

PACIFIC FRUIT EXPRESS

EARLY 1950s FLEET

TED CULOTTA

HINDSIGHT 20/20 11.0

04 DECEMBER 2021



This will be posted to prototopics.blogspot.com

Thank you

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PFE Roster at January, 1953

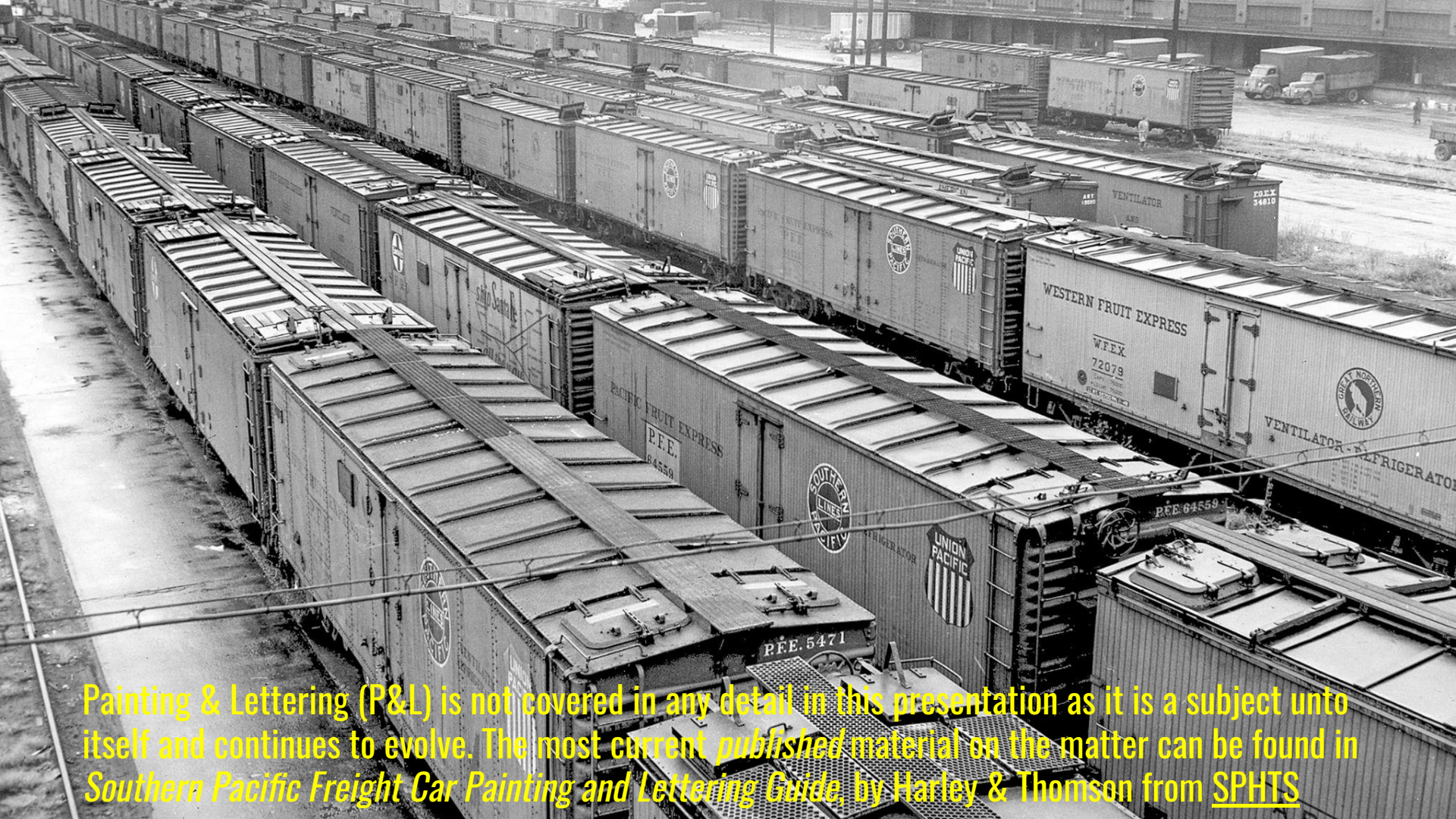
- Includes only series with at least 100 cars
- Listed from largest class to smallest
- Source: *Official Railway Equipment Register, January, 1953*

Series Start	Series End	Class	Qty. Jan. 1953	% of PFE fleet	Notes
91022	98718	R-30/40-9	7111	18.44%	
85001	85275	R-30/40-9	162	0.42%	meat service
62501	68900	R-30/40-19, -21, -24	5889	15.27%	
5001	8000	R-40-23	2961	7.68%	
46703	48702	R-40-23	1982	5.14%	4943 total
40001	44700	R-40-10	4559	11.82%	
73001	76554	R-30/40-16	3399	8.81%	incl. 76228, 76229
2001	5000	R-40-25	2985	7.74%	
60001	62500	R-30/40-18	2437	6.32%	
8001	1000	R-40-26	1997	5.18%	
45701	46700	R-40-20	987	2.56%	
44701	45700	R-40-14	979	2.54%	
90001	91021	R-30/40-8	807	2.09%	from R-30-1 to -6
71273	71953	R-40-4	482	1.25%	from R-30-2 to -6
38563	39062	R-40-4	471	1.22%	
13280	15919	R-30-4	466	1.21%	from R-30-11, -12
200379	200587	R-50-5	201	0.52%	
			37875	98.21%	PFE total = 38565

PFE Roster at January, 1953

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Painting & Lettering (P&L) is not covered in any detail in this presentation as it is a subject unto itself and continues to evolve. The most current *published* material on the matter can be found in *Southern Pacific Freight Car Painting and Lettering Guide*, by Harley & Thomson from SPHTS

The Wood Cars

- Original Wood
- Original Composite (steel superstructure)
- Refurbished/Rebuilt Cars



“Fodder” for the Fleet

Since its incorporation in 1906, Pacific Fruit Express invested heavily in rolling stock, with the major acquisitions in the R-30-1, -2, -4, -5, and -6 classes. This strong commitment continued in the late 'teens and '20s with the R-30-11, -12, -13, and -14 classes. The last new wood cars were added between 1928-1930 in the R-40-2 and -4 classes.*

PFE had rebuilding programs in place throughout its history. The rebuilds that produced the -4** and -8 classes started the “modern” rebuilds that continued with the program of the late '30s through mid-to-late '40s that made up a major portion of the fleet well into the '50s.

see *Pacific Fruit Express* and the Harley website!!!

*PFE added 89 cars in R-40-1 that were based upon an ARA design (SFRD adopted this design as their standard refrigerator car design of the late 1920s-early 1930s)

** there were new and rebuilt -4 classes

VENTILATED REFRIGERATOR

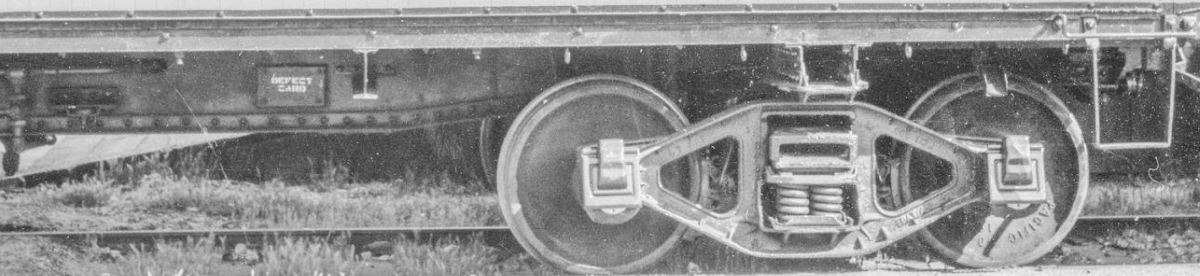
L.L. 33 FT. 2 1/2 IN.
L.W. 8 FT. 2 1/2 IN.
L.H. 7 FT. 0 IN.
CU. FT. 1918

Built-up, "unflanged" bolster

BUILT 8-23

R-30-13

REPKD. L.A. 3-26-1906
P.F.E. CO.



R-30-13

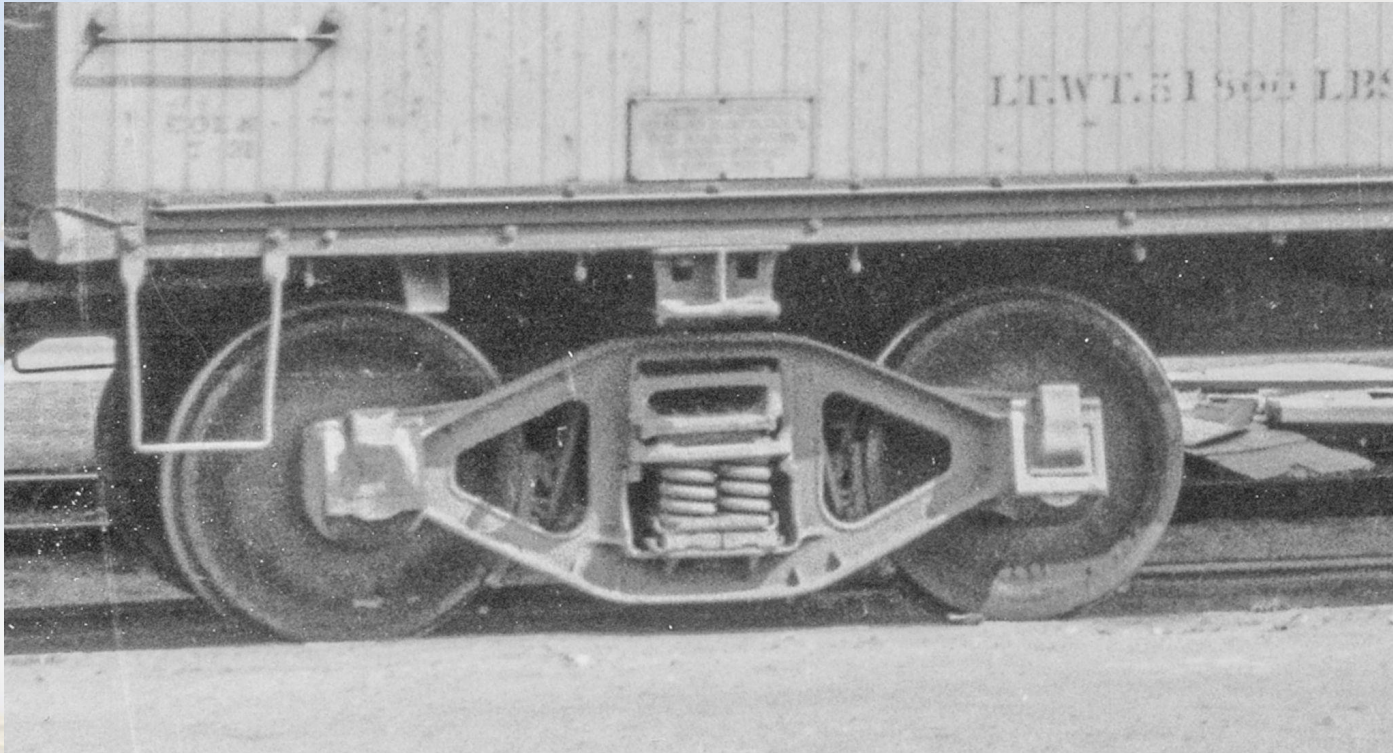
REPKD. L.A. 11-7-1935
P.F.E. CO.

Built-up, "flanged" bolster



early Bettendorf (non -14)

R-30-14



Compare/contrast this with the “early” Bettendorf on the previous page

R-30-4 and R-40-4

The R-40-4 builds (new) and R-30-4 and R-40-4 rebuilds represented a significant shift in PFE car development through the introduction of steel for the superstructure of the cars. Other changes included improved insulation and power hand brakes (introduced for part of the R-40-2 class).

- New R-40-4 cars: 38563-39062
- Rebuilt R-40-4, 510 cars:
 - 71273-71300
 - 71359-71400
 - 71429-71500
 - 71586-71953
- Rebuilt R-30-4, 619 cars:
 - 13220-15919 and 19920-22519



R-40-4



Bob Charles Collection, NMRA/Kalmbach Memorial Library

PFE 71624 was one of the R-40-4s drawn from the R-30-2 to -6 classes and rebuilt to R-40-4 standards

R-40-4

FERTILIZER
CTICIDES

WILBUR-ELLIS CO.

SEEDS
SUPPLIES

PACIFIC FRUIT EXPRESS

PFE

71737

CAPY 75000

LBLMT \$6900

LT WT 58200 L A 7



REFRIGERATOR



RECOND 3-51
BUILT 4-31

R-40-4

EXW 9-11 H 11-5
EW 9-6 H 12-7
TL 33-2 1/2
LW 3-2 1/2
LH 7-0
CU.FT. 1920



Chula Vista, California, March, 1957, Col. Chet McCoid, Bob's Photo

PFE 71737 was (re)built April, 1931 and reconditioned March, 1951

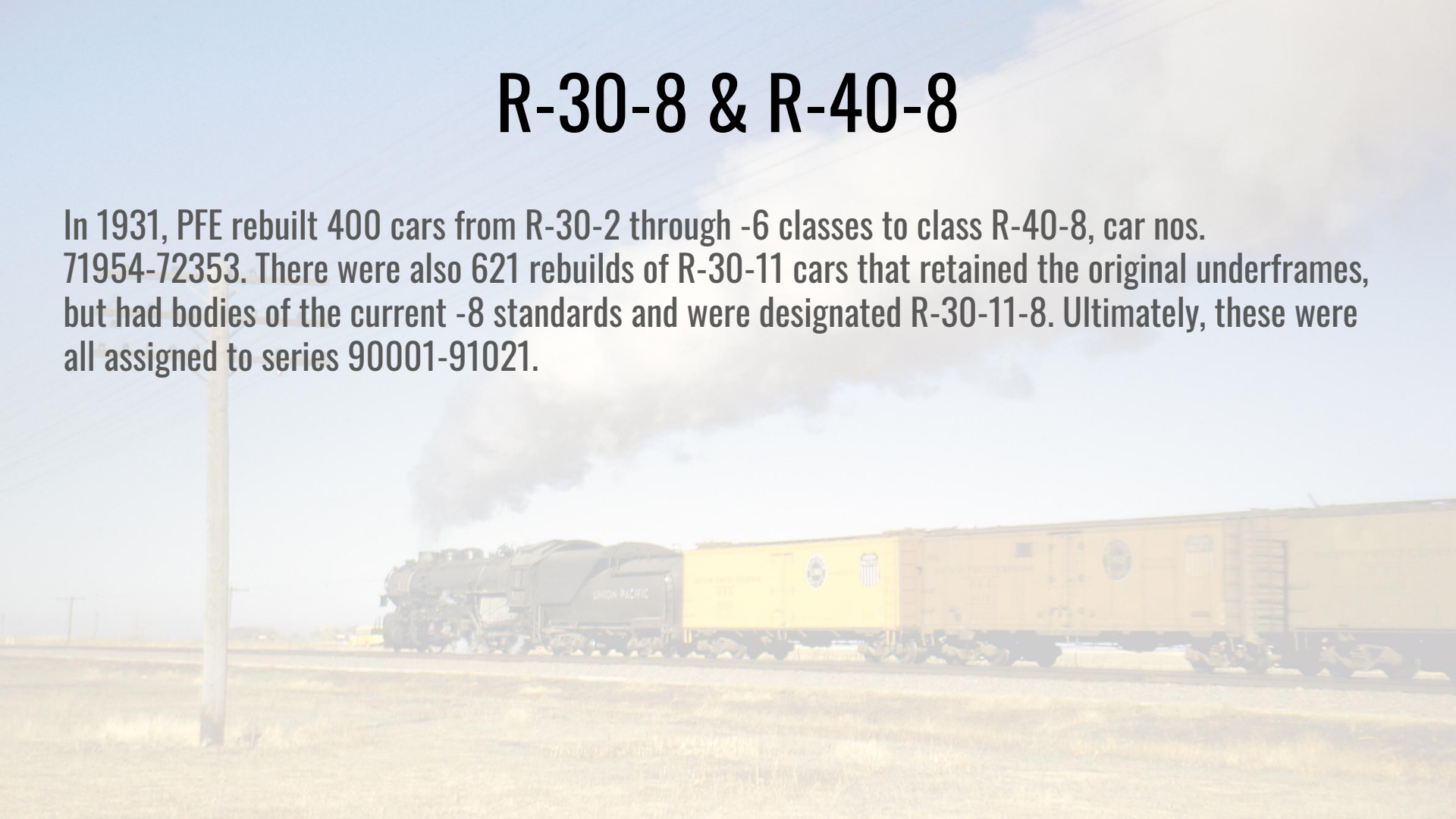
R-30-4



PFE 15445 was rebuilt in 1931 from an R-30-11 and designated in class R-30-11-4, subsequently shortened to R-30-4 with the updating of painting and lettering (P&L) standards of 1944

R-30-8 & R-40-8

In 1931, PFE rebuilt 400 cars from R-30-2 through -6 classes to class R-40-8, car nos. 71954-72353. There were also 621 rebuilds of R-30-11 cars that retained the original underframes, but had bodies of the current -8 standards and were designated R-30-11-8. Ultimately, these were all assigned to series 90001-91021.



R-40-8

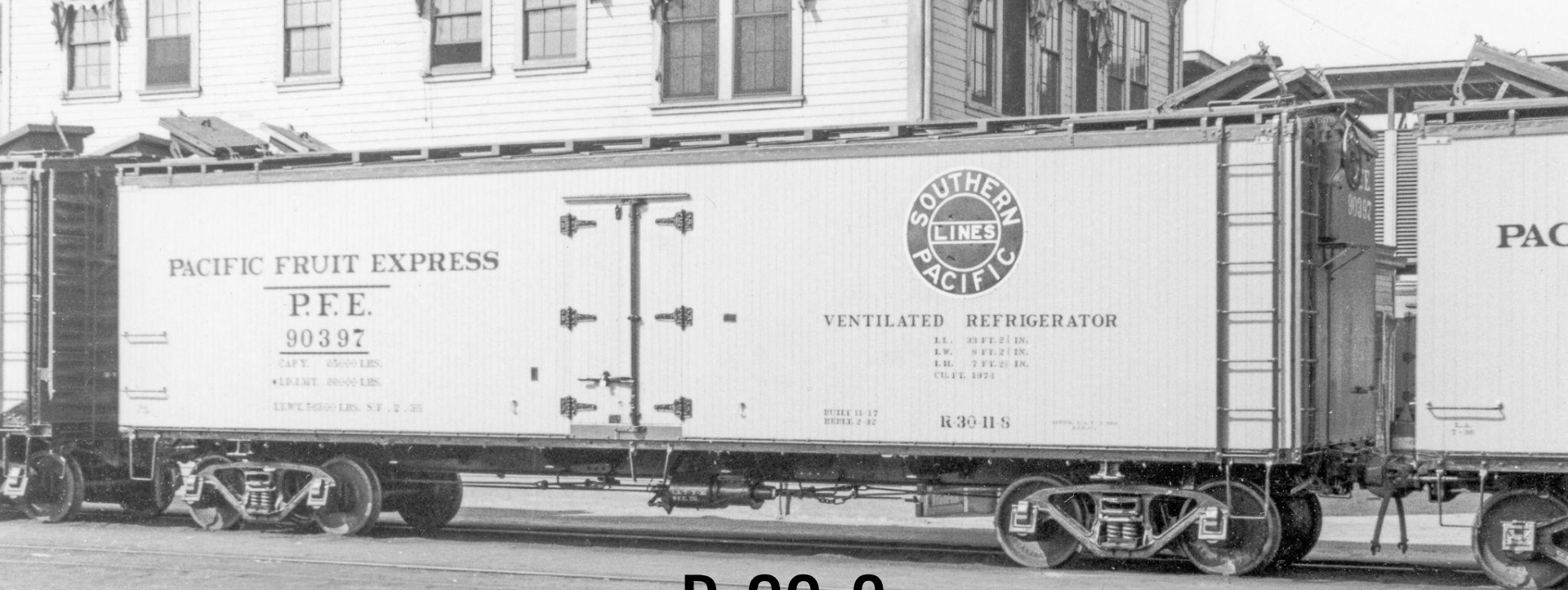


PFE 90715 was an R-40-8 built* in October, 1932. It is notable for the Simplex trucks and enameled sheet metal medallions screwed to the car side, introduced ca. 1928 and phased out ca. early 1937
*the R-40-8 rebuilds were stenciled "BUILT" as opposed to the rebuilt R-30-11-8 cars that were stenciled "REBLT." likely because the 30-ton cars retained the original underframes while the 40-ton cars retained little save hardware from the original cars

R-40-8



PFE 90609 is another newly rebuilt R-40-8 notable for its early National Type B trucks



R-30-8

PFE 90397 differs from the other -8 rebuilds shown in that it was rebuilt from an R-30-11, retaining the original 30-ton Bettendorf underframe

R-30-9/R-40-9

In 1938, PFE embarked upon an extensive program to maintain the 20,000+ cars from the R-30-12, -13, and -14 classes. The first group of such cars to be shopped were “reconditioned” in PFE parlance, which was distinct from rebuilding (like the rebuilt -4 and -8 classes shown previously), and involved renewing wood superstructure members (or replacing with steel ones post-1949) and replacing insulation. The reconditioned -9 cars also received ladders, power hand brakes, and replacement trucks, where needed. Early reconditioned -9s retained wood sheathed hatch covers and wood platforms, but as the program continued, the platforms were eliminated, and later cars received Equipco integral hatch covers. These refurbishes also retained their KC schedule brakes

- Beginning in 1949, many -9s were again reconditioned, with steel superstructures, and in some cases, plywood sheathing on the sides.
- Only a handful of experimental -9s received circulating fans.
- Over 7,900 cars were refurbished as -9s, by far the largest of the late ‘30s through mid-to-late ‘40s rebuilds.

R-30-9

PACIFIC FRUIT EXPRESS

P. F. E.
97680

CAP. Y. 70000 LBS.
★ LB. LMT. 70000 LBS.
LT. WT. 52900 LBS. ROS. 4 40.



VENTILATED REFRIGERATOR

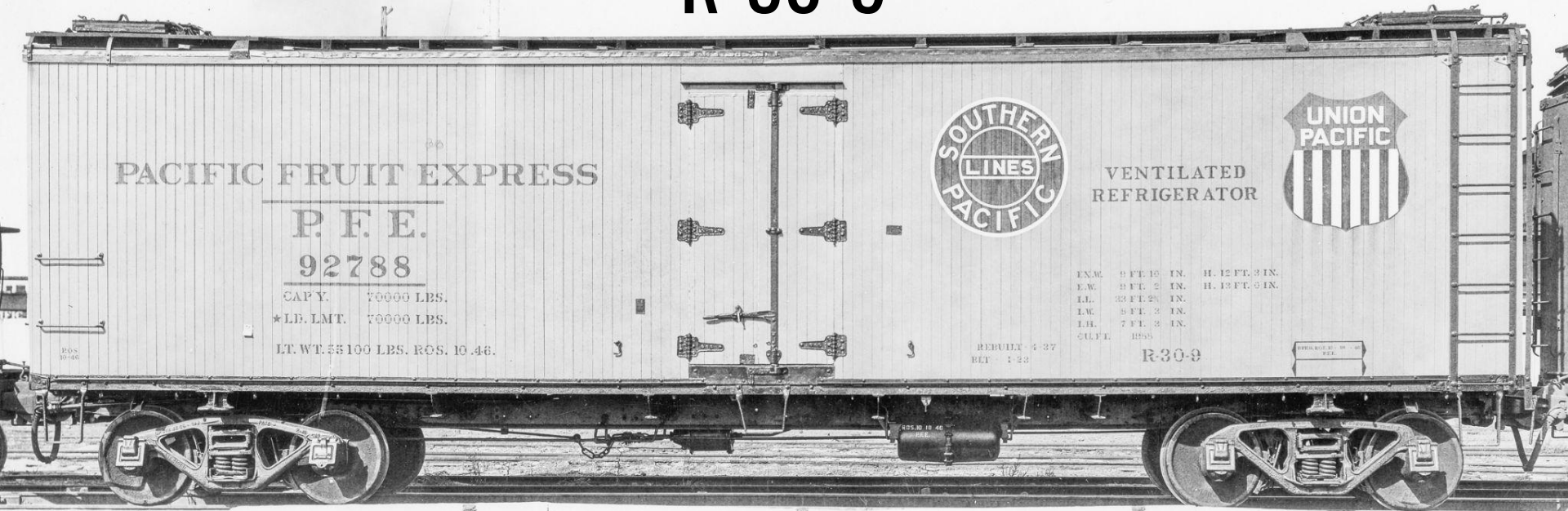
E.W. 3 FT. 10 IN. H. 12 FT. 3 IN.
E.W. 3 FT. 5 IN. H. 12 FT. 3 IN.
L.L. 33 FT. 2 1/2 IN.
L.W. 3 FT. 3 IN.
L.H. 7 FT. 3 IN.
CUBIC 1800

COMPLETELY RECONDITIONED 4-40
BY 7-22

R-30-129

This much-published Will Whittaker image shows -9 PFE 97680 with the PFE UP medallion in use from 1936 to 1942. Note this car has T-section trucks and retains its KC schedule brakes and received Equipco integral hatch covers. It was reconditioned at Roseville in April, 1940

R-30-9



PFE R-30-9 shown after repainting at Roseville in October, 1946 in the then-current P&L scheme. Note that it has been upgraded with AB brakes and retains its wood hatch platforms

R-30-9



San Diego, California, October 2, 1954, Col. Chet McCoid, Bob's Photo

PFE R-30-9 93151 was one of the -9s reconditioned in the late 1940s that received a steel superstructure as well as plywood sheathing. Note that it also has the additional support added at the body bolsters. It had wood sheathed hatch covers without platforms

R-30-9



This photo of R-30-9 98444 affords a great view of the 30-ton built-up underframe. It was equipped with Equipco integral hatch covers

R-30-9

FERTILIZER
INSECTICIDES

WILBUR-ELL



This -9 illustrates the P&L scheme introduced in 1954. Also of note are the fairly long structural enhancements at the body bolsters

R-30-9



The original cars, as well as the first of the -9 refurbis, used wood platforms around the wood hatch covers, as shown on this R-30-12-9 (later simplified to R-30-9) PFE 95075

R-30-16/R-40-16

Given the long time period of the program, it was inevitable that there would be changes to the upgrades of the cars over time. With the -16 class, PFE standardized on the Murphy roof with rectangular corrugated panels. The -16s also received steel superstructures, making the bodies “rebuilt” in PFE parlance. Other specialties included Equipco integral hatch covers (standard on rebuilds going forward) and AB schedule brakes on the last 2,357 cars.

The -16s were the second largest group of rebuilds with 3,553 cars (nos. 73001-76554) rebuilt in 1941-1942

There were also several other interesting details:

- Convertible ice bunkers in 10 cars (75643-75652)
- Dreadnaught ends on five cars (75648-76554)
- Plywood sheathing and lining on 100 cars (74096-74195)
- Preco Model G-2 fans on 500 cars (76005-76504)

R-30/40-16



SOUTHERN
PACIFIC

REFRIGERATOR

PACIFIC FRUIT EXPRESS
P.F.E.
74774

UNION
PACIFIC

PACIFIC FRUIT EXPRESS
P.F.E.
76025

CHICAGO
AND
NORTH WESTERN

126656

85

CHICAGO
AND
NORTH WESTERN

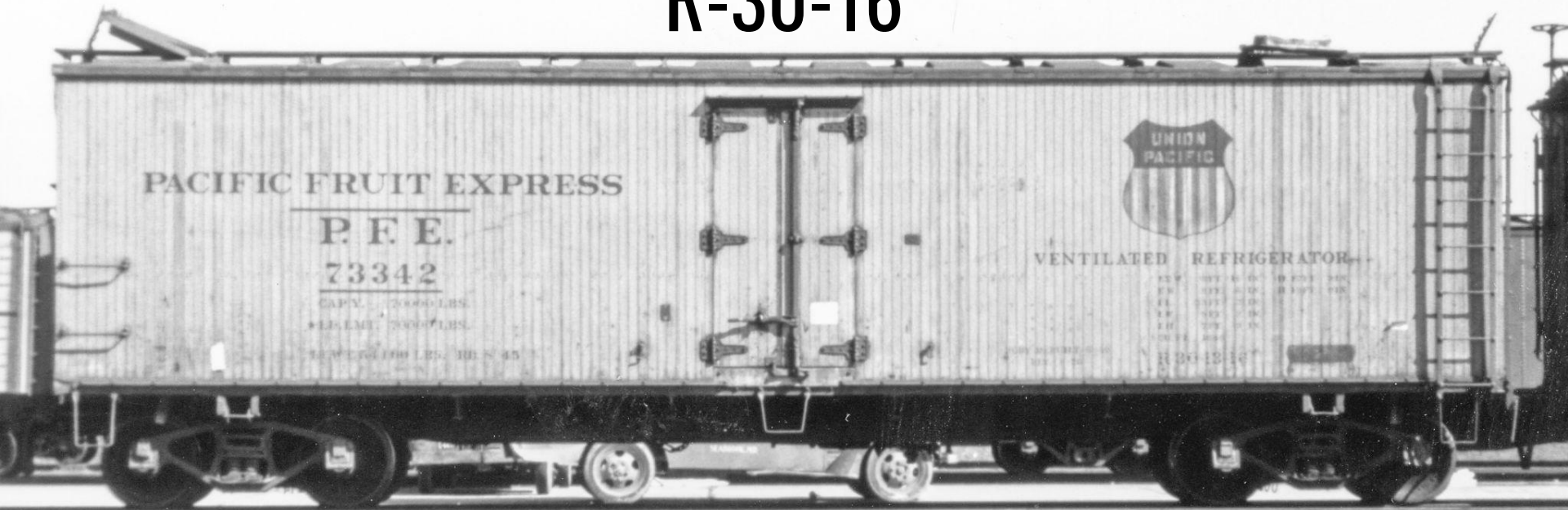
TE RN

48

MITR-42

MADE IN U.S.A.
10 LMP 603500
10 WT 42500

R-30-16



PFE 73342 was a -16 that was repainted shortly after its rebuilding, although the reason is not evident. It retained its KC schedule brakes

R-30-16



DIVERSIDE, CALIF.

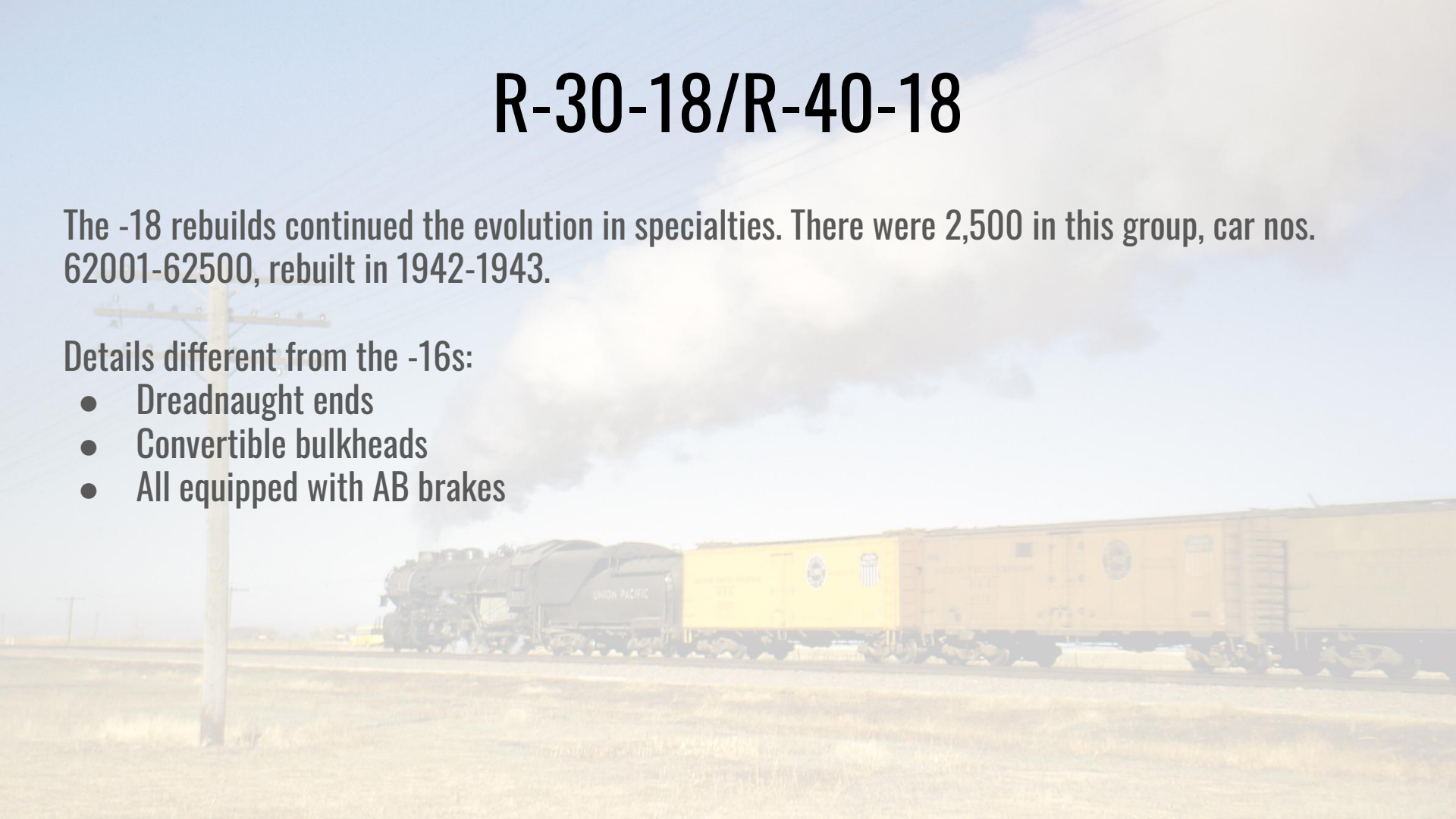
PFE 73351 was a -16 repainted in 1947 in the '1946' P&L scheme. It still had its KC schedule brakes. It used a 30-ton built-up underframe

R-30-18/R-40-18

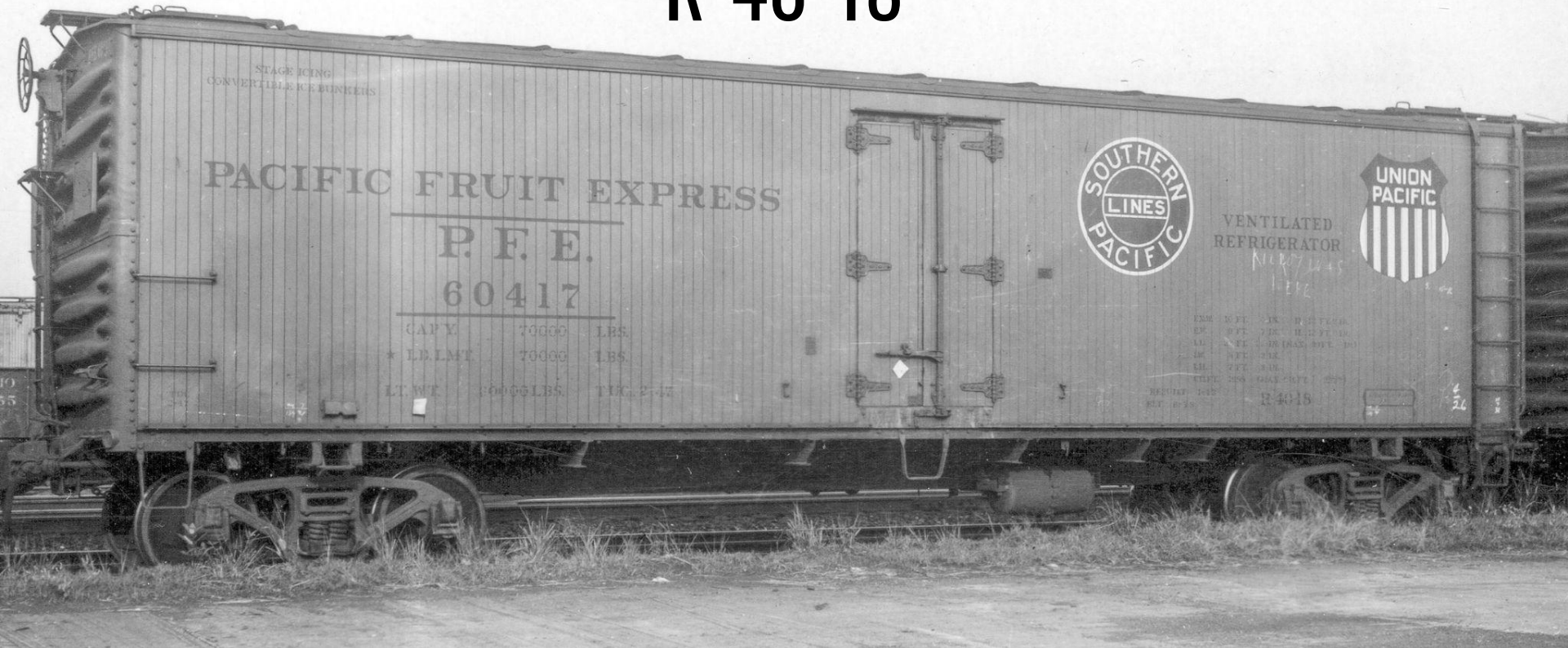
The -18 rebuilds continued the evolution in specialties. There were 2,500 in this group, car nos. 62001-62500, rebuilt in 1942-1943.

Details different from the -16s:

- Dreadnaught ends
- Convertible bulkheads
- All equipped with AB brakes



R-40-18



This R-40-18 illustrates the Dreadnaught ends standardized on the -18 rebuilds. This car has the '1946' P&L scheme, but has the not uncommon reversed white and red in the Union Pacific medallion

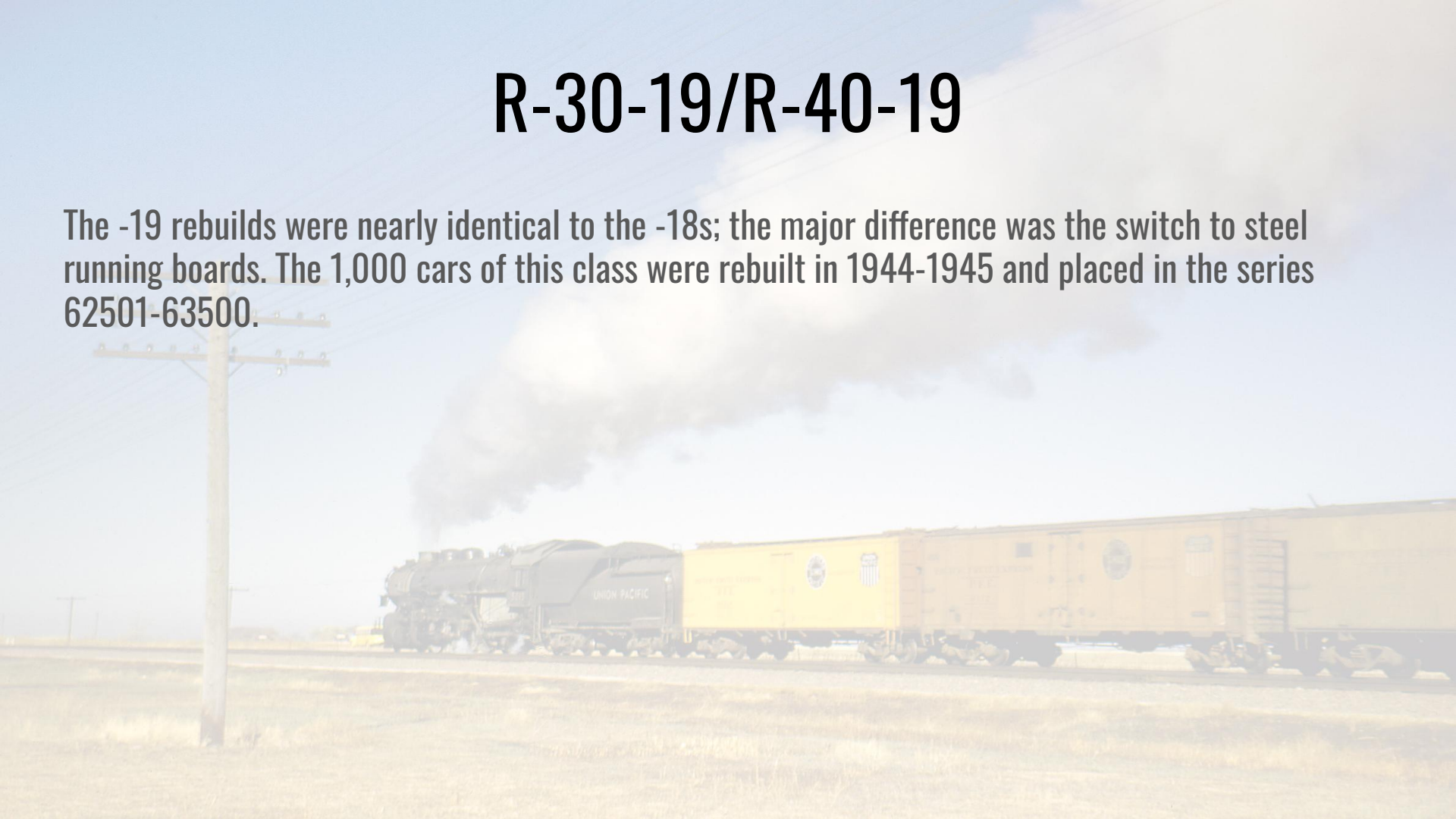
R-40-18



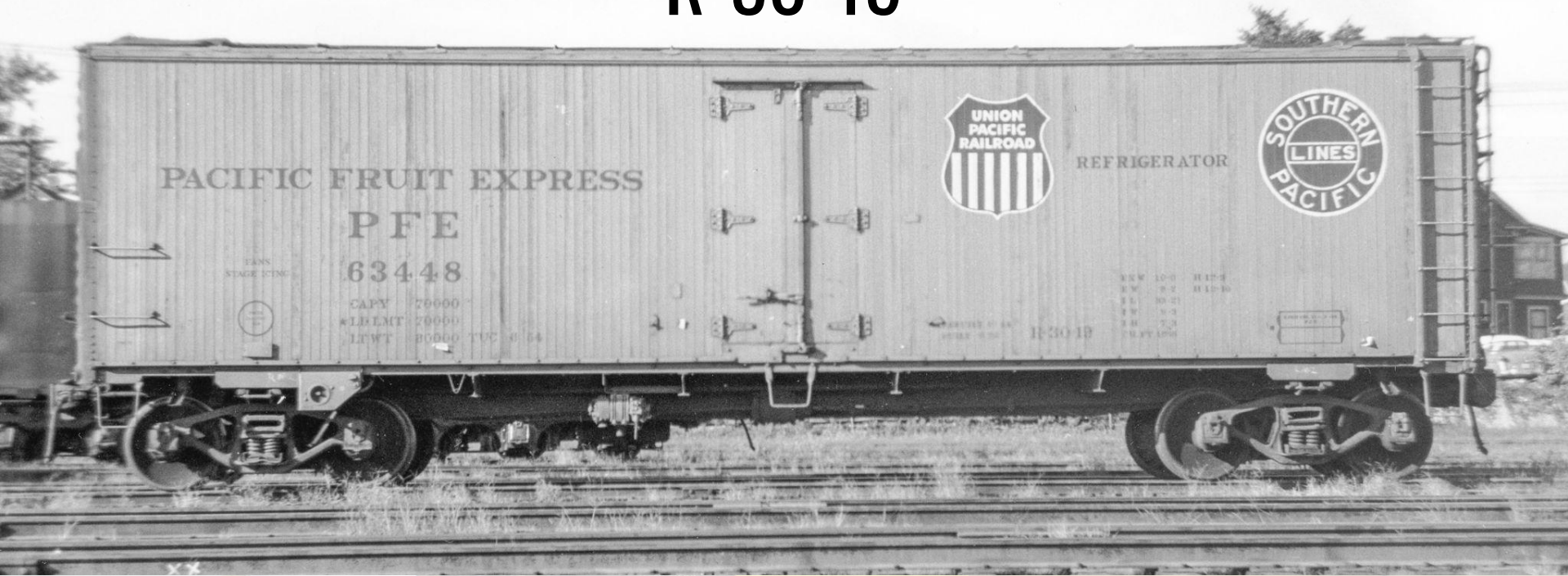
This R-40-18 illustrates a 'hybrid' 1950 P&L scheme. The "STAGE ICING" stencil in 2-inch letters at upper left. In 1950 P&L standards this text should have been to the left of the reporting marks

R-30-19/R-40-19

The -19 rebuilds were nearly identical to the -18s; the major difference was the switch to steel running boards. The 1,000 cars of this class were rebuilt in 1944-1945 and placed in the series 62501-63500.



R-30-19



PFE 63448 was photographed in the mid-60s, by which time it had received Preco circulating fans

R-30-21/R-40-21

The -21 rebuilds were noteworthy for the widespread adoption of mechanical fans for air circulation. The cars were equipped with Equipco and Preco models (replaced in the early 50s with Preco AA-19 electric fans). Volumes of the *Official Railway Equipment Register* prior to January, 1953 did provide the details about model and manufacturer for the installation of fans (I am uncertain of when this was ceased.) There were 2,420 of the -21s in series 63501-65920, rebuilt between 1945-1947.



R-40-21



PFE 65544 was a -21 rebuild equipped with Preco FG-21 mechanical fans. Also, note the red and white stripes reversed in the UP medallion

PFE 64256 was rebuilt prior to the change to the 1946 P&L standards and has single medallions on either car side. It was equipped with the Preco G-17 fans



R-30-21

Harrisburg, Pennsylvania, September 1, 1946, Bob Charles Collection, Kalmbach Memorial Library, NMRA

R-30-21



PFE 64973 represents one of the class late in its service life. Note the enhancements at the body bolsters

R-30-24/R-40-24

The -24s were the last class of the rebuilds, with 2,610 cars rebuilt in 1947-1948, car nos. 65921-68532. They continued the evolution, incorporating Improved Dreadnaught ends, new trucks, diagonal panel Murphy roofs on the last ~200 cars, and full-height door openings. They were also notable for the use of plywood sheathing, although many cars were resheathed with tongue and groove siding in later years. They were equipped with Preco FG-41 and FK-2 mechanical circulating fans



R-30-24



T S Martorano Collection

This image of PFE 67063 shows the Improved Dreadnaught ends to excellent advantage

R-30-24



The full-height door openings and new trucks (ASF A-3 Ride Control) are evident in this image, along with the plywood sheathing

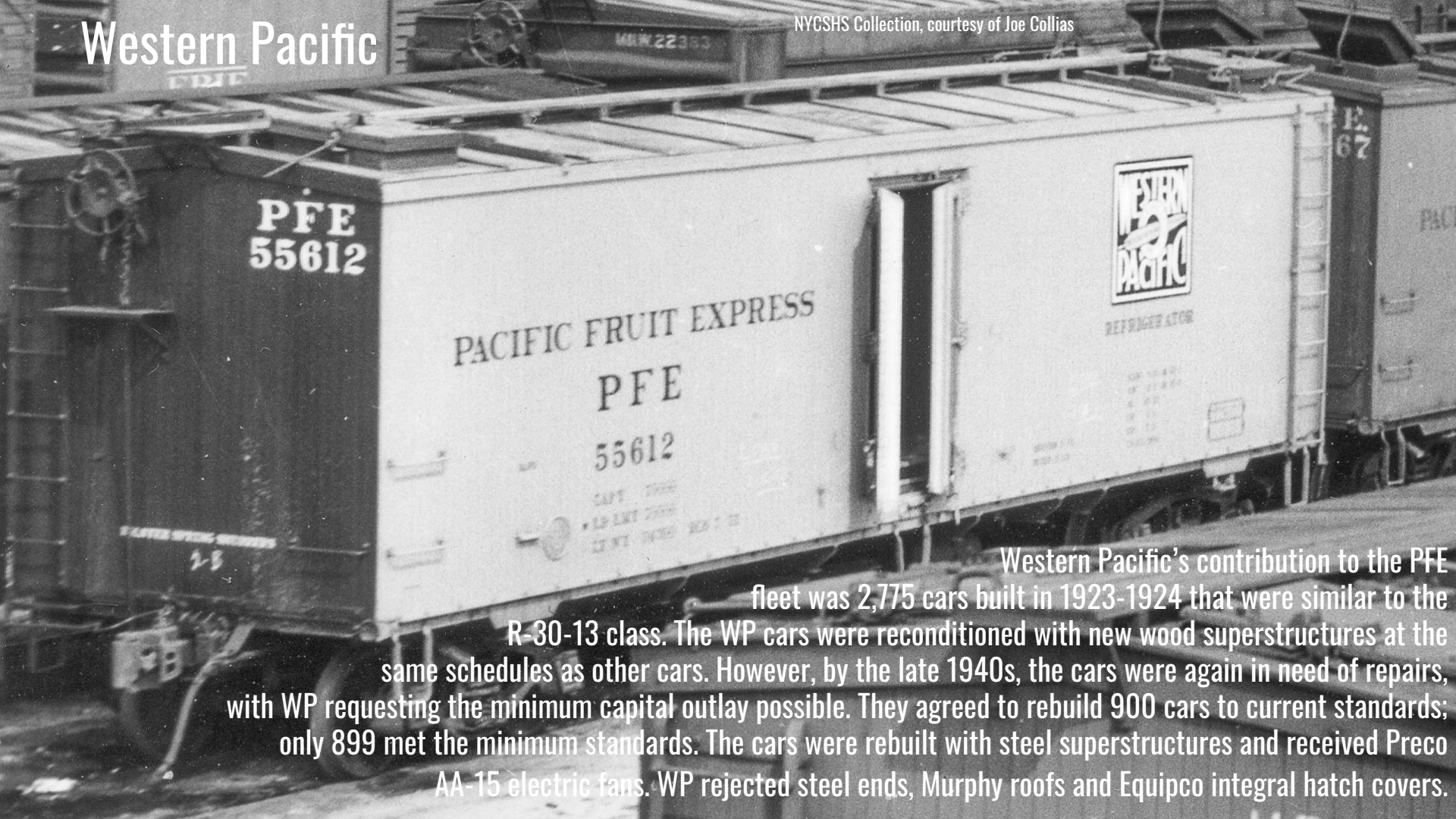
R-30-24



This early 60s photo shows a car with replacement tongue and groove sheathing. Of interest are the “clean” replacement sheathing boards

Western Pacific

NYCSHS Collection, courtesy of Joe Collias



Western Pacific's contribution to the PFE fleet was 2,775 cars built in 1923-1924 that were similar to the R-30-13 class. The WP cars were reconditioned with new wood superstructures at the same schedules as other cars. However, by the late 1940s, the cars were again in need of repairs, with WP requesting the minimum capital outlay possible. They agreed to rebuild 900 cars to current standards; only 899 met the minimum standards. The cars were rebuilt with steel superstructures and received Preco AA-15 electric fans. WP rejected steel ends, Murphy roofs and Equipco integral hatch covers.



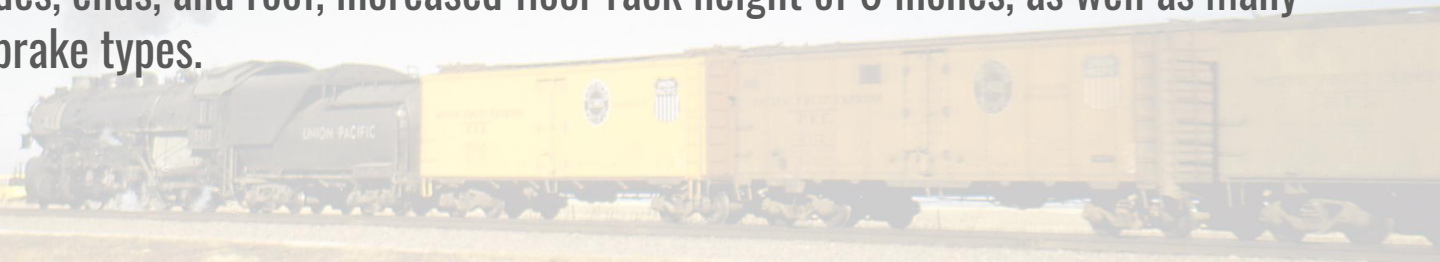
The Steel Cars

- ARA-Inspired
- War Era
- Postwar



R-40-10

The R-40-10 was PFE's first major foray into all-steel cars and it jumped with both feet, building/acquiring 4,700 cars in 1936-1937. The cars closely followed the ARA box car design of 1932 with trademarks including angle side sills with "tabbed" side sill supports, square corner Dreadnaught ends, Murphy rectangular panel roofs, and AAR-design underframe members. Refrigerator car-specific details included non-integral steel hatch covers, increased insulation in both the walls (3 inches) and roof and floor (3.5 inches), fiberglass insulation in the floors and "Dry Zero" (Kapok) in the sides, ends, and roof, increased floor rack height of 6 inches, as well as many truck and power hand brake types.



R-40-10



P.F.E. 40418

PACIFIC FRUIT EXPRESS

P.F.E.

40418

CAPY. 80000 LBS.

LB. LMT. 00 LBS.

LT. WT. 5 00 LBS. NEW. 8. 00.



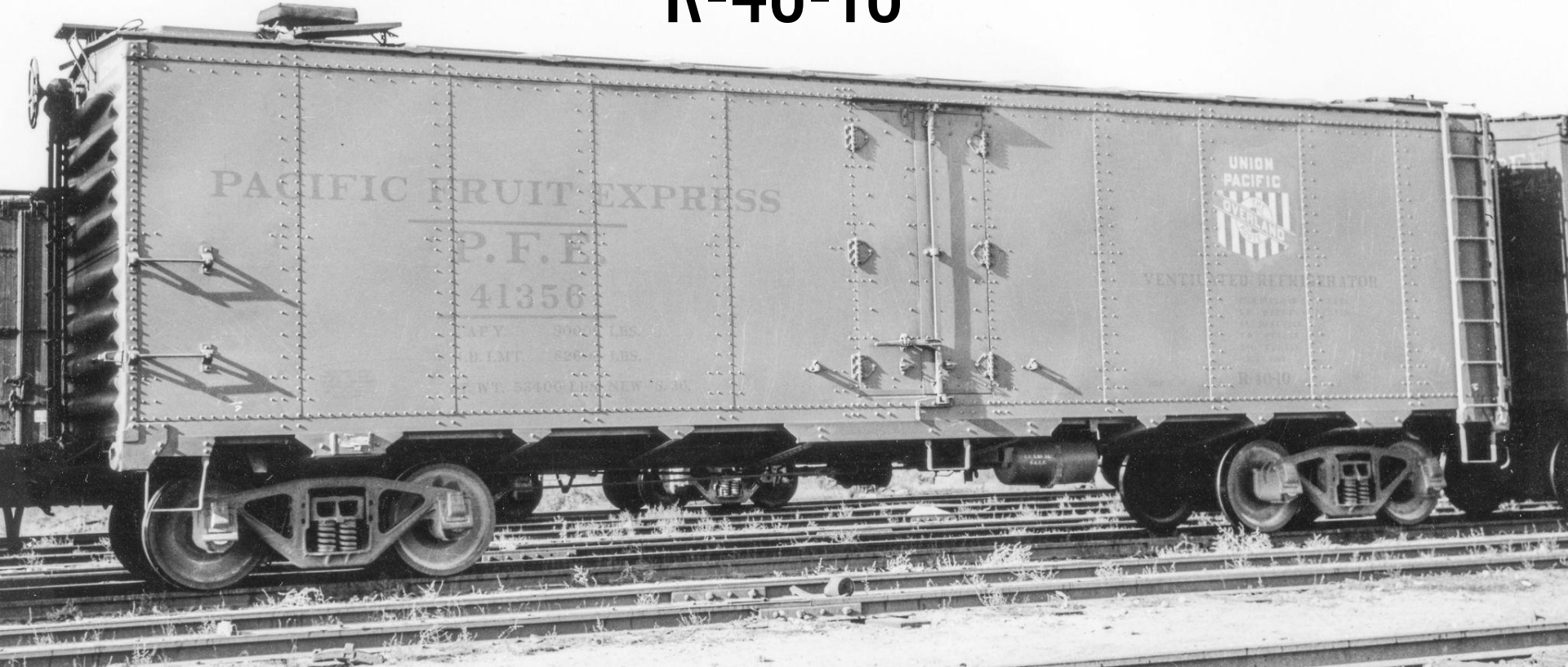
VENTILATED REFRIGERATOR

BEASTER SNUBBER SPRINGS

L.A.
9-36

One of the PFE-built cars right after being placed into service

R-40-10



As-built car with early Barber trucks and delivery paint scheme with "Overland" UP medallion

R-40-10



This car was repainted in 1942 and displays the 1942 P&L scheme including updated UP medallion

R-40-10



PFE 41897 was repainted at Tucson in May, 1947 in the 1946 P&L scheme. Also of note are the early National Type B trucks

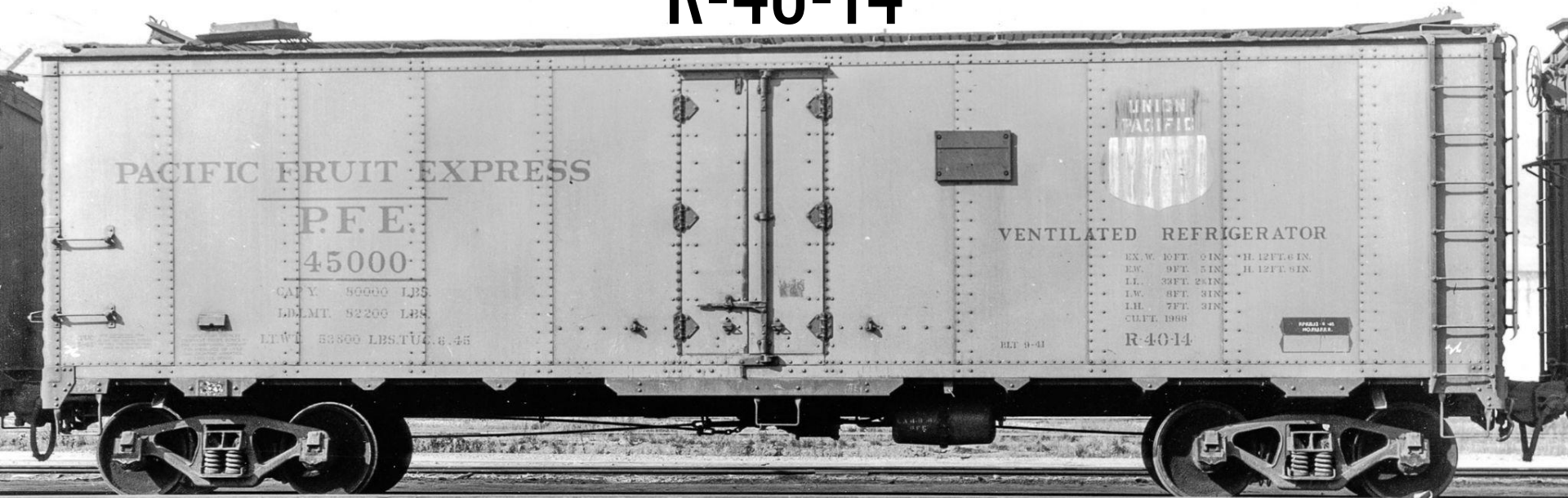


R-40-14

In 1941, Pacific Car & Foundry delivered 1,000 cars that were quite similar to the R-40-10, with several enhancements. The cars were placed in the series 44701-45700 and assigned to class R-40-14. Changes from the -10 class included round (W) corner Dreadnaught ends, Equipco integral hatch covers, convertible ice bunkers, plywood lining, and placard boards.



R-40-14



R-40-14 PFE 45000 was repainted at Tucson in 1945. Note the placard board to the right of the door. Placard and route card boards were not used on the R-40-10 class at building

R-40-14



One interesting detail of dirty refrigerator cars is the stark contrast of freshly painted patches, such as the one here for the reweigh stencil

R-40-20

The R-40-20 class was delivered during the war, in January through April, 1945, car numbers 45701-46702*. They were nearly identical to the R-40-14 with the most visible difference being the larger route card boards were mounted to the left of the doors as opposed to at the left body bolster. A far less discernible detail was that the -20s were 1.5 inches taller. The R-40-20 was also notable for the introduction of “herringbone” floor racks with the slats oriented at a slight diagonal. The R-40-20s were equipped with Preco FM-2 electric fans beginning in 1950.

*Car nos. 46701-46702 were built by Consolidated Steel

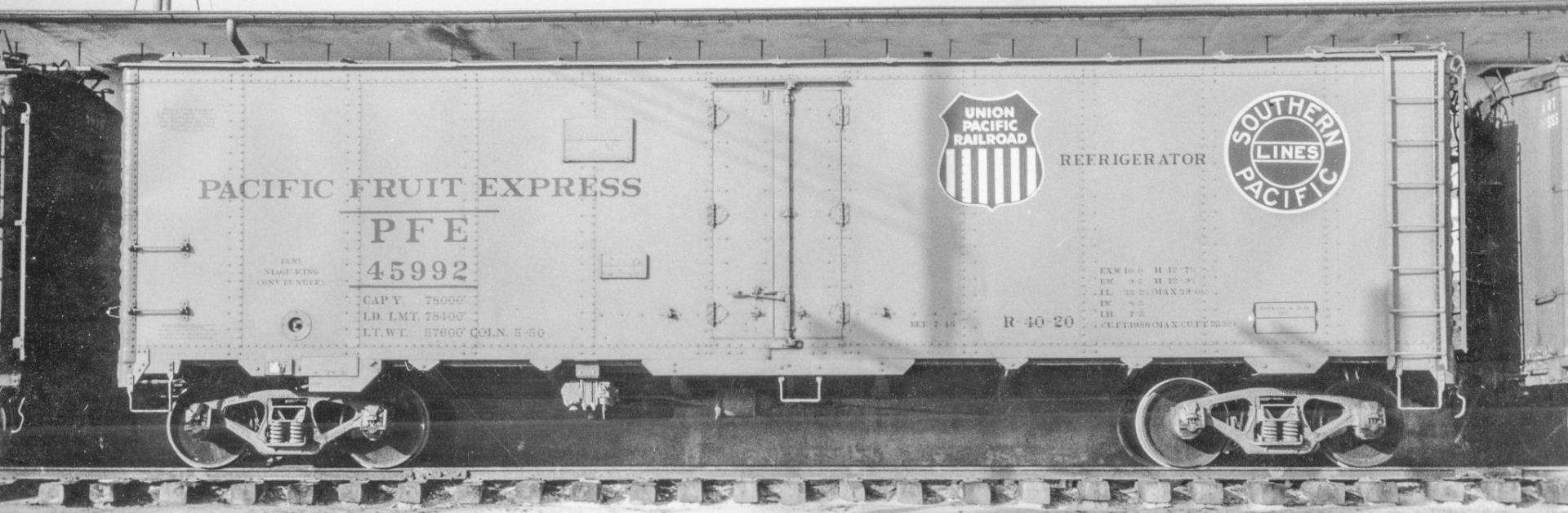


R-40-20



PFE 45819 was still in its delivery scheme when photographed in late September, 1951

R-40-20



PFE 45992 was repainted in May, 1950 and was photographed in December, 1951

R-40-23

The largest order of PFE steel ice-cooled cars was the 5,000 R-40-23 class delivered in 1947. The cars were assigned to two series: 46703-48702 and 5001-8000. They were the first class to be built new with fans, Preco FG-36, the first to employ welded underframes, and the first new PFE cars with Improved Dreadnaught ends. The cars were equipped with ASF A-3 Ride Control trucks that were quite favorably received by PFE. The cars were built with high-strength steel which offered benefits in weight, but were less corrosion resistant. Lastly, these cars used “blind” offset plywood walls that mitigated heat transmission and improved circulation (used on all subsequent PFE ice-cooled cars).



R-40-23



R-40-23 PFE 47612 shown soon after building. Note the locations of the placard board and route card board (at the left body bolster) as well as the ASF A-3 Ride Control trucks. These cars were the first built new to employ the 1946 P&L scheme with both medallions on each side of the car body

R-40-23



The R-40-23 class was the first to employ Improved Dreadnaught ends, as shown here

R-40-25

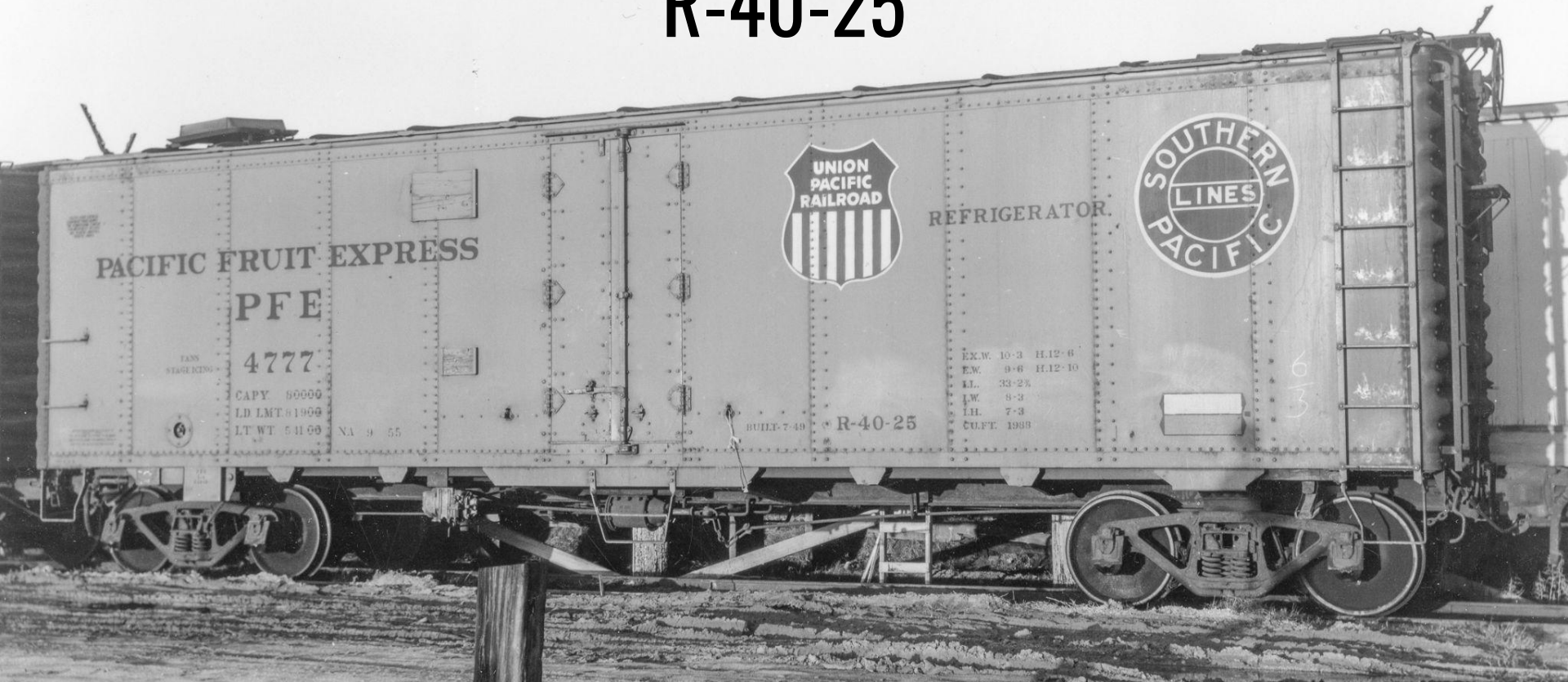
The R-40-25 class, built in 1949, was very similar in looks to the R-40-23. Major differences included diagonal panel Murphy roofs, Improved Dreadnaught ends with a narrow corrugation at the top of the ends, Preco FK-6 mechanical fans, and stationary ice bunkers. One P&L change was that all side hardware, including ladders, hinges, grab irons, placard and route card boards, and end sill steps were painted the same color as the side instead of black. Side sill support “tabs” and the center steps below the doors remained black.



R-40-25



R-40-25



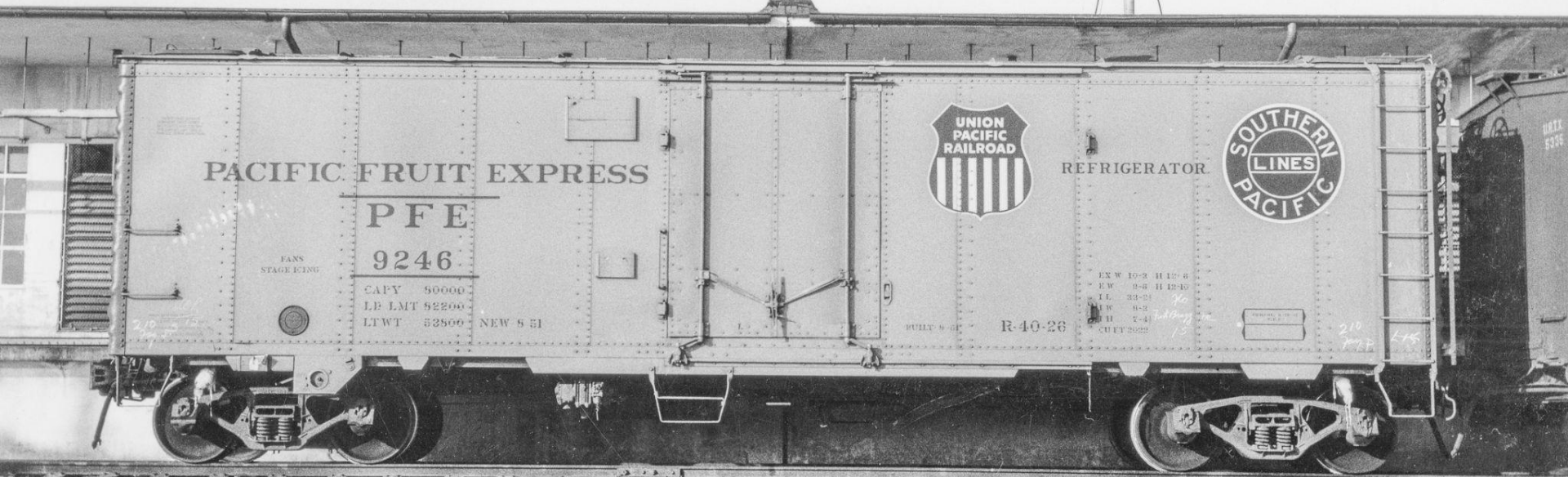
Once repainted, the side sill support “tabs” and the center sill step below the door opening were also the same color as the car side

R-40-26

The R-40-26 class represented a significant nod to the future. While they were dimensionally similar to the previous couple classes of new cars, they departed in some significant ways. They incorporated Youngstown flush-closing “plug doors” with six-foot door openings. They were the first PFE cars built new with overhead electric fans (Preco Model AA-2). The -26 also used floor racks with metal slats. Insulation was entirely fiberglass, another first for PFE. The -26s were the first new PFE cars to be decorated with the 1950 P&L scheme (technically, a slightly modified 1951 P&L variant).



R-40-26



The most obvious difference in this image is the wide, flush-closing door. Also, note the updated P&L scheme with the new UP medallion and the 1951 update where the periods were dropped from the reporting marks

R-40-26



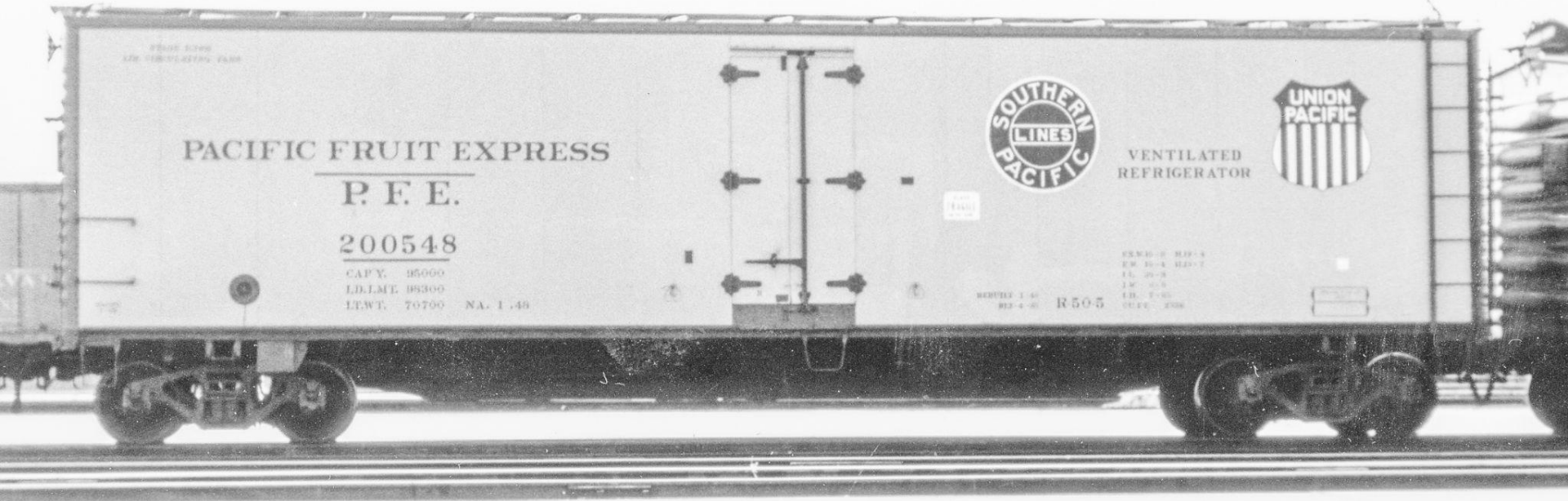
This excellent image with its low lighting highlights many of the details of the welded underframe. Note the updated paint and lettering with the lines dropped above and below the reporting marks.

The “Other” Cars

- Frozen Food — Heavily Insulated
- Express

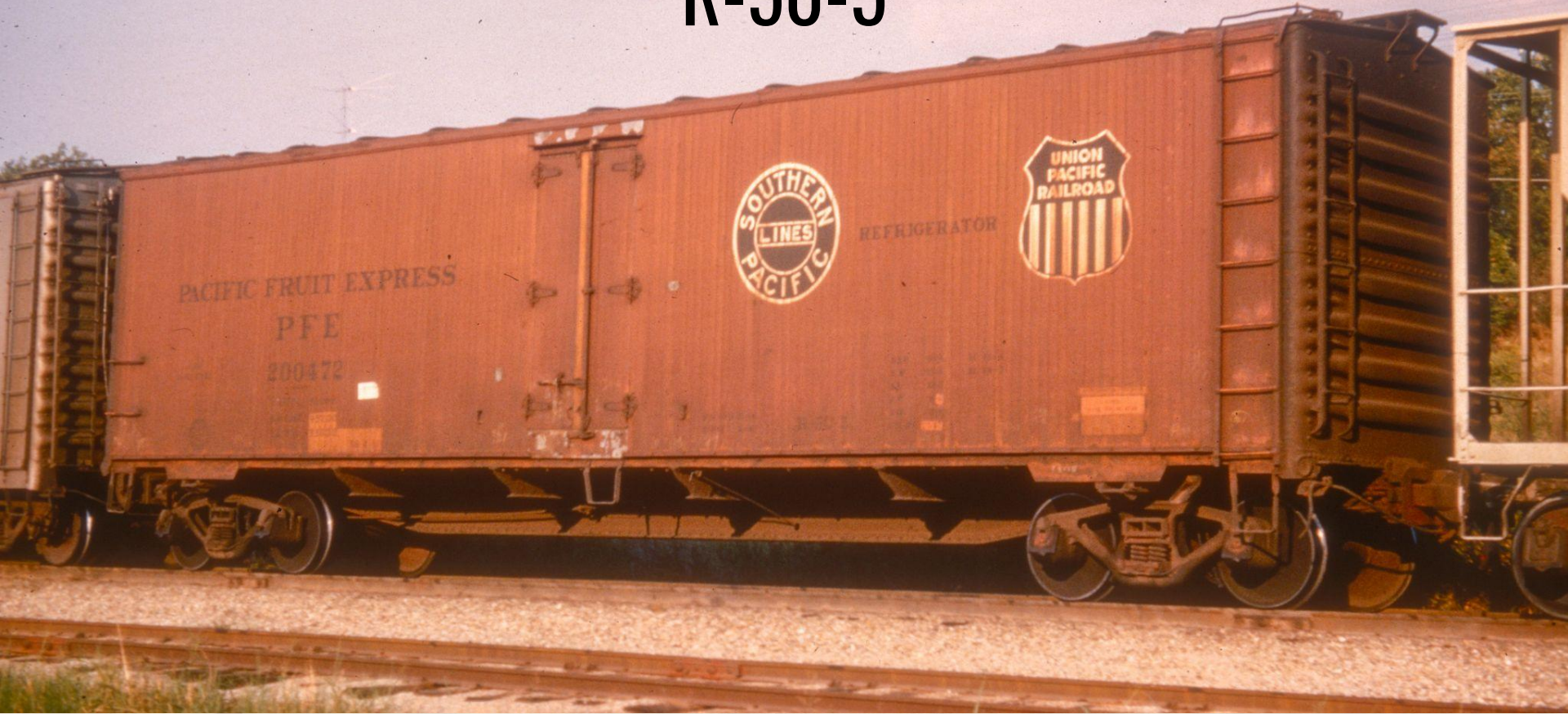


R-50-5



Rebuilt from R-50-1 class at Nampa between 1945-1947, car nos. 200301-200375 (tongue and groove and circa 1945 lettering) and 200379-200587 (plywood and circa 1946 lettering) with air circulating fans and seven-inch insulation for frozen food service. Note the reversed red and white in the UP medallion

R-50-5



PFE R-50-5 200472 had been resheathed with tongue and groove wood when photographed in the 60s

BR-1



Built 1923-1924 by AC&F and General American for express service in passenger consists, car nos. 500-799. In 1952, 55 cars received heavy repairs and in 1954, 83 cars were rebuilt at Nampa, including steel superstructures, increased insulation, Preco electric fans, and steel channel side sills

BR-40-10



In 1952, Railway Express Agency experienced a shortage of express refrigerator cars. To help alleviate the strain, PFE modified 50 R-40-10 reefers for express service. Changes included addition of steam and signal lines, steel running boards, electric fans, and Chrysler FR-5-D or Symington-Gould Type XL express trucks



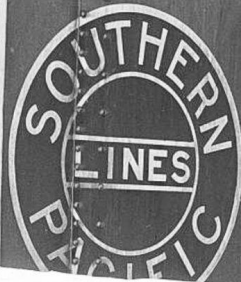
CAUTION
FLOOR PACKS IN THIS
CAR NOT SAFE FOR LIFT
TRUCK OPERATION

SS

P.F.E.
5706



AIR CIRCULATING FANS



287
8

533

References

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- Harley and Thompson, *Southern Pacific Freight Car Painting and Lettering Guide*, [SPHTS](#)
- Tony Thompson's [Modeling the SP blog](#)
- Bob Chaparro's SP website ([PFE specific content](#))
- *Official Railway Equipment Register*, January, 1953 (1996 reprint, currently unavailable), [NMRA](#)
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- [California State Railroad Museum Library](#)

Thank you

Andy Carlson

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Dick Harley

Richard Hendrickson

Frank Peacock

Dan Smith

Anthony Thompson

Terry Wegmann

Bill Welch

A Union Pacific steam locomotive is pulling a train of yellow freight cars through a field. The locomotive is emitting a large plume of white steam. The train is moving from left to right. The background is a clear blue sky with some light clouds. The foreground is a grassy field.

This will be posted to prototopics.blogspot.com

Next up: Modeling the Early 1950s PFE Fleet