Miles Electric Vehicles 2008 Miles ZX40ST

VEHICLE SPECIFICATIONS

Base Vehicle: 2008 Miles ZX40ST
VIN: LECPT22B38T000065
Seatbelt Positions: Two
Standard Features:
  - Rear Wheel Drive
  - Front Disc and Rear Drum Brakes
  - Regenerative Braking With Coast Down and Overspeed
  - Three-Point Safety Belts
  - Speedometer
  - Odometer
  - State-Of-Charge Meter
  - Back-up Alarm
  - On Board Battery Charger

WEIGHTS
Design Curb Weight: 2553 lb
Delivered Curb Weight: 2581 lb
Distribution F/R: 45.8/54.2 %
GVWR: 2998 lb
GAWR F/R: 1421/1577 lb
Payload\(^2\): 417 lb
  - Performance Goal: 400 lb

DIMENSIONS
Wheelbase: 102.4 inches
Track F/R: 51.0/51.0 inches
Length: 162.0 inches
Width: 60.2 inches
Height: 72.6 inches
Ground Clearance: 6.5 inches
  - Performance Goal: 5.0 inches

BATTERY
Manufacturer: Tianjin Lantian
Model: FM150
Type: Sealed AGM Lead Acid
Number of Modules: 6
Weight of Modules: 53 kg
Weight of Pack(s): 318 kg
Pack(s) Location: Under the cargo bed
Nominal Module Voltage: 12V
Nominal System Voltage: 72V
Nominal Capacity (C/1): 150 Ah

TIRES
Tire Mfg: Champiro
Tire Model: Goodride
Tire Size: 165/70 R13
Tire Pressure (F/R): 38/52 psi
Spare Installed: Yes

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CHARGER
Level 1:
  - Location: On-board
  - Type: Conductive
Input Voltages: 120/240 VAC

TEST NOTES:
1. Vehicle was operated at maximum attainable speed until 20 mph could no longer be maintained.
2. As delivered payload was 417 lbs.
3. Hours were calculated at time that charger indicated completion.
4. Payload may be restricted by axle weight rating.

Performance Goal: 400 lb

Charging Efficiency:
Efficiency: 166.0 Wh-AC/mi
Energy Cost: @ $0.10/kWh: $0.017/mi

Level 1 Charger
Max Ground Current: <0.01 mA
Max Battery Leakage: <0.01 MIU
Max DC Charge Current: 12.1 A
Max AC Charge Current: 9.8 A
Peak AC Demand: 1.1 kW
Time to Recharge:
  - To 80%: 8 Hours
  - To 100%: 9.9 Hours
  - To Complete: 10 Hours

Performance Goal\(^3\): 100% SOC within 12 hours

This vehicle meets all NEVamerica Minimum Requirements listed on back.

Values in red indicate the Performance Goal was not met. • All Power and Energy Values are DC unless otherwise specified.

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This vehicle complies with mandatory requirements of NEV America Vehicle Technical Specification, Revision 3 as follows.

1. Vehicles shall comply with Federal Motor Vehicle Safety Standard 500 as promulgated on the date of manufacture. Such compliance shall be certified by the Supplier in accordance with 49 CFR 567.

2. Suppliers shall provide a completed copy of Appendix A and Appendix B with their proposal providing vehicle specifications and the method of compliance, if any, with each listed section of 49 CFR 571.100.

3. Vehicles shall be certifiable under current California Air Resources Board (CARB) regulations as vehicles that meet ZEV emission requirements and quality for ZEV credits. If the vehicle is equipped with a fuel-fed heater, the heater shall also comply with this requirement.

4. Suppliers shall provide Material Safety Data Sheets (MSDS) for all unique hazardous materials supplied with the vehicle.

5. Suppliers shall provide recycling plans for batteries and other vehicle hazardous materials including how the plan has been implemented.

6. All vehicles shall comply with the FCC requirements for unintentional emitted electromagnetic radiation, as identified in 47 CFR 15, Subpart B, “Unintentional Radiators.”

7. Vehicles shall have a minimum payload of at least 400 pounds.

8. Suppliers shall provide the curb weight and rated payloads of their vehicles.

9. For conversion vehicles, Suppliers shall specify the OEMs gross vehicle weight rating (GVWR) and shall not exceed such rating.

10. For conversions, OEM Gross Vehicle Axle Weight Ratings (GAWR) shall not be increased.

11. Suppliers shall provide axle weights for the vehicle as delivered, and at full rated payload.

12. Odometers shall be provided and shall have an accuracy of at least ±5%.

13. The Supplier shall offer a standard or an optional tire conforming to the following requirements:
   - The tire(s) provided shall be placed installed in accordance with 49 CFR 571.109, and 110, as applicable.
   - Suppliers shall specify manufacturer, model and size of the standard tire for the vehicle and for the tire provided.
   - Tire size and in ation pressure for the tire provided shall be in accordance with the requirements of the placard.
   - At no time shall the tire's in ation pressure exceed the maximum pressure molded into that tire’s sidewall.
   - The tire provided shall be capable of operating over the entire operating load range of that vehicle.
   - Replacements for the tire provided shall be commercially available to the end user in sufficient quantities to support the purchaser’s needs.
   - Tires provided as original equipment by the Supplier shall not have warranty restrictions in excess of those of the tire’s manufacturer, unless the Supplier provides the warranty for the tires.

14. Seating capacity shall be a minimum of 1 driver. Suppliers shall specify seating capacity (available seat belt positions) for their vehicle. If a conversion vehicle’s seating capacity is changed from that specified by the OEM on the FMVSS placard, the seat(s) being added or abandoned shall be modified as required by 49 CFR 571.200, et al, and a new FMVSS placard installed as required by 49 CFR 567, 568 or 571, as applicable.

15. For conversion vehicles, the OEM passenger space shall not be intruded upon by the batteries or other conversion materials.

16. The controller/inverter shall limit the maximum battery discharge to prevent degradation of battery life (see Section 6.3) and abrupt loss of vehicle operability or shall indicate to the vehicle operator that the battery will be damaged by continued vehicle operation. Such limit and/or indication shall be repeatable and accurate to at least 10% battery state of charge.

17. Regenerative braking shall not adversely impact the vehicle’s service brake capability on varying road surfaces.

18. Vehicles shall comply with the requirements of 49 CFR 571.105.55.2.1, or alternatively, 49 CFR 571.105.55.2.2 for parking mechanisms.

19. The vehicle top speed shall not exceed 25 mph when tested in accordance with 49 CFR 571.500.

20. Vehicles shall be capable of meeting the NEV America Handling Test NTP-004 Revision 1 and Rough Road Test NTP-005 Revision 1 including (1) driving through two (2) inches of standing water at a speed of 20 mph without damage and without battery to chassis leakage current exceeding 0.5 MIU per UL Standard 2202, and (2) standing for extended periods in extreme temperatures without damage to or failure of the vehicle or its systems. Vehicles should be capable of completing the NEV America Rough Road Test NTP-005 Revision 1 without becoming inoperable.

21. Vehicle shall be capable of completing all NEV America tests without recharge of the battery by the charger and shall be capable of operating for a cumulative total of 72 hours.

22. If vehicle batteries require active ventilation for charging, the vehicle shall be so marked.

23. Suppliers shall indicate the depth of discharge below which the batteries shall not be discharged.

24. Suppliers shall provide a description of areas of non-compliance (if any) with the requirements of Section 6.5.

25. Concentrations of explosive gases in the battery box shall not be allowed to exceed 25% of the LEL (Lower Explosive Limit).

26. Suppliers shall describe how battery boxes will be vented, to prevent battery gas accumulation during and following normal charging, abnormal charging and operation of the vehicle.

27. Suppliers shall provide a description of areas of non-compliance (if any) with the requirements of SAE J1718 on Battery Gas Evolution.

28. Suppliers shall specify the depth of discharge below which the batteries should not be discharged if not specified by the OEM on the FMVSS placard, the seat(s) being added or abandoned shall be modified as required by 49 CFR 571.200, et al, and a new FMVSS placard installed as required by 49 CFR 567, 568 or 571, as applicable.

29. Suppliers shall provide axle weights for the vehicle as delivered, and at full rated payload.

30. For conversion vehicles, Suppliers shall specify the OEMs gross vehicle weight rating (GVWR) and shall not exceed such rating.

31. Suppliers shall provide manufacturer, model and size of the standard tire for the vehicle and for the tire provided.

32. Suppliers shall provide a description of areas of non-compliance (if any) with the requirements of Section 6.5.

33. Concentrations of explosive gases in the battery box shall not be allowed to exceed 25% of the LEL (Lower Explosive Limit).

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45. Suppliers shall specify manufacturer, model and size of the standard tire for the vehicle and for the tire provided.

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