INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No LDR0/AGM/20220717111858-E1

Issued under the provisions of the Protocol of 1997, as amended 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 MARINE & OFFSHORE

Name of Ship BV No : 07982D	Distinctive Number or Letters	Port of Registry	Gross Tonnage
ARKLOW RAVEN	EIXR	ARKLOW	2999

IMO number: 9344538 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: 17 July 2022

This Certificate is valid until * 20 June 2027 subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at Swansea, on the 17 July 2022

Valid only when the Supplement No. LDR0/AGM/20220717111858-E1/SUPP is available for inspection.

BUREAU VERITAS MARINE & OFFSHORE

Andrew Gom



This document is electronically signed and does not require a manual signature as defined in IMO guideline FAL.5-Circ.39.

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By Order of the Secretary

^{*} 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 2.1.3 of Annex VI of the Convention, unless amended with regulation 9.8 of Annex VI of the Convention.

IAPP CERTIFICATE No: LDR0/AGM/20220717111858-E1

NAME OF SHIP: ARKLOW RAVEN

BV REGISTER : 07982D

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

vith the relevant provision	ns of that Annex:	1
Annual survey	Signed: Francisco J. Mardaras (Surveyor to BUREAU VERITAS MARINE & OFFSHORE) Place: Bilbao Date: 31 August 2023	THE ATTOMAL REGISTER
☐ Annual survey ☐ Intermediate survey	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE) Place: Date:	
☐ Annual survey ☐ Intermediate survey	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE) Place: Date:	
Annual survey	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE) Place:	

IAPP CERTIFICATE NO NAME OF SHIP : ARKI BV REGISTER : 07982	
ANNUAL/INTI	ERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 9.8.3
	, at an survey in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found
	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE)
	Place: Date:
	DORSEMENT TO EXTEND THE CERTIFICATE IFVALID LESS THAN 5 YEARS WHERE REGULATION 9.3 APPLIES
The ship complies with the α	relevant provisions of the Annex, and this Certificate shall, in accordance with regulation 9.3 of Annex cepted as valid until
	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE)
	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 MARINE & OFFSHORE)
Place:
Date:

IAPP CERTIFICATE No: LDR0/AGM/20220717111858-E1

NAME OF SHIP: ARKLOW RAVEN

BV REGISTER : 07982D

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 acc	cordance with regulation of Annex VI of the Convention, be accepted as valid until
	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE)
	Place:
	Date:
ENDOR	SEMENT 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 MARINE & OFFSHORE)
	Place:
	Date:
In accordance with regulation	9.8 of Annex VI of the Convention, the new anniversary date is
	Signed: (Surveyor to BUREAU VERITAS MARINE & OFFSHORE)
	Place:
	Date:

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 RAVEN**

BV Register: 07982D

1.2. IMO Number: 9344538

1.3. Date on which keel was laid or ship was at a similar stage of construction: 01 December 2004

1.4. Length (metres)*:



^{*} 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 limit as given by regulation 13.5.1.1 will not apply.

SUPPLEMENT TO IAPP CERTIFICATE No: LDR0/AGM/20220717111858-E1/SUPP

NAME OF SHIP: ARKLOW RAVEN

BV REGISTER: 07982D

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

- 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 #No.1	Engine #No.2	Engine #No.3	
1	Manufacturer and model		Caterpillar 6M25	SISU Diesel 645DSBIG	SISU Diesel 645DSBIG
2	Serial number		42548	R12023	R17085
3	Use (applicable NTC 3.2)	application cycle(s) –	E2	D2	D2
4	Rated power (k)	W) (NTC 1.3.11)	1800	180	180
5	Rated speed (RF	PM) (NTC 1.3.12)	750	1500	1500
5	Identical engine installed on or after 1/1/2000 exempted by 13.1.1.2		-	-	-
7	Identical engine (dd/mm/yyyy) a	s per 13.1.1.2	-	-	-
3a		13.2.1.1 & 13.2.2	-	-	-
3b	Major conversion	13.2.1.2 & 13.2.3	-	-	-
3c	(dd/mm/yyyy)	13.2.1.3 & 13.2.3	-	-	-
9a		13.3	X	X	X
9b		13.2.2	-	-	-
e e	Tier I	13.2.3.1	-	-	-
9d		13.2.3.2	-	-	-
e e		13.7.1.2	-	-	-
0a		13.4	-	-	-
0b		13.2.2	-	=	-
0c		13.2.2 (Tier III not possible)	-	-	-
0d	Tier II	13.2.3.2	-	-	-
10e		13.5.2 (Exemptions)	-	-	-
0f		13.7.1.2	-	-	-
1a	_	13.5.1.1	-	-	-
1b	Tier III	13.2.2	-	-	-
1c	(ECA-NOx only)	13.2.3.2	-	-	-
1d		13.7.1.2	-	-	-
2		Installed	-	-	-
13	AM*	Not commercially available at this survey	-	-	-
4		Not applicable	-	-	_

 $^{* \}textit{Refer to the 2014 Guidelines on the approved method process (resolution MEPC.243(66))}.$

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NAME OF SHIP: ARKLOW RAVEN

BV REGISTER: 07982D

- 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:
 - [X].1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 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 0,50% m/m
- 2.3.2 When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses:
 - [X].1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 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 0,10% m/m
- [X] 2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes
- [-] 2.3.4 The ship is fitted with designated sampling point(s) in accordance with regulation 14.10 or 14.11
- [-] 2.3.5 In accordance with regulation 14.12, the requirement for fitting or designating sampling point(s) in accordance with regulation 14.10 or 14.11 is not applicable for a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship
- 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:
 - [-] .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 Swansea, on the 17 July 2022

BUREAU VERITAS MARINE & OFFSHORE

Andrew Gom



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By Order of the Secretary