

S. BEND
219 - 288 - 8777 1

**MODEL SBL 1308
OPERATING MANUAL
AND
PARTS LIST**

1686
77 TT 1685
Serial # 77 TT 1684
Fw/rew selec switch PT 8712 DD1
\$ 328.67 ea

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1. SPECIFICATIONS

1-1 Specifications

CAPACITY

Swing over Bed	330mm	13"
Swing over Cross Slide	210mm	8½"
Distance between Centers	762 - 1,016 mm	30", 40"

HEADSTOCK

Spindle Nose		D1-4 Cam Lock
Spindle Taper		M.T. No. 5
Hole through Spindle	38mm	1½"
Number of Spindle Speeds		12
Range of Spindle Speeds	40-48-58-125-180-260-370-540-800-1200-1700-2500	

FEEDS AND THREADS

Number		48
Range-Longitudinal	0.03 to 2.0 mm/rev	0.001"/rev-0.078"/rev
Cross	0.015 to 1.0 mm/rev	0.0005" - 0.039"
Range (TPI)		2 to 56 T.P.I.
(Metric) 36	0.2 to 14mm pitch007" to .551"
(Module) 36	0.3 to 3.5mm0118" to .1377"
(D.P.)		8 to 56

SADDLE

Cross Slide Travel	190mm	7.5"
Compound Rest Travel	92mm	3 5/8"

TAILSTOCK

Size of Center		#3 M.T.
Spindle Travel	110mm	4 5/16"
Set-Over, either direction	19mm	3/4"

BED

Width 205mm 8"
Length 1.457, 1,704mm 57 3/8", 67 1/8"

MOTOR

Main Spindle Motor 3HP, 1800rpm

INSTALLATION DATA

Width (Front to back) 870mm 34½"
Length (Left to right) 1,820mm 81.10"
Net Weight (Approximate) 700kg/800kg 1,540lb/1,760lb

1-2 Accessories

Standard Equipment

- Motor & Control (Dual Voltage)
- Spindle Sleeve (#5M.T. x #3M.T.)
- Carbide Center (#3M.T.)
- Dead Center (#3M.T.)
- Thread Indicator
- Tool Box, Etc.
- Foot Brake
- Single Point Tool Post (1/2 x 1 1/8 shank size with wrench)
- Driving Plate (6½" Dia.)
- 3-Jaw Universal Chuck (7½" Dia.)
- Change Gears
- Inch/Metric Dual Dials

Optional Accessories (See accessory catalog for other items.)

Face Plate (12" Dia., with 2 slot.)

4-Jaw Independent Chuck (8" Dia.)

Set of 16 Collets (5C). 1/16" to 1" Dia.

Lathe Dog Set of 11. 1/2" to 4"

Steady Rest (Roller Jaw, 1/2" to 2 3/4" Dia. capacity)

Follower Rest (Roller Jaw, 1/2" to 2 3/4" Dia. capacity)

Live Center (MT #3)

4-Position Carriage Stop

Micrometer Carriage Stop

Cross Slide Stop

Handwheel Collet Attachment

Coolant Equipment

Splash Guard, Full

Work Light

Taper Turning Attachment

Square Tool Post for T-Slot Compound

Jacobs Drill Chuck & Arbor

2. INSTALLATION

2-1 Space Recommended

Enough space should be provided to install a taper attachment, to check belts and electrical equipment, and to remove chips.

Refer to Figure 2.

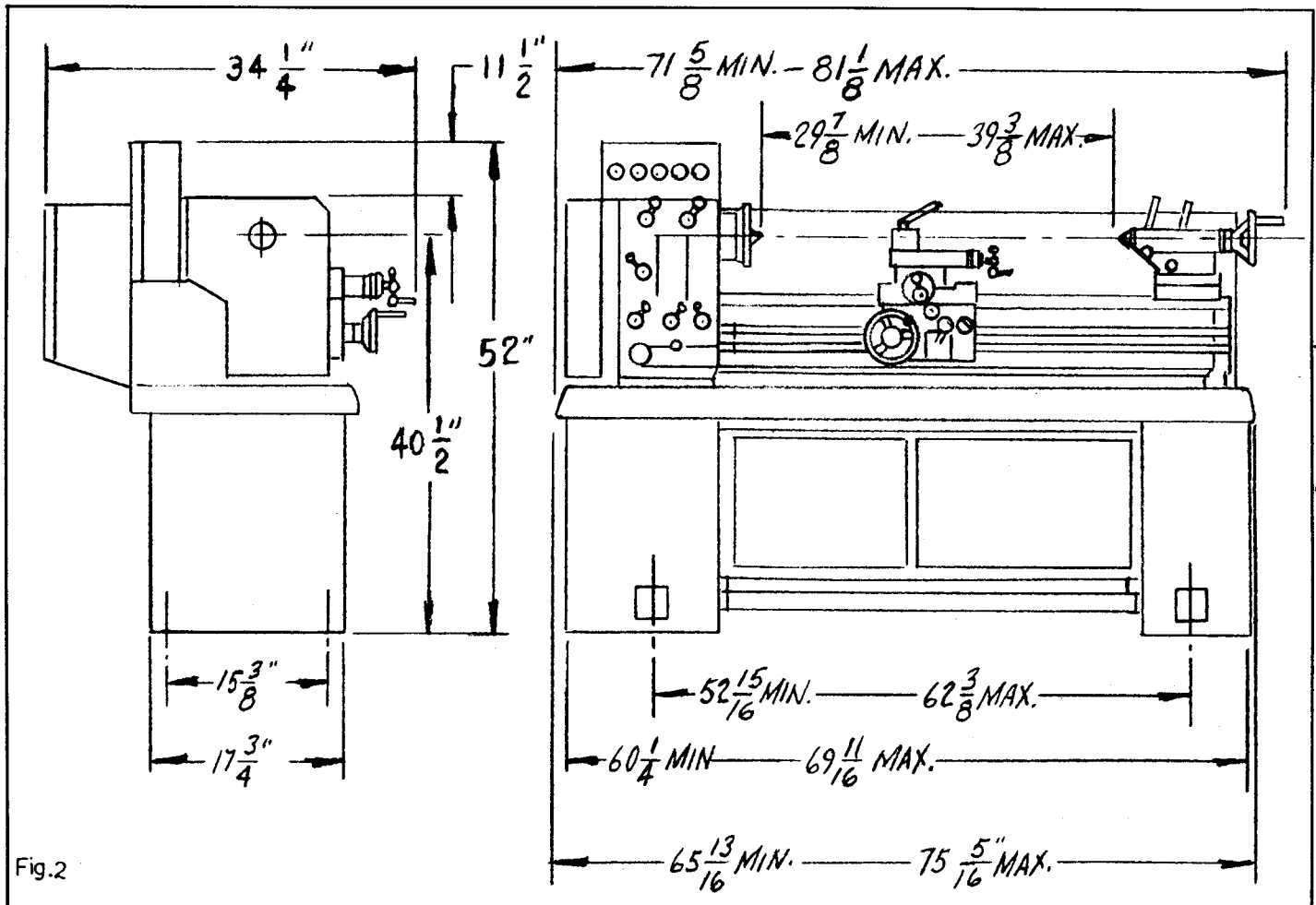


Fig.2

2-2 Moving and Lifting

- (1) Prepare a wire rope sling with a diameter of at least 15 m ($5/8$ ").
- (2) Clamp the tailstock on right end of bed. Adjust balance by moving the carriage ass'y and lift the machine slowly by using wire rope slings connected at both ends of the bench.
- (3) Move the machine carefully.

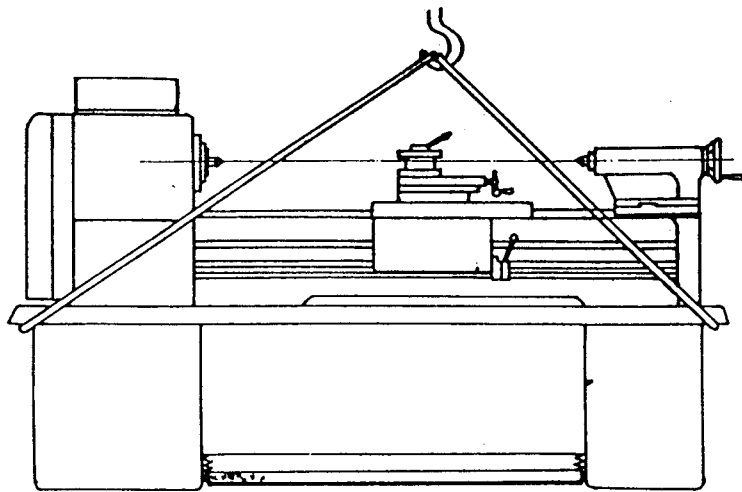


Fig. 3

2-3 Foundation and leveling

3/8" anchor bolts may be installed in the floor beneath each leg of the lathe as shown in Fig. 2. Each should project from the floor at least 4". Anchor bolts set in a concrete floor should be sunk about 6" deep. Lag screws can be used when mounting the lathe to a wooden floor, but bolts anchored to 1/2" thick plates on the underside of the floor are preferable. If the floor is excessively uneven, steel shim plates should be used as required to bring all four mounting surfaces within 1" of uniform height.

NOTE

The anchor bolt spacing for your lathe may deviate somewhat from that shown in the diagram. Measure distances between mounting holes before setting anchor bolts permanently, or use the skid as a template. (If skid is used, follow instructions for lifting.)

Level by using the adjusting bolts and a precision level. Place level on the cross-slide using the edge of the cross-slide to keep it perpendicular to the bed. Check, and adjust level with carriage at each end of the bed. Maximum tolerance of accuracy in leveling is .0005"/3 foot.

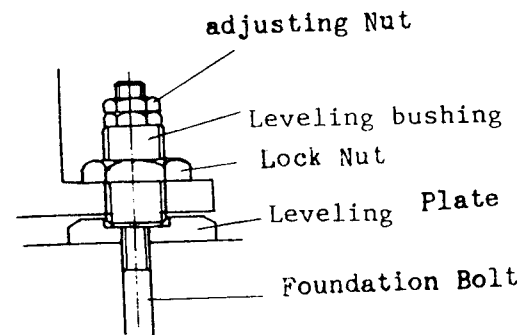


Fig. 4.

2-4 Electric Wiring

Refer to the electric circuit diagram (Fig. 14) and make sure to protect any exposed wires from damage. Wiring to the machine should be in accordance with all safety standards.

Procedures for wiring:

- (1) Turn power input switch "OFF".
- (2) Check electric circuit diagram.
- (3) Connect power source using voltage which corresponds to main motor.
- (4) Turn power switch "ON".
- (5) Move the starting lever (Item 43, Fig. 1) up and check the rotation of the main spindle. If it turns clockwise, as viewed from the tailstock, change any 2 wires in the connecting terminal, "R", "S", or "T".

Wire "E" is for ground (Green). See Fig. 5.

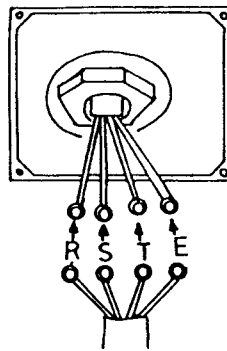


Fig. 5.

3. LUBRICATION

The operator should lubricate the lathe prior to operation. The operator should use the lubricants shown on the lubricant chart or equivalent.

(Always keep the machine properly lubricated for proper operation and long life;)

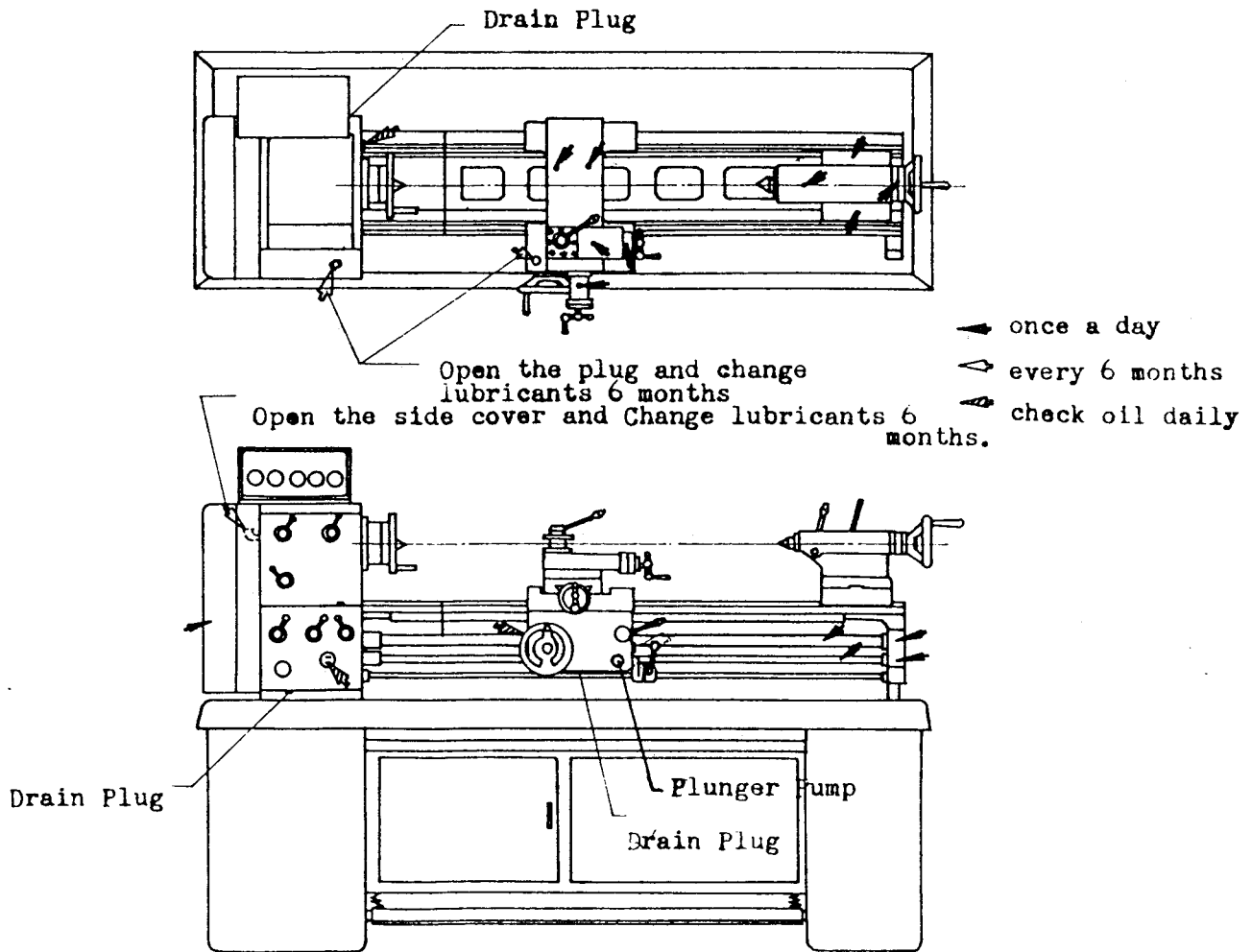


Fig. 6.

No.	Lubricating Point	Quantity	Change/Replenish
1	Head Stock	5 Pints	Every 6 months
2	Feed Gear Box	1 Pint	Every 6 months
3	Apron and Carriage	$\frac{1}{2}$ Pint	Every 6 months
4	Carriage Slider	Proper	Once a day
5	Swivel Slide Way	Proper	Once a day
6	Tail Stock	Proper	Once a day
7	Change Gear	Proper	Once a day

Maker	Head Stock	Gear Box	All other points
American Oil Co.	American Indust Oil #15	American Indust Oil #31	American Indust Oil #31
Socony Mobil Oil Co.	Mobil D.T.E. Oil Lt. Wt.	Mobil D.T.E. Oil Med	Mobil D.T.E. Oil Med.
TEXACO	Regal Oil B	Way Lubricant D	Way Lubricant D
SHELL Co.	Tellus Oil #27	Tellus Oil #33	Tellus Oil #33

CAUTION: Two months after the initial operation, change the lubricants in the headstock, apron and gear box. After this, follow lubricant chart.

4. OPERATION

4-1 Preparation for Operation

Before starting, the operator should check the following:

- (1) Connect the power source to the terminal. (Make sure proper voltage is used for machine.)
- (2) Lubricate each designated lubricating point with fresh lubricants.
- (3) Inspect the drive V-belt for proper tension.
- (4) Check every handle and lever for easy operation.

4-2 Starting

- (1) When power switch is "ON" the red lamp lights.
- (2) Move the starting lever up and the main spindle turns counterclockwise. When moving the lever down, it turns clockwise.
- (3) Check the brake for quick stop on lathes mounted on metal bench.
- (4) After above, run the main spindle at the lowest speed for 2-3 minutes to lubricate moving parts. Then gradually increase the spindle speed.

4-3 Selection of Spindle Speeds

- (1) Spindle speeds can be changed up to 12 speeds by 2 speed selector levers. (Item 3,4 Fig.1)
- (2) Place the levers at desired position and start.
- (3) When a slight turn of spindle is required, push the inching button and the spindle will turn counterclockwise.
- (4) To activate the emergency stop press down on the foot brake pedal.
The main spindle stops at once.

Spindle Speeds

1200	800	1700	2500
260	180	370	540
58	40	48	125

CAUTION: Do not shift the levers when the spindle is turning.

4-4 Operation of Apron, Carriage, and Tailstock

The main spindle is started by moving the starting lever (Item 43, Fig. 1) at the right side of the apron. Moving it up turns the spindle counterclockwise. Moving it down turns the spindle clockwise. Spindle will not start after using foot brake unless lever is returned to neutral.

- (1) The APRON contains the cross and longitudinal feed controls. Pull the Longitudinal/Cross Feed Lever (Item 21, Fig.1) in and cross feeds operate. Push the lever out and longitudinal feeds operate. When the lever is in the neutral position, feeds will not operate. But, half-nuts may be engaged. Half-nuts are engaged by moving lever up; disengaged by moving it down.

- (2) The CARRIAGE is composed of Saddle, Cross Slide, and Compound.
- (3) The TAILSTOCK is composed of a Spindle, a Body, and a Base. Turning the tailstock handle clockwise causes the spindle to extend. Turning the tailstock counterclockwise, to the extreme retract position, will remove the tailstock center. Dirt or chips in the spindle taper can cause centers to be misaligned and damaged.

5. ADJUSTMENTS

5-1 Adjustment of Spindle Bearing

Main spindle has 2 point supporting system.

Spindle bearings have been preloaded at the factory and seldom require adjustment. However, in case of bearing noise, chattering, or overheating, bearing may be adjusted as follows:

- (1) Remove the belt cover
- (2) Remove bearing cover "C". (Item 67 at left end of spindle.)
- (3) Back off locking bolt "A".
- (4) Make adjustment by using adjusting nut "B".
- (5) Tighten the locking bolt "A".

Note: Bearing adjustment should be made when lathe is cold.

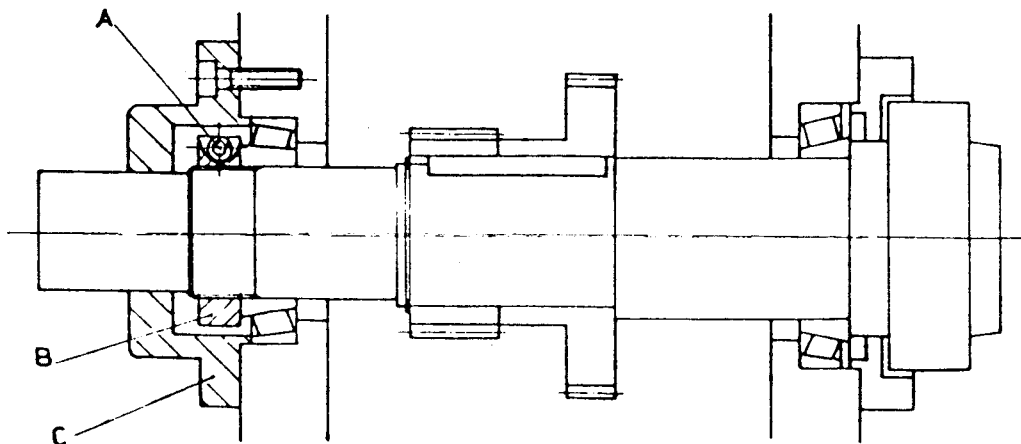


Fig. 7.

5-2 Adjustment of Tapered Gib

Clearance of cross slide and tool slide are adjusted by taper gib as follows:

- (1) Remove wiper.
- (2) Loosen "D" and "B".
- (3) Lock the adjust bolt "C" and "A".
- (4) Lock "D" and "B".

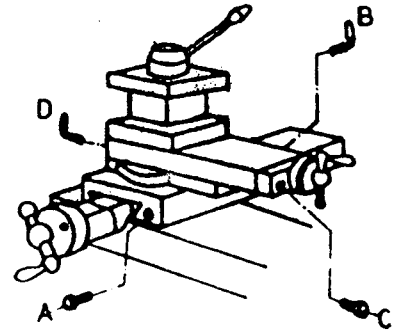


Fig. 8.

5-3 Eliminating Backlash of Cross Slide Screw

The backlash of cross slide can be eliminated by adjusting the backlash eliminator bolt.

- (1) Loosen bolt "B" (Figure 9).
- (2) Tighten bolt "A". (While tightening move crossfeed screw back and forth.)
- (3) Tighten bolt "B" for fixing of nut.

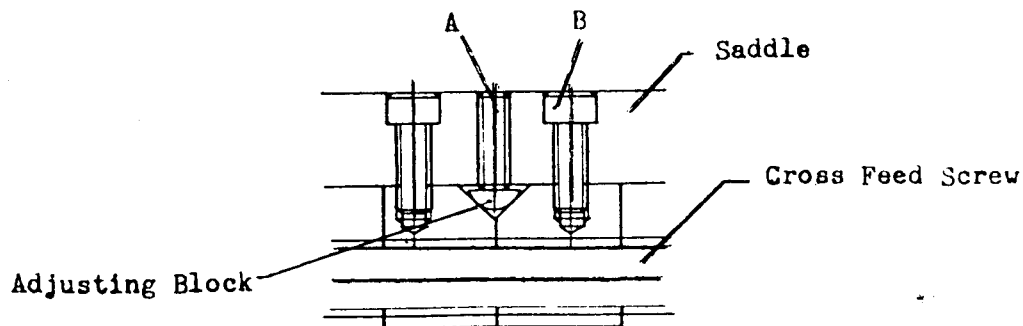


Fig. 9.

5-4 Adjustment of Tailstock Clamping Force

When adjustment of the clamp is required:

- (1) Move the tailstock to the extreme right end.
- (2) Release clamping handle.
- (3) Tighten clamping nut slightly (Figure 10).
- (4) Check for proper clamping force.

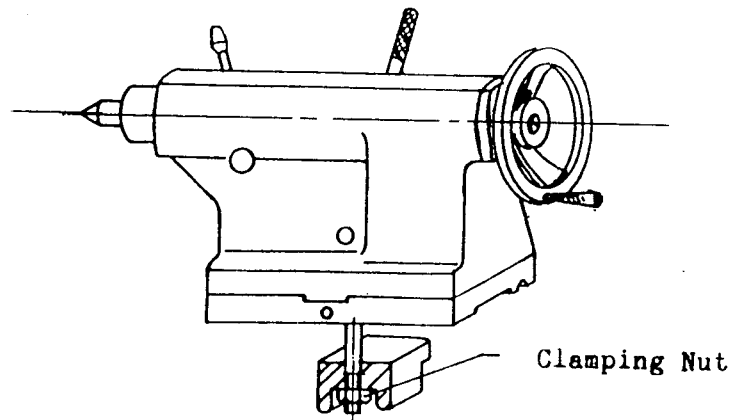


Fig. 10.

5-5 Adjustment of Belt Tension

- (1) Loosen the two locking nuts slightly as shown in the figure below.
- (2) Adjust belt tension by moving motor base up or down. (See figure below for belt deflection. ($\frac{1}{2}$ " at 1 pound))
- (3) Tighten locking nuts

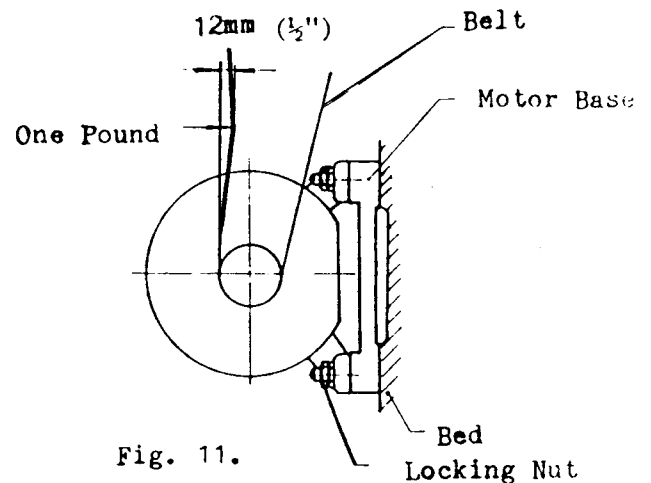


Fig. 11.

5-6 Change Gear Shear Pin

A protection against accidental overload in the end gear train is provided in the form of a shear pin fitted in the key seated sleeve on the top changegear shaft. In case of replacement being necessary, a 2.3mm (3/32") diameter X 15mm (19/32) long mild steel pin should be fitted as follows: Remove the hexagon nut, washer, collar, and changegear. Pull off the key seated sleeve and remove the broken pin parts from both sleeves and changegear. Fit the new pin.

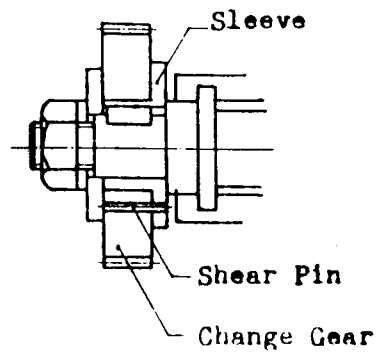


Fig. 12.

5-7 Brake Adjustments

Adjustment for wear on the brake pad (which is mounted on the headstock pulley) is made at the pivot connection between the foot brake pedal and the vertical link rod. This is readily accessible from the rear of the machine where the adjustment is made. The adjustment is made by turning the two locknuts on the link rod. A limit switch is mounted on the cabinet higher up the link rod. A slight re-positioning of the contact block may be necessary after the adjustment for brake pad wear.

Note: The function of the limit switch is to cut-out the motor drive when the brake pedal is operated, i.e. the plunger should be depressed when the brake pedal is in its free position and released at the moment the brake pedal is operated.

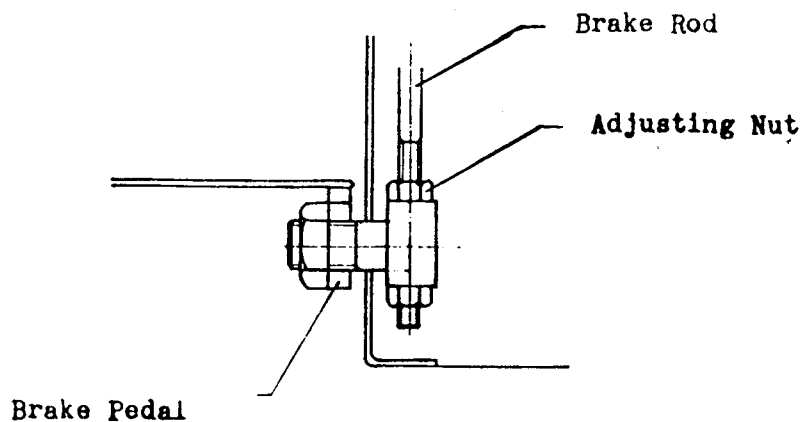
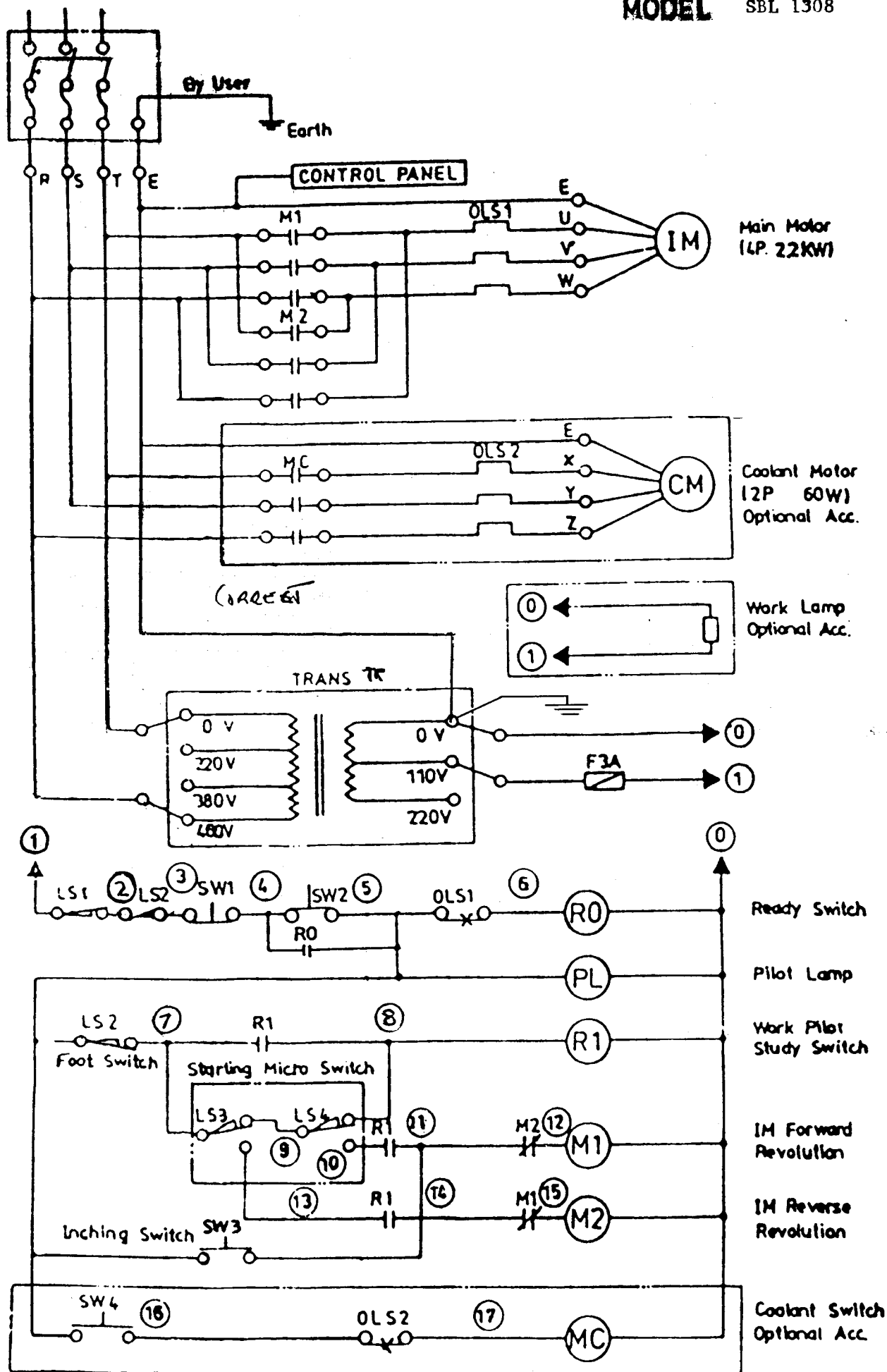
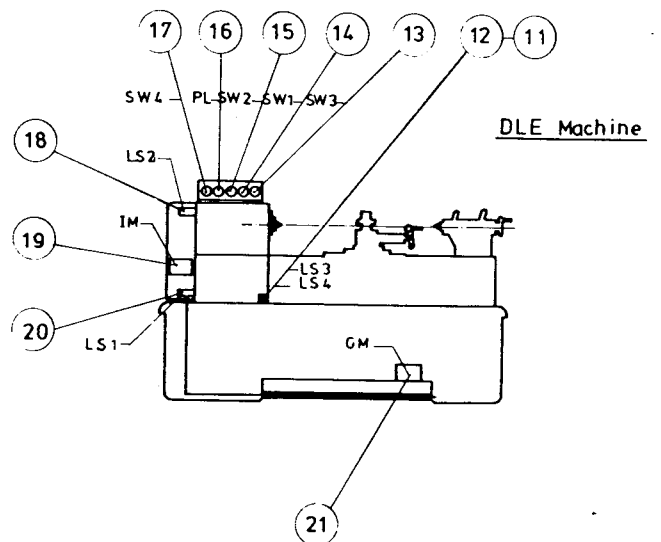
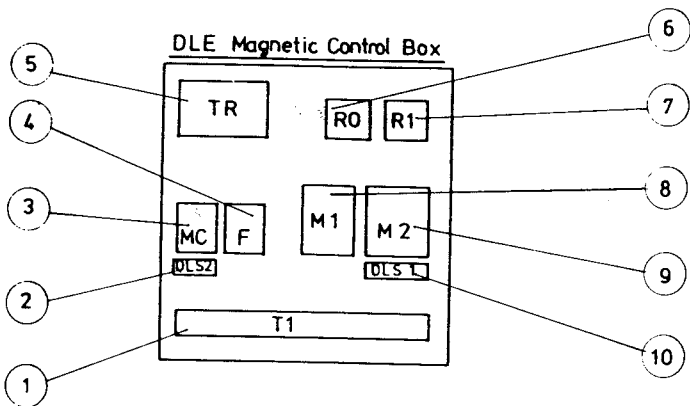


Fig.13.



ELECTRICAL BILL OF MATERIAL

SYMBOL	NAME OF PARTS	TYPE / RATING	Q'TY	LOCATION
M1	Magnetic Contactor	SMC-20 110 V	1	Mag. Control Box
M2	"	SMC-20 110 V	1	"
MC	"	SMC-10 110 V	1	"
OLS1	THERMAL RELAY	SRH-20 9A/4.5A	1	"
OLS2	"	SRH-12 02~04A	1	"
TR	Transformer	P220~440V S110~220V	1	"
F1	Fuse	3A	1	"
T1	Terminal Block	20A 12T	1	"
R0	Aux. Relay	SMC-10 110 V	1	"
R1	"	SMC-10 110 V	1	"
SW1	Emergency Switch	25∅(red) 1b	1	Machine
SW2	Push Button Switch	25∅(green) 1a	1	"
SW3	"	25∅(green) 1a	1	"
PL	Pilot Lamp	110 V 25∅	1	"
SW4	Selector Switch	25 ∅ 1a	1	"
LS1	Micro Switch	Z15G03 B1	1	"
LS2	"	Z15G03 B1	1	"
LS3	"	Z15G09 B	1	"
LS4	"	Z15G09 B	1	"
IM	3∅ Induction Motor	3∅ 4P 22Kw	1	"
CM	Coolant Motor	3∅ 2P 60W	1	"



6-3 THREAD AND FEED CHARTS

A) Feed and Thread Cutting (Leadscrew: 6mm). Metric

ins				mm													
56	C8EZ	20	C3FZ	7	C8FZ	4	BF1X	0.225	AG2X	1.0	AE3X	4.5	BF2X	0.25	AG3X	1.1	AE4X
52	C2EZ	19	B2FZ	6½	C7FZ	5	BF3X	0.275	AG4X	1.15	AE5X	5	BF3X	0.275	AG4X	1.15	AE5X
48	C6EZ	18	C2FZ	6	C6FZ	5.5	BF4X	0.3	AG6X	1.2	AE6X	6	BF4X	0.3	AG6X	1.2	AE6X
46	C5EZ	16	C1FZ	5½	C4FZ	6	BF6X	0.325	AG7X	1.25	BF3X	6	BF6X	0.325	AG7X	1.25	BF3X
44	C4EZ	14	C8GZ	5	C3FZ	6.5	BF7X	0.35	AG8X	1.3	AE7X	6.5	BF7X	0.35	AG8X	1.3	AE7X
40	C3EZ	13	C7GZ	4½	C2FZ	7	BF8X	0.4	AF1X	1.4	AE8X	7	BF8X	0.4	AF1X	1.4	AE8X
36	C2EZ	12	C6GZ	4	C1FZ	8	BE1X	0.45	AF2X	1.75	BF8X	8	BE1X	0.45	AF2X	1.75	BF8X
32	C1EZ	11½	C5GZ	3½	C8GZ	9	BE2X	0.5	AF3X	2.0	BE1X	9	BE2X	0.5	AF3X	2.0	BE1X
28	C8FZ	11	C4GZ	3¼	C7GZ	10	BE3X	0.55	AF4X	2.25	BE2X	10	BE3X	0.55	AF4X	2.25	BE2X
26	C7FZ	10	C3GZ	3	C6GZ	11	BE4X	0.6	AF6X	2.5	BE3X	11	BE4X	0.6	AF6X	2.5	BE3X
24	C6FZ	9	C2GZ	2 7/8	C5GZ	11.5	BE5X	0.65	AF7X	2.75	BE4X	11.5	BE5X	0.65	AF7X	2.75	BE4X
23	C5FZ	8	C1GZ	2 3/4	C4GZ	12	BE6X	0.7	AF8X	2.825	BE5X	12	BE6X	0.7	AF8X	2.825	BE5X
22	C4FZ			2½	C3GZ	13	BE7X	0.75	BG6X	3.0	BE6X	13	BE7X	0.75	BG6X	3.0	BE6X
				2¼	C2GZ	14	BE8X	0.8	AE1X	3.25	BE7X	14	BE8X	0.8	AE1X	3.25	BE7X
				2	C1GZ	0.2	AG1X	0.9	AE2X	3.5	BE8X	0.2	AG1X	0.9	AE2X	3.5	BE8X
ins				mm													
.0012	AG1Y	.0042	AE1Y	.0200	BE8Y	.607	BF1Y	.034	AG2Y	.132	AE2Y	.683	BF2Y	.038	AG3Y	.152	AE3Y
.0013	AG2Y	.0054	AE2Y	.0240	BF1Y	.759	BF3Y	.042	AG4Y	.167	AE4Y	.830	BF4Y	.044	AG5Y	.174	AE5Y
.0014	AG3Y	.0059	AE3Y	.0260	BF2Y	.870	BF5Y	.046	AG6Y	.180	AE6Y	.910	BF6Y	.049	AG7Y	.197	AE7Y
.0016	AG4Y	.0065	AE4Y	.0300	BF3Y	.986	BF7Y	.053	AG8Y	.210	AE8Y	1.062	BF8Y	.060	AF1Y	.266	BF8Y
.0017	AG5Y	.0068	AE5Y	.0330	BF4Y	1.210	BE1Y	.068	AF2Y	.304	BE1Y	1.210	BE1Y	.068	AF2Y	.304	BE1Y
.0018	AG6Y	.0071	AE6Y	.0340	BF5Y	1.366	BE2Y	.076	AF3Y	.340	BE2Y	1.366	BE2Y	.076	AF3Y	.340	BE2Y
.0019	AG7Y	.0077	AE7Y	.0360	BF6Y	1.520	BE3Y	.083	AF4Y	.380	BE3Y	1.520	BE3Y	.083	AF4Y	.380	BE3Y
.0020	AG8Y	.0084	AE8Y	.0390	BF7Y	1.670	BE4Y	.087	AF5Y	.417	BE4Y	1.670	BE4Y	.087	AF5Y	.417	BE4Y
.0024	AF1Y	.0100	BF8Y	.0420	BF8Y	1.745	BE5Y	.091	AF6Y	.436	BE5Y	1.745	BE5Y	.091	AF6Y	.436	BE5Y
.0027	AF2Y	.0120	BE1Y	.0470	BE1Y	1.820	BE6Y	.099	AF7Y	.455	BE6Y	1.820	BE6Y	.099	AF7Y	.455	BE6Y
.0030	AF3Y	.0130	BE2Y	.0530	BE2Y	1.970	BE7Y	.106	AF8Y	.490	BE7Y	1.970	BE7Y	.106	AF8Y	.490	BE7Y
.0032	AF4Y	.0150	BE3Y	.0600	BE3Y	.030	AG1Y	.121	AE1Y	.530	BE8Y	.030	AG1Y	.121	AE1Y	.530	BE8Y
.0034	AF5Y	.0160	BE4Y	.0650	BE4Y												
.0036	AF6Y	.0170	BE5Y	.0680	BE5Y												
.0038	AF7Y	.0180	BE6Y	.0720	BE6Y												
.0040	AF8Y	.0190	BE7Y	.0780	BE7Y												
								<p>On metric lead screw lathe, gears in end gearing:</p>									
42	C8EZ	27	C2EZ					(2) 44T									
39	C7EZ	10½	C8GZ					96T									
34½	C5EZ	8¼	C4GZ					88T									
30	C3EZ	7½	C3GZ					56T									
								84T									

B) Feed and Thread Cutting (Leadscrew: 4 T.P.I.). English

ins						mm					
56	C8EZ	20	C3FZ	6½	C7FZ	4	BF1X	0.2	AG1X	0.9	AE2X
52	C7EZ	19	B2FZ	6	C6FZ	4.5	BF2X	0.225	AG2X	1.0	AE3X
48	C6EZ	18	C2FZ	5½	C4FZ	5	BF3X	0.25	AG3X	1.1	AE4X
46	C5EZ	16	C1FZ	5	C3FZ	5.5	BF4X	0.275	AG4X	1.15	AE5X
44	C4EZ	14	C8GZ	4½	C2FZ	6	BF6X	0.3	AG6X	1.2	AE6X
40	C3EZ	13	C7GZ	4	C1FZ	6.5	BF7X	0.325	AG7X	1.25	BF3X
36	C2EZ	12	C6GZ	3½	C8GZ	7	BF8X	0.35	AG8X	1.3	AE7X
32	C1EZ	11½	C5GZ	3¼	C7GZ	8	BE1X	0.4	AF1X	1.4	AE8X
28	C8FZ	11	C4GZ	3	C6GZ	9	BE2X	0.45	AF2X	1.5	BF6X
26	C7FZ	10	C3GZ	2 7/8	C5GZ	10	BE3X	0.5	AF3X	1.75	BF8X
24	C6FZ	9	C2GZ	2 3/4	C4GZ	11	BE4X	0.55	AF4X	2.0	BE1X
23	C5FZ	8	C1GZ	2½	C3GZ	11.5	BE5X	0.6	AF6X	2.25	BE2X
22	C4FZ	7	C8FZ	2¼	C2GZ	12	BE6X	0.65	AF7X	2.5	BE3X
				2	C1GZ	13	BE7X	0.7	AF8X	2.75	BE4X
						14	BE8X	0.75	BG6X	3.0	BE6X
								0.8	AE1X	3.25	BE7X
										3.5	BE8X
ins/⌀						mm/⌀					
.0011	AG1Y	.0044	AE1Y	.0192	BE8Y	.557	B	.028	AG1Y	.111	AE1Y
.0012	AG2Y	.0049	AE2Y	.0219	BF1Y	.627	BF2Y	.031	AG2Y	.120	AE2Y
.0014	AG3Y	.0055	AE3Y	.0247	BF2Y	.697	BF3Y	.033	AG3Y	.139	AE3Y
.0015	AG4Y	.0060	AE4Y	.0274	BF3Y	.767	BF4Y	.038	AG4Y	.153	AE4Y
.0016	AG5Y	.0063	AE5Y	.0302	BF4Y	.801	BF5Y	.040	AG5Y	.160	AE5Y
.0016	AG6Y	.0066	AE6Y	.0315	BF5Y	.836	BF6Y	.042	AG6Y	.167	AE6Y
.0018	AG7Y	.0071	AE7Y	.0329	BF6Y	.906	BF7Y	.045	AG7Y	.181	AE7Y
.0019	AG8Y	.0077	AE8Y	.0357	BF7Y	.976	BF8Y	.049	AG8Y	.195	AE8Y
.0022	AF1Y	.0096	BF8Y	.0384	BF8Y	1.115	BE1Y	.056	AF1Y	.244	BF8Y
.0025	AF2Y	.0110	BE1Y	.0439	BE1Y	1.254	BE2Y	.063	AF2Y	.279	BE1Y
.0027	AF3Y	.0123	BE2Y	.0494	BE2Y	1.384	BE3Y	.070	AF3Y	.314	BE2Y
.0030	AF4Y	.0137	BE3Y	.0549	BE3Y	1.533	BE4Y	.077	AF4Y	.348	BE3Y
.0031	AF5Y	.0151	BE4Y	.0604	BE4Y	1.608	BE5Y	.080	AF5Y	.383	BE4Y
.0033	AF6Y	.0158	BE5Y	.0631	BE5Y	1.673	BE6Y	.084	AF6Y	.401	BE5Y
.0036	AF7Y	.0165	BE6Y	.0658	BE6Y	1.812	BE7Y	.090	AF7Y	.418	BE6Y
.0038	AF8Y	.0173	BE7Y	.0713	BE7Y			.097	AF8Y	.453	BE7Y
										.488	BE8Y
96	C6EZ	80	C3EZ								
92	C3EZ	72	C2EZ								
86	C4EZ	64	C1EZ								

On English Lead Screw Lathe

Gears in end gearing:

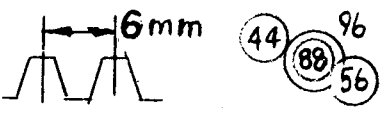
- 40T
- 44T
- 88T
- 95T



In tool box:

- 108T
- 27T
- 56 Module 9 D P

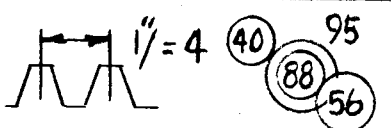
B) Module & D. P. Thread Cutting.



METRIC LEAD SCREW
















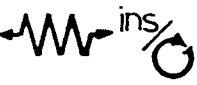

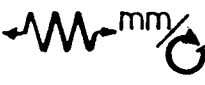




 M		 DP	
0.3	AG6X	56	C8EZ
0.4	AF1X	48	C6EZ
0.5	AF3X	40	C3EZ
0.6	AF6X	36	C2EZ
0.7	AF8X	32	C1EZ
0.8	AE1X	28	C8FZ
0.9	AE2X	24	C6FZ
1.0	AE3X	22	C4FZ
1.25	BF3X	20	C3FZ
1.5	BF6X	18	C2FZ
1.75	BF8X	16	C1FZ
2.0	BE1X	14	C8GZ
2.25	BE2X	13	C7GZ
2.5	BE3X	12	C6GZ
2.75	BE4X	11	C4GZ
3.0	BE6X	10	C3GZ
3.25	BE7X	9	C2GZ
3.5	BE8X	8	C1GZ

ENGLISH LEAD SCREW



 M		 DP	
0.3	AG6X	56	C8EZ
0.4	AF1X	48	C6EZ
0.5	AF3X	40	C3EZ
0.6	AF6X	36	C2EZ
0.7	AF8X	32	C1EZ
0.8	AE1X	28	C8FZ
0.9	AE2X	24	C6FZ
1.0	AE3X	22	C4FZ
1.25	BF3X	20	C3FZ
1.5	BF6X	18	C2FZ
1.75	BF8X	16	C1FZ
2.0	BE1X	14	C8GZ
2.25	BE2X	13	C7GZ
2.5	BE3X	12	C6GZ
2.75	BE4X	11	C4GZ
3.0	BE6X	10	C3GZ
3.25	BE7X	9	C2GZ
3.5	BE8X	8	C1GZ

6-4 Explanation

Symbol	Explanation	Symbol	Explanation
	Round Per Minute		Coolant Unit
	Left Side Feed		Power Source
	Right Side Feed		Emergency Stop
	Longitudinal Feed		Inching or Jog
	Cross Feed		Thread Cutting (INCH)
N	Normal		Thread Cutting (MM)
	Feed		Pushing this Knob
	Longitudinal Feed per Revolution (INCH)		Pulling this Knob
	Longitudinal Feed per Revolution (MM)		
	Disengaging Half-Nut		
	Engaging Half-Nut		
	Feed Engaged (Upward)		
	Feed Disengaged (Downward)		

7. ACCESSORIES

7-1 Taper Turning Attachment

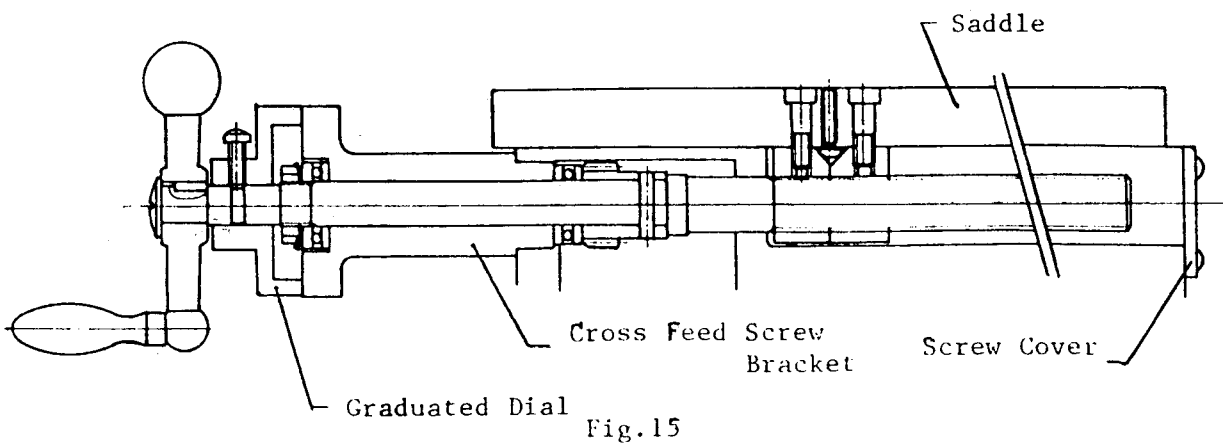
A) Specifications

MACHINE DESCRIPTION	DLE 330	
Max. Working Length	300mm (12")	
Max. INCH/DEGREES	Degrees	± 10
	Max. Inch	4 INCH/FOOT

B) Installation

The cross feed screw must be changed to install taper attachment.

- a. Disconnect the cross feed screw bracket (Fig. 15) by removing the bolt in front of saddle and remove screw cover (Fig. 15) on rear of saddle.



- b. Pull out cross feed screw (Fig. 15) from bracket and assemble new screw (Fig. 16) with cross feed screw bracket (Fig. 15). Fix the new screw on the cross feed nut of saddle. Adjust the adjusting block to control the backlash of the cross feed screw with bolt "B" and "C". (Refer to item 5-3.)

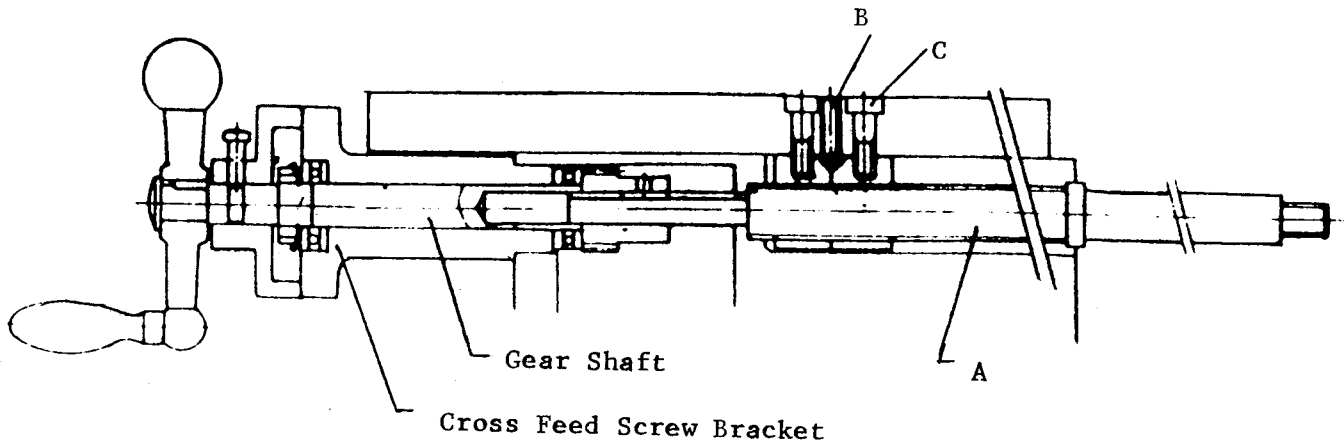


Fig. 16

c. Assemble parts as follows:

1. Shaft (A)
2. Body
3. Bearing (B)
4. Clamp Block (C)
5. Bearing (D)

C-1. When moving the slide, adjust bolt "I", and loosening and tightening the slide, adjust with "G".

C-2. When moving the crossslide, adjust with set screw "J".

C-3. The backlash of shaft "A" can be adjusted by cap nut ("F").

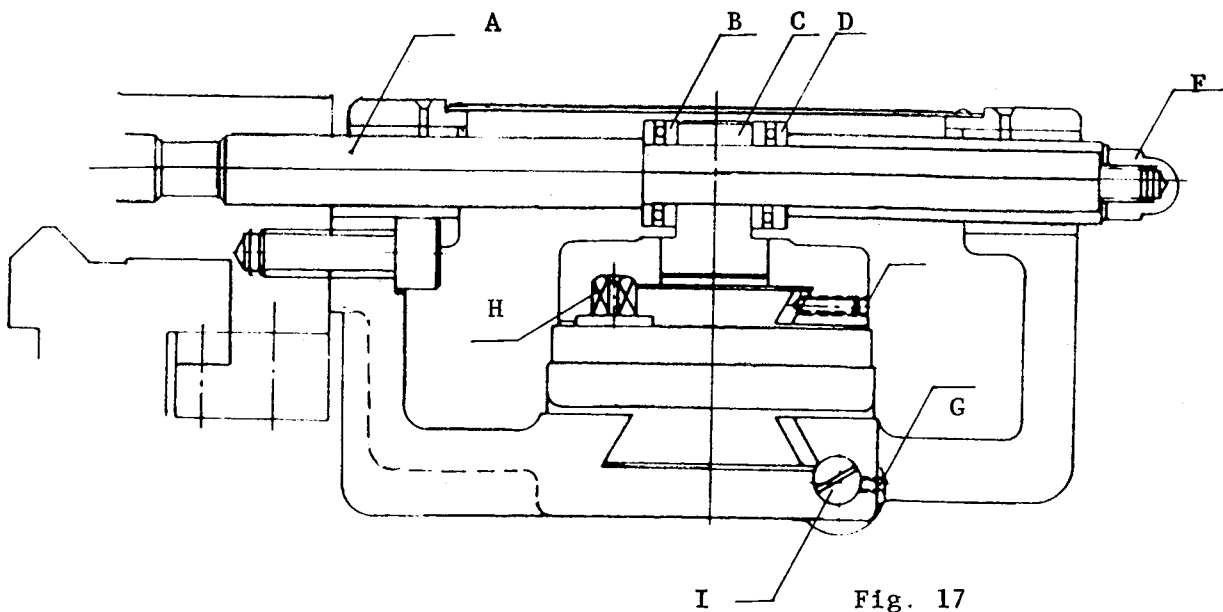
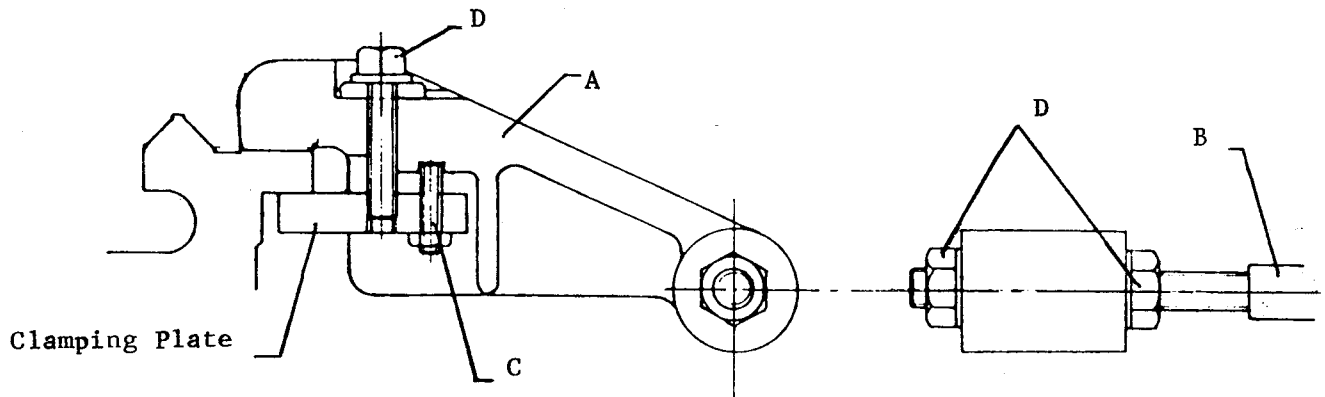


Fig. 17

d. Taper cutting can be done only under fixing by connection bracket "A" and bsr "B" as shown on Fig. 18.

D-1. Tighten the lock screw "D" after adjusting the adjusting bolt "C".

D-2 Tighten nut "D".



C) Operation

1. Lubricate oil on slide frequently (Fig. 17).
2. When taper machining, fix on needed angle with "H" bolt (Fig. 17).
3. Lock the clamp bracket "A" (Fig. 18) to the lathe bed.
4. When surface machining with taper attachment, fix on "O" position with "H" bolt (Fig. 17).
5. Move the carriage to the right so that the tool is from $3/8$ to $3/4$ mm past the start position. This should be done on every pass to remove any backlash in the taper attachment.

6. Use the compound slide for the plain type.
7. Take a trial cut and check the diameter of the taper. Continue the roughing cut.
8. Check the taper for fit, and adjust the taper attachment if necessary.
9. Take a light cut, about 0.010, and check the taper again. If it is correct, complete the roughing and final finish cuts.

5-8. SAFETY DEVICE FOR LEAD SCREW AND FEED ROD CUTTING

Shear pins connect the lead screw to the coupling and feed rod to the 6'th shaft. If the pin is broken due to an overload, a new brass pin made to the drawing (Fig. 13-1) will be required. The critical dimension is 0.157 diameter. Locating marks must be aligned for proper installation of pin.

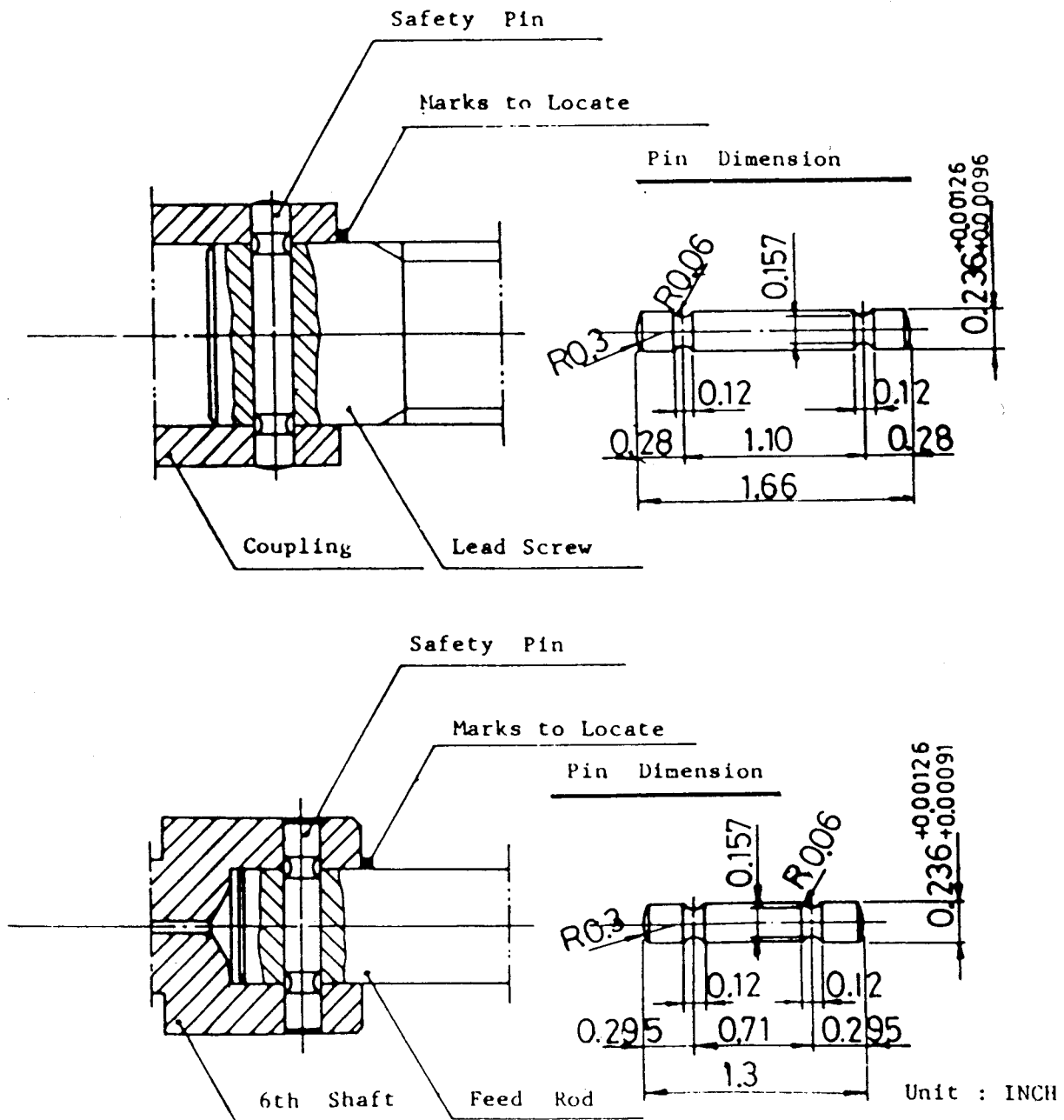


Figure 13-1

PARTS LIST

SBL South Bend
Lathe

Model DLE 330

SBL South Bend Lathe, Inc.
AN EMPLOYEE-OWNED COMPANY

400 West Sample Street
South Bend, Indiana 46625
Telephone: (219) 289-7771
Telex: 25-8471

HG Headstock Gear Assembly
HL Headstock Lever Assembly
FG Feed Box Gear Assembly
FL Feed Gear Box Lever Assembly
CG Change Gear Assembly
AP Apron Assembly
SL Starting Lever Assembly
CD Chasing Dial Assembly
CA Carriage Assembly
CL Carriage Lubrication System
TA Tail Stock Assembly
SB Shaft and Bracket Assembly (Spring)
SB Shaft and Bracket Assembly (Shear Pin)
BA Bed Assembly
BD Brake and Drive Assembly
CS Coolant System Assembly
RS Roller Steady Rest
FRR Roller Follow Rest
TT Taper Attachment Assembly
LN Longitudinal Assembly
ST Single Tool Post Assembly
CL Collet Attachment Assembly
PS Four Position Stop Assembly
MS Micrometer Stop Assembly
TS Cross Feed Stop Assembly
CB Control Box Assembly

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT1301400E	MAIN SPINDLE (D1-4)	1
2	150 - MT53	CENTER SLEEVE (MT #5 X MT #3) ...	1
3	140 - MTA03	CENTER (MT #3)	1
4	32014 X C1P5	TAPER ROLLER BEARING (32014 X C/P5)	1
5	110 - 0401	CAM LOCK	3
6	PT1505140E	BEARING COVER (RIGHT)	1
6-1	501 X 630	SOCKET HEAD CAP SCREW	1
7	P20	O - RING (P20)	1
8	110 - D403	SOCKET HEAD CAP SCREW (1/4"-2OUNC-	3
9	110 - D402	STUD	3
10	PT1303401E	3 RD SHAFT	1
11	PT1105030E	HEAD STOCK	1
12	557 X 7725	KEY (5 X X X 25)	1
13	PT1404455E	GEAR (37T)	1
14	PT1404456E	GEAR (31T)	1
15	P41	O - RING (P41)	1
16	PT3902050E	BEARING PLUG	1
17	6303	BALL BEARING (6303)	1
18	561 X 30	STOP RING (C - 0/ 30)	1
19	557 X 558	KEY (5 X 5 X 8)	1
20	557 X 5522	KEY (5 X 5 X 22)	1
21	PT1505141E	BEARING COVER (RIGHT)	1
22	553 X 312	ROLL PIN (Ø3 X 12)	1
23	110 X 820	SOCKET HEAD CAP SCREW (M8 X 20) .	1
24	PT2002080E	WASHER	1
25	561 X 22	STOP RING (C - Ø22)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
26	559 X 822	WOODRUFF KEY (8 X 22)	1
27	PT2605060	PULLEY	1
28	SB35488	OIL SEAL (SB35488)	1
29	6205	BALL BEARING (6205)	1
30	501 X 516	SOCKET HEAD CAP SCREW (M5 X 16) ..	3
31	PT2002081	COLLAR	1
32	PT303402E	2'ND SHAFT	1
33	561 X 32	STOP RING (C-Ø32)	1
34	PT140445E	GEAR (31T)	1
35	557 X 5525	KEY (5 X 5 X 25)	1
36	PT1404458E	GEAR (38T)	1
37	557 X 5522	KEY (5 X 5 X 22)	1
38	PT1404459	GEAR (25T)	1
39	PT1404400E	GEAR (19T)	1
40	561 X 24	STOP RING (Z - Ø24)	1
41	6303	BALL BEARING (6303)	1
42	501 X 514	SOCKET HEAD CAP SCREW	3
43	PT1303403E	1'ST SHAFT	1
44	PT1404461E	GEAR (48T)	1
45	PT1505142E	BEARING COVER (LEFT)	1
46	561 X 48	STOP RING (C - Ø48)	1
47	557 X 6622	KEY (6 X 6 X 22)	1
48	P41	O - RING (P41)	1
49	PT3902051E	PLUG	1
50	PT1505143E	BEARING COVER	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
75	PT1802260E	COLLAR	1
76	549 X 2315	SHEAR PIN (Ø2.3 X 15)	1
77	PT1901140E	BUSHING	1
78	PT1303404E	5' TH SHAFT	1
78-1	PT1802261E	COLLAR	1
79	SC24324	SEAL (SC24324)	1
80	PT1907141E	BUSHING	2
81	501 X 520	SOCKET HEAD CAP SCREW (M5 X 20) .	3
82	PT1705270E	5' TH COVER	1
83	P26	O - RING (P26)	1
84	PT1802262E	COLLAR	1
85	PT1404466E	GEAR (46T)	1
86	561 X 20	STOP RING (C - Ø20)	1
87	PT1907142E	OILITE BUSH	2
88	561 X 19	STOP RING (Z - Ø19)	1
89	PT1802263	COLLAR	1
90	561 X 20	STOP RING (G - Ø20)	1
91	501 X 1230	SOCKET HEAD CAP SCREW (M12 X 30).	2
92	545 X 12	WASHER (M12)	2
93	525 X 12	HEX NUT (M12)	2
94	501 X 1240	SOCKET HEAD CAP SCREW (M12 X 40).	2
95	PT1404467E	GEAR (34T)	2
96	PT1907143E	BUSHING	2
97	PT1404468E	GEAR (59T)	1
98	PT1404469E	GEAR (81T)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
51	525 X 8	HEX NUT (M8)	1
52	503 X 315	SET SCREW (M8 X 15)	1
53	6303	BALL BEARING (6303)	1
54	557 X 668	KEY (6 X 6 X 8)	1
55	PT1404462	GEAR (43T)	1
56	501 X 516	SOCKET HEAD CAP SCREW (M5 X 16) .	1
57	561 X 25	STOP RING (C-Ø25)	1
58	P22	O - RING (P22)	1
59	561 X 38	STOP RING (C - Ø38)	1
60	501 X 616	SOCKET HEAD CAP SCREW (M6 X 16) .	4
61	501 X 525	SOCKET HEAD CAP SCREW	1
62	PT1404463	GEAR (46T)	1
63	561 X 60	STOP RING (C - Ø60)	1
64	557 X 10385	KEY (10 X 8 X 85)	1
65	PT2801160E	ADJUSTING NUT	1
66	32011 X C/P5	TAPER ROLLER BEARING (32011 X C/P5)	1
67	PT1505144E	BEARING COVER (LEFT)	1
68	P22	O - RING (P22)	1
69	PT1303430E	4TH SHAFT	1
69-1	PT1404464E	GEAR (33T)	1
70	503 X 812	SET SCREW (M8 X 12)	1
71	525 X 12	HEX NUT (M12)	1
72	PT1401465E	GEAR (44T)	1
73	557 X 5512	KEY (5 X 5 X 12)	1
74	545 X 12	LOCK WASHER (M12)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
99	PT1404470E	GEAR (24T)	1
100	561 X 30	SNAP RING (Ø30)	2
101	503 X 812	SET SCREW (M8 X 12)	1
102	110 - D406	SOCKET HEAD CAP SCREW (5/16 - 18XX 3/4UNC)	3
103	110 - D404	SPRING	3
104	110 - D405	LOCK PIN	3

PARTS LIST

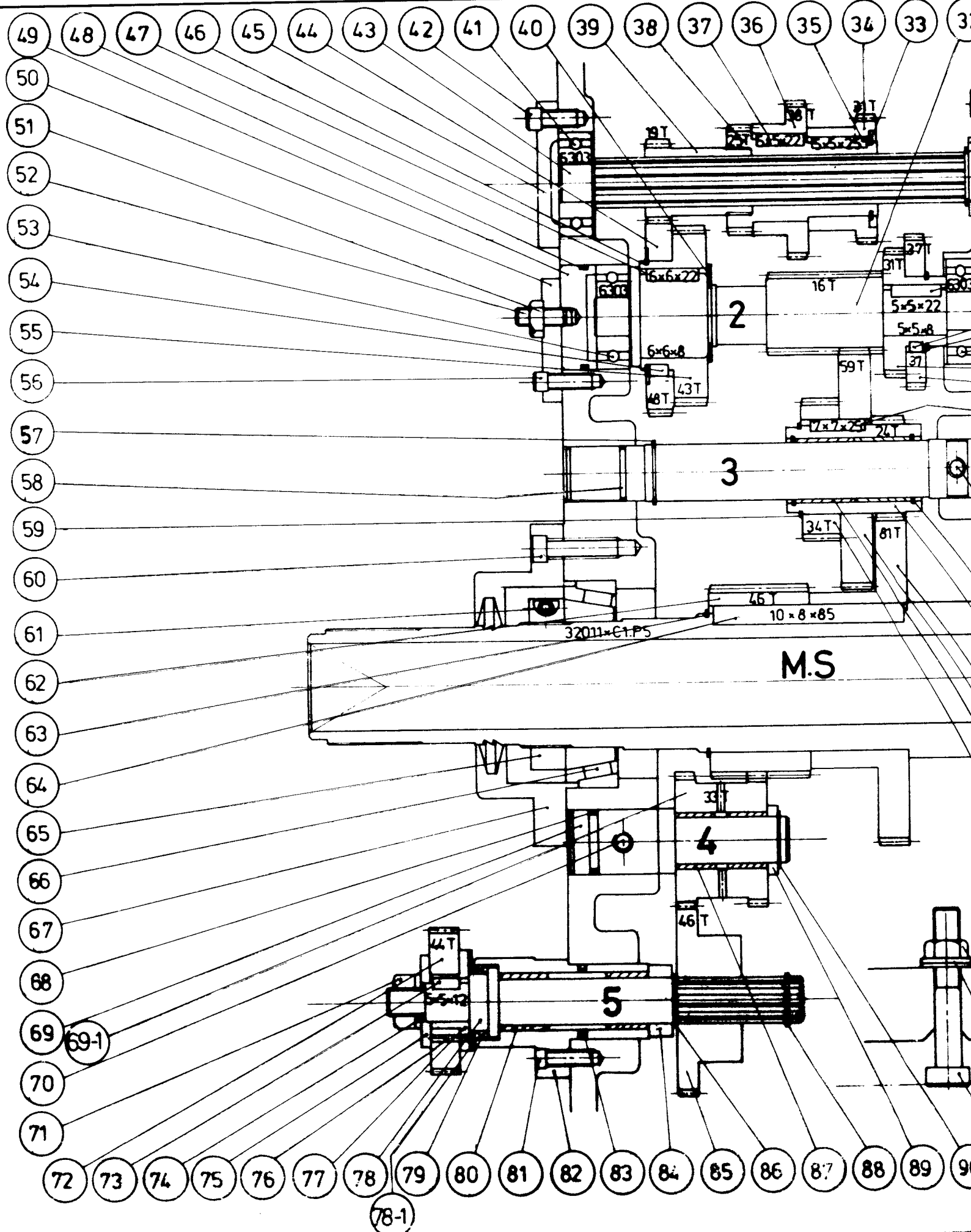
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT110503	HEAD STOCK BODY	1
2	PT3002060E	CONNECTING ROD	1
3	503 X 410	SET SCREW (M4 X 10)	1
4	SP080610	SPRING	1
5	157 X 14	STEEL BALL	1
5-1	PT2102075E	LEVER HOLDER	1
6	PT3401100E	BUSHING, FLANGED	1
7	149 X 450	SPRING PIN (Ø4 X 50)	1
8	P7	O - RING (P7)	1
9	PT1302405E	9'TH SHAFT	1
9-1	PT2302100E	LEVER	1
10	PT2907180E	SHOE, SHIFTING	1
10-1	P16	O - RING (P16)	1
11	3521 X 410	MACHINE SCREW (M4 X 10)	2
12	149 X 415	SPRING PIN (Ø4 X 15)	1
13	149 X 450	SPRING PIN (Ø4 X 50)	1
14	P29	O - RING (P29)	1
15	PT1302406E	8'TH SHAFT	1
16	P10	O - RING (P10)	1
17	PT3401101	BUSHING, FLANGED	1
18	503 X 510	SET SCREW (M6 X 10)	1
19	PT1702271E	COVER	1
20	170 - 08E	NAME PLATE	2
21	PT2102076E	LEVER HOLDER	2
22	160 - 01C	BALL (M6 X Ø25)	3

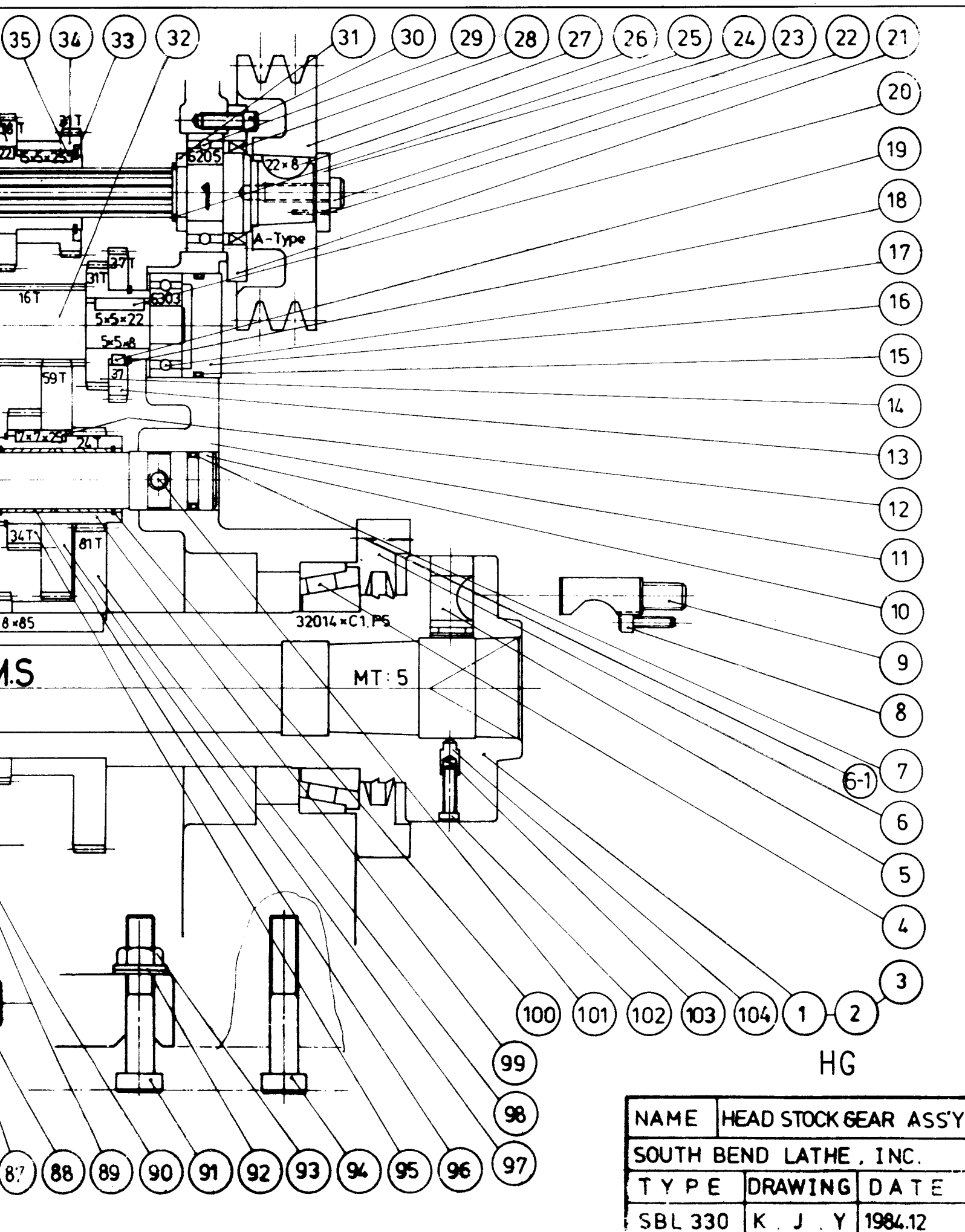
PARTS LIST

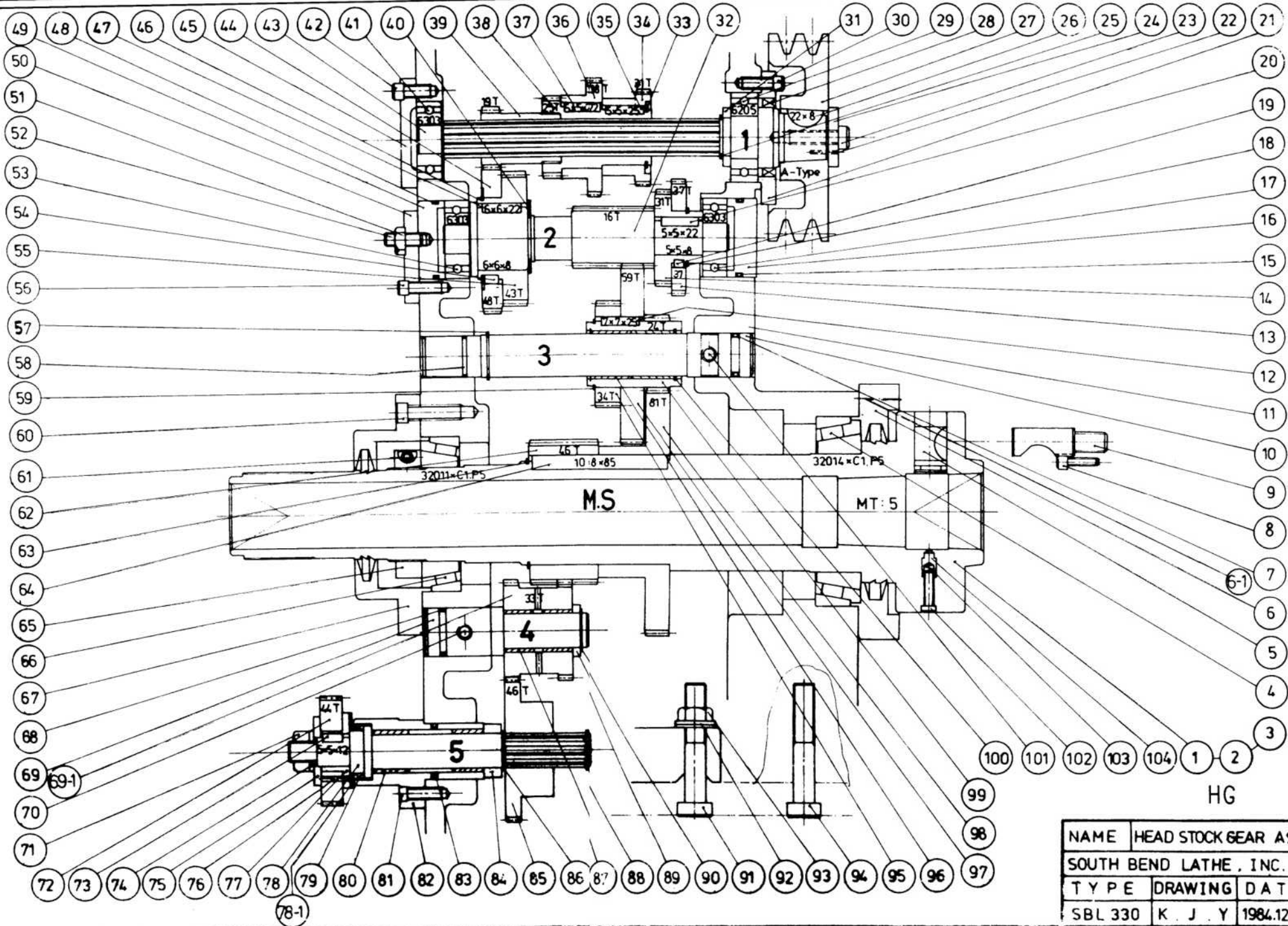
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
23	PT2302101	LEVER	3
24	149 X 450	SPRING PIN (\emptyset 4 X 50)	1
25	503 X 510	SET SCREW (M5 X 10)	1
26	SPI81825	SPRING	4
27	P29	O - RING (P29)	1
27-1	PT3401102E	BUSHING, FLANGED	1
28	P10	O - RING (P10)	1
29	503 X 610	SET SCREW (M6 X 10)	1
30	5492510	PIN (\emptyset 2.5 X 10)	1
31	503 X 610	SET SCREW (M6 X 10)	2
32	PT1907144E	BUSHING	1
33	'180 - 01A	OIL LEVEL SIGHT WINDOW	1
34	557 X 5512	KEY (5 X 5 X 12)	1
35	PT1401471E	GEAR	1
36	561 X 14	STOP RING (C- \emptyset 14)	1
37	549 X 2520	PIN (\emptyset 2.5 X 20)	1
38	PT1401472E	GEAR (20T)	1
39	553 X 425	SPRING PIN (\emptyset 4 X 25)	1
40	PT1302407E	7'TH SHAFT	1
41	PT1302408E	6'TH SHAFT	1
42	553 X 425	SPRING PIN (\emptyset 4 X 25)	1
43	PT1401473E	GEAR (20T)	1
44	PT1406474E	SHIFTING GEAR (75T)	1
45	PT3002061E	CONNECTING ROD	1
46	PT1702272	6'TH COVER (LEFT)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
47	553 X 425	SPRING PIN (\emptyset 4 X 25)	2
48	501 X 516	SOCKET HEAD CAP SCREW (M5 X 16) ..	2
49	PT1907145E	BUSHING (LEFT)	1
50	PT1782295E	7' TH COVER (LEFT)	1
51	PT2907180E	SHIFT SHOE	1
53	190 - 01D	FILL PLUG	1
54	PT3002062E	CONNECTING ROD	1
55	190 - 04D	DRAIN PLUG	1
56	PT2907181E	SHIFT SHOE	1
57	170 - 10E	NAME PLATE	1
58	521 X 35	MACHINE SCREW (M3 X 5)	2
59	170 - 13E	NAME PLATE	1
60	PT4117060E	RUBBER	1
61	501 X 630	SOCKET HEAD CAP SCREW (M6 X 30) ..	6
62	PT1705272E	COVER	1







NAME	HEAD STOCK GEAR ASS'Y		
SOUTH BEND LATHE, INC.			
TYPE	DRAWING	DATE	
SBL 330	K. J. Y	1984.12	

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PT1105031E	GEAR BOX	1
2	149 X 532	SPRING PIN (\emptyset 5 X 32)	1
3	PT3902052E	PLUG	1
4	PT1406475E	GEAR (36T)	1
5	PT1907146E	BUSHING	1
6	503 X 610	SET SCREW (M6 X 10)	1
7	PT1907147E	BUSHING	1
8	157 X 14	STEEL BALL (\emptyset 1/4)	2
9	PT1801264E	COLLAR	1
10	PT13012409E	6'TH SHAFT	1
11	PT1901148E	OVER LOAD SLEEVE	1
12	PT2901182E	T TYPE KEY	1
13	PT2801161E	LOCK NUT	1
14	PT2411125E	SPRING PLATE	16
15	PT1901149E	BUSHING	1
16	521 X 410	MACHINE SCREW (M4 X 10)	2
17	501 X 512	SOCKET HEAD CAP SCREW (M5 X 12) ...	2
18	561 X 20	STOP RING (C- \emptyset 20)	1
18-1	503 X 44	SCREW SET (M4 X 4)	4
19	PT1401476E	GEAR (35T, INCH)	1
19-1	PT1401477E	GEAR (36T, MM)	1
20	PT1907150E	BUSHING	1
21	PT1705273E	COVER	1
22	PT1802265E	COLLAR	1
23	PT3902053E	PLUG (RIGHT)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
24	PT1303410E	5"TH SHAFT	1
25	503 X 610	SET SCREW (M6 X 10)	1
26	PT1907151E	BUSHING	1
27	PT1901152E	BUSHING	1
28	149 X 532	SPRING PIN (Ø5 X 32)	1
29	PT1401478E	GEAR (35T)	1
30	503 X 610	SET SCREW (M6 X 10)	1
31	PT1907153E	BUSHING	1
32	PT1907154E	BUSHING	1
33	PT1401479E	GEAR (19T, 23T)	1
34	PT1401480E	GEAR (38T)	1
35	PT1401481	GEAR (26T)	1
36	PT1401482	GEAR (28T)	1
37	PT1401483	GEAR (24T)	1
38	PT1401484E	GEAR (27T)	1
39	PT1401485E	GEAR (23T)	1
40	PT1401486E	GEAR (38T)	1
41	PT1907155E	BUSHING	1
42	PT1907156E	BUSHING	1
43	PT1401487E	GEAR (19T, 50T)	1
44	503 X 610	SET SCREW (M6 X 10)	1
45	503 X 610	SET GEAR (24T)	1
46	PT1401488E	GEAR (24T)	1
47	PT1401489	GEAR (20T)	1
48	PT1401190E	GEAR (19T)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
49	553 X 532	SPRING PIN (Ø5 X 32)	1
50	PT1303411E	4 TH SHAFT	1
51	PT3902054E	PLUG (LEFT)	1
52	PT1401491E	GEAR (22T)	1
53	PT1907157E	BUSHING	1
54	PT1907158E	BUSHING	1
55	PT1303412E	3 RD SHAFT	1
56	PT1907159E	OILLESS BUSHING	1
57		CHANGE GEAR (96T)	1
58	557 X 5525	KEY (5 X 5 X 25)	1
59	PT1705274E	COVER	1
60	553 X 422	SPRING PIN (Ø4 X 22)	2
61	PT1907160E	BUSHING	2
62	PT1303413E	1 ST SHAFT	1
63	561 X 16	STOP RING (C-Ø16)	1
64	PT1802266E	COLLAR	1
65	501 X 525	SOCKET HEAD CAP SCREW (M5 X 25) ..	2
66	PT1401497E	GEAR (19T, 20T)	1
67	503 X 610	SET SCREW (M6 X 10)	1
67-1	PT3902055E	PLUG	1
68	503 X 610	SET SCREW (M6 X 10)	1
69	PT1907161E	BUSHING	1
70	PT1303414E	2 ND SHAFT	1
71	553 X 532	SPRING PIN (Ø5 X 32)	1
72	PT1401498E	GEAR (22T)	1

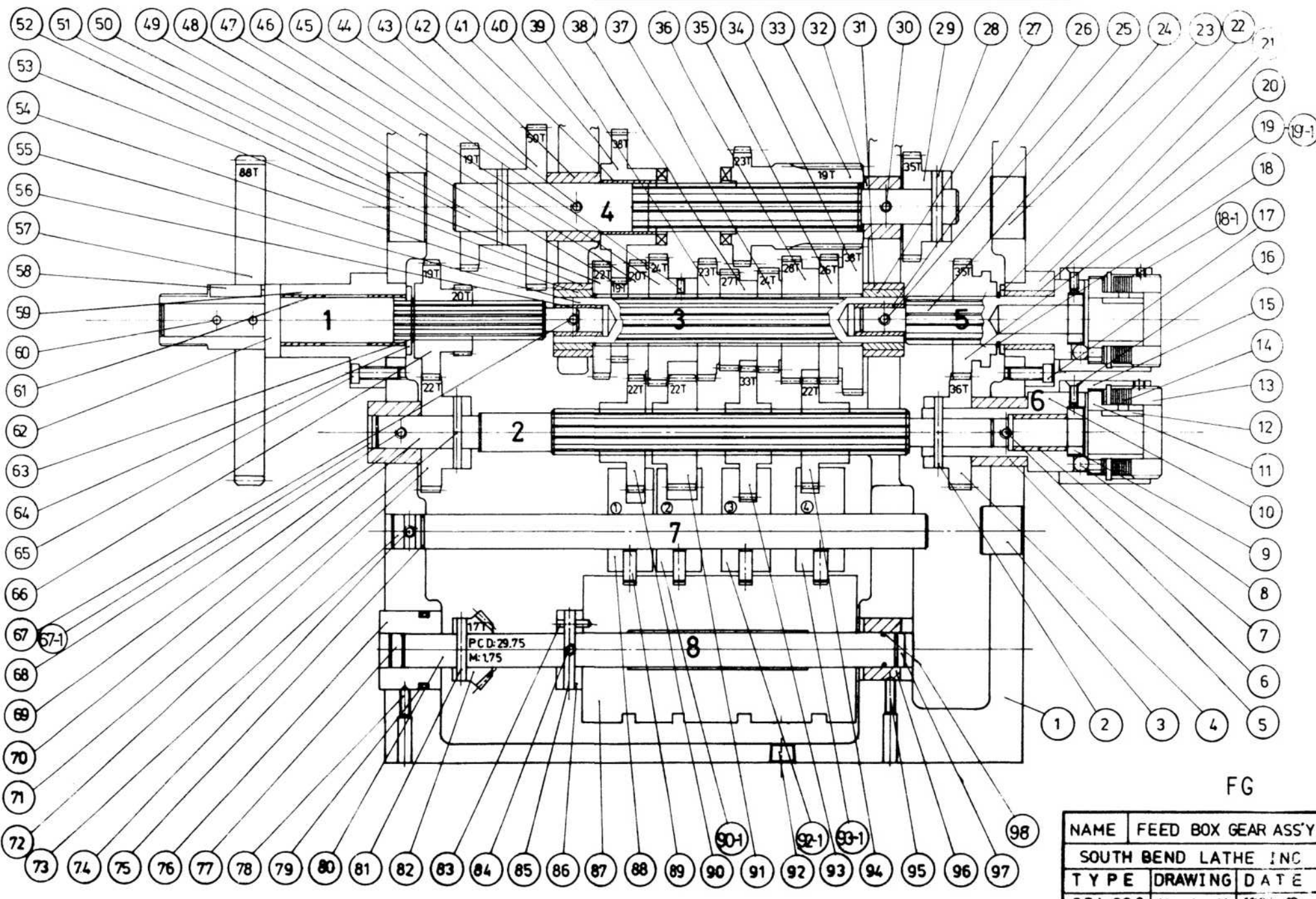
ITEM NO.
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PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
73	PT1301415E	7'TH SHAFT	1
74	503 X 610	SET SCREW (M6 X 10)	1
75	P10	O - RING (P10)	1
76	PT1907162E	BUSHING	1
77	PT3902056E	PLUG	1
78	503 X 610	SET SCREW (M6 X 10)	1
79	P26	O-RING (P26)	1
80	PT1302416E	8'TH SHAFT	1
81	553 X 424	SPRING PIN (\emptyset 4 X 24)	1
82	PT1401499E	BEVEL GEAR (17T)	1
83	553 X 410	SPRING PIN (\emptyset 4 X 10)	1
84	503 X 55	SET SCREW (M5 X 5)	1
85	553 X 430	SPRING PIN (\emptyset 4 X 30)	1
86	PT1802267E	COLLAR	1
87	PT2705045E	CYLINDRICAL CAM	1
88	PT2501110E	FORK SHIFTING	4
89	549 X 613	PIN (\emptyset 6 X 13)	4
90	PT1401500E	GEAR (22T)	1
90-1	PT2501111E	FORK SHIFTING	1
91	PT1401500E	GEAR (22T)	1
92	190 X 04 X D	DRAIN PLUG	1
92-1	PT2501112E	FORK SHIFTING	1
93	PT1401501E	GEAR (33T)	1
93-1	PT2501113E	FORK SHIFTING	1
94	PT1401502E	GEAR (22T)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
95	503 X 610	SET SCREW (M6 X 10)	1
96	PT1907163E	SLEEVE	1
97	PT3902057E	PLUG	1
98	P10	O - RING (P10)	1



FG

NAME	FEED BOX GEAR ASSY		
	SOUTH BEND LATHE INC		
TYPE	DRAWING	DATE	
SBL 330	K J Y	1984	

PARTS LIST

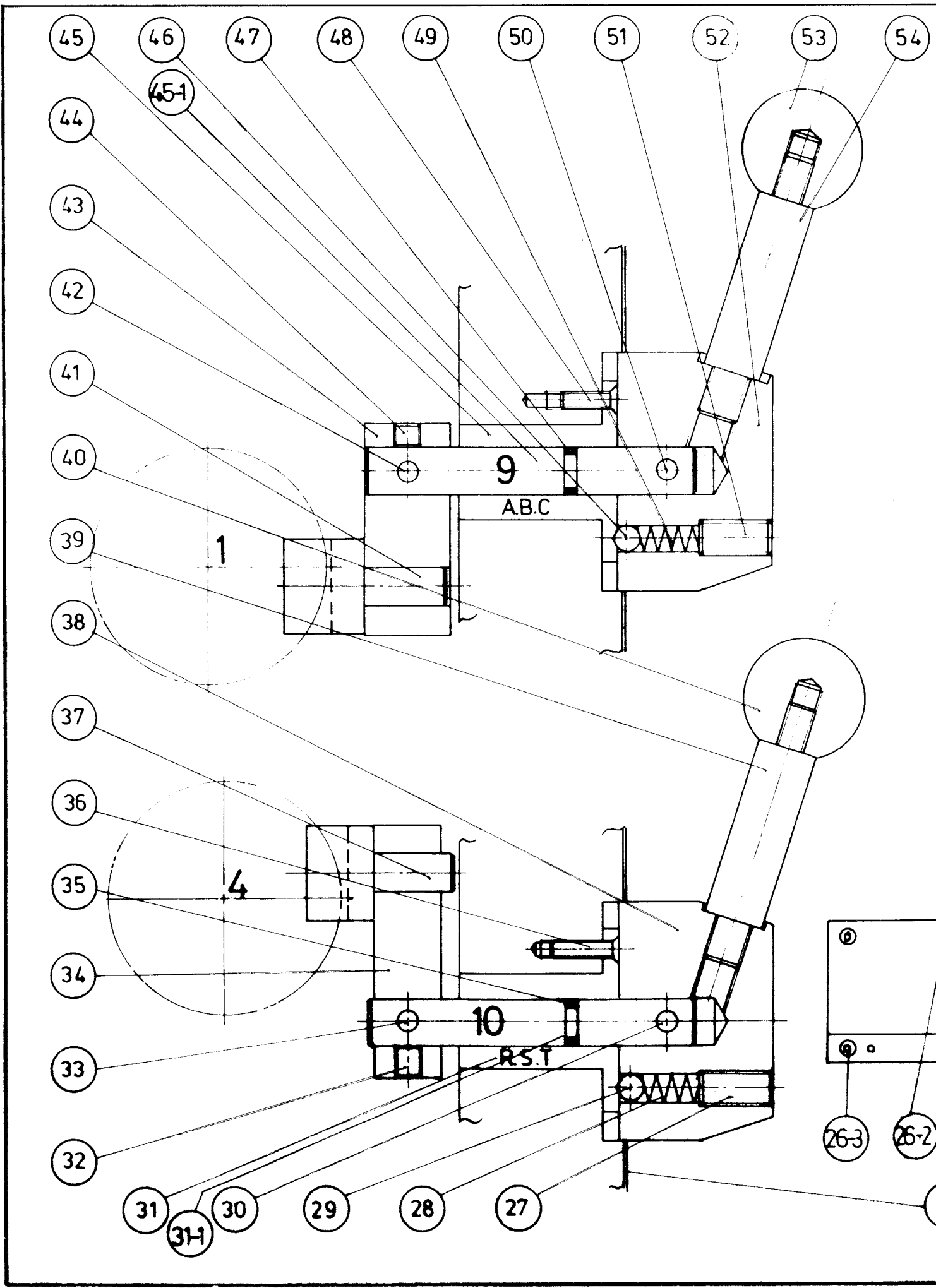
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	SP080610	SPRING	1
2	503 X 810	SET SCREW (M8 X 10)	1
3	157 X 14	STEEL BALL (Ø1/4)	1
4	160 - 10C	KNOB (M6 X Ø25)	1
5	PT2302102E	LEVER	1
6		SPRING PIN (Ø4 X 10)	1
7	PT2102077E	LEVER BOSS	1
8	521 X 410	MACHINE SCREW (M4 X 10)	2
9	P7	O - RING (P7)	1
10	PT1901164E	FLANGED BUSHING SLEEVE	1
11	PT1302417E	11'TH SHAFT	1
12	503 X 66	SET SCREW (M6 X 6)	1
13	553 X 42	SPRING PIN (Ø4 X 20)	1
14	PT3002063	CONNECTING ROD	1
15	PT297182E	SHOE SHIFTING	1
16	503 X 810	SET SCREW (M8 X 10)	1
17	SP080610	SPRING (1/4")	1
18	157 X 14	STEEL BALL (Ø1/4)	1
19	PT1901165E	FLANGED BUSHING	1
20	P10	O - RING (P10)	1
21	553 X 425	SPRING PIN (Ø4 X 25)	1
21-1	PT1302418E	12'TH SHAFT	1
22	PT1401503E	BEVEL GEAR (17T)	1
23	503 X 810	SET SCREW (M8 X 10)	1
24	503 X 810	SET SCREW (M8 X 10)	1

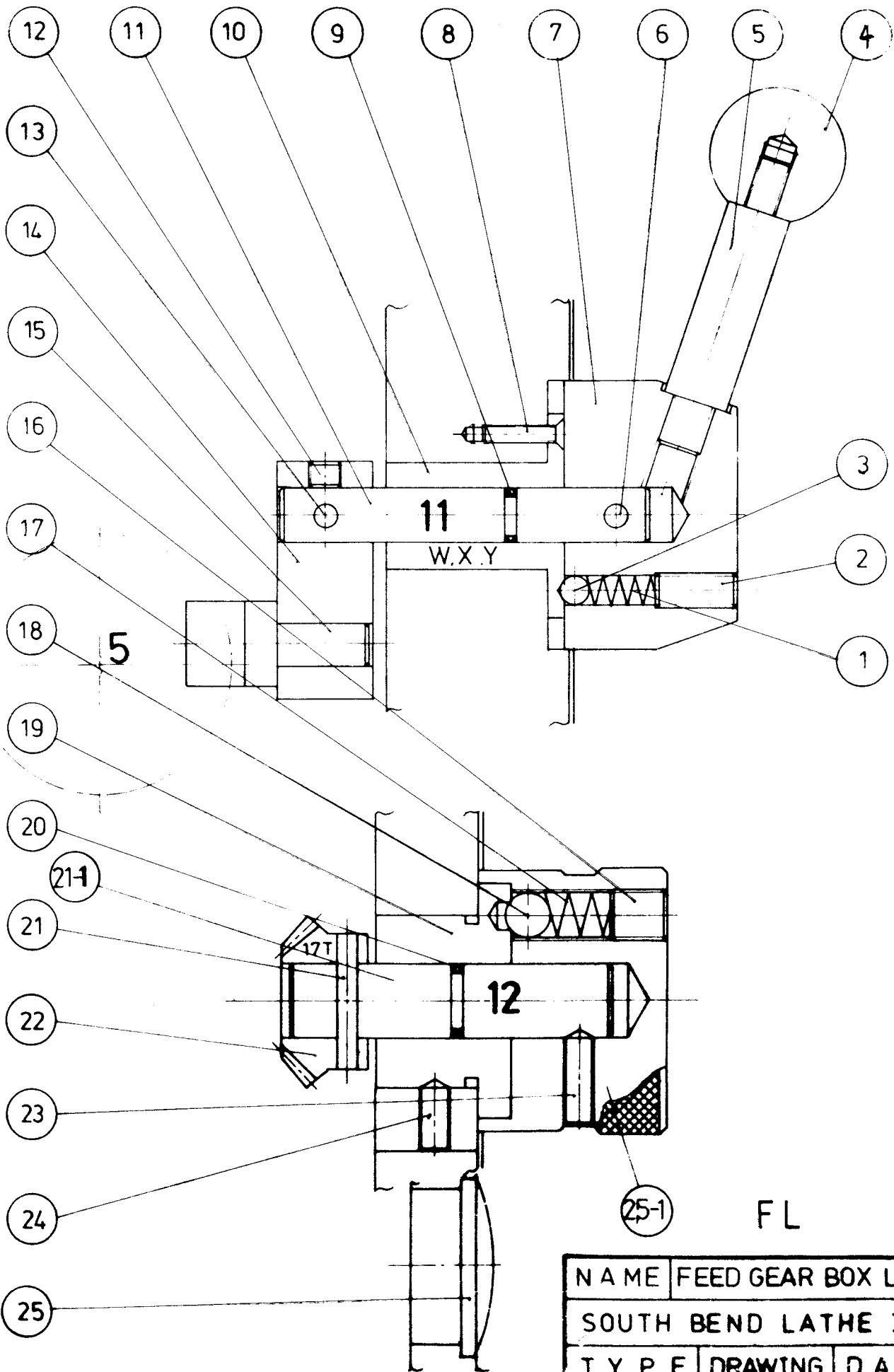
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
25	180 - 01A	OIL LEVEL SIGHT WINDOW	1
25-1	PT2108078E	CHANGE KNOB	1
26	170 - 15E	NAME PLATE	1
26-1	551 X 630	TAPER PIN (Ø6 X 30)	2
26-2	190 - 01D	FILL PLUG	1
26-3	501 X 830	SOCKET HEAD CAP SCREW (M8 X 30) ...	2
27	503 X 810	SET SCREW (M8 X 10)	1
28	SP080610	SPRING	1
29	157 - 14	STEEL BALL (Ø1/4)	1
30	553 - 450	SPRING PIN (Ø4 X 50)	1
31	PT1901166E	FLANGED BUSHING	1
31-1	PT1302419E	10" TH SHAFT	1
32	503 X 66	SET SCREW (M6 X 6)	1
33	553 X 420	SPRING PIN (Ø4 X 20)	1
34	PT3002064E	CONNECTING ROD	1
35	P7	O - RING	1
36	521 X 410	FLAT HG MACHINE SCREW (M4 - 10) ...	1
37	PT2907184E	SHIFTER SHOE	1
38	PT2101079E	LEVER BOSS	1
39	PT2302103E	LEVER	1
40	160 - 01C	BALL (M6 X Ø25)	1
41	PT2907185E	SHIFTER SHOE	1
42	553 X 420	SPRING PIN (Ø4 X 20)	1
43	PT3002065E	CONNECTING ROD	1
44	503 X 66	SET SCREW (M6 X 6)	1

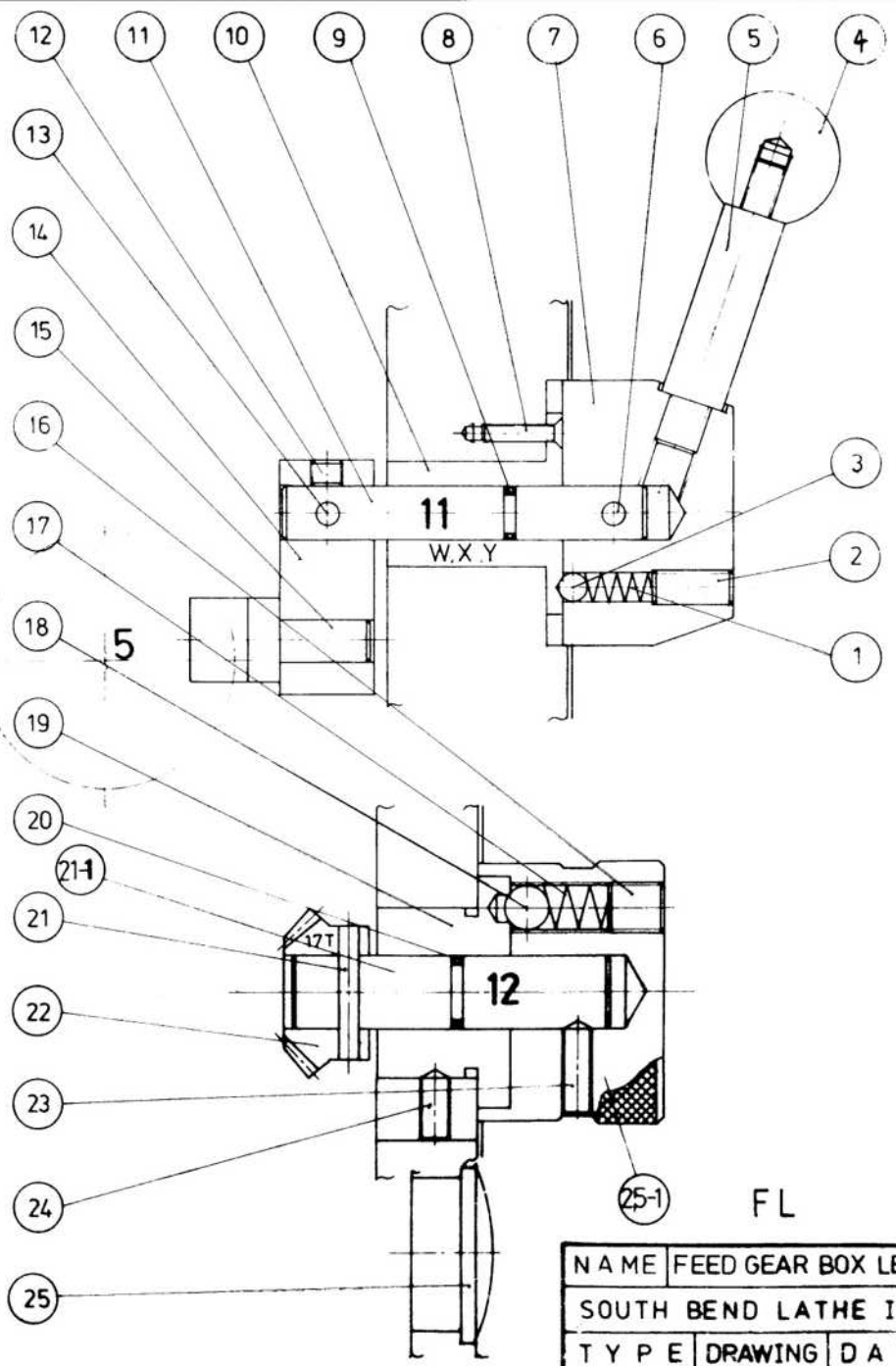
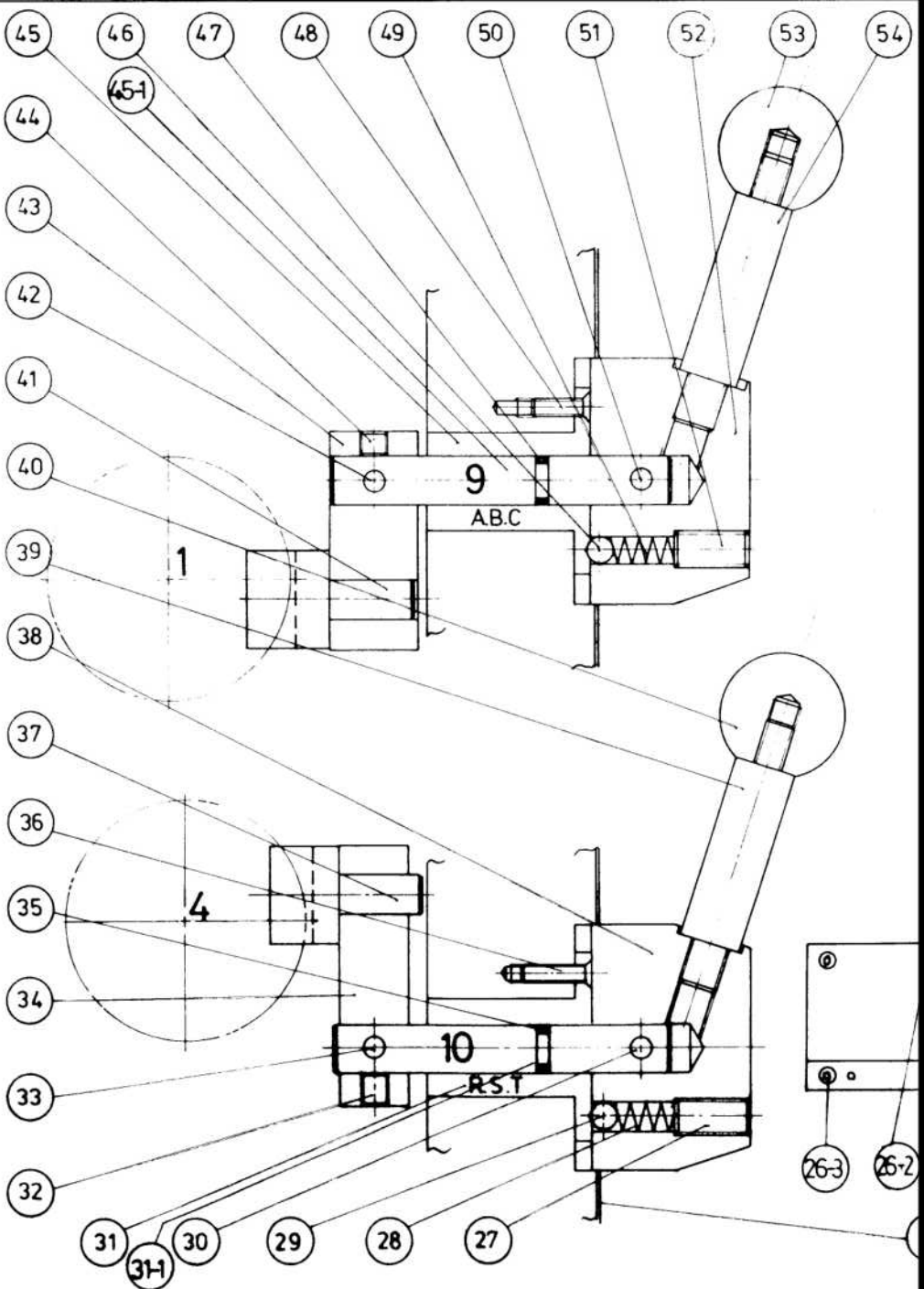
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
45	PT1901167E	FLANGED BUSHING	1
45-1	PT1302420E	9 TH SHAFT	1
46	157 X 14	STEEL BALL (\emptyset 1/4)	1
47	P7	O - RING (P7)	1
48	521 X 410	MACHINE SCREW (M4 X 10)	2
49	SP080610	SPRING (1/4")	1
50	553 X 450	SPRING PIN (\emptyset 4 X 50)	1
51	503 X 610	SET SCREW (M6 X 10)	1
52	PT2101080E	LEVER BOSS	1
53	160 - 01C	BALL (M6 X \emptyset 25)	1
54	PT2302104E	LEVER	1



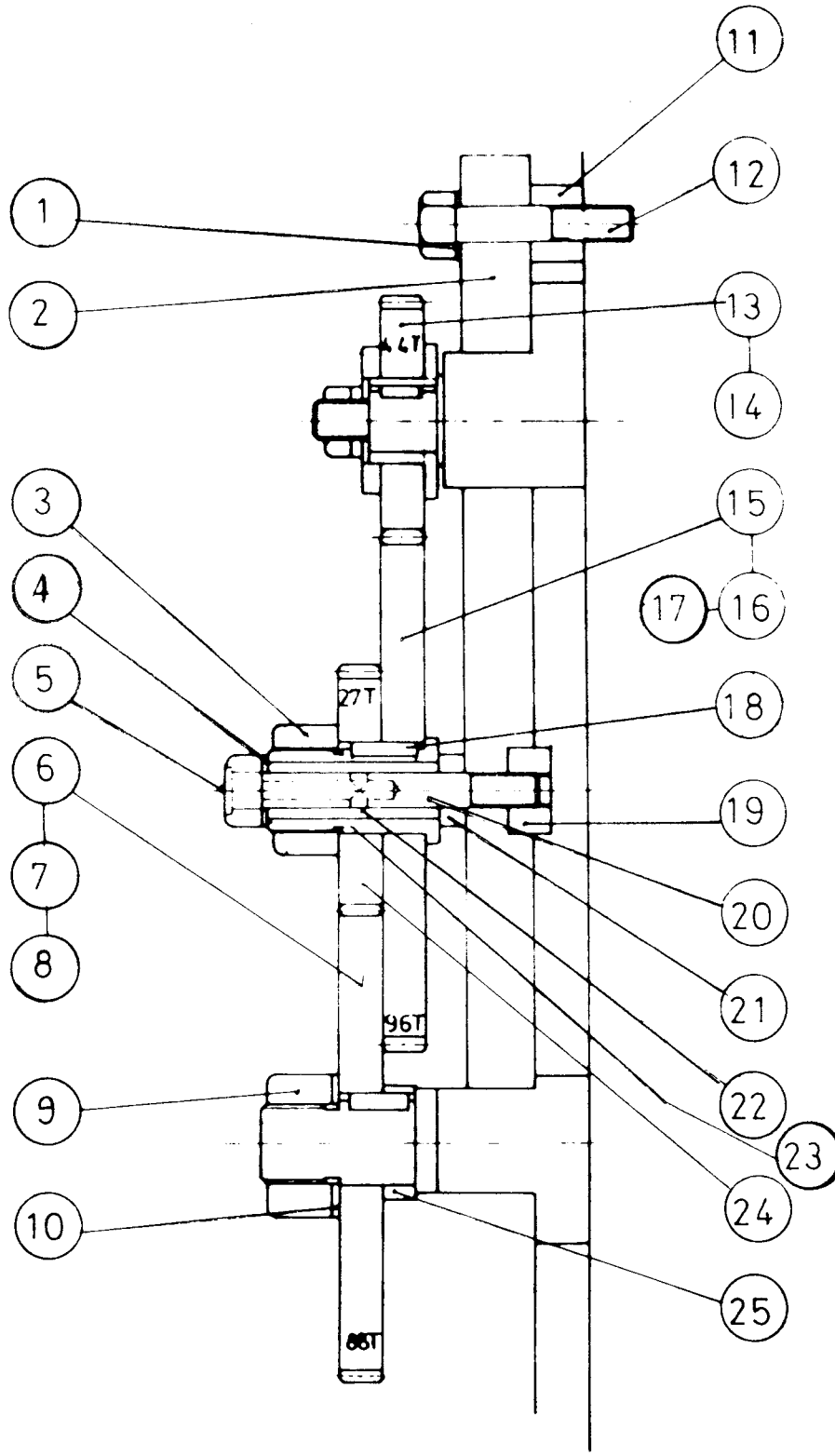


NAME		FEED GEAR BOX LEVER	
SOUTH BEND LATHE INC			
TYPE	DRAWING	DATE	
SBL 330	K J Y	1984.12	



FL

NAME	FEED GEAR BOX LEVER	
SOUTH BEND LATHE INC		
TYPE	DRAWING	DATE
SBL 330	K J Y	1984.12



CG

NAME	CHANGE GEAR ASS'Y	
SOUTH BEND LATHE INC		
TYPE	DRAWING	DATE
SBL 330	K J Y	1984 12

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	160 - 08C	HANDLE GRIP	1
2	160 - 01B	HANDLE STUD	1
3	PT4305300E	HANDLE WHEEL	1
4	PT2002081E	WASHER	1
5	521 X 820	MACHINE SCREW (M8 X 20)	1
6	PT1301421E	1 ST SHAFT	1
7	557 X 4430	KEY (4 X 4 X 30)	1
8	503 X 610	SCREW SET (M6 X 10)	1
9	521 X 35	MACHINE SCREW (M3 X 5)	6
10	170 - 17E	NAME PLATE	1
10-1	170 - 19E	NAME PLATE	1
10-2	523 X 355	MACHINE SCREW (M3.5 X 5)	5
11	503 X 810	SET SCREW (M8 X 10)	1
12	SP080610	SPRING	1
13	501 X 512	SOCKET HEAD CAP SCREW (M5 X 12) ..	13
14	19C - 04D	DRAIN PLUG	1
15	PT2402126E	PLATE	1
17	130 - 01A	OIL LEVEL SIGHT WINDOW	1
18	051 X 860	SOCKET HEAD CAP SCREW (M8 X 60) ..	4
19	551 X 665	TAPER PIN (Ø6 X 65)	2
20	157 X 14	STEEL BALL (Ø1/4)	1
21	553 X 530	SPRING PIN (Ø5 X 30)	1
22	PT1401513	GEAR (20T)	1
23	PT1105032E	APRON BODY	1
24	PT1401514E	GEAR (64T)	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
25	553 X 535	SPRING PIN (\emptyset 5 X 35)	1
26	PT1907170E	OIL BUSHING	1
27	503 X 616	SET SCREW (M6 X 16)	1
28	PT1907171E	BUSHING	2
29	PT1401515E	2 ND SHAFT GEAR (17T)	1
30	PT1401516E	GEAR (55T)	1
31	561 X 15	STOP RING (C- \emptyset 15)	1
32	PT1802270E	COLLAR	2
33	PT1301422E	3 RD SHAFT	1
34	SP080610	SPRING	1
35	157 X 14	STEEL BALL (\emptyset 1/4)	1
36	PT1907172E	BUSHING	1
37	PT140751E	HELICAL GEAR (21T)	1
38	PT1807271E	COLLAR	2
39	561 X 26	STOP RING (C- \emptyset 15)	1
40	503 X 610	SET SCREW (M6 X 10)	1
41	559 X 313	WOODRUFF KEY (3 X \emptyset 13)	1
42	PT1907173E	BUSHING	1
43	503 X 68	SET SCREW (M6 X 8)	1
44	503 X 1238	SET SCREW	1
45	503 X 68	SET SCREW (M6 X 8)	2
46	PT1907174E	BUSHING	2
47	PT1401518E	CONNECTOR SHAFT	1
48	PT1807272E	COLLAR	2
49	P32	O - RING (P32)	2

PARTS LIST

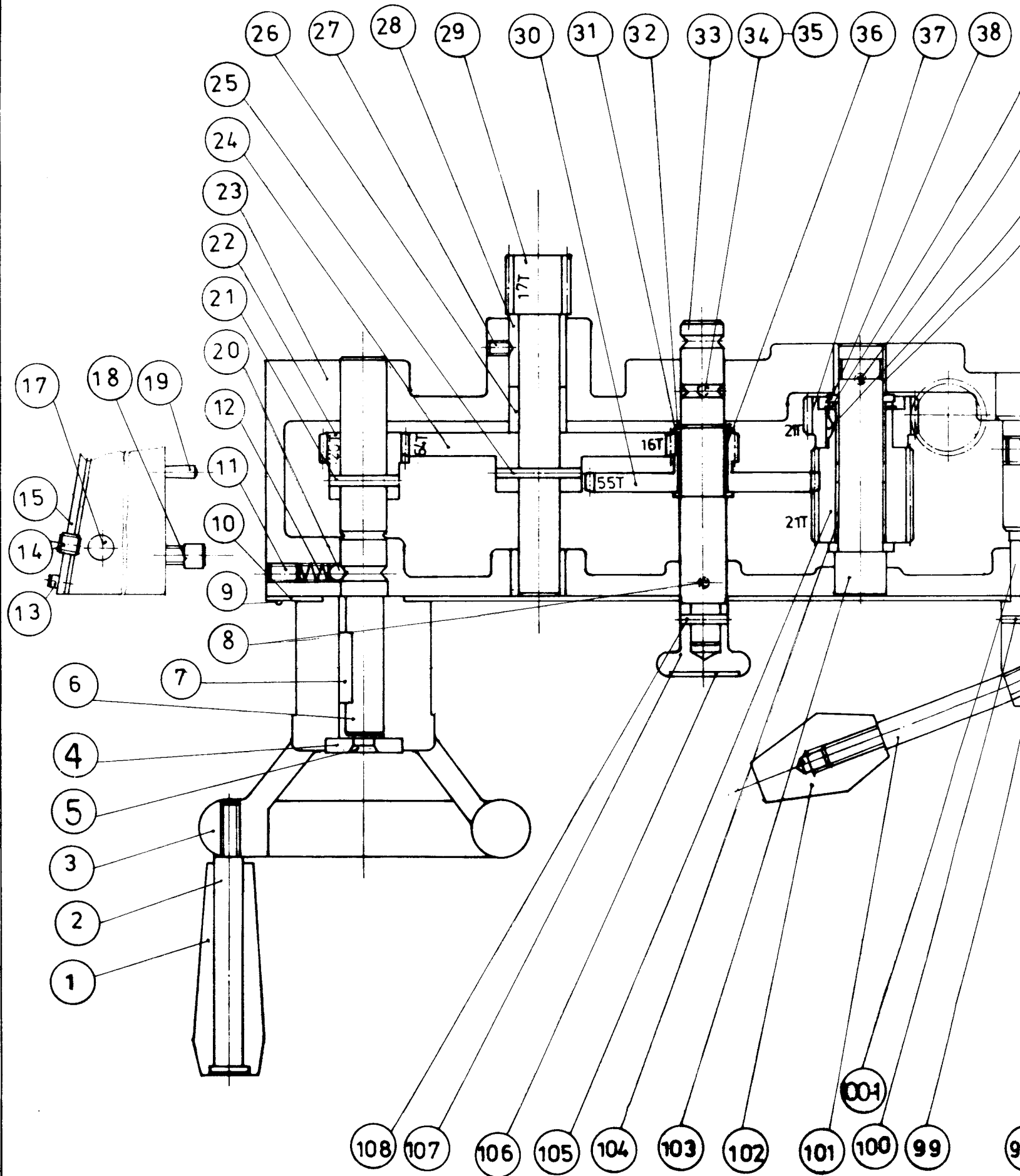
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
50	SC22327	OIL SEAL (SC22327)	2
51	PT2205256E	WORM BRACKET	1
52	PT1401519E	WORM GEAR (51T)	1
53	PT1907175E	BUSHING	1
54	PT1401520E	SPUR GEAR (36T)	1
55	503 X 512	SET SCREW (M5 X 12)	2
56	PT1205280E	HALF NUT (ASSY 61)	1
57	PT2407127E	BLOCK	1
58	501 X 620	SOCKET HEAD CAP SCREW (M6 X 20) ..	2
59	PT2402128E	PLATE	1
60	545 X 8	LOCK WASHER (M8)	1
61	PT1205281E	HALF NUT BASE (ASSY 56)	1
62	PT2901186E	PIN	1
63	PT2901187E	PIN	1
64	PT2901188E	KEY	1
65	557 X 5518	KEY (5 X 5 X 18)	1
66	553 X 525	SPRING PIN (Ø5 X 25)	1
67	PT1301423E	5"TH SHAFT	1
68	PT1201282E	OIL PUMP CYLINDER	1
69	157 X 18	STEEL BALL	1
70	SP040306	SPRING	1
71	P12	O - RING (P12)	1
72	P22	O - RING (P22)	1
73	503 X 810	SET SCREW (M8 X 10)	1
74	SP011356	SPRING	1

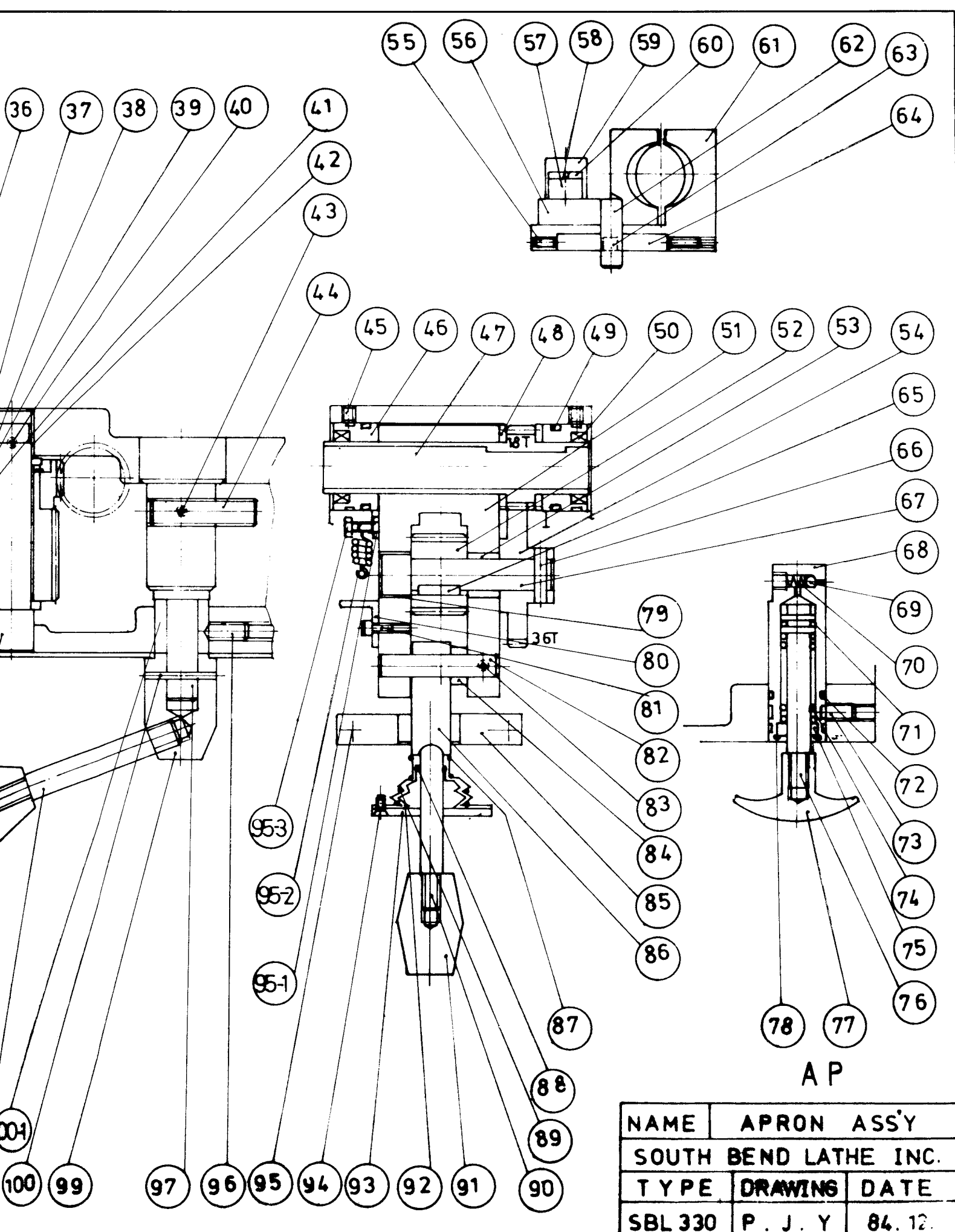
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
75	PT1802273E	COLLAR	1
76	PT1301424E	OIL PUMP SHAFT	1
77	PT4002050E	HANDLE	1
78	561	STOP RING (C-Ø18)	1
79	PT1907176E	BUSHING	1
80	PT2402129E	SAFETY PLATE	1
81	501 X 512	SOCKET HEAD CAP SCREW (M5 X 12) .	2
82	PT1302425E	SHAFT	1
83	503 X 56	SET SCREW (M5 X 6)	1
84	PT1802274E	COLLAR	1
85	PT2401130E	SUPPORT BLOCK	1
86	PT2405131E	CLUTCH BLOCK	1
87	SP011002	LOCK WIRE	1
88	P9	O - RING (P9)	1
89	SP131630	TAPER SPRING	1
90	PT2302105E	LEVER	1
91	160 - 03C	HANDLE GRIP	1
92	PT4117061E	RUBBER CASING	1
93	PT2402132E	PLATE	1
94	521 X 410	MACHINE SCREW (M4 X 10)	1
95	501 X 635	SOCKET HEAD CAP SCREW (M6 X 35) .	2
95-1	525 X 5	NUT, HEX (M5)	2
95-2	ST011235	SPRING	1
95-3	519 X 530	BOLT, HEX (M5 X 30)	1
96	503 X 810	SET SCREW (M8 X 10)	1
97	PT1301426E	HALF NUT SHAFT	1

PARTS LIST

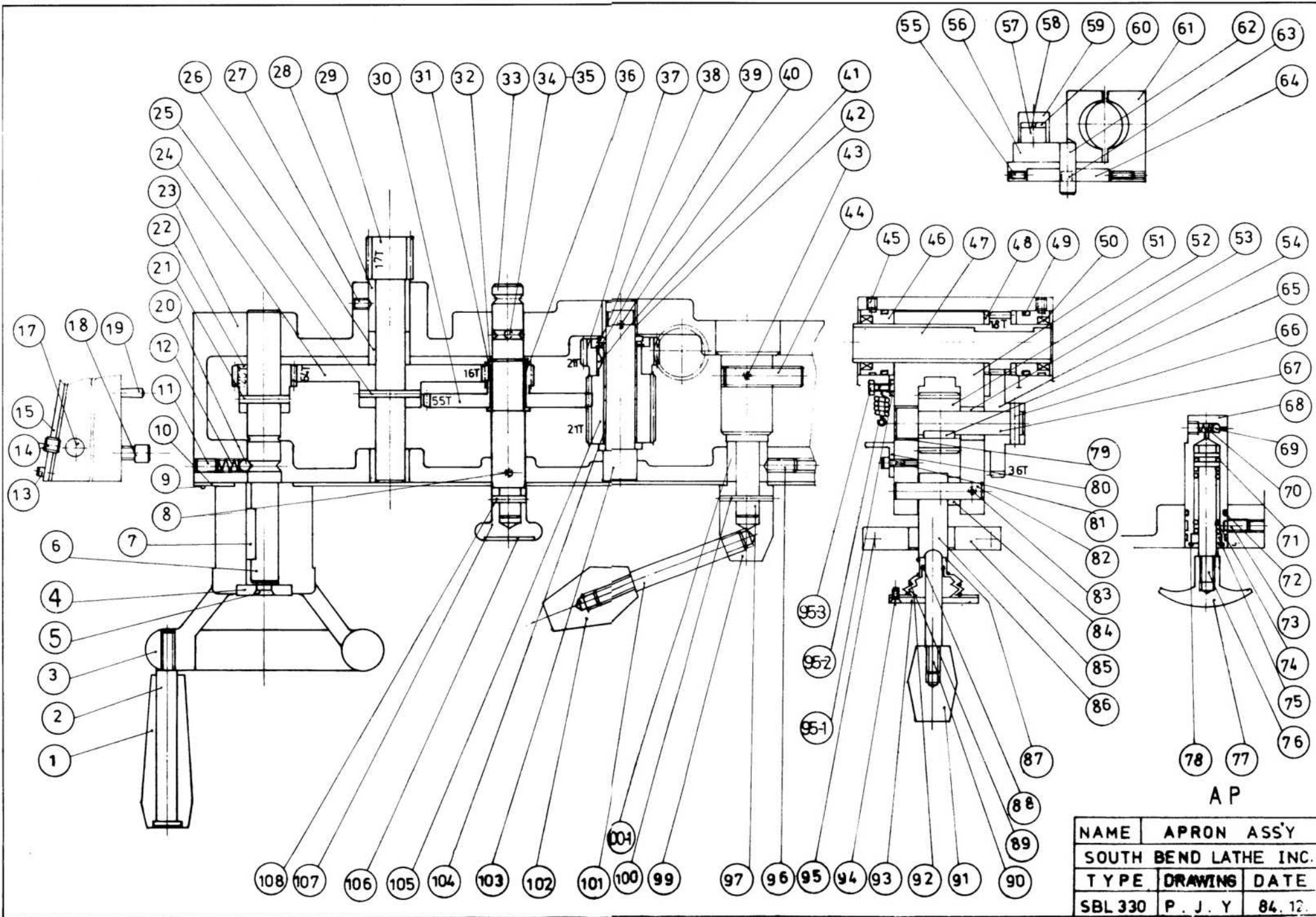
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
99	PT2101081	HANDLE BOSS	1
100	553 X 532	SPRING PIN (Ø5 X 32)	1
100-1	PT1907177	BUSHING	1
101	PT2302106E	LEVER	1
102	160 - 03C	HANDLE GRIP	1
103	PT1301427E	4'TH SHAFT	1
104	PT1907178E	BUSHING	2
105	PT1401521E	GEAR (19T)	1
106	170 - 21E	NAME PLATE	1
107	PT4002051	KNOB	1
108	553 X 420	SPRING PIN (Ø4 X 20)	1





AP

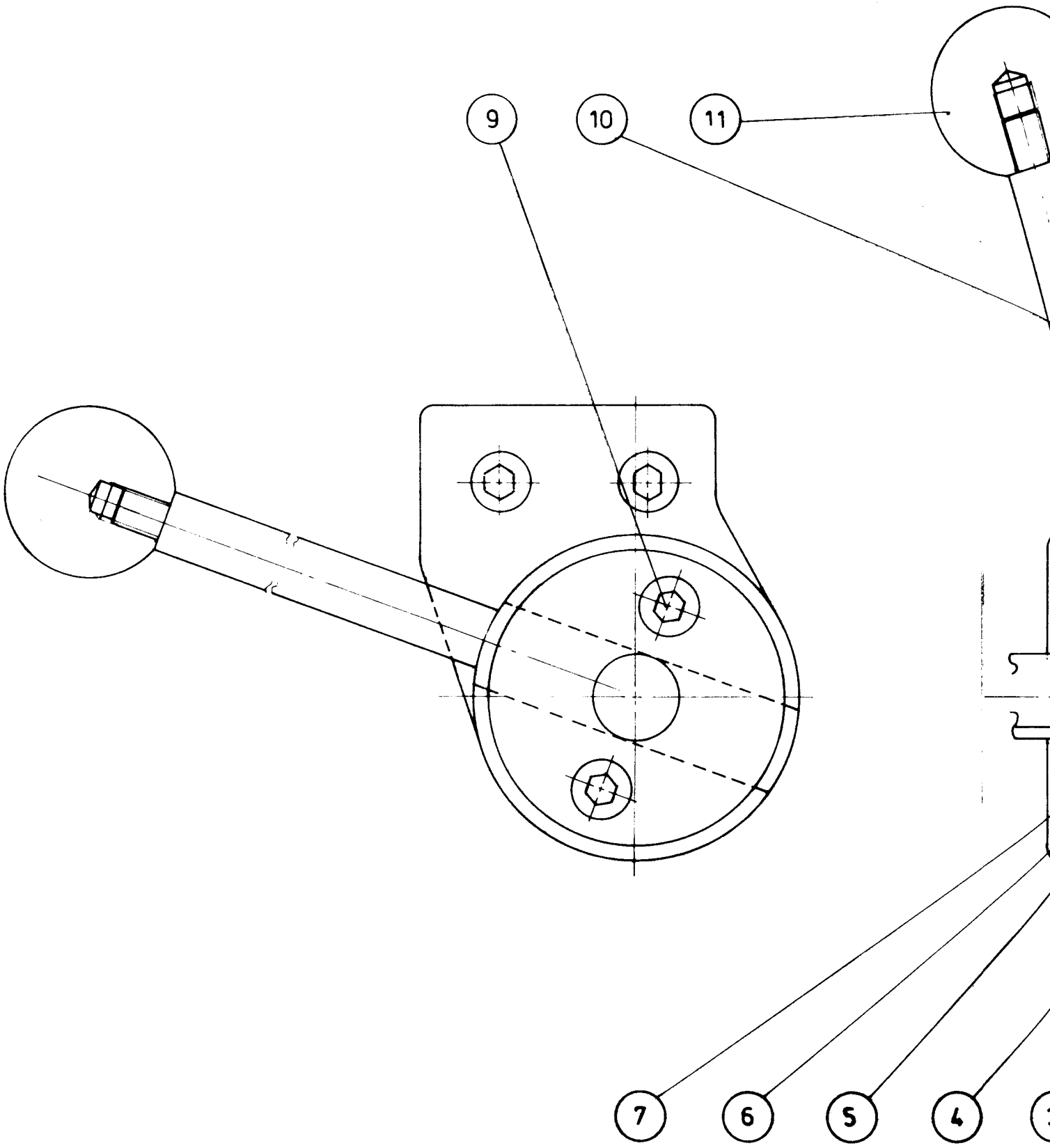
NAME	APRON ASS'Y	
SOUTH BEND LATHE INC.		
TYPE	DRAWING	DATE
SBL 330	P. J. Y	84. 12.

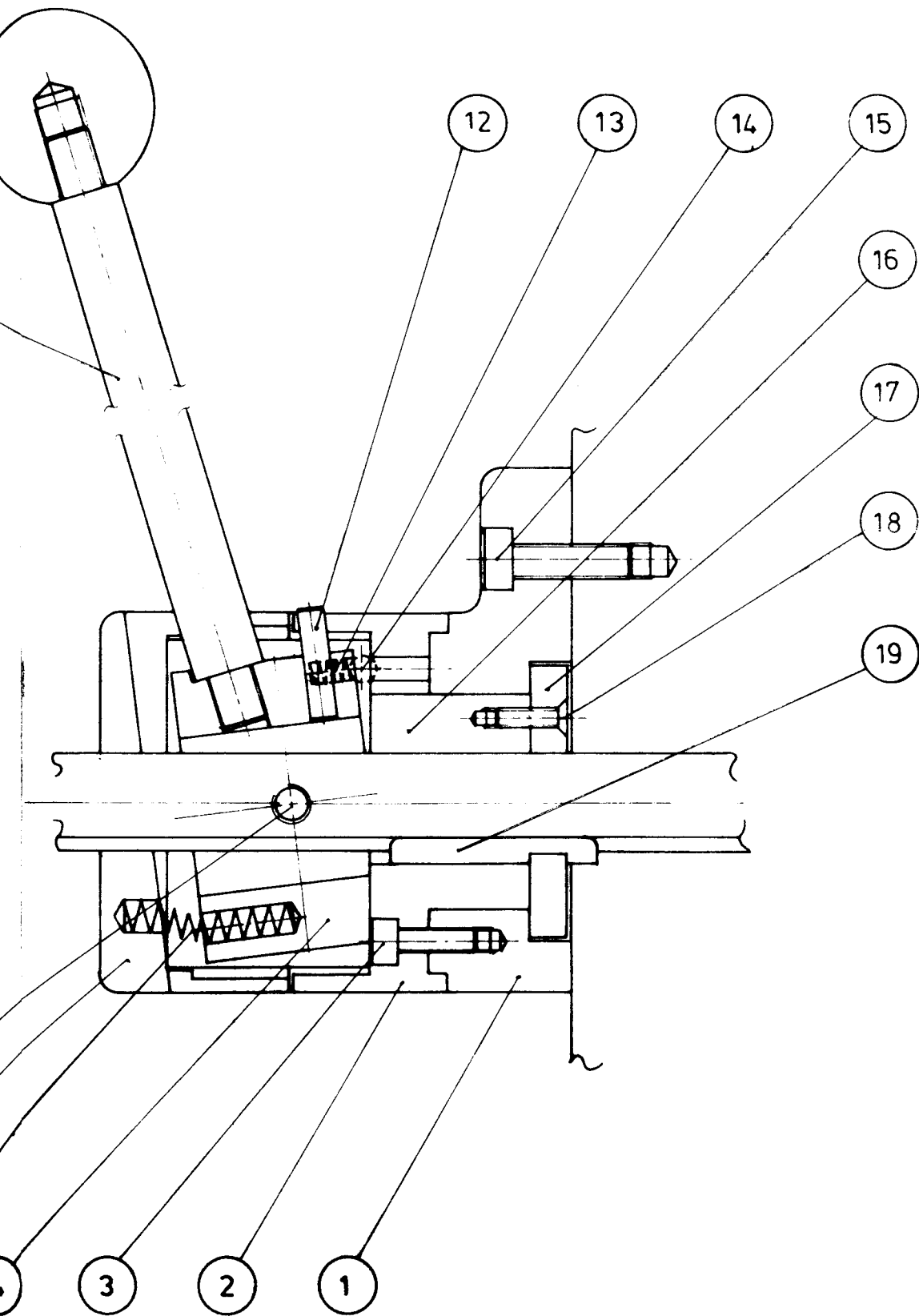


NAME	APRON ASS'Y	
	SOUTH BEND LATHE INC.	
TYPE	DRAWING	DATE
SBL 330	P. J. Y	84. 12.

PARTS LIST

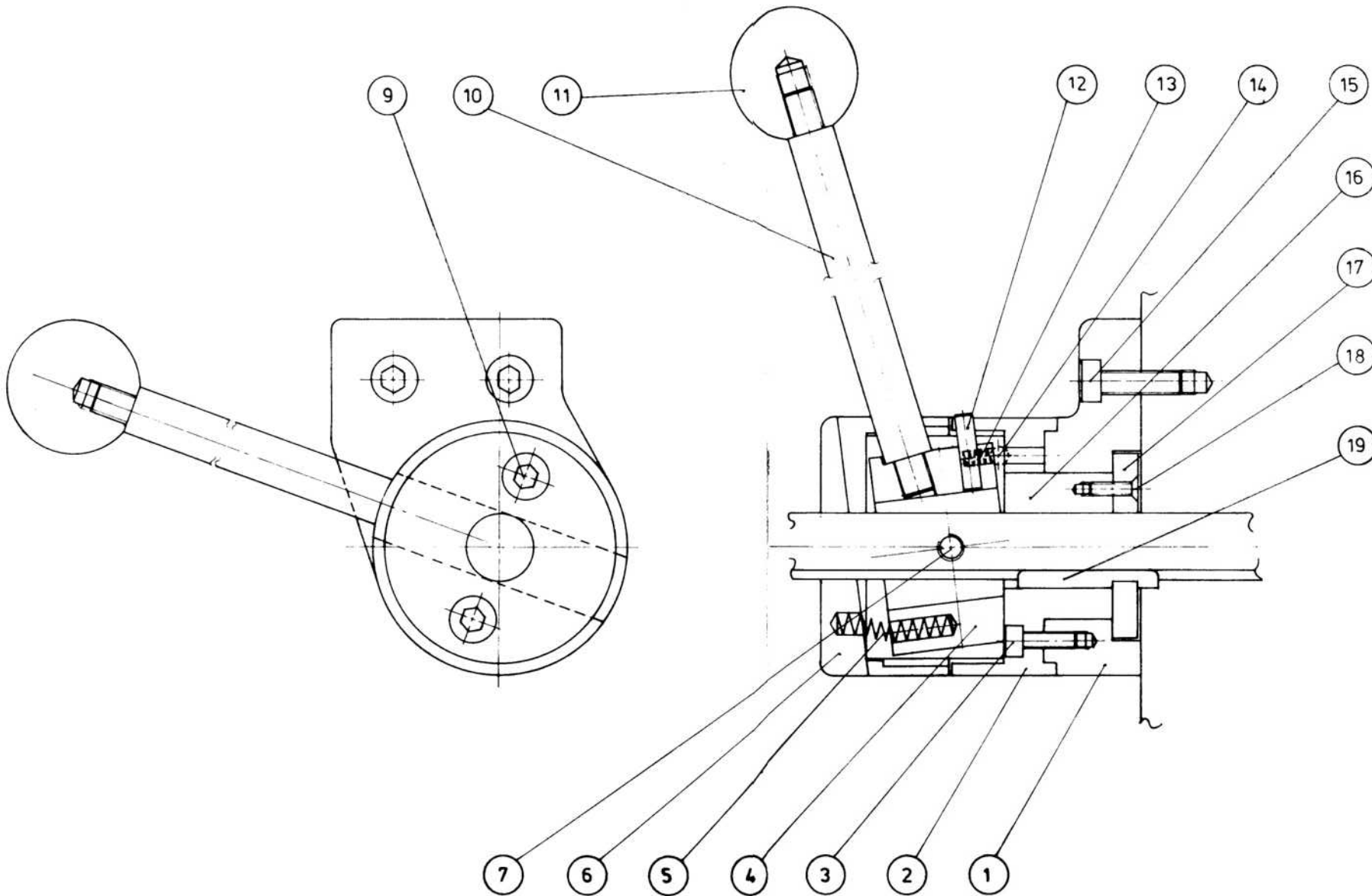
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT1205284E	STARTING LEVER BODY	1
2	PT2201257E	STARTING LEVER BASE	1
3	501 X 415	SOCKET HEAD CAP SCREW (M4 X 15) .	2
4	PT3402103E	LEVER HOLDER	1
5	SP080630	SPRING	2
6	PT1705275E	COVER	1
7	PT2802164E	CENTER BOLT	2
9	501 X 620	SOCKET HEAD CAP SCREW (M6 X 20) .	2
10	PT2302107E	LEVER	1
11	160 - 02C	HANDLE GRIP	1
12	PT2901189E	PIN	1
13	SP06053	SPRING	1
14	157 X 316	STEEL BALL (Ø3/16)	1
15	501 X 620	SOCKET HEAD CAP SCREW (M6 X 20) .	2
16	PT3402104E	GUIDE	1
17	PT1702276	COVER	1
18	521 X 416	MACHINE SCREW (M4 X 16)	2
19	447 X 5534	KEY (5 X 5 X 34)	1





SL

NAME	STARTING LEVER ASS'Y		
SOUTH BEND LATHE INC			
TYPE	DRAWING	DATE	
SBL 330	K J Y	1985.1	

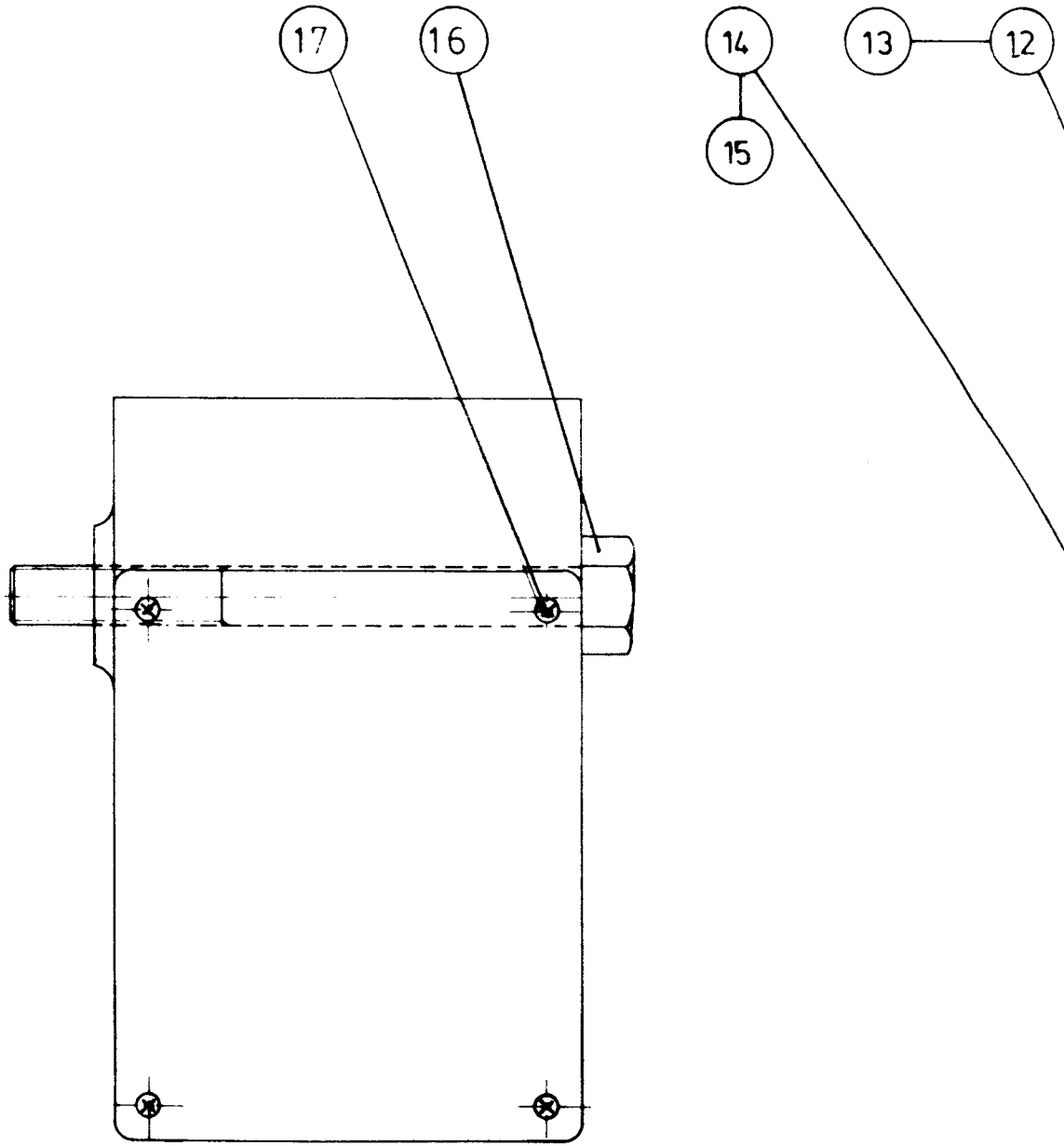


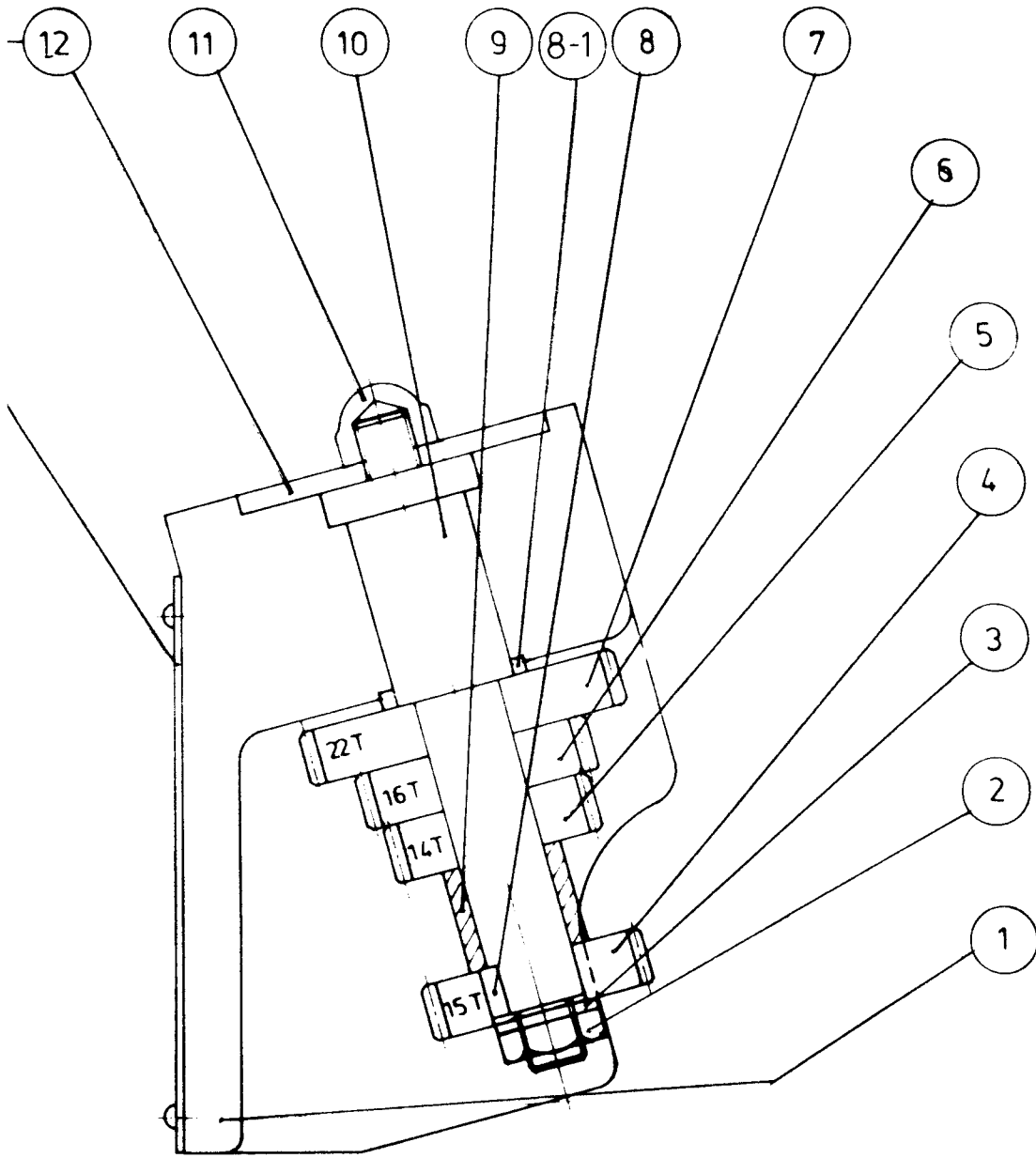
SL

NAME			STARTING LEVER ASS'Y		
SOUTH BEND LATHE			INC		
TYPE	DRAWING	DATE			
SBL 330	K J Y	1905.1			

PARTS LIST

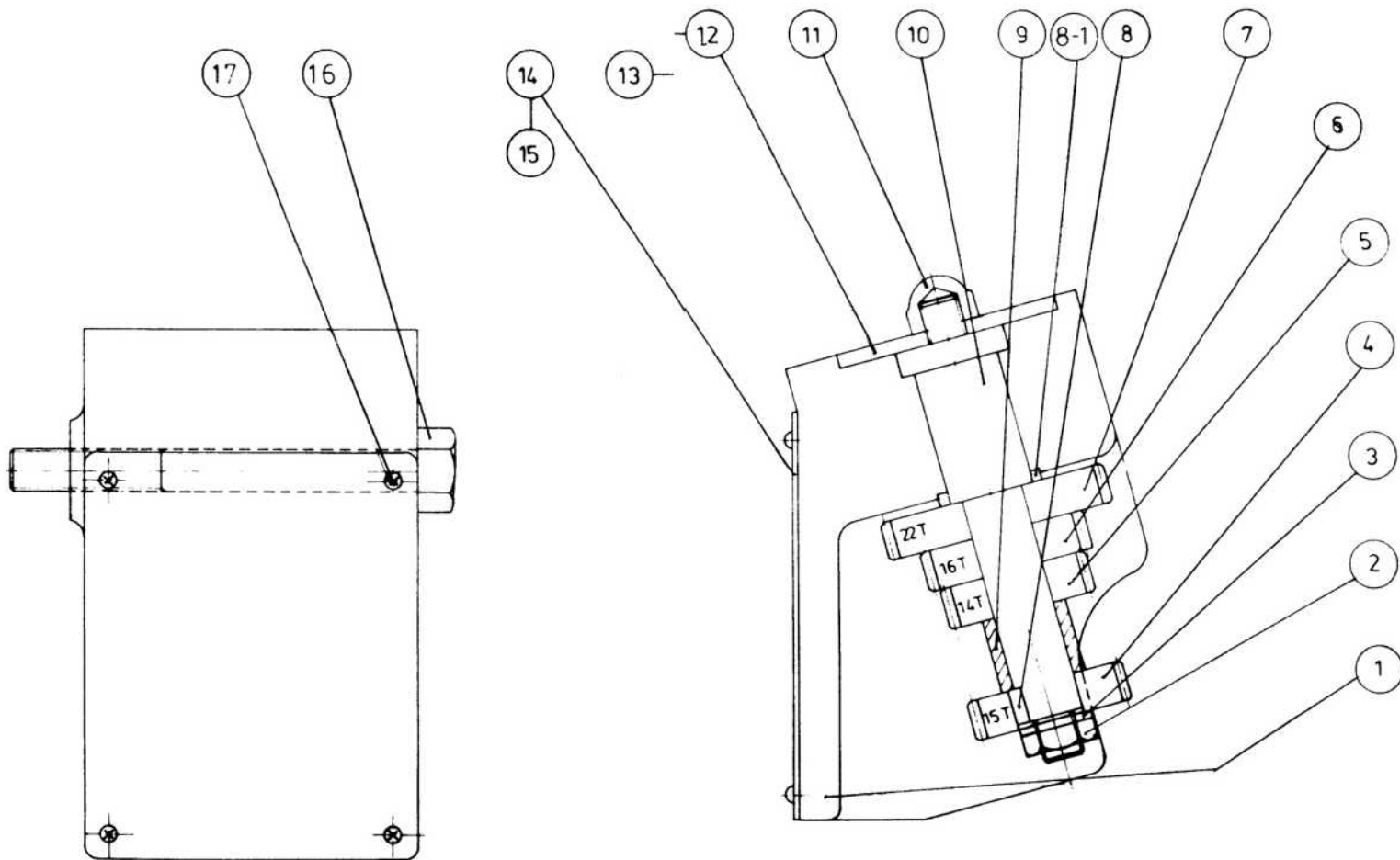
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT1205283E	CHASING DIAL BODY	1
2	525 X 8	HEX NUT (M8)	1
3	547 X 8	SPRING WASHER (M8)	1
4	PT1401522E	GEAR (15T)	1
5	PT1401523E	GEAR (14T)	1
6	PT1401524E	GEAR (16T)	2
7	PT1401525E	GEAR (22T)	1
8	557 X 447	KEY (4 X 4 X 7)	1
8-1	PT1802275E	COLLAR	1
9	PT1802276E	SPACER	1
10	PT1302428E	DIAL SHAFT	1
11	PT2807165E	CAP NUT	1
12	170 - 23E	DIAL (MM)	1
13	170 - 25E	DIAL (INCH)	1
14	170 - 27E	NAME PLATE (MM)	1
15	170 - 29E	NAME PLATE (INCH)	1
16	519 X 880	SCREW, HEX HEAD (M8 X 80)	1
17	525 X 35	MACHINE SCREW (M3 X 5)	4





CD

NAME		CHASING DIAL ASSY	
SOUTH BEND LATHE INC			
TYPE	DRAWING	DATE	
SBL 330	K J Y	1985 1	



CD

NAME	CHASING DIAL ASSY		
	SOUTH BEND LATHE INC		
T Y P E	DRAWING	D A T	
SBL 330	K J Y	1985	

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PT1205285E	SADDLE	1
2	525 X 6	HEX, NUT (M6)	4
3	503 X 620	SET SCREW (M6 X 20)	4
4	PT3105040E	GIB	1
5	PT2405133E	ATTACH PLATE (LEFT)	1
6	501 X 830	SOCKET HEAD CAP SCREW (M8 X 30) ..	4
7	PT4117062	WIPER	2
8	PT2402134E	PLATE	1
9	523 X 3510	MACHINE SCREW (M3.5 X 10)	4
10	PT3601055E	CROSS FEED SCREW	1
11	521 X 3510	MACHINE SCREW (M3.5 X 10)	8
12	PT4117063E	WIPER	2
13	PT2405155E	CROSS SLIDE	1
14	163 - 516	OILER (Ø5/16)	3
15	PT2901190E	PIN	1
16	503 X 610	SET SCREW (M6 X 10)	1
17	501 X 613	SOCKET HEAD CAP SCREW (M6 X 18) ..	2
18	PT1205286E	SWIVEL	1
19	PT1205287E	COMPOUND REST, SQUARE TOOL POST ..	1
19-1	PT2401136E	PLATE	1
20	PT2401137E	PLATE	1
21	PT2901191E	KEY	1
22	PT1301429E	SHAFT	1
23	PT1201288E	SQUARE TOOL POST	1
24	PT2302108E	LEVER	1

PARTS LIST

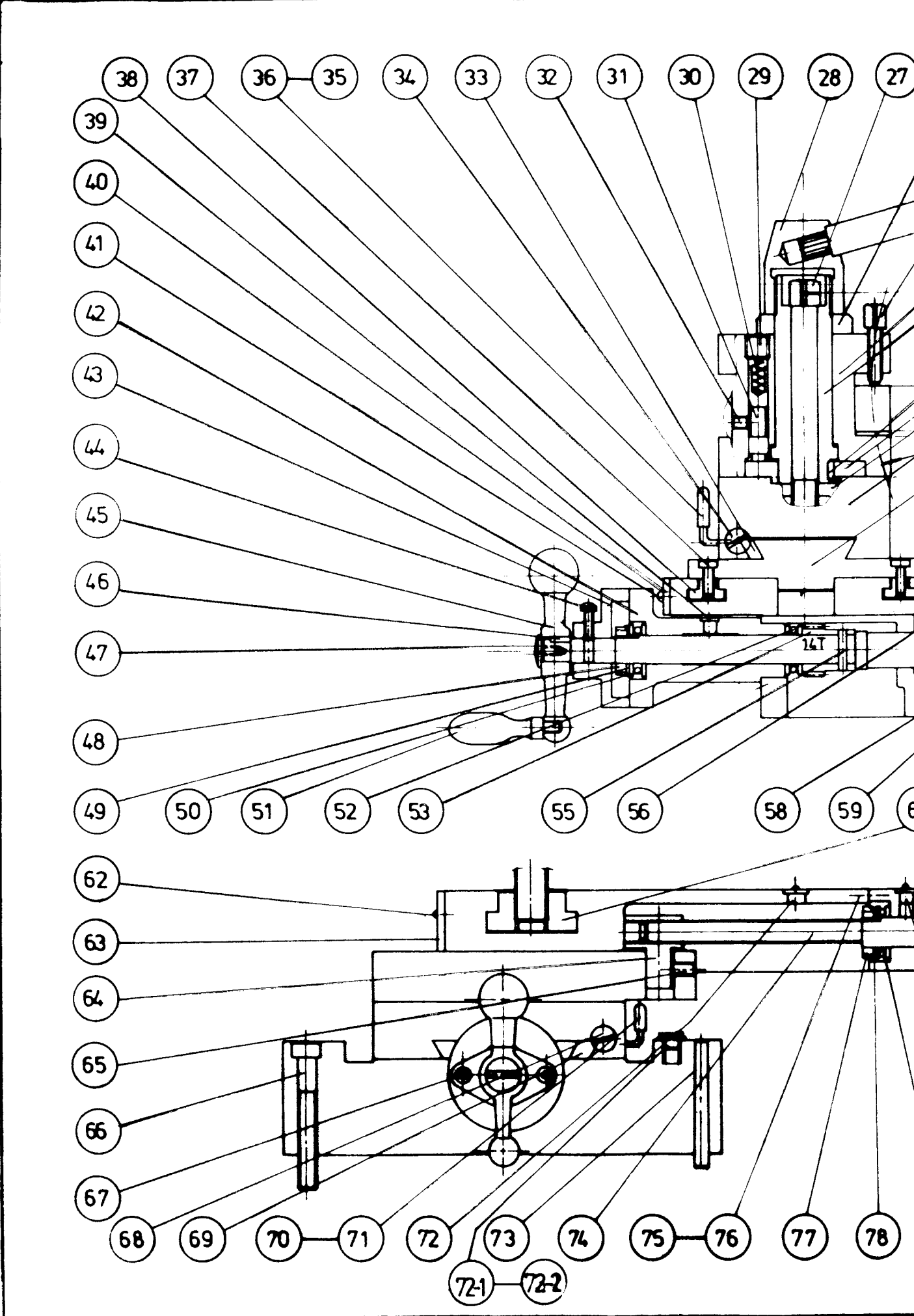
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
25	190 - 08A	CLAMPING BOLT (M10)	12
26	PT2001082E	WASHER	1
27	PT2801166E	LOCK BOLT	1
28	PT2801167E	CLAMPING NUT	1
29	PT3602056E	COVER SCREW	1
30	SP080525	SPRING	1
31	PT2901192E	PIN	1
32	503 X 55	SET SCREW (M5 X 5)	1
33	PT3105041E	GIB	1
34	PT3601057E	GIB ADJUSTING SCREW	2
35	PT3607058E	PIN	1
36	PT2801168E	BOLT	1
37	501 X 815	SOCKET HEAD CAP SCREW (M8 X 15) ..	3
38	PT2801169E	"T" NUT	3
39	163 X 516	OILER (Ø5/16)	1
40	PT4117064E	WIPER	1
41	523 X 3510	MACHINE SCREW (M3.5 X 10)	3
42	PT2205258E	C,F SCREW SLEEVE	1
43	PT1802277E	MICRO COLLAR	1
44	190 - 05C	THUMB SCREW	1
45	PT40010052E	BALL CRANK HANDLE	1
46	557 X 4412	KEY (4 X 4 X 12)	1
47	190 - 02B	BOLT	1
48	ANO2	RING NUT (ANO2)	1
49	AW02	BEARING WASHER (AW02)	1

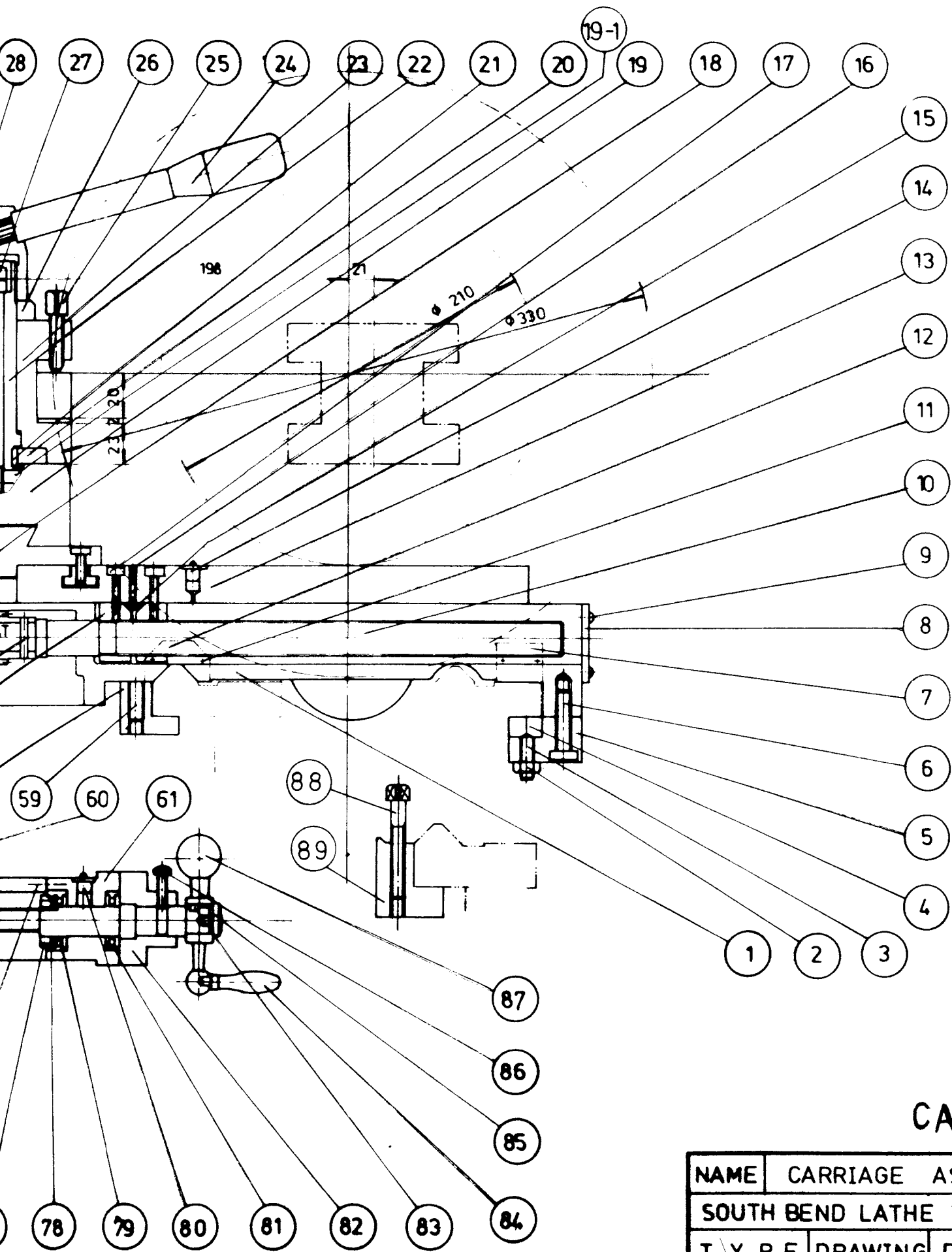
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
50	51102	THRUST BALL BEARING (51102)	1
51	PT4001053E	BALL CRANK HANDLE	1
52	51102	THRUST BALL BEARING (51102)	1
53	PT1401526	GEAR (14T)	1
55	553 X 420	SPRING PIN (\emptyset 4 X 20)	1
56	PT2807170E	NUT, C.F.	2
57	PT2405138E	ATTACH PLATE (RIGHT)	1
58	PT2405139E	ATTACH PLATE (RIGHT)	1
59	501 X 860	SOCKET HEAD CAP SCREW (M8 X 60) .	3
60		TEE SLOT PLATE	1
61	PT2205259E	C.R. SLEEVE	1
62	523 X 3510	MACHINE SCREW (M3.5 X 10)	3
63	PT4117065E	WIPER	1
64	PT2807171E	COMPOUND NUT	1
65	503 X 810	SET SCREW (M8 X 10)	3
66	501 X 860	SOCKET HEAD CAP SCREW (M8 X 60) .	4
67	501 X 875	SOCKET HEAD CAP SCREW (M6 X 75) .	2
68	PT3601059E	GIB ADJUSTING SCREW	2
69	PT3105042E	GIB, SADDLE CROSS SLIDE	1
70	PT2907193E	PIN	1
71	PT2801172E	BOLT	1
72	163 - 516	OILER (\emptyset 5/16)	3
72-1	PT3902058E	FILL PLUG	1
72-2	PT1902179E	BUSHING	1
73	551 X 665	TAPER PIN (\emptyset 6 X 65)	3

PARTS LIST

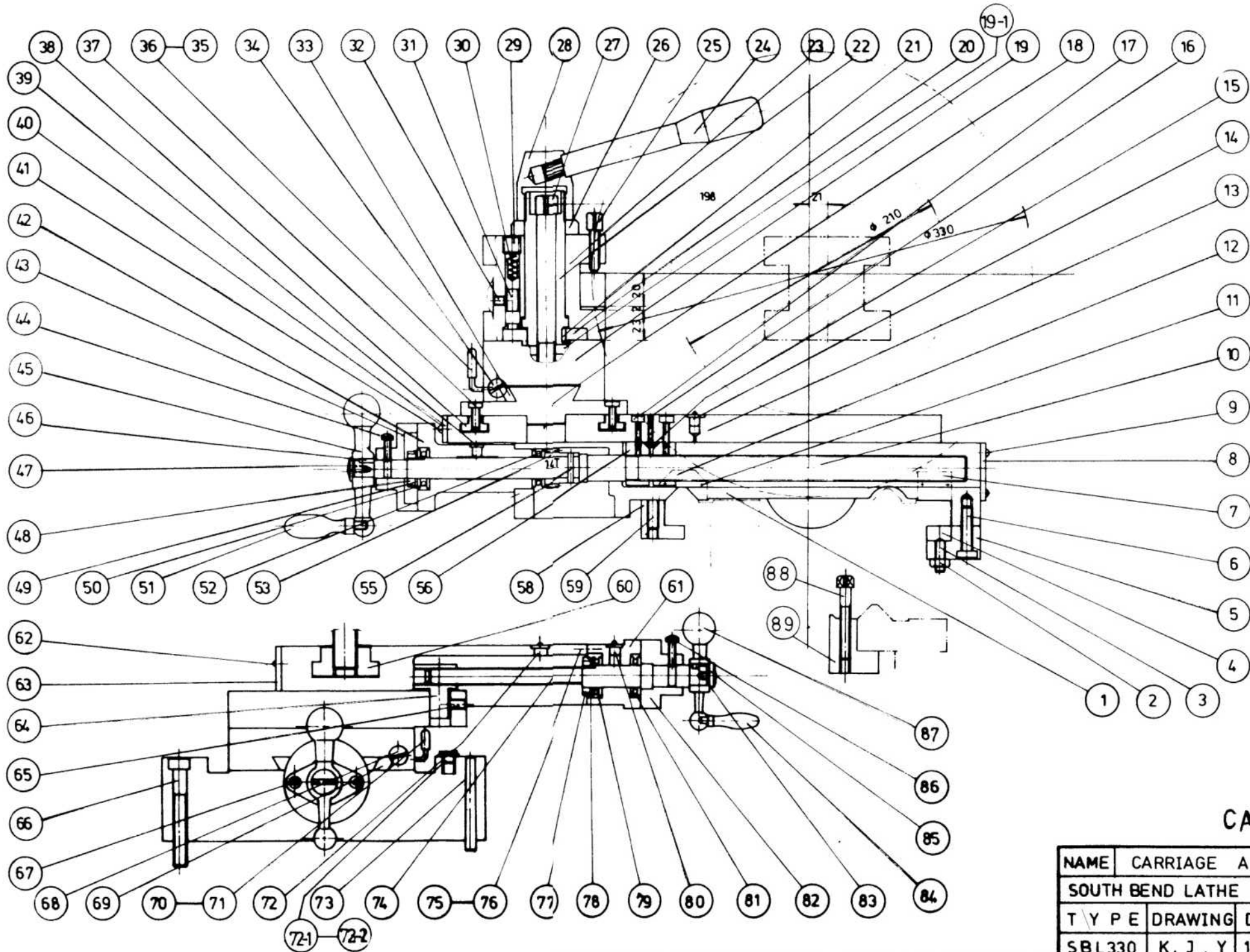
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
74	PT3601060E	COMPOUND REST SCREW	1
75	501 X 635	SOCKET HEAD CAP SCREW	2
76	551 X 435	TAPER PIN (Ø4 X 35)	2
77	AN02	RING NUT (AN02)	1
78	AW02	BEARING WASHER (AW02)	1
79	51102	THRUST BALL BEARING (51102)	1
80	163 - 516	OILER (Ø5/16)	1
81	51102	THRUST BALL BEARING (51102)	1
82	PT1802273E	MICRO COLLAR	1
83	557 X 4410	KEY (4 X 4 X 10)	1
84	PT4001054E	HANDLE	1
85	190 - 02B	SCREW	1
86	190 - 05C	THUMB SCREW	1
87	PT4001055	BALL CRANK	1
88	PT2801173E	CLAMP BOLT	1
89	PT2201260E	SADDLE LOCK	1





CA

NAME	CARRIAGE ASS'Y	
SOUTH BEND LATHE INC.		
T Y P E	DRAWING	D A T E
SBL330	K. J. Y	1985.1



CA

NAME	CARRIAGE ASS'Y	
	SOUTH BEND LATHE INC	
TYPE	DRAWING	DATE
SBL330	K. J. Y	1985.1

PARTS LIST

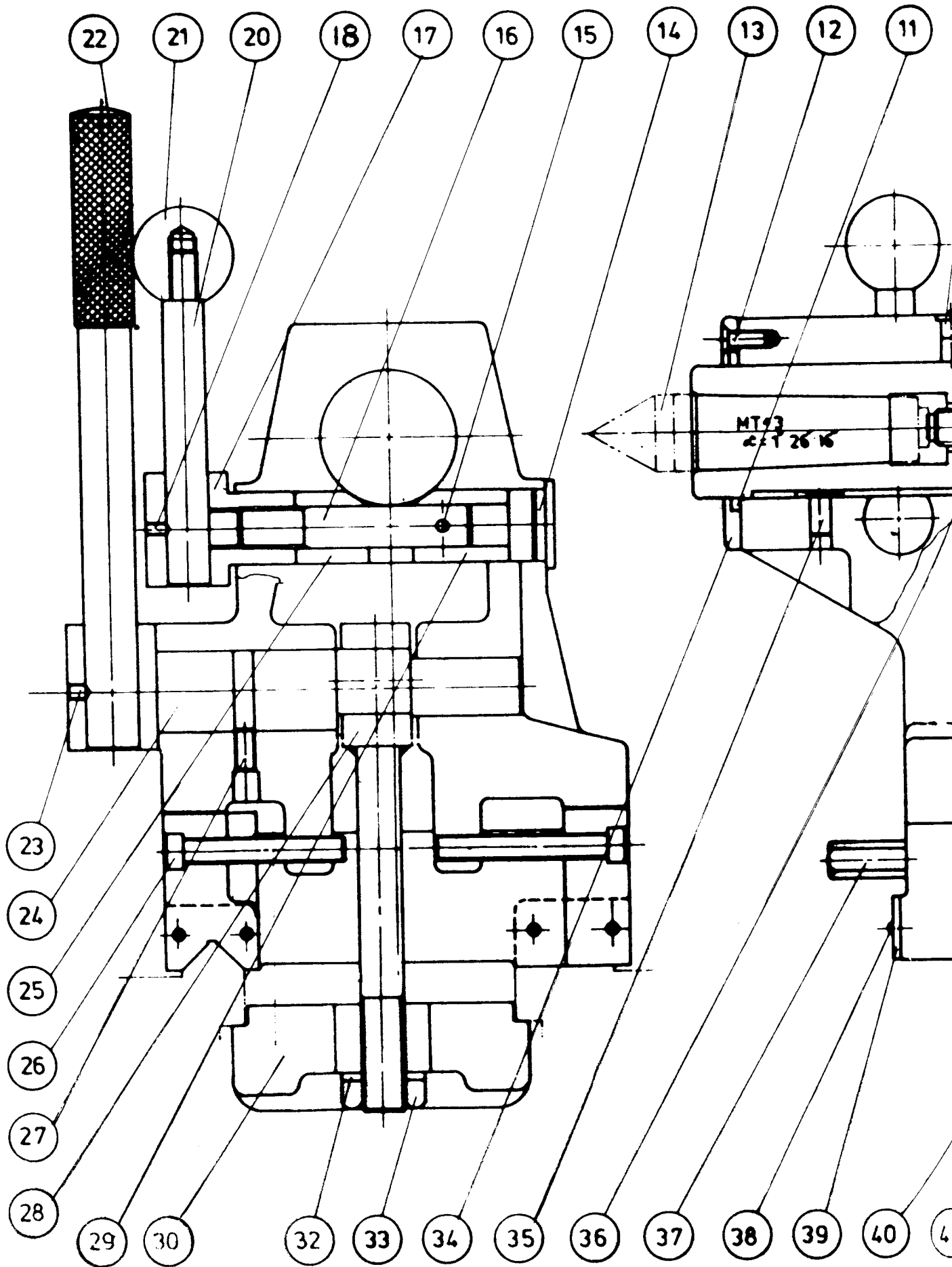
ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PT4001056E	HANDLE	1
2	190 - 05C	THUMB SCREW	1
3	163 - 516	OILER (Ø5/16)	1
4	PT1905180E	FLANGED BUSHING BRACKET	1
5	51102	THRUST BALL BEARING (511-2)	2
6	501 X 515	SOCKET HEAD CAP SCREW (M5 X 15) ..	2
7	PT2807174E	NUT, TAILSTOCK	1
8	PT1301431E	TAILSTOCK SPINDLE	1
9	PT3601061E	TAILSTOCK SCREW	1
10	163 - 516	OILER (Ø5/16)	2
11	PT417066E	DUST SEAL	1
12	521 X 415	MACHINE SCREW (M4 X 15) FLAT HEAD	4
13	140-MTAT03	CENTER (MT #3)	1
14	PT1702277E	COVER	1
15	551 X 422	TAPER PIN (Ø4X22)	1
16	PT2801175E	SPINDLE CLAMP BOLT	1
17	PT2802176E	NUT	1
19	503 X 66	SET SCREW (M6 X 6)	1
20	PT2302109E	LEVER	1
21	160 - 02C	BALL	1
22	PT2302110E	LEVER	1
23	503 X 66	SET SCREW (M6 X 6)	1
24	PT1301432E	CAM SHAFT	1
25	PT1802279E	REAR CLAMPING PLUG	1
26	501 X 50 501 X 45	SOCKET HEAD CAP SCREW (M8 X 50) .. (M8 X 45) ..	1EA 1EA

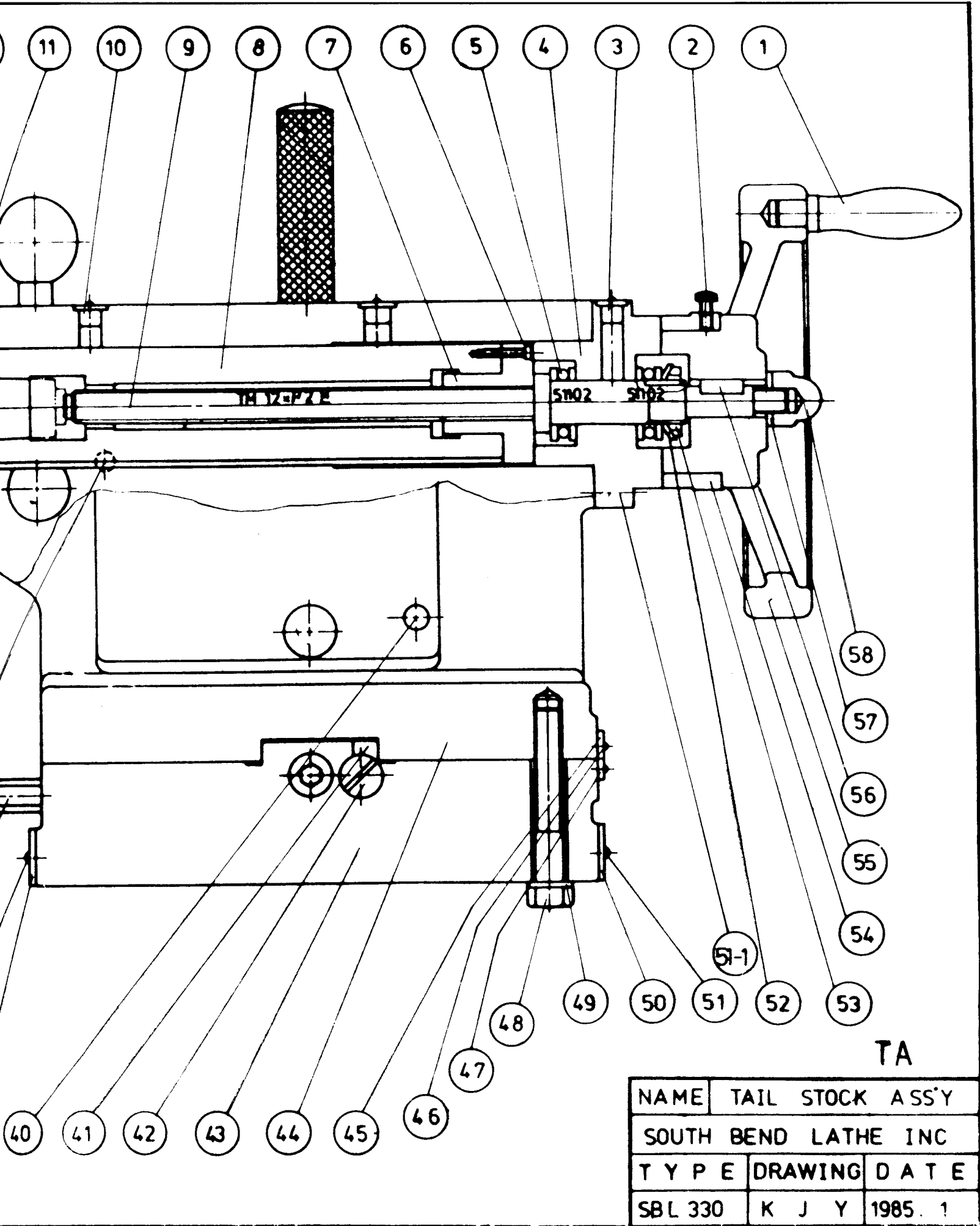
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
27	503 X 66	SET SCREW (M6 X 6)	1
28	PT1802280E	CAM SHAFT	1
29	PT1802281E	FRONT CLAMPING PLUG	1
30	PT2405141E	CLAMP, T. A.	1
31		BOLT	1
32	545 X 16	WASHER (M16)	1
33	525 X 16	NUT (M16)	1
34	PT1708278E	COVER	1
35	PT2901194E	T - KEY	1
36	549 X 640	PIN (Ø6 X 40)	1
37	190 - 10B	STOP	1
38	523 X 3510	MACHINE SCREW (M3.5 X 10)	4
39	PT4117067E	WIPER	2
40	549 X 850	PIN (Ø8 X 50)	1
41	PT3102043E	GIB	1
42	PT3601062E	GIB ADJUSTING SCREW	2
43	PT1205289E	TAIL STOCK BASE	1
44	PT1205290E	TAIL STOCK TOP	1
45	170 - 31E	WITNESS PLATE, TOP	1
46	560 X 26	RIVET	4
47	170 X 33E	WITNESS PLATE, BOTTOM	1
48	519 X 860	HEX BOLT (M8 X 60)	1
49	545 X 8	WASHER (M8)	1
50	PT4117068E	WIPER	2
51	523 X 3510	MACHINE SCREW (M3.5 X 10)	4

PARTS LIST

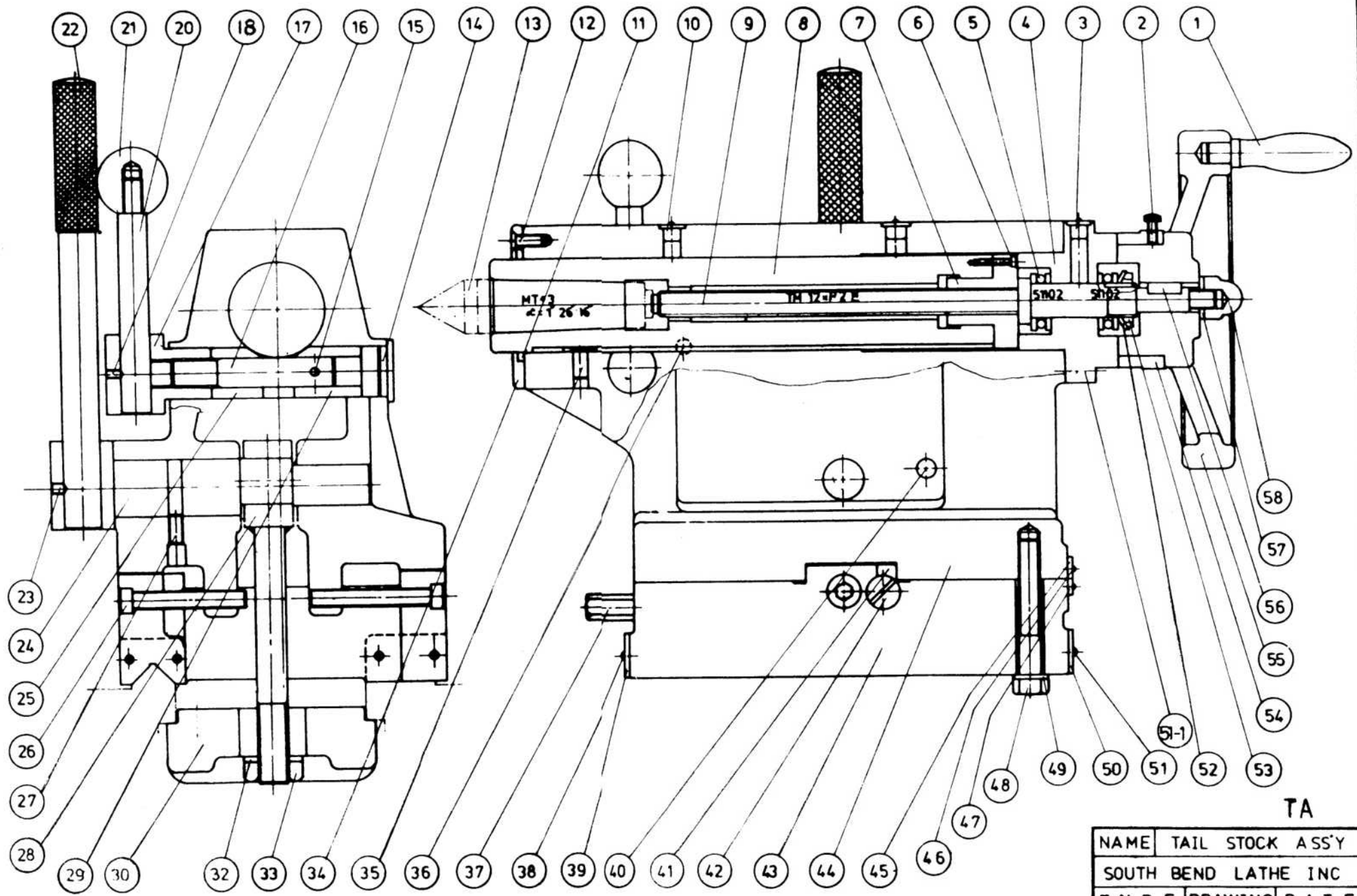
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
51-1	501 X 515	SOCKET HEAD CAP SCREW (M5 X 15) ...	4
52	AW02	BEARING WASHER (AW02)	1
53	AN02	RING NUT	1
54	PT13022B2E	MICRO COLLAR	1
55	PT4005057E	HAND WHEEL	1
56	557 X 4415	KEY (4 X 4 X 15)	1
57	544 X 10	WASHER (M10)	1
58	540 X 10	CAP NUT (M10)	1





TA

NAME		TAIL STOCK ASS'Y	
SOUTH BEND LATHE INC			
TYPE		DRAWING	DATE
SBL 330		K J Y	1985. 1



TA

NAME	TAIL STOCK ASS'Y	
	SOUTH BEND LATHE INC	
TYPE	DRAWING	DATE
SBL 330	K J Y	1985. 1

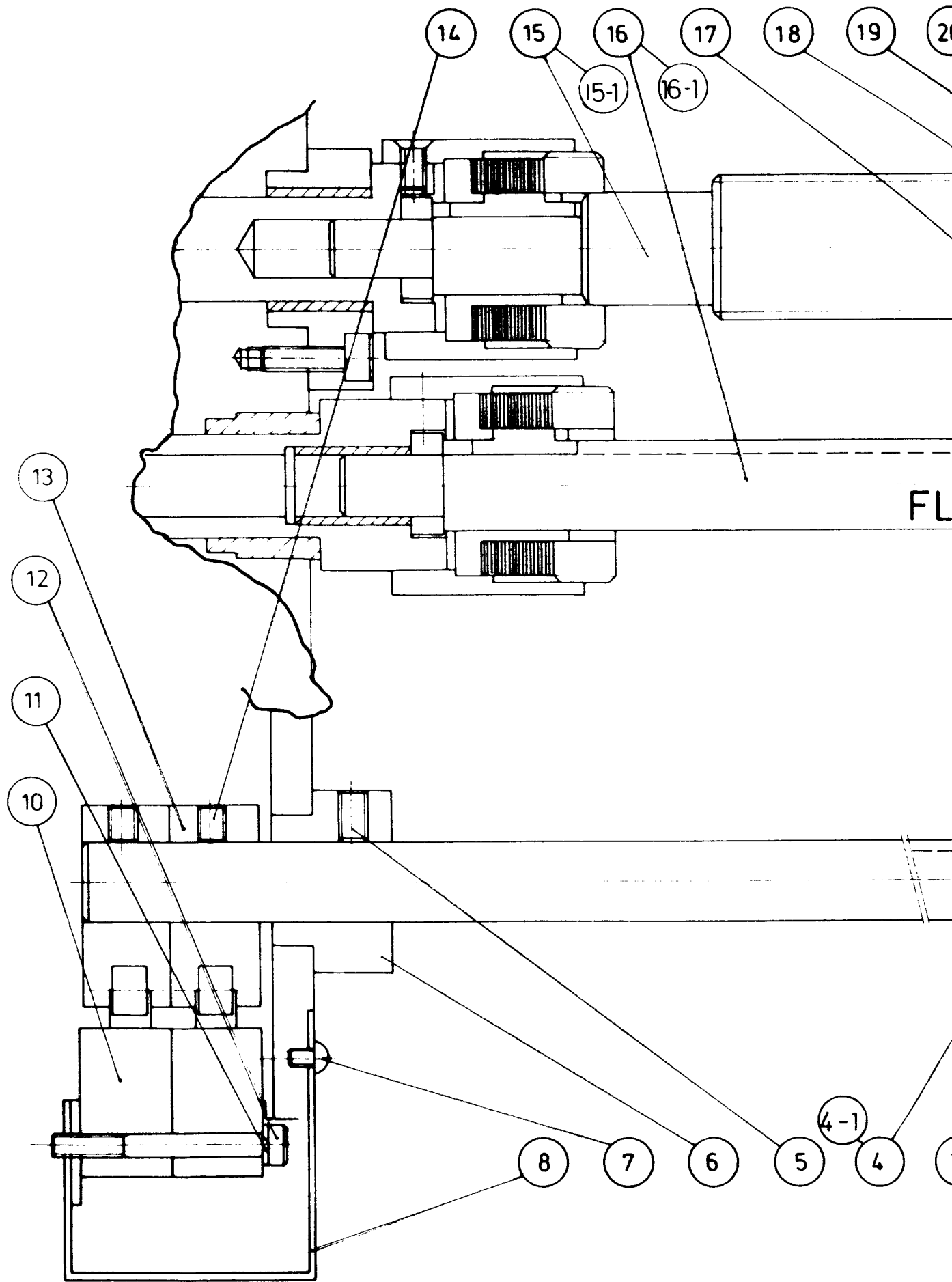
Toul Stock

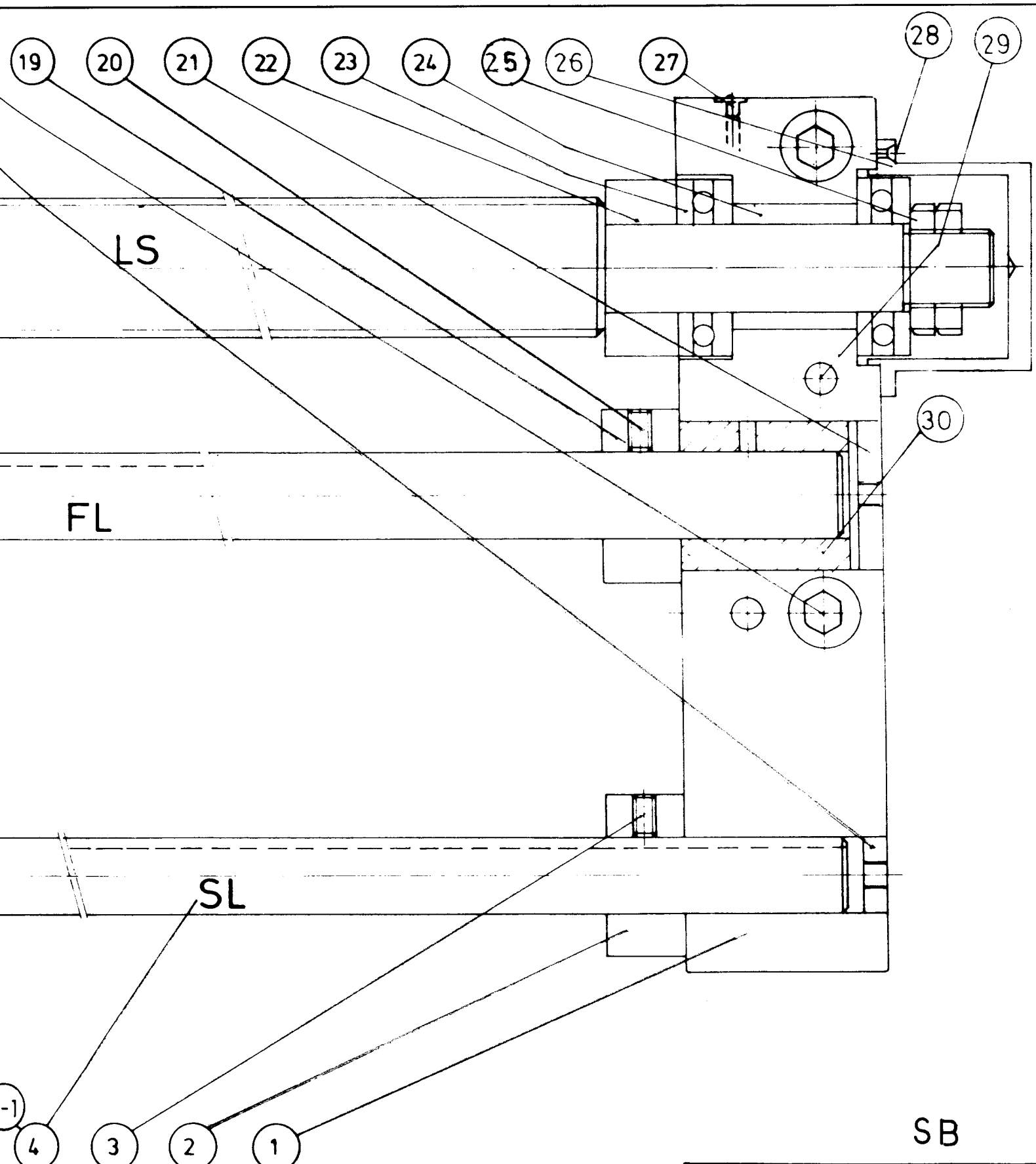
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PT2205262E	END BRACKET	1
2	PT1802283E	COLLAR	1
3	503 X 68	SET SCREW (M6 X 8)	1
4	PT1302433E	SWITCH ROD (760)	1
4-1	PT1302434E	SWITCH ROD (1,000)	1
5	503 X 68	SET SCREW (M6 X 8)	1
6	PT1802284	COLLAR	1
7	523 X 66	MACHINE SCREW (M6 X 6)	2
8	PT1702279E	SWITCH BOX	1
10	Z15G09	LIMIT SWITCH	2
11	545 X 4	WASHER (M4)	2
12	501 X 438	SOCKET HEAD CAP SCREW (M4 X 38) ..	2
13	PT2705046E	CAM	2
14	503 X 66	SET SCREW (M6 X 6)	2
15	PT1301435E	LEAD SCREW	1
15-1	PT1301436E	LEAD SCREW	1
16	PT1301437E	FEED ROD	1
16-1	PT1301438E	FEED ROD	1
17	PT1702280E	COVER	1
18	501 X 360	SOCKET HEAD CAP SCREW (M3 X 60) ..	2
19	PT1802285E	COLLAR	1
20	503 X 68	SET SCREW (M6 X 8)	1
21	PT1702281E	COVER	1
22	PT1802286E	COLLAR	1
23	51203	BEARING (51203)	1

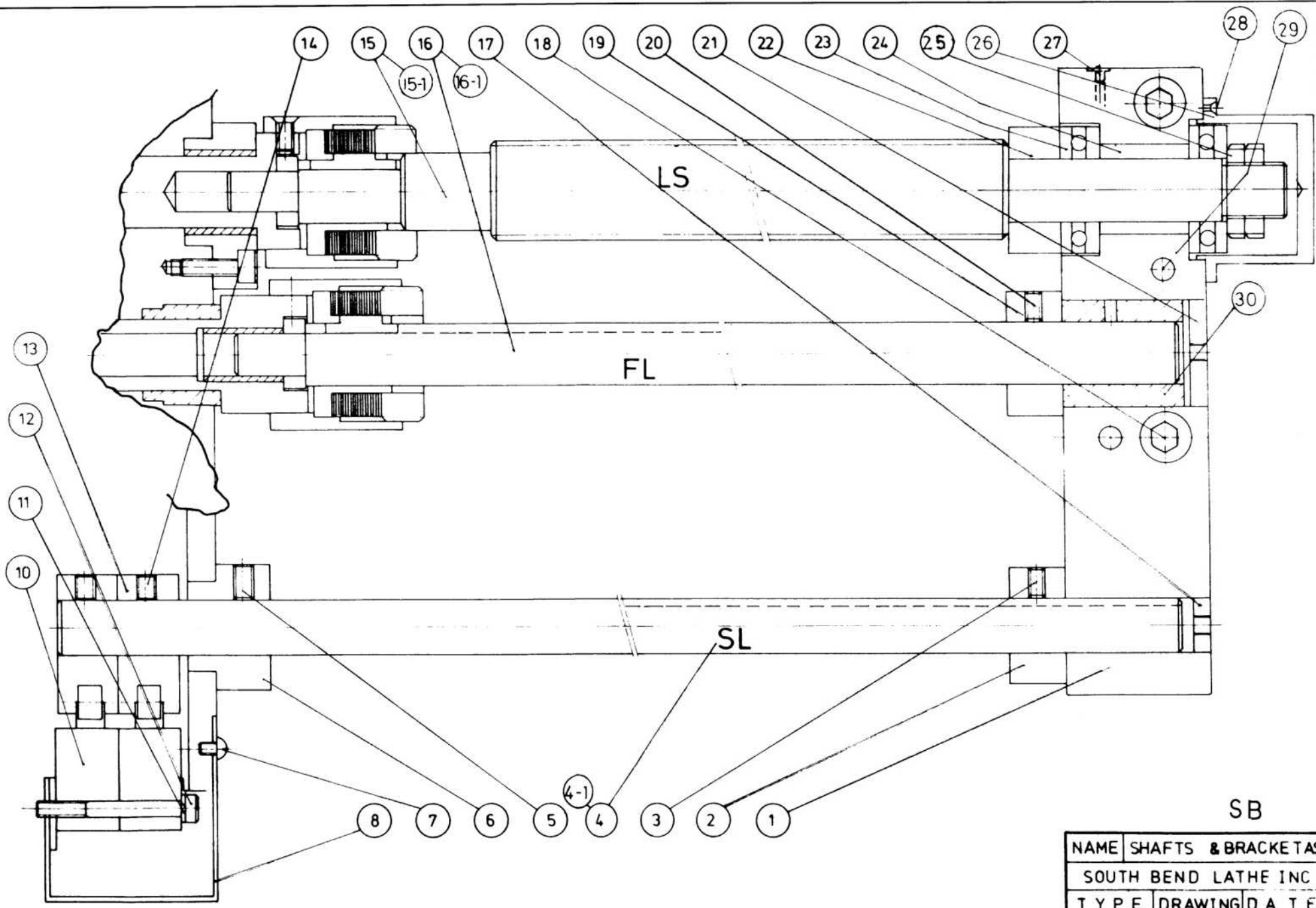
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
24	PT1907181E	BUSHING	1
25	AN03	RING NUT (AN03)	2
26	PT1702282	COVER	1
27	163 - 516	OIL NIPPLE (Ø5/16)	2
28	521 X 410	MACHINE SCREW (M4 X10)	3
29	551 X 665	TAPER PIN (Ø6 X 65)	2
30	PT1907182E	BUSHING	1





NAME		SHAFTS & BRACKET ASS	
SOUTH BEND LATHE INC			
TYPE	DRAWING	DATE	
SBL 330	K J Y	1985	



NAME	SHAFTS & BRACKET ASSEMBLY		
	SOUTH BEND LATHE INC.		
TYPE	DRAWING	DATE	
SBL 330	K J Y	1985	1

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PT1202291E	BENCH (760) 30 B/C	1
1-1	PT1202292E	BENCH (1,000) 40 B/C	1
2	4607100E	KEY LOCK	1
3	PT602101	HINGE	2
3-1	521 X 48	MACHINE SCREW (M4 X 8)	8
4	170-35E	NAME PLATE (760)	1
5	170-37E	NAME PLATE (1,000)	1
5-1	170-39E	NAME PLATE (SOUTH BEND)	1
5-2	523 X 355	MACHINE SCREW (M3.5 X 5)	4
6	519 X 1245	HEX, BOLT (M12 X 45)	4
7	553 X 12	LOCK WASHER (M12)	4
8	PT1401527E	RACK (760)	1
8-1	PT1401528E	RACK (1,000)	1
9	501 X 624	SOCKET HEAD CAP SCREW (M6 X 24) ...	6
10	551 X 430	TAPER PIN (Ø4 X 30)	4
11	501 X 624	SOCKET HEAD CAP SCREW (M6 X 24) ...	2
12	551 X 430	TAPER PIN (Ø4 X 30)	2
13	PT1401529E	RACK 760/1,000	1
14	PT1205293E	GAP BED	1
15	501 X 1033	SOCKET HEAD CAP SCREW (M10 X 32) ..	3
16	551 X 840	TAPER PIN (Ø8 X 40)	2
17	PT1205294E	BED (760)	1
17-1	PT1205295E	BED (1,000)	1
18	PT1702283E	COVER	1
19	523 X 410	MACHINE SCREW (M4 X 10)	6

PARTS LIST

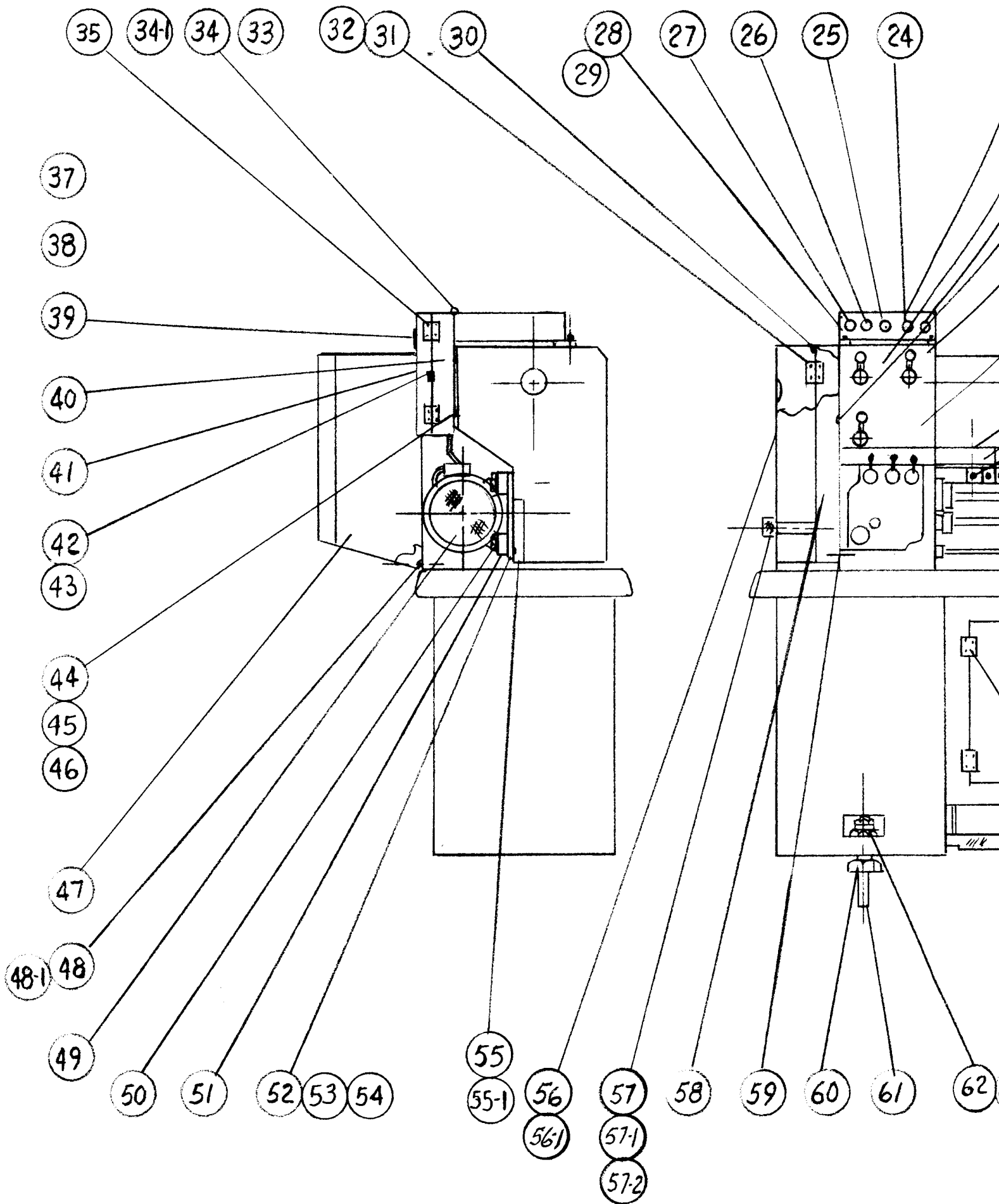
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
19-1	519 X 4	HEX, NUT (M4)	6
20	523 X 355	MACHINE SCREW (3.5 X 5)	4
21	170 - 41E	NAME PLATE	1
22	PT1202296	CONTROL BOX	1
23	KH3008	PUSH BUTTON SWITCH	1
24	KH3008	PUSH BUTTON SWITCH	1
25	KH308	PUSH BUTTON SWITCH	1
26	KH504	PILOT LAMP	1
27	KH3011	SELECTOR SWITCH	1
28	170 - 43E	NAME PLATE	1
29	523 X 355	MACHINE SCREW (M3.5 X 5)	4
30	Z15G09	MICRO SWITCH	1
31	PT4602102E	HEX, NUT (M12)	1
32	521 X 510	COLLAR	1
33	PT4602103E	PLATE	1
34	PT4602103E	MACHINE SCREW (M4 X 10)	4
34-1	PT1702284E	CHIP PLATE	1
35	PT4602105E	HINGE	2
36	PT4602106	MACHINE SCREW	8
37	PT2302178E	MACHINE SCREW	6
38	525 X 8	HEX, NUT	6
39	170 - 45E	NAME PLATE	1
40	PT1202297E	ELECTRIC BOX	1
41	PT1702285E	COVER	1
42	PT2402142E	CLAMP	1

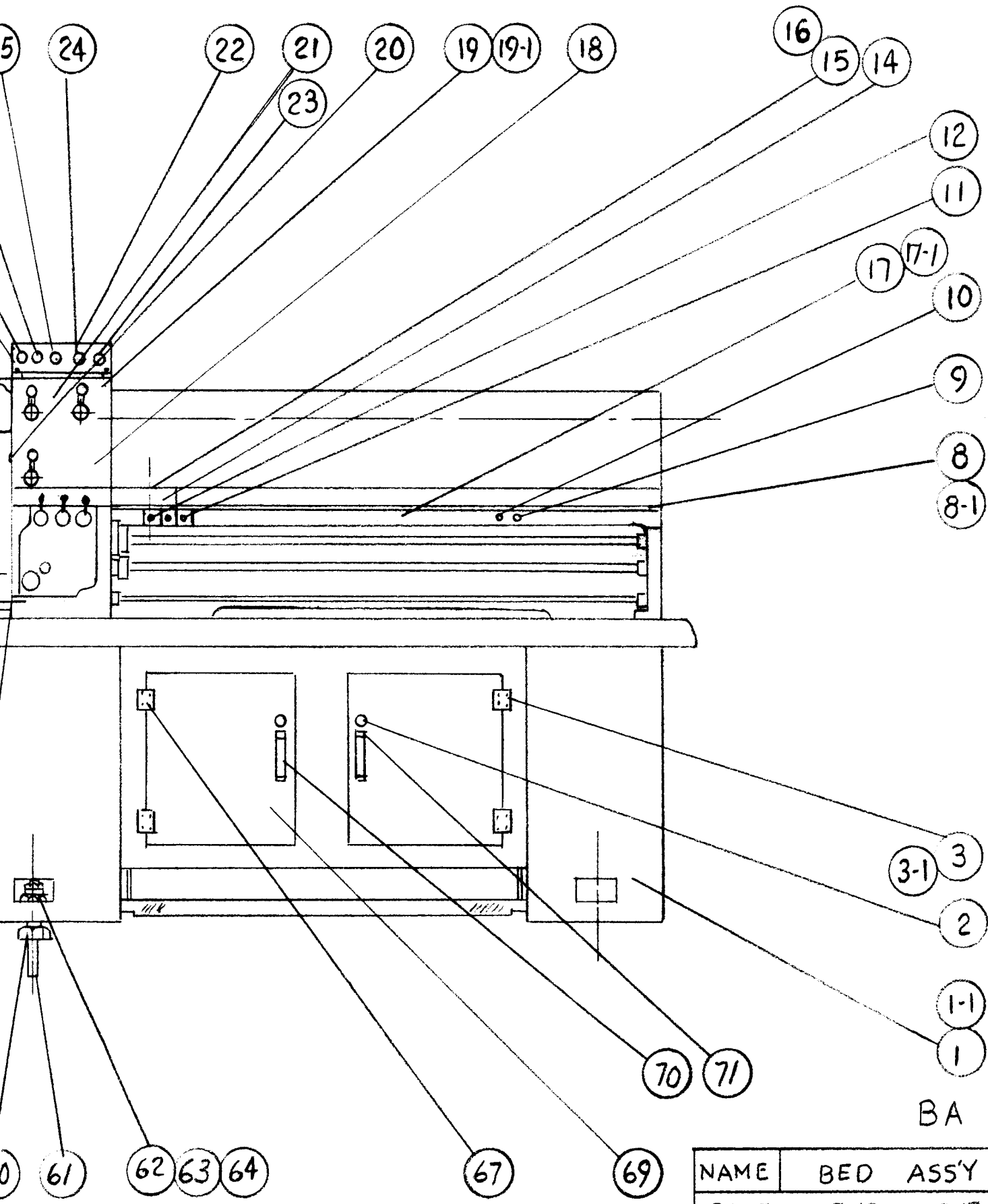
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'ITY
43	521 X 510	MACHINE SCREW	2
44	501 X 822	SOCKET HEAD CAP SCREW (M8 X 22) ...	4
45	545 X 8	LOCK WASHER (M8)	4
46	PT1817287E	RUBBER COLLAR	4
47	PT1202298E	SPLASH GUARD	1
48	523 X 410	MACHINE SCREW (M4 X 10)	12
48-1	525 X 4	HEX, NUT	12
49	M030462244	MAIN MOTOR (3HP, 4P)	1
50	PT1817288E	RUBBER COLLAR	4
51	PT2402143E	BLOCK	4
52	PT1205299E	MOTOR BASE	1
53	501 X 1065	HEX, BOLT (M10 X 65)	4
54	525 X 10	HEX, NUT (M10)	8
55	501 X 1020	SOCKET HEAD CAP SCREW (M10 X 20) ..	3
55-1	547 X 10	SPRING WASHER (M10)	3
56	PT1702286E	BELT COVER	1
57	PT1802289E	LOCK COLLAR	1
57-1	PT4002058	SOCKET HEAD CAP SCREW (M8 X 50) ...	4
58	PT1708287E	CHANGE COVER	1
59	501 X 820	SOCKET HEAD CAP SCREW (M8 X 20) ...	4
60	PT2405144E	PLATE	4
61	PT2801179E	FOUNDATION BOLT (W3/8)	4
62	525 X 20	HEX, NUT (M20)	4
63	PT2802130E	LEVELING BOLT	4
64	25 X 58	HEX, NUT (W3/8)	4

PARTS LIST

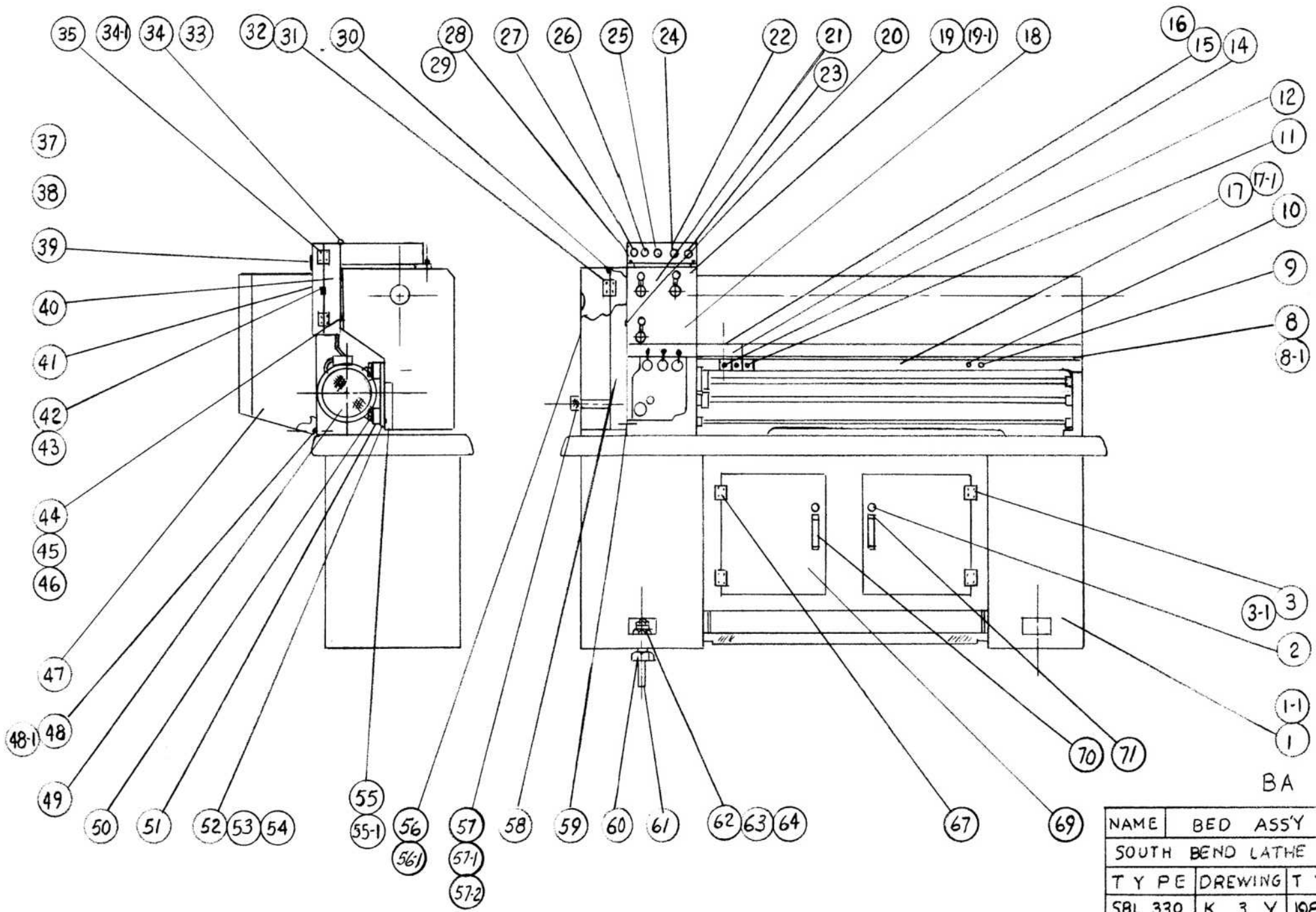
ITEM NO.	PART NO.	DESCRIPTION	Q'ITY
65	170 - 47E	NAME PLATE	1
66	523 X 355	MACHINE SCREW (M3.5 X 5)	4
67	PT4602107E	HINGE	2
68	521 X 48	MACHINE SCREW (M4 X 8)	8
69	PT2402145E	DOOR	2
70	PT4002059E	KNOB	1
71	521 X 610	MACHINE SCREW	2





BA

NAME	BED ASS'Y		
	SOUTH BEND LATHE INC.		
TYPE	DRAWING	TYPE	
SBL 330	K 3 Y	1985	



BA

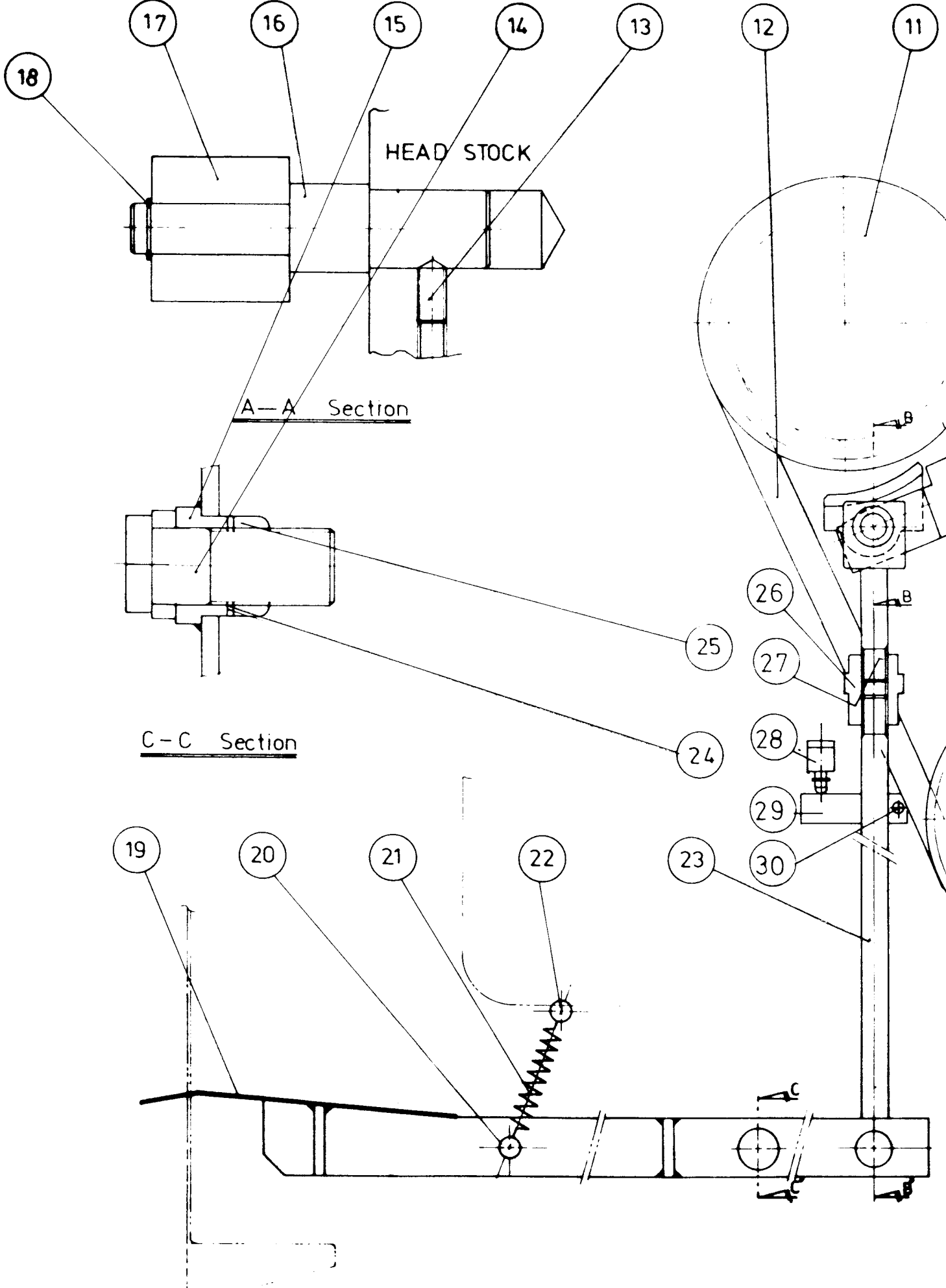
NAME	BED ASS'Y		
	SOUTH BEND LATHE INC.		
TYPE	DRAWING	TYPE	
SBL 330	K 3 Y	1985	

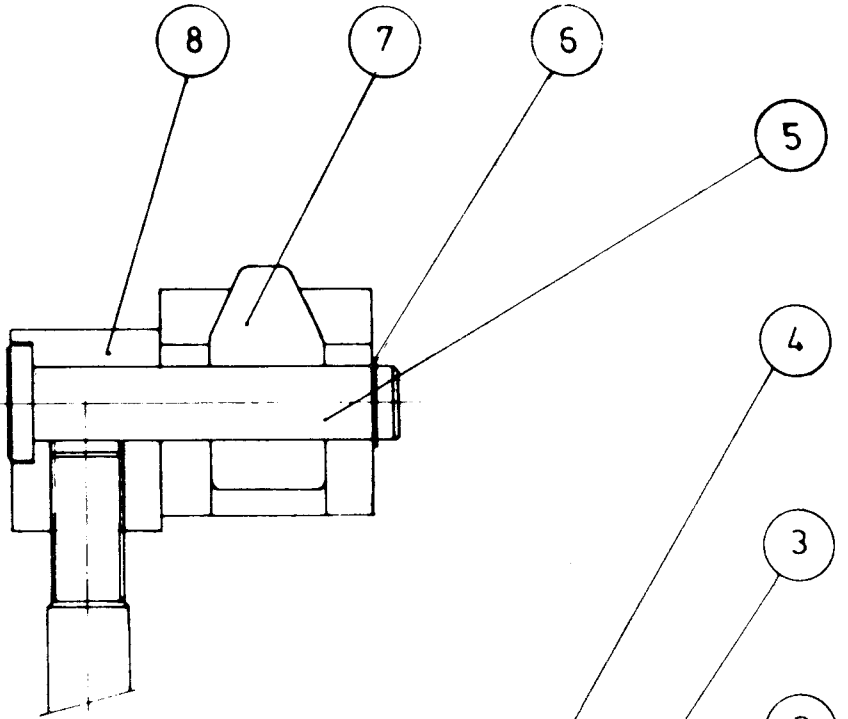
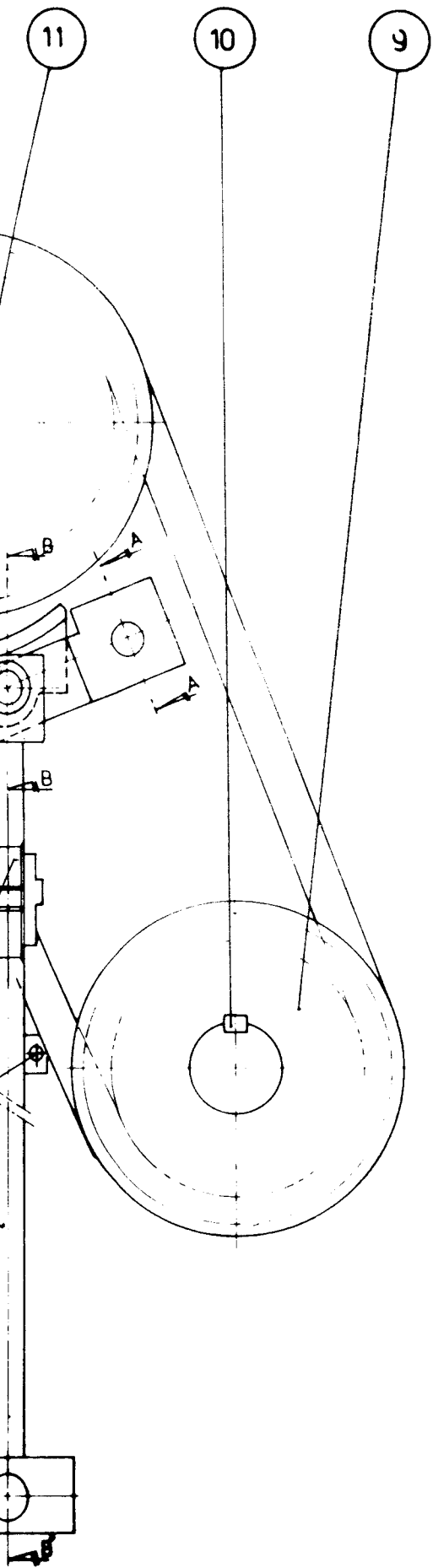
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT1302439E	SHAFT	1
2	525 X 12	HEX, NUT (M12)	2
3	PT2402146E	PEDAL BASE	1
4	525 X 6	HEX, NUT (M6)	2
5	PT1302440E	SHAFT	1
6	561 X 10	STOP RING (C-Ø10)	1
7	PT4620108E	BRAKE PAD	1
8	PT2402147E	BLOCK	1
9	PT1605061E	MOTOR PULLEY (VA)	1
10	557 X 7745	KEY (7 X 7 X 45)	1
11	PT2605062E	PULLEY (VA)	1
12	PT4617109E	V-BELT ("A" TYPE)	2
13	503 X 68	SET SCREW (M6 X 8)	1
14	PT1302441E	CENTER SHAFT	2
15	PT1302290E	COLLAR	2
16	PT1302442E	CENTER SHAFT	1
17	PT2202263E	BRAKE BRACKET	1
18	561 X 10	STOP RING (C-Ø10)	1
19	PT2202264E	PEDAL	1
20	PT2902195E	PIN	2
21	ST262050E	SPRING	2
22	PT2902196E	PIN	2
23	PT1302443E	BRAKE ROD	1
24	525 X 16	HEX, NUT (M16)	2
25	545 X 16	WASHER (M16)	2

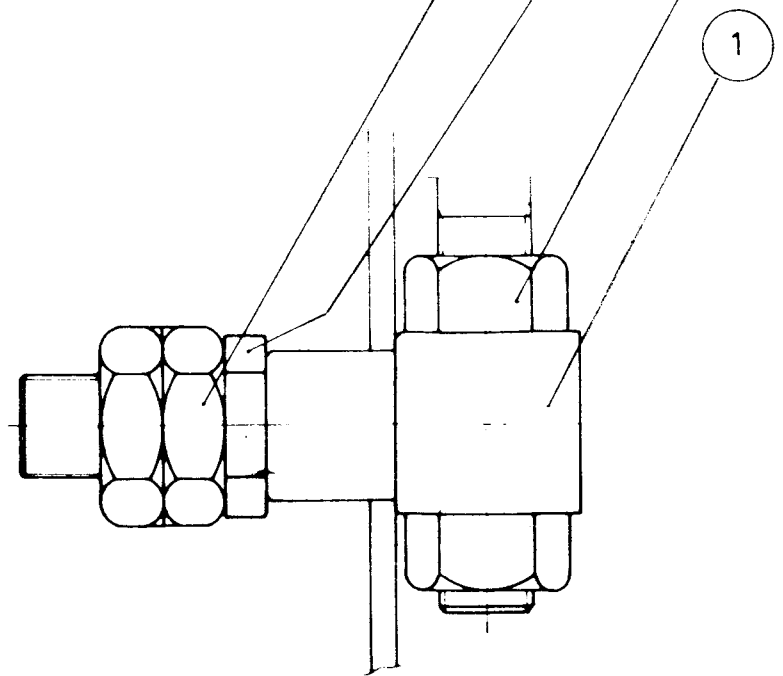
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
26	PT2802181E	ADJUSTING NUT	1
27	PT1302444E	BRAKE ROD	1
28	Z15G09	LIMIT SWITCH	1
29	PT2402148E	SWITCH PLATE	1
30	501 X 820	SOCKET HEAD CAP SCREW (M8 X 20) ...	1





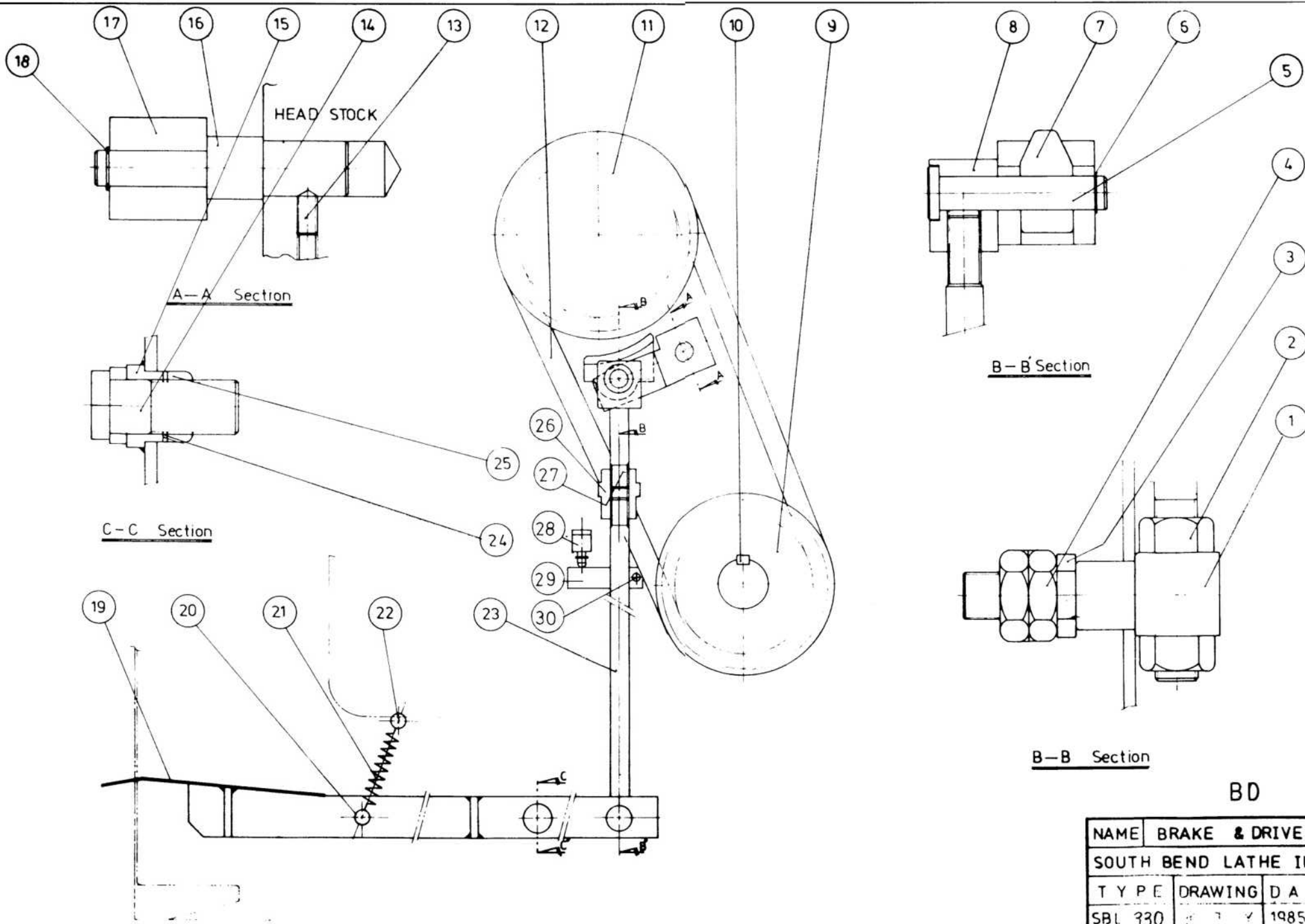
B-B Section



B-B Section

BD

NAME	BRAKE & DRIVE ASSY	
SOUTH BEND LATHE INC.		
TYPE	DRAWING	DATE
SBL 330	8 7 85	1985.1

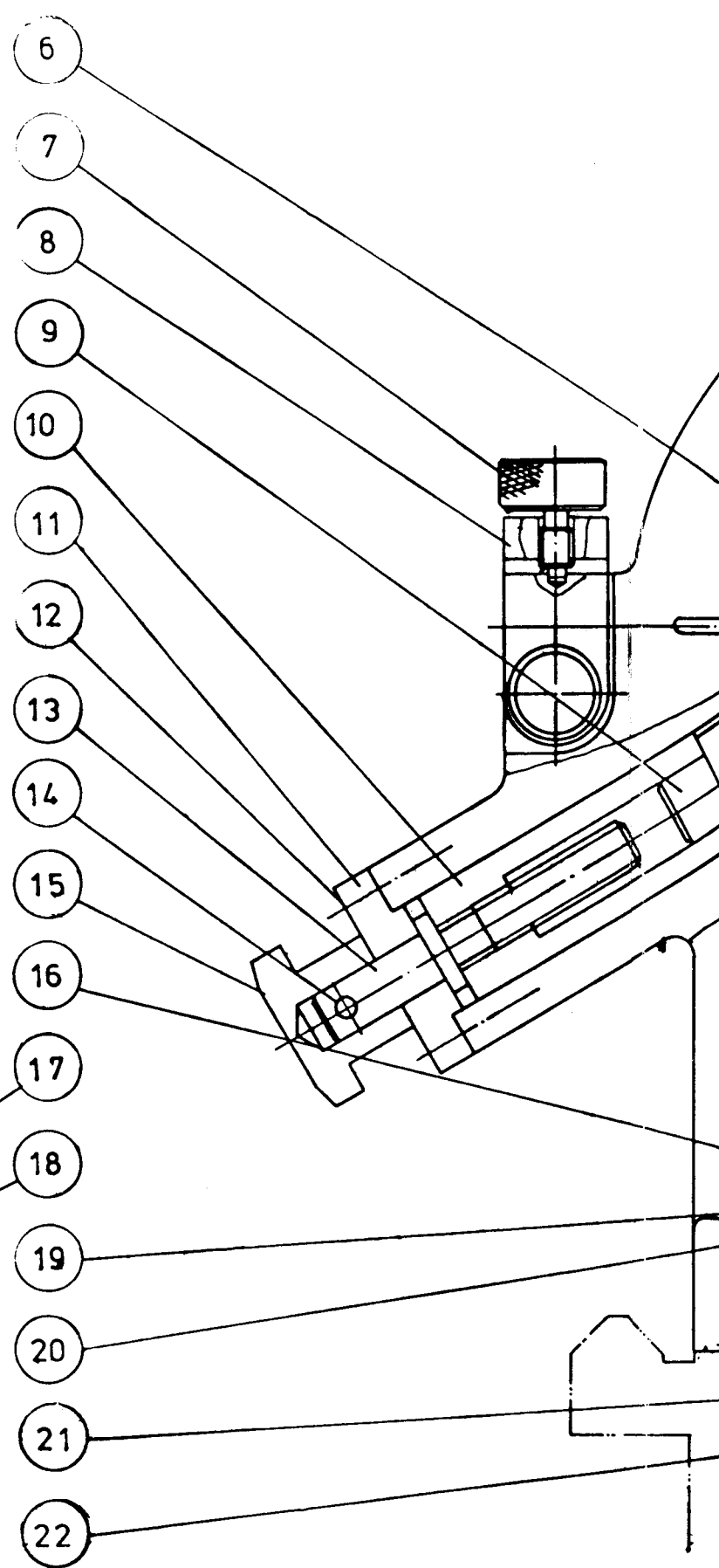
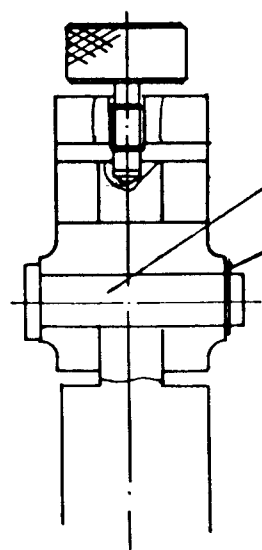
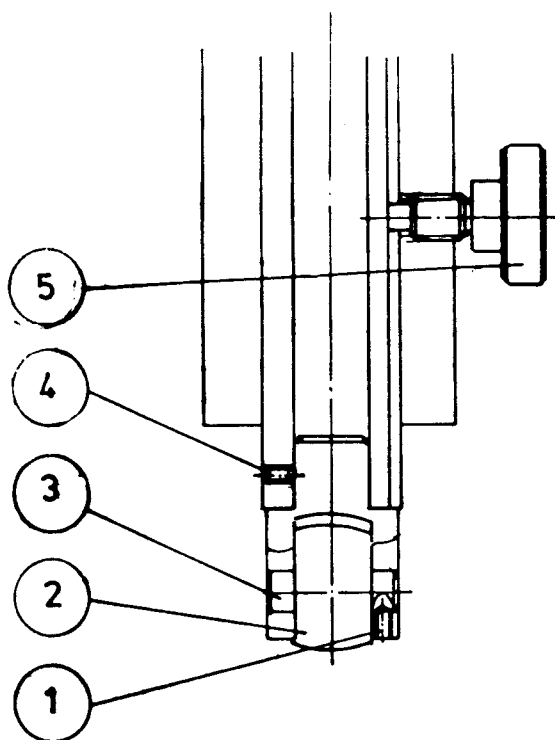


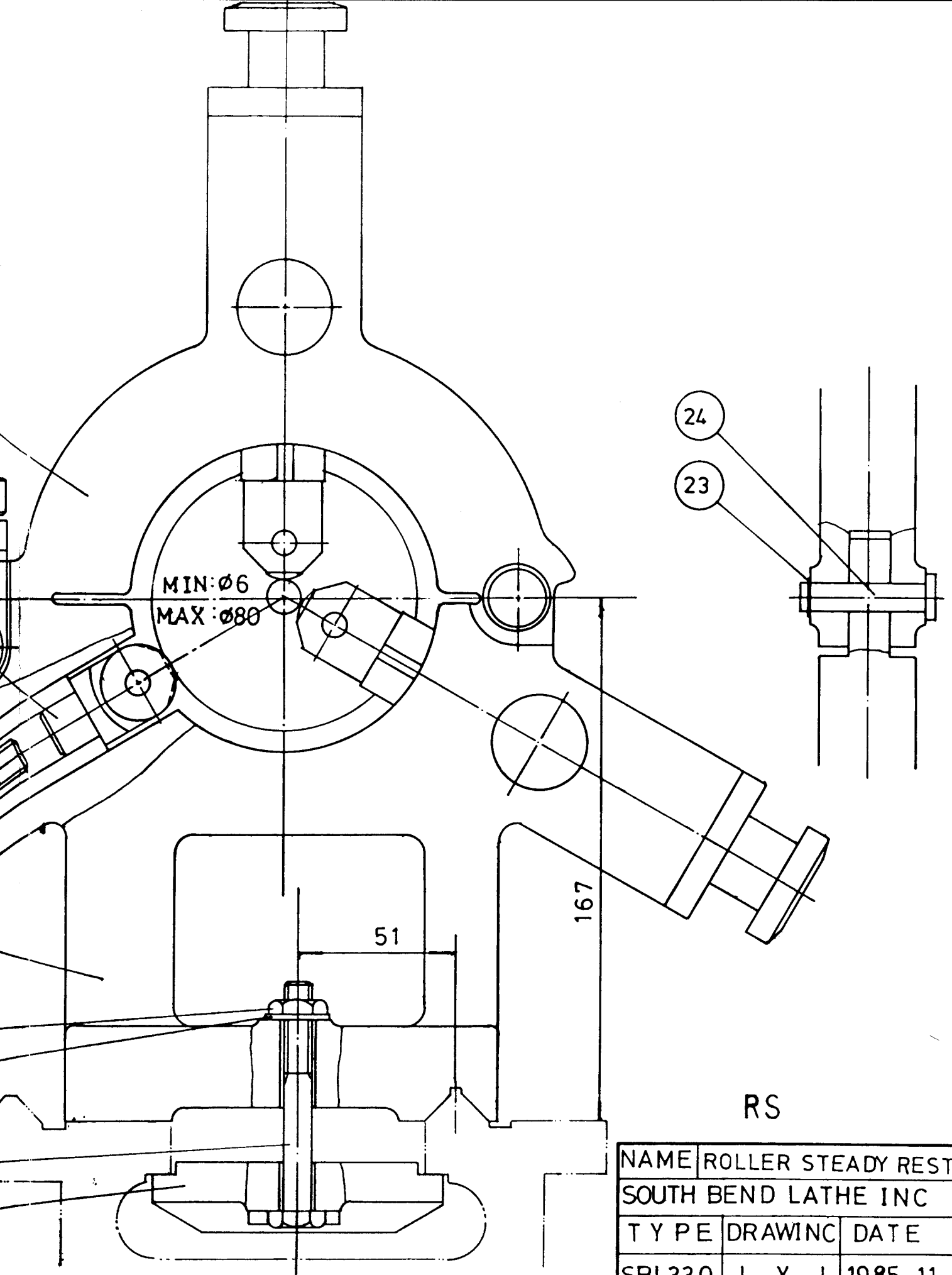
BD

NAME	BRAKE & DRIVE ASS		
	SOUTH BEND LATHE INC.		
TYPE	DRAWING	DATE	
SBL 330		7	1985

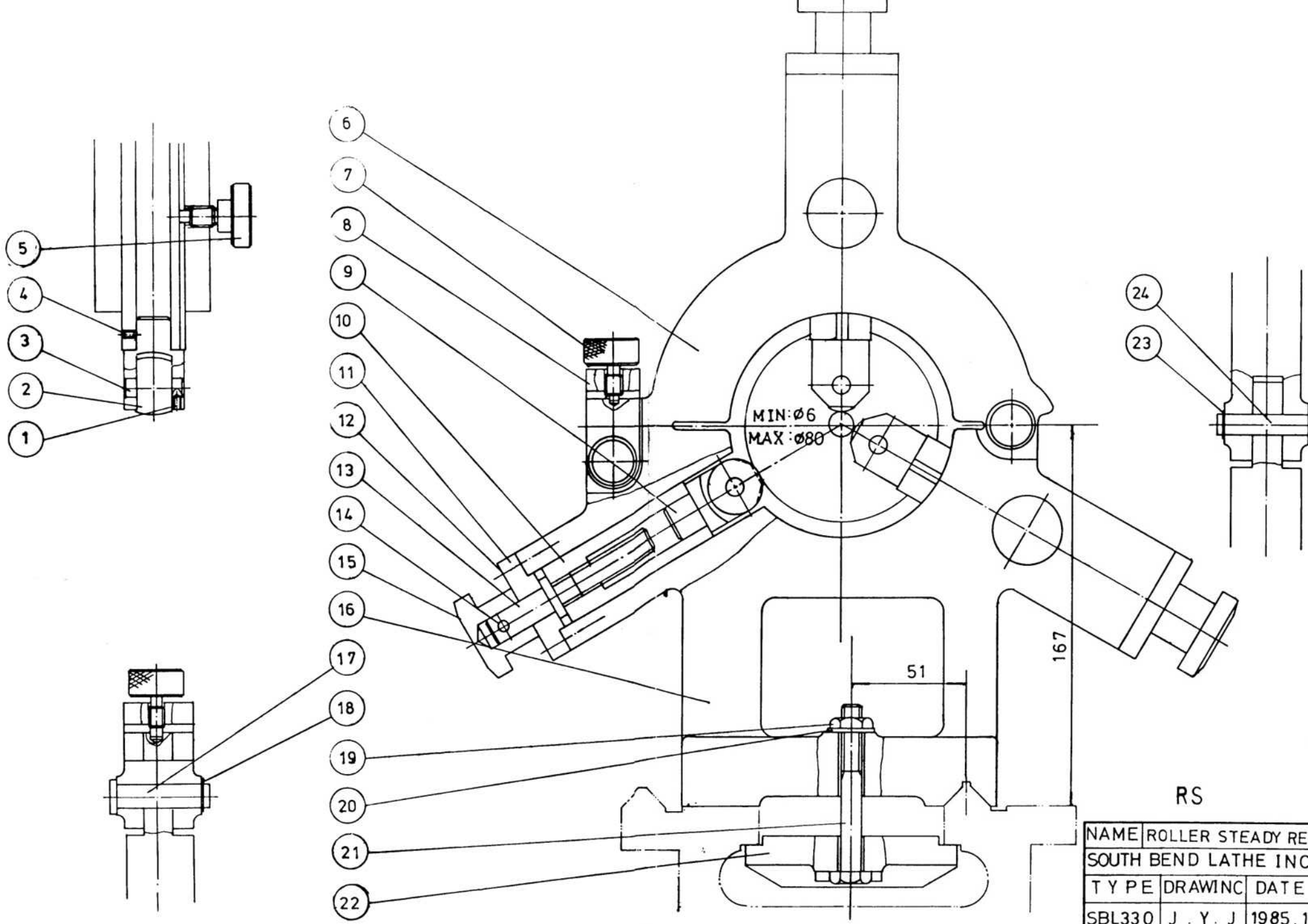
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	503 x 36	Set Screw (M3 x 6)	3
2	NART8R	Middle Roller Bearing	3
3	PT1301460E	Shaft	3
4	503 x 68	Set Screw (M6 x 8)	3
5	PT2801191E	Guide Bolt	3
6	PT1205413E	Steady Rest Upper Body	1
7	PT2802183E	Lock Bolt	3
8	PT2905197E	Hanger	1
9	PT4701052E	Roller Jaw	3
10	PT1301458E	Jaw Shaft	3
11	PT1702297E	Cover	3
12	501 x 615	Socket Head Cap Screw (M6 x 15)	12
13	PT1301459E	Jaw Shaft	3
14	553 x 525	Spring Pin (Ø5 x 25)	3
15	PT4002063E	Handle	3
16	PT1205414E	Steady Rest Body	1
17	PT1302447E	Pin	1
18	561 x 10	Stop Ring	1
19	525 x 10	Hex Nut (M10)	1
20	545 x 10	Washer (M10)	1
21	519 x 1075	Hex Bolt (M10 x 75)	1
22	PT2405155E	Locking Plate	1
23	PT1302447E	Pin	1
24	561 x 10	Stop Ring	1





NAME	ROLLER STEADY REST	
	SOUTH BEND LATHE INC	
TYPE	DRAWING	DATE
SBL330	J . Y . J	1985.11

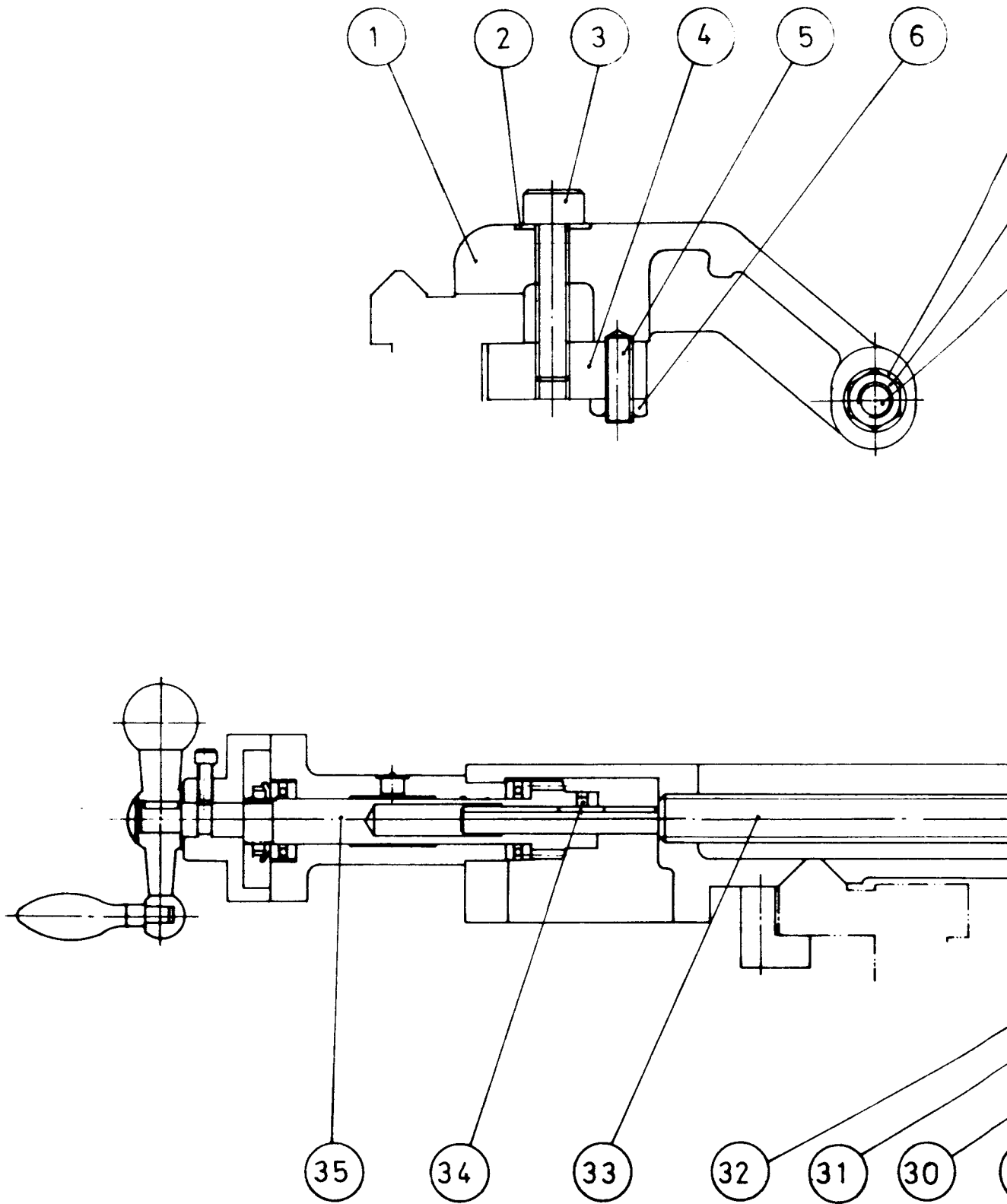


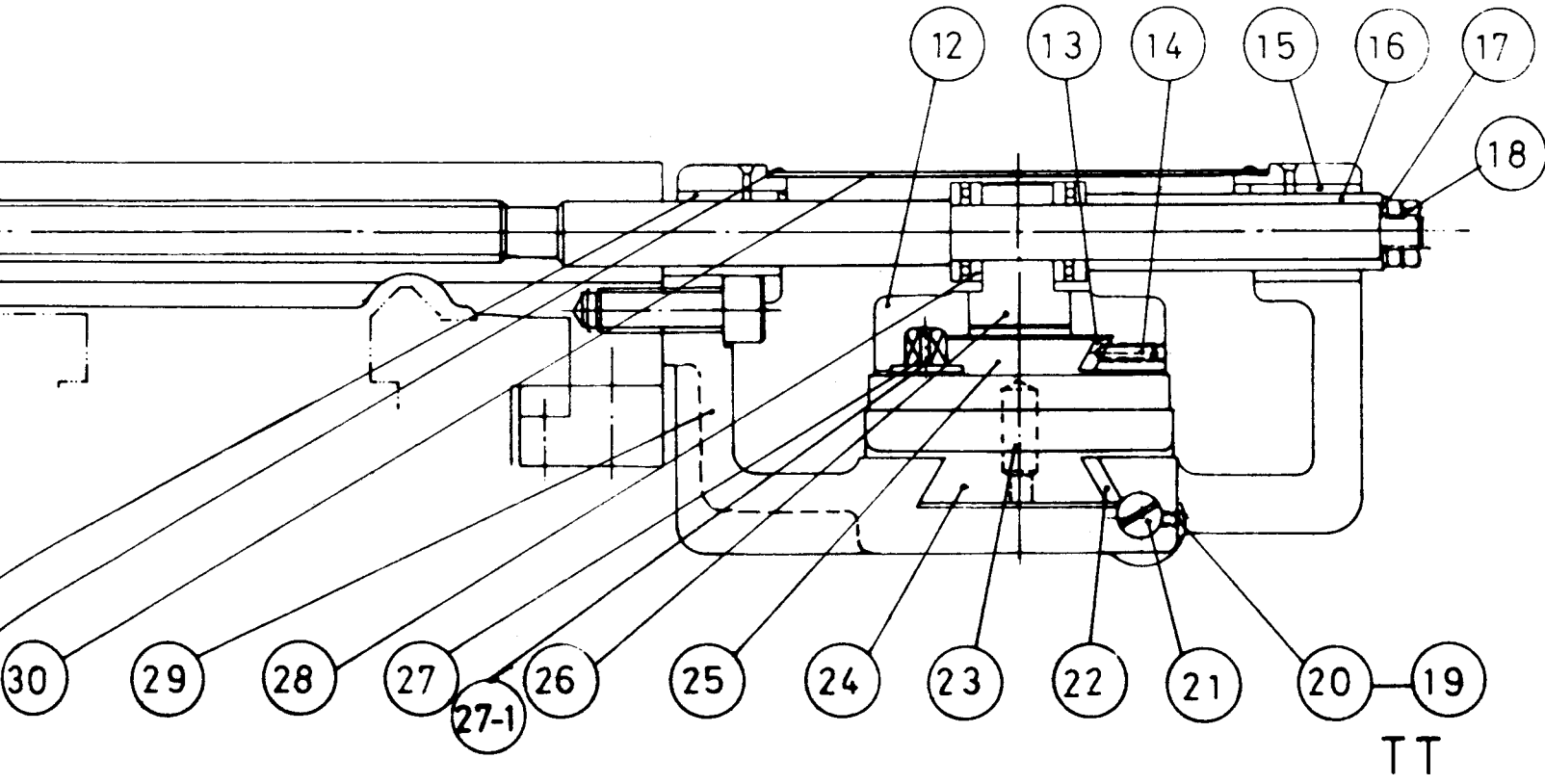
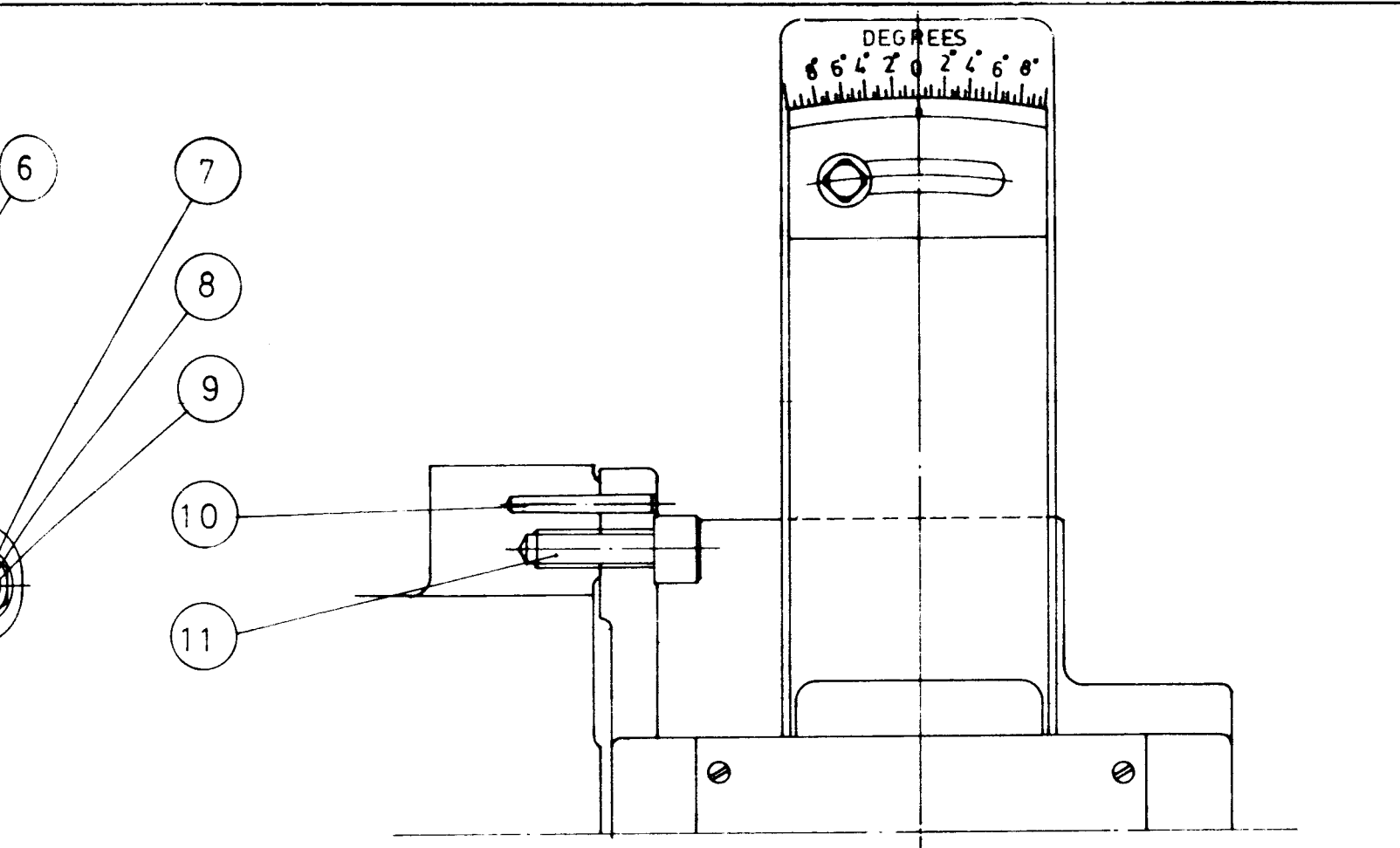
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT2205266E	BRACKET	1
2	545 X 12	WASHER (M12)	2
3	501 X 1260	SOCKET HEAD CAP SCREW (M12 X 60) .	2
4	PT2402156E	PLATE	1
5	503 X 1035	SET SCREW (M10 X 35)	2
6	525 X 10	HEX NUT (M10)	2
7	545 X 12	WASHER (M12)	2
8	525 X 12	HEX NUT (M12)	2
9	PT1302448E	PT1302448E	1
10	551 X 640	TAPER PIN (Ø6 X 40)	2
11	501 X 1230	SOCKET HEAD CAP SCREW (M12 X 30) .	2
12	PT2405157E	CROSS SLIDER	1
13	PT3101044E	GIB	1
14	503 X 415	SET SCREW (M4 X 15)	3
15	PT1907186E	BUSHING	1
16	PT1801291E	SLEEVE	1
17	PT2002083E	WASHER	1
18	540 X 10	(M10)	2
19	503 X 66	SET SCREW (M6 X 6)	1
20	PT2907198E	BIND SHOE	1
21	PT2802185E	ADJUSTING BOLT	1
22	PT3101045E	GIB	1
23	PT2901199E	PIN	1
24	PT2405158E	SLIDER PLATE	1
25	PT2405159E	GUIDE PLATE	1

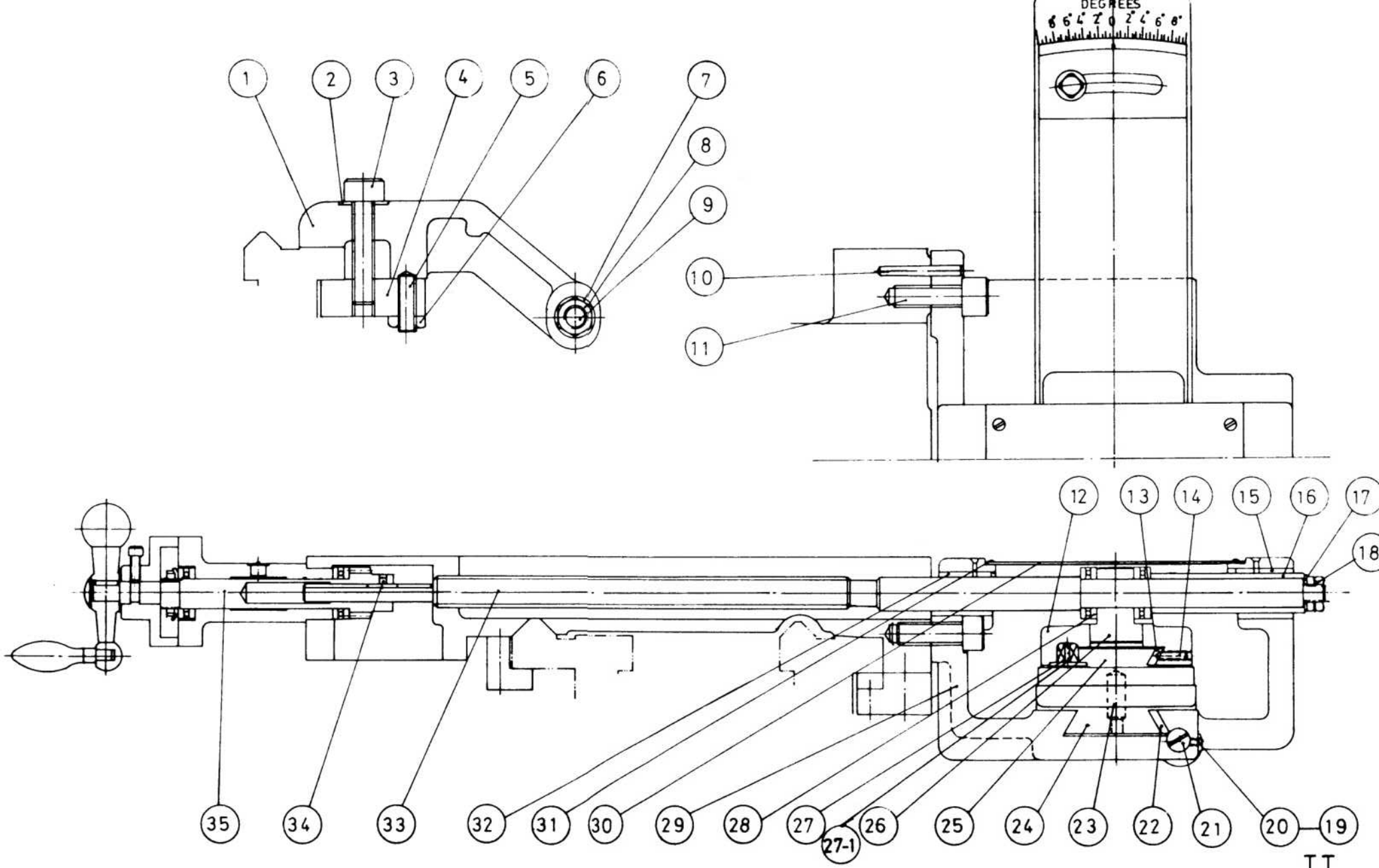
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
26	PT2401160E	CLAMP BLOCK	1
27	PT2801186E	CLAMP BOLT	2
27-1	PT1802301E	COLLAR	2
28	51102	THRUST BALL BEARING (51102)	2
29	PT1205305	BODY	1
30	PT2402161E	PLATE	1
31	523 X 410	MACHINE SCREW (M4 X 10)	4
32	PT1907187E	BUSHING	1
33	PT1301449E	CROSS FEED SCREW SHAFT	1
34	PT2901200E	T-KEY	1
35	PT1401530E	GEAR SHAFT	1





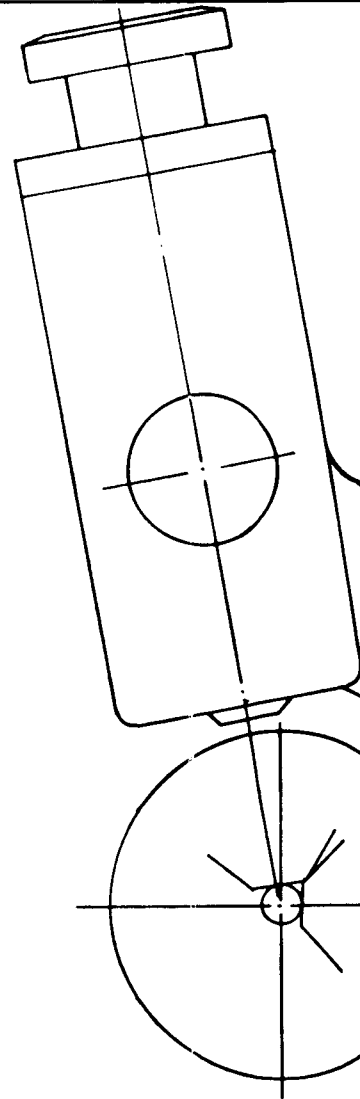
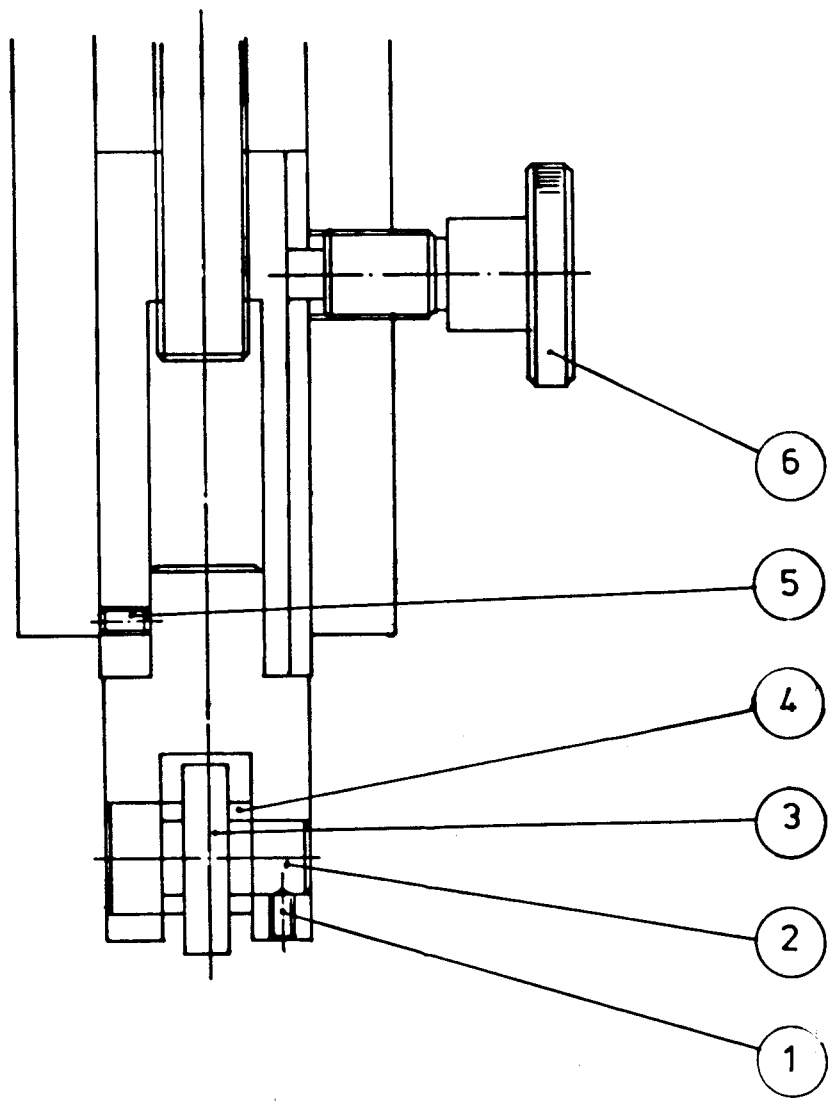
NAME	TAPER ATT ASSY
SOUTH BEND LATHE INC.	
TYPE	DRAWING DATE
SBL 330	P J Y 1985.6.



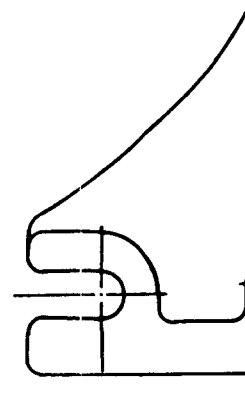
NAME	TAPER ATT	ASC
SOUTH BEND	LATHE	INC
TYPE	DRAWING	DATE
SBL 330	P J Y	1985.6.

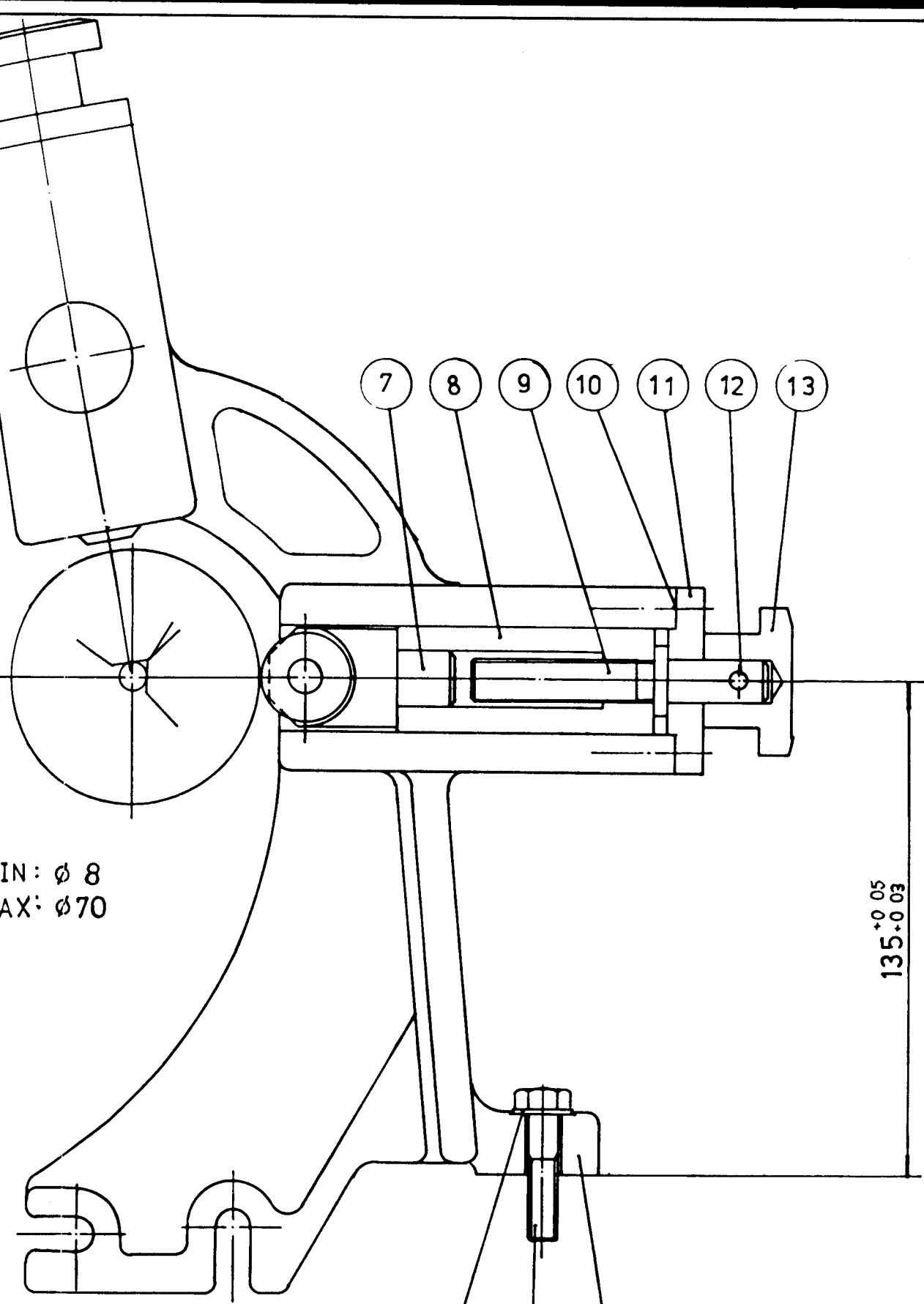
PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	503 x 36	Set Screw (M3 x 6)	1
2	PT1301457E	Shaft	2
3	6000ZZ	Ball Bearing (6000ZZ)	2
4	PT1802305E	Collar	4
5	503 x 66	Set Screw (M6 x 6)	2
6	PT2801191E	Guide Bolt	2
7	PT4701051E	Roller Jaw	2
8	PT1301458E	Jaw Shaft	2
9	PT1301459E	Jaw Thread Shaft	2
10	501 x 615	Socket Head Cap Screw (M6 x 15)	8
11	PT1702297E	Cover	2
12	553 x 525	Spring Pin (\emptyset 5 x 25)	2
13	PT4002063E	Handle	2
14	PT1205421E	Roller Follow Rest Body	1
15	519 x 835	Hex Bolt (M8 x 35)	3
16	545 x 8	Washer (M8)	3



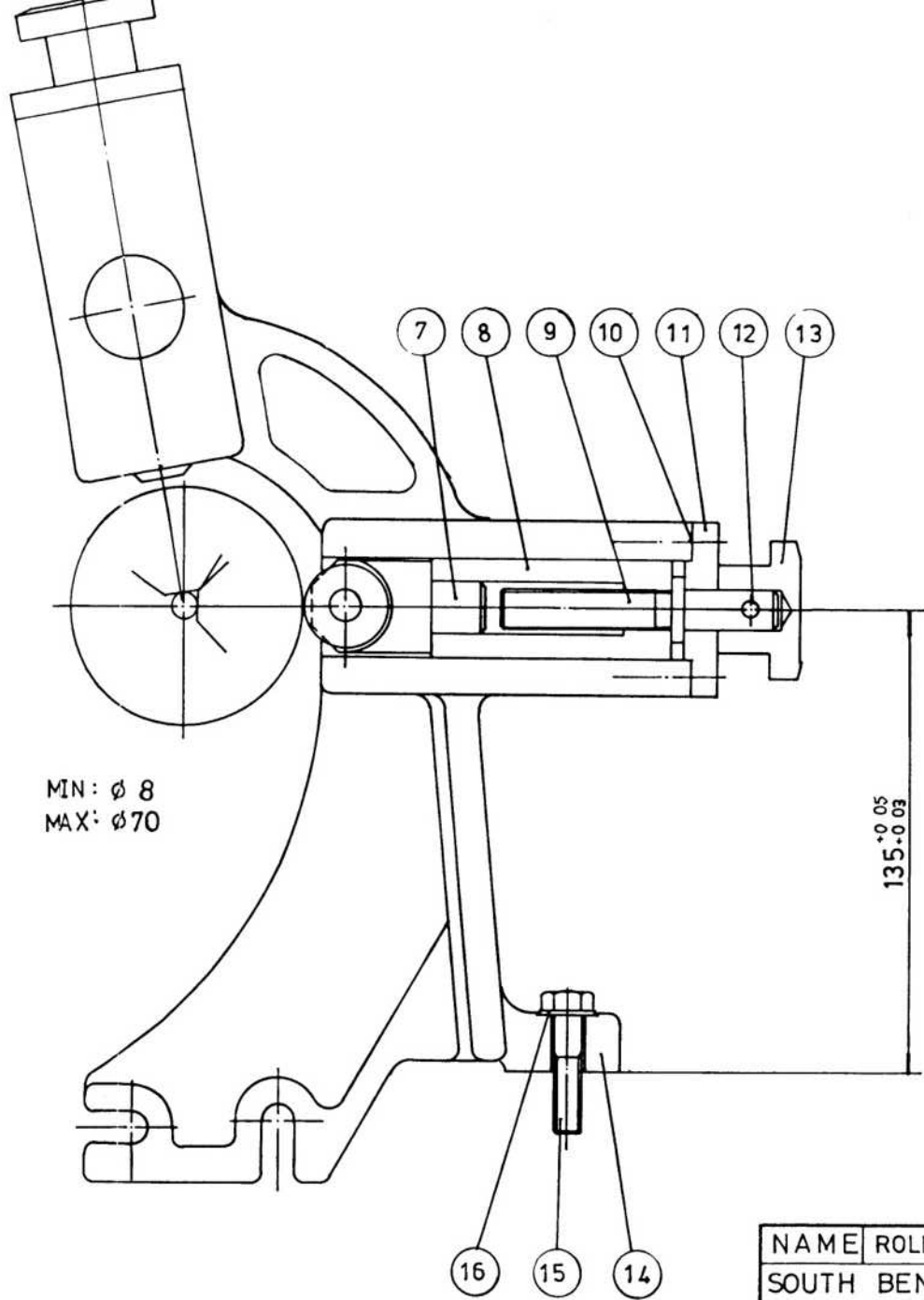
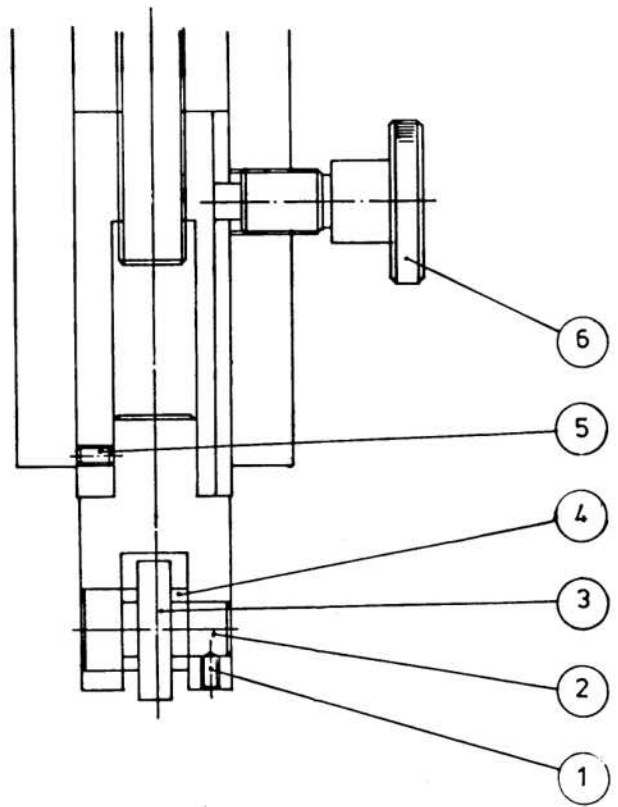
MIN: $\phi 8$
MAX: $\phi 70$





FRR

NAME	ROLLER FOLLOW REST	
SOUTH BEND LATHE INC.		
TYPE	DRAWING	DATE
SBL330	J.Y.J	1985.11

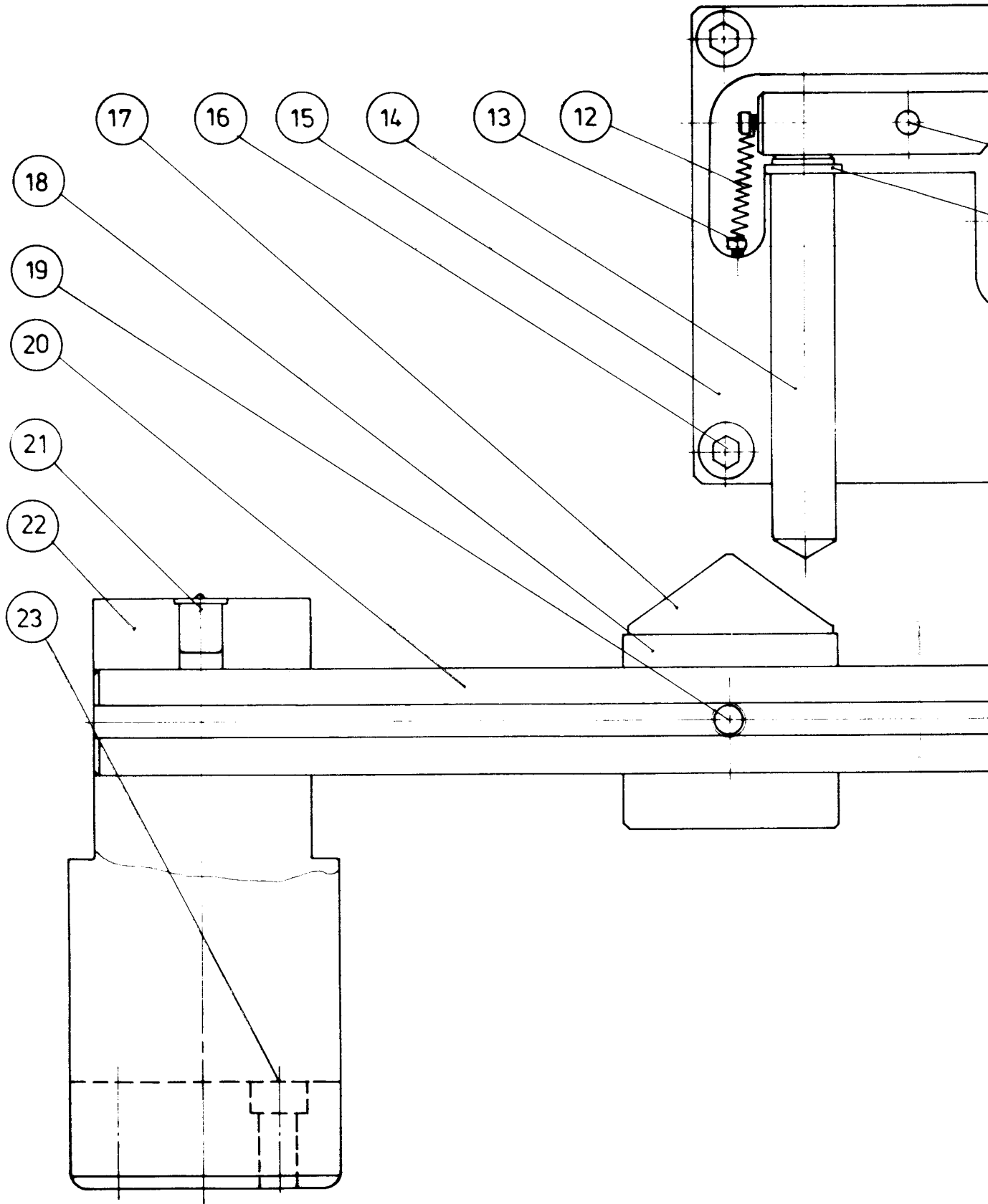


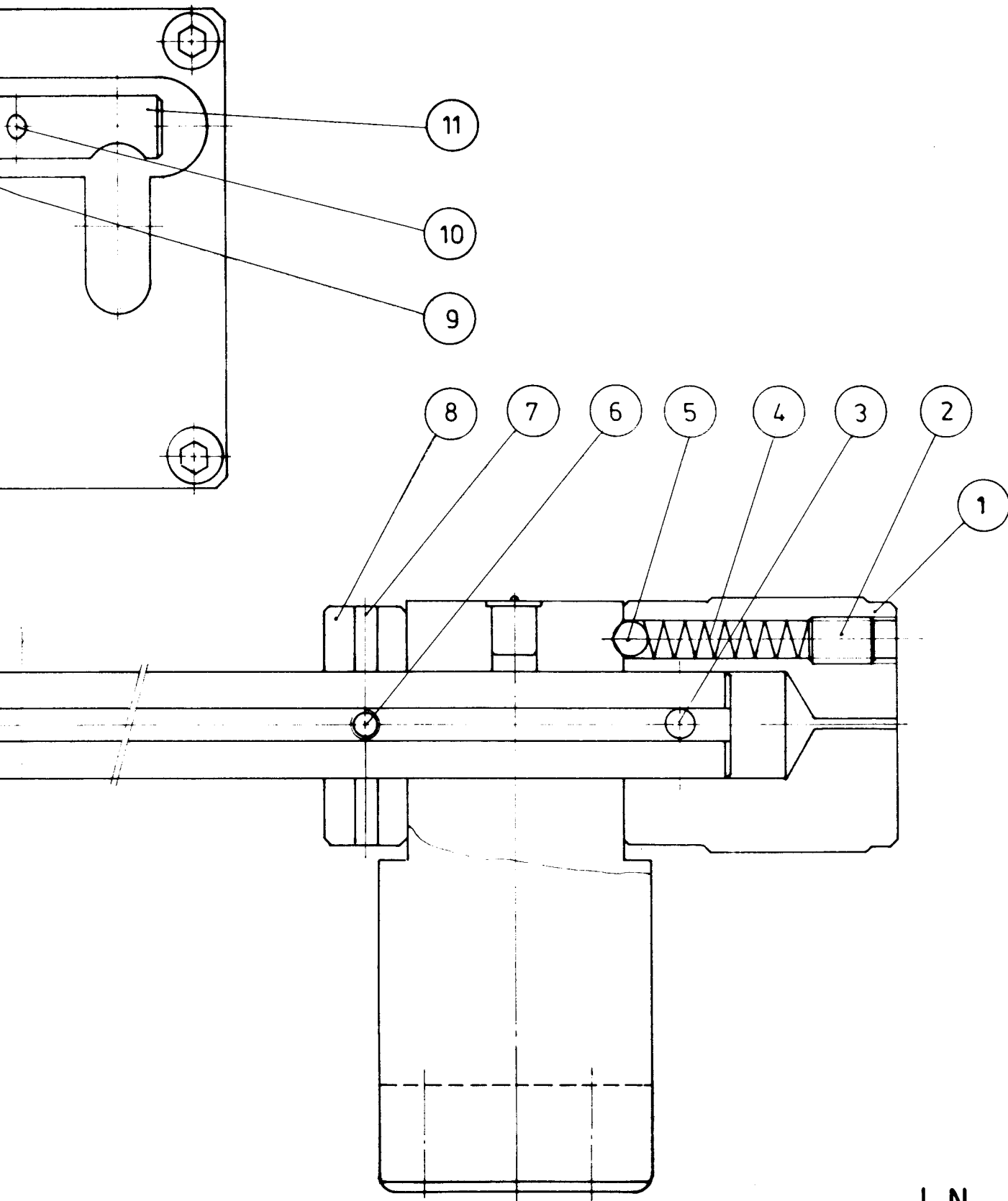
FRR

NAME	ROLLER FOLLOW RES	
	SOUTH BEND LATHE INC.	
TYPE	DRAWING	DATE
SBL330	J. Y. J	1985.11

PARTS LIST

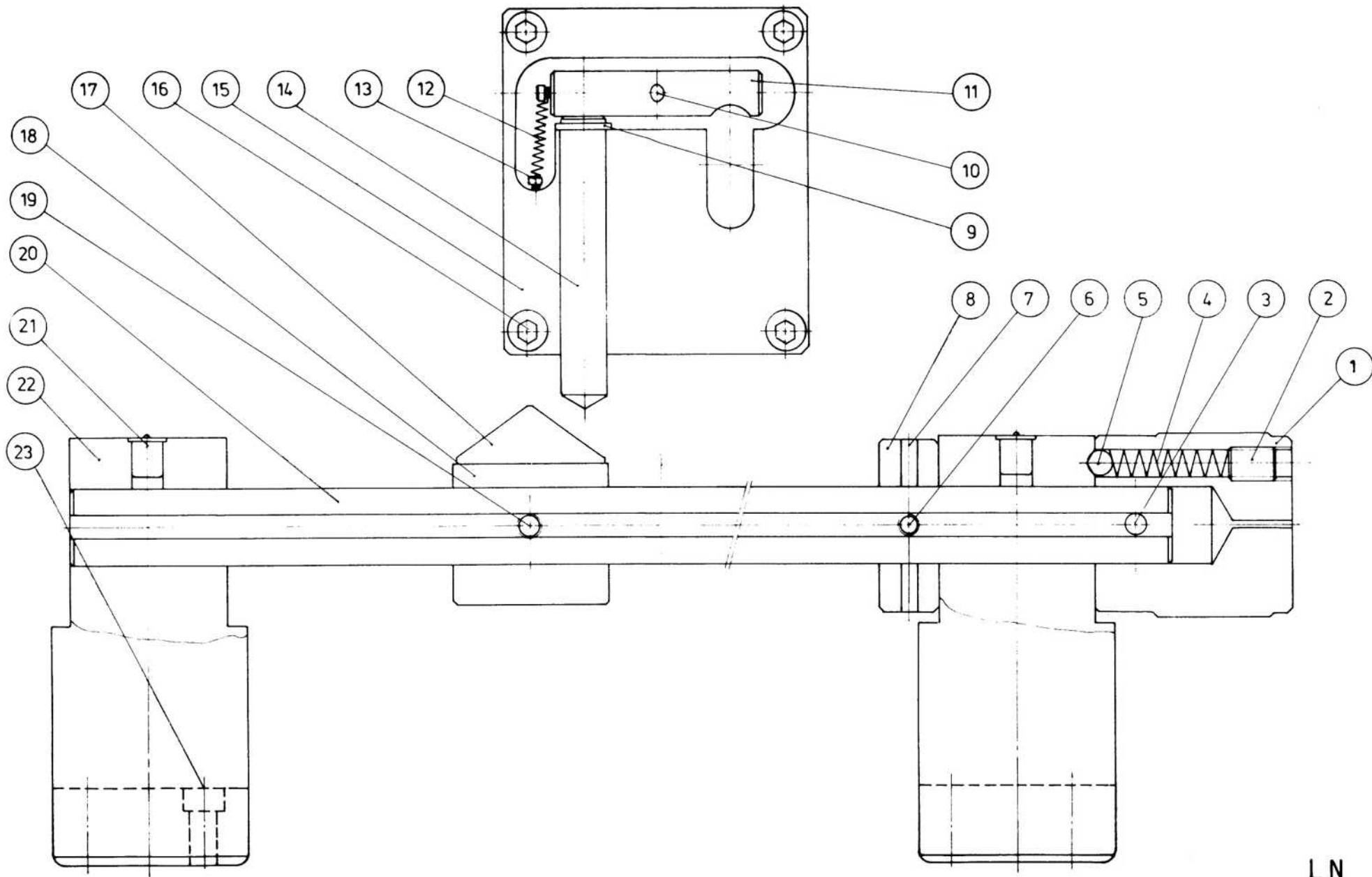
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT4002061	HANDLE	1
2	503 X 810	SET SCREW (M8 X 10)	1
3	553 X 544	SPRING PIN (Ø5 X 44)	1
4	SP080610	SPRING (Ø1/4")	2
5	157 X 14	STEEL BALL (Ø1/4")	1
6	503 X 444	SET SCREW (M6 X 10)	1
7	553 X 444	SPRING PIN (Ø4 X 44)	1
8	PT1802292E	COLLAR	1
9	553 X 216	SPRING PIN (Ø4 X 44)	1
10	545 X 42	PIN (Ø4 X 20)	1
11	PT3002065E	LINK	1
12	ST050622	SPRING	1
13	521 X 310	MACHINE SCREW (M3 X 10)	2
14	PT3001066E	CONNECTING ROD	1
15	PT2202267E	BRACKET	1
16	501 X 56	SOCKET HEAD CAP SCREW (M5 X 6) ...	4
17	PT2401162E	BLOCK	2
18	PT1802298E	STOP	2
19	503 X 610	SET SCREW (M6 X 10)	2
20	PT1302450E	LIMIT BAR (760)	1
20-1	PT1302451E	LIMIT BAR (1,000)	1
21	163 X 516	OILER (Ø5/16)	2
22	PT2205268E	BRACKEY	2
23	501 X 620	SOCKET HEAD CAP SCREW (M6 X 20) ..	4





LN

NAME	LONGITUDINAL STOP ASSY	
SOUTH BEND INDUSTRY CO. LTD		
TYPE	DRAWING	DATE
SBL 330	K J Y	1985.1



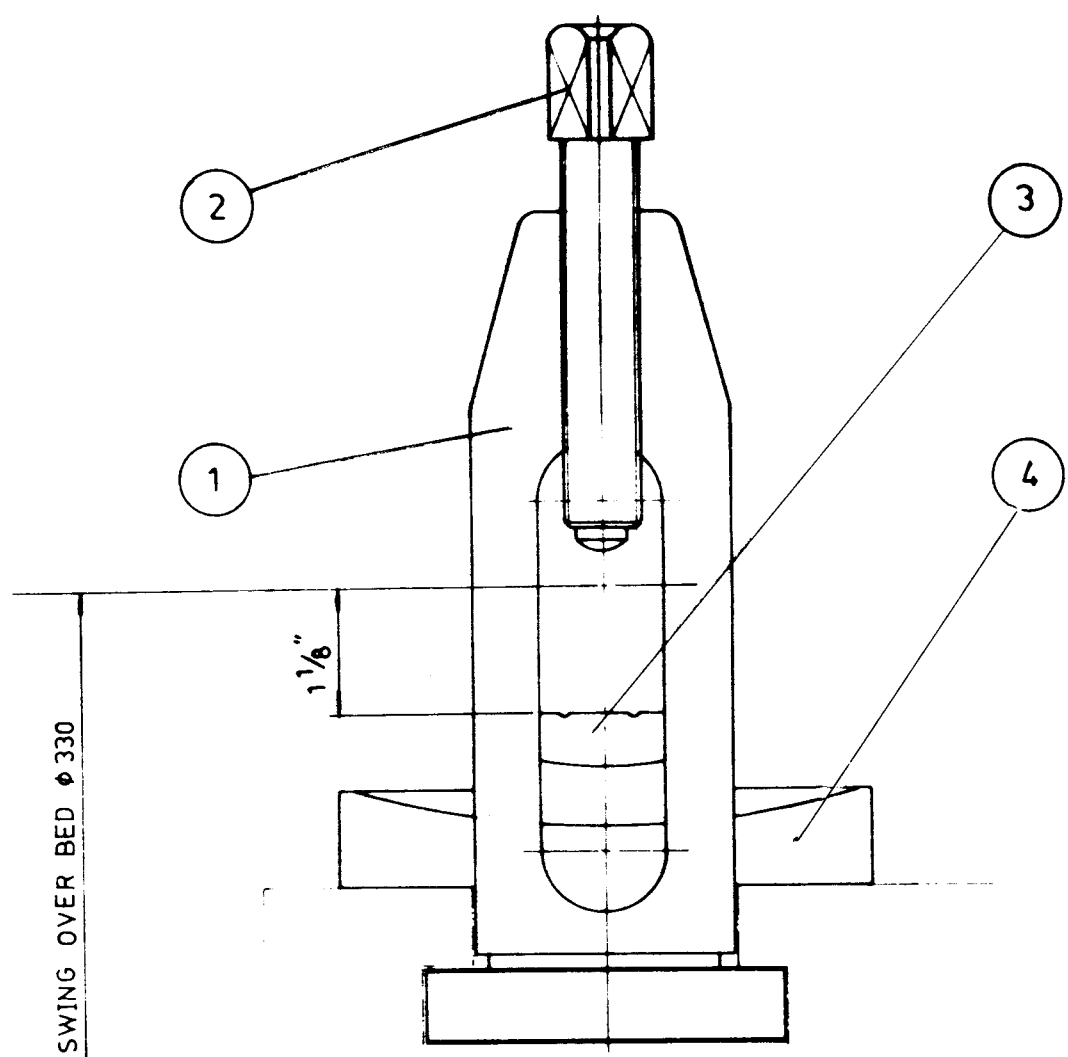
LN

NAME	LONGITUDINAL STOP AS	
	SOUTH BEND INDUSTRY	
TYPE	DRAWING	DATE
SBL 330	K J Y	1985.

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PT1201307E	TOOL POST	1
2	PT2301138E	BOLT	1
3	PT2401165E	BASE WEDGE	1
4		WASHER	1

TOOL SIZE 1/2" x 1/8"

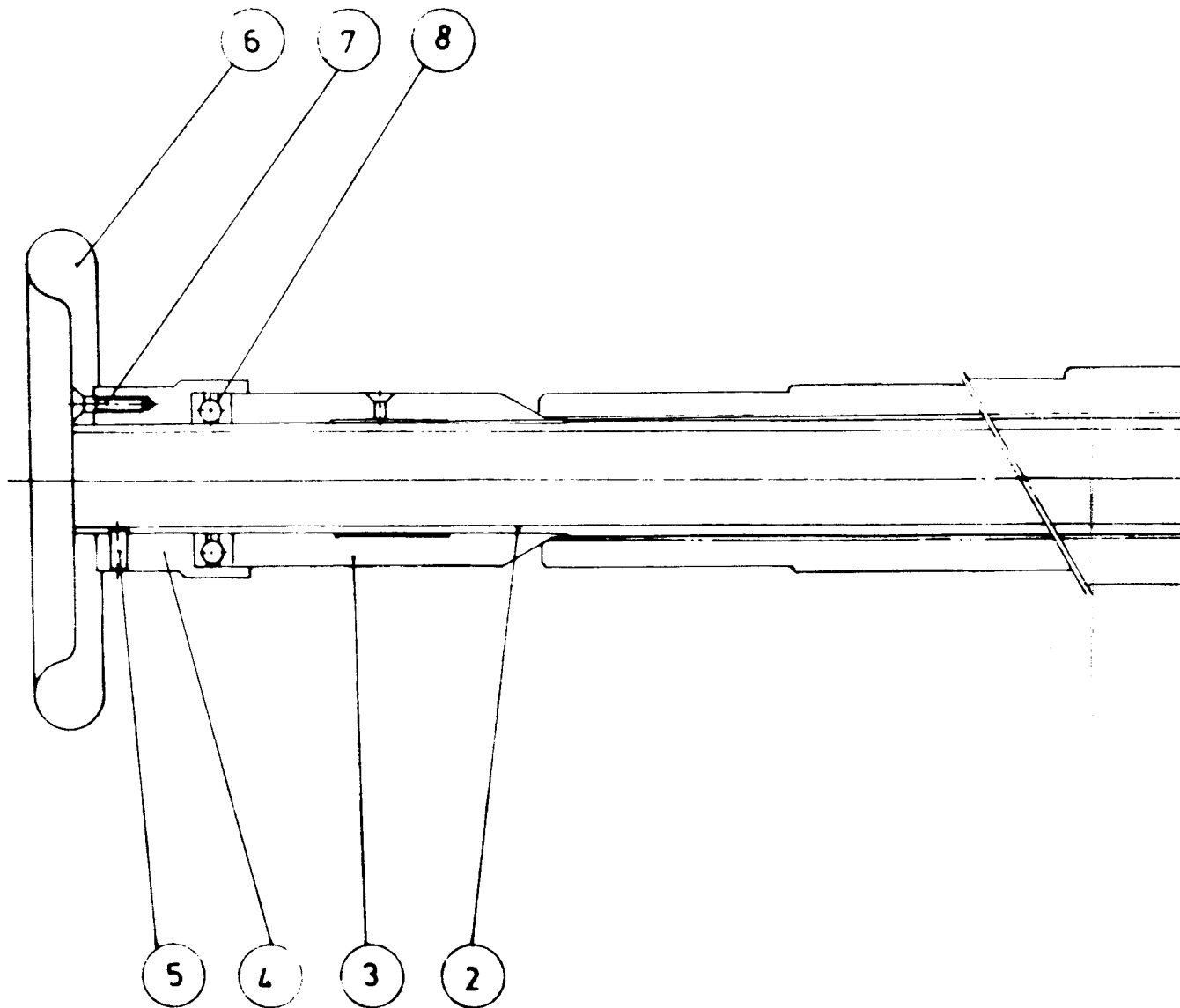


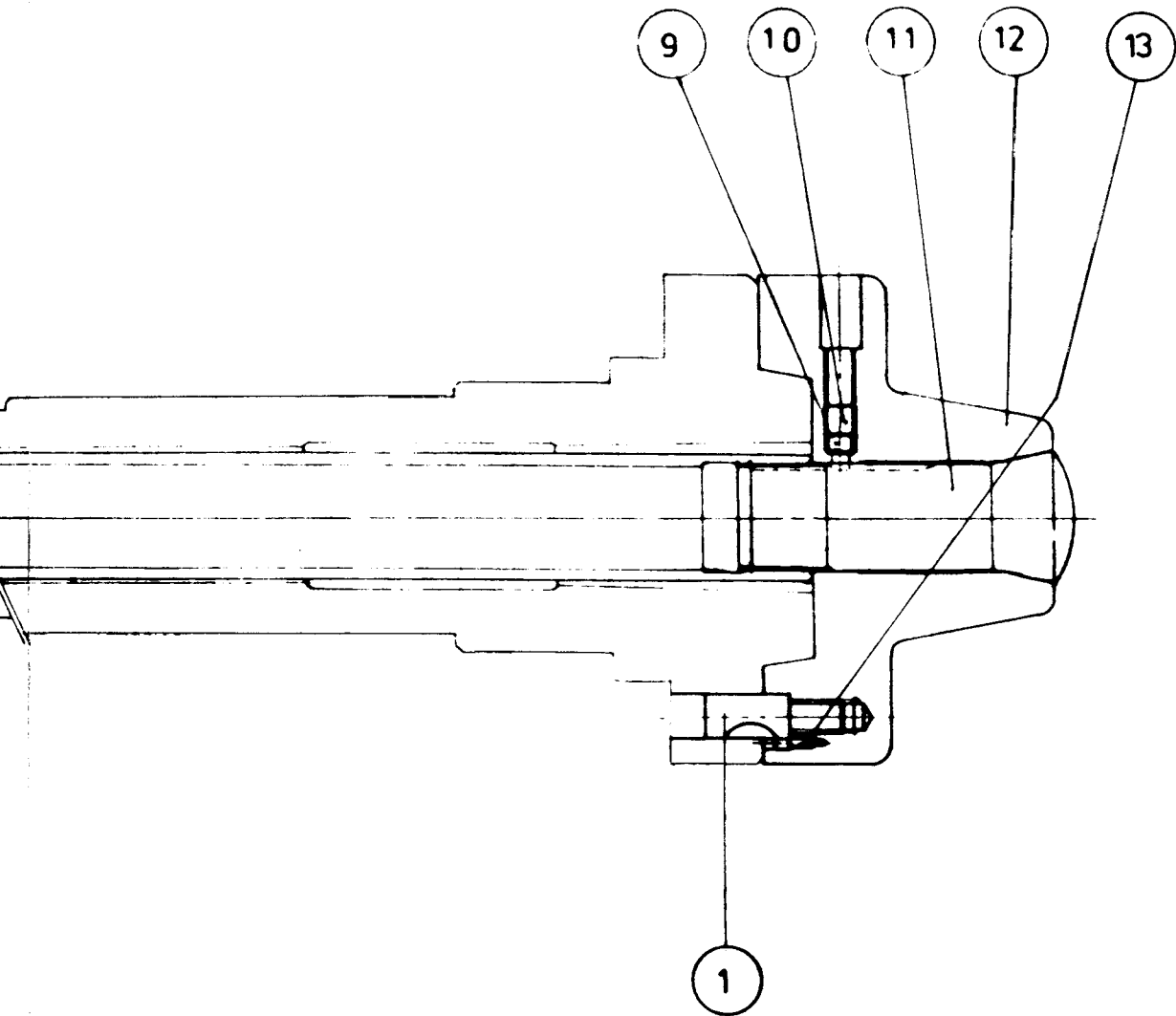
ST

NAME	SINGLE TOOL POST ASS'Y		
SOUTH BEND LATHE INC			
TYPE	DRAWING	DATE	
SBL 330	K J Y	1985 1	

PARTS LIST

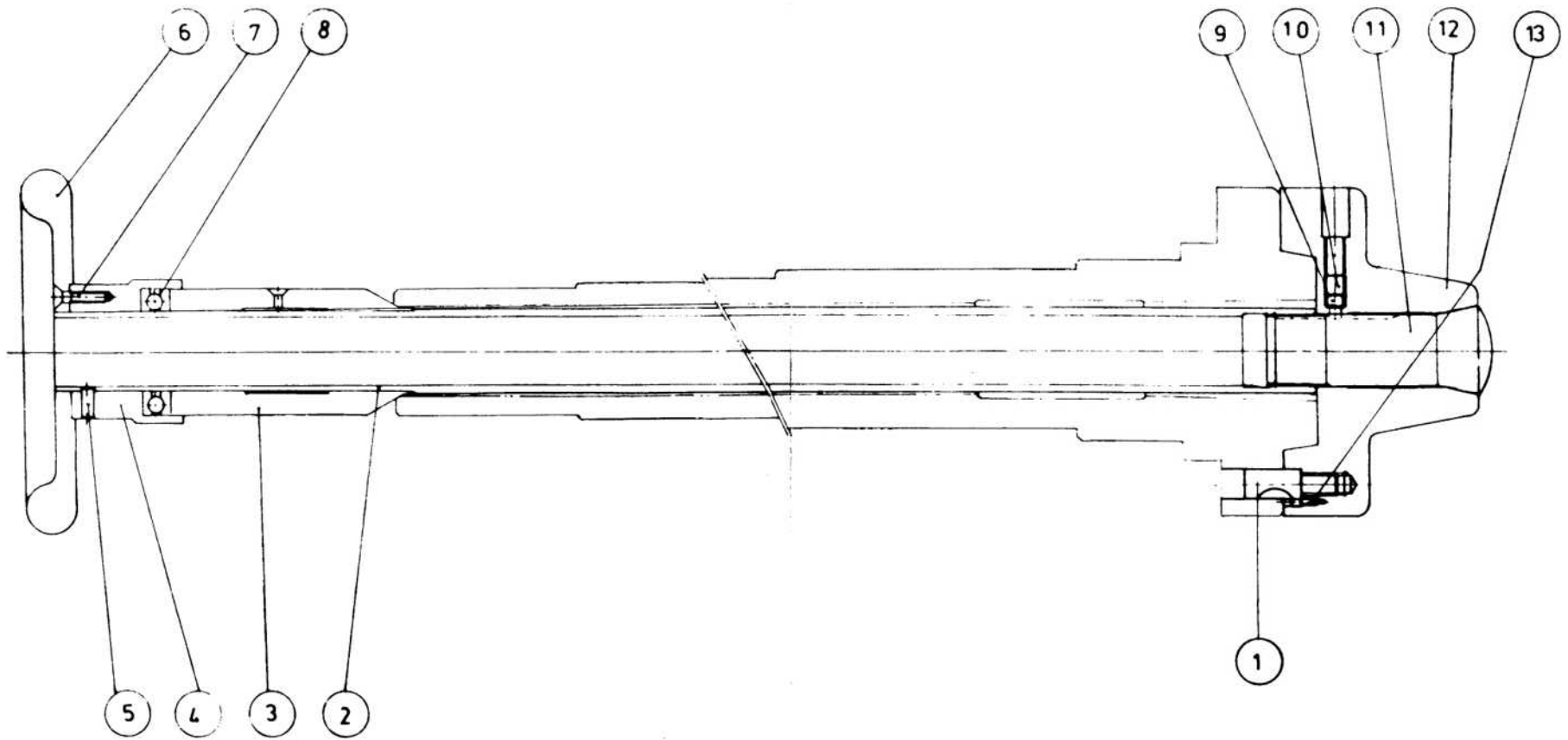
ITEM NO.	PART NO.	DESCRIPTION	QTY
1	110-8402	STUD BOLT	3
2	PT4402180E	TUBE	1
3	PT1901188E	TUBE SLEEVE	1
4	PT1501145E	BEARING CASE	1
5	549 X 525	STRAIGHT PIN (Ø5 X 25)	2
6	PT4005062E	HANDLE	1
7	121 X 1434	MACHINE SCREW (W1/4 X 3/4)	3
8	51107	BEARING (51107)	1
9	PT2901201E	GUIDE KEY	1
10	103 X 3838	SET SCREW (W3/8 X 3/8)	1
11	C5120625	COLLETS	1 SET
12	PT1901189E	SLEEVE	1
13	110-P403	SOCKET HEAD CAP SCREW	3





CL

NAME	COLLET ATT	
SOUTH BEND LATHE INC		
T Y P E	DRAWING	DATE
SBL 330	K J Y	1985.1

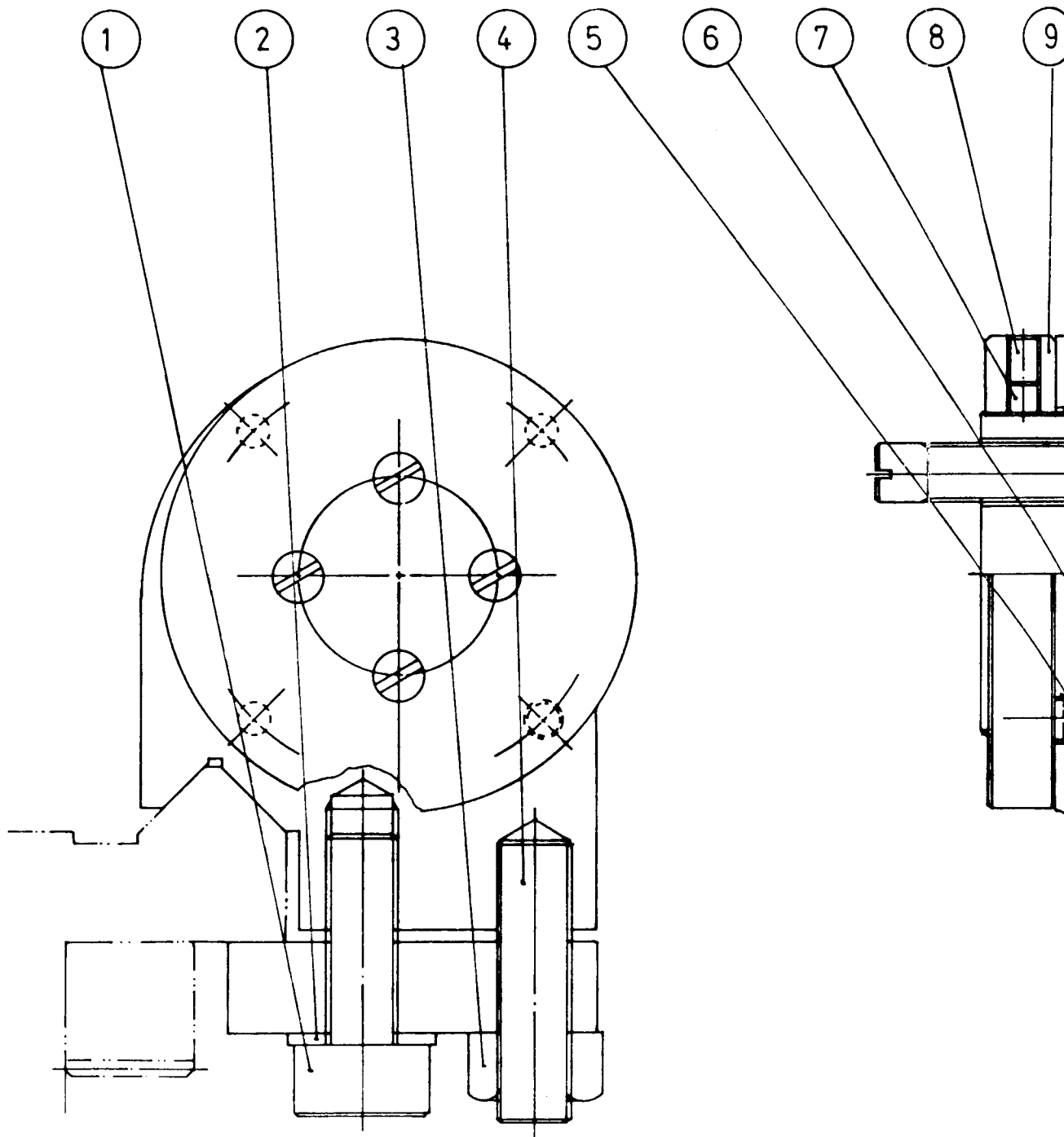


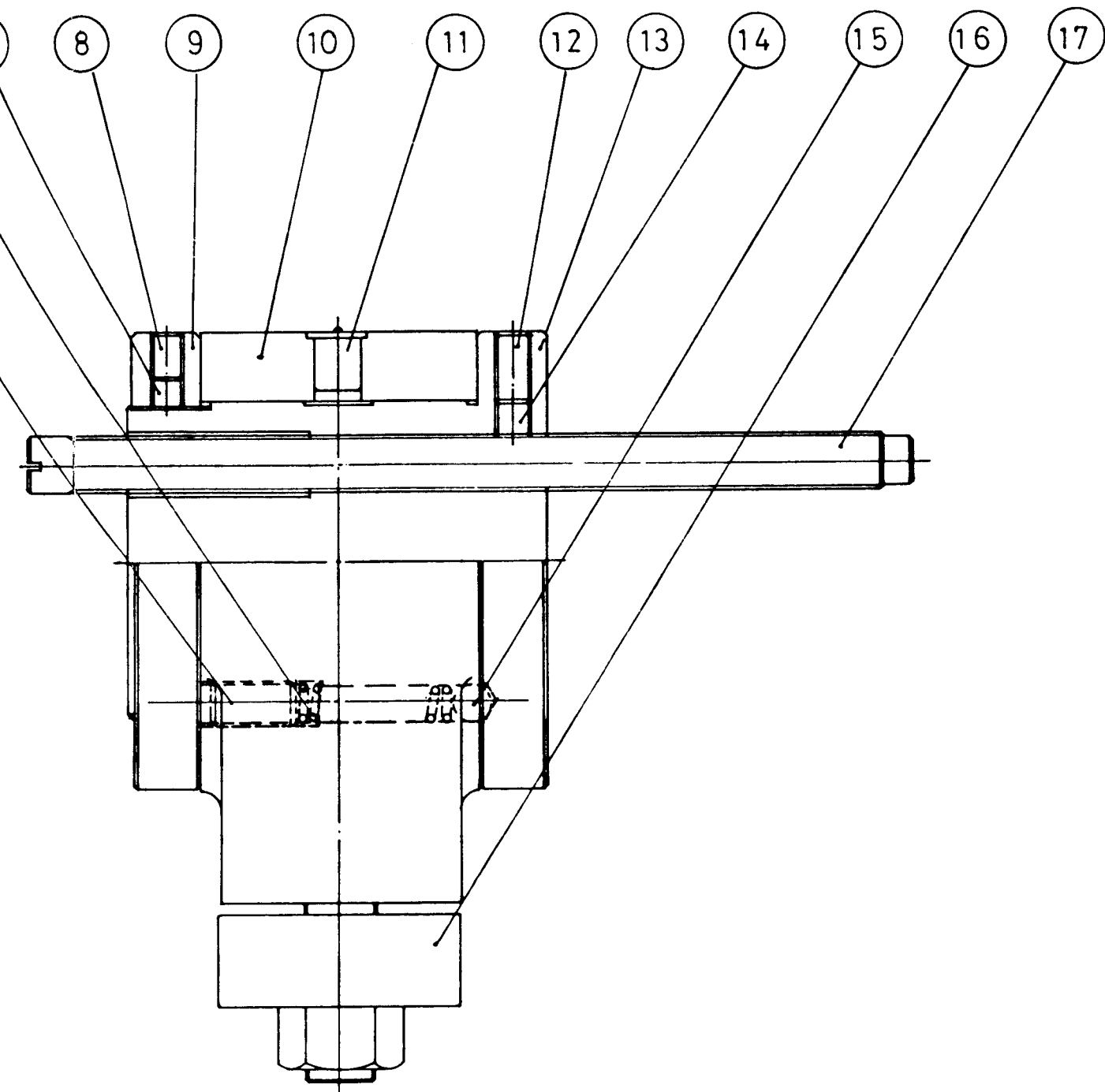
CL

NAME	COLLET ATT
SOUTH BEND LATHE 1	
T Y P E	DRAWING DAT
SBL 330	K J Y 1985

PARTS LIST

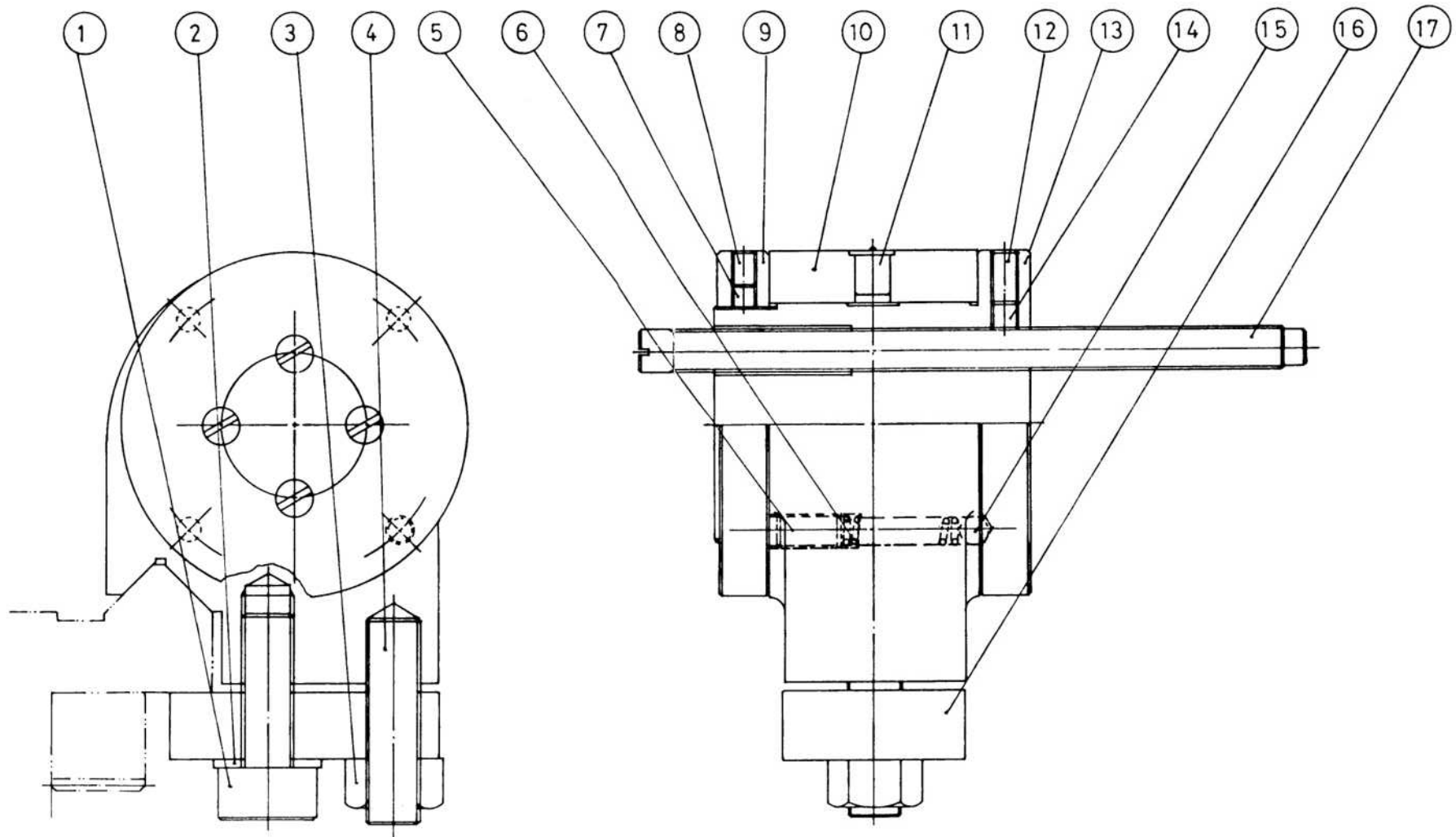
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	501 x 1235	Socket Head Cap Screw (M12 x 35)	1
2	545 x 12	Washer (M12)	1
3	525 x 8	Hex Nut (M8)	1
4	503 x 835	Set Screw (M8 x 35)	1
5	503 x 1015	Set Screw (M10 x 15)	1
6	SP181830	Spring (1/4" x 30)	1
7	PT2907206E	Pin	1
8	503 x 66	Set Screw (M6 x 6)	1
9	PT2801190E	Nut	1
10	PT1205410E	4 Position Stop Body	1
11	163 x 516	Oiler (\emptyset 5/16")	1
12	503 x 610	Set Screw (M6 x 10)	4
13	PT1201411E	Housing	1
14	PT2907206E	Pin	4
15	157 x 14	Ball (1/4")	1
16	PT2402167E	Plate	1
17	PT1301456E	Shaft	1





PS

NAME	4-POSITION STOP	
	SOUTH BEND LATHE INC.	
T Y P E	DRAWING	DATE
SBL330	P. J. Y	1985. 6.

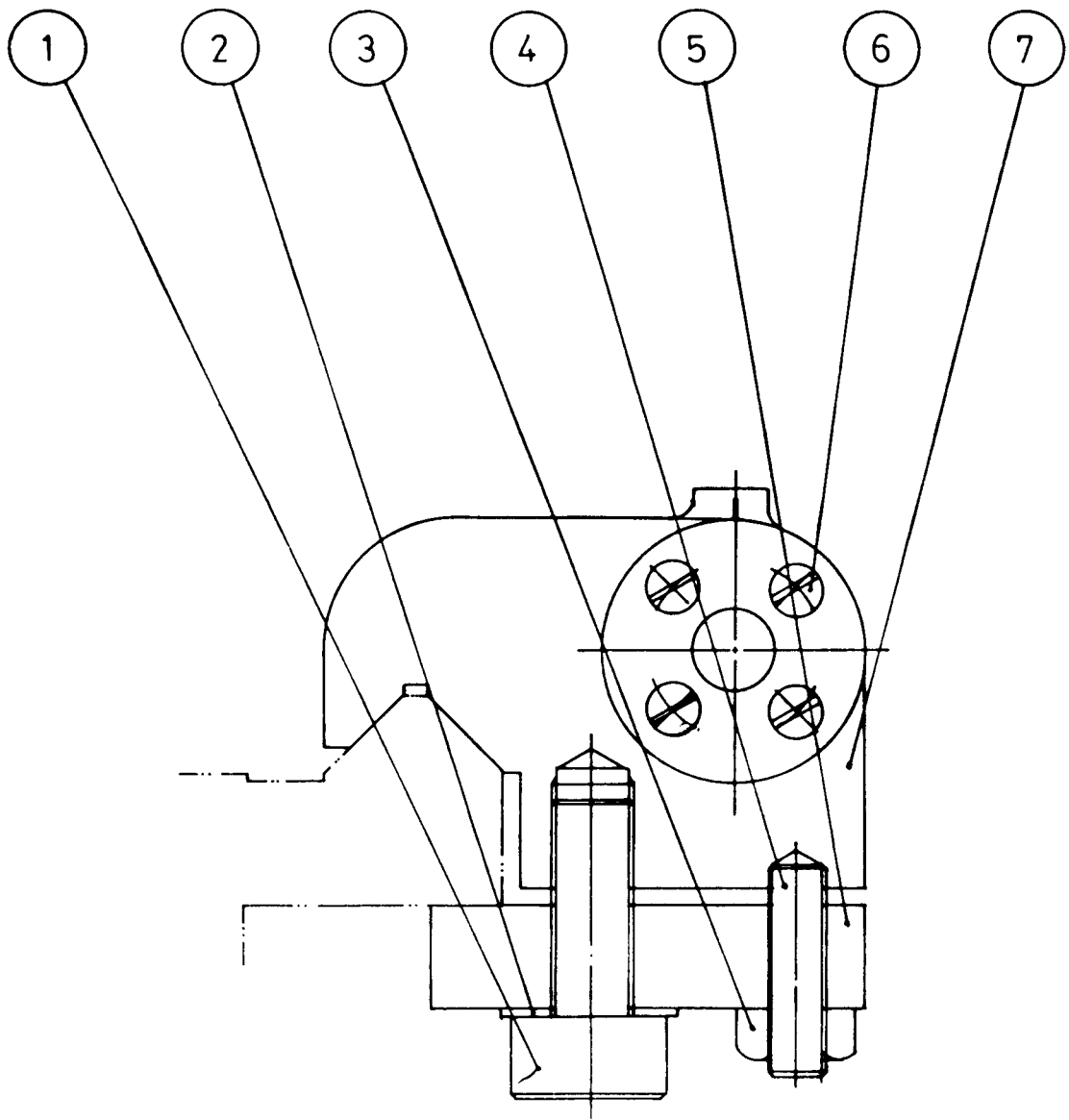


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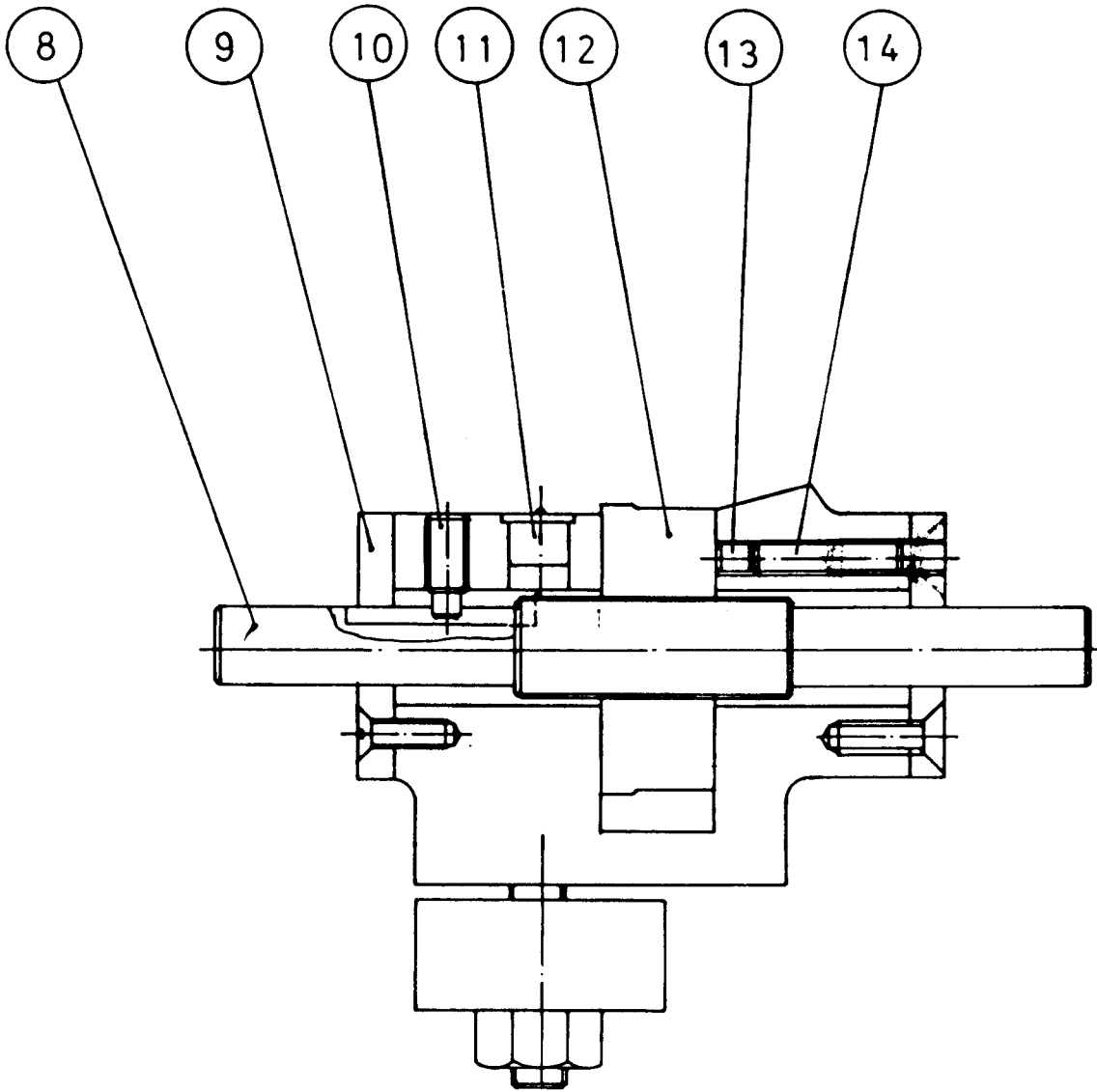
NAME	4-POSITION STOP	
	SOUTH BEND LATHE INC.	
T Y P E	DRAWING	DATE
SBL330	P. J. Y	1985. 6.

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	501 x 1230	Socket Head Cap Screw (M12 x 30)	1
2	545 x 12	Washer (M12)	1
3	525 x 8	Hex Nut (M8)	1
4	503 x 830	Set Screw (M8 x 30)	1
5	PT2402166E	Plate	1
6	521 x 415	Machine Screw (M4 x 15)	8
7	PT1205309E	Micrometer Stop Body	1
8	PT1301455E	Shaft Screw	1
9	PT1802303E	Collar	2
10	503 x 614	Set Screw (M6 x 14)	1
11	163 x 516	Oiler (\emptyset 5/16)	1
12	PT1802304E	Micro Collar (A Graduated: 0.001")	1
13	PT2907205E	Pin	1
14	503 x 620	Set Screw (M6 x 20)	1

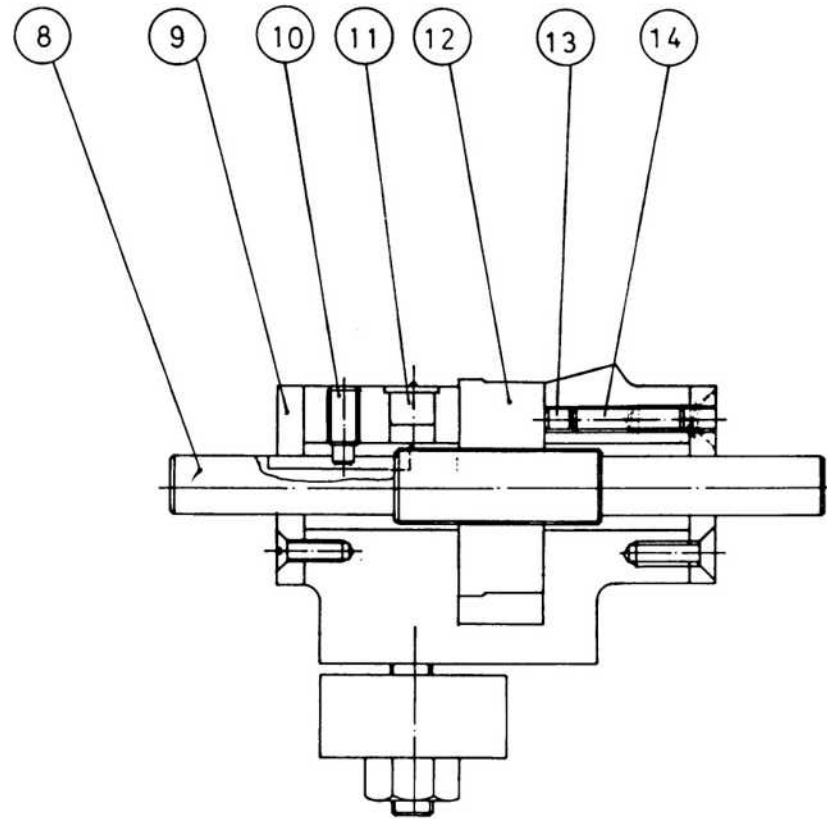
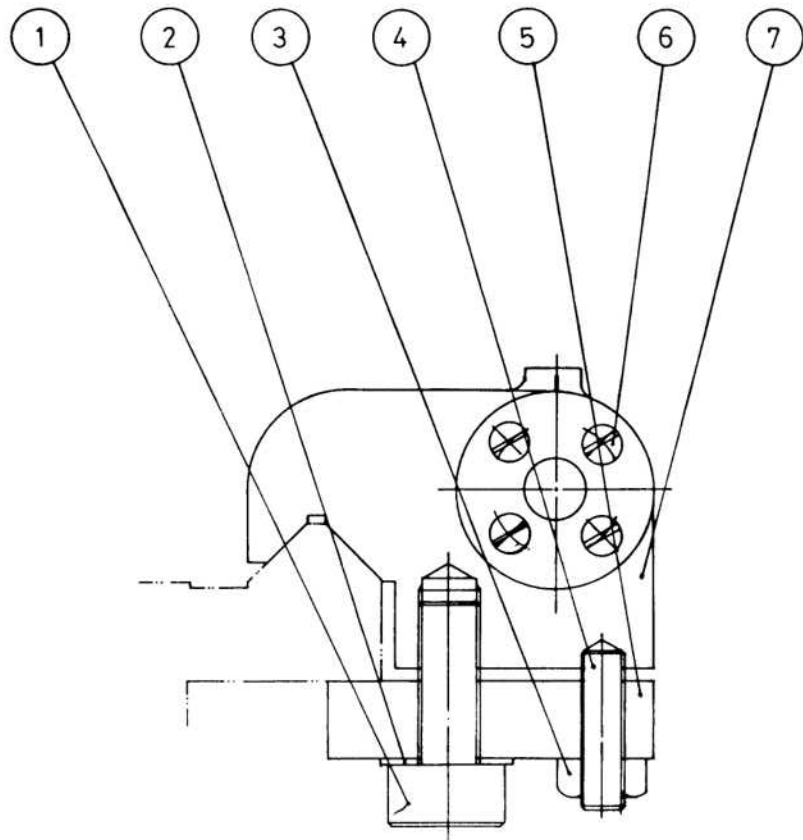


8



MS

NAME	MICROMETER STOP	
SOUTH BEND LATHE INC.		
TYPE	DRAWING	DATE
SBL 330	P. J. Y	1985. 6.



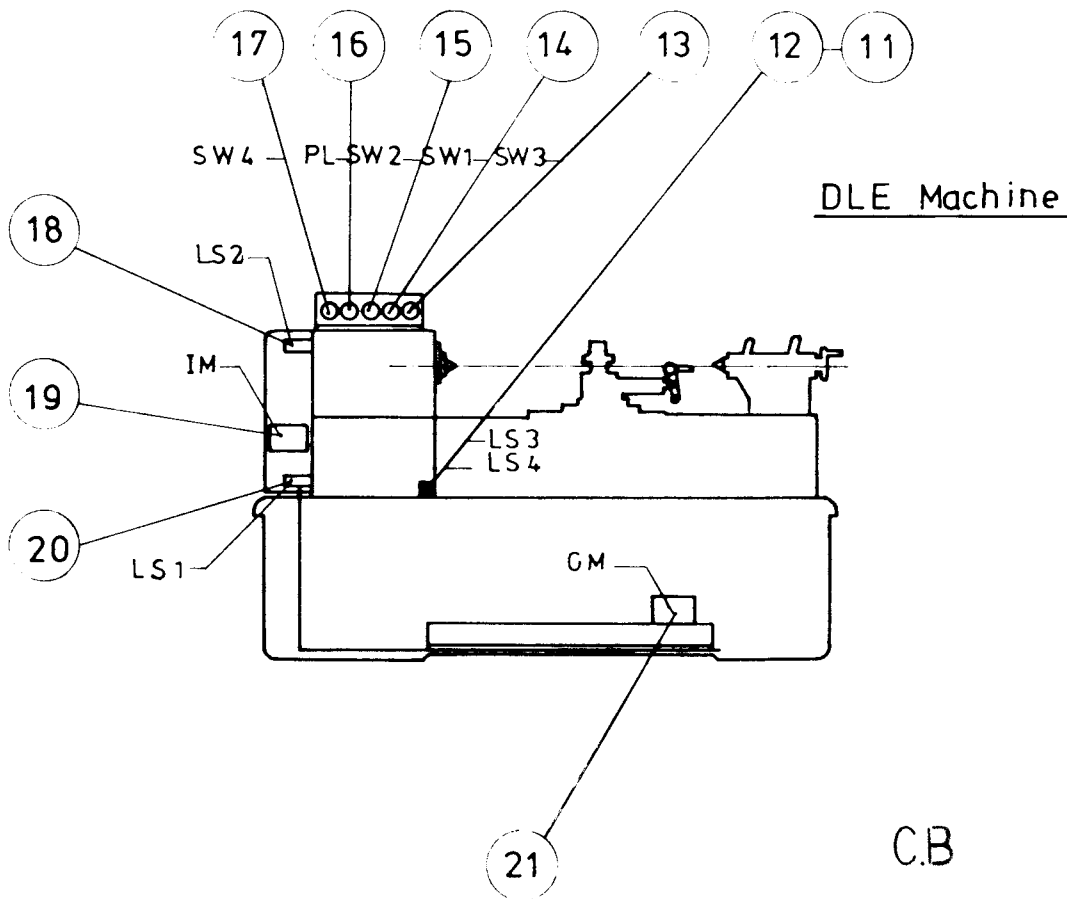
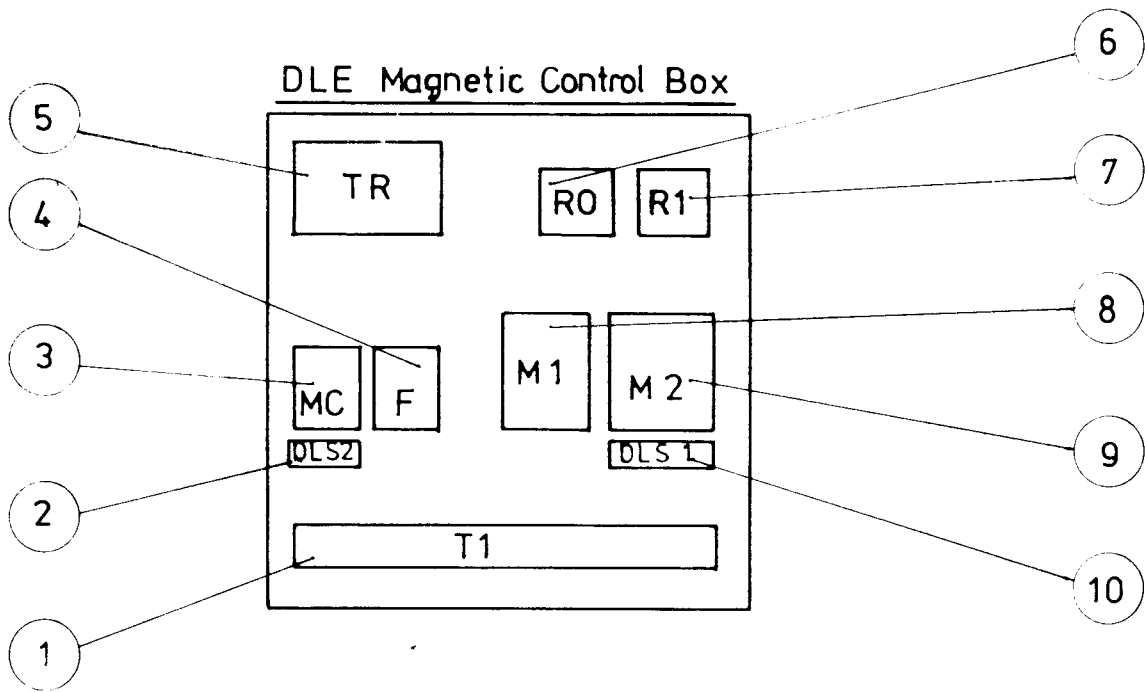
MS

NAME	MICROMETER STOP	
	SOUTH BEND LATHE INC.	
TYPE	DRAWING	DATE
SBL 330	P. J. Y	1985. 6

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	1414	TERMINAL BLOCK	1
2	1415	THERMAL RELAY	1
3	1416	MAGNETIC CONTACTOR	1
4	1417	FUSE	1
5	1418	TRANSFORMER	1
6	1419	AUX. RELAY	1
7	1420	AUX. RELAY	1
8	1421	MAGNETIC CONTACTOR	1
9	1422	MAGNETIC CONTACTOR	1
10	1423	THERMAL RELAY	1
11	476	MICRO SWITCH	1
12	476	MICRO SWITCH	1
13	1295	PUSH BUTTON SWITCH	1
14	1294	EMERGENCY SWITCH	1
15	1296	PUSH BUTTON SWITCH	1
16	1293	PILOT LAMP	1
17	1292	SELECTOR SWITCH	1
18	1315	MICRO SWITCH	1
19	1232	3 ϕ INDUCTION MOTOR	1
20	1271	MICRO SWITCH	1
21	1804	COOLANT MOTOR	1

DLE Magnetic Control Box

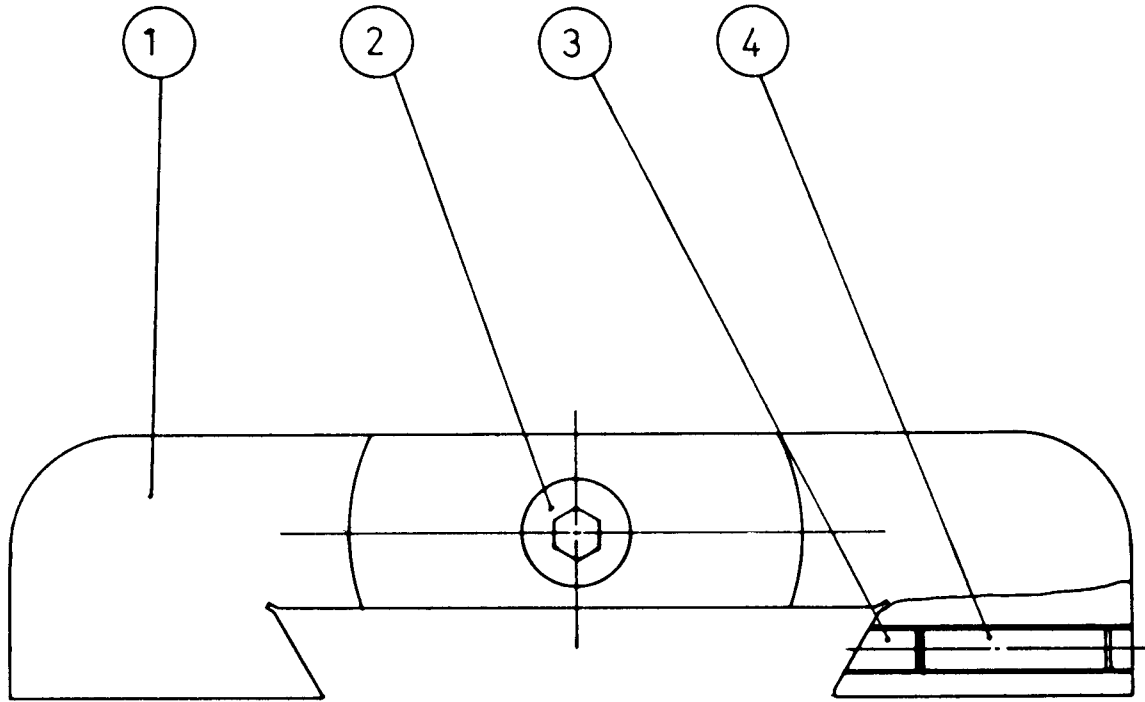


C.B

NAME	CONTROL BOX ASS'Y		
SOUTH BEND LATHE, IND.			
TYPE	DRAWING	DATE	
SBL 330	J Y J	1985 9 17	

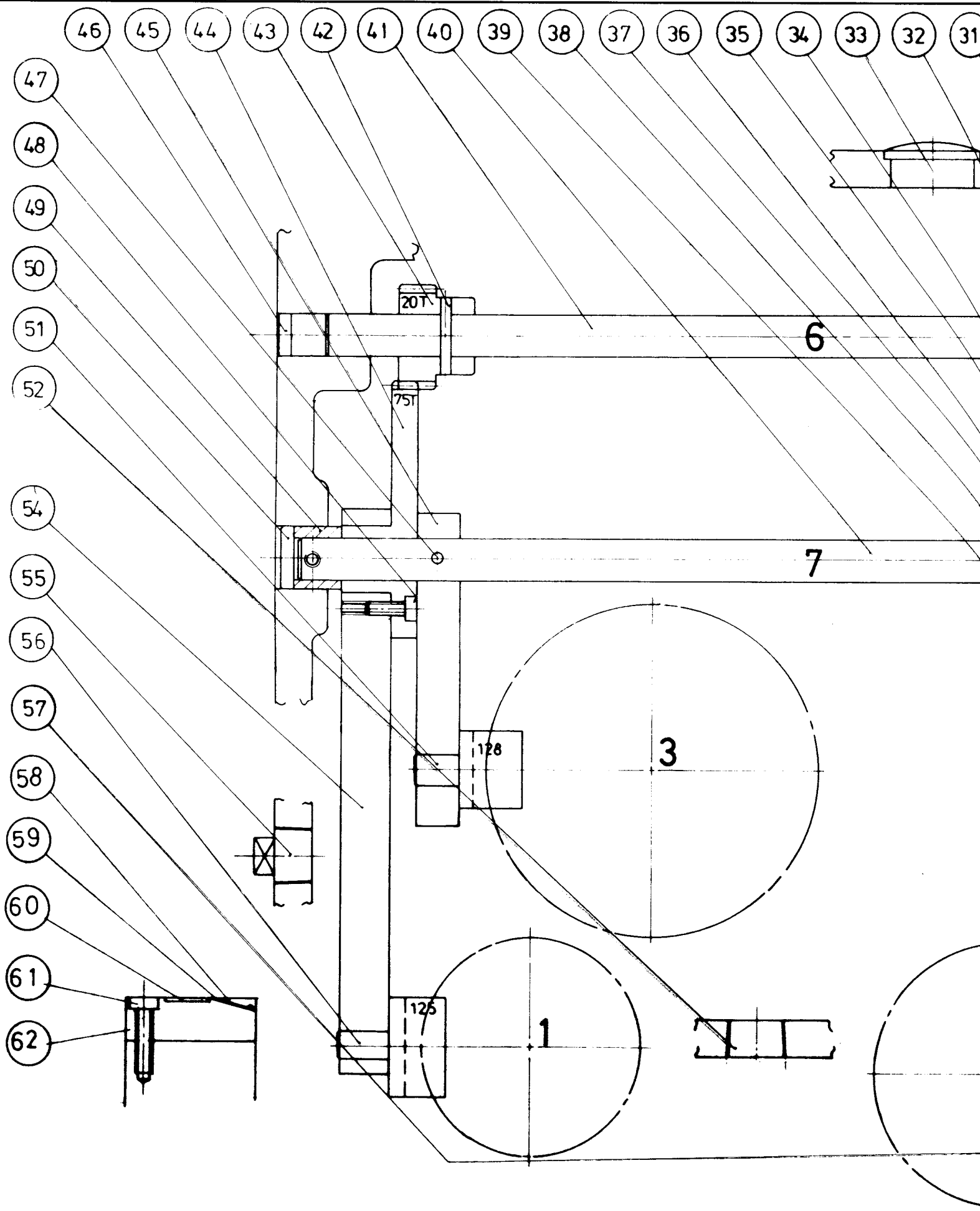
PARTS LIST

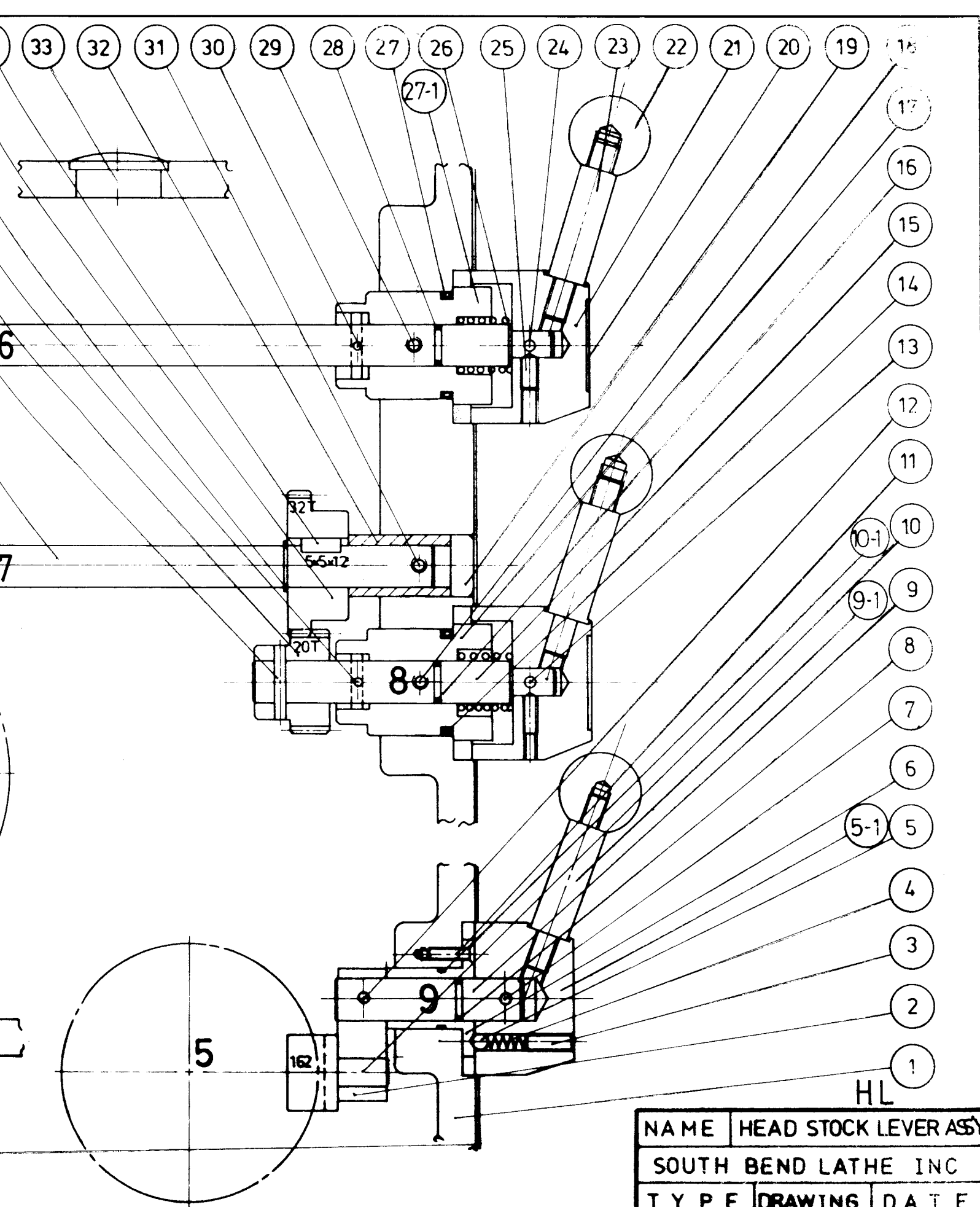
ITEM NO.	PART NO.	DESCRIPTION	Q'TY
1	PT1205308E	Cross Feed Stop Body	1
2	PT2801189E	Bolt	1
3	PT29072045E	Pin	1
4	503 x 625	Set Screw	1



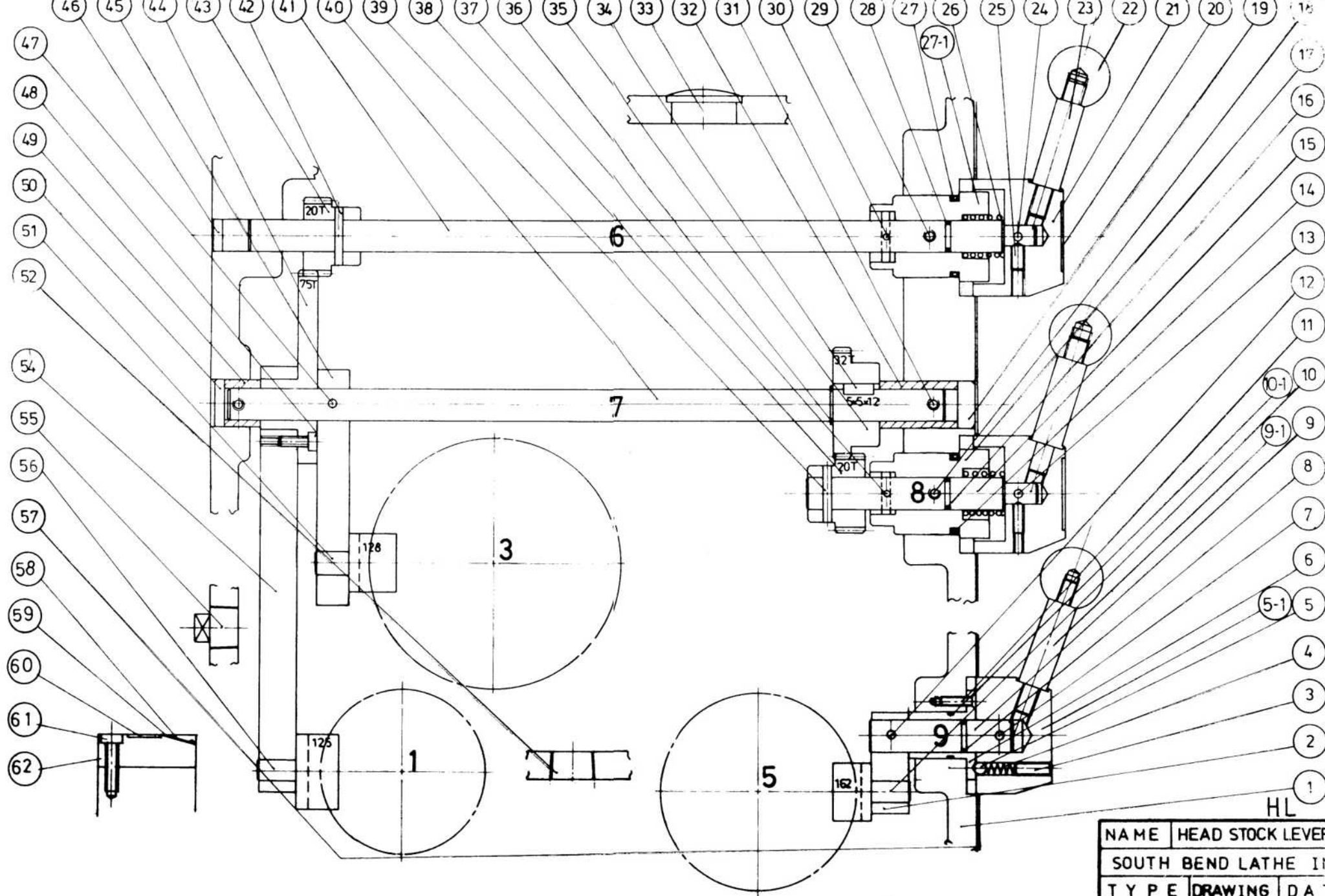
TS

NAME	CROSS FEED STOP	
SOUTH BEND LATHE INC,		
TYPE	DRAWING	DATE
SBL 330	P. J. Y	1985. 6.





NAME		HEAD STOCK LEVER ASSY	
SOUTH BEND LATHE INC			
TYPE	DRAWING	DATE	
SBL 330	K J Y	1984 12	



NAME	HEAD STOCK LEVER A	
	SOUTH BEND LATHE INC	
TYPE	DRAWING	DATE
SBL 330	K J Y	1984 12