



# GSE & TOOL USE AND MAINTENANCE MANUAL

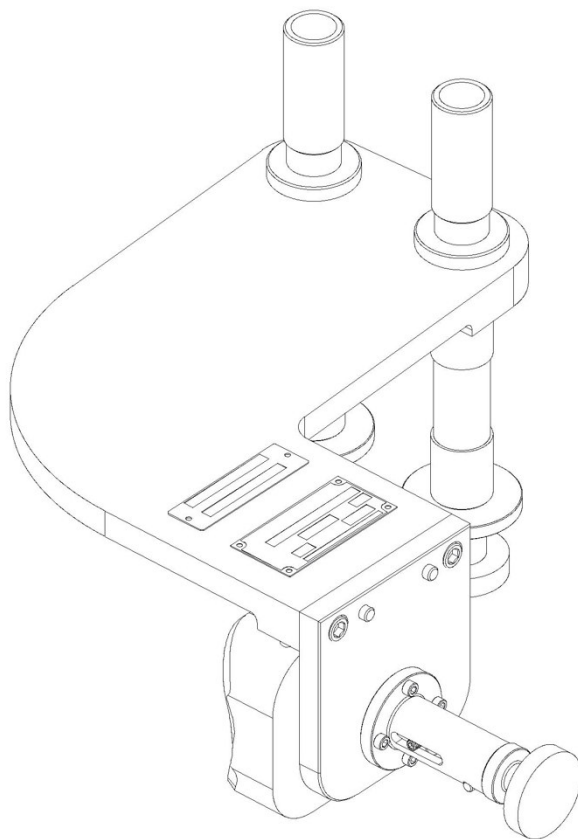
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**MAN-3G6200G03131**  
**REV.A**

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## GSE & TOOL MANUAL

**TITLE**

**BLADE LEAD EDGE COVER POSITIONING TOOL  
P/N 3G6200G03131**



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## REVISION HISTORY

REV	CHANGE DESCRIPTION	DATE
A	First issue	12/05/2022

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## 1. SCOPE

### 1.1. APPLICABILITY




The contents of this document are meant to provide information on the 3G1200G03131 BLADE LEAD EDGE COVER POSITIONING TOOL.

### 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 3G1200G03131 BLADE LEAD EDGE COVER POSITIONING TOOL.

### 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.

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

*Table 1 – Warning Instruction*

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## **2. DOCUMENTS**

### **2.1. APPLICABLE DOCUMENTS**

N/A

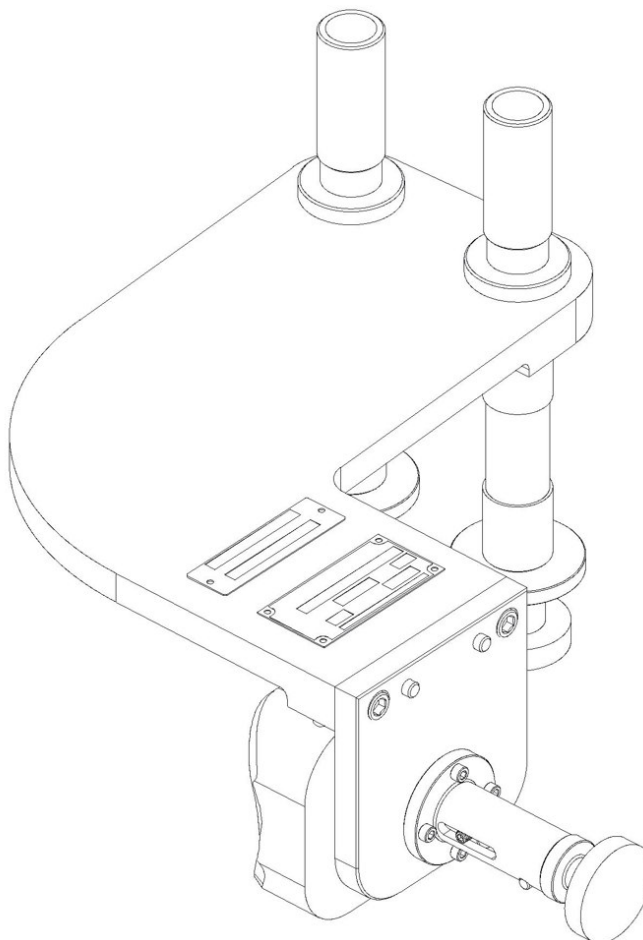
### **2.2. ACRONYMS USED**

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 function of the 3G6200G03131 is to allow the correct positioning and bonding of the Leading Edge cover on the Main Rotor Blade surface.




*Figure 3-1 – Blade Lead Edge Cover Pos. Tool Assy.*

### 4. TOP ASSEMBLY DRAWINGS

Refer to 3G6200G03131 Blade Lead Edge Cover Pos. Tool Assy.

### 5. IDENTIFICATION

The tool identification P/N is marked on the LHD identification tag.

	
P/N	3G6200G03131
MFG. DATE	
ISS.	
C. I.	
GRWT kg	

*Figure 5-1 – LHD Identification tag with P/N*



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## **6. OVERALL DIMENSIONS**

- Length: 420 mm
- Width: 352 mm
- Height: 307 mm

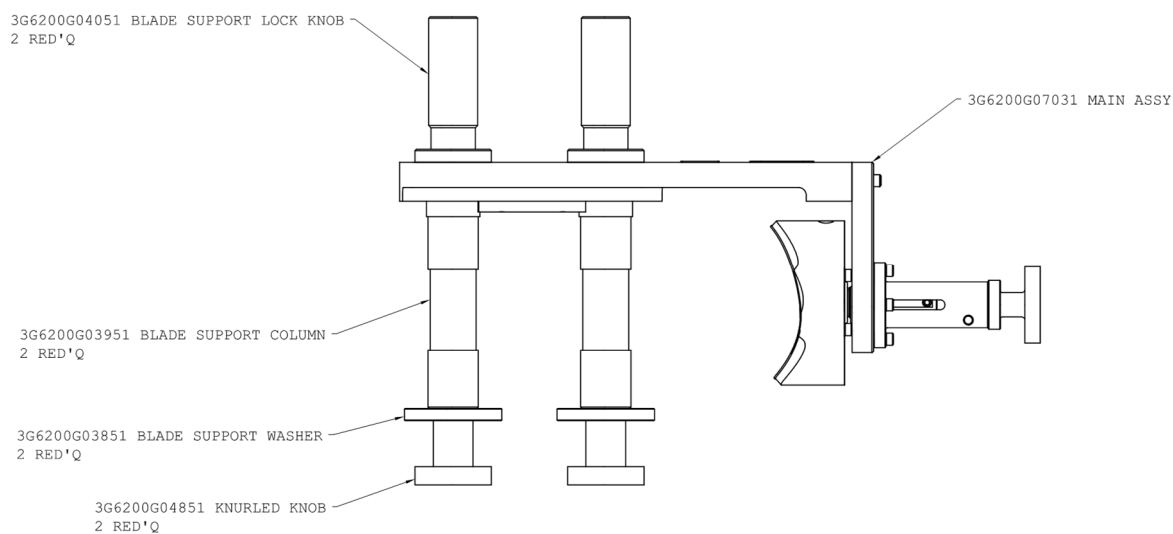
## **7. WEIGHT**

- Total Weight: 10kg

## 8. MAIN PARTS

The 3G6200G03131 tool Kit, is composed of the following components and sub-assemblies:

- 3G6200G07031 Main Assy ;
- 3G6200G03851 Blade Support Washer;
- 3G6200G03951 Blade Support Column;
- 3G6200G04051 Blade Support Lock Knob;
- 3G6200G04851 Blade Support Knurled Knob.



*Figure 8-1 - 3G6200G03131 Main Parts*

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## 9. MAIN FEATURES DESCRIPTION

The 3G6200G03131 Blade Lead Edge Cover Positioning Tool, is used with the AW139 Main Rotor Blade, during the Main Rotor maintenance.

- Position the Main Assy PN 3G6200G07031 on the MR Blade
- Centre the two Blade Support Column, PN 3G6200G03951, inside the MR Blade holes
- Fix using:
  - the two Blade Support Lock Knob, PN 3G6200G04051
  - the two Blade Support Washer, PN 3G6200G03851
  - the two Knurled Knob, PN 3G6200G04851
- Use the Pusher Assy, PN 3G6200G03431, to position the cover for bonding

## 10. WARNING AND SAFETY NOTES

### 10.1. WARNING NOTE

 <b>Warning</b>	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.
 <b>Caution</b>	
 <b>Notice</b>	The Manual can never integrally replace the adequate competence of the user.
 <b>Warning</b>	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.
 <b>Caution</b>	
 <b>Notice</b>	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 2 – Warning Note*

## 10.2. SAFETY NOTES

Before starting to use the equipment it is necessary to perform a visual check of all parts and see if something is damaged or missing.

Do not operate with a tool partially completed, or partially assembled.

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

This manual provides guidelines and instructions on the usage of the equipment that are in addition to – but are not intended to replace or modify but only to integrate – any general specific rule, regulation, decree or law that is in force in the place where the equipment is in use.

Use of the equipment for any operation other than that specified in this document is strictly prohibited.



Figure 10-1 – Safety Notes

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## 11. STORAGE

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

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

N/A

## 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.

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## **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**

N/A

### 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 Table 3.

PERIODICITY	CHECK TYPE	COMPONENTS	
BEFORE AND AFTER EVERY USE	VISUAL EXAMINATION	Evidence of impact;	All
		Crushing or stripping	All
		Cracks	All
		Dents;	All
		Wear	All
		Distortions	All
		Corrosion	All
		Loose or defective attaching parts (warning flag)	All
		Unsticking of parts	<ul style="list-style-type: none"> <li>• All bonded parts</li> <li>• A304A004A1</li> <li>• A304A005A1</li> <li>• 3G6200G04251</li> </ul>
		Damage to the threads	All threaded std parts <ul style="list-style-type: none"> <li>• 3G6200G04051</li> <li>• 3G6200G03951</li> <li>• 3G6200G04851</li> </ul>
Marking	All		

Table 3 – Visual Check



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#### **12.2.3. PERIODICAL CHECKS**

N/A

#### **12.2.4. DIMENSIONAL CHECKS**

N/A

#### **12.2.5. SPECIAL CHECKS SUMMARY**

N/A

### **12.3. REPLACEMENT**

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

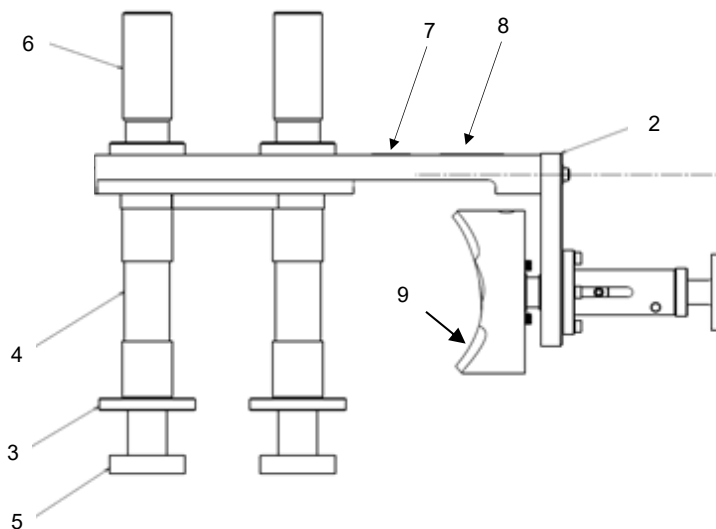
#### **12.3.1. REPLACEMENT PROCEDURES**

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

### **13. CALIBRATION**

No Calibration is required.

## 14. SPARE PARTS



*Figure 14-1 – Spare Parts*

ITEM	P/N	DESCRIPTION	Q.TY
<b>1</b>	3G6200G03131	Blade Lead Edge Cover Positioning Tool	<b>REF</b>
<b>2</b>	3G6200G07031	Main Assy;	<b>1</b>
<b>3</b>	3G6200G03851	Blade Support Washer;	<b>2</b>
<b>4</b>	3G6200G03951	Blade Support Column;	<b>2</b>
<b>5</b>	3G6200G04051	Blade Support Lock Knob;	<b>2</b>
<b>6</b>	3G6200G04851	Blade Support Knurled Knob.	<b>2</b>
<b>7</b>	A304A005A1	Plate, Identification	<b>1</b>
<b>8</b>	A304A004A1	Plate Identification	<b>1</b>
<b>9</b>	3G6200G04251	Rubber	<b>1</b>

*Table 4 – Spare Parts*

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## 15. CE MARKING

N/A.

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# ANNEX A

## TOOL LOG CARD



# TOOL LOG CARD

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

## Section 1: CHECKS RECORD

[7] N° check	[8] DATE	[9] P/N TO CHECK	[10] CHECK	[11] FREQUENCY	[12] RESULT	[13] NOTE	[14] CERTIFICATION
							[15] STAMP & SIGNATURE
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
<b>FINAL ACCEPTANCE</b> [16]							
<b>STAMP &amp; SIGNATURE</b> [17]							<b>DATE</b> [18]

TLC\_Table 1



# TOOL LOG CARD

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

## Section 2: HISTORICAL USES RECORD

[19] N°USE	[8] DATE	[6] NOTE	[13] CERTIFICATION	[19] N°USE	[8] DATE	[6] NOTE	[13] CERTIFICATION
			[14] STAMP & SIGNATURE				[14] STAMP & SIGNATURE
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

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