

- Subject : NOAH emergency bail out aid, improvements
- Effectivity : DG single seaters with single piece canopy and LS8 and LS10 which have been equipped with NOAH
- Accomplishment : **Instructions 1 up to 3:** During production and in case of servicing a NOAH cylinder which showed excessive pressure loss. Optionally with faultless NOAH cylinders.
Instructions 4: With new installations and in case of exchange of a damaged NOAH bag or when reaching the life limit of the bag of 10 years.
Instructions 5: Latest until August 31. 2015
- Reason : 1. – 3. So far the pressure loss of NOAH cylinders has been determined by weighing at the annual inspection.
With this procedure it may happen that cylinders with excessive leakage could loose too much pressure during 1 year resulting in a too small assistance for bailing out.
To solve this problem the NOAH system has been redesigned adding a pressure gauge between cylinder and valve.
This pressure gauge should be read during each pre flight inspection and during the annual inspection (instead of weighing the cylinder).
4. The manufacturer and the material of the NOAH bag are no more available. A new manufacturer and a comparable material have been chosen.
5. At the seat cushion used in LS gliders with NOAH the cover for the NOAH bag is sewed with a special thread to the cushion. This thread is designed to rip when the NOAH bag will be filled. During testing of the new NOAH bag (see item 4.) we found that the ripping happened a little too slow. Therefore the thread must be exchanged against a VELCRO strip.
- Instructions : 1. **Installation of a NOAH cylinder with pressure gauge** instead of the existing NOAH cylinder.
DG single seaters: NOAH cylinder according to drawing Z108 issue c or higher. You have to replace the plastic cover by a Plexiglas cover Z102/3 (DG-300, 600,800) or Z102/4. (DG-100, 200 400). The cut out for the hose in the main bulkhead must be modified according to drawing Z98 issue b or higher.
LS8 and LS10: NOAH cylinder according to drawing Z139 issue d or higher. You have to replace the stop Z141 by a stop Z141/1 with bush Z141/2 according to drawing Z139 (upper right section), the screwed joint to the fuselage remains the same. The cut out for the hose in the composite cover must be modified according to drawing Z146 issue a or higher.
2. **Pre flight inspection:** Read the pressure gauge. If the pressure is lower than 180 bar, the cylinder should be refilled, otherwise you have to expect a too small assistance for bailing out.
Annual inspection: see pre flight inspection, but the cylinder should be refilled if the pressure is lower than 190 bar.
3. **Manual revision:**
Exchange the following manual pages against new pages issued May 2015 marked with TN DG-G-11. Respect the changes marked in the right hand margin.
a) **DG single seaters:** Manual for the emergency bail out aid NOAH for DG single seaters, pages 2, 3, 5 -11, additionally drawing Z108 issue c, refilling instructions
LS8 and LS10: Manual for the emergency bail out aid NOAH for LS single seaters, pages 2, 3, 5 -11, drawing Z99 issue c, additionally drawing Z139 issue d, refilling instructions issue May 2015

- b) With the following variants in addition flight manual pages have to be exchanged
- DG-800S: 0.1, 0.5, 9.5
 - DG-808S: 0.1, 0.5, 9.4
 - DG-800B: 0.1, 0.5, 9.4
 - DG-808C: 0.1, 0.6, 9.4
 - LS8-s,sb: 0-1, 0-56, 9-5
 - LS8-t: 0.1, 0.7, 9-5
 - LS10-s,st: 0.1, 0.6, 9.4

4. NOAH bag: Use NOAH bag Z99/2 according to drawing Z99 issue c page 2

5. Seat cushion used in LS8 and LS10 with NOAH: Take the NOAH bag out of the seat cushion. Unsew the seam which connects the cover of the NOAH bag to the seat cushion. Send the cover to DG Flugzeugbau for modification according to drawing Z138 issue a or use a new cover or a new seat cushion incl. cover. Fold the NOAH bag according to drawing Z99 (in the NOAH manual) and lay it on the lower side of the seat cushion. Apply the new/changed cover and press it to the seat cushion.

Note: The VELCRO strip on the cover will attach to the cloth of the seat cushion without a VELCRO counter part.

Material

: **Instructions 1:**

DG single seaters:

NOAH cylinder with pressure gauge according to drawing Z108 issue c or higher.

Plexiglas cover Z102/3 (DG-300, 600,800) or Z102/4. (DG-100, 200 400)

Drawing Z98 issue b

LS8 and LS10:

NOAH cylinder with pressure gauge according to drawing Z139 issue d or higher.

Stop Z141/1 with bush Z141/2

Drawing Z139 issue d

Drawing Z146 issue a

Instructions 3: Manual pages see above

Instructions 4: NOAH bag Z99/2 according to drawing Z99 issue c page 2

Instructions 5: Cover Z138/3 new or modified,
or seat cushion Z138/2 issue a incl. cover Z138/3

Weight and balance

: influence negligible

Remarks

: Instructions may be executed by the pilot/owner himself and are to be inspected and entered in the aircraft logs by a licensed inspector at latest with the next annual inspection.

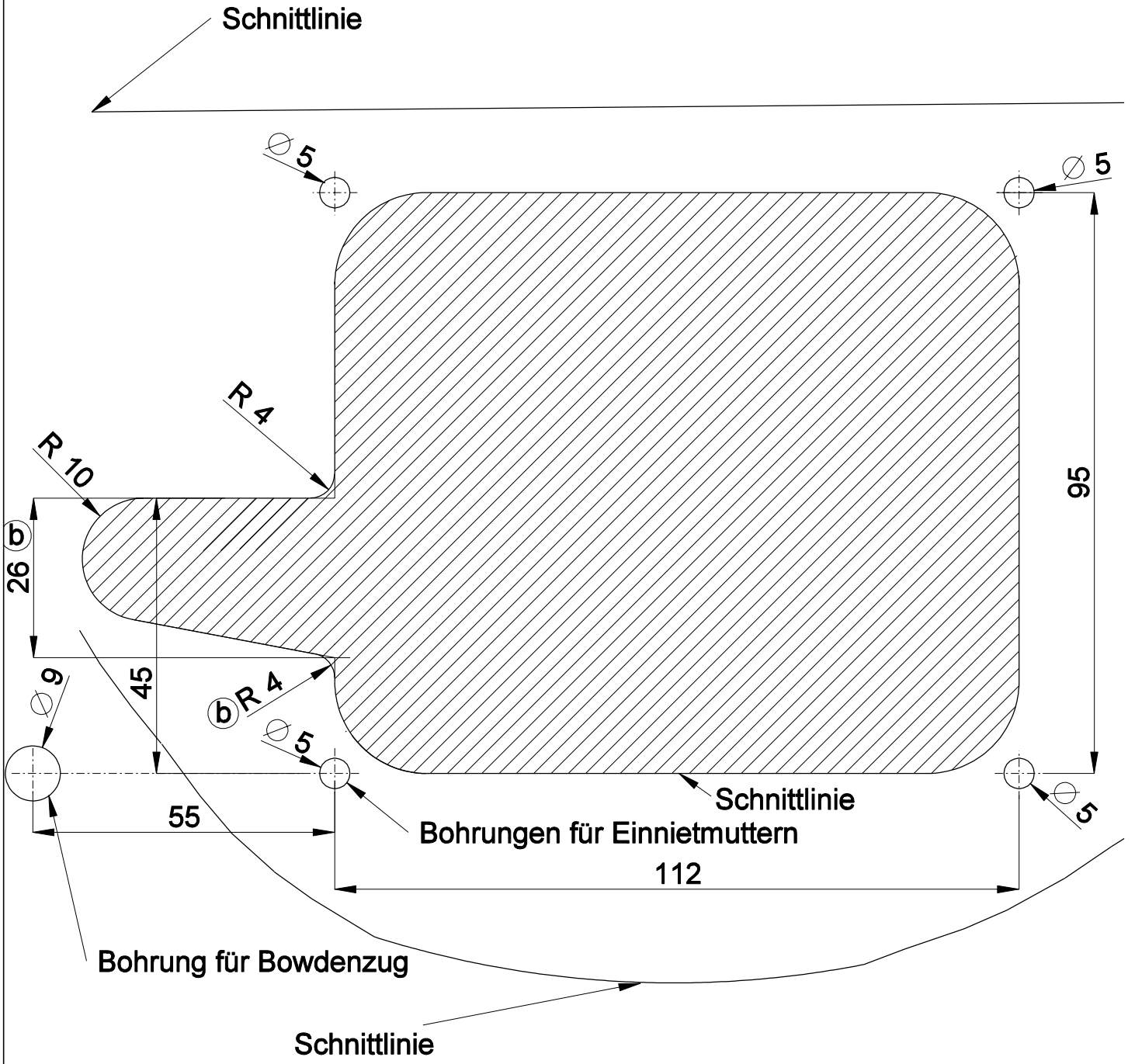
Bruchsal, date:
June 19. 2015

Author:

Modifications approved by EASA Date 07 July 2015
under Approval No. 10053955


Wilhelm D...

Abwicklung !

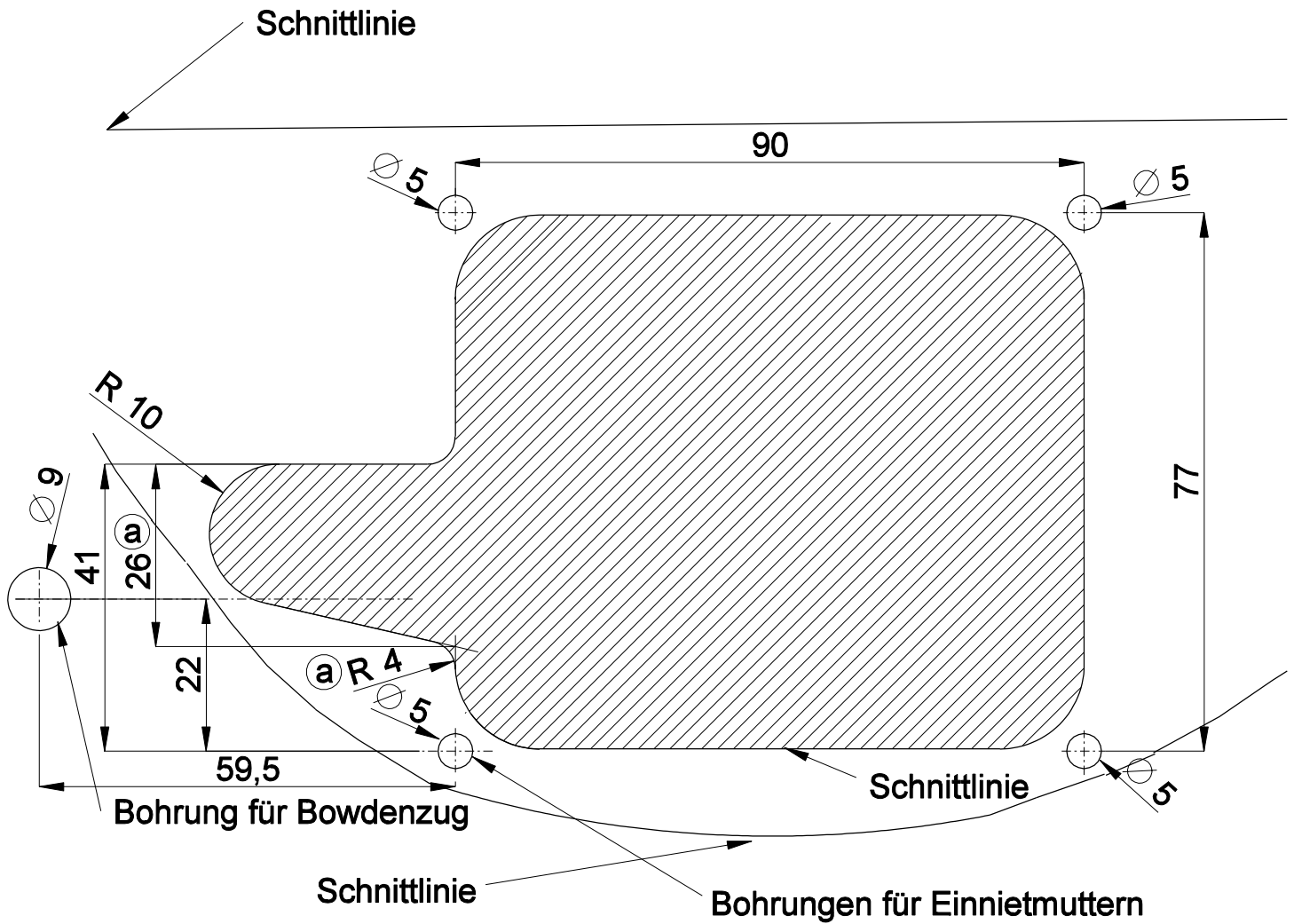


- Mit der Schere an der Schnittlinie entlangschneiden und in die Vertiefung für die Sauerstofffröhre positionieren.

Zeichnung gültig für DG-300, DG-600, DG-800


Toleranzen nach Arbeitsanweisung BA 1					Tag	Name	DG Flugzeugbau GmbH 76646 Bruchsal 4 Im Schollengarten 20
Schweißen nach Arbeitsanweisung SA 1					Gez.	22.04.99 S.Knöbl	
					Gepr.		
					Norm.		 Z98
					Maßstab	NOAH Ausschnitt im Hauptspant Schablone Bohrung für Bowdenzug	
					1:1		
					:		
					Maße ohne Toleranzang. nach:		
b	Aussparg. geändert wegen TM DG-G-11	2.06.15	W.Dirks				
a	Aussparung	20.06.02	W.Dirks				
	Abmessung	10.08.00	Thollot				
Ausg.	Änderung	ÄM	Tag	Name			

Abwicklung !



- Mit der Schere an der Schnittlinie entlangschneiden und in die Vertiefung für die Sauerstoffröhre positionieren.

Zeichnung gültig für DG-100, DG-200, DG-400

Toleranzen nach Arbeitsanweisung BA 1					Tag	Name	DG Flugzeugbau GmbH 76646 Bruchsal 4 Im Schollengarten 20
Schweißen nach Arbeitsanweisung SA 1					Gez.	17.12.02 W. Dirks	
					Gepr.		
					Norm.		
					Maßstab	NOAH Ausschnitt im Hauptspant Schablone Bohrung für Bowdenzug	 Z98-a
					1:1		
					Maße ohne Toleranzang. nach:		
a	Aussparg. geändert wegen TM DG-G-11		2.06.15	W. Dirks			
Ausg.	Änderung	ÄM	Tag	Name			

Spannstift / roll pin DIN1481-3 x 20 St

SS-6-MTA-1-2RS
ROHRADAPTER 6MM X G1/8 A
METRIC TUBE ADAPTER

in Zeichenebene gedreht /
rotated in drawing plane

(b) min. 3 mal verdreht und verlötet,
Schutzlack an den Lötstellen
vorher entfernen
twisted min. 3 times and soldered
remove coating prior to soldering

Sicherungsdraht / safety wire
M3 x 12DIN912-8.8zn
3,2 DIN125 Stzn

T-Stück Swagelok (d)
CS-STUGT-2014-0296AA

Manometer Swagelok (d)
PGI-40M-BG400-LASX

Eingeklebt mit UHU Plus Endfest
Tempern mind. 4 Std. bei 80°
Wichtiger Hinweis: vorderes Manometer
darf nicht mitgetempert werden

Z121/4 (d)

Hahn / valve
Swagelok SS-6P4T-MM

Z121/2 (d)

Z121/3 (d)

(d) Z121/1

Bohrung für Splint /
hole for split pin

Reduzierstück / adapter
Swagelok SS-6M0-1-6RS 6mm x G 3/8

Transportsicherung / transport securing
Splint / split pin 4 x 28 DIN94-St

Spalt 2 mal abkleben mit
Aluminiumklebeband 50x25 mm
Close opening with two strips
aluminiumtape 50x25mm

Ansicht von oben
view from the top

Splint / split pin
2 x 20 DIN94-St zn

Stellschraube / adjustment screw
M6x20/20

M6DIN439-8zn

Z136

2 x M5x16
DIN7984

Innenzug /
bowden inner
2533/1400

eingebaut, betriebsbereit
installed, ready for use

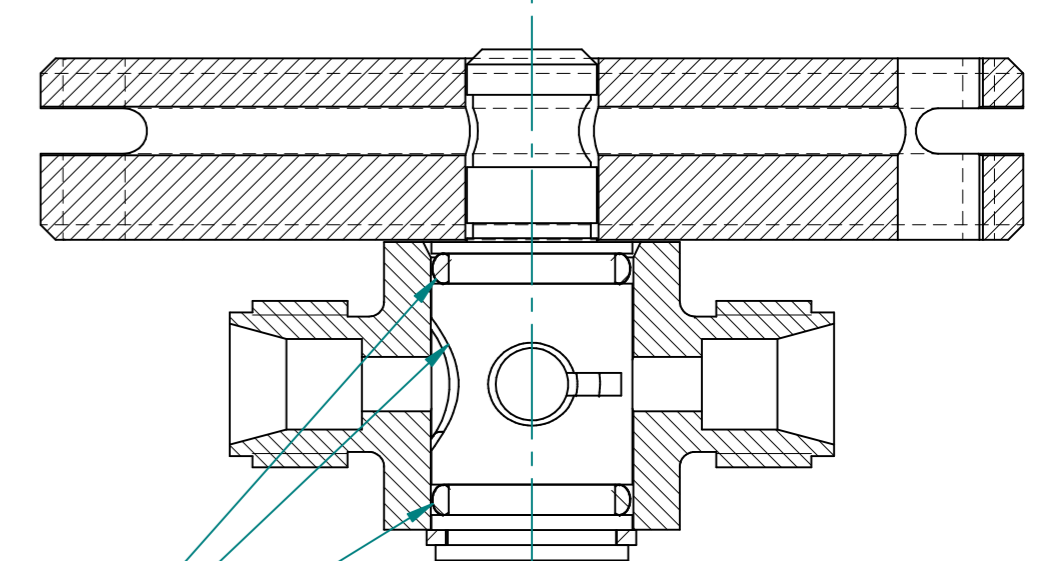
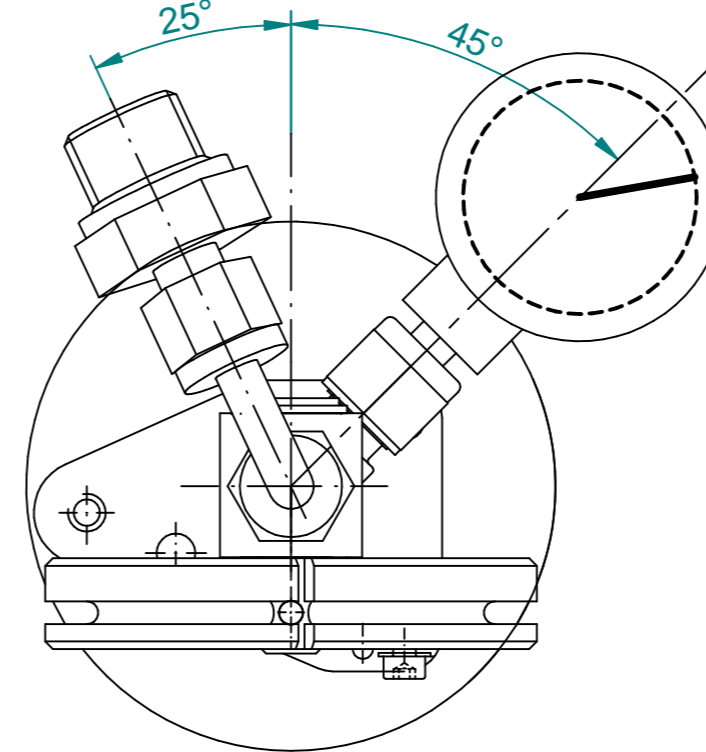
M5x30
DIN7984
5,3 DIN 9021

Z141/2

M5x16
DIN7984

Z141/1

Ansicht / view X
ohne Reduzierstück /
without adapter



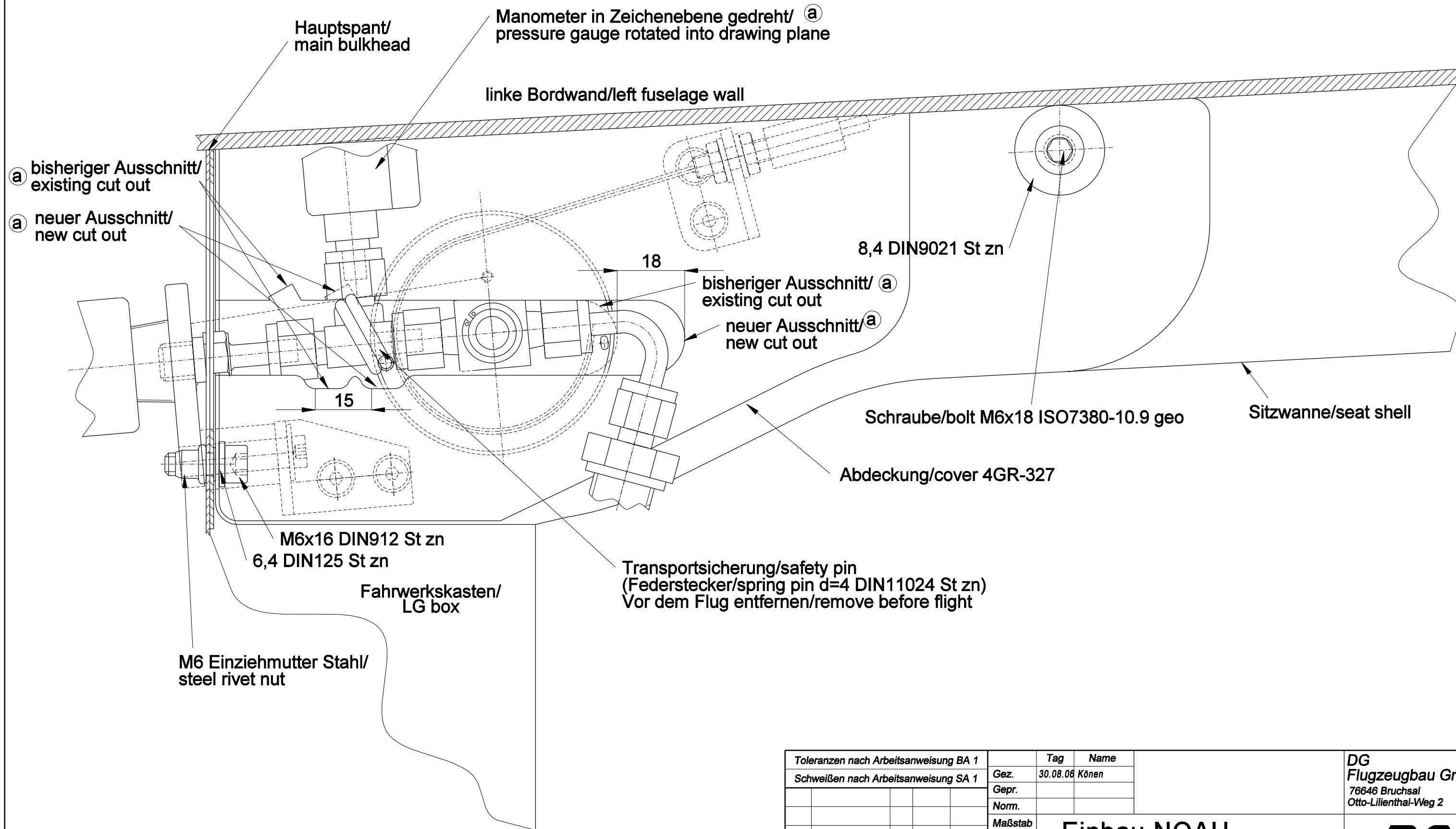
(d) Schnitt C-C


(d) O-Ringe (3x) einfetten mit Vaseline oder Silikonfett
Grease O-rings (3x) with petroleum jelly or silicone grease

(d) Bei wiederholtem anziehen: Mutter Handfest andrehen, dann einen dünnen Positionstrich auf Mutter und Rohr ziehen und weiter andrehen bis Widerstand spürbar ist oder max 1/4 Umdrehung

(d) By reapplication: Tighten nut by hand, apply a positioning line on both nut and pipe. Than tighten again untill you feel a resistance or do max. 1/4 rotation.

Toleranzen nach Arbeitsanweisung BA 1 Schweißen nach Arbeitsanweisung SA 1				Datum	Name		DG Flugzeugbau GmbH 76646 Bruchsal Otto-Lilienthal-Weg 2
Gez.	17.10.03	R. Kern					
	Gepr.						DG DG Flugzeugbau GmbH Z139
	Norm.						
	Maßstab:	1:1					NOAH-LS Zusammenbau Druckgasflasche mit Sicherung pressurised gas cylinder assmbley with securing system
	(1:2)						
d	Manometer installiert, Tempern und Swagelok	16.06.15	JBW				Seite 1 von 1
c	Adapter statt Rohr	04.04.08	W. Dirks				
b	Drahtsicherung korrigiert	03.04.08	W. Dirks				
a	Splint statt Federstecker als Transp. Sicherung	30.11.06	v.d. Bos				
Ausg.	Änderung	ab Wnr	Datum	Name			



Toleranzen nach Arbeitsanweisung BA 1					Tag	Name	DG Flugzeugbau GmbH 76646 Bruchsal Otto-Lilienthal-Weg 2
Schweißen nach Arbeitsanweisung SA 1					Gez.	30.08.06 Könen	
					Gepr.		
					Norm.		Einbau NOAH Ventilabdeckung Cover for NOAH
					Maßstab	1:1	
						:	
					Maße ohne Toleranzang. nach:		
a	Manometer erg.	TM DG-G-11	16.06.15	W.Dirks			 Z146
Ausg.	Änderung	ÄM	Tag	Name			