No. 08/PV/GMP Section: GMP Date: 09/09/2025

Subject: Providing data for SDOT/OTE case in vendor registration portal- reg of; Ref: PV(D) letter no. 3210/Gen/PV/M1 dtd 09/09/2025

With reference to the above, the required data for manufacturing technology and testing/inspection facility of Base Bleed Motor with Adaptor (Item code- 2040751888) is furnished below:

i. Manufacturing technology:

- a) Base Bleed Motor (machined), for Shell 155mm ERFB (BB) is manufactured from Aluminium Alloy forging (heat treated). The material of forging is Aluminium alloy 7075 T6 (Heat treated) or DTD 5124. The forgings are machined in CNC machine shop followed by chromium-based anodising in surface treatment shop and finally painted. The finished products are to be packed properly in cushioning material with water proof packaging.
- b) Base bleed adaptor for shell 155mm ERFB (BB) is manufactured from steel forging. The raw material for forging is steel to BS 970:Pt 1-1983 817M40 or 709M40 or 708A42, Hardness- 31-37 HRC or indigenous equivalent material IS: 5517 Designation- 40Ni6Cr4Mo3 Hardness 31-37 HRC(Heat treated). The adaptor is machined from forging in CNC machine shop further phosphated in surface treatment shop and finally painted. The finished products are to be packed properly in cushioning material with water proof packaging.

SI no.	P&M required For BB Motor	P&M required For Adaptor
1	CNC Machine	CNC Machine
2	Forging facility	Forging facility
3	chromium-based anodising facility	Phosphating facility
4	Rinsing facility	Rinsing facility
5	Jig & Fixtures	Jig & Fixtures

ii. <u>Inspection facility:</u>

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Inspection by CGM or its authorised representative will be carried out at firm's premise at all stages i.e raw material stage/forged & machined component stage as per relevant drawing & specification followed by final inspection & acceptance at OFI. All the relevant test certificates for raw material, NABL calibration certificates for various gauges, NDT report to be submitted by firm.

iii. <u>Test requirements:</u>

For BBU motor:

- a) The chemical composition of forged Aluminium alloy (used for BB motor) should comply with 7075 T6 (Heat treated) or DTD 5124.
- **b)** NDT of all forged motors (free from crack, pin hole, other defects) to be carried out at relevant facility by competent authority.
- c) All dimensions of machined BB motor including thread parameters to be checked as per drawings. Visual inspection & gauging of various dimensions of both components to be carried out.

For BBU Adaptor:

a) The chemical composition of forged steel (used for adaptor) should comply as per IS:5517 designation 40Ni6Cr4Mo3 Hardness 31-37 HRC (Heat treated).

- **b)** NDT of all forged adaptor (free from crack, pin hole, other defects) to be carried out at relevant facility by competent authority.
- c) All dimensions of machined BB adaptor including thread parameters to be checked as per drawings. Visual inspection & gauging of various dimensions of both components to be carried out.

iv. Testing Equipments/Facility (Essential):

- **a)** For testing mechanical properties: Universal testing machine (UTM) to be used for evaluation various parameters as required.
- b) Relevant Lab facility for testing of chemical composition of steel & Al alloy.
- c) NDT/X-ray/Ultrasonic facility.
- **d)** All relevant gauges/instruments/equipments required for measurement, gauging of various dimension, checking of thread parameters etc as per relevant drawing/QAP.

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