composite reinforced material that facilitates weight reduction while being easy to manufacture and maintains the necessary strength of the component.

SUMMARY

[6A] According to various embodiments, a method for forming an overmoulded assembly may be provided. The method may include: conforming a planar body of fibre reinforced material (CFRM) to a shape of a shape defining member, the material comprising continuous fibres in a synthetic matrix and the shape defining member defining an internal volume of a closed cross-section portion of a vehicle reinforcing member; bonding a first edge portion of the CFRM body to a second edge portion of the CFRM body thereby to form, around the shape defining member, the closed cross-section portion of the vehicle reinforcing member; and overmoulding a shell onto the vehicle reinforcing member and a further vehicle reinforcing member to integrally connected the shell and CFRM body, while keeping the shape defining member in the closed-cross-section portion.

[6B] According to various embodiments, a system for fabricating an overmoulded assembly may be provided. The system may include: a shape defining member defining an internal volume of a closed cross-section portion of a vehicle reinforcing member, the vehicle reinforcing member formed, in use, from a planar body of continuous fibre reinforced material (CFRM) comprising continuous fibres in a synthetic matrix; a first mould member, the first mould member and shape defining member being configured to be brought together to with the CFRM body therebetween, to form a closed cross-section portion from the CFRM body, the closed cross-section portion being formed around the shape defining member; a bonding device movably mounted to the first mould member and movable towards the shape defining member in use to bond a first edge portion and a second edge portion of the CFRM body together to form the vehicle reinforcing member; and an overmoulding mould for use in overmoulding a shell onto the vehicle reinforcing member and a further vehicle reinforcing member to integrally connected the shell and CFRM body, while keeping the shape defining member in the closed-cross-section portion.

[7] In an example, a method for forming a vehicle reinforcing member may be provided. The method may include:

a first mould member, the first mould member and shape defining member being configured to be brought together to with the CFRM body therebetween, to form a closed cross-section portion from the CFRM body, the closed cross-section portion being formed around the shape defining member;

a bonding device movably mounted to the first mould member and movable towards the shape defining member in use to bond a first edge portion and a second edge portion of the CFRM body together to form the vehicle reinforcing member; and

an overmoulding mould for use in overmoulding a shell onto the vehicle reinforcing member and a further vehicle reinforcing member to integrally connected the shell and CFRM body, while keeping the shape defining member in the closed-cross-section portion.

26. A system according to claim 25,

wherein the system is configured to fabricate a tapered vehicle reinforcing member.

27. A system according to claim 25 or 26,

wherein the shape defining member is tapered in a longitudinal direction of the shape defining member,

28. A system according to any one of claims 25 to 27,

wherein the shape defining member defines a tapered internal volume of the closed cross-section portion of the vehicle reinforcing member.