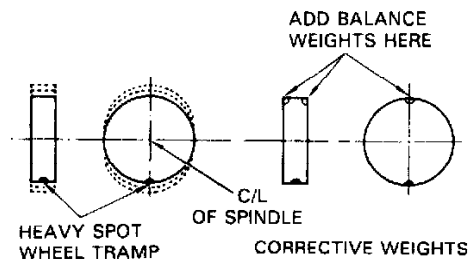


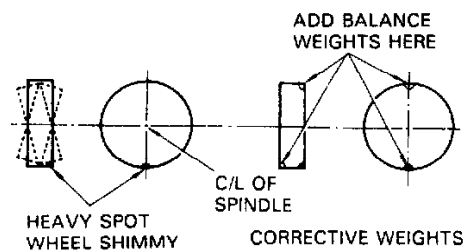
Wheel: Service and Repair

Wheel Balancing Procedures

BALANCING WHEELS



There are two types of wheel and tire balance: static and dynamic. Static balance, as shown in figure, is the equal distribution of weight around the wheel. Wheels that are statically unbalanced cause a bouncing action called tramp. This condition will eventually cause uneven tire wear.



Dynamic balance, as shown in figure, is the equal distribution of weight on each side of the wheel centerline so that when the tire spins there is no tendency for the assembly to move from side to side. Wheels that are dynamically unbalanced may cause shimmy.

GENERAL BALANCE PROCEDURES

Deposits of mud, etc. must be cleaned from inside of rim.

WARNING: Stones should be removed from the tread in order to avoid operator injury during spin balancing and to obtain good balance.

Each tire should be inspected for any damage, then balanced according to equipment manufacturer's recommendation.

OFF-VEHICLE BALANCING

Most electronic off-vehicle balancers are more accurate than the on-vehicle spin balancers. They are easy to use and give a dynamic (two plane) balance. Although they do not correct for drum or disc unbalance as does on-vehicle spin balancing, this is overcome by their accuracy, usually to within 1/8 ounce.

ON-VEHICLE BALANCING

On-vehicle balancing methods vary with equipment and tool manufacturers. Be sure to follow each manufacturer's instruction during balancing operation.

WARNING: Wheel spin should be limited to 35 mph (55 km/h) as indicated on speedometer. This limit is necessary because speedometer only indicates one-half of actual wheel speed when one drive wheel is spinning and the other drive wheel is stopped. Unless care is taken in limiting drive wheel spin, spinning wheel can reach excessive speeds. This can result in possible tire disintegration or differential failure, which could cause serious personal injury or extensive vehicle damage.

CAUTION: For vehicle equipped with ABS, using on-vehicle balancing method with ignition switch "ON" may set malfunction diagnostic trouble code of ABS even when system is normal. Never turn ignition switch ON while spinning wheel.