

MILL LANE SIDINGS

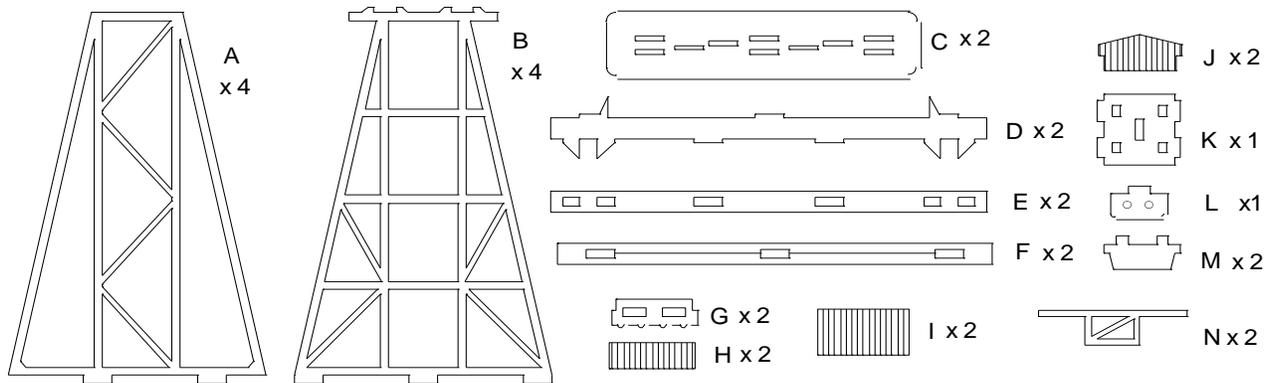
MLS039 Heavy Duty Gantry Crane

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.

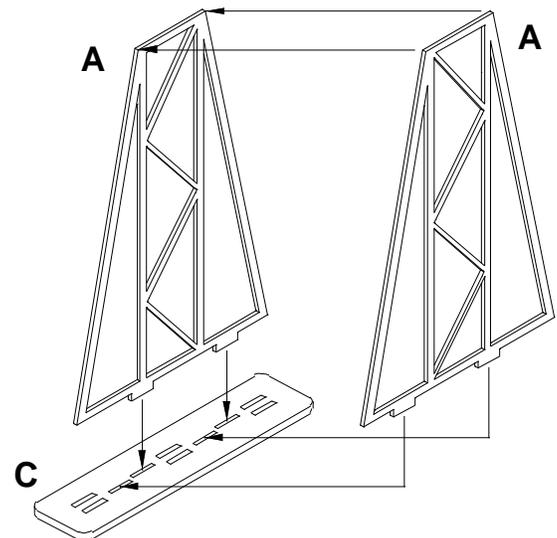
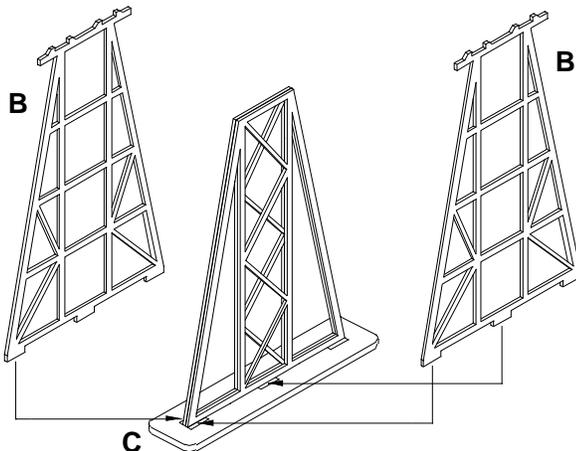
The main parts of this kit are made from Rowmark – this is a slightly harder plastic than most kits which enables it to go through a laser cutting process without melting. Normal liquid polystyrene does not always weld the parts, however, a stronger glue such as Plastic Weld (intended for ABS, Perspex, 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, hoist) before final assembly, especially if the crane is to be made to move.



Construction

1. Glue a pair of inner A-frames (**A**) into each of the bases (**C**). The slots on **C** are offset so that the pair of **A** must go together the opposite way round to each other thus forming the X-bracing up the middle of the A-frame. The tabs on **A** may be a tight fit into the slots on **C** – 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.

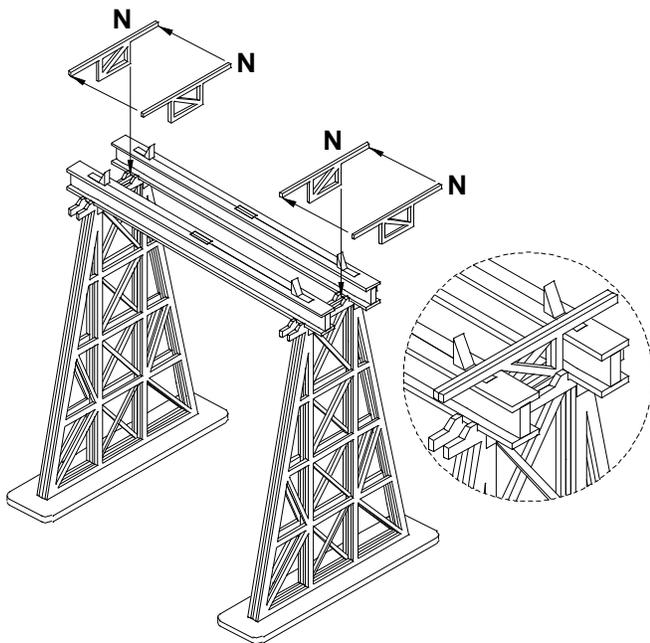
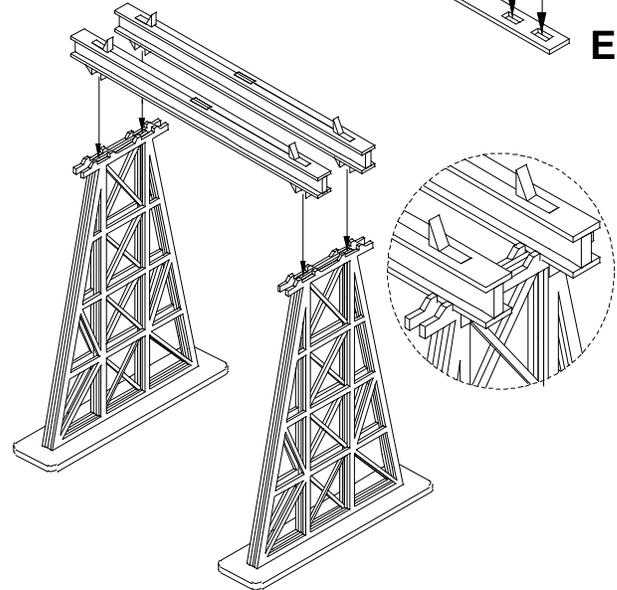
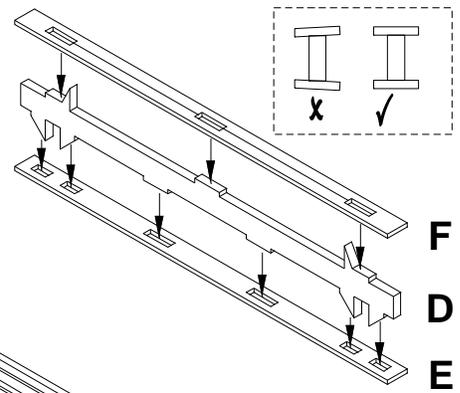


2. Glue a pair of outer A-frames (**B**) to each of the bases (**C**). Make sure that **B** line up with the inner A-frames (**A**), especially near the top of the A-frame.

3. Glue **F** to **D** and then **D** to **E** to form the two I-beams. Make sure that all three parts are at 90 degrees to each other. If they do not form a perfect 'I' then the crane will not move correctly along the I-beam. Part **F** has an etched line down the centre – this must face upwards.

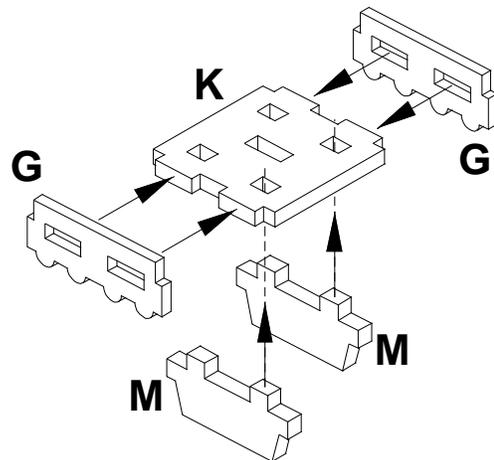
4. Glue 0.5mm plastic rod to the top of both I-beams into the etched line down the centre. Cut a piece of 0.5mm plastic rod 55mm long. Put the rod into the etched line at one end. Use the blade of a knife to gently hold it in place. Use a small paint brush to apply a small amount of liquid polystyrene 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.

5. Glue the I-beams to the A-frames. The angled brackets at the bottom of each end of **D** fit over the outer faces of **B** – if this a tight fit, do not force, instead file the inner faces of the brackets on **D**. The bottom of the I-beams (**E**) should sit on top of the A-frame between the sets of brackets on **B**.

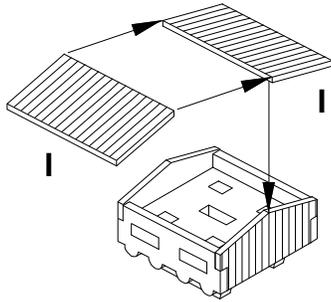
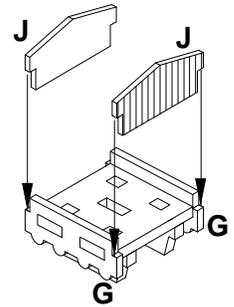


6. Glue a pair of **N** together – make sure that they are the opposite way round to each other so that they form a cross in the middle. Then glue them to the top of the A-frame between and on top of the I-beams – they should sit between the inner set of brackets on **B**.

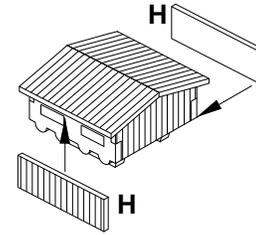
7. Glue **M** (2 of) to **K** to form the frame for the hoist. Glue **G** (2 of) to **K**.



8. Glue **J** (2 of) to **G** at each end of the hoist. The lower half of **J** slots between **G** and touches **K** – apply glue behind **J** where it touches **K** for extra strength.

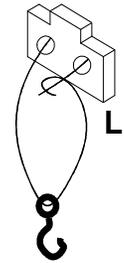


9. Glue the roof panels **I** (2 of) to the hoist. Butt the roof panels together upside down on a flat surface and put a small piece of sticky tape on the rear as this keeps them together at the apex but allows them to bend to the angle of **J**. The roof panels should overhang by an equal amount at the ends and sides. Glue a piece of 0.5mm plastic rod to the apex of the roof to form a ridge down the centre.



10. Glue **H** (2 of) to the sides of the hoist and under the overhang of the roof.

11. 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 **L**, through the 'O' on the hook and tie a knot to the other end by **L** so that the hook hangs to the desired length. Glue **L** under the hoist (into the slot in **K** and between both **M**). It is easier to paint the hoist before attaching **L**.



12. Place the hoist on to the I-beams to complete the model – the 'wheels' under **G** should sit on to the 'rails' made from the plastic rod on top of the I-beams, while **M** should fit down the side of the I-beams to keep the hoist in place.

