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1994 BAKER EV100 ELECTRIC PICKUP

VEHICLE SPECIFICATIONS

CONVERTED VEHICLE
Base Vehicle: 1994 GMC Full Size Pickup
VIN: 1GTFC24Z6RZ562287
Seatbelt Positions: Three
Standard Features:
- Power Steering
- Power Brakes
- Front Disk Brakes
- Rear Anit-Lock Brakes
- Driver Side Air Bags
- AM/FM Stereo Radio
- Diesel Fuel Fired Heater

Options as Tested:
- Air Conditioning

BATTERY
Manufacturer: GM Oonic
Type: 13EV85 Nickel Metal Hydride
Number of Modules: 25
Weight of Module: 18 kg
Weight of Pack(s): 450 kg
Pack Locations: Cargo Bed
Nominal Module Voltage: 13.2 V
Nominal System Voltage: 330 V
Nominal Capacity (1C): 85 Ah

WEIGHTS
Design Curb Weight: 5132 lbs
Delivered Curb Weight: 5481 lbs
Distribution F/R: 50/50 %
GVWR: 7200 lbs
GAWR F/R: 3150/4670 lbs
Payload: 1719 lbs
Performance Goal: 632 lbs

DIMENSIONS
Wheelbase: 131.5 inches
Track F/R: 62.8/64.0 inches
Length: 218.4 inches
Width: 77.1 inches
Height: 69.1 inches
Ground Clearance: >5 inches

CHARGER
Location: Off-Board
Type: Hughes 6.6kW Inductive
Input Voltages: 165 to 260 VAC

TIRES
Tire Mfg: General
Tire Model: Ameri 550 AS Radial
Tire Size: P225/75R16
Tire Pressure F/R: 40/65 psi
Spare Installed: No

TEST NOTES:

1. Vehicle was delivered with a non-functional amp-hour meter. It remained non-functioning throughout the Test Program.
2. The charge algorithm was modified subsequent to the 45 mph and 60 mph range tests.
3. The Start-Up Sequence allows the vehicle to be operated without functioning power steering and power assisted brakes.
4. The "Limit Light" warning light did not provide useful information to the driver due to multiple inputs.
5. Oil leaks on the drive motor were repaired.
6. The Battery Pack Management (BPM) switch required repair.
7. Vehicle was removed from the Test Program for repair for one 24-hour period.

Values in **bold** indicate the Performance Goal was not met.
All Power and Energy values are DC unless otherwise specified.
Vehicle meets all EV America Minimum Requirements listed on back.

PERFORMANCE STATISTICS

ACCELERATION 0-50 mph
At 100% SOC: 12.9 sec
At 50% SOC: 14.9 sec
Max. Power: 102.2 kW
Performance Goal: 13.5 sec at 50% SOC

MAXIMUM SPEED @ 50% SOC
At 1/4 Mile: 59.8 mph
At 1 Mile: 71.1 mph
Performance Goal: 70 mph in one mile

CONSTANT SPEED RANGE @ 45 mph
Range: 61.2 miles
Energy Used: 21.40 kWh
Average Power: 15.33 kW
Efficiency: 350 Wh/mile
Specific Energy: 47.6 Wh/kg

CONSTANT SPEED RANGE @ 60 mph
Range: 31.5 miles
Energy Used: 15.36 kWh
Average Power: 25.78 kW
Efficiency: 487.6 Wh/mile
Specific Energy: 34.1 Wh/kg

DRIVING CYCLE RANGE
Range per SAE J1634: 56.6 miles
Energy Used: 25.67 kWh
Average Power: 11.32 kW
Efficiency: 453.5 Wh/mile
Specific Energy: 57.0 Wh/kg
Performance Goal: 60 miles

BRAKING FROM 60 mph
Controlled Dry: 199.9 feet
Controlled Wet: 238.5 feet
Panic Wet: 281.2 feet
Course Deviation: 2.5 feet

HANDLING
Avg Time @ 90% SOC: 59.9 sec
Avg Time @ 50% SOC: 60.4 sec
Avg Time @ 20% SOC: 60.9 sec
Avg ICE Full Size Time: 58.3 sec

GRADEABILITY (Calculated)
Maximum Speed @ 3%: 67.1 mph
Maximum Speed @ 6%: 56.8 mph
Maximum Grade: 31.5%
Time on 3% Grade: 26 min 36 sec
Performance Goal: 15 Min

CHARGING EFFICIENCY
Efficiency: 715 Wh-AC/mile
Energy Cost @ 10 ¢/kWh: 7.15 ¢/mile

CHARGER
Max Charger Ground Current: &lt0.01 mA
Max Battery Leakage Current: 0.31 mA
Max DC Charge Current: 16.33 Amps
Max AC Charge Current: 30.65 Amps
Pwr Factor @ Max Current: 1.00
THD(V)/(I) @ Max Current: 3.40/4.47 %
Peak Demand: 6.53 kW
Time to Recharge: 7 Hrs 50 min
Performance Goal: 8 hours

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This vehicle meets the following EV America Minimum Requirements:

1. The vehicle has a payload of-at least 400 pounds.
2. The vehicle does not have a GVWR greater than the OEM GVWR.
3. The OEM GAWRs have not been increased.
4. Seating capacity is a minimum of 2 passengers.
5. A battery recycling plan has been provided.
6. The OEM passenger space has not been intruded upon by the electrical conversion materials.
7. The vehicle has a parking mechanism or parking brake as required by 49 CFR 571.105.
8. The vehicle has a minimum range between charges of at least 50 miles when loaded with two 166-pound occupants and operated at a constant 45 mph.
9. The vehicle manufacturer has certified that this vehicle complies with the Federal Motor Vehicle Safety Standards (FMVSS) applicable on the date of manufacture.
10. The vehicle manufacturer's proposal states that batteries and/or battery enclosures do not intrude into the passenger compartment during or following a frontal barrier, rear barrier and side impact collision and roll-over.
11. Batteries are an advanced design, specifically Nickel-Metal-Hydride (NiMH).
12. The vehicle manufacturer has certified concentrations of explosive gases in the battery box do not exceed 25% of the Lower Explosive Limit (LEL) during and following normal or abnormal charging and operation of the vehicle.
13. The battery charger is capable of recharging the main propulsion battery in less than 12 hours when recharging at 208V single phase 40A maximum.
14. The vehicle manufacturer has certified the charger is capable of accepting input voltages of 208VAC and 240VAC single phase 60 Hertz, with a tolerance of -13% +6% of rated voltage. On-board personnel protection systems are compatible with utility service GFCI protected circuits.
15. The charger has a true power factor of .95 or greater and a harmonic distortion of less than 5% (voltage and current at rated load).
16. The charger is fully automatic, determining when "end of charge" conditions are met and transitioning into a mode that maintains the main propulsion battery at a full state of charge while not overcharging when continuously left on charge.
17. Vehicles do not contain exposed conductors, terminals, contact blocks or devices of any type that create the potential for personnel to be exposed to 50 volts or greater.
18. Vehicles are accompanied with manuals for parts, service, operation and maintenance, interconnection wiring diagrams and schematics.
19. The vehicle has a state of charge indicator for the main propulsion batteries.
20. The vehicle has a battery system voltage indicator.
21. The vehicle has a power or current indicator.
22. Under static conditions, leakage current from propulsion system to vehicle chassis is less than 1 mA.
23. Ground currents from a grounded chassis during charging does not exceed 5 mA.
24. Replacement tires are commercially available to the end user.
25. The vehicle has the following interlocks:
    a). The controller does not energize in any drive selector position other than Park" or "Neutral"
    b). The start key is removable only in the "Off' position, with the drive selector in "Park"
    c). The controller does not initially energize or excite with a preexisting accelerator input.
26. The vehicle manufacturer has certified this vehicle complies with FCC requirements for unintentional emitted electromagnetic radiation, as identified in 47 CFR 15, Subpart B, "Unintentional Radiators."
27. The vehicle manufacturer has certified failure of a battery or battery pack is deemed to have occurred if the actual battery capacity is not at least 80% of the nominal ampere hour capacity.
28. The vehicle is equipped with an automatic disconnect and a manual service disconnect for the main propulsion batteries which are clearly labeled.
29. The charging system is compatible with circuit breaker type GFCI systems.
30. Material Safety Data Sheets (MSDS) for all on-board batteries have been supplied.
31. The level of charge below which the batteries should not be discharged and how the controller automatically limits battery discharge below this level have been identified by the manufacturer.

This information was prepared with the support of the U.S. Department of Energy (DOE) Award No. DE-FC-07-91ID-13079. However, any opinions, findings, conclusions or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of DOE.