

Webinar

Harmonized standards in support of the Machinery Regulation: Update of gap-analysis and new Annex ZA/ZZ



*We start at
10:00
CEST*

Webinar moderator



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Your speakers



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Agenda

00	10:00-10:05	Introduction & Practicalities	Els SOMERS (CEN-CENELEC)
01	10:05-10:20	Introduction and purpose of the Gap-Analysis Exercise	Frank WOHNSLAND, DIN/VDMA, CEN-CENELEC Machinery COG Chair
02	10:20-11:00	Update on the Gap-Analysis Exercise - Status - Results & Follow up - Impact on the future revision of standards	Catherine LUBINEAU, AFNOR/UNM, Secretariat of Machinery COG Peter BROERTJES, Policy Officer for Machinery at the European Commission (EC) Frank WOHNSLAND, DIN/VDMA, CEN-CENELEC Machinery COG Chair
03	11:00-11:30	New Annex Z template and Instructions for harmonized standards in support of the Machinery Regulation	Nuno PARGANA, Account Manager, Manufacturing at CEN-CENELEC Hugo DOURADO, Project Manager, Manufacturing at CEN-CENELEC
04	11:30-12:00	Q&A	All

CCMC: CEN-CENELEC Management Centre

EC: European Commission

EHSR: Essential Health and Safety Requirements (of Machinery Directive and/or Machinery Regulation)

hEN: European harmonised standard

MD: Machinery Directive

MR: Machinery Regulation

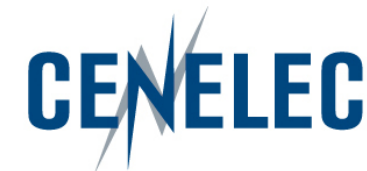
OJEU: Official Journal of European Union

SReq: Standardization Request

SRAHG: Standardization Request Ad-hoc Group

VA: Vienna Agreement

FA: Frankfurt Agreement



Introductory remarks on objectives of gap-analysis and priorities

Frank WOHNSLAND, DIN/VDMA
CEN-CENELEC COG Machinery Chair



Situation in the Machinery Sector in 2023

What was the purpose of the gap analysis?



Some numbers to start with:

- ▶ In 2023 about **800** harmonized standards in support of the Machinery Directive 2006/42/EC were cited in OJEU:
 - ▶ One type-A standard on basic principles
EN ISO 12100
 - ▶ More than 100 type-B hENs (on common aspects):
> 90 from CEN and 10 from CENELEC
 - ▶ Approx. 700 type-C hENs (on particular types of machinery):
≈ 620 from CEN and ≈ 80 from CENELEC
- ▶ By today the overall number has even increased considerably

New Machinery Regulation

Impact of the MD-revision (some examples)



- ▶ New EHSR 1.1.9 (protection against corruption)
 - ▶ Impact on perhaps 80(?) % of type-C hENs (probably on even bigger number of standards)
- ▶ New EHSR 3.2.4. 'Supervisory function'
 - ▶ Relevant for considerable number of hENs, e.g. on lifting equipment, construction machinery, agricultural machinery, mining, industrial trucks etc.
- ▶ New EHSR 3.5.4. 'Risk of contact with live overhead power lines'
 - ▶ Relevant for considerable number of hENs for mobile machinery
- ▶ Modifications in some existing EHSRs (e.g. on vibrations or seating)
 - ▶ Impact on approx. 60% of hENs

Development of hENs in support of MR

Carry over of “old” hENs

- ▶ EC intended to cite as many harmonized MD-standards as possible also under the new Machinery Regulation
- ▶ Challenges:
 - ▶ Most of the “old” hENs do not necessarily cover new or strongly modified EHSRs of the new MR
 - ▶ Regular revision or amendment of all “old” hEN (including new formal drafting requirements etc.) was simply not achievable until 2027
- ⇒ Idea to transfer/“carry over” – as far as feasible – the “old” hENs from the MD to the new MR
- ▶ Of course these “old” hENs could keep presumption of conformity only with respect to those EHSR that they used to address under MD (and some new EHSR from MR if they happen to already cover today)
 - ⇒ **this needed to be indicated in the OJEU**

Development of hENs in support of MR

Carry-over of “old” hENs

⇒ Request from EC:

- ▶ Review/gap analysis with regard to new or modified EHSR for ALL hENs under MD that are intended to be carried over to MR
- ▶ Communication of these existing gaps to EC
- ▶ Task to be carried out was given to the TCs in charge of the respective standards (no fixed rules, self-organization)
- ▶ Results of the gap analysis were communicated to the Commission via a unified template to enable EC to deal with > 700 (!) gap analyses

Carry-over of “old” hENs

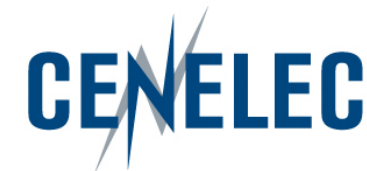
Possible outcome and subsequent steps

- ▶ In principle three possible general results (basic principle):
 - ▶ hEN is NOT affected by the new/modified EHSRs $\Rightarrow$ likely to be cited in the OJEU under MR as it is
 - ▶ hEN is affected by some of the new/modified EHSRs, but is already covering them $\Rightarrow$ also likely to be cited under MR
 - ▶ hEN is affected by some of the new/modified EHSRs, but is not (sufficiently) addressing them $\Rightarrow$ citation in the OJEU possible, but with restriction(s)
- ▶ If TCs decided to not carry out review for certain hENs, these are unlikely to be cited
- ▶ Special consideration for some A- or B-standards (do not all fit into this scheme)

Carry-over of “old” hENs

Possible outcome and subsequent steps

- ▶ In February 2025: Gap-Analysis tool for TCs was developed, exercise by TCs carried out in 2024, some later in 2025/2026
- ▶ Analyses for vast majority of hENs were handed over to the Commission in three batches:
 - ▶ Extensive plausibility checks by HAS-consultants in 2025/2026
 - ▶ All(!) analyses were “assessed” (NOT in the classical sense of HAS assessments, but concerning their information about gaps)
 - ▶ Results were forwarded to European Commission
- ▶ EC decides how to convert the information given in the gap analyses (and in the checks of the consultants) into restrictions for their listing in the OJEU under the new MR



Update on the Gap-Analysis Exercise

Catherine Lubineau (AFNOR/UNM)
Secretariat of CEN-CENELEC COG Machinery



- ▶ Exercise on all active hENs **cited in OJEU** for Machinery Directive (including parallel work)

- ▶ 3 batches were provided to EC :
 - ▶ One beginning 2025 including ~ 650 standards – ONLY CITED standards
 - ▶ A second batch in may 2026 including 65 standards cited at the OJ AND 17 not cited at that time
 - ▶ A third batch in August 2026 including 20 standards cited at the OJ AND 20 not cited at that time

- ▶ Results : the standards were assessed (or will be soon) and restrictions will be included at OJ

- ▶ For standards with several answers in the tool :
 - ▶ Before first batch : the last answer in the tool was taken into account
 - ▶ After delivery of first batch : EC was informed

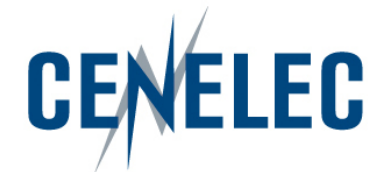
- ▶ Standards not yet cited (but having reached formal vote) were included in the tool in 2026 and sent to EC not to loose time because the process of citation was ongoing

- Statistics – EHSRs relevant for the most kind of machinery (for more than 50% of standards)

EHSR	Title
1.1.2	Principles of safety integration
1.1.6	Ergonomics
1.1.9	Protection against corruption
1.2.1	Safety and reliability of control systems
1.2.6	Failure of the power supply or communication network connection
1.7.4.2	Contents of the instructions for use

- Statistics - Among the relevant EHSRs, which ones are already covered by more than 50% of the harmonized standards ?

EHSR	Title
1.1.2	Principles of safety integration
1.1.6	Ergonomics
1.2.6	Failure of the power supply or communication network connection
1.3.7	Risks related to moving parts
1.6.2	Access to operating positions and servicing points
1.7.4.2	Contents of the instructions for use
2.1.1	Machinery and related products for foodstuffs and machinery and related products for cosmetics or pharmaceutical products - General
2.2.1	Portable hand-held or hand-guided machinery or related products - General
2.2.1.1	Portable hand-held or hand-guided machinery or related products - Instructions for use
3.2.2	Mobility - Seating
3.5.1	Mobility – Batteries
3.5.3	Mobility - Emissions of hazardous substances
4.1.2.3	Lifting - Mechanical strength
6.2	Lifting of persons - Control devices
Part B	General Principles



Follow up on the Gap-Analysis exercise

Peter BROERTJES, Policy Officer for Machinery at the European Commission(EC)



Gap-analysis carried out by TCs

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	date	tc	norme	Part B_rel	Part B_cov	Part B_ref	1.1.2. Prin	1.1.2. Prin	1.1.2. Principles of safety integration_ref	1.1.6. Ergo	1.1.6. Ergo	1.1.6. Ergo	1.1.9 Prote	1.1.9 Prote	1.1.9 Protecti
2	2025-03-12	CEN/TC 136	EN 957-6:2010 and A1:2014	no			yes	yes	6.5	no			no		
3	2026-02-04	CEN/TC 144	EN 13684:2018 and A1:2024	no			yes	no		yes	yes	5.8.1, 5.8.2	no		
4	2025-12-04	CEN/TC 147	EN 12077-2:2024	no			no			no			no		
5	2026-03-31	CEN/TC 147	EN 17076:2020 and A1:2025	no			yes	yes	9.4	yes	yes	5.1.5, 6.5,	yes	no	
6	2026-04-14	CEN/TC 147	EN 13001-3-1:2025	no			no			no			no		
7	2026-04-07	CEN/TC 150	EN 1459-1:2025	no			yes	no		yes	no		yes	no	
8	2026-04-08	CEN/TC 150	EN 1459-5:2020 and A1:2025	no			yes	yes	4.8	yes	yes	Clause 4.1	yes	no	
9	2026-04-08	CEN/TC 150	EN 1459-4:2020 and A1:2025	no			no			no			no		
10	2025-11-04	CEN/TC 153	EN 13534:2006 and A1:2010	no			yes	yes	7.1 d)	yes	no		yes	no	
11	2025-11-04	CEN/TC 153	EN 13570:2005 and A1:2010	no			yes	yes	7.2	yes	yes	5.2.3.3.3,	no		
12	2025-07-04	CEN/TC 242	EN 15700:2023	yes	yes		4 yes	yes	4,5,6,7	yes	yes	1 (= auton	yes	no	
13	2025-10-17	CEN/TC 271	EN 12621:2025	no			yes	no		yes	no		yes	no	
14	2025-10-17	CEN/TC 271	EN 1953:2025	no			yes	no		no			no		
15	2025-11-26	CEN/TC 274	EN 12312-4:2024	no			yes	yes	Multipartstandard; (e) is covered in EN 19	yes	yes	(b) is cove	no		
16	2026-04-07	CEN/TC 274	EN 12312-5:2021 and A1:2025	yes	yes	5.1	yes	yes	Multipartstandard; (e) is covered in EN 19	yes	yes	(b) is cove	no		
17	2026-04-07	CEN/TC 274	EN 12312-15:2020 and A2:2025	yes	yes	5.1	yes	yes	Multipartstandard; (e) is covered in EN 19	yes	yes	(b) is cove	no		
18	2025-04-02	CEN/TC 301	EN 17003:2021	yes	no		yes	no		no			yes	no	
19	2025-12-10	CEN/TC 33	EN 12978:2024	no			yes	yes	5, 6, 2007	no			yes	no	
20	2026-02-04	CEN/TC 98	EN 1494:2000 and A1:2008	yes	no		no			yes	no		yes	no	
21	2025-06-16	CLC/TC 116	EN 62841-2-1:2018 and A1:2022 and A11:2019 and A12:2022	no			yes	yes	8.14.2 a) 7), 8.14.2 b) 1)	no			yes	yes	21.36, 21.37
22	2025-06-16	CLC/TC 116	EN 62841-2-2:2014 and AC:2015	no			yes	yes	8.14.2 a) 7), 8.14.2 b) 1)	no			yes	yes	21.36, 21.37
23	2025-06-16	CLC/TC 116	EN 62841-2-4:2014 and AC:2015	no			yes	yes	8.14.2 a) 7), 8.14.2 b) 1)	no			yes	yes	21.36, 21.37
24	2025-06-26	CLC/TC 116	EN 62841-2-5:2014	no			no			no			yes	yes	21.36, 21.37
25	2025-06-26	CLC/TC 116	EN 62841-2-8:2016	no			yes	yes	8.14.2 a) 7), 8.14.2 b) 1)	no			yes	yes	21.36, 21.37
26	2025-06-26	CLC/TC 116	EN 62841-2-9:2015 and AC:2016-10	no			yes	yes	8.14.2 a) 7), 8.14.2 b) 1)	no			yes	yes	21.36, 21.37
27	2025-06-26	CLC/TC 116	EN 62841-2-10:2017	no			no			yes	yes	8.14.2 a) 7)	yes	yes	21.36, 21.37



Gap-analysis-analysis carried out by HAS consultants

	C	D	E	F	G	H	I	J	K	L	M
	tc	norme	Part B_relevant	Part B_covered	Part B_references	1.1.2. Principles of safety integration_relevant	1.1.2. Principles of safety integration_covered	1.1.2. Principles of safety integration_references	1.1.6. Ergonomics_relevant	1.1.6. Ergonomics_covered	1.1.6. Ergonomics_references
1	CEN/TC 122	EN 1005-1:2001 and A1:2008	yes	no		no			yes	yes	3
2	done	NEGATIVE	OK	OK					OK	NO	This clause concerns definition. It cannot be used to provide presumption of
3	CEN/TC 122	EN 1005-2:2003 and A1:2008	yes	no		no			yes	yes	4.1, 4.2, 4.3, 4.4
4	done	NEGATIVE	OK	OK					OK	NO	The listed clauses, in general, provide suggestions instead of requirements. In particular
5	CEN/TC 122	EN 1005-3:2002 and A1:2008	yes	no		no			yes	yes	4.1, 4.2, 4.3
6	done	NEGATIVE	OK	OK					OK	NO	Clause 4.3, provide suggestions instead of requirements (use of should
7	CEN/TC 122	EN 1005-4:2005 and A1:2008	yes	no		no			yes	yes	4.1, 4.2, 4.3
8	done	NEGATIVE	OK	OK					OK	NO	EHSR 1.1.6, sections f) and g) are not covered
9	CEN/TC 198	EN 1010-1:2004 and A1:2010	no			yes	no		yes	yes	b) not covered, f) 5.2.7 g) not relevant
10	done	NEGATIVE	Part B is relevant								
11	CEN/TC 198	EN 1010-2:2006 and A1:2010	no			yes	no		yes	no	
12	done	NEGATIVE	Part B is relevant								
13	CEN/TC 198	EN 1010-3:2002 and A1:2009	no			yes	no		yes	no	
14	done	NEGATIVE	Part B is relevant								
15	CEN/TC 198	EN 1010-4:2004 and A1:2009	no			yes	no		yes	no	
16	done	NEGATIVE	Part B is relevant								



Gap-analysis-analysis-analysis carried out by Commission

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Example 1 re-citation under MR

EN 1012-2:1996+A1:2009

Compressors and vacuum pumps - Safety requirements - Part 2:
Vacuum pumps

Restrictions:

This harmonised standard does not confer a presumption of conformity with the general principles concerning:

a) prevention or reduction of risks from hazards that might arise during the lifecycle of the machinery or related product that are foreseeable at the time of placing the machinery or related product on the market as an intended evolution of its fully or partially self-evolving behaviour or logic as a result of the machinery or related product designed to operate with varying levels of autonomy; and

b) appropriate risk assessment and risk reduction for risks resulting from interactions between assemblies of machinery, or partly completed machinery, when arranged and controlled so that they function as an integral whole.

Moreover, this harmonised standard does not confer a presumption of conformity with the essential health and safety requirements set out in the following points and covering:

1.1.9. Protection against corruption;

1.2.1. Safety and reliability of control systems, second paragraph, point (f), and self-evolving control systems, third paragraph, points (a), (b) and (c);

1.2.6. Failure of the power supply or communication network.



Example 2 re-citation under MR

EN 1417:2023

Plastics and rubber machines - Two-roll mills - Safety requirements

Restrictions:

This harmonised standard does not confer a presumption of conformity with the essential health and safety requirements set out in the following points and covering:

1.1.6. Ergonomics;

1.1.9. Protection against corruption;

1.2.1. Safety and reliability of control systems, second paragraph, point (f), and self-evolving control systems, third paragraph, points (a), (b) and (c);

1.2.6. Failure of the power supply or communication network;

1.3.7. Risks related to moving parts;

1.7.4.2. Contents of the instructions for use.



State-of-play of new Implementing Decision

- Decision is being drafted, in principle including all gap-analysed hENs that are published under MD today
- New gap-analysis results (latest dating from early August) being analysed by HAS consultants, ready by end of September
- Some standards were not made available to HAS consultants, to be identified before end of this month, solution to be found with CCMC
- EN ISO 5674:2025 Tractors and machinery for agriculture and forestry accidentally not included in the latest (and final) MD citation list, but will be included in the upcoming MR list

Thank you

For further information:

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Machinery, Equipment & AI Unit

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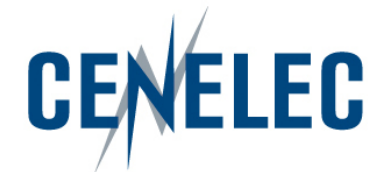


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Impact on the future revision of standards

Frank WOHNSLAND, DIN/VDMA
CEN-CENELEC COG Machinery Chair



Gap analysis results

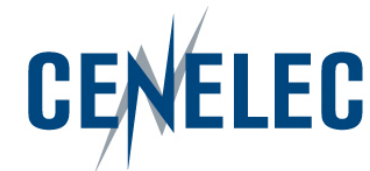
Starting point for future revisions



- ▶ Important to remember:
Gap analysis template was result of extensive discussions among CoG-experts, based on more detailed analyses carried out by various stakeholders
 - ▶ Principal purpose:
Tool for EU Commission to decide which harmonized standards can be transferred to MR
 - ▶ Template does NOT claim to cover every difference between the two regulations in detail
 - ▶ Yet the 26 identified “categories” provide a concise summary of “missing” elements or topics
⇒ ideal starting point for any revision activities when adapting a standard to the new MR
- ▶ Gaps that were identified and are now documented in the hEN list of the OJEU:
first “candidates” to be addressed when adjusting a standard to the new MR
- ▶ Valuable groundwork in the WGs or TCs during each analysis
⇒ **Do NOT consider the gap analysis as a purely formal one-time exercise;
rather use the results and underlying discussions as basis for revisions**

- ▶ Surely, there will be variations between gap analyses as well as variations in the check-up results carried out by the HAS consultants due to
 - ▶ different interpretations in the TCs or WGs that were charged with the analysis task
 - ▶ differences among the HAS consultants in the way they carried out their checks
(remember: it was a unique one-time exercise, there was no textbook or internal regulation)
- ▶ Still, the identified gaps form one major corner stone when starting a revision of a carried-over hEN towards Machinery Regulation
- ▶ After all, today's HAS assessment procedure allows to get in contact with the consultant via the Mature Draft Assessment and to clarify issues from the gap analysis check-up
⇒ **be pragmatic**

- ▶ Standards that have been carried over to the new MR do have presumption of conformity (with or without gaps) under the new regulation
⇒ hence no obligation for an immediate revision or adjustment
- ▶ The main criterion for the decision to revise a standard is the question in how far its content reflects the state of the art ⇒ this decision lies always in the responsible TC (urgent safety issues may still have precedence over simply “closing a gap”)
- ▶ But keep in mind:
 - ▶ The successful carry-over is NOT an alibi to stay with the status quo forever:
If a standard suffers from severe gaps both Commission as well as stakeholders will very likely expect an adjustment within the SReq validity period
 - ▶ Also note (from a practical point of view):
If a TC carries out a “regular” revision under the new MR it will be expected that identified gaps are in general dealt with in this process (or if not then at least with a reason)



New Annexes Z template & Instructions for the Machinery Regulation

Your speakers



Nuno PARGANA

Account Manager, Manufacturing
CEN-CENELEC



Hugo DOURADO

Project Manager, Manufacturing
CEN-CENELEC

Decisions BT C064/2026 (CEN) and D184/C007 (CENELEC), BT approved:

- ▶ New template of informative Annex Z for hENs for MR
- ▶ New set of Instructions on how to fill in the Annex Z

New Annexes Z template & Instructions for the Machinery Regulation



- ▶ New Annex Z template developed following European Commission request
- ▶ Main change: to **list all the EHSRs** of the Machinery Regulation into the Annex Z (informative)
- ▶ New templates Annex Z on BOSS:
 - ▶ CEN [Template](#)
 - ▶ CENELEC [Template](#)

Annex Z...
(informative)

Relationship between this European Standard and the essential requirements of Regulation (EU) 2023/1230 aimed to be covered

This European Standard has been prepared under a Commission's standardization request C(2025)129 final Commission Implementing Decision of 20 January 2025 to the European Committee for Standardization and to the European Committee for Electrotechnical Standardization as regards machinery in support of Regulation (EU) 2023/1230 of the European Parliament and of the Council (M/605) to provide one voluntary means of conforming to essential requirements of Regulation (EU) 2023/1230 of the European Parliament and of the Council of 14 June 2023 on machinery (OJ L 165, 29.6.2023).

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table Z...1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Regulation, and associated EFTA regulations.

Table Z...1 — Correspondence between this European Standard and Annex III of Regulation (EU) 2023/1230

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1. Essential Health and Safety Requirements		
1.1. General Remarks		
1.1.2. Principles of safety integration		
1.1.3. Materials and products		
1.1.4. Lighting		
1.1.5. Design of machinery or a related product to facilitate its handling		
1.1.6. Ergonomics a) to e)		
1.1.6. Ergonomics f) and g)		

New Annexes Z template & Instructions for the Machinery Regulation

- ▶ New set of Instructions on how to fill in the Annex Z
- ▶ These can be found on:
 - ▶ CEN BOSS [Instructions](#)
 - ▶ CENELEC BOSS [Instructions](#)

Instructions on informative Annex ZA (in CEN) and ZZ (in CENELEC) and multi-parts in harmonized standards under the Machinery Regulation 2023/1230

Introduction

This document was drafted by the CEN and CENELEC Coordination Group on Machinery and developed in close collaboration with the European Commission. Through decisions BT C064/2026 and BT D184/C007, CEN and CENELEC BTs approved these instructions.

The template for the informative Annex ZA (in CEN) / ZZ (in CENELEC) for harmonized standards in support of the Machinery Regulation 2023/1230 (MR) is available on the [CEN BOSS](#) (Forms & templates – Annex ZA) and on the [CENELEC BOSS](#) (Forms & templates – Annex ZZ).

Instructions

In the first column of the table of Annex ZA/ZZ, all the Essential Health and Safety Requirements (ESHR) of the MR are listed. This is applicable to type A, B and C standards.

- ▶ As of 2026-06-22, all projects that have not yet been dispatched (stage 30.99) to CCMC for ENQ shall use **new Annex Z template**
- ▶ New Annex Z template shall be used as it is → no modifications are possible

- ▶ Before 2026-06-22: projects already dispatched to CCMC for ENQ or are at later stage → short-form Annex Z is possible
- ▶ If TC wishes, it is possible to change to new Annex Z template before:
 - a) submitting the pre-FV draft standard to CCMC for Quality Check (Homegrown standards)
 - b) submitting the draft standard to FV (Parallel work with ISO/IEC)

Point 1

If EHSR is relevant and covered by the standard, indicate in Column 2 which clause(s) cover them and leave Column 3 empty

Table Z....1 — Correspondence between this European Standard and Annex III of Regulation (EU) 2023/1230

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1. Essential Health and Safety Requirements		
1.1. General Remarks		
1.1.2. Principles of safety integration	4, 5, 6	
1.1.3. Materials and products	4.3.2, 4.3.4, 4.5.1	

Point 2

If EHSR is relevant and not covered by the standard, indicate 'Not covered' in Column 3 and leave Column 2 empty

Table Z....1 — Correspondence between this European Standard and Annex III of Regulation (EU) 2023/1230

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1. Essential Health and Safety Requirements		
1.1. General Remarks		
1.1.2. Principles of safety integration	4, 5, 6	
1.1.3. Materials and products	4.3.2, 4.3.4, 4.5.1	
1.1.4. Lighting		Not covered

Point 3

If EHSR is not relevant, or the associated risk is not significant, indicate 'Not relevant' in Column 3 and leave Column 2 empty

Table Z....1 — Correspondence between this European Standard and Annex III of Regulation (EU) 2023/1230

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1. Essential Health and Safety Requirements		
1.1. General Remarks		
1.1.2. Principles of safety integration	4, 5, 6	
1.1.3. Materials and products	4.3.2, 4.3.4, 4.5.1	
1.1.4. Lighting		Not relevant

'Harmonized standards in support of the Machinery Regulation: Update of gap-analysis and new Annex ZA/ZZ'

Point 4

For ESHR 1.2.1, it is possible to indicate in Column 3 'Not covered' or 'Not relevant' for a specific sub-item

1.2.1. Safety and reliability of control systems - General	4.5.2.	
1.2.1. Safety and reliability of control systems – 2 nd paragraph f) “five years of tracing log		Not covered
1.2.1. Safety and reliability of control systems – 3 rd paragraph Self-evolving behaviour'		Not relevant

Point 5

In the Annex Z, do not indicate references of other standards or other standardization deliverables or legal acts (apart from the Machinery Regulation)

1.1.3 – Materials and products	4.2.2	With exclusion of the reference to the national differences in the foreword of IEC 60204-1:2016
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Point 6: use the wording strictly as indicated in Annex Z templates

Point 7: do not change the order of the columns in the table

Point 8: do not indicate in Column 2 that a given EHSR is addressed by "all clauses"

Point 9: EHSR 1.1.2 should be covered in the following way 

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/ subclause(s) of this EN
1.1.2	4, 5, 6 ¹

Point 10: do only refer to the parts of the standard which are normative, dealing with significant hazards and which contain verifiable requirements

Point 11: according to CEN Guide 414, hEN should contain:

- safety requirements and/or protective/risk reduction measures (normally Clause 4)
- verification of the safety requirements and/or protective/risk reduction measures (normally Clause 5).

If verification/test method clauses are separated from safety requirements clauses, those requirements clauses should refer to the respective verification/test method clauses and Annex Z should only refer to the requirement's clause

Point 12 - Type B standards

Type-B standards typically address specific EHSRs that can be relevant for most types of machinery. Therefore, when a specific requirement is addressed within the document, the clause numbers in the standard shall be indicated in Column 2. Otherwise, write "Not covered" in Column 3.



The Annex Z still has to have all the EHSRs listed (even if there are only a few relevant).

Point 13 - where an EHSR contains a number of different requirements

- I. If none of the relevant requirements are covered then Column 3 should contain the words "Not covered"
- II. If all of the relevant requirements are covered then the clauses in the standard that cover these requirements should be listed in Column 2 and Column 3 should be left empty

NOTE In case i) and case ii) those elements of the EHSR that are not relevant are ignored.

III. If relevant requirements are only partially covered then this EHSR shall be considered as not covered; clauses that partially address the EHSR cannot be listed in the second column and the words "not covered" shall appear in Column 3

INSTRUCTIONS FOR MULTI-PART STANDARDS

Multi-part standards: series of several parts

- ▶ **Part 1** provides general/common requirements which are applicable for the whole machine family and shall not contain any specific normative reference to one of the Parts X.
- ▶ **Part X** (Part 2, Part 3, ... Part N) shall provide specific requirements for a particular category of machinery within this family, by supplementing or modifying the general/common requirements specified in Part 1 through specific normative references.

Specific text to be used

Part 1

For the Foreword, Scope and Clauses dealing with safety requirements, a specific text that is indicated in the Instructions (pg. 5) shall be used.

Part X

For the Foreword and Clauses dealing with safety requirements a specific text that is indicated in the Instructions (pg. 5) shall be used.

Specific text to be used in Part 1 and Part X

– Part 1

Foreword – After listing all the parts of the series add the following text: “To confer presumption of conformity with the essential requirements of Machinery Regulation 1230/2023, this standard (providing general/common requirements for a whole machine family) has to be applied together with one of those standards in the series (providing specific requirements for a particular category of machinery within this family), once this standard is cited in the Official Journal of the European Union under Machinery Regulation 1230/2023.”

Scope – The following text should be included in the Scope: “This document gives the common safety requirements for [insert type of machine/equipment] families and is intended to be used in conjunction with each of the other parts the series. These machine specific parts do not repeat the requirements from Part 1 but supplement or modify the requirements for the family in question.”

Clause dealing with safety requirements – Include the following sentence “[insert machine type] shall comply with the safety requirements and/or protective/risk reduction measures of this clause, unless modified by requirements of the relevant specific part of the standard series. In addition, the machine shall be designed according to the principles of EN ISO 12100:2010 for hazards relevant but not significant which are not dealt with by this document.”

– Part X

Considering that Part X is intended to be applied in conjunction with Part 1 of the series, insert the following text:

Foreword – “This document is intended to be used in conjunction with Part 1 of the series”;

Clause dealing with Safety requirements – “[Insert machine type] complies with the requirements of [title of the Part 1], as far as not modified or replaced by the requirements of this part.”

Case 1

The clause in Part 1 sufficiently covers the EHSR and there aren't any changes in Part X

In case a given requirement of Part 1 covers a corresponding requirement for a particular machine category without additions/modifications/restrictions by Part X, the Annex ZA/ZZ of the Part X shall indicate in column 3 “Not covered”. Example below.

Annex ZA//ZZ of Part 1

1.1.4 - Lighting	4.3.2.2, 4.3.2.5, 4.18, 4.19	
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Annex ZA/ZZ of Part X where there are no changes in the requirements of Part 1

1.1.4. Lighting		Not covered	
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Instructions for multi-part standards for MR

Case 2

If the EHSR is relevant and not covered by the standard, indicate 'not covered' in the Column 3 and leave Column 2 empty

Annex ZA/ZA of Part 1

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes [1]
1.5.3. Energy supply other than electricity		
1.5.4. Errors of fitting		
1.5.5. Extreme temperatures		
1.5.6. Fire		
1.5.7. Explosion		
1.5.8. Noise		
1.5.9. Vibrations	4.4.1.4	

Subclause 4.4.1.4 in Part 1

"4.4.1.4 Vibration

The operator's seat shall meet the requirements of EN ISO 7096:2008 with regard to its ability to reduce the vibration transmitted to the operator.

NOTE Comparative data for vibration can be found in ISO/TR 25398:2006"

Annex ZA/ZZ of Part X

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes [1]
1.5.3. Energy supply other than electricity		
1.5.4. Errors of fitting		
1.5.5. Extreme temperatures		
1.5.6. Fire		
1.5.7. Explosion		
1.5.8. Noise		
1.5.9. Vibrations	4.2	

Subclause 4.2 in Part X

"4.2 Seat

EN Part-1 clause 4.4.1.4 applies with the following modifications:

The seat shall meet the input spectral according to EN ISO 7096:2008:

- EM6 for crawler dozers less than 50 000 kg operating mass according to ISO 6016:2008;
- EM5 for wheel dozers;
- for crawler dozer greater than or equal to 50 000 kg, see EN ISO 7096:2008."

The clauses of the Part 1 should not be indicated in an Annex ZA/ZZ table of the Part X as the text in Part X has been modified.

NOTE : In the case where Part 1 deals with some aspects of an EHSR and Part X addresses ALL the other aspects of this EHSR, this EHSR is fully covered by Parts 1 and X together. Therefore, the ESHR is covered when both Annexes Z are read in combination. In the respective Annexes Z, reference shall be made to the clauses where the EHSR are dealt with in each of the two standard parts.

Case 3 - General/common requirements of Part 1 are not relevant for the equipment in Part X

Annex ZA/ZZ in Part 1

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes [1]
3.2.2. Seating		
3.2.3 Positions for other persons		
3.2.4 Supervisory function		
3.3. Control systems		
3.3.1 Control devices		
3.3.2 Starting/moving		
3.3.3. Travelling function		
3.3.4. Movement of pedestrian-controlled machinery		
3.3.5 Control circuit failure		
3.4 Protection against mechanical risks		
3.4.1 Uncontrolled movements		
3.4.2 Moving transmission parts		
3.4.3 Roll-over and tip-over	4.3.3	

Subclause 4.3.3 in Part 1

"4.3.3 Roll-overprotective structures (ROPS)
Earth-moving machinery with a seated ride-on operator shall be fitted with a roll-over protective structure (ROPS), complying with EN ISO 3471:2008.
EN ISO 3164:2013 applies for deflection limiting volume (DLV)."

Annex ZA/ZZ in Part X

The Essential Requirements of Regulation (EU) 2023/1230	Clause(s)/sub-clause(s) of this EN	Remarks/Notes [1]
3.2.2. Seating		
3.2.3 Positions for other persons		
3.2.4 Supervisory function		
3.3. Control systems		
3.3.1 Control devices		
3.3.2 Starting/moving		
3.3.3. Travelling function		
3.3.4. Movement of pedestrian-controlled machinery		
3.3.5 Control circuit failure		
3.4 Protection against mechanical risks		
3.4.1 Uncontrolled movements		
3.4.2 Moving transmission parts		
3.4.3 Roll-over and tip-over		Not relevant

Subclause 4.3.3 of Part X

'4.3.3 Roll-over protective structures (ROPS)
EN Part-1, clause 4.3.3 does not apply for cable excavators.'

Case 4 - When additional technical measures (not covered by Part 1) are necessary because the corresponding hazards only exist for specific category of machines covered in Part X, it is not covered by any clause in Part 1, but it is relevant to Part X, then it should be indicated in Column 3 as "Not covered"

Annex ZA/ZZ of Part 1

1.2.4. Stopping		
1.2.4.1. Normal stop		
1.2.4.2. Operational Stop		
1.2.4.3. Emergency stop		
1.2.4.4. Assembly of machinery or related products		
1.2.5. Selection of control or operating modes		Not covered
1.2.6. Failure of the power supply		

Annex ZA/ZZ of Part X

1.2.4. Stopping		
1.2.4.1. Normal stop		
1.2.4.2. Operational Stop		
1.2.4.3. Emergency stop		
1.2.4.4. Assembly of machinery or related products		
1.2.5. Selection of control or operating modes	4.5.2	

Subclause 4.5.2 in Part X

"4.5.2 Operating mode

Cable excavators intended for use in different modes shall be fitted with a lockable operating mode selector for at least:

- a) excavator operation mode;

NOTE 1 Excavator operation mode can include e.g. excavating, compaction, demolition. b) lifting operation mode.

The activation of the selected operation mode shall be optically indicated at the operator's station(s).

NOTE 2 A remote control is also considered as an operator's station."

Your feedback



Question time

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Question and Answer

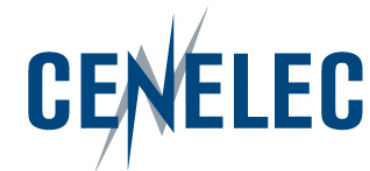
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Upcoming events/webinars:

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2026-10-06 - Webinar ['Towards a New European Anthropometric Database for User-Driven and Inclusive Standards'](#)