

# MILL LANE SIDINGS

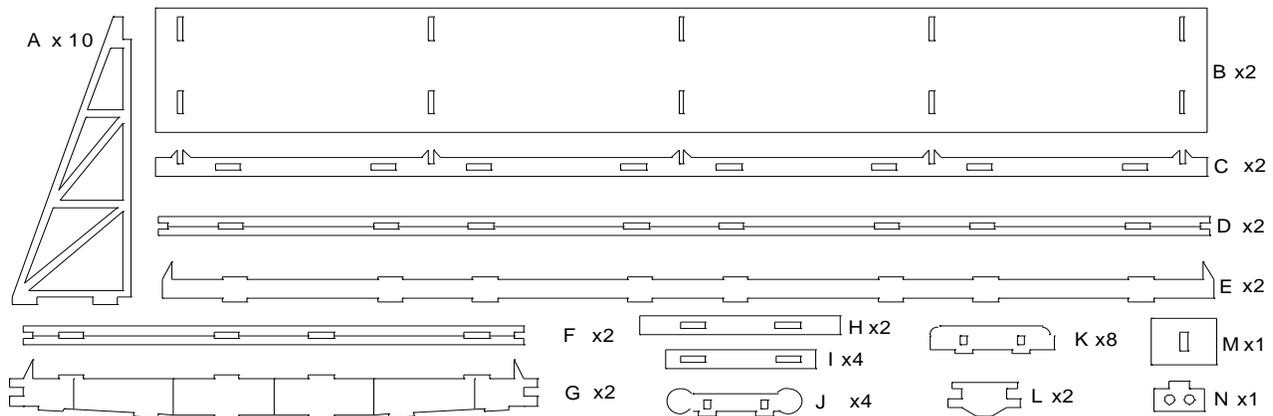
## MLS038 Travelling Gantry Crane

### General Notes On Construction

Only a few basic tools are required – a sharp craft knife, wet 'n' dry sandpaper, fine paint brush (OO), files and tweezers.

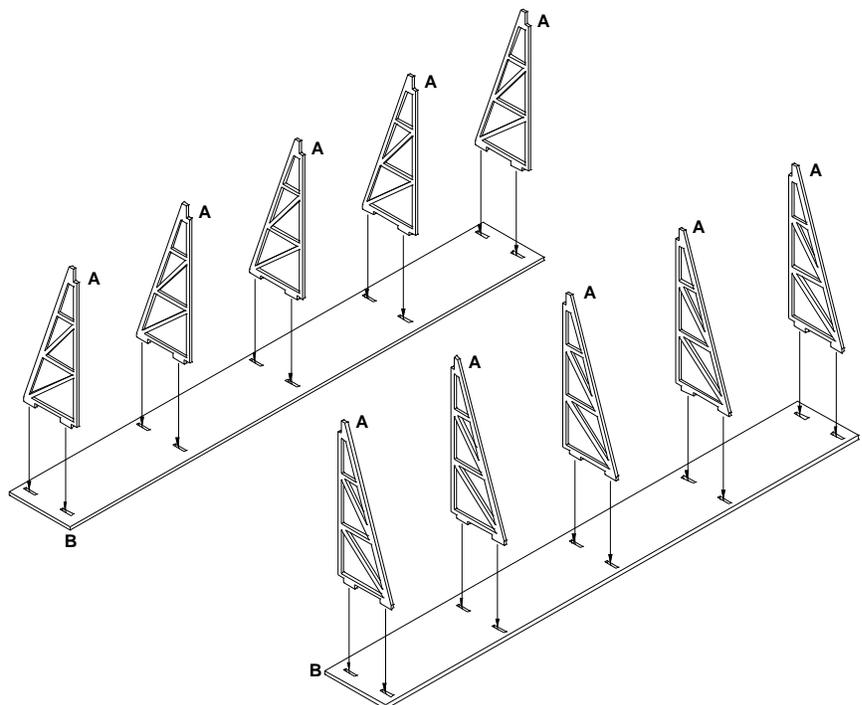
The main parts of this kit are made from Rowmark – this is a slightly harder plastic than most kits which enables it to go through a laser cutting process without melting. Normal liquid polystyrene does not always weld the parts, however, a stronger glue such as Plastic Weld (intended for ABS, Perspex, etc..) will. The resulting joints may still, however, be a little brittle, so it is recommended that once dry, joints are reinforced with a thin brush of another adhesive such as PVA or superglue.

You may find it easier to paint the main sub-assemblies (frames, beams, crane) before final assembly, especially if the crane is to be made to move.



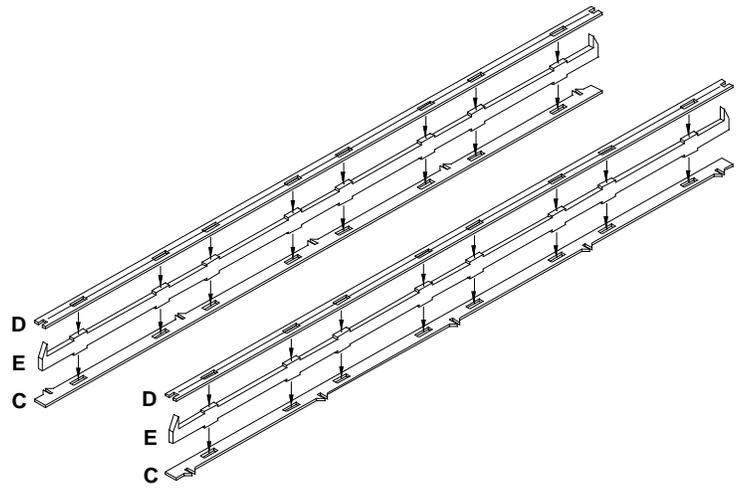
### Construction

1. Glue 5 A-frames (A) into each of the bases (B). The tabs on A may be a tight fit into the slots on B – do not force! If required, run a file over the faces of the tabs to remove any burrs. Make sure that the A-frames stand at 90 degrees to the base.

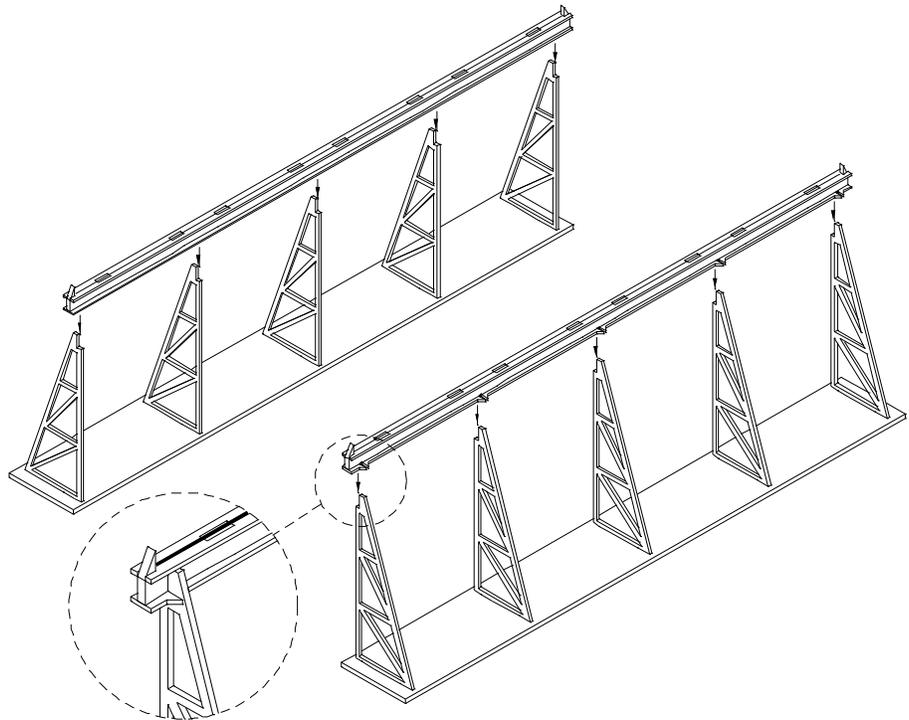


2. Glue **E** to **C** and then **D** to **E** to form the two I-beams. Note that there is an etched line down the centre of one face of **D** which should be at the top of the I-beam.

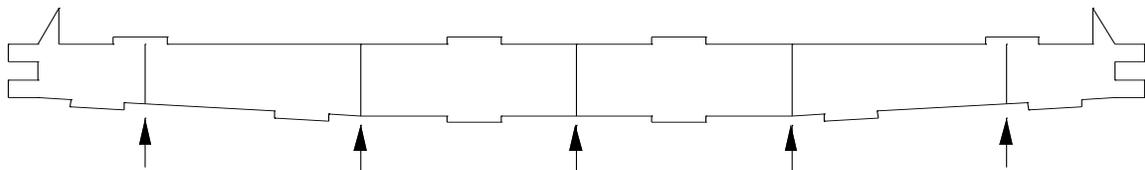
3. Glue 0.5mm plastic rod to the top of both I-beams into the etched line down the centre. Cut a piece of 0.5mm plastic rod 206mm long. Put the rod into the etched line at one end. Use the blade of a knife to gently hold it in place. Use a small paint brush to apply a small amount of liquid polystyrene glue to the rod. Capillary action will take the glue down the rod. Remove the knife and do not touch the rod until the glue has set, as the glue can soften the rod, and touching it may squash and damage it. Repeat this process all the way down the I-beam.



4. Glue the I-beams to the A-frames/bases. Make sure that the I-beams are orientated the correct way (the 5 slot/angled brackets face outwards). The I-beam rests on the notch at the front of each A-frame and passes up through the slot/angled brackets



5. Glue 0.5mm plastic rod to the etched lines on the outside face of the spanning beams (**G**). Being much shorter pieces, it is easier to cut them slightly over length (about 10mm) so that they hang over the edges, and then cut them flush with the edge. Note that the two outer etched lines do not go all the way to the top due to the tab, so only fit the rod where the etch line is or else part F will not fit. The procedure for attaching the plastic rod is as described in step 3.

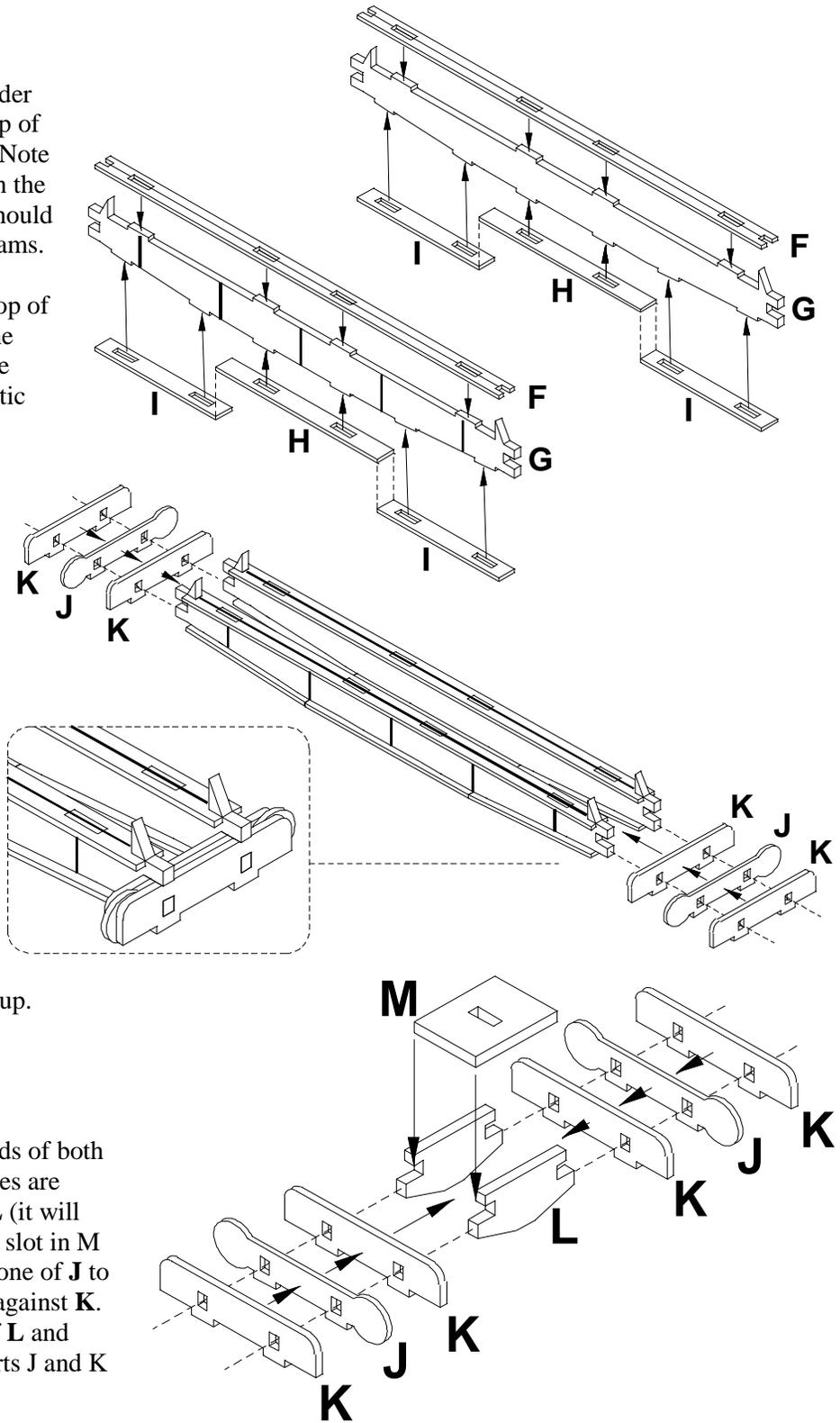


6. Glue **H** under **G**, then glue **I** under **G** at each end then glue **F** on top of **G** to form the spanning beams. Note that there is an etched line down the centre of one face of **F** which should be at the top of the spanning beams.

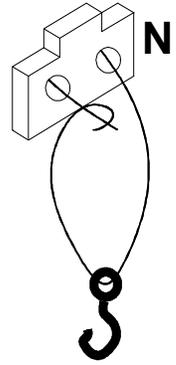
7. Glue 0.5mm plastic rod to the top of both the spanning beams into the etched line down the centre. The procedure for attaching the plastic rod is as described in step 3.

8. Arrange the spanning beams side by side with the faces that have the rod to the outside. Glue one of part **K** to each of the ends of the spanning beams (on the lower of the two tabs on the end of the spanning beams) making sure that all four pieces are square. Glue one of **J** to each of the ends of the spanning beams and against **K**. Then add a second **K** to each of the ends of the spanning beams against **J**. Make sure that all parts **J** and **K** are the right way up.

9. Glue one of **K** to each of the ends of both **L** making sure that all four pieces are square. Glue **M** between both **L** (it will rest on both **K**) – make sure the slot in **M** is facing the correct way. Glue one of **J** to each of the ends of both **L** and against **K**. Then add a second **K** to each of **L** and against **J**. Make sure that all parts **J** and **K** are the right way up.



10. The hook has been sprayed with primer, but remove any of the fret that may still be attached to the top of the 'O' at the top of the hook. Pass the cotton thread through the holes in **N**, through the 'O' on the hook and tie a knot to the other end by **N** so that the hook hangs to the desired length. Glue **N** under the crane (to **M** and between both **L**).



11. Place the A-frames approximately 100mm apart and place the spanning beams on top in the desired location - **J** should sit on top of the plastic rod that forms the rail on the I-beams. It may be necessary to adjust the distance between the A-frames. It is not necessary to glue the spanning beams, as this allows them to be repositioned.
12. Place the crane on to the spanning beams in the desired location – **J** should sit on top of the plastic rod that forms the rail on the spanning beams. It is not necessary to glue the crane, as this allows it to be repositioned.

