

**Specification Definitions—Articulated Rubber-Tired Log Skidder**

1. **Scope**—The purpose of this SAE Standard is to provide a uniform method of defining specification definitions for articulated, rubber-tired log skidders. Reference SAE J1112 for specification definitions of skidder-grapples.
2. **References**
  - 2.1 **Applicable Publication**—The following publication forms a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply.
    - 2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.  
SAE J1112 APR80—Specification Definitions—Skidder-Grapple
  - 2.2 **Related Publications**—The following publications are provided for information purposes only are are not a required part of this document.
    - 2.2.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.  
SAE J1109 JUN93—Component Nomenclature—Particulated Log Skidder, Rubber-Tired  
SAE J1111 MAR81—Component Nomenclature—Skidder-Grapple
3. **Specification—General**—This document includes the definitions of specifications unique to and most commonly used to describe this type of equipment. The specifications described must be qualified by stating the tire, size, ply rating, and specified inflation pressure with which the machine is equipped. The illustrations used are not intended to be descriptive of any existing machine and are used here only to clarify the meaning of the document. The dimensions indicated are basic and may be supplemented by the individual machine manufacturer.
4. **Specification Definitions**
  - 4.1 **Width (A)**—The distance in mm between the vertical planes parallel to the skidder's longitudinal axis and passing through the farthest points on the two sides of this axis (Figure 1).

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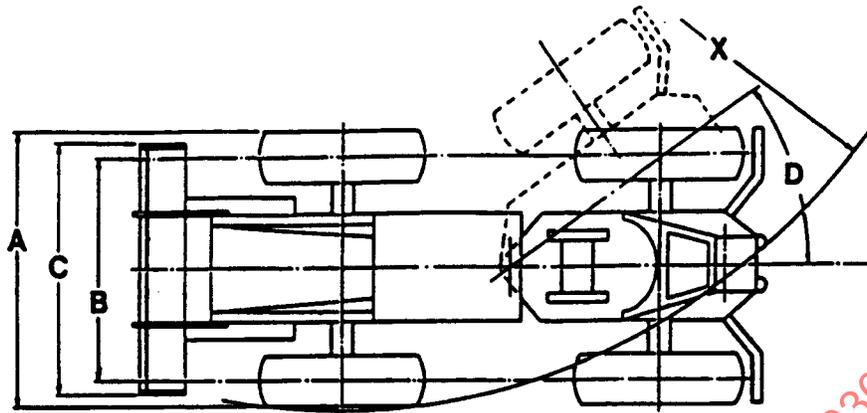


FIGURE 1—SKIDDER TOP VIEW

- 4.2 **Tread (B)**—The distance in mm between two parallel vertical planes passing through the centerline of the tires on an axle. If the front and rear are different, both must be specified.
- 4.3 **Blade Width (C)**—The maximum transverse width in mm outside to outside of the blade specified.
- 4.4 **Angle of Articulation (D)**—The maximum angle of frame steering movement from the straight ahead position measured in degrees between longitudinal centerlines of the machine frames.
- 4.5 **Maximum Blade Lift, Lower Edge (E)**—The maximum vertical height in mm which the lower edge of the blade can be raised from the horizontal reference plane. Specify tire size (Figure 2).

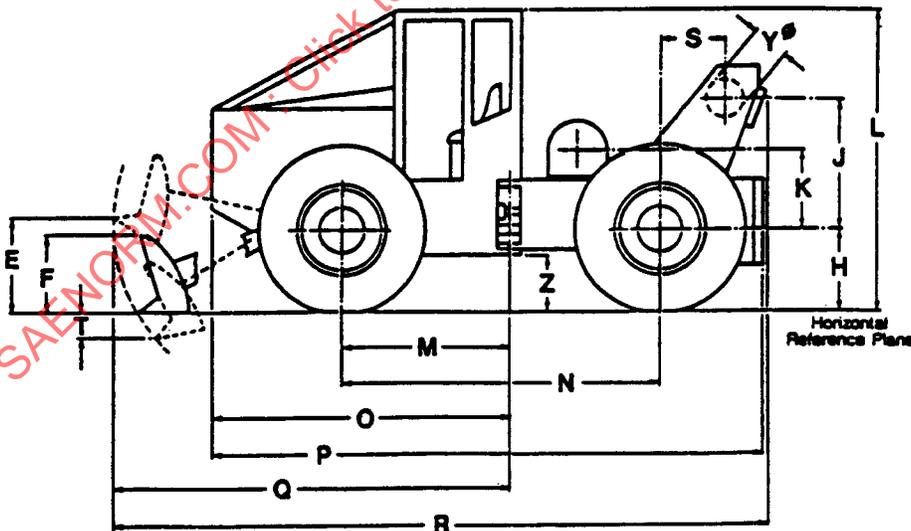


FIGURE 2—SKIDDER SIDE VIEW

- 4.6 Blade Height (F)**—The vertical distance in mm from the lower edge, resting on the horizontal reference plane, to the top of the blade, excluding decking lugs.
- 4.7 Ground Clearance (G)**—The ground clearance is the perpendicular distance in mm from the horizontal reference plane to the lowest point of the center portion of the machine. The center portion of the machine is defined as 25% of the tread to either side of the longitudinal centerline (Figure 3).

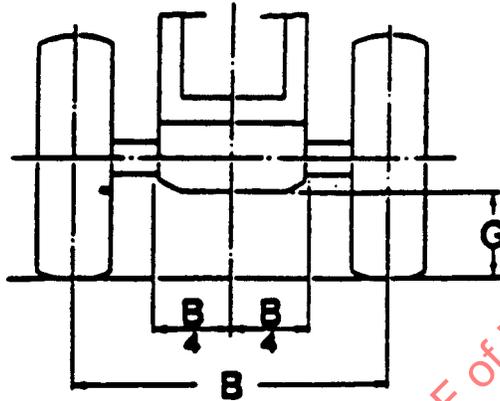


FIGURE 3—SKIDDER PARTIAL FRONT VIEW

- 4.8 Loaded Tire Radius (H)**—The vertical distance in mm from the horizontal center of the axle to the horizontal reference plane.
- 4.9 Main Fairlead Roller Height (J)**—The vertical distance(s) in mm from the horizontal center of the main fairlead roller to the horizontal center of the axle. (Maximum and minimum if adjustable.)
- 4.10 Winch Height (K)**—The vertical distance in mm from the horizontal center of the winch drum to the horizontal center of the axle.
- 4.11 Overall Height (L)**—The vertical distance in mm between the horizontal reference plane and a horizontal plane passing through the highest point of the skidder.
- 4.12 Front Axle to Hinge (M)**—The horizontal distance in mm from the center of the front axle to the center of the hinge.
- 4.13 Wheelbase (N)**—The horizontal distance in mm from the center of the front axle to the center of the rear axle when both axles are perpendicular to the longitudinal axis.
- 4.14 Centerline of Hinge to Front of Machine (O)**—The horizontal distance in mm from the center of the hinge to a vertical plane touching the farthest point forward (excluding the blade).
- 4.15 Total Frame Length (P)**—The distance in mm between the vertical planes perpendicular to the skidder's longitudinal axis in passing through the farthest points on the front and rear of the machine. Machine is defined as including fenders, tow bars, butt plate, etc., but excluding blade and fairlead.

- 4.16 Centerline of Hinge to Maximum Blade Arc (Q)**—The horizontal distance in mm from the center of the hinge to a vertical line tangent to the arc of the blade lower edge as it passes from its maximum height (E) to the lowest blade position (T).
- 4.17 Overall Length (R)**—The horizontal distance in mm from a vertical plane touching the most forward point of the machine, blade positioned to give maximum forward reach, to a vertical plane touching the rearmost point of the machine. (Movable fairlead in most rearward position.)
- 4.18 Rear Axle to Main Fairlead Roller (S)**—The horizontal distance in mm from the vertical center of the rear axle to the vertical center of the main fairlead roller. If adjustable, give maximum and minimum dimensions.
- 4.19 Lowest Blade Position (T)**—The vertical distance in mm from the horizontal reference plane to the blade lower edge with blade at its lowest position.
- 4.20 Frame Oscillation (V)**—The angle in degrees that one frame will rotate from a horizontal datum, in both directions, without rotating the other frame (Figure 4).

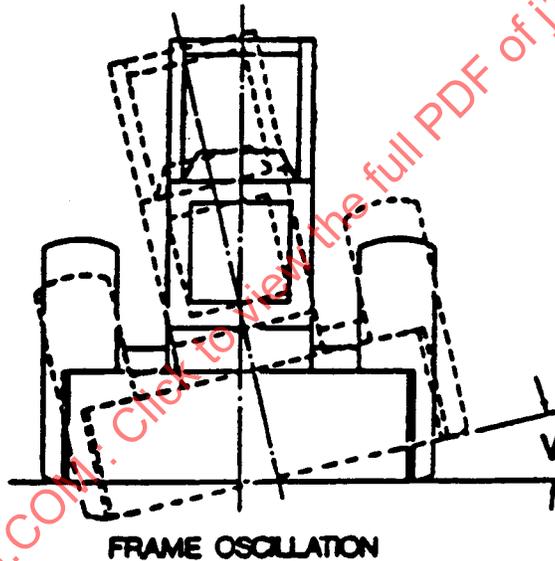


FIGURE 4—FRAME OSCILLATION

- 4.21 Axle Oscillation (W)**—The angle in degrees that one axle will rotate from a horizontal datum, in both directions, without rotating either frame (Figure 5).