SUSPENDER LIST

Suspender number		
Cable centre to centre distance c/c		
Total suspender length ℓ = c/c - 542 mm		
Length of extra piece ℓ_r		
Cutting length of extra piece $\ell_c = \ell_r$ + 180 or 240		
Number of standard length pieces		
Suspender number		
Cable centre to centre distance c/c		
Total suspender length ℓ = c/c - 542 mm		
Length of extra piece ℓ_r		
Cutting length of extra piece $\ell_c = \ell_r$ + 180 or 240		
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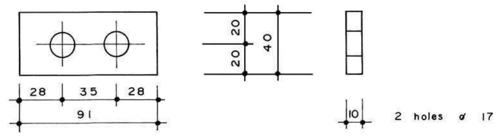
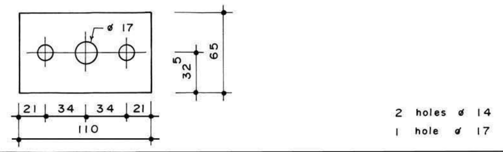
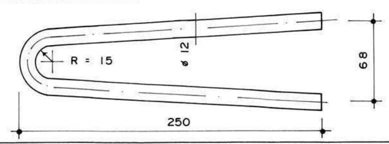
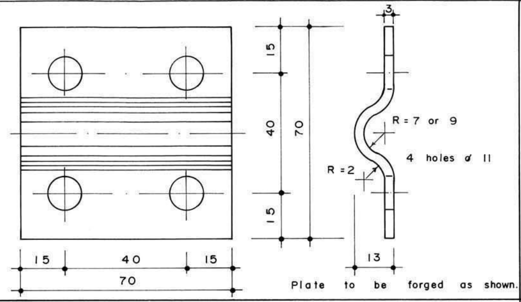
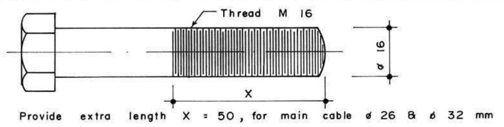
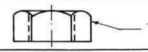
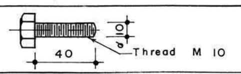
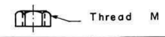
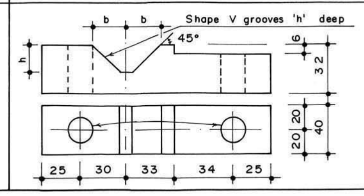
Cutting length of extra piece $\ell_c = \ell_r$ + 180 or 240		
Number of standard length pieces		
Suspender number		
Cable centre to centre distance c/c		
Total suspender length ℓ = c/c - 542 mm		
Length of extra piece ℓ_r		
Cutting length of extra piece $\ell_c = \ell_r$ + 180 or 240		
Number of standard length pieces		

STEELPART LIST

Part no		Section (mm)	Quantity	Working Drawing (Dimension in mm)	Length Single/pc mm	Length total m	Weight kg/pc	Weight total kg	Surface to be painted m²/pc	Surface total m²	Total weight (Finished) Galvanized kg	Remarks
1	a	Flat 40/10 ℓ = 91		 2 holes ø 17	91	0.09	0.25	0.25	0.01	0.01	0.26	
	b1	Rod ø 12 of different lengths		See suspender list for number of suspenders and their lengths, weight and surface to be painted / Galvanized for two third span								
	b2	Rod ø 16 of different lengths		See suspender list for number of suspenders and their length, weight and surface to be painted / Galvanized for one third span at middle span								
	c	Flat 65/10 ℓ = 110	1	 2 holes ø 14, 1 hole ø 17	110	0.11	0.52	0.52	0.01	0.01	0.53	
	d	Rod ø 12 ℓ = 510	1		510	0.51	0.45	0.45	0.02	0.02	0.47	Weight of one -Welded unit = 1.223 kg -Galvanized unit = 1.249 kg. Part nos. 1 (a-d) to be welded together as shown in fabrication detail.
2		Plate 80/70/3	2	 4 holes ø 11. Plate to be forged as shown.	—	—	0.12	0.25	0.01	0.02	0.26	
3		Hexagonal olt M 16 x 120 IS 1363	2.10	 Provide extra length X = 50, for main cable ø 26 & ø 32 mm. Use standard length X = 38, for main cable ø 36 & ø 40 mm	—	—	0.22	0.46	Galvanized			5 % extra pieces Ref. IS 1363-1967
4		Hexagonal ut M 16 IS 1363	4.20	 Thread M 16	—	—	0.03	0.13	Galvanized			5% extra pieces Ref. IS 1363-1967
5		Spring Washer ø 17	1.05	Spring washer as per IS 3063 - 1972	—	—	0.01	0.01	Galvanized			5 % extra pieces
6		Hexagonal Screw M 10 x 40 IS 1363	4.2	 Thread M 10	—	—	0.03	0.14	Galvanized			5 % extra pieces Ref. IS 1363-1967
7		Hexagonal Nut M 10 IS 1363	4.2	 Thread M 10	—	—	0.01	0.03	Galvanized			5 % extra pieces Ref. IS 1363-1967
8		Square Bar 40 ℓ = 147	2	 Shape V grooves 'h' deep. Cable ø 26: h 11, b 15	151	0.30	1.22	2.44	0.02	0.04	2.47	For main cable ø 26 mm
				Cable ø 32: h 13, b 17.5	151	0.30	1.21	2.42	0.02	0.04	2.44	For main cable ø 32 mm
				Cable ø 36: h 15, b 20.5	151	0.30	1.17	2.34	0.02	0.04	2.36	For main cable ø 36 mm
				Cable ø 40: h 18, b 23	151	0.30	1.14	2.28	0.02	0.04	2.29	For main cable ø 40 mm

TOTAL (1-8) EXCLUDING PART 1b

(Note: The quantities shown above are for each suspender)

NOTES:

1) All nuts have to be retightened after erection.
2) All nongalvanized threads have to be painted in site with coaltar after retightening of the nuts.
3) All steelparts have to be painted with final coat after bridge erection, only if not galvanized.
4) To obtain uniformity, use of templates and jigs is mandatory for holing, bending and welding of assembly.
5) All parts or bundles and packages with identical parts have to be labelled or marked with the respective part number by the workshop.

	Item		Total weight (kg)
1	Structural steel, standard parts		
	Main cable ø mm	Total weight (kg)	
	26	N x 3.91	... ...
	32	N x 3.89	
	36	N x 3.81	
	40	N x 3.75	
	Part no. 1b		... ...
	Total		... ...
2	Screws, bolts, nuts, washers. Standard parts: Total weight = N x 0.77 kg.		
	Total 1 + 2		

TOTAL TRANSPORTATION WEIGHT : ... ... kg

Total weight of Suspender rods :		kg.
Total weight (Finished) of Suspender rods Galvanized :		kg.
Total paint surface of Suspender rods :		m²
Total number of Suspender N :		

(Suspender number 1 : 2 pieces, all other Suspender numbers : 4 pieces)

WEIGHT	Total Weight of Suspender Rods from Suspender List	... ... kg
	Total Weight of Other Parts = X x N kg	... ... kg
	GRAND TOTAL	... ... kg
SURFACE	Total Surface of Suspender Rods to be Painted from Suspender List	... ... m²
	Total Surface of Other Parts to be Painted = Y x N m²	... ... m²
	GRAND TOTAL	... ... m²
Weight to be Galvanized	Suspender Rods to be Galvanized	... ... kg
	Other Parts to be Galvanized = Z x N kg	... ... kg
	GRAND TOTAL	... ... kg

Main Cable Diameter	X (kg)	Y (m²)	Total weight (Finished) Galvanized (kg)	Galvanized Weight Z (kg)
26 mm	4.66	0.10	3.99	3.91
32 mm	4.62	0.10	3.96	3.89
36 mm	4.55	0.10	3.88	3.81
40 mm	4.48	0.10	3.81	3.75

Hot Dip Galvanization : IS 2629, IS 2633

Weight of Zinc Coat : 0.61 kg / m2

MoLD / DoLIDAR / Trail Bridge Section
Long Span Trail Bridge Standard

Bridge No: Name:

Span:

Working & Assembly Drawing :

Suspenders for 2 Main Cables Main Cable ø ... ... mm.

Steelparts for one bridge

Date: August 2004 **Drawing No.** 31

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