

WEIGHT OF SPAN IN TONNES			
STEEL GIRDER	SLAB	BEARINGS	TOTAL
48.61	89.47	2.54	140.62

THE TOTAL WEIGHT OF SPAN INCLUDES WEIGHT OF RIVET HEADS AND WELD @ 2%

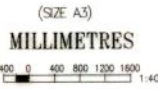
RELATED DRAWINGS		
S. No.	DESCRIPTION (A3)	REFERENCE
1.	DETAILS OF DECK SLAB FOR STRAIGHT TRACK	RDSO/B-11751/1
2.	DETAILS OF X-FRAME & END DIAPHRAGM	RDSO/B-11751/2R
3.	DETAILS OF SPLICE JOINT & STUD SHEAR CONNECTOR	RDSO/B-11751/3R
4.	DETAILS OF BEARING	RDSO/B-11751/4R1
5.	ASSEMBLY DRAWING AND PART & SHIPPING LIST	RDSO/B-11751/5R
7.	WELDING SEQUENCE	RDSO/B-11751/6R
8.	DETAILS OF DECK SLAB FOR CURVED TRACK UPTO 4°	RDSO/B-11751/8

- EXTRA HOLES MAY BE MADE IN INTERMEDIATE STIFFENERS NOT CARRYING X-FRAMES FOR SHUTTERING PURPOSE WITH MINIMUM SPACING OF 100MM. NO GAS CUT HOLES SHALL BE MADE.
- THE GIRDER HAS BEEN CHECKED FOR LAUNCHING AS SINGLE PIECES WITHOUT ANY BRACING. SINGLE GIRDER LEAF CAN BE HANDLED NEAR THE BEARING STIFFENER.
- THERE ARE NO TOP LATERAL BRACING REQUIRED IN THIS GIRDER. FOR PLAN DETAILS OF SPLICE PLATES FOR TOP FLANGE, REFER DRAWING NO. RDSO/B-11751/3R.
- ALL SHOP AND FIELD RIVET HOLES ARE 23.5 DIA. FOR 22 DIA. RIVETS EXCEPT WHERE OTHERWISE SHOWN.
- STUD SHEAR CONNECTORS SHOULD BE WELDED TO TOP FLANGE COVER PLATE. SHEAR CONNECTORS SHALL BE WELDED TO TOP FLANGE/SPLICE TOP COVER PLATE USING AUTOMATIC STUD WELDING GUN.
- THE STUD SHEAR CONNECTORS HAVE BEEN SHOWN IN PLAN ONLY AT SPLICE LOCATIONS. IF REQUIRED THE LOCATION OF STUD MAY BE SHIFTED SLIGHTLY TO ACCOMMODATE THE RIVETS FOR TOP LATERAL BRACING.
- STUD SHEAR CONNECTORS SHOULD BE WELDED TO THE TOP FLANGE SPLICE CONNECTION.
- ALL INTERMEDIATE STIFFENERS SHALL BE RIVETED TO THE WEB AND NOT WELDED TO FLANGE. THE INTERMEDIATE STIFFENERS SHALL BE MACHINE FIT WHEREVER THESE TOUCH THE FLANGES.
- END STIFFENERS SHALL BE CONNECTED TO WEB BY 10 mm FILLET WELD ALL AROUND, INCLUDING WITH FLANGES.
- FILLET WELDS IN FLANGES TO WEB CONNECTION SHALL BE MADE BY AUTOMATIC SUB-MERGED ARC WELDING TECHNIQUE. OTHER WELDS ALSO TO BE MADE BY SUB-MERGED ARC WELDING PROCESS TO THE MAX. EXTENT POSSIBLE.
- ALL WELDS TO BE MADE BY USING APPROVED WELDING PROCEDURES AND BY QUALIFIED WELDERS.
- THE DECK SLAB FOR STRAIGHT TRACK SHALL BE AS PER RDSO/B-11751/1 AND THAT FOR TRACK WITH CURVED ALIGNMENT UPTO 4 DEGREES SHALL BE AS PER RDSO/B-11751/8.
- CENTRIFUGAL FORCES FOR 4° CURVE AND SEISMIC FORCES FOR ZONE V HAVE BEEN CONSIDERED IN DESIGN. STANDARD ECCENTRICITY OF 100 MM AND CURVATURE ECCENTRICITY OF 97 MM HAS BEEN CONSIDERED IN DESIGN. THE TRACK SHALL BE LAID ON CURVE AS INDICATED IN DRG. NO. RDSO/B-11751/2R.
- DESIGN IS SUITABLE FOR BALLAST CUSHION FROM 300 TO 400 mm.
- THIS DESIGN IS SUITABLE FOR 50 CMT TRAFFIC FOR 100 YEARS OF 25t LOADING AS PER FATIGUE PROVISIONS.
- THIS DESIGN IS IN ACCORDANCE WITH IRS BRIDGE RULES, STEEL BRIDGE CODE, WELDED BRIDGE CODE, CONCRETE BRIDGE CODE, SHEAR CONNECTOR DESIGN CODE IS: 3935, BS-5400 AND UIC BEARING DESIGN CODE-772-2R.
- THE GIRDER IS SYMMETRICAL ABOUT CENTRE LINE ON RIGHT SIDE.
- ALL DIMENSIONS ARE IN MILLIMETRES.

DESCRIPTION	RIVETS	SHOP FIELD
SNAP HEAD	⊕	⬤
FILLET WELD (ONE SIDE)	—	—
FILLET WELD (BOTH SIDES)	—	—

S. No.	MEMBER	FATIGUE LOADS		WITH OCCASIONAL LOADS	
		ACTUAL (MODIFIED) STRESS RANGE Kg/mm ²	ALLOWABLE STRESS RANGE Kg/mm ²	ACTUAL STRESS Kg/mm ²	ALLOWABLE STRESS Kg/mm ²
1	TOP FLANGE PLATE	2.95 (3.84)	10.55	13.46	16.57
2	BOTTOM FLANGE PLATE (ON NET AREA)	6.53 (8.49)	10.55	15.36	16.57
3	WEB PLATE	3.94 (5.12)	8.86	8.55	10.15

IRC : IS PART II-1987
 STEEL FOR EVERY MEMBER : S. 3082 & 80
 EXCEPT STUD : FULLY KILLED & FULLY NORMALISED
 STUD STEEL : IS: 3935
 UIC BEARING DESIGN CODE : 772-2R
 BS CODE : BS-5400
 SHEAR CONNECTOR DESIGN CODE : IS: 3935
 SCHEME OF SYMBOLS FOR WELDING : IS: 813
 METAL ARC WELDING : IS: 9595
 SUBMERGED ARC WELDING : IS: 4353
 ELECTRODES : IRS M-29
 WIRE FLUX COMBINATION FOR SAW : IRS M-39
 FABRICATION SPECIFICATION No. IRS/B1-2001, REVISED-2008



NOTES

SPECIFICATION

SCALE

ALT. DESCRIPTION DATE

RDSO/B-11751/R

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R. D. S. O.
 "25t LOADING-2008"
 COMPOSITE GIRDER-WELDED TYPE
 24.4m SPAN (NEW FATIGUE CRITERIA)
 (UPTO 4° CURVE)
 DETAILS OF MAIN GIRDER
 PROVISIONAL DATE-22.10.2013