

Altoona, Pa. 9-15-60 KDR/m
Desk 12

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There have been many changes in painting practices, and painting at Samuel Rea Shops has been established, since our "Instructions for Painting Freight Equipment Cars" were last revised and issued December 1, 1955.

Two sets of instructions have been prepared to bring our procedures up to date, one for painting at Samuel Rea Shops and one for is for other than Samuel Rea Shops.

Herewith tne number of copies as indicated opposite your initials of latest revised Instructions for Painting Freight Equipment Cars at All Shops Other Than Samuel Rea, dated September 15, 1960, which supersede those dated December 1, 1955.

Please arrange effective September 15, 1960, to place the new instructions in effect.

Additional copies of these instructions are available upon request directly from the Engineer of Tests.

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THE PENNSYLVANIA RAILROAD

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Instructions for Painting Freight Equipment Cars
At All Shops Other Than Samuel Rea
(Superseding Instructions Dated December 1, 1955)

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I. GENERAL INSTRUCTIONS

Proper surface preparation is the foundation of successful painting. Paint materials must be applied in accordance with these instructions. Consequently, it is of the utmost importance that all surfaces be thoroughly cleaned of rust, scale, dirt, grease, oil, deposited chemicals, loose and badly checked paints previously applied, etc.; otherwise the applied paint will fail quickly and prematurely. Water in any form which remains behind any paint film will also quickly destroy the paint. Mill scale, resulting after mill production of new steel, which is adhering tightly is considered a good medium for applying paint, but paint applied over scale formed by weathering action may experience early failure. Consequently, abrasive blasting must be used to prepare the metal surfaces, and such exposed surfaces must be covered solid as soon as possible with approved paint materials as hereinafter specified.

1. Metal on Metal - Riveted Construction:

All surfaces where metal is placed on metal must be painted with Lap and Joint Compound, Acct. 47, Ref. 1595, before assembly.

2. Parts Inaccessible:

All steel and wood surfaces which are not accessible after assembling, except the back of wood linings, treated wood floors, and surfaces to be welded, must be painted before assembling with one coat of Synthetic Freight Car Primer, Acct. 47, Ref. 3270.

3. Stenciling:

All stenciling must be done by spraying with an approved stenciling paint or enamel unless otherwise authorized. The following stenciling paint materials are made standard in these instructions:

White Stenciling Paint, Acct. 47, Ref. 2347, for brushing.
White Synthetic Stenciling Enamel, Acct. 47, Ref. 3146, for spraying.
White Stenciling Enamel, Oil Base, Acct. 47, Ref. 3147, for spraying.
Black Stenciling Paste Paint, Acct. 47, Ref. 3267, for brushing.
Black Stenciling Paint (Freight Cars Exclusive of Covered Hopper Cars), Acct. 47, Ref. 2536, for spraying.
Black Stenciling Paint (Covered Hopper Cars), Acct. 47, Ref. 2551, for spraying.

4. Assembled Underframes, Sides, Ends and Doors:

Before shipping new sub-assemblies such as underframes, car sides, ends, doors, etc., to another point, they must be painted at the point of manufacture with one coat of Synthetic Freight Car Primer, Acct. 47, Ref. 3270. All other painting must be done at the shops where the car bodies are assembled.

5. Trucks, Couplers, Wheels, Axles, Etc.:

On new cars the assembled trucks, new or reconditioned, except wheels

and axles are to be painted with one coat of Hard Drying Black Enamel, Acct. 47, Ref. 2016. In the painting procedures that follow for painting repaired cars, the trucks are not painted, except the truck sides of M.E. and M.W. cars, which receive a coat of Quick Drying Black Enamel, Acct. 47, Ref. 2218.

Couplers, wheels, axles, air hose and truck side frames (see paragraph above) should not be painted and must be covered during painting operations to protect them from inadvertently being painted. Any part of the air brake system which has a vent to the atmosphere, such as AB valve, breather on non-pressure head of brake cylinder and retaining valve, should also be protected so that paint does not foul the vent.

6. Paint Identification:

The identity of the finish coat or coats of paint used (not primers) and number of coats applied must be stenciled in code on all freight cars, except cabin cars, in accordance with Tracing E-446477, "Code Letters for Identification of Paint Manufacturers", and according to the latest lettering arrangement for the class of car painted. The identification of the Camp Car Yellow finish coat, as specified in Section VIII for Maintenance of Way cars, shall be stenciled only on the camp cars.

7. Lettering:

All lettering shall be in accordance with latest lettering arrangements specified on drawings applicable to the class of freight car being painted.

8. Priming:

All priming work must be done within eight hours after the metal surfaces have been abrasive blasted when the cars are not kept under cover and within 24 hours when the cars are kept under cover. Cars shall not be abrasive blasted until these conditions can be met. In no case shall the cars be permitted to become wet between the abrasive blasting and priming operations.

9. Coating - Film Thickness:

The paint coatings as specified in these instructions must be uniform and continuous over the entire area being painted. It is important to apply the number of coats specified, and each of adequate thickness in order to provide the protection required.

10. Drying:

In the following procedure, the drying times between paint coats are given for favorable drying conditions. When unfavorable drying conditions exist, additional time should elapse for drying between coats so that the paint film will be in the same condition as specified under favorable drying conditions.

11. Thinning:

All paint materials are to be used, as far as possible, in the as-received

condition. If, at any time, it is found necessary to add thinners to a material to make it work properly, the Engineer of Tests should be contacted as to the proper use of Petroleum Spirits, Acct. 47, Ref. 2486, for Ready-Mixed Paints and Spraying Thinner, Acct. 47, Ref. 2489, for synthetic enamels and primers.

Asphaltum Compounds (Car Cements), Acct. 47, Refs. 531, 555 and 556, are not to be thinned. The Acct. 47, Refs. 531 and 555 Car Cements shall be heated in conjunction with the spray equipment, if reduction in viscosity is required for satisfactory spraying.

12. Car Cements:

Asphaltum Compounds (Car Cements) come in three consistencies, based on specific work application with specific equipment for applying the cements. Compound, Asphaltum-Asbestos, Light Consistency, Approved Brand (Air gun or brush), Acct. 47, Ref. 531, is applied to metal surfaces, except car roofs, by spray or brush. Compound, Asphaltum-Asbestos, Medium Consistency, Approved Brand (one coat operation using pressure pump spray equipment), Acct. 47, Ref. 555, is primarily approved for application only to car roofs but it may be used for other purposes as specified in these instructions. Compound, Asphaltum-Asbestos, Heavy Consistency, Approved Brand (for caulking ends of floor boards only), Acct. 47, Ref. 556, is a heavy duty material. This compound shall not be thinned for the purpose of spraying.

13. Keystone Shadows:

On standard box and open top cars painted with a specified red freight car paint, apply shadows with Black Stenciling Paint, Acct. 47, Ref. 2536, brush or spray. On covered hopper cars, apply shadows with Black Stenciling Paste Paint, Acct. 47, Ref. 3267, for brushing, and Alkali-Resisting Black Stenciling Paint, Acct. 47, Ref. 2551, for spraying. On all cars, which are painted black, the black shadowing at the Keystone shall be omitted.

In addition to the foregoing General Instructions, the following detailed painting procedures are applicable to the various types of freight equipment cars.

II. STANDARD HOPPER, GONDOLA, FLAT AND WELL CARS

A. Standard Hopper Cars - New, Heavy and Running Repairs:

1. Remove rust, loose scale and loose paint with abrasive blasting. Remove oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486.
2. New cars and Class I and II cars must be spray painted over the exterior, except the underframes and exterior surfaces of slope and floor sheets and doors, with two coats of Black Freight Car Paint, Ready-Mixed, Acct. 47, Ref. 2554. The first coat should be applied immediately after preparing the surface for painting. Under favorable drying conditions, the second coat of paint can usually be applied in the open after eight hours. The exterior surfaces of the underframes, doors, slope sheets and floor sheets shall be given one coat of Asphaltum Compound (Car Cement), Acct. 47, Ref. 555.
3. Class III and Class IV. Cars must be spray painted over the exterior, including the underframes, exterior surfaces of slope and floor sheets and doors with two coats of Black Freight Car Paint, Ready-Mixed, Acct. 47, Ref. 2554, immediately after preparing the surface for painting. Under favorable drying conditions, the second coat of paint can be applied after eight hours.
4. No hopper cars are to be painted on the interior unless specifically authorized to do so by the Chief Mechanical Officer.
5. Stencil with White Stenciling Enamel, Oil Base, Acct. 47, Ref. 3147, for spraying, and White Stenciling Paint, Acct. 47, Ref. 2347, for brushing. Stenciling shall be done any time after the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operation.

B. Gondola Cars - New, Heavy and Running Repairs:

1. When wood siding of composite gondola cars is removed, the exposed interior metal surfaces of side stakes, diagonal braces, corner posts, etc., shall be painted with one coat of Asphaltum Compound (Car Cement), Acct. 47, Ref. 531. The coating shall not be less than 1/8 inch thick.
2. Remove rust, loose scale and loose paint with abrasive blasting. Remove oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486.
3. The top surface of all underframe details of cars, new or undergoing extensive repairs, which are to have wood floors applied, shall be painted with one coat of Asphaltum Compound (Car Cement), Acct. 47, Ref. 531. When wood floors are applied, the spaces between the end of the floor boards and the side of the car shall be filled with Asphaltum Compound (Car Cement), Acct. 47, Ref. 556.
4. Gondola cars, except G38 ore jennies, must be spray painted all over, inside and outside, except treated wood floors, with Ready-Mixed Red Freight Car Paint, Acct. 47, Ref. 2386, immediately after preparing the surface for painting. However, when repainting cars which have had no new steel applied, the inside painting is to be omitted if the corners and crevices are still properly protected.

5. Spray all over the exterior of gondola cars, except G38 cars, a second coat of Ready-Mixed Red Freight Car Paint, Acct. 47, Ref. 2386. Under favorable drying conditions, this second coat of paint can usually be applied in the open after eight hours.

6. G38 cars must be painted over the exterior, including the underframe, with two coats of Ready-Mixed Black Freight Car Paint, Acct. 47, Ref. 2554. G38 ore jennies are NOT to have Asphaltum Compound (Car Cement) applied to the underframe or under body equipment.

7. Stencil with White Stenciling Enamel, Oil Base, Acct. 47, Ref. 3147, for spraying, and White Stenciling Paint, Acct. 47, Ref. 2347, for brushing. Black Stenciling Paint, Acct. 47, Ref. 2536, shall be used for both brushing and spraying the Keystone shadows, except on G38 cars which do not have the Keystone shadowed due to the black body color. Stenciling shall be done any time after the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operation.

C. Flat and Well Cars - New, Heavy and Running Repairs:

1. Prepare and clean the metal surface as specified under Standard Hopper and Gondola Cars. Paint the underframe with one coat and all other metal parts with two coats of Ready-Mixed Red Freight Car Paint, Acct. 47, Ref. 2386. Under favorable drying conditions the second coat of paint can usually be applied in the open after eight hours. Untreated wood floors also receive two coats of the same paint.

2. Stencil with White Stenciling Enamel, Oil Base, Acct. 47, Ref. 3147, for spraying, and White Stenciling Paint, Acct. 47, Ref. 2347, for brushing. Stenciling shall be done any time after the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operations.

III. STANDARD BOX CARS

A. New cars and Heavy Repairs:

1. Clean all exterior metal surfaces by abrasive blasting. On new cars only, remove any oil and grease from interior metal surfaces with Petroleum Spirits, Acct. 47, Ref. 2486, and blow with clean, dry compressed air to remove any adhering dust particles.

2. Prime all exterior surfaces, except new galvanized roofs, by spraying with Synthetic Freight Car Primer, Acct. 47, Ref. 3270, immediately after cleaning.

3. Prime the interior metal surfaces, including the doors, of all new cars, except the under side of galvanized roof sheets, with Synthetic Freight Car Primer, Acct. 47, Ref. 3270, immediately after cleaning the surfaces. When the primer is dry, apply 1/8 to 1/4 inch coating of Asphaltum Compound (Car Cement), Acct. 47, Ref. 531, or Acct. 47, Ref. 555, to the side sills, side posts and side and end sheets to a distance of 24 inches from the butt. Above this 24 inch distance, apply over the Synthetic Primer one coat of Synthetic Red Freight Car Enamel Acct. 47, Ref. 3185. The coat of enamel can usually be applied over the primer after two hours. When new cars are assembled with steel roofs (not galvanized), the under side of the steel roofs shall receive one coat of Synthetic Freight Car Primer, Acct. 47, Ref. 3270, and one coat of Synthetic Red Freight Car Enamel, Acct. 47, Ref. 3185. The coat of enamel can usually be applied over the primer after two hours.

4. When box cars are undergoing heavy repairs, no painting with primer and enamel shall be done on the interior of the cars to any side sills, side posts, side and end sheets. However, the under side of the roofs shall be scraped clean of rust, scale and dirt and then painted with one coat of Synthetic Red Freight Car Enamel, Acct. 47, Ref. 3185. Apply 1/8 to 1/4 inch coating of Asphaltum Compound (Car Cement), Acct. 47, Ref. 531, or Acct. 47, Ref. 555, to the side sills, side posts, and side and end shoots to a distance of 24 inches from the butt.

5. Spray the exterior sides, ends, roof (if not new galvanized) and underframe with one coat of Synthetic Red Freight Car Enamel, Acct. 47, Ref. 3185. The coat of enamel can usually be applied over the primer after two hours.

6. New galvanized roofs (exterior surfaces) shall be spray painted with Asphaltum Compound (Car Cement), Acct. 47, Ref. 555. This compound should be used with pressure pump spray equipment. The coating shall be from 1/8 to 1/4 inch thick. It may be possible to obtain this thickness with one spray application.

During assembly of galvanized roofs, all surfaces where metal is placed on metal shall be coated with Asphaltum Compound (Car Cement), Acct. 47, Ref. 531, as a contact paint to assure against leaks.

7. When cars with galvanized roofs, which have previously been painted with Asphaltum Compound (Car Cement), Acct. 47, Ref. 555, undergo heavy repairs, the exterior of the roofs shall be painted with one coat of Synthetic Freight Car Enamel, Acct. 47, Ref. 3185.

8. Apply letters, numbers and decorations. For spray application use White Synthetic Stenciling Enamel, Acct. 47, Ref. 3146. For brush application use White Stenciling Paint, Acct. 47, Ref. 2347. Black Stenciling Paint, Acct. 47, Ref. 2536, shall be used for both spraying and brushing the Keystone shadows. All stenciling can be applied after six hours.

9. Box cars with special interior equipment such as DF loaders, etc., often having no wood lining, shall, when authorized, have the interior sides, ends, racks, doors and ceiling, if the roof sheets are not of galvanized construction, spray painted with one coat of Ready-Mixed Aluminum Paint, Acct. 47, Ref. 3261.

B. Running Repairs (Exterior Only):

If the paint has failed, proceed to prepare the surface as called for under New and Heavy Repairs. If the paint has not failed, prepare the surface and do the painting in the following manner.

1. Remove any rust and loose paint with abrasive blasting. Remove any oil and grease with Petroleum Spirits, Acct. 47, Ref. 2146.

2. Prime all bare spots with Synthetic Freight Car Primer, Acct. 47, Ref. 3270.

3. Spray the sides, ends, roof and underframe with one coat of Synthetic Red Freight Car Enamel, Acct. 47, Ref. 3185. This coat of enamel can usually be applied over the primer after two hours.

4. Apply letters, numbers and decorations. For spray application use White Synthetic Stenciling Enamel, Acct. 47, Ref. 3146. For brush application use White Stenciling Paint, Acct. 47, Ref. 2347. Black Stenciling Paint, Acct. 47, Ref. 2536, shall be used for both spraying and brushing the Keystone shadows. All stenciling can be applied after six hours.

IV. COVERED HOPPERS

Unless otherwise specified, the following instructions are to be used when painting all covered hopper cars and any steel box cars which are assigned to the alkali trade. Such cars are painted on the exterior only.

A. New Cars, Heavy and Running Repairs:

1. Remove all rust, loose scale and loose paint by abrasive blasting. Blow the surfaces with clean, dry compressed air.

2. As soon as possible, paint the bare, dry metal with Synthetic Freight Car Primer, Acct. 47, Ref. 3270. New galvanized roofs should not be primed.

3. Spray paint all roofs with Asphaltum Compound, Medium Consistency, Acct. 47, Ref. 555. This Asphaltum Compound should be used with pressure pump spray equipment. The coating shall be from 1/8 to 1/4 inch thick. It may be possible to obtain this thickness in one spray application.

4. Spray paint the sides, ends and underframes with two coats of Ready-Mixed Alkali-Resisting Light Gray Freight Car Paint, Acct. 47, Ref. 3266. The first coat of paint can be applied over the primer after ten hours. Under favorable conditions, the second coat of paint can be applied over the first coat of paint after six hours drying.

5. Stencil with Black Stenciling Paint, Acct. 47, Ref. 2551, for spraying, and use Black Stenciling Paste Paint, Acct. 47, Ref. 3267, for brushing covered hopper cars. Stenciling may be applied after six hours.

VI. CABIN CARS

A. New Cars and Heavy Repairs - Exterior (Painted Under Cover):

1. Remove rust, loose scale and any loose paint by abrasive blasting. Wooden cabin cars are to be cleaned by wire brushing. Blow the surfaces dry, using clean, dry compressed air. After the surfaces have been properly prepared all of the following painting procedures must be done under cover:

2. To the dry surface and with as little delay as possible, spray all bare metal with Synthetic Freight Car Primer, Acct. 47, Ref. 3270. Wooden surfaces are not primed.

3. Spray paint the sides, ends and underframe with one coat of Synthetic Red Freight Car Enamel, Acct. 47, Ref. 3185. Under favorable drying conditions this coat of enamel can usually be applied over the primer after two hours.

4. Apply letters, numbers and decorations. For spray application use White Synthetic Stenciling Enamel, Acct. 47, Ref. 3146. For brush application use White Stenciling Paint, Acct. 47, Ref. 2347. Black Stenciling Paint, Acct. 47, Ref. 2536, shall be used for both spraying and brushing the Keystone shadows. All stenciling can be applied after six hours.

5. Apply Asphaltum Compound (Car Cement), Acct. 47, Ref. 555, to the roof, regardless of its composition, including the sides, ends and roof of the cupola. The coating shall not be less than 1/8 inch thick. It may be possible to obtain this thickness in one spray application.

6. Apply two coats of Full Gloss Yellow Enamel, Acct. 47, Ref. 2617, to the vertical handholds on the corners and to the curved handholds on the car body at the four corners of the cabin car, in accordance with latest tracing. The second coat of enamel can usually be applied over the first coat of enamel after four hours of drying.

B. Running Repairs - Exterior (Not Painted Under Cover):

1. Remove rust, loose scale and any loose paint with scrapers and wire brushes. Remove any oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486.

2. With as little delay as possible, prime all bare spots with Synthetic Freight Car Primer, Acct. 47, Ref. 3270.

3. After priming, spray the sides, ends and underframes with one coat of Synthetic Red Freight Car Enamel, Acct. 47, Ref. 3185. Under favorable drying conditions, this coat of paint can usually be applied over the primer after two hours.

4. Apply letters, numbers and decorations. For spray application use White Synthetic Stenciling Enamel, Acct. 47, Ref. 3146. For brush application use White Stenciling Paint, Acct. 47, Ref. 2347. Black Stenciling Paint, Acct. 47, Ref. 2536, shall be used for both spraying and brushing the Keystone shadows. All stenciling can be applied after six hours.

5. Apply Asphaltum Compound (Car Cement) Acct. 47, Ref. 555, to the roof, regardless of composition, including the sides, ends and roof of the cupola. The coating shall not be less than 1/8 inch thick. It may be possible to obtain this thickness in one spray application.

6. Apply two coats of Full Gloss Yellow Enamel, Acct. 47, Ref. 2617, to the vertical handholds on the corners and to the curved handholds on the car body at the four corners of the cabin car, in accordance with latest tracing. The second coat of enamel can usually be applied over the first coat of enamel after four hours of drying.

C. New Cars, Heavy and Running Repairs - Interior:

1. Remove rust, loose scale and any loose paint with scrapers and wire brushes. Remove any oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486.

2. Prime the bare wood trim and unpainted Masonite lining with one coat of Shellac, Acct. 47, Ref. 2440.

3. After one hour, apply two coats of P.O. Green Enamel, Acct. 47, Ref. 3119, to the entire interior, including ceiling and equipment, except the floor and tops of table and sink. The second coat of enamel can usually be applied over the first coat after six hours.

4. Clean the floor of any loose paint and foreign matter with scrapers and remove any oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486. Blow floor clean with dry air and apply two coats of Quick Drying Floor Enamel, P.R.R. Shade, Acct. 47, Ref. 2334, to the floors. The second coat of enamel can usually be applied over the first coat of enamel after four hours of drying.

5. No paint is to be applied to any stainless steel parts or aluminum window sashes.

VII. MAINTENANCE OF EQUIPMENT CARS

Wheel Carrying Cars, Sponging Cars, Ice Cars, Rubbish Cars, M. of E. Material Cars, Interplant Cars and any other cars used solely for M. of E. purposes.

A. Steel Cars - Heavy and Light Repairs (Exterior Only):

1. Remove rust, loose scale and any loose paint by abrasive blasting, if available; otherwise clean with scrapers and wire brushes. Remove any oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486. Blow the surfaces dry, using clean, dry compressed air.

2. With as little delay as possible, spray the bare, dry metal of the sides, ends, roof, underframe, including the equipment under the body of the car, and safety equipment, as shown on latest tracings, with one coat of Structural Gray Paint, Acct. 47, Ref. 2236.

3. Spray paint the sides, ends and roof with a second coat of Structural Gray Paint, Acct. 47, Ref. 2236. The second coat shall not be applied until assured that the first coat is thoroughly dry. Under favorable drying conditions, this will require approximately eight hours of drying.

4. Stencil the car with Black Stenciling Paint, Acct. 47, Ref. 2536, for spraying; for brush application use Black Stenciling Paste Paint, Acct. 47, Ref. 3267. Stenciling can usually be done after ten hours of drying time, but in any case, not before the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operation.

5. The underframe, including the equipment under the body of the car, truck sides and safety equipment, as shown on latest tracings, shall be given a finishing coat of Quick Drying Black Enamel, Acct. 47, Ref. 2218. This coat of enamel can be applied after eight hours of drying time of the paint applied as per Item A-2 of this Section.

B. Wooden Cars - Heavy and Light Repairs:

1. Remove rust, loose scale and loose paint with scrapers and wire brushes.

2. Spray paint the sides, ends, roof, underframe, including the equipment under the body of the car, and safety equipment with one coat of Structural Gray Paint, Acct. 47, Ref. 2236.

3. Spray paint the sides, ends and roof with a second coat of Structural Gray Paint, Acct. 47, Ref. 2236. The second coat shall not be applied until assured that the first coat is thoroughly dry. Under favorable drying conditions this will require approximately eight hours of drying.

4. Stencil the car with Black Stenciling Paint, Acct. 47, Ref. 2536, for spraying; for brush application use Black Stenciling Paste Paint, Acct. 47, Ref. 3267. Stenciling can usually be done after ten hours of drying time, but in any

case not before the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operation.

5. The underframe, including equipment under the body of the car, truck sides and safety equipment, as shown in the latest tracings, shall be given a finishing coat of Quick Drying Black Enamel, Acct. 47, Ref. 2218. This coat of enamel can be applied after eight hours of drying time of the paint applied as per Item B-2 of this Section.

VIII. MAINTENANCE OF WAY

Camp Cars, Wreck Train Cars, Crane Carrier Cars, M. of W. Supply Cars, M. of W. Water Tenders with Camp Trains, Foamite Cars, Diesel-Electric Wire Train Cars, Wire Train Tower Cars, Wire Train Tool and Material Cars, Wire Train Gondola Reel Cars and any other cars used solely for M. of W. purposes, including all wreck train cars whether manned by M. of E. or M. of W. employes.

A. Steel Cars - Heavy and Light Repairs (Exterior Only):

1. Remove rust, loose scale and any loose paint by abrasive blasting, if available; otherwise clean with scrapers and wire brushes. Remove any oil and grease with Petroleum Spirits, Acct. 47, Ref. 2486. Blow the surfaces dry, using clean, dry compressed air.

2. Paint the dry surfaces and, with as little delay as possible, spray the bare, dry metal of the sides, ends, roof, underframe, including the equipment under the body of the car and safety equipment, as shown on latest tracings, with one coat of Synthetic Freight Car Primer, Acct. 47, Ref. 3270.

3. Spray paint the sides and ends with two coats of Camp Car Yellow Paint, Acct. 47, Ref. 3153. The first coat of paint can be applied over the primer after two hours of drying. The second coat shall not be applied until assured that the first coat is thoroughly dry. Under favorable drying conditions, this will require approximately four hours of drying.

4. Apply to the roof a coating of Asphaltum Compound (Car Cement), Acct. 47, Ref. 555. The coating shall not be less than 1/8 inch thick. It may be possible to obtain this thickness in one spray application.

5. Stencil the car with Black Stenciling Paint, Acct. 47, Ref. 2536, for spraying; for brush application use Black Stenciling Paste Paint, Acct. 47, Ref. 3267. Stenciling can usually be done after six hours of drying time, but in any case, not before the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operation.

6. The underframe, including the equipment under the body of the car, truck sides and safety equipment, as shown on latest tracings, shall be given a finishing coat of Quick Drying Black Enamel, Acct. 47, Ref. 2218. This coat of enamel can be applied after two hours of drying of the Synthetic Freight Car Primer applied as per Item A-2 of this Section. Sill steps and end sill handholds are to be given a finish coat of Yellow Enamel, Acct. 47, Ref. 2617, to make them more distinguishable.

B. Wooden Cars - Heavy and Light Repairs:

1. Remove rust, loose scale and loose paint with scrapers and wire brushes.

2. Prime bare wood with Aluminum Paint, Acct. 47, Ref. 2313, and the bare, dry metal with Synthetic Freight Car Primer, Acct. 47, Ref. 3270.

3. Spray paint the sides and ends with two coats of Camp Car Yellow

Paint, Acct. 47, Ref. 3153. The first coat of paint can be applied over the primer coats after four hours of drying. Under favorable drying conditions the second coat can be applied after four hours of drying time.

4. Apply to the roof a coating of Asphaltum Compound (Car Cement), Acct. 47, Ref. 555. The coating shall not be less than 1/8 inch thick. It may be possible to obtain this thickness in one spray application.

5. Stencil the car with Black Stenciling Paint, Acct. 47, Ref. 2536, for spraying; for brush application use Black Stenciling Paste Paint, Acct. 47, Ref. 3267. Stenciling can usually be done after six hours of drying time, but in any case, not before the paint has dried sufficiently hard so that the paint film is not marred during the stenciling operation.

6. The underframe, including the equipment under the body of the car, truck sides and safety equipment, as shown on latest tracings, shall be given a finishing coat of Quick Drying Black Enamel, Acct. 47, Ref. 2218. This coat of enamel can be applied after two hours of drying time of the Synthetic Freight Car Primer applied as per Item B-2 of this Section. Sill steps and end sill handholds are to be given a finish coat of Yellow Enamel, Acct. 47, Ref. 2617, to make them more distinguishable.

C. Interior Painting:

Due to the multiplicity and arrangement of the interiors of Maintenance of Way cars, no attempt has been made to include their interior painting, and these cars shall be painted in accordance with separate instructions.

IX. DESCRIPTION OF APPROVED PAINT MATERIALS

The following table lists, under their Account and Reference Numbers, the description of Approved Materials covered by these Instructions:

<u>Account & Reference Number</u>	<u>Standard Catalog Description of Approved Materials</u>
47-531	Compound, Asphaltum-Asbestos, Light Consistency
47-555	Compound, Asphaltum-Asbestos, Medium Consistency
47-556	Compound, Asphaltum-Asbestos, Heavy Consistency
47-1595	Compound, Lap and Joint (Contact Paint)
47-2016	Black, Locomotive, Hard Drying
47-2218	Enamel, Black, Quick Drying, P.R.R. No. 100
47-2236	Paint, Structural, Gray, Mixed, Finishing Coat
47-2313	Paint, Aluminum., Exterior Exposure
47-2334	Floor Enamel, Quick Drying, P.R.R. Shade
47-2347	Paint, White, Stenciling
47-2386	Ready-Mixed Red Freight Car Paint
47-2440	Shellac, Orange
47-2486	Turpentine Substitute (Petroleum Spirits)
47-2489	Thinner, Spray Application
47-2536	Black Stenciling Paint, for spraying an freight cars exclusive of covered hopper cars
47-2551	Black Stenciling Paint, for spraying covered hopper cars
47-2554	Paint, Freight Car Black, Ready-Mixed, spraying, for open top hopper cars
47-2617	Enamel, Yellow, water and steam line
47-3119	Enamel, P.O. Green
47-3146	White Synthetic Stenciling Enamel, for spraying
47-3147	White Synthetic Enamel, Oil Base, for spraying
47-3153	Camp Car Yellow Paint
47-3185	Synthetic Red Freight Car Enamel
47-3261	Paint, Aluminum, Ready-Mixed
47-3266	Light Gray Alkali-Resisting Paint
47-3267	Black Stenciling Paste Paint, Alkali-Resisting
47-3270	Primer, Freight Car, Synthetic

L. E. Gingerich
Chief Mechanical Officer

