

Westshore Express Passenger Ferry Service

Pre-Feasibility Study

British Columbia Ferry Services Inc.



March 5, 2019

Internal Ref: 659774-0000-4PER-0001

Page 002 of 201 to/à Page 040 of 201

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Westshore Passenger Ferry Demand Study



Westshore Passenger Ferry Demand Study

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Page 043 of 201 to/à Page 106 of 201

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Devlin, Patrick

From: Liesbeth van Halm <liesbeth.van.halm@damen.com>
Sent: October 23, 2018 1:23 AM
To: Devlin, Patrick
Cc: Leo Postma; Lehane, Conrad
Subject: RE: Webform Request E-Mail 3339 by SNC Lavalin, Can
Attachments: Copy of T538400-DFFe 3209_Mk1-SPEC (SPEC-DAM - 3293853 - 1 - A) - 1.pdf; Copy of T538400-DFFe 3209_Mk1-GA 001 (DRAW-DANDP - 3231284 - 1 - A03) -pdf

Dear Mr. Devlin,

Please be advised that the budget price for the Damen DFFe 3209, according to the attached specifications and general arrangement plan, would be EUR 5.200.000 per vessel (EXW Damen Shipyards Singapore), based upon the order of 5 vessels in 1 order, build in 1 series. We would like to emphasize that this price is shared with you in commercial confidentiality.

In case you have any further questions, please let us know.

Kind regards,

Liesbeth van Halm
Sales Americas



DAMEN SHIPYARDS GORINCHEM
Industrieterrein Avelingen West 20
P.O. Box 1
4200 AA, Gorinchem
The Netherlands
Phone: +31 (0)183 63 92 55
E-mail: liesbeth.van.halm@damen.com
Internet: www.damen.com



FOLLOW DAMEN AMERICAS

From: Devlin, Patrick [mailto:Patrick.Devlin@snclavalin.com]
Sent: donderdag 18 oktober 2018 16:33
To: Liesbeth van Halm <liesbeth.van.halm@damen.com>
Cc: Leo Postma <leo.postma@damen.com>; Lehane, Conrad <Conrad.Lehane@snclavalin.com>
Subject: RE: Webform Request E-Mail 3339 by SNC Lavalin, Can

Great - many thanks for this Liesbeth, much appreciated.

One more thing, would it be possible to advise a budget cost for five of these vessels, delivered to Victoria, BC, Canada? No one would hold you to the price so a formal quote is not needed, just a budget figure for the purposes of the feasibility study.

Thanks,

Patrick Devlin
Marine Structures Group Lead
Infrastructure Engineering – Western Canada
Infrastructure

Tel.: 604-605-4958

SNC-Lavalin
www.snc-lavalin.com/en/ports-marine

From: Liesbeth van Halm [<mailto:liesbeth.van.halm@damen.com>]
Sent: October 18, 2018 5:26 AM
To: Devlin, Patrick
Cc: Leo Postma
Subject: FW: Webform Request E-Mail 3339 by SNC Lavalin, Can

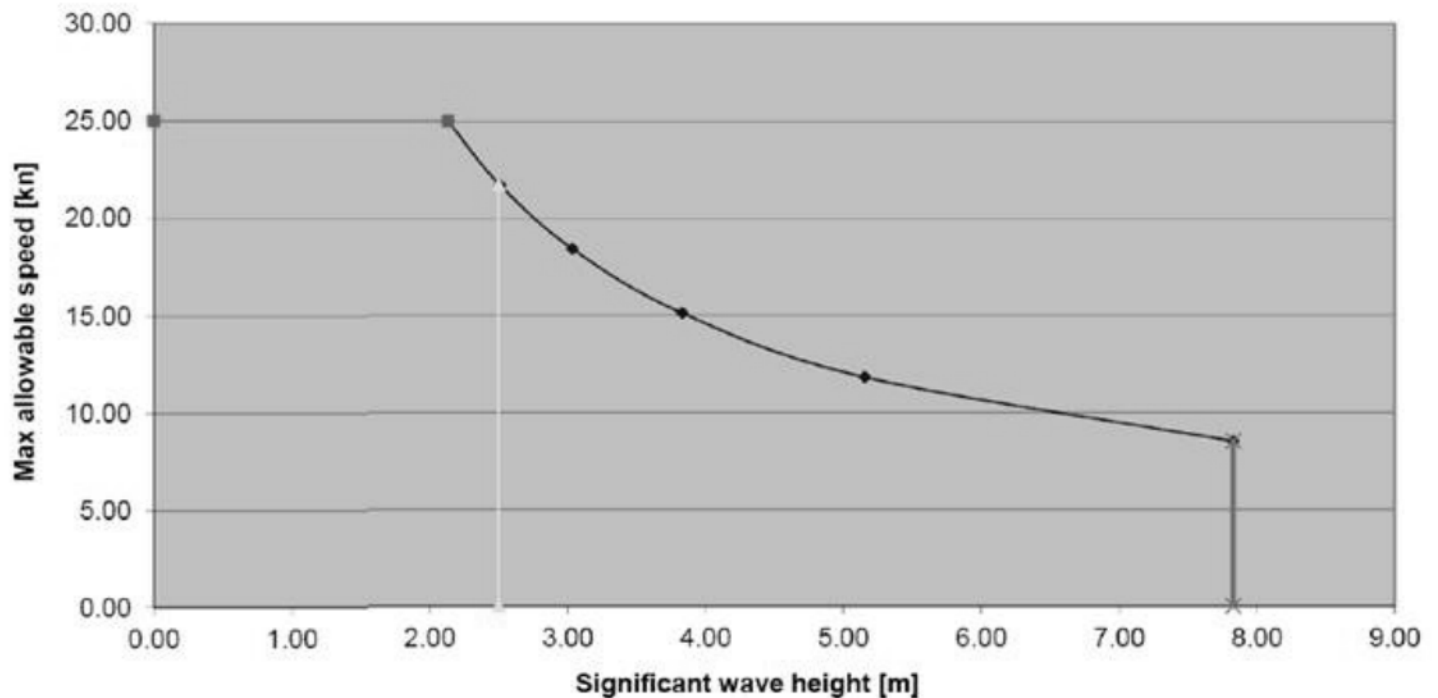
Dear Mr. Devlin,

Thank you for your e-mail. Enclosed you find a data sheet of the diesel version of our DFFe 3209.

Furthermore, please be advised as follows:

- Operational profile is given in the figure below. The vessel can sail in waves up to 2.5 m (significant wave height) at reduced speed. Above 2.5 m it should seek shelter. The part above 2.5 m is given only to show at which speed this can be done.
- Electric propulsion is possible. We do not have this as standard but we can engineer a solution. Please note the following issues:
 - o Battery powered: At full speed (20-25 kn) the range of the vessel will be limited to about 15 to 30 minutes sailing (5 to 10 nm). At lower speeds (say: 10 kn) the range will be 30 min to 1 hour (10 to 20 nm). After this period the vessel should charge for a significant amount of time (1+ hour). Charging will power be in the order of 1600 kW.
 - o Fuel cell powered: this only works if a stable and reliable hydrogen supply is available in the area of operation. The costs (both Capex and Opex) is expected to be significantly higher than diesel and battery propulsion

Operational limit curve BV 3.3.3.2.5



In case you need any further information, please let us know.

Kind regards,

Liesbeth van Halm
Sales Americas

DAMEN

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FOLLOW DAMEN AMERICAS

From: noreply@damen.com [<mailto:noreply@damen.com>]

Sent: Friday, October 12, 2018 3:30 AM

To: CRM <crm@damen.com>; Robert Luth <robert.luth@damen.com>

Subject: Webform Request E-Mail 3339 by SNC Lavalin

Dear Colleague,

The following inquiry has been submitted through www.damen.com.

If you choose to register this opportunity as a Sales Contract please mark it as source 'web' in CRM.

ID	3339
Creation Date	12/10/2018 03:15
Salutation	Mr.
First Name	Patrick
Last Name	Devlin
Company	SNC Lavalin
Company Industry	
E-Mail	patrick.devlin@snclavalin.com
Phone number	1-604-605-4958
Postal Code	V6E 0C5
Sail Country	Canada
Owner Country	Canada
Question/Comment	Hi, We are doing a study for BC Ferries considering a new fast-cat passenger ferry service. We would like to know a few details about the 3209, including: - Limiting operational environmental conditions (e.g. maximum wave height), - Budget pricing for 5 vessels, - Whether a fully-electric version is available, and if so, please provide details of charging power requirements. Many thanks, Patrick
I would like to receive the newsletter	No
Request	Pricing
Cluster Group	Ferries
Cluster	Passenger Ferry
Range	Fast Ferry
Product	Damen Fast Ferry 3209

SPECIFICATION

Damen Fast Ferry 3209

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Specification Number: T538400-DFFe 3209-Spec dated 2018.04.11

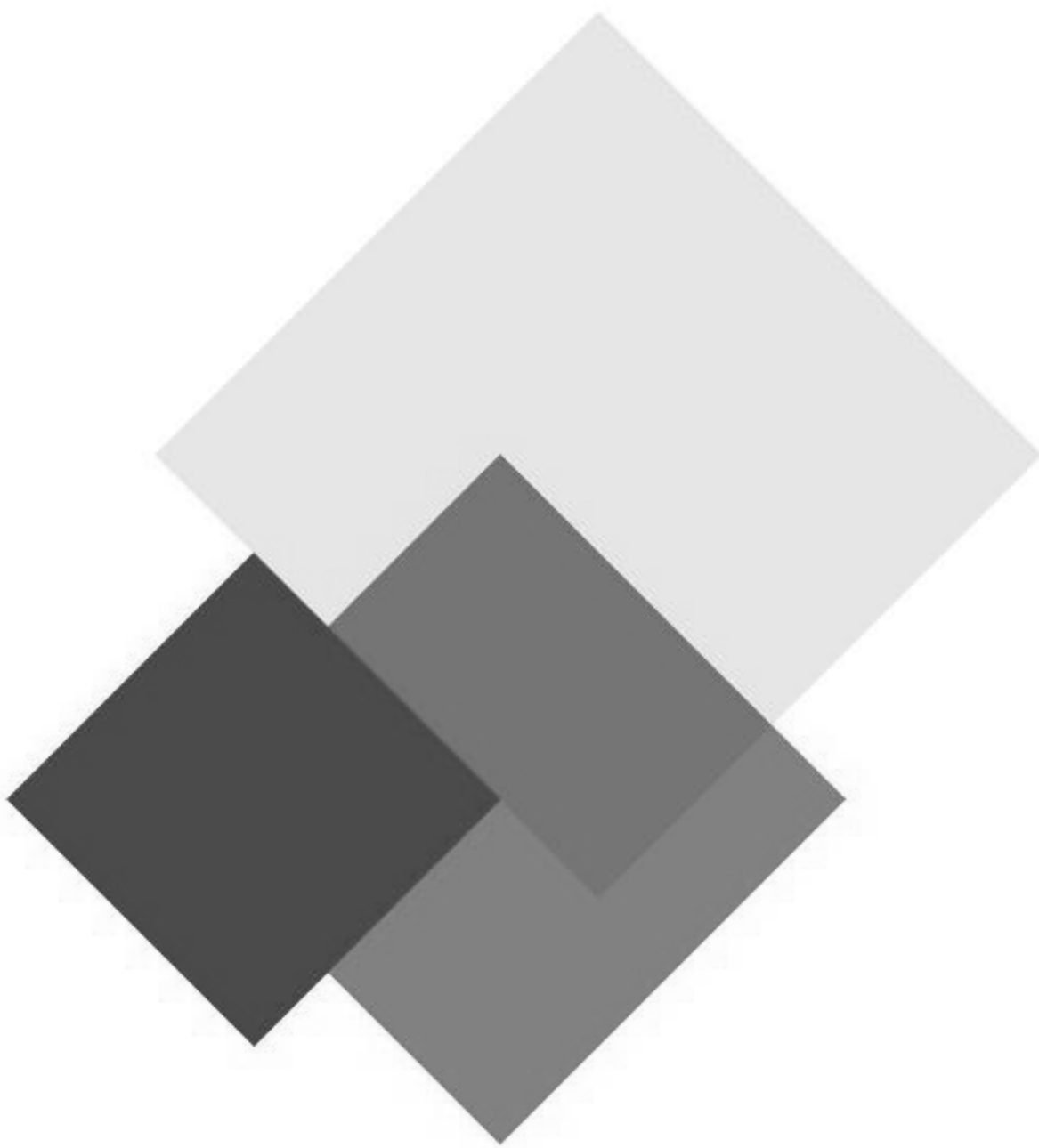
General Arrangement Plan No: T538400-DFFe 3209-GAP 001 dated 2018.03.26

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Page 113 of 201 to/à Page 200 of 201

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