

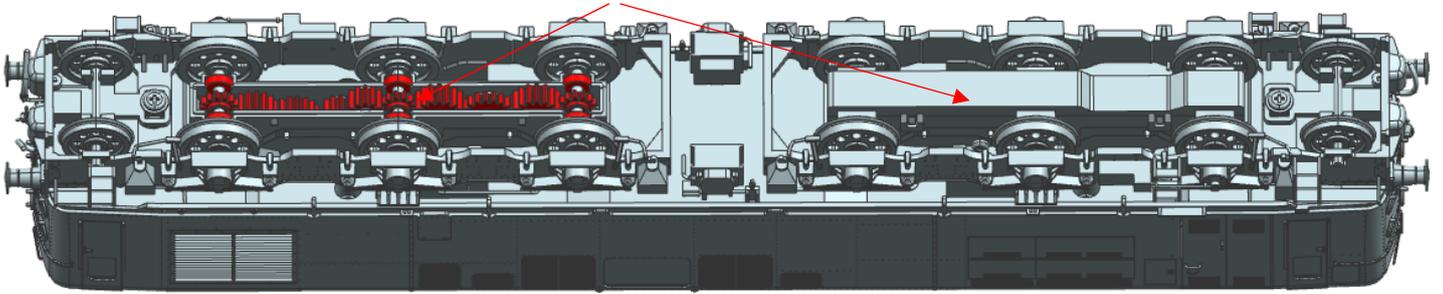
BULLEID 1-Co-Co-1 DIESEL INSTRUCTION SHEET



IMPORTANT INSTRUCTIONS: PLEASE READ BEFORE USE

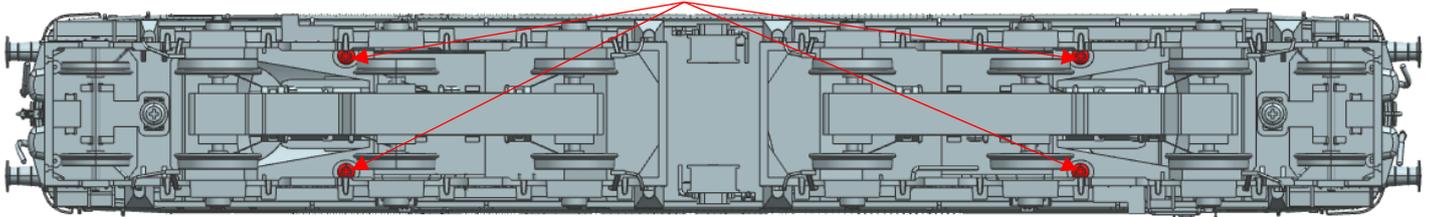
THIS MODEL NEEDS RUNNING IN BEFORE USE

This model has been lubricated during manufacture. We suggest running in for 30 minutes in each direction. After this period, light lubrication may be required in the places indicated (refer to image on the right). We recommend HL654 Woodland Scenics Hob-e-lube available from our website. Please apply oil with great caution as excessive oiling will damage the mechanism and some oils can damage the plastic. If oil touches the bodyshell, wipe it off with a non-fluffy cloth immediately. No part of the motor requires lubrication. DO NOT operate the model on track laid onto carpet as dust and fibres will impair the mechanism. The model should only be used on 2nd radius curves or greater.



BODY REMOVAL

Remove the four screws as shown, then gently prise the body from the chassis



INCLUDED ACCESSORY BAG

This bag includes: couplings, vacuum pipes, route indicator discs and dummy bogie weights. There are two types of bogie weights, one with a slot to allow fitting of the coupling. The route indicator discs are open and closed, allowing any combination of route code to be displayed. We recommend <http://www.semgonline.com/headcodes/sheadcodes.html> for assistance.

LIGHTING

On **analogue** the interior cab lights will not operate. The headcode lights are directional and all light up in the direction of travel. No lights will illuminate at the rear in accordance with the prototype.

On **DCC** the interior cab lights are independently controlled using function 1 and function 2. The directional lights are controlled using function 0. No lights will illuminate at the rear in accordance with the prototype.

DIGITAL COMMAND CONTROL

The model is DCC Ready. It is fitted with a 21 pin decoder socket and blanking plug for standard analogue operation. You will need to remove the body and blanking plug to fit the decoder - body removal instructions are given above.

WARRANTY

Thank you for purchasing this *Bulleid Diesel* locomotive. *Kernow Model Rail Centre* will remedy any defect or malfunction occurring with this model during a period of six months from the date of purchase. This guarantee does not extend to defects or malfunctions of any kind caused by damage or unreasonable use, including failure to provide the correct lubrication.

If for any reason the model develops a fault during the warranty period, please return it to the address below. This warranty is given in addition to all legal rights of the purchaser under the "Sales of Goods Act" and shall expire six months from the date of purchase from *Kernow Model Rail Centre*, who shall not be responsible for any consequential loss or damages arising from this product.

EUROPEAN REGULATIONS

Kernow Model Rail Centre products conform to WEEE and RoHS requirements. If you have any need to dispose of any electrical components, please do so correctly.



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HISTORY OF THE BULLEID DIESELS

In 1949 the frames for 10201, a 1Co Co1 loco, were laid at Ashford Works under the supervision of OVS Bulleid himself. Before the first loco was completed the frames for 10202 were assembled. The last of the trio, 10203, was constructed in 1953-4 at Brighton Works. Although 10201-3 appeared after Ivatt's 10000/10001 of the LMS which entered service in November 1947, the Southern design was conceived earlier, in 1946 and essentially complete in 1947. Construction is reputed to have been delayed owing to lack of financial approval.

The bolsterless bogie design was similar to that used on the Bulleid/Raworth electric locomotives, CC1 and 2, introduced in 1941, with similar bearing pads, wheels and the mounting of the bogies and brakes. To carry the additional weight an articulated pony truck was included, ingeniously guided by links fitted to the bogie front plate which also carried the buffers, this also had the effect of improved riding and reduced track wear. Six nose-suspended, axle hung traction motors were fitted driving three axles on each bogie. The profile of the body sides was curved to match the profile of the Bulleid coaches of the time. Steel panels riveted to rolled steel section framing was used throughout, apart from the hinged engine covers which were made from an aluminium alloy.

The driving compartments included a main controller, driver's brake valve, control switches and indicator lights and alarms connected with the automatic control system. The 'deadmans' facility was located in the desk opposite the driver's seat and had two treads to suit either seated or standing driving positions. The locomotives were fitted for left hand drive. The enginemen were looked after with two seats, an electric cooker, handwash basin and a lavatory.

An automatically controlled oil fired boiler provided carriage steam heating. Water filling access was via a small hatch located on the bodyside at the number two end.

In February 1953 Brighton Works commenced assembly of the third member of the fleet, 10203, which was completed in March 1954. A number of technical differences were incorporated in this loco, the most significant being the installation of a higher powered engine developing some 2,000hp. After its commissioning trials, 10203 based at Nine Elms joined 10201/2 on the Waterloo-Exeter line where it demonstrated its superior output. 10203 was fitted with a Mk II engine developing 2,000 bhp at 850 rpm whereas 10201/2 were fitted with Mk I versions of 750 rpm rated at 1600 and 1750bhp respectively. Using steam locomotive designations, the power classifications were 6P/5F for 10000/1 and 10201/1 and 7P/6F for 10203.

10201 was completed in November 1950 and commenced tests, including some trials on the London Midland region between St Pancras and Derby. 10201 was then displayed at the South Bank, Festival of Britain Exhibition from May 1951 and was not returned to normal traffic until the September of that year. From then both locos worked alternately with a Bournemouth line diagram.

In early 1952 both the locos were overhauled at Brighton Works, returning to the West of England line within a short period. In April 1952 a series of controlled road tests were carried out on the Waterloo-Salisbury route using 10202 hauling 11 bogies plus a dynamometer car. In November 1952 both were again taken out of service and sent to Brighton Works for a number of modifications to be carried out, including re-gearing to increase tractive effort. By Spring 1953 both were returned to the Western section and continued main line operations.

10201 was unintentionally the only one of the Bulleid diesel engines to run beyond Exeter Central by running away light engine down the 1 in 37 gradient to Exeter St Davids! Despite weighing in at 135 tons, 10201 and 10202 were given a wide route availability and were actually passed to run to Plymouth through Okehampton, but it is not believed any ever did so.

Bulleid's 10201 and 10202 were joined in March 1953 by LMS Twins 10000 and 10001, initially on Bournemouth line turns but from the Summer timetable four interworked diesel diagrams were created. Until their appearance on the Southern 10000/1 had spent most of their time on fitted freights due to being equipped with small and unreliable train heating boilers — although for the summer of 1951 a daily 703 mile duty between Euston and Liverpool was regularly worked when train heating was not required. New boilers were fitted to 10000 and 10001 for SR duties and along with the re-gearred 10201 and 10202, four regular diagrams worked in Summer 1952 taking in a variety of destinations including London Waterloo to Bournemouth, Weymouth and Exeter.

All four were maintained at Nine Elms, running in if required off repair on 0720 Waterloo-Salisbury and 1300 return. Overhauls were carried out at Brighton works with running in after works attention taking place between Brighton and Tunbridge Wells West. Similar regular duties continued through 1954, although the locomotive working 1100 Waterloo—Exeter Central returned to London on milk trains including the evening Exeter—Templecombe service.

For a period during 1954, 10202 was used on all four daily workings of the "Golden Arrow" and "Night Ferry". A "Golden Arrow" headboard with the two words separated by a diagonal arrow was the only embellishment carried by the loco.

In April 1955 10201 and 10202 were reallocated to the LMR at Camden for use alongside 10000 and 10001. 10203 continued to operate on the SR until July 1955 when it too was reallocated to the LMR.

10201 and 10202 generally worked double headed on services such as the "Royal Scot", while 10203 was deployed on Euston-Bletchley workings, but did however on occasions make trips to Manchester, Carlisle and Glasgow. Whilst on the LMR the chime whistle was also replaced by twin air horns.

By the end of the 1950s the locos saw less and less work, being used on secondary passenger and freight duties. In November 1962 10201 and 10203 were taken out of service and stored at Derby, being joined by 10202 in early 1963. At the end of 1963 all three were withdrawn and unfortunately sent for scrap.

We wish to thank the following people for their assistance with the research and production of this model. Graham Muspratt for help and assistance throughout, David Gentle for providing the works drawings and Tony Burgess for further assistance with additional information.