Istituto Nazionale di Fisica Nucleare
SEZIONE DI FERRARA

KLOE to SAND

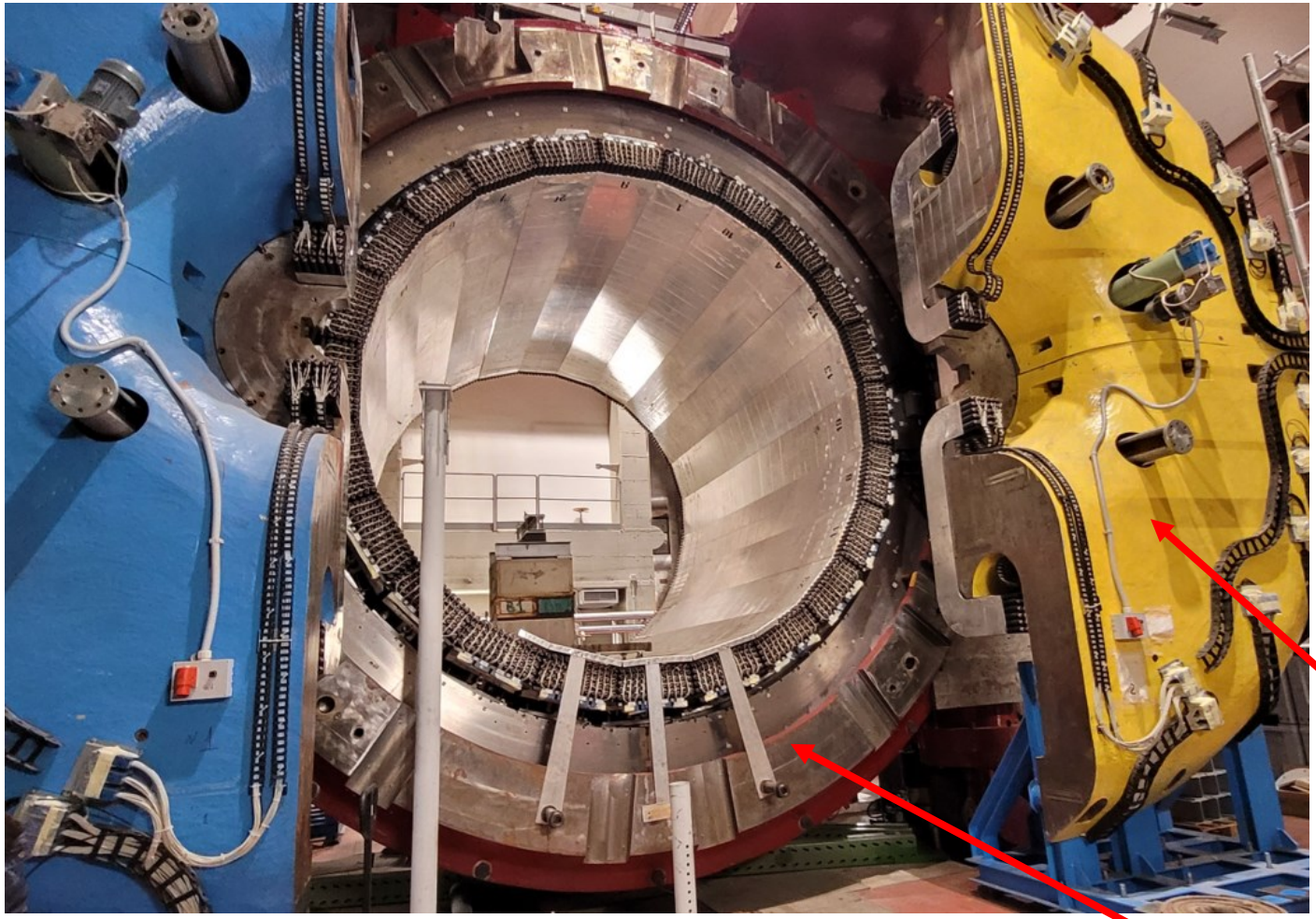
Magnet Coil: dismantling and transport (WP5)

NU_AT_FNAL – General Meeting
Lecce 06-11-2023

Overview

- Services, structures and tools
- Design Status
- Open points
- Preliminary procedure
- Organization
- Planning

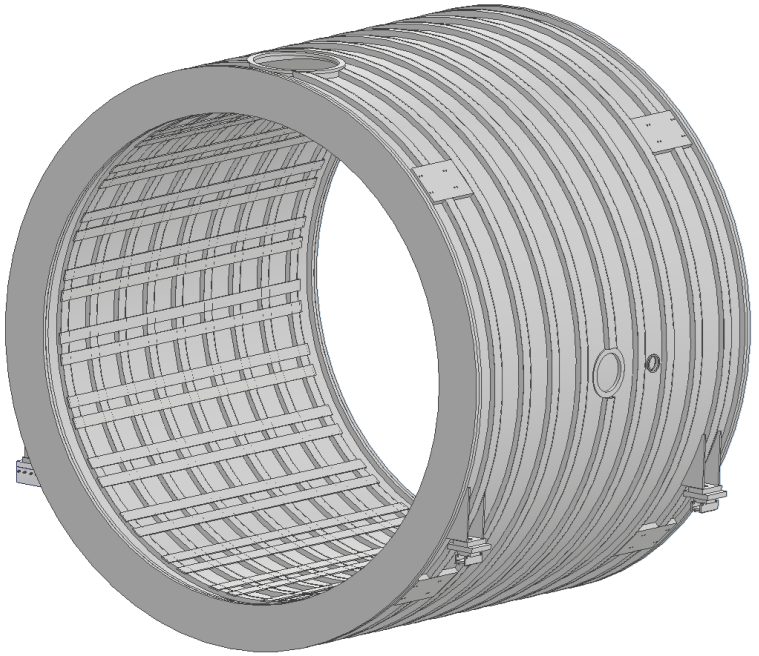
Cryostat and Magnet Coil: dimensions and weight



End Caps

Flange

(Cryostat + Coil) dimensions: Φ = 5766 mm ; L= 4400 mm

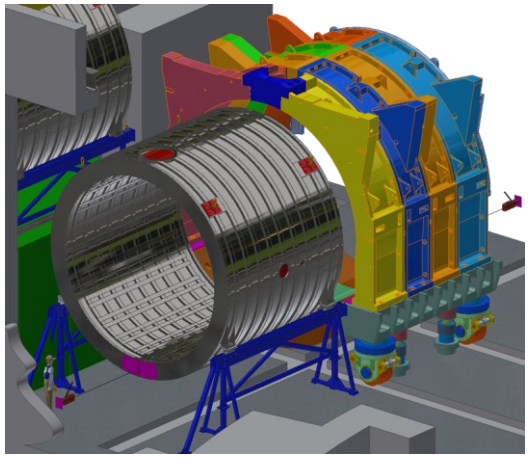


Cryostat + Coil ≈ 40 tons

20 x

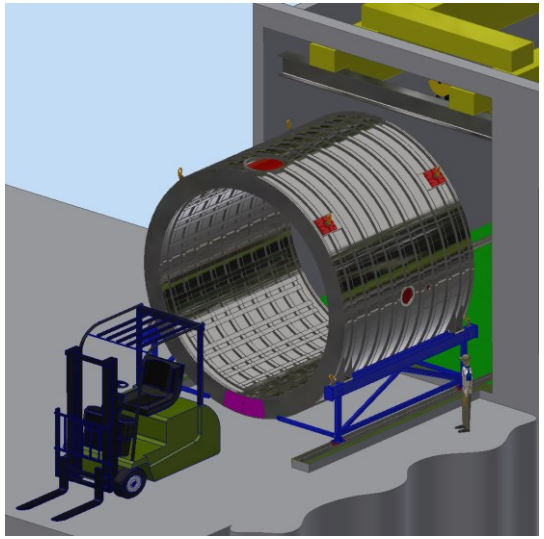
Main services, structures and tools: extraction

Crane = 22 t + 22 t



Extraction/Insertion Tool

Loading Dock



Trolley System

Cradle

Lugs

Main services, structures and tools: transport

Two cranes

Lifting Beam

Design Status

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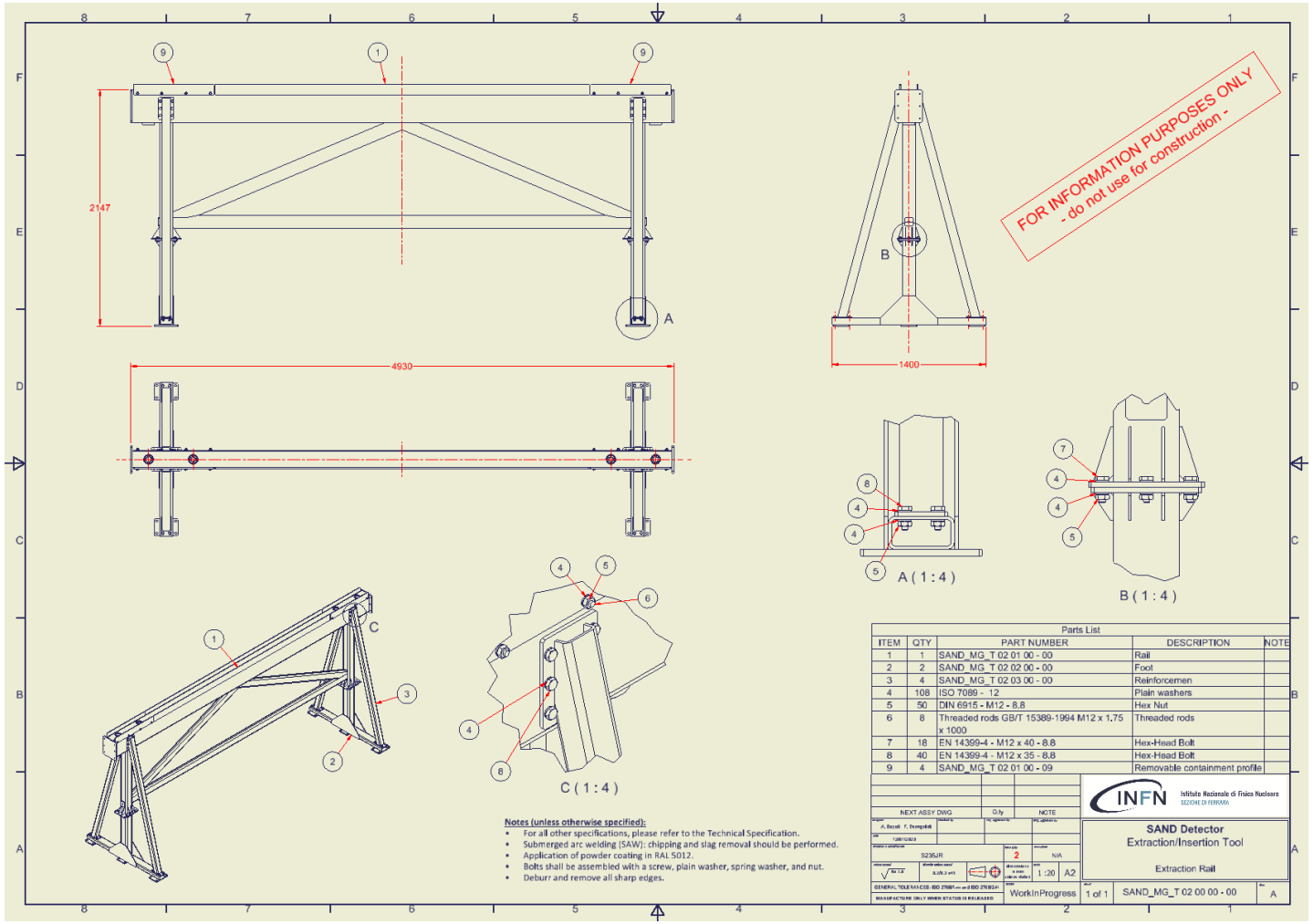
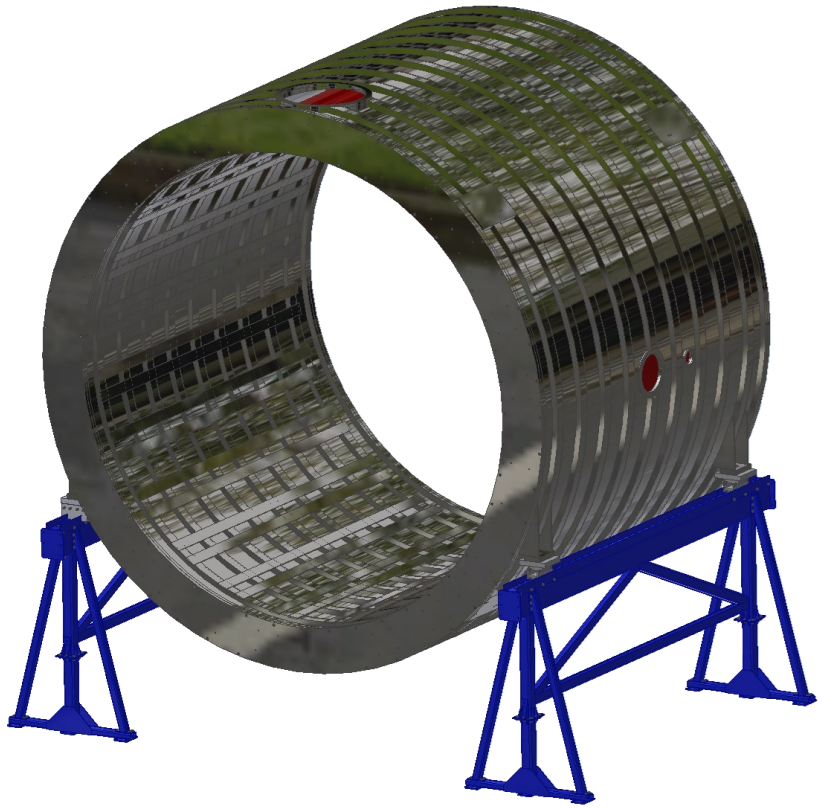
Tool	3D Model	Workshop Drawings	Sizing and verification calculations	Certification (CE and ASME)	Technical Specification for tender	Work Practices Plan (operating procedure)	Safety Plan
Extraction and Insertion	Done	Under review	Done	To be done	Done	Draft	
Trolley System	Done	Under review	Done	To be done	Done	Draft	
Cradle	Done	Under review	Done	To be done	Done	Draft	
Lugs	Done	Under review	Done	To be done	Done	Draft	
Tirfort System	Done	Under review	Done	To be done	Done	Draft	

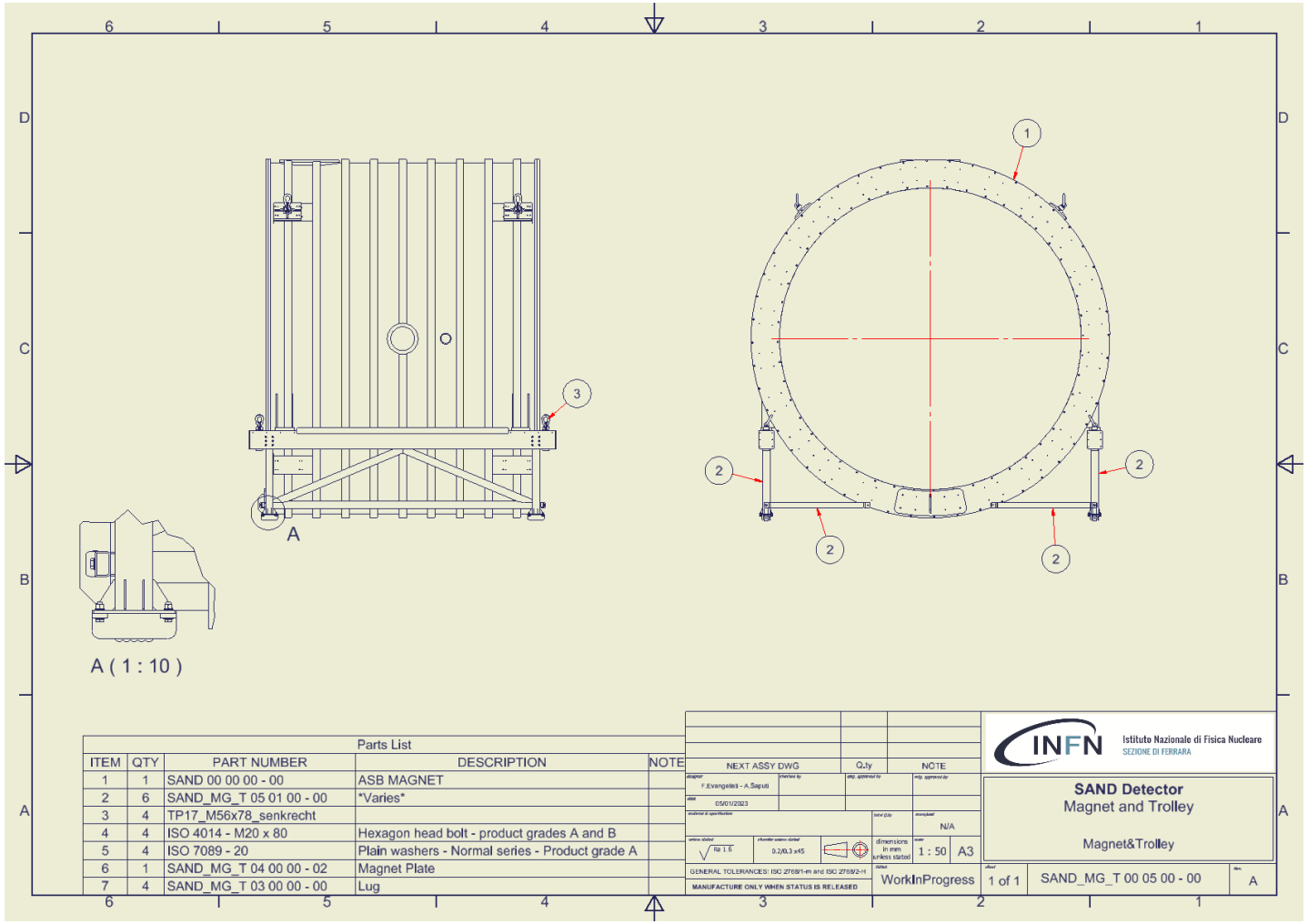
Design Status: extraction/insertion tool



- All workshop drawings are ready
- Technical specification is ready

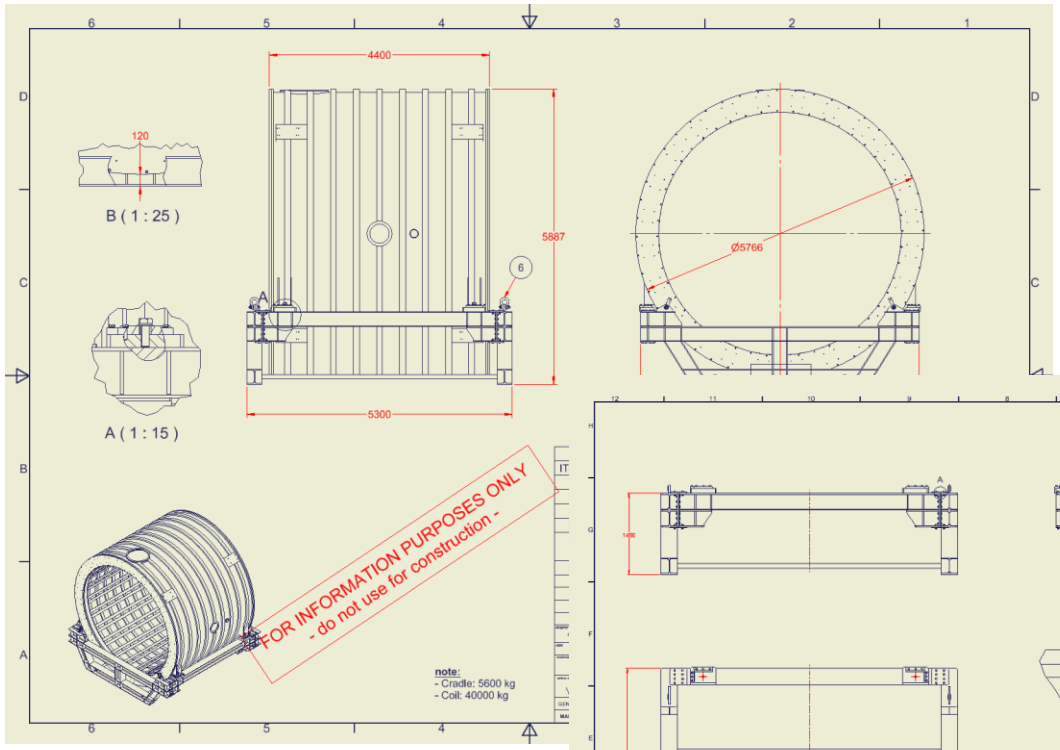


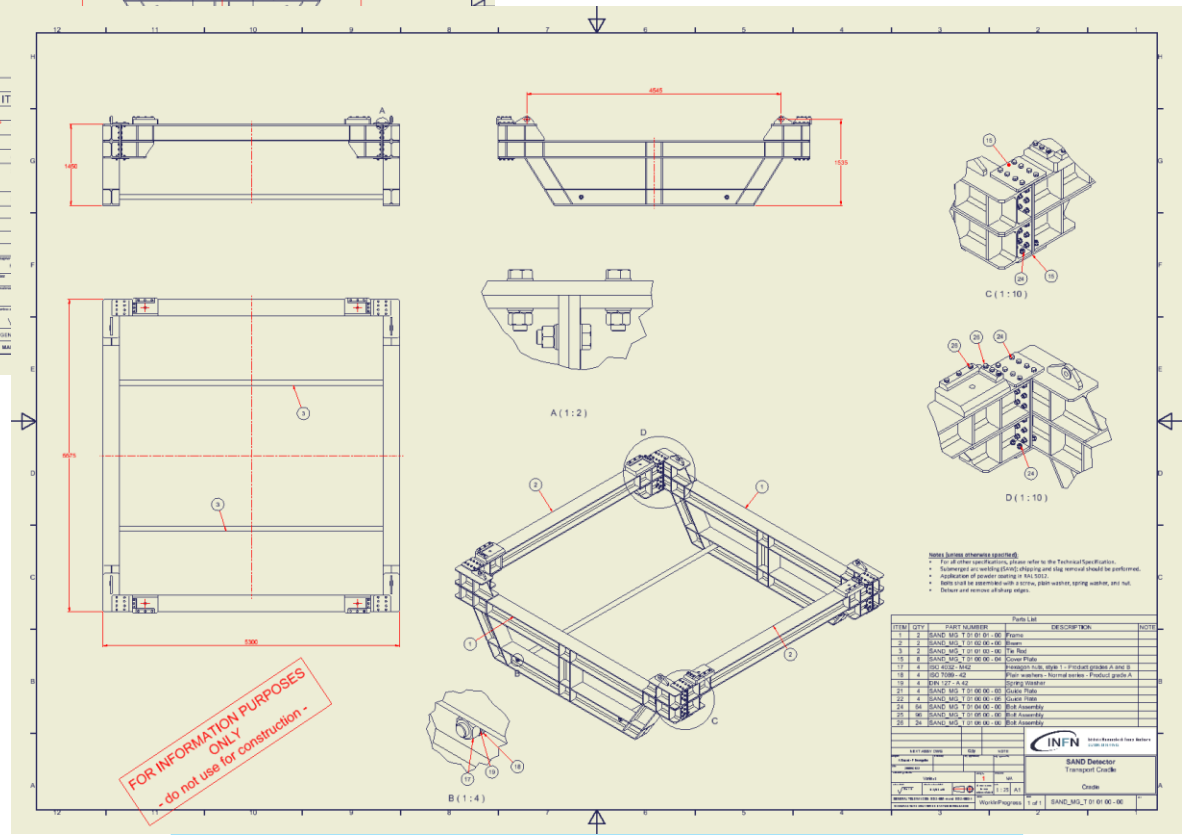
Design Status: trolley system



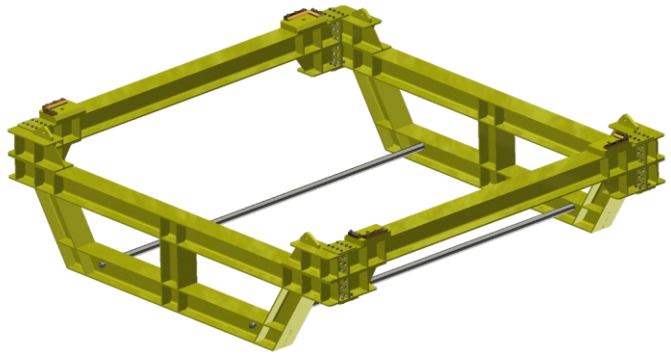
- All workshop drawings are ready
- Technical specification is ready

Design Status: transport cradle

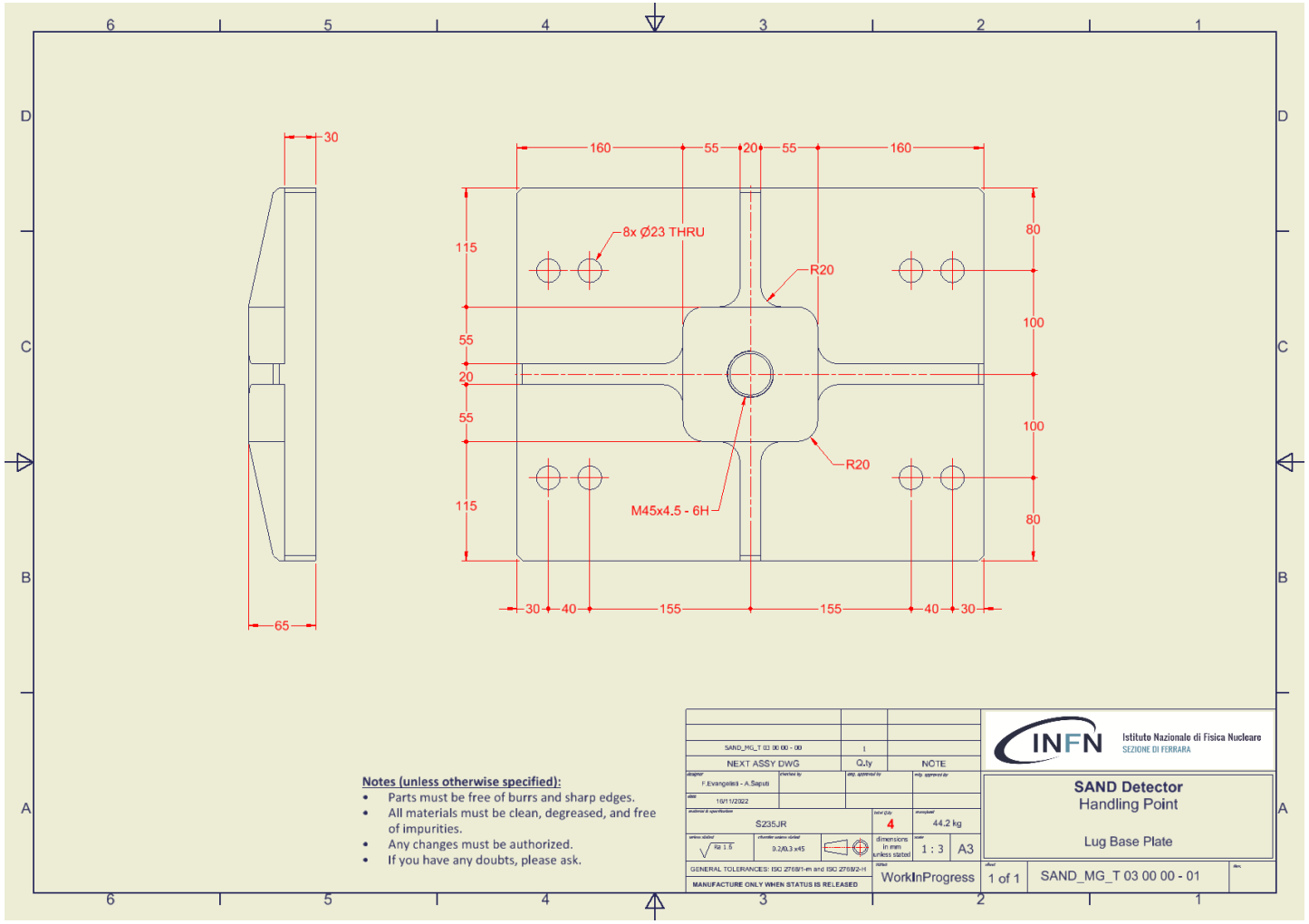




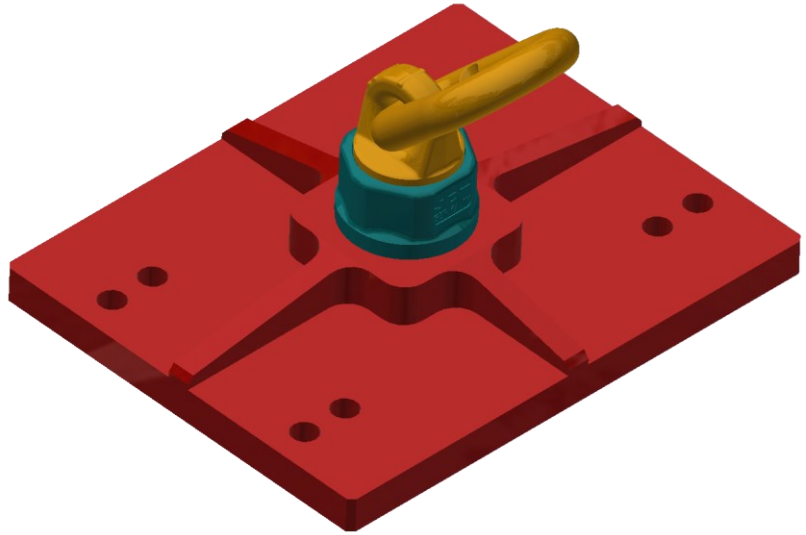
- All workshop drawings are ready
- Technical specification is ready

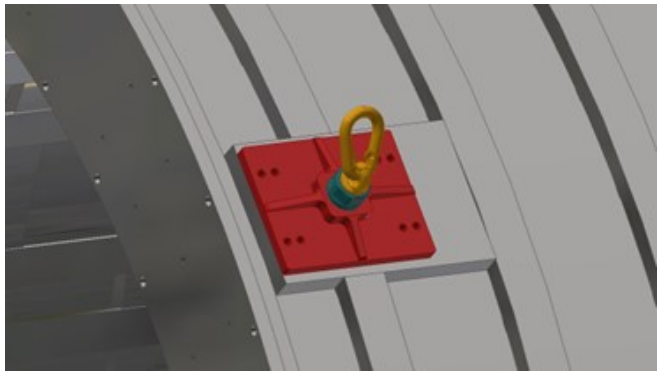


Design Status: lugs

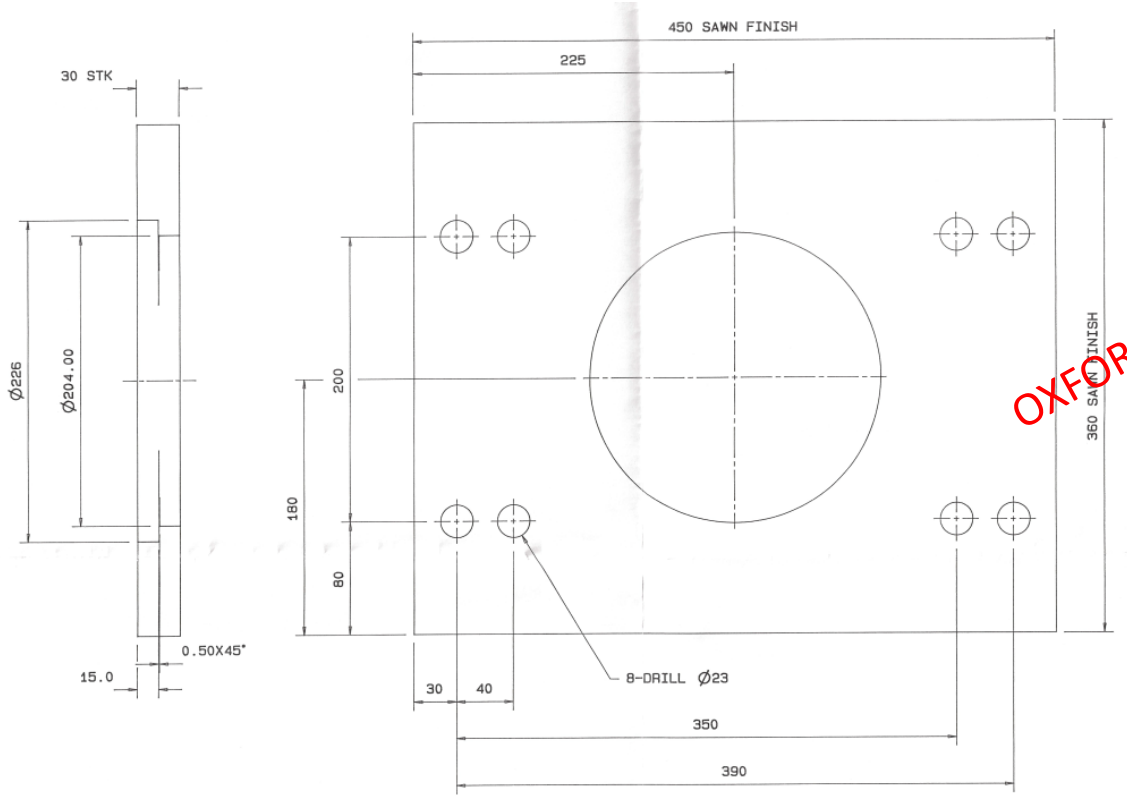


- All workshop drawings are ready
- Technical specification is ready
- Holes centre spacing to be checked

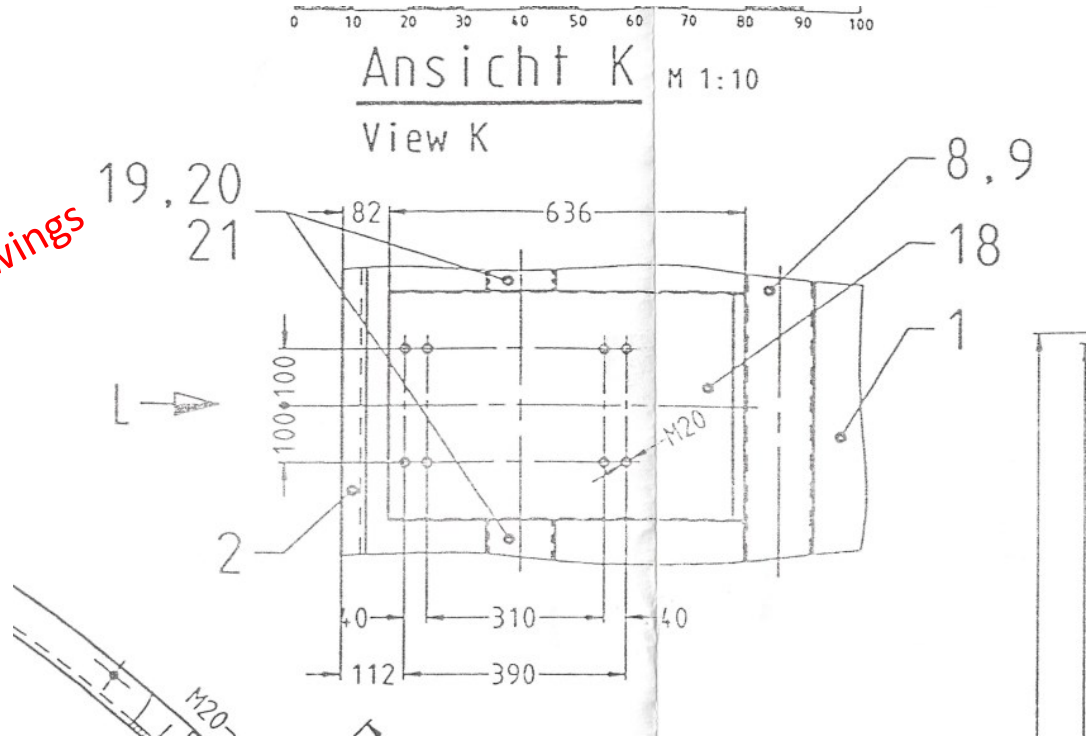




Open points: holes centre spacing to be checked (lugs)

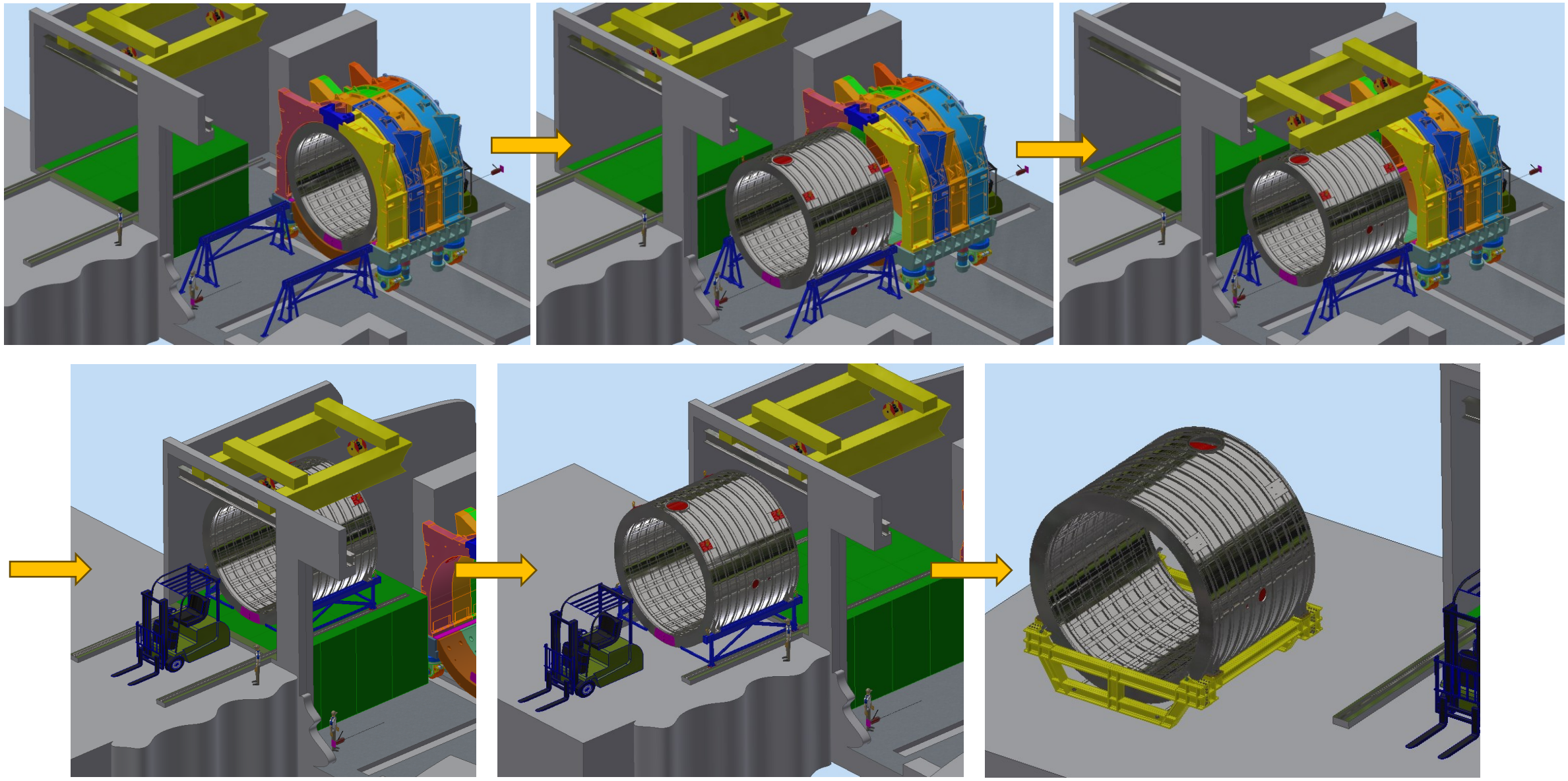


Lugs used to install the magnet

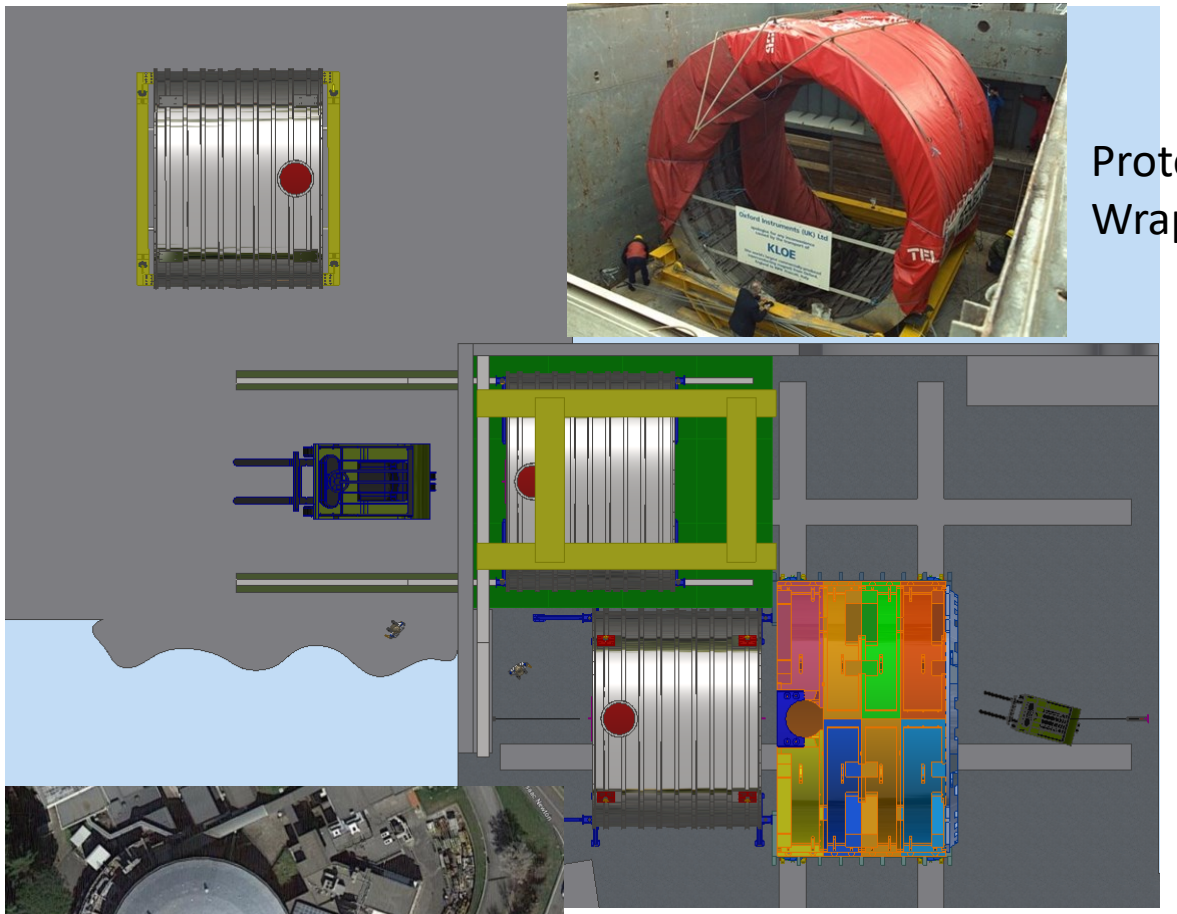


Hoist points on the magnet

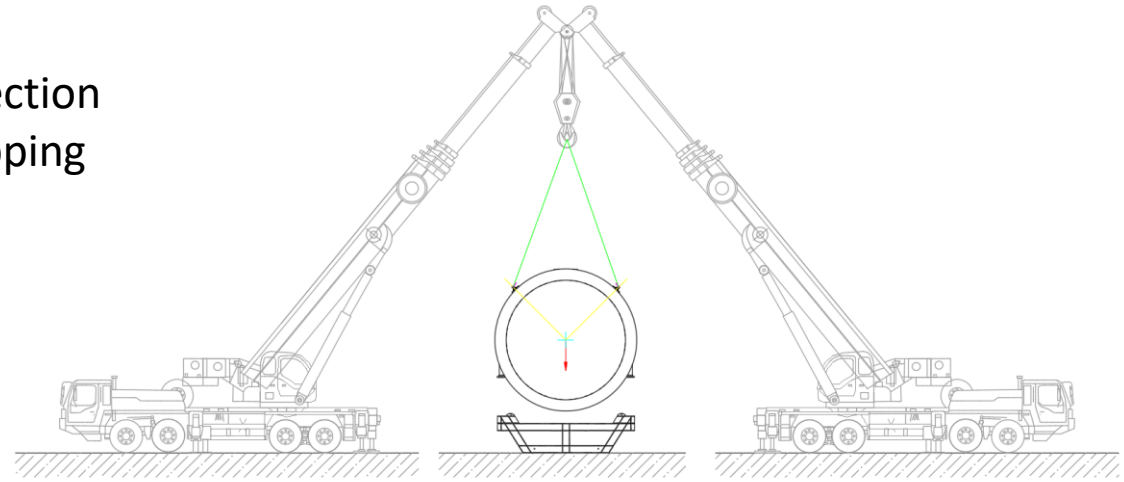
Magnet extraction: working procedure

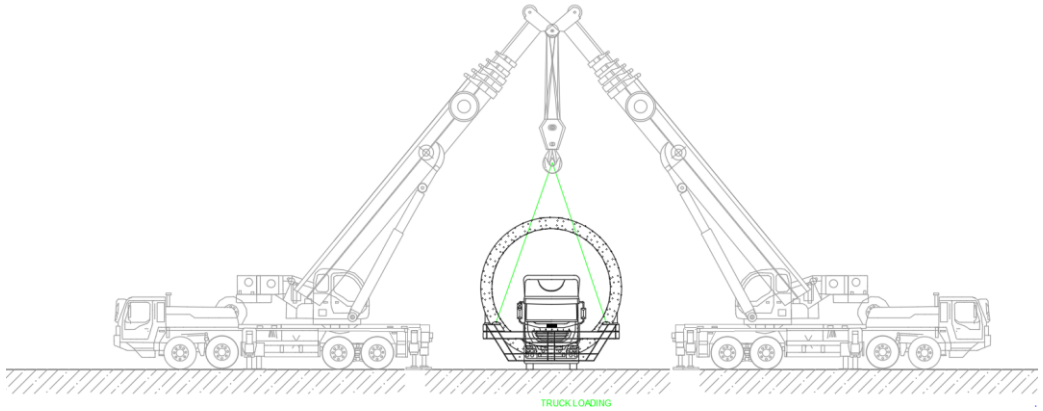


Magnet: preparation for transport



Protection
Wrapping





Organization

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SAND Group will put in place a number of hardware experts (engineers/technicians) sufficient to complete the operations in the time allocated in the planning.
The team involved on the dismantling will be composed by:

- Work Package Leader (technical responsible);
- Site Supervisor (Direttore dei lavori)
- Safety Coordinator (PSCe)
- GLIMOS
- Mechanical technicians (external staff): 3 technicians
- Technicians (INFN): 2 technicians
- Handling Team (external staff): 2 technicians

Time Schedule

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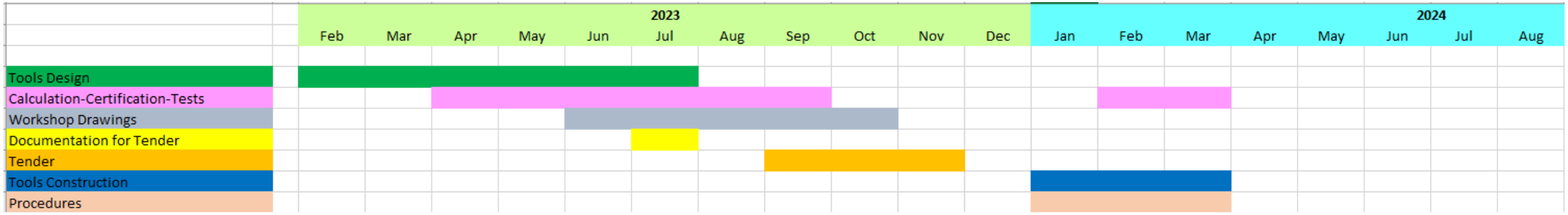
Tools Time Schedule



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