METHODS OF FABRICATION OF COMPOSITE REPAIR PARTS AND RELATED KITS

ABSTRACT

Composite laminates fabricated from one or more respective laminae of composite material (e.g., fiber-reinforced polymers) may be pre-formed and fully cured, yet configured to be selectively conformable to a desired radius of curvature. To repair a damaged composite structure, a plurality of such composite laminates may be bonded together to form a repair part that may be bolted to or otherwise secured to the damaged composite structure, thereby repairing the structure using repair parts that may match the parent material of the damaged composite structure. Methods of forming said repair parts from a plurality of such composite laminates may provide advantages in costs and lead time, over conventional techniques. Kits may include a plurality of such pre-formed and cured composite laminates that may be stacked and combined together in a plurality of different arrangements to create a customizable repair part for a given damaged composite structure.

FIG. 2