

NEWSCO

Quality Assurance and Quality Control

Quality Assurance/Control

Dedication to rigorous standards of quality and performance

“Newsco’s team of skilled and highly trained technicians and engineers work hard to provide consistent quality and performance on each and every tool that goes into the field.”

We closely examine each failure and modify and improve when necessary to increase MTBF.”

Our Challenge

In-field tool failures are costly and disruptive to efficient and effective drilling operations.

Our Solution

Newsco has assembled a dedicated and skilled repair and maintenance team that works closely with the company’s research and development staff to ensure the highest standards of consistency and quality in the manufacture of its proprietary MWD tools.

Our technicians undergo rigorous theoretical and practical training on the full suite of our tools and are available 24/7 to deal with any field issues during the drilling of a well. Field visits by a technician are readily arranged if problems cannot be resolved over the phone.

The Learning Manager (TLM) online training ensures theoretical knowledge, while hands-on training under the guidance of experienced field hands provides the essential practical skills. They are also trained to utilize the SAP inventory database and accurately record essential information on custom record-keeping forms.

NEWSCO Driver Service Record

Work Order # [] Date: APR 5, 2010

Driver S/N: PD0032

Part of Failure:

MAINTENANCE REPORT FOR TOOL FAILURE

NEWSCO

Gamma (if applicable):

Counts low:

Rotary/Kintec Cond:

MDM Condition:

Barrel Cond:

Comments: []

Centralizers: 695, 697

Pin test:

Kintec O-ring:

Comments: Incoming lab test

Pulsar Assembly: NI

Spring condition:

Comments: []

Landing Sleeve:

Crown condition:

Comments: []

Was the cause of the failure?

Final conclusion for tool: []

Serial # Legible: DP

Service: WP

LN 0

Corrective action: 7

Built By: []

NEWSCO ELECTRONICS SERVICE REPAIR SHEET

Date: 4/27/10

Work Order # []

Version: GE XXXT 1.1 XXXT 1.4

GE XXXT 1.405 GE TFS 1.0

W/O Complete:

Vader 1.41:

Vader 1.42:

Level 4: []

Houred Out: []

Other:

Black From Repair:

POST HEATTEST SERVICE

Incoming Checks:

Ring Out Test:	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
Current:	Pass: <u>6.5</u>	Fail: <u>21.2</u>
Communication OK?	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
Logs Downloaded Successfully?	Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>
DMU Ring Out Test:	Pass: <input checked="" type="checkbox"/>	Fail: <input type="checkbox"/>
O-ring Condition:	Good: <input checked="" type="checkbox"/>	Bad: <input checked="" type="checkbox"/>
Snubber Condition:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Temperature Strip Reading:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Kintec Pin Condition:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Kintec Freeler:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Male RTY Condition:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Female RTY Condition:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
*MDM Sockets:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
*MDM Pins:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Strongback/Carrier OD:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Trans-Orb/Plg Tail Condition:	Tight: <input checked="" type="checkbox"/>	Loose: <input type="checkbox"/>
Shimmed:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Snubber Plg Tail:	Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>
Housing Condition:	Good: <input checked="" type="checkbox"/>	Bad: <input type="checkbox"/>
Washed:	OK: <input checked="" type="checkbox"/>	Not OK: <input type="checkbox"/>

Outgoing Checks:

Ring Out Passed?

Current: 6.5

Roll Test Results?

Roll Test Notes: []

Orings:

Tool Configured?

Tool Formatted?

Tool Tightened?

Serial # Legible?

Sent for Repair?

Reason: []

Communication OK?

Operating: 71.0

Fail:

Batch printout:

Degrees Necessary?

All New Electronics and Electronics returning from repair. Attach printout.

All MWD Electronics with an XXX DMU Power Supply. Export after Ball Test.

GE Logs Erased?

GE TR8001 Acceptable?

Newsco never rests in its drive for improved performance and dependability, so we can continue to exceed our customers' expectations. Our proactive approach means that we take each failure seriously, carefully analyze the cause, and re-engineer parts to higher tolerances to increase strength and reliability.

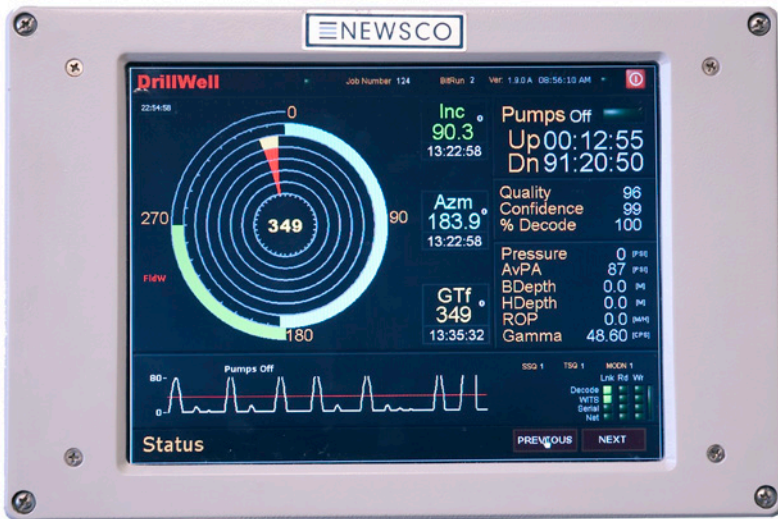
Our tools have built in memory to log down-hole events and record time-tagged down-hole survey and diagnostic information. The battery loggers record remaining energy, shock and vibration for improved diagnostics. The latest vibration recorders provide real-time rig-floor display of shock and vibration to indicate harsh drilling and bit or motor problems.

When the tool is returned to the shop for service, the maintenance technician accesses these logs, which provide valuable information on the status of the tool during field operation and particularly the environment at the time of failure. The technician completely dismantles and examines a tool when it is returned to the shop after a failure. The R&D personnel further examine the failed electronic or mechanical component and develop improvements to that assembly, which

will guard against another failure of that type, thereby incrementally improving MTBF on the next revision of the tool.

A typical rebuild cycle consists of a pre and post test on each tool to verify its condition and functionality. The tool is then assembled on the shop floor and thoroughly functionally tested to assure quality prior to return to the field.

This relentless pursuit of quality in manufacture is the main reason that our tools have earned a reputation for rugged and reliable performance in the harshest of environments.



Remote Terminal

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