



SURFACE VEHICLE STANDARD

J2519™

JAN2026

Issued 2002-06
Reaffirmed 2007-08
Revised 2026-01

Superseding J2519 MAR2013

Guidelines and Procedures for Horizontal Directional Drilling (HDD) Machine Tracking Equipment Operators

RATIONALE

With changes in the industry over the years, many of those experts who originally prepared this document are no longer in the industry. This document has not been reviewed since 2013, and technology has changed much since then. With the removal in the latest edition of horizontal earthboring machines from SAE J2022, these machines are now covered by ISO 21467:2023.

1. SCOPE

These general guidelines and precautions apply to personnel operating directional drilling tracking equipment when used with horizontal directional drilling (HDD) machines as defined in ISO 21467:2023.

1.1 Purpose

The purpose of this document is to provide manufacturers with an established set of guidelines and precautions to improve the degree of personal safety for jobsite personnel and people in the area.

2. REFERENCES

2.1 Applicable Documents

The following publications form part of this document 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 www.iso.org/store.

ISO 21467:2023 Drilling and Foundation Machinery – Horizontal Directional Drilling (HDD) Machines – Commercial Specifications

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3. OPERATING GUIDELINES

- 3.1 Before starting the drilling process, ensure that the following precautions have been taken, including but not limited to confirming that:
- 3.1.1 The HDD machine's ground fault warning equipment has been properly placed and is in good working condition.
 - 3.1.2 811, One Call, or other equivalent services have been contacted by the HDD machine operator or other authorized personnel and that a minimum wait time has elapsed.
 - 3.1.3 Any utilities that do not subscribe to 811, One Call, or other equivalent services in the area have been contacted.
 - 3.1.4 All known utilities have been marked and that the site is ready for drilling.
 - 3.1.5 All required permits, such as road crossing, have been obtained.
 - 3.1.6 The planned bore has been indicated by white-lining or stakes.
 - 3.1.7 All personnel (contractor and trainer) are wearing appropriate personal protective equipment. This personal protective equipment shall include but not be limited to:
 - Properly rated, rubber-insulating footwear
 - Safety glasses or safety goggles
 - Hard hat
 - High-visibility warning vest
 - 3.1.8 All utilities to be crossed and approached have been exposed (by pot-holing or other hand excavation methods) and appropriate clearances shall be observed while drilling and back reaming past the utility.
 - 3.1.9 Precautions are being taken when drilling parallel to buried utilities, including more frequent exposure of the utility and the drill head and more frequent tracker readings, to ensure the necessary clearance is maintained between the utility and the bore path.
 - 3.1.10 The planned work conforms to all regulatory requirements (Occupational Safety and Health Administration, state, municipal, etc.) applicable to the job.
 - 3.1.11 If working in the vicinity of a gas line, crew has been advised not to smoke during operations and in the vicinity of exit or exposure pits.
 - 3.1.12 Two-way communication has been established between you, other personnel on the site, and the HDD machine operator.
- 3.2 During the drilling process, ensure that the following precautions are being taken:
- 3.2.1 No one should be standing on ground over drill string unless the drilling process has stopped.
 - 3.2.2 The drilling progress should always be tracked. Never assume drill string is following a pre-drilled path.
 - 3.2.3 The drill head should be located after each joint of pipe, if possible.
 - 3.2.4 Broken or damaged drill pipe should never be pushed.