



QA REQUIREMENTS LIST

(Short Codes for WOUK Certification and Testing requirements)

Doc No: ON-REF-005-SC-003
 Rev No: 1
 Date: 10/4/08

Short Code	Description of QA Requirement (PLEASE USE SHORT CODES IN DOCUMENTS)
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Manufacturing Standards	
0	Free-Text (If no short code exists, additional QA information added to Requisition and PO).
1	ANSI B31.3- Equipment to be designed and manufactured in accordance with ANSI B31.3 (latest edition)
2	API 6A - Equipment to be designed and manufactured in accordance with API 6A latest edition PSL 3 and (if applicable) API 17D Latest Edition
3	API 5CT - To be designed and manufactured in accordance with API 5CT latest edition.
4	NACE MR-01-75 Equipment to be manufactured with material conformity in accordance with NACE MR-01-75 (latest edition)
5	BS EN:12079- All Lifting Units, Baskets, Containers or frames must designed, manufactured and tested in accordance with EN12079 (Latest Revision) and supplied complete with an appropriate certified Sling, Sling Set or Bridle. Certification for such items is mandatory.
6	DNV 2.7-1 and DNV 2.7-3; All Baskets and Containers to be designed, manufactured and tested in accordance with DNV 2.7-1 . All Shipping Frames and Skids to be designed, manufactured and tested in accordance with DNV 2.7-3 .
7	Wire rope slings supplied must conform to BS EN 13414-2
8	DNV 2.7-1- All supplied Lifting Sling Sets, Slings, Shackles, Chain Blocks, Lifting Beams or Beam Trolleys must be designed, tested and certified in accordance with DNV 2.7-1. All lifting items must be marked or tagged with the CE mark. Individual items must also be hard stamped with a unique serial number. All Certificates for Test and Examination must reference conformity to the EEC Machinery Directive. In addition: DNV 2.7-1 Slings should be marked with an identification tag permanently connected to the top assembly of the sling. The tag should be made of metal with the marking permanently embossed or stamped. For Wire rope sling sets the tag shall be of Octagonal shape which determines the Master Link shall be manufactured from Grade 8 material. For one-leg wire rope slings the tag should be round.
9	L.O.L.E.R- All lifting and associated equipment to conform to LOLER SI 2307 1998 or applicable lifting regulation. Equipment to be in compliance with EEC community legislation on Machinery 91/368/ EEC. Purchased equipment to include sling and bridle as applicable.
10	A.T.E.X- All EX rated electrical equipment to be supplied with ATEX or equivalent certificates
11	P.E.D-(PED 97/23/EC) - All pressure retaining equipment to be CE marked to confirm conformity with the latest European Directive(s) and supplied with EC declaration of conformity to those Directives.
12	Declaration of Conformity to current Machinery Directive Standard.
13	Declaration of Incorporation to current Machinery Directive Standard.
14	NORSOK Standard Z-015 (Temporary Equipment)
15	NORSOK Standard D-SR-007 (Well Testing Systems)
16	NORSOK Standard D-SR-008 (Wireline Equipment)
17	NORSOK Standard U-CR-007 (Subsea Intervention)
18	NORSOK Standard D-002 (Well Intervention Equipment)
19	NORSOK Standard N-001 (Structural Design)
20	NORSOK Standard S-002 (Working Environment)
21	NORSOK Standard Z-010 (Electrical, Instrumentation & Telecommunication Installation)
22	ISO 13628-4:1999 Petroleum & Natural Gas Industries-Design & Operation of Subsea Production Systems: Part 4 -Subsea Wellhead and Tree Equipment
23	ISO 13628-5:2002 As Above: Part 5- Subsea Umbilicals
24	ISO 13628-6:2006 As above: Part 6- Subsea Production Control Systems
25	ISO 13628-7:2005 As above: Part 7- Completion/Workover Riser Systems
26	ISO13628-8:2002 As above: Part 8- ROV Interfaces on Subsea Production Systems
27	P.U.W.E.R- Equipment must comply with the Provision and use of work equipment regulations 1998 . PUWER equipment check-sheet to be provided.
28	As per supplied design specification.
130	Declaration of Conformity to current Low Voltage Directive Standard.

Marking, Material and Testing Certification	
29	Traceability: All materials and machined components must be identified by our PO Number prefixed with "WOUK", the Item/Part Number (if known), Cast Number of raw material, whether free issued or not, all using low stress Dot Stamps with 6mm lettering. Where this is not practical the Supplier should ENGRAVE such items with these details. All items unsuitable for stamping/engraving must be suitably tagged and similarly identified.
30	Pressure and temperature rating to be stamped on delivered goods.
31	Well Ops unique serial number to be hard stamped with stress relieved 6mm stamps.
32	Well Ops unique serial number to be welded on skid or frame with minimum 75mm characters
33	Pressure testing to be conducted at manufacturers recommended test pressure.
34	Material Certification (EN 10204. 3.1) (Previously 3.1B certification)
35	Material Certification (EN 10204.3.2) (Previously 3.1C certification)
36	Removed, no longer required.
37	Removed, no longer required.

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38	<p>Weld Controls and Weld Data Package. This QAR details the process controls for welding base materials, inlays, overlays, hardfacings and fabrications. All welding shall be performed using weld procedures and operators qualified to ASME IX. The vendor shall choose a weld procedure to cover the material type, component thickness and Charpy impact requirements of the base material. Corrosion resistant alloy (CRA) inlay and overlay procedures should be specific to the CRA metal and base material type. All heat treatment will be performed to the requirements as stated in the weld procedure specification. Individual weld (s) will be identified throughout the process.</p> <p>Weld data log will be provided to collate details of all welding performed. A weld map must show all weld locations.</p> <p>The following information should be noted on the log with relevant documents being enclosed within the weld data package :-</p> <ol style="list-style-type: none"> (1) Part / Drawing number, Description and Serial Number. (2) Weld Procedure Specification. (3) Welder Identification. (4) Consumable Batch Numbers. (5) Weld Map showing the location of each WPS performed. (6) Pre-weld Heat Treatment. (7) Post-weld Heat Treatment. <p>All areas will undergo surface N.D.E. prior to welding the only exception being fabrication welds.</p> <p>Hardness checks will be performed on the base material prior to and following any post weld heat treatment operations to ensure the base material strength has not been adversely effected.</p> <p>All pressure containing butt welds will undergo either radiography or ultrasonic inspection. Weld caps will undergo surface N.D.E.</p> <p>All inlays / overlays / hardfacings will undergo U.T. bond check and NDE on the finish machined surface.</p> <p>All lift point and load bearing area welds will undergo surface N.D.E.</p> <p>All fabrication welds will undergo 10% surface N.D.E.</p> <p>Note: The acceptance criteria for all N.D.E. and U.T. stated within this QAR shall be in accordance with API 6A PSL 3 latest revision. Personnel must be qualified to SNT level 2 or PCN. Examination Report and Operator Qualification Certificates are mandatory.</p>
39	<p>NDE Reports- All accessible finish machined areas and all accessible component areas post any Pressure Test shall undergo 100% Magnetic Particle Examination or Liquid Penetrant Examination. The acceptance criteria for either examination shall be in accordance with API 6A PSL 3 latest revision. Personnel performing these types of examination must be qualified in the appropriate type of examination to SNT level 2 or PCN. An Examination Report and Operator Qualification Certificate are mandatory.</p>
40	Rotational Test Report
41	Hydrostatic / Pneumatic Test Reports
42	Material certificate showing Charpy V notch impact values at -25°F (-32°C) with energy absorption results of 42 joules minimum average of 3 results and 28 Joules minimum single result (10mm square sample size).
43	Instrument Calibration
44	Factory Acceptance Test (Well Ops may wish to witness at supplier premises)
45	SIT Procedure (Well Ops may wish to witness at supplier premises)
46	<p>Materials certificate s must be supplied that contain the following minimum information:</p> <ol style="list-style-type: none"> (1) Statement of material type and or grade or specification. (2) Minimum yield strength of the material. (3) Minimum tensile strength of the material. (4) Heat Treatment Temperatures and cycle times. (5) Chemical composition of the material. (6) Post Heat Treated Hardness Results.
47	All bolting material to conform to ASTM A962/A962M (common requirements for steel fasteners or fastener materials). All studs to conform to ASTM A193/A193M Grade B7 (high temperature) and nuts to ASTM A194/A194M Grade 2H (high pressure and high temperature). Bolting material to be zinc plated (unless stated otherwise) and coated as specific by BS 1760 : 1990. Material certification required.
48	All bolting material to conform to ASTM A962/A962M (common requirements for steel fasteners or fastener materials). All studs to conform to ASTM A320/A320M Grade L7 (low temperature) and nuts to ASTM A194/A194M Grade 4 or Grade 7 or a Grade of steel similar to the studs for low temperature use. Bolting material to be zinc plated (unless stated otherwise) and coated as specified by BS 1760 : 1990. Material certification required.
49	100% Ultrasonic Examination is required on supplied raw material. Acceptance criteria for Ultrasonic Examination shall be in accordance with API 6A PSL 3 latest revision. Personnel performing this type of examination must be qualified to SNT level 2 or PCN . Examination Report and Operator Qualification Certificates are required; alternatively a statement of acceptance to API 6A PSL 3 and the operator name and qualification level may be detailed on the material certificate as a minimum.
50	Hardness check finished machined items. Competent personnel using King Brinell or Rockwell machine will perform hardness testing. Only where neither method is practicable will Poldi or Equitip be acceptable. Hardness levels will be as per the material specification as detailed on the Well Ops drawing/order.
51	Certificate required for Torquing / Untorquing of threaded connections
52	Thread gauging Certificate of compliance required and traceability of master gauge to National standards.
53	Hydraulic flushing shall be performed to the minimum fluid cleanliness level as specified by WOUK. A Flushing Cleanliness Certificate of Conformity specifying the final hydraulic fluid cleanliness level for each line flushed shall be issue to WOUK. A Sample and copy of the certificate of conformity shall be retained by the vendor for a minimum of 12 months.

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54	Drift Test Report in accordance with API 5CT Latest Edition.
55	Drift Test Report in accordance with API 6A Latest Edition.
56	100% Dimensional inspection required of finished component. Actual finished sizes must be reported against every drawing size stated. All dimensional errors must be reported to Well Ops on Concession request form.
57	Supplier Concession Requests (IF APPLICABLE)

Drawings Etc.	
58	Quality control Plan
59	General Arrangement Drawing
60	Fabrication Drawings
61	Logic Diagrams
62	P&ID'S and Line Lists
63	Bill of Materials
64	System Schematics
65	Electrical Schematic Diagrams
66	Interface drawings
67	Electrical Termination and Hook up Details
68	Detail Drawings
69	Mechanical Seal Details
70	Exploded View Drawings
71	Cross Sectional Drawings (Including Parts List)
72	Lifting Arrangement Drawings
73	Instrument Termination and Hook Up Details
74	Weld Location Drawings

Rental / Service	
75	Copy of current CV required for all subcontracted personnel showing details/ dates of related work experience, professional qualifications, competence, details of safety and work related training courses, medical examinations and offshore survival training.
76	All rental safety critical equipment to be manufactured in accordance with SI 913 (1996) and HSE SI 289 (1974) guidance notes. Equipment should conform to NACE MR-01-75 (latest edition). Records of maintenance history, Ultrasonic thickness checks, material traceability certificates and modifications to be held by vendor. All documentation to be made available to Well Ops on request. All certification should be valid for the length of the rental period. Copy of ICB verification certificate to accompany equipment.
77	All rental lifting and associated equipment to conform to LOLER SI 2307/ 1998 or applicable lifting regulation. Equipment to be in compliance with EEC community legislation on Machinery 91/368/ EEC. Purchased equipment to include sling and bridle as applicable. All certification should be valid for the length of the rental period.
78	Full report on equipment including maintenance job sheet showing any repairs or replacements.
79	Rental equipment to be supplied with operating instructions as per PUWER .
80	All third party or rental tubulars must be supplied to Well Ops with a Certificate of Conformance or Inspection Report which states that supplied items have been Drift Tested and Inspected satisfactorily and that the item(s) being supplied are fit for their intended purpose

Operating and Maintenance	
81	Operating Manual
82	Maintenance Manual
83	Installation Manual
84	Recommended Commissioning Spare Parts List
85	Special Tools List
86	Operating Fluid / Material Consumption
87	Lubrication Schedule
88	Recommended Spares for 2 Years Continuous Operation
89	Equipment List
90	Maintenance Datasheets
91	Performance / Acceptance Test Procedures
92	Transportation and Lifting Procedures
93	Commissioning Procedures



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94	Weighing Procedure
95	Storage Procedures
96	Preservation Procedures
97	Instrument Data Sheets
98	Electrical Datasheets
99	Noise Data-To be compliant with Noise Regulations (offshore), any non-compliance must be brought to the attention of Well Ops prior to delivery for Well ops use.
100	Safety Datasheets
101	Control Philosophy
102	Cause and Effect Charts
103	Equipment Datasheets

Third Party Certification

104	Copy of Independent Design Review certificate for component required. Only the following ICB's will be accepted by Well Ops: Bureau Veritas, DNV, Lloyds Register of Shipping or ABS.
105	Certifying Authority Certificate of Conformance required. Only the following ICB's will be accepted by Well Ops: Bureau Veritas, DNV, Lloyds Register of Shipping or ABS. Certificate must reference Well Ops Asset number.
106	Pressure test certificate required. Test(s) to be witnessed by Independent Competent Body (ICB). Only the following ICB's will be accepted by Well Ops: Bureau Veritas, DNV, Lloyds Register of Shipping or ABS.
107	Hazardous Area Approval-Equipment must be suitably rated for Zone 1
108	Hazardous Area Approval-Equipment must be suitably rated and for Zone 2
109	Inspection Release Note/COC (From Verification Authority)

Miscellaneous

110	A manufacturing data book (1 copy + 1 CD ROM Copy), which is in strict accordance with the requirements of these Quality Assurance Requirements are mandatory and must be provided with the goods.
111	The Supplier or Manufacturer Certificate of Conformance required for proprietary items supplied. The Certificate must include the minimum following information: (1) Part Number and Serial / Batch number of the item(s). (2) Maximum Test Pressure and Working Pressure. (3) Type of service (Standard / Sour). (4) Design Code / Standard Reference.
112	Inspection Release Note (From WOUK)
113	Painting requirements:The following paint system shall be used on a equipment whenever called out as a quality requirement. 1) Shot blast. 2) One Primer Coat - lead free paint.3) One Intermediate Coat - lead free paint.4) One Top Coat finish colour The Supplier must ensure that any seal areas, threads are masked off and not painted. Painting C.O.C must be provided. Stainless Steel Units do not require painting.
114	Painting requirements:Polyester Coatet as per supplied specification.
115	Painting requirements:Paint Resicoat as per supplied specification.
116	Welder Qualifications
117	IP Rating Certificate to EN 50014/50018
118	Test Equipment Calibration
119	Vendor Equipment Weight Certificate
120	Weld Procedure Specifications
121	Weld Procedure Qualification Records
122	NDT Procedures
123	Heat Treatment Procedures
124	Hydrostatic / Pneumatic Test Procedures
125	Welder Qualification Procedures
126	Hazardous Material Shipping Certificate
127	Review MRB at Supplier Premises
128	Review MRB at Well Ops Premises
129	Weekly progress report detailing work completed, expected delivery dates and any outstanding issues / problem areas.
131	Use this as the next number and insert in relevant section above.
132	