

**[Non-authoritative translation]**

**Chapter X      Mass Flow Meter system**

**Article X.1      Definitions**

In this chapter, the following definitions apply:

- *MFM*: a Coriolis mass flow meter as specified in clause 3.25 of ISO 22192:2021;
- *MFM system*: an MFM system in compliance with clause 3.26 of ISO 22192:2021 and Article X.3;
- *ISO 22192:2021*: International Standard ISO 22192 Bunkering of marine fuel using the Coriolis mass flow meter (MFM) system, 2021 edition;
- *OIML R117:2019*: International Organization of Legal Metrology Recommendation R117:2019 for dynamic measuring systems for liquids other than water;
- *harbourmaster*: harbourmaster of Rotterdam, employed by Havenbedrijf Rotterdam N.V.;
- *bunkers*: residual distillates (bunker oil and diesel) and biofuels;
- *bunkering operations*: bunker delivery from a bunker ship to a seagoing vessel;
- *Measuring Instruments Directive*: Directive 2014/32/EU on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (MID);
- *licence holder*: owner of the bunker ship.

**Article X.2      Scope**

1. Bunkers (residual distillates (fuel oil and diesel) and biofuels) are delivered to a seagoing vessel on board a bunker ship using an MFM system suitable for the specific delivery of those bunkers;
2. This chapter does not apply to a bunker ship, i.e. a tanker of type N-open, with a load capacity of up to 300 tonnes, built and equipped for the carriage and delivery of marine propellants to other ships as referred to in Article 1.2.1 of the European Agreement ~~concerning the European Agreement~~ concerning the International Carriage of Dangerous Goods by Inland Waterways ([ADN](#)).

**Article X.3      MFM system requirements**

An MFM system on board a bunker ship:

- a. is a system consisting of the components referred to in clause 3.26 of ISO 22192:2021;
- b. meets the requirements of the Metrology Act in conjunction with the Measuring

- Instruments Directive and the OIML R117 2019 edition;
- c. is certified and placed on the market by an accredited body referred to in Article 27 of the Measuring Instruments Directive for ANNEX VII (MI 005) as a continuous bunker measurement system installed on a vessel intended for the supply of fuel;
  - d. is certified by an accredited body as referred to in Article 27 of the Measuring Instruments Directive for ANNEX VII (MI 005) as the "Bunker Metering System", and;
  - e. is equipped with a certified storage device (memory device/data logger) in accordance with OIML R117:2019 or a device with software certified in accordance with 'WELMEC Guide 7.2', extension L for measurement data storage, and for which all data generated by the MFM system must be available to the Antwerp-Bruges Harbourmaster/Harbourmaster's Office and the receiving party or its representative for at least three months.

#### **Article X.4 Inspection procedure**

1. The MFM system is required to undergo an annual inspection.
2. During inspection, the MFM system shall undergo zero verification as described in Annex D of ISO 22192:2021, with the understanding that "accredited body" as mentioned in D.6 is the Harbourmaster/Harbourmaster's Office of Antwerp-Bruges.
3. The zero point verification ~~should~~shall fall within the requirements stated in Annex D of ISO 22192:2021 and the zero verification is valid for a maximum of 1 year.
4. This inspection ~~should~~shall be carried out by a party appropriately accredited for MFM systems under either ISO 17020, ISO 17025 or ISO 17065.
5. The zero point verification and the accreditation of the verifier referred to in the third paragraph shall be documented by the licence holder on board the bunker ship concerned.
6. Copies of the corresponding certificates shall be shared with the Harbourmaster/Harbourmaster's Office of Antwerp-Bruges without delay.
7. An MFM system ~~should~~shall not be used in the event that the zero verification does not meet the requirements in Annex D of ISO 22192:2021.

#### **Article X.5 Operational conditions for the use of the MFM system**

1. Bunkering operations ~~shall~~shall comply, in terms of safety, health and environment, with the general requirements set out in clause 4 of ISO 22192:2021 and its Annex A, where instead of the bunker checklist listed in Annex L, the ISGOTT bunker checklist ~~should~~shall be used.
2. Both the documentation required and the procedures to be followed for the entire bunker operation shall comply with the requirements set out in clause 9 of ISO 22192:2021 and its

annexes, with the exception of clauses 9.1, 9.3, part g of 9.4.2, 9.6.4.3, 9.7.1.3, 9.7.2.12, with the proviso that:

- a. clause 9.4.1.2 and Annex O apply only as far as the delivered bunkers are concerned;
  - b. in clause 9.4.1.4, the "accredited body" is the Harbourmaster/Harbourmaster's Office of Antwerp-Bruges;
  - c. in clause 9.4.1.5, the "accredited body" is the Harbourmaster/Harbourmaster's Office of Antwerp-Bruges;
  - d. in clause 9.6.1, the reference to clause 5 does not apply;
  - e. in clause 9.6.2 and 9.6.3.5.1 instead of the bunker checklist listed in Annex L, the ISGOTT bunker checklist ~~shall~~ be used.
  - f. clause 9.7.1.5 only as far as supplying bunkers to seagoing vessels is concerned.
  - g. ~~in~~ clause 9.8.3 part a, at the time a bunker ship does not have an IMO number the ENI number ~~should~~ shall be included on the bunkering metering ticket.
3. The licence holder is responsible for ensuring that the bunker ship's crew has sufficient knowledge to properly carry out bunkering operations using an MFM system and to comply with the regulations imposed in this licence.

#### **Article X.6 Reporting obligation and suspension of licence in case of non-compliance with licence conditions**

1. In the event that the conditions of this chapter and the mandatory clauses and Annexes of ISO 22192:2021 are not met:
  - a. this must be reported immediately to the Harbourmaster/Harbourmaster's Office;
  - b. new bunkering operations are prohibited unless a requested exemption has been granted by the Harbourmaster/Harbourmaster's Office.
  - c. an already started bunkering operation must be halted and said ongoing bunkering operation can only be resumed under the conditions that an alternative measurement method is used and there is written agreement from the receiving seagoing vessel on the resumption of the bunkering operation and the use of an alternative measurement method;
2. In the event of a quantity dispute, without prejudice to the provisions of clause 9.9.2 of ISO 22192:2021, the Harbourmaster/Harbourmaster's Office shall be notified immediately.

#### **Article X.7 Required documentation**

For the purpose of the licence, the required documentation of Article X.3, X.4 and X.5 will be

accepted both digitally and hard copy.

**Article X.8      Entry into force**

This chapter enters into force on 01 January 2026.