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D&RGW SHORT CABOOSE

HOn3 Kit

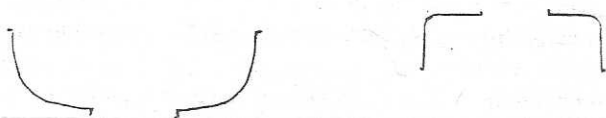
#10674 Caboose, 0577 and 0578. Square ends, single cupola window awning, square corner steps. All plastic.
#10674-1 Same, with brass trucks and railings.

ITEMS NEEDED. ACC cement, liquid plastic cement, hobby knife, flat file, scissors, needle nose pliers, flush cutting diagonals, pin vice with #78 drill, screw driver, decal setting solution, sanding sticks or fine sandpaper. (We recommend Squadron #30502 and #30501). Small weights needed as desired.

Throughout these instructions the numbers in parentheses after a named part refer to that part by it's number as a double check for clarity.

DATA. It is advised that you obtain photos of the particular numbered caboose that you intend to model. Check each item as you install it with whatever data you have. A good source of photos is "Narrow Gauge Pictorial", Vol. 5: Caboose of the D&RGW, by Bob Grandt. Check the model magazines for other articles and photos.

1. GRAB IRONS. Use .012" wire (#17), the PSC grab iron bending jig (#36), and flat nosed pliers to form the grabs and handrails. This procedure is given at this time but can be done when you are waiting for glue to dry on other procedures. Go to the "UNDERBODY" below to start assembly. There are 8 handrails, 2 on each end, and 2 on each side. The 4 on the ends have a 90-degree bend and the 4 on the sides are curved. Use the template below to form them.



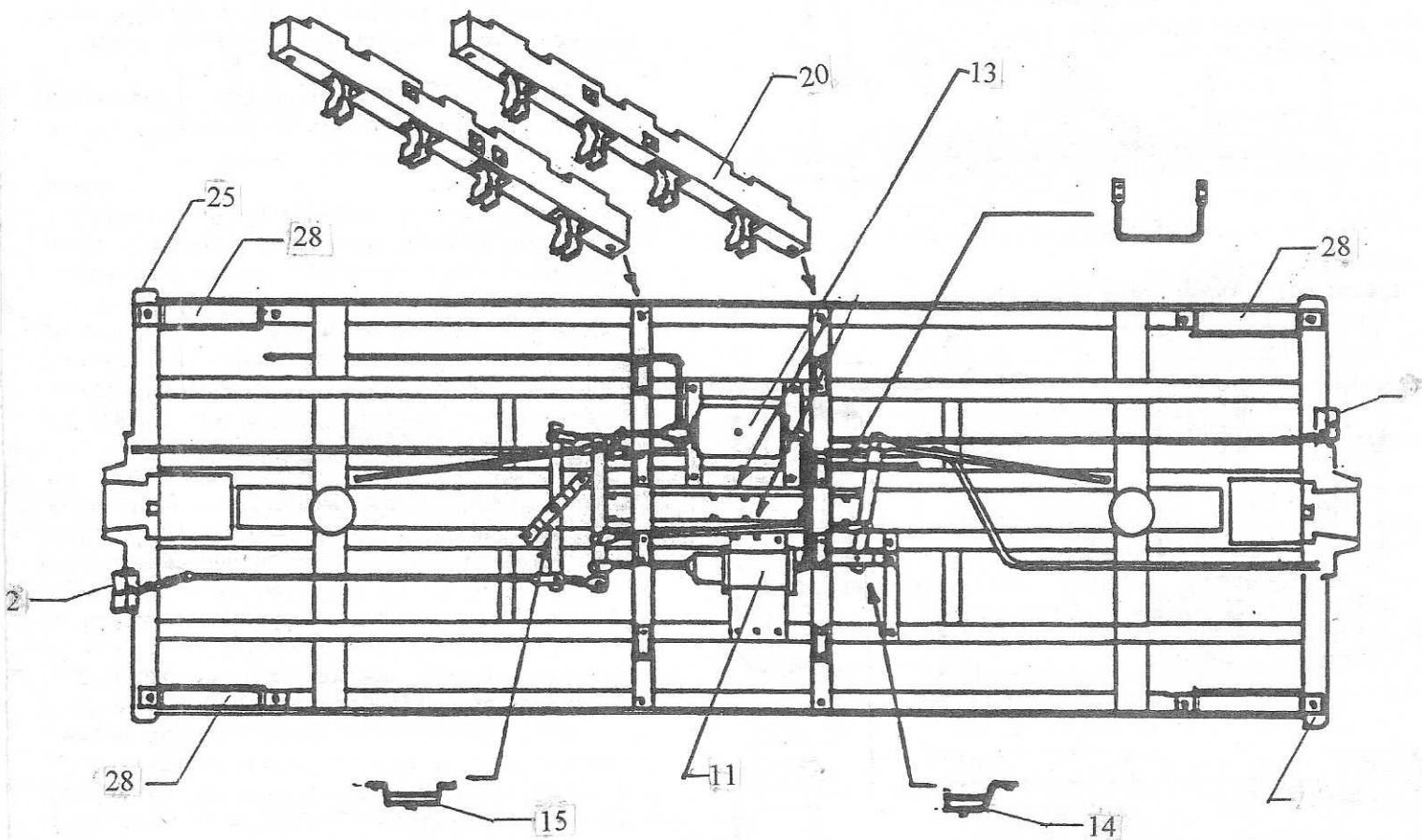
There are 10 grab irons. All the grabs are a scale 17" long. Use the 17" spot on the PSC bending jig. (#36)
The 4 corner grabs on the cupola roof will have to be formed against their mounting places using a bend and fit procedure. Using a #80 drill, drill through the plastic at the spots marked for handrails and grab irons. Insert the wire and apply glue to the back using an ACC type cement. When it is dry clip off the excess wire and file flat where needed in such places as the bottom of the cupola roof etc.

PARTS LIST

Part No.	Qty.	Description
1.	2	Sides
2.	2	Ends
3.	1	Floor
4.	2	Roof ends
5.	2	Roof Walks
6.	2	Roof Walk Braces
7.	1	Cupola Roof
8.	2	Cupola Sides
9.	2	Cupola Ends
10.	1	Brake Rigging
11.	1	Brake Cylinder
12.	2	Brake Staff Holders
13.	1	Air Tank
14.	1	Fixed Lever Fulcrum
15.	1	Brake Lever Fulcrum
16.	1	22" Monofilament Line for truss rods
17.	1	.012" Wire
18.	1	.016" Wire
19.	7	Turnbuckles (3 Spares)
20.	2	Needle beams with queen posts
21.	2	Ladder assemblies
22.	2	End Rail
23.	2	Brake wheel
24.	2	Coupler Pocket (2 Pieces)
25.	2	End Beams
26.	2	Ratchet & Pawl
27.	2	Shouldered Screws
28.	4	Steps
29.	1	Decal Set
30.	2	End Fascia
31.	1	Retainer Valve and wire
32.	1	Smoke Stack assembly
33.	2	Lift Bars
34.	2	Truck assemblies
35.	2	Air Hoses
36.	1	Grab Iron Bending Jig

2. UNDERBODY. Put the floor (#3) down flat with the brake cylinder-mounting pad toward you. (See diagram below) Glue the brake lever fulcrums (#14 & 15) in place. The fixed lever fulcrum (#14), which rests one end on a needle beam, will have that end floating till the needle beam is installed at a later time. Let dry. (Here is a good place to make and install a few grabs while the glue dries.)

3. BRAKE RODS. Put the end of the brake rigging casting (#10) with the double lever on your left and the single lever on your right. One end of the single lever should be thin enough to go into the fixed lever fulcrum (#14) where it pivoted. Very carefully test and fit. Part #14 will be glued to the needle beam after the needle beam is installed. The hand brake lever (left lever of the double lever on the left) is cut in half to go through the hand brake lever fulcrum (#15) that has been glued on your left. This lever should be narrow enough to go through at an angle. No glue is necessary to hold the brake rod assembly in place. Your choice.



4. **NEEDLE BEAMS (#20).** The needle beam with two notches goes on your left with center notch over the main brake rod. Glue the needle beam at this time. Let dry. (More time for grabs now while glue dries.) Now the right hand needle beam with three notches can be glued on with the center notch again over the main rod. Let the glue dry very dry. (Grab iron time again!)

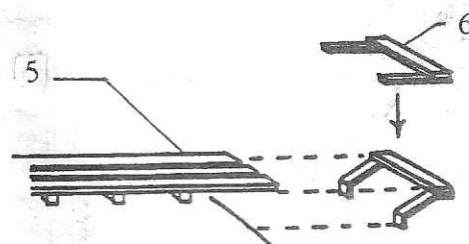
5. **FIXED LEVER FULCRUM (#14)** Glue this fulcrum to the needle beam on the right. The other end was glued to the hand brake lever fulcrum back in step 4, "underbody".

6. **BRAKE CYLINDER (#11).** Glue it on its pad with the piston rod under the left side needle beam and fastened to the brake lever. Some adjustment may be needed to fit Glue the air tank (#13) to go between the needle beams and laterally between where the truss rods will be when they are installed. You can tell where the truss rods will be by looking at the queen posts on the needle beams.

7. **AIR LINE.** Use .016 wire (#18) The main airline can be inserted from the right end after it is formed using the enclosed diagram. Slide it under the single brake lever, through the hole under the left needle beam, through the hole under the right needle beam and under the double brake lever to stop where you desire. The prototype ran through to the air hose. (Your choice.)

8. **TRUSS RODS.** Clear the holes in the floor (#3) for the truss rods. Knot one end of the monofilament (#16) and thread it through the holes making sure to thread a turnbuckle (#19) on for each truss rod.

Leave the monofilament truss rods off of the top of the queen posts for now because if they are pulled too tight it will warp the floor. After the sides, ends, and roof are glued in place warping is less likely and the truss rods can be lifted up onto the queen posts. Use ACC to glue the monofilament on the top of the floor. (We have found that use of zip kicker to instantly set ACC type cement greatly speeds up the process of assembly.) Thread the truck mounting screws through the bolster to establish their position on the top of the floor so weights to be added later will not interfere with the truck screws.



Roof Walk End Support

9. SIDES AND ENDS. This is Kit #10674 with square cornered ends (#2) (Cabooses #0577 and #0578) and the sides (#1) are ready for use. Install the side handrails and file the lower end flush on the back. These are the curved handrails. The sides (#1) can now be glued in place on the floor (#3).

Make sure you have all grab irons installed on the ends and the back of the edge grabs filed flush. There are two grabs near the top of the outer edge of each side. There are two end handrails with 90-degree bends near the floor. Glue the ends (#2) in place.

10. WEIGHT. Add weights between the truck mounting screws on the top of the floor, the amount as per your own desires. NMRA recommended practice works out to be 2 1/2 ounces total car weight.

11. CUPOLA. Glue the cupola sides (#8) and cupola ends (#9) together making sure they are square. Make sure the corner grabs on the roof (#7) are in place & the backs of them are filed flush. These should be bent using the indents on the roof casting. (#7) The roof can be glued permanently or made removable as desired.

(We made ours removable by gluing 4 pieces of styrene about a quarter inch square on the bottom of the cupola roof. Glue one square on each end and one square on each side between the windows. Do this before gluing the cupola on the sides so you can work from the bottom of the cupola. A removable cupola roof gives access to a battery etc. for lights.)

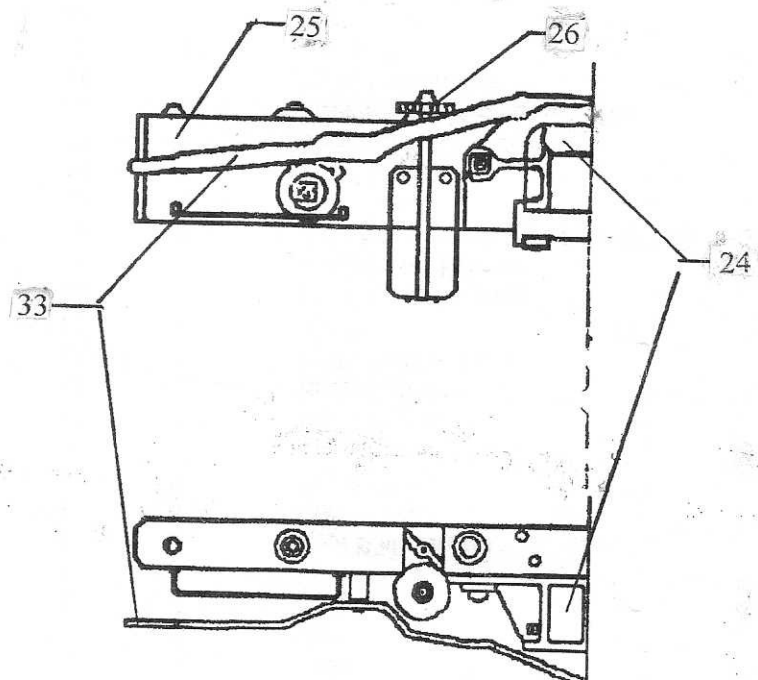
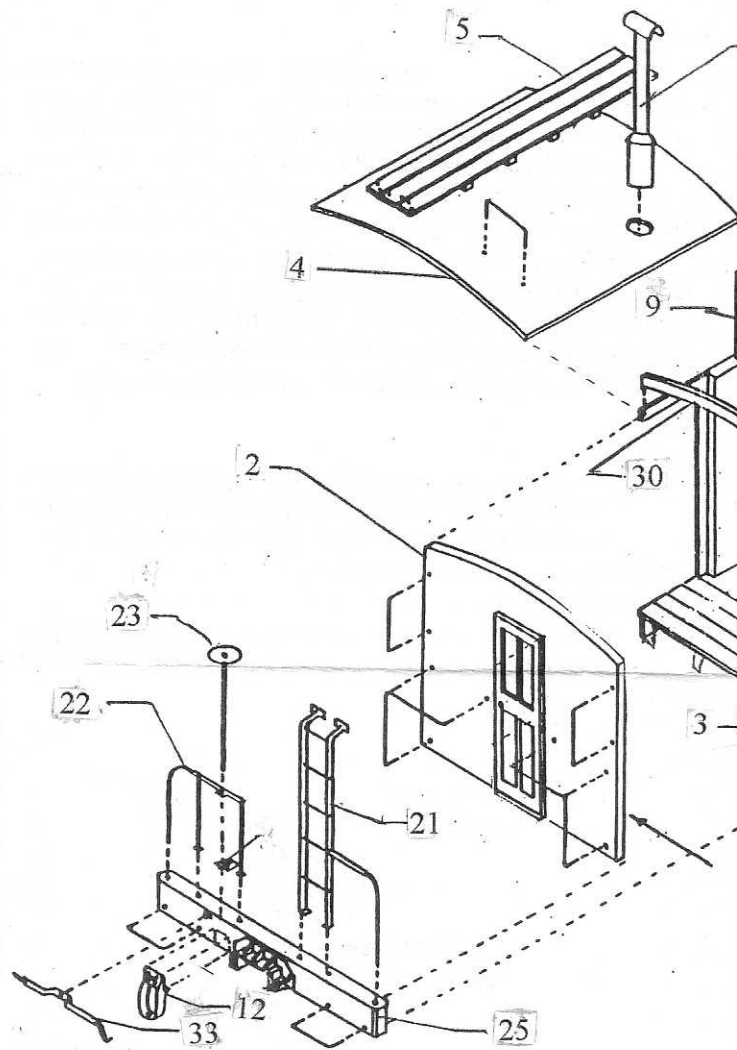
The parting line on the top of the side casting (#1) has to be removed. The same goes for the parting line on the bottom of the cupola side casting (#8). Cut them off with a sharp hobby knife then sand the edges smooth. If these steps are not done there can be other fitting problems later. The edge of the curved roof pieces (#4) and the bottoms of the cupola sidepieces (#8) are one continuous line on the finished model. Most pictures of the prototype show tarpaper tacked to the roof edge. (See page 71 & 73 of Grandt's book.)

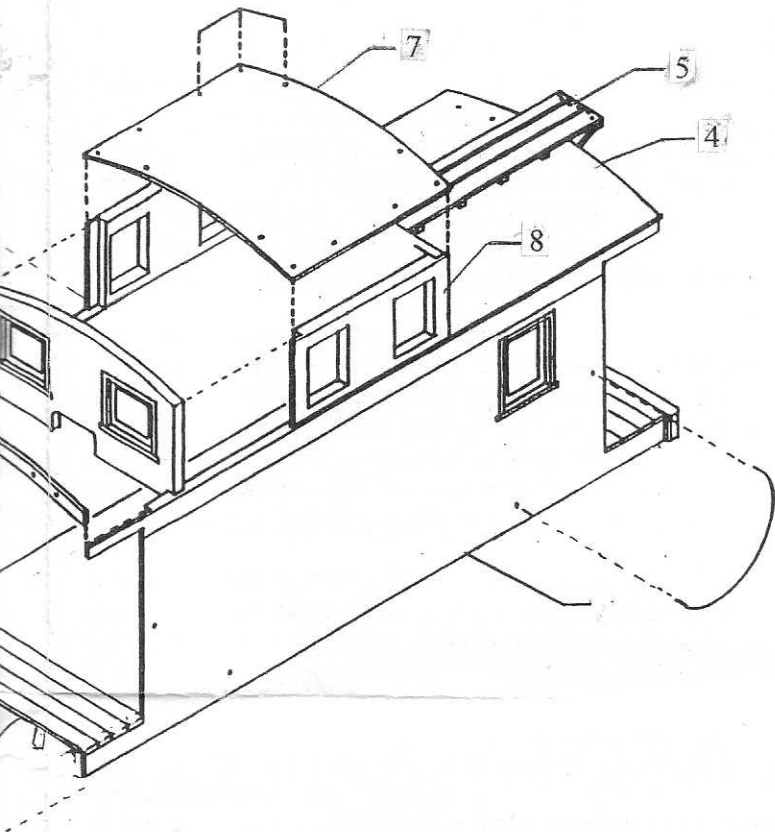
Glue the cupola in place before gluing the roof pieces (#4) on the body. There are guides cast on the inside of the side castings (#1) where the cupola mounts.

12. ROOF. Check for fit as you glue the 2 roof pieces (#4) in place. Be sure the grabs on the roof top each end are done and the backside is filed flush. Check the amount of overhang on the end by fitting the roof to the extension of the side fascia. Removing a small amount from each end can shorten the roof piece. The roof piece with the smoke stack hole mounts on the end with no window on one side.

Now the end fascia (#30) under the roof ends can be glued in place. Note the markings for the ladder as this piece can accidentally be reversed. Put the ladder marks on the right hand side where the ladder will be. Check the overhang on the ends and sides of the roof. Check with photos.

13. END BEAMS. Glue the end beams (#25) in place making sure that the coupler pocket base is flat. The top of the end beam will be above the level of the floor. Grab irons can be added before or after gluing in place.





18. END RAILINGS (#21 & #22). These are fragile so cut with care while removing them from the sprue. Install and glue with ACC. Be sure to check the fit of the ladder to the roof end fascia before gluing. Install the lower brake staff holders (#12). Fasten the brake wheel (#23) to the brake staff, made from #16 wire. Slide the ratchet and pawl (#26) over the brake staff and glue in place. Now install the coupler pin lift bars (#33).

19. Assemble the smoke stack (#32) and glue it in place.

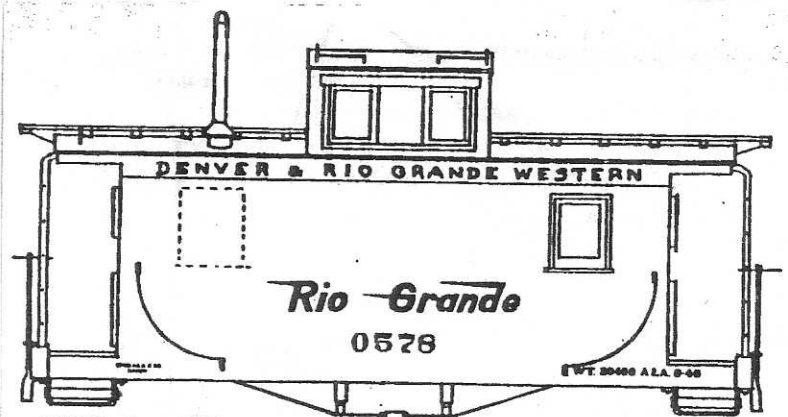
20. AIR HOSES. (#35) Install just to the right of the coupler pocket. You may cut the mullions out of the windows in the end doors and the windows of the cupola sides to make single pane windows if you desire. You may paint and decal your model to match your prototype. (Decals included) Weather to suit.

14. COUPLER POCKETS (#24). PSC part #32025 coupler pocket is styrene and can be glued with solvent cement. If you use Kadee #714's, insert the coupler in the box just as you would in a Kadee coupler box. Hold the box lid on with tweezers while checking for proper operation. Touch cement very lightly to the box lid and let dry. Do not move the coupler till cement is dry, dry, dry. The coupler will not be glued if a small amount of cement gets to the coupler accidentally because of its construction material. Cement lightly. The coupler box will be glued to the model. Do not use a screw to mount it, as a screw will protrude through the deck. When gluing the coupler box to the model be sure to avoid getting any glue in the centering hole or on the centering pin that goes into the centering hole.

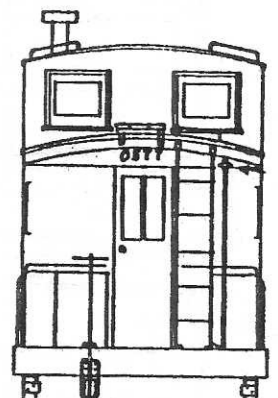
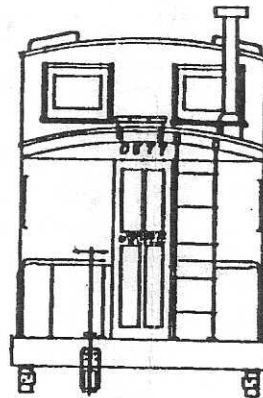
15. TRUCKS (#34). To avoid the problems associated with very small parts (journal box covers) assemble by leaving the journal box covers on the sprue. Test fit the covers in their hole. If the cover seats all the way put ACC on it, refit and let dry. Then cut it off the sprue. Cut the inner brake shoes off and leave the outer brake shoes on the truck bolster. Snap the side frames on the bolster then insert the axels. Using the shouldered screws (#27) mount the trucks.

16. STEPS (#28). Install at this time. It may be necessary to clear the mounting holes. Check for fit.

17. ROOF WALK (#5). Glue in place. Glue the roof-walk brace (#6) under the end of the roof-walk. See drawing.



1939 to 1953



This herald used 1926 to 1936



1936 to 1945