Specification of Vessel

M/V NACC QUEBEC
Built in 2011 at Tuzla Shipyard Turkey
FLAG: CANADA
IMO No.: 9546045
Home Port: Gaspé
CLASS: Bureau Veritas
PNEUMATIC CEMENT CARRIER
FITTED FOR THE CARRIAGE OF CEMENT, GGBFS AND FLY ASH
Fitted for Great Lakes Trading
ICE Class 1D or equivalent
Fitted Exhaust Gas Cleaning system (Scrubber made in EU) connected to Main Engine for use of High Sulphur HFO (max 3.5%)
S. DAWT: abt 15,268 mtons
S. Draft: abt 8.373 m
Fresh Water Draft: abt 8.56 m
Loa: 139.95 m
Beam: 21.00 m
Depth: 10.60 m
GT/NT: 10,243/3,816
4 Holds
Cargo Holds volumes (85%): abt 11,435 cbm
Bow thruster fitted: 700kW
Main engine: Wartsila 6L38B / 4,350kW
Shaft Generator fitted

HANDLING SYSTEM:
Supplier: Van Aalst Marine & Offshore BV, the Netherlands Main Components of the Handling System:

4 x reloader vessels with integrated filter system pressurized by up to 6.6 bar x screw air compressors driven by diesel engines.
Each screw air compressor (total 8) has a capacity of 45 cubic meters per minute; all of them are able to supply air pressure from 1 up to 6.6 bar.
4 x vacuum pumps driven by diesel engines.
4 x blowers units for fluidizing.

LOADING & UNLOADING OPTIONS:
LOADING:

1) Mechanically (by gravity):
   i) via Central Loading Hopper by loading conveyor belt from shore:
      Loading rate: up to 1,200 tons per hour
      Connecting flange: see Appendix A
   ii) via one of the Lower Loading points by loading conveyor belt from shore: Loading rate: up to 600 tons per hour
      Connecting flange: see Appendix B

2) Pneumatically, through pipeline from shore: Number of lines: 2xPS & 2xSB
   Pipe diameter: 14”
   Dimension of connecting flange: 350 DIN
   Loading rate: up to 500 tons per hour

3) Via Bulk trucks to the cargo holds: Number of lines from shore: 8xPS & 8xSB
   Pipe diameter of each line: 4”
   Dimension of connection flange: 300 DIN

UNLOADING:

1) Pneumatically, through pipelines to shore facilities: Number of Lines: 2 PS & SB
   Pipe diameter: 14”
   Dimension of connection flange: 350 DIN
   Unloading rate: up to 300 tons per hour per each line (2 x 300 tons)

Note A): discharging rate is maximum value based on short horizontal and vertical distances (beginning of pipes to top of Silo up to max 40 m / length of shore pipes up to max 270 m) and no restrictions on receiver’s side, it is subject to the capacity of shore dust collectors/filters

SPEED & CONSUMPTION in navigation:
About 13.0 knots on about 14.5 tons IFO 180
About 12.0 knots on about 13.5 tons IFO 180
About 11.0 knots on about 13.0 tons IFO 180
About 10.0 knots on about 12.5 tons IFO 180

The above figures include the shaft generator in operations. With the shaft generator disconnected a daily consumption of about 0.9 ton MGO to be considered.

Should the Vessel be required to run with a low main engine load, it is necessary to increase main engine load at 85% for minimum one hour every twelve hours of low speed as per maker recommendation.

The above figures shall be reviewed and recalculated, if necessary, by Owners and Charterers after the first 3 months trading and for each speed level it will be also included main engine rpm.

CONSUMPTION in ports:

1) IDLE: about 0.9 ton MGO per day
2) WORKING:
   i) During Loading Operations:
   Mechanically (by gravity), via loading conveyor belt from shore: 0.09 ton MGO per hour.
   Pneumatically, through pipeline from shore: 0.09 ton MGO per hour.
   Via bulk trucks to cargo holds: 0.09 ton MGO per hour.

When the cargo is shifted from one cargo hold to another the involvement of at least 1 x Air Compressor plus 1 x vacuum pump plus blowers is needed. Estimated consumption for cargo shifting: 0.19 ton MGO per hour.

   ii) During Unloading Operations:
   Pneumatically, through pipelines: 0.50 ton MGO per hour. This is based on the involvement of 6 x air compressors and 4 x vacuum pumps working simultaneously.

Note B): speed and consumption figures in navigation are based on good weather conditions, i.e. wind force Beaufort scale maximum 4 (four), Douglas sea state 3 (three), no negative influence by swell/ adverse current and with the shaft generator connected.

Vessel may burn MGO when manoeuvring in narrow/shallow/restricted waters, canals and rivers. However, she is capable of burning IFO in the above mentioned areas. ULS MGO is required when the Vessel operates in SECA area if the exhaust gas scrubber is not operating. Consumption figures during unloading operations may vary from terminal to terminal due to shore facilities distance/restrictions (pipes size, curves, horizontal length, vertical length, silo dust collector). The actual consumption figures depend from the number of air compressors required to run.

All above figures, including those related to speed, consumption (in navigation as well as during loading operations) and fuel types utilized, are given in good faith and are to be considered “about” (where “about”

means +/- 5%). Owners will comply with all applicable regulations (including environmental regulations) with, if necessary, applicable revisions to the Vessel warranty provisions to be made as required in order to maintain such compliance.