Title: APPARATUS AND METHODS FOR PROVIDING HIGH ELECTRICAL RESISTANCE FOR AERIAL WORK PLATFORM COMPONENTS

Abstract: Methods, systems and apparatuses for providing high electrical resistance for an upper control assembly (including control handles) of an aerial lift are provided through an isolation member that is integral to the upper control assembly and interposed between fluid lines in the control assembly and a set of fluid conduits that extend from the control assembly towards other portions of the aerial lift. The isolation member is a dielectric element that comprises a manifold that is made of material that is substantially electrically non-conductive, and that has a plurality of through-holes or hoses configured to allow hydraulic fluid to flow through the isolation member into and out of the fluid lines and conduits. These methods, systems and apparatuses are preferably used in upper control assemblies of aerial platforms that can carry one or more operators in order to prevent such operators from electrocution when controlling the lift.
# INTERNATIONAL SEARCH REPORT

**International application No.**  
PCT/US20 3/043749

**A. CLASSIFICATION OF SUBJECT MATTER**

IPCI(8) - B66F 11/04 (2013.01)

USPC - 182/2.4

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

- IPC(8) - B66F 11/04; F15B 2000; G05G 9/034 (2013.01)
- USPC - 74/491; 137/493, 561A, 861; 182/2.1 1.2.4, 2.9, 46, 148

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

- CPC - B66F 11/044, 11/046 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

- PatBase, Google Patents, Google Scholar

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>A</td>
<td>US 4,051,860 A (DOWD et al) 20 February 1979 (20.02.1979) entire document</td>
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<td>A</td>
<td>EP 0191249 A2 (BRADSHAW) 20 August 1986 (20.08.1986) entire document</td>
<td>1-34</td>
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**Date of the actual completion of the international search**

18 October 2013

**Date of mailing of the international search report**

22 NOV 2013

**Name and mailing address of the ISA/US**

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