**Approved By:**

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|  |  |  |  |  |
| **Name Gordon Dykes**  Title Global Fleet & Equipment Leader  Organisation Subsea Services |  | **Name Kat MacKay**  Title QMS Quality Leader  Organisation SPS & Services |  |  |

For any feedback to the process, or the document, please contact the process owner - **Global Fleet & Equipment Leader**

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| --- | --- | --- |
| APPLICABLE PRODUCT LINES | | |
| Subsea Drilling Systems | Subsea Production Systems (SPS) & Subsea Services (SRV) | |
| Surface Pressure Control & Offshore | Well Systems | Controls |
| Flexible Pipe Systems (FPS) & Wellstream Construction Services (WCS) | Subsea Services | Projects |
| Subsea Production Systems (SPS) & Subsea Services (SRV) | Global Fabrication Distribution Systems | |

**Document Revision Chart:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rev | Section modified and revision description | Issue date | Expiry date | Author(s)/ Peer reviewers |
| 1.0 | Initial Issue | May 2013 |  | Gayle McGeever |
| 1.1 | Updated references from Declaration of Conformity to Certificate of Conformance (QT-SER-GLO-PSP-004 and QT-SER-GLO-PSP-007) | Oct 2013 |  | Gayle McGeever |
| 2.0 | Contents updated in line with Work Instruction & Procedure Template. Removed references to Declaration of Conformity and Certificate of Conformance (QT-SER-GLO-PSP-004 and QT-SER-GLO-PSP-007). | Oct 2015 |  | John Line |
| 3.0 | Update to rev 3.0 to reflect changes to MRB content QT-SER-GLO-PSP-006 (August 2016) agreed with regional Services Quality Leaders.  Changed order of document, removed inclusion of ITP but requires reference to ITP and revision, added in Certificate of Conformance, where required.  Addition that MRB only to be created when requested by contract or for internal audit purposes, all records still required to be retained and easily retrievable. Reference added to QW-SER-GLO-PSP-003 Identification and Marking process | Feb 2017 |  | Gayle McGeever |
| 3.1 | Updated to BHGE template, added hyperlinks to templates and forms, updated section on CoC’s to indicate use of single or multi as per regional requirement.  Changed references of GRR’s to non conformances. | Nov 2018 | Nov 2021 | Gayle McGeever |
| 4.0 | Revision changed to align with Agility revision requirements | May 19 | May 19 | K. Mackay |
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**Notice**

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**1 Purpose / outcome**

The purpose of this document is to provide the process for compiling and maintaining the rental asset maintenance record book, hereafter referred to as the MRB. It provides a description of the contents and specific format for inclusion in the MRB, together with any associated procedures, that shall be assembled by all locations involved in the servicing and repair of rental maintenance tools and equipment.

Full compliance to this work instruction / procedure required by 30 Nov 2018.

**2 Scope & applicability**

This procedure is applicable to the Quality Assurance function in all locations and workshops involved in the servicing and repair of rental maintenance tools and equipment.

# 3 Process overview / instruction

# 3.1 Process overview

The MRB provides a single location for the recording of vital information pertinent to rental asset maintenance history and equipment traceability records. Therefore, it is essential that the process and procedures detailed throughout this document are strictly adhered to in each rental asset maintenance location globally.

The method of indexing each MRB shall be by using the Tool Part Number, Rental Asset Serial Number plus the work order number or the servicing completion date, dependent on location.

Examples:- **A51014-1\_ABZ-H-026B\_10-05-15**

**A51014-1\_ABZ-H-026B\_M006511**

When compiling the MRB each section shall have the required contents verified for completion and accuracy prior to inclusion in the MRB. All signature blocks, tables and required documentation must be signed as completed by the responsible function. Particular attention should be given to the contents of the Rental Asset Traceability Summary sheets, Inspection, test and survey/disposition results **(blank or unsigned documents are not an acceptable means of compliance).**

The MRB shall be produced when requested by either contract or for internal audit purposes.

All relevant records relating to the record book shall be retained in the manner required by process definition and easily retrievable/collated into the MRB format, when requested, in a reasonable timeframe, expectation being within 48 hours of request.

For any component removed in a maintenance cycle from a tool, related documentation i.e. for traceability verification, shall be retained and easily retrievable in relation to that component. Parts shall be identified as per process [QW-SER-GLO-PSP-003](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea80949bdc&showRendition=true) Identification and traceability of subsea rental fleet.

**MRB Contents**

Front cover

Confidentiality statement

1. Maintenance History Sheet (provided in the MRB template [QT-SER-GLO-PSP-006](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8084f518&showRendition=true))

2. Rental Asset Traceability Summary - [QF-SER-GLO-PSP-002](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea808b6bc4&showRendition=true)

3. Latest completed Work Instruction/Maintenance Document

4. Work order/Routing card

5. Inspection and Test Results

6. Non Conformance Reports

7. Certificate of Conformance

**Compiling the MRB**

**Front Cover**

The front cover is a standard template that shall contain the following information.

* The full tool description e.g. **TOOL-SSWE, SG-5, WELLHEAD HOUSING, 30 CAM ACTUATED**
* Work/shop order/visit number as applicable on site **e.g. MO12345, 1200**
* The rental tool serial number e.g. **ABZ-R-1300**
* The tool assembly part number and revision e.g. **A50616-1 Rev B**
* The related ITP document number and revision e.g. **VGS10.4.9.41 rev 4**
* Workshop location maintenance is taking place e.g. **Onne, Nigeria**

**Section 1**

**Maintenance History Sheet**

A brief history of the maintenance completed since the production of the first Maintenance Record Book for the tool. This section is to be updated by QA on the completion of each servicing carried out on the tool, i.e. Retrieve and update from the prior recertification, used, unused or short cycle maintenance records.

**Note - Original/Previous Certification** should always be readily available, when requested, and should form part of the tool maintenance history. Required to provide confirmation and a rapid means of verification that the tool has original certification and/or undergone recertification maintenance where applicable in relation to the controlling VGS. Where available, copies of Original certificates of manufacture, photographs or sketches of existing damage for comparison purposes will be included. Copies of any non conformances (previously called GRR’s) describing engineering accepted damage/defects or deviations that will be relevant during future maintenance activities shall be provided in this section.

**Section 2**

**Rental Asset Traceability Summary (QF-SER-GLO-PSP-002)**

Each tool shall have a current traceability summary sheet ([QF-SER-GLO-PSP-002](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea808b6bc4&showRendition=true)), listing the components requiring traceability as defined by the applicable ITP. The trace history shall provide a quick reference to the certificates or test results that prove trace has been established and maintained on the required components. It is vital this is done in a diligent manner, loss of trace history and its subsequent regaining is a high cost to the business. The initial trace summary shall be available either by review and inclusion of original material certificates or the workshop function shall provide the traceability summary in accordance with the ITP requirements during recertification maintenance. The QA function shall verify that traceability has been confirmed in accordance with the released ITP and during subsequent maintenance activities by comparison to the previous traceability summary and/or original material certificates.

The rental traceability summary shall always be available at the start of maintenance to verify status and to cross check against during the maintenance cycle.

**Section 3**

**Latest completed work instruction**

A copy of the most recent fully completed work instruction (M document or equivalent maintenance document) ensuring that all signature blocks are completed and signed.

**Section 4**

**Work order/Routing card**

A copy of the work order/routing card should be included for reference ensuring that all section are completed

**Section 5**

**Inspection and test results**

Copies of the current validated Inspection and Test Results or equivalent documents, each report must be signed and dated. This should include all test reports applicable e.g. MPI, LPI, hardness test, OES, metallographic replica, dimensional etc. Templates for the NDE reports are included within the respective VGS specifications i.e. MPI and VGS8.3.2.

There are standard global templates to use for these reports for subsea rental tools listed in process flow below.

**Section 6**

**Non conformance reports**

Non conformance reports with the results of inspections post disassembly and dispositions (or equivalent). If there is no report template available locally for this, then [QT-SER-GLO-PSP-013](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8096801e&showRendition=true), Standard Inspection Report template may be used.

**Section 7**

**Certificate of Conformance**

Where required for supply to customer (internal or external), templates for single ([QT-SER-GLO-PSP-007](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea805388ad&showRendition=true)) and multiple parts Certificate of Conformance ([QT-SER-GLO-PSP-004](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea805388ac&showRendition=true)) are available for use, dependant on regional requirements.

## Process map – Creation of rental maintenance record book

|  | Process Start/Stop | Requestor | Document Control | QA |  |
| --- | --- | --- | --- | --- | --- |
| Process Step Connector |
| Decision Point |
| Ultimate Step Responsibility |
| Key Step Contributor |
| Ref | Activity | Responsibility | | | Additional Requirements & Links |
| 1 | Request for rental asset maintenance record book. |  |  |  | Request for rental MRB to be provided sent to service location. |
| 2 | Collate necessary documentation as per template. |  |  |  | Using MRB template [QT-SER-GLO-PSP-006](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8084f518&showRendition=true) and process Creation of rental maintenance record book [QW-SER-GLO-PSP-008](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8084f512&showRendition=true), collate the rental maintenance record book.  The following templates may be used through maintenance process and would be included in MRB:   * Rental traceability summary sheet [QF-SER-GLO-PSP-002](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea808b6bc4&showRendition=true) * Generic work instruction [QF-SER-GLO-PSP-001](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8072115a&showRendition=true) * MPI report\_single [QT-SER-GLO-QUA-013](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c788d&showRendition=true) * MPI report\_multi [QT-SER\_GLO-QUA-010](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c786e&showRendition=true) * Hardness report\_single [QT-SER-GLO-QUA-008](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809ce19e&showRendition=true) * Harness report\_multi [QT-SER-GLO-QUA-011](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809ce1a5&showRendition=true) * LPI report\_single [QT-SER-GLO-QUA-012](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c7887&showRendition=true) * LPI report\_multi [QT-SER-GLO-PSP-009](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c7854&showRendition=true) * Non DS-1 tool joint report [QF-SER-GLO-PSP-005](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809d8156&showRendition=true) * DS-1 tool joint report [QF-SER-GLO-PSP-006](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809d8175&showRendition=true) * Rental asset inspection summary [QT-SER-GLO-PSP-013](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8096801e&showRendition=true) * Certificate of Conformance\_single [QT-SER-GLO-PSP-004](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea805388ac&showRendition=true) * Certificate of conformance\_multi [QT-SER-GLO-PSP-007](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea805388ad&showRendition=true) |
| 3 | Review document and save as an indexed file. |  |  |  | Review the document to ensure accuracy and completeness  The method of indexing each MRB shall be by using the Tool Part Number, Rental Asset Serial Number plus the work order number or the servicing completion date, dependent on location. |
| 4 | Upload to digitial repository |  |  |  | Records created shall be held by electronic method for ease of use. |
| 5 | Send document to requestor |  |  |  | Send file to the requestor. |
| 6 | Process Stop |  |  |  |  |

**4 Roles & responsibilities**

| Key Role | Responsibility |
| --- | --- |
| Document Control | Collation and review of documentation in relation to requirements as per EPS and related processes. |
| Quality Assurance | Assists with review of docuementation, where required. |
|  | Note that roles may vary regionally based on local team structures. |
|  |  |

**5 Quality records**

The following is a summary of records produced by this work instruction that shall be maintained and controlled according to the requirements of [BHGE-QUA-013 Control of records](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8095c4b7&showRendition=true). All records shall be in line with Records location map relevant for the site/organization.

| Record | Owner | Storage location |
| --- | --- | --- |
| Rental Asset Maintenance Record Book | QA/Document Control | Relevant electronic storage location for region |
|  |  |  |

## 6 References, terms, definitions & acronym

## 6.1 References

| Number | Name | Training material & quiz |
| --- | --- | --- |
| n/a | BH[GE O&G QMS Lexicon](http://supportcentral.ge.com/@lexicon) | n/a |
| n/a | [Subsea Systems & Drilling QMS Lexicon](http://libraries.ge.com/download?fileid=697340101101&entity_id=55721334101&sid=101) | n/a |
| [BHGE-QUA-013](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8095c4b7&showRendition=true) | [BHGE Control of records](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8095c4b7&showRendition=true) | n/a |
| [QT-SER-GLO-PSP-006](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8084f518&showRendition=true) | MRB template and process |  |
| [QW-SER-GLO-PSP-008](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8084f512&showRendition=true) | Creation of rental maintenance record book |  |
| [QP-SER-GLO-PSP-001](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8092915b&showRendition=true) | Maintenance of Fleet |  |
| [QW-SER-GLO-PSP-003](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea80949bdc&showRendition=true) | Identification & traceabilty of Fleet |  |
| [QF-SER-GLO-PSP-002](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea808b6bc4&showRendition=true) | Rental traceability summary |  |
| [QF-SER-GLO-PSP-001](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8072115a&showRendition=true) | Generic work instruction |  |
| [QT-SER-GLO-QUA-013](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c788d&showRendition=true) | MPI report\_single |  |
| [QT-SER\_GLO-QUA-010](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c786e&showRendition=true) | MPI report\_multi |  |
| [QT-SER-GLO-QUA-008](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809ce19e&showRendition=true) | Hardness report\_single |  |
| [QT-SER-GLO-QUA-011](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809ce1a5&showRendition=true) | Hardness report\_multi |  |
| [QT-SER-GLO-QUA-012](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c7887&showRendition=true) | LPI report\_single |  |
| [QT-SER-GLO-PSP-009](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809c7854&showRendition=true) | LPI report\_multi |  |
| [QF-SER-GLO-PSP-005](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809d8156&showRendition=true) | Non DS-1 tool joint report |  |
| [QF-SER-GLO-PSP-006](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea809d8175&showRendition=true) | DS-1 tool joint report |  |
| [QT-SER-GLO-PSP-013](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea8096801e&showRendition=true) | Rental asset inspection summary |  |
| [QT-SER-GLO-PSP-004](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea805388ac&showRendition=true) | Certificate of Conformance\_single |  |
| [QT-SER-GLO-PSP-007](http://edms.pw.ge.com/dctmquality/home/components/drl/drl.jsp?objectId=0900f5ea805388ad&showRendition=true) | Certificate of conformance\_multi |  |
|  |  |  |

**6.2 Terms, definitions & acronyms**

Italicized terms have been defined in [BHGE QMS Lexicon](http://supportcentral.ge.com/@lexicon) for Terms, Definitions and Acronyms. In case of conflict with [BHGE QMS Lexicon](http://supportcentral.ge.com/@lexicon).

| Acronym | Term | Definition |
| --- | --- | --- |
| EPS |  | Engineering Procurement Specification |
| GRR |  | Global Rejection Report |
|  | Non conformance | When item is outwith acceptable limits |
| ITP |  | Inspection and Test Plan |
| MPI |  | Magnetic Particle Inspection |
|  | Trace | The means by which documentary evidence can be provided for a tool relating to the original certificates of manufacture or the documents required from recertification maintenance as defined by GE VGS standards |
| MRB |  | Maintenance Record Book |
| QA |  | Quality Assurance |
| VGS |  | Vetco Gray Standards & Specifications |

**7 Appendix**

NONE

**End of Document**