GN07-W008

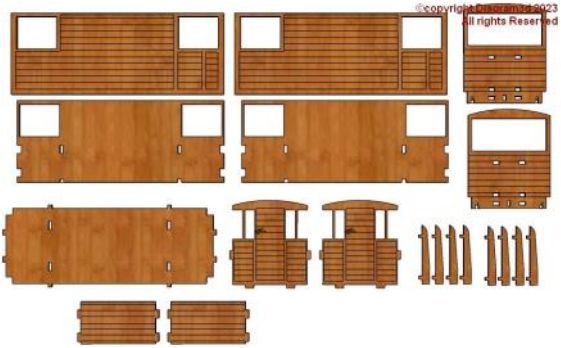
Contents of this kit

MDF Components

MDF Parts

MDF parts are supplied pre-cut, partially attached to the panel which preserves their integrity and ensures that the right parts are present. Do not separate the parts until it is time to use them.

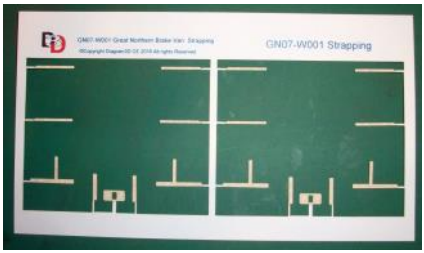
2 x outer sides
2 x inner sides
2 x outer ends



1 x floor
2 x inner ends
2 x partitions
8 x stanchions

Cardboard panel

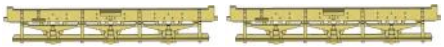
The card panels supplied contain strapping detail for the MDF components.



3D printed components

1 x Roof

2 x solebars.



2 x clasp brake units

Glazing

8 x windows.

Not included

Adhesive to attach the parts. PVA is recommended for the MDF parts.

Craft knife, Clamps, weights or other tools.
Paint and filler.
Wheels, Buffers, couplings etc.

Intended Audience

This kit is intended to reduce the time, complication and labour associated with the construction of a detailed model of a carriage body using accurate pre-cut layers which can be conveniently assembled without specialist knowledge to give the same quality, or better, as traditional methods.

***This is not a complete kit of parts.** The choice of other details is left to the modeller.*

Hints on assembly

Separate parts by cutting the reverse side of the fret.

Separating MDF components cleanly is more easily accomplished by completing the half etched portions on the reverse of the fret rather than cutting from the front.

Pre-assemble and check parts at each stage.

Please do not separate components from layers until assembly is complete or instructed to do so.

Seal Cardboard components.

At each stage, once the required components have been separated from the frets, test the assembly without glue to ensure that the parts are trimmed correctly and fit properly before final assembly with adhesive.

Video and Gallery

Allow as much time as needed for the adhesive to set.

Fill any gaps and smooth surfaces for optimal results

It is advised that cardboard parts are sealed before assembly. For example, artists fixative, spray paint, varnish or even shellac can be used. Good results have been obtained using automobile primer spray. Visit our website for further constructional information including a video and gallery of similar models.

The assembly steps below are strong recommendations but should not be taken as definitive or prescriptive.

Copyright Statement

E&OE.

Current Documents

The current version of documentation for this and any other of our products can be downloaded from www.Diagram3D.com in PDF format.

Feedback

We welcome your comments and suggestions, especially images of models "in progress" or completed.

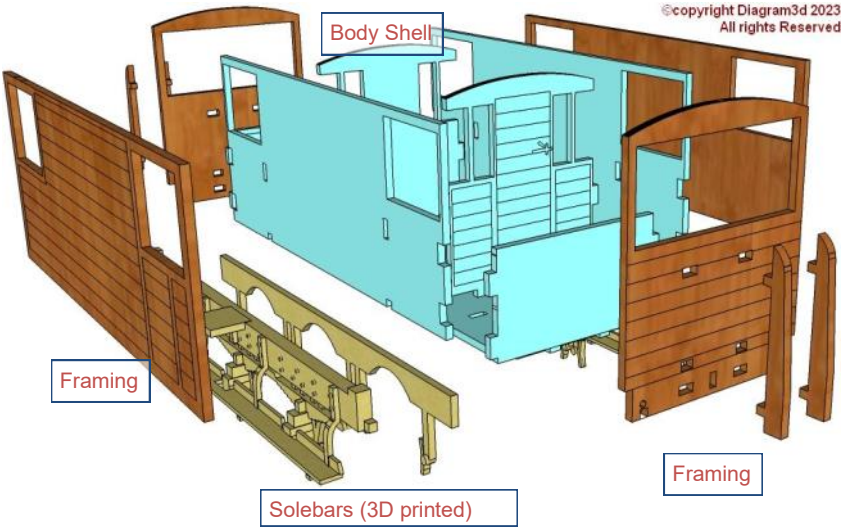
Exploded Diagram

This image shows the relative positioning of the major MDF components.

Body shell.

Solebars.

Framing.



Body Shell

The body shell consists of the floor, inner sides, partitions and inner ends.

When assembling these parts, ensure that the planking detail is orientated correctly.

Total preparation and assembly time about 5 minutes

Firstly attach the partitions to the floor. Then the sides and finally the inner ends. Allow the adhesive to set at each stage of assembly.

Allow sufficient time for the adhesive to dry thoroughly at each stage of assembly

The final result should be square without any further adjustments

Framing

Total preparation and assembly time about 10 minutes.

Allow sufficient time for the adhesive to dry thoroughly

The outer frames can now be attached, beginning with the ends and then the side frames . The end frames fit into the into recess in the body shell.

At this point the solebars can be attached to the floor (contact adhesive recommended). Note that the inner solebar slots into the ends as well as the floor. The brake unit (alternately clasp brakes) is attached behind the solebar.

Attach the stanchions. Each stanchion is assembled from two of the thin stanchions provided.

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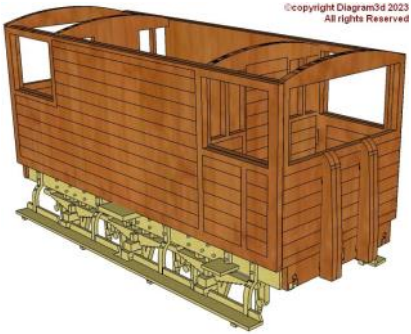

The strapping detail provided is arranged so that it can be easily applied. Note that strapping detail is also etched into the components. (It is recommended that the strapping is painted before it is attached to the vehicle).

Roof

Total preparation and assembly time about 5 minutes.

Allow sufficient time for the adhesive to dry thoroughly

The roof is placed centrally over the assembled body and secured with contact adhesive. The central hole is for a lamp fitting. The offset hole is for the chimney from the stove in the guards cabin.

Brakes and axleboxes

3D printed brake units are provided. The axleboxes are incorporated in the solebars.

The brakes were applied from inside the cabin, there was no external lever.

These vehicles were equipped with clasp brakes acting on all wheels.

Note that the van depicted in the "livery" section on the next page has clasp brakes acting on all wheels with sanding gear on the outer wheels.

Historical notes

The GNR had several types of brake van. The brake van type that this model is based on, with horizontal planking, was made in a 20 ton version.

The physical dimensions and wheelbase were similar. This version had six wheels. It was used for heavy mineral traffic.

Type of Brake Van	1922	1903	Sample Number
10 Ton ordinary	230	733	13190
10 Ton vacuum fitted	20	none	15452
15 Ton	47	65	21868
20 ton (four wheels)	24	none	21864
20 Ton (six wheels)	76	112	23819

Livery

From existing photographs, one early livery appears to be brown (or teak colour), varnished, with shaded lettering.

The Number, and legend "G. Northern R.", "Goods Break" was arranged on three planks with a plank between the lettering. At a later date the livery became a large "G N" similar to the 10 ton vans.

In 1896, Moore's Journal describes GNR livery for goods vehicles as "chocolate brown" with black ironwork. Moore's Journal also states that GN brake vans had vermillion ends.

Underframe

The principal dimensions of these vans, applicable to all variants of this vehicle type were:

Description	Dimension
Length over body	18 feet 6 inches
Width of body	7 feet 6 inches
Wheelbase (four and six wheeled vehicles)	10 feet

Finally…

Congratulations on completing this kit. We hope you enjoyed making it as much as we did. If you enjoyed making this kit then take time to visit www.Diagram3D.com to find similar items. Our website has free downloads of historical information. Downloadable assembly instructions for all of our products

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