



Penske Truck Leasing

ACT Expo 2014
Medium-Duty Electric Vehicle End-User Case Study:
Penske and Staples

Bob Douglas, Vice President Field Maintenance

Penske's Strength in Transportation



Headquartered in Bloomfield Hills, MI
Over \$16 Billion in Revenue
36,000 Employees
1,800 Locations Worldwide

Transportation



Truck leasing, rental, logistics



Vehicle lighting & safety systems



Automotive



Automotive

Retail automotive dealerships 300+ dealers worldwide promoting 40+ brands

Performance





IndyCar



NASCAR



Grand AM

Private Equity





TRP invests in growthoriented manufacturing and service businesses in the transportation industry



The Penske Profile

Over 215,000 Vehicles 20,000 Associates

Facilities in North America

- Truck Leasing/Rental over 700
- Logistics over 300

International Operations

- Truck Leasing Canada, Mexico
- Logistics North America, South America, Europe and Asia





Penske Business Focus A broad range of services drives long-term growth

Truck Rental



Contract Maintenance



Full Service Leasing



Integrated Logistics



Value-Added Services Intensity

- 40.000 units nationwide
- 2,370 locations
- Newest trucks in the industry
- Business and Doit-yourself moves
- Highly trained technicians
- Fleet maintenance reporting and forecasting
- Billing notification process
- Comprehensive Fleet Management
- Guaranteed operating costs
- Fleet budgeting accuracy
- Dedicated Contract Carriage
- Distribution **Center Mgmt**
- Transportation Management

CUSTOMER VALUE



Staples All-Electric Trucks

Penske provides Staples with commercial truck fleet maintenance services for their all-electric truck fleet

We service nearly 60 trucks in the following markets:

- Atlanta
- Baltimore
- Cincinnati
- Cleveland
- Dallas
- Kansas City
- Los Angeles
- Portland, Oregon



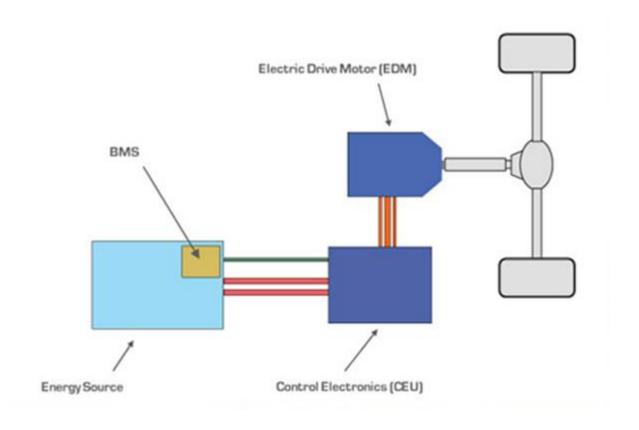


What is an All-Electric Truck - How Does it Work?





Basic Electric Vehicle





The Framework of an Electric Truck

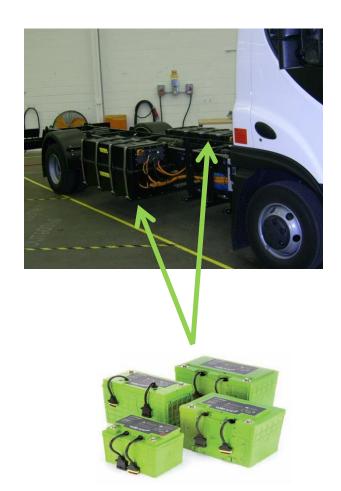


Chassis Length: 18 feet





The Electric Truck Battery



80 kw battery package (two pods)





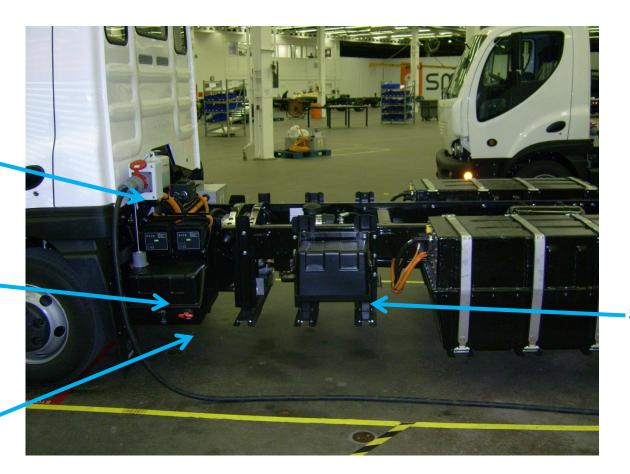


Batteries, Switches, & Cables

Charging Port

Primary 24V Battery Box

> 24V Isolator Switch

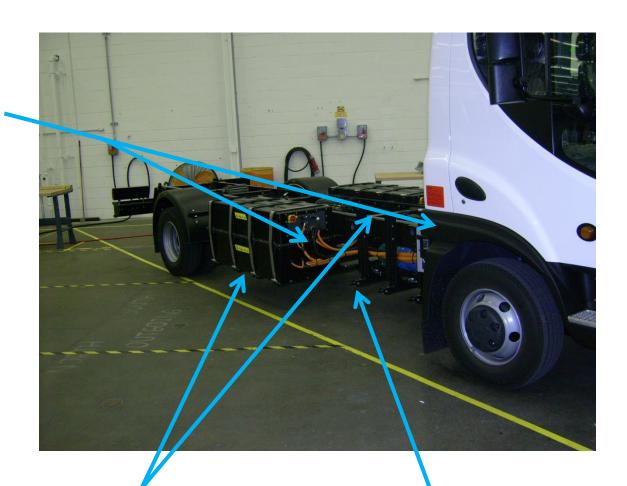


Secondary 24V Battery Box



Batteries, Switches & Cables

High Voltage Isolator Switches



High Voltage (Traction)
Battery Pods

Orange Wrapped Cables (High Voltage)



Electric Truck Quick Facts

- Zero emissions; recharges during off-peak hours
- 80 percent per mile cost savings
- Can be as little as 50 cents per gallon to operate
- Maximum speed of 55 miles per hour
- Can travel 70 to 100 miles on a single charge
- Most effective in urban areas: stop-and-go





Penske EV Truck Maintenance Training

- Developed training jointly with the manufacturer, for drivers and technicians, to include a consistent approach across multiple locations
- Created operating/safety warnings specific to EVs
- Implemented routine of daily and weekly pre-trip checks
- Preventive maintenance (PM) schedules/customized PM checklist





Penske EV Truck Maintenance Training

- Designed a communication portal as a resource for Penske service department associates
- Suggested EV parts inventory list
- Manufacturer's key contact information
- Service bulletins/critical specification updates
- Schematics and troubleshooting guides





Staples: How Electric Vehicles Fit into Company Sustainability Practices

- Each electric truck displaces over 11 tons of CO2 each year
- \$6 in electricity replaces \$30 in diesel fuel per day
- Drivers who operate these trucks never want to operate a diesel truck again
- Staples customers appreciate receiving their deliveries in a nonpolluting truck



Questions?





