2.0 SCOPE OF SUPPLY

Part No.	Description	QUANTITY
0856-2100-00001	NEW TOP CHAIN, 89 MM STUDLINK, GRADE R3, 85 M LONG (237 LINKS), COMMON LINKS ON BOTH SIDES, MBL =664 MT	6
0856-2100-00002	NEW INTERMEDIATE CHAIN, 89 MM STUDLINK, GRADE R3, 145 M LONG, (401 COMMON LINKS), END LINK AND ENLARGED LINK ON BOTH SIDES, MBL =664 MT, FOR LEGS 1,2 AND 3.	3
0856-2100-00003	NEW INTERMEDIATE CHAIN, 89 MM STUDLINK, GRADE R3, 155 M LONG, (429 COMMON LINKS), END LINK AND ENLARGED LINK ON BOTH SIDES, MBL =664 MT, FOR LEGS 4,5 and 6.	3

Notes

1. The chains shall be manufactured in accordance with the **DNV-OS-E302 , Offshore Mooring Chain**
2. The chains shall comply with the attached QRM, **2101-QD-004**. All mandatory inspection and test activities shall be witnessed by the designated third-party inspector.
3. Documentation shall be prepared in accordance with SDRL **0070829-001.**
4. The chains shall be provided with white anti-twist markings on alternate links, with each marking being at least 150 mm long.
5. A trial fit shall be carried out for the extreme links with the pins of H-Links

QUALITY REQUIREMENTS MATRIX

MODEC

Customer: ALL SOFEC CUSTOMERS

Project: All Mooring System Projects with DNV Classification

Equipment: Mooring Chain

QRM No.	Project
2101-QD-0004	

Revision	Date	Page
B	3 Aug 2023	1 of 2

Review and Approval — Quality: DO Engineering: DS

Classification Society: D N V

No.	Equipment Requirement Description	Specification	Acceptance Criteria	Verifying Document	Action Points		
					SOFEC	Class Society	Customer
1.0	NOT USED						
2.0	Pre-Production Run	SOFEC/Supplier Specification	DNV-OS-E302	Pre-Production Records	W	M/R	
3.0	Raw Material (Bars)	SOFEC/Supplier Specification Supplier MPS / Procedure	DNV-OS-E302 Supplier MPS	EN 10204 : Type 3.2 (DNV)			
	Chemical Analysis			Material Test Report	R	R	
	Mechanical Tests			Mechanical Test report	M/R	W	
	NDT						
	- Ultrasonic			NDT Report (UT)	M/R	M/R	
	- Magnetic Particle			NDT Report (MT)	M/R	M/R	
	Dimensional Control			Dimensional Inspection Report	M/R	M/R	
	Traceablity			Traceability Record	V	V	
4.0	Chain Manufacturing	SOFEC/Supplier Specification Supplier MPS / Procedure	DNV-OS-E302 SOFEC/Supplier Specification				
	Traceability			Traceability Record	V	V	
	Heating, Forming, Welding			Test Report	M	M	
	Preliminary Inspection						
	- Ultrasonic			NDT Report (UT)	M/R	M/R	
	- Magnetic Particle			NDT Report (MT)	M/R	M/R	
	Heat Treatment			Heat Treatment Record	W/M	W/M	
5.0	Finished Chain	SOFEC/Supplier Specification Supplier Procedure	DNV-OS-E302 SOFEC/Supplier Specification	DNV Certificate			
	Mechanical Tests			Test Reports			
	Proof Load Test			Proof Load Test Report	W	W	
	Visual Inspection			Visual Inspection Report	M	W/M	
	Dimensional Verification - Individual Links			Dimensional Inspection Report	M	M	
	Dimensional Verification - Length Over Five Links			Dimensional Inspection Report	R	W	
	NDT						
	- Ultrasonic			NDT Report (UT)	M/R	M/R	
	- Magnetic Particle			NDT Report (MT)	M/R	M/R	
	Break Load Test			Break Load Test Report	W	W	
	Trial Fittings			Trial Inspection Report	W	W/M	
	Weighing			Weight Report	R	R	
	Marking, Identification, Bundling			Inspection Report	M	W/M	

R = Review A = Approve V = Verify W = Witness Point H = Hold Point M = Monitor
/ = and, or # = Required unless Mill has Classification Society Approved Quality System

MODEC

QUALITY REQUIREMENTS MATRIX

QRM No.	Project
2101-QD-0004	

Revision	Date	Page
B	3 Aug 2023	2 of 2

Customer: ALL SOFEC CUSTOMERS

Project: All Mooring System Projects with DNV Classification

Equipment: Mooring Chain

Review and Approval — Quality: DO Engineering: DS

Classification Society: D N V

No.	Equipment Requirement Description	Specification	Acceptance Criteria	Verifying Document	Action Points		
					SOFEC	Class Society	Customer
6.0	Shipping Release Inspection			SOFEC Insp. Release Note	W		
7.0	QUALITY DOCUMENTATION Manufacturing Record Book (MRB)			Supplier MRB	R	R	R

R = Review A = Approve V = Verify W = Witness Point H = Hold Point M = Monitor
/ = and, or # = Required unless Mill has Classification Society Approved Quality System

MODEC

SUPPLIER DOCUMENTATION REQUIREMENTS LIST (SDRL)

Document No.: 0070829-001 **Equipment:** MOORING CHAIN

Revision: 1

Submittal Codes:

A	PO Award	P	Periodic Submittal
D	Delivery / Shipment	R	For Review
(+)	After	T	Testing
(-)	Before	#	Weeks (1, 2, 3, etc.)
I	For Information		

Examples:
R+2A = For Review, due no later than 2 weeks after PO award.
P4 = Submit every 4 weeks.

Instruction to Supplier: Refer to Mooring Solutions document 0900813-001 for SDRL Code definitions.

A01	SUPPLIER DOCUMENT SCHEDULE (SDS)	R+2A
A02	PRODUCTION PROJECT SCHEDULE	P2
A03	PROGRESS REPORTS	P2
B01	GENERAL ARRANGEMENT DRAWING	R+4A
G01	PACKING HANDLING AND SHIPPING PROCEDURE	R-4D
G02	PRESERVATION PROCEDURE	R-6D
G03	LIFTING PLAN / SLINGING ARRANGEMENT	R-4D
G10	EXPORT CONTROL CLASSIFICATION	R-4D
G33	SUB-SUPPLIER LIST	R+2A
H01	INSPECTION AND TEST PLAN (ITP)	R+4A
H02	WELD PROCEDURE SPECIFICATION (WPS) AND PROCEDURE QUALIFICATION RECORDS (PQR)	R+6A
H03	WELDER QUALIFICATION RECORDS	R+6A
H04	NON-DESTRUCTIVE TESTING PROCEDURE (NDT)	R+6A
H05	NDT OPERATOR QUALIFICATION RECORDS	R+6A
H07	FACTORY ACCEPTANCE TEST (FAT) AND PERFORMANCE TEST PROCEDURES	R-10T
H08	MANUFACTURING PROCEDURES	R+6A
H10	WEIGHING PROCEDURE	R+6A
H15	DIMENSIONAL CONTROL PROCEDURE	R+6A
L03	LIFTING EQUIPMENT TEST CERTIFICATES	R-4D
L05	DEVIATION, NONCONFORMANCE CONCESSION RECORDS	As Needed
L08	PRE-PRODUCTION CHAIN REPORT	R+2T
M03	(MRB) MANUFACTURING RECORDS BOOK	R+2D

MODEC

SUPPLIER DOCUMENTATION REQUIREMENTS LIST (SDRL)

Document No.: 0070829-001 **Equipment:** MOORING CHAIN

Revision: 1

Submittal Codes:

A	PO Award	P	Periodic Submittal
D	Delivery / Shipment	R	For Review
(+)	After	T	Testing
(-)	Before	#	Weeks (1, 2, 3, etc.)
I	For Information		

Examples:
R+2A = For Review, due no later than 2 weeks after PO award.
P4 = Submit every 4 weeks.

Instruction to Supplier: Refer to Mooring Solutions document 0900813-001 for SDRL Code definitions.

M04	(MRB) MANUFACTURING RECORDS BOOK TABLE OF CONTENTS	R-4D
Q01	CLASSIFICATION SOCIETY REPORT CERTIFICATE	R+D
Q02	MATERIAL TEST REPORT	R+2T
Q03	HEAT TREATMENT REPORT	R+2T
Q04	NDT RECORDS	R+2T
Q05	MATERIAL TRACEABILITY RECORDS	R+2T
Q07	FACTORY ACCEPTANCE / PERFORMANCE TEST REPORT	R+2T
Q09	CERTIFICATE OF COMPLIANCE	R+D
Q10	RAW MATERIAL PROCUREMENT SPECIFICATION	R+6A
Q14	DIMENSIONAL REPORT	R+2T
Q15	LOAD TEST CERTIFICATES	R+2T
Q20	WEIGHT REPORT	R+2T
	0	0
NOTES:	#N/A	#N/A
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0