BG Verkehr
Verkehrswirtschaft
Post-Logistik
Telekommunikation

German Social Accident Insurance Institution for Commercial Transport, Postal Logistics and Telecommunication

Legislative Update

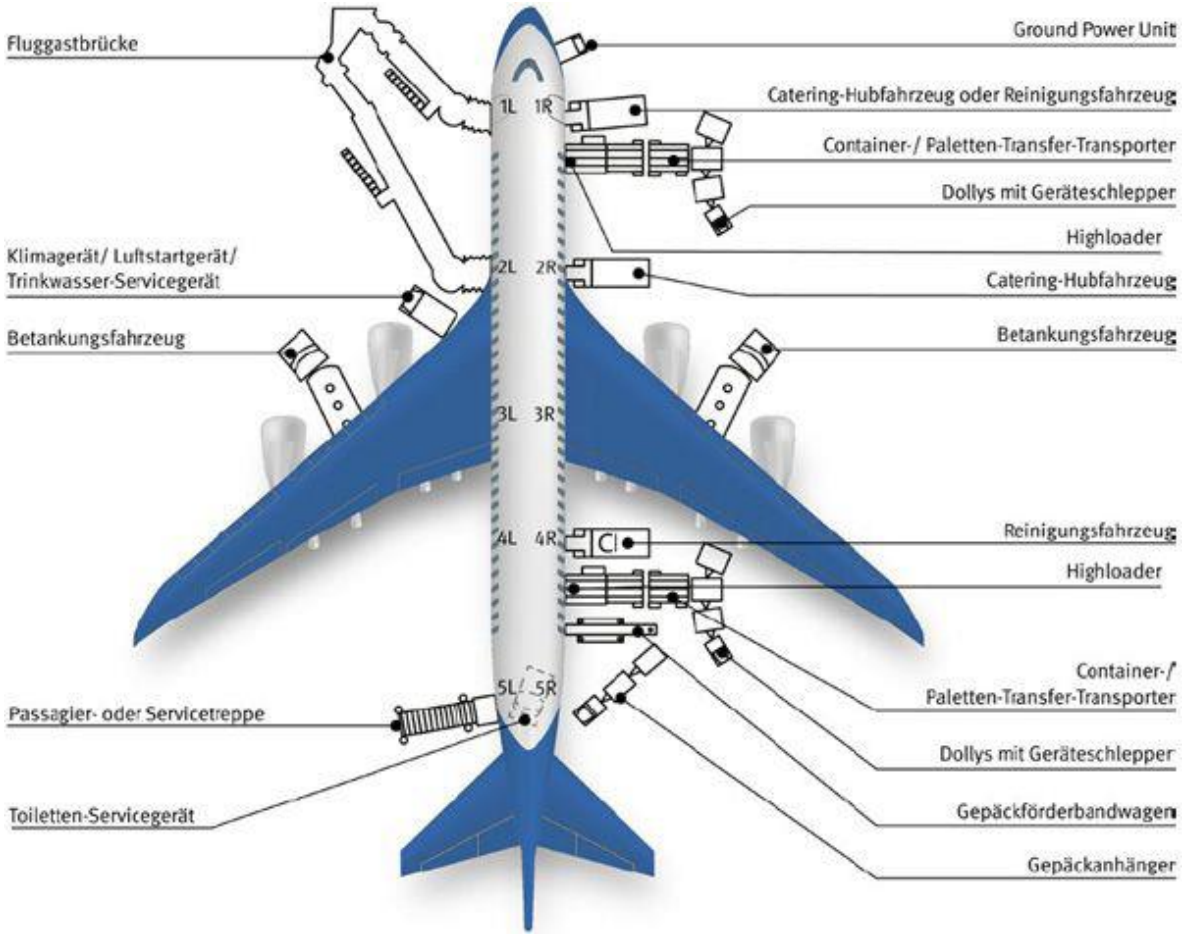
Report from the CEN TC/274
„*Aircraft Ground Support Equipment*“

and ***o***ther business

Helge Homann, Prevention and Technical Officer
Head of department “Aviation” at BG Verkehr

European standardization activities for GSE

- Personnel
- Brief overview of activities
- Prospects
- Joint of ISO/TC 20/SC 09 and CEN/TC 274
- New machinery regulation
- Other business



Personnel

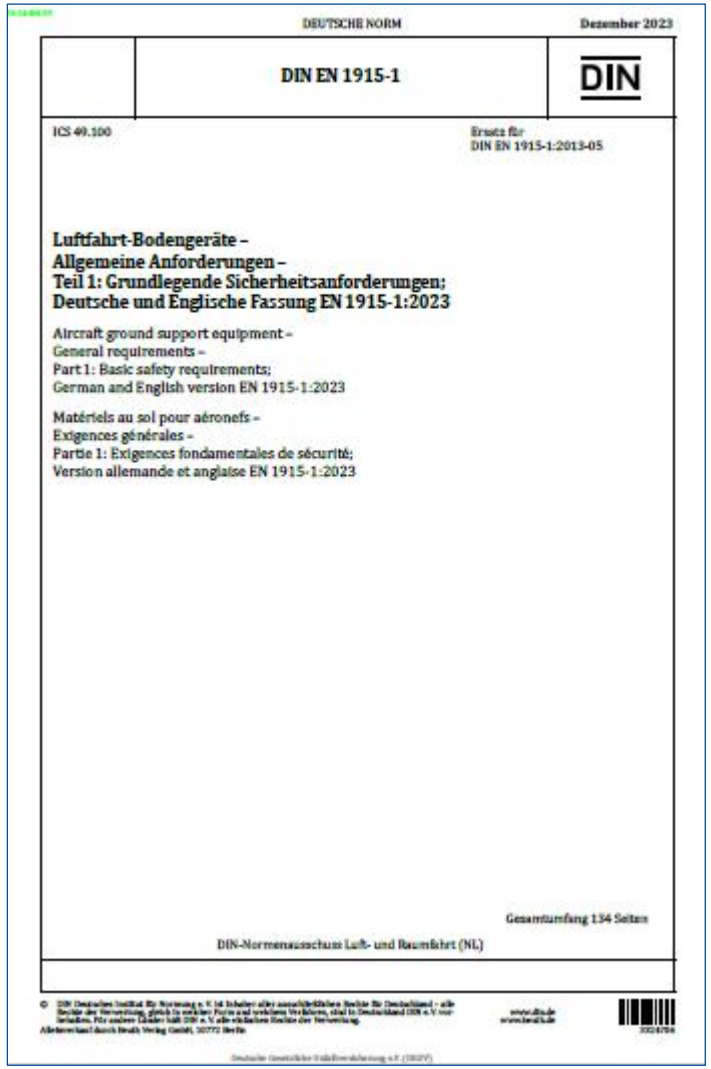
- **CEN/TC 274** "Aircraft ground support equipment“
  - Chairman: **Helge Homann (2018 – 2024/2027)**
  - Secretary: Dorothée Kretschmar; DIN

- **CEN/TC 274/WG 1** "Working Group Revision“
  - Convenor: **Helge Homann (2018 – 2024/2027)**
  - Secretary: Dorothée Kretschmar; DIN

- **NA 131-08-01** “Luftfahrtbodengeräte“
  - Convenor: **Caroline Krause (2022 - ….)**
  - Vice Convenor: **Helge Homann (2024 – 2026)**
  - Secretary: Dorothée Kretschmar; DIN

Actual

- prEN 1915-1, *Basic safety requirements*
  - This standard has been published in the OJEU in December 2023! ☺
- prEN 12312-1, *Passenger stairs*
  - This standard has been published in August by DIN and will be in the OJEU in February 2025! ☺
- prEN 12312-4, *Passenger boarding bridges*
  - *The latest draft was in the survey at CEN until 24.04.2024*
  - This standard will be published in December by DIN and will be in the OJEU in May 2025! ☺



DEUTSCHE NORM Dezember 2023

DIN EN 1915-1

DIN

ICS 49.100

Ersatz für
DIN EN 1915-1:2013-05

**Luftfahrt-Bodengeräte –
Allgemeine Anforderungen –
Teil 1: Grundlegende Sicherheitsanforderungen;
Deutsche und Englische Fassung EN 1915-1:2023**

Aircraft ground support equipment –
General requirements –
Part 1: Basic safety requirements;
German and English version EN 1915-1:2023

Matériels au sol pour aéronefs –
Exigences générales –
Partie 1: Exigences fondamentales de sécurité;
Version allemande et anglaise EN 1915-1:2023

Gesamtumfang 134 Seiten

DIN-Normenausschuss Luft- und Raumfahrt (NL)

Systematic reviews 2023/2024

- EN 1915-2:2009, *Stability and strength requirements, calculations and test methods*
- EN 1915-3:2009, *Vibration measurement methods and reduction*
- EN 1915-4:2009, *Noise measurement methods and reduction*
- EN 12312-10:2009, *Container/Pallet transfer transporters*
- EN 12312-11:2005, *Container/Pallet dollies and loose load trailers*
- EN 12312-16:2009, *Air start equipment*
- EN 12312-17:2009, *Air conditioning equipment*
- EN 12312-18:2009, *Nitrogen or Oxygen units*
- EN 12312-19:2009, *Aircraft jacks, axle jacks and hydraulic tail stanchions*
- EN 12312-20:2009, *Electrical ground power units*

Red = revision necessary; *Black = confirmed*

Joint of ISO/TC 20/SC 09 and CEN/TC 274

- First discussions between chairs and secretary on merging EN standards and ISO standards for GSE in 2021
- first standard for the transfer will be the EN *12312-11 [*Container/Pallet dollies and loose load trailers]; it will be adopted as identical ISO *32312-11*
- Another standard for transfer to ISO could possibly be EN 1915-3 "Vibration measurement methods and reduction". TC 20/ SC 09 voted on this in 2023. Decision was positive (also from China and North America!!)

NA 131-08-01 AA Luftfracht und Bodengeräte
Normenausschuss: Luft- und Raumfahrt (NL)

CEN/TC 274 “Aircraft ground support equipment”, the secretariat is held by DIN.

ISO/TC 20 Aircraft and space vehicles
Sekretariat: USA (ANSI)

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Examples, not a conclusive list

Item	IATA AHM	ISO	CEN
All kind of GSE	910	6966-1	1915-1
Passenger stairs	920	12056	12312-1
Catering-Trucks	926 / 927	27470 und 10841	12312-2
Conveyor belt vehicles	925	-	12312-3
Passenger boarding bridges	922	16004	12312-4
Deicers and deicing equipment	975	11077	12312-6
Aircraft movement equipment	933 / 955 / 956 / 957	7717 / 20683 / 9667	12312-7
Highloader, Container/Pallet loaders	930 / 931 / 932	27471 / 6968 / 6967	12312-9
……			

Reasons for take-over

Outlook

The current ***Machinery Directive 2006/42 EC*** will be replaced by a new ***Machinery Products Regulation 2023/1230 EC***.
Transition period for the application currently 36 months (January 2027).

Plan of the EU Commission

- As a further measure, the transition of harmonized standards from the Machinery Directive to the EU Machinery Regulation is to be made easier for standard users.
- To this end, standards published *between 2024 and the first half of 2026* are to be provided with two Annexes ZA - one for the Machinery Directive and one for the EU Machinery Regulation - which indicate which sections of the standard cover which legal provisions.

Difference between the Machinery *Directive* and the Machinery *Regulation*

- The main difference between the Machinery *Regulation* and the Machinery Directive is their binding nature. The directive is not binding and must first be transposed into national law by all member states. In contrast, the Regulation (after the expiry of certain transitional periods) applies directly to all EU states / countries - including companies in Germany.

Additional work for the TC 274 (Gap-Analysis)

- The TCs are requested to **carry out the gap-analysis** on whether their harmonized standards (hENs) under **Machinery Directive** (MD) are impacted by new or modified Essential Health and Safety Requirements (EHRSs) of **Machinery Regulation** (MR).
- This analysis shall be conducted for all harmonized standards, including EN ISO standards, that are today listed in the OJEU under the MD.
- Has to be done by ***October 2024***
- ***Review of content for 24 standards for GSE (!!)***

New ISO standard for airports – ISO 12604 - 2

Aircraft ground handling - Checked baggage

Part 2:

Handling requirements and guidelines

- **First edition 2024-02**

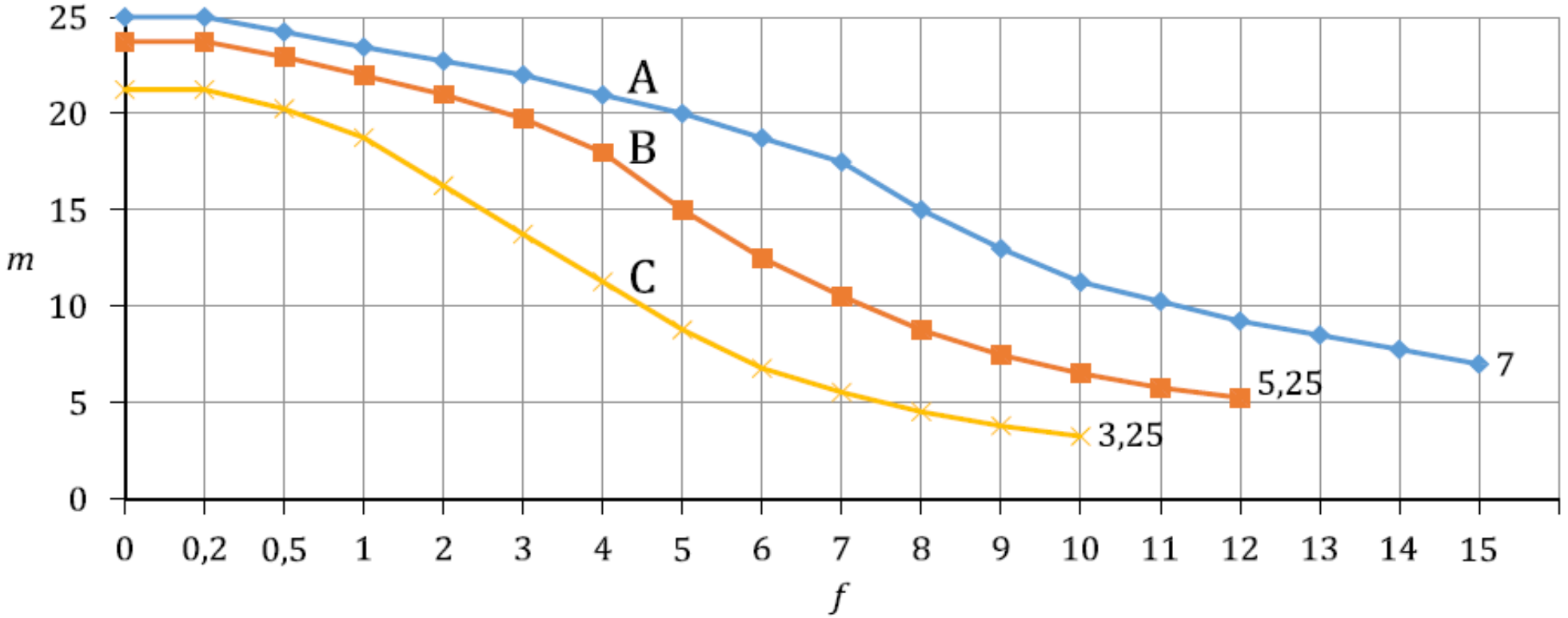
Handling requirements and guidelines

This document specifies the **handling conditions for baggage** checked-in by airline passengers to be carried into aircraft cargo holds, in order to:

- contribute to improving work conditions for baggage handling agents and reducing the incidence of musculo-skeletal disorders (MSD) in this population;
- facilitate enhancing the overall efficiency of baggage handling;
- provide instructions for the design of automated baggage handling systems increasingly used at airports.

The carrier and handling services provider are responsible for identifying and complying with legal requirements that can be locally applicable, such as Health and Safety government legislations and regulations applicable to machinery or manual handling of loads.

The analysis of the activity of the operators should be carried out considering the different working situations during a daily shift.



Key

m	mass (kg)
f	frequency (number of lifts per minute)
A	handling duration less than 1 h
B	handling duration from 1 h to 2 h
C	handling duration from 1 h to 8 h

Summery

- The new ISO 12604-2 formulates specifications/guidelines for aircraft handling and takes into account an average industrial population overall, so it does not differentiate between male and female employees. The document focuses in particular on the average weight of the items of baggage to be handled in conjunction with the frequency of handling.

- In order not to exceed the frequency of load handling per person and work shift, multiple handling of baggage must be avoided and different technical (e.g.; vacuum-lifter, ULD) and organizational measures (e.g. job rotation) must be used. In order to assess the effectiveness of preventive measures and the risk posed by load handling, the key characteristic method, for example, must be used. The Load Handling Ordinance (Germany) must also be observed.

Any other business

- BG Verkehr is publishing more and more information or regulations in ***different languages*** (some examples)
  - **Safe operations of helicopters during aerial work**
  - **Safe and Sound from Take-off to Landing**
  - **Safety through inspections of work equipment**
  - Attention on the Road
  - Lifting and carrying
  - Coupling – but safely!
  - Purchasing guide for company vehicles
  - Training for work on vehicles with high voltage systems
  - First aid (poster)
  - Instructing while reversing -) (Video)

New brochures for aviation

Inhaltsverzeichnis

Thunderstorms on the apron of commercial airports

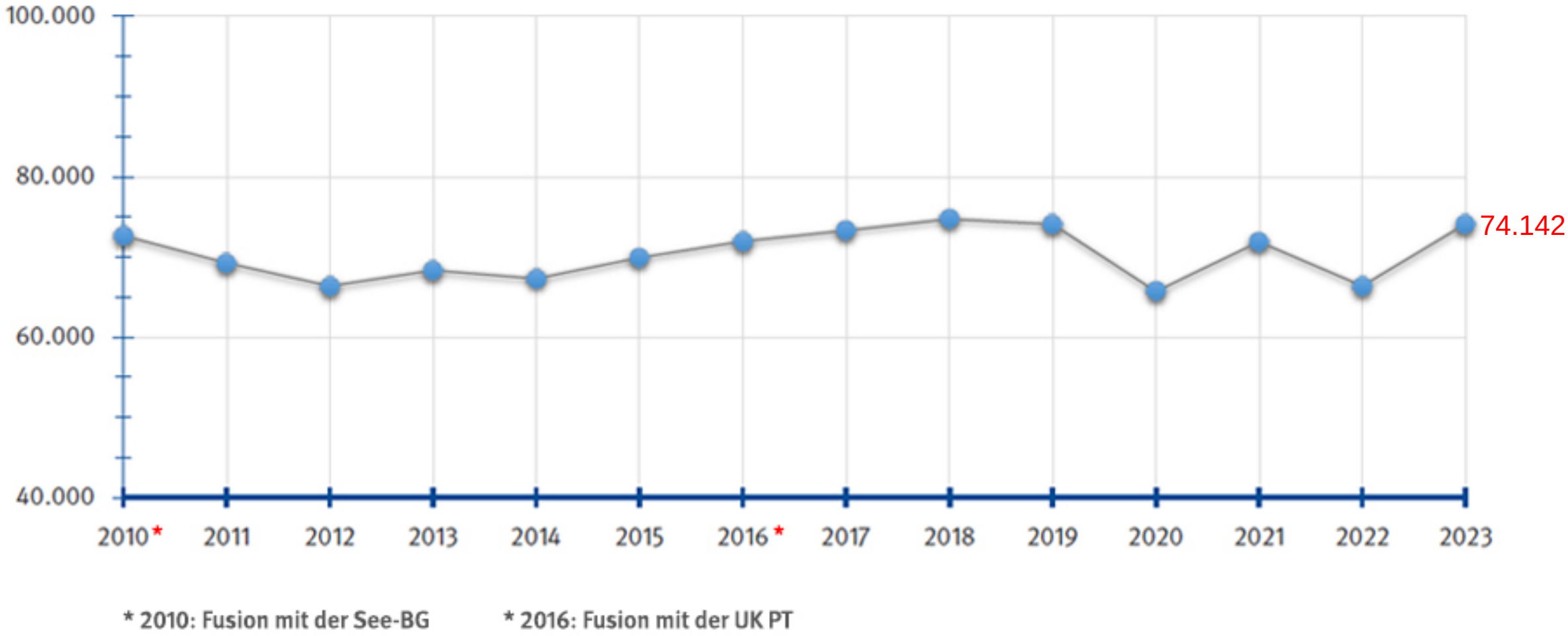
Inhaltsverzeichnis

Safe and healthy handling of hot air balloons

Inhaltsverzeichnis

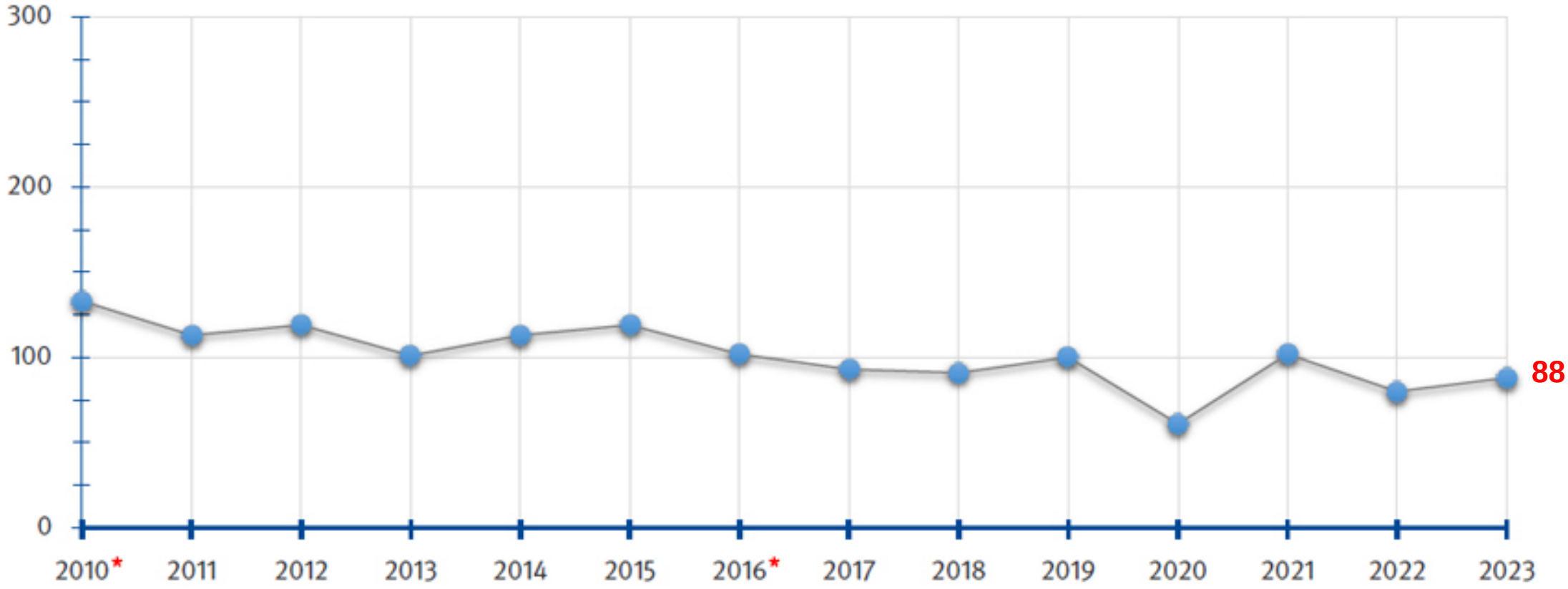
Any other business

Number of reportable* accidents at work in total BG Verkehr



*Reportable accidents at work are accidents resulting in more than three days' absence from work (including “way-to-work-accidents”)

Number of fatal work and commuting accidents



* 2010: Fusion mit der See-BG

* 2016: Fusion mit der UK PT

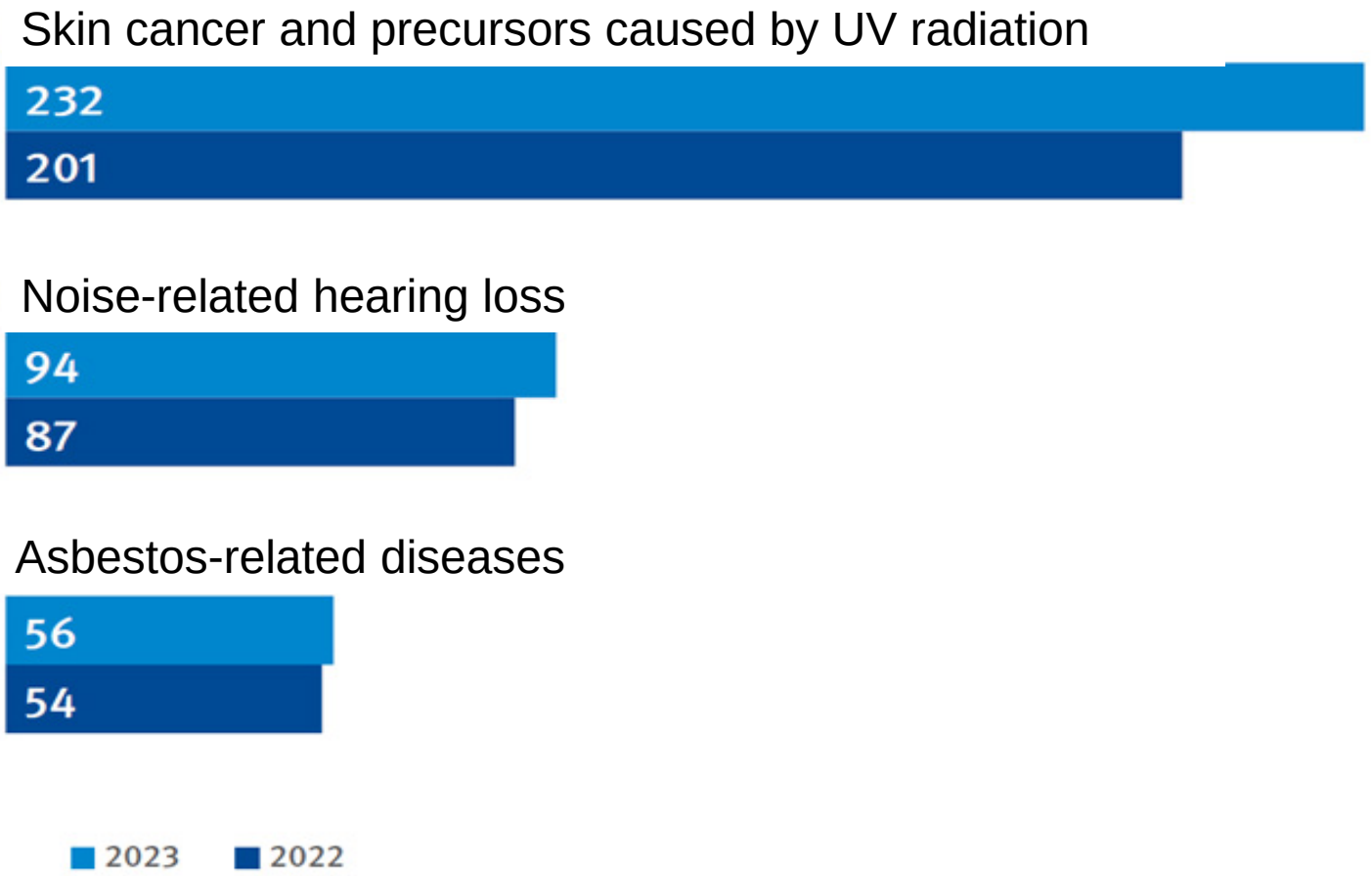
Deaths by category in Germany 2023

source: Statistisches Bundesamt

Age	total	Deaths by category				
		Accidents at work/school	traffic accidents	accidents at home	sports accidents	other accidents
unter 1 Jahr	13	-	.	7	-	4
1 bis 4	59	-	12	19	.	27
5 bis 15	81	.	28	13	12	27
15 bis 25	611	29	335	53	14	180
25 bis 35	723	37	286	101	21	278
35 bis 45	903	44	281	189	7	382
45 bis 55	1 182	52	301	306	17	506
55 bis 65	2 432	109	474	826	30	993
65 bis 75	3 576	34	420	1 615	24	1 483
75 bis 85	8 980	14	500	4 643	26	3 797
85 und älter	15 212	7	297	8 616	20	6 272
total	33 772	327	2 936	16 388	172	13 949

Aviation Gz 740	2018	2019	2020	2021	2022
Member companies	4.342	4.503	4.634	4.740	4.970
Full worker	130.084	124.805	123.239	112.343	116.968
Reportable accidents at work	**3.143**	**2.977**	**1.338**	**1.490**	**1.907**
Reportable commuting accidents	745	760	411	322	494
total	3.888	3.737	1.749	1.812	2.401
Thousand-man quota Aviation	24,16	23,85	10,86	13,26	16,30
Thousand-man quota BG Verkehr	44,41	43,62	39,32	43,01	37,92
New occupational accident pensions	19	21	20	19	10
New commuting accident pensions	8	11	14	5	0
Compensation benefits BG Verkehr in Million €	657,75	684,83	690,09	691,86	693,24
Compensation benefits aviation BG Verkehr in Million €	**21,24**	**22,57**	**21,67**	**20,63**	n. k.

Top-three occupational diseases occurred particularly frequently in BG Verkehr as a whole



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Cost-intensive accidents Aviation 1.03.23 - 01.04.2024

Course of accident	injury	job	costs in €
Car driver collided head-on with a truck	Multiple contusions and fractures of the lower extremities	IT Consultant	113.175€
Lost consciousness on the stairs and fell	10 cm head laceration	Aircraft mechanic	107.340€
Assaulted on the way to work on his own doorstep. Pushed to the ground by the perpetrator	Fracture of thoracic vertebral body 12 and lumbar vertebral body 1	IT Manager	107.243€
Cyclist drove through a pothole and crashed	Multiple fractures of the elbow and foot on the right	Planning engineer	100.334€
Lost control of the car	Multiple comminuted fractures entire body	Aircraft mechanic	65.044€
Falling over the edge of the carpet in the **home office**	Fracture of the proximal humerus and shoulder dislocation	Clerc	63.668€
While transferring from the flight kit (trolley case) fell forward and hit the knee	Left kneecap broken	Flight attendant	61.674€
Fell from the step when opening the cargo door and fell onto the thorax/neck area	**Paraplegics**	loader	54.239€
Plane crash shortly after take-off with Learjet	Multiple **fatal** injuries	Pilot	50.359€
Crashed from a height of approx. 50 m during a training jump	Fracture of lumbar vertebral body 5, fracture of metatarsus, pelvic fracture, etc.	Skydiving instructor	47.508€

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Course of accident	injury	job	costs in €
Plane crash shortly after take-off with Learjet (2nd Person)	Multiple **fatal** injuries	Pilot	**37.998€**
Thumb overstretched when closing a waste garbage can in the on-board toilet	Thumb joint and tendon hyperextended	Flight attendant	**36.460€**
Twisted over on landing during a tandem jump	Ankle dislocation	Trainee	**36.177€**
Cut his left hand on a sharp edge while waiting at the bus stop	Deep cut	Flight attendant	**31.643€**
Fell while lifting out the slide-in boxes in the galley	Contusion of the shoulder joint	Flight attendant	**29.305€**
Twisted his right foot while descending stairs at the airport	Ankle fracture with surgical intervention	Loader	**28.608€**
Twisted wrist during exercise on the emergency slide	Closed fracture of the wrist	Flight attendant	**27.224€**
Crashed while approaching a red light on a bicycle	Right ankle sprain	Clerc	**26.297€**
Stuck at the security checkpoint when passing through the turnstile	Closed fracture of the femoral neck	Clerc	**25.614€**
Flown into a cable car cable during take-off as a paragliding instructor	Open fracture of both lower legs	Skydiving instructor	**23.395€**

A few more historical things from the world of occupational health and safety

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Thank you very much for your attention!

Q & A