



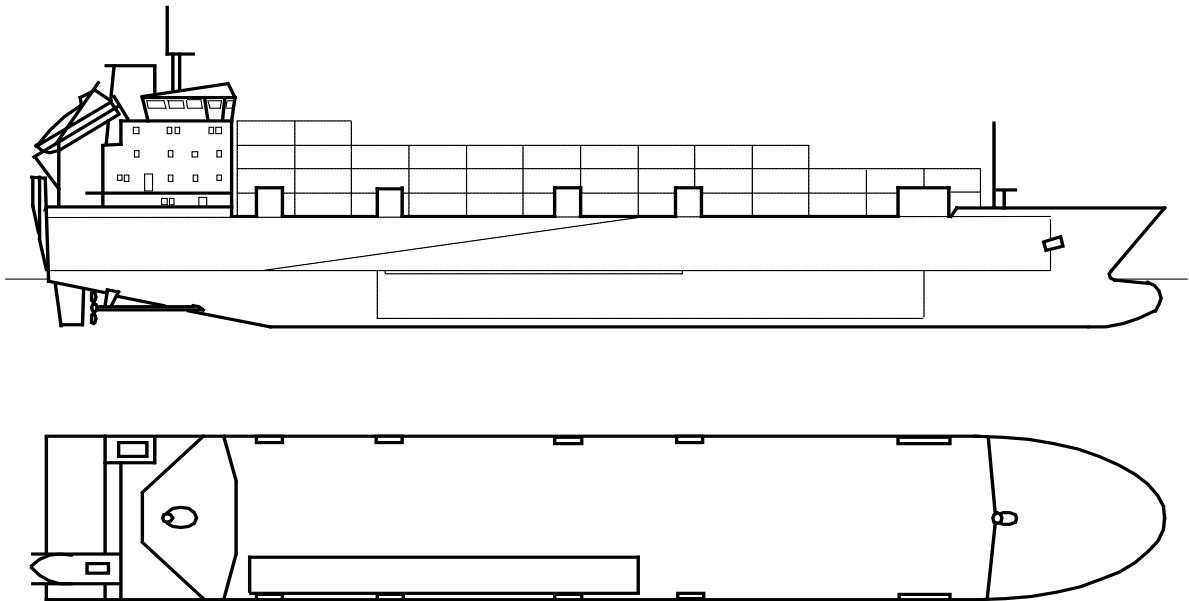
R – Series information

Helliar - 1997
Clipper Ranger - 1998
Arrow - 1998
Hildasay - 1999



All information given in good faith but without guarantee

R- Series vessels – General Description
Arrow / Clipper Ranger / Helliar / Hildasay
All details ‘about’ and ‘without guarantee’



Name	Arrow / Clipper Ranger / Helliar / Hildasay	
Type	Ro-Ro	
Class	DNV	
Build	1997 – 1999, Astilleros de Huelva, Spain	
Flag	Malta	
Port of registry	Valletta	
LOA	122.32 m	
Length between PP	112.20 m	
Breadth	19.80 m	
GT / NT	7,606 / 2,282	
Deadweight ¹	4,935 mt	
Displacement	Light	Loaded
	4,060 mt	9,818 mt
Summer Draught ¹	5.779 m	
Depth to	1st Deck	2nd Deck
	12.90 m	7.20 m
Suez Canal Certificate	GRT 8,278.8	NRT 6,694.57
Crew	18 persons	
Drivers	12 persons	

Summary lane	Tanktop Deck	205 lm	
	2nd Deck	455 lm	
	1st Deck	397 lm	
Total		1057 lm	
Lane width	Tanktop Deck	3.0 m	
	2nd Deck	3.0 m	
	1st Deck	2.9 m	
Free height	Tanktop Deck	5.0 m	
	2nd Deck	5.0 m	
Carrying capacity	Tanktop Deck	Uniform load - 5 mt/m2	
	- 628 m2	Total load 40' trailers - 40 mt	
		Mafi trailers 20' - payload 25 mt	
		Mafi trailers 40' - payload 50 mt	
		18 m road trailers - total weight 60 mt	
		Axle load - 17.5 mt	
		Bogie load - 35 mt	
		13.6 m trailers - 11 units	
	2nd Deck	Uniform load - 2 mt/m2	
	- 1,366 m2	Mafi trailers 20' - payload 25 mt	
		Mafi trailers 40' - payload 50 mt	
		18 m road trailers - total weight 60 mt	
		Axle load - 17.5 mt	
		Bogie load - 35 mt	
		13.6 m trailers - 30 units	
	1st Deck	Uniform load - 2 mt/m2	
	- 1,260 m2	Mafi trailers 20' - payload 25 mt	
		Mafi trailers 40' - payload 50 mt	
		18 m road trailers - total weight 60 mt	
		Axle load - 17.5 m	
		Bogie load - 35 mt	
		13.6 m trailers - 24 units	
Containers	Total weight 2716 mt	TEU – stack load 50 mt – 266 units	
	(depending on ship	FEU – stack load 75 mt – 126 units	
	Stability and cargo		
	mix)		
NB. Vessels currently			
have some deck			
sockets removed to			
optimise RoRo mode.			

Pole sockets for reefers	50 units		
Doors / ramps	At the aft of the vessel is located a Stern ramp with following characteristics:		
	Length	10.0 m	
	width	13.0 m	
	Free drive space	Width	Hight
		6.0 m / 12.3 m	5.0 m
	Max load	60 mt	
	Axle load	17.5 mt	
Lifting platform	Between 2nd Deck and Tanktop Deck		
	Length	18.8 m	
	Width	3.5 m	
	Max load	60 mt	
	Axle load	17.5 mt	
	Working speed	Loaded	Empty
		Appr. 9 m/min	Appr. 18 m/min
Fixed ramp	Between 1st Deck and 2nd Deck		
	Length	37.0 m	
	Width	3.3 m	
	Max load	60 mt	
	Axle load	17.5 mt	
Holds ventilation	14 times / hour in port		
Tanks capacities	Ballast water	2,400 m3	
	Fuel oil	700 m3	
	Diesel oil	100 m3	
	Lubrication oil	25 m3	
	Fresh water	110 m3	
Speed	Maximum speed	16.0. knots	
	Service speed	15.5 knots	
	Economy speed	14.0 knots	
Daily fuel consumption	Main engines	Maximum speed	32.0 mt
	(IFO 380)	Service speed	30.0 mt
		Economy speed	23.0 mt
	Boilers (IFO 380)	At sea - 0.5 - 1.5 mt	
		In port - 2.0 - 2.5 mt	
	Aux. engine (Gasoil)	In port - 1.8 - 2.5 mt	
Daily oil consumption	Main engines		100%load-1.2g/kWh
	Aux. engine		100%load-0.5g/kWh
Daily water consumption	Technical water	appr. 0.5 mt	
	Fresh water	appr. 6 - 7 mt	
Radio and navigational	Radar plants	ARPA NUCLEUS 6000 & NUCLEUS 5000	
Facilities	Satellite navigation	INMARSAT C	
	VHF radio	TRP-3000	
	Communication system	RADIOTELEX	

	Auto pilot	RAUTHEON ELECTRONICS ANSCHUTZ, NAUTOPILOT D
	Echosounder	FURUNO FE 608
	Log	FURUNO DS 70
Heeling system	Automatic heel compensation	
Main engines	Make	Wärtsilä
	Type	9R32 LOW NOX
	Number	2
	Output	3,700 kW each
Gearbox	Type	Winchmann SV850-P480
	Number	2
	Propeller speed	154.64 RPM
Auxiliary engines	Make	Wärtsilä-Leroy Somer
	Type	SACMUD 2512VS4
	Number	2
	Output	600 kW each
Alternators	Type	LSAM 50 S3 BRUSH LESS
	Power rating	765 kVA; 612 kW; cos ϕ 0.8; 1,162 A
	Voltage	380 V; phase 3; insulation class H; 50HZ; 1,500 RPM
	Number	2
Shaft generator	Type	LSA M49.1 L 9 C 6814
	Power rating	750 kVA; 600 kW; cos ϕ 0.8; 1,139 A
	Voltage	380 V; phase 3; insulation class F
	Number	2
Propellers	Number	2 x pitch-controllable
	Diameter	3,800 mm
Rudders	Number	2
Steering gear	Type	SERVO-SHIP, sl, CYLINDER-SINGLE
	Electric power	30 kW
	Number	2
	Pump type	DENNISSON T6CO20
Bow thruster	Type	ULSTEIN, 150TV-D
	Power	600 kW
	Number	1
Life boats	1 unit for 32 persons	
Anchors	Number	2
	Weight	4,060 kg each
Anchor chain	Diameter	56 mm
	Length (total)	522.5 m
	Number	2
Fire protection	CO2	Engine room, Central control room
	Water spray system	Tanktop Deck, 2 nd Deck
	Water fire protection system	2 x CM/EP 80/26; Q = 90 m ³ ; H = 60 m

All details about and given in good faith without guarantee, and with minor differences between sister vessels

Photographs Page 1



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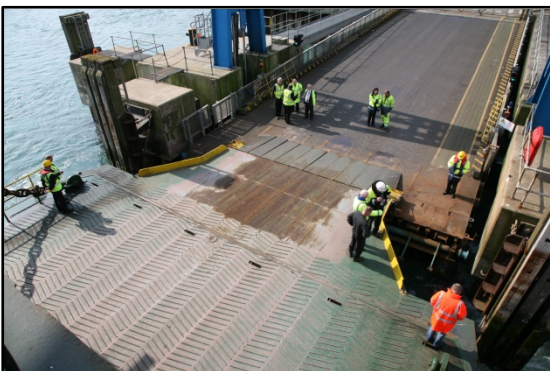
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1. General view
2. General view
3. General view
4. General view
5. Aft view

Photographs Page 2



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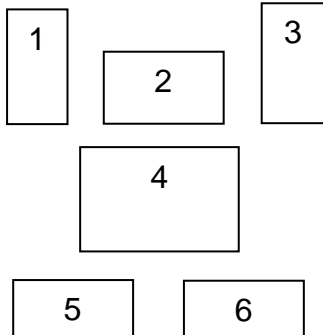
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- 1. Weather deck
- 2. Stern door
- 3. Stern door
- 4. Stern door

Photographs Page 3



- 1. Drivers cabin
- 2. Bridge
- 3. Enclosed bridge wing
- 4. General view
- 5. Galley
- 6. View from bridge



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