

HWS0075

SCALE  
HO

DATE  
JULY 2021

DESIGN  
W.GRESSWELL

TYPE  
D.I.Y. CONSTRUCTION KIT (RESIN)



### 01 INSTRUCTIONS

**1** REMOVE ALL OF THE PARTS CAREFULLY FROM THE RAFT. REMOVE THE SUPPORTS USING SHARP SIDE CUTTERS. **DO NOT SNAP THE PARTS OFF OR YOU WILL RISK DAMAGING THEM.**

CLEAN ALL THE NUBS FROM THE PARTS USING YOUR PREFERRED METHOD. THE PARTS HAVE BEEN DESIGNED SO THAT THEY CAN BE EASILY SANDED FLAT.

**2** HOLD [2] SWIVEL/NOZZLE SECTION IN BETWEEN [1] THE TOP SECTION AND [3] THE BASE SECTION, INSERTING ONTO THE HOLES AS SHOWN. IF THE HOLES CONTAIN UNWATED RESIN, RE-DRILL THEM WITH A DRILL BIT.

**REMEMBER!** RESIN CAN ONLY BE BONDED USING CA (SUPERGLUE) OR TWO-PART EPOXY RESIN.

**3** CHECK THAT THE [2] SWIVEL/NOZZLE SECTION CAN SWING FREELY. IF IT CANNOT, CHECK THAT THE PEGS IN THE TOP AND BOTTOM ARE CLEAR.

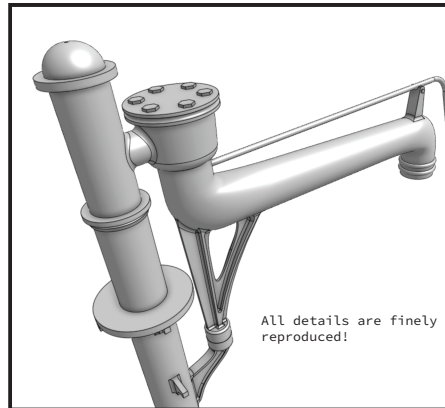
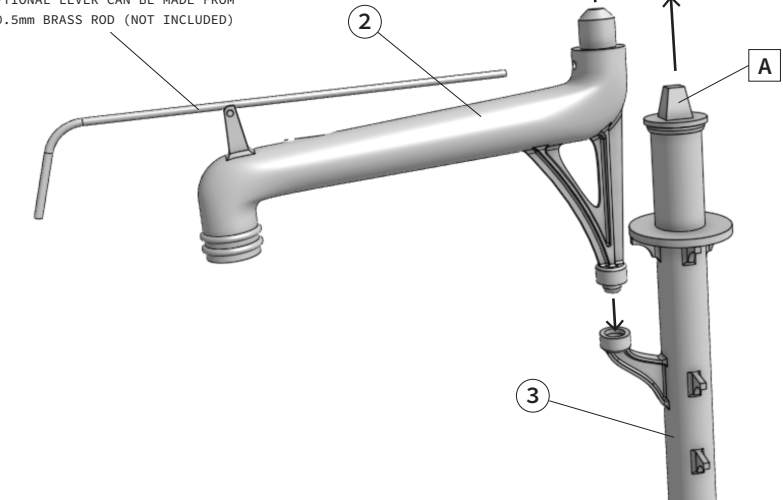
**4** APPLY SOME CA (SUPER GLUE) ONTO THE PEG ON TOP OF THE POST A AND INSERT INTO THE HOLE/MATE ON THE BOTTOM OF THE TOP CAP [1]

**5** THE WATER CRANE CAN EITHER BE AFFIXED TO YOUR LAYOUT PERMANENTLY BY BURYING IT UP TO THE BASE CAP OR BY ATTACHING IT TO THE HEXAGONAL BASE PROVIDED.

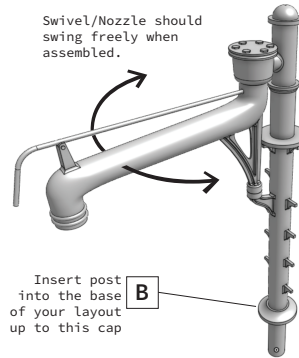
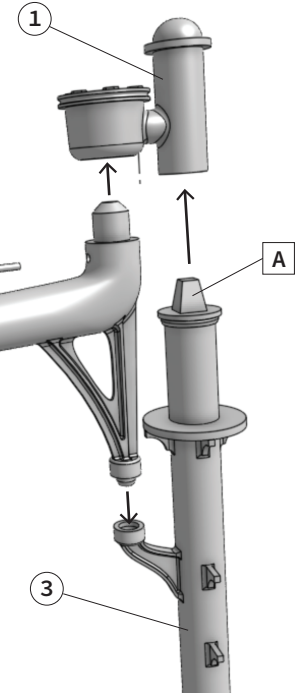
### 02 PARTS LIST

No.	DESC.	Qty.
[1]	TOP CAP	1
[2]	SWIVEL/NOZZLE	1
[3]	POST	1
[4]	BASE (OPTIONAL/NOT SHOWN)	1

OPTIONAL LEVER CAN BE MADE FROM  $\varnothing 0.5\text{mm}$  BRASS ROD (NOT INCLUDED)



### 03 SCHEMATIC



#### CARE AND SAFETY - UV CURING 3D PRINTED RESIN

*Please Read Before Starting!*

**Your safety is important to us here at Hearn Workshop so here are some important tips and tricks when using and preparing 3D printed resin parts.**

##### 1. General Safety

Although relatively benign once cured, sanded resin produces a fine powder which can be an irritant. We recommend you use all the appropriate personal protective gear such as gloves and a mask when using it. This also goes for clean-up of the dust and residual parts. Please dispose of carefully and thoughtfully.

##### 2. Resin is not plastic!

Resin parts are more brittle and less forgiving than the plastics typically found in scale model kits. As a result, care should be taken when cutting, sanding and modifying. We don't recommend resin parts for new, inexperienced builders. Resin parts will also require the dry-fitting of parts or assemblies to insure proper fits and clearances. While the detail on resin parts is very fine, its ability to hold tolerances is not the same as injection molded parts and should not be viewed as an equivalent.

Whilst every care has been taken to assure the best engineering possible on parts, manufacturing variances can and will occur and you should assume that you will have to do some slight modifications to parts to make them fit.

##### 3. Cutting and Sanding

Resin parts can be cut and sanded with all the regular scale model making tools you would use for cutting and sanding Rigid Polystyrene (PE) and Acrylonitrile Butadiene Styrene (ABS). However, when possible we encourage the use of micro-saws rather than hobby knives for cutting due to the materials increased brittleness over plastic.

##### 3. Gluing

Resin parts cannot be bonded together with other resin parts or plastic parts using traditional hobby glues. To bond Resin to plastic or other resin parts, we recommend either Cyanoacrylate (CA or 'Superglue'), or epoxy resin.

Where possible we also recommend 'pinning' - using brass rods or similar - to reinforce any joints that will carry a lot of weight, or just for an extra mechanical element to increase the strength of any interfaces or joints.

##### 4. Priming and Painting.

Resin can be primed and painted just as you would any plastic model kit. Before priming however, make sure the part(s) are free from any dust or moisture. We recommend parts be sanded with 600-800 grit before priming to ensure good paint adhesion.

Whilst every care has been taken to assure the best engineering possible on parts, manufacturing variances can and will occur and you should assume that you will have to do some slight modifications to parts to make them fit.

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