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Horizons Regional Council

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Hydrology Operations Manual



Height Safety - Tripod use

regional council

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General

The tripod is a specialised piece of height safety equipment that allows users to safely access belowlevel areas (such as inside stilling wells) where fixed anchors are absent or of unknown quality. The tripod can be used at any site as long as there is sufficient space for the tripod to be set up above the access hatch.

This set up is intended as a fall prevention system and not as a lowering system. The user uses the ladder to climb down and up, with the system in place in the event of a fall or if a recovery is needed.

Two staff with height access training must be present during operation, including the user and the operator.

Height Safety and Confined Space procedures are not covered in this procedure.

Storage

The tripod, along with the winch cable pulley, is stored in the protective blue bag. The winch and inertia reel have separate protective bags that are padded to offer extra protection. All three components need to be used together each time the tripod is deployed.

Setup (before opening the access hatch)

Stand the tripod up with the legs together. Depress the release button at the top of the leg while pulling each leg out separately. A button at the top on the opposite side will pop out to lock the leg in the correct position for use. All legs must be 'clicked' out for safe use. The height can be adjusted to make the tripod easier to use but this will be restricted by the amount of space. All legs must be extended the same amount and be locked into position.

The feet should be sitting flat, but can be pointed if needed to provide a more secure footing on porous surfaces such as catwalks. Position the tripod with the winch bracket towards the side that the operator will be situated and the anchor points above the access hatch. The hatch must be within the triangle formed by the tips of the tripod legs.

Attach the inertia reel to the central anchor point. Attach the winch to the winch bracket and insert the split pin. Hold the winch reel still with one hand and unwind the handle gently until it comes off the winch. Place the winch handle in a safe place, away from the hatch, but within reach of the operator should retrieval be necessary. Using the reel directly, wind out enough winch cable to feed it through the top pulley. The winch hook and inertia reel hook should be connected directly to the user's dorsal attachment point (between shoulder blades) on their harness. The operator should be attached to a separate safety line.

Perform safety checks. The hatch can now be removed.

Operation

The inertia reel is the only fall prevention piece of equipment in this setup. It is largely self-controlled and will pay out line or retract line as the user moves down or up. The inertia reel should only lock if there is a sudden fall and will start retracting on its own once weight comes off the line. The inertia reel cannot recover a disabled worker on its own and must be used in conjunction with the winch.



The winch line will pay out freely with the handle off. The operator maintains gentle tension on the winch line by rolling the winch drum directly either up or down as necessary. Care must be taken to keep fingers from the line itself should it suddenly be pulled during a fall. Note: The winch will NOT catch a fall, the line will freely release until the inertia reel arrests the fall.

Recovery

Should a recovery be necessary wind the winch handle back onto the winch.

The winch works at a ratio of 8.75:1 and will exert serious amounts of force without much resistance. The operator must maintain visual contact with the user at all times while winching to ensure they do not become caught or tangle on any obstacles. With such a high ratio, recovery will take some time.

Annual Check

All three components of the tripod must be inspected annually. This is performed by a staff member holding Unit Standard 15757 (or equivalent). More intensive checks can be carried out by Accurate Industries if damage is found during routine inspections. An inspection sticker should be attached displaying the last check and when the next check is due.