

ITEM NO 1 / MATERIAL CODE AA7248105015

Sl No	Bid Requirement / Allowed Values	Vendor's compliance / Remark
1	DEE SHACKLE GRADE 30 SPEC: AA7248105 REV: 01 1) DIMENSIONS, TOLERANCE, FINISH & GEN. REQUIREMENT TO IS:6132[PT-1-1971 REAFMD 1991 &PART-2-1972, REAFMD 1991] 2) MATERIAL OF BODY & PINS-CARBON STEEL CONFORMING TO IS:1875 CLASS2, MIN.TENSILE STRENGTH OF 410N/MM SQ. [42KGF/MM SQ] 3) HEAT TREATMENT-ALL BODIES AND PINS AS PER IS:6132 [PART I-1971 REAFMD 1991]. 4) HARDNESS=120 TO 170 HB 5) TYPE OF PINSCREWED PIN WITH EYE AND COLLAR. 6)THREADS COARSE PITCH TO IS 4218,7) MARKING AS PER IS6132 [PART I- 1971, REAFMD 1991]. STATUTORY REQUIREMENT AS PER I.S.& FACTORY ACT "TEST CERTIFICATE SHOULD BE SIGNED BY A COMPETENT PERSON DULY AUTHORIZED BY DIRECTOR/CHIEF INSPECTOR OF FACTORIES AS PER REQUIREMENT OF CHAPTER-1, CLAUSE- 2(CA) OF FACTORY ACT 1948". SIZE: SWL 1.0 T	ACCEPTED
2	MATERIAL SUPPLIED SHALL BE STRICTLY AS PER ENCLOSED SPECIFICATION NO.: AA7248105 REV: 01	ACCEPTED
3	GUARANTEE CERTIFICATE REQUIRED FOR 12 MONTHS FROM THE DATE OF MATERIAL DESPATCH.	ACCEPTED
4	TEST CERTIFICATE REQUIRED ALONG WITH SUPPLY OF MATERIAL.	ACCEPTED
5	As per GEM GTC 4.0 (Version 1.1) Clause No. f - "The participation by the Seller in e-bidding shall be construed as his / her acceptance for all the Terms and Conditions as outlined in the e-bidding including GTC, STC and ATC".	ACCEPTED

NOTE:

- 1) Please provide signed and stamped copy of this sheet as an acceptance to Bid Requirement/ Allowed Values.
- 2) Specification is attached.
- 3) ITC Applicable.

Sign & Stamp of bidder

ITEM NO 2 / MATERIAL CODE AA7248105139

Sl No	Bid Requirement / Allowed Values	Vendor's compliance / Remark
1	DEE SHACKLE GRADE 30 SPEC: AA7248105 REV: 01 1) DIMENSIONS, TOLERANCE, FINISH& GEN. REQUIREMENT TO IS:6132 [PT-1-1971 REAFMD 1991 &PART-2-1972, REAFMD 1991] 2) MATERIAL OF BODY & PINS-CARBON STEEL CONFORMING TO IS:1875 CLASS2, MIN. TENSILE STRENGTH OF 410N/MM SQ. [42KGF/MM SQ] 3) HEAT TREATMENT-ALL BODIES AND PINS AS PER IS:6132 [PART I-1971 REAFMD 1991]. 4) HARDNESS=120 TO 170 HB 5) TYPE OF PINSCREWED PIN WITH EYE AND COLLAR.6) THREADS COARSE PITCH TO IS 4218,7) MARKING AS PER IS6132 [PART I- 1971, REAFMD 1991]. STATUTORY REQUIREMENT AS PER I.S.&FACTORY ACT "TEST CERTIFICATE SHOULD BE SIGNED BY A COMPETENT PERSON DULY AUTHORIZED BY DIRECTOR/CHIEF INSPECTOR OF FACTORIES AS PER REQUIREMENT OF CHAPTER-1, CLAUSE- 2(CA) OF FACTORY ACT 1948". SIZE: 16 SWLT	ACCEPTED
2	MATERIAL SUPPLIED SHALL BE STRICTLY AS PER ENCLOSED SPECIFICATION NO.: AA7248105 REV: 01	ACCEPTED
3	GUARANTEE CERTIFICATE REQUIRED FOR 12 MONTHS FROM THE DATE OF MATERIAL DESPATCH.	ACCEPTED
4	TEST CERTIFICATE REQUIRED ALONG WITH SUPPLY OF MATERIAL.	ACCEPTED
5	As per GEM GTC 4.0 (Version 1.1) Clause No. f – "The participation by the Seller in e-bidding shall be construed as his / her acceptance for all the Terms and Conditions as outlined in the e-bidding including GTC, STC and ATC".	ACCEPTED

NOTE:

- 1) Please provide signed and stamped copy of this sheet as an acceptance to Bid Requirement/ Allowed Values.
- 2) Specification is attached.
- 3) ITC Applicable.

Sign & Stamp of bidder



CORPORATE STANDARD

AA 724 81 05

Rev. No. 01

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DEE SHACKLES – GRADE 30

1.0 SCOPE:

This standard covers Dee shackles of grade 30 having screwed pin with eye and collar, suitable for safe working load (SWL) for 1 to 63 tonnes.

2.0 DESIGNATION:

A dee shackle of grade 30, suitable for safe working load of 2 tonnes shall be designated as:

2.1 On Drawings:

- i) Material specification column : AA 724 81 05.
- ii) Description column : DEE SHACKLE, GR. 30, SWL – 2T.

2.2 For placing indents on purchase:

DEE SHACKLE GRADE 30, SWL-2T; AA 724 81 05.

2.3 For issuing enquiries and placing purchase orders:

While issuing enquires and purchase orders, delete BHEL standard number from above description and add the information given under clause 3.0.

3.0 COMPLIANCE WITH STANDARDS:

3.1 DIMENSIONS , FINISH, TOLERANCE AND GENERAL REQUIREMENTS:

As per IS:6132 - 1972, part I & II

3.2 MATERIAL:

The body and the pin of the dee shackles shall be manufactured from the carbon steel conforming to IS : 1875 –1992, class 2 having minimum tensile strength of 410 N/mm² (42 kgf/mm²),

3.3 HEAT TREATMENT : All bodies and pins of the dee shackles shall be heat treated as specified in IS : 6132, part I.

3.4 HARDNESS : 120 to 170 HB.

3.5 TYPE OF PIN : Screwed pin with eye and collar.

3.6 THREADS : Coarse pitch to IS : 4218, part 2 -2001.

3.7 MARKING : As stated in IS : 6132, part I .

Revisions :

19.8.23 of MOM of WG-SMC+RP

APPROVED :

INTERPLANT
STANDARDIZATION COMMITTEE-(SMC+RP)

Rev. No. 01

Amd.No.

Prepared

Issued

Dt. of 1st Issue

Dt:15.12.2003

Dt :

Year :


BHOPAL

Corp. R&D

FEB, 1978

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CS-0101

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4.0 TEST CERTIFICATES:

Manufacturer shall supply with each batch of material, three copies of test certificates containing the following information:

In addition, the supplier shall ensure to enclose one copy of the test certificate along with their despatch documents to facilitate quick clearance of the material.

For each batch:

AA 7248105, Rev 01: Dee shackles Gr.: 30
 BHEL order No.
 Date of testing
 No. & Size
 Hardness range
 Mechanical properties, Tensile strength & % of elongation
 Details of heat treatment
 Manufacturer's name

For each item:

Manufacturer's identification No.
 Safe working load (kg)
 Proof load applied

5.0 PROOF LOAD:

As specified in IS:1632, part II, each Dee shackle after manufacture and subsequent heat treatment shall be subjected to a proof load at the centre of the pin as per table-2. IS:1632, part II which it shall withstand without showing permanent set. After removal of the proof load each shackle shall be thoroughly examined and shall be accepted only if found free from visible flaw or defect.

6.0 MAXIMUM LOAD:

It is recommended that for normal conditions of use, the maximum load for any Dee shackle shall not exceed the safe working load.

7.0 PRECAUTIONS:

Periodical inspection /examination shall be done of Dee shackles and when the threads show signs of damage or the bow of Dee shackle shows appreciate bruising, the Dee shackle shall be scrapped.



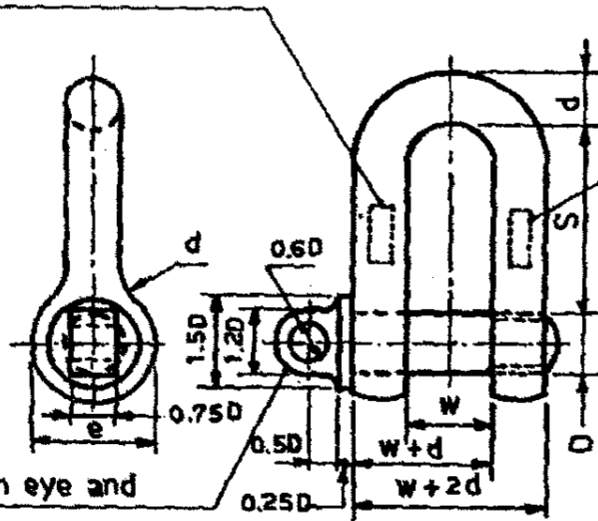
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Safe working load S.W.L.



Identification mark and symbol

Note :-

1. Corporate Sub-codes have been shown against corporate rationalised sizes.
2. Sizes used by individual plants are covered in annexure along with complete code nos.
3. The weight details are not given in the table, since they are not available at present.

Screwed pin with eye and collar

All dimensions in mm

Safe working load S. W. L. tonnes	Jaw inside width W	Inside length $S=2.2W$	Body material diameter d	Pin diameter D min	Eye outside diameter e min	Weight (Approx) per piece kg	Sub-Code
0.4	18	40	10	12	24	-	317
0.6	20	44	12	14	28	-	325
1.0	22	49	14	16	32	1	015
1.25	25	55	16	19	38	1.5	023
1.6	28	62	17	20	40	2.5	031
2.0	32	70	19	22	44	3.0	040
2.5	34	79	22	26	52	3.0	
3.2	40	88	24	26	56	3.5	066
4.0	45	99	27	31	62	3.5	074
5.0	50	110	30	36	70	4	082
6.3	56	124	34	39	78	8	
8.0	63	139	38	44	88	11	
10.0	70	154	43	50	100	12	
12.5	80	176	48	55	110	13	
16.0	90	198	54	62	124	15	
20.0	100	220	60	69	138	24	
25.0	107	236	66	78	152	27	
32.0	117	258	71	82	164	30	
40.0	130	286	79	91	182	33	
50.0	140	308	84	97	192	36	
63.0	153	337	93	110	220	40	