

OPITEC

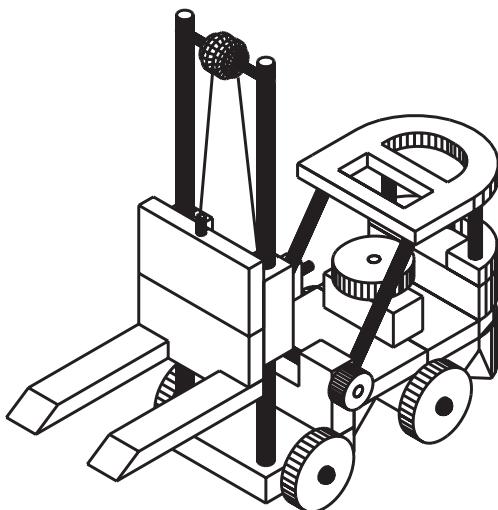
Hobbyfix

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Fork Lift Truck with Winding Gear

Please Note

The OPITEC range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

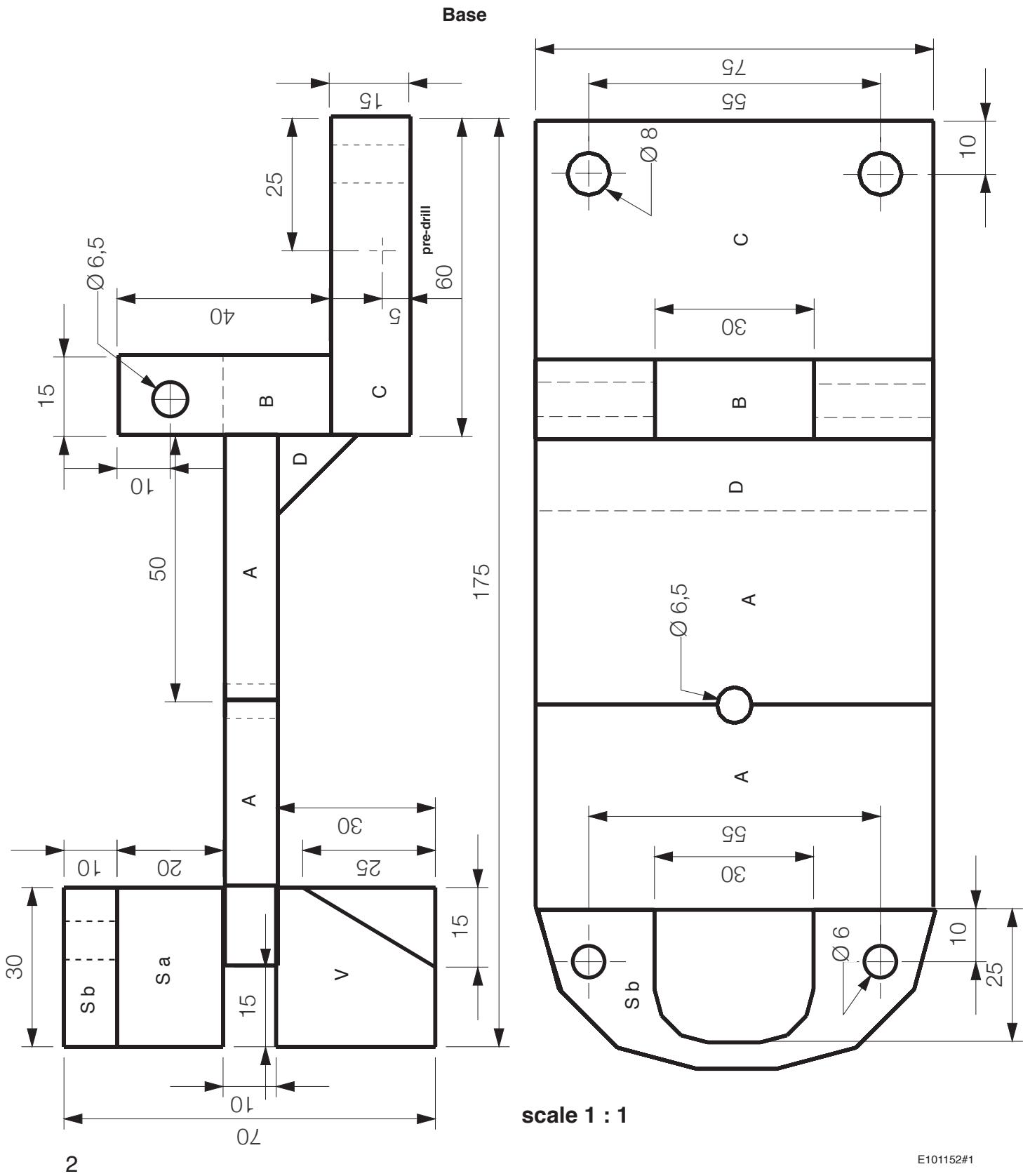


Contents:

Part	Quant.	Description	Size
A	2	Base (to be glued)	10 x 50 x 75 mm
B	1	Holder for winder	15 x 40 x 75 mm
C	1	Front axle support	15 x 60 x 75 mm
D	1	Stretcher	15 x 15 x 75 mm
E	2	Fork guide	20 x 20 x 50 mm
F	2	Fork	10 x 20 x 100 mm
G	2	Fork holder(to be glued)	10 x 40 x 75 mm
H	2	Beech dowel	ø 8 x 250 mm
J	1	Pulley	ø 20 mm
K	2	Beech dowel	ø 4 x 100 mm
L	1	Pulley (saw to make two discs)	ø 15 mm
M	5	Wheel (pine)	ø 40 mm
N	1	Beech wheel	ø 40 mm
O	1	Rear axle	20 x 30 x 75 mm
P	1	Strip	20 x 20 x 50 mm
Q	1	Strip	10 x 20 x 50 mm
R	2	Dowel	ø 6 x 250 mm
S	1	Seat a) base	20 x 30 x 75 mm
	1	b) rear	10 x 30 x 75 mm
T	1	Wooden wheel	ø 20 mm
V	1	Counterweight	30 x 30 x 75 mm
W	4	Screws	ø 4 x 30 mm
X	8	Washers	M 4
Y	1	Washers	8,4 x 25 mm
Z	1	Plywood	8 x 80 x 80 mm
	1	Thread	ca. 1 m

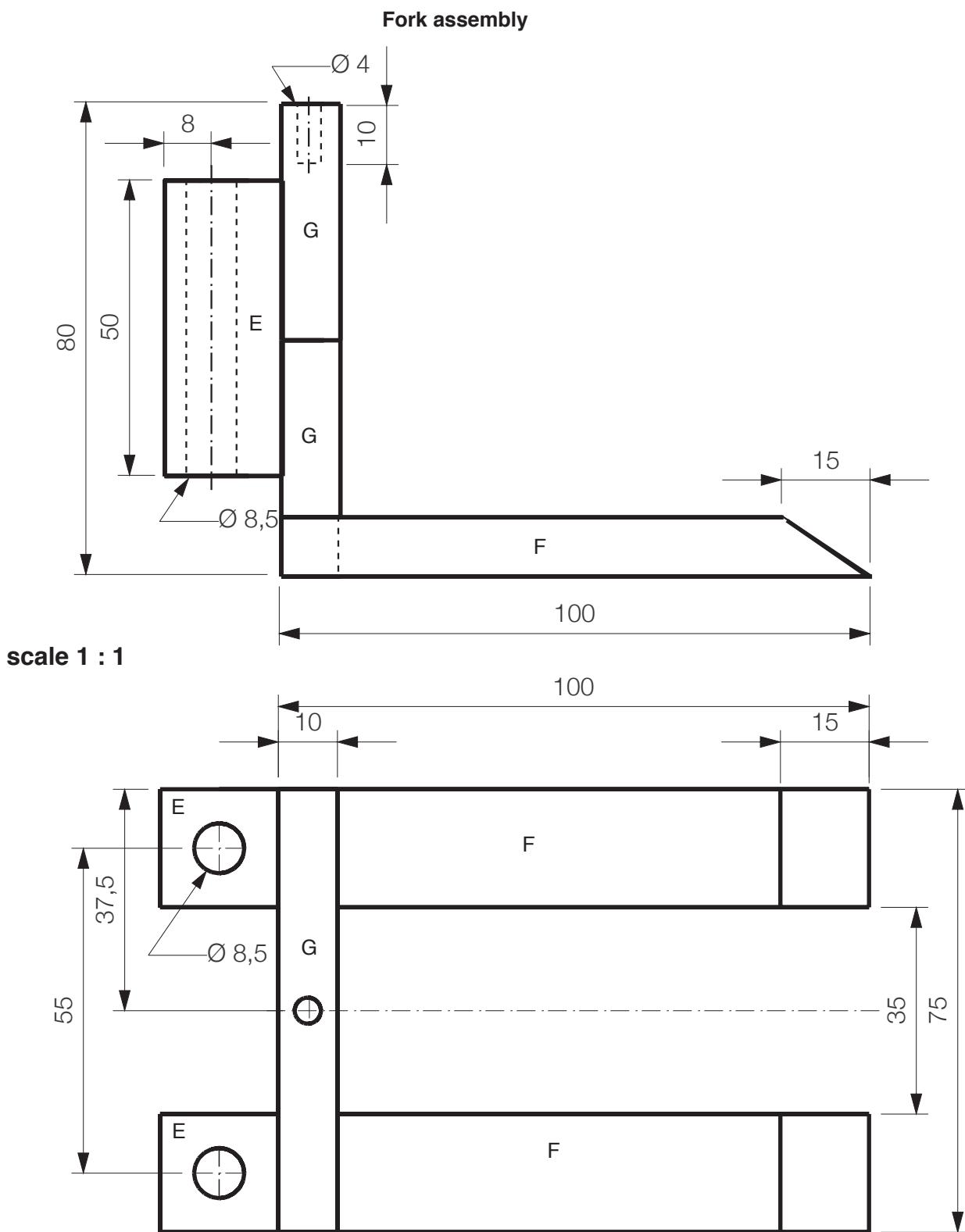
1. Base

- Glue the parts A together to form the base
- Saw out the slot in part B
- Drill parts A,B,C
- Pre-drill part C for the wheels and part O with a 3mm diameter bit.
- Shape part D so that it is triangular in section.
- Assemble the base
- Part H (see step 3 fork hoist) drill out 4mm diameter and glue in the holes on part C.
- Glue the seat, part S a to the base.
- Cut the slot in part S b, drill out 6mm diameter and glue to part S a.
- Chamfer the edges of part V (counterweight) and glue it underneath the base.



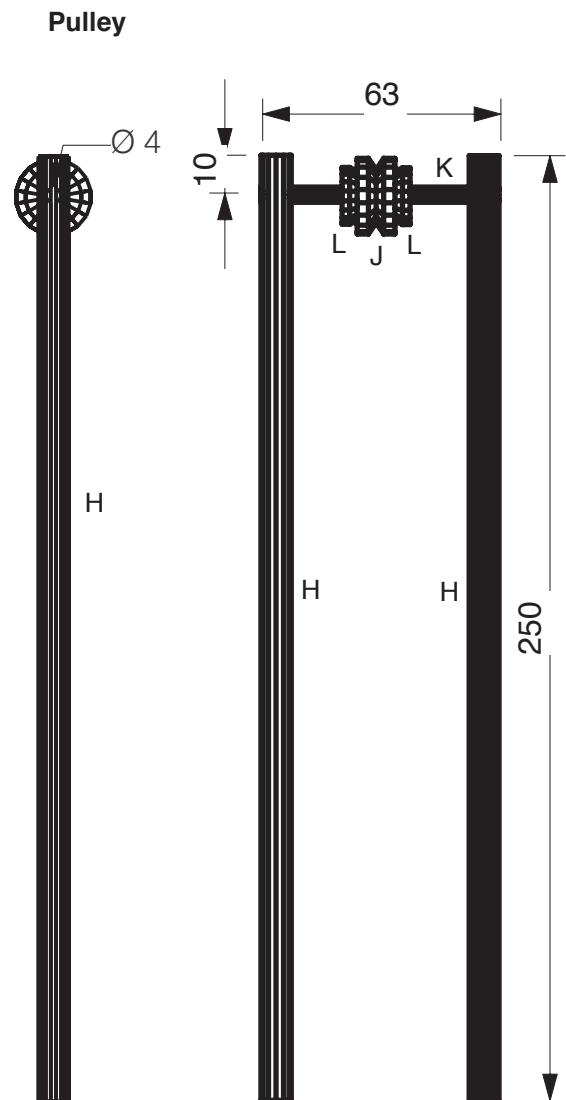
2. Fork assembly

- Glue the parts 10 x 40 x 75mm to the fork holder, part G
- Drill parts E (8.5mm), G (4.00mm) and K (shorten to 15mm) 1mm diameter. (for fixing tread)
- Saw out the slot in part G
- Saw part F at an angle on the ends.
- Glue fork guide (part E) on to the fork holder (part G). Glue part K (15mm) in part G.
- Assemble the fork on to the base (push the guide on to part H)



3. The fork hoist assembly

- Push parts L and J onto part K (55mm)
- Glue part K into the two dowels, part H
- Glue part L



scale 1 : 2

4. Rear axle assembly

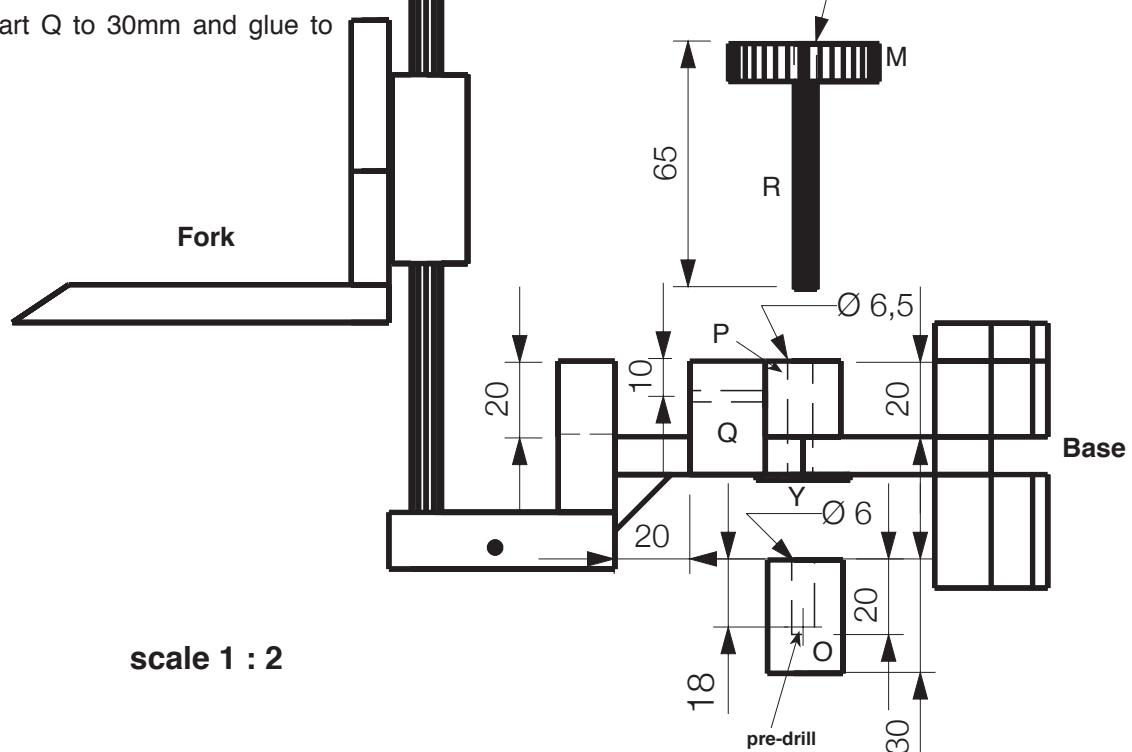
- Drill the centre of one of the 40mm dia wooden out to 6mm dia and a 6.5 mm diameter hole in the strip part P



- Drill the rear axle part O 6mm dia and pre-drill the holes for the wheels Part M x 2 with a 3mm drill

- Drill the strip (part Q) 4.5mm diameter

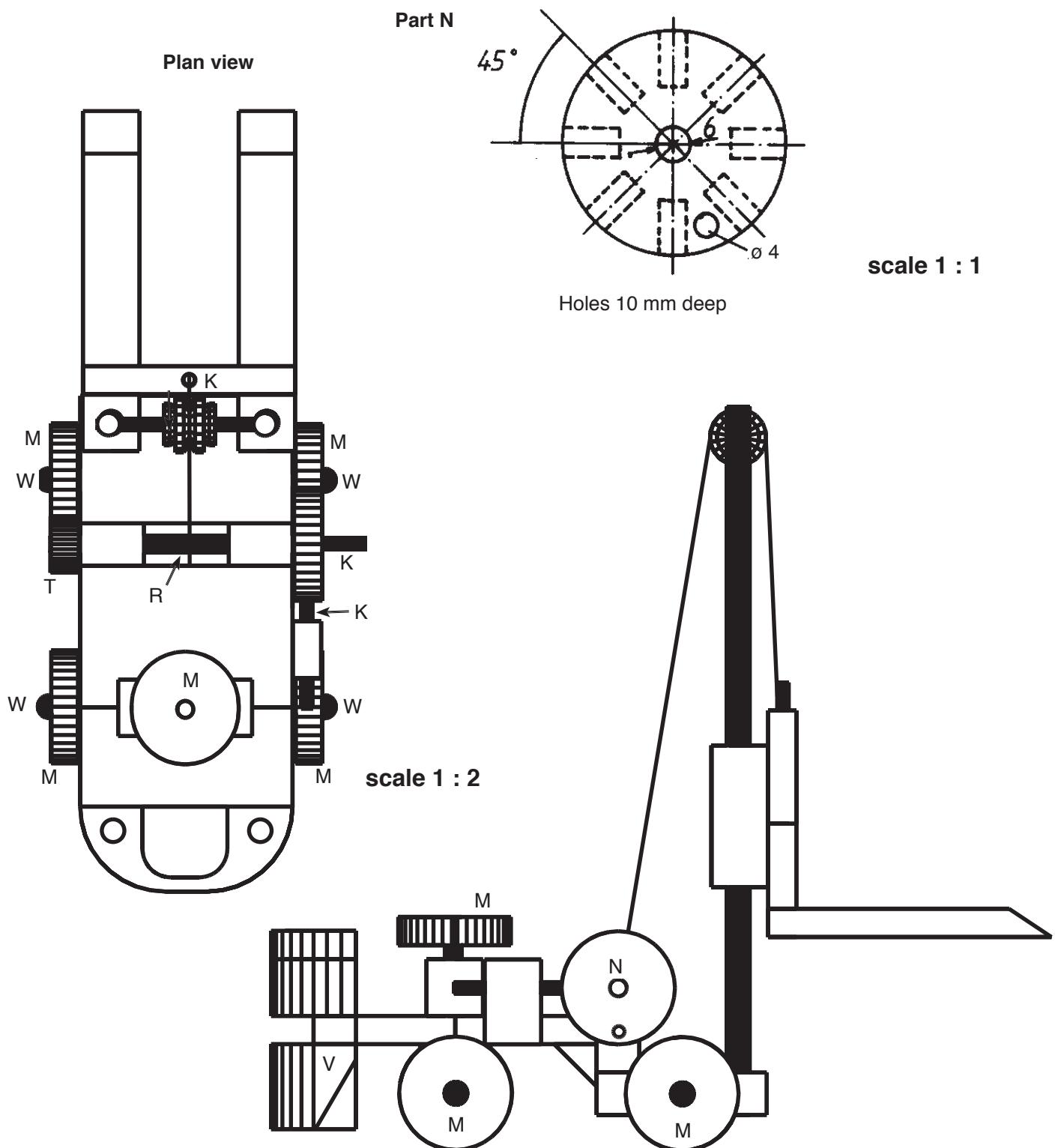
- Shorten part Q to 30mm and glue to the base.



scale 1 : 2

5. Locking device

- Drill the holes in part N (these must be accurate, hold the wheel in a machine vice when drilling)
- Drill the centre hole out to 6mm diameter.
- Drill a 4mm diameter hole for the handle (part K) 25mm from the centre.
- Drill part R (95mm) 1mm diameter for the thread fixing.
- Shorten part K (handle) to 60mm
- Drill part T, 6mm diameter.
- Assemble the winch (parts T, M, R, K (25mm))



6. Wheels

Insert the wheels using wood screws and washers in part C and O.

7. Fit the thread

8. Roof

- Mark out and cut the shapes in part Z, then round the end. Drill the blind holes as shown.
- Saw the dowel part R to length.
- Glue the dowels 6 x 55mm into the roof.
- Glue the roof in to the part S b
- Angle the ends of the roof support dowels and glue them to the chassis (A) and roof as shown in the plan.

