

**TYPE CERTIFICATE DATASHEET REMOS GX**
certificated as US-LSA

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I. General

Model : REMOS
Type : GX

Manufacturer until 10/2014 : REMOS Aircraft GmbH Flugzeugbau
Franzfelde 31
17309 Pasewalk
G E R M A N Y

Manufacturer from 11/2014 on : REMOS AG
Franzfelde 31
17309 Pasewalk
G E R M A N Y

TC Holder : : REMOS AG
Franzfelde 31
17309 Pasewalk
G E R M A N Y

Certification Standard : ASTM F2245

II. Description and Limitations**1. Basic Specification**

Construction Method : Composite
Wing : High Wing Airplane, braced
Type of Empennage : Rear Cruziform
Landing Gear : Nose Landing Gear, non-retractable
Powerplant Arrangement : Tractor
Occupants : 2
Crew : 1


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2. Dimensions

Wingspan : 9.32 m (30 ft 7 in)
 Wing Area : 10.97 m² (118 sqft)
 Wing Aspect Ratio..... : 7.92

Length : 6.47 m (21 ft 4 in)
 Height : 2.28 m (7 ft 6 in)

Wheel Track : 1.38 m (4 ft 6 in)
 Wheel Base : 2.10 m (6 ft 11 in)

3. Control Throws

Aileron Neutral Position : in shape of airfoil
 upward deflection : 21 deg +/- 1 deg
 downward deflection : 12 deg +/- 1 deg

Rudder Neutral Position : in shape of airfoil
 left deflection : 28 deg +/- 2 deg
 right deflection : 28 deg +/- 2 deg

Elevator Neutral Position : in shape of airfoil
 upward deflection : 29 deg +/- 1 deg
 downward deflection : 19 deg +/- 1 deg

Elevator Tab Neutral Position : in shape of airfoil
 upward deflection : 15 deg +/- 1 deg
 downward deflection : 25 deg +/- 1 deg

Flaps Neutral Position : in shape of airfoil
 upward deflection : 0 deg
 downward deflection : 40 deg +0 deg / - 1 deg

4. Reference Speeds

never exceed speed : 249 km/h = 155 mph = 134 kts
 normal operate speed : 198 km/h = 123 mph = 107 kts
 manoeuvring speed (up to SN428)... : 174 km/h = 108 mph = 94 kts
 manoeuvring speed (from SN429 on). : 163 km/h = 101 mph = 88 kts *)
 maximum flap speed : 130 km/h = 81 mph = 70 kts
 stall speed clean : 81 km/h = 51 mph = 44 kts
 stall speed flaps down : 70 km/h = 44 mph = 38 kts

*) also applicable for aircraft SN428 or below with NOT-014 applied

5. Mass

Maximum Take-Off Weight..... : 600 kg = 1,320 lb

6. Center of Gravity

Reference : Wing Leading Edge at Fuselage
 Aircraft Attitude : Wing Chord at Rectangular Portion in Level
 front C.G. : 245 mm = 9.6 in aft of Reference
 rear C.G. : 415 mm = 16.3 in aft of Reference



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IV. Standard and Optional Equipment

1. Standard Equipment

- Airspeed Indicator : airspeed indicator, scale to at least 300km/h = 160kts = 180mph. Markings acc. to Reference Speeds.
 Manufacturer WINTER or equivalent
- Altimeter : three pointer altimeter calibrated to min. 20,000ft. Altitude indication in feet. Barometric pressure in inHg or mbar.
 Manufacturer WINTER, FALCON GAUGE or equivalent.
- Compass with Compass Card : Until S/N 298 use panel mounted compass. For S/N 298 ff use or top of panel mounted compass with internal lighting.
 Manufacturer AIRPATH or equivalent
- Safety Belts : Manufactured by REMOS, or
 8-2520MOMON22-88 by BAe Systems (LH)
 8-2620MOMON22-88 by BAe Systems (RH)
- 12V Battery : Until S/N 377 for A/C with electrical equipment acc. to min. equipment list for Day-VFR operations install min. 13Ah. For aircraft until S/N 377 with electrical equipment exceeding Day-VFR min. equipment list or equipped acc. to min. equipment list for Night-VFR operations install min. 16Ah. For S/N 378 ff use min. 7Ah for any equipment. Use Battery type HAWKER GENESIS or equivalent. Installation of LiFePO4 battery is approved.

2. Engine Indication Instruments

ROTAX FLYDAT, or DYNON D120, or DYNON D180, or DYNON EMS D-10, or DYNON SV D-700 with SV-EMS-220 module and/or analogue instruments indicating engine Speed, cylinder head temperature, oil temperature and oil pressure (Manufacturer ROTAX, VDO or equivalent). Fuel quantity may be displayed in the instruments mentioned before, but the main source of information for fuel quantity is the sight tube on the fuel tank behind the copilot seat.

3. Approved Flight Instrumentation

- DYNON Equipment : DYNON EFIS D100
 DYNON EMS D120
 DYNON FlightDEK D180
 DYNON EMS D-10
 DYNON HS-34
 DYNON EDC D-10A
 DYNON SV-D700 with SV-ADAHRS-200 and
 SV-BAT-320 (one per screen SV-D700 installed)


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Flymap/Brightflight Equipment ... : Flymap/Brightflight LD
 Flymap/Brightflight AHRS
 Flymap/Brightflight EMS

Equipment w/o defined Manufacturer: electric artificial horizon
 electric turn coordinator
 electric directional gyro
 CDI 106A w/ GS

4. Approved NAV/COMM/XPDR/Audio Equipment

GARMIN Equipment : GARMIN SL30
 GARMIN SL40
 GARMIN GTR200
 GARMIN GTR225 or GTR225/A
 GARMIN GNC255 or GNC255/A
 GARMIN GMA-240
 GARMIN GMA-340
 GARMIN GTX 327/328/330
 GARMIN GPS 295/296
 GARMIN GPS 395/396
 GARMIN GPS 495/496
 GARMIN GPS 695/696
 GARMIN aera500/510
 GARMIN aera550/560

Flymap/Brightflight Equipment ... : Flymap/Brightflight L

AVMAP Equipment : GPS EXP IV

BECKER Avionics : BECKER AR4201
 BECKER AR6201
 BECKER BXP6401

DYNON Avionics : DYNON SV-GPS-250
 DYNON SV-GPS-2020

ps-engineering : PM1000/1000II
 PM 3000
 PMA 7000B
 PMA 8000BT

5. Approved Autopilots

DYNON Equipment : DYNON AP-74
 DYNON SV-32

TruTRAK Equipment : TruTrak Digiflight II VS
 TruTrak Servos

Flymap/Brightflight Equipment ... : Flymap/Brightflight Autopilot Servos


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6. Emergency Location Transmitter

121 MHz : ACK E-01
 406 MHz : ACK E-04
 ARTEX ME406
 KANNAD 406-AF Compact
 KANNAD 406-AF INTEGRA
 remote switch for ELT activation required in
 the panel in direct access of the pilot

7. Landing Gear

Nose Landing Gear GFRP Version... : Tire 4.00-4, 4 ply or higher.
 Fairing non-detachable

Main Landing Gear GFRP Version... : Tire 4.00-6, 4 ply or higher
 Fairing non-detachable

Nose Landing Gear Steel Version . : Tire 4.00-4, 4 ply or higher
 to be used with or without fairings

Main Landing Gear Steel Version . : Tire 4.00-6, 4 ply or higher
 To be used with or without wheel fairings.
 Leg fairing or interference fairings between
 leg and wheel may be taken off partly or
 completely. If used with interference
 fairings, but without wheel fairings,
 fixation bracket for interference fairing is
 required. Fuselage belly fairing may be taken
 off

Main Landing Gear Steel Version . : Tire 15 x 6.00-6, 4 ply or higher
 To be used without wheel fairings only.
 Leg fairing or interference fairings between
 leg and wheel may be taken off partly or
 completely. If used with interference
 fairings, but without wheel fairings,
 fixation bracket for interference fairing is
 required. Fuselage belly fairing may be taken
 off.

8. Approved Equipment

Landing Light : Hella H7, Hella Daylight, AeroLEDs 1600
 Position Lights : REMOS D-VFR, REMOS N-VFR, AeroLEDs NS90
 Anti Collision Light : Thiessen ACL, Thiessen ACL-3, Wheelen
 Taillight : AeroLEDs SUNTAIL, Kunzleman, Wheelen, Thiessen
 Instrument Lighting : REMOS

Recovery System : Magnum 601, installed in accordance with
 Parachute Installation Manual G3-8 RE RS 080

Engine Preheating System : Tanis Rotax Preheat System

misc. Equipment : Electronics International Fuel Flow F-PL5
 TOST tow release clutch type E85
 REPOS Mounting Frame for Tow Release Clutch

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Yellow Colored Release Handle
Rear View Mirror on Main Spar Carrythrough
IN-Pro OAT and Time Module
Luggage Pocket Net
SKYDRIVE analogue Fuel Pressure Gauge
B&C external Alternator attached to Gearbox
AIRGizmo GPS adaptors (angled and straight)
regulator by SCHICKE or DUCATI
overvoltage protection by SCHICKE



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V. Approved Practices for Maintenance, Modifications and Repairs

1. Approved Practices for Repairs

REMOS has released a Maintenance Manual, describing standard maintenance and repair events. REMOS hereby approves the acceptable methods, techniques and practices for inspection, repair and alterations set forth in FAA AC 43.13 without further need for an Letter of Approval. Nevertheless, such an event must be signed off in the aircraft's logbook by an LSA repairman, an A&P mechanic or a Part 145 MRO Organization.

2. Modifications / Change of Equipment

Equipment listed in this document may be changed without further need for a Letter of Approval. This document is valid as a general Letter of Approval. Nevertheless, such an event must be signed off in the aircraft's logbook by an LSA repairman, an A&P mechanic or a Part 145 MRO Organization. Any equipment not listed in this document may not be installed on the aircraft without REMOS to issue a Letter of Approval. The Weight-and-Balance sheet as well as the aircraft's equipment list must always be kept up to date.

Equipment must be installed in accordance with the installation instructions of the manufacturer of the equipment to be installed and the relevant drawings and instructions of REMOS AG. This documentation must be kept indefinitely in the records of the individual aircraft as permanent attachment to the aircraft's maintenance manual.

3. Maintenance

REMOS provides a Service and Maintenance Checklist that comes with every aircraft in the maintenance manual. As technical knowledge and equipment rises quicker than the maintenance manual can be updated an up to date version of the maintenance checklist is provided on the website www.remos.com. This checklist has shown to be very useful and standardizes the maintenance for the REMOS aircraft. It is recommended to use this maintenance checklist only.

4. Annual Condition Inspection

REMOS provides an inspection list for the annual condition inspection. This checklist has shown to be very useful and standardizes the inspection for the REMOS aircraft. An up to date version of the checklist for the annual condition inspection is provided on the website www.remos.com. It is recommended to use this checklist only.

5. Authorized Personnel

Preventative Maintenance : Owner and/or Operator with Sport Pilot Certificate or higher, or LSA Repairman, or A&P Mechanic, or Part 145 Repair Station with appropriate ratings

Line Maintenance : Owner and/or Operator with Sport Pilot Certificate or higher, or LSA Repairman, or A&P Mechanic, or Part 145 Repair Station with appropriate ratings



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- Heavy Maintenance : LSA Repairman, or A&P Mechanic, or Part 145
Repair Station with appropriate ratings

- Repairs : LSA Repairman, or A&P Mechanic, or Part 145
Repair Station with appropriate ratings

- Modifications : Owner and/or Operator with Sport Pilot
Certificate or higher, or LSA Repairman, or
A&P Mechanic, or Part 145 Repair Station with
appropriate ratings

**TYPE CERTIFICATE DATASHEET REMOS GX**
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Engine ROTAX 912 UL-S
Silencer
Airbox
Propeller
Carburettor Heating System
analogue Compass with Compass Card
analogue Altimeter
analogue Airspeed Indicator
Safety Belts
ELT
electrical System including Circuit breakers
Master, Avionics and Engine Kill (Ignition) Switch
Engine Instruments as per section IV
electrical artificial Horizon, or DYNON EFIS D-100 or DYNON FlightDEK D-180
Landing Light
Position Lights
Taillight
Anti Collision Light
Instrument Panel Lighting
Navigation radio and DYNON HS-34 or analogue CDI with glideslope
Transponder
Audio Panel GARMIN GMA-340 including marker antenna

5. Minimum Towing Equipment List

Engine ROTAX 912 UL-S
Silencer
Airbox
Propeller
Carburettor Heating System
analogue Compass with Compass Card
analogue Altimeter
analogue Airspeed Indicator
Safety Belts
ELT
electrical System including Circuit breakers
Master, Avionics and Engine Kill (Ignition) Switch
Engine Instruments
TOST tow release clutch type E85
REMOS Mounting Frame for Tow Release Clutch
Yellow Colored Release Handle
Rear View Mirror Placed on Main Spar Carrythrough
Towing Rope 100...200 ft with Ring Connector
Weak Link in Tow Rope of 300dN

6. Operability of Equipment

Without further approval issued by REMOS AG any item of the minimum equipment List applicable for the individual flight must be operational. Any other item of equipment is regarded to be optional and may be inoperational.

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VII. Lifetime Limits1. Airframe

The airframe is not lifetime limited.
The aircraft is operated on condition.

2. Control Systems

The control systems are not lifetime limited.
The aircraft is operated on condition.

3. Engine

For commercial use the engines with SN lower than 4.427.532 have a TBO of 1,200h or 10 Years, whatever comes first. Engines with SN between 4.427.533 and 6.775.789 have a TBO of 1,500h or 12 years, whatever comes first. Engines with SN 6.775.790 and higher have a TBO of 2,000h or 15 years, whatever comes first. Engines with SN lower than 6.775.790 may be modified according to ROTAX Service Bulletins so that a TBO of 2,000h/15yrs applies. See individual modification standard and engine documentation.

For private use the engine is operated on condition if maintained according to engine manufacturer's maintenance manual.

4. Propeller

Neither for commercial use nor for private use a TBO is defined for the different types of propellers, inspections acc. to manual apply.

5. Safety Belts

The safety belts are not lifetime limited.
The aircraft is operated on condition.

6. Tubes and Hoses

Tubes and hoses on REMOS aircraft are operated on condition. A fixed time interval for replacement is not defined. Nevertheless, the ROTAX maintenance manual claims for replacement every 5 years. The replacement is not mandatory on REMOS aircraft, though recommended.

7. Towing Equipment

For commercial use the release clutch has a TBO of 4 years, or 2,000 take-offs, or 10,000 operations, whatever comes first.

For private use the clutch is operated on condition if maintained according to clutch manufacturer's maintenance manual.

7. misc. Equipment and Subsystems

Misc. equipment and subsystems are not lifetime limited.
The aircraft is operated on condition.

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VIII. Flight Operations and Limitations1. Pilot's Seat

The seat for the pilot in command is on the left. In case the aircraft is equipped with airspeed indicator and altimeter on the right seat, the pilot in command may also be seated in the right. A glass cockpit screen in the right panes fulfils the requirements for flight instrumentation.

2. Flight Training

The aircraft is approved to be used for flight training, both private and commercial. National regulations may apply for minimum instrumentation. The aircraft may be used for following training segments:

- ab-initio training with instructor on board
- enroute VFR training with instructor on board
- solo flights of the student with or without instructor on board
- handling of the aircraft including training of unusual attitudes
- emergency training
- night VFR training
- IFR training in VMC
- glider towing
- banner towing

In case the aircraft is used for flight training the instructor seat is on the right and the student seat is on the left.

3. Glider Towing

Glider Towing is permitted in case the aircraft is equipped according to the Minimum Towing Equipment List. Towing gliders is permitted in visual meteorological conditions only, operated under day VFR rules.

Permissible glider MTOW 550 kg = 1,210 lb in combination with Tonini or Woodcomp Prop. Permissible glider MTOW 720 kg = 1,580 lb in combination with Neuform or Sensenich Prop.

While towing gliders the aircraft may be operated single seated only. Only in case of training the aircraft may be operated with both seats occupied. In this case the total weight of REMOS GX and the glider to be towed may not exceed 1,100 kg = 2,425 lbs.

4. Flying Without Doors

The aircraft is approved to be flown without doors. Either one or two doors may be taken off. A speed limitation of 180 km/h = 100 kts applies in case one or two doors are taken off.

The aircraft may not be used for glider or banner towing with one or two doors removed. The aircraft may be used for flight training with or without doors.

Doors may not be opened in flight.



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IX. Continued Airworthiness

REMOS AG publishes several types of documents on demand:

- Safety Alert
- Service Bulletin
- Notification
- Pilot Operating Handbook
- Maintenance Manual
- Maintenance Checklist
- Annual Condition Inspection Checklist
- Customer Feedback Form

All these documents are published on the website www.remos.com, which is the central means of communication of REMOS AG to its customers. Documents that definitely need to reach the customer and within a short period of time are sent by postal mail.

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X. Approval Note

REMOS AG hereby certifies the content of this Type Certificate Datasheet (TCDS). In some areas this TCDS supersedes the scope and content of the Maintenance Manual. In these cases this TCDS serves as general Letter of Approval and shall therefore be kept as indefinite attachment to the Maintenance Manual of the aircraft.

released on April 28th, 2015

prepared Christian Majunke
REMOS, Design Engineer

checked Paul Foltz
REMOS, Certification Verification Engineer

released Daniel Browne
REMOS, Head of Office of Airworthiness