Tinbin TC2 Suction Excavator Attachment
A47 Blofield

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Case Study No:
A47B – CS - 007

Knowledge/Case Study Type:

Engineering & Design

Key Points:

- Attachment can suck mineral building materials, soil/ ground and gravel.
- Allows for finer excavation, eliminating damage to utilities.
- Gives Operators the ability to reach problematic spots.
- Manual digging operations can be completed with ease.

Description

Work involving ground disturbance can be high risk and include temporary works, therefore entry to any excavation must be planned and controlled to identify any significant risks.

Reviewing RAMS for specific tasks prior to works taking place, will assist with the activity being completed safely. An excavator attachment known as a

'Tin Bin'

has been repeatedly used throughout the A47 Blofield project to safely excavate around services to ensure compliance with company standard.

Action

Excavating in areas close to an Intermediate Pressure Gas Pipeline is a high-risk activity and presents a number of challenges before work can proceed.

• Avoiding damage to underground services.

• Eliminate all risks, as even minor damage or small leaks can pose a severe risk. Making it essential to ensure that gas pipes are correctly identified and avoided during excavation works.

• Every possible precaution must be taken to avoid personal injury or damage to pipelines that could cause significant risk to the surrounding area.

Result & Transfer

- The standard loading bucket was replaced with the ‘Tinbin TC2 Suction Excavator Attachment’ as the excavation method MUST be the first consideration as part of safe digging practices.
- We are currently using this equipment on a 25t excavator being used for works in the Cadent Gas exclusion zone to complete duct installation.
- With Utility strikes continuing to be one of our industries most significant risks and where work cannot be designed out or diverted., it's been used to safely excavate around services.

Benefits of use

- The Risk of damaging utilities is much lower.
- It’s easy to control using the excavator arm.
- Attaches to the standard boom kinetics.
- It’s an environmentally friendly operation thanks to low noise emission.
- It has also reduced the risk of musculoskeletal injury by eliminating the need for hand digging.
- Provides an alternative to use of standard Vac-Ex .