



**2-SPENT CATALYST STANDPIPE EXPANSION JOINT**  
MUNRO & MILLER DWG N° 1F 5115 B/1C      **EJ 102 (1982)**

**2.2 ULTRASONIC CHECKING OF BELLOWS THICKNESS**



Nominal thickness: 2mm INCONEL 625 LCF

		1	2	3	4	5	6	7	8	9	10
<b>TOP BELLOWS</b>	UPPER	1,83	1,82	1,81	1,82	1,84	1,85	1,80	1,79	1,78	1,80
	EAST	1,85	1,84	1,83	1,82	1,83	1,83	1,82	1,75	1,83	1,81
	LOWER	1,80	1,80	1,78	1,80	1,81	1,83	1,83	1,83	1,82	1,81
	WEST	1,75	1,83	1,82	1,83	1,83	1,82	1,84	1,82	1,83	1,82

		1	2	3	4	5	6	7	8	9	10
<b>BOTTOM BELLOWS</b>	UPPER	1,86	1,83	1,84	1,84	1,83	1,86	1,82	1,82	1,83	1,82
	EAST	1,82	1,79	1,81	1,82	1,81	1,79	<b>1,75</b>	1,80	1,80	1,84
	LOWER	1,83	1,81	1,80	1,83	1,81	1,82	1,81	1,82	1,80	1,80
	WEST	1,83	1,82	1,86	1,84	1,82	1,85	1,84	1,84	1,84	1,80

**2.3 DYE PENETRANT EXAMINATION**

On the both bellows, the longitudinal welds bellows have been examined by dye penetrant test. No evidence of cracks or defects has been detected.

After cleaning, the reinforcing rings have been set back in their original location. Marking of each half of ring was done before dismantling to ensure a correct relocation, the tie rods have been screws strongly and the nuts tack welds on the fastener.

**2.4 EXTERNAL VISUAL CHECKING**

No significant dents or local deformation have been detected

**2.5 INTERNAL VISUAL CHECKING**

A thin cooking layer is sticking inside the bellows without any consequence for the operating condition, some part of hexmetal are missing on each end of sleeves, it is necessary to repair to avoid the erosion of these sleeves.

**2.6 COMMENTS AND RECOMMANDATIONS:**

**It will be ABSOULTLY necessary to replace this Expansion joint by a new spare part.**

*The first reinforcing must be not removed*



*Control nuts removed*



*Spring hanger removed without block EJ*

