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INTERNATIONAL
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SURFACE VEHICLE STANDARD

SAE J348 | REV. JUN90

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Superseding J348 JUL68

Submitted for recognition as an American National Standard

(R) WHEEL CHOCKS

***Foreword*—**This Document has not changed other than to put it into the new SAE Technical Standards Board Format.

***1. Scope*—**This SAE standard presents the basic information required for the design and manufacture of a wheel chock.

***2. References*—**There are no referenced publications specified herein.

3. Definitions

3.1 Wheel Chock—An external device, of, but not necessarily limited to, generally triangular configuration, which, when positioned in contact with a rubber-tired wheel at rest, will maintain the wheel at rest within the limits of the design calculations.

4. Design Calculations

4.1 Equilibrium Method—Assumptions

a. 30% grade condition (based on Federal Vehicle Standard for passenger car parking brake)
b. One wheel chocked
c. Concave surface (maximum contact area) for wheel chock
d. Static load -- evenly distributed
e. Maximum vertical weight acting on one wheel of 11 500 lb (5216 kg) (based on Federal Regulation of 23 000 lb (10 433 kg).
f. Maximum horizontal force parallel to incline of 23 000 lb (10 433 kg) (based on 80 000 lb (36 287 kg) maximum gvw at 30% grade)

4.2 Energy Consideration Method—Assumptions

a. 30% grade condition (based on Federal Vehicle Standard for passenger car parking brake)
b. One wheel chocked
c. Plane surface for wheel chock
d. Maximum forces vary with tire size
e. Dynamic forces are considered (tire roll-back)

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5. ***Test Conditions—***A wheel chock must be so constructed as to withstand a uniformly distributed test load that varies with tire size as indicated in Figure 1. The angle of load application (41.7 degrees) is also shown in Figure 1.

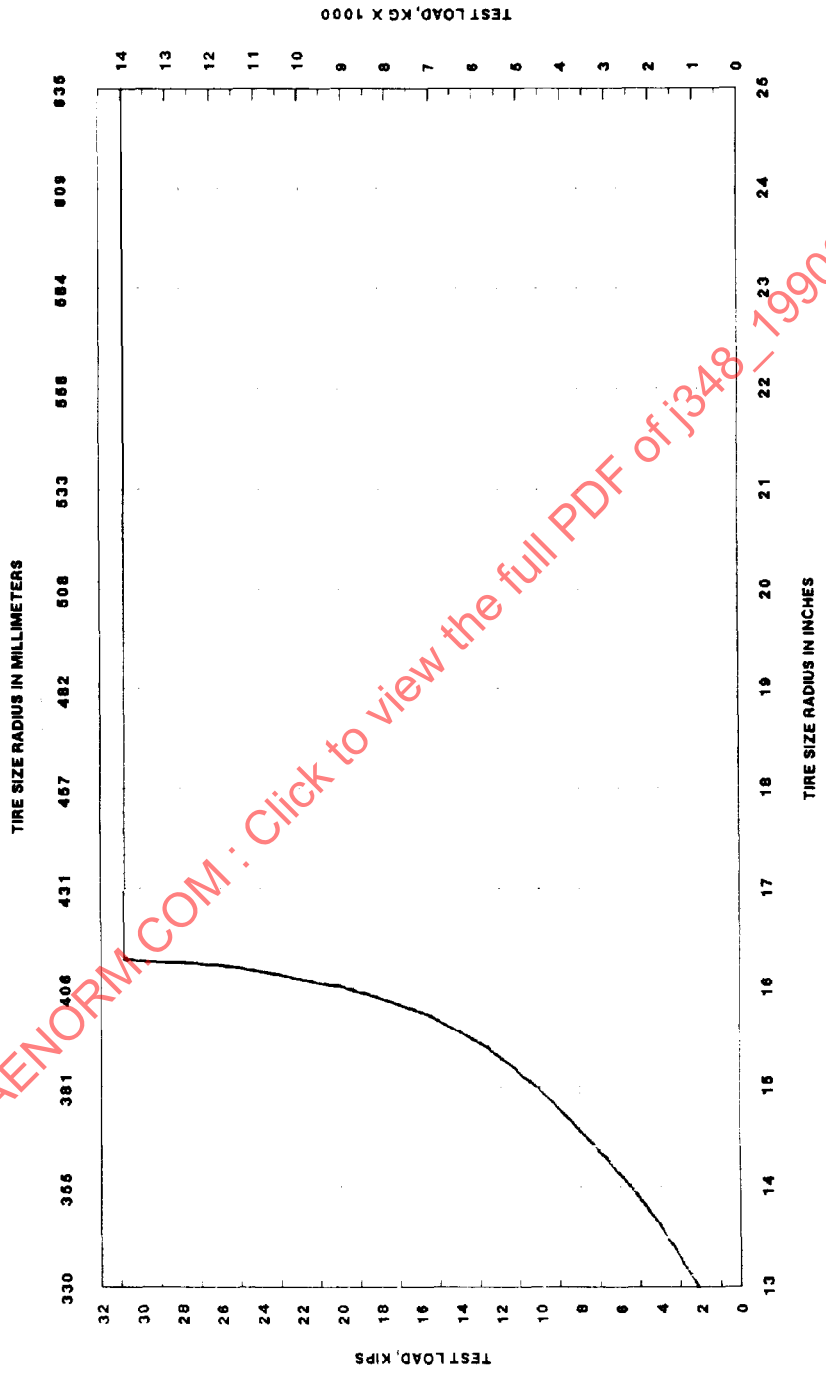

FIGURE 1—

6. Wheel Chock Design Criteria—Dimensions

a. Height varies with tire size as shown in Figure 2.
b. Length is 1.73 times height.
c. Width is at least 3/4 of tire tread width.
d. Chock angle, 0, (overall angle between the chock base and the tire engaging face) shall be between 35 and 45 degrees.

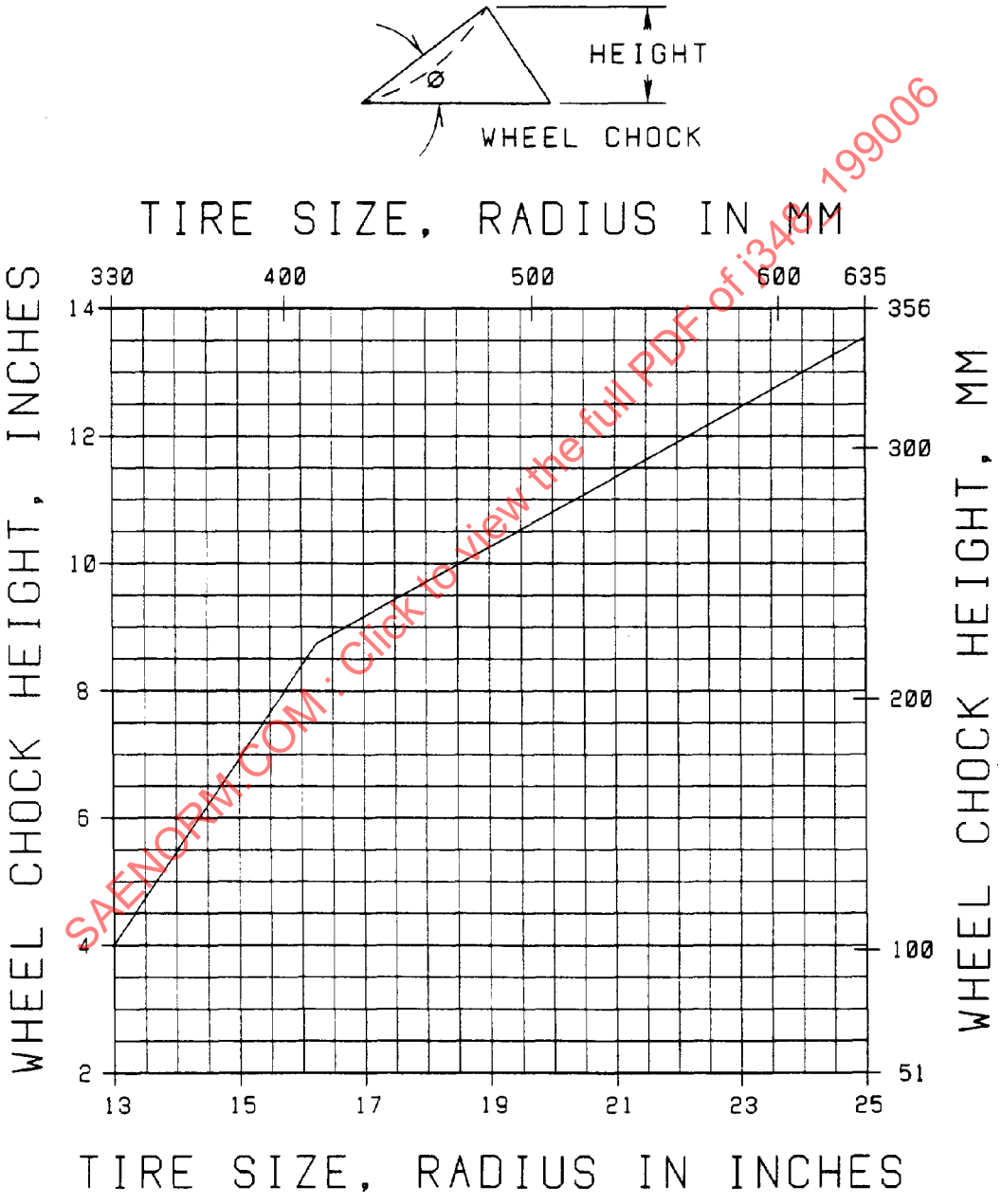

FIGURE 2—

7. Notes

7.1 Marginal Indicia—The change bar (l) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

PREPARED BY THE SAE TRUCK & BUS CHASSIS COMMITTEE