



SURFACE VEHICLE RECOMMENDED PRACTICE

J1028™

SEP2022

Issued 1973-07
Reaffirmed 1998-10
Revised 2022-09

Superseding J1028 OCT1998

(R) Mobile Crane Working Area Definitions

RATIONALE

This SAE Recommended Practice has been revised to update figures representing typical working range diagrams, which establish uniform definitions of the areas around mobile construction-type cranes when used for lifting, clamshell, dragline, magnet, pile driver, or similar service. Additional figures have been added to represent working range diagrams for other types of rubber-tire mounted cranes not represented in previous versions of this standard.

1. SCOPE

This SAE Recommended Practice applies to stationary usage of mobile construction-type cranes, crawler or rubber-tire mounted, on outriggers or on tires, when used for lifting, clamshell, dragline, magnet, pile driver, or similar service.

1.1 Purpose

The purpose of this document is to establish uniform definitions of the areas around mobile construction-type cranes in which crane loads are handled.

2. REFERENCES

There are no referenced publications specified herein.

3. DEFINITIONS

3.1 RUBBER-TIRE MOUNTED

- 3.1.1 Carrier on outriggers, front outrigger behind front wheels. See Figure 1.
- 3.1.2 Carrier on outriggers, front outrigger ahead of front wheels. See Figure 2.
- 3.1.3 Carrier on tires. See Figure 3.
- 3.1.4 Commercial truck mounted crane on outriggers and front stabilizer. See Figure 4.
- 3.1.5 Commercial truck mounted crane on rear outriggers. See Figure 5.
- 3.1.6 Commercial truck mounted crane on stabilizers. See Figure 6.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2022 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

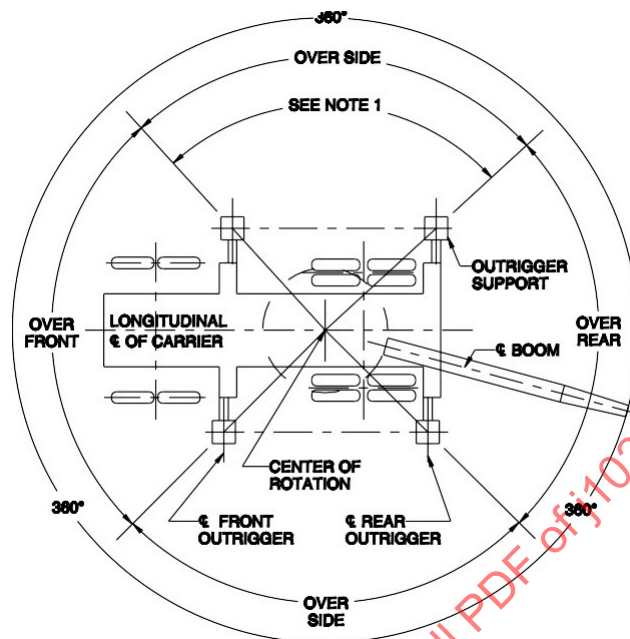
TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
http://www.sae.org

SAE WEB ADDRESS:

For more information on this standard, visit
https://www.sae.org/standards/content/J1028_202209/

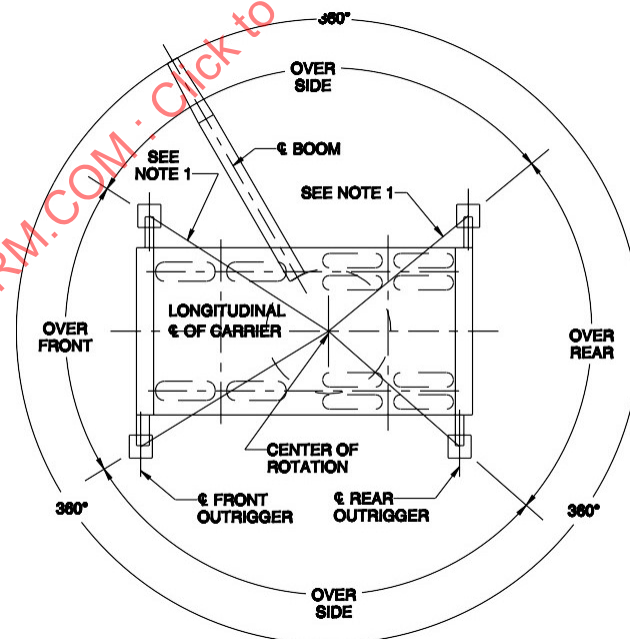
3.2 CRAWLER MOUNTED

3.2.1 Crawler-type undercarriage. See Figure 7.



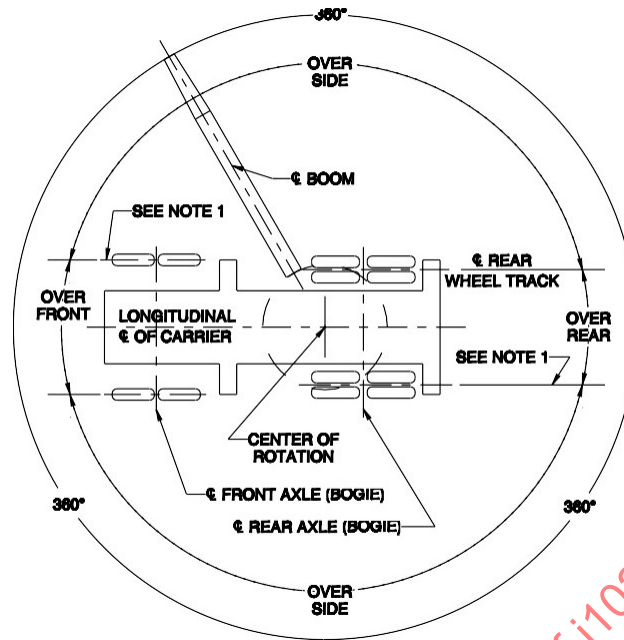
Note 1: These lines represent the operational limit within the working area indicated.

Figure 1 - Carrier on outriggers, front outrigger behind front wheels



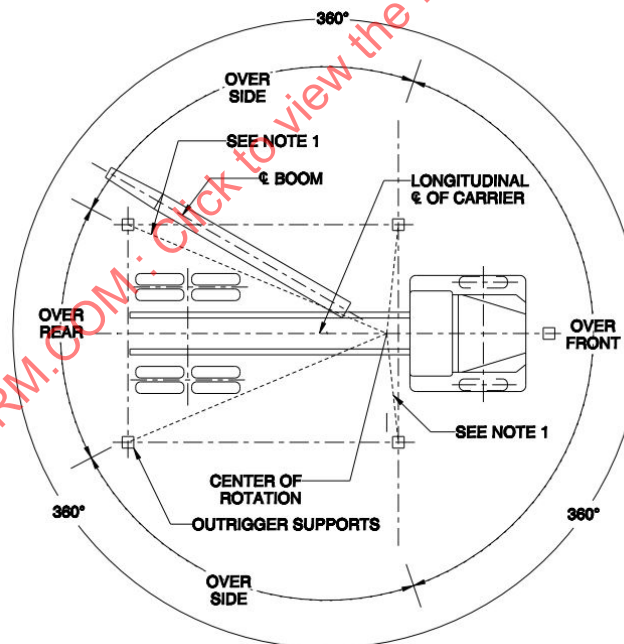
Note 1: These lines represent the operational limit within the working area indicated.

Figure 2 - Carrier on outriggers, front outrigger ahead of front wheels



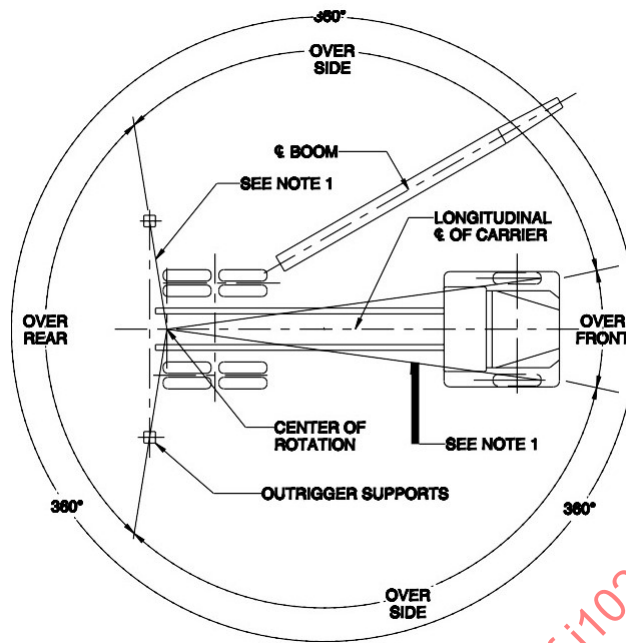
Note 1: These lines represent the operational limit within the working area indicated.

Figure 3 - Carrier on tires



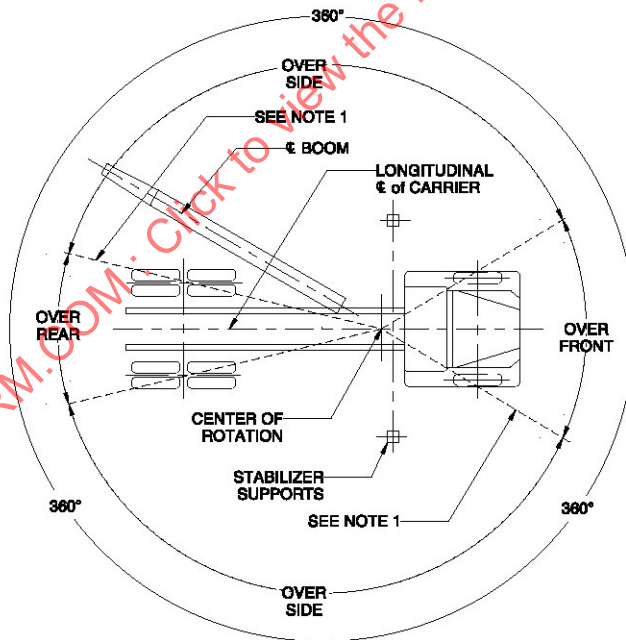
Note 1: These lines represent the operational limit within the working area indicated.

Figure 4 - Commercial truck mounted crane on outriggers and front stabilizer



Note 1: These lines represent the operational limit within the working area indicated.

Figure 5 - Commercial truck mounted crane on rear outriggers



Note 1: These lines represent the operational limit within the working area indicated.

Figure 6 - Commercial truck mounted crane on stabilizers