Trucking...

'Ship by Truck' Organization Shows Great Vision of Harvey S. Firestone

In 1918, when Harvey S. Firestone organized the "Ship by Truck" movement, he showed his great vision. Perhaps no one could have visualized then that truck tires could be developed that would give more than 400,000 miles of service on their original treads, but Mr. Firestone most certainly envisioned a great future for truck transportation in which tire developments would be a major factor.

Along with the "Good Roads" movement which he fostered in 1920, through bureaus in company branches and through sponsorship of Good Roads college scholarship essay contests, Mr. Firestone's Ship by Truck movement sparked the industry which was to bring food, machinery and other goods to the door of the customer.

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CONCERN for transportation grew during World War I when the railroads were handicapped by a terrific volume of traffic, little funds for maintenance, and the priority demands of the government. Many shippers took recourse to motor trucks for short hauls, and a rush of business came to truck manufacturers.

The veteran champion of commercial motor transportation, found his vision vindicated by necessity. Striving to make the operation of trucks with greater carrying capacity feasible, Mr. Firestone had already introduced giant solid-rubber tires to replace duals and twins on the rear wheels. And they stood up, thanks to patient experimenting on special vulcanizing processes. At the end of 1916, the company was making 1,600 solids a day, having chalked up a record in its rim plant of almost a quarter of a million bases for pressed-on solids.

Trucking was hampered by the scarcity of hard-surfaced roads and the vibration of the vehicles which was unendurable at a high speed so that speed was limited to about 15 miles an hour. Trucks on solid tires had to have reinforced construction to counteract the shaking up and breaking up of parts that occurred when drivers tried to hasten deliveries. When trucks adopted a heavy chassis and body, they raised indignation from taxpayers because the solids cut up the highways.

The obvious solution was pneumatics for trucks. At first, dual tires in passenger sizes were used. But for greater efficiency, Firestone built truck tires with eight and nine-inch sections, some of them strengthened by as many as 16 plies. Introduced in the summer of 1918 when the war effort was at its tensest, this was a great help. Speed was trebled and trucks ventured on longer hauls.

On the signing of the armistice, 600,000 trucks were in use. Truck factories had stepped up their output, but demand now receded. Should progress stop now when trucks had proved themselves in army transport and saved much money in commerce? The problem was not so much to convince the country of the desirability of trucks as to make it easier to use them through good roads and scheduled trips. Mr. Firestone determined to attain these objectives by national educational campaigns. Thus he conceived the Ship by Truck movement and furthered the good roads movement — forces shaping a golden motor era.

Mr. Firestone envisioned highway transport vehicles linking every producing center with an ultimate outlet, "developing the country on a broader scale." He found the generalized propaganda of truck manufacturers, truck operators, tire manufacturers and highway associations inadequate; for each group concerned itself with its own objective. The Ship by Truck idea must be applied definitely, practically, and the individual locality was the place to do it.

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FIRESTONE tires were already carrying more than half the country's truck tonnage, so the company was a natural leader for the movement. It had contact with truck operators through its many branches, so what remained to be done was to organize a relationship with shippers at these points and advertise locally a service as a clearinghouse for free information on rates, routes, capacity, and schedules of all trucks operating in an area. Return-loads bureaus of the government had closed down after the war; but the idea should not be abandoned. The company set up bureaus in 67 branches to exchange data; promote road constructions; and encourage uniform state legislation on use of trucks, trailers and highways.

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TO DEMONSTRATE THE worth of long-distance hauling, the company sent a fleet of loaded trucks out of Akron on a tour through the South.

In the summer of 1919, the Army Transport Corps embarked on a spectacular journey — to see whether it was feasible to take a complete military unit with equipment from Washington, D. C., to the Pacific Coast. Leaving July 7, the First Army Transcontinental Motor Convoy, comprising 300 enlisted men and officers, 65 trucks and other vehicles, with means of constructing or reconstructing roads and bridges, followed the route vigorously espoused by the Lincoln Highway Association.

A pace of 18 miles an hour was set. There were many delays and Army trucks riding on solid tires sometimes broke down. Two commercial trucks in the motor train, flying the Firestone flag, with cargoes of tires for the company's San Francisco branch, managed to maintain their usual rate of speed. They were equipped with pneumatics. On September 1, the convoy entered California. It had proved the practicability of trucks for long-distance freight transport.

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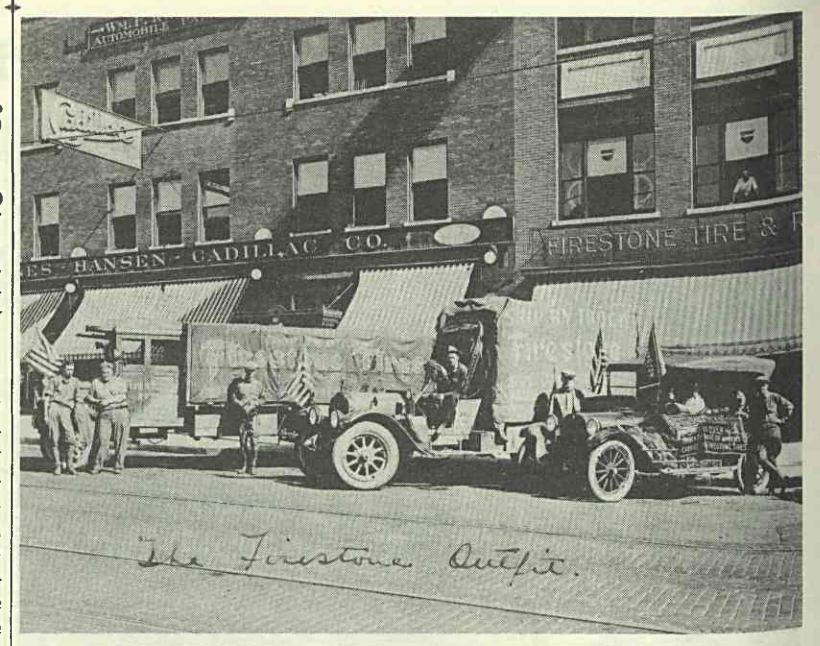
THERE IS MUCH more early history to tell about trucking and the part played by Firestone. It is a dramatic, almost romantic, story. But this was the start of two great assets of the United States — its vast trucking industry and its almost unbelievable highway system.

In 1903 the company could point to the fact that 22 of the biggest baggage transfer organizations were using Firestone tires (solid rubber) exclusively. This, in spite of the fact that rubber tires had been considered a luxury for carriages only at first; that they were unnecessary on horse-drawn trucks that were too slow to require absorption of vibration. It finally had been realized that the resilience of rubber would enable heavy vehicles to take the shocks of the road while going fast and that a rubber tread could give traction and therefore greater speed with safety.

Mr. Firestone sold them for baggage transfer wagons, buses, trucks and fire engines, providing safety and protection for the men and horses and greater ease in making a fire run. Anheuser-Busch Brewery in St. Louis was an important customer, for its fleet of electric trucks, some of them five-ton.

All of the developments Firestone introduced in connection with passenger tires eventually were applied to the larger sizes for trucks.

One of the most dramatic stories of Firestone is the Coral rubber story in connection with truck tires.



FIRESTONE TRUCKS took part in the transcontinental truck tour in 1919. "Ship-by-Truck' bureaus were opened by Firestone in all of its 63 branches throughout the country, collecting and distributing information for the benefit of shippers and truck owners.

Up to the time Coral rubber, the replacement for natural rubber, was developed, natural rubber had been best for truck tires, while synthetic rubber of the butadiene-styrene type had proved most effective for passenger car tires. Coral opened up a great new area for truck tire development.

Another new rubber was announced in July of 1958. It was Diene (a polybutadiene rubber), which is a partial replacement for natural rubber and can give products special properties not achieved previously. Diene is blended with natural rubber in Firestone truck tires, reducing the substantial heat buildup in heavy duty tires and imparting other improved qualities to the natural rubber.

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AT THE SAME TIME the new rubbers were being developed, the tubeless truck tire was being developed. Two years after development of a tubeless passenger car tire the company announced, in March, 1953, the development of the first tubeless truck tire in the rubber industry. By November, 1954, a complete line of tubeless truck tires and wheels with drop-center rims was being produced.

In addition, there are many other advantages of the tubeless truck tire over the tire and tube assembly. The tubeless tire will run about 25 per cent cooler, resulting in longer life and greater mileage. The tubeless is puncture-resistant and affords greater protection against blowouts. It is therefore safer.

Early in 1961 Firestone announced a new truck and bus tire, the Transport-100, after 100 million miles of laboratory and highway testing. The new tire features a three-rib bladed tread design and a new mold principle which provide a 50 per cent increase in mileage, greatly increased side and forward traction, and a new low noise level.

Another truck tire offered during 1960 and 1961 is a new single tire, the Duplex, to replace duals on tractor-trailer rigs. The unusual new tire is nearly twice as wide as a conventional truck tire and its load-carrying capacity exceeds that of the two tires it replaces. It promises great advancement for the future in truck transportation from both a service and an economy standpoint.

Designed for high loading and severe service operations, both on and off the highway, are Firestone's Steelcord tires for trucks and buses. Constructed of steel cord instead of conventional nylon or rayon fabric, the tires have been adopted by many municipalities to increase the safety factor of emergency fire-fighting equipment. They have also proved invaluable for rural school buses, utility company vehicles, gravel trucks, contracting equipment and many other uses.

The history of Steelcord tires dates back to pre-World War II days with Firestone. Engineers custom built and cured the first tire on May 3, 1939. More than 200,000 Steelcord tires were built by 1957 and many hundreds of thousands since. The tires were first used in volume on the front positions of inter-city buses.

Firestone's most recent developments in truck tires include: the Transport 200, a new drive wheel truck tire that ends slippage and reduces vibration and noise; the Transport trailer designed for all-purpose trailer operation; and the Steeltex 100, the newest radial ply truck tire, featuring a new design which provides more traction.

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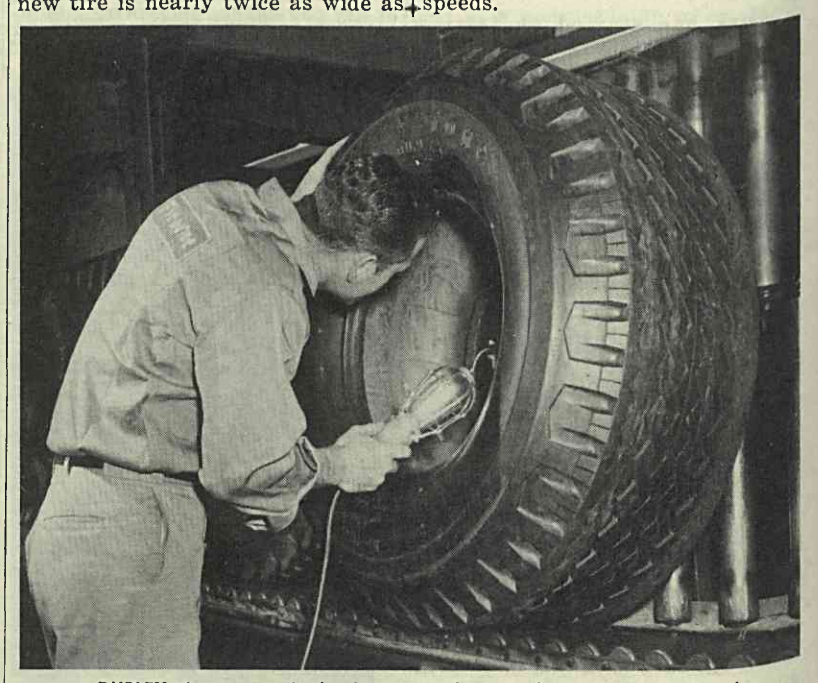
TODAY, the trucking industry is on the march with radical new approaches to overland hauling. New limited access highways have provided a means for faster truck travel and have enabled trucks to reach places formerly inaccessible. Trucks have been given more horsepower and increased gross loading capacity. The trucking industry has placed greater demands on the tires it uses and looks now to tires that offer greater mileage and more traction to prevent slipping and increase braking power at high speeds.

THE TRANSPORT-200, a new drive wheel tire expected to eventually make cross bar tires obsolete, was introduced in 1963. Under development four years, the tire offered improved traction and increased mileage up to 50 per cent. The new tread design ended side slippage and reduced vibration and noise.

AT PEAK PERIODS of tire testing, this fleet of trucks circles the Firestone Test Center track at Ft. Stockton, Texas, 24 hours a day. The 7.7-mile track, capable of safe operation at speeds up to 130 miles per hour, provides an excellent site for tractors and trailers running at highway speeds with normal loads or heavy overloads.



DUPLEX tires, new single tires to replace duals on tractor-trailer rigs, were introduced in 1960 and 1961.