

Forty Years of Amtrak Locomotive Horns

By David Hamilton

Growing up in the Buffalo, NY area in the 1970's, most of my train watching consisted of chance encounters with Conrail freights at grade crossings. On one such day, a long freight hauled by yet another set of black Penn Central diesels slowly pulled into a siding to allow a hotshot to pass. Within a few minutes, a headlight appeared in the distance, rapidly overtaking the freight. Suddenly, the sound of the train's whistle pierced the air, much more melodious than that of the Conrail engines. In the blink of an eye, Amtrak's turboliner sailed by in a blur of red, white and blue. While the sight of the new train was impressive, it is the distinctive tone of its horn that I can still vividly recall today.

When the nationwide passenger railroad began to purchase new locomotives to replace equipment that it had inherited from the freight railroads, personnel in its motive power department worked to develop horns that would have a unique "Amtrak sound." Several different air horns were produced during Amtrak's early years, with refinements that eventually led to the models that are in use today. Although most of the locomotives from this period have been retired,



The F40PH locomotive, which pulled Amtrak trains for almost 30 years, used the Nathan P1234A5 on the first order, and the Nathan KL5A horn on subsequent models.



Amtrak's first air horn was the Leslie SL-4T, which was developed for the new EMD SDP40F locomotives in 1973. Leslie no longer offers this horn, but produced one for display in Amtrak's 40th Anniversary Exhibit Train.

examples of their horns have been preserved, and are now on display in Amtrak's 40th Anniversary Exhibit Train. The horns pictured in this article were photographed during a recent visit to the exhibit train, and most of the background information was taken from the descriptions that accompany the display.

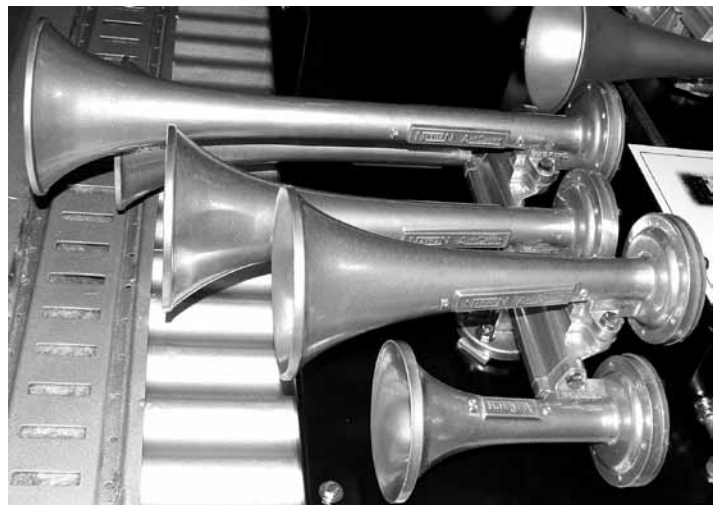
Amtrak's first new diesel locomotive was the EMD SDP40F, which entered service in 1973. In planning the specifications for the engine, Chief Mechanical Officer David Goehring worked with railroad buff Donald Tead to create a new distinctive sound for Amtrak horns. Deane Ellsworth, a research engineer for C&O/B&O suggested that the existing Leslie S-3k horn could be modified with the addition of a

fourth note. The chord that was eventually selected was D#, F#, A#, C# (D# Minor 7). The result was the Leslie SL-4T horn, which was unique to the SDP40F.

Around the same time, Amtrak was seeking a new type of electric locomotive to replace the aging GG1 fleet. Donald Tead once again approached David Goehring with the idea of developing a different horn for use on the electrics. With a chord of A, C#, E, G, C# (A 7), the horn had a distinctive "boat whistle" sound. Produced by Nathan-Airchime, Inc., the model P01235 horn was used on the E60CP and E60CH locomotives when they were introduced in 1975.

During the same year, Amtrak also took delivery of General Electric P30CH diesel locomotives, for use with its new Amfleet equipment. Deane Ellsworth was now the Motive

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The unique "boat horn" sound of Amtrak E60 electric locomotives was produced by the Nathan model P01235.

Power Development Manager for Amtrak, and he changed the fourth note on a standard Nathan P5 horn to create a diminished chord. The new horn, with a chord of C#, E, G, A#, C# (C# Diminished), was designated the P1234A5 by Nathan, and was applied to the P30's. In 1976, when the first EMD F40PH locomotives and the Rohr turboliners were ordered by Amtrak, the P1234A5 horns were used on those engines as well.

The second order of F40PH locomotives began to arrive in 1977, and Deane Ellsworth looked to further refine the Amtrak "sound." He went to Vancouver, BC to meet with the inventor of the chime-tone air horn, Robert E. Swanson. As the result of their discussions, several changes were made to



When AEM7 locomotives took over Northeast Corridor assignments, the sound of the E60 "tug boat" horn was replaced by that of the Nathan Airchime K5LA.



Amtrak's Rohr turboliner trainsets were equipped with Nathan Airchime model P1234A5 air horns.

the Nathan K5H horn, with a new chord of D#, F#, G#, B, D# (B Major 6). The horn, cataloged by Nathan-Airchime as the model K5LA, was installed on this, and all subsequent F40PH orders. In early 1981, delivery of new AEM7 electric locomotives began, and they received the new K5LA horn, as well.

The SDP40F engines were phased out in the early 1980's, and with them the SL-4T horn. During the late 1990's, the last of the P30CH locomotives were retired, and the Rohr



The Nathan Airchime K5LA horn is now standard on all locomotives, and has become the new "sound of Amtrak."



The Nathan Airchime model P1234A5 air horn was developed by Amtrak manager Deane Ellsworth for use on the General Electric P30CH locomotive, the turboliners, and the first order of EMD F40PH locomotives.

turboliners were placed into storage. A few E60 electrics remained in service into the next decade, but were soon replaced when the new Acela equipment arrived. With these retirements, the unique sounds of the P01235 and P1234A5 air horns disappeared.

Today's P40 and P42 locomotives have been equipped with the Nathan K5LA, which has been adopted as the standard air horn for Amtrak locomotives. To the current generation of railroad buffs, this is the "sound of Amtrak," and the horns that many of us knew are now a part of history. As Amtrak prepares to enter a new era of high speed trains, it will be interesting to see what the next forty years will bring.