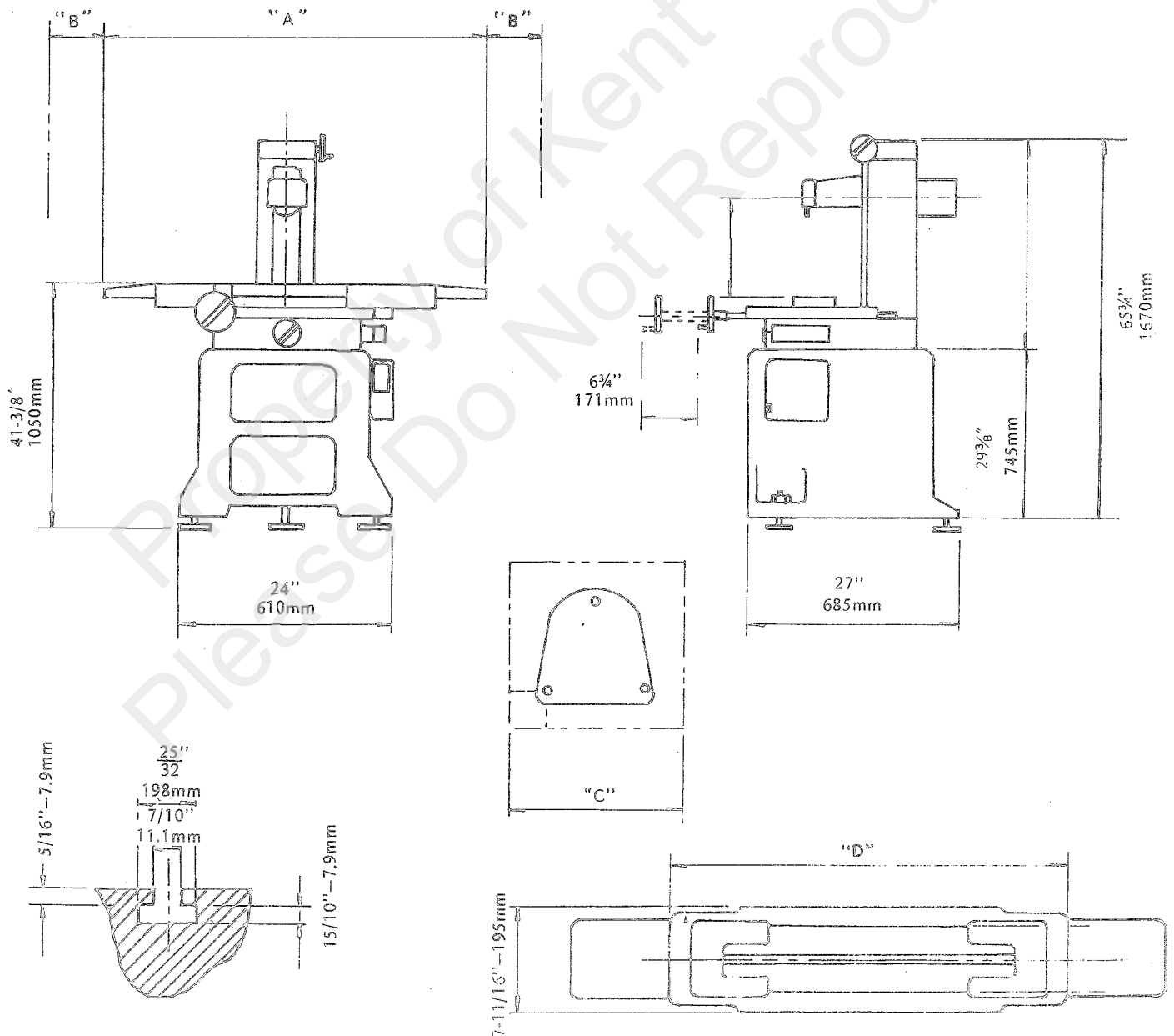


SPECIFICATION & MAIN DIMENSIONS

	SGS-612	SGS-618	SGS-618B
WORKING SURFACE	5 $\frac{3}{4}$ "x12" (146mmx305mm)	5 $\frac{3}{4}$ "x18" (146mmx460mm)	5 $\frac{3}{4}$ "x18" (146mmx460mm)
SPINDLE MOTOR	1HP/3PH/60HZ/3500RPM 1HP/3PH/50HZ/2900RPM	1HP/3PH/60HZ/3500RPM 1HP/3PH/50HZ/2900RPM	1HP/3PH/60HZ/3500RPM 1HP/3PH/50HZ/2900RPM
DISTANCE BETWEEN WORKING SURFACE AND WHEEL CENTER	14-1/8" (360mm) 18-1/8" (460mm) (NEW MODEL)	14-1/8" (360mm) 18-1/8" (400mm) (NEW MODEL)	14" (356mm) 16-3/8" (428mm) (NEW MODEL)
"A" DIMENSION	46-7/16" (1080mm)	52-3/4" (1340mm)	52-3/4" (1340mm)
"B" DIMENSION	6-1/4" (158mm)	9-1/8" (232mm)	9-1/8" (232mm)
"C" DIMENSION	51-1/2" (1308mm)	71-3/4" (1820mm)	71-3/4" (1820mm)
"D" DIMENSION	30-3/4" (780mm)	37" (940mm)	37" (940mm)



WARRANTY

FREEPORT provides a warrant, to the original owner, that all equipment and accessories manufactured by them are to be free from defects in material and workmanship for a period of one year, when properly lubricated and maintained.

our company following a policy of continuous improvement of all its products, reserves the right to change specifications or design mechanisms, etc. at any time without notice or obligation.

HANDLING

Remove the machine from its shipping crate. Lift by means of the studs located on either side of the machine bed and the crossfeed handwheel housing.

INSTALLATION

Set the machine in place and level, adjusting the base leveling screws with wrenches furnished, to obtain maximum grinding quality and to permit the lubrication system to operate efficiently.

Remove the table from its crate and clean thoroughly. Lubricate the ways and rack. Clean the table carriage ways and pinion carefully; set the table in place, sliding it back and forth until the pinion engages the rack.

*If the Model is "B" type please do as the following ways

1. Assemble the steel ball and ball retainer then place then on the slideway.
2. Lift the table carefully and aim at the guide fixed rod, put it on the slideway against the steel ball.
3. Tighten the 2 fixed screws to set the table and gear belt fastener perfect.

SAFETY

Certain federal, state and local safety regulations must be adhered to in the operation of any machine tool; the importance of operator safety must not be neglected.

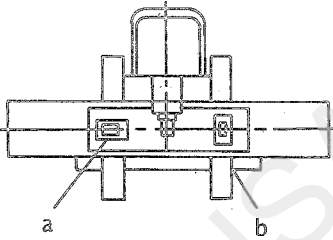
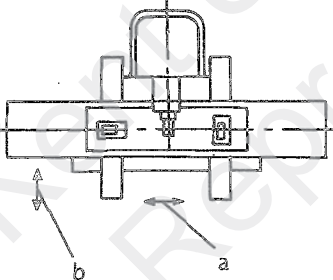
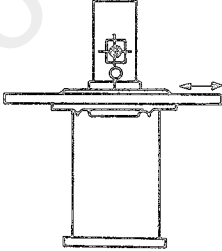
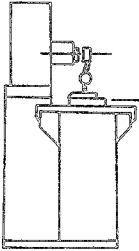
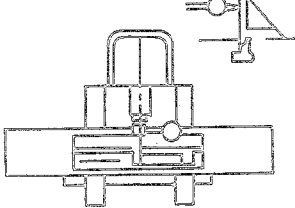
The safe operation of this machine will be maximized when these "rules" are followed:

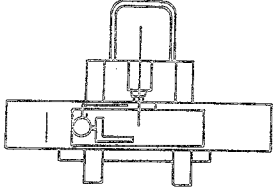
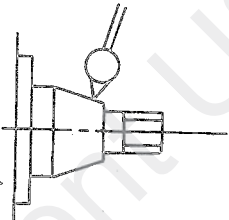
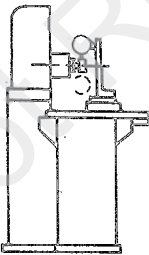
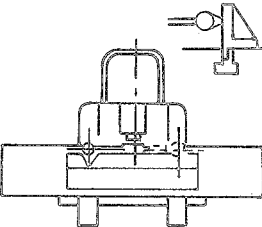
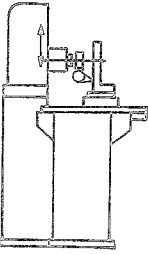
1. Wire the machine according to the local electrical code.
2. Install the machine with adequate "body" clearance beyond the maximum travels.
3. Always wear protective eyeglasses.
4. Check wheel rotation; it must be clockwise.
5. Do not operate the grinding wheel faster than the speed shown on the wheel blotter.
6. Before starting machine, verify that the wheel is secure and the mounting wrenches removed.
7. Do not operate the machine without the wheel guard or end guards.
8. Verify that the work is secure and/or the magnetic chuck energized.
9. Verify that the grinding wheel clears the work.

LUBRICATION

The way surfaces, positioning screws and other moving parts are meter lubricated through a sintered bronze filter which assures clean oil distribution. A sight gage indicates oil level and the reservoir is replenished through the conveniently located oil cup. The lubrication system is non-recirculatory, the used oil collected in a container located on the inside of the machine cabinet base.

Empty the container twice every month.

No.	Check taken	Illustration	Permissible Errors'
1	a) Level longitudinally (spirit level) b) Level across (spirit level)		a) 0.02 per 1000 mm. b) 0.02 per 1000 mm.
2	Straightness of table movement. a) Longitudinally. b) Cross traverse.		a) 0.02 per 1000 mm. b) 0.02 per 1000 mm.
3	Rise and fall of table in longitudinal traverse		0.01 per 1000 mm.
4	Table surface parallelity to its cross traverse		0.01 per table width
5	Parallelity of clamping slots to table traverse		0.015 per 1000 mm.

6	Clamping slots at right angles to table cross traverse		0.02 per 300 mm.
7	True running of taper of grinding spindle.		0.01 mm.
8	Parallelity of grinding spindle to table (transition test with 100 mm. arm)		0.02 per 300 mm.
9	Grinding spindle at right angles to clamping slots (transition test with 200 mm. arm)		0.02 per 300 mm.
10	Vertical traverse of grinding spindle carrier at right angles to table in cross plane of machine		0.01 per 100 mm.

COMMENTS FOR GRINDING

1. When mass cutting, the grinding wheel roughness is at about 30–40, high speed is required for wheel dressing.
2. For fine finish, the grinding wheel roughness is at about 40–80, slow speed is required for wheel dressing.
3. Distortion Factors Of Workpiece:
 - a) Overload capacity.
 - b) The crossfeed and longitudinal movement of the table is too slow.
 - c) Grinding wheel becomes blunt or clog with chips.
4. If the workpiece appears to burn, may be the grinding wheel is hard, or the wheel is blunt or clogged by chips.

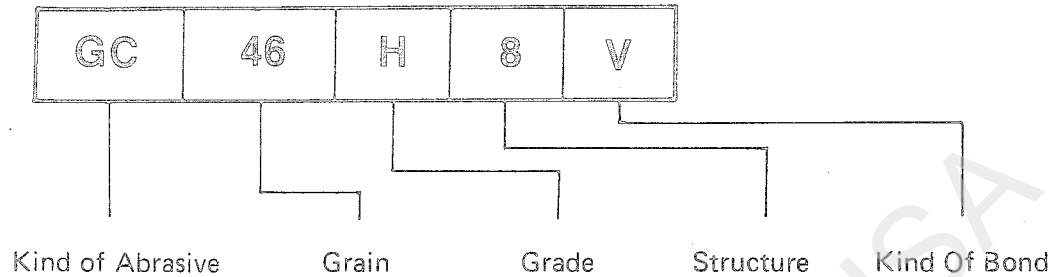
GRINDING WHEEL RECOMMENDATION

1. Maintenance:
Do not bump, and keep away from wet or hot place.
2. Selection:
If it has no damage or crack, you must ensure it sounds clearly.
3. Speed:
It must not faster than the speed shown on the wheel blotter.

WHEEL SELECTION TABLE

Wheel Specification / Wheel Diameter		150mm–205mm	205mm–355mm	355–510mm
Material				
STEEL	< HRC 25	WA 46K A	WA 46J A	WA 36J A
	< HRC 25	WA 46J	WA 46I	WA 36I
ALLOY STEEL	< HRC 55	WA 46J	WA 46I	WA 36I
	< HRC 55	WA 46I	WA 46H	WA 36H
TOOL STEEL	< HRC 60	WA 46I	WA 46H	WA 36H
	< HRC 60	WA 46H	WA 46G	WA 36G
STAINLESS STEEL	Series 400	WA 64I	WA 46H	WA 36H
	Series 300	WA 36J	WA 30J	WA 36I
CAST IRON	Ordinary	C 46J	C 46I	C 36I
	Special	GC 46I	GC 46H	GC 36H

GRINDING WHEEL MARKINGS



COMPONENT OF ABRASIVE AND MATERIAL

Abrasive	A	WA	H	C	GC
Material	general steel	heat-treated carbon/alloy steel	high speed steel	cast iron non ferrous	supper hard material tungsten carbide steel

SIZE OF GRAIN

Coarse	10 – 24
Medium	30 – 60
Fine	70 – 220

Grinding Condition \ Grain	Coarse	Fine
Grinding Capacity	great	small
Surface Roughness	coarse	fine
Workpiece Hardness	soft	hard
Contacted Dimension	wide	narrow
Wheel Diameter	big	small
Bond Type	stickly	brittle

GRADE

STRENGTH OF THE BOND WHICH HOLD ABRASIVE

Soft	A – H
Medium	I – P
Hard	Q – Z

Grinding Condition \ Grade	Soft	Hard
	Soft	Hard
Workpiece Hardness	hard	soft
Contacted Dimension	wide	narrow
Wheel Speed	quick	slow
Movement Of Works	slow	quick
Precision	good	bad
Operator	skill	non-skill

STRUCTURE

THE NUMBER REFERS TO THE RELATIVE SPACING OF THE GRAINS OF ABRASIVE:

Close	0 – 5
Medium	6 – 9
Wide	10 – 12

Grinding Structure \ Structure	Wide	Close
	Wide	Close
Surface Roughness	coarse	fine
Contacted Dimension	wide	narrow
Workpiece Hardness	soft	hard

BOND

TYPE	Vitrified	Silicate	Resinoid	Rubber	Shellac
Mark	V	S	B	R	E

REFERENCE FOR GRINDING CONDITION

Material Finish	Cast Iron, Soft/harden steel	Stainless and heat resistant steel	Tool steel	Cross Feed
Rough	0.0006–0.0012" 0.0015–0.03mm	0.0008–0.0012" 0.02–0.03mm	0.0008–0.0016" 0.02–0.04mm	under 1/2 of wheel thickness
Fine	0.0002–0.0004" 0.005–0.01mm		0.0002–0.0006" 0.005–0.015mm	under 1/4 of wheel thickness

CROSS FEED AND DOWN FEED

Feed Capacity	great	small
Grinding Resistance	great	small
Heat Produced	much	less
Surface Finish	coarse	fine
Wheel Worn-out	much	little

BALANCE OF WHEEL

Accurate grinding, brightness of work-piece, spindle and bearing life are greatly concerned with the balance of wheel, and also eliminate the wheel's internal stress.

First balance of the grinding wheel: fixed grinding wheel on the spindle tightly, then dress it by diamond dresser till it is precise. But in order to obtain real precision of grinding wheel, you have to take off the grinding wheel and rebalance once more after first balance.

Because different material workpiece has to be grinded by different quality grinding wheel, we suggest you prepare a seldom used grinding wheels with their special flanges. So that you can prevent trouble from taking off and rebalancing the grinding wheel.

After assemble the wheel and wheel flange (Fig 1), put on the balance rod and place on the balancing stand (Fig 2), then follow the points below:

1. Adjust the balancing stand level (Fig 3).
2. Let the wheel swings to find out the center of gravity and then mark with a [\checkmark], (Fig 4)
3. Lock the balancing block [B] on the opposite side of center of gravity and do not move any more. (Fig 5).
4. Put two balancing blocks [P] at equal distance from [B] (Fig 6)
5. To check balance, rotate the wheel at about 90° each time. If not balance, just move the balancing blocks [P] to a well balanced place.
6. After balancing, you must let the wheel running under normal speed for at least five minutes.
7. Since long-time grinding will make the wheel loses it's balance. You must check and re-balance it occasionally.
8. If use coolant supply during grinding, do not start coolant unless the wheel is running, otherwise the wheel will be out of balance because of absorbing the water. If the wheel stand for a long time, will make the water concentrate at the lowest point. Therefore, after grinding for a period of time, idle running is necessary for eliminating un-balance.

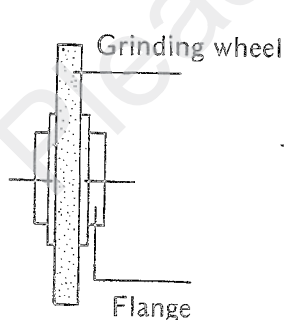


Fig 1

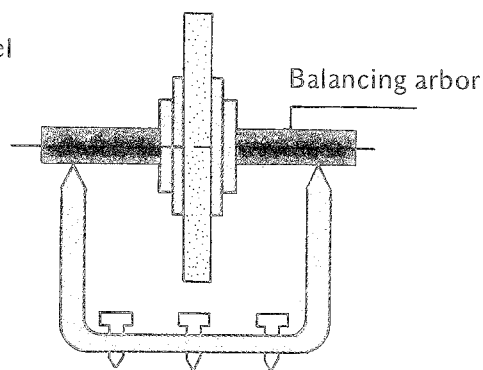


Fig 2

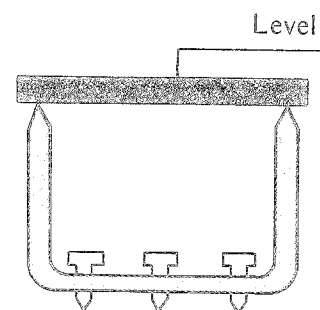


Fig 3

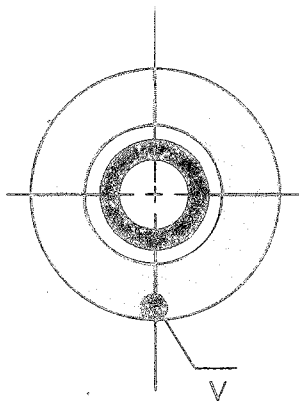


Fig 4

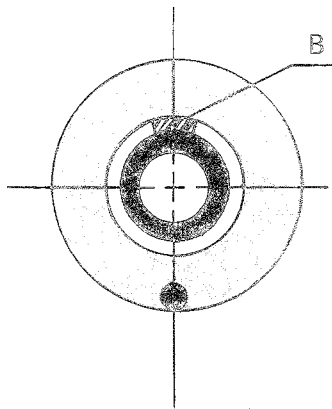


Fig 5

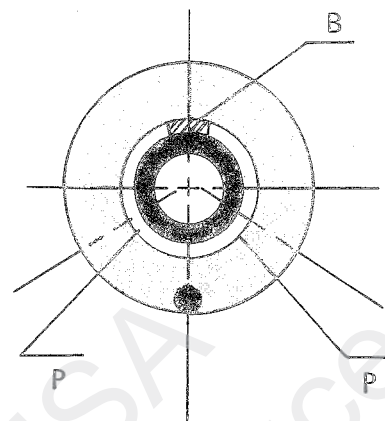
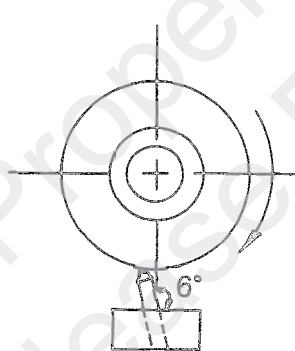


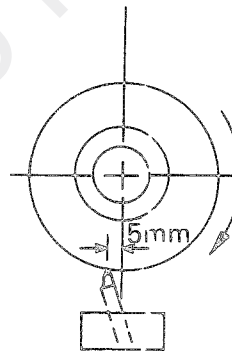
Fig 6

HOW TO DRESS GRINDING WHEEL AND USE DIAMOND DRESSER:

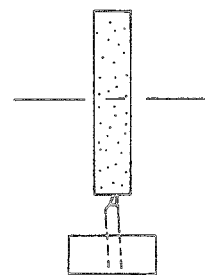
- * When you dress grinding wheel, diamond inevitably wear along the machining direction, so that the diamond dresser has to be put at the position of angle 6° slant to keep its sharp. (fig 1)
- * When you are going to dress the grinding wheel, put the sharp top of diamond dresser at approximately 5mm to the left bottom of grinding wheel, and stop longitudinal movement of working table, then, move cross feed front and rear slowly to dress. (fig 2)
- * When you dress the grinding wheel, you have to start from the middle because grinding wheel usually wear more on two sides than in the middle. If you dress from two sides to middle, then, it will produce pressure. (fig 3)



(Fig. 1)



(Fig. 2)



(Fig. 3)

Dressing speed and capacity can influence the grinding surface, If you don't ask for best surface or you want bigger grinding capacity, the rough dressing is enough. (dressing capacity 0.01-0.03mm each time and coordinate with fast speed across the grinding wheel three or four times). If you ask for best surface or last finished grinding, then the grinding wheel has to be treated with precision dressing. (dressing capacity from 0.02mm, 0.01mm, 0.005mm reduced gradually and coordinate with slow and steady speed across grinding wheel).

Generally speaking, the usage life of grinding wheel and diamond dresser, precise dressing is longer than rough dressing.

SPINDLE

The spindle, supported by super-precision ball bearings permanently lubricated and pre-loaded to take up end thrust, is directly coupled to a dynamically balanced drive motor. Incorporated into the spindle design are proper mounting, lubrication and protection methods. These factors with spindle speed and bearing load determine bearing life.

SPINDLE OPTIONS

DUPLEX BEARING MOUNT: The spindle nose is supported by two matched, pre-loaded pair of super precision ball bearings to provide exact radial and axial positioning as well as increased rigidity and radial load capacity. This design should be specified when the primary machine function is slot or face grinding, or when heavier than conventional cuts are anticipated.

TABLE

The grinder table is manufactured from a rugged casting controlled to remove all stress. Driven through a rack and pinion system, the table tracks on one flat way and one vee way; precision ground and grooved to permit proper lubricating oil distribution. The table working surface is final ground on the grinder and checked with an electronic gage to insure specified flatness and squareness tolerances. Clean and liberally lubricate the way surfaces every three months.

HAND WHEELS

CROSSFEED: The dull satin chromed crossfeed handwheel, with zero setting slip ring, is black line engraved in easy to read graduations of .001", Each revolution is equivalent to .100" of table crossfeed travel.

TABLE FEED: The table feed handwheel transmits longitudinal motion to the table through a vibration free rack and pinion assembly. Each revolution is equivalent to approximately 3½ inches of table longitudinal travel. For operator convenience, the table feed handwheel may be oriented to the required work stroke.

ELEVATING: The dull satin chromed elevating handwheel, with zero setting slip ring, is black line engraved in easy to read graduations of .0005". The pointer is graduated in a vernier scale to allow reading to .0001". Each revolution is equivalent to .050" of spindle vertical. The rotating "feel" of the elevating handwheel is factory adjusted. Follow the procedure outlined on drawing 10038 to adjust this "feel"

HAND OPERATION

1. Verify compliance with all safety rules.
2. Move table reversing dogs to outermost position.
3. Engage table feed handwheel.
4. Disengage longitudinal cylinder rod.
5. Start machine.
6. Positioning operation.
 - A. Rotate the table feed handwheel clock-wise to move the table right approximately 3½" per revolution.
 - B. Rotate the crossfeed handwheel clock-wise to move the table in .100" per revolution.
 - C. Rotate the elevating handwheel counterclockwise to move the wheelhead down .050" per revolution.

Part No.	Part Name	Q'ty	Remarks
618-0101	Spindle seat	1	
618-0102	Bolt of wheel guard	1	
618-0103	Bolt of wheel guard	1	
618-0104-1	Spring	1	
618-0104	Wheel guard	1	
618-0105	Protecting seal of wheel	1	
618-0106	Nut of wheel hub	1	Standard
			Accessories
618-0107A	Wheel flange	1	Standard
			Accessories
618-0123	Joint	1	
618-0124	Hooke's joint	1	
618-0125	Motor seat	1	
618-0126	Bolt of protecting plate	1	
618-0127	Screw of motor seat	1	
618-0129	Nut extractor	1	5/8"x1-1/4"
			Socket Head
			Screw
618-0130	Wrench	1	Standard
			Accessories
618-0131	Brace Wrench	1	Standard
			Accessories
618-0133	Wheel balancing shaft	1	Standard
			Accessories
618-0135	Balance rack	1	Standard
			Accessories
618-0201	Machine body	1	
618-0202	Cover of bevel gear	1	
618-0203	Seat of transmitting shaft	1	
618-0204	Spring	1	
618-0205	Elevating handwheel	1	
618-0206	Graduation ring	1	metric
618-0207	Graduation ring	1	inch
618-0208	Screw of graduation ring	1	
618-0209	Bolt of graduation ring	3	
618-0210-1	Handle	2	
618-0210-2	Handwheel lever	2	one set
618-0210-3	Handle cover	2	
618-0211	Shaft of bevel pinion	1	
618-0212	Washer of bevel pinion	1	
618-0213	Bevel pinion	1	
618-0214	Bevel gear	1	
618-0215	Bevel gear sleeve	1	
618-0216	Elevating screw rod	1	metric
618-0217	Elevating screw rod	1	inch
618-0218	Nut of thrust bearing	1	
618-0219	Nut of screw rod	1	metric
618-0220	Nut of screw rod	1	inch
618-0222	Rubber plug	4	
618-0223	Rubber plug	5	
618-0224	Graduation index	1	
618-0229	Hooking seat	1	
618-0230	Hooking seat	1	
618-0234	Back protecting plate	1	
618-0235	Rail of back plate	1	
618-0236	Rail of back plate	1	Standard
618-0238	Diamond dresser mounting	1	Accessories
618-0241	protecting cover	1	
618-0242	protecting plate	1	For new
618-0243	protecting plate	1	Model
618-0244	protecting plate	1	Only

Part No.	Part Name	Q'ty	Remarks
618-0245	protecting plate	1	
618-0246	protecting plate	1	
618-0247	protecting plate	1	
618-0248	protecting plate	1	
618-0249	protector guider	2	
618-0250	tensile protector	2	
618-0301	Sliding plate (work table)	1	
618-0302	Limited bolt	1	
618-0303	Rack	1	
618-0304	End cover of sliding plate	2	
618-0305	Dust plate	1	
618-0306	Setting band of magnetic chuck	2	
618-0307	Setting bolt of magnetic chuck	2	
618-0308	Setting washer of magnetic chuck	2	
618-0309	Adjusting stroke seat	1	
618-0310	Adjusting stroke seat	1	
618-0311	Setting pin for L. & R.	2	
618-0312	Filler of stroke cushion	2	
618-0313	Spring	2	
618-0314	Nut band	2	
618-0401	Cardan sliding plate	1	
618-0402	End cover	4	
618-0403	Handwheel	1	
618-0404-1	Handle	1	
618-0404-2	Handle lever	1	one set
618-0404-3	Handle cover	1	
618-0405	Bearing sleeve	1	
618-0406	Transmitting shaft	1	
618-0407	Bearing sleeve	1	
618-0408	Spring	1	
618-0409	Transmitting gear	1	
618-0410	Gear washer	1	
618-0411	Setting screw	1	
618-0412	Bearing seat of cross-feeding	1	
618-0413	Feeding screw rod	1	metric
618-0414	Feeding screw rod	1	inch
618-0415	Screw seat	1	
618-0416	Nut of screw rod	1	metric
618-0417	Nut of screw rod	1	inch
618-0418	Screw rod's cap	1	
618-0419	Feeding handwheel	1	
618-0420	Graduation ring	1	metric
618-0421	Graduation ring	1	inch
618-0422	Stroke seat for L. & R.	1	
618-0423	L. & R. stroke setting rod	1	
618-0424	Pin for stroke seat	1	
618-0425	Spring	1	
618-0426	Washer	1	
618-0427	Screw of graduation ring	1	
618-0428	Bolt of graduation ring	1	
618-0432	Setting nut for bearing	1	
618-0433	Plum washer	1	
618-0435	Feeding index	1	metric
618-0436	Feeding index	1	inch
618-0437	Dust guard	1	
618-0438	Front dust guard	1	
618-0439	Back dust guard	1	
618-0440	Front clip plate	1	
618-0441	Front rubber plate	1	
618-0444	Oil scoop	2	
618-0501	Machine body seat	1	

Part No.	Part Name	Q'ty	Remarks
618-0502	Seat key	1	Standard Accessories
618-0503	Bevel key	1	
618-0504	Bevel key	1	
618-0505	Setting pin for bevel key	1	
618-0506	Adjusting bolt	1	
618-0507	Adjusting pin for bevel key	1	
618-0508	Adjusting screw	1	
618-0509	Hanger lever	2	
618-0601	Machine base	1	
618-0602	Balancing bolt	4	
618-0603	Balancing nut	4	
618-0604	Bolt of base	3	
618-0605	Nut of base	3	
618-0606	Pad of leg	3	
618-0607	Drag plate	1	
618-0608	Acrylic plate	1	
618-0609	Gate	1	
618-0610	Steel plate	1	
618-0611	Handle bar	1	Control panel
618-0612	Switch box	1	
618-0613	Index box of switch	1	
618-0614	Oil scavenger pot	1	
618-0714	Pot rack	1	

STANDARD ACCESSORIES

Part No.	Part Name	Q'ty	Remarks
H00001	Tool box spanner	1	one set
H10008	Adjustable wrench 8"	1	
H40001	Hexagon wrench	1	
H31921	Wrench 19x21	1	
S10006	Driver 6" + Screw driver	1	
S20006	Driver 6" -	1	
D00001	Diamond dresser	1	
L10001	Machine lamp	1	
618-0107A	Wheel flange	1	
618-0106	Nut of wheel hub	1	
618-0129A	Nut extractor	1	with setting screw 1/2"x3/4" (F21612)
618-0130	Wrench	1	
618-0131	Brace wrench	1	
618-0132	Round bar	1	
618-0133	Wheel balancing arbor	1	
618-0135	Wheel balancing stand	1	
618-0238	Diamond dresser mounting	1	
618-0604	Screw of base	3	
618-0605	Nut of base screw	3	
618-0606	Pad of leg	3	

SPECIAL ACCESSORIES

Part No.	Part Name	Q'ty	Remarks
618-0305	Setting band of magnetic seat	2	618 612 618 612
	Inclinable magnetic chuck		
	Inclinable magnetic chuck		
	Permanent magnetic chuck		
	Permanent magnetic chuck		
	Demagnetizer		
	Precision balancing stand		
	Parallel dressing attachment		
	Angle forming attachment		
	Sine bar		
	Radius forming attachment		
	Precision vice		
	Coolant system		
	Dust suction coolant system		

Part No.	Part Name	Q'ty	Remarks
F10812	Limited screw for shaft base 3/8"x1-1/2" Hex, head screw	1	with nut
F11212	Motor mounting screw 3/8"x1" socket head cap screw	4	
F12020	Nut extractor screw 5/8"x1-1/4" socket head cap screw	1	
F20812	Front bearing guard screw 1/4"x3/4" socket headless screw	1	
F20806	Dust case setting screw 1/4"x1/2" socket headless screw	1	
F10612	Dust guard screw 3/16"x3/4" socket head cap screw	3	
F21004	Joint (5/16"x1/4" socket headless screw)		
F21008	Motor base seat screw 5/16"x1/2" socket headless screw	4	
F11212	Wheel guard screw 3/8"x1/4" socket head cap screw	1	
F21204	Wheel guard lock spring screw 3/8"x1/4" socket headless screw	1	
F10806	Balancing block setting screw 1/4"x3/8" socket head cap screw	3	
F11620	Machine body setting screw 1/2"x1-1/4" socket head cap screw	4	
F21208	Transmitting shaft base lock sping screw 3/8"x1/2" socket headless screw	1	
F11012	Transmitting shaft base setting screw 5/16"x3/4" socket head cap screw	2	
F21008	Elevating handwheel screw 5/16"x1/2" socket headless screw	2	
F40606	Graduated index board screw 3/16"x3/8" round head screw	2	
F11012	Bevel gear screw 5/16"x3/4" socket head cap screw	1	
F20804	Thrust bearing cap screw 1/4"x1/4" socket headless screw	1	

Part No.	Part Name	Q'ty	Remarks
F40606	Anti-clip plate hook seat screw (L) 3/16"x3/8" round head screw	2	
F40606	Anti-clip plate hook seat screw (R) 3/16"x3/8" round head screw	2	
F10608	Back plate rail setting screw (R) 3/16"x1/2" socket head cap	3	
F40604	Back plate rail setting screw (L) 3/16"x1/4" round head screw	3	
F40606	Protecting cover setting screw 3/16"x3/8" round head screw	4	
F10812	Sliding end cover screw 1/4"x3/4" socket head cap screw	4	
F11012	Dust guard screw 5/16"x3/4" socket head cap screw	2	
F00006	Magnetic base bolt nut 3/8" nut		black penetrate finish
F11016	Adjusting stroke screw 5/16"x1" socket head cap screw	2	
F90828	L & R setting pin nut 1/4"x28NF	2	black penetrate finish
F10612	Rack setting screw 3/16"x3/4" socket head cap screw	4	
F10612	Rack setting screw 3/16"x3/4" socket head cap screw	6	
F10812	Ending cover screw 1/4"x3/4" socket head cap screw	8	
F11212	L & R stroke setting base screw 3/8"x3/4" socket head cap screw	2	
F11032	Setting key screw 5/16"x2" socket head cap screw	1	
F21206	Longitudinal handwheel screw 3/8"x3/8" socket headless screw	2	
F20824	Transmitting gear screw 1/4"x1-1/2" socket headless screw	1	
F60606	Front clip screw of anti-clip plate 3/16"x3/8" flat head screw	4	
F40606	Dust guard screw 3/16"x3/8" round head screw	6	(with elec- troplating washer)
F40606	Dust guard screw 3/16"x1/4" round head screw	4	
F11016	Setting key nut 5/16"x1" socket head cap screw	2	
F11608	Machine body mounting screw 1/2"x5" socket head cap screw	4	
W20008	Machine body mounting washer 1/2" anti-loose washer	4	
F20812	Sleeve screw 1/4"x3/4" socket headless screw	1	
F11012	Feeding handwheel base screw 5/16"x3/4" socket head cap screw	3	
F20808	Feeding handwheel screw 1/4"x1/2" socket headless screw	2	
F40606	Feeding index screw 3/16"x3/8" round head screw	2	
F10812	Feeding screw rod seat screw 1/4"x3/4" socket head cap screw	4	
F30808	Magnetic switch-box screw 1/4"x1/2" Hex. head screw	4	with nut

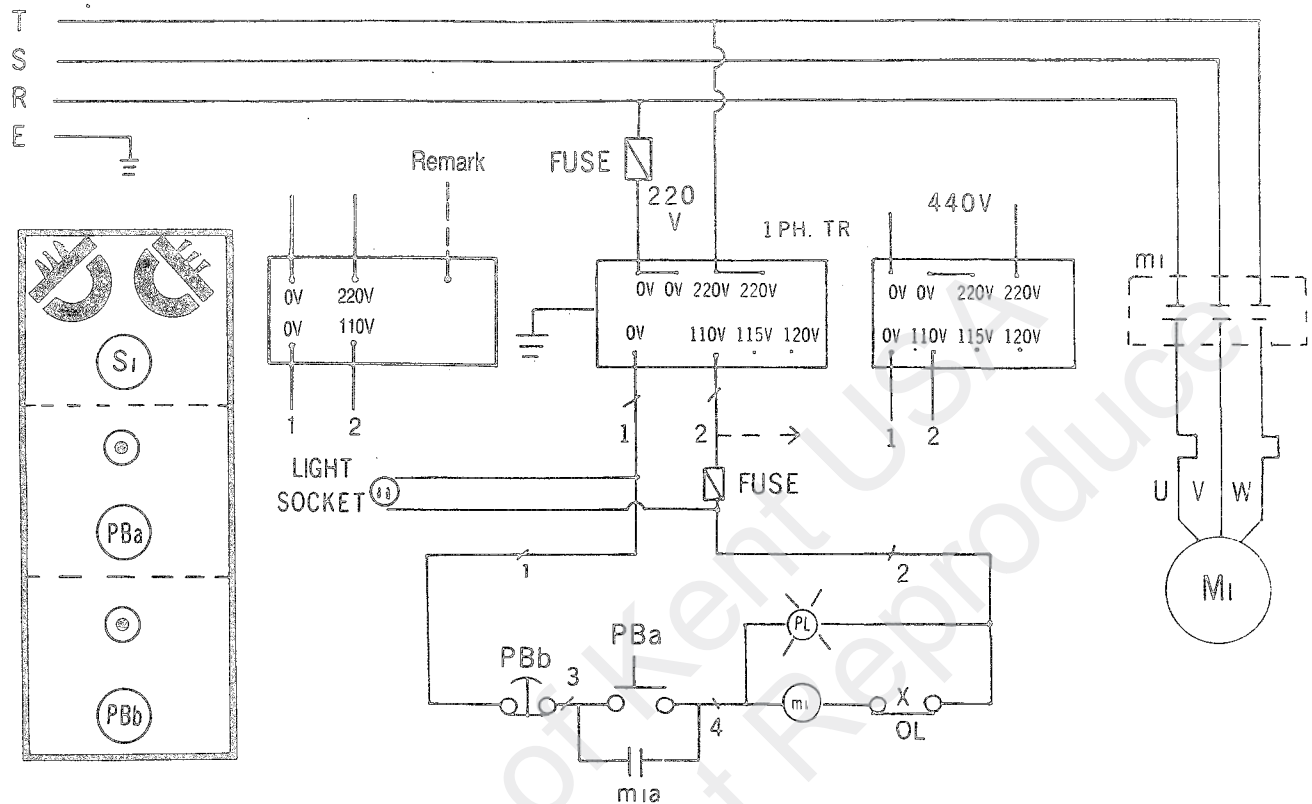
Part No.	Part Name	Q'ty	Remarks
F60504	Line setting plate screw 5/32"x1/4" flat head screw	4	
20005	Oil groove gage (29C"x9)	1	
F40604	Electric switch indexing-box screw 3/16"x1/4" round head screw	4	
J16025	Motor mounting taper pin	2	
J16540	Machine body taper pin	2	
J14025	Bevel pinion taper pin	1	
J13025	Transmitting shaft base pin	2	
J16040	Feeding handwheel seat taper pin	2	
J13025			
K14425	Bevel gear key	1	
K14415	Joint key	2	
K14420	Transmitting gear key	1	
B10095	Transmitting shaft base iron ball	1	
B10005	Wheel guard iron ball	1	
R11029	O Ring 29	1	
R20108	Internal locking ring E8	1	
R20247	Internal locking ring H47	1	
R20252	Internal locking ring H52	1	

BEARINGS

Part No.	Part Name	Q'ty	Remarks
B27205CP4	Spindle bearing (ball bearing)	1	
B27204C95	Spindle bearing (ball bearing)	1	
B26203ZZ	Motor bearing (ball bearing)	2	
B26202Z	Front & back screw rod bearing (ball bearing)	1	
B30812	-ditto- (needle bearing)	1	
B31012	L & R manual ord (needle bearing)	2	
B30098Z	Bevel gear bearing (needle bearing)	1	
B45203	ball bearing	1	
B42035AS	Thrust bearing	2	
B42901	Front & back screw rod bearing (thrust bearing)	1	
B451102	L & R transmitting rod (thrust bearing)	1	
B451103	L & R transmitting rod (thrust bearing)	1	
O20001	Manual lubrication pump	1	

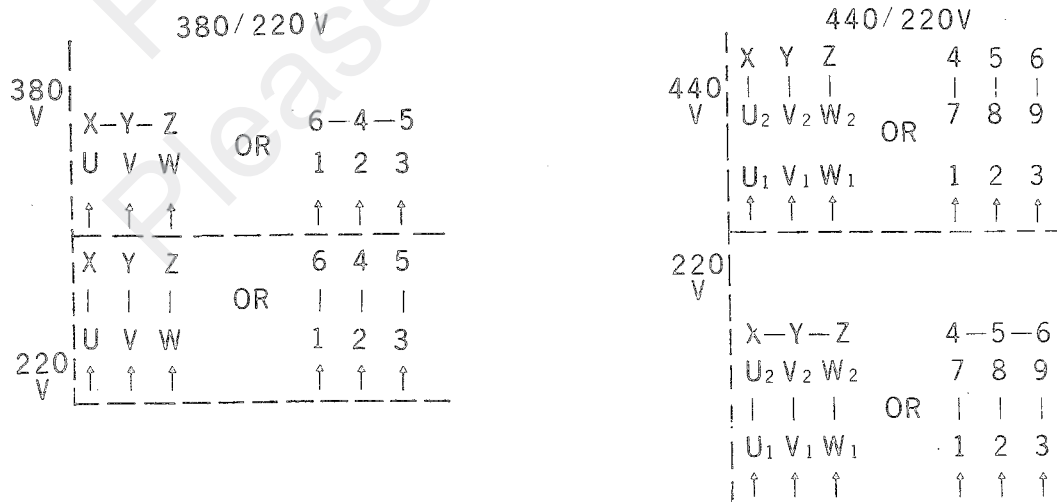
PART LIST

Part No.	Part Name	Q'ty	Remarks
E2001	Magnetic contactor	1	N ₁
E20002	Terminal 14p	1	
E20003	Push button "ON"	1	PBd
E20004	Selection switch 2a, 2b.	2	S ₁
E20005	Push button "OFF"	2	PBB
E20006	Fuse 1A	2	
E20008	Pilot lamp 30φ	1	PI
E20009	Plug seat	1	PLUG SOCKET
E30001	Transformer for control circuit	1	1PH. TR

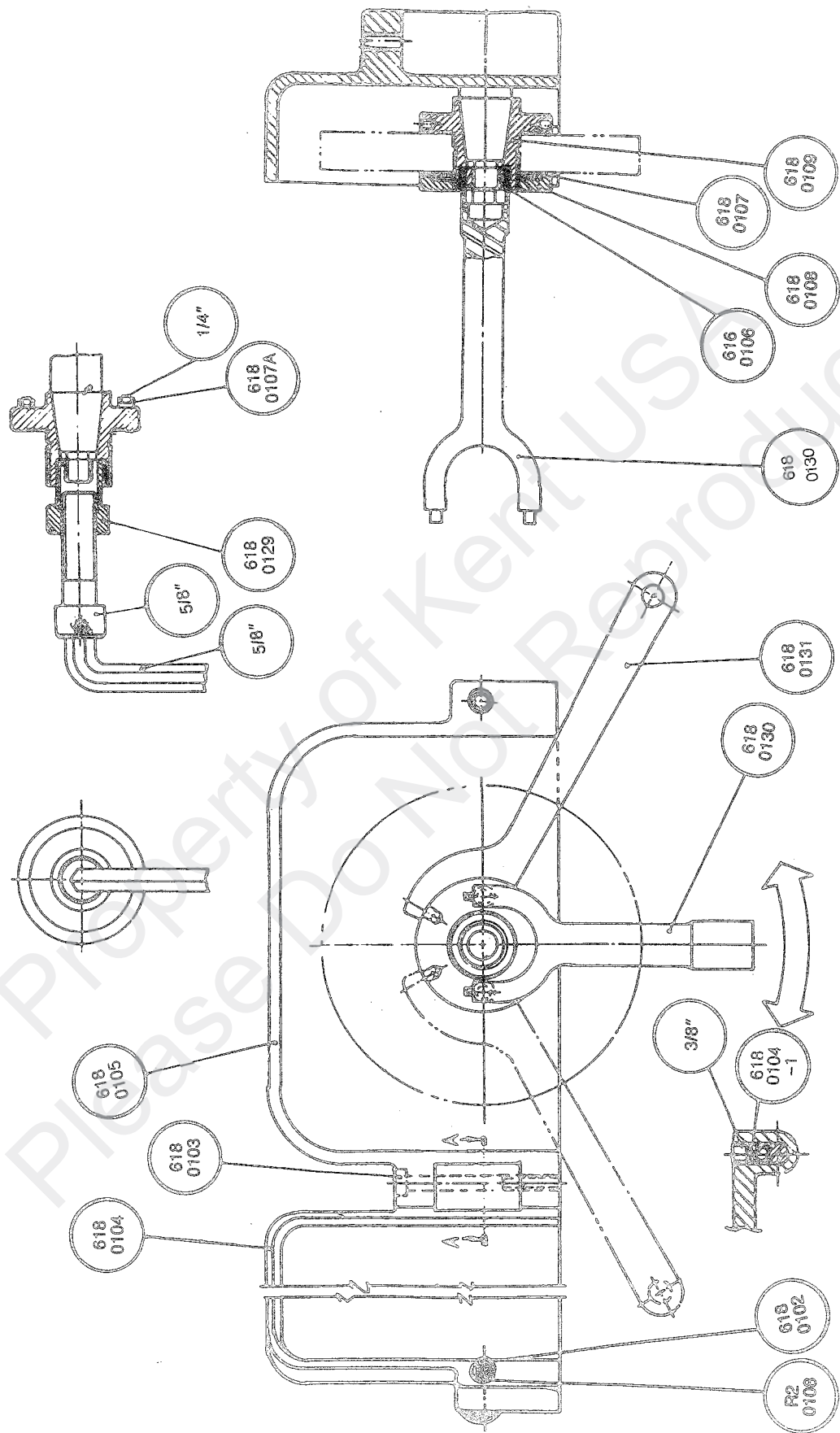


PBa	PUSH BUTTON "ON" OF SPINDLE MOTOR	m ₁	MAGNETIC CONTACTOR OF SPINDLE MOTOR
PBb	PUSH BUTTON "OFF" OF SPINDLE MOTOR	M ₁	SPINDLE MOTOR
PL	PILOT LAMP OF SPINDLE MOTOR	OL	OVERLOAD RELAY
Si	SWITCH OF ELECOTRO MAGNETIC CHUCK IF THERE IS NO ELECOTRO MAGNETIC CHUCK, THIS SWITCH WILL BE OMITTED		

MOTOR CONNECT

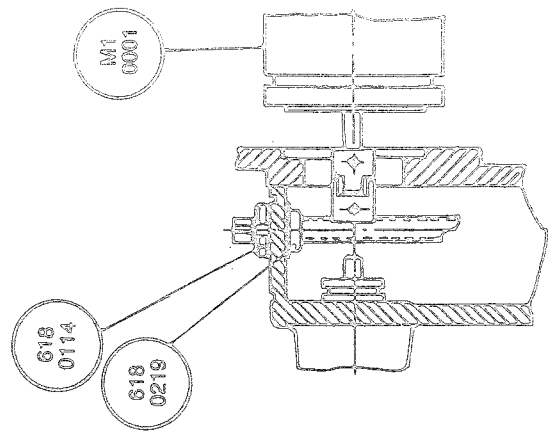
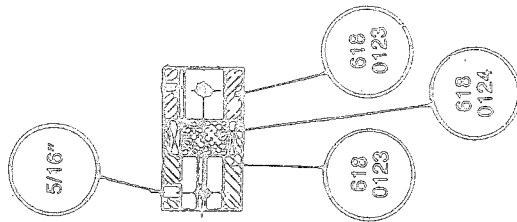
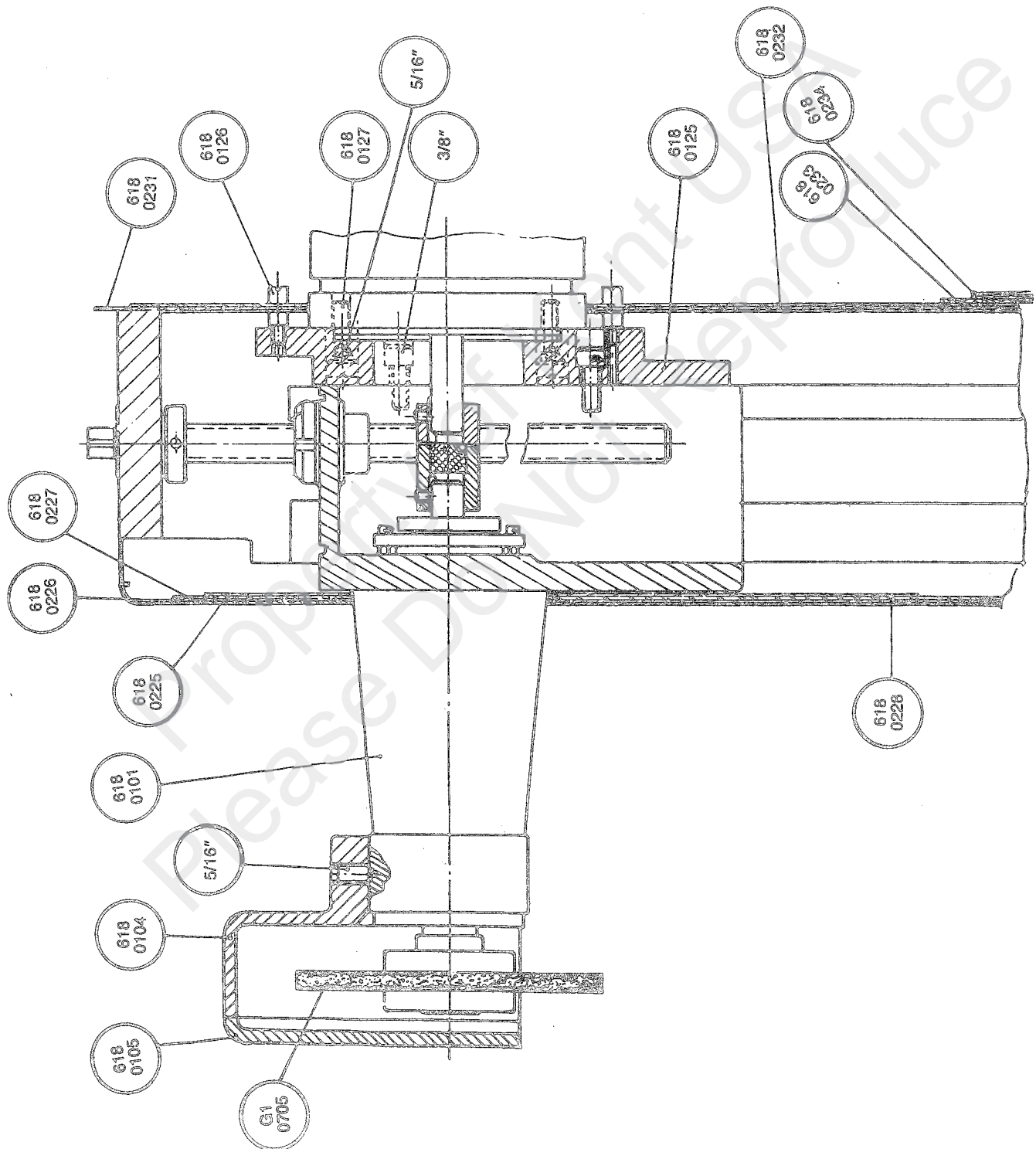


* Remark: the voltage will be according to the order of customer.

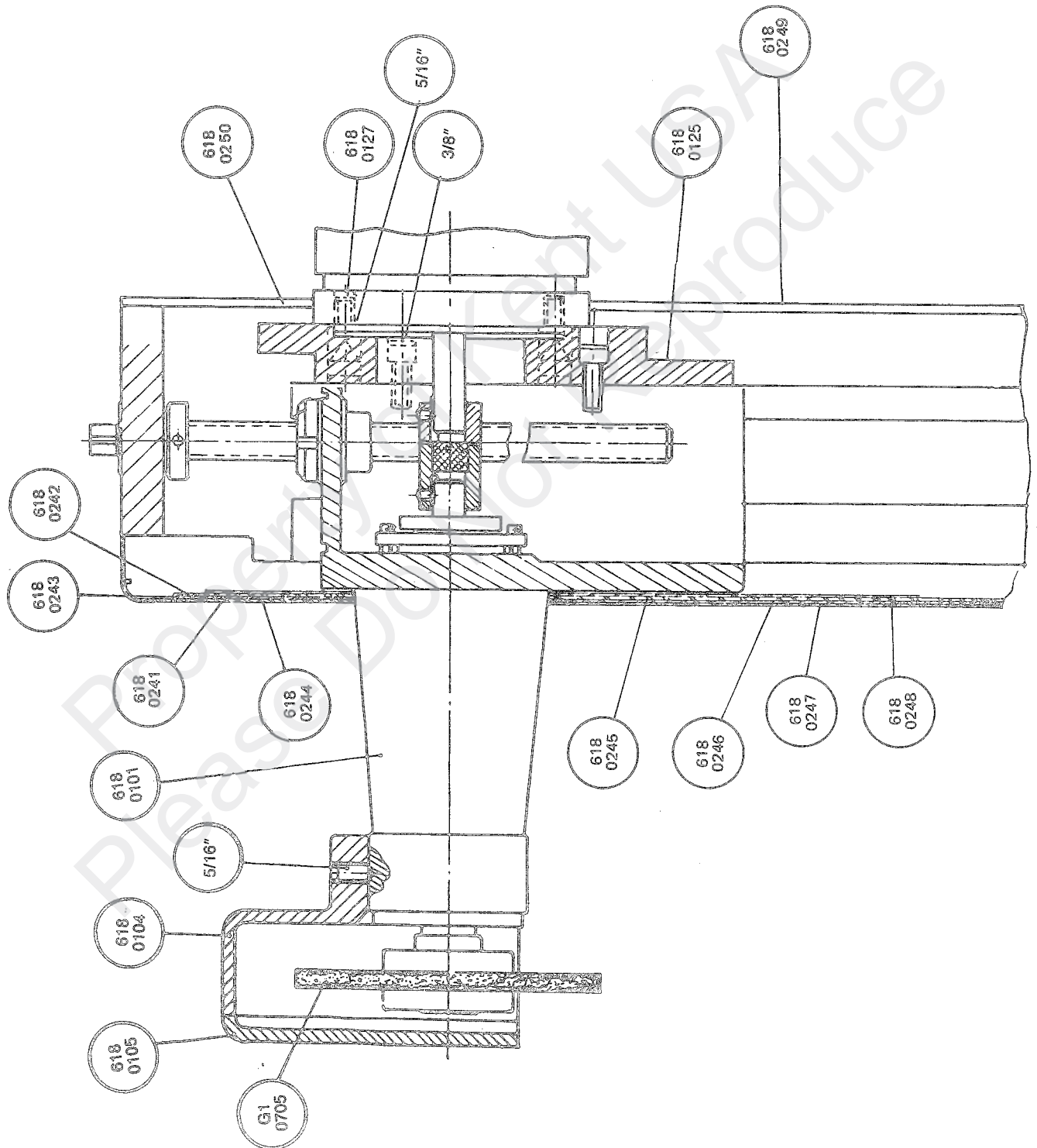


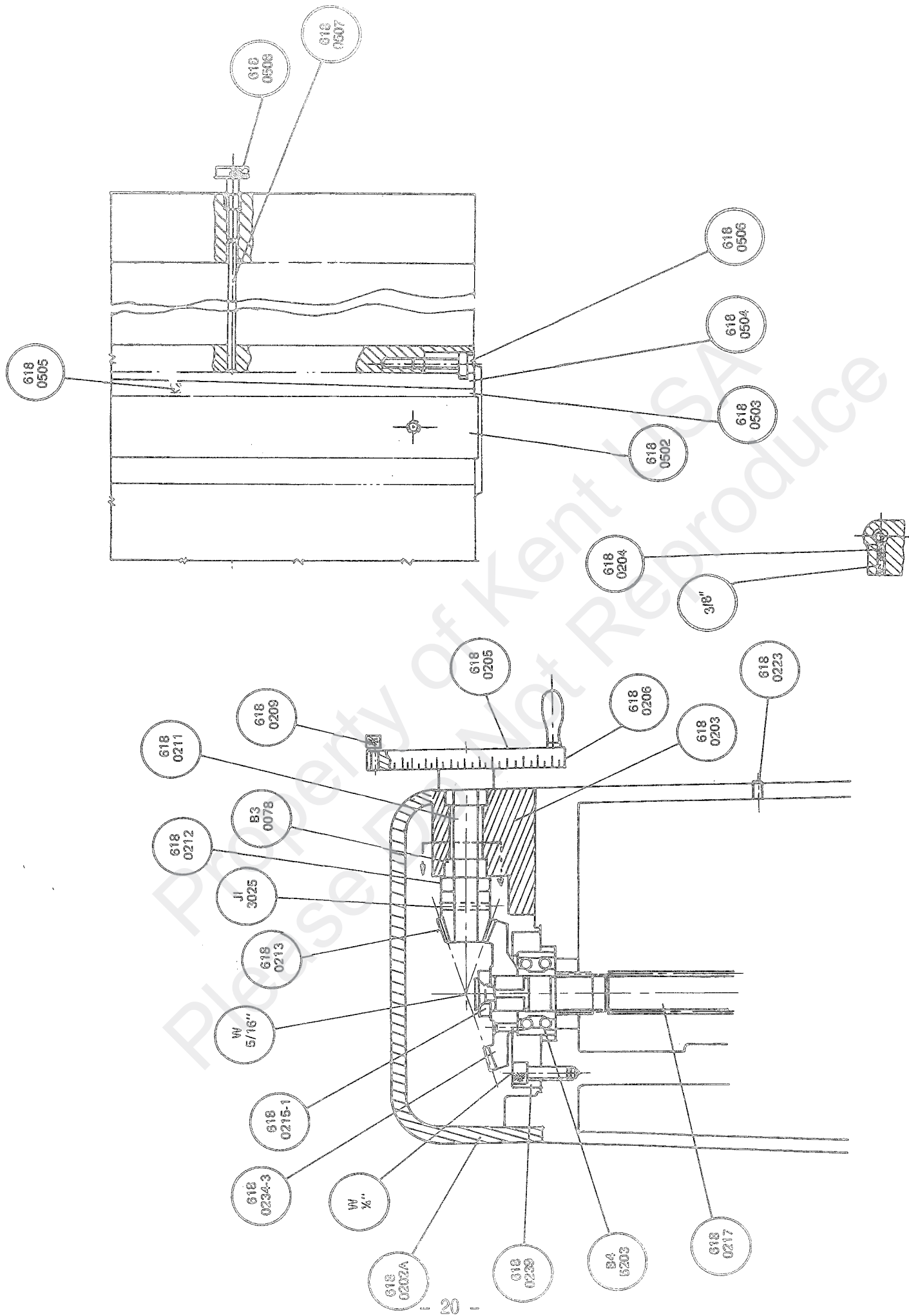
- REMARK:** Before insert the new spindle set please with cleanly lubricant around shaft sleeve

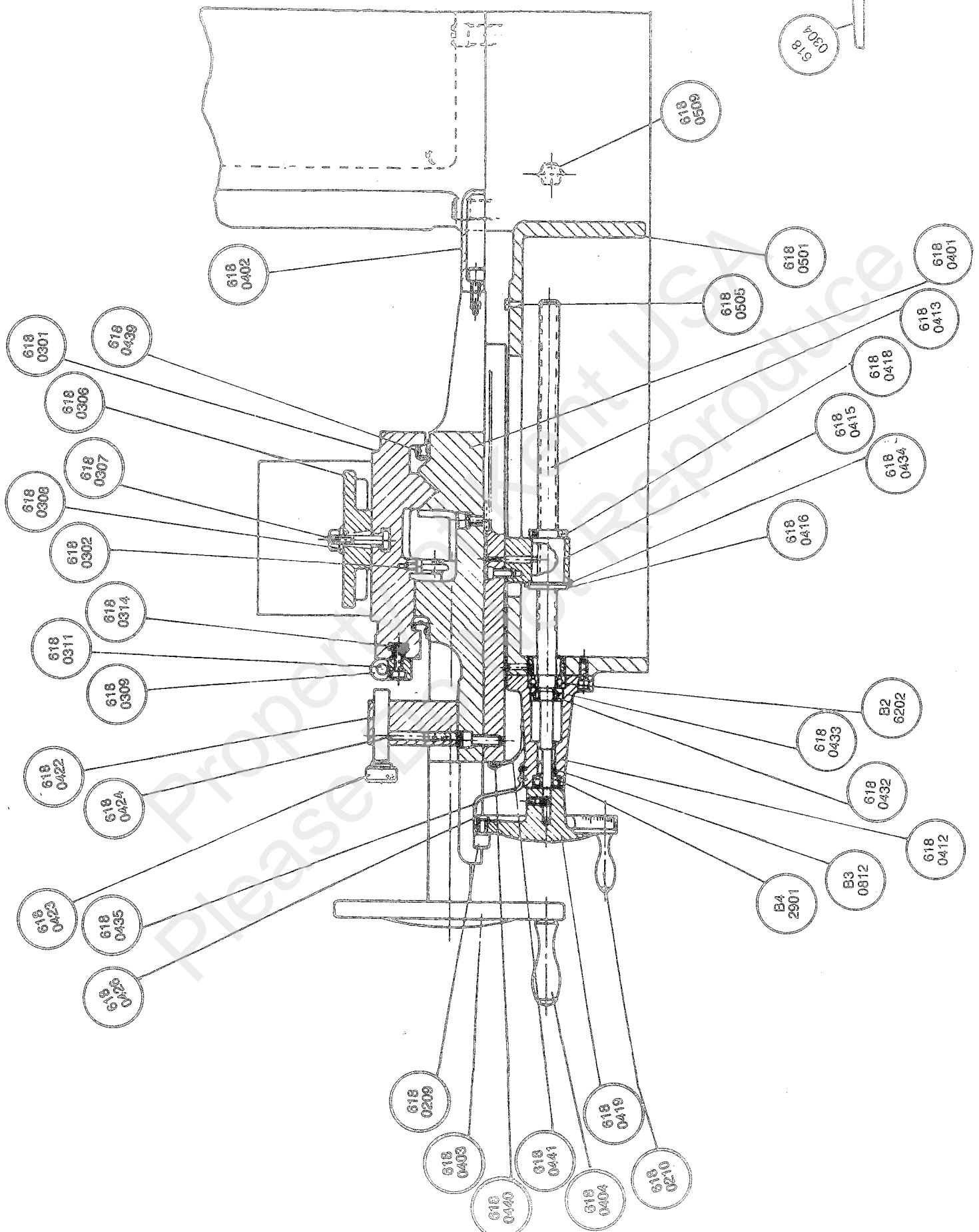
Part No.	Part Name
618-0136	Spindle housing
618-0137	Spindle shaft
618-0138	Rear dust-protect cover (I)
618-0139	Rear dust-protect cover (II)
618-0141	External spacer
618-0141-1	Internal spacer
618-0142	External spacer
618-0142-1	Internal spacer
618-0143	Front dust-protect cover
618-0144	Bedding fixed nut



NEW MODEL





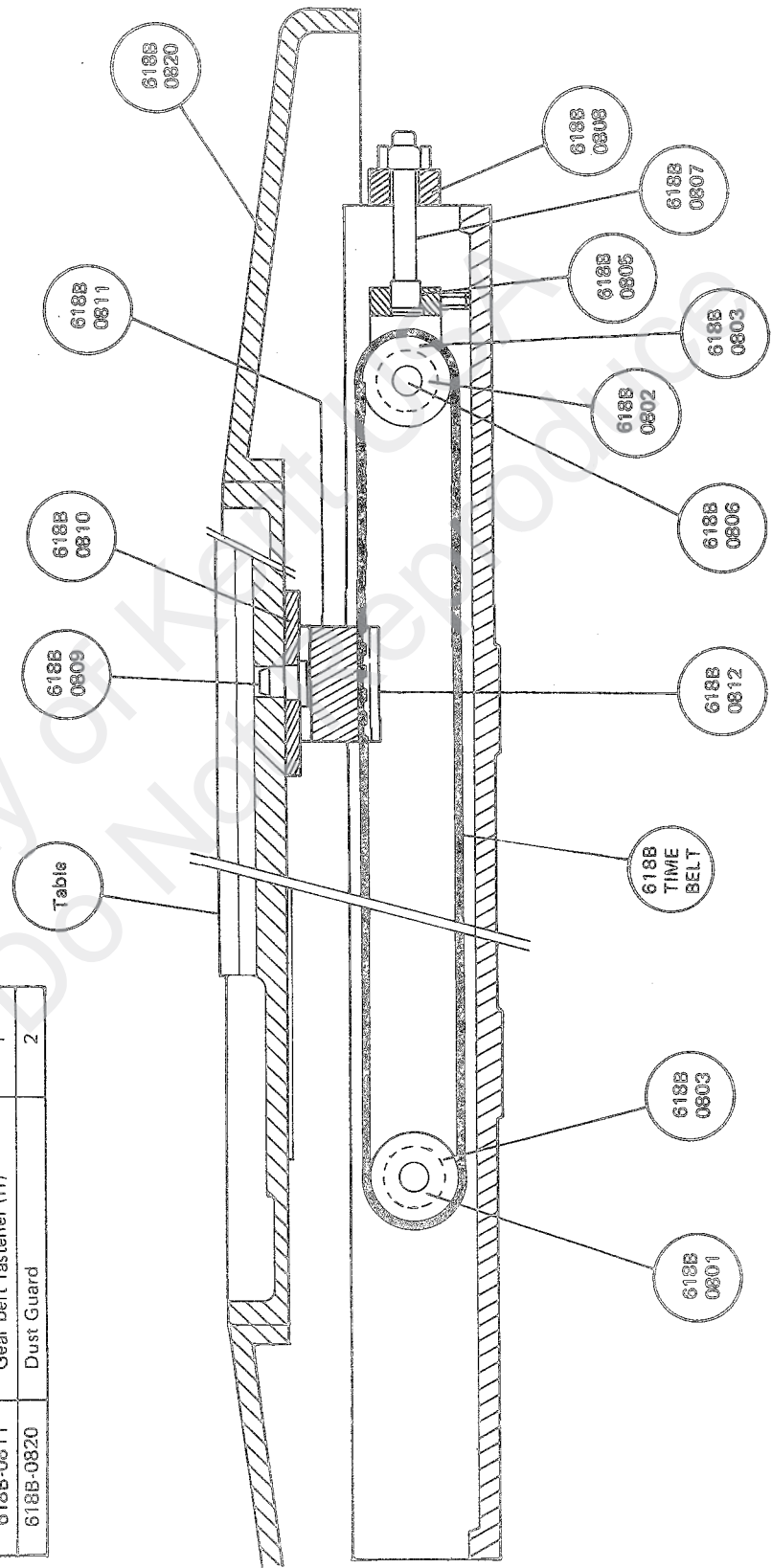
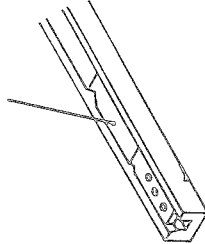


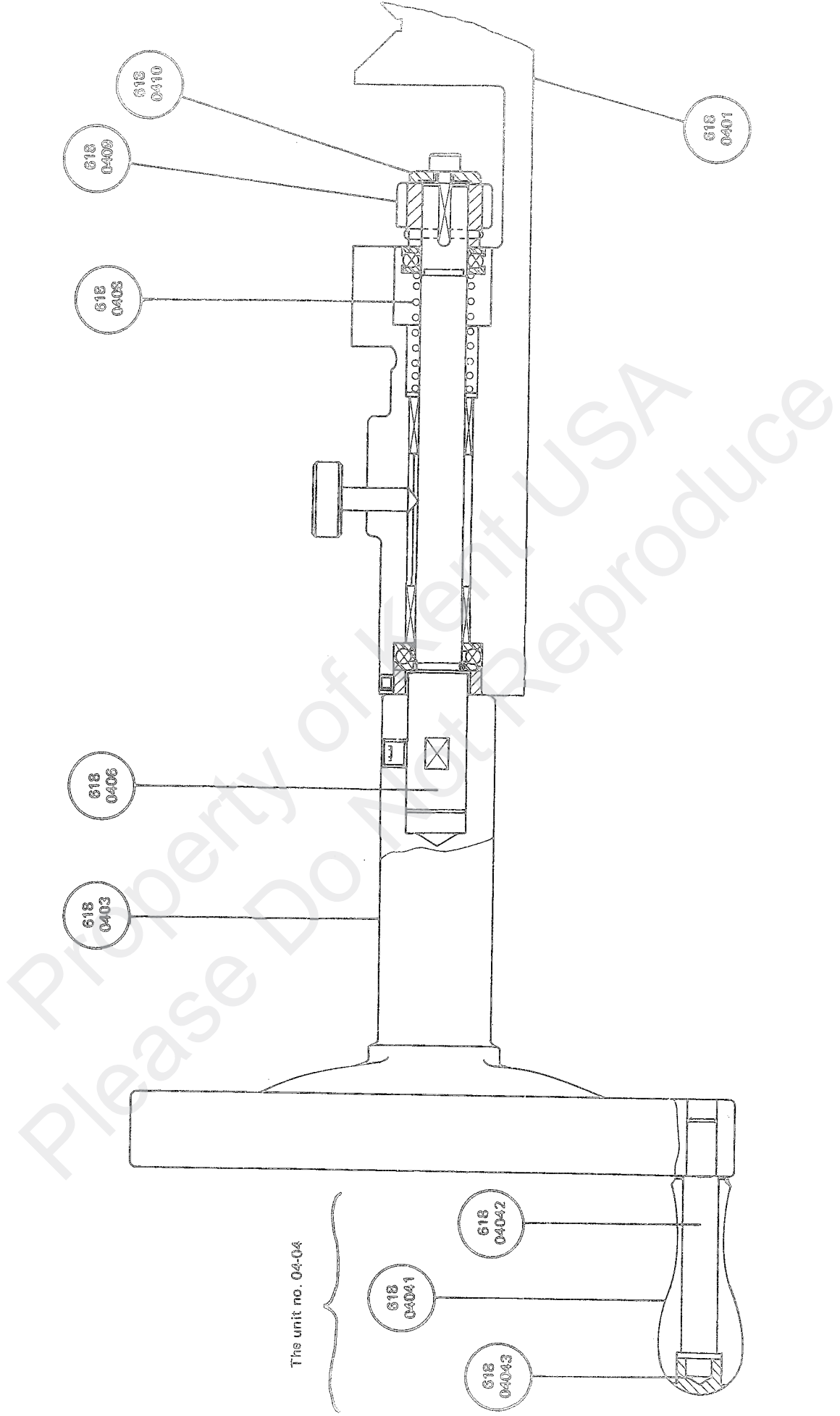
"B" MODEL

PART LIST

Part No.	Part Name	Q'ty
618B-0801	Transmitting gear	1
618B-0802	Idle gear	1
618B-0803	Side cover sheet	4
618B-0805	Idle gear fixed stand	1
618B-0806	Idle gear fixed shaft	1
618B-0807	Belt tension adjusting screw	1
618B-0808	Adjusting screw fixed plate	1
618B-0809	Guide fixed rod	1
618B-0810	Gear belt fastener (I)	1
618B-0811	Gear belt fastener (II)	1
618B-0820	Dust Guard	2

Ball retainer





"B" MODEL

PART LIST

Part No.	Part Name	Qty
618B-0801	Transmitting gear	1
618B-0812	Transmitting shaft	1
618B-0813	Joint	1
618B-0814	Clutch coupling	2
618B-0815	Handle wheel	1
618B-0816	Spring	1
618B-0817	Stop washer	1
618B-0821	Slide way	2
618B-0822	Slide way	1
618B-0823	Slide way	1

