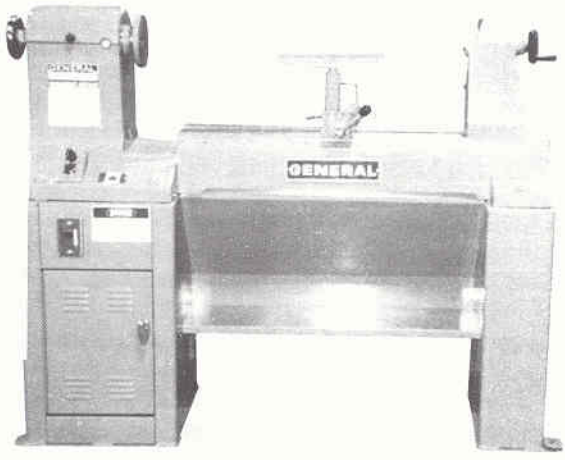
12" WOODWORKING LATHE 260 AND 26020

OPERATING AND MAINTENANCE INSTRUCTIONS

SPECIFICATIONS :

Swing over bed:	Model 260	12"
	Model 26020	20"
Swing over Bed Gab :	Model 260	16 1/2"
	Model 26020	24 1/2"
Distance between Centers :		38"
Length (bed)		58"
Speed (4) for model 260 :		610, 1070, 1750, 2820 Rpm
Speed (Variable) for model 260-1 :		410 À 3250 Rpm
Speed (Variable) for model 26020 VD		0 À 2870 Rpm
Spindle Threads :		1 1/4 - 8, inboard
Spindle Threads :		1 1/8 - 8, outboard
Overrail Length :		63"
Headstock and Tailstock Taper		No. 2M.T.
Height : center of Spindle to floor :	Model 260	42"
	Model 26020	46"
Approx. Shipping Weight with motor :	Model 260	524 lbs-238 kg
	Model 26020	556 lbs-252 kg



MODEL No.	SERIAL No.
26020 + 260	

IMPORTANT : When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.

All replacements parts can be obtained from :

EQUIPMENT INCLUDED WITH THE MACHINE :

263-10 :	5 Handwheel
165 :	4 Tool Rest
166 :	12 Tool Rest
264 SA :	12 Tool Rest Base 260
2614 :	20 Tool Rest Base 26020
1632 :	Spur Center
2637 :	Inboard 3 Face Plate
2638 :	Inboard 6 Face Plate
263-15 :	Wrench
265 1MT2 :	Ball Bearing Center 2MT
2644 :	Knock-out Bar

GENERAL MFG. CO. LTD
835, Cherrier Street
Drummondville, Québec, Canada
J2B 5A8
Phone number : (819) 472-1161
Fax number : (819) 472-3266
Webb site : www.general.ca
E-mail adress : general@general.ca

SAFETY RULES :

Read carefully before operating the machine

1) Learn the machine's applications and limitations, as well as the specific potential hazards peculiar to this machine. Follow available operating instructions and safety rules carefully.

(2) Keep working area clean and be sure adequate lighting is available.

(3) Do not wear loose clothing, gloves, bracelets, necklaces or ornaments. Eye safety : Wear an approved safety face shield, goggles or glasses to protect eyes when operating the lathe.

(4) Guards : Keep all machine guards in place at all time when the machine is in use. Do not operate the machine with the guards off.

(5) Use the proper speed. Always start the lathe at low speed. Change the variable speed before inserting the work piece on the lathe. Motor must be running to change variable speed.

(6) Remove Chuck Wrenches : When a chuck wrench is used, remove it immediately after using it to lock or unlock a part piece in the chuck. If it is not removed, starting the spindle can cause it to be thrown off the chuck and could result in serious injury.

(7) Machine Adjustments : Make all machine adjustments with power off except speed on a variable speed model.

(8) Never stand directly in line with a rotating piece of stock when initially installed on the machine. Rotate the work piece to make sure you have enough clearance before turning on the power.

(9) Use only accessories designed for the machine.

(10) Always disconnect power from the machine before servicing.

(11) Make sure tailstock is securely locked in position and properly supported.

(12) Always keep tool rest as close to the work piece as possible.

(13) Do not use the index pin to lock spindle while replacing face plate and other attachments.

(14) Do not drive wood into center when it is in the headstock. Set drive center into wood with a soft mallet prior to installation on the lathe.

(15) To remove centers from the headstock, use a 1/2" diameter rod inserted through spindle.

GENERAL Guarantee

All components parts of GENERAL machinery are carefully inspected during all production stages and each machine is thoroughly inspected upon completion of assembly. Because of quality GENERAL agrees to repair or replace any genuine part which upon examination proves to be defective in workmanship or material within a period of 24 months. In order to obtain warranty, all defective parts must be returned prepaid to GENERAL MFG CO LTD. Repairs made without our written authorization voids all guarantees.

12" WOODWORKING LATHE 260 AND 26020 :

The General 12" Wood working lathe is well designed, of sturdy and rigid construction and accurately built. It's ease of operation makes it handy for use in schools, cabinet shops, pattern shops and many other applications. It is easy to operate and with the various attachments and accessories, many different jobs can be accomplished. The late requires little maintenance but a reasonable amount of care and attention is required to insure perfect performance and accurate work.

INSTALLATION :

The lathe is shipped assembled ready for use. Remove the crate, taking care not to damage the finish and clean the rust preventive from the machined surface. It is very important that the lathe be set on a solid foundation. It may be necessary to shim under the lathe cabinet in order to put the bed level. This is checked by putting a spirit level across the bed at the headstock, tailstock and center. Use metal shims to level the cabinet on uneven floor. This procedure is important to prevent twisting of the bed. Occasionally, the lathe should be rechecked and adjustment made to compensate for settling of floor or building.

POWER REQUIRED :

The motor required for this lathe is 1 H.P., 1725 Rpm., for ordinary work in shops or schools and it will be sufficient to give satisfactory service. However, where the lathe will be handling heavy work, under steady production, a 2 H.P. 1725 Rpm. motor should be used. Using the four step pulley supplied by us, your lathe is received complete, ready to operate, with controls mounted in cavities in the machine. If the motor is not supplied and mounted at factory, follow the usual procedure for mounting and wiring as recommended in the field.

CAPACITY :

You can turn stock up to 12" in dia. over the bed, up to 16 1/2" in diameter by 4" thick in the bed gap and 38" between centers. The outside turning bracket and tool rest permit turning up to 20" in diameter. With the gap filler block, which actually extends the bed ways into the gap, you get the rigid tool support you need for metal spinning, thin face plate turning or any work that must be done right at the headstock. On the standard model 260-1 variable speed or 260 4-speed lathe you can turn stock up to 12" (304 mm) over the bed and up to 16 1/2" (419 mm) X 4" (101 mm) over the gap. For increased turning capacity, 20" (508 mm) over the bed and 24 1/2" (622 mm) over the gap, order the riser block, part number #269. The outside turning bracket #2610 will permit turning up to 28" (711 mm) with the riser block kit.

HEADSTOCK :

The headstock is engineered to give extra rigidity for heavy rough turning. The cover completely encloses the belt and pulley for added safety. The design and construction of our headstock with the use of grease sealed ball bearings eliminates the most common cause of trouble, that is, lack of lubrication or improper lubrication.

The indexing mechanism is useful for fluting or reeding. A row of 48 holes is provided in the pulley flange and engaged or disengaged by an indexing device. The pin must be pulled back when the lathe is used for turning.

TOOL SUPPORT :

The tool rests have a machined shank which is clamped in the base to the desired position by locking handle #1623. The base is clamped to the bed by the clamping action of the excentric shaft and lever. If adjustment is needed, this is done by tightening or loosening lock nuts #P1 in the ways.

BELT TENSION (4-speed models) :

To change speed, stop the motor, push the handle 264-11 in and upward. This will raise the motor and loosen the belt. Reverse the operation to tighten the belt. Be sure belt is not too tight as a tight belt causes excessive wear on the pulleys and belt and unnecessary load on the motor bearings.

IMPORTANT OPERATING INSTRUCTIONS :

Taper shank centers are driven by the close fit between shank and sockets therefore centers and taper shanks accessories must be driven, not merely placed into the socket. They must not be driven by a hammer but sharply thrusted in place by hand.

Never drive the piece to be turned into the spur center when it is on the spindle. If this is done, the metal of the headstock spindle will stretch and neither face plate or center will fit and the accuracy of your lathe will be ruined. Always remove the spur center from the lathe and drive it in the end of the work by tapping the end with a mallet to sink the spurs into the wood, if it is hardwood, make two diagonal saw cuts to engage the spurs.

Place the work between centers, tighten tailstock in position to the bed, now turn the handwheel of the tailstock so that the point of the cup center enters the wood. Turn the lathe by hand to see if the work turns easily, then lock tailstock quill in place with the lock handle.

Always adjust the tool rest while the lathe is not running. The tool rest should be 1/8" to 1/4" away from the piece being turned and about 1/8" above centers. Before starting the lathe, see that all adjustments have been properly made and clamped tight. The larger the work the slower the speed. Use slow speed when roughing off the corners of the work piece.

VARIABLE SPEED DRIVE :

The variable speed pulley is mounted on a counter-shaft. The handwheel placed at the front of the cabinet actuates a gear segment which raises or lowers the countershaft assembly. Turn the handle only when the motor is running to obtain the desired speed. The speed range is from 410 to 3300 Rpm.

The shaft assembly moves up and down on a geared segment to maintain belt length when the variable speed drive changes speed. The countershaft assembly is set at the factory and may never need further adjustment. However, should it never be necessary to adjust, turn the handwheel while the motor is running at minimum speed. Stop the motor, loosen set screws #P-75 and lower the segment bracket # 267-2 to proper belt tension and tighten in place. For adjusting the second belt, loosen set screws #P-75 lower motor bracket # 267 until proper tensioned, then tighten in place. Do not adjust the belt too tight because this will cause excessive belt wear and shorten the life of bearings.

INSTRUCTIONS TO REMOVING THE SPINDLE AND INSTALLING THE RAISER BLOCK :

It may be necessary to remove the spindle to change a belt or for adding the raiser kit. To remove the spindle, follow these procedures :

Remove hand wheels, face plates, etc., from spindle (263-4);

Remove the flanges (263-3) from both sides of headstock;

Remove the spindle nut (263-16);

Remove set screw on spindle pulley (263-2);

Place a face plate or spindle nut onto the outboard side of the spindle. Put it on only far enough to be flush with the end of the spindle (to protect threads). Use a block of wood and a hammer to drive the spindle toward the inboard side. Only drive the spindle until there is about 1/8" play between spacer (263-6) and spindle pulley;

Using a block of wood, carefully drive the spindle pulley toward the outboard side to push out the bearing (P-29);

Alternate steps 5 and 6 until the 1/2 moon woodruff key (P-4) has been exposed between the spindle pulley and the spacer (263-5). The edge of the key should be visible through the set screw hole. Using a punch and hammer, strike the key through the set screw hole to remove it from the spindle;

There are two of these keys. Repeat steps 7 to remove the second key;

Using a block of wood, drive the spindle out toward the inboard side of the headstock;

Remove the four bolts (P-6) from inside your headstock;

Your headstock is held in place now by two small bolts located on the outboard and inboard sides of the headstock. Loosen only one side on the outboard and only one side on the inboard. Remember which side was loosened (When you replace the headstock the loosened side will thus be tightened to maintain proper alignment between headstock and tailstock);

Remove headstock;

Place headstock riser block in place and bolt down using bolts provided in your raiser block kit;

Replace headstock;

Replace new belt in headstock and reverse above procedures to reinstall spindle into headstock. Be sure you file down any barbs or nicks that may have occurred on the halfmoon woodruff keys (P-4) and on the punch hole on the spindle nut (263-16).

INSTRUCTIONS FOR OPERATION OF VARIABLE SPEED LATHE WITH ELECTRONIC SPEED CONTROL

Carefully read an familiarize yourself with the operating manual for the electronic speed control on your lathes. This manual is found inside the metal box housing the control.

Your lathe was factory programmed according to the label on the inside of metal control box and in the service manual.

The method to read and change the parameters on the control are listed in the paragraph "USING THE DISPLAY KEYPAD". Also listed in the instruction bulletin under the "PARAMETER SUMMARY"

The operation of your lathe is the same as the conventional four speed lathe. To obtain speeds of 0 to 600 RPM's, you put the Vee belt on the largest pulley on the spindle and the smallest pulley on the motor. This position will give you the maximum torque for roughing large unbalanced pieces making sure that you start at the lowest speed and adjusting your potentiometer to the desired safe speed.

The smallest pulley on the spindle will give you the highest speed on the lathe. However, if you reduce the speed below half the RPM's of the motor, the control may cut-out. If this occurs, unplug your lathe for ten to fifteen seconds and will automatically reprogram itself.

We strongly recommend that you verify the voltage you are receiving at the lathe and if differ from what it is programmed, change the reading on your control to correspond to what you are receiving.

Make sure that you respect all safety rules.

TROUBLES SHOOTING THE SPEED CONTROLLER

The speed controller has a built in cut off for surcharges of power. Should the controller cut out, unplug the machine for one minute and re connect. This enables the controller to re program itself.

Causes for cut outs :

1. Sudden surge of power or amperage;
2. Low R.P.M. of the motor causing the motor to heat;
3. Unbalanced work piece;
4. Too low acceleration or deceleration.

The reason for the cut out can be found on the converter under the parameter reading "Flt" after you have re connected. The list of codes and corrective actions can be found in the maintenance section *Fault Codes*.

INSTRUCTIONS

ASSEMBLY OF THE EXTENSION BED MODEL 260-B

1) Position extension cabinet to lathe cabinet;

2) Position extension bed to the end of the lathe bed;

3) Drill two holes 5/16" in extension cabinet through extension bed;

4) Tap 3/8" NC and bolt extension bed to cabinet.

WOODWORKING LATHE SPEEDS

DIAMETER OF WOOD IN INCHES	BALANCING THE WORK PIECE R.P.M.	STANDARD CUT R.P.M.	FINISHING R.P.M.
LESS THAN 2	1520	3000	3000
2 À 4	760	1600	2480
4 À 6	510	1080	1650
6 À 8	380	810	1240
8 À 10	300	650	1000
10 À 12	255	540	830
12 À 14	220	460	710
14 À 16	190	400	620

NOTE : DO NOT EXCEED THE RECOMMANDED SPEEDS. SERIOUS INJURY OCCUR IF WORK PIECE IS PROJECTED FROM THE LATHE.

REPLACEMENT PARTS

IMPORTANT : Always give part number and description of item when ordering.
Also give serial No.

HEADSTOCK ASSEMBLY

	PART NO	NEW NUMBER	DESCRIPTION	QTY
1	263-10		Handwheel	1
2	263-3		In/outboard bearing ret.	2
3	P-30	P-346	10/32" X 1/2" soc. head screw	8
4	263-16		Outboard spindle nut	1
5	P-29	P-48	Bearing outboard	1
6	263-6		Spacer outboard end	1
7	263-V2		Spindle pulley - variable speed	1
8	263-2		Spindle pulley - 4 speed	1
9	P-7		5/16" X 5/16" set screw	1
10	P-363		Belt 1422V466 for 260-1	1
	P-298		Belt 1422V466 for 26020-1 and 260	
11	P-31	P-154	"V" belt 4L760	1
	P-239		"V" belt A82 for 26020 VD	
12	263-5		Spindle pulley spacer	1
13	263-17		Spindle locking disc	1
14	P-29	P-48	Bearing inboard	1
15	263-4		Spindle	1
[illegible]	P-4		3/16" X 3/4" woodruff key	2
17	1632		Spur center	1
18	P-3		1/4" X 1/4" set screw	1
19	1634		Center spin	1
20	263		12" headstock casting	1
	263-20		20" headstock casting	1
21	263-1		Headstock cover	1
22	1647		Hinge bracket	2
23	P-20		1/4" X 7/8" hex. head cap screw	4
24	P-19	P-220	5/16" X 1" hinge spin	2
25	P-9		1/4" steel ball	1
26	263-7	P-333	1/4" X 7/8" compression spring	1
27	263-8		Index spin	1
28	P-25		1/16" X 3/4" cotter pin	1
29	P-78		5/16" knob & 5/16" X 3/4" screw	1
30	P-191		Rubber stopper 6041	2
31	263-14		Locking spin	1
32	263-13		Spring	1
33	P-40	P-247	1/8" X 3/4" cotter pin	1
34	J-80-20		1/4" X 5/16" hex. bolt	4
35	P-6		3/8" X 1 1/4" hex. screw	4

TAILSTOCK ASSEMBLY

	PART NO	NEW NUMBER	DESCRIPTION	QTY
36	262		12" Tailstock shell	1
	262-20		20" Tailstock shell	
37	1635		Tailstock handwheel assembly	1
38	P-8		3/8" hex. jam nut	1
39	1627		Tailstock nut	1
40	2413A		Clamp handle	1
41	262-3		Clamping sleeve	1
42	P-405		Oillite thrust bearing TT 706	1
43	P-18		3/32" X 1/2" woodruff key	1
44	262-2		Quill screw W/P-405 W/TT-706	1
45	262-1		Tailstock quill	1
46	1633		Cup center	1
47	P-3		1/4" X 1/4" socket set screw	1
48	1634		Center pin	1
49	P-24		3/16" X 1/2" groove pin	1
50	1619		Eye bolt	1
51	262-4		Locking shaft	1
52	P-39	P-401	Special screw 164-1	1
53	1612		Locking handle	1
54	P-32		Plastic knob 10017-7/16"	1
55	1618		Locking plate	1
56	P-1	P-190	1/2" N.F. hex. jam nut	2

BED ASSEMBLY

	PART NO	NEW NUMBER	DESCRIPTION	QTY
57	261		Bed	1
58	P-36		3/8" X 2 1/2" hex. screw	5
59	101-7		Start-on plate	1
60	101-9		Seal	1
61	P-158		8/32" X 1/2" thread cutting screw	4

REPLACEMENT PARTS

IMPORTANT : Always give part number and description of item when ordering.
Also give serial No.

BENCH À SSEMBLY VARIALBE SPEED

	PART NO	NEW NUMBER	DESCRIPTION	QTY
62	265		Variable speed bench	1
63	P-365		Handle T-304, 360 deg. rotation	1
	P-366		Latch C-15	1
64	267		Motor bracket	1
65	P-75		3/8" X 3/8" soc. head set screw	2
66	267-1		Column	1
67	P-126		3/16" x 1 1/4" roll pin	1
68	P-326		3/8" X 5/8" soc. set screw	2
69	267-2		Segment bracket	1
70	P-75		3/8" X 3/8" soc. set screw	3
71	267-3		Segment pin	1
72	267-16		Segment spring	1
73	267-4		Segment	1
74	P-7		5/16" X 5/16" socket set screw	1
75	267-5		Pinion	1
76	P-126		3/16" X 1 1/4" roll pin	1
77	267-7		Upper grit	1
78	P-88		1/4" X 1/2" hex. cap screw	6
79	P-122		1/4" flat washer	6
80	P-91		Oillite bush. AA741-4	2
81	267-6		Pinion shaft	1
82	P-126		3/16" X 1 1/4" roll pin	1
83	267-10		Index wheel	1
84	267-9		Handle	1
85	P-33		1 5/8" # 50C plastic ball	1
86	267-8		Handle spring	1
87	267-11		Spindle	1
88	P-92		Alimite 1608-B	1
89	P-86		5103-81 snap ring	2
90	P-245		Oillite bushing AA1041-5	2
91	267-12		Sleeve	1
92	P-3		1/4" X 1/4" socket set screw	2
93	267-13		Variable pulley in/outboard	2
94	267-14		Variable pulley	1
95	P-3		1/4" X 1/4" set screw with nylon	4
96	P-269		Motor belt 1422V360 36" lg	1
	P-298		Belt 1422V540 54" lg	1
97	263-V9		Motor pulley	1
98	P-7		5/16" X 5/16" socket set screw	1

BENCH ASSEMBLY 4 SPEED

	PART NO	NEW NUMBER	DESCRIPTION	QTY
99	265		4 speed bench	1

TOOL REST BASE

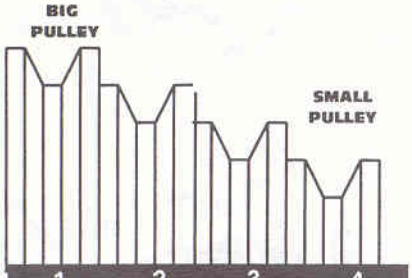
	PART NO	NEW NUMBER	DESCRIPTION	QTY
126	264		12" tool rest base	1
	2614-1		20" tool rest base	1
127	166		12" tool rest	1
128	1619		Eyebolt	1
129	1622		Locking screw	1
130	P-39		Special screw 164-1	1
131	2660		Locking shaft	1
132	1612		Handle	1
133	P-32		Handle 10017-7/16"	1
134	1618		Lock plate	1
135	P-1		1/2" N.F. hex. jam nut	1
136	2640		Motor base	
	2640-1		Motor bracket 4 speed	1
137	1600-15		Lever	1
138	1600-16		Connector	1
139	1600-17		Stop	1
140	MP-27		Groove pin 1/4" X 1 1/4"	1
141	264-3		Link pin	1
142	P-7		Socket set screw 5/16"-18 X 5/16"	
143	P-784		Hex. head cap screw 10-24 X 1	1
144	P-1160		Hex. nut 10-24	2
145	P-35		Hex. head cap screw 3/8-16 X 1	2
146	264-1		Motor bracket rod	1
147	4800-5		Collar	2
148	P-408		Spring	1
149	P-182		Nut 5/16-18	2
150	P-345		Eyebolt 5/16-18 X 5 long	1
151	4800-5		Collar	1

OPTIONAL EQUIPMENT :

260B		5 Ft extension
264	*	Tool Rest Base
269-1		Raiser Block Kit
1621	*	Right Angle Rest
1624		24" Tool Rest
1636		60 deg. center
1648		Screw center
2610		Outboard Turning Bracket
2611		Post extension
2614		Extended tool rest base
2637-1		3" Face Plate (Outboard)
2638-1		6" Fade Plate (Outboard)
2642		8 1/2" Sanding Disc
2643		Outboard Turning Stand
2644		Knockout Bar
2645		Gap Filler Block
2647		12" Face Plate (Outboard)
2647-1		12" Face Plate (Inboard)
2649		Screw on arbor
2651		Ball Bearing Center
2652		3 1/4" 4 Jaw Chuck
2655		Safety Face Shield
34-25		1/2" Key Chuck morse No. 2

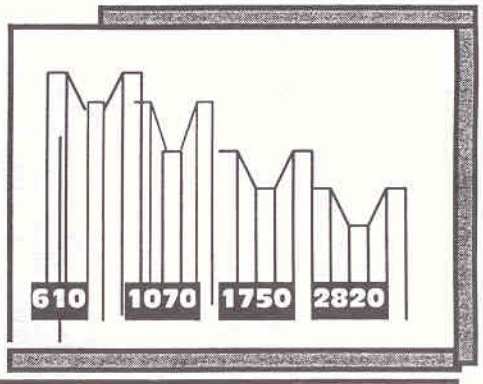
* : For models 160 / 260 / 26020

ARBOR HEADSTOCK PULLEY



POT.	1	2	3	4
1	25	30	65	125
2	85	140	255	400
3	175	300	475	800
4	255	450	750	1140
5	355	620	1000	1660
6	445	760	1230	1800
7	525	900	1470	2400
8	600	1050	1700	2750
9	625	1100	1780	2870

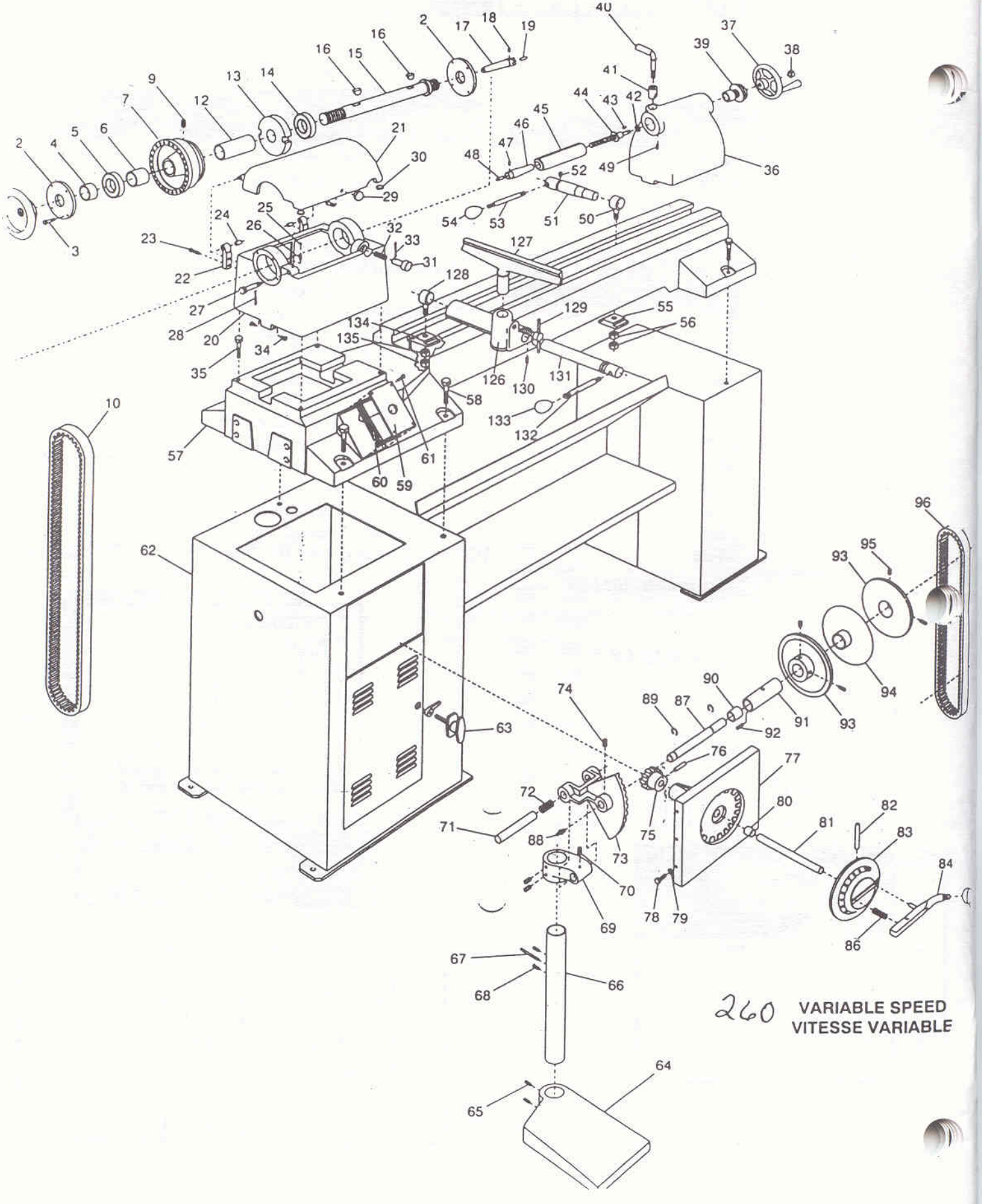
: Low torque



SPEED INDICATOR ON WOODWORKING LATHE WITH VARIABLE SPEED

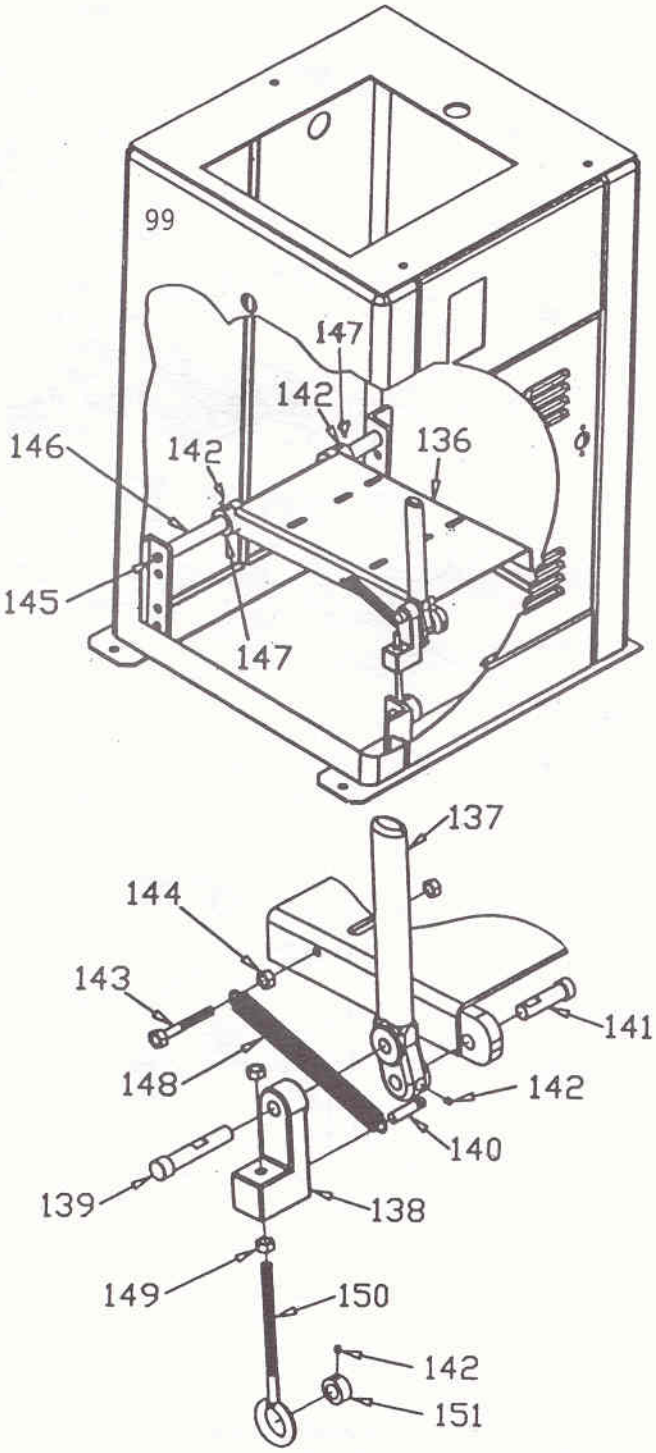
01 :	410 Rpm	06 :	1240 Rpm
02 :	460 Rpm	07 :	1625 Rpm
03 :	620 Rpm	08 :	1850 Rpm
04 :	825 Rpm	09 :	2450 Rpm
05 :	950 Rpm	10 :	3250 Rpm

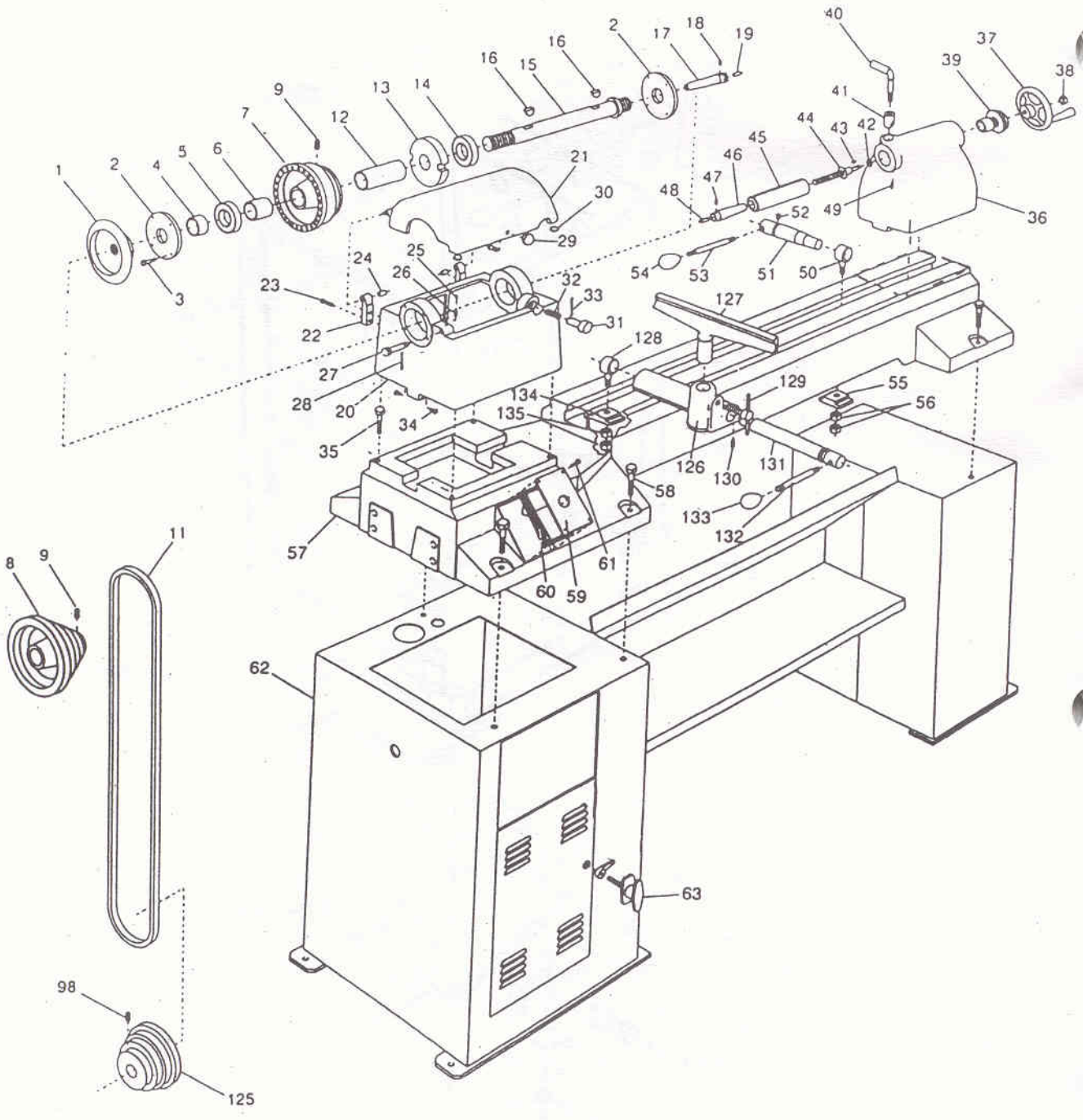
REPLACEMENT PARTS - PIÈCES DE REMPLACEMENT



260 VARIABLE SPEED
VITESSE VARIABLE

BENCH ASSEMBLY 4 SPEED





Tour 260 Lathe
12"

Tour 26020 Lathe: 20"	Head stock	# 263-20	Poupée fixe
	Tail stock	# 262-20	Poupée mobile
	Tool rest	# 2614	Support d'outil
	Belt	# P-239	Courroie