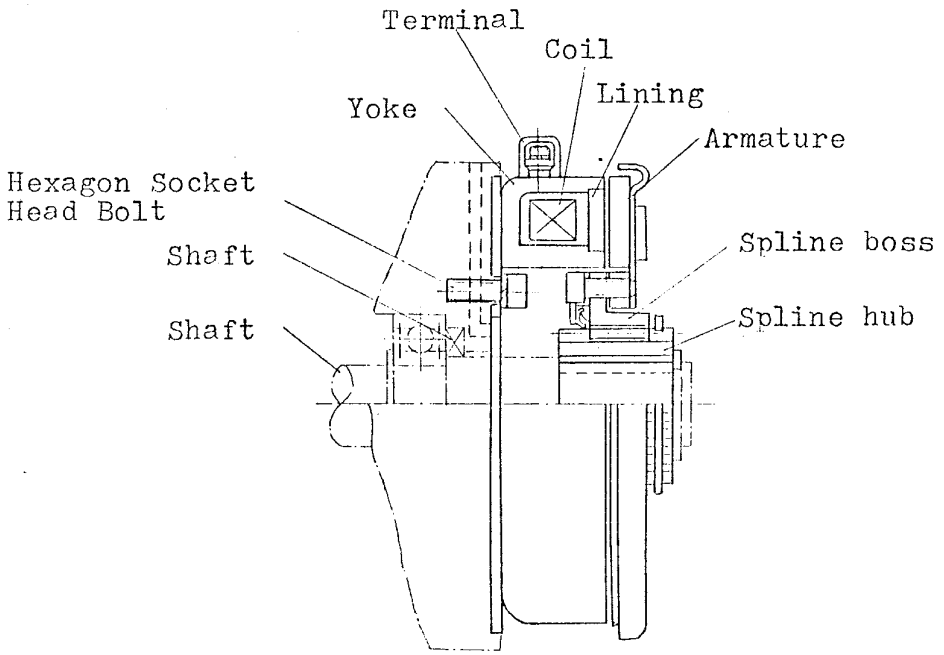
The brake of the motors, one for head up-down and the other for feeding, is mounted at the side of motor fan.
It is not necessary to adjust the gap, because of its automatic gap adjustment system.

fig. 20

Brake for feed



Brake for head up & down



8-9. Adjustment of Workpiece Detector (Photo Switch)

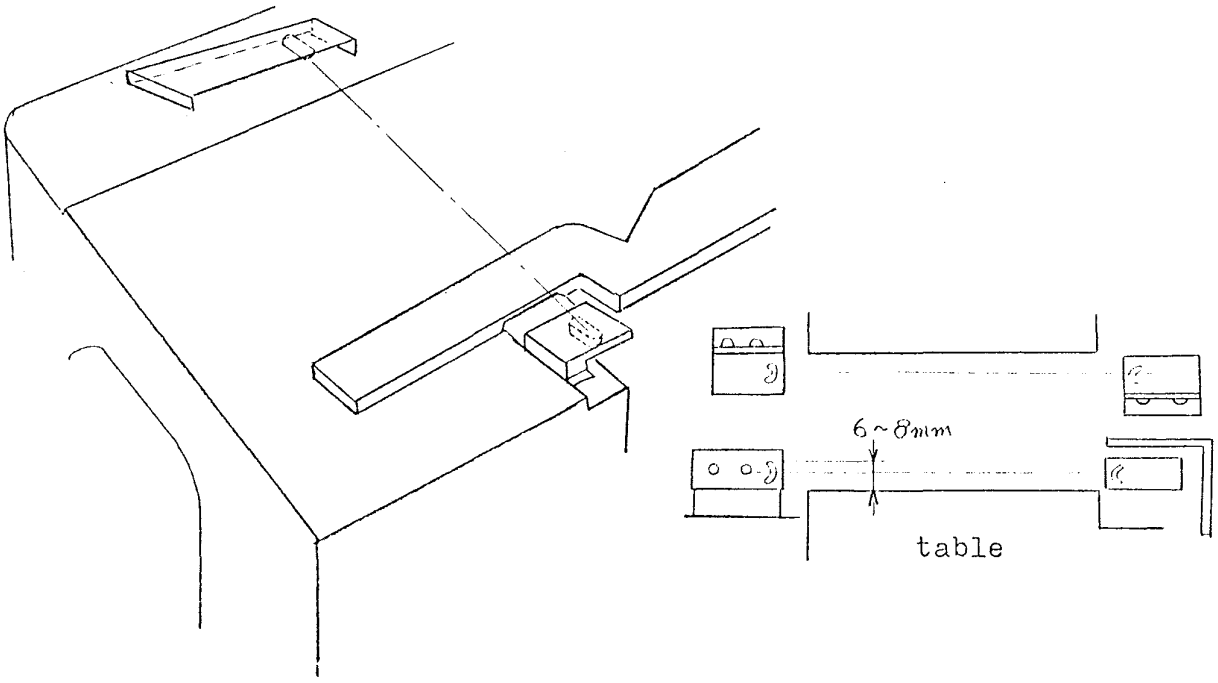
One set of photoelectric switch is installed to detect the passage of the workpiece.
By means of this detecting device, operations mentioned par. 8-1, 8-2 and 8-3 are effected.
Unless this works, feed belt does not reverse and workpiece passes through the table.

Adjustment of photo switch is done as follows;

1) One set of photo switch consists of the two switches, light source and receiver.
The former is connected by red shield cable and fixed to the scale on the table.
While the latter connected by gray shield cable is located on the rear table side, and adjustable to up and down and right and left side.

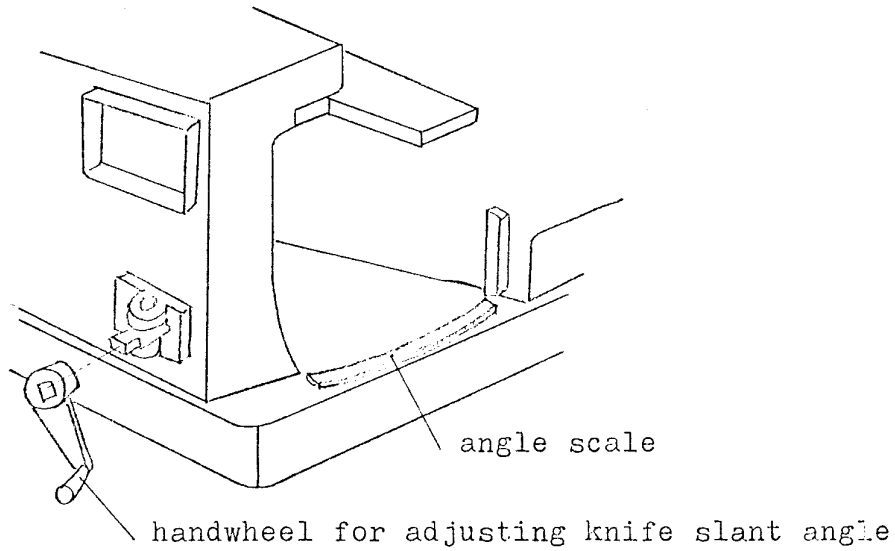
2) Be the optical axis of the photo switches in a straight line by adjusting the position of the receiver. (Refer to fig. 21.)

fig. 21



8-10. Adjustment of Knife Slant Angle

fig. 22



Knife slant angle is varied by the handwheel and determined according to the material quality, thickness of sliced sheet and the condition of pretreeted workpiece.

If the workpiece is easy to make interlocked grains (against grain), for instance, knife slant angle should be bigger.

If the sliced sheet has chaps in back face, smaller knife slant angle is effected better.

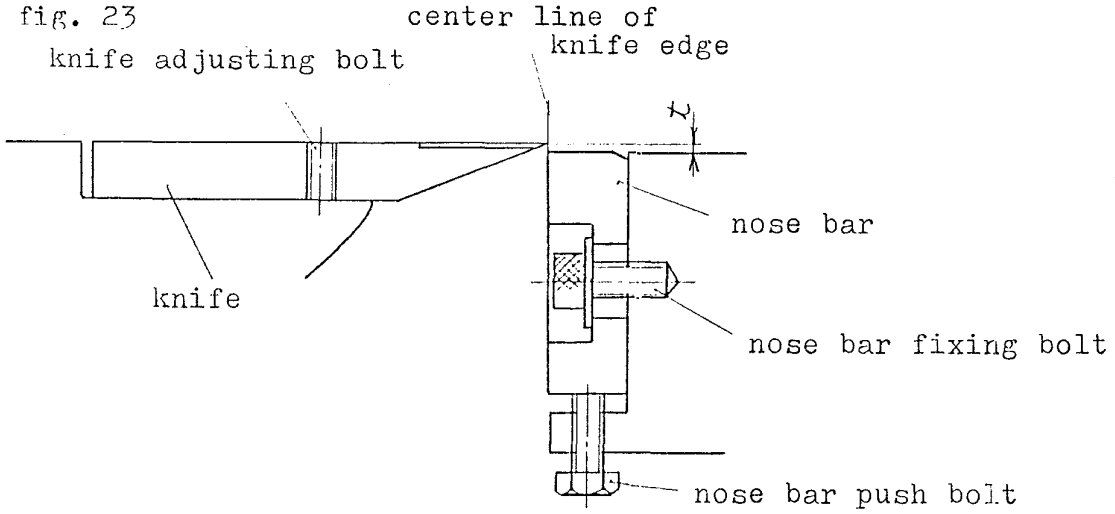
Knife slant angle becomes bigger when this handwheel is turned right, whereas it becomes smaller when turned left.

There are provided hexagon nuts to fix rear and front tables under the both tables. These nuts must be tighted after adjusting knife slant angle.

9. Knife Handling Instruction

9-1 Knife Setting

fig. 23



To produce fine sheets, knife setting is done as follows.

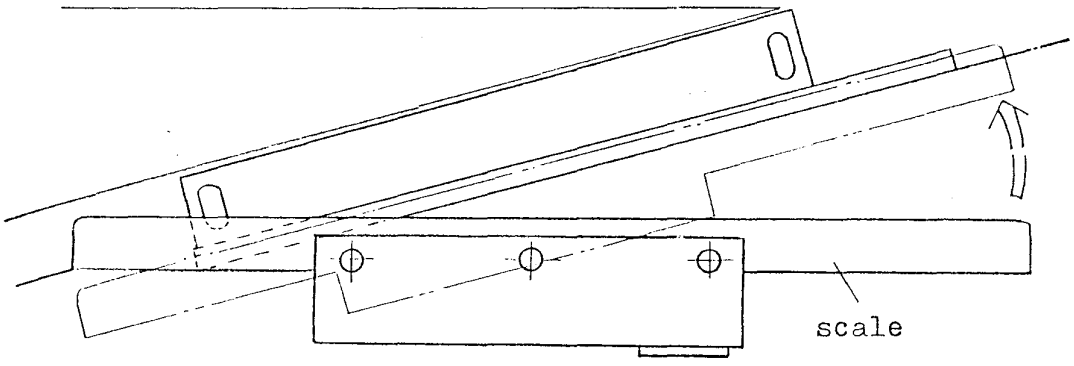
1) Set so the knife and the nose bar are parallel.
2) Fix the knife lightly with ratchet wrench.
3) Set the highest part of knife edge to the same level with the edge of nose bar by turning handwheel for front table up-down.
4) Level up the lower part of knife edge with the edge of nose bar by knife adjusting bolt. At the same time, knife edge should be set the same level with rear table.
5) Adjust the scale to "0" which is located at the side of handwheel (Loosen wing bolt and set the scale "0" to the mark.)
6) Turn left the handwheel for front table a little bit lower than the thickness "t" of sliced sheet desired. Then, turn it a little bit right and adjust the scale to "t".
7) Set the right sided upper two dials on switch panel to the thickness "t". (Ref. 8-1~8-5.)
8) Slice the workpiece and measure the thickness of sliced sheet. Then adjust the thickness by turning handwheel (minimum measurement is 0.01mm.)
   If the sliced sheet has different thickness within one sheet, the thinner part of the knife is moved up by knife adjusting bolt upward and level the knife.
   Or if the sliced sheet has interlocked grain (against grain), adjust the gap between knife and nose bar by moving forward the nose bar.

9-1-2 Knife Exchange

Knife exchange is done as follows:

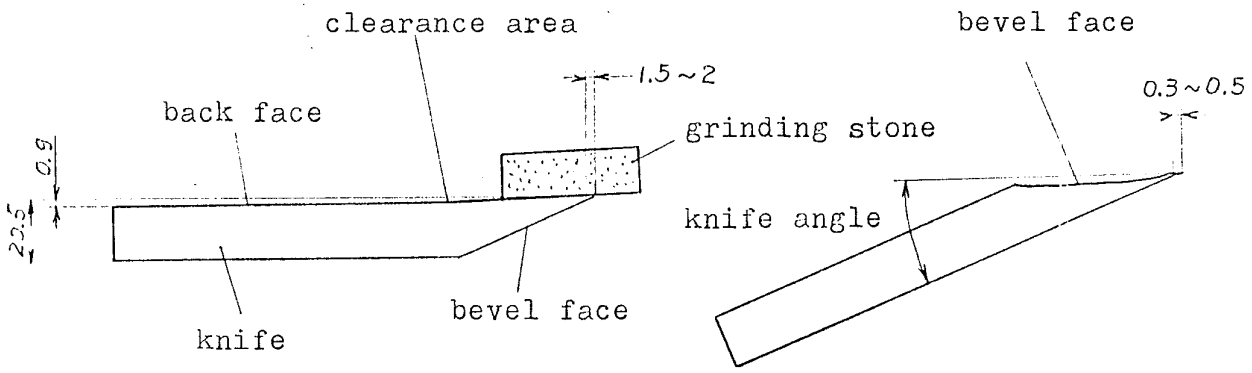
1) Move away the nose bar (front table) from the knife edge. (Ref. to 9-4.)
2) Move the nose bar a little bit higher than knife edge.
3) Loosen scale fixing knobs. (Two knobs of right hand side are removed and the other one is just loosened.)
4) Angle the scale in parallel with nose bar.
5) Loosen the knife fixing bolts.
6) Loosen the knife adjusting bolts so they are not protrued to the back face of the knife.
7) Move the knife backward with knife carring bolts.
8) Screw off the fixing bolts.
9) Exchange the knife by lifting up the knife. When doing this, it is recommended not to drag the knife on the table.

fig. 24



9-2 Knife Grinding

fig. 25



To obtain accuracy, the knife should be carefully ground before the setting. Follow the grinding instructions below.

1) Back Face Lapping

Roughly whet the knife back face along its clearance area with attached King Deluxe (grinding stone), then whet there manually with a water stone. When doing this, be careful not leave grind marks in the area of 1.5 - 2.0mm in width from the cutting edge.

2) Bevel Face Lapping

Next, the bevel face is worked by the grinding wheel, in case of knife angle 22, incline the knife setting bed of grinder to 22° and grind the knife so that the center of the grinding wheel should be coincided with the center of bevel face. (It is the best way to be in accordance with the previous bevel face. However, the center of bevel face might be changeable according to the quality of workpiece.)

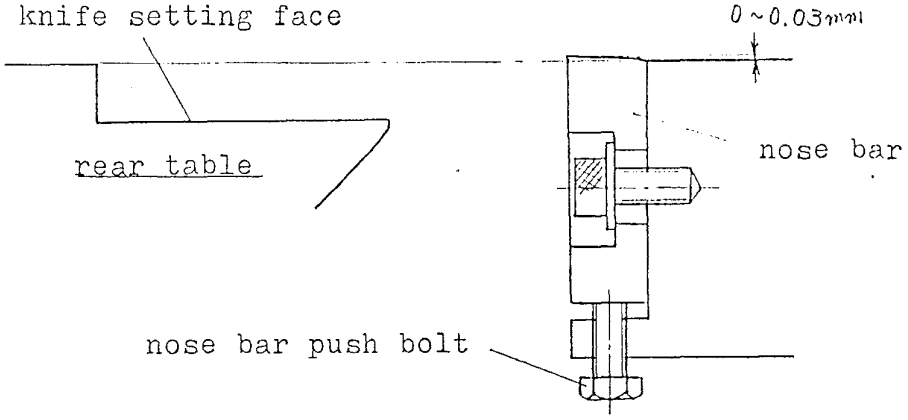
3) Bevel Face Lapping Finishing

Finally, lap the bevel edge so that the lapping area becomes 0.3 - 0.5mm in width and slants at 22° to the knife back face. The standard slicing knife angle is specified to 18°, however, 15°, 22° and 28° of slicing knife angles are available upon request.

9-3 Nose Bar Adjustment

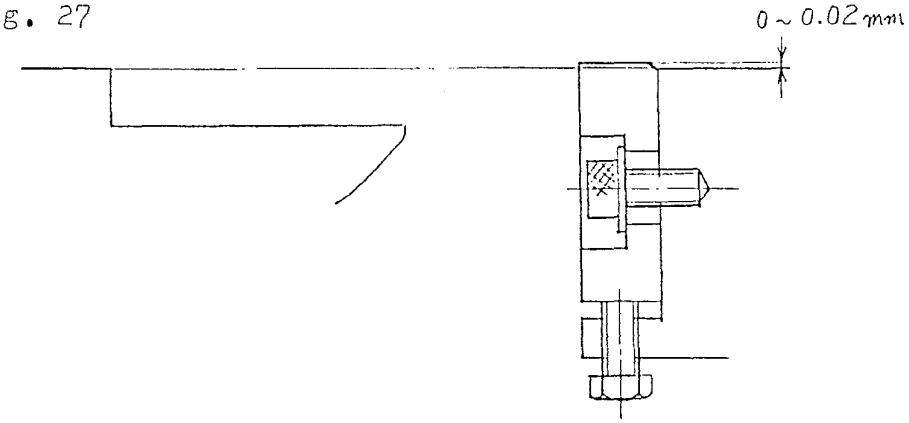
1) When the nose bar edge protrudes, allowable limitation is 0 - 0.03mm.

fig. 26



2) When the nose bar is parallel and above the rear table surface, allowable limitation is 0 - 0.02mm.

fig. 27



Nose bar edge should be parallel or slightly protrude in respect to the table face. When the nose bar surface wears out, adjust it by using the push bolt to the allowable limitation.

The parallel between the knife setting face and nose bar surface is checked prior to the shipment. When adjusting, the tolerance should be within 0.03mm.

9-4 Adjustment of Clearance between Knife and Nose Bar

The clearance between knife edge and nose bar is adjusted according to material, preprocess of workpiece and slicing thickness.

fig. 28

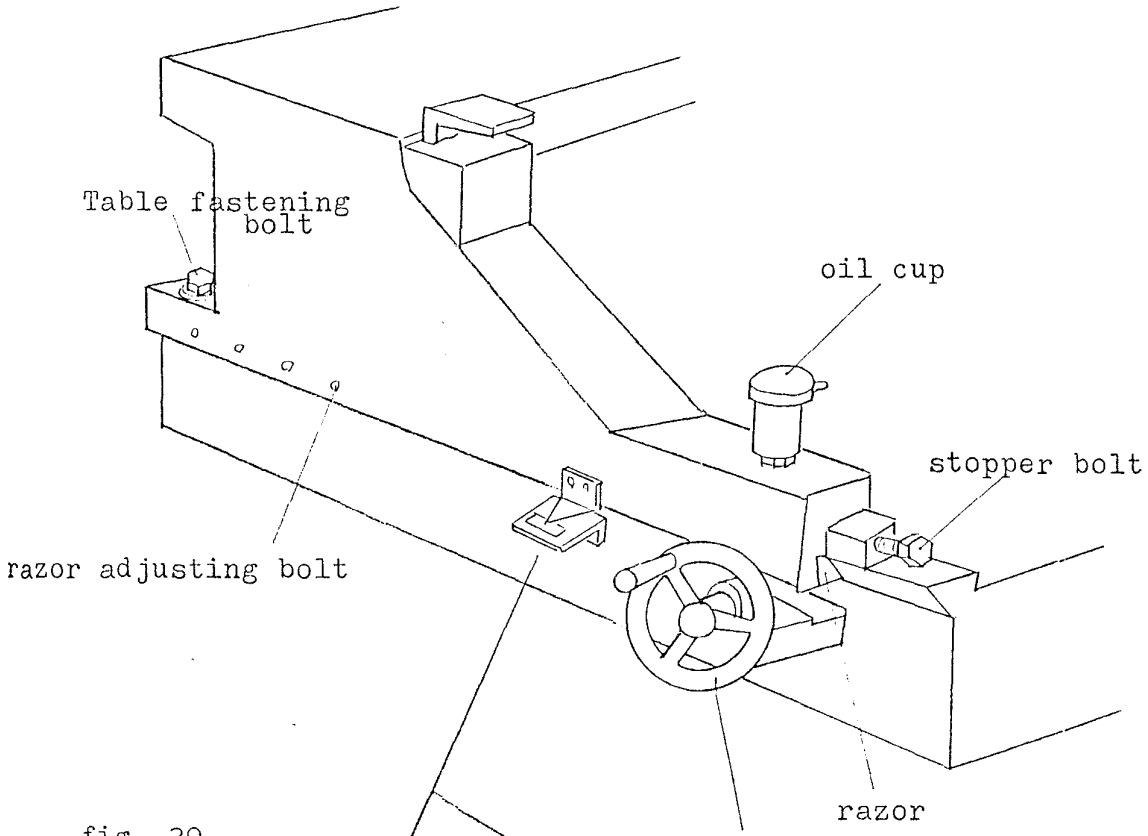
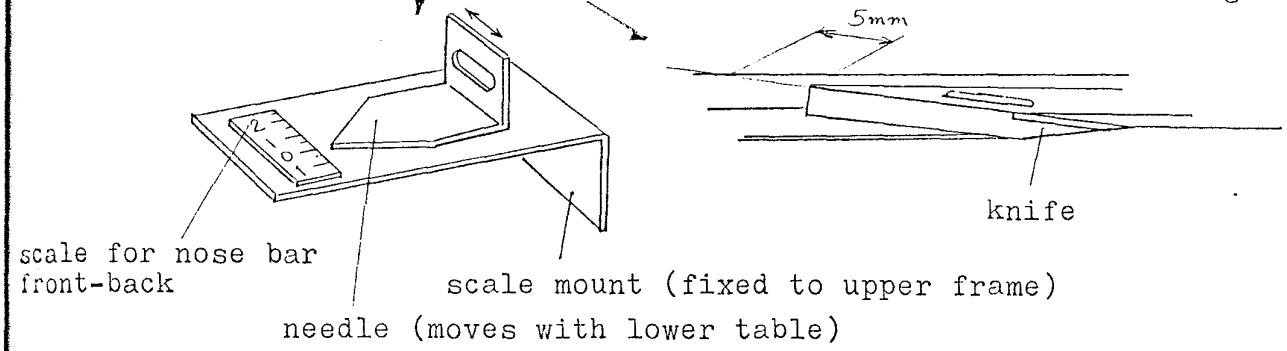


fig. 29



1) The position of scale "0" means that there is no clearance between knife edge and nose bar when the knife without use is set.

2) To set the knife edge above the nose bar, turn the handwheel for the rear table travelling right. Generally this setting prevent the sliced sheet from interlocked grain (against grain).

3) To set the knife edge having clearance with nose bar, turn the handwheel left. Generally the feeding smoothness becomes better, while the surface of sliced sheet becomes rough.

Operation Method

1) Move the nose bar lower than the knife. (Handwheel for front table up-down is turned left.)
2) Loosen table fastening bolts.
3) Turn the rear table travelling handwheel to the position desired.
4) Work stopper bolts by tightening nuts.
5) Tighten the table fastening bolts.

Note: Usually, set the knife at the rear table position of scale "0". After setting the knife, lower the table and forward it, then let the nose bar under the knife.

10. Bearing Used

Thickness con. det.	6201LLU	2 pcs.
Spring adjus. roller	6004LLU	"
Driven roller	6213LLU	"
Drive roller	6218LLU	1 pc.
"	6313LLU	"
Head up-down screw	51109	2 pcs.
Guide for feed belt	6003LLU	24 pcs.
Pressure roller	6205LLU	70 pcs.

11. Electric Parts List

Mark	Name	Type	Maker
M1	Motor for feed	15kw, 4P, with brake	
M2	Motor for head up-down	1.5kw, 4/8P, with brake	
	Power module	HD-110M2	Ohsaki Dengyosha
LSW1, 2, 3	Limit switch	D4MC-2020	Omron
LSW4	"	WLCA2-2N	Omron
H1	Photo switch	OPE-S100	"
H2	"	OPE-S3	"
	Rotary switch	F-2210	Alps Electric
PL1W	Pilot lamp(white)	AHR-MW-2M	Fuji Electric
PL2R	"	AHR-MR-2M	"

Mark	Name	Type	Maker
CS	Cam switch	RC310-1MCRB	Fuji Electric
	Ampere meter	J-60 P	Gomi Electric
SSW2	Select switch	AHCP2B-11N1	Fuji Elec.
SSW3	"	AHCP2B-20N1	"
PB-2	Push button	ABS-111B	"
PB-1	"	ABN-3K01R	Izumi Elec.
C1	Digital counter	H7A-T4M	Omron
SP-1	On-Off switch	S-301T	Nihon Kaiheiki
FSW1 - 5	Foot switch	SF-1	Kokusai Dengyosha
MS1	Magnet switch	SRC3931-3	Fuji Elec.
MS2	"	SRC3631-3	"
MS3-4	"	SRC3938-06RM	"
MS5,6 7	"	SRC3631-0	"
PW1	Proximity switch	SH-D12/12	Sam Taku
H1	Photo switch amp.	OPE-A42	Tateishi Elec.
H2	"	OPE-A	"
CT	Transformer	GC-5R 120AT	Gomi Elec.
	Relay	HH54P	Fuji Elec.
	"	G2A	Tateishi
	"	SRC50-2F	Fuji Elec.
	"	SRC50-2U	"
T1,3, 4,5	Timer	STP-N 5 sec.	Tateishi Elec.
T2	"	DTS 1 sec.	"
PC1	Cycle counter	KCB-2	Koyo Elec.
	Diode	is2076	Hitachi Elec.
	Print plate	CH-24	Morimatsu Electron
	Fuse holder	F-10	Kim Den
F	Fuse(3A)		
PB-3	Push button	ABS-	Izumi Elec.

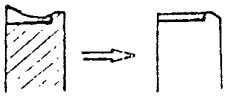
12. Repair and Adjustment

12-1 Bad Feeding and Stop Feeding Halfway

Condition	Cause	Trouble shooting
A) Stop of the motor	1. The thermal relay is acting (ref. 8-1-6). The red thermal lamp is lighted.	•Push the thermal relay reset button.
	2. The fuse is blown (ref. 8-1-1). (The power lamp is off though the electric power is on.)	•Exchange the fuse with new one(3A).
	3. The motor roars owing to single phase operation.	•Turn the power source off and check the wiring.
	4. The motor roars owing to over-loaded.	•Reduce the slicing load.
B) Slip of the belt	1. The workpiece slips on the feed belt. (Black traces are on the workpiece.)	•Tense the feed belt. Add the pressure. Reduce the slicing load.
	2. The drive roller slip inside the feed belt.	•Tense the feed belt. Reduce the slicing load.
	3. The motor rotates but the reduction gear does not act.	•Tense the V-belt.
	4. The motor and the reduction gear act but the drive roller does not rotate.	•Check the chain coupling.
C) Head cushion	1. The head hardly cushions. (The feed belt is too high.)	•Enlarge the pressure to the workpiece.
	2. The head cushions excesively. (The feed belt is too low.)	•Reduce the pressure to the workpiece.
D) Cushion of the head spring. (ref. 8-4)	The whole weight of the head falls on the spring because of over-tightening the adjusting screw.	•Loosen the adjusting screw, reducing the head weight.
E) Cushion of the pressure rollers spring (ref. 8-3)	The pressure rollers slip because the adjusting bolt is not tightened enough.	•Tighten the adjusting bolt and intensify the cushion of the pressure rollers.
F) Head traverse	The head does not traverse well.	•Clean the columns and lubricate them.
G) Feed belt	1. The belt is likely to slip because its surface is degenerated and hardened.	•Wipe the surface with a thinner. Grind the surface with a sand paper.
	2. The feed belt is adjusted not flat.	•Adjust the belt to be flat.
	3. The friction of the belt becomes smaller because of its exhaustion.	•Sand the surface of the belt. Exchange the belt.

H) Troubles with the knife or with setting the knife	1. The blade has "burrs" 2. The blade is chipped. 3. The gap between the blade and the nose bar is too small.	•Grind it again. Exchange the knife. •Grind it again. Exchange the knife. •Adjust the gap according to the thickness and the quality of the workpiece. (The thicker, the wider.)
I) Inferior workpiece	1. The workpiece has curves or distortions. 2. The workpiece has knots.	•Exchange with a superior workpiece.
J) Troubles with electric parts.	Errors in workpiece detector. (When the workpiece is passing the detecting lever, brake works and the workpiece returns at hand.)	Adjust the height of optical axis. Check the wiring of photo-switch(H1, H2)

12-2 Inferior Product

Condition	Cause	Trouble shooting
A) The thickness of the product is not even.	1. The pressure of the head is irregular.	•The thickness of workpiece is not even Be careful to get proper pressure. Reset the dial when the product is too thick.(ref. 8-1-5)
	2. The pressure rollers cushion excessively.	•Loosen the adjusting bolt of the pressure rollers and weaken the cushion of them.
B) The left & the right parts of the product are diffrent in thickness	In case of thick slicing (3.5-4.0mm) of narrow workpiece(30-40mm) using extra-nose bar(ref. right fig.) for thick slicing	Adjust the knife projection evenly. Replace with the standard nose bar. 
C) The front and rear parts of the product are different in thickness.	*The front part is usually thicker than the rear part.	Weaken the head cushion. (Raise the head) Weaken the head spring cushion. (Tighten the adjusting screw. ref. 8-4)
D) The product is thicker than the setting on the dial.	1. "0" mark of scale for table up-down is not coincide with knife edge.	•The indicator and scale are to be coincided.
	2. There is a mistake in setting the handle for head up-down movement to "0".	•Loosen the bolt and reset graduation to "0".
	3. Backlash in table up-down.	•When adjust the table, lower it more than desired values. Then raise it up to the set values.
	4. The knife is not suitable for the workpiece. This occurs especially in case of thick slicing of soft-wood.	•Choose the suitable knife for the quality and thickness of the workpiece. Raise the front table a little.
E) The product has cracks.	1. The edge of the knife is chipped. 2. The blade has "burr". 3. Waste wood or resin is stuck to blade.	•Exchange or grind the knife. Remove the dust and sand from the workpiece. •Remove them from the knife.
F) Interlocked grain(against grain)	1. The workpiece is too dry. 2. The pre-treatment is unsatisfactory.	•Treat the workpiece enough in advance of the slicing.
	3. The knife is not suitable for the workpiece.	•Choose the proper knife.
	4. Poor knife setting	•Choose proper knife slant angle. Adjust the gap between knife and nose bar.

2-4 Other trouble likely to happen

ondition	Cause	Trouble shooting
) he feed belt is orn out.	1. The feed belt is worn out partially. 2. The out-side of the feed belt is worn out easily. 3. The in-side of the feed belt is worn out easily.	•Supply the workpiece evenly. Change the feeding side of the belt. •Tense the belt. Increase the pressure of head. Exchange the inferior belt. •Tense the belt. Hardness of the belt is poor.
B) he front table s not on the ame level as the lade when the andle is set to he graduation"0".		Loosen the wing bolt and adjust the graduation of the handle.
) n case of " Forward Only", he thickness ontrol works efore the orkpiece does ot pass through he blade.		Check the photo switch.
) n case of Auto. Return o repeat", he workpiece is ot returned.		Adjust timer(T4). Too much pressure. Lack of pressure.

13. Measurement of the Source Voltage

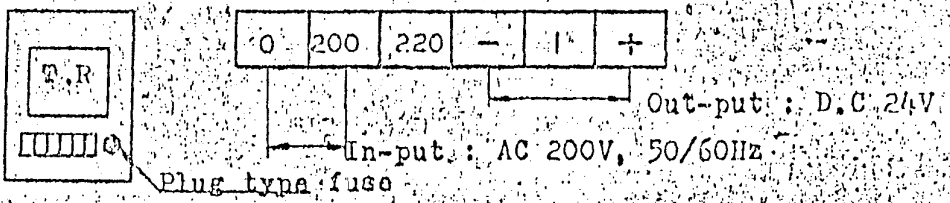
(1) Brake for the head up-down movement

Input : AC 200/220V, 50/60 Hz.

Output : DC 180/90V

When you measure the output voltage, connect the wire No.5 to No. 6, and confirm that each output from No.3 and No. 4 is DC 90V. (It may go up to DC 180V momentarily).

(2) Brake for feed



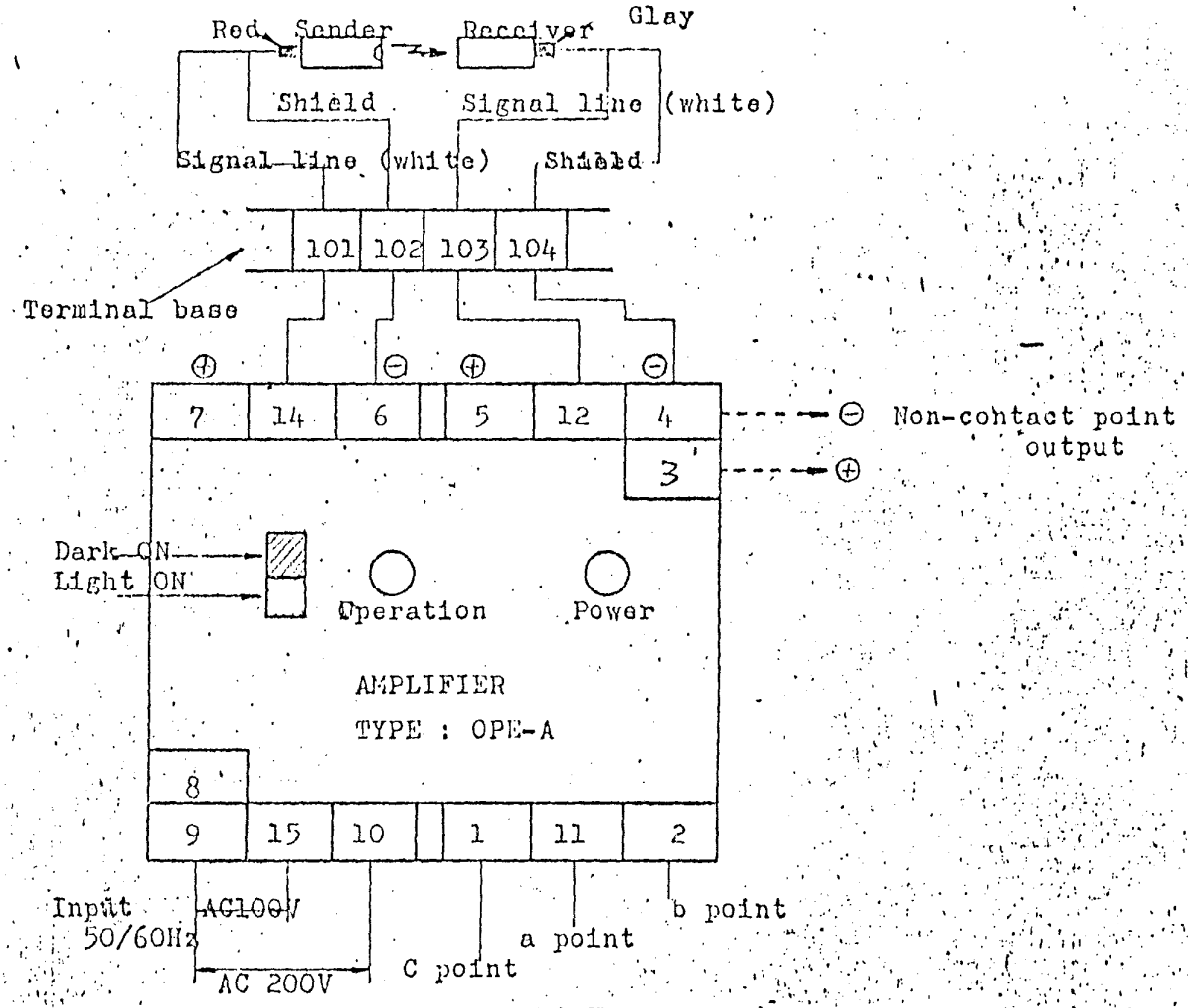
The rated output is DC 24V.
If the fuse blows, its central pink part comes out.

(3) Amplifier for the photo-electric switch

1.) Maintenance of photo switch
Be careful that dust or oil are not sticked on the surface of the lens. Clean away the dust or oil with soft cloth when it is sticked.(When doing this, be sure to turn off the power source switch.)

2.) Inspection of photo-electric switch and Amplifier

Open the door located rear side of the base and check the photo-electric switch.



The change-over switch is set to DARK ON (the upper side) as the above. When the power source is on, the power lamp is lighted. In case the OPERATION lamp is also on, its reasons are as follows:

i) There is a workpiece before the photo electric switch, which shades the beam.

ii) The optical axes of the two photo electric switched are not in alignment.

iii) Troubles with the photo electric switch, namely arise from the snapping and short-circuiting of the singhal line or the shielding wire. -

3) How to adjust the optical axes.

The adjustment of optical axes of photo electric switch is very important compornent in order to operate correctry both the photo electric switch and the machine.
The more adjust the optical axes, the more endure against the dust and voltage fluctuation.

Adjust the axes of photo electric switch in the following way.

i) Adjust the height and direction of the sender & receiver to the proper position with eye measurement.

ii) Set the terminal No. 7 (or No. 5) to plus and the terminal No. 6 (or No.4) to minus. (Set the scale of tester to DC 10V range)

iii) Adjust the receiver in the direction of up and down and right and left, then fixed the position when the amplifier of tester became maximum. The voltage of tester is about 5.5V - 7.5V. Incase the tester dose not vibrate during the adjustment of receiver, adjust the sender again. (5.5V - 7.5V is desirable even if more than the half part of the lens is shaded.)

iv) When the surface of sender or the surface of receiver is shaded gradually , the index of the tester descend gradually and the OPERATION lamp of amplifier is turn off at approximately 1.8V.

v) When the lens is shaded gradually, the OPERATION lamp is turn off before the index tester dose not change, the following causes are thinkable.

a. The wiring became loose. ; Check the wiring
b. The lead wire is likely to snap. ; "

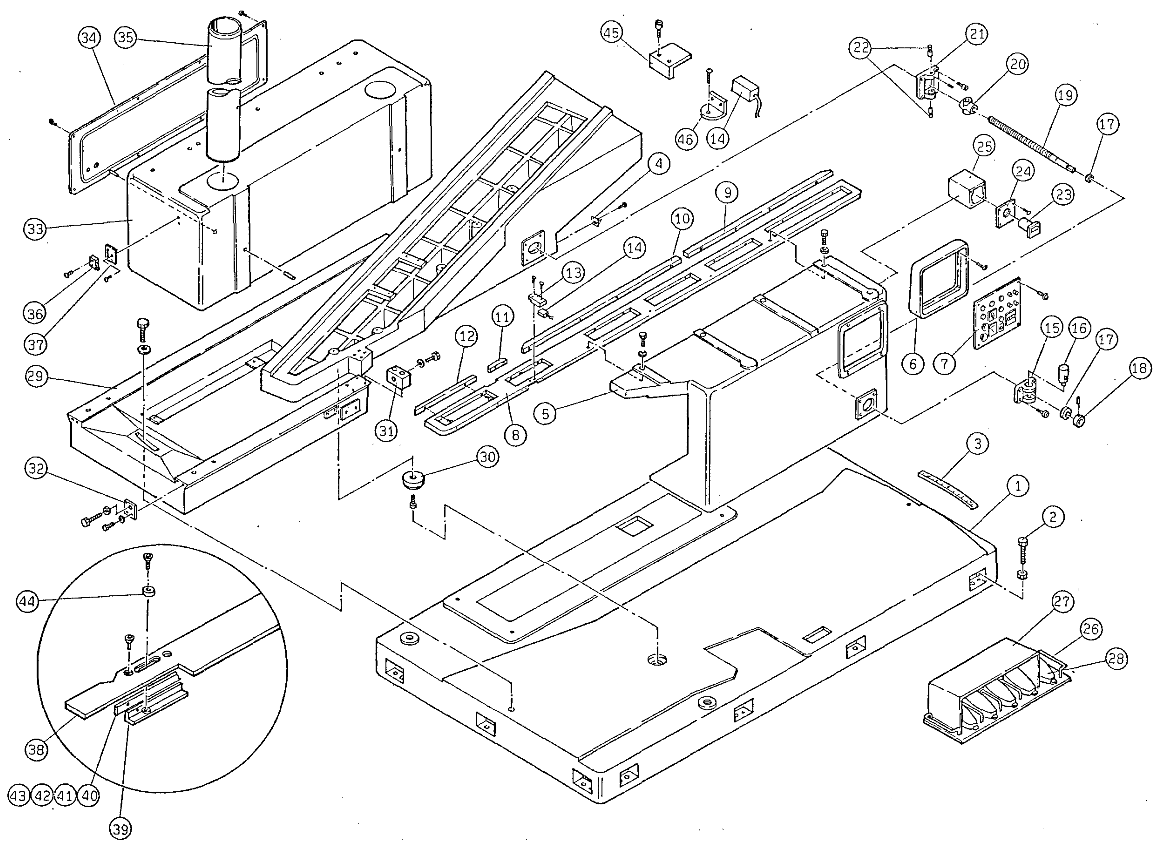
troubles nspected	Condition Normal	Abnormal	part to be measured by Tester	Tester voltage Normal	Abnormal
er Unit	Turn the change over switch on and off, and the rotating direction of the belt changes	Turn the change-over switch on and off, and the rotating direction of the belt dose not change.	7(+) - 6(-) 5(+) - 4(-) 14(-)-6(+) 12(+)-4(-)	D.C 5.5 - 7.5V " DC 0.6V DC12V	0 V " "
axes sender eceiver photo-c	OPERATION Lamp on the amplifier unit is on.	OPERATION lamp is off.	7 - 6 5 - 4 14 - 6 12 - 4	DC 5.5 - 7.5V " 0.6 V 12 V	0 V " " "
bles the er		OPERATION lamp is off.	7 - 6 5 - 4 14 - 6		0 V DC 0.6V
ping of signal or the lding		as the above	7-6, 5-4 14 - 6		0 V DC 0.6V
t-cir-ing of signal and the lding		as the above	7-6, 5-4 14 - 6		0 V "
r ubles with receiver		OPERATION lamp is off.	7-6 5-4 12-4		0 V " DC 12V
pping of the nal line or shielding wire		as the above	7-6, 5-4 12-4		0 V DC 12V
rt-circuiting the signal e and the shield wire		as the above	7-6, 5-4 12 - 4		0 V "

PARTS LIST

SLICER SL-350V

CRAFTNICS MARUNAKA

CONTENTS (SL-350V)



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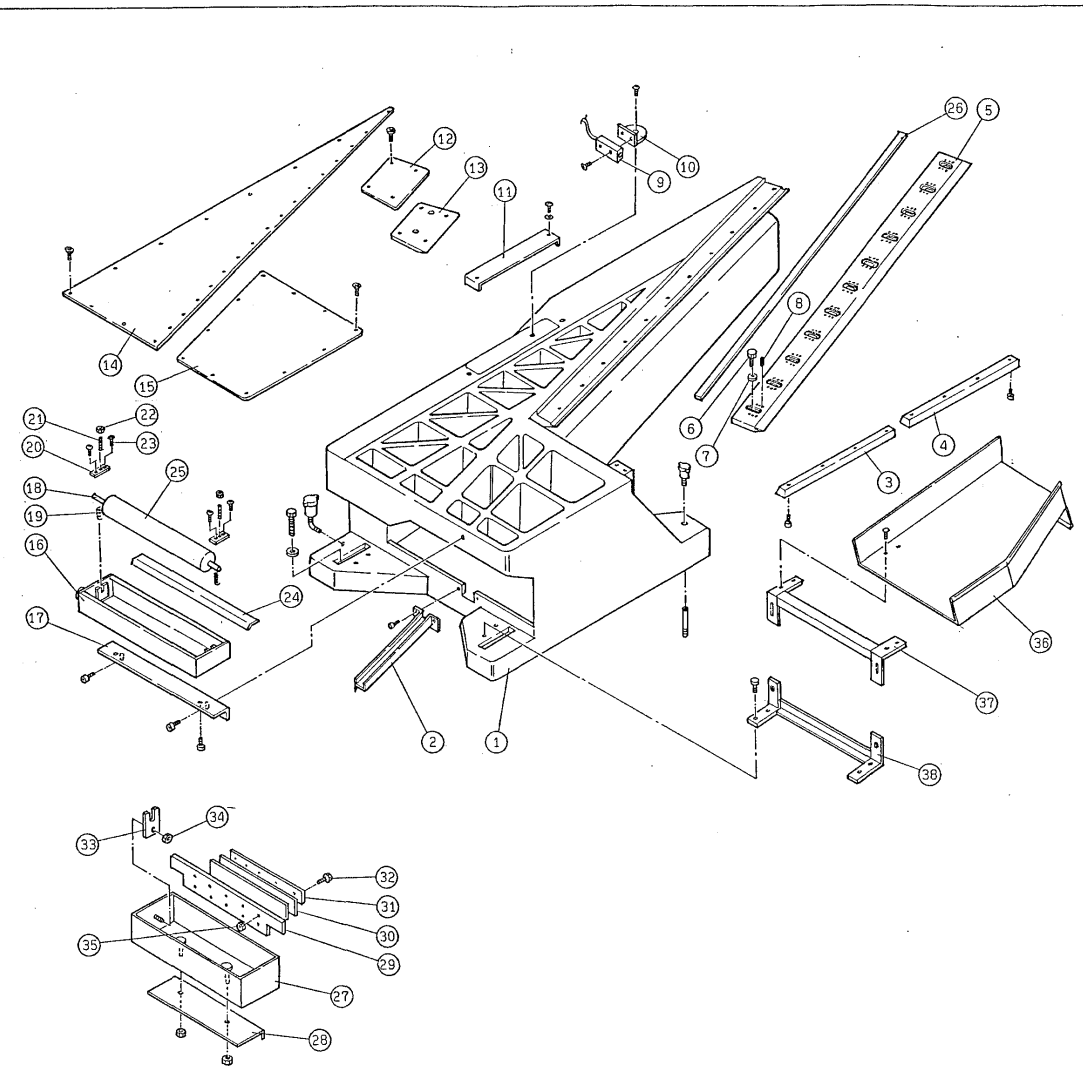
			50				
			49				
			48				
			47				
	X	1	46	402128	1	BASE	トリツケダイ
	X	1	45	402126	1	COVER	カバー
	X	5	44	403477	1	WASHER	ザガネ
	X	1	43	406606	1	GUIDE	ステンジョウギ C
	X	1	42	406607	1	GUIDE	ステンジョウギ B
	X	1	41	406604	2	GUIDE	ステンジョウギ A
	X	1	40	406604	1	GUIDE	ステンジョウギ A
	X	1	39	300856	1	GUIDE	ジョウギ
	X	1	38	200950	1	GUIDE	ジョウギ
	1	1	37	402279	1	BASE	リミットSWトリツケイ
	1	1	36			LIMIT SW	リミットSW C4MC-2020(オムロ
	2	2	35	300793	1	COLUMN	コラムφ180
	1	1	34	402197	1	COVER	デンソウカバー
	1	1	33	100250	1	COLUMN SUPPORT	コラムサポート
	2	2	32	403313	1	STOPPER	ストッパ
	1	1	31	402129	1	STOPPER	ストッパ
	1	1	30	400996	1	CENTER AXIS	カイテンチュウシンジ
	1	1	29	000004	1	UPPER FRAME	ジョウブフレーム
	5	5	28			FOOT SW	フットSW. SF-1
	1	1	27	300403	2	FOOT SW COVER	フットSWカバー
	1	1	26	300403	1	FOOT SW BASE	フットSWトリツケダイ
	1	1	25	302808	1	COUNTER BOX	カウンタBOX
	1	1	24	401910	1	COVER	カウンタBOXカバー
	1	1	23			PRESET COUNTER	プリセットカウンタ H7AN-2D(オムロン)
	2	2	22	402132	1	PIN	ピン
	1	1	21	300746	1	HOLDER	シジカナグ B
	1	1	20	402134	1	FEMALE SCREW	メネジ
	1	1	19	402133	1	MALE SCREW	オネジ
	1	1	18	400942	2	COLLAR	カラー
	2	2	17			BEARING	BB51105
	1	1	16	402131	1	AXIS	センカイジクウ
	1	1	15	300745	1	HOLDER	シジカナグ A
	1	1	14			PHOTO SWITCH	コウデンSW CPF-S100(オムロン)
	1	1	13	424864	1	PHOTO SWITCH BASE	コウデンスイッチダイ
	1	X	12	424863	1	GUIDE	ステンジョウギ D
	1	X	11	424862	1	GUIDE	ステンジョウギ C
	1	X	10	424861	1	GUIDE	ステンジョウギ B
	1	X	9	424860	1	GUIDE	ステンジョウギ A
	1	X	8	202292	1	GUIDE	ジョウギ
	1	1	7	200313		SWITCH PANEL	スイッチパネル
	1	1	6	200314	1	SWITCH PANEL BASE	スイッチパネルダイ
	1	1	5	100247	1	SIDE FRAME	サイドフレーム
	1	1	4	409596	1	INDICATOR	カクドヒョウシシン
	1	1	3	300757	1	SCALE	メモリ
	14	14	2			SCREW	BT M20X80
	1	1	1	100249	1	BASE	ベース

	NO. 1031~	NO. 1001~1030	MACHINE NO.

MARUNAKA TEKKOSHO INC.
㈱ 丸仲鐵工所

93.11.3
S. IKEDA

TYPE	DRAWING NAME	DRAWING NO.
SL-350V	BASE ASS.	205259



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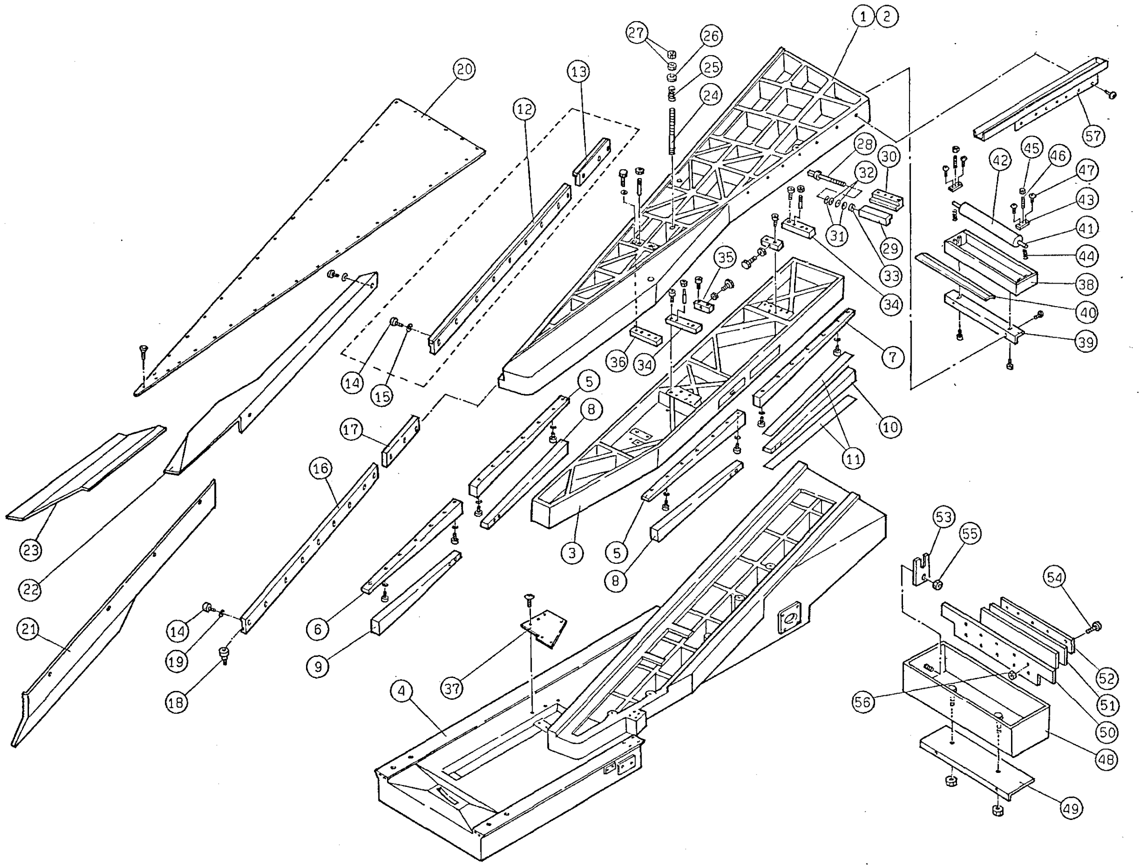
			40			
			39			
×	1	1	38	402410 :1	BASE	トリツケダイ
×	1	1	37	402409 :1	BASE	トリツケダイ
×	1	1	36	200358 :1	VENEER GUIDE	タンパンツケ
×	×	10	35		NUT	NT M6. ステンレス
×	×	2	34		NUT	NT M8. ステンレス
×	×	2	33	402141 :1	HOLDER	ウケ
×	×	10	32		SCREW	BT M6x25. ステンレス
×	×	1	31	402139 :1	PLATE	アテガネ
×	×	2	30	402140 :1	FELT	フェルト
×	×	1	29	300748 :1	PLATE	アテガネ
×	×	1	28	300750 :1	BASE	ミズタンクウケ
×	×	1	27	300742 :1	TANK	ミズタンク
1	1	×	26	431651 :3	BASE PLATE	ハモノシキイタ
1	1	×	25	422256 :1	ROLLER	プラスチックローラ
1	1	×	24	424241 :1	GUIDE	ナガシ
4	4	×	23		SCREW	⊕ナベ M5x12
2	2	×	22		NUT	NT M6
2	2	×	21		SCREW	HS M6x18
2	2	×	20	422766 :1	STOPPER	ストッパ
2	2	×	19	422765 :1	SPRING	ステンレススプリング
1	1	×	18	422257 :1	AXIS	ステンレスジク
1	1	×	17	423934 :1	BASE	ミズタンクウケ
1	1	×	16	304885 :1	TANK	ミズタンク
1	1	1	15	300758 :	PLATE	ステンレスバン(R2)
1	1	1	14	200309 :	PLATE	ステンレスバン(R1)
1	1	1	13	402881 :1	SPACER	スペーサ(1)
1	1	1	12	301028 :1	PLATE	ステンレスバン(1)
1	1	1	11	402127 :1	COVER	コウテンSWカバー
1	1	1	10	402128 :1	BASE	トリツケダイ
1	1	1	9		PHOTO SW	フォトスイッチ OPE-3100(マルエム)
2	2	2	8		SCREW	HS(平)M6X16
1	1	1	7	401209 :1	WASHER	φ14ヒラザガネ
1	1	1	6	401208 :1	SCREW	ハモノヨウボルト
1	1	1	5	300452 :	KNIFE	ハモノ
1	1	1	4	402130 :2	SLIDEWAY	カミゾリ
1	1	1	3	402130 :1	SLIDEWAY	カミゾリ
1	×	×	2	322757 :1	DRAIN	ナガシ
1	1	1	1	100245 :1	REAR TABLE	リアテーブル

MARUNAKA TEKKOSHO INC.
㈱丸仲鉄工所

93.11.30
S.IKEDA

TYPE	DRAWING NAME	DRAWING NO.
SL-350V	REAR TABLE ASS.	205260

MACHINE NO. 1001~1026
NO. 1027~1050
NO. 1051~



C	B	A	NO.	PARTS DRAWING NO.		PARTS	
			60				
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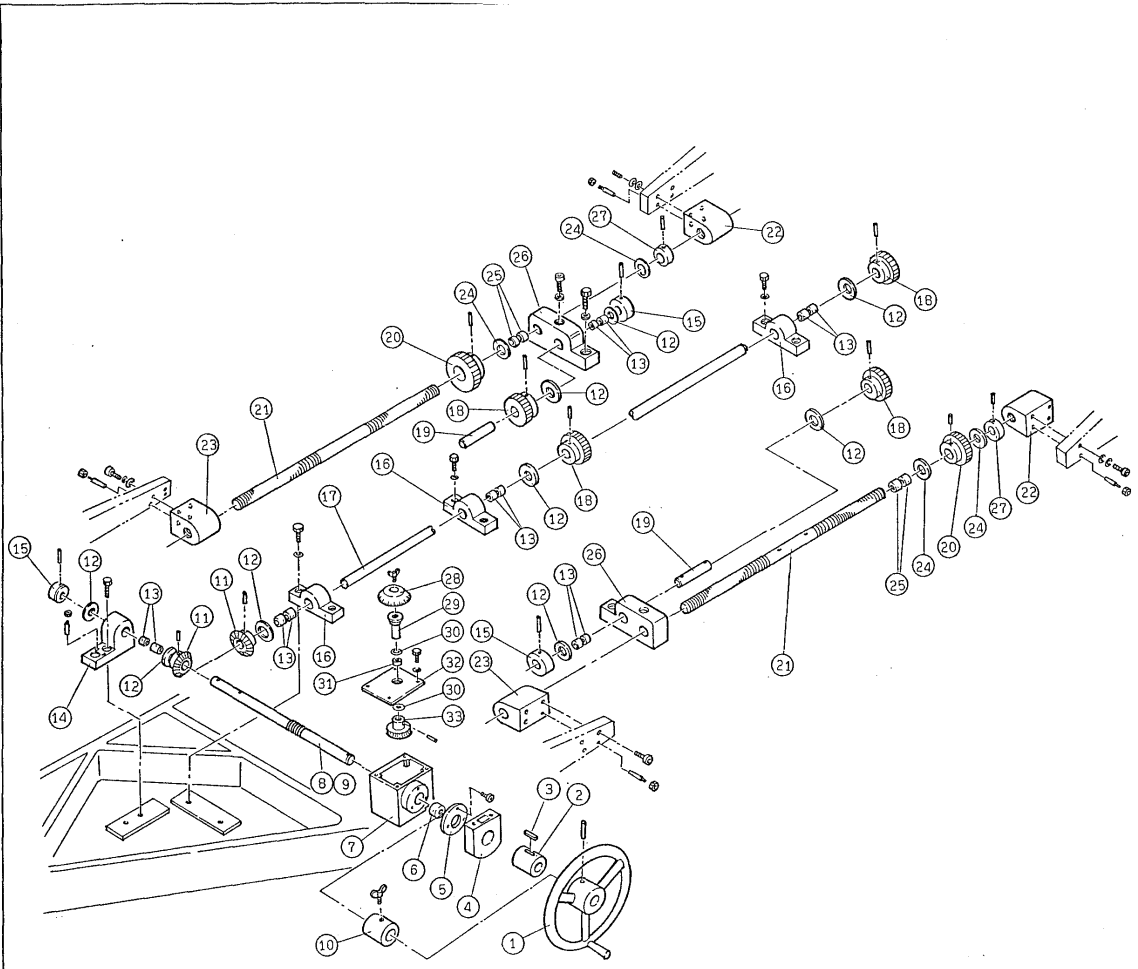
			58				
1	X	X	57	420726	1	DRAIN	ﾐｽﾞﾄｲ
X	X	10	56			NUT	NT M6. ｽﾃﾝﾚｽ
X	X	2	55			NUT	NT M8. ｽﾃﾝﾚｽ
X	X	10	54			SCREW	BT M6x25. ｽﾃﾝﾚｽ
X	X	2	53	402141	1	HOLDER	ｳｹ
X	X	1	52	402139	2	PLATE	ｱﾃｶﾞﾈ
X	X	2	51	402140	1	FELT	ﾌｪﾙﾄ
X	X	1	50	300748	1	PLATE	ｱﾃｶﾞﾈ
X	X	1	49	300750	1	BASE	ﾐｽﾞﾀﾝｸｳｹ
X	X	1	48	300742	1	TANK	ﾐｽﾞﾀﾝｸ
4	4	X	47			SCREW	ﾅﾍﾞ M5x12. ｽﾃﾝﾚｽ
2	2	X	46			SCREW	HS M6x18. ｽﾃﾝﾚｽ
2	2	X	45			NUT	NT M6. ｽﾃﾝﾚｽ
2	2	X	44	422765	1	SPRING	ｽﾃﾝﾚｽｽﾌﾟﾘﾝｸﾞ
2	2	X	43	422766	1	STOPPER	ｽﾄｯﾊﾟ
1	1	X	42	422256	1	ROLLER	ﾌﾟﾗｽﾁｯｸﾛｰﾗ
1	1	X	41	422257	1	AXIS	ｽﾃﾝﾚｽｼﾞｸ
1	1	X	40	424241	2	GUIDE	ﾅｶﾞｼ
1	1	X	39	303797	1	TANK	ﾐｽﾞﾀﾝｸｳｹ
1	1	X	38	300747	1	TANK	ﾐｽﾞﾀﾝｸ
1	1	X	37	205200	1	COVER	ﾌﾚｰﾑｶﾊﾞｰ
1	1	1	36	402109	1	STOPPER	ｽﾄｯﾊﾟ
2	2	2	35	402107	1	HOLDER	ｽﾄｯﾊﾟｳｹ
1	1	1	34	402108	1	STOPPER	ｽﾄｯﾊﾟ
1	1	1	33	402112	1	COLLAR	ｶﾗｰ
2	2	2	32			OILESS	ｵｲﾚｽ 70B1420
2	2	2	31			OILESS	ｵｲﾚｽ 70W1415
1	1	1	30	402115	1	GUIDE	ｶﾞｲﾄﾞ
1	1	1	29	402114	1	SLIDEWAY	ｶﾐｿﾘ
1	1	1	28	202113	1	SCREW	ﾎﾞﾙﾄ
10	10	10	27			NUT	NT M16
5	5	5	26	400987	1	WASHER	ﾋﾗｻﾞｶﾞﾈ
5	5	5	25	422289	1	SPRING	ｽﾌﾟﾘﾝｸﾞ
5	5	5	24	402106	1	SCREW	ｳｴｺﾐﾎﾞﾙﾄ
1	X	X	23	430900		COVER	ﾊｸﾞﾁﾎｼﾞｮｶﾊﾞｰ
1	1	1	22	202878		COVER	ﾊｸﾞﾁｶﾊﾞｰ
1	X	X	21	205135	1	COVER	ﾌﾛﾝﾄｶﾊﾞｰ
1	1	1	20	200308		PLATE	ｽﾃﾝﾚｽﾊﾞﾝ
13	X	X	19			WASHER	W M12
10	X	X	18	408536	1	SCREW	ﾊｸﾞﾁﾂｷｱｹﾞﾎﾞﾙﾄ
1	X	X	17	322819	1	SUB NOSE BAR	ﾎｼﾞｮﾊｸﾞﾁ
1	X	X	16	322821	1	NOSE BAR	ﾊｸﾞﾁ
13	13	13	15	300968	1	WASHER	ﾋﾗｻﾞｶﾞﾈ
13	13	13	14			SCREW	CB M12x35. ｽﾃﾝﾚｽ
X	1	1	13	300755		NOSE BAR	ﾊｸﾞﾁ
X	1	1	12	300609		NOSE BAR	ﾊｸﾞﾁ
8	8	8	11			RESIN SHEET	ﾙｰﾛﾝｼｰﾄ 11.6x52x810
1	1	1	10	300742	3	SLIDE WEDGE	ｼｭｳﾄﾞｳｳｴｯｼﾞ
1	1	1	9	300742	2	SLIDE WEDGE	ｼｭｳﾄﾞｳｳｴｯｼﾞ
2	2	2	8	300742	1	SLIDE WEDGE	ｼｭｳﾄﾞｳｳｴｯｼﾞ
1	1	1	7	300743	3	FIXED WEDGE	ｺﾃｲｳｪｯｼﾞ
1	1	1	6	300743	2	FIXED WEDGE	ｺﾃｲｳｪｯｼﾞ
2	2	2	5	300743	1	FIXED WEDGE	ｺﾃｲｳｪｯｼﾞ
1	1	1	4	000004	1	UPPER FRAME	ｼﾞｮｳﾌﾞﾌﾚｰﾑ
1	1	1	3	100244	1	WEDGE GUIDE	ｳｪｯｼﾞｶﾞｲﾄﾞ
1	X	X	2	205169	1	FRONT TABLE	ﾌﾛﾝﾄﾃｰﾌﾞﾙ
X	1	1	1	202262	1	FRONT TABLE	ﾌﾛﾝﾄﾃｰﾌﾞﾙ

NO. 1054~	NO. 1027~1053	NO. 1001~1026	MACHINE NO.	MARUNAKA TEKKOSHO INC. 丸仲鐵工所		93. 11. 30 / S. IKEDA
				TYPE	DRAWING NAME	DRAWING NO.
				SL-350V	FRONT TABLE ASS.	205261

205262



B	A	NO.	PARTS DRAWING NO.		PARTS	
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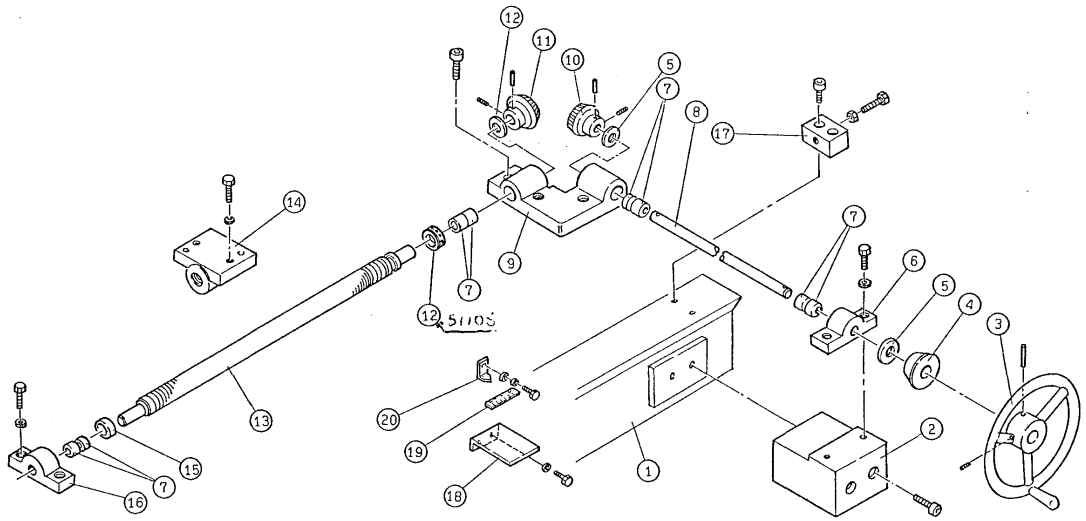
1	1	33	401400	:1	WORM WHEEL	ウォームホイ
1	1	32	401401	:1	COVER	カバー
1	1	31	401402	:1	BUSH	ジクウケ
2	2	30		:	OILESS	オイレス 70W
1	1	29	401403	:1	AXIS	ジク
1	1	28	401404	:1	SCALE	メモリ
2	2	27	400942	:1	COLLAR	カラー
2	2	26	402100	:1	HOLDER	ジクウケ
4	4	25		:	OILESS	オイレス 70B
4	4	24		:	OILESS	オイレス 70W
2	2	23	402105	:2	FEMALE SCREW	メネジ(左ネ
2	2	22	402105	:1	FEMALE SCREW	メネジ(右ネ
2	2	21	402104	:1	MALE SCREW	オネジ
2	2	20	402103	:1	GEAR	ハグルマ
2	2	19	402101	:1	SPINDLE	ジク
4	4	18	402102	:1	GEAR	ハグルマ
1	1	17	402099	:1	SPINDLE	チュウカンジ
3	3	16	402098	:1	HOLDER	ジクウケ
3	3	15	401394	:1	COLLAR	カラー
1	1	14	402096	:1	HOLDER	ジクウケ
12	12	13		:	OILESS	オイレス 70B
9	9	12		:	OILESS	オイレス 70W
2	2	11	402095	:1	GEAR	ギヤ
X	1	10	400958	:1	SCALE	メモリ
X	1	9	402094	:1	SPINDLE	ハンドルジ
1	X	8	409629	:1	SPINDLE	ハンドルジ
1	1	7	300744	:1	BOX	ジョウフクジク
1	1	6		:	OILESS	オイレス 70B
1	X	5	409625	:1	RING	デジカラ
1	X	4		:	DIGICOLLAR	デジタルスケール 0.2/0
1	X	3		:	KEY	キー 3x3
1	X	2	409628	:1	BUSH	デジカラ
1	1	1	400980	:4	HANDLE	ハンドル

MARUNAKA TEKKOSHO INC.
㈱ 丸仲鐵工所

NO. 1007~ / NO. 1001~1006	MACHINE NO.	TYPE	DRAWING NAME	DRAWING
		SL-350V	FRONT TABLE UP-DOWN ASS.	2052



A	NO.	PARTS DRAWING NO.		PARTS	
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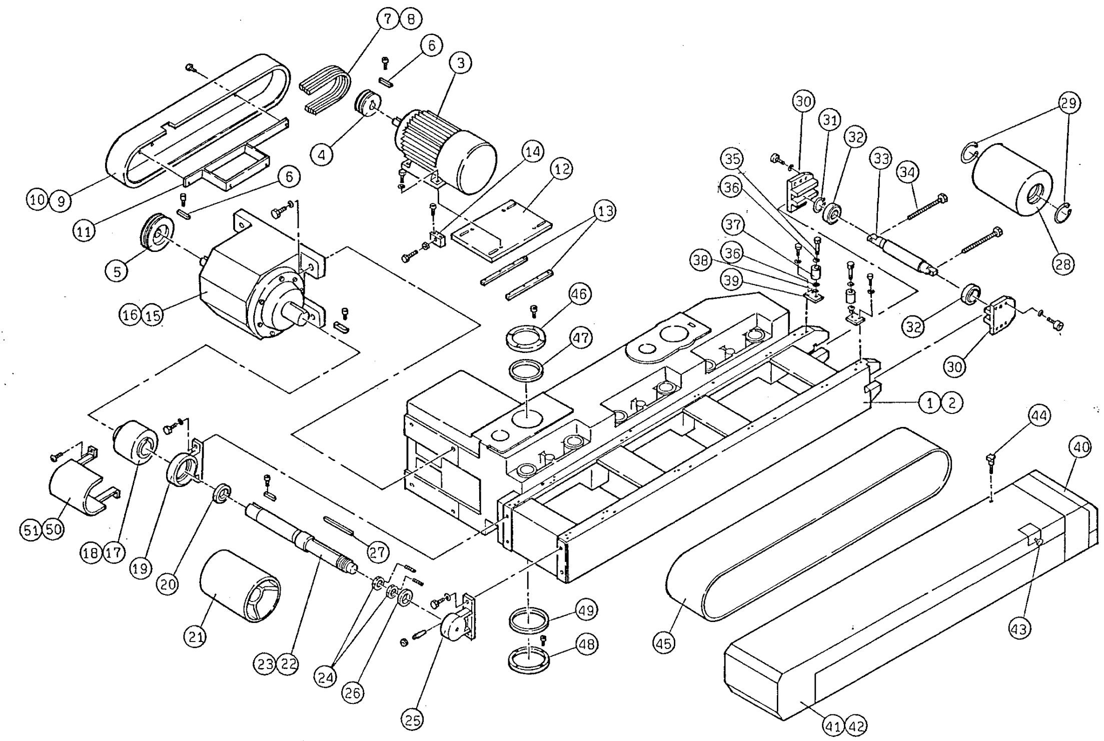
	1	20	400982	:1	INDICATOR	シジシ
	1	19	400956	:1	SCALE	スケールA
	1	18	400983	:1	BASE	メモリトリツケダイ
	1	17	402129	:1	STOPPER	ストッパ
	1	16	402116	:1	HOLDER	ジクウケ
	1	15	402583	:1	BUSH	カンザ
	1	14	300752	:1	FEMALE SCREW	メネジ
	1	13	402120	:1	MALE SCREW	オネジ
	2	12			THRUST BEARING	BB51105
	1	11	402119	:1	BEVEL GEAR	ベベルギヤ
	1	10	402118	:1	PINION	ピニオン
	1	9	300753	:1	HOLDER	ベベルギヤダクウケ
	1	8	402117	:1	AXIS	ハンドルジク
	8	7			OILESS	オイレス 70B2220
	1	6	402116	:2	HOLDER	ジクウケ
	1	5			OILESS	オイレス 70W2215
	1	4	402122	:1	BUSH	カンザ
	1	3	400980	:3	HANDLE	ハンドル
	1	2	402121	:1	BASE	ジクウケトリツケダイ
	1	1	000004	:1	UPPER FRAME	ジョウアフレーム

MACHINE NO.

MARUNAKA TEKKOSHO INC.
㈱ 丸仲鉄工所

93.11.30
S. IKEDA

TYPE	DRAWING NAME	DRAWING NO.
SL-350V	REAR TABLE SLIDE ASS.	205263



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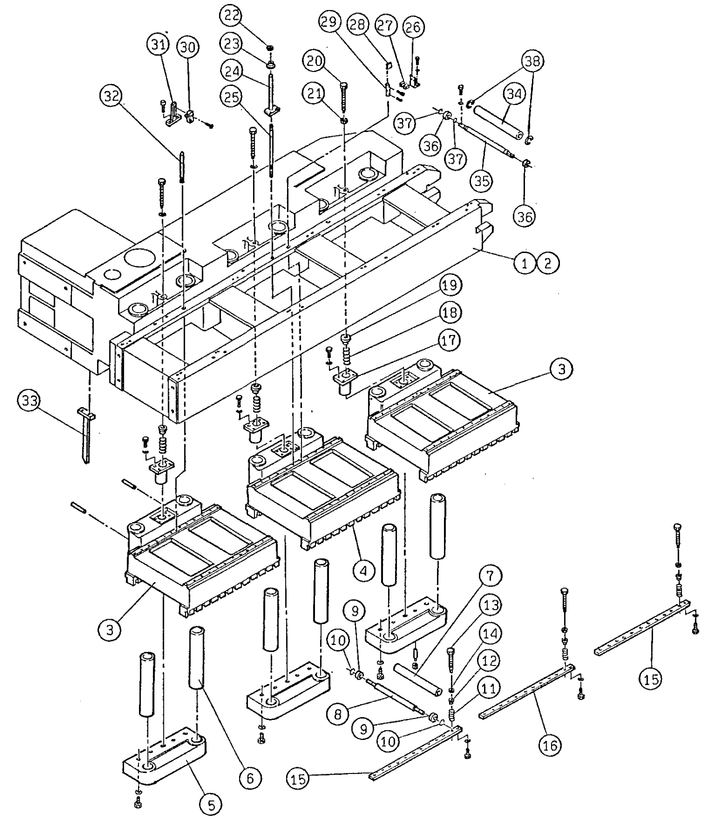
1	X	51	322506	1	COVER	ｶｯﾌﾟﾘﾝｸﾞｶﾊﾞｰ
X	1	50	407362	1	COVER	ｶｯﾌﾟﾘﾝｸﾞｶﾊﾞｰ
1	1	49			RUBBER RING	ｽｸﾚｰﾊﾟ SDR-180
1	1	48	403505	1	COVER	ｶﾊﾞｰ
1	1	47			FELT	ﾌｪﾙﾄ 10x10x600
1	1	46	401794	1	COVER	ｶﾊﾞｰ
1	1	45	300798	1	FEEDING BELT	ｴﾝﾄﾞﾚｽﾍﾞﾙﾄ
12	12	44	401125	2	HAND KNOB	ﾊﾝﾄﾞﾉﾌﾞ
1	X	43			KNOB BOLT	ﾉﾌﾞﾎﾞﾙﾄ
1	X	42	100276	2	COVER	ｼﾞｮｳﾌﾞｶﾊﾞｰ
X	1	41	100276	1	COVER	ｼﾞｮｳﾌﾞｶﾊﾞｰ
1	1	40	100277	1	COVER	ｼﾞｮｳﾌﾞｶﾊﾞｰ
12	12	39	401128	1	HOLDER	ﾍﾞﾙﾄﾖｾﾛｰﾗｼﾞｸｻｻｴ
12	12	38			WASHER	W M12
12	12	37	401126	1	GUIDE ROLLER	ﾍﾞﾙﾄﾖｾﾛｰﾗ
24	24	36			BEARING	BB6003LLU
12	12	35	401127	1	SCREW	ﾍﾞﾙﾄﾖｾﾛｰﾗｼﾞｸ
2	2	34	402285	1	SCREW	ﾎﾞﾙﾄ
1	1	33	300806	1	SPINDLE	ｼﾞｭｳﾄﾞｳｼﾞｸ
2	2	32			BEARING	BB6213LLU
1	1	31			STOP RING	Cﾄﾒﾜ S-65
2	2	30	300796	1	GUIDE	ｶﾞｲﾄﾞ
2	2	29			STOP RING	Cﾄﾒﾜ H-120
1	1	28	300805	1	DRIVEN ROLL	ｼﾞｭｳﾄﾞｳﾛｰﾙ
1	1	27	402288	1	KEY	ｷｰ
1	1	26			BEARING	BB6313LLU
1	1	25	300804	1	HOLDER	ｼﾞｸｳｹ
2	2	24	402289	1	NUT	ﾅｯﾄ
1	X	23	322505	1	SPINDLE	ｸﾄﾞｳｼﾞｸ
X	1	22	322803	1	SPINDLE	ｸﾄﾞｳｼﾞｸ
X	1	21	300802	1	DRIVE ROLL	ｸﾄﾞｳﾛｰﾙ
1	1	20			BEARING	BB6218LLU
1	1	19	300801	1	HOLDER	ｼﾞｸｳｹ
1	X	18	306631	1	COUPLING	ﾁｪｰﾝｶｯﾌﾟﾘﾝｸﾞ
X	1	17	300800	1	COUPLING	ﾁｪｰﾝｶｯﾌﾟﾘﾝｸﾞ
1	X	16			REDUCTION GEAR	ｹﾞﾝｿｸｷ(SEW) R-103-B7-1/25
X	1	15			REDUCTION GEAR	ｹﾞﾝｿｸｷ(ｻｲｸﾛ) HS20-99-1/29
1	1	14	402271	1	BLOCK	ﾒﾀﾙ
2	2	13	402270	1	GUIDE	ｶﾞｲﾄﾞ
1	1	12	402272		BASE	ﾓｰﾀﾍﾞｰｽ
1	1	11	300808	1	BASE	ﾄﾘﾂｹﾀﾞｲ
1	X	10	300807	2	COVER	ｶﾊﾞｰ
X	1	9	300807	1	COVER	ｶﾊﾞｰ
4	X	8			V-BELT	Vﾍﾞﾙﾄ(ﾏｯﾁﾄﾞｾｯﾄ) 3V1060
X	4	7			V-BELT	Vﾍﾞﾙﾄ(ﾏｯﾁﾄﾞｾｯﾄ) 3V1120
2	2	6			KEY	ｷｰ
1	1	5			PULLEY	ｹﾞﾝｿｸｷﾌﾟｰﾘ
1	1	4			PULLEY	ﾓｰﾀﾌﾟｰﾘ
1	1	3			MOTOR	ﾓｰﾀ 15kW 4P ON ﾌﾞﾚｰｷ付(ﾌｼﾞ)
X	1	2	000005	1	HEAD SUPPORT	ﾍｯﾄﾞｻﾎﾟｰﾄ
1		1	103086	1	HEAD SUPPORT	ﾍｯﾄﾞｻﾎﾟｰﾄ
B	A	NO.	PARTS DRAWING NO.		PARTS	

NO. 1051~ / NO. 1001~1050	MACHINE NO.	MARUNAKA TEKKOSHO INC. 丸仲鐵工所		93. 11. 30 / S. IKEDA
		TYPE	DRAWING NAME	DRAWING NO.
		SL-350V	FEED ASS.	205264



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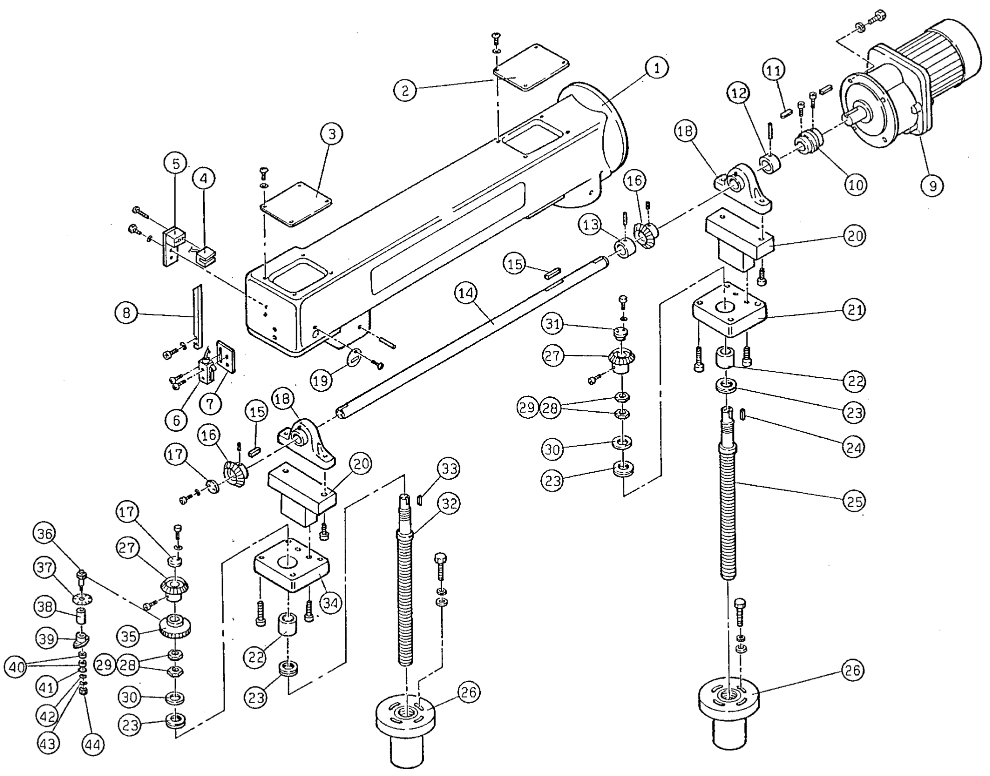
4	4	38			STOP RING	Cトメワ H-42
4	4	37			STOP RING	Cトメワ S-20
4	4	36			BEARING	BB6004LLU
1	1	35	402284	1	ADJUST BAR	チョウセイジ゛ク
1	1	34	402283	1	ADJUST ROLL	チョウセイロール
1	1	33	402281	1	DOG	ト゛ック
1	1	32	402297	1	DETECTOR	ケンシュツボ゛ウ
1	1	31	402298	1	HOLDER	トリツケダ゛イ
1	1	30			LIMIT SWITCH	リミットSW D4MC-2020(オムロン)
1	1	29	402300	1	SHADE HOLDER	シャコウバ゛ントリツケダ゛イ
1	1	28	402301	1	SHADE	シャコウバ゛ン
1	1	27			PHOTO SWITCH	コウデ゛ンSW OPE-S3(オムロン)
1	1	26	401133	1	PHOTO SW BASE	コウデ゛ンSWトリツケダ゛イ
1	1	25	402346	1	CUSHION BAR	クッションボ゛ウ
1	1	24	402349	1	BAR HOLDER	エントウダ゛イ
1	1	23	402348	1	FEMALE SCREW	メネジ゛
1	1	22	402347	1	FEMALE SCREW	メネジ゛
3	3	21			NUT	NT M20
3	3	20	402291	1	ADJUST BOLT	スプ゛リング゛チョウセツボ゛ウ
3	3	19	402292	1	SPRING HOLDER	スプ゛リング゛ウケ
3	3	18	402293	1	SPRING	スプ゛リング゛
3	3	17	300792	1	SPRING CASE	スプ゛リング゛ケース
2	2	16	402296	1	PLATE	アテガ゛ネ(2)
4	4	15	402295	1	PLATE	アテガ゛ネ(1)
69	70	14			NUT	NT M12
69	70	13	402294	1	SCREW	ボ゛ルト
69	70	12	400976	1	SPRING HOLDER	スプ゛リング゛ウケC
70	70	11	400978	1	SPRING	スプ゛リング゛
70	70	10			STOP RING	Cトメワ S-25
70	70	9			BEARING	BB6205LLU
35	35	8	300795	1	SPINDLE	ジ゛ク
35	35	7	402282	1	PRESSURE ROLL	カアツロール
6	6	6	300794	1	COLUMN	コラム(2)
3	3	5	200339	1	COLUMN HOLDER	コラムホルダ゛
1	1	4	100268	1	HEAD	ヘッド゛(2)
2	2	3	100267	1	HEAD	ヘッド゛(1)
1	X	2	103086	1	HEAD SUPPORT	ヘッド゛サポ゛ート
X	1	1	000005	1	HEAD SUPPORT	ヘッド゛サポ゛ート
B	A	NO.	PARTS DRAWING NO.		PARTS	

NO. 1051~	NO. 1001~1050	MACHINE NO.			
			MARUNAKA TEKKOSHO INC. 丸仲鐵工所		93.11.3 S. IKEDA
			TYPE	DRAWING NAME	DRAWING NO.
			SL-350V	HEAD ASS.	205265



A	NO.	PARTS DRAWING NO.		PARTS	
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1	44			NUT	NT M8
1	43			WASHER	SW M8
1	42	402262	1	WASHER	ｶﾝｻﾞ
1	41			STOP RING	Cﾄﾒﾜ H-32
2	40		1	BEARING	BB6201LLU
1	39	402265	1	HOUSING	ﾊｳｼﾞﾝｸﾞ
1	38	402261	1	BUSH	ｶﾝｻﾞ
1	37	403449	1	SLIT PLATE	ｽﾘｯﾄﾊﾞﾝ
1	36	402264	1	AXIS	ｹｯｺｳﾊﾞﾝﾄﾘﾂｹｼﾞｸ
1	35	402259	1	GEAR	ﾋﾗﾊｸﾞﾙﾏ
1	34	309797	1	BASE PLATE	ｼﾞｸｳｹｲﾀA
1	33			KEY	ｷｰ 10x8x46
1	32	402266	1	MALE SCREW	ｵﾈｼﾞ
1	31	403322	1	WASHER	ﾋﾗｻﾞｶﾞﾈ
2	30	402256	1	WASHER	ｶﾝｻﾞ
1	29	402255	2	NUT	M45ﾅｯﾄ
1	28	402255	1	NUT	M45ﾅｯﾄ
2	27	402253	1	GEAR	ｷﾞﾔ
1	26	301226		FEMALE SCREW	ﾒﾈｼﾞ
1	25	402258		MALE SCREW	ｵﾈｼﾞ(1)
2	24			KEY	ｷｰ 10x8x35
4	23			BEARING	BB51109
2	22			BUSH	ｵｲﾚｽﾌﾞｯｼｭ BCB-455550
1	21	309798	1	BASE PLATE	ｼﾞｸｳｹｲﾀB
2	20	309836	1	BASE	ｼﾞｸｳｹﾀﾞｲ
2	19	402269	1	COVER	ｷｭｳﾕｶﾊﾞｰ
2	18			PILLOW UNIT	ﾋﾟﾛｰﾕﾆｯﾄ UCUP209
2	17	402251	1	WASHER	ﾋﾗｻﾞｶﾞﾈ
2	16	402252	1	PINION	ﾋﾟﾆｵﾝ
1	15			KEY	ｷｰ 14x9x34
1	14	402246	1	SPINDLE	ｼﾞｸ φ45
1	13	403321	1	BUSH	ｶﾝｻﾞ
1	12	402249	1	BUSH	ｶﾝｻﾞ
1	11			KEY	ｷｰ 14x9x46
1	10	402248	1	COUPLING	ｶｯﾌﾟﾘﾝｸﾞ
1	9			GEARED MOTOR	ｷﾞｱﾄﾞﾓｰﾀ ﾌﾞﾚｰｷ付 1.5kW 4/6P 1/45(三菱)
1	8	402280	1	DOG	ﾄﾞｯｸ
1	7	402279	1	LIMIT SW HOLDER	ﾘﾐｯﾄSWﾄﾘﾂｹﾊﾞﾝ
1	6			LIMIT SWITCH	ﾘﾐｯﾄSW D4MC-2020(ｵﾑﾛﾝ)
1	5	402267	1	HOLDER	ﾄﾘﾂｹﾀﾞｲ
1	4			SENSOR	ｾﾝｻ SH-D12/12(ｻﾑｺﾝ)
1	3	432690	2	COVER	ｶﾊﾞｰ
1	2	432690	1	COVER	ｶﾊﾞｰ
1	1	200338	1	BRIDGE	ﾌﾞﾘｯｼﾞ

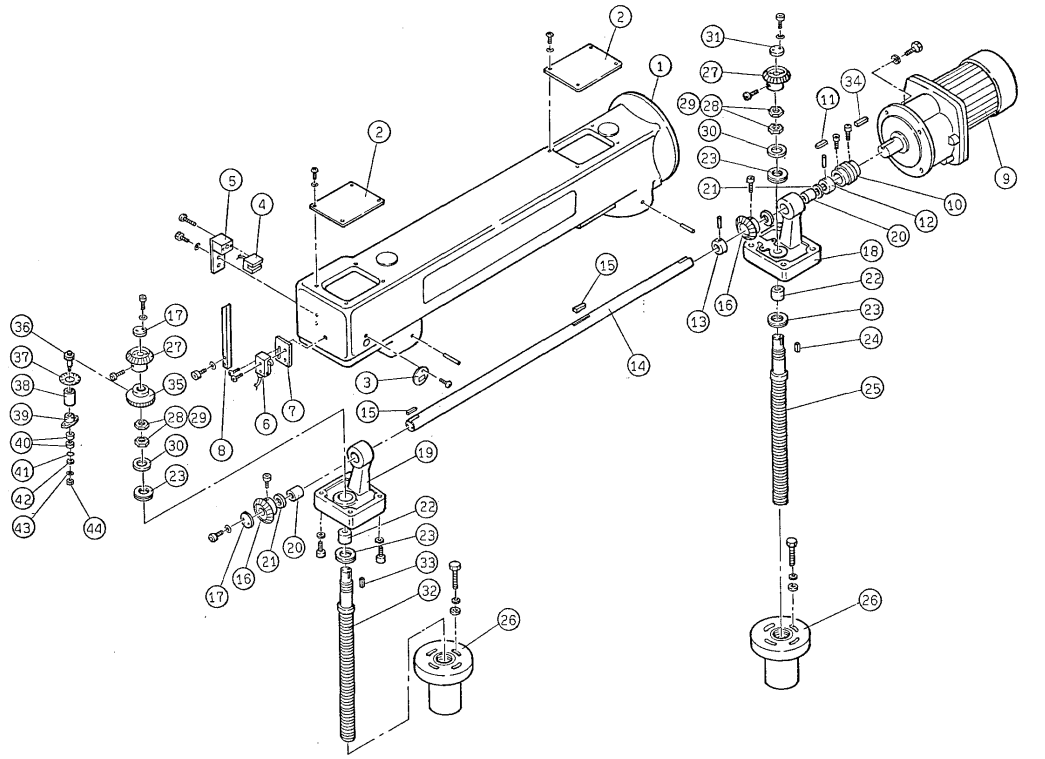
NO. 1045~ MACHINE NO.

MARUNAKA TEKKOSHO INC.
㈱丸仲鐵工所

93.11.3
S. IKEDA

TYPE	DRAWING NAME	DRAWING NO.
SL-350V	BRIDGE ASS. (NEW TYPE)	205266

205267



A	NO.	PARTS DRAWING NO.		PARTS	
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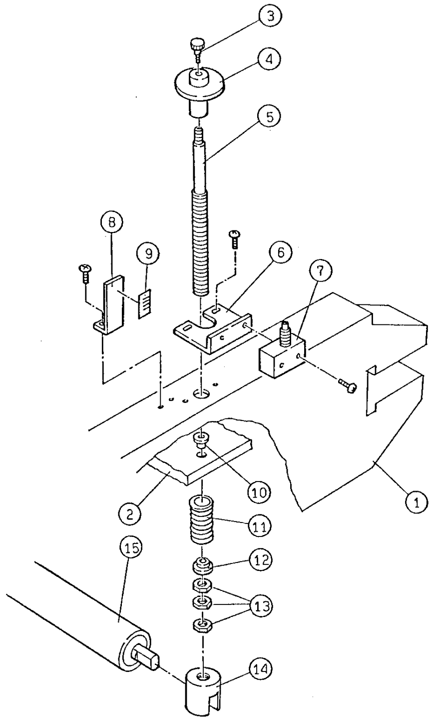
1	44			NUT	NT M8
1	43			WASHER	SW M8
1	42	402262	1	WASHER	ｶﾝｻﾞ
1	41			STOP RING	Cﾄﾒﾜ H-32
2	40			BEARING	BB6201LLU
1	39	402265	1	HOUSING	ﾊｳｼﾞﾝｸﾞ
1	38	402261	1	BUSH	ｶﾝｻﾞ
1	37	403449	1	SLIT PLATE	ｽﾘｯﾄﾊﾞﾝ
1	36	402264	1	AXIS	ｽﾘｯﾄﾊﾞﾝﾄﾘﾂｹｼﾞｸ
1	35	402259	1	GEAR	ﾋﾗﾊｸﾞﾙﾏ
1	34			KEY	ｷｰ 14X9X63
1	33			KEY	ｷｰ 10x8x46
1	32	402266	1	MALE SCREW	ｵﾈｼﾞ
1	31	403322	1	WASHER	ﾋﾗｻﾞｶﾞﾈ
2	30	402256		WASHER	ｶﾝｻﾞ
1	29	402255	2	NUT	M45ﾅｯﾄ
1	28	402255	1	NUT	M45ﾅｯﾄ
2	27	402253	1	GEAR	ｷﾞﾔ
2	26	301226		FEMALE SCREW	ﾒﾈｼﾞ
1	25	402258		MALE SCREW	ｵﾈｼﾞ (1)
2	24			KEY	ｷｰ 10x8x35
4	23			BEARING	BB51109
2	22			OILESS	ｵｲﾚｽﾌﾞｯｼｭ BCB-455550
3	21			OILESS	ｵｲﾚｽ 70W4215
2	20	402257		BUSH	ｼﾞｸｳｹ
1	19	300789	1	HOLDER	ｷﾞﾔｼﾞｸｳｹ
1	18	300790	1	HOLDER	ｷﾞﾔｼﾞｸｳｹ
2	17	402251	1	WASHER	ﾋﾗｻﾞｶﾞﾈ
2	16	402252	1	PINION	ﾋﾟﾆｵﾝ
1	15			KEY	ｷｰ 12X8x34
1	14	402246	1	SPINDLE	ｼﾞｸ (φ42)
1	13	403321	1	BUSH	ｶﾝｻﾞ (穴φ42)
1	12	402249	1	BUSH	ｶﾝｻﾞ (穴φ42)
1	11			KEY	ｷｰ 12X8X46
1	10	402248		COUPLING	ｶｯﾌﾟﾘﾝｸﾞ (ｷｰ 12x8)
1	9			GEARED MOTOR	ｷﾞｱﾄﾞﾓｰﾀ ﾌﾞﾚｰｷ付 1.5kW 4/8P 1/45(三菱)
1	8	402280	1	DOG	ﾄﾞｯｸ
1	7	402279	1	LIMIT SW HOLDER	ﾘﾐｯﾄSWﾄﾘﾂｹﾊﾞﾝ
1	6			LIMIT SWITCH	ﾘﾐｯﾄSW D4MC-2020(ｵﾑﾛﾝ)
1	5	402267	1	HOLDER	ﾄﾘﾂｹﾀﾞｲ
1	4			SENSOR	ｾﾝｻ SH-D12/12(ｻﾑﾀｸ)
2	3	402269	1	COVER	ｷｭｳﾕｶﾊﾞｰ
2	2	430910	1	COVER	ｶﾊﾞｰ
1	1	200338	1	BRIDGE	ﾌﾞﾘｯｼﾞ

MARUNAKA TEKKOSHO INC.
㈱丸仲鐵工所

93.11.30
S. IKEDA

MACHINE NO. ...0.1001~1044

TYPE	DRAWING NAME	DRAWING NO.
SL-350V	BRIDGE ASS.	205267



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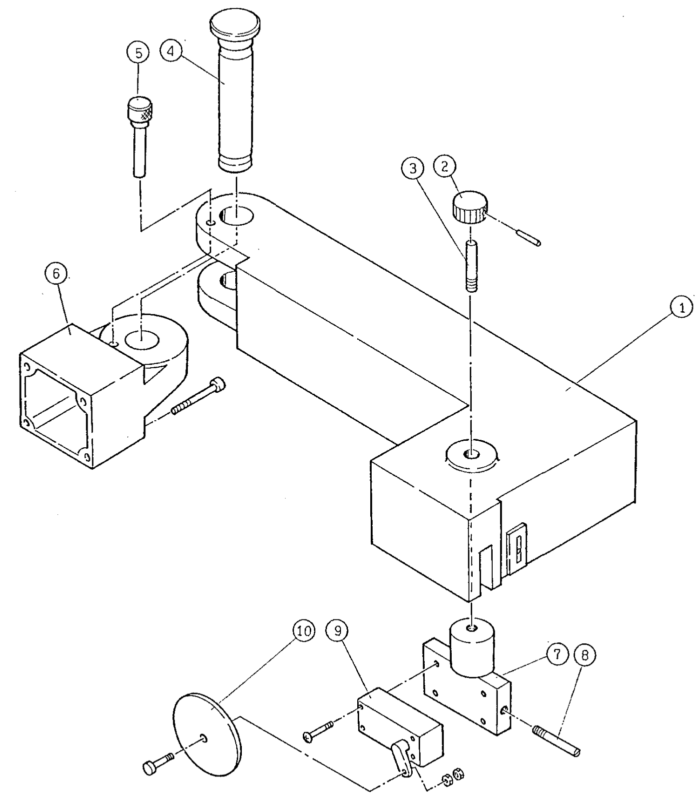
1	15	402282	1	PRESSURE ROLL	カアツロール
1	14	431317	2	BUSH	ホジョブッシュ
3	13			NUT	NT M12
1	12	428495	1	SPRING HOLDER	スプリングウケD
1	11	400978	1	SPRING	スプリング
1	10			OILESS	オイレス LFF1015
1	9	400507	1	SCALE	メモリ
1	8	431319	2	BASE	メモリダイ
1	7			LIMIT SWITCH	リミットSW D4MC-5000(オムロン)
1	6	431318	2	BASE	リミットダイ
1	5	431316	2	AXIS	カアツケンシュツジク
1	4	431315	1	DOG	ブダシドック
1	3			KNOB	ローレットツマミ
1	2	100267	1	HEAD	ヘッド(1)
1	1	103086	1	HEAD SUPPORT	ヘッドサポート

NO. 1051~	MACHINE NO.	MARUNAKA TEKKOSHO INC. 株式会社 丸仲鐵工所		93.11.3 S. IKEDA
		TYPE	DRAWING NAME	DRAWING NO.
		SL-350V	THICKNESS GAUGE ASS. (NEW TYPE)	205268



A	NO.	PARTS DRAWING NO.		PARTS	
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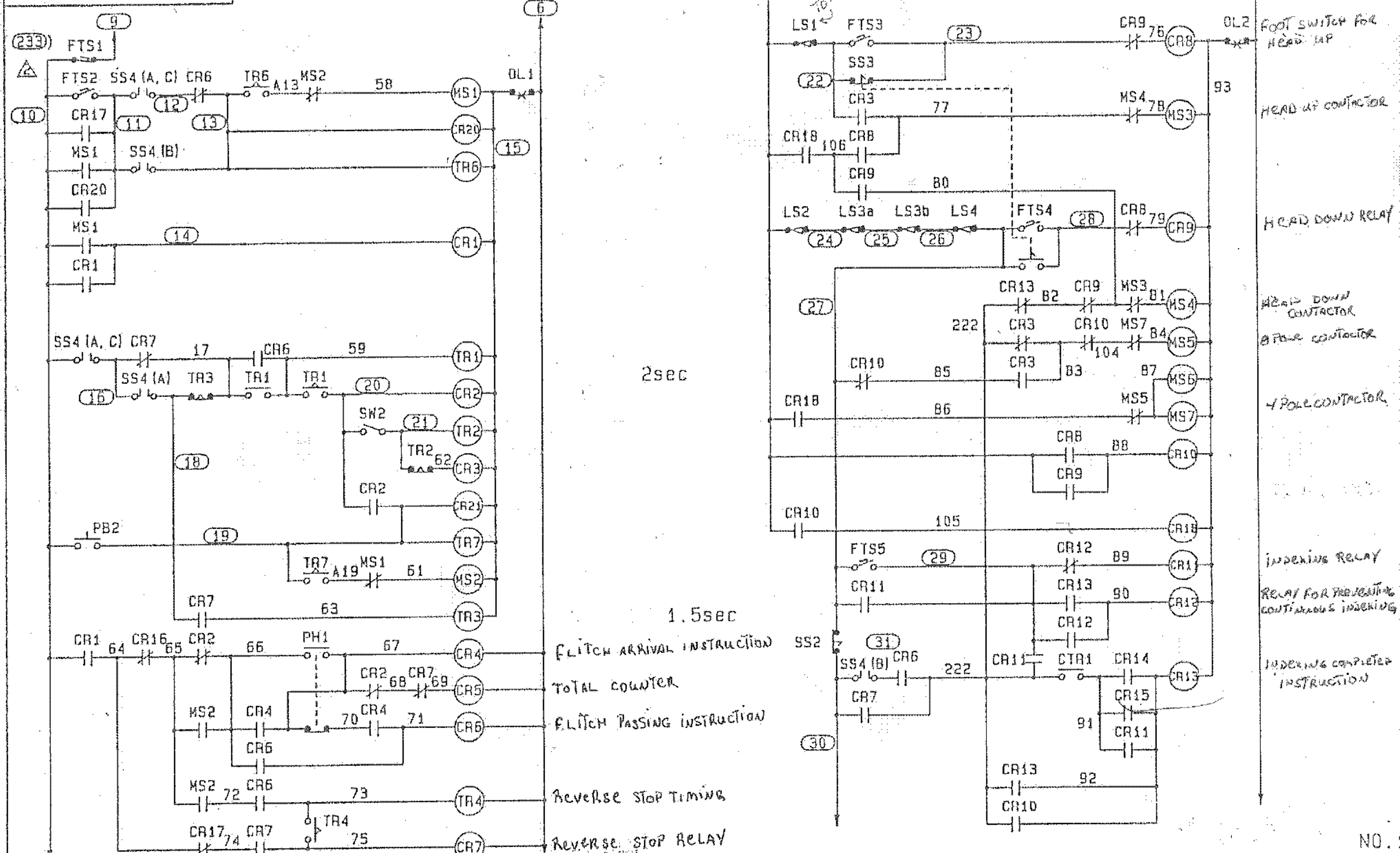
1	10	402378	1	ROLLER	ローラー
1	9			LIMIT SWITCH	リミットSW WLCA-2N(オムロン)
1	8	402377	1	INDICATOR	シシン
1	7	402376	1	LIMIT SW HOLDER	リミットSWトリツケダイ
1	6	402373	1	GAUGE HOLDER	アツミゲージササエ
1	5	402375	1	PIN	ピン
1	4	402374	1	PIN	ピン
1	3	401591	3	SCREW	アツミゲージネジ
1	2	401592	1	KNOB	アツミゲージツマミ
1	1	200355	1	COVER	アツミゲージカバー

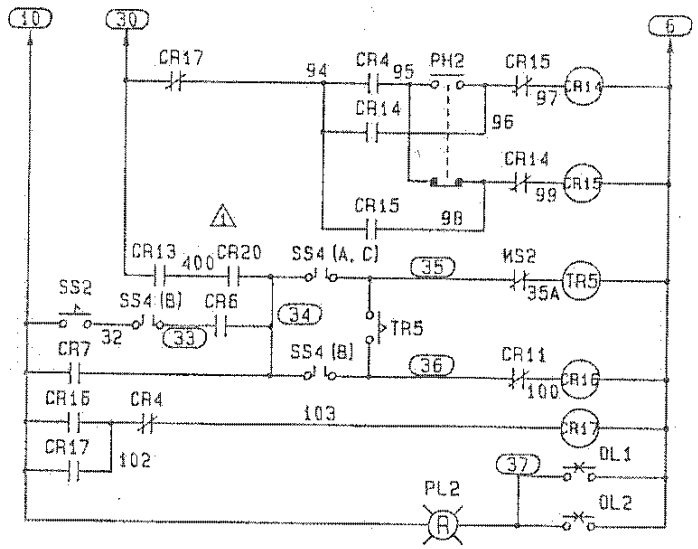
NO. 1001~1050	MACHINE NO.	MARUNAKA TEKKOSHO INC. ㈱丸仲鐵工所		93.11.30 S IKEDA
		TYPE	DRAWING NAME	DRAWING NO.
		SL-350V	THICKNESS GAUGE ASS. (OLD TYPE)	205269

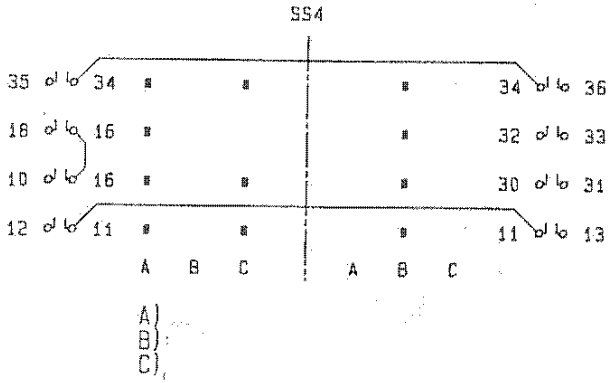
E 31050

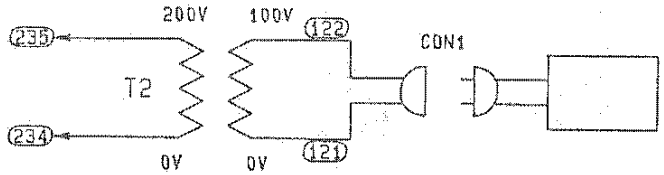


訂番	訂正記事	年月日	氏名	訂番	訂正記事	年月日	氏名	製図	検図	承認	図名	形名	図番
								90. 2.14	90. 1.30	90. 2.14	シーケンス 2/3	SL-350V	E 3102
				△	フットSW接番変更 NO.1038~	90.3.24	窪田	窪田	望月	望月	株式会社 丸仲鉄工所		
				△	シーケンス変更（月間回路）	90.3.9	窪田						

				△	シーケンス変更による端子台増設	90.3.9	窪田	窪田	望月	望月	株式会社 丸仲鉄工所	SL-350V	E 31023

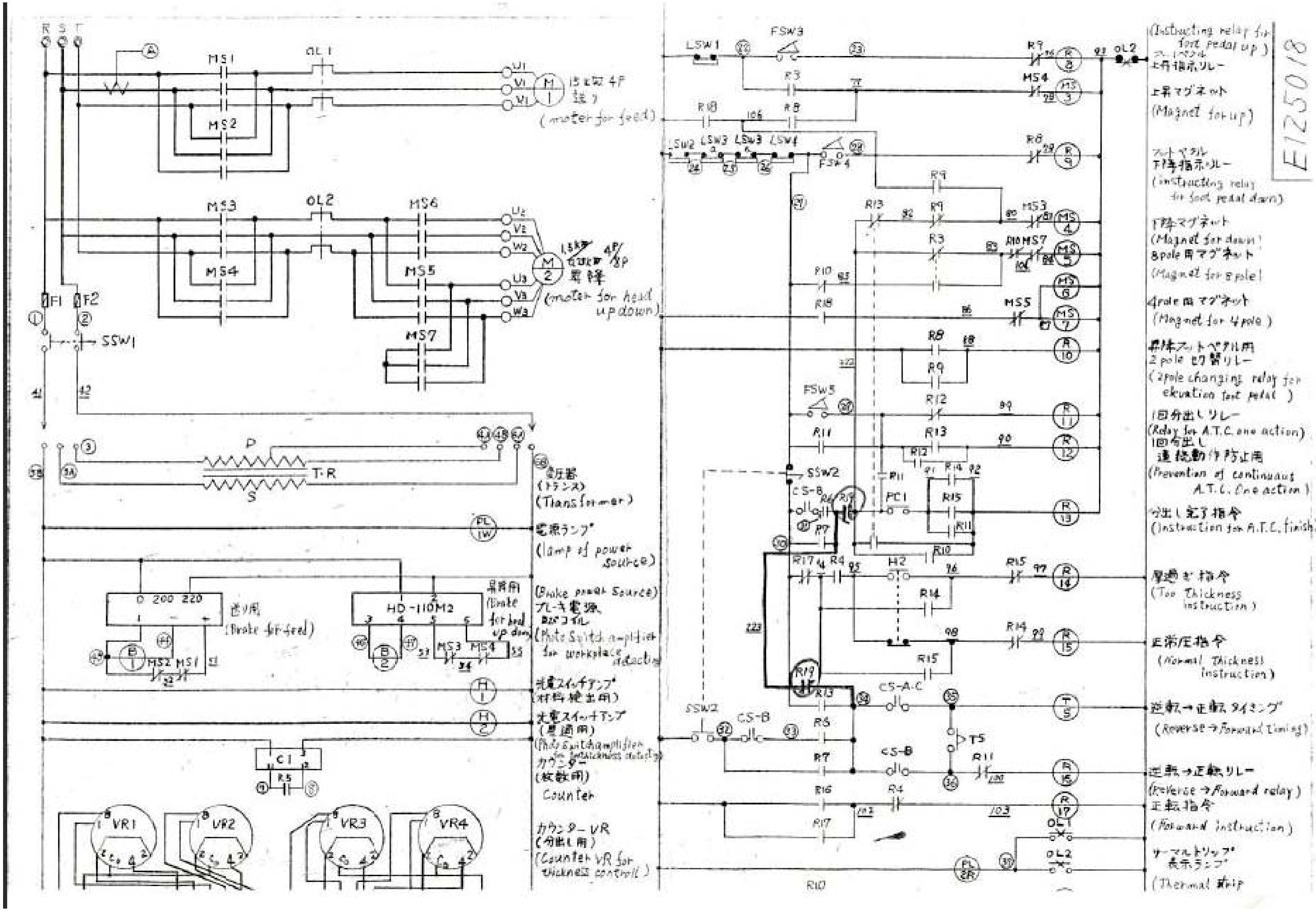




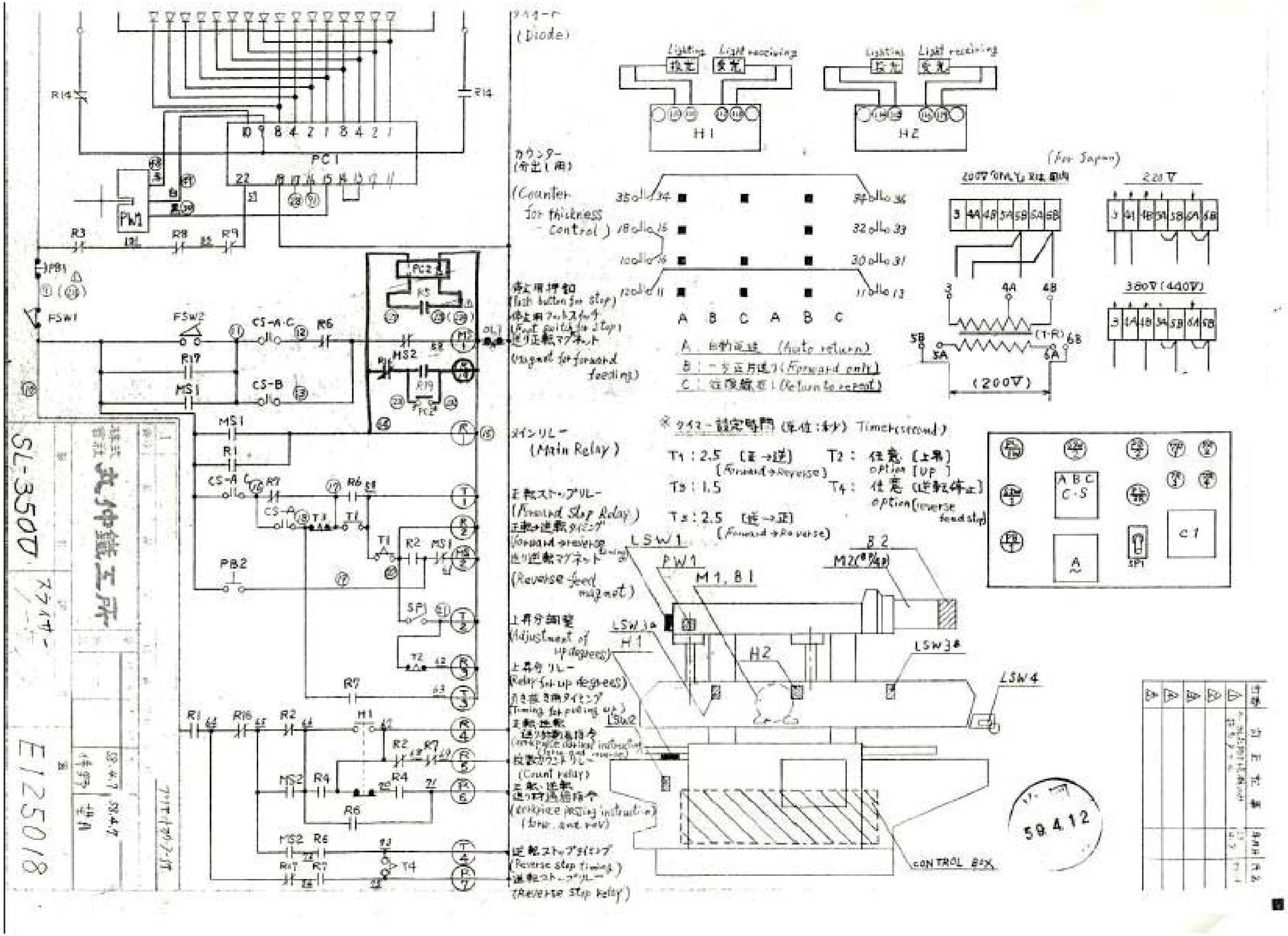


国内・輸出兼用仕様
プリセットカウンタ無仕様　NO.1036~

記番	訂正記事	年月日	氏名	記番	訂正記事	年月日	氏名	製図	検図	承認	図名	形名	図番
								90. 2.14	90. 1.30	90. 2.14	シーケンス 3/3	SL-350V	E 31021
				⚠	シーケンス変更(CR20追加)	90.3.13	沢原	窪田	望月	望月	株式会社 丸伸鉄工所		
				⚠	シーケンス変更による端子台増設	90.3.9	窪田	窪田	望月	望月	株式会社 丸伸鉄工所	SL-350V	E 31023



E125018
(Instructing relay for foot pedal up)
上昇指示リレー
上昇マグネット
(Magnet for up)
下降指示リレー
(Instructing relay for foot pedal down)
下降マグネット
(Magnet for down)
8pole用マグネット
(Magnet for 8 pole)
4pole用マグネット
(Magnet for 4 pole)
(2pole changing relay for elevation foot pedal)
1回分出しリレー
(Relay for A.T.C. one action)
(Prevention of continuous A.T.C. One action)
(Instruction for A.T.C. finish)
厚過ぎ指令
(Too Thickness instruction)
正常厚指令
(Normal Thickness instruction)
(Reverse → Forward Timing)
(Reverse → Forward relay)
正転指令
(Forward instruction)
(Thermal trip)
(motor for feed)
(motor for head up down)
変圧器
(トランス)
(Transformer)
電源ランプ
(lamp of power source)
(Brake power source)
ブレーキ電源
(Photo Switch amplifier for workplace detecting)
カウンター
Counter
カウンター VR
(Counter VR for thickness control)
HD-110M2
T-R
SSW1



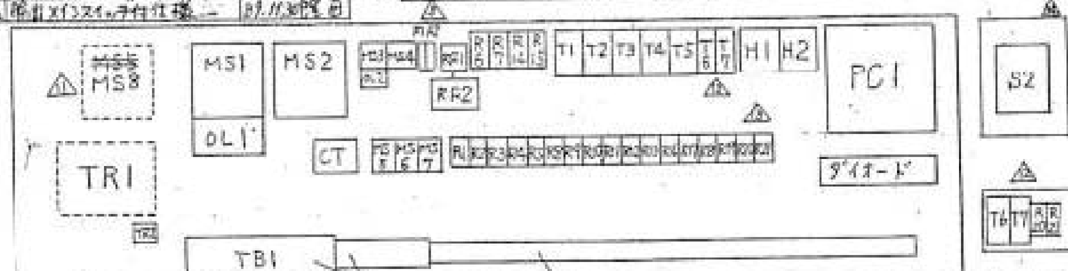
ダイオード (Diode)
カウンター (寸出し用) (Counter for thickness - Control)
停止用押釦 (Push button for stop)
停止用フットスイッチ (Foot switch for stop)
送り正転マグネット (Magnet for forward feeding)
メインリレー (Main Relay)
正転ストップリレー (Forward Stop Relay)
正転→逆転タイミング (Forward → reverse timing)
送り逆転マグネット (Reverse feed magnet)
上昇分調整 (Adjustment of up degrees)
上昇分リレー (Relay for up degrees)
打ち抜き角タイミング (Timing for picking up)
回数カウントリレー (Count relay)
逆転ストップタイミング (Reverse stop timing)
逆転ストップリレー (Reverse stop relay)
Lighting 投光 Light receiving 受光
H1
H2
PC1
PW1
A 自動返送 (Auto return)
B 一方正片送り (Forward only)
C 往復繰返し (Return to repeat)
※ タイマー設定時間 (単位:秒) Timer (second)
T1 : 2.5 [正→逆] (Forward → Reverse)
T2 : 任意 [上昇] option [UP]
T3 : 1.5
T4 : 任意 (逆転停止) option (reverse feed stop)
T5 : 2.5 [逆→正] (Forward → Reverse)
(For Japan)
200V ONLYは端子
220V
380V (440V)
(200V)
LSW1
PW1
M1, B1
B2
LSW3A
H1
H2
LSW3B
LSW4
LSW2
CONTROL BOX
59.4.12
株式会社 丸仲鐵工所
SL-350V
スライサー
E125018

E 30041

項番	部品名	文字記号	形式	個数	メーカー
69	マグネットSW	MS1	SW-3N/3H 15KW	1	フジ
70	マグネットSW	MS3.4	SRC3938-06RM/3H 1.5kW	1	フジ

項番	部品名	文字記号	形式	個数	メーカー	備考
1	マグネットスイッチ	MS1	SW-3 15KW	1	フジ	
2	〃	MS2	SC-3	1	〃	
3	〃	MS3.4	SRC3938-06RH 1.9kW	1	〃	4a2b
4	マグネットスイッチ	MS5~7	SRC3631-0 (2a1b)	(3)	〃	重電圧
~~5~~	~~リレー~~	~~R1.2.4.6~~	~~HH54P ソケット金具付~~	~~11~~	~~〃~~	
~~6~~	~~〃~~	~~R3~~	~~SRC50-2U~~	~~1~~	~~〃~~	~~5a1b~~
~~7~~	~~〃~~	~~R5~~	~~SRC50-2U~~	~~1~~	~~〃~~	~~4a2b~~
~~8~~	~~〃~~	~~R7.8~~	~~SRC50-2P~~	~~2~~	~~フジ~~	
~~9~~	~~リレー~~	~~R15~~	~~G2A432A ソケット金具付~~	~~1~~	~~立石~~	
~~10~~	~~タイマー~~	~~T1~T4~~	~~STP-N(S) ソケット金具付~~	~~4~~	~~〃~~	
~~11~~	~~タイマー~~	~~T5~~	~~DTS (1S) ソケット金具付~~	~~1~~	~~立石~~	
12	ヒューズ	F1.F2	F-10 3Aガラス管ヒューズ付	2	キムデン	
13	カムスイッチ	CS1	R310-1M3400HB	1	フジ	
14	押ボタンスイッチ	PB1	ABN3K01R	1	和泉	
15	押ボタンスイッチ	PB2	ABS-11B	1	和泉	
16	セレクトスイッチ	SSW1	AH25-P2B20	(1)	フジ	FKソルタト
17	〃	SSW2	AH25-P2B11	1	〃	
~~18~~	~~セレクトスイッチ~~	~~SSW3~~	~~AH25-P3B11~~	~~1~~	~~フジ~~	
19	スナップスイッチ	SP1	S-301-T 銘板付	1	日開	
~~20~~	~~リミットスイッチ~~	~~LSW1~4~~	~~D4MC2020~~	~~5~~	~~立石~~	
21	パイロットランプ	PL1W	AH25-ZMWM	1	フジ	
22	パイロットランプ	PL2R	AH25-ZMRM	1	フジ	
~~23~~	~~光電管~~	~~H1~~	~~OPE-A42, OPE-S100~~	~~1~~	~~〃~~	
24	光電管	H2	OPE-A, OPE-S3A(DAC-11K)	1	オムロン	
25	カウンター	PC1	KCB-2N ソケット金具付	1	光陽	
26	近接センサー	PROS1	SH-D 12/12 コード3m付	1	サムスン	
~~27~~	~~カウンター~~	~~PC2~~	~~H7A-T4M~~	~~(1)~~	~~立石~~	~~PC2付~~
~~28~~	~~電流計~~	~~A1~~	~~TI-60A-A-120A~~	~~1~~	~~三咲~~	
29	ブレーキ電流	RA1	HD-100M	1	大崎	
30	ブレーキ電流	RA2	HD-110M2	1	大崎	
31	トランス	TR1	TI-B-60	(1)	三咲	輸出
32	トランス	TR2	PT-3 200/100V	1	三咲	
33	ダイオード		1S2076	16	日立	
34	ラグ板		CH 24P	1	昌和電気	
35	リレー	R19	HH54P ソケット金具付	(1)	フジ	PCスイッチ全自動付
36	端子台	TB1	150A×7P+15A×7P+7A×95P	1	春日	
37	デジカウンター		CLX-002 (プリセット,カバー付)	1	武藤	
~~38~~	~~変流器~~	~~CT~~	~~CC-SR120AT~~	~~1~~	~~三咲~~	
39	ロータリースイッチ	RS1~4	R-2210	4	アルプス	
40	ツマミ		K-3061	4	アルプス	
~~41~~	~~カウンター~~	~~C1~~	~~H7A-D2 ソケット付~~	~~1~~	~~立石~~	
42	マグネットスイッチ	MS8	SC-3	(1)	フジ	FK
~~43~~	~~リレー~~	~~R16.18~~	~~HH54P ソケット金具付~~	~~(2)~~	~~フジ~~	~~重電圧~~
44	押ボタンスイッチ	PB3	ABS-111G	(1)	和泉	FK
45	リレー	R1~4.6.7 11~13.16~18	HH54P ソケット金具付	11	フジ	
46	〃	R5	G2A432A ソケット金具付	1	オムロン	
47	〃	R6	SRC50-2U 5a1b	1	フジ	
48	〃	R7	SRC50-2U 4a2b	1	〃	
49	〃	R10.12	HH54P ソケット金具付	2	〃	重電圧
50	リレー	R14.15	SRC50-2P	2	フジ	
51	タイマー	T1,3~5	STP-N(S) ソケット金具付	4	オムロン	
52	タイマー	T2	DTS (1S) ソケット金具付	1	〃	
53	リミットスイッチ	LSW1~3	D4MC2020	4	〃	
54	リミットスイッチ	LSW4	WLCA2-2N	1	〃	
55	カウンター	C1	H7A-T4M	1	〃	
56	カウンター	PC2	H7A-2D	1	オムロン	PC2付
~~57~~	~~セレクトスイッチ~~	~~SSW3~~	~~AH25-P6B11/6115~~	~~1~~	~~フジ~~	
58	フットスイッチ	FSW1~5	SF-1	5	竹内	
59	光電管	H1	OPE-A, OPE-S100	1	オムロン	
60	コンセント	CON1	WA3215	1	松下	
61	セレクトスイッチ	SSW3	AH25-P6B20/6115	1	フジ	
62	電流計	A1	QLIAT1205	1	春日	
63	変流器	CT	CTU023B	1	春日	
64	リレー	R20.21	MY-2 ソケット金具付	2	オムロン	
65	タイマー	T6.7	ST3P 1秒 ソケット金具付	2	フジ	
66	リレー	R20.21	HH52P ソケット金具付	2	〃	
67	タイマー	T6.7	ST-5P 1秒 ソケット金具付	2	フジ	
68	メインスイッチ	S2	13-63/1/DVB+2×ST821	1	クロ―ブナー	輸出MSW付

輸出メインスイッチ付仕様 — 59.11.30 改図



訂番	訂正記事	年月日	氏名
△	R20.21,T6.7 追加	S62.8.11	伴野
△	R20.21,T6.7 追加	S62.8.11	伴野
△	文字記号変更 MS5→MS8	S62.3.17	伴野
△	電流計変更	S61.2.21	伴野
△	記入ミス	S60.12.10	伴野
△	端子番号追加	S60.11.29	伴野
△	部品表 コンセント追加	S60.11.29	伴野
△	H1 変更	S60.10.2	伴野
△	SSW3 変更	S60.10.28	伴野
△	記入ミス	S60.10.28	伴野
△	配置図 F1,F2,RA2追加(記入ミス)	S60.10.14	伴野
△	端子台 E 2ヶ所 追加	S60.10.14	伴野
△	記入ミス	S60.10.14	伴野

製図	検図	承認
S60.1.11 伴野	S60.1.11 望月	

株式会社 丸仲鐵工所

品名	図番
SL-350V	E 30041