

CERTIFICATE OF BOLLARD PULL

Ship's name INDEE	Certificate number GZU 0320502/2
Owner PSA Singapore	LR Office Guangzhou
	Date 30 Mar 2004
Shipbuilder Hin Lee (Zhuhai) Shipyard Co., Ltd	Yard number 4821
Location bollard pull trials held HUD, Hong Kong	Trial date 29 March 2004

This certificate is issued to **Hin Lee (Zhuhai) Shipyard Co., Ltd** to certify that the undersigned Surveyor to Lloyd's Register attended the bollard pull trials stated above for the purpose of ascertaining the bollard pull capacity of the subject ship, at the request of: **Hin Lee (Zhuhai) Shipyard Co., Ltd**

The relevant particulars of the ship and its machinery and propellers together with the significant trials data are listed on page 2 of this certificate. The trials were completed and the following results were obtained:

TRIAL RESULTS

RUN NUMBER	START TIME	END TIME	SHAFT RPM	SHAFT HP	SBP	MBP
1	12:28	12:29	1600	2500X2	58.1	60.4
2	12:29	12:30	1600	2500X2	59.2	60.7
3	12:30	12:31	1600	2500X2	58.2	59.1
4	12:31	12:32	1600	2500X2	59.0	61.5
5	12:32	12:33	1600	2500X2	59.3	60.2

CERTIFIED BOLLARD PULL

It is hereby certified that the vessel under the conditions described on page 2, exerted a Steady Bollard Pull (SBP) over a minimum of 5 minutes duration of: **58.7** tonnes force.

It is also certified that the Maximum Bollard Pull (MBP) during the same five minute interval was **61.5** tonnes force.

These results were recorded, during run number **1 to 5** without the main engine being overloaded.

Shaft driven auxiliaries were fully engaged / not engaged / not fitted (delete as applicable)

Remarks This certificate is valid until 29 March 2004 . Issued at Guangzhou on 30 March 2009 .	Signature - Surveyor to Lloyd's Register of Shipping Z.Q.Li
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SHIP PARTICULARS

Length B.P. (m) LWL 25.0	Moulded depth (m) 5.0
Moulded breadth (m) 11.5	Design draught (m) 5.0

MACHINERY PARTICULARS

Engine builders CATERPILLAR INC, USA	Propeller manufacturer undilusa, Zona Industrial, portugal
Engine type Internal combinstion Engine (3516B)	Propeller plan number 1139310 (approved by LR Hamburg)
Engine number 4BW00536, 4BW00537	Number fitted 2
Engine rating (MCR) 1600RPM	Fixed/CPP FIXED
Gear ratio 5.718:1	Propeller diameter (m) 2400
Shaft driven auxiliaries (HP) 2500X2	Number of blades 4
	Propeller RPM 280
	Propeller duct type NOZZLE (Type Schottel)

TRIAL PARTICULARS

Draught forward (m) 4.9	Water depth (m) 23
Draught aft (m) 5.2	Temperature of water (°C) 15
Mean draught (m) 5.05	Density of water (t/m³) 1.02
Trim (m) 0.22	Wind speed (m/s) 1.0
Displacement (t) 519	Current speed (m/s) 1.0
Immersion of propeller tips (% diameter) 100	Observed wave height (m) 0.2
Distance from stern of ship to pier (m) 200	Height of towing hook above water level (m) 3.0
Type of load cell R3000CSP-200K	Height of bollard above water level (m) 4.5
Date of calibration 16 Apr 2003	Angle of hawser from horizontal plane (deg) 0

Signature - Surveyor to Lloyd's Register of Shipping

Z.Q.Li

CERTIFICATE OF BOLLARD PULL

Ship's name INDEE	Certificate number GZU 0320502/1
Owner PSA Singapore	LR Office Guangzhou
	Date 30 Mar 2004
Shipbuilder Hin Lee (Zhuhai) Shipyard Co., Ltd	Yard number 4821
Location bollard pull trials held HUD, Hong Kong	Trial date 29 March 2004

This certificate is issued to **Hin Lee (Zhuhai) Shipyard Co., Ltd** to certify that the undersigned Surveyor to Lloyd's Register attended the bollard pull trials stated above for the purpose of ascertaining the bollard pull capacity of the subject ship, at the request of **Hin Lee (Zhuhai) Shipyard Co., Ltd**

The relevant particulars of the ship and its machinery and propellers together with the significant trials data are listed on page 2 of this certificate. The trials were completed and the following results were obtained:

TRIAL RESULTS

RUN NUMBER	START TIME	END TIME	SHAFT RPM	SHAFT HP	SBP	MBP
1	10:49	10:50	1600	2500X2	60.9	62.3
2	10:50	10:51	1600	2500X2	64.9	70.1
3	10:51	10:52	1600	2500X2	63.8	69.8
4	10:52	10:53	1600	2500X2	62.7	68.1
5	10:53	10:54	1600	2500X2	62.7	67.2

CERTIFIED BOLLARD PULL

It is hereby certified that the vessel under the conditions described on page 2, exerted a Steady Bollard Pull (SBP) over a minimum of 5 minutes duration of: **63.0** tonnes force.

It is also certified that the Maximum Bollard Pull (MBP) during the same five minute interval was **70.1** tonnes force.

These results were recorded, during run number **1 to 5** without the main engine being overloaded.

Shaft driven auxiliaries were ~~fully engaged~~ / ~~not engaged~~ / not fitted (delete as applicable)

Remarks This certificate is valid until 29 March 2004 . Issued at Guangzhou on 30 March 2009 .	Signature - Surveyor to Lloyd's Register of Shipping. Asia Z.Q.Li
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SHIP PARTICULARS

Length B.P. (m) LWL 25.0	Moulded depth (m) 5.0
Moulded breadth (m) 11.5	Design draught (m) 5.0

MACHINERY PARTICULARS

Engine builders CATERPILLAR INC, USA	Propeller manufacturer undilusa, Zona Industrial, portugal
Engine type Internal combinstion Engine (3516B)	Propeller plan number 1139310 (approved by LR Hamburg)
Engine number 4BW00536, 4BW00537	Number fitted 2
Engine rating (MCR) 1600RPM	Fixed/CPP FIXED
Gear ratio 5.718:1	Propeller diameter (m) 2400
Shaft driven auxiliaries (HP) 2500X2	Number of blades 4
	Propeller RPM 280
	Propeller duct type NOZZLE (Type Schottel)

TRIAL PARTICULARS

Draught forward (m) 4.9	Water depth (m) 26
Draught aft (m) 5.2	Temperature of water (°C) 15
Mean draught (m) 5.05	Density of water (t/m³) 1.02
Trim (m) 0.22	Wind speed (m/s) 1.0
Displacement (t) 519	Current speed (m/s) 1.0
Immersion of propeller tips (% diameter) 100	Observed wave height (m) 0.2
Distance from stern of ship to pier (m) 200	Height of towing hook above water level (m) 2.5
Type of load cell R3000CSP-200K	Height of bollard above water level (m) 4.5
Date of calibration 16 Apr 2003	Angle of hawser from horizontal plane (deg) 0

Signature - Surveyor to Lloyd's Register of Shipping

Z.Q.Li



Certificate of Class

This certificate is issued to the **INDEE**
LR Number **9289635**
Date of Build **30/03/2004**
Port of Registry **Port Hedland, WA**
Gross tons **325**

to confirm that having been surveyed by Lloyd's Register International and having been found in compliance with the Rules and Regulations for the Classification of Ships, the aforesaid ship has been assigned the class

✱ **100A1 Tug**

✱ **LMC UMS**

Date Special Survey Assigned **30 March 2014**

This Certificate is valid until* **29 March 2019**

* Unless extended after completion of a Special Survey (see page 3) or in accordance with Part 1, Chapter 2, Section 3.5.9 of the Rules and Regulations (see page 3) and is subject to surveys as prescribed (see page 2) being satisfactorily completed. (See notes 1 to 4, page 3)

Issued at **Fremantle**
on **27 May 2014**



Vijayan Keyarat
Surveyor to Lloyd's Register International

A subsidiary of Lloyd's Register Group Limited

Note: 1. To establish the classification status of this ship, the ClassDirect Live web site and the Interim Certificates issued on completion of classification surveys should be consulted in addition to this certificate. Access to ClassDirect Live is available via <http://www.cd.live.lr.org>.

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Ships Name INDEE

LR number 9289635

Annual/Intermediate survey endorsements

1st Annual Survey endorsement

Signed:

PP

Peter Hutton

Place of Survey

Port Hedland

Date

15 Jan 2015

Lloyd's Register International

Initials: CJC

Fremantle Marine Office



Lloyd's Register

2nd Annual Survey / Intermediate Survey* endorsement

Signed:

CASAR LING

Place of Survey

PORT HEDLAND

Date

02 FEBRUARY 2016

Lloyd's Register International

Initials: LC

Perth Marine Office



Lloyd's Register

3rd Annual Survey / Intermediate Survey* endorsement

Signed:

C. J. Chew

Place of Survey

Port Hedland, WA

Date

1 March 2017

Lloyd's Register International

Initials: CJC

Perth Marine Office



Lloyd's Register

4th Annual Survey endorsement

Signed:

Place of Survey

Date

Ships Name **INDEE**

LR number **9289635**

Extension of special survey completion date

In accordance with the Rules and Regulations for the Classification of ships this certificate is extended until (see note 2)

Signed:

Place of Survey

Date

Special survey completion

This Special Survey having been completed, this certificate is extended until

Signed:

Place of Survey

Date

Notes

- 1 In accordance with the Rules and Regulations for the Classification of Ship's, class will be automatically suspended and this certificate becomes invalid if not endorsed annually within three months of the due date of the Annual or Intermediate Surveys.
- 2 This certificate expires on the due date of the Special Survey. Consideration can be given at the discretion of the Committee to any exceptional circumstances justifying an extension to the Special Survey completion date for a maximum period of three months beyond the validity of this certificate.
- 3 Prior to the endorsement of this certificate all overdue hull and machinery surveys should be dealt with or postponed by agreement.
- 4 In normal circumstances the Annual or Intermediate Survey is to be held in conjunction with the Periodical Load Line Inspection and the Safety Construction Annual Survey.

CERTIFICATE OF BOLLARD PULL

Ship's name "PARDOO"	Certificate number GZU 0320503 / 1
Owner PSA Singapore	LR Office Guangzhou
	Date 16 May 2004
Shipbuilder Cheoy Lee Shipyards Co., Ltd	Yard number 4822
Location bollard pull trials held H.U.D. Hong Kong	Trial date 16 May 2004

This certificate is issued to **Cheoy Lee Shipyards Co., Ltd** to certify that the undersigned Surveyor to Lloyd's Register attended the bollard pull trials stated above for the purpose of ascertaining the bollard pull capacity of the subject ship, at the request of: **Cheoy Lee Shipyards Co., Ltd**

The relevant particulars of the ship and its machinery and propellers together with the significant trials data are listed on page 2 of this certificate. The trials were completed and the following results were obtained:

TRIAL RESULTS

RUN NUMBER	START TIME	END TIME	SHAFT RPM	SHAFT HP	SBP	MBP
1	09:36	09:37	1600	2500 x 2	61.8	63.2
2	09:37	09:38	1600	2500 x 2	61.2	62.5
3	09:38	09:39	1600	2500 x 2	61.6	69.8
4	09:39	09:40	1600	2500 x 2	62.4	64.3

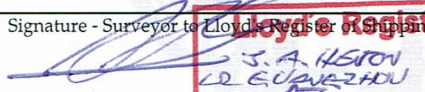
CERTIFIED BOLLARD PULL

It is hereby certified that the vessel under the conditions described on page 2, exerted a Steady Bollard Pull (SBP) over a minimum of 5 minutes duration of: **61.75** tonnes force.

It is also certified that the Maximum Bollard Pull (MBP) during the same five minute interval was **69.8** tonnes force.

These results were recorded, during run number **1 to 4** without the main engine being overloaded.

Shaft driven auxiliaries were ~~fully engaged~~ / ~~not engaged~~ / not fitted (delete as applicable)

Remarks This certificate is valid until 15 May 2009 Issued at Hong Kong on 16 May 2004.	Signature - Surveyor to Lloyd's Register of Shipping  J.A.Henton Surveyor to LR Asia
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SHIP PARTICULARS

Length B.P. (m) LWL 25.0	Moulded depth (m) 5.0
Moulded breadth (m) 11.5	Design draught (m) 5.0

MACHINERY PARTICULARS

Engine builders Caterpillar Inc, USA	Propeller manufacturer Undilusa Zona Industrial, Portugal
Engine type Internal Combustion Engine Cat. 3516B	Propeller plan number 1139310 (Approved by LR Hamburg)
Engine number 4BW00546, 4BW00547	Number fitted 2
Engine rating (MCR) 1600rpm	Fixed/CPP Fixed
Gear ratio 5.718:1	Propeller diameter (m) 2400
Shaft driven auxiliaries (HP) 2500 x 2	Number of blades 4
	Propeller RPM 280
	Propeller duct type Nozzle (Schottel)

TRIAL PARTICULARS

Draught forward (m) 4.6	Water depth (m) 24.5
Draught aft (m) 5.5	Temperature of water (°C) 16
Mean draught (m) 5.15	Density of water (t/m³) 1.02
Trim (m) 0.7	Wind speed (m/s) 1.0
Displacement (t) 519	Current speed (m/s) 1.0
Immersion of propeller tips (% diameter) 100%	Observed wave height (m) 0.3m
Distance from stern of ship to pier (m) 150m	Height of towing hook above water level (m) 2.5
Type of load cell R3000CSP-200K	Height of bollard above water level (m) 4.0
Date of calibration 21 April 2004	Angle of hawser from horizontal plane (deg) 0

Signature - Surveyor to Lloyd's Register of Shipping

J.A.Henton Surveyor to LR Asia

YARD NO. 4822 M/T "PARDOO"

BOLLARD PULL TEST RECORD

Date of Test: 16/5/2004

(ASTERN TOWING)

Engine RPM	P S	900	1100	1300	1600
Engine Loading (%)		36%	46%	54%	96.5%
No. of Reading (every 15 sec)		Bollard Pull (Tonnes)			
1		19.3	28.9	39.3	61.2
2		19.3	28.6	42.3	62.1
3		17.2	27.6	42.1	60.3
4		23.3	28.9	40.8	60.3
5		17.3	28.1	39.8	59.3
6					62.2
7					60.5
8					60.5
9					60.6
10					61.5
11					59.8
12					60.5
13					64.0
14					60.7
15					60.2
16					61.3
17					59.7
18					62.5
19					61.8
20					59.8
Total (Tonnes)		96.3	142.1	204.3	1218.8
Average (Tonnes)		19.26	28.42	40.86	60.94

CERTIFICATE OF BOLLARD PULL

Ship's name "PARDOO"	Certificate number GZU 0320503 / 2
Owner PSA Singapore	LR Office Guangzhou
	Date 16 May 2004
Shipbuilder Cheoy Lee Shipyards Co., Ltd	Yard number 4822
Location bollard pull trials held H.U.D. Hong Kong	Trial date 16 May 2004

This certificate is issued to **Cheoy Lee Shipyards Co., Ltd** to certify that the undersigned Surveyor to Lloyd's Register attended the bollard pull trials stated above for the purpose of ascertaining the bollard pull capacity of the subject ship, at the request of: **Cheoy Lee Shipyards Co., Ltd**

The relevant particulars of the ship and its machinery and propellers together with the significant trials data are listed on page 2 of this certificate. The trials were completed and the following results were obtained:

TRIAL RESULTS

RUN NUMBER	START TIME	END TIME	SHAFT RPM	SHAFT HP	SBP	MBP
1	10:24	10:25	1600	2500 x 2	60.6	62.1
2	10:25	10:26	1600	2500 x 2	61.1	62.2
3	10:26	10:27	1600	2500 x 2	61.0	64.0
4	10:27	10:28	1600	2500 x 2	61.0	62.5

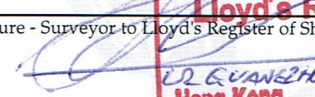
CERTIFIED BOLLARD PULL

It is hereby certified that the vessel under the conditions described on page 2, exerted a Steady Bollard Pull (SBP) over a minimum of 5 minutes duration of: **60.925** tonnes force.

It is also certified that the Maximum Bollard Pull (MBP) during the same five minute interval was **64.0** tonnes force.

These results were recorded, during run number **1 to 4** without the main engine being overloaded.

Shaft driven auxiliaries were ~~fully engaged~~ / ~~not engaged~~ / not fitted (delete as applicable)

Remarks This certificate is valid until 15 May 2009 Issued at Hong Kong on 16 May 2004.	Signature - Surveyor to Lloyd's Register of Shipping  J.A.Henton - Surveyor to LR Asia
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SHIP PARTICULARS

Length B.P. (m) LWL 25.0	Moulded depth (m) 5.0
Moulded breadth (m) 11.5	Design draught (m) 5.0

MACHINERY PARTICULARS

Engine builders Caterpillar Inc, USA	Propeller manufacturer Undilusa Zona Industrial, Portugal
Engine type Internal Combustion Engine Cat. 3516B	Propeller plan number 1139310 (Approved by LR Hamburg)
Engine number 4BW00546, 4BW00547	Number fitted 2
Engine rating (MCR) 1600rpm	Fixed/CPP Fixed
Gear ratio 5.718:1	Propeller diameter (m) 2400
Shaft driven auxiliaries (HP) 2500 x 2	Number of blades 4
	Propeller RPM 280
	Propeller duct type Nozzle (Schottel)

TRIAL PARTICULARS

Draught forward (m) 4.6	Water depth (m) 24.5
Draught aft (m) 5.5	Temperature of water (°C) 16
Mean draught (m) 5.15	Density of water (t/m³) 1.02
Trim (m) 0.7	Wind speed (m/s) 1.0
Displacement (t) 519	Current speed (m/s) 1.0
Immersion of propeller tips (% diameter) 100%	Observed wave height (m) 0.3
Distance from stern of ship to pier (m) 150	Height of towing hook above water level (m) 2.5
Type of load cell R3000CSP-200K	Height of bollard above water level (m) 4.0
Date of calibration 21 April 2004	Angle of hawser from horizontal plane (deg) 0

Signature - Surveyor to Lloyd's Register of Shipping

J.A.Henton - Surveyor to LR Asia

CERTIFICATE OF BOLLARD PULL

Ship's name "PARDOO"	Certificate number GZU 0320503 / 1
Owner PSA Singapore	LR Office Guangzhou
	Date 16 May 2004
Shipbuilder Cheoy Lee Shipyards Co., Ltd	Yard number 4822
Location bollard pull trials held H.U.D. Hong Kong	Trial date 16 May 2004

This certificate is issued to **Cheoy Lee Shipyards Co., Ltd** to certify that the undersigned Surveyor to Lloyd's Register attended the bollard pull trials stated above for the purpose of ascertaining the bollard pull capacity of the subject ship, at the request of: **Cheoy Lee Shipyards Co., Ltd**

The relevant particulars of the ship and its machinery and propellers together with the significant trials data are listed on page 2 of this certificate. The trials were completed and the following results were obtained:

TRIAL RESULTS

RUN NUMBER	START TIME	END TIME	SHAFT RPM	SHAFT HP	SBP	MBP
1	09:36	09:37	1600	2500 x 2	61.8	63.2
2	09:37	09:38	1600	2500 x 2	61.2	62.5
3	09:38	09:39	1600	2500 x 2	61.6	69.8
4	09:39	09:40	1600	2500 x 2	62.4	64.3

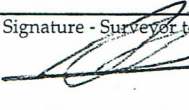
CERTIFIED BOLLARD PULL

It is hereby certified that the vessel under the conditions described on page 2, exerted a Steady Bollard Pull (SBP) over a minimum of 5 minutes duration of: **61.75** tonnes force.

It is also certified that the Maximum Bollard Pull (MBP) during the same five minute interval was **69.8** tonnes force.

These results were recorded, during run number **1 to 4** without the main engine being overloaded.

Shaft driven auxiliaries were ~~fully engaged~~ / ~~not engaged~~ / not fitted (delete as applicable)

Remarks This certificate is valid until 15 May 2009 Issued at Hong Kong on 16 May 2004.	Signature - Surveyor to Lloyd's Register Asia  J.A.Henton Surveyor to Lloyd's Register Asia
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SHIP PARTICULARS

Length B.P. (m) LWL 25.0	Moulded depth (m) 5.0
Moulded breadth (m) 11.5	Design draught (m) 5.0

MACHINERY PARTICULARS

Engine builders Caterpillar Inc, USA	Propeller manufacturer Undilusa Zona Industrial, Portugal
Engine type Internal Combustion Engine Cat. 3516B	Propeller plan number 1139310 (Approved by LR Hamburg)
Engine number 4BW00546, 4BW00547	Number fitted 2
Engine rating (MCR) 1600rpm	Fixed/CFP Fixed
Gear ratio 5.718:1	Propeller diameter (m) 2400
Shaft driven auxiliaries (HP) 2500 x 2	Number of blades 4
	Propeller RPM 280
	Propeller duct type Nozzle (Schottel)

TRIAL PARTICULARS

Draught forward (m) 4.6	Water depth (m) 24.5
Draught aft (m) 5.5	Temperature of water (°C) 16
Mean draught (m) 5.15	Density of water (t/m³) 1.02
Trim (m) 0.7	Wind speed (m/s) 1.0
Displacement (t) 519	Current speed (m/s) 1.0
Immersion of propeller tips (% diameter) 100%	Observed wave height (m) 0.3
Distance from stern of ship to pier (m) 150	Height of towing hook above water level (m) 2.5
Type of load cell R3000CSP-200K	Height of bollard above water level (m) 4.0
Date of calibration 21 April 2004	Angle of hawser from horizontal plane (deg) 0

Signature - Surveyor to Lloyd's Register of Shipping

J.A.Henton - Surveyor to LR Asia

YARD NO. 4822 M/T "PARDOO"

BOLLARD PULL TEST RECORD

Date of Test: 16/5/2004

(ASTERN TOWING)

Engine RPM	P S	900	1100	1300	1600
Engine Loading (%)		36%	46%	54%	96.5%
No. of Reading (every 15 sec)		Bollard Pull (Tonnes)			
1		19.3	28.9	39.3	61.2
2		19.3	28.6	42.3	62.1
3		17.2	27.6	42.1	60.3
4		23.3	28.9	40.8	60.3
5		17.3	28.1	39.8	59.3
6					62.2
7					60.5
8					60.5
9					60.6
10					61.5
11					59.8
12					60.5
13					64.0
14					60.7
15					60.2
16					61.3
17					59.7
18					62.5
19					61.8
20					59.8
Total (Tonnes)		96.3	142.1	204.3	1218.8
Average (Tonnes)		19.26	28.42	40.86	60.94



Certificate of Class

This certificate is issued to the **PARDOO**
LR Number **9289647**
Date of Build **11/05/2004**
Port of Registry **Port Hedland,WA**
Gross tons **325**

to confirm that having been surveyed by Lloyd's Register International and having been found in compliance with the Rules and Regulations for the Classification of Ships, the aforesaid ship has been assigned the class

✱ 100A1 Tug

✱ LMC

Date Special Survey Assigned **11 May 2014**

This Certificate is valid until* **10 May 2019**

* Unless extended after completion of a Special Survey (see page 3) or in accordance with Part 1, Chapter 2, Section 3.5.9 of the Rules and Regulations (see page 3) and is subject to surveys as prescribed (see page 2) being satisfactorily completed. (See notes 1 to 4, page 3)

Issued at **Perth,WA**
on **11 June 2016**



CASALI Luigi
Surveyor to Lloyd's Register International

A subsidiary of Lloyd's Register Group Limited

Note: 1. To establish the classification status of this ship, the Class Direct web site and the Interim Certificates issued on completion of classification surveys should be consulted in addition to this certificate. Access to Class Direct is available via <http://www.cd.live.lr.org>.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Ships Name PARDOO

LR number 9289647

Annual/Intermediate survey endorsements

1st Annual Survey endorsement

Signed:

Place of Survey

Date

Port Hedland

18 May 2015



CHEW C.J.

2nd Annual Survey endorsement

Signed:

Place of Survey

Date

Port Hedland

11 June 2016



CASALI Luigi

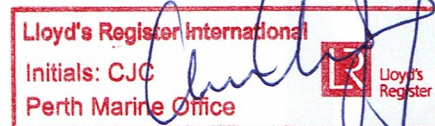
Intermediate Survey endorsement

Signed:

Place of Survey

Date

C. J. Chew
Port Hedland, WA
28 Feb. 2017



4th Annual Survey endorsement

Signed:

Place of Survey

Date

* Delete as appropriate

Ships Name **PARDOO**

LR number **9289647**

Extension of special survey completion date

In accordance with the Rules and Regulations for the Classification of ships this certificate is extended until (see note 2)

Signed:

Place of Survey

Date

Special survey completion

This Special Survey having been completed, this certificate is extended until

Signed:

Place of Survey

Date

- Notes
- 1 In accordance with the Rules and Regulations for the Classification of Ship's, class will be automatically suspended and this certificate becomes invalid if not endorsed annually within three months of the due date of the Annual or Intermediate Surveys.
 - 2 This certificate expires on the due date of the Special Survey. Consideration can be given at the discretion of the Committee to any exceptional circumstances justifying an extension to the Special Survey completion date for a maximum period of three months beyond the validity of this certificate.
 - 3 Prior to the endorsement of this certificate all overdue hull and machinery surveys should be dealt with or postponed by agreement.
 - 4 In normal circumstances the Annual or Intermediate Survey is to be held in conjunction with the Periodical Load Line Inspection and the Safety Construction Annual Survey.



Certificate of Bollard Pull

Ship's name

YANDEYARRA

Owner

BHP BILLITON MINERALS PTY LTD

LR Office

Guangzhou

Date

23 June 2008

Yard number

4914

Trial date

20 June 2008

Shipbuilder

HinLee (Zhuhai) Shipyard Co., Ltd

Location bollard pull trials held

Hong Kong HUD

This certificate is issued to

BHP BILLITON MINERALS PTY LTD

to certify that the undersigned Surveyor to Lloyd's Register attended the bollard pull trials stated above for the purpose of ascertaining the bollard pull capacity of the subject ship, at the request of: **Hin Lee (Zhuhai) Shipyard Co., Ltd**

The relevant particulars of the ship and its machinery and propellers together with the significant trials data are listed on page 2 of this certificate. The trials were completed and the following results were obtained:

TRIAL RESULTS

RUN NUMBER	START TIME	END TIME	SHAFT RPM	SHAFT HP	SBP	MBP
1	10:25	10:26	1600	2500x2	63.5	64.8
2	10:26	10:27	1600	2500x2	62.5	63.8
3	10:27	10:28	1600	2500x2	62.2	64.7
4	10:28	10:29	1600	2500x2	61.7	63.2
5	10:29	10:30	1600	2500x2	62.2	64.1

CERTIFIED BOLLARD PULL

It is hereby certified that the vessel under the conditions described on page 2, exerted a Steady Bollard Pull (SBP) over a minimum of 5 minutes duration of **62.4** tonnes force.

It is also certified that the Maximum Bollard Pull (MBP) during the same five minute interval was **64.8** tonnes force.

These results were recorded, during run number **1-5** without the main engine being overloaded.

Shaft driven auxiliaries were fully **not fitted*** (delete as appropriate)

Surveyor to **Lloyd's Register Asia**

A member of the Lloyd's Register Group

SHIP PARTICULARS

Length B.P. (m)

LWL 25.0

Moulded breadth (m)

11.5

Moulded depth (m)

5.0

Design draught (m)

5.0**MACHINERY PARTICULARS**

Engine builders

CATERPILLAR INC, USA

Engine type

Internal combustion Engine (3516B)

Engine number

S2X00824, S2X00825

Engine rating (MCR)

1600RPM

Gear ratio

5.718:1

Shaft driven auxiliaries (HP)

-

Propeller manufacturer

Wartsila CME Zhenjiang Propeller Co., Ltd

Propeller plan number

HPC0310110/1863406/OS/BHS

Number fitted

2

Fixed/CPP

FIXED

Propeller diameter (m)

2400

Number of blades

4

Propeller RPM

280

Propeller duct type

NOZZLE (Type SCHOTTEL)**TRIAL PARTICULARS**

Draught forward (m)

4.85

Draught aft (m)

5.45

Mean draught (m)

5.15

Trim (m)

0.6

Displacement (t)

450

Immersion of propeller tips (% diameter)

100

Distance from stem of ship to pier (m)

200

Type of load cell

R3000CSP-200K

Date of calibration

28 March 2008

Water depth (m)

26.2

Temperature of water (°C)

20Density of water (t/m³)**1.002**

Wind speed (m/s)

1

Current speed (m/s)

1

Observed wave height (m)

0.3

Height of towing hook above water level (m)

3.0

Height of bollard above water level (m)

3.0

Angle of hawser from horizontal plane (deg)

0

Lloyd's Register Asia

Initials ZC

Guangzhou Office

Surveyor to Lloyd's Register Asia

Lloyd's
Register

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NOTICE: This certificate is subject to the terms and conditions overleaf, which form part of this certificate.

Lloyd's **register** Certificate of Class

This certificate is issued to the **YANDEYARRA**

LR Number **9487134**

Date of Build **23/06/2008**

Port of Registry **Port Hed land, WA**

Gross tons **327**

to confirm that having been surveyed by Lloyd's Register Asia and having been found in compliance with the Rules and Regulations for the Classification of Ships, the aforesaid ship has been assigned the class

E4100A1 Tug

LMC , UMS

Date Special Survey Assigned **23 June 2013**

This Certificate is valid until* **22 June 2018**

* Unless extended after completion of a Special Survey (see page 3) or in accordance with Part 1, Chapter 2, Section 3.5.9 of the Rules and Regulations (see page 3) and is subject to surveys as prescribed (see page 2) being satisfactorily completed. (See notes 1 to 4, page 3)

Issued at **Fremantle**
on **25 June 2013**

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itil:
Fremantle Office

Ster

MAO, Thomas
Surveyor to Lloyd's Register Asia


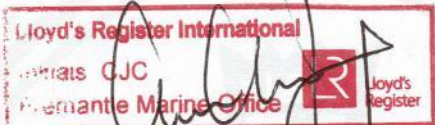
A subsidiary of Lloyd's Register Group Limited


Note: 1. To establish the classification status of this ship, the ClassDirect Live web site and the Interim Certificates issued on completion of classification surveys should be consulted in addition to this certificate. Access to ClassDirect Live is available via <http://www.cdlive.lr.org>.

Ships Name **YANDEYARRA**

LR number **9487134**

Annual/Intermediate survey endorsements

1st Annual Survey endorsement		
Signed:	C- 1_4 wt	
Place of Survey	Y-L-rkekCawf'c	
Date	27 June 2014	
2nd Annual Survey /ingbeassoseliakeoutiose endorsement		
Signed:	C C VveA,J'	
Place of Survey	fr 1-1-ecA CAytel	
Date	0.00.	

...I.Ed-Aziamel4befvey / Intermediate Survey* endorsement		
Signed:	C. t4 Lrm	
Place of Survey	Yam- \e-c2(A.t-44	
Date	1 21-t A.at3 te.	

4th Annual Survey endorsement

Signed:	
Place of Survey	
Date	

Ships Name **YANDEYARRA**

LR number **9487134**

Extension of special survey completion date

In accordance with the Rules and Regulations for the Classification of ships this certificate is extended until (see note 2)

Signed:

Place of Survey

Date

Special survey completion

This Special Survey having been completed, this certificate is extended until

Signed:

Place of Survey

Date

- Notes
- 1 In accordance with the Rules and Regulations for the Classification of Ship's, class will be automatically suspended and this certificate becomes invalid if not endorsed annually within three months of the due date of the Annual or Intermediate Surveys.
 - 2 This certificate expires on the due date of the Special Survey. Consideration can be given at the discretion of the Committee to any exceptional circumstances justifying an extension to the Special Survey completion date for a maximum period of three months beyond the validity of this certificate.
 - 3 Prior to the endorsement of this certificate all overdue hull and machinery surveys should be dealt with or postponed by agreement.
 - 4 In normal circumstances the Annual or Intermediate Survey is to be held in conjunction with the Periodical Load Line Inspection and the Safety Construction Annual Survey.