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# Survey Report

03.08.2024

Portoroz Marina / Slovenia

## Bavaria C46

*Revision was made on 07.08.2024

## Checks

- Sea trial
- Engine performance and parts
- Keel connection metal parts
- Electric and Electronic check
- Battery system situation
- Structural parts of hull
- Thermal camera control
- Hull inspection from bilge

## 1. General Information

| | |
|---|---|
| Brand of Yacht | **Bavaria C46** |
| Builder | **Bavaria Yachts** |
| CE Certificate | **A – 12 person – 1296 kg** |
| Hull Number (HIN) | [redacted] |
| Builer Country | **Germany** |
| Engine | **Yanmar 4JH80** |
| Engine Hour | **2** |
| Flag | **United Kingdom** |
| Layout | **3 Cabins and 2 toilets (dayhead)** |
| Production year / model | **2024 / 2025** |
| Name of Yacht | [redacted] |
| Length and wide | **14.50m / 4.70m** |
| Fresh water tank capacity | **244lt + 244lt + 310lt, total: 798lt** |
| Fuel tank capacity | **244 lt** |
| Inspection date | **03.08.2024** |
| Weather of inspection date | **1 Bofor / 28° C / %23** |
| Aim of inspection | **Pre Delivery Inspection / New Delivery** |

## 2. Date of Inspection

The boat was delivered by Bavaria Yachts in Portoroz Marina. Inspection was started in Portoroz Marina at 11:00 am 03.08.2024 Saturday. The boat was staying on water. Deck, electronics, water system, engine check, rigging inspection was done first. Sea trial was done at about 13:00 pm. The inspection was finished at about 21:00 pm at night.

## 3. Reporting Method

All the inspection remarks were seen, are shown with colours. These colours are red, orange, yellow and green. Remarks are listed as their importance. Major, safety and important remarks are listed with red colour. You can check the remark colour below.

**RED : SAFETY** All the major, safety and important remarks are listed in this category. Their colour are shown with red. Cracks on rigging system, missing stoppers on rigging, corrosion on keel connection parts, fuel leaks, engine cooling problems, heating on batteries, serious corrosion on underwater valves, steering system problems are listed in this section.

**ORANGE : RISK** These are second level remarks. Equipment is written on boat's configuration, but these are not working. Autopilot, gps, navigation equipment's, wind speed, depth, battery situations, vhf unit, refrigerators and air conditions etc.

**YELLOW : MAINTENANCE** These are third level remarks. These remarks are referred to not working properly equipment's or maintenance needed systems. These are not directly affecting the navigation safety. For example engine maintenance is listed in this level.

**GREEN : MINOR** These are fourth level remarks. These are related from the age of the boat, level difference, scratches and cosmetic issues. Most of these are not important level remarks. Furniture, grp, cushions, hatch cosmetic issues is listed this section.

## 4. Equipment That Used During Inspection

During our checks, Tramex skipper grp moisture meter, Flir C5 thermal viewer, T-Unit voltmeter, T-Unit battery test tool, Led Lenser P7R core hand light, Shore-D strength test kit.

## 5. Technical Terms Used On Report

SOG: Speed over ground

TWS: True wind speed

AWS: Apparent wind speed

HIN no: Serial number of boat

CE: Certification of boats. A,B,C,D

RPM: Revolutions per minute

CCA: Cold cracking ampere

KNOT: Sea mile

LIFTING: Used on rigging system

FURLING: Used on furling sail system

GENOVA: Front sail

LPG: Liquefied petroleum gas

SOH: State of Health (battery)

GRP : Glass reinforced plastic

EMO: Electrical Engineering Associate

ABYC: American Boating And Yachting Council

# 6. Configuration of Boat

| List of Equipment | Brand / Model | Serial Number |
|---|---|---|
| Engine | Yanmar 4JH80 | [redacted] |
| Sail-drive | Yanmar SD60 – 2.49 | [redacted] |
| Battery Charger | Cristec 12V/40A and 12V/60A | [redacted]04-24 |
| Service Battery | 3 x EXIDE DUAL AGM EP1500 – 180A | - |
| Engine Battery | 1 x EXIDE DUAL AGM 95A | - |
| Bow Thruster | 1 x EXIDE DUAL AGM EP1500 – 180A | - |
| Autopilot | B&G and JEFA | [redacted] |
| Mast | Selden Aluminium | [redacted] |
| Sails | Elvestrom Sails | [redacted] |
| Boiler | Sigma Nautic 800W – B04OUC08 | [redacted] |
| Electric Winch | 2 x Lewmar 40 | [redacted] |
| Manual Winch | 2 x Lewmar 40 | - |
| Steering system | Jefa Steering | - |
| AIS | OK, chartplotter | - |
| Fresh Water pump | Jabsco – ParMax 2.9 – 3GPM 31395-7002 | [redacted] |
| Refrigerator (saloon) | Isotherm 12V/120W – 3160BB1CR0000 | [redacted] |
| Seacocks Valves | True design / plastic-teflon metariel | - |
| Propeller | Fixed – Not seen, under water | - |
| Oven | ENO 1312AQ725 | [redacted] |
| Microwave | BOMANN | - |
| Windlass | Quick 1500W DP – 10mm | [redacted] |
| Chartplotter | B&G Zeus 3S 9inch | [redacted] |
| VHF | B&G V60 RAYVHFRS40A 25/1W | [redacted] |

| | | |
|---|---|---|
| AIS | OK, works properly | - |
| Electronics | 2 x B&G Triton2 | [redacted] |
| Bow thruster | Sleipner / SIDE-POWER – SM908401 | [redacted] |
| Anchor & Chain | Delta galvanized anchor, 10mm chain | - |
| Galvanic Isolator | Samlex GI.16 | - |
| Bimini & Sprayhood | Orijinal Grey – Nauti Sattler | - |
| Fridge (cockpit) | ISOTHERM | [redacted] |
| Engine Throttle | Yanmar electronic with emergency | |
| Sound System | Fusion MS-RA770 | [redacted] |
| Toilets | 2 x Jabsco Electric – Quiet Flush Toilet | [redacted] |
| Safety | Four of 2kg fire extingusers, marine hook, 150N automatic life jacket , 6 safety line, 1 fire blanket, manual boat air pump, binnocular. Three hand rocket, two smoke signal, two hand flare, one bucket (SHUTTLE) | - |
| Dingy | IL 230 | [redacted] |
| Air compressor | Scoprega – 1000lt/min | [redacted] |
| Chain counter | NOT OPTION | - |
| Diesel Heater | NOT OPTION | - |
| Radar | NOT OPTION | - |
| Liferaft | NOT OPTION | - |
| Generator | NOT OPTION | - |
| Air condition | NOT OPTION | - |
| Solar Panels | NOT OPTION | - |
| Invertor | NOT OPTION | - |
| Outboard engine | NOT OPTION | - |

## 7. Hull Serial Number



Original HIN(hull) number of boat was located starboard aft side of the boat. The boat started production on 2024 and model of 2025.

Builder certificate plate of boat was located in front of the starboard cockpit area. There is not any damage on it. This boat can navigate with 12 person in oceangoing A category.

## 8. General Condition Of Boat

Bavaria C46, three cabin, two dayheads and one storage room designed. The side hull was perfectly shined, and the boat was cleaned. The saloon's furniture's had not any major damage. These was not any major damage reported on saloon and the cabins. The saloon stairs were in good condition. There was not antifouling protection applied on underwater hull.

## 9. Sea Trial with Engine

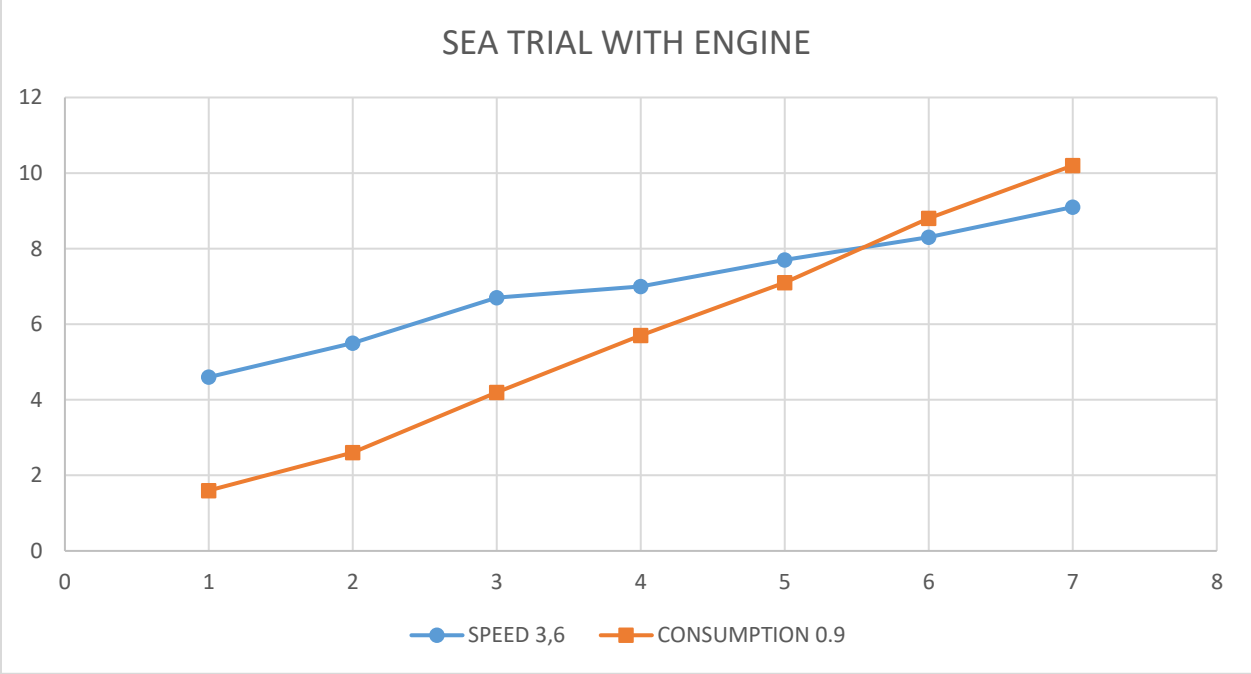
Bavaria C46 had Yanmar 4JH80 model engine. It was located under the saloon stairs. Yanmar had also SD60 transmission system. The engine test was done during sea trial. The engine could achieve 3300rpm ideal rpm level of the engine data sheet. There was not any blue, white, black smoke seen from the engine outlet.

The engine and transmission system was original and installed during the boat's shipyard. The sail-drive rubber had no water leak. It was working properly. Engine didn't have oil leak.

## 9. Sea Trial with Engine

The wind was about 8 knots, there was no wave and signifigant current at sea.

| RPM | SOG | Fuel Consumption |
|---|---|---|
| 1000 rpm | 3.6 knot | 0.9 lt |
| 1400 rpm | 4.6 knot | 1.6 lt |
| 1800 rpm | 5.5 knot | 2.6 lt |
| 2200 rpm | 6.7 knot | 4.2 lt |
| 2400 rpm | 7.0 knot | 5.7 lt |
| 2600 rpm | 7.7 knot | 7.1 lt |
| 2800 rpm | 8.3 knot | 8.8 lt |
| 3300 rpm | 9.1 knot | 10.2 lt |




**Remark 1:** During sea trial, in higher rpm levels, different kind of sound and vibration was felt on cocpkpit. Vibration and strange friction noise was felt while moving the steering wheel after 2300 rpm. This was not normal for a sailboat.

## 10. Battery System

The boat has three battery banks. These are service, engine and bow thruster batteries. The service and engine batteries were located in bilge area, close to the saloon stairs. One EXIDE engine battery 95A and three of EXIDE 180A service batteries were installed properly. Bow thruster battery was located under the bow cabin's berth. These was not observed any heat, liquid leak, shape undulation on batteries.. In general batteries were in good condition. The boat had four service, , one engine battery. All the battery connections were good tighten, protected and torque mark was applied.

| Battery Bank | Piece | Brand | Model | Type | Capacity | CCA |
|---|---|---|---|---|---|---|
| Service | 3 | EXIDE | EP1500 | AGM | 180A | 900A (EN) |
| Engine | 1 | EXIDE | EP800 | AGM | 95A | 850A (EN) |
| Bow thruster | 1 | EXIDE | EP1500 | AGM | 180A | 900A (EN) |

## 11.Anchoring System

The boat had Delta galvanised type anchor, most probably 75 meter chain (not controled) and Quick electric windlass. The windlass was dropped the anchor by loosing it on top by winch handle.

- The type and size of the chain is proper with the windlass. It works properly.
- Windlass can easily take the chain.
- The windlass was sitting properly to its base, not moving.
- The control of windlass was working.
- Chain was new galvanized.

The anchor electronic fuse was started from the saloon electronic control panel. It was touch screen.

**Remark 2:** Windlass sometimes didn't work even the electronic display was in green/open mode in saloon display. We reset the windlass but it didn't work again. When we open the other winch button, it starts working. This is not safe for navigation.

## 12.Rigging and Sails

The boat had aluminum boom and mast. The brand of them was SELDEN. The mast was one piece. The boom was also the same brand. Genoa sail system had furling system, it had no damage. The main sail was furling type. It had also inmast furling system. There was not any major damages on spreaders. The wire connection places had not any little crack. The wires of the rigging had not any serious damage. The forestay was safed with pim and cotter pin. The liftings was looking very new and brand was different.

All the boom connections, liftings, forestay had safety cotter pins. Rivets of the boom and vang connections were in good condition.

**Stay wires** were in good condition.

**Winches:** The boat had four Lewmar winches on deck. Two of the winches had electric type and their size is 50.. The other two winches were working maually. All winches were working properly under the load.

**Rope Clutches:** The rope clutches were spinlock type. The both side had rope clutches. There were not any crack on them, they were in good condition and working properly. Starboard and port side had ten cluthes.

**Deck base blocks :** All the blocks were in good condition and organizing the ropes coming from mast.

**Ropes:** In good condition.

**Vang:** The vang was rodkicker type.

**Rope Organizers:** The halyards coming from the mast, separated with two rope organizers on deck. There were working properly. The blocks on organizers were working freely.

**Mainsail:** The mainsail was Elvestrom made. It had cross cut design. There was not any sail-batten on it.

**Inmast furling system:** Inmast furling system was working properly. There was any damage on furl system.

**Genoa:** Genoa is also Elvestrom brand. It’s design was cross-cut type.

**Genoa traveler system:** The genoa traveler system and blocks were working properly.

**Spreaders:** The spreaders was not any damage or different angle seen on the spreaders.

## 12.Rigging and Sails

**Genoa furling system:** The boat had genoa furling system. The system was working properly. The furling was manual system installed. The brand is Furlex/selden

**Mast:** The mast was Selden. It had one piece. There was not any damage, crack seen on the mast. The mast shape and aft angle, bend was in good condition.

**Boom:** The boat was also aluminum. The hinges, rivets and connections were in good condition. There was not any crack seen on the boom.

## 13.Structural Hull

The bilge and structural hull of the boat was checked. The underwater hull was not painted with anti-fouling paint. The keel connection bolt and nuts were seen and it was in good condition. It had not any rust on them. There were tighten enough. It seemed that the nuts were changed and not original of hallberg Rassy.

## 15.Navigation Equipments

The boat was equipped with B&G electronic system. Electronic were working properly. All the protection covers were on boat.

## 16.VHF

The boat has one VHF system. The brand is B&G. The gps coordinates were seen on VHF unit. VHF is working properly. GPS coordinates were seen on vhf display.

## 17.Autopilot System

Autopiot was tested during the sea-trial. It was working properly.

## 18.Steering System

The boat had one rudder and one steering wheels on cockpit area. It had lewmar electric motor for autopilot and steering system. The system was checked and any defect couldn’t be found.

## 19.Navigation Lights

The boat has four navigation light. Navigation lights (bow, stern, anchor and steaming on mast) with anchor and deck light. They were working but it had some problems.

**Remark 5:** Navigation lights buttons on electronic panel refered the wrong lights on panel boat graphic. If you open navigation light, it showed deck light open. Flood light button controls the navigation lights. Anchor light couldn't be closed.


## 20.Engine and Transmission

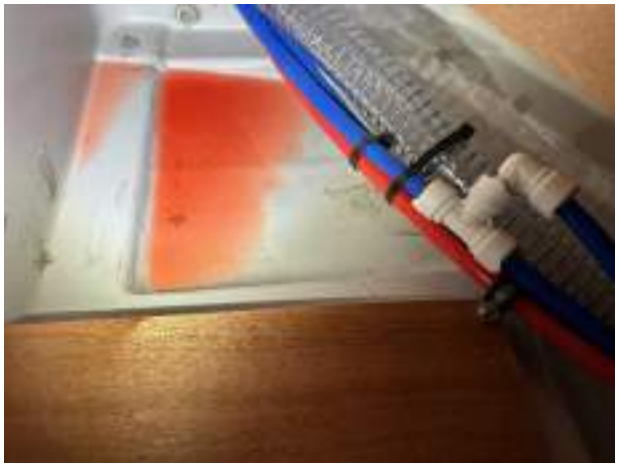
Bavaria C46, had one Yanmar 4JH80 diesel engine inside. The engine power was 80hp. The engine was produced in MAY/2024. It had also Yanmar SD60 transmission shaft system. The engine hour was only two.

Technical data of the engine, the engine can achieve 3200 rpm (rated speed) on maximum condition. The propeller selection must be done with this data. During sea trial, the engine maximum rpm was about 3300 rpm. This was acceptable.

**Engine filters:** Yanmar had original fuel and oil filter on the engine. There was not any leak seen from the filters.

**Sea-water filter:** Sea water inlet filter had on the engine room panel. There was any crack on the filter and inside the filter was clean.

**Antifreeze (coolant) :** The boat had spare coolant tank that was installed on engine room. The coolant was clean and pink cloloured. There was not any leak on the spare antifreeze tank.



**Remark 7:** Too much pink coolent was seen on aft starboard bilge. The root cause couldn't be understood.

**Ventilation fan:** Engine room had a ventilation fan for the fresh air inside the engine room. It was not working properly when the engine starts working.

**Engine oil:** Yanmar engine's oil level was ok.

**Transmission oil:** Transmission oil's level was in proper level.

**Engine labels:** Engine and sail-drive had original labels.

**Engine Vibration pads:** Yanmar engine legs were in good condition. They also had not surface corrosion. There was not any major vibration during sea-trial.

**Engine display:** The engine display was working properly.

## 21.Underwater Valves

The boat's under water valves were in good condition. All of them were plastic. They were truedesign and good quality.

## 21.Underwater Systems

Underwater systems, propeller, sail-drive, keel and rudder couldn't be checked.

## 22. Fuel System

Fuel system couldn't be checked easily. The fuel tank was located under the saloon. Fuel smell and leak was not seen on bilge area. The fuel level couldn't be checked.

## 23. Bow thruster

The bow thruster main unit was located on the forward strorage cabin. It was Side Power brand. It was working properly.

## 24. Boiler

The boat had a boiler system. The boiler was also connected with engine by the coolant system.

## 25.LPG System

LPG system was working properly. The lpg bottle was located outside of the boat. All the connection of hoses and systems were checked. Gas bottles had not any major corrosion or damage.

## 26. Water System

The boat had fresh water tanks and black water system.

It had a fresh water pump behind the saloon sofa on starboard. It was Jabsco PAR MAX 2.9 and was working properly. There was any water leak and dirty filter seen on the fresh water system.

The black water system was also located on dayheads. There were not any leak observed from the black water tanks.

The toilets were also using fresh water.

## 29. Safety Equipments

Four of 2kg fire extingusers, marine hook, 150N automatic life jacket , 6 safety line, 1 fire blanket, manual boat air pump, binnocular. Three hand rocket, two smoke signal, two hand flare, one bucket were seen on board during delivery.

## 30. Furnitures and Cushions

The furnitures had not any major damage or stracth.

## 31. Electronic Panel

Salon electronic panel was broken before the sea trial to Türkiye. When we were sitting at night about 11:30 pm, we realised that the salon electronic display starts flipping and stop working.

## 32. Other

Re[redacted]
the bo[redacted]


## 32. Remarks

| | |
|---|---|
| 1 | Vibration and strange noise was felt during moving the steering wheel after 2300 rpm. Also wavy sea condition, without moving the steering wheel, it made the same problem. |
| 2 | Windlass sometimes didn't work even the electronic display was in green/open mode in saloon display. We reset the windlass but it didn't work again. When we open the other winch button, it starts working. This is not safe for navigation. The electric service came at 16:00 pm on 05.08.2024 and put a thin red cable behind the panel to positif dc electric bar. They solved the problem by making a short cut and we think that was not so safe for us. **New panel arrived and changed by electrician at about 12:30 pm on 07.08.2024. The test will be done during sea-trial.** |
| 3 | The salon electronic panel's display was broken and start making flipping. The water tanks level, fuel tank level couldn't be checked anymore. Also, all the bow thruster, windlass and anchor can be controled from there. We couldn't control these systems from panel. **New panel arrived and changed by electrician at about 12:30 pm on 07.08.2024. The test will be done during sea-trial.** |
| 4 | Electrical winches also stopped in time by itself in time. We heard the electronic fuse's shut down noise. |
| 5 | Bow thruster will shut down after a while in electronic panel by itself. We heard the electronic fuse's shut down noise. This is not safe for navigation. **New panel arrived and changed by electrician at about 12:30 pm on 07.08.2024 but bow thruster still had problem.** |

| | |
|---|---|
| 6 | Navigation lights buttons on electronic panel refered the wrong lights on panel boat graphic. If you open navigation light, it showed deck light open. Flood light button controls the navigation lights. Anchor light couldn't be closed. **New panel arrived and changed by electrician at about 12:30 pm on 07.08.2024 but navigation lights still had problem.** |
| 7 | Boat is heeling 0.8 degree to starboard. It was calculated 3cm difference from the aft platform. |
| 8 | Too much pink coloured coolent was seen on aft starboard bilge. The root cause couldn't be understood. The test will be done during the transfer. |
| 9 | Aft Isotherm fridge cable connection had little water leak. |
| 10 | Bow cabin's door had friction while closing. It may caused by rigging tension. This will be checked after sea-trial to Türkiye. |
| 11 | Aft cockpit port and starboard table level was not straight. The tables start bending. |
| 12 | Port toilet's sink base was too ugly. Forward was not the same. |
| 13 | Little damages were seen on aft platform |
| 14 | The flag pole was on port side. |
| 15 | Edge areas of the all stainless guard rails |
| 16 | Aft cockpit table's light button's oring was damaged. |
| 17 | Aft cockpit table's one screw was not tigthten enough. |
| 18 | Door stopper white parts were not finished enough. |
| 19 | When you open the sallon sliding door, ıt made high friction noise. |
| 20 | Bimini's starboard side not tighten enough. |
| 21 | Aft cabin doors start bending from its top sides. |
| 22 | Aft shower base automatic drain work slowly. |
| 23 | Water was seen on the bilge. The root-cause couldn't be understood. We clean the water by ourself. |
| 24 | The starboard side of sail lines were almost same clour. (blue/white) Not easliy remarked. |
| 25 | The cockpit cushions and navigation table area were not installed and moving. |
| 26 | [redacted] |
| 27 | Owners manual was not on board. **07.08.2024 last minute, it was given to us. Why?** |
| 28 | After the boat arrives to Türkiye, all the remarks will be reported that will be occurred during the transfer after 1000 nautical miles. |

## 33. Conclusion

All the systems on boat were checked during the inspection. Sea trial was done, the boat was checked at Portoroz Marina. Remarks and photos were attached this report.

Structural hull and under-water of the hull couldn't be checked. The noise and vibration issues during sea trial was the highest level problem. The electronic main systems and display had problems. Tank levels couldn't be seen and main electric parts like anchor, bow thruster had problems. Also windlass had some problem about proper working.

07.08.2024 new saloon electronic panel was changed but the problem couldn't be solved totally.

This report is prepaired by independent ABYC surveyor of Deniz Giray.

Deniz Giray

ABYC Surveyor – 68626611

Member Directory - The American Boat & Yacht Council (abycinc.org)

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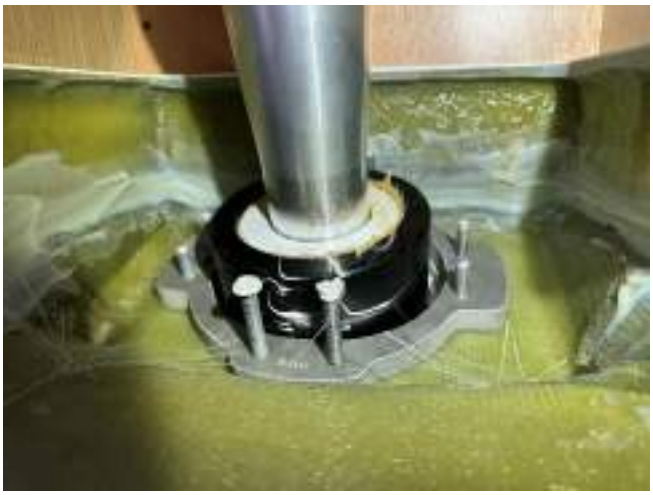

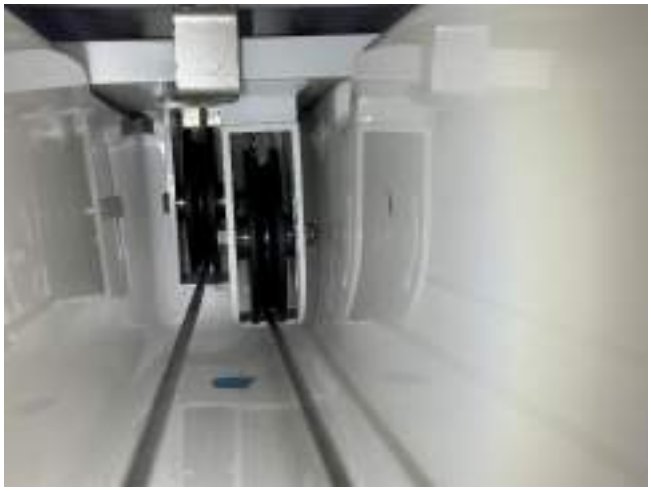


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START
FWD
STOP
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