

Surveying high-energy piping hangers

Using a proprietary camera system to undertake accurate hot and cold hanger surveys

Challenges

Operators of plant containing hanger-supported piping can often experience difficulty in inspecting their hanger assets. Challenges include:

- gaining access to hard-to-reach hangers
- identifying topped- or bottomed-out hangers
- reading data from a distance – such as hanger name plates
- the need to install and then remove expensive scaffolding to enable hanger inspection
- the difficulties in identifying poorly functioning hangers.

Solutions

HRL has developed an imaging device able to capture still and moving pictures of difficult-to-reach objects. The device can be used on a telescopic arm to help overcome inspection challenges by:

- enabling surveys to be undertaken using a standard method
- providing an inspection system that is safe to use
- eliminating the need for scaffolding
- providing video imaging to give visual records of hanger position in hot and/or cold conditions.

Benefits

Using its imaging device, HRL undertakes hanger surveys, under hot and cold conditions that benefit clients by

- identifying hangers that are operating outside their travel limits
- increasing their confidence that their plant's high-energy piping-support system is operating within specification or that out-of-specification hangers are being identified for follow-up action
- reducing the risks of unplanned outages due to pipe cracking
- providing greater inspection access to equipment without the need for scaffolding that can be costly and time-consuming to erect, and can restrict plant access while in place
- increasing inspection operator safety by enabling indicator readings to be from walkways
- enabling readings to be taken at close range and so improving the accuracy of those readings.



An imaging device is used to capture readings from difficult-to-access hangers.

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expertise in action

Case Study

Providing a consistent, accurate, and safe way to check piping hangers

Operators of a large power station suspected that some of their pipe hangers were topping and bottoming, causing stress in their steam pipes.

HRL personnel collected data from design drawings, then undertook on-site hot and cold hanger walk-downs and surveys. The team used a video imaging device on an extendable pole to survey the many difficult-to-reach hangers – avoiding OH&S issues and the cost of scaffolding.

The hot and cold hanger surveys showed many hangers topping and bottoming, causing stresses to the high-energy piping. The survey results led to the decision to undertake a piping flexibility analysis.



Operators of plant containing high-energy piping face challenges in keeping it in optimal condition.

Need more information? Go to hrl.com.au

The company's NATA Accredited Laboratories number is 561.

HRL Technology Group's ISO 9001 Quality Management is certified by BSI under certificate FS605116

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