

Right side builder's photo of the original H10 #8000. Built by Lima in May 1922, B/N 6242.



Left side builder's photo of the original H10 #8000.



Right side builder's photo of the first production H10a #1. Built by Lima in September 1922, B/N 6357.

# New York Central Class H10 2-8-2 Type Mikado Locomotives

R. S. Curl

The H10 class locomotive was the first result of the efforts of William E. Woodard, Vice President and Chief Engineer of the Lima Locomotive Works, to develop a more powerful and more efficient steam locomotive than those in service during the early 1920's. Lima's management approached the President of the New York Central, Alfred H. Smith, to agree to test and later, if successful, purchase a locomotive incorporating Woodard's ideas and designs.

As a result, Lima constructed, at its own expense, one locomotive, Michigan Central 8000, in May, 1922, on order L-1027. The basic design evolved from the ten Michigan Central class H7e 2-8-2's, built in 1920 along with 50 similar locomotives for the Big Four, that were considered to be very powerful and efficient locomotives.

Comparative specifications for the H7e and H10 are:

#### MC & CCC&STL H7e

Weight on Drivers	246,000 lbs.	2
Total Weight	328,000 lbs.	3
Cylinders, Dia. & Stroke	27" x 30"	2
Tractive Effort w/o Booster	59,000 lbs.	6
Tractive effort w/ Booster		7
Grate Area	60 sq. ft.	6
Steam Pressure	200 lbs.	2
Drivers, Diameter	63"	6
Heating Surface, Tubes	4400 sq. ft.	4
Heating Surface, Firebox	250 sq. ft.	2
(inc)	1. arch tubes)	(
Heating Surface, Superheater	1163 sq. ft.	1
Tubes, large	45-5-3/8" dia	2
Tubes, small	281-2"	
Tube length	21'-0"	2

The H10 was designed to provide a significant increase in hauling capacity without exceeding the weight on driving wheels of locomotives in the H7e class, which were already at the capacity of the track and bridges in use at that time.

As the chart above indicates, with a 1.8% increase in total weight, the tractive effort increased 7.6% without booster and 26.3% with booster. Fuel economy, based on the ability to obtain maximum drawbar output for the fuel consumed, was another goal obtained through the use of fuel-saving devices. Two of these devices were the Superheater Company's Type E Superheater and the Elesco Feedwater Heater. The Type E Superheater was designed to give a higher degree of superheat than the Type A design, which was considered the standard in that era. At the same time, larger steam passages were incorporated between the superheater header and the throttle. The feedwater heater utilized exhaust steam to heat the feedwater from the tender tank temperature to about 225°F.

The throttle was a Chambers double poppet valve type located ahead of the stack on top the smokebox. The location of the throttle between the superheater and the cylinders eliminated the usual damper and rigging and also enabled the locomotive to respond more quickly to changes made by the engineer in the throttle position. Since the throttle valve was not in the steam dome, a steam separator was placed at the highest point in the dome to remove water from the saturated steam before it entered the dry pipe.

Another improvement was the use of superheated steam for the feedwater pump, air pump, electric turbo-generator, stoker engine and booster engine. The piping to these auxiliaries was also arranged to use saturated steam if it became necessary.

The incorporation of the above specialty equipment on one locomotive was a first. Other locomotives had been modified with feedwater heaters, stokers, or boosters;

1110

		HIO	
_	MC H10 No. 8000	Increase/Decrease	
lbs.	245,500 lbs.	500 lbs. D - 0.2%	
	334,000 lbs.	6000 lbs. I - 1.3%	
0	28" x 30"	1" I + 3.6%	
bs.	63,470 lbs.	4470 lbs. I + 7.6%	
	74,470 lbs.	15,470 lbs. I + 26.3%	
t.	66.4 sq. ft.	6.4 I I + 10.7%	
	200 lbs.		
	63"	and the second	
ft.	4287 sq. ft.	113 sq. ft. D - 2.6%	
ft.	291 sq. ft.	41 sq. ft. I + 16.4%	
ubes)	(incl. arch tubes)	)	
		617 sq. ft. I + 53.1%	
" dia	253-34" dia	이번 것 같은 이번에 가지?	
	20'-0"	1'-0" D	

however, the 8000 was probably the first new locomotive to be built with these improvements. The 8000 was also probably the first locomotive to be built with a Type E superheater and a front-end throttle.

Several other innovative design improvements were the large 12" radius firebox corner design, and larger arch tubes for improved firebox maintenance, better water circulation, and more even water leg temperatures.

Another feature that requires mention was the outside steam dry pipe. This was necessitated by the location of the throttle in the smokebox between the superheater and cylinders and the desirability of shutting off steam from the throttle without killing the locomotive. The 8000 was the first locomotive built with an outside dry pipe. Others included 200 NYC H10a's, 45 B&A A1 2-8-4's, 51 IC 2-8-4's, 10 KCS 2-8-8-0's, 10 MKT 0-8-0's, and 6 CNR S-4 2-8-2's.

The unique location of the sand dome was its placement behind the steam dome. This location was necessary because of the outside dry pipe from the steam dome to the superheater header. Again the 8000 was a first.



H10a #4 at Indianapolis, Indiana, October 1, 1930. Photo by J. H. Westbay, Curl collection.



H10a #140 at Beech Grove, Indiana, June 7, 1924. One of the first applications of a 15,000 gallon 12-wheel tender to an H10a locomotive. Photo by J. H. Westbay, Curl collection.

The 8000 was an improved NYC H7e design. Both classes had 86 inch (O.D. at first course) straight top boilers. The 8000's firebox was 9 inches wider than the H7e's; it was 114-1/8 inches long and 84-1/4 inches wide inside, the same as the NYC class H6a USRA light 2-8-2. Although the calculated grate area of the H10 was 66.8 sq. ft., it was always carried as 66.4 sq. ft. in official records.

An interesting question arises, therefore, since the firebox dimensions of the USRA heavy 2-8-2 and a combustion chamber were not used for the H10. This design would probably have produced a much more improved locomotive than was obtained. The grate would have been 6 inches longer and the same width. Weight on the trailing truck may have been a problem since the as-built weight was 58,500 lbs. Combustion chambers were evidently a nemesis to the NYC at that time as only the L1 Mohawks and H6 and H9 Mikado classes were so equipped. Combustion chambers were subsequently removed on a few L1 and H6a locomotives.

Special effort was taken to keep the H10 weight within the same axle loads as the H7e. Hollow axles and hollow main cranck pins were used. Special quality steels were used in the main and side rods to gain strength and to reduce section and weight. Dynamic augment was reduced considerably compared to that of the H7e. The foundation brake rigging was 1800 lbs. lighter than that of the earlier H7e. A mistake was the selection of the lighter weight Elvin stoker instead of the Duplex as the Elvin performed poorly.

Some of the specialties used on the 8000 were: Franklin type A-1 radial buffer between the engine and tender; Commonwealth-Franklin engine truck; locomotive booster, Type C-1; Commonwealth Type "B" Delta trailing truck with constant resistance centering device; American Arch Co's. Type P firebox arch; Franklin adjustable wedges; Franklin grate shaker; Franklin sprinkler; Franklin Type "D" precision power reverse gear; Pyle National Type K-2 generator; Superheater Co's. Elesco feedwater heater and Type "E" superheater; Baker-Pilloid Co's. valve gear; McLaughlin flexible pipe joints, and the Elvin stoker. The tender had Commonwealth's open bottom tender frame and 4-wheel tender trucks.

The 8000 was placed in service between Toledo (MC Yard) and Detroit (Junction Yard) and Toledo and Jackson via Detroit. Test trains handled included one of June 30, 1922, consisting of 147 cars and 10,039 tons at a maximum speed of 18 mph. The locomotive exceeded the builder's expectations in both maximum drawbar pull and in economy of operation. Drawbar pull figures for the H7e, H10 and H10a locomotive were:

An interesting fact concerning the drawbar pull figures is the decrease of the H10 drawbar pull at speeds between 3 mph and 10 mph, it being more rapid than the H7e. The minimum difference in drawbar pull occurred at about 15 mph. At higher speeds the lines separated in favor of the H10.

Drawbar horsepower also increased as the H10 developed 1352 DBHP for every 6000 lbs. of coal consumed per hour and 1225 DBHP at a coal firing rate of 5000 lbs. per hour. This was an 8% increase in DBHP for the extra cost in coal. The H7e developed 1000 DBHP versus 970 DBHP under the same conditions, an increase of only 3%. The H7e developed a maximum of 2300 DBHP at 22 mph. At 25 mph drawbar horsepower of the H10a was 2730, and at 30 mph was 2560. This was with 210 lbs. boiler pressure. With 200 lbs. B.P. the DBHP was 2370 (30 mph) and 2595 (25 mph). Cylinder horsepower was estimated at 3070 from performance curves (200 # B.P.).

The advantages of the H10 over the H7 in drawbar pull, drawbar horsepower and the 8% decrease in fuel consumption led the New York Central System to immediately order 200 locomotives duplicating the 8000's design. These figures also led the NYC to add feedwater heaters and boosters to many of its H7 2-8-2's.

Two hundred additional Mikados, classified H10a were ordered as follows:

Lima Order L-1038

Ladita Orace Di 1000	
Nos. 1-65, New York Central	
Lima Order L-1038	
Nos. 123-132 Michigan Central10 engines	
Alco Order S-1393	
Nos. 66-82 New York Central	
Alco Order S-1393	
Nos. 133-182 Big Four	
Alco Order S-1393	
Nos. 183-190 Boston & Albany	
Alco Order S-1403	
Nos. 83-122 New York Central40 engines	
Alco Order S-1431 Nos. 191-200	
Pittsburgh & Lake Erie10 engines	

One hundred twenty-two of the 200 engines were bought by the New York Central and assigned to Lines West. The remaining 78 were purchased by subsidiary lines as indicated. The H10a's were the first system-wide design that also attempted a system-wide numbering scheme. It was also the last until the 1936 renumbering program.

	H7	e	H10	H10a					
Steam Pressure		lbs.	200	lbs.	210	lbs.	(as	built)	
Drawbar Pull, Starting	51,150	lbs.	*58,100	lbs.					
Drawbar Pull, Starting w/Booster			67,300	lbs.	70,700	lbs.			
Drawbar Pull, 10 MPH	48,000	lbs.	*50,500	lbs.	53,000	lbs.			
Drawbar Pull, 10 MPH w/Booster			*55,600						
Drawbar Pull, 30 MPH	24,450	1bs.	*29,600	lbs.	31,100	lbs.			

\* Figures calculated.



H10a #2260 in the final year of service, July 10, 1952. As the #160, this engine figured in the H10a tests made between Sharon and Bellefontaine in July 1923. Photo by E. L. Novak, Curl collection.



H10a #151 in her early years. Note the 18" Dressel headlight and the 8-wheel tender, R. S. Curl collection.

The H10a's were nearly identical in detail with the 8000. Specifications were:

Special of the test	
Weight on Drivers	
Total Weight	
Cylinders, Dia. x Stroke	
Tractive Effort w/o Booster	
Tractive effort of Booster	
	(later listed at 11,550 lbs.)
Grate Area	
Steam Pressure	
Drivers, Diameter	
Heating Surface, Tubes	
Heating Surface, Firebox	
	(incl. arch tubes)
Heating Surface, Superheater	1780 sq. ft Type E
Tubes, large	
Tubes, small	None
Tube length	

Steam pressure was raised 10 lbs. over the 200 lb. setting of the 8000 and the H7e's. Due to the increased tractive effort, weight on drivers was now 248,000 lbs. Total engine weight was 1000 lbs. heavier than the 8000.

The 122 NYC H10a's were assigned the heavy haul assignments between Youngstown and Ashtabula, Ohio, the coal fields around Minerva, Ohio, on the Cleveland Division, and probably mainline assignments between Cleveland and Chicago. None were assigned to the Ohio Central Line, although it is possible they were used on this rugged division.

The 50 H10a's purchased by the Big Four were probably assigned initially to the Ohio Division. It is known H10a's were assigned between Sharon Yard (Cincinnati) and Gest Yard at Bellefontaine. Many road tests with engines 156 and 160 were operated in July 1923 on this district. The MC Engines likely were assigned between Toledo and Detroit and Jackson. On the Boston and Albany, the eight H10a's were operated between Boston and West Albany, NY (later in 1924, Selkirk, NY). No. 190 was used in the comparative road tests with the Lima A-1 2-8-4 in March, 1925, between Selkirk and West Springfield, Mass.

The H10 and H10a class 2-8-2's may have been the most modified locomotives on the New York Central system. This process started almost immediately after delivery with the application of a second 8½ inch cross compound air compressor to the left side. Of the 201 H10 and H10a locomotives, all but five (Nos. 8000, 126, 129, 130 and 132) were eventually equipped with 2 air pumps. (After 1936, the numbers were 2090, 2226, 2229, 2230 and 2232.)

Almost concurrently with the air pump addition, a program began to replace the poorly performing Elvin Stoker with the Locomotive Stoker Co.'s Duplex D-2 stoker. Three H10a's received Standard Stoker Co.'s (successor to the Locomotive Stoker Co.) BK stokers (94, 159 and 169), while one P&LE locomotive (191) was equipped with an LT2 stoker, a D-2 stoker modified with an HT type delivery and distributing unit. The D-2 stokers were replaced with either a Hanna H4-1A or HT stoker during the period from the late 1930's until the late 1940's. All but 39 engines were modified. The mix of Hanna and HT stokers was about 50% each.

Starting in February, 1924, new 6-wheel truck tenders, carrying 15,000 gallons of water and 18 tons of coal were ordered for the H10 and H10a's. Nos. 16 and 75 were among the first so equipped. Soon a modified version carrying 24 tons of coal was used. The 10 P&LE H10a's

used another design with a 16,000 gallon water capacity. All locomotives were equipped with these tenders, while the original four wheel truck tenders were placed behind H7a-d's, K3's, and H5's having smaller tanks. Later all K14's and booster equipped K11's got the early H10a tenders. During the Second World War, many of the 18 ton tenders had coal board extensions applied to the original collar. These extensions were of four types. Perhaps the neatest was the Michigan Central curved style, used on a few H10a's. The Big Four had 3 designs, a curved type, the straight extension design, and a sloping or angle board used on at least two locomotives. This increased the coal capacity to 22 tons. However, the MC did not restencil their tanks to this figure, but maintained the original 18 ton figure.

Several other changes began in the late 1920's. These were the removal of the outside dry pipe and Chambers front end throttle, new 78 inch and 82 inch long cabs replacing the original 72 inch cabs, and finally the shifting of the air compressors to the front deck, with or without pump shields. This gave the H10a's the look of the H10b's. Engine 184 may have been one of the first with the front mounted air pumps. Nos. 2147 and 2153 were evidently scheduled to receive front mounted compressors. Cutouts in the smokebox for pump clearance gave an indication of the plan. Moving the dry pipe inside the boiler required a new American combination multiple throttle and superheater header and a revision in the tube layout. Six 3¼ inch O.D. tubes were removed and six 2¼ inch O.D. tubes were installed, the extra space being used for the dry pipe. The tube heating surface became 4255.6 sq. ft.

The firebox arch tube arrangement of a double layer of tubes was altered in the mid-1920's. This reduced the firebox heating surface to 257 sq. ft. One layer was probably removed.

The Elesco feedwater pump as originally applied to the H10 and H10a's was the model W-61/2. This design was replaced by the CF-1 type, and a program to replace the older pump started in the late 1920's. Locomotives with the obsolete pump were photographed in the mid-1940's. All were replaced before dieselization. Many H10a's with front mounted compressors had the feedwater pump moved over the fourth or rear driver for better suction of water from the tender. Most on the Big Four were moved in the mid-1940's, but the P&LE and some Line West engines were so modified when the air pumps were placed on the front deck in the late 1920's and 1930's. Several Big Four engines were rebuilt with front mounted air pumps and a rear mounted water pump as late as mid-1948. Nos. 2131 and 2132 were examples. Others converted after 1945 included the 2195, 2219, 2220 and 2231. (No. 2231 had air pumps only moved.) The last conversions were the 2148 and 2216 on the P&LE in 1950. Early front mounted air pump conversions with pump shields applied are readily identifiable by a small triangular gusset under the deck and behind the pilot beam. This was a small detail used on the H10b's. Late air pump front deck applications utilizing pump shields did not have this gusset. Gussets were not used when the pump shields were omitted.

All the H10 and H10a's were built with steam power grate shakers. This device evidently proved troublesome and was removed after a few years. Sand piping was placed under the boiler jacket when the locomotives were new, but many engines later had exposed sand pipes adding to the maze of pipe already covering the boiler. In the 1930's and early 1940's the pipe carrying superheated steam for the auxiliaries was removed along



Test crew of H10a locomotive #160 at Glen Echo, Ohio, July 3, 1923. Left to right, front row: S. V. Bevington, Asst. Supt.; Sam Bowers, Asst. Air Brake Supervisor; P. T. White, Supt.; J. J. Strapp, Road Foreman of Engines; F. K. Mitchell, Special Engineer (and future Chief Mechanical Officer); F. C. O'Neill, Air Brake Supervisor; F. V. Markley, Asst. R.F. of Engines. Middle row: C. H. Knowlton, Asst. Mech. Engr.; W. R. Beck, Air Brake Instructor; D. L. Dynes, Special Inspector. Rear row: Engineer and Fireman, unidentified. Photo by J. H. Westbay, Curl collection.



Looking forward from the tender, test run of H10a #160, July 3, 1923. Photo by J. H. Westbay, Curl collection.



The original H10 #8000 carried the number 2090 from 1936 to 1948. From 1932 to 1936 she had been the 370, and ended her days as the 2100. R. S. Curl collection.

with the turret, thus only saturated steam was available in the turret. Turret covers also were removed from many locomotives. The turbo-generator was originally mounted transverse on the boiler top, but with the removal of the auxiliary steam pipe, the generator was relocated longitudinally on the left boiler side. Headlights were huge 18 inch diameter devices as originally built. Later smaller Pyle-National sheet metal case lights were substituted; still later many of these were replaced by Pyle-National cast case lights. While the 8000 was equipped with a small wood pilot, the H10a's carried footboards when new. Only a few MC assigned locomotives normally were equipped with pilots, to allow their operation on the Canada Division where BTC regulations required pilots.

Hydrostatic lubricators in the cab were used to lubricate moving parts. Many were replaced by a force feed mechanical lubricator located on the left side directly behind the cylinder, and driven by the valve gear mechanism. Locomotives with water pumps located above the first driver either kept the hydrostatic lubricator or had the mechanical type on the right side of locomotive.

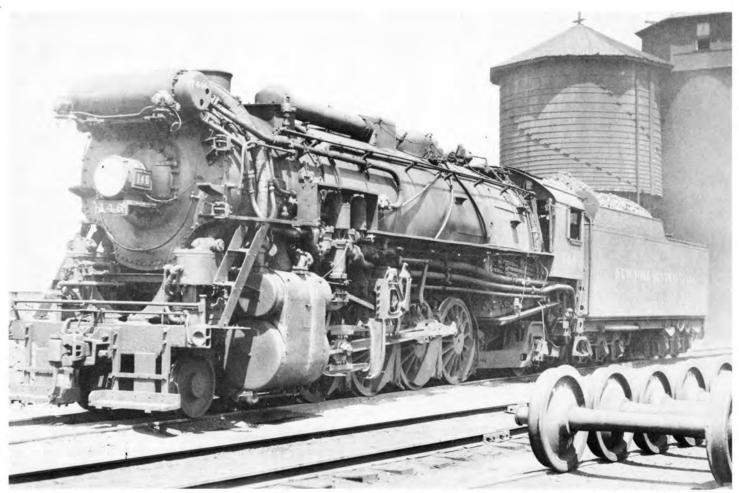
The exhausts of most of the H10a's I heard were clear and sharp, unlike those of the H5 and H7 2-8-2's. In 1948, however, several Line West or Ohio Central Line locomotives were brought west to the Chicago-Cairo Division, where for the first time, I heard a mushy or squishy exhaust from an H10a. Among these were the 2110, 2119, 2121, 2141, 2153, 2158, 2166, 2167 and 2230, all having the softer sounding exhaust. Possibly others sounded much the same.

The H10a's were constructed with main driving rods having a strap end at the main driver pin bearing. Most were replaced by a rod with a floating pin bushing typical of the modern engines without roller bearing rods. Many Big Four H10a's had a loop of air reservoir pipe placed above the running board on the boiler right side for extra after-cooling of the compressed air. A few locomotives with front mounted air pumps had the intake air filters relocated in front of the pump mounting brackets. Previously the filters were out of sight behind the cast steel supports. All H10, H10a's and H10b's were equipped with valve pilots in the mid-1940's, becoming the oldest class on the NYC so modified, except for some H5's used on the River Division.

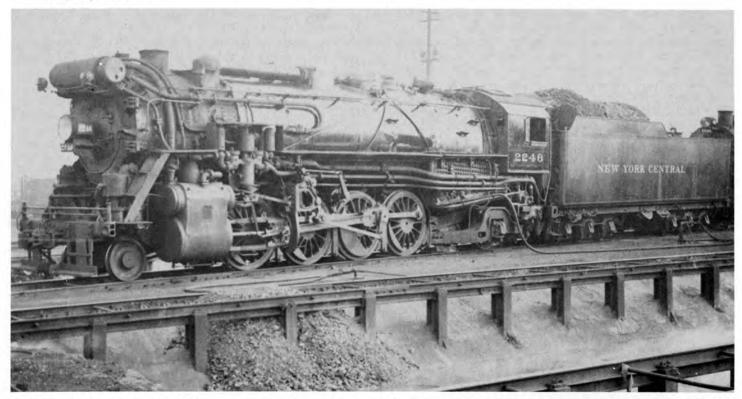
The P&LE added several other modifications to their H10a's that the sister roads did not adopt. Because of Pittsburgh city ordinances, all were equipped with smoke consumers during the later years of operation. This device purportedly reduced the smoke output. Another change was application of a compensating lever to the front end throttle rod. Again, this modification was made after World War II and included the three H10a's purchased in 1950.

Boosters were removed in 1948 to eliminate their high maintenance costs and to effect engine crew payroll savings by reducing the agreement weight to the main driver weight.

One other modification of interest, again on the P&LE, was the application of vestibule cabs to 3 H10a's and 2 H10b's, all obtained from the Big Four in 1950. These cabs were identical to the A2a 2-8-4 cab, and actually had five seats, including one for the conductor. Since the NYC tenders carried 15,000 gallons of water, they were replaced by the P&LE 16,000 gallon tank. These 5 H10's were probably the most distinctive 2-8-2's on the NYC. They were numbered 212-216 and were formerly 2097 (H10b), 2148, 2216, 2279 (H10a) and 2335 (H10b).



The earliest available photo of H10a #146, later #2246. 8" Roman lettering on the tender indicates that it was taken after 1928. Headlight is an 18" size by Sunbeam Electric Mfg. Co. Photo by G. Grabill, Jr., Rail Photo Service, Curl collection.



H10a #2246, not long after the 1936 renumbering — note that "Lines" has been painted out on tender, and that "New York Central" is not centered. R. S. Curl collection.

The H10a's had the boiler safety valves reset to 200 lbs. in the early 1930's, resulting in a rated tractive effort of 63,470 lbs. The reason for this is not known, but it may have been to keep the tonnage ratings the same as the H10b's. Some engines also had lower adhesion weights and may have been too slippery for good performance on heavy trains. The weights of the H10a's varied throughout their careers and changes are listed herewith:

explosion, the train was moving uphill at about 10 miles per hour. The exact point of the explosion was 90 yards south of the Plymouth road crossing. The engineer and fireman both perished. The head brakeman escaped death only through a twist of fate. He had just left the cab and was climbing over the tender to the second engine, another H10a. The cause is unknown. A new boiler was applied in January, 1930.

Engine 12 was the final H10a to blow up. This accident

	1926-1930	<u>1940-1946</u>	<u>1950</u>
	With 2 Air Pumps	2 Air Pumps	No Booster
Weight on Engine Truck	30,800 lbs.	30,400 lbs.	30,300 lbs.
Weight on Drivers	252,100 lbs.	252,500 lbs.	252,400 lbs.
Weight on Trailing Truck	58,700 lbs.	59,600 lbs.	50,800 lbs.
Total Engine Weight	341,600 lbs.	342,500 lbs.	333,500 lbs.

The weights of the 6-wheel truck tenders also varied,

as shown below:

Capacities 15000G, 18T 15000G, 18T 15000G, 24T 15000G, 22T 16000G, 18T 16000G, 22T Eng. 2090 (Ex. 8000) Loaded 1bs Weight Empty 109,000 lbs 115,000 lbs 118,500 lbs 115,000 lbs 114,600 lbs 114,600

Weight

Another boiler change in the H10a's is of interest. Sometime before 1946, the boiler tube and superheater arrangement was altered to 245 3¼ inch O.D. tubes, giving a tube area of 4158 sq. ft. Evidently additional superheater units were added, for the superheating surface became 1920 sq. ft. Two other boiler related devices were added during the 1940's. One was a Barco low water alarm, while the other was a top mounted boiler blow-down system by Okadee.

The boilers of three H10a locomotives exploded. The first, involving engine 59 (later 2159), occurred on August 6, 1926 in Ashtabula, Ohio at 1:43 PM. The train was a 77 car southbound from Erie, Pa. and was moving uphill at a slow pace. The point of explosion was 75 ft. west of the South Main Street subway, next to the Fork and Hoe Plant. The engineer and fireman were killed outright and six workers in the adjacent plant were injured. A new boiler was applied to the locomotive in April 1927. The cause of the explosion was said to be a faulty injector. The feedwater pump was not mentioned as another possible cause.

The second H10a boiler explosion also occurred in the Ashtabula area; actually Carson, Ohio, about 4<sup>1</sup>/<sub>2</sub> miles to the south, on Sunday, February 10, 1929. Engine 94 was involved. The train had just left Carson Yard, northbound with 130 empty cars for Collinwood. The 94 was the lead engine of a doubleheader. As in the first occurred at Arnold, Ohio on January 28, 1930. Arnold is northwest of Columbus, Ohio on the western subdivision of the T&OC or Ohio Central Division. There were three fatalities.

The last of the 200 H10a's were built in June 1923. Less than a year later, the NYC ordered 101 additional H10 2-8-2's. The new engines were classed as H10b's and their appearance differed considerably from that of the earlier H10 and H10a's. They were very rugged-appearing locomotives with the front mounted Elesco feedwater heater and shielded air pumps. The straight-top boiler and graceful cab added to the overall symmetry of the locomotive. The new 6-wheel-truck tender contributed much to their appearance. Delivery of the new Mikes commenced in June 1924 and all were in service by the end of September, 1924.

#### (To be continued in a future issue)





H10b 219, later 2319-2077, was less than a year old when photographed at Bellefontaine, Ohio on March 31, 1925. Note that tender lettering is the then-standard 5" Roman. Photo by J. H. Westbay.



H10b 220, later 2320-2078, at Indianapolis, Indiana, August 16, 1936. Note tender lettering is 8" Roman and is the "Lines" configuration, with "CCC&StL" on the coal board. Photo by J. H. Westbay.

# New York Central Class H10 2-8-2 Type Mikado Locomotives

R. S. Curl

#### Conclusion - Continued from the 2nd Quarter 1985 Issue.

The H10b's were a "cleaner" and "sleeked-up" version of the H10a. The outside dry-pipe was gone, placed inside the boiler. Taking its place was a large flat bolted cover plate for the superheater header, sitting crossways on top the boiler, directly behind the stack. The two 8½ inch cross-compound air compressors were located on the front pilot deck, under the smokebox, and were protected by cast steel shields. They were the first locomotives built with this design feature and many steam engines built after 1924 had the air pumps located on the pilot deck. The H10b's were the first **new** NYC locomotives to be delivered with large 6-wheel-truck tenders, but they were not the first such tenders on the NYC. Fifty L1 4-8-2's were so equipped in late 1923, and early 1924.

Both the Alco and Lima orders are generally thought to have identical specifications, and in the Big Four 1929 and 1936 classification, books and the NYC's classification books of 1939, 1944 and 1946, they are the same. However, such is not the case, if one looks in the Michigan Central classification book for 1936. There, two diagrams for H10b's are included, one for Alco-built engines and another for the Lima-built engines. Specifications for both are included:

	Alco Order S-1473	Lime Order L-106	
Weight on Drivers	*246,000 lbs.	244,600 lbs.	
Weight on Engine Truck	*32,500 lbs.	32,300 lbs.	
Weight on Trailing Truck	*58,500 lbs.	57,600 lbs.	
Total Weight	*337,000 lbs.	334,500 lbs.	
Cylinders, Dia. x Stroke	*28" x 30"	28" x 30"	
Tractive Effort, w/o Booster	*63,470 lbs.	63,470 lbs.	
Tractive Effort, w/Booster	*74,470 lbs.	74,470 lbs.	
Grate Area	66.8 sq. ft.	*66.4 sq. ft.	
Steam Pressure	*200 lbs.	200 lbs.	
Drivers, Diameter	*63"	63"	
Heating Surface, Tubes	*4126 sq. ft.	4122 sq. ft.	
Heating Surface, Firebox	*261 sq. ft.	253 sq. ft.	
Heating Surface, Superheater	*2020 sq. ft.	1970 sq. ft.	
Tubes, large	*192 31/2 in. O.D.	192 31/2 in. O.D.	
Tubes, small	*53 21/4 in. O.D.	53 2¼ in. O.D.	
Tube length	*20'-0"	20'-0"	

The boilers were slightly different (fractions of an inch) from those of the H10a. The two orders of H10b's had bell and sand dome placement varied by 2", not noticeable to the eye, either in prototype or photograph.

Many of the specialties applied to the H10a's were also used on the H10b's. A radial buffer between the engine and tender; Commonwealth engine truck; a later design of Commonwealth Delta trailing truck; Type C-1 locomotive booster; Franklin grate shaker; Precision power reverse gear; Baker valve gear; adjustable wedges; Superheater Co's Elesco feedwater heater and Type "E" superheater; Chambers front end throttle; and Locomotive duplex D-2 stoker. The tender had Commonwealth's water bottom tender frame and 100 inch wheel base 6-wheel swivel bolster tender trucks. The locomotives were equipped with two types of Elesco feedwater pumps. Nos. 212-251 and 320-330 had the older W-6½ pump. Engines 346-369 were equipped with the new CF-1 pump. Data is not available for Nos. 331-345. By the late 1940's all had the CF-1 pump. A Michigan Central H10b, No. 2379 (orig. 339) was equipped with a centrifugal type water pump which was used on the J1 and L2 (b&d sub-class) locomotives. The date of this change is not known, but a photo of the engine taken in the late 1930's shows the new pump in place.

The 50 New York Central H10b's were first assigned to Line East until replaced by the one hundred L2a (2700 series) Mohawks in 1926. At that time all H10b's were transferred to Lines West. Later in 1926, 15 were leased to the Big Four. The 35 remaining H10b's remained on Lines West until 1928, 1929 and 1930, when all were leased to the Michigan Central - US. This concluded all the assignment transfers of the H10b's with the exception of No. 2325 (orig. 225), a Big Four engine. In December 1936, it was sent to the MC along with at least five H10a's.

The H10b's were modified, in many instances, similarly to the H10a's. Perhaps the first modification was replacing of the 72 inch cabs with 82 inch cabs. Headlights were swapped around, many received a Pyle-National in the mid-1940's. The D2 stoker was removed on many and replaced by either a Standard HT or a Hanna H4-1A. One, No. 2087, had a Standard LT-2.

During the mid-1940's, most MC and Big Four H10b's had the tenders modified with the four varieties of coal board extensions. Several MC engines had wooden coalboards before the steel curved extensions were applied. The MC tenders with curved coalboards were altered, however, to a greater extent. Not only was the coal board extended, but the coal collar also was removed from the tank side for several feet, thus shortening the entire coal board. Evidence indicates the actual slope sheet or floor sheet was not changed. As stated earlier, these MC tenders were stenciled for 18 tons coal, pre-extension capacity.

The H10b's used superheated steam to operate auxiliary equipment such as the stoker, generator, feedwater pump

\*1939, 1944 and 1946 classification book figures.



Builder's photograph of H10b 340, later 2380. Built by American Locomotive Company, Schenectady, New York, July 1924.



H10b 357, later 2397, all spruced up in 1936. Probably at Bellefontaine, Ohio. Photo by R. J. Foster.



H10b 359, later 2399, at Wesleyville (Erie), Pa., in June 1926. Photo by G. A. Doeright, from Prescott collection.

and booster. During World War II, the superheated steam turret and external supply pipe were removed and the auxiliaries reverted to saturated steam power.

It is thought all the H10b's received mechanical lubricators replacing the hydrostatic lubricator located in the cab. Many engines had exposed sand pipes by the mid or late 1940's. All Big Four and Michigan Central H10b's had new floating bearing main rods applied by the 1940's. However, P&LE engines Nos. 202 and 207, in addition to several P&LE H10a's, had only one main rod replaced.

The 50 NYC H10b's were originally equipped with water scoops on the tenders. When 15 were leased to the Big Four, the scoops were removed, because the Big Four had no track water pans. Another appliance possibly applied to the 21 H10's on the P&LE was a steam coal pusher. This is noted in a 1950 classification book. However, photographs do not support this.

Big Four, Michigan Central and Pittsburgh and Lake Erie H10b's were readily distinguishable from one another. Basically, the MC engines had pilots, no marker lights and high curved coalboard tenders. The Big Four engines had footboards, marker lights, exposed sand pipes, exposed turrets, outside exhaust steam pipes from the front piston head cover to the feedwater heater similar to those of the A1 2-8-4's and some L1 4-8-2's, and the Big Four style coal boards; any of the three designs. The P&LE engines had the original three digit numbers, footboards, marker lights, smoke consumers, covered sand pipes, turret cover, and the larger 16,000 gallon tenders, several of which had a P&LE-design curved coalboard.

The air pump shields on the H10b's evidently created problems in removing the compressors for repairs, especially the pump on the left or fireman's side. (This is the right shield in a front view photo.) Many engines had this shield cut down, modified or even removed. A few engines also had the opposite shield modified. Several Big Four H10b's had very distinctive hollow sounding exhausts, especially the 2382. When working hard (full stroke), you didn't have to see this engine to identify it. Another, No. 2366 in the late 1940's, was equipped with an exhaust nozzle like the 2382's. The only other steam engine the author has heard with an exhaust sound like that of the 2382 was the Peoria and Eastern's No. 23, an H5k 2-8-2.

Other modifications made in the 1940's were the application of valve pilots to all engines and the removal of boosters in 1948. The booster removal brought about an official weight change:

	<b>New Weights</b>	1946 Weights
Weight on Engine Truck	30,300 lbs.	32,500 lbs.
Weight on Drivers	252,400 lbs.	246,000 lbs.
Weight on Trailing Truck	50,800 lbs.	58,500 lbs.
Total Engine Weight	333,500 lbs.	337,500 lbs.

This weight change increased the adhesion weight on drivers by 6400 lbs. and helped reduce some slipping. (The tender weights can be obtained from the H10a portion of this article.)

In 1936, all but the 21 P&LE H10's were renumbered as follows:

Class	Orig. No.	No1932	No1936	No1948
H10	8000	370	2090	2100
H10a	1-190	-	2101-2290	
H10b	212-221	-	2312-2312	2070-2079
H10b	222-231	-	2322-2331	2090-2099
H10b	232	-	2332	2nd 2073 (1950)
H10b	233-251		2333-2351	-
H10b	320-359		2360-2399	
H10b	360-369	_	2080-2089	and the second sec

Five other H10's were purchased by the P&LE in 1950 and as stated previously, they were renumbered as below:

2097 to 212	
2148 to 213	2279 to 215
2216 to 214	2335 to 216



H10b 2086 at Niles, Michigan in 1953. Like many MC-assigned engines, 2086 has a pilot to permit operation in international service through Canada. Photo by W. Krawiec.



H10b 2089 on SLD-2 at Newport, Michigan, August 24, 1951. Photo by E. L. Novak.



H10b 2090, ex 2322, at Norris City, Illinois in 1950. Photo by J. G. Collias.



H10b 2093, ex 2325, at Niles, Michigan, June 1952. Photo by W. Krawiec.



H10b 2098, ex 2330, northbound at Robinson St., Danville, Illinois in 1949 or 1950. Train is probably #84. Photo by Irvin Baer.



H10b 2314, later 2072, at Mt. Carmel, Illinois in April 1943 with a northbound oil train from Norris City, Illinois. New York Central photo by Ed. Nowak.



H10b 2317, later 2075, at Middle Yard, Mt. Carmel, Illinois in April 1943 with a northbound oil train from Norris City, Illinois. New York Central photo by Ed Nowak.

After the early transfers of H10's from the Boston and Albany, Lines East and Lines West, the engines could be found on the following districts:

Pittsburgh & Lake Erie -

McKees Rock, PA - Youngstown, OH (Struthers) - Ashtabula Brownsville, PA - McKees Rock, PA Dickerson Run, PA

Lines West -

Sharon Branch - Hubbard - Sharon - Ferrona Struthers - Ravenna Cleveland (Collinwood) - Toledo (Air Line Jct.) -Mainline and Norwalk Youngstown (Struthers) - Ashtabula Ashtabula - Collinwood Dillonvale - Alliance - Ravenna - Marcy -Collinwood or Rockport Clearfield, PA - Ashtabula, Ohio (Erie Division) Elkhart - Zearing, IL (KKK Line) Chicago (Englewood) - Elkhart (usually Big Four engines) Chicago (Englewood) - Danville (Lyons) (usually Big Four engines - some LW H10a's)

Elkhart - Toledo (seldom)

Big Four -

Cleveland (Collinwood-Linndale) - East St. Louis Toledo (Stanley) - Sharonville (Cincinnati) Sharonville - Riverside - Decoursey, KY (L&N Yard) Transfer Service Sharonville - Jackson - Cincinnati Northern Line Cincinnati (Riverside) - Kankakee, IL Danville (Lyons) - Cairo, IL Terre Haute (Duane) - Evansville (before WWII - seldom after) Mount Carmel - Evansville, Ind. Louisville (Jeffersonville, Ind.) - Elkhart Ohio Central —

Columbus (W. Col.) - Toledo (Stanley) Corning - Columbus Corning - Toledo via Bucyrus & Fostoria and New Lexington and Thurston Hobson - Corning

Michigan Central — Toledo (Stanley) - W. Detroit Toledo (Stanley) - Jackson Detroit (W. Detroit or Tunnel) - Gibson, Ind. or Blue Island (IHB) Niles, MI - Joliet, IL Niles, MI - South Bend (Notre Dame) Detroit (W. Detroit) - Mackinaw City Jackson - Bay City - Saginaw

Peoria & Eastern — Indianapolis (Brightwood) - E. Peoria (as required) Indianapolis (Brightwood) - Springfield (as required)

H10's were seldom used on the P&E. The 2172 was used during 1945 for several weeks. Others were the 2074, 2385 and 2389. Probably others were used for single trips between Brightwood Yard and Urbana. Many of the Big Four engines were assigned to specific divisions and seldom strayed from their assignments.

The wholesale retirement of the H-10's started in June, 1950, with 35 written off. Another large group was removed the following month. Contrasted with the early retirement of the H10's was the continued operation of older H5 and H7 class Mikados. No adequate reason has been presented to the author, although, in general, the H10's were operated in drag service on the principal lines of their respective districts, whereas the H5's were used on locals and yard duties and the H7's as helpers, on transfers and for branch line power. The H10's were usually displaced by L2, L3 and L4 Mohawks, which were newer, or, in some instances by diesel power. The last H10b (No. 2369) the author saw in service at Danville was on May 24, 1952. All sub-classes of L2 Mohawks replaced the Mikes, but within four months, F3 and F7 EMD "covered wagons" were infiltrating the Danville Line (Chicago-Danville). The L2 operation lasted only about three years. All were displaced by April, 1955.

Although the last H10's were retired in 1954 on the Pittsburgh & Lake Erie, a part of one Big Four H10b remained on the NYCS for several years in the form of brake power trailer No. B-3. Three special cars were operated by the Indiana Harbor Belt RR at its Gibson and Blue Island Hump Yards for added braking power when switching cars over humps. These trailers were converted from the tenders of engines 2517, 2669 (L1's) and the 2369. In the early 1960's, two of these trailers were transferred to Harmon and used briefly in Croton West Yard - Tarrytown (Chevrolet) puller service. All are now retired.

The H10's were generally well liked by engine crews. They were not appreciated when running more than 45 miles per hour because of terrible riding qualities. One engineer told me years ago, while pulling the "James Whitcomb Riley," Train No. 4, on a detour between Sheff, Indiana and Danville, Illinois, with an H10, that the engine rode horribly at 50 mph. Tired of the bone crushing, jolting trip, he opened the throttle up and sped up to 60 mph. He said the engine then rode like a baby buggy. No mention was made about how many (if any) kinked or broken rails were left behind.

One problem with the H10a's was a very shallow firebox. This forced the fireman or laborers to shake the grates frequently to keep the fire below the level of the firebox door and stoker distributing plates. The reason has been offered that this was due to the original Elvin stoker installation and the very low door location. The locomotives were good steamers, although coal and water consumption was high.

One distinguishing sound of the H10's was the feedwater pump exhaust; you didn't even have to see the engine, just hear the pump exhaust, to know it was an H10. Other NYC engines such as the L1 and L2a, even though equipped with an Elesco CF-1 water pump, did not make this distinctive sound, in fact you could hardly hear the water pump exhaust. The exhaust vented in front of the stack and gave a "psst-psst-psst-psst" sound.

My own experience with the H-10's was in the Danville, Illinois area, primarily on the Chicago-Cairo Branch. The H10's were assigned to the Danville (Lyons Yard) - Mt. Carmel-Harrisburg Line for at least 15 years (1937-1952) and probably longer. The engines handled the coal trains out of Harrisburg and filled in on locals and mine runs, whenever necessary. Engine 2210 was assigned (for some



H10b 2318, later 2076, May 1940. Note that engine is still equipped with external pipe to supply superheated steam to turret. Photo from Joseph Brauner collection.



H10b 2334 at Cincinnati, Ohio, July 19, 1950. Photo by R. J. Foster.

time) to the hump at Harrisburg. It was equipped with a TDC (Transportation Device Co.) power reverse gear instead of a Precision gear while assigned at Harrisburg.

Normally, 80-car trains were moved north from Harrisburg. The crews worked a turn-around job from Mt. Carmel, going south with as many as 200 empties. After turning and servicing at Harrisburg, the same crew and engine left for Mt. Carmel with a coal train.

The H10 also handled 80 cars between Mt. Carmel and Midland Yard at Paris. North of Paris, 100 cars was the normal tonnage and many trains with 104 cars were operated. Midland was a fill-out point with coal from the E&I (Terre Haute-Evansville Line), which was moved from Duane Yard (Terre Haute) by "flippers" to Midland. As many as three trips were made by each crew in 16 hours with 40-45 cars using L2 class locomotives. Lyons Yard-Midland turns were also operated once or twice daily to handle overflow tonnage. As many as 800 to 1000 cars daily moved in each direction between Lyons and Midland during and after World War II.

Locals were usually handled by H6A Class engines on this division. (Numbers 1709, 1710, 1711, 1712, 1713, 1714, 1715) between Midland and Lyons, the train normally filled to 69 cars, mostly coal loads.

In later year, loaded trains were usually 75 cars. This may have been caused by the removal of boosters from the H10's and also by an effort to raise average train speeds. Empty trains varied from 110 to 200 cars. The longest southbound seen was 145 cars (70 cars were 52' and 65' mill gons) with engine 2247 on August 15, 1945. Between Lyons Yard (Danville) and Englewood, normal summer tonnage was 100 loads (about 7500 actual tons). Many of the trains out of Lyons were turn-arounds to Hartsdale, Indiana (EJ&E - Gary), Gibson, Indiana (IHB) or Indiana Harbor, Indiana (IHB) where the coal was delivered to the switching road for final movement to the various steel mills and power plants. Some trains set-out and proceeded, cab light, to Englewood to tie up. Others turned and picked up empties or ran light, returning to Lyons.

Another feature of the Danville-Indiana Harbor Line was the Big Four Indiana Division traffic either pickedup or set-out at Sheff, Indiana. North bound pick-ups were handled by two methods. Train 98 and extras left Lyons cab light, and picked-up a drag at Sheff. Usually the Danville crew classified the train for movement to Chicago. Normally No. 98 picked up cars from Tran CC-1, No. 91, from Indianapolis. Another routine was to operate a short train out of Lyons (35-50 cars) and pick up another 40-50 cars at Sheff for northward movement. Before and during World War II, Gibson-Sheff turns were operated besides the cab light moves from Danville.

Southbound trains set-out at Sheff and either ran cab light to Lyons or handled short trains with Illinois Division traffic. Empty trains consisted of from 20 cars to 125 cars. One train handled by No. 2141 had 140 cars in about 1949.

One H10B, No. 2385 was wrecked at Tilton, Illinois. near Danville, on June 25, 1941 in a head-on collision with a north bound passenger train extra at 6:02 p.m. The passenger train consisted of engine 4889 (K3q) and one car and was deadheading to Chicago to pick up a troop train destined for the Illinois Division. The 2385 was pulling a 77 car extra freight known as the "Oiler." This train was a daily extra and was the southbound counterpart of Train 98.

The accident occurred (within yard limits) on a one degree curve, in a shallow cut with extremely short visibility. The front end, smokebox, cab and tender of the 2385 were damaged. No. 4889 was heavily damaged and partially turned over on its left side. Four fatalities and two injuries were recorded.

Both engines were moved to Beech Grove Shop (Indianapolis) where the 4889 was scrapped shortly thereafter. No. 2385 was rebuilt and ran for nearly 11 additional years. Several enginemen have told me it was rebuilt with a Selkirk front end at this time. Can any NYC old timer recall this? Are there records of the modification? Were other H10s rebuilt with Selkirk front ends and, if so, what were their numbers?

Both railroaders and railfans alike called the H10's "Sports Models." This was probably due to the radical appearance of the engines as compared to the more normal "Georgian" locomotive design. The overhanging Elesco feedwater heater gave the engine a beetle brow bull dog appearance.

They were my all-time favorite steam locomotive!

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H10b 2341 on the Joliet Branch at Griffith, Indiana, August 26, 1950. Photo by Paul Slager.



H10b 2341 at Livernois Ave., West Detroit, Michigan, January 23, 1949. Photo by Elmer Treloar.

### NEW YORK CENTRAL H10B CLASS 2-8-2 LOCOMOTIVES

	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	23/2 -	23/3-	23/4 -	23/5-	23/6 -	23/7-	23/8 -
TENDER CAPY - COAL	227	18 T	227	187	IBT	18 T	18 T	IBT	IBT	24 T.	227	227	227	227	227	187	187
" - WATER	15000 5	150006	15000G	15000 G	15000 G	15000 G	15000 G	15000 G	15000 0	15000 G	150000	15000 G	15000 G	15000 G	15000 6	15000 G	15000 G
- COALBOARUS	STRAIGHT	CURVED-MC	STRAIGHT	CURVED . MC	NONE	CURTED - MC	CURVED -NC	CURVED -MC	CURVED - MC	NONE	STRAIGHT	STRAIGHT	CURVER - B.F.	STRAIGHT	SLOPING	NOT KNOWN	NOT KNOWA
" - WATERSCOOP	No	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	Na	NO	NO	No	NO	No
- FOOTBOARDS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	110	NO	NO	NO	NO	NO	NO
" - HEADLIGHT	NO	NO	NO	ND	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	No	110	NO
NK FUMP SHIELD MODIFIED	15- 0V - 5	TES . CUT D	HES CUT D	TES - FUT A.	YES- EFT.	YES - : U" +	YES - CUTA	MES ENTE	YES- CUT D.	YES-LUT D	YES- KEM.	MES- CUT D.	YES- CUT D	MES- CUT D	YES	YES- TUT S	YES-CUTD.
. FILTER OVER PLOT	NO	YES	110	NO	NO	10	YES	NO	YES	YES	112	YES	NO	NO	YES	NO	MES
" " STEP (MC)	No	YES	NO	YES	YES	YES.	YES	YES	NO	STEP REM.	NO	NO	No	No	NO	NO	Na
FOOTBOARDS OR PILOT	FOOTBOARDS	PILOT	FOOTBOARDS	PILOT	PILOT	PILOT	PILOT	PILOT	PALOT	PILOT	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS
STOKER - LAST USED	HANNA	02	HANNA	HT	HT	HT	HT	272	#T	HT	HANNA	HANNA	IANNA	0-2	HANNA	HAIMA	HANNA
" - ORIGINAL	D-2	D-2	0-2	D-2	0-2	0-2	0-2	p.2	0.2	D-2	D-2	2.0	D-2	D-2	D-2	P-2	0-2
TURRET COVER	NO	NO	NO	YES	NO	NO	NO	NJ	NO	NO	NO	NO	NO	NO	NO	No	NO
MECHANICAL LUBRICATOR	-YES	YES .	PROBABLE	-YE3	- YES	- HES	- YES	TROBABLE	-YES	-YE	YES	· YE:	PROBAN: 6	PROBABLE	FROBABLE	TRAEAST &	YES
HEADLIGHT	SUNBEAM	PTLE NAT	SUNBEAM	PYLE NAT.	PYLE-NAT.	TYLE-NAT.	PPLE-NAT.	MAR-NAT.	PYLE-NAT	PM.5-11Ar.	PYLE-MAT.	PYLE-MAY.	SUNHEAM	FY:E-MAT.	TYLE MAT	SUNBEAM	SUNBEAM
CLASS. LIGHTS	YES	110	YES	YES	NO	NO	NO	110	NO	Na	YES	YES	YES	YES	YES.	YES	YES
EXPOSED SAND PIPES	. 10	NO	(A.)	NO	NO	115	NO	NO	NO	112	Y55	YES	YES	YES	YES-2	YES	YES
WHISTLE SHIELD	No	YES	NO	YES	YES	YES	YES	125	YES	TES	NO	110	NO	NO	NO	NO	NO
PUTSIDE DA EXPOSED FNH EXHAUST STEAM FIPE	YES	NO	YES	NO	NO	NO	NO	NO	No	110	YES	YES	YES	TES	YES	YES	YES
TENDER OIL SKIMMER	YES	2	1.2	110	NO	1/3	NO	2	NO	NO	YES	YES	125	YES	YES	YES	YES
BELL - BRASS OR STEEL		81						-		-	1	-	-	5	-	1 A. C.	1.8
TRAIN CONTROL	YES	TES	YES	YES	YES	YES	YES	YES	TES	YES	NO	NO	NO	NO	YES	NO	YES
AIR SIGNAL	1.8	-				-	1	-	-	-	-	-	-	1.00		<	1.10
STEAM HEAT TRAINLINE			10		1.0		- × -	1.8	1.000	-	1.201	18	1.1		1.00	1.01	1.40
ORIG . NUMBERED	360	36/	362	363	364	365	366	367	368	369	2/2	213	2/4	215	216	217	2/8
RENUMBERED	ALCO- SCH.	ALCO SCH.	ALCO SCH	ALCOSCH.	ALCO -SCH	ALCO-SCH	ALCO -SCH.	ALCO SCH.	ALLO -SCH.	ALCO - SCH.	8-25-48 LIMA	8-24-48 UMA	8-27-48	8-45	8-13-48 L/MA	8-25-48	8-27-48
BUILDER & DATE	8-1924	8-1924	8-1924	8-1924	8-1924	8-1924	8-1924	8-1924	8-1924	8-1324	7-1924	7-1926	7-1924	7-1924	7-/924	7-1924	7-1924
BUILDERS NUMBER	65602	65603	65604	65605	65606	65607	65608	65609	65610	65611	6813	6814	6815	6816	6817	6818	68/9
ASSIGNMENT - NEW	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	BIG FOUR	BAS FOUR	BIG FOUR	BIG FOUR	BIG FOUR	BIG FOUR	BIS FOUR
TRANSFERRED	LINE # - 24	LINE W-26	LINE Nº 24	LINE W-26	LINE W-26	LINE Nº 26	LINE W-26	LINE W-26	LINE Nº26	MC-US	1.4	11.21	1.000	1.0	1.1	2.0	
	116 Four-'26	MC-US	DIG FOUR-26	MC-US	MC-US	MC-US	MC-US	MC-US	MC-US	1929 TENDER LAST			1.1	1.1	1.0	10.00	1.1
		1930		1929	1930	1929	1930	1929	1929	HIES WAJ H-10 A. 241							
RETIREMENT DATE	5-23-52	7-3-52	5-28-52	7-28-50	6-3-53	4-30-52	4-28-53	4-18-52	11-10-52	1-29-53	5-8-52	4-18-52	12-7-51	6-20-50	2-26-52	5-28-52	2.26-52
DISPOSITION	DISM. 3-25-53	5010 SCRAF	0/5M. 2-12-53	SOLD JORAN	SOLD SCIAP	SOLD SCRAP	SOLD SCRAP	3060 SCRAP	5010 SCAAP 1-27-53	SOLD SCRAP	SOLD SERAP	SOLO SCRAP 8-1-52	1010 SCRAF 2-22-52	SOLD SERAP	5010 SCRAP 3-19-52	NISM. 3-3-53	SOLD SCRAP

# NEW YORK CENTRAL H10B CLASS 2-8-2 LOCOMOTIVES

		23/9-	2320-	2321-	2322-	2323-	2324.	2325-	2326-	2327-	2328-	2329-	2330- 2098	233/ -	2332- 2-2073	2333	2334	2335
TENDER	CAPY COAL	227	221	227	227	227	227	187	227	227	2.27	227	227	227	227	187	227	227
	· · WATER	15000 G	15000 G	15000 G	15000 G	15000 G	15000 G	150005	15000 G	15000 6	15000G	15000 G	15000 G	15000 G	15000 G	15000 G	15000 6	15000 G
	COALBOARDS	CUAVED . B.P	STRAIGHT	STRAIGHT	STRAIGHT	STRAISHT	STRAIGHT	CURVED, MC	CUNVED, BF.	STRAIGHT TO	STRAISHT	CURVED, BR	STRAIGHT	CURVED. B.F.	STRAIGHT	NONE	aLEVED, B.F.	STRAIGHT
	WATER : SOOP	NO	NO	ND	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	ND	110
	FOOTBOARDS	YES	YES JON	YES	NO	110	#5	NJ	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES
	HEADLIGHT	SAKT. DALT	YES L.B. TAN	BRKT. ONLY		NO	NO	NO	BRAT ONLY	NO	NO	NO	NO	NO	NO	NO .	NO.	NO
AIR PUMP S	SHIELD MODIFIED	MANNES	Tas FEM.	YES- WT-D.	YAS - WT	YES- 15	YES-CUT &	YES- WTO	2	YES - 50 - 0	YES- WTE	YES-LUTP	MES-CUT D	YES- CUTO	YES- SUF.	YES-1010	YES . TUTO	785 OUT 4
	ABOVE ABOVE	NO	NO	PARTIAL	NO	YES	NO	YES	No	NO	MARTIAL	No	No	NO	NO	NO	NO	No
n " 5	TEP (MC)	NO	NO	NO	NO	NO	NO	NO	No	NO	NO	NO	NO	NO	NO	NO	NO	NO
	S OR PILOT	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS	FOOTBOARDS	Potterna:	FOOTBOARDS	FILOT	FOOTBOARDS	FOOTBUARDS	FOOTBOARD	FOOTBOAKDS	FOOTBOARDS	POOTBOARDS	FOOTBOARDS	FOOTBOARDS	FOOTBONKOS	FOOTBOARD.
	-LAST USED	HANNA	SANNA	MANNA	HANNA	MANNA	HANNA	02	HANNA	MANTO	HANNA	HANNA	HANNA	HANNA	WANNA	HANNA	MANNA	HANNA
		DZ	02	DZ	02	D2	DZ	DZ	22	PZ	20	DZ	DZ	DZ	02	DZ	02	DZ
THRAET	COVER	NO	NO	113	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	LUBRICATOR	- YES	- YES	PANAN	- YES	PROBABLE	-YES	. YES	PRABABLE	-YES	- 155	YES	PROBABLE	- YES	PROBABLE	PROBABLE	. 800	PRODABLE
HEADLIG		SUNBEAM	PTLE-NAT.	SUNBEAN)	SUNBEAM	INEEAM	SUNBEAM	PPLE-NAT.	3	PRE NAT	PYLE MA	SUINEAM	PRE MAT.	PYLE-NAT.	ME UN	SABEAN	SIN BEAM	SUNBEAM
CLASS.		YES	YES	YES	YES	YES	YES	NO	YES	YES	TES	YES	YES	YES	YES	YES	YES	YES
	SAND PIPES	125	TES	YES	res	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	SHIELD	NO	NO	NO	NO	NO	M	NO	110	1.0	NO	NO	NO	Na	A'1	No	110	NO
	OR EXPOSED AUST STEAM PIPE	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
TENDER	DIL SKIMMER	YES	YES	1.00	7	YES	155	NO		NO		YES	1.2	100		YES	YES	1
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	BRASS OR STEEL	1.4	1.00	1.1	-	-		- 197 - 1				1.4	· •				1.11	-
TRAIN O	CONTROL			1.4	-	-	- A.S.	YES	1.04		÷		-		20		1261	
DRIS. M		219	220	22/	222	223	224	225	226	227	228	229	230	231	232	233	234	235
BUILDER	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11MA 7-1924	1/MA 7-/924	LIMA 7-1924	UMA 7-1924	1/MA 7-1924	11MA 7:1924	LIMA 8-1924	B-1924	11MA 8-1924	6-1924	L/MA 8-/324	8-1524	1/MA 8-/524	LIMA 8-1924	L/MA 8-1924	8-1324	UMA 8-1924
	S NUMBER	6820	6821	6822	6823	6824	6825	6826	6827	6828	6829	6830	6831	6832	6833	6834	6835	6836
RENUMB		8-4-48	8-25-48	8-27-98	8-25-48	8-5-+8	8-24-48	8-+8	8-27-48	8-25-48	8-2-11	8-48	8-9-48	8-48	11-30-50			-
COMMEN					ICT.	1.27		SAND FIFS	10.5	rÉ.		ATER CANDER MAD STRAIGHT COAL BOARDS				12	1.1	
ASSIGNM	ENT - NEW	BIG FOUR	BIG FOUR	BIG FOUR	BIG FOUR	BIG FOUR	BAR FOUR	BIG FILLA	BIG FOLK	BIG FOUR	BIS FOUR	BIG FOUR	BIG FSUR	BIG FOUR	BIG FOUR	BIG FOUR	BIG FOUR	BIG FOUR
TRANSF		1-1	-	-				MC-US 12- 1936	-	-		3010 Tr POLE +:II 1350 To	-			-		5010 TO 7416 + 14 1750, TO
	Sec. 17.2		LAND T		1000			0.000	date		Sec. 1	PLLE 212	1.000					PALE 2/6
RETIREN	MENT DATE	12-7-51	5-27-52	6-4-52	12-7-51	5-27-52	12-7-51	3-3/-53	5-27-52	12-7-51	12-28-51	+-8-54	12-7-51	2-11-52	12.28-51	11-13-51	12-7-51	4-8-54
DISPOS		50LD SLEAP 2·20 - 52	DISM 2-2-53	\$-3-53	3010 STRAP 2-15-52	015M. 1-19-53	5010 JEAN 1-23-52	5010 SCAAP 5-26-53	SOLD SCRAP - St	3010 SCAAP 1-3-52	2-29-52	SOLD SCRAF SOUTHWEST STEEL 10-54	30LA SCRAA 2-13-52	JOLD JCRAP 3-7-52	50LD 3CRAF 2-25-52	1018 154AF 2-4-52	SOLD SCEAP 1-18-52	SOLD SCRAF SOUTH WEST STEEL 10 - 54



H10b 2343 at Central Ave., Detroit, Michigan, July 28, 1951.

Photo by E. L. Novak.



H10b 2387 with unknown second engine westbound at Willow Run, Michigan, August 4, 1948. Photo by Elmer Treloar.

# NEW YORK CENTRAL H10B CLASS 2-8-2 LOCOMOTIVES

the second secon	2336	2337	2338	2333	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2360
TENDER CAPY COAL	22 T	18 T	IBT	187	18T	187	IBT	187	/87	187	IBT	187	187	187	/87	IBT	187
WATER	15000 G	15000 6	15000 5	15000 0	15000 G	15000 6	15000 G	15000 6	15000 5	15003 @	15000 G	15000 G	15000 G	15000 G	15000 6	15000 G	15000 G
- COALBOARDS	SLOPING	CURVED, MC.	OURVED, MC	CURVED , NC	NONE	CURVED, MC	CURVED, MC	CURVED, MO	SURVED, MC	CURVED, MC	CURVED, MC	CURVED, MC	CURVED, MC	CURVED, MC	CURVED, MC	CURVED MC	CURVED NO
- WATERSCOOP	NO	YES	YES	YES	YES	YES	165	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
· · FOOTBOARDS	NO	NO	NO	NO	NO	11.	NO	NO	No	10	113	NO	NO	117	No	NO	No
- · HEADLIGHT	NO	10	NO	No	NO	NIT	NO	NO	1.4	No.	NO.	NO	NO	1/2	No	NO	No
AR FUMP SHIELD MODIFIED	YES- CUT 0	YE: 4	TE: CUT D	YES FUT D	MES- OUT D	YE	YES- 447 0	YES- CUTO	12: :07 0	Yes are	YE: err	Yes core.	YES CUTO	YES - 10- 5	YES . 200 4	YES EXT	YES- BYT.
AIR PUMP FILTERS - FILOT	No	No	115	YES	110	No	Y45	NO	PE:	115	YES	NO	NO	YES	YES	No	10
" " STEP (MC)	NO	MES	VES	NO	YES	VES	STEP REM.	YES	YES	25	STEP REM.	YES	YES	No	STEP TEM.	TES	MES
FOOTBOARDS OR PILOT	FOOTBOARDS	PILOF	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT	FILOT	PILOT
STOKER - LAST USED	D2.	HT	DZ	HT	P2	HT	HT	HT	HT	HT	HT	02	MT	HT	HT	DZ	HT
+ - ORIGINAL	D2	02	D2	DZ	D2	02	DZ	02	50	DZ	D2	02	02	PZ	DZ	02	DZ
TURRET COVER	NO	155	110	NO	YES	YES	res	NO	YES	NO	NO	YE5	NO	NO	10	NO	YES
MECHANICAL LUBRICATOR	PROBABLE	-YES	· 723	-YES	· YES	~16:	- 155	- YES	- YE:	+ YES	.703	-res	YES	· Pte.	- YES	~ I'te	-YES
HEADLIGHT	SUNBEAM	MLE MAT.	PTLE-NAT.	PYLE-NAV	PYLE HAT	Serte WAT	PYLE-MAT.	PPLE-WAT	1:2E-NAC	FYLE NAT	PECT NAC.	PYLA NA	PYLE -NAT	PILL NAT	PPLE NAY	ME MAT.	PYLE-MAT
CLASS. LIGHTS	YES	NO	NO	NO	YES	12:	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	No
EXPOSED SAND PIPES	YES	YES	TES I	NO	123.2	PARTIAL	YES	res	YES	YE -	YES	YES	YES	NO	YES	YES - 1	Ve.
WHISTLE SHIELD	NO	YES	¥# 3	res	MES	YES.	YES	YES	12:	YES	YES .	YES	YES	12:	YES	YES	Ye-
OUTSIDE OR EXPOSED FWH EXHAUST STEAM PIPE	YES	NO	NO	NO	NO	NO	NO	No	NO	NO	NO	NO	NO	NO	NO	NO	NO
TENDER OIL SKIMMER	YES	2	NO	NO	113	NO	117	7	V.e.	NO	NO	- e	- 10	No		YES	1.2
BELL - BRASS OR STELL						-		-			10	1.0	1.00	1.1		1 A 1	
TRAIN CONTROL	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES.	YES	185	YES	YES	YES	YES
AIR SIGNAL		-				*	1.4		- H		1.61	1			8		Ge .
STEAM HEAT TRAINLINE					11 Arc	1.1	1.4	- A.		1.147	1			1.1	1.0		-
ORIG. NUMBER BUILDER & DATE	236 LIMA 8-/924	237 4MA 8-1924	2 38 LIMA 8-1924	239 LIMA 8-1924	240 LIMA 8-1924	241 LIMA 8-1324	24 2 LIMA 8-1924	243 LIMA 8-1924	244 1/11A 8-/324	245 LIMA 8-1924	246 LIMA 8-1324	247 Linta 8-1924	248 1/MA 8-1924	249 LIMA 8-/324	250 LIMA 8-1924	251 LIMA 8-1924	320 ALCO- SCH. 6-1924
BUILDERS NUMBER	6837	6838	6839	6840	6841	6842	6843	6844	6845	6846	6847	6848	6849	6850	485/	6852	65562
ASSIGNMENT-NEW	BIG 1750	MC-US	MC-US	MC+US	MC-US	MC-US	MC-US	Mc-US	NC-US	MC-US	MC-US	MC-US	MC-US	MC-US	Mc-US	MC-US	NYC UNE EAST
TRANSFERRED		-	-			-	-	1		-	-	-	-	-	-	-	LINE WEST
Change Fuber						1.0	1		1.1.1	100	1.75						MC-US
COMMENTS	1.00					1.00	TENDER HAD WOOD COAL BOARDS		1.0.1	- 1	TENDER HAD HOOD COAL BOARDS	1.1.1.1	1		1.00		1930
RETIREMENT DATE	11-13-51	12-28-51	4-30-52	9-26-52	8-2-1950	2-/-52	3-31-53	6-5-52	11-12-51	8-29-52	7-3-52	11-24-52	1-29-52	7-30-52	6-20-52	7-28-50	12-6-51
DISPOSITION	3010 SEAAP 12-21-51	5010 SCRAP 2-6+52	5010 SCRAP 10-27-52	SOLD SERAP	2.23-51	304 SCRAP 3-4-52	5060 SCRAP 5-27-53	5010 SCRAP 10-28-52	SALD SCAAP 11-27-5/ LURIA BROS.	5010 SCAAP 5-23-52	50LD SCRAP 10-28-52	ріян. 3-13-53	SOLD SCRAP 12-17-52	3040 SERAP 10-27-52	5060 SEANF 12-5-52	SOLO SCRAP	5010 SERAP 1-26-52

### NEW YORK CENTRAL H10B CLASS 2-8-2 LOCOMOTIVES

	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377
TENDER CAPT COAL	22"	227	187	187	187	227	187	187	22T	227	227	187	187	/87	137	187	187
" " - WATER	15000 G.	15000 G.	15000 G.	15000 G	15000 6	15000 G	15000 G.	15000 G.	15000 G	15000 G.	15000 G.	15000 G.	15000 G.	15000 G.	15000 G.	15000 G	15000 0
" - COALBOARDS	STRAISHT	SURVER B.F.	CURYED, MC	STRAIGHT	CURVED, MC	CURVED, B.F.	WAVED, ME	CURVED, MC	SURVED, BF	CURVED, BF	STRAIGHT	CURVED, MC	CURVED, MC	CURVED, MC	CURVED, MC	CURVED. M	
" - WATERSCOOP	NO	110	YES	NO	YES	NO	YES	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES
" - FOOT BOARDS	NO	NO	110	Na	NO	NO	Na	NO	NO	NO	110	NO	No	115	No	NO	No
" - HEADLIGHT	NO	YES	NO	NO.	NO	NO.	NO	NO	NO	NO	M	NO	NO	110	NO	NO	No
AVR FUMP SHIELD MODIFIED		KS REMOVED	155- CUT 0.	YES- EXT.	YES-SUNA	YES-EC	TES-out D.	YES - CUT O	115- 117	YES- SUT D	YES . CUT D.	MES- WTO	TES- CUT D.	YES- cur p	VES-CUT D.	VES - CUT 0	TES- CUT
AIR PUMP FILTERS - PILOT	NO	NO	110	NO	NO	NO	Na	Na	NO	NO	NO	NO	Na	No	NO	No	No
" - STEP (MC)	113	NO	YES	NO	YES	NO	YES	YES	NO	NO	No	MES	YES	YES	YES	YES	TES
FOOTBOARDS OR PILOT	FOOTBOARDS	FOOTBOARDS	PILOT	FOOTBOARDS	FILOT	FOOTBOARDS	FILOT	PILOT	FOOTBOAM	FOOTBOARDS	FOOTBOARDS	PILOT	PILOT	PILOT	PILOT	PILOT	PILOT
STOKER - LAST USED	HANNA	HANNA	HT	HANNA	HT	HANNA	HT	HT	HANNA	HANNA	HANNA	HANNA	HT	HT	HT	HT	HT
" - ORIGINAL	<b>D2</b>	DZ	DZ	DZ	DZ	DZ	DZ	P2	D2	DZ	DZ	P2	DZ	DZ	DZ	DZ	DZ
TURRET COVER	NO	NO	YES	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	483	YES	YES	YES
MECHANICAL LUBRICATO	YES	-YES	- YES	PROBABLE	- YE3	YES	-YES	.YES	PROBABLE	YES	VES .	- res	~ YES	· res	· 125	. VET	- TES
HEADLIGHT	SUNBEAM	PPLE-NAT	PTEE-NAT.	JUNBEAM	PTLE-HAT.	1.	FYLE-MAT.	MAE MAT	SUNBEAM	PYLE-NAT.	PYLE-NAT.	PYLE-NAT.	AYLE MAT	PYLE-NA	TYLE-NAT.	PYLE-MAT	MUS HAT
CLASS. LIGHTS	YES	YES	NO	YES	No	YES	NO	NO	785	YES	YES	NO	NO	No	NO	110	1/3
EXPOSED SAND PIPES	YES	YES	125-25	YES	NO	YES	NO	No	YES	YES	YES	NO	NO	NO	NO	Na	NO
WHISTLE SHIELD	NO	NO	YES	No	YES	NO	PROBABLE	YES	NO	NO	NO	YES	Mathh: 5	125	YES	HES	PROPABLE
FWH EXHAUST STEAM FIRE		YES	NO	YES	NO	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO
TENDER OIL SKIMMER	2	YES	2	3	NO	2	0	NO	45	125	NO	NO	NO	NO	NO	No	2
BELL - BRASS OR STEEL				-	-		•		-		1.1	-			-	- 81	1.00
TRAIN SONTROL	YES	YES	YES	YES	TES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
AVR SIGNAL		1.00	1.1	-	× .		1.1.1					1.91.1		-		1	112
STEAM HEAT TRAINLING	· · · ·	in the second	a street.	1.1.1.1.1	min	Sec. 20	· · · ·	. ÷ .		10000		1.210	1.14		1. 1. 1. 1. 1.		
BUILDER & DATE	ALCO-SCH. 6-1924	41 CO SCH. 6-1924	ALCO SCH. 6-1924	6-1924	6-1924	ALCO SCH. 6-1324	ALCO - SCH. 6-1924	4LCO -SCH. 6-1924	ALCO SCH. 6-1924	4150SCH. 6-1924	6-1924	6-1924	4LCO SCH. 6-1924	4400 - SCH	ALCO, - SCH. 6-1924	ALCO-SCH. 6-1924	6-1924
BUILDERS NUMBER COMMENTS	65563	65564	65565	65566	65567	65568	65569	65570	65571	65572	65573	65574	65575	6.5576 HED WIDA 247 TENDER ABOUT 1937	65577 TENDER HAD WOOD COAL BAARDS	65578	65579
ORIG. NUMBER	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337
ASSIGNMENT - NEW	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LING EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST
TRANSFERRED	BIG FOUR	BIS FOUR	LINE W26	LINE W-26	LINE W26	LINE W26	LINE N. 26	LINE W26	LINE W- 24	LINE #- 24	LINE #-26	LINE W26	LINE W26	LINE W26		LINE W-26	LING W. 26
	1526	1526	MC-US	BIG FOUR	ME-US	MG FOUR	MC-US	MC-US	BIG FOUR	BIS FOUR	BIG FOUR	MC-US	MC-US	MC-US	MC-US	MC-US	MC-US
	1000	1	1930	1526	1930	1926	1330	1929	1926	1926	1926	1930	1929	1930	1929	1929	1929
RETIREMENT DATE	5-27-52	3-21-52	4-30-52	7-11-52	1-29-52	6-13-52	3-18-52	11-12-51	4-4-52	4-20-50	5-27-52	11-12-51	1-29-52	7-30-52	7-16-52	6-26-50	4.5.52
DISPOSITION	PISM. 1-16-53	SOLD SCRAP 4-23-52	SALD SCRAP 11-17-52	SOLD SCRAP	5010 55RAP 2-15-52	DISM. 1-28-53	5010 5CRAP 4-J-52	SOLD SCRAP	015M. 11-18-52	SOLD SERAP	DISM. 2-20-53	5060 SCRAF 1-26-52	5010 SCRAP 2-19-52	SOLD SCRAP 10-27-52	SOLO SCRAP 11 - 14 - 52	SOLD SCRAP	SOLD SCRAF 10-JI-SZ



Coaling tower at Lyons Yard, Danville, Illinois on a -14 degree day in February 1949. H10b 2369 on the left, U3a 7749 on the right. Photo by Irvin Baer.



H10b 2370 at Brooklyn (East St. Louis), Illinois, May 19, 1947. Photo by R. J. Foster.

### NEW YORK CENTRAL H10B CLASS 2-8-2 LOCOMOTIVES

	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394
TENDER CAPY COAL	227	18T	187	187	187	187	187	227	227	187	187	227	187	IBT	187	187	187
" " - WATER	15000 G	15000 6	150005	15000 G.	15000 G	150006	15000 G.	150006.	15000 G	15000 G.	150000	15000 G	15000 G	15000 G.	15000 G	15000 G.	15000 G
- COAL BOARDS	STRAGHT	NONE	CURVED, MC	CURVED, MC	NONE	CURVED, MC	CURVED, MC	CURVED, B.F.	STRAIGHT	CURVED, MC	CURVED, ME	CURVED, BF	CURVED, MC	CURVED, MC	CURVED, MC	NONE	CURVED, MC
" - WATERSCOOP	NO	YES	YES	YES	NO	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES	YES	YES
+ - FOOTBOARDS	NO	No	NO	NO	NO	NO	NO	10	NO	NO	NO	110	No	NO	NO	No	No
HEADLIGHT	NO	No	Na	NO	NO	NO	NO	NO	No	NO	NO	NO	NO	NO	NO	NO	NO
NIR PUMP SHIELD MODIFIED	REMOVED	TES- SUT A	125- SUT 0	YES- WT D	YES-LUT D.	YES-DIT D	YES CUT P	MET- LUTS	YES- OUT D	YES. EAT.	PEI WT.D	PS: CUT 3		HES - CUTO	NO	YES- EUT D	YES CUTO
AIR PUMP FILTERS - PILOT	NO	NO	NO	NO	No	YE:	NO	NO	NO	YES	NO	No	NO	YES	YES	NO	YES
" " STEP (MC)	NO	YES	YES	YES	NO	OTEP MEM.	VES	NO	NO	STEP REM.	YES	NO	YES	No	STEP REM.	YES	STEP REM.
FOOTBOARDS OR PILOT	FOOTBOARDS	PILOT	PILOT	PILOT	FOOTBOARDS	PILOT	PILOT	FOOTBOARDS	FOOTBOARDS	PILOT	PILOT	FOOTBOARDS	PILOT	PILOT	PILOT	PILOT	PILOT
STOKER - LAST USED	HANNA	02	HT	HT	HANNA	HT	HT	HANNA	HANNA	HT	HT	HANNA	HT	HT	HT	02	HT
" - ORIGINAL	DZ	02	02	02	PZ	20	DZ	DZ	DZ	D7.	02	DZ	DZ	DZ	DZ	DZ	DZ
TURRET COVER	NO	YES	110	NO	Na	NO	YES	NO	NO	NO	NO	No	YES	11:	YES	YES	NO
MECHANICAL LUBRICATOR	PROBABLE	PROBABLE	-YES	-YES	- YES	·YES	YES	. YES	. YES	TES	YES	. YES	PROBABLE	~ YES	· YES	-YES	YES
HEADLIGHT	SUNBEAM	MLE -NAT.	PYLE NAT	PYLE NAT.	SUNBEAR	FYLE WAT.	PYLE-NAT	PYLE NAT.	SUNBEAM	MLE . WAT	PHLE -NA ".	SUNBEAM	INTE NA S	MEL MAR.	PYEL -MAR	PYIE MAT.	PPLE-NAT.
CLASS. LIGHTS	YES	NO	10	NO	YES	NO	NO	125	YES	NO	NO	YES	1.1	NO	NO	NO	NO
EAPOSED SAND PIPES	NES	NO	No	NO	YES	NO	NO	YES	YES	YES	NO	YES	NO	Na	NO	NO	NO
WHISTLE SHIELD	NO	YES	YES	YES	NO	YES	YES	NO	NO	YE:	YES	NO	PROBABLE	YES	YES	YES	YES
OUTSIDE OR EXPOSED FWH EXHAUST STEAM PIPE	1.555	NO	NO	NO	YES	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	NO
TENDER OIL SKIMMER	YES	NO	NO	NO	YES	No	NO	YES	Page 1	Ho	NO	YES	No	NO	No	NO	NO
BELL - BRASS OR STEEL	120	-			12						-	-					
TRAIN CONTROL	TES	YES	YE 5	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
AIR SIGNAL	-	12	-	-	-	100			12	1	-		-		14.		1.1
STEAM HEAT TRAINLINE	1.1	1.1.1	1.41.0	- 2.1	-	- Sec. 1	1. 2					1	1.000		1. S. 1.	and the same	
BUILDER & DATE	ALCO-SCH. 6-1924	ALCO-SCH. 8-1924	ALCO-SCH. 7-/324	ALCO SCH. 7-1924	ALCO-SCH. 7-1724	ALCO - SCH. 7-1924	ALCO - SCH 7-1924	ALCO: SCH. 7-1924	ALCO SCH. 7-1924	ALCO-SEN. 7-1924	ALCO, - SCH. 7-1924	ALCO SCH. 7-/924	ALCO SCH. 7-1924	ALCO SCH. 7-19 24	ALCO. SCH. 7-1924	ALCOSCH. 7-1324	ALCO-SCH. 7-1924
	65580	65581	65582	65583	65584	65585	65586	65587	65588	65589	65590	65591	65592	65593	65594	65595	655%
BUILDERS NUMBER COMMENTS	83360	TENDER HAD WOOD COAL BOARDS. LOCAL NAD CEN-		65505	65507	0			0.500				TENDER HAD WOOD COAL- BOARDS	TENDER HAD NOOD COAL- BOARDS		10000	
ORIG. NUMBER	338	TRIFUSAL	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354
ASSIGNMENT - NEW	LINE EAST	LINE EAST	UNE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST
TRANSFERRED	LINE W26	LINE W26	LINE W26	LINE #26	LINE W24	LINE W26	LINE M-26	LINE W 24			LINE W26	LINE W26	LINE W. 26	LINE W-26	LINE W-2L	UNE W24	LINE W26
TANSFERRED	BIG FOUR	MC-US	MC-US	MC-US	BIG FOUR	MC-US	ME-US	BIG FOUR	BIG FOUR	MC-US	Mc-US	BIS FOUR	MC-US	MC-US	HC-US	MC-US	MC-US
	1926	1930	1929	1929	1926	1930	1930	1926	1926	1930	1929	1926	1929	1929	ESCI	1930	1929
RETIREMENT DATE	6-4-52	7-11-52	3-18-52	1.29-52	5-27-52	7-3-52	9-26-52	5-27-52	5-27-52	7-16-52	1-29-53	5-27-52	4-18-52	2-25-53	12-3-52	7-25-50	12-22-52
DISPOSITION	DISM 2-3-53	5060 SCRAP	1010 SCRAP	5010 SCRAP 2-20-52	015M. 8-18-52	TOLD SCAAP. 11-12-52	SOLD SCRAP 11-17-52	015M. 8-25-52	DISM. 11-20-52	SOLD SCRAF	SOLD SCRAP 6-17-53	DISM. 2-18-53	5010 SCAAP 11-14-52	5010 SCRAF 5-26-53	5060 SCAAP 2-5-53	DISM. 11-16-50	5010 5C.RAT 2-4-53

### NEW YORK CENTRAL H10B CLASS 2-8-2 LOCOMOTIVES

	2395	2396	2397	2398	2399
TENDER CAPY COAL	187	187	225	18T	187
" " - WATER	15000 5.	15000 G.	15000 G.	15000 G.	15000 G
" - COALBOARDS	GURYED, MC	CURVED, MC	STRAIGHT	CURVED, MC	WRYED, MO
- WATERSCOOP	YES	YES	NO	YES	YES
" - FOOTBOARDS	No	NO	NO	NO	NO
" - HENDLIGHT	NO	NO	NO	NO	NO,
AIR PUMP SHIELD MODIFIED	YES . WT >	YES-CUT A	YES- 20-2	YES ETT.	YES- CUT &
AIR PUMP FILTERS - PILOT	NO	No	NO	NO	NO
" " STEP (MC)	YES	YES	NO	YES	YES
FOOTBOARDS OR PLOT	PILOT	PILOT	FOOTBARDS	PILOT	PILOT
STOKER - LAST USED	HT	HT	HANNA	HT	HT
" - ORIGINAL	DZ	DZ	DZ	DZ	D2
TURRET COVER	No	NO	NO	NO	NO
MECHANICAL LUBRICATOR	· YES	. YES	+ YES	- YES	+YES
HEADLIGHT	PYLE MAT.	PYLE -NAT.	SUNBEAM	PYLE -NAT.	PTLE . NAT
CLASS. LIGHTS	NO	NO	YES	NO	NO
EXPOSED SAND PIPES	NO	NO	YES	No	NO
WHISTLE SMIELD	YES	YES	NO	YE :	YES
WH EXHAUST STEAM PIPE	NO	NO	YES	NO	REMOVED
TENDER OIL SKIMMER	NO	2	YES	NO	NO
BELL - BRASS OR STEEL		-			-
TRAIN CONTROL	YES	YES	YES	YES	YES
AIR SIGNAL				1 C C C C C C C C C C C C C C C C C C C	
STEAM HEAT TRAINLINE BUILDER & DATE	ALCO SCH. 7-1924	ALCA-SCH. 7-1924	ALCO-SCH. 7-1924	ALCO - SCH. 7 - 1924	ALCOSCH. 7-1924
BUILDERS NUMBER	65597	65598	65599	65600	65601
COMMENTS			1.000	2012	1
ORIG. NUMBER	355	356	357	358	359
ASSIGNMENT - NEW	LINE EAST	LINE EAST	LINE EAST	LINE EAST	LINE EAST
TRANSFERRED	LINE M-26	LINE W26	LINE W-26	LINE W-26	LINE N. 26
	MC-US	MC-US	BIG FOUR	MC-US	MC-US
	1929	1930	1926	1929	1929
RETIREMENT DATE	7-16-52	9-29-52	6-4-52	4-10-52	11-12-51
PISPOSITION	SOLD TORAF 12-3/-52	30LD SERAP	SOLD SCRAI	SOLD SCRAP 10-24-52	SOLD SCRAP 11-30-51



H10b 2343, photographed from passing U3e 7872 by E. L. Novak.

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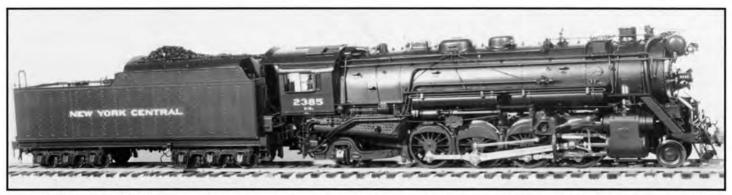


H10b 2371 on turntable at Mt. Carmel, Illinois engine terminal, 1950. Photo from William Millsap collection.



H10b 2375 at West Detroit, Michigan in 1947. Note auxiliary coal boards on tender. Photo by Robert A. Hadley.





The author's H10b 2385. A U.S. Hobbies locomotive, extensively reworked into "late 1940's" condition. Photo by R. S. Curl.



J1e 5332 and H10b 2387 at West Detroit, Michigan ash pit May 9, 1952. Photo by E. L. Novak.



H10b 2389 on the P. & E. at Peoria, Illinois, July 24, 1946. Photo by Paul Stringham.



H10b 2389 at Brooklyn (East St. Louis), Illinois, June 22, 1947. Photo by R. J. Foster.

## PITTSBURGH & LAKE ERIE H10B CLASS 2-8-2 LOCOMOTIVES

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* - COALBOARDS	187 16000 G. NO	18 T 16000 G.	187	227	227		in a second	1	Thomas I.	and the second second	11 January 1	a stated	
* - COALBOARPS	10.00	16000 G.			661	187	187	187	187	227	227	227	227
AIR PUMP SHIELD MODIFIED	NO		16000 G	16000 G.	16000 G.	16000 G.	16000 6	16000 G	16000 G.	16000 G.	16000 G.	16000 G.	16000 0
AIR PUMP SHIELD MODIFIED	15	NO	No	CURVED -PLE	CURVED- PLE	NO	NO	NO	NO	CURVED PLE	CURVED-PLL	CURVED -PLE	CURVED - PL
ABOVE	125- 117	YES ST.	YES.ENT	YES . BAT.	YES	YES-ERT.	YES - EXT.	YES EAT.	YES	YES- EXT.	YES- EXT.	YES- CUT D.	YE5
AIR PUMP FILTERS - PILOT	110	#0	NO	NO	NO	NO	NO	NO	NO	NO	NO	Yes	YES
FOOTBOARDS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
STOKER - LAST USED	HT	HT	HT	HT	HT	HT	HT	HT	HT	HT	HT	HANNA	HANNA
" - ORIGINAL	DZ	DZ	02	DZ	DZ	02,02	D2	DZ	DZ	D2	DZ	DZ	D2
TURRET COVER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
MECHANICAL LUBRICATOR	- YES	- YES	- YES	- 483	~ YES	-YES	PROBABLE	- YES	PROBABLE	-YES	- YES	- YES	- YES
	SUNBEAM	SUNBEAM	SUNBEAM	SUNBEAM	SUNBEAM	SUNBEAM	SUNBEAM	SUNBERM	SUNBEAM	SHNBEAM	SUNBEAM	SUNBERM	SUNREAM
CLASS. LIGHTS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
EXPOSED SAND PIPES	No	NO	NO	No	NO	Na	NO	NO	NO	NO	NO	YES-1	NO
WHISTLE SHIELD	NO	NO	No	Na	NO	No	NO	No	NO	NO	NO	NO	NO
WH EXHAUST STEAM PIPE	NO	NO	NO	NO	No	NO	NO	NO	NO	NO	NO	YES	YES
TENDER OIL SKIMMER	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
TRAIN CONTROL	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
AIR SIGNAL		104.1	~	-	-			2	-	1.4	-	-	-
STEAM HEAT TRAINLINE	-		-		-		-	à.		-		2-24	
GOAL PUSHER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
TENDER FOOTBOARDS	YES	YES	YES	YE'S	NO	YES	YES	YES	res	YES	YES	YES	YES
	ROBABLE	YES	YES	YES	YES	YES	YES	YES	PROBABLE	YES	YES	YES	YES
YESTIBULE CAB	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
CILINDER RELIEF VALVES	No	NO	NO	NO	No	NO	NO	NO	No	NO	NO	YES	YES
TENDER HEADLIGHT	No	NO	NO	Na	NO	NO	NO	NO	NO	NO	NO	NO	NO
WATERSLOOP	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	No	NO	No
	9-1924	ALCO-SCH. 9-1924	ALCO SCH. 9-1924	ALCO-SCH. 9-1924	ALCO-3CH. 9-1924	ALCO-SCH. 3-1924	ALCO-SCH. 9-1924	ALCO, - SCH. 9-1924	ALCO- SCH. 9-1924	ALCO -SCH. 9-1924	ALCO- SCH. 3-1324	LIMA 8-1924	LIMA 8-1924
	656/2	65613	65614	656/5	656/6	65617	656/8	65619	65620	65621	65622	6830	6836
ASSIGNMENT - NEW	FALE	PALE	PELE	PALE	PLLE	PELE	PELE	PALE	PALE	PALE	PLLE	BIG FOUR	BIG FOUR
TRANSFERRED			-		1.1		1.00				100	PALE	PLLE
		14	÷.,									Sat 70 FELE 4-14- 1950	5010 TO P4LE 4-1 1950
A Contraction of the	C. March			3.343		2.50.55	077.02	Sec. 2	Local	1.33	1.1.1	EX. NMC	EX. NYC 2335
the billing and a set of	8-1953	5-28-53	12-22-52	4-8-54	# - 8 - 54	3-30-53	5-28-53	8-53	12-22-52	4-8-54	4-8-54	2097	10111-02
DISPOSITION	SOLD SCRAF	SOLD SCRAP 7-10-53 SOUTHWEST	SOLD SCRAP	SOLD SCRAP	SOLD SCRAP	SOLD SCRAP 3-15-53 GRANT STEEL	SOLD SCRAP 6-10-53 SOUTHWAST	SOLD SCRAP 3-4-33 UNITED I	SOLO SCRAP 1-13-53 30UTHWEST	SOLD SCRAP	SOLD SCRAF	4-8-54 SOLD SCRAP 10-1954 SOUTHWEST	4 -8-54 SOLD SCRAF 10-1354 SOUTHWEST

## H10 ASSIGNMENTS

ASSIGNMENT	NEW	1-1926	1-1927	1-1928	1-1929	1-1930	1-1931	1-1932	1-1933	1.1934	1-1935	1-1936	1-1937	1-1938	1-1939	1-1940	1-1946	1-1947	11948	9-1948	11-1950	9-1951	1-1253		1-195
BOSTON & ALBANY . HIDA	8	8	10	0		-	-	-	-	-	-	-	-	1	-	-	$\sim$	-	-	<u> </u>	$\sim$	1	~	-	1
LINE EAST - HIDA	12	-	÷.	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	1	-	8	-	-	-
· · HIOB	50	50	-	19	-	1-	1.00	-	-	-	1.1	-	÷	1.00		-	-	-	100	-	-	-	1.1	-	-
TOTAL L.E.	50	50	-	-	-	-	1.1	-	-	-	-	~	-	1	-	-	1	-	-	1	-	e .	-	-	1
LINE WEST - HIOA	122	122	110	110	110	70	65	49	39	47	47	47	45	40	40	40	37	37	37	35	43	56	9	5	2
* * ·HIOB	-	5	35	35	25	15	1.00	-	-	-	A -	-	-	10		-		12	1.201	17	-e -	-	10	100	1.17
TOTAL L.W.	122	122	145	145	135	85	65	49	35	47	47	47	45	40	40	40	37	37	37	35	43	56	9	1	-
OHIO CENTRAL HIDA	-	ι÷.	i e	-	-	40	40	<i>t</i> 0	55	55	55	55	55	55	55	55	65	65	65	70	18	-	-	-	-
BIG FOUR HIDA	50	50	70	70	70	70	70	86	86	78	78	77	63	73	73	73	81	81	8/	77	62	62	3		4
" " H/08	25	25	40	+0	40	40	40	40	40	40	+0	40	39	39	39	39	39	39	39	39	35	35	-	12	1.81
TOTAL BIG FOUR	75	75	110	110	110	110	110	126	126	118	118	117	N2	1/2	112	112	120	120	120	116	97	97	1	Ξ.	-
NICH CENT. HIO.	11	11	11	11	11	11	16	16	11	11	11	12	28	23	23	23	8	8	8	8	26	25	12	-	Ger.
" " HIOB	15	15	15	15	25	35	50	50	50	50	50	50	51	51	51	51	51	51	5	51	46	46	7	-	1
TOTAL M.C.	26	26	26	ZG	36	46	66	66	6/	6/	61	62	79	74	74	74	59	59	59	59	72	71	19	~	$\sim$
PALE HIDA	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	13	11	8	3	-
. HIOB	11	11	11	11	11	11	11	11	11	11	11	$\mathcal{H}$	11	11	11	11	11	11	11	11	13	13	11	6	1.4
TOTAL PALE	21	21	2/	2/	2/	2/	2/	15	21	21	2/	21	2/	21	2/	21	2/	2/	2/	2/	26	24	19	9	-
GRAND TOTAL TRANSFERS -	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	256	248	+7	و	-
KNOWN	-	SO HID B	-	NO HIOB	IS HIS B	IS HID B	K HIDA	IS HIDA		-	I HIDA BF TA MC		5 HIO A	1		1	181	-	S MIDA BF To DC	-	5 HIDA BF TO MC	-	-	-	*
		ZO HIDA		100	40 HIDA	SHIDA		5 HIDA MC TO OC		1		5 MIDA AC TO MC	SHIA	1.1				1.00	2 HIOA BE TO LW		9 MION				1.1
		LW TO BE			LW TO OC	LW TO MO		SHIDA				S HIOA	MC TO BE						HIOA	1	6 HIGA				
		LW TO BE			1.1	(a) (d)		OC TO LW			10.77	BF TOOC							LAN TO LE		LW TO MC				
		8 HIDA		1 0				N 1				BF TO MC							3 HIOA		SHIPA				0
		BAA TO										BFTOMC	1.1		1.1	N. 13	t		LW 70 BI	1	AF TO PLE			P 3	
	1.1	1		1 9	S	1		· · ·			r	les in the	<i>v</i>						1111		BE TO PLE			1 8	
																					8 NIDA				
																					OC TO LW				
												21_								1	RETIRED				

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P. & L.E. H10b 202 at McKees Rocks, Pa., July 19, 1952. Photo by W. Krawiec.



P. & L.E. H10b 210 at Pittsburgh, Pa. in September 1951. Photo by W. Krawiec.



P. & L.E. H10b 216 in action at New Castle, Pa., August 31, 1952. Photo by Al Paterson.



P. &L.E. H10b 216, ex N.Y.C. 2336, at McKees Rocks, Pa. in 1951. Note A2a style cab and smoke consumer installation. Photo by W. Krawiec.