



GSE & TOOL USE AND MAINTENANCE MANUAL

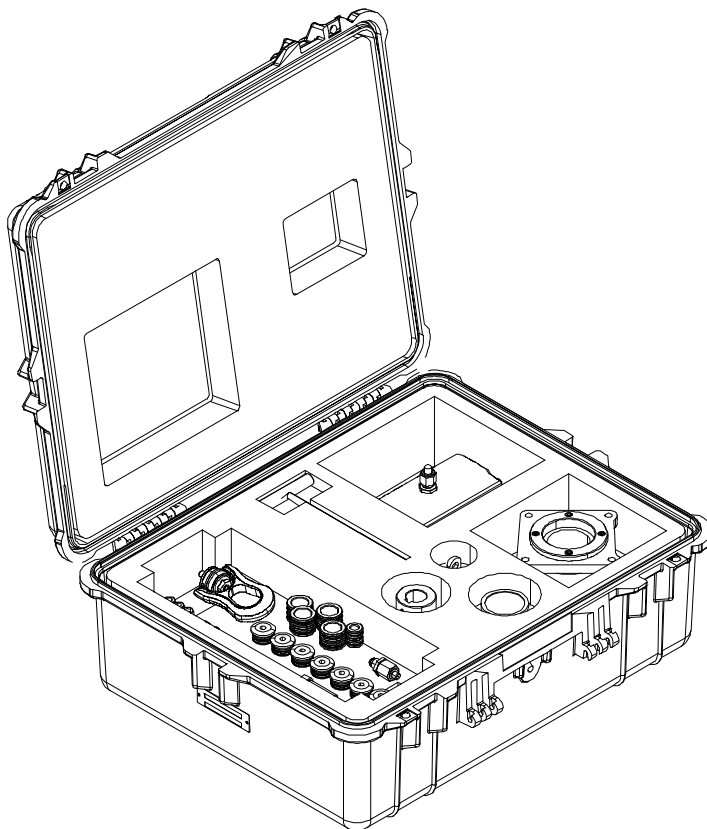
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GSE & TOOL MANUAL

TITLE

**TOOL KIT, MGB PRESERVATION ADAPTER
P/N 8G6300G00131**



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REVISION HISTORY

REV	CHANGE DESCRIPTION	DATE
A	First issue	30/09/2021

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1. SCOPE

1.1. APPLICABILITY

The contents of this document are meant to provide information on the P/N 8G6300G00131 TOOL KIT, MGB PRESERVATION ADAPTER.

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 8G6300G00131 TOOL KIT, MGB PRESERVATION ADAPTER.

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

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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

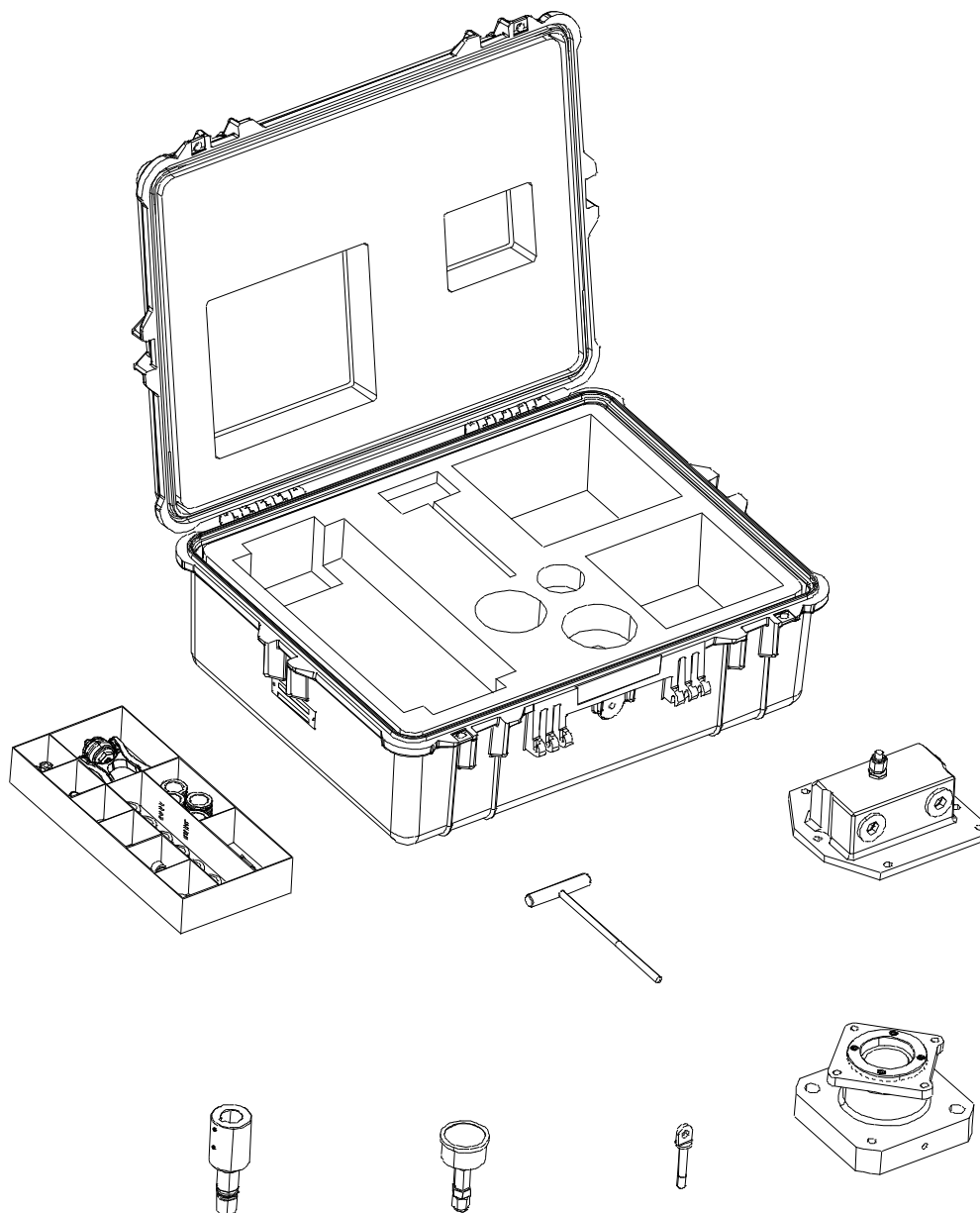
2.2. ACRONYMS USED

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
ECS	Environmental Control System
HPS	Hydraulic Power Supply
I/O	Input/Output
MGB	Main Gearbox

3. DESCRIPTION

The tool is used to perform the preservation procedure of the main gearbox assy.



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Figure 1 – Tool kit, MGB preservation adapter

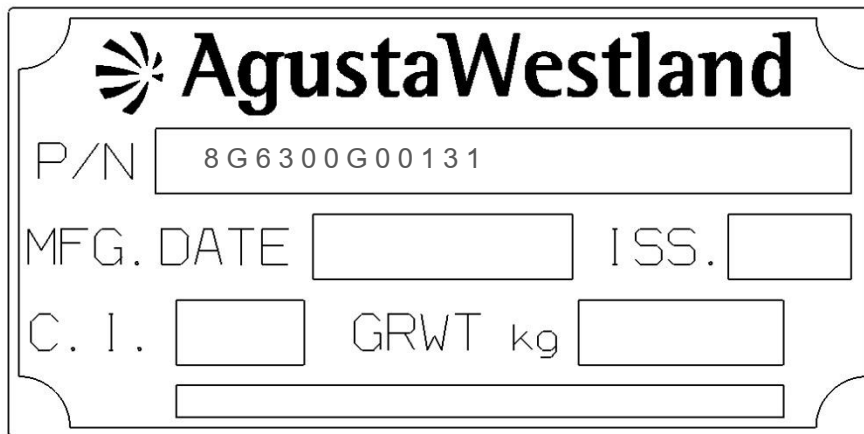
4. TOP ASSEMBLY DRAWINGS

Refer to P/N 8G6300G00131 TOOL KIT, MGB PRESERVATION ADAPTER.

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5. IDENTIFICATION

The tool identification P/N 8G6300G00131 is marked on the LHD identification tag.



The image shows a rectangular identification tag with rounded corners. At the top left is the AgustaWestland logo, a stylized sunburst. To its right, the name "AgustaWestland" is printed in a large, bold, sans-serif font. Below the logo and name, there are several fields for data entry:

- A long rectangular box containing the P/N "8G6300G00131".
- Two rows of fields: "MFG. DATE" followed by a box, and "ISS." followed by a box.
- Two rows of fields: "C. I." followed by a box, and "GRWT kg" followed by a box.
- A final empty rectangular box at the bottom.

Figure 2 – LHD Identification tag with P/N

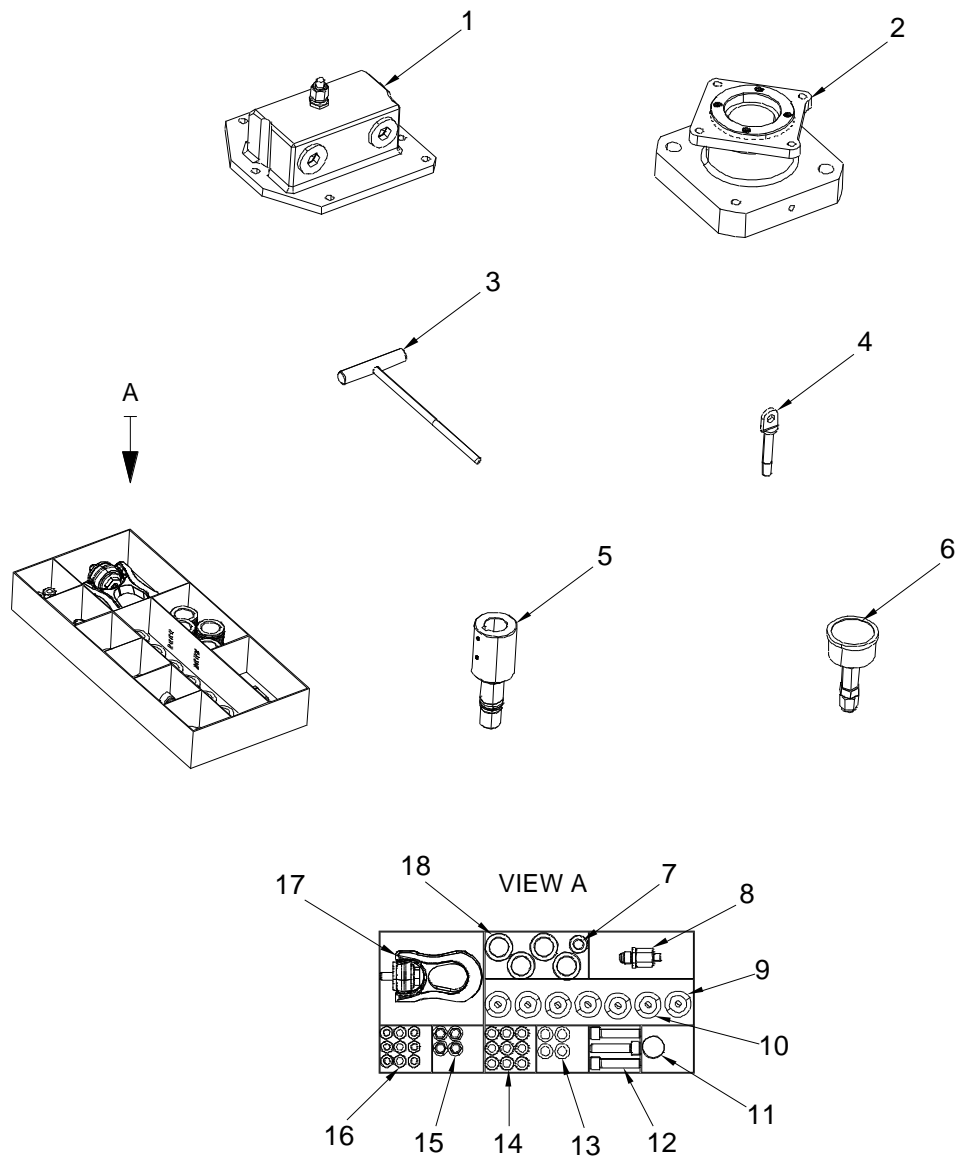
6. OVERALL DIMENSIONS

- Length: 616 mm
- Width: 493 mm
- Height: 220 mm

7. WEIGHT

- Total Weight: 14 kg

8. MAIN PARTS



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Figure 3 – Main Parts

The main parts of the Tool kit, MGB preservation adapter are:

1. Oil cooler interface
2. Electrical motor adapter flange
3. Jackscrew
4. Eye bolt

5. MGB driving spline shaft
6. Pressure gauge
7. Outlet oil cooler interface adapter
8. Adapter
9. Fan drive quill plug
10. ECS/HPS drive quill plugs
11. Spacer
12. Screws
13. Washers
14. Washers
15. Nuts
16. Nuts
17. Swivel lifting point
18. I/O oil cooler interface adapters

9. MAIN FEATURES DESCRIPTION

The kit is supplied in a suitable transportation box.

The oil cooler interface (1, [Fig. 3](#)) is used with the pressure gauge (6) and installed on the main gearbox with the nuts (14), the washers (16), the adapter (7) and the four adapters (18).

The MGB driving spline shaft (5) is used with the spacer (11).

The electrical motor adapter flange (2) is used with the lifting point (17) and the eye bolt (4) and installed on the main gearbox with the nuts (16) and the washers (14). It is interfaced to other devices with the screws (12), the washers (13) and the nuts (15).

The pressure gauge (6), without the oil cooler interface (1), is used with the adapter (8).

The jackscrew (3) is used to install the plugs (10) and the plug (9).

10. WARNING AND SAFETY NOTES

10.1. WARNING NOTE







 Warning	<p>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.</p>
 Caution	
 Notice	<p>The Manual can never integrally replace the adequate competence of the user.</p>
 Warning	<p>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.</p>
 Caution	
 Notice	<p>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.</p>

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 tool 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 slush 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 Table 4

PERIODICITY	CHECK TYPE	COMPONENTS
BEFORE AND AFTER EVERY USE	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	Items 2 and 26, Plate, Figure 5 , page 16 Item 4, Nameplate, Figure 5 , page 16 Item 27, Nameplate, Figure 5 , page 16
	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 15.

12.3.1. REPLACEMENT PROCEDURES

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

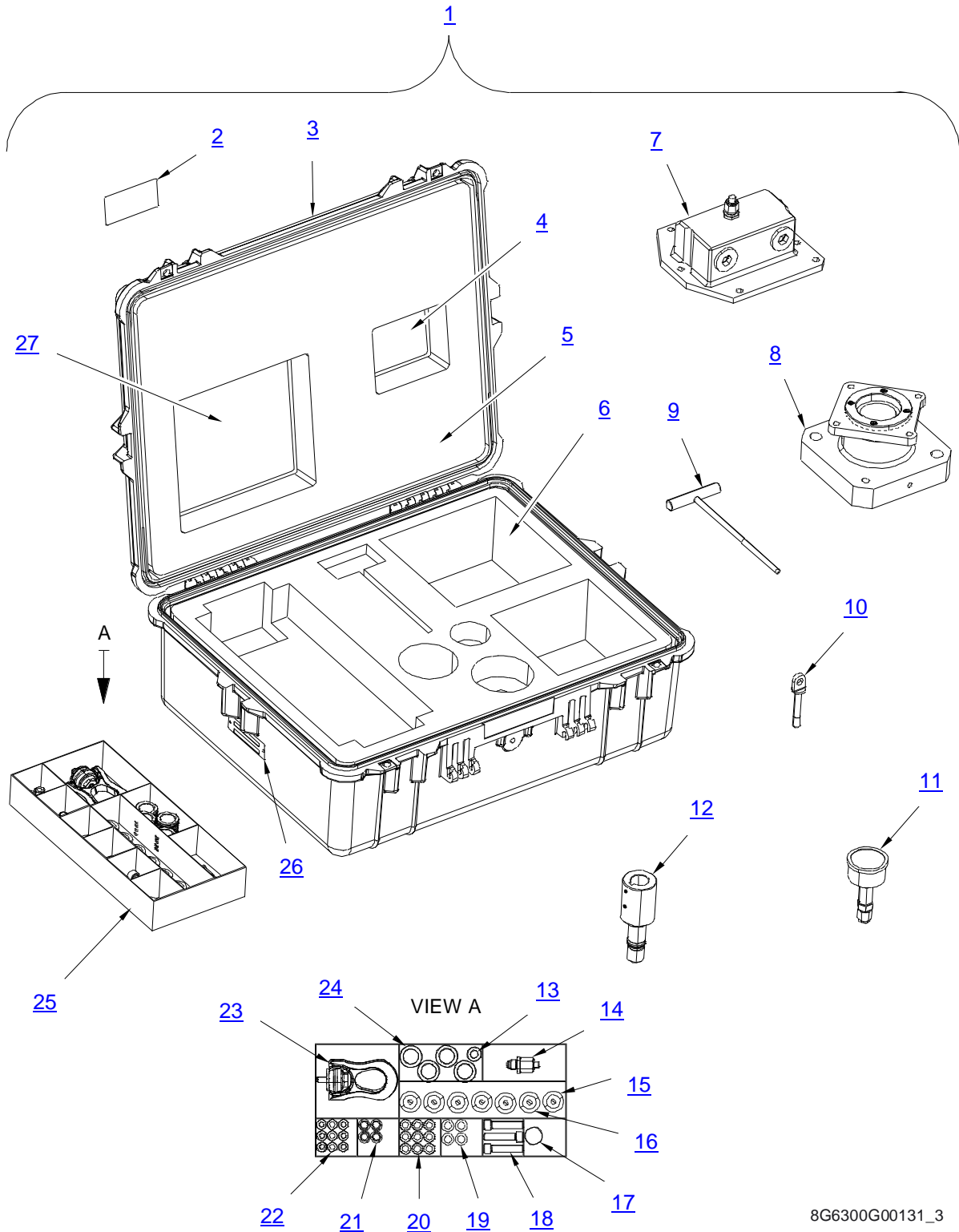
13. CALIBRATION

No Calibration is required.

14. SHELF LIFE

Not Applicable.

15. SPARE PARTS

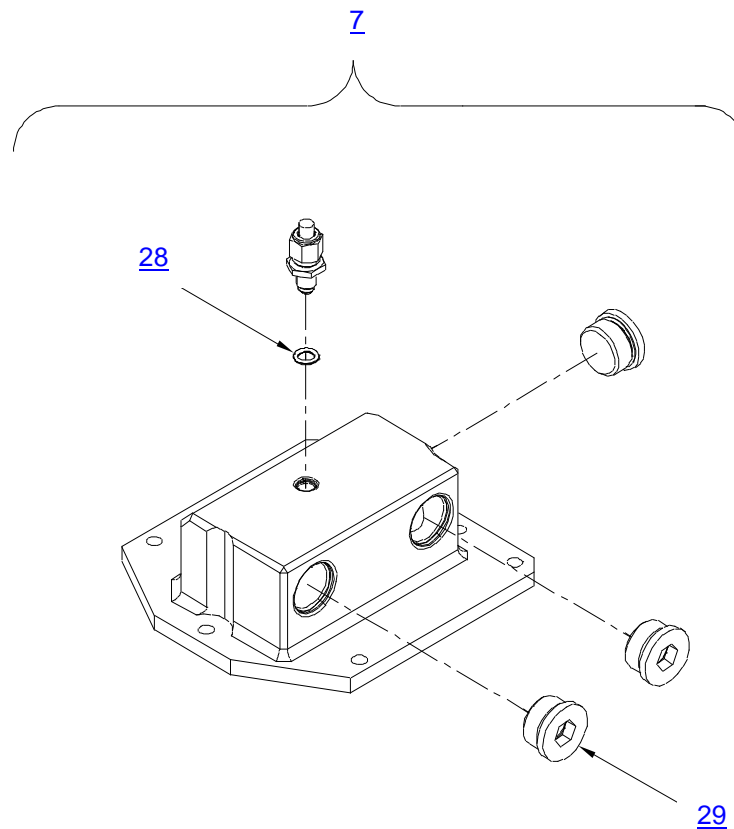


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Figure 5 – Spare Parts

ITEM	P/N	DESCRIPTION	Q.TY
1	8G6300G00131	TOOL KIT, MGB PRESERVATION ADAPTER	REF.
2	A304A002A1	PLATE, IDENTIFICATION	1
3	1600	CASE	1
4	8G6300G01251	NAMEPLATE	1
5	8G6300G00551	UPPER FOAM	1
6	8G6300G00451	LOWER FOAM	1
7	8G6300G00231	OIL COOLER INTERFACE ASSY (For Breakdown ref. to Fig. 6 and Table 6)	1
8	3G6300G00431	ELECTRICAL MOTOR ADAPTER FLANGE ASSY (For Breakdown ref. to Fig. 7 and Table 7)	1
9	6F6300G01531	JACKSCREW ASSY	1
10	AN46-22A	BOLT, EYE	1
11	8G6300G01131	PRESSURE GAUGE ASSEMBLY	1
12	3G6305G27731	MGB DRIVING SPLINE SHAFT ASSY (For Breakdown ref. to Fig. 8 and Table 8)	1
13	8G6300G00931	ADAPTER ASSY, OUTLET OIL COOLER INTERF.	1
14	8G6300G01331	ADAPTER ASSY	1
15	3G6305G27931	PLUG ASSY, FAN DRIVE QUILL	1
16	3G6305G28131	PLUG ASSY, ECS/HPS DRIVE QUILL	6
17	3G6305G27451	SPACER	1
18	NAS1351-6-28P	SCREW, CAP, SOCKET HEAD	3
19	NAS1149E0663P	WASHER, FLAT	4
20	NAS1149D0532K	WASHER, FLAT	22
21	MS21043-6	NUT, SELF-LOCKING	4
22	AN315D5R	NUT, PLAIN, HEXAGON	22
23	PLBW_U_5/16"	SWIVEL LIFTING POINTS	1
24	8G6300G00731	ADAPTER ASSY, I/O OIL COOLER INTERFACE	4
25	435-0208	ORGANISER BOX	1
26	A304A003A1	PLATE, IDENTIFICATION	1
27	8G6300G00651	NAMEPLATE	1

Table 5 – Spare Parts

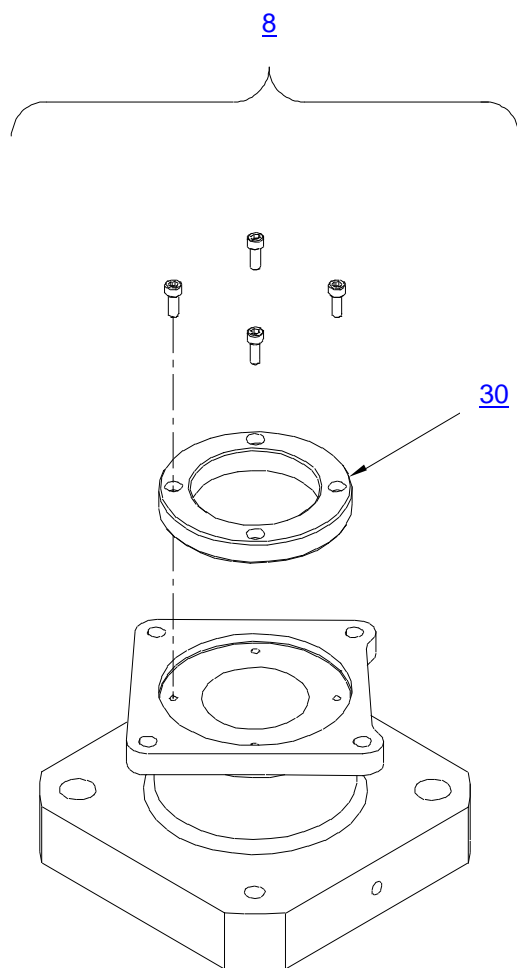


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Figure 6 – Spare Parts

ITEM	P/N	DESCRIPTION	Q.TY
7	8G6300G00231	OIL COOLER INTERFACE ASSY	REF.
28	MS29561-110	O-RING	1
29	14HP5ON	HOLLOW HEX PLUG	3

Table 6 – Spare Parts

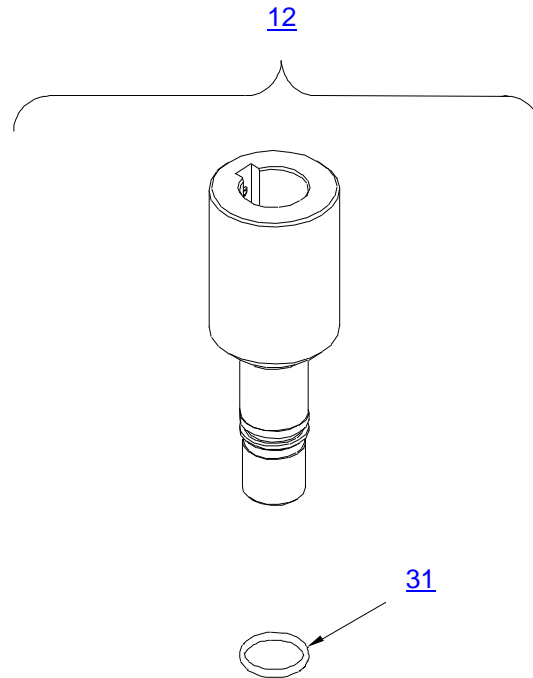


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Figure 7 – Spare Parts

ITEM	P/N	DESCRIPTION	Q.TY
8	3G6300G00431	ELECTRICAL MOTOR ADAPTER FLANGE ASSY	REF.
30	3G6300G00751	CENTERING RING	1

Table 7 – Spare Parts



8G6300G00131_6

Figure 8 – Spare Parts

ITEM	P/N	DESCRIPTION	Q.TY
12	3G6305G27731	MGB DRIVING SPLINE SHAFT ASSY	REF.
31	M83248/1-117	O-RING	1

Table 8 – Spare Parts

16. CE MARKING

No CE marking is required for the P/N 8G6300G00131 TOOL KIT, MGB PRESERVATION ADAPTER.



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ANNEX A

TOOL LOG CARD



TOOL LOG CARD

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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 LOG CARD

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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	[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

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	