

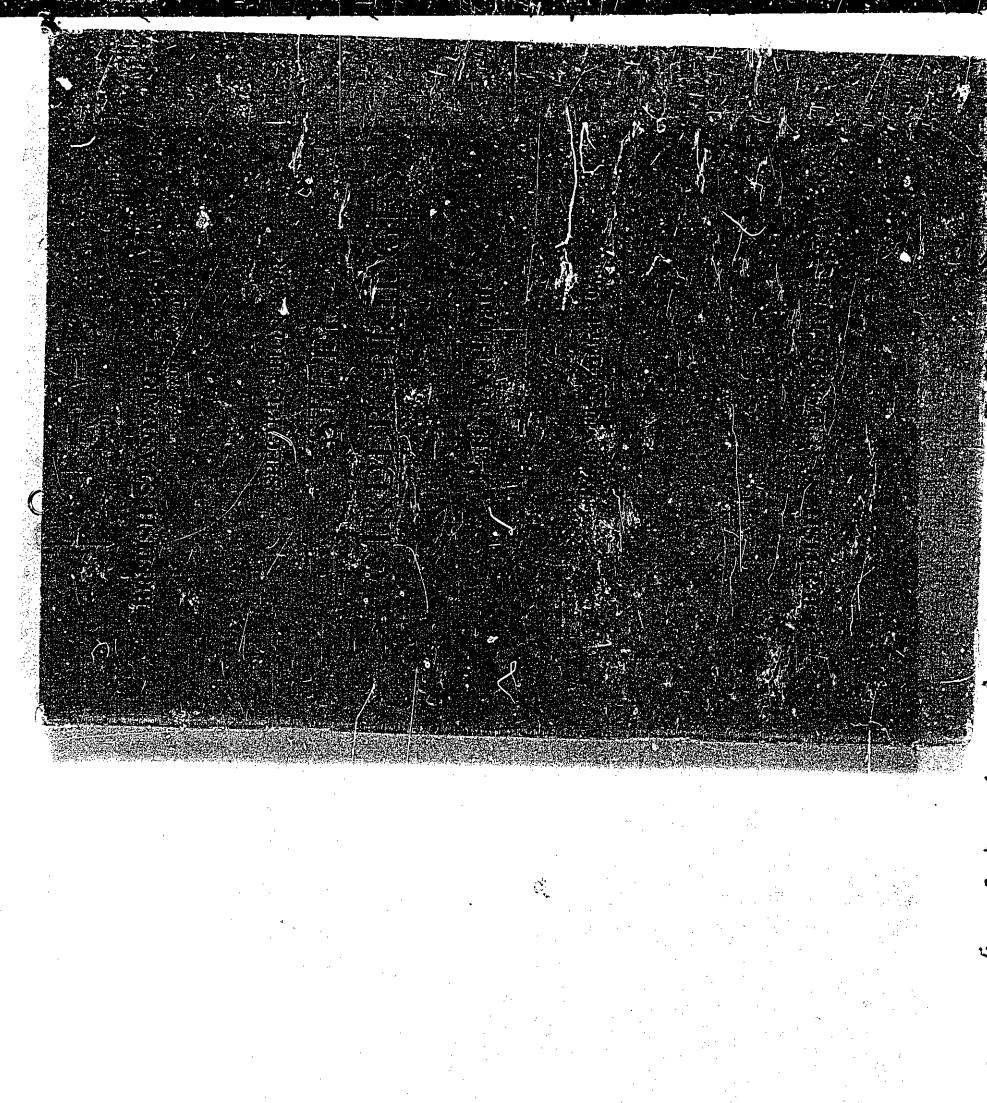
...making excellence a habit."

Please be aware that this PDF has been created from the original hardcopy document, which might not be in good condition and so the PDF might reflect this.

BSI Group 389 Chiswick High Road London, W4 4AL United Kingdom T: +44 20 845 086 9001 F: +44 20 8996 7400 cservices@bsigroup.com British Standards Limited Registered in England no: 07864997 Registered address: 389 Chiswick High Road



This is a preview. Click here to purchase the full publication.



This is a preview. Click here to purchase the full publication.

STEEL GIRDER BRIDGES SPECIFICATION FOR

Part 3A. Loads

issued January 1959 (PD 3262), March 1961 (PD 4070) B.S. 153 : Part 3A : 1954 Incorporating amendments and March 1966 (PD 5748).

BRITISH STANDARDS HOUSE, 2 PARK ST., LONDON, W.I

TELEGRAMS: STANDARDS LONDON WI

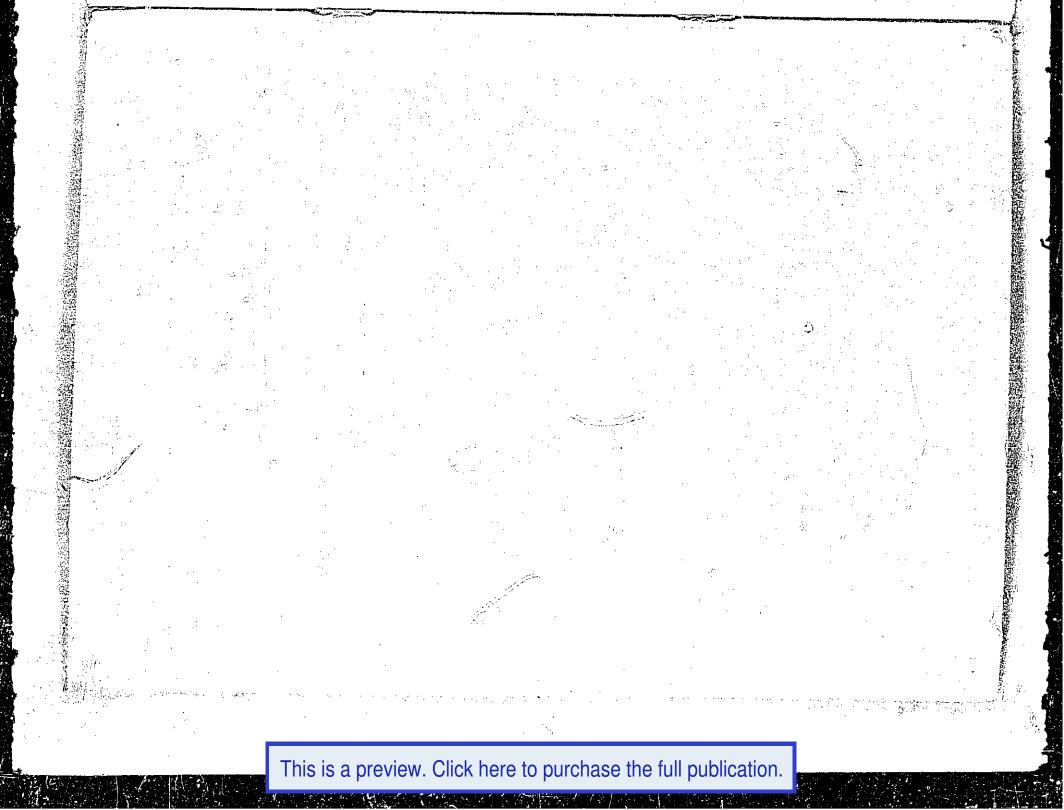
INCORPORATED BY ROYAL CHARTER

STANDARDS INSTITUTION

BRITISH

Price 15/- net

TELEPHONE: MAYFAIR 900



B.S. 153 : Part 3A : 1954

i

STATENCO CONFERENCIA

CONTENTS	Page ating organizations ed	SPECIFICATION	PART 3A. LOADS	eral 9	Forces to be taken into account	d load 9	load 10	Impact effect on highway bridges 12	Impact effect on railway bridges 12	Lurching on railway bridges 13	Nosing on railway bridges 13	Centrifugal force on railway bridges	Longitudinal force on highway bridges 14	Longitudinal force on railway bridges 14	d pressure effects 15	peiuture effect 17	Frictional resistance of expansion bearings 17	ics on parapets 17	Combination of forces 18	Effection forces and effects 18	engineer	engincer HIGHWAY LOADIN	tion forces and effects 18 norage 18 sus to be referred to the engineer 18 MX A. ISTANDARD HIGHWAY LOADING e HA loading 10	tion forces and effects 18 norage 18 east to be referred to the engineer 18 DIX A. ISTANDARD HIGHWAY LOADING e HA loading 19 e HA loading 10 fooding 19 fed intensity of Tone UA fooding 19	 17. Effection forces and effects 18. Anchorage 18. Anchorage 18. Clauses to ha referred to the engineer 18. Clauses to ha referred to the engineer 18. Clauses to ha referred to the engineer 18. Anchorage 18. Anchorage 19. Anchorage 10. Anchorage <li< th=""></li<>
	Co-operating organizations Foreword		PAF	1. General					6. Impact effect on		8. Nosing on railwa				12. Wind pressure effects	13. Temperature effect		15. Forces on parapets			 	 17. Erection forces ar 13. Anchorage Clauses to he refer APPENDIX A. ISTAN 	 17. Erection forces ar 18. Anchorage Clauses to bus refer APPENDIX A. ISTAN Al. Type HA loadim 	 17. Erection forces an 18. Anchorage 18. Anchorage Clauses to be refer APENDIX A. ISTAN APENDIX A. Istanting A1. Type HA loading A2. Varied intensity of 	 17. Erection forces ar 18. Anchorage 18. Anchorage Clauses to be refer APPENDIX A. STAN APPENDIX A. STAN APPENDIX A. STAN APPENDIX A. STAN

1

30

A6. Equivalent abnormal loading for reinforced

concrete slabs

C

A5. Application of Type HB loading

A4. Type HB loading

......

19 25 25 -

. L.

desires to call attention to the fact that this improvements will be recorded and in due to the notice of the committees charged with fully indexed and with a note of the contents of each, will be be consulted in many public libraries and that users of British Standards should ascertain that they are in possession of the latest amendments or editions. THIS BRITISH STANDARD, having been approved by the Iron and Steel Industry Standards Committee and endorsed by published under the authority of the General Council as a British Standard does not purport to include all the necesfound in the British Standards Yearbook, price 15s. The B.S. makes reference to the following British British Standaras are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important of the Engineering Divisional Council, was In order to keep abreast of progress in the industries con-Standards are subject to periodical review. of British Standards, numbering over 4000, The following A.S.I. references relate to the work in this standard: Committee reference ISE/55. Draft for womment CO(ISE) 7622. B.S. 648. Schedule of weights of building materials. the revision of the standards to which they refer. t to Parts 3, 4 and 5, May 1925. First published (Parts 3, 4 and 5), August 1923. Second revision (Part 3A), December 1954. ;-British Standard on 31st December, 1954. First revision (Part 3), September 1937 Reset and reprinted, April 1966. of a contract. similar institutions. The Institution sary provisions cerned, British Suggestions for course brought A complete list Yearbook may This standard the Chairman Appendix No. Standard: B.S. 153 : Part 3A : 1954

B.S. 153 : Part 3A : 1954		B.S	B.S. 153 : Part 3A : 1954
CONTENTS—continued		CONTENTS—continued	, , , , , ,
APPENDIX B. STANDARD RAILWAY LOADING	ÐN		Page
	Page	moments at all points on the span, including allowance for impact, but excluding hurching	54
BI. Ucheral R2 Tyme RA loading	56 26	6. Type RB loading. Total maximum shears per	Ċ+
B3. Type RB loading	28	track, including allowance for impact but	
Lurc	29	6 rey/s.	46
B5. Dispersion of wheel loads	29	7. Types RA1 and RB loading. Loads on cross	2
APPENDIX C. IMPACT FORMULAE		girders, per track	47
C1. Foxlee-Greet formulae	49	o. A pres KAI and KB londing. Loads on rail- bearers and stringers, per rail	48
C2. The Government of India formulae	52	9. Numbers of stress cycles (in millions) for various bridge members and load groups	c v
Co. Allerical hallway Engineering Association formulae	53	squups unin contract service services and brunch	Υ. Υ
APPENDIX D		1. Londing curve for tune UA high-man	
Précis of Bridee Stress Committee's Report. 1428	54 54	2. Highway bridges type HB unit loading	5 5
		3. Railway bridges type RA1 unit loading per track for panes of 4 ft 812 in and other	5
AFFENDIA E		4. Railway bridges type R & 7 unit fording and	71
Rules for designing steel railway bridge members in accordance with Clause 24 of Part 3B	56	track for medium gauges (3 ft 6 in, 1 metre and 3 ft).	27
TABLES	470 mar	5. Railway bridges type RA3 unit loading per track for narrow pannes (2 ft 6 in and 2 ev	, c
HIGHWAY BRIDGES		6. Train and wheel speeds for various driving	7
1. Type HA loading	22	wheel diameters.	30
RAILWAY BRIDGES		1. Mailway orliges type KB unit loading.	31
2. Type RA1 loading. Normal standard unit loading for a single line of way for gauges			· ·
014 It 842 In and over 3 Type RA2 loading Normal standard mit	32		•
loading for a single line of way for			
4. Type RA1 loading. Static load per track for	oc.		
20 units	44		;
4			

1 Grail

This is a preview. Click here to purchase the full publication.