

Santa Fe Steel Caboose Handout for SFRH&MS Convention Denver 2010 (2)

Research by John B. Moore, Jr., Albuquerque Rev 7-12-10 A

CUPOLA HAND GRABS ¾ inch diameter - 3 ¼ inches between roof and bottom of hand grab

GROUP 1 - sectional all-around hand grab – some replaced with all-around
some cut back to corners

GROUP 2, 3, 4, 5, 6, 7 - all-around hand grabs as built -
some cut back to corners

GROUP 8 mix – some with all-around and some corner grabs as built
some all-around cut back to corners

GROUP 9, 10 - all-around hand grabs as built -
some cut back to corners

WINDOW SCREENS Window screen material 14 mesh per inch – galvanized (generally painted)

GROUP 1 builders photos show no screens – added later

GROUP 2, 3, 4, 5, 6, 7, 8, 9, 10 built with half-window screens

ROOF WALKS typical roof walk width 19 inches, lateral 30 ½ inches width, 12 inch extends over end

GROUP 1, 2, 3 abbreviated lateral cupola roof walks - wood

GROUP 4, 5, 6, 7 full lateral cupola roof walks - wood

GROUP 8 full lateral cupola roof walks and full end - wood

GROUP 9, 10 full lateral cupola roof walks and full end - steel

Some wood roof walks replaced with steel roof walks

Roof walk is a modeler's term – the railroads used the term running boards

CUPOLA SIDE WINDOWS All GROUPS – As built cupola side window glass 15 x 23 ½ inches

Side windows modified to center closure glass 15 ¼ x 24 ½ inches

Some rebuilt with side windows centered on cupola side after 1964

As modified with center closure windows - the cupola bench seats were removed and a single pivoting seat was applied on each side of the cupola. This feature was incorporated in the caboose rebuild starting in 1966

WIG-WAGS Styles identified to date

Style 1 Small disk – holes – arm does not go all the way across disk – no light – left pivot
Applied to wood cabooses – not seen on steel cabooses (1933)

Style 2 Small disk – no holes - arm goes all the way across disk – no light – left pivot
Applied to wood and steel cabooses – painted blue (1928 drawing)

Style 3 Small disk – holes – arm off set all the way across disk – off center light – left pivot
Applied to wood and steel cabooses - dark color – blue??? (1943)

Style 4 Small disk – holes – arm goes to center light – left pivot
Applied to steel cabooses (1943 bull's-eye paint) (1947, 1955 reefer yellow paint)

Style 5 Small disk – holes – arm goes to center light – right pivot
Applied to steel cabooses (1943)

Style 6 Large disk – holes – two lights – left pivot - faces “uptrain”
Applied to wood and steel cabooses (1933 bull's-eye paint) (1944, 1950 reefer yellow paint)

Style 7 Large disk – holes – two lights – right pivot – faces cupola
Applied to wood and steel cabooses (1933, 1943 bull's-eye paint)(1943 reefer yellow paint)

Style 7a Large disk – large holes – two lights – right pivot – faces cupola
Applied to steel cabooses (1955 reefer yellow paint)

Note: Bull's-eye paint scheme reported to be black and white in 1939-1940

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RADIO EQUIPMENT VHF (very high frequency) 160-162 mHz FM (frequency modulation)
1954 freight locomotives operated on 160.65 mHz

DG – Diesel powered generator 1947 - 1954
Air intake on roof between smoke jack and lateral roof walk
Side louver
Exhaust under car (out of sight)
Tool cellar replaced with battery box left side only
(looking from cupola toward long end of caboose)

FB – Axle-driven flat-belt generators/alternators with storage batteries 1952 - 1971
Right side: louvered door with bottom hinges for storage batteries

PP – Portable Paksets 1952 - 1971
Only antenna on cupola roof
Portable radio mounted in metal box on cupola wall
Caboose antenna hooked to Pakset
Also called “packsets”

ANTENNAS

When mounted to cupola roof – top of antenna must be under 16' from top of rail

Radio Antennas

A-1



10" tall, 2" dia rod, 2 ½" dia collar, 6" dia top disk
Base (not shown) 4" ht.

Antenna height above roof 14 to 14 ½ inches
All measurements scaled from photos

A-1 Wagon Wheel antenna– 8 spokes - 32" diameter 1947 through 1965



1950 –
Diesel powered generator and base radio



1965
Axle-driven flat-belt generator/alternator and base radio

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A-1 antenna mounted directly on roof 1952 through 1966

Used with Pakset radio equipment



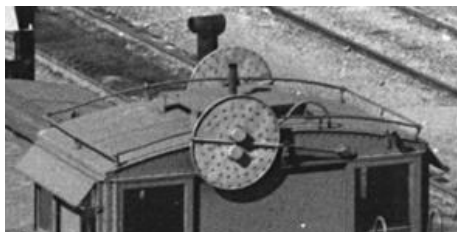
1952



1964

A-1 antenna mounted on 36-inch square ground plane 1958 through 1969

Used with axle-driven flat-belt generator/alternator and base radio equipment



1958



1965

A-2 Can antenna 36-inch square ground plane 6" diameter x 6" tall 1958 -1976

Used with axle-driven flat-belt generator/alternator and base radio equipment



A-3 Peanut antenna mounted on 36 x 36 inch ground plane 1959 - 1970

Used with axle-driven flat-belt generator/alternator and base radio equipment



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The following cabooses were fitted with on-board diesel generators for powering radio equipment. The equipment was installed between 8-1948 and 5-1949. Service was on Coast Lines.

List dated 10-21-1952

**2021 2023 2076 2077 2078 2079 2102 2103 2104 2106 2111 2112 2113 2115 2121 2122
2123 2124 2125 2185 2187 2188 2191 2201 2202 2203 2205 2206 2216 2218 2219 2220**

Most if not all were also equipped with wig-wag signals – removal of wig-wags authorized 1953.

By 1954 diesel generators were removed and replaced with axle-belt driven generators.

The following cabooses are equipped with radios (all thought to be axle-driven generator powered) Storage batteries in steel tool cellars – cars with wood tool cellars changed to steel

List dated 9-18-1953

**1530 1538 1541 1693 1697 1698 1700 1701 1806 1807 1808 1809 1949 2036 2037
2041 2042 2043 2044 2045 2092 2093 2094 2116 2117 2119 2120 2141 2142 2153
2154 2155 2156 2157 2237 2238 2250 2265 2266 2267 2296 2297**

Wig-wag signals can be removed from radio equipped cabooses – except on Pecos Division where steam is still in service. Dated 3-1953

Illinois Division and Missouri Division to receive radio equipped cabooses – 9-6-1953

43 cabooses Illinois Div. - 35 cabooses Missouri Div. This is to handle about 38 trains daily

100 wig-wags removed from caboose cars in the following series 6-1953

500-599 series (peaked roof – built by Santa Fe 1949)

2216-2300 series (peaked roof – built by Santa Fe 1949 – Duryea underframe)

2113-2197 series (radial roof – built by Santa Fe 1944)

Caboose Cars 1-KW axle generator 5-1-1959 (thought to be running west of Winslow)

**566 568 599 1530 1538 1541 1693 1697 1698 1700 1701 1806 1807 1808 1809 1949 1954
1955 1956 1957 1958 1959 1962 1963 1965 1967 1968 1979 1980 1981 1982 1983 1984 1990
2001 2002 2003 2004 2005 2008 2030 2036 2037 2040 2042 2043 2044 2045 2082 2085 2088
2089 2090 2093 2094 2101 2106 2108 2109 2110 2116 2117 2119 2120 2142 2153 2154 2155
2156 2157 2190 2237 2238 2250 2265 2266 2267 2296 2297**

Caboose cars equipped with Pakset portable radio 5-1-1959

523 524 1573 1684 1795 1909 1918 1920 2039 2040 2049 2050 2171 2172 2173 2174 2231 2232

Caboose Cars equipped with alternators - 1-1-1963

Cars from all series 589 cars

Caboose Cars listing 5-1-1965

Total steel caboose cars - 849

Equipped with regular radios - 627 cars

Equipped with toilets - 219 cars

Caboose Cars listing 9-1-1968

Total steel caboose cars - 847

Steel caboose cars rebuilt Ce-1 - 315 cars

Equipped with regular radios - 622 cars

Equipped with toilets - 217 cars

Caboose Cars listing 12-31-1970

Total steel caboose cars - 739

Steel caboose cars rebuilt Ce-1, Ce-2, Ce-3, Ce-4 - 574 cars

Steel caboose cars not rebuilt (all series) - 165 cars