

POWER MANAGEMENT

Solutions For Military Vehicles



SLEW DRIVE



HYDRAULIC WHEEL MOTOR



FAN DRIVE CONTROL

THE IMPORTANCE OF POWER MANAGEMENT IN THE QUEST FOR ENERGY EFFICIENT MILITARY VEHICLES CANNOT BE UNDERSTATED. Onboard systems utilize innovative control technologies designed for precise operation to decrease emissions, thereby increasing fuel efficiency. WESS harnesses the design, engineering, development, and build capabilities to efficiently manage power distribution for optimum performance.

FAN DRIVES

Developing fuel efficient military vehicles requires keeping engines cool. Maintaining variable fan speeds regardless of engine speed while consuming the least amount of energy possible is essential. This is accomplished through fixed or variable hydro-mechanical and electro-hydraulic systems. WESS makes this possible through the application of hydrostatic fan drives within integrated vehicle systems.

Fan Drives For Power Management:

- Fixed Hydro-Mechanical Control Systems
- Variable Hydro-Mechanical Control Systems
- Fixed Electro-Hydraulic Control Systems
- Variable Electro-Hydraulic Control Systems

WHEEL DRIVES

Integrating advanced wheel drives within military vehicle systems is another crucial step to power management. Efficient energy consumption for vehicles propelled by tracks, wheels, and rollers relies upon distributing power in a manner that matches the demands of the particular function. WESS designs and builds high performing wheel drive systems proven within the most challenging environments.

Wheel Drive Capabilities Include:

- High Efficiency
- Broad Horsepower Range
- High Speed Functionality
- Custom Designs
- Reduced Space Claim
- Wide Operating Temperature Range

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CONCEPT | DESIGN & ENGINEERING | PRODUCT ENGINEERING | PROTOTYPE & TEST
MANUFACTURING | QUALITY | SOFTWARE SOLUTIONS | PROFESSIONAL RESOURCES

WESS
VIRTUALLY DERIVED. EFFICIENTLY APPLIED.

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MOBILE CONTROLLERS

Electronic control systems for military vehicles provide the interface for the precise allotment of power to a host of powertrain and auxiliary systems. Electronic control systems regulate single or interlinked hydraulics, electronics, and pneumatics with the assistance of consoles, joysticks, and displays. WESS can design the systems and provide the components to bring mobile control to the level required to optimize efficiency and performance.

Mobile Controller Solutions Provide:

- Multiple Programming Languages
- Proven Reliability
- Durable Construction
- Comprehensive System Controls
- Integrated Safety Systems
- High Speed Processing
- Custom and Standard Function Blocks

SEMI-ACTIVE SUSPENSION SYSTEMS

The increased weight and high center of gravity of current and future military vehicles means the risk of rollover is greater than ever before. As weight is transferred to one side of the vehicle during high-speed maneuvers, the suspension must be able to react by stiffening the system on the load bearing side. WESS designs and builds hydraulic semi-active suspension systems for superior handling performance.

Semi-Active Suspension Systems Feature:

- Fast Response
- Robust and Compact Design
- Applicable to Small and Large Vehicles
- Independent Suspension Control
- Reduced Rollover Risk

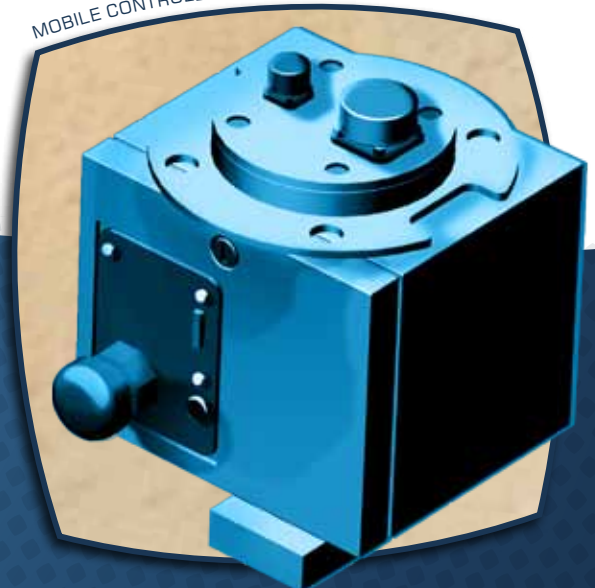
HYDRAULIC WINCH



SEMI-ACTIVE SUSPENSION SYSTEM



MOBILE CONTROLLER



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