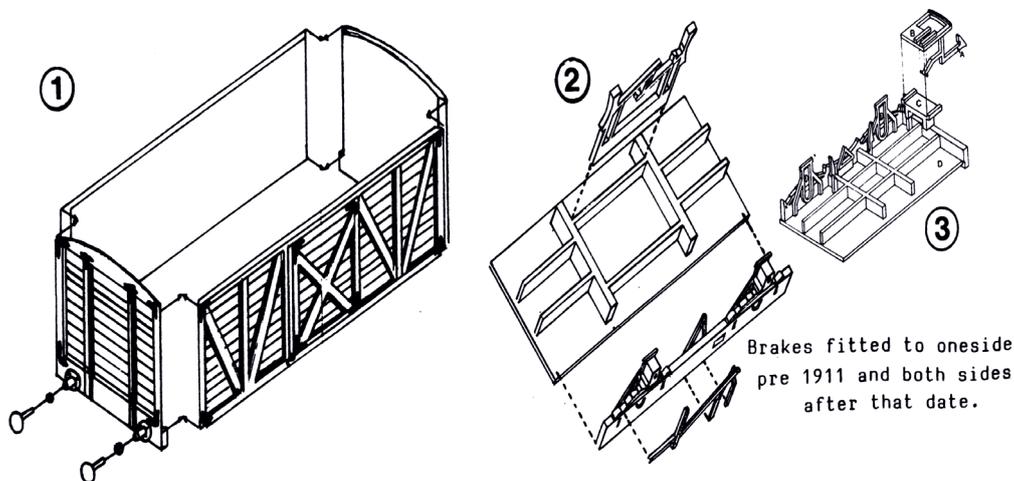


## M.R 10Ton Covered Goods Wagon & Ventilated Fruit Van. Ref. 4024, 4024F

Before beginning to assemble your model please read these instructions carefully, and study the diagrams relating to the kit you are building. A small sheet of plate glass will ensure that all components go together accurately and that all four wheels are level. We recommend Slater's Mek-Pak fluid cement. Clean off all ejector pips and any flash on the mouldings, carefully file the mitred edges of the sides and ends to a knife edge.



## INTRODUCTION

### Parts required to complete:

1. 3 link coupling as/if required Slater's ref 4155 will suit
2. 4024. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.  
4024F. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.

### Livery Details

#### General Livery Details for MR. and L.M.S. Wagons

The basic body colour for the Midland Railway goods vehicles was grey and this was continued by the L.M.S. until 1936, when a change to bauxite was made on new and repainted stock. The change to bauxite was preceded slightly by a change in the style of lettering vehicles so some would have appeared with the new lettering in grey livery. Solebars were painted the relevant body colour and everything below was painted black, as too were buffer heads, buffer shanks, coupling hooks, coupling links, and brake levers and their guards. Van roofs in service would generally have a muddy grey colour.

Midland Grey is a difficult colour to pin down as its exact 'make-up' is not known. What is known however is that new vehicles were usually painted pale grey and repainted stock was painted in a dark grey called 'smudge'. The latter was made up from government surplus battleship grey and various scrapings and left overs of other colours, resulting in a colour that could change from day to day.

Lettering in Midland days was applied as follows: Open wagons from 3-plank upwards had a 21" M.R. with their running number carried on a numberplate on the solebar; Covered Vans had a 12 1/2" M.R. with the running number on the body in 4" numerals; Cattle Wagons had a 7" M.R. with 4" numerals and the word 'Large' in 3" letters; Tariff Vans and Goods Brakes had a 21" M.R. with the running number carried on the upper body side in a 6" wide white edged black panel the number being prefixed by the letter 'M'. The tariff vans and brake vans had their own type of numberplate with the word 'Brake' as well as 'Midland'.

From 1917 it was decided that M.R. Open Wagons should carry their running number on the body, and numbers were usually painted on the bottom plank centrally under the 'M'. At the grouping in 1923 Midland wagons retained their existing running numbers the only change being that the 'M' prefix of Brake Van numbers was dropped. Additionally from 1920's onwards the letter 'X' was applied to vacuum fitted stock.

In L.M.S. days up until 1935/6 wagons had grey bodies with the initials 'L.M.S.' in various sizes- 18", 12" and 6"- with the running number in 4" numerals. The carrying capacity was now added to the livery in 3" characters; either written out full e.g. LOAD 8 TONS or in abbreviated form, e.g. 8T. The tare weight was sometimes applied to the bottom plank and sometimes left on the solebar as in Midland days. In the post 1936 bauxite bodied period wagons carried a 4" L.M.S., a 4" running number, and a 3" carrying capacity (either as 8T or 8 TONS). As a wartime economy measure the size of lettering above were reduced to 3", 3" ,and 2" respectively.

Just like the varying colour of Midland Grey the style and positioning of the letter seemed to be open to change, so the only really safe way to ensure absolute accuracy is to have a photograph of the vehicle being modelled at the period being modelled. Reference works which will be of use are: 'Midland style', published by the HMRS; 'The L.M.S. Wagon' by Bob Essery and Ken Morgan, published by David & Charles; and 'The Midland Wagon- an Illustrated history' by Bob Essery in 1978 by OPC

## **MODEL INFORMATION**

This kit will enable you to build an accurate replica of Midland Railway Wagons in original condition,

### **Tools Needed**

The following tools are needed, most of which will already be in the toolkit of the average modeller.

- "Stanley" type knife for removing polystyrene parts from their sprue.
- Assortment of small files for finishing removal of tabs, and general cleaning up.
- Cyanoacrylate (Loctite Superglue or similar) for fixing of brass parts to polystyrene mouldings.

Liquid Polystyrene Cement (not the tube type) for joining plastic parts together. Naturally, we recommend our own MekPak which is applied with a fine brush (which we can also supply).

### **DIAGRAM 362**

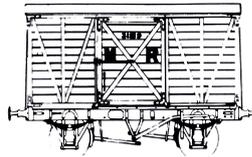
Original batch first built 1893 fitted with grease axleboxes (later replaced with oil) 3'2" dia 8 spoke wheels. Brake gear one side only. Rated as 8 tons.

Tare A.V.B. through pipe 5-14-0

A.V.B. + Westinghouse through pipe 5-15-0

Standard Vehicles 5-12-0

DIAGRAM 362 Original livery as built. Used up to mid 1890's



### **DIAGRAM 363**

First built 1902 oil boxes 3'2" dia. wheels. brake gear one side only when new.

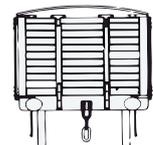
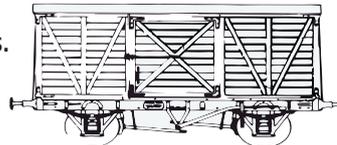
To carry 10 tons.

Tare of wagons without through pipes 5-17-2

Tare with wagons fitted with a.v.b. through pipes 5-19-0

Tare of wagons fitted A.V.B. and westinghouse through pipes 6-0-0

DIAGRAM 362 OR 363 Livery style used from mid 1890's onwards.



### **DIAGRAM 360**

First built 1899 grease and oil boxes 3'7" dia. 8 spoke wheels fitted A.V.B and handbrakes complete. Fitted with passenger type 'J' hangers and springs. Rated to 5 tons Passenger train. 6 tons Goods train.

Tare 6-11-10

NOTE: Modellers should use the 'F' version and discard louvres.

DIAGRAM 360 Standard livery used throughout M.R. period for vehicles not fitted with steam heating.

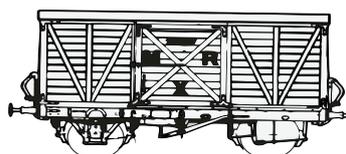
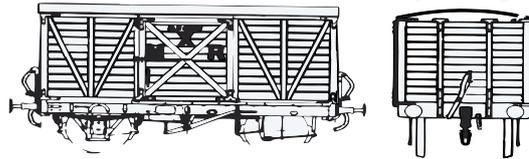


DIAGRAM 360 Standard livery used throughout M.R. period for SFV (steam fitted vans).



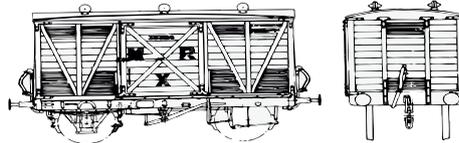
**LOUVRED VERSIONS.**

**DIAGRAM 361**

Built 1903 to drawing no. 1822. Oil boxes, 3'7" dia. 8 spoke wheels, Passenger type J. Hangers and springs Fitted with automatic vacuum brake, Screw link couplings. Tare 6-8-0

NOTE: Drawing no. 1822 shows 3'2" dia wheels with wagon type springs. Whilst photographic evidence of vehicle no. 35324 shows the passenger type of suspension as detailed. Another case of variations built to the same drawing number.

DIAGRAM 361 Standard livery used throughout M.R. period



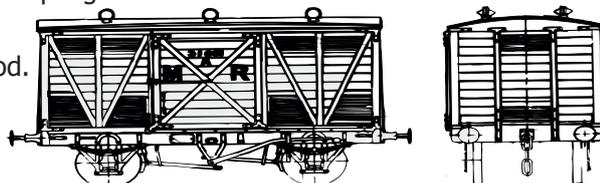
**DIAGRAM 364**

Built 1909 to drawing no. 1822. 3'2" dia wheels, Wagon type suspension oil boxes.

Tare of wagons fitted with A.V.B through pipes 6-1-0 screw link couplings.

Tare of wagons without A.V.B through pipes 6-0-0 3 link couplings.

DIAGRAM 361 Standard livery used throughout M.R. period.



**DIAGRAM 378**

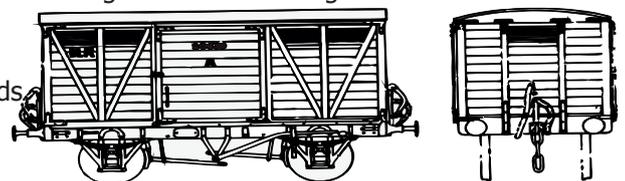
Built 1896 3'2" dia wheels, wagon type suspension, brakes one side only. Grease axleboxes and 3 link couplings. Later fitted with oil boxes, brake gear both sides and screw link couplings.

Tare of vans without through pipes 6-2-0

Tare of vans with A.V.B. + Westinghouse through pipes 6-4-0

DIAGRAM 378 Original styles as built. This vehicle piped with vacuum and westinghouse through pipes. The purpose of the letter 'A' is unknown. However all photographs shows vehicles built to diagram 374 as having the letter 'A' in both styles of lettering throughout the M.R. period.

DIAGRAM 378 Later lettering styles as used from early 1900's onwards.



NOTE: For L.M.S period, From photographic evidence it appears that whilst vehicles were built with the standard M.R. short brake lever the majority of the vehicles were refitted with the long brake lever early in the L.M.S. period.

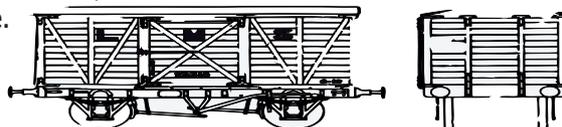
Pre 1936 lettering style for all unfitted vehicles, Body and solebar colour L.M.S. wagon grey, ironwork below solebar was Black.

Post 1936 lettering style for fitted and piped vehicles, For unfitted versions the XP and WB-10-0 in bottom right hand corner is omitted. Body colour L.M.S. Bauxite.

**KNOWN VEHICLE Nos.**

Diagram 362.

114351 one of the original batch probably photographed 1893. Grease axleboxes, Brake gear to one side only. No through pipes fitted 3 link couplings. Short Rainstrip over the door.



NOTE: The opening door runners were the sliding type not the wheel type as supplied in the kit. It is probably that the door gear was changed in 1902 when drawing number 1642 was issued. Early batches would probably be altered at the same time as the grease boxes were changed for oil.

4197. Photographed in L.M.s. grey livery, oil axleboxes, brake gear both sides, 3 link couplings. No through pipes.

90766. Either lot 658 or 695 photographed in L.M.S. Bauxite april 1939 oil boxes fitted, brake gear both sides. No through pipes. 3 link couplings. Short Rainstrip over the door. Tare 5-17-0

90437. Lot 914 photographed September 1953. Oil boxes, brake gear to both sides. No through pipes 3 link couplings.

Short Rainstrip over the door. Tare 5-16-0

Diagram 362 or 363 (No capacity visible)

3906. Photographed 1936, Oil boxes, brake gear to both sides. No through pipe 3 link couplings. Tare 5-19-0

23318. Photographed 1936, oil boxes, brake gear to both sides. No through pipes 3 link couplings. Tare 6-1-0

31919. Photographed in B.R. days, oil boxes, brake gear to both sides. No through pipes 3 link couplings. Tare 5-19-0

47961. Preserved at butterfly, oil boxes, brake gear to both sides. No through pipes 3 link couplings.

Diagram 360.

60963, 85065 and 84883, oil boxes, passenger type springs and 'J' hangers. 3'7" dia 8 spoke wheels, screw link couplings. Fully fitted brake and steam heating pipes.

NOTE: The M.R. classes vans fitted with steam heating as a special Fruit vans (SFV) and numbers were recorded in the special wagon list for further numbers see O.P.C. mid wagons Vol 2 page 22.

23675. Same specification as above except that it is not fitted for steam heating and therefore not classed as SFV.

Diagram 378

20639. Photographed as built, 3'2" dia wheels, brake gear to one side only, grease axleboxes, Vacuum and westinghouse through pipes, fitted with 3 link couplings. These would be rebuilt with oil boxes and brake gear to both sides and screw link couplings in the early 1900's.

20850. Photographed 1920 fitted with oil boxes.

28850. Photographed 1920 fitted with oil boxes.

15764. Photographed 1948 fitted with oil boxes, vacuum through pipes and screw link couplings.

NOTE: This vehicle has been refitted with the standard type of door as per D360-363 and updated to 10 Tons at same period.

Diagram 364

10761. 3'2" dia 8 spoke wheels, oil boxes, torpedo vents. No letter 'A' on the door. Full length Rainstrip.

31091. 3'2" dia 8 spoke wheels, oil boxes, torpedo vents. No letter 'A' on the door. Full length Rainstrip. (Both vehicles were photographed in 1920).

Diagram 361

35324. Oil boxes, fully fitted vacuum brake 3'7" split spoke wheels, screw link couplings. Torpedo vents, Rainstrip full length. Passenger type suspension and 'J' hangers.

## **M.R. 10 TON COVERED GOODS VAN**

This Midland Railway van Diagram 361 dates from 1903 and during those years 50 were produced. When originally built all vehicles would have entered traffic with the brake lever on one side only and oil axleboxes, but later many received brake levers on both sides.

These vehicles lasted in service until about 1940 and in L.M.S. days some were given 'L' section bracing bolted to the end stanchions and running half way up the body end.

Under the L.M.S. ownership the vans remained in grey and were lettered as in diagram A, but some were later painted bauxite and were lettered as in diagram B.

Known running numbers, tare weight in brackets where known: D 361 35324

## **ASSEMBLY INSTRUCTIONS**

### **MATERIALS**

Many different materials are used in our range of kits and are selected as appropriate for the detail and strength requirements of the individual components they depict. In addition material is also chosen to provide a suitable running weight for the model. These general notes apply to our complete range of kits and may well include superfluous information with regard to some individual kits.

### **ASSEMBLY NOTES**

Before commencing assembly read the instructions carefully and familiarise yourself with the parts. The following general notes are offered to help you construct an accurate and attractive model:

A. Always cut parts from sprues with a SHARP knife; do not be tempted to break parts from sprues as the risk

of damage is high. Clean off small pips with a knife or a fine file.

- B. Do not remove parts from sprues until the instructions call for it; this will help identification of parts and minimise chances of loss.
- C. Painting is rarely best left until construction is complete. The latest stage at which it is advisable to paint a model is before small detail, glazing etc. is applied. The suggested order of assembly is designed for this.
- D. Any flat surface to assemble your model and to ensure squareness and accuracy.
- E. Use a liquid, not tube, cement. Slater's MEK PAK is ideal and will provide a clean and easy to use adhesive medium.

## **TRANSFERS**

The transfers are of the waterslide type and should be applied as follows:

- These transfers work best on a gloss or semi-gloss paint finish. There is a glossy carrier film which will be virtually invisible on a gloss surface, but on a matt surface it will be visible and the transfer will not adhere so well. Ensure the surface is clean - dust and finger prints will prevent proper adhesion.
- Cut the transfer from the sheet; usually around the glossy carrier film. Some groups of figures are printed on a common piece of carrier film, most are individual figures which have to be applied separately.
- Immerse the transfer in a saucer or other container of warm water for a few seconds. The container should be large enough to accommodate the full, flat transfer. The transfer will initially curl up and then partially flatten out. Test whether the transfer has become loose from the backing sheet and will slide off smoothly, by gentle pressure with a finger. In cold water, the separation will take longer, but never use very hot water to try to speed it up.
- When separation has occurred, position the transfer and backing paper as one item to the required location retaining the transfer in position whilst gently sliding out the backing paper. Remove excess water.
- Make final adjustments to the position, at the same time dabbing off further excess water with an absorbent cloth or blotting paper. If there are any air bubbles trapped under the transfer, remove these by a gentle outward stroking of the cloth or blotter to the edges of the transfer.
- Allow to dry completely for several hours, such as overnight. When all transfers have been applied and allowed to dry, a protective coat of a suitable varnish in gloss, satin or matt finish should be applied over the transfer. Most varnishes sold for model painting should be suitable and should not damage the transfer, but you must ascertain this for yourself.

## **M.R. 8/10 TON COVERED WAGON AND FRUIT VANS.**

1. Check all components to ensure that they are free from flash, and carefully cut away from their sprues as required.
2. Fit ends to floor, then fit sides between ends and to the floor at the same time.
3. Fit bearings into axleboxes- they need not be glued but a dab of MEK-PAK may help retain them until the wheels are fitted.
4. Assemble one solebar to the wagon chassis. Place the axles in the axleboxes of the assembled solebar and then fit the other solebar to the wagon chassis, checking that the axles are set square on the chassis and the W-irons are not splayed out. If the W-irons splayed out with the axles and bearings in position carefully file some of the plastic from behind the axle box so that the bearing can sink deeper into the axleboxes. When the W-irons are vertical to the floor with the axles and bearings in position the second solebar may be fitted into place.
5. Position brake gear according to gauge- fit brakes on one side only for early period and on both sides for later periods (see notes).
6. Fit brake lever on the same side as the brakes.
7. Press buffer collars over the buffers, then fix buffer heads to the buffer beams.
8. Fix roof in place.
9. Fit couplings of your choice- a dummy hook and tension lock coupling type are supplied.
10. Fit louvres in position for the various fruit van versions.

end section (5) to the end of the body with verandah supports, making sure to locate the buffer beam flush with the underframe. Repeat this procedure at the other end with the individual buffer beam (6),

5. Fit bearings into the axleboxes, then glue one solebar in position on the underframe and allow to dry. Offer up the axles into the bearings in the first solebar, locate the axles in the second solebar and cement this in position, ensuring that the axles are set square. Locate the brake shoes on buffer beams and floor supports according to gauge.
6. Carefully cut out the footboard unit and glue these to the solebars and axleboxes. Paint the verandah, Floors and van interior, then cement the roof (12) in place.
7. Press buffer collars over the buffers and cement into buffer bodies, pressing the collars right up to the body.
8. Fit couplings of your choice- a dummy hook and tension lock coupling type are supplied.

**FITTING THE SLATER'S TENSION LOCK COUPLING**

Place the coupling hook A in the bearing of the coupling bar unit B, then cement to the carrying plate C making sure that no cement comes in contact with the hook, thus preventing it from pivoting freely. Mount this assembly onto the longitudinal floor ribs- Note that by positioning the coupling unit more towards the centre of the underframe very close coupling can be achieved. It may be advisable however to experiment on your minimum radius curve to discover the optimum position for your couplings (assembly diagram - Fig. 4).

**Packing List 4024**

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4024A	Solebar .....	2	
X4024B	Side & Ends.....	2	
X4024C	Floor.....	1	
X4024D	Roof .....	1	
X4072	Tension Lock Coupling .....	1	
<b>Other Parts</b>			
X407051	Buffers.....	4	
40146	Transfers .....	1	
Instructions	.....	1	
Customer Response Form .....		1	

**Packing List 4024F**

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4024F(A)	Solebar .....	2	
X4024F(B)	Side & Ends.....	2	
X4024C	Floor.....	1	
X4024D	Roof .....	1	
X4072	Tension Lock Coupling .....	1	
<b>Other Parts</b>			
X407051	Buffers.....	4	
40146	Transfers .....	1	
Instructions	.....	1	
Customer Response Form .....		1	