

GENERAL SPECIFICATION

Logistics and Support to Operations

GS EP LSO 201

Towing and Anchor Handling Operations

06	10/2019	Renamed. Complete revision to include Anchor Handling Operations and requirements of IMO MSC Res 415(97)
05	04/2017	Typing correction
04	04/2016	Complete revision
03	05/2015	Organisation change – January 2015
02	11/2013	Complete revision
01	01/2012	Update following the EP reorganisation, March 2011
00	01/2005	First issue
Rev.	Date	Purpose of the revision

Owning entity: DSO/IP/LSO	Managing entity: DSO/IP/LSO
Other Approving entity(ies):	

General Specification		GS EP LSO 201
Towing and Anchor Handling Operations		
Rev.: 06	Effective date: 10/2019	Page: 2 of 14

Contents

1. Scope	3
2. Reference Documents	3
3. Definitions and Abbreviations	4
4. General Requirements	5
4.1 Bollard Pull Test Certificate	5
4.2 Stability	5
4.3 Constructional Precautions Against Capsizing	5
4.4 Weather Forecasts & Routing	6
4.5 Training.....	7
4.6 Operations Procedures Manual.....	7
5. Additional Requirements for AHT Vessels	9
5.1 Stability Instrument	9
6. Additional Requirements for Tugs & Towing Operations.....	9
6.1 Classification.....	9
6.2 Tug Selection	10
6.3 Towing Forces	10
6.4 Towing Gear	10
6.5 Emergency Towing Equipment	12
6.6 Manning of Tugs and Towed Objects.....	12
7. Specific Towages	13
7.1 Towage of High Value Asset	13
7.2 Towage of FPSO / FPU / FSO	13
8. Bibliography	14

General Specification		GS EP LSO 201
Towing and Anchor Handling Operations		
Rev.: 06	Effective date: 10/2019	Page: 3 of 14

1. Scope

This General Specification defines the rules and conditions required by the Company for vessels used for towing and/or anchor handling operations. This includes but is not limited to the requirements for ocean towing, coastal towing, interfield towing, towing on inland waterways, towage at terminals, emergency towing of geophysical vessels, and the general requirements for anchor handling operations.

Requirements for towage within ice conditions are out of the scope of this document as it will require specific assessment and procedures.

2. Reference Documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published at the effective date of this document.

Reference	Title
International Code on Intact Stability	International Code on Intact Stability including amendments to Part B (IMO Resolution MSC 415(97)).
IMO MSC/Circ.884	Guidelines for safe ocean towing
IMO MSC/Circ.1228	Revised guidance to the master for avoiding dangerous situations in adverse weather and sea conditions
IMO MSC/Circ.1334	Piracy and armed robbery against ships
IMO MSC/Circ.1255	Guidelines for owners/operators on preparing emergency towing procedures
Bollard Pull JIP (July 2019)	International standard for bollard pull trials
DNVGL-ST-N001	Marine Operations & Marine Warranty
DNVGL-SE-0122	Certification for towing vessel approvability
G-OMO	Guidelines for Offshore Marine Operations

General Specification		GS EP LSO 201
Towing and Anchor Handling Operations		
Rev.: 06	Effective date: 10/2019	Page: 4 of 14

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published.

Reference	Title
GS EP GPA 001	Offshore seismic surveys - Requirements for vessels and marine operations
GS EP STR 601	Floating Unit Integrity Management System Requirements

3. Definitions and Abbreviations

Term or acronym	Definition
AHT	Anchor Handling Tug
BP	Bollard Pull
Company	Means Total S.A. or one of its affiliates
DP	Dynamic Positioning
FPSO / FPU / FSO	Floating Production Storage and Offloading unit / Floating Production Unit / Floating Storage and Offloading unit
High value asset	Asset where the consequences of the damage or loss would be 'Very Serious', 'Catastrophic', or 'Disasterous' as defined in the Company universal 6 x 6 risk matrix.
HMPE	High Modulus PolyEthylene
IACS	International Association of Classification Societies
MBL	Minimum Breaking Load
MPI	Magnetic Particle Inspection
NDT	Non Destructive Testing
Sheltered waters	Waters where the fetch is six nautical miles or less
TPR	Towline Pull Required
ULC	Ultimate Load Capacity
UT	Ultrasonic Testing
VTS	Vessel Traffic Scheme
Watercraft	A vessel that travels on water – either propelled or non propelled.

4. General Requirements

4.1 Bollard Pull Test Certificate

Rule : Tugs and AHT vessels shall have a bollard pull certificate issued or endorsed by a classification society member of IACS, dated less than ten (10) years old, except for tugs engaged in the towage of floating units as defined in **GS EP STR 601** where the bollard pull certificate shall be less than one (1) year old.

Bollard pull testing will be conducted in compliance with [IMO MSC/Circ.884](#) Appendix A. The use of international standard for bollard pull trials issued by [Bollard Pull Joint Industry Project \(MARIN\)](#) is strongly encouraged.

Rule : When applicable, tugs and AHT vessels shall be provided with bollard pull figures for when power is diverted to transverse thrusters or other large power consumers.

As a minimum, curve(s) showing the maximum available bollard pull for towing or anchor handling as a function of total electrical power balance (accounting for the power consumption of side or azimuth thrusters and winches) should be available to crew.

4.2 Stability

Rule: For tugs and AHT vessels, standard loading conditions, stability curves, stability booklet, minimum freeboard and stability shall meet the criteria defined in [International Code on Intact Stability](#) Part B – “Ships engaged in towing and escort operations” or “Ships engaged in anchor handling operations” respectively.

Such compliance can be demonstrated by a letter of approval issued by a classification society member of IACS.

Although part B of the [International Code on Intact Stability](#) states recommendations for compliance, these have to be considered as mandatory requirements as part of this document.

4.3 Constructional Precautions Against Capsizing

Rule: Tugs and AHT vessels shall be provided with constructional precautions and operational procedures against capsizing in compliance with [International Code on Intact Stability](#) Part B – “Ships engaged in towing and escort operations” or “Ships engaged in anchor handling operations” respectively.

Such compliance can be demonstrated by a letter of review issued by a classification society member of IACS.

Although part B of [International Code on Intact Stability](#) states recommendations, they have to be considered as mandatory requirements as part of this document.

Whenever practicable on AHT vessels the winch(s) should be fitted with equipment for measuring the tension in the work wire/towline. Similarly, on tugs such equipment should be fitted to the towing winch. This equipment should, as a minimum, record the mean tension and the tension peaks, and the information should be displayed in the wheel house.