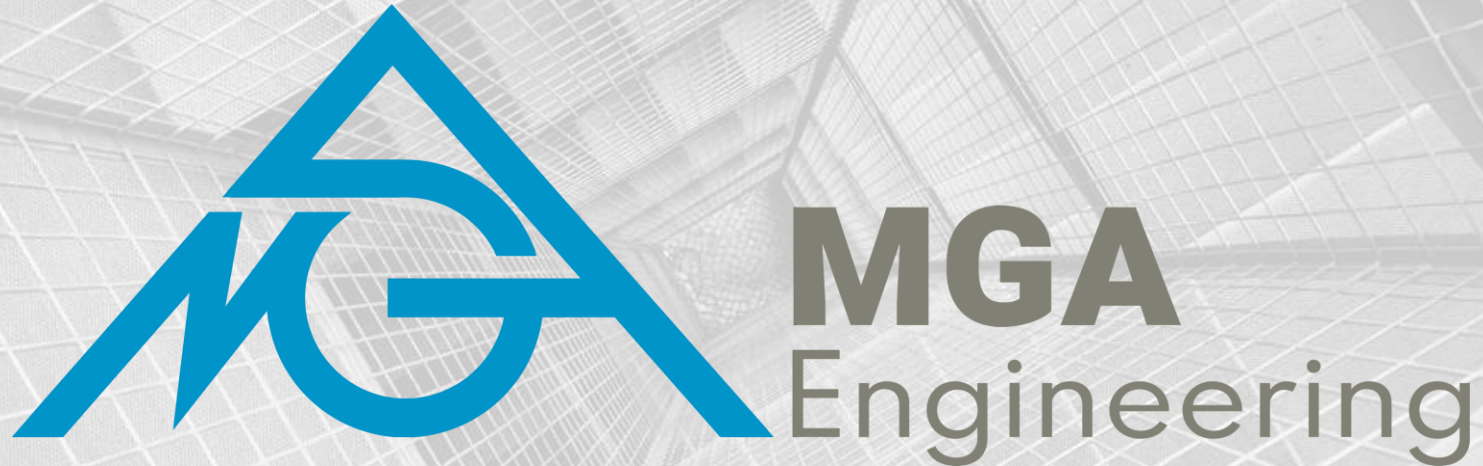


# SHIPLOADERS PORTFOLIO



**MGA Engineering Inc.**

Suite 3000 - 817 15th Avenue SW  
Calgary, Alberta, Canada T2R 0H8  
<https://www.mgaeng.com/>

**Contact:**

Steven J. Keays, M.A.Sc., P.Eng.  
Vice President  
[steven.keays@mga-ind.com](mailto:steven.keays@mga-ind.com)  
Cell: 1-587-433-1504  
Direct: 1-587-383-6690

# ABOUT MGA

MGA Engineering Inc. is a master designer of structural and mechanical systems utilized across the globe in the marine, mining, infrastructure, and building sectors. Founded in 1996, the firm is headquartered in Calgary, Canada, and operates regional offices in Canada, USA, and Egypt. Throughout the decades, MGA has lent its expertise to owners, operators and fabricators of large-scale bulk materials handling equipment such as conveyors, ship loaders, stackers/reclaimers, crushers, storage tanks, vessels and transfer stations.

Over the decades, MGA has worked with all major Original Equipment Manufacturers (OEM), including Takraf, ThyssenKrupp, PHB, FAM, MWS, FLSmidth, Shinhan, and Sandvik.

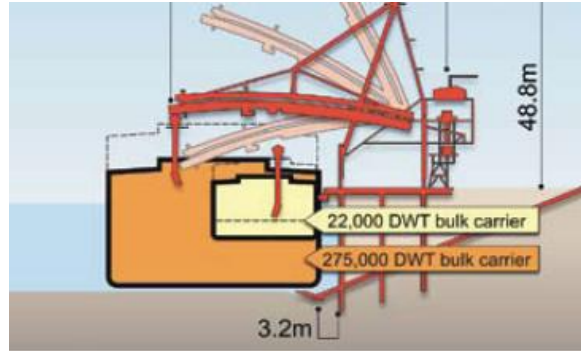




# COLLAHAUSI SHIPLOADER

CHILE  
1996-1999

- ▶ Design Audit
- ▶ Fabrication supervision
- ▶ Site rehabilitation



# LAXT SHIPLOADER

CALIFORNIA, USA  
1997

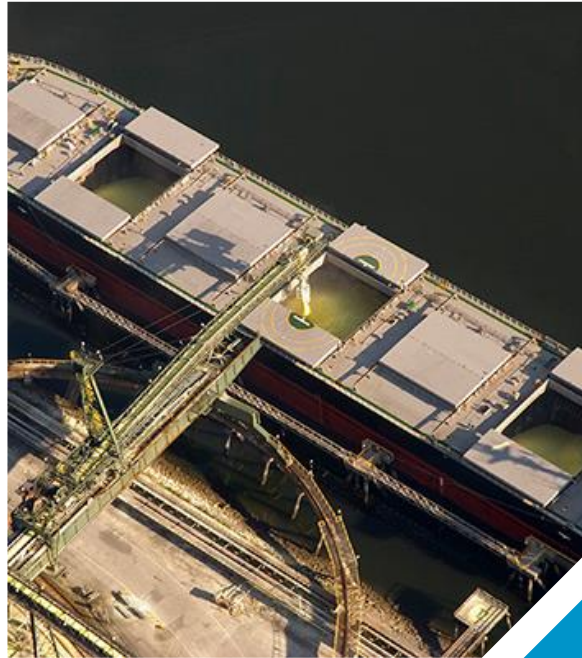
- ▶ Trouble shooting for the hoisting system
- ▶ Design audit



# PACIFIC COAST TERMINALS

BC, CANADA  
1996 & 2016

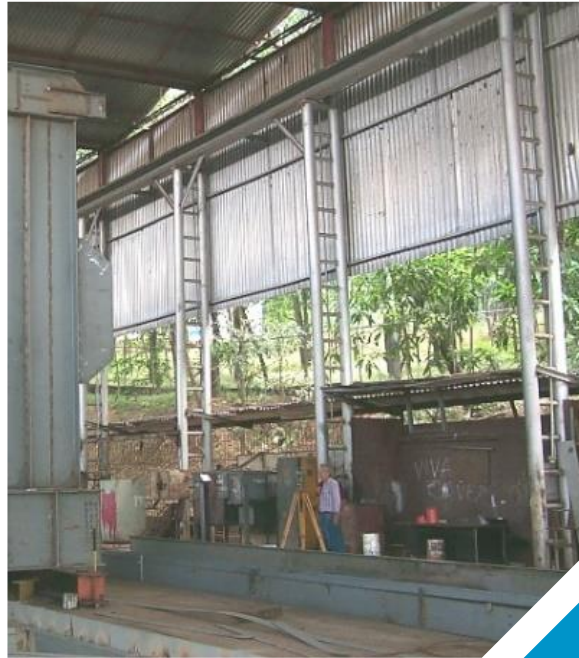
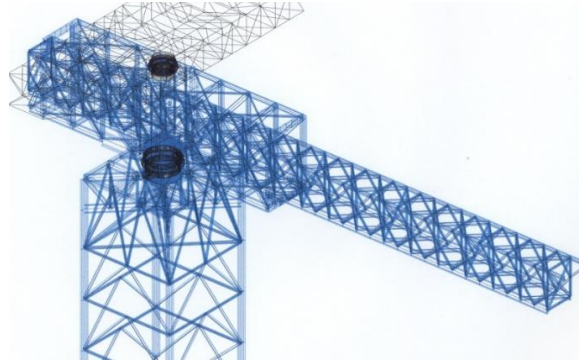
- ▶ Engineer of Record for the Potash conveying system
- ▶ Design audit for the quadrant Shiploader & boom replacement



# COASTAL ARUBA SHIPLOADER

ARUBA  
1997-2000

- Design, fabrication and erection supervision







# HOVENSA SHIPLOADER

U.S. VIRGIN ISLANDS  
1998-2001

- Design, fabrication and erection supervision



# ILO SHIP- UNLOADERS

PERU  
2001

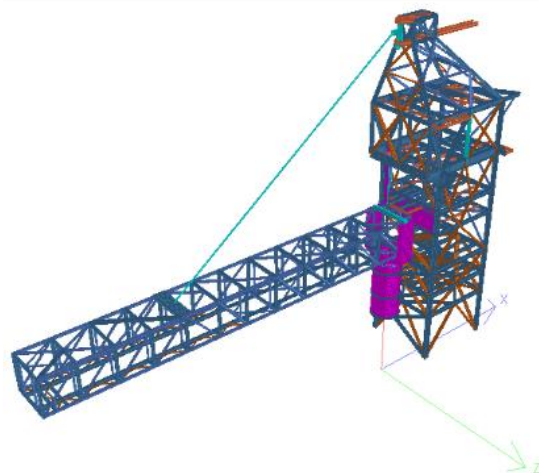
- ▶ Structural evaluation of seismic damage
- ▶ Structural design criteria-Seismic provisions





# AIMCOR SHIPLOADER

TEXAS, USA  
2001-2003

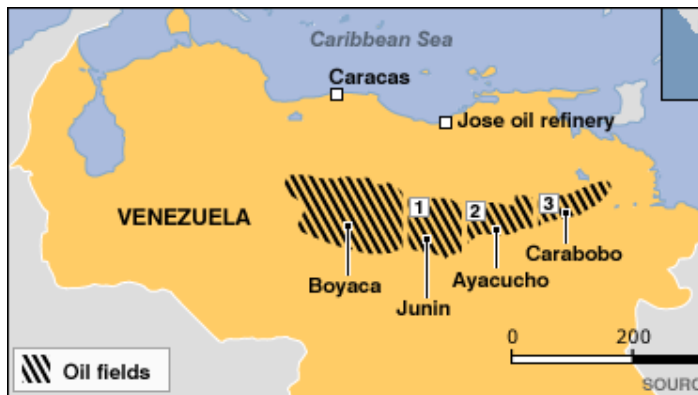


- ▶ Repair and rehabilitation
- ▶ 2500 t/h pet coke radial shiploader for the Texas City materials handling terminal-Texas.

# PETROZUATE SHIPLOADER

VENEZUELA  
2002

- Fire damage investigation and troubleshooting





# VALE LONG HARBOUR PROCESSING PLANT

NEWFOUNDLAND, CANADA  
2009

- ▶ Engineer of Record for two concentrate mobile hoppers
- ▶ Bulk nickel concentrates and bulk limestone



# SANDVIK SHIPLOADERS 2004-2017

Engineer of Record for  
several ship loaders in  
Canada and USA

- ▶ Port Of Sept Iles
- ▶ Cliffs
- ▶ Oregon (Canpotex)
- ▶ Louisiana-Burnside
- ▶ Westshore Terminals
- ▶ Prince Rupert Potash  
Terminal (Canpotex)



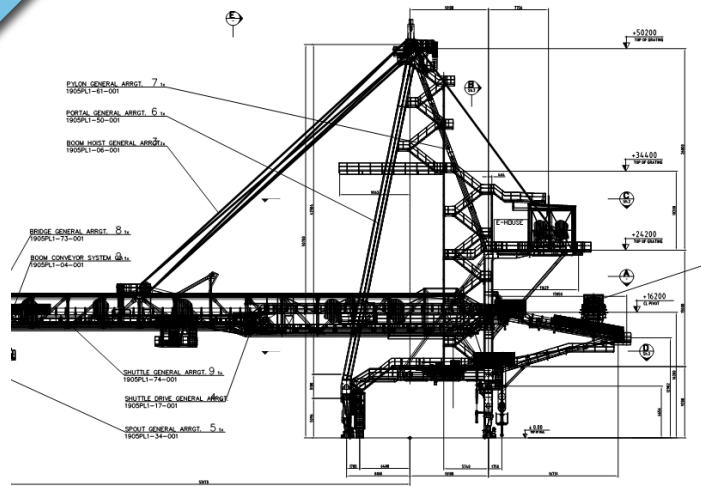


- ▶ Bituminous coking coal and thermal coal with varying fines and moisture content
- ▶ Ship Loader
- ▶ 3 Bucketwheel stacker/reclaimers

# WESTSHORE TERMINALS

BC, CANADA  
2013-2018

# WESTSHORE SHIPLOADER



- ▶ Shiploader: 8000 tph
- ▶ Belt width: 2440mm
- ▶ Belt speed: 4.8m/s

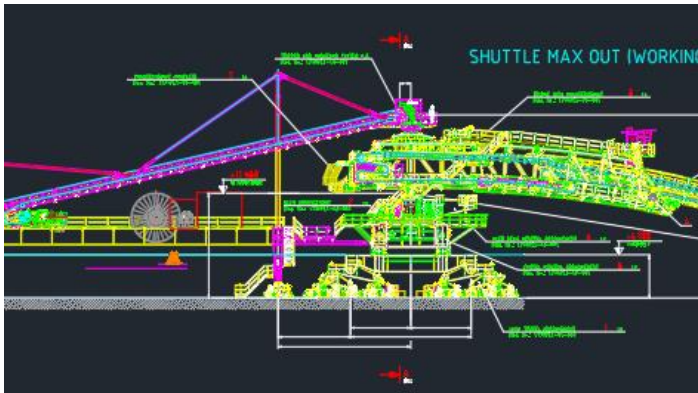


# PORT OF SEPT-ILES



# PORT OF SEPT-ILES POINT-NOIRE QUAI NO. 35 2012-2014

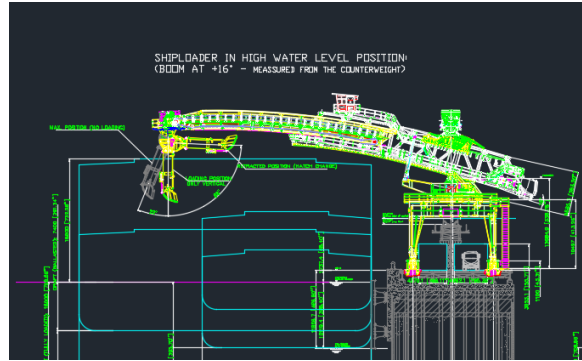
- ▶ 2 Shiploaders + trippers
- ▶ 2 Harbour conveyors (195 & 360m)
- ▶ Iron Ore
- ▶ 8,000 TPH (Design)





# IMPALA BURNSIDE TERMINAL

LOUISIANA, USA  
2011-2013



- ▶ Bituminous and Sub-Bituminous Coal, multi-grade, heterogeneous properties.
- ▶ Design Capacity: 6600 to 8300 tonnes per hour
- ▶ Shiploader conveyor: 872'
- ▶ Travelling Shiploader w/tripper

## About This Project

Canpotex is currently working toward the completion of a feasibility analysis. This analysis covers environmental assessment, First Nations consultation and detailed design engineering activities. The company hopes to have regulatory approvals before the end of 2012.

The Canpotex Potash Export Terminal will include the following components:

- A marine wharf, access trestle, causeway and all weather ship loading facility capable of receiving vessels of up to 180,000 dead weight tonne (DWT)
- A 180,000 tonne potash storage building with associated conveyor and dust collection systems
- An automated railcar unloading and conveyor system
- A settlement pond for storm water and wash down water
- Administration, personnel, maintenance, and storage buildings
- Site services including water supply, natural gas and sewage.



## ► Special Shiploader Study (All weather Shiploader)

# CANPOTEX SHIPLOADER STUDY

## PRINCE RUPERT, BC, CANADA

**Calgary [Head Office]**

Suite 2800, 817 – 15<sup>th</sup> Avenue SW  
Calgary, AB T2R 0H8  
Canada

**Quebec City**

2828 Boulevard Laurier,  
Suite 734, Tour 1 Norton-Rose  
Québec City, QC G1V 0B9  
Canada

**Florida**

MGA USA ENGINEERS LLC  
7901 4th St N, STE 300  
St. Petersburg, Florida 33702  
USA

**Cairo**

MGA Technology  
30 Samir Mokhtar St., 9th & 10th Floor Ard El Golf  
Heliopolis, Cairo, Egypt



# Contact

Steven J. Keays, M.A.Sc., P.Eng.

Vice President

[Steven.keays@mga-ind.com](mailto:Steven.keays@mga-ind.com)

D: +1 587-393-6690

C: +1 587-433-1504