

NOTICE

Revision 7 updates the Tail Rotor Pitch Change Procedures in Chapter 64.

Please incorporate these updates into the Maintenance Manual in accordance with the Log of Pages (attached).

Bell Helicopter would also like to thank its Customers for providing us with Customer Feedback information. This information is very much appreciated and allows us to improve the quality of our manuals with each revision.

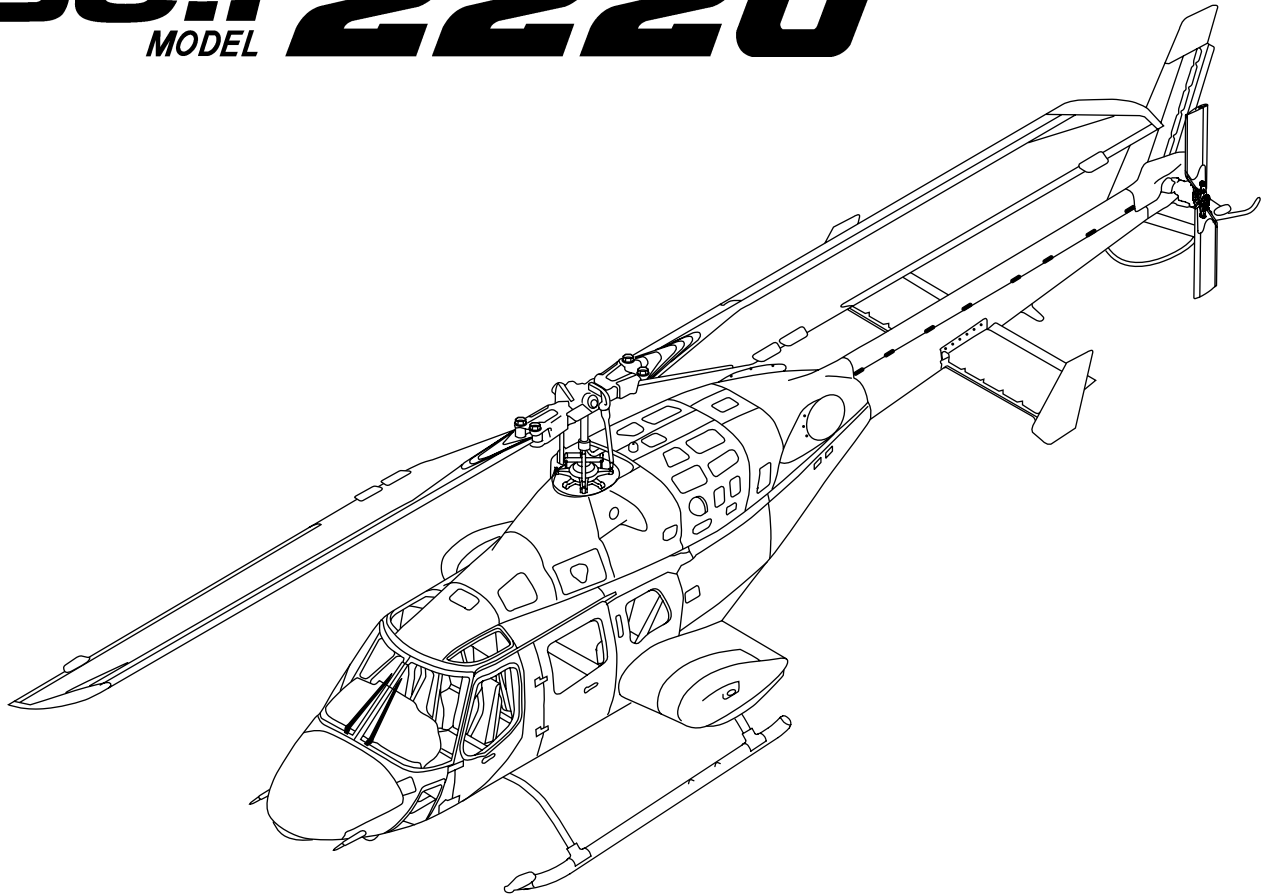
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POST OFFICE BOX 482 • FORT WORTH, TEXAS 76101

12 FEBRUARY 1998
REVISION 7 — 15 DECEMBER 2006

Bell MODEL **222U**



MAINTENANCE MANUAL

VOLUME 1

GENERAL INFORMATION

NOTICE

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LOG OF REVISIONS

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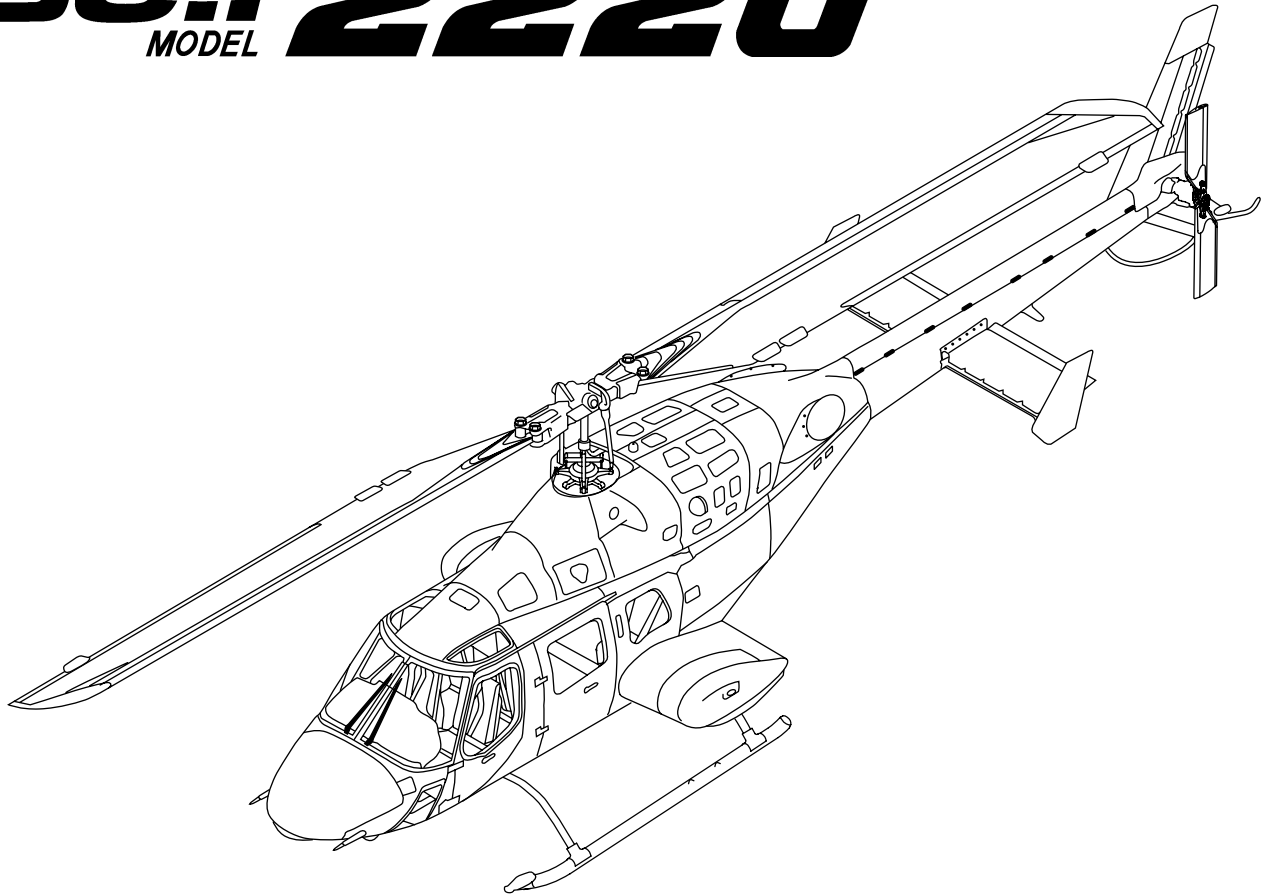
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Bell MODEL **222U**



MAINTENANCE MANUAL

VOLUME 7

TAIL ROTOR/ TAIL ROTOR DRIVE SYSTEM

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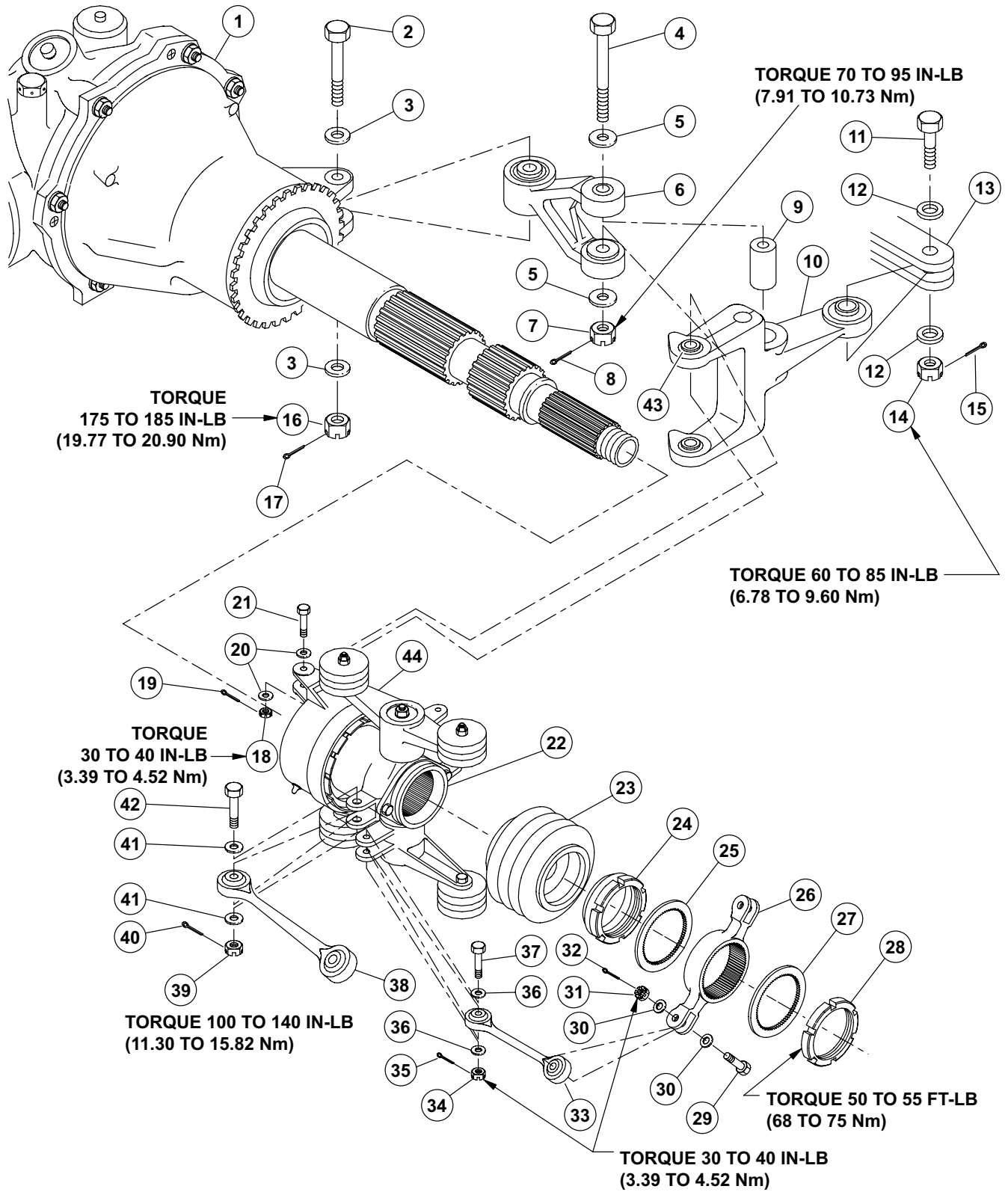
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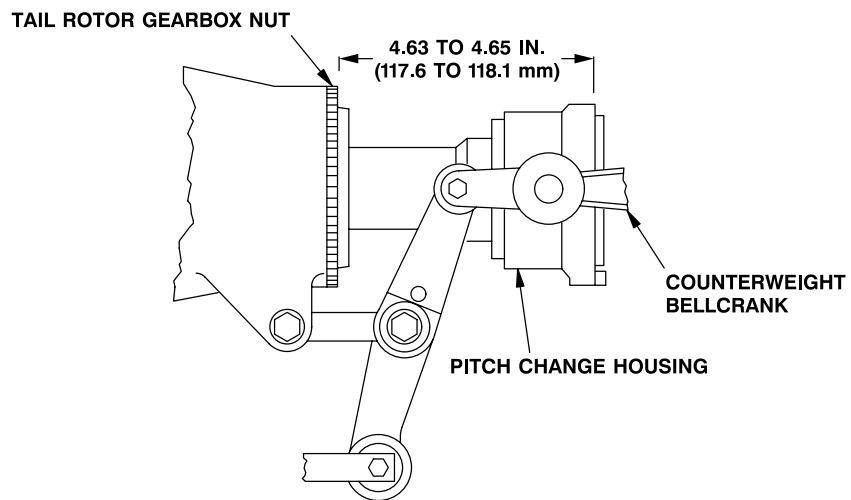
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Figure 64-6. Tail Rotor Pitch Change Mechanism (Sheet 1 of 2)

- | | |
|-------------------------|-----------------------------|
| 1. Tail rotor gearbox | 23. Boot |
| 2. Bolt | 24. Nut |
| 3. Washer | 25. Lockplate |
| 4. Bolt | 26. Support |
| 5. Washer | 27. Lockplate |
| 6. Idler | 28. Nut |
| 7. Nut | 29. Bolt |
| 8. Cotter pin | 30. Washer |
| 9. Inner race | 31. Nut |
| 10. Lever | 32. Cotter pin |
| 11. Bolt | 33. Counterweight link |
| 12. Washer | 34. Nut |
| 13. Control tube clevis | 35. Cotter pin |
| 14. Nut | 36. Washer |
| 15. Cotter pin | 37. Bolt |
| 16. Nut | 38. Pitch link |
| 17. Cotter pin | 39. Nut |
| 18. Nut | 40. Cotter pin |
| 19. Cotter pin | 41. Washer |
| 20. Washer | 42. Bolt |
| 21. Bolt | 43. Bearing |
| 22. Control assembly | 44. Counterweight bellcrank |

Figure 64-6. Tail Rotor Pitch Change Mechanism (Sheet 2 of 2)

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Figure 64-7. Tail rotor pitch change mechanism positioning

(5) Move the tail rotor through the full flap range. Verify at both full flap positions. Verify if the tail rotor yoke touches the flapping stop (21, Figure 64-1) before it touches the nut (28, Figure 64-6). If the tail rotor yoke contacts nut (28) before contacting the flapping stop (21, Figure 64-1) and a gap exists between the tail rotor yoke and the flapping stop, yoke replacement or yoke rework is required. Contact BHT Product Support Engineering.



WIRE TYPE FEELER GAUGES MUST BE USED FOR THIS APPLICATION.

DUE TO POSSIBLE VARIATIONS IN PARTS TOLERANCES, THE MEASURED GAP REFERENCE IN [STEP \(6\)](#) SHALL BE THE SMALLEST GAP THAT IS MEASURED AT ANY LOCATION BETWEEN THE TAIL ROTOR YOKE AND NUT (28, [FIGURE 64-6](#)) WHEN THE TAIL ROTOR ASSEMBLY IS MOVED THROUGH THE FULL FLAP RANGE AT BOTH FULL FLAP POSITIONS.

NOTE

Adjusting nuts (24 and 28) to obtain a 0.020 to 0.030 inch (0.50 to 0.76 mm) gap between the tail rotor yoke and nut (28) will result in a minor misalignment of the counterweight bellcranks (44) in relation to the tail rotor gearbox output shaft. This is acceptable.

(6) If the smallest gap between the tail rotor yoke and nut (28) is between 0.020 inch (0.50 mm) and 0.030 inch (0.76 mm), proceed to [step \(7\)](#). If a gap of 0.000 to 0.019 inch (0 to 0.48 mm) exists between the tail rotor yoke and the nut (28), adjust nuts (24 and 28) until a gap of 0.020 to 0.030 inch (0.50 to 0.76 mm) maximum exists between the tail rotor yoke and nut (28).

(7) Hold nut (24) in this position and torque nut (28).

(8) Shear edges of lockplates (25 and 27) into slots of nuts (24 and 28).

e. Connect each counterweight link (33) to support (26) with bolt (29), washers (30), and nut (31). Torque nut (31). Install cotter pins (32).

f. Position boot (23) over flange of nut (24) and secure with lockwire (C-447).

10. Connect pitch links (38) to control assembly (22) with bolt (42), washers (41), and nut (39). Torque nut (39). Install cotter pins (40).

11. Connect pitch links to tail rotor hub and blades (paragraph 64-8).

12. Lubricate tail rotor and pitch change mechanism (Chapter 12).

13. Perform operational check (paragraph 64-5).