

**QAP of Gear Box for stage wise inspection**

Sl. No.	Component operation	Characteristic checked	Type of check	Class	Inspection Details				Type of Records	Acceptance Standards	Remarks		
					M	TPI	C	Extent of Inspection					
1.	A. Body and cover	1. Physical Property	Mechanical testing	Major	P	R	R	R	I/Heat	Lab TC	To be tested by Govt. approved/NA BL accredited Lab		
		2. Chemical property	Chemical testing	Major	P	R	R	R	I/Heat	Lab TC			
	B. Gear, Pinion, shaft	1. Physical Property	Mechanical testing	Major	P	R	R	R	I/Heat	Lab TC			
		2. Chemical property	Chemical testing	Major	P	R	R	R	I/Heat	Lab TC			
	In Process Inspection												
		A. Gearbox housing	1. Dimensions	Measurement	Critical	P	W	R	R	100%		Compliance	BPSCCL approved drawing
			2. Casting/Weld Quality	Visual & DP	Major	P	R	R	R	100%		IR	Mfg. Procedure
	3. Leak Test		Kerosene Leak test	Critical	P	R	R	R	100%	IR		4 Hrs.	
	2.	B. Gear & Pinion shaft assembly	1. Dimensions	Measurement	Critical	P	W	R	R	100%		Compliance	BPSCCL approved drawing
			2. Hardness, Microstructure, case depth	Hardness testing	Major	P	R	R	R	Sampling		Compliance	BPSCCL approved drawing
3. NDT			Ultrasonic Test	Critical	P	W	R	R	100%	TC	ASTM A 388/Q8101 rev b		
4. Back lash			Measurement	Major	P	W	R	R			BPSCCL approved drawing		
3.	C. No Load Run Test	<b>Final Inspection</b>											
		<b>A. Assembly</b>											
		1. Overall dimensions											
		Measurement											
		Major											
		P W R R 100% IR											
		<b>B. Final Check</b>											
		1. DOR											
		Verification											
		Major											
P W R R 100% IR													
2. Reduction Ratio													
Verification													
Critical													
P W R R 100% IR													
1. Noise													
Measurement													
Critical													
P W R R 100% IR													
2. Vibration													
Measurement													
Critical													
P W R R 100% IR													
3. Temperature Rise													
Measurement													
Critical													
P W R R 100% IR													

**LEGENDS:** M: Manufacturer TPI: Third Party Inspector C: Client TC-Test certificate IR- Inspection Report  
P: Performed W: Witness R: Review.

Client Review is applicable after receiving the material at store during final inspection.

*Reddy*  
01/07/20