

STARTRITE

OPERATING INSTRUCTIONS AND PARTS LIST

Model 352
(DUAL SPEED)
BANDSAWING MACHINES
HANDBOOK
7E

RECORD MACHINE DETAILS

MODEL
SERIAL No.
DATE of PURCHASE
VOLTAGE
PHASE
CYCLES

QUOTE THIS INFORMATION
WHEN REQUESTING SERVICE
OR SPARES.

DISTRIBUTOR

This Bandsaw is engineered to a high standard of construction and performance. Attention to maintenance and service will be repaid by many years' trouble-free operating.

STARTRITE

Model 352

(DUAL SPEED)

BANDSAWING MACHINES

HANDBOOK

7E

PLANT & SERVICE DEPOT (U.K.)

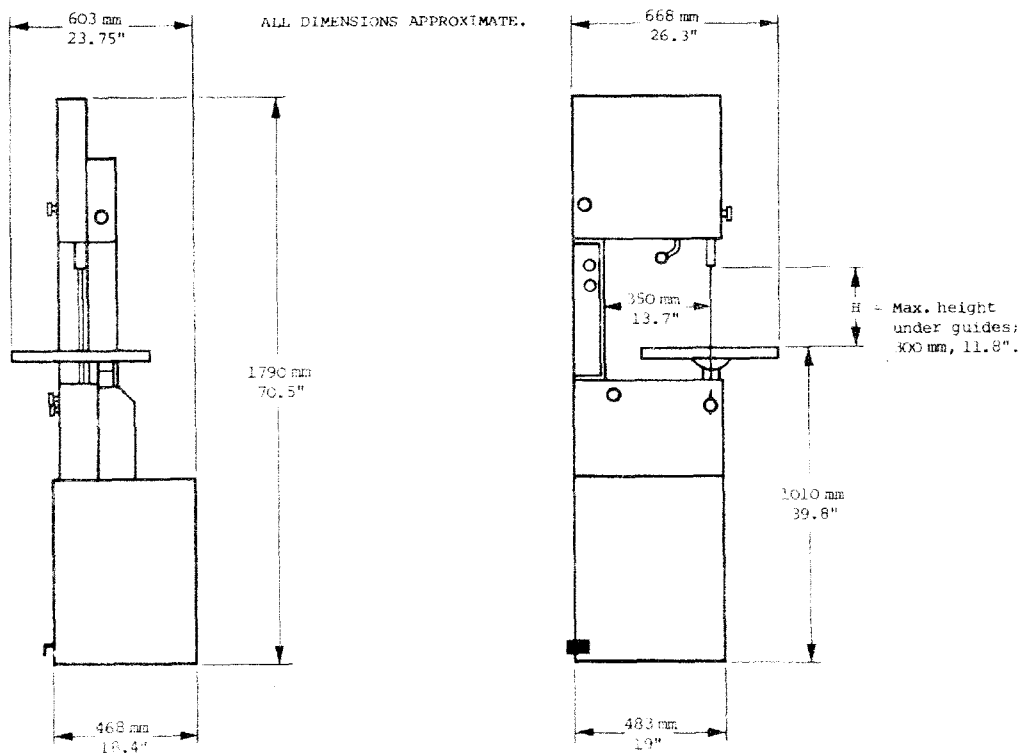
STARTRITE ENGINEERING Co. Ltd.,
Waterside Works, Gads Hill,
Gillingham, Kent,
ME72SF, England.

Phone : MEDWAY, KENT ⁰⁶³⁴ ~~51166 281281~~
Cables : STARTRITE GILLINGHAM KENT.

EXPORT SALES

STARTRITE MACHINE TOOL Co. Ltd.,
69/71 Newington Causeway,
London, SE16BH,
England.

Phone : LONDON 407-7356
Cables : STARTOOLCO LONDON SE1.



FOUNDATION PLAN FOR MODEL 352 BANDSAWING MACHINES.

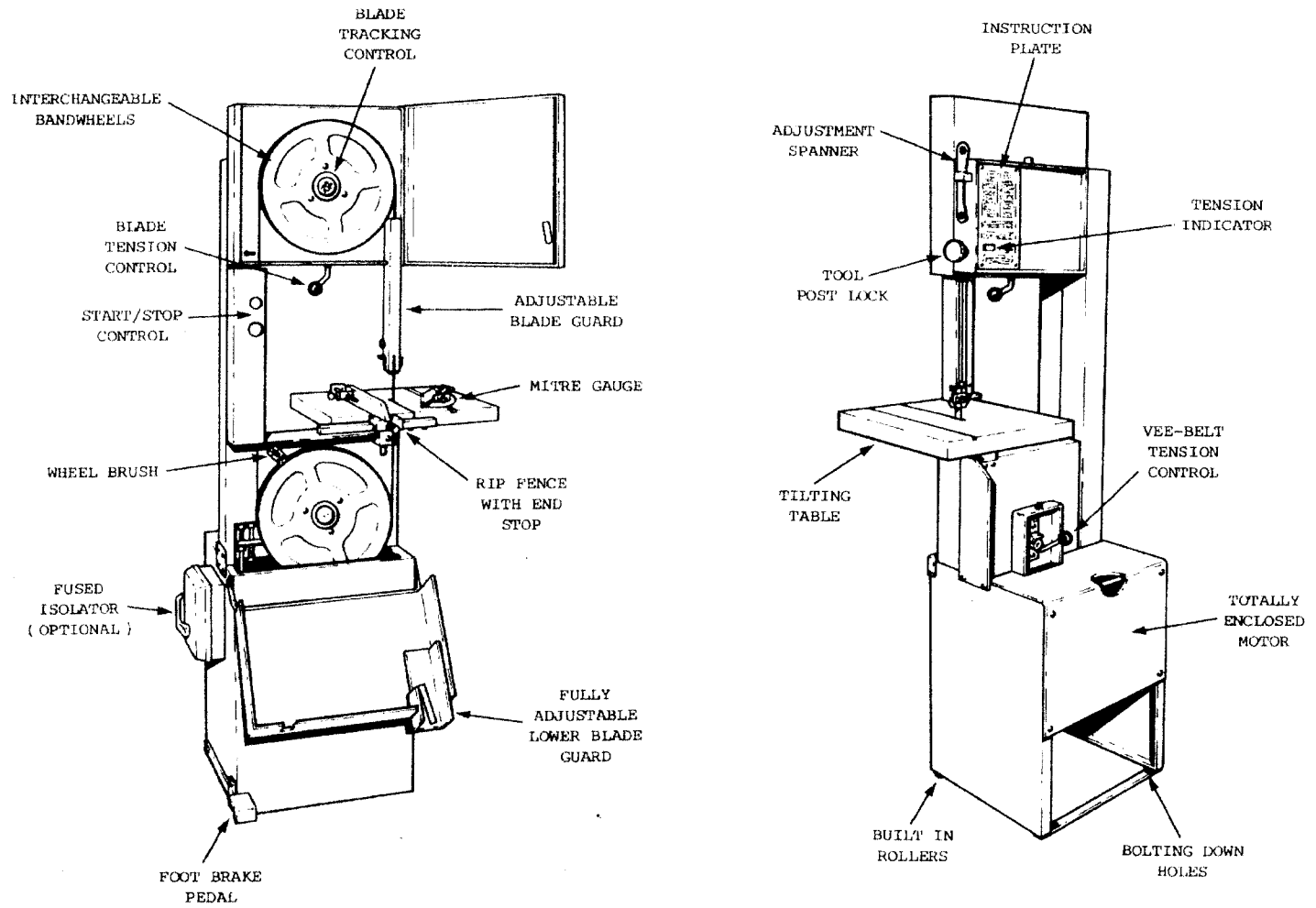
SPECIFICATIONS :

- | | | |
|------------------|---|--|
| Model 352 | - | 350 mm, 13.7" Throat, Dual Speed Machine. |
| Wheel Diameter | - | 356 mm, 14" |
| Gross Weight | - | 118 kg, 260 lbs. |
| Motor | - | 0.75 kW, 1 h.p., 1425 r.p.m. |
| Starter | - | Thermal overload, no volt release |
| Electric Supply | - | 220/240 Volt 1 Phase 50Hz.
380/440 Volt 3 Phase 50Hz. |
| Blade Length | - | 2845 mm, 112" |
| Max. Blade Width | - | 20 mm, $\frac{3}{4}$ " |

FOR BEST RESULTS USE STARTRITE 'SUPAFLEX' BLADES.

WHEN ORDERING PARTS, PLEASE STATE :-

1. Quantity required.
2. Part No. (where applicable) and description.
Specify power supply for electrical components.
3. Machine Model and Serial No.



GENERAL LAYOUT OF MODEL 352 BANDSAWING MACHINE.

INSTALLATION.

To transport machine to site, built-in rollers and a handgrip are provided for easy handling, support the machine with other hand as shown in Fig.1.

WARNING : Do not move machine by means of the table as this may cause damage to the cradle assembly.

Adequate working space is essential for ease of use. Avoid siting the machine in a cramped corner where operation and cleaning may prove difficult or near a gangway where passing people could present a hazard to the operator. The whole working area should be well illuminated and the floor around the machine provided with a level and non slip surface.

A bench or table space, near the machine to accommodate work in progress will prove a real asset. Bandsaw blades tend to get tangled and damaged if hung from a hook or stacked on the floor, therefore cupboard space provided adjacent to the machine will protect saw blades in storage and encourage the operator to select a suitable saw blade for the job.

The cabinet base is provided with two bolting down holes to accept 8 mm ($\frac{5}{16}$ ") diameter bolts. Remove the anti-rust protective coating where applied, and in particular from the working elements of the machine.

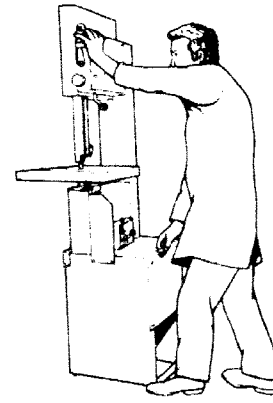


Fig.1.

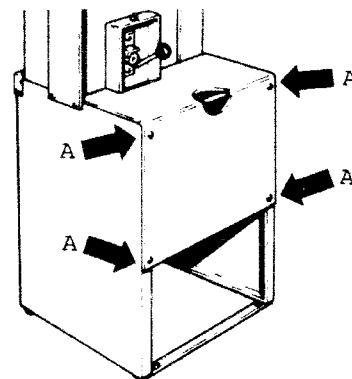


Fig.2.

CONNECTION TO THE ELECTRICITY SUPPLY.

IMPORTANT : Check that the supply voltage is suitable for operation of the machine.

Link supply leads to fused isolator on machine, if fitted (optional extra).

If the machine is not equipped with a fused isolator, proceed as follows :-

Remove rear cover from cabinet base, four screws (A), see Fig.2.

Remove terminal cover, two screws (B), see Fig.3. Pass supply leads through grommet in cabinet base.

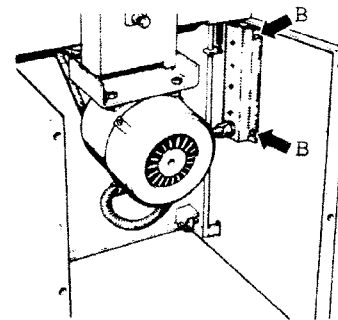


Fig.3.

THREE PHASE :

The machine will operate on 380 - 440 volt three phase 50Hz. supply.

Link supply leads to terminals L1, L2 and L3 (see Fig.4).

Check motor rotation, saw blade must pass downward through the table. If necessary, interchange supply leads L1 and L3 to reverse rotation.

Connect the earth wire (yellow/green) to earth terminal.

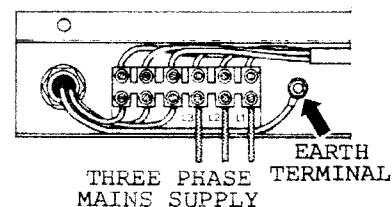


Fig.4.

Recommended cable size : 1.5 mm²
Fuse rating : 10 amp

CONNECTION TO THE ELECTRICITY SUPPLY (CONTINUED).

SINGLE PHASE :

The machine will operate on 220 - 240 volt single phase 50Hz. supply. Temporary connection may be made to a 13 amp ring main circuit by wiring the supply leads to a fused plug as shown in Fig.5, taking care to protect the cable from mechanical damage. Link live supply lead to terminal Ll, and neutral supply lead to terminal N (see Fig.6). Connect the earth wire (yellow/green) to earth terminal.

Recommended cable size : 1.5 mm²
Fuse rating : 13 - 15 amp

IMPORTANT : IN ALL CASES THE MACHINE MUST BE EFFECTIVELY EARTHED.

The service of a competent electrical engineer must be obtained if there is doubt on any point regarding electrical installation.

COLOUR CODE :

LIVE (L) - BROWN
NEUTRAL (N) - BLUE
EARTH (E) - YELLOW/GREEN

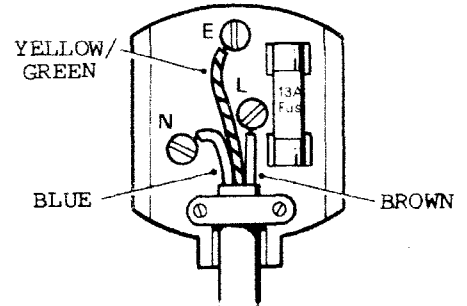


Fig.5.

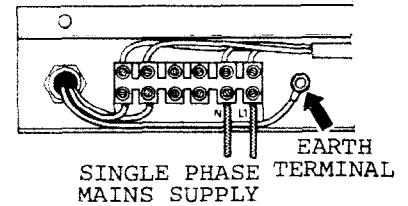


Fig.6.

MACHINE CONTROLS.

TABLE :

The table can be tilted up to 45°. To tilt table slacken off trunnion nut using spanner provided (see Fig.7). The machine is fitted with a setting stud, make sure the table rests firmly against the stud when re-setting the table to zero.

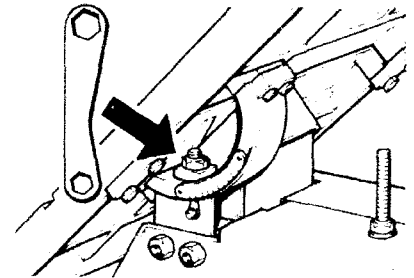


Fig.7.

FOOT BRAKE :

When depressed the foot brake immediately disconnects the motor and applies a mechanical brake to the lower bandwheel.

BLADE SPEED :

Select blade speed to suit job, see Instruction Plate at rear of machine. Access to vee-belt is obtained by lower bandwheel door. At rear of machine, turn vee-belt tension control handle (see Fig.8) to raise motor and release tension on vee-belt. The twin-groove pulley is located behind the lower bandwheel, shift the vee-belt to obtain the required speed. Re-tension vee-belt and close bandwheel door.

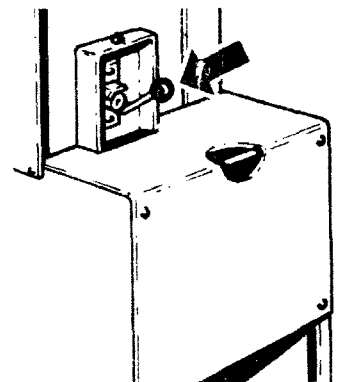


Fig.8.

OPERATOR SAFETY PRECAUTIONS :

Keep hands clear of the saw blade.

Position the top guide as close as possible to the workpiece.

Stop the machine to make adjustments.

Keep the blade guards in position when sawing.

Keep the work area free of tools and off-cuts.

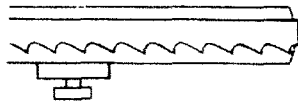
Do not leave the machine running while unattended.

Do not leave bandsaw blades on the floor.

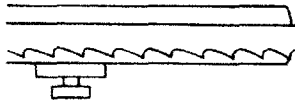
SETTING UP THE MACHINE / FITTING A NEW BLADE.

Select a saw blade suitable for the work in hand, see Instruction Plate at rear of machine.

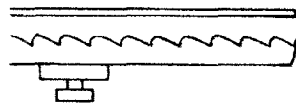
Lower the top bandwheel by turning the blade tension control handle and remove existing saw blade. Place selected saw blade over the bandwheels with the teeth facing forward and downward through the table, and apply sufficient blade tension to remove slack. It is important that both the top and bottom guide assemblies are set back clear of the saw blade so that it is not deflected and follows a true path between the bandwheels. Rotate the bandwheels by hand and at the same time operate the blade tracking control so that the saw blade runs approximately central on the bandwheels, see Fig.9.



TRACKING CORRECT
Blade runs approximately central on bandwheel.



TRACKING INCORRECT
Blade runs toward front edge of bandwheel.



TRACKING INCORRECT
Blade runs toward back edge of bandwheel.

Fig.9.

When the saw blade is tracking in a satisfactory manner, apply the appropriate blade tension, see Instruction Plate at rear of machine for correct tension settings (Fig.10).

EXAMPLE : $\frac{1}{2}$ " Wide Metal Cutting Saw Blade = MED

The tension required varies between types of saw blades and also blade widths. The saw blade length, provided that it is acceptable to the machine, does not affect the indicated tension. The indicator will give a fair guide as to the correct tension required, but it may be necessary to vary this slightly according to circumstances.

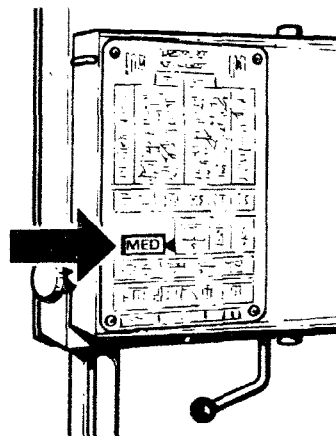


Fig.10.

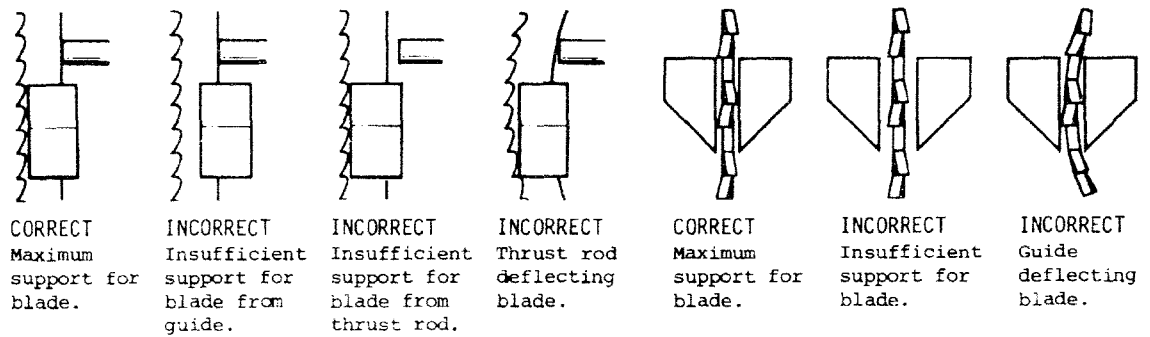


Fig.11.

It is important that the guides are set to offer maximum support to the saw blade without deflection, and to permit maximum engagement with the flanks of the saw blade without snagging the set of the teeth, see Fig.11.

Adjust the guides to support the saw blade in its natural path with the minimum of side clearance (.002" to .004"). A quick and positive method of setting the guides is to position one guide block to just contact the saw blade, then adjust the second guide block to contact the saw blade plus a piece of (single thickness) newspaper.

Set the thrust rod to support the back edge of the saw blade when finger pressure is applied to the blade teeth. There should be a small gap (.010" approximately) between the saw blade and the thrust rod.

After adjusting the top and bottom guides, rotate the bandwheels by hand to ensure that the saw blade runs free and that all the adjustments have been correctly carried out.

MAINTENANCE.

Remove embedded chips from bandwheel tyres and adjust wheel brush as required.

Clean upper and lower blade guide assemblies.

Check condition of vee-belt.

Clean and lubricate working parts as required.

The bandwheels are mounted on sealed-for-life bearings and do not require further lubrication.

PARTS LIST.

UPPER ASSEMBLY - PART No.SM866

ITEM	PART NUMBER AND DESCRIPTION	No.OFF
1	SM586 Blade Guard	1
2	Washer M8 Form 'A'	47
3	Hex. Nut M8	26
4	4891 Blade Guide	4
5	SM829/1 Guide Bracket (Upper)	1
6	5021 Special Washer	2
7	Carriage Bolt M8 x 30 mm	4
8	Hex. Hd. Screw M8 x 16 mm	10
9	5060 Special Washer	2
10	SM585/1 Thrust Rod (Upper)	1
11	4889 Top Guide Post	1
12	4836 Table Section (R.H.)	1
13	4837 Table Section (L.H.)	1
14	4894 Table Latch	1
15	Stud M8 x 30 mm O/ALL	2
16	Hex. Hd. Screw M8 x 20 mm	7
17	4893 Table Clamp	1
18	4996 Switch Bracket	1
19	4895/1 Door Stop Rod (Lower)	1
20	5022 Switch Lever	1
21	SM839 Switch Rod	1
22	4975 Switch Pin	1
23	Split Cotter Pin 3 mm x 20 mm	1
24	Compression Spring No.203512	2
25	4979 Pivot Pin	1
26	Hex. Nut M10	3
27	Overload Unit No.T16 47 LO 109 (240V)	1
	Overload Unit No.T16 47 LO 106 (440V)	1
28	Contacto No.C10 37 BO 170 (220V 1PH 50Hz Coil)	1
	Contacto No.C10 37 BO 170 (440V 3PH 50Hz Coil)	1
29	Starting Contact Spring No.47 BO 015	1
30	Stop Button No.37 BO 454 / 47 BO 052 / 37 BO 438	1
31	Start Button No.47 BO 053 / 37 BO 438	1
32	Rd. Hd. Screw - Recessed 4BA x 5/8"	2
33	Hex. Nut 4BA	2
34	Shakeproof Washer 4BA	4
35	4895/2 Door Stop Rod (Upper)	1
36	Non-locking Handle No.T44/A/RE	2
	Locking Handle No.T44/RE (OPTIONAL EXTRA)	2
37	Ball Knob No.MK10/125	1
38	4902 Tension Screw	1
39	4904 Pivot Plate	1
40	Disc Spring No.02010209	22
41	4907 Plate	1
42	4903 Angle Bracket	1
43	4905 Pivot Bush	1
44	Hammer Drive Screw No.4 x 1/4"	4
45	Hex. Hd. Screw M5 x 12 mm	5
46	Slotted Nut M10 (L.H.)	1
47	Mills Pin GP3 3 mm x 20 mm	1

(CONTINUED)

UPPER ASSEMBLY - PART No.SM866 - CONTINUED

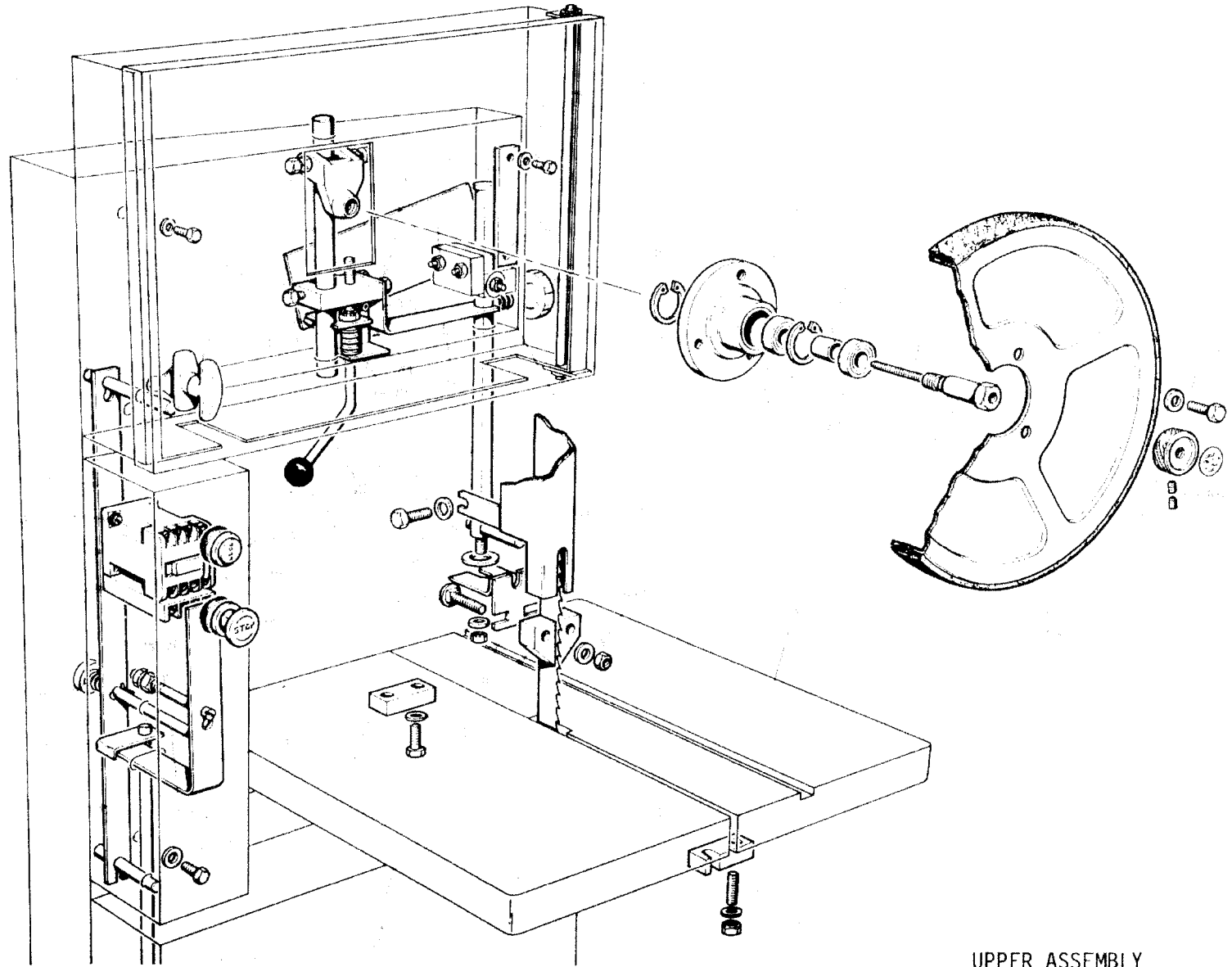
ITEM	PART NUMBER AND DESCRIPTION	No.OFF
48	4906 Pivot Pin	1
49	Hex. Hd. Screw M8 x 30 mm	3
50	4899 Tension Block	1
51	4900 Tension Rod	1
52	2332 Tilt Bracket	1
53	2336 Pivot Screw	2
54	Hex. Locknut 3/8" Whit	2
55	4918 Tension Indicator Plate	1
56	4861 Clamp Plate	1
57	Washer M5 Form 'A'	4
58	4922 Hinge Pin (Upper)	1
59	Starlock Washer 8 mm	4
60	4859 Guide Block	1
61	Soc. Set Screw M8 x 30 mm Dog Point	2
62	Soc. Set Screw M8 x 20 mm Dog Point	2
63	4988 Special Nut	1
64	Compression Spring No.213308	1
65	SM862 Clamping Handle	1
66	2473 Bandwheel 356 mm Dia	2
67	2466 Instruction Label	1
68	Hex. Hd. Screw M8 x 12 mm	15
69	Soc. Set Screw M5 x 8 mm	7
70	Circlip Internal No.472-35 x 1.5	2
71	5115 Hub	1
72	Ball Bearing No.6003-2RS	2
73	5116 Spacer	1
74	5117 Jacking Screw	1
75	5114 Spindle	1
76	5118 Control Knob	1

LOWER ASSEMBLY - PART No.SM866

80	SM844 Foot Brake Lever	1
81	4876 Spacer	2
82	4997 Brake Guide Plate	2
83	Hex. Hd. Screw M8 x 25 mm	8
84	4984 Spacing Washer	1
85	Self Locking Nut M8	1
86	SM840 Brake Rod	1
87	4980 Hinge Pin (Lower)	1
88	Tension Spring No.AQ 3524	1
89	4873 Stand Plate	1
90	Shakeproof Washer M8	4
91	5071 Collar (M8)	1
92	Compression Spring No.153208	1
93	Washer M10 Form 'A'	3
94	5072 Collar (M10)	1
95	1149 Key	1
96	4840 Motor Pulley	1

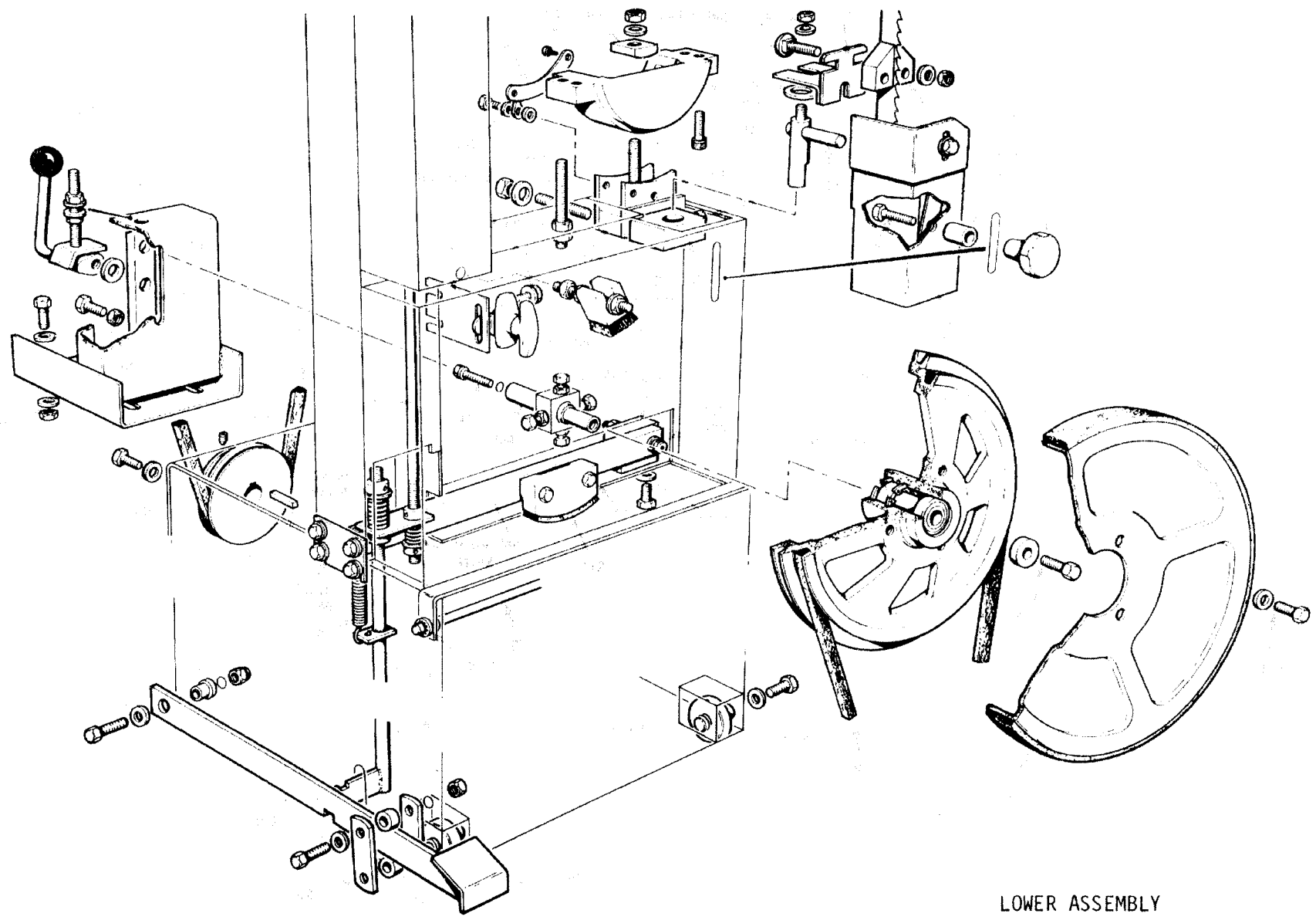
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10



UPPER ASSEMBLY





11

LOWER ASSEMBLY

LOWER ASSEMBLY - PART No.SM866 - CONTINUED

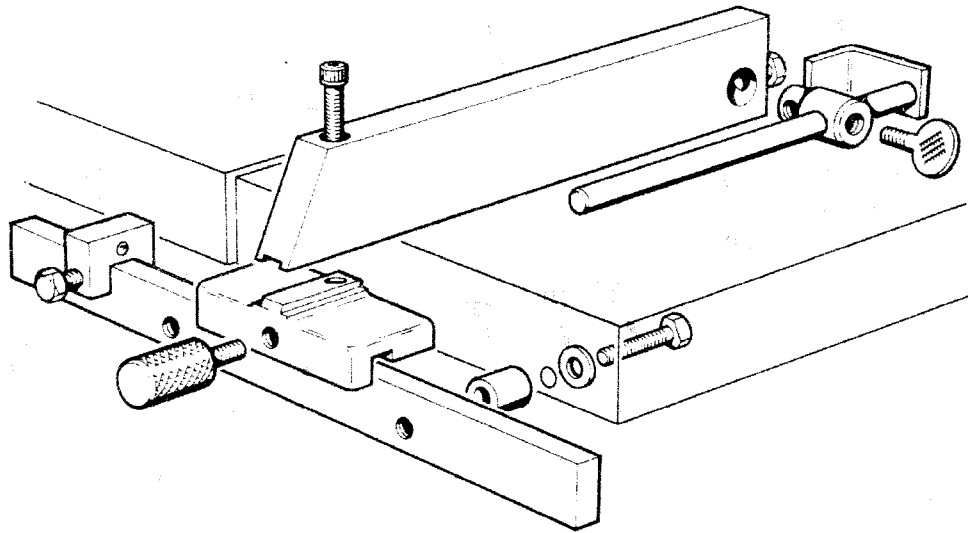
ITEM	PART NUMBER AND DESCRIPTION	No.OFF
97	Vee-Belt No.SPZ 1140	1
98	SM584 Motor Platform	1
99	4965 Clamp	1
100	Washer M12 Form 'A'	4
101	SM838 Platform Stud	1
102	SM836 Clamping Handle	1
103	Ball Knob No.MK8/100	1
104	Hex. Nut M12	3
105	4911 Table Clamp	1
106	4838 Table Bracket	1
107	Soc. Hd. Cap Screw M8 x 25 mm	4
108	4921 Protractor Plate	1
109	2812 Pointer	1
110	Stud M12 x 85 mm O/ALL	2
111	4996 Stud	2
112	Stud M12 x 75 mm O/ALL	1
113	4884 Tilt Plate	2
114	4885 Spacer	1
115	4890 Lower Guide Holder	1
116	4888 Lower Guide Post	1
117	SM585/2 Thrust Rod (Lower)	1
118	SM829/2 Guide Bracket (Lower)	1
119	5059 Guard Plate	1
120	4871 Nut Plate	1
121	4917 Spacer	1
122	Handknob M8 No.5714/20	1
123	5058 Lower Guard	1
124	Hex. Hd. Screw M8 x 40mm	1
125	4839 Bandwheel Pulley	1
126	4919 Washer	1
127	4920 Spacer	1
128	Ball Bearing No.6203-2RS	2
129	Circlip Internal 40mm Dia	2
130	4870 Pivot Block	1
131	Soc. Hd. Cap Screw M8 x 40 mm	1
132	SM843 Brake Shoe	1
133	SM841 Brake Lever	1
134	4896 Lower Bandwheel Spindle	1
135	Soc. Hd. Cap Screw M8 x 16 mm	1
136	5113 Lower Cover Catch	1
137	2270 Wheel Brush	1
138	4868 Axle Pin	2
139	4869 Wheel	2

RIP FENCE ASSEMBLY - PART No.SM855

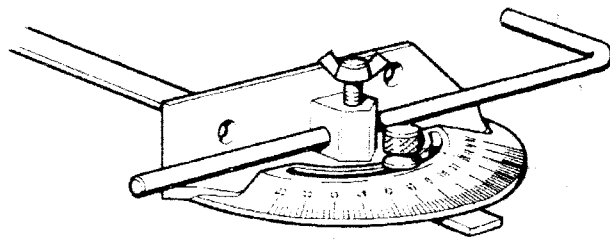
ITEM	PART NUMBER AND DESCRIPTION	No. OFF
150	5027 Fence Bar	1
151	Soc. Hd. Cap Screw M8 x 50 mm	1
152	5080 Fence Stop	2
153	Hammer Drive Screw No.4 x ¼"	2
154	Hex. Hd. Screw M8 x 20 mm	2
155	5031 Hand Screw	1
156	5026 Fence Bracket	1
157	4916 Fence Rail	1
158	4917 Spacer	2
159	Washer M8 Form 'A'	2
160	Hex. Hd. Screw M8 x 40 mm	2
161	SM856 Back Stop	1
162	5030 Pin	1
163	Wing Screw M8 x 20 mm	1
164	Hex. Hd. Screw M8 x 16 mm	1

MITRE GAUGE - PART No.SP153

170	211 Guide Strip	1
171	Wing Screw ¼" Whit x ¼"	1
172	212 Gauging Rod	1
173	126 Thumb Screw	1
174	Protractor No.120	1



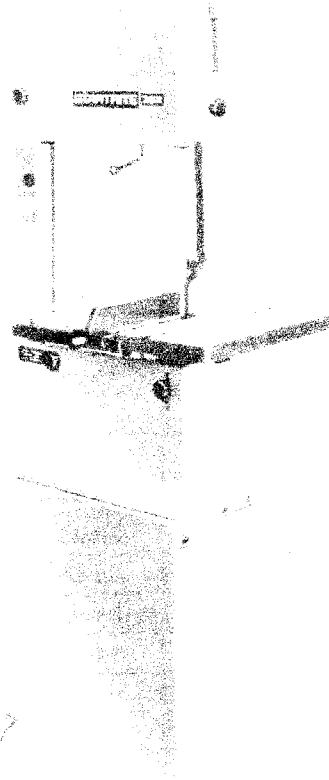
RIP FENCE



MITRE GAUGE

STARTRITE

1, 2 & 5 SPEED VERTICAL BANDSAWING MACHINES



PRICE LIST No. 19/84

EFFECTIVE 1st MARCH 1984

STARTRITE[®] 1, 2, & 5 SPEED

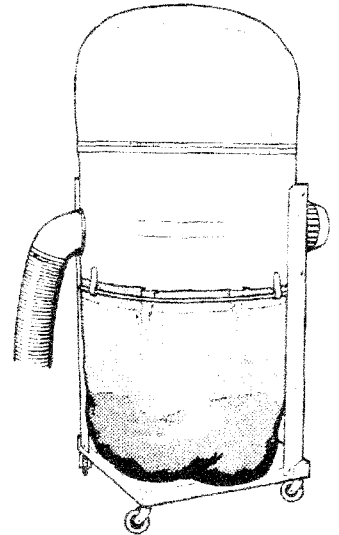
RANGE SPECIFICATION		LIGHT DUTY			
		Single speed of 3500 ft/min		Five speeds of 840-4800 ft/min	
		Table size 19" x 19" Table tilt 45° R 15° L		Table size 19" x 19" Table tilt 45° R 15° L	
MODEL NO.		18S1	24S1	18S5	24S5
Throat depth x height under guides (ins)		18 x 8	24 x 8	18 x 8	24 x 8
Maximum blade width (ins)		½	½	½	½
‡ Complete with electrics for operation on 415V 3PH 50Hz.	PRICE	£1006	1115	1090	1199
‡ Complete with electrics for operation on 240V 1PH 50Hz.	PRICE	1036	1145	1163	1272
OPTIONAL EQUIPMENT					
Slow speed motor giving speeds of 560 - 3200 ft/min. (3 PH ONLY)				70.20	70.20
Slow speed motor giving speeds of 470 - 2700 ft/min. (3 PH ONLY)					
SP198	Mitre gauge	40.80	40.80	40.80	40.80
	Rip fence	25.00	25.00	25.00	25.00
SP260	Circle cutting attachment	19.00	19.00	19.00	19.00
	Low volt light (24V) Factory Fitted	52.00	52.00	52.00	52.00
	240V lighting Factory Fitted				
	Fused isolator Factory Fitted	29.00	29.00	29.00	29.00
	Isolator, lock with 2 keys Factory Fitted	33.55	33.55	33.55	33.55
SP298	Band polishing attachment	19.00	19.00	19.00	19.00
	Polishing bands 1" wide	3.00	3.00	3.00	3.00
SP569	Larger (21" x 21") table — extra	43.50	43.50	43.50	43.50
	Trailing foot switch	55.50	55.50	55.50	55.50
	Key operated switch	28.00	28.00	28.00	28.00
	Universal roller guides in lieu	80.60	80.60	80.60	80.60
	Woodcutting blade guides in lieu	61.00	61.00	61.00	61.00
1102	Spare bandwheel 12" diameter	14.50	14.50	14.50	14.50
2473	Spare bandwheel 14" diameter				
BSO. 16	Butt welder & grinder — ¾" blades	454.00	454.00	454.00	454.00
BSO. 25	Butt welder & grinder — 1" blades	492.00	492.00	492.00	492.00
B15	Brazing unit for ¾" blades	211.00	211.00	211.00	211.00
	Filing bow for dressing blade joint	19.60	19.60	19.60	19.60
‡ Other voltages — Prices upon application					
DUST EXTRACTION EQUIPMENT					
‡ 'CYCLAIR 55' Dust Extractor	415V 3PH 50Hz	333.00	333.00	333.00	333.00
	240V 1PH 50Hz	333.00	333.00	333.00	333.00
‡ 'CYCLAIR 75' Dust Extractor	415V 3PH 50Hz	412.00	412.00	412.00	412.00
	240V 1PH 50Hz	431.00	431.00	431.00	431.00
SM1040	Collection chute (lower)				
SM1135	Coupling kit (upper & lower)	79.20	79.20	79.20	79.20
SM1146	Coupling kit (lower)	14.75	14.75	14.75	14.75

VERTICAL BANDSAWING MACHINES

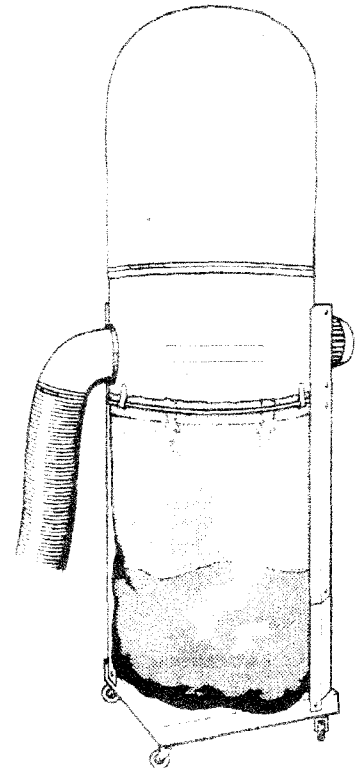
MEDIUM DUTY					
Single speed of 4100 ft/min		Five speeds of 980-5600 ft/min		Two speeds of 1800 & 4000 ft/min	
Table size 19" x 19" Table tilt 45° R 15° L		Table size 19" x 19" Table tilt 45° R 15° L		Table size 17½" x 17½" Table tilt 45° R	
14S1	20S1	14S5	20S5	352	
13½ x 10	20 x 10	13½ x 10	20 x 10	13½ x 11¾	
⅝	⅝	⅝	⅝	¾	
910	1137	997	1224	599	
940	1167	1070	1297	615	

OPTIONAL EQUIPMENT					
			70.20	70.20	
40.80	40.80	40.80	40.80	40.80	Std.
25.00	25.00	25.00	25.00	25.00	Std.
19.00	19.00	19.00	19.00	19.00	Std.
52.00	52.00	52.00	52.00	52.00	89.00
					24.40
29.00	29.00	29.00	29.00	29.00	29.00
33.55	33.55	33.55	33.55	33.55	33.55
19.00	19.00	19.00	19.00	19.00	
3.00	3.00	3.00	3.00	3.00	
43.50	43.50	43.50	43.50	43.50	
55.50	55.50	55.50	55.50	55.50	55.50
28.00	28.00	28.00	28.00	28.00	28.00
80.60	80.60	80.60	80.60	80.60	
61.00	61.00	61.00	61.00	61.00	
22.00	22.00	22.00	22.00	22.00	22.00
454.00	454.00	454.00	454.00	454.00	
492.00	492.00	492.00	492.00	492.00	492.00
211.00	211.00	211.00	211.00	211.00	211.00
19.60	19.60	19.60	19.60	19.60	19.60

DUST EXTRACTION EQUIPMENT					
333.00	333.00	333.00	333.00	333.00	333.00
333.00	333.00	333.00	333.00	333.00	333.00
412.00	412.00	412.00	412.00	412.00	412.00
431.00	431.00	431.00	431.00	431.00	431.00
					25.30
79.20	79.20	79.20	79.20	79.20	
14.75	14.75	14.75	14.75	14.75	



'CYCLAIR 55'
Dust Extractor
Inlet diameter: 4¼"
Suction rate: 565 ft³/min
Collection capacity: 5 ft³



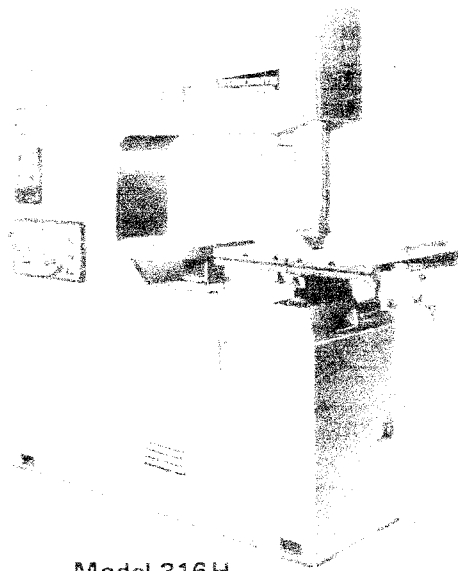
'CYCLAIR 75'
Dust Extractor
Inlet diameter: 6¼"
Suction rate: 1045 ft³/min
Collection capacity: 9 ft³

BANDSAW BLADES FOR USE WITH 1, 2 & 5 SPEED BANDSAWS

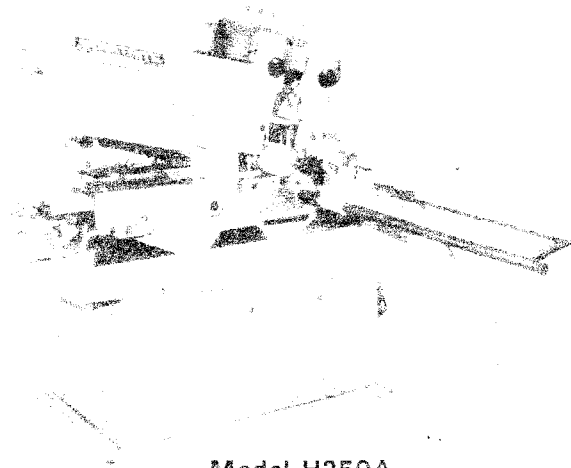
Blade width	MACHINE THROAT SIZE								MODEL No.	
	14"		18"		20"		24"		352	
Blade type:	W	M	W	M	W	M	W	M	W	M
1/8"	4.16	3.64	4.16	3.64	4.16	3.88	4.16	3.88	4.16	3.64
3/16"	4.16	3.32	4.16	3.32	4.16	3.54	4.16	3.54	4.16	3.32
1/4"	3.30	2.94	3.30	2.94	3.30	3.13	3.30	3.13	3.30	2.94
3/8"	3.30	3.01	3.30	3.01	3.30	3.21	3.30	3.21	3.30	3.01
1/2"	3.38	3.15	3.38	3.15	3.38	3.36	3.15	3.36	3.36	3.15
5/8"	3.72	4.05			3.72	4.32			3.72	4.05
3/4"									4.00	4.48

W = Woodcutting blades M = Metal & Plastic cutting blades.

For other types of blades see Supaflex Bandtool Price List



Model 316H



Model H250A

STARTRITE[®] BRITAIN'S BIGGEST SUPPLIERS OF BANDSAWS

The Startrite range also includes filing arbor sawbenches and panel saws, Bandit bench model vertical bandsaws, a wide range of metal cutting vertical bandsaws and horizontal band cut-off machines from 7" to 26" diameter capacity for manual, semi-automatic and fully automatic operation. Ask for separate details.

NOTE: Prices are ex-works and do not include V.A.T. which will be charged extra. All orders are accepted subject to our standard conditions of sale.

600[®]