

# Talon™ Heavy Hoist Hook and Safety Latch



*Engineers at the Savannah River Site (SRS) have devised a new design for a latching hoist hook with remote unlatching capabilities. The Talon™ hoist hook and safety latch is designed for lifting heavy loads as well as locking the load in place with virtually no chance of slippage or disengagement of the load until the cargo has been placed in position and is released remotely by the crane operator.*



## Performance Benefits

Most hooks designed for heavy hoisting and lifting operations are open-ended devices. Consequently, the load being carried is only as secure as the skill of the operator performing the lift. Any sudden stops, shift or change in direction of the load during operation could result in the potential disengagement of the load from the hook resulting in damage to the cargo or potential injury to the rigging personnel.

The locking mechanism of the Talon makes it virtually impossible for the load to slip or drop from the hook. Only when the cargo is safely lowered into its desired position and the locking mechanism is released can the payload be disengaged. The disengagement of the load is also possible through remote means inherent in the design of the device. Remote release of heavy payloads eliminates the need for rigging personnel to manually release the rigging wires or straps from the hoist hook, providing additional safety benefits to personnel during the operation.

## Stage of Development

Savannah River Site has a wide array of heavy lifting and rigging operations onsite. This equipment has been designed, developed, and successfully deployed onsite for use by the riggers and crane operators. A patent has been filed on this invention with the U.S. Patent and Trademark Office.

## at a glance

- applicable to a wide array of rigging operations
- enhanced safety for personnel and cargo
- hands free, remote operation
- scalable for various load sizes
- patent applied for

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### **Technology transfer**

The Savannah River National Laboratory (SRNL) is the U. S. Department of Energy's (DOE) applied research and development laboratory at the Savannah River Site (SRS). With its wide spectrum of expertise in areas such as homeland security, hydrogen technology, materials, sensors, and environmental science, SRNL's cutting edge technology delivers high dividends to its customers.

The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC. SRNS is responsible for transferring its technologies to the private sector so that these technologies may have the collateral benefit of enhancing U.S. economic competitiveness.

### **Partnering opportunities**

SRNS invites interested companies with proven capabilities in this area of expertise to develop commercial applications for this process under a cooperative research and development agreement (CRADA) or licensing agreement. Interested companies will be requested to submit a business plan setting forth company qualifications, strategies, activities, and milestones for commercializing this invention. Qualifications should include past experience at bringing similar products to market, reasonable schedule for product launch, sufficient manufacturing capacity, established distribution networks, and evidence of sufficient financial resources for product development and launch.

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#### **For more information**

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