

ENGINEERING

Hints for Truck Use

New reports on how to keep motor vehicles running at top-notch efficiency are now available from the Office of Defense Transportation.

► OPERATORS of cars, trucks and other motor vehicles can help save strategic materials and keep their vehicles running at top-notch efficiency by using the free maintenance engineering reports now becoming available through joint studies by the Office of Defense Transportation and the Society of Automotive Engineers.

Outlining the reports to the Society of Automotive Engineers' West Coast Regional Transportation and Maintenance, Ellis W. Templin, automotive engineer of Los Angeles, revealed that 15 projects have now been completed with nearly a like number still in progress.

Although the studies are aimed at better fleet maintenance to help America's transport system "keep 'em rolling," reports covering particular problems can be obtained by any properly interested person from the Office of Defense Transportation, I. C. C. Bldg., Washington, D. C., or from local O. D. T. offices. The following seven reports are now available and others will be ready soon.

1. "Preventive Maintenance and Inspection Procedure" shows what should be done and when it should be done to obtain maximum reliable service from each vehicle at minimum cost. "With the mechanic shortage," Mr. Templin point-

ed out, "men, or even women, must be trained in the specific procedure of inspecting and repairing motor vehicles."

2. "Pistons for Reconditioned Cylinders" gives installation technique for rings, piston and piston pins. In discussing the report, Mr. Templin suggested that reboring be considered unless it is possible to get from new rings at least half the service obtained from the original set.

3. "Engine Cylinder Sleeves" is a report on installing and maintaining wet and dry types and tells how to salvage an engine when damage or wear of cylinders makes such a step necessary.

4. "Engine Bearing Replacement Techniques" discusses the use of lead-base babbitt lining since war has made the copper-lead and cadmium alloy bearings, ordinarily used in heavy-duty engines, unavailable to many. Dirt is the No. 1 enemy of bearings and engines, Mr. Templin warned, and a clean engine cannot be obtained by passing flushing oil through it after the bearing has been replaced and the engine reassembled.

5. "Hard Surfacing Applications and Techniques" describes the process of welding a hard wear-resistant alloy onto a metal wearing surface. Although the method saves manpower and extends the

life of parts, its use requires skill and equipment similar to that of a good welder.

6. "Cold Welding" is the technique which laces cracked engine parts together by threaded steel rods. Its use has been greatly increased since shortages make new parts almost impossible to get.

7. "Reconditioning Brake Drums" tells of correct procedures and points out the importance of accurate fit and smooth finish.

Pointing out the importance of cooling system maintenance in efficient engine operation, Mr. Templin declared that the level of cooling liquid in the radiator is just as important as the level of oil in the crankcase.

Although destructive overheating results from a number of conditions, overcooling is probably more general, the engineers were told, and can also be destructive.

The full report on cooling systems will be available for general distribution within a few weeks.

Science News Letter, August 28, 1943

AGRICULTURE

Broom Corn Imported To Help Relieve Shortage

► TO INCREASE the supply of new brooms to sweep our war plants clean, the War Production Board has approved importation of broom corn from Argentina. The move will relieve current shortages throughout the industry.

Shipments scheduled to arrive soon will be only a fraction of the 3,600 tons needed every month to meet the normal needs of broom makers. But the imports will help take care of priority orders for industrial brooms until our own crop is harvested late this year.

Science News Letter, August 28, 1943

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