



## TECHNICAL SPECIFICATIONS

|   |                             |
|---|-----------------------------|
| Vessel type                             | Self-Unloading Bulk Carrier |
| Deadweight (DWT)                        | 34,938 tonnes               |
| Built                                   | 1972, converted in 1998     |
| Classification                          | + 100 A1                    |
| Length Overall                          | 225.50 meters               |
| Breadth Moulded                         | 23.76 meters                |
| Total Hold Capacity (including hatches) | 40,207 cubic meters         |
| Gross Tonnage (GT)                      | 23,983 tonnes               |
| Net Tonnage (NT)                        | 7,916 tonnes                |
| Thrusters                               | Bow and steering nozzle     |
| Horsepower                              | BHP: 8 0 4 6   kW: 6000     |
| Length of boom                          | 79.00 meters                |
| Average Unloading Rates (mt/hr)         | Ore: 5,500   Coal: 4,000    |

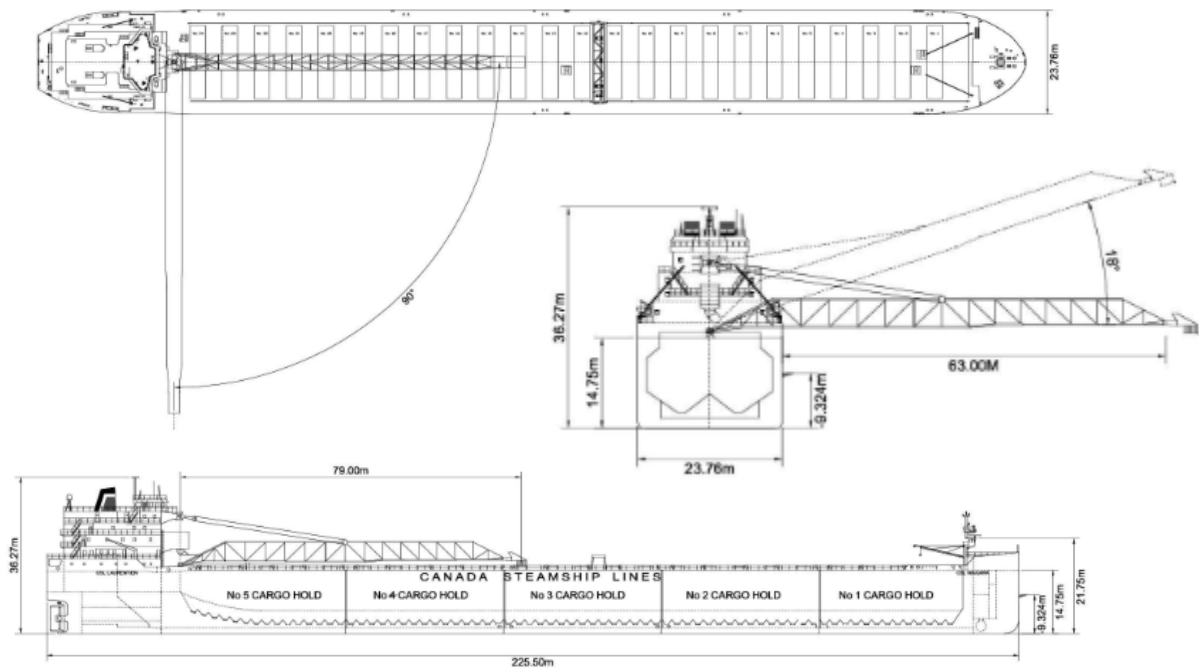
MV *CSL Niagara* is one of Canada Steamship Lines' self-unloading Lakers. She was built in 1972 and converted in 1998.

She is a very versatile vessel. She can do various trades, from ore to grain or stone.

The Equipment onboard consists of hoppers shaped holds, hydraulic cargo gates, two tunnel conveyors, a 'C' Loop elevating belt and a 79.00 m unloading boom. The unloading and ballast systems are automated through a network. Environmental equipment includes containment trays under the boom conveyor and washdown water is contained in a dedicated tank. The cargo tunnel is fitted with high capacity ventilators and is also fitted with explosion proof electrical fittings.

# CSL NIAGARA

# SELF-UNLOADER



## DRAFT AND DEADWEIGHT

| MARK (IN FW) | DRAFT  |             | DEADWEIGHT |        |
|--------------|--------|-------------|------------|--------|
|              | Meters | Feet        | Tonnes     | LT     |
| Summer       | 9.324  | 30' 7-1/8"  | 37,105     | 36,521 |
| Midsummer    | 9.556  | 31' 4-1/14" | 38,229     | 37,696 |
| Intermediate | 8,975  | 29' 5-1/4"  | 35,311     | 34,755 |
| Winter       | 8.8    | 28' 10"     | 33,343     | 32,816 |
| Seaway       | 8.08   | 26' 6"      | 30,708     | 30,223 |

## HOLD CAPACITIES

| COMPARTEMENT      | Cubic Meters | Cubic Feet  |
|-------------------|--------------|-------------|
| Hold # 1          | 7,311        | 258,185.5   |
| Hold # 2          | 8,331        | 294,206.5   |
| Hold # 3          | 8,331        | 294,206.5   |
| Hold # 4          | 8,331        | 294,206.5   |
| Hold # 5          | 7,902        | 279,056.5   |
| Net Hold Capacity | 40,206       | 1,419,861.5 |

## PRINCIPAL DIMENSIONS

| DESCRIPTION    | Meters | Feet     |
|----------------|--------|----------|
| Length Overall | 225.5  | 739' 10" |
| Length B.P.    | 222.60 | 730' 4"  |
| Breadth        | 23.76  | 77' 11"  |
| Depth          | 14.75  | 48' 5"   |

## TPC AND TPI (AT SEAWAY DRAFT)

|            |        |
|------------|--------|
| TPC (t/cm) | 51.35  |
| TPI (t/in) | 128.38 |

## HATCH DIMENSIONS

| LENGTH |             | WIDTH  |      |
|--------|-------------|--------|------|
| Meters | Feet        | Meters | Feet |
| 3.35   | 10' 11-7/8" | 16.46  | 54'  |