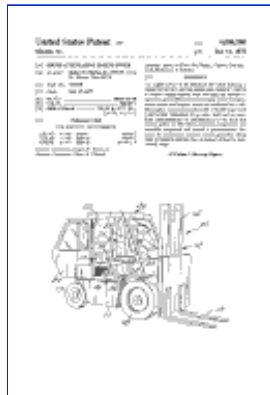


[About this patent](#)[Read this patent](#)**Sound attenuating engine cover** Robert P. Martin et al[Read this patent](#)[Download PDF](#)[View patent at USPTO](#)[Abstract](#) | [Drawing](#) | [Description](#) | [Claims](#)**Abstract**

An engine cover in an industrial lift truck forming a sound barrier between the engine and operator's station to reduce engine-related noise reaching the operator's station to acceptable levels particularly where the operator's station and engine cover are enclosed by a cab. The engine cover is provided with a double rigid wall construction comprised of an outer shell and an inner liner complementary in configuration to the shell and nested within it. The shell and liner components are mutually supported and spaced a predetermined distance by continuous support means generally along their peripheries and are free of mutual support in their central areas.

**Patent number:** 4099590**Filing date:** Feb 17, 1977**Issue date:** Jul 11, 1978**Inventors:** Robert P. Martin, Sr.**Primary Examiner:** Gene A. Church**U.S. Classification**[180/69C](#)**International Classification**

B62D 2510

**Claims**

What is claimed is:

1. A lift truck including a chassis, an internal combustion engine mounted on the chassis, an operator's station including a seat and a steering wheel, an engine cover disposed between the engine and operator's station, said engine cover extending across a zone sufficiently large to intercept substantially all airborne noise originating at or immediately adjacent the engine and traveling in the direction of the operator's station, components of said engine cover including an outer shell and an inner liner, said shell and liner each being thin-walled, relatively rigid structures, said liner having a general configuration like that of said shell, said liner being spaced a predetermined distance from said shell, and support means extending generally along the periphery of one of said components to maintain the predetermined distance between said liner and said shell, said liner and shell being substantially free of support between one another inwardly of the periphery of said one component.
2. A lift truck as set forth in claim 1, wherein said support means is integral with one of said components.
3. A lift truck as set forth in claim 2, wherein said support means includes a thin-walled web portion extending generally perpendicularly from adjacent main portions of said one component.
4. A lift truck as set forth in claim 3, wherein said support means includes flange portions spaced from and parallel to adjacent main portions of said one component.
5. A lift truck as set forth in claim 4, wherein said web and flange means form a right angle.
6. A lift truck as set forth in claim 1, wherein both said shell and liner components include horizontal top and vertical front panels, said operator's station being arranged generally above and forward of said cover, said operator's station including an operator's seat disposed above said cover

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**Citations**

Patent Number	Title	Issue date
<a href="#">2931452</a>	(unknown)	Apr 1960
<a href="#">3232368</a>	(unknown)	Feb 1966
<a href="#">4040501</a>	Lift truck	Aug 9, 1977

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and having a front edge adjacent the vertical front panel of the shell.

7. A lift truck as set forth in claim 6, wherein said shell and liner each include vertical side panels integral with said top and front panels.

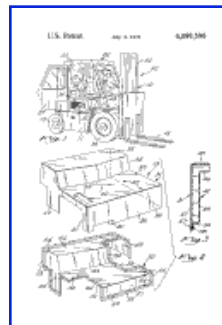
8. A liner for an engine cover in a lift truck comprising an imperforate sheet of rigid plastic, said liner including at least two integral panel portions generally perpendicular to one another and forming a generally horizontal top and generally vertical front, the periphery of said liner having integrally formed mounting flange elements extending generally parallel to and spaced generally a uniform distance from adjacent portions of the liner, a web integrally formed on the periphery of the liner and extending substantially continuously along the periphery of the liner between the flange elements and adjacent portions of the liner, said flange elements being adapted to be secured to the underside of an engine cover having the same general configuration as the liner whereby the liner is adapted to be spaced a predetermined distance from said cover, the central portions of said liner being substantially planar such that physical contact between the liner and the underside of the engine cover is avoided.

9. A lift truck comprising a chassis, a lifting mechanism at one end of the chassis, a prime mover on the chassis adjacent the rear end thereof opposite the lifting mechanism, an operator's station disposed on the chassis generally above and forward of the prime mover, said operator's station including a seat and a steering wheel, a cover disposed between the prime mover and the operator's station, said cover including a generally horizontal portion extending below said seat and a vertical portion depending vertically in a zone generally rearward of the forward edge of said seat, said horizontal and vertical cover portions being sufficiently large to intercept substantially all airborne noise originating at or immediately adjacent the prime mover, said cover including an outer shell and an inner liner, said shell and liner being relatively thin-walled, imperforate, rigid structures of generally the same configuration, said liner being molded of a nonporous plastic material chemically resistant to commonly used oils and greases and petroleum fuels, said liner being spaced a predetermined distance from said shell, a web extending generally continuously along the periphery of at least one of said components between said liner and said shell to maintain the predetermined distance between said liner and shell, said liner and shell being substantially free of support between one another beyond the periphery of said one component.

10. A lift truck as set forth in claim 9, including a cab enclosure surrounding said operator's station and a substantial portion of said cover.

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### Drawings



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