The Beauty Queens Part 2

T. R. GERBRACHT

PERFORMANCE

From the date of their delivery in March, 1945, until October, the first four units were rotated on various trains in the passenger pool, based on photo dates in the Society's files. In October, "A" units 4004-07 were delivered, along with "B" units 4100-03. The method and locations for servicing are not known for certainty, but Harmon was obviously facilitized, as were Englewood, Illinois, on the main line, and Mattoon, Illinois, on the line to St. Louis.[20] There were few, if any, intermediate servicing points, with the possible exception of Air Line Junction at Toledo, Ohio, where several photos exist of the first EMD FT freight diesels on the railroad. In the early days of dieselization, it was quite common for refueling to be accomplished using fuel trucks, so the establishment of extensive refueling and servicing facilities was not an immediate requirement. Therefore, it is likely that passenger diesel operation was restricted to the Harmon-Chicago mainline, and St. Louis to Harmon, at least initially.

In early 1946, the Central set up the famous series of tests between six Niagaras and six diesel sets. The diesel tests were conducted first, with the diesel sets assigned to three eastbound and three westbound runs, one in each direction between Harmon and Chicago, and two between Harmon and Mattoon, Illinois. The assigned train service mileage per

NYC 4001 and 4000 lead eastbound #26 around Fleischmann's Curve at Peekskill, New York, on October 14, 1945. Their eastward journey is almost over. Negative 7052-1.

day was 928 miles and 1,000 miles respectively. The Niagara testing was begun on October 1, with six Niagaras assigned, all between Harmon and Chicago.

The six two-unit diesel sets averaged 29,021 miles per unit per month, or 954 per day for the test period. It is unclear whether the diesel tests and the steam tests were run using the same trains. For the record, the trains on which the six Niagaras were operated included train numbers 2, 19, 21, 22, 32, 47, 50, 68, 90, and 143. The cycle diagrams available for the Niagaras confirm that some train assignments were made to get the locomotives back into their assigned cycle after failures and repairs. A thirteen-day coal strike in December caused the Niagaras to be assigned to other runs, but the total Niagara mileage for the three-month period beginning October 1 was 455,404, or 25,300 miles per month per engine. For the two-month period starting October 1, the Niagaras averaged 26,168 miles per engine, or 858 miles per day. For the month of October, 1946, one of the test Niagaras, the poppet valve S-2a 5500, ran 28,878 miles, surely a world record for a one-month period for a steam locomotive. Piston valve Niagara S-1b 6025 ran 28,681 miles, another good performance. The least trouble-prone Niagara during October, 1946 was the 5500, with only a broken Automatic Train Stop receiver stud causing a missed assignment. During the steam test, the Niagaras proved very reliable, with only minor nuisance failures that prevented their dispatch.[21]

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This going-away shot of Train #41, *The Knickerbocker*, taken on April 15, 1945, displays the marvelous scenery of the Hudson Valley. Negative 6823-2.

Queens... *(Continued)*

The lower average monthly mileage for the Niagaras vs. the diesels may be due to the December coal strike and an inability to have them assigned to longer, through runs, or the longer turnaround time required for the steamers, or perhaps some combination of these two and other factors, including time required for monthly boiler washes.

ADVERTISING AND PUBLICITY

The first hint that NYC was off the coal standard may have occurred with the issuance of the 1946 calendar. Featured prominently on this calendar was a Dreyfuss streamlined Hudson as the most prominent image. In supporting roles were three other locomotives, a streamlined *Empire State Express* Hudson on the right, and a Niagara on the left. Between the Hudson and the Niagara was EMD E7 No. 4000, in light grey. The message was clear: the diesel would have a role in the New York Central's future motive power plans. Another clue as to the railroad's motive power intentions may have been the cover of the February 15, 1947, issue of *Railway Age*, in an EMD ad headlined "The Century Passes its Millionth Mile behind General Motors Diesel Power."[22] An EMD advertisement also appeared in the general trade press sometime after February, 1948, that described the assignments and the success of these locomotives. The following are direct quotations from the ad:

> A fleet of twenty-two 4000 HP General Motors Diesel locomotives, used in the

Black E7 4003, with 4002, at Peekskill, New York, on June 8, 1945, westbound with #25, the *20th Century Limited*. Only two "E" units were painted black. Negative 6886-1.

hauling of New York Central's "Great Steel Fleet" of passenger trains between Harmon or Boston and Chicago and Cincinnati, has averaged 27,895 miles per locomotive since the first went into service in March, 1945.

The list of trains includes such famous names as the 20th Century Limited, the Empire State Express, the Commodore Vanderbilt, the Lake Shore Limited, the Pacemaker, the Southwestern Limited, and the Ohio State Limited.

Four 2000 H.P. General Motors Diesel locomotives went into service in March, 1945, eight more in October, 1945, twenty more in April, 1947, and twelve in February, 1948.

The average of 27,895 miles a month for the twenty two locomotives (44 units) was accompanied by an average availability of 86.93%, *based on the number of hours available to total potential hours*, and enabled the locomotives to meet their assignments an average of better than 95% of the time.

CONCLUSIONS

There are many photos of the first four E7's in the NYC photograph collection, indicating that the railroad was enamored with its new purchase. The fact that these locomotives were assigned to the world's premier passenger train so soon after delivery speaks volumes. The testing that occurred over a year after

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J-1c Hudson 5263 is backing down to its train as E7's, tied to the *Century*, idle. Lima's PT tender on the 5263 looks almost new. Negative 6989-2.

delivery of the initial E7's probably served to reinforce the decision to purchase these units. Following the first twelve locomotives, no other EMD passenger power was received until April, 1947, when sixteen "A" units, NYC 4008-4023, and four additional "B" units, NYC 4104-4107 were delivered.[23] With a total of 24 "A" units, NYC was able to dieselize no fewer than seven trains of its great steel fleet (based on the publicity announcement above), with the "B" units used on the heaviest of these in order to maintain the fast schedules. Three-unit sets were used for a number of years on the *20th Century Limited* and *The Commodore Vanderbilt*. The *Commodore* usually carried a very heavy consist and, with a schedule that was essentially the same as the *Century*, it was regarded as the most challenging motive power assignment.

From these dates and records, it might be concluded that the Central made the decision to dieselize its premier passenger trains as early as the autumn of 1946, and that this decision resulted in the expansion of the E7 fleet with the April, 1947, deliveries. The fact that the E7's won the mileage test comparison, if not the performance comparison, with the Niagaras in late 1946, coupled with the coal supply disruption in December, 1946, probably sealed the decision.

EPILOGUE

The EMD E7 was the most popular passenger diesel locomotive in history, with a total of 429 cabs and 82 boosters produced through April, 1949. The EMD E7 outsold all of its

NYC 4006 and an unidentified "B" unit were assigned to the westbound *20th Century Limited* on July 14, 1946. The units will complete the entire 928-mile trip to Chicago, resulting in high utilization and exceptional monthly mileage records. Negative 7389-2.

diesel passenger locomotive competitors, the Alco PA's, the Erie-builts, and the Baldwin Sharks, combined.[24]

The New York Central eventually assembled a fleet of 96 E7 and E8 "A" units, 36 of which were E7's. The final tally of "B" units was eight, with no more added after April, 1947. In actual operation, a two-unit set of E7's was more than sufficient to maintain track speed with the newer and lighter cars that were purchased after the war, especially as train size was being reduced to match the reduced passenger traffic level. In the diesel age, E7's and E8's were used interchangeably with no detrimental effect on schedules. An ICC ruling in 1949 had the effect of reducing maximum speeds of passenger trains to 79 mph, so the extra horsepower of a third unit was required only where lack of reliability would affect the schedule or where extra steam generation capacity was required for train heating, and so the only common three-unit consists were on the *Century* and the *Commodore*, with a few exceptions. The winter of 1948-49 was so severe in the New York Central's service area that train delays became more common. The Central found that the steam generators supplied with the E7's did not have the capacity to keep a train warm, and a number of trains reverted to steam operation, including the use of Niagaras. There were not enough "B" units available to cover service with three-unit sets. This situation was later remedied through the use of larger steam generators for train heating.

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E7 4007 and its "B" unit, hauling #12, the *Southwestern Limited*, pass a Mohawk- powered milk train on Fleischmann's Curve at Peekskill, New York, on July 7, 1946. Number 12 consists of mostly heavyweight equipment, and will receive 1938 *Century* equipment when # 25 and # 26 are reequipped in 1948. Negative 7392.

Queens... *(Continued)*

The Reverse Grey Paint Scheme: A superseding set of drawings to Q-72510, dated July 1947, reversed the light grey-dark grey color scheme for NYC passenger diesels. The former light grey carbody of the original DPA-1A and DPB-1A class engines, NYC 4000 and 4001 and 4004-4007, and "B" units 4100-4103, was now painted dark grey, and the banding color was light grey. The original two-tone grey paint, dating from 1938 for both cars and engines, was Duco lacquer. The new 1948 paint scheme used DuPont lacquer, although the 1948 cars used DuPont Dulux enamel. The two black-and-silver E7's, NYC 4002 and 4003, were also repainted into two-tone grey. These repaintings did not occur immediately. Negative 8339-3, reproduced in this article, shows that "A" unit 4003 had been repainted in the light grey carbody color scheme by October 30, 1948. The date on which the 4002 and the 4003 were repainted with dark grey carbodies is not recorded.

One of the persisting enigmas concerns the actual color formulations used on the E7 and later E8 passenger locomotives at various times during their operational history. Perhaps the defining information regarding the greys used for both locomotives and cars was the basis for an article by H. Lans Vail, published in the Second Quarter, 1984, issue of *Central Headlight*. In that article, Lans was finally able to demonstrate that the original grey colors used on the 1938 *20th Century Limited* and the first four E7 locomotives were, in fact, the same as the reversed greys used on the E7's and E8's and the 1948 *Century*, albeit using different paint formulations.

Engineer at the controls of E7 4002 at Harmon on August 19, 1946. S-1b Niagara 6024 on the adjacent track was in similar service and almost matched E7 monthly mileages. This photo provides a size comparison of the Niagaras vs. contemporary diesels. Negative 7433-1.

EMD drawing 8091461, dated January 11, 1945, "Styling and Painting," first used on E-639 New York Central passenger locos called for:

Light Grey - Duco, color match (Dulux 88-8234)

Dark Grey – Duco, color match (Dulux 88-8235)

Black – DuPont Duco 246-2504

Imitation Aluminum – DuPont Duco 246-34793

Red – DuPont Duco 246-9089R

Black – DuPont Dulux 88-005

Vail noted that, per the drawing, 1 = Body above and below "lightning stripe", including skirt between the trucks, 2 = lightning stripe on nose (on "A" units) and sides, 3 = blind ends, 4 = striping, 5 = Background of nose herald, and 6 = trucks and underbody, including fuel and water tanks. The "246" prefix denotes DuPont nitrocellulose lacquer, and the "88" prefix denotes DuPont Dulux, medium oil, air dry, alkyd enamel.

From the records of Lans Vail and confirmed by New York Central drawings, the 1938 paint types and colors used until July, 1947, were as follows:

For both engines and cars:

Dark Grey - DuPont DUCO lacquer #8592

Light Grey - DuPont DUCO lacquer #8576

Opex Blue (where used) - Sherwin Williams #6508-N-10

Aluminum - Sherwin Williams #CE 4424

The post July, 1947, two-tone grey paint types and colors were as follows:

For engines:

Dark Grey - DuPont DUCO lacquer #254-2385

Light Grey - DuPont DUCO lacquer #254-35453

White - DuPont DUCO lacquer #254-1

Black - DuPont Dulux Locomotive Black #88-762

For cars (note these are enamel):

Dark Grey - DuPont Dulux #P-88-2385

Light Grey - DuPont Century Dulux #88-8234

Aluminum Grey - DuPont #95-7581

In 1960, there was a further change in the paints used for the cars as follows:

Dark Grey - DuPont Dulux #83-67117

Light Grey - DuPont #83-35453

According to the Vail article, the drawings were changed on July 20, 1960. Confirmation of the actual color formulations may require further investigation. The author is no expert on NYC colors, and the above infor-

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E7 4004 and an unidentified "B" unit have #26's sixteen lightweight cars well in hand on this October day in 1946. The photo demonstrates that two E7's could maintain the schedule of this train with as many as sixteen cars. Negative 7489-1.

mation, which is reproduced from secondary sources, may be contradictory in some areas. It is provided for those Society members and modelers who do not have the original *Central Headlight* articles for reference. The drawings referenced as "EMD drawings" are, of course, not available in the Society's collection. Further, the fading of some colors over time, and the use of the older automotive type lacquer on the locomotives, may have resulted in shades of colors that were quite different than what was applied when the equipment was new. Further, the black-and-white photographs included with this article probably have varying sensitivity to some colors and shades in this color spectrum, and it is therefore quite likely that the NYC light grey diesel locomotive color issue will never be satisfactorily and completely resolved.

The reason advanced by some retired New York Central engineers for the change that reversed the two grey colors was that the oil-contaminated soot of the original diesel engines streaked the light grey carbody of the locomotives and the trailing train of lightweight cars, and that removal of this residue was difficult using the engine and car cleaning equipment then installed at Harmon and Mott Haven. In contrast, it was said that removal of the dry ash from a train hauled by a steam locomotive was relatively easy.

Engines 4000-4003 ran literally millions of miles during their careers. The 4003, one of the original four, received notoriety for another reason in 1953. This engine was in one of the consists that was wrecked in the well known, three-train derailment, known as the

E7 4007 and its "B" unit pose near Garrison, New York on April 25, 1947. The engine is still equipped with its original pilot and coupler cover. Negative 7707.

State Line Wreck, near Conneaut, Ohio on March 27, 1953. An eastbound freight train lost a load of pipe just ahead of westbound passenger train #5, which was hauled by E7 units 4018 and 4003. Train #5 derailed and also derailed fifteen cars of the freight train. Train #12, the *Southwestern Limited*, running eastbound at high speed and pulled by E7 units 4020 and 4111, crashed into the derailed cars of #5. The resultant wreck was the worst in Erie County history, killing 24 people and injuring 150 more.[25] (An article published in the March, 1982, newsletter of the Mohawk and Hudson Chapter of the NRHS, in recounting the details of this accident, cites 21 deaths and 48 injured.) Both E7 diesels were returned to EMD and received E8 noses and other mechanical changes that made them resemble E8's.

All eight of the original E7 locomotives survived into the Penn Central era, along with the original four E7 "B" units. NYC 4000 and 4004, along with all four "B" units, were retired by Penn-Central in April, 1968. NYC 4001, 4002, and 4003 were also acquired by Penn-Central, but their ultimate retirement date is unknown. The original four E7's certainly set the course for passenger dieselization on the New York Central. They were that good.

THE MOST FAMOUS?

While the mechanical components of the New York Central's first eight E7's made them identical, road number 4003 certainly deserves recognition for its numerous appearance changes since it was delivered to the railroad. It was delivered as one of two

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NYC 4000 and a mate pose near the Harmon sand tower on June 26, 1947. Note the consist of reversed grey E7's in the distance, and the electric motor at the extreme left. The coupler cover is open, and the unit is equipped with safety chains and hooks, possibly indicating that the 4000 will be the trailing unit on an outbound train this day. Negative 7758-2.

Queens... *(Continued)*

locomotives with a black carbody, with light grey striping edged in aluminum. By October 30, 1948, when it was photographed on Train #51 at Rochester, New York, it had been repainted with a light grey carbody with dark grey banding. Sometime after this date, it was repainted into the "standard" New York Central passenger diesel power color scheme of dark grey carbody with lighter grey banding. After it was wrecked in March, 1953, it was sent to EMD where it was completely rebuilt, including a new E8 nose and carbody. Its dark grey carbody with light grey banding was retained. Sometime after August of 1955, it was repainted into the new "cigar band" color scheme. There may be photographic records of the carbody color scheme it had from August of 1955 until it was retired by Penn-Central. Any follow up photographs or information would be of interest to our readers.

POSTSCRIPT

My earliest exposure to NYC diesel passenger engines occurred on Tuesday, August 31, 1954. A year earlier, I had visited the cab of Niagara 6007 at Erie, New York, probably a life-changing event for me, and I wanted to see and experience more motive power firsthand. My father proposed a cab ride to Collinwood, Ohio, or to Buffalo, New York. By August, 1954, the Central was completely dieselized east of Collinwood on the mainline. Probably because of the logistics of my leaving the engine at Collinwood and then getting to East Cleveland for a coach ride back

E7 4004 and an unidentified "B" unit are assigned to the *Empire State Express* on June 27, 1947. A replacement nose door with revised lettering has been applied. The unit does not have safety chains and hooks but does have holes for their application, suggesting that they were portable and applied to trailing units when they were dispatched. Negative 7783-2.

to Erie, he arranged for a cab ride for me and my younger brother, Ron, to Buffalo on Train #40, *The Missourian*. The General Release, which I still have, was dated August 30, 1954, and was signed by H. N. Curtiss, trainmaster, for J. E. Guilfoyle, who was superintendent. The witness was Jack Hoenes, assistant train master. A 1956 timetable shows Train #40 arriving at Erie at 7:02 A.M. and scheduled to arrive at Buffalo at 8:40 A.M. The lead engine that morning was E7 #4035, the last E7 obtained by the railroad, and it was mated with #4087, an E8. The crew on this trip included engineer C. W. Foster, fireman C. G. Weber, and conductor Archie Yeska.

I don't remember many details of that trip, but a few stand out. I was somewhat surprised at the bright green color of the interior of the operator's cab. The fireman asked if we wanted to see the engine room, and we agreed. When the fireman opened the back bulkhead door immediately behind the engineer, the high noise level and vacuum created by the rush of air from the equipment blowers and the roar of two EMD 567B's at full throttle deterred my nine-year-old brother, but I pressed on. The aisleway beside the engines was dimly lighted with bare bulbs, spaced at intervals, interspersed with small windows. The fireman led me alongside the engines, while the carbody lurched from side to side unpredictably. There was a mixture of diesel fumes and a fine oil mist in the engine room, along with a mixture of oil-soaked dirt on the floor, making walking difficult. I was wearing my "dress

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E7 4001 and an unidentified mate traverse the new Gulf Curve alignment with a secondary train on November 9, 1947. The photo shows the scope of the project. Note the old alignment, as indicated by the pole line at the extreme right in this photo. Negative 7941-8.

clothes," which was customary in those days when traveling, since we would be returning by coach. I followed the fireman about two-thirds of the way back along the engines, permitting him to point out the steam boiler and, nearby, the unshielded toilet. The thought occurred to me that this sanitary arrangement was barely civilized. We then returned to the cab, no worse for wear.

Before the trip, my father admonished us not to interfere or interrupt either the engineer or the fireman, as they were at work and our safety depended on them, and he indicated that they would be calling signals. As I recall, the only signal that the engineer called out was one restricting signal that almost immediately cleared, and which the fireman acknowledged. At one point in the trip, the fireman left the cab to "blow down the boiler" in the engine room. When I asked what was involved, the engineer told me that the fireman "had to push a button" on the steam generator, probably oversimplifying the task description for the two of us. For most of the trip, my brother Ron and I sat in the fireman's seat that had been to offered to us, and the fireman stood. We were each invited by the engineer to "blow the whistle, two longs, a short and a long," at a rural grade crossing. The highest speed we reached, near Buffalo, was 86 mph. I asked Engineer Foster what the top speed was, and he said 80 mph, but he said he could "go a little faster" if he had to.

At Lackawanna, we saw a switch crew moving H-10 Mikado 2222 into the plant for scrap-

NYC 4003 and another early E7 enter Rochester Station with Train #51, the *Empire State Express*, on October 30, 1948. Note that this locomotive, formerly with a black carbody, has now been repainted light grey. Its crew at left stands ready to cross the tracks and board. Negative 8339-3.

ping. It was the only H-10 I ever saw, and I could not read the number, but my dad later told me he thought it was "the four deuces." Since I was not familiar with card-playing, he had to explain to me what a deuce was. My one conclusion from that ride was that steam locomotives were certainly no dirtier than diesels, and that I would have preferred to have ridden on a Niagara or a Hudson.

I have made additional trips on E units since then, including the last westbound pre-Amtrak passenger train into Cleveland Union Terminal on Train #59, with E8 4059 and "B" unit 4107. They were stylish, fast, rode well, were a little slippery, and had little maintenance and probably no cosmetic maintenance, at least at the end. They, in sets of two, were worthy successors to a Super Hudson, but they were not unique to the Central, so they were less appreciated.

Notes

20 *A Practical Evaluation of Motive Power*, Kiefer.

21 *Railway Mechanical Engineer*, July-August, 1947, p. 365.

22 *Railway Age*, February 5, 1947.

23 *New York Central System Diesel Locomotives,* Edson, Vail, Smith, p. 101.

24 *Trains* Magazine, April, 1994, Morgan, p. 46.

25 *Tower Topics*, Utica and Mohawk Valley Chapter NRHS, March, 1982.

This photo of the 4004 and J-3a Hudson 5424 at La Salle Street Station in Chicago provides a good size comparison between these two high-speed passenger designs. The 4004 has arrived on Train #1, *The Pacemaker*, on August 24, 1949. Notice the open double coupler cover doors on the diesel. Negative 8664.