

Clause 5 of ISO8217

Lawyer's playing field

By Walter Dekkers

www.ameydemarine.com

Van Ameyde Marine 

Table 2 ISO8217

Table 2 — Residual marine fuels

Characteristic	Unit	Limit	Category ISO-F-											Test method reference
			RMA	RMB	RMD	RME	RMG				RMK			
			10 ^a	30	80	180	180,0	380,0	500,0	700,0	380,0	500,0	700,0	
Kinematic viscosity at 50 °C ^b	mm ² /s	max.	10,00	30,00	80,00	180,0	180,0	380,0	500,0	700,0	380,0	500,0	700,0	ISO 3104
Density at 15 °C	kg/m ³	max.	920,0	960,0	975,0	991,0	991,0				1010,0		see 7.1 ISO 3675 or ISO 12185	
CCAI	—	max.	850	860	860	860	870				870		see 6.3 a)	
Sulfur ^c	mass %	max.	Statutory requirements											see 7.2 ISO 8754 ISO 14596
Flash point	°C	min.	60,0	60,0	60,0	60,0	60,0				60,0		see 7.3 ISO 2719	
Hydrogen sulfide ^d	mg/kg	max.	2,00	2,00	2,00	2,00	2,00				2,00		IP 570	
Acid number ^e	mg KOH/g	max.	2,5	2,5	2,5	2,5	2,5				2,5		ASTM D664	
Total sediment aged	mass %	max.	0,10	0,10	0,10	0,10	0,10				0,10		see 7.5 ISO 10307-2	
Carbon residue: micro method	mass %	max.	2,50	10,00	14,00	15,00	18,00				20,00		ISO 10370	
Pour point (upper) ^f	winter quality	°C	max.	0	0	30	30	30				30		ISO 3016
	summer quality	°C	max.	6	6	30	30	30				30		ISO 3016
Water	volume %	max.	0,30	0,50	0,50	0,50	0,50				0,50		ISO 3733	
Ash	mass %	max.	0,040	0,070	0,070	0,070	0,100				0,150		ISO 6245	
Vanadium	mg/kg	max.	50	150	150	150	350				450		see 7.7 IP 501, IP 470 or ISO 14597	
Sodium	mg/kg	max.	50	100	100	50	100				100		see 7.8 IP 501 IP 470	

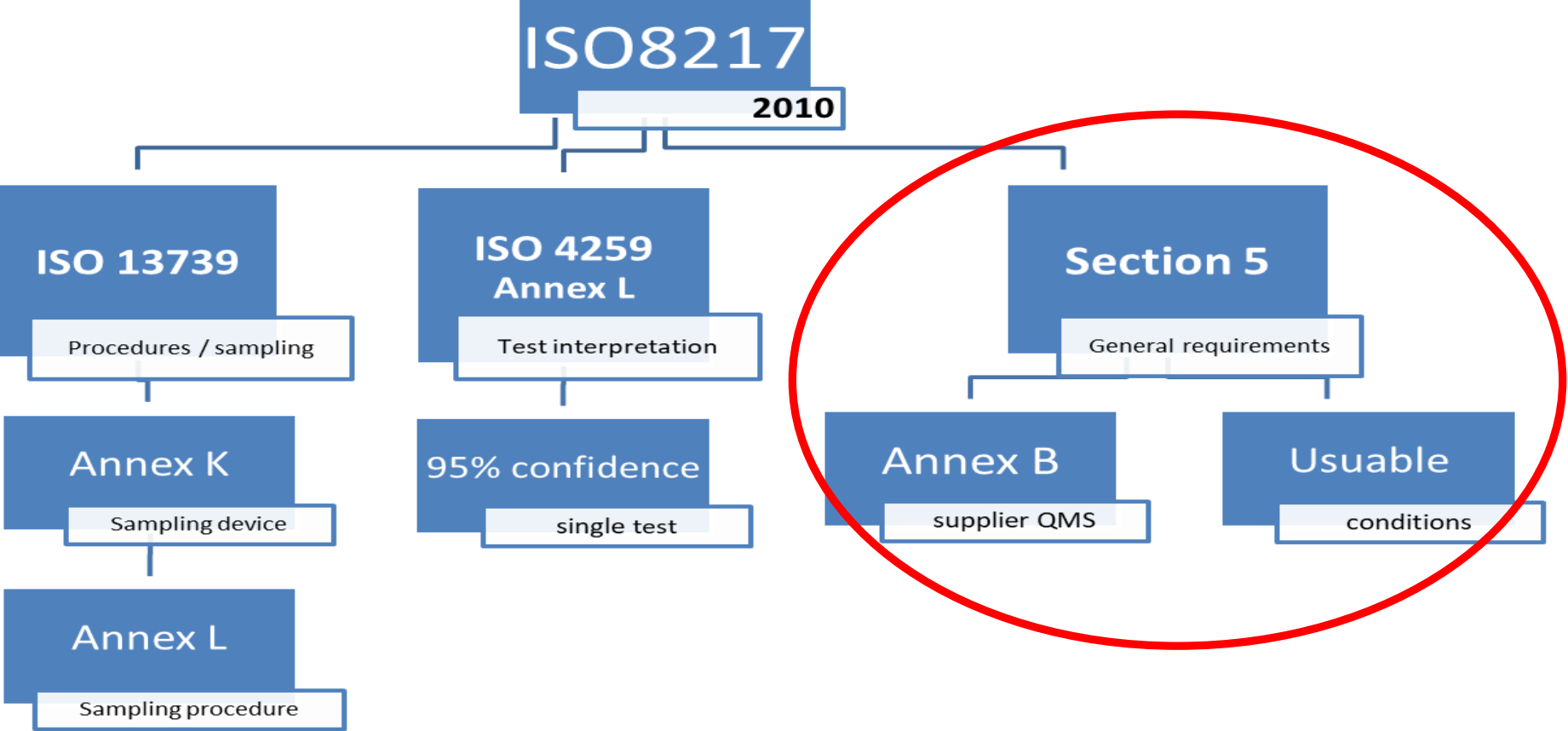


ISO8217 standard

Editions

- ISO8217; 1987 – 1st edition
- ISO8217; 1996 (2nd) – industrial standard
- ISO8217; 2005 (3rd) – still widely used specification
- ISO8217; 2010 (4th) - replaced the 2005 standard (many changes)
- ISO 8217:2012 (5th) - replaced the 2010 standard (only change H2S)
- ISO8217: 2017 (6th) - replaced 2012 (many changes; specially clause 5)
- ISO8217: 2023 ? 7th edition?

ISO 8217 standard



ISO 8217 standard (2017)

This document precludes the incorporation of any material at a concentration that causes the fuel to be unacceptable for use as stipulated in [Clause 5](#).

Identifying and determining the concentration of a material that causes the fuel to be unacceptable for use can be difficult given that

- a) each fuel is a unique, complex blend of hydrocarbon species,
- b) a wide range of materials from different sources can enter the marine supply chain from the production, handling and transport systems,
- c) various analytical techniques are used to detect specific chemical species with no standardized approach, and
- d) in most cases, sufficient data are not available with respect to the effects of any one specific material, or combinations thereof, on the variety of marine machinery systems in service, on personnel or on the environment.

It is therefore not practical to require detailed chemical analysis for each delivery of fuels beyond the requirements listed in [Table 1](#) or [Table 2](#). Instead, a refinery, fuel terminal or any other supply facility, including supply barges and truck deliveries, should have in place adequate quality assurance and management of change procedures to ensure that the resultant fuel is compliant with the requirements of [Clause 5](#).

Vessel's Owners toward Charterers

1. Table 2 in spec so need go for more forensic tests
2. Consume fuel resulting in damage / issues
3. Claim
 - a. De-bunker (ROB)
 - b. Repair costs
 - c. Demurrage
 - d. Other expenses (analysis/surveyor/lawyer etc.)

Vessel's Charterers (Buyers) to Owners

1. ISO8217 table 2 is a very specific set of parameters and all within specification.
2. GCMS not part of official fuel standard and there are no limits on the found compounds.
3. No industry standard what concentrations / combinations may cause operational problems or jeopardize the machinery.
4. Owners have burden of proof.
5. Not a proper investigation has taken place which incl. copies of various logs, records, reports etc. (in case of engine damage)

Vessel's Charterers (Buyers) to Suppliers

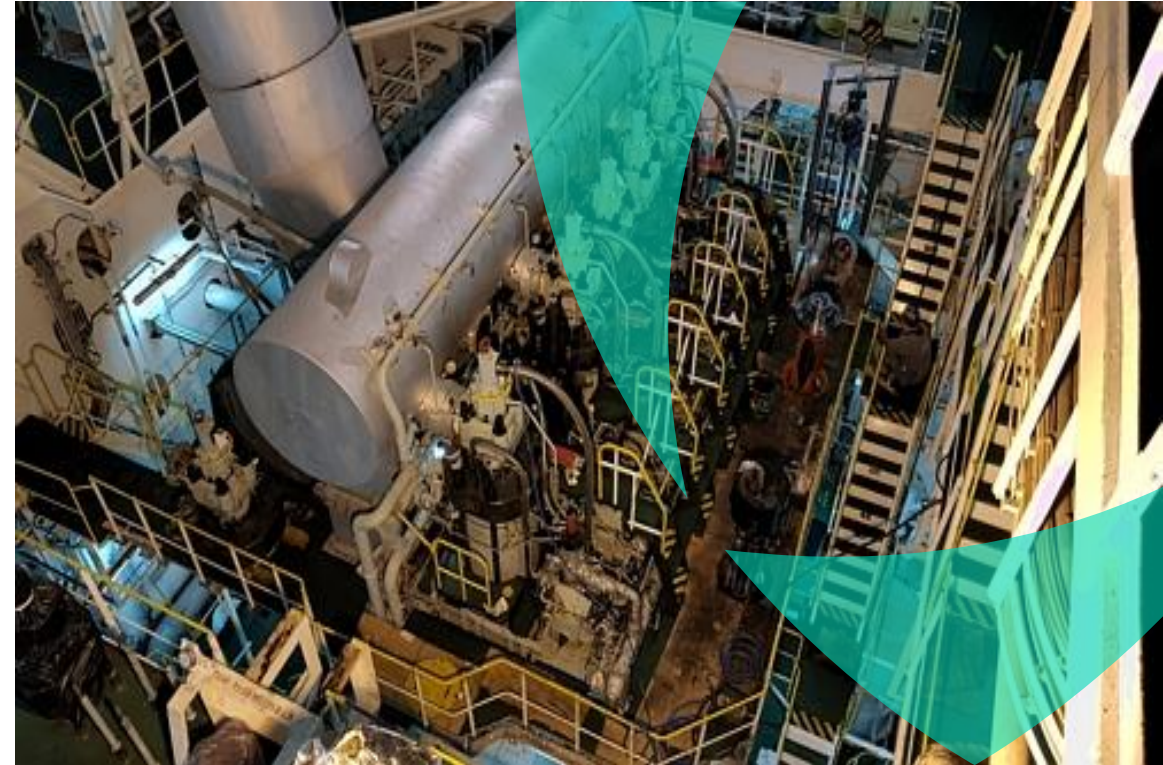
1. The Owner's analysis indicate presence of unwanted chemical species in the fuel.
2. The fuel contain hazardous and toxic compounds which are not healthy for vessel's crew which is in violation of clause 5 of ISO8217.
3. Pass on info / statements from Owners to Suppliers.
4. Ask Suppliers, with reference to Annex B, to demonstrate that an adequate quality management system is in place incl. testing protocol to avoid delivery of inferior fuel.

Suppliers (Sellers)

1. Same arguments Charterers use against Owners (standard tests in order, no industry standards for additional testing etc.)
2. Time bar (7, 14 or 30 days)
3. Only suppliers retained BDN sample final and binding
4. Clause 5 allows concentrations if safe for crew and fit for use. No proof that these suspected chemical species caused the damage or cannot be burned.

Recommendations:

- Set-up GCMS data center to understand better what components/concentrations/combinations cause problems.
- Regulate and identify appropriate more forensic test methods (GCMS) so minimize different results and compound-name between the testing firms.
- Buy from reputable suppliers with good quality management system to minimize the risk of chemical contamination.



Whatever it takes 24/7

Questions :
walter.dekkers@ameydemarine.com

www.ameydemarine.com

Van Ameyde Marine 