

Annexure-1

BROAD SCOPE OF WORK

Name of work:-Reconditioning of 12 nos. HMT make Horizontal Milling Machines (Model- M2H) of HRDC.

QUANTITY - 12 Nos. (TWELVE)

Clause No.	Description
1.	<u>Scope of Work:</u>
1.1	Reconditioning and accuracy restoration as per OEM test chart.
1.2	Grinding, Scraping and matching of guide ways, preparation of wedges, Turcite fixing etc. to achieve accuracies and alignment.
1.3	Checking of main Spindle and repair to the extent feasible
1.4	Checking of main spindle guide bush and repair to the extent feasible
1.5	Reconditioning of all gear boxes
1.6	Replacement of all bearings of the machine including spindle bearings.
1.7	Rectification of all lead screws to the extent feasible and replacement of matching nuts.
1.8	Replacement of all worm/worm gears and other brass/bronze items like bushes etc..
1.9	Replacement of all oil seals, O-rings, gaskets and other rubber/sealing items .
1.10	Overhauling of coolant unit.
1.11	Overhauling of lubrication unit.
1.12	Repair /replacement of all other damaged parts like shaft, gears, shifters, clutches etc.
1.13	Complete rewiring of machine
1.14	Overhauling of all electrical motors

1.15	Installation of new control panel
2.	<u>Scope of supply:</u>
2.1	One set of all the bearings
2.2	One set of clutch assembly
2.3	One set of all box nuts
2.4	One set of all worm and worm gears
2.5	One set of all other brass/bronze items
2.6	One set of all oil seals, O-rings, gaskets and other rubber/sealing items
2.7	Complete Rewiring
2.8	New control panel
3.	<u>Optional items:</u> Replacement shall be decided during joint inspection
3.1	Main spindle
3.2	Lead screws (X,Y,Z- Axes)
3.3	Main spindle guide bush
3.4	Coolant unit
3.5	Lubrication unit
4.	<u>Document required from interested vendors:-</u> Vendors shall submit following documents along with their offer-
4.1	Audited balance sheet of last three(3) years
4.2	Current order book position.
4.3	Details of machines reconditioned during last five (5) years along with name of customers.
4.4	Details of technical manpower i.e. No. of engineers, diploma holders and technicians employed.

AJAY KUMAR

Sr. Engr.(WEX-MCR)

Annexure-2

SPECIFICATIONS OF HMT MAKE HORIZONTAL MILLING MACHINE, MODEL-M2H

<u>TABLE</u>	
LENGTH X WIDTH	1100 X 310mm
NO. AND WIDTH OF T-SLOTS	3 X 14mm
CENTRE DISTANCE BETWEEN T-SLOTS	65mm
POWER OPERATED LONGITUDINAL TRAVERSE	650mm
POWER OPERATED CROSS TRAVERSE WITHOUT OVER ARM BRACE	235mm
POWER OPERATED CROSS TRAVERSE WITH OVER ARM BRACE	145mm
<u>MILLING SPINDLE</u>	
NO. OF SPEEDS	18
SPEED RANGE	34 to 635 rpm
DIAMETER OF FRONT BEARING	75mm
SPINDLE NOSE	ISO taper 40
DITANCE BETWEEN CENTRE OF MILLING SPINDLE AND TABLE TOP	60-480mm
DISTANCE BETWEEN SPINDLE CENTRE TO LOWER FACE OF OVER ARM	125mm
MAXIMUM DISTANCE BETWEEN COLUMN AND OVER ARM BASE	555mm
<u>FEEDS</u>	
NO. OF FEEDS(LONGITUDINAL, CROSS, VERTICAL)	16 each
FEED RATES(LONGITUDINAL & CROSS)	10-300 mm/min
FEED RATE(VERTICAL)	5-150 mm/min
SPEED OF RAPID TRAVERSE(LONGITUDINAL & CROSS)	1500 mm/min
SPEED OF RAPID TRAVERSE(VERTICAL)	750 mm/min
<u>POWER REQUIRED</u>	
MAIN MOTOR	5.5KW,7.4HP
RAPID TRAVERSE MOTOR	1.5KW,2.0HP
COOLANT PUMP MOTOR	0.1KW,0.13HP
<u>SHIPPING DIMENSIONS(L X W X H)</u>	2060 X 1750 X 1800mm
<u>WEIGHT</u>	2500 Kg.(Approx)

Ajay Kumar

Sr.Engr.(WEX-MCR)