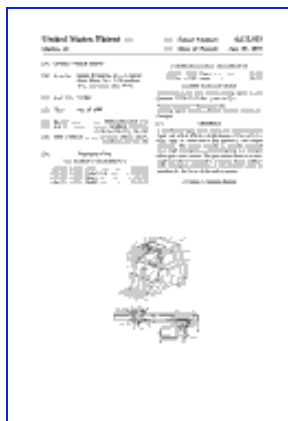


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# Offset wiper drive Robert P. Martin et al



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### Abstract

A windshield wiper drive system for an industrial lift truck cab which affords a high degree of forward visibility, ease of construction and assembly, and simple operation. The system includes a centrally mounted pivot shaft coupled by a connecting link to a laterally offset gear motor drive. The gear motor drive is a right-angle unit that is mounted in a manner which substantially eliminates obstruction of the operator's view as bounded by the front of the cab structure.

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**Inventors:** Robert P. Martin, Jr.

**U.S. Classification**  
[152/503](#); [152/502.3](#);  
[152/503.4](#); [296/102](#); [296/190](#)

**International Classification**  
B60S 118; B60S 124

### Search within this patent

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### Citations

Patent Number	Title	Issue date
<a href="#">1657335</a>	(unknown)	Jan 1928
<a href="#">2010693</a>	(unknown)	Sep 1935
<a href="#">4133574</a>	Guard-cab for cold room	Jan 9, 1979
<a href="#">4000145</a>	Windshield wiper	May 10, 1994

### Claims

What is claimed is:

1. A cab for a lift truck comprising a rigid frame including a set of four generally vertical corner posts framing front, side, and rear faces of the cab, elongated generally horizontal cross-tie elements interconnecting the corner posts at their upper ends, a front one of said cross-tie elements extending between a front pair of said corner posts and having a configuration to provide a major portion of the overhead strength of the cab in the adjacent cab area, means supported by said frame forming a roof, the front edge of the roof being supported by said front cross-tie in a manner wherein obstruction of the forward and upward view afforded the operator is limited substantially to the vertical height of the front cross-tie element and thickness of the sheetlike roof, a windshield extending across a major portion of the front cab face, a pivot shaft extending generally horizontally through said front cross-tie at its midlength, a wiper blade depending from an outward end of the pivot shaft and adapted to sweep across the outside surface of the windshield, a crank arm fixed on the inner end of the pivot shaft in the interior of the cab and depending below the axis of the pivot shaft, a gear motor drive unit mounted within the cab adjacent one of the front corner posts, said gear motor drive unit including a rotary electric motor and a right-angle drive gear box, the motor being aligned with its axis of rotation generally parallel to the front cross-tie and being closely adjacent the plane of the roof, said motor being disposed between said gear box and said pivot shaft, said gear box including a rotary output shaft having an axis generally parallel to said pivot shaft and being disposed vertically below said pivot shaft, a drive arm fixed to said output shaft, a connecting link pinned at one end to a free end of said drive arm and pinned at its opposite end to a free end of the crank arm, rotation of said output shaft induced by rotation of said motor causing said drive arm to rotate, said connecting link to reciprocate, and said crank and wiper to oscillate, the position of said gear motor drive avoiding obstruction of the operator's straight-ahead view through said windshield while permitting operation of said wiper through a kinematically simple drive.

2. A lift truck cab as set forth in claim 1, wherein said front cross-tie element is tubular, said pivot shaft extending through front and rear faces of said tubular element.

[4266315](#) window wiper storage system May 12, 1981

3. A lift truck as set forth in claim 2, wherein said front cross-tie element is formed of rectangular steel tubing.

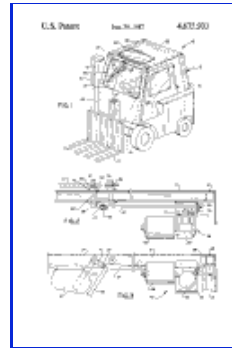
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## Referenced by

Patent Number	Title	Issue date
<a href="#">5570923</a>	Truck cap window wiper system	Nov 5, 1996
<a href="#">5799358</a>	Canopy wiper system	Sep 1, 1998
<a href="#">6149228</a>	Modular operator enclosure	Nov 21, 2000
<a href="#">6276750</a>	Fork lift truck cab	Aug 21, 2001
<a href="#">6561572</a>	Cab enclosure construction	May 13, 2003

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## Drawings



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