

TRINITY HOUSE

MAJOR FLOATING AIDS -

MOORINGS

TECHNICAL SPECIFICATION

No. S008

April 2012

CONTENTS**Page No**

1	SCOPE	3
2	Reference Drawings and Standards	3
3	Material	3
	3.1 Stud Material	3
4	Heat treatment	3
5	Manufacture - Chain	4
	5.1 Form	4
	5.2 Dimensions and tolerances	4
	5.3 Welding of Studs	4
	5.4 Chain Cable Length	4
6	Manufacture – MFA Swivels	4
	6.1 Form	4
7	Manufacture – MFA Shackles	4
	7.1 Form	4
	7.2 Dimensions and tolerances	5
8	Manufacture – Catface Plates	5
	8.1 Form	5
9	Testing	5
	9.1 Chain Cable	5
	9.2 Swivels	5
	9.3 Shackles	5
10	Identification	5
11	Certification	5
12	Finish	5

SPECIFICATION S008			GLA – Major Floating Aids Technical Specification	
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1 SCOPE

This Specification covers the manufacture; inspection, testing and finishing of stud link chains, shackles, catfaces and swivels used for General Lighthouse Authority (GLA) Major Floating Aids (MFA) moorings.

The GLA comprises Trinity House Lighthouse Service (THLS), Northern Lighthouse Board (NLB) and Commissioners of Irish Lights (CIL).

Conditions of Contract and delivery requirements are covered by a separate Commercial Specification and a schedule detailing the requirements for each consignment.

2 REFERENCE DRAWINGS AND STANDARDS

The chain, bridle and shackles shall be sized and formed in accordance with the relevant TH Drawing(s) listed below:

Chain Link Component Details	Drg. No. 204/382 sheet 1
ø44mm Swivel	Drg. No. 204/383 sheet 1 and 2

Where called for all chain and shackles shall conform to the recommendations of the following international and British Standards:

Lloyds Rules
ISO 1704

3 MATERIAL

U3 to Lloyds Rules

3.1 Stud Material

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.5.

4 HEAT TREATMENT

To be in accordance with, and meet the requirements of, Lloyds Rules Part 2, Chapter 10, Section 2.7.

A Thermal history report shall be produced for each batch.

Each item shall be heat treated a maximum of only three times.

5 MANUFACTURE - CHAIN

5.1 Form

The form will be as specified in ISO 1704. Links to be flash butt-welded, with all surplus weld material removed.

5.2 Dimensions and tolerances

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.15.

5.3 Welding of Studs

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.6.

5.4 Chain Cable Length

5.4.1 M.F.A. Chain Cables

The standard cable length for MFAs is 50 metres. Each length is to terminate at each end in enlarged and end links as defined in ISO 1704.

5.4.2 Anchor Tail Chain

In the case of anchor tail chains the length is to be 10m unless otherwise specified. Each length is to terminate at each end in enlarged and end links as defined in ISO 1704.

6 MANUFACTURE – MFA SWIVELS

6.1 Form

The form will be as specified by TH drawing no.204/383 sheet 1 and 2

One enlarged stud link and two end links each side of the swivel – dimensioned as per ISO 1704 for the size of chain concerned.

All swivels are to be provided with grease nipples and be adequately greased with suitable waterproof grease before inspection and test.

Complete swivel assemblies are to be supplied as shown on TH Drg. No. 204/383 sheet 1 of 2.

7 MANUFACTURE – MFA SHACKLES

7.1 Form

Lightvessel clenching joining and clenching end shackles are to be proportioned as per ISO 1704, **excepting the length of the bolt and its head dimensions that are to be as shown in THLS Drg. No. 204/382** to ensure adequate material is available for clenching.

All bolts are to be light tap fit in the eyes.

The clenching end of all bolts is to be flat and perpendicular to the bolt's longitudinal axis and project from the shackle bow as detailed on the drawing,

to give adequate clenching material. Each shackle bolt is to be secured by a tapered pin, which is locked by a lead pellet in a reverse taper recess.

7.2 Dimensions and tolerances

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.15.

8 MANUFACTURE – CATFACE PLATES

8.1 Form

The form will be as specified by TH drawing no. 204/382 sheet 2

9 TESTING

9.1 Chain Cable

Conforming to Lloyds Rules, Part 2, Chapter 10, Sections 2.9, 2.10, 2.11 and 2.12.

9.2 Swivels

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.13.

9.3 Shackles

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.13.

9.4 Catface Plates

To be tested as appropriate for the guage of U3 chain with which it is associated.

10 IDENTIFICATION

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.16.

11 CERTIFICATION

Conforming to Lloyds Rules, Part 2, Chapter 10, Section 2.17.

12 FINISH

Following inspection and test, all items to be wire brushed and painted with black bitumastic paint complying with BS Specification 3416-1991 Type 1.