



WORLDWIDE EPC SOLUTIONS FOR OIL & GAS SINCE 1962

Iploca HS Award 2023

Bending Safe Hook Support

Bending Safe Hook Support

FINDINGS

Falling from height is one of the most common causes of death in the construction industry worldwide.

It only takes a really short time to fall from a height!!

Working at height – W@H - can have serious consequence if it is not mitigated properly.

Awareness of correlated risks is paramount for workers when W@H. When it is deemed necessary to perform W@H, all control measures must be put in place!

Sicim is monitoring closely the High Potential incidents and Near Misses related to W@H activities.

Focus is given to occurred accidents and NM both internal as well as those related to subcontractors or competitors as well.

Trends are decreasing but still, a lot of accidents are happening every year involving workers.



Bending Safe Hook Support

FINDINGS

Wake-up call for W@H related to bending activities

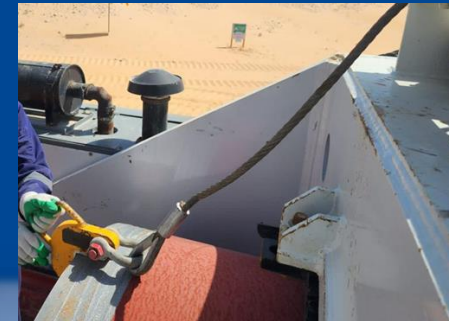
In 2021 Sicim recorded 2 LTIs in bending activities, hence a special focus was addressed to this area to find out solutions to mitigate W@H risk in such activities.

When bending a pipe, W@H is required:

1. while measuring the **bending angle** to be implemented;
2. when **fixing and lashing the hook** that has to be connected to the end bevel of the pipe to allow the pipe to slide through the bending saddles during the operation.

We have evaluated the amount of bending and the anticipated number of hook fixing and lashing operations in a medium / large pipeline:

- Approx 50 KM in length;
- Approx 15 bends to be performed per KM ;
- 2 risky activities to be performed per each bend (1 when attaching the hook & 1 when detaching the hook)
- = **~1500** risky activities for a medium pipeline project (50 KM)



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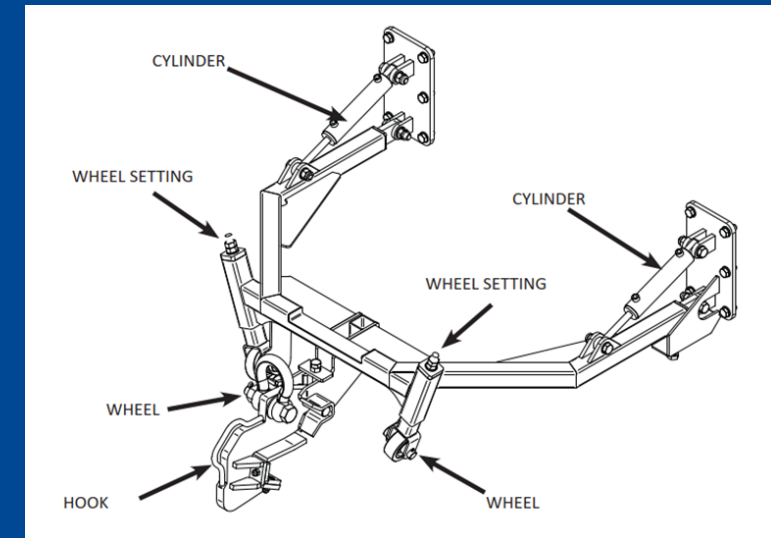
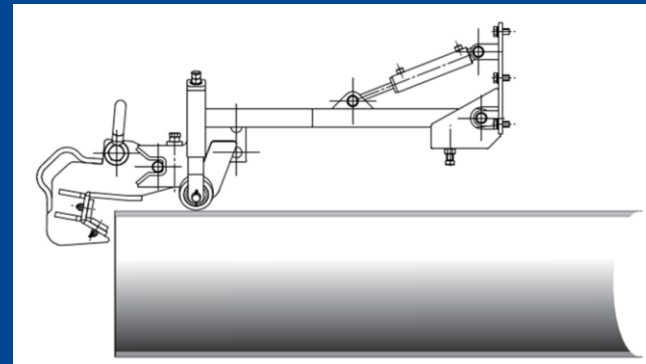
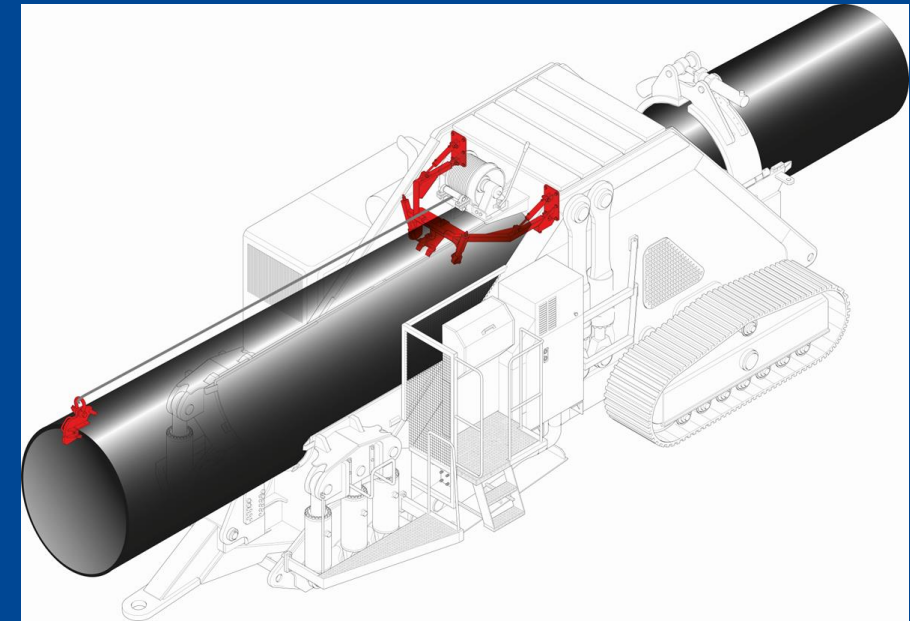
SOLUTION

What can we do to ELIMINATE the hazard?

A simple solution with great **effectiveness**.

The pipe bending machine has been equipped with hydraulic safe hook support having the following features:

- **metal frame** anchored to the winch;
- can be **moved up/down** by 2 hydraulic cylinders;
- adaptable to **different pipe diameters** with adjustable wheels setting;
- **additional cylinder** connected to the winch to facilitate lock/unlock winch rotation;
- **controls** installed at the operator panel.



Bending Safe Hook Support

Achievements & Long Term Planning



Which are the Achievements?

- ✓ Positive feedback from the bending machine operators that recognize the added value provided by the Bending Safe Hook Support
- ✓ The operator doesn't need the support of any helper ➡ All workers out of the line of fire
- ✓ The operator can manage the bending activity without abandoning his safe designed position
- ✓ Reduced number of internal & Client observations/NCR in relation to hazardous conditions and unsafe acts
- ✓ Number of W@H risky activities decrease from **~1500** (approx.) to **ZERO** ➡



Long Term Planning

- Continuous monitoring of the effectiveness of the Bending Safe Hook Support;
- Installation of the Bending Safe Hook Support on all Sicim bending machines > 36";
- Feasibility studies to the best solution also to measure the bend angle and reduce to 0 the W@H activities during pipe bending;
- Tackle other W@H activities in order to find out solutions to avoid hazardous condition.

