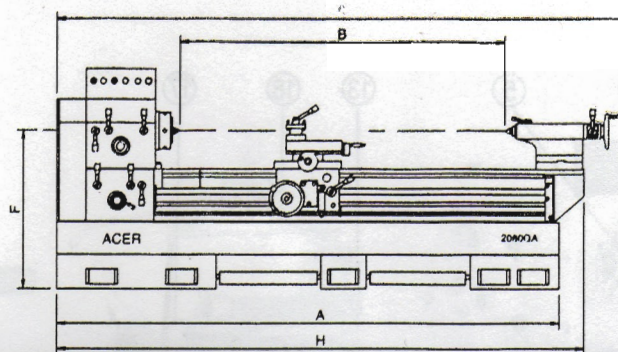
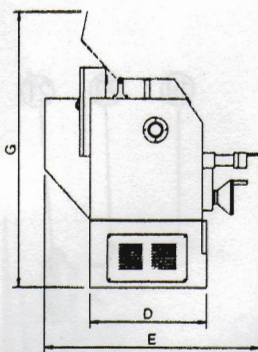


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	2060GA	2080GA	20110GA
A	111"	131"	171.7"
B	60"	80"	110"
C	125.3"	145.3"	183.7"
D	30.7"	30.7"	29.92"
E	56.5"	56.5"	56.5"
F	40.95"	40.95"	40.95"
G	56.5"	56.5"	56.5"
H	117.4"	137.4"	172.5"

SPECIFICATION

ITEM		MODEL	2060GA	2080GA	20110GA
General Capacity	Center height			10"	
	Swing over bed			20"	
	Swing over gap (Gap type only)			29.5"	
	Swing over cross slide			12"	
	Distance between centers	60"		80"	110"
Main Spindle	Spindle nose		D1-8 or ASA-A1-8		
	Spindle bore diameter		3-1/16"		
	Type of Spindle nose		MT.#8		
	Taper of center		MT.#5		
	Spindle speeds		30~1,500 rpm (16 steps, 2 speed motor)		
Carriage	Cross slide travel		13.2"		
	Compound rest travel		8"		
	Max. size cutting tool		1"x 1"		
Tailstock	Spindle diameter		3"		
	Spindle travel		7"		
	Type of center		MT.#5		
Bed	Bed length	107"	127"	156"	
	Bed width		14.96"		
	Width of gap		10"		
Threading & Feeding	System		Inch \ Metric		
	Pitch of leadscrew		Ø1-1/2", 4 TPI		
	Metric pitch threads		0.5 ~ 7 mm (21 kinds)		
	Inch pitch threads		4 ~ 56 TPI (40 kinds)		
	Module pitch threads		0.25 ~ 3.5 M.P. (14 kinds)		
	Diameter pitch threads		8 ~ 112 D.P. (18 kinds)		
	Range of longitudinal feeds		0.0015~0.0216"/rev \ 0.04~0.60mm/rev(40 kinds)		
Range of cross feeds		0.0015~0.0216"/rev \ 0.04~0.60mm/rev(40 kinds)			
Power	Main drive motor		10HP	4P/8P	
	Coolant pump motor		1/8 HP		
Floor Dimension			115.35"x57.48"x56.69"	135.03"x57.48"x56.69"	167.55"x57.48"x56.69"
Packing Dimension			122.04"x44.5"x82.68"	142.52"x44.5"x82.68"	180.32"x44.48"x66.15"
Net Weight			5940 lbs	6600 lbs	7260 lbs
Gross Weight			6600 lbs	7260 lbs	7920 lbs

Note: The manufacture reserves the right to modify the design, specifications, mechanisms, etc. to improve the performances of machine without notice.
All the specifications shown above are for reference only.

STANDARD ACCESSORIES

- | | | |
|-----------------------|--------------------|---------------------------------------|
| 1. Gap Bed | 5. Touch-up Paint | 9. Full Length Splash Guard |
| 2. Built In Coolant | 6. Steady Rest | (2060GA/2080GA) |
| 3. One Face Plate | 7. Micrometer Stop | 10. Followable Splash Guard (20110GA) |
| 4. Four Way Tool Post | 8. Halogen Light | 11. Tool Box W/Tools |
| | | 12. Operational Manual |

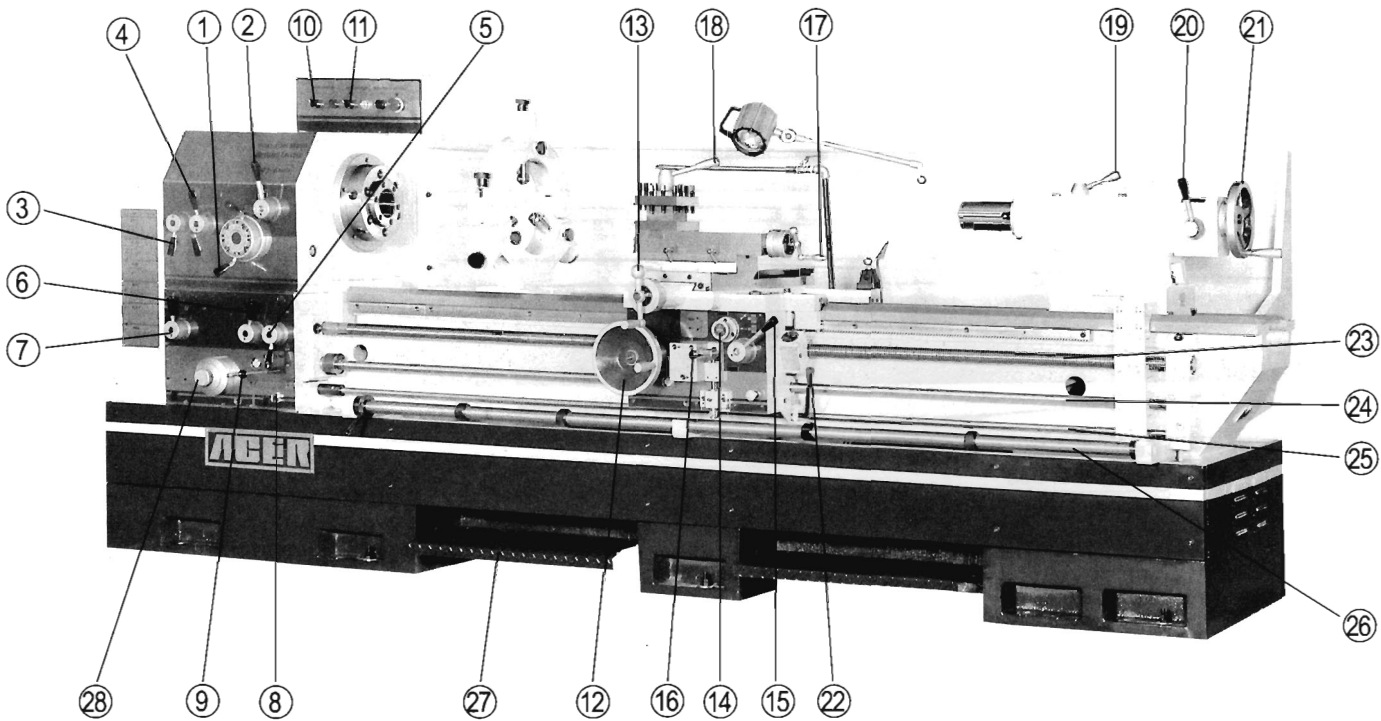
Web site: <http://www.acergroup.com>

Factory E-mail Address: ufau0014@ms5.hinet.net

LA E-mail Add: info@acergroup.com

NJ E-mail Add: klim@acergroup.com

2. DESCRIPTION OF MACHINE DYNAMIC 2040GA/60GA/80GA



- | | |
|--|---|
| 1. Spindle speed change lever | 15. Half-nut engagement lever |
| 2. Spindle speed change lever | 16. Feed engage & disengage lever |
| 3. F/R lever for feed & leadscrew | 17. Handwheel for tool slide feeds |
| 4. Feed and thread change lever | 18. Clamping lever for tool post |
| 5. Feed and thread change lever | 19. Clamping lever for tailstock spindle |
| 6. Inch/metric feeds change lever | 20. 1:1 or 1:4 change lever |
| 7. Inch/metric change lever | 21. Handwheel for tailstock |
| 8. 4P/8P motor switch | 22. Start-up lever |
| 9. Engage and disengage clamping lever | 23. Threading leadscrew |
| 10. Main power switch | 24. Feed rod |
| 11. Coolant pump switch | 25. Starting rod |
| 12. Handwheel for longitudinal feeds | 26. Stop rod for longitudinal feed |
| 13. Handwheel for crossfeeds | 27. Foot brake pedal |
| 14. Longitudinal-cross feed change lever | 28. Feeds and threads change turning knob |

3. INSTALLATION

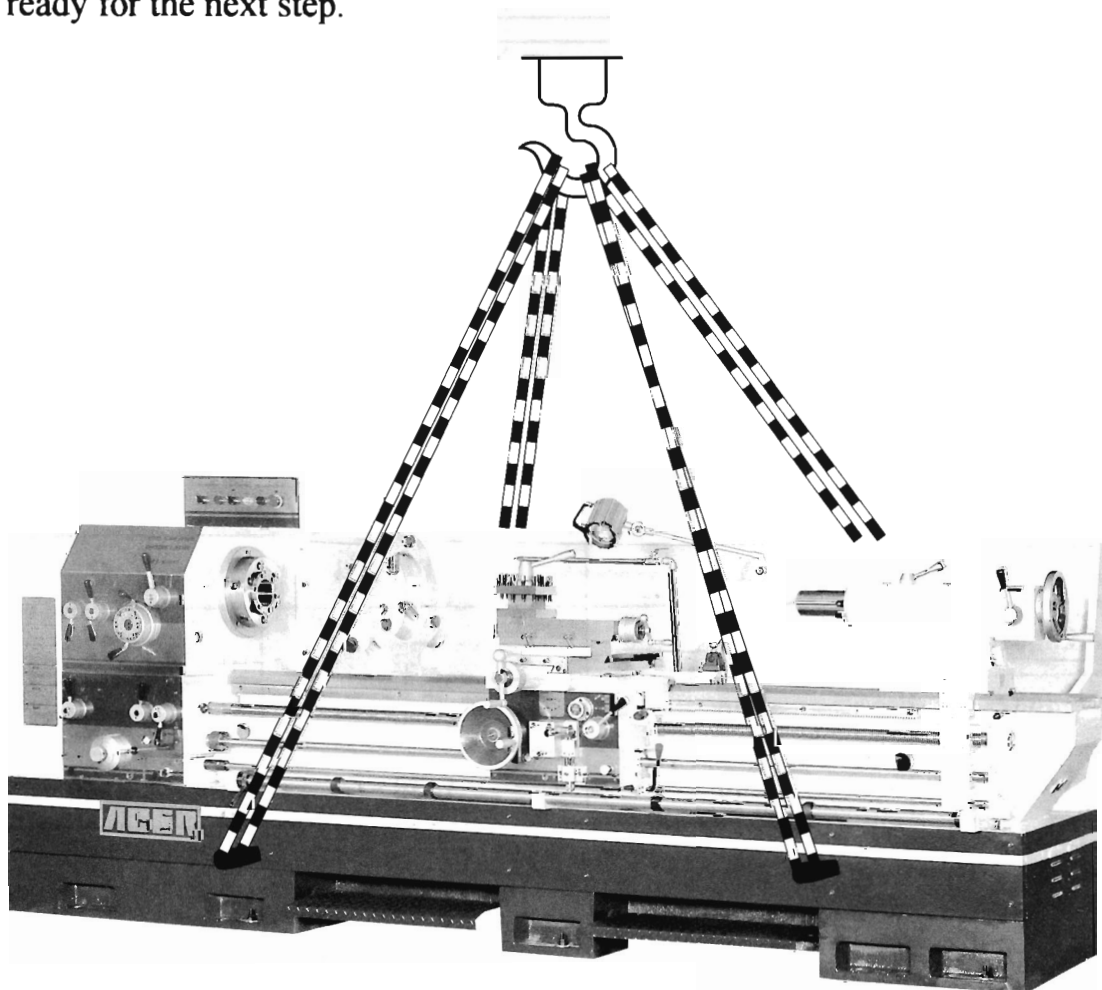
3-1 MOVING AND LIFTING

It is easier to move the lathe if it is still bolted on skid. Please use rollers or fork-lift to move it to final location, then unbolt it from skid.

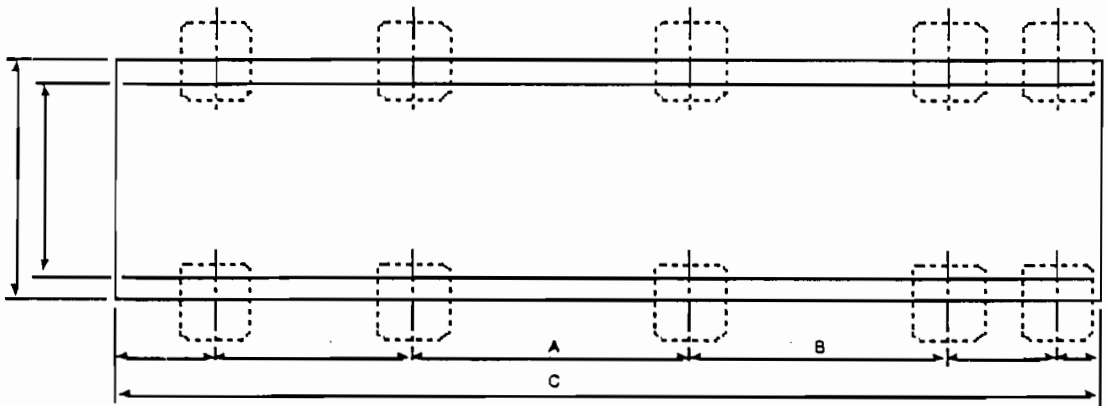
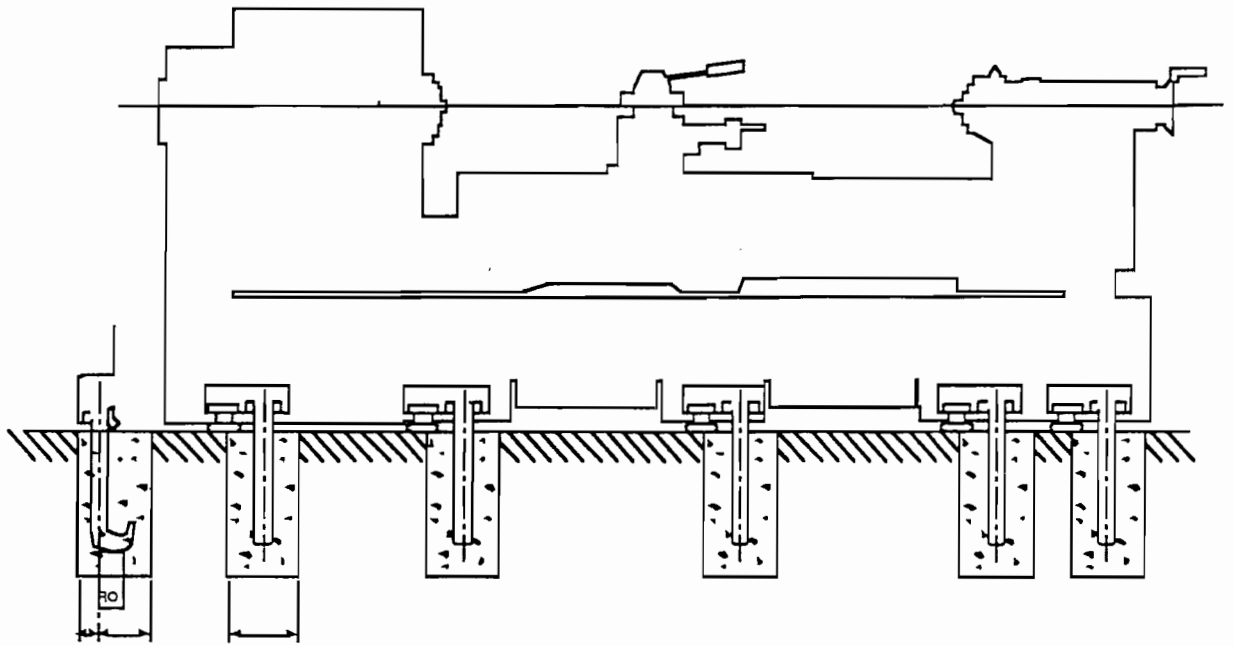
In order to have the machine properly balanced before hoisting, it is advisable to move the tailstock and carriage to the extreme right-hand positions. Clamp both assemblies firmly in place, so they will not accidentally slide to the left when machine is lifted.

Hemp rope should be used in lifting. Their strength should be comparable to 1/2 inch ID's steel cable or something equivalent.

Place soft wooden blocks between the hoisting cable and the body of the machine at points where damage might occur if excessive force resulted from lifting. As the lathe is lifting from the skid, check the tightness of the blocks and cables, and balance of the machine. After everything is secure, we may then move the skid down and away from the machine. Slowly lower the machine on location and we are ready for the next step.



3-2 FOUNDATION DRAWING (sample value)



	A	B	C
DYNAMIC2060GA	1590	—	2820
DYNAMIC2080GA	1080	1000	3330
DYNAMIC20110GA	1590	1430	4260

3-3 CLEANING

Please leave the carriage and tailstock locked in position until exposed bed ways are cleaned. Using a good grease solvent, thoroughly remove the anti-rust material or cosmoline from exposed bed ways, housing, slides, and from all other machined surfaces.

Next, loosen the carriage locking screw and move the carriage to cleaned bed section. Do the same thing for tailstock. Loosen the tailstock clamping lever, move the tailstock, and then finish clean the bed ways.

To clean the threading leadscrew, feed rod, and gear racks, please use a stiff bristle brush (not metal type). This will make cleaning these items faster and easier.

Apply a light coat of machine oil to all machined surfaces for lubrication and it will prevent machine from rusting.

For long machine usage, be sure to clean and lubricate the machine regularly.

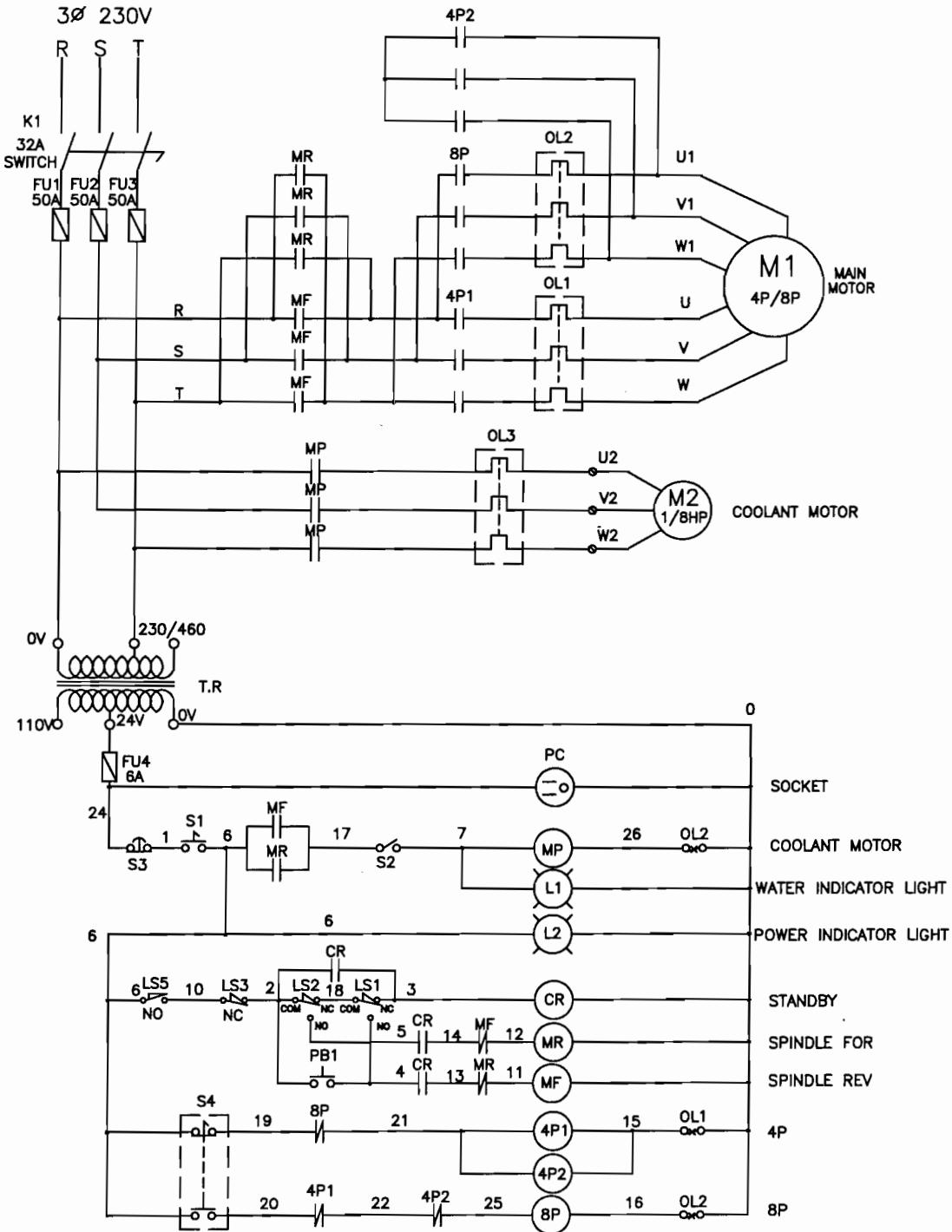
3-4 POSITIONING AND LEVELING

Reinforced concrete floor is the best foundation for our lathe, and the depth of the concrete should be at least 18". The strength of it should be at least 2,500 psi/ft². Once the machine is located on the prepared foundation and the machines are thoroughly clean. We are ready for machine leveling. Please use precision engineering levels for this procedure. The levels should be placed on the cross-slide of the carriage. One is parallel to longitudinal motion, and the other one is to the crossfeed movement. Readings of the levels should be taken on the center, left and right extreme of the bed way. Adjustment of the leveling screws are made until the machine's level is within 4/10,000" on either direction.

When the level of the lathe is established, immediately tighten the screw nuts. This will keep machine in level for a period of time. Repeat the leveling procedure every six months. This is advisable if lathe's accuracy is desirable.

4. ELECTRICAL CIRCUIT AND LUBRICATION

4-1. ELECTRICAL CIRCUIT FOR DYNAMIC 20" SERIES



4-2. ELECTRICAL COMPONENTS

LS1: Forward Limit Switch

LS2: Reverse Limit Switch

LS3: Brake Limit Switch

LS4: Safety Limit Switch

LS5: Safety Limit Switch

M1: Main Spindle Motor

MF: Forward Magnetic Contactor

MR: Reverse Magnetic Contactor

M2: Coolant Pump Motor

MP: Pump Magnetic Contactor

L1: Water Indicator Light

L2: Power Indicator Light

PL1: Power Source Indicator

CR: Brake Auxiliary Relay

TR: Transformer

FS: Fuse

OL1: Main Motor Thermal Relay 4P

OL2: Main Motor Thermal Relay 8P

OL3: Coolant Pump Motor Thermal Relay

S1: Emergency Stop

S2: Coolant pump Switch

PB1: Jogging Button

PC: Plug Socket

4-3 POWER SOURCE WIRING

Be sure to protect exposed electrical wires on the lathe! They are liable to be damaged by metal chips. If they are damaged, they might induce an electrical short, and will lower the power efficiency. Check the rotation of the spindle after power is wired. It must be counterclockwise when the spindle is rotating. If not, switch two the three wires (R. S. T.), then check the rotation again.

4-4 CAUTION

After the spindle rotation is set, check the jogging button. If it is rotating clockwise, it is wired correctly. If not, there must be a wiring problem, please contact the manufacturer.

If the spindle speed drops to zero RPM during normal operation, but the pilot is still on. This indicates the thermal relay is overloaded and kick-out. Please turn off the main power, and reset the thermal overload relay. Then restart the machine. This will solve the problem and machine will start turning again.

4-5 LUBRICATION AND USAGE

It is very important to lubricate the lathe before each operation. The operator should be responsible for the proper lubrication of the lathe. The grade and quality of the lubricants are given on the following oil lubrication chart. The instructions on this chart are essential to the proper oiling on the components of the lathe. Oil levels should be strictly observed. For proper operation and longevity of its life, the oil level on the headstock should always be completely filled.

**** Headstock and gear box are lubricated by an automatic oil force system.**

****Apron is oil bathed, equipped with pump for forced lubrication. The oil will be forced to the oil grooves on the carriage and then flow to the bedway and cross slideways.**

NO.	LUBRICATING POINT	OILING METHOD	VISCOSITY S.U.S. 100F	OIL RECOMMENDED	OIL EXCHANGE AND or REPLENISHMENT
1	HEADSTOCK FEED GEAR BOX	TO OPEN UPPER COVER CAP ON HEADSTOCK	160	SHELL(TELLUS) 27 ESSO(TERESSO) 43	THREE TIMES A YEAR
2	COMPOUND SLIDES	BY GUN OILER	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A DAY
3	APRON & CARRIAGE	MAINTAIN ABOVE THE INDICATING LINE	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A YEAR
4	TAILSTOCK	BY GUN OILER	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A DAY
5	CHANGE GEARS	BY GUN OILER	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A DAY
6	LEADSCREW	BY GUN OILER	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A DAY
7	FEED SHAFT	BY GUN OILER	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A DAY
8	BEDWAYS	BY OILER	320	SHELL(TONNA) 33 ESSO(TERESSO) 52	ONCE A DAY

4-6 PART LIST OF ELECTRIC COMPONENTS

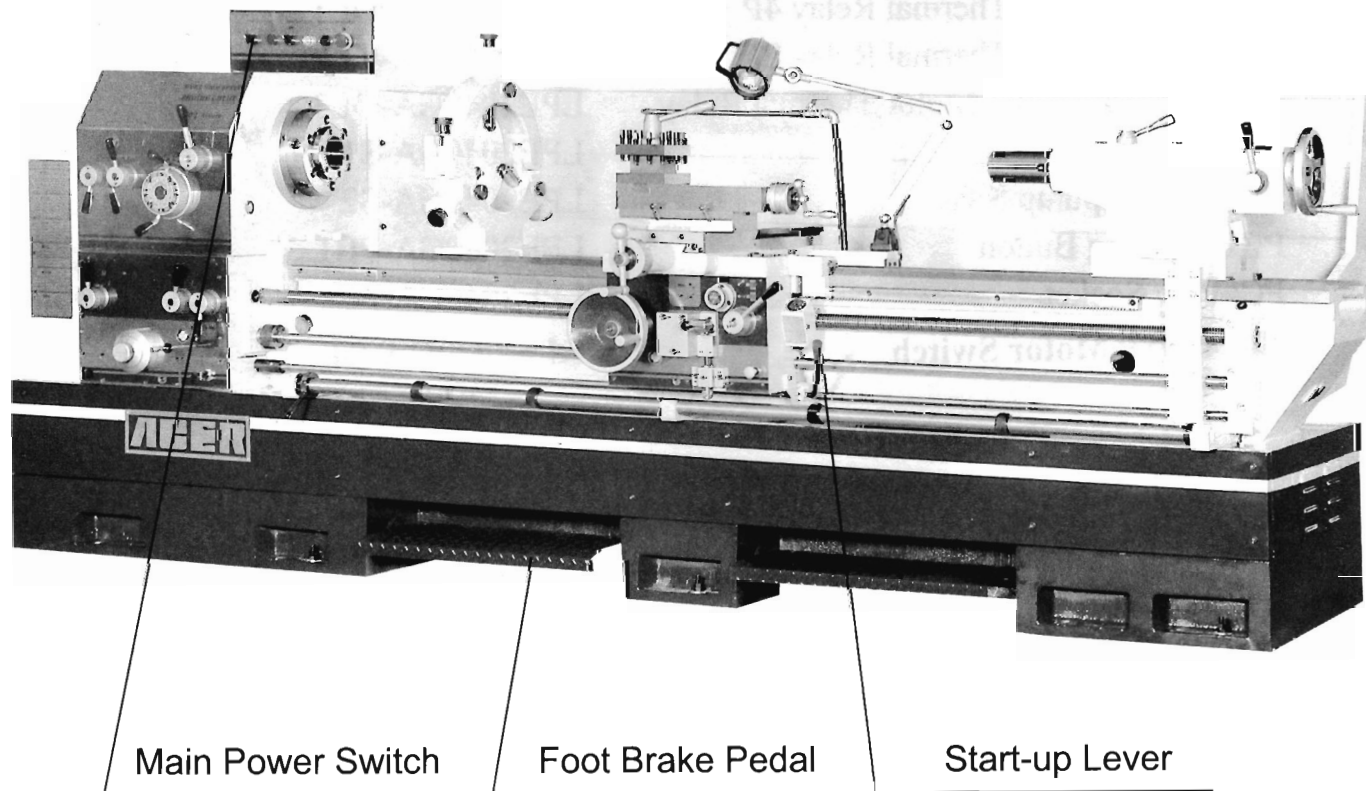
LS1: Forward Limit Switch	LPE2040GA-LS1
LS2: Reverse Limit Switch	LPE2040GA-LS2
LS3: Brake Limit Switch	LPE2040GA-LS3
LS4: Safety Limit Switch	LPE2040GA-LS4
LS5: Safety Limit Switch	LPE2040GA-LS5
M1: Main Spindle Motor	LPE2040GA-M1
MF: Forward Magnetic Contactor	LPE2040GA-MF
MR: Reverse Magnetic Contactor	LPE2040GA-MR
M2: Coolant Pump Motor	LPE2040GA-M2
MP: Pump Magnetic Contactor	LPE2040GA-MP
L1: Water Indicator Light	LPE2040GA-L1
L2: Power Indicator Light	LPE2040GA-L2
PL1: Power Source Indicator	LPE2040GA-PL1
CR: Brake Auxiliary Relay	LPE2040GA-CR
TR: Transformer	LPE2040GA-TR
FS: Fuse	LPE2040GA-FS
OL1: Main Motor Thermal Relay 4P	LPE2040GA-OL1
OL2: Main Motor Thermal Relay 8P	LPE2040GA-OL2
OL3: Coolant Pump Motor Thermal Relay	LPE2040GA-OL3
S1: Emergency Stop	LPE2040GA-S1
S2: Coolant pump Switch	LPE2040GA-S2
PB1: Jogging Button	LPE2040GA-PB1
PC: Plug Socket	LPE2040GA-PC
S4: 4 P/8P Motor Switch	LPE2040GA-S4

5. OPERATION AND USAGE

5-1 STARTING AND STOPPING

Before starting up machine, make sure all components are lubricated, and always make sure the starting lever is at the neutral position.

Upon switching on the machine, the power indicating light will turn on. The starting-up of the main spindle is accomplished by moving starting lever at the right of the apron. The starting lever has a safety locking device which prevents any abrupt accident from the operators. Move this starting lever horizontally to disengage a safety pin. When this lever is pushing downward, the main spindle gets a clockwise rotation, and when the lever is pulling upward, the main spindle rotates counterclockwise. Move the lever back to the middle position, then the main spindle will stop rotation.



5-2 SELECTION OF SPINDLE SPEEDS FOR DYNAMIC 2040GA/60GA/80GA

Select the appropriate spindle speed for work piece from cutting speed chart on the top of the headstock. There are 8 steps in the range of spindle speeds (30~1500 RPM).

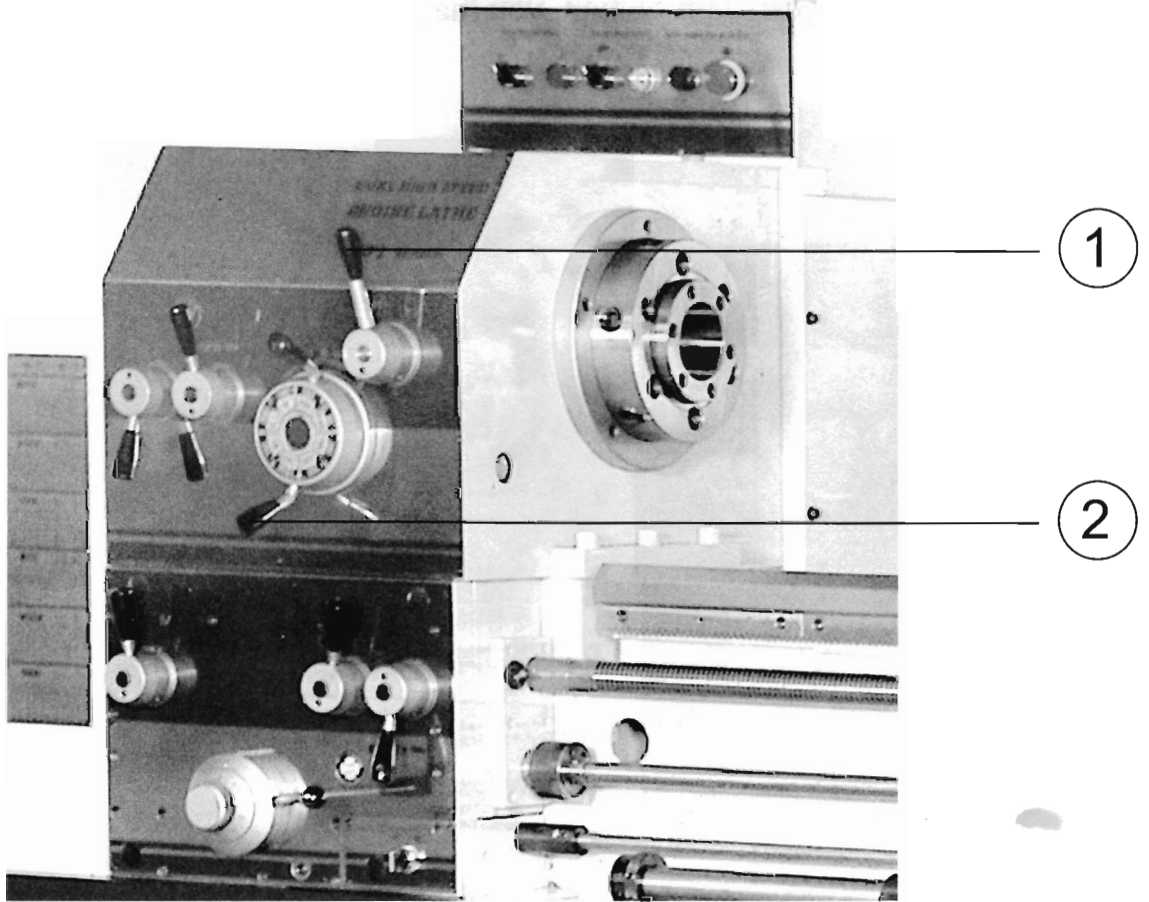
The change of the main spindle speeds are accomplished by lever 1 and the lever 2
Lever 1 selects H., L. positions.

Lever 2 selects 8 different speeds correspond with lever 1.

In order to obtain the desired spindle speeds, please place the levers at the proper position. Be sure not to shift the levers when the spindle is running!!!

CHART OF SPINDLE SPEEDS(R.P.M.)

LEVER	LOW				HIGH			
4P	60	100	160	250	360	585	950	1500
8P	30	50	80	125	180	290	475	750



FEEDS:

Find out desired feed in the Feed Table, -and turn lever 3 and lever 6 to the correct positions (A,B, and C,D,E, F). Next turn the clamping lever 9 counterclockwise to disengage the gears, then user may turn the turning knob 28 to the position (1,2,3,4,5,6,7,8,9,10) as he desired. Engaging the gears again by turning clamping lever 9 clockwise.

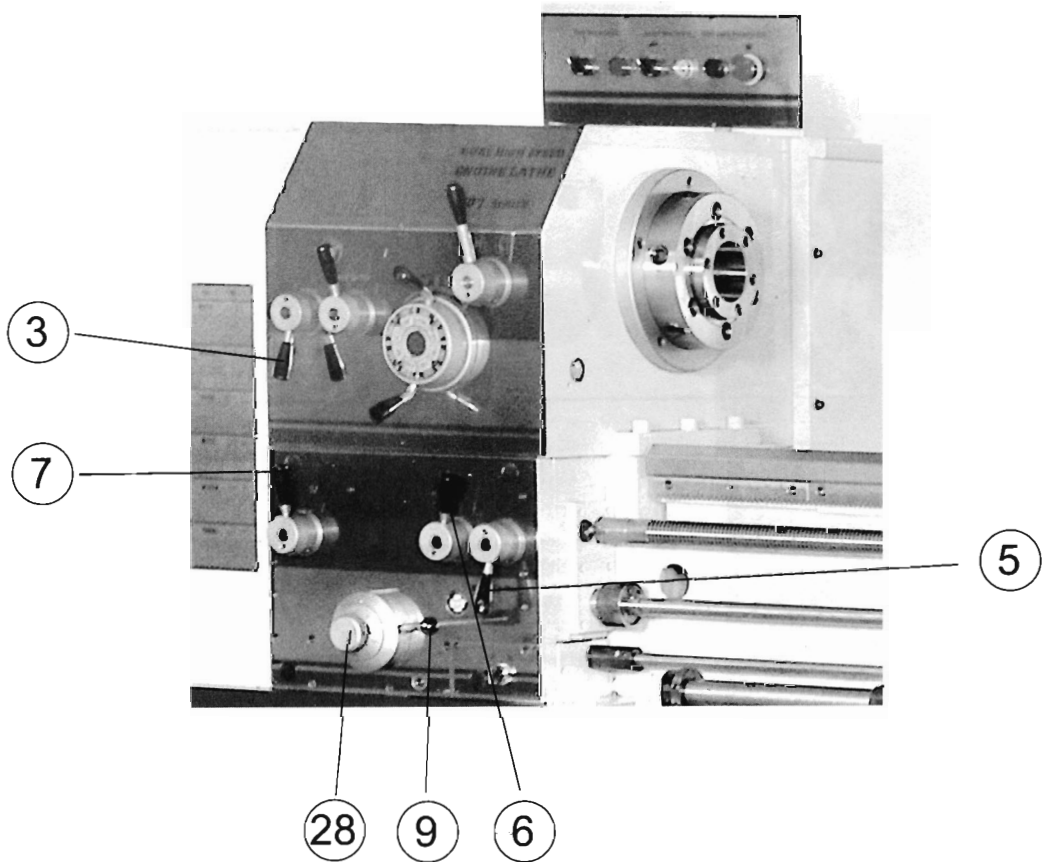
To start feeding, however, you must turn lever 7 to the feed position (I,M), and turn the lever 5 to the neutral position.

The rate of feeds shown in the table are for longitudinal feed, and rate of the cross feed is 1/2 value of the longitudinal feed's.

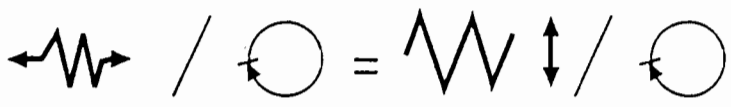
THREADS:


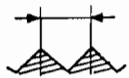



First find out the desired thread from the Thread Table, next you set lever 3, 6, 28, and 9 to the position. The method for the setting is the same as feed selection. By turning lever 7 and 5 to (I) position, you can cut English threads. Moving them to (M) position, you may cut Metric threads without changing gears at gear-train section.

If you change gears at the gear-train section, you may cut D.P or Module threads.



5-4 FEEDS AND THREADS TABLE OF DYNAMIC 20" SERIES



 1" / 										
LEVER	1	2	3	4	5	6	7	8	9	10
A.F	4	4½	4¾	5	5½	5¾	6	6½	6¾	7
B.F	8	9	9½	10	11	11½	12	13	13½	14
A.E	16	18	19	20	22	23	24	26	27	28
B.E	32	36	38	40	44	46	48	52	54	56
 π / inch										
LEVER	1	2	3	4	5	6	7	8	9	10
A.F	8	9	9.5	10	11		12	13		14
B.F	16	18	19	20	22		24	26		28
A.E										56
B.E										112
 inch / 										
LEVER	1	2	3	4	5	6	7	8	9	10
A.F	0.0216	0.0192	0.0184	0.0176	0.016	0.0152	0.0144	0.0136	0.0128	0.012
B.F	0.0108	0.0096	0.0092	0.0088	0.008	0.0076	0.0072	0.0068	0.0064	0.006
A.E	0.0054	0.0048	0.0046	0.0044	0.004	0.0038	0.0036	0.0034	0.0032	0.003
B.E	0.0027	0.0024	0.0023	0.0022	0.002	0.0019	0.0018	0.0017	0.0016	0.0015

M



LEVER	1	2	3	4	5	6	7	8	9	10
A.C	4	4.5	4.75	5	5.5		6	6.5		7
B.C	2	2.25		2.5	2.75		3	3.25		3.5
A.D	1			1.25			1.5			1.75
B.D	0.5						0.75			



LEVER	1	2	3	4	5	6	7	8	9	10
A.C	2	2.25		2.5	2.75		3	3.25		3.5
B.C	1			1.25			1.5			1.75
A.D	0.5						0.75			
B.D	0.25									

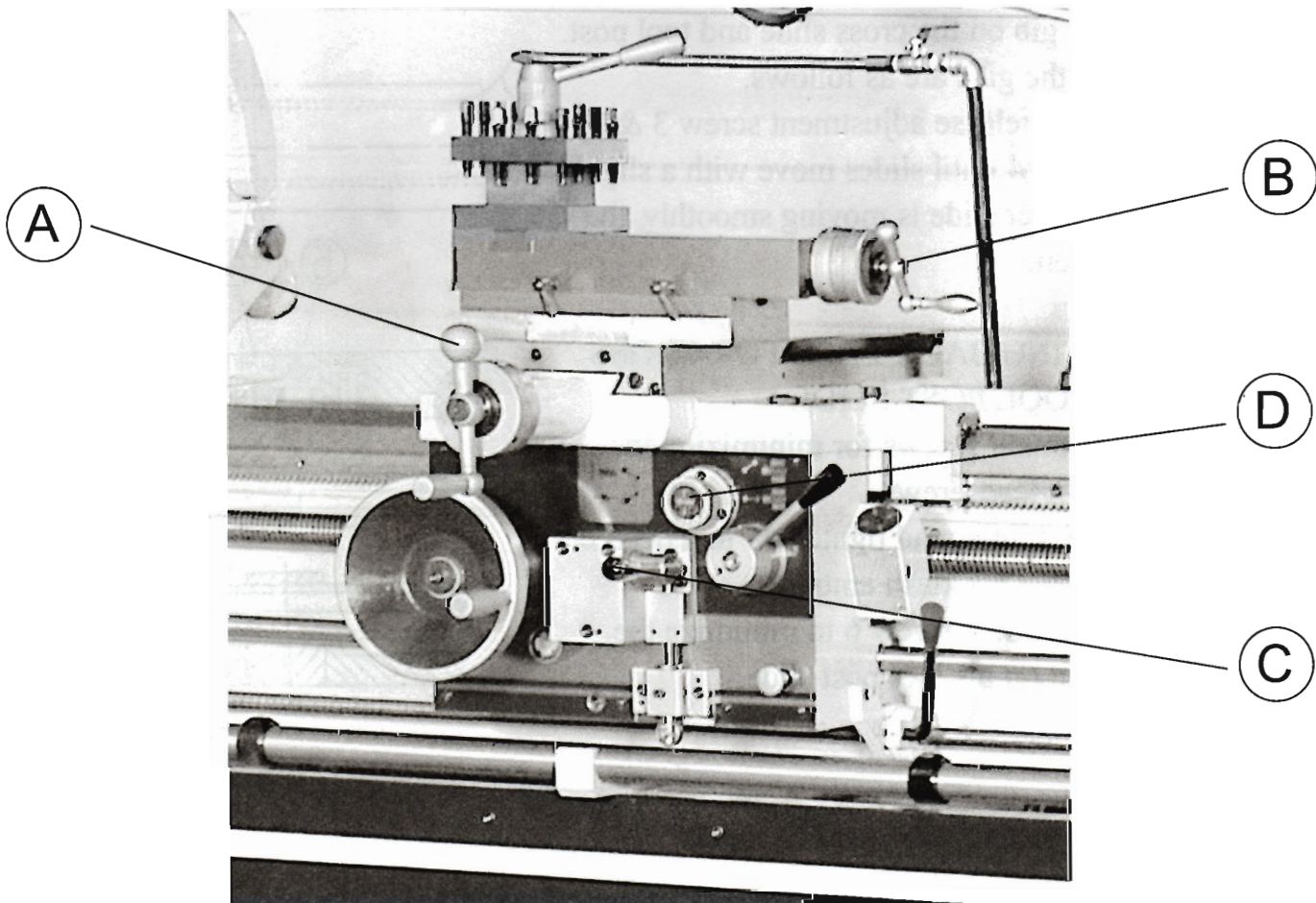


LEVER	1	2	3	4	5	6	7	8	9	10
A.C	0.35	0.04	0.42	0.44	0.48	0.50	0.52	0.56	0.58	0.06
B.C	0.17	0.20	0.21	0.22	0.24	0.25	0.26	0.28	0.29	0.30
A.D	0.09	0.10	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.15
B.D	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.08

5-5 CARRIAGE AND APRON

Carriage moves along the bed by hand or automatic feed. It also supports the cross slide, compound rest, tool post and cutting tools. The cross slide handle A and tool slide handle B move the cross slide and tool post in and out. The graduation on both dials is in two hundredths per rev. (0.02mm/rev) or in one thousandths per rev. (0.001"/rev).

The apron, anchored to the lower front of the carriage, contains the automatic longitudinal and cross feed controls. The engagement or disengagement of either feed is accomplished by lever C (drop worm system). Lever D determines which automatic feed is engaged. Pulling out D is engaging longitudinal feed, and pushing it in is for engaging crossfeed. There is also a neutral position between in and out position. You just have to feel it!



6. ADJUSTMENT

6-1 LEVELING ADJUSTMENT OF THE BED

As the work piece's accuracy is mostly depends on the bed. Please re-level and re-check the level of the bed frequently. The method for adjustment should be done according to the procedure in INSTALLATION.

6-2 ADJUSTMENT OF BEARINGS ON MAIN SPINDLE

Spindle bearings have been preloaded at factory, and they seldom require adjustment. If spindle spins too freely or there is play noticeable by pushing the spindle, or when spindle is noisy, or it is overheating, or there is chattering on the workpiece. You may have to adjust the tightness of the front two taper rollers bearings. To do so, you can tighten or loosen the spindle nut on the spindle assembly. Which way to go is depends on the above situation.

6-3 ADJUSTMENT OF TAPER GIB

There is a taper gib on the cross slide and tool post. Adjustment on the gibs are as follows.

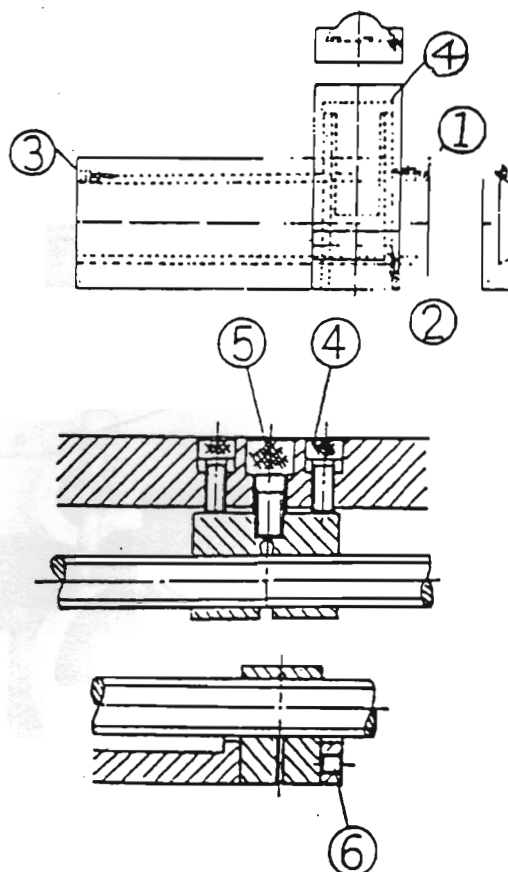
To adjust the gib, release adjustment screw 3 & 2, tighten screw 1 & 4 until slides move with a slight drag. When either slide is moving smoothly, the adjustment is done.

6-4 ELIMINATING BACK-LASH FOR CROSS SLIDE AND TOOL POST SLIDE

There are adjustment screws for minimizing the backlash on both leadscrews.

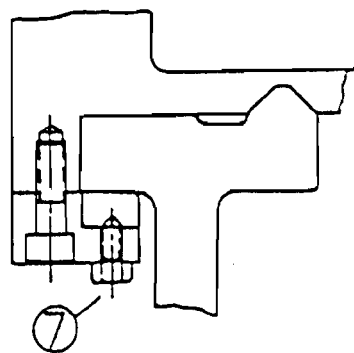
Loosen bolts #4 a little, and tighten #5 to a degree, this will reduce the backlash amount.

Tighten the adjustment screw 6 to minimize the backlash amount on the tool post slide.



6-5 CARRIAGE GIBS ADJUSTMENT

If there is a horizontal play developed between the carriage and the bed. Please adjust the four gib adjustment screws 7 evenly at the rear of the carriage, and stops when the carriage again move with a slight drag.

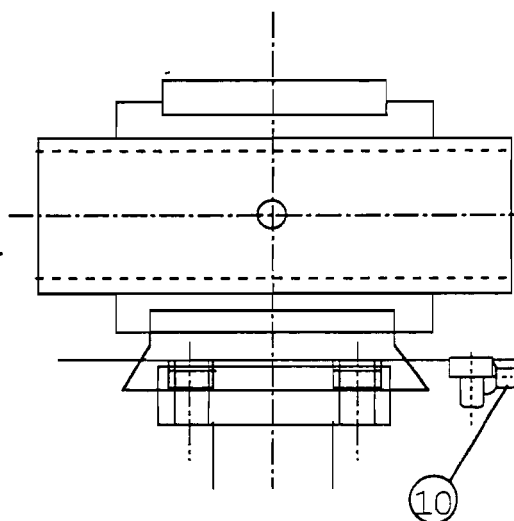


6-6 ADJUSTMENT OF FOOT BRAKE SYSTEM

There is a band type braking system on the machine. To adjust the brake band, open the left hand cover on the lower casting, next loosen the upper nut at brake band, then adjust the lower nut to proper position, finally retighten the upper nut again. This procedure is done until brake band is worn out.

6-7 ADJUSTMETN OF HALF NUT SUPPORTS

Half nut supports are located on the back side of the apron. They are dovetail machined, and they can slide up and down to help half nut engages. The gap for sliding has been adjusted in the factory. Unless there are uneven threads when threading occur, you should not adjust the gap clearance. First take out the thread chasing dial, then you have to adjust the three adjustment screws #10 until the half nut support slide smoothly in the dovetail groove again.



7. SPINDLE NOSE

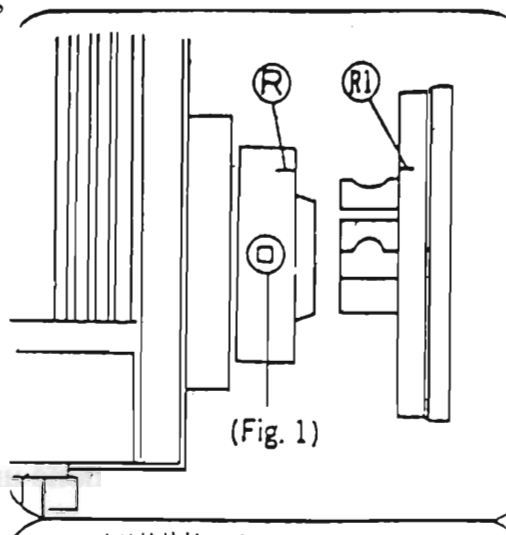
ASA OR D1-8 TYPE MOUNTING OF CHUCKS, FACE PLATE AND OTHER SPINDLE MOUNT ATTACHMENT

Make sure that the locating faces on both nose and attachment are scrupulously clean (Figure 1).

Mount the attachment onto the spindle nose so that the reference mark R and R1 are in line.

And lock each cam by turning it clockwise using provided chuck key.

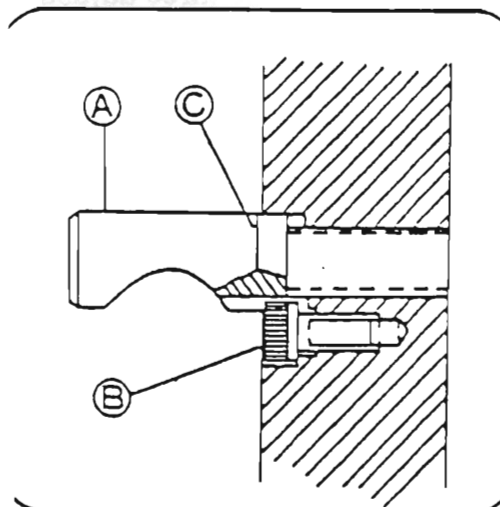
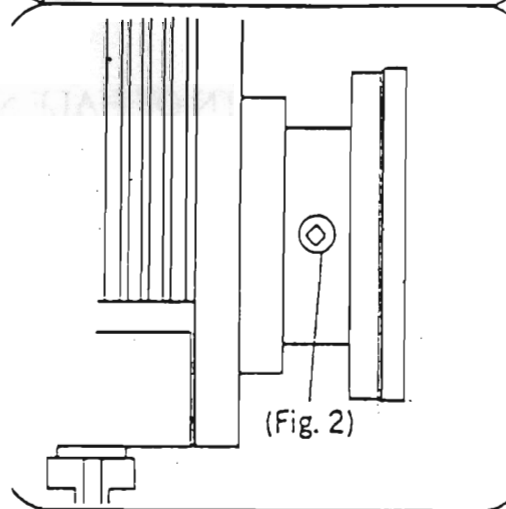
Note for correct locking condition on each cam. They must tighten with their index line located between the two Vee marks on the spindle nose.



TO ADJUST CAMLOCK STUDS

Remove locking screw B, next you turn stud A one full turn in or out as required. Re-fit and tighten lock screw B again.

Note A datum ring C is marked on each stud as a guide to the original or initial setting.



8. MAINTENANCE

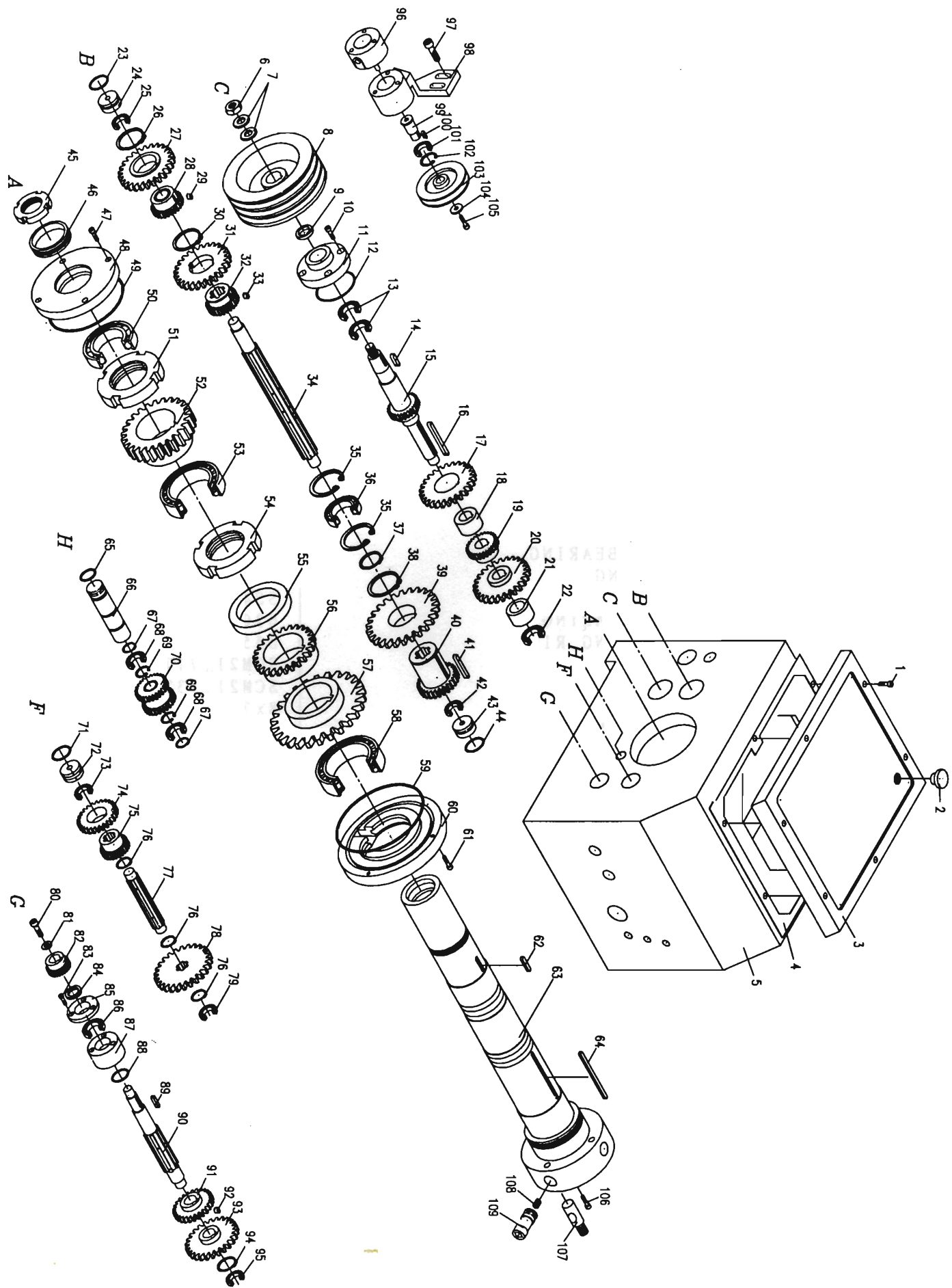
TROUBLE SHOOTING CHART

TROUBLE	PROBABLE CAUSE	CORRECTION
Vibration	Loose leveling screws Torn or mismatched vee belts Work or chuck out of balance operating at high spindle speeds Motor out of balance	Set all screws so they bear evenly on leveling plates. Replace vee belts with matched set. Balance chuck or reduce spindle speed. Contact local representative of motor manufacturer.
Chatter	Tool bit improperly ground or not on center Tool overhang too great. Using improper surface feed Feed rate too high or too low Gibs of cross slide or compound rest loose Spindle bearings worn	Regrind tool bit or adjust tool holder so that area of contact between tool bit and work is decreased. Avoid extreme negative rake angle. Keep point of tool bit as close as possible to tool holder. Reduce or increase spindle speed Reduce or increase feed. Adjust gibs. Adjust spindle bearings.
Chatter (cont'd)	Work improperly supported Vibration Spindle bearing loose	Adjust tailstock center. Use steady rest or follow rest on long slender shafts. Minimize tailstock barrel extension. See "Vibration" trouble above. Adjust spindle bearings.
Work not turned straight	Headstock and tailstock centers not aligned Work improperly supported Bed not level Tool not on center when using taper attachment	Align tailstock center. Use steady rest or follow rest. Reduce overhang from chuck. Relevel bed, using precision level. Put tool on center.
Work out of round	Work loose between centers or centers are excessively worn-work centers out of round Loose headstock spindle bearings	Adjust tailstock center. Regrind centers. Lap work centers. Adjust headstock spindle bearings.

9. MECHANICAL PARTS LIST FOR 20" SERIES

When ordering parts, please specify the following:

1. Series number
2. Model & year of production
3. Part number, page number & description
4. Quantity

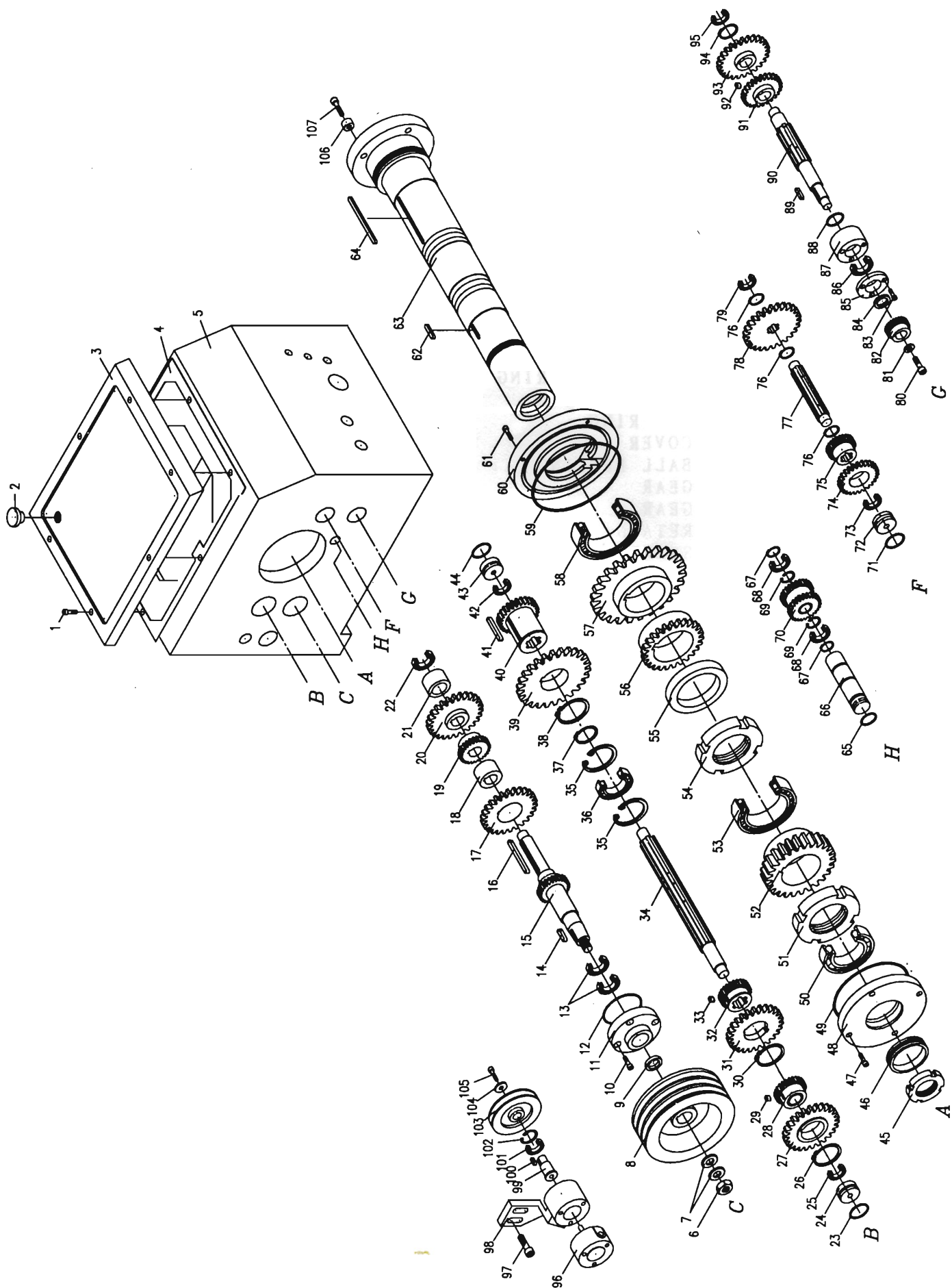


HEADSTOCK (D-TYPE)

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	SH-0625	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x25L	6
2	5H-40800	PLUG	Plastic	2
3	30H-30020	COVER	FC20	1
4	30H-40870	PACKING	PACKING	1
5	30H-30010	HEAD STOCK	FC25	1
6	N-20	NUT	M20xP1.5	1
7	W-20	WASHER	φ 20	2
8	30H-30780	PULLEY	FC20	1
9	TC-304510	OIL SEAL	30x45x10	1
10	SH-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	4
11	30H-40710	COVER	FC20	1
12	G-65	"O" RING	G-65	1
13	BB-6206	BALL BEARING	6206Z	2
14	KY-8x7x35	KEY	8x7x35L	1
15	30H-40040	SHAFT	SCM21	1
16	KY-8x7x108	KEY	8x7x108L	1
17	30H-40060	GEAR	SCM21,37T	1
18	30H-40630	COLLAR	SS41	1
19	30H-40050	GEAR	SCM21,27T	1
20	30H-40070	GEAR	SCM21,47T	1
21		COLLAR	SS41	1
22	BB-6305	BALL BEARING	6305	1
23	G-55	"O" RING	G-55	1
24	30H-40740	COVER	SS41	1
25	BB-62062RS	BALL BEARING	6206-2RS	1
26	S-55	RETAINING RING	S55	1
27	30H-40090A	GEAR	SCM21,71T	1
28	30H-40090B	GEAR	SCM21,53T	1
29	KY-8x7x14	KEY	8x7x14L	1
30	S-55	RETAINING RING	S55	1
31	30H-40100A	GEAR	SCM21,63T	1
32	30H-40100B	GEAR	SCM21,43T	1
33	KY-8x7x14	KEY	7x7x14L	1
34	30H-40080	SHAFT	SCM21	1
35	R-68	RETAINING RING	R68	2
36	BB-6008	BALL BEARING	6008	1
37	S-38	RETAINING RING	S38	1
38	S-55	RETAINING RING	S55	1
39	30H-40110A	GEAR	SCB21,63T	1
40	30H-40110B	GEAR	SCM21,21T	1
41	KY-8x7x30	KEY	8x7x30L	1
42	BB-62062RS	BALL BEARING	6206-2RS	1
43	30H-40740	COVER	SS41	1
44	G-55	"O" RING	G-55	1
45	AN-95	LOCKING NUT	AN95	1
46	30H-40230	SPARCER	S45C	1
47	SH-1030	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x30L	4
48	30H-30300	COVER	FC20	1
49	G-215	"O" RING	G-215	1
50	BB-6219	BALL BEARING	6219	1
51	AN-100	LOCKING NUT	AN100	1
52	30H-40140	GEAR	SCM21,55T	1
53	BB-30220	BALL BEARING	30220	1
54	AN-105	LOCKING NUT	AN105	1
55	30H-40150	SPARCER	FC20	1

HEADSTOCK (D-TYPE)

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	30H-40130	GEAR	SCM21,45T	1
57	30H-40120	GEAR	SCM21,87T	1
58	BB-30222	BALL BEARING	30222	1
59	G-275	"O" RING	G-275	1
60	30H-30290D	FRONT COVER	FC20	1
61	SH-1035	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x35L	5
62	KY-12x8x40	KEY	12x8x40L	1
63	30H-40030D	SPINDLE	S45C	1
64	KY-12x8x110	KEY	12x8x110L	1
65	G-20	"O" RING	G-20	1
66	30H-40240	SHAFT	SCM21	1
67	S-25	RETAINING RING	S25	2
68	BB-6005	BALL BEARING	6005	2
69	R-47	RETAINING RING	R47	2
70	30H-40160	GEAR	SCM21,32T	1
71	G-40	"O" RING	G-40	1
72	30H-40760	COVER	S45C	1
73	BB-6204	BALL BEARING	6204	1
74	30H-40200	GEAR	SCM21,45T	1
75	30H-40210	GEAR	SCM21,30T	1
76	S-32	RETAINING RING	S32	3
77	30H-40170	SHAFT	SCM21	1
78	30H-40220	GEAR	SCM21,55T	1
79	BB-6204	BALL BEARING	6204	1
80	SH-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	1
81		WASHER	φ 8	1
82	30B-40110	GEAR	S45C,24T	1
83	SH-0645	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x45L	4
84	TC-254008	OIL SEAL	25x40x8	1
85	30H-40730	COVER	S45C	1
86	BB-6005	BALL BEARING	6005	1
87	30H-40720	SHAFT COLLAR	FC20	1
88	G-40	"O" RING	G-40	1
89	KY-7x7x20	KEY	7x7x20L	1
90	30H-40190	SHAFT	SCM21	1
91	30H-40180B	GEAR	SCM21,45T	1
92	KY-8x7x14	KEY	8x7x14L	1
93	30H-40180A	GEAR	SCM21,60T	1
94	S-50	RETAINING RING	S50	1
95	BB-6204	BALL BEARING	6204	1
96		PUMP		1
97	S30H-41025	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x25L	2
98	30H-40700	PUMP BED	FC15	1
99	30H-40690	SHAFT	S45C	1
100	KY-5x5x16	KEY	5x5x16L	1
101	BB-6004	BALL BEARING	6004	1
102	R-42	RETAINING RING	R42	1
103	30H-40790	PULLEY	FC15	1
104	30H-40610	WASHER	SS41	1
105	S30H-40612	HEXAGON SOCKET HEAD CAP SCREW	M6x1.0x12L	1
106	30H-40330	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5	6
107	30H-40340	CAM BOLT	S45C	6
108		SPRING	SWPA	6
109	30H-40320	CAM	SCM21	6

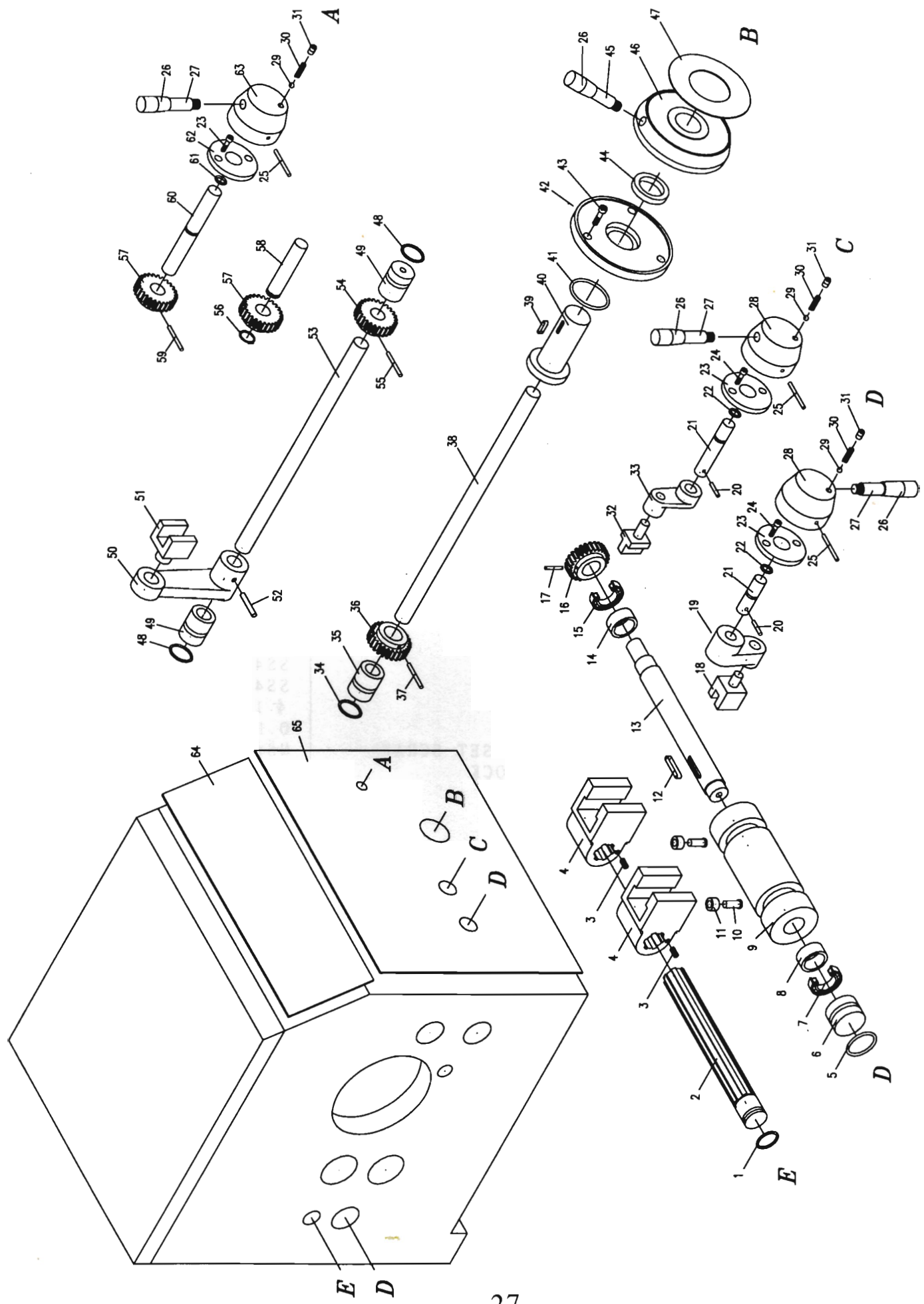


HEADSTOCK (A-TYPE)

REF NO.	PART NO.	PART NAME	SPECIFICATION	USQ
1	SH-0625	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x25L	6
2	5H-40800	PLUG	Plastic	2
3	30H-30020	COVER	FC20	1
4	30H-40870	PACKING	PACKING	1
5	30H-30010	HEAD STOCK	FC25	1
6	N-20	NUT	M20xP1.5	1
7	W-20	WASHER	φ 20	2
8	30H-30780	PULLEY	FC20	1
9	TC-304510	OIL SEAL	30x45x10	1
10	SH-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	4
11	30H-40710	COVER	FC20	1
12	G-65	"O" RING	G-65	1
13	BB-6206	BALL BEARING	6206Z	2
14	KY-8x7x35	KEY	8x7x35L	1
15	30H-40040	SHAFT	SCM21	1
16	KY-8x7x108	KEY	8x7x108L	1
17	30H-40060	GEAR	SCM21,37T	1
18	30H-40630	COLLAR	SS41	1
19	30H-40050	GEAR	SCM21,27T	1
20	30H-40070	GEAR	SCM21,47T	1
21		COLLAR	SS41	1
22	BB-6305	BALL BEARING	6305	1
23	G-55	"O" RING	G-55	1
24	30H-40740	COVER	SS41	1
25	BB-62062RS	BALL BEARING	6206-2RS	1
26	S-55	RETAINING RING	S55	1
27	30H-40090A	GEAR	SCM21,71T	1
28	30H-40090B	GEAR	SCM21,53T	1
29	KY-8x7x14	KEY	8x7x14L	1
30	S-55	RETAINING RING	S55	1
31	30H-40100A	GEAR	SCM21,63T	1
32	30H-40100B	GEAR	SCM21,43T	1
33	KY-8x7x14	KEY	7x7x14L	1
34	30H-40080	SHAFT	SCM21	1
35	R-68	RETAINING RING	R68	2
36	BB-6008	BALL BEARING	6008	1
37	S-38	RETAINING RING	S38	1
38	S-55	RETAINING RING	S55	1
39	30H-40110A	GEAR	SCB21,63T	1
40	30H-40110B	GEAR	SCM21,21T	1
41	KY-8x7x30	KEY	8x7x30L	1
42	BB-62062RS	BALL BEARING	6206-2RS	1
43	30H-40740	COVER	SS41	1
44	G-55	"O" RING	G-55	1
45	AN-95	LOCKING NUT	AN95	1
46	30H-40230	SPARCER	S45C	1
47	SH-1030	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x30L	4
48	30H-30300	COVER	FC20	1
49	G-215	"O" RING	G-215	1
50	BB-6219	BALL BEARING	6219	1
51	AN-100	LOCKING NUT	AN100	1
52	30H-40140	GEAR	SCM21,55T	1
53	BB-30220	BALL BEARING	30220	1
54	AN-105	LOCKING NUT	AN105	1
55	30H-40150	SPARCER	FC20	1

HEADSTOCK (A-TYPE)

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	30H-40130	GEAR	SCM21,45T	1
57	30H-40120	GEAR	SCM21,87T	1
58	BB-30222	BALL BEARING	30222	1
59	G-275	"O" RING	G-275	1
60	30H-30290A	FRONT COVER	FC20	1
61	SH-1035	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x35L	5
62	KY-12x8x40	KEY	12x8x40L	1
63	30H-40030A	SPINDLE	S45C	1
64	KY-12x8x110	KEY	12x8x110L	1
65	G-20	"O" RING	G-20	1
66	30H-40240	SHAFT	SCM21	1
67	S-25	RETAINING RING	S25	2
68	BB-6005	BALL BEARING	6005	2
69	R-47	RETAINING RING	R47	2
70	30H-40160	GEAR	SCM21,32T	1
71	G-40	"O" RING	G-40	1
72	30H-40760	COVER	S45C	1
73	BB-6204	BALL BEARING	6204	1
74	30H-40200	GEAR	SCM21,45T	1
75	30H-40210	GEAR	SCM21,30T	1
76	S-32	RETAINING RING	S32	3
77	30H-40170	SHAFT	SCM21	1
78	30H-40220	GEAR	SCM21,55T	1
79	BB-6204	BALL BEARING	6204	1
80	SH-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	1
81		WASHER	φ 8	1
82	30B-40110	GEAR	S45C,24T	1
83	SH-0645	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x45L	4
84	TC-254008	OIL SEAL	25x40x8	1
85	30H-40730	COVER	S45C	1
86	BB-6005	BALL BEARING	6005	1
87	30H-40720	SHAFT COLLAR	FC20	1
88	G-40	"O" RING	G-40	1
89	KY-7x7x20	KEY	7x7x20L	1
90	30H-40190	SHAFT	SCM21	1
91	30H-40180B	GEAR	SCM21,45T	1
92	KY-8x7x14	KEY	8x7x14L	1
93	30H-40180A	GEAR	SCM21,60T	1
94	S-50	RETAINING RING	S50	1
95	BB-6204	BALL BEARING	6204	1
96		PUMP		1
97	S30H-41025	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x25L	2
98	30H-40700	PUMP BED	FC15	1
99	30H-40690	SHAFT	S45C	1
00	KY-5x5x16	KEY	5x5x16L	1
01	BB-6004	BALL BEARING	6004	1
02	R-42	RETAINING RING	R42	1
03	30H-40790	PULLEY	FC15	1
04	30H-40610	WASHER	SS41	1
05	S30H-40612	HEXAGON SOCKET HEAD CAP SCREW	M6x1.0x12L	1
06	30H-40310	DRIVE KEY	SS41	1
07	30H-40820	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x20L	1

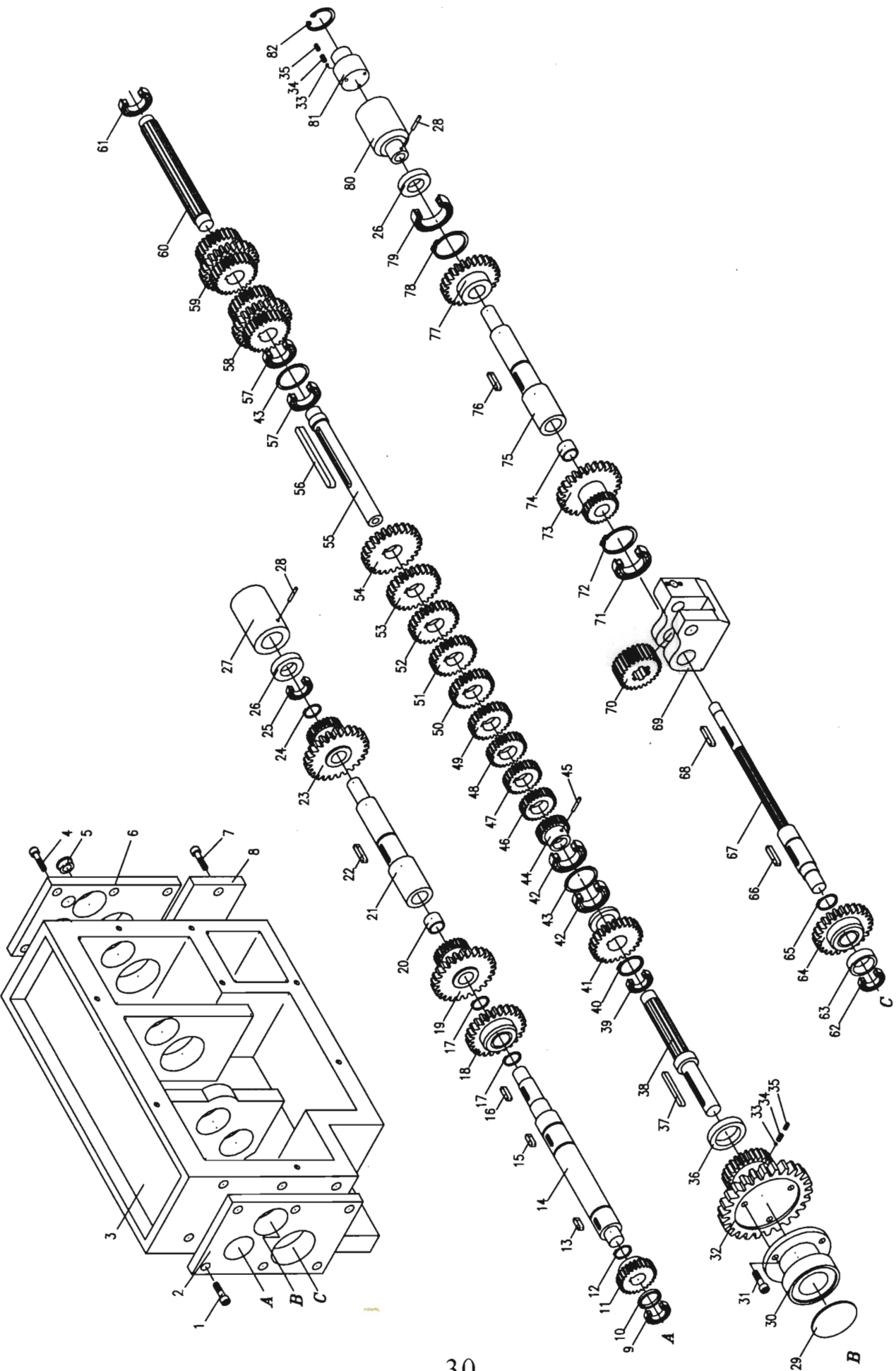


HEADSTOCK

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	G-25	"O" RING	G25	1
2	30H-40270	SHAFT	S45C	1
3		HEALESS, SOCKET SET SCRWE	M6xP1.0x16L	2
4	30H-40280	ROCKER ARM	FC25	2
5	G-40	"O" RING	G40	1
6	30H-40760	COVER	S45C	1
7	BB-6005	BALL BEARING	6005	1
8		COLLAR	S45C	1
9	30H-40370	CAM	FC25	1
10	30H-40390	SHAFT	S45C	2
11	30H-40680	COLLAR	S45C	2
12	KY-5x5x20	KEY	5x5x20L	1
13	30H-40380	SHAFT	S45C	1
14		COLLAR	S45C	1
15	BB-6005	BALL BEARING	6005	1
16	30H-40600	GEAR	S45C	1
17		PIN	φ 3x30L	1
18	30H-40550	CHANGE SPEED BLOCK	BC2	1
19	30H-40800	ROCKER ARM	FC15	1
20		PIN	φ 3x25L	2
21	30H-40510	SHAFT	S45C	2
22	G-15	"O" RING	G15	2
23	30H-40500	SLEEVE	S45C	2
24		HEXAGON SOCKET HEAD CAP SCREW	M5xP0.8x12L	6
25		PIN	φ 3x45L	3
26		KNOB	Plastic	3
27	30H-40490	LEVER	SS41	3
28	30H-40480	HANDLE BOSS	SS41	2
29		STEEL BALL	φ 1/4"	3
30		SPRING	O.D.6xWIREx0.8	3
31		HEALESS, SOCKET SET SCRAW	M8xP1.25x10L	3
32	30H-40530	CHANGE SPEED BLOCK	BC2	1
33	30H-40520	ROCKER ARM	FC15	1
34	G-25	"O" RING	G25	1
35	30H-40850	COVER	S45C	1
36	30H-40600	GEAR	S45C	1
37		PIN	φ 3x35L	1
38	30H-40450	SHAFT	SS41	1
39		KEY	5x5x20L	1
40	30H-40560	BUSHING	FC15	1
41	G-50	"O" RING	G50	1
42	30H-40580	COVER	FC15	1
43		HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	3
44	TC-354708	OIL SEAL	35x47x8	1
45		LEVER	SS41	1
46	30H-40570	HANDLE BOSS	FC20	1
47		NAME PLATE	AL	1
48	G-25	"O" RING	G25	2
49	30H-40440	COVER	S45C	2
50	30H-40470	ROCKER ARM	FC15	1
51	30H-40540	CHANGE SPEED BLOCK	BC2	1
52		PIN	φ 3x35L	1
53	30H-40450	SHAFT	SS41	1
54	30H-40460	GEAR	SS41	1
55		PIN	φ 3x35L	1

HEADSTOCK

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	S-18	RETAINING RING	S18	1
57	30H-40420	GEAR	S45C, 25T	2
58	30H-40430	SHAFT	S45C	1
59		PIN	Φ 3x35L	1
60	30H-40410	SHAFT	S45C	1
61	P-14	"O" RING	P14	1
62	30H-40860	SLEEVE	S45C	1
63	30H-40400	HANDLE BOSS	S45C	1
64		NAME PLATE	AL	1
65		NAME PLATE	AL	1

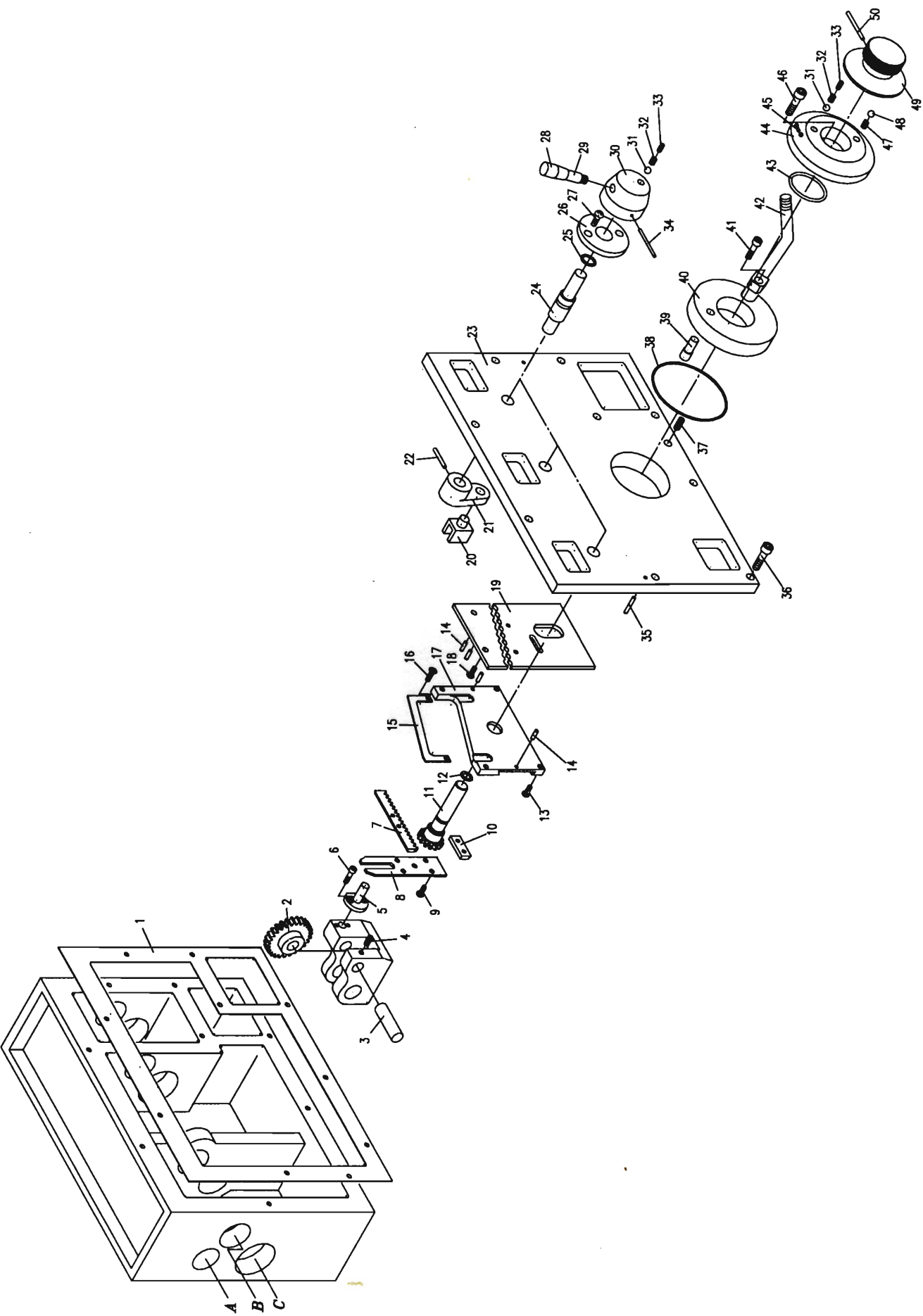


GEAR BOX

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	SH-0616	SOCKET HEAD CAP SCREW	M6xP1.0x16L	6
2	30G-40040	COVER	FC15	1
3	30G-30010	GEAR BOX	FC20	1
4	SH-0616	SOCKET HEAD CAP SCREW	M6xP1.0x16L	6
5		HOLE PLUG	PLASTIC	1
6	30G-40050	COVER	FC15	1
7	SH-0616	SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
8	30G-40660	COVER	FC15	1
9	BB-6004	BALL BEARING	6004	1
10	30G-40330	COLLAR	SS41	1
11	30G-40080	GEAR	S45C	1
12	S-25	SNAP RING	S25	1
13	KP-5520	KEY	5x5x20	1
14	30G-40060	SHAFT	S45C	1
15	KP-5520	KEY	5x5x20	1
16	KP-5525	KEY	5x5x25	1
17	S-25	SNAP RING	S25	2
18	30G-40090	GEAR	S45C	1
19	30G-40100	GEAR	S45C	1
20		BEARING	15x21x16	1
21	30G-40110	SHAFT	S45C	1
22	KP-5525	KEY	5x5x25	1
23	30G-40120	GEAR	S45C	1
24	S-25	SNAP RING	S25	1
25	BB-6004	BALL BEARING	6004	1
26	20x35x8	OIL SEAL	20x35x8	2
27	30G-40130	SHAFT SHEATH	S45C	1
28		PIN	φ 3x35	2
29		NAME PLATE	AL	1
30	30G-40160	SELECTOR	S45C	1
31	SH-0616	SOCKET HEAD CAP SCREW	M6xP1.0x16L	3
32	30G-40150	GEAR	S45C	1
33	B-04	STEEL BALL	φ 1/4"	4
34	SC-0608	SPRING	φ 0.8	4
35	SS-0806	SOCKET SET SCRAW	M8xP1.25x6L	4
36	30x42x8	OIL SEAL	30x42x8	1
37	KP-7768	KEY	7x7x68	1
38	30G-40140	SHAFT	S45C	1
39	BB-60052RS	BALL BEARING	6005-2RS	1
40	S-25	SNAP RING	S25	1
41	30G-40170	GEAR	S45C	1
42	BB-6004	BALL BEARING	6004	2
43	NR-35	WASHEER	NR-35	2
44	30G-40190	GEAR	S45C	1
45		PIN	φ 4x20	1
46	30G-40200	GAER	S45C	1
47	30G-40210	GAER	S45C	1
48	30G-40220	GAER	S45C	1
49	30G-40230	GAER	S45C	1
50	30G-40240	GAER	S45C	1
51	30G-40250	GAER	S45C	1
52	30G-40260	GAER	S45C	1
53	30G-40270	GAER	S45C	1
54	30G-40280	GAER	S45C	1
55	30G-40180	SHAFT	S45C	1

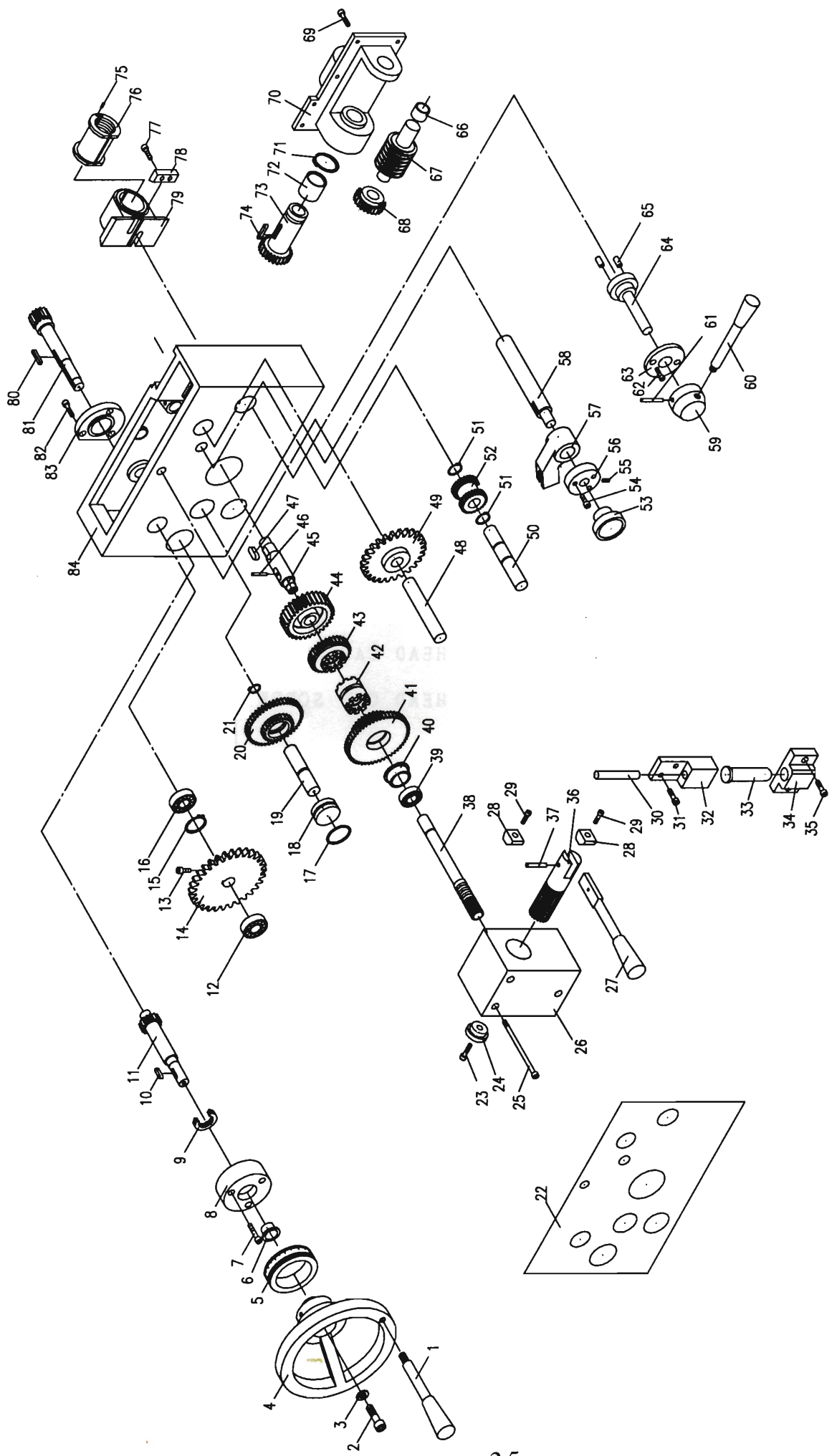
GEAR BOX

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	KP-5590	KEY	5x5x90	1
57	BB-6004	BALL BEARING	6004	2
58	30G-40300	GEAR	S45C	1
59	30G-40310	GEAR	S45C	1
60	30G-40290	SHAFT	S45C	1
61	BB-6004	BALL BEARING	6004	1
62	BB-6004	BALL BEARING	6004	1
63	30G-40070	COLLAR	SS41	1
64	30G-40340	GEAR	S45C	1
65	S-25	SNAP RING	S25	1
66	KP-5521	KEY	5x5x21	1
67	30G-40320	SHAFT	S45C	1
68	KP-5526	KEY	5x5x26	1
69	30G-40390	ROCKING ARM	FC15	1
70	30G-403350	GEAR	S45C	1
71	BB-6004	BALL BEARING	6004	1
72	S-20	SNAP RING	S20	1
73	30G-40360	GEAR	S45C	1
74		BEARING	15x21x16	1
75	30G-40400	SHAFT	S45C	1
76	KP-5520	KEY	5x5x20	1
77	30G-40410	GEAR	S45C	1
78	S-25	SNAP RING	S25	1
79	BB-6004	BALL BEARING	6004	1
80	30G-40420	SHAFT SHEATH	S45C	1
81	30G-40430	SHAFT	S45C	1
82	R-55	RETAINING RING	R55	1



GEAR BOX

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	30G-40030	PACKING		1
2	30G-40370	GEAR	S45C	1
3	30G-40380	SHAFT	S45C	1
4	SS-0612	SOCKET SET SCREW	M6xP1.0x12L	1
5	30G-40600	CHANGING SPEED PIN	S45C	1
6	SH-0516	SOCKET HEAD CAP SCREW	M5xP0.8x16L	2
7	30G-40650	RACK	SS41	1
8	30G-40660	SLIDE PLATE	SS41	1
9	SH-0510	SOCKET HEAD CAP SCREW	M5xP0.8x10L	4
10	7G-40580	SLIDE WEDGE	SS41	1
11	30G-40590	GEAR SHAFT	S45C, M2x14T	1
12		"O" RING	P12	1
13	SH-0516	SOCKET HEAD CAP SCREW	M5xP0.8x16L	4
14		PIN	φ 4x8L	4
15	30G-40670	COVER	SS41	1
16		SCREW	M3xP0.5	2
17	30G-30640	GUIDE PLATE	SS41	1
18	SH-0510	SOCKET HEAD CAP SCREW	M5xP0.8x10L	2
19	30G-40680	SETTING PLATE	SS41	1
20	30G-40520	CHANGE SPEED BLOCK	BC2	3
21	30G-40500	ROCKER ARM	FC15	3
22		PIN	φ 3x35L	3
23	30G-40020	GEAR BOX COVER	FC20	1
24	30G-40490	SHAFT	S45C	3
25	P-15	"O" RING	P15	3
26	30G-40480	SLEEVE	S45C	3
27	SH-0612	ROUND HEAD SCREW	M6xP1.0x12L	6
28		KNOB	PLASTIC	1
29	30G-40460	LEVER	SS41	3
30	30G-40470	HANDLE BOSS	S45C	3
31	B-04	STEEL BALL	φ 1/4"	3
32	SC-0608	SPRING	φ 0.8	3
33	SS-0806	SOCKET SET SCREW	M8xP1.25x6L	3
34		PIN	φ 3x45L	3
35		PIN	φ 4x20L	2
36	SH-0640	SOCKET HEAD CAP SCREW	M6xP1.0x40L	13
37	SS-1/4x12	HEX. SOCKET SET SCREW	1/4x12L	1
38	RG-90	"O" RING	G90	1
39	30G-40550	DOWEL	SS41	1
40	7G-40530	ROCKING ARM	FC15	1
41	SS-0612	SOCKET HEAD CAP SCREW	M6xP1.0x12L	1
42	7G-40790	LEVER	SS41	1
43		"O" RING	G45	1
44	7G-40510	COVER	FC20	1
45		ROUND HEAD RIVET		1
46	SH-0630	SOCKET HEAD CAP SCREW	M6xP1.0x30L	3
47		SPRING	φ 0.8	1
48	B-05	STEEL BALL	φ 5/16	1
49	30G-40540	SELECTOR	SS41	1
50		PIN	φ 4x45L	1

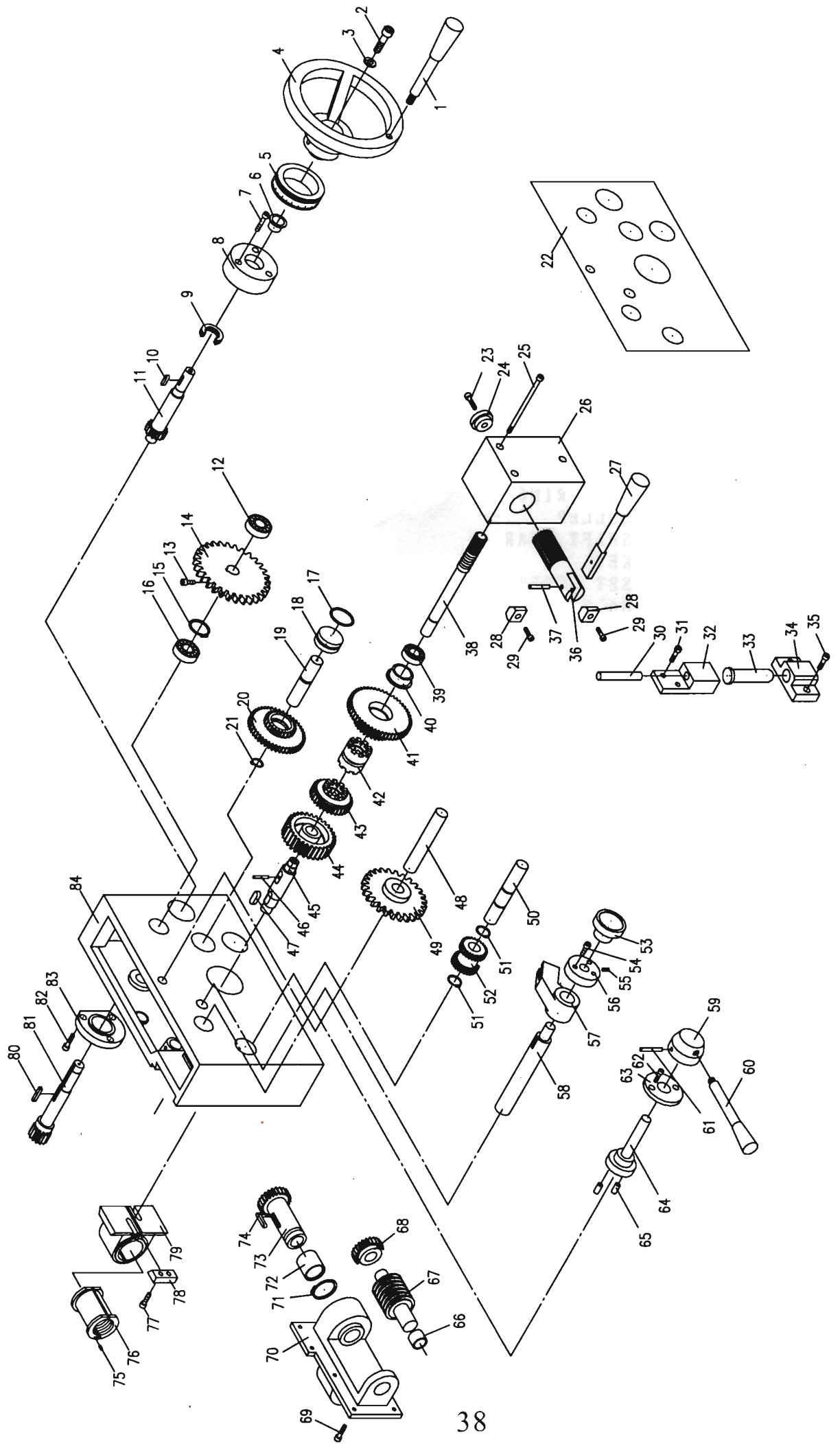


APRON (LEFT HAND)

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1		LEVER	SS41	1
2	HS-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	1
3		WASHER	φ 8	1
4	30A-40150	HANDLE WHEEL	FC20	1
5	30A-40140	INDEX RING	SS41	1
6	30A-40210	COLLER	PBC2	1
7	HS-0845	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x45L	3
8	30A-40120	COVER	FC15	1
9	TB-51204	THRUST BEARING	51204	1
10	KY-050525	KEY	5x5x25	1
11	30A-40130	GEAR SHAFT	S45C	1
12		BALL BEARING	6004	1
13		PIN	φ 3x45L	1
14	30A-40180	GEAR	S45C	1
15	S-30	SNAP RING	S30	1
16	BB-6006	BALL BEARING	6006	1
17	G-35	"O" RING	G35	1
18	30A-40110	COVER	S45C	1
19	30A-40090	SHAFT	S45C	1
20	30A-40100	GEAR	S45C	1
21	S-20	SNAP RING	S20	1
22		NAME PLATE	AL	1
23	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	1
24	30A-40560	WASHER	SS41	1
25	HS-0880	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x80L	3
26	30A-40290	BRACKET	FC25	1
27	30A-40300	LEVER	S45C	1
28	30A-40320	SET BLOCK	SS41	1
29	HS-0312	HEXAGON SOCKET HEAD CAP SCREW	M3xP0.5x12L	2
30	30A-40510	SHAFT	S45C	1
31	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
32	30A-40500	BRACKET	FC15	1
33	30A-40490	SHAFT	S45C	1
34	30A-40480	BRACKET	FC15	1
35	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
36	30A-40310	GEAR SHAFT	S45C	1
37		PIN	φ 4x30	1
38	30A-40190	SHAFT	S45C	1
39	BB-6010	BALL BEARING	6010	1
40	30A-40220	COLLER	PBC2	1
41	30A-40260	GEAR	S45C	1
42	30A-40250	CLUTCH	S45C	1
43	30A-40240	CLUTCH GEAR	S45C	1
44	30A-40230	WORM WHEEL	PBC2	1
45	30A-40200	SHAFT	S45C	1
46	30A-40270	PIN	S45C	1
47	KY-050524	KEY	5x5x24	1
48	30A-40420	SHAFT	S45C	1
49	30A-40430	GEAR	S45C	1
50	30A-40400	SHAFT		1
51	S-20	SNAP RING	S20	2
52	30A-40410	GEAR	S45C	1
53	30A-40470	COVER	S45C	1
54	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	3
55	SS-0612	HEXAGON SOCKET SET SCREW	M6xP1.0x12L	1

APRON (LEFT HAND)

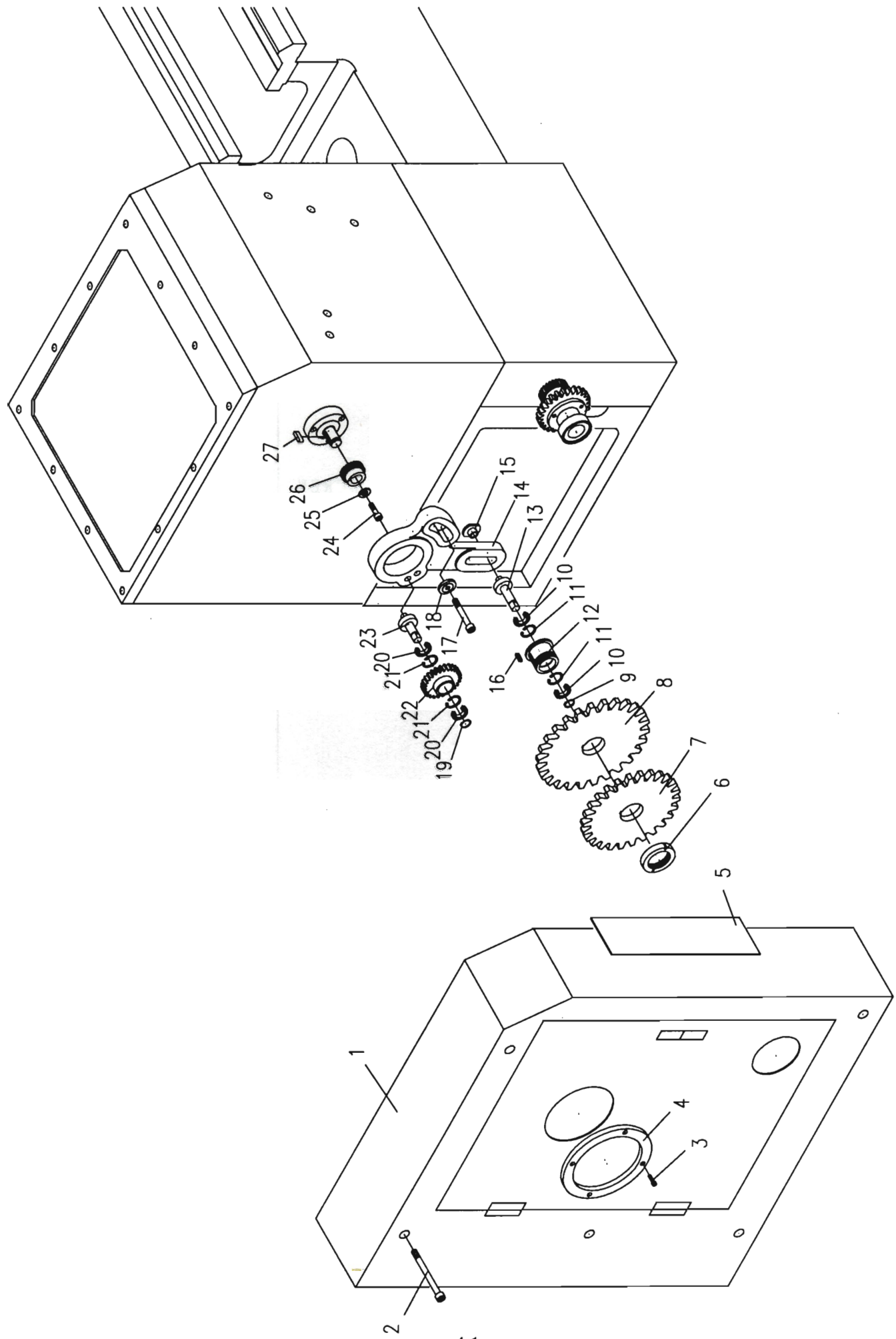
REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	30A-40460	SLEEVE	S45C	1
57	30A-40450	SHAFT BLOCK	FC20	1
58	30A-40440	SHAFT	S45C	1
59	30A-40350	HANDLE BOSS	SS41	1
60	30A-40360	LEVER	SS41	1
61		PIN	φ 3x45L	1
62	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
63	30A-40340	SLEEVE	S45C	1
64	30A-40330	SHAFT	S45C	1
65		SHAFT	S45C	2
66	30A-40080	COLLER	PBC2	1
67	30A-40060	GEAR	S45C	1
68	30A-40070	GEAR	S45C	1
69	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	8
70	30A-40020	WORM BASE	FC20	1
71	S-40	SNAP RING	S40	1
72	30A-40040	COLLER	PBC2	1
73	30A-40050	SHAFT GEAR	S45C	1
74	KY-070750	KEY	7x7x50	1
75		SET SCREW	M4	2
76	30A-40380	HALF NUT	ALBC2	1
77	HS-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	2
78	30A-40370	GIB	FC15	1
79	30A-40390	HALF NUT SUPPORT	FC20	1
80	KY-050520	KEY	5x5x20	1
81	30A-40160	SHAFT	S45C	1
82	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	3
83	30A-40170	COVER	FC15	1
84	30A-40010	APRON	FC30	1



REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1		LEVER	SS41	1
2	HS-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	1
3		WASHER	§ 8	1
4	30A-40150	HANDLE WHEEL	FC20	1
5	30A-40140	INDEX RING	SS41	1
6	30A-40210	COLLER	PBC2	1
7	HS-0845	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x45L	3
8	30A-40120	COVER	FC15	1
9	TB-51204	THRUST BEARING	51204	1
10	KY-050525	KEY	5x5x25	1
11	30A-40130	GEAR SHAFT	S45C	1
12		BALL BEARING	6004	1
13		PIN	§ 3x45L	1
14	30A-40180	GEAR	S45C	1
15	S-30	SNAP RING	S30	1
16	BB-6006	BALL BEARING	6006	1
17	G-35	"O" RING	G35	1
18	30A-40110	COVER	S45C	1
19	30A-40090	SHAFT	S45C	1
20	30A-40100	GEAR	S45C	1
21	S-20	SNAP RING	S20	1
22		NAME PLATE	AL	1
23	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	1
24	30A-40560	WASHER	SS41	1
25	HS-0880	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x80L	3
26	30A-40290	BRACKET	FC25	1
27	30A-40300	LEVER	S45C	1
28	30A-40320	SET BLOCK	SS41	1
29	HS-0312	HEXAGON SOCKET HEAD CAP SCREW	M3xP0.5x12L	2
30	30A-40510	SHAFT	S45C	1
31	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
32	30A-40500	BRACKET	FC15	1
33	30A-40490	SHAFT	S45C	1
34	30A-40480	BRACKET	FC15	1
35	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
36	30A-40310	GEAR SHAFT	S45C	1
37		PIN	§ 4x30	1
38	30A-40190	SHAFT	S45C	1
39	BB-6010	BALL BEARING	6010	1
40	30A-40220	COLLER	PBC2	1
41	30A-40260	GEAR	S45C	1
42	30A-40250	CLUTCH	S45C	1
43	30A-40240	CLUTCH GEAR	S45C	1
44	30A-40230	WORM WHEEL	PBC2	1
45	30A-40200	SHAFT	S45C	1
46	30A-40270	PIN	S45C	1
47	KY-050524	KEY	5x5x24	1
48	30A-40420	SHAFT	S45C	1
49	30A-40430	GEAR	S45C	1
50	30A-40400	SHAFT		1
51	S-20	SNAP RING	S20	2
52	30A-40410	GEAR	S45C	1
53	30A-40470	COVER	S45C	1
54	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	3
55	SS-0612	HEXAGON SOCKET SET SCREW	M6xP1.0x12L	1

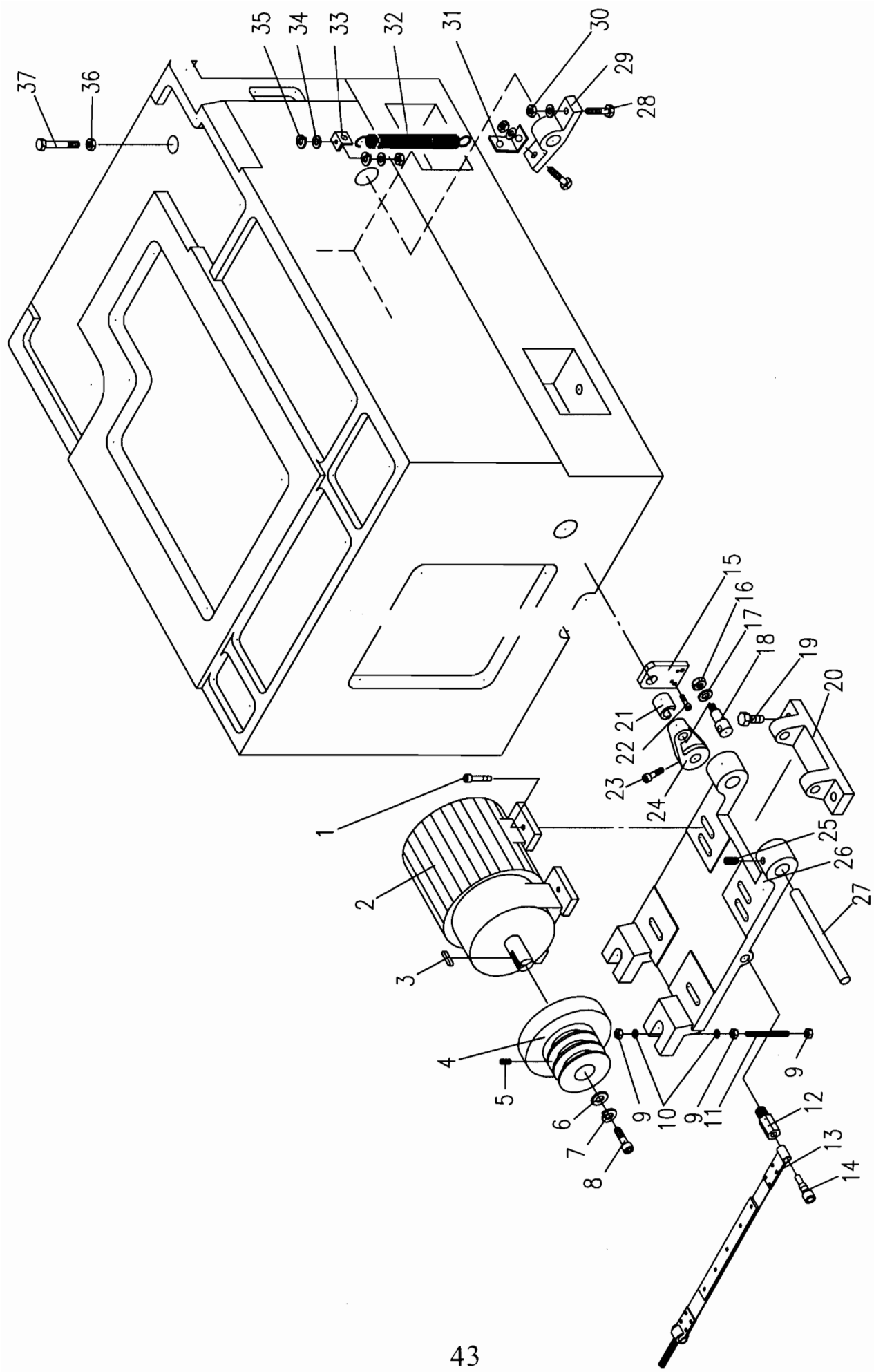
APRON (RIGHT HAND)

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	30A-40460	SLEEVE	S45C	1
57	30A-40450	SHAFT BLOCK	FC20	1
58	30A-40440	SHAFT	S45C	1
59	30A-40350	HANDLE BOSS	SS41	1
60	30A-40360	LEVER	SS41	1
61		PIN	φ 3x45L	1
62	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	2
63	30A-40340	SLEEVE	S45C	1
64	30A-40330	SHAFT	S45C	1
65		SHAFT	S45C	2
66	30A-40080	COLLER	PBC2	1
67	30A-40060	GEAR	S45C	1
68	30A-40070	GEAR	S45C	1
69	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	8
70	30A-40020	WORM BASE	FC20	1
71	S-40	SNAP RING	S40	1
72	30A-40040	COLLER	PBC2	1
73	30A-40050	SHAFT GEAR	S45C	1
74	KY-070750	KEY	7x7x50	1
75		SET SCREW	M4	2
76	30A-40380	HALF NUT	ALBC2	1
77	HS-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	2
78	30A-40370	GIB	FC15	1
79	30A-40390	HALF NUT SUPPORT	FC20	1
80	KY-050520	KEY	5x5x20	1
81	30A-40160	SHAFT	S45C	1
82	HS-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	3
83	30A-40170	COVER	FC15	1
84	30A-40010	APRON	FC30	1



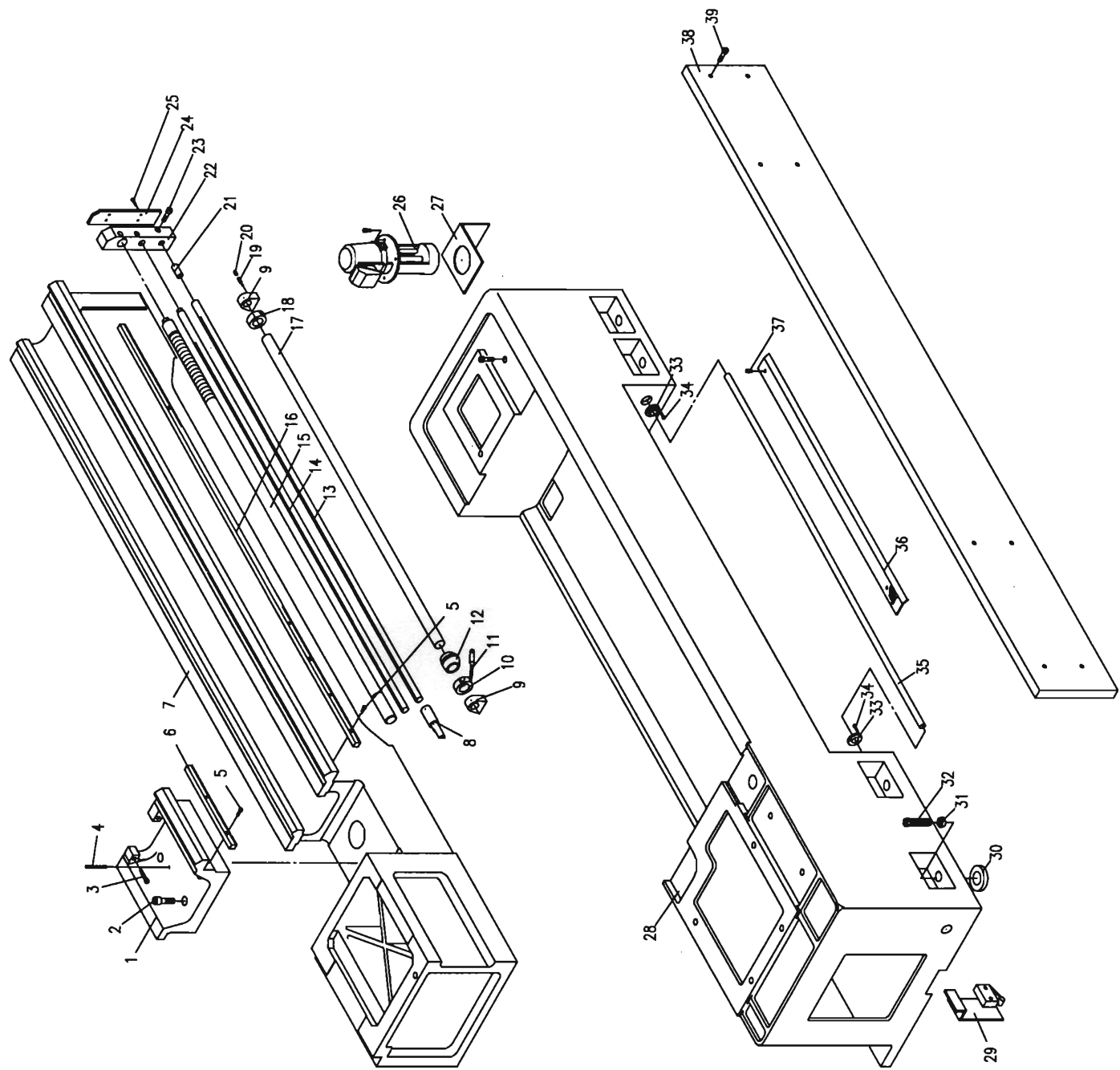
CHANGE GEAR

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	30B-40080	SLIDE COVER	SS41	1
2	SH-10190	HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x190L	5
3	SH-0512	HEXAGON SOCKET HEAD CAP SCREW	M5xP0.8x12L	4
4	30B-40670	COVER	FC15	1
5	30P-40080	NAME PLATE	AL	1
6	30B-40160	NUT	S45C	1
7	30B-40130	GEAR	FC30,110T	1
8	30B-40120	GEAR	FC30,127T	1
9	S-15	SNAP RING	S15	1
10	BB-6202	BALL BEARING	6202	2
11	R-35	SNAP RING	R35	2
12	30B-40150	SHAFT COLLAR	S45C	1
13	30B-40180	SHAFT	S45C	1
14	30B-30100	QUADRANT BRACKET	FC15	1
15	30B-40200	NUT	S45C	1
16		KEY	5x5x19L	1
17	SH-1045	HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x45L	1
18	30B-40210	WASHER	SS41	1
19	S-17	SNAP RING	S17	1
20	BB-61903	BALL BEARING	61903	2
21	R-30	SNAP RING	R30	2
22	30B-40140	GEAR	S45C,42T	1
23	30B-40190	SHAFT	S45C	1
24	SH-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	1
25		WASHER	φ 8	1
26	30B-40110	GEAR	S45C,24T	1
27		KEY	7x7x20L	1



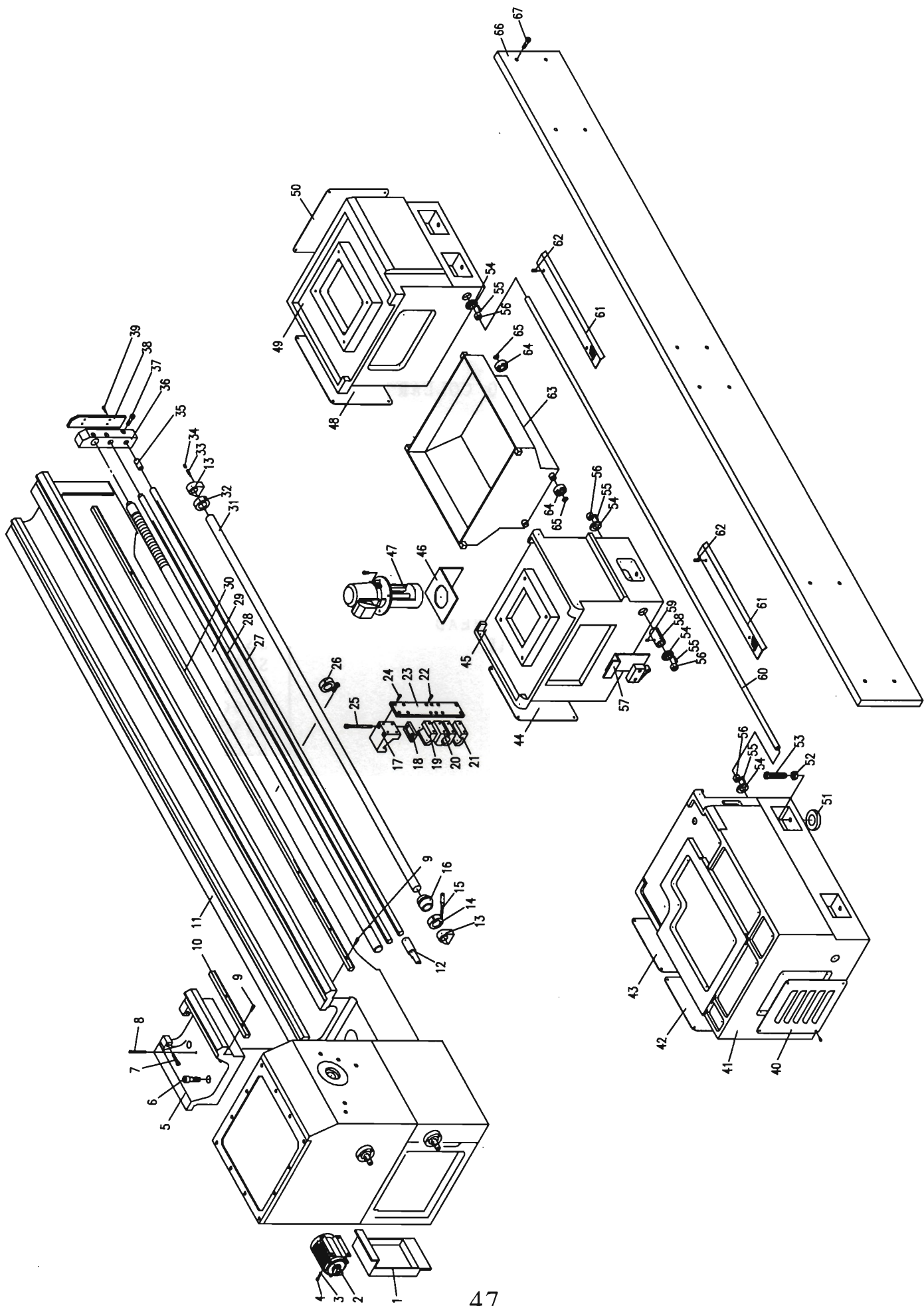
BRAKE MECHANISM

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1		HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x50L	4
2		MOTOR	10HP	1
3		KEY	6x6x20L	1
4	30B-40320	MOTOR PULLY	FC15	1
5		HEXAGON SOCKET SET SCREW	M8xP1.25x12L	1
6	30B-40820	WASHER	SS41	1
7		SPRING WASHER	§ 16	1
8		HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x50L	1
9		NUT	M16	6
10		WASHER	§ 16	4
11	30B-41120	BLOT	SS41	2
12	30B-40340	BLOT	SS41	1
13	30B-30350	BRAKE BAND	5HP / 7-1/2HP	1
14		HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x40L	1
15	7B-41260	BRACKET	FC15	1
16		NUT	M10	1
17		WASHER	§ 10	1
18	7B-40370	SHAFT	SS41	1
19		HEX. CAP SCREW	M10xP1.5x35L	3
20	7B-41190	SUPPORT BASE	FC15	1
21	7B-41300	COLLER	SS41	1
22		HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x20L	2
23		HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x25L	1
24	7B-40360	BRACK ARM	FC15	1
25		HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x10L	1
26	30B-30270	MOTOR BASE	FC15	1
27	7B-41130	SHAFT	SS41	1
28	HH-1080	HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x80L	2
29	9B-40720	ROCKER ARM	FC15	1
30	N-10	NUT	M10	2
31	9B-40710	ROD	SS41	1
32	O.D. - 1"	TENSION SPRING	O.D.1", Wire § 1/8	1
33	9B-40710	ROD	SS41	1
34	W-10	WASHER	§ 10	3
35	SW-10	SPRING WASHER	§ 10	5
36	N-10	NUT	M10	2
37	HH-1080	HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x80L	1



BED

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	30B-40210	GAP	FC25	1
2	SH-1280	HEXAGON SOCKET HEAD CAP SCREW	M12xP1.5x80L	4
3	SH-0845	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x45L	2
4	TP-0788	TAPE PIN	#7x88L	2
5	SH-0625	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x25L	8
6	30B-40360	RACK	S45C	1
7	30B-10010	BED	FC25	1
8	9B-40450	SWITCH SHAFT-SP	SS41	1
9	9B-40620	SUPPORT BASE	FC15	2
10	9B-41190	GRADUATED MICRO COLLAR	SS41	1
11	9B-40490	LEVER	S20C-D	1
12	9B-40340	STOP COLLAR	SS41	1
13	30B-40060	STARTING ROD	SS41	1
14	30B-40050	FEED ROD	S20C-D	1
15	30B-40040I	LEAD SCREW	S20C-D	1
	30B-40040M	LEAD SCREW	S20C-D	1
16	30B-40350	RACK	S45C	1
17	30B-40070	STOP ROD	S20C-D	1
18	9B-40340	STOP COLLAR	SS41	1
19	SP-M8x20	SPRING	M8x20L	4
20	SS-0810	HEXAGON SOCKET SET SCREW	M8xP1.25x10L	1
21	9B-40500	COLLAR	S20C-D	1
22	30B-40370	BRACKET	FC15	1
23	SH-1270	HEXAGON SOCKET HEAD CAP SCREW	M12xP1.5x70L	3
24	30B-40380	BRACKET COVER	FC15	1
25	SH-0612	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x12L	4
26	1/2"HP	COOLANT PUMP	1/2"	1
27	9B-40660	COOLANT PUMP BED	SS41	1
28	9B-30020	LEG	FC15	1
29	9B-41240	COVER	SS41	1
30	9B-40730	BASE BLOCK	FC15	10
31	N-25	NUT	SS41	10
32	M-25	FOUNDATION BOLT	SS41	10
33	9B-40770	BRACKET	FC15	4
34	SH-0820	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x20L	8
35	9B-40030	SHAFT	SS41	1
36	9B-40630	PEDAL	SPC	1
37	SS-1010	HEXAGON SOCKET SET SCREW	M10xP1.5x10L	4
38	9B-40590	COVER	SS41	1
39	SH-0835	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x30L	8

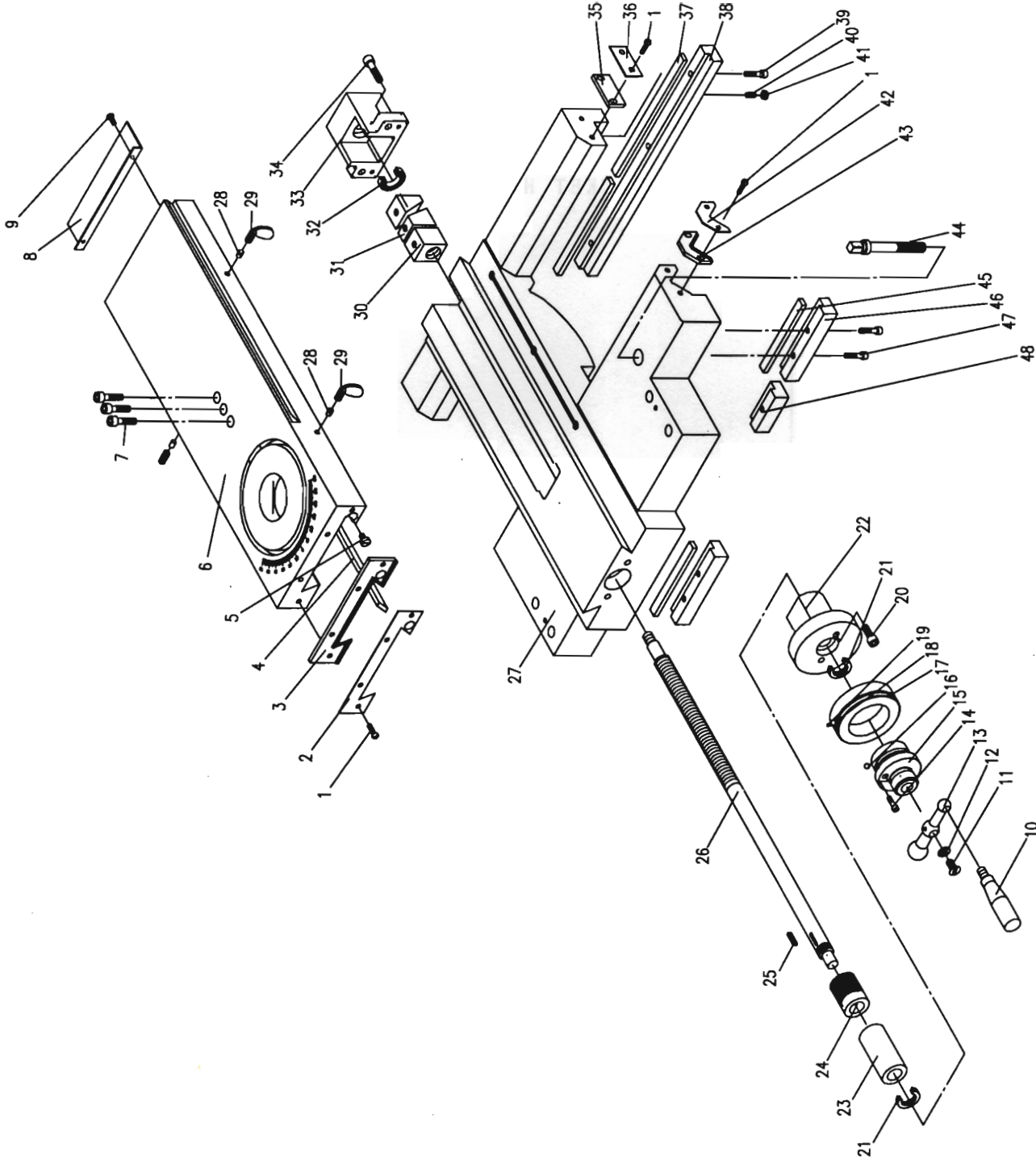


BED

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	9B-40640	COVER	SS41	1
2		DIRECT DRIVE PUMP		1
3	W-6	WASHER	φ 6	4
4	SH-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	4
5	30B-40210	GAP	FC25	1
6	SH-1280	HEXAGON SOCKET HEAD CAP SCREW	M12xP1.5x80L	4
7	SH-0845	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x45L	2
8	TP-0788	TAPE PIN	#7x88L	2
9	SH-0625	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x25L	8
10	30B-40360	RACK	S45C	1
11	30B-10010	BED	FC25	1
12	9B-40450	SWITCH SHAFT-SP	SS41	1
13	9B-40620	SUPPORT BASE	FC15	2
14	9B-41190	GRADUATED MICRO COLLAR	SS41	1
15	9B-40490	LEVER	S20C-D	1
16	9B-40340	STOP COLLAR	SS41	1
17	30B-31090	PULL ROD	FC20	1
18	9B-41080	COMPRESS PLATE	SS41	1
19	30B-41050	BRACKET	AL	1
20	30B-41060	BRACKET	AL	2
21	30B-41070	BRACKET	AL	1
22	SH-0616	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x16L	8
23	30B-31110	COVER	FC20	1
24	SH-0612	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x12L	4
25	SH-1080	HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x80L	2
26	30B-40340	POSITION COLLAR	SS41	1
27	30B-40060	STARTING ROD	SS41	1
28	30B-40050	FEED ROD	S20C-D	1
29	30B-40040	LEAD SCREW	S20C-D	1
30	30B-40350	RACK	S45C	1
31	30B-40070	STOP ROD	S20C-D	1
32	9B-40340	STOP COLLAR	SS41	1
33	SP-M8x20	SPRING	M8x20L	1
34	SS-0810	HEXAGON SOCKET SET SCREW	M8xP1.25x10L	1
35	9B-40500	COLLAR	S20C-D	1
36	30B-40370	BRACKET	FC15	1
37	SH-1270	HEXAGON SOCKET HEAD CAP SCREW	M12xP1.5x70L	3
38	30B-40380	BRACKET COVER	FC15	1
39	SH-0612	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x12L	4
40	9B-40550	COVER	SS41	1
41	9B-30020	FRONT LEG	FC15	1
42	9B-40540SP	COVER	SS41	1
43	9B-40540	COVER	SS41	1
44	9B-40540	COVER	SS41	1
45	9B-30030	MIDDLE LEG	FC15	1
46	9B-40660	COOLANT PUMP BED	SS41	1
47	1/2"HP	COOLANT PUMP	1/2"	1
48	9B-40530	COVER	SS41	1
49	9B-30030	REAR LEG	FC15	1
50	9B-40530	COVER	SS41	1
51	9B-40730	BASE BLOCK	FC20	10
52	N-25	NUT	SS41	10
53	M-25	FOUNDATION BOLT	SS41	10
54	9B-40770	BRACKET	FC15	4
55	SH-0625	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x25L	8

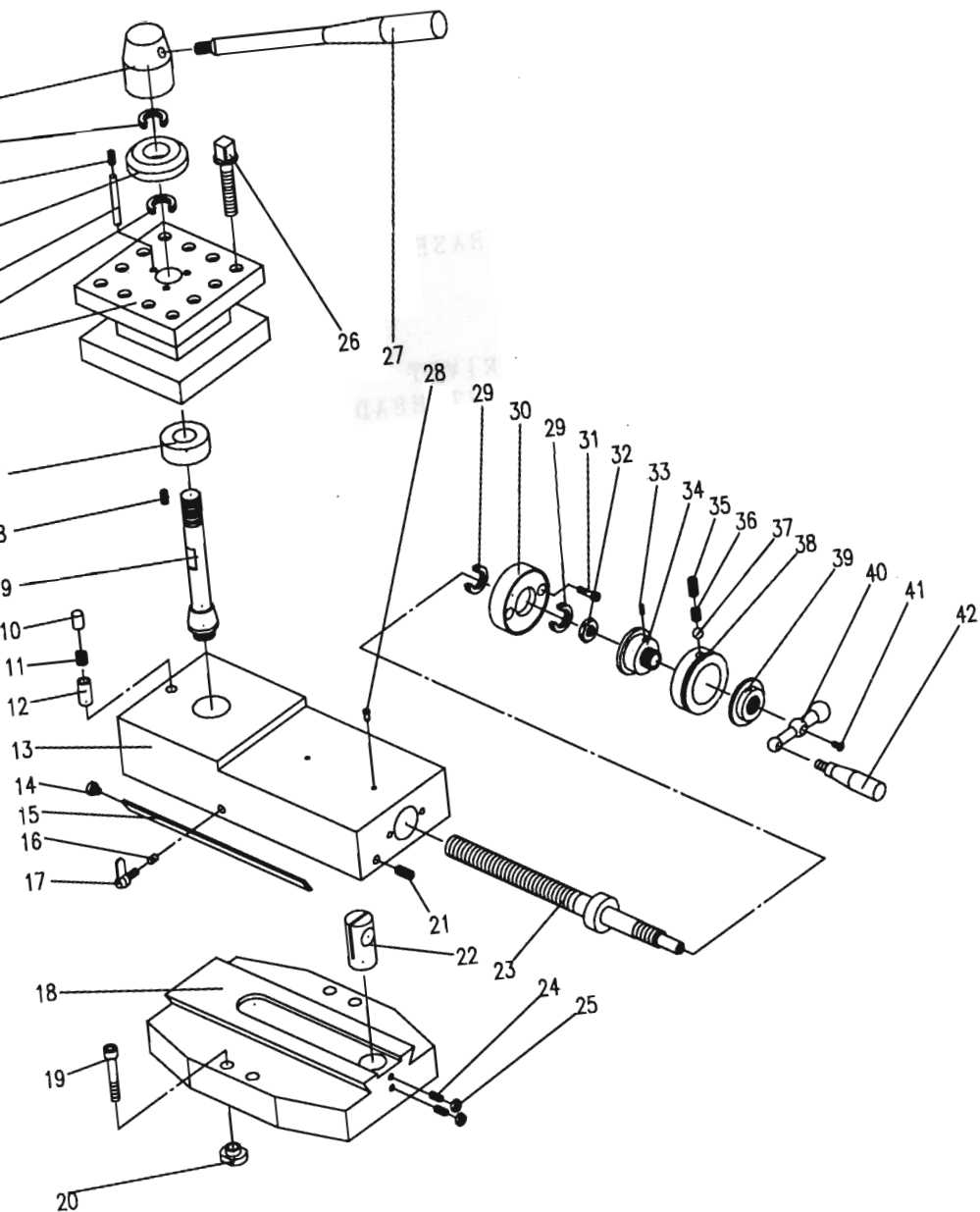
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REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
56	9B-40400	BRAKT ARM	FC15	4
57	9B-41240	COVER	SS41	1
58	9B-40240A	COLLAR	SS41	1
59	SS-0625	HEXAGON SOCKET SET SCREW	M6xP1.0x25L	8
60	9B-40030	SHAFT	SS41	1
61	9B-40630	PEDAL	SPC	2
62	SS-1010	HEXAGON SOCKET SET SCREW	M10xP1.5x10L	4
63	9B-40520	TANK	SS41	2
64	9B-40560	ROLLER	FC15	4
65	CS-20	SNAP RING	S20	4
66	9B-40590	COVER	SS41	1
67	SH-0835	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x30L	12



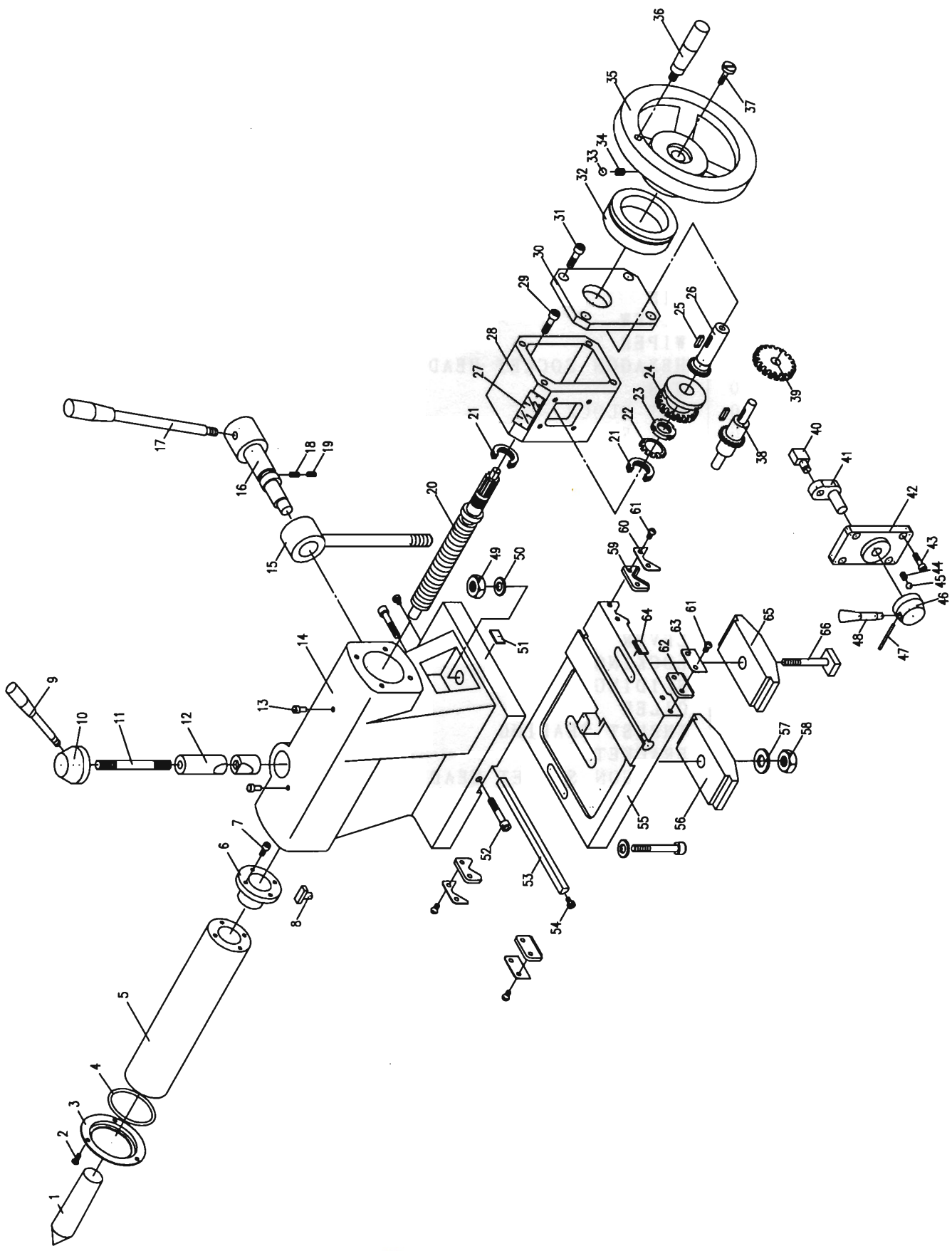
CARRIAGE AND TOOL SLIDE

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1		SCREW	M6xP1.0x8L	16
2	30S-40210	COVER	STAINLESS STEEL	2
3	30S-40220	WIPER	PLASTIC	2
4		GIB	FC20	1
5		ADJUSTING SCREW	SS41	2
6	30S-40020	COVER	FC25	1
7		HEXAGON SOCKET HEAD CAP SCREW	M10xP1.5x45L	3
8		COVER	SS41	1
9		SCREW	M5xP0.8x12L	2
10	30S-40150	HANDLE	SS41	1
11	30S-40170	HEXAGON SOCKET SET SCREW	M6xP1.0x25L	1
12	30S-40110	WASHER	SS41	1
13	30S-40140	LEVER	S20C	1
14	7S-40120	SCREW	SS41	1
15	30S-40070	INDEX RING BASE	SS41	1
16		STEEL BALL	φ 1/4"	1
17	30S-40080	INDEXRING	SS41	1
18		NAME PLATE	AL	1
19		ROUND HEAD RIVET		2
20		HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x90L	2
21		THRUST BEARING	51104	2
22	30S-40060	BRACKET	FC15	1
23	30S-40660	POSITION COLLAR	SS41	1
24	30S-40090	GEAR	S45C	1
25		KEY	5x5x16L	1
26	30S-40040	LEAD SCREW	S45C	1
27	30S-30010	CARRIAGE	FC25	1
28		SET BLOCK	PUB2	3
29		HEXAGON SOCKET SET SCREW	M8xP1.25x25L	3
30	30S-40050	LEAD SCREW NUT	PBC2	1
31	30S-40310	ADJUSTMENT BOLK	PBC2	1
32		BALL BEARING	6202	1
33		BRACKET	FC15	1
34		HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x20L	2
35	30S-40250	WIPER	PLASTIC	2
36	30S-40260	COVER	STAINLESS STEEL	2
37	30S-40290	GIB	SS41	2
38	30S-40300	ADJUSTMENT GIB	FC20	1
39		HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x20L	4
40		HEXAGON SOCKET HEAD CAP SCREW	M6xP1.25x18L	4
41		NUT	M6	4
42	30S-40240	COVER	STAINLESS STEEL	2
43	30S-40230	WIPER	PLASTIC	2
44	30S-40280	LOCK PLATE	SS41	1
45	30S-40270	GIB	SS41	2
46	30S-40190	ADJUSTMENT GIB	FC20	2
47		HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x20L	4
48	30S-40180	LOCK PLATE	FC15	1



CARRIAGE AND TOOL SLIDE

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	30S-40360	HANDLE BOSS	S20C-D	1
2		THRUST BEARING	51104	1
3		HEXAGON SOCKET SET SCREW	M6xP1.0x12L	1
4	30S-40370	WASHER	S20C-D	1
5	30S-40770	PIN	SS41	1
6	30S-40260	TURRET TOOL POST	S45C	1
7	30S-40650	SLEEVE	S45C	1
8	SH-0816	SOCKET HEAD CAP SCREW	M8xP1.25x16L	3
9	30S-40250	CLAMPING BOLT	S45C	1
10		PIN	SS41	1
11		SPRING	φ 5/16	1
12	30S-40480	PIN	SCM21	1
13		SCREW	M5xP0.8x8L	4
14		WIPER	PLASTIC	1
15	30S-40500	HEXAGON SOCKET HEAD CAP SCREW	SS41	1
16	30S-40050	GIB	FC20	1
17	30S-40520	SET BLOCK	PUB2	2
18	30S-40510	SET SCREW	S20C-D	2
19	30S-40030	TOOL SLIDE	FC25	1
20	SH-1028	SOCKET HEAD CAP SCREW	M10xP1.5x28L	3
21	30S-40060	NUT	SS41	3
22	30S-40170	LEAD SCREW NUT	PUC 2	1
23	30S-40160	LEAD SCREW	S45C	1
24		NUT	M6xP1.0	1
25	BS-51105	HEXAGON SOCKET SET SCREW	M6xP1.0x20L	1
26	30S-40270	LOCATING SCREW	SCM4	12
27	30S-40380	LEVER	SS41	1
28	30S-40300	LOCKING BLOCK	FC15	1
29	30S-40040	SLIDING TABLE	FC20	1
30		OILER	φ 1/4"	2
31		THRUST BEARING	51102	2
32	30S-40190	BRACKET	SS41	1
33		HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x20L	2
34	30S-40580	NUT	S20C-D	1
35		HEXAGON SOCKET SET SCREW	M6xP1.0x16L	1
36	30S-40180	INDEX RING BASE	SS41	1
37		HEXAGON SOCKET SET SCREW	M8xP1.25x8L	1
38		SPRING	φ 6x φ 0.8x15L	1
39		STEEL BALL	φ 1/4"	1
40	30S-40200	INDEX RING	SS41	1
41	30S-40720	NUT	SS41	1
42	30S-40700	LEVER	SS41	1

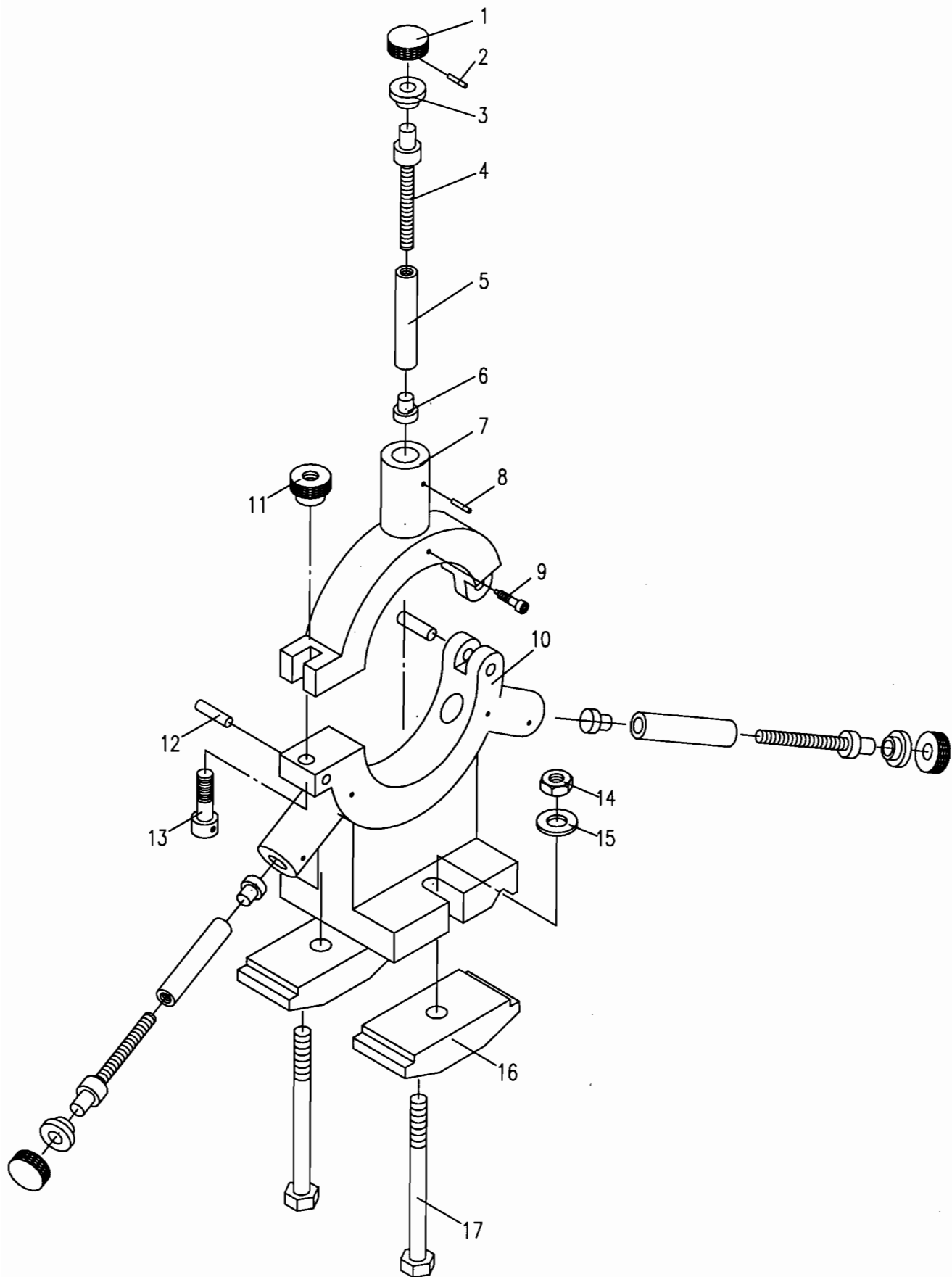


TAILSTOCK

REF NO.	PART NO.	PART NAME	SPECIFICATION	US Q'
1	MT-5#	CENTER	MT 5#	1
2	CH-0510	CROSS RECESSED HEAD MACHINE SCREW	M5xP0.8x10L	3
3	9T-40170	COVER	FC15	1
4	P-75	"O" RING	P75	1
5	30T-40030	BARREL	S45C	1
6	9T-40050I	LEADSCREW NUT	SS41	1
	9T-40050M	LEADSCREW NUT	SS41	1
7	SH-0816	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x16L	4
8	9T-40110	KEY	SS41	1
9	9T-40280	LEVER	SS41	1
10	9T-40270	HANDLE BOSS	SS41	1
11	9T-40260	LOCKING SCREW	SS41	1
12	9T-40250	LOCKING ROD	BC2	1
13	OB-04	OILER	1/2"	2
14	30T-30010	BODYOF OF TAILSTOCK	FC15	1
15	9T-40200	EYE BOLT	SS41	1
16	30T-40190	CAM SHAFT	S45C	1
17	9T-40180	CLAMP LEVER	S20C-D	1
18	SS-1008	SCREW	M10xP1.0x8L	2
19	SS-1010	HEXAGON SOCKET SET SCREW	M10xP1.0x10L	1
20	30T-40040I	LEADSCREW LEAD SCREW	S45C	1
	30T-40040M	LEADSCREW LEAD SCREW	S45C	1
21	#51106	THRUST BEARING	51106	2
22	AW-06	WASHER	AW-06	1
23	AN-06	LOCKING NUT	AN-06	1
24	9T-40120	GEAR	S45C	1
25	KY-6625	KEY	6x6x25L	1
26	9T-40060	GEAR SHAFT	S45C	1
27	9P-40160	NAME PLATE	AL	1
28	9T-40160	CHANGE SPEED BOX	FC20	1
29	SH-0830	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x30L	4
30	9T-40100	COVER	FC25	1
31	SH-0830	HEXAGON SOCKET HEAD CAP SCREW	M8xP1.25x30L	4
32	9T-40090I	INDEX RING	SS41	1
	9T-40090M	INDEX RING	SS41	1
33	φ 1/4	BALL	φ 1/4	3
34	S-6x0.8x10	SPRING	6x0.8x10L	3
35	9T-30350	HANDLE WHEEL	FC15	1
36	9A-40940	HANDLE	SS41	1
37	9A-40080	SCREW	SS41	1
38	9T-40140	GEAR SHAFT	S45C	1
39	9T-40150	GEAR	S45C	1
40	9T-40240	CHANGE SPEED BLOCK	BC2	1
41	9T-40230	ROCKER ARM	FC15	1
42	9T-40220	COVER	FC20	1
43	SH-0612	HEXAGON SOCKET HEAD CAP SCREW	M6xP1.0x12L	4
44	φ 6x0.8	SPRING	O.D. φ 6WIRE 0.8	1
45	φ 1/4"	STEEL BALL	φ 1/4"	1
46	9H-40910	HANDLE BOSS	S20C-D	1
47	P-0550	PIN	φ 5x50L	1
48	9H-40930	LEVER	S20C-D	1
49	N-16	NUT	M16	1
50	9T-40080	WASHER	φ 16	1
51	9P-40010	NAME PLATE	AL	1
52	SH-1050	HEXAGON SOCKET HEAD CAP SCREW	M10x1.5x50L	2

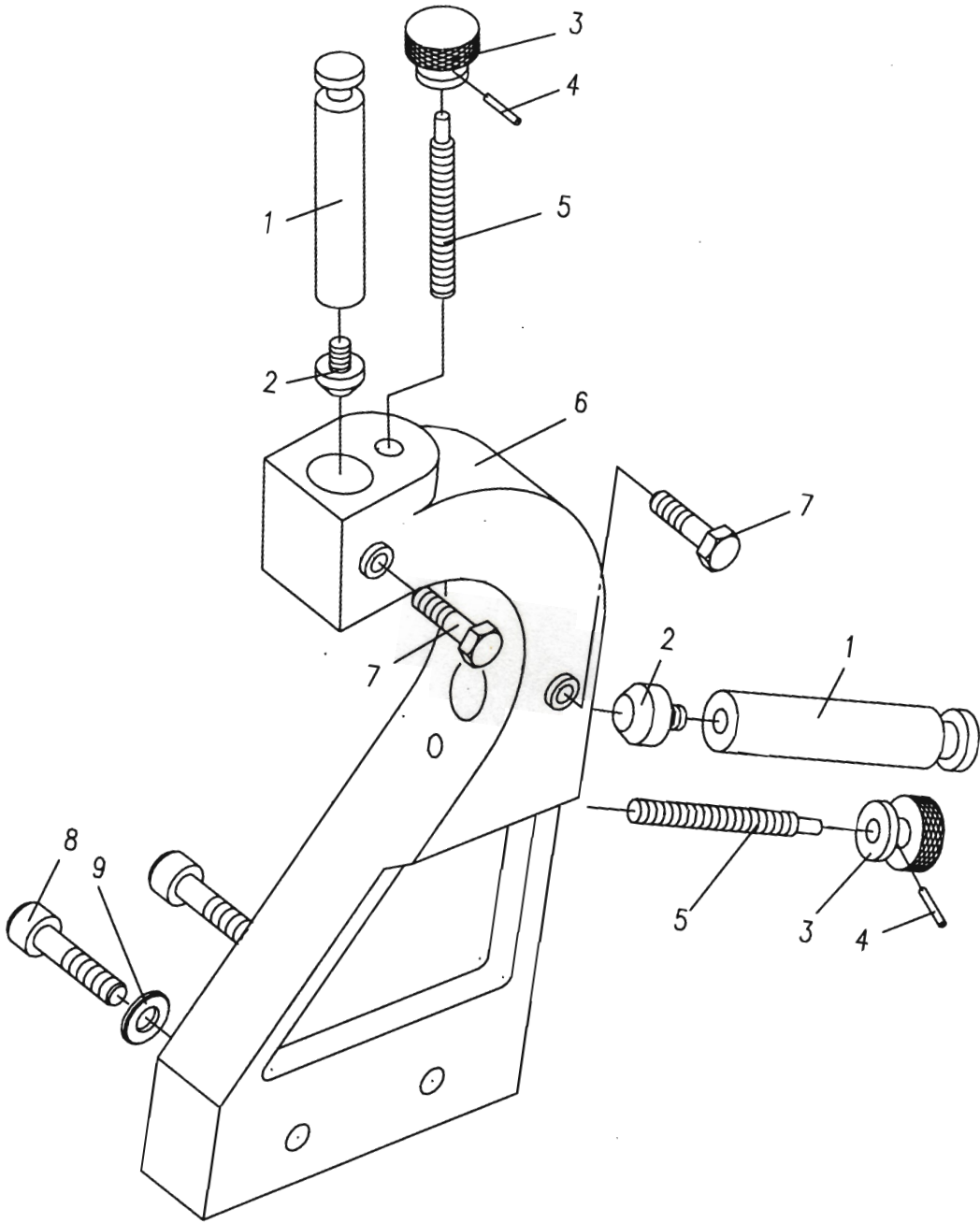
TAILSTOCK

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
53	30T-40330	GIB	FC20	1
54	7T-40210	ADJUSTING SCREW	SS41	2
55	30T-30020	TAILSTOCK BASE	FC25	1
56	30T-40210	CLAMP PLATE	FC20	1
57	9T-40320	WASHER	SS41	1
58	N-16	NUT	M16	1
59	30T-40290	WIPER	RUBBER	2
60	30T-40300	WIPER COVER	STAINLESS STEEL	2
61	CH-0510	CROSS RECESSED HEAD MACHINE SCREW	M5xP0.8x10L	8
62	30S-40410	WIPER	RUBBER	2
63	30S-40420	WIPER COVER	STAINLESS STEEL	2
64	9P-40030	NAME PLATE	AL	1
65	30T-40340	LOCKING BLOCK	FC15	1
66	9T-40070	LOCKING ROD	SS41	1



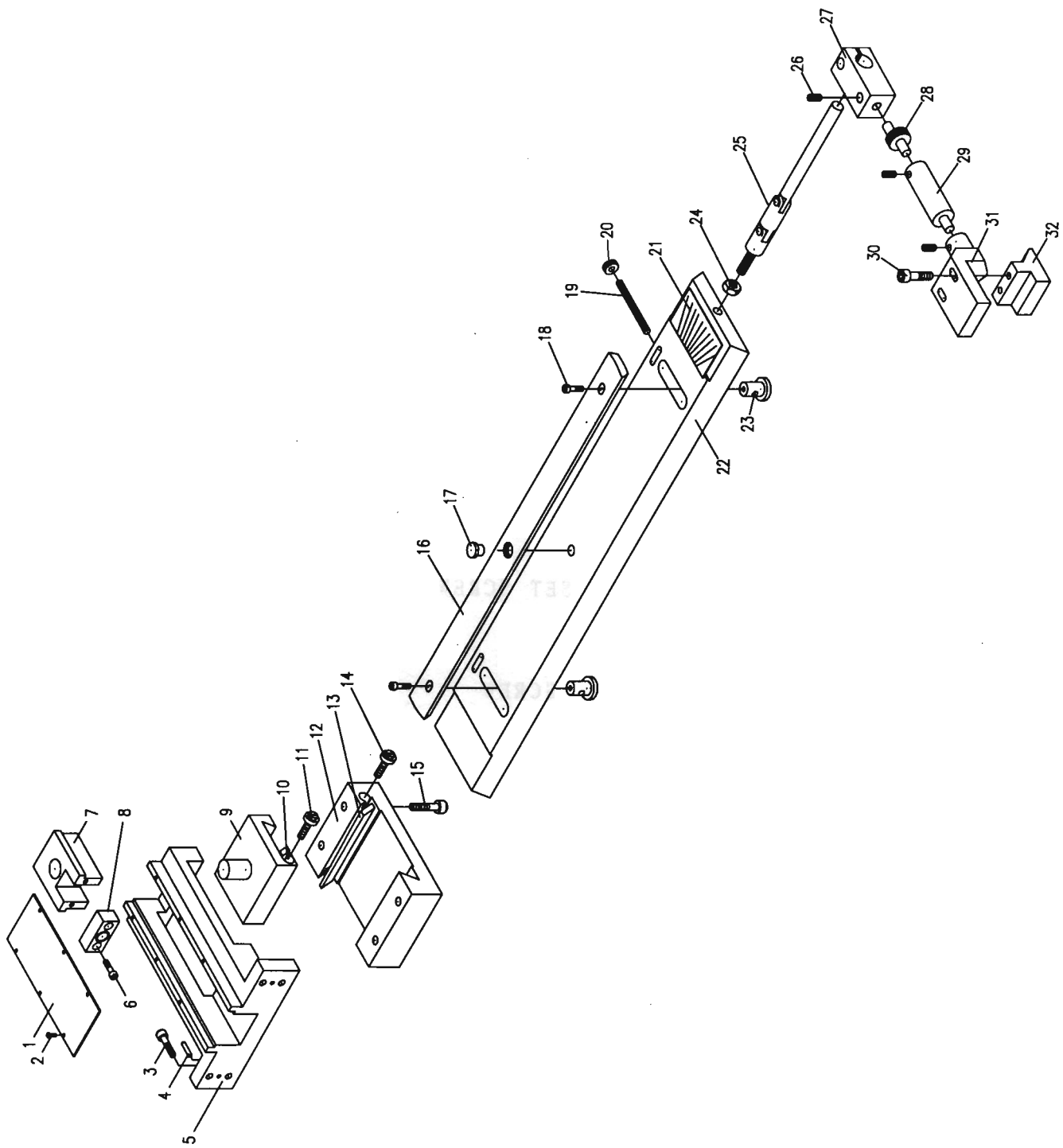
STEADY REST

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	30C-40060	ADJUSTMENT WHEEL	S20C-D	3
2	P-04	PIN	#4	3
3	30C-40130	COVER	S20C-D	3
4	30C-40050	ADJUSTMENT SCREW	SS41	3
5	30C-40030	SHAFT	S20C-D	3
6	30C-40040	BUSH	BC2	3
7	30C-30020	COVER	FC15	1
8	P-04	PIN	#4	6
9	SS-1012	SET SCREW	M10xP1.5x12L	3
10	30C-30010	BODY OF STEADY REST	FC15	1
11	30C-40080	NUT	S20C-D	1
12	30C-40090	CONNECT ROD	S20C-D	2
13	30C-40070	LOCKING SCREW	S20C-D	1
14	N-16	NUT	M16xP2.0	2
15	W-16	WASHER	#16	2
16	30T-40340	LOCKING PLATE	FC15	2
17	SH-16	SCREW	M16xP2.0	2



FOLLOW REST

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	SS-1020	SET SCREW	M10cP1.5x20L	2
2	30F-40010	BODY OF FLOW REST	FC25	1
3	30F-40030	CLAW	BC2	2
4	30F-40020	CLAW SHAFT	S20C-D	2
5	30F-40040	ADJUSTMENT SCREW	S20C-D	2
6	§ 3x20L	SPRING PIN	§ 3x20L	2
7	HS-1220	HEX. CAP SCREW	M12xP1.75x20L	2
8	SH-1240	SOCKET HEAD CAP SCREW	M12xP1.75x40L	2
9	W-14	WASHER	§ 14	2



TAPER TURNING ATTACHMENT

REF NO.	PART NO.	PART NAME	SPECIFICATION	USED Q'TY
1	TA-40040	UP COVER	SS41	1
2	MS-0408	MACHINE SCREW	M4xP0.7x8L	6
3	SH-0840	SOCKET HEAD CAP SCREW	M8xP1.25x40L	4
4	SP-05	PIN	#5	2
5	TA-30010	SET BASE	FC15	1
6	SH-0625	SOCKET HEAD CAP SCREW	M6xP1.0x25L	2
7	TA-40050	CROSS SLIDE	FC20	1
8	TA-40060	THRUST PLATE	S45C	1
9	TA-40070	SLIDING SADDLE	FC15	1
10	TA-40080	GIB	FC15	1
11	TA-40090	ADJUSTING BOLT	SS41	1
12	TA-30100	SLIDE BASE	FC15	1
13	TA-40110	GIB	FC15	1
14	TA-40090	ADJUSTING BOLT	SS41	1
15	SH-1050	SOCKET HEAD CAP SCREW	M10x1.5x50L	4
16	TA-30120	GUIDE PLATE	FC15	1
17	TA-40130	CLAMP SHAFT	SS41	1
18	SH-0620	SOCKET HEAD CAP SCREW	M6x1.0x20L	2
19	TA-40140	ANGLE ADJUSTER SCREW	SS41	2
20	TA-40150	NUT	SS41	2
21	TA-40160	GRADUATION NAMEPLATE	AL	2
22	TA-30170	LONGITUDINAL SLIDE	FC15	1
23	TA-40180	CLAMP SHAFT	SS41	2
24	TA-40190	NUT	M10	1
25	TA-40200	DRAW ROD	SS41	1
26	SS-0808	HEXAGON SOCKET SET SCREW	M8xP1.25x8L	3
27	TA-40210	DRAW ROD CLAMP	SS41	1
28	TA-40220	ECCENTRIC SHAFT	SS41	1
29	TA-40030	SHAFT	SS41	1
30	SH-0845	SOCKET HEAD CAP SCREW	M8x1.25x45L	2
31	TA-40020	CLAMP BRACKET	FC15	1
32	TA-40230	BLOCK	SS41	1