

	Technical Delivery Condition (TDC) FOR CARBON STEEL STRUCTURAL PLATES (Thickness 55mm to 200mm)	Dqc Ref:	TDC:RTG:051
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1.0 SCOPE

- 1.1 This TDC specifies the requirements for the supply of plates as per ASTM A 36.
- 1.2 The size and quantity shall be as per purchase order.

2.0 MATERIAL AND PROPERTIES

- 2.1 The steel shall be fully killed.
- 2.2 The chemical composition and mechanical properties shall be carried out at NABL approved laboratory.

3.0 HEAT TREATMENT

- 3.1 All the plates shall be supplied in normalized condition.

4.0 NDT

- 4.1 The plates shall be ultrasonically tested as per ASTM A 435.

4.2 ACCEPTANCE CRITERIA

- 4.2.1 Any discontinuity indication causing a lot of 95% or more of the reference back reflection which can not be contained within a circle , the diameter of which is 3 inch or one half of the plate thickness, whichever is greater, is unacceptable.

5.0 DIMENSION AND TOLERANCES

- 5.1 This TDC is applicable to thickness from 55mm to 200mm.
- 5.2 The dimension tolerances shall be as per ASTM A6.

6.0 FREEDOM FROM DEFECTS

- 6.1 Repair of defects by fusion welding is prohibited.
- 6.2 The plates shall be free from Mill scale, cracks, laminations and any other defects.
- 6.3 Whenever defects are removed by Mechanical means, it shall be ground and smoothly merged. However, the dimension of the plates shall not be less then the requirement as given in purchase order.

7.0 MARKING

- 7.1 Each plate shall be hard stamped with the following details alongwith the rolling direction.
 - a) Purchase order number
 - b) Size and specification
 - c) Heat/Melt number
 - d) Maker's emblem

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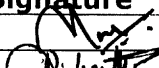
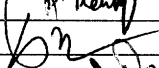
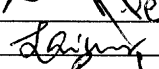
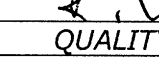
8.0 TEST CERTIFICATE

8.1 The supplier shall furnish the test certificate in English. It shall contain the following information:

- Purchase order number and date
- TDC number
- Specification and grade
- Size, number and weight
- Chemical composition – Meltwise
- Mechanical properties – Meltwise/heat treatment batchwise
- H T Condition
- Dimension report
- Ultrasonic Testing Results

8.2 BHEL may choose to inspect the plates during manufacturing / testing.

8.3 BHEL reserves the right to carry out test and to reject the items wherever nonconformance to the contract is noticed, even during manufacturing process.

Prepared by 	Reviewed by	Signature    	Approved by  (Head/QA) 19/12/2015
	ENGG(APH)		
	QC(Proc)		
	Material Planning.		
	Purchase		
	Quality Control		
	QA		
Issued by		QUALITY ASSURANCE	

Record of Revision

Rev No	Date	Revision details
00	14-12-1988	Original Issue
01	22-07-1993	Controlled copy No. and record of revision page added
02	29-07-1999	CL 8.1 j & h modified
03	19-10-2015	CL 2.2, CL 5.1, CL 8.2 & CL 8.3 modified