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Manufacturers, Wholesalers and Retailers of Quality Australian Model Railways
PO Box 252 Warwick, Queensland, 4370 Australia
Phone/Fax: 617 4667 1351 Website: www.arkits.com **Email:** info@arkits.com

RH03 – NSWGR FCH/NHDF Coal Hopper Kit

Prototype Data:
The BCH was the first all steel bogie coal hopper introduced to the NSWGR built without buffers. They were first introduced in 1951 with 1485 being built. Commencing in 1953 some of the BCHs were fitted to roofs to carry bulk grain and cement which reduced the number in coal traffic. In 1960 150 new wagons were constructed coded HCH and several BCH were modified to the HCH coding and specifications. In 1972 the FCH code was introduced when the hoppers were fitted with roller bearing bogies. Numbers in service have varied by demands and reclassification. In 1970 there were 846 BCH and 160 HCH. In 1980 there were 60 BCH and 385 HCH/FCH. Today all of the BCH variants have been removed from service although Pacific National is running some ex BWH with lids removed and pneumatic opening hopper doors as RHIF in aggregate traffic from the NSW south coast. Some of the running numbers for the hoppers are as follows: BCH 28625 - 29424 & 32000 – 32684, HCH 32750 – 32899. Under the four letter coding introduced in 1979 the following codes applied BCH – NHDA, HCH/FCH – NHDF. A very good reference document for this wagon is available from Data Sheets.

Assembling the model

Note: remember all parts have a draw angle of 1 degree around the outer edge to allow removal from the die tool. A light filing or sanding will remove this angle and allow a better fit of all parts.

1. Check and identify all parts against the parts list diagram. Cut all parts from the sprue, remove any flash and sprue runner remnants.

2. Fit side (part 1) to floor (part 3). The floor fits into the recess in the bottom of the side. Cement in position.

3. Fit side (part 2) to the other side of the floor and cement in position.

4. Fit the end slope sheets (parts 4) in position ensuring that the bottom of the sheets are level with and touch the floor. Cement in position. Slight filing maybe necessary to ensure a good fit.

5. Fit the two vertical bulkheads (parts 5) between the two sides, the floor and the underside of the end slope sheets. There are two reinforcing ribs on the underside of the end slope sheets and a vertical rib on the floor. Lay the bottom (square end} of the vertical bulkhead against the vertical rib on the floor and lightly push back until the angled end clips behind the end slope sheet reinforcing ribs. Cement in place.

6. Now is the time to trim the top combing on the sides. The ends of each top combing angles back toward the inside 14.5mm from each end. The easiest way of have found for trimming back the top combing is to lay a snap off blade against the end corner post and the first reinforcing rib while the hopper is lying on its' top on a firm surface. By working the blade in a rocking motion a triangular piece will be trimmed off the top combing. Finish off with a file and clean up any furry pieces by running a sharp blade along the edges. Take care on the underside so that you do not scratch the sides.

7. Let the assembly cementing cure for about an hour. Turn the hopper upside down and in a figure of eight fashion on a sheet of 400 grade wet and dry paper on a flat surface sand the top combing until the sanding marks are visible on all top surfaces.

8. Let the detailing begin. The hopper discharge doors (parts 6) are cemented to the four outer discharge chutes facing toward the centre of the hopper. The two large inner discharge hopper doors (parts 7) are cemented to the centre hoppers facing the brake end. That is the end of the hopper with the large round hole in the side. This model kit now contains 6 Discharge Hopper Door Release Handles Parts 16. Position as marked on the enclosed diagram. The other side is a mirror image. Glue in place with Superglue.

10. Trim the four end angle support bars (parts 8) to length so that they fit between the top end combing and the floor. With the angles facing inwards line the bars up with the underside ribs on the end slope sheets and cement in position. To ensure that these bars line up with the back of the corner posts I generally cement the top of the bars in position first and then while the joint is still soft I hold a small flat piece of plastic against the back of the corner posts. This will make the bars line up automatically. Ensure that the bars line up with the reinforcing ribs and are vertical to the floor and cement the bottoms in position.

11. On all BCH, HCH and FCH vehicles the ladders are centrally located between the right hand corner post and the right hand inner bar. Trim the ladders to length and cement in position.

12. Fit the air reservoir (part 10), brake cylinder (part 11) and auxiliary air reservoir (part 12) in position in accordance with the diagram at assembly hints. Cement the brake lever (part 13) to the front of the brake cylinder, the floor and the underside of the end slope sheet in line with the right hand underside reinforcing rib and the right hand inner end angle support bar.

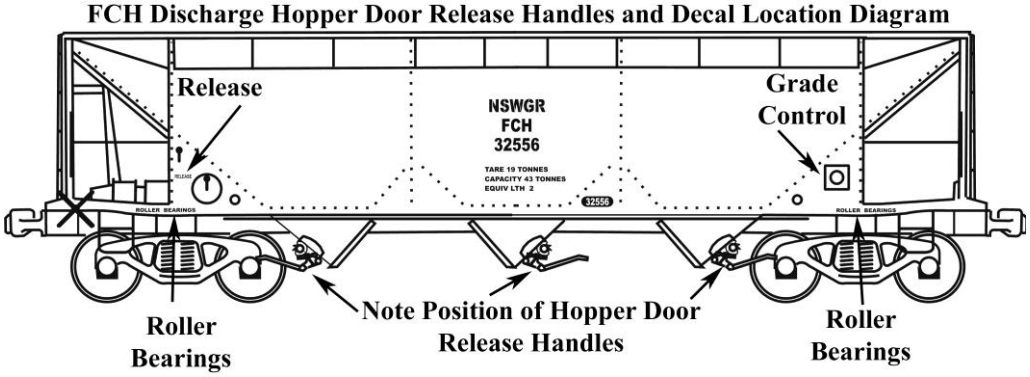
13. You have four hand brake spiders in the kit (parts 14). Two are spares. Cement the mounting pin to the underside of the floor just inside the inner line of the end corner posts. For a better look cement the handbrake should be fitted so that the spider bars are at a diagonal to the floor.

14. If you are going to use the bogie pins (parts 15) to hold the bogies on do not use them now. If you want to be able to remove the bogies later cement the pins in the bogie mounting holes and let cure. After curing cut the top of the pins off and drill the centre of the pin with a 1.5mm drill. Work the bogie screws into the hole by screwing in ½ a turn and the backing off and then tighten and screw a ½ turn again until the screw is a deep as you want it to go.

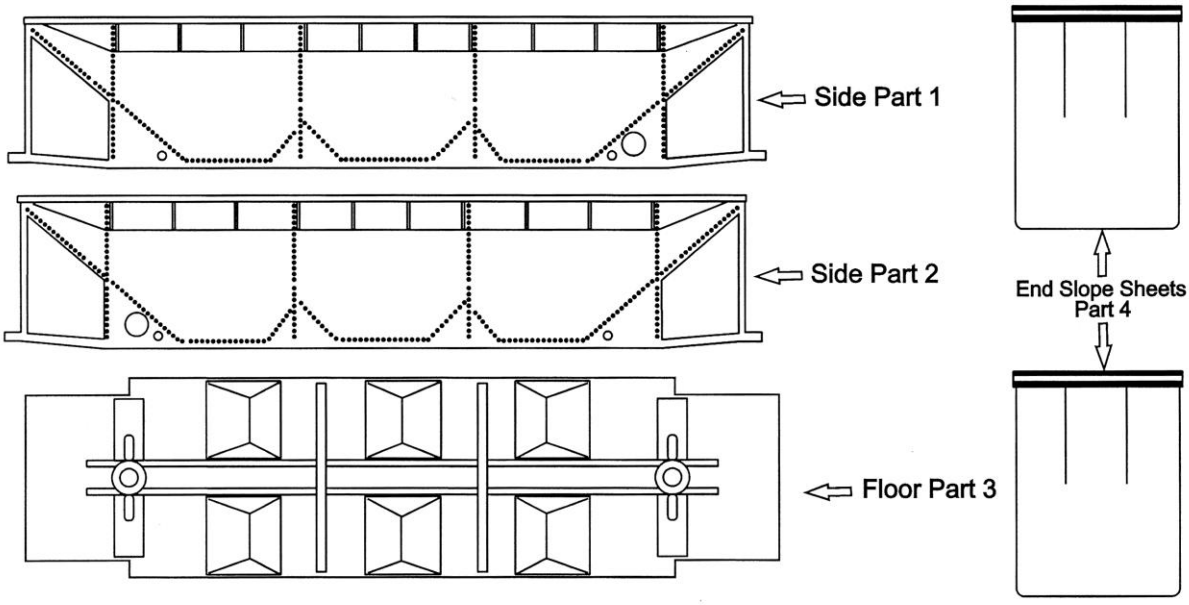
15. Test fit the interior urethane slope moulding by lightly spreading the sides with your fingers in the middle and slipping the moulding in. Ensure the recesses in the floor marry with the spaces in the moulding. Glue in position with superglue or acrylic quick grip.

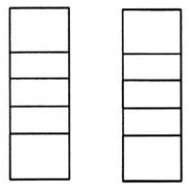
16. Wash the model in warm soapy water. To get best colour prime first with a grey primer coat and paint a weathered black. Apply decals per diagram and instructions. Seal decal on with a flat/satin clear finish and glue couplers in place. Glue couplers in place and attached bogies.

FCH Discharge Hopper Door Release Handles and Decal Location Diagram

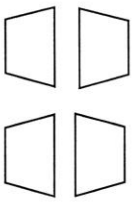


BCH - FCH - HCH
Parts List Diagram

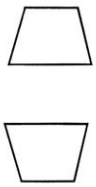




Vertical Bulkheads
Part 5

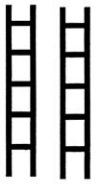


Small Outer Discharge
Hopper Doors Parts 6

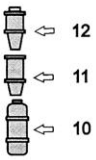


Large Inner Discharge
Hopper Doors Parts 7

End Angle Support Bars
Parts 8



End Ladders
Parts 9



Air Reservoir,
Brake Cylinder and
Aux Air Reservoir
Parts 10, 11 & 12

Brake Lever
Part 13

Handbrake Spiders
Parts 14

Bogie Pins
Parts 15

Part 16
Discharge Door
Release Handles

Additional Parts
2 X Bogies
2 X Bogies Screws
1 X Slope Sheet Insert (Urethane)

Assembly Hints