

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 100874-V004-006

Note: This Certificate shall be supplemented by a Record of Construction and Equipment



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")

RINA No. 100874

under the authority of the Government of the

Ireland

by

RINA SERVICES S.p.A.

Name of ship	Distinctive number or letters	Gross tonnage
ARKLOW RESOLVE	EIA2631	4145

Port of registry	IMO Number ¹
ARKLOW	9923255

THIS IS TO CERTIFY:

- 1 that the ship has been surveyed in accordance with Regulation 5 of Annex VI of the International Convention; and
- 2 that the survey shows that the equipment, systems, fittings, arrangement and materials fully comply with the applicable requirements of Annex VI of the Convention.

¹ In accordance with the IMO Ship Identification Number Scheme, adopted by the Organization by resolution A.1117(30).

Completion date of survey on which this Certificate is based:²**22 March 2024**This Certificate is valid until:³**22 March 2029**

subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at: **ROTTERDAM**on **09 July 2024**

This is an electronically signed document in accordance with IMO FAL.5/Circ.39 and does not require a handwritten signature. Validation and authentication of the paper printout may be obtained from <https://ecertificate.rina.org>

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² Format date (dd/mm/yyyy)

³ Insert the 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 in accordance with regulation 9.8 of Annex VI of the Convention.

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 the Convention.

Annual survey	Signature and seal
Place	
Date	
Place	Signature and seal
Date	
Place	Signature and seal
Date	
Annual survey	Signature and seal
Place	
Date	

(*) Delete as appropriate

Annual/Intermediate Survey in accordance with Regulation 9.8.3

Place	Signature and seal
Date	

Endorsement to extend the certificate if valid for less than 5 years where regulation 9.3 applies

This 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 _____

Place	Signature and seal
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 _____

Place	Signature and seal
Date	

(*) Delete as appropriate

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

Place	Signature and seal
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 _____

Place	Signature and seal
Date	

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

Place	Signature and seal
Date	

(*) Delete as appropriate

SUPPLEMENT TO THE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 100874-V004-006 - R

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 If the language of the original Record is not English, French or Spanish, the text shall include a translation into one of these languages
	3 Entries in boxes shall be made by inserting either a cross (x) for the answer "yes" and "applicable" or a dash (-) for the answer "no" and "not applicable" as appropriate.
	4 Regulation mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1 Particulars of ship

RINA No. 100874

1.1	Name of ship	ARKLOW RESOLVE
1.2	IMO Number	9923255
1.3	Date on which keel was laid or ship was at similar stage of construction	08 December 2020
1.4	Length (L) metres ¹	

2 Control of emission 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 (HCFCs), 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

¹ 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.

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	Engine #4	Engine #5	Engine #6
Manufacturer and model	Caterpillar Motoren GmbH. & Co KG 6M25C	Perkins Engines Company Limited C7.1 Acert	Perkins Engines Company Limited C7.1 Acert			
Serial number	45684	A6E02065	A6E02070			
Use (applicable application cycle(s) NTC 3.2) (*)	E2	D2	D2			
Rated Power (kW) (NTC 1.3.11)	1740	164	164			
Rated speed (rpm) (NTC 1.3.12)	720	1500	1500			
Identical engine installed >= 1/1/2000 exempted by 13.1.1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identical engine installation date(dd/mm/yyyy) as per 13.1.1.2	-	-	-			
Date of major conversion (dd/mm/yyyy)	Reg. 13.2.1.1 & 13.2.2	-	-	-		
	Reg. 13.2.1.2 & 13.2.3	-	-	-		
	Reg. 13.2.1.3 & 13.2.3	-	-	-		
Tier I	Reg. 13.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.7.1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tier II	Reg. 13.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.2 (Tier III not possible)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.5.2 (Exemptions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.7.1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tier III (ECA-NOx only)	Reg. 13.5.1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.2.3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reg. 13.7.1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approved method	Installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not commercially available at this survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Non Applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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:

2.3.1.1 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

2.3.1.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in in paragraph 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:

0.50% m/m, and/or

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

2.3.2.1 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

2.3.2.2 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 and/or



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 vapor collection system installed and approved in accordance with MSC/Circ.585



2.4.1.1 For a tanker carrying crude oil, there is an approved VOC Management Plan



2.4.1.2 VOC Management Plan approval references:

2.5 Shipboard incineration (regulation 16)

The ship has an incinerator:

2.5.1 installed on or after 1 January 2000 which complies with:

2.5.1.1 resolution MEPC.76(40) as amended²



2.5.1.2 resolution MEPC.244(66)



2.5.2 installed before 1 January 2000 which complies with:

2.5.2.1 resolution MEPC.59(33) as amended²



2.5.2.2 resolution MEPC.76(40) as amended²



2.6 Equivalent (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: **ROTTERDAM**

on **09 July 2024**



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Use(*)	
E2	For constant speed marine engines for ship main propulsion, including diesel electric drive and variable pitch propeller.
E3	For propeller law operated main and propeller law operated auxiliary engines
D2	For constant speed auxiliary engines
C1	For variable speed, variable load auxiliary engines, not included above

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

2 As amended by resolution MEPC.93(45)