



**PLANT STANDARD
HYDERABAD**

HY7248168

REV. NO. 00

PAGE 1 OF 3

SWIVEL HOIST RINGS

1.0 SCOPE

The standard specifies the requirements and technical details of swivel hoist rings (Center pull) to be used for lifting loads in the range of 0.4T to 100T SWL

2.0 DESIGNATION

A Swivel hoist ring to this standard shall be designated as follows:

2.1 On Purchase Requisitions: Bolt thread size and Rated load

Example (Metric system): A swivel hoist ring of bolt size M20 x 2.5 and rated capacity 2.2Ton

(UNC system): A swivel hoist ring of size ¾" - 10 and rated capacity 5000 lbs.

2.2 On Enquiries and Purchase Orders: In addition to incorporating the above description a copy of this standard shall be enclosed

3.0 TECHNICAL REQUIREMENTS

3.1 Type of hoist ring : Safety hoist ring (centre pull)

3.2 Material : Hoist ring shall be manufactured from alloy steel having a minimum Tensile Strength 180000 psi.

3.3 Factor of safety : 5:1 (MPI to be done as per ASTM 1444)

3.4 Range of movement : Swivel-360°, Pivot-180° under load

3.5 Finish : Black oxide finish for corrosion resistance

3.6 Performance : Hoist rings should retain same load from 0 to 90 degree from bolt axis, standard tolerance +/- 0.76 mm

3.7 The working loads for different swivel hoist rings in metric system are given in Table1 and UNC system in Table 2.

4.0 PROOF LOAD TEST

4.1 Each hoist ring after manufacture and subsequent heat treatment shall be subjected to a proof load of twice the maximum load, which it shall withstand without showing permanent set. After the removal of proof load, each hoist ring shall be thoroughly examined and shall be accepted only if found free from visible flaw or defects

Revisions:

Issued :

**STANDARDS ENGINEERING & IPR
COORDINATION DEPARTMENT**

Rev.No.	Amd. No.	Reaffirmed:	Prepared:	Approved:	Dt. of 1st issue:
Dt.	Dt.	Year:	ENGINEER, (M&S-CRANES)	Sr. DGM (TS)	OCT. 2014

Copyright and Confidential
The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED.
It must not be used directly or indirectly in any way detrimental to the interest of the company.



5.0 ROUTINE TESTS

Swivel hoist rings shall be subjected to the following tests.

- 5.1 Tensile testing on sample
- 5.2 Fatigue test – 20,000 cycles at 1.5 times the working load limit
- 5.3 Visual inspection for any damage of threads

6.0 TEST CERTIFICATE

Three copies of the test certificate for each swivel hoist ring shall be provided along with swivel hoist ring.

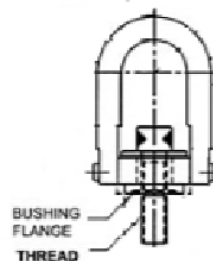
7.0 MARKING

- 7.1 Each swivel hoist ring should be engraved at a suitable place for below items
 - a) Manufacturer's name
 - b) Manufacturer's Part ID number
 - c) The Working Load Limit, bolt size and recommended Torque

8.0 PACKING

The swivel hoist ring shall be packed suitably to avoid damage in transit.

9.0 SAMPLE PICTURE OF SWIVEL HOIST RING





PLANT STANDARD
HYDERABAD

HY7248168

REV. NO. 00

PAGE 3 OF 3

Table. 1 (Metric System)

S.No.	Working Load Limit (Kg)	Bolt Size	12 digit code
1	1050	M12x1.75	
2	1900	M16x2.0	
3	2200	M20x2.5	
4	3000	M20x2.5	
5	4500	M30x3.5	
6	7000	M30x3.5	
7	11000	M36x4.0	
10	13500	M48x5.0	
8	22500	M64x6.0	
9	44600	M90x6.0	
11	51000	M90x6.0	

Table. 2 (UNC System)

S.No.	Working Load Limit (lb)	Bolt Size	12 digit code
1	2500	½"-13	HY7248168637
2	4000	5/8"-11	HY7248168653
3		¾"-10	HY7248168696
4	8000	7/8"-9	HY7248168726
5	10000	1"-8	HY7248168734
6	15000	1-1/4"-7	HY7248168750
7	150000	4-1/4"- 4	
8	200000	5" - 4	
9	250000	6" - 4	

Copyright and Confidential

The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED.
It must not be used directly or indirectly in any way detrimental to the interest of the company.