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AgustaWestland Products

SERVICE BULLETIN

OPTIONAL

N° 139-763

DATE: October 25, 2023

REV.: /

TITLE

ATA 32 - MAIN LANDING GEAR SHIM INSTALLATION

REVISION LOG

First Issue

1. PLANNING INFORMATION

A. EFFECTIVITY

AB/AW139 helicopters up to S/N 32063 (except S/N 32037, S/N 32043, S/N 32045, S/N 32046, S/N 32051, from S/N 32053 to S/N 32055, S/N 32058, S/N 32061, S/N 32062), up to 41603 and from S/N 41801 onward.

B. COMPLIANCE

At Customer's Option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the MLG INSTL retromod for gap P/N 3G3200P00411.

LH issued this SB for the following reason:

Helicopter Reliability/Maintainability	
Product Improvement	✓
Obsolescence	
Customization	
Product/Capability Enhancement	

E. DESCRIPTION

This Service Bulletin provides the instructions to add two peeling shims on the Main Landing Gears, in order to obtain 0.200÷0.300 gap between bearings and bushes.

F. APPROVAL

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives.

If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

To comply with this Service Bulletin, ten (10) MMH are deemed necessary.

MMH are based on hands-on time and can change with helicopter configuration, personnel and facilities available. MMH are not comprehensive of the overall hours necessary to get access to work areas and to remove all the equipment that interferes with the application of the prescribed instructions.

H. WEIGHT AND BALANCE

N.A.

I. REFERENCES

I.1 PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		DESCRIPTION	PART
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.	-
DM02	39-A-06-41-00-00A-010A-A	Access doors and panels - General data.	-

I.2 ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
IPD	Illustrated Parts Data
ITEP	Illustrated Tool and Equipment Publication
LH	Leonardo Helicopters
MLG	Main Landing Gear
MMH	Maintenance Man Hours
N.A.	Not Applicable
P/N	Part Number

SB Service Bulletin

VP Vital Points

I.3 ANNEX

N.A.

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

A.1 PARTS

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	**3G3200P00411**		**MLG INSTL RETROMOD FOR GAP**	**REF**	**.**		
2	A864A2578E036T		Shim	2	..		139-763L1
3	MS24665-300		Cotter pin	4	..		139-763L1
4	MS24665-372		Cotter pin	4	..		139-763L1

Refer also to IPD for the spares materials required to comply with the AMP DMs referenced in the accomplishment instructions.

A.2 CONSUMABLES

The following consumable materials, or equivalent, are necessary to accomplish this Service Bulletin:

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
5	AWMS05-001 TY I CL C, GR 1	Sealant (C354)	AR	(1)	-
6	MIL-PRF-16173 CL I, GR 1	Tectyl 891D	AR	(1)	-

Refer also to AMDI for the consumable materials required to comply with the AMP DM referenced in the accomplishment instructions.

A.3 LOGISTIC MATRIX

In order to apply this Service Bulletin, the following Logistic P/N can be ordered in accordance with the applicable notes:

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-763L1	1	-	-

NOTES

(1) Item to be procured as local supply.

B. SPECIAL TOOLS

Refer also to ITEP for the special tools required to comply with the AMP DM referenced in the accomplishment instructions.

C. INDUSTRY SUPPORT INFORMATION

Product improvement.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

a) Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.

b) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.

c) Carry out duplicate inspections to check correct installation, safety, security, final torque and locking on vital point parts (VP).

d) All lengths are in mm.

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.

NOTE

If necessary to operate to the nut N°1, remove and after the operations re-install all the fasteners indicated in Figure 3. During the installation operations, torque before the nut N°1 (BWD) and then the nut N°2 (FWD).

2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 thru 3, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the MLG installation retromod for gap P/N 3G3200P00411 as described in the following procedure:

   2.1 Gain access to the MLG LH side.

   2.2 With reference to Figure 2 Detail B, remove and retain for later reuse the pintle pin P/N 1651-0001, the sleeve P/N 1651-0005 and the nut P/N MS17825-12. Remove and discard the cotter pin P/N MS24665-372.

   2.3 With reference to Figure 2 Section C-C, remove and retain for later reuse the screw P/N NAS6606D62, the washer P/N NAS1149C0632R and the nut P/N MS17825-6. Remove and discard the cotter pin P/N MS24665-300.

NOTE

Add the peeling shim in accordance with the dimensions shown, in order to obtain the gap indicated in Figure.

2.4 With reference to Figure 2 Detail D, install the peeling shim P/N A864A2578E036T and re-install the pin P/N 1651-0001, the sleeve P/N 1651-0005 and the nut P/N MS17825-12 previously retained. Protect fasteners with polyurethane paint, using Tectyl 891D.

2.5 With reference to Figure 2 Detail D, tighten the nut previously installed to the torque value of 41.0÷45.0 Nm and install the cotter pin P/N MS24665-372 to safety the nut.

NOTE

Wet assemble fixing fasteners using Sealant (C354) applied under the head of fasteners.

2.6 With reference to Figure 2 Section E-E, re-install the screw P/N NAS6606D62, the washer P/N NAS1149C0632R and the nut P/N MS17825-6 previously retained. Protect fasteners with polyurethane paint, using Tectyl 891D.

2.7 With reference to Figure 2 Section E-E, tighten the nut previously installed to the torque value of 12.0÷14.0 Nm and install the cotter pin P/N MS24665-300 to safety the nut.

2.8 Repeat steps from 2.1 to 2.7 for the MLG RH side.

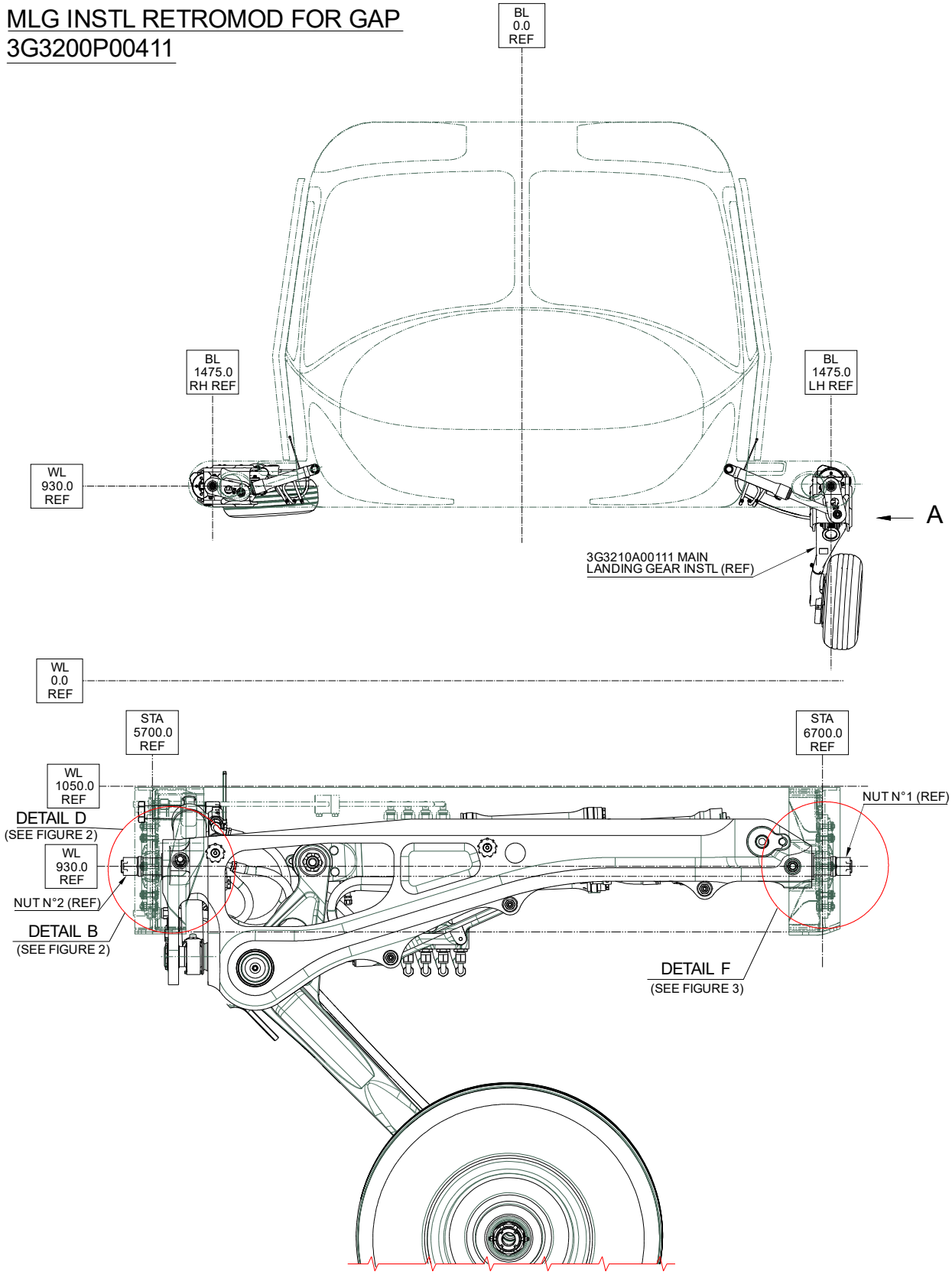
3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, re-install all external panels, internal panels and internal liners previously removed.
4. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

   As an alternative, send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardo.com

   and (for North, Central and South America) also to:

   AWPC.Engineering.Support@leonardocompany.us



VIEW A
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 1

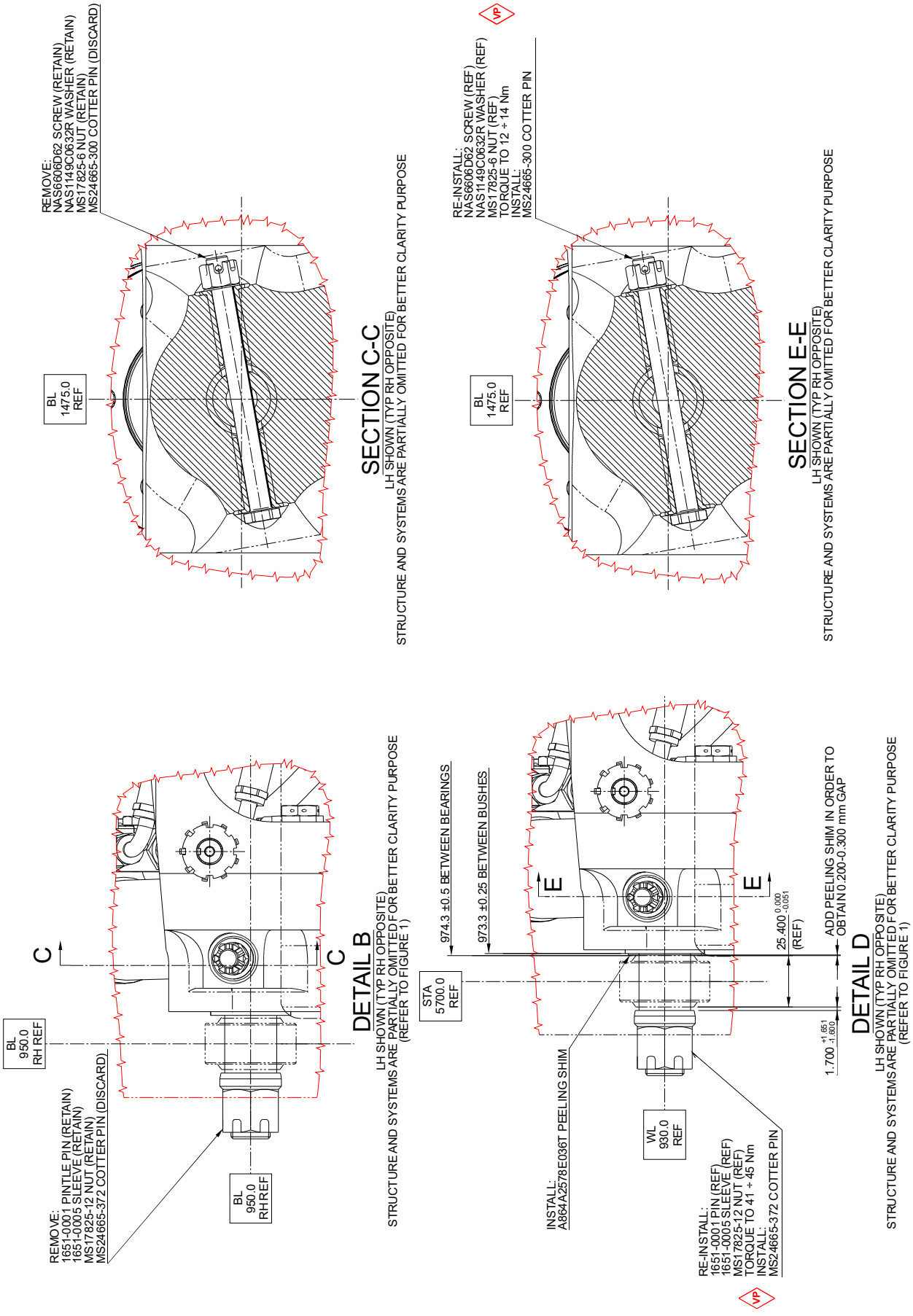

REMOVE:
NAS6606D62 SCREW (RETAIN)
NAS1149C0632R WASHER (RETAIN)
MS17825-6 NUT (RETAIN)
MS24665-300 COTTER PIN (DISCARD)
BL 1475.0 REF
SECTION C-C
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
RE-INSTALL:
NAS6606D62 SCREW (REF)
NAS1149C0632R WASHER (REF)
MS17825-6 NUT (REF)
TORQUE TO 12 ÷ 14 Nm
INSTALL:
MS24665-300 COTTER PIN
VP
BL 1475.0 REF
SECTION E-E
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
C
C
BL 950.0 RH REF
REMOVE:
1651-0001 PINTLE PIN (RETAIN)
1651-0005 SLEEVE (RETAIN)
MS17825-12 NUT (RETAIN)
MS24665-372 COTTER PIN (DISCARD)
BL 950.0 RH REF
DETAIL B
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
974.3 ±0.5 BETWEEN BEARINGS
973.3 ±0.25 BETWEEN BUSHES
STA 5700.0 REF
E
E
25.400 +0.000 -0.051
(REF)
ADD PEELING SHIM IN ORDER TO OBTAIN 0.200-0.300 mm GAP
1.700 +1.651 -1.600
INSTALL:
A864A2578E036T PEELING SHIM
WL 930.0 REF
RE-INSTALL:
1651-0001 PIN (REF)
1651-0005 SLEEVE (REF)
MS17825-12 NUT (REF)
TORQUE TO 41 ÷ 45 Nm
INSTALL:
MS24665-372 COTTER PIN
VP
DETAIL D
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)

Figure 2

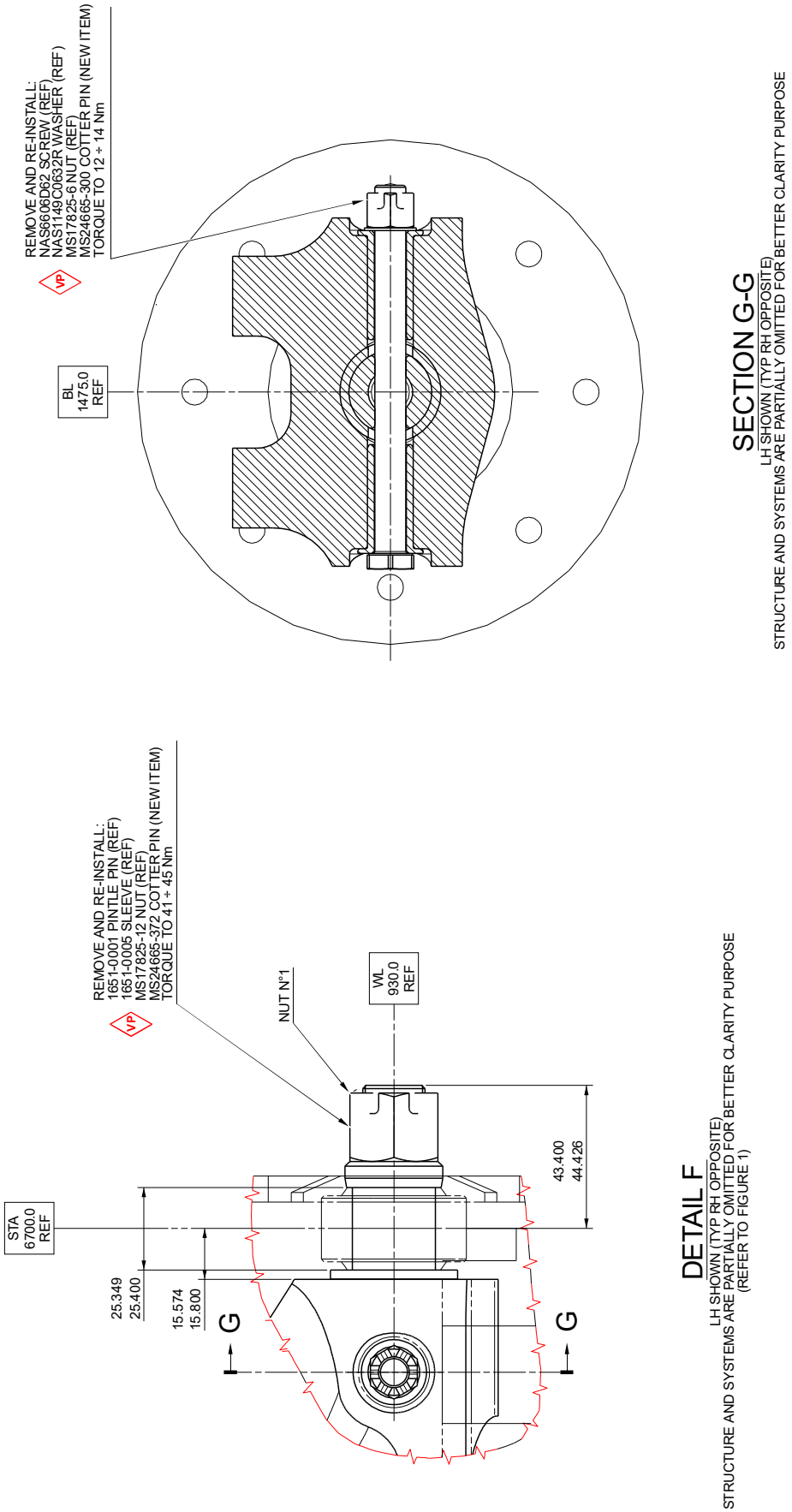

REMOVE AND RE-INSTALL:
NAS6606D62 SCREW (REF)
NAS1149C0632R WASHER (REF)
MS17825-6 NUT (REF)
MS24665-300 COTTER PIN (NEW ITEM)
TORQUE TO 12 ÷ 14 Nm
VP
BL
1475.0
REF
SECTION G-G
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
REMOVE AND RE-INSTALL:
1651-0001 PINTLE PIN (REF)
1651-0005 SLEEVE (REF)
MS17825-12 NUT (REF)
MS24665-372 COTTER PIN (NEW ITEM)
TORQUE TO 41 ÷ 45 Nm
VP
NUT N°1
WL
930.0
REF
STA
6700.0
REF
43.400
44.426
25.349
25.400
15.574
15.800
G
G
DETAIL F
LH SHOWN (TYP RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)

Figure 3

LEONARDO
HELICOPTERS

AgustaWestland Products

Please send to the following address: **LEONARDO S.p.A.** **CUSTOMER SUPPORT & SERVICES - ITALY** **PRODUCT SUPPORT ENGINEERING & LICENSES DEPT.** Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988	**SERVICE BULLETIN COMPLIANCE FORM**	Date:
	Number:	
	Revision:	

Customer Name and Address:	Telephone:
	Fax:
	B.T. Compliance Date:

Helicopter Model	S/N	Total Number	Total Hours	T.S.O.

Remarks:

Information:

We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.