Листая старые подшивки
(1941 год)

Специализированный Американский журнал «Railway Mechanical Engineer» издается с 1832 года. Издание несколько раз переименовывалось пока в 1992 г. не приобрел настоящий вид и название «Современные железные дороги». Но неизменно своих страницах журнал освещает все аспекты железнодорожной отрасли, от экономики и эксплуатации железных дорог до управления инфраструктурой и внедрения новых информационных технологий.

NEW

LIMA-BUILT HIGH-SPEED FREIGHT POWER

FOR

NEW YORK CENTRAL SYSTEM

The Lima Locomotive Works, Incorporated is delivering 15 high-speed, heavy-duty freight locomotives for use on the main-line of the New York Central. These locomotives have been provided with extra large tenders to assure longer runs and more revenue miles per locomotive hour.

WEIGHT IN WORKING ORDER, POUNDS				
On Drivers	Eng. Truck	Trailer Truck	Total Engine	Tender Loaded
265,000	65,100	63,400	393,500	2/3 of Capacity 303,933

WHEEL BASE			TRACTIVE POWER	
Driving	Engine	Engine and Tender	Main Cylinders	With Booster
19'-0"	43'-0"	98'-0½"	60,100 lbs.	74,000

BOILER		TENDER CAPACITY	CYLINDERS		GRATE AREA 75.3 Sq. Ft.
Diameter	Pressure	15,500 gals.	Dia.	Stroke	Driving Wheel Dia.
84⅛" O. D. at Front	250 lbs. Sq. In.	43 tons coal	25½"	30"	69"

LIMA LOCOMOTIVE WORKS INCORPORATED, LIMA, OHIO

LIMA LOCOMOTIVE WORKS INCORPORATED

D. S. Ellis,
Chief Mechanical Officer,
Chesapeake & Ohio

O. A. Garber,
Chief Mechanical Officer,
Missouri Pacific Lines

J. Roberts,
Chief of Motive Power and Car Equipment, Canadian National

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Third Vice-President

STRATEGICALLY LOCATED to Serve all RAILROADS

CHILLED CAR WHEEL PLANTS, distributed along the lines of trunk line railways, provide quick and efficient service, reduced delivery charges and a uniform market for scrap wheels, regardless of location.

Spot your shops on the map and you will find a Chilled Car Wheel plant in easy commuting distance. It will be to your advantage to call this manufacturer on your requirements.

The membership of this association includes every manufacturer of Chilled Car Wheels in North America excepting railroad plants.

Albany Car Wheel Company
American Car & Foundry Company
Bass Foundry & Machine Company
Canada Iron Foundries, Limited
Canadian Car & Foundry Company
Cleveland Production Company
Dominion Wheel & Foundries, Limited
Griffin Wheel Company
Hannibal Car Wheel & Foundry Company
Louisville Car Wheel & Railway Supply Company
Marshall Car Wheel & Foundry Company
Maryland Car Wheel Company
Mt. Vernon Car Manufacturing Company
New York Car Wheel Company
Pullman-Standard Car Manufacturing Company
Ramapo Foundry & Wheel Works
Reading Car Wheel Company
Southern Wheel Division of A.B.S. & F. Company
Tredegar Iron Works

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

230 PARK AVENUE,
NEW YORK, N. Y.

445 N. SACRAMENTO BLVD.,
CHICAGO, ILL.

ORGANIZED TO ACHIEVE:
Uniform Specifications
Uniform Inspection
Uniform Product

The front coupler is here shown in operating position

Ball joints	Barco Manufacturing Co., Chicago.
Universal joints	Manning, Maxwell & Moore, Inc., Locomotive Equipment Division, Bridgeport, Conn.
Flexible conductor	Kerite Insulated Wire & Cable Co., New York.
Cylinder and piston-valve bushings; piston valves	Hunt-Spiller Manufacturing Corporation, Boston, Mass.
Pistons	Locomotive Finished Material Co., Atchison, Kan.
Piston-rod and valve-stem packing	Paxton-Mitchell Co., Omaha, Neb.
Rod brasses; hub liners; crosshead liners; eccentric crank liners; expansion shoe wearing plates; frame shoes; bells; steam metal	Magnus Metal Corporation, Chicago.
Crossheads	Vanadium Corporation of America, New York.
Steel for crank pins, driving axles, main and side rods, and valve-gear details	The International Nickel Company, New York.
Drifting valves	Kieley & Mueller, Inc., New York.
McGill needle roller bearings (valve gear)	Pillsbury Co., New York.
Cylinder cocks	The Prime Manufacturing Co., Milwaukee, Wis.
Drain cocks	The Okadee Company, Chicago.
Reverse gear	American Locomotive Co., New York.
Lubricators	Nathan Manufacturing Co., New York.
Lubricator dividers and terminal checks	Detroit Lubricator Co., Detroit, Mich.
Alemite grease	Socony Vacuum Oil Co., Inc., New York.
Fed grease	The Texas Company, New York.
Grease fittings	The Prime Manufacturing Co., Milwaukee, Wis.
Tender:	
Frames; lateral-motion device; front truck	General Steel Castings Corp., Eddystone, Pa.
Wheels	Bethlehem Steel Co., Bethlehem, Pa. Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Roller bearings	The Timken Roller Bearing Co., Canton, Ohio.
Clasp brakes	American Steel Foundries, Chicago.
Draft gear	W. H. Miner, Inc., Chicago.
Couplers	National Malleable and Steel Castings Co., Cleveland, Ohio.
Tank plates	Bethlehem Steel Co., Bethlehem, Pa.
Steam-heat pipe covering	Union Asbestos & Rubber Co., Chicago.
Paint	E. I. du Pont de Nemours & Co., Wilmington, Del. The Glidden Co., Cleveland, Ohio. Sherwin Williams Co., Cleveland, Ohio.

furnished by the Buckeye Steel Castings Company, which, when in closed position, fits the contour of the pilot and removes all obstructions.

The Tender

The tenders are built on General Steel Castings water-bottom beds. They are carried on a four-wheel truck at the front end and five pairs of wheels mounted in pedestals cast integral with the tender bed. The equalizing system provides a three-point-load suspension. All wheels are 42 in. in diameter and have Timken roller bearings in outside journal boxes.

The four-wheel tender truck is equalized and has a roller centering device designed for 17 per cent initial and constant lateral resistance. There are no side bearings on the tender truck.

The five pairs of pedestal-mounted wheels are equalized together on each side of the tender, with one semi-elliptic spring and two coil springs over each box. The front and back ends of each equalizing system are anchored to the bed casting through double cushioning coils in tandem. Casehardened spring rigging pins are fitted in Graphitex bushings.

All five pairs of wheels mounted in fixed pedestals are fitted with the General Steel Castings centering device. This consists of rubber blocks, sandwiched between steel plates, which are inserted between the semi-elliptic spring saddles and the top of each box. The vertical guides for the spring saddle on the frame prevent lateral movement of the top of this device but do not interfere with the lateral movement of the journal boxes against the resistance of the shear distortion of the rubber. On the four forward pairs of fixed wheels provision is made for a lateral movement of 1¼ in. On the rear pair of wheels the movement is restricted to ¾ in.*

A Nathan DV-7 lubricator with eight feeds is mounted on the tender bed and driven from the stoker engine. These feeds supply oil to all tender-truck boxes and to the tender-truck center plate.

Between the engine and tender there is a Franklin E2 radial buffer. The engine and tender connections include U. S. armored rubber hose for the air-brake lines; Franklin metallic joints in the steam-heat train line, and Barco flexible joints in the stoker steam connections.

Couplers, furnished by the National Malleable and Steel Castings Company, and Miner A94XB draft gears are installed at the rear of the tender.

The principal dimensions, weights, and proportions of these locomotives are shown in a table. Another shows a partial list of manufacturers whose materials and equipment form a part of the locomotives.

* For a more detailed description of this tender design see "Union Pacific Tenders Embody Many Improved Features," page 386, October, 1940, *Railway Mechanical Engineer*.

SENATE REFRIGERATOR CAR BILL.—The Senate on October 4 passed S. 2753, the so-called refrigerator car bill sponsored by Senator Shipstead, Farmer-Laborite of Minnesota. The present version of this measure would amend the Interstate Commerce Act to give shippers of fresh meats, packing house products or dairy products the right to furnish their own refrigerator cars—provided the railroads were unable or unwilling to supply proper equipment. In other words the right of the railroads to furnish the cars is protected, if they have the equipment. The bill, and a similar measure pending before the House committee on interstate and foreign commerce, was introduced following that May 5, 1939, notice wherein the Car Service Division announced the policy of reserving for railroads the right to furnish railroad-owned or railroad-controlled cars for the traffic involved.

THE BUENOS AIRES & PACIFIC, a British-owned road proceeding west out of the Argentine capital, has recently added 12 Ganz-built rail-motor cars to its equipment roster. Eight of the new cars are to be used for passenger traffic, while the remaining four will be used for express and mail traffic. The cars have a maximum speed of 60 m. p. h. and a normal operating speed of 56 m. p. h. The passenger-carrying units have a seating capacity for 60 persons, while the express cars have a capacity of 10 tons. The latter are so constructed as to permit easy conversion to passenger-carrying facilities if necessary at a later date.

Largest Manufacturer of a Complete line of Lathes

LEBLOND
CINCINNATI, OHIO
U.S.A.

A Great Name In Industry Since 1887

LeBlond engineering advances: Positive jaw feed clutch . . . one-piece apron . . . splined shafts running on fixed bearings . . . hardened bed ways . . . positive lock tail stock . . . worm drive . . . 3-bearing spindle . . . taper lock standard spindle nose . . . flame hardening.

For over 50 years LeBlond has striven by every available means to improve its products. Pioneering in many lathe manufacturing developments, LeBlond now numbers among its accomplishments exclusive construction and operating features which assist manufacturers in the metal working field to produce better products at lower cost.

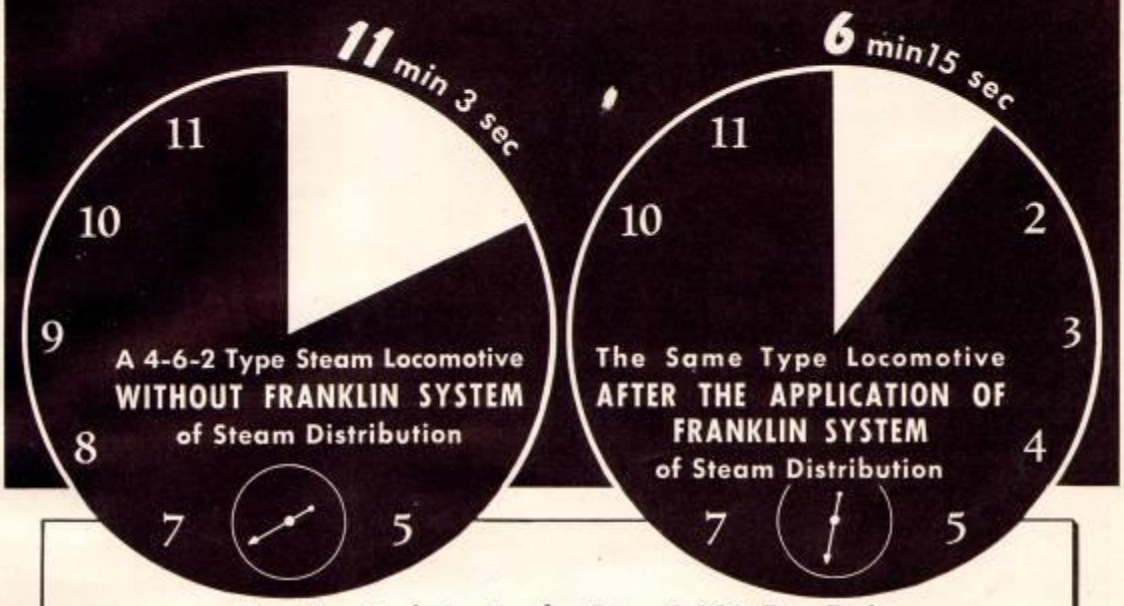
THE R. K. LeBLOND MACHINE TOOL CO.
Cincinnati, Ohio

Chicago Office
20 N. Wacker Dr.
STA. 5561

New York Office
103 Lafayette St.
Canal 6-5281

Largest Manufacturer of a Complete Line of Lathes

BACK TO ROAD SPEED IN HALF THE TIME



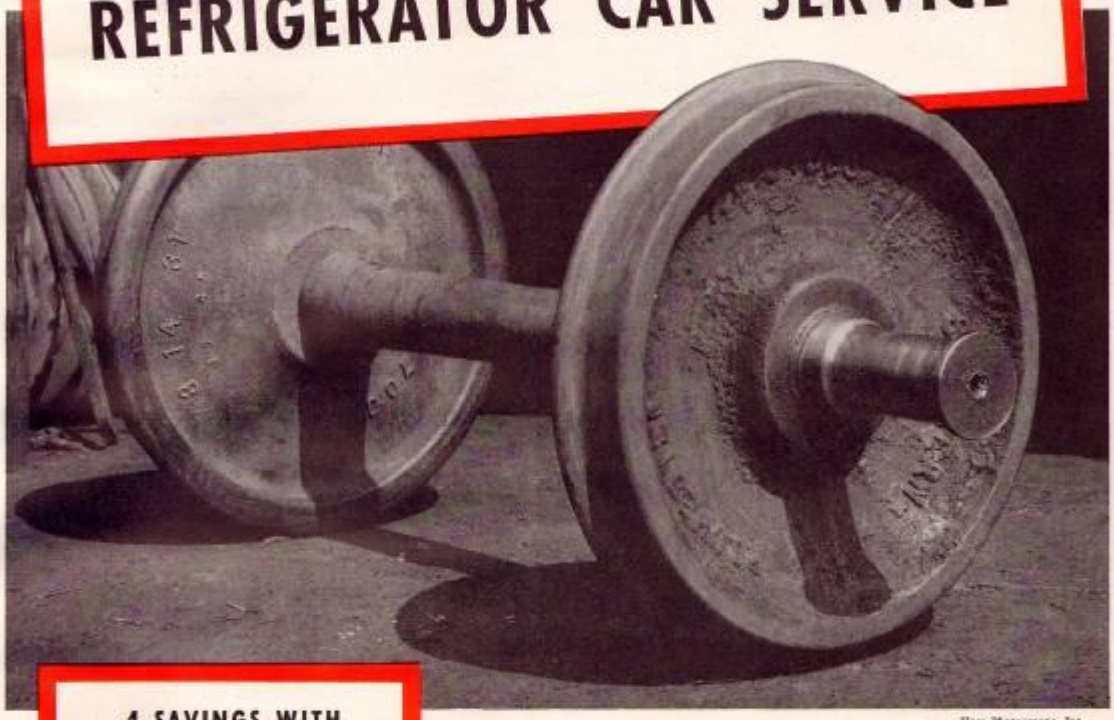
Time Required To Accelerate a 1,000 Ton Train From 40 mph To 75 mph on Tangent Level Track

The time required to get back to road speed after slow downs is dependent upon the power available for acceleration. The increased horsepower resulting from the Franklin System of Steam Distribution gives a higher margin of power to accelerate rapidly. It does this by releasing the latent power that has heretofore been unavailable due to the limitations of the piston valve. This greater power at higher speeds keeps trains on schedule.

FRANKLIN RAILWAY SUPPLY COMPANY, INC. NEW YORK CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

175,000 MILES IN REFRIGERATOR CAR SERVICE



Hare Photographic, Inc.

4 SAVINGS WITH CHILLED CAR WHEELS:

1. Lowest cost per mile.
2. Increased rail life.
3. Increased brake shoe life.
4. Reduced machine shop costs.

During the 10 years since these chilled car wheels were installed, improvements in design, manufacture and inspection have set increasingly higher standards for all of the wheels we make.

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

230 PARK AVENUE,
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445 N. SACRAMENTO BLVD.,
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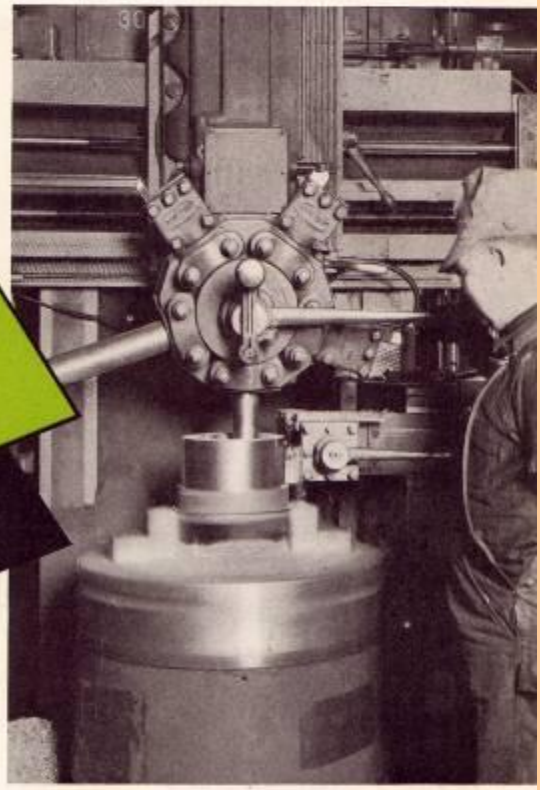
AMCCW

ORGANIZED TO ACHIEVE:
Uniform Specifications
Uniform Inspection
Uniform Product

"How to Improve Mechanical Department Operations

BULLARD R.R. Shop Units



SUPERVISORS searching for ways and means to speed shop schedules, increase production and reduce cost of classified repairs will agree that the installation of a few modern machine tools in each shop would be a big factor in the solution of back shop problems.

The large variety of boring and turning jobs handled on BULLARD R. R. Shop Units is a mighty important factor to consider—when you do replace, you will naturally want the tools that will handle the maximum number of jobs.

But, most important of all you will want a tool which produces the maximum number of pieces per hour, per day, per month and per year.

The performance of BULLARD R. R. Shop Units is known to railway shop men from coast to coast. The old reputation of "75% of all boring and turning jobs in 50% less time" still stands. Selection of a BULLARD as the first unit on the machine tool requisition is smart business.

THE BULLARD COMPANY

BRIDGEPORT, CONNECTICUT

EMC DIESELS

6000 Hp. Passenger Locomotive

Set Higher Standards – Build Bigger Profits

THE superiority of EMC Diesel Locomotives in reliability and operating economies, so decisively proved in yard switching, transfer and high-speed passenger service, is being further demonstrated in freight service.

The EMC Diesel Freight Locomotive opens the door to new high operating standards and bigger profits—hauls greater tonnage on existing schedules—hauls same tonnage on faster schedules—minimizes helper service—reduces number of locomotives required.

BIGGER OPERATING ECONOMIES FOLLOW DIESEL EXPANSION

ELECTRO-MOTIVE CORPORATION

SUBSIDIARY OF GENERAL MOTORS LA GRANGE, ILLINOIS, U. S. A.

cut down on the arch and you boost the fuel bill

No one questions locomotive Arch economy. The Arch has been so thoroughly proved as a fuel saver by railroad after railroad for years past.

In the urge for money saving don't let the desire to save a few dollars in Arch brick expense, by skimping on the Arch, blind you to the fact that every dollar thus "saved", boosts the fuel bill ten dollars.

The surest way to the lowest operating cost is not in crippling proved economy devices but in making full use of them. This means complete Arches, with every brick in place, for each locomotive that leaves the roundhouse.

HARBISON-WALKER REFRACTORIES CO.

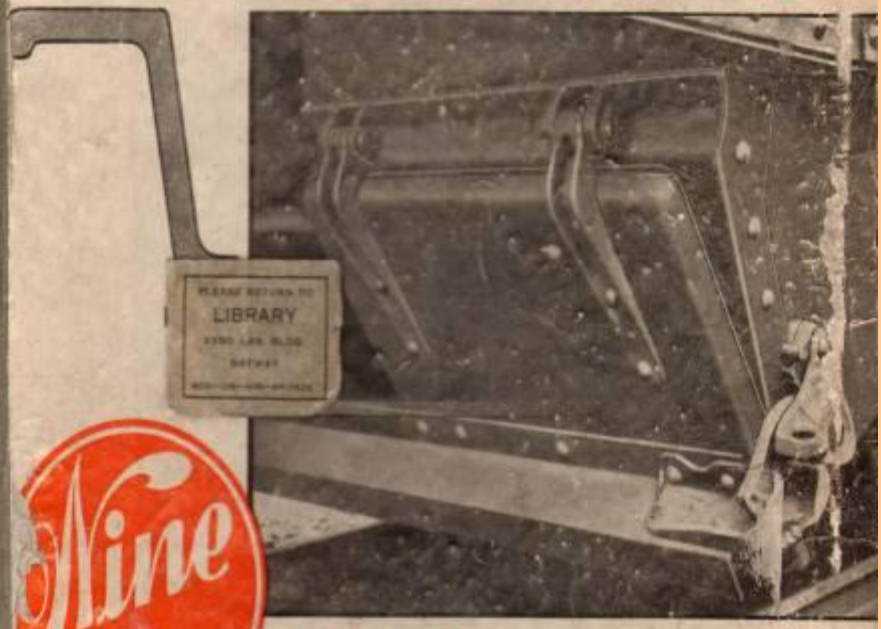
Refractory Specialists

AMERICAN ARCH CO.
INCORPORATED
60 EAST 42nd STREET, NEW YORK, N. Y.
Locomotive Combustion Specialists

Railway Mechanical Engin

January 1941

FOUNDED IN 1832



A 4-8-2 type locomotive rebuilt in Missouri Pacific shops

Missouri Pacific

Rebuilds Locomotives

Converts seven U. S. R. A. light 4-8-2's to modern design and ten 2-8-4's to high-speed 4-8-4's in the past two years at Sedalia shops—New shop machinery played important part in keeping costs down

SINCE the summer of 1939, the Missouri Pacific has been engaged in an extensive program of rebuilding and modernizing motive power at its main locomotive shops, Sedalia, Mo., which has already effected important savings and improvements in steam locomotive performance on this railroad. Up to date, seven U. S. R. A. light Mountain-type passenger locomotives, built by the American Locomotive Company in 1919, have been converted to efficient modern high-speed locomotives with the same wheel arrangement, the original Missouri Pacific Nos. 5301-07, incl., having been changed to Nos. 5321-27, incl. This job consisted of applying almost entirely new and longer locomotive boilers, renewing the slab frames with provision for increased wheel spacing, application of new and larger driving wheels, roller bearings throughout, new valve gear and rods, and converting from coal- to oil-burning.

During the same period, ten 2-8-4 type locomotives, built by the Lima Locomotive Works in 1930, were converted into modern high-wheel 4-8-4 type units, adaptable to heavy fast service, either passenger or freight. These locomotives, originally Nos. 1901-10, incl., are now designated Nos. 2101-10, incl., and there are 15 more of the same class scheduled to be rebuilt. In this conversion job also, practically complete new boilers were constructed at the Sedalia shops, new cast steel bed frames with integral cylinders applied, also new and larger driving wheels, roller bearings, new valve gear and rods, and larger tenders installed.

Since being placed in service, the reconstructed locomotives of both classes have given an excellent performance from the point of view of reliability, high monthly mileage and the satisfactory handling of modern highspeed trains in both passenger and freight service without introducing excessive stress in either the track or equipment. A notable increase in locomotive availability and mileage have been secured. For example, during the month of June, 1941, seven locomotives of the No. 5321 class made a total of 104,530 miles in passenger service, or an average of 14,930 miles per locomotive. This may be compared with an average of 4,790 miles per locomotive per month prior to the conversion and reconstruction work, which means that the monthly mileage has been increased over three times. Similarly, with the No. 2101 class, seven locomotives accumulated 75,288 miles during the month of June, or 10,755 miles per locomotive in freight service, which may be compared with an average of 4,115 miles per

NEWS

$25,000,000 for Rail Equipment and Facilities in Lend-Lease Bill

THE new lend-lease bill reported from the House committee on appropriations during the week ended October 11 includes an item of $25,000,000 for railway equipment and facilities. The publication of testimony on the bill showed that Clifton E. Mack, director of the Treasury's Procurement Division had stated that the item was for the purchase of track materials, locomotives, freight cars, shop machinery and equipment, and light railway material and rolling stock.

Asked what was to be done with the foregoing, Mr. Mack stated that it was for the Middle East "theatres of war"—for the extension and maintenance of railroad facilities "in order to make them capable of handling the increased traffic involved in maintaining a modern army in the field." In response to other questions, Mr. Mack said some of the equipment was now being bought, but he didn't think any of it had actually left the country.

Additional Annual Steel Capacity of 10,000,000 Tons

A FURTHER 10,000,000-ton expansion of the nation's annual steel-making capacity has been approved by the Supply Priorities and Allocations Board, and the Office of Production Management has moved to put the decision into effect. SPAB's action came in the form of an approval of a report recommending the 10,000,000-ton increase which had been prepared by W. A. Hauck, OPM steel consultant.

The OPM statement said that the expansion will be started immediately to meet, among others, such shortages as those of plates for ships, railroad equipment, armor plate for tanks, gun mounts, etc. It is estimated that some of the additional 10,000,000-tons capacity can be completed within nine months, and "substantially all of it within two years provided highest priority ratings are assigned to all undertakings." Unless such ratings are assigned, Mr. Hauck said, no further expansion should be started.

In addition to the 10,000,000-ton increase, Mr. Hauck recommended that another 5,000,000-ton expansion should be undertaken "to the extent that may be found practicable." The latter, however, would not be in the immediate program. Meanwhile the 10,000,000-ton expansion will require construction of more lake ore boats, in addition to the 25 already recommended by OPM to the Maritime Commission.

Dealing with steel-plate capacity, the report cites figures showing that the present rate of demand is 8,500,000 to 9,000,000 tons a year, while present production is at the rate of 6,300,000. Thus the deficiency is "substantially more than 2,000,000 tons." However, additional yearly plate capacity underway or approved will total 2,336,920 tons. In that connection the report says that the program being developed will provide "the balance of ingot capacity needed on the above and also the ingot and plate capacity further needed."

The OPM statement pointed out that the steel required to build the new 10,000,000-ton capacity "must be obtained by a corresponding reduction in steel available for civilian uses while the construction is under way." In other words 1.3 per cent of the present capacity must be thus set aside during each of the next two years; but "this will be returned many times over during subsequent years."

Baldwin School Shop Turns Out 1000th Skilled Worker

THE Baldwin Locomotive Works recently graduated the 1,000th student from its school-shop at Eddystone, Pa., which was opened on October 18, 1940, in anticipation of the present emergency and shortage of skilled workers. By November of 1940 the Baldwin school was operating 24 hours daily under the direction of A. L. Logan, formerly superintendent of the Williamson Trade School. In 11 months it has turned out 1,000 capable machine-tool operators.

Edward W. Thompson (left) the 1000th man to graduate from the training school-shop, organized to produce skilled workers for the production of armaments and conducted by The Baldwin Locomotive Works—Ormus M. Mills, to the right of Charles E. Brinley, president of the company, was the first graduate of the school-shop.

Early this year arrangements were made for "pre-employment" instruction in the schools of Philadelphia and Delaware counties through state employment offices under federal sponsorship. After the proper period of instruction, the students finish their training with an intensive course of instruction at the Baldwin school-shop, and are immediately put to work in the Baldwin plant as helpers and eventually as full-fledged operators of various machines. This so-called "vestibule" training has cut the time spent by learners in the school shop in half. Students in the Baldwin school are not taught to be all-around machinists, but are given specialized training in the operation of one type of machine. This makes for speed, and a more highly developed degree of skill. One man is taught the operation of a milling machine, another a drill press, others are trained to efficiently operate slotters, planers, grinders, automatic screw machines, etc.

The Standard Steel Works division of Baldwin received, on September 16, a Navy "E" pennant and Bureau of Ordnance flag, which were presented to Charles E. Brinley, president of the Baldwin Locomotive Works, by Rear Admiral P. E. Pettengill, commandant of the Navy Yard and superintendent of the Naval Gun Factory, Washington, D. C. Formerly an honor bestowed only on Navy personnel, the pennant was presented to Standard Steel for excellence and efficiency in supplying material for national defense. Three thousand employees, officers and their families were at the presentation.

Alco-G. E. Railroad Movie

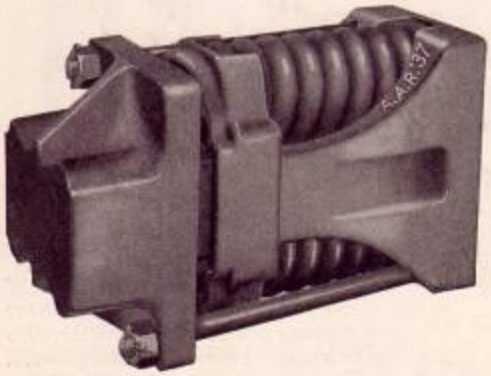
A 30-min. sound motion picture in color entitled "Railroadin' " is being made available by the American Locomotive Company and the General Electric Company for showing by the railroads. The film, produced by a Hollywood company, was witnessed for the first time by a group of newspaper men and railroad public relations officers in New York on October 3.

"Railroadin' " was made by the American Locomotive Company and General Electric in co-operation with the railroads, for use by the latter for educational purposes in schools, colleges and clubs. The film (which is in 16 mm. sound only) is available to railroads at no cost other than charges incidental to shipping and may be obtained at the headquarters of American Locomotive Company, 30 Church street, New York, or the Visual Instruction Section, General Electric Company, Schenectady, N. Y. In addition the film will be available in the district offices and plants of Alco at Atlanta, Ga., Chicago, Richmond, Va., St. Louis, Mo., San Francisco, Calif., and Washington, D. C. and district

(Continued on next left-hand page)

National Friction Draft Gears

National Draft Gears are designed and built, with the single idea of affording utmost protection to both car and lading under all traffic conditions.

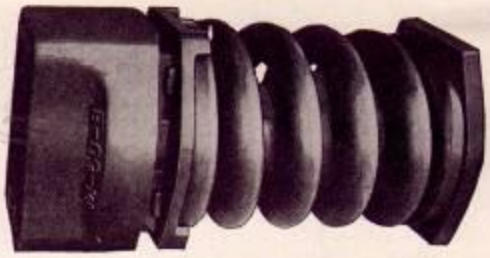


NATIONAL M-17-A DRAFT GEAR
A.A.R. Approved

The M-17-A draft gear is 22⅜ inches long and requires one standard follower.

NATIONAL M-50-B DRAFT GEAR
A.A.R. Approved

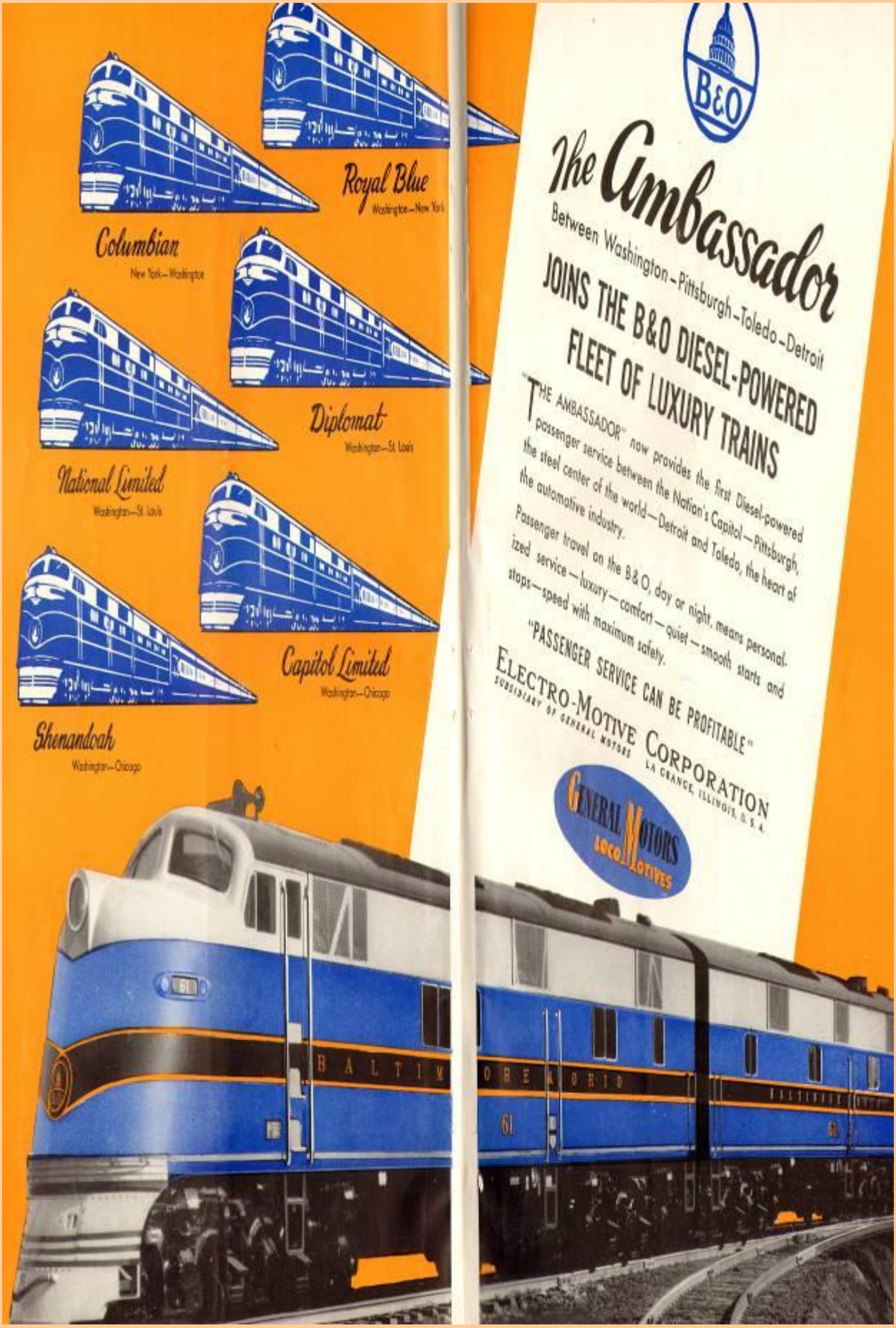
The M-50-B draft gear is 20⅛ inches long and requires two standard followers. This gear also may be used in certain non-standard draft gear pockets.



NATIONAL K-4 DRAFT GEAR

Designed especially to meet the requirements of high speed passenger service. The spring resistance and frictional resistance are so proportioned that pulsations in locomotive tractive effort are absorbed by the gear, thus insulating the cars from such disturbances.

NATIONAL MALLEABLE AND STEEL CASTINGS CO.
General Offices: CLEVELAND, OHIO
Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco
Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.


Royal Blue
Washington—New York
Columbian
New York—Washington
Diplomat
Washington—St. Louis
National Limited
Washington—St. Louis
Capitol Limited
Washington—Chicago
Shenandoah
Washington—Chicago
B&O
The Ambassador
Between Washington–Pittsburgh–Toledo–Detroit
JOINS THE B&O DIESEL-POWERED FLEET OF LUXURY TRAINS
"THE AMBASSADOR" now provides the first Diesel-powered passenger service between the Nation's Capitol—Pittsburgh, the steel center of the world—Detroit and Toledo, the heart of the automotive industry.
Passenger travel on the B&O, day or night, means personalized service—luxury—comfort—quiet—smooth starts and stops—speed with maximum safety.
"PASSENGER SERVICE CAN BE PROFITABLE"
ELECTRO-MOTIVE CORPORATION
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