

announced on September 29, 1944. 885,000 passenger tires will be released this year, as against 540,000 last year, but the increased number is expected to be insufficient to fill essential demands. Ration permit holders may find it difficult to purchase tires as the demand is likely to exceed the supply.

As soon as Germany is defeated the government will take steps to increase the output of civilian tires. Restrictions on crude rubber, still essential for production of synthetic tires, must be maintained until Far Eastern sources are again in a position to export rubber.

The largest truck tires require a minimum of 30% natural rubber in their construction, to avoid disintegration from overheating. Synthetic tires, not as flexible as natural rubber tires, have a tendency to heat up when driven at high speeds, if over-loaded, under-inflated or under bad driving conditions. Large truck tires, containing 30% to 40% buna-s rubber and built with rayon fabric, were being made from buna-s produced at the Polymer plant in December 1943, soon after the plant went into operation.

At present passenger car and medium-sized truck tires are made from synthetic rubber, and contain only a very small percentage of crude rubber. Synthetic rubber products are subject to rigid tests, to ensure reliability, before being released for civilian or military use.

One of the most important improvements in synthetic tire production for commercial vehicles, manufacture of a new type of synthetic tire was announced on October 22, 1944. Known as the "inlaid carcass", this construction uses from 10% to 30% crude rubber placed directly under the tread where the greatest heat and strain occurs, synthetic rubber being used in the remainder of the carcass. When rayon cord is used, tests have shown that tires made by this process are as good as the pre-war natural rubber cotton carcass, which was the pre-war standard construction. Added miles of service may be obtained from these tires by recapping, an important factor in maintaining wartime motor transportation.

CONSERVATION OF RUBBER BY THE ARMY

The army has taken steps to eliminate, as far as possible, non-essential use of rubber; and to conserve its available supplies of rubber equipment and tires. Their tire maintenance program has a two-fold purpose:

- (a) To prolong life of tires in use by preventive maintenance, thereby easing demands upon the diminishing crude rubber stockpile.
- (b) To re-cap and repair worn tires that they may give further service.

Runflat, or combat tires, requiring twice as much rubber as the average standard tire, were extensively used for military purposes at the beginning of the war. When the tire situation became critical in January, 1942, owing to shortage of natural rubber, the Canadian army overseas took conservation measures limiting use of combat tires to essential types of vehicles, namely armored, scout, and reconnaissance cars; and certain ambulances. Up to that time runflat tires were used on training equipment in Canada, but these were gradually replaced by standard commercial-type tires, releasing 40,000 runflat tires for overseas use.