Niigata Class 9,390 BHP

Anchor Handling Tug

CHIASSON TIDE

Length, Overall: 233.4 ft 71.2 m
Beam: 52.5 ft 16 m
Depth: 22.3 ft 6.8 m
Maximum Draft: 21.6 ft 6.6 m
Minimum Height: 80 ft 24.4 m
Freeboard: 3.3 ft 1 m
Displacement: 4,700 lt 4,770 mt
Deadweight: 2,510 lt 2,550 mt
Clear Deck Space: 120 x 42 ft 36.6 x 12.8 m
Clear Deck Area: 5,080 ft² 470 m²
Deck Strength: 1,020 lb/ft² 5 t/m²

Class Notations:
ABS: +A1, +AMS, +DPS-2, (E), Towing Vessel, AH, FFV-1, OSV

RICHARD TIDE as shown
CHIASSON TIDE similar
**Deck Cargo:**
- 980 ft
- 1,000 t

**Fuel Oil:**
- 316,000 gal
- 1,200 m³

**Potable Water:**
- 43,900 gal
- 170 m³

**Fresh Water:**
- 107,000 gal
- 400 m³

**Drill/Ballast Water:**
- 175,000 gal
- 660 m³

**Bulk Tanks (4 tanks):**
- 8,000 ft³
- 230 m³

**Liquid Mud (22 lbs/gal):**
- 1,300 bbl
- 210 m³

**Fire Fighting Foam:**
- 2,210 gal
- 8.4 m³

**Main Engines (2):**
- WARTSILA W7L32

  - **Total HP:** 9,390

**Propellers (2):**
- WARTSILA:4 Blade, 3.6m, CPP

**Kort Nozzles:**
- 2

**Primary Generators (3):**
- 590 kw
- 450 v
- 60 Hz

  - **Driven by:** CAT 3412 TA

**Secondary Generators (2):**
- 1,290 kw
- 450 v
- 60 Hz

  - **Driven by:** Shafts

**Emergency Generators (1):**
- 95 kw
- 450 v
- 60 Hz

  - **Driven by:** CAT C4.4

**Bow Thruster (2):**
- NAKASHIMA TCT-165

  - **Driven by:** Electric Motor 700 kw

**Total Thrust:**
- 23.5 st
- 21.3 mt

**Stern Thruster (1):**
- NAKASHIMA TCT-150

  - **Driven by:** Electric Motor 575kw

**Total Thrust:**
- 9.6 st
- 8.7 mt

**Tow/Anchor Handling**
- **Winch:**
  - Model: PC-AHTW/WF-200/300 (300T BRAKE)
  - **Line Pull:** 200 mt
  - **Tow Wire:** 1000 m of 65 mm
  - **Work Wire:** 1000 m of 65 mm
  - **Pennant Reels (1):** 1000 m of 65 mm
  - **Shark Jaw:** 1 x 300 mt
  - **Tow Pins:** 1 x 300 mt
  - **Chain Lockers (2):** 1,290 m of 70 mm chain
  - **Chain Handler:** 2 x 70mm Chain
  - **Stern Roller:** Plimsoll 2m x 5m; 300 mt SWL

**Anchors (2):**
- AC 14, 1575kg
- **Anchor Chain:** 440 m of 40 mm chain per side

**Crane:**
- 5 t @ 11.9 m

**Capstans (2):**
- 10 t PC-HVC-10 (15MIN/MIN)

**Tugger (2):**
- 10 t Plimsoll PC-HUW 10DR-400 (24MIN/MIN)

**Radar(s):**
- 2

**Depth Sounder:**
- 1

**Gyro Compass:**
- 3

**Doppler Log:**
- 1

**Radio:**
- 2 x VHF; 1 x SSB

**Sat Com:**
- 1xINMARSAT-C

**N° of Berths:**
- 35

**1-man cabins:** 7

**2-man cabins:** 14

**Certified to Carry:**
- 28

**Galley seating:**
- Yes

**Hospital:**
- Yes

**Firefighting:**
- FIFI-1

**Dynamic Positioning:**
- Kongsberg K-POSDP-21

**Ref. Systems:**
- 2 x MRU; 2 x DGPS

**1 x Laser-based

**Water Maker:**
- 5T/day

**Rescue Boat:**
- SOLAS Approved FRC

**Flag:**
- VANUATU

**IMO N°:**
- 9412919

**Year Built:**
- 2009

**Builder:**
- NIIGATA SHIPB & REPAIR

**Call Sign:**
- YJQQ6

**Tonnage (ITC):**
- 2465 GT
- 781 NT

**NOTICE:** The data contained herein is provided for convenience of reference to allow users to determine the suitability of the Company’s equipment. The data may vary from the current condition of equipment which can only be determined by physical inspection. Company has exercised due diligence to insure that the data contained herein is reasonably accurate. However, Company does not warrant the accuracy or completeness of the data. In no event shall Company be liable for any damages whatsoever arising out of the use or inability to use the data contained herein.
NOTICE: The data contained herein is provided for convenience of reference to allow users to determine the suitability of the Company's equipment. The data may vary from the current condition of equipment which can only be determined by physical inspection. Company has exercised due diligence to insure that the data contained herein is reasonably accurate. However, Company does not warrant the accuracy or completeness of the data. In no event shall Company be liable for any damages whatsoever arising out of the use or inability to use the data contained herein.
### Capacity Table

<table>
<thead>
<tr>
<th>Tank</th>
<th>Contents</th>
<th>Volume [m³]</th>
<th>Base Oil</th>
<th>Fuel Oil</th>
<th>Dry Bulk</th>
<th>DW/WB Potable</th>
<th>DW/WB Fresh Water</th>
<th>DW/WB Brine</th>
<th>DW/WB Liquid Mud</th>
<th>DW/WB Methanol</th>
<th>DW/WB Lube Oil</th>
<th>DW/WB Foam</th>
<th>DW/WB Oil Disp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP DW/WB C</td>
<td>DW/WB</td>
<td>185.3</td>
<td></td>
<td></td>
<td>185.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AP DW/WB C</td>
<td>DW/WB</td>
<td>32.3</td>
<td></td>
<td></td>
<td>32.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AP DW/WB P</td>
<td>DW/WB</td>
<td>64.2</td>
<td></td>
<td></td>
<td>64.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AP DW/WB S</td>
<td>DW/WB</td>
<td>54.5</td>
<td></td>
<td></td>
<td>54.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 DW/WB P</td>
<td>DW/WB</td>
<td>48.8</td>
<td></td>
<td></td>
<td>48.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 DW/WB S</td>
<td>DW/WB</td>
<td>48.8</td>
<td></td>
<td></td>
<td>48.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 DW/WB P</td>
<td>DW/WB</td>
<td>115.3</td>
<td></td>
<td></td>
<td>115.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 DW/WB S</td>
<td>DW/WB</td>
<td>114.7</td>
<td></td>
<td></td>
<td>114.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 PW C</td>
<td>FW</td>
<td>41.3</td>
<td></td>
<td></td>
<td></td>
<td>41.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 PW P</td>
<td>FW</td>
<td>179.1</td>
<td></td>
<td></td>
<td></td>
<td>179.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 PW S</td>
<td>FW</td>
<td>183.8</td>
<td></td>
<td></td>
<td></td>
<td>183.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 PW P</td>
<td>Ship’s FW</td>
<td>83.1</td>
<td></td>
<td></td>
<td></td>
<td>83.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 PW S</td>
<td>Ship’s FW</td>
<td>83.1</td>
<td></td>
<td></td>
<td></td>
<td>83.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 FO P</td>
<td>FO</td>
<td>70.1</td>
<td></td>
<td></td>
<td>70.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 FO S</td>
<td>FO</td>
<td>70.1</td>
<td></td>
<td></td>
<td>70.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 FO C</td>
<td>FO</td>
<td>52.1</td>
<td></td>
<td></td>
<td>52.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 FO P</td>
<td>FO</td>
<td>129.9</td>
<td></td>
<td></td>
<td>129.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 FO S</td>
<td>FO</td>
<td>129.9</td>
<td></td>
<td></td>
<td>129.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 FO C</td>
<td>FO</td>
<td>59.4</td>
<td></td>
<td></td>
<td>59.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 FO C</td>
<td>FO</td>
<td>67.6</td>
<td></td>
<td></td>
<td>67.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 FO P</td>
<td>FO</td>
<td>171.2</td>
<td></td>
<td></td>
<td>171.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 FO S</td>
<td>FO</td>
<td>171.2</td>
<td></td>
<td></td>
<td>171.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 FO C</td>
<td>FO</td>
<td>274.9</td>
<td></td>
<td></td>
<td>274.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FO DAY TK P</td>
<td>FO</td>
<td>18.8</td>
<td></td>
<td></td>
<td>18.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FO DAY TK S</td>
<td>FO</td>
<td>18.8</td>
<td></td>
<td></td>
<td>18.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM TK P</td>
<td>LM</td>
<td>103.0</td>
<td></td>
<td></td>
<td></td>
<td>103.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LM TK S</td>
<td>LM</td>
<td>103.8</td>
<td></td>
<td></td>
<td>103.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foam Tk P</td>
<td>Foam</td>
<td>8.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME LO ST S</td>
<td>LO</td>
<td>10.8</td>
<td></td>
<td></td>
<td></td>
<td>10.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE LO ST P</td>
<td>LO</td>
<td>5.4</td>
<td></td>
<td></td>
<td></td>
<td>5.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO.1 Dry Bulk</td>
<td>Dry Bulk</td>
<td>56.6</td>
<td></td>
<td></td>
<td>56.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO.2 Dry Bulk</td>
<td>Dry Bulk</td>
<td>56.6</td>
<td></td>
<td></td>
<td>56.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO.3 Dry Bulk</td>
<td>Dry Bulk</td>
<td>56.6</td>
<td></td>
<td></td>
<td>56.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO.4 Dry Bulk</td>
<td>Dry Bulk</td>
<td>56.6</td>
<td></td>
<td></td>
<td>56.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Volume \[m³\]**: 0.0 1,234.0 226.5 663.9 166.2 404.2 0.0 206.8 0.0 16.2 8.4 0.0

**Spec Sheet Total Volume \[m³\]**: 0.0 1,196.5 226.5 663.9 166.2 404.2 0.0 206.8 0.0 16.2 8.4 0.0

*Capacities shown are for lead vessel. Actual capacities may vary slightly.*

*Capacities shown in **RED** are excluded from the total volume.*

*Capacities shown in **BLUE** are included in another Tank’s Capacity.*

*Capacities shown in **GREEN** are counted for multiple Tank Capacities.*

---

**NOTICE:** The data contained herein is provided for convenience of reference to allow users to determine the suitability of the Company’s equipment. The data may vary from the current condition of equipment which can only be determined by physical inspection. Company has exercised due diligence to insure that the data contained herein is reasonably accurate. However, Company does not warrant the accuracy or completeness of the data. In no event shall Company be liable for any damages whatsoever arising out of the use or inability to use the data contained herein.
Input file reference : Foot_2782.scp
Last modified : 2008-04-28 10:47 (v. 2.6.1)

Length overall : 71.1 m
Length between perpendiculars : 63.0 m
Breadth : 16.0 m
Draft : 5.8 m
Displacement : 4650.0 t (Cb = 0.78)
Longitudinal radius of inertia : 15.8 m (= 0.25 * Lpp)
Pos. of origin ahead of Lpp/2 (Xo) : 0.0 m
Wind load coefficients : Calculated (Blendermann)
Current load coefficients : Calculated (Strip-theory)
Wave-drift load coefficients : Database (Scaled by Breadth/Length)

Tidal current direction offset : 0.0 deg
Wave direction offset : 0.0 deg
Wave spectrum type : JONSWAP (gamma = 3.30)
Wind spectrum type : NPD
Current - wave-drift interaction : OFF
Load dynamics allowance : 1.0 * STD of thrust demand
Additional surge force : 0.0 tf
Additional sway force : 0.0 tf
Additional yawing moment : 0.0 tf.m
Additional force direction : Fixed
Density of salt water : 1026.0 kg/m³
Density of air : 1.226 kg/m³
Power limitations : OFF
Thrust loss calculation : ON

<table>
<thead>
<tr>
<th>#</th>
<th>Thruster</th>
<th>X (m)</th>
<th>Y (m)</th>
<th>F+ (tf)</th>
<th>F- (tf)</th>
<th>Max [%]</th>
<th>Pe [kW]</th>
<th>Rudder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TUNNEL</td>
<td>26.5</td>
<td>0.0</td>
<td>10.5</td>
<td>-10.5</td>
<td>100</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TUNNEL</td>
<td>24.0</td>
<td>0.0</td>
<td>10.5</td>
<td>-10.5</td>
<td>100</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TUNNEL</td>
<td>-27.8</td>
<td>0.0</td>
<td>8.6</td>
<td>-8.6</td>
<td>100</td>
<td>575</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>PROP_AS</td>
<td>-29.9</td>
<td>4.4</td>
<td>88.4</td>
<td>-61.9</td>
<td>100</td>
<td>5000</td>
<td>SPADE</td>
</tr>
<tr>
<td>5</td>
<td>PROP_AS</td>
<td>-29.9</td>
<td>4.4</td>
<td>88.4</td>
<td>-61.9</td>
<td>100</td>
<td>5000</td>
<td>SPADE</td>
</tr>
</tbody>
</table>

**Limiting 1 minute mean wind speed in knots at 10 m above sea level**

Wind speed: Automatic
Significant wave height: DNV (ERN)
Mean zero up-crossing period: DNV (ERN)

Rotating tidal current: 1.46 knots
Rotating wind induced current: 0.000*Uwi knots

---

NOTICE: The data contained herein is provided for convenience of reference to allow users to determine the suitability of the Company's equipment. The data may vary from the current condition of equipment which can only be determined by physical inspection. Company has exercised due diligence to insure that the data contained herein is reasonably accurate. However, Company does not warrant the accuracy or completeness of the data. In no event shall Company be liable for any damages whatsoever arising out of the use or inability to use the data contained herein.