GSE & TOOL MANUAL

TITLE	TOOL CALIBRATION BLOCK

REVISION HISTORY

REV	CHANGE DESCRIPTION	DATE
A	First issue	13/09/2022

SUMMARY

LIST OF TABLE

LIST OF FIGURE

1. SCOPE

1.1. APPLICABILITY

The contents of this document are meant to provide information on the P/N 3G5339G00131 TOOL CALIBRATION BLOCK.

1.2. OBJECT

The object of this document is to describe the AGE and its components, its main features and it will also provide all needed maintenance requirements to keep in service the P/N 3G5339G00131 TOOL CALIBRATION BLOCK.

1.3. WARNING AND SAFETY INSTRUCTIONS

A number of symbols are used throughout this document to indicate information to which the user should pay attention to. These are indicated below along with the specific meaning.

 **Warning**	...indicates a danger that might arise from a product and might result in severe injuries or even death, if no precautions are taken.
 **Caution**	... Indicates a potentially dangerous situation, which might result injury or damage to the equipment.
 **Notice**	...indicates a note providing information to help the reader during the procedure.

Table 1 – Warning Instruction

2. DOCUMENTS

2.1. APPLICABLE DOCUMENTS

The following table lists the applicable documents

REF	REFERENCE OF DOCUMENT	TITLE
N.A.	N.A.	N.A.

Table 2 – Applicable Documents

2.2. ACRONYMS USED

The main acronyms used in this document are listed below:

LHD	Leonardo Helicopter Division
HC	Helicopter
P/N	Part Number
S/N	Serial Number
N.A.	Not Applicable

3. DESCRIPTION

The Calibration Block is used to aimed to detect any cracks which are generated in the critical area of the main landing gear AW139.

Figure 1 – 3G5339G00531 Calibration Block Assy

4. TOP ASSEMBLY DRAWINGS

Refer to P/N 3G5339G00131 TOOL CALIBRATION BLOCK.

5. IDENTIFICATION

The tool identification P/N is marked on the nameplate.

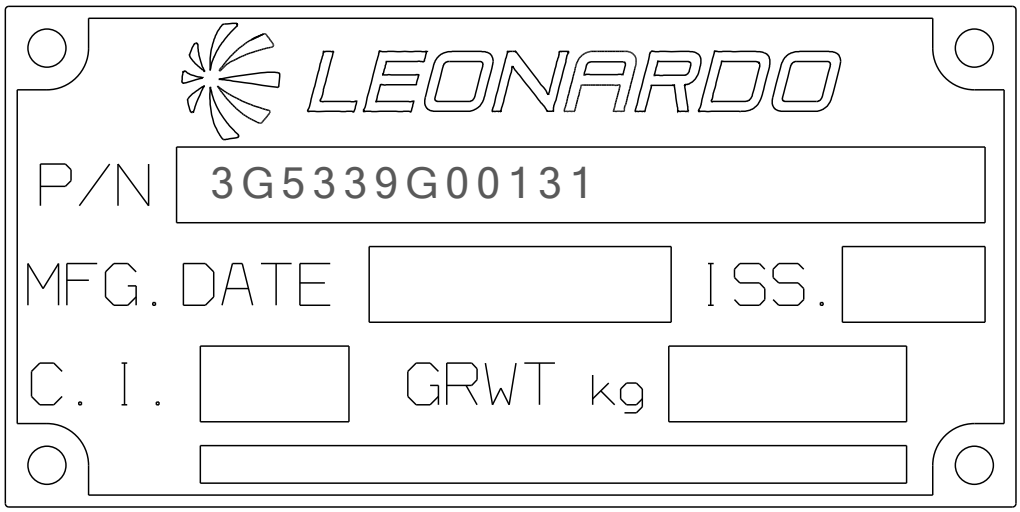

Figure 2 – LHD Identification tag with P/N

6. OVERALL DIMENSIONS

- Length: 167 mm
- Width: 206 mm
- Height: 90 mm

7. WEIGHT

- Total Weight: 1.120 kg

8. MAIN PARTS

Figure 3 – Main Parts

The main parts of the Sling are:

1. 1120 Case
2. 3G5339G00251 Foam
3. 3G5339G00351 Foam
4. 3G5339G00451 Nameplate
5. 3G5339G00531 Calibration block assy

9. MAIN FEATURES DESCRIPTION

The calibration block is composed of one aluminium sheet, one Teflon layer and on alloy sheet connected each other by rivets.
A reference fault is positioned in the aluminium sheet.
The reference fault affects all the hole and it has the following characteristics:
length = 5mm measured in the second hole direction (distance 38mm)

10. WARNING AND SAFETY NOTES

10.1. WARNING NOTE

 	Use this equipment only for the purpose that it is designed for. Any other use can result in injury or serious material damage to the components.
	The Manual can never integrally replace the adequate competence of the user.
 	Before and after each use of the equipment is necessary to perform the checks required. Do not operate with a tool damaged or partially completed, or partially assembled.
	This Manual provides guidelines and instructions of the equipment that are in addition to - but are not intended to replace or modify but only to integrate - any general or specific rule, regulation, decree or law that is in force in the place where the equipment is in use.

Table 3 – Warning Note

10.2. SAFETY NOTES

Remember to wear protective overalls, safety shoes, protective gloves and glasses during all operational and maintenance phases.

Figure 4 – Safety Notes

11. STORAGE

The Tool shall be properly stored to provide protection from external weather conditions, damage and dirty particles.

The Kit shall be stored in the dedicated transportation box (part of the Kit).

Ensure that the tool parts are clean before storage.

11.1. LUBRICATION BEFORE STORAGE

Apply the Grease (MIL-PRF-23827) on all threaded parts before tool storage.

11.2. STORAGE CONFIGURATION

The Sling has no particular storage configuration.

12. MAINTENANCE

NOTE: Correct regular maintenance allows preventing most faults and safeguards of tool performance in time, thereby making it last longer.

Every year carry out regular maintenance on a regular basis as detailed in this manual.

NOTE: Inspection intervals for tool parts placed inside in ready storage is 12 months.

12.1. CLEANING

Before inspection and after each use, carry out the cleaning of the tool components.

12.1.1. SPECIAL TOOLS, FIXTURE AND EQUIPMENT

No special tools, fixture and equipment are required for cleaning.

12.1.2. PART REQUIREMENTS

The parts to clean should be free from the moisture, emulsified water, soaps and metal shavings that can develop of corrosive acids.

They must also be free from wide grease and / or slosh deposits.

12.1.3. MANUAL CLEANING

A. Clean thoroughly all metal surfaces with a clean lint-free cloth (Local supply) moistened with Cleaning Solvent (MIL-PRF-680C, Type II) to do general spot cleaning of large groups areas. For nylon or teflon surfaces, the use of a biodegradable, water dilutable cleaning compound (MIL-PRF-87937 D, Type II) is required.

B. Repeat the cleaning process again by means another clean lint-free cloth (Local supply).

C. Drying.

– Verify that the solvent should not be trapped in the cavity. Normally, the solvent evaporates at room temperature in a satisfactory manner.

12.2. CHECKS

Before and after each use or at least every year, carry out the check of kit component.

Before each use ensure that the manual is available to the operator, in the event of loss, request a copy to Leonardo Helicopters Division.

The Tool kit shall be submitted to following checks to guarantee the functionality.

All required checks shall be registered on CHECK RECORDS Table *(*Ref*. TLC_Table 1*

After each use of tool ensure to have registered the number of uses on HISTORICAL USES RECORD Table *(*Ref*. TLC_Table 2*

The Tool Log Card template contained in the Annex A of this manual can be replaced with any other log card template in use in the plant where the equipment is in use.

12.2.1. SPECIAL TOOLS, FIXTURE AND EQUIPMENT

No special tools, fixture and equipment are required for the checks.

12.2.2. VISUAL EXAMINATION

NOTE: Replace the parts that do not obey the inspection requirements.

Restore the marking of the parts that results damaged or not readable.

All required visual checks are listed on **Error! Reference source not found.**

PERIODICY	CHECK TYPE		COMPONENTS
BEFORE AND AFTER EVERY USE	VISUAL EXAMINATION	Evidence of impact;	All
		Crushing or stripping	All
		Cracks	N.A.
		Dents;	N.A.
		Wear	N.A.
		Distortions	N.A.
		Corrosion	All
		Loose or defective attaching parts (warning flag)	N.A.
		Unsticking of parts	All bonded parts
		Damage to the threads	All threaded std parts
		Marking	All

Table 4 – Visual Check

12.2.3. PERIODICAL CHECKS

Not Applicable

12.2.4. DIMENSIONAL CHECKS

Not Applicable.

12.2.5. SPECIAL CHECKS SUMMARY

Not Applicable.

12.3. REPLACEMENT

All the parts for which it is allowed the components replacement are listed in Paragraph 14.

12.3.1. REPLACEMENT PROCEDURES

The replacement of parts of the kit does not require specific procedures.

13. CALIBRATION

Not Applicable.

14. SPARE PARTS

Figure 5 – Main Parts

Figure 6 – Spare Parts

ITEM	P/N	DESCRIPTION	Q.TY
1	1120	Case	1
2	3G5339G00251	Foam	1
3	3G5339G00351	Foam	1
4	3G5339G00451	Nameplate	1
5	3G5339G00531	Calibration block assy	1

Table 5 – Spare Parts

15. CE MARKING

Not Applicable.

ANNEX A

TOOL LOG CARD

TOOL KIT P/N: [1]	TOOL KIT DESCRIPTION: [2]	TOOL KIT S/N: [3]
TOOL P/N: [4]	TOOL S/N: [5]	REMARKS: [6]

Section 1: CHECKS RECORD

[7] N° check	[8] DATE	[9] P/N TO CHECK	[10] CHECK	[11] FREQUENCY	[12] RESULT	[13] NOTE	CERTIFICATION [14] STAMP & SIGNATURE [15]
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

FINAL ACCEPTANCE [16]	
STAMP & SIGNATURE [17]	DATE [18]

TLC_Table 1

TOOL KIT P/N: [1]	TOOL KIT DESCRIPTION: [2]	TOOL KIT S/N: [3]
TOOL P/N: [4]	TOOL S/N: [5]	REMARKS: [6]

Section 2: HISTORICAL USES RECORD

[19] N°USE	[8] DATE	[6] NOTE	CERTIFICATION [13] STAMP & SIGNATURE [14]	[19] N°USE	[8] DATE	[6] NOTE	CERTIFICATION [13] STAMP & SIGNATURE [14]
1				11			
2				12			
3				13			
4				14			
5				15			
6				16			
7				17			
8				18			
9				19			
10				20			

TLC_Table 2

LOG CARD FILLING INSTRUCTIONS

FIELD #	*HEADER*	*NOTE*
1	Part number of the tool Kit	
2	Tool Kit denomination	
3	Serial Number of the tool Kit	
4	Part Number of the tool (part of kit)	
5	Serial Number of the tool (if applicable)	
6	Indicate any details of the use	
7	Sequential number of check performed	
8	Date of the activity	
9	PN of tool or component (part of tool) checked/affected by issue	
10	Typology or description of checks /issue	
11	Check frequency	
12	Check result	
13	Check remarks	
14	Performance certification	
15	Stamp and signature of the personnel which performs the check	
16	Section related to the final approval	
17	Stamp and signature of the personnel which performs the final approval	
18	Date on which the final check was made	
19	Sequential number of performed used of the tool	