

Technology Transfer

Area of Technology: Mechanical Engineering

Title of the Innovation: AQUA-AIR FIXTURE FOR FRICTION STIR WELDING

Patent Grant Number: 350177

Brief About Innovation

The present invention generally relates to fixture which is used to control and ease the welding process on work piece at different pressure. More particularly, the present invention relates to an aqua-air fixture for friction stir welding that can be used to weld a work piece in water or without water during friction stir welding process.

Salient Features:

- The fixture is a device which holds and locates a work piece on a milling machine. Though several types of fixtures are known but there is no provision yet available to measure the pressure and clamping technique to clamp a work piece to be weld in air and water medium during friction stir welding.
- The limitation of the existing technologies in relation to such fixtures are more handling time due to marketing, measuring and other setting method to be applied on a work piece before welding hence the production capacity also decreases.
- The present invention provides an aqua-air fixture for friction stir welding which can be used for welding a work piece either in air medium or in aqua medium and capable to overcome the afore-discussed limitations of existing technologies in relation to such fixtures.
- The prime objective of the present invention is to provide an aqua-air fixture for friction stir welding to weld a work piece in water and without water during friction stir welding process.

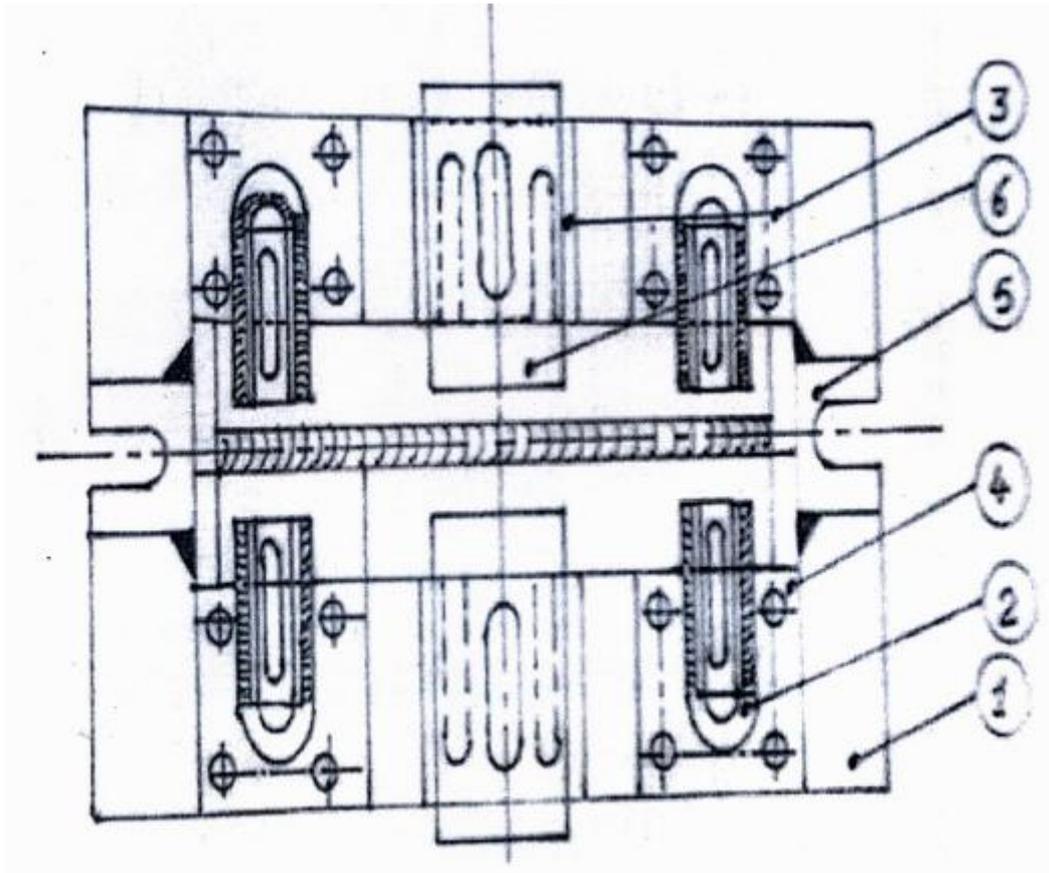


Fig. Aqua-air fixture for friction stir welding