

# The COAL CAR

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## Post WWII Evolution of Norfolk & Western 70-ton Triple Hoppers

by David G. Casdorff

Norfolk & Western's first modern triple hopper was introduced in 1942 as the class H2. These along with the H3 class (rebuilt HUa's) formed the mainstay of N&W's triple hopper fleet during WWII. Following the war a new line of triple hopper classes were delivered to the Norfolk & Western that eventually ended in 1966.

### Class H2A

The class H2A was introduced in 1948 by the N&W's Roanoke Shops. The class would eventually contain 13,485 cars built by a number of builders including Virginia Bridge, ACF, Greenville and Bethlehem (1). The cars had 36'9-3/4" interior length bodies mounted on a 40'8" OL frame. Each car rode on 9,040 lb Barber Stabilized trucks or the slightly heavier 9,100 lb ASF Ride Control trucks.

The body had nine ribs and sat down

N&W 70-TON TRIPLE HOPPER DIMENSIONS							
CLASS	BUILT	CU. FT.	IL	IW	OL	EH	OH
H2A	1948-56	2460	36'9"	9'6"	40'8"	11'0"	12'3"
H10	1956-60	2460	36'9"	9'10"	40'8"	11'0"	12'3"
H16	1965-66	2913	37'0"	9'9"	40'9"	12'3"	12'3"
H16A	1966	2913	37'0"	9'9"	40'9"	12'3"	12'3"



low on the frame covering the tops of the wheels when viewed from the side. Body height was 11'0" to the top of the sides. The cars had 15" peaked ends that brought the total height to 12'3" above the rail. Each car had a 2,460 cubic-foot capacity and an average 168,000 lb load limit. The last cars of this class were built in 1956.

The number of H2A's dropped dramatically in the early Seventies. By 1990 all but a few remained on the property.

NW 15500-17484. 1,985 cars. Built 1948 Roanoke Shops (PA 12606) (2).

NW 17500-18499. 1,000 cars. Built 1949 Roanoke Shops (PA 12879).

NW 18500-19499. 1,000 cars. Built 1949 Virginia Bridge (PA 12965).

NW 19500-22499. 3,000 cars. Built 1950-52 Portsmouth Shops (PA 13566 and 13709).

NW 22500-25499. 3,000 cars. Built 1951-1953 Roanoke and Portsmouth Shops (PA 13903).

NW 26000-26999. 1,000 cars. Built 1956 American Car & Foundry (PA 15451).

NW 28500-29999. 1,500 cars. Built 1956 Roanoke Shops (PA 15537).

NW 31000-31499. 500 cars. Built 1956 Greenville Steel Car (PA 15452).

NW 31500-31999. 500 cars. Built 1956 Bethlehem Steel Car (PA 15452).

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### Class H10

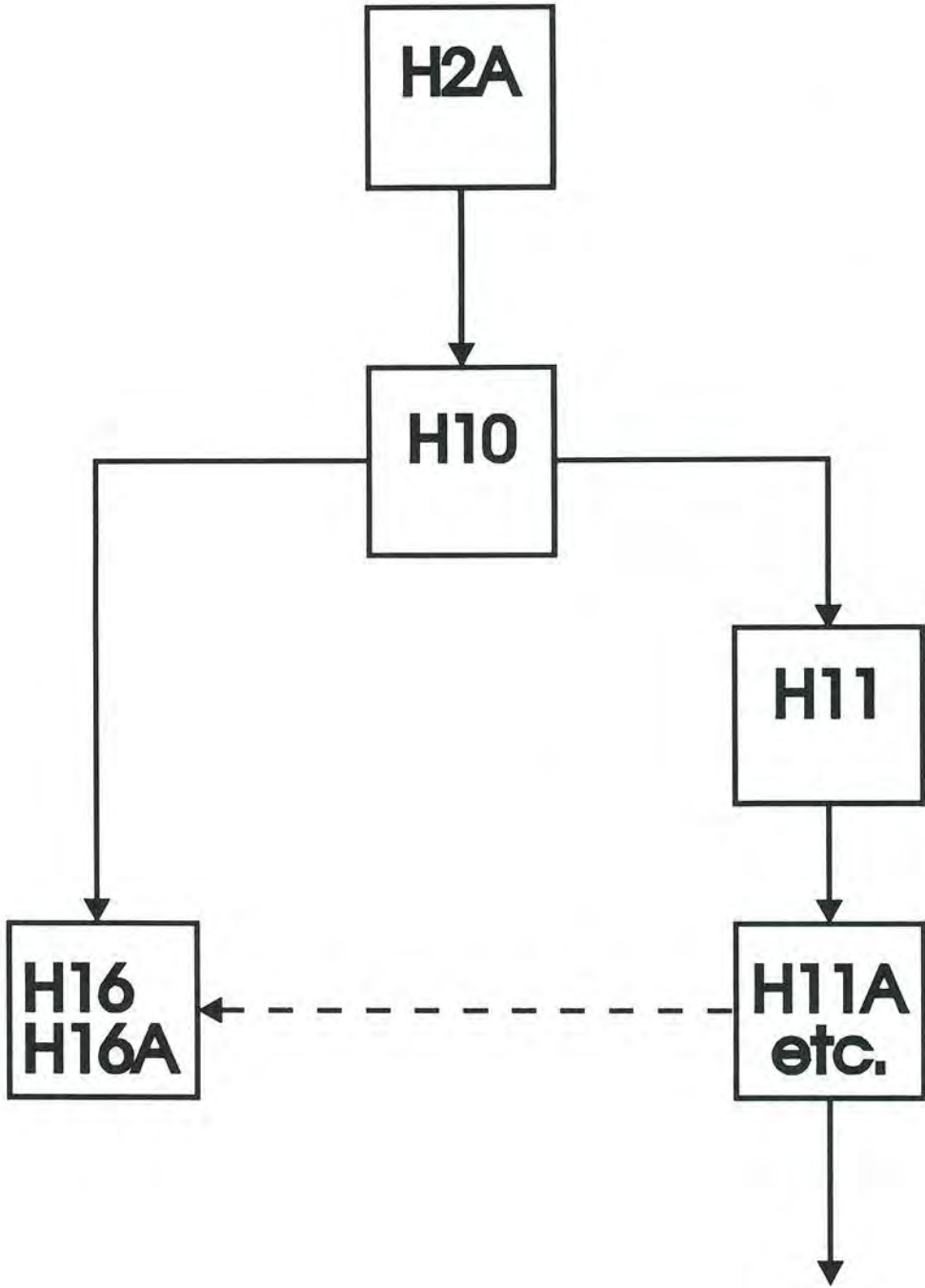
The next step in line was the H10 class (following numerically the H7 through H9 twin hopper rebuild programs). This class was markedly different from the H2A class by having the trucks and frame more exposed. The H10's also have a steeper two piece dual angle slope sheet as well as numerous minor body differences (3).

Similarities continued from the H2A class included the most of the same dimensions, same load limit, peaked ends, and nine rib bodies. The H10's cubed out the same as the H2A's despite a four inch greater interior width. This class rode on one of four different trucks that included ASF, Barber, Buckeye and National C-1's.

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*Top Photo, Page 2. N&W 31956 after many years of use. Class H2A. This car was built in 1956 by Bethlehem Steel Car. Notice how low the body appears to sit on the frame. The end slope sheets aren't as steep as its successor, the H10 class. Photographed in Vernon, CA on September 26, 1983.*

*Bottom Photo, Page 2. NW 41144 was built by the Roanoke Shops as part of the H10 class. Notice how the body exposes the frame and trucks on this car. The end slope sheets are steeper than its predecessor, the H2A class. Photographed in Kenova, WV on September 5, 1985.*



## Numerical Roster of Post WWII New-Built N&W 70-Ton Triple Hoppers

NUMBER:	SERIES:	CLASS:	BUILDER:	RR REF:	TRUCK CLASS(ES):
15500	17484	H2A	NW RO	12606	T-91 or T-92
17500	18499	H2A	NW RO	12879	T-91 or T-92
18500	19499	H2A	VA Bridge	12965	T-91 or T-92
19500	20499	H2A	NW PO	13564	T-91 or T-92
21500	22499	H2A	NW PO	13709	T-91 or T-92
22500	25499	H2A	NW RO & NW PO	13903	T-91 or T-92
26000	26999	H2A	ACF	15451	T-91 or T-92
27000	27814	H16	NW PR	17058	T-91A or T-92A
27815	27999	H16	NW PR	17058	T-91A or T-92A
28500	29999	H2A	NW RO	15537	T-91 or T-92
31000	31499	H2A	GSC GV	15452	T-91 or T-92
31500	31999	H2A	BSC JTN	15452	T-91 or T-92
34000	37499	H10	NW RO	15550	T-102 or T-103
37500	39499	H10	NW RO	15803	T-102 or T-103
39500	40999	H10	NW RO	15969	T-102 or T-103
41000	41949	H10	NW RO	16298	T-102 or T-103
41950	41999	H10	NW RO	16298	T-113 or T-115
84000	84103	H16	NW RO	17247	T-91A or T-92A
84104	84159	H16A	NW RO	17247	T-81A
84160	84180	H16	NW RO	17247	T-91A or T-92A
84181	84275	H16A	NW RO	17247	T-81A
84276	84314	H16	NW RO	17247	T-91A or T-92A
84315	84350	H16A	NW RO	17247	T-81A

Eventually 8,000 class H10 cars would be delivered to the N&W by the Roanoke Shops between 1956 and 1960 (4). The class maintained a strong presence until the mid-Eighties. Between 1985 and 1990, the numbers fell from 7,258 to 1,489. By 1995 only 31 remained on the roster.

*NW 34000-41999.* 8,000 cars. Built 1956-1960 Roanoke Shops. NW 34000-37499 (PA 15550). NW 37500-39499 (PA 15803). NW 39500-40999 (PA 15969). NW 41000-41999 (PA 16298). Truck classes T102 (ASF) and T103 (Barber) were applied to NW 34000-41949. Truck classes T113 (Buckeye) and T115 (National C-1) were applied to NW 41950-41999. This later group of fifty cars also had cast steel draft sills.

### **Classes H16 and H16A**

In 1960, coal hopper production branched off into the new 100-ton triple hoppers of the H11 class (5). It seemed that 70-ton triple hopper production had ceased for the N&W. After 1960 the 100-ton peaked end H11 class evolved into the full height square end H11A and successor classes.

However in 1965, the N&W's 70-ton hopper was reborn and the class H16 came into being. The same design technique used on the H11 to H11A change was also used on the H10 to H16 change. The body's side height on the H16 class was raised to the full 12'3" (previously on the H10 and original H11's only the peaked ends went this high). This gained an additional 453 cubic-feet bringing the total

capacity to 2,913 cubic-feet. The new H16 class continued the lines of the previous H10 class with nine rib bodies.

During 1965 and 1966, the Princeton and Roanoke Shops produced 1,164 class H16's and 187 class H16A's for a total of 1,351 cars. The primary difference between the two classes being the truck classes (T81A for the H16A's and T91A or T92A for the H16's). The quantity of cars from these two classes dropped sharply during the late Eighties. By 1995, only five cars remained on the roster.

*NW 27000-27999.* 1,000 cars. Built 1965-66 Princeton Shops (PA 17058). Class H16.

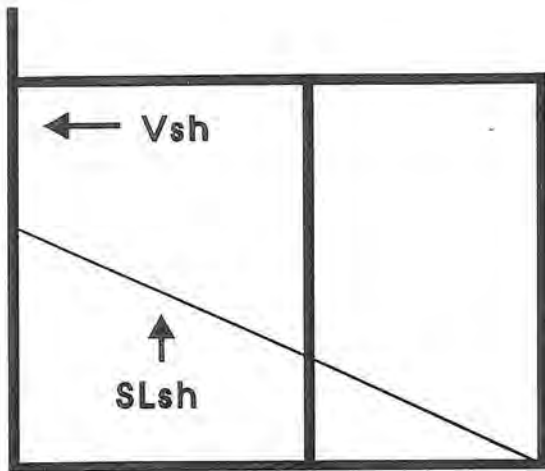
*NW 84000-84103.* 104 cars. Built 1966 Roanoke Shops (PA 17247). Class H16.

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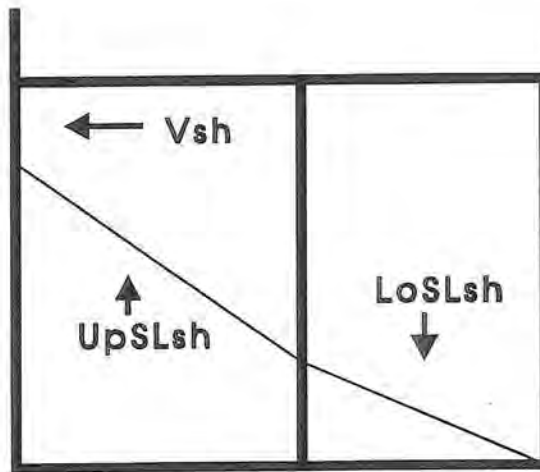
*Top Photo, Page 7.* NW 27369 was built by the Princeton Shops in 1965. Note the flat (non-peaked) ends on this class. While the load limit indicates an 86-ton capacity, the cars were equipped with 70-ton trucks. Photographed in Princeton WV 1985.

*Bottom Photo, Page 7.* NW 84262 is a class H16A. It was built in 1966 at the Roanoke Shops. Photographed in 1985 at Oneonta, NY. J.R. Quinn photo.





H2A



H10

Note the taller vertical sheet (Vsh) and single slope sheet (SLsh) on the class H2A. The class H10's have a shorter vertical sheet (Vsh) and double slope sheet consisting of the upper (UpSLsh) and lower slope sheets (LoSLsh).

NW 84104-84159. 56 cars. Built 1966  
Roanoke Shops (PA 17247). Class H16A.

NW 84160-84180. 21 cars. Built 1966  
Roanoke Shops (PA 17247). Class H16.

NW 84181-84275. 95 cars. Built 1966  
Roanoke Shops (PA 17247). Class H16A.

NW 84276-84314. 39 cars. Built 1966  
Roanoke Shops (PA 17247). Class H16.

NW 84315-84350. 36 cars. Built 1966  
Roanoke Shops (PA 17247). Class H16A.

## Notes

(1) Roy Hurlburt shows 13,447 cars in the class H2A on page 7 of *The Norfolk & Western Historical Society Newsletter* Volume 1 Number 4 (July-August 1985). The N&W diagram book shows 13,485 numbers.

(2) The PA numbers refer to the N&W's specification or reference numbers.

(3) On page 39 of Wallace and Wiley's book, *The Norfolk and Western Handbook* (1980), they state that the "H2A tripple hopper is almost identical to the class H10"

(Italics added). Almost is a relative term. However, I feel the differences are so noticeable in this case that their statement is incorrect.

(4) Hurlburt shows 8,800 cars for the class H10. This is probably a typo since there are only 8,000 numbers (34000-41999). "The Norfolk & Western Coal Car Fleet 1910-1985." Page 9 in *The Norfolk & Western Historical Society Newsletter* Volume 1 Number 4 (July-August 1985).

(5) See Freightcarology in the November 1996 issue of *Model Railroading*.

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