## Approved By:

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| --- | --- | --- | --- | --- |
| **C:\Users\300006618\Desktop\Folder\Rmc Signature.JPG** |  | No signature required for Rev2.4  Signatory is a revision contributor |  |  |
| Roy Mcintosh  Plant Manager |  | Jason Doss  Equipment & Materials Lead |  | Tim Sims  QMS Lead |

## Document Revision Chart

The following chart lists the revisions made to this document tracked by version. Use this to describe the changes and additions each time this document is re-published. The description should include as many details of the changes as possible.

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| --- | --- | --- | --- |
| **#.#** | **Section Modified and Revision Description** | **Date** | **Author** |
| 1.0 | First Issue | 12/4/2012 | Michael Fisher |
| 2.0 | All sections revised to reflect current practices | 27/6/2012 | Michael Fisher |
| 2.1 | Amended the wording in the preamble of Appendix A | 29/08/2012 | Michael Fisher |
| 2.2 | Update Oracle definition | 15/11/2012 | Michael Fisher |
| 2.3 | Amended Appendix 9.2 and updated formatiting | 24/06/2013 | Richard Edwards |
| 2.4 | Update annex for 2x tags (Green tag inspections complete and white tag workscope complete) | 16/06/2017 | Richard Edwards |
| Updated tags for Goods on Hold (Removed WIP on Hold) | 20/06/2017 | Jason Doss |
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Table of Contents

[1.0 Purpose 3](#_Toc265139832)

[2.0 Scope / Application 3](#_Toc265139833)

[3.0 Procedure 3](#_Toc265139834)

[4.0 Responsibilities 6](#_Toc265139835)

[5.0 Quality Records 6](#_Toc265139836)

[6.0 Definitions and Acronyms 7](#_Toc265139837)

[7.0 References 7](#_Toc265139838)

[8.0 Compliance Requirements 8](#_Toc265139839)

[9.0 Appendix / Attachments 9](#_Toc265139840)

# Purpose

This Work Instruction outlines the methods used to identify and maintain traceability of products used in the manufacture, remanufacture and repair of products.

# Scope / Application

This Work Instruction is applicable for the GE Oil & Gas Australia Pty Ltd (GE Oil & Gas) Jandakot facility.

# Procedure

* 1. **General**
     1. Input: All products
     2. Process:
     + All permanent makings on products shall be in accordance with the relevant drawings, Bill of Materials (BOM) and client requirements.
     + When permanent identification of metallic product is required, marking using low stress methods (e.g. low stress stamps, etching) is preferred, consult with the bill of material for specifics. Conventional hard stamping is only permitted in low or zero stress areas (for example: external flange outside diameter, raised bosses or pads, coupling and hanger faces, and nameplates).
     + Permanent markings shall never be applied to a sealing surface.
     + Where identification is required and the products are too small for marking, they shall be identified by placing them in a marked container, by tagging or by other suitable means.
     + When permanent identification is not required, marking may be applied with paint or ink.
     + Refer to Appendix 9.1 for examples of items not applicable to this WI.
     1. Output: All applicable products are identified
  2. **Identification**
     1. Input: All products
     2. Process:
        1. Received Product
        + Incoming raw materials shall be marked with one or more of the following, as applicable :
          - Material grade or type;
          - Heat number or batch number;
          - Part number; and/or
          - Order number.
        + Where the items are not held in a clearly identified designated holding area, incoming product to be used in GE Oil & Gas products shall be clearly identified in accordance with the colour coding protocol outlined in Appendix 9.2.
        1. In-process Product
        + Product assigned to a Work Order (WO) shall be marked with the WO number and other identification numbers as applicable, either individually or by lot.
        + Serial numbers for new equipment manufactured locally shall be based on the WO number followed by a dash and a sequential number generated from Oracle.
        + Identification markings removed during a processing activity shall be replaced by the operator at the completion of the activity.
        1. Finished Product
        + Finished product shall be permanently marked in accordance with the applicable drawings, BOM & Vetco Gray Specification (VGS) documents and client requirements.
     3. Output: Products are identified during all process stages.
  3. **Traceability**
     1. Input: All products
     2. Process:
        1. Traceability of product shall be maintained by recording traceable elements on the following documents and records, as applicable:
        + Work Orders;
        + Purchase Orders (PO);
        + Material Test Reports (MTR);
        + Non-Destructive Examination (NDE) Test Reports;
        + Pressure Test Reports;
        + Assembly Records; and
        + Sales Orders.
        1. Traceable elements shall be comprised of one or more of the following:
        + WO Number;
        + PO or corresponding subcontractor invoice number;
        + Part Number;
        + Serial Number; and/or
        + Heat Number.
        1. Product transferred to an approved subcontractor shall have traceable elements communicated to that subcontractor in writing.
     3. Output: All products contain traceable elements.

# Responsibilities

| **Key Role** | **Responsibility** |
| --- | --- |
| Warehouse | Verifying the goods received are in accordance with the PO. Tracking of products and materials within the warehouse. |
| Buyers | To inform Vendors of product identification and traceability requirements where applicable. |
| Services Quality | To ensure that:   * Products are received and dispatched in accordance with this WI. * Product markings are in accordance with this WI and all applicable VGS documents. |
| All Personnel | To ensure product identification and traceability is maintained while performing their respective functions. |

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# Quality Records

The following records produced by this procedure are considered Quality Records and shall be maintained and controlled according to the requirements in GEEQMS 4.2.4 - Record Control:

* Inspection Reports
* Material Certificates
* Certificates of Conformance
* Databooks
* Test Reports

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# Terms, Definitions and Acronyms

Italicized terms have been defined in GEEQMS 3.0 – Terms, Definitions and Acronyms. Their definitions have been repeated here for convenience purposes. In case of conflict GEEQMS 3.0 will take precedence.

* 1. **Terms & Definitions**

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Databook | Compilation of manufacturing data records, certificates and test reports |
| Oracle | Australia Oil & Gas Oracle Enterprise Resource Planning (ERP) system. |
| Responsible Person | Person who has ultimate control and responsibility for the function being performed |

* 1. **Acronyms**

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| BOM | Bill of Material |
| CoC | Certificate of Conformity |
| GE Oil & Gas | GE Oil & Gas Australia Pty Ltd |
| MTR | Material Test Report |
| NDE | Non-Destructive Examination |
| PO | Purchase Order |
| VGS | Vetco Gray Specification |
| WI | Work Instruction |
| WO | Work Order |

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# References

GEEQMS 3.0 – Terms, Definitions and Acronyms

GEEQMS 4.2.4 - Record Control

GEEQMS 7.5.3 – Identification & Traceability

ISO 9001:2008

QO-PER-002 - Document & Record Location Map

QP-PER-4.2.3-001 – Control of Records

# Compliance Requirements

* Full compliance required by 30-06-2017

|  | GE Oil & Gas |
| --- | --- |
| Title: | Identification & Traceability |
| Reference: | QW-FAC-PER-005 |
| Revision: | 2.4 |
| Application Date: | 21-06-2017 |
| Expiration Date: | 20-06-2020 |
| Author: | Richard Edwards / Jason Doss |
| External References: | ISO 9001-2008 Clause 7.5.3 |

# Appendix / Attachments

* 1. **Appendix 1: Non-Applicable Items**

The following list gives guidance on the types of items which are deemed as not requiring individual marking in accordance with this procedure. The following items may be identified by the colour coding system in Appendix 9.2 as deemed appropriate by the responsible person. Where the tagging & colour coding system is not used, appropriate identification and traceability of the items must be insured by other means.

Some non-applicable items include, but are not limited to :

* + - Fixing hardware such as bolts, nuts, cap screws, plugs and washers;
    - Springs;
    - Consumable items;
    - Test equipment;
    - Workshop tooling; and
    - Elastomers.
  1. **Appendix 2: Colour Coding**

The following colour coding and tagging system is to be utilized for products received at the Jandakot facility.

Where items are not held in a designated area they shall be identified by the colour coding system. This shall involve the use of paint, colour ribbons or tags in accordance with the colours shown in the table below. Where an assembly is comprised of components which fall into multiple different categories, then it is at the discretion of the responsible personnel to determine if multiple identification tags or colour coding is required, or if the traceability of the components is to be performed by use of the work order system. Where an assembly is broken into multiple parts during work, and the use of a tag is not practicable, the identification tag is to be kept with the work order in use.

For list see next page.

| **Colour** | **Application** | **Examples of use** | **Example of Typical Tagging** | |
| --- | --- | --- | --- | --- |
| Red | Non-Conforming Part | * Damaged or non-conforming item. * Equipment certification out of date. * Equipment in an unsafe condition. * Equipment not assembled correctly. |  |  |
| Pink | Goods  On-Hold | * Equipment with missing documentation, unidentified equipment, queries pending. |  | |  |  | | --- | --- | | **Goods On Hold** | | | **Details:** | Awaiting Quality Documentation | |
| Orange | WO Raised | * Item ready to enter workshop for WO to be completed. |  | |  |  | | --- | --- | | **WO Raised** | | | Details: | WO VGGS2233445 | |
| Yellow | Work In Progress | * Item ready to enter workshop for WO to be completed. * Items which may be present in the workshop for an extended period of time. * Items which have had one or more items of the WO completed and are waiting for the next operation to commence. * Items which have been stripped and inspected and are awaiting disposition. |  | |  |  | | --- | --- | | **WIP** | | | Details: | WO VGGS2233445 | |
| Green | Completed Workorders  (Part - Fit for Purpose) | * Signifies the part is fully assembled and in a fit state to ship. All inspections complete. |  | |  |  | | --- | --- | | **Complete** | | | Details: | WO VGGS2233445 | |
| White | Completed Workorders  (Part – Not fit for Purpose)) | * Workscope completed. Items not fit for purpose. |  | |  |  | | --- | --- | | **Complete WO**  **(Not fit for use)** | | | Details: | WO VGGS2233445 | |
| Blue  (Cyan) | Customer Owned | * For attachment to customer owned equipment. |  | |  |  | | --- | --- | | **Customer Owned** | | | Details: | Chevron  Gorgon Upstream Project | |
| Purple | Rental Assets | * For attachment to GE owned rental equipment. |  | |  |  | | --- | --- | | **Rental Assets** | | | Details: | Part No: R50505-55  S.No 528129-01 | |