



LNER Robinson O4 Steam Locomotive

1 BACKGROUND	2
2 ROLLING STOCK.....	3
2.1 Robinson O4 BR Black	3
3 SCENARIOS.....	3
3.1 The Robinson O4	3
3.2 Openshaw Shunting	3
3.3 Night Freight.....	3
3.4 Beneath Black Skies	4
3.5 Waking Up.....	4
4 ACKNOWLEDGEMENTS.....	5

1 Background

The London and North Eastern Railway (LNER) Class O4 first consisted of 131 ex-Great Central Railway (GCR) Class 8K 2-8-0 steam locomotives acquired on grouping in 1923. Designed by John G. Robinson the engines were built at the GCR locomotive works at Gorton, Manchester. Robinson developed the Class O4, from the GCR 0-8-0 Q4 by adding a front pony truck to support the extra weight of the larger cylinders and valve gear. A superheated boiler was used on the Class O4 and run at a working pressure of 180psi.

The O4s were added to when the LNER purchased 273 ex-Railway Operating Division ROD 2-8-0s to the same design between 1923 and 1927. Meanwhile, the 19 GCR Class 8M (LNER Class O5) were rebuilt as O4 standard during the 1920s and 1930s. 92 O4 locomotives were requisitioned by the War Department during World War II and shipped during late 1941 for operation in the Middle East.

The O4 class were used to haul heavy freight trains throughout the LNER system. 329 engines remained in operation at 1 January 1948. Withdrawal of O4 engines by BR commenced in 1959 and the last was taken out of service in the Doncaster area in April 1966.

Robinson O4 Specifications:

Cylinders	21 x 26 inches
Driving wheel diameter	4 feet 8 inches
Bogie wheel diameter	3 feet 6 inches
Weight	121 tons
Tractive Effort	31,326 pounds
Boiler maximum dia.	5 feet 0 inches
Boiler pressure	180 lbs/square inch
Boiler length	16 feet 0 inches
Heating Surface - Flues	18 x 5.25in
Heating Surface - Firebox	154 sq.ft.
Heating Surface - Tubes	134 x 2in
Heating Surface - Superheater	18 x 1.06in

2 Rolling Stock

2.1 Robinson O4 BR Black



3 Scenarios

3.1 The Robinson O4

An introductory scenario to the O4. Pick up some wagons at Hadfield and drop them off at Dinting.

- **Date** 15th April 1950
- **Rating** Easy
- **Start Time** 08:00
- **Start Location** Hadfield
- **End Location** Dinting

3.2 Openshaw Shunting

Pick up and deliver some empty wagons to Dewsnap.

- **Date** 8th August 1950
- **Rating** Hard
- **Start Time** 16:00
- **Start Location** Openshaw
- **End Location** Dewsnap

3.3 Night Freight

Haul some mixed freight over the Woodhead line, from Dinting to Wath, during the evening.

- **Date** 12th October 1950
- **Rating** Medium
- **Start Time** 20:00
- **Start Location** Dinting
- **End Location** Wath

3.4 Beneath Black Skies

Transport some coal to Dewsnap. You have been informed that a V2 passenger train ahead of you is struggling due to the weather. Keep an eye out for red signals.

- **Date** 20th February 1951
- **Rating** Medium
- **Start Time** 18:00
- **Start Location** Wath
- **End Location** Penistone

3.5 Waking Up

Drive a class O4 hauling some coal over the Woodhead line in the early morning.

- **Date** 12th July 1951
- **Rating** Medium
- **Start Time** 06:15
- **Start Location** Wicker
- **End Location** Woodhead

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