

BHARAT HEAVY ELECTRICALS LIMITED
UNIT: JHANSI
(WORK. ENGG. & SERVICES DEPTT.)

EQUIPMENT : CENTRE LATHE MACHINE
ITEM NO : MT-3/3/1443
LOCATION : LOCOMOTIVE
QUANTITY : 1 NO.
SPECIFICATION : 6118/R-1

CENTRE LATHE MACHINE

Gap bed lathe to have a high range of speeds. The drive spindle directly through multiple 'V' belts for particularly a fine finish in high speed turning with tungsten carbide tipped tools. It should have quick change tool post for multi tool operation. It must be having overload protection to lead screw and feed shaft both. The machine must be having salient features like good stability at high speeds, high stock removal rate and smooth speed changing. The braking must be effective and conveniently located. The machine should be suitably wired for operation on 415 volts, 3-phase 50 cycles supply and also a low voltage lighting equipment. All scales to be calibrated in metric units.

SPECIFICATION FOR CENTRE LATHE WITH STANDARD ACCESSORIES.

1. Machine should be suitable for workpiece(job) dia 5 mm to 500 mm & length upto 1500 mm & accuracy ± 0.015 mm
2. Centre height = 200 mm
3. Centre distance = 1500 mm
4. Type of Bed = Straight with removal bridge guideways hardened.
5. Swing over bed = 410 mm
6. Over cross slide = 240 mm
7. Over saddle wings = 370 mm
8. Swing in gap = 610 mm
9. Spindle Nose = Camlock "DL -6"
10. Spindle Bore = 54 mm
11. Width of gap = 150 mm (in front of face plate)
12. Spindle speed = 16 (25 to 2000 rpm)
13. Longitudinal feed = 15 (from 0.04 to 1.0 mm/rev)
14. Cross feed = 15 (from 0.02 to 0.5 mm /rev)
15. Screw cutting range-
 - Metric = 39 (0.2 to 14 mm pitch)
 - Inch = 45 (2 to 72 tpi)
 - Module = 18 (0.3 to 3.5)
 - DP = 21 (8 to 44)
16. Main motor = 5.5 KW
17. Tail stock = 70 mm (sleeve dia)
18. Taper in bore = Morse no.-4
19. Machine should be suitable for Power supply-415 Volts, 50 Hz,3-phase AC

Note:- All standard accessories should be supplied with the machine as a part of machine at no extra cost

SPECIAL ACCESSORIES REQUIRED-(To be quoted separately)

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|---|-------------------------------------|
| 1. Plain face plate | - 350 mm dia.-1 no. |
| 2. Precision-3jaw self centering chuck | -250 mm dia with chuck flange-1 no. |
| 3. One set each of hardened & supplementary jaws reversible for internal & external chucking. | |
| 4. Collet chuck | -1 no. |
| 5. 4-jaw independent chuck | -300 mm dia-1 no. |
| 6. Steady rest & Follow rest | -1 No each (plain type) |
| 7. Swarf tray & Coolant equipment. | -1 No. |
| 8. Quick change tool post with four turning tool holder and one boring tool holder- | 1no. |
| 9. Taper turning attachment | -1 No |
| 10. Rear tool holder | -1 No |
| 11. Rotating centre for tail stock | -1 No |
| 12. Morse taper No | -4 |
| 13. Machine lamp | -1 No |

Following to be submitted with the offer:

1. Dimensioned outline general arrangement drawing
2. Details of safety devices / guards provided.
3. Electrical schematic diagram.
4. Total electrical load.
5. Quotation with item wise prices of spares for 2 years normal working.
6. Details of standard & optional accessories offered.
7. Catalogues / leaflets of machine offered

QUALIFYING CONDITIONS

Only those vender, who have supplied and commissioned 10 Nos. such machines in the past ten years and such machine is presently working satisfactorily for more than one year (more than six month if supplied to BHEL) after commissioning should quote. The following information is to be submitted by the vender about the companies where similar machines have been supplied. This is required from all venders for qualifications of their offers.

1. Name of the customer/ company where similar machine/ crane is installed
2. Complete postal address of the customer
3. Year of commissioning
4. Name and designation of the contact person of the customer
5. Phone , Fax No. and e-mail address of the contact person of the customer
6. Performance certificate from the customer regarding satisfactory performance of the machine/ crane supplied to them

Date	Prepared By	Checked By	Approved By	
	Dy. Mgr (WEX)	Mgr.(WEX)	DGM.(WEX)	Sr. Mgr (LMM)
13/10/17				