COMMERCIAL SHIP REFERENCES

SHIPOWNERS USING THORDON SEAWATER LUBRICATED PROPELLER SHAFT BEARINGS

Future Compliant Gaining an Eco-Advantage
Summer 2019

THORDON BEARINGS INC.

ZERO POLLUTION | HIGH PERFORMANCE | BEARING & SEAL SYSTEMS
**RECENT ORDERS**

**MSC Mediterranean Shipping (Switzerland)**
2 - 154,000 GT cruise ship on order
To be equipped with COMPAC bearings
Delivery: 2018
Fincantieri (Italy)

**Princess Cruise Lines (USA) – Carnival Corp**
3 – 145,000 GT cruise ship on order
To be equipped with COMPAC bearings
Delivery: 2019 - 2022
Fincantieri (Italy)

**X-Press Feeders (Singapore)**
2 – 37,000 DWT 2700 TEU container ships on order
To be equipped with COMPAC system, Shaft Liners, ThorShield, WQP and BCM
Delivery: 2020-2021
Zhoushan Changhong (China)

**COSCO (China)**
3 – 7,500 DWT tankers on order
To be equipped with COMPAC system, ThorShield, & WQP
Delivery: 2018
Chengxi Shipyard (China)

**Log-In Logistica Intermodal SA (Brazil)**
1 – 37,000 DWT 2,700 TEU container ship on order
To be equipped with COMPAC system, Shaft Liners, ThorShield, WQP and BCM
Delivery: 2019
Guangzhou Wenchong (China)

**COSCO (China)**
3 – 62,000 DWT cargo ships on order
To be equipped with COMPAC system, Shaft Liners, and WQP
Delivery: 2019
COSCO Dalian Shipyard (China)

**Tropical Shipping (USA)**
2 – 4,233 DWT container ships on order
To be equipped with COMPAC system, Shaft Liners, ThorShield & WQP
Delivery: 2018
Guangzhou Wenchong Shipyard (China)

**Alaskan Ferries (USA)**
2 Alaska Class ferries on order
To be equipped with COMPAC bearings
Delivered: 2018
Vigor Industrial Shipyard (USA)

**Lomar Shipping (United Kingdom)**
2 – 37,000 DWT 2700 TEU container ships on order
To be equipped with COMPAC system, WQP, & BCM
Delivery: 2018
Guangzhou Wenchong Shipyard (China)

**Matson Navigation Co. Inc. (USA)**
2 – 31,400 DWT 3400 TEU container ships on order
To be equipped with COMPAC system, Shaft Liners, ThorShield, & WQP
Delivery: 2018 - 2019
Philadelphia Shipyard (USA)

**Regent Seven Seas Cruises (USA) – Norwegian Cruise Lines**
1 – 54,000 GT cruise ship on order
To be equipped with COMPAC bearings
Delivery: 2020
Fincantieri (Italy)

**LEGEND**
- COMPAC: Seawater lubricated propeller shaft bearings for blue water
- ThorShield: Shaft coatings for seawater lubricated propeller shaft bearing systems provides protection against corrosion
- Water Quality Package (WQP): Thordon WQP supplies seawater to the propeller shaft bearings for lubrication and cooling while removing abrasives
- Bearing Conditioning Monitoring (BCM): Thordon BCM system enables real-time observation of propeller shaft bearing behaviour

**THORDON**
Seawater Lubricated Propeller Shaft Bearings
# REFERENCES

## BULK CARRIERS

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>COUNTRY</th>
<th>VESSEL DETAILS</th>
<th>BEARINGS</th>
<th>DELIVERY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSCO (China)</td>
<td>China</td>
<td>15 – 32,000 to 38,500 DWT bulk carriers</td>
<td>COMPAC, WQP &amp; Thor-Coat</td>
<td>2009 - 2017</td>
<td>Shanhaiguan, Nangtong, Shanghai, Guangzhou, Fujian Mawei (China)</td>
</tr>
<tr>
<td>CSL Group (Canada)</td>
<td>Canada</td>
<td>6 – 33,000 to 74,000 DWT bulk carriers</td>
<td>COMPAC, WQP &amp; Thor-Coat</td>
<td>2001 - 2014</td>
<td>Chengxi, Shanhaiguan, Yangfan (China), Bay Shipbuilding (USA), Hyundai Mipo (South Korea)</td>
</tr>
<tr>
<td>Fuzhou Haitong Shipping (China)</td>
<td>China</td>
<td>2–51,000 DWT bulk carriers</td>
<td>COMPAC, WQP</td>
<td>2013</td>
<td>Taizhou Sanfu Ship Engineering (China)</td>
</tr>
<tr>
<td>Atlantska Plovidba (Croatia)</td>
<td>Croatia</td>
<td>2–38,000 DWT bulk carriers</td>
<td>COMPAC, WQP</td>
<td>2014</td>
<td>Qingshan Shipyard, Wuhan (China)</td>
</tr>
<tr>
<td>Keystone Shipping (USA)</td>
<td>USA</td>
<td>1 – 26,011 DWT bulk carrier on order</td>
<td>COMPAC &amp; WQP</td>
<td>2016</td>
<td>Bay Shipbuilding (USA)</td>
</tr>
<tr>
<td>Sinotrans (China)</td>
<td>China</td>
<td>2–35,000 DWT bulk carriers</td>
<td>COMPAC, WQP &amp; Thor-Coat</td>
<td>2010</td>
<td>CSSC Guangzhou Huangpu Shipbuilding (China)</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>COMPANY</th>
<th>COUNTRY</th>
<th>VESSEL DETAILS</th>
<th>BEARINGS</th>
<th>DELIVERY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Lakes Towing (Canada)</td>
<td>Canada</td>
<td>1–36,245 DWT bulk carrier</td>
<td>COMPAC, WQP &amp; Thor-Coat</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>Algoma Central Corp. (Canada)</td>
<td>Canada</td>
<td>8 bulk carriers ranging from 18,583 DWT to 47,800 DWT</td>
<td>COMPAC, WQP &amp; Thor-Coat</td>
<td>1999 - 2014</td>
<td>Seaway Marine, Lakehead Marine (Canada), Chengxi (China)</td>
</tr>
<tr>
<td>Interlake Steamships (USA)</td>
<td>USA</td>
<td>7 bulk carriers ranging from 24,536 DWT to 69,172 DWT</td>
<td>COMPAC, RiverTough (4)</td>
<td>1998 - 2016</td>
<td>Bay Shipbuilding (USA)</td>
</tr>
<tr>
<td>Polsteam (Poland)</td>
<td>Poland</td>
<td>3 – 35,500 DWT bulk carriers on order</td>
<td>COMPAC &amp; WQP</td>
<td>2016</td>
<td>Jiangsu Yangzijiang Shipbuilding (China)</td>
</tr>
</tbody>
</table>
### REFERENCES

<table>
<thead>
<tr>
<th>TANKERS</th>
<th>REFERENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower Lakes Towing (Canada)</strong>&lt;br&gt;1 – 14,986 DWT tanker&lt;br&gt;Converted to COMPAC system, WQP &amp; Thor-Coat&lt;br&gt;Delivered: 2015&lt;br&gt;Chengxi Shipyard (China)</td>
<td><strong>Palmali Group (Turkey)</strong>&lt;br&gt;11 – 6,600 DWT tankers&lt;br&gt;Equipped with COMPAC bearings&lt;br&gt;Delivered: 1999 - 2009&lt;br&gt;BLTR (Estonia), Volgograd, Krasnoye Sormovo (Russia)</td>
</tr>
<tr>
<td><strong>Alaskan Tanker Company (USA)</strong>&lt;br&gt;4 – 193,049 DWT oil tankers&lt;br&gt;Equipped with COMPAC bearings&lt;br&gt;Delivered: 2004 - 2006&lt;br&gt;NASSCO (USA)</td>
<td><strong>Xin Yuan Ocean Shipping (China)</strong>&lt;br&gt;2 – 12,000 DWT asphalt/bitumen tankers&lt;br&gt;Equipped with COMPAC bearings&lt;br&gt;Delivered: 2008 - 2009&lt;br&gt;COSCO, Navy 4807 Shipyard (China)</td>
</tr>
<tr>
<td><strong>ConocoPhillips (USA)</strong>&lt;br&gt;5 – 141,739 DWT oil tankers&lt;br&gt;Equipped with COMPAC bearings &amp; WQP&lt;br&gt;Converted: 2010 - 2012&lt;br&gt;Sembawang Shipyards (Singapore)</td>
<td><strong>Fortune Marine Company Ltd. (South Korea)</strong>&lt;br&gt;4 – 6,500 DWT tankers&lt;br&gt;Equipped with COMPAC bearings&lt;br&gt;Delivered: 2008 - 2009&lt;br&gt;Pharung Shipyards (Vietnam)</td>
</tr>
<tr>
<td><strong>Fangchenggang City Hengsheng (China)</strong>&lt;br&gt;1 – 2,500 DWT &amp; 1 – 3,050 DWT tanker&lt;br&gt;Equipped with COMPAC bearings&lt;br&gt;Delivered: 2008, 2012&lt;br&gt;Wuhan Nanhua, Hubei Huanggang Shipyard (China)</td>
<td><strong>Keo Young Shipping Co. Ltd. (South Korea)</strong>&lt;br&gt;1 – 2,747 DWT &amp; 1 – 3,919 DWT tanker&lt;br&gt;Equipped with COMPAC bearings&lt;br&gt;Delivered: 2007 - 2008&lt;br&gt;Onishigumi Zosensha (Japan)</td>
</tr>
</tbody>
</table>
REFERENCES

CONTAINER SHIP/DRY CARGO

**Carisbrooke Shipping Ltd. (UK)**
8 cargo vessels – 4 ships at 8,500 DWT & 4 ships at 10,200 DWT
Equipped with COMPAC bearings
Delivered: 2011 - 2013
Jiangsu Yangzijiang Shipbuilding (China)

**Flinter Groningen (Netherlands)**
26 dry cargo ships ranging from 3,500 DWT to 9,200 DWT
Equipped with COMPAC bearings
Delivered: 2002 - 2013
Kiran (Turkey), Haiphong (Vietnam), Ferus Smit (Germany), Westerbroek, Bodewes Shipyard (Netherlands)

**COSCO (China)**
6–28,000 DWT & 8–36,000 DWT container / dry cargo vessels
Equipped with COMPAC bearings, Thor-Coat & WQP
Delivered: 2013 - 2017
Nantong, Guangzhou, Shanghai Shipyard (China)

**Tanto Intim Line (Indonesia)**
2–4,705 DWT general cargo ships
Equipped with COMPAC bearings
Keppel (Singapore), Novorossiysk Ship Repair (Russia)

**Unitra Maritime Co. Ltd. (Japan)**
3–9,667 DWT dry cargo vessels
Equipped with COMPAC bearings
Delivered: 2008
Nanjing Wujiazui Shipbuilding (China)

**Lithuanian Shipping Co. (Lithuania)**
1–4,470 DWT & 1–5,836 DWT 221 TEU container ships
Equipped with COMPAC bearings
Delivered: 2006 - 2007
Western Shipyards (Lithuania), Tallin (Estonia)

CONTAINER SHIP/DRY CARGO

**Northwestern Shipping (Russia)**
11 container ships ranging from 1,706 DWT to 3,030 DWT 118 TEU
Equipped with COMPAC bearings
Delivered: 1993 - 2001
Volgograd Shipbuilding (Russia)

**Group Desgagnés (Canada)**
2 – 14,000 DWT dry container/dry cargo vessel on order
Equipped with COMPAC & WQP
Delivered: 2017
Besiktas Shipyard (Turkey)

**Meriaura Group (Finland) - VG - Shipping**
2 – 4,700 DWT dry cargo vessels on order
Equipped with COMPAC bearings
Delivered: 2016
Royal Bodewes (Netherlands)

**Carisbrooke Shipping Ltd. (UK)**
8 cargo vessels – 4 ships at 8,500 DWT & 4 ships at 10,200 DWT
Equipped with COMPAC bearings
Delivered: 2011 - 2013
Jiangsu Yangzijiang Shipbuilding (China)

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Delivered: 2006 - 2007
Western Shipyards (Lithuania), Tallin (Estonia)
REFERENCES

CRUISE SHIPS

Princess Cruises (USA) - Carnival Corp.
12 cruise ships ranging from 108,000 GT to 143,700 GT
Equipped with COMPAC bearings
Delivered: 1998 - 2017
Fincantieri (Italy), MHI (Japan)

P&O Cruises (UK) - Carnival Corp.
3 cruise ships ranging from 116,000 GT to 143,730 GT
Equipped with COMPAC bearings
Delivered: 2008 - 2015
Fincantieri (Italy)

Seabourn Cruise Lines (USA) - Carnival Corp.
4 cruise ships ranging from 32,200 GT to 40,350 GT
Equipped with COMPAC bearings
Delivered: 2009 - 2017
Mariotti (Italy)

Viking Cruise Lines (Austria)
4 – 47,800 GT cruise ship
Equipped with COMPAC bearings
Delivered: 2015 - 2018
Fincantieri (Italy)

CRUISE SHIPS

Regent Seven Seas Cruises (USA) - Norwegian Cruise Lines
1 – 54,000 GT cruise ship
Equipped with COMPAC bearings
Delivered: 2016
Fincantieri (Italy)

Disney Cruise Lines (USA)
4 cruise ships ranging from 85,000 GT to 124,000 GT
Equipped with COMPAC bearings
Fincantieri (Italy), Meyer Werft (Germany)

Oceania Cruises (USA)
2 – 65,000 GT cruise ships
Equipped with COMPAC bearings
Delivered: 2010 - 2011
Fincantieri (Italy)

REFERENCES
### FERRIES

#### Anek Lines (Greece)
- 1 – 9,851 GT ferry
- Converted to SXL bearings, Thor-Coat
- Delivered: 2015

#### Sado Kisen (Japan)
- 1 passenger ferry
- Equipped with SXL bearings
- Delivered: 2014
- Kanda Shipyards (Japan)

#### ANMEZ AE (Greece)
- 1 – 6,307 GT passenger ferry
- Equipped with SXL bearings
- Delivered: 2013
- Elefsis Shipyards (Greece)

#### BC Ferries (Canada)
- 10 ferries ranging from 6,555 GT to 6,969 GT
- Equipped with COMPAC bearings
- Delivered: Since 2003
- Washington Marine Group (Canada)

#### Grimaldi Group (Italy)
- 2 – 49,257 GT ferries
- Equipped with COMPAC bearings
- Delivered: 2001 - 2002
- Marina di Carrara (Italy)

#### New York City Staten Island Ferries (USA)
- 3 – 5,901 GT ferries
- Equipped with COMPAC bearings
- Delivered: 2004 - 2006
- Marinette Marine (USA)

#### Société des traversiers du Québec (Canada)
- 6 – 1,500 GT ferries
- Equipped with COMPAC bearings
- Delivered: 1996 - 2002
- MIL Davie Industries (Canada)

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### GET ON BOARD

**PROVEN PERFORMANCE:**
550+ commercial ships are using Thordon COMPAC bearings.

**SUBSTANTIALLY LOWER OPERATIONAL COST:**
Compared to a sealed oil system.

**FUTURE COMPLIANT:**
Meets VGP & Polar Code Regulations.

Specify an Open Thordon COMPAC Seawater Lubricated Propeller Shaft Bearing System for your newbuild.

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To learn more visit us online at thordenbearings.com/provenperformance
### REFERENCES

<table>
<thead>
<tr>
<th>AHTS</th>
<th>OTHER VESSELS</th>
<th>REFERENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Oilfield Services Limited (China)</td>
<td>7–12,000 HP AHTS vessels</td>
<td>Heroyhav (Norway)</td>
</tr>
<tr>
<td>Equipped with COMPAC bearings, WQP</td>
<td>1 fishing vessel</td>
<td>Equipped with COMPAC bearings</td>
</tr>
<tr>
<td>Shanghai, Shipyard (China), Wuhan Shipbuilding (China)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Oilfield Services Limited (China)</td>
<td>5 – 2,300 DWT AHTS vessels</td>
<td>PEVASA Group (Spain)</td>
</tr>
<tr>
<td>Equipped with COMPAC bearings</td>
<td>1 tuna fishing vessel</td>
<td>Equipped with COMPAC bearings &amp; WQP</td>
</tr>
<tr>
<td>Delivered: 2016</td>
<td>Delivered: 2014</td>
<td>Astilleros de Murueta Shipyard (Spain)</td>
</tr>
<tr>
<td>Wuhan Shipbuilding &amp; Fujian Mawei Shipbuilding (China)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Offshore (India)</td>
<td>3 AHTS vessels ranging from 2,339 DWT to 3,319 DWT</td>
<td>Louis - Dreyfus Armateurs (France)</td>
</tr>
<tr>
<td>Equipped with COMPAC bearings</td>
<td>Delivered: 2007, 2009, 2010</td>
<td>3 cable ships ranging from 9,820 DWT to 10,000 DWT</td>
</tr>
<tr>
<td>Great Eastern Shipping (India)</td>
<td>Great Eastern Shipping (India)</td>
<td>Equipped with COMPAC bearings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delivered: 2001 - 2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hyundai Mipo Shipyard (South Korea)</td>
</tr>
<tr>
<td>Seacor Marine (USA)</td>
<td>5–4,500 DWT AHTS vessels</td>
<td>Heerema Engineering Services (Netherlands)</td>
</tr>
<tr>
<td>Equipped with COMPAC bearings</td>
<td>Delivered: 2007 - 2008</td>
<td>2–59,344 DWT offshore vessels</td>
</tr>
<tr>
<td>Delivered: 2007 - 2008</td>
<td>Bender Shipbuilding (USA)</td>
<td>Equipped with COMPAC bearings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delivered: 2001, 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drunen, Verolme Botlek Shipyard (Netherlands)</td>
</tr>
<tr>
<td>Tidewater Inc. (USA)</td>
<td>5 AHTS vessels ranging from 3,297 DWT to 4,500 DWT</td>
<td>COSCO (China)</td>
</tr>
<tr>
<td>Equipped with COMPAC bearings</td>
<td>Delivered: 2005 - 2006</td>
<td>2–18,500 DWT car carriers equipped with COMPAC bearings</td>
</tr>
<tr>
<td>ENVAI Shipyard (Brazil)</td>
<td></td>
<td>1–90,000 DWT semi - submersible vessels equipped with COMPAC bearings, Thor-Coat, WQP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delivered: 2009 - 2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COSCO Zhoushan, Nangtong, Shanghai, Guangzhou (China)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>China Oilfield Services Limited (China)</td>
</tr>
<tr>
<td></td>
<td>3 seismic vessels, 1 deepwater 2D seismic vessel</td>
<td>Equipped with COMPAC bearings, WQP</td>
</tr>
<tr>
<td></td>
<td>Shanghai, Shipyard (China)</td>
<td>Shanghai, Shipyard (China)</td>
</tr>
</tbody>
</table>