Lobby activities

By Per Hedetoft

CLIMMAR General Assembly, 7-8 October 2021,
Amsterdam, The Netherlands

ISO Working Group on the RMI file

RMI ISO-TC23-WG5

- The lobby work in this WG is finished, and as a result the group has been laid down and now longer exist since beginning 2021.
- New tractor models (or facelift) introduced after 1 July 2021 must have at least one diagnostic plug that complies with SAE J1939-13 (type 1 or 2), an ISOBUS diagnostic plug or a correct OBD II power plug, so it is possible to read error codes, erase error codes, connect new spareparts and calibrate to the vehicle. For that tractor model, the RMI portal must also work according to the ISO standard.
- CLIMMAR is very curious about the experiences with the standard once the vehicles first come to dealer's workshops for repair and/or maintenance later this year!

How to continu within ISO ?

- The work within the ISO Working Group has been subsidised for CLIMMAR
- RMI ISO Working Groups is finished now
- We are currently trying to get a seat in two other ISO Working Groups:
  - ISO/TC 23/SC 19/WG 8 > Safety and security
  - Joint ISO/TC 23/SC 19/WG 10 - ISO/TC 127/SC 3: Common work between agricultural and earth moving machinery
- The application for subsidy has been made again and it looks prosperous

EU Working Groups

WGAT – Working Group Agricultural Tractors

- 114th meeting was held on 18th March 2021.
- CLIMMAR supporting CEETTAR and COPA-COGECA request for adding optional further technical data: Eg. Vehicle width wider than 3m and/or higher axle mass than 10 ton.
- CLIMMAR learned about the possibility to participate in OECD Sub-Working Groups:
  - Regarding Electrical tractors / machinery
  - Regarding Robot tractors / machinery

NRMM – Non Road Mobile Machinery

- 6 May 2021, 9.30 – 16.30 online – WebEx Call meeting. Mainly discussing the Public Consultation's outcomes.

OECD Sub Working Group(SWG) regarding electric tractors.

Time schedule of previous OECD SWG on Electric Tractors:
1st Meeting: 12-13 May 2020
2nd Meeting 24-25 June 2020
3rd Meeting 17-18 September 2020
4th Meeting 13-14 January 2021
5th Meeting 24 March 2021
6th Meeting 8-9 June 2021
7th Meeting 28-29 September 2021
Because of the Corana pandemic, all meetings have so far been by video.

Introduction of CLIMMAR at the OECD Sub Working Group on Electrical Tractors

This whole subject of electrification of heavy duty machinery is become more important in the coming years. You see some small initiatives already to transform traditional (diesel) engines of machinery into electrical and / or hydrogen machines.

This is all done in the light of the urgent need to reduce the CO2 emissions.

We hear as example from The Netherlands - that most “frontrunners” in this matter are governmental organizations (cities; local communities, provinces and the central governmental organizations). They are asking more and more for these kind of machinery in the light of Climate measurements.

But this transition is still very small and companies who are in the business of transforming machinery into electrical / hydrogen are still limited. But it is definitely a trend which will continue to grow.

This means that more knowledge of these kind of new machine technology is needed, not only from the producers point of view, but also on the education, servicing, maintenance and safety point of view.

As a mechanic you really have to know what you are doing when you maintain or repair these new technologies, since the risks are very high with the high voltage and quite a few amperes - which are used for these kind of machines. (it is lethal if you don’t know what you’re doing..)

So it would be wise if at least at the policymaking level and standardization level this whole issue is given good attention and some thorough thought on how to deal with this trend.

Questions asked by CLIMMAR to treat this item from the maintenance and servicing perspective.

- What will be the knowledge level of the future mechanics ? Will there be special training schemes necessary ?
- What are the preconditions for a dealer company to be able to service and maintain these kind of machinery in terms of special equipment required, special workingplaces required, etc. ?
- What to be done when things are going wrong ? For example when a machine by accident catch on fire, what is needed to contain the fire since this is quite difficult in practice..?
- Will there be standards and regulations coming into place to “guideline” this trend ?
- What about the storage of many machines with batteries of newer kind like Li-ion, or hydrogen fueled machines ?

For the dealer to be able to recommend the best possible product and sell these newer technologies to the end users, according to the buyers expectations, it is important to know:

- how long the charging time is and what the options regarding charging are?
- On the electric/battery: What is the request to the power grid? How many volt? And Amperes? Cabling? Fire extinguishing equipment?
- Connectors? Operation time? Driving, PTO time? Electric outlet time? Battery Expected lifetime/cycletime?
- Hydrogen: Tank/fueling options? Storage requirements? Operation time?

OECD Sub Working Group(SWG) regarding electric tractors.

- Discussing the correct way to do standardised test on electric tractors.
- Called Code 2, Version 4 has been decribed by the SWG.
- Also the ”Conversion Factor” between fuel and electricity consumption. The conversion factor is seen as an aid for farmers to compare diesel tractors and electric tractors in terms of fuel consumption.
- Result of the CLIMMAR introduction: *The Chair thanked CLIMMAR for sharing our view. The sub-working group will take good notice of the list of specifications highlighted and that could enrich the test reports. He also took the point on training. Electricity indeed induces high risks related to voltage and amperage. There are already agricultural machines on the market that have 100 kW of electricity output. It is good to train the testing stations’ testing staff too. The US agreed.*

OECD Sub Working Group(SWG) regarding electric tractors.

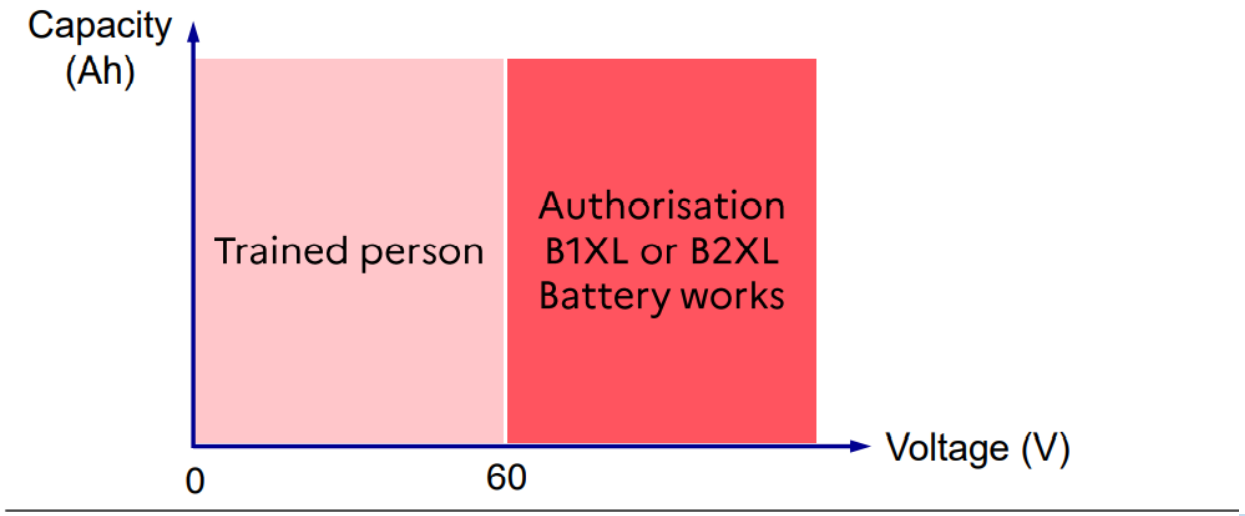
"France informed delegates that they have a national standard on "Operations on vehicles and construction equipment with thermal engine power, electrical or hybrid having an electrical power source on board - Electrical risk prevention" (NF C18-550 August 2015)".

Suggested French authorisation standards: NF C 18-510 and NF C 18-550

MINISTÈRE DE L'AGRICULTURE ET DE L'ALIMENTATION

Installing protection on the battery terminals

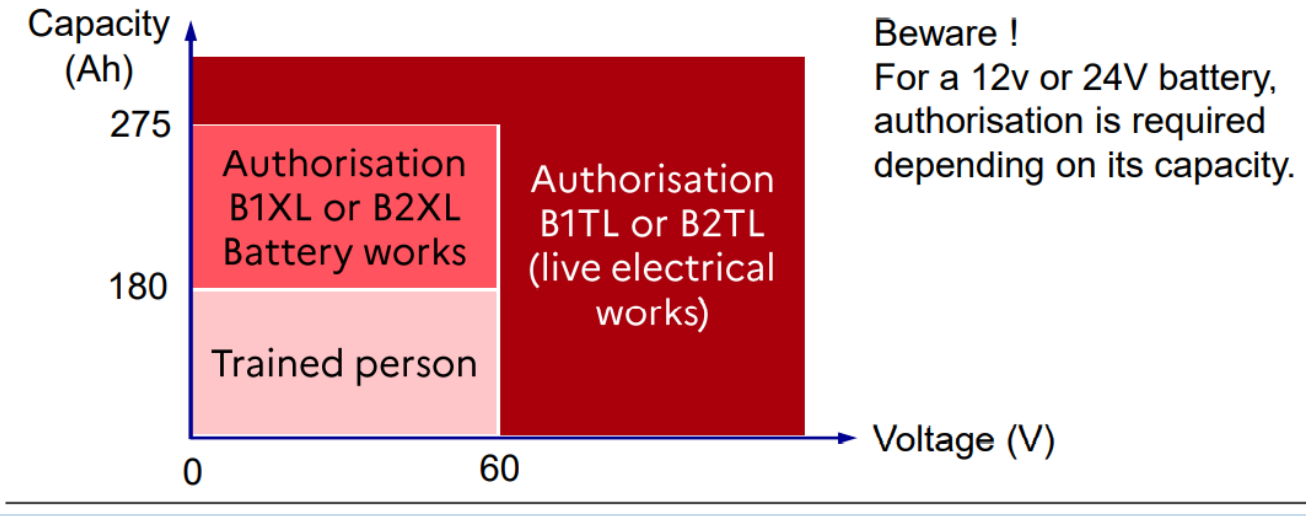
(connections are not protected)



MINISTÈRE DE L'AGRICULTURE ET DE L'ALIMENTATION

Battery disconnection and connection

(If the connections are not protected)



Beware !
For a 12v or 24V battery, authorisation is required depending on its capacity.

OECD Sub Working Group(SWG) regarding electric tractors.

Just an example of what we are talking about:
(not for promotional use..)

THE ULTIMATE VEHICLE FOR WORK AND POWER

MOBILE POWER STATION®

SUPERIOR WORK

Extreme Multi-Purpose

Engineered to perform with 250+ CAT,™ John Deere™ and Bobcat ™ Attachments

SUPERIOR POWER

Exportable Electric Power

625/500 kWh useable, per machine, scalable power with multiple machines

WORKS. POWERS. PROTECTS.
ZERO EMISSIONS

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DANNAR

CLEAN WORKPOWER

RUGGED | SMART | CONNECTED

250+	8K	500	0/0
ATTACHMENTS	CHARGE CYCLES	kWh EXPORTABLE	EMISSIONS/ FUEL COSTS

CONNECTED

CLEAN

REMOTE, AUTONOMOUS & MANUAL MODES

INTUITIVE

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DANNAR

1906-2020 | 2021-BEYOND

Single-Purpose Vehicles

Agricultural / Farm

Farm Tractors, Combines, Articulated Tractors, 4WD Tractors

Industrial / Construction

Track Dozers, Tractor/Loader Backhoes, Skidsteer Loaders, Articulated Wheel Loaders, Excavators

DANNAR Multi-Purpose Platform

Powers any manufacturer's attachment

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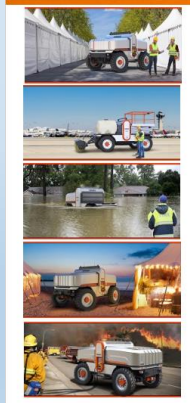
USED BY PEOPLE IN -



Agriculture
Air Quality
Airports
Campuses
Community Ctrs
Conference Ctrs
Construction
Crop Mgmt
Delivery
Distribution Ctrs
Education
Entertainment
First Responders
Fleet Mgmt
Food Processing
Higher Education

Laboratories
Land Mgmt
Military
Mining
Natural Resources
Parks
Public Work
Raw Materials
Recreation
Research Centers
Resorts
Seaports
Stadiums
Truckers
Utility
Water Quality

The list is growing, all with charging needs for their electric vehicles and electric work tools.

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DANNAR

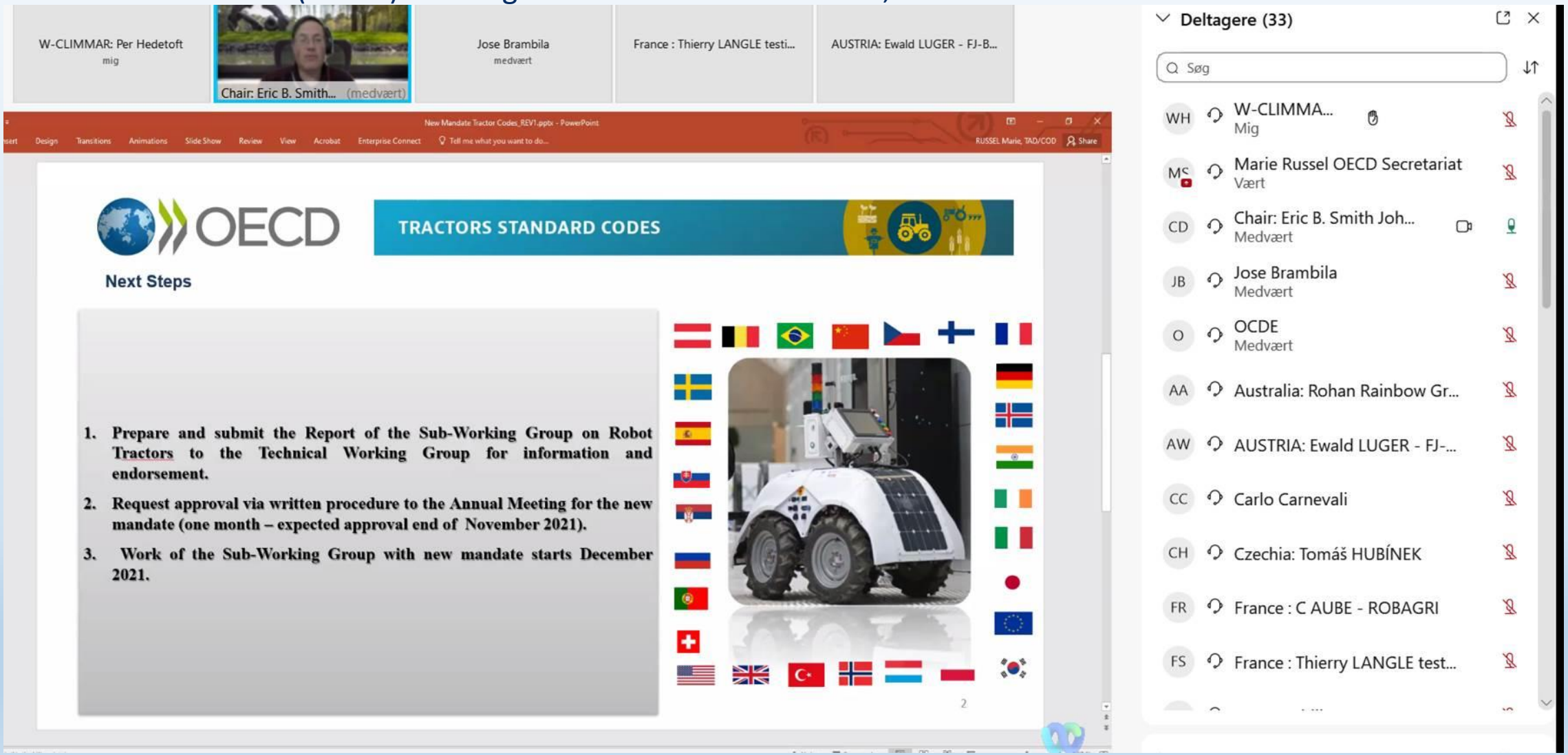
OECD SWG regarding robot tractors.

- Discussing test options for robot tractors, shown by Australia
- Turkey presented greenhouse autononumus robot for growing and picking tomatoes and collecting growth data.
- The Sub-working group watched a video of Farmdroid FD20, a seeding and weeding robot developed by a Danish firm. The video was proposed by the delegate of Austria

Model name	FD 20
Working width	Up to 3 metre
Recommended capacity	20 ha
Crops	Sugar beets, beetroots, onions, spinach, rapeseed, and different herbs*
Maximum speed highly automated mode	950 m/h
Maximum speed manual Mode	1100 m/h
Maximum recommended pitch for operation	8 % (Depending on soil type, wetness, and general properties)
Maximum recommended roll for operation	5 % (Depending on soil type, wetness, and general properties)
Seed box capacity	6 litres per seed box
Row distance	Configurable between 22,5-75 cm
Tool	Configurable with 4 to 8 active rows and 8 to 4 passive rows
Robot weight	900 kg incl. batteries
Max allowed extra weight	Max 4 x 35 kg

OECD SWG regarding robot tractors.

Latest (online) meeting on the 7th of October 2021, from 12:00- 14:00



Other lobby items of interest

CETTAAR, CEMA, CECE and CLIMMAR are also meeting outside EU and ISO norms, trying to find some ways, to solve the increasing problems with theaft of various equipment such as monitors, antennas, complete GPS systems and sensors, but also Diesel Particle filters are becoming a subject for thieves.

Thanks for Your trust☺.

Questions or comments?