INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No LDR0/TSD/20191218135535

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC.176(58) in 2008, to amend the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention")
under the authority of the Government of

GOVERNMENT OF IRELAND

By BUREAU VERITAS

Name of Ship BV No : **08862K**	Distinctive Number or Letters	Port of Registry	Gross Tonnage
ARKLOW FAME	EIXN	ARKLOW	2998

IMO number : 9361720

THIS IS TO CERTIFY

1. That the ship has been surveyed in accordance with Regulation 5 of Annex VI of the Convention; and

2. That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of the survey on which this Certificate is based : 26/08/2016

This Certificate is valid until* **17 October 2021**
subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at Newcastle, UK, on the 18 December 2019

Valid only when the Supplement No. LDR0/TSD/20191218135022 is available for inspection.

BUREAU VERITAS

Lisa Burton

By Order of the Secretary

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* Insert date of expiry as specified by the Administration in accordance with regulation 9.1 of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2.3 of Annex VI of the Convention, unless amended with regulation 9.8 of Annex VI of the Convention.

IAPP CERTIFICATE No : LDR0/TSD/20191218135535
NAME OF SHIP : ARKLOW FAME
BV REGISTER : 08862K

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of that Annex :

Annual survey

Signed : Michael Morgan
(Surveyor to BUREAU VERITAS)

Place : Cork, Ireland
Date : 06 December 2019

☒ Annual survey
☐ Intermediate survey

Signed : Andrew Coombs
(Surveyor to BUREAU VERITAS)

Place : Northfleet, UK
Date : 04 January 2019

☐ Annual survey
☐ Intermediate survey

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

Annual survey

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

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ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 9.8.3

THIS IS TO CERTIFY that, at an survey in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex:

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 9.3 APPLIES

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 9.4 APPLIES

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

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NAME OF SHIP : ARKLOW FAME
BV REGISTER : 08862K

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION 9.5 OR 9.6 APPLIES

This certificate shall, in accordance with regulation of Annex VI of the Convention, be accepted as valid until

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 9.8 APPLIES

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is

Signed :
(Surveyor to BUREAU VERITAS)

Place :
Date :

BUREAU VERITAS MARINE & OFFSHORE SAS

No LDR0/TSD/20191218135022

SUPPLEMENT TO THE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

(IAPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT

Notes :

1. This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.
2. The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
3. Entries in boxes shall be made by inserting either a cross (X) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
4. Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars refer to those adopted by the International Maritime Organization.

1. PARTICULARS OF SHIP

1.1. Name of ship: **ARKLOW FAME**

BV Register: **08862K**

1.2. IMO Number: **9361720**

1.3. Date on which keel was laid or ship was at a similar stage of construction: **24 August 2005**

1.4. Length (metres)*: -/-

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** completed only in respect of ships constructed on or after 1 January 2016, that are specially designed, and used solely for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NOx emission limits given in regulation 13.5.1.1 will not apply.*

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2. CONTROL OF EMISSIONS FROM SHIPS

2.1 Ozone-depleting substances (regulation 12)

2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone depleting substances, other than hydro-chlorofluorocarbons, installed before 19 May 2005 may continue in service

System or equipment	Location on board	Substance
–	–	–
–	–	–
–	–	–
–	–	–

2.1.2 The following systems containing hydro-chlorofluorocarbons (HCFCs) installed before 1 January 2020 may continue in service

System or equipment	Location on board	Substance
–	–	–
–	–	–
–	–	– –
–	–	–

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2.2 Nitrogen oxides (NOx) (regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

Applicable regulation of MARPOL Annex VI (NTC = NOx Technical Code 2008) (AM = Approved method)			**Engine #1**	**Engine #2**	**Engine #3**
1	Manufacturer and model		Caterpillar Motoren GmbH KG 6 M 25	SISU Diesel Inc, 634 DSBIMG	SISU Diesel Inc, 634 DSBIMG
2	Serial number		44215	R15995	R15996
3	Use (applicable application cycle(s) - NTC 3.2)		D2	E2	E2
4	Rated power (kW) (NTC 1.3.11)		1980	170	170
5	Rated speed (RPM) (NTC 1.3.12)		750	1500	1500
6	Identical engine installed on or after 1/1/2000 exempted by 13.1.1.2		[-]	[-]	[-]
7	Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2		–	–	–
8a	Major conversion (dd/mm/yyyy)	13.2.1.1 & 13.2.2	–	–	–
8b		13.2.1.2 & 13.2.3	–	–	–
8c		13.2.1.3 & 13.2.3	–	–	–
9a	Tier I	13.3	[x]	[x]	[x]
9b		13.2.2	[-]	[-]	[-]
9c		13.2.3.1	[-]	[-]	[-]
9d		13.2.3.2	[-]	[-]	[-]
9e		13.7.1.2	[-]	[-]	[-]
10a	Tier II	13.4	[-]	[-]	[-]
10b		13.2.2	[-]	[-]	[-]
10c		13.2.2 (Tier III not possible)	[-]	[-]	[-]
10d		13.2.3.2	[-]	[-]	[-]
10e		13.5.2 (Exemptions)	[-]	[-]	[-]
10f		13.7.1.2	[-]	[-]	[-]
11a	Tier III (ECA-NOx only)	13.5.1.1	[-]	[-]	[-]
11b		13.2.2	[-]	[-]	[-]
11c		13.2.3.2	[-]	[-]	[-]
11d		13.7.1.2	[-]	[-]	[-]
12	AM*	Installed	[-]	[-]	[-]
13		Not commercially available at this survey	[-]	[-]	[-]
14		Not applicable	[-]	[-]	[-]

** Refer to the 2014 Guidelines on the approved method process (resolution MEPC.243(66)).*

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SUPPLEMENT TO IAPP CERTIFICATE No : LDR0/TSD/20191218135022
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Applicable regulation of MARPOL Annex VI (NTC = NOx Technical Code 2008) (AM = Approved method)			**Engine #4**	**Engine #5**	**Engine #6**
1	Manufacturer and model		- -	- -	- -
2	Serial number		-	-	-
3	Use (applicable application cycle(s) - NTC 3.2)				
4	Rated power (kW) (NTC 1.3.11)				
5	Rated speed (RPM) (NTC 1.3.12)				
6	Identical engine installed on or after 1/1/2000 exempted by 13.1.1.2		[-]	[-]	[-]
7	Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2		–	–	–
8a	Major conversion (dd/mm/yyyy)	13.2.1.1 & 13.2.2	–	–	–
8b		13.2.1.2 & 13.2.3	–	–	–
8c		13.2.1.3 & 13.2.3	–	–	–
9a	Tier I	13.3	[-]	[-]	[-]
9b		13.2.2	[-]	[-]	[-]
9c		13.2.3.1	[-]	[-]	[-]
9d		13.2.3.2	[-]	[-]	[-]
9e		13.7.1.2	[-]	[-]	[-]
10a	Tier II	13.4	[-]	[-]	[-]
10b		13.2.2	[-]	[-]	[-]
10c		13.2.2 (Tier III not possible)	[-]	[-]	[-]
10d		13.2.3.2	[-]	[-]	[-]
10e		13.5.2 (Exemptions)	[-]	[-]	[-]
10f		13.7.1.2	[-]	[-]	[-]
11a	Tier III (ECA-NOx only)	13.5.1.1	[-]	[-]	[-]
11b		13.2.2	[-]	[-]	[-]
11c		13.2.3.2	[-]	[-]	[-]
11d		13.7.1.2	[-]	[-]	[-]
12	AM*	Installed	[-]	[-]	[-]
13		Not commercially available at this survey	[-]	[-]	[-]
14		Not applicable	[-]	[-]	[-]

** Refer to the 2014 Guidelines on the approved method process (resolution MEPC.243(66)).*

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2.3 Sulphur oxides (SOx) and particulate matter (regulation 14)

2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:

.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
[-] 4,50% m/m (not applicable on or after 1 January 2012); or
[-] 3,50% m/m (not applicable on or after 1 January 2020); or
[x] 0,50% m/m and/or

.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in term of SOx emission reductions as compared to using a fuel oil with a sulphur content limit value of:
[-] 4,50% m/m (not applicable on or after 1 January 2012); or
[-] 3,50% m/m (not applicable on or after 1 January 2020); or
[-] 0,50% m/m

2.3.2 When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses:

.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
[-] 1,00% m/m (not applicable on or after 1 January 2015); or
[x] 0,10% m/m and/or

.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in terms of SOx emission reductions as compared to using a fuel oil with a sulphur content limit value of:
[-] 1,00% m/m (not applicable on or after 1 January 2015); or
[-] 0,10% m/m

2.4 Volatile organic compounds (VOCs) (regulation 15)

[-] 2.4.1 The tanker has a vapour collection system installed and approved in accordance with MSC/Circ.585
[-] 2.4.2.1 For a tanker carrying crude oil, there is an approved VOC Management Plan.
2.4.2.2 VOC Management Plan approval reference:

2.5 Shipboard incineration (regulation 16):

The ship has an incinerator:

.1 installed on or after 1 January 2000 that complies with:
[x] .1 resolution MEPC.76(40) as amended by resolution MEPC.93(45).
[-] .2 resolution MEPC.244(66).

.2 installed before 1 January 2000 that complies with:
[-] .1 resolution MEPC.59(33), as amended by resolution MEPC.92(45).
[-] .2 resolution MEPC.76(40) as amended by resolution MEPC.93(45).

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2.6 Equivalents (regulation 4):

The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

System or equipment	Equivalent used	Approval reference

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at Newcastle, UK, on the 18 December 2019

BUREAU VERITAS

Lisa Burton
By Order of the Secretary