WHEEL MAINTENANCE

Wheel studs and nuts on left side of vehicle have left-hand threads. Studs and nuts on right side of vehicle have right-hand threads. Wheel stud nuts should be inspected and tightened at regular intervals. Wheel maintenance will be considerably reduced by adherence to following procedure.

1. Before new vehicle goes into service and after each wheel removal, all wheel stud nuts should be thoroughly tightened. Refer to "Specifications" at end of this section for wheel stud nut torque specifications. See that studs and nuts are free from grease and oil. Do not use oil on studs or nuts.

2. To tighten stud nuts on dual rear wheels, loosen outer nuts, then tighten inner nuts. Tighten opposite nuts alternately so that wheel will be square against hub flange. After tightening inner nuts, tighten outer nuts to specified torque.

3. Retighten stud nuts daily for first 500 miles to offset setting-in of clamping surfaces.

4. Inspect wheel stud nuts at least every 1,000 miles thereafter. (If vehicle is subject to severe service, inspection should be made daily regardless of mileage.)

5. When changing wheels and tires, remove all grease and dirt and excess paint from mating surfaces. Dual rear wheels should be positioned with valve stems 180 degrees apart.

WHEEL INSPECTION

Do not use wheels with bent rims. Continued use of wheels with bent rims will result in excessive tire wear and, if wheel is mounted on front of vehicle, difficulty in steering vehicle will be experienced. Wheels that are thought to be distorted should be checked as follows (see fig. 9).

1. Remove wheel from vehicle and dismount tire.

2. Clean all rust, scale, dirt, and grease from rim.

3. Mount wheel securely in lathe or other suitable fixture. NOTE: Face of hub must run true, as any runout at that point will be increased from 1-1/2 to 3 times at checking points on rim.

4. Revolve wheel slowly and check at point "A" for lateral runout (wobble). This should not exceed 3/32-inch. Check at point "B" for radial run-out (out-of-round). This should not exceed 1/8-inch total indicator reading. Wheels that are distorted in excess to these limits should be replaced.

TIRES

One of the most important factors of economical and safe motor vehicle operation is systematic and correct tire maintenance. Tires must not only support weight of loaded vehicle, but they are also integral parts of transmission and braking system. Therefore, tires should receive careful, systematic, and regular maintenance as do other operating units. Three major causes of tire trouble are (1) improper-inflation, (2) over-loading, and (3) misalignment. Tires should be checked periodically for these conditions.

INFLATION OF TIRES

Improper-inflation is the greatest cause for the loss of tire life expectancy. Tires should be checked frequently for this condition. Tire fabric, rubber, bead, contour, and size used on these vehicles are designed to obtain maximum length of service under all operating conditions to which vehicles may be subjected. TIRES ARE DESIGNED TO OPERATE EFFICIENTLY ONLY ON A PRESCRIBED AMOUNT OF AIR. Unless correct air pressure is consistently maintained, tires will not function as they should; consequently safe, economical operation of vehicle will be materially affected. Operating air pressure recommended by the tire manufacturers is as essential to safe and economical operation of tires, as proper amount of oil would be to an engine or other chassis units.

An under-inflated tire runs sluggishly and heats up quickly because of greater flexing, and is subjected to more frequent bruising. Over-inflation does not compensate for over-loading. It does not add strength to tire, in fact, it weakens the tire by reducing its ability to absorb road shock, and may cause a blowout. Tires are designed to operate at certain recommended inflation, which provide normal flexing with proper deflection and road contact. If flexing is changed from normal by over-inflation, under-inflation, or over-loading, proper service from tire cannot be obtained. FOLLOW TIRE PRESSURE RECOMMENDATIONS OF THE TIRE MANUFACTURER.

BALANCED INFLATION

The operating efficiency of vehicle will be seriously upset if air pressures in tires are out of balance. Balanced inflation may be expressed as: All tires on the same axle should always carry same air pressure. A difference in air pressure of

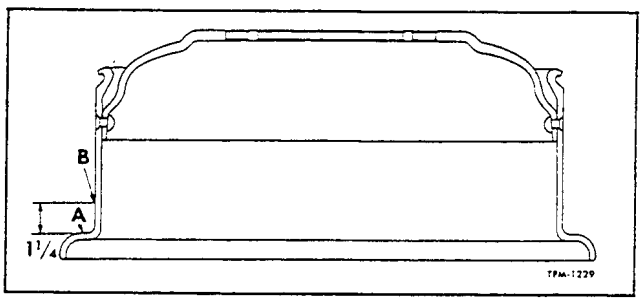


Figure 9—Wheel Checking Diagram