Delaware, Lackawanna & Western

New locomotives and scrapping of old power improve performance—Heavy capital expenditures reduce costs

THE Delaware, Lackawanna & Western in the first eleven months of 1928 showed a performance of 10,821,781,000 gross ton-miles, which total is but 2.8 per cent greater than the performance during the same period of 1925. These periods, showing approximately the same gross movement, may be fairly compared from a standpoint of operating efficiency, and some of these comparisons are shown in Table 1.

It will be noted that, with a 4 per cent increase in car-miles, comparing the 1928 period with that of 1925, train-miles showed a decrease of the same percentage, while both locomotive-miles and freight train-hours declined more than 8 per cent.

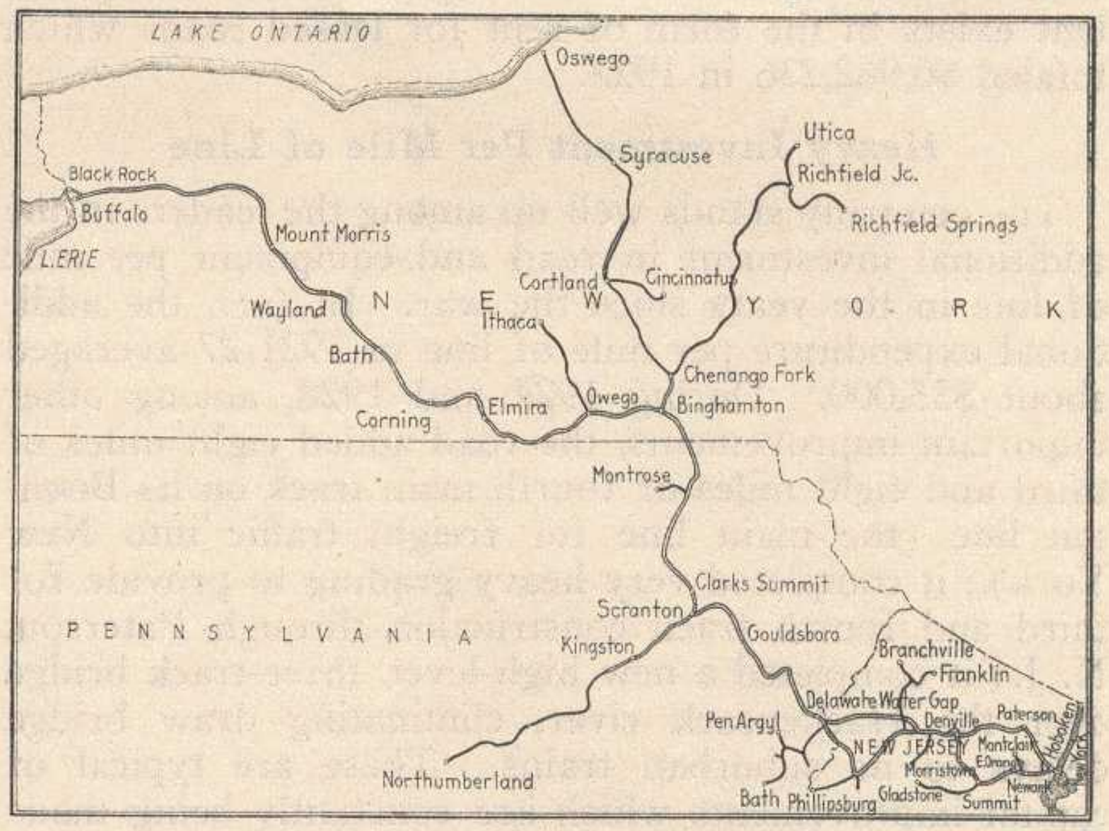
Table I—Comparison of Selected Freight Operating Statistics

	Eleven Months 1928	Eleven Months 1925	Per cent of change Inc.	Per cent of change Dec.
Mileage operated	998	993	0.5	
Gross ton-miles (thousands)	10,821,781	10,528,763	2.8	
Net ton-miles (thousands)	4,544,007	4,639,983		2.1
Freight train-miles (thousands)	5,898	6,141		4.0
Freight locomotive-miles (thousands)	7,409	8,136		8.9
Freight car-miles (thousands)	285,037	273,921	4.1	
Freight train-hours	472,591	514,261		8.1
Car-miles per day	34.3	32.5	5.5	
Net ton-miles per car day	546	551		0.9
Per cent loaded to total car-miles	67.7	69.8		3.0
Net ton-miles per car day	546	551		0.9
Freight cars per train	49.3	45.6	8.1	
Gross tons per train	1835	1715	7.0	
Net tons per train	770	756	1.9	
Train speed, miles per train hour	12.5	11.9	5.0	
Gross ton-miles per train-hour	22,899	20,474	11.8	
Net ton-miles per train-hour	9,615	9,023	6.6	
Lb. coal per 1,000 gross ton-miles	136	162		16.1
Loco. miles per loco. day	73.1	68.7	6.4	
Per cent freight locos. unserviceable	18.5	16.9	9.5	
Percent freight cars unserviceable	4.3	3.5	22.9	

Locomotives an Important Factor

While many factors undoubtedly aided this greatly improved performance the most obvious of them is disclosed in the statements of freight motive power owned and total tractive effort. At the end of December, 1925, the Lackawanna had 431 freight locomotives of an aggregate tractive effort of 18,626,944 lb. At the end of December, 1928, freight locomotives totaled 330 with an aggregate tractive effort of 16,793,875—a reduction of 23 per cent in the number of freight locomotives and 9.8 per cent in total tractive power. Average tractive power per freight locomotive increased from 43,217 lb. in 1925 to 50,891 in 1928, or 17.8 per cent.

This retirement of old power, with only partial replacement necessary by reason of the greater size and



The Delaware, Lackawanna & Western

efficiency of the newer locomotives, contributed greatly to the improved train speed and improved train loading. It undoubtedly aided materially in the increase in locomotive miles per locomotive day.

The Lackawanna has to operate a considerable helper mileage in its freight service over the Pocono mountains. During the eleven-month period of 1925 its ratio of freight locomotive-miles to freight train-miles was 1.32 which in the similar period of 1928 had been reduced to 1.26, in which reduction the newer power undoubtedly figured largely.

In 1927 the Lackawanna's tonnage was divided as follows: Products of agriculture, 8.2 per cent; products of animals, 2.5 per cent; products of mines, 55.7 per cent (anthracite 36.4 per cent); products of forests, 3 per cent; manufactures and miscellaneous 26.8 per cent; and l.c.l., 3.8 per cent. At one time primarily a carrier of anthracite coal, the Lackawanna has each year built up its tonnage of other traffic to give the wide diversification which it has now attained.

Table II—Delaware, Lackawanna & Western. Operating Results, Selected Items, 1916 to 1928

Year	Revenue Ton Miles (Thousands)	Revenue Passenger Miles (Thousands)	Rev. per Ton Mile Cents	Anthr. Coal Revenues	Mdse Freight Revenues	Passenger Revenues	Total Revenues	Total Operating Expenses	Net Operating Revenues	Net After Taxes	Net Ry. Operating Income
1916	$5,263,263	$548,805	0.72	$14,475,244	$23,229,865	$8,674,863	$51,580,899	$31,940,974	$19,639,925	$17,114,593	.....
1917	5,591,043	585,179	0.75	17,130,291	24,637,415	9,289,838	57,211,224	37,676,488	19,534,736	16,810,495	$16,971,381
1918	5,574,774	604,648	0.90	19,009,846	31,287,554	11,204,813	68,740,076	49.925,685	18,814,392	15,853,906	16,011,656
1919	4,830,066	643,254	1.07	19,055,523	32,839,878	12,380,787	71,824,047	56,065,251	15,758,796	12,287,412	11,947,364
1920	5,166,315	698,359	1.17	20,228,484	40,132,599	13,868,517	83,340,062	73,898,430	9,441,632	6,079,655	6,104,886
1921	4,454,206	656,098	1.43	26,606,299	36,970,445	14,438,161	85,977,815	67,872,058	18,105,757	12,781,395	12,997,084
1922	3,851,276	652,062	1.34	14,294,191	37,262,516	13,960,681	74,622,344	63,671,647	10,950,697	6,046,287	6,669,022
1923	4,852,526	667,290	1.32	25,151,010	39,085,364	14,185,914	88,236,974	69,467,853	18,769,120	12,751,170	13,442,543
1924	4,809,172	660,826	1.32	23,576,425	39,874,878	13,600,454	86,727,184	64,485,909	22,241,275	15,328,663	15,925,962
1925	4,587,677	670,930	1.30	17,757,554	42,091,064	13,628,673	83,659,738	62,390,610	21,244,447	14,402,022	14,892,121
1926	4,964,588	666,555	1.31	22,711,502	42,456,050	13,338,081	88,804,745	62,377,489	26,427,256	18,746,352	19,331,910
1927	4,647,082	661,430	1.33	20,519,782	41,156,600	13,006,932	84,685,830	60,183,060	24,502,770	17,033,435	17,398,099
1928	.....	.....	...	.....	.....	.....	81,138,442	57,986,008	23,152,434	.....	17,110,545

Standard return for operations during federal control was $15,749,477.

Selected items showing the Lackawanna's operating results during the past twelve years (only partially complete for 1928) are shown in Table II. It will be noted that total revenues for 1928 were less than in either 1926 or 1927. On the other hand, however, business has been improving during the past few months and earnings during the last three months of 1928 exceeded those of the same months of 1927, auguring well for at least the early part of 1929.

The Lackawanna in 1928 had a net income equivalent to approximately $7.50 a share on the outstanding capital stock ($50 par) on which the regular dividend rate is 12 per cent, or $6 per share, with an extra dividend of 2 per cent the rule in recent years. At the end of 1927 the company had a corporate surplus of $78,742,613 compared with outstanding capital stock of $84,511,820. Funded debt is negligible, but its equivalent exists in the form of rent for leased roads which totaled $6,962,236 in 1927.

Heavy Investment Per Mile of Line

The company stands well up among the leaders in the additional investment in road and equipment per mile of line in the years since the war. In fact, the additional expenditure per mile of line in 1921-27 averaged about $55,000. During 1927 and 1928, among other important improvements, the road added eight miles of third and eight miles of fourth main track on its Boonton line (the main line for freight traffic into New York); it completed very heavy grading to provide for third and fourth track construction through Paterson, N. J.; it completed a new high-level, three-track bridge over the Hackensack river, eliminating draw bridge delays to its suburban trains. These are typical of capital improvements which are constantly being made to reduce operating expenses, speed up trains and improve service to patrons. Earnings, moreover, have increased sufficiently following these improvements to bring in a satisfactory rate of return on the additional investment.

The railroad is virtually without highway grade crossings in the congested area near New York. The fourth main track mileage has increased from year to year so that the road now has a minimum of four tracks from New York west to the Delaware river (with the exception of a few short stretches), as well as a substantial mileage of third and fourth tracks elsewhere on the system. The entire main line mileage is equipped with automatic signals, and has been for many years. Its freight traffic density per mile of line—13,978 net ton-miles per mile of road per day in 1927—is exceeded by but few comparable roads in the Eastern district, except the important soft coal carriers.

Projects for improved service to patrons now definitely authorized include electrification in the New York suburban area and the construction of a large modern freight terminal in Hoboken and Jersey City to expedite and facilitate the handling of New York freight traffic.

The road's maintenance of way ratio to operating revenues was 9.6 per cent in 1927 and the highest it has reached since 1922 was 10 per cent in 1925. This favorable figure has been obtained by high maintenance standards over a long term of years and adequate capital expenditures for track to secure an efficiently maintained structure. Creosoted ties, screw spikes, tie plates, rock ballast and rail of a heavy section have been standard for many years.

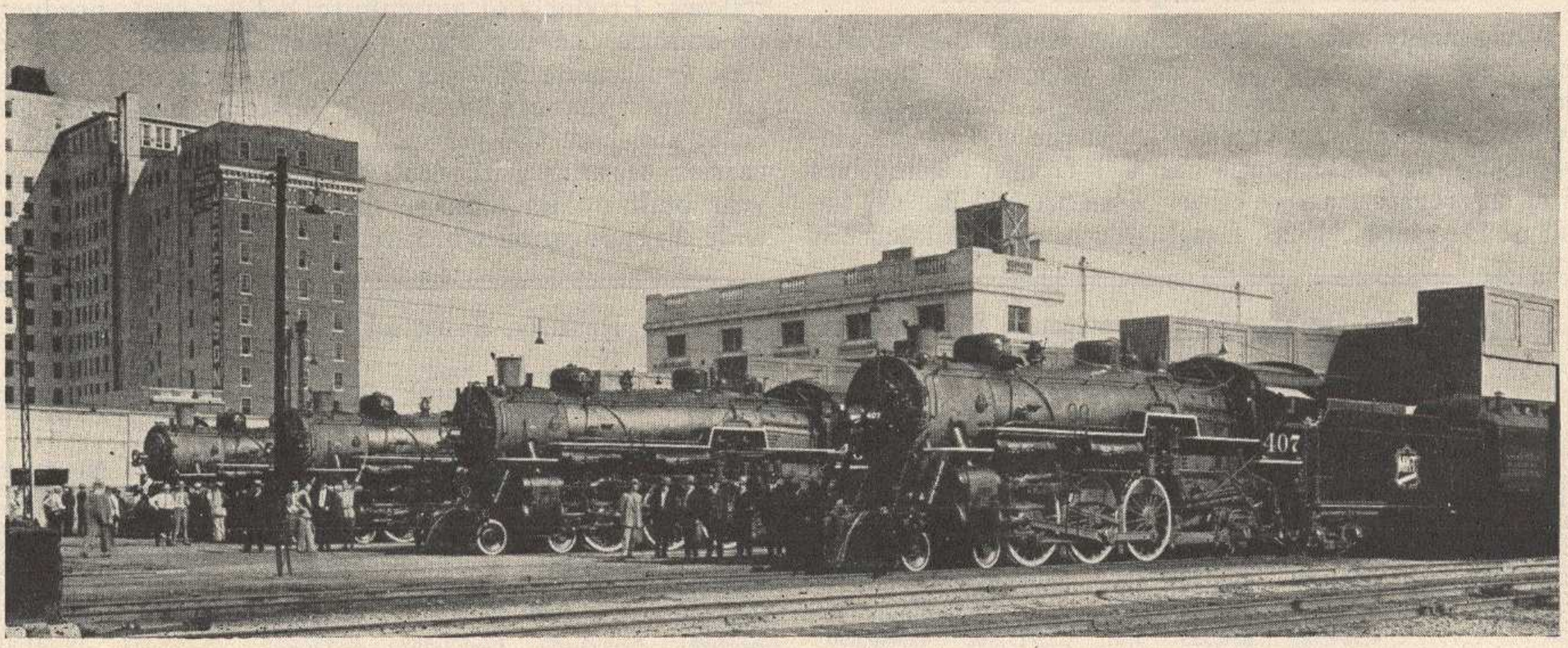
The maintenance of equipment ratio has steadily declined from 25 per cent in 1922 to 17.3 per cent in 1927. This decline has not come from a lowering of standards but rather from a scrapping of old equipment and the provision of new tools and facilities for more efficient maintenance. Says the company's annual report for 1927:

"The replacement of old units with modern and heavier capacity locomotives and cars has not only given added efficiency in service, but has materially reduced the expenditures for repairs. The foregoing, together with the introduction of new and modern machine tools . . . . . which have permitted the speeding up of repair operations . . . . . constitute the principal causes which brought about the reduction. . . . ."

"The transportation ratio reached its low point of 37.3 in 1926 with the heavy business of that year and rose to 39 in 1927." These figures compare with 44.5 in 1922 and 41.6 in 1923.

The Lackawanna, in common with other railroads, has experienced losses in passenger traffic, but its passenger service operating ratio for 1927 was still well below 80 and, presumably, the electrification of its suburban service will aid it in competing with motor transportation.

* * * *



M.K.T. Excursion Specials at Dallas, Texas