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GOVERNMENT OF INDIA
MINISTRY OF DEFENCE (DGQA)
CONTROLLERATE OF QUALITY
ASSURANCE (HEAVY VEHICLES)
AVADI, CHENNAI-600 054

No. 40050/QAC/TS D

05 Mar 2012

To
The Controller,
COA(Metals)
Ichapur-Nawabgunj
24(N) Parganas
WB-743144

RADIOGRAPHY EXAMINATION OF T-72 & T-90 TANK CASTINGS

Ref : i) COA(Met) L.NO. CDN-253/TC DATED 29.09.11
ii) SQAEM (Metals) L.No SQAEM/TCCT-72 DATED 27.08.11 & 20.02.12

2. Several casting related defects have been observed and a systematic approach to deal with same is proposed hereunder:
3. The "Component wise" castings in respect of Tank T-72 and T-90 supplied through OF, Muradnagar pertaining to this AHSP responsibility were studied. The technical comments/ radiography requirement for the subject castings is enclosed herewith as Appendix-A& B. Components drawings are enclosed herewith.
4. Kindly accord final acceptance. Based on the acceptance the drawings will be upgraded and updated.

Encl. :- 13 sheets (14 pages + one CD)

(R A Govardhan)
JAG(NFSG)
Joint. Controller
Offg. Controller

Copy to
The SQA
SQAEM(Metals)
Muradnagar

Utter Pradesh-201 206

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o/c

NOO:-

JC(AHSP) - For information pls.

Sl. No.	Nomenclature & Drg. No.	Main Assy.	Radiography			Reasons for recommending Radiography
			Applicable standard	Type of Defect	Acceptance level	
12 & 13	Inner Disc 172-56-009-B Outer Disc 172-56-008-B	Idler wheel assembly	ASTM-E 186 (Vol-II)-84	A, B & C	level-III	The castings are part of the idler wheel assembly used for track tension adjustment. Blow holes are seen in outer rim portion. It is therefore suggested to carry-out Radiography examination.
			-do-	D,E & F	Not Acceptable	
14	Housing 188-94-001-2	Turret.	ASTM-E 446 (Vol-II)-84	A, B & C	level-III	The present batch of castings are of poor quality having blow holes, the thickness are not maintained. The castings are part of power traversing reducing gear unit in the turret traversing mechanism assembly. It is therefore suggested that the castings be subjected to Radiography examination
			-do-	D,E & F	Not Acceptable	
15	Cover 188-94-002-2	Turret	ASTM-E 446 (Vol-II)-84	A, B & C	level-III	The present supplies are of poor quality having blow holes the thickness are not maintained. The castings are part of power traversing reducing gear unit in the turret traversing mechanism assembly. It is therefore suggested that the castings be subjected to Radiography examination
			-do-	D,E & F	Not Acceptable	
16	Cradle CA 188-94-082	Mounting of m/c gun.	NA	NA	NA	Presently this casting is not being processed at HVF
17	Base of Bracket 188-21-031-C CA	Turret Mounting (front suspension)	ASTM-E 446 (Vol-II)-84	A, B & C	level-III	It is a complex casting with varying cross sections. The casting has blow holes and loss of section thickness. The casting defects are embedded and are revealed after value addition only. Hence, it is recommended to subject the casting to Radiography examination.
			-do-	D,E & F	Not Acceptable	
18	Housing 176-23-001-1	Turret Traversing Mechanism	ASTM-E 186 (Vol-II)-84	A, B & C	level-II	It is a complex casting with varying cross sections. The casting has blow holes and loss of section thickness. The casting defects are embedded and are revealed after value addition only. Hence, it is recommended to subject the casting to Radiography examination.
			-do-	D,E & F	Not Acceptable	
19	Bracket 172-01-735/C	IGB Bracket	ASTM-E 446 (Vol-II)-84	A, B & C	level-III	It is simple casting. The castings are free from blow holes, however, the sections are found to have less section thickness which is subsequently built-up by welding
			-do-	D,E & F	Not Acceptable	

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