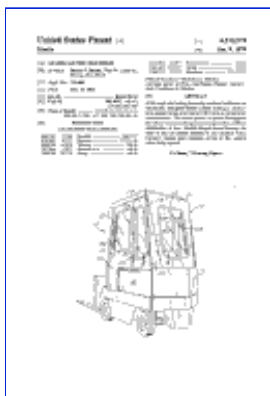


About this patent

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Guard-cab for cold room Robert P. Martin

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[View patent at USPTO](#)[Abstract](#) | [Drawing](#) | [Description](#) | [Claims](#)**Abstract**

A lift truck cab having thermally insulated walls and an electrically energized heater system making it particularly suited for use with electric lift trucks in closed cold environments. The heater system is spaced throughout the cab to surround the operator and provide a uniform distribution of heat. Double hinged doors forming the sides of the cab permit passage of the operator when partially opened and complete access to the vehicle when fully opened.

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Inventor: Robert P. Martin

U.S. Classification
[296/28C](#); [165/43](#); [237/28](#); [296/147](#)

International Classification
 B62D 2502

Claims

What is claimed is:

1. A lift truck comprising a wheel-supported body, an electric motor on the body for driving the truck through at least one of the wheels, a battery on the body for energizing the drive motor, an operator station on the body, a cab enclosing the operator station, said cab having a plurality of panels including a top, a plurality of windows carried by said panels, the major area of said panels and said windows being thermally insulated, electrical resistance heater means arranged to heat the interior of the cab, thermostatic control means sensitive to the air temperature within the cab, and an electric circuit connecting said heater with said battery through said thermostatic control means whereby said cab is maintained at a temperature selectively determined by said thermostat.
2. A lift truck as set forth in claim 1, wherein said thermostatic control means is mounted within said cab.
3. A lift truck as set forth in claim 2, wherein at least one of said windows forms a windshield for said operator station, said thermostatic control means being supported at a level at least as high as said windshield.
4. A lift truck as set forth in claim 2, wherein said heater means is arranged to operate at an elevated temperature and is arranged to radiate directly towards said operator station.
5. A lift truck as set forth in claim 4, wherein said thermostatic control means is at a location exposed to direct radiation from said heater means.
6. A lift truck as set forth in claim 5, wherein said heater means is disposed at a plurality of locations surrounding the operator station.
7. A cab for enclosing the operator station of a battery-powered lift truck comprising a plurality of panels forming the front and rear, sides and top of the enclosure, at least some of said panels including windows to provide visibility from the operator station, electrical resistance heater means arranged to heat the interior of the cab, said heater means including a

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Citations

| Patent Number | Title | Issue date |
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| 3042561 | (unknown) | Jul 1962 |
| 3501095 | (unknown) | Mar 1970 |

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| 3524398 | (unknown) | Aug 1970 |
| 3555846 | (unknown) | Jan 1971 |
| 3999599 | Condensate pan for evaporator core in vehicle air conditioning system | Dec 28, 1976 |
| 4034204 | Electric heater for warming the interior of a car | Jul 5, 1977 |
| 4063682 | Proportional stroke automatic temperature control system | Dec 20, 1977 |
| 4069972 | Heat systems for vehicles | Jan 24, 1978 |

Referenced by

| Patent Number | Title | Issue date |
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| 4225176 | Motor vehicle, especially agricultural motor vehicle | Sep 30, 1980 |
| 4392669 | Cab for lift truck with swing out windshield | Jul 12, 1983 |
| 4467706 | Environmental control for tractor cab | Aug 28, 1984 |
| 4619479 | Lift truck cab | Oct 28, 1986 |
| 4652037 | Protective cover for a fork lift truck | Mar 24, 1987 |
| 4675933 | Offset wiper drive | Jun 30, 1987 |
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| 5873612 | Window latching arrangement | Feb 23, 1999 |
| 6293610 | Method and apparatus for a door system for golf cart-type street vehicle | Sep 25, 2001 |
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| 6561572 | Cab enclosure construction | May 13, 2003 |
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plurality of units separately mounted within the cab in a pattern surrounding the operator station, thermostatic control means sensitive to the air temperature within the cab, and an electric circuit for connecting said heater means with the battery of the lift truck through said thermostatic control means, whereby said cab is adapted to be maintained at a temperature selectively determined by said thermostatic control means.

8. A lift truck cab as set forth in claim 7, wherein said heater units are arranged within said cab to face generally towards the operator station and are adapted to radiate a substantial portion of their generated heat energy.

9. A lift truck cab as set forth in claim 7 wherein said panels are generally vertical, adjacent ones of said panels intersecting with one another to define generally vertically extending corners of said cab, said heater units being longitudinally aligned with and adjacent said corners, said heater units extending along a major portion of the length of said corners.

10. A lift truck cab as set forth in claim 8, including air circulating means for directing air over said heating units and said windows.

11. A lift truck cab as set forth in claim 10, wherein said air circulating means comprises a pair of fans for cooperatively developing a vortical pattern of air flow in the cab.

12. A cab for enclosing the operator station of a lift truck, comprising a plurality of panels forming the front, rear, sides, and top of the cab enclosure, at least some of said panels including windows to provide visibility from the operator station, at least one of the sides of the cab including hinged forward and rearward door panels, said forward and rearward side door panels cooperating to substantially close all of the side cab area between the rear and front cab panels, said door panels being constructed and arranged to permit the forward door panel to be opened and closed for passage of the operator while the rearward door panel is closed and to permit both the forward and rearward door panel to be opened to provide access to the body of the lift truck.

13. A lift truck cab as set forth in claim 12, wherein the trailing edge of the forward door panel is hinge-supported on the lead edge of the rearward door panel.

14. A lift truck cab as set forth in claim 13, wherein the rearward door panel is hinged on the cab at its trailing edge and said forward and rearward door

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| | having an integrated HVAC system | |
| 7069736 | Air conditioning apparatus for hydraulic shovel | Jul 4, 2006 |
| 7249645 | Industrial truck with a lateral frame opening and a door with a double hinge | Jul 31, 2007 |
| 7429072 | Vehicle enclosure | Sep 30, 2008 |

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panels are each arranged to swing on their respective hinges outwardly from the body.

15. A lift truck cab as set forth in claim 14, wherein a panel forming the top portion of the enclosure includes a slot extending from the side of the cab having said forward and rearward door panels to a point beyond the longitudinal center of the cab enclosure, and a movable hatch mounted on the top panel for closing said slot.

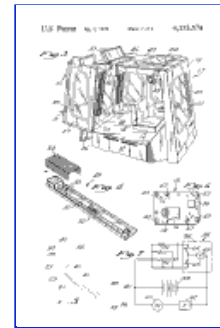
16. A lift truck cab as set forth in claim 15, wherein said panels, windows, and slot cover are thermally insulated.

17. A lift truck cab as set forth in claim 16, including electric heater means within said cab and thermostatic control means for sensing the air temperature within the cab and operable to energize said heater means to maintain a predetermined temperature therein.

Drawings



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