

Assembly Instructions Cavalon

Use S.VB6011 Loctite 243 blue

243

Use S.VB6013 Loctite 638 green

638

Use S.VB6015 Loctite 221 red

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Use S.VB6010 Loctite 2701 green

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Use S.VB6016 Loctite 542 red

542

Use S.VB6005 HHS2000 oil

HHS

Use S.VB6007 WHS2002 grease

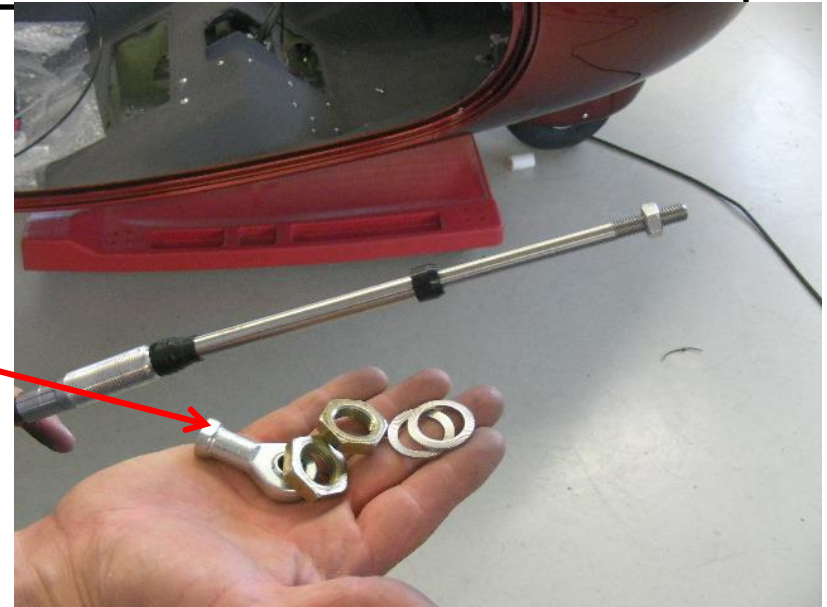
WHS

Use S.VB6009 Bond and Seal Power

KDP

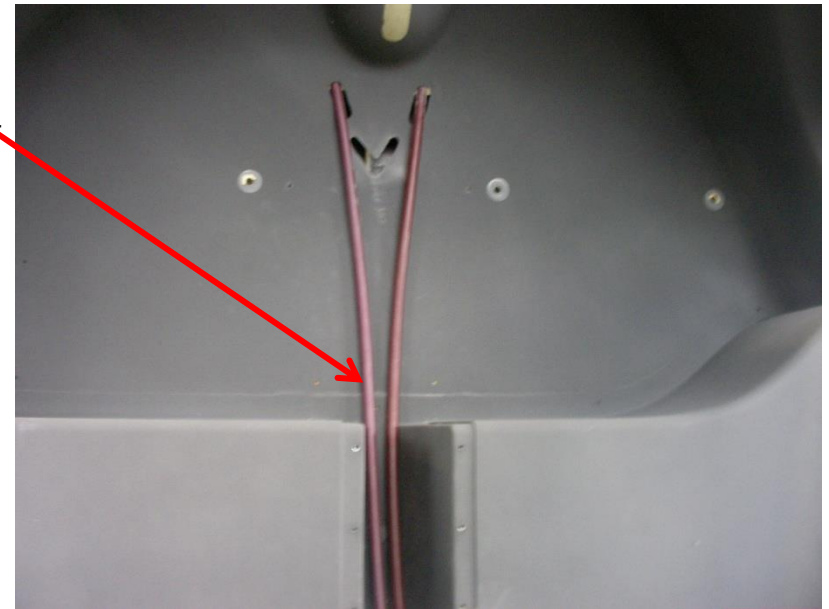
1.1000.1 – Push-pull cable roll / pitch

- V.ST301 Push-pull cable roll
- V.ST302 Push-pull cable pitch
- Remove the nuts and serrated washers
- Insert both cables from above into the mast
- Pitch (right side of mast)
- Roll (left side of mast)

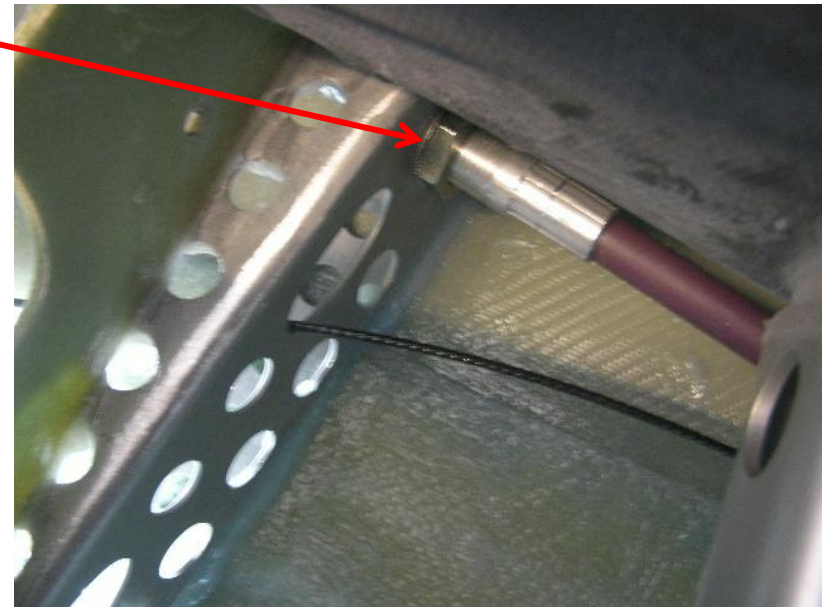


1.1000.2 – Push-pull cable roll / pitch

- Feed the push-pull cables through their respective cut-outs in the body into the cabin area and down into the center channel (the cables cross in the center channel).
- Cables are tightened once length adjustment has been made.
- Push-pull cables lay flat on the rear bulkhead.



Roll -> left Pitch -> right



1.1000.3 – Push-pull cable roll / pitch

- Position the rudder and PPC's so that they run parallel and only cross x 1
- Secure in position with cable-ties.

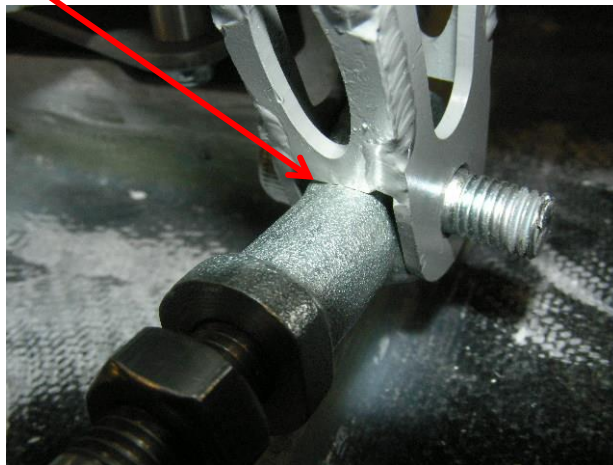
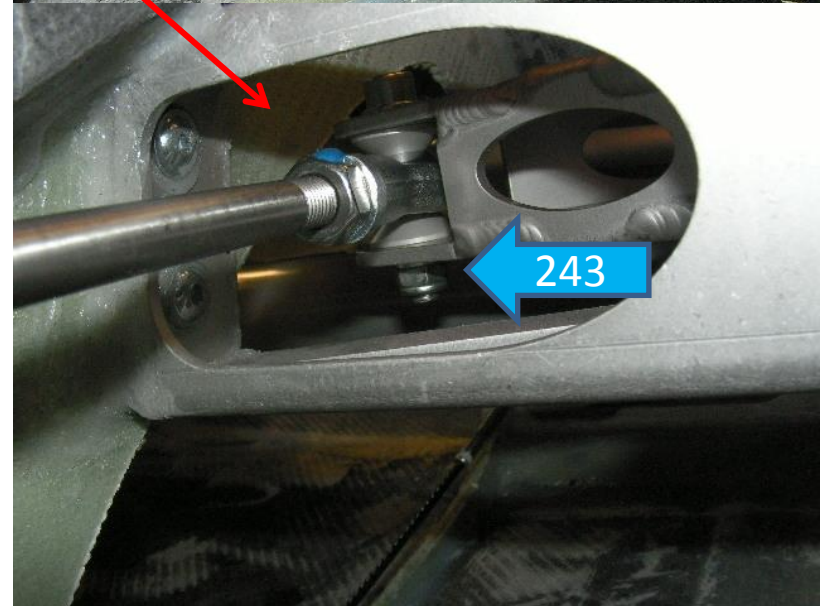
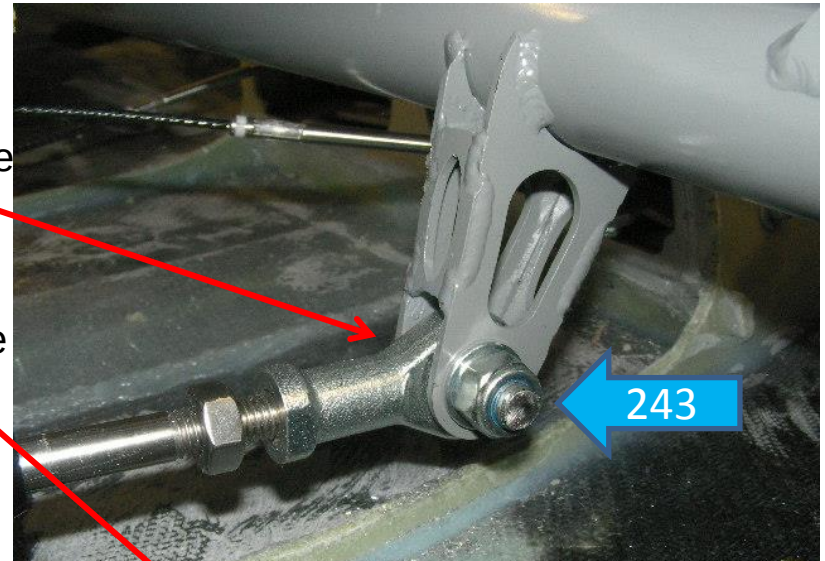


1.1000.4 – Push-pull cable roll / pitch

- Assemble the PPC's in their respective positions.
- The eye-ends are screwed on 8 threads!
- Assemble the pitch PPC on the main control rod with the bolt inserted inboard to outboard. Ensure the horn does not foul on the eye-end. Contour if required.
- Assemble the roll PPC to the roll lever with the screw inserted from above and the washer under the nut.

Warning!!!

Ensure that the roll cable eye-end is free to move in the fork at its end position!



General Information

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 - from left to right
 - from above to below
 - from front to rear
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 - are always given in the direction of flight (i.e. left = left side of the aircraft facing in its flight direction)
- **Each step/section is to be signed for in the relevant documentation immediately on completion of that step/section**
- Unless otherwise stated in the text, the following torque settings should be used:

M4:	4Nm
M5:	6Nm
M6:	10Nm
M8:	25Nm
M10:	35Nm

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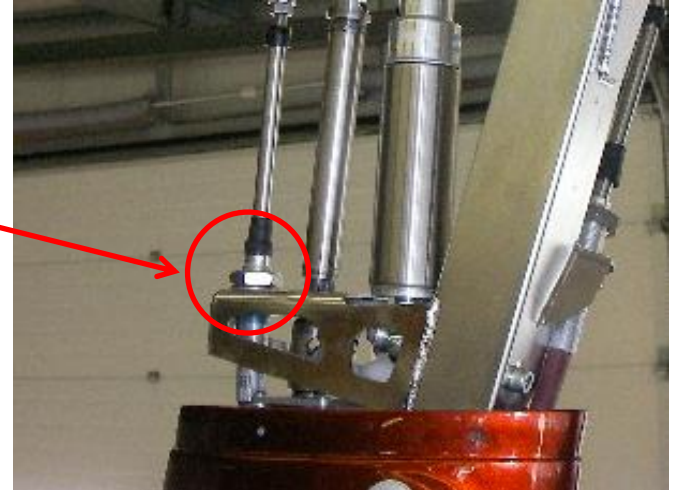
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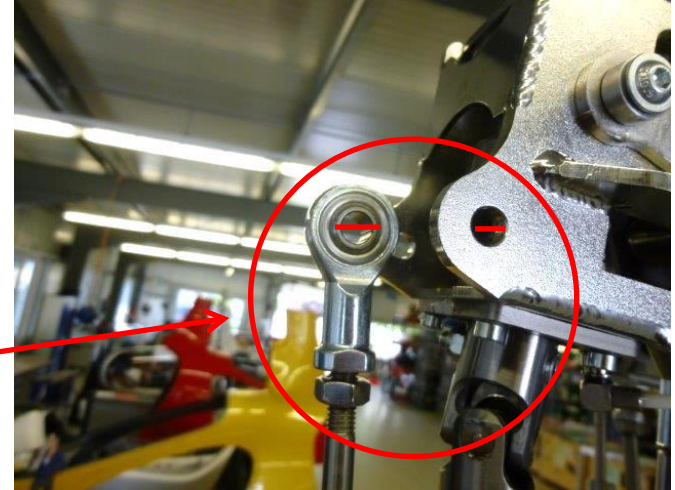
1.1300.1 - Push Pull Cable

- V.ST302 - push pull cable pitch
- Mount M8 and friction washer 18 (V.ST302) with **35 Nm** similar as shown (ca. 2 threads over Nut) on the Traverse
- Ensure that the PPC is not under tension
- **Caution:** min. 1,5 thread have to rest over the nut



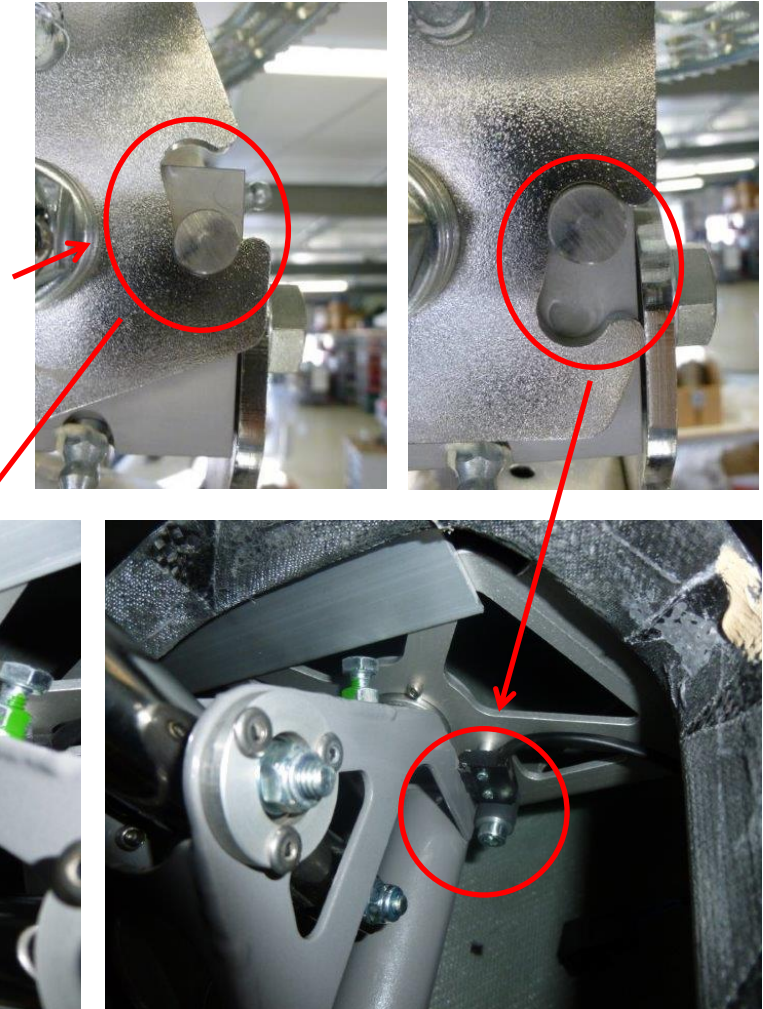
1.1300.2 - Push Pull Cable

- V.ST302 - push pull cable pitch
- V.RK210 - Rotorhead II assembled
- Remove Rodend Pitch from the Rotohead and mount on the PPC Pitch (V.ST302)
- Adjust Rodend Pitch so that Bore Rodend match with the bore Rotorhead when the Rotorhead is complete pitch to the **front** and **full move out PPC**
- **Caution**: Rodend must to be screwed **min. 8 threads**
- Fix Rodend Pitch similar as shown with Distance (V.RK210) to the Rotorhead



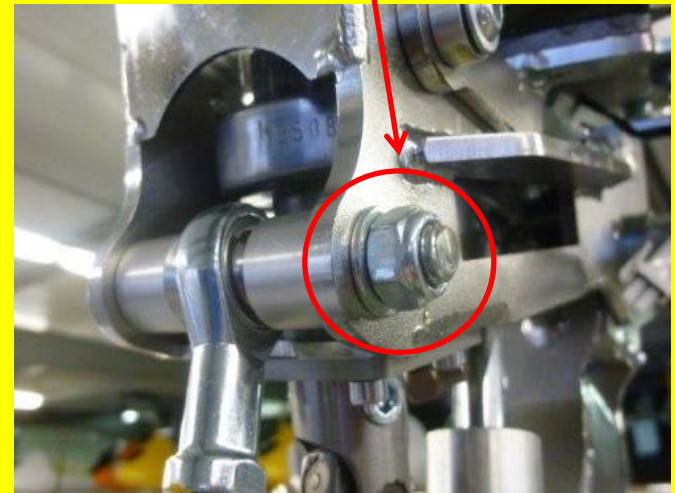
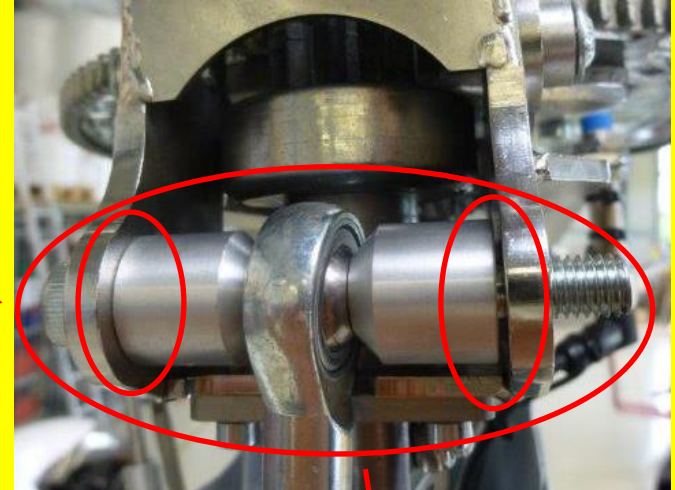
1.1300.3 - Push Pull Cable

- V.ST302 - push pull cable pitch
- V.RK210 - Rotorhead II assembled
- Adjust Rotorhead with the Rodend so that with the Stick at first the Stop in the Rotorhead **front** and **back** aim should be and then the Stop in the base control unit
- Fix the Rodend with the counternut



1.1300.4 - Push Pull Cable

- V.RK210 - Rotorkopf II montiert
- Mount Rodend PPC Pitch with Distance (V.RK210) into RK, adjust play centric with the Shim ring (V.RK210), mount all with M8Si + U8 (V.RK210) and **25Nm**



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1.1500.1 – Push-pull cable check

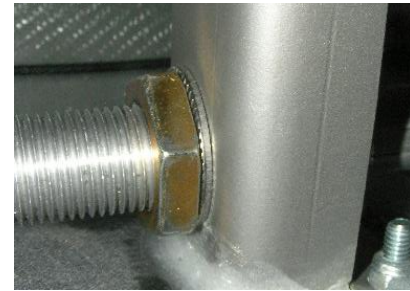
- Check rotor head angles:
 - Angles in the lateral axis
 - Roll Tolerances:
 - Left 8,75 degrees +/- 0,75
 - Right 7,5 degrees +/- 0,75
 - measure the angle of the center channel

Center channel < 0 degrees	Center channel > 0 degrees
Rotor head angle + center channel angle	Rotor head angle – center channel angle

- Pitch - Tolerances:
 - Rear 20,5 degrees +0,5/ -0,75
 - Forward - 4 degrees +/- 0,75

1.1500.2 – Push-pull cable check

- Tighten the PPC connections forward in the body.
- Check that the rubber dust covers are seated correctly
- Mark all PPC connections with mechanic safety laquer.



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1.2000.1 - Shell Chec

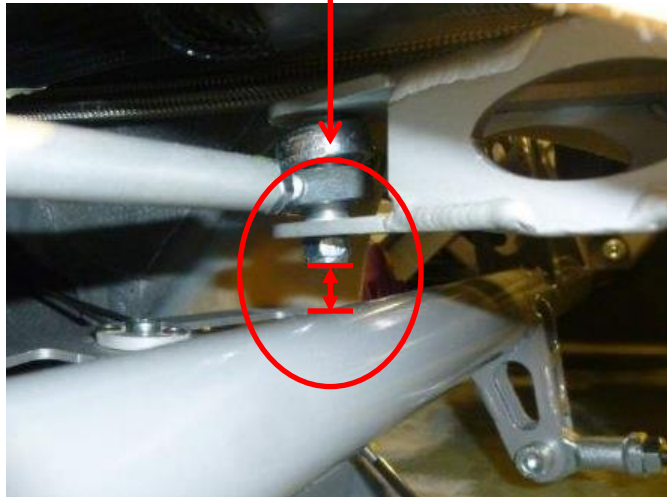
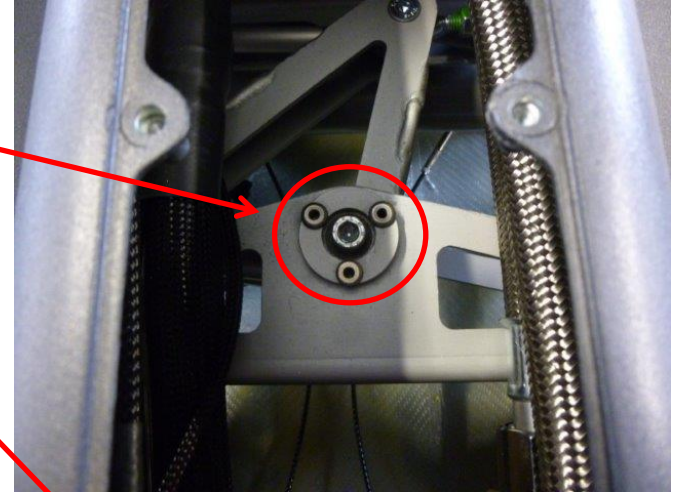
Check Control elements :

- Remove Plug below
- Check pedal lever assembly
- 2x U6
- See Thread offer securing area M6 Si (ca. 1,5 Threads)
- Mount Plug again
- Check base control unit assembly L&R on the bracket



1.2000.2 - Shell Check

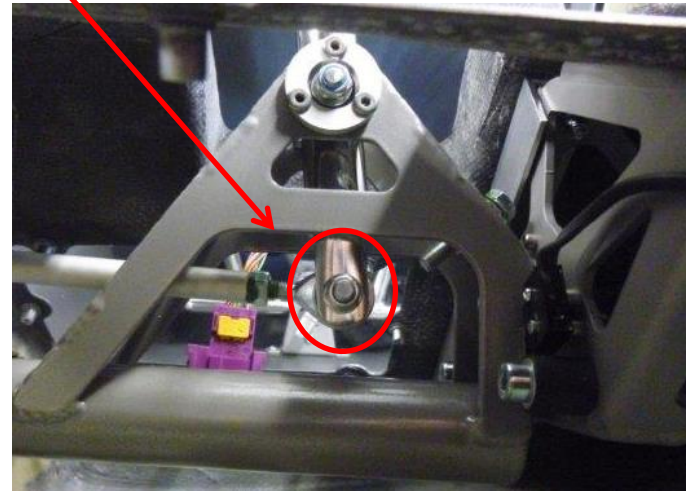
- Check correct Roll lever assembly
- Check clearance Roll lever to base control unit



1.2000.3 - Shell Check

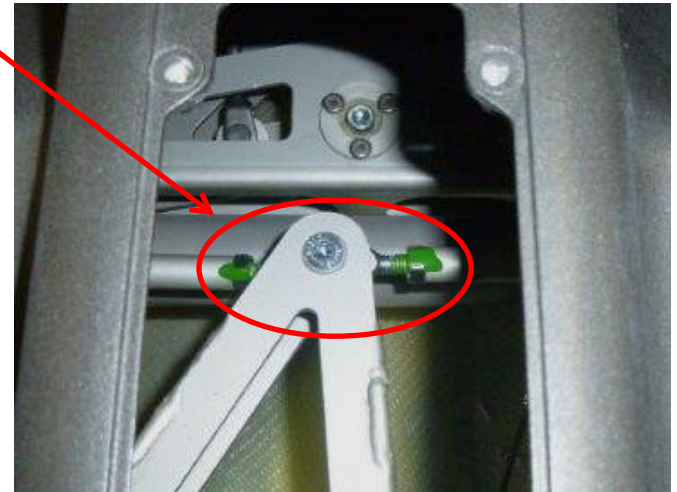
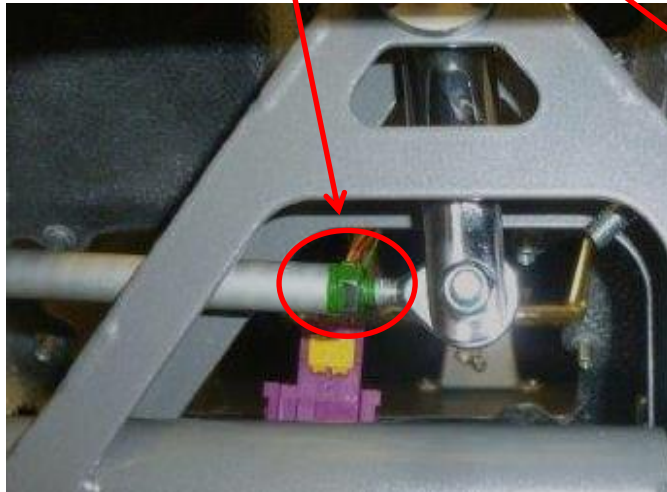
Check Stick assembly:

- Stick assembly on base control unit
- Assembly and clearance of the Rod end on the Stick in all various position of the Stick



1.2000.4 - Shell Chec

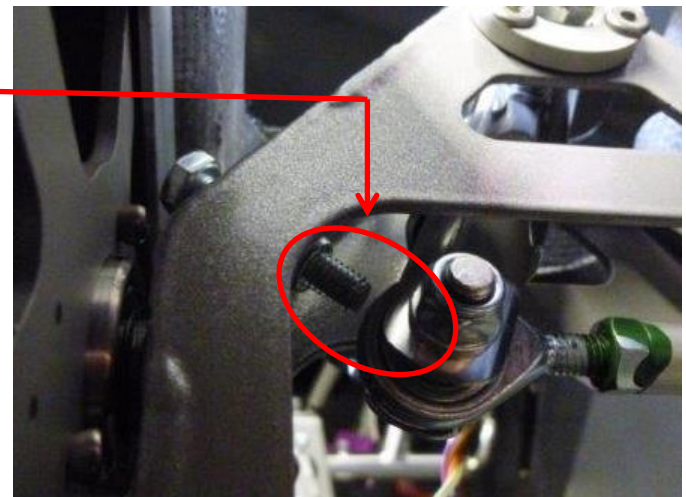
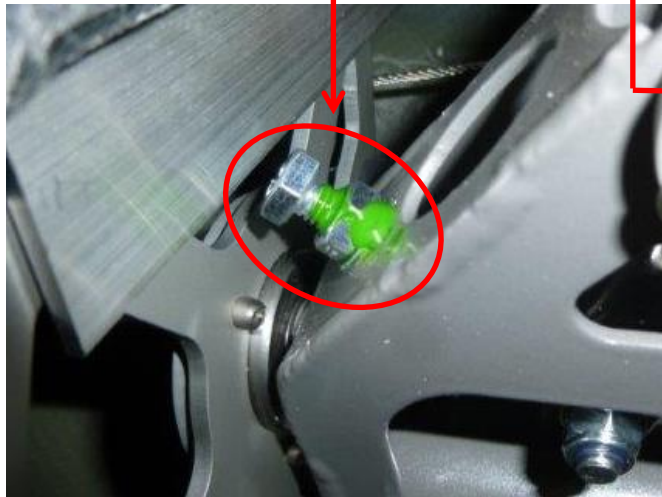
- Check fixed assembly and clearance of the Rod ends on the Roll lever in all various Stick position
- Check counter nuts and mechanic paint marks on the push rods



1.2000.5 - Shell Check

Check Stick Function:

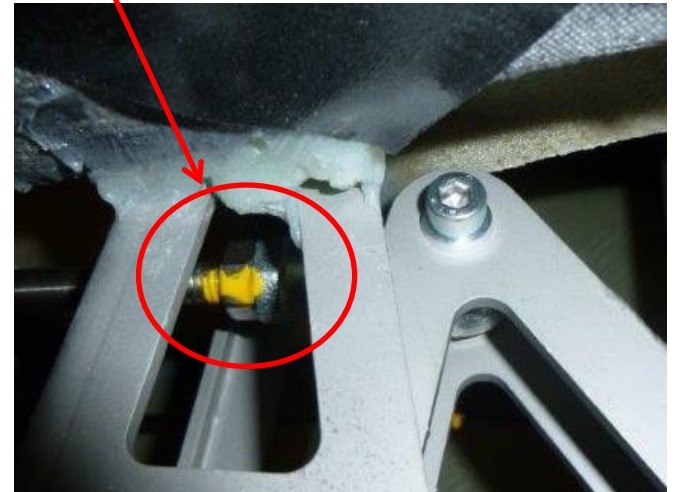
- No free play of the Sticks to each other
- Check Stick stops L & R in the base control unit, (first notice Stop at the Rotorhead, than mechanical Stop in the base control unit, the way from first to second stop should be L&R the same), adjust Stops if necessary
- Fix Counter Nut of the Stops and mark with Mechanics paint



1.2000.6 - Shell Check

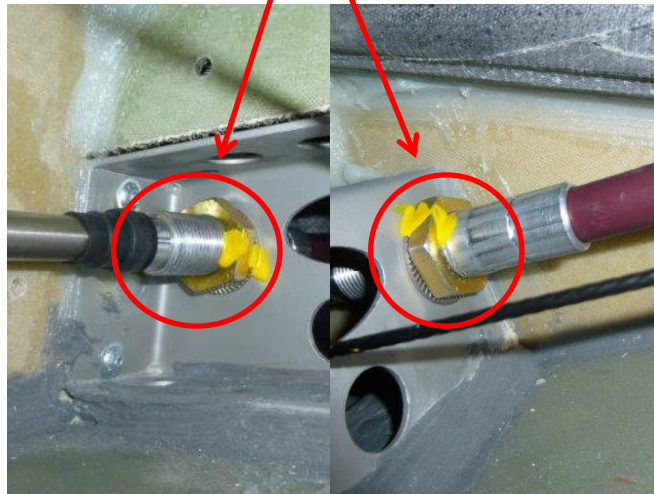
Check PPC Rotorhead / PPC Rudder:

- Check tension-free mounting of the PPC Roll ball end on Roll lever, check counter and mechanic paint on ball end PPC Roll
- Check mounting and mechanic paint PPC Roll on the Pushcable bracket in the central tunnel



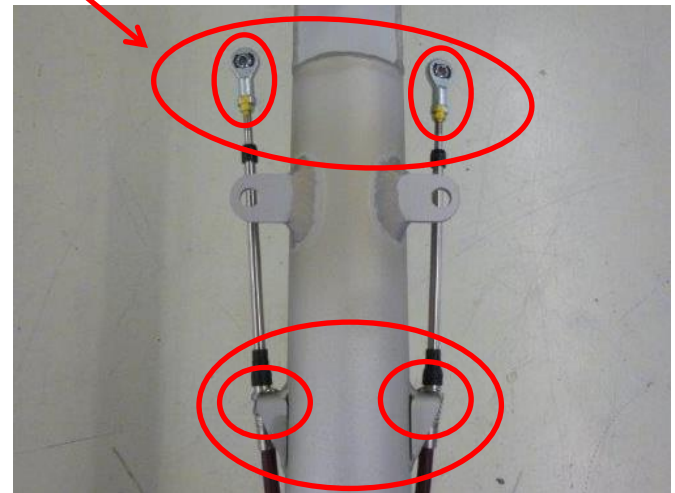
1.2000.7 - Shell Check

- Check tension free Ball end mounting on base control unit, check Ball end clearance on the lever at Stick position rear
- Check counter and mechanic paint at PPC ball end
- Check correct assembly and mechanic paint PPC Nick at the frame in the centre channel



1.2000.8 - Shell Check

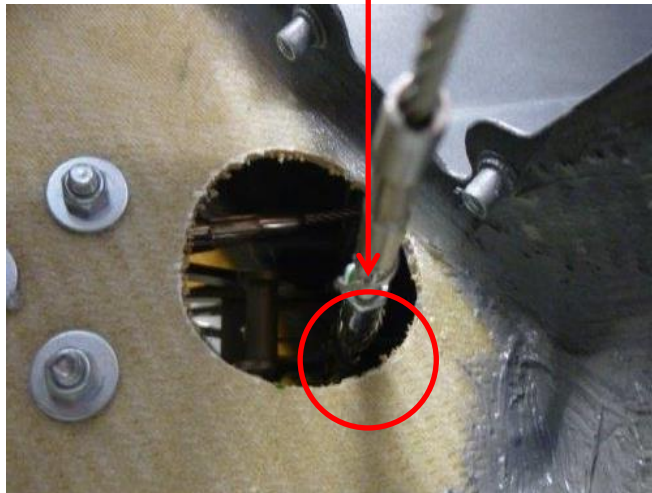
- Check correct assembly and mechanic paint on the Ball ends PPC Rudder on of the pedal lever
- Check correct assembly and mechanic paint on the PPC Rudder at the Keel tube, check Wire locking function
- Check correct assembly and mechanic paint on the PPC Rudder at the frame in the centre channel



1.2000.9 - Shell Chec

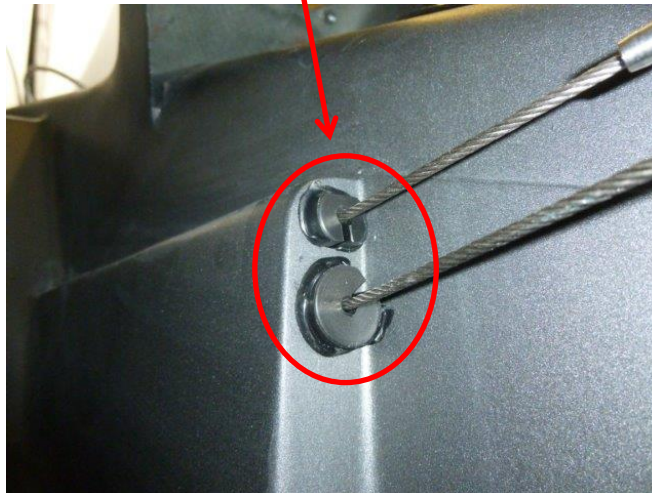
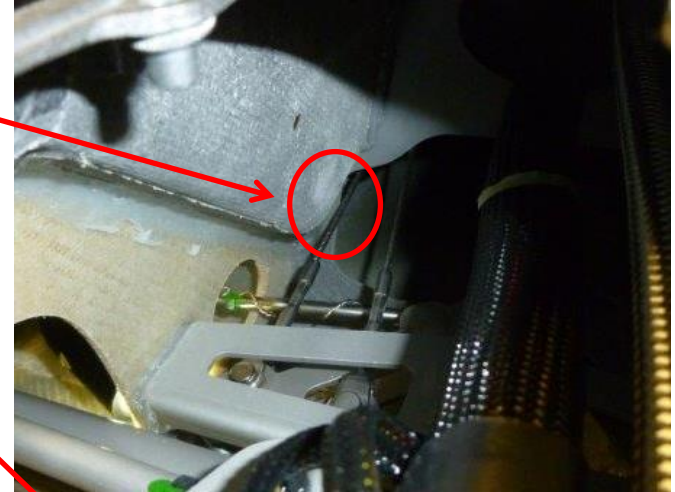
Check control cable pedal:

- Check control cable assembly in the front
- Check counter of tumbuckles, function of the Wire locking and mechanic paint mark
- Tumbuckles must have under load min.5mm clearance to the frame



1.2000.10 - Shell Chec

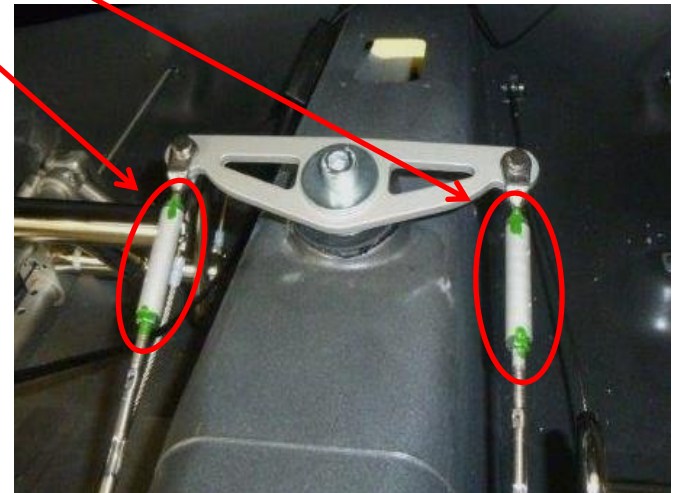
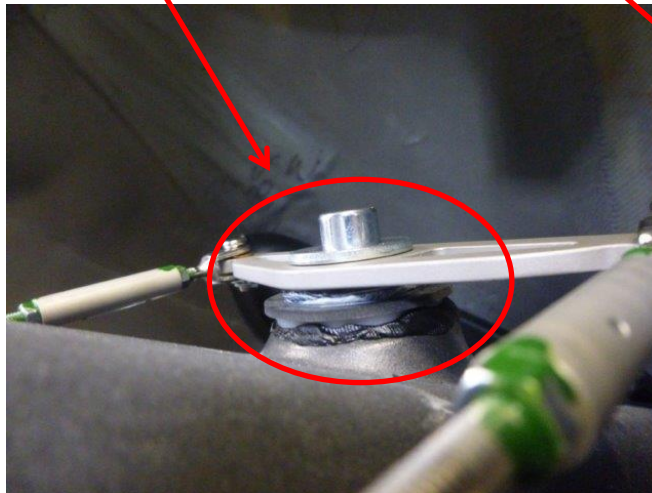
- Check clearance off inner control cable pedal (centre channel) to the frame by full-scale deflection pedal
- Check solid and correct position of the bushes (Bush cut shows opposite direction of load)
- Cables must be free movable in the bushings



1.2000.11 - Shell Chec

Check Nosewheel steering:

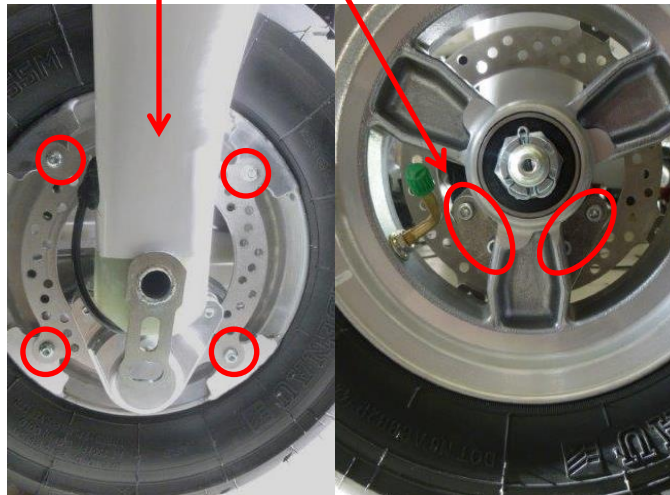
- Check correct assembly of control cable Nose wheel at the Nose wheel steering
- Check counter of the turnbuckle and mechanic paint mark
- Check gab below the Nose wheel steering under load **max. 2mm**



1.2000.12 - Shell Chec

Check Undercarriage:

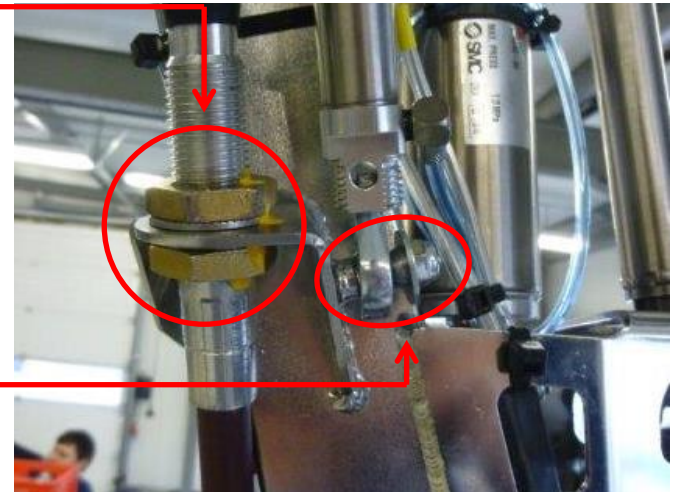
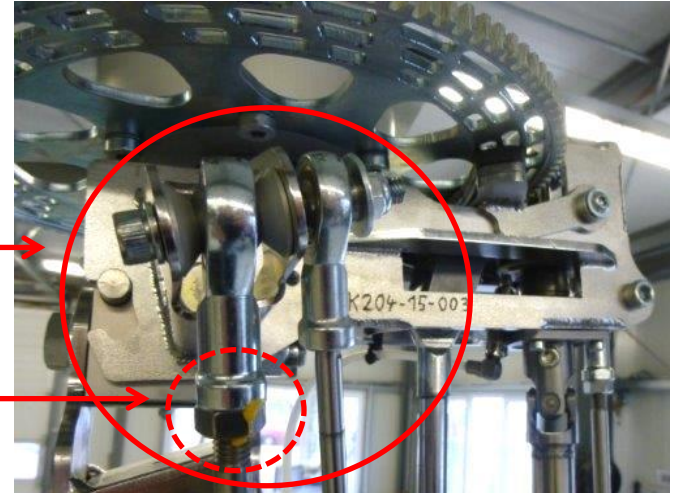
- Check Nose wheel, correct assembly and slip mark
- Check rear wheels, correct assembly (Splint), slip mark and if necessary running direction
- Check correct assembly Break calibre and the correct assembly Break disc on the rim



1.2000.13 - Shell Chec

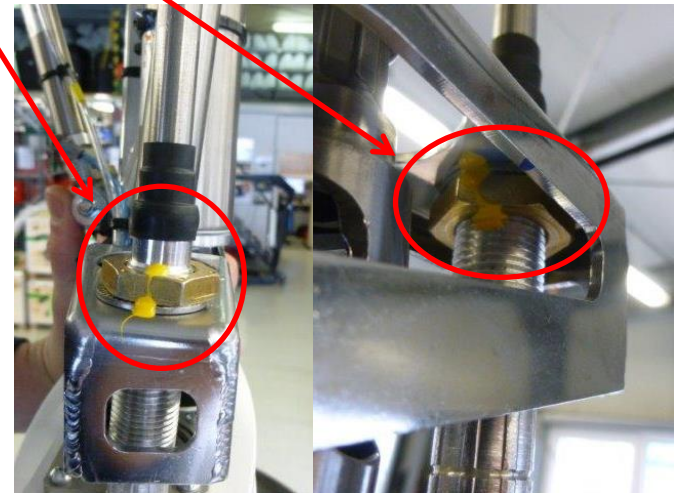
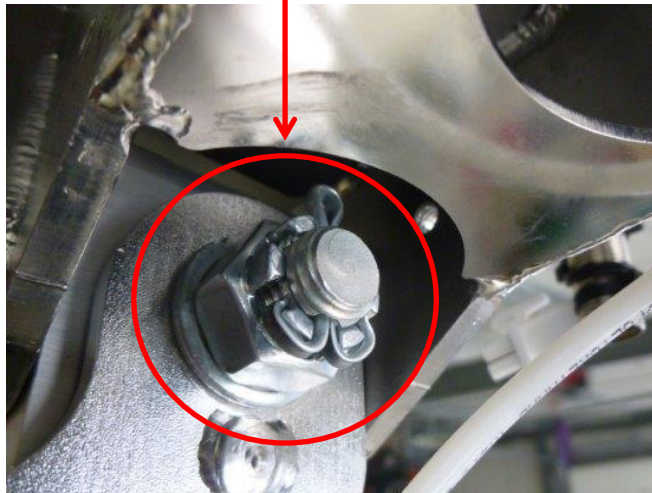
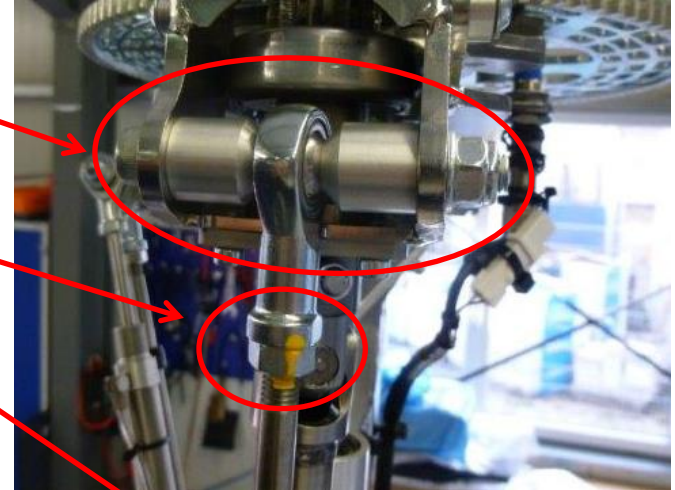
Check Mast and Rotorhead:

- Ball end PPC Roll correct assembly and installed free moveably in all Positions off the Rotorhead, Ball end Roll/Trimm Cylinder free moveably in all Positions off the Rotorhead
- Check counter and mechanic paint mark at the Ball end PPC Roll
- Check assembly and mechanic paint mark PPC Roll on the Mast
- Check assembly Roll/Trimm Cylinder on the Mast



1.2000.14 - Shell Chec

- Check correct assembly Ball end PPC Nick and clearance to the Rotorhead by full-scale deflection back & forth
- Check counter and mechanic paint mark
- Check correct assembly PPC Nick on the Mast and mechanic paint mark
- Check correct assembly of Splint safeguard on the crown nut



1.2000.15 - Shell Chec

- Check clearance around the mast to the fuselage



1.2000.16 - Shell Chec

- Check PN - Tubes of kink-, squash- and chafer free laying in all Rotorhead positions
- Check locking varnish on the union nuts

