INDUSTRIAL CRANES

NUCLEAR CRANES

PORT CRANES

HEAVY-DUTY LIFT TRUCKS

CRANE SERVICE

MACHINE TOOL SERVICE



Nuclear Dry Cask Transporters SAFE, USER-FRIENDLY OPERATION INCREASES PRODUCTIVITY



SAFE, RELIABLE & USER-FRIENDLY FEATURES

Backed by over 125 years of experience

COMPLETE POOL TO PAD DRY CASK MATERIAL HANDLING SOLUTIONS

Konecranes Nuclear Equipment & Services is a provider of complete material handling systems for dry cask storage. Konecranes routinely provides complete integrated dry cask lifting equipment solutions, including dry cask transporters, single failure proof cranes, and other types of specialty handling equipment. As a supplier of every type of dry cask handling/lifting equipment Konecranes can provide complete pool to pad lifting services, thereby assisting proper integration of all equipment for safe and user-friendly operation. With over 125 years of experience supplying virtually every type of lifting equipment, and as a descendant of the P&H® brand. Konecranes has the experience and resources required for your project.

REGULATORY COMPLIANCE

Konecranes dry cask transporters are designed to meet regulations for the nuclear industry for equipment that handles spent fuel. Konecranes employs a large staff of in-house engineers that are highly knowledgeable regarding all areas of nuclear design including complex analyses such as seismic, stress/fatigue, failure affects and safety requirements. Complete equipment design documentation packages and quality assurance packages are provided.

HIGHER PRODUCTIVITY AND IMPROVED MANEUVERABILITY

Konecranes equipment is designed for safe, highly productive and user-friendly operation. Konecranes cask transporters are designed for highly precise maneuverability. With full steering capability in all directions the transporter is designed to provide precise operation with repeatability of up to 1/16th of an inch.

USER-FRIENDLY OPERATOR CONTROLS

Operator controls are designed for userfriendly operation with joystick controls, and are ergonomically arranged to provide inherently obvious operation in order to minimize human errors. The padded "captain's chair" prevents operator fatigue and is equipped with multiple interlocking safety features.



CAN MANEUVER IN TIGHT SPOTS



DESIGNED TO MINIMIZE DAMAGE TO OPERATING SURFACES

A legacy of expertise and quality, and a descendant of P&H® overhead cranes

Konecranes Nuclear Equipment & Services LLC was formed after the 2006 acquisition of Morris Material Handling, Inc. the original manufacturer of P&H® overhead cranes, hoists and replacement parts and now a wholly owned subsidiary of Konecranes Inc. P&H® is a registered trademark of Harnischfeger Technologies Inc. and is used by Morris Material Handling, Inc. under license. Morris Material Handling, Inc. is not affiliated with Harnischfeger Technologies Inc. or P&H Mining Equipment Inc.

LOAD DROP SAFETY CATCHING SYSTEM

reduced surface loading vs. a tracked drive system.

RUBBER TIRE DESIGN PREVENTS

ROADWAY AND HAUL PATH DAMAGE

The destructive tendencies of track driven cask transporters are a

concern to nuclear plant operators. Damage to haul path surfaces

do not cause the roadway and haul path damage that is caused by

maintenance repairs. Konecranes rubber tire driven cask transporters

utilizes aircraft quality tires that are filled with foam instead of air. The

26-ply tires are made from natural rubber and unlike normal tires are

resistant to dry rot and cannot go flat due to air loss because they

are foam filled. Another benefit of the rubber tire-driven design are

and plant floors, created by tracked vehicles, result in expensive

typical track driven cask transporters. The rubber tire propulsion

design is suitable for many types of operating surfaces such as

asphalt, concrete and compacted gravel. The rubber tire design

To prevent load drop, the cask transporter is equipped with a safety catching device that is integrated with the lifting system. This device

is designed to be failsafe, and to safely stop and hold the load in the unlikely event of a lifting system failure, including a complete power loss.

SMOOTHER DRIVE CONTROL....NO LURCHING

Smooth and reliable propulsion is provided by eight hydraulic drive motors, one on each set of dual wheels. Heavy duty hydraulic motors provide high torque at zero speed which produces extremely fine driving precision without start-up lurching. The hydraulic drive system utilizes synthetic oil and never requires changing under normal operation.

DRIVE/STEERING REDUNDANCY

By using an eight motor redundant hydraulic drive/steering system, operation of the propulsion/steering system is capable in the unlikely event of a hydraulic motor failure, by simply by-passing the failed drive.

TESTING

Prior to leaving the factory, each transporter is put through a rigorous factory acceptance test procedure that covers all operational, safety and system features, including a full capacity load test. All testing is fully documented, and client participation is encouraged during all phases of testing.

WORLDWIDE TRANSPORT CAPABILITY

Upon the conclusion of factory testing each transporter is carefully disassembled and prepared for shipment. International shipments are packed in standard shipping containers, and the transporter is designed for easy re-assembly in one day. As an international supplier to the nuclear industry, Konecranes provides a full range of installation, training and support services.

ALTERNATE DESIGNS

In addition to our standard transporter design, Konecranes offers a complete range of customized cask transporters employing rubber tire and track driven propulsion systems suitable for virtually every configuration of vertical and horizontal dry cask storage system.















INDUSTRIAL NUCLEAR **CRANES**

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LIFT TRUCKS SERVICE

TOOL **SERVICE**



Konecranes is a world-leading group of Lifting Businesses™, serving a broad range of customers, including manufacturing and process industries, shipyards, ports and terminals. Konecranes provides productivity-enhancing lifting solutions as well as services for lifting equipment and machine tools of all makes. In 2010, Group sales totaled EUR 1,546 million. The Group has 10,000 employees at 578 locations in 46 countries. Konecranes is listed on the NASDA Q OMX Helsinki (symbol: KCR1V).

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Konecranes Nuclear Equipment & Services LLC 5300 S. Emmer Drive, New Berlin, WI 53151 Tel 262.364.5700 www.konecranesamericas.com