

Equipment Compliance Certification and Inspection Solutions

comaea Focus on safety: Register Management C007

What are they?

- Lists of Equipment with critical data and dates for asset / inventory management.
- Important Registers for Rigs: (to name a few critical ones All equipment on the rig should be tracked in some way)
 - 1. Well Control Register
 - 2. Lifting Gear Register (Probably the largest and hardest to manage)
 - 3. Fall Protection Register
 - PRD Register
 - 5. Gauge / Instrument Register
 - 6. Hose Register
 - 7. Drops Register
 - 8. EX Register

Data that needs to be tracked (This will be different per equipment family but basically)

- Serial / Asset numbers / RFID / Tag Numbers
- o Basic Item Data (Size, Manufacturer, Model, etc)
- o Compliance requirements and key dates
- Images
- o Documents

Why manage lists and track dates?

- 1. You need to know what is on your rig, where it is used, what the crew need to do/know and what Third party certification you need.
- 2. Tracking and arranging Inspections to keep items certified
- 3. The registers themselves form part of compliance (Quick view for Auditors to see equipment is managed and inspected correctly)

What do I use to create my register?

- A register is part of a larger system / process for compliance management, it is the List of items and Data
- Many rigs are using Excel tables to manage inventory that is not part of their larger asset maintenance systems, readily available and easy to use the basic functions, prone to errors and version control issues.
- New programs are becoming available (Such as comaea ECT) which are specifically designed for register management and offer benefits over current solutions.

Common issues with Registers today (Taken from our experience implementing comaea)

Issue found	Reason	Solution
No Register Exists	No one on the rig / managing the rig were aware of the need	Clear, communicated requirements with management Audit
Register Exists but has no/old Data	No one on the rig was tasked or trained to complete register	Clear, communicated management process with Audit
Register Exists and contains Current Data but when audited equipment does not match	Rig crew using a mixture of Third party inspection lists, previous registers and imagination to create a register that looks authentic but does not accurately reflect the equipment on the rig	Rig type and equipment comparisons, Physical Audits, TPI Audits, Historical tracking system
Register Exists with limited Equipment, equipment matches what is on the rig.	Rig crew use the latest Third-Party Inspection list and replace existing data, due to the common issue of Third party not getting access / finding all equipment at one time the register is incomplete.	Rig type and equipment comparisons, Physical Audits, TPI Audits, Historical tracking system
Register Exists but several versions are emailed with no clear idea of the correct version.	No clear owner or version control, back to backs running different tables in their own folders. No system to sync master document	Clear, communicated management process with Audit, use online sync system
Back to Back Crew issues, one person created the register and knows how to use it, the other is not.	Back to back afraid to 'mess up' a superior's work, password protected excel sheets created by owner to prevent corrections / updates	Clear, communicated management process with Audit, use online sync system
Register Does not contain Images for easy identification	Excel does not handle images well. Rig has little time to take, enhance, resize and add photos.	Limit the need for photos by identifying critical equipment such as padeyes only. System owner

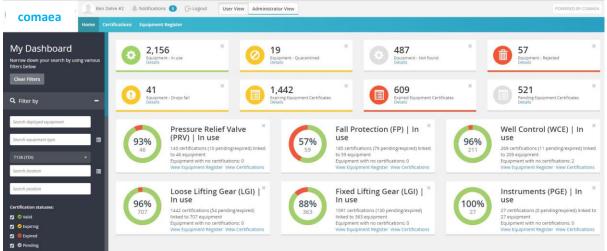


Register does not link to Certificates	Excel does not handle documents. Rig has little time to find, enhance, resize and manage soft documents.	Implement a document management system either a software like Comaea or soft copy process. System owner
Register Has Inspection dates but no certificates can be found	Common phrase: 'we had the inspection I am sure but I don't have the Certificates' – until the cert is in hand you can consider that item out of compliance.	Work with Third party to supply an inspection list / register and draft certs, or make the TPI use an integrated inspection software like comaea
Serial Numbers from Third party inspection do not match the register	Common issue, have you tried to read worn serial numbers on shackles covered in paint? Is that I a 1?	Make sure serial numbers are clear and use easily identifiable letters/numbers. Add RFID for hard to access / read equipment. Ensure the TPI uses the original rig register (audited) so they do not guess at the serial number
Register contains incorrect compliance requirements	When created on site, crew generated registers may be open to interpretation	Clear, communicated management process with Audit, use online sync system
Register compliance dates are incorrect	Excel is easy to 'corrupt' which can be difficult to spot if not reviewed	Clear, communicated management process with Audit, use online sync system
Register items are duplicated	Excel is easy to 'corrupt' which can be difficult to spot if not reviewed	Clear, communicated management process with Audit, use online sync system

The 'Perfect' Register:

- Part of a clear, management approved, written and communicated process (must be communicated effectively to all levels)
- A single master document that is sync'd or a document with strict version control.
- Appointed owners of each equipment group/family understand and are capable to manage the Day to Day part of the register
- The Rig owned 'LIVE' register is the master document used for all equipment activity
- Regular Offsite and Onsite Audits conducted by a 'system owner'
- Regular reports are sent and received with feedback, Notifications of Expiring certs is a Bonus.
- Used for Rig Crew inspections / Audits
- Used for Third party inspections. Ensure contracts/procurement make Third parties responsible for using
 the rig register and provide inspection list/register (a copy of the register with inspection comments such
 ass pass, fail and not found.)
- · Contains Photos and links to Documents
- Contains historical data and tracking of changes made.

Example of an online system with offline sync capability (comaea ECT)



ROI / Advantages of using modern online systems:

- 1. Quick access Data and Documents
- 2. One process for all, easier to train and no independent systems
- 3. Transparency and accountability
- 4. History or item and History of changes
- 5. Utilize BIG Data analytics
- 6. System ownership