

## Upgrade Parts



For those enthusiasts that want to get the best performance out of their MSS or old Mamod loco we have the world's most extensive range of high quality upgrade parts.

Many upgrades in our range are those previously manufactured by IP Engineering. We have now taken over the manufacture and supply of this range and will continue to add new products.

We have the most affordable and commonly applied upgrade parts to increase the performance of you MSS or Mamod loco in our Popular Range of Upgrades.

For the really serious and those wanting the best upgrades available for their MSS or Mamod loco we have our range of Premium Upgrades.

We have the highest spec silver soldered 45psi boiler available anywhere for your MSS or Mamod locomotive.

Our unique Gas-Flow Cylinders have been designed by a Formula 1 engine designer using dynamic gas-flow techniques to ensure the most efficient flow of steam through the steam ports and cylinder blocks.

Dream Steam Ltd.

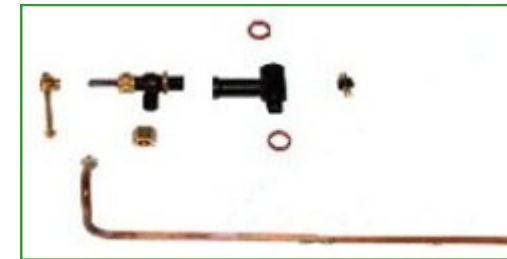
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[www.Dream-Steam.com](http://www.Dream-Steam.com)

## Dream Steam

### Regulator Kit for Mamod or MSS Side Tank Locomotive



Thank you for purchasing this Dream Steam Regulator Kit for Mamod and MSS Side Tank Live Steam Locomotives.

We hope you enjoy using this upgrade part, which is one of many we offer for the Mamod and MSS railway range. Please see our website and back of this booklet for further details.

**Introduction:** This kit is intended for use with the old Mamod and new MSS Side Tank live steam locomotives. It will give improved control of the released of steam from the boiler to the piston cylinders and thus finer control of the loco's speed.

**Safety:** This product is not intended for and should not be used by children. Fitting requires some dismantling and modification to the locomotive and should only be attempted by a competent adult with suitable tools. Checks must be made that the loco is correctly reassembled and steam tested prior to use. A safety valve must be fitted to the locomotive at all times when in use.

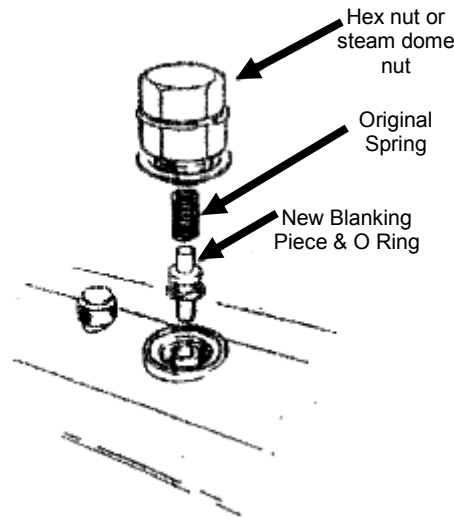
## Instruction for fitting your new Dream Steam Regulator Kit

**Fitting:** For best results, it is recommended that a suitable high temperature thread sealant such as Locktite or Hermetite, or plumber's PTFE tape, is used on threads and seals for extra steam tightness and reliability.

1a. On an old Mamod loco, pull the brass dome off the boiler to reveal a brass hexagonal nut — unscrew and remove the brass nut, being careful not to lose the spring that is under tension inside.

1b. On a new MSS loco, unscrew and remove the brass steam dome nut from the boiler being careful not to lose the spring that is under tension inside.

2. Remove the main steam pipe from the forward and reverse valve at the front of the loco, and then downwards out of the boiler and steam outlet pipe stem. Fit the brass steam outlet blanking piece and O ring into the original steam outlet pipe stem. Place the original spring over the blanking piece and refit the hexagonal nut on a Mamod, or steam dome nut on a MSS.



Note: if your steam pipe has been soldered to the underside of your boiler or fitted by some other none standard means, you will still need to blank off this pipe so that steam does not escape from it, even though it will no longer be in use.

3. Next, remove the original whistle assembly and the cab front. If the cab front has been riveted together, you will need to drill the appropriate rivets out to disassemble the structure as required.

4. Screw the new header union and a red fibre washer into the old whistle hole on the boiler so that the hole for the regulator valve is facing in towards the cab.

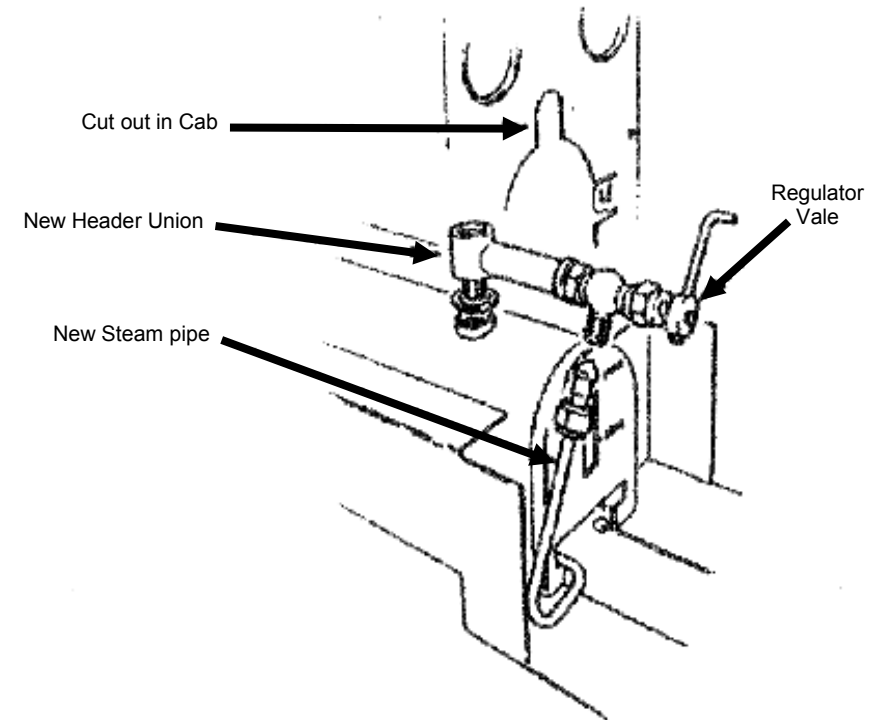
5. Fit the new steam pipe through the burner space and into the vacant hole in the forward and reverse valve ensuring it is pushed all the way in to the hole. Ensure the pipe nut is located on the pipe and facing the correct way to connect the nipple to the regulator valve outlet. Bend pipe where necessary.

6. Screw the regulator valve into the rear of the header union, with a red fibre washer and the thin nut in place, rotating the valve to align the outlet with the new steam pipe nipple and nut. Tighten the thin nut to secure the valve in position and seal the joint with the head union.

7. Connect the steam pipe nipple to the regulator valve outlet and nip up with spanner but do not over tighten.

8. Cut and file to shape a section of the cab front so that it fits over the new header union and then refit the cab front. If refitting the whistle some further modification may be required on the cab or just have the whistle lever outside the cab.

9. Check fitting of all items and test for leaks either by air pressure or steaming in a safe place.



**Operation:** The original forward and reverse valve is now used solely for forward, off, and reverse control. The new cab mounted regulator is now used for control of power and speed, with off being clockwise and open being anticlockwise.

The new regulator should be kept shut whilst raising steam. With the forward and reverse valve set in the desired direction position, gradually open the regulator to start the loco moving.

As every loco is different when running, some experimentation is required until you have found the best opening and closing positions for your loco.

Ideally a new Dream Steam High Pressure Safety Valve should be fitted to the top of the header and a new Dream Steam Water Top-up Valve fitted to the original safety valve hole.