

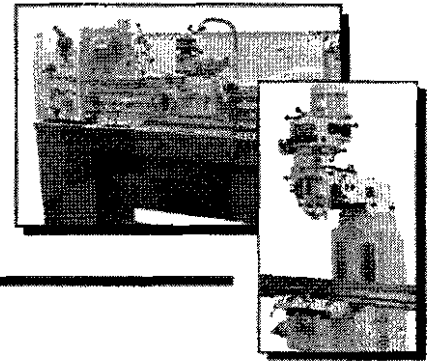


MACHINERY DIVISION

6465 18 MILE ROAD
STERLING HEIGHTS, MI 48314

PHONE:
(586) 731-3600 • 1-800-860-1740

FAX:
(586) 731-7464 • 1-800-862-1740



MODEL RD-750 DRILL PRESS

THANK YOU FOR PURCHASING WITH KBC MACHINERY. ALL KBC MACHINES ARE BACKED BY OUR 1 YEAR PARTS REPLACEMENT WARRANTY. WHEN USED AS INTENDED, AND WITH PROPER MAINTENANCE THIS MACHINE WILL PROVIDE YOU WITH YEARS OF TROUBLE-FREE SERVICE. IF YOU NEED PARTS SIMPLY FILL OUT THE PARTS REQUEST FORM, AND FAX OR E-MAIL YOUR REQUEST. ALL OTHER QUESTIONS PLEASE CONTACT US @ :

**KBC MACHINERY
6465 18 MILE ROAD
STERLING HEIGHTS, MI 48314
PH (800) 860-1740
FAX (800) 862-1740
MACHINERY@KBCTOOLS.COM
WWW.KBCTOOLSANDMACHINERY.COM**



PARTS REQUEST FORM

YOUR COMPANY NAME:

STATE/PROVINCE

YOUR NAME

PHONE # + EXT

FAX #

MACHINE INFO:

MAKE/MANUFACTURER

MODEL NUMBER

YEAR MADE

SERIAL#

PARTS REQUESTED:

PART#

DESCRIPTION

PLEASE INCLUDE COPY(S) OF THE PARTS DRAWING FROM THE
MANUAL AND CIRCLE THE PARTS NEEDED

FAX PARTS REQUEST TO (800) 862-1740

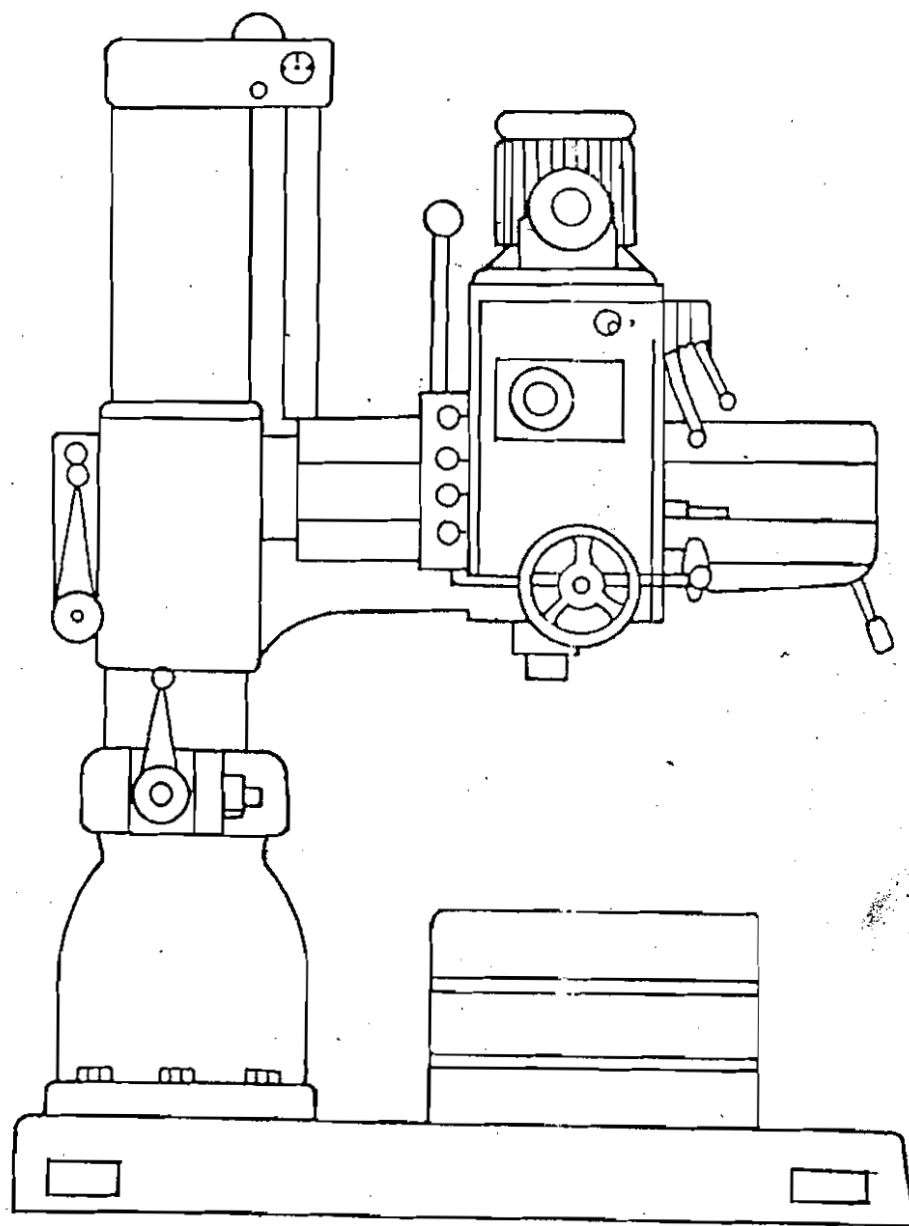
E-MAIL PARTS REQUEST TO: machinery@kbctools.com

THANKS; KBC MACHINERY - MICHIGAN

RD-750 FILE COPY

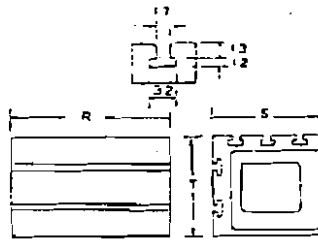
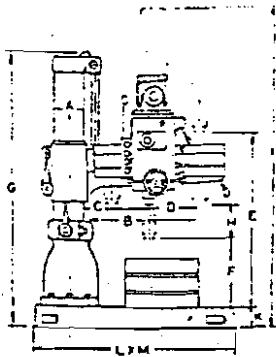


TONE FAN



Radial Drills TF-750 900

OPERATION AND MAINTENANCE LIST

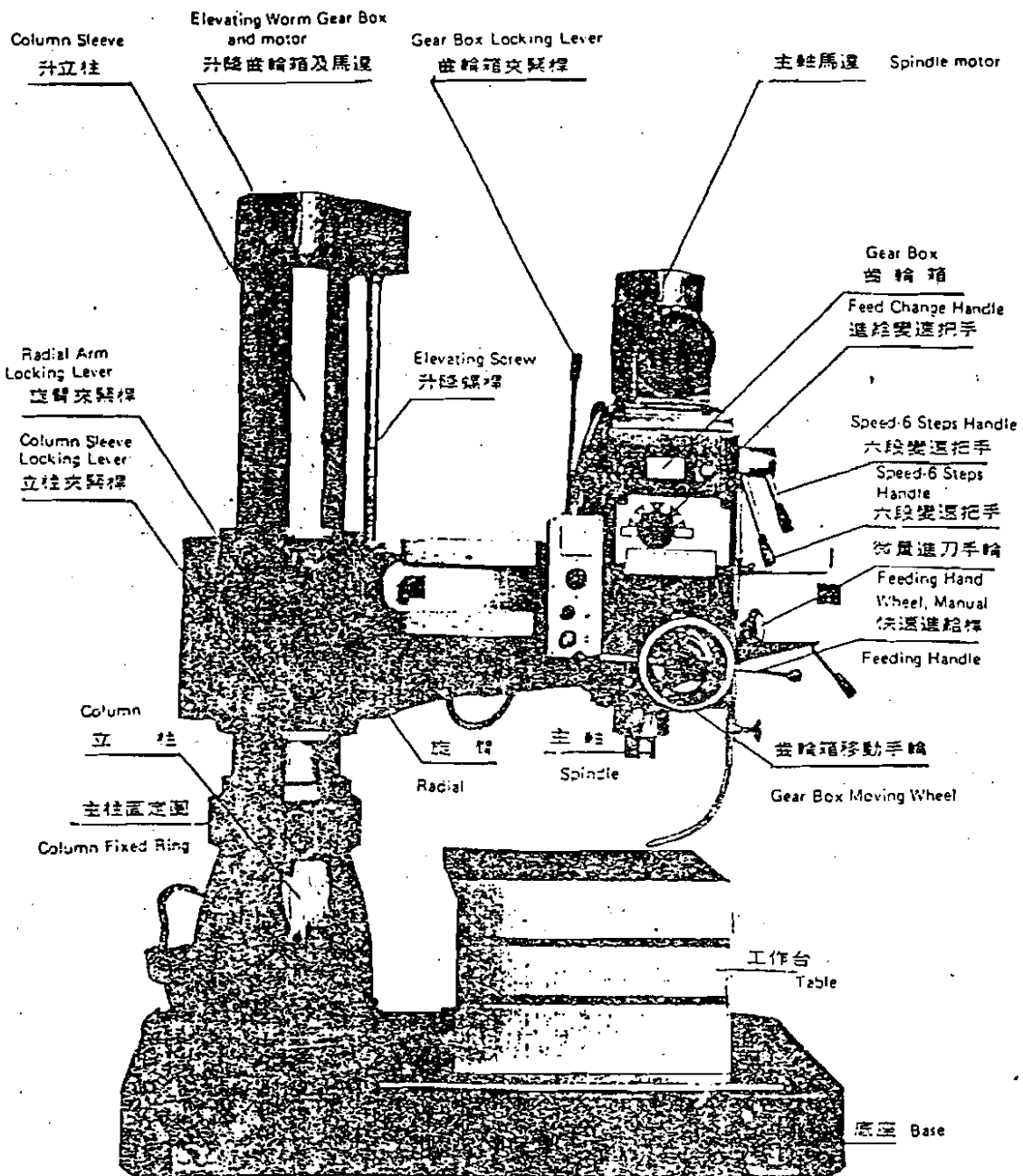


* Standard accessories
 Tools.....1set
 Cooling pump.....1set
 Lamp.....1set
 Table.....1set

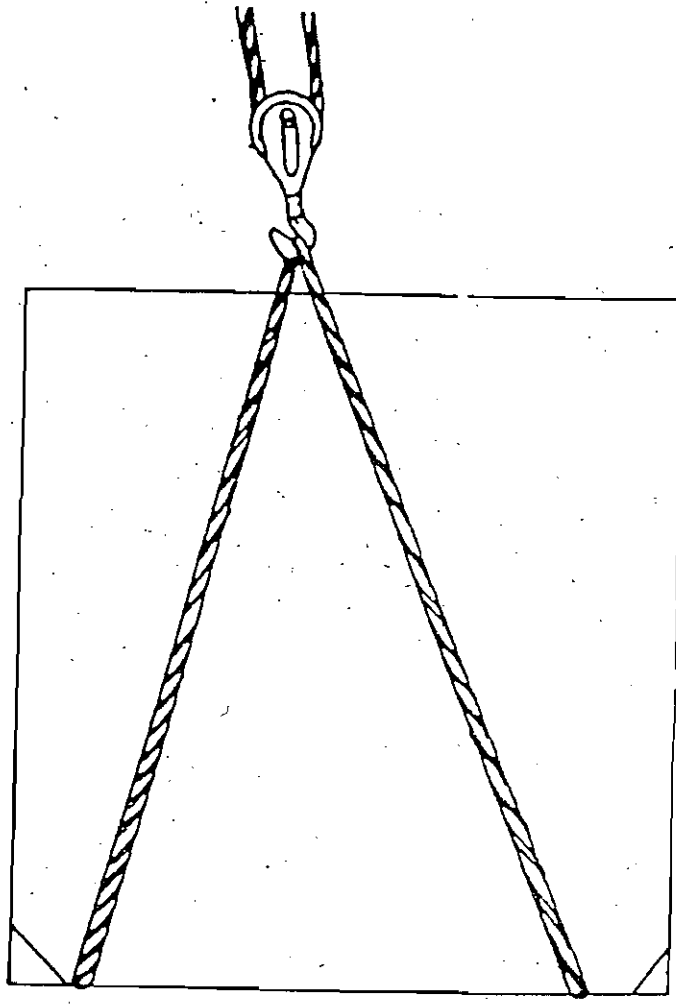
ITEM	型式	MODEL	TF-750	TF-900
Capacity 最大工作能量	Drilling 鑽孔	Steel 鋼	∅38(1½")	∅38(1½")
		鑄鐵 Cast iron	∅50(2")	∅50(2")
	Tapping 攻牙	Steel 鋼	∅19(¾")	∅19(¾")
		鑄鐵 Cast iron	∅25(1")	∅25(1")
	Boring 鏜孔	Steel 鋼	∅75(3")	∅75(3")
		鑄鐵 Cast iron	∅105(4½")	∅105(4½")
Spindle Stroke 三柱上下行程	(H)		200(7¾")	200(7¾")
Size of Morse Taper 三柱孔莫氏錐紋番號			NO.4	NO.4
Spindle Speed 三柱變速			88-1500(6)	88-1500(6)
Spindle Feeds 三柱進給範圍			(0.05, 0.09, 0.15) 0.002", 0.0035", 0.006"	(0.05, 0.09, 0.15) 0.002", 0.0035", 0.006"
Column Diameter 立柱直徑	(A)		210(8¼")	210(8¼")
Max. Distance, Column Surface Spindle Center 立柱表面至柱中心最大距離	(B)		760(29¾")	910(36")
Min. Distance, Column Surface Spindle Center 立柱表面至柱中心最小距離	(C)		215(8⅝")	215(8⅝")
Horizontal Travel of Headstock 三柱頭架左右移動行程	(D)	(D)	545(21¼")	650(26")
Max. Distance, Base to Spindle 底座至三柱最大距離	(E)		1110(43¾")	1110(43¾")
Min. Distance, Base to Spindle 底座至三柱最小距離	(F)		282(11¼")	282(11¼")
Motor For dampine device 液壓動作馬達				
Overall Height of Colum 機床全高	(G)		1850(72¾")	1850(72¾")
Machine Height From Floor 機床最大高度	(I)		2175(85¾")	2175(85¾")
Dimensions of Base(LxWxK) 底座尺寸			1285x640x150mm	1435x640x150
Effective Area of table(RxSxT) 工作台面面積			485x400x350	485x400x350
Spindle Drive Motor(HP) 三柱驅動馬達			2HP	2HP
Arm Elevation Motor(HP) 旋轉驅動馬達			1HP	1HP
Coolant Pump(HP) 冷卻泵馬			½HP	½HP
Net Weight-Approx(kg) 淨重			1100kg	1170kg
Gross Weight-Approx(kg) 總重			1200kg	1270kg
Measurement (LxWxH) 裝箱尺寸			• 56"x33"x80"	63"x33"x80"

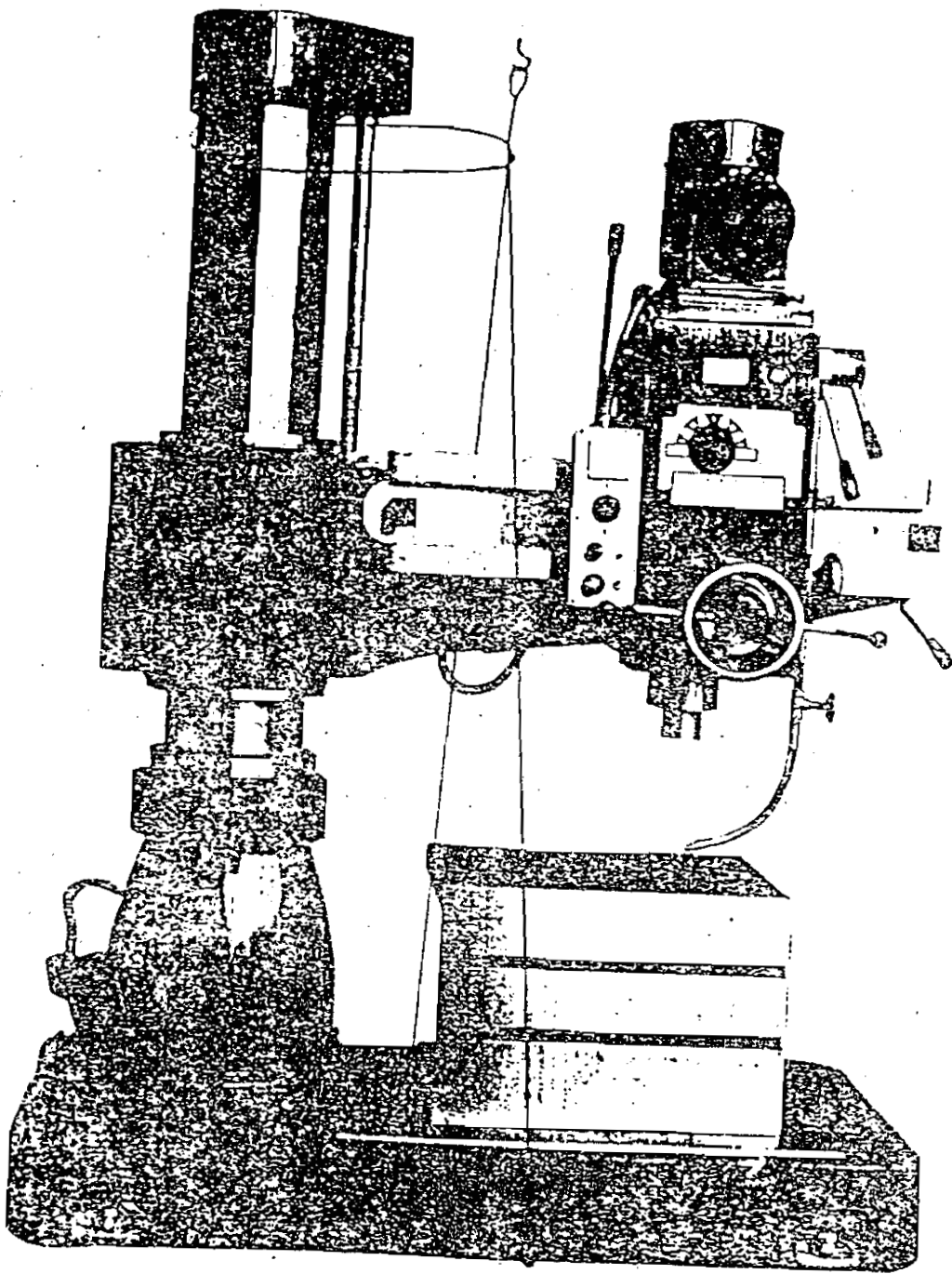
SPECIFICATION

	Drilling	Steel	φ38 (1 1/2")
		Cast iron	φ50 (2")
Capacity	Tapping	Steel	φ19 (3/4")
		Cast iron	φ25 (1")
	Boring	Steel	φ75 (3")
		Cast iron	φ105 (4 1/8")
Spindle Stroke			200 (7 3/4")
Size of Morse Taper			No. 4
Spindle Speed-6 Steps			88,154,282,455,796,1500
Spindle Feeds			0.05 0.09 0.15
			(0.002") (0.0035") (0.006")
Column Diameter			210 (8 1/4")
Max, Distance, Column Surface to Spindle Center			760 (29 7/8")
Min, Distance, Column Surface to Spindle Center			215 (8 7/16")
Horizontal Travel of Headstock			545 (21 7/16")
Max, Distance, Base to Spindle			1110 (43 3/4")
Min, Distance, Base to Spindle			282 (11 3/32")
Vertical Travel of Arm			635 (25")
Overall Height of Column			1850 (72-7/8")
Machine Height From Floor (Max)			2175 (85-11/16")
Dimensions of Base			1300x650x150
			(51 3/16"x25 5/8"x5 7/8")
Effective Area of Table			500x405x350
			(19 5/8"x16"x13 3/4")
Spindle Drive Motor (HP)			2
Arm Elevation Motor (HP)			1
Coolant Pump (HP)			(1/8)
Net Weight-Approx (kg)			1150
Gross Weight-Approx (kg)			1350
Measurement			1450x900x1950
			(57"x35 7/16"x76 3/4")



搬運





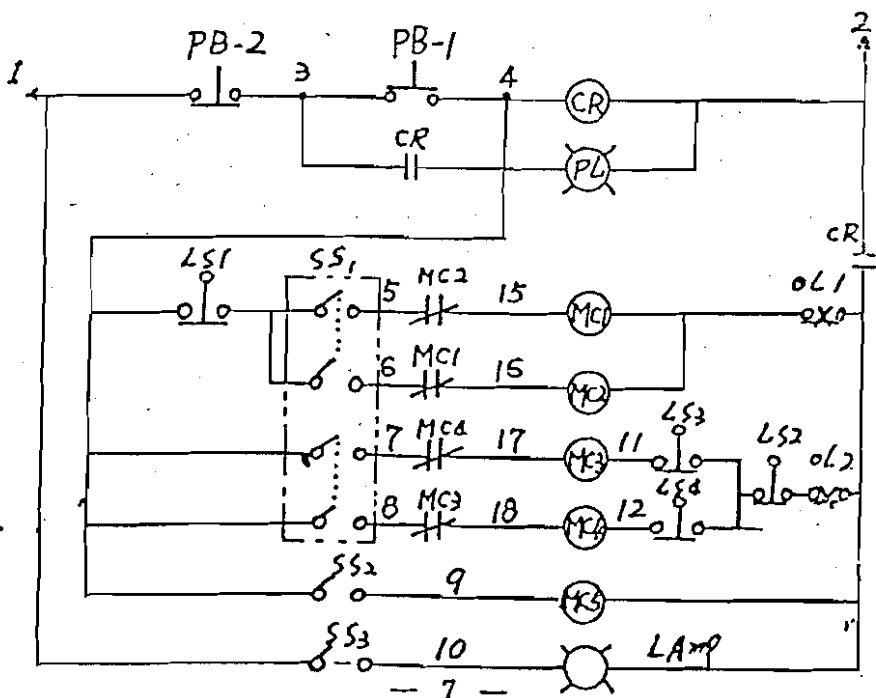
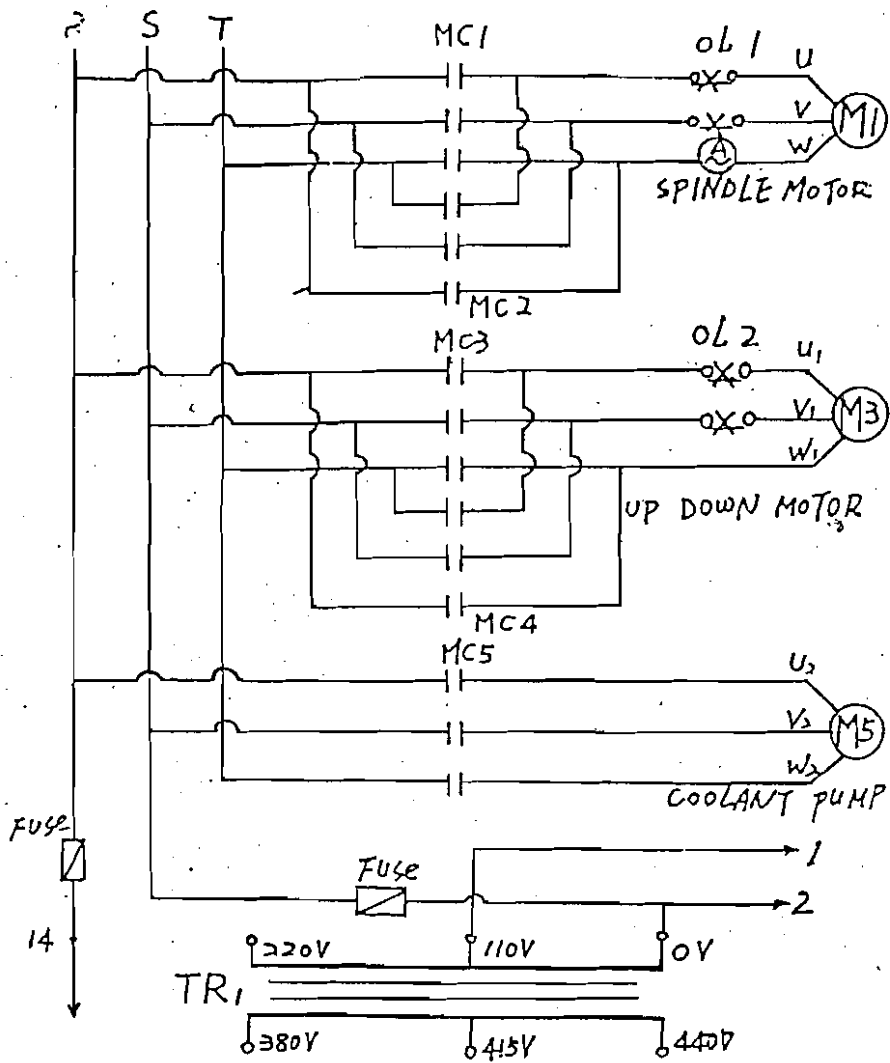
Erection and Test Run

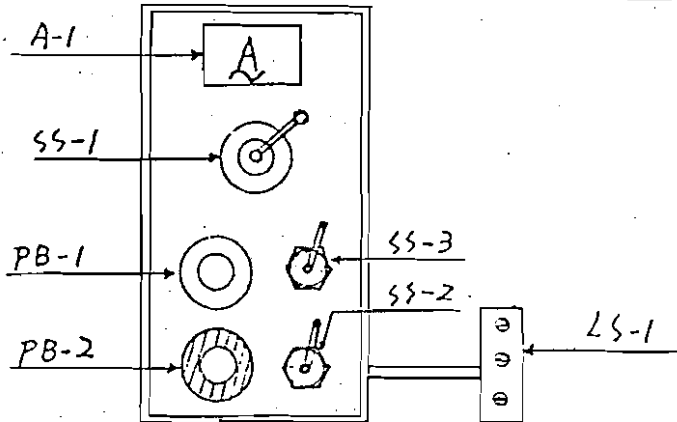
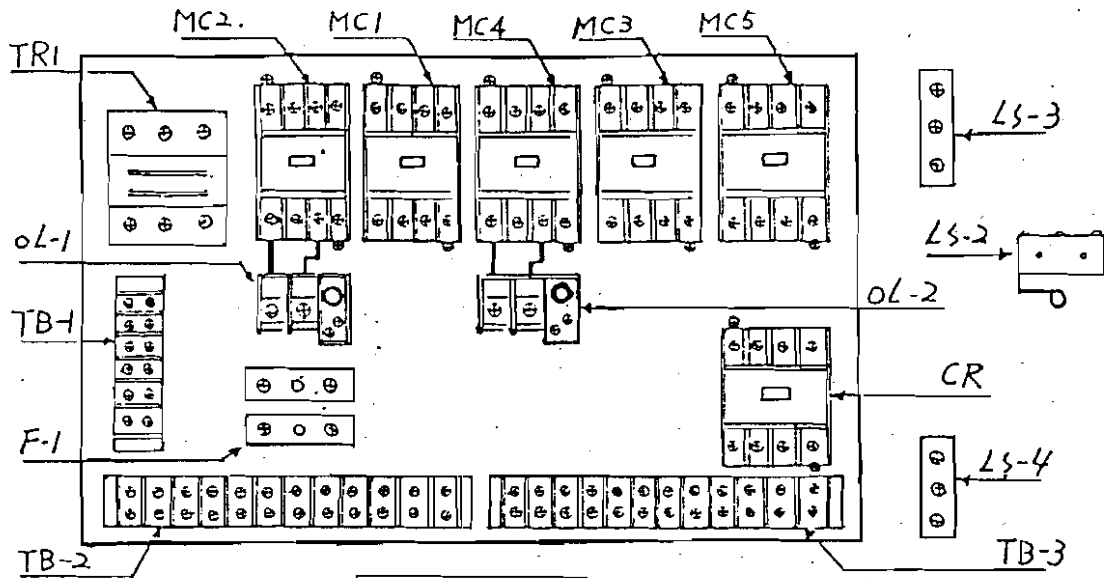
After moving machine to erecting place, pursuant to following order operates:

1. As level shows, Through screw bolt adjusting seat's front, rear, left and right in 0.1mm.
2. Keep level, lock nut of bolt.
3. Discharge each part's fixation.
4. To wipe sliding surface, coat with slushing oil.
5. After cleaning each part, to oil according to oil scale, completing preparatory actions before testing.

Operating order of test run:

1. To wipe dust and oil slushing oil on machine, then daubing one layer of engine oil.
2. Switch power supply. (refer to picture 3)
3. Oil enough lubricant oil on each part.
4. First operating rotation part by hand, then start motor and turning each part in turn. Check the limitation of automatic stop of rotation part.
5. Examine whether lubricating path is good.
6. Main shaft rotates at high revolving speed for ten minutes. Check the rise situation of temperature of bearing.
7. Pay attention to each part whether bad situation occurs or not.

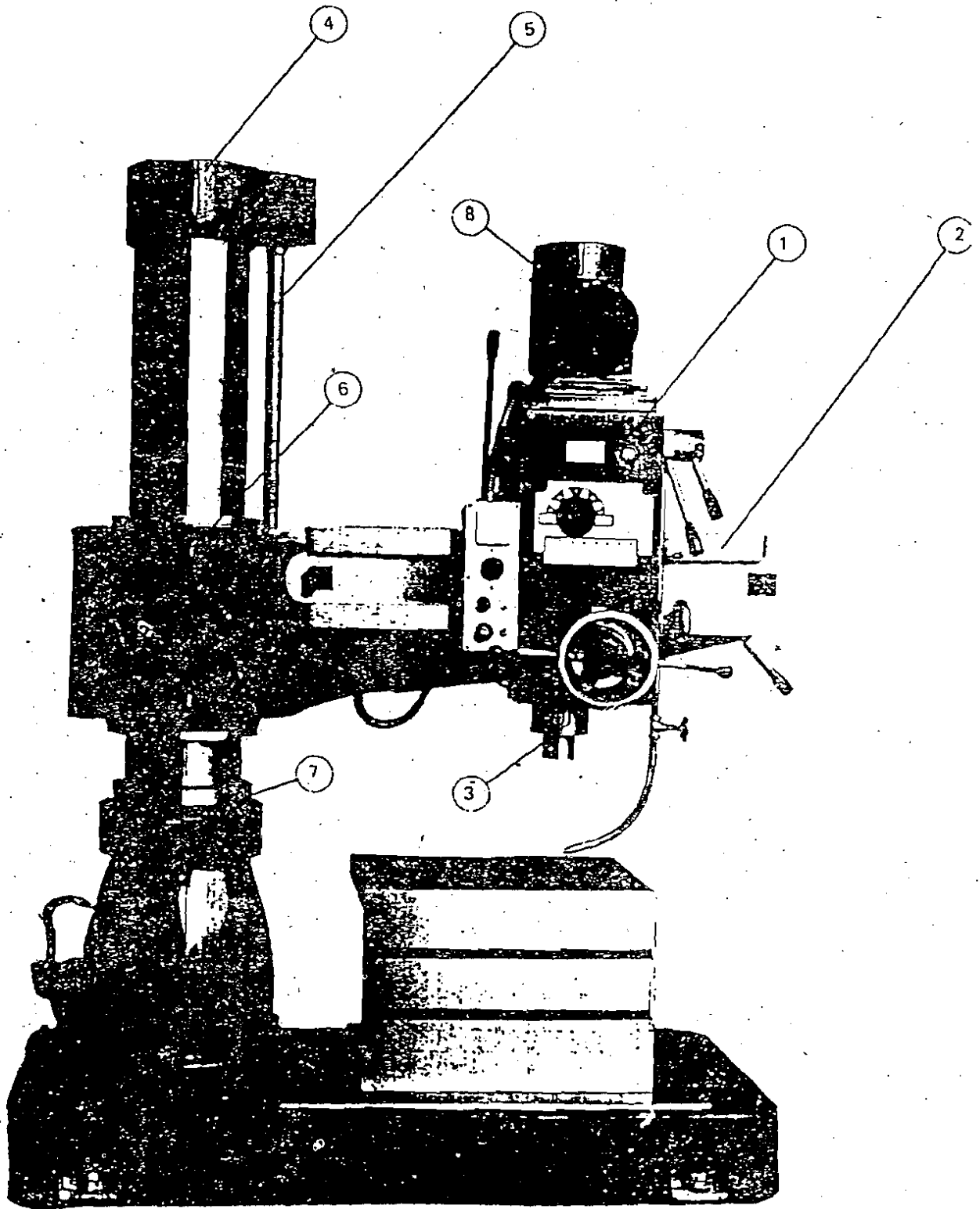




NO.	Item
MC1	Magnetic Contactor
MC2	Magnetic Contactor
MC3	Magnetic Contactor
MC4	Magnetic Contactor
MC5	Magnetic Contactor
CR	Magnetic Contactor
TR1	Transformer
TB-1	Wire Connect Table Board
TB-2	Wire Connect Table Board
TB-3	Wire Connect Table Board
OL-1	Load-Relay
OL-2	Load-Relay
F-1	Fuse
A-1	Ammeter
PB-1	Starter
PB-2	Off-Switch
SS-1	4 Direction-Switch
SS-2	Coolant Switch
SS-3	Worklight On-Off Switch
LS-1	Microswitch AM-1308
LS-2	Microswitch AM-1704
LS-3	Microswitch AM-1308
LS-4	Microswitch AM-1308

Lubrication Maintenance (picture 4)

Maintenance Parts	Proper Oil	Time	Methods
1. Gear Box	OB32 AW68	Yearly Twice	Exchanging Oil
2. Radial Arm Slide Surface	G32 AW68	Monthly Once	Make Up
3. Spindle	Grease	Yearly Twice	Make Up
4. Worm Gear Box	OB32 AW68	Yearly Twice	Exchanging Oil
5. Elevating Screw	G32 AW68	Daily Once	Make Up
6. Column Sleeve Slide Surface	G32 AW68	Daily Once	Make Up



Operation

1. Starting and stopping of machine spindle:
Starting machine spindle to the position of right and reverse rotation, then stopping it.
2. Changing speed and measure of feed of machine spindle:
Use the diameter of drill according to material of processed products. Choose proper speed and measure of feed.
3. Establishing processing depth:
Matching magnitude wanted with scale plate. Fixing with handle.
4. Moving gear housing:
Moving the front and operating with handle after revolving gear housing.
5. Radial Arm lift:
Operating radial lift with cross control handle switch. It indicates up, stop and down from the top to the bottom of the handle.
6. Safety gear:
 - a. Feed of Machine spindle:
Overload of self feed. Stopping sliding feed through spherical clutch.
 - b. Upper limit of machine spindle:
Cutting power supply through microswitch.
 - c. Lower limit of machine spindle:
Withdrawing self feeder through arm and feeding through running idle.
 - d. Radial arm lift:
Equipping upper limit and lower limit with limit switch to cut off lift motor electrical return.
 - e. Motor overload:
Each motor return is equipped with lead wire. Cutting off return immediately when it overloads.

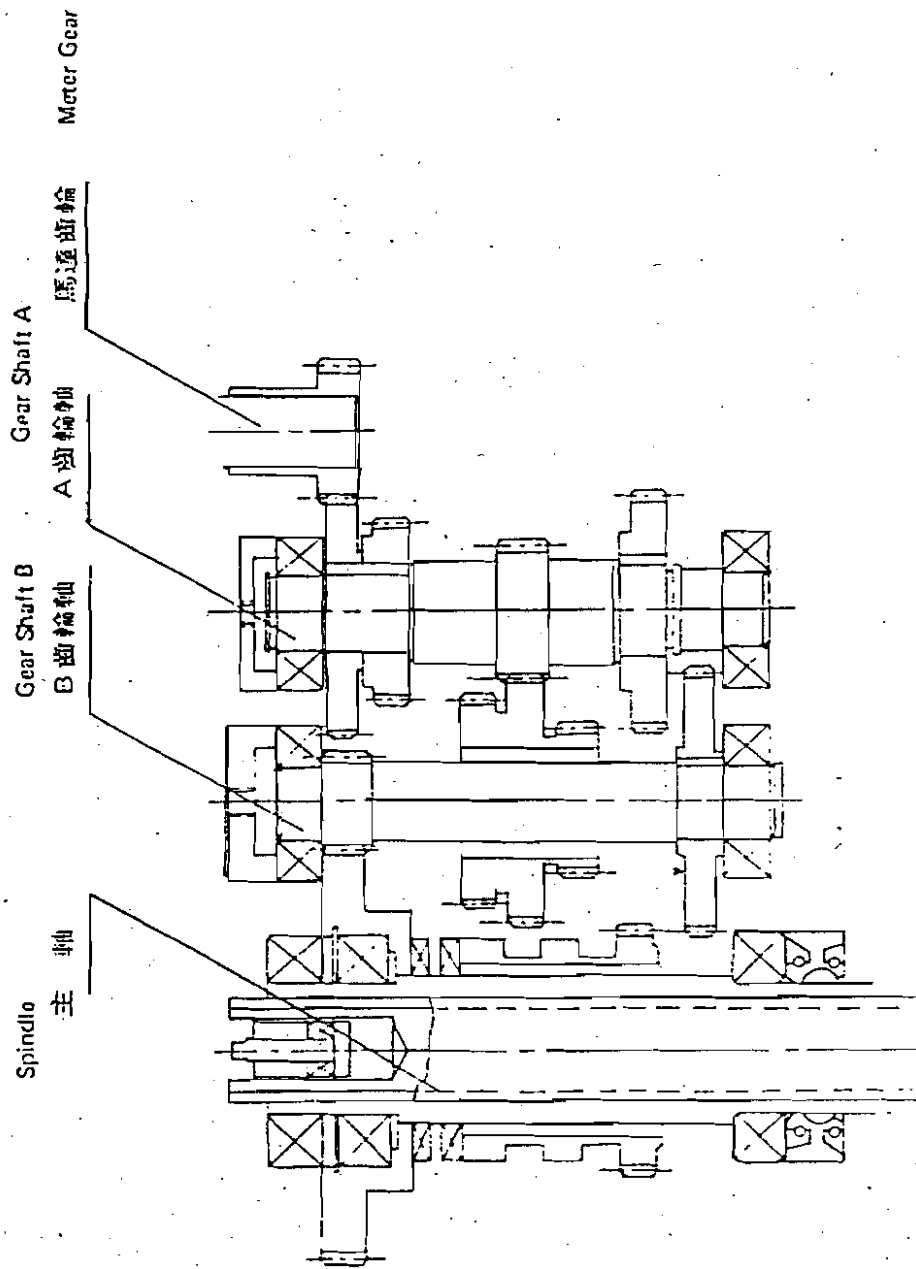
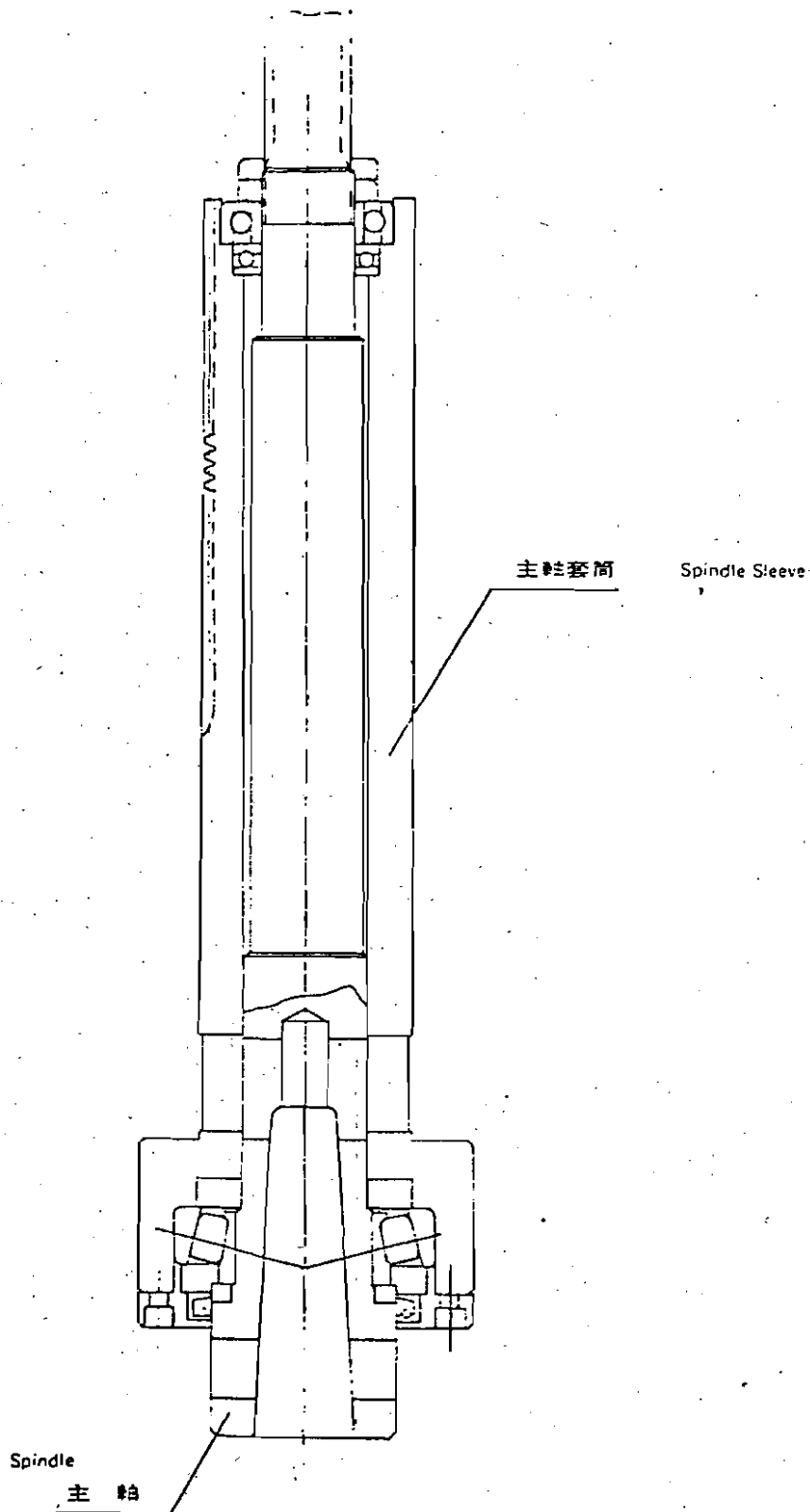


圖 5 Picture 5



Picture 6
圖6

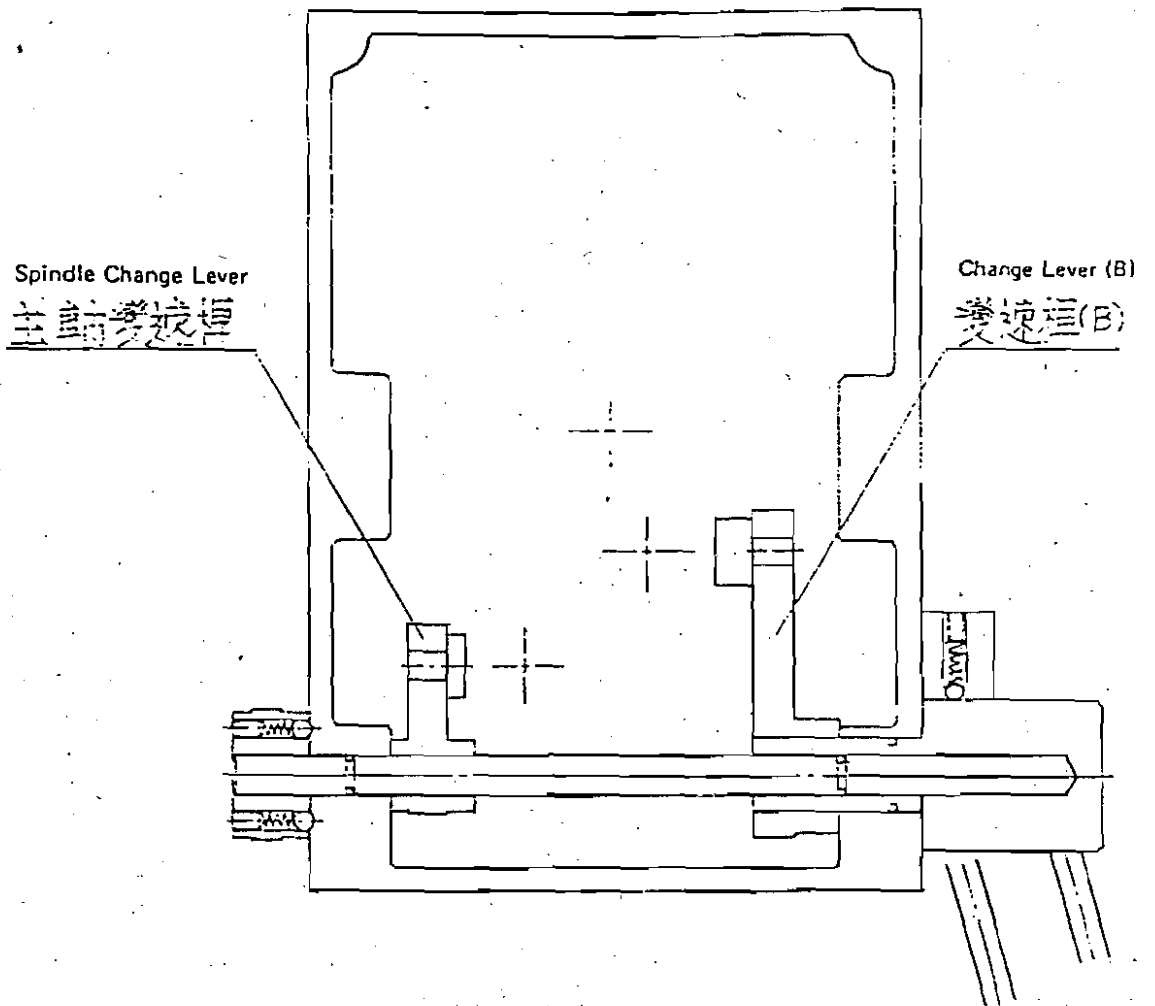
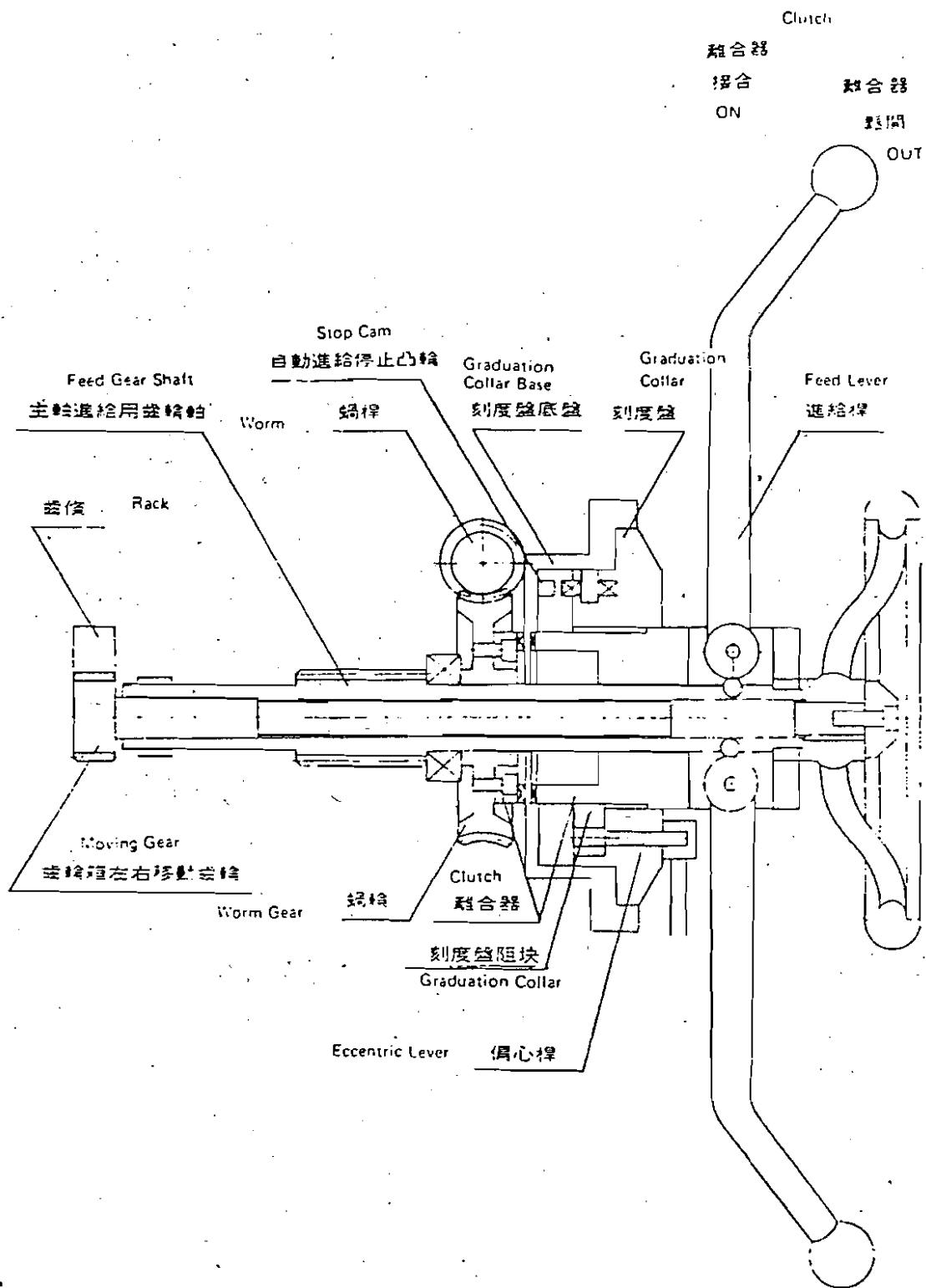


圖 7 Picture 7



Picture 8
 圖8

Adjustment

Adjustment is to make machinery manifest its most perfect action under good condition. So, do not adjust without authority. If need to adjust, you should perform according to the following carefully.

1. Adjusting gapping place and clamp measure of radial arm. (Refer to picture 9)
Adjusting gapping place with regulating bolt, but must not let motor overload.
It could be adjusted to be loose or tight through front or rear of knob handle.
2. Loosening or tightening stand pillar (Refer to picture 10) It could be loosened or tightened through forward or backward action of knob handle.
3. Fixing loosening or tightening of gear housing and adjusting gapping place of gear housing and radial sliding rail (Refer to picture 11)
It could be loosened or tightened through forward or backward action of knob handle.
Could adjust gapping place with regulating screw.

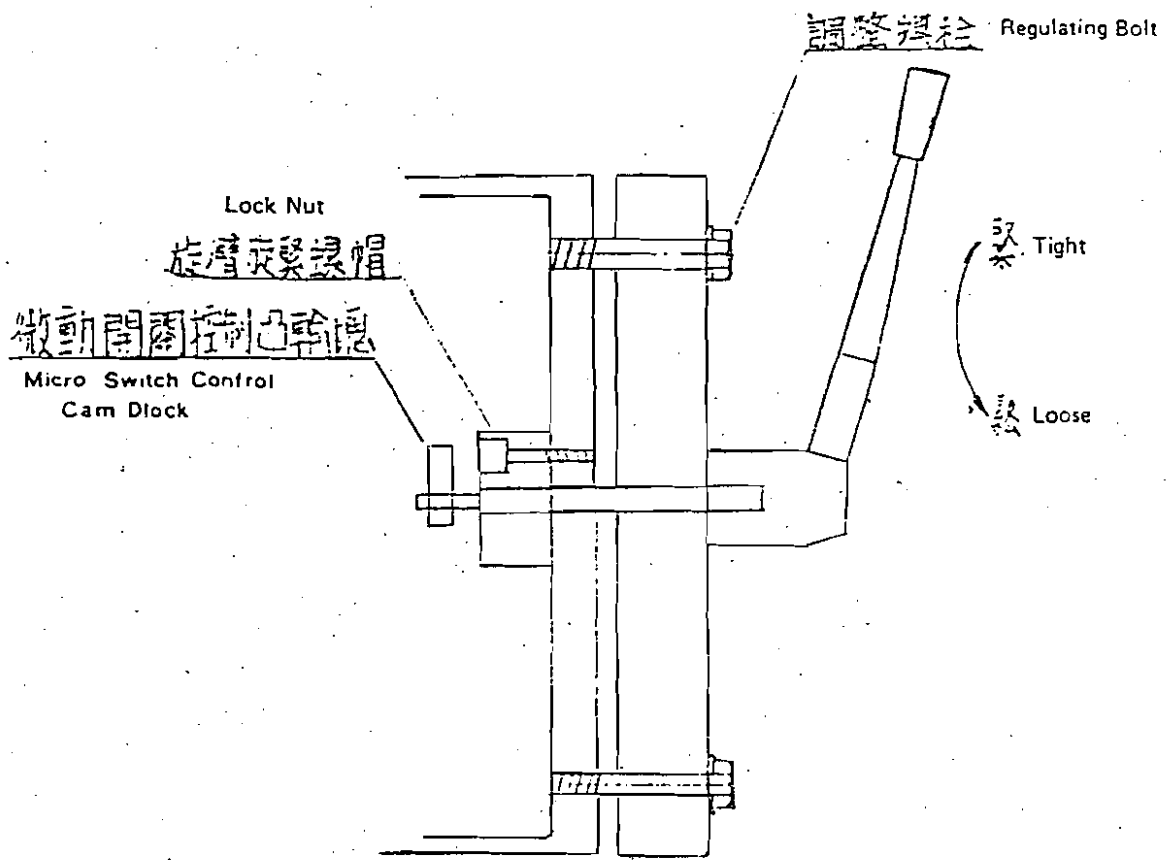


圖 9 Picture 9

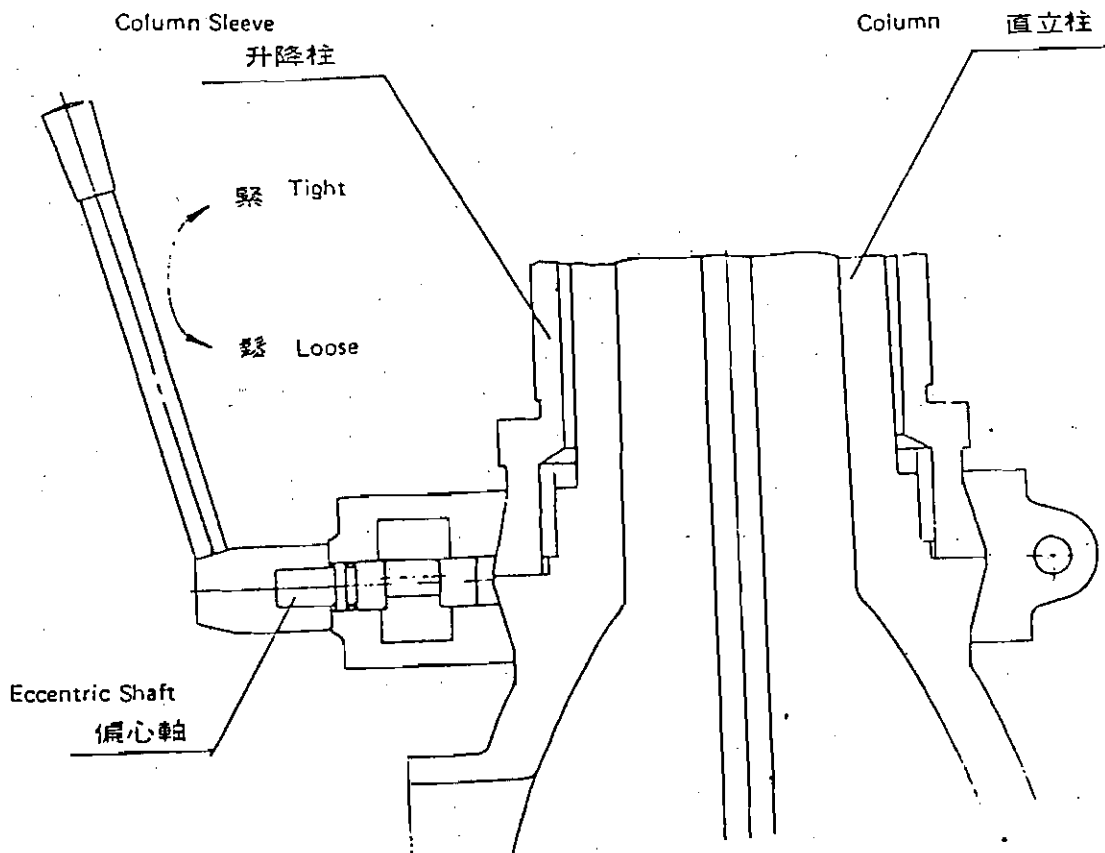
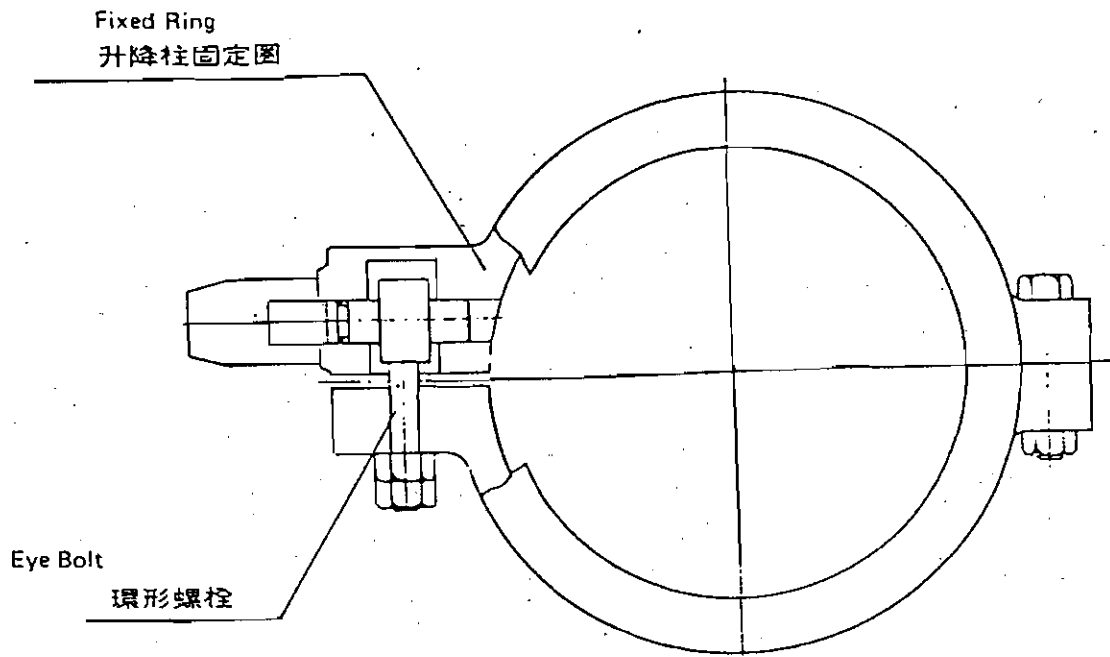


圖10 Picture 10

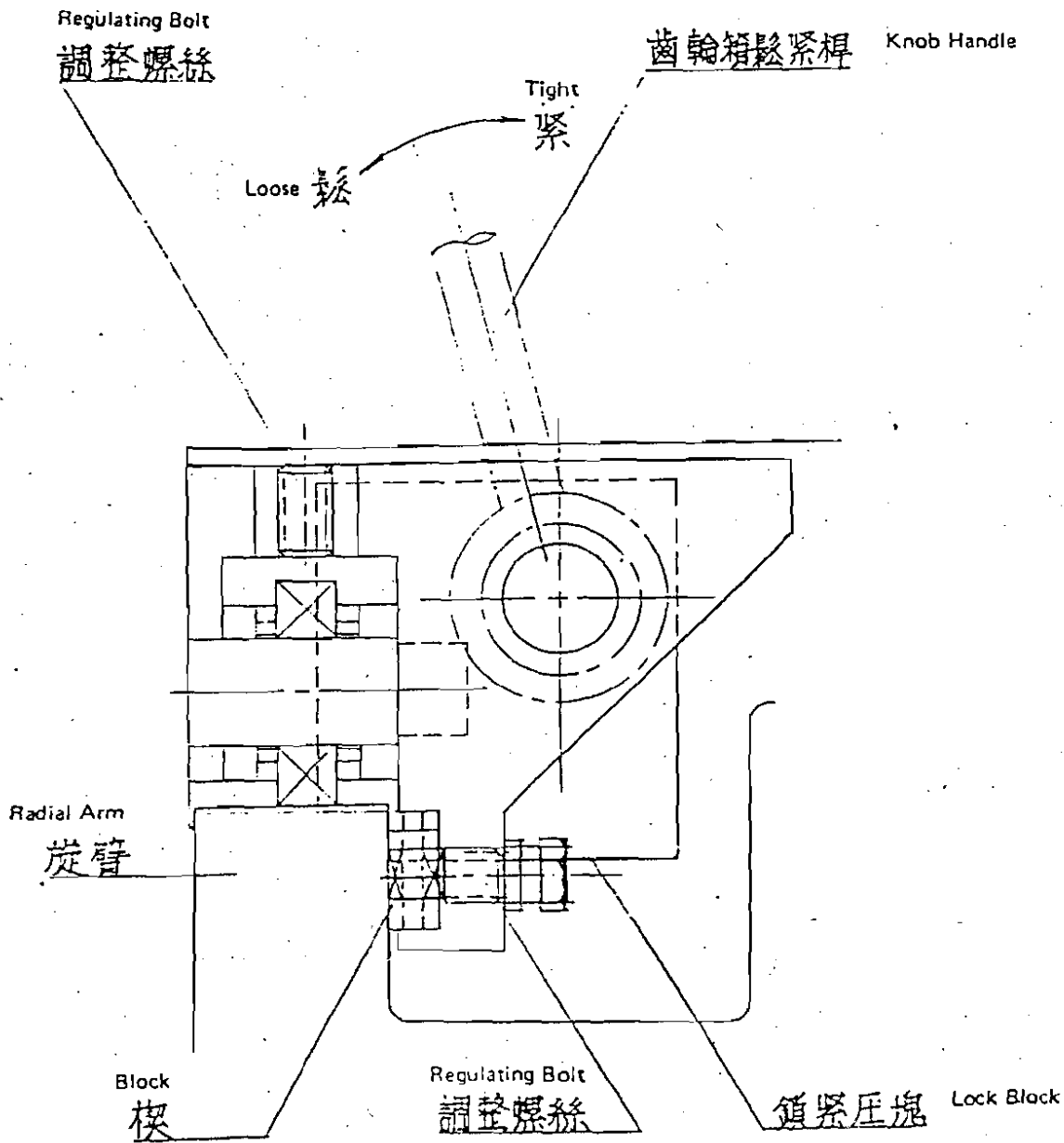


圖11 Picture 11

Maintenance

1. Daily inspection:

Inspection items:

1-1 inspection before working:

- a. If machine is clean.
- b. If the lubricant oil is enough.
- c. If the joint of each turning and movable parts is proper tightness.

Methods of inspection and Treatment:

- @ There are not dust and iron residue to pile on each sliding surface of machine, articles also are not allowed to put on sliding surface. In order to avoid hindering the sliding or rotation of each parts. To wipe dust on the parts for preventing rust.
- @ To regulate daily oil place. (Refer to picture 4)
- @ Pushing by hands for inspecting the situation of radial arm turning and gudgeon transverse move. Too loose or tight joint should be adjusted.

1-2 Inspection before starting motor:

- a. If electricity control is punctual.
- b. If the machine control is sensitive and dependable.
- c. If the noise and vibration are not over limitation.
- d. Cooling system
- e. Lubricant path

Methods of inspection and Treatment:

- @ Moving the starting lever to the position of right, reverse rotation. Check the gyration and lift actions of main shaft. Test-push the closed button. Inspecting the table stiffness, right and reverse rotation, starting and stop operation and pilot lamp etc.
- @ To recognize micro-switch action of the right, reverse rotation control lever, automatic feed control lever and transmission control lever of main shaft.
- @ Put the running idle into operation under limit of main revolving speed and rate of feed. Examine if the noise and vibration are over limit.
- @ Inspect cooling liquid, start motor, examine if there is leakage on path.
- @ Inspect the lubricant oil whether it flows into lubricant places or not.

1-3 Inspection during working:

- a. Bearing temperature
- b. Motor temperature
- c. Noise and vibration
- d. Products' quality
- e. Safe item

- @ Touch bearing by hand to inspect its temperature.
- @ It is needed that to inspect motor temperature during high loading cutting.
- @ Stop running while finding noise and vibration, and inspect causes.
- @ Finding product's quality changes, instantly check the causes.
- @ Stop running while leave machine on account of some reasons. It is needed that stop running while change revolving speed of main shaft or rate of feed. It is forbidden that to put tools or parts on sliding surface.

1-4 Inspection after working:

- a. Test the clutch installations.
- b. Clean tools.
- c. Return parts to former positions.
- d. Clean machine

- @ Put the clutch control lever on the position of running idle.
- @ Wipe and clean all tools, then put them on fixative places.
- @ Move the radial arm, gear case to the most suitable position and clamp them.
- @ Wipe and clean oil stains and chip on the machine. Also, coat with one thin layer of lubricant oil on sliding surface.

Methods of maintenance and treating:

- @ Test run again according to the methods of erecting machinery erecting machinery
- @ Inspecting accuracy of each item according to inspecting methods of drilling machine accuracy, and adjusting if not proper.
- @ Inspecting isolation of each motor and loose condition of motor bearing.
- @ Inspecting whether paint on machinery shells out or not. If shells out, makes it up at once.
- @ Inspecting whether the exposed parts are damaged, rusted or set or not. And fix them.

4. Half a yearly maintenance:

The following items be practiced periodically once half a year:

Maintenance items:

- a. Exchanging oil in gear housing
- b. Inspecting wear and tear condition of gear and ball bearings
- c. Inspecting each screw gapping place

Methods of maintenance and treatment:

- ⓐ Revolving oil leak cork of gear housing to liberate old oil. Cleaning fouling in gear housing, and then filling with new oil.
- ⓑ Should inspect wear and tear condition of each gear in housing and loose condition of shaft and bearing when practice the above.
- ⓒ Inspecting whether the gapping plate of fitting of screw and nut of cutter feed and fitting of leading screw and nut are too big or not.

5. Yearly maintenance:

The following items be practiced periodically once a year:

Maintenance items:

- a. Test run
- b. Inspecting accuracy
- c. Inspecting motor
- d. Making lists to inspect

Maintenance

2. Weekly maintenance:

Following items be practiced on each Saturday after stop running:

Maintenance items:

- a. Lubricating system
- b. Cooling system
- c. Transmission system
- d. Safety installations

Methods of maintenance and treatment:

- @ Clean oil hole, oil passage; and make up the oil capacity of sump.
- @ Clean cooling oil passage and make up cooling oil.
- @ Inspect each transmission installations and adjust its looseness, tightness.
- @ Inspect the limitation installations of lift and feed.

3. Monthly maintenance:

Following items be practiced on the last one Saturday of each month after stop running.

Maintenance items:

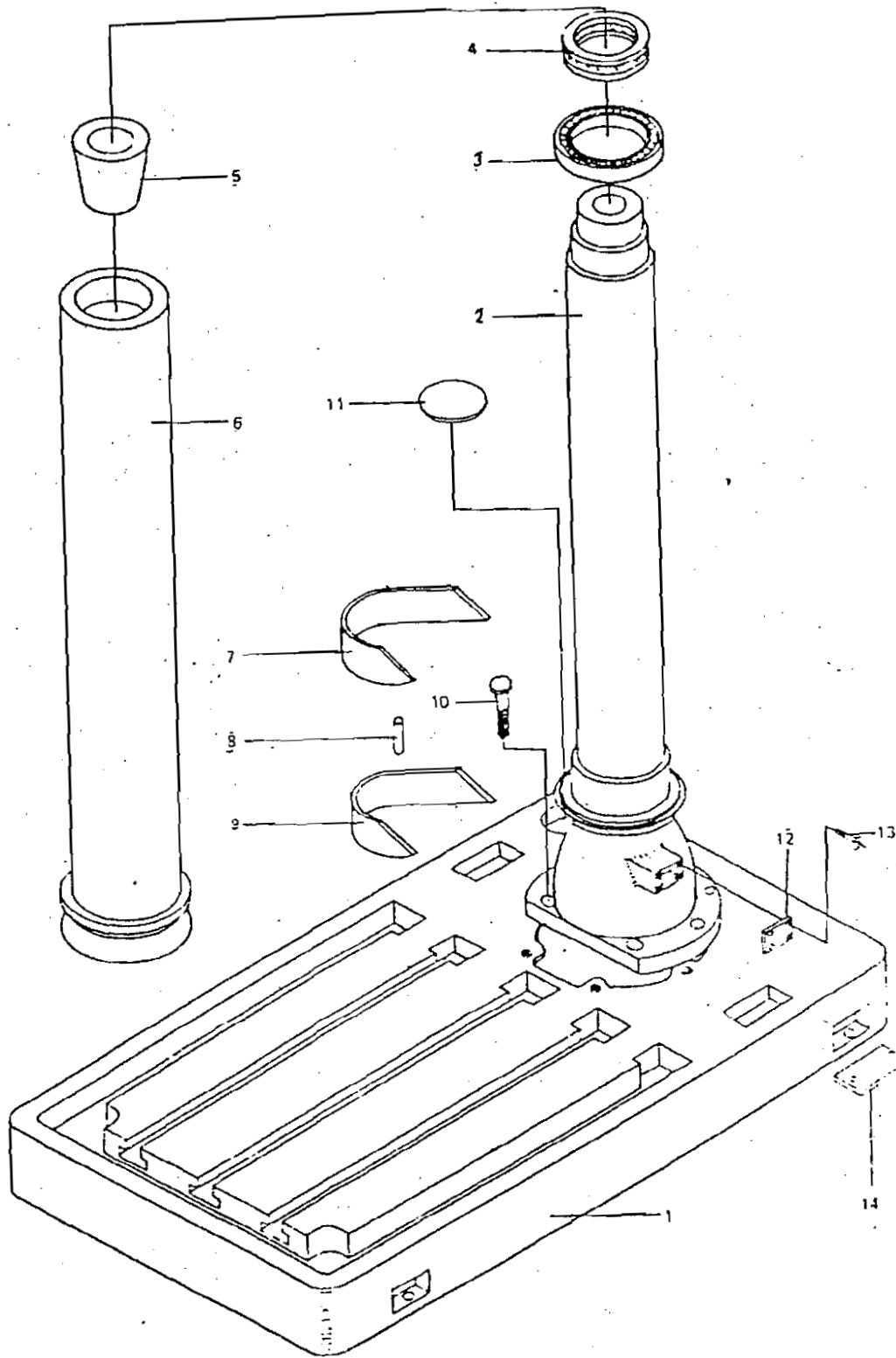
- a. Clean machine
- b. Electricity system

Methods of maintenance and treatment:

- @ Clean dust, iron residue in the narrow opening of machine and parts.
- @ Inspect that whether the connection of wire is secure, stationary screw is loose and each switch joint is good or not.

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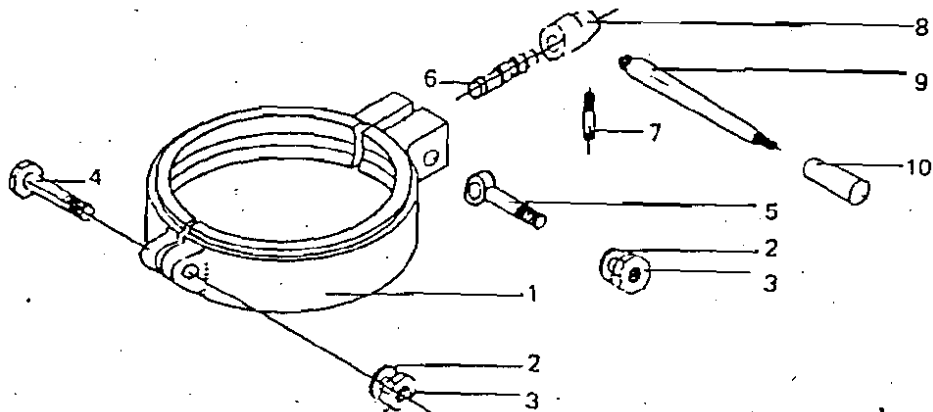
Index No.	Parts Name	Units	Parts No.	REmarks
1.	Base	1	1101	
2.	Column	1	1102	
3.	Ball Bearing	1		# 6018
4.	Thrust Bearing	1		= 51116
5.	Cap	1	1118	
6.	Column Sleeve	1	1103	
7.	Collar	1	1143	
8.	Needle Bearing	1	1141	
9.	Collar	1	1142	
10.	Bolt	6		3/4"-10NCX80L
11.	Cover	1	1149	
12.	Cover	1		
13.	Screw	3		M3X0.5PX10L
14.	Cover	1		



COLUMN

COLUMN

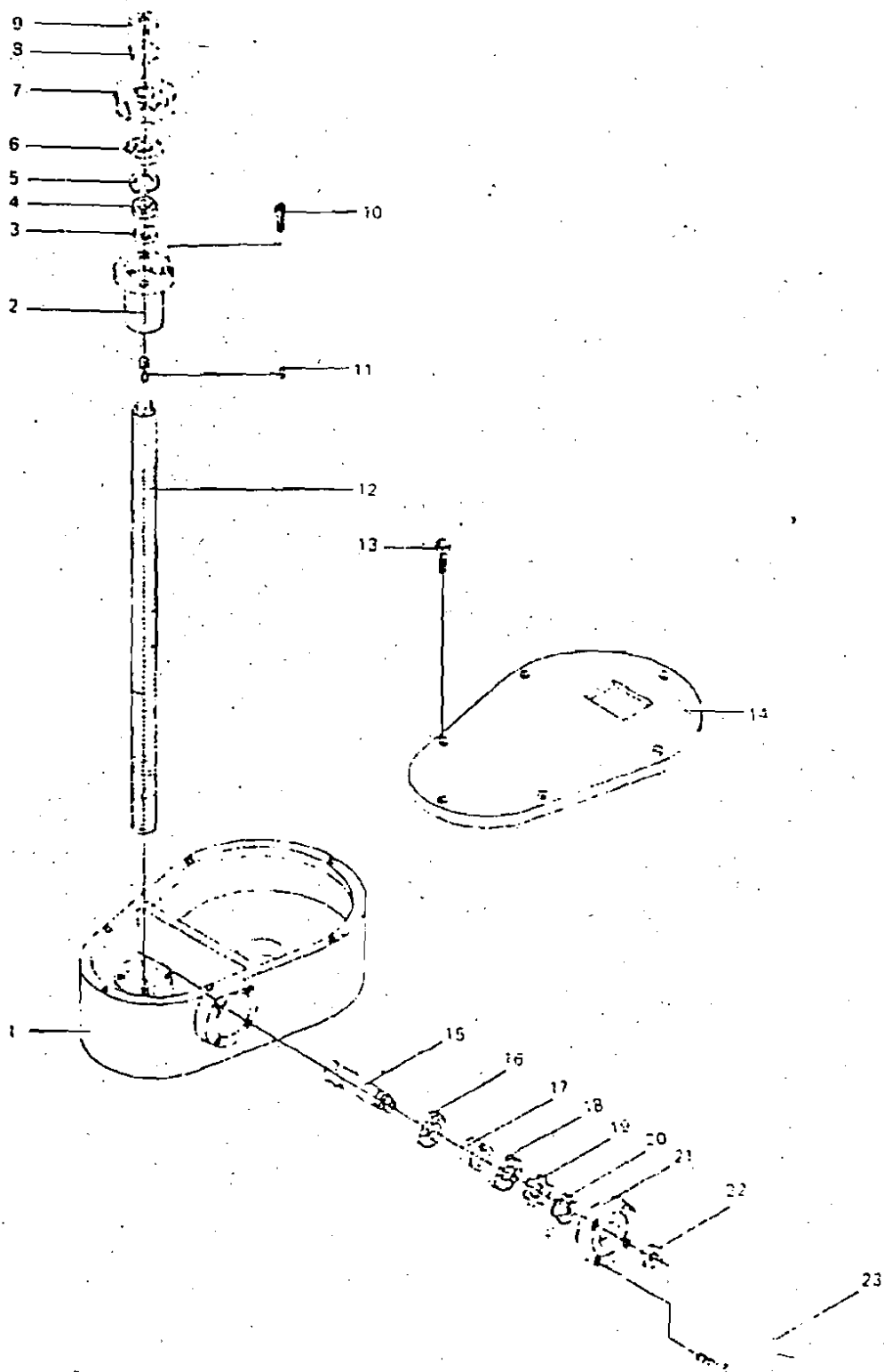
Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Clamp	1	1104	
2	Spring Washer	2		3/4"
3.	Nut	2		3/4"-10NC
4.	Hexagonal Bolt	1		3/4"-10NCx100L
5.	Bolt	1	1130	
6	Eccentric Shaft	1	1129	
7.	Pin	1		
8.	Handle Joint	1	1108	
9.	Handle	1	1110	
10.	Handle	1	1111	



COLUMN

ELEVATING WORM GEAR BOX

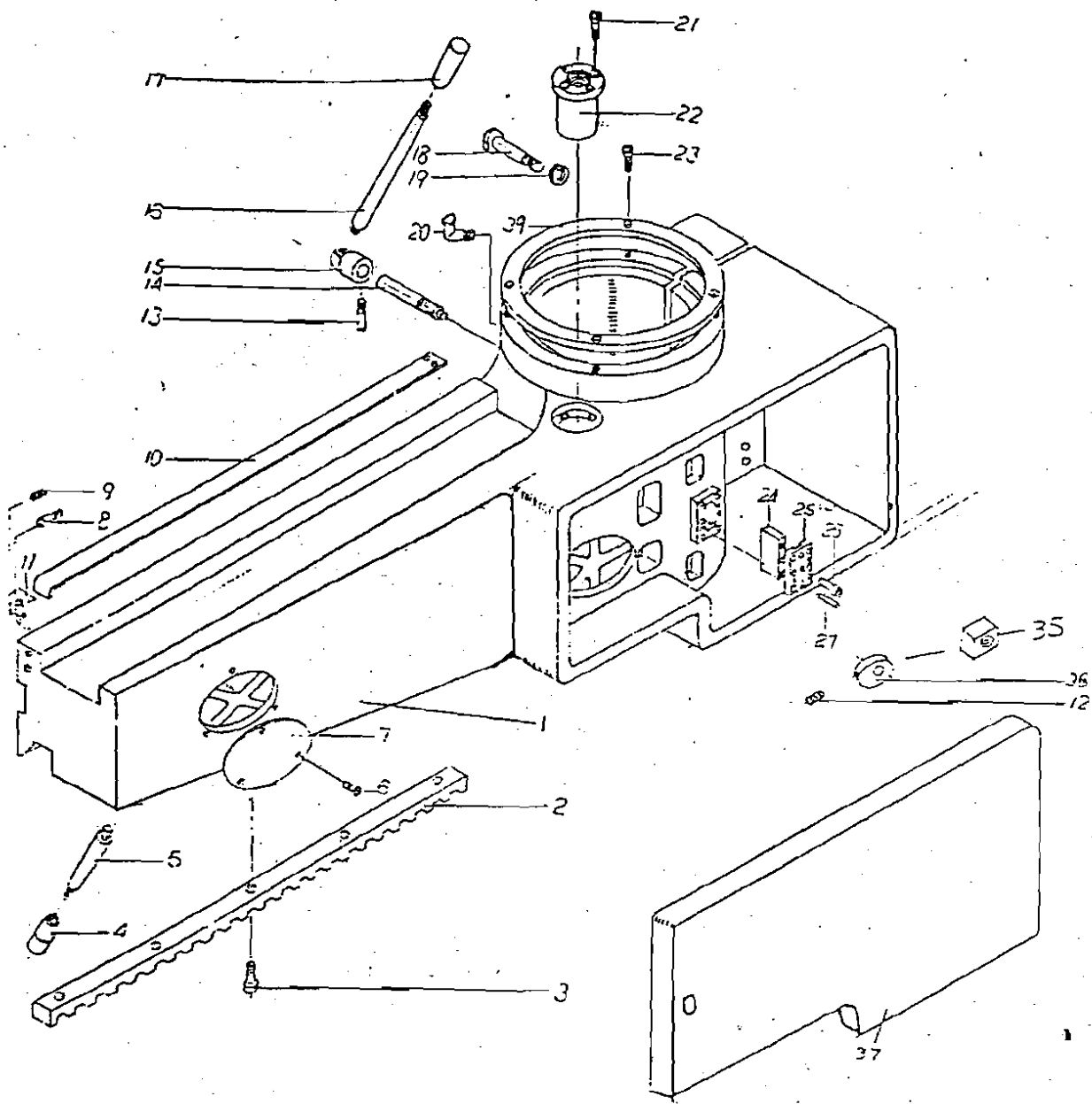
Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Gear Box	1	1119	
2.	Seat	1	1132	
3.	Oil Seal	1		TC 30458
4.	Roller Bearing	1		≠ 6005
5.	C Snap Ring	1		H47
6.	Taper Roller Bearing	1		≠ 30205
7.	Worm Gear	1	1124	
8.	Collar	1		AW05
9.	Nut	1	1133	
10.	Bolt	3		M6x1Px20L
11.	Key	1		6x6x18L
12.	Elevating Screw	1	1121	
13.	Bolt	6		M8x1.25Px25L
14.	Cover	1	1120	
15.	Bolt	1	1125	
16.	Roller Bearing	1		≠ 6006Z
17.	Bolt Bushing	1	1127	
18.	Roller Bearing	1		≠ 6206
19.	Bearing Washer	1		
20.	Collar	1	1126	
21.	Motor Base	1	1128	
22.	Oil Seal	1		TC284811
23.	Hexagonal Bolt	4		M8x1.25Px20L



ELEVATING WORM GEAR BOX
 升降齒輪箱

RADIAL ARM

Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Radial Arm	1	1105	
2.	Rack	1	1417	
3.	Belt	5		M6x1.0Px25L
4.	Handle	1	1111	
5.	Handle	1	1112	
6.	Bolt	3		M3x0.5Px10L
7.	Covering	1		
8.	Bolt	12		M5x0.9Px15L
9.	Bolt	4		M6x1.0Px6L
10.	Steel Efflorescent	2		
11.	Adjustment Seat	2	1107	
12.	Bolt	1		M6x1.0Px10L
13.	Pin	1		
14.	Locking Bolt	1	1136	
15.	Joint	1	110B	
16.	Handle	1	1110	
17.	Handle	1	1111	
18.	Screw	2		3/4"-8NCx85L
19.	Washer	2		3/4"-8NC
20.	Oil Cup	1		1/8" PT
21.	Bolt	4		M5x0.9Px25L
22.	Nut	1	1122	
23.	Bolt	4		M6x1.0Px6L
24.	Key	1	1140	
25.	Key Seat	1	1139	
26.	Bolt	9		M8x1.25Px30L
27.	Taper Pin	2		φ8x30L
35.	Nut	1	1135	
36.	Collar	1	1117	
37.	Covering	1	1145	
39.	Covering	1	1106	



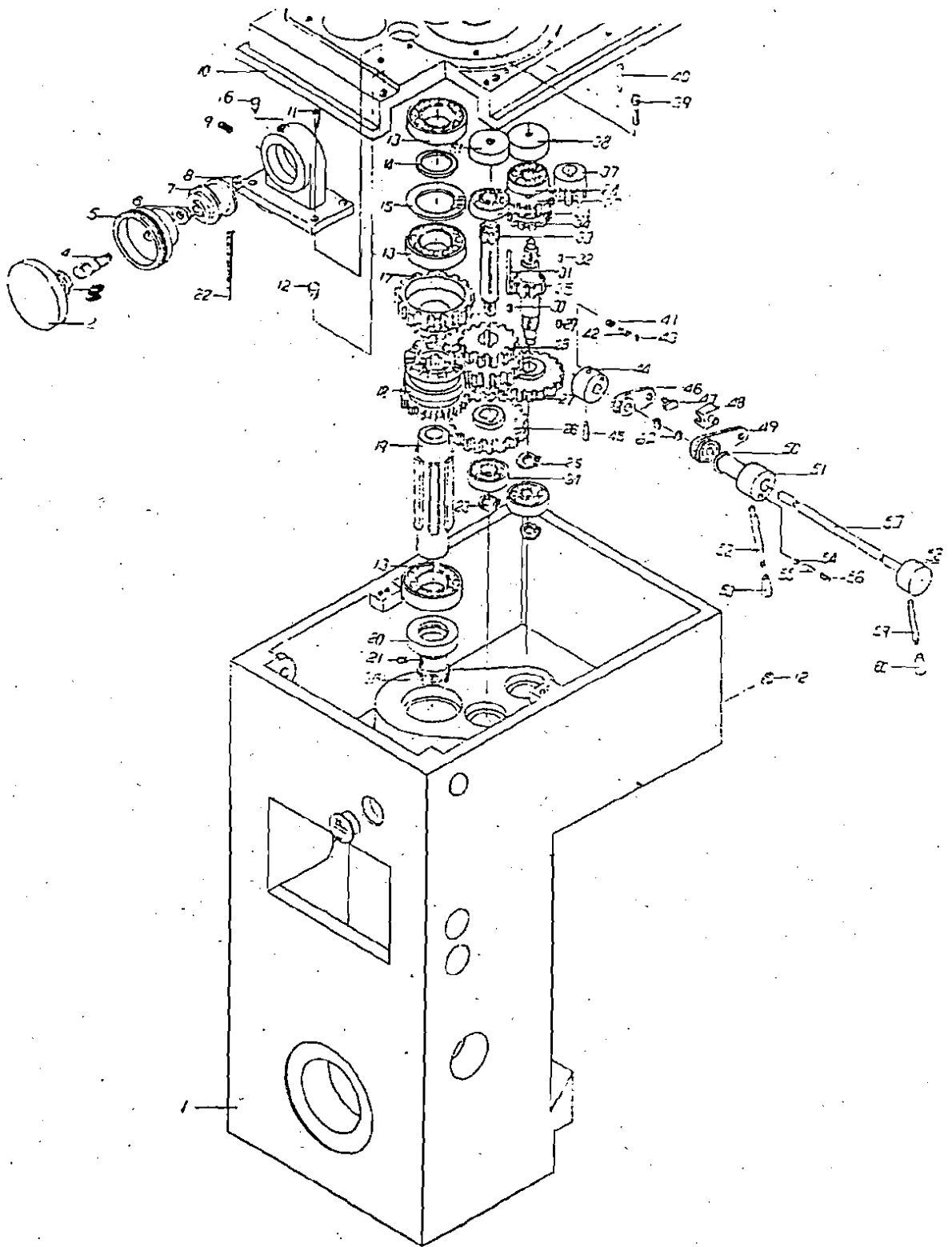
旋臂部份

UPPER GEAR BOX

Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Gear Box	1	1201	
2.	Fixing Block	1	1215	
3.	Spring	1		
4.	Bolt	1	1217	
5.	Fixing Block	1	1214	
6.	Roller Bearing	1		≡ 6204
7.	Adjusting Block	1	1216	
8.	Nut	1		1/2"-12NC
9.	Set Screw	1		M8x1.25Px10L
10.	Cover	1	1202	
11.	Hexagonal Bolt	4		M6x1Px10L
12.	Plug	2		1/2"-12NC
13.	Roller Bearing	3		≡ 6007Z
14.	Bearing Shim	1	1218	
15.	C Snap Ring	1		H62
16.	Oil Cup	1		1/8"PF
17.	Gear A	1	1219	
18.	Gear B	1	1220	
19.	Spline Shaft	1	1221	
20.	Oil Seal	1		D356215
21.	Set Screw	1		M6x1Px8L
22.	Chain	1		P=6.35
23.	C Snap Ring	1		S20
24.	Roller Bearing	4		≡ 6004Z
25.	C Snap Ring	1		S20
26.	C Gear	1	1212	
27.	Gear	1	1208	
28.	Gear	1	1211	
29.	Key	1		6x6x8L
30.	Key	1		6x6x10L
31.	Key	2		6x6x70L
32.	Key	1		6x6x20L

UPPER GEAR BOX

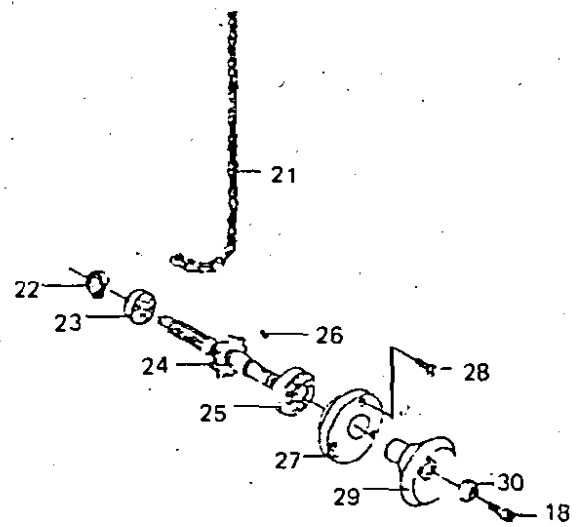
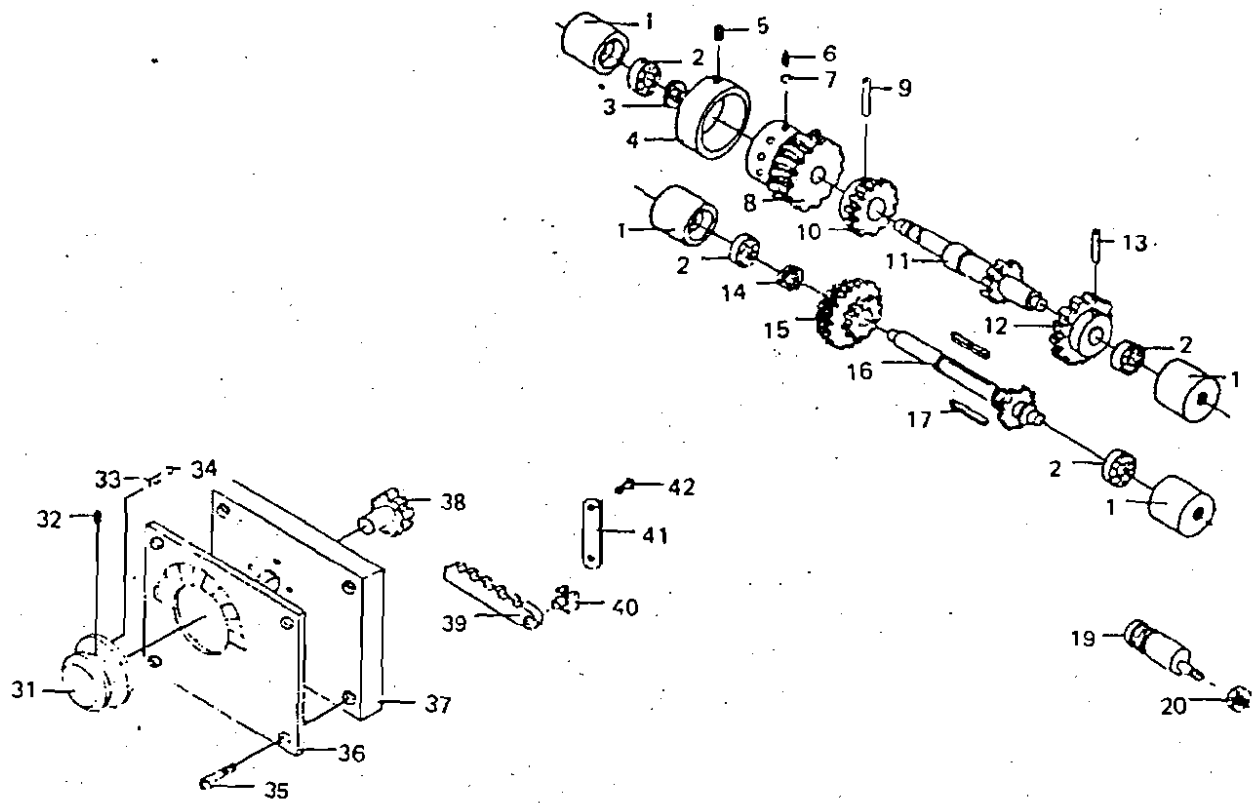
Index No.	Parts Name	Unit	Parts No.	Remarks
33.	Gear Shaft	1	1210	
34.	Gear	1	1207	
35.	Gear Shaft	1	1206	
36.	Bolt	1	1222	
37.	Gear	1	1203	
38.	Cover	1	1205	
39.	Bolt	6		M8x1.25px60L
40.	Taper Pin	2		φ 5x60L
41.	Hexagonal Bolt	2		M8x1.25Px8
42.	Spring	2		
43.	Ball	2		φ 1/4"
44.	Seat	1	1310	
45.	Taper Pin	1		φ 5x50L
46.	Seat	1	1308	
47.	Nut	1	1309	
48.	Nut	1	1306	
49.	Seat	1	1305	
50.	O Ring	1		G25
51.	Seat	1	1304	
52.	Lever	1	1303	
53.	Handle	2		
54.	Ball	2		φ 1/4"
55.	Spring	1		
56.	Set Screw	2		M8x125P
57.	Shaft	1	1307	
58.	Connector	1	1302	
59.	Lever	1	1301	
60.	Handle	1		
61.	Cover	1	1209	
62.	O Ring	2		P12



上部齒輪箱

LOWER GEAR BOX

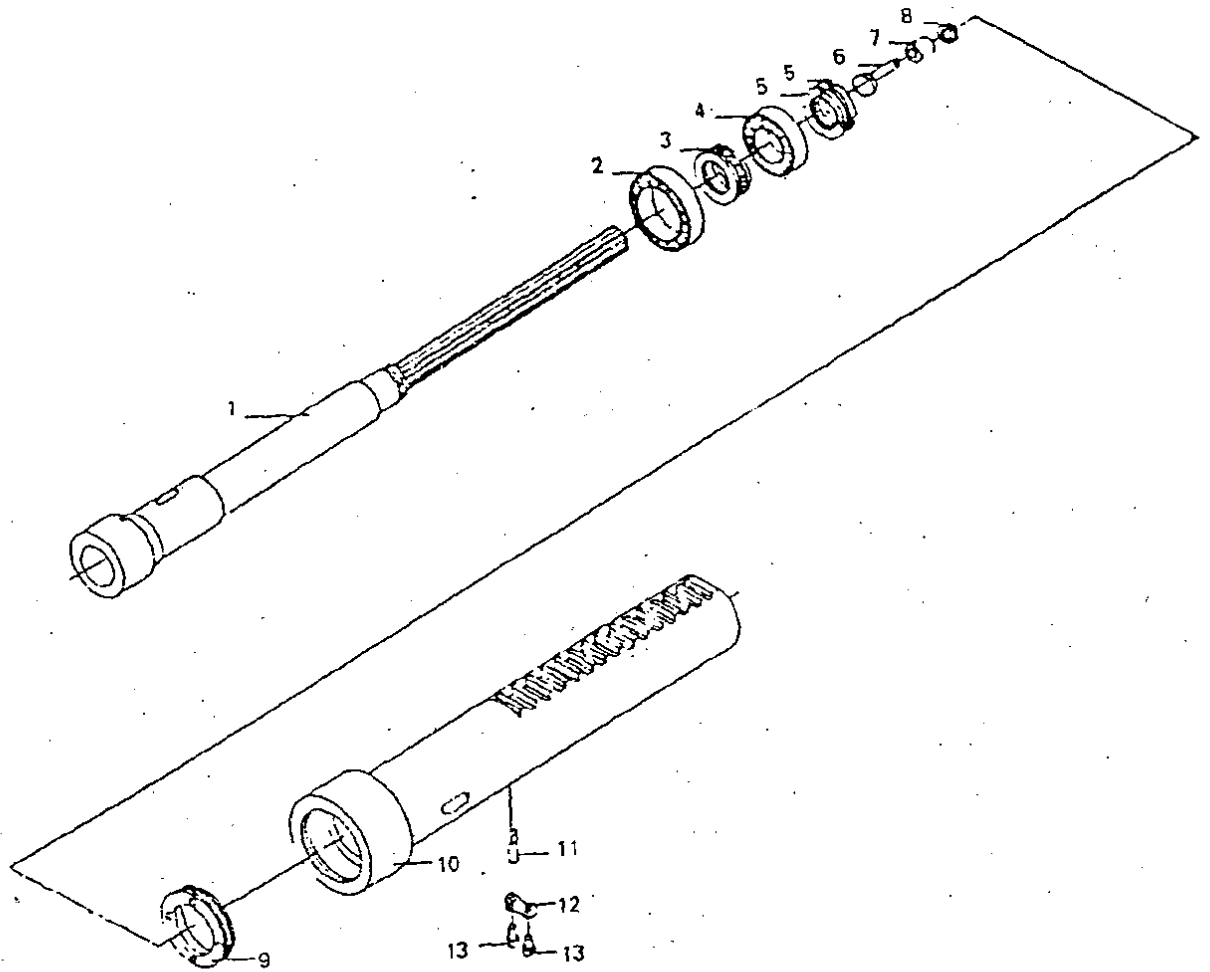
Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Bearing Block	4	1316	
2.	Roller Bearing	4		# 6002Z
3.	C Snap Ring	1		S24.
4.	Bushing	1	1320	
5.	Set Screw	1		M6x1Px6L
6.	Spring	6		
7.	Ball	6		φ 1/4"
8.	Bolt	1	1319	
9.	Pin	1		φ 5x39L
10.	Gear	1	1317	
11.	Shaft	1	1317	
12.	Gear	1	1318	
13.	Pin	1		φ 5x32L
14.	C Snap Ring	1		S22
15.	Gear	1	1322	
16.	Shaft	1	1321	
17.	Key	2		6x6x55L
18.	Bolt	1		M5x0.9Px30L
19.	idle Wheel	1	1323	
20.	Bolt	1		5/16-18NC
21.	Chain	1		P=9.525
22.	C Snap Ring	1		S15
23.	Roller Bearing	1		# 6002Z
24.	Shaft	1	1324	
25.	Roller Bearing	1		# 6204
26.	Key	1		6x6x15L
27.	Cover	1	1325	
28.	Bolt	1		M6x1Px10L
29.	Hand Wheel	1	1326	
30.	Nut	1	1327	
31.	Handle	1	1312	
32.	Bolt			M6x1Px10L
33.	Spring	1		
34.	Ball	1		φ 1/4"
35.	Hexagonal Bolt	4		M8x1.25Px20L
36.	index Plate	1		
37.	Micro Infeed Base	1	1311	
38.	Pinion	1	1313	
39.	Rack	1	1314	
40.	Fork	1	1315	
41.	Plate	1		
42.	Screw Set	2		M3x0.5Px6L



LOWER GEAR BOX
下部齒輪箱

MAIN SPINDLE

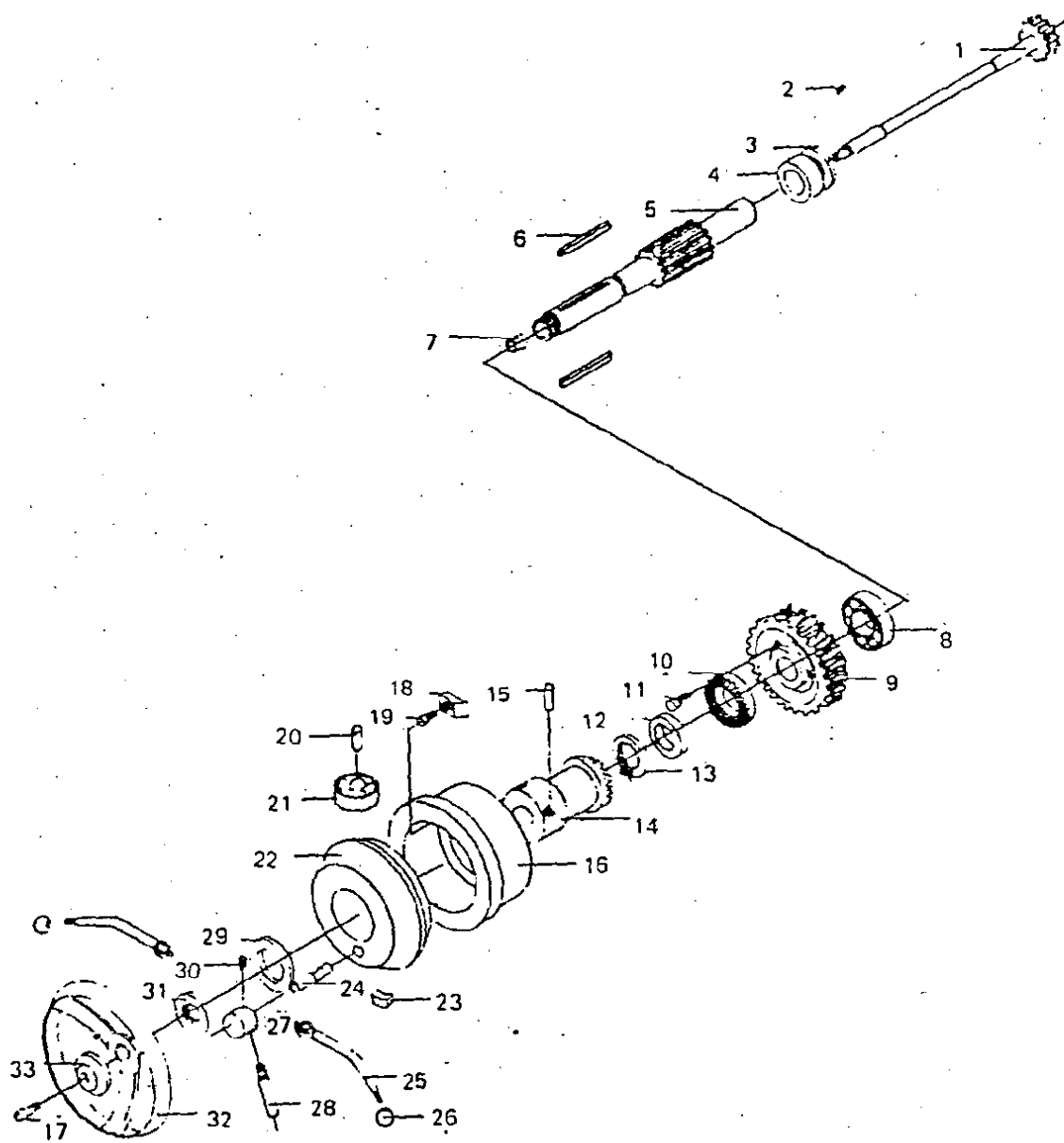
Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Spring	1	1226	
2.	Taper Roller Bearing	1		# 32209A
3.	Thrust Bearing	1		# 51106
4.	Roller Bearing	1		# 6006
5.	Nut	2	1223	
6.	Chain Connector	1	1224	
7.	Bushing	1	1225	
8.	C Snap Ring	1		H15
9.	Cover	1	1228	
10.	Spindle Sleeve	1	1227	
11.	Bolt	1	1330	
12.	Plate	1		
13.	Bolt	2		M5x0.9Px10L



主軸部份
MAIN SPINDLE

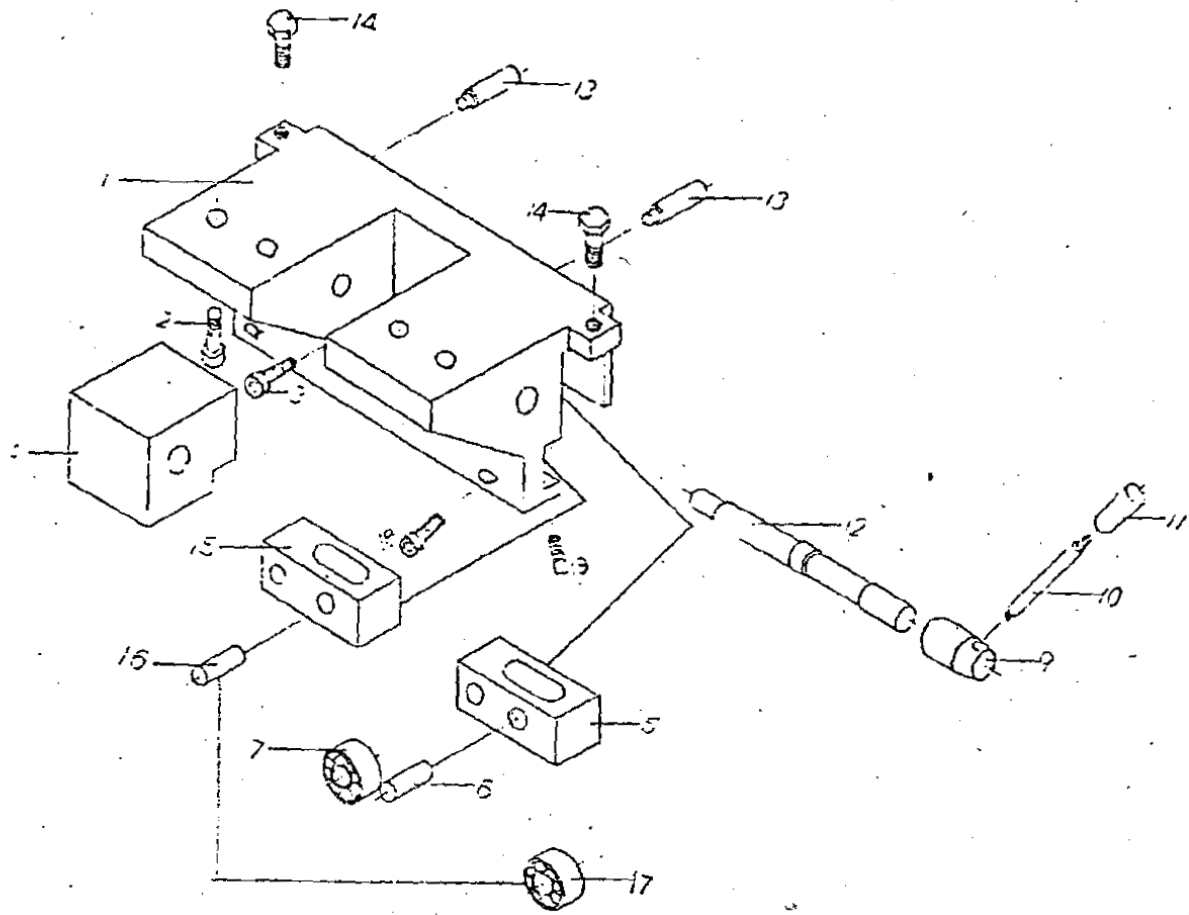
HAND INFEED

Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Gear Shaft	1	1415	
2.	Key	1		5x5x20L
3.	C Snap Ring	1		S24
4.	Brass	1		
5.	Adjustment Wheel	1	1414	
6.	Key	2		6x6x50L
7.	Brass	1	1414	
8.	Ball Bearing	1		≅ 6005Z
9.	Worm Gear	1	1413	
10.	Feed Gear	1	1408	
11.	Bolt	3		M4x0.7Px10L
12.	Covering	1	1412	
13.	C Snap Ring	1		S25
14.	Clutch	1	1405	
15.	Handle Shaft	1	1407	
16.	Graduation Ring Base	1	1401	
17.	Bolt	1		M5x0.9Px10L
18.	Cam	1	1419	
19.	Bolt	1		M5x0.9Px10L
20.	Bearing Shaft	1	1409	
21.	Ball Bearing	1		≅ 608ZZ
22.	Graduated Collar	1	1402	
23.	Block	1	1411	
24.	Eccentric Lever	1	1410	
25.	Handle	2	1406	
26.	Handle	2		
27.	Fixing Graduated Collar	1		
28.	Handle Lever	1		
29.	Clutch Cover	1	1418	
30.	Bolt	1		M6x1Px6L
31.	Locking Collar	1	1404	
32.	Wheel	1	1403	
33.	Fixed Sleeve	1	1327	

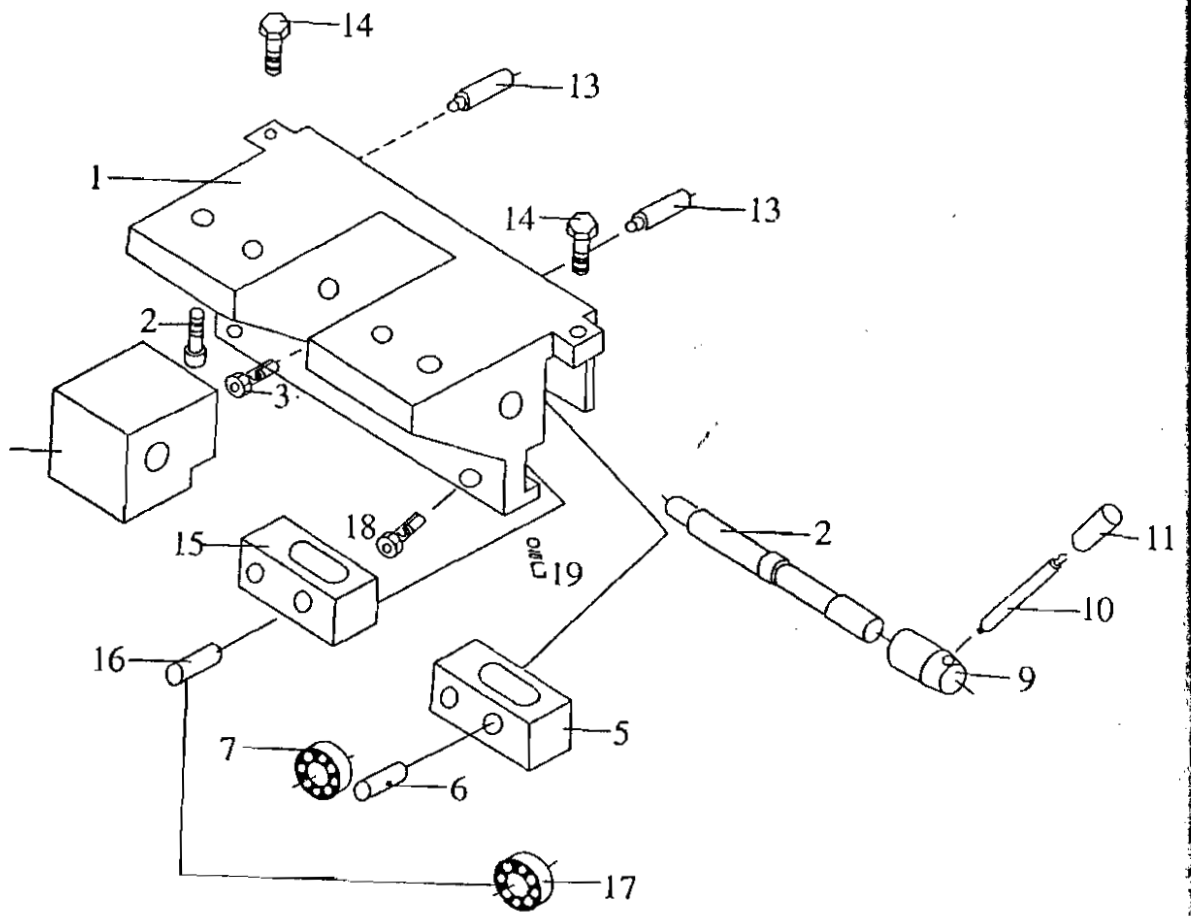


FIXED GEAR BOX

Index No.	Parts Name	Unit	Parts No.	Remarks
1.	Gear Box Fixed Seat	1	1229	
2.	Bolt	4		M10x1.5Px15L
3.	Bolt	2		M6x1.0Px20L
4.	Lock Block	1	1232	
5.	Bearing Seat	2	1230	
6.	Bearing Shaft	2	1231	
7.	Ball Bearing	2		=6202ZZ
9.	Joint	1	1235	
10.	Hand Lever	1		
11.	Handle	1		
12.	Eccentric Shaft	1		
13.	Fixed Bolt	2		
14.	Bolt	2		M8x1.25Px25L
15.	Bearing Seat	2	1233	
16.	Bearing Shaft	2		
17.	Ball Bearing	2		635ZZ
18.	Bolt	2	1238	M6xP1.0x25L
19.	Bearing Shaft	2	1236-2	



齒輪箱固定部份



FIXED GEAR BOX
齒輪箱固定部份