



DESIGN & FABRICATION OF FIXTURE ASSEMBLY TO PERFORM ACCURATE AND DEFECT FREE FLARING OPERATION ON CASING TUBE

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Abstract: This paper gives a evaluate on research papers associated with fixture meeting and flaring tube technique.

The Fixture meeting is used with a view to perform flaring operation on casing tube that's one of the components of surprise absorber assembly. The fixture assembly is hooked up over the park solar tool machine on which flaring operation consists of bushing, top plate, backside plate, backside support fixture and pinnacle support fixture. The hydraulic press device attached to the fixture assembly will observe about 2 bar stress on casing tube in the course of flaring operation through plunger.

Index Terms - Introduction, About components in fixture assembly, flaring process, figures, references.

I. INTRODUCTION

The fixture meeting is used with the intention to perform flaring operation on casing tube that is one of the additives of surprise Absorbent meeting. The fixture assembly is mounted over the park solar device gadget on which Flaring technique is done. The fixture assembly used for casing tube flaring operation consists of bushing, top plate, backside plate, backside help fixture and pinnacle aid fixture.

The hydraulic Press gadget attached to the fixture assembly applies required strain on casing tube in the course of flaring operation via plunger which expands one side of the casing tube resulting inside the nosing or flaring of the tool. With the assist of fixture meeting and flared casing tube the mating part is placed over the tube and is welded for similarly system.

TABLE I

Components in fixture assembly

Sr. No	FIXTURE ASSEMBLY		
	Part Name	Quantity	Material
1	Bottom Plate	1	MS
2	Top Plate	1	MS
3	Guide Pillars	2	EN-31
4	Base Support	1	EN-31
5	Flaring Tool	1	EN-31
6	Bushes	2	MS

fig no-1

II.ABOUT

Jigs and furnishings are clamping devices that are typically used in unique manufacturing; they provide steering for the device and supporting, finding, and conserving the work piece at some stage in manufacturing methods. The feature of a jig or fixture is to find out and maintain a thing firmly in function at some point of a manufacturing approach inclusive of machining, welding or meeting. Fixture perform the extra assignment of guiding and supporting the device and are used for example, in drilling operations.

A fixture tool consists of three most important forms of detail: locators, clamps and enables. Locators are used to place the issue in a country of solid equilibrium, getting rid of all six of its stages of freedom. Clamps are for containing the element firmly in opposition to the locators at some degree within the generating operation.

Flaring is a way used to supply compression becoming through deflecting the deforming the surface of the tube commonly utilized in steel tubes when the leak-evidence becoming is required in a location in which either mechanical separation is needed or welding isn't desired.

Tool used for flaring pipes contain of a die which forces a mandrel in the pipe Flaring is notably utilized in HVAC and RAC for its leak tight and pressure resistance capacity. However, they may be no longer used for thick pipe connections.

All the additives of the Hydraulic flaring device had been machined the use of a CNC vertical milling tool to meet the required dimensional accuracy and for immediate machining. The problem confronted in the course of machining was due to the load of the additives and hardness, there was vibration in the device. Hence, the machine feed become reduced to keep away from failure and to get better accuracy.

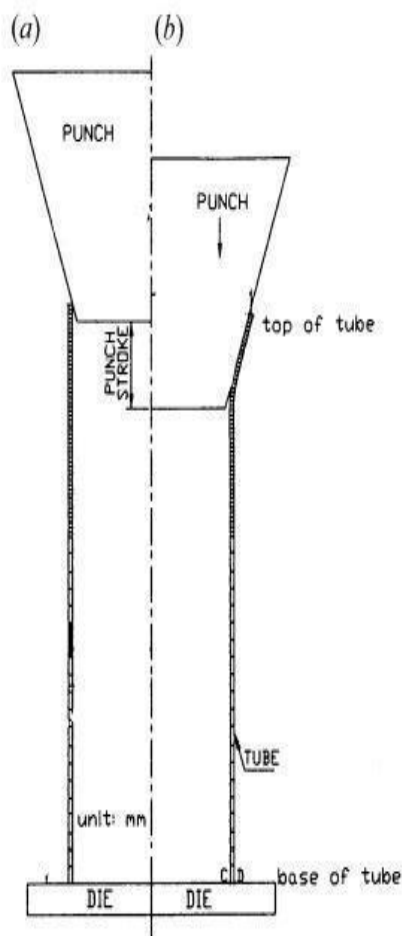
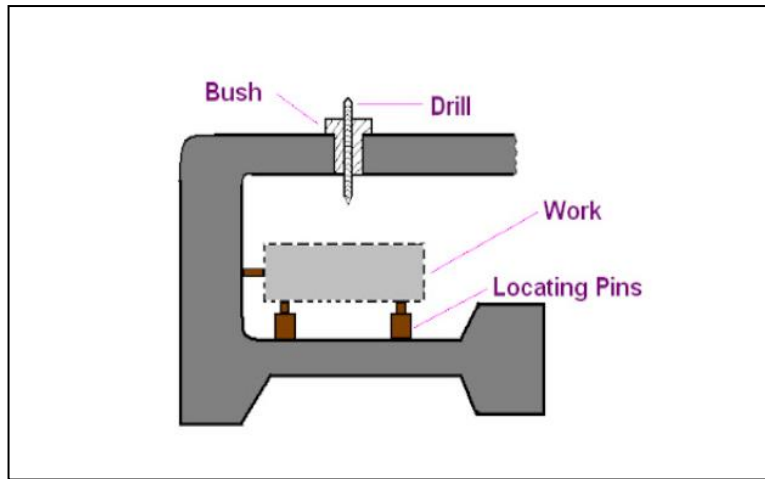
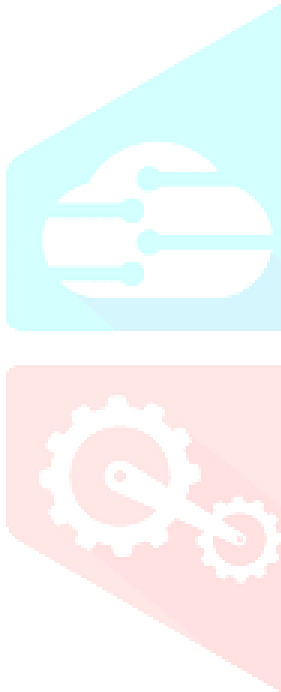


fig no-2



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