

*David G. Casdorff*

# AUTO RACKS

# 1



**Side Protection Panels  
Auto Rack End Doors  
Modern BN Auto Racks  
ATSF Auto Rack Roster**

# ***FREIGHT CARS*** *Journal*

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# SIDE PROTECTION PANELS

The first modern multi-level auto racks appeared in this country in the late Fifties. For over a decade multi-levels ran open with little or no protection from weather and vandalism for its automobile cargo. During the late Sixties and early Seventies, more and more railroads began placing side protection panels on their open multi-level auto racks.

The purpose of this chapter is to illustrate some of the different types of panels. I've emphasized the style of corrugation as one method to distinguish different types of panels. Also, I tried to point out differences in the rack designs themselves. Unfortunately, I have not been able to identify manufacturers of either panels or racks at this point. Much of that information has already been lost from the industry because of changes in manufacturers etc. Hopefully more information will surface in the future. The

following are the five major types identified in this chapter:

Rounded, rolled or tubular corrugation

Squared & grooved corrugation

Narrow-squared corrugation

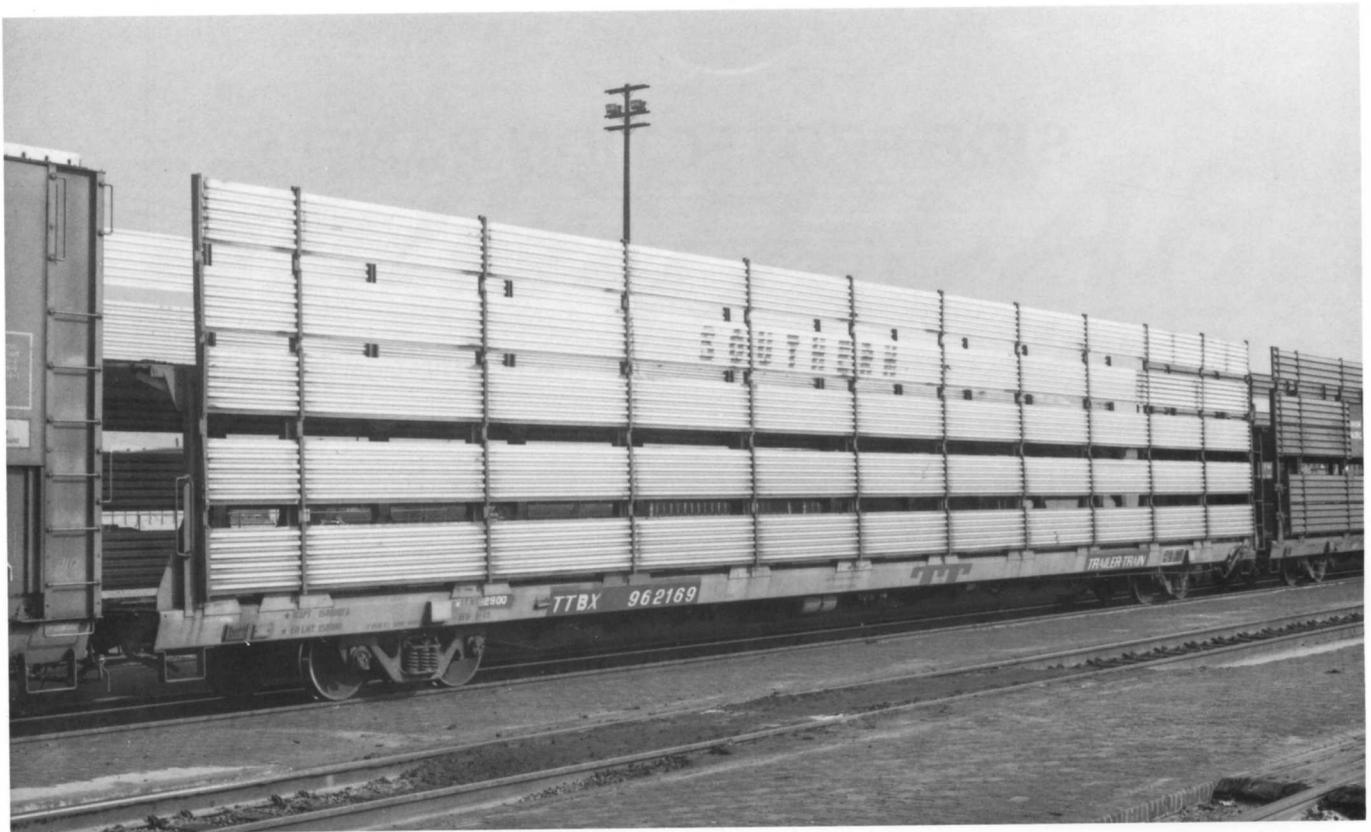
Wide-squared corrugation

Beveled corrugation

All of these are metal (galvanized steel, aluminum etc). There are also fibreglass panels which are not included here.

(Below) TTBX 965155 with MP rack. The panels on this rack appear to be of a thin rounded type. Note the three rows of panels (compare to the Southern rack on next page).





(Above) TTBX 962169. Again, a thin rounded corrugation type on these panels. Here there are five rows of panels. (Below) TTBX 930080. Similar to above rack but differences in placement of the panel supports and end of racks (note notches). Also visible is the stylised "F" of Ford Motor Co on the second support from the right.



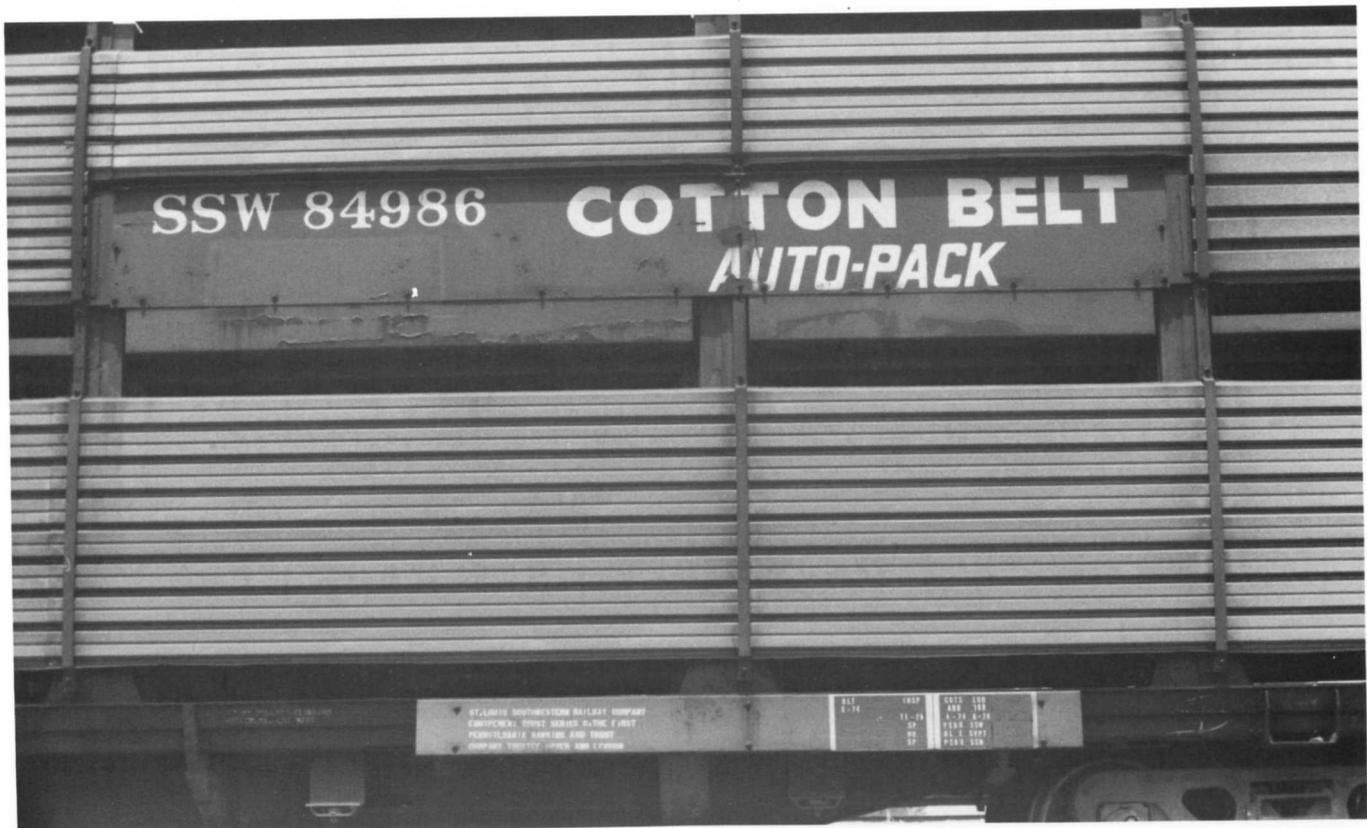


(Above and Below) Southern 50799 has six rows of panels. Its also in Ford service. Note the replacement panels, support spacing and straight ends on rack.





(Above) TTBX 940602 with Union Pacific rack. An example of the squared and grooved corrugation type panels. (Below) Detail of SSW 84986 gives us a closer look at this 1974 built rack with squared and grooved style corrugations. "Auto-Pack" was the SP and SSW name for their racks during the Seventies.





(Above) TTBX 964213 with DRGW rack. On the left is an interesting ladder arrangement. Also, of interest is the location of the "logo panel," below the upper deck (compare to the UP rack). (Below) TTBX 942015 with L&N rack. Note the size and style of logo panel on this rack. But, note how the spacing of the panel supports are about the same as above.



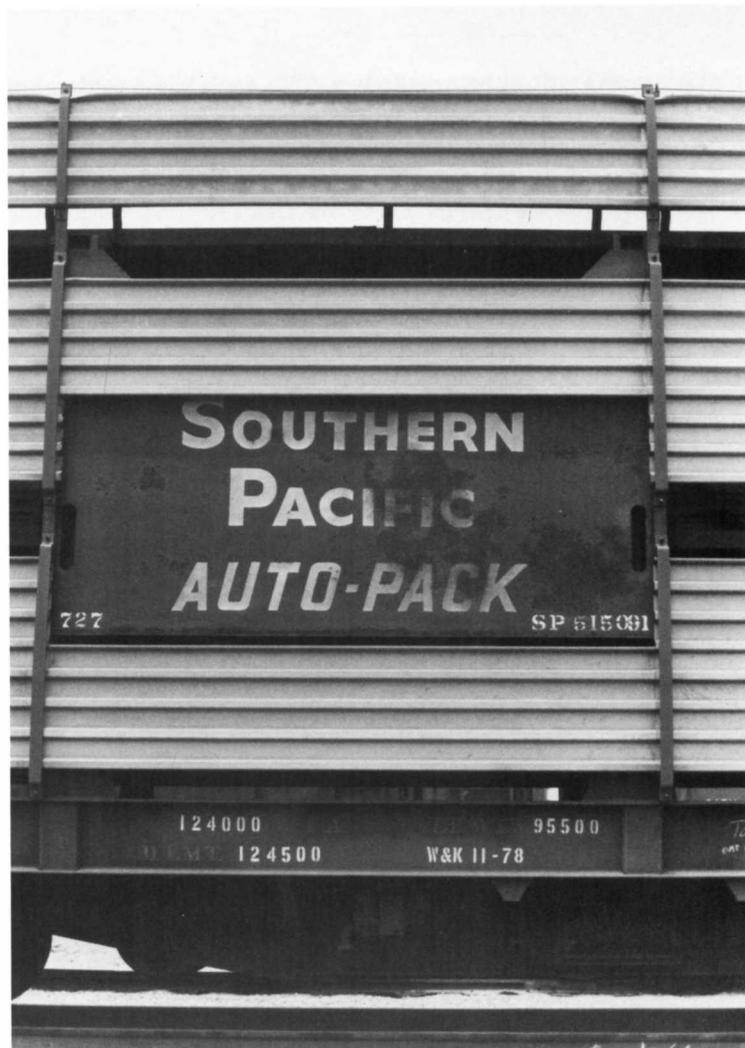


(Above) An overall view of TTBX 942015 / L&N rack with three rows of panels. Compare to TTBX 964602 (Below) having two rows of panels and different corrugation style. This type corrugation appears as a thin squared style with wider spacing. Also note location of logo-panel.





(Above) Detail of TTBX 964680 / L&N rack, which is similar to TTBX 964602 with thin squared corrugated panels. (Right) Detail of SP 515091 showing a similar style corrugation.





(Above) TTBX 910315 with Conrail rack. This rack has a wide squared type of corrugation on the panels. Note the brackets for the logo panel. This was one of the last open, paneled, racks built for a U.S. railroad. Built in 1980. (Below) GTW 304311 displays a slightly different style of square corrugated panel. Of note also is the W&K flat car. Note the logo (stylised "W") and unique side sill architecture.





(Above) SSW 84861 appears to have a corrugation style with a slight bevel in the design. (Below) TTBX 930949 with L&N rack. The beveled corrugation design is a little more evident here. Note only two rows of panels (a row here is defined as not having a large visible gap between). Also, classic Trailer Train scheme on flat car.





(Above and Below) TTBX 962101. Another example of the beveled corrugation pattern. Note how the logo panel is "split" across the upper deck (others shown have been above or below the deck).



# MODERN BN AUTO RACKS



(Above) TTBX 963368. BN 7092. Rack Built 1-80 Portec. Note no roof or end doors. B3 logo position.  
(Below) ETTX 852029. BNR 196. Rack built 8-78. Folding end doors. Note B2 logo position.





(Above) ETTX 700028. BN 4977. Rack built 11-76 Whitehead & Kales (W&K). B3 logo position.  
(Below) ETTX 810031. BN 30179. Rack built 4-90 Thrall Car Winder GA (TCW). Clamshell (radial) doors.

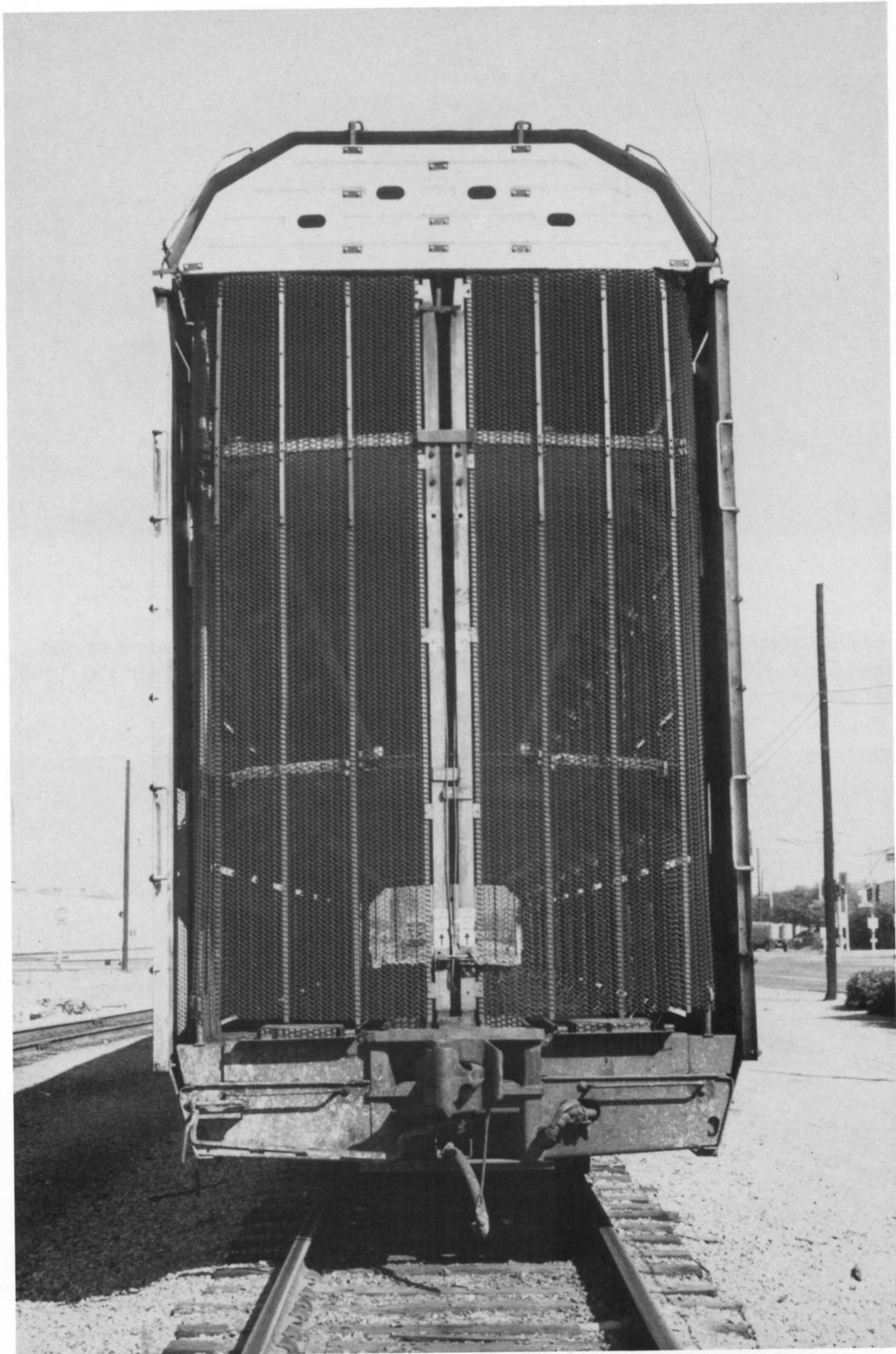




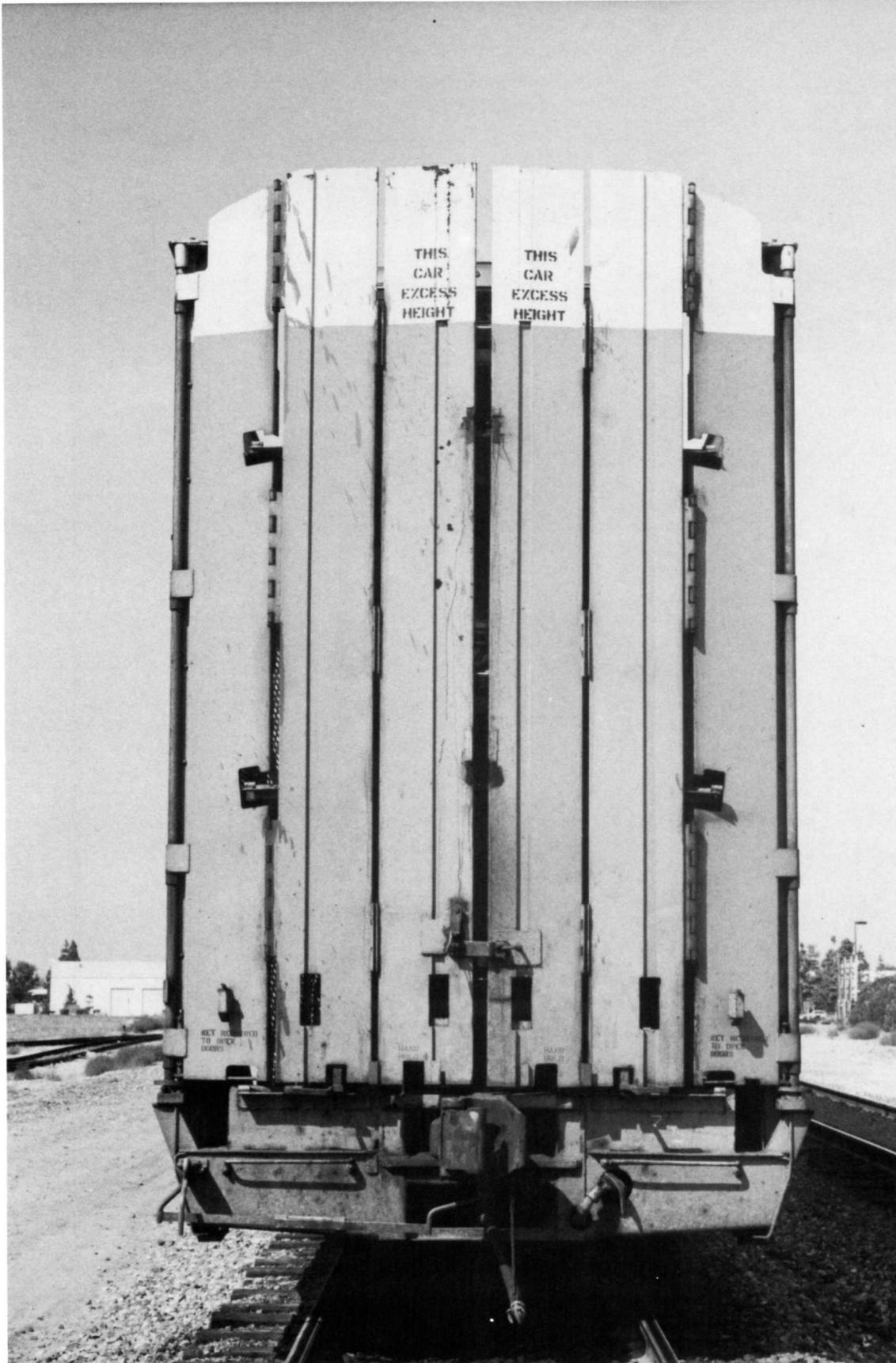
(Above) ETTX 820566. BN 4922. Rack built 8-78. Tri-fold doors. Note weathering on roof.  
(Below) ETTX 803149. SLSF R-31. Rack built 11-76. Repainted Green and white in 1988. Note logo placement on end of rack.



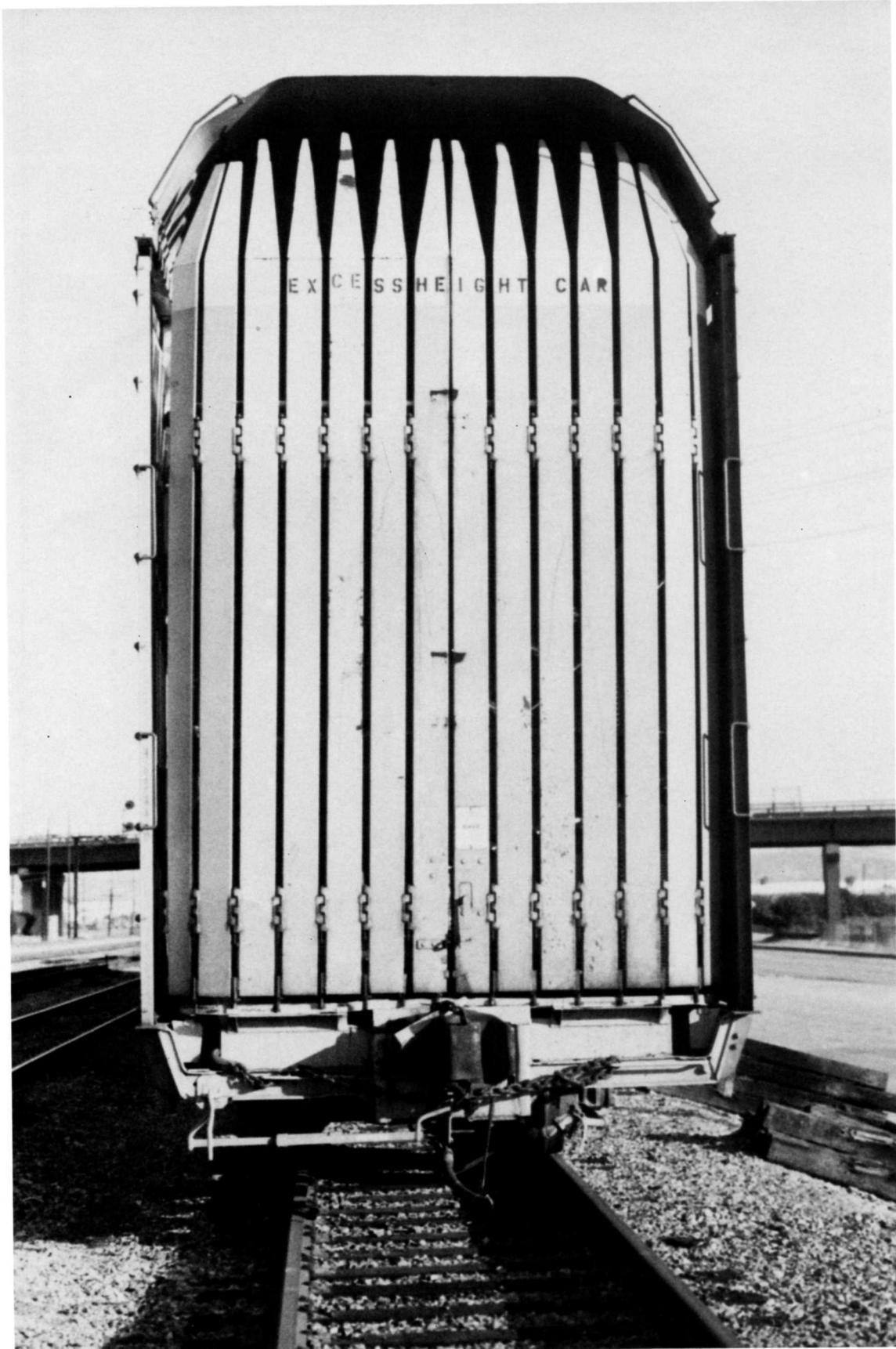
# MESH CHAIN "DOOR"



# TRI-FOLD DOOR



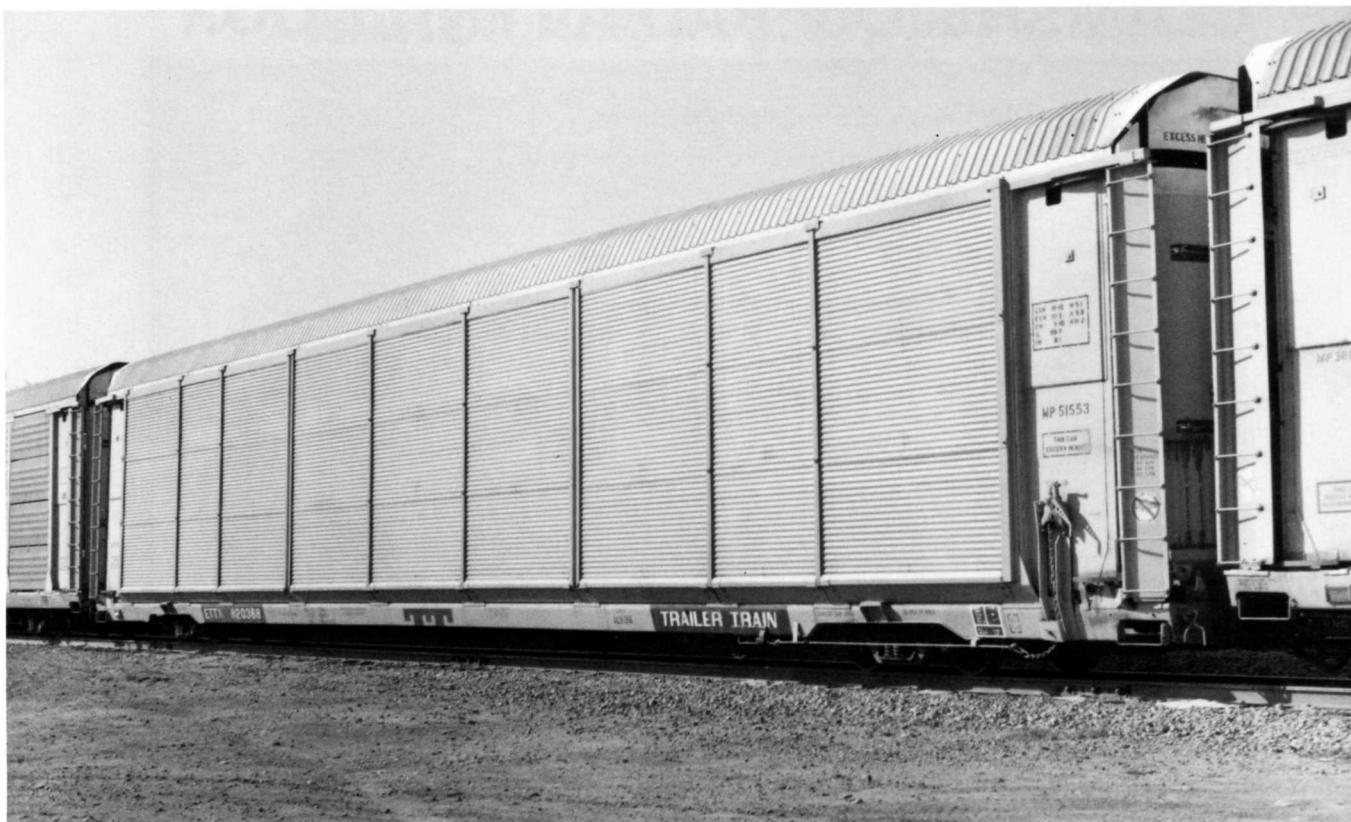
# EARLY R.A.V.E. DOOR



# CLAMSHELL or RADIAL END DOOR



# FIBREGLASS paneled ENCLOSED RACK



These two photos show a rare use of fibreglass panels on a modern enclosed auto rack. ETTX 820368. MP 51553 rack. The car was built in 1978 by ACF. The car was reconditioned by RR&A in 8-90.



# SANTA FE AUTO RACKS

## 1975-1992

### ROSTER OF ATSF INITIALED AUTO RACKS

#### 84000-84138

86FA. blt 1966 W&K. 89-00 IL Tri-level. *Ft-41.*

#### 84139-84273

70FA. blt 5=11-66 ATSF TS. 89-04 IL tri-level. *Ft-47. Superstructure built by ATSF (Jobs F-1091 and -1094). ATSF 84244 fitted with Stanray side protection panels in ca 1975. Sixty-nine cars; ATSF 84140, 84142-84144, 84147-84148, 84150, 84152-84153, 84155-84160, 84162, 84166, 84168-84175, 84177-84180, 84182-84183, 84185-84186, 84188-84190, 84193, 84195-84198, 84200-84205, 84207-84209, 84211, 84214-84215, 84219-84224, 84228, 84231, 84238, 84246-84248, 84254, 84257, 84263-84264, fitted with Evans side protection panels ca 1975.*

#### 84274-84339

86FA. blt 1966 W&K. 89-00 IL tri-level. *Ft-51.*

#### 84340-84383

70FA. blt 2=4-68 ATSF. 89-04 IL tri-level. *Ft-64.*

#### 84384

71FA. blt 1968 PS. 89-04 IL tri-level. *Ft-69.*

#### 84385-84390

80FA. blt 1968 PS. 89-04 IL tri-level. *Ft-69. Superstructure built by W&K in 1969.*

#### 84391-84392

86FA. blt 1968 PS. 89-04 IL tri-level. *Ft-69. Superstructure built by W&K in 1969.*

#### 84393-84399

80FA. blt 1968 PS. 89-04 IL tri-level. *Ft-69. Superstructure built by W&K in 1969. Fitted with W&K side protection panels.*

#### 84400-84401

54FA. blt 1970 ATSF TS. 89-04 IL tri-level. *Ft-72. Superstructure built by ATSF (2-BM-1385). Fitted with W&K side protection panels.*

#### 88001-88108

110FA. Blt 10-73=1-74 ATSF TS. 89-04 IL bi-level. *Ft-81.*

#### 88099

99FA. blt 10-73=1-74 ATSF TS. 89-04 IL bi-level. *Ft-81. Enclosed ; equipped with Stanray perforated side panels and YSD end doors. Assigned to Chrysler service.*

#### 88109-88129

110FA. blt 10-73=1-74 ATSF TS. 89-04 IL bi-level. *Ft-81.*

#### 88130-88144

110FA. blt 5-74 ATSF TS. 89-04 IL bi-level. *Ft-86.*

#### 88145-88170

120FA. 89-04 IL bi-level. *Ft-34. Numbers not inclusive.*

#### 88200-88303

90FA. blt 1=3-66 W&K. 89-00 IL bi-level. *Ft-41. Converted to enclosed sides 1978-80.*

#### 88400-88449

80FA. blt 1974 BSC JTN. 89-04 bi-level. *Flat class, Ft-87. Rack class BL-6. Superstructure built 10-86 by Thrall Car Winder GA.*

#### 88490-88491

136FA. blt 5-73 BSC JTN. 89-04 IL bi-level. *Ft-80. Superstructure built by W&K in 1973.*

#### 88492-88524

140FA. blt 1973 BSC JTN. 89-04 IL bi-level. *Ft-80. Superstructure built by W&K in 1973.*

#### 88525

128FA. blt 1968 Magor. 89-04 IL bi-level. *Ft-68. Superstructure built by W&K applied in 1973 (ATSF Job B-2082). Ford service.*

#### 88526

122FA. blt 3-64 ATSF TS. 89-04 IL bi-level. *Ft-31.*

#### 88527-88547

103FA. blt 1966 ACF STL. 89-00 IL bi-level. *Ft-49.*

#### 88548-88579

64FA. blt 1967 TC CH. 89-04 IL bi-level. *Ft-55.*

#### 88674-88685

120FA. blt 1966 GATC. 89-04 IL bi-level. *Ft-46.*

#### 88706-88736

70FA. blt 1972 ACF STL. 89-08 IL bi-level. *Ft-77.*

#### 88737

74FA. blt 1968 ATSF TS. 89-04 IL bi-level. *Ft-64. converted from bi/tri-level car ATSF 84383 to low deck bi-level ca 1971 (Job F-1578).*

#### 88738-88756

68FA. blt 1970 PS. 89-03 IL bi-level. *Ft-74.*

**88757-88814**

72FA. blt 12-69=2-70 ATSF TS. 89-04 IL bi-level. *Ft-71. Superstructure built by ATSF (2-BM-1386). Fitted with Binkley Company side protection panels (Job B-2226).*

**88815-88819**

75FA. blt 12-69=2-70 ATSF TS. 89-04 IL bi-level. *Ft-71.*

**88820-88823**

116FA. blt 1963 ATSF TS. 89-01 IL bi-level. *Ft-30.*

**88824-88830**

120FA. blt 1964 ATSF TS. 89-04 IL bi-level. *Ft-31. Converted to bi-level per Job F-1268.*

**88831-88835**

83FA. blt 1966 ATSF TS. 88-07 IL bi-level. *Ft-47.*

**88836-88860**

76FA. blt 1966 ATSF TS. 89-04 IL bi-level. *Ft-47. Superstructure built by ATSF (Job F-1091). Fitted with Binkley Company side protection panels per Job B-2226.*

**88861-88862**

120FA. blt 1966 ATSF TS. 89-04 IL bi-level. *Ft-48.*

**88863-88867**

114FA. blt 1966 W&K. 89-04 IL bi-level. *Ft-42. Superstructure built by W&K.*

**88868-88871**

121FA. blt 1965 ATSF TS. 89-04 IL bi-level. *Ft-34.*

**88872-88894**

120FA. blt 1964 ATSF TS. 89-04 IL bi-level. *Ft-31. Superstructure built by ATSF (Job F-856). ATSF 88888 converted to fully enclosed rack ca 1975 (Job B-2167) for International Harvester service.*

**88896**

122FA. blt 1963 ATSF TS. 89-04 IL bi-level. *Ft-27. ex-ATSF 89290.*

**88897-88904**

122FA. blt 1964 ATSF TS. 89-01 IL bi-level. *Ft-30. Superstructure built by ATSF (BM-1152).*

**88905-88974**

125FA. blt 1962 ATSF TS. 87-04 IL bi-level. *Ft-24.*

**89000-89030**

80FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-7. Superstructure built by Thrall Car in 10=11-87. BL-7's originally had no end doors.*

**89031**

128FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-8. Superstructure built by Thrall Car in 10-88.*

**89032-89036**

80FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-7. Superstructure built by Thrall Car in 11-87.*

**89037**

128FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-8. Superstructure built by Thrall Car in 10-88.*

**89038-89042**

80FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-7. Superstructure built by Thrall Car in 11-87.*

**89043-89044**

128FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-8. Superstructure built by Thrall Car in 10-88.*

**89045-89048**

80FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-7. Superstructure built by Thrall Car in 11-87.*

**89049**

128FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-8. Superstructure built by Thrall Car in 10-88.*

**89050-89051**

80FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-7. Superstructure built by Thrall Car in 11-87.*

**89052-89053**

128FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-8. Superstructure built by Thrall Car in 10-88.*

**89054-89106**

80FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-7. Superstructure built by Thrall Car in 11-87.*

**89107-89149**

128FA. blt 1974 BSC JTN. 89-04 IL bi-level. *Flat class, Ft-87. Rack class, BL-8. Superstructure built by Thrall Car Winder GA in 10-88.*

**89150-89229**

80FA. blt 1974 BSC JTN. 89-04 bi-level. *Flat class, Ft-87. Rack class, BL-9. Superstructure built 6=7-90 Thrall Car Winder, GA.*

**89239-89323**

110FA. blt 1963 ATSF TS. 87-04 IL tri-level. *Ft-27. ATSF 89290 reno to ATSF 88896.*

**89342-89348**

110FA. blt 1963 ATSF TS. 89-01 IL tri-level. *Ft-30. Superstructure built by ATSF (BM-1151).*

**89349-89460**

100FA. blt 1964 ATSF TS. 89-04 IL tri-level. *Ft-31. Superstructure built by ATSF (BM-1162).*

**89461-89535**

105FA. blt 1965 ATSF TS. 89-04 IL tri-level. *Ft-34. Superstructure built*

by ATSF (BM-1210).

**89536-89581**

108FA. blt 1965 ATSF TS. 89-04 IL tri-level. *Ft-37.*

**89582-89621**

108FA. blt 1966 W&K. 89-04 IL tri-level. *Ft-42. Superstructure built by W&K.*

**89622-89665**

120FA. blt 1968-69 Magor. 89-04 IL tri-level. *Ft-68. Superstructure built by W&K 1968-69. ATSF 89639 fitted with W&K side protection panels. ATSF 89622-89637 and 89643-89654 fitted with Evans side protection panels. ATSF 89650 fitted with ATSF side protection panels.*

**89666-89669**

116FA. blt 1968-69 Magor. 89-04 IL tri-level. *Ft-68. Superstructure built by W&K 1968-69.*

**89670**

61FA. blt 1973 PS. 89-04 IL tri-level. *Ft-79.*

**700000-700159**

72FA. blt 8-74=1-75 W&K. 89-04 IL tri-level. *Ft-85. Superstructure built by W&K. Enclosed. YSD end doors. ATSF 700012 and 700091 modified in 1981 by relocating "B" and "C" decks and removing roof.*

**700160-700166**

70FA. blt 4-74 PS. 89-04 IL tri-level. *Ft-84. Superstructure built by W&K.*

**700167-700184**

70FA. blt 12-76 W&K. 89-04 IL tri-level. *Ft-90. Superstructure built by W&K in 12-76.*

**700200-700299**

72FA. blt 1966 W&K. 89-04 IL tri-level. *Flat classes, Ft-41 and -51. Rack class, TL-12. Superstructure built by Thrall Car, Winder GA 11=12-86.*

**700300-700349**

69FA. blt 1966 W&K. 89-04 IL tri-level. *Flat classes, Ft-41 and -51. Rack class, TL-13. Superstructure built*

*by Thrall Car Winder GA in 12-87.*

**700350-700397**

72FA. blt 1966 W&K. 89-04 IL tri-level. *Flat classes, Ft-41 and -51. Rack class, TL-14. Superstructure built by Thrall Car Winder GA in 12-88.*

**700398-700429**

72FA. blt 11=12-68, 3-70 PS. 89-04 IL tri-level. *Flat classes Ft-69 and -74. Rack class, TL-15. Superstructure built by Thrall Car in 12-88.*

**SANTA FE AUTO RACKS ON  
LEASED TRAILER TRAIN/TTX  
FLAT CARS**

*Listed by Santa Fe Rack Classes*

**BL-1**

55 Racks. ATSF Racks 985-1039. Built by W&K 8-77. Mounted on TTBX flat cars.

**BL-2**

120 Racks. ATSF Racks 865-984. Built by W&K 4-78. Mounted on TTNX and TTGX flat cars.

**BL-3**

55 Racks. ATSF Racks 1040-1094. Built by W&K 5-79. Mounted on TTGX flat cars.

**BL-4**

50 Racks. ATSF Racks 1602-1651. Built by W&K 8-79. Mounted on TTGX flat cars.

**BL-5**

202 Racks? ATSF Racks 1684-1808? (*see also class TL-8*). Built by W&K 8-79. Mounted on TTSX and TTBX flat cars.

**TL-1**

50 Racks. ATSF Racks 550-599. Flats built 6=7-74 PS. Mounted on ETTX 850000-850049.

**TL-2**

75 racks. ATSF Racks 600-674. Built by W&K 3=4-77. Mounted on ETTX flat cars.

**TL-3**

132 racks? ATSF Racks 675-806. Built by W&K 7=8-77. Mounted on ETTX and TTVX flat cars.

**TL-4**

58 Racks. ATSF Racks 807-864. Built by W&K 8-77. Mounted on ETTX flat cars.

**TL-5**

50 Racks. ATSF Racks 1095-1144. Built 1978. Mounted on CTTX and TTVX flat cars. Later converted to ETTX standards.

## SOURCES

### TL-6

157 Racks. ATSF Racks 1145-1301. Built by W&K 10-78=1-79. Mounted on TTVX and ETTX flat cars.

### TL-7

300 Racks. ATSF Racks 1302-1601. Built by W&K 1=3-79. Mounted on ETTX flat cars.

### TL-8

32 Racks? ATSF Racks 1652-1683? (see also class BL-5). Built by W&K 8-79. Mounted on ETTX flat cars.

### TL-9

50 Racks. ATSF Racks 1809-1858. Built by W&K 12-79=1-80. Mounted on ETTX flat cars.

### TL-10

100 Racks. ATSF Racks 1859-1958. Built by TC CH 4=5-84. Mounted on ETTX flat cars.

### TL-11

100 Racks? ATSF Racks 1959-2058? Built by TC CH 1=2-85. Mounted on ETTX flat cars.

### TL-16

Unknown quantity (approx 35-40). Built by Thrall Car Winder GA 12-88. Mounted on ETTX flat cars.

### "1991-92 Class"

Unknown quantity. Rebuilt 8-91=1-92. Former CNW racks. No rack class stencilled. Fully enclosed bi-levels on TTGX flat cars. Rack numbers are the same as TTX car number.

ATSF. ca mid-1970's. Auto-veyor and Saddle-Back Flat Cars. Four panel folder.

ATSF. 1979. Numerical List Live Cars as of November 30, 1979.

Casdorph, David G. 1990. "A review of auto rack deliveries of the 1980's to U.S. railroads." *Autotransporter History No. 1*, page 7.

Casdorph, David G. Individual car data sightings 1980-1992.

Kinkaid, James. Various letters 1990-1992.

Occhiello, Larry. 1992. Listing of Freight Cars by Class and Car Number 1906-1991. Santa Fe Modelers Organization, Inc.

ATSF 88074. Class Ft-81. Built in 1973 by the Santa Fe Topeka Shops. Note 70-ton capacity. This car (and rack) was painted in 3-86 by ATSF TS.



<b>ATSF RACK NUMBER RESEARCH NOTES</b>			
<i>Class</i>	<i>Confirmed</i>	<i>Qty</i>	<i>Possible Series</i>
TL-1	551-583	50	550-599
TL-2	600-674	75	600-674
TL-3	675-806	132	675-806
TL-4	807-858	58	807-864
BL-2	865-983	120	865-984
BL-1	987-1023	55	985-1039
BL-3	1058-1063	55	1040-1094
TL-5	1108-1143	50	1095-1144
TL-6	1145-1276	157	1145-1301
TL-7	1302-1596	300	1302-1601
BL-4	1613-1650	50	1602-1651
TL-8/BL-5	1653-1794	157?	1652-1808?
TL-9	1813-1858	50	1809-1858
TL-10	1859-1948	100	1859-1958
TL-11	1967-2055	100?	1959-2058
TL-12	2073-2142	100	2059-2158
BL-6	2165-2206	50	2159-2208
BL-7	2219-2252	96	2209-2304
TL-13	2309-2328	50	2305-2354
BL-8	2359-2402	49	2355-2403
TL-14	2415-2445	48	2404-2451
TL-15	2459-2480	32	2452-2483
TL-16	2491-2502	35?	2484-
BL-9	2518-2584	80	
		1757	

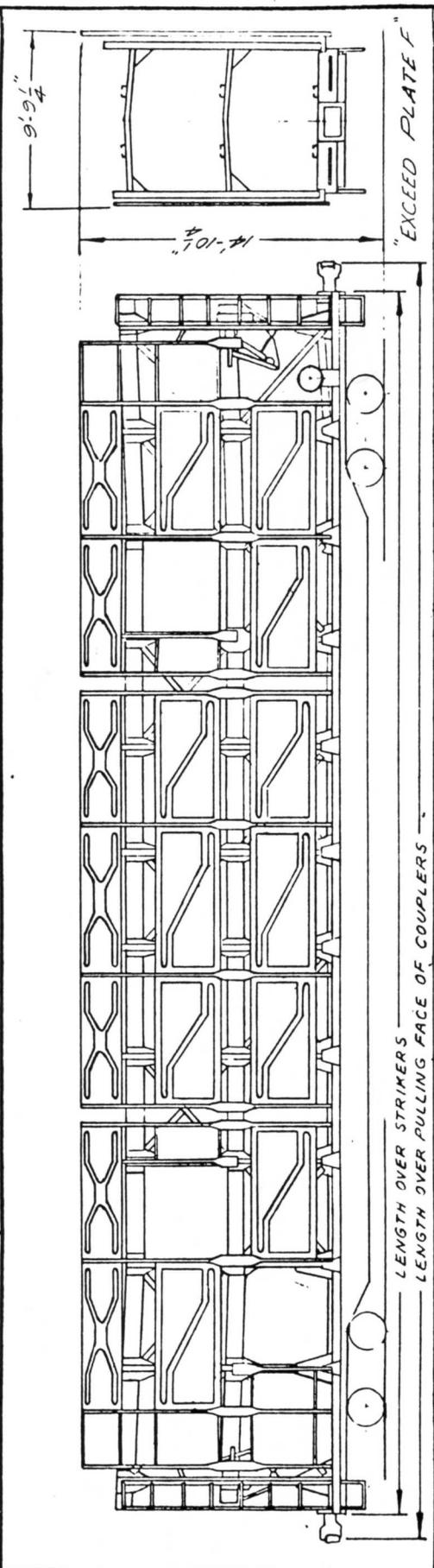


(Above) ATSF 700133. Class Ft-85. This is W&K's solid steel side-enclosed design "Safe-Pak."  
(Below) ATSF 700235. Class TL-12. Rack built by Thrall Car Winder GA in 11-86. Clamshell (Radial) doors.



ATSF FT-47 (LOW DECK TRI-LEVEL)  
 AAR MECHANICAL DESIGNATION - FA  
 GENERAL ARRCT. 2-D-41-28497  
 CARS EQUIPPED WITH 10" TRAVEL SUPER SHOCK CONTROL AND CUSHIONING DEVICE

SERIES NO. 84244 (ONE CAR)  
 BUILT: TOPEKA 1966  
 EQUIPPED WITH STANRAY SIDE PROTECTION PANELS  
 PANEL APPLICATION (JOB B-1599)



* NOMINAL CAPACITY	65,000	* RAIL TO EAVES (TOP SIDE PANELS)	14' 10-1/4"	WHEEL BASE OF TRUCKS	5' 1"
LOAD LIMIT	66,300	RAIL TO SILL STEP	15-13/16" @ 8' 10" WIDE	TRUCK CENTERS	69' 7"
LIGHTWEIGHT (AVG)	112,700	RAIL TO CENTER SILL REINF. BAR	8-5/16"	WHEEL BASE OF CAR	74' 8"
LENGTHS - *OVER SUPERSTRUCTURE	89' 4"	AIR BRAKES WABCO PAC	B-3-7-1/2"	AXLES	6 x 11 ROLLER BEARING
*OVER PULLING FACE OF COUPLERS	94' 0"	AIR BRAKE VALVE	B-3-7-1/2"	WHEELS	28" DIA. 1-W CAST STL CB-28
OVER STRIKERS	91' 4-1/2"	COUPLERS "E" HEAD "F" SHANK	43" LENGTH	LOAD SPRINGS	3 1/16" TRAVEL OUTER COILS 2 1/2" TRAVEL INNER COILS
OVER END SILLS	88' 7"	YOKES	B-Y45-HT	BRAKE BEAMS	WABCO PAC
WIDTHS - * INSIDE (BETWEEN POSTS)	8' 4"	DRAFT GEAR	WESTINGHOUSE MARK 50	CENTER PLATE DIAMETER	14"
OVER SIDE SILLS @ END	8' 3-1/2 @ 23-5/16	TIE DOWN EQUIPMENT	BRANDON	BRAKE SHOES	COBRA
ATR		DECKS	3/16" STEEL PLT.	TRUCK SNUBBERS	ASF RIDE CONTROL
OVER CORNER POSTS	9' 2"	SIDE PROTECTION PANELS - STANRAY GENERAL ARRCT DWG. 2-D-41-28497			
* EXTREME (OVER HANDBRAKE)	10' 3-7/8"				
* OVER EAVES (TOP SIDE PANELS)	9' 9-1/4"				
OVER CENTER POSTS	8' 10"				
OVER LADDERS	9' 8-1/2"				
HEIGHTS - * BETWEEN 1st & 2nd DECK	4' 10-9/16"				
BETWEEN 2nd & 3rd DECK	4' 11-9/16"				
RAIL TO TOP OF FIRST DECK	2' 7-1/2"				
RAIL TO TOP OF SECOND DECK	7' 7-3/4"				
RAIL TO TOP OF THIRD DECK	12' 9"				
* RAIL TO EXTREME WIDTH: TOP	5' 2-1/2" BOT				
	3' 4-1/2"				

\* INFORMATION FOR THE OFFICIAL RAILWAY EQUIPMENT REGISTER

SERIES 89650 (ONE CAR)  
 BUILT: RACKS-W&K 1968-69  
 UNDERF-MAGOR 1968

ATSF FT-68 TRI-LEVEL  
 AAR MECHANICAL DESIGNATION FA

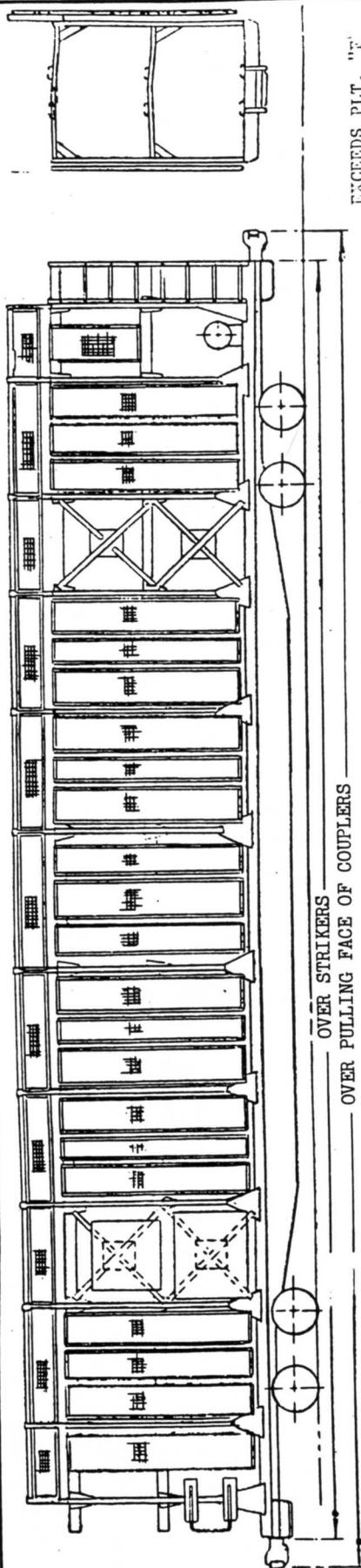
FIRST ISSUE DATE 6-10-71

DATE OF REVISION

4-20-81

AUG. 14 1981

PAGE F-91-D



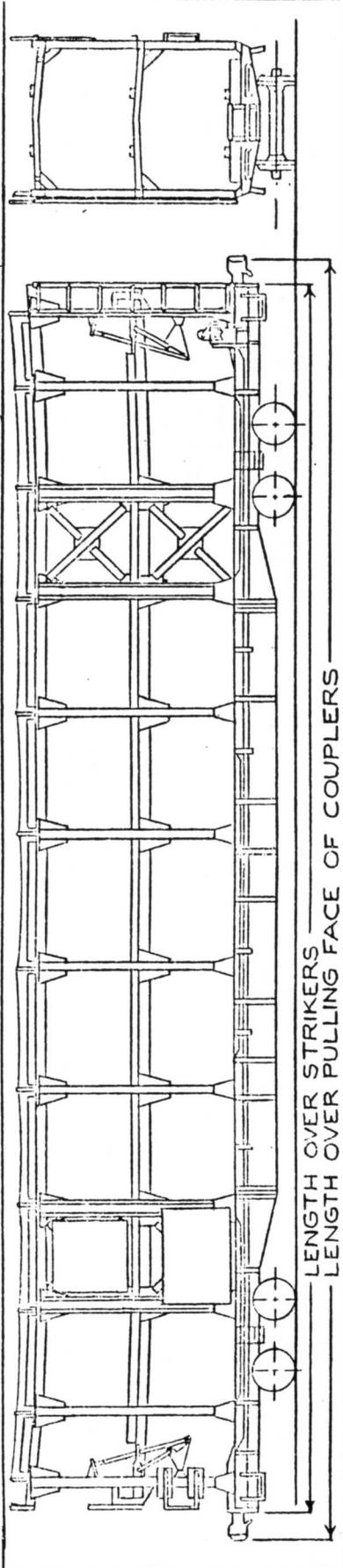
OVER STRIKERS  
 OVER PULLING FACE OF COUPLERS

EXCEEDS PLT. "F"

NOMINAL CAPACITY	115,000 LBS.	GEN. ARRGT DWG.	2-D-33-23533	TRUCK WHEEL BASE	5'8"
LOAD LIMIT	118,000 LBS.	BRAKE ARRGT. DWG.	ABD(10 X 12) RED.REL.VAL.	TRUCK CENTERS	66'0"
LIGHT WEIGHT	102,000 LBS.	TYPE VALVES	SAB DRV-2-US-4	WHEEL BASE OF CAR	71'8"
LENGTHS: OVER DECK	89'4"	BRAKE REGULATOR	ELLCON D-1600	CURVE: COUPLED TO BASE CAR	300' R
OVER PULLING FACE OF COUPLERS	93'8"	HAND BRAKE	AAR #55	COUPLED TO LIKE CAR	193' R
OVER STRIKERS	90'0"	BELL CRANK	FORD REQUIREMENTS	CENTER PLATE 14" DIA.	2-A-43-47097
OVER END SILLS	89'4"	TIE DOWN EQUIP.	NONE	WHEELS	33" DIA.
WIDTHS: INSIDE BETWEEN POSTS	8'4"	ROOF	ATSF	AXLES	6"x11" R.B.
OVER EAVES:	9'4-1/2"	SHIELDING	EG9HTE	JOURNAL BEARINGS	TIMKEN 6"x11"
EXTREME WIDTH	10'1-1/4"	DRAFT RIGGING	NONE	TRUCK SIDE BEARINGS	STUCKI 656-C
OVER SIDE SILLS	9'0"	COUPLERS	EC6HTE	BRAKE BEAMS	#18 UNIT
HEIGHTS: EXTREME	16'8"	YOKES	NONE	BRAKE SHOES	2" COMPOSITION
BETWEEN 1st & 2nd DECK	5'2-9/16"	DRAFT GEAR	NONE	TRUCK MFR.	ASF
BETWEEN 2nd & 3rd DECK	5'2-1/16"	CUSHIONING	NONE	TRUCK GEN. ARRGT.	2-C-42-21220
RAIL TO TOP OF 1st DECK	3'5-1/2"	UNCOUPLING LEVER	EOC	BOLSTER	B7S-08DN-BN
RAIL TO TOP OF 2nd DECK	8'9-3/4"	CENTER OF GRAVITY	FREIGHTMASTER, 10", STANRAY #4A	SIDE FRAME	F7S-04BN-UA
RAIL TO TOP OF 3rd DECK	14'1-1/2"	LOADED	EMPTY	TRUCK SPRING GROUP	7-0C-D5, 5-IC-D5
RAIL TO CENTER SILL BOTTOM	14'-7/32"			FRICTION SNUBBER TYPE	S-2-C
RAIL TO SILL STEP	22"			SNUBBER SPRINGS	1-0C-#791
RAIL TO EXT. WIDTH	6'0-11/16"			SUPPLEMENTAL SNUBBING	NONE
RAIL TO EAVES	16'8"				

FIRST ISSUE DATE Mar. 17, 1969 ATSF FT-69 (Low Deck Tri-Level)  
 DATE OF REVISION FA Superstructure Built: Whitehead & Kales 1969  
 6-30-71 Pullman 1968 Purchase Order: 8-C-I-50336-18  
 4-10-73 Log No: PBU-9336 Drg List: 2-DL-3786 Bill of Material #1371  
 Cars equipped with FreightMaster Type AR-F 10" Travel end-of-car cushioning device

Series: 84385-84399 (SEE NOTE)  
 15 Cars  
 Diagram FOUO 211/4  
 PAGE F-92

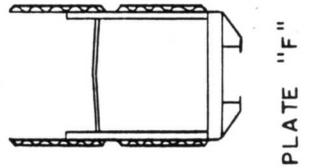
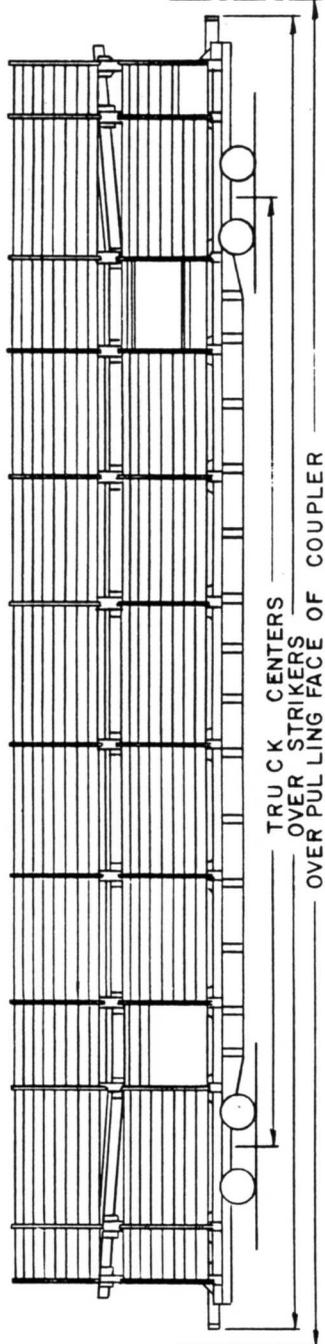


*Nominal Capacity:	86,000 lbs	Air Brakes	Westinghouse AB-1012	NOTE: FOR CARS EQUIPPED WITH SIDE PROTECTION PANELS USE DIAGRAM PAGE F-92-A, F-92-B
Load Limit:	89,044 lbs	Brake Regulator:	Ellicon Model 2000	
Lightweight (Avg)	89,956 lbs	Couplers: "E" Head, "F" Shank, 60" length		
Lengths - *Over Deck:	89' 4"	Yokes & Draft Gear:	FreightMaster	
*Over Pulling Face of Couplers:	93' 8"	Tie-Down Equipment	Whitehead & Kales	Truck Wheel Base: 5'1"
Over Strikers:	90' 0"	NOTE: 84393-84399 have Whitehead & Kales low profile tie-downs and no bridge plates		Truck Centers: 64' 0"
Over End Sills:	89' 4"	Decks: 1st 3/16" Steel, 2nd & 3rd 9 Ga. Steel		Wheel Base of Car: 69' 1"
Widths - *Inside (Between Posts)	8' 4"			Axles: 6 x 11 Roller Bearing
Over Side Sills Top:	9' 3-1/4" @ 3'3-3/16" ATR			Wheels: 28" Dia. 1-W Wrot Steel, B-28
Over Corner & Intermediate posts:	9' 0"			Load Springs: 3-1/16" Travel Outer Coil 2-1/2" Travel Inner Coil
*Extreme (Handbrake):	10' 1-3/4"			Brake Beams: #24 Unit Type
Over Bridge Plate Lock:	8' 9-1/4"			Center Plate Dia. 14"
*Over Eaves (Handrails):	9' 7-3/8"			Truck Snubbers: ASF Ride Control
Over Ladders:	9' 7-3/8"			Roller Bearings: 6 x 11 Timken
Over Handhold:	9' 5-5/8" @ 6'11-1/16" & 5'0-1/16" ATR			Trucks - ASF A-3
Heights - *Between Decks at Center:	4' 11-9/16"			Gen'l Arrgt. 2-D-42-21203
Rail to Top of 1st Deck at Center:	2' 7-1/2"			Side Frame CS-3101 2-D-42-21204
Rail to Top of 2nd Deck at Center:	7' 8-1/4"			Boister CS-3133 2-D-42-21205
Rail to Top of 3rd Deck at Center:	12' 9"			
*Extreme (Bridge plt Lock)	DN-14' 7 1/2" UP-15' 11"			
*Rail to Eaves (Handrail)	DN 14' 6-5/8" UP-16' 1"			
*Rail to Extreme Width: Top	5' 2-5/8" Bot 4' 2-7/32"			
*Rail to Raised Bridge Plt:	16' 11-3/4" @ 4' 2-1/4" Wd			
Rail to Center Sill Bottom	11-1/4"			
Rail to Bridge Plt Lock Bar:	15' 8 1/2" @ 9' 7" Wd			
Rail to Sill Steps:	21-5/8" @ 8' 6-7/8" Wd			

Cars without side protection panels are within Plate "C" Clearance Diagram.  
 Cars having side protection panels exceed Plate "C" Clearance Diagram.  
 Car Weight 55856 Lbs.  
 Rack Weight 34100 Lbs.  
 Total Weight 89956 Lbs.

\* Information for The Official Railway Equipment Register

<p>FIRST ISSUE DATE 4-16-70</p>	<p>ATSF A.A.R. MECHANICAL DESIGNATION SHOCK CONTROL 10" TRAVEL PER 2-BM-1248</p>	<p>FT-71 FA</p>	<p>SERIES 88757-88814 BUILT 1969 TOPEKA SHOPS. SUPER-STRUCTURE 2-BM-1386.</p>	<p>NO. OF CARS 55 UNDERFRAME 2-BM-1383, 211/4</p>
<p>DATE OF REVISION</p>				<p>FOUO</p>
<p>2-9-77</p>				<p>PAGE F-94</p>
<p>5-31-84</p>				



<p>NOMINAL CAPACITY (STARRED) 72,000 LBS. LOAD LIMIT (STARRED) 72,100 LBS. LT. WT. 107,100 LBS. LENGTHS: INSIDE (OVER DECKS) 89'4" OVER PULLING FACE OF COUPLERS 93'11" OVER STRIKERS 91'5" OVER END SILLS 88'7"</p>	<p>GEN. ARRGT. DMG. 2-D-41-24974 BRAKE ARRGT. T. DMG. 2-D-33-25451 TYPE VALVES ABD WABCO PAC A571769 BRAKE REGULATOR NONE HANDBRAKE KLASING #1500 BELL CRANK AAR-55 TIE DOWN TRACK PORTEC #8245-N SCREENING (BINKELY) 2-D-41-46315 DECK THICKNESS: "A" DECK 1/4" "B" DECK 3/16"</p>	<p>TRUCK WHEEL BASE 5'1" TRUCK CENTERS 66'0" CAR WHEEL BASE 71'1" CURVE: COUPLED TO BASE CAR 303' COUPLED TO LIKE CAR 195'</p>	<p>CENTER PLATES: 14" DIA. 2-D-43-6655 WHEELS 28" DIA. IW AXLES 6" x 11" ROLLER BEARING JOURNAL BEARINGS TIMKEN 1-A TRUCK SIDE BEARINGS STUCKI 656CR BRAKE BEAMS WABCO PAC BRAKE SHOES 1-1/2" COMPOSITION TRUCK GEN. ARRGT. SCULLIN BOLSTERS (CS-3141) 2-D-42-24840 SIDE FRAMES (CS-3140) 2-D-42-24838 TRUCK SPRING GROUP 5-D4-0.C., 4-D4-1.C. FRICTION SNUBBER TYPE S-2-B SNUBBER SPRINGS 2 #3225 SUPPLEMENTAL SNUBBING NONE</p>
<p>WIDTHS: INSIDE (BETWEEN POST) 8'4" OVER EAVES: UPPER 9'10" LOWER 9'10" EXTREME WIDTH (HB) 10'3-3/4" OVER SCREENS 9'10" OVER SIDE SILLS 9'0"</p>	<p>DRAFT RIGGING: E69HTE FRONT FOLLOWERS RADIAL BUTT, 4011-C-HT DRAFT GEARS WAUGHMAT WM-CG-5 CUSHIONING SANTA FE 10" TRAVEL</p>	<p>UNCOUPLING LEVERS STD. RWY. STYLE 2C CENTER OF GRAVITY: LOADED 77.2" EMPTY 59.4" METALLIC WT. 106,900 LBS.</p>	
<p>HEIGHTS: INSIDE (BETWEEN DECKS) 7'6" EXTREME 13'9-1/4" RAIL TO EAVES: UPPER 13'9-1/4" LOWER 13'9-1/4" RAIL TO EXTREME WIDTH (H.B.) 5'2-5/8" A.T.R. TO TOP OF "A" DECK CAR CENTER 31-1/2" A.T.R. TO TOP OF "A" DECK AT ENDS 41-1/8" A.T.R. TO TOP OF "B" DECK CAR CENTER 10'2-11/16" A.T.R. TO TOP OF "B" DECK AT ENDS 11'0-5/16"</p>	<p>NOTES: SIDE SCREENING APPLIED, JOB B-2226</p>		

0731C

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