

Technical Bulletin

Rig Team Checks of Saver Subs

Background

Fearnley Procter have seen an increase in the amount of drill pipe damage where a root cause has been determined to be extremely worn or damaged Saver Sub threads which transfer damage. Rig Ops Assessments have also found that many of the crew are unsure of what the Saver Sub checks should consist of.

Frequency of Saver Sub Condition Checks

The rig team are responsible for defining the frequency of checks based on experience and 'what they see' - Influencing factors are:

- > The number of times the sub is engaged.
- > The type of thread form on the drill pipe (Some proprietary threads need to be treated with care).
- > The level of damage seen when checks are done.
- > Anything untoward that may have caused damage.

As a minimum, it is good practice to check the Saver Sub before the bit enters open hole.

Key Elements of Saver Sub Checks

SEAL FACES Any galling or pitting of the seal surface that exceeds 1/32 inch (0.8 mm) in depth or occupy 25% of the seal width at any given location of the circumference is cause for concern.

THREADS It is recommended that a thread profile gauge is kept on the rig floor purely for guidance. In a formal inspection, "the gauge shall conform to the thread profile so that no light is visible".

If a profile gauge is not available it is recommended that a good connection is viewed first and used for guidance.

Note: *Rig Crew Checks should be performed very regularly and in addition to any 3rd party inspection of drill string equipment.*

More info:

For more information or assistance, contact the FP Drill String Engineering Department at DShelp@fp-g.com

EXAMPLES OF DAMAGE



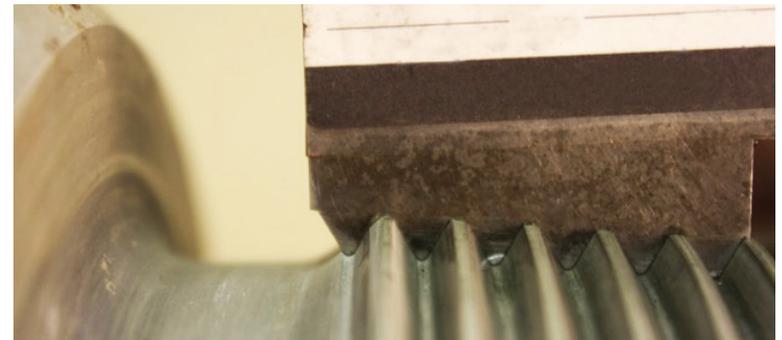
This picture shows galling damage to the threads but also excessive damage to the seal face



'Used' thread - Significantly worn down, with a sharp crest and significant material loss



New thread - Notice the 'flat' on top of the thread crest and the thread height



Hardened profile gauge in use