



S/Y KEMMUNA Jongert 20 T

KEMMUNA is the newest and best equipped Jongert 20 T of this popular range in the world. Extensively refitted, modernized and maintained to an exemplary standard. She is a bulletproof blue water sailor, strong and reliable. All systems on-board are new or overhauled. She has all the technical necessary systems that a couple, without a crew, can easily handle the yacht and she can easily be maneuvered with her Follow-UP-Tiller and ZF electronic controller.

KEMMUNA has a hydraulic in-boom-furling system for main and mizzen with captive winches. The booms are made in Carbon (new installed 2010). The main and mizzen mast is operated with remote control by push button. Reckmann hydraulic furling for genoa.

KEMMUNA's systems on board are made for long time permanent living on board in safety and comfort. With a full diesel tank she is easily self-sufficient for the whole year out of sea, without need of stay in marinas. The yacht spends the most time in her life on long trips around the world. From the Mediterranean Sea over the Atlantic in the Pacific over to Australia, New Zealand by visiting many of the wonderful Islands in the world.

The history of KEMMUNA's inspiring journeys is a dream for every sailor who wants to travel around the world.

Watch KEMMUNA during the Club Yachting Live, Jongert Rally Menorca 2012 on the Internet:
<http://www.kemmuna.uk>

Flag British
Present Location Palma de Mallorca

New Antifouling 04.2016
New Anodes made in 04.2016
Propeller permanently polished

Status
December 2016

Main Characteristics

Name	S/Y "KEMMUNA"
Flag	British / Leith
Official No	724755
Call Sign	MZEA4
MMSI	23005330
Model	Jongert 20T, Ketch
Number	380
Shipyard	Jongert BV, Holland
Konstrukteur	Doug Peterson
Interieur	Jongert Design Team
Hull Material	Steel 5/6 mm
Deck	Steel, Marine wood substructure, Teakdeck 20 mm thick, 50 mm wide teak bars
Pilothouse	Steel and Teakwood
Inside Buliding-up	Massive Teakwood
<u>Dimensions</u>	
Lenght	23,55 m
Beam	5,52 m
Draught	3,30 m
Mast height	27,14 m
Displacment	65to (GT 59,57, NT 39,33)
<u>Year build</u>	1993
In Service since	1994
<u>Refits</u>	<u>2008-2009 complete Struktur:</u> Hull, Superstruktur, Mast`s, Interior
	<u>2010</u> New Main/Mizzen Carbon Booms installed
<u>Upgrades</u>	<u>2012-2013 NAV and COM</u> Navigation-, Communication-, Entertainment-System and LED-Light System, Galley Appliances
	<u>2014-2015 Electric</u> Victron-Energy Battery Charger/ Inverter with max. 47.400 Watt Isolation Transformer with 64A,

Classification

KEMMUNA was until March 2014 commercially registered MCA Small Commercial Yacht code but is now privately owned. The present owner has therefore not pursued further guidance in the MCA register.

The yacht can easily be brought back to MCA Status. The next survey is then the 5 years check (with hull inspection out of the water).

Performance

Speed

Crusing	7 knots (under sail and power)
Max.	9 knots (under sail)

Location

present in Palma de Mallorca,
La Lonja Marina

Accommodations

1 x Master Cabin (2)

with double bed, ensuite bathroom/shower/WC
additional bed area to the rear window
Royal safe in cabinet.

1 x STB-VIP-Cabin (2-3)

with 2 bunks, ensuite bathroom/shower/WC
The bunk underneath can be converted in a double bed

1 x BB-VIP-Cabin (2-3)

with 2 bunks, ensuite bathroom/shower/WC
The bunk underneath can be converted in a double bed

1 x Crew Cabin (2)

with 2 berths, ensuite bathroom/shower/WC

Saloon

on Amidship with Office/Navigation Corner

Pilothouse

with pilot seat, desk and seat benches for 8 persons

Engine room

with sound protection

Interieur Design

Jongert Design Team
Mahogany furnishings, massive solid varnished
Floor in mahagoni/teak and blue carpet
Alcantara upholstery
Alcantara ceiling panels

Galley on STB Side

SIEMENS Induction cooker
(new 2012)
7.000 Watt

SIEMENS Dishwasher
(new 2012)

SIEMENS Microwave with grill
(new 2012)

JONGERT Double sink with sprayer

SEAGULLY water filter system
separate faucet for drinking water
(new 2014)

Fridge and Freezer

2 x Grunert DC 24 Volt
with seawater pump
- to operate from UP-side

1 x Electric fridge DC 24 Volt
- to operate from Side

Washing machine

MIELE washing machine with dryer

Tankage and Bilgen

Tankage	Fuel tank	2.900 liter
	Water tank	2.500 liter
	Gray water tank	700 liter
	Black water tank	450 liter
	Hot water heater Daalderop running with AC 220 Volt	80 liter
Bilge	Numbers of bilges 4	
	Float switch on ship`s alarm panal	
Bilge pumps	Central bilge system with 1 x DC 24 Volt bilge pump 1 x Steinmehl pump one main engine	

Rigg and Sails

KEMMUNA`s Rigg and Sail basic`s

- Has a hydraulic in-boom furling system for main and mizzen with captive winches
- Masts complete refit in 2009
- The boom`s are made in carbon and complete new installed 2010
- The main and mizzen is operated with a cable remote control by push button
- Reckmann hydraulic furling for genoa
- Sail area 250,5 m2
- The yacht can sailed single-hand by an experiend owner

Rig	Ketch
Mast/s	2 x NIRVANA made in aluminium
Boom/s	2 x NIRVANA made in carbon <u>with</u> 2 x NIRVANA captive winches in boom-furling system
Standing Rigging	NIRVANA spars
Running Rigging	Varius Spectra and Dynema
Furlers	1 x RECKMAN hydraulic roller for genoa 1 x RECKMAN manual roller for staysail
QSpinnaker boom	1 mounted on front of main mast
<u>Sails</u>	
Foresail	1 Yankee 97,0 m2 1 Staysail 44,8 m2 1 Asymetric cruising spinnaker with snuffer 225 m2
Mainsail	1 fully batten mainsail 82,0 m2
Mizzen	1 fully batten mizzen sail 26,7 m2

All with Awning. Sails are new in 2006, staysail in 2011

The last sail service was in 03/2014

Winches

Lewmar self tailing winches

2 x Lewmar 66 hydraulic for genoa

2 x Lewmar 55 manual for staysail

1 x Reckmann hydraulic furler for genoa

1 x Reckmann manual furler for staysail

9 x Lewmar manual in different sizes

Machinery

Main Engine

MERCEDES OM 427, 6 Zylinder 220 Hp (167 KW),
Displacement 14 liter
16.200 h (11/2016)

MTU Friedrichshafen
Engine Series 183
Basis: Mercedes-Benz OM 420

Engine number: 444 142 00UI - I
Max power 159KW at 1.800 rpm
Permanent power 129KW at 1.500 rpm

- this "old fashion" mechanic diesel engine has no turbo-charger and no electronic components
- the life circle is said with 50.000 h
- a complete engine overhaul was made at 15.000 h
- Fuel consumption at cruise speed 10-15 liter/hr
give the yacht a save range on power of 2.500 nm
- with mechanical "Steinmehl" water pump (no impeller)
- the Steinmehl water pump can be used also as
mechanical engine driven permanent bilge pump
and is the back-up for the electrical bilge pump
- this diesel engine has a very strong flywheel mass,
means a lot of torque to run the hydraulic bow thruster
together with 2 belt driven big alternators.

Alternator 1 with 170 A electric load for service batteries
Alternator 2 with 140 A electric load for starter batteries

- 2 x RACOR main diesel filter system
- 2 x RACOR fine diesel filter system

with ZF electronic controller

- idle speed 1.150 rpm (gives the bow thruster full power)
- gear-in speed is 800 rpm (standard)

	<p><u>Engine room ventilation</u> with 1 x AC 220 Volt controlled fans air IN</p> <p>3 x AC 220 Volt controlled fans air OUT 1 x AC 220 Volt controlled fans air CIRCULATING - very powerful for hottest areas</p>
Engine instruments	Rev counter, Oil pressure, Cooling water temperature, Loading control, Alarm display with tone in pilothouse
Bow thruster	25 Hp HYDROMAT tunneltype Hydraulic powered from main engine
Hydraulic System	<u>DC 24 Volt electrohydraulic system</u> Bow thruster Hydraulic winches Captive winches Furler

Generator 1

ONAN 25 KW, Model MDL6Z
5.780 h (11/2016)
Fuel consumption 4-6 liter/hr

with automatic start modus (load and voltage)
or
manual start modus

Generator 2

ONAN 8 KW, Model MDKWB
5.620 h (11/2016)
Fuel consumption 2 liter/hr

manual start modus

Electrik System

KEMMUNA`s Electric system basic`s

- Electric system is optimized to run most of the time on DC 24 Volt to use the power of her big 1.135 Ah service battery bank and to limit the time of use the generators.
- The hole AC 220 Volt system (except the hot water heater) run over different inverter`s with constant power of 23.700 Watt and provides when needed a maximum power of 47.400 Watt.
- Allowed the yacht to use marinas were shore power is very limited.
- Also it protects generally the hole electric system from electric power spikes/drops.
- To protect on top all the necessary DC 24 Volt equipment (and some DC 12 Volt navigation systems) from electric power spiks/drops DC-DC converters with galvanic isolation are installed.
- AC 220 Volt is only needed for battery charger and hot water heather.
- The ONAN 25 KW generator can run al the AC 220 Volt systems together and can set in automatic start modus (load and voltage) or in manual start modus
- The ONAN 8 KW generator is normally used to charge the batteries and when only limited AC 220 Volt powers is needed. The ONAN 8 KW Generator is also the back-up AC 220 Volt system.
- When the Yacht is under way and used in "sailing mode" or "at anchor" normally needs per day (24h) 3-4h the generator to run all the systems (without air condition).
- When the Yacht is under way and used in "Power mode" or "Iron sailing mode" (engine and sails) and the battery banks are fully charged, is normally no need to run the Generator. The 2 alternators provide enough Amp`s to run all the systems and hold the battery banks are fully charged (without air condition).

Voltages

AC = 220 Volt, 50 Hz, 1 Phase

DC = 24 Volt

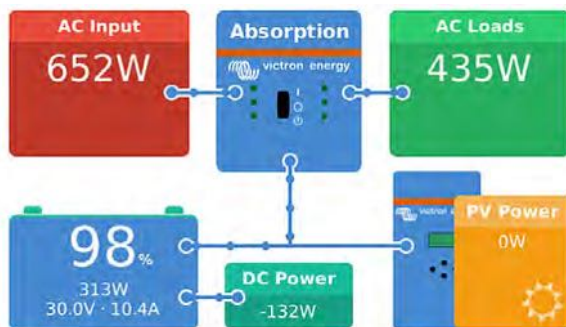
DC = 12 Volt (some navigation equipment)

Shore Power

AC 220 Volt, 50 A single socket, single phase

Isolation Transformer	<p><u>2 x VICTRON ENERGY Isolation Transformers 32 A</u> (new 2014)</p> <ul style="list-style-type: none"> - parallel installed, gives 64 A total power - for safety and prevention galvanic corrosion - with soft start function
Battery Charger/Inverter 1 Fast AC/DC Switch	<p><u>VICTRON ENERGY Quattro 24/8000/200-100/100</u> (new 2014)</p> <ul style="list-style-type: none"> - parallel installed, gives - constant Inverter power 16.000 Watt - maximum Inverter power 32.000 Watt - charging power for the servive batteries, up to 400 A (limited on KEMMUNA to 200 A, to protect the batteries) - charing power for the starter batteries 8 A
with Controller	<p><u>VICTRON ENERGY Digital Multi Control 200/200A</u> (new 2014)</p> <ul style="list-style-type: none"> - to regulate the maximal Shore power or Generator power use
Inverter 2	<p><u>VICTRON ENERGY Phoenix Inverter C24/3000</u> (new 2012)</p> <ul style="list-style-type: none"> - constant Inverter power 3.000 Watt - maximum Inverter power 6.000 Watt - separate in engine room for the AC 220 Volt engine room fans and 4 x engine room sockets / gives a redundancy
Inverter 3	<p><u>VICTRON ENERGY Phoenix Inverter Compact C24/1600</u> (new 2014)</p> <ul style="list-style-type: none"> - constant Inverter power 1.600 Watt - maximum Inverter power 3.000 Watt - separate for the NAV-corner equipment
Inverter 4 and 5	<p><u>2 x VICTRON ENERGY Phoenix Inverter 24/1200</u> (new 2012)</p> <ul style="list-style-type: none"> - constant Inverter power 2 x 1.200 Watt - maximum Inverter power 2 x 2.400 Watt - separate for AC 220 Volt Samsung TV`s and Blue Ray Player allows the use when Shore power is off and no generator is running / most in mooring mode.

Inverter 6 and 7	<u>4 x VICTRON ENERGY Phoenix Inverter 24/350</u> (new 2012) - constant Inverter power 2 x 350 Watt - maximum Inverter power 2 x 700 Watt - separate for the NAV-corner equipment / gives a redundancy
Display	<u>VICTRON ENERGY Color Control GX</u> (new 2014)
Battery Monitor	<u>2 x VICTRON ENERGY Battery Monitor BMV-702</u> (new 2014) - connected to VICTRON ENERGY Color Control GX
Alarm Panel	<u>3 x VICTRON ENERGY Battery Alarm</u> (new 2012) - Service batteries - Starter batteries - Emergency battery
Battery Charger	<u>VICTRON ENERGY Centaur 12/20</u> - charging power Battery 20 A - to charge the 60 Ah / 12 Volt battery from the ONAN 8 KW small generator
Battery to Battery Charger	<u>STERLING POWER 50A ,24 Volt to 12 Volt</u> - to charge the 140 Ah / 12 Volt emergency battery
Various DC-DC Isolation Transformer	<u>VICTRON ENERGY and ALFATRONIX</u> - with galvanic separation



Victron Energy Color Control GX Display - status information on KEMMUNA

Batteries

1.135 Ah / 24 Volt Service Batteries / C10 Capacity
with 12 x EXIDE/SONNENSCHN 2 Volt gel cells
(new 2013)

320 Ah / 24 Volt Starter Batteries
(new 2012)

140 Ah / 12 Volt Emergency Battery
(new 2012)
- for VHF radio, 2nd GPS and engine room light

60 Ah / 12 Volt Starter Battery
(new 2014)
- for ONAN 8 KW generator

Note

The main engine and ONAN 25 KW generator using the same 320 Ah / 24 Volt starter batteries

All batteries with main switch

Alternator

170 Ah alternator for service batteries
140 Ah BALMAR alternator for starter batteries

This 2 alternators have a control
that the 140 Ah starter battery alternator provide his charging current to the service batteries when the starter batteries are fully loaded.

This gives the system the maximum output when the yacht is on the way under engine.

Light System

KEMMUNAs light system is in DC 24 Volt and was in 2012 complete changed with modern LED components - except the NAV-light`s.

Therefore also installed DC-DC 24 Volt stabilisers to protect the light system from electric power spikes/drops (this is a must have for LED lights)

The LED system in the Saloon, Master Cabin, STB-VIP Cabin, BB-VIP Cabin and Pilothouse is a multi colour LED system, who gives a wide rang of light adjustments.

For information

The engine room LED Lights are separate connected to the emergency battery

Navigation Equipment

Generally - Pilothouse

Compass	B&G HYDRA 2 (electronic) SESTREL MORE (magnetic)
Solid State Compass Sensor	B&G HALYCON 35 Fluxgate compass
Wind-instruments	B&G HYDRA 2
Log	B&G HYDRA 2
Depth	B&G HYDRA 2

The B&G HYDRA 2 System

- 1) has a 2nd display in the Nav-corner
- 2) and a 3rd display in the Crew cabin.

Rudder Indicator	VDO
Autopilot	SEGATRON B

Steering modes

- 1) with Follow-Up Tiller
 - makes steering the yacht very comfortable
- 2) Magnet Compass
- 3) Solid State Sensor Compass
- 4) Wind
 - ideal on long distance cruises

Connections

- to 1) SEGATRON Follow-Up Tiller
- to 2) SESTREL MORE (magnetic) Compass
- to 3) MARETRON SSC200 Solid State Sensor Compass
- to 4) B&G HYDRA 2

Signalhorn	Compressor Horn for maritime ship signals on mizzen mast
------------	--

Loud-Hailer	<u>RAYMARINE RAY 430 Loud-Hailer</u> - can be used as alternative for maritime ship signals as well - and to communicate with crew during anchoring
-------------	---

Master Navigation System 1 - Pilothouse

GPS and Plotter

RAYMARINE G-Series (new 2012) with

- 1) GPM 400 Processor
- 2) RA 3048SHD Digital Super HD Radar 4´ with 12 kW
- 3) DSM 300 Digital Fishfinder / Depth and Sonar
with 1.000 Watt power
- 4) Raystar 125 GPS Plus
- 5) 1 x i70 Instrument Display
- 6) G170 LCD Monitor
- 7) Command Keyboard / wired
- 8) Alarm Output interface
- 9) separate fans for colling

- 10) EVO 1 Solid State Sensor Compass (new 2015)
 - 9-axis sensor precision monitoring of pitch, roll, yaw and heading
 - No lengthy calibration procedures to perform.
 - No compass calibration required

Master Navigation System 1 - NAV-corner

Plotter

RAYMARINE E-Series 140 (new 2012) with

- 1) Multifunctionsdisplay
- 2) 3 x i70 Instrument Display

Navigation System 2 - Nav-corner

GPS	<u>FURUNO GP-33 GPS Navigator</u> with separate FURUNO GPS antenna
Solid State Sensor Compass	FURUNO PG 500
Hardware	<u>NAV Marine PC</u> - designed for 24/7 continuous use (new 2013), 24 Volt, without fans, Windows 7
Monitor	SIEMENS 19 - designed for 24/7 continuous use (new 2013), 24 Volt, aluminium frame (heavy duty)
Keyboard	waterproof with illuminated keys / wired
Software	<u>TRANSAS SAILOR</u> Professional system - you carry on a separate DVD all global nautical charts - Mediterranean sea west charts are enabled - Unlock codes for the rest of the world required

Navigation System 2 - Pilothouse

Monitor	SIEMENS 19 - designed for 24/7 continuous use (new 2013), 24 Volt, aluminium frame (heavy duty)
Keyboard	waterproof with illuminated keys / wired

The Navigation System 2

- mirrors all datas and can be used from the Navi-corner or from the pilothouse

For information

The FURUNO GP-33 GPS Navigator and FURUNO GPS sensor is separate connected to the emergency battery

Navigation System 3 (Back-UP) - Pilothouse

Display	MARETRON DSM200 Multi-function Color Graphic Display
GPS	MARETRON GPS200
Solid State Sensor Compass	MARETRON SSC200
Alarm Modul	MARETRON ALM100

This system is in use

- as anchor watch system and has a very low powers consumption during the night
- and can be easily extended
- provide simple calibrating the Solid State Sensor MARETRON SSC200 in use with the SEGATRON B autopilot

Back UP Navigation System 4 (Back-UP) - Pilothouse

GPS and Display	<u>LEICA MK 12 Professional Navigator</u> with separate GPS antenna
-----------------	--

For information

- 1) All of KEMMUNA ´s 4 navigation systems are separatly installed, not connected to each other and has separate power lines.
- 2) The FURUNO GP-33 GPS Navigator and FURUNO GPS sensor is for saefty reasons also separate connected to the emergency battery

Navtex	<u>MacMurdo Navtex</u> (new 2013) Color Display simultaneous receiving of all frequencies
--------	--

Barometer	<u>1 x electronic Marine Barometer</u> on the companionway - with alarm function
	<u>2 x WEMPE analog Barometer</u> in saloon and master cabin

Communication Equipment

Nav-Corner

Inmarsat 1

SAILOR Fleet Broadband 150

- fixed installation
- 2 x Voice
- 1 x Data
- 1st Telephone in Nav-Corner (master)
- 2nd VERSHOVEN waterproff outdoor Telephone in Pilothouse

with SAILOR 3771 Alarm Panel in Pilothouse

When you push the "alarm" button you got in 5 seconds a respond on the phone from the next MRCC (Maritime Rescue Coordination Center)
 - a perfect saefty feature



connected

Hardware

COM Marine PC - designed for 24/7 continuous use (new 2013),
 24 Volt, without fans, Windows 7

Monitor

SIEMENS 19 - designed for 24/7 continuous use (new 2013),
 24 Volt, aluminium frame (heavy duty)

Keyboard

waterproof with illuminated keys / wired

Software

wetterwelt.de
 Proffessional weather system
 - worldwide use
 - Unlock codes required

and in use for email and internet at sea (over satelite)

HF/MF Radio	<u>FURUNO MF-1570</u> - 150 watt - MF HF-DSC - connected to FURUNO GPS antenna
<u>Pilothouse</u>	
VHF Radio	<u>RAYMARINE RAY218E DSC VHF Radio, Europe</u> - 25 watt - VHF-DSC - 2 nd station in Nav-corner - is separate connected to the emergency battery
Handheld VHF Radios	<u>3 x SIMRAD HT 50</u> - 5 watt - with 3 x express charger
AIS	<u>RAYMARINE AIS650 – Class B AIS Transceiver</u> - connected to separate Raystar 125 GPS antenna
Inmarsat 2	<u>Isatphone Pro with Dockingstation</u> - Handy - connected to separate satellite antenna - 1 x Voice - 1 x Data - can be easily taken in a emergency situation - and to communicate with crew during anchoring
Wifi-Network	Kemmuna has on Bow and Stern 2 Wifi repeater who are connected to a Router in Saloon
<u>Router is connected to</u>	
Wifi-Antenna	installed on main mast
or switched	
G3-Antenna	installed on main mast

Entertainment Equipment

SAT-Antenna	<u>KVH TrakVision M7 GyroTrac</u> (new 2013) with automatic Skew Control with GyroTrac Sensor and Advanced Digital Control Unit (ADCU)
Terestic-Antenna	<u>GLOMEX terestic-antenna for digital TV-signals</u> (new 2012) on top main mast installed
TV-System Radio-System	with multiswitch to connect 6 TV`s all AC 220 Volt TV`s installed over Inverter

Master Cabin

SAMSUNG 38` LED TV
SAMSUNG Blue Ray Player
Radio with CD-Player and 2 Loudspeaker

Saloon

SAMSUNG 50` LED TV
SAMSUNG Blue Ray Player

STB-VIP-Cabin

ALPHATRONICS 24` LED TV
with bulid in DVD Player
Radio with CD-Player and 2 Loudspeaker

BB-VIP-Cabin

ALPHATRONICS 24` LED TV
with bulid in DVD Player
Radio with CD-Player and 2 Loudspeaker

Crew-Cabin

ALPHATRONICS 19` LED TV
with bulid in DVD Player

Pilothouse

SAMSUNG 32` LED TV
with HD Recording and Internet

Sound-System

8 x 50 Watt Amplifier

connected to

2 x waterproof Loudspeaker Saloon front

2 x waterproof Loudspeaker Saloon back

2 x waterproof Loudspeaker Pilothouse

2 x waterproof Loudspeaker Stern

AQVOX Digital-Analog Converter 2 D/A MKII

connected to Amplifier

This D/A Converter can get diverent input signals

USB, Cinch, SPDIF, COAX, TOSlink, AES/EBU, etc.

- and is connected via AppleTV to KEMMUNA`s WiFi-network

- present in use with owners iTunes Music library

Auxiliary Equipment

Watermaker	<u>HEM 180 liter/hr with flush back</u> running with AC 220 Volt
Air Condition	<u>36.000 Btu MARINE AIR MCW Single Compressor</u> Reverse cycle for cooling and heating running with AC 220 Volt (new seawater pump 08/2015)
Heating	<u>2 x Webasto EVO 5000 Marine Air Diesel heater</u> running with DC 24 Volt <ul style="list-style-type: none"> - 1 heating circle is for the Master Cabin and Galley - 1 heating circle is for the rest of the Yacht - with electronic controller and temperature sensors - Diesel consumption 0,3 - 0,7 liter/h
Gray- and Blackwater	<u>Headhunter Tank Sentry System</u> 2 x Headhunter Tank Sentry Fluid Level Monitors with 2 x Mako 1 Sewage Pumps (34 l/minute) running on DC 24 Volt (Installed with 3-way-valves for redundancy) <p>Remote Panel with LED signal and alarm buzzer on the side from electric panel/galley</p> <p>the Headhunter System run complete in <u>automatic modus (if necessary in manual)</u> <ul style="list-style-type: none"> - Tanks get pumped out by reaching a level of 80% - Tank pumps stop automatically by reaching a level of 20 % - All tank levels can be changed in the set-up - alarm module in engine room - remote alarm module at the main control panel - with 30-minute timer, to protect the pumps from overheating when a "auto-off" failure consists </p>

Deck Equipment

Anchor	<p>1 x CQR with 50 kg 1 x CQR with 44 kg</p> <p>1 x CQR with 44 kg as stern anchor</p>
Windlass	<p><u>Lewmar 3000</u></p> <ul style="list-style-type: none"> - with 100m 16mm anchor chain - with anchor chain looker - with cypsi <p><u>Lewmar Anchor Control System</u></p> <ul style="list-style-type: none"> - 1 x fix in Pilothouse with deph display - 2 x with remote control with deph display - 1 x cable remote control - 1 x push button on deck
Capstans	<p>2 x Lewmar installed STB and BB at bow for mooring lines</p> <p><u>For information</u> for pulling the yacht back in the mooring, use the 2 x Lewmar 66 hydraulic winches on stern</p>
Stern Bathing platform and Stern Gangway	<p>with folding stairway to water level platform at stern</p> <ul style="list-style-type: none"> - the stern platform is also in use tender storage - as crane for the tender is the miizen mast boom in use - the gangway is for folding
Bathing ladder	steel boarding ladder at STB or BB midship
Deck shower	hot and cold
Deck wash system	<p>1 x stainless steel roller with 25 m tube installed fix on stern with sweet water</p> <p>1 x on bow with salt water</p>

Safety Equipment

Life raft	1 x All Ocean, categorie A for 12 pax (new 2012) with hydrostatic reliaese, fix installed on deck 2 x Jon Boy, Man over board recovery system
Life jacket	15 x Self Inflating, 275 N, with life line (new 2012)
EPIRB	2 x McMurdo with GPS (new 2012) with hydrostatic reliaese, fix installed on deck
Fire-extinguishing system	10 x Smoke detector in all compartments (new 2012) Smoke and Head detector in engine room
Fire extinguishers	Seafire System in Engine room (new 2012) - with automatic and manuel activation 10 x Dry powder Fire extinguishers in all cabins (new 2014)
Smoke Detector	in all Compartments
Smoke and heat Detector	Engine room

Tender

Tender 1 - AB Inflatable, Profile A 11, Commercial Series

(new 2014)

- Dimension 3,60m x 1,70m
- Aluminium hull
- Tubes in grey with 1.640 dtec (Standard is 1.100 dtec)
- with self drain system
- with bow locker, inside is the 24 liter tank, the starter battery and the battery charger installed
- with aluminium box (Zarges) as individual seat bench (very comfortable)
- with removable NAV-light

Evinrude eTec 30 Hp outboard engine

(new 2014)

- with electric starter, trim and tilt
- with stainless steel Prop deflector
- with hydrofoil

The tender can easily lifted to KEMMUNA`s stern bathing platform with the mizzen boom, is for his dimensions very light and runs more than 25 knots. The installed Hydrofoil brings the tender fast to slide.

Tender fuel	2 x stainless steel 20 liter canister with pressure valve
	- fix installed on deck/reling
	- with navy blue cover

Tender 2 – Quick Inflatable, lightweight

(new 2015)

- Dimension 2,20m x 1,40m
- inflatable bottom
- only 32 kg weight
- Torqeedo Travel 1003 electric outboard engine
the power is equal to a 3 PS outboard engine

The tender can easily lifted on board by hand, or with KEMMUNA`s winches. The tender ist stored on the roof of the pilothouse. It is ideal for 2 persons for short distances.

Colors

Pilothouse, Saloon
Main/Mizzen Mast

Moon Dust from Alwgrip (standard color)
Code G6004

Hull

Flag Blue from Alwgrip (standard color)
Code G5002

Engine Room

Cloud White from Alwgrip (standard color)
Code G8089

Refits and Upgrades

Year	Description
2005	New installed Lewmar 3000 anchor winch New installed Lewmar anchor chain New installed ONAN 8 KW generator
2006	ONAN 25 KW generator complete overall
2008-2009	<u>Complete refit by Wayfarer Marine in Camden-Main/USA</u> Sandblast of hull and superstructure New paint of hull and superstructure and mast New teak deck Complete interior varnishing New carpentry (Volume 1,5 Mio. US\$)
2009	Main/Mizzen mast`s complete refitted
2010	New Main/Mizzen carbon booms installed with captive winches and cable remote control (Volume 300.000 US\$)
2011	Air Condition complete refitted Refrigeration complete refitted
2012-2013	<u>Complete Update NAV, COM and Control System`s in Palma de Mallorca</u> New navigation system`s New communication system`s New ZF electronic controller for engine New autopilot Follow-UP-Tiller New satellite TV-system with 6 LED-TV`s New entertainment system with 8 loudspeakers New installed LED light system in complete yacht New galley equipment (Induction oven, microwave/grill, dishwasher) New Headhunter Black- and Greywater system

- 2012-2013 New liferaft for 12 persons
 New life wests for 15 persons
 2 x New McMurdo EPIRB
 New Seafire system in engine room
- New service batteries
 New starter batteries
 New emergency battery
 New pilothouse bimini
- 2014 New AB tender and Evinrude outboard engine
 New stainless steel 20l fuel canister (tender)
 10 x New fire extinguishers
 New Seagully water filter system in galley
 New BBQ
 New starter battery ONAN 8 KW generator
- 2014-2015 New Victron-Energy Battery Charger and Inverter system /max. 47.400 Watt
New Isolation Transformer /max. 64 A total power
- with Color Control Monitor and alarm panel
- New Balmar alternator 140Ah
- Upgrade Raymarine Master Navigation
 System with new ERV 1 Gyro compass
 (9 axis sensor with self calibration)
- New installed 14 fans (DC 24 Volt) for constant air
 circulation in the yacht for cooling without
 the need of air condition
- 2015 New installed Lewmar anchor system with display
 fixed station and 2 x remote controls
- New Maretron isplay, GPS and Solid State Sensor
 New Anchor ligt on mizzen mast
 New 30-Minutes-timer on Grey- and Blackwaterpump
- Complete overhaul 2 x Webasto marine air heather
- New AC 220 Volt Seawater Pump

New Quick lightweight tender

2016

Interior completely refreshed with “Schleierfrei”
(product remove scratches, freshens up and sealed
all wooden surfaces)

New Torqeedo Travel 1003 electric outboard engine
the power is equal to a 3 PS outboard engine

New Ultrasonic speed sensor, to use instead the
mechanical paddel whell for the B&G HYDRA system
(for optional use)

New Samsung LED-TV (32) in Pilothouse with
Internet connection and HD recording

KEMMUNA has from 2008 until End of 2016 Refit`s and Upgrades with a volume of 2.000.000 €,
to keep her in the present condition.

Photo Documentation









S/Y KEMMUNA











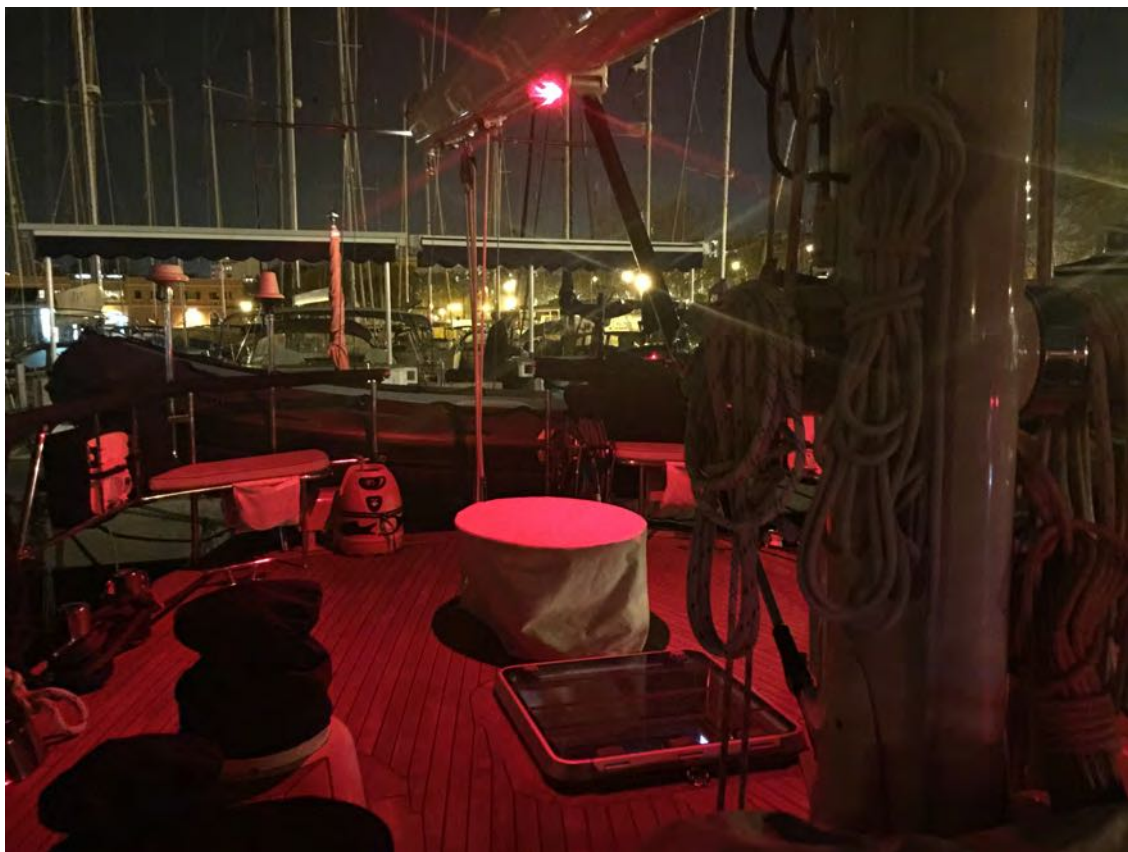














S/Y KEMMUNA



Information and Photos Refit 2008-2009

by Wayfarer Marine in Camden-Maine / USA





















