

M.V. "DURHAM"

FEDERAL STEAM NAVIGATION COMPANY LIMITED

HISTORY

- 1934 Built by Workman, Clark (1928) Limited in Belfast.
- 1934 Served as a Cadet Ship for 40 Cadets between 1934 and 1939.
- 1941 Served as a military store ship from 27-06-1941 to 30-07-1943. Mined West of Pantellaria on 22-08-1941 bound from Malta to Gibraltar in ballast, and arrived at Gibraltar on 24-08-1941. Damaged by a limpet mine at Gibraltar and beached at La Linea on 20-09-1941. Refloated on 16-12-1941.
- 1942 Towed to Falmouth – arriving on 03-09-1942 – and remained in repair until 07-1943.
- 1946 Served as a Cadet Ship for 40 Cadets between 1946 and 1950.
- 1955 Served as a Cadet Ship for 40 Cadets between 1955 and 1964.
- 1957 Arrived at Galveston on 09-12-1957 with engine trouble, and her cargo was transhipped to the Haparangi.
- 1958 Finally sailed after repairs in New York on 10-06-1958.
- 1960 Laid up in Falmouth from 07 to 10-1960.
- 1965 Sold on 05-11-1965 to the Astroguarda Cia Nav. S.A. Panama and registered at Piraeus as RION.
- 1966 Arrived at Kaohsiung on 26-03-1966 for demolition, which began on 05-04-1966.

GENERAL

Official Number	163522
Code Letters	GWWK
Port of Registry	London

TONNAGES

Gross Tonnage British	10984.08
Net Tonnage British	6112.97
Gross Tonnage Panama	13178.80
Net Tonnage Panama	8845.91
Gross Tonnage Suez	13259.15
Net Tonnage Suez	9112.98

PRINCIPAL DIMENSIONS

Length Overall	510' – 0.00"
Length Between Perpendiculars	490' – 0.00"
Breadth Moulded	68' – 4.00"
Depth Moulded to Upper Deck	47' – 2.00"
Summer Draft	32' – 6.25"

DESIGN

Construction Steel
Accommodation 40 cadets

CAPACITY

OIL FUEL

	Oil Fuel Tons at 88 S.G. 98% Full	W.B. Full Tons at 35 C.F.
No. 2 Double Bottom tank P & S	222.8	265
For'd E.R. Double Bottom Tank P & S	253.4	300
After E.R. Double Bottom Tank P & S	263.9	314
No. 4 Double Bottom Tank P & S	228.5	272
No. 5 Double Bottom Tank (single)	57.4	69
For'd No. 4 Deep Tank P & S	267.6	318
After No. 4 Deep Tank P & S	226.6	269
For'd No. 5 Deep Tank P & S	120.4	144
For'd No. 5 Deep Tank (centre)	91.8	109
After No. 5 Deep Tank (centre)	105.2	126
Cross Bunker Wing Tank P & S	613.8	730
Cross Bunker Centre Tank	195.1	231
	2646.5	3147
	48.8	
Total	2695.3	

FRESH WATER

	F.W. Tons at 36	W.B. Tons 35
Fore Peak Tank	70	72
After Peak Tank	74	76
No. 1 Double Bottom Tank (single)	140	
No. 3 Double Bottom Tank P & S	285	
D.B. Piston Cooling Tank	8.3	
D.B. Jacket	10.7	
E.R. Feed Water Tanks	15	
Total	603	148

GENERAL CARGO

	Cubic Ft. Grain	Tons at 40 C.F.	Cubic Ft. 0.5 Beam	Tons at 40 C.F.
No. 1 Upper Tween Deck	23044	576.1	22530	563.3
No. 2 Upper Tween Deck	38300	957.5	37513	937.8
No. 3 Upper Tween Deck	31254	781.3	30619	765.5
No. 4 Upper Tween Deck	33200	830.0	32463	811.6
No. 5 Upper Tween Deck	24439	611.0	23960	599.0
No. 6 Main Tween Deck	22080	552.0	20565	514.1
No. 6 Trunked Hatch	5169	129.2	4969	124.2
No. 6 Hold	16626	415.7	14945	373.6
Total	194112	4852.8	187564	4689.1

INSULATED STORE ROOMS

	Cubic Ft. Grain	Tons at 40 C.F.	Cubic Ft. 0.5 Beam	Tons at 40 C.F.
Meat Room	844	21.1	793	19.8
Vegetable	676	16.9	653	16.3
Potato Room	589	14.7	566	14.2
Handing Room	250	6.3	244	6.1
Provision Room Starboard	796	19.9	738	18.4
Total	3155	78.9	2994	74.8

UNINSULATED STORE ROOMS

	Cubic Ft. Grain	Tons at 40 C.F.	Cubic Ft. 0.5 Beam	Tons at 40 C.F.
Mail Room	494	12.3	460	11.5
Bullion Room	165	4.1	165	4.1
Bonded Store	554	13.8	474	11.9
Issue Room	475	11.9	462	11.6
Bakers Shop	623	15.6	572	14.3
Butchers Shop	391	9.8	340	8.5
Linen Room	133	3.3	128	3.2
General Bulk Store	799	20.0	717	17.9
Flour & Sugar Bulk Store	999	25.0	831	20.8
Calcium Store	748	18.7	649	16.2
Total	5381	134.5	4798	120.0

INSULATED CARGO

	Cubic Ft. Grain	Tons at 40 C.F.	Cubic Ft. 0.5 Beam	Tons at 40 C.F.
No. 1 Hold	21021	525.5	20471	511.8
No. 1 Lower Tween Deck	18735	468.4	18057	451.4
No. 1 Main Tween Deck	21746	543.6	21023	525.6
No. 2 Hold	54874	1371.9	53484	1337.1
No. 2 Lower Tween Deck	39345	983.6	37944	948.6
No. 2 Main Tween Deck	39686	992.1	38272	956.8
No. 3 Hold	91907	2297.7	89814	2245.3
No. 3 Main Tween Deck	25243	631.1	24237	605.9
* No. 3 Main Tween Deck Lock-up Port	4494	112.3	4255	106.4
* No. 3 Main Tween Deck Lock-up Starboard	4808	120.2	4561	114.0
No. 4 Hold	60367	1509.2	58869	1471.7
* No. 4 Main Tweens For'd Lock-up Port	5990	149.8	5679	142.0
* No. 4 Main Tweens For'd Lock-up Starboard	6010	150.2	5710	142.7
* No. 4 Main Tweens After Lock-up Port	7974	199.4	7590	189.8
* No. 4 Main Tweens After Lock-up Starboard	7766	194.2	7384	184.6
No. 4 Trunked Hatch	10377	259.4	9970	249.2
No. 5 Hold	54057	1351.4	52685	1317.1
No. 5 Main Tween Deck	37451	936.3	36074	901.9
Outward Cargo Space	855	21.4	799	20.0
Total	512706	12817.7	496878	12421.9
* These Spaces fitted for carriage of Chilled Meat				

Chilled Meat Capacities

	Cubic Ft
No. 3 Main Tween Deck Lock-up Port	4331
No. 3 Main Tween Deck Lock-up Starboard	4635
No. 4 Main Tween Deck For'd Lock-up Port	5793
No. 4 Main Tween Deck For'd Lock-up Starboard	5828
No. 4 Main Tween Deck After Lock-up Port	7739
No. 4 Main Tween Deck After Lock-up Starboard	7541
Total	35867

ENGINES

Number	2 (Twin Screw)
Builder	Workman Clark (1928) Limited
Type	2 Cycle – Single Acting [Sulzer]
Cylinders	8
Bore	720 mm
Stroke	1250 mm
B.H.P.	5500 at 126 RPM

AUXILIARY BOILER

Builder	Workman Clark (1928) Limited
Type	2 x Donkey Boilers
Working Pressure	120 lb

ELECTRICAL INSTALLATION

Main Generators	3 Sets Diesel Engine Electric Plant
Output	300 K.W. 220 Volts
Auxiliary Generator	1 Set Waste Heat Steam Engine Electric Plant
Output	220 K.W. 220 Volts

RADIO INSTALLATION

Transmitter	Marconi "Oceanspan"
Auxiliary Transmitter	Marconi "Reliance"
Receivers	Marconi "Mercury", "Electra"
Auto Alarm	Marconi "Vigilant"
Direction Finder	Marconi "Lodestone"
Echo Sounder	Marconi "Visagraph"
Portable Lifeboat Transmitter & Receiver	
Radar	Marconi Mk IV

REFRIGERATION

Refrigeration Machinery	J & E Hall Ltd
Insulation	Cork by Mersey Insulation Company

LIST OF MASTS & SPARS

Foremast, Heel to Hounds	66' 3"	30"	23"	
Foremast, Hounds to Head	30' 0"	23"	4"	
Fore Pole, Sheet Steel	5' 3"	7.5"	4"	
Main Mast, Heel to Hounds	68' 3"	20"	16"	
Main Mast, Hounds to Head	30' 0"	16"	4"	
Main Pole, Sheet Steel	5' 3"	6.5"	4"	
2 Derrick (Steel) on Foremast	Over No. 1 Hatch			
2 Derrick (Steel) on Foremast	Over No. 2 Hatch			
2 Side Derrick (Steel) on Derrick Posts	Over No. 2 Hatch			
4 Side Derrick (Steel) on Derrick Posts	Over No. 3 Hatch			
4 Side Derrick (Steel) on Derrick Posts	Over No. 4 Hatch			
4 Side Derrick (Steel) on Derrick Posts	Over No. 5 Hatch			
2 Side Derrick (Steel) on Derrick Posts	Over No. 6 Hatch			
Signal Yard on Foremast, Pitch Pine	22' 0"	3"	5"	3"
Gaff on Mainmast, Pitch Pine	25' 0"	4"	6"	4"
2 Sounding Books, Steel Tubing	22' 0"		2.375"	
Jack Staff, Pitch Pine	20' 0"	2.25"	4.5"	3"
Ensign Staff, Pitch Pine	20' 0"	2.25"		3"

PERFORMANCE

Service Speed 16 kts

Maximum Speed

Maximum Range

SHIP'S COMPLEMENT

Deck Officers	
School Master	
Apprentices	40
Radio Officers	
Doctor	
Engineer Officers	
Refrigeration Engineer Officers	
Electrical Engineer Officers	
Bosun	
Carpenter	
P.T.I.	
Seamanship Instructor	
Cooks	
Pantry Man	
Baker	
Butcher	
Stewards	
Donkey Man	
Store Keeper	
Able Seamen	
Greasers	
Lamp Trimmer	
Total	