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# **RAGSTONE MODELS**

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## **Great Eastern Single Bolster Wagon Kits**

### **Diagrams 29 & 66**

Version no: 2.0

Date: January 2007

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## Great Eastern Single Bolster Wagons

### History

These wagons were built as follows:

Dia 29 - 150 wagons 1899-1908

Dia 66 - 100 wagons 1914-1920

Originally intended for the carriage of sawn planks from sawmills, in practice, any timber from newly cut logs to redundant signal posts would have been carried. Single bolsters would also be used to 'protect' overhanging loads (referred to by the GE as a 'guard truck' in this role). All wagons originally of 10 tons capacity but later internal users show this reduced to 7 ton.

Dia 29 single bolsters had plain buffer housings, dia 66 being issued for wagons with double-sided brakes and ribbed buffer housings – presumably because of a 2" difference in overall length. Ribbed buffers can also turn up on other types in later years.

Closed ratchet brake guides were fitted to wagons built pre 1902, with the open type being introduced during 1901, although changes could occur and both types could be seen on any wagon. Prior to 1908 all wagons were fitted with single sided brakes. Wagons built after 1908 would have received double sided brakes from new and other wagons possibly received double-sided brakes before withdrawal, although the deadline for companies owning over 20000 wagons was eventually extended to 1938 so not all vehicles would have received them.

Oil axleboxes replaced the older grease type on new construction from 1910 (or so) and were fitted to older stock as time went on, the LNER fitting their standard pressed front box as time went on.

Withdrawal, or relegation to departmental use started during the 1930's, with approx 120 surviving nationalisation. BR recorded 17 Single bolsters still in stock in 1956, when instructions were given to condemn all remaining pre group wagons.

It appears some were sold for further use, to William Doxford & sons shipyard in Sunderland and were used until the 1970's – see references below.

### Further Information

Information and photographs are available as below:

Pictorial record of LNER wagons (OPC) p 85 – photo of F64 in LNER livery.

LNER wagons vol. 1 (Wild Swan) pp 215-217

Historical Model Railway Society – photographs

Narrow Gauge and Industrial modelling review issue 51 p132 – photograph

Info and photos on the Doxford shipyard site can be found at:

<http://www.sharpos-world.co.uk/mainindx/uk/indx/mistrain/page4/page4.htm#2>

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## Numbers

All bolster wagons were randomly numbered in a similar series. Full number details are not available, but the following have been confirmed. Wagons renumbered by LNER had 6xxxxx added to the existing number. Any still running after 1948 (including Departmental/internal users) would have their number prefixed by an 'E'.

### **Dia 29**

F64 Single bolster - Steel body - plain buffers

12239 tare 4-15, 10274, 11048, 11511, 12208, ? tare 4-17

### **Dia 66**

Xxx Single bolster - Steel body - ribbed buffers

2101, 2105, 9568, 9569, 9570 – tare 4-18, 9600, 9601, 9603, tare 5-0

## Livery

1897-1923 (and later)

GE wagon grey (described as a 'medium or dark grey') with white lettering and black below solebar level

1923-38

LNER wagon grey with white lettering and black below solebar level.

Departmental and Internal use

The LNER painted its departmental wagons 'Oxford blue', although the actual shade varied, with white lettering and internal use wagons green. However it is not known if any of these wagons were so.

1948-64

It is unlikely survivors in general traffic at this time received BR livery as repaints would have been haphazard at best. Any that were repainted would have been light grey, or black if in Departmental use, with numbering and tare on black patches.

## Industrial use

Photograph shows a wagon with grease axleboxes, single sided brakes and ribbed buffers. Probably dark grey/black, lettered W D & S 6 (or 9) evenly spaced along the body side and fitted with a homemade bolster.

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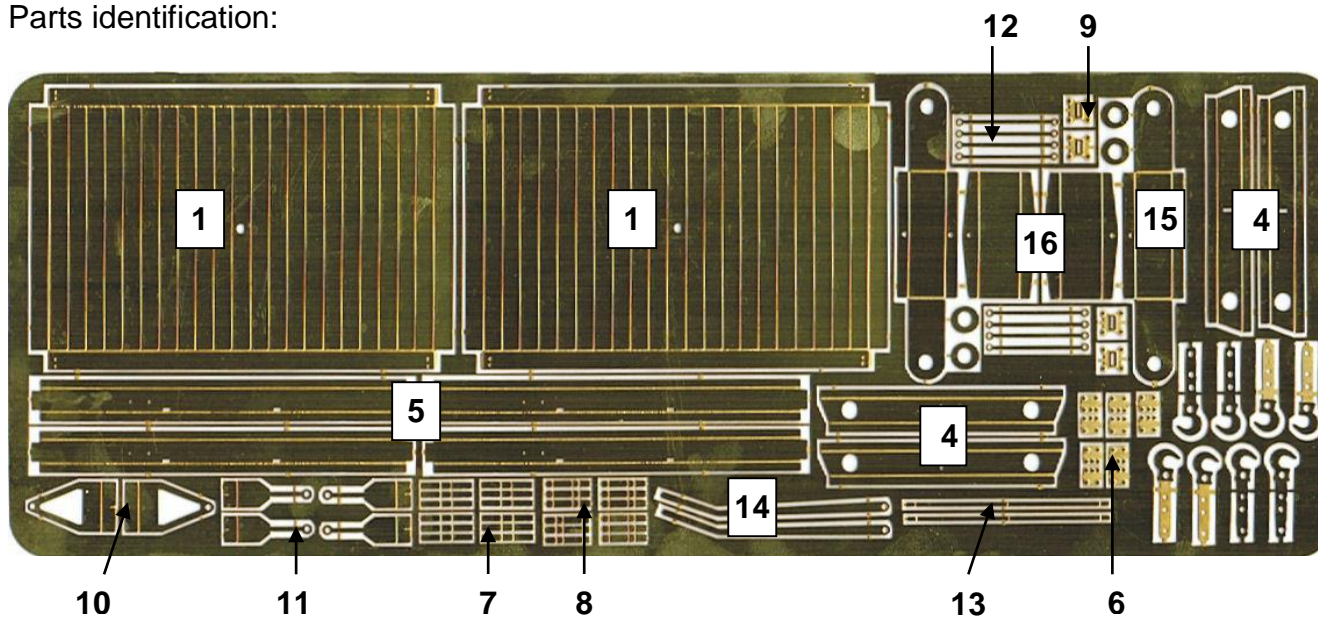
## Assembly

1. Form rivets and fold up sides first, and then ends (1). The sides fit outside the ends.
2. Fold buffer beams (4) and fix centrally under each end of the floor, with the long edge to the top.
3. Form rivets and fold up solebars (5) - the central 4 rivets are only required on the braked side. Fit between buffer beams 44mm apart. The correct way is with the two etched holes to the lower left. Fit solebar end plates (6) – two rivets against the buffer beam. Fit angle pieces under sides. Fit washer plates (9) over coupling holes.
4. Form horse hook (like a small handrail, Π shaped) from wire and fit in etched holes at the left end of the solebars. Fit spring stops (7) in the half etched rebates on the bottom of the solebars.
5. Mark the center of each axle (using the etched rivets to position correctly) and using the lines you have drawn as a guide, fit axlebox/spring casting to one side only, add wheels and bearings and second axlebox/spring castings. Do not fix until happy that all axles & wheels are square and level.
6. Fit V hanger (10) to the inside of the solebar with the rivets – using the etched centreline to position correctly.
7. Add brakegear, taking care that it does not touch the wheels, and inner stirrup (11) with pivot casting attached through brakegear and V hanger to align correctly. Add safety loops (13) to outer ends, near the brake blocks.
8. Fit brake handle (14 or casting) to wire and ratchet to brake handle and solebar. The distance from the axle centreline = 6mm.
9. Fit buffers to buffer beams. Drill all the way through 1.4mm and 2.0mm, xxmm deep. Fit buffer heads with springs and nuts.
10. Assemble and fit couplings to buffer beam using springs and split pins.
11. Shape D links (12), drill the bolsters and attach with 1.0mm wire through the bolster. Add bearing pads to wagon floor on single bolsters. Fit stanchions from 1.2 mm wire – 15.2 mm long, plus thickness of the bolster.
12. Fix bolster pads and bolster to wagon with the retaining washer under the wagon to allow the bolster to pivot.
13. Clean and paint wagon in you chosen livery.

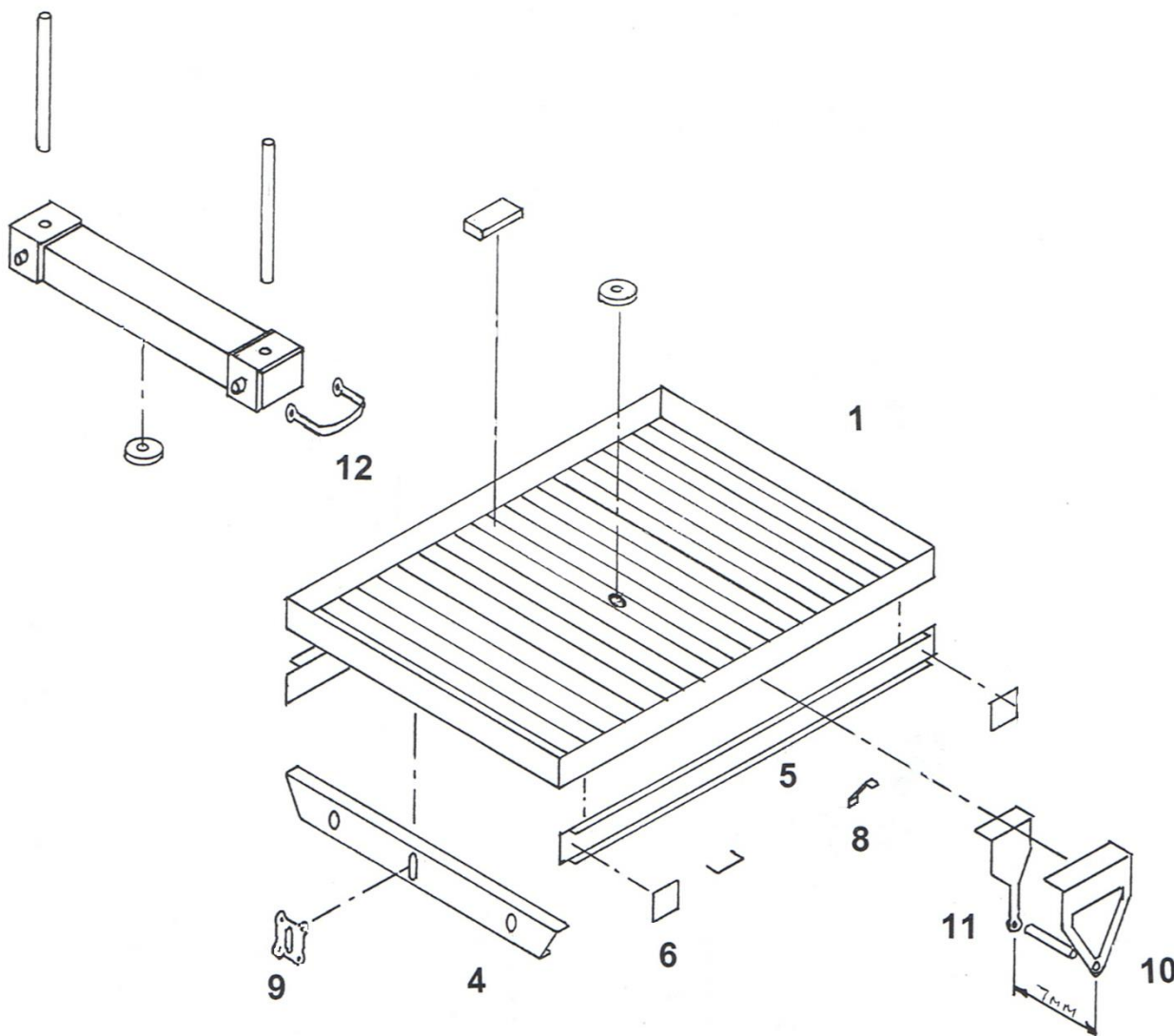
Compensation can be fitted if required using parts 15 & 16, although generally unnecessary for a wagon of this type. To fit, omit one axle at step 7, remove pin point ends from this axle and fit wheels to axle mount (14). This assembly can then be fitted to the cradle (15) with 1.0mm wire and secured to the underside of the floor, lining up the axle ends with the axleboxes already fitted.



Parts identification:



Assembly diagram:



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## Parts List

### Etch

1	Side & ends	9	Coupling washer plate
2	Outer side/ends (Wood DB only)	10	V hangar
3	Capping strips & corner plates (Wood DB only)	11	Stirrup
4	Buffer beam	12	D link
5	Solebars	13	Brake safety loop
6	Solebar end bracket	14	Brake lever
7	Spring stop	15	Axle mount
8	Body bracket	16	Rocker cradle

### Castings/Other

#### Whitemetal

8x	Axlebox & spring
8x	Buffer body
2x	Bolsters
2x	Retaining washer
4x	Bolster pads

#### Lost wax brass

2x	Brake gear
2x	Brake ratchet
2x	Center pivot
2x	Brake handle

#### Other Parts

4x	Buffer springs	2x	Coupling springs
4x	Nuts	6x	Coupling links
4x	Turned buffers	2x	Split pin
		2x	1.2mm Wire - approx 135mm
		2x	1.0mm Wire - approx 50mm

### Parts required

4x	3' 1" 8 open spoke wagon wheels (2 packs Slater's 7120)	Paint and transfers for your chosen livery
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### **Note:**

This is a scale model intended for responsible (usually adult) modellers only. The etched brass has sharp edges and should be handled with care. Whitemetal and many solders contain lead. You should not eat, drink or smoke when assembling this kit and wash your hands after using these products. You should read all instructions on other products (solder flux, paint etc) that are required to complete the kit