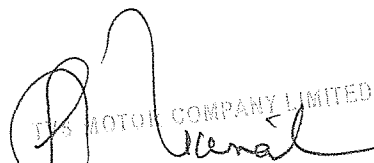


ABSTRACT

Described invention discloses an inset or enclosed mounting arrangement for the tail lamp. In this arrangement side panels are fixed on the rear portion of the vehicle such that it forms a housing space for tail lamp mounting. The tail lamp is
5 mounted in this housing such that it is not exposed outside the housing from any direction. Also the tail cover of the vehicle is mounted in a plane exactly below and behind the tail lamp and said housing. Outermost periphery of the wheel covers the outermost surface of the tail lamp, housing and the tail cover. This mounting arrangement protects tail lamp from external forces from all direction
10 thus helps in minimising tail lamp damage.

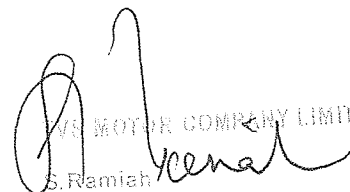
To be accompanied with Figure 2


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WHAT IS CLAIMED IS

- 1) A tail lamp mounting mechanism on rear portion of a scooter type vehicle comprising a rear wheel fixed with rear end of a transmission assembly and lower end of a rear suspension unit wherein upper end of the rear suspension unit is
- 5 fixed with rear portion of a frame such that said rear portion of the frame is covered with a plurality of side panels and supporting a seat on its upper side and a tail cover on its lower side, characterized in that the side panels are extending rearwards to form a housing space for a tail lamp such that the tail lamp lies within the outermost periphery of the housing space formed by the side panels and
- 10 the tail cover lies below the tail lamp and extends ahead of a virtual horizontal plane drawn from the outermost periphery of the housing space formed by the side panels.
- 2) The tail lamp mounting mechanism, as claimed in claim 1, wherein the uppermost surface of tail lamp lies below the uppermost surface of side panels.
- 15 3) The tail lamp mounting mechanism, as claimed in claim 1, wherein the lowermost surface of tail lamp lies above the lowermost surface of side panels.
- 4) The tail lamp mounting mechanism, as claimed in claim 1, wherein the rearmost surface of side panels lies behind the rearmost surface of the tail lamp.
- 5) The tail lamp mounting mechanism, as claimed in claim 1, wherein the
- 20 rearmost surface of the rear wheel lies behind rearmost surface of the housing space formed by side panels and the tail cover.

29 JAN 2015


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E4 FEB 2014

ORIGINAL

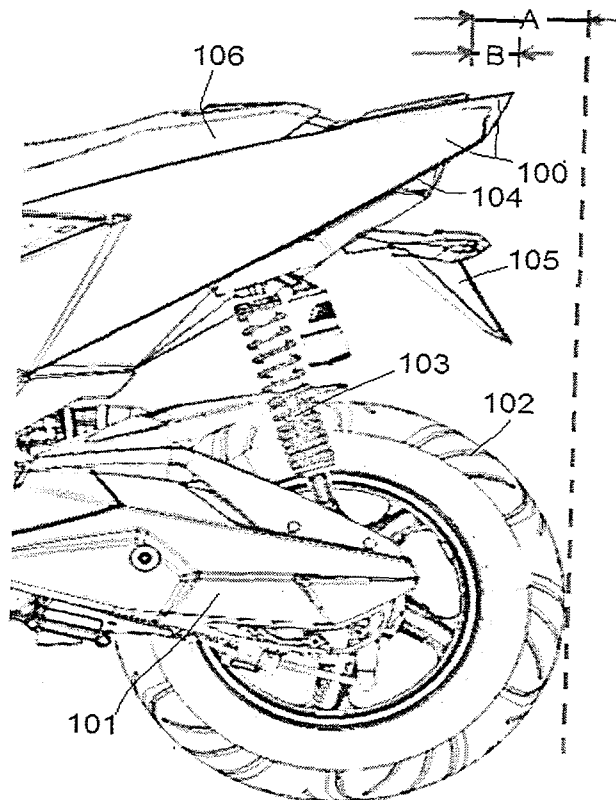


Figure 1

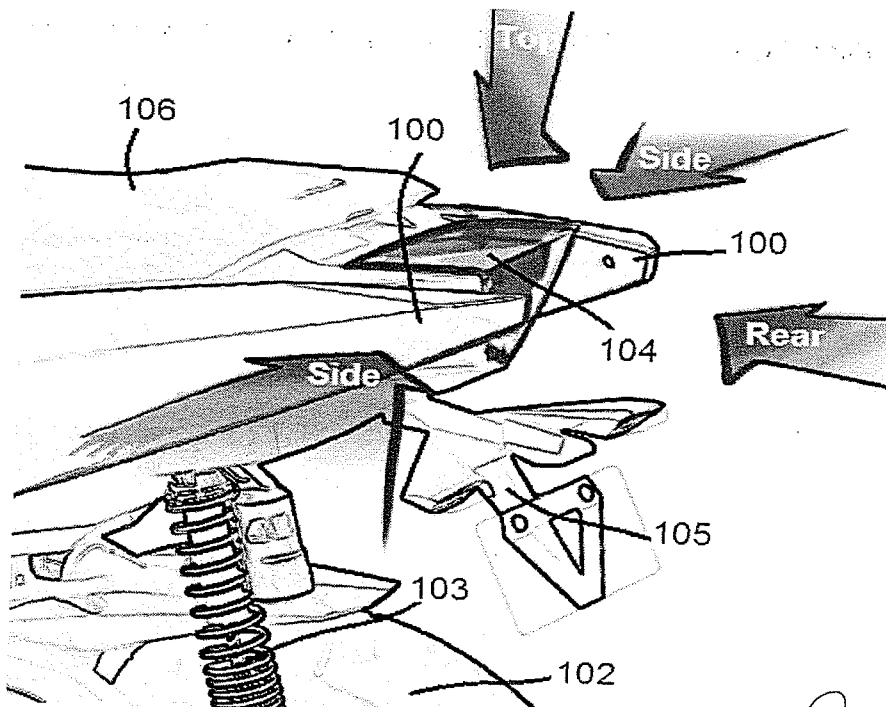


Figure 2

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0508 JCH 2014

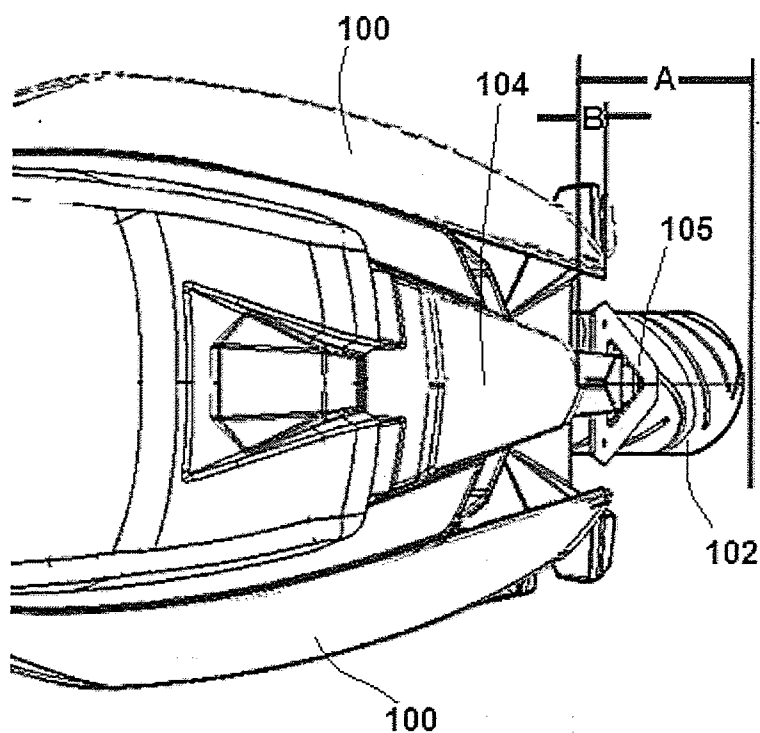


Figure 3

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FIELD OF INVENTION

The present invention generally relates to a mounting mechanism for tail lamp of a scooter and more particularly to enclosed mounting of the tail lamp.

BACKGROUND OF INVENTION

- 5 In existing scooters tail lamp is mounted on the rear most part of the vehicle. Said tail lamp is mounted such that it protrudes out from the rear most level of the side panels. Any approaching force coming from any direction can come in contact with said tail lamp and can damage it.

SUMMARY OF INVENTION

- 10 Main objective of present invention is to provide enclosed mounting for the tail lamp. Side panels of the scooter are extending rearwards to form a housing space for a tail lamp. This tail lamp is mounted in this housing space such that it lies within the outermost periphery of the housing space. Tail cover of the scooter lies below the tail lamp and extends ahead of the outermost periphery of the housing
15 space formed by the side panels. Also the rearmost surface of the rear wheel lies behind rearmost surface of the housing space formed by side panels and the tail cover. Disclosed invention ensures that any external pressure does not reach to tail lamp and is intervened by side panels, rear wheel or tail lamp.

- Summary provided above explains the basic features of the invention and does
20 not limit the scope of the invention. Additional detailed information related to the enablement of the invention will be provided in the detailed description and

accompanying claims. Scope of the invention shall be based on the claims provided.

BRIEF DESCRIPTION OF THE INVENTION

The present invention will become more fully understood from the detailed
5 description given herein below and the accompanying drawing(s). Provided
drawings are incorporated in and constitute embodiments of the invention and
illustrates several aspects of the invention and together with a description of the
embodiments serve to explain the principles of the invention. Drawings given
below are provided to support the description of the invention and are not limiting
10 the scope of the present invention. A brief description of the drawing is as
follows:

Figure 1 is depicting the essential embodiments of the claimed invention.

Figure 2 is depicting the enabling arrangement of the essential embodiments of
the invention.

15 **Figure 3** is describing mounting and enabling arrangement of the essential
embodiments of the invention.

DETAILED DESCRIPTION OF THE INVENTION

The embodiments disclosed below are not intended to be exhaustive or to limit
the invention to the precise forms disclosed in the following detailed description.
20 Rather, the embodiments are chosen and described so that best enabling
arrangements of the invention can be explained through all possible embodiments

and examples of it. The invention may have application to all kind of two wheeled vehicles.

Referring to **Figure 1**, rear portion of the vehicle is shown to describe mounting arrangement of tail lamp **104** with respect to the side panels **100** of the scooter. As shown, a rear wheel **102** is fixed with rear end of the transmission assembly **101** and lower end of a rear suspension unit **103**. Upper end of this rear suspension unit **103** is fixed with rear portion of a frame and acts as a shock absorber in the events of sudden obstacles. Rear portion of the scooter frame is covered with side panels **100** and also supports a seat **106** on it.

Further, as shown, tail lamp **104** is fixed behind the seat **106** of the scooter and a side panel **100** are mounted on the sides of the vehicle at a lower plane than the seat **106** and extends in the rearward direction. These side panels **100** are extending rearwards to form a housing space for the tail lamp **104** such that the tail lamp **104** lies within the outermost periphery of the housing space formed by the side panels **100**.

As shown in **Figure 2**, said side panels **100** cover tail lamp **104** from side and extend ahead of it such that the rearmost surface of side panels **100** lies behind the rearmost surface of the tail lamp **104**. Also said side panels **100** extend upward such that top most surface of the tail lamp **104** lies below the upper most surface of the side panels **100**. In this arrangement the lowermost surface of tail lamp **104** lies above the lowermost surface of side panels **100**. As shown in **Figure 2**, due to described mounting mechanism external force from any direction is hindered by respective side of panels **100** thus damage for the tail lamp **104** can be controlled.

Further, as shown in **Figure 1**, **Figure 2** and **Figure 3**, tail cover **105** is mounted exactly below the tail lamp **104** and also extends outwards from a virtual horizontal plane **B** drawn from the outermost periphery of the housing space formed by the side panels **100**.

5 Further, as shown in **Figure 3**, rear most end of the rear wheel **102** lies ahead of the said virtual horizontal plane **B** drawn from the outer edge of the tail lamp **104** and the housing formed by the side panels **100**. In the arrangement rear most surface of the tail cover **105** falls between said virtual horizontal plane **B** and the rear most end **A** of the rear wheel **102**.

10 As shown in the **Figure 2**, any external physical force towards the tail lamp **104** is interrupted by corresponding embodiment of the scooter. For example force approaching from the sides and the top can be interrupted by side panels **100** and force approaching from rear is interrupted by rear wheel **102** as well as the tail cover **105**. Thus, described mounting mechanism helps in minimizing tail lamp
15 damage due to external forces.