



**NOTE :-**

1. LOADING SHOULD BE SYMMETRICAL W.R.T. LONGITUDINAL AXIS AS WELL AS TRANSVERSE AXIS PASSING THROUGH CENTRE OF WAGON FLOOR AND ENSURING EVEN LOAD ON ALL WHEELS.
2. IN CASE HR SHEETS /PLATES ARE LOADED IN LAYERS SEPARATED WITH WOODEN RUNNERS AS PER CUSTOMER'S REQUIREMENT, WOODEN RUNNERS OF SIZE 100MMX50 MM.
- ① ARE PROVIDED IN INTERMEDIATE LAYERS IN ADDITION TO THE BOTTOM WOODEN RUNNER OF SIZE 100MMX100 MM.
3. HEIGHT TO WIDTH RATIO OF CONSIGNMENT SHOULD NOT EXCEED 1.5 IN ANY CASE.
4. LENGTH OF WOODEN RUNNER MUST BE MORE THAN WIDTH OF LAYERS.
5. STRAPPING SHOULD BE SYMMETRICAL AND THE END STRAPS SHOULD NOT MORE THAN .5M AWAY FROM EDGES AND MAXIMUM DISTANCE BETWEEN IMMEDIATE STRAPS IS 1.5 M.
6. ALL HR SHEETS/PLATES ARE TO BE SECURED USING HEAVY DUTY STEEL STRAPS AS INDICATED
7. NO. OF WOODEN RUNNER PER HR SHEETS/PLATES SHALL NOT BE LESS THAN AS INDICATED
8. LOADING OF HR SHEETS/PLATE SHOULD BE SUCH THAT :-  
 8.1 THE LOAD SHOULD NOT EXCEED WAGON'S MAXIMUM PERMISSIBLE AXLE LOAD.  
 ① 8.2 THE WEIGHT IMPOSED ON BOTH THE BOGIES SHOULD BE IDENTICAL (EVEN IN CASE OF NON STANDARD HR SHEETS/PLATES).
9. STEEL STRAP SHALL BE CONFIRMING TO EN 13246 TYPE 3.2 OR EQUIVALENT.
10. H.R. SHEETS/PLATES SHOULD BE IN BUNDLE NOT LESS THAN 1 TONNE.
11. SIDE STANCHION (L.H. & R.H.) MUST BE ENSURED IN UPRIGHT POSITION AFTER LOADING AND IN DOWNWARD POSITION DURING LOADING/UNLOADING.
12. THE MINIMUM NO. OF EACH TYPE OF LONGITUDINAL/LATERAL STRAPS SHALL BE AS INDICATED IN THE DRAWING.
- ① 13. THE INITIAL TENSION IN THE STRAP SHALL BE IN THE RANGE OF 300kg TO 500kg.
14. WOOD OF ADEQUATE STRENGTH WHICH CAN SUSTAIN THE LOAD IMPARTED ON IT SHALL BE USED.
15. SECURING ARRANGEMENT SHALL BE CERTIFIED BY THE CONCERN RAILWAY.
16. THIS RDSO DRAWING IS AN INDICATIVE DRAWING AS THE SIZE AND SHAPE OF CONSIGNMENT VARIES. THE CONSIGNEE MAY TAKE ADDITIONAL MEASURE TO SECURE THE LOAD FOR SAFE OPERATION.

**① SPECIFICATION FOR STEEL STRAP**

S. No.	PURPOSE	WIDTH (IN MM)	THICKNESS (IN MM)	PERCENTAGE ELONGATION MIN.	TENSILE ST. (N/MM <sup>2</sup> )	PHYSICAL
1.	FOR BUNDLING & UNITISING	31.75	1.0	6	925	DEBURRED EDGE PAINTED & WAXED
2.	FOR SECURING WITH WAGON BODY	31.75	1.0	6	925	DEBURRED EDGE PAINTED BROWN & WAXED

ITEM	DESCRIPTION	NO.OFF	MTL&SPEC	REMARKS
6	ISOLATION HOOK	AS PER REQUIREMENT	WD-15057-S-06	
5	HIGH TENSILE STEEL STRAP (FOR SECURING WITH WAGON BODY)	AS PER REQUIREMENT	EN 13246 TYPE 3.2	①
4	HIGH TENSILE STEEL STRAP (FOR BUNDLING & UNITIZATION)	AS PER REQUIREMENT	EN 13246 TYPE 3.2	
3	INTERMEDIATE WOODEN RUNNER	AS PER REQUIREMENT	WOOD	
2	WOODEN RUNNER	AS PER REQUIREMENT	WOOD	
1	HR SHEETS/PLATES	AS PER REQUIREMENT	STEEL	

ITEM	DESCRIPTION	NO.OFF	MTL&SPEC	REMARKS
SUPERSEDED BY				
SUPERSEDES		DATE		
SCALE PASSED		S.M.TRIPATHI 01/22		
CHECKED		A.P.SINGH 01/22		
DRAWN		SACHIN KUMAR 01/22		
TRACED				
COMPARED				
J.S.NO.		WD-21112 12/21		

**LOADING AND SECURING ARRANGEMENT OF HR SHEETS/PLATS ON BRN & ITS VARIANTS**

ALT.	ITEM	AUTHY.	DESCRIPTION	DATE	ASSLY. DRGS.	GROUP	WD-21112-S-03
①	-	WD-23075	NOTE NO. 11 TO 16 ADDED.	08/23	-	B.G.	R.D.S.O. [W]