

29 Feb 2024

Pilots reported aircraft not holding heading with small amount of feedback in pedals. Aircraft was inducted into scheduled maintenance on Work Order AC9319290224. Found Yaw brake required adjustment as it was too loose. Andrew Newman adjusted the Yaw brake and I SMC'd. I installed Tail Boom vertical fairing and vertical fin cowling. Aircraft was then released for an operational check flight. Aircraft failed operational check flight for the same discrepancy. Wrote up same discrepancy in work order. Wrote up to check SEMA angle verification and yaw flex ball cable verification. Wrote up the following discrepancies to facilitate that maintenance. Tail vertical cowling, the tail boom fairing, fwd belly panel, and flex ball ends disconnected. I Adjusted the yaw sema angle, and flex ball cable friction. Tail cable friction was on the high side but just inside the limits. Andrew Newman SMC's my work. I then installed the Tail vertical cowling, Fwd belly panel, and flex ball ends, Pilot seat, and Andrew Newman SMC'd my work. Released aircraft for another operational check flight. Aircraft check flight was found to be unsatisfactory. Placed write up in Work Order and placed Tail Rotor Flex ball cable on order. I did this due to experiences in the past and the flex ball cable causing feedback in the cable. I then wrote up the Tail Vertical Cowling, Fwd Belly panel, Tail Flex cable ends disconnected, Pilot Seat, L/H Transmission cowlings, #2 Hydraulic pump, and tail rotor rig verification, Left and Right aft upper and lower engine cowlings, R/H interior panels, Metro Interior floor, and R/H interior access panel covers require removal to facilitate other maintenance.

04 Mar 2024

Martin Eisenhower with help of other mechanics installed the tail rotor flex ball cable and went thru and SMC's all the work. During the install Erik Parrot found two adel clamps with torn rubber, he installed them and I SMC'd them. I also SMC'd the fwd belly panel installation, Tail flex ball cable at both ends connections, The pilot seat install.

Kenny White was tasked with performing Tail Rotor rig verification during after the install of the flex cable, I SMC'd the tail rig verification. After all maintenance completed and documentation signed off, I released the aircraft for another operational check flight. Same results as before with not holding heading and small feedback in pedals. I wrote up the discrepancy in the work order.

05 Mar 2024

Decided to replace the Yaw Sema which Andrew Newman and Martin Eisenhower handled. I wrote up the following Removals to facilitate with that maintenance. Tail Vertical Fin Cowling, Fwd Belly Panel, L/H transmission cowling, #2 Hydraulic Pump, and tail rotor requires rig verification. Upon completion of work and documentation I released the aircraft for test flight. Weather was a factor, and no further test flights conducted this day.

06 Mar 2024

Operational test flight this morning the same results as before with no holding heading and small feedback in pedals. Called Airbus for assistance with next step in troubleshooting. Was asked to find the tail rotor break out forces in a hover. I wrote up installation of Co Pilot dual controls to perform the test. Continued test and found break out forces were within allowable ranges. Still having the issue, I discussed with the Lead Technician about checking the tail rotor blade mount forks for friction. Proceeded with this test and I wrote up removal of blade mounting forks. During the check I asked technician Andrew Newman to pull the T-Bolt to the sliding sleeve to verify friction there as well. However, I did not make the write up for this in the

Work Order. Not intentionally, I just forgot to go back and add this to the work order. I might of added the references in the work order sign off with the blade fork sign off, I'm not for sure of this. I did add the references for removing the PC links that are part of that task. I SMC'd the installation of the blade mount forks along with PC links. I did find one of the PC links not safetied upon the SMC and had mechanic fix on the spot. I did miss the SMC on the T-bolt as I did not have it written up in the work order. I released the aircraft for flight after completion of work and documentation. The test flight was unsatisfactory, and discrepancy was written up in the work order. Decision was made between the Lead technician and myself to replace the Trim Actuator next. I wrote up the trim actuator removed serviceable as we did not know if it was indeed a bad trim motor. I wrote up the fwd belly panel. Andrew Newman installed the Trim motor removed from A/C S/N 9353. Upon completion of the work and documentation of the work, I released the aircraft for another operational test flight. Operational check was completed and found satisfactory, and the aircraft was released for return to service. I scanned the work order and logbook pages to metro Records department.

The above information is to the best of my knowledge and memory.

Chad Messmore 08 Mar 2024

On 29th of February AC S/N got inducted into maintenance for Weight and balance and possible feedback in the pedals during takeoff. On that day I inspected the yaw break and found that it was pretty loose and adjusted it accordingly per the AMM. Another theory as to why there might have been feedback in the pedals was the yaw SEMA being angled incorrectly and hitting the vertical fin cowling during movement and upon inspection we noticed that it was possible, under the right pressure, that this could occur and the angle was adjusted to the proper angle per the AMM and I looked at the SEMA and the attaching points after the maintenance was completed and also along with other mechanics made sure that the SEMA wasn't hitting the cowling.

Also on the 29th I performed a secondary maintenance check on the following: vertical fin cowling installation, tail boom fairing installation, tail rotor flexball ends being re-connected, verified the friction of the flexball cable, and the installation of the pilot seat.

On the 1st of March I performed a secondary maintenance check on the following: forward belly panel installation.

None of the maintenance performed at this point seemed to have much effect on the feedback of the pedals.

On 4th of March I performed the following maintenance tasks per the AMM: removed and installed the fwd belly panel, connected both ends of the tail rotor flexball cable, removed and installed the pilot seat, removed and reinstalled the center and RH interior panels.

Also on the 4th of March I performed a secondary maintenance check on the following: installation of the left and right hand aft engine upper and lower cowlings, installation of the #2 hydraulic pump, installation the RH floor access covers, and the tail boom fairing.

The problem with the feedback on the pedals stayed throughout our efforts and it was purposed that the SEMA itself may be the issue.

On the 5th of March I Removed and Installed the vertical fin cowling, the YAW SEMA and performed a verification of the tail rotor control rig.

Also on the 5th of March I performed secondary maintenance check on the following: LH transmission cowling bonding strap and installation of the cowling itself, installation of the #2 hydraulic pump, and installation of the forward belly panel.

Problem with feedback in the pedals persisted but also the helicopter wouldn't hold heading when power was given by the collective lever. At this point it was suggested that we take a look at the tail rotor blade mounting forks and the trim motor be replaced to further troubleshoot the problem.

On the 6th of March I removed the tail rotor swashplate T bolt to be able to twist the blades and check for out of roundness of the blade cuffs. I also removed, cleaned, inspected and installed the tail rotor blade mounting forks, before installing the tail rotor mounting forks another mechanic had told me that he had put the T bolt back in the swash plate to help hold the tail rotor head in position while I installed the mounting forks. I then removed the forward belly panel, and installed the yaw trim actuator pulled off of AC S/N 9353 and then installed the forward belly panel.

During the test flight there was no feedback felt in the pedals and the pilot talked about how smooth they felt and the heading hold issue was gone. We were able to pull up the collective and the helicopter would respond and hold heading like it should.



08 MAR 2024

I had help Andrew Newman install the tail rotor blade cuffs and pitch control rods. When doing so, I noticed the tail rotor bell crank T Pin was not installed. The T Pin not installed allows the sliding sleeve to fully rotate around the tail rotor shaft. Andrew was trying to connect the pitch controls rods and was having difficulty. I told him that I would install the T-Pin and hardware so that the sliding sleeve was in the proper location. I only put the pin in and installed the two bolts finger tight. When I told him I was doing that, he acknowledged me and continued working. I was then instructed by Chad Messmore to remove the yaw trim servo from N191LL and install it into N193LL to isolate the trim motor itself. Once I removed it from N191LL and installed N193LL and immediately pushed N193LL outside for an operational check flight. When I was complete with that operational check flight, maintenance had just been completed on N191LL. It was pushed out for its operational check flight. I never returned to N191LL and did not think to go back and check the T-Pin to see if he had installed it properly. I assumed it would have been installed properly by Andrew or Chad, since they were the two working on the tail rotor. I was only helping Andrew install the tail rotor blades and cuffs because I was waiting for N193LL to be pulled in and Chad was on the phone with who I assume was the Airbus Rep. Looking back I should have made continuity with Andrew and verified the proper discrepancies were annotated in the work order.

Discrepancies I completed and signed off:

26: Left and right hand aft engine upper and lower cowlings require removal to facilitate other maintenance.

28: Metro interior medical floor requires removal to facilitate other maintenance

29: R/H floor access covers require removal to facilitate other maintenance

30: Tail boom fairings require removal to facilitate other maintenance

33: #1 L/H XSMN Cowling bonding strap removed and installed on N193LL

36: FWD lower belly panel requires removal to facilitate other maintenance

41: Copilot dual control yaw pedals require install to assist with gathering yaw brake out forces

SMC's I completed:

10: MAI Company memo 24MM-02 due for compliance

19: Tail vertical cowling requires removal to facilitate other maintenance

23: L/H Main transmission cowling requires removal to facilitate other maintenance

40: MGB oil level is high

I wrote what I remembered to the best of my knowledge.

Adam Herbert 07 Mar 2024

9319, Feb and March 2024

29 Feb 2024 I helped Chad adjust the angle of the Yaw SEMA away from the Tail vertical fairing. There were some marks inside the cowling that indicated that at some point in the past the SEMA had rubbed against the cowling.

04 March 2024 I worked along with several people in our crew to change the Yaw Flexball cable after finding that the old one had several spots of high resistance in it. Checked the tail rotor rigging once it was installed.

05 March 2024 I assisted Andrew in replacing the Yaw SEMA with a repaired SEMA which we ordered from MAI. Checked the tail rotor rig after installing it.

06 March 2024 After the Yaw Servo was changed by some other people in our crew, I went along on a test flight in at the Indianapolis DTH, hover only. We did several low and high hovers. The pilot reported that the pedals felt normal and the aircraft held heading during the flight, with the usual amount of collective input.



07 Mar 2023

Aircraft inducted into maintenance with T/R pedal issue. 29Feb2024

I helped replace the T/R flex ball cable at tail boom/battery location area. 04Mar2024

I helped with setup of T/R rigging procedures. 05Mar2024

I performed the SMC for the installation of the Yaw Trim Actuator from AC 9353. 06Mar2024

I switched from SP to DP collective lever in belly panel for dual control installation. 06Mar2024

I removed the dual control pedals from AC 9353 to be installed on AC 9319 for maintenance test flight for breakout forces. 06 Mar2024

I assisted with installing and removing the FWD belly panel for the last time 06Mar2024

I completed the SMC of FWD belly panel after install. 06Mar2024

I replaced (Qty:2) flex ball mounting clamps at tail boom behind battery location. 04Mar2024

I installed the FWD belly panel for the first installation. 29Feb2024

Filled out yellow tags for the Co-Pilot dual controls.

Assisted with removal and installation of the medical floor.

To the best of my knowledge and memory this is what I completed for AC 9319

Signed: Erik S. Parrott. Dated: 07Mar2024

Thursday, 29FEB2024, I removed and reinstalled the LH & RH transmission cowlings and the #2 hydraulic pump so the grinder could be attached to run hydraulics for system checks.

Monday, 04MAR2024 I removed and reinstalled the LH transmission cowling and the #2 hydraulic pump along with the grinder to run hydraulics for system checks and performed the tail rotor flight control rigging verification.

Tuesday, 05MAR2024 I removed and reinstalled the LH transmission cowling and the #2 hydraulic pump so the grinder could be attached to run hydraulics for system checks.

Wednesday, 06MAR2024 I SMC'd the installation of the copilot dual control yaw pedals.

[REDACTED]

[REDACTED] 7 MAR 2024