



SURFACE VEHICLE RECOMMENDED PRACTICE

J1307™

OCT2023

Issued 1981-05
Revised 2023-10

Superseding J1307 AUG2002

(R) Excavator and Backhoe Hand Signals

RATIONALE

This document has been updated to make references more current, improve the quality and diversity of the figures shown, and update the scope.

1. SCOPE

This SAE Recommended Practice applies to excavators and backhoe loaders, as defined in ISO 6165.

1.1 Purpose

This document provides a set of uniform hand signals for use by a signalperson to direct an operator in the movement of the load or the working equipment or travel of a mobile excavator or backhoe.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 ISO Publications

Copies of these documents are available online at <https://webstore.ansi.org/>.

ISO 6165 Earth-Moving Machinery - Basic Types - Identification and Vocabulary

SAE Executive Standards Committee 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 © 2023 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>

For more information on this standard, visit

https://www.sae.org/standards/content/J1307_202310

SAE WEB ADDRESS:

3. SIGNALS

3.1 Standard Signals

When earthmoving machinery work conditions require hand signals, they shall be provided or posted conspicuously for use of both signalperson and operator. Hand signals, as specified in 3.2, shall be the standard signals. No earthmoving machinery motions shall be made unless signals are clearly understood by both signalperson and operator.

3.2 Hand Signals

Hand signals shall be executed as defined and illustrated in Figure 1. Direction and motion of the hands and arms with respect to the machine shall define the intended signal, regardless of location or body orientation of the signalperson.

3.3 Special Signals

When signals for auxiliary equipment functions or conditions not covered in 3.2 are required, they shall be agreed upon in advance by the operator and signalperson. They shall not conflict with the specified standard hand signal.

3.4 Instructions

When it is desired to give instructions to the operator other than provided by the established signal system, all excavator or backhoe motions shall first be stopped and the engine switched off prior to work-site personnel approaching the machine.

SAENORM.COM : Click to view the full PDF of J1307 - 202310

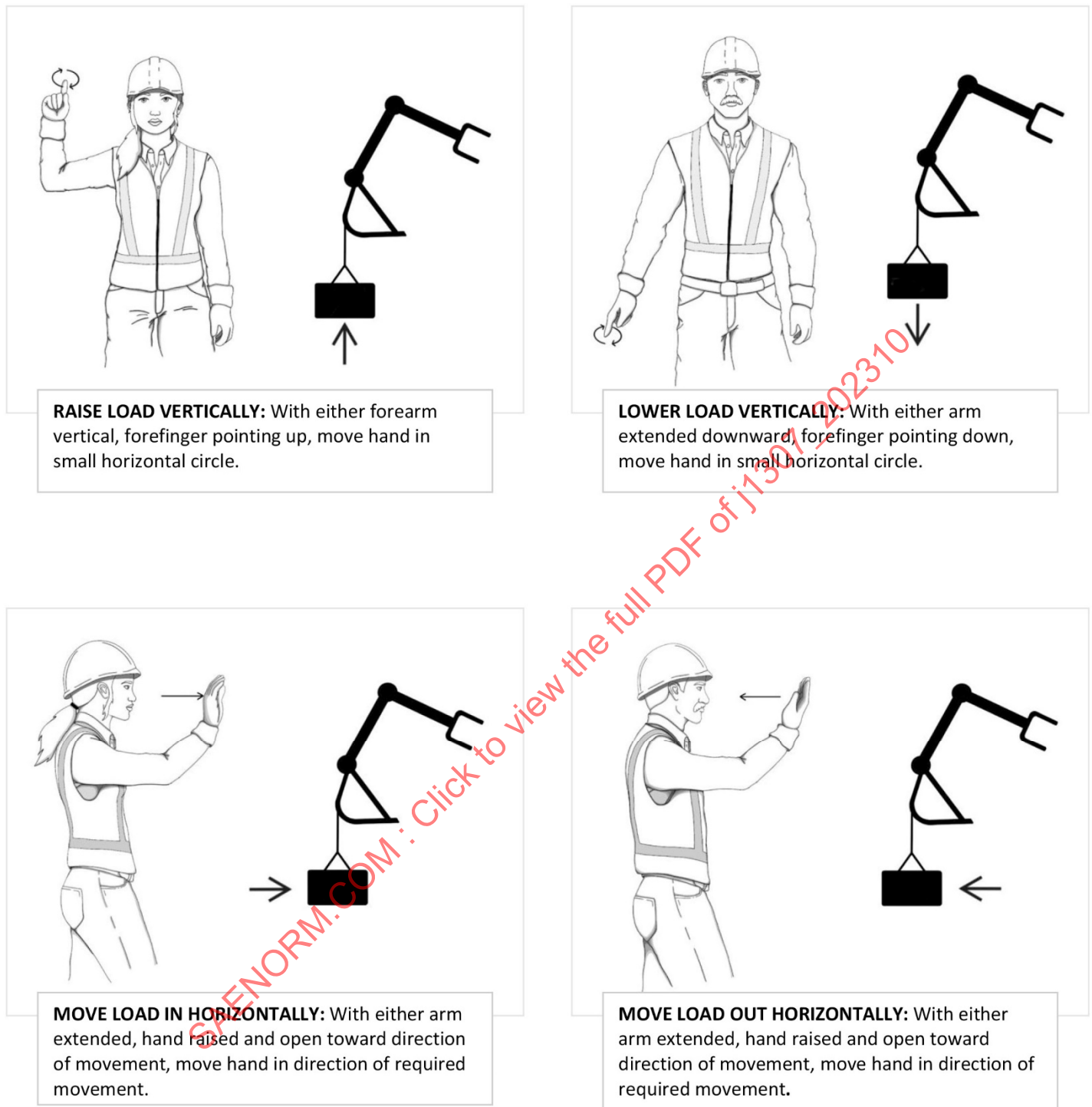


Figure 1 - Standard hand signals for controlling excavators and backhoes

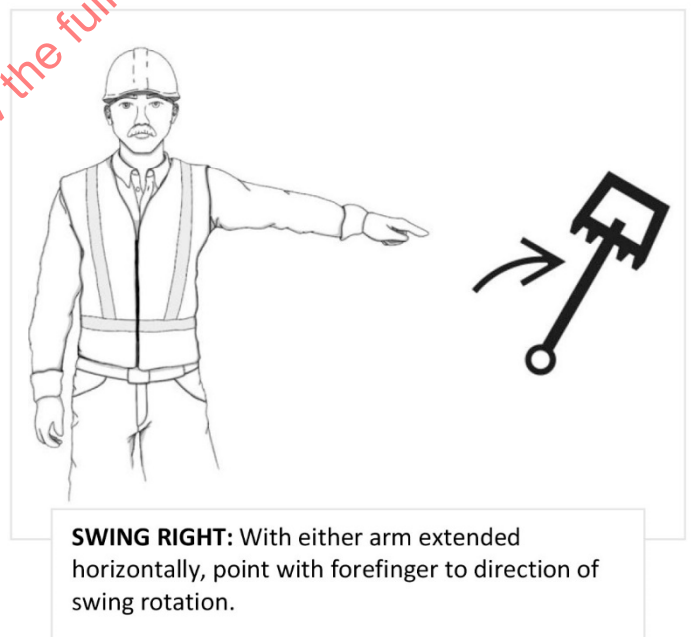
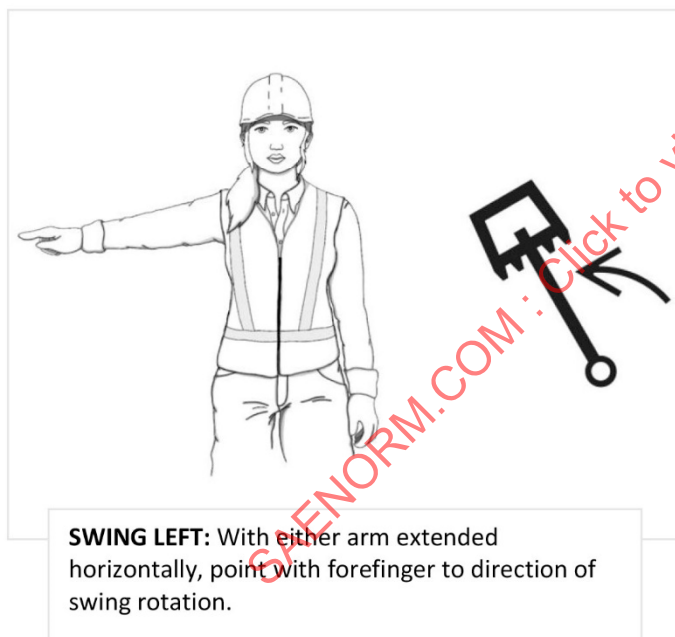
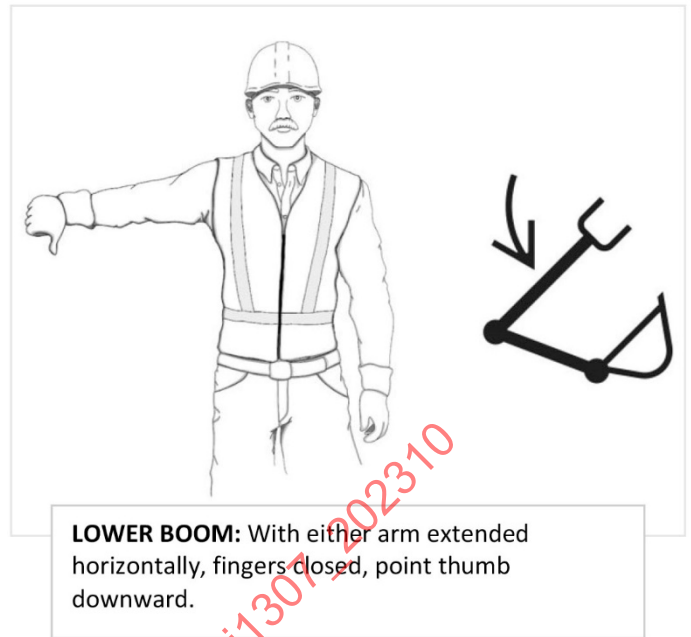
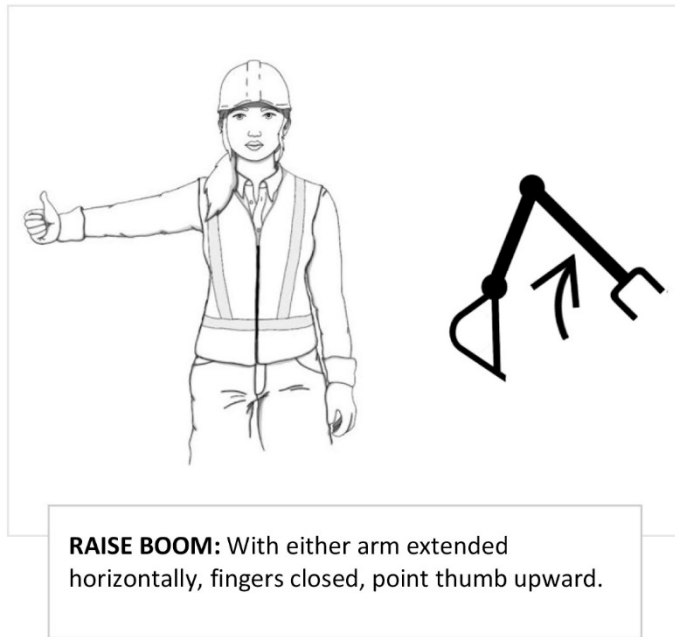


Figure 1 - Standard hand signals for controlling excavators and backhoes (continued)

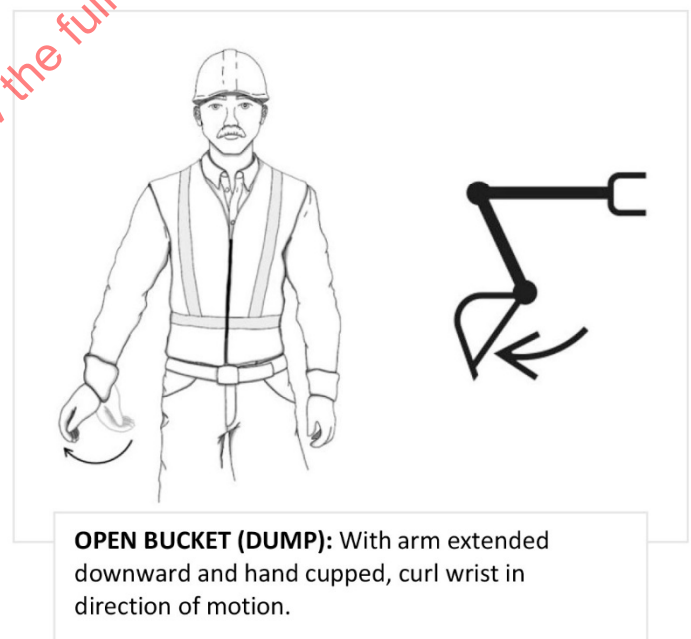
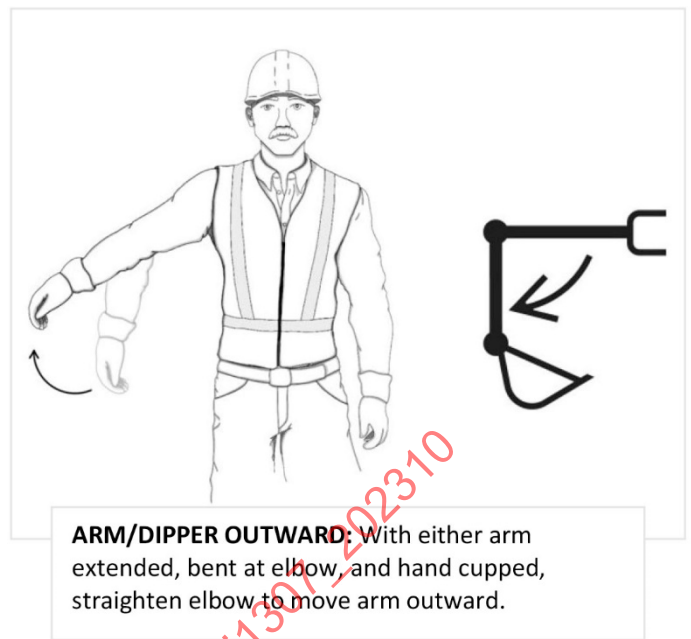
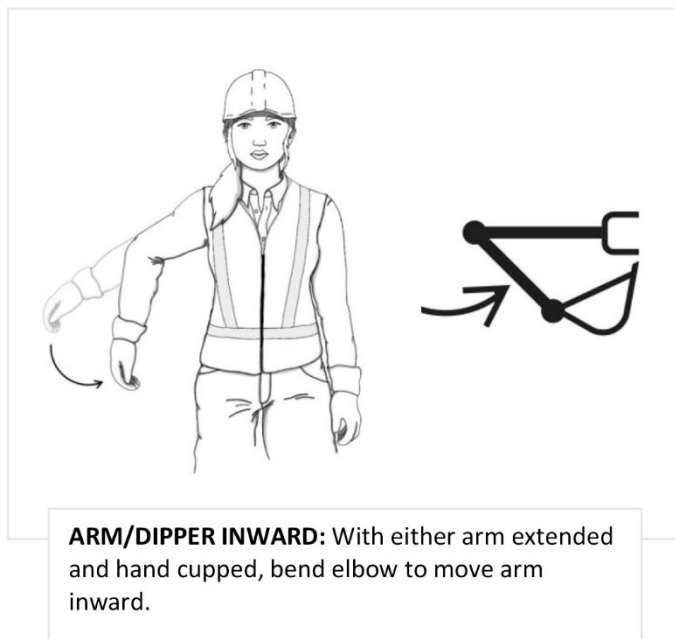


Figure 1 - Standard hand signals for controlling excavators and backhoes (continued)

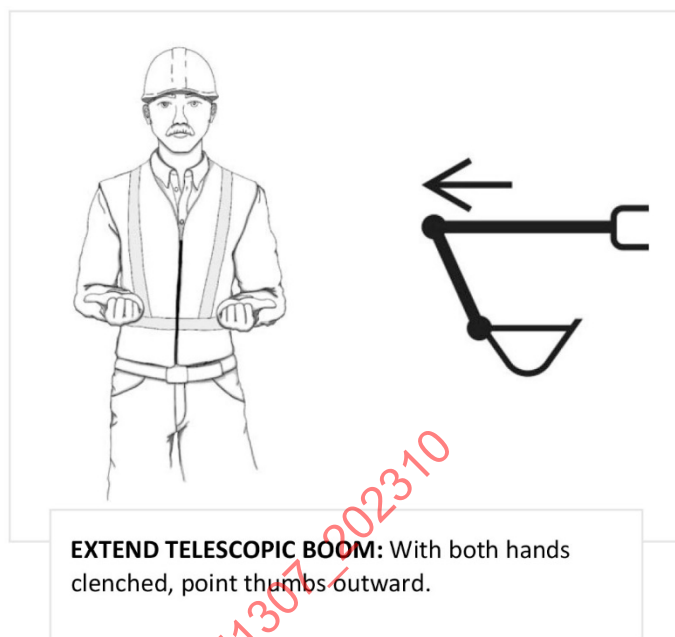
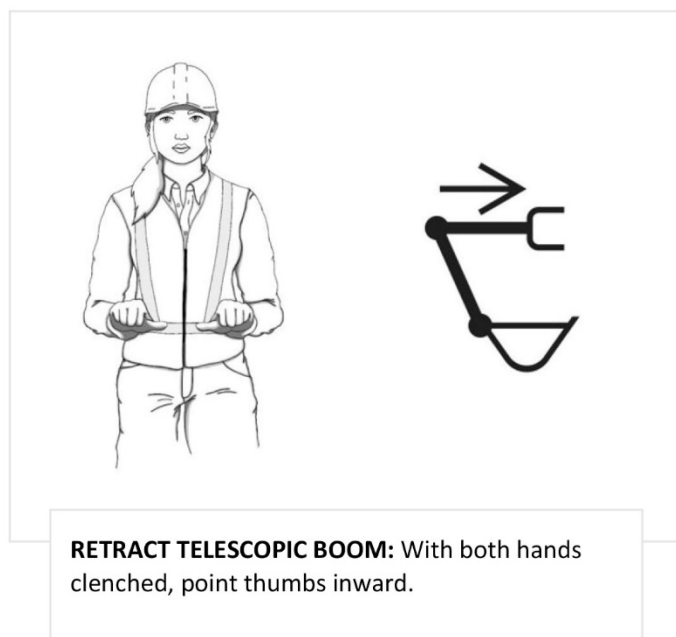
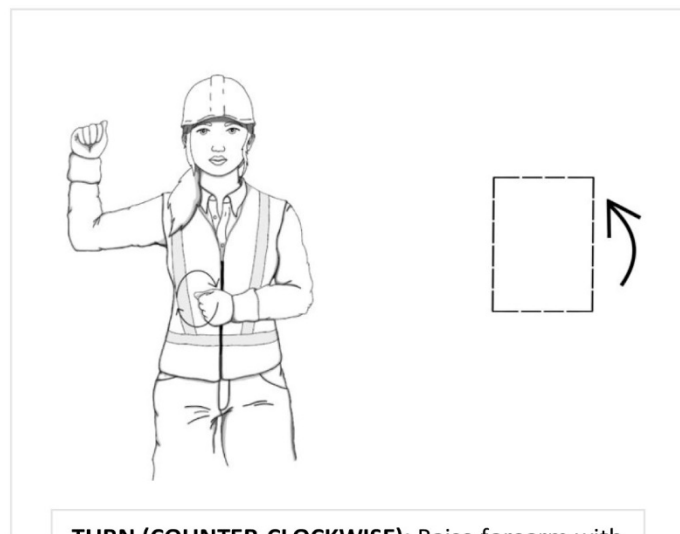
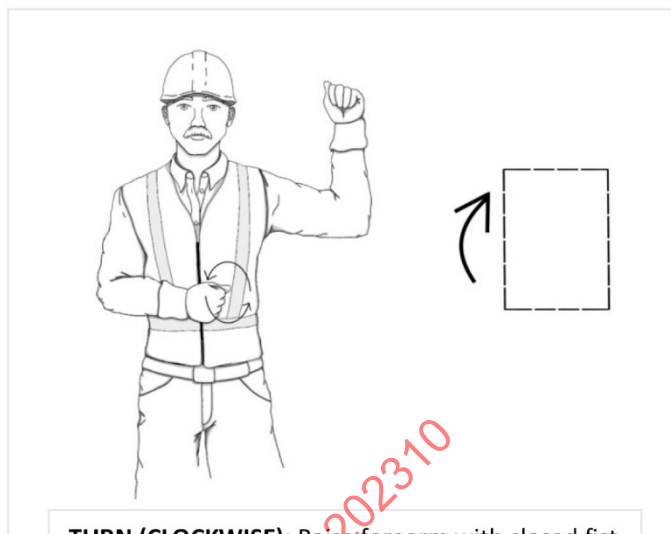


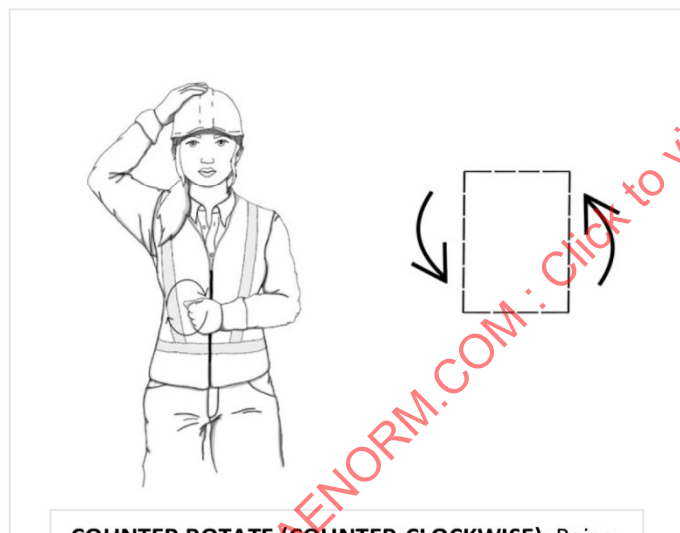
Figure 1 - Standard hand signals for controlling excavators and backhoes (continued)



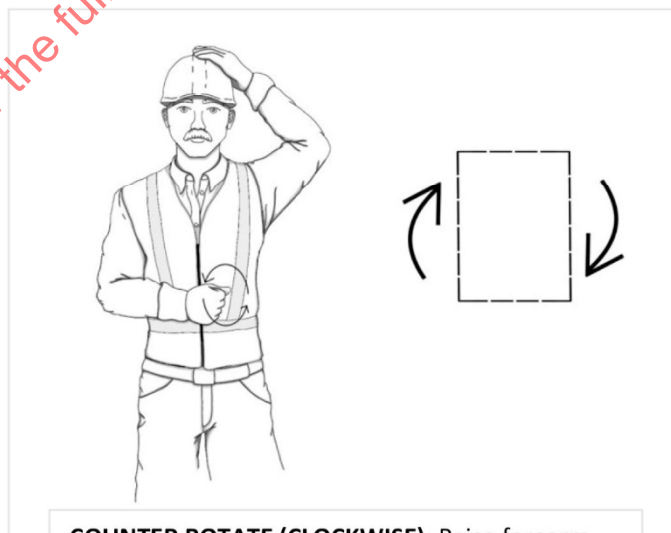
TURN (COUNTER-CLOCKWISE): Raise forearm with closed fist indicating inside of turn. Move other fist in vertical circle indicating direction of track or wheel rotation.



TURN (CLOCKWISE): Raise forearm with closed fist indicating inside of turn. Move other fist in vertical circle indicating direction of track or wheel rotation.

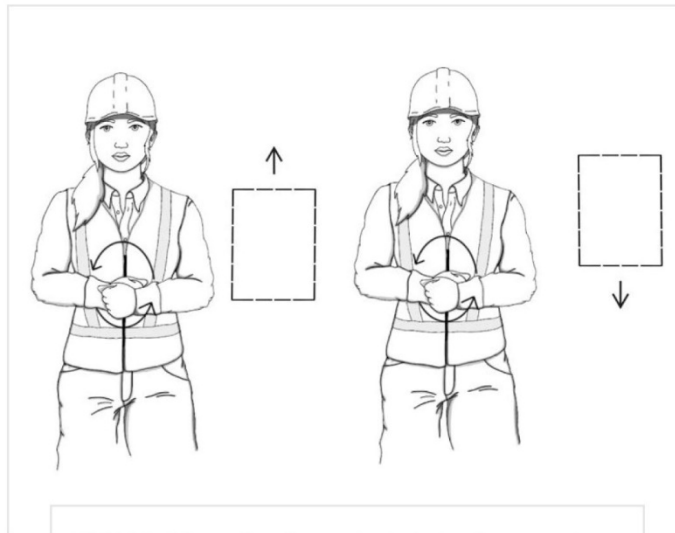


COUNTER ROTATE (COUNTER-CLOCKWISE): Raise forearm with closed fist indicating inside of turn. Move other fist in vertical circle indicating direction of track or wheel rotation.

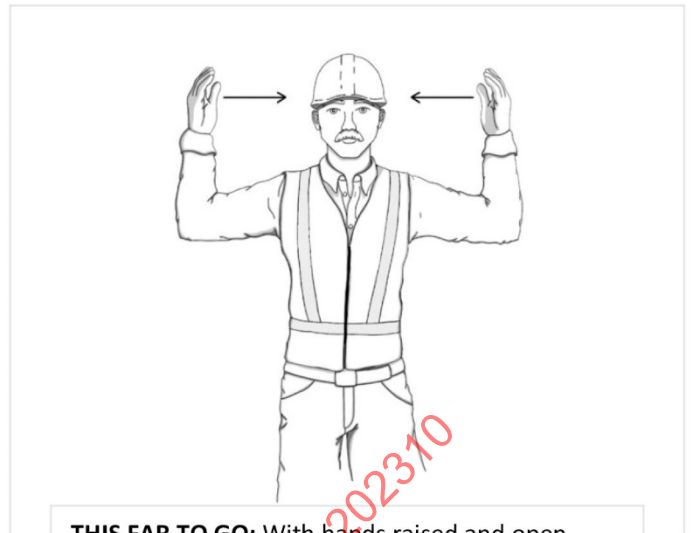


COUNTER ROTATE (CLOCKWISE): Raise forearm with closed fist indicating inside of turn. Move other fist in vertical circle indicating direction of track or wheel rotation.

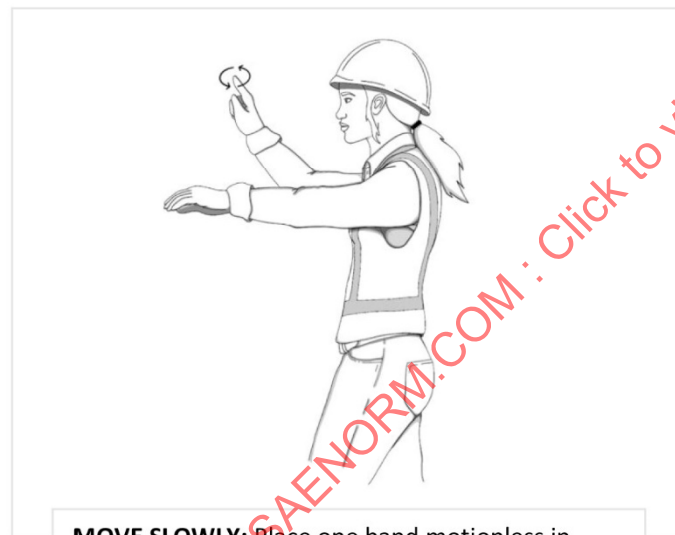
Figure 1 - Standard hand signals for controlling excavators and backhoes (continued)



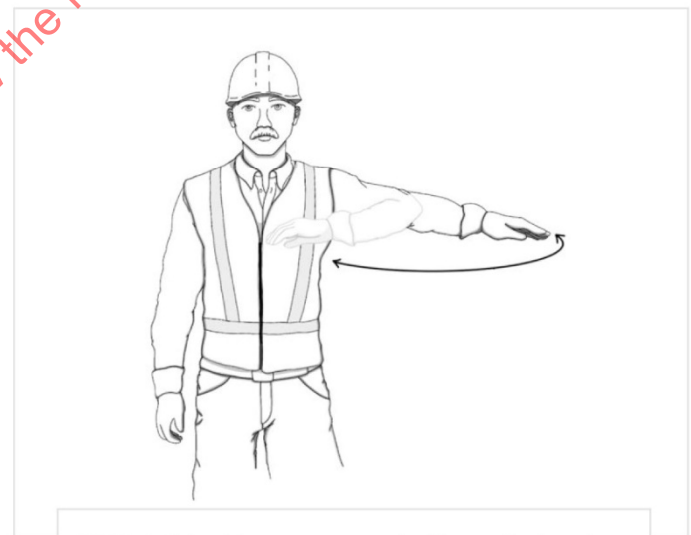
TRAVEL: Move fists in vertical circle about each other in direction of track or wheel rotation.



THIS FAR TO GO: With hands raised and open inward, move hands laterally, indicating distance to go.



MOVE SLOWLY: Place one hand motionless in front of hand giving motion signal. (Raise load slowly is shown.)



STOP: With either arm extended laterally, hand open downward, move arm back and forth.

Figure 1 - Standard hand signals for controlling excavators and backhoes (continued)