



# Excel Craft Private Limited

## WELDING DIVISION

### CASE STUDY OF CLUTCH PLATE HOUSING

<b>CUSTOMER</b>	: BANSAL PRECISION FORGE
<b>COMPONENT</b>	: Clutch Piston End Plate.
<b>MATERIAL</b>	: Cast Iron
<b>EQUIPMENT</b>	: 2500 TON PRESS
<b>JOB DONE BY</b>	: Mr.Samir Rahate



PHOTO- A

**PROBLEM STATEMENT** – The collar of the Clutch Plate got cracked, due to continues Torque load as the press was in operation for 25yrs. “It was a fatigue failure due to which press was not operational. As shown in Photo B.



PHOTO- B



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### PROCEDURE FOLLOWED TO CARRY OUT THE JOB BY EXCEL CRAFT TECHNICIANS:

**PRODUCTS USED:** EXCEL CAST 422.

#### **PROCEDURE:**

1. **Gouging:** of the cracked area and open the same in order to remove the fatigue and uneven material.
2. **Preheating:** Up to 180<sup>o</sup> C the component is heated using furnace for the purpose of oil removal. As the Cast iron was oil soaked, preheating of the job was done for 30 min to remove the oil.



PHOTO- C (Preheating & Gouging)

3. **Welding:** Welding was carried out on the cracked area. After welding DP test was done on the job and found to be perfectly OK.

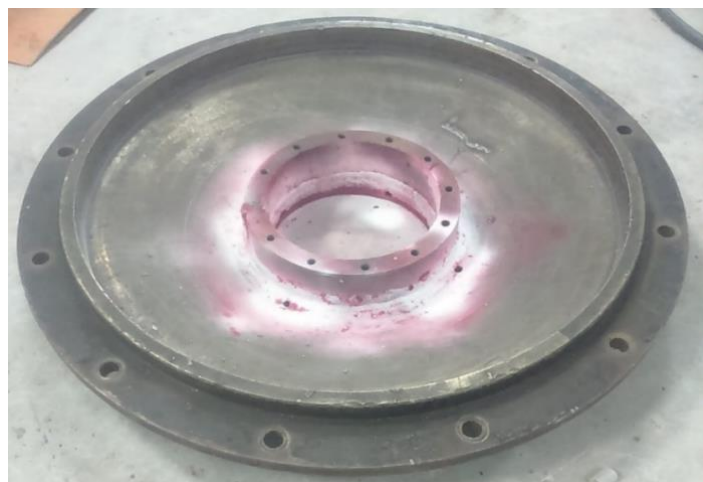


PHOTO- D (Job completed)



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4. **MACHINING:** After the job was done, it was sent for machining as per drawing and the press became operational within 18 hrs.



PHOTO- E (Job mounted on lathe)