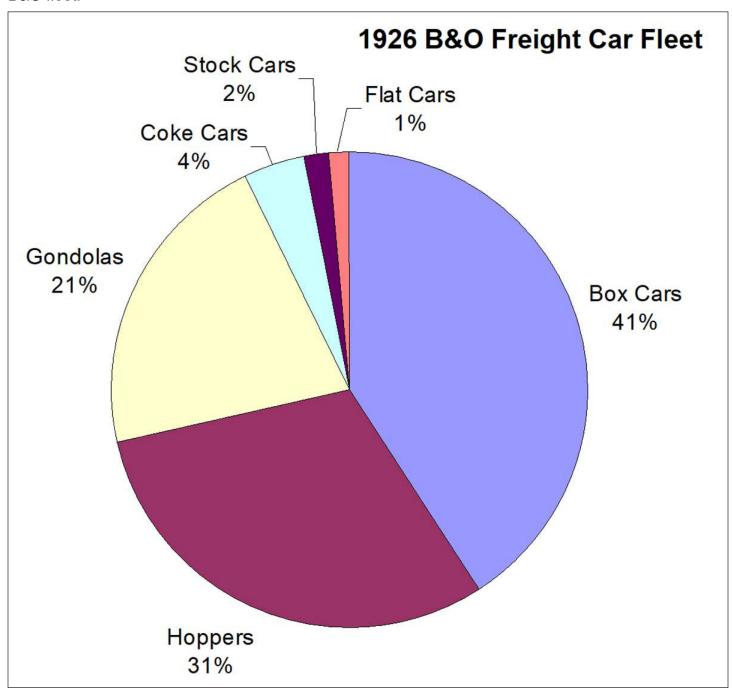
## Baltimore & Ohio 1926 freight car fleet

The Baltimore & Ohio Railroad had an interesting freight car fleet in 1926. The October 1926 Official Railway Equipment Register indicates there were 101,227 B&O freight cars in service. These cover a variety of car types and car classes. The pie chart below illustrates the various car designs of the B&O fleet.



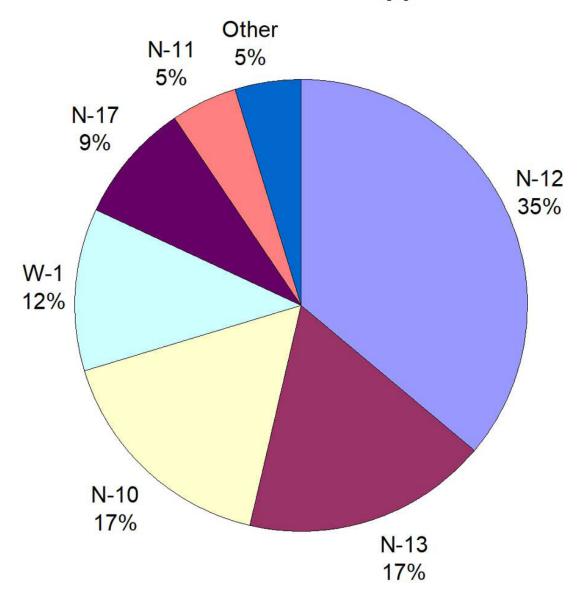
Let's take a closer look at the B&O car classes of 1926 and focus on the hopper fleet. Boxcars and gondolas were previously featured and can be reviewed on the B&O Freight Car Fleet of 1926 page of the DesignBuildOp blog. An additional section covering flats, stock cars, and cabooses in the fleet will be published.

These summaries do not cover all of the car classes in service, just those with significant quantities or with a representative HO scale model. This document was completed in June 2019.

### **Hopper Cars**

37,343 B&O open top hoppers are listed in service across 25 car classes and subclasses in a 1926 Official Railway Equipment Register. The B&O classified coke hoppers separately at that time. Combining the coke and hopper cars amounts to 35% of the 1926 fleet. This pie chart illustrates the car class proportion of the hopper fleet covered in this summary.

# 1926 B&O Hopper and Coke Car Fleet

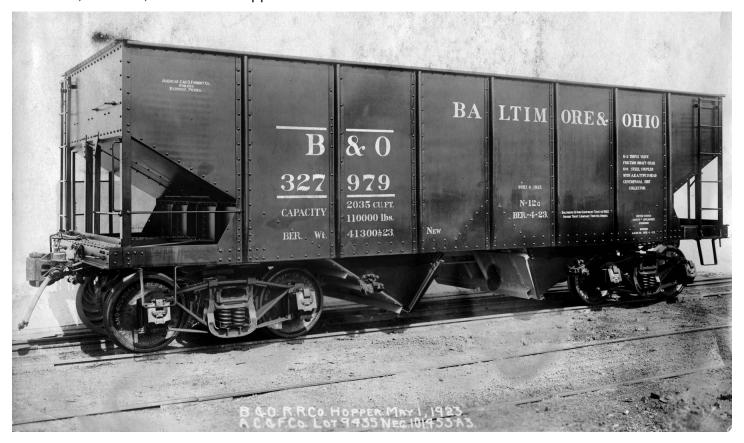


The 1926 B&O hopper fleet was the third largest among American railroads. Only the Pennsylvania and New York Central fleets had more hopper cars. A large proportion of the B&O hopper fleet was built and installed between 1905 and 1915. Hopper cars were often rebuilt within ten years of entering service. They took a beating hauling coal on the B&O. The W-1 class was originally built for coke service. With traffic and coking methods changing by 1926, these cars were in coal service.

The data was collected from an *October 1926 Official Railway Equipment Register*, the *July 1926 B&O Summary of Equipment*, and *B&O Fifty Years of Rolling Stock Rosters, 1905-1954*. The latter two books were purchased through the B&O Railroad Historical Society. The Company Store offers reprints of many official B&O books to assist with your research efforts. The B&O Summary of Equipment books are found under the Equipment link on the Company Store pages.

#### N-12 and subclasses

14,364 cars, 38% of the hopper fleet



An AC&F builder image of N-12g 327989 taken in April 1923. (Photo from the John W. Barriger III National Railroad Libary, AC&F Industrial Archival Collection)

Class	Car Series	Cubic Capacity	Number of Cars	Built	Notes
N-12	220000 - 221999	1800	1800	1913	
N-12d	223000 - 225409	1800	2355	1915	
N-12e	322000 - 323414	1800	1411	1921	
N-12f	326000 - 326999	1800	999	1922	
N-12g	327000 - 331999	1800	4998	1923	
N-12g	420000 - 420499	1800	500	1924	
N-12h	420500 - 424879	1800	1001	1924	
N-12j	225500 - 225799	1800	300	1923	ex-Hillman Coal & Coke
N-12k	425000 - 425999	1800	1000	1923	

The N-12 hoppers are iconic B&O cars. The car follows a 1905 hopper design developed by Standard Steel Car but B&O cars were six-inches taller. Robert Karig labeled this the Common Standard hopper car design in his authoritative work, *Coal Cars The First Three Hundred Years*. The cars were popular among many railroads and built by several companies in the 1905-1920 period. The B&O added several thousand N-12 cars after WW1 to replace an aging coal gondola fleet.

Funaro & Camerlengo offers a HO scale resin kit for the N-12 that covers a few subclasses.

#### N-10 and subclasses

6569 cars, 18% of the hopper fleet



N-10f 527076 is a rebuilt car wearing lettering of the pre-Kuhler emblem years. The image is undated.

Class	Car Series	Cubic Capacity	Number of Cars	Built	Notes
N-10b	24000 - 24999	1790	599	1910	
N-10	124000 - 124999	1790	809	1905-06	
N-10a	125000 - 126999	1790	1643	1905-06	
N-10b	127000 - 130019	1790	1390	1910	
N-10d	233800 - 234199	1800	129	1911	ex-Jamison Coal & Coke
N-10e	325000 - 325999	1800	997	1922	
N-10f	520000 - 527292	1790	1002	1925 rebuilds	Rebuilt N-10, N- 10a, N-10b, and N10d hoppers

The N-10 hoppers became an early all-steel, self-clearing hopper standard for the B&O and the first to be built using plate girder construction for the car sides, standardized rolled underframe sections, and copper-bearing steel. The cars had nine side stakes with the top of the sides 10-feet 8-inches above the rail.

The N-10 class followed and improved upon the earlier N-8 and N-9 car designs that had heavy fishbelly sidesills and corrosion problems. The N-8 and N-9 cars were not listed in the 1926 ORER.

Currently, there are no HO scale models available for these prototypes.

#### N-13 and subclasses

5930 cars, 16% of the hopper fleet



B&O N13 229234 at Mt. Clare, Baltimore, Md., March 29, 1941. Tom Arnold photograph.

Class	Car Series	Cubic Capacity	Number of Cars	Built	Notes
N-13	222000 - 222999	1800	987	1915	
N-13	229000 - 232999	1817	3952	1915-16	
N-13	235000 - 235999	1817	991	1917	

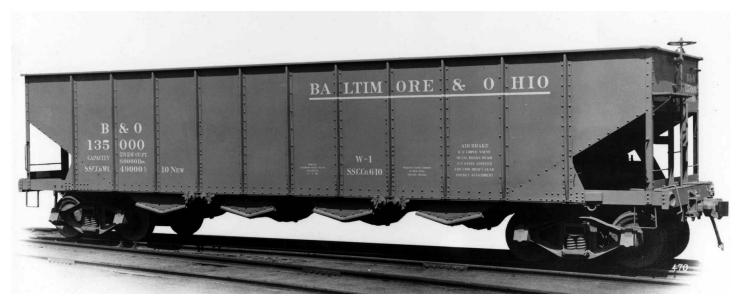
The N-13 class is an interesting design that used Enterprise longitudinal discharge doors and a hopper slope angle greater than what was used on many coal hoppers. A few modelers and freight car historians suspect the cars were bought for a specific use or customer, but no documentation has been found.

One car has survived the decades and is among the B&O Railroad Museum holdings, lettered as C&O 227839.

Currently, there are no HO scale models available for these prototypes.

#### W-1 and subclasses

3960 cars, 11% of the hopper fleet



W-1 135000 in a June 1910 Standard Steel Car Company builder image. (Keith Retterer photo collection)

Class	Car Series	Cubic Capacity	Number of Cars	Built	Notes
W-1	132000 - 133999	2511	1064	1911	
W-1	134000 - 134999	2511	626	1910	
W-1	135000 - 135999	2511	195	1910	
W-1a	332000 - 332999	2511	712	1922	
W-1a	333000 - 334999	2511	1363	1922-23	

The W-1 hopper car design is similar to the Pennsylvania Railroad H21 hopper cars. When new, the W-1 cars were in coke service and rated at 40-ton capacity. Many coke oven operations were served by the B&O in the coalfields of northern West Virginia and southwestern Pennsylvania. Coke is produced by burning out the impurities in coal. A much lighter product results. These large cubic capacity cars originally didn't need a high tonnage rating.

As coke production moved towards more efficient plants to capture additional by-products, these large cars received structural upgrades and higher capacity trucks for coal service. By 1926, the W-1 and W-1a cars were rated at 60-70 ton capacities.

Westerfield Models has offered an HO scale W-1 resin kit. As of this June 2019 writing, the kit is slated to be discontinued.

Bowser Manufacturing produces an HO scale injection-molded plastic model of the PRR H21 class that can be used as a stand-in for the B&O W-1 cars.

#### N-17 and subclasses

3194 cars, 9% of the hopper fleet



N-12 and N-17 hoppers are caught at work in an early 1940s image. The N-17 is on the right.

Class	Car Series	Cubic Capacity	Number of Cars	Built	Notes
N-17	320000 - 320999	1880	1000	1919	
N-17	321000 - 321599	1880	597	1919	
N-17	321600 - 321899	1880	299	1919	
N-17	324000 - 324999	1880	998	1919	ex-Morgantown & Kingwood
N-17a	426000-426299	1880	300	1923	ex-Bertha Consumers (BERX)

The N-17 class follows the USRA Specification 1005-B: 55-ton Steel Twin Hopper design. The USRA originally assigned 1900 of these cars to the B&O. An additional 1000 cars came when the Morgantown & Kingwood shortline was purchased. Another 300 hoppers came onto the 1926 roster from Bertha Consumers. These followed the USRA car design but were built after USRA control was relinquished.

Several companies have produced HO scale models of the USRA twin hopper. Kits and ready-to-run models are on the market from Accurail, MTH, Tichy Train Group, and Walthers.

USRA hopper models have also been produced in O and N scales.

#### N-11 and subclasses

1598 cars, 4% of the hopper fleet



Fairmont Coal 4010 became a B&O N-11 class hopper and first appear in the *July 1908 Summary of Equipment*. Note the lack of ladders and grabs that would be mandated by the 1911 amendments to the Safety Appliance Act of 1893.

Class	Car Series	Cubic Capacity	Number of Cars	Built	Notes
N-11	30000 - 30254	2100	223	1907	
N-11	130020 - 131999	1723	1375	1906-07	ex-Fairmont Coal and Sandy Creek Coal

The N-11 wood hoppers follow one of many Seley hopper designs that were popular in the 1900-1920 years. The B&O cars surviving into the mid-1920s would have received steel centersills and updated ladders and grab irons to follow safety appliance requirements. The difference of capacity between these two car series is odd as the ORER details for length, width, and height of cars listed for each of the car series are just a few inches off.

Currently, there are no HO scale models available for these specific B&O prototypes. Funaro & Camerlengo produce HO scale resin kits following Southern Railway prototypes that are similar to the B&O N-11 cars.

The remaining 4% of the 1926 B&O hopper fleet covers 1,728 cars in six car classes. All of them came from other owners.

- \* N-14 29 Standard Steel Car channel-side hoppers, ex-Jamison Coal & Coke, original cars built in 1904
- \* N-15 42 PRR GLa copies, ex-Jamison Coal & Coke, original cars built in 1905
- \* N-16 & N-16a 996 cars, ex-Fairmont Coal and Sandy Creek Coal companies, original cars built in 1918
- \* N-18 541 cars, ex-NECX and (possibly) Bethlehem Steel, original cars built in 1912-14
- \* W-3 120 cars, ex-Bertha Consumers, original cars built in 1921-22



The N-16a cars were distinctive, as seen above. They were wood construction with steel underframes and truss members following a Seley design. The B&O was rebuilding N-16 cars as the N-16a class in the mid-1920s with steel hoppers, steel ends and open sides under the slope sheets at the end sills.

The following resources are recommended to further understand the evolving B&O coal hauling fleet and hopper cars in general.

Ben Hom - "Modeling B&O Open Hoppers, 1919 to 1963 – an overview" *The B&O Modeler* Vol. 2, No. 3, May/June 2006

Martin Robert Karig - Coal Cars The First Three Hundred Years University of Scranton Press

The 1926 B&O freight car fleet summary has been an ongoing project. Several modelers and historians have assisted and it would not have progressed without their assistance. I owe a debt of gratitude to James Mischke, Bob Witt, David Thompson, Ed Kirstatter, and Ray Breyer for sharing details, photos, and proofreading as the project has moved forward.