

## **PLine**

**Built in Brass**



Lister Blackstone RM3 Locomotive Model (*16mm scale*)

**PLEASE READ THIS OWNERS MANUAL CAREFULLY BEFORE OPERATING THE MODEL**

### **Prototype Information:**

The model is loosely based on the Lister Blackstone type RM3 0-4-0 Locomotive, which is a 12.75 hp 1800rpm cabbed diesel Mechanical 2' gauge Locomotive, built at Dursley, Gloucestershire in 1958. Presently the remaining prototype is based at the Bala Lake Railway in Wales, and is aptly christened "Alister".

### **General Description of PLine RM3 Loco:**

This model is crafted in 16mm scale, and is of all metal construction (Brass, Aluminium, Steel and Phosphor bronze). It is powered by a single motor with an ALL METAL worm gear drives delivering a

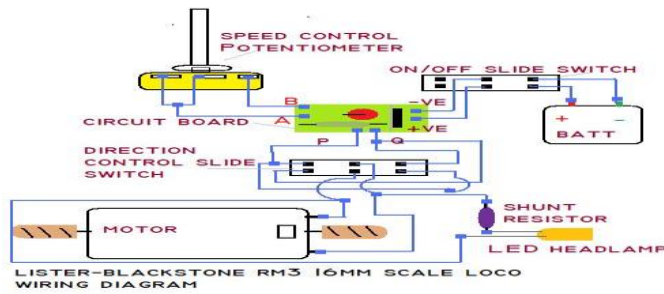
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## Owner's Manual: Lister Blackstone type RM3 Locomotive in 16mm scale



gear ratio of 1:17 on one axle, while the other is kept freewheeling. The motor is a high speed & moderate torque 4.5v PM DC motor.

### ***Suggested Wiring Diagram:***

Refer to the sketch alongside for your Model's wiring details.

The Model comes painted and is ready to run with a dashboard mounted 3-position centre "off", toggle switch to control the direction and needs a MOSFET based PWM manual speed regulator to control the speed of the Model. The Directional light of the Model is on the Motor and only works when the Model is moving forward.

### ***Coupler Selection:***

Your PLine Lister Blackstone RM3 comes with a pair of factory installed standard milled aluminium "Link Pin" type couplers, you may use any other suitable body mounted couplers available from other manufacturers. These couplers can be mounted by removing the original couplers and screwing the replacement couplers directly to the front and rear buffer beams.

We do not recommend you to try and disassemble this model. Also please take care while lifting this model up. It should always be picked by grasping it by under the frames on both ends.

### ***Battery Pack Selection:***

Your PLine Lister Blackstone RM3 does not come with a Battery Pack, as per International Shipping & Security norms. We recommend any deep-cycle Battery pack with an output of 4.5v rated at 1.5AH (or higher rating). You can use NiCad or Metal Hydride rechargeable battery packs.

Install a suitable PWM speed regulator rated at 4.5v 1A.

Connect your preferred battery pack to the battery wire leads inside the Engine bonnet by detaching the snap-fit Bonnet Lid. BE CAREFUL TO CONNECT THE CORRECT POLARITY OF THE BATTERY TERMINALS TO THE CONNECTOR STRIP. THE WIRE AT THE OTHER END OF THE CONNECTOR STRIP

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GIVE YOU THE POLARITY . INCORRECT POLARITY CONNECTION CAN DAMAGE THE CONTROL SYSTEM OF YOUR MODEL.

### **Technical Specifications of PLine Lister Blackstone RM3 Loco:**

- ◆ Scale: 1:19 scale (16mm = 1 Foot)
- ◆ Gauge: 32mm (factory set)
- ◆ Length: 116mm (over buffer beams)
- ◆ Width: 52mm
- ◆ Height: 104mm
- ◆ Weight: 750grams (w/o batteries)
- ◆ Wheel Dia: 22mm (tread dia)
- ◆ Motors: 4.5v DC PM mini Motor
- ◆ Gear Ratio: 1:17 on each Axle
- ◆ Minimum turning Radius: 600mm

### **Caution!!**

This model is an accurate replica of the original locomotive. It has sharp and moving parts. The locomotive drive gears are made of Brass & Steel with sharp edges. OPERATORS SHOULD NOT COME IN CONTACT WITH THE MODEL AT ANY TIME WHILE IT IS POWERED. UNDER NO CIRCUMSTANCES SHALL Model Engineering Company OR ANY OF ITS ASSOCIATES BE HELD RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING IN REGARD TO ANY PLINE PRODUCT.

### **Model Features:**

The Model Lister Blackstone RM3 is handcrafted brass model and is available factory painted in 2 different liveries.

- ◆ The Model is handcrafted in all Brass, with Steel and Aluminium parts
- ◆ Directional headlamp (forward direction), on motor

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- ◆ All scale fittings like brake column, hub caps, driver seat, etc are turned brass.
- ◆ Front and side radiator grills are photo-etched brass
- ◆ Cab front, side & rear Windows, are glazed

### **Operating & Maintenance:**

Like any other Engineering masterpiece, there are a few precautions to be taken before you can actually run it on a layout.

Before you start running your model outdoors, you need to lubricate all the moving parts and break it in. This is because the gearboxes and the bushes must be worn in sufficiently to allow smooth running.

### ***Lubricating:***

With a bit of care, your PLine Lister Blackstone RM3 should give you many years of pleasure and reliable service.

Lubrication is of prime importance for a model of this type with small moving parts. Always use quality lubricants. This should not be a problem, for there are many modern lubricants available in hobby and sport shops. Light oil such as Labelle #108 or Hoppe's Gun Oil would be good enough for lubricating most of the moving parts. For gears use suitable gear grease such as Permatex Super Lube or any other hobby gear lubricant.

The gear drives in the Power Bogie with the worm & wheel arrangements can be lubricated by applying grease on the gear teeth using a small screw driver.

To access the many moving parts of this model it is best to carefully place it on its side on a soft towel or foam sheet. A drop of light oil on every moving part is necessary, and there aren't many on this locomotive. Be sure to lubricate all 4 wheel bearings.

Do not over lubricate, for excess oil only picks up unwanted dirt. Be careful to keep lubrication off the painted surfaces as these cause shiny areas.

Thorough Lubrication of the locomotive should be done every 10 hours of operation.

### ***Maintenance:***

Clean the body of the Model with a clean soft lint free cotton cloth. To remove stubborn grease stains from the painted surface use a detergent solution with a lint free cloth. With a little care your PLine will give you years of trouble free running.

## **IMPORTANT!**

Some parts may have loosened during shipment. Inspect your model prior to any operations. Please contact PLine at [info@pline.co.in](mailto:info@pline.co.in) for more assistance.

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THANK YOU!

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