

TECHNICAL DELIVERY CONDITIONS FOR PUSH BENCH ROLL CAGE (RING) BED

BHE : SSTP : MPG : TDC : ROLL CAGE BED.

01. PRODUCT :

Roll cage beds for push bench as per the following diagram

- a) Roll cage bed East-1 as per drg no 2-7-1127-05-00958 rev 05-1 NO
- b) Roll cage bed West-1 as per drg no 2-7-1127-05-00959 rev 04-1 NO
- c) Roll cage bed East-1 as per drg no 2-7-1127-05-00960 rev 04-2 NO
- d) Roll cage bed West-1 as per drg no 2-7-1127-05-00961 rev 04-2 NO
- e) Roll cage bed East-1 as per drg no 2-7-1127-05-00962 rev 04-1 NO
- f) Roll cage bed West-1 as per drg no 2-7-1127-05-00963 rev 04-1 NO
- g) Guide plate East-1 as per the drg no 3-7-1127-05-03125 rev 04-1 NO
- h) Guide plate West-1 as per the drg no 3-7-1127-05-03126 rev 04-1 NO
- i) Guide plate East-11,111as per the drg no 3-7-1127-05-03127 rev 03-2NO
- j) Guide plate West-11,111as per the drgno 3-7-1127-05-03128 rev 03-2NO
- k) Guide plate East-IV as per the drg no 3-7-1127-05-03123 rev 03-1 NO
- l) Guide plate West-IV as per the drg no 3-7-1127-05-03124 rev 03-1 NO

02. APPLICATION:

These roll cage beds are assembled in push bench where the roller die cages are fixed in various location in the groove- slots. These die cages slots has to withstand the starting pushing load of 180 metric tons and they reduced to 80 metric tons of load during pushing. The cages are inserted in the grooved with sliding fit for easy replacement and the machining shall be done as per the instruction given in the drawings.

03. material:

All the above parts shall be manufactured from rolled plates or from forged plates as per IS: 8500 grade Fe 570 B. Raw material defects like lamination in case of rolled plates and defects like internal cracks or internal fissures in case of forgings should be avoided. Steel used shall be killed as per IS: 961.

04. CONDITIONS OF THE SUPPLY:

The forging shall be supplied with Charpy V-Notch impact toughness requirement as per IS: 8500 grade 570 B and the carbon equivalent shall also be maintained as per the above specification. All materials before final machining shall be normalized and NDE should be performed as per the requirement.

05. DIMENSIONS AND TOLERANCES:

Dimensions and tolerance shall be met as per the drg and wherever tolerance are not specified: medium class per IS 2102 shall be m

06. INSPECTION AND TESTING:

Test piece of raw material shall be offered for BHEL's verification before proceeding for final machining. Sample size should be per IS; 1608

Forged material should be per machined and normalized one. At this condition only mechanical testing, impact testing, UT as per E 388 and MPI as per E 709 should be carried out in the presence of BHEL representative. After getting clearance from BHEL representative only, final machining shall be carried out.

should not be any warp age in the raw material before final machining.

All machining shall be carried out only in the plano- miller with digital output and controls.

The cumulative errors should be within the limit given in drg.

Parallelism of the slots to be maintained and inspection through go-no-go gage shall be carried out

Slots at random shall be tested with die- penetrant test (20%)

M24 tapped hole at the bottom of the segments to be provided with heli-coil inserts to ensure vibration free joints at assembly at side.

07. ACCEPTANCE CRITERIA

Mechanical testing as per material specification.

Impact testing as per material specification.

UT as per E 386 class I forging- acceptance.

MPI as per WE 709 and no linear & round indication allowed.

08. TEST CERTIFICATE

Test certificate shall be furnished by the supplier giving the details of the test results as per above clauses given above including chemical composition in ladle and product as per material specification.

09. GUARANTEE CERTIFICATE:

The material shall be offered for inspection by BHEL inspection for which advance notice for not less than 10 days shall be given. At the discretion of SSTD/BHEL this inspection at source may be waived by SSTD/BHEL and the component may be inspection on receipt at SSTD/BHEL.

10. INSPECTION AT SUPPLIER'S WORKS

The material shall be marked with PO No. and supplier name, which shall be non-erasable. The material shall be coated with rust preventive oil.

P. Venkatarajan *14/4/18*

P. VENKATARAMAN
Sr. MANAGER
Hot Mill Mech. Maintenance
SSTD / BHEL
TRICHY - 620014.