INTERNATIONAL® eMV™ SERIES

MV INTERNATIONAL®

THE NEW INTERNATIONAL® eMV™ SERIES.

SMART. ADAPTABLE.

INTRODUCING THE NEWEST MEMBER OF THE MV™ SERIES - THE eMV. WELCOME TO A NEW ERA OF EFFICIENCY.

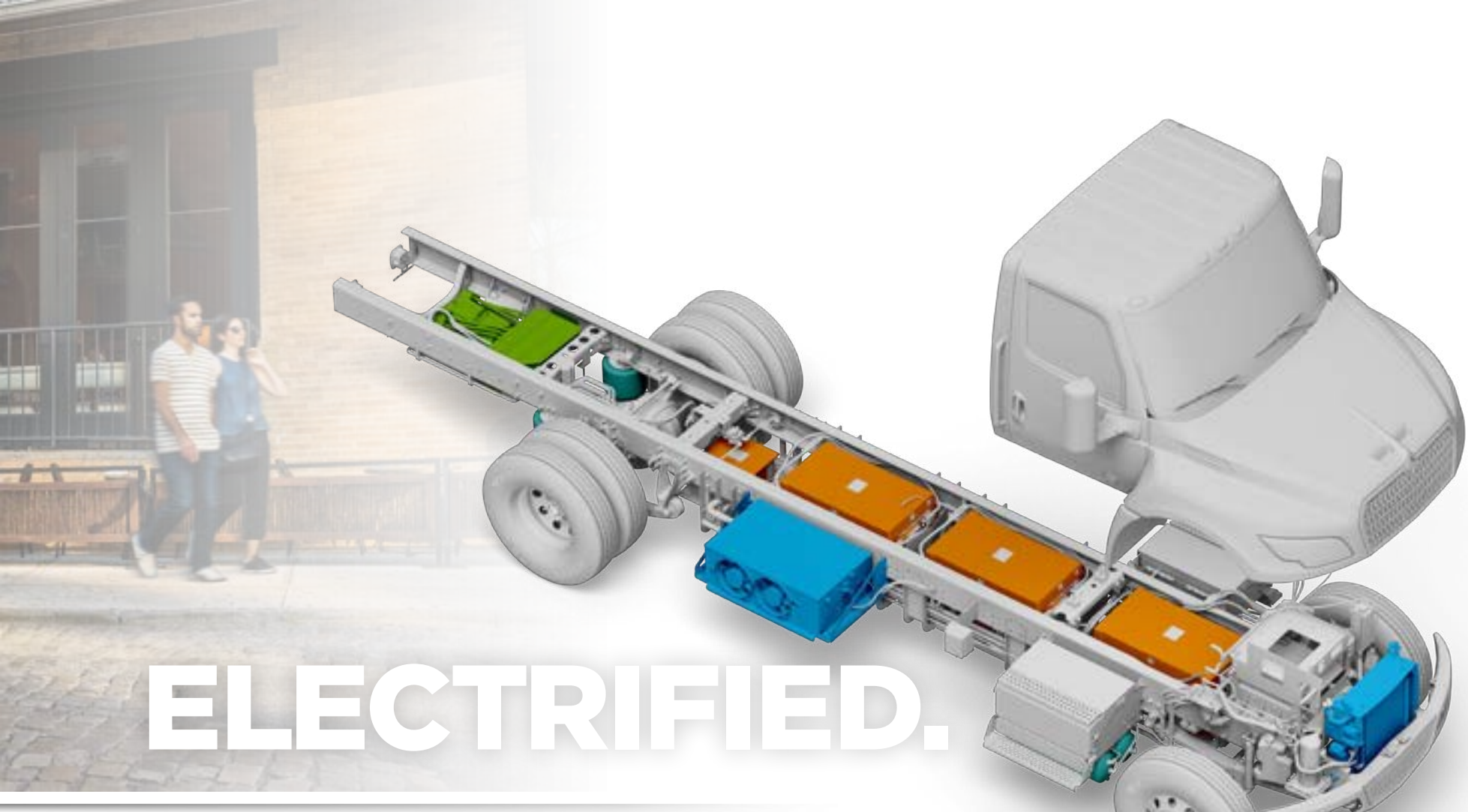
The eMV is built on the same proven foundation as the diesel MV which includes built-in corrosion protection, a huck bolted frame ladder, chassis braking including anti-lock brake system (ABS), electronic stability control (ESC) and automatic traction control (ATC) as well as numerous straight rail upfit possibilities. Key enhancements that come standard with the eMV include three degrees of regenerative braking. Easy to use, comfortable to operate and offering iron-clad dependability, the new eMV™ Series is a groundbreaking solution with real-world usability. It's the electric truck – done just right.

REVOLUTIONARY.

INTEGRATION | QUALITY | CONNECTED

THE TRUCK YOU KNOW AND LOVE...

THE MV™ SERIES HAS LONG BEEN THE GO-TO TRUCK FOR THOSE WHO NEED TO GET WORK DONE. ITS DURABILITY, ADAPTABILITY AND FUNCTIONALITY HAS MADE IT A COMMON SIGHT ON ROADS AND WORKSITES EVERYWHERE.



ELECTRIFIED.

The eMV brings even more to the table thanks to an electric powertrain with new capabilities, new savings and, most importantly, new opportunities.

eMV™ Series Key Features:

- Range: 135 miles
- Peak power: 335hp (135 mi battery)
- 3 levels of regenerative braking
- Acceleration equal to or better than diesel
- Robust hill-climbing ability
- Lower maintenance compared to diesel
- Available turn-key charging solutions from NEXT eMobility Solutions

GETTING YOU POWERED UP.

NEXT eMobility Solutions is a complete eMobility solutions provider, bringing knowledge and years of experience with technology and infrastructure to deliver customers the "just right" electric solution. The 5C's outlined below are designed to help make the transition to electric as seamless and pain-free as possible.

Consulting

We're here to guide you with route simulations, charging options, electrical infrastructure, operational plans, grant applications and much more

Charging

We're here to assist with various charging decisions starting at your utility provider for proper infrastructure, selecting the right charger option(s), and even providing service plans

Constructing

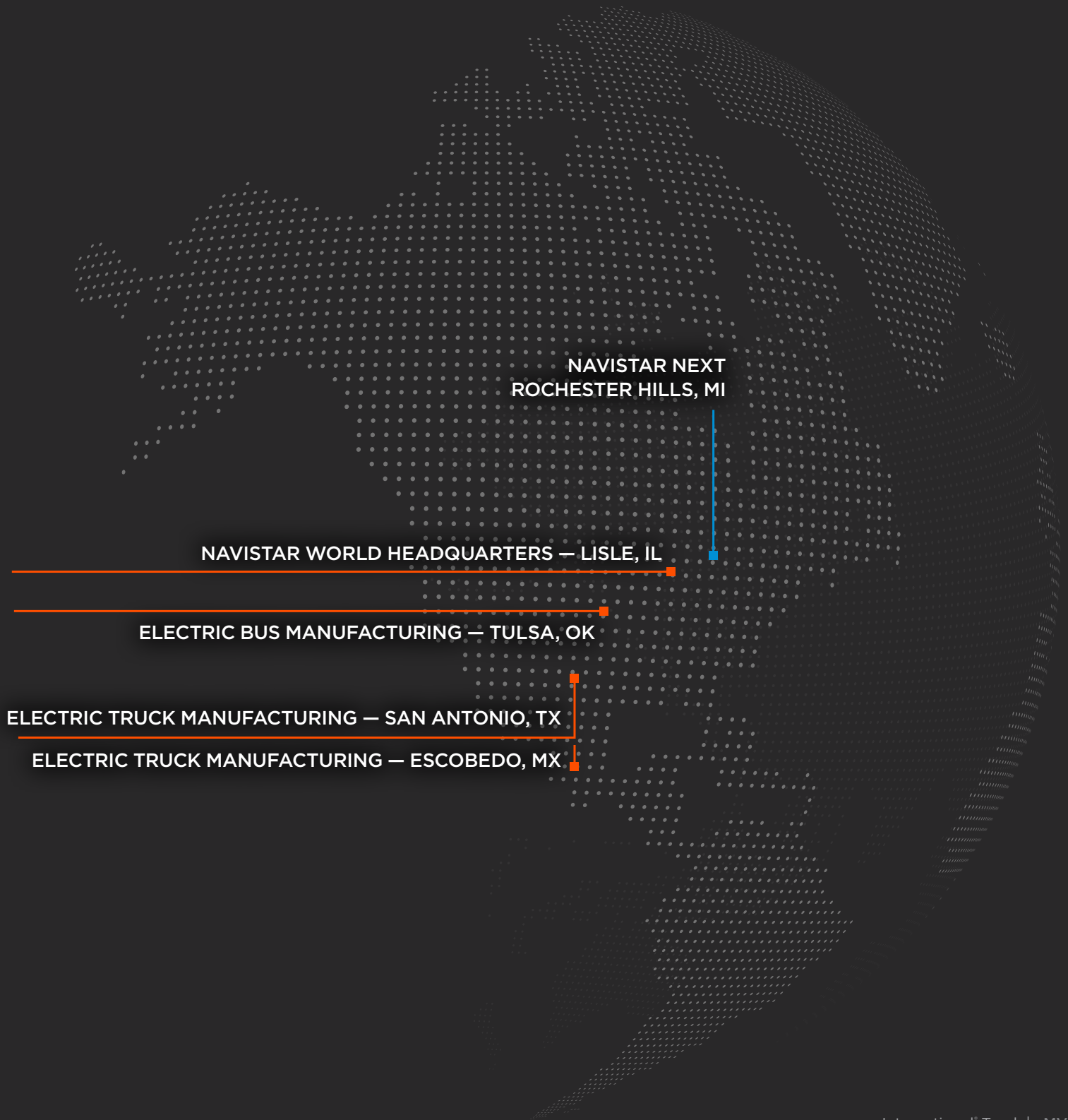
We construct the eMV employing the same processes and quality systems used to produce our other International® Truck products

Connecting

Our connected solutions use the powerful foundation of our OnCommand® Connection product, and is enhanced for electric vehicles

Conserving

We can provide environmentally-friendly options at the batteries' end of life in the vehicle. Batteries are useful beyond the vehicle


NAVISTAR NEXT
ROCHESTER HILLS, MI
NAVISTAR WORLD HEADQUARTERS — LISLE, IL
ELECTRIC BUS MANUFACTURING — TULSA, OK
ELECTRIC TRUCK MANUFACTURING — SAN ANTONIO, TX
ELECTRIC TRUCK MANUFACTURING — ESCOBEDO, MX

EV Details

CONSULTING

NEXT eMobility Solutions works with customers to develop a robust electrification strategy that leverages strengths and maximizes ROI and profitability. The consulting process includes evaluation of battery electric vehicle (BEV) route simulation to determine the optimal powertrain and charging mix for individual application, as well as education on all available funding sources, grants and tax incentives.

- **Consulting** – we will work with your team to develop an electrification strategy that leverages your fleet's strengths and maximizes ROI and profitability
- **Route Simulation** – our process will help you determine the optimal powertrain fleet mix
- **Funding** – we will connect you with all available tax incentives and can even help find the appropriate grants (point of sale, federal, state, county utility, NGO, etc.), ensure qualification, and help with the writing and submission
- **Training** – we will work with drivers to train on new truck features and controls and how to efficiently drive the truck. We will also cover braking methods to efficiently use regenerative braking to extend vehicle range as well as the towing/accident procedure if needed

CHARGING

CHARGING INFRASTRUCTURE

Charging solutions depend on individual route requirements – some may need to drive farther than others. In fact, an internal combustion-powered vehicle may be more appropriate for trucks that travel more than a hundred miles a day in remote locations. But for most fleets with centralized operations, a charging depot is the perfect way to keep your trucks charged-up and ready to work.

Know Before You Build:

- Main power – current load / current system capacity
- Electric vehicle plan
  - Short term
  - Long term (ensure site infrastructure is upgradeable for growth)
- Charging requirements determined by:
  - Length of daily routes
  - Extended use requirements
  - Multi-shift operation, etc.
- Utility requirements for upgrade
- 6 to 12 months ahead of the vehicle delivery

NEXT eMOBILITY SOLUTIONS HAS A DEDICATED TEAM TO SUPPORT:

- Site planning and engineering
- Creating complete EV charging kits for both AC and DC charger installations
- Installation and site management
- EV Charging equipment certification
- Guaranteed Uptime for EV infrastructure (subscription required)
- Infrastructure financing

RECOMMENDED APPROACH

Depending on how frequently the vehicles need to charge, AC, DC or a combination of methods will supply your fleet with all the electricity they need. Depot chargers can charge at rates from 24 kW for overnight charging and up to 125 kW for DC fast charging.

- One – 24 kW – DC Charger Per Truck
  - Allows easy overnight charging for each truck
  - Provides 0 to 100% Charge in about 8 Hours

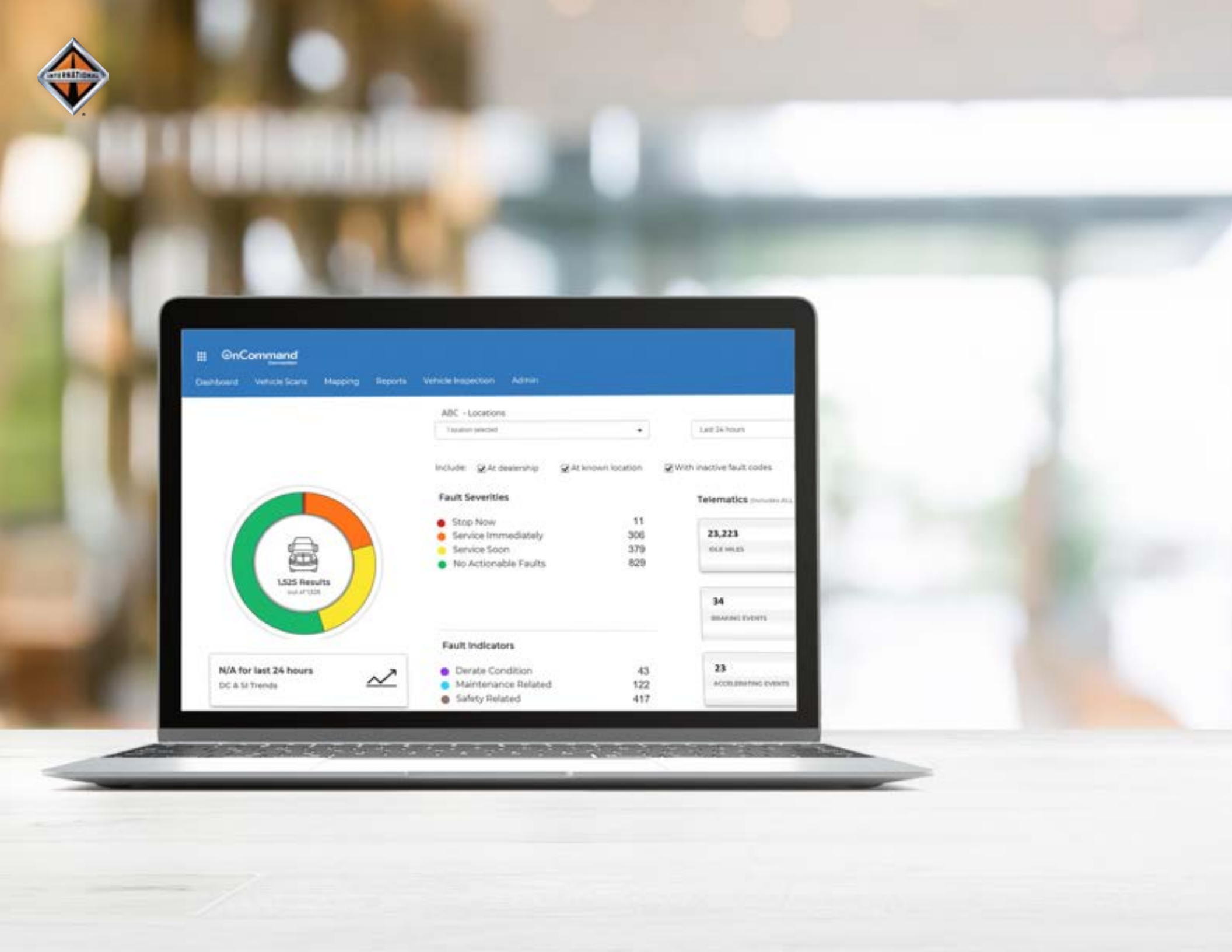
- One – 120/180 kW DC Fast Charger Per 8 trucks
  - Approximately 90 minutes for DC on a 210 kWh/135 mile truck
  - Two hour turn for multiple shifts
  - Routes that require mid-day replenishment

ML6OR2

CONSTRUCTING

We construct the eMV using the same processes and quality systems used to produce our other International® Truck products. All vehicles are constructed in world-class production facilities and built to best-in-class standards in order to deliver maximum uptime and ensure you and your fleet stay on the road.

FEATURE	AVAILABILITY
	4x2
Vehicle Configuration	Dry Van, Flat Bed, or Command Center
Wheelbases / A.F. (Dry Van)	272″ / 112″ (26′ box)
	254″ / 106″ (24′ box)
	236″ / 100″ (22′ box)
	217″ / 100″ (20′ box)
Wheelbase (Flat Bed)	217″
12V Liftgate	Available
GVWR	25,999 and 33,000 lbs.
Interior	Flat Instrument Panel


OnCommand
Dashboard
Vehicle Scans
Mapping
Reports
Vehicle Inspection
Admin
ABC - Locations
Last 24 hours
Include:
At dealership
At known location
With inactive fault codes
Fault Severities
Stop Now 11
Service Immediately 306
Service Soon 379
No Actionable Faults 829
1,525 Results
Telematics
23,223
34
23
N/A for last 24 hours
DC & SI Trends
Fault Indicators
Derate Condition 43
Maintenance Related 122
Safety Related 417

CONNECTING

Knowing the status of your fleet – whether electric or not – is crucial to ensure its efficient and productive use. That's why OnCommand® Connection has become indispensable for business owners and fleet managers everywhere. OCC turns raw telematics data into actionable intelligence and includes tools designed to keep you informed on the health of each vehicle so that issues can be addressed quickly to maximize uptime.

With OnCommand Connection, fleet managers can:

- Keep tabs of electric vehicle metrics like current state of charge, plug-in status, speed, range, and more
- View an online dashboard with vehicle mapping, so you always know the location of your vehicles
- Get comprehensive vehicle health reports for each connected vehicle
- View reports that detail Diagnostic Trouble Codes (DTCs), including severity ratings for vehicles that need immediate service, and those that can wait for their next scheduled maintenance
- Receive Fault Code Action Plans that translate fault indicators into simple terms for maintenance and service managers, describing the issue, parts and services needed, and more
- Get access to vehicle performance data that includes acceleration and braking history
- Download customized reports delivered to your inbox, including alerts that can be set up based on vehicle location and fault code severity

INNOVATION THAT DRIVES UPTIME

OnCommand® Connection

CRITICAL VEHICLE HEALTH DATA AT YOUR FINGERTIPS

OnCommand® Connection Advanced Remote Diagnostics transforms raw vehicle data into actionable insights to help you stay in front of potential vehicle issues and keep your eMV at peak performance.

Our features include:

- Electric vehicle metrics like current state of the charge, plug-in status, speed, range and more
- Reports and alerts on vehicle health issues that include severity ratings, likely needed parts and service, and recommended actions
- Comprehensive vehicle health reports that include performance data, fault history, and more
- Up-to-date GPS location with customizable geofencing reports that can help ensure vehicles are where they need to be
- Insights delivered how you need it – via our online portal, your email inbox, a mobile app*, and more

* coming soon

EASY ACCESS TO THE SOLUTIONS YOU NEED

Businesses of all sizes are finding that commercial truck software providers can make their jobs easier. Our factory-installed telematics device can be used to access compliance, routing, and other solutions without the cost and complexity of additional hardware. Simply call the provider of your choice and subscribe. It's as easy as that.

- One high quality source of vehicle data
- No prewiring, extra hardware, or aftermarket installation costs

Available Today

GEOTAB samsara

Coming Soon

CyntrX mX TELEMATICS tyler

omnitracs ZONAR verizon connect

TRANSPARENT SERVICE COMMUNICATIONS WITH YOUR DEALER

Knowing when your vehicle's service and repair events will be complete is critical to keeping your business up and running. International® 360 makes the entire process faster and easier to manage.*

- Updates via text and email keep you informed on the status of vehicles in service, including estimated time of completion
- Integrates telematics, dealer parts inventory, and other vital information into one easy-to-use tool
- Centralizes vehicle health data, service history, and more

* Separate subscription required

CONSERVING

When the batteries reach the end of their service life, they will need to be properly repurposed or recycled. Most batteries that are no longer suitable for powering a vehicle still have plenty of life left to power other things – like as an emergency back-up generator for a house. NEXT eMobility Solutions will help make sure the batteries powering your eMV(s) are properly repurposed and/or recycled when they reach the end of their service life by providing the following services:

- Dealer support and call center for any battery questions
- Reverse logistics and core recovery
- Remanufacturing and refurbishing for battery recycling
- Remanufactured battery options for second life repowering
- Root Cause analysis of any battery issue
- Dunnage management & Packaging of new and returned battery
- Storage and distribution
- Repurposing/second life
- Pre-cycling/recycling

STEEL SANCTUARY.

FOR STRENGTH, SAFETY AND COMFORT

The eMV cab wraps your crew in a high-strength, low-alloy (HSLA) reinforced, cold-rolled steel construction that combines the corrosion resistance of aluminum with the world-class fit, finish and strength of steel. The result is a larger, quieter, more protective interior with air- and water-tight seals.

INTERCOAT® CHEMGUARD

Think of it as a self-healing layer of skin on our galvanized steel. This inter-reactive, chrome-zinc phosphate coating is used on floor and toe kick panels to help extend integrity. The self-rejuvenating properties allow surface cuts, scratches and perforations to maintain corrosion protection.

OPTIONAL LINE-X® FLOOR PROTECTION

This available polyurethane and polyurea formulation creates a protective tray on the cab floor that contains spills, as well as any of nature's elements that make their way inside. Durable and long-lasting, Line-X® is an OEM-grade protective coating designed to guard against abrasion, corrosion and impact and can be found on over 4 million pickup bedliners.

TOP-DOWN STRENGTH

All eMV cab configurations pass the rigorous SAE J2422 cab roof strength test, as well as the standard European ECE 29 roof strength requirement. Both tests measure uniform vertical load applied to the roof. SAE J2422 also tests for angled side loads which is a National Fire Protection Association (NFPA) requirement.

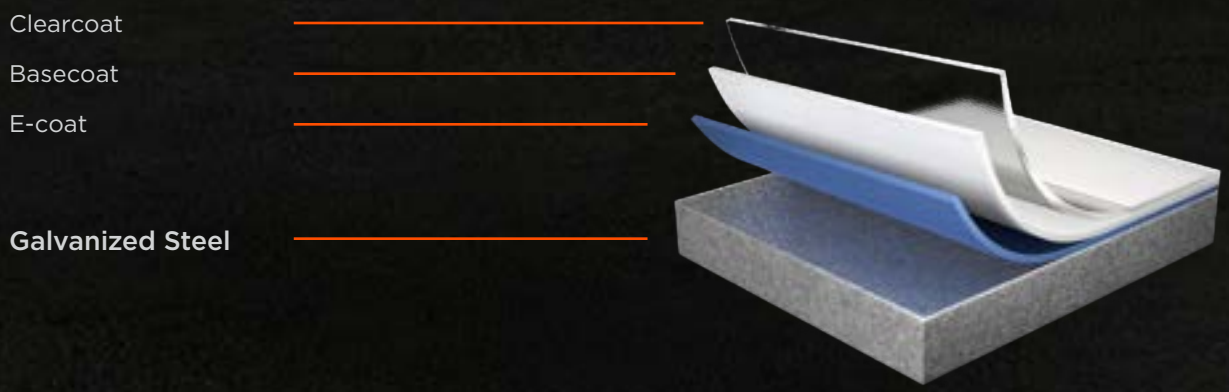
ANTI-CORROSION THAT'S ANTI-COMPROMISE

At International® Trucks, longevity is the head of the hammer. Which is why every welded eMV cab assembly is dipped into an electrostatically-applied primer as part of a rigorous paint, sealing and coating process that provides superior corrosion and fade resistance – all backed by a 5-year perforation corrosion warranty.

Corrosion Protection Process:

1. **Stamped galvanized steel**
2. **Custom-engineered caustic and surfactant formula cleans and preps the steel**
3. **Proprietary tri-metal (nickel, zinc, manganese) phosphate blend provides robust corrosion protection and the first level of paint adhesion**
4. **Epoxy-based electrodeposition primer, or E-Coat is applied. This covers and seals the entire exposed metal surface of the cab**
5. **Acrylic basecoat**
6. **Urethane clearcoat**

E-Coat Paint Process



eMV FEATURES:

- A high-strength, low-alloy (HSLA) reinforced, cold-rolled steel cab delivers superior corrosion resistance as well as world-class fit and finish
- The welded cab assembly is dipped into an electrostatically-applied primer as part of a paint process that provides outstanding resistance to corrosion and fading, and it's backed by a 5-year perforation corrosion warranty

A FAMILIAR ENVIRONMENT – NO LEARNING CURVE REQUIRED.

Comfort. Visibility. Safety. It's everything you know and love about the MV™ interior which means you'll be right at home with the eMV from the get-go. Inside you will find a powerful HVAC system, controls and switches that are easy to find, reach and operate — even when wearing gloves. A sloped hood provides enhanced visibility, and door-mounted mirrors have been expertly positioned for more visibility which requires less head movement by the driver. Even the air horn lanyard is placed exactly where drivers told us it should be.

Every detail inside the eMV cab has been researched, designed and extensively tested working with the real experts – drivers and body companies that need to deliver on the road or on the jobsite. The final result is a true collaboration of those who know what it takes to be productive and successful.

SMART PRODUCTIVITY. UNDERFOOT AND AT YOUR FINGERTIPS.

Cab Features	Classic	Diamond
Cab Trim Panels	Easy to clean plastic	Easy to clean plastic
Door Trim	Single piece door panel with integrated door pocket	Single piece door panel with integrated door pocket
Trim Inserts	Neutral	Mineral Teak
Instrument Panel	Black	Black
Gauge Cluster	New digital full color cluster	New digital full color cluster
Accent Color	Neutral	Dark Neutral
Sun Visors	Two	Three
Lighting	LED	LED
Window Controls	Power	Power
Lock Controls	Manual or Power	Power
Cup / Bottle Holders	Four	Four
Overhead Console	Molded Plastic with Retainer Nets and CB Radio Housing	Molded Plastic with Retainer Nets and CB Radio Housing
USB Accessory Port	Up to 5 Available	Up to 5 Available

1. The steering wheel adds more functions at the driver's fingertips with integrated back-lit, laser etched labeling for improved durability and visibility. Plus, all the controls within the cab are designed to be operated easily while wearing gloves.

2. A standard flat instrument panel includes a center-mounted vent to keep the middle passenger comfortable while providing space for extra legroom or a large floor-mounted body control module.

3. Switch panel comes standard with 3-level regenerative braking, off-road traction control, suspension dump and lift gate.

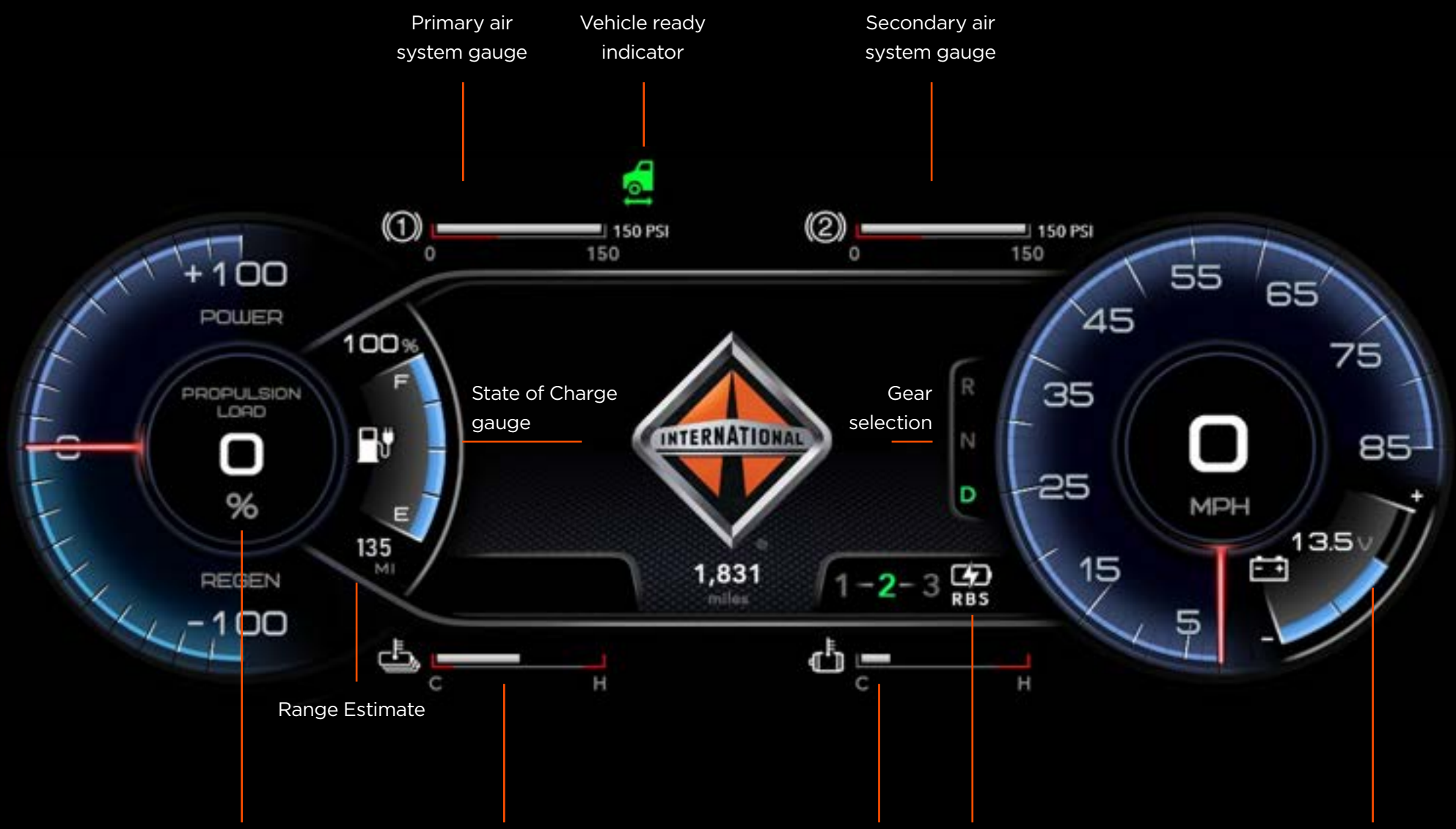
- Large, easy-to-read backlit text
- Warning lights can be any of seven colors
- Blank "windows" available for custom labeling by the customer

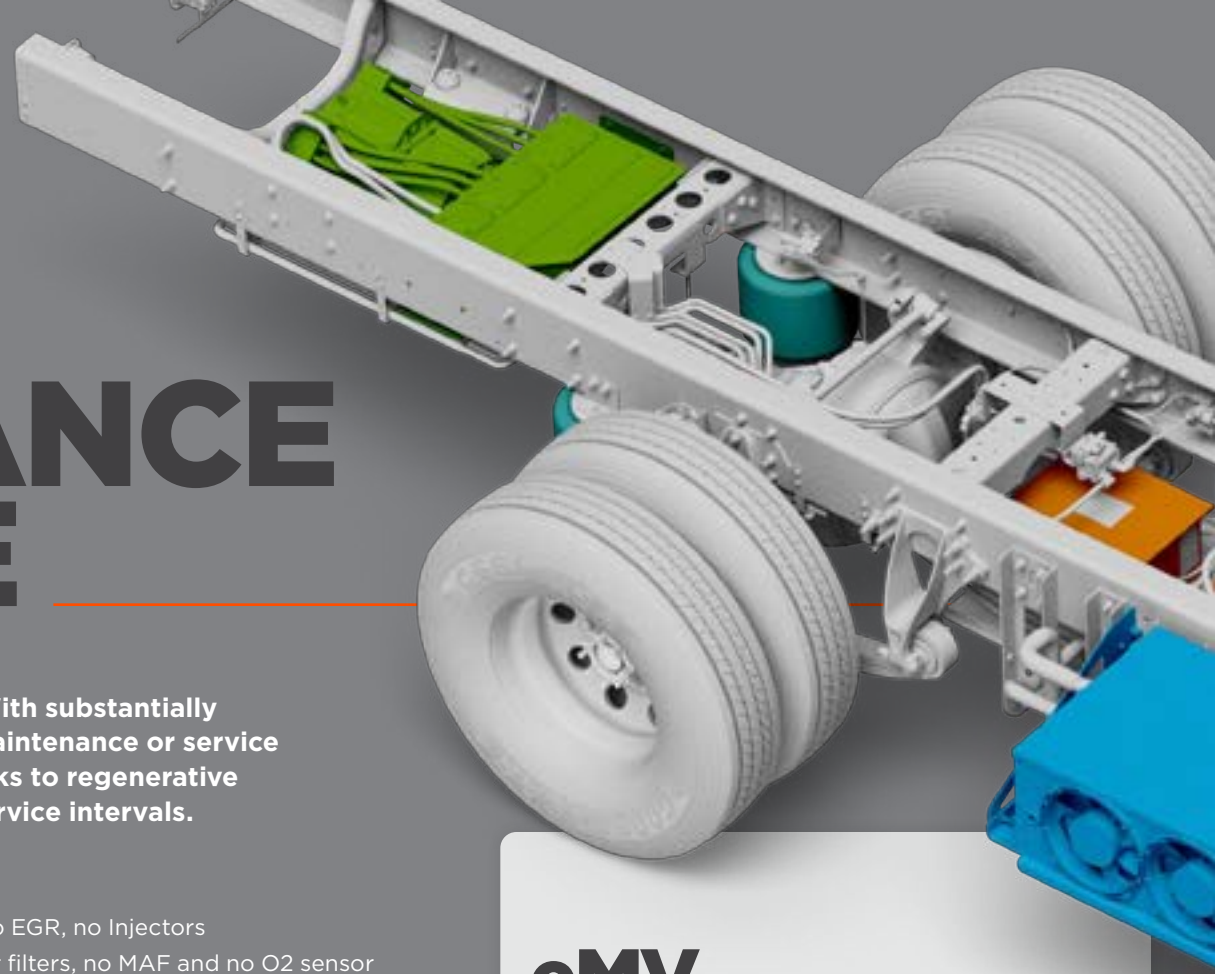
SITUATIONAL AWARENESS. ELEVATED.

Uptime is much more than simply being able to work – it also requires giving drivers the tools they need to be seriously productive. It's why the eMV instrument cluster has all the information drivers need, presented in a familiar and intuitive layout.

THE GOAL? IMMEDIATE RECOGNITION. LESS DISTRACTION. AND MORE DRIVER ALERTNESS AND CONFIDENCE.

Power vs Regen
Indicates how much power is being used by the motor when accelerating or how much power is being returned to the batteries during regenerative braking


Primary air system gauge
Vehicle ready indicator
Secondary air system gauge
150 PSI
150 PSI
+100
POWER
PROPULSION LOAD
0
%
REGEN
-100
100%
F
E
135
MI
State of Charge gauge
INTERNATIONAL
1,831
miles
R
N
D
Gear selection
1-2-3
RBS
0
MPH
13.5V
Range Estimate
C
H
C
H
Propulsion load %
Battery temp indicator
Drive motor temperature indicator
Regenerative braking indicator, levels 1, 2, 3
12 volt battery gauge



MAINTENANCE SCHEDULE

It's no secret electric vehicles require less maintenance. With substantially fewer parts, an electric motor simply does not have the maintenance or service requirements of an internal combustion engine. Plus, thanks to regenerative braking, the standard brakes last much longer between service intervals.

TAKE THESE OFF YOUR SERVICE PLATE

- No engine oil maintenance
- No transmission maintenance
- No fuel filters
- No turbos, no EGR, no Injectors
- No engine air filters, no MAF and no O2 sensor
- No aftertreatment

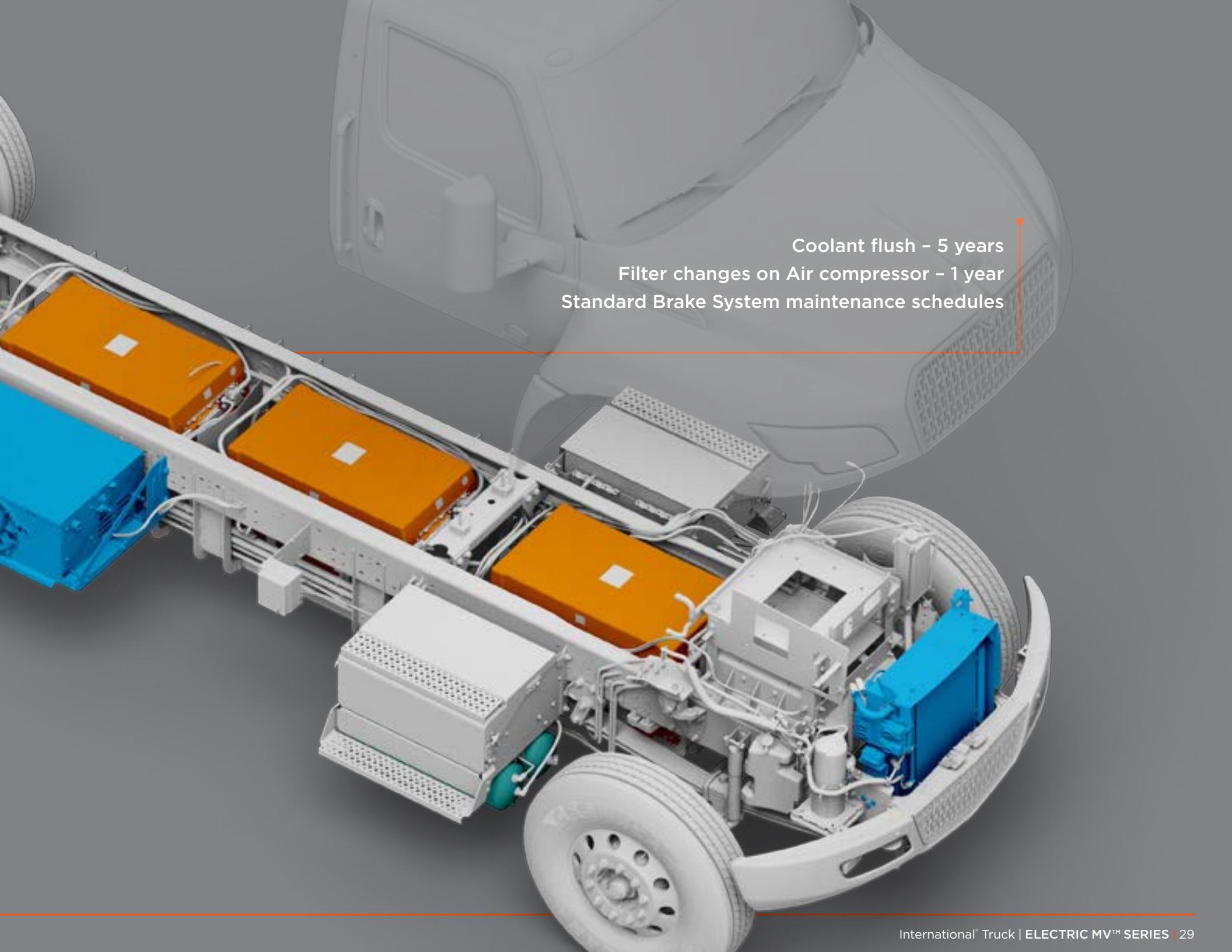
A TURN-KEY SOLUTION

Making the switch to electric can seem daunting at first. That's why we created NEXT eMobility Solutions, an electric commercial vehicle consulting group assigned to walk you through the entire process – from C to C. With NEXT eMobility Solutions by your side, you can be well on your way to adding an electric option to your fleet.

Vehicle Coverage	Years	Miles
Chassis Warranty	2 Years	Unlimited
Drive Battery	5 Years	100,000
Drive Motor	5 Years	100,000
Drive Charger & Cables	5 Years	100,000

eMV COMPONENTS

1. **Radiator and BTMS – Battery Thermal Management System**
2. **Batteries and Controller**
3. **Motor and Variable Frequency Drive (VFD)**
4. **Air Tank and Suspension Air Bags**



Coolant flush – 5 years
Filter changes on Air compressor – 1 year
Standard Brake System maintenance schedules

eMV SPECIFICATIONS

KEY eMV FEATURES

- Electrified powertrain - fully integrated ensuring all components are optimized to work with each other as a system
- 210 kWh Lithium Iron Phosphate (LFP) batteries - fully enclosed inside frame rails
- Best-in-class regenerative braking on/off with three levels: 30%, 60% and 100%- maximizes driver control
  - Improved vehicle efficiency
  - Increases vehicle range
  - “One” pedal style driving capability, except for a complete stop
- State of the art driver display
  - Propulsion & regenerative load
  - State of charge indicator
  - Regenerative braking indicator
- Charging
  - SAE J1772 CCS1 AC/DC charging standard - ensures charging compatibility with most public chargers
  - 125 kW/hour capable with a DC charger
  - OCC standard for one year with enhanced eMobility features

GVWR
- 25,999 and 33,000 lbs.

Models/BBC/BA
- MV60E
- 107.9" BBC, 40" BA

Cab Configurations
- Day Cab

Wheelbase Options
- 217", 236", 254" & 272"

Axle Configurations
- 4x2

Rear Axle
- Single Rear Axle (4x2)
  - Dana Spicer 23,000 lb.

Rear Suspension
- 21,000 lb single axle with shocks
- IROS Air Suspension

Front Axle
- Dana Spicer I-Beam 12,000 lb.

Front Suspension
- Spring, Parabolic Taper Leaf: 12,000 lbs.

Frames
- Heat Treated Alloy Steel 120,000 PSI

Electrical System
- High Voltage - 210 kWh Lithium Iron Phosphate with dedicated HVAC system
- Auxiliary Battery System
  - 12 volt, 2 AGM Batteries- Recharged through high voltage system
- 608 volt operating voltage
- LED Headlights

Brakes
- Air Brakes with ABS, 4 channel Electronic Stability Program with Traction Control

Steering
- TRW/Ross Power

Motor
- Direct Drive Electric Motor
- Peak Motor Torque - 1,700 ft-lbs
- Continuous Motor Torque - 738 ft-lbs

Tires
- Continental

RAR (Rear Axle Ratio)
- 6.83

Note: The information and conclusions contained herein are believed to be correct at time of publication, but do not necessarily apply to similar vehicles with different specifications or with production dates after the production of this publication. Vehicles with different specifications or later dates of production may yield different results. Vehicle specifications are subject to change without notice. TAD21007 7/2022 ©2022 NAVISTAR Inc. All rights reserved. All marks are trademarks of their respective owners.