

# ADAMS O2 STEAM LOCOMOTIVE INSTRUCTION SHEET



IN ASSOCIATION WITH DJ MODELS

## 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 B807 Dapol Dapoil Lubricant Oil 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.

Fitted with a coreless motor for smooth and quiet operation. Not suitable for use with electronic track cleaners or feedback controllers.

### BODY REMOVAL

The coal load is removable. Removing this (using a very thin flat screwdriver if required) reveals two screws. Undo these two screws and the cab roof will lift off, allowing access to the cab to insert loco crews or fitting of a speaker for DCC Sound. If you need to remove the rest of the body for any reason, gently lift the body from the coal bunker end to about 45 degrees and the smokebox end will release - BE CAREFUL NOT TO DAMAGE THE INTRICATE PIPEWORK IN THIS AREA - GREAT CARE IS NEEDED.

### INCLUDED ACCESSORY BAG

This bag includes: vacuum pipes, couplings, fire irons and route indicator discs. Vacuum pipes will interfere with couplings when used at the same time. You may need to shorten the vacuum pipe to avoid this. We recommend visiting [www.semgonline.com/headcodes/sheadcodes.html](http://www.semgonline.com/headcodes/sheadcodes.html) for further guidance regarding headcodes.

### DIGITAL COMMAND CONTROL

This model is DCC Ready. It is fitted with a six-pin DCC decoder socket and blanking plug for standard DC analogue operation. Conversion to DCC operation is simple:

**STEP 1:** Gently remove smokebox door (secured by 2 small magnets) avoiding damage to small fragile parts.

**STEP 2:** Remove the circuit board from the smokebox.

**STEP 3:** Remove blanking plate and replace with DCC Decoder.

**STEP 4:** Place circuit board and decoder back into smokebox.

**STEP 5:** Replace smokebox door, avoiding damage to small fragile parts. Gently rotate to position if required.

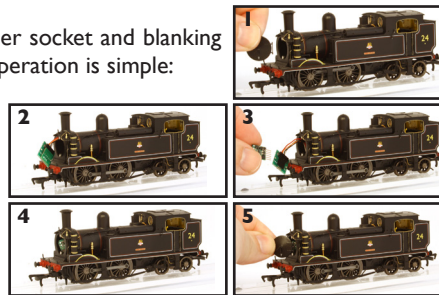
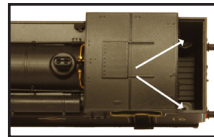
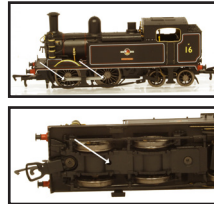
### WARRANTY

Thank you for purchasing this Adams O2 steam locomotive, produced in association with DJ Models. 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 'Sale of Goods Act 1979' and shall expire six months from 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 a need to dispose of any electrical components, please do so correctly.



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## History of the Adams O2 Steam Locomotive

In 1888 William Adams, the Chief Mechanical Engineer of the London & South Western Railway, decided that it was time to replace all the small Beattie tanks, mostly the well-known Well Tanks, on the London suburban services. During the following four years Adams produced 60 small but powerful tank locomotives, to a new 0-4-4T design. As was common practice on the LSWR at the time, the class designation was taken from the initial order for 10 locomotives, Nine Elms Works order number O2. The last ten, ordered in 1893, differed slightly from the first 50 by having modified stove pipe chimneys and 6 inch higher cab roofs. A further ten had been ordered by Adams but this order was cancelled when Drummond took over at Nine Elms in 1895.

Although the design can be traced back to an Adams design on the GER, the O2 was a compact, up-to-date and business-like design, very powerful for its size. Within a couple of years of the completion of the 60 locomotives, they had become so useful to the operating authorities that almost all sheds on the South Western had a few on their rosters.

As more and more of Drummond's M7 tanks were introduced at the end of the 19th century, for many of the London suburban duties, the O2s were moved to rural areas, except for a few still being used on Clapham Junction to Waterloo empty stock workings.

After Grouping in 1923, the Southern were forced to resolve the desperate locomotive power situation on the Isle of Wight. As electrification spread over the suburban lines of the LSWR, with a subsequent cascading down of M7s and T1s, several O2s became surplus to mainland requirements. Initially nine O2s were sent over to the Island, but they were so successful that a further 14 were sent over, the final two being sent over in 1949. None of those sent over were from the final series of 10 with the higher cab roofs. They were ideal for Island duties except for the lack of adequate coal bunker space, so in 1932 a much larger extended bunker was fitted to W19 (formerly 206), and this design

subsequently became the standard for all the Island locomotives.

All the Island O2s had been named, using Isle of Wight place names. Only one mainland O2 had ever carried a name before, number 185 being named "Alexandria" for a short period in 1890. 8 of the mainland locomotives were withdrawn in the 1930s and 4 more in the 1940s with the remainder lasting well into BR days. As closure of various branch lines began to take place in the late 1950s and early 1960s, the mainland O2s became redundant and the last to go was number 225 in 1962. A gradual withdrawal of some of the Island locos had begun just before that, but some of the class lasted until the end of steam on the Island in 1966. Fortunately one of the remaining ones, W24 Calbourne, was rescued by the Wight Locomotive Society and remains as an active locomotive today on the Isle of Wight Steam Railway [www.iwsteamrailway.co.uk](http://www.iwsteamrailway.co.uk).

Introduced: 1889 Length: 30ft 8ins  
Driving Wheel: 4ft 10ins Trailing Wheel: 3ft 0in  
Weight: 46tons 18cwt (loW locos 48tons 8cwt)  
Water Capacity: 800 gallons  
Cylinders (2): 17ins x 24ins  
Boiler Pressure: 160lb sq in  
Tractive Effort: 17,245lb  
Coal Capacity: 1ton 10cwt (loW locos 3tons 5cwt)  
SR Power Classification: B (from mid 1930s, loW only)  
BR Power Classification: 0-P

As well as extended coal bunkers, the loW locos were fitted with Westinghouse brake sumps on the left of the smokebox and were all named after various places served on the island.

W35 and W36 were fitted for pull & push working.

### ACKNOWLEDGEMENTS

We wish to thank the following for their help and assistance with this model. The Isle of Wight Steam Railway for allowing access to "Calbourne" and subsequent assistance, in particular Bob Huxtable and Stuart Butt. Keith McCrory and Tim Rothwell of Scantech International for the laser scanning. Graham Muspratt and Andy York at RMweb, Dave Jones of DJ Models and the crew in China.