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NSWGR STANDARD 45' FLAT WAGON 1:43 KIT



PROTOTYPE NOTES

A total of 500 of these wagons were built between 1937 and 1959. The earlier wagons had four bolsters, coded MLE, while later wagons lacked bolsters but retained four stanchions on each side and were coded UME.

Some later wagons had the bolsters or stanchions removed and were fitted with holding blocks for containers. These were coded FME for wagons fitted to carry LCL containers and GME for wagons fitted to carry 2 x 20'-00" ISO containers. Twelve had a centre mounted large swivel bolster for operating in pairs, or with spacer wagons, to carry long poles or pipes and coded TME.

- The first 75 wagons were converted from existing 40' flat wagons by Tulloch Ltd between 1937 and 1942 with the wagons retaining their original numbers.
- 100 bolster wagons built by Tulloch Ltd during 1943 numbered 24350-24449
- 25 bolster wagons built by Tulloch Ltd during 1947-48 numbered 25650-25674
- 78 bolster wagons and 172 stanchion wagons built by A Goninan during 1948-52 numbered 26275-26524
- 50 stanchion wagons built by A E Goodwin during 1958-59 numbered 29500-29549

The first group of wagons had diamond frame bogies when built, but these were replaced with plain bearing 2AP type, which became the standard. The cast drop centre 2BJ was later fitted to most, but not all, wagons. Later still the curve frame 2AQ with roller bearings became the main bogie for these wagons.

PARTS SUPPLIED

1 under body casting
 1 floor casting
 4 2AQ bogie side frame castings
 2 bogie stretcher castings
 2 wagon bolster castings
 4 spring block castings
 4 angle bracket castings
 8 brass bearings
 4 wheel sets
 1 brake cylinder
 1 air tank
 2 brake actuating levers
 2 yard brake spider wheels
 2 train pipe hoses
 Brass wire 0.8 mm
 Brass wire 0.5 mm
 1 sheet transfers for UME
 1 length of 1/4" steel rod

YOU MAY NEED TO SUPPLY (depending on the version modelled)

Couplers. The kit has been designed for fitting Kadee No.804 or 805 couplers, but feel free to substitute.

26 eyebolts for use as tie down rings.

Brass strip 0.25 mm x 2.00 mm

Brass strip 0.25 mm x 4.00 mm

Brass tube 1/16" outside diameter

Steel wire 1 mm diameter

Plastic strip 0.20" x 1/8"

Plastruct HFS - 6 plastic H section

Two screws for attaching bogies

TOOLS REQUIRED

Large files and needle files

Superglue

Araldite 5 Minute Epoxy Adhesive

Pin vyce and/or “Dremel” motor tool and drills 0.5 mm or No. 76, 0.8 mm or No. 76 and a drill to suit the screws for mounting bogies.

BODY ASSEMBLY

Note:

Read ALL instructions before commencing assembly to understand the correct sequence.

All flash on the castings should be removed before assembly.

Some castings may have air bubbles - these are easily puttied if desired and will not affect the end result.

Occasionally a casting may be warped. This problem is easily rectified by placing in hot water in a flat-bottomed container for a couple of minutes and allowed to cool on a flat surface.

The instructions for the assembly of this kit assume that the person assembling the kit has some basic kit building skills.

The quality of the finished product is dependent on the care taken in its assembly.

If you have any problems please feel free to contact O-Aust Kits direct.

It is recommended that the body castings be washed in warm water and liquid detergent, rinsed clean in warm water to remove mould release compound and air dried before commencing assembly.

STEP1

Make sure that the bottom of the floor casting and the top of the under body casting are flat and able to be effectively joined. The buffer beams should be flush with the end of the floor casting.

STEP 2

Join the floor and the under body castings with Superglue and clamp until the glue sets. If required, file the 1/4” steel rod to fit neatly between the wagon bolster castings on the underside inside the centre sill and glue in place with Araldite 5 Minute or similar epoxy adhesive. This steel rod strengthens the chassis to prevent bowing and at the same time adds weight.

STEP 3

Adjust the length of the wagon bolsters to fit (they have been made longer than required). File the two bars on the topside of the bolsters so that they are a snug fit in the channels moulded in the floor casting. Glue the wagon bolsters in place on the underside of the floor using 5 minute epoxy adhesive. Place the assembly on a sheet of glass to make sure the assembly is level, then clamp in position until the epoxy sets.

Now is a good time to drill holes in the bolsters for attaching the bogies with self tapping or metal thread screws at Step 14.

STEP 4

These wagons were fitted with tie down rings along the solebars, 11 each side and 2 at each end. **OPTIONAL.** If you wish, the 26 rings (not supplied) should be installed at relevant locations. Drawings No. 1 and 7 show the locations and measurements. While drilling the holes for the rings in the buffer beams, also drill the holes for the buffers and train pipe hoses. Refer to Drawing No. 6. Buffers may be fitted if modeling an early version.

STEP 5

The yard brake brackets and grade control valve brackets are part of the body casting. For the yard brake assembly, the ratchet handle is on the outside of the bracket and pointing towards the end of the wagon. A length of 0.8 mm brass wire forms the yard brake shaft between the two spider wheels. The ratchet shaft is made from 0.5 mm brass wire and bent at right angles at each end to form the handle. You may also wish to fit a chain link (not provided) between the yard brake shaft and the brake rod lever. A length of 0.5 mm brass wire is used for the grade control valves. Clearance holes will need to be drilled in the centre sill for these brass wires to pass through.

STEP 6

Fit the brake cylinder, actuating levers and air tank in place. The train pipes can be bent from 0.8 mm brass wire and glued in place. See Drawing No. 3 for location of these fittings.

OPTIONAL. To represent the web at the bottom of the channel centre sill, cut two pieces of .020" x 1/8" plastic strip to fit between the two wagon bolsters. Glue in place along the bottom of each vertical part of the centre sill overlapping each side evenly.

STEP 7

OPTIONAL. Bend the steps from 0.25 mm x 2.0 mm brass strip (not provided) as per Drawing No. 4 and glue in place hard up against the chassis spacer as per Drawing No. 3.

STEP 8

Couplers of your choice should now be trial fitted as per the manufacturers instructions, but not installed until STEP 14, so that they are not damaged during construction.

STEP 9

Glue the train pipe hoses in the previously drilled holes in the buffer beam and attach to the air pipes installed in STEP 6.

STEP 10 (UME)

These wagons were fitted with 8 stanchions, 4 on each side and spaced as per drawing No. 2. OPTIONAL. To make the stanchions, cut 8 lengths of 1/16" diameter brass tube (not supplied) 20 mm long and 8 lengths 1 mm diameter stiff steel wire (not supplied) 25 mm long.

Glue the wire inside the tube and flush at one end. Drill 8 only 1 mm holes in the deck as per Drawing No. 2 and glue in place.

STEP 10 (MLE)

Four H shaped bolsters on their side were fitted to these wagons with adjustable stanchions. OPTIONAL. Make 4 bolsters from Plastruct HFS-6 plastic H section (not supplied) 63 mm long and glue in place with the H on its side. See Drawing No. 2 for locations. Make 8 plates 15 mm long from 0.25 mm x 4 mm brass strip (not supplied). Drill 4 x 1 mm holes 3 mm apart in each plate. Glue two of these plates to each bolster flush at each end. Refer to Drawing No.5 for details. When the glue has set, drill through the holes in the plates down into the Plastruct. Make 8 stanchions as for the UME, then glue in place in appropriate holes in the plates.

STEP 11**BOGIE ASSEMBLY**

Note: To bring out the excellent detail in the bogie castings, thoroughly brush them with a brass wire brush obtainable from hobby shops, or a suede shoe wire brush from a shoe shop.

The holes in the side frames will need to be further drilled out with a 4 mm drill to the correct depth to accept the brass bearings supplied. The drilling of a smaller diameter pilot hole first is recommended.

NOTE. Accuracy is critical for this step as tolerances are very fine. If you are not confident of performing this step, it is recommended that you either shorten the bearings supplied to 3.5 mm long, or use 1/8" brass tube as bearings and epoxy in the resultant gap.

Fit the brass bearings into the side frames and secure with Superglue.

Assemble the bogies by inserting the end of each bolster into the side frames with the wheel sets in place. Then insert the angle brackets into the top of the gap above the bolster from the inside and glue or low melt solder in place. This prevents the bolster from falling out of the frame.

Fit the spring block castings into position at the bottom of the side frames. When satisfied with the positioning, Superglue the bottom ONLY in place.

NOTE. Real springs (not provided) may be substituted in lieu of the spring block castings in a similar manner to the springing of Athearn bogies.

FINISHING

STEP 12

The wagon is now ready for painting. The entire wagon and bogies should be painted standard rolling stock grey. Any gloss paint that is plastic compatible is suitable.

STEP 13

Before applying transfers, ensure that the paint is thoroughly dry and dust free.

NOTE: Transfers adhere better to a gloss surface.

Trim margins around letters and numbers as close as possible, place in warm water until transfer is almost ready to release from backing paper, then place on paper towel to absorb excess water. Wet area with decal setting solution, place transfer on model and slide transfer off backing paper into position. Apply decal setting solution over transfer, mop up excess solution with edge of kitchen paper and allow 24 hours drying time. To protect transfers and paint work, spray a thin coat of clear flat paint (eg. Testor's Dull Cote or similar brand) over the entire model. Allow 24 hours drying time.

STEP 14

Attach the bogies to the bolsters with screws (not provided) and the couplers (not provided).

Weathering to your requirements is recommended.

YOU ARE READY TO ROLL AFTER LUBRICATING THE AXLES.

REFERENCES

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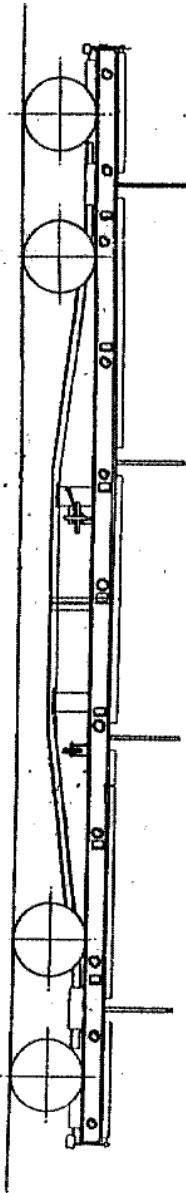
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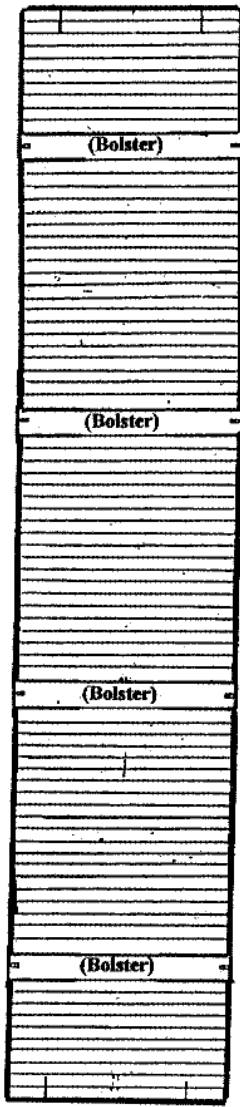
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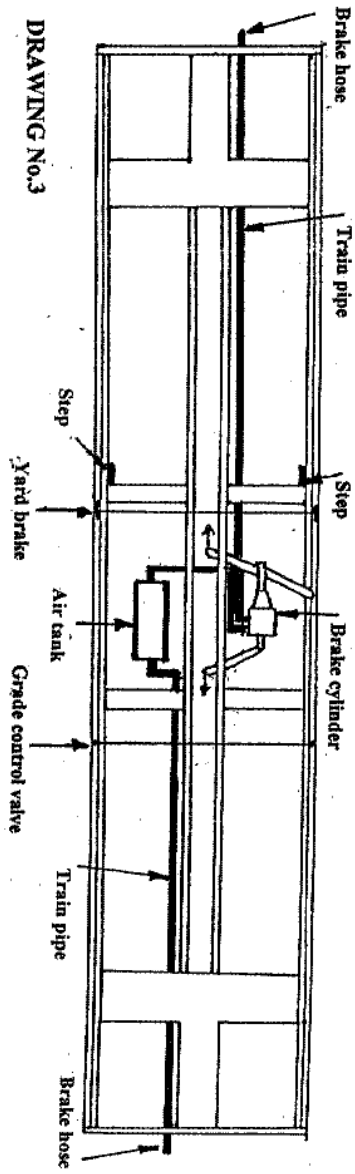
DRAWING No.1

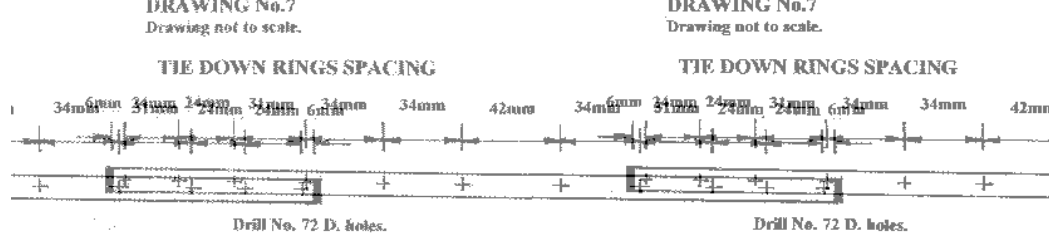
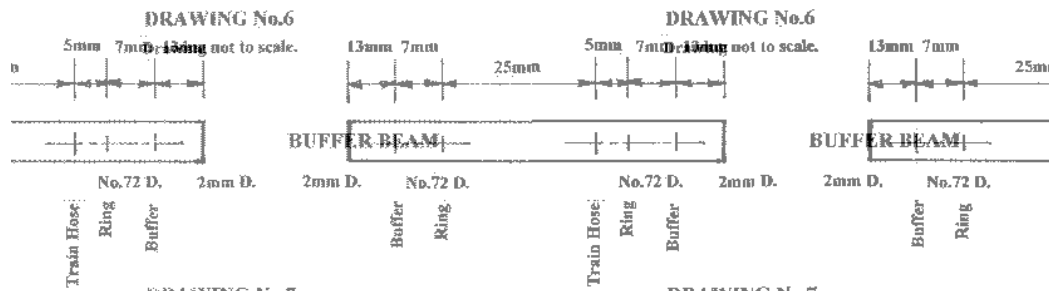
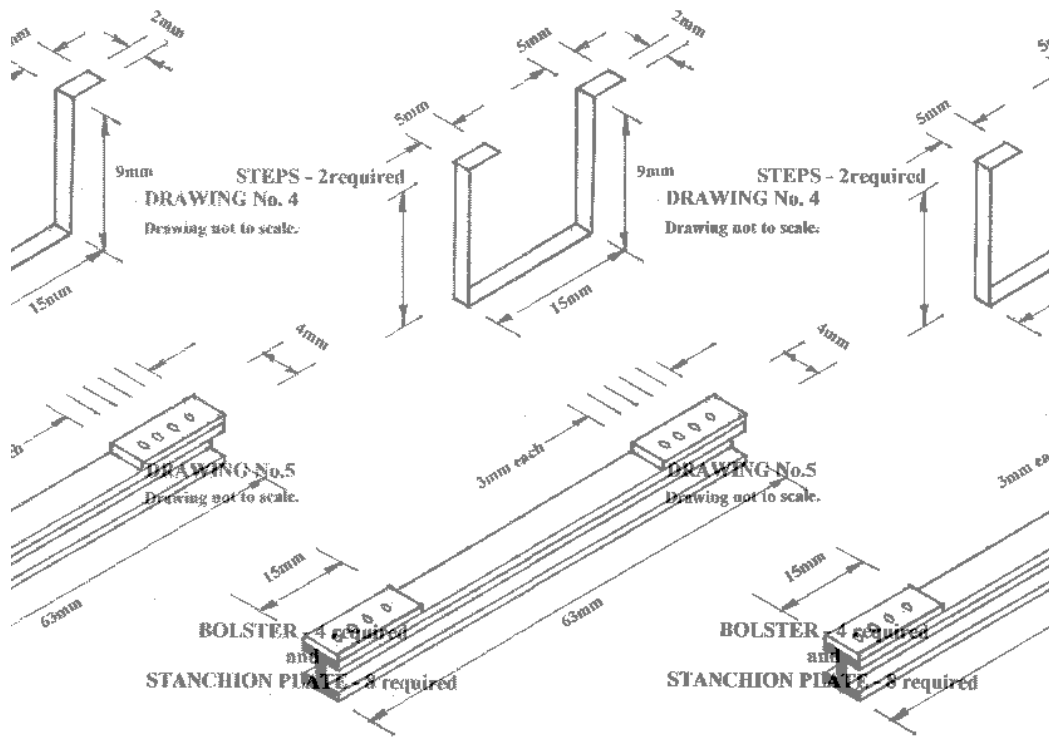


DRAWING No.2



DRAWING No.3





B.E. Lovett

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