

## NOTICE

This Revision 15 is a general update of Chapter 5 to include the intent of TB 230-08-41.

Please incorporate Revision 15 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.

***Bell*** Helicopter

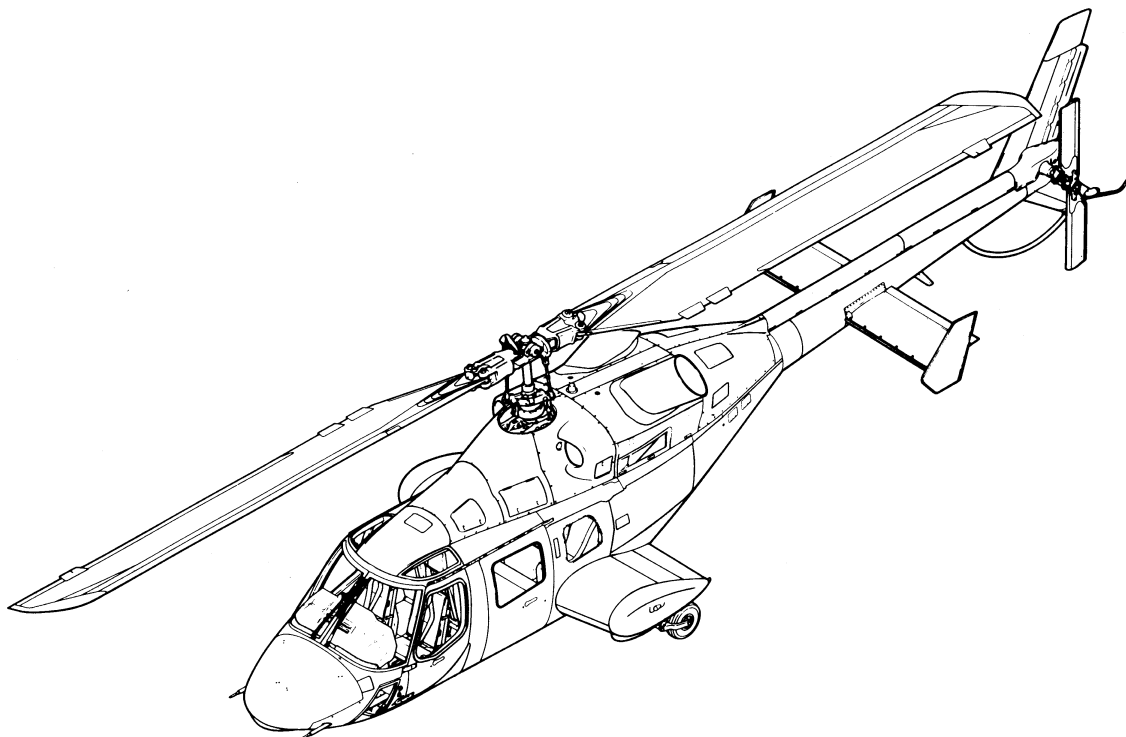
A Textron Company

POST OFFICE BOX 482 • FORT WORTH, TEXAS 76101

**12 MARCH 1992**  
**REVISION 15 — 12 SEPTEMBER 2008**



# **Bell** MODEL **230**



## **MAINTENANCE MANUAL**

### **VOLUME 1**

## **GENERAL INFORMATION**

#### **NOTICE**

The instructions set forth in this manual, as supplemented or modified by Alert Service Bulletins (ASB) or other directions issued by Bell Helicopter Textron Inc. and Airworthiness Directives (AD) issued by the applicable regulatory agencies, shall be strictly followed.

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**LOG OF REVISIONS**

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## **SPARE PARTS WARRANTY**

### **ONE YEAR/1,000 HOURS PRORATED**

**WARRANTY AND REMEDY:** Seller warrants each new helicopter part or helicopter part reconditioned by seller to be free from defect in material and workmanship under normal use and service and if installed on Bell model helicopters. Seller's sole obligation under this warranty is limited to replacement or repair of parts which are determined to Seller's reasonable satisfaction to have been defective with 1,000 hours of operation or one (1) year after installation, whichever occurs first and reimbursement of reasonable freight charges. After 200 hours of use, there will be a prorated charge to the Purchaser for replacement parts (prorating the hours of total use against the then applicable part life or 2,000 hours, whichever is the lesser). Defective parts must be reported in writing to the Seller's Warranty Administration within 90 days of being found defective. Replacement of parts may be with either new or reconditioned parts, at Seller's election. Warranty adjustment is contingent upon the Purchaser complying with the Warranty Remedies as described in the Commercial Warranty Information brochure and the Seller's Warranty Administration disposition instructions for defective parts. Failure to comply with all of the terms of this paragraph may, at Seller's sole option, void this warranty.

**NOTE:** Parts, components and assemblies of all new helicopters may have been restored or reworked due to marks, blemishes, dents or other irregularities during the manufacturing process. Such restoration and/or rework is permitted under Seller's approved manufacturing and engineering processes and guidelines. The restoration and/or rework so completed does not render such items defective in material or workmanship.

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This warranty is the only warranty made by Seller. The Purchaser's sole remedy for a breach of this warranty or any defect in a part is the repair or replacement of helicopter parts and reimbursement of reasonable freight charges as provided herein. Seller excludes liability, whether as a result of a breach of contract or warranty, negligence or strict product liability, for incidental or consequential damages, including without limitation, damage to the helicopter or other property, costs and expenses resulting from required changes or modifications to helicopter components and assemblies, changes in retirement lives and overhaul periods, local customs fees and taxes, and costs or expenses for commercial losses or lost profits due to loss of use or grounding of helicopters or otherwise.

Seller makes no warranty and disclaims all liability in contract or in tort (delict), including, without limitation, negligence and strict tort (delictual) liability, with respect to work performed by third parties at Purchaser's request and with respect to engines, engine accessories, batteries, radios, and avionics, except Seller assigns each manufacturer's warranty to Purchaser to the extent such manufacturer's warranty exists and is assignable.

This warranty shall not apply to any helicopter part which has been repaired or altered outside Seller's factory in any way so as, in Seller's judgment, to affect its stability, safety or reliability, or which has been subject to misuse, negligence or accident, or which has been installed in any aircraft which has been destroyed unless that helicopter has been rebuilt by Bell. A list of destroyed aircraft is obtainable from Bell Product Support. Repairs and alterations which use or incorporate parts and components other than genuine Bell parts or parts approved by Bell for direct acquisition from sources other than Bell itself are not warranted by Bell, and this warranty shall be void to the extent that such repairs and alterations, in Seller's sole judgment, affect the stability, safety or reliability of the helicopter or any part thereof, or damage genuine Bell or Bell-approved parts. No person, corporation or organization, including Bell Customer Service Facilities, is authorized by Seller to assume for it any other liability in connection with the sale of its helicopters and parts.

NO STATEMENT, WHETHER WRITTEN OR ORAL, MADE BY ANY PERSON, CORPORATION OR ORGANIZATION, INCLUDING BELL CUSTOMER SERVICE FACILITIES MAY BE TAKEN AS A WARRANTY NOR WILL IT BIND SELLER.

Seller makes no warranty and disclaims all liability with respect to components or parts damaged by, or worn due to, corrosion. Seller makes no warranty and disclaims all liability for consumables (wear items) which are defined as items required for normal and routine maintenance or replaced at scheduled intervals shorter than the warranty period. "Consumables" include but are not limited to engine and hydraulic oil, oil filters, packings and o-rings, anti-corrosion and/or sealing compounds, brush plating material, nuts, bolts, washers, screws, fluids, compounds, and standard aircraft hardware that is readily available to aircraft operators from sources other than Seller.

All legal actions based upon claims or disputes pertaining to or involving this warranty including, but not limited to, Seller's denial of any claim or portion thereof under this warranty, must be filed in the courts of general jurisdiction of Tarrant County, Texas or in the United States District Court for the Northern District of Texas, Ft. Worth Division located in Ft. Worth, Tarrant County, Texas. In the event that Purchaser files such an action in either of the court systems identified above, and a final judgment in Seller's favor is rendered by such court, then Purchaser shall indemnify Seller for all costs, expenses and attorneys' fees incurred by Seller in defense of such claims. In the event Purchaser files such a legal action in a court other than those specified, and Seller successfully obtains dismissal of that action or transfer thereof to the above described court systems, then Purchaser shall indemnify Seller for all costs, expenses and attorneys' fees incurred by Seller in obtaining such dismissal or transfer.

January 2007



## BULLETIN RECORD

This Bulletin Record provides a current listing of applicable bulletins that have been incorporated in this manual. Subsequent applicable bulletins will be incorporated in future revisions/reissues.

### ALERT SERVICE BULLETINS

ASB NUMBER	SUBJECT	DATE
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### TECHNICAL BULLETINS

TB NUMBER	SUBJECT	DATE
230-06-40	T/R Blades 222-016-001-139 and -141 and Tail Rotor Yoke Assy 222-012-702-113, Introduction of	02 June 2006
230-08-41	Main Rotor Mast Assembly (Torquemeter) Seven Calendar Year Inspection, Increase of	9 September 2008

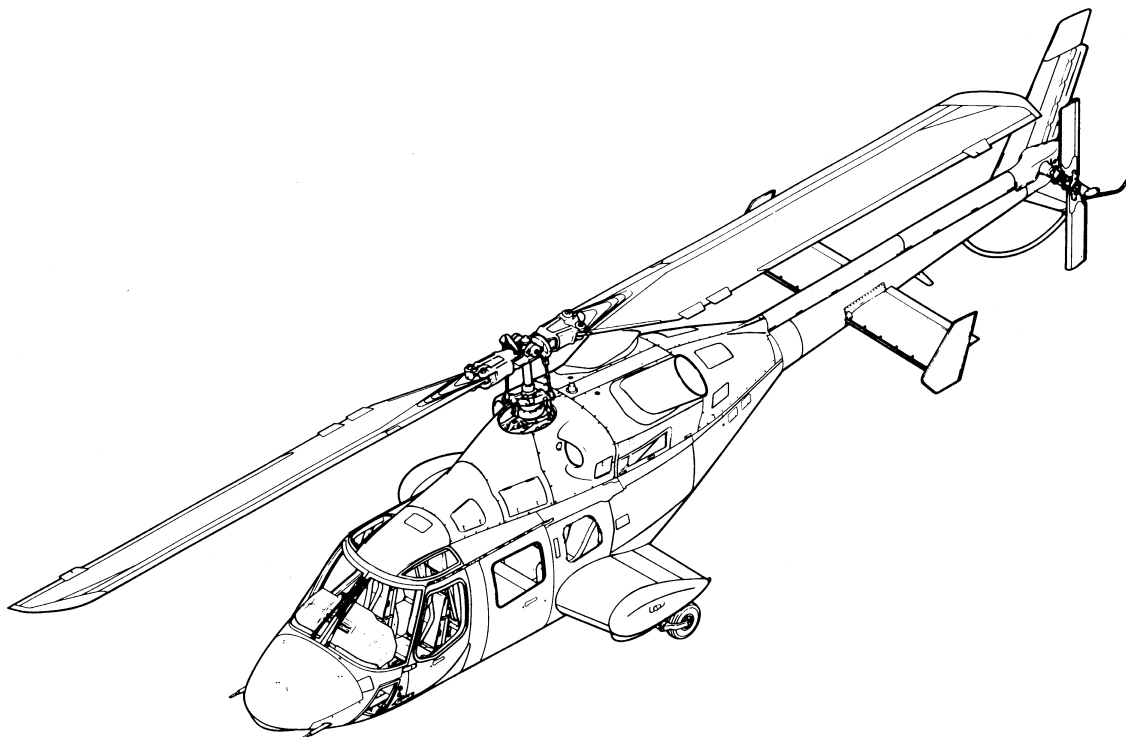
**TEMPORARY REVISION RECORD**

This Temporary Revision Record provides a current listing of active Temporary Revisions against the manual. Temporary Revisions, which have been canceled/incorporated, will only be maintained on the record until the next revision is issued. If there are no Temporary Revisions shown on the record, this is confirmation that there are no Temporary Revisions issued against the manual.

<b>TEMP. REV. NO.</b>	<b>TITLE</b>	<b>DATE ISSUED</b>	<b>DATE CANCELED</b>
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NOTE: For tracking purposes, Temporary Revisions are now being numbered (Example: TR-1).

# **Bell** MODEL **230**



## **MAINTENANCE MANUAL**

### **VOLUME 2**

## **HANDLING AND SERVICING**

#### **NOTICE**

The instructions set forth in this manual, as supplemented or modified by Alert Service Bulletins (ASB) or other directions issued by Bell Helicopter Textron Inc. and Airworthiness Directives (AD) issued by the applicable regulatory agencies, shall be strictly followed.

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**12 MARCH 1992**  
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**SCHEDULED INSPECTIONS**

**5-29. EVERY 600 HOURS OR 12 MONTHS OF COMPONENT OPERATION**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL MECH OTHER	
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**SCHEDULED INSPECTIONS**

**5-38. EVERY 10 CALENDAR YEARS**

DATA REFERENCE	INSPECTION TASK DESCRIPTION	INITIAL	
		MECH	OTHER
BHT-230-CR&O-2	<p>DATE: _____ W.O. _____</p> <p>FACILITY: _____</p> <p>HELICOPTER S/N: _____</p> <p>REGISTRY NO.: _____</p> <p>TOTAL TIME: _____</p> <p>SIGNATURE: _____</p> <p><b><u>MAIN ROTOR MAST ASSEMBLY (TORQUEMETER)</u></b></p> <p>1. Mast assembly must be disassembled and inspected for corrosion, both externally and internally, in addition to the inspection criteria of the BHT-230-CR&amp;O-2. The torque meter shaft must be removed to inspect the inside diameter. The mast assembly must be returned to Bell Helicopter Textron for reindexing of the mast torque sensing components. R1</p>		

