

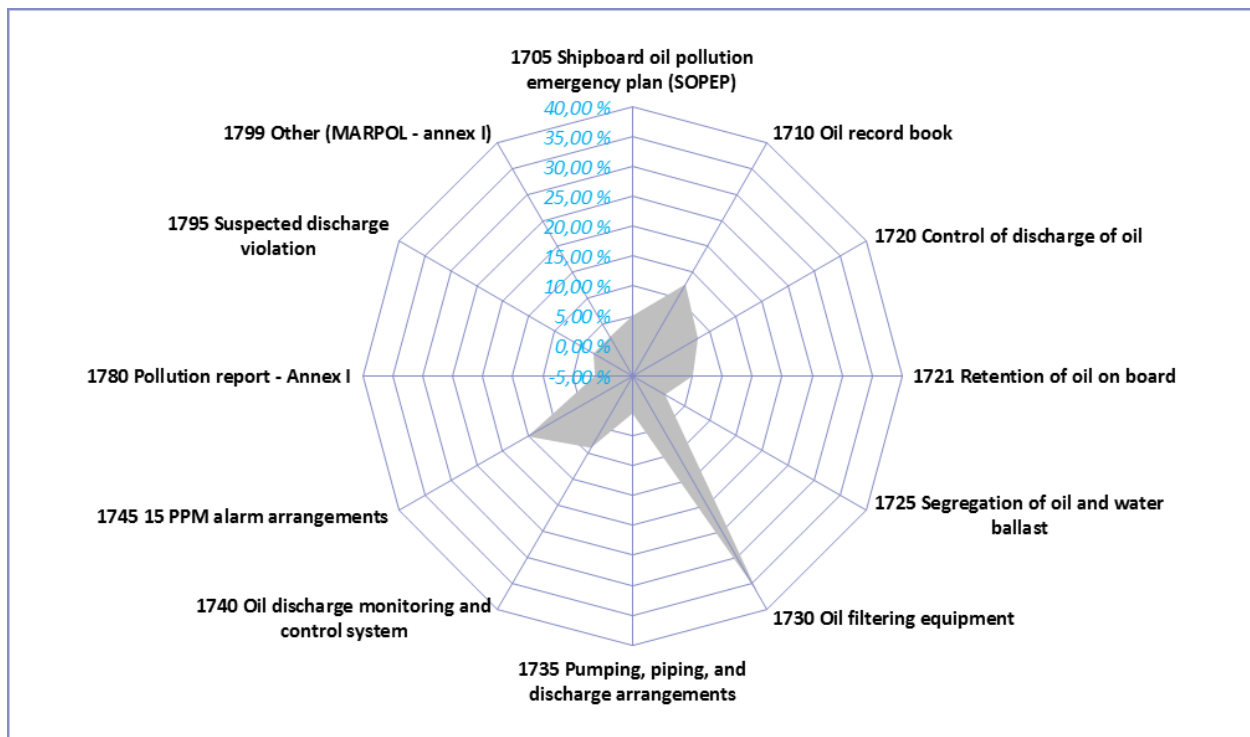


CL-01/2019

## Oil Record Book Errors

According to the DNV report about 7% of deficiencies related to MARPOL - Annex I are specifically oil record book errors.

The PSCO will also review the engineer's oil record book. This book must document all shipboard oil transfers and discharge operations. During a PSC inspection, the PSCO checks for irregularities. Common irregular entries found in the oil record book include dates that are out of order, missing pages, repetitive entries and discrepancies with tank level entries that were recorded in earlier entries. The inspector will search for entries that may indicate tampering of the automatic recording devices.



Source: DNV-GL

The accuracy of entries in the Oil Record Book is one of the key points during the vessel's inspection by the Port State and Flag State authorities.

Let us examine some of the codes of the Oil Record Book (Part I) - Machinery space operations (All Ships):

**(A) BALLASTING OR CLEANING OF OIL FUEL TANKS**

**(B) DISCHARGE OF DIRTY BALLAST OR CLEANING WATER FROM OIL FUEL TANKS REFERRED TO UNDER SECTION (A)**

At the moment, fuel tanks are not typically used for ballasting on container/bulker fleet. Fuel and ballast systems are independent from each other. However, on ships built 2-3 decades earlier there are so-called fuel-ballast systems of dual purpose. When such vessels approach ports with limited depth of the fairway or sailing to a destination on rivers loading seawater to fuel oil tanks becomes quite necessary. The capacity of used tanks can reach thousands of tons. After the departure from the above-mentioned areas of navigation the problem of dirty ballast discharging rises. Dirty ballast water must be pumped out through 15 ppm OWS overboard or into shore facilities. Since Oily Water Separator pump rate ranges mainly from 5 to 10 m<sup>3</sup> per hour it is not difficult to predict that pumping out 2,000 m<sup>3</sup> of dirty ballast takes 200-400 hours subsequently. Unfortunately, the duration of the sea passage is often not as long, therefore cases occur when crews violate MARPOL requirements in the matter of proper dirty ballast water discharge.

**(C) COLLECTION, TRANSFER AND DISPOSAL OF OIL RESIDUES (SLUDGE)**

The greatest number of errors in Oil Record Book entries happens under Codes C and D. The list of these errors includes the loss of a certain amount of sludge due to carelessness; discrepancy between the amount of sludge accumulated and amount of fuel consumed.

It is considered that the amount of generated sludge should be within 1-1.5% of the fuel consumed. In fact, the formation of sludge depends on various factors. A preliminary assessment of the bunkered fuel specification can provide a lot of useful information, such as the presence of ash, catalytic fines, water, etc.

Very often, the ratio of sludge to consumed fuel is very large. Chief Engineers are explaining that by sudden leaks in the system or malfunctioning of the HFO/LO purifiers. Nevertheless, these cases are not reflected in the engine logbook because it is possible to compare this statement with the testimony of the alarm system. This matter is related to the problem of fuel overconsumption.

**(D) NON-AUTOMATIC STARTING OF DISCHARGE OVERBOARD, TRANSFER OR DISPOSAL OTHERWISE OF BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES**

No fewer remarks are imposed by Flag State inspectors or PSC inspectors about pumping out bilge water overboard. The following errors are not rare: not indicating the position of the vessel, the discrepancy between the time entered into Oil Record Book and the time on the memory card of Oily Water

Separator control panel, as well as between amounts of discharged water and the oily water separator pump rate.

**(E) AUTOMATIC STARTING OF DISCHARGE OVERBOARD, TRANSFER OR DISPOSAL OTHERWISE OF BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES**

This operation is not normally used by crews. The reason for this is that most vessels operate in UMS mode at night. All the accumulated water in the bilge wells is pumped out automatically into the bilge tank but not overboard. If unexpected leakage of fuel oil or lube oil happens, the automatic start of OWS would lead to rapid contamination of OWS.

**(F) CONDITION OF THE OIL FILTERING EQUIPMENT**

**(G) ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL**

These types of discharges are extremely rare and are the result of actions required to save the ships and the crews' lives.

**(H) BUNKERING OF FUEL OR BULK LUBRICATING OIL**

**(I) ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS**

Optional sealing of MARPOL Annex I related valve and/or equipment is an operation registered under the Code I. Quite often crews ignore this step and subsequently receive comments or recommendations from inspectors. Instructions for seals must be made clear. Ambiguous interpretation of the word "optional" should be avoided because this leads to unpleasant discussions with the port authorities. The best decision would be to omit the word "optional" by the Flag State administrations during the next revision of the oil record book.

According to requirements, the 15-ppm device should be checked regularly, and records should be made in the engine logbook and Oil Record Book. An entry about device verification must be inserted under the Code I.

The errors and omissions mentioned above in the conduct of ORB are only part of the possible claims. By the request of the Flag State Administration or the ship-owners, Bunker Protection team Inc. executes remote evaluations on the accuracy of filling out of the oil record book. An assessment will be made within a short notice with a detailed report and recommendations.

For further enquiries, please contact Bunker Protection Team Inc. at [info@bunker-protection.com](mailto:info@bunker-protection.com)

# Appendix

## 1. Two different items are combined

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Name of ship: \_\_\_\_\_ IMO number: \_\_\_\_\_  
 Nom du navire : \_\_\_\_\_ Numéro OMI : \_\_\_\_\_

**MACHINERY SPACE OPERATIONS - OPÉRATIONS CONCERNANT LA TRANCHE DES MACHINES**

(ALL SHIPS) (TOUS LES NAVIRES)

Date (dd-mm-yyyy) (jj-mm-aaaa)	Code (letter) (lettre)	Item (number) Rubrique (numéro)	Record of operations - Opération	Signature of officer in charge de l'officier responsable
09/10/2015	H	26.1.2	DAVAO, PHILIPPINES, 15:15 - 18:40	1
		26.3	IF 380, 186.605 mt. Port Fwd BKR 170 mt, TOTAL 184; Port Att BKR 16.6 mt, TOTAL 144 mt.	
10-Oct-2015	C	12.2	Transferred 1.0 m <sup>3</sup> of HFO from FO drain K, retained 0.9 m <sup>3</sup> , into HFO storage K Fwd PS Total content of HFO storage K Fwd PS - 169.4 m <sup>3</sup>	
10-Oct-2015	D	13	7.2 m <sup>3</sup>	
		14	start - 08:25 LT; stop - 16:10 LT	
		15.1	through 15 ppm equipment start: $\varphi = 06^{\circ}02.1'N$ , $\lambda = 126^{\circ}43.5'E$ stop: $\varphi = 05^{\circ}46.5'N$ , $\lambda = 128^{\circ}10.0'E$ Bilge water collecting K ROB - 74.5 m <sup>3</sup>	
10-Oct-2015	F	19	10:30 LT	
		20	13:00 LT	
		21	Replaced coalescer and absorber cartridges due to presence of mud in the water inside of bilge water collec- ting K.	

Signature of master \_\_\_\_\_

2. Entry inaccuracy

Name of ship: \_\_\_\_\_ IMO number: \_\_\_\_\_  
 Nom du navire : \_\_\_\_\_ Numéro OMI : \_\_\_\_\_

MACHINERY SPACE OPERATIONS - OPÉRATIONS CONCERNANT LA TRANCHE DES MACHINES

(ALL SHIPS)

(TOUS LES NAVIRES)

Date (dd-mm-yyyy) (jj-mm-aaaa)	Code (letter) (lettre)	Item (number) Rubrique (numéro)	Record of operations - Opération	Signature of officer in charge de l'officier responsable
09/11/2015	H	26.1.2.	BALBOA, PANAMA, 21:15 - 23:40	
		3	IF 380 LHO. 23 mt, Port FWD BCR <del>187 mt</del> 187 mt; Port Aft 79 mt, 155 mt. STD Aft 174 mt, 174 mt.	
09-Nov-2015	C	12.1	Disposal 16 m <sup>3</sup> of sludge from sludge E to barge "Ecomar I" in port Balboa, retained - 0,0 m <sup>3</sup>	
09-Nov-2015	D	13	20,0 m <sup>3</sup>	
		14	12:42 - 14:22 RT	
		15.2	Disposal from Bilge water collec- ting E to barge "Ecomar I" in Port Balboa, retained - 0,0 m <sup>3</sup>	
11-Nov-2015	I		Weekly inventory of Bilge water collecting E, ROB - 0,0 m <sup>3</sup>	
11-Nov-2015	C	11	Collection of oil residues	
		11.1	Sludge E	
		11.2	17,8 m <sup>3</sup>	
		11.3	1,1 m <sup>3</sup>	
11-Nov-2015	C	11	Collection of oil residues	
		11.1	FO drain E	
		11.2	8,6 m <sup>3</sup>	
		11.3	2,1 m <sup>3</sup>	

Signature of master \_\_\_\_\_

3. Wrong item

Name of ship: \_\_\_\_\_  
Nom du navire : \_\_\_\_\_

IMO number: \_\_\_\_\_  
Numéro OMI : \_\_\_\_\_

MACHINERY SPACE OPERATIONS - OPÉRATIONS CONCERNANT LA TRANCHE DES MACHINES

(ALL SHIPS)

(TOUS LES NAVIRES)

Date (dd-mm-yyyy) (j-mm-aaaa)	Code (letter) (lettre)	Item (number) Rubrique (numéro)	Record of operations - Opération	Signature of officer in charge de l'officier responsable
08/12/2015	H	3	MOBILGARD 560 VS 2993 LITS MOBILGARD M430 2934 LITS.	
13/12/2015	C	12	Approx 20,000 LITS FROM SLUDGE TK AUXY DIRTY H/TZ & BILGE TK TO TRUCK IN SARMA. SLUDGE TK 0m <sup>3</sup> , AUXY L.O. TK - 1m <sup>3</sup> , BILGE TK - 5m <sup>3</sup>	
21/12/2015	C	12.4	TRANSFERRED OIL CONTAMINATED. HO FROM BILGE W/SLAFT MIE INTO AUX DIRTY HO TK IN QUANTITY OF 096m <sup>3</sup> . AUX DIRTY HO TK RETENTION: 226m <sup>3</sup> .	
21/12/2015	C	11	COLLECTION OF OIL RESIDUES.	
		11.1	SLUDGE TK.	
		11.2	17.8m <sup>3</sup> CAP.	
		11.3	5.46m <sup>3</sup> RET.	
21/12/2015	C	11	COLLECTION OF OIL RESIDUES.	
		11.1	F/O DRAIN TK.	
		11.2	8.6m <sup>3</sup> CAP.	
		11.3	1.12m <sup>3</sup> RET.	
21/12/2015	C	11	COLLECTION OF OIL RESIDUES.	
		11.1	AUX DIRTY HO TK.	
		11.2	8.6m <sup>3</sup> CAP.	
		11.3	2.26m <sup>3</sup> RET.	
21/12/2015	I		WEEKLY INVENTORY OF BILGE WATER. COLLECTION TK : RET: 8.59m <sup>3</sup>	

Signature of master \_\_\_\_\_

4. Wrong item

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Name of ship: \_\_\_\_\_  
Nom du navire : \_\_\_\_\_

IMO number: \_\_\_\_\_  
Numéro OMI : \_\_\_\_\_

MACHINERY SPACE OPERATIONS - OPÉRATIONS CONCERNANT LA TRANCHE DES MACHINES

(ALL SHIPS)

(TOUS LES NAVIRES)

Date (dd-mm-yyyy) (j-j-mm-aaaa)	Code (letter) (lettre)	Item (number) Rubrique (numéro)	Record of operations - Opération	Signature of officer in charge de l'officier responsable
29-12-15	C	11	COLLECTION OF OIL RESIDUES.	
		11.1	SLUDGE TK.	
		11.2	17.8m <sup>3</sup>	
		11.3	6.34m <sup>3</sup>	
29-12-15	C	11	COLLECTION OF OIL RESIDUES	
		11.1	FUEL DRAIN TK.	
		11.2	8.6m <sup>3</sup>	
29-12-15	C	11	COLLECTION OF OIL RESIDUES.	
		11.1	AUX DIRTY HO TK.	
		11.2	8.6 m <sup>3</sup> .	
29-12-15	C	11	COLLECTION OF OIL RESIDUES.	
		11.1	AUX DIRTY HO TK.	
		11.2	8.6 m <sup>3</sup> .	
29-12-15	I		WEEKLY INVENTORY OF BILGE HO COLLECTION TK: NET: 9.81m <sup>3</sup> .	
30-12-15	H	26.1	STERLING FUELS - WINDSOR ON	
		26.2	1101 - 14 <sup>19</sup>	
		26.3	ADDED. 160.08 MT 1FO 380 TO AFT- PORT/STBD BUNKER TKS - 306.36 MT RETAINED IN AFT PORT/STBD TKS.	
		26.3	ADDED. 16.36 MT MDO TO PORT/STBD DHO TKS - 534MT RETAINED.	
		26.3.	ADDED. 7023.10L MOBILGARD 300 : 12.410 9B.	
		26.3	ADDED. 7536.3L MOBILGARD 560vs : 15.936 9B.	
		26.3	ADDED. 1211.4 L MOBILGARD 430 : 5895 01B.	

Signature of master

5. Record of amount of sludge/waste discharged and retained for each tank should be inserted.

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Name of ship: \_\_\_\_\_ IMO number: \_\_\_\_\_  
 Nom du navire : \_\_\_\_\_ Numéro OMI : \_\_\_\_\_

**MACHINERY SPACE OPERATIONS - OPÉRATIONS CONCERNANT LA TRANCHE DES MACHINES**

(ALL SHIPS) (TOUS LES NAVIRES)

Date (dd-mm-yyyy) (jj-mm-aaaa)	Code (letter) (lettre)	Item (number) Rubrique (numéro)	Record of operations - Opération	Signature of officer in charge de l'officier responsable
30-12-15	C	12.1	STERLING FUELS - WINDSOR, ON1 PUMPED 20MT OF WASTE OIL FILM. AUX DIRTY 40 TK; SLUDGE TK; E/A BILGE TO SHORESIDE FACILITY.	5
01-01-16	C	12.2	TRANSFER 2.13 m <sup>3</sup> OF HFO FROM F10 DRAIN TK INTO PORT AFT HFO BUKE TK. RETAINED 1.2 m <sup>3</sup> PORT AFT BUKE @ 132.8 m <sup>3</sup>	
06-01-2016	C	11	Collection of oil residues	
		11.1	Sludge F	
		11.2	17.8 m <sup>3</sup>	
		11.3	1.6 m <sup>3</sup>	
06-01-2016	C	11	Collection of oil residues	
		11.1	F0 drain F	
		11.2	8.6 m <sup>3</sup>	
		11.3	1.3 m <sup>3</sup>	
06-01-2016	C	11	Collection of oil residues	
		11.1	Aux. Dirty Oil F	
		11.2	8.6 m <sup>3</sup>	
		11.3	0.8 m <sup>3</sup>	
06-01-2016	I		weekly inventory of Bilge water Collecting F; ROB - 11.6 m <sup>3</sup>	

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Signature of master