

United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
Centre for Sustainable Agricultural Mechanization (CSAM)

Royal Government of Bhutan
Ministry of Agriculture & Livestock
Department of Agriculture

Agriculture Machinery & Technology Centre (AMTC)
Ministry of Industry Commerce and Employment Bhutan Standards Bureau (BSB)

Twelfth Annual Meeting of the
Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM)
9-11 December 2025
Thimpu and Paro, Bhutan







TRACTORS STANDARD CODES



OECD and the OECD Tractor Codes

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Bureau Member and Chair of the OECD Tractor Codes

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To my person

- **Thilo KEUNECKE, 58 years.**
Dipl.-Ing. (FH) agr.
- 2002 Test Engineer at the
German OECD Tractor Test Station,
DLG TestServiec GmbH
- Responsible for
Tractor performance and Tractor cabin safety tests
ROPS, FOPS, Seatbelt
- 2006 Member of the
German OECD Tractor Code Delegation
- 2023, German representative at the OECD „Tractor Codes Bureau“ for a period of 6
years



OECD, Who we are?

The **Organisation for Economic Co-operation and Development (OECD)** is an international organization in which governments work together to *find solutions to common challenges, develop global standards, share experiences and identify best practices* to promote **better policies for better lives.**

We draw on 60 years of experience and insights to better prepare the world of tomorrow.

OECD, Who we are?

1948: the *forerunner* of the **OECD**, the Organisation for European Economic Co-operation (**OEEC**), was formed to administer American and Canadian aid under the *Marshall Plan for the reconstruction of Europe after World War II*.

1960: Convention transforming the OEEC into the OECD was signed by **20 countries** and entered into force on 30 September 1961.

Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States









































Headquarter of the OEEC
Chateau de la Muette at
Paris, France.

OECD, Who we are today?

Today we have **38 member countries** from the European, North American, Latin American and Pacific regions.

The collective weight of the OCED member countries accounts:

- **62 % of the World's economy,**
- **61 % of global merchandise imports and**
- **17 % of the World's population**

 Australia (joined 06.1971)	 Greece	 New Zealand (05.1973)
 Austria	 Hungary (05.1996)	 Norway
 Belgium	 Iceland	 Poland (11.1996)
 Canada	 Ireland	 Portugal
 Chile (05.2010)	 Israel (09.2010)	 Slovak Republic (12.2000)
 Colombia (04.2020)	 Italy	 Slovenia (08.2010)
 Costa Rica (May 2021)	 Japan (04.1969)	 Spain
 Czech Republic (06.1971)	 Korea (12.1996)	 Sweden
 Denmark	 Latvia (08.2016)	 Switzerland
 Estonia (12.2010)	 Lithuania (08.2018)	 Turkey
 Finland (01.1969)	 Luxembourg	 United Kingdom
 France	 Mexico (05.1994)	 United States
 Germany	 Netherlands	

OECD Tractor code

The first **standard Code for the Official Testing of Agricultural Tractors** was established by the Decision of the Council of the *Organisation for European Economic Co-operation* (OEEC) of **April 21, 1959** [C(59)76(Final)].

Previously, individual countries had used different testing methods, meaning the results were not always comparable.

The **1. Code** from **1959** assessed the **performance of tractors**, since then the codes have been continuously expanded to include forestry tractors and other performance, safety and noise features.

Today's OECD Standard test codes are updated regularly.

Today, the OECD Standard Tractor Codes provide internationally recognized and standardized testing methods and enable participating countries to carry out tractor tests according to harmonized procedures and **obtain official OECD approvals, facilitating international trade.**

OECD Tractor Codes member

The OECD Tractor Codes are open to OECD member and non-member countries.

Twenty-seven countries adhere,
including: including 5 non-OECD members (Brazil, China, India, the Russian Federation and Serbia).

View the [full list](#) of National Designated Authorities and Testing Stations in the OECD Tractor Codes.

The OECD also works with the UN and other international organisations to extend safety and environmental standards to countries in Latin America, Africa, and Asia.

- [OECD Codes and Schemes in Asia](#) (pdf)
- [OECD Codes and Schemes in Latin America](#) (pdf)

OECD Tractor code



2019 marked the 60th Anniversary of the Tractor Codes



The 60th anniversary of the OECD Tractor Codes was celebrated on 26-27 February 2019 with displays of a tractor just outside OECD headquarters and scale-model tractors in the Conference Centre. The tractor safety and performance codes, established in 1959, reassures buyers and farmers on the quality and safety of tractors. Mutual recognition by member countries also contributes to improving trade flows, saving everybody's time and money.



60th Anniversary of the OECD Tractor Codes

Annual Meeting
26-27 February 2019
OECD Headquarters, Paris – France

Tractor Codes Member Countries



Formal Applicant Countries



Potential Member Countries



<http://www.oecd.org/agriculture/tractors/>

OECD Tractor code

Some Informations in the WWW

<https://www.youtube.com/watch?v=MTUunnNmRVfU&t=55s>



<https://www.youtube.com/watch?v=68Ek5bm9jOA&t=8s>

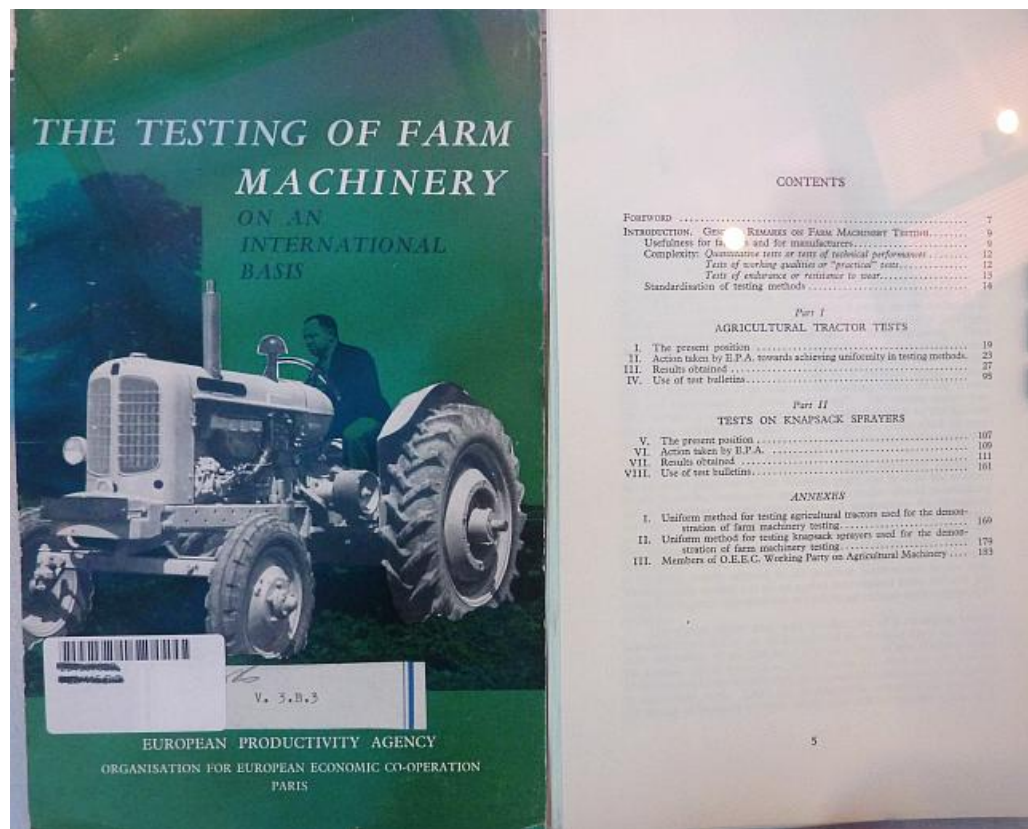


<https://www.youtube.com/watch?v=D94X8wNAJSo>

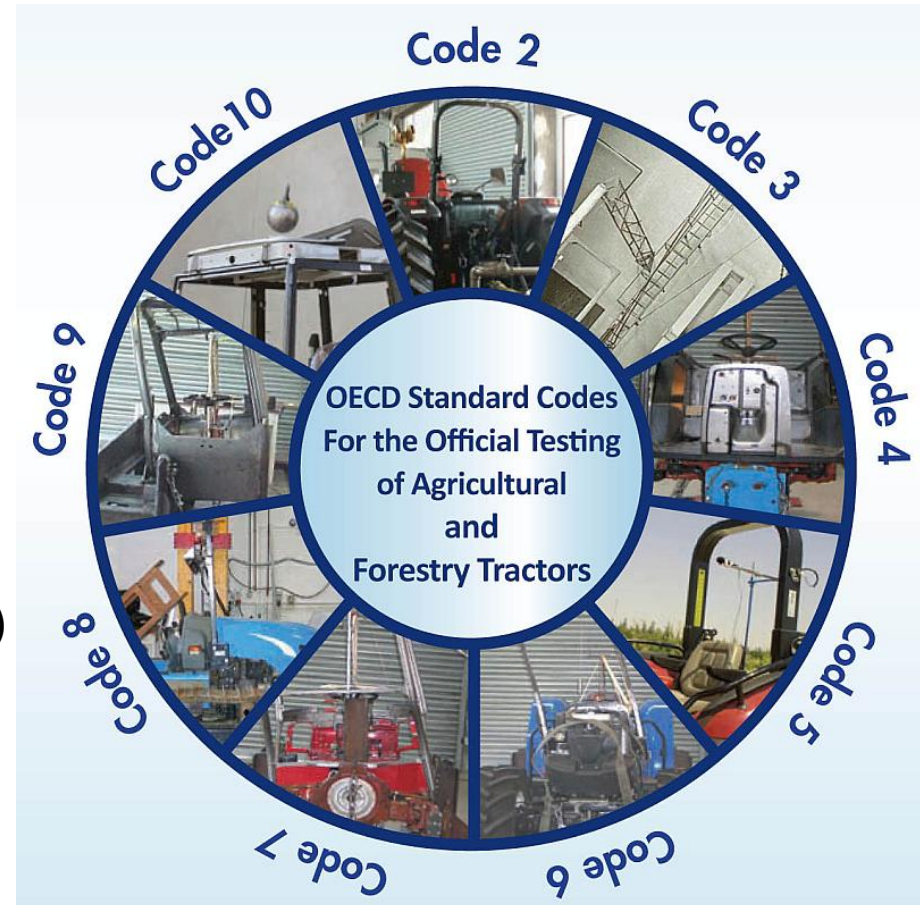


OECD Tractor code

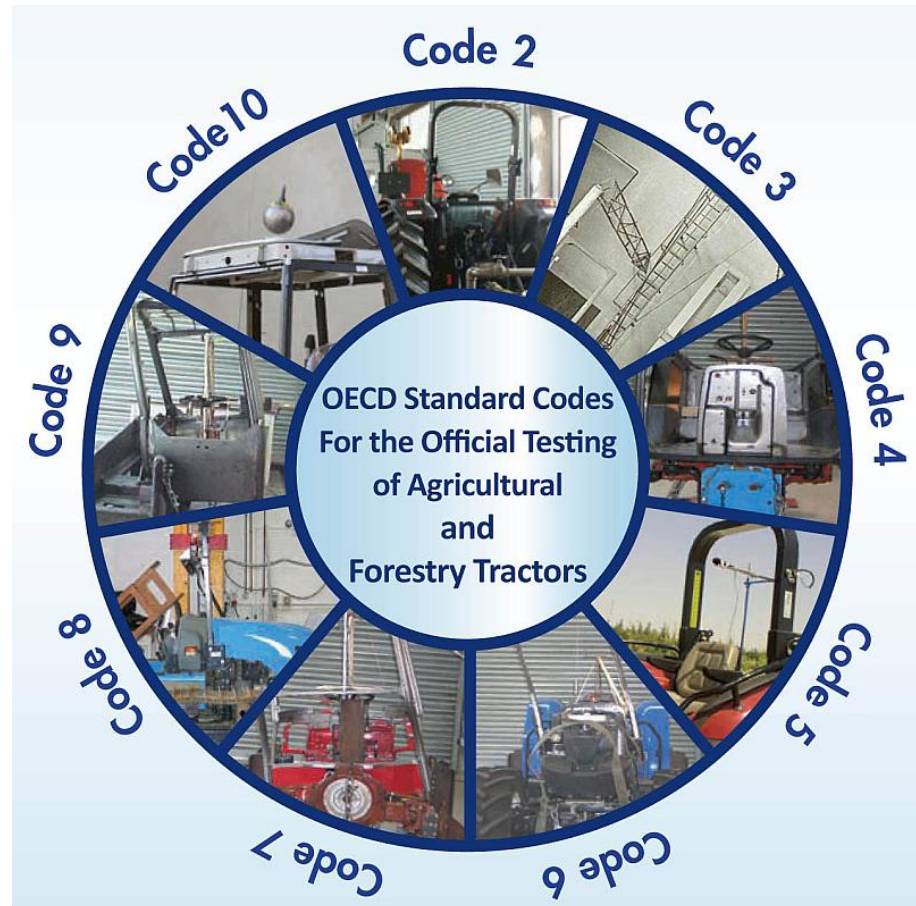
The first Tractor test according OECD Standard
Performed 1959 at SILSOE UK,
„National Institute of Agricultural Engineering“



- ❖ **General Texts**
OECD TRACTOR CODES
- ❖ **Code 1:**
Testing **Tractors performance**
[repealed – for the record (2004)]
- ❖ **Code 2:**
Testing **Tractor performance**
- ❖ **Code 3:** Testing of
Protective Structures (*Dynamic Test*)
- ❖ **Code 4:** Testing of
Protective Structures (*Static Test*)
- ❖ **Code 5:** Measurement of
Noise at the Driving Position(s)



- ❖ **Code 6:** Testing of *Front-mounted Protective Structures* on **Narrow-track Tractors**
- ❖ **Code 7:** Testing of *Rear-mounted Protective Structures* on **Narrow-track Tractors**
- ❖ **Code 8:** Testing of **Protective Structures** on **Tracklaying Tractors**
- ❖ **Code 9:** Testing of **Protective Structures** for **Telehandlers**
- ❖ **Code 10:** Testing of **Falling Object Protective Structures**



- ❖ First investigations into rollover protection devices (USV) in Sweden & Great Britain 1950s => rear & side slope tests

1. natural slope,
2. artificial slope (defined inclination & surface hardness)

- ❖ **DLG**, Overturntest 1964/65

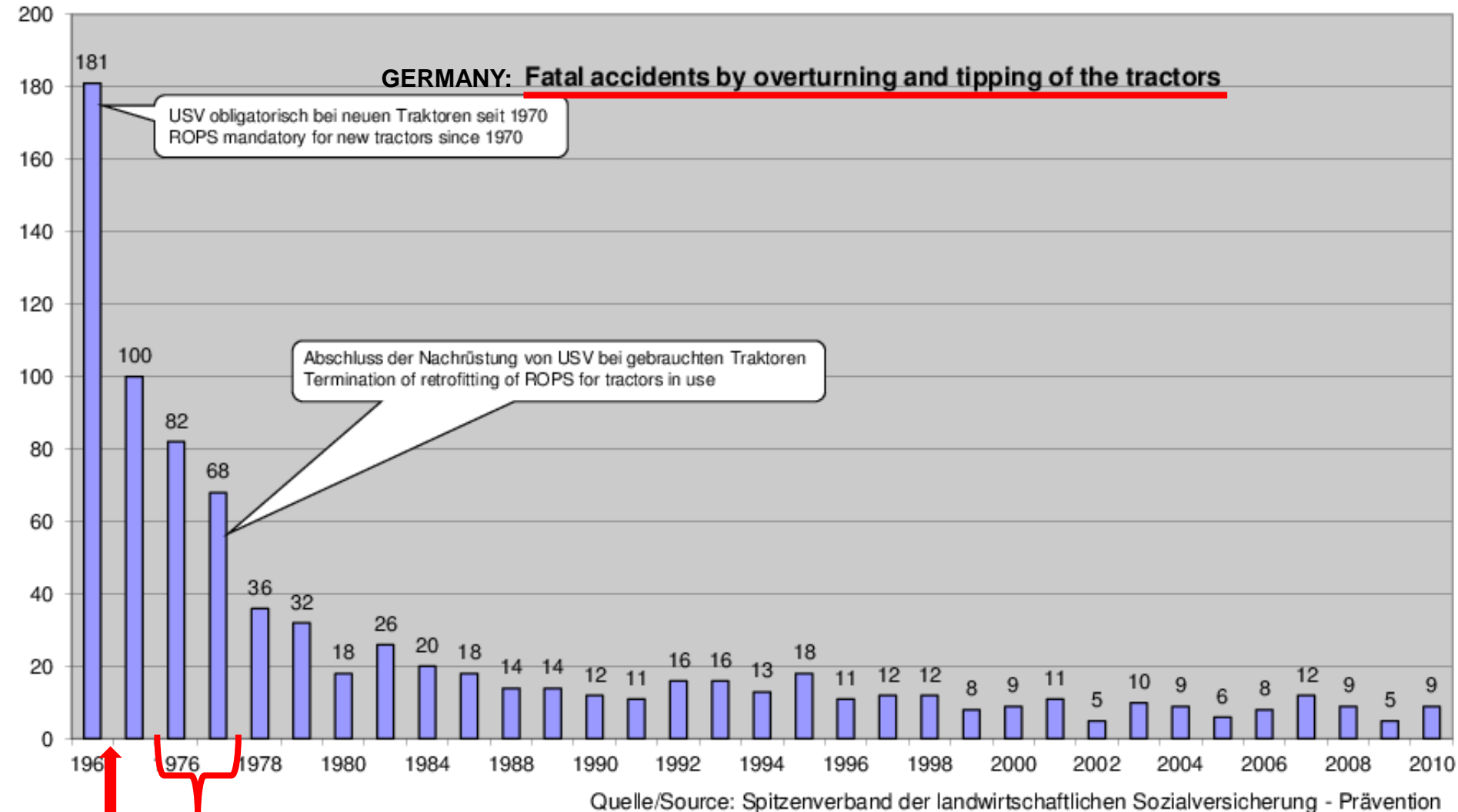
- ❖ **Prof. Schwanghardt**
München, Germany, 1982



3 Pictures from a real Overturn accident in Germany app. 1965



OECD Code 4



With 01.01.1970
ROPS mandatory

1975 bis 1977
ROPS-Retrofitted

DLG Overturn test 1964, ROPS



First tests with Tractor covers 1965 - 1974



Load case

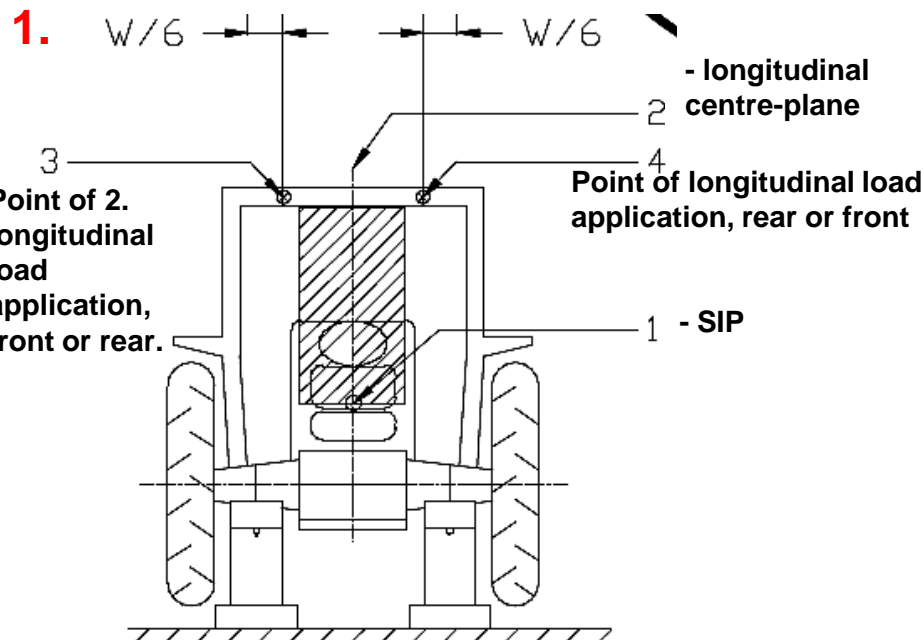


Figure 4.3.a Four-post ROPS

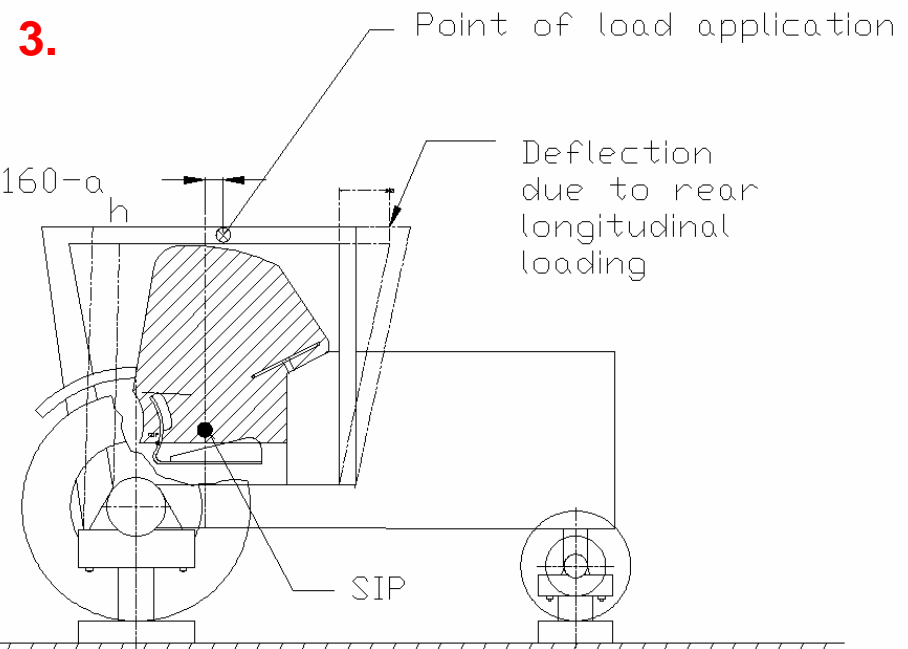


Figure 4.4.a Protective cab

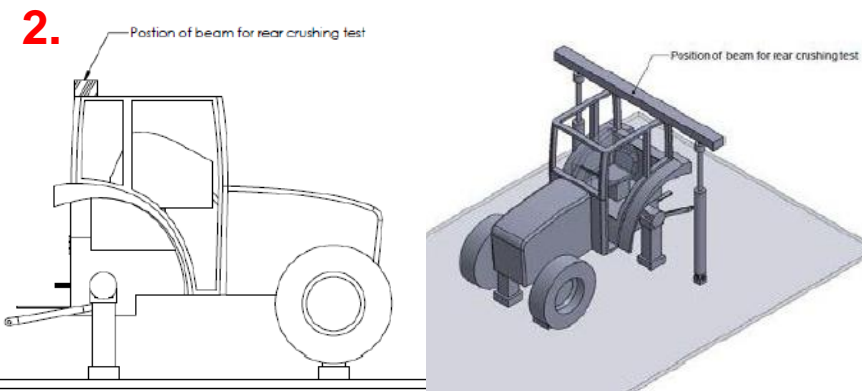


Figure 4.7.a Rear Crush

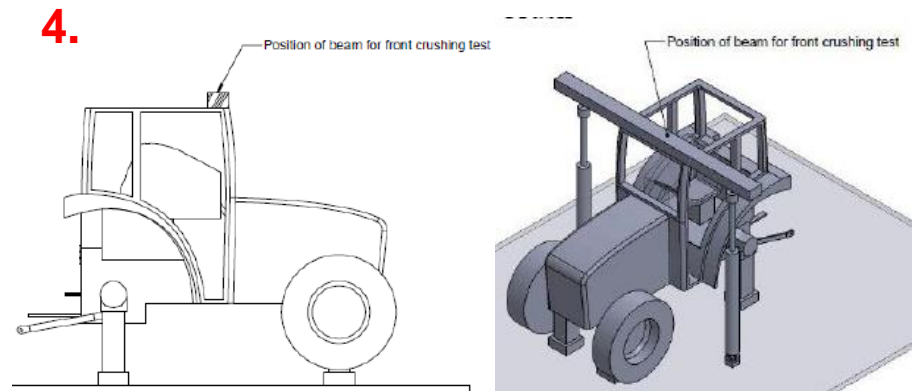
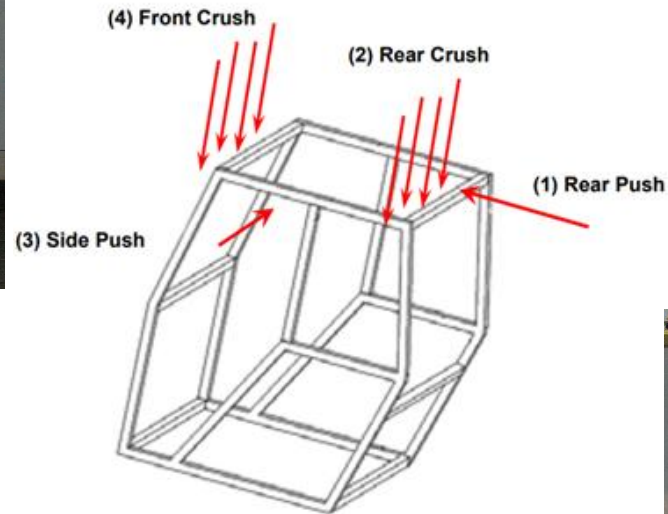


Figure 4.7.b Front Crush

OECD Code 4

www.oecd.org/agriculture/tractors/codes/04-oecd-tractor-codes-code-04.pdf

Load case



Each Member Country in the **OECD Tractor Codes** has a:

- ✓ **NDA** „**N**ational **D**esignated **A**uthoritie” and at least
- ✓ One official „OECD“ **Testing Station**

For Germany:



Bundesministerium
für Landwirtschaft, Ernährung
und Heimat

**Federal Ministry of Agriculture, Food
and Regional Identity (BMELH) => NDA**

https://www.bmleh.de/DE/Home/home_node.html

DLG => OECD Testingstation, since 1965

German Agricultural Society



27 Countries Participate in the OECD Tractor Codes in 2020

MEMBER COUNTRIES



Member countries in 1973
Member countries in 2020



1973

AUSTRIA, IRELAND, UNITED KINGDOM, PORTUGAL, SPAIN, FRANCE, BELGIUM, LUXEMBOURG, GERMANY, ICELAND, ITALY, SWEDEN, NORWAY, FINLAND, DENMARK, JAPAN, TURKEY, GREECE, YUGOSLAVIA AND SWITZERLAND



2020

AUSTRIA, BELGIUM, BRAZIL, CHINA, CZECH REPUBLIC, FINLAND, FRANCE, GERMANY, ICELAND, INDIA, IRELAND, ITALY, JAPAN, KOREA, LUXEMBOURG, NORWAY, POLAND, PORTUGAL, RUSSIAN FEDERATION, SERBIA, SLOVAK REPUBLIC, SPAIN, SWEDEN, SWITZERLAND, TURKEY, UNITED KINGDOM AND UNITED STATES

Operation of an OECD Accredited Testing Station



Annual Meeting of the Tractor Codes

25-26 February 2020
OECD Headquarters, Paris – France

Tractor Codes Member Countries



Formal Applicant Countries



Potential Member Countries



<http://www.oecd.org/agriculture/tractors/>

As NDA for Germany the BMELH is entitled to vote at the OECD Annual Meetings.

VDMA and DLG are present as advisory capacity.

All OECD votes require unanimity.

- **DLG test station** is a
 - *independent* and
 - *accredited* testing laboratory



TestService

❖ **OECD**



❖ **KBA**

Federal Motor Transport Authority



❖ **ilac-MRA, DAkkS,**



❖ **ISO 17025:2017**

Example of Test processing at a OECD testing station :

1. Request for a ROPS Test from a company
2. Writing an offer // get the order // send the order confirmation
3. Fixing of test date
4. Test preparation
5. Test performance in accordance with the Code
6. Documentation of the results, force, deflection and energy
7. Check of the customers documentation with the tested structure
8. Preparation of test report according the specimen test report
9. Send test report to the OECD Co-ordinating Centre
10. Co-ordinating Centre checked the test report, provide the OECD approval number
11. Send test report with OECD approval number to the customer

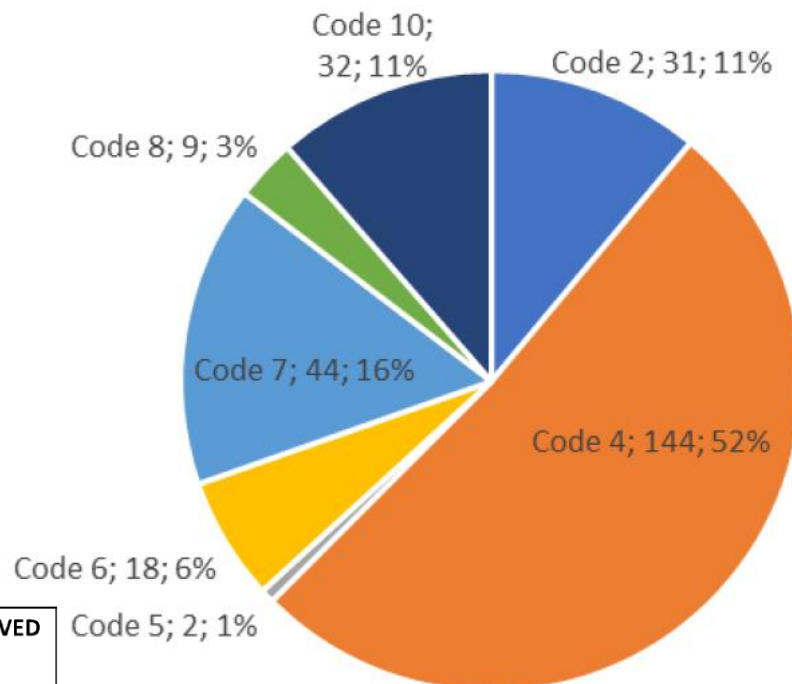
OECD Coordinating Center (CC)

Located at Distal, University of Bologna, Italy.









✓ **Third party certification !**

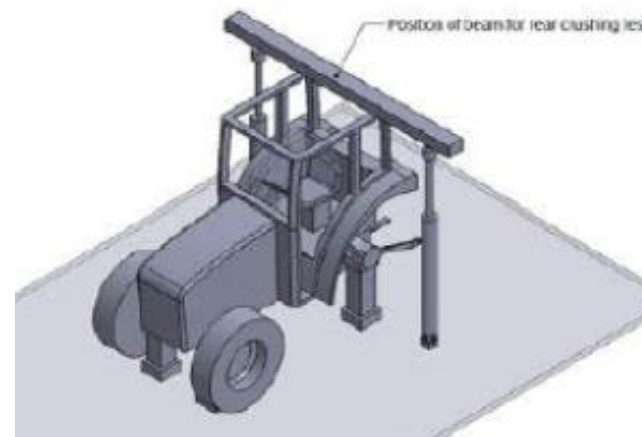
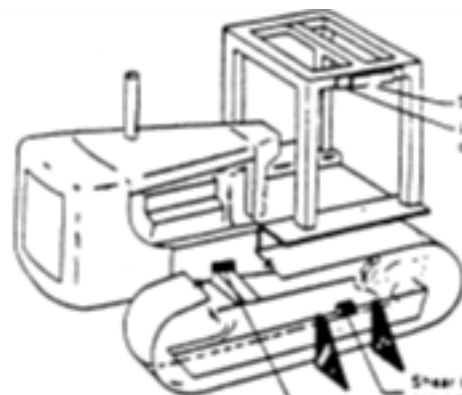
Approvals 2024

CODE	TOTAL	ORIGINAL	TECHNICAL EXTENSION	ADMINISTRATIVE EXTENSION	PROCESSED	APPROVED
CODE 2	31	31	-	-	31	25
CODE 4	144	46	91	7	144	143
CODE 5	2	2	-	-	2	2
CODE 6	18	3	12	3	18	18
CODE 7	44	27	14	3	43	42
CODE 8	9	4	5	-	9	9
CODE 10	32	12	20	-	32	30
TOTAL	280	125	142	13	279	269



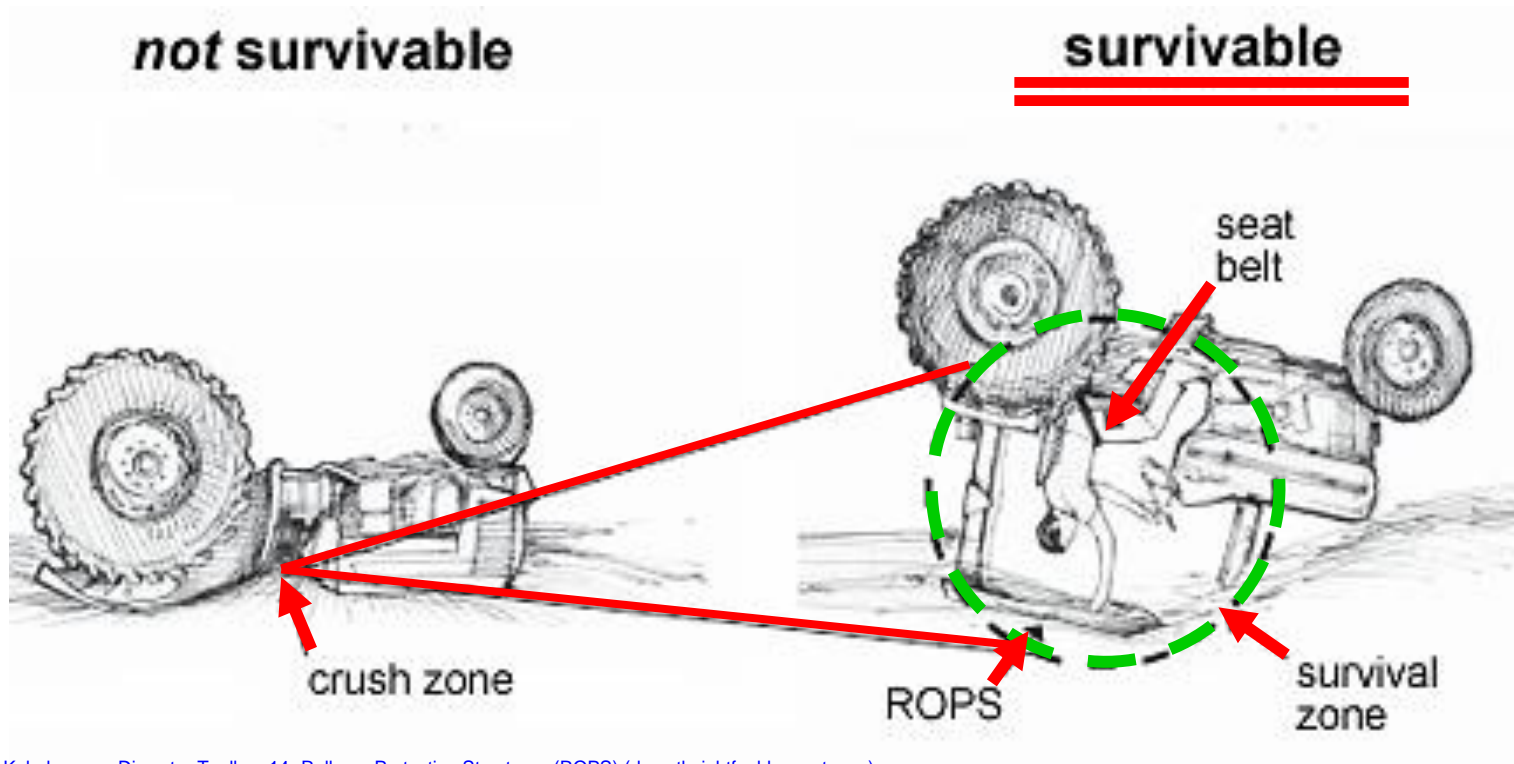
Uniqueness of the OECD Tractor Codes System

-  Quantifiable tests for reliable comparison between countries
-  Global Network of Testing Stations
-  Intergovernmental Organisation
-  Third Party Certification
-  Transparency
-  **Changes agreed by Consensus**
-  *(close collaborations with Industry)*
-  **Voluntary**



- 🚜 **Internationally recognized standardized test methods,**
Tractor tests according to harmonized procedures, official OECD approvals that facilitate international trade.
- 🚜 **Global recognition of the OECD Certificate,**
In 27 countries, including 5 non-OECD members (Brazil, China, India, Russian Federation and Serbia).
- 🚜 **Global Network of Test Stations,**
The OECD cooperates with 30 test stations in Europe, Asia and America that ensure compliance with OECD standards.
- 🚜 **Fast Turnaround,**
The average time for issuing a permit is around 1 week.
- 🚜 **EU Equivalence,**
The OECD tractor codes are corresponding to the EU Directive 1322/2014.

- 🚜 **Credible and fair**, tests carried out in a member country are always validated by the OECD coordination center. This increases the reliability and credibility of the tests and guarantees compliance with the rules and regulations by the manufacturer. This promotes fair trade.
- 🚜 The **safety of the tractor operator** is one of the *most important pillars of the OECD tractor codes*. *Certification of Roll-over Protective Structures (**ROPS**) and Falling Object Protective (**FOPS**) has contributed to the reduction of tractor fatal accidents.*
- 🚜 **Continuous development**, OECD tractor codes are regularly updated to reflect improvements in technical performance, safety and environmental protection.
- 🚜 **New markets**, Number of tractor codes member states is growing and brings new market opportunities.
- 🚜 **Export growth**, on average member countries of the tractor codes report a 30 percent increase in tractor exports.



[Kabalyero ng Disyerto: Toolbox 14- Rollover Protective Structures \(ROPS\) \(desertknightfm.blogspot.com\)](http://desertknightfm.blogspot.com)

Thank you for your attention

Thilo KEUNECKE

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Bureau Member and Chair of the OECD Tractor Codes

<https://www.oecd.org/en/topics/sub-issues/tractors.html>

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