



**EAGLE COPTERS MAINTENANCE LTD.**  
823 McTavish Road NE  
Calgary, AB, T2E 7G9  
Canada

Phone: 1.403.250.7370  
Toll Free: 1.800.564.6469

e-mail: [engineering@eaglecopters.com](mailto:engineering@eaglecopters.com)  
<http://www.eaglecopters.com>

# Technical Bulletin

## Torque Indicator Replacement

**B212**

**TBN-212-003**

Revision A

March 24, 2023

Prepared: Adam Stenger  
A. Stenger

Reviewed: M. Peters  
M. Peters

Released: M. Peters  
M. Peters

THIS DOCUMENT IS UNCONTROLLED UNLESS OPENED DIRECTLY FROM ECML'S CONTROLLED REPOSITORY

## Revision Record

Rev	Date	Description of Revision
A	See Cover Page	Initial Release.

## TABLE OF CONTENTS

<b>1. Introduction .....</b>	<b>4</b>
1.1. Approval.....	4
1.2. Purpose .....	4
1.3. Effectivity .....	4
1.4. Compliance.....	4
1.5. Description.....	4
<b>2. Installation Data.....</b>	<b>5</b>
2.1. Parts Lists .....	5
2.2. Weight and Balance .....	5
2.3. Electrical Loads .....	5
<b>3. Installation and Calibration Procedure.....</b>	<b>6</b>
3.1. 65100-068 Torque Indicator Removal.....	6
3.2. 65100-057 Torque Indicator Installation.....	6
<b>4. Operational Check.....</b>	<b>8</b>
<b>5. Aircraft Record Set Update and Eagle Notification .....</b>	<b>9</b>

## LIST OF TABLES

Table 1 – Removed Parts .....	5
Table 2 – Installed Parts .....	5

## 1. Introduction

### 1.1. Approval

This Technical Bulletin is approved data in accordance with the following STC:

TCCA STC: SH07-28

FAA STC: SR02831NY

### 1.2. Purpose

The Technical Bulletin provides procedures for the replacement of the Diamond J P/N 65100-068 Torque Meter with the 65100-057 Torque Meter.

### 1.3. Effectivity

STC SH07-28 is a pre-requisite to this change.

MSN
ALL

### 1.4. Compliance

Optional

### 1.5. Description

This Technical Bulletin provides the data required for the replacement of the Diamond J P/N 65100-068 torque meter with the 65100-057 torque meter. The -057 torque meter includes a dampened needle response to reduce momentary spikes as well as changes to the thresholds for the indicator's recording feature. The -057 torque meter will continue to indicate exceedances between 100.1% and 104%, but will not record or playback those exceedances. Recording for exceedances of 104.1% or greater will continue to be recorded and played back in the same manner as the -068 torque meter.

## 2. Installation Data

### 2.1. Parts Lists

Item	Qty	Part Number	Description
1	2	65100-068	Diamond J Torque Indicator

Table 1 – Removed Parts

Item	Qty	Part Number	Description
1	2	65100-057	Diamond J Torque Indicator

Table 2 – Installed Parts

### 2.2. Weight and Balance

There is no change to aircraft weight and balance as a result of this change.

### 2.3. Electrical Loads

There is no change to aircraft electrical loads as a result of this change.

### 3. Installation and Calibration Procedure

#### 3.1. 65100-068 Torque Indicator Removal

1. Ensure that the “TORQUE IND PILOT” or “TORQUE IND COPLT” circuit breaker is pulled to suit the position of the indicator being replaced.
2. Loosen the indicator clamp screw adjacent to the indicator on the instrument panel. If there is more than one screw adjacent to the indicator, loosen the larger screw.
3. Slide the indicator out of the indicator panel.
4. Verify the connector labeling corresponds to the indicator.
5. Disconnect the connector from the back of the indicator.

#### 3.2. 65100-057 Torque Indicator Installation

1. Ensure that the “TORQUE IND PILOT” or “TORQUE IND COPLT” circuit breaker is pulled to suit the position of the indicator being replaced.
2. Check that the connector is through the proper indicator hole on the instrument panel.
3. Verify the connector labeling corresponds to the indicator.

**NOTE:** The torque indicator must be aligned to the engine torque pressure setting on the engine data plate.

4. Connect the calibration stick P/N 10012-033 in line between the indicator and the corresponding electrical connector for the torque indicator.
5. Attach dead weight pressure tester to the torque transmitter. Set the pressure on the dead weight tester to  $0.2 \times P$  (Calibration point 1)

$$P = \left( \frac{ENG \text{ Data Plate}}{47.5} \right) \times 55.7$$

6. Close the circuit breaker opened in Section 3.2, Step 1. The indicator will display “CA” for 5 seconds, then will display the current torque pressure for 10 seconds, then display “CA” for another 5 seconds, then display “CA1”, indicating that calibration point 1 has been stored.
7. Open the circuit breaker again.
8. Set the pressure on the dead weight tester to  $0.95 \times P$  (Calibration point 2).

$$P = \left( \frac{Eng \text{ Data Plate}}{47.5} \right) \times 55.7$$

9. Close the circuit breaker. The indicator will display “CA” for 5 seconds, then will display the current torque pressure for 10 seconds, then display “CA” for another 5 seconds, then display “CA2”, indicating that calibration point 2 has been stored.
10. Open the circuit breaker again.
11. Remove calibration stick and reconnect the corresponding electrical connector.
12. Slide the indicator into the hole and align the indicator so that the display is properly oriented.

13. Tighten the indicator clamp screw adjacent to the indicator on the instrument panel. If there is more than one screw adjacent to the indicator, tighten the larger screw.

14. Repeat Sections 3.1 & 3.2 for the remaining torque indicator.

**NOTE:** Both torque indicators must be replaced together and the pilot's and copilot's torque indicator P/Ns must be the same.

#### 4. Operational Check

1. Ensure that the "TORQUE IND PILOT" or "TORQUE IND COPLT" circuit breaker is closed.
2. Verify the calibration by first setting the dead weight tester to the value calculated in Section 3.2, Step 5 and verify the indicator reads  $20 \pm 0.2\%$ . Then set the dead weight tester to the value calculated in Section 3.2, Step 8 and verify the indicator reads  $95 \pm 0.2\%$ .
3. Repeat Steps 1 & 2 for the remaining torque indicator.



## 5. Aircraft Record Set Update and Eagle Notification

1. Make an entry in the aircraft record set that TBN-212-003 has been incorporated.
2. Update the aircraft's Weight and Balance and Electrical Loads records with the values in Section 2 as required.
3. Notify Eagle Copters that TBN-212-003 has been incorporated by emailing the below information to [customersupport@eaglecopters.com](mailto:customersupport@eaglecopters.com):

Aircraft Serial Number

Aircraft Owner

Date Incorporated