



100 Passaic Avenue, Suite 120 Fairfield,
New Jersey 07004

Date: February 27, 2024
Attention: New York City Department of Buildings
From: Gary Roskoski, Senior Safety Consultant
Reference: Proposed amendments to Hoisting Machine Operator licenses

I am writing to express my considered, professional and expert opinion on the safety features and training requirements for Magni rotating telehandlers.

By way of background, I began my safety & health career after earning a Bachelor of Science degree in Safety Management and Environmental Safety and Health from Indiana State University. During a nearly 30-year career with the United States Department of Labor, I served as Area Director for the Manhattan OSHA office, Area Director for the Marlton, New Jersey OSHA Office, Region II Coordinator for Construction Enforcement and Special Assistant to the Deputy Regional Administrator. In my time at OSHA and later as a private consultant, I have conducted multiple investigations on fatal and other serious incidents involving cranes, telehandlers, forklifts, and related lifting equipment.

Having reviewed the safety features common to current rotating telehandlers and Magni equipment in particular, I note the following:

- All Magni's have LMI (Load Moment Indicator) systems with an active digital load chart indicating the position of the load along with Load Limiting Technology which is a system of sensors, transducers, and reels, feeding into computers that monitor the machine's operation continuously to assure that the machine stays within the design capacity to prevent overloading, tip overs and similar unsafe operations.
- If an operator attempts to use a Magni roto beyond its design criteria, an audible sound will be presented and the machine will simply stop that operation and via a screen message direct the operator what to do to resume safe operations (i.e., lower boom, retract, rotate, etc.)
- All Magni roto's have patented large glass cabins for extended and best-in-class vision, so the operator has a clearer and larger view of the surroundings.

- All Magni's have a Digital Touch Screen where most operations are consolidated into 3-5 screens. This allows Magni to eliminate any dashboard resulting in significantly increased visibility for the operator.
- While all Magni Roto's calculate the machines capacity throughout its 360-degree range, scissor-type outrigger style Magni (6 ton and larger) have the ability to set up the machine with variable outrigger extensions thus providing the best load chart possible given the site restrictions, if any. In addition, each outrigger has an internal measuring reel which feeds the amount an individual outrigger is extended to the computer whereupon the computer calculates machine capacity in that 'quadrant' in the event that an individual outrigger is not able to be fully extended. In the event that an individual outrigger is not extended, the computer will derate the capacity as the machine rotates into that outrigger's quadrant.
- Magni rotos have a gyroscope type sensor that 'auto levels' the machine on it's axis to make sure it is fully level, even if the surface is not. A level machine is paramount to operate safely but is often difficult to ensure easily without this feature. If a machine is not able to be properly leveled, it's operation limits will be extremely curtailed depending on how out of level it is or stopped completely from operating.
- All Magni rotos are ordered with front, rear and boom tip cameras so the operator can clearly see any areas that may be obstructed or need clarity on from a screen within the cabin.
- Since a roto is normally set in place and the boom rotated to move materials or personnel (if using a Platform), there is far less opportunity for jobsite injury from a moving machine, plus the jobsite stays more even since it would have less traffic like it would with a fixed telehandler that moves around all of the time.

I have also reviewed current standards and training curriculum for rotating telehandlers and Magni equipment specifically and note the following:

- A Magni is NOT regulated by ANSI as a crane, this is clearly outlined by the separate designation per ANSI EN1459.4
- With certain exceptions, OSHA regulations would classify a rotating telehandler as a rough terrain forklift.
- OSHA training for this type of equipment would typically include the training required by the OSHA standard for powered industrial trucks, 1926.602(d) which references 1910.178(l).
- In countries where training on rotating telehandlers is required, a standardized classroom or online course with a written and practical test is used and has proven satisfactory. These courses are a maximum of one week in length with a written and practical test following to obtain an operator's certificate.

- In many parts of the world, simple forklift training is used in lieu of the above
- NCCCO is now offering roto telehandler training which based on my review meets or exceeds OSHA requirements for this type of equipment.

In terms of regulations and the safety record of this equipment, I note:

- Magni has over 12,000 rotos worldwide and over one million hours of completely safe operation, they have a perfect safety record of no machine related fatal accidents or tip overs, as the safety technology has proven itself incredibly reliable in the field worldwide.
- In NYC, Magni has never had a safety incident resulting in harm to people or property.

Based on the above, it is my considered opinion that the current regulatory framework for rotating telehandlers and the training of operators would meet or exceed current OSHA standards for operator training of said equipment. Further, it is my opinion that, provided operators and other users of the equipment follow the manufacturers recommendations, pre-plan the specific work operations to identify and address all hazards and have the requisite training as outlined above, the regulatory framework currently in place would be considered adequate for the protection of employees working onsite.