Essential projects or others may get repair parts over the counter as heretofore by certifying that they have complied with all sections of L-196; that is, their machinery is inventoried with WPB.

Owners of machinery desiring to dispose of it should contact their machinery distributor and transact their business. Failing in this, they should report on Form 1333 specifically informing WPB of the price, condition, necessary repairs, age, etc., and all requests will be referred direct to them. There is no order prohibiting the sale of used machinery; however, the OPA price ceiling must be adhered to.

OUTLOOK FOR RUBBER

Mark O. Ward, District Manager, B. F. Goodrich Company, Cincinnati, Ohio

With so many conflicting reports and so much contradictory testimony before so many congressional committees, and with the newspapers printing, as authority, so many statements from so many individuals who love to have their names in the newspapers, we have had confusion compounded, and it is not surprising that the average man on the street has been confused about the rubber situation. Of course, the public liked to believe these statements rather than the true facts which government officials and the rubber industry were giving out. It was not until the Baruch Committee turned in its report that the situation was clarified. We were fortunate indeed to have chosen to investigate this situation a committee of such outstanding men as Bernard M. Baruch, Chairman, Dr. James B. Conant, President of Harvard University, and Dr. Carl T. Compton, President of Massachusetts Institute of Technology—men known as outstanding scientists without any taint of politics or prejudices. Their very complete report is an outstanding example of what can be done when men of their type make a thorough investigation regarding any situation. I suggest that those of you who are interested in reading this report obtain a copy. It is House Document No. 836, “The Rubber Situation.” This report is the “Bible” which is being used as a guide to handle the situation and its recommendations are being followed to solve the present situation. Here is a summary from the first page of the Baruch committee report:
TWENTY-NINTH ANNUAL ROAD SCHOOL

CRUDE RUBBER POSITION OF THE UNITED STATES JULY 1, 1942, TO JAN. 1, 1944

<table>
<thead>
<tr>
<th>Description</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Hand July 1, 1942 (Stock Pile)</td>
<td>578,000</td>
</tr>
<tr>
<td>Estimated Imports July 1, 1942, to Jan. 1, 1944</td>
<td>53,000</td>
</tr>
<tr>
<td>Total Crude Rubber Supply</td>
<td>631,000</td>
</tr>
</tbody>
</table>

Here are some figures from a recent report:

- Estimated Military and Other Essential Demands July 1, 1942, to Jan. 1, 1944, with No Allowance for Tires for Passenger Automobiles: 842,000 tons
- Deficit that Must Be Met by Production of Synthetic Rubber Before Jan. 1, 1944: 211,000 tons

Unless adequate new supplies (natural or artificial) can be obtained in time, the total military and export requirements alone will exhaust our crude stocks before the end of next summer (1943).

We are fortunate in having a man chosen as rubber director who was brought up in the transportation industry, who realizes the value of our transportation system. As you know, Mr. William Jeffers is President of the Union Pacific Railroad—has been a railroad man since he was 14 years old. One of his first statements after accepting the appointment was, "You can't take America off wheels. You can lose the war doing that because of the disruption it would cause in our economy, but you can reduce the use of rubber to the irreducible minimum." Every program adopted since his appointment has been to carry out this policy. There are a few figures in connection with the rubber situation which I believe we should keep in mind. Remember that 75% of the rubber used in this country goes into the manufacture of tires. The average consumption of rubber during the past 10 years has been right around 500,000 tons. During 1940-1941 consumption increased decidedly, being 648,000 tons in 1940 and 766,000 tons in 1941. We imported, in 1940, 815,725 tons and, in 1941, 1,000,025 tons. The difference between the tonnage imported and that consumed in manufacturing went into a stock pile, owned and controlled by the government agency established for the purpose of controlling our rubber supply, called the Rubber Reserve Corporation.

SOURCES OF SUPPLY

Let's see where the rubber came from. Our own country is the most fortunate of all nations. Nature generously endowed us with minerals, oils, coals, and water power. Our resources have made us almost 100% self-sufficient. But, there are a few important products for which we must still depend on foreign sources of supply, such as rubber, tin, manganese, silk, and tungsten. The most important of these is...
rubber, and rubber has been our largest single import. We use more rubber than all the rest of the world combined. In 1940 our consumption was 648,000 tons—nearly 60% of world production. Even with restrictions on crude rubber to manufacturers during the last half of 1941, consumption was 766,000 tons. Of the world's supply, 97% has come from the Malaya Peninsula and the East Indies. Of this 97%, 52% came from the Malaya Peninsula, 27% from Sumatra, and 7% from Java. North and South America produced barely 1% of all the rubber we imported.

The Japanese now control the areas from which we obtained 90 to 95% of our rubber. I do not believe that many of us realize the advantages which the Japanese now have in controlling the Malaya Peninsula and the large islands of the East Indies. If they can continue to hold these areas, they will be supplied with every needed commodity and make themselves entirely independent of all foreign sources of supply.

In June, 1940, our government started the first move toward building a stock pile of crude rubber as insurance against the cutting off of the supply line. The Rubber Reserve Corporation was formed, which has acted as purchasing and distributing agent to all American manufacturers. Under an agreement with the English and Dutch Governments, who controlled the Malaya Peninsula and the East Indies, the price was pegged at from 20-21c per lb. This is one of the reasons why the price for tires and rubber articles has been more stable during the past three years than at any other period in the history of the rubber industry. Our government bought every pound which could possibly be secured for this stock pile. By December 7, 1941, when Pearl Harbor was attacked, the stock pile had increased to approximately 600,000 tons. Remember, however, that in 1940, before large quantities were being used for war needs and for the Lend-Lease program, consumption was 648,000 tons. By January 1, 1942, the stock pile had been reduced by withdrawals to 536,000 tons.

I understand that when the Japanese struck Pearl Harbor there were 66 ships of rubber on the Pacific, with cargoes totalling around 150,000 tons and that most or all of these finally reached port, so that the stock pile had risen to around 750,000 tons early in 1942. Of course, this stock pile is being reduced not only for our own needs but also for all of the airplanes, tanks, guns, and war materials which we are furnishing to our allies under the Lend-Lease program. I understand that Britain had less than 100,000 tons in her stock pile when the Japs struck.

**Rubber Uses in Warfare**

The last figures I saw estimated stocks of crude rubber as of January 1 to be 400,000 tons. Here is an idea of where our rubber is going at the present time:
Every 35,000 ton battleship uses 150,000 pounds of rubber—as much as is used in manufacturing 10,000 automobile tires.
Every 10-ton pontoon bridge uses 3,200 pounds of rubber.
Every medium tank uses 1,750 pounds of rubber.
Every flying fortress uses 1,250 pounds.
Every 75 mm. gun uses 175 pounds.
Every scout car uses 398 pounds.
Every large airplane tube uses about 54 pounds.
Every gas mask uses nearly 2 pounds.
Erasers last year used 180 tons of rubber, enough to make 200,000 gas masks.
The rubber used in combs in 1941 was enough to supply rubber for 20,400 8-wheel, 2½-ton trucks.
The rubber used in the manufacture of baby pants in 1941 would make 2,800 rafts like the one on which three of our airmen lived for 34 days recently in the Pacific after having bailed out in an airplane battle.

Time does not permit me to go into the situation about prospects from Brazil and South America and from the Mexican guayule plant grown in northern Mexico and our southwestern states or into the development of the synthetic rubber program in this country. For those of you who would like to read an interesting article regarding the guayule industry, I suggest you secure a copy of the September issue of the magazine Coronet and read the article under the headline “California’s Rubber Rush.” The notation at the start of the article reads like this: “It’s genuine rubber—as good as the kind that comes from trees—and enough of it’s growing on our own west coast to supply our needs—by 1946.”

In connection with the synthetic rubber program there is an excellent article, “Good News on Synthetic Rubber,” by Harold M. Fleming in the December issue of Harper’s Magazine. Here is the first paragraph of the article: “The public is somewhat in error about America’s synthetic rubber program. It is a marvel not a mess. In less than two years a billion-dollar industry is to emerge virtually out of the pilot-plant stage—an industry big enough to replace a natural rubber production which took fifty years to build up in the Far East. It is a Paul Bunyan tale, not a political scandal.”

However, before synthetic plants reach peak production, stocks will fall dangerously low—possibly around 120,000 tons, which is the minimum to which stocks can safely fall according to the Baruch Committee Report. So you see the necessity of our synthetic plants’ getting into production according to schedule.

I urge every man to read an article appearing in the February issue of the American Magazine now on the newsstands, by William M. Jeffers, Rubber Director, War Production
Board, which has for its subject, "Your Chances for Tires in 1943." In this article are plain, blunt statements. I should like to read just a few sentences from the article: "Everybody knows that the rubber situation was bungled for months after we went into the war. Our stock pile was insufficient because we were sure that Singapore would never fall. Our synthetic program was delayed, as the Baruch Report stated, by 'procrastinations, indecisions, conflict of authority, clashes of personalities, lack of understanding, delays, early non-use of known alcohol processes.' It's tough to be forced into rationing because of stupidity in high places. Car owners have good reason to be indignant, but indignation won't help the situation. Experts in the production of synthetic rubber, who were pushed around, were disgusted, but once given a chance to deliver they forgot their grudges and jumped into the job."

**Outlook for 1943—The Critical Year**

Amount of natural crude estimated on hand January 1, 1943 .................................................. 400,000 tons
Estimated imports during 1943 .................................. 36,000 tons
Estimated production of synthetic rubber 1943 ........ 354,000 tons
Total supply in 1943 .................................................... 790,000 tons
Requirements estimated for military needs 325,000 tons
Requirements estimated for Lend-Lease needs ............ 141,000 tons
Requirements estimated for essential civilian needs .......... 111,000 tons

Total Estimated Needs ........................................ 577,000 tons

Balance at the End of the Year ............................. 213,000 tons

Gentlemen, with the present serious shortage of this vital commodity there is only one thing for the car-owner to do—conserve his mileage. The greatest stock pile is in the mileage on the running wheels on over 25,000,000 vehicles. You will see why everyone in the rubber industry recommends that you get every possible mile you can out of your tires and that you take the best possible care of them so that they can be repaired, recapped, and kept in service. Every indication points to the fact that it will be a long, long time before you will get any more like them.