

# Grange Locomotive IMPORTANT INSTRUCTIONS Please read BEFORE using this model

#### THIS MODEL NEEDS LIGHT OILING ONTO THE MOTION BEFORE USE:

This model has been pre-lubricated at manufacture. The factory applied lubrication into the gears will last for approximately SO hours of use. Afterwards you may have to add oil directly onto the metal worm which is located under the boiler towards the cab. The instructions for removing the keeper plate to expose the worm is detailed overleaf. There are several brands of synthetic oil in the market and your local model shop will be able to advise you.

#### **IMPORTANT NOTES:**

Failure to oil may affect any warranty claim. Please use caution when applying oil as some types can cause damage to plastic. If oil touches the body then immediately wipe off using a non-fluffy cloth. No part of the motor requires lubrication. DO NOT OIL THE MOTOR OR POLES/ ARMATURE. Do not operate the model on track laid onto carpet as the dust and fibres will impair the mechanism.

#### POWER TYPES (DC) and OPERATION:

If you wish to run the model on standard DC then do nothing. Our PCB will automatically recognise you have a DC controller and will allow operation at normal DC requirements.\* PLEASE NOTE:

When using standard 12v DC power, it is important that you use an appropriate 'N' gauge controller as '00' controllers (both new and old) may not allow the measure of control required for our superfine'N' motors.

Do not, at any time use this model with an electronic track cleaner as it may cause considerable electronic damage your model.

#### POWER TYPES (DCC) and OPERATION:

Our model is fully DCC Ready The unit is fitted with a DCC board inside of the Tender which features a 6 pin NEM socket pre fitted with a DC'Blanking Plug'. The tender top simply unclips from the tender chassis and the PCB can be seen on top of the tender mechanism. Carefully pull out the Blanking Plug' and fit the decoder of your choice.

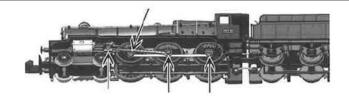
Do not use this model on DCC without a Decoder being fitted as this may cause damage to the mechanism. Do not use the locomotive on DCC with setting '0' or'00' on the controller as damage will be caused to this model.

Always run this model in on DC first before fitting a Dapol approved decoder and running on DCC.

**PACKING PIECE**: To ensure a safe and secure packing for the model during transportation, we have fitted a small plastic piece on the front end of the locomotive. Please remove before use. The piece is indicated on the instructions overleaf.



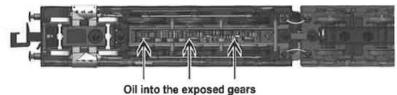
Motion
Oiling
Points (Both Sides)



### Removal of tender body for DCC Installation



## Gear oiling points and removal of Keeper Plate for oiling main gears



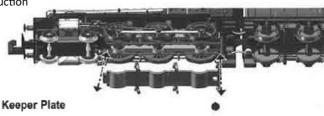
Remove the screw holding the keeper plate to the chassis (using a no. 000 Philips screw driver).

Keep screw safe.

Remove keeper plate.

Apply oil into gears as shown.

Reassemble using reverse instruction



#### Please note:

(i) The drive shaft is an intentionally loose part. If It disconnects from either the locomotive or tender It simply pushes back and clips Into place using the slots in the enlarged cowling ends as the guides for the projections on either side of the drive shaft ends. (Ii) The tender does not need to be removed to complete the oiling process

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