# OECD Tractors Codes For a safer and more efficient agriculture



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#### Irstea

Irstea, French National Research Institute of Science and Technology for Environment and Agriculture is a public scientific and technical institute in joint supervision with the Ministry of Research and the Ministry of Agriculture created in 1981 under the name of CEMAGREF.







Initiating, implementing, coordinating and supporting, on the medium and long-term, on its own initiative or at the request of the government, all scientific and technological research in the areas of developing sustainable land management, especially agricultural and natural land, insteand their resources.

# A set of technological platforms and research facilities



















### **OECD Tractor Codes**



The Organisation for Economic Co-operation and Development (OECD), an inter-governmental organisation founded in 1961, provides a multilateral forum to discuss, develop and reform economic and social policies.

The OECD Agricultural Codes and Schemes facilitates international trade through the simplification and harmonization of documentary, inspection and testing procedures.

#### What are the OECD Tractor Codes

The OECD Tractor Codes are a set of rules and procedures for tractor testing with the aim: to facilitate trade by updating international rules to certify tractors and their protective structures. Implementation of the Codes ensures that protective structures and performances criteria are carried out on a comparative basis, thus increase transparency, simplify international trade procedures, and open markets.



### **OECD Tractor Codes**

Since the codes were established in 1959, over 3000 tractors have been tested for performances characteristics, and over 11 000 tractors have tested for noise measurements at the driving position, and driver protection, in the case of tractor roll-over.

The first tractor tested according to the OECD performance code.



McCormick International B-450 March/April 1959



#### **OECD Tractor Codes today**

Consistent and internationally accepted methods for providing farmers, dealers, and manufacturers with comparable tractor performance data that can allow the most appropriate tractor to be selected for a particular application.

And insures users and regulating bodies that tractors offer sufficient protection to the operator in the event of an over turn or falling object.



In the fields

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In factories



#### In research laboratories

#### **OECD Tractor Codes today**

*Lode 2:* the performance of tractors

*Lode 3*: the strength of protective structures for standard tractors (Dynamic Test)

Code 4.

the strength of protective structures for standard tractors (Static Test )

*Lode 5*: noise measurement at the driver's position(s)

#### Code 6:

the strength of the front-mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors





www.oecd.org/tad/tractor

*Lode 7*: the strength of the rear-mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors

*Code 8*: the strength of protective structures on tracklaying tractors

*Lode 9:* the strength of protective structures for telehandlers

*Lode 10:* the strength of falling object protective structures for agricultural and forestry tractors

# Advantages of the OECD Tractors Codes

- □ Global Certificate and Global Network of Testing Stations:
- **EU Equivalence:**

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- □ Enhanced Credibility and Fair Trade:
- Operator Safety: Operator safety is one of the main pillars of the OECD Tractor Codes. The certification of adequate Roll-over protective structures (ROPS) and falling object protective structures (FOPS) has contributed to the reduction of tractor fatal accidents.
- Constant Evolution: OECD Tractor Codes are updated regularly to take into account improvements in technical performance, safety and environmental protection.

9



Constant evolution to cope with the technical and environmental developments:

- Electronic control devices for transmissions and engines,
- Emission control systems.









Constant evolution to improve safety:

- Seatbelt anchorage performance,

- Falling Object Protective Structure (FOPS),

- Ergonomic and mechanical requirements for foldable roll-bars









Constant evolution to cope with new designs or new vehicles used in agriculture:

- Agricultural telehandlers,



- New types of crawled tractors.





# Irstea activities







# Tractors retrofit with protective structures FOPS and ROPS (Software),



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Hydraulic assistance for foldable ROPS (Guideline)

# **Irstea activities**











#### Autonomous vehicles





Active systems to avoid rollover



# Thank you for the attention !

