PRE-QUALIFICATION CRITERIA FOR ZERO MACHINED CASTING FOR CRANKCASE LOWER TO DRG NO. 402-06-43

Firm should have following facilities for making aluminum casting:

1. aluminum melting furnace with adequate capacity, core making heat treatment surface cleaning / abrasive blasting fettling backelizing degassing (MDU)
2. Firm should have testing facilities like spectroscope ultrasonic testing microscope for structural analysis macro analysis and wet and gravity chemical analysis.

(OR)

Firm should have a written MOU with an Indian firm having the above facilities to manufacture and supply the casting same will be verified during capacity verification.

b) HMC/VMC with axes strokes to accommodate component size 1200 X 300 X 350 mm (L X W X H) and weight 45 kg.
c) Radial drilling machine
d) Firm should have expertise in designing complex fixture special tools and gauges in house / tie up for designing and manufacturing of the above.
e) Firm should have sufficient space and facilities for deburring and checking the components.
f) Firm should be capable to design and develop the fixture and other facilities required to carry out the pressure testing operation. Firm should have (or) create pressure testing facilities at their premises after receipt of the supply order. After completion of all machining operation the last operation pressure testing should be carried out. Final acceptance of the component / assembly may be decided based on water pressure testing outcome. Water temperature; pressure nad duration of testing should be maintained as per drawing / process sheet.
g) Components washing facility like jet washing facilities should be available / created.
h) Adequate material handling facilities like EOT cranes forklift etc.
i) Firm should have skilled fitters to carry out the critical fitting operations.

QC CRITERIA

1. CMM to check the cylinder jacket.
2. Instruments / gauges to check the critical parameters of the component.
3. Skilled manpower to handle the sophisticated measuring instruments' / gauges.
4. Firm should have crack detection equipment (spectro meter /ultra sonic flaw detection unit etc).
5. Firm should ensure the supply of items as per drawing dimension and technological requirements.
6. Firm should send the component inspection data for each component.

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