

S. A. E.
LIBRARY

Multiposition Small Engine Exhaust System Fire Ignition Suppression—SAE J335b

SAE Recommended Practice
Completely Revised September 1976

SAENORM.COM : Click to view the full PDF of j335b-197609

THIS IS A PREPRINT AND WILL
APPEAR IN THE NEXT EDITION
OF THE SAE HANDBOOK

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096



PREPRINT

Standard No. 30 (0.023 in (0.584 mm) opening) screen. Weigh the carbon particles retained for determining the arrester's particle retention efficiency.

3.7.1 Determination of Arresting Efficiency—Use the following formula for determining arresting efficiency for either SAE fine or SAE coarse carbon:

$$\% \text{ efficiency} = \frac{\text{Grams of Carbon retained}}{\text{Grams used - on No. 30 U.S. screen (see 3.7)}} \times 100$$

3.7.2 For combined average effectiveness of SAE fine and SAE coarse particles:

$$\% \text{ efficiency} = \frac{\% \text{ efficiency of SAE fine} + \% \text{ efficiency of SAE coarse}}{2}$$

3.8 Test Position of Spark Arrester—The spark arrester shall be tested in the position where it is judged to be the least efficient. This may be determined by preliminary checks of arresting efficiency in various operating positions.

4. Exposed Surfaces Temperature Test

4.1 Exposed Surfaces Test Defined—Exhaust system temperatures will be measured at the points where the engine exhaust system can contact plane surfaces established by the extremities of the power unit or power head. In the case of a chain saw, the plane surfaces will be established by the extremities of the saw with bar removed and a line passing through the lowest points in the spaces between the bumper spikes (dogs). See Fig. 2. To determine points of measurement, place the power unit in a sufficient number of positions on a flat surface to determine where the exhaust system components can contact the surface.

4.2 Apparatus—Use a calibrated loading device as shown in Fig. 3 with temperature sensitive coatings for exhaust system surfaces (such as Detectotemp or Tempilaq paints, or Tempilstik or Thermochron crayons,

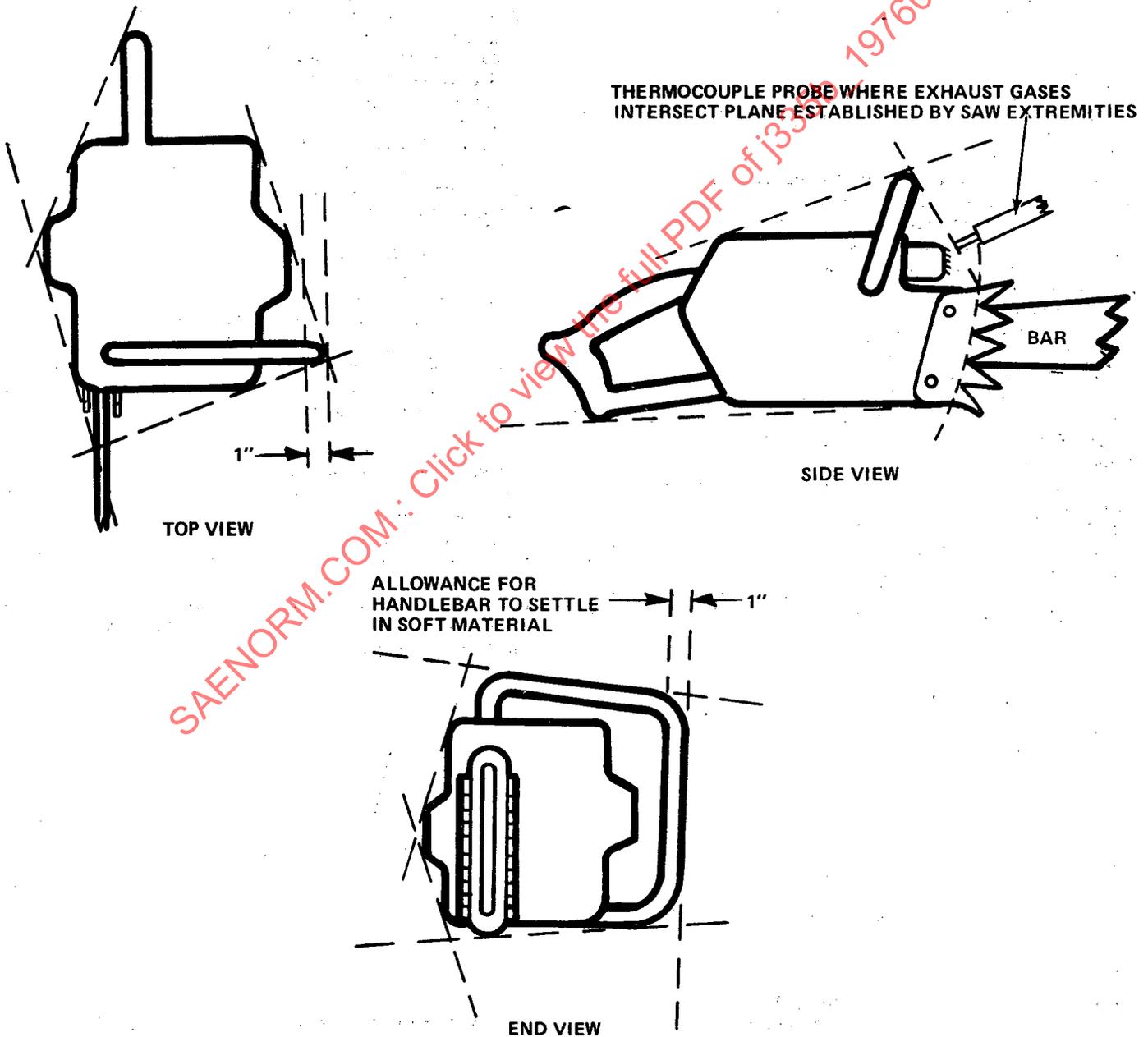


FIG. 2—DETERMINATION OF LOCATIONS FOR MEASURING EXHAUST SYSTEM SURFACE AND EXHAUST GAS DISCHARGE TEMPERATURES