



Part of BOS Power

# SELECTED REFERENCES



PASSENGER VESSELS



SPECIAL VESSELS



WORKBOATS



YACHTS

# PROPULSION BEYOND BELIEF

Servogear are a leading manufacturer of Controllable Pitch Propeller (CPP) Systems for high-speed workboats, fast ferries, offshore vessels and yachts.

Our design philosophy is to work closely together with the ship designers during development of hull lines to obtain an optimum interaction between hull and propulsion system, resulting in the best possible performance. This unique combination of speed and thrust has resulted in the delivery of more than 1900 installations worldwide.

## **SERVOGEAR – PART OF THE BOS POWER GROUP**

Bertel O. Steen Power Solutions' long commitment to the development of hybrid and electric propulsion solutions, combined with Servogear's unique and energy-efficient propulsion system, gives a strong industrial player in the maritime green shift.





### SERVOGEAR ECOFLOW PROPULSOR™

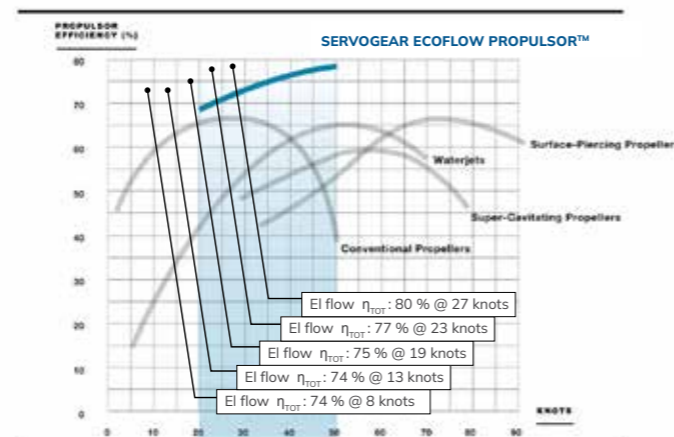
## IMPROVED FUEL ECONOMY

SERVOGEAR ECOFLOW PROPULSOR™ offers a number of advantages. A more even loaded propeller in tunnel gives a slimmer and lighter design, which means less weight and drag as well as a higher efficiency.

We calculate and design our propeller tunnels based on a full utilisation of the flow below the hull, ensuring optimum interaction between hull and propulsor. Efficient propulsion means lower fuel consumption, more economic operation and less emission.

SERVOGEAR ECOFLOW PROPULSOR™ combines efficient propulsion with a high level of comfort. It is most reliable in operation and not sensitive to load changes, which is very important in regular scheduled services.

Tank and full-scale verification tests have proven that the SERVOGEAR ECOFLOW PROPULSOR™ is more efficient than any other known propulsor concept available for high speed vessels operating in the range 20–50 knots.



### OVERVIEW

## REDUCTION GEARBOXES

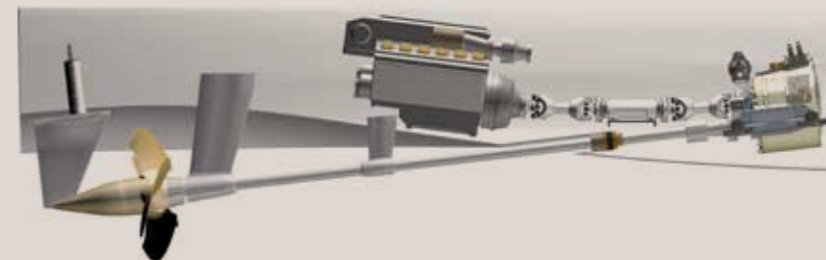
We offer full customization of shaft arrangements. The following illustrations show some of the most usual gear configurations. All arrangements are compatible as a hybrid with a combination of combustion and electro engines.

### AVAILABLE IN THE FOLLOWING CONFIGURATIONS



#### H-GEAR CONFIGURATION

This is the standard configuration and is recommended when available space allows it.



#### U-GEAR CONFIGURATION

This is the best solution when space is limited.



#### PTI-GEAR CONFIGURATION

This is the most flexible configuration. Depending on the desired speed and/or if the design of the vessel calls for two small engines instead of one large engine; the propeller can be run optimally on one or two engines. This configuration is ideal for the hull of catamaran vessels.



## BRIM, BARD

2019–2020

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Universities of Stratclyde and Athens
Length and beam	31 m / 9,00 m
Material	Aluminium
Main Engines	Alconsa
Vessel Speed MCR	27 knots (2 x 1491 kW @ 2300 rpm)
Bollard	NA

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF 5050 NRV (3,429:1)
Arrangement	Dia: 1325 mm ~Ae/Ao: 0,725 (9P820)
Shaft Diameter/inclination	110 mm / 8 deg
Rudder	Yard Supply
Propeller Tunnel	NA
Classification	BV



## LEGACY- AND FUTURE OF THE FJORDS

2017–2019

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Paradis Nautica / Br. Aa
Length and beam	42,5 m / 15,2 m
Material	Carbon fiber composite
Main Engines	2 x Ramme
Vessel Speed MCR	19,9 knots (2 X 450 kW @ 1180 rpm)
Bollard	NA

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220H (2,952:1)
Arrangement	Dia: 1475 mm ^Ae/Ao: 0,45 (9P820)
Shaft Diameter/inclination	100 mm / 4 deg
Rudder	Yard Supply
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## RYGERELEKTRA

2020

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Paradis Nautica
Length and beam	41 m / 11 m
Material	Carbon composite
Main Engines	Ramme HV540
Vessel Speed MCR	19,9 knots (2 X 450 kW@1 180 RPM)
Bollard	NA

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220 (2,952:1)
Arrangement	Dia: 1 475 mm ~Ae/Ao: 0,45 (9P820)
Shaft Diameter/inclination	100 mm / 4,0 deg
Rudder	SERVOGEAR 9R075
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## MEDSTRAUM

2022

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Universities of Stratclyde and Athens
Length and beam	31 m / 9,00 m
Material	Aluminium
Main Engines	Alconsa
Vessel Speed MCR	27 knots (2 x 1491 kW @ 2300rpm)
Bollard	NA

### SERVOGEAR ECOFLOW PROPULSOR™

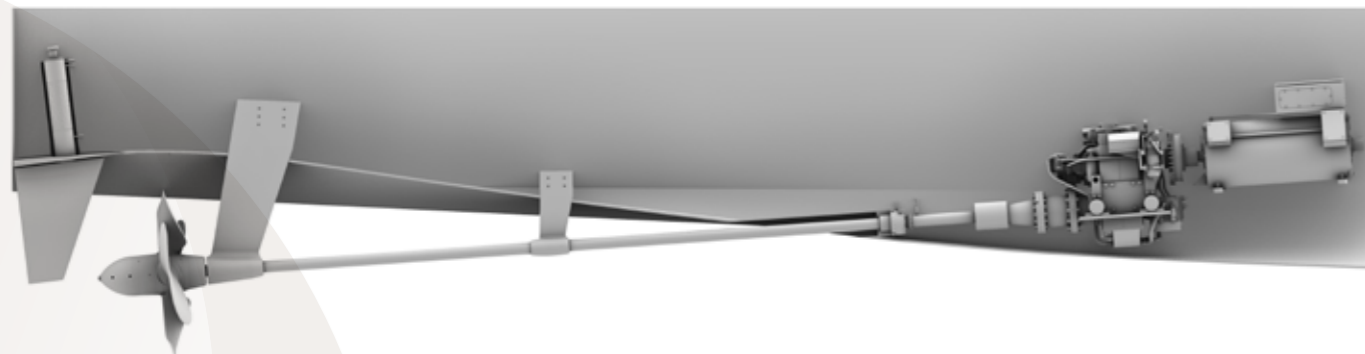
Gearbox	ZF 5050 NRV (3,429:1)
Arrangement	Dia: 1325 mm ~Ae/Ao: 0,725 (9P820)
Shaft Diameter/inclination	110mm / 8 deg
Rudder	Yard Supply
Propeller Tunnel	NA
Classification	BV



© Magne Langåker

## TRYM, FREY, DAGNINGEN 2024

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	OMA
Length and beam	30 M / 11 M
Material	Aluminium
Main Engines	Ramme HV500L
Vessel Speed MCR	25 knots (2 X 749 kW@2 200 RPM)
Bollard	NA

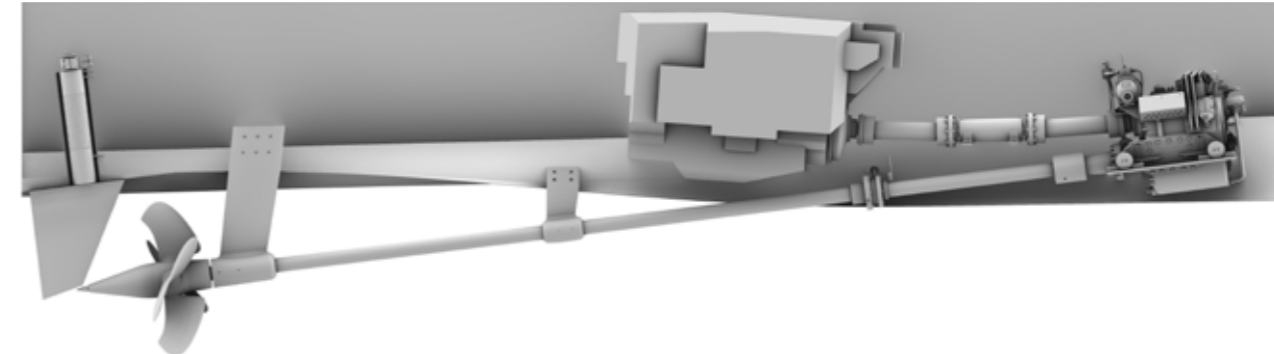
### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF 3310NR (5,0:1)
Arrangement	Dia: 1 475 mm ~Ae/Ao: 0,6 (9P820)
Shaft Diameter/inclination	100 mm / 4,0 deg
Rudder	SERVOGEAR 9R054
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## DONG HAI JIU 321, NAN HAI JIU 321, BEI HAI JIU 321 2017

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Hunt Design
Length and beam	21,3 m / 6,5 m
Material	Aluminium
Main Engines	2 x MAN D2862LE463
Vessel Speed MCR	28 knots (2 x 1081 kW @ 2300rpm)
Bollard	16,7 tons

### SERVOGEAR ECOFLOW PROPULSOR™

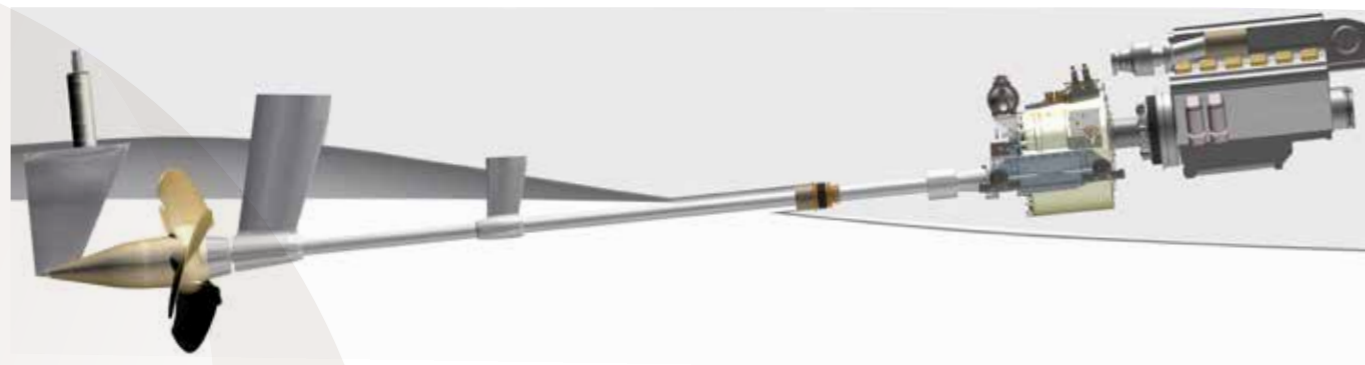
Gearbox	SERVOGEAR HD295U (3,3:1)
Arrangement	Dia: 1225 mm ~Ae/Ao: 0,725 (9P810)
Shaft Diameter/inclination	110 mm / 5,0 deg
Rudder	SERVOGEAR 9R043-HV
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	CCS



## SHIPYARD: ÖZATA SHIPYARD

2014–2016

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Passenger Vessel, CarbCAT® 39, 420 passengers
Hull Design	TBS / Lindstøl design
Length	39 m
Material	Carbon fibre composite
Main Engines	2 x Baudouin 12M26.2
Vessel Speed MCR	20 knots (2 x 736 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

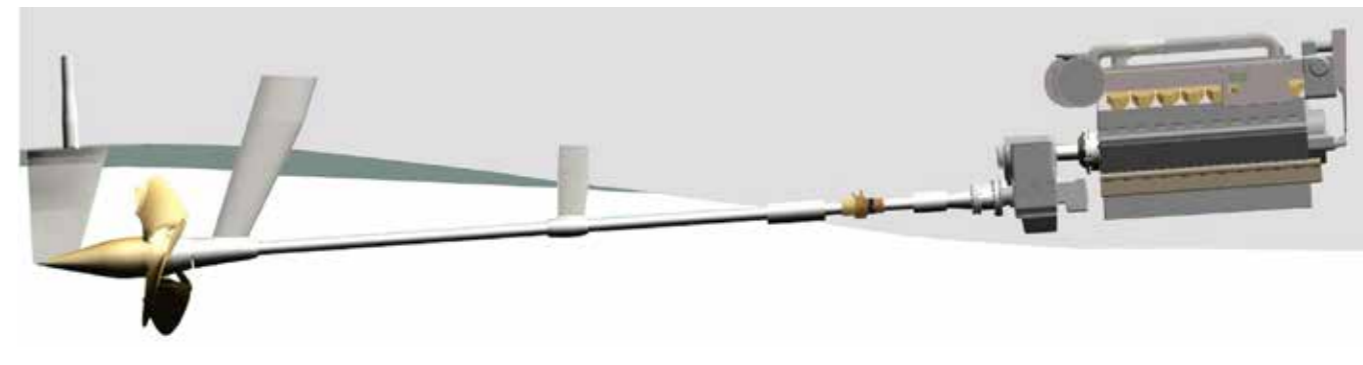
Gearbox	SERVOGEAR HD295H (4.2 : 1)
Propeller Arrangement	Dia: 1500 mm ~ Ae/Ao: 0.55 (9P820)
Shaft Diameter/inclination	100 mm / 5.8 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R056-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## IHSAN ALYANAK, PROF. DR. AZIZ SANCAR

2017–2018

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Passenger Catamaran, 426 passengers
Hull Design:	TBS / Lindstøl design
Length	39 m
Material	Carbon fibre composite
Main Engines	2 x MTU 16V 4000M53
Vessel Speed MCR	28 knots (2 x 1840 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

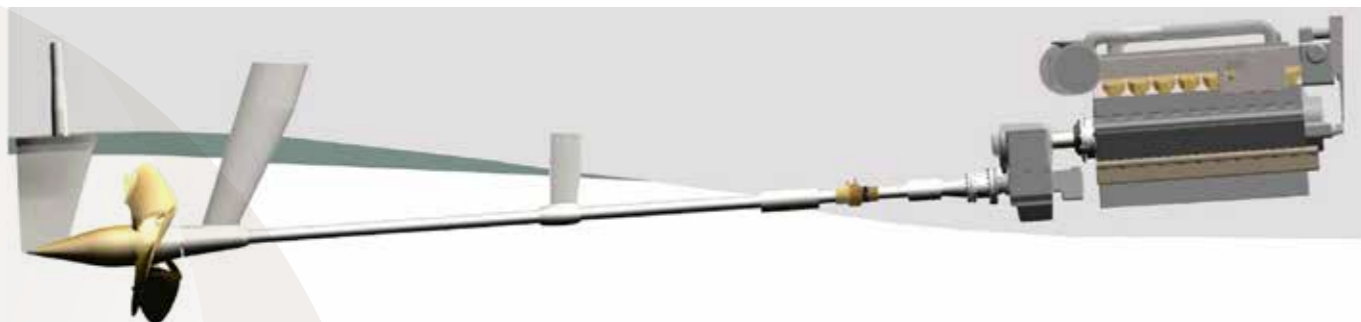
Gearbox	ZF 7640 NR (3.826 : 1)
Propeller Arrangement	Dia: 1500 mm ~ Ae/Ao: 0.750 (9P824-130 prelim)
Shaft Diameter/inclination	130 mm / 5.6 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## SOLLIFJELL, KISTEFJELL, FLØYFJELL

2009–2010

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Passenger Vessel, 250 passengers
Hull Design	Båtservice Mandal, Sealord 35
Length and Beam	35 m / 10.5 m
Material	Carbon fibre reinforced sandwich
Main Engines	2 x MTU 12V 2000 M72
Vessel Speed MCR	34 knots (2 x 1080 kW @ 2250 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF3350NR (5.0 : 1)
Propeller Arrangement	Dia: 1475 mm ~ Ae/Ao: 0.65 (9P820)
Shaft Diameter/inclination	110 mm / 4 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	Norwegian Maritime Directorate

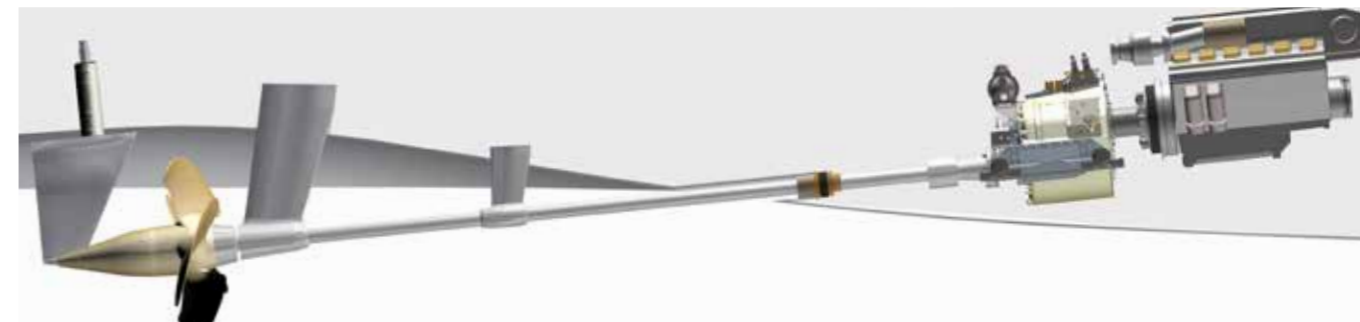


© Brødrene Aa

## SHIPYARD: BRØDRENE AA

2005–2013

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Passenger Vessel, 97–180 passengers
Hull Design	Marintek
Length and Beam	18–42 m / 7.5–8.8 m
Material	Carbon fibre reinforced sandwich
Main Engines	2 x MAN2842/ MTU10V 2000 M72/Scania DI16072M
Vessel Speed MCR	35 knots (2 x 900 kW @ 2250 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220H (2.952 : 1, 2.609 : 1, 2.952 : 1)
Propeller Arrangement	Dia: 1000/1050/1075 mm ~ Ae/Ao: 0.675 (9P805)
Shaft Diameter/inclination	90 mm / 5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R030-HV/9R043-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV / Norwegian Maritime Directorate





© Damen Shipyards

## QUEEN STAR 2

2015

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Passenger Catamaran, 445 passengers
Hull Design	Damen Design
Length	40 m
Material	Aluminium
Main Engines	2 x MTU 16V 4000 M63L
Vessel Speed MCR	35 knots (2240 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

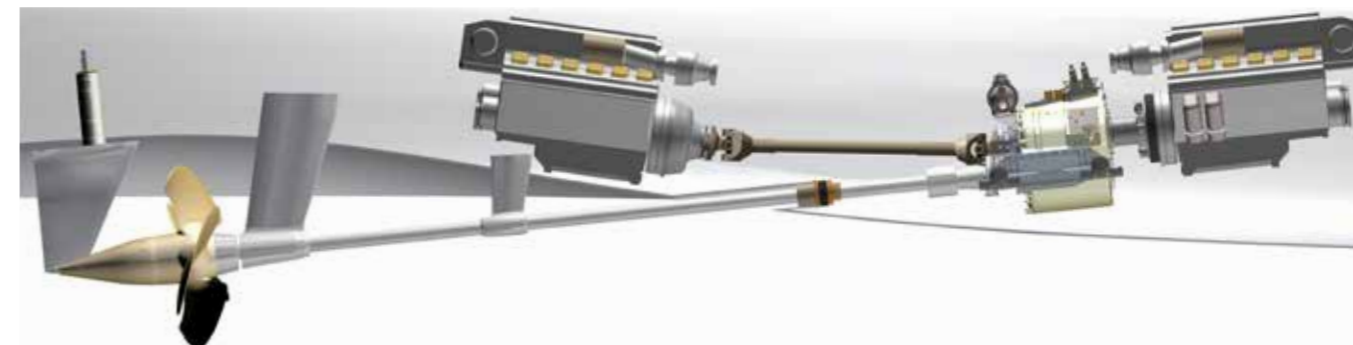
Gearbox	ZF 9350 NRU (4.522 : 1)
Propeller Arrangement	Dia: 1650 mm ~ Ae/Ao: 0.7 (9P830)
Shaft Diameter/inclination	150 mm / 4.7 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R069-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV



## BURAK REIS, SALIH REIS, KEMAL REIS, MURAT REIS, MEHMET REIS

2006–2007

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Passenger Vessel, 449 passengers
Hull Design	Damen Design
Length and Beam	41.5 m / 12.4 m
Material	Aluminium
Main Engines	4 x Caterpillar C32
Vessel Speed MCR	34.2 knots (4 x 1045 kW @ 2100 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

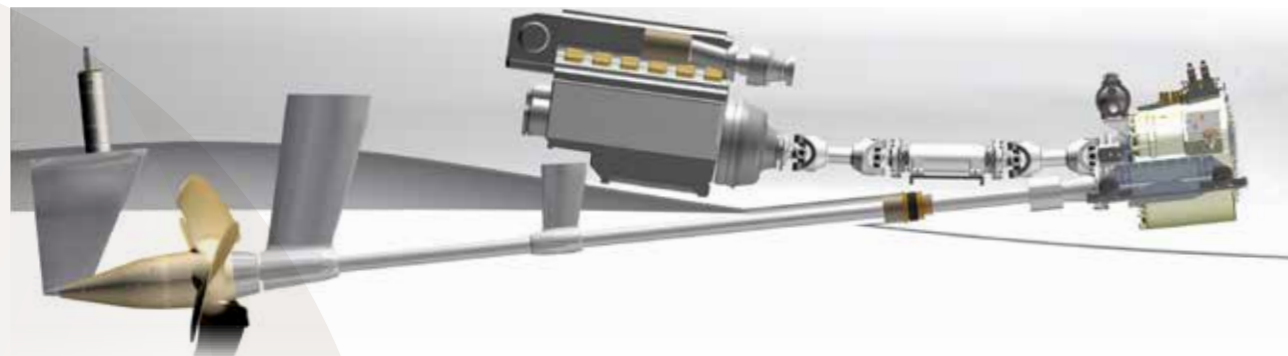
Gearbox	SERVOGEAR HD450PTI (5 : 1)
Propeller Arrangement	Dia: 1750 mm ~ Ae/Ao: 0.675 (9P830)
Shaft Diameter/inclination	130 mm / 4.7 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R069-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV



## HANØY, KALVØY

2014–2017

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Combi Catamaran, 48 passengers, 10 cars
Hull Design	Oma Båtbyggeri
Length	26 m
Material	Aluminium
Main Engines	2 x MTU 8V 2000M72
Vessel Speed MCR:	27 knots (2 x 720 kW @ 2250 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220U (2.952 : 1)
Propeller Arrangement	Dia: 1050 mm ~ Ae/Ao: 0.725 (9P805)
Shaft Diameter/inclination	90 mm / 4.0 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R043-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	Norwegian Maritime Directorate

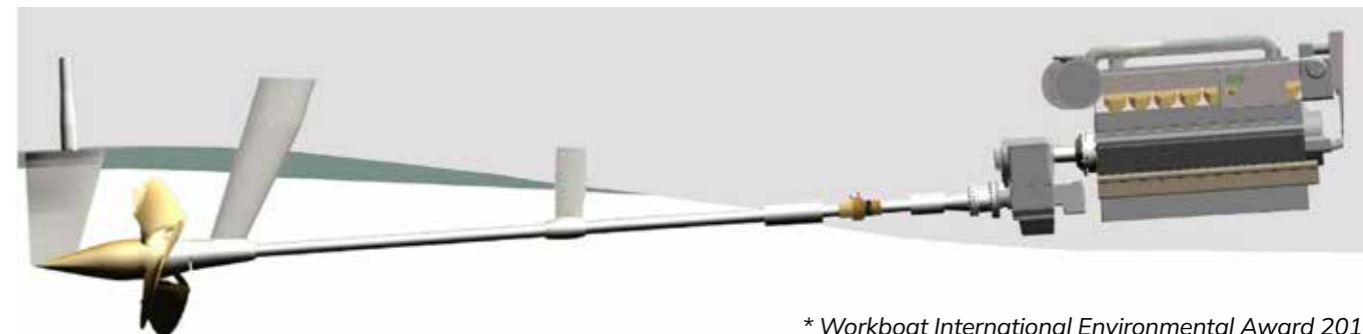
AWARD WINNING\*



## WALL STREET

2012

### PRINCIPLE ARRANGEMENT



\* Workboat International Environmental Award 2013

### MAIN PARTICULARS

Vessel Type	Passenger Vessel, 550 passengers
Hull Design	Incat Crowther
Length and Beam	43 m / 10.5 m
Material	Aluminium
Main Engines	2 x MTU 16V4000 M53
Vessel Speed MCR	36 knots (2 x 1840 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF7640NR (3.826 : 1)
Propeller Arrangement	Dia: 1500 mm ~ Ae/Ao: 0.75 (9P820)
Shaft Diameter/inclination	120 mm / 5 deg
Rudder	SERVOGEAR ECOFLOW RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	USCG

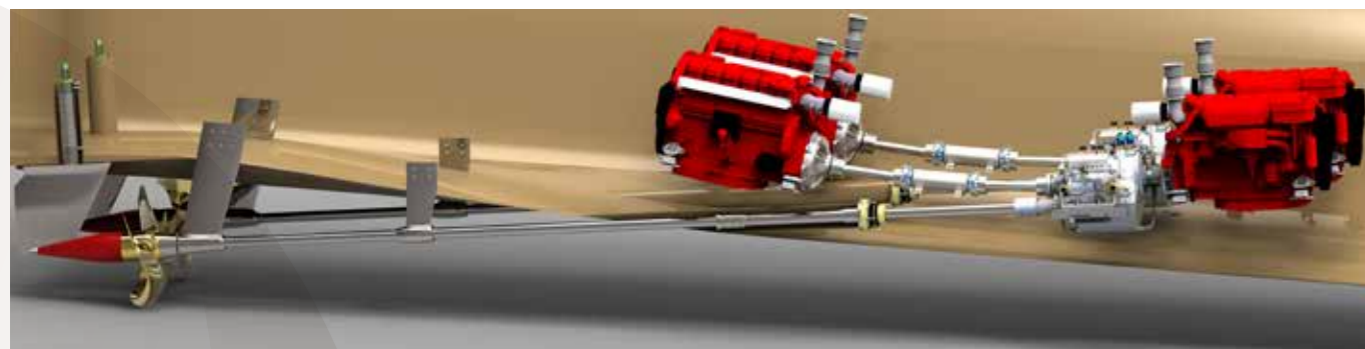


© CMN - Avotrimage

## OCEAN EAGLE 43

2015, 2023, 2024

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Marine Surveillance Trimaran, Ocean Eagle 43
Hull Design	Nigel Irens
Length	43 m
Material	Composite materials
Main Engines	4 x Scania DI13 070M
Vessel Speed MCR	32.3 knots (4 x 405 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

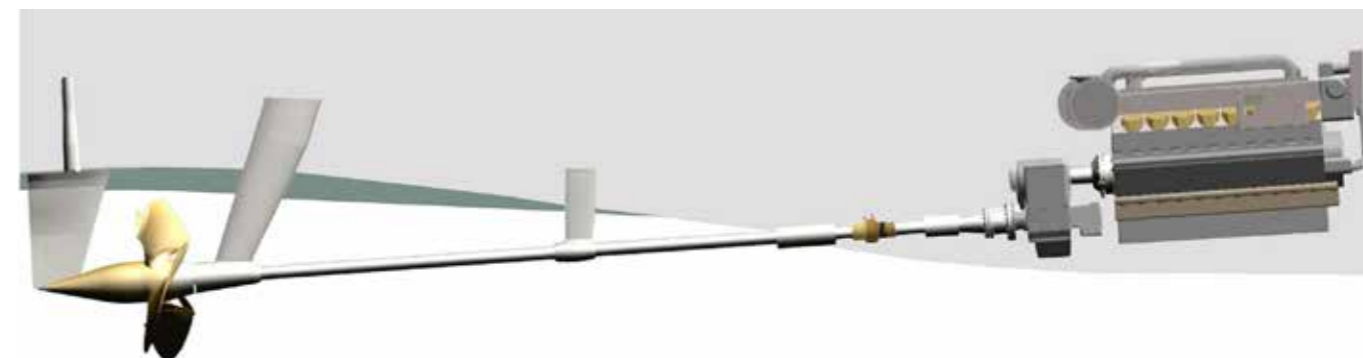
Gearbox	SERVOGEAR HD250PTI (2.63 : 1)
Propeller Arrangement	Dia: 1100 mm ~ Ae/Ao: 0.700 (9P810)
Shaft Diameter/inclination	100 mm / 5.0 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R042-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV



## SHIPYARD: WESTERN MARINE SHIPYARD LTD.

2016

### PRINCIPLE ARRANGEMENT

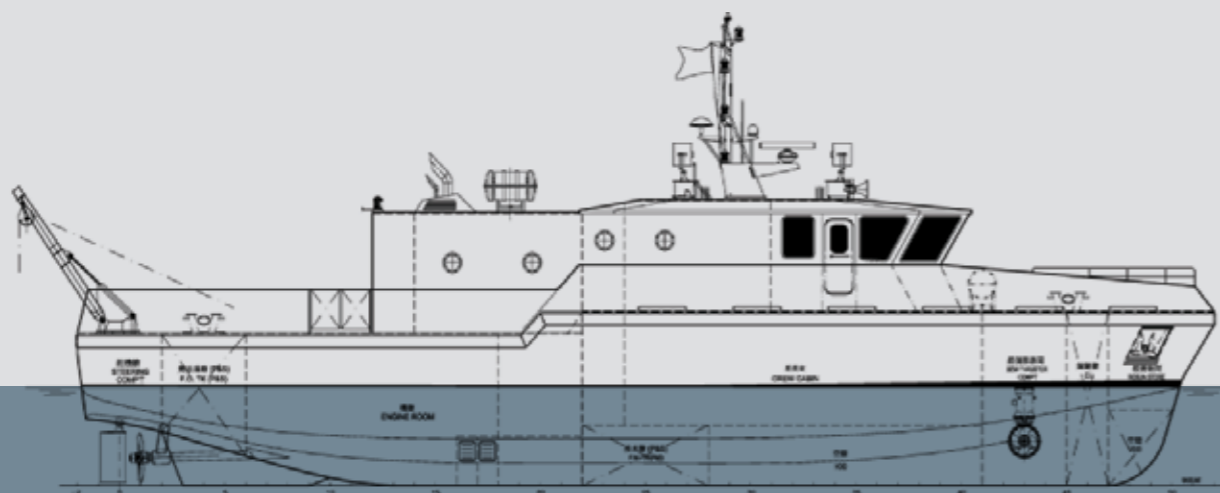


### MAIN PARTICULARS

Vessel Type	Patrol Vessel
Hull Design	Icarus Marine Pty. LTD
Length	54 m
Material	Steel
Main Engines	2 x MTU 16V4000 M93L + 1 x MTU 20V4000 M93
Vessel Speed MCR:	35 knots (2 x 3440 + 1 x 3900 kW @ 2100 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

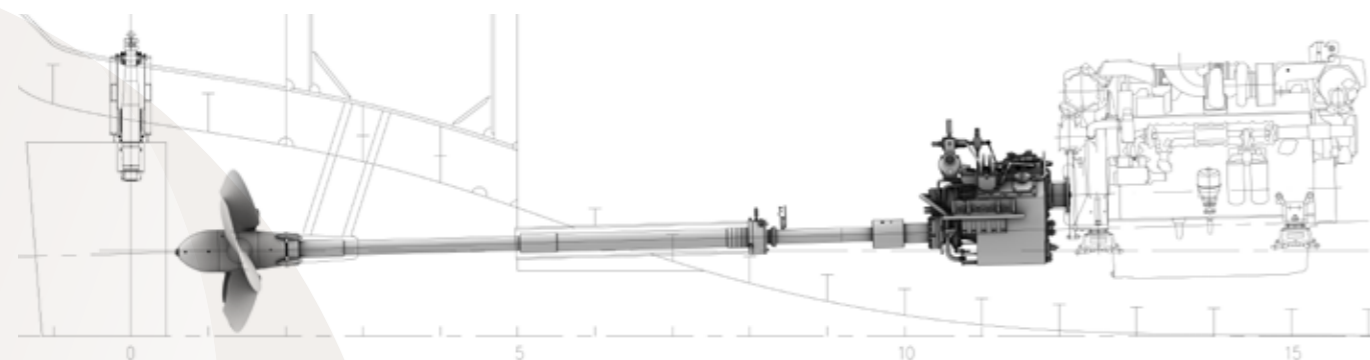
Gearbox	ZF 9355
Propeller Arrangement	Dia: 2000 mm ~ Ae/Ao: 0.75 (9P840)
Shaft Diameter/inclination	160 mm / 6.3 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R108-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV



## FISHERY RESEARCHER 3, FISHERY RESEARCHER 6

2024

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Khiam Chuan Marine
Length and beam	27,5 m / 6,8 m
Material	Steel
Main Engines	2 x YANMAR 6AY-M WET
Vessel Speed MCR	13,2 knots (2 x 610 kW @ 1900rpm)
Bollard	12 tons

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220H (2,952:1)
Arrangement	Dia: 1100 mm ~Ae/Ao: 0,700 (9P810)
Shaft Diameter/inclination	90 mm / 0,0 deg
Rudder	Yard supply
Propeller Tunnel	NA
Classification	CR & ABS



## HODOR, WAYFINDER

2018–2019

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Incat Crowter Design
Length and beam	66,2 m / 14 m
Material	Aluminium
Main Engines	2 x MTU 16V4000 M73L
Vessel speed MCR	23 knots (2 x 2 880 kW @ 2050rpm)
Bollard	NA

### SERVOGEAR ECOFLOW PROPULSOR™

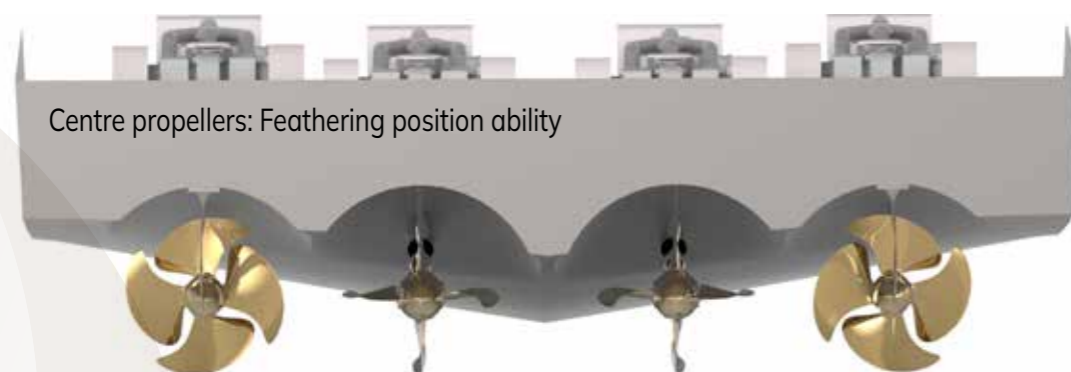
Gearbox	ZF 3310NR (5,0:1)
Arrangement	Dia: 1 475 mm ~Ae/Ao: 0,6 (9P820)
Shaft Diameter/inclination	100 mm / 4,0 deg
Rudder	SERVOGEAR 9R054
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



© CTruk

## SHIPYARD: FAST OFFSHORE SUPPLY LTD 2024

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Fast Standby Vessel (68–70 tons Bollard pull)
Hull Design	Bluemarlin
Length and Beam	60 m / 11 m
Material	Aluminium
Main Engines	4 x Caterpillar 3516C
Vessel Speed MCR	31.5 knots (4 x 2240 kW @ 1800 rpm)

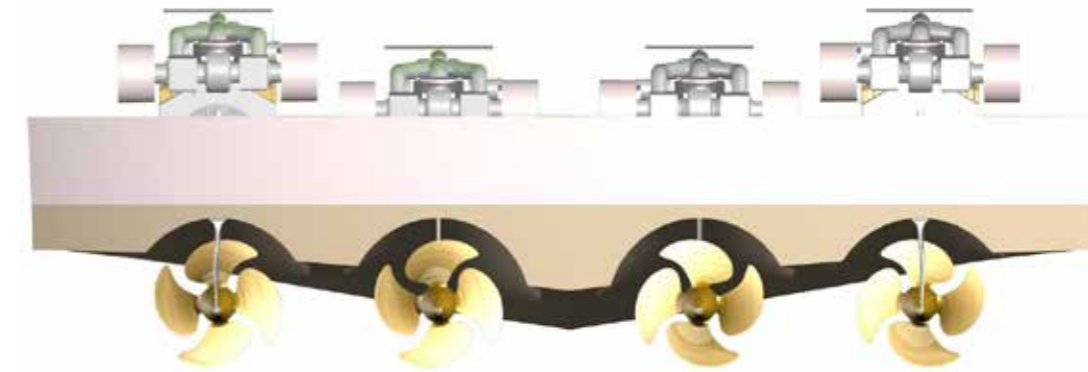
### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF 7645 NR (3.44 : 1)
Propeller Arrangement	Dia: 1650 mm (prelim) ~ Ae/Ao: 0.75 (9P830/40)
Shaft Diameter/inclination	140 mm / 5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R108-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	ABS



## FOS POLARIS, FOS ORION, FOS GEMINI, FOS LEO, FOS VIRGO, FOS THOR 2009–2014

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Fast Standby Vessel (58 tons Bollard pull)
Hull Design	Bluemarlin
Length and Beam	60 m / 11 m
Material	Aluminium
Main Engines	4 x Caterpillar 3516B
Vessel Speed MCR	31.5 knots (4 x 1920 kW @ 1600 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF7550 NR (2.548 : 1)
Propeller Arrangement	Dia: 1400 mm ~ Ae/Ao: 0.765 (9P820)
Shaft Diameter/inclination	120 mm / 4.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	ABS



## FJORDGYN

2022

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	OMA Cat
Length and beam	39,75 m / 10,6 m
Material	Aluminium
Main Engines	4 x MTU 10V2000 M72 / 2 x Ramme EL-MACHINES
Vessel Speed MCR	32,4 knots(4 x 900 kW @ 2250 rpm) TBA knots(2 x 200 kW @ 2200 rpm)
Bollard	NA

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295PTI (4,2:1)
Arrangement	Dia: 1475 mm ~ Ae/Ao: 0,75 (9P820)
Shaft Diameter/inclination	120 mm / 5,5 deg
Rudder	SERVOGEAR 9R054HV
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## SEACAT FREEDOM, SEACAT LIBERTY

2016–2017

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Catamaran
Hull Design	South Boats IOW
Length	23 m
Material	Aluminium
Main Engines	2 x MTU 12V2000M72
Vessel Speed MCR:	30 knots (2 x 1080kW @ 2250 rpm)

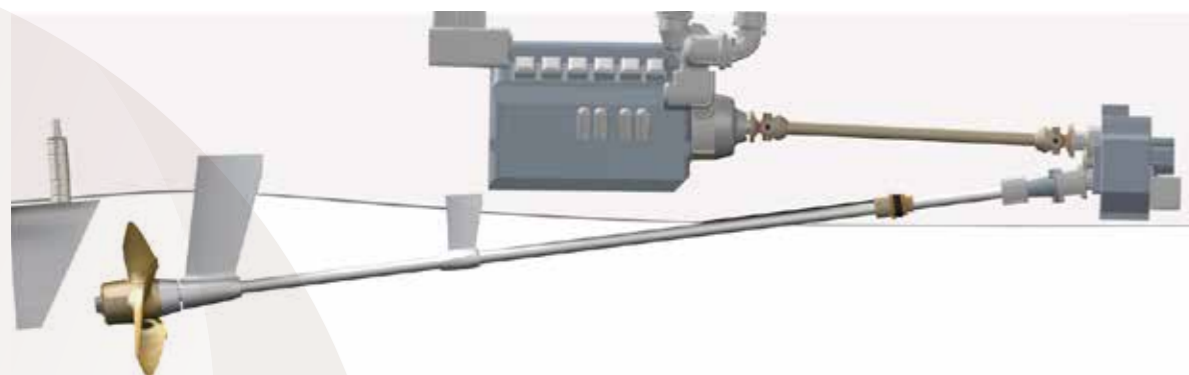
### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295U (3.3 : 1)
Propeller Arrangement	Dia: 1200 mm ~ Ae/Ao: 0,750 (9P810)
Shaft Diameter/inclination	100 mm / 5.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R043-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



**RS DET NORSKE VERITAS, RS HARALD V, RS GJERT WILLHELMOSEN,  
RS HALFDAN GRIEG, RS KRISTIAN GERHARD JEBSEN**  
2003–2006

#### PRINCIPLE ARRANGEMENT



#### MAIN PARTICULARS

Vessel Type	Search and Rescue Vessel (23 ton towing capability)
Hull Design	Amble & Stokke
Length and Beam	22.5 m / 6.38 m
Material	Aluminium
Main Engines	2 x MTU 12V 396 TE74L
Vessel Speed MCR	29 knots (2 x 1500 kW @ 2000 rpm)

#### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	ZF BU4650 NRV (2.714 : 1)
Propeller Arrangement	Dia: 1325 mm ~ Ae/Ao: 0.73 (9P820)
Shaft Diameter/inclination	110 mm / 7 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



**SHIPYARD: ABEKING & RASMUSSEN**  
2009–2012

#### PRINCIPLE ARRANGEMENT



#### MAIN PARTICULARS

Vessel Type	Swath Patrol Boat
Hull Design	Abeking & Rasmussen
Length and Beam	25.6 m / 14.2 m
Material	Aluminium
Main Engines	2 x MAN 2842 LE 410
Vessel Speed MCR	22 knots (2 x 809 kW @ 2100 rpm)

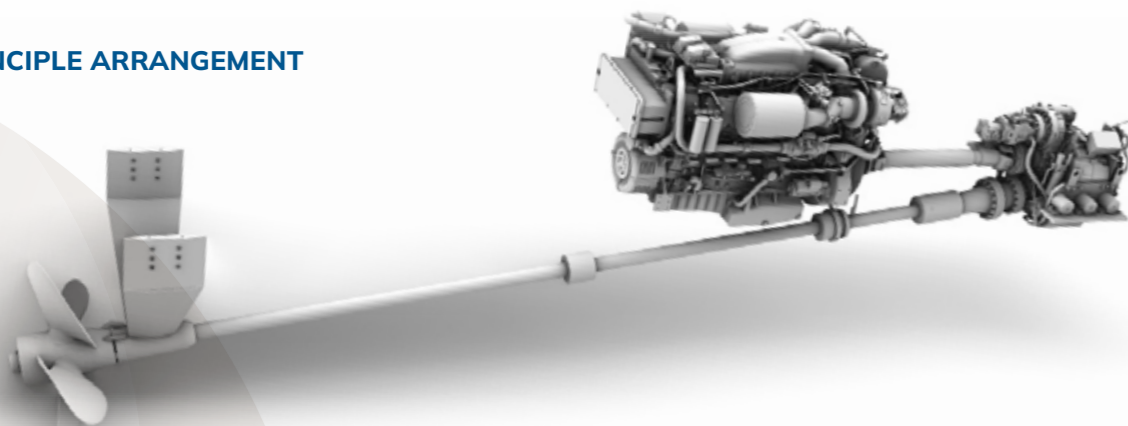
#### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295H (4.2 : 1)
Propeller Arrangement	Dia: 1475 mm ~ Ae/Ao: 0.625 (9P820)
Shaft Diameter/inclination	120 mm / 0 deg
Rudder	Yards own
Propeller Tunnel	No Tunnel
Classification	GL



**MAINPRIZE MO9, MO10, MO11**  
2024-2025

**PRINCIPLE ARRANGEMENT**



**MAIN PARTICULARS**

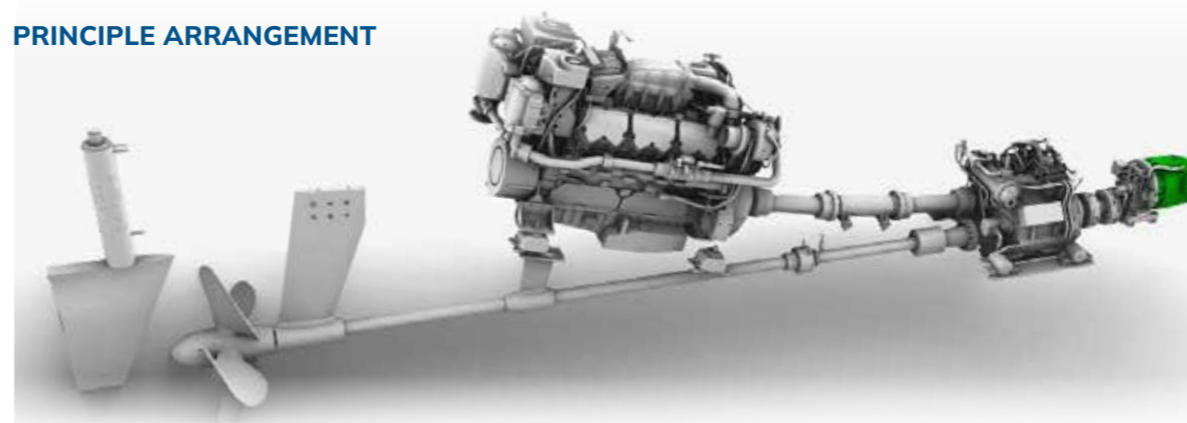
Hull Design	Walker Marine Design
Length and beam	26,05 m / 11,00 m
Material	Aluminium
Main Engines	2 x Cat C32B
Vessel Speed MCR	30 knots (2 x 1491 kW @ 2300 rpm)
BOLLARD	26 tons

**SERVOGEAR ECOFLOW PROPULSOR™**

Gearbox	ZF5050 NRV
Arrangement	Dia 1325 mm ~ Ae/Ao:0,750 (9P820)
Shaft Diameter/inclination	110 mm / 8 deg
Rudder	Yard Supply
Propeller Tunnel	NA
Classification	BV

**HST ELLA, HST FRANCIS, HST MILLIE**  
2021-2023

**PRINCIPLE ARRANGEMENT**



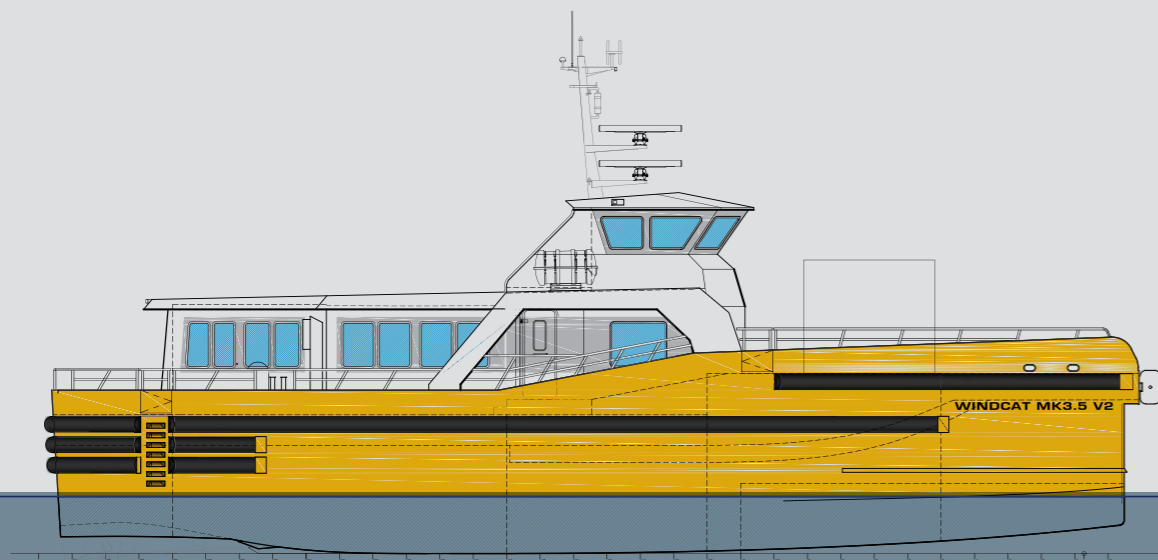
**MAIN PARTICULARS**

Hull Design	Chartwell Marine
Length and beam	24,85 m / 8,65 m
Material	Aluminium
Main Engines	Caterpillar C32 Acert / Danfoss EI Machine
Vessel Speed MCR	27 knots (2 X 1080 kW @ 2300 rpm) 11 knots (2 X 182 kW @ 2300 rpm)
Bollard	15 tons

**SERVOGEAR ECOFLOW PROPULSOR™**

Gearbox	SERVOGER HD295PTI (3,3:1)
Arrangement	Dia: 1175 mm ~Ae/Ao: 0,760 (9P820)
Shaft Diameter/inclination	100 mm / 5,0 deg
Rudder	SERVOGEAR 9R054-HV
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV

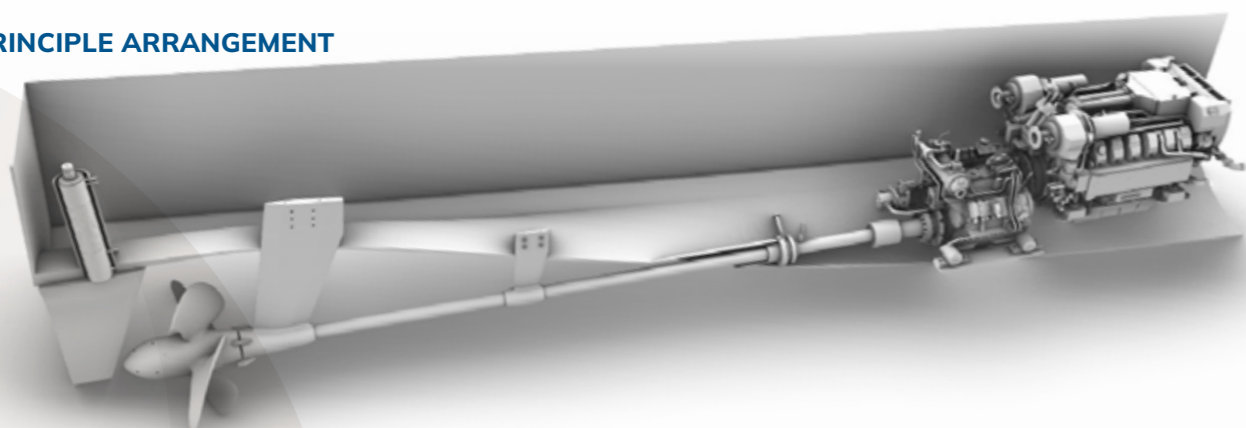




## WINDCAT WORKBOATS 57–60

2024–2025

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Morrelli & Melvin
Length and beam	27 m / 8,43 m
Material	Aluminium
Main Engines	2 x MAN Dual Fuel
Vessel Speed MCR	31 knots (2 x 1260 kW @ 2100 rpm)
Bollard	20,9 tons

### SERVOGEAR ECOFLOW PROPULSOR™

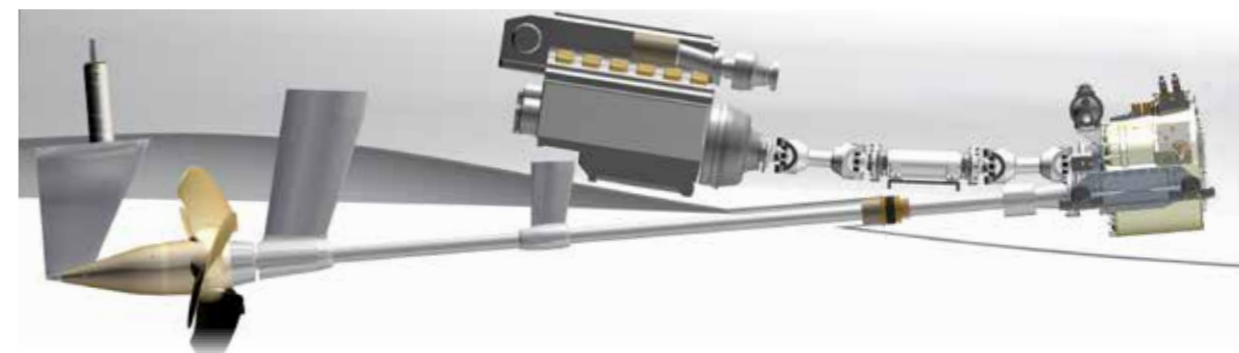
Gearbox	SERVOGEAR HD295H (3,3:1)
Arrangement	Dia: 1300 mm ~ Ae/Ao: 0,725 (9P820)
Shaft Diameter/inclination	110 mm / 5,0 deg
Rudder	SERVOGEAR 9R055-HV
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	LRS / BV



## WINDCAT WORKBOATS 40–56

2016–2020

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Catamaran
Hull Design	Morrelli & Melvin
Length and Beam	22 m / 7,8 m
Material	Aluminium
Main Engines	2 x MTU 8V 2000 M72 / 2 x MAN 2862
Vessel Speed MCR	30 knots (2 x 720 kW @ 2250 rpm) / (149 kW @ 2100 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

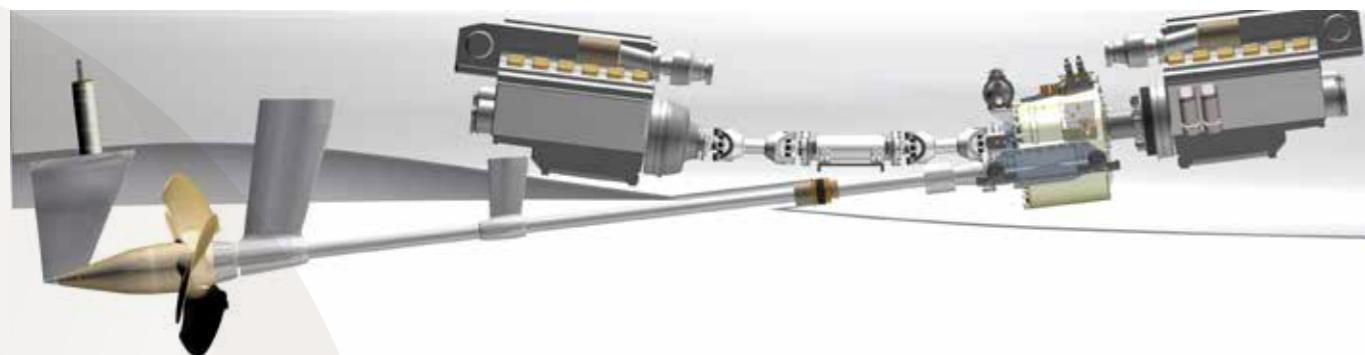
Gearbox	SERVOGEAR HD220U (2.952 : 1)
Propeller Arrangement	Dia: 1050 mm ~ Ae/Ao: 0.725 (9P805 prelim)
Shaft Diameter/inclination	90 mm / 5.0 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV / BV / LRS



## WC 101

2009

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Catamaran
Hull Design	Morrelli & Melvin
Length and Beam	27 m / 9.1 m
Material	Aluminium
Main Engines	4 x MTU 8V 2000 M72
Vessel Speed MCR	31 knots (4 x 720 kW @ 2250 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295 PTI (3.3 : 1)
Propeller Arrangement	Dia: 1300 mm ~ Ae/Ao: 0.725 (9P820)
Shaft Diameter/inclination	110 mm / 4 deg
Rudder	SERVOGEAR 9R042-HV
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## SHIPYARD: DOK EN SCHEEPSBOUW WOUDESEND B.V

2009–2015

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Catamaran
Hull Design	Morrelli & Melvin
Length and Beam	18 m / 6.1 m
Material	Aluminium
Main Engines	2 x MTU 8V 2000 M72 / Volvo D16MH
Vessel Speed MCR	30 knots (2 x 720 kW @ 2250 rpm) 28 knots (2 x 552 kW @ 1900 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220U (2.952 : 1)
Propeller Arrangement	Dia: 1075 mm ~ Ae/Ao: 0.675 (9P805)
Shaft Diameter/inclination	90 mm / 6.0 deg
Rudder	SERVOGEAR 9R026-HV
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	MCA Cat2 / DNV / Germanischer Lloyds



## DEVELOPER, DISCOVERER

2013–2014

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Catamaran
Hull Design	Grovfjord Mekaniske Verksted
Length	25 m
Material	Aluminium
Main Engines	4 x Volvo D16MH
Vessel Speed MCR:	31 knots (4 x 552 kW @ 1900 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD250PTI (2.63 : 1)
Propeller Arrangement	Dia: 1175 mm ~ Ae/Ao: 0.725 (9P810)
Shaft Diameter/inclination	100 mm / 4.8 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R042-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



## COSMASTER, COSMATE, COSMARINER

2021–2022

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Hull Design	Van Dorresteyn Design
Length and beam	26,25 m / 9,6 m
Material	Aluminium
Main Engines	MAN D2862
Vessel Speed MCR	27 knots (2 X 1066 kW@2 100 RPM)
Bollard	17 tons

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295 (3,3:1)
Arrangement	Dia: 1 225 mm ~Ae/Ao: 0,7 (9P810)
Shaft Diameter/inclination	100 mm / 5,0 deg
Rudder	SERVOGEAR 9R069
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV

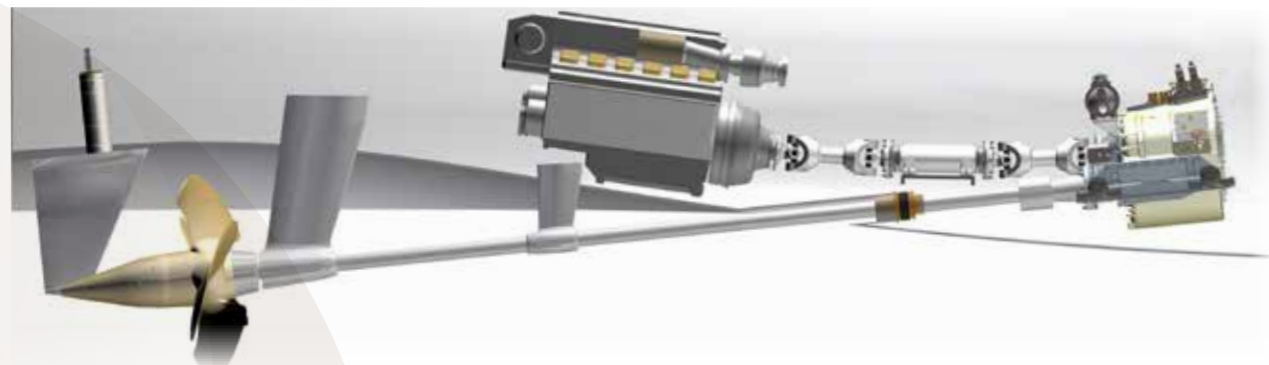


© Icen Marine

## ICENI VENTURE, ICENI LEGEND

2015–2017

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Catamaran
Hull Design	South Boats IOW
Length and Beam	22.8 m / 8 m
Material	Aluminium
Main Engines	2 x MAN 12V 1400
Vessel Speed MCR	30 knots (2 x 1029 kW @ 2100 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox:	SERVOGEAR HD295U (3.3 : 1)
Propeller Arrangement	Dia: 1225 mm ~ Ae/Ao: 0.725 (9P810)
Shaft Diameter/inclination	100 mm / 5.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R042-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV

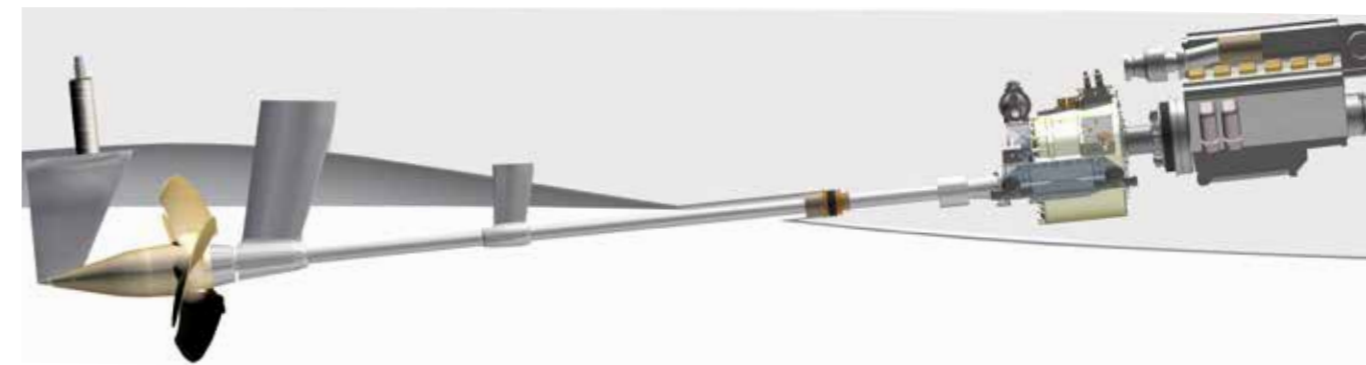


© A2 Sea AS

## LINA

2014

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Cat-Swath
Hull Design	Hauschildt Marine AS
Length	25 m
Material	Carbon fibre reinforced sandwich
Main Engines	2 x MTU 10V2000 M72
Vessel Speed MCR	24 knots (2 x 900 kW @ 2240 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox:	SERVOGEAR HD220H (2.952 : 1)
Propeller Arrangement	Dia: 1150 mm ~ Ae/Ao: 0.70 (9P810)
Shaft Diameter/inclination	100 mm / 1.0 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R042-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



© F. Vornholt

## WORLD BORA, WORLD CALIMA 2013–2014

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Trimaran
Hull Design	Fjellstrand
Length	30 m
Material	Aluminium
Main Engines	4 x Scania DI16
Vessel Speed MCR	25 knots (4 x 552 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD250PTI (2.63 : 1)
Propeller Arrangement	Dia: 1225 ~ Ae/Ao: 0.725 (9P810)
Shaft Diameter/inclination	100 mm / 5.0 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R043-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



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## WORLD SAIL, WORLD SEA, UMO MISTRAL, UMO SCIROCCO 2013–2014

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Trimaran
Hull Design	Fjellstrand
Length	25 m
Material	Aluminium
Main Engines	4 x Scania DI13
Vessel Speed MCR	25 knots (4 x 368 kW @ 1800 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

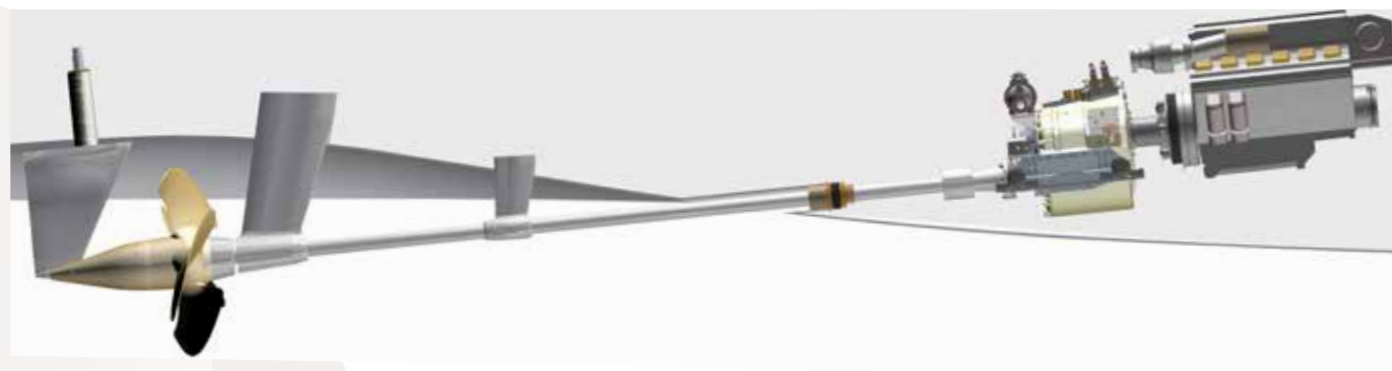
Gearbox	SERVOGEAR HD250PTI (2.63 : 1)
Propeller Arrangement	Dia: 1150 mm ~ Ae/Ao: 0.725 (9P810)
Shaft Diameter/inclination	90 mm / 5.0 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R043-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



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## JIF SURVEYOR 2015

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	ROV Support Vessel
Hull Design	Vripack
Length	30 m
Material	Aluminium
Main Engines	2 x Caterpillar C32
Vessel Speed MCR	29 knots (2 x 1081 kW @ 2300 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295H (4.2 : 1)
Propeller Arrangement	Dia: 1375 mm ~ Ae/Ao: 0.65 (9P820)
Shaft Diameter/inclination	110 mm / 6.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV



## WIND TRANSPORTER, DJURS WIND, KATTEGAT WIND, ANHOLT WIND 2010–2012

### PRINCIPLE ARRANGEMENT



### MAIN PARTICULARS

Vessel Type	Windfarm Service Vessel
Hull Design	Hvide Sande
Length	25 m
Material	Aluminium
Main Engines	2 x MTU 12V 200M72
Vessel Speed MCR	28 knots (2 x 1080 kW @ 2250 rpm)

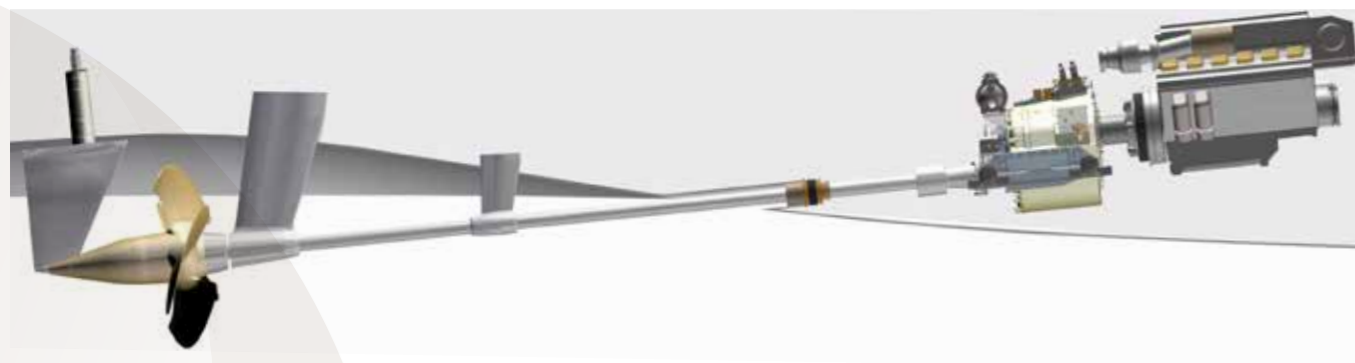
### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295H (3.3 : 1)
Propeller Arrangement	Dia: 1225 mm ~ Ae/Ao: 0.725 (9P810)
Shaft Diameter/inclination	100 mm / 5.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R042-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV



**SHIPYARD: GROVFJORD MEKANISKE VERKSTED**  
2011–2013

**PRINCIPLE ARRANGEMENT**



**MAIN PARTICULARS**

Vessel Type	Windfarm Service Catamaran
Hull Design	Grovfjord Mekaniske Verksted
Length and Beam	20–23 m
Material	Aluminium
Main Engines	2 x MTU 8V2000 M72
Vessel Speed MCR	25 knots (2 x 720 kW @ 2250 rpm)

**SERVOGEAR ECOFLOW PROPULSOR™**

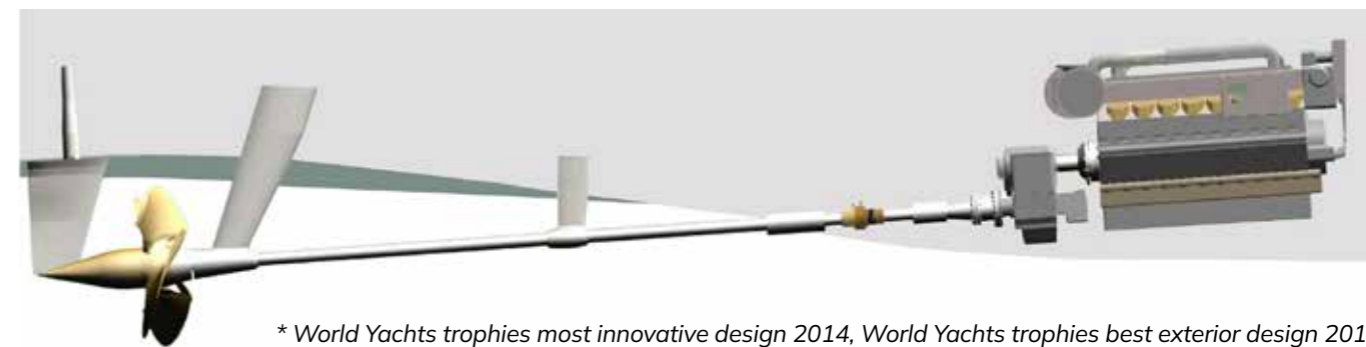
Gearbox	SERVOGEAR HD220H (2.609 : 1)
Propeller Arrangement	Dia: 975 mm ~ Ae/Ao: 0.725 (9P805)
Shaft Diameter/inclination	80 mm / 3.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R026-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV

AWARD WINNING\*



**KHALILAH**  
2014–2019

**PRINCIPLE ARRANGEMENT**



\* World Yachts trophies most innovative design 2014, World Yachts trophies best exterior design 2014.

**MAIN PARTICULARS**

Vessel Type	Motor Yacht, 48 Supersport
Hull Design	Ola Lilloe-Olsen
Length and Beam	48 m / 11 m
Material	Carbon Composite
Main Engines	2 x MTU 2000 M94
Vessel Speed MCR	28 knots (2 x 1939 kW @ 2450 rpm)

**SERVOGEAR ECOFLOW PROPULSOR™**

Gearbox	ZF 5350NR (5.04 : 1)
Propeller Arrangement	Dia: 1500 mm ~ Ae/Ao: 0.75 (9P820)
Shaft Diameter/inclination	130 mm / 5.5 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R054-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	DNV

AWARD WINNING\*

YACHTS



## SAUDADE 2008

### PRINCIPLE ARRANGEMENT



\* Best sailing yacht over 45 m , World Superyacht Awards 2009.

### MAIN PARTICULARS

Vessel Type	Fast Sailing Sloop
Hull Design	Tripp Design
Length	45 m
Material	Carbon fibre reinforced sandwich
Main Engines	1 x Caterpillar C12
Vessel Speed MCR	14 knots (1 x 425 kW @ 2300 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD220H (2.952 : 1)
Propeller Arrangement	Dia 1025 mm ~ Ae/Ao: 0.675 (9P805)
Shaft Diameter/inclination	90 mm / 6.5 deg
Classification	RINA

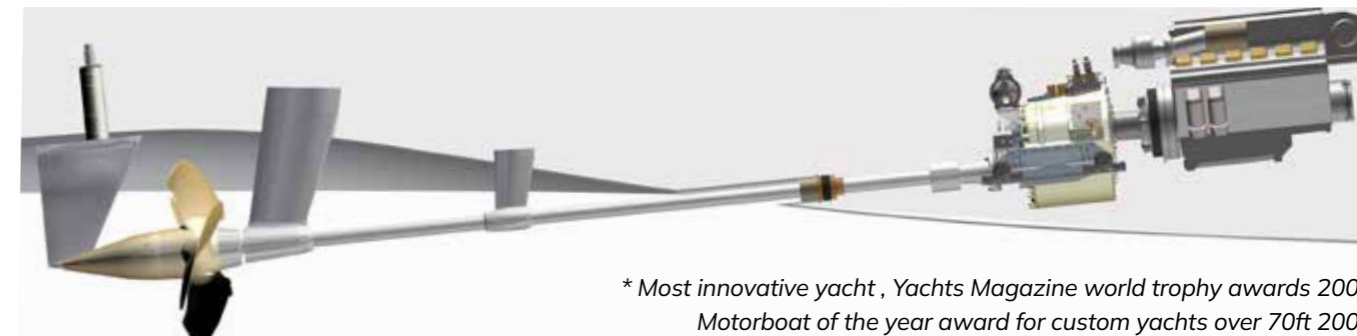
AWARD WINNING\*

YACHTS



## CIAO, PURA VIDA 2007–2009

### PRINCIPLE ARRANGEMENT



\* Most innovative yacht , Yachts Magazine world trophy awards 2007.  
Motorboat of the year award for custom yachts over 70ft 2009.

### MAIN PARTICULARS

Vessel Type	Motor Yacht
Hull Design	Stolk Marimecs
Length and Beam	30.10 m / 6.80 m
Material	Aluminium
Main Engines	2 x Caterpillar C32 Acert
Vessel Speed MCR	27 knots (2 x 1343 kW @ 2300 rpm)

### SERVOGEAR ECOFLOW PROPULSOR™

Gearbox	SERVOGEAR HD295H (3.3 : 1)
Propeller Arrangement	Dia: 1300 mm ~ Ae/Ao: 0.75 (9P820)
Shaft Diameter/inclination	100 mm / 5.2 deg
Rudder	SERVOGEAR EFFECT RUDDER (9R042-HV)
Propeller Tunnel	SERVOGEAR ECOFLOW™
Classification	BV





Part of BOS Power

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