

# **Industrial Division**











# **Curtiss-Wright Industrial Division**

Curtiss-Wright Industrial Division is a recognized leader in providing components and sub-systems that enable customer specific solutions for on- and off-highway vehicles. These include material handling, construction, agricultural and other specialty vehicles, plus medium- and heavy-duty trucks, buses, and motor coaches, as well as sophisticated wheelchairs and scooters for medical mobility.

We are a leading provider of electronic throttle controls, transmission shifters, and sensors addressing the long-term trend across the globe towards attaining higher fuel efficiency and lower emissions. We are also addressing new energy solutions for a greener environment by providing advanced motor controllers and power electronics for hybrid and electric vehicles. In an effort to improve vehicle safety and operator efficiency, we also supply various human interface and operator controls that act seamlessly in today's modern cab environment.





# **Why Choose Curtiss-Wright?**

# **Extensive Experience**

Curtiss-Wright Industrial Division has established a leading position in various markets by being highly responsive to specific customer requirements.

This diverse application knowledge base includes:

- Tractors
- Front Loaders
- · Telehandlers and Telescopic Loaders
- Seed Drilling Attachments
- Combine Harvester
- · Self-Propelled Forage Harvesters
- Self-Propelled Sprayers
- Balers
- Hedge and Verge Attachments
- Remote-Controlled Mowers

#### Innovative Products

We are proud of our product legacy spanning nearly 85 years, providing customer-specific solutions to market leading OEMs.

Using our applications engineering expertise with customer development teams, we enable a free flow of ideas that provide the most reliable and cost-effective product solution to each unique application.

# Reliable Partner

We have long-term relationships with many of the industry-leading OEMs. Whether customizing an existing product to better suit an application, or creating completely new concepts to address an OEM specification, our global team of engineers are ready for the challenge.

Our engineers will work directly with your team to determine what is needed for a successful outcome.

# **Global Support**

Curtiss-Wright Industrial Division has a global footprint, with design and manufacturing in the USA, the United Kingdom, China and India. This is backed by our own sales and technical support teams in over 45 other countries, ensuring exceptional levels of efficiency, quality and on-time delivery.



# **Serving the Agriculture Industry**

The world population increase has transformed the agriculture industry from labor-intensive manual work to a highly automated production process that uses self-propelled vehicles with GPRS auto-steer technology. The industry has developed a vast array of vehicles, machinery and equipment to increase productivity in the planning, fertilization, irrigation and harvesting of crops.

Curtiss-Wright is highly experienced in working with agricultural machinery designers to provide safety-critical components and sub-systems that not only offer optimal ergonomics for efficient operator control to reduce fatigue and increase productivity, but can also withstand the environmental challenge of water, dust, shock, vibration and temperature extremes.

New vehicle cab designs are now using electronic Human-Machine Interface (HMI) that replace multiple hydraulic levers and discrete components with fully integrated armrest assemblies that give operators a wide range of new capabilities. Our engineers have extensive experience in developing custom HMI solutions by collaborating with your design teams to develop the most cost-effective and reliable equipment.

# **Product Families**

### **HMIC**

The Curtiss-Wright global team has extensive knowledge,



to integrate systems consisting of user interface controls, system controller, displays, actuators and other systems to economically improve vehicle performance, efficiency, safety and functionality.

#### CW System Elements Include:

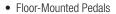
- HMIC Control Algorithms Unique to Vehicle and Application
- HMIC Controller Hardware
- · Operator Controls Unique to Vehicle and Application that can be used with CW and Competitor Components

#### The Benefits Include:

- Improve Operator / Vehicle Safety, Efficiency and Functionality to Meet Increasing Market Requirements
- Reduce Cost / Complexity or Add Value to Distributed Vehicle Architecture and Discrete Components

 Enhance Diagnostic and Troubleshooting Feedback

### **Electronic Throttle Controls**





- · Adjustable Pedal Units
- · Lever and Rotary Hand Controls

## **Shifters and Hydraulic Levers**

- · Pushbutton, Lever, and Columns Shift Controls
- Electro-Mechanical Shift-By-Wire Actuators and Controllers
- Hydrostatic Shift Controls
- Single- and Dual-Axis Hydraulic Levers



# **Power Management**

- · Power Distribution Modules
- Traction Inverters



# Sensors

- · Linear and Rotary Hall-Effect Position Sensors
- In-Cylinder Linear Position Sensors
- · Spool Valve Sensors
- Tilt Sensors

# **Electronic Joystick Controls**

- · Rugged Joysticks and Handgrips
- Mid-Size Joysticks
- Fingertip Joysticks and Rockers
- ISOBUS Handles and Controls



CAN J1939 is available for various pedals, sensors, shifters and joysticks









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