



A Textron Company

ALERT SERVICE BULLETIN

505-22-32

24 October 2022

MODEL AFFECTED: 505

SUBJECT: ELECTRICAL HARNESSSES, INSPECTION OF.

HELICOPTERS AFFECTED: Serial numbers 65011 through 65383, 65386, 65387, 65394, 65401, 65407, 65413, 65415, and 65430.

[Serial number 65384, 65385, 65388 through 65393, 65395 through 65400, 65402 through 65406, 65408 through 65412, 65414, 65416 through 65429, 65431 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

COMPLIANCE: Within the next 50 flight hours or 30 days, whichever occurs first, following the release date of this bulletin.

Every 300 flight hours after the first inspection.

DESCRIPTION:

Bell has been made aware of possible harness chafing in certain locations between basic aircraft wiring and the structure/ systems, often in combination. The following Kits/STC which may have wiring in the same areas that may also experience fouling conditions:

- Air Conditioning, (KIT)
- Third evaporator, (KIT)
- Auto Pilot, (STC)

Potential fouling occurs under floor starting at FWD canted bulkhead STA 65 to AFT bulkhead at STA 180, including all structural frames and areas in between (STA 65, 82, 98, 109, 127, 146, 155 and 180).

The terminating action for the recurring inspection of this bulletin will be published by a revision of this bulletin and another Service Directive.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

MANPOWER:

Approximately 8.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIAL:**Required Material:**

None required.

Consumable Material:

None required.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

505-MM Maintenance Manual
BHT-ELEC-SPM Electrical Standard Practices Manual.

PUBLICATIONS AFFECTED:

505-MPI – Maintenance Planning Information, Chapter 5.

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.

-NOTE-

For the next step refer to 505-MM ([DMC-505-A-06-40-00-00A-030A-A](#)), ACCESS PROVISIONS.

2. Recommended panel to be removed to gain access are as follow.
 - a. Access point 153AL.
Left mid-belly access-panel, access to structure under the left side of the fuel compartment.
 - b. Access point 180CZ.
Baggage compartment floor, access to components of the fuel system. (Fuel cell, aft vent, fuel level sensor, etc.).
 - c. Access point 125AZ.
Left cockpit floor, access to flight controls components.
 - d. Access point 126AZ.
Right Cockpit floor, access to the Air Data/Attitude and Heading Reference System (ADAHRS).
 - e. Access point 120AB.
Forward belly panel, access to flight controls components.
 - f. Access point 110AB.
Nose cone, access to environmental control system components and taxi and landing lights.

-NOTE-

For the next inspection step, look for damaged wires in the vicinity of the clamping arrangements and between clamping, especially where close to structure and/or air conditioning lines. Inspect the harnesses for chaffing or damage.

For location reference, refer to 505-MM ([DMC-505-A-06-20-00-00A-030A-A](#)), REFERENCE LINES.

3. Do a detailed visual inspection of the wire harnesses at the following clamping/attachment locations (FS = Fuselage Stations, BL= Buttock Line).

Refer to **Figure 1** for locations.

Cabin Left-hand side

- A. BL-12, FS180
- B. BL-12, between FS155 and FS180
- C. BL-12, FS155
- D. BL-12, FS146
- E. BL-12, between FS127 and FS146
- F. BL-12, FS127
- G. BL-12, between FS109 and FS127
- H. BL-12, FS109
- I. BL-12, FS98

Nose section left-hand side

- J. BL-12, FS65. (Canted Bulkhead)
- K. BL0, FS65. (Canted Bulkhead)

Pedestal

- L. BL0, FS67
- M. BL-2, FS70 top of pedestal
- N. BL0, FS82 FWD Keel Beam
- O. BL0, FS80 below pedestal

Cabin Right-hand side

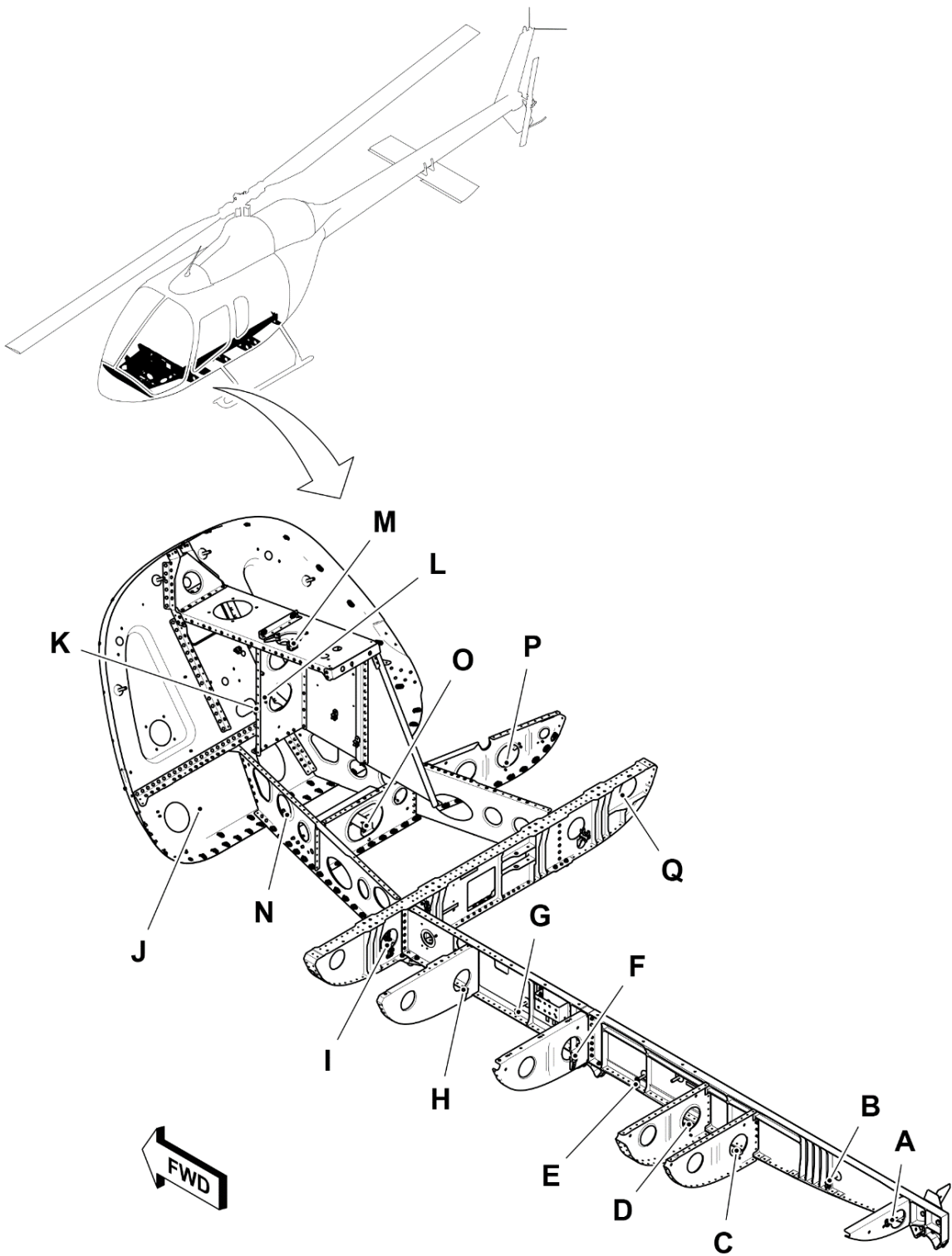
- P. BL22, FS82
- Q. BL24, FS98

-NOTE-

Wire bundles should have a minimum clearance of 0.375 Inches (9.53 mm) from tubing/structure.

4. Repair damaged wires/bundles and identify/address the source of the chafing. Refer to Chafing Control Guide (CSSD-PSE-90-001) and Electrical Standard Practice Manual (BHT-ELEC-SPM).
 - a. If the fouling condition cannot be rectified using the information within these manuals, contact Bell Product Support Engineering at productsupport@bellflight.com with the following information:
 - (1) Include the helicopter serial number in the subject line of the email.
 - (2) Include the ASB number 505-22-32 in the subject line of the email.

- (3) Provide total time in service of the helicopter.
 - (4) Confirm if the Paravion air condition kit, Garmin G600H autopilot STC, or Genesys HeliSaS autopilot STC are installed.
 - (5) Provide details of which location(s) the fouling condition cannot be resolved.
 - (6) Provide photos of the condition (if possible).
5. Make an entry in the helicopter logbook and historical service records indicating compliance with this Alert Service Bulletin.
 6. Repeat this bulletin every 300 flight hours following the initial accomplishment.



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Figure 1 – Helicopter Station Locations