

# INSTRUCTION MANUAL

## NSW Schools / TAFE - TBRD Manual Tube Bender 1/2" - 1" Round



K8421

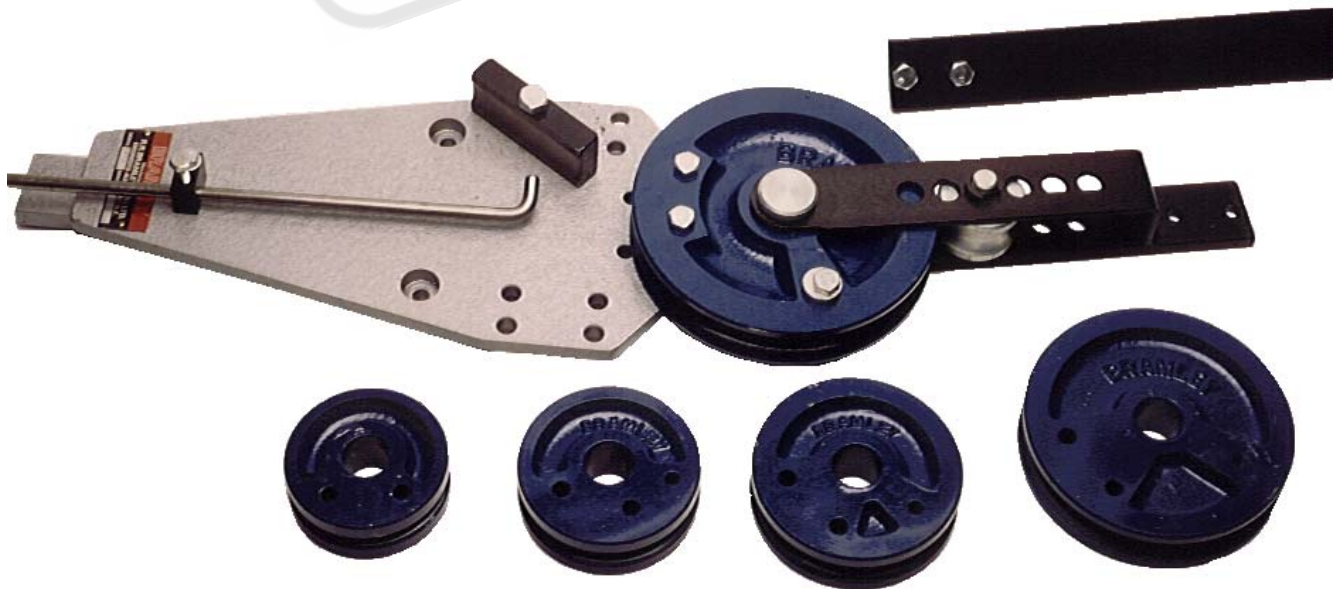
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ESTABLISHED 1921

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## OPERATING INSTRUCTIONS & PARTS LIST

# MANUAL TUBE BENDER



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## R.R BRAMLEY & CO LTD

### Product No 64: MANUAL TUBE BENDER

DWG#	DESCRIPTION	MATERIAL	QUANTITY
1	Body	1/2" MS Profile Cut	1
2	Foot Base	MS: 50 x 16	1
2a	Vice Clamp Block	MS: 50 x 16	1
3	Low Support Roller	MS: 50 x 10	1
4	Upper Support Roller	MS: 50 x 5	1
5	Guide Tube Roller	BMS: 2 1/4" DIA	1
6	Pin Guide Roller	BMS: 16mm or 5/8" DIA	1
7a	1/2" Round Former	Iron Casting BRY 100	1
7b	5/8" Round Former	Iron Casting BRY 112	1
7c	3/4" Round Former	Iron Casting BRY 130	1
7d	7/8" Round Former	Iron Casting BRY 170	1
7e	1" Round Former	Iron Casting BRY 200	1
8	Pivot Pin	BMS: 1 1/8" DIA	1
9	Washer CAM	BMS: 25mm DIA	1
10	Guide Block	BMS: 40 x 19	1
11	Bar Stop Slide	BMS: 32 x 15	1
12	Bar Stop	BMS: 10 DIA 32 x 3mm plate	1
13	Handle	MS: 50 x 5	1

#### ACCESSORIES

20	1 1/8" Round Former	Iron Casting BRY 235	1
21	1/2" Square Former	Iron Casting BRY 130	1
22	5/8" Square Former	Iron Casting BRY 170	1
23	3/4" Square Former	Iron Casting BRY 200	1
24	7/8" Square Former	Iron Casting BRY 235	1
25	1" Square Former	Iron Casting BRY 235	1
26	Flat Former	Iron Casting BRY 200	1
27	Square / Flat Guide	BMS: 2 1/4" DIA	1

## MANUAL TUBE BENDER ASSEMBLY AND OPERATION

Upon receipt of your new Tube Bender, assemble the Handle to the Tube Bender Roller Support with the bolts supplied (see Figure 2 and 3).

Figure 3 shows the Bender Body with holes (A) drilled in the Base Foot and the Vice Clamp Block. These are for mounting the Bender Unit permanently to a Work Bench. Alternatively temporarily in a Vice by holding the Vice Clamp Block.

The Holes marked (B) in Figure 1 are used to position the Guide Block (64/10). This Guide Block can be positioned anywhere over the eight holes to achieve the desired type of bend or radius. By moving the Guide Block from one side to the other, the Bender may be operated in either a clockwise or counter clockwise direction.

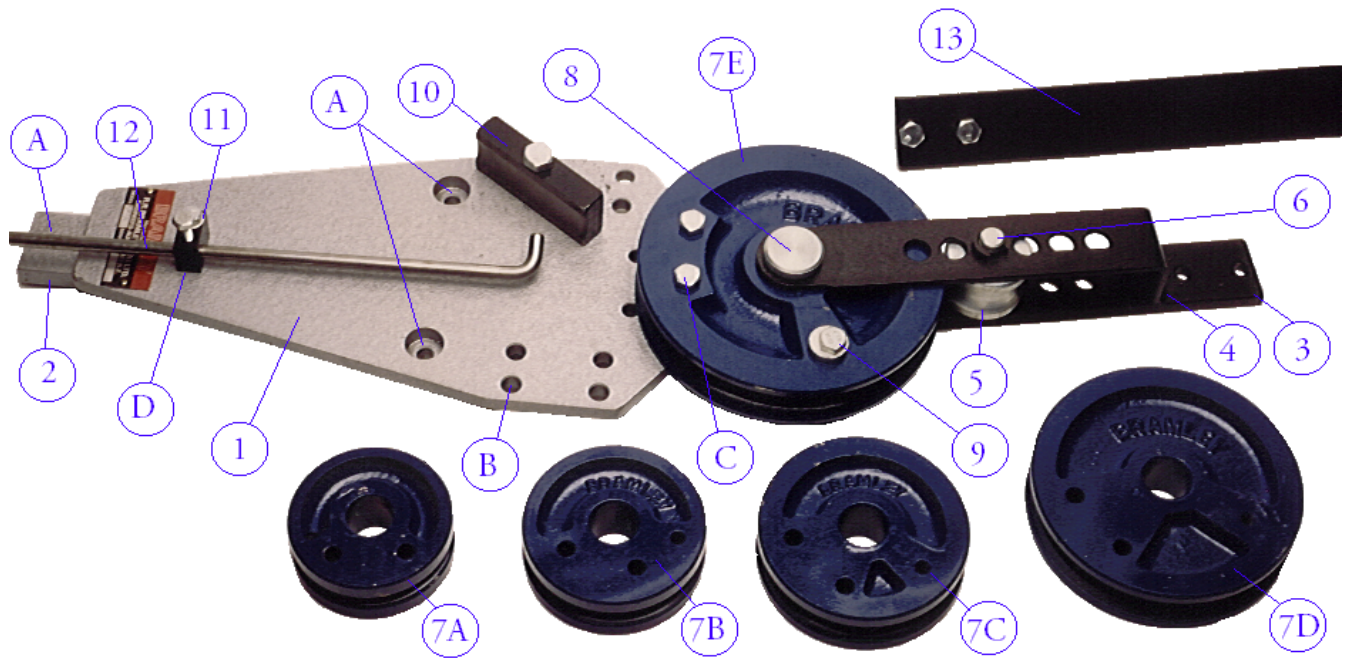
The Holes marked (C) are used for securing the Former to the Body of the Machine. The Body offers two options for positioning the Former. The outside Holes are used for the small Formers and the inside Holes are used for the larger Former. The larger Formers can be located in both sets of Holes but unless a large bend angle is required, it is not recommended to locate the larger Former in the outer two Holes.

The Hole marked (D) is securing Hole for the Bar Stop Assembly. This should be bolted into position when you receive your machine.

Figure 2 shows the Tube Roller Support Frame and Handle assembled. Early models had four Holes for the location of the Guide Roller, more recent models have six. This allows better bending on the 1/2" and 5/8" Round Tube.

Figure 3 is a schematic diagram showing a side of elevation of the assembled Bender. To change a Former it is a simple matter of removing the Pivot Pin. Once the Pivot Pin has been removed, the Support Assembly (Fig.2) can be removed leaving the Former bolted to the Body. Simply unbolt the Former and replace it with the size Former you require. Replacing the Support Assembly is a reversal of the removal procedure.

The Guide Roller can be repositioned to achieve the type or radius of bend you require.



**FIGURE 1**

Thank you for purchasing the Bramley Manually Operated Tube Bending Machine. This Machine has been designed to be as versatile as possible to allow a large variety of tube and steel to be bent. The Machine above is the Model "A" Bender and is shown, as illustrated (Fig 1), with the 1/2", 5/8", 3/4", 7/8" and 1" Formers. Also available are Formers that will allow other sizes of material to be bent. These are listed in Table A.

When order spare parts please refer to parts list (Table B). The parts are numbered on Figure 1 to allow easy identification of parts required.

**TABLE A**

ROUND FORMERS			SQUARE FORMERS		
TUBE SIZE		BENDING DIA	TUBE SIZE		BENDING DIA
1/2"	12.7mm	76	1/2"	12.7mm	108
5/8"	16.0mm	94	5/8"	16.0mm	140
3/4"	19.0mm	108	3/4"	19.0mm	170
7/8"	22.2mm	140	7/8"	22.2mm	196
1"	25.4mm	170	1"	25.4mm	190
1 1/8"	28.6mm	196			

