



TECHNICAL NOTE

Technical
Note 29

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Bureau of Land Management U.S. DEPARTMENT OF THE INTERIOR

WHEEL AND TIRE BALANCING

Wheel and tire balancing is a very important part of vehicle servicing. It affects tire wear, steering component parts wear, and driver fatigue. There are two commonly accepted methods of balancing:

- Dynamic Balancing - Done with tire and wheel on the vehicle, using a strobe light type balance.
- Static Balancing - Done with tire and wheel removed from the vehicle, using bubble level type balancer. Static balancing is the simplest form of balancing. Like a level, the bubble balancer does nothing more than indicate the heavy side of the wheel and tire unit.

The electronic strobe light balancing achieves both the dynamic and static balances. These balances will also indicate loose or bad wheel bearings, bent wheels, and tires out of round. The balancing job can be done without removing the wheels from the vehicle.

The objective is to balance all four wheels on all vehicles up to and including one-ton pickups, and the front wheels only on all other vehicles.

Drive a vehicle at least two or three miles before wheel balancing is attempted. Driving causes tire carcass to flex (warm up) which eliminates flat spots in all types of tires.

Wheels and tires will not remain in balance indefinitely. Tires should be balanced each time they are repaired or replaced. If hub caps are used, they should be in place. We do not recommend purchasing or using a bubble type balancer.