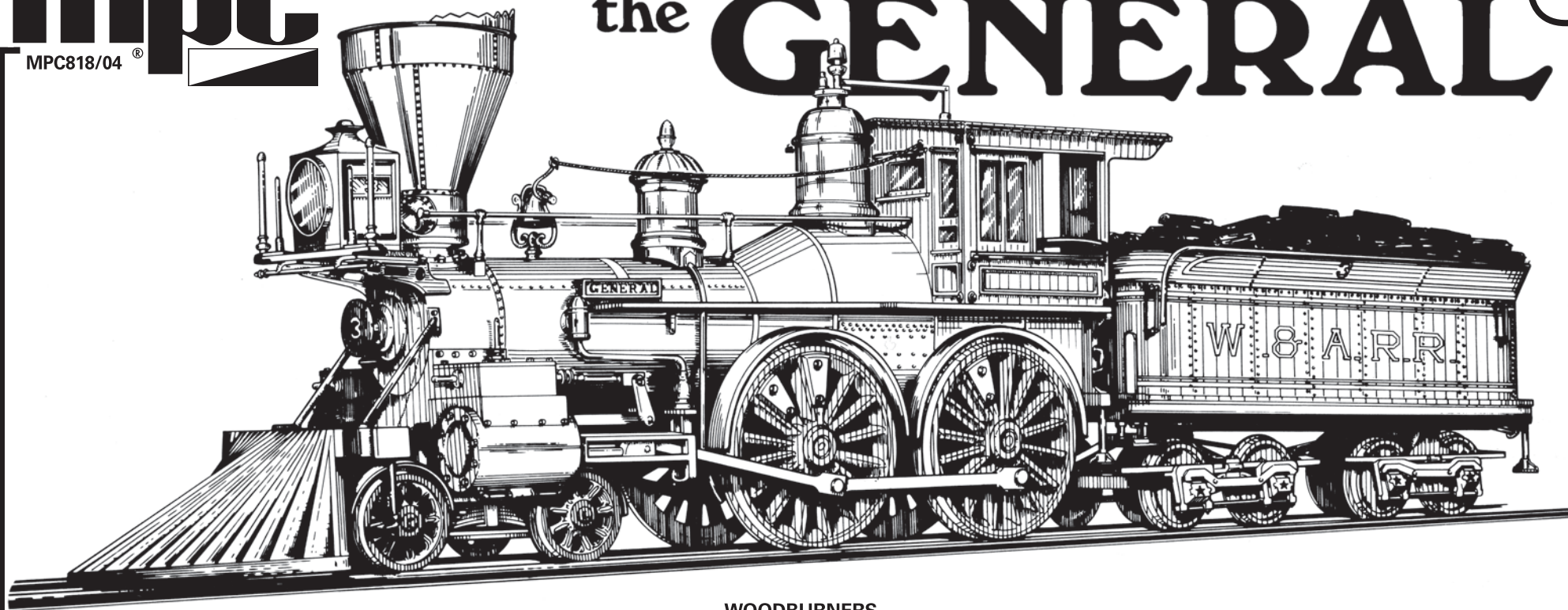


the GENERAL



WOODBURNERS

THE BIRTH OF THE 4-4-0

In the early 1800's America was still mostly wilderness. Its rail-roads had been built rapidly and cheaply. Steep grades, tight curves and light-weight or strap rails on rough roadbeds were the rule.

Early locomotives had drivers and idler wheels mounted on the same rigid frame. Though fine for Europe, they often derailed in America. America needed a better engine design so its rail-roads could operate smoothly and safely. In 1836 Henry R. Campbell revolutionized American railroad-ing by inventing the swivel four-wheel leading truck, creating the 4-4-0 arrangement. The leading trucks had the flexibility to turn sharply and absorb irregularities in the track. They formed an adjustable three point suspension with the drivers so that the engine could follow the rails. Now the railroads could grow! Headed by fast, safe engines. Through 1885, virtually 85% of all U.S. railway engines were 4-4-0 steamers and many, converted to coal, remained in service into the 1900's.

The most visible indication of a wood burner is the enormous stack with spark arrester. The giant oil burning lamp was more than decorative. On a dark night the lamp's beam reached up to 1,000 feet so the engineer could keep watch for fallen trees, slides and livestock which often blocked the track. The hard-wood cowcatcher weighed 1/2 ton, but even so, sometimes a steer would derail a train. Virtually all these locomotives were painted, polished and decorated with brass fittings and beautiful scroll work. 4-4-0 woodburners were the first transcontinental trains, participating in the Golden Spike ceremony at Promontary, Utah in 1869. They were the locomotive of the civil war, 95% of the locomotives on both sides were 4-4-0's.

THE ANDREWS RAID

The "General" built by Rogers at Patterson, New Jersey, in 1855, is best known for its role in the celebrated Andrews raid, called the Great Locomotive Chase, on April 12, 1862 during the Civil War. James J. Andrews a Union raider, had the daring idea of stealing a locomotive and cutting Confederate rail communications between Atlanta and Chattanooga by burning the major rail-road bridges. This would have left Chattanooga an easy prey to Union forces.

Andrews and nineteen volunteers boarded an Atlanta to Chat-tanooga passenger train at Marietta, Georgia, 200 miles behind the lines. When the train stopped for breakfast at "Big Shanty" (now called Kennesaw) they coolly uncoupled the "General", its tender and three box cars and steamed off. They might have gotten away clean except for forgetting to detach the bell cord which rang the gong in the engine when it snapped. This alerted the conductor of the passenger train William A. Fuller. Fuller started his persistent pursuit on foot, continued by handcar and various engines. In spite of torn up rails, cut telegraph lines, ties thrown on the track and abandoned box cars, he was able to overtake and so closely follow the "General" that the raiders weren't able to complete their objective. After racing 87 miles to within 20 miles of Chattanooga, the "General" ran out of fuel. Fuller, on the "Texas", another 4-4-0, was on its heels. The raiders were forced to scatter. Eventually all were captured, and eight were hanged. The historic wood burning "General", completely restored is now on display at Big Shanty museum in Kennesaw, Georgia the site of the start of this heroic event.

IMPORTANT! READ THESE INSTRUCTIONS FIRST.

GENERAL INSTRUCTIONS

1. Study the illustrations and instructions carefully, before you begin assembly.
2. Use only cement for styrene plastic. Both tube and liquid cement may be used. Liquid cement is best used for attaching small parts.
3. Apply cement sparingly to avoid ruining the surface of your model.
4. Use a hobby knife to cut parts from the runners and to remove any excess plastic before assembly.
5. Test fit parts, before cementing them together.
6. To assist you in locating individual pieces, parts in this kit will have both a letter and a number. Example; D-64 TRACK RAIL. The letter will be found in the corner of each "cluster" of parts.

The individual parts of this kit are also named to aid you in identifying the major components of this Historic Train.

7. The following modeling tools, while not absolutely required, will make assembly of this model easier.
Modelers Knife - To remove parts from runners, remove excess plastic and scrape plating where cement will be applied.
Small File or Emery Board - For finishing glue joints and fittings.
Fine Sandpaper and Steel Wool - For fine fitting and surface finish.
Paint Brushes (Various Sizes) - Used for painting (use a small brush to apply liquid cement).
Tweezers - For handling small parts.
Clothes Pins - For holding parts together to set after cementing.
Rubber Bands - For holding parts together to set after cementing.

PAINTING

1. Use only paint for styrene plastic.
2. Allow paint to dry thoroughly, before handling.
3. Scrape paint from any area which is to be cemented.

STEP NUMBERS FOR
BRASS PLATED PARTS.

5

STEP NUMBERS FOR
NON-PLATED PARTS.

5

PART NUMBERS

D 24

CEMENT ----->

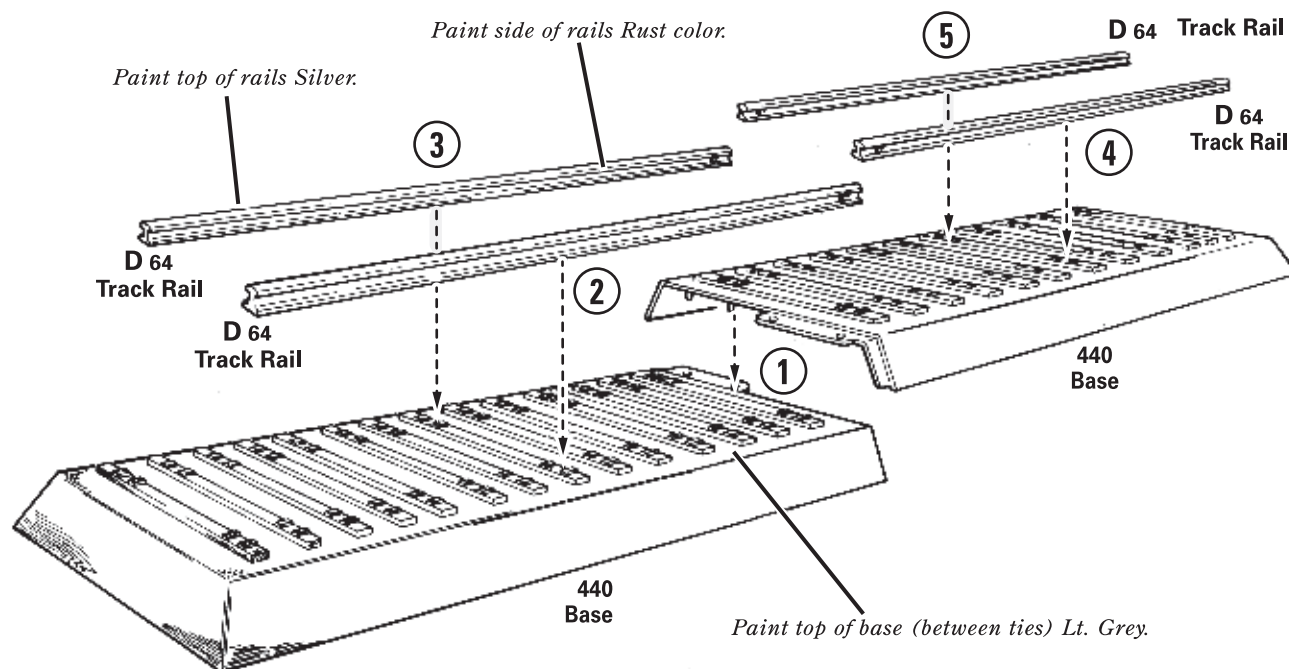
DO NOT CEMENT ----->

CLEAR PLASTIC PARTS

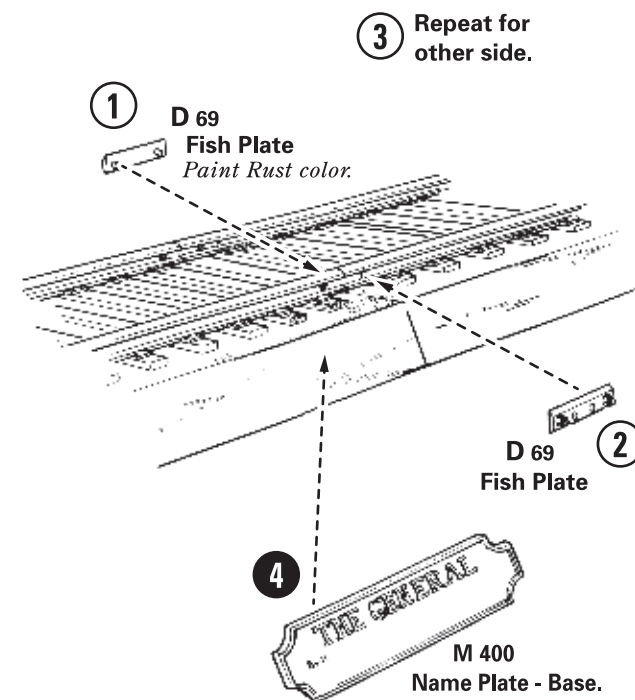
6CL

PAINTING SUGGESTION

1. Base & Rails.



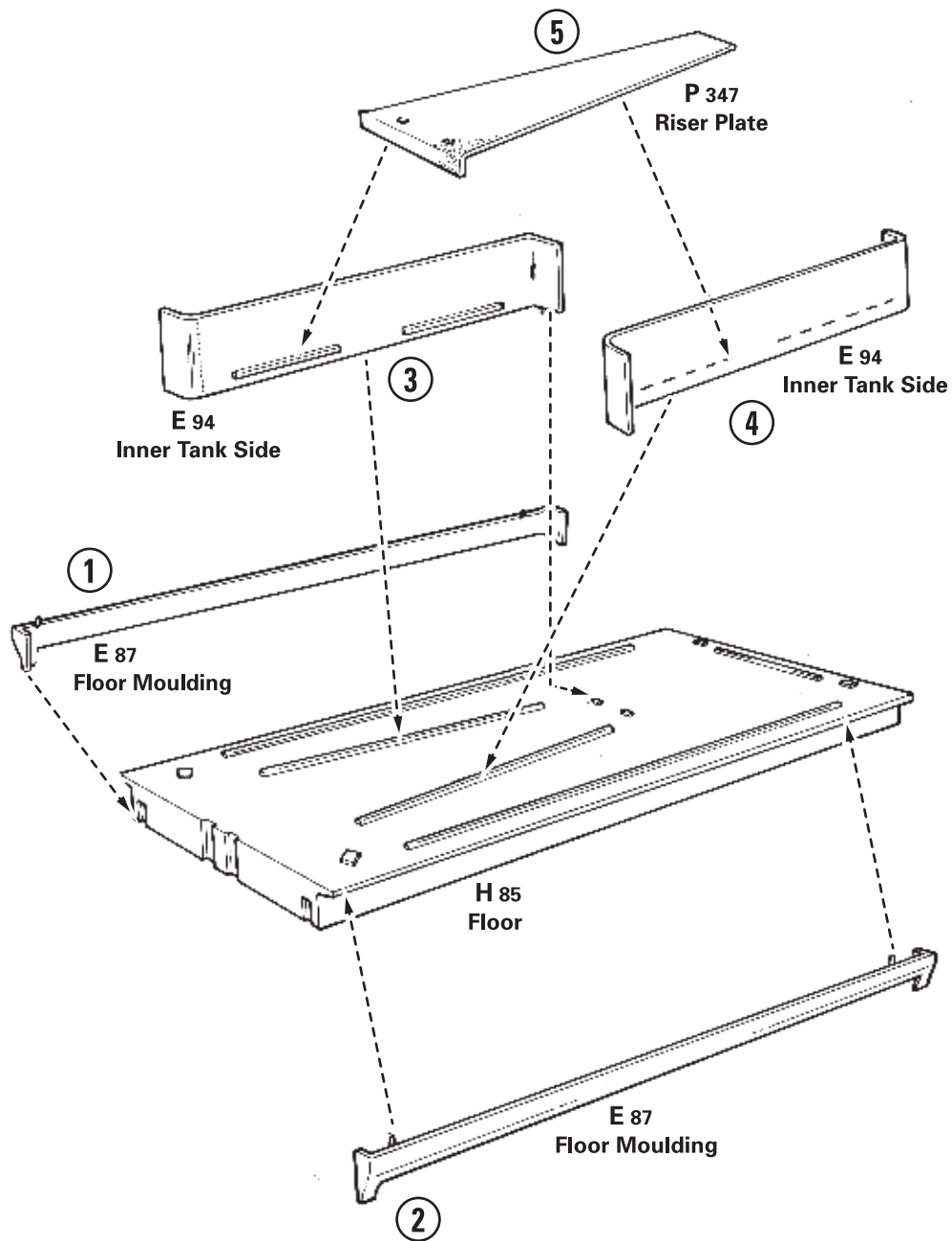
2. Fish Plates & Base Name Plate.



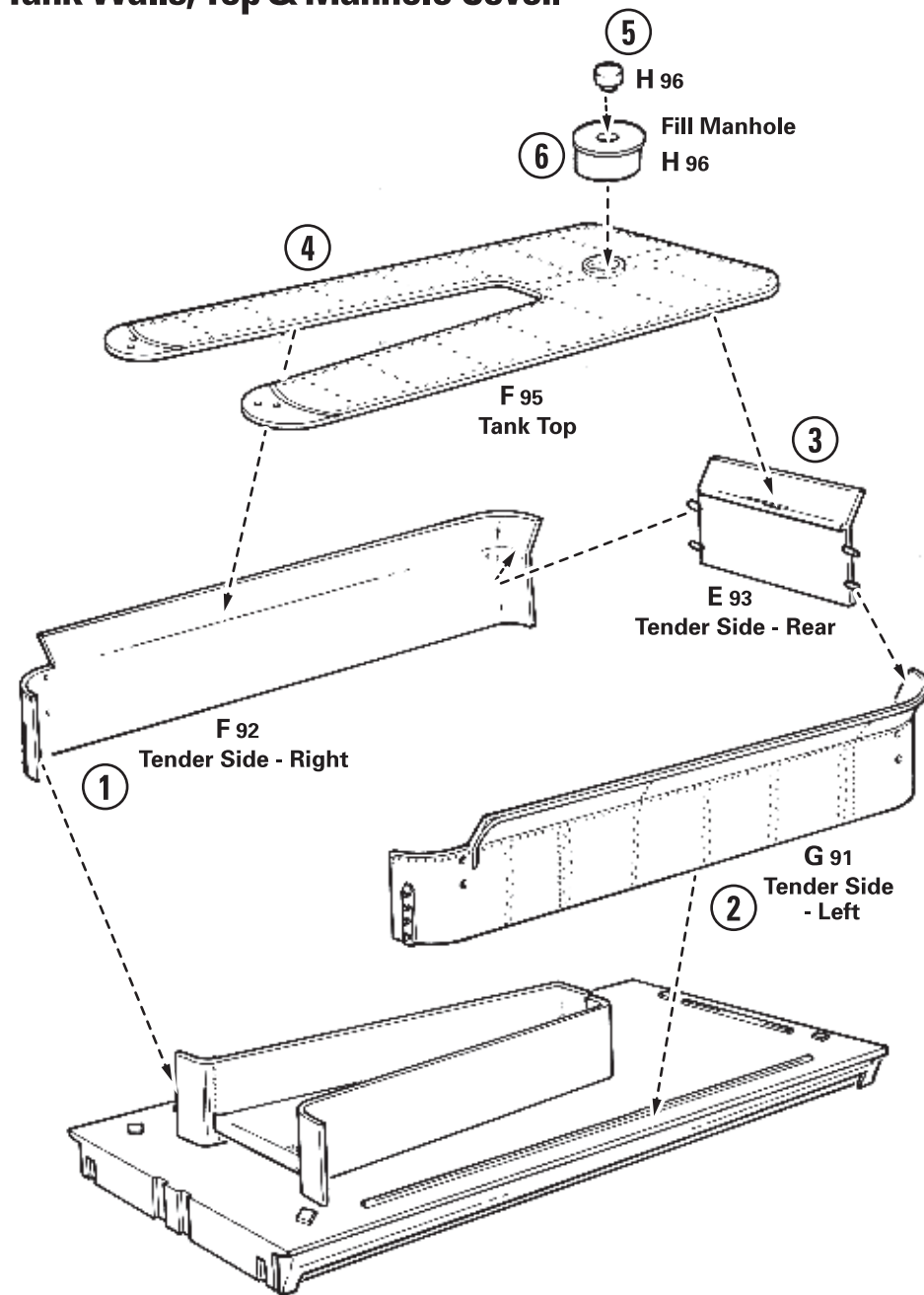
Sign your name here with a Permanent marker

(TEST MARKER ON THE BACK OF PLATE
BEFORE SIGNING THE FRONT.)

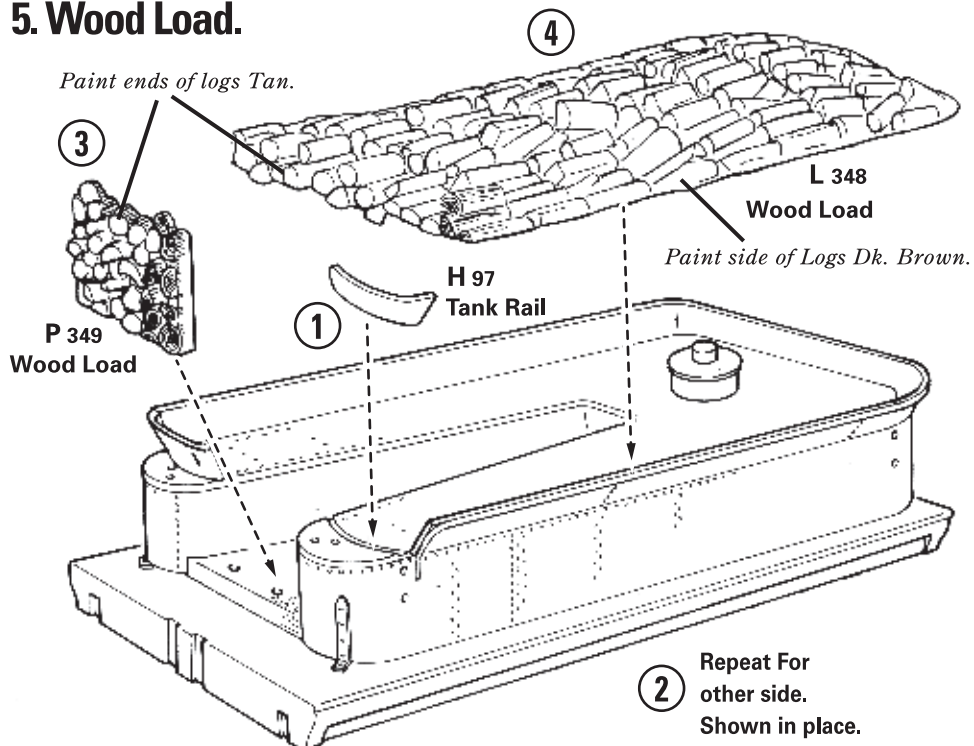
3. Floor, Molding & Tank Walls.



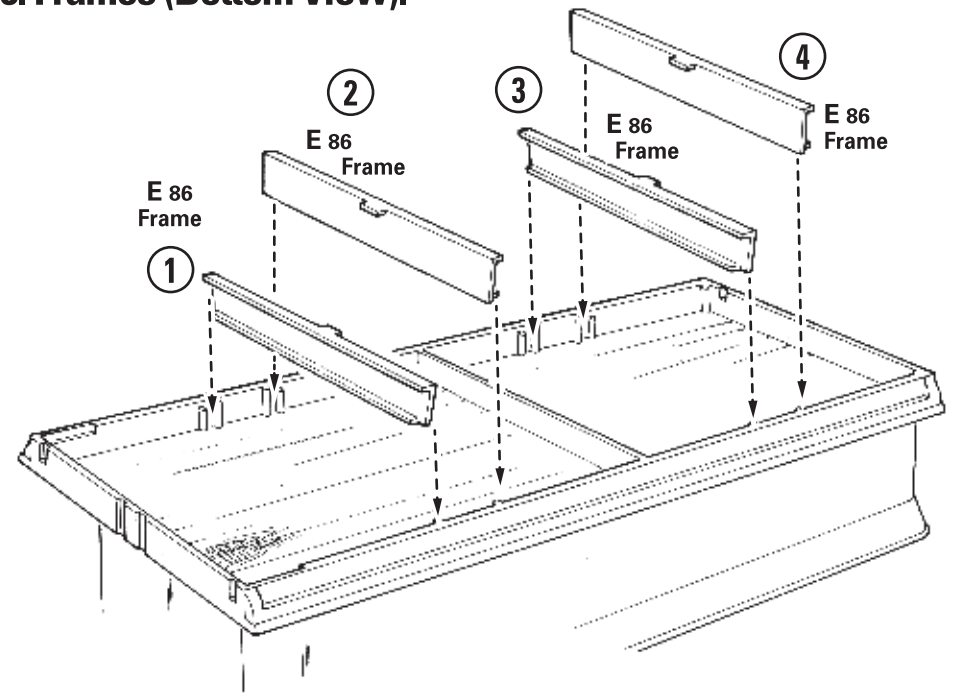
4. Tank Walls, Top & Manhole Cover.



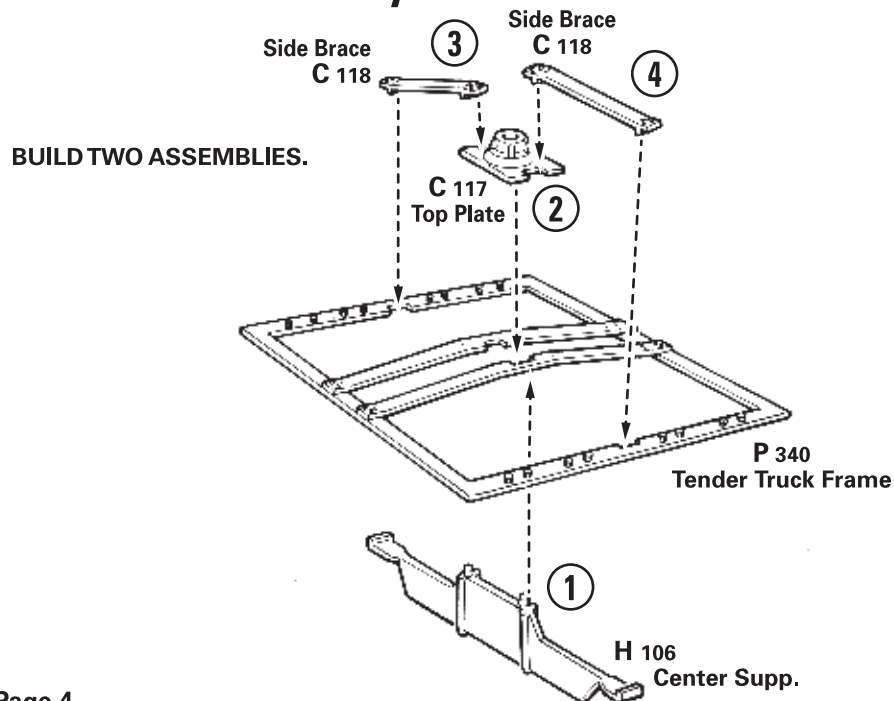
5. Wood Load.



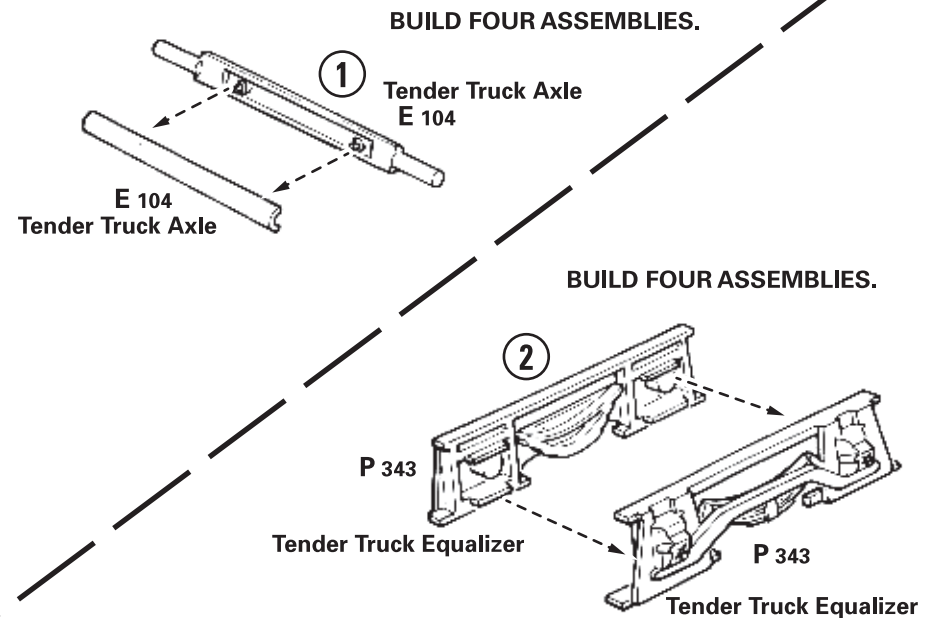
6. Frames (Bottom View).



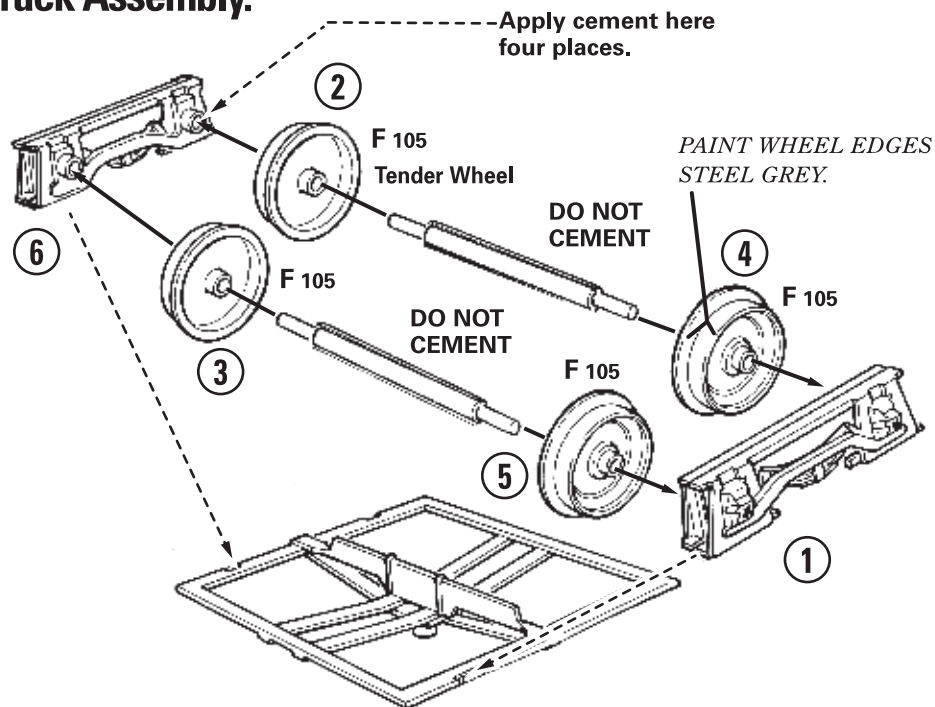
7. Truck Frame Assembly.



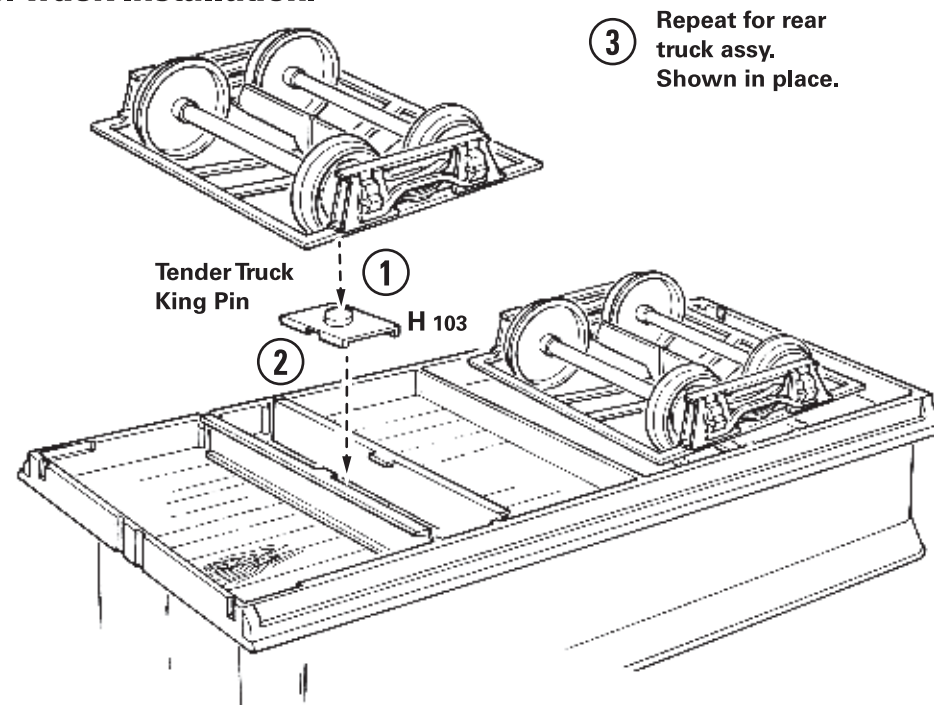
8. Axles & Truck Equalizers.



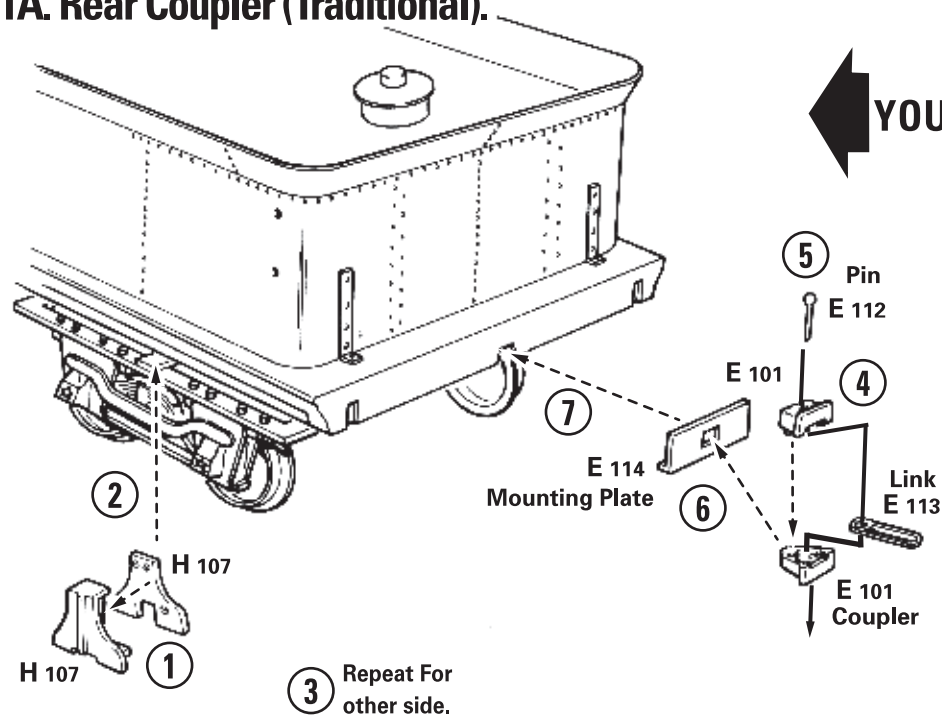
9. Truck Assembly.



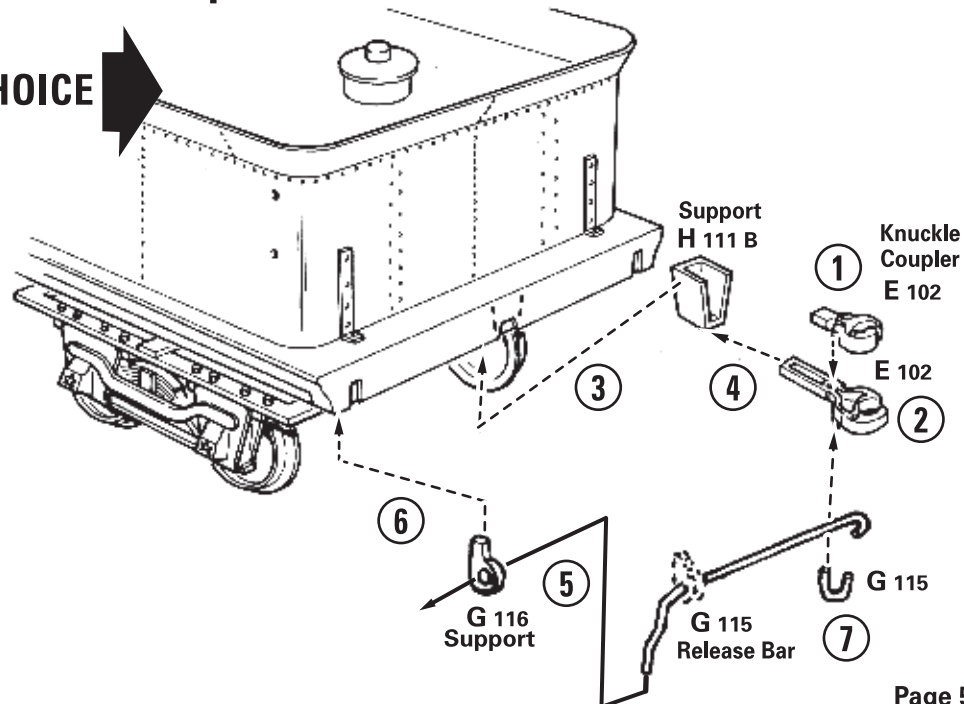
10. Truck Installation.



11A. Rear Coupler (Traditional).

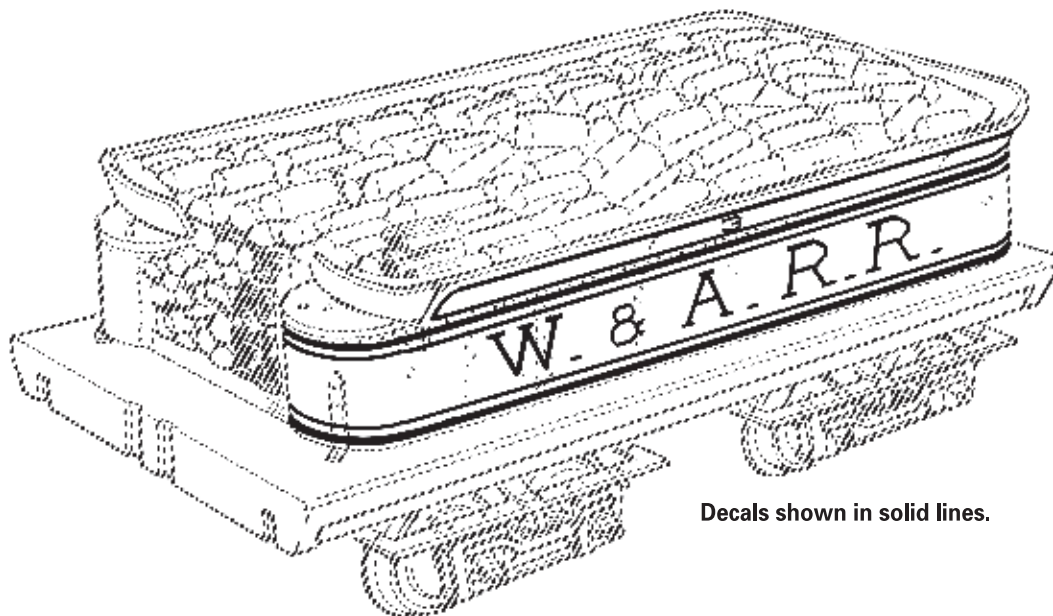


11B. Rear Coupler (Post Civil War).

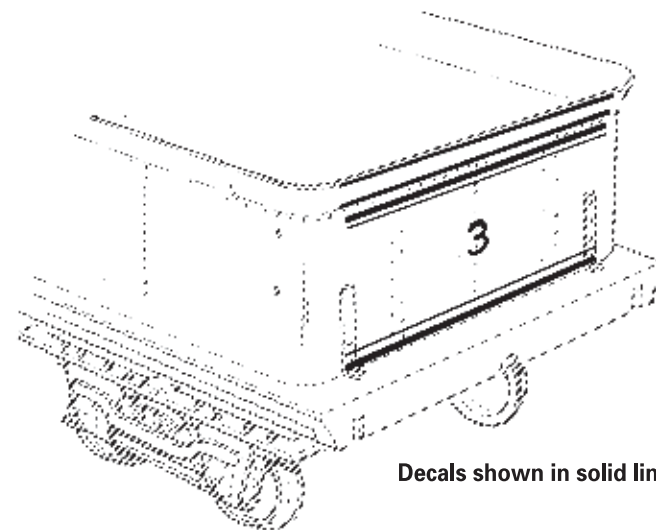


YOUR CHOICE

12. Tender Decals.



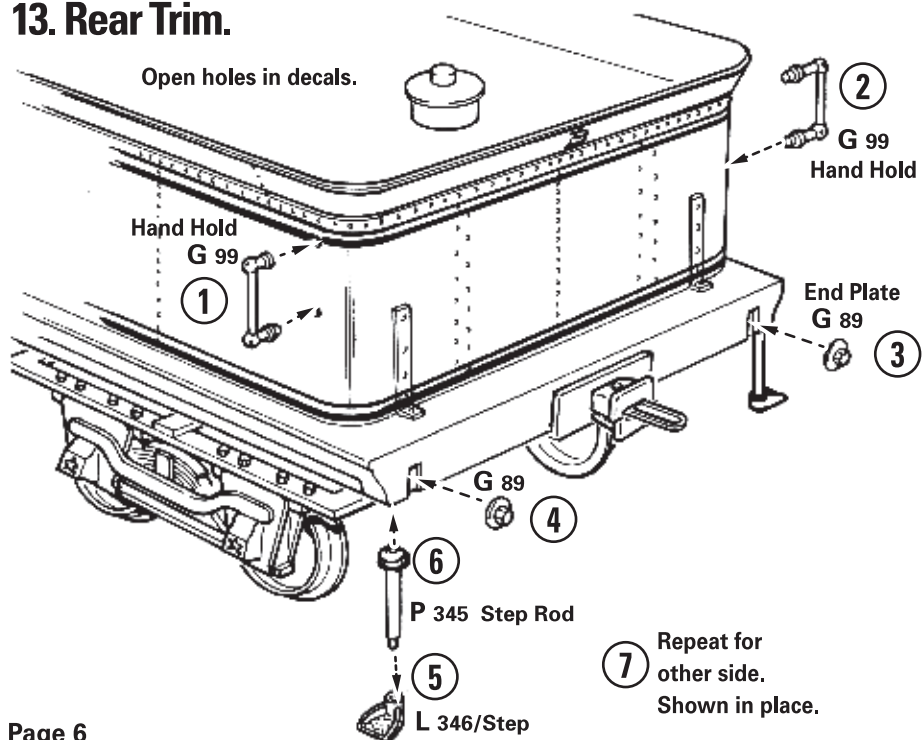
Decals shown in solid lines.



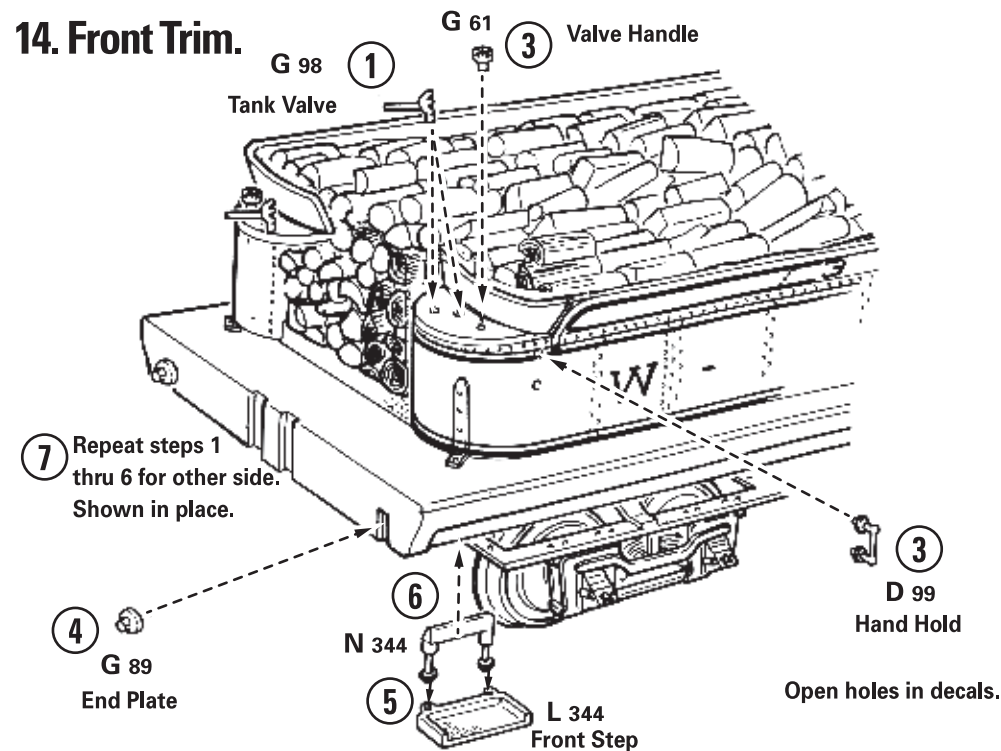
Decals shown in solid lines.

See box cover illustration for further decal information.

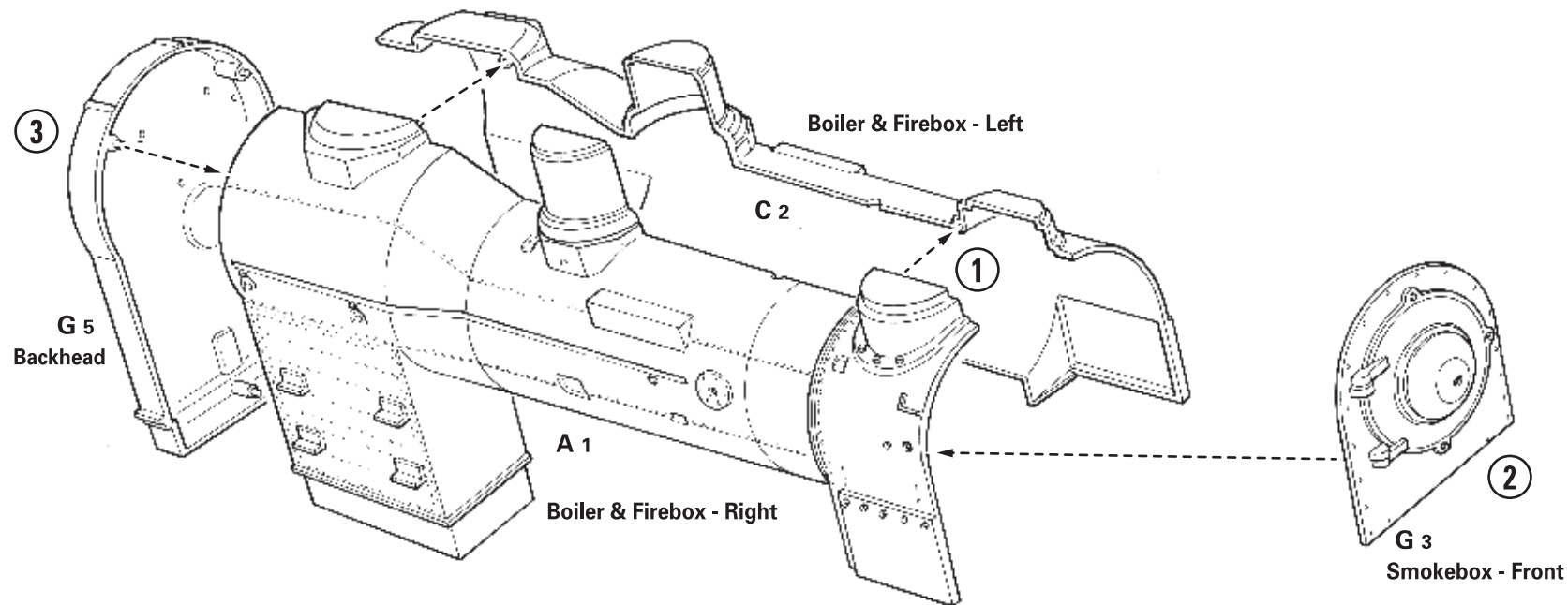
13. Rear Trim.



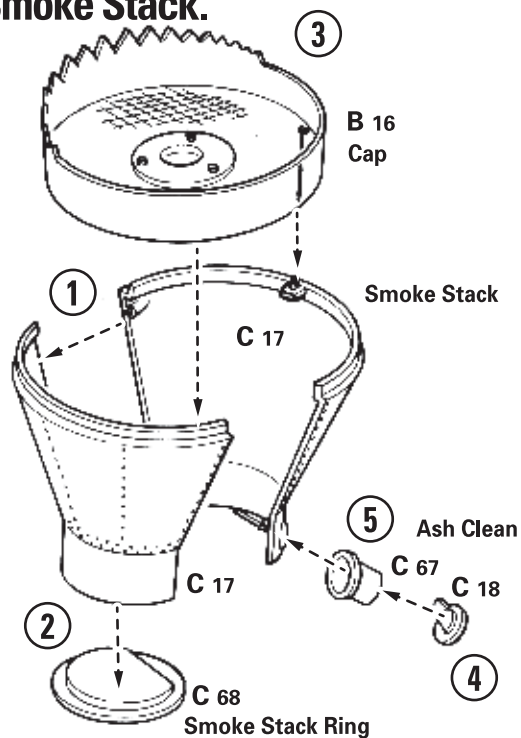
14. Front Trim.



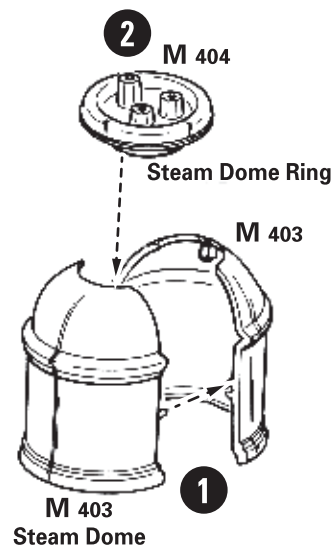
15. Boiler Halves, Smoke Box Front & Backhead.



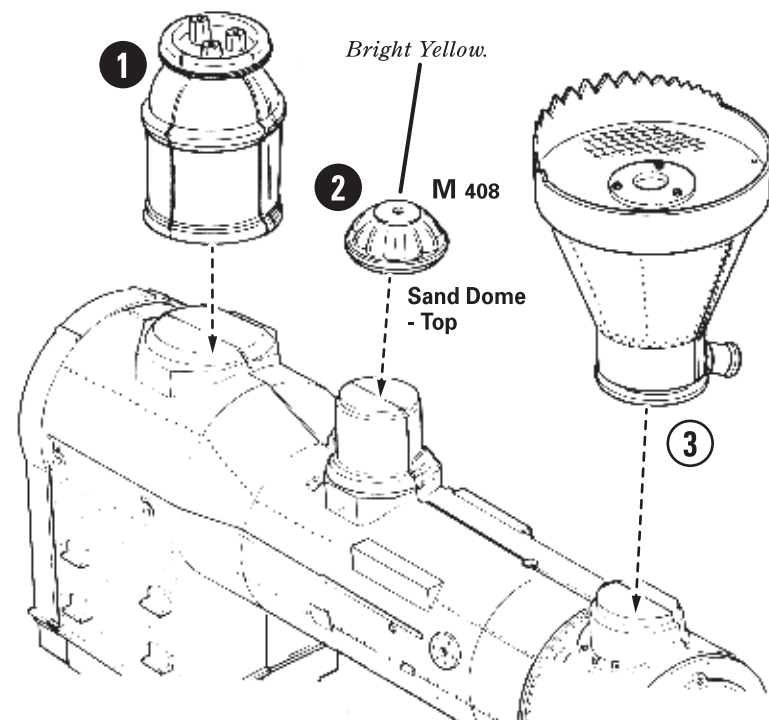
16. Smoke Stack.



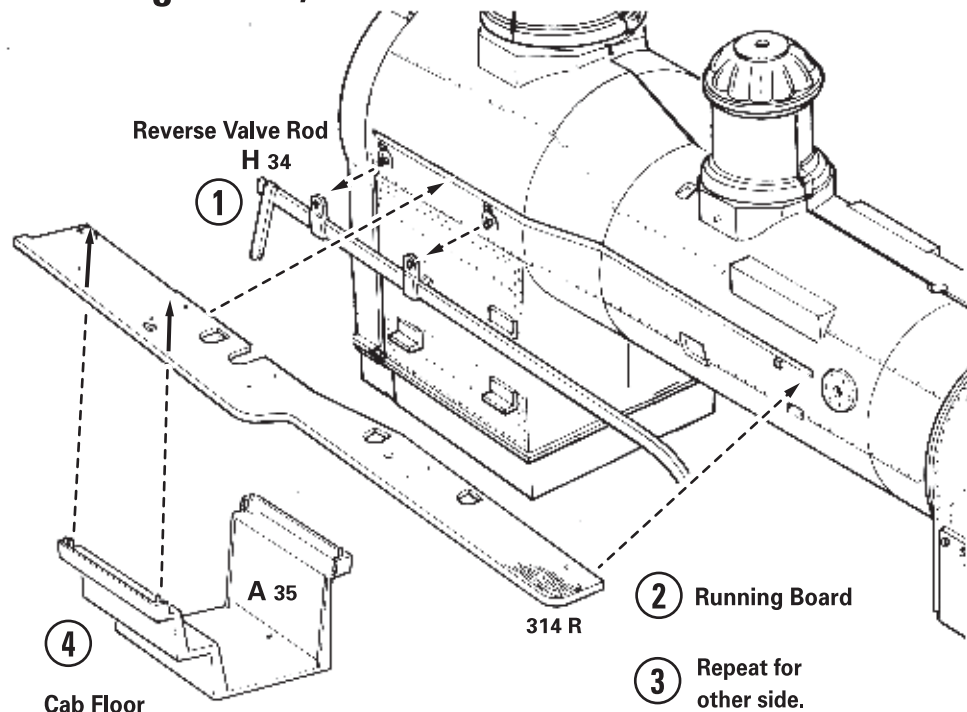
17. Steam Dome.



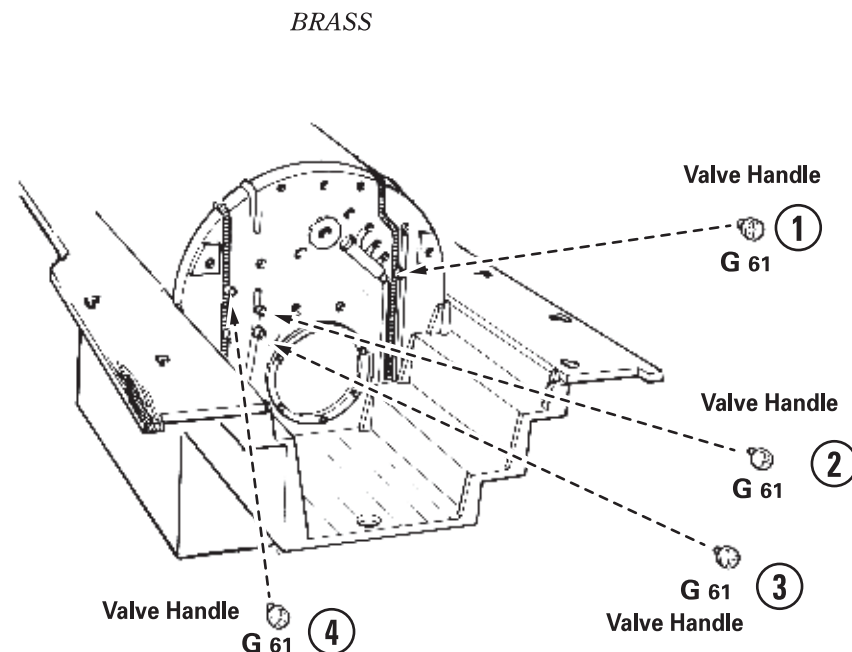
18. Sand Dome, Steam Dome & Stack Installation.



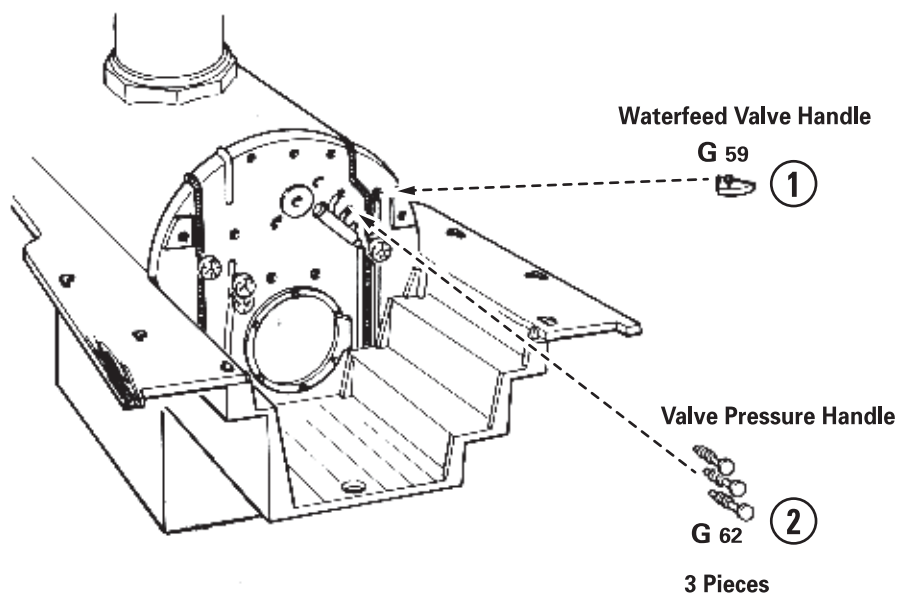
19. Running Boards, Reverse Rod & Cab Floor.



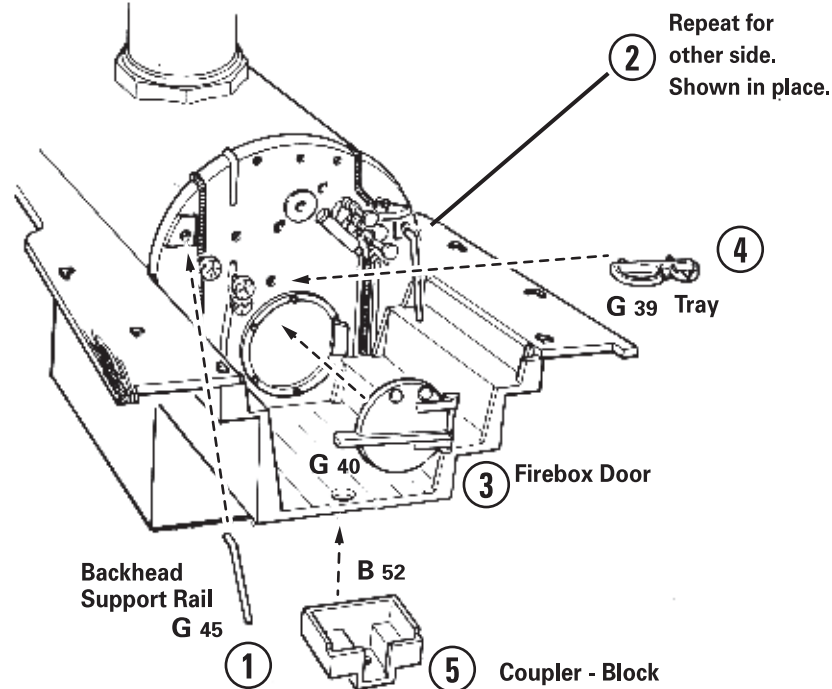
20. Valve Handles.



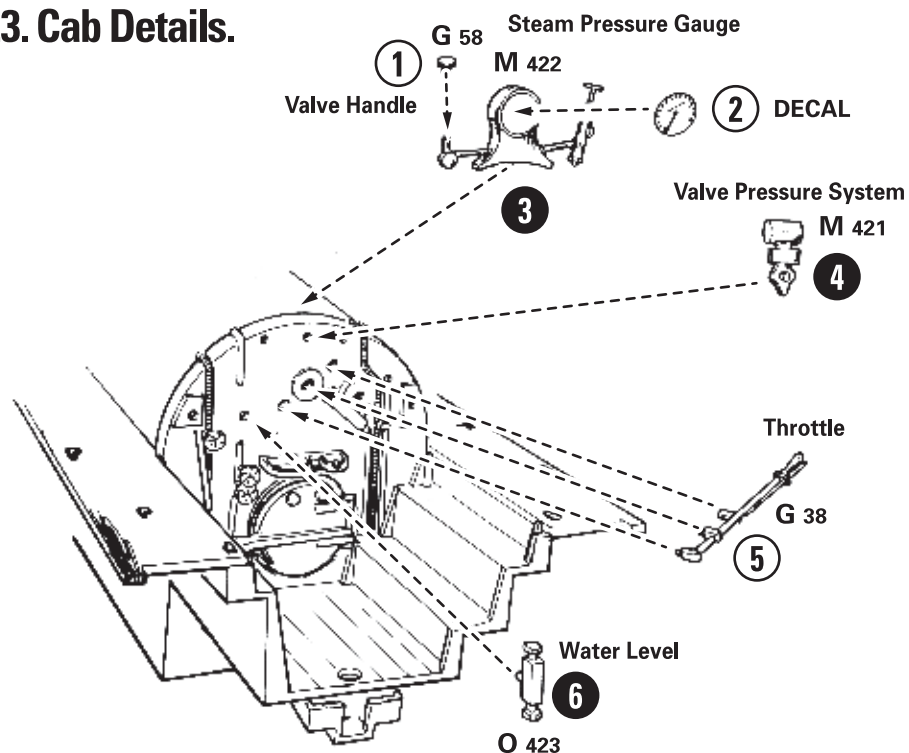
21. Waterfeed Valves.



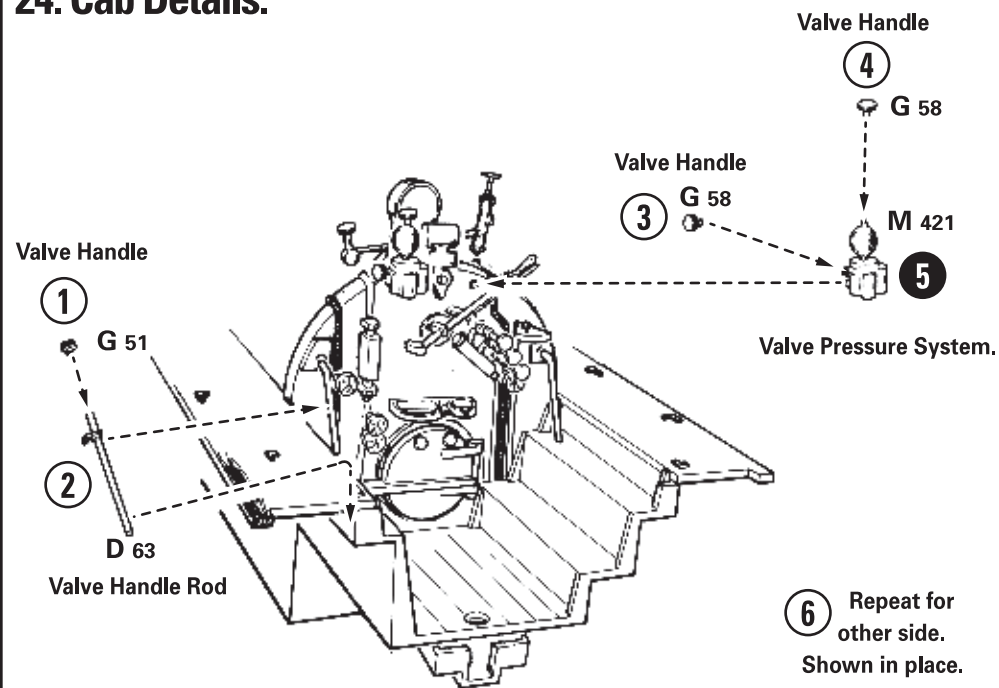
22. Cab Details.



23. Cab Details.

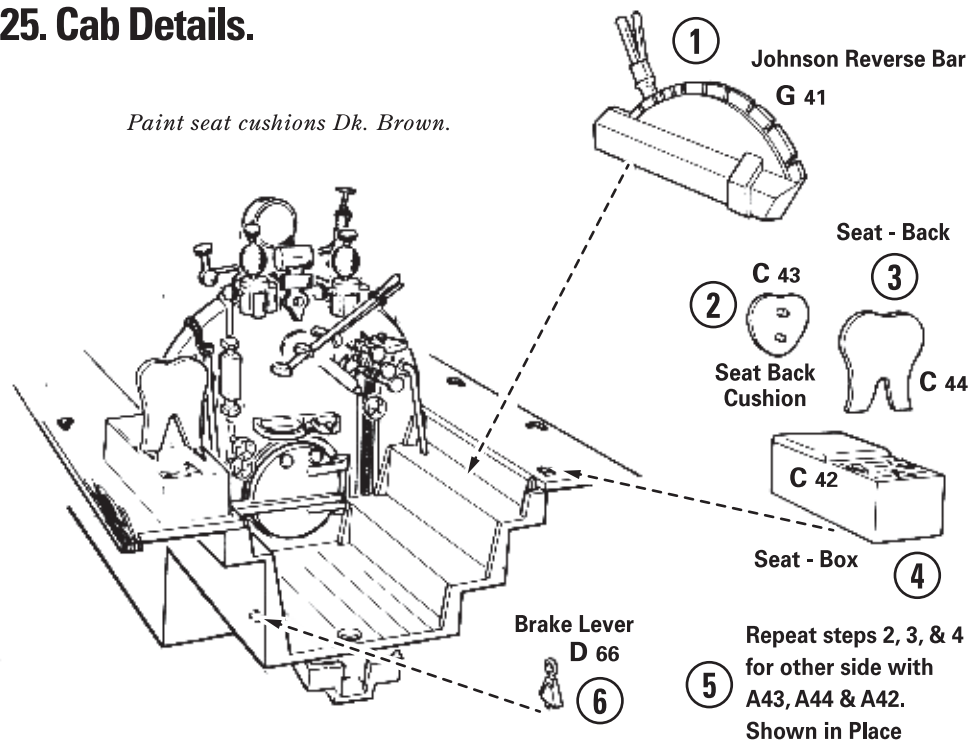


24. Cab Details.

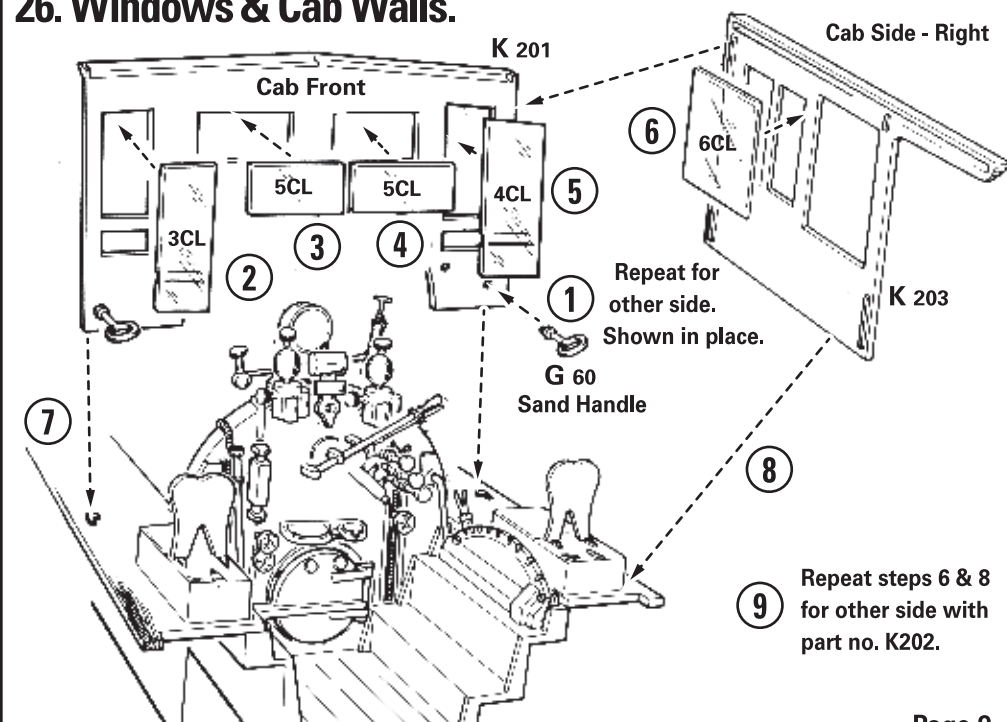


25. Cab Details.

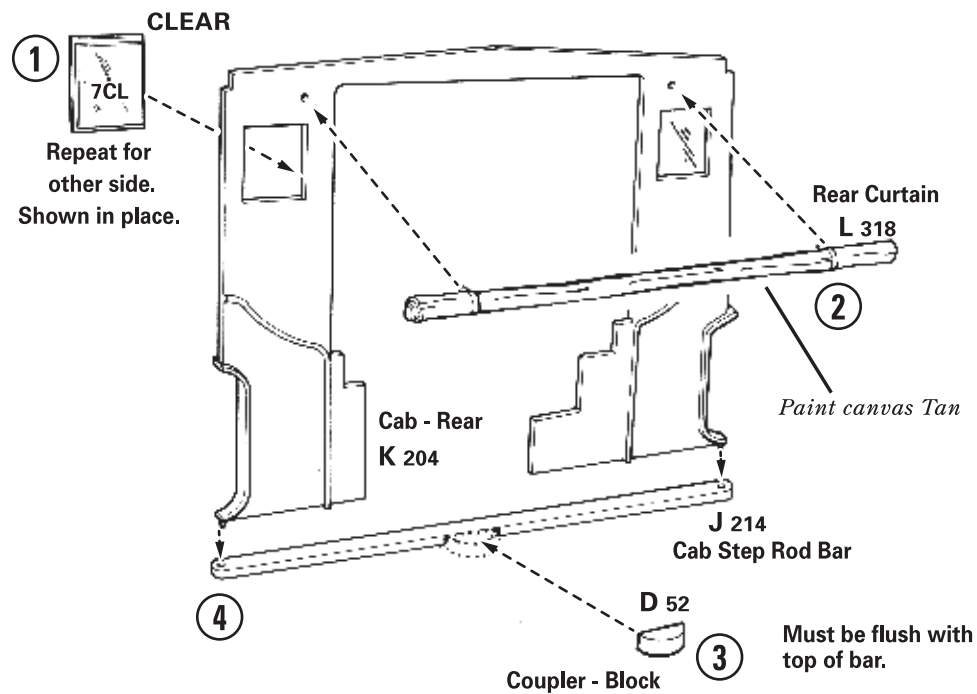
Paint seat cushions Dk. Brown.



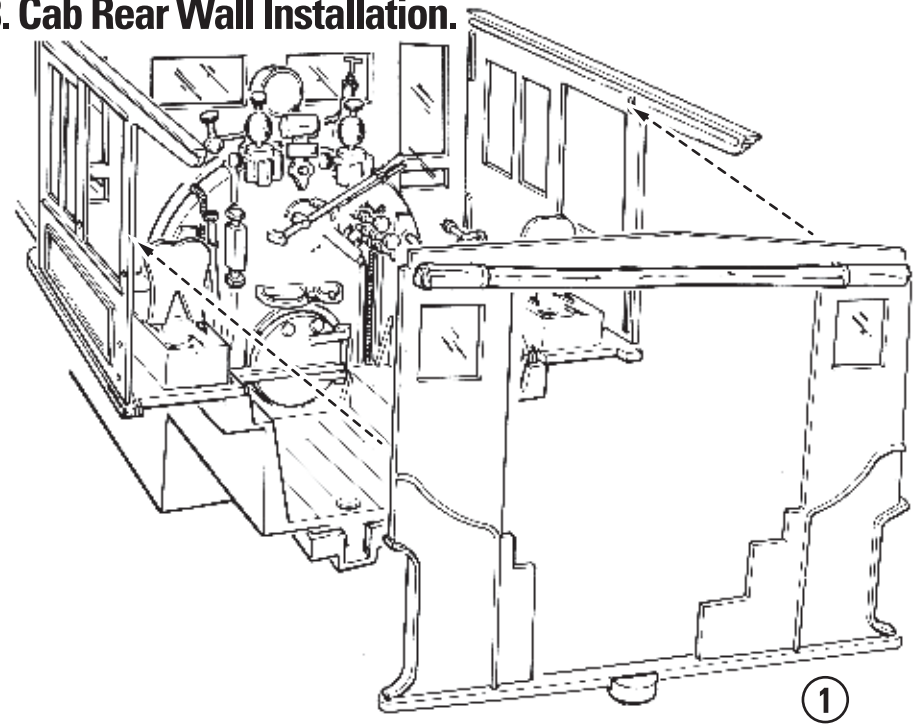
26. Windows & Cab Walls.



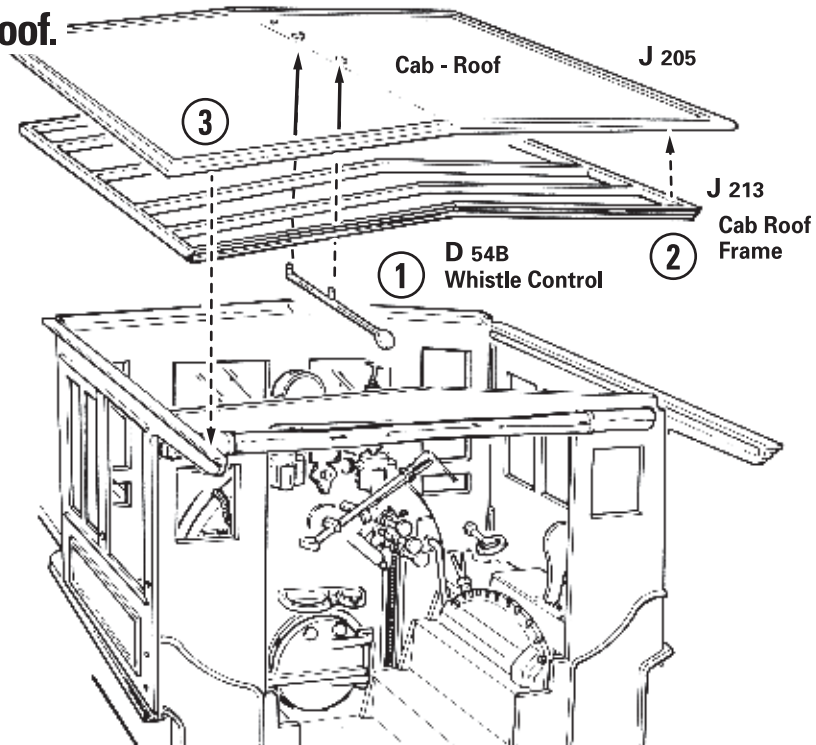
27. Windows, Curtain & Cab Rear Wall.



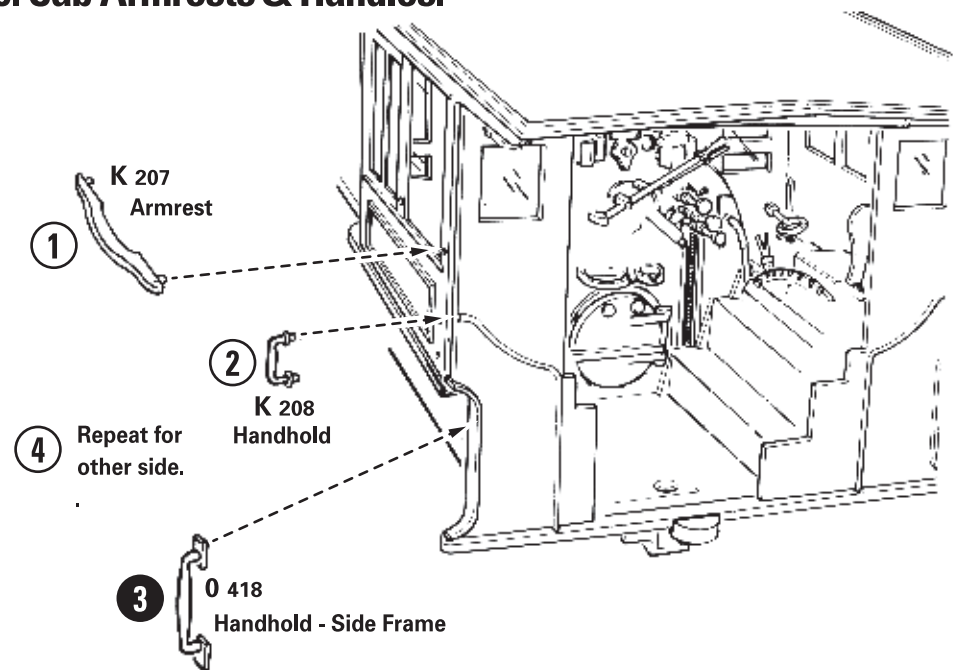
28. Cab Rear Wall Installation.



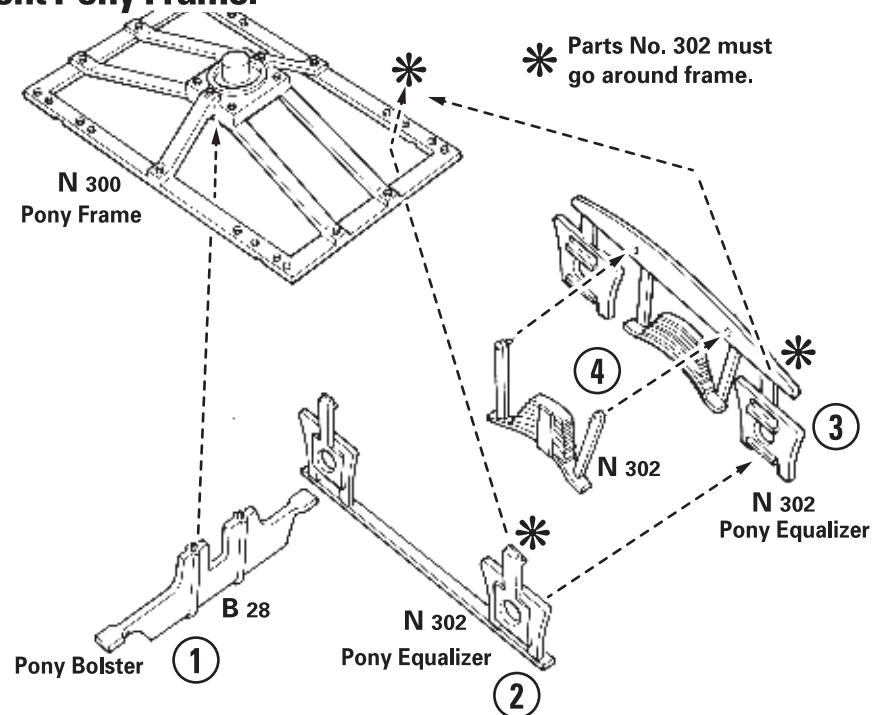
29. Cab Roof.



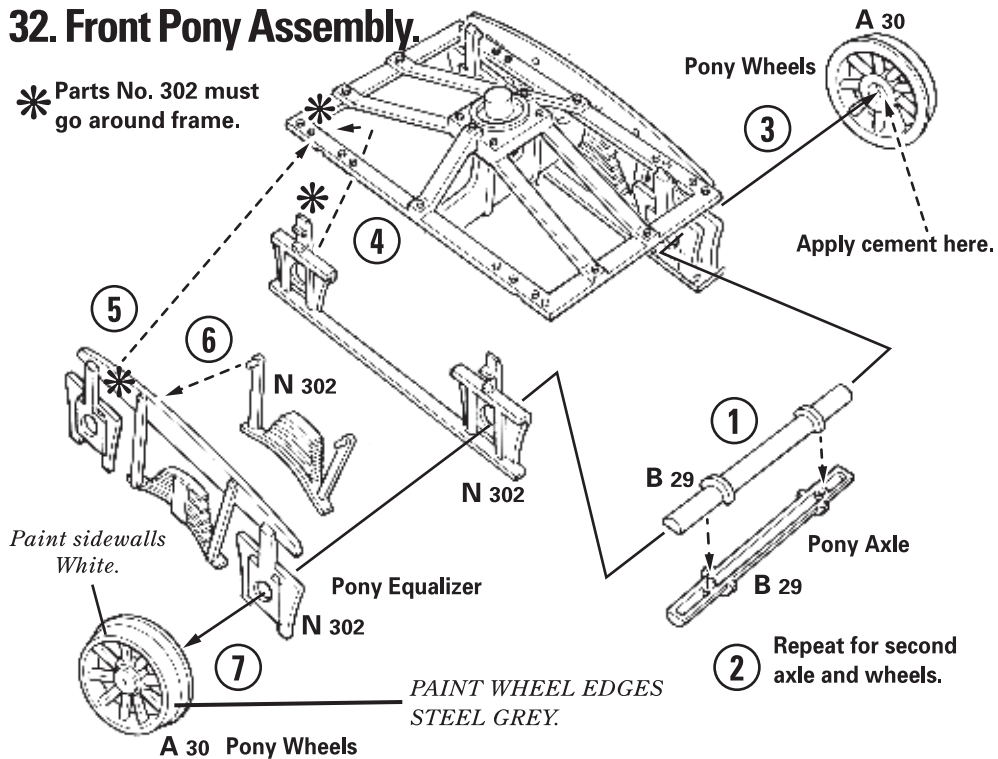
30. Cab Armrests & Handles.



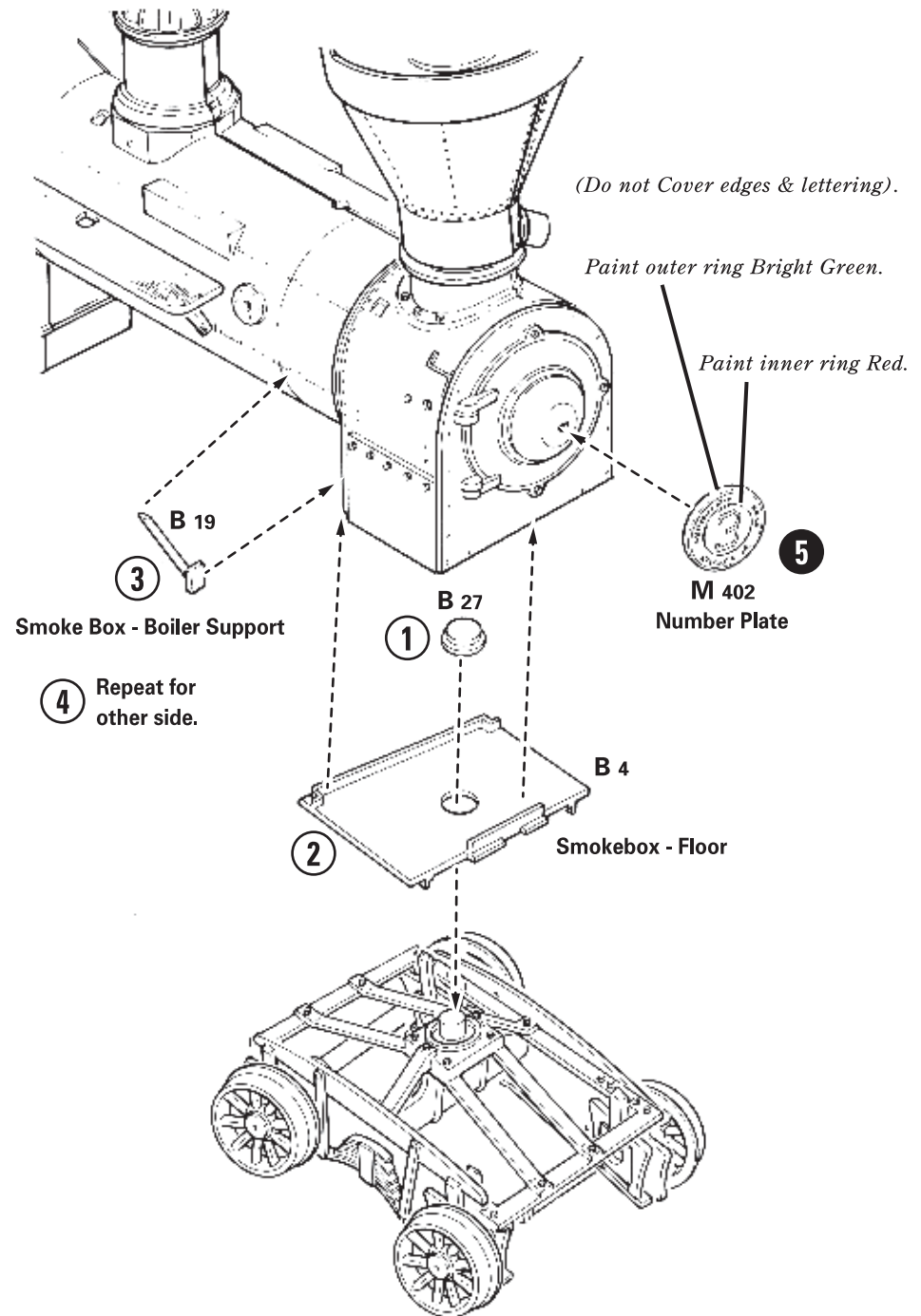
31. Front Pony Frame.



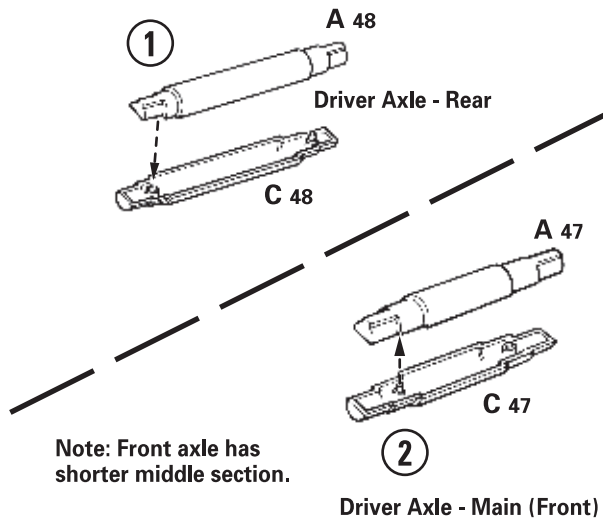
32. Front Pony Assembly.



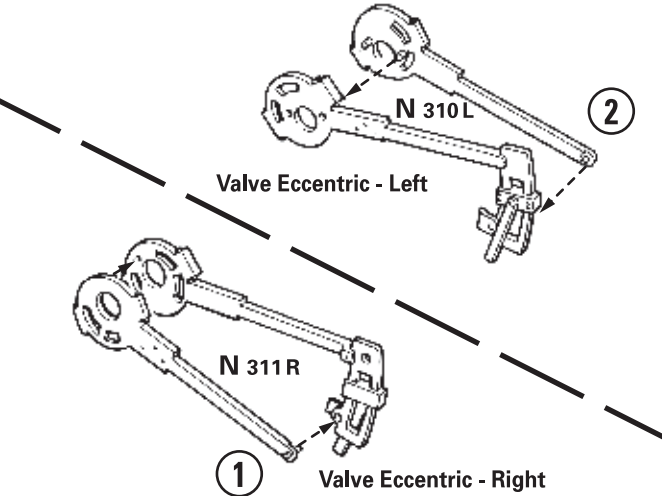
33. Front Pony Installation.



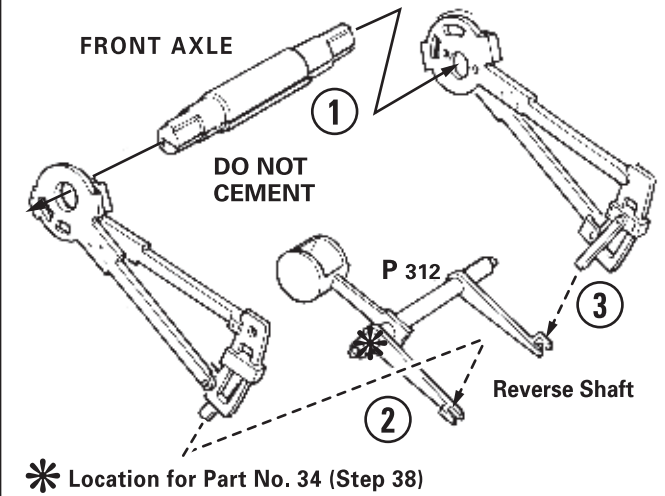
34. Drive Axles.



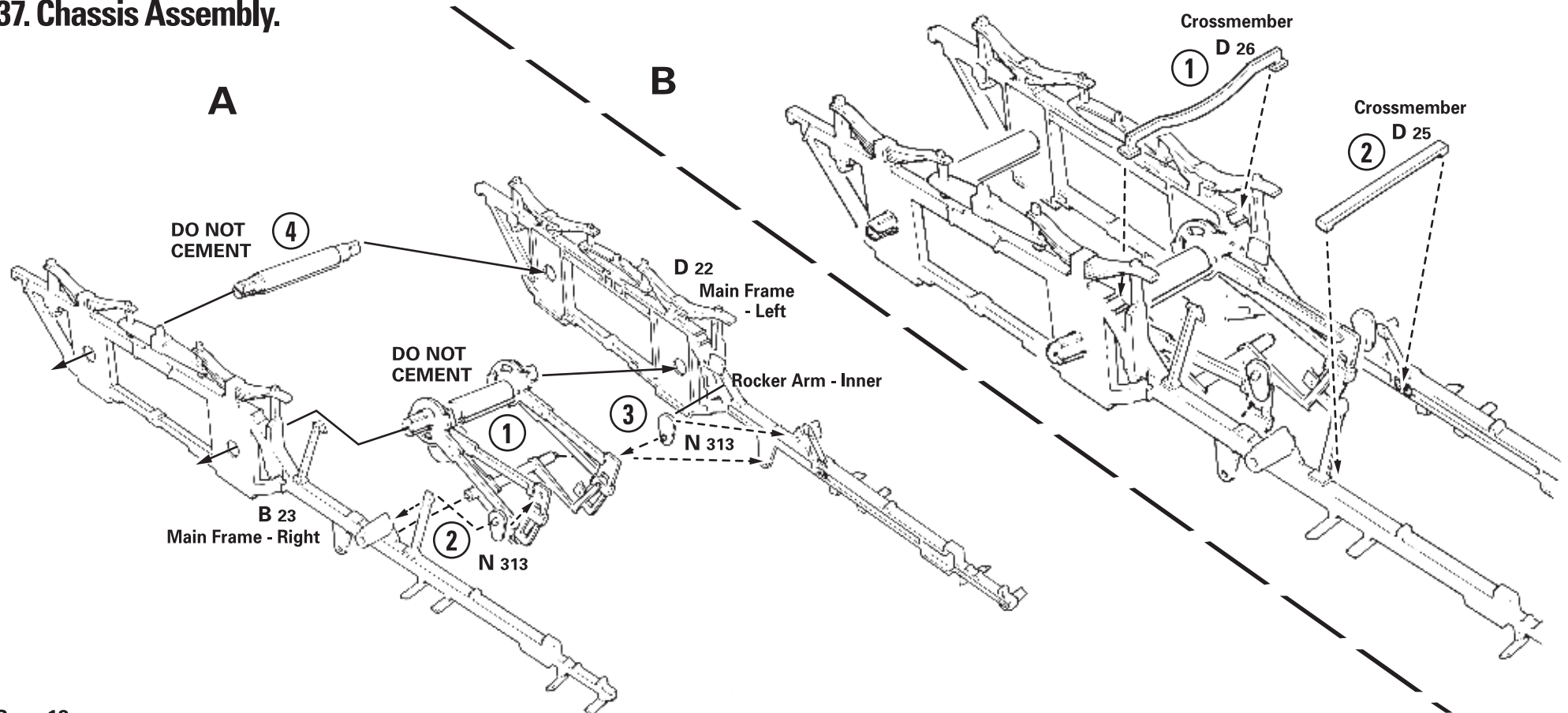
35. Valve Eccentrics.



36. Axle & Reverse Shaft.

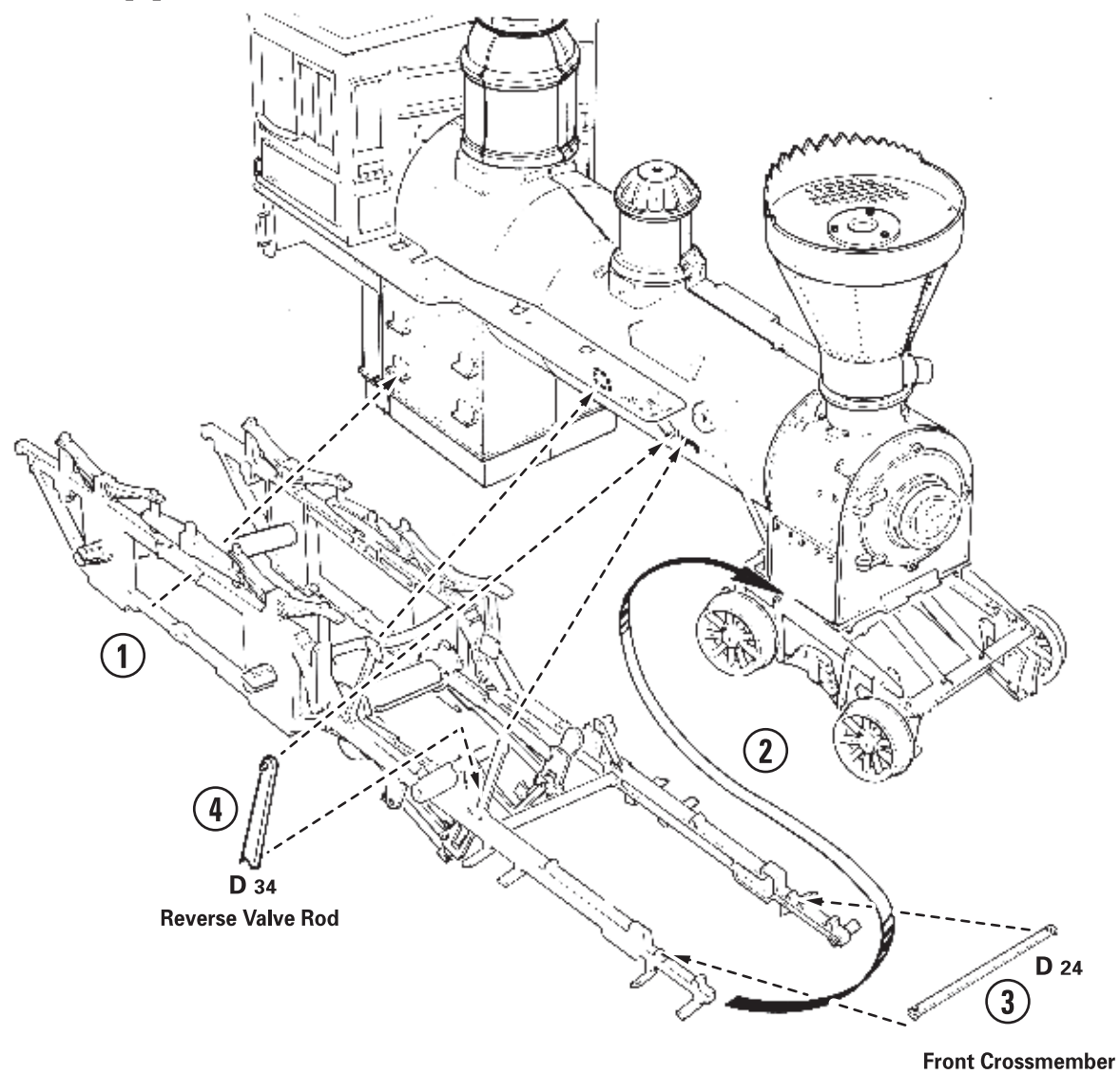


37. Chassis Assembly.



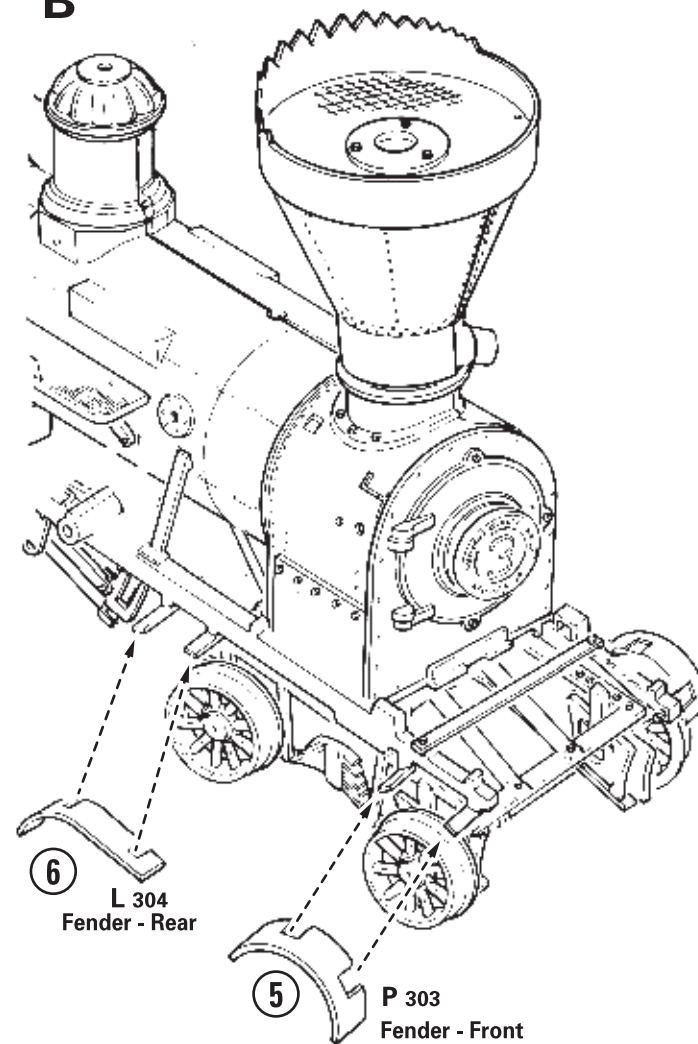
38. Chassis Installation.

A



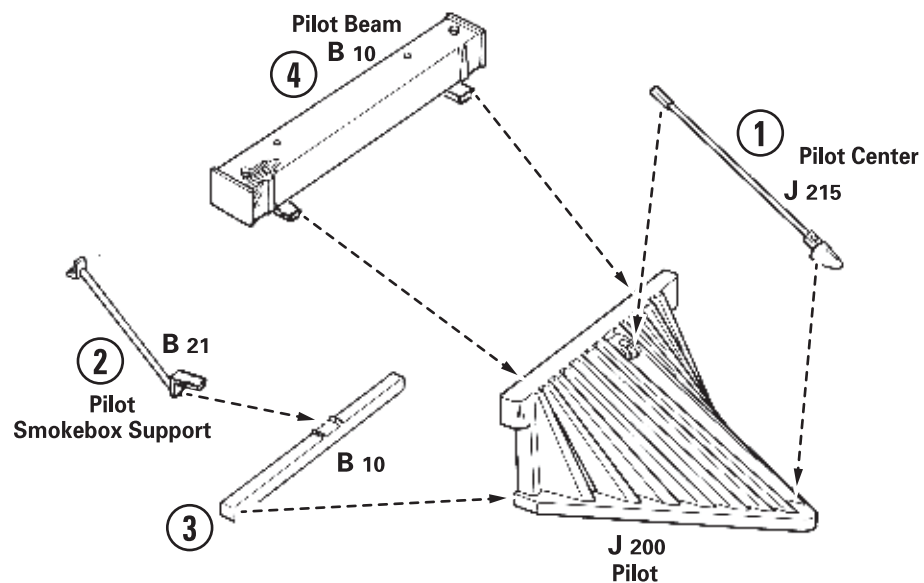
* See Step 36 for location.

B

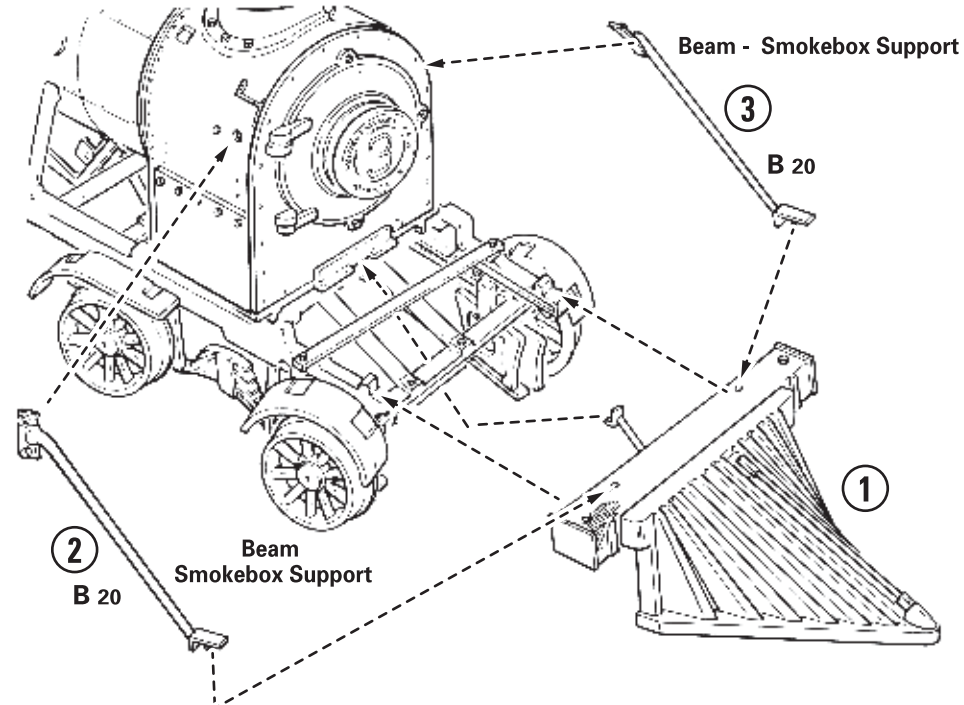


⑦ Repeat for other side. Shown in place.

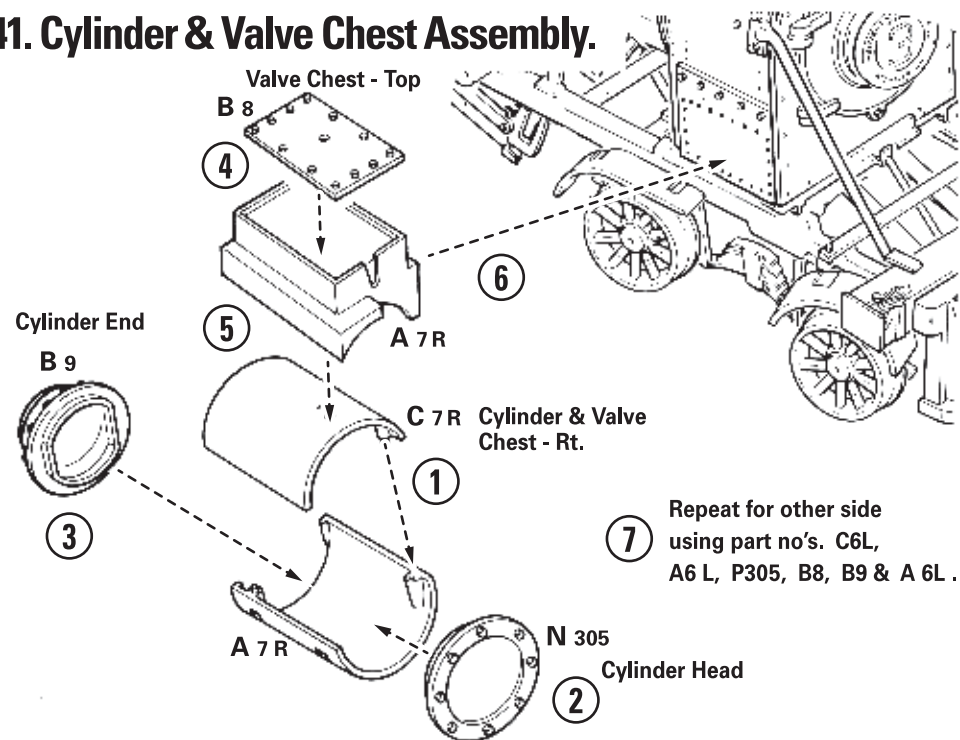
39. Pilot Assembly.



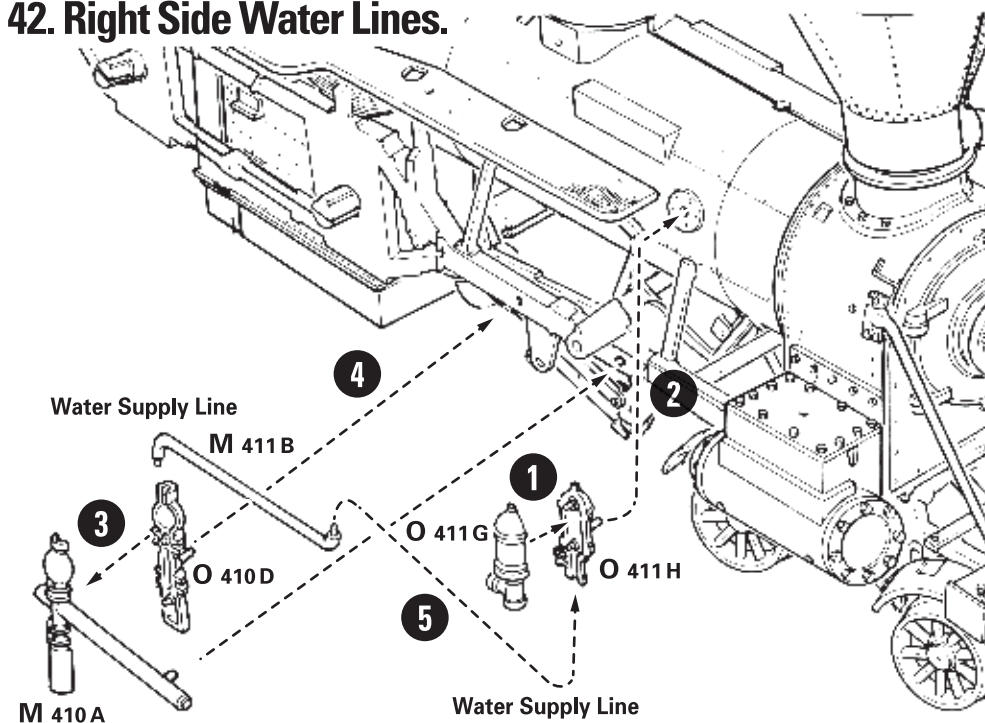
40. Pilot Installation.



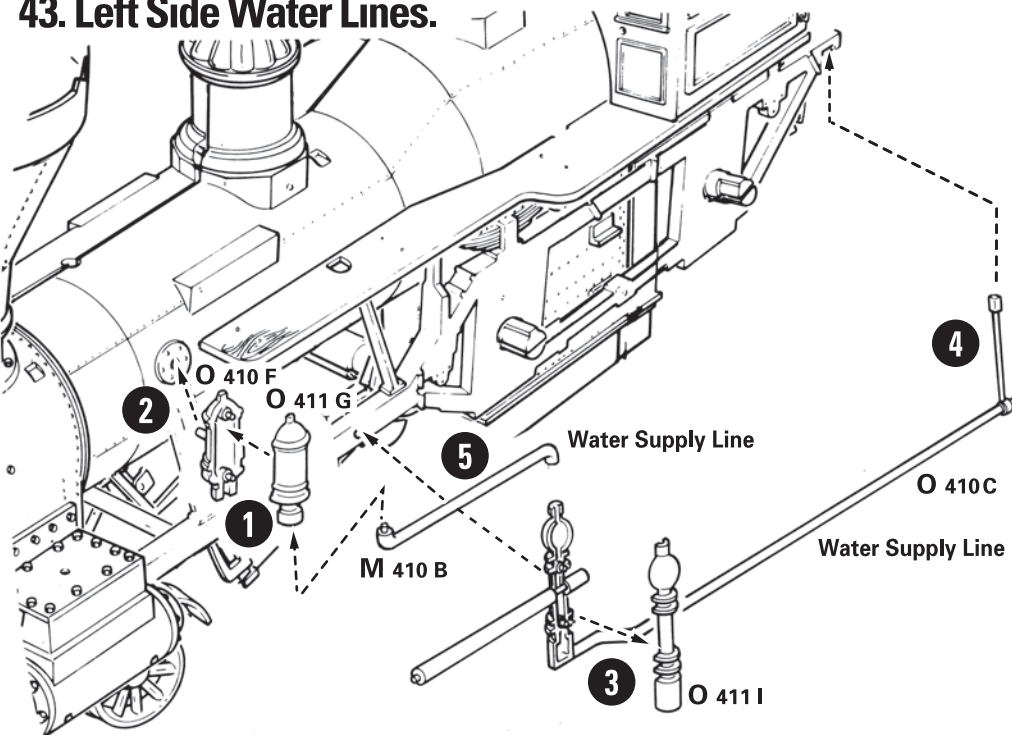
41. Cylinder & Valve Chest Assembly.



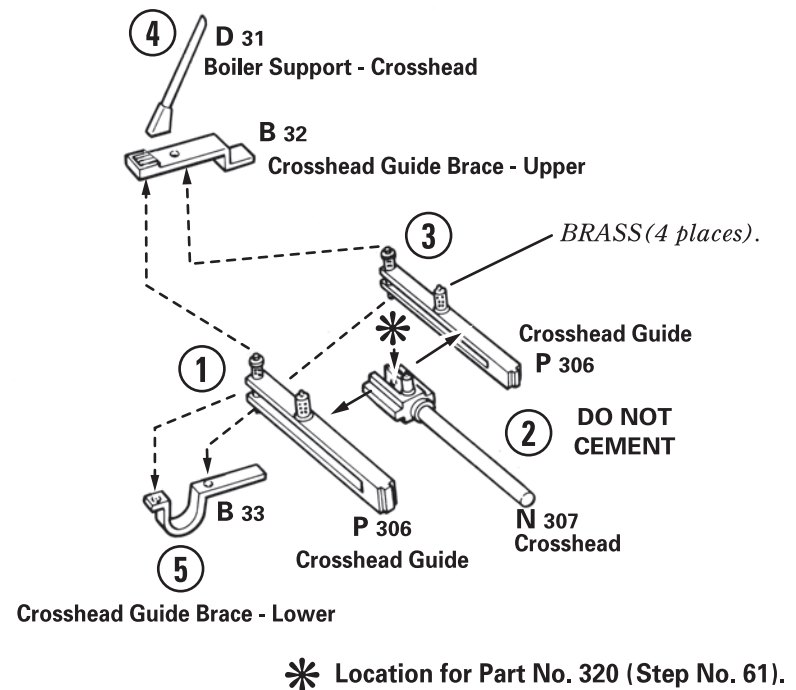
42. Right Side Water Lines.



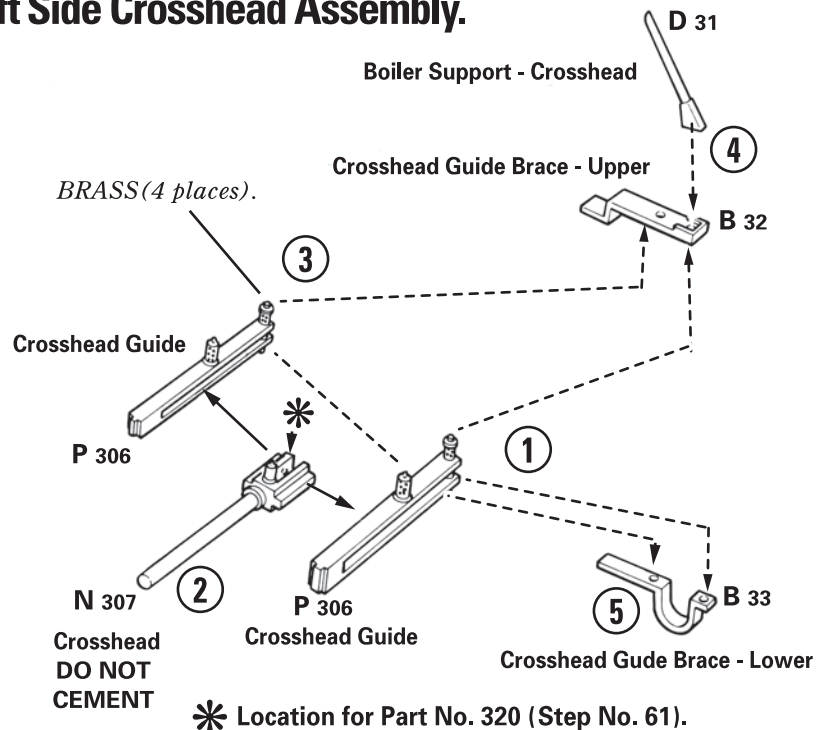
43. Left Side Water Lines.



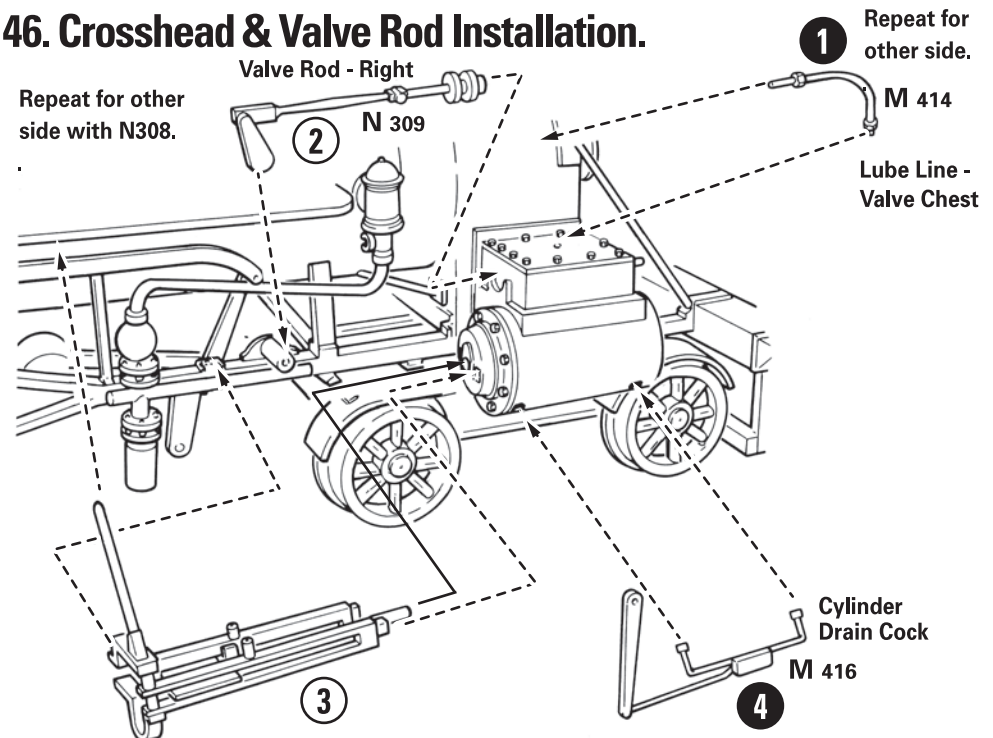
44. Right Side Crosshead Assembly.



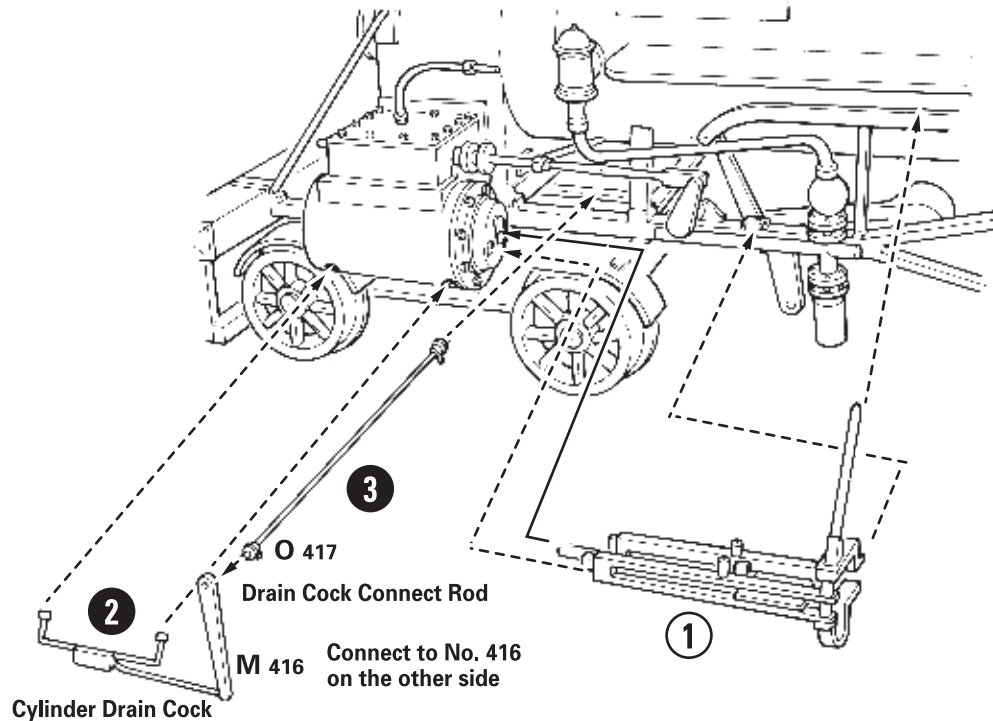
45. Left Side Crosshead Assembly.



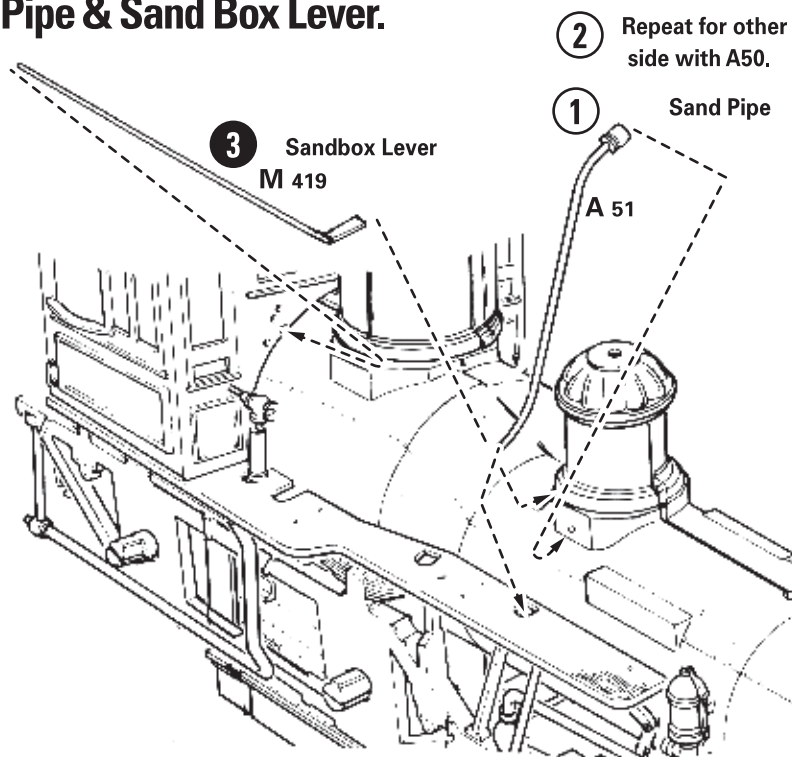
46. Crosshead & Valve Rod Installation.



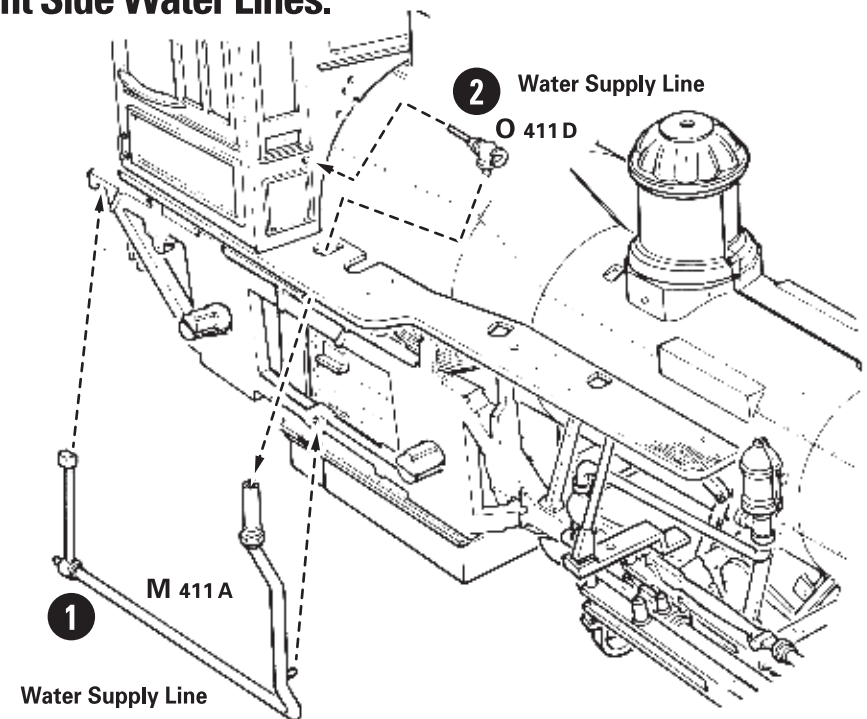
47. Crosshead & Valve Rod Installtation.



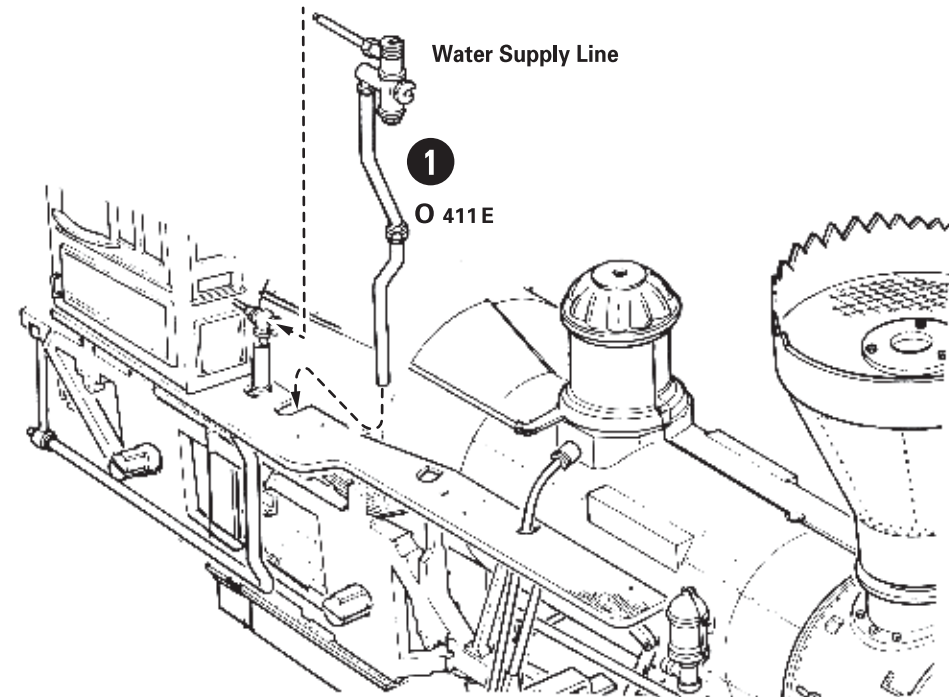
49. Sand Pipe & Sand Box Lever.



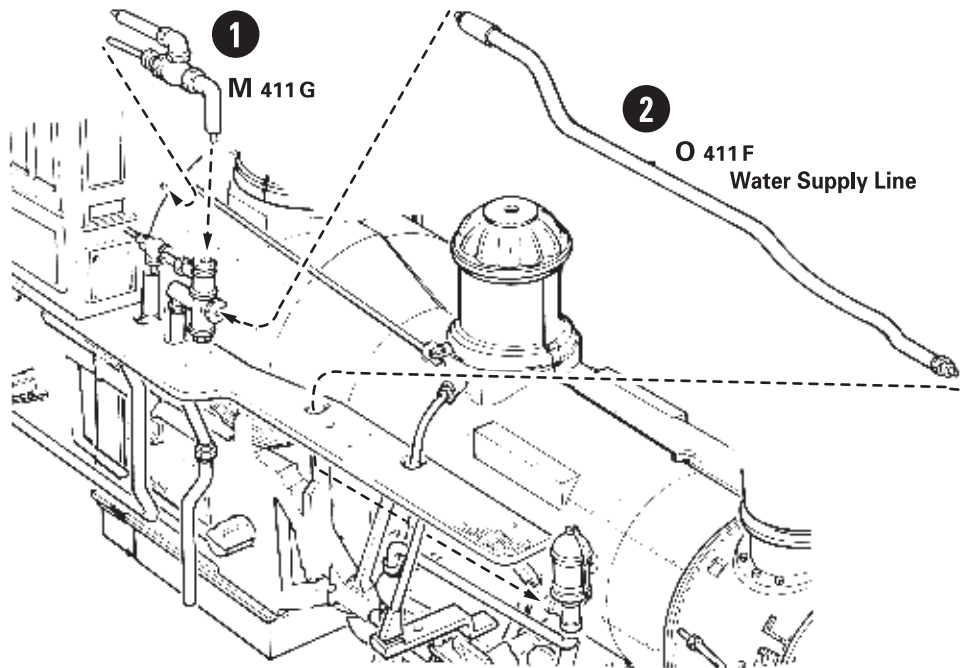
48. Right Side Water Lines.



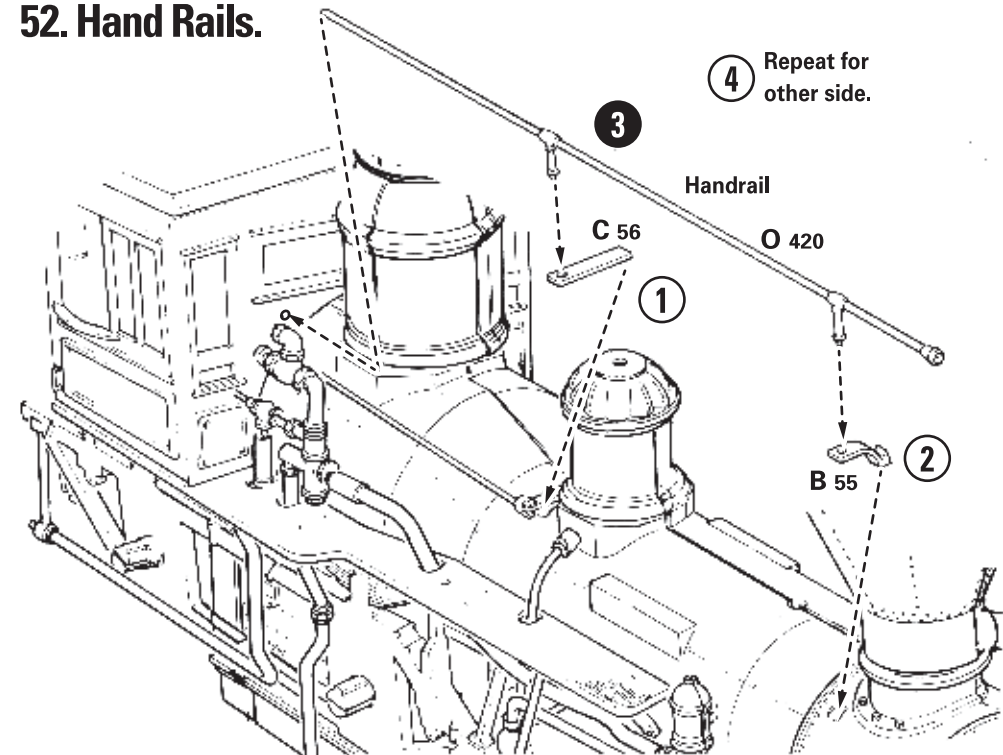
50. Right Side Water Lines.



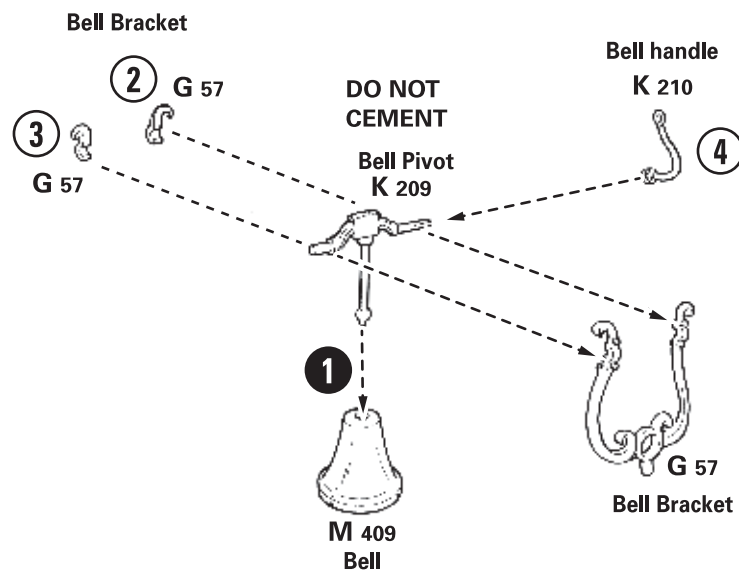
51. Right Side Water Lines.



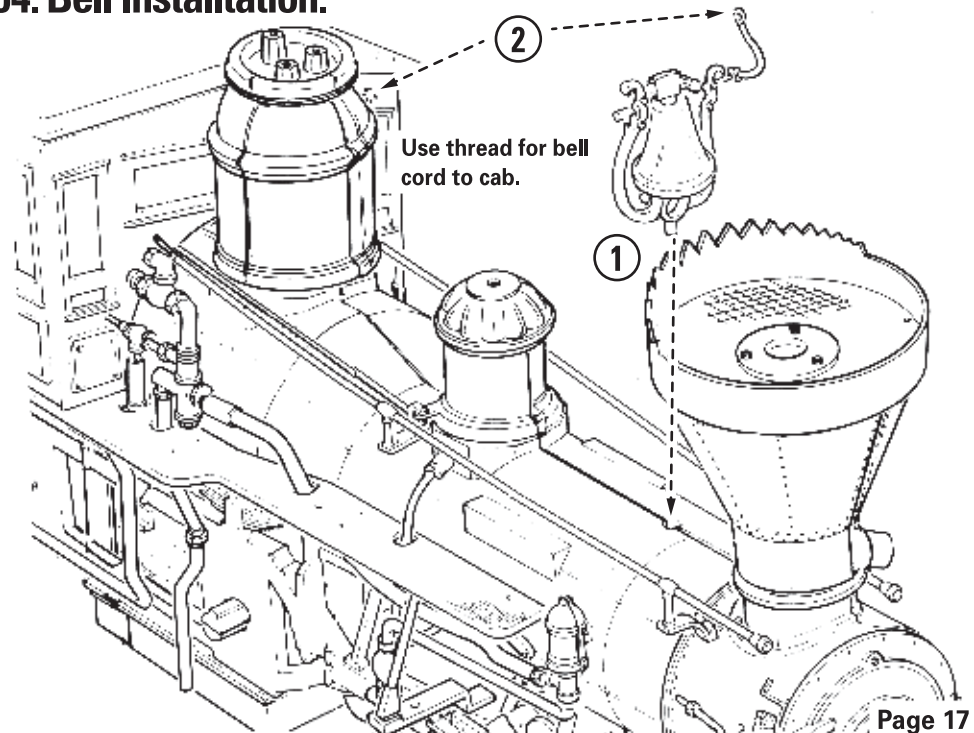
52. Hand Rails.



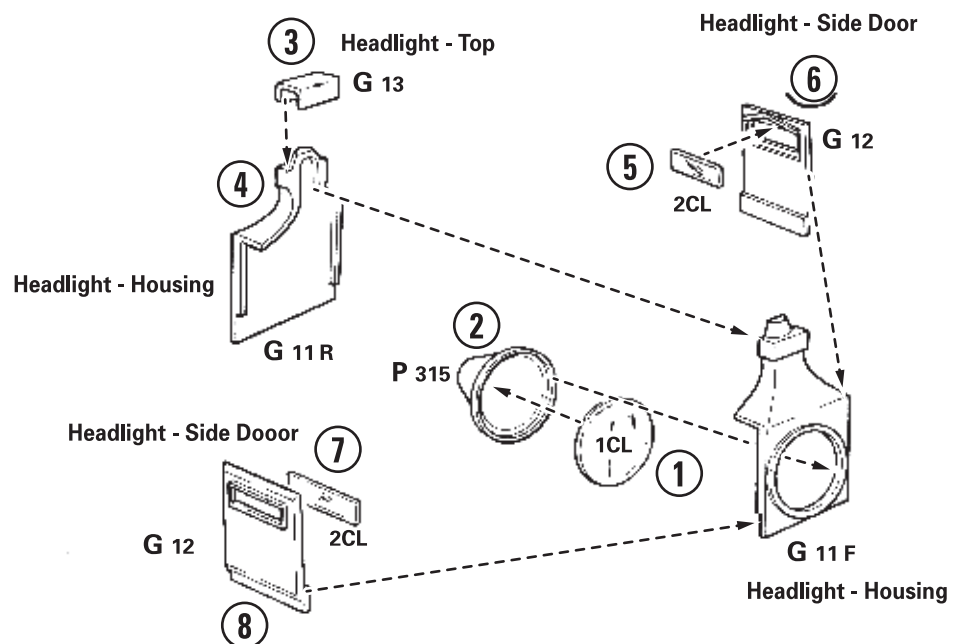
53. Bell Assembly.



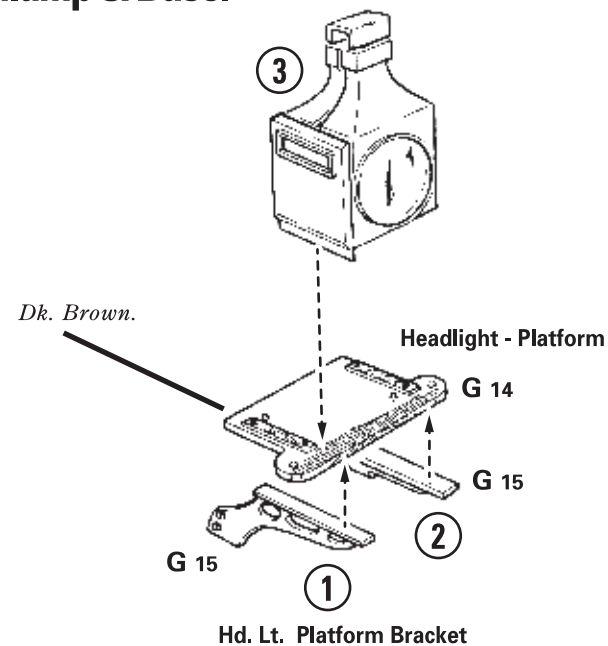
54. Bell Installation.



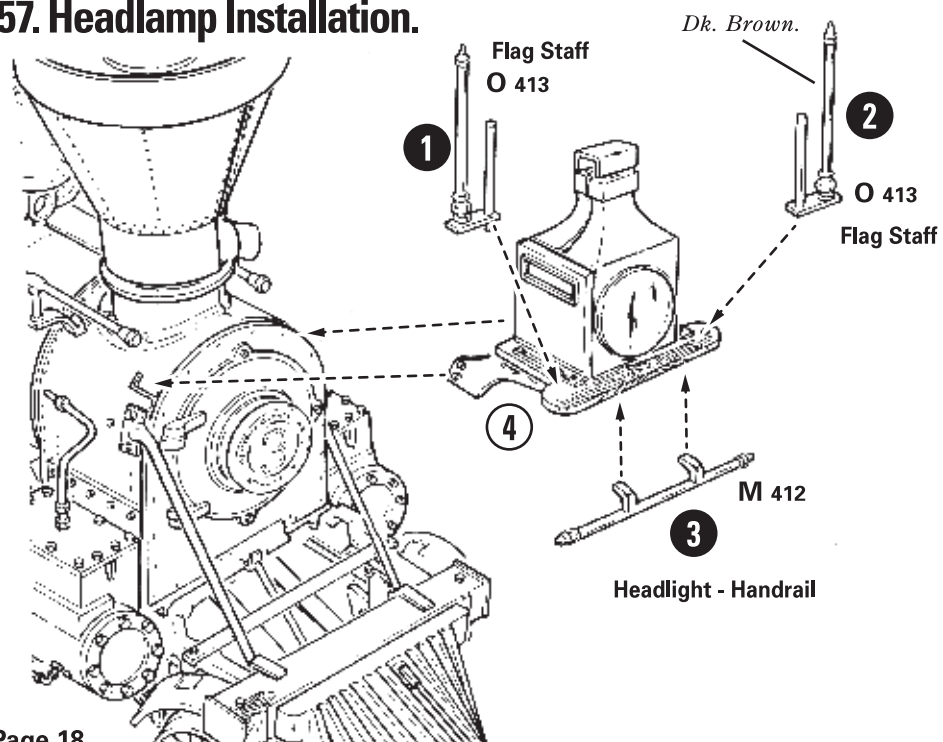
55. Headlamp Assembly.



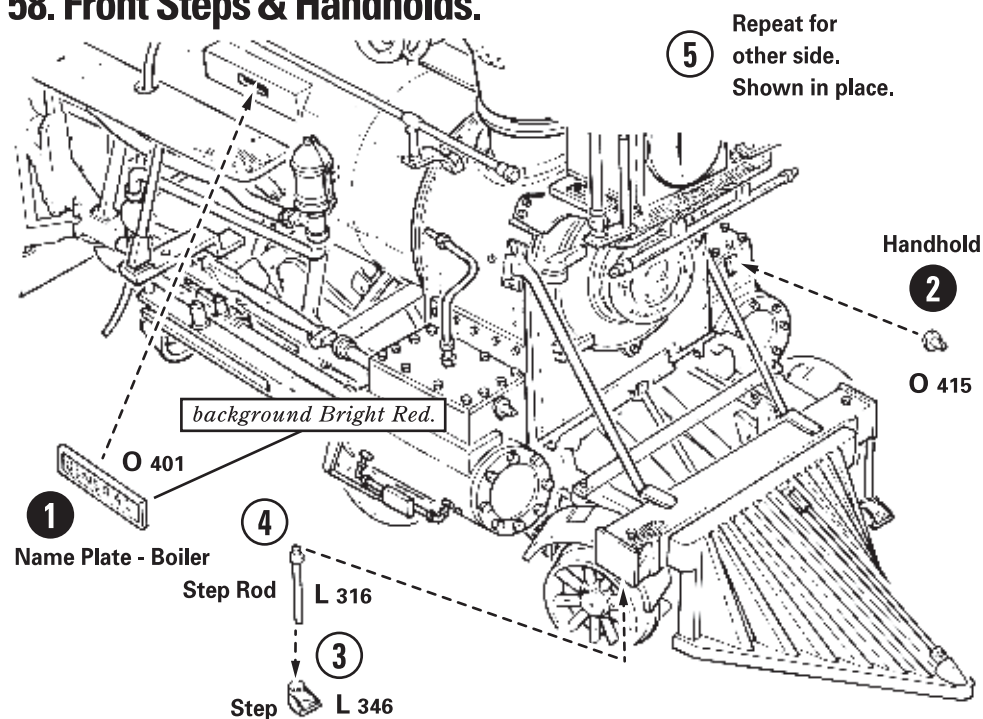
56. Headlamp & Base.



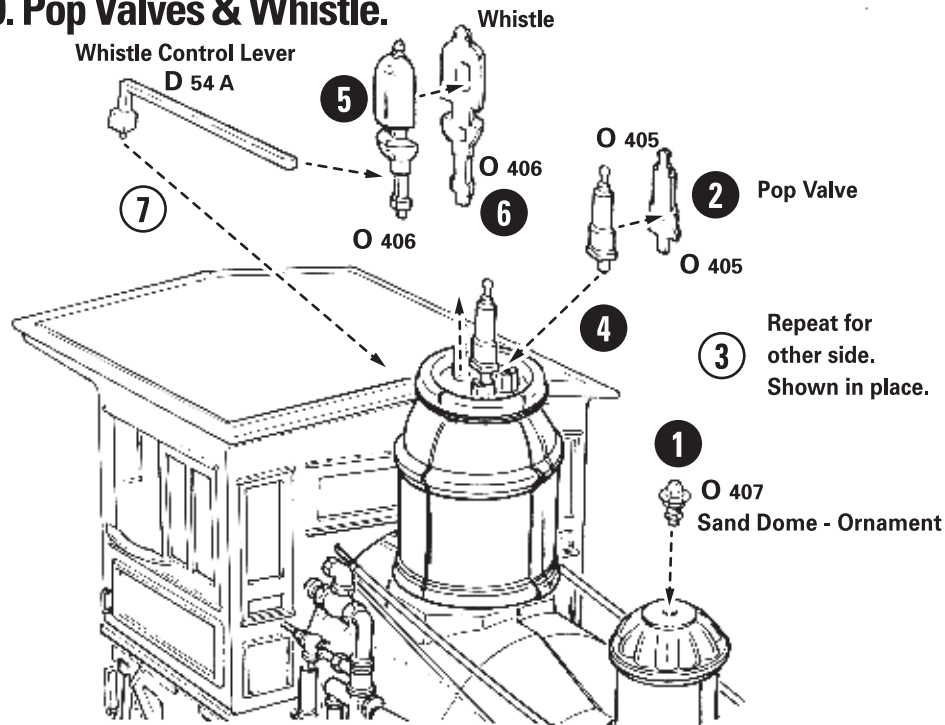
57. Headlamp Installation.



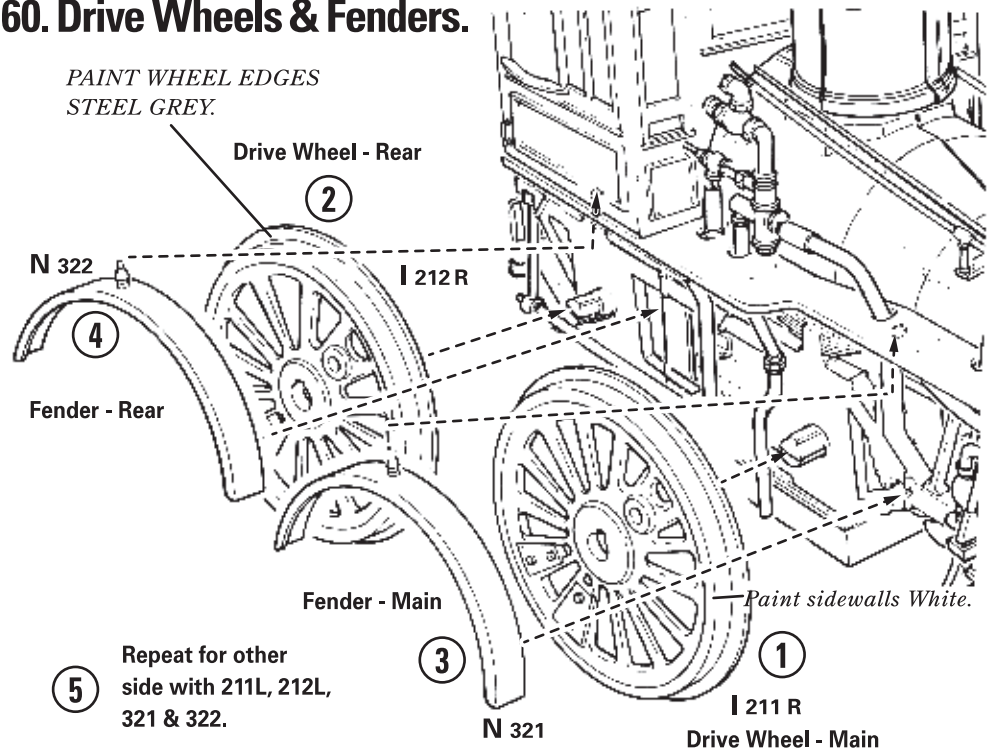
58. Front Steps & Handholds.



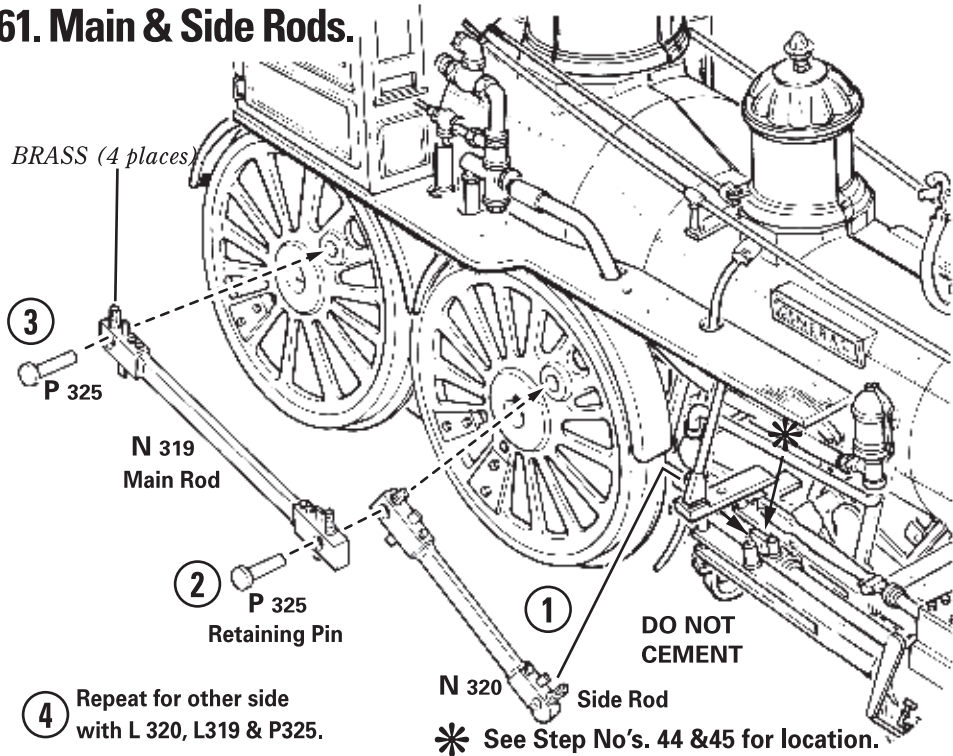
59. Pop Valves & Whistle.



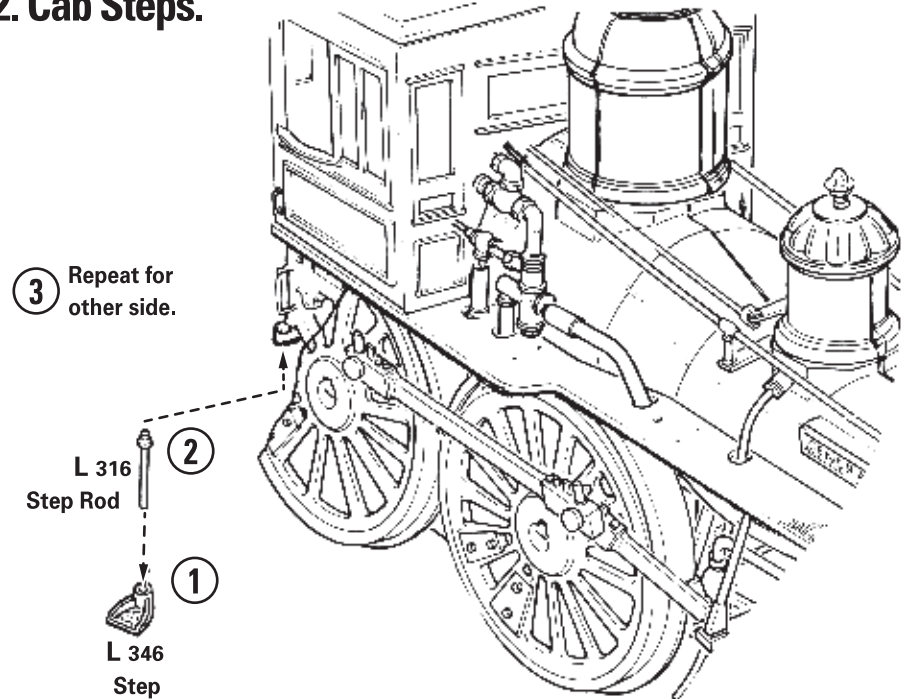
60. Drive Wheels & Fenders.



61. Main & Side Rods.

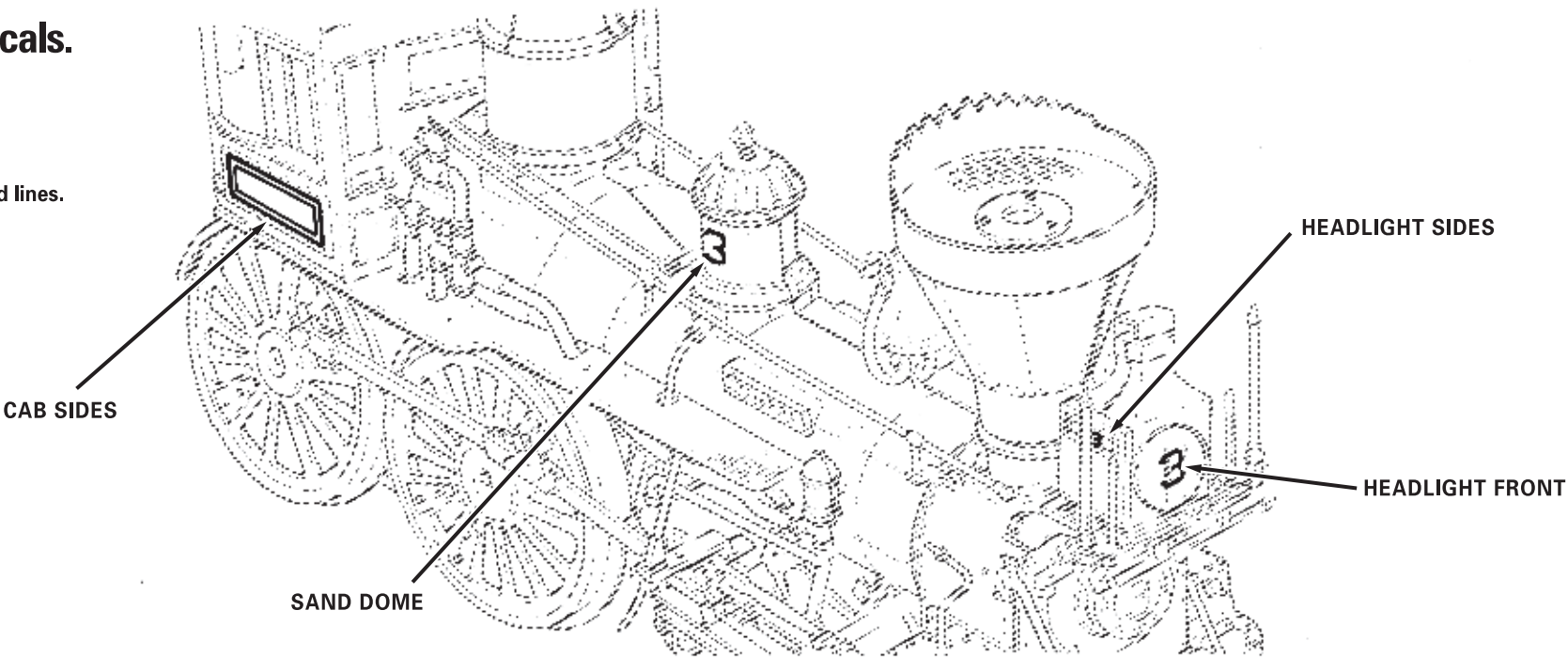


62. Cab Steps.

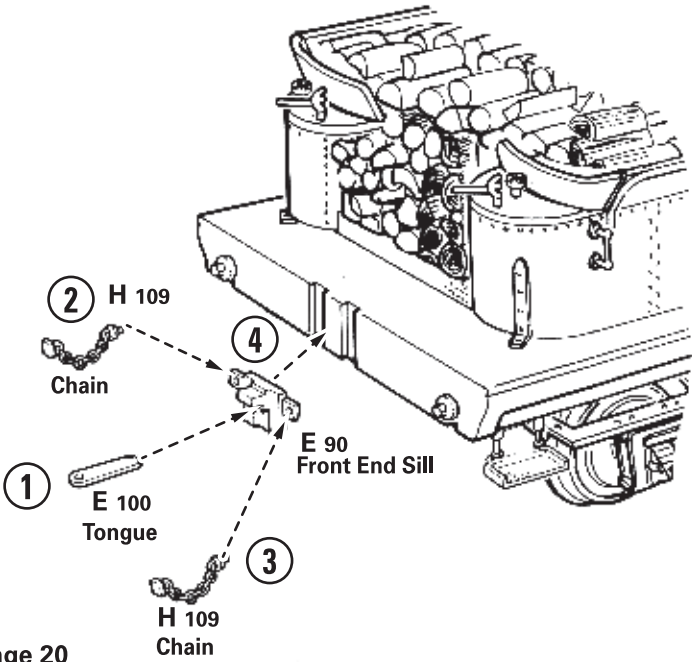


63. Locomotive Decals.

Decals shown in solid lines.



64. Final Assembly.



1 Place locomotive and tender on base.

OPTIONAL TIEDOWN SYSTEM
Open small holes on bottom of base. Use fine string or wire to tie locomotive and tender axles to base.

