PRE-QUALIFICATION CRITERIA FOR CRANK SHAFT TO DRG No. SB 20-05-02-4

1. The firm should have experience of manufacturing of similar type of crank shaft.
2. Firm should have forging facility or Tie-up with reputed forging manufacturer of crank shaft for supply of forging required for UTD-20 crank shaft, fly wheel, counter weight & Accessory drive end. The requirement per month is approximately 60 Nos. and it should be ensured that forging manufacturer should have capacity to meet the requirement.
3. The firm should have CNC Turning centre to carry out various turning operations of crank shaft, counter weight & Accessory drive end.
4. The firm should have CNC HMC for carrying our drilling & boring operations of crank shaft, counter weight, accessory drive end.
5. The firm should have crank shaft milling machine or whirling machine to carry out rough milling of journal pin & web OD.
6. The firm should have CNC oil hole drilling machine to carry out various oil hole drilling operations.
7. The firm should have CNC gear hobbling machine to carry our gear cutting operations of fly wheel.
8. The firm should have internal spline cutting machine to carry out internal spline cutting operations in accessory drive end.
9. The firm should have CNC crank shaft pin & journal grinding machine for carrying out grinding of pin, journal & webs.
10. The machine should be capable of meeting the close geometric accuracies specified in the drawing.
11. The firm should have CNC grinding machine to carry our grinding of accessory drive end.
12. The firm should have super polishing machine to achieve the required surface finish specified in the drawing.(Ra 0.6).
13. The firm should have balancing machine and correction facility to meet the drawing requirement.
14. The firm should have heat treatment facility or Tie-up with the reputed firms having good heat treatment facilities for carrying our carburizing, hardening of crank shaft.
15. The firm should have or Tie-up with reputed firms for carrying out case hardening of fly wheel, nitriding of accessory drive end oxidation of counter weight.
16. The firm should have in house inspection facility to check the geometrical dimensions, surface finish, crack deduction etc. The firm should have proper material handling equipment for movement of crankshaft at various stages of machining. The firm should have machining capacity to supply at least 60 crank shaft per month.

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