SOCIETY OF AUTOMOTIVE ENGINEERS, INC. • TWO PENNSYLVANIA PLAZA • NEW YORK, NEW YORK 10001

LAND SEA AIR SPACE

TECHNICAL REPORT J328a

WHEELS--PASSENGER CARS--PERFORMANCE REQUIREMENTS AND TEST PROCEDURES - SAE J328a

SAE Recommended Practice

Report of Wheel Committee approved March 1968 and last revised May 1970.

1. SCOPE

This SAE Recommended Practice establishes minimum performance requirements and related uniform laboratory test procedures for evaluating certain essential characteristics of pressed steel wheels intended for use on passenger cars.

2. DEFINITIONS (PRESSED STEEL WHEELS)

2.1 WHEEL - Usually an assembly of a rim and a center member, commonly known as a disc or spider.

2.2 RIM - Supporting member for the tire or tire and tube assembly.

2.3 CENTER MEMBER (DISC OR SPIDER) - The connection between the vehicle and the rim.

2.4 OFFSET OR DISH - The distance between the mounting face of the disc and the rim centerline. This distance is termed positive when the mounting face is outboard of the rim centerline and negative when inboard of the rim centerline.

2.5 For further definitions and descriptions of nomenclature, see Fig. 1.

3. PERFORMANCE REQUIREMENTS (PRESSED STEEL WHEELS)

The test wheels, when subjected to the test procedures described in Section 4 shall meet the following minimum performance requirements:

3.1 DYNAMIC CORNERING FATIGUE

3.1.1 Minimum Cycles - After being subjected to 18,000 test cycles there shall be no evidence of failure as indicated by propagation of a crack existing prior to test, new visible cracks or the inability of the wheel to sustain load.

3.1.2 Bending Moment - The bending moment to be applied to the test wheel (force x moment arm) shall be determined as follows:

$$BM = \frac{L_c\,(RR\mu + d)}{12}\,(S)$$

BM = bending moment, lb-ft

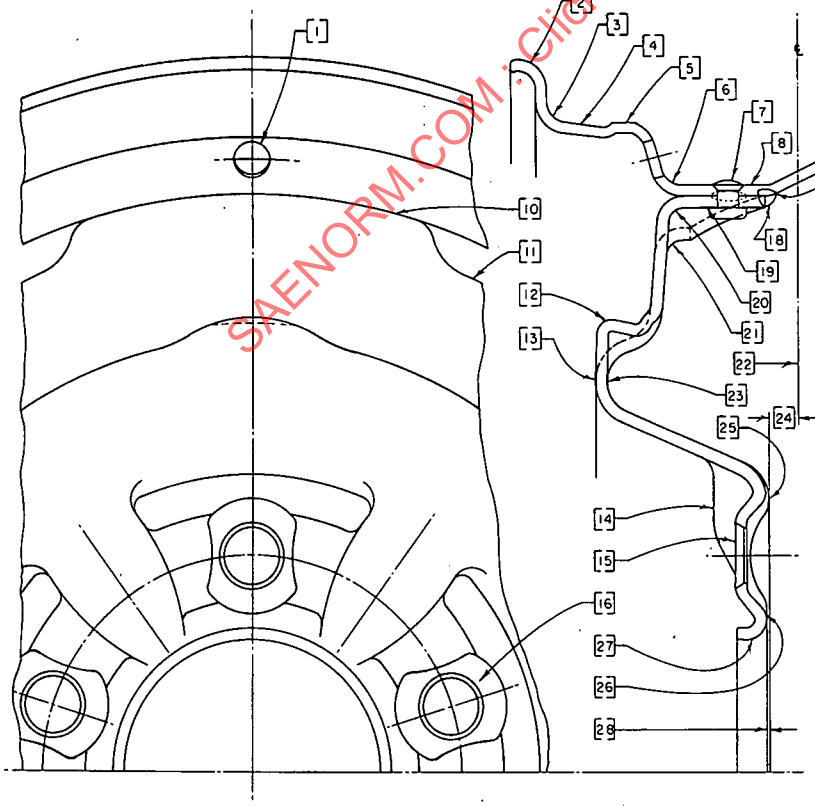

FIG. 1—PASSENGER CAR WHEEL NOMENCLATURE (RIM AND DISC OR SPIDER ASSEMBLY)