

SOLID TRUCK TIRES TO BE STANDARDIZED

Many Sizes Eliminated by Order of War Board.

NEW SCHEDULE ADOPTED

Statement of Interest to Owners of Trucks Issued by the B. F. Goodrich Rubber Company.

The standardization has not been restricted to pneumatics. The lorry truck tire has now been taken down a peg or two by the War Industries Board.

Elimination of certain sizes in truck tires does not come as a surprise. The war service committee, composed entirely of big men of the rubber industry, met in July and recommended sizes that could be dispensed with.

The B. F. Goodrich Rubber Company, one of the largest of solid tire manufacturers, makes public the new schedule, which should be of vast interest to truck owners:

Class "A" permanent standard—32x3, 32x3 1/2, 32x4, 32x4 1/2, 32x5, 32x5 1/2, 32x6, 32x6 1/2, 32x7, 32x7 1/2, 32x8, 32x8 1/2, 32x9, 32x9 1/2, 32x10, 32x10 1/2, 32x11, 32x11 1/2, 32x12, 32x12 1/2, 32x13, 32x13 1/2, 32x14, 32x14 1/2, 32x15, 32x15 1/2, 32x16, 32x16 1/2, 32x17, 32x17 1/2, 32x18, 32x18 1/2, 32x19, 32x19 1/2, 32x20, 32x20 1/2, 32x21, 32x21 1/2, 32x22, 32x22 1/2, 32x23, 32x23 1/2, 32x24, 32x24 1/2, 32x25, 32x25 1/2, 32x26, 32x26 1/2, 32x27, 32x27 1/2, 32x28, 32x28 1/2, 32x29, 32x29 1/2, 32x30, 32x30 1/2, 32x31, 32x31 1/2, 32x32, 32x32 1/2, 32x33, 32x33 1/2, 32x34, 32x34 1/2, 32x35, 32x35 1/2, 32x36, 32x36 1/2, 32x37, 32x37 1/2, 32x38, 32x38 1/2, 32x39, 32x39 1/2, 32x40, 32x40 1/2, 32x41, 32x41 1/2, 32x42, 32x42 1/2, 32x43, 32x43 1/2, 32x44, 32x44 1/2, 32x45, 32x45 1/2, 32x46, 32x46 1/2, 32x47, 32x47 1/2, 32x48, 32x48 1/2, 32x49, 32x49 1/2, 32x50, 32x50 1/2, 32x51, 32x51 1/2, 32x52, 32x52 1/2, 32x53, 32x53 1/2, 32x54, 32x54 1/2, 32x55, 32x55 1/2, 32x56, 32x56 1/2, 32x57, 32x57 1/2, 32x58, 32x58 1/2, 32x59, 32x59 1/2, 32x60, 32x60 1/2, 32x61, 32x61 1/2, 32x62, 32x62 1/2, 32x63, 32x63 1/2, 32x64, 32x64 1/2, 32x65, 32x65 1/2, 32x66, 32x66 1/2, 32x67, 32x67 1/2, 32x68, 32x68 1/2, 32x69, 32x69 1/2, 32x70, 32x70 1/2, 32x71, 32x71 1/2, 32x72, 32x72 1/2, 32x73, 32x73 1/2, 32x74, 32x74 1/2, 32x75, 32x75 1/2, 32x76, 32x76 1/2, 32x77, 32x77 1/2, 32x78, 32x78 1/2, 32x79, 32x79 1/2, 32x80, 32x80 1/2, 32x81, 32x81 1/2, 32x82, 32x82 1/2, 32x83, 32x83 1/2, 32x84, 32x84 1/2, 32x85, 32x85 1/2, 32x86, 32x86 1/2, 32x87, 32x87 1/2, 32x88, 32x88 1/2, 32x89, 32x89 1/2, 32x90, 32x90 1/2, 32x91, 32x91 1/2, 32x92, 32x92 1/2, 32x93, 32x93 1/2, 32x94, 32x94 1/2, 32x95, 32x95 1/2, 32x96, 32x96 1/2, 32x97, 32x97 1/2, 32x98, 32x98 1/2, 32x99, 32x99 1/2, 32x100, 32x100 1/2.

MITCHELL CARS ARRIVE

ANOTHER SHIPMENT ALSO IS EN ROUTE HERE.

Mitchell, Lewis & Staver Company Selling All Mitchells and Jordans It Can Get.

One of the first shipments of Mitchell automobiles for some time was received from the factory a week ago by the Mitchell, Lewis & Staver Company, Mitchell distributors here. Another shipment is en route.

These cars, which include both five and seven-passenger models, are being snapped up about as quickly as they arrive, for there has been a dearth of Mitchell cars, owing to war orders which the factory is filling, for a good while.

Mr. Mitchell took the distribution for Oregon of the Jordan Six some time ago in addition to the Mitchell line. He has sold all the Jordans he could get. This car, which comes in both the popular sport marine and the suburban seven models, is one of the nicest cars on the market. Its body is of aluminum, and the car comes to the purchaser completely equipped, even to spare tires. Mr. Mitchell is driving a Jordan car himself.

Now is a pretty good time to get automobiles, for they will be mighty hard to obtain after the first of the year. In a few weeks, also, an additional war tax will go on all new cars.

Portland Auto Man Wins Aviation Commission. Knowledge of Mechanics Quickly Gains Advancement for D. C. Warren.

A LITTLE more than four months ago D. C. Warren, president of the D. C. Warren Motor Car Company and state distributor for the Velle and Peerless cars, left Portland at the head of a draft contingent of 400 men sent to Fort McDowell, Cal. He returned for a few days' leave last week wearing the gold bar of a second lieutenant in the air service, aeronautics. Lieutenant Warren won his rapid promotion because of his expert knowledge of gas engine mechanics and his careful attention to duty from the time he entered the service. He was transferred from Fort McDowell to Mather Field as an airplane mechanic, and early this month received his commission in the engineering department of the air service, aeronautics.

REPUBLIC MOTOR TRUCKS Built in capacities of 3/4-Special, 1, 1 1/2, 2, 3 1/2, 5-Ton We have each size in stock for immediate delivery. ROBERTS MOTOR CAR CO., INC. Park and Everett Sts. Portland, Oregon Largest Distributors of Motor Trucks in the Northwest.

opportunity, and already has learned how to loop the loop, do the Immelman roll, spinning nose dive and most of the other aviation stunts required of the expert airman. He says flying beats even motoring.

TRUCKS REPLACE HORSES

Federal Trucks and Semi-Trailers Haul Lumber Long Distance. Mules and horses formerly used in the swamp lands in the Southern lumber belt have proved too slow in the work of helping supply Uncle Sam for ships, cantonnments and other wartime construction and their places have been taken by motor trucks, those of the tractor type pulling a semi-trailer for finished lumber or bunk trailer for logs being particularly successful.

The W. M. Walker Lumber Company's sawmill, in a swamp 14 miles from Fayetteville, N. C., uses Federal tractors with four-ton semi-trailers, each outfit hauling 825 pounds of 16-foot lumber from the sawmill each trip. This means a pull of two miles over swamp trail, while the remaining 12 miles are over a Government road. The truck makes

MOLINE TRACTOR EASY TO OPERATE.



Woman or boy can operate the Moline, which has two-plow equipment. Burns gasoline, kerosene or distillate and can be turned in a 18-foot circle. The Moline Plow Company, including the tractor and other farming implements, was recently purchased by the Willys-Overland Company, though the Moline organization, it has been announced, will be kept intact.

two trips one day and three the next and the Walker Company has figures to show that in five months' time this outfit has paid for itself in the saving of transportation cost.

GOODRICH SUBSCRIBERS MANY

Company Officials and Employees Take Quota of \$2,150,000. Had the same punch and smoothness of organization been behind other campaigns that quided the B. F. Goodrich Rubber Company the Nation would not have been compelled in the final days to struggle so desperately for the \$5,000,000,000 set for the fourth loan.



-Photo by Groves.

Employees and officials of the Goodrich Company reached their quota of \$2,150,000 in less than 48 hours. This did not include subscriptions from any of the 123 branches maintained by the company or the \$500,000 purchase by officials of the company in New York.

KIDDING OLD BATTERY ALONG

How to Get More Amperage When Cells Are Run Down.

It is possible to get increased amperage from partly run-down dry cells by crowding down the material near the carbon element with a small piece of wood and a hammer. This loosens the obstructing material from around the carbon and permits free chemical action. The asphaltum on top of the cell may be sealed again by application of a little heat.

IGNITION TROUBLE IS NOT HARD TO LOCATE

Process Simply One of Elimination, Says Expert.

HOW TO DO IT EXPLAINED

Knowledge of Mechanism of Auto Is Essential to Correcting Engine When it Misses.

"Speaking of ignition trouble," says William H. Stewart, Jr., president of the Stewart Automobile School, of New York City, "a conversation I overheard is very interesting."

"How is it you always lay your hand right on the trouble every time you go after it?" said my friend to the

repair man who was working over his car. "But I don't always find it immediately."

"In the majority of cases you do, and in the other cases after a few minutes' search. My engine refuses to run at this instant. I am going to give you 10 minutes to get it started. Judging from what I have seen you do previously, that is a liberal allowance. What particular detail are you looking for now?"

"I am trying to get a spark." "But why look for a spark instead of something else? And what other trouble might it be? The trouble man waved his hand majestically.

"There are five reasons why an engine should run."

"And about 5000 why it shouldn't," said my friend. The trouble man eyed him approvingly and went on:

"The first two are compression and lubrication." "I eliminated these two by cranking by hand. The crank shaft moved freely, showing that lubrication was good and there was a good spring back to the compression. The gasoline I put into the cylinders through the priming cups did not explode—showing ignition trouble. If the engine had started and stopped, carburetion trouble would have been indicated."

"That makes four conditions—ignition, carburetion, lubrication and compression."

"What is the fifth?" "Cooling—but that only comes into play after the engine has started, so we need not consider it now."

"Having satisfied yourself that it is an ignition trouble, how are you going to work to locate it?" "By looking for a spark at the distributor. I disconnect the distributor end of the cable from coil to distributor

and hold it close to some part of the engine so as to ground the spark. A space of about an eighth of an inch is about right. I close the switch and move the spark lever back and forth to interrupt the primary current. He did this while he was speaking.

"No spark! If there had been, the trouble would have been in the distributor. But there is no spark. I must look at the circuit breaker or interrupter. By moving the spark lever we can make the points open and close. No sparks jump across them when they break. While they are open we'll touch them with a screwdriver. You see we get a good spark. This shows that both points are alive, but that a current doesn't run while the points are closed."

"Then the points need cleaning." "Exactly! A piece of fine sandpaper will soon remedy that."

"But if you had found a good spark at the interrupter points?" "The trouble would have been in the induction coil."

"When Cylinder Is Missing." "And if there had been no spark at the interrupter points when you touched both of them with a screwdriver?"

"I should have started at the battery and worked forward to the coil and then to the interrupter. By considering each part there is no spark, I should have found the trouble."

"But supposing your engine ran, although some cylinders were missing?" "If one or more cylinders were missing persistently, I should look at the plugs at the distributor or the wire between. If the miss seemed to run from one cylinder to another it might be weak battery or corroded interrupter points. Here experience is the best guide."

"Experience is a good teacher, but a hard master," said my friend.

"But it becomes a useful servant to the man endowed with persistence," said the trouble man.

New Car Owners in County. Temporary police licenses were issued in Portland last week to the following buyers of latest model motorcars, pending arrival of the official state licenses from Salem. This list is compiled by M. O. Wilkins, publisher of the Automobile Record:

- Austin Underdahl, 500 1/2 East Lincoln street, Chevrolet. Mrs. Elizabeth Scott, 444 East Salmon, Chevrolet. Coast Shipbuilding Company, 914 Lewis building, Dodge. David Bellier, 210 East Thirty-third street, Dodge. G. E. Weaver, 423 East Fifty-first street, Elgin. Adolph Peterson, 467 East Everett, Maxwell. Andrew Rasmussen, 638 Missouri avenue, Maxwell. J. A. Black, 1734 Division, Oldsmobile. H. W. Sharp, 828 Hamblet avenue, Oldsmobile. George F. Schloth, 604 East Thirty-seventh, Dodge. Dr. Leo Rosen, 816 Journal building, Ford. Oscar S. Lund, care Dearborn Truck Company, Hupmobile. F. J. Cobbs, 588 Montgomery drive, Paige. Alfred N. Du Puls, 346 East Forty-fifth, Studebaker. Mrs. A. F. Plegel, 1310 East Eighteenth, Chevrolet. L. O. Thompson, 4912 Seventy-fourth street Southeast, Ford. L. J. Gibson, 40 Miles, Ford. J. B. Yeon, Yeon building, Franklin. C. Holstrom, 191 East Twenty-fourth North, Veil. C. L. Matfield, 561 Everett, Dodge. Geovius Furniture Company, 183 First street, Ford. McDougall-Over, Co., East Waler and Hawthorn, Ford. J. C. Laird, Benson Hotel, Hupmobile. W. W. Starkey, 995 East Fifteenth North, Maxwell. Harry Chung, 527 Greenwood avenue, Maxwell. H. Lewis, 408 Lewis building, Paige. Columbia River Shipbuilding Company, 405 First, Hupmobile. Neils Hustad, 843 Greenwood, Chevrolet. Gus Keramidas, 27 North Fifth, Hudson. W. J. Pullman, Lenox Hotel, Veil.

AUTO SERVES USEFUL PURPOSE

Del Wright Asks What Country Would Do Without Auto.

"What would happen if every automobile in the world refused to run?" asks Del Wright, local Kissel distributor.

"How would the farmer who lives many miles from town get his milk, eggs and garden produce to market?" "How would the doctor be able to meet the emergency cases that depend on a saving of time?"

"With the high price of horses, the elimination of the automobile would put a Nation afoot."

"Without automobiles how much longer would it have taken the liberty bond salesmen to reach buyers?"

"With five passengers to every one of the 5,000,000 automobiles, what would happen to the railroads if these addi-

Seven-Passenger TOURSEDAN The Cole Aero-EIGHT A car of inimitable beauty and accommodations 'deluxe. It epitomizes the most advanced scientific achievements in Aerotype engineering. Double the range of performance Half the cost of operation Northwest Auto Co. Alder at Chapman COLE MOTOR CAR COMPANY, INDIANAPOLIS, U. S. A.

THE BEAVER GARAGE 209 Union Avenue North Phone East 304 has opened under new management, fully equipped to do all kinds of Auto Repairing, Tire and Tube Vulcanizing. All work guaranteed. A complete line of tires, tubes and accessories. Service station for Miller Geared-to-the-Road Cord and Fabric Tires. We will come after you if in trouble on the road. Phone us. STORAGE AND REPAIRS

THE NEW Scripps-Booth Six EMBODIES FEATURES OF HIGH-PRICED CARS WITH THE ECONOMIC OPERATION OF A LIGHT CAR. IT IS STRICTLY A HIGH-GRADE PRODUCT OF ONE OF THE LARGEST MOTOR CAR MAKERS—THE GENERAL MOTORS COMPANY. 5-PASS., 3-PASS. ROADSTER, SEDAN AND COUPE THE Case Six IS EXCEEDING OUR EVERY EXPECTATION AS TO PERFORMANCE AND DURABILITY. EVERY CASE OWNER IS AN ENTHUSIASTIC BOOSTER. J. H. GRAHAM TENTH AND STARK

Ford THE UNIVERSAL CAR Another Reason Why the Kaiser Is Being Trounced PRODUCTION OF FORD PASSENGER CARS IS STOPPED FOR THE DURATION OF THE WAR We are now distributing the last of our allotment of the Ford Sedans and the remaining supply is extremely limited. The Ford Sedan offers the maximum of comfort the year round with the satisfaction of proven serviceability. Remember this luxurious Sedan body is built over the ever-enduring Ford chassis and propelled by the incomparable Ford motor. THEY ARE GOING FAST AND IF YOU OBTAIN ONE IT MUST BE NOW. AUTHORIZED FORD DEALERS FRANCIS MOTOR CAR CO. RUSHLIGHT & PENNEY E. Thirteenth and Hawthorne E. Third at Broadway PALACE GARAGE CO. TALBOT & CASEY, Inc. Twelfth at Stark E. Ankeny at Grand WM. L. HUGHSON CO. ROBINSON-SMITH CO. Broadway at Davis Sixth and Madison

RUSSELL MACHINERY BUILT SINCE 1842. THE A. H. AVERILL MACHINERY CO. THE RUSSELL TRACTOR PORTLAND - SANJOSE - SPOKANE - GREAT FALLS ENGINES, THRESHERS, SAWMILLS

GATES HALF-SOLE TIRES REGISTERED U.S. PAT. OFF. Cost only 1/2 As Much Save You 1/3 to 1/2 On Your Tires AND ARE Puncture-Proof for 3500 Miles Ask about our Gates Quality Tubes. HUTCH'S TIRE SHOP Vulcanizers. 70 6TH ST.