

(19)



(11)

EP 2 028 728 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

25.02.2009 Bulletin 2009/09

(51) Int Cl.:

H01R 24/02 (2006.01)

(21) Application number: **07114749.0**

(22) Date of filing: **22.08.2007**

(84) Designated Contracting States:

**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE
SI SK TR**

Designated Extension States:

AL BA HR MK RS

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(54) **An RF connector with integrated retaining clip and rear moulding**

(57) This invention relates to the design of a bulkhead latching RF connector.

RF connector bodies are typically manufactured from brass which with the associated machining operation represents a high proportion of the overall cost.

This connector is designed to lock into a bulkhead

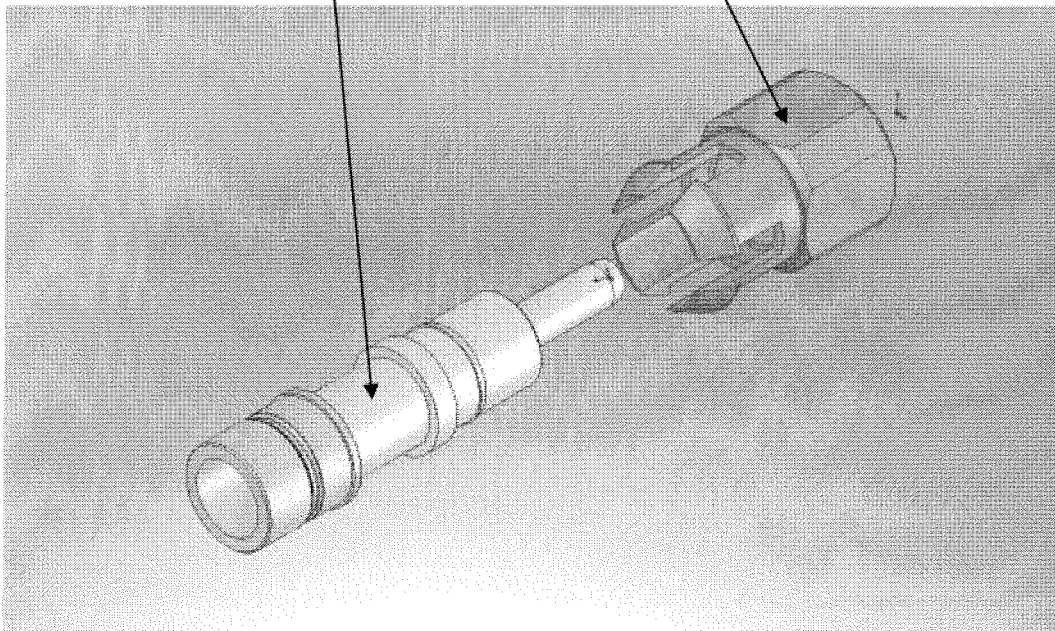
using a retaining clip which compresses and locks into a circular cut out in a bulkhead.

The present invention is to remove a considerable amount of the brass and associated machining and replace with an injection moulded clip which integrates the rear section of the body with the clip.

Fig 4

Connector Body

Retaining Clip



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Description

[0001]

Fig 1 illustrates a male and female connector interface 5

Fig 1A shows an isometric view of a male connector with the typical gold plating area.

Fig 2 illustrates a proposed male and female connector interface with a reduced gold plating area. 10

Fig3 shows a sectional view of the proposed male connector mated with the female connector.

[0002] Hereinafter we explain about the modified interface of the male connector to reduce the gold plating area. 15

[0003] The male connector contains an outer body(8) with an area undercut to retain a sprung loaded mating half female connector. This area requires a gold plated finish to maintain reliable electrical continuity and therefore should be kept to a minimum to reduce cost. The invention shows this area reduced and replaced with an extension to the existing insulator(9) to provide mechanical stability of the mating connectors. The insulator extension is undercut to provide stability while the connectors are mated yet eliminating unnecessary wear from or to the mating female connector during extensive mating cycles. 20 25

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Claims

1. An RF connector comprising a connector body with a retaining clip that integrates the rear section of the body. 35
2. A connector as described in 1. using an injection moulded retaining clip and integrated rear body.
3. A connector as described in 1. using a machined polymer retaining clip and integrated rear body. 40
4. An RF connector comprising a connector body, a polymer retaining clip and a metal die-cast rear section of the body. 45

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Fig 1

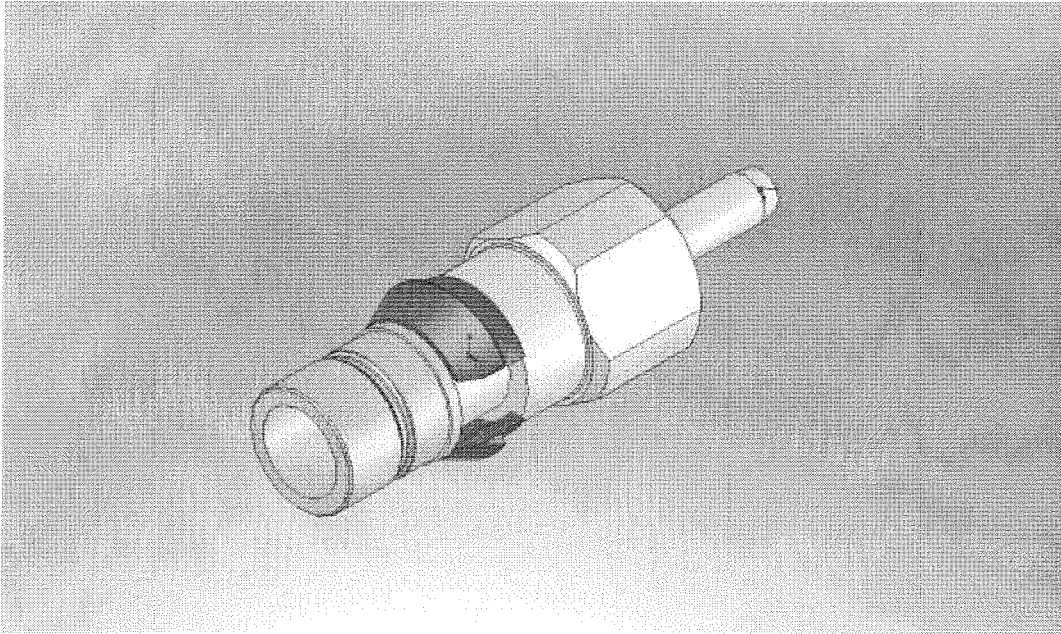


Fig 2

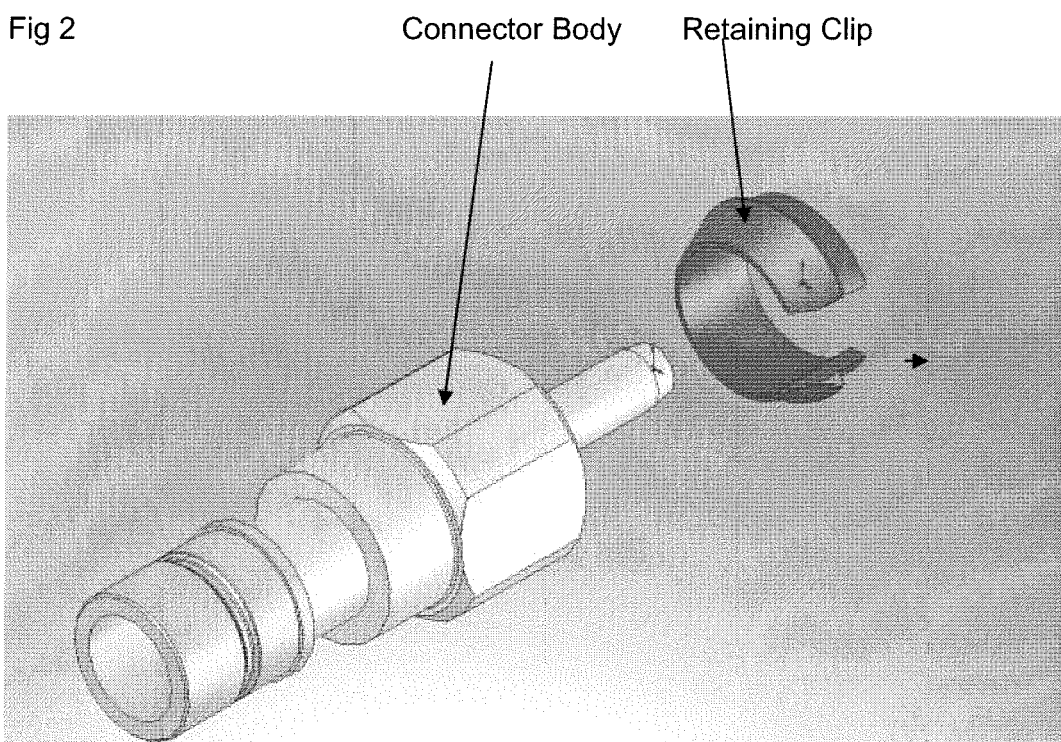


Fig 3

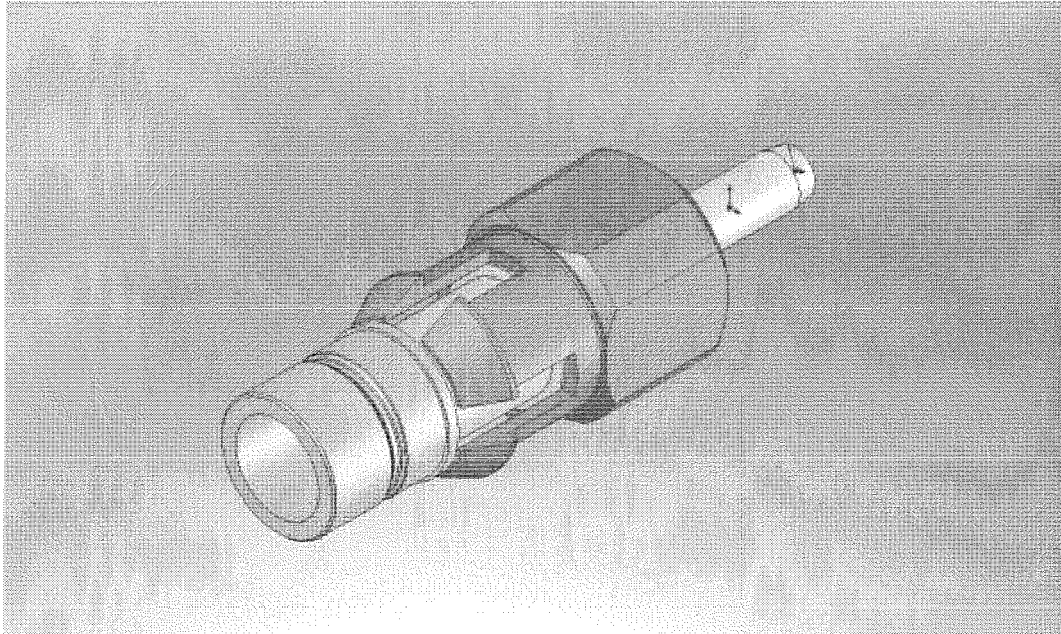
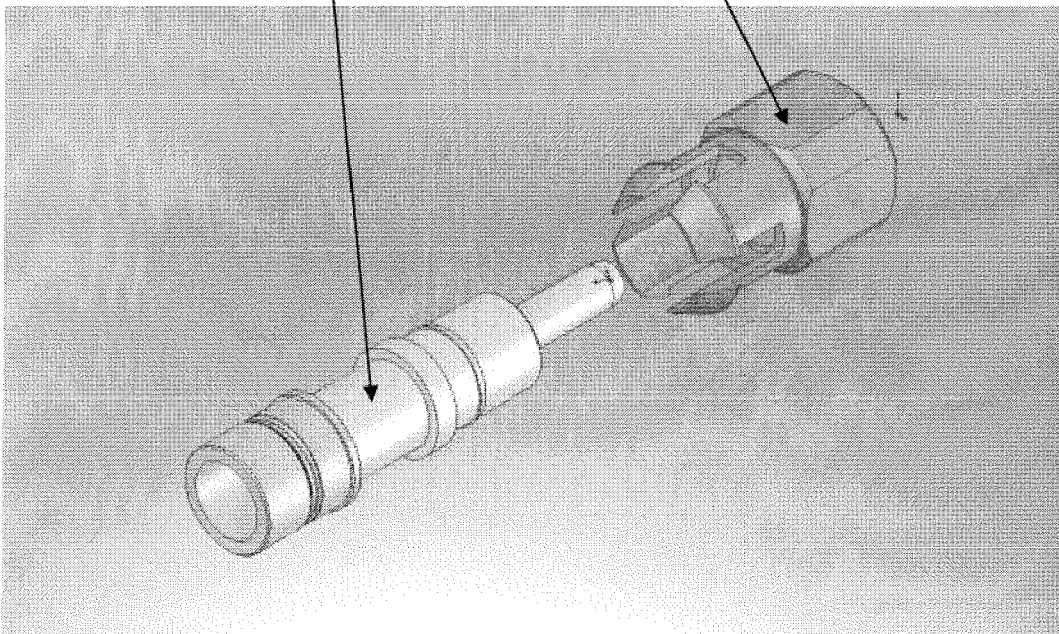


Fig 4

Connector Body

Retaining Clip





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 11 4749

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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 January 2008	Examiner Tappeiner, Roland
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 07 11 4749

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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