



SPICER™



eSP502

**POWERING
INNOVATION**

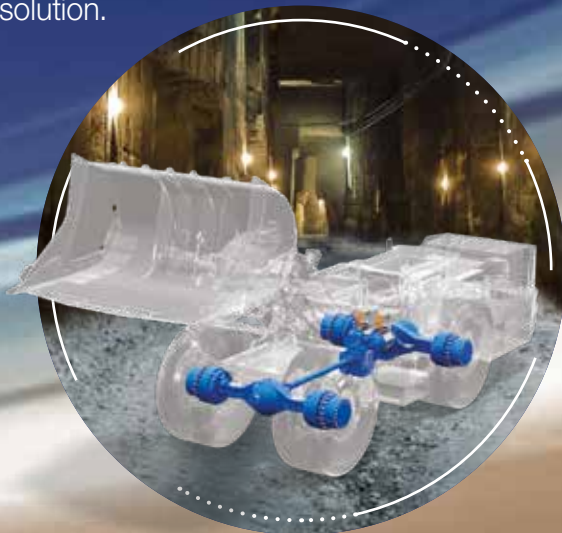
Spicer Electrified™ eSP502

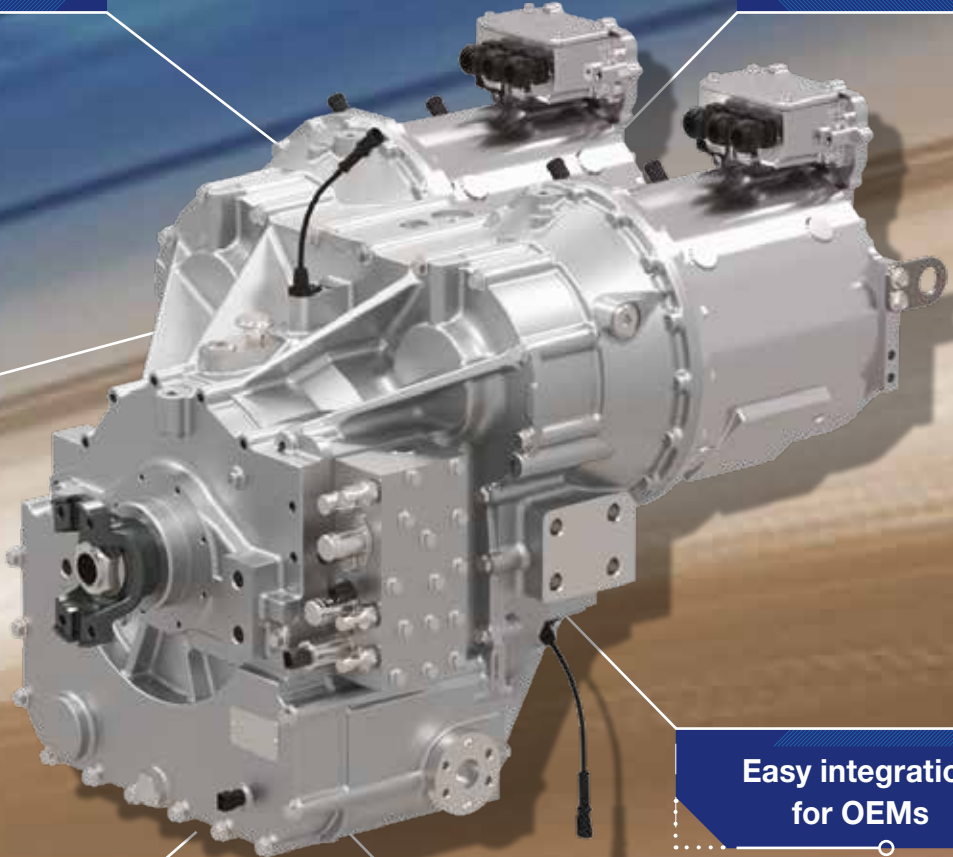
Electric driveline system solution

Dana has designed a new, sustainable, fully electric driveline system to expand its transmission solution offerings for OEMs. Based on a dual-motor, two-speed powershift transmission, it provides superior performance at maximum efficiency in a compact package.

The dual-motor concept enables the use of one or two motors depending on the duty cycle, providing superior efficiency, reducing system costs, and helping vehicles reach higher travel speeds.

The integrated system features a transmission, motors, a driveline controller and inverters in a completely electrified system solution.





High-quality powershift transmission

Electric system providing redundancy

Flexible and efficient

Easy integration for OEMs

Hill-hold functionality

Compact package fits within traditional design envelope

Reliability, Efficiency, Performance

Offering versatility and reliability, the transmission is designed to meet the needs of the construction industry.

Superior performance in every condition

Smooth operation during gear shift

Shifting not required during Y-cycles

Uninterrupted tractive effort,
even under full load



- + Uninterrupted torque while shifting under full load
- + Continuous tractive effort
- + Patented, low-drag wet clutch design



Performance balancing
for optimum efficiency



Single or dual motor set up
depending on performance
requirements



Flexibility, Easy integration

The new driveline system solution features a flexible, dual-motor configuration that offers the system redundancy needed by the mining industry.



Full power in every condition

Multiple ratio options

Power balancing for best efficiency

Uninterrupted tractive effort
while shifting



Easy installation
and integration

Energy management provided
by APC controller



- + High performance
- + Minimal downtime and work interruptions
- + Dual-motor design for system redundancy
- + Longer battery range
- + Power management system integration

Powering Innovation To Move Our World

Built for a wide range of off-highway applications, the Spicer Electrified™ eSP502 transmission is an innovative solution for mining trucks and loaders, wheel loaders and rough-terrain cranes used in construction, lift trucks and container handlers for material handling, and forestry forwarders.

Mining 

Construction 



Material handling



Forestry

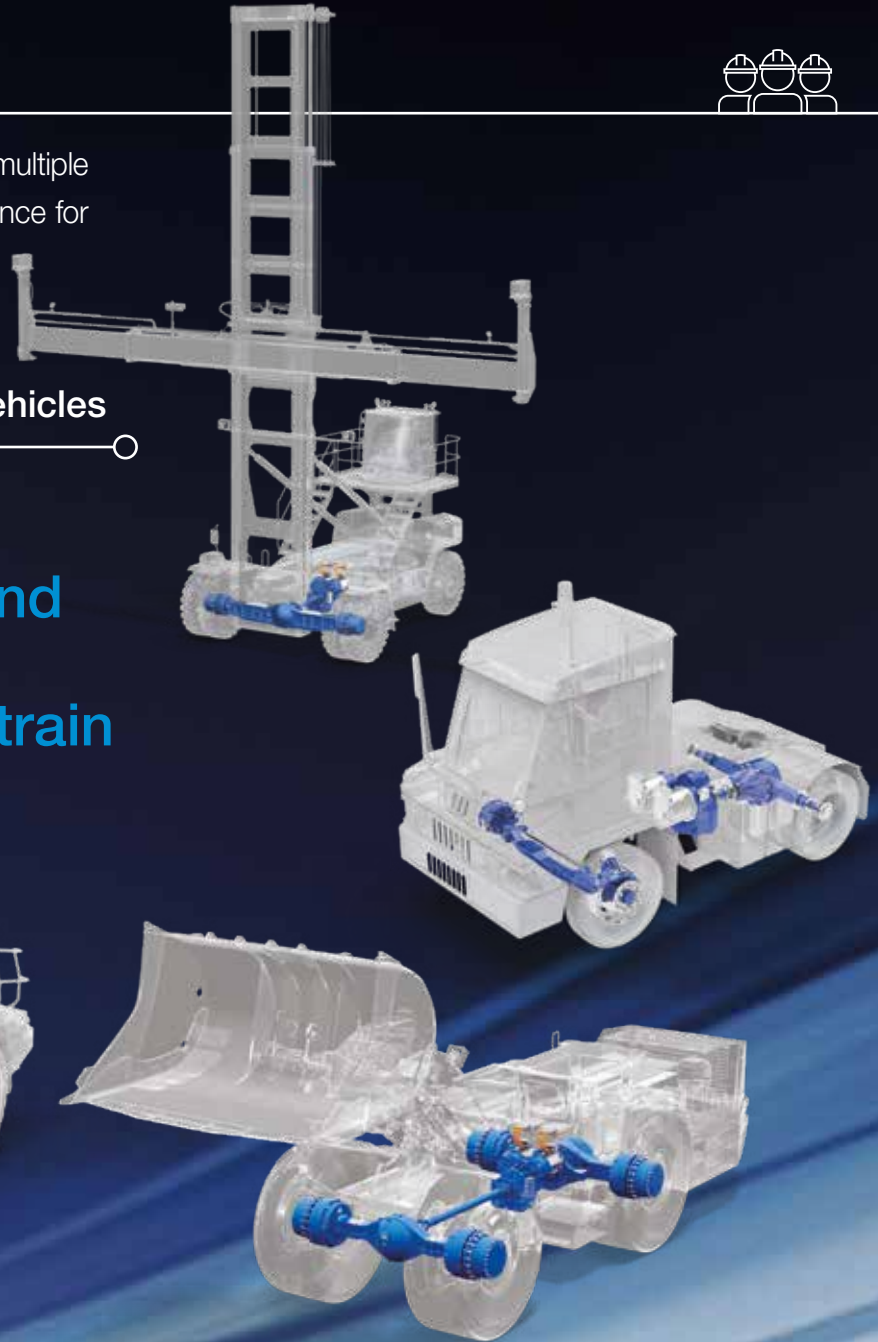
Modular concept For versatile use



The Spicer Electrified™ eSP502 is available with multiple configurations to deliver the optimum performance for 4x2 and 4x4 vehicles.

Compact design for 4x2 and 4x4 vehicles

Transmission, motor,
a driveline controller and
inverters integrated
with an electric powertrain
management system



High-quality powershifting

Technical features



The new transmission features a patented combination of wet-clutch and synchronizer technologies that optimize efficiency.



Electric powertrain management

Power management system

Functional safety

Compact package

	Single motor	Dual motor
Continuous power	140kW	200kW
Peak power	200kW	250kW
Max output torque		7,700Nm (single output)
		9,500Nm (dual output)

Standard model equipped with two Dana TM4 Electroynamics™ Sumo LD HV800 motor-inverter system

Dual-motor approach for optimal cost and efficiency

Flexible designs include low-power variant with single motor, as well as medium-voltage variants with alternate TM4 motors

Configurations available with customer-specified motors



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Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.



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