



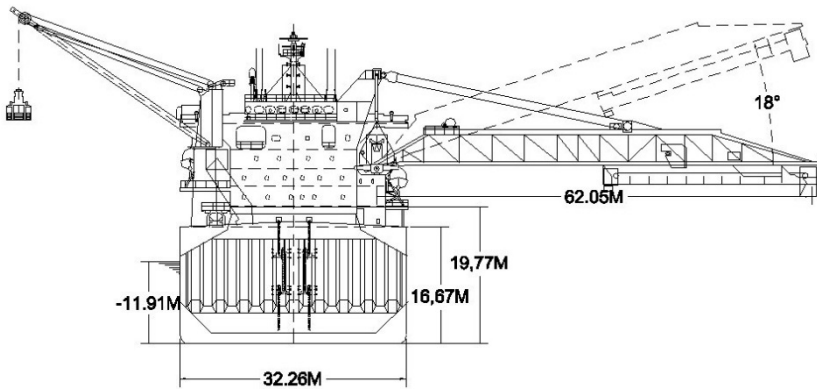
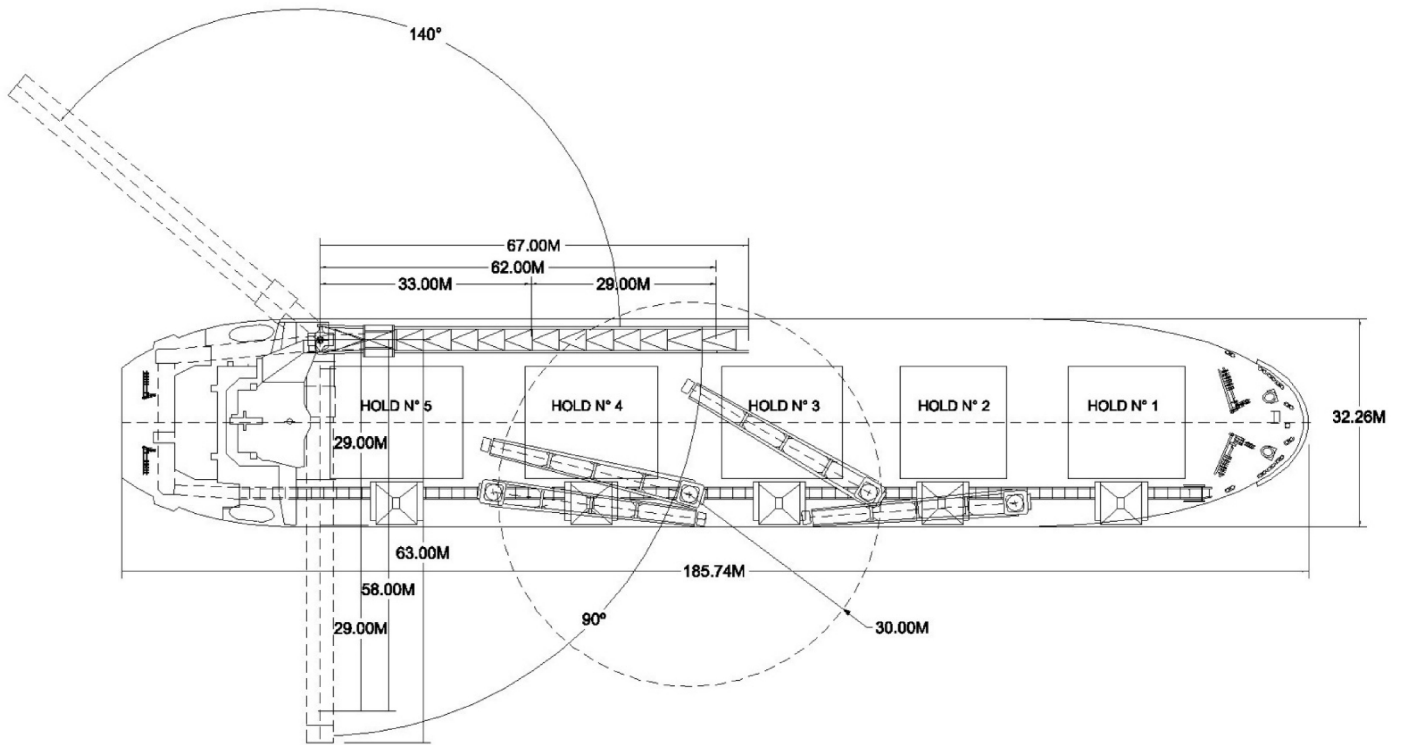
## TECHNICAL SPECIFICATIONS

Built	2002
Classification	1A1 Bulk Carrier ES(S) Grain(U) E0 ESP HC(E) Holds (2,4) may be empty IB (+) LCS (D, G,I,S) NAUTICUS (Newbuilding)
Length overall (m)	185.74
Breadth Moulded (m)	32.26
Depth Moulded (m)	16.67
Total Hold Capacity (m <sup>3</sup> )	62,363
Deadweight (t)	47,665
Draft (m)	11.91
Gross Tonnage	28,136
Net Tonnage	17,252
Bow Thruster (kW)	1,600
Length of Boom	66.40
Discharge Rate (max tph)	1,200

The hybrid self-unloading bulk carrier *CSL Reliance* carries gypsum, mineral sands, dolomite, sugar, salt and coal.

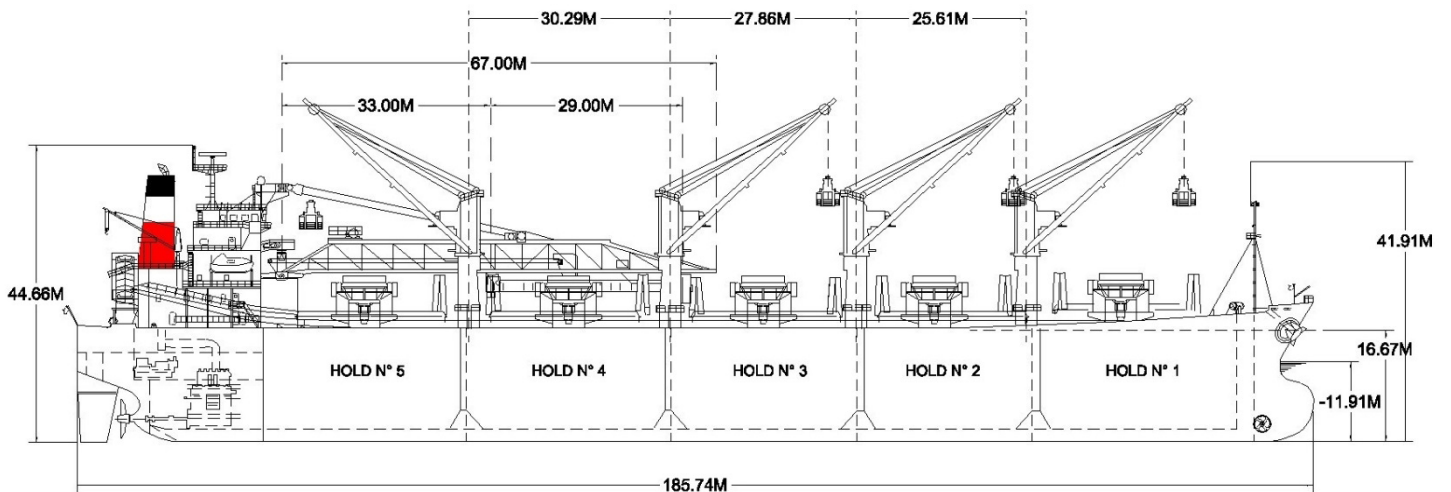
*CSL Reliance* is also utilized as a transshipment vessel for ship-to-ship loading and unloading operations.

# CSL RELIANCE



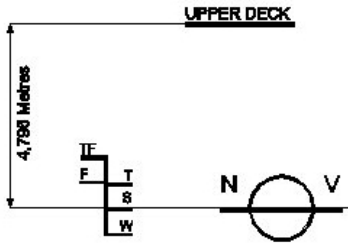
## ASSIGNED DRAFTS

Season	Draft (metres)	Displ. (tonnes)	DWT (tonnes)
TF	12.43	58,491	48,965
F	12.18	57,201	47,675
T	12.16	58,509	48,983
S	11.91	57,191	47,665
W	11.66	55,878	46,352



# HYBRID SELF-UNLOADER

DEADWEIGHT SCALE - CSL RELIANCE



DRAFT		DISPLACEMENT		TPC (tonnes)	DEADWEIGHT (tonnes)	DRAFT	
Sea Water (metres)	Fresh Water (feet)	(tonnes)	(tonnes)			Sea Water (feet)	(metres)
12	42	60,000			50,000	42	12
	40					40	
11	38	55,000	54	45,000	38	11	
	36					36	
10	34	50,000		40,000	34	10	
	32					32	
9	30	45,000	53	35,000	30	9	
	28					28	
8	26	40,000	52	30,000	26	8	
	24					24	
7	22	35,000	51	25,000	22	7	
	20					20	
6	18	30,000	50	20,000	18	6	
	16					16	
5	14	25,000	49	15,000	14	5	
	12					12	
4	10	20,000	48	10,000	10	4	
	8					8	
3	8	15,000	47	5,000	6	3	
	6					6	
	4	10,000	46	0,0	4		
	2		45		2	2	
2	2		44				
	0		43				
			42				

LIGHTSHIP 9526.1 t

## HATCH AND HOLD SPECIFICATIONS

### HOLD VOLUMES (CUBIC METRES)

HOLD NUMBER	1	2	3	4	5	TOTAL
Cubic (Grain)	11,554.00	11,975.00	13,030.00	13,896.00	11,908.00	62,363.00
Cubic (Bale)	11,476.00	11,780.00	13,708.00	13,708.00	11,840.00	61,636.00

### HOLD OPENINGS IN METRES

NUMBER OF OPENINGS	1	1	1	1	1
Opening Length	17.85	16.15	18.70	20.40	20.40
Opening Width	17.60	17.60	17.60	17.60	17.60
Coaming Height Above Keel	20.46	19.50	19.50	19.50	19.50

### HATCH INFORMATION (METRES)

DESCRIPTION	End Folding Panels				
Operation	Electr/Hydr				
Hatch Length	20.97	16.86	19.39	21.12	21.12
Hatch Width	18.00	18.00	18.00	18.00	18.00
Hatch Top Height Above Keel	18.70	18.70	18.70	18.70	18.70

## CARGO HANDLING EQUIPMENT

5 x Yokohama Fenders for Ship-to-Ship Operations

4 x 30t Electric Side Mounted Tsuji Cranes SWL 30 t

4 Orts Grabs 20.0 m<sup>3</sup> Capacity, 5 Unloading Hoppers

5x100 m<sup>3</sup> Deck Hoppers

1 Longitudinal Conveyor, 1 Cross Conveyor, 1 Incline Conveyor and 1 Boom Conveyor with Discharge Rate of (max) 1,200 t/hr.

Dust Suppression System: Water Spray System Located in each Hopper and at each Conveyor Transfer Point

All Conveyors Covered

Unloader Boom Length: 66.40 m

Unloader Boom is Reversible with 2 Discharge Points

Boom Slewing: 140 degrees to Port, 90 degrees to Starboard

Boom Luffing: Horizontal to +18 degrees

7.5 m Discharging Chute Fitted on Discharge Boom

Discharge Rate: 1,200 tph

## CONSUMPTION (TONNES PER DAY)

	SPEED		MAIN ENGINE HFO		A/E
	Loaded	Ballast	Loaded	Ballast	HFO
Sea	13.0	13.5	24.0	22.0	0.0
Port/ Anchorage			N/A	N/A	2.5
Loading/ Discharge			N/A	N/A	2.5/4.8

All specifications given in good faith but without guarantee.