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# **RAGSTONE MODELS**

[www.ragstonemodels.co.uk](http://www.ragstonemodels.co.uk)

Email: [info@ragstonemodels.co.uk](mailto:info@ragstonemodels.co.uk)



## **Great Eastern Gunpowder Van Kit**

### **Diagram 9**

Version no: 1.0

Date: March 2013

26 Wadham Close  
Rowley Regis  
West Midlands  
B65 9SH

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## Great Eastern Gunpowder Vans

### History

These 10 wagons were built between 1898-1905 to convey gunpowder and later cordite from the manufactures to end users such as the powder magazines at Tilbury and to Woolwich for the munitions factory. Withdrawal commenced in the late 1930's, only 2 remained in 1944 and lasted at least until 1947/8

### Numbers

Dia 9 – 10 wagons tare 8-3-0

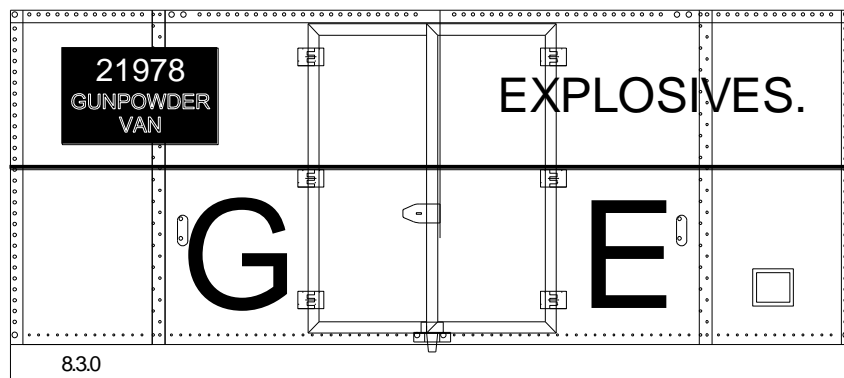
1898 21980, 21972  
1901 21979, 21971, 21970, 21969  
1902 21978, 21968  
1905 21977, 21967

When renumbered by LNER 6xxxxx added to the existing number. Any still running after 1948 would have their number prefixed by an 'E'.

Livery – Note diagrams are illustrative only and do not show the actual font used.

1899-1909

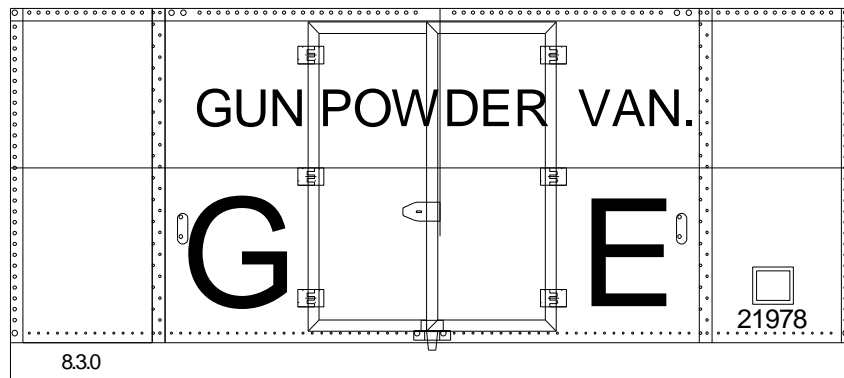
Initially these vans were painted red (top half) and light chocolate (bottom half) body, the two colours separated by a fine black line and black below solebar level, 'GE' in large lettering white on the lower body side, with a white bordered black box with the number & gunpowder van in white shaded red top left & 'explosives' in white shaded red top right of the body side.



1909-23 (and later)

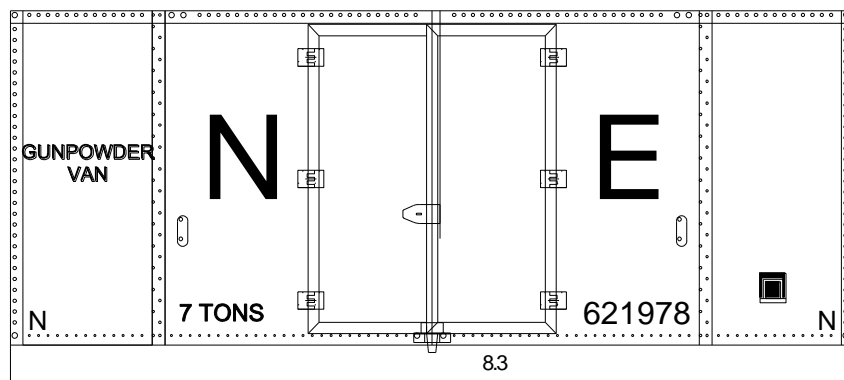
Light grey (top half) and red oxide (bottom half) body with black below solebar level. 'GE' in large lettering white on the lower body side and 'gunpowder van' in white shaded black above it (in the grey portion). Number in white, shaded black on bottom right corner.

1909-23 (and later) – cont.

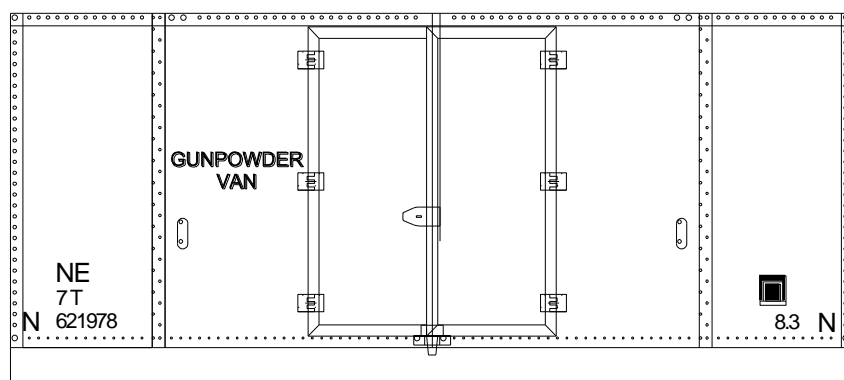


1923-47

Standard LNER wagon grey with white lettering and black below solebar level. In addition to the standard lettering, 'gunpowder van' in white to the left hand end of the body side.



After 1938 any repaints would have used small (4 inch) NE & number in the bottom left corner, but due to their age, they may not have received this livery



### Further Information

Information and photographs are available as below:

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

GE Journal #82 pp82.17-19

GE Journal #85 pp85.35

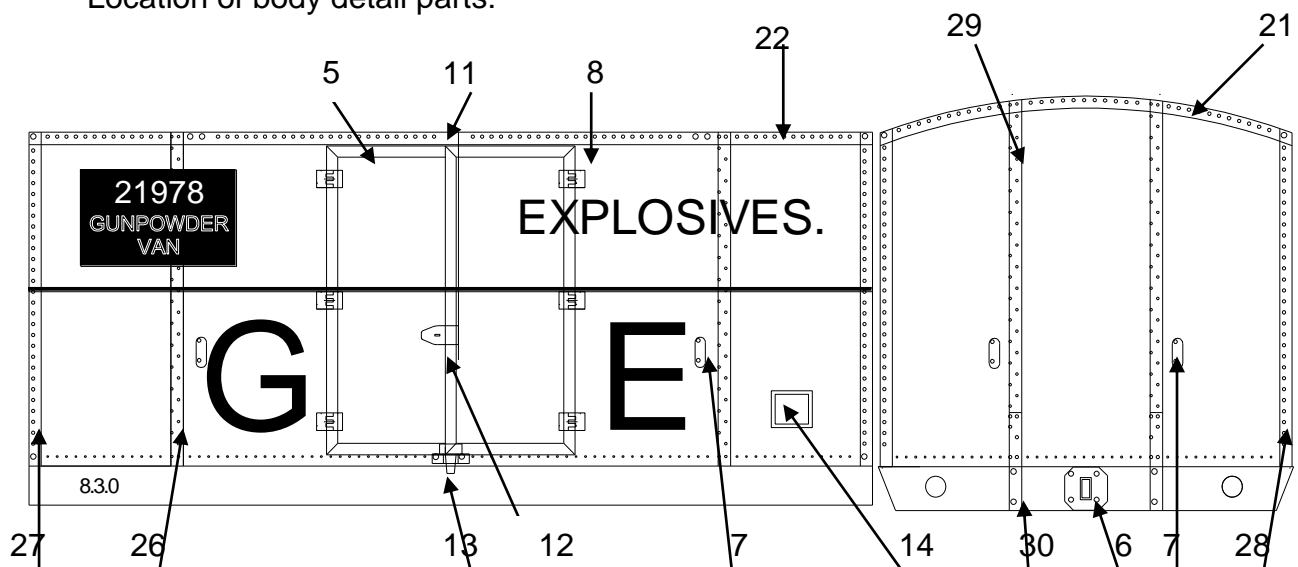
## Assembly

### General

Cut etched parts from the sheet using a craft knife on a firm surface (such as a cutting mat, or a small piece of hardboard/MDF). Some of the larger parts can be cut with small set of snips. Be careful not to distort the parts and clean up the tags with a fine file. Edges should also be lightly dressed with a fine file to remove the 'cusp' that is a normal result of the etching process. Rivets can be formed using one of the specialised tools available or by using a blunt scribe (or similar – I use a blunted bradawl), placed in the half etch dimple and given a **light** tap with a small hammer against a firm surface (cutting mat, or a small piece of hardboard/MDF again). The size of the half etch dimple is an indication of the size of the finished rivet, solebar rivets are larger than bodyside ones which should match the rivets on the detail strips that are subsequently fitted to it. All folds are with the fold line to the inside EXCEPT the first fold on the footstep supports (part xx) which is a 180 degree fold with the line outside

1. Whilst parts are still flat, form rivets on body (1), ends (2), solebars & roof (23). Attaching door overlays (5) and hinges (8) is easier if fitted to the body before folding. (Remove the four panels of parts from inside the door overlays before fitting them!). The door overlay fits so that it covers the position lines on the bodyside and with the protruding tab to the bottom (next to the floor). Note hinges are handed, the upper rivets on each hinge face the centreline and they fit over the 6 locating points on the door overlay

Location of body detail parts:



2. The sides can now be folded 90 deg to the floor - the top flaps fold to match the end profile
3. Fit coupling plate (6) to ends (2), over the coupling hole. Fold buffer beam bottom angle. Fit ends to body, the line of rivet along the bottom of both parts should line up and the top of the ends be level with the folded flaps on the sides
4. Rivet overlays should be fitted in the following order to ensure the correct overlaps:
  - a. Side (27) and end (28) corner

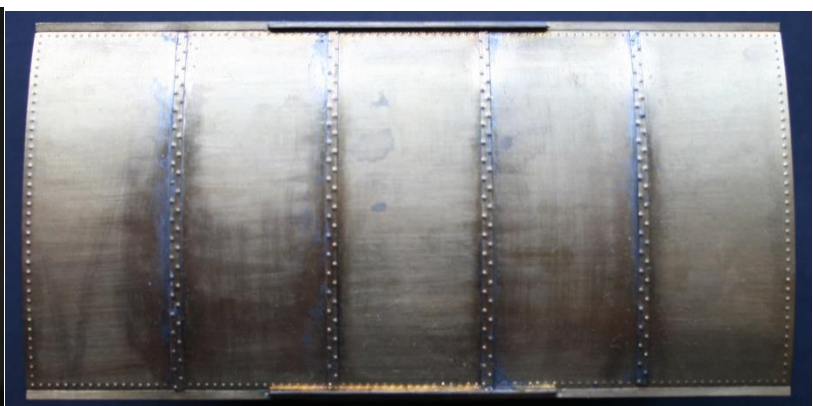
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- b. End capping strip (21), then side capping strip (22) to the sides
  - c. Middle side (26) & Middle end (29)
  - d. End overlays (30), the single rivet second down from the top is to the outside
  - e. Short rivet strips (side washer plate 7)

Note: the part numbers are adjacent to the TOP of each strip. Where a strip overlaps another one a small joggle should be formed to allow the overlap strip to lay flat against the side

5. Fit door catches (11 top, 13 bottom), again marked by short ½ etch lines. Add label clip (14) to bottom r/h corner, as indicated by the + marking. The etched lines surrounding this are to assist in painting the white box that surrounds the label clip
6. Drill the 3 small holes 0.6mm. Attach door clasp (12) to a 32mm length of 0.6mm wire, approx 5mm in from one end. Cut 6 10mm lengths of 0.25mm wire and fold round the 0.6mm wire, twisting the tails together to form what looks like a very small handrail knob. There is one below the latch and two above and the twisted tails go through the 3 holes in the door. The latch locates over the small slot in the door



7. The roof (23) should be curved to match the ends and the rivet detail strips (25) added. The gutters fold so that they are horizontal and at 90 degrees to the body side when the roof is in place. Rainstrips (24) fit in the half etch line. See photos below. The roof can be fitted now or left until after painting

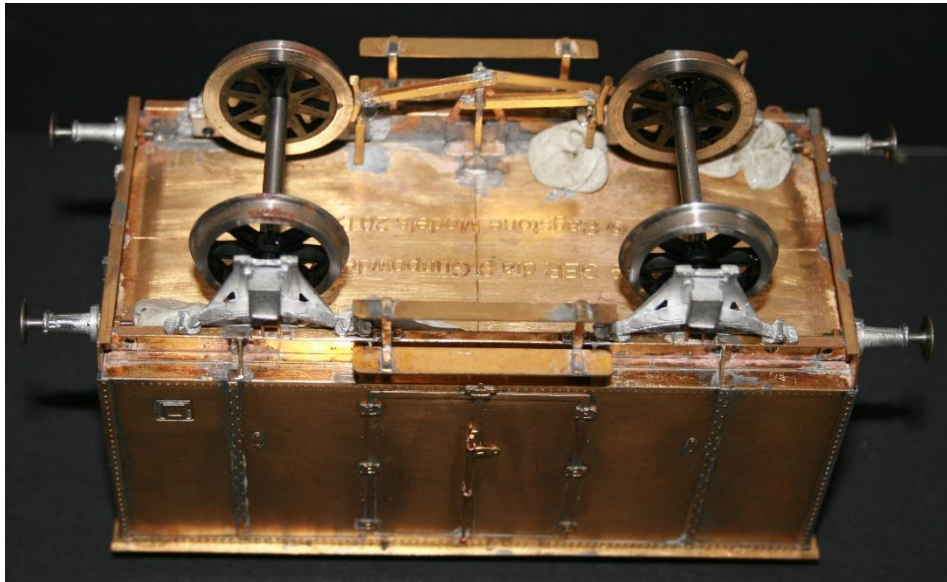


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8. Form rivets and fold up solebars (3). Note: the two outer columns of the central block of 6 rivets should only be punched on one solebar, unless both side brakes are being fitted, for which extra parts are required. Fit solebars to body, using the 3 short  $\frac{1}{2}$  etch lines as a guide. Add end plates (4).
  9. Form horse hook (like a small handrail,  $\Pi$  shaped) from wire and fit in etched holes at the left end of the solebars. Fold and fit body brackets (16) the solebars between the half etch lines and using the rivets to aid location. The one where the brake lever fits requires trimming to provide clearance for the lever. Fold and fit spring stops (15) in the half etched rebates on the bottom of the solebars.
  10. Rivet & fold footstep brackets (9), remember that the fold next to the riveted lugs is a 180 deg OUTSIDE fold to produce a double thickness section, the rest being normal 90 deg folds. Fit to the underside of the solebars to match up with the rivet on the underside of the bottom channel. Fit stepboards (10) using the half etch lines to align to the supports, the wider one on the top.
  11. Drill axleboxes to fit your chosen bearings, then using the etched lines as a guide fit axlebox/spring castings 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.



12. Fit V hanger (17) to the inside of the solebar with the rivets – using the etched centreline to position correctly. Add inner stirrup (18) with pivot casting (tumbler) loosely located in the holes.

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13. Drill 0.7mm and fit brake hangar/block castings to floor, in line with the wheel treads taking care that they do not actually touch the wheels. 2 push rods (20), fit one each side of the block using 0.7mm wire through the hole in the brake block, the end of the push rod may need filing slightly to fit snugly on the lug of the block. The other end of the push rod solders to the tumbler. Add safety loops (19) to outer ends, near the brake blocks.



14. Form brake lever (31) as shown below and fit with ratchet to solebar. The distance of the ratchet from the axle centreline = 6mm (to the right). Note, the two half etch dots are the centres of the reverse bends NOT fold lines. Part 32 fits over the protruding spindle of the tumbler casting.



15. Fit buffers to buffer beams. Drill all the way through 1.4mm and then 2.0mm, approx 6mm deep. Fit buffer heads with springs and nuts. Assemble and fit couplings to buffer beam using springs and split pins.
16. Clean and paint wagon in you chosen livery.



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## Parts List

### Etch

1	Body sides & floor	17	V hangar
2	Ends	18	Stirrup
3	Solebar	19	Brake safety loop
4	Solebar end bracket	20	Push rods
5	Door edge overlay	21	End capping strip
6	Coupling plate	22	Side capping strip
7	Side washer plate	23	Roof
8	Door hinges	24	Rainstrip
9	Footstep bracket	25	Roof rivet strips
10	Step boards	26	Middle rivet strips - side
11	Top door catch	27	Corner rivet strips - side
12	Door latch	28	Corner rivet strips - end
13	Bottom door catch	29	Middle rivet strips - end
14	Label clip	30	End overlay rivet strips
15	Spring stop	31	Brake lever
16	Body bracket	32	Brake lever retaining washer

### Castings/Other

#### Whitemetal

- 4x Axlebox & spring
- 4x Buffer body

#### Other Parts

- 4x Buffer springs
- 4x Nuts
- 4x Turned buffers

#### Lost wax brass

- 2x Brake hangar & block
- 1x Brake ratchet
- 1x Centre pivot (tumbler)
- 2x Coupling hook

- 2x Coupling springs
- 6x Coupling links
- 2x Split pin
- 0.6mm Wire - approx 70mm
- 0.25mm Wire - approx 60mm

### Parts required

- 2x 3' 1" 8 open spoke wagon wheels (1 pack Slater's 7120)
- Paint and transfers for your chosen livery

### **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