



## Optima 55 All-Electric Bucket Truck

### All-Electric Bucket Truck

The world's first all electric bucket truck in production is available from Terex. Designed to serve the utility industry, it combines an International eMV chassis, Optima aerial device, and the HyPower SmartPTO to bring you a new green solution for your distribution fleet. This unit provides you the opportunity to meet your sustainability goals, lower your operating cost and improve job site conditions for your team members and customers.

**International eMV Chassis:**  
Class 7, 33,000 GVW, 4x2 single-rear axle chassis with a 135 mile range.

**HyPower SmartPTO:** All boom and outrigger functions are powered by a HyPower SmartPTO. The 28.8 kWh ePTO battery pack is enough to power the boom and outriggers for a full day of work<sup>1</sup>.

**Optima Aerial:** This aerial device offered either as the Optima HR55 overcenter or the non-compensated, non-overcenter Optima TC55 aerial.



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**Distributed By:**

**CHASSIS**

**Key Features:**

- Maintenance-free direct drive electric motor
- Day cab made of high strength, low-alloy steel
- 3 Levels of regenerative braking and air disc brakes with ABS
- 4 Channel electronic stability program with traction control
- Digital instrument cluster
- Powerful heating and air conditioning
- OnCommand Connection Telematics
- Air-Ride cab for operator comfort and driveability

**Charging<sup>2</sup> Features:**

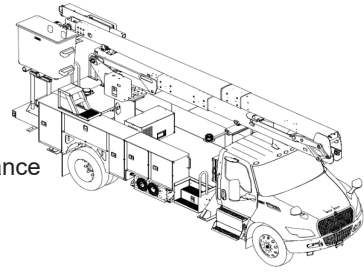
- Level III (DC fast charge).
  - Approximately 90 minutes with 120/80 kW DC charger
  - Approximately 3-8 hours of full recharge with 30-60 kWh DC fast charger
- Level II (240 VAC). Approximately 11 hours for full recharge. *(Available but not recommended. Could extend greater than 8 hour shift)*

**Battery Features:**

- High-voltage System - 210 kWh Lithium Ion Phosphate (608 volt operating voltage)
- Sophisticated battery management system that heats or cools the batteries for optimum charging, performance and longevity
- Auxiliary Battery System - Two 12-volt AGM batteries to provide driver with controls and indications of vehicle performance
- Sophisticated battery thermal management system that heats or cools the batteries for optimum charging, performance and longevity

**Savings:**

- Approximately 75% lower fueling cost per mile
  - Diesel: Approximately \$0.79 per mile<sup>3</sup>
  - Battery charging: \$0.21 per mile<sup>4</sup>
    - Lower Maintenance cost compared to a diesel chassis
    - No engine or transmission maintenance
    - No fuel or engine air filters
    - Fewer brake pad replacements
    - No diesel exhaust fluid
    - Only scheduled maintenance items are coolant flush for BTMS and radiator (every 5 years), air compressor filter (every year) and chassis lubrication



**FOOTNOTES:**

<sup>1</sup> Based on common use cases. Performance may vary.  
<sup>2</sup> Charge times can vary significantly based on state of charge, charger types and environmental conditions.  
<sup>3</sup> Assumes 7 MPG and \$5.50 per gallon diesel cost. Actual cost and savings may vary.  
<sup>4</sup> Assumes \$0.14 per kWh and 135 mile drive range with 90% kWh hours consumed. Actual cost and savings may vary.

**SMARTPTO**

**Key Features:**

- Dedicated 28.8 kWh battery pack provides a full day of boom operation
- Boom operation does not reduce driving range
- Highly visible state of charge LED indicators
- No scheduled mechanical maintenance required
- Telematics data and remote support
- Integrated 6kW charger

**Charging<sup>2</sup>:**

- Charges from a standard wall outlet or Level II EV charger
- Level II: Approximately 5 hours for full charge



*\*\*Please Note: Integrated Level III charging to be released in 2023. Will be retrofittable.*

**AERIAL DEVICE**

| Model       | Bottom of Platform | Working Height    | Non-Overcenter Side Reach | Overcenter Side Reach | Platform Capacity | Material Handling Capacity |
|-------------|--------------------|-------------------|---------------------------|-----------------------|-------------------|----------------------------|
| Optima HR55 | 55.0 ft. (16.8 m)  | 60.0 ft. (18.3 m) | 42.8 ft. (13.0 m)         | 48.2 ft.. (14.7 m)    | 700 lbs. (318 kg) | 2000 lbs. (907 kg)         |
| Optima TC55 | 55.0 ft. (16.8 m)  | 60.0 ft. (18.3 m) | 42.8 ft. (13.0 m)         | NA                    |                   |                            |

**WARRANTY**

| CHASSIS                 | Years   | Miles     | CHASSIS   | Years  | Miles     |
|-------------------------|---------|-----------|---|--|-----------|
| <b>Vehicle Coverage</b> |         |           | Steering Pump/Air Compressor                                    | 1 Year   | Unlimited |
| Chassis Warranty        | 2 years | Unlimited | • Warranty is not pro-rated                                     |  |           |
| Drive Battery           | 5 years | 100,000   | • Contact International for optional extended warranty coverage |  |           |
| Drive Motor             | 5 years | 100,000   |   |  |           |
| Driver Charger & Cables | 5 years | 100,000   | <b>SmartPTO:</b>  | 1 year or 4,050 hours                              |           |
|                         |         |           |   | <i>Optional 3-year extended warranty available</i> |           |

Effective Date: October 2022. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Terex makes no other warranty, express or implied. Products and services listed may be trademarks, service marks or trade names of Terex Corporation and/or its subsidiaries in the USA and other countries. All rights are reserved. Terex® is a registered trademark of Terex Corporation in the USA and many other countries. Copyright 2022 Terex Corporation.