

DEPARTMENT
OF THE ARMY TECHNICAL MANUAL

**OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE
MANUAL INCLUDING REPAIR PARTS LIST**

FOR

BALANCER, VEHICLE WHEEL

MODEL M-76

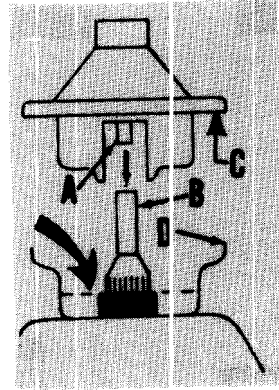
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HEADQUARTERS,
DEPARTMENT OF THE ARMY

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1. Preparation for Use and Installation Instructions.

a. **DAMPENING OIL:** Remove the chrome balancer head out of the dampener basin and fill the basin to the top of the step on the center post with SAE 20 (MIL-L-2104) motor oil, approx. 6 fluid ounces. Replace the head . . . be sure that pivot post A fits into tube B and flange C rests on rim of dampener basin D. This oil has no lubricating value. It will not wear out nor will it need to be changed. The oil is an oscillation dampener to stabilize the balancer without interfering with specified sensitivity or accuracy.



b. Required Setup Procedure: To be performed at time of installation and whenever Balancer is moved.

(1) Place a tire and wheel assembly on the Balancer (make sure that the foot pedal is in the "OFF" position).

(2) Using the leveling legs, CENTER the bubble on the CROSS HAIRS.

(3) Turn the Balancer on, using the foot pedal.

(4) Balance the tire and wheel assembly.

(5) Rotate the tire and wheel assembly $\frac{1}{2}$ turn WITHOUT LIFTING IT FROM THE BALANCER (to ensure that the Head remains engaged).

(6) IF the bubble has moved from dead center, use the leveling legs to bring it HALF-WAY back from dead center.

The unit is now ready for use.

2. General Theory of Operation.

a. Static and dynamic unbalance result from an uneven distribution of weight. To correct static and dynamic unbalance you must first locate the heavy area, then counterbalance. This resolves itself to a simple weighing procedure. The degree of accuracy to which you can balance depends entirely upon the accuracy of the weighing device, in this case, the wheel balancer. This is precisely what your wheel balancer is -- a sensitive and accurate weighing device.

Its operation meets the following specifications: