

The Bookmobile Buzz

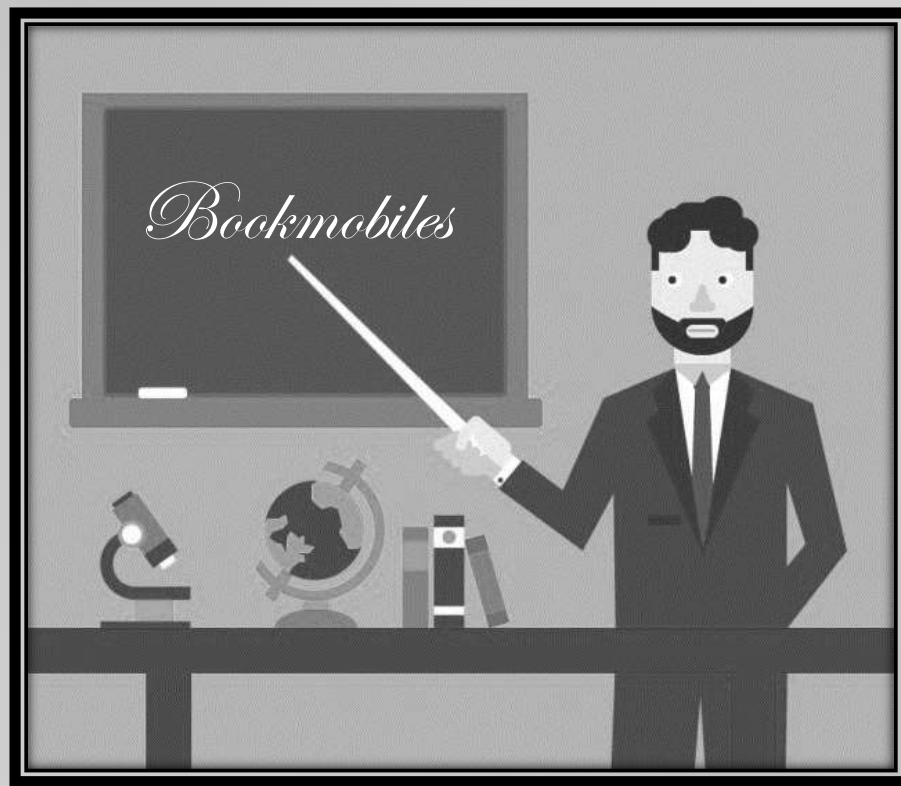
(or lack thereof)



Michael Swendrowski

- President of Specialty Vehicle Services, LLC.
- Assist many libraries worldwide
- Current ABOS Board Member
- Former Chairman of ALA Subcommittee on Bookmobiles
- Co-author of *On the Road with Outreach* (Libraries Unlimited, 2009)





History Lesson

We've come a long way!

1859

- Warrington, England



1905

- Horse drawn
- No on-board power (but quiet!)
- Fixed shelving
- Circulation numbers by hand



1950

- Generators
- Adjustable wooden shelving
- Circulation still by hand



2000

- Diesel engines
- Generators
- Inverters
- Aluminum shelving
- Electronic circulation



2010

- Hybrid drivelines
- Hybrid stationary power systems
- Aluminum shelving
- Circulation info real-time



Today



SVS

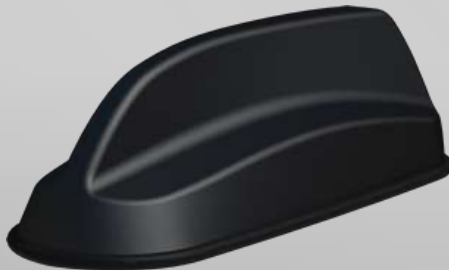
Modular Interiors

- Based on aluminum shelving
- Modular workstations
- Modular bench seats
- Modular cabinetry
- Adjustable height desks
- Flat floors



Connectivity

- Ruggedized modems
- Fantastic coverage
- Field expandable
- WiFi cloud
- 5G rolling out nationwide
- Connects many on-board electronics



Digital signage/monitors

- Information display
- Video display
- Game display/interaction
- Content update via modem



Surveillance systems

- Assists with security and liability elements
- Records up to 1 week
- Four cameras typical
- Connected via modem
- Tracking, behavior and route logging available



Power systems

- Hybrid drivelines
- Hybrid stationary systems
- 1,300kWh battery pack





Drive-by shushing.

Big news...

No generator required!

Volta System



- Generator replaced by 6,000 – 11,000 watt engine-driven alternator
- 1.3kWh – 20.2kWh battery pack
- Power for all internal components including air conditioning





More big news...

Merged power systems

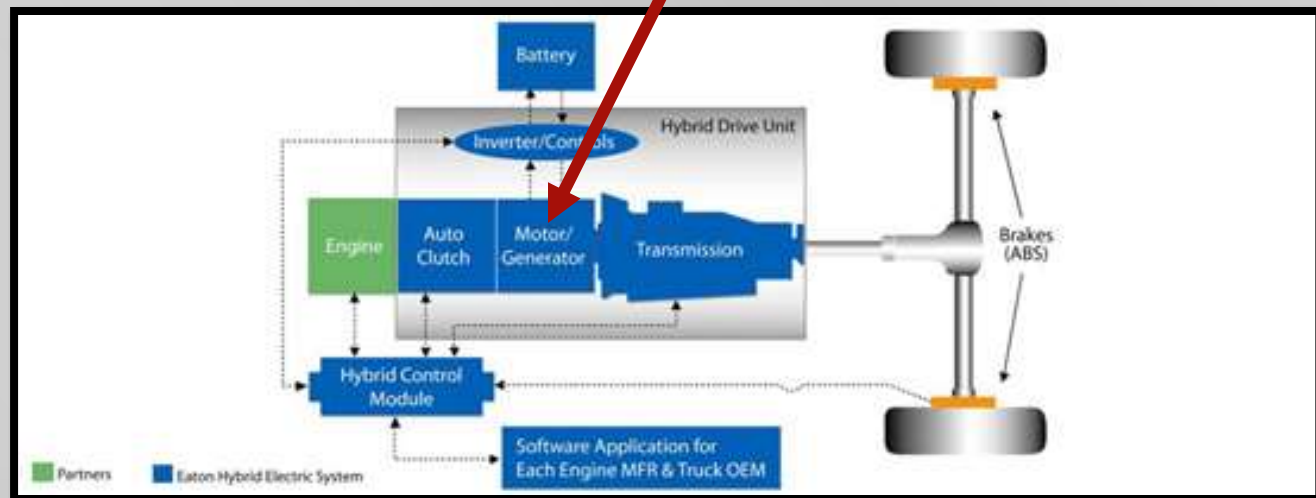
Benefits

- Integrated system
- Fuel savings
- Maintenance savings
- Reduced noise
- Reduced pollution
- Improved operations



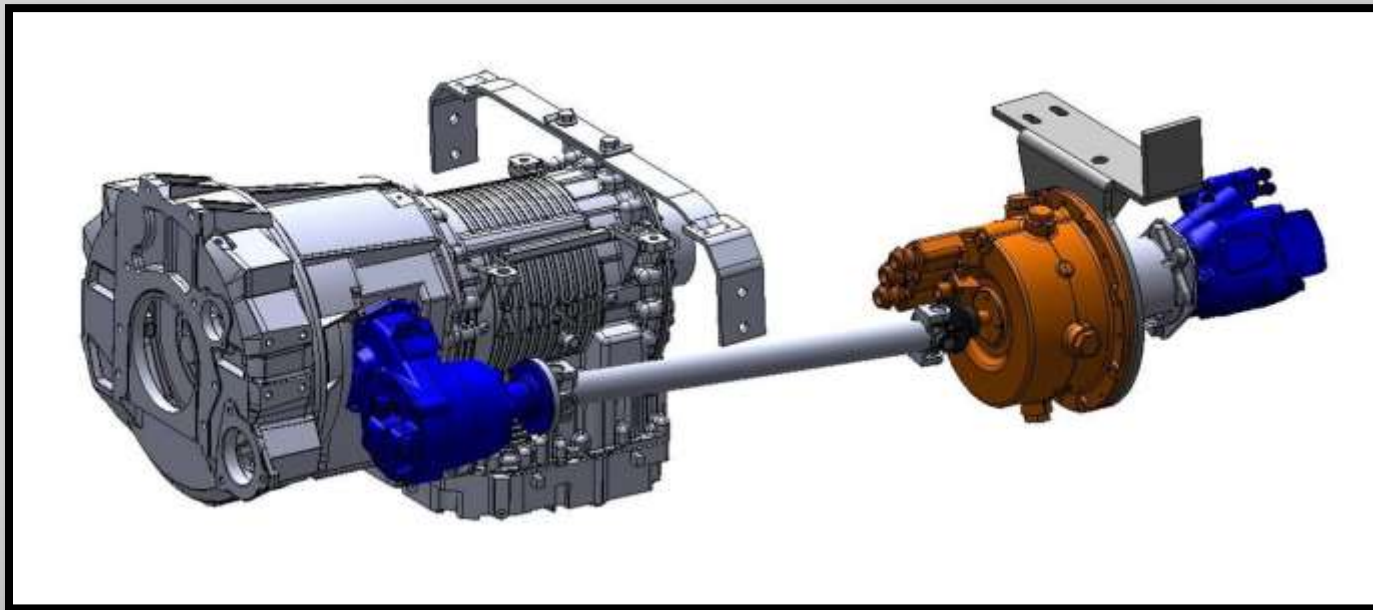
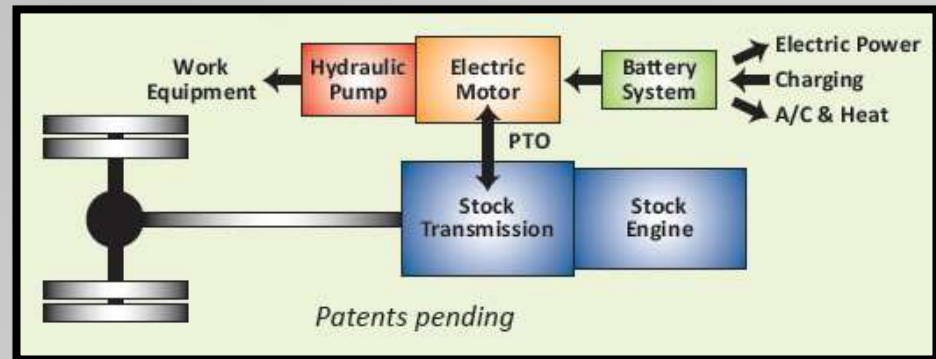
Typical Hybrid

- Integrated motor and components
- Limited export power



Parallel Hybrid

- Parallel motor
- Redundant system





Odyne System

- Up to 50% reduction in fuel consumption
- Custom install
- Plug-in charging
- Allison network



Odyne System



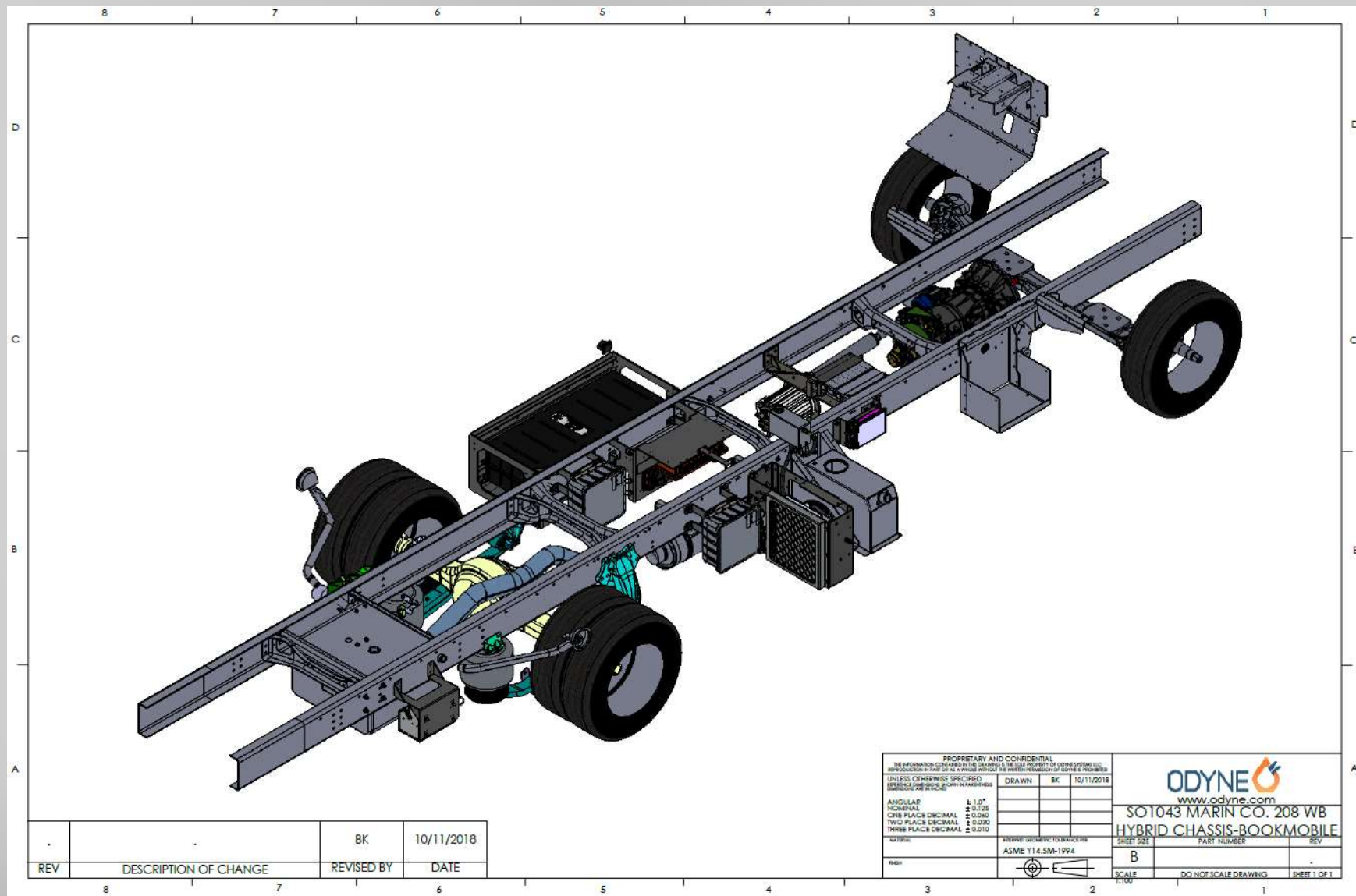
- Remy electric motor
- 69HP launch assist
- Captures energy during deceleration



Odyne System

- 14.2 kWh or 28.4 kWh lithium-ion
- 4-hour recharge time from 5%
- Up to 18kW of power for equipment

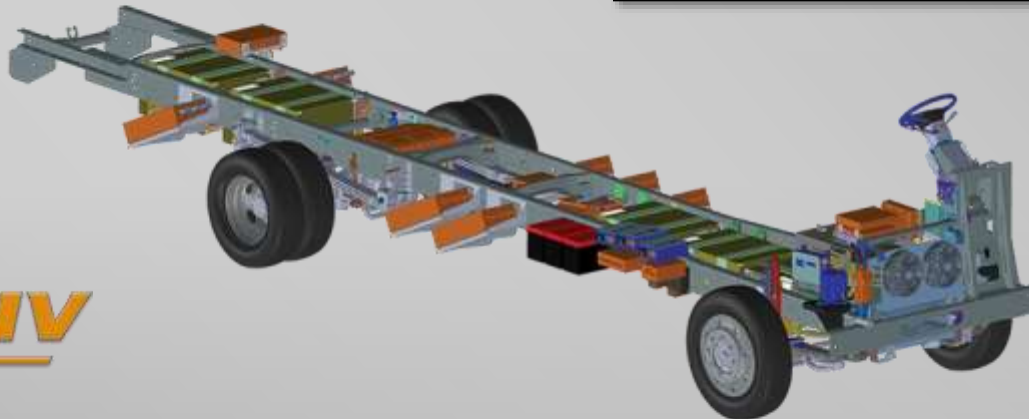




Electric SV

WINNEBAGO

- 33' & 38'
- 80-120 mile range
- Plug in
- Regenerative braking
- No CDL required



 AMERICAN
LUNG
ASSOCIATION.





Electric SV

WINNEBAGO

- 6-8 battery packs, 21.2kWh/ea, nickel-sodium
- Unlimited stationary power
- Remote monitoring



Electric SV

- 250HP motor
- Level 2 & 3 charging



WINNEBAGO



SVS

Electric Options

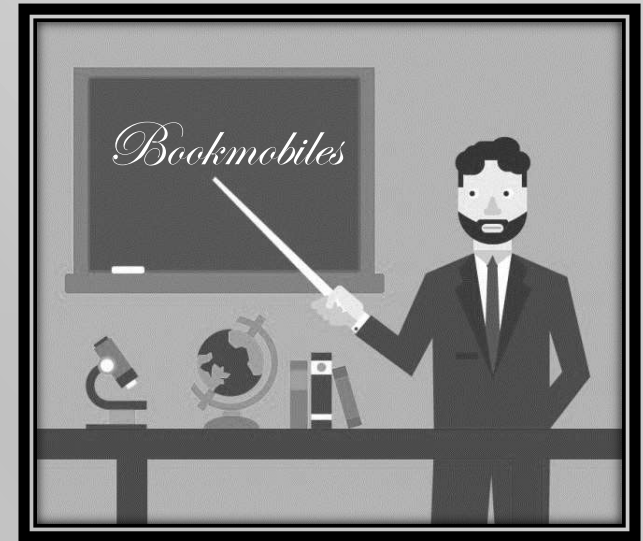
- Up to 96kWh
- 181 HP
- Aftermarket by Ford QVM



Buzz Summary



- Continuous efficiency and service delivery improvements
- Interiors are more functional
- Connectivity is fantastic
- Improved safety and communication
- Clean and quiet power solutions
- We've come a long way since 1859



Thank you!

Have a wonderful conference!



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