Work Instruction

015 Research + Development
Repair Manuals
W_015_019

created	08.05.2012	Nindl Eduard
proved	05.06.2012	Leger Gerhard
released	18.06.2012	Bauer Rupert / List Ronald
Revision 00	06/2012	

1 Purpose

This work instruction regulates the procedures regarding the design, preparation, verification and archiving of GRAMMER AG repair manuals.

2 Scope

GRAMMER R&D worldwide

3 Terminology

none

4 Responsibilities

The implementation of and compliance with this work instruction is the responsibility of the Vice-President R&D.

5 Description

5.1 Why repair manuals?

GRAMMER AG is legally obliged to ensure that repairs and conversion work of their products can be carried out accurately and without any risk for the person carrying out this work (obligation to instruct).

The repair manual shall help to prevent any risks and therefore must comprise particularly the following requirements and comply with the statutory and non-statutory obligations such as e.g. standards etc. which have to be observed by GRAMMER AG:

- safety instructions to prevent accidents at work
- notes indicating possible risks for persons during repair work and concerning the prevention of these risks
- notes indicating possible damaging of material and concerning the prevention of this damaging
- notes regarding the use of oil, grease and other chemical substances
- necessary preparatory work
- description regarding the removal and installation of parts and assemblies

5.2 Who needs repair manuals?

Any person repairing our seats or carrying out conversion or refitting work.

Those are representatives in the service organisations of the OEMs as well as their mechanics in specialist workshops or our VIP dealers and their retailers (vendors) as well as, if applicable, specialist personnel in the OEM organisations being in charge of rework.

The repair manual must indicate particularly that persons not having the necessary knowledge or being not adequately trained for this work due to a missing vocational training are not allowed to carry out repair work on GRAMMER products.

Moreover, it has to be indicated that GRAMMER AG does not accept any guarantee or liability for material damage or injuries resulting from e.g. the non-observance of the repair manual and/or from improper assembly work.

5.3 Preparation of drafts for repair manuals

These documents shall be prepared by external service providers who are able to ensure a generally understandable description of the repair processes due to their neutrality.
With these companies, a non-disclosure contract shall be concluded.

The entire manual shall be prepared as a WORD file in A4 size (landscape format) and as a booklet (indication of pages / chapters and headers / footers).

Besides the product in question (current status), GRAMMER AG shall provide the following documents for the preparation of the repair manuals:

- spare parts lists and spare parts drawings
- assembly drawing and manufacturing parts list (level 1)
- drawings of individual parts, if applicable
- corresponding technical information for electrical and pneumatic components
- all information regarding stability, tightening torques and other specifications
- notes on special screws and their properties (e.g. safety belt screws)
- notes on the use and description of special tools

Drafts for repair manuals shall be written in GERMAN and ENGLISH language.

5.4 Verification

After the first draft is completed, the development shall get a sample copy for verification in German language from the external service providers which shall be verified with regard to factual correctness.

For this factual verification, the Central Claim Management shall be consulted. The corresponding time required for this factual verification shall be planned and considered.

The manual shall be translated only after the verification and written release or possible corrections.

5.5 Document data / object link

5.5.1 Archiving in the system archive

Archiving criteria:	Part	**sheet 1** = GERMAN (applies to a document, not page number)
	Part	**sheet 2** = ENGLISH (applies to a document, not page number)
	Format	**A4**
	Index	e.g. **A** (revision status)
	Doc. type	**REP**
	Origin	**WORD**
	Status	**"FR"** or **"UN"** (released / invalid)
	Product range	e.g. **MSG95**
	Rev. no.	---------

In the drawing archive, the repair manual has to be opened as PDF file or as DOC format. Advantageously, the PDF format shall be used when forwarding the repair manual. For contractual forwarding of the repair manual to OEMs, CDs shall be created according to the contractual obligations.

5.5.2 Drawing data

Draft for repair manual

Document type	**REP**
Doc. version	**(revision status / index)**
DIN format	**4**
No. of pages	**(no. of documents)** refer to chapter 5.3.1

5.5.3 Previous version of series-production documents (no functional units)

For correct assignment, the draft for the repair manual of the respective seats shall be provided with a Z marking and shall be included in the parts list at one of the first positions.

SAP code - CS11 – Parts list

```
Material     1236494                                    Alt.     Verw. 1
             FHR.SITZ MSG85/722                                  Gült. 03.02.2011
EinsMnge                 1,000 ST       Basismenge               1,000 ST

St Pos. Komponenten-Nr.                                          Menge ME PTp BGr
        Bezeichnung                                                     AsN

 1 0010 143406                                                   1,000 ST  Z
        MANUSKRIPT F.BEDIENUNGSANLEITUNG
 1 0020 1069219                                                  1,000 ST  Z
        MANUSKRIPT F.REPARATURANL.S721-S741
 1 0030 1078383                                                  1,000 ST  Z
        MANUSKRIPT F.REPARATURANL.MSG85
 1 0040 MSG85-01                                                 1,000 ST  Z
        ERSATZTEILZEICHNUNG F.FEDERUNG
 1 0050 S722-25                                                  1,000 ST  Z
        ERSATZTEILZEICHNUNG F.OBERTEIL
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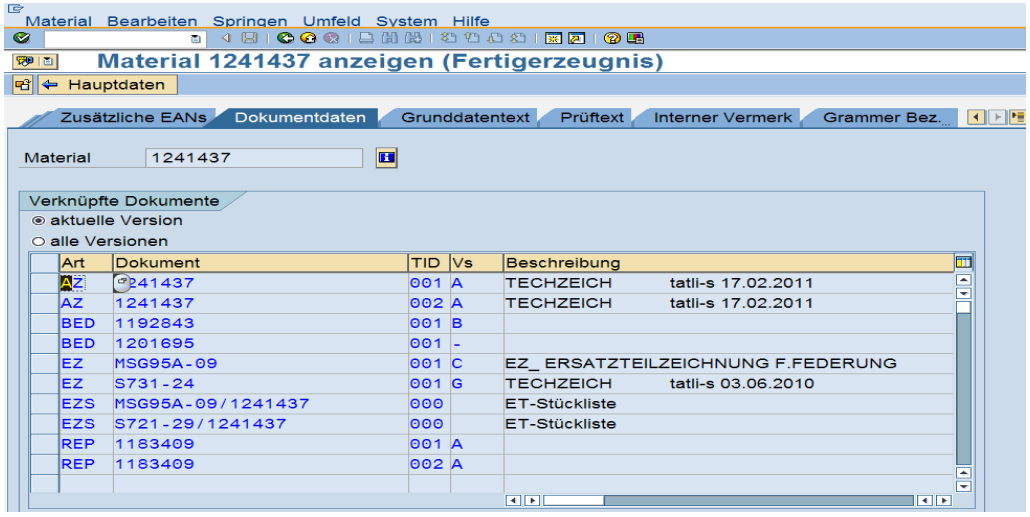
5.5.4 New version of series-production documents (with functional units)

For new products (e.g. VAREMO), in case of manufacturing documents including functional units, the draft for the repair manual shall be included in the document data of the respective seat.

SAP code – MM03 – Basic data – Additional data – Document data



5.6 Time and effort required for external preparation

For the preparation of the German verification draft of a new repair manual, a time period of 10 to 15 weeks shall be provided for depending on the scope.
Additionally, 2 to 3 weeks shall be included for translation.

6 Applicable documents

none	

7 Changes

"Design manual" has been changed to "Work Instruction".
Update / supplements
New draft