Brobo Waldown (Aust) Pty. Ltd.

A.C.N. 098 264 316
A.B.N. 42 098 264 316

Quality System
Quality Endorsed Company
ISO 9001 Lic 10292
Standards Australia

8 Fowler Road Dandenong 3175
Victoria Australia
PO Box 4274 Dandenong Sth. 316
Tel: 61 3 9792 9944
Fax: 61 3 9791 9955
Email: info@brobo.com.au
Web: www.brobo.com.au

Toolpost Grinders

AUSTRALIAN MADE

YOUR BROBO WALDOWN DISTRIBUTOR IS:

- Precision Drilling Machines
- Tapping Machines
- Multi Head Drills
- Tool Grinders
- Tool Post Grinders
- Machine Vices
- Special Production Equipment
- Accessories
- Rivetting Machines
- Pedestal Grinders
- Metal Cutting Saws
- Linishers

OPERATING MANUAL FOR

BROBO WALDOWN TOOLPOST GRINDERS

CONTENT		PAGE

Issue Date -- September 2002 P/N 4044010

1.) SPECIFICATION / CAPACITY

Table 1 Toolpost Grinder Configurations - Model C0.

QUILL TYPE	MODEL	MOTOR PULLEY Dia. (mm)	QUILL PULLEY Dia. (mm)	QUILL RPM	MAXIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	MINIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	STANDARD WHEEL SIZE (mm)	MAXIMUM GRINDING DEPTH (mm
C0 Ext ernal	C0-A	22	38	7200	.85 *	32	53	20	80 x 13 x 12.7	-
C0 Internal	C0-B	55	28	24500	25	32.1	19	24.3	19 x 13 x 6.35	73
C0 Internal Collet type	C0-C	55	22	31250	20	32.7	17	27.8	Not supplied	73
C0 Internal Long reach	C0-E	55	38	18100	34 *	32.2	32	30.3	Not supplied 6.35 bore	125

Table 2 Toolpost Grinder Configurations - Model C1.

QUILL TYPE	MODEL	MOTOR PULLEY Dia. (mm)	QUILL PULLEY Dia. (mm)	QUILL RPM	MAXIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	MINIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	STANDARD WHEEL SIZE (mm)	MAXIMUM GRINDING DEPTH (mm)
C1 External	C1-A	32	80	5000	125	32.7	75	19.6	125 x 13 x 12.7	-
C1 Internal	C1-B	80	38	26300	25	34.4	19	26.2	25 x 13 x 6.35	73
C1 Internal Collet type	C1-C	80	32	31250	20	32.7	17	27.8	Not supplied	73
C1 Internal Long reach	C1-E	80	55	18200	34 *	32.4	32	30.5	Not supplied 6.35 bore	125

Table 3 Toolpost Grinder Configurations - Model C2.

QUILL TYPE	MODEL	MOTOR PULLEY Dia. (mm)	QUILL PULLEY Dia. (mm)	QUILL RPM	MAXIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	MINIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	STANDARD WHEEL SIZE (mm)	MAXIMUM GRINDING DEPTH (mm)
C2 External	C2-A	96	64	4200	150	33	100	22	150 x 13 x 12.7	-
C2 Internal	C2-B	152	34	12500	50	32.7	50/30	32.7/ 19.6	38 x 13 x 12.7	137
C2 Internal long reach	C2-C	152	34	12500	50	32.7	50	32.7/ 19.6	Not supplied 9.53 bore	225

Table 4 Toolpost Grinder Configurations - Model C3

QUILL TYPE	MODEL	MOTOR PULLEY Dia. (mm)	QUILL PULLEY Dia. (mm)	QUILL RPM	MAXIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	MINIMUM WHEEL Dia. (mm)	SURFACE SPEED (m/s)	STANDARD WHEEL SIZE	MAXIMUM GRINDING DEPTH (mm)
C3 Ext ernal	C3-A	74	82.3	2520	250	33	150	19.8	250 x 19 x 19	-
C3 Internal	C3-B	152	34	12500	50	32.7	50/30	32.7/ 19.6	38 X 13 X 12.7 12.7 bore	170
C3 Int ernal long reach	C3-C	152	34	12500	50	32.7	50/30	32.7/ 19.6	Not supplied 12.7 bore	300

Not es: All wheel sizes indicated are specified as outer diam./width/bore diam.
All maxi mumgrinding wheel sizes quoted are based on 33 m/s (6496 feet/min) surface speed.
All maximum wheel sizes marked * are non st andardand should be specially obtained from the wheel manufacturer.

WARNING **Misuse of the pulley combinations can result in grinding wheel speeds exceeding the manufacturer's approved running speeds. This condition could result in grinding wheel failure and possible injury to the operator.**

Brobo Waldown P/L does not condone or authorise the use of this equipment in this manner and will not accept responsibility and/or warranty claims under these circumstances.

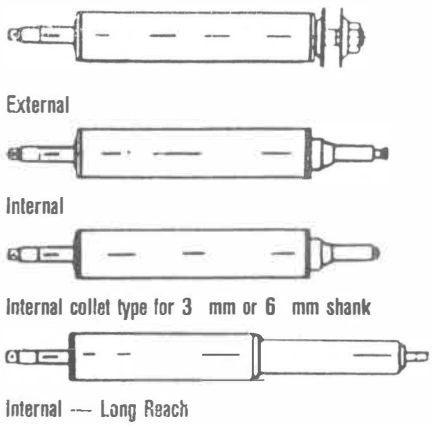
1.) SPECIFICATION / CAPACITY cont.

TOOLPOST GRINDER QUILLS

STANDARD QUILLS

A broad quill selection makes your Toolpost Grinder a match for any grinding requirement - deep internal work, small hole grinding with mounted wheels and external grinding.

You can change quickly from one grinding operation to another simply by changing quills. Special quills to suit particular applications can be made to order - prices on application.



2.) SHIPPING & CONTENTS.

Your grinding machine is shipped in a crate.
The crate contains the following items that are packed "loose".

Standard Accessories

1. Grinding wheel **(standard or as specified with order)**
2. Steel carry case for C0 and C1.
3. Internal and External quills and additional pulleys for C0 and C1.
4. Manual.

3.) SAFETY INSTRUCTIONS

PLEASE ENSURE YOU READ THIS INFORMATION PRIOR TO USING THE MACHINE!

The noise level of an idling Brobo Waldown Toolpost has been measured to be on the limit of the established acceptable level as set by the **Australian Occupational Health and Safety Regulations 1992.**

Please note that higher peak noise levels may be encountered when grinding. Under these circumstances, management should make available to the operator(s) the appropriate hearing protection equipment as prescribed under the above-mentioned act.

1. Only **TRAINED OPERATORS** should be **permitted** to operate this machine. Before the machine is used, carefully read the **"Machine Operating Manual"**, especially the **"Safety Instructions"**. Supervision must ensure both the operator and themselves understand the machine's correct method of operating before it is used by the operator.

   1.1. HIGH VOLTAGE POWER - 415/240 VOLTS.
   The power supply to this machine is of a high level and unauthorised interference and or inadequate maintenance could result in a situation that could put the operator at risk. A qualified electrical engineer should be assigned to maintain/repair the system.

2. **Do not** operate this machine unless **all safety guards are in place.**

3. **Do not** touch or place hands and arms near the grinding wheel, buff, or exposed shaft when the machine is running.

4. **Do not** load or unload the machine while the grinder is running.

3.) SAFETY INSTRUCTIONS cont.

5. **Always wear eye protection** when attending and operating this machine.

6. **Do not** wear loose clothing, long sleeves, gloves, jewellery or any other item which may be caught. Confine long hair in an appropriate hair net or cap.

7. Support the work piece on securely in the machine to prevent it falling or jamming during the grinding cycle.

8. Keep the grinding area clear of tools and other loose objects, and keep the floor area clear of liquid spillage and excessive dust.

9. **Disconnect** the electrical power when performing maintenance work on the machine or making adjustments other than those necessary for the normal operation of the machine.

10. Ensure that the electric motors are protected (kept clear) from coolant or other fluids.

11. If **flooding** of the machine/factory occurs as an extreme condition, it is the responsibility of management to ensure that **power to** this **machine**, as well as all other machines, **is isolated**, not only at the machine, but **at the main circuit board** to the premises.

12. Always follow safe practices and inspection procedures when installing grinding wheels.

13. Rapid and excessive metal removal by grinding can lead to workpieces becoming quite hot. In addition, the grinder motor and quill can become hot if the machine is used for long periods, although this is quite normal.

14. The operating speed of the machine **must** always be **within** the grinding wheel **manufacturer's approved maximum speed rating.** Exceeding this maximum speed rating could result in grinding wheel failure and operator injury.

    Always operate within the grinding wheel speed rating.

15. Ensure appropriate breathing equipment is used if grinding objects that produce toxic fumes and/or excessive dust (when no coolant is used). Also, note that some coolant solutions may cause allergic reactions to some people

ALWAYS OPERATE THE MACHINE SAFELY. BE CAREFUL!

4.) INSTALLATION - MECHANICAL

Ensure that the machine has adequate lighting and ventilation.

The grinder must be clamped securely in the machine toolpost, and adjusted for height so that the grinding spindle is in line with the machine centre.

The type C0 will need packing to achieve this but the C1 can be raised or lowered on its own centre post, and the C2 & C3 can be raised or lowered on their dovetail slides.

8). ACCESSORIES

Part No.	Model	Description
4121220	C0/C1	Collet quill (type C) with 3mm collet (use existing pulleys and belt)
4121230	C0/C1	Collet quill (type C) with 6mm collet (use existing pulleys and belt)
4121240	C0/C1	Collet quill (type C) with 3 & 6mm collets (use existing pulleys and belt)
4121040	C0	Internal long reach quill (type E) (use existing pulleys and belt)
4121260	C1	Internal long reach quill (type E) with quill pulley (55 mm diameter) (use existing belt)
4221080	C2	Internal quill (type B) kit (includes 2 new pulleys (34 and 152 diameter), belt, locking pin, grub and screw)
4221090	C2	Internal long reach quill (type C) kit (includes 2 new pulleys (34 and 152 diameter), belt, locking pin and grub screw)
4321080	C3	Internal quill (type B) kit (includes 2 new pulleys (34 and 152 diameter), belt, locking pin and grub screw)
4321090	C3	Internal long reach quill (type C) kit (includes 2 new pulleys (34 and 152 diameter), belt, locking pin and grub screw)

9). SPARE PARTS

Part No.	Description
4034030	22 Diameter pulley for C0
4034260	28 Diameter pulley for C0
4134060	32 Diameter pulley for C1
4134170	38 Diameter pulley for C0/C1
4034270	55 Diameter pulley for C0/C1
4134020	80 Diameter pulley for C1
4224130	64 Diameter pulley for C2 (external quill)
4204220	96 Diameter pulley for C2 (external motor)
4234160	34 Diameter pulley for C2 (internal quill)
4232090	152 Diameter pulley for C2 (internal motor)
4324020	87 Diameter pulley for C3 (external quill)
4334010	79 Diameter pulley for C3 (external motor)
4334110	34 Diameter pulley for C3 (internal quill)
4322040	152 Diameter pulley for C3 (internal motor)
4035090	Belt for C0 quills (Daclon/flat 17" x 5/8" wide)
4125040	Belt for C1 quills (Daclon/flat 21" x 3/4" wide)
4235040	Belt for C2 external quill and C3 internal quill (Daclon/flat 37" x 1" wide)
4235080	Belt for C2 internal quills (Daclon/flat 40" x 1" wide)
4325020	Belt for C3 external quill (V-belt M34 (880 MM) Z-10 section) (3 required)
4121010	External quill assembly (C0/C1 type A)
4121020	Internal quill assembly (C0/C1 type B)
4121030	Internal collet quill assembly (C0/C1 type C)
4121040	Internal long reach quill assembly (C0/C1 type E)
4221010	External quill assembly (C2 type A)
4221020	Internal quill assembly (C2 type B)
4221030	Internal quill assembly (C2 type C)
4321010	External quill assembly (C3 type A)
4321020	Internal quill assembly (C3 type B)
4321030	Internal quill assembly (C3 type C)
4025140	6mm collet for C0/C1 collet quill
4025150	3mm collet for C0/C1 collet quill
4025160	1/4" collet for C0/C1 collet quill
4025170	1/8" collet for C0/C1 collet quill

WARNING **Ensure that the correct pulleys are used with each grinder and quill. Refer to page 1 for the correct pulley configurations.**
Misuse of the pulley combinations can result in grinding wheel speeds exceeding the manufacturer's approved running speeds. This condition could result in grinding wheel failure and possible injury to the operator.
Brobo Waldown P/L does not condone or authorise the use of this equipment in this manner and will not accept responsibility and/or warranty claims under these circumstances.

5.) INSTALLATION - ELECTRICAL

A qualified and authorised person should carry out the electrical installation.

Single Phase and Three Phase

a. Single phase machines are provided with a three pin 10 amp rated plugs and leads for connection to 240V, 50 Hz power supply in Australia.

b. Three phase machines should be fitted with suitable approved four pin plugs (three phases and earth) **(not supplied)**.

NOTE: Check power supplied and motor specifications before plugging in machine.

Check direction of spindle rotation. This is a clockwise rotation viewing the motor from the spindle end.

Ensure that all electrical leads and cables (including supply leads) are maintained in good condition, and replaced if cut, sliced or damaged in any way.

6). OPERATION

The grinding wheel that is supplied is suitable for most general purpose work. For other materials contact your usual abrasive supplier for suitable wheels. It is important that grinding wheels run at the correct speed as indicated by the wheel manufacturer.

Refer to the pulley combination chart with the type C0, C1 machines.

The C2, C3 types are only supplied with one set of pulleys to suit the quill (and wheel) supplied.

Ensure that you dress the grinding wheel with a diamond mounted on the machine bed. This must be done prior to use, and each time the toolpost grinder is remounted.

Maintain the grinding wheels in good condition.

It is suggested that the work should run at 10 - 30 metres per minute in the opposite direction to the grinding wheel, however, this aspect may vary to suit particular conditions.

The best results will be obtained using standard grinding techniques, ie. fine cuts and relatively high feed rates.

It is recommended that the machine slideways are kept covered whilst using the toolpost grinder, to prevent abrasive grit reaching them. Keep slideways thoroughly clean and lubricated.

Note: The accuracy of grinding with a toolpost grinder depends on the accuracy of the machine on which it is mounted. Lathe cross slide screw pitches, for instance, are usually rather coarse for fine tolerance work. Accuracy in such cases can be assisted by using dial indicators to measure actual slide movement.

7). MAINTENANCE

1). All models are fitted with sealed motor bearings and no further lubrication is required.

2). The grinding spindle bearings are grease packed and only require a few drops of light machine oil (SAE 10-20), applied daily to maintain the lubrication.

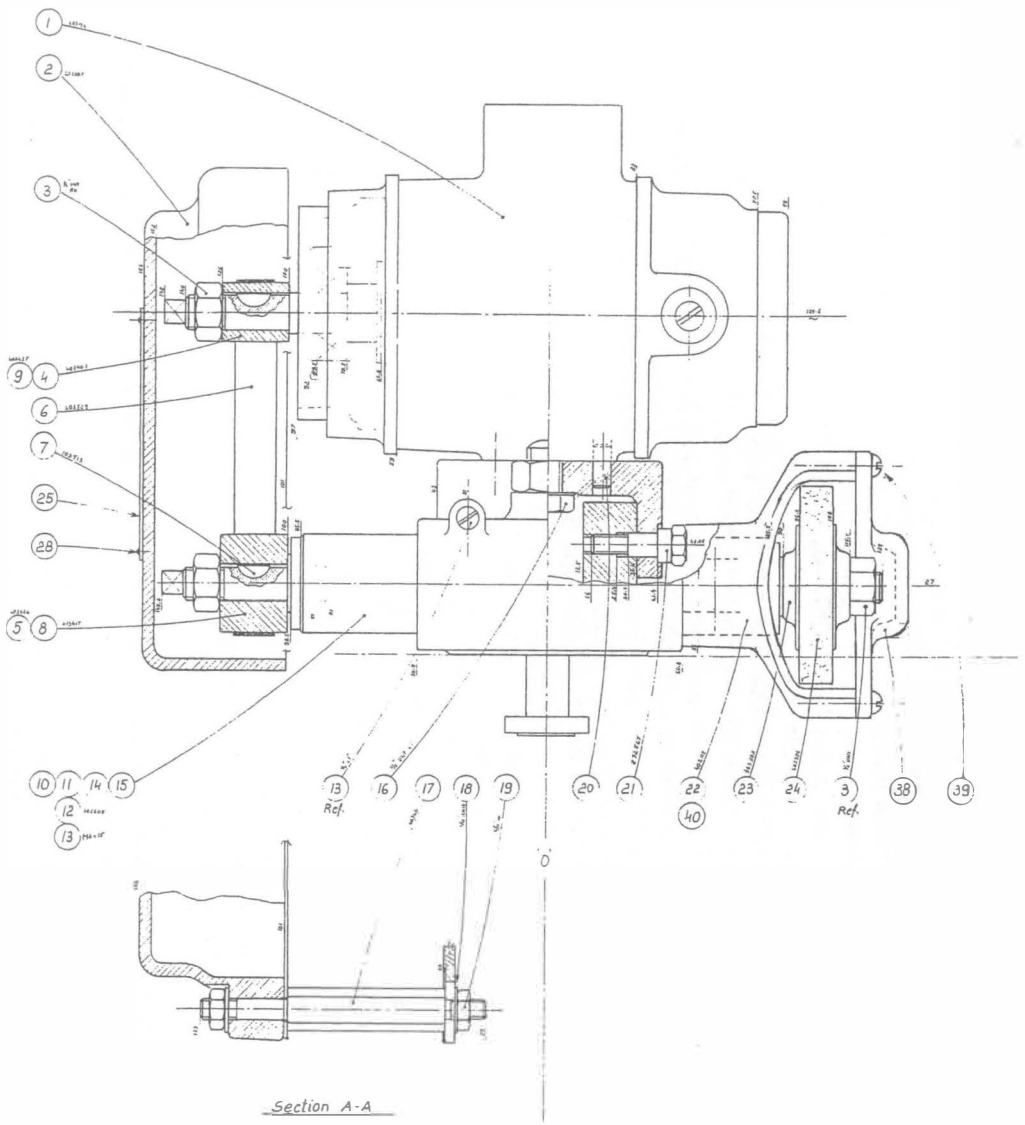
3). The quills (on which the grinding wheel is mounted), should be oiled at regular intervals with a very light lubricating oil (as indicated in part 2). On C0, C1, and C2 models the oiling screw (remove to oil) is located in the centre of the quill and is visible through the quill clamp casting. On the C3 model the screw is in the quill body outside the clamp casting.

10). ASSEMBLY DRAWING PART LIST - MODEL C0

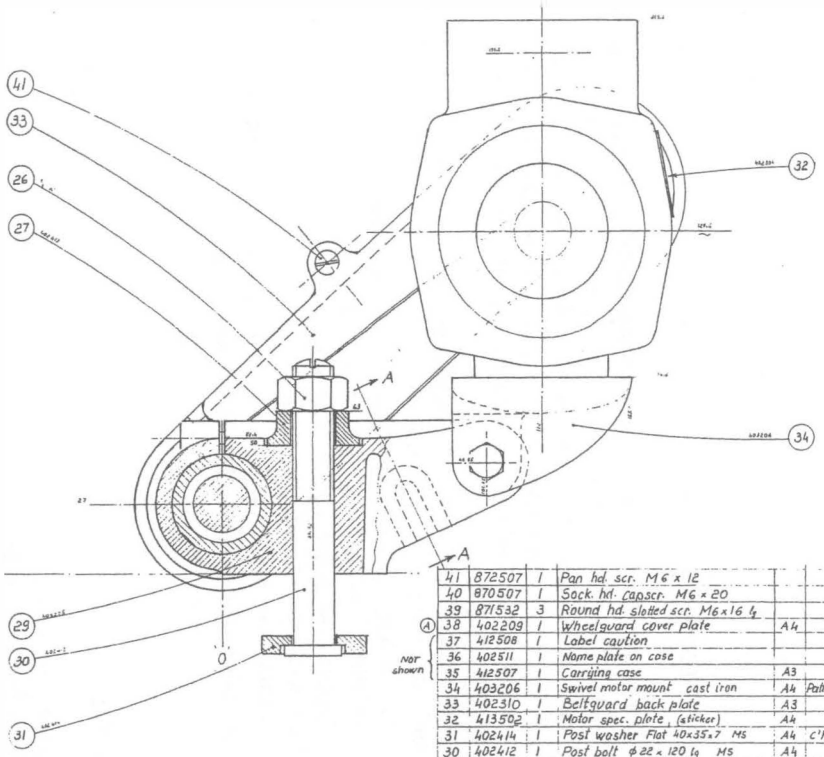
Det.	Part No.	Qty.	Name & Material	Sheet	Remark
41	8725070	1	PAN HEAD SCREW M6 X 12		
40	8705070	1	SOCKET HEAD CAP SCREW M6 X 20		
39	8715320	3	ROUND HEAD SLOTTED SCREW M6 X 16		
38	4022090	1	WHEEL GUARD COVER PLATE	A4	
37	4125080	1	"CAUTION" LABEL		NOT SHOWN
36	8115080	1	BW LABEL (STICKER)		NOT SHOWN
35	4125070	1	CARRY CASE	A3	NOT SHOWN
34	4032060	1	SWIVEL MOTOR MOUNT (CAST IRON)	A4	
33	4023100	1	BELT GUARD BACK PLATE	A3	
32	4135020	1	MOTOR SPEC PLATE (STICKER)	A4	
31	4024140	1	POST WASHER	A4	
30	4024120	1	POST BOLT	A4	
29	4032050	1	BASE (CAST IRON)	A4	
28	8715730	2	DRIVE PIN NO. 2		
27	4024130	1	POST BOLT BOSS	A4	
26	8725610	1	HEX NUT 5/8" W		
25	1065100	1	SERIAL NAMEPLATE	A4	
24	4035060	1	GRINDING WHEEL Ø 3" X 1/2" X 1/2" BORE A60		
23	3633080	2	WHEEL FLANGE	A4	
22	4022080	1	WHEEL GUARD (AL. CASTING)	A4	
21	8725670	2	SHOULDER SCREW Ø 10 X 6 X M8		
20	8705990	2	ROLL PIN Ø 6 X 24		
19	8705720	2	HEX NUT M8		
18	8705790	2	FLAT WASHER Ø 8		
17	4034110	1	BELT GUARD STUD	A4	
16	8705600	1	HEX HEAD SCREW M10 X 25		
15	4121040	1	QUILL ASSEMBLY TYPE 'E' - INTERNAL	A3	OPTIONAL
14	4121030	1	QUILL ASSEMBLY TYPE 'C' - INTERNAL	A3	OPTIONAL
13	8705080	3	SOCKET HEAD CAP SCREW M6 X 25		
12	4025080	1	GRINDING WHEEL Ø 19 X 13 X 6.35 A60 LVBE	A4	OPTIONAL
11	4121020	1	QUILL ASSEMBLY TYPE 'B' - INTERNAL	A3	
10	4121010	1	QUILL ASSEMBLY TYPE 'A' - EXTERNAL	A4	
9	4034270	1	PULLEY Ø 55 (ALUMINIUM)	A4	
8	4134170	1	PULLEY Ø 38 (ALUMINIUM)	A4	
7	1035130	2	WOODRUFF KEY NO. 3		
6	4035090	1	BELT 17" X 5/8" WIDE - DACLON		
5	4034260	1	PULLEY Ø 28 (ALUMINIUM)	A4	
4	4034030	1	PULLEY Ø 22 (ALUMINIUM)	A4	
3	8715580	3	HEX NUT 1/2" UNF		
2	4032070	1	BELT GUARD (AL. CASTING)	A4	
1	4031040	1	MOTOR ASSEMBLY 240 V	A3	

RAW MAT. #. N/A	Drawn G.F.	Scale 1:1	BROBO WALDOWN Pty Ltd
Mass in Kg. N/A	Date 21 Oct 82	Checked	
Mat/Spec N/A	Titled TOOLPOST GRINDER MODEL C0 - 240 V	Drg No. 4030020	Revision

CADKEY A2



Section A-A



	Part No.	Qty	Name	Sheet size	Remark
41	872507	1	Pan hd. scr. M6 x 12		
40	870507	1	Sock. hd. cap scr. M6 x 20		
39	871532	3	Round hd. slotted scr. M6 x 16 lg		
(A) 38	402209	1	Wheelguard cover plate	A4	
37	412508	1	Label caution		
36	402511	1	Name plate on case		
35	412507	1	Carrijing case	A3	
34	403206	1	Swivel motor mount cast iron	A4	Pattern No: 38 A
33	402310	1	Beltguard back plate	A3	
32	413502	1	Motor spec. plate (sticker)	A4	
31	402414	1	Post washer Flat 40x35x7 MS	A4	C'harden
30	402412	1	Post bolt ϕ22 x 120 lg MS	A4	
29	403205	1	Base cast iron	A4	Pattern No:
28	871573	2	Drive pin No.2.		
27	402413	1	Post bolt boss ϕ36 x 20 lg MS	A4	
26	872561	1	Hex. nut 5/8" W		
25	106510	1	Serial namplate	A4	
24	403506	1	Grinding wheel 93"x 1/2"x 1/4" bore A60		
23	363308	2	Flange R2 CDCDa	A4	
(A) 22	402208	1	Wheelguard alu. cast.	A4	
21	872567	2	Shoulder screw ϕ10x16x M8		
20	870599	2	Roll pin ϕ6 x 24		
19	870572	2	Hex. nut M8		
18	870579	2	Flat washer ϕ8		
17	403411	1	Beltguard stud Hex. 13 A/F x 105 lg MS	A4	
16	870560	1	Hex.hd. scr. M10 x 25		
15	412104	1	Quill ass'y int.extended Typ.'E'	A3	Optional
14	412103	1	Quill ass'y int. Typ. 'C'	A3	Optional
13	870508	3	Sock. hd. cap scr. M6 x 25		
12	402508	1	Grinding wheel ϕ3"x 1/2"x 1/4" bore, A60 LVBE		Optional
11	412102	1	Quill ass'y int. Typ 'B'	A3	
10	412101	1	Quill ass'y ext. Typ 'A'	A4	
9	403427	1	Pulley ϕ55 Alu. ϕ57 x 30	A4	
8	413417	1	Pulley ϕ38 Alu. ϕ39 x 30	A4	
7	103513	2	Woodruff key No.3.		
6	403509	1	Belt 17" x 5/8" wide Doclon		
5	403426	1	Pulley ϕ28 Alu. ϕ30 x 30	A4	
4	403403	1	Pulley ϕ22 Alu. ϕ30 x 30 lg	A4	
3	871558	3	Hex. nut 1/2" UNF		
2	403207	1	Belt guard alu casting	A4	Pattern No:
1	403104	1	Motor ass'y 240 V	A3	115 V option see 403116

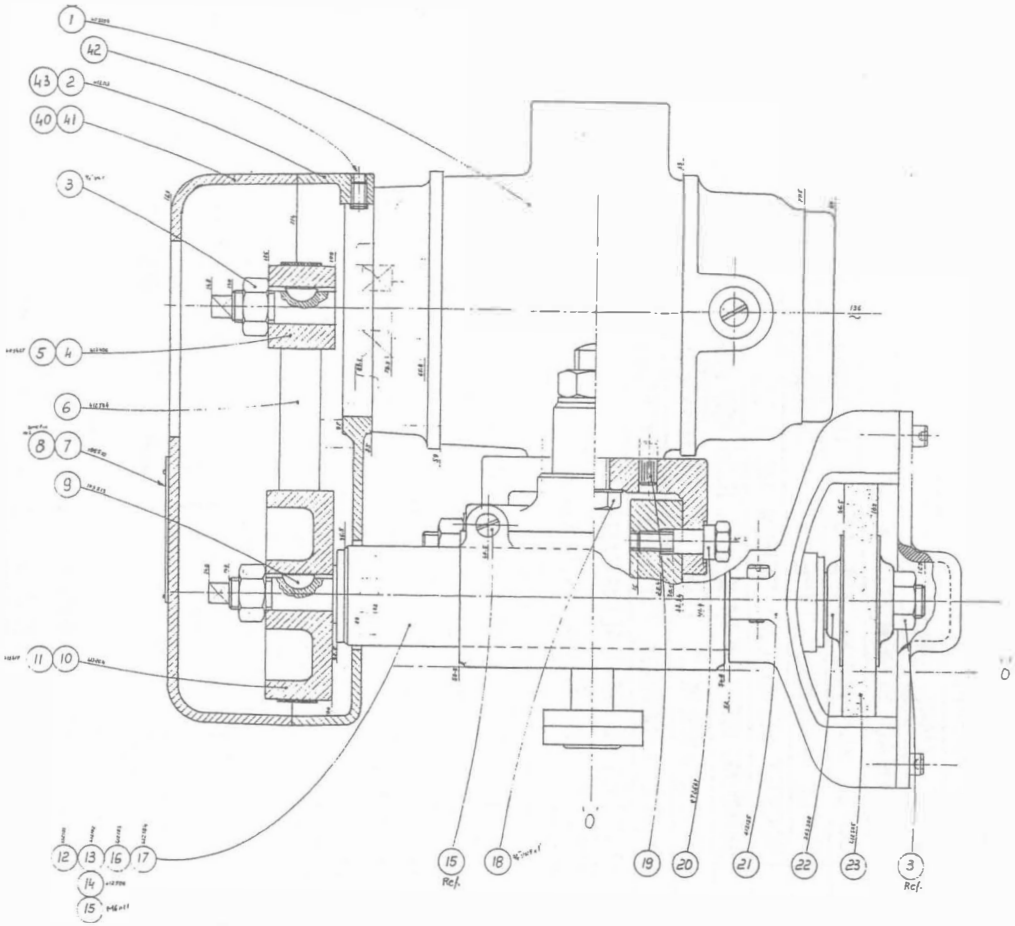
Not shown

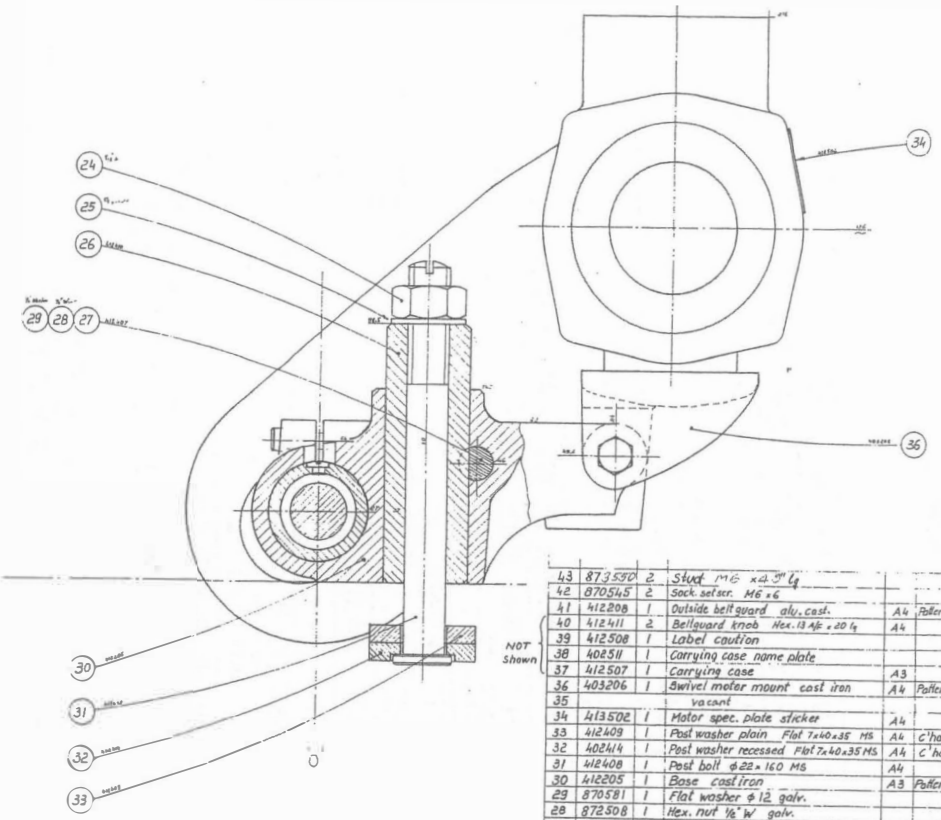
Speed chart		Motor pulley RPM: 1425	Quill pulley	Spindle RPM	Remark
	A quill ext.	ϕ22	ϕ38	7200	Approx. theorical figures, based on 6000 feet/min surface speed on nominal size of grindingwheel.
	B quill int.	ϕ55	ϕ28	24500	
Optional	C coler quill	ϕ55	ϕ22	31200	
	E long quill	ϕ55	ϕ38	18000	

Pulleys supplied with STD unit are: ϕ22 P/N: 403403
ϕ28 " " 403426
ϕ38 " " 413417
ϕ55 " " 403427

TOLERANCES UNLESS STATED	
WHOLE No.	± 5mm
1 DEC. PLACE	± 3mm
2 DEC. PLACES	± 1mm
ANGLES	± 1
DRAWN	G.F.
DATE	21. 10. 82.
SCALE	1:1
MATERIAL	as noted
TITLE	Toolpost grinder C0 240 V
DRG. No.	403002
REVISION	A

WALDOWN MACHINE TOOLS PTY. LTD. 3 BLOOMSBURG STREET, ABBOTSFORD, VIC.





43	873590	2	Stud M6 x 40 3" lg		
42	870545	2	Sock. set scr. M6 x 6		
41	412208	1	Outside belt guard alu. cast.	A4	Pattern No:
40	412411	2	Beltguard knob Hex. 13 A/F x 20 lg	A4	
39	412508	1	Label caution		
38	402511	1	Carrying case name plate		
37	412507	1	Carrying case	A3	
36	403206	1	Swivel motor mount cast iron	A4	Pattern No: 38A
35			vacant		
34	413502	1	Motor spec. plate sticker	A4	
33	412409	1	Post washer plain Flat 7x40x35 MS	A4	C'harden
32	402414	1	Post washer recessed Flat 7x40x35 MS	A4	C'harden
31	412408	1	Post bolt ϕ22 x 160 MS	A4	
30	412205	1	Base cast iron	A3	Pattern No: 460 A
29	870581	1	Flat washer ϕ12 galv.		
28	872508	1	Hex. nut ½" W galv.		
27	412407	1	Lock stud ϕ½" x 85 Br. MS.	A4	
26	412410	1	Post sleeve ϕ38 x 105 lg MS	A4	
25	870582	1	Flat washer ϕ16 galv.		
24	872561	1	Hex. nut 5/8" W galv.		
23	412505	1	Grinding wheel ϕ5" x ½" x ϕ1¼" A60		
22	363308	2	Wheel flange 2mm R CDCDR	A4	
21	412125	1	Wheel guard ass'y (Alu cast.)	A4	
20	872567	2	Shoulder scr. ϕ10 x 16 x M8		
19	870599	2	Rollpin ϕ6 x 24		
18	870560	1	Hex. hd. scr. M10 x 25		
17	412104	1	Quill ass'y int. Type 'E' extended	A3	Optional
16	412103	1	Quill ass'y int. Type 'C'	A3	Optional
15	870508	3	Sock. hd. capscr. M6 x 25		
14	412506	1	Grinding wheel 4½" x ½" x ¼" A60 LVBE		Optional
13	412102	1	Quill ass'y int. Type 'B'	A3	
12	412101	1	Quill ass'y ext. Type 'A'	A4	
11	413417	1	Pulley ϕ38 Alu. ϕ39 x 30	A4	
10	413204	1	Pulley ϕ80 Alucasting	A4	Pattern No. M106
9	103513	2	Woodruff key No. 3		
8	871573	2	Drive pin No. 2		
7	106510	1	Serial nameplate	A4	
6	412504	1	Belt 21" x 3/4" Daclon		
5	403427	1	Pulley ϕ55 Alu. ϕ57 x 30 lg	A4	
4	413406	1	Pulley ϕ32 Alu. ϕ33 x 30 lg.	A4	
3	871558	3	Hex. nut ⅛" UNF		
2	412207	1	Inside beltguard alu. cast.	A4	Pattern No:
1	403104	1	Motor ass'y 240V	A3	
Ref.	Part No.	Qnty.	Name	Sheet size	Remark

NOT Shown

Speed chart C1 grinder				
	Motor pulley RPM 12890	Quill pulley	Spindle RPM	Remark
A quill ext.	ϕ32	ϕ80	5000	Approx. theorical figures, based on 6000 feet/min. surface speed on nominal size of grinding wheel
B quill int.	ϕ80	ϕ38	26300	
Optional C collet quill	ϕ80	ϕ32	31200	
Optional E long quill	ϕ80	ϕ55	18200	

Pulleys supplied with STD unit are: ϕ32 P/N 413406, ϕ38 " 413417, ϕ80 " 413204

Optional with 'E' quill: (ϕ55 P/N 403427)

TOLERANCES UNLESS STATED	DRAWN G.F.	SCALE 1:1	WALDOWN MACHINE TOOLS PTY. LTD. 3 BLOOMBERG STREET, ABBOTSFORD, VIC.
WHOLE No. ± 5mm; 1 DEC. PLACE ± 2mm; 2 DEC. PLACES ± 1mm; ANGLES ± 1°	DATE 26.10.82	MATERIAL as noted	
	TITLE 700lpost grinder C1 240 V		DRG. No. 413002 REVISION

10). ASSEMBLY DRAWING PART LIST - MODEL C3

Det.	Part No.	Qty.	Name & Material	Sheet	Remark
47	8705460	1	SOCKET HEAD SET SCREW M6 X 8		
46	8705730	1	HEX NUT M10		
45	8725070	6	PAN HEAD SLOTTED SCREW M6 X 12		
44	4323020	1	WHEEL GUARD COVER PLATE	A4	
43	4222030	1	LEADSCREW NUT (BRONZE)	A4	
42	8705980	1	ROLL PIN Ø 6 X 16		
41	4321030	1	QUILL ASSEMBLY TYPE 'C' - INTERNAL	A2	OPTIONAL
40	4225100	1	GRINDING WHEEL Ø 38 X 13 X 12.7 A60		OPTIONAL
39	4334110	1	PULLEY Ø 34 (ALUMINIUM)	A4	OPTIONAL
38	4321020	1	QUILL ASSEMBLY TYPE 'B' - INTERNAL	A2	OPTIONAL
37	4321010	1	QUILL ASSEMBLY TYPE 'A' - EXTERNAL	A2	
36	4324020	1	PULLEY Ø 82.3 (ALUMINIUM)	A4	
35	4325040	1	GRINDING WHEEL Ø 250 X 19 X 19 A60 MVBE		
34	4322020	1	WHEEL GUARD (CAST IRON)	A3	
33	8705140	1	SOCKET HEAD CAP SCREW M8 X 35		
32	4322010	1	QUILL SLIDE (CAST IRON)	A4	
31	4224020	1	LEADSCREW COLLAR	A4	
30			VACANT		
29	8705940	1	ROLL PIN Ø 4 X 24		
28	4234010	1	LEADSCREW Ø 18 X 160 LG	A4	
27	4224050	1	GIB STRIP	A4	
26	8705710	4	HEX NUT M6		
25	8725140	4	SOCKET HEAD SET SCREW M6 X 30		
24	4322040	1	PULLEY Ø 152 (ALUMINIUM)	A4	OPTIONAL
23	4334010	1	PULLEY Ø 79 (ALUMINIUM)	A4	
22	4204240	2	PULLEY LOCKING PIN	A4	OPTIONAL
21	8705480	2	SOCKET HEAD SET SCREW M8 X 12		
20	8705090	2	SOCKET HEAD CAP SCREW M6 X 35		
19	8725850	1	HEX HEAD SCREW M10 X 80		
18	4232010	1	BASE (CAST IRON)	A3	
17	4335010	1	MOTOR 3 PH, 2 POLE, 1.5 KW		
16	4322030	1	MOTOR PLATE (CAST IRON)	A3	
15	8705790	5	FLAT WASHER Ø 8		
14	8705570	4	HEX HEAD SCREW M8 X 30		
13	4223030	1	BELT GUARD BACK PLATE	A3	
12	8735310	4	HEX HEAD SCREW M10 X 35		
11	8705730	3	HEX NUT M10		
10	8715990	1	STUD M10 X 100 LG		
9	4214230	1	SPIDER	A4	
8	4235040	1	FLAT BELT 37" X 1" WIDE - DACLON		OPTIONAL
7	4325020	3	V-BELT M34 (880 MM) Z-10 SECTION		
6	8705800	8	FLAT WASHER Ø 10		
5	8705600	2	HEX HEAD SCREW M10 X 25		
4	4222060	1	BELT GUARD (AL. CASTING)	A3	
3	8715730	2	DRIVE PIN NO. 2		
2	1065100	1	SERIAL NAMEPLATE	A4	
1	9301440	1	LEADSCREW HANDLE ASSEMBLY	A4	

RAW MAT. #. N/A	Drawn G.F.	Scale 1:1	BROBO WALDOWN Pty Ltd
Mass in Kg. N/A	Date 18 Jul 84	Checked	
Mat/Spec N/A	Titled TOOLPOST GRINDER MODEL C3 - 415 V	Drg No. 4330110	Revision

CADKEY A2

Brobo Waldown (Aust) Pty. Ltd.

A.C.N. 098 264 316
A.B.N. 42 098 264 316

Quality System
Quality Endorsed Company
ISO 9001 Lic 10292
Standards Australia

8 Fowler Road Dandenong 3175
Victoria Australia
PO Box 4274 Dandenong Sth. 3164
Tel: 61 3 9792 9944
Fax: 61 3 9791 9955
Email: info@brobo.com.au
Web: www.brobo.com.au

RISK/HAZARD ASSESMENT

COMPLIANCE REFERENCES
O.H.&S. 1995.81/1995
AS4024.1 - 1996 SAFEGUARDING OF MACHINERY
AS3100 - 2002 GENERAL REQUIREMENTS FOR ELECTRICAL EQUIPMENT

GRINDING MACHINES - TOOLPOST

HAZARD TYPE	HAZARD IDENTIFICATION	HAZARD ASSESMENT	RISK CONTROL STRATEGIES (Recommended for the Purchaser/Buyer/User)
Mechanical	Entanglement	Low	Do not wear gloves or loose clothing.
	Abrasion	Low	Keep hands clear of Rotating Wheel.
	Impact	Low	Always wear Safety glasses.
Thermal	Burn	Low	Continuous Grinding can result in Material and/or grinder motor heating up.
Hazardous Events	Unexpected start up	Low	During power failure – Turn the machine off.
	Operator error	Low	Ensure that the machine is correctly secured to the lathe.

MACHINE TYPE _____

SERIAL NO. _____ _____ (SAFETY OFFICER)
RECEIVING COMPANY