TABLE VIII SHEET AND STRIP — (*Continued*)

SHEET

1·60	1·80	2·00	2·24	2·50	2·80	3·15	3·55	4·00	Standard Nominal Thickness in mm	
Weight in kg									Standard Nominal Surface Area in m^2	Size mm × mm
21·1	23·7	26·4	29·5	33·0	36·9	41·5	46·8	52·8	1·68	2 800 × 600
26·4	29·7	33·0	36·9	41·2	46·2	51·9	58·5	65·9	2·10	750
31·7	35·6	39·6	44·3	49·5	55·4	62·3	70·2	79·1	2·52	900
35·2	39·6	44·0	49·2	55·0	61·5	69·2	78·0	87·9	2·80	1 000
38·7	43·5	48·4	54·2	60·4	67·7	76·2	85·8	96·7	3·08	1 100
42·2	47·5	52·8	59·1	65·9	73·9	83·1	93·6	105·5	3·36	1 200
44·0	49·5	55·0	61·5	68·7	76·9	86·5	97·5	109·9	3·50	1 250
49·2	55·4	61·5	68·9	76·9	86·2	96·9	109·2	123·1	3·92	1 400
52·8	59·3	65·9	73·9	82·4	92·3	103·8	117·0	131·9	4·20	1 500
24·1	27·1	30·1	33·8	37·7	42·2	47·5	53·5	60·3	1·92	3 200 × 600
30·1	33·9	37·7	42·2	47·1	52·8	59·3	66·9	75·4	2·40	750
36·2	40·7	45·2	50·6	56·5	63·3	71·2	80·3	90·4	2·88	900
40·2	45·2	50·2	56·3	62·8	70·3	79·1	89·2	100·5	3·20	1 000
44·2	49·7	55·3	61·9	69·1	77·4	87·0	98·1	110·5	3·52	1 100
48·2	54·3	60·3	67·5	75·4	84·4	95·0	110·7	120·6	3·84	1 200
50·2	56·5	62·8	70·3	78·5	87·9	98·9	111·5	125·6	4·00	1 250
56·3	63·3	70·3	78·8	87·9	98·5	110·8	124·8	140·7	4·48	1 400
60·3	67·8	75·4	84·4	94·2	105·5	118·7	133·8	150·7	4·80	1 500
27·1	30·5	33·9	38·0	42·4	47·5	53·4	60·2	67·8	2·16	3 600 × 600
33·9	38·2	42·4	47·5	53·0	59·3	66·8	75·2	84·8	2·70	750
40·7	45·8	50·9	57·0	63·6	71·2	80·1	90·3	101·7	3·24	900
45·2	50·9	56·5	63·3	70·6	79·1	89·0	100·3	113·0	3·60	1 000
49·7	56·0	62·2	69·6	77·7	87·0	97·9	110·4	124·3	3·96	1 100
54·3	61·0	67·8	76·0	84·8	95·0	106·8	120·4	135·6	4·32	1 200
56·5	63·6	70·6	79·1	88·3	98·9	111·3	125·4	141·3	4·50	1 250
63·3	71·2	79·1	88·6	98·9	110·8	124·6	140·5	158·3	5·04	1 400
67·8	76·3	84·8	95·0	106·0	118·7	133·5	150·5	169·6	5·40	1 500
30·1	33·9	37·7	42·2	47·1	52·8	59·3	66·9	75·4	2·40	4 000 × 600
37·7	42·4	47·1	52·8	58·9	65·9	74·2	83·6	94·2	3·00	750
45·2	50·9	56·5	63·3	70·6	79·1	89·0	100·3	113·0	3·60	900
50·2	56·5	62·8	70·3	78·5	87·9	98·9	111·5	125·6	4·00	1 000
55·3	62·2	69·1	77·4	86·4	96·7	108·8	122·6	138·2	4·40	1 100
60·3	67·8	75·4	84·4	94·2	105·5	118·7	133·8	150·7	4·80	1 200
62·8	70·6	78·5	87·9	98·1	109·9	123·6	139·3	157·0	5·00	1 250
70·3	79·1	87·9	98·5	109·9	123·1	138·5	156·1	175·8	5·60	1 400
75·4	84·8	94·2	105·5	117·8	131·9	148·4	167·2	188·4	6·00	1 500

(*Continued*)

TABLE VIII SHEET AND STRIP

(Continued)

STRIP

Thickness *t* mm	1·60	1·80	2·00	2·24	2·50	2·80	3·15
Width *b* mm	Weight in kg/m						
100	1·3	1·4	1·6	1·8	2·0	2·2	2·5
125	1·6	1·8	2·0	2·2	2·4	2·7	3·1
160	2·0	2·3	2·5	2·8	3·1	3·5	4·0
200	2·5	2·8	3·1	3·5	3·9	4·4	4·9
250	3·1	3·5	3·9	4·4	4·9	5·5	6·2
320	4·0	4·5	5·0	5·6	6·3	7·0	7·9
400	5·0	5·6	6·3	7·0	7·8	8·8	9·9
500	6·3	7·1	7·8	8·8	9·8	11·0	12·4
650	8·2	9·2	10·2	11·4	12·8	14·3	16·1
800	10·0	11·3	12·6	14·1	15·7	17·6	19·8
950	—	13·4	14·9	16·7	18·6	20·9	23·5
1 050	—	—	16·5	18·5	20·6	23·1	26·0
1 150	—	—	—	20·2	22·6	25·3	28·4
1 250	—	—	—	—	24·5	27·5	30·9
1 300	—	—	—		—	28·6	32·1
1 450	—	—	—	—	—	—	35·8
1 550	—	—		—	—	—	38·3

(Continued)

Note — Combinations denoted by dashes are not manufactured.

TABLE VIII SHEET AND STRIP

(Continued)

STRIP

3·55	4·00	4·50	5·0	6·0	8·0	10·0	Thickness *t* mm
Weight in kg/m							Width *b* mm
2·8	3·1	3·5	3·9	4·7	6·3	7·8	100
3·5	3·9	4·4	4·9	5·9	7·8	9·8	125
4·5	5·0	5·6	6·3	7·5	10·0	12·6	160
5·6	6·3	7·1	7·8	9·4	12·6	15·7	200
7·0	7·8	8·8	9·8	11·8	15·7	19·6	250
8·9	10·0	11·3	12·6	15·1	20·1	25·1	320
11·1	12·6	14·1	15·7	18·8	25·1	31·4	400
13·9	15·7	17·7	19·6	23·6	31·4	39·2	500
18·1	20·4	23·0	25·5	30·6	40·8	51·0	650
22·3	25·1	28·3	31·4	37·7	50·2	62·8	800
26·5	29·8	33·6	37·3	44·7	59·7	74·6	950
29·3	33·0	37·1	41·2	49·5	65·9	82·4	1 050
32·0	36·1	40·6	45·1	54·2	72·2	90·3	1 150
34·8	39·2	44·2	49·1	58·9	78·5	98·1	1 250
36·2	40·8	45·9	51·0	61·2	81·6	102·0	1 300
40·4	45·5	51·2	56·9	68·3	91·1	113·8	1 450
43·2	48·7	54·7	60·8	73·0	97·3	121·7	1 550

TABLE IX MILD STEEL FLATS

Thickness *t* mm	3·0	4·0	5·0	6·0	8·0	10·0	12
Width *b* mm	**Weight in kg/m Length**						
10	0·2	0·3	0·5	—	—	—	—
15	0·4	0·5	0·6	0·7	0·9	—	—
20	0·5	0·6	0·8	0·9	1·3	1·6	—
25	0·6	0·8	1·0	1·2	1·6	2·0	2·4
30	0·7	0·9	1·2	1·4	1·9	2·4	2·8
35	0·8	1·1	1·4	1·6	2·2	2·8	3·3
40	0·9	1·3	1·6	1·9	2·5	3·1	3·8
45	1·1	1·4	1·8	2·1	2·8	3·5	4·2
50	1·2	1·6	2·0	2·4	3·1	3·9	4·7
55	1·3	1·7	2·2	2·6	3·4	4·3	5·2
60	1·4	1·9	2·4	2·8	3·8	4·7	5·6
65	—	—	—	3·1	4·1	5·1	6·1
70	—	—	—	3·3	4·4	5·5	6·6
75	—	—	—	3·5	4·7	5·9	7·1
80	—	—	—	3·8	5·0	6·3	7·5
90	—	—	—	4·2	5·6	7·1	8·5
100	—	—	—	4·7	6·3	7·8	9·4
110	—	—	—	5·2	6·9	8·6	10·4
120	—	—	—	5·6	7·5	9·4	11·3
130	—	—	—	—	8·2	10·2	12·2
140	—	—	—	—	8·8	11·0	13·2
150	—	—	—	—	9·4	11·8	14·1
200	—	—	—	—	—	15·7	18·8
250	—	—	—	—	—	19·6	23·6
300	—	—	—	—	—	—	28·3
400	—	—	—	—	—	—	—

(*Continued*

Note — The weight per metre values are calculated on the basis that steel weighs 7·85 g/cm³ and are rounded off to one decimal place in kg.

TABLE IX MILD STEEL FLATS—(*Continued*)

16	18	20	25	32	40	Thickness *t* mm
Weight in kg/m Length						Width *b* mm
—	—	—	—	—	—	10
—	—	—	—	—	—	15
—	—	—	—	—	—	20
—	—	—	—	—	—	25
3·8	—	—	—	—	—	30
4·4	5·0	5·5	—	—	—	35
5·0	5·6	6·3	—	—	—	40
5·6	6·4	7·1	—	—	—	45
6·3	7·1	7·8	9·8	—	—	50
6·9	7·8	8·6	10·8	—	—	55
7·5	8·5	9·4	11·8	15·1	—	60
8·2	9·2	10·2	12·8	16·3	20·4	65
8·8	9·9	11·0	13·7	17·6	22·0	70
9·4	10·6	11·8	14·7	18·8	23·6	75
10·0	11·3	12·6	15·7	20·1	25·1	80
11·3	12·7	14·1	17·7	22·6	28·3	90
12·6	14·1	15·7	19·6	25·1	31·4	100
13·8	15·5	17·3	21·6	27·6	34·5	110
15·1	17·0	18·8	23·6	30·1	37·7	120
16·3	18·4	20·4	25·5	32·7	40·8	130
17·6	19·8	22·0	27·5	35·2	44·0	140
18·8	21·2	23·6	29·4	37·7	47·1	150
25·1	28·3	31·4	39·2	50·2	62·8	200
31·4	35·3	39·2	49·1	62·8	78·5	250
37·7	42·4	47·1	58·9	75·4	94·2	300
50·2	56·5	62·8	78·5	100·5	125·6	400

(*Continued*)

Note — The weight per metre values are calculated on the basis that steel weighs 7·85 g/cm³ and are rounded off to one decimal place in kg.

TABLE IX MILD STEEL FLATS — (*Continued*)

Thickness t mm	3·0	4·0	5·0	6·0	8·0	10·0	12
Width b mm	Cross-Sectional Area in cm^2						
10	0·30	0·40	0·50	0·60	—	—	—
15	0·45	0·60	0·75	0·90	1·20	—	—
20	0·60	0·80	1·00	1·20	1·60	2·00	—
25	0·75	1·00	1·25	1·50	2·00	2·50	3·00
30	0·90	1·20	1·50	1·80	2·40	3·00	3·60
35	1·05	1·40	1·75	2·10	2·80	3·50	4·20
40	1·20	1·60	2·00	2·40	3·20	4·00	4·80
45	1·35	1·80	2·25	2·70	3·60	4·50	5·40
50	1·50	2·00	2·50	3·00	4·00	5·00	6·00
55	1·65	2·20	2·75	3·30	4·40	5·50	6·60
60	1·80	2·40	3·00	3·60	4·80	6·00	7·20
65	—	—	—	3·90	5·20	6·50	7·80
70	—	—	—	4·20	5·60	7·00	8·40
75	—	—	—	4·50	6·00	7·50	9·00
80	—	—	—	4·80	6·40	8·00	9·00
90	—	—	—	5·40	7·20	9·00	10·80
100	—	—	—	6·00	8·00	10·00	12·00
110	—	—	—	—	8·80	11·00	13·20
120	—	—	—	—	9·60	12·00	14·40
130	—	—	—	—	10·40	13·00	15·60
140	—	—	—	—	11·20	14·00	16·80
150	—	—	—	—	12·00	15·00	18·00
200	—	—	—	—	—	20·00	24·00
250	—	—	—	—	—	25·00	30·00
300	—	—	—	—	—	—	36·00
400	—	—	—	—	—	—	—

(*Continued*)

TABLE IX MILD STEEL FLATS—(*Continued*)

16	18	20	25	32	40	Thickness *t* mm
Cross-Sectional Area in cm^2						Width *b* mm
—	—	—	—	—	—	10
—	—	—	—	—	—	15
—	—	—	—	—	—	20
—	—	—	—	—	—	25
4·80	—	—	—	—	—	30
5·60	6·30	7·00	—	—	—	35
6·40	7·20	8·00	—	—	—	40
7·20	8·10	9·00	—	—	—	45
8·00	9·00	10·00	12·50	—	—	50
8·80	9·90	11·00	13·75	—	—	55
9·60	10·80	12·00	15·00	19·20	—	60
10·40	11·70	13·00	16·25	20·80	26·00	65
11·20	12·60	14·00	17·50	22·40	28·00	70
12·00	13·50	15·00	18·75	24·00	30·00	75
12·80	14·40	16·00	20·00	25·60	32·00	80
14·40	16·20	18·00	22·50	28·80	36·00	90
16·00	18·00	20·00	25·00	32·00	40·00	100
17·60	19·80	22·00	27·50	35·20	44·00	110
19·20	21·60	24·00	30·00	38·40	48·00	120
20·80	23·40	26·00	32·50	41·60	52·00	130
22·40	25·20	28·00	35·00	44·80	56·00	140
24·00	27·00	30·00	37·50	48·00	60·00	150
32·00	36·00	40·00	50·00	64·00	80·00	200
40·00	45·00	50·00	62·50	80·00	100·00	250
48·00	54·00	60·00	75·00	96·00	120·00	300
64·00	72·00	80·00	100·00	128·00	160·00	400

TABLE X BARS

ROUND BARS

Designation	Diameter	Cross-Sectional Area	*Weight per Metre	Perimeter
	mm	cm^2	kg	cm
ISRO 5	5·0	0·20	0·2	1·6
ISRO 6	6·0	0·28	0·2	1·9
ISRO 8	8·0	0·50	0·4	2·5
ISRO 10	10·0	0·79	0·6	3·1
ISRO 12	12	1·13	0·9	3·8
ISRO 16	16	2·01	1·6	5·0
ISRO 20	20	3·14	2·5	6·3
ISRO 25	25	4·91	3·8	7·8
ISRO 28	28	6·16	4·8	9·8
ISRO 32	32	8·04	6·3	10·1
ISRO 36	36	10·18	8·0	11·3
ISRO 40	40	12·57	9·9	12·6
ISRO 45	45	15·90	12·5	14·1
ISRO 50	50	19·64	15·4	15·7
ISRO 56	56	24·63	19·3	17·6
ISRO 63	63	31·17	24·5	19·8
ISRO 71	71	39·59	31·1	22·3
ISRO 80	80	50·26	39·5	25·1
ISRO 90	90	63·26	49·9	28·3
ISRO 100	100	78·54	61·7	31·4
ISRO 110	110	95·03	74·6	34·6
ISRO 125	125	122·72	96·3	39·3
ISRO 140	140	153·94	120·8	44·0
ISRO 160	160	201·06	157·8	50·3
ISRO 180	180	254·47	199·8	56·6
ISRO 200	200	314·16	246·6	62·8

SQUARE BARS

Designation	Side Width	Cross-Sectional Area	*Weight per Metre	Perimeter
	mm	cm^2	kg	cm
ISSQ 5	5·0	0·25	0·2	2·0
ISSQ 6	6·0	0·36	0·3	2·4
ISSQ 8	8·0	0·64	0·5	3·2
ISSQ 10	10·0	1·00	0·8	4·0
ISSQ 12	12	1·44	1·1	4·8
ISSQ 16	16	2·56	2·0	6·4
ISSQ 20	20	4·00	3·1	8·0
ISSQ 25	25	6·25	4·9	10·0
ISSQ 32	32	10·24	8·0	12·8
ISSQ 40	40	16·00	12·6	16·0
ISSQ 50	50	25·00	19·6	20·0
ISSQ 63	63	39·69	31·2	25·2
ISSQ 80	80	64·00	50·2	32·0
ISSQ 100	100	100·00	78·5	40·0

*The weights per metre of bars given in the table are calculated on the basis that steel weighs 7·85 g/cm^3 and are rounded off to one decimal place in kg.

SECTION B
BEAMS, CHANNELS AND COMPOUND SECTIONS USED AS GIRDERS
(TABLES XI-XXIII)

TABLE XI ECONOMY IN THE SELECTION OF BEAMS AND CHANNELS USED AS FLEXURAL MEMBERS BASED ON SECTION MODULI

Modulus of Section Z_{xx}	Designation	Weight per Metre w	Shear Carrying Capacity S	Modulus of Section Z_{xx}	Designation	Weight per Metre w	Shear Carrying Capacity S	Modulus of Section Z_{xx}	Designation	Weight per Metre w	Shear Carrying Capacity S
cm^3		kg	$kg \times 10^3$	cm^3		kg	$kg \times 10^3$	cm^3		kg	$kg \times 10^3$
3 854·2	*ISWB 600	145·1	66·9	532·1	*ISLC 350	38·8	24·5	116·3	*ISJB 225	12·8	7·9
3 540·0	*ISWB 600	133·7	63·5	488·9	*ISLB 300	37·7	19·0	116·1	ISJC 200	13·9	7·7
3 060·4	*ISMB 600	122·6	68·0					111·9	ISWB 150	17·0	7·7
				475·4	ISWB 250	40·9	15·8				
2 723·9	*ISWB 550	112·5	54·6	424·2	*ISMC 300	35·8	21·5	103·9	ISMC 150	16·4	7·7
2 428·9	*ISLB 600	99·5	59·5	410·5	ISMB 250	37·3	16·3	96·9	ISMB 150	14·9	6·8
2 359·8	ISMB 550	103·7	58·2					93·0	ISLC 150	14·4	6·8
				403·2	*ISLC 300	33·1	19·0				
2 091·6	*ISWB 500	95·2	46·8	392·4	*ISLB 275	33·0	16·6	91·8	ISLB 150	14·2	6·8
1 933·2	*ISLB 550	86·3	51·5	348·5	ISWB 225	33·9	13·6	82·3	*ISJC 175	11·2	6·0
1 808·7	ISMB 500	86·9	48·2					78·1	ISJB 200	9·9	6·4
				305·9	*ISMB 225	31·2	13·8				
1 558·1	*ISWB 450	79·4	39·1	305·3	*ISMC 250	30·4	16·8	71·8	ISMB 125	13·0	5·2
1 543·2	*ISLB 500	75·0	43·5	297·4	*ISLB 250	27·9	14·4	66·6	ISMC 125	12·7	5·9
1 350·7	*ISMB 450	72·4	40·0					65·1	ISLB 125	11·9	5·2
				295·0	ISLC 250	28·0	14·4				
1 223·8	*ISLB 450	65·3	36·6	262·5	ISWB 200	28·8	11·5	62·8	ISJC 150	9·9	5·1
1 171·3	ISWB 400	66·7	32·5					57·1	ISLC 125	10·7	5·2
1 022·9	*ISMB 400	61·6	33·6	239·5	*ISMC 225	25·9	13·6	54·8	*ISJB 175	8·1	5·3
				226·5	*ISLC 225	24·0	12·3				
965·3	*ISLB 400	56·9	30·2	223·5	ISMB 200	25·4	10·8	51·5	ISMB 100	11·5	3·8
887·0	ISWB 350	56·9	26·5					43·2	*ISJC 125	7·9	3·5
778·9	*ISMB 350	52·4	26·8	222·4	*ISLB 225	23·5	12·3	42·9	*ISJB 150	7·1	4·3
				181·9	*ISMC 200	22·1	11·5				
754·1	*ISMC 400	49·4	32·5	172·6	*ISLC 200	20·6	10·4	37·3	ISMC 100	9·2	4·4
751·9	ISLB 350	49·5	24·5	172·5	*ISWB 175	22·1	9·6	33·6	ISLB 100	8·0	3·8
699·5	*ISLC 400	45·7	30·2	169·7	*ISLB 200	19·8	10·2	32·9	ISLC 100	7·9	3·8
654·8	ISWB 300	48·1	21·0	145·4	*ISMB 175	19·3	9·1	24·8	*ISJC 100	5·8	2·8
607·7	*ISLB 325	43·1	21·5					20·3	ISMC 75	6·8	3·1
573·6	ISMB 300	44·2	21·3	139·8	*ISMC 175	19·1	9·4	19·4	ISLB 75	6·1	2·6
				131·3	*ISLC 175	17·6	8·4				
571·9	*ISMC 350	42·1	26·8	125·3	*ISLB 175	16·7	8·4	17·6	*ISLC 75	5·7	2·6

Note — For using this table, proceed as follows:

i) Find, in the column headed 'Modulus of Section', the value equal to or, failing that, the value next higher to the required value of Z_{xx}.

ii) If the section opposite this selected value in the next column headed 'Designation' bears an asterisk, choose it, as it is the lightest beam in the series to serve the requirement. Otherwise, proceed higher up and choose the first section bearing the asterisk, as all sections above the section opposite to the selected value also satisfy the requirement with regard to Z_{xx}.

iii) If conditions require that the section must not exceed a certain depth, proceed up the column until the section with the required depth is reached. Check up to see that no lighter beam with an asterisk, of the same depth, appears higher up.

iv) Check up the selected section for web capacity in shear. Also, make proper provision in cases of eccentric loading or any other special conditions of loading.

v) It is assumed in this table that the compression flanges of the section so chosen have adequate lateral support.

TABLE XII ALLOWABLE UNIFORM LOADS ON BEAMS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE

Designation	ISLB 600	ISMB 600	ISWB 600	ISWB 600	Deflection in cm for ISLB 600, ISMB 600, ISWB 600 and ISWB 600	ISLB 550	ISMB 550	ISWB 550	Deflection in cm for ISLB 550, ISMB 550 and ISWB 550
$h \times b$ mm × mm	600 × 210	600 × 210	600 × 250	600 × 250		550 × 190	550 × 190	550 × 250	
w kg/m	99·5	122·6	133·7	145·1		86·3	103·7	112·5	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**								
1·0	306·0	385·6	446·0	485·6	0·03	243·6	297·3	343·2	0·03
1·5	204·0	257·1	297·4	323·8	0·06	162·4	198·2	228·8	0·06
2·0	153·0	192·8	223·0	242·8	0·10	121·8	148·6	171·6	0·11
2·5	122·4	154·2	178·4	194·3	0·16	97·4	118·9	137·3	0·18
3·0	102·0	128·6	148·7	161·9	0·23	81·2	99·1	114·4	0·26
3·5	87·4	110·2	127·4	138·8	0·32	69·6	85·0	98·1	0·35
4·0	76·5	96·4	111·5	121·4	0·42	60·9	74·3	85·8	0·45
4·5	68·0	85·7	99·1	107·9	0·53	54·1	66·1	76·3	0·58
5·0	61·2	77·1	89·2	97·2	0·65	48·7	59·4	68·6	0·71
5·5	55·6	70·1	81·1	88·3	0·79	44·3	54·1	62·4	0·86
6·0	51·0	64·3	74·4	81·0	0·94	40·6	49·6	57·2	1·02
6·5	47·1	59·3	68·6	74·7	1·10	37·5	45·7	52·8	1·20
7·0	43·7	55·1	63·7	69·4	1·28	34·8	42·5	49·0	1·39
7·5	40·8	51·4	59·5	64·8	1·46	32·5	39·6	45·8	1·60
8·0	38·2	48·2	55·8	60·7	1·67	30·4	37·2	42·9	1·82
8·5	36·0	45·4	52·5	57·1	1·88	28·7	35·0	40·3	2·05
9·0	34·0	42·8	49·6	54·0	2·11	27·0	33·0	38·1	2·30
9·5	32·2	40·6	47·0	51·1	2·35	25·6	31·3	36·1	2·56
10·0	30·6	38·6	44·6	48·6	2·60	24·4	29·7	34·3	2·84
10·5	29·1	36·7	42·5	46·2	2·87	23·2	28·3	32·7	3·13
11·0	27·8	35·0	40·6	44·2	3·15	22·2	27·0	31·2	3·44
11·5	26·6	33·5	38·8	42·2	3·44	21·2	25·9	30·0	3·76
12·0	25·5	32·2	37·2	40·5	3·75	20·3	24·8	28·6	4·09
12·5	24·5	30·8	35·7	38·9	4·07	19·5	23·8	27·5	4·44
13·0	23·6	29·6	34·3	37·4	4·40	18·8	22·8	26·4	4·80
13·5	22·7	28·6	33·0	36·0	4·75	—	—	—	—
14·0	21·8	27·6	31·8	34·7	5·10	—	—	—	—
14·5	21·1	26·6	30·8	33·5	5·48	—	—	—	—
15·0	20·4	25·7	29·8	32·4	5·86	—	—	—	—
Z_{xx}, cm^3	2 428·9	3 060·4	3 540·0	3 854·2		1 933·2	2 359·8	2 723·9	
S, kg × 10^3	59·5	68·0	63·5	66·9		51·5	58·2	54·6	
L_u, metres	4·5	5·0	6·0	6·5		4·0	4·5	6·0	
R, kg × 10^3	2·0	2·3	2·1	2·2		1·9	2·1	2·0	
B', cm	30·0	30·0	30·0	30·0		27·5	27·5	27·5	

(*Continued*)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.

Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 3 — Symbols:

S = Maximum Web Shear

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XII ALLOWABLE UNIFORM LOADS ON BEAMS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE

(Continued)

Designation	ISLB 500	ISMB 500	ISWB 500	Deflection in cm for ISLB 500, ISMB 500 and ISWB 500	ISLB 450	ISMB 450	ISWB 450	Deflection in cm for ISLB 450, ISMB 450 and ISWB 450
$h \times b$ mm × mm	500 × 180	500 × 180	500 × 250		450 × 170	450 × 150	450 × 200	
w kg/m	75·0	86·9	95·2		65·3	72·4	79·4	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**							
1·0	194·4	227·9	263·5	0·03	154·2	170·2	196·3	0·03
1·5	129·6	151·9	175·7	0·07	102·8	113·5	130·9	0·08
2·0	97·2	114·0	131·8	0·12	77·1	85·1	98·2	0·14
2·5	77·8	91·2	105·4	0·20	61·7	68·1	78·5	0·22
3·0	64·8	76·0	87·8	0·28	51·4	56·8	65·4	0·31
3·5	55·6	65·1	75·3	0·38	44·1	48·6	56·1	0·43
4·0	48·6	57·0	65·9	0·50	38·6	42·6	49·1	0·56
4·5	43·2	50·6	58·6	0·63	34·3	37·8	43·6	0·70
5·0	38·9	45·6	52·7	0·78	30·8	34·0	39·2	0·87
5·5	35·4	41·4	47·9	0·95	28·0	30·9	35·7	1·05
6·0	32·4	38·0	43·9	1·13	25·7	28·4	32·7	1·25
6·5	29·9	35·1	40·5	1·32	23·7	26·2	30·2	1·47
7·0	27·8	32·6	37·6	1·53	22·0	24·3	28·0	1·70
7·5	25·9	30·4	35·1	1·76	20·6	22·7	26·2	1·95
8·0	24·3	28·5	33·0	2·00	19·3	21·3	24·6	2·22
8·5	22·9	26·8	31·0	2·26	18·1	20·0	23·1	2·51
9·0	21·6	25·3	29·3	2·53	17·2	18·9	21·8	2·81
9·5	20·5	24·0	27·7	2·82	16·2	17·9	20·7	3·13
10·0	19·4	22·8	26·3	3·13	15·4	17·0	19·6	3·47
10·5	18·5	21·7	25·1	3·45	14·7	16·2	18·7	3·83
11·0	17·7	20·7	24·0	3·78	14·0	15·4	17·8	4·20
11·5	16·9	19·8	22·9	4·13	—	—	—	—
12·0	16·2	19·0	22·0	4·50	—	—	—	—
Z_{xx}, cm^3	1 543·2	1 808·7	2 091·6		1 223·8	1 350·7	1 558·1	
S, kg × 10^3	43·5	48·2	46·8		36·6	40·0	39·1	
L_u, metres	4·0	4·0	5·5		4·0	3·5	4·5	
R, kg × 10^3	1·7	1·9	1·9		1·6	1·8	1·7	
B', cm	25·0	25·0	25·0		22·5	22·5	22·5	

(Continued)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.

Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 3 — Symbols:

S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XII ALLOWABLE UNIFORM LOADS ON BEAMS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE

(Continued)

Designation	ISLB 400	ISMB 400	ISWB 400	Deflection in cm for ISLB 400, ISMB 400 and ISWB 400	ISLB 350	ISMB 350	ISWB 350	Deflection in cm for ISLB 350, ISMB 350 and ISWB 350
$h \times b$ mm × mm	400 × 165	400 × 140	400 × 200		350 × 165	350 × 140	350 × 200	
w kg/m	56·9	61·6	66·7		49·5	52·4	56·9	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**							
1·0	121·6	128·9	147·6	0·04	94·7	98·1	111·8	0·04
1·5	81·1	85·9	98·4	0·09	63·2	65·4	74·5	0·10
2·0	60·8	64·4	73·8	0·16	47·4	49·0	55·9	0·18
2·5	48·7	51·6	59·0	0·24	37·9	39·3	44·7	0·28
3·0	40·6	43·0	49·2	0·35	31·6	32·7	37·2	0·40
3·5	34·8	36·8	42·2	0·48	27·1	28·0	31·9	0·55
4·0	30·4	32·2	36·9	0·62	23·7	24·5	28·0	0·71
4·5	27·0	28·6	32·8	0·79	21·1	21·8	24·8	0·90
5·0	24·4	25·8	29·5	0·98	19·0	19·6	22·4	1·12
5·5	22·1	23·4	26·8	1·18	17·2	17·8	20·3	1·35
6·0	20·3	21·5	24·6	1·41	15·8	16·4	18·6	1·61
6·5	18·7	19·8	22·7	1·65	14·6	15·1	17·2	1·89
7·0	17·4	18·4	21·1	1·91	13·6	14·0	16·0	2·19
7·5	16·2	17·2	19·7	2·20	12·6	13·1	14·9	2·51
8·0	15·2	16·1	18·4	2·50	11·8	12·2	14·0	2·86
8·5	14·3	15·2	17·4	2·82	11·1	11·5	13·1	3·23
9·0	13·5	14·3	16·4	3·16	10·6	10·9	12·4	3·62
9·5	12·8	13·6	15·5	3·53	—	—	—	—
10·0	12·2	12·9	14·8	3·91	—	—	—	—
Z_{xx}, cm³	965·3	1 022·9	1 171·3		751·9	778·9	887·0	
S, kg × 10^3	30·2	33·6	32·5		24·5	26·8	26·5	
L_u, metres	3·5	3·5	4·5		3·5	3·5	4·5	
R, kg × 10^3	1·5	1·7	1·6		1·4	1·5	1·5	
B', cm	20·0	20·0	20·0		17·5	17·5	17·5	

(Continued)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.

Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 3 — Symbols:

S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XII ALLOWABLE UNIFORM LOADS ON BEAMS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE

(Continued)

Designation	ISLB 325	Deflection in cm for	ISLB 300	ISMB 300	ISWB 300	Deflection in cm for	ISLB 275	Deflection in cm for
$h \times b$ mm × mm	325 × 165	ISLB 325	300 × 150	300 × 140	300 × 200	ISLB 300, ISMB 300 and ISWB 300	275 × 140	ISLB 275
w kg/m	43·1		37·7	44·2	48·1		33·0	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**							
1·0	76·6	0·05	61·6	72·3	82·5	0·05	49·4	0·06
1·5	51·0	0·11	41·1	48·2	55·0	0·12	33·0	0·13
2·0	38·3	0·19	30·8	36·2	41·2	0·21	24·7	0·23
2·5	30·6	0·30	24·6	28·9	33·0	0·33	19·8	0·36
3·0	25·5	0·43	20·6	24·1	27·5	0·47	16·5	0·51
3·5	21·9	0·59	17·6	20·6	23·6	0·64	14·1	0·70
4·0	19·2	0·77	15·4	18·1	20·6	0·83	12·4	0·91
4·5	17·0	0·97	13·7	16·1	18·3	1·05	11·0	1·15
5·0	15·3	1·20	12·3	14·4	16·5	1·30	9·9	1·42
5·5	13·9	1·45	11·2	13·1	15·0	1·58	9·0	1·72
6·0	12·8	1·73	10·3	12·0	13·8	1·88	8·2	2·05
6·5	11·8	2·03	9·5	11·1	12·7	2·20	—	—
7·0	11·0	2·36	8·8	10·3	11·8	2·55	—	—
Z_{xx}, cm^3	607·7		488·9	973·6	654·8		392·4	
S, kg × 10^3	21·5		19·0	21·3	21·0		16·6	
L_u, metres	3·5		3·5	3·5	4·5		3·0	
R, kg × 10^3	1·3		1·3	1·4	1·4		1·2	
B', cm	16·3		15·0	15·0	15·0		13·8	

(Continued)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.

Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 3 — Symbols:

S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XII ALLOWABLE UNIFORM LOADS ON BEAMS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE — (*Continued*)

Designation	ISLB 250	ISMB 250	ISWB 250	Deflection in cm for ISLB 250, ISMB 250 and ISWB 250	ISJB 225	ISLB 225	ISMB 225	ISWB 225	Deflection in cm for ISJB 225, ISLB 225, ISMB 225 and ISWB 225
$h \times b$ mm × mm	250 × 125	250 × 125	250 × 200		225 × 80	225 × 100	225 × 110	225 × 150	
w kg/m	27·9	37·3	40·9		12·8	23·5	31·2	33·9	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**								
1·0	37·5	51·7	59·9	0·06	14·7	28·0	38·5	43·9	0·07
1·5	25·0	34·5	39·9	0·14	9·8	18·7	25·7	29·3	0·16
2·0	18·8	25·8	30·0	0·25	7·4	14·0	19·2	22·0	0·28
2·5	15·0	20·7	24·0	0·39	5·9	11·2	15·4	17·6	0·43
3·0	12·5	17·2	20·0	0·56	4·9	9·4	12·8	14·6	0·62
3·5	10·7	14·8	17·1	0·77	4·2	8·0	11·0	12·5	0·85
4·0	9·4	12·9	15·0	1·00	3·7	7·0	9·6	11·0	1·11
4·5	8·3	11·5	13·3	1·27	3·3	6·2	8·6	9·8	1·41
5·0	7·5	10·4	12·0	1·56	2·9	5·6	7·7	8·8	1·74
5·5	6·8	9·4	10·9	1·89	—	—	—	—	—
6·0	6·2	8·6	10·0	2·25	—	—	—	—	—
Z_{xx}, cm^3	297·4	410·5	475·4		116·3	222·4	305·9	348·5	
S, kg × 10^3	14·4	16·3	15·8		7·9	12·3	13·8	13·6	
L_u, metres	3·0	3·5	5·0		1·5	2·5	3·0	4·0	
R, kg × 10^3	1·2	1·3	1·3		0·7	1·1	1·2	1·2	
B', cm	12·5	12·5	12·5		11·3	11·3	11·3	11·3	

Designation	ISJB 200	ISLB 200	ISMB 200	ISWB 200	Deflection in cm for ISJB 200, ISLB 200, ISMB 200 and ISWB 200	ISJB 175	ISLB 175	ISMB 175	ISWB 175	Deflection in cm for ISJB 175, ISLB 175, ISMB 175 and ISWB 175
$h \times b$ mm × mm	200 × 60	200 × 100	200 × 100	200 × 140		175 × 50	175 × 90	175 × 90	175 × 125	
w kg/m	9·9	19·8	25·4	28·8		8·1	16·7	19·3	22·1	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**									
1·0	9·8	21·4	28·2	33·1	0·08	6·9	15·8	18·3	21·7	0·09
1·5	6·6	14·3	18·8	22·1	0·18	4·6	10·5	12·2	14·5	0·20
2·0	4·9	10·7	14·1	16·6	0·31	3·4	7·9	9·2	10·8	0·36
2·5	3·9	8·6	11·3	13·2	0·49	2·8	6·3	7·3	8·7	0·56
3·0	3·3	7·2	9·4	11·0	0·70	2·3	5·2	6·1	7·2	0·80
3·5	2·8	6·1	8·0	9·4	0·96	2·0	4·5	5·2	6·2	1·09
4·0	2·4	5·4	7·0	8·3	1·25	1·7	4·0	4·6	5·4	1·43
4·5	2·2	4·8	6·3	7·4	1·58	—	—	—	—	—
5·0	2·0	4·3	5·6	6·6	1·95	—	—	—	—	—
Z_{xx}, cm^3	78·1	169·7	223·5	262·5		54·8	125·3	145·4	172·5	
S, kg × 10^3	6·4	10·2	10·8	11·5		5·3	8·4	9·1	9·6	
L_u, metres	1·0	2·5	3·0	3·5		1·0	2·0	2·5	3·0	
R, kg × 10^3	0·6	1·0	1·1	1·2		0·6	1·0	1·0	1·1	
B', cm	10·0	10·0	10·0	10·0		8·8	8·8	8·8	8·8	

(*Continued*)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.
Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.
Note 3 — Symbols:
S = Maximum Web Shear.
L_u = Length of Span up to which tabulated loads are safe with or without lateral support.
R = Increase in Bearing Capacity for every additional centimetre of Bearing.
B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XII ALLOWABLE UNIFORM LOADS ON BEAMS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE — (*Continued*)

Designation	ISJB 150	ISLB 150	ISMB 150	ISWB 150	Deflection in cm for ISJB 150, ISLB 150, ISMB 150 and ISWB 150	ISLB 125	ISMB 125	Deflection in cm for ISLB 125 and ISMB 125
$h \times b$ mm × mm	150×50	150×80	150×80	150×100		125×75	125×75	
w kg/m	7·1	14·2	14·9	17·0		11·9	13·0	
Span in Metres	**Allowable Uniform Loads in kg×10³**							
1·0	5·4	11·6	12·2	14·1	0·10	8·2	9·0	0·12
1·5	3·6	7·7	8·1	9·4	0·23	5·5	6·0	0·28
2·0	2·7	5·8	6·1	7·0	0·42	4·1	4·5	0·50
2·5	2·2	4·6	4·9	5·6	0·65	3·3	3·6	0·78
3·0	1·8	3·8	4·0	4·7	0·94	2·8	3·0	1·12
3·5	1·5	3·3	3·5	4·0	1·28	—	—	—
4·0	1·4	2·9	3·0	3·5	1·67	—	—	—
Z_{xx}, cm³	42·9	91·8	96·9	111·9		65·1	71·8	
S, kg×10³	4·3	6·8	6·8	7·7		5·2	5·2	
L_u, metres	1·0	2·0	2·0	2·5		2·0	2·5	
R, kg×10³	0·6	0·9	0·9	1·0		0·8	0·8	
B', cm	7·5	7·5	7·5	7·5		6·3	6·3	

Designation	ISLB 100	ISMB 100	Deflection in cm for ISLB 100 and ISMB 100	ISLB 75	Deflection in cm for ISLB 75
$h \times b$ mm × mm	100×50	100×75		75×50	
w kg/m	8·0	11·5		6·1	
Span in Metres	**Allowable Uniform Loads in kg×10³**				
1·0	4·2	6·5	0·16	2·4	0·21
1·5	2·8	4·3	0·35	1·6	0·47
2·0	2·1	3·3	0·62	1·2	0·83
2·5	1·7	2·6	0·98	—	—
3·0	1·4	2·2	1·41	—	—
Z_{xx}, cm³	33·6	51·5		19·4	
S, kg×10³	3·8	3·8		2·6	
L_u, metres	1·5	2·5		1·5	
R, kg×10³	0·8	0·8		0·7	
B', cm	5·0	5·0		3·8	

Note 1 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 2 — Symbols:

S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XIII ALLOWABLE UNIFORM LOADS ON CHANNELS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE

Designation	ISLC 400	ISMC 400	Deflection in cm for	ISLC 350	ISMC 350	Deflection in cm for	ISLC 300	ISMC 300	Deflection in cm for
$h \times b$ mm × mm	400 × 100	400 × 100	ISLC 400 and	350 × 100	350 × 100	ISLC 350 and	300 × 100	300 × 90	ISLC 300 and
w kg/m	45·7	49·4	ISMC 400	38·8	42·1	ISMC 350	33·1	35·8	ISMC 300
Span in Metres	**Allowable Uniform Loads in kg × 10^3**								
1·0	83·9	90·5	0·04	63·9	68·6	0·04	48·4	50·9	0·05
1·5	56·0	60·3	0·08	42·6	45·8	0·10	32·3	33·9	0·11
2·0	42·0	45·2	0·15	31·9	34·3	0·17	24·2	25·5	0·20
2·5	33·6	36·2	0·23	25·5	27·5	0·27	19·4	20·4	0·31
3·0	28·0	30·2	0·33	21·3	22·9	0·38	16·1	17·0	0·45
3·5	24·0	25·9	0·46	18·2	19·6	0·52	13·8	14·5	0·61
4·0	21·0	22·6	0·60	16·0	17·2	0·68	12·1	12·7	0·79
4·5	18·7	20·1	0·75	14·2	15·3	0·86	10·8	11·3	1·00
5·0	16·8	18·1	0·93	12·8	13·7	1·06	9·7	10·2	1·24
5·5	15·3	16·5	1·13	11·6	12·5	1·29	8·8	9·3	1·50
6·0	14·0	15·1	1·34	10·6	11·4	1·53	8·1	8·5	1·79
6·5	12·9	13·9	1·57	9·8	10·6	1·80	7·4	7·8	2·10
7·0	12·0	12·9	1·82	9·1	9·8	2·08	6·9	7·3	2·43
7·5	11·2	12·1	2·09	8·5	9·2	2·39	—	—	—
8·0	10·5	11·3	2·38	8·0	8·6	2·72	—	—	—
8·5	9·9	10·6	2·69	7·5	8·1	3·07	—	—	—
9·0	9·3	10·1	3·01	7·1	7·6	3·44	—	—	—
Z_{xx}, cm³	699·5	754·1		532·1	571·9		403·2	424·2	
S, kg × 10^3	30·2	32·5		24·5	26·8		19·0	21·5	
L_u, metres	2·5	2·5		2·5	2·5		2·5	2·5	
R, kg × 10^3	1·5	1·6		1·4	1·5		1·3	1·4	
B', cm	20·0	20·0		17·5	17·5		15·0	15·0	

(*Continued*)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.

Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 3 — Symbols:

S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XIII ALLOWABLE UNIFORM LOADS ON CHANNELS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE — (*Continued*)

Designation	ISLC 250	ISMC 250	Deflection in cm for ISLC 250 and ISMC 250	ISLC 225	ISMC 225	Deflection in cm for ISLC 225 and ISMC 225
$h \times b$ mm × mm	250 × 100	250 × 80		225 × 90	225 × 80	
w kg/m	28·0	30·4		24·0	25·9	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**					
1·0	35·4	36·6	0·06	27·2	28·7	0·07
1·5	23·6	24·4	0·13	18·1	19·2	0·15
2·0	17·7	18·3	0·24	13·6	14·4	0·26
2·5	14·2	14·7	0·37	10·9	11·5	0·41
3·0	11·8	12·2	0·54	9·1	9·6	0·60
3·5	10·1	10·5	0·73	7·8	8·2	0·81
4·0	8·8	9·2	0·95	6·8	7·2	1·06
4·5	7·9	8·1	1·21	6·0	6·4	1·34
5·0	7·1	7·3	1·49	5·4	5·7	1·65
5·5	6·4	6·7	1·80	—	—	—
6·0	5·9	6·1	2·14	—	—	—
Z_{xx}, cm³	295·0	305·3		226·5	239·5	
S, kg × 10^3	14·4	16·8		12·3	13·6	
L_u, metres	2·5	2·5		2·5	2·5	
R, kg × 10^3	1·2	1·3		1·1	1·2	
B', cm	12·5	12·5		11·2	11·2	

Designation	ISJC 200	ISLC 200	ISMC 200	Deflection in cm for ISJC 200, ISLC 200 and ISMC 200	ISJC 175	ISLC 175	ISMC 175	Deflection in cm for ISJC 175, ISLC 175 and ISMC 175
$h \times b$ mm × mm	200 × 70	200 × 75	200 × 75		175 × 60	175 × 75	175 × 75	
w kg/m	13·9	20·6	22·1		11·2	17·6	19·1	
Span in Metres	**Allowable Uniform Loads in kg × 10^3**							
1·0	13·9	20·7	21·8	0·07	9·9	15·8	16·8	0·08
1·5	9·3	13·8	14·6	0·17	6·6	10·5	11·2	0·19
2·0	7·0	13·4	10·9	0·30	4·9	7·9	8·4	0·34
2·5	5·6	8·3	8·7	0·46	4·0	6·3	6·7	0·53
3·0	4·6	6·9	7·3	0·67	3·3	5·3	5·6	0·77
3·5	4·0	5·9	6·2	0·91	2·8	4·5	4·8	1·04
4·0	3·5	5·2	5·5	1·19	2·5	3·9	4·2	1·36
4·5	3·1	4·6	4·9	1·51	—	—	—	—
5·0	2·8	4·1	4·4	1·86	—	—	—	—
Z_{xx}, cm³	116·1	172·6	181·9		82·3	131·3	139·8	
S, kg × 10^3	7·7	10·4	11·5		6·0	8·4	9·4	
L_u, metres	1·5	2·0	2·5		1·5	2·0	2·5	
R, kg × 10^3	0·8	1·0	1·2		0·7	1·0	1·1	
B', cm	10·0	10·0	10·0		8·8	8·8	8·8	

(*Continued*)

Note 1 — Loads above the full line can be allowed provided the webs are strengthened suitably for Shear.

Note 2 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 3 — Symbols:

S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XIII ALLOWABLE UNIFORM LOADS ON CHANNELS WITH ADEQUATE LATERAL SUPPORT FOR COMPRESSION FLANGE — (*Continued*)

Designation	ISJC 150	ISLC 150	ISMC 150	Deflection in cm for ISJC 150, ISLC 150 and ISMC 150	ISJC 125	ISLC 125	ISMC 125	Deflection in cm for ISJC 125, ISLC 125 and ISMC 125
$h \times b$ mm × mm	150×55	150×75	150×75		125×50	125×65	125×65	
w kg/m	9·9	14·4	16·4		7·9	10·7	12·7	
Span in Metres	**Allowable Uniform Loads in kg×10³**							
1·0	7·5	11·2	12·5	0·10	5·2	6·9	8·0	0·12
1·5	5·0	7·4	8·3	0·22	3·5	4·6	5·3	0·27
2·0	3·8	5·6	6·2	0·40	2·6	3·4	4·0	0·48
2·5	3·0	4·5	5·0	0·62	2·1	2·7	3·2	0·74
3·0	2·5	3·7	4·2	0·89	1·7	2·3	2·7	1·07
3·5	2·2	3·2	3·6	1·22	—	—	—	—
4·0	1·9	2·8	3·1	1·59	—	—	—	—
Z_{xx}, cm³	62·8	93·0	103·9		43·2	57·1	66·6	
S, kg×10³	5·1	6·8	7·7		3·5	5·2	5·9	
L_u, metres	1·5	2·0	2·5		1·5	2·0	2·0	
R, kg×10³	0·7	0·9	1·0		0·6	0·8	0·9	
B', cm	7·5	7·5	7·5		6·2	6·2	6·2	

Designation	ISJC 100	ISLC 100	ISMC 100	Deflection in cm for ISJC 100, ISLC 100 and ISMC 100	ISLC 75	ISMC 75	Deflection in cm for ISLC 75 and ISMC 75
$h \times b$ mm × mm	100×45	100×50	100×50		75×40	75×40	
w kg/m	5·8	7·9	9·2		5·7	6·8	
Span in Metres	**Allowable Uniform Loads in kg×10³**						
1·0	3·0	3·9	4·5	0·15	2·1	2·4	0·20
1·5	2·0	2·6	3·0	0·33	1·4	1·6	0·45
2·0	1·5	2·0	2·2	0·60	1·1	1·2	0·79
2·5	1·2	1·6	1·8	0·93	—	—	—
3·0	1·0	1·3	1·5	1·34	—	—	—
Z_{xx}, cm³	24·8	32·9	37·3		17·6	20·3	
S, kg×10³	2·8	3·8	4·4		2·6	3·1	
L_u, metres	1·0	1·5	2·0		1·5	2·0	
R, kg×10³	0·6	0·8	0·9		0·7	0·8	
B', cm	5·0	5·0	5·0		3·8	3·8	

Note 1 — In the case of loads below the dotted line, the deflection exceeds the limit of 1/325 of the Span.

Note 2 — Symbols:

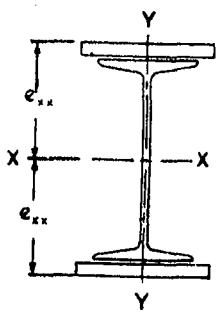
S = Maximum Web Shear.

L_u = Length of Span up to which tabulated loads are safe with or without lateral support.

R = Increase in Bearing Capacity for every additional centimetre of Bearing.

B' = Length of Bearing to develop a Bearing Capacity of S.

TABLE XIV SINGLE JOIST WITH ADDITIONAL PLATES ON BOTH FLANGES TO BE USED AS GIRDERS



Composed of			Weight per Metre	Sectional Area	Mean Thickness of Flanges	Extreme Fibre Distance	Gross Moments of Inertia		Least Radius of Gyration	Modulus of Section	Maximum Allowable Moment	Maximum Allowable Shear
Joist Designation	Cover Plates Width	Thickness	w	a		e_{xx}	I_{xx}	I_{yy}	r_{yy}	Z_{xx}	M	S
	mm	mm	kg	cm^2	mm	cm	cm^4	cm^4	cm	cm^3	kg-m $\times 10^3$	kg $\times 10^3$
ISWB 150	160·0	10·0	42·1	53·67	14·4	8·50	2 889·8	777·5	3·81	340·0	5·4	7·7
		12·0	47·2	60·07	16·4	8·70	3 363·1	914·0	3·90	386·6	6·1	
		16·0	57·2	72·87	20·4	9·10	4 377·2	1 187 1	4·04	481·0	7·6	
		20·0	67·3	85·67	24·4	9·50	5 484·4	1 460·1	4·13	577·3	9·1	
		25·0	79·8	101·67	29·4	10·00	7 005·8	1 801·5	4·21	700·6	11·0	
ISWB 175	200·0	10·0	53·5	68·11	14·6	9·75	4 935·2	1 521·9	4·73	506·2	8·0	9·6
		12·0	59·7	76·11	16·6	9·95	5 711·3	1 788·6	4·85	574·0	9·0	
		16·0	72·3	92·11	20·6	10·35	7 360·0	2 321·9	5·02	711·1	11·2	
		20·0	84·9	108·11	24·6	10·75	9 141·1	2 855·3	5·14	850·3	13·4	
		25·0	100·6	128·11	29·6	11·25	11 561·5	3 521·9	5·24	1 027·7	16·2	
ISMB 200	160·0	10·0	50·5	64·33	16·8	11·00	5 766·1	832·7	3·60	524·2	8·3	10·8
		12·0	55·5	70·73	18·8	11·20	6 554·6	969·2	3·70	585·2	9·2	
		16·0	65·6	83·53	22·8	11·60	8 218·3	1 242·3	3·86	708·5	11·2	
		20·0	75·6	96·33	26·8	12·00	10 000·7	1 515.3	3·97	833·4	13·1	
		25·0	88·2	112·33	31·8	12·50	12 402·1	1 856·7	4·07	992·2	15·6	
ISWB 200	200·0	10·0	60·2	76·71	16·3	11·00	7 037·8	1 662·1	4·66	639·8	10·1	11·5
		12.0	66·5	84·71	18·3	11·20	8 023·5	1 928·8	4·77	716·4	11·3	
		16·0	79·1	100·71	22·3	11·60	10 103·1	2 462·1	4·94	871·0	13·7	
		20·0	91·6	116·71	26·3	12·00	12 331·2	2 995·5	5·07	1 027·6	16·2	
		25·0	107·3	136·71	31·3	12·50	15 332·8	3 662·1	5·18	1 226·6	19·3	
ISMB 225	160·0	10·0	56·3	71·72	18·1	12·25	7 862·4	901·0	3·54	641·8	10·1	13·8
		12·0	61·3	78·12	20·1	12·45	8 838·5	1 037·5	3·64	709·9	11·2	
		16·0	71·4	90·92	24·1	12·85	10 887·0	1 310·6	3·80	847·2	13·3	
		20·0	81·4	103·72	28·1	13·25	13 067·0	1 583·6	3·91	986·2	15·5	
		25·0	94·0	119·72	33·1	13·75	15 983·5	1 925·0	4·01	1 162·4	18·3	
ISWB 225	200·0	10·0	65·3	83·24	17·4	12·25	9 446·2	1 781·9	4·63	771·1	12·1	13·6
		12·0	71·6	91·24	19·4	12·45	10 666·4	2 048·6	4·74	856·7	13·5	
		16·0	84·2	107·24	23·4	12·85	13 227·0	2 581·9	4·91	1 029·3	16·2	
		20·0	96·7	123·24	27·4	13·25	15 952·0	3 115·3	5·03	1 203·9	19·0	
		25·0	112·4	143·24	32·4	13·75	19 597·6	3 781·9	5·14	1 425·3	22·4	
ISMB 250	200 0	10·0	68·7	87·55	17·8	13·50	11 894·9	1 667·8	4·36	881·1	13·9	16·3
		12·0	75·0	95·55	19·8	13·70	13 374·6	1 934·5	4·50	976·3	15·4	
		16·0	87·6	111·55	23·8	14·10	16 466·2	2 467·8	4·70	1 167·8	18·4	
		20·0	100·1	127·55	27·8	14·50	19 738·3	3 001·2	4·85	1 361·3	21·4	
		25·0	115·8	147·55	32·8	15·00	24 089·9	3 667·8	4·99	1 606·0	25·3	

(*Continued*)

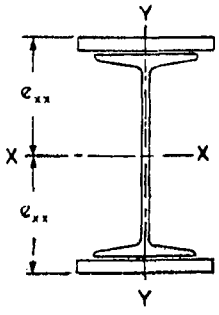
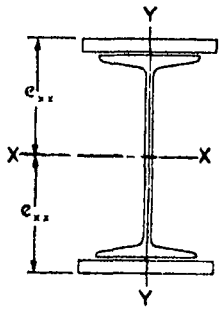


TABLE XIV SINGLE JOIST WITH ADDITIONAL PLATES ON BOTH FLANGES TO BE USED AS GIRDERS—(*Continued*)

Composed of			Weight per Metre	Sectional Area	Mean Thickness of Flanges	Extreme Fibre Distance	Gross Moments of Inertia		Least Radius of Gyration	Modulus of Section	Maximum Allowable Moment	Maximum Allowable Shear
Joist	Cover Plates											
Designation	Width	Thickness	w	a		e_{xx}	I_{xx}	I_{yy}	r_{yy}	Z_{xx}	M	S
	mm	mm	kg	cm^2	mm	cm	cm^4	cm^4	cm	cm^3	kg-m $\times 10^3$	kg $\times 10^3$
ISWB 250	320·0	10·0	91·1	116·05	15·6	13·50	16 764·4	6 318·8	7·38	1 241·8	19·6	15·8
		12·0	101·1	128·85	17·6	13·70	19 132·0	7 411·1	7·58	1 396·5	22·0	
		16·0	121·2	154·45	21·6	14·10	24 078·5	9 595·6	7·88	1 707·7	26·9	
		20·0	141·3	180·05	25·6	14·50	29 313·8	11 780·2	8·09	2 021·6	31·8	
		25·0	166·5	212·05	30·6	15·00	36 276·0	14 510·8	8·27	2 418·4	38·1	
ISMB 300	200·0	10·0	75·6	96·26	18·7	16·00	18 216·9	1 787·2	4·31	1 138·6	17·9	21·3
		12·0	81·8	104·26	20·7	16·20	20 290·6	2 053·9	4·44	1 252·5	19·7	
		16·0	94·4	120·26	24·7	16·60	24 594·2	2 587·2	4·64	1 481·6	23·3	
		20·0	107·0	136·26	28·7	17·00	29 110·3	3 120·6	4·79	1 712·4	27·0	
		25·0	122·7	156·26	33·7	17·50	35 061·9	3 787·2	4·92	2 003·5	31·6	
		32·0	144·6	185·26	40·7	18·20	43 984·5	4 720·6	5·06	2 416·7	38·1	
ISWB 300	320·0	10·0	98·4	125·33	16·2	16·00	25 202·9	6 451·4	7·17	1 575·2	24·8	21·0
		12·0	108·4	138·13	18·2	16·20	28 520·9	7 543·7	7·39	1 760·5	27·7	
		16·0	128·5	163·73	22·2	16·60	35 406·6	9 728·2	7·71	2 132·9	33·6	
		20·0	148·6	189·33	26·2	17·00	42 632·3	11 912·8	7·93	2 507·8	39·5	
		25·0	173·7	221·33	31·2	17·50	52 154·5	14 643·4	8·13	2 980·3	46·9	
		32·0	208·9	266·13	38·2	18·20	66 431·1	18 466·4	8·33	3 650·1	57·5	
ISMB 350	200·0	10·0	83·8	106·71	19·9	18·50	26 593·6	1 871·0	4·19	1 437·5	22·6	26·8
		12·0	90·0	114·71	21·9	18·70	29 361·3	2 137·7	4·32	1 570·1	24·7	
		16·0	102·6	130·71	25·9	19·10	35 076·9	2 671·0	4·52	1 836·5	28·9	
		20·0	115·2	146·71	29·9	19·50	41 037·0	3 204·4	4·67	2 104·5	33·1	
		25·0	130·9	166·71	34·9	20·00	48 838·6	3 871·0	4·82	2 441·9	38·5	
		32·0	152·8	194·71	41·9	20·70	60 435·2	4 804·4	4·97	2 919·6	46·0	
ISWB 350	320·0	10·0	107·2	136·50	17·1	18·50	36 263·0	6 637·2	6·97	1 960·2	30·9	26·5
		12·0	117·2	149·30	19·1	18·70	40 691·4	7 729·5	7·20	2 176·0	34·3	
		16·0	137·3	174·90	23·1	19·10	49 836·3	9 914·0	7·53	2 609·2	41·1	
		20·0	157·4	200·50	27·1	19·50	59 372·4	12 098·6	7·77	3 044·7	48·0	
		25·0	182·5	232·50	32·1	20·00	71 855·0	14 829·2	7·99	3 592·8	56·6	
		32·0	217·7	277·30	39·1	20·70	90 409·6	18 652·2	8·20	4 367·6	68·8	
ISMB 400	200·0	10·0	93·0	118·46	21·2	21·00	37 271·7	1 955·4	4·06	1 774·8	28·0	33·6
		12·0	99·3	126·46	23·2	21·20	40 833·4	2 222·1	4·19	1 926·1	30·3	
		16·0	111·3	142·46	27·2	21·60	48 161·0	2 755·4	4·40	2 229·7	35·1	
		20·0	124·4	158·46	31·2	22·00	55 765·1	3 288·8	4·56	2 534·8	39·9	
		25·0	140·1	178·46	36·2	22·50	65 666·7	3 955·4	4·71	2 918·5	46·0	
		32·0	162·1	206·46	43·2	23·20	80 287·3	4 888·8	4·87	3 460·7	54·5	

(*Continued*)

TABLE XIV SINGLE JOIST WITH ADDITIONAL PLATES ON BOTH FLANGES TO BE USED AS GIRDERS — (*Continued*)



Composed of			Weight per Metre	Sectional Area	Mean Thickness of Flanges	Extreme Fibre Distance	Gross Moments of Inertia		Least Radius of Gyration	Modulus of Section	Maximum Allowable Moment	Maximum Allowable Shear
Joist Designation	Cover Plates Width	Thickness	w	a		e_{xx}	I_{xx}	I_{yy}	r_{yy}	Z_{xx}	M	S
	mm	mm	kg	cm²	mm	cm	cm⁴	cm⁴	cm	cm³	kg-m × 10³	kg × 10³
ISWB 400	320·0	10·0	117·0	149·01	18·1	21·00	50 328·0	6 849·3	6·78	2 396·6	37·7	32·5
		12·0	127·0	161·81	20·1	21·20	56 026·8	7 941·6	7·01	2 642·8	41·6	
		16·0	147·1	187·41	24·1	21·60	67 750·9	10 126·1	7·35	3 136·6	49·4	
		20·0	167·2	213·01	28·1	22·00	79 917·4	12 310·7	7·60	3 632·6	57·2	
		25·0	192·3	345·01	33·1	22·50	95 760·0	15 041·3	7·84	4 256·0	67·0	
		32·0	227·5	289·81	40·1	23·20	119 153·0	18 864·3	8·07	5 135·9	80·9	
		40·0	267·7	341·01	48·1	24·00	147 672·0	23 233·3	8·25	6 153·0	96·9	
ISMB 450	200·0	10·0	103·8	132·27	23·0	23·50	51 554·1	2 167·3	4·05	2 193·8	34·6	40·0
		12·0	110·1	140·27	25·0	23·70	56 009·8	2 434·0	4·17	2 363·3	37·2	
		16·0	122·7	156·27	29·0	24·10	65 149·4	2 967·3	4·36	2 703·3	42·6	
		20·0	135·2	172·27	33·0	24·50	74 597·5	3 500·7	4·51	3 044·8	48·0	
		25·0	150·9	192·27	38·0	25·00	86 849·1	4 167·3	4·66	3 474·0	54·7	
		32·0	172·9	220·27	45·0	25·70	104 843·7	5 100·7	4·81	4 079·5	64·3	
		40·0	198·0	252·27	53·0	26·50	126 644·1	6 167·3	4·94	4 779·0	75·3	
ISWB 450	320·0	10·0	129·6	165·15	19·6	23·50	68 918·9	7 168·0	6·59	2 932·7	46·2	39·;
		12·0	139·7	177·95	21·6	23·70	76 048·1	8 260·3	6·81	3 208·8	50·5	
		16·0	159·8	203·55	25·6	24·10	90 671·4	10 444·8	7·16	3 762·3	59·3	
		20·0	179·9	229·15	29·6	24·50	105 788·3	12 629·4	7·42	4 317·9	68·0	
		25·0	205·0	261·15	34·6	25·00	125 390·9	15 360·0	7·67	5 015·6	79·0	
		32·0	240·2	305·95	41·6	25·70	154 182·3	19 183·0	7·92	5 999·3	94·5	
		40·0	280·4	357·15	49·6	26·50	189 062·9	23 552·0	8·12	7 134·5	112·4	
ISMB 500	250·0	10·0	126·2	160·74	22·4	26·00	77 735·0	3 974·0	4·97	2 989·8	47·1	48·2
		12·0	134·0	170·74	24·4	26·20	84 547·1	4 494·8	5·13	3 227·0	50·8	
		16·0	149·7	190·74	28·4	26·60	98 486·6	5 536·5	5·39	3 702·5	58·3	
		20·0	165·4	210·74	32·4	27·00	112 851·6	6 578·1	5·59	4 179·7	65·8	
		25·0	185·1	235·74	37·4	27·50	131 416·2	7 880·2	5·78	4 778·8	75·3	
		32·0	212·5	270·74	44·4	28·20	158 564·4	9 703·1	5·99	5 622·9	88·6	
		40·0	243·9	310·74	52·4	29·00	191 285·0	11 786·5	6·16	6 596·0	103·9	
ISWB 500	400·0	10·0	158·0	201·22	19·2	26·00	104 317·6	13 654·5	8·24	4 012·2	47·4	46·8
		12·0	170·5	217·22	21·2	26·20	115 217·0	15 787·8	8·53	4 397·6	50·4	
		16·0	195·6	249·22	25·2	26·60	137 520·1	20 054·5	8·97	5 169·9	56·2	
		20·0	220·8	281·22	29·2	27·00	160 504·2	24 321·1	9·30	5 944·6	62·1	
		25·0	252·2	321·22	34·2	27·50	190 207·6	29 654·5	9·61	6 916·6	69·5	
		32·0	296·1	377·22	41·2	28·20	233 644·7	37 121·1	9·82	8 285·3	79·9	
		40·0	346·4	441·22	49·2	29·00	285 997·6	45 654·5	10·17	9 862·0	92·0	

(*Continued*)

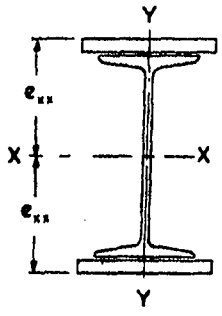


TABLE XIV SINGLE JOIST WITH ADDITIONAL PLATES ON BOTH FLANGES TO BE USED AS GIRDERS — (*Continued*)

Composed of			Weight per Metre	Sectional Area	Mean Thickness of Flanges	Extreme Fibre Distance	Gross Moments of Inertia		Least Radius of Gyration	Modulus of Section	Maximum Allowable Moment	Maximum Allowable Shear
Joist	Cover Plates											
Designation	Width	Thickness	w	a		e_{xx}	I_{xx}	I_{yy}	r_{yy}	Z_{xx}	M	S
	mm	mm	kg	cm^2	mm	cm	cm^4	cm^4	cm	cm^3	kg-m × 10^3	kg × 10^3
ISMB 550	250·0	10·0	143·0	182·11	24·7	28·50	104 097·8	4 438·0	4·94	3 652·6	57·5	58·2
		12·0	150·8	192·11	26·7	28·70	112 277·4	4 958·8	5·08	3 912·1	61·6	
		16·0	166·5	212·11	30·7	29·10	128 981·9	6 000·5	5·32	4 432·4	69·8	
		20·0	182·2	232·11	34·7	29·50	146 151·9	7 042·1	5·51	4 954·3	78·0	
		25·0	201·8	257·11	39·7	30·00	168 279·0	8 344·2	5·70	5 609·3	88·3	
		32·0	229·3	292·11	46·7	30·70	200 519·7	10 167·1	5·90	6 531·6	102·9	
		40·0	260·7	332·11	54·7	31·50	239 210·3	12 250·5	6·07	7 594·0	119·6	
ISWB 550	400·0	10·0	175·3	223·34	21·0	28·50	137 632·8	14 407·3	8·03	4 829·2	76·1	54·6
		12·0	187·9	239·34	23·0	28·70	150 720·2	16 540·6	8·31	5 251·6	82·7	
		16·0	213·0	271·34	27·0	29·10	177 447·3	20 807·3	8·76	6 097·8	96·0	
		20·0	238·1	303·34	31·0	29·50	204 919·4	25 073·9	9·09	6 946·4	109·4	
		25·0	269·5	343·34	36·0	30·00	240 322·8	30 407·3	9·41	8 010·8	126·2	
		32·0	313·5	399·34	43·0	30·70	291 907·9	37 873·9	9·74	9 508·4	149·8	
		40·0	363·7	463·34	51·0	31·50	353 812·8	46 407·3	10·06	11 232·2	176·9	
ISMB 600	320·0	10·0	172·9	220·21	23·6	31·00	151 354·3	8 112·3	6·07	4 882·4	76·9	68·0
		12·0	182·9	233·01	25·6	31·20	163 734·7	9 204·6	6·29	5 247·9	82·7	
		16·0	203·0	258·61	29·6	31·60	188 975·6	11 389·1	6·64	5 980·2	94·2	
		20·0	223·1	284·21	33·6	32·00	214 863·7	13 573·7	6·91	6 714·5	105·8	
		25·0	248·2	316·21	38·6	32·50	248 146·3	16 304·3	7·18	7 635·3	120·3	
		32·0	283·4	361·01	45·6	33·20	296 492·9	20 127·3	7·47	8 930·5	140·7	
		40·0	323·6	412·21	53·6	34·00	354 298·3	24 496·3	7·71	10 420·5	164·1	
ISWB 600	400·0	10·0	196·5	250·38	23·3	31·00	180 625·2	15 369·2	7·83	5 826·6	91·8	63·5
		12·0	209·1	266·38	25·3	31·20	196 100·6	17 502·5	8·11	6 285·3	99·0	
		16·0	234·2	298·38	29·3	31·60	227 651·7	21 769·2	8·54	7 204·2	113·5	
		20·0	259·3	330·38	33·3	32·00	260 011·8	26 035·8	8·88	8 125·4	128·0	
		25·0	290·7	370·38	38·3	32·50	301 615·2	31 369·2	9·20	9 280·5	146·2	
		32·0	334·7	426·38	45·3	33·20	362 048·3	38 835·8	9·54	10 905·1	171·8	
		40·0	384·9	490·38	53·3	34·00	434 305·2	47 369·2	9·83	12 773·7	201·2	
ISWB 600	400·0	10·0	207·9	264·86	24·8	31·00	190 053·3	15 965·0	7·76	6 130·8	96·6	66·9
		12·0	220·5	280·86	26·8	31·20	205 528·7	18 098·3	8·03	6 587·5	103·8	
		16·0	245·6	312·86	30·8	41·60	237 079·8	22 365·0	8·45	7 502·5	118·2	
		20·0	270·7	344·86	34·8	32·00	269 439·9	26 631·6	8·79	8 420·0	132·6	
		25·0	302·1	384·86	39·8	32·50	311 043·3	31 965·0	9·11	9 570·6	150·7	
		32·0	346·1	440·86	46·8	33·20	371 476·4	39 431·6	9·46	11 189·0	176·2	
		40·0	396·3	504·86	54·8	34·00	443 733·3	47 965·0	9·75	13 051·0	205·6	

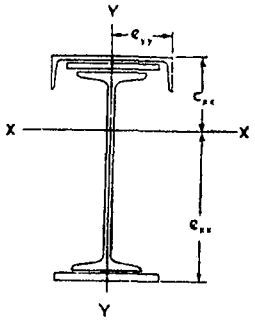
Note 1 — The properties given in this Table are based on the gross area of the section.

Note 2 — The mean thickness of flange is computed according to Note 2 in Table II of IS : 800-1956.

Note 3 — The maximum allowable moment is computed on the basis of the allowable stress specified in 9.2.1 of IS : 800-1956 and the gross modulus of section (Z_{xx}) given in this Table.

Note 4 — The maximum allowable shear is computed on the basis of the allowable shear stress specified in 9.3.2 and the effective sectional area defined in 20.6.2.2 of IS : 800-1956.

TABLE XV SINGLE JOIST WITH CHANNEL AND PLATES ON THE FLANGES TO BE USED AS GIRDERS



Composed of								Weight per Metre	Sectional Area	Centre of Gravity C_{xx}	Mean Thickness of Flanges	
Joist		Top Flange				Bottom Flange						
		Channel		Plate		Plate						
Designation	w	Designation	w	Width	Thickness	Width	Thickness				Top	Bottom
	kg		kg	mm	mm	mm	mm	kg	cm^2	cm	mm	mm
ISMB 600	122·6	ISMC 400	49·4	320	10·0	320	20·0	247·4	315·14	29·18	27·5	33·6
					12·0		25·0	265·0	337·54	30·46	29·1	38·6
					16·0		32·0	292·6	372·74	31·84	32·3	45·6
					20·0		40·0	322·7	411·14	33·34	35·5	53·6
		ISMC 350	42·1	250	10·0	320	20·0	234·6	298·87	30·62	27·7	33·6
					12·0		25·0	251·1	319·87	32·00	29·2	38·6
					16·0		32·0	276·5	352·27	33·53	32·0	45·6
					20·0		40·0	304·5	387·87	35·17	34·9	53·6
		ISMC 400	49·4	—		320	10·0	197·1	251·14	27·62	19·5	23·6
				—			12·0	202·2	257·54	28·47		25·6
				—			16·0	212·2	270·34	30·07		29·6
				—			20·0	222·3	283·14	31·55		33·6
		ISMC 350	42·1	—		320	10·0	189·9	241·87	28·55	20·6	23·6
				—			12·0	194·9	248·27	29·41		25·6
				—			16·0	204·9	261·07	31·02		29·6
				—			20·0	215·0	273·87	32·50		33·6
		ISMC 300	35·8	—		250	10·0	178·1	226·85	28·41	22·2	23·5
				—			12·0	182·0	231·85	29·13		29·5
				—			16·0	189·9	241·85	30·49		33·5
				—			20·0	197·7	251·85	31·77		37·5
ISWB 600	133·7	ISMC 400	49·4	320	10·0	320	20·0	258·5	329·31	29·30	29·9	36·6
					12·0		25·0	276·1	351·71	30·52	31·5	41·6
					16·0		32·0	303·7	386·91	31·86	34·7	48·6
					20·0		40·0	333·9	425·31	33·32	37·9	56·6
		ISMC 350	42·1	250	10·0	320	20·0	245·7	313·04	30·68	30·5	36·6
					12·0		25·0	262·2	334·04	32·00	31·9	41·6
					16·0		32·0	287·7	366·44	33·49	34·7	48·6
					20·0		40·0	315·6	402·04	35·09	37·6	56·6
		ISMC 400	49·4	—		320	10·0	208·3	265·31	27·79	21·9	26·6
				—			12·0	213·3	271·71	28·60		28·6
				—			16·0	223·3	284·51	30·11		32·6
		ISMC 350	42·1	—		320	10·0	201·0	256·04	28·68	23·3	26·6
				—			12·0	206·0	262·44	29·49		28·6
				—			16·0	216·1	275·24	31·01		32·6

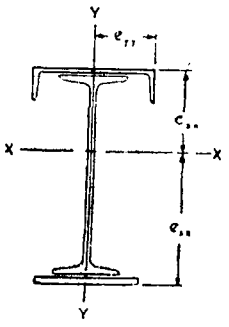


TABLE XV SINGLE JOIST WITH CHANNEL AND PLATES ON THE FLANGES TO BE USED AS GIRDERS

Extreme Fibre Distances		Gross Moments of Inertia			Radius of Gyration	Moduli of Section		Maximum Allowable Moment	Maximum Allowable Shear
e_{xx}	e_{yy}	I_{xx}	I_{yy} Whole Section	I_{yy} Top Flange Only	r_{yy}	Z_{xx} Z_c	Z_{xx} Z_t	M	S
cm	cm	cm⁴	cm⁴	cm⁴	cm	cm³	cm³	kg-m × 10³	kg × 10³
34·68	20·00	235 892·2	25 925·8	19 138·6	9·07	8 084·1	6 801·9	107·1	68·0
34·10		260 866·4	27 837·3	19 684·9	9·08	8 564·4	7 649·9	120·5	
33·82		299 883·3	30 841·0	20 777·3	9·10	9 418·8	8 866 7	139·7	
33·52		343 302·5	34 177·8	21 869·7	9·11	10 297·7	10 241·0	161·3	
33·19	17·50	222 893·7	19 422·4	12 635·4	8·06	7 278·4	6·716·5	105·8	
32·51		245 424·1	21 048·2	12 896·0	8·11	7 670·7	7 548·1	118·9	
32·08		280 290·7	23 480·5	13 417·0	8·16	8 358·6	8 738·1	137·6	
31·64		318 880·7	26 185·8	13 938·0	8·22	9 066·2	10 079·2	158·7	
34·24	20·00	170 351·8	20 464·5	16 407·8	9·03	6 167·7	4 975·2	78·4	
33·59		177 711·4	21 010·6	16 408·0	9·03	6 241·4	5 291·1	83·3	
32·39		191 631·5	22 102·9	16 408·2	9·04	6 372·2	5 916·9	93·2	
31·31		204 609·7	23 195·1	16 408·4	9·05	6 486·1	6 534·2	102·9	
33·26	17·50	163 968 8	15 389·7	11 333·2	7·98	5 743·0	4 930·1	77·6	
32·60		170 907·2	15 935·8	11 333·3	8·01	5 811·0	5 242·7	82·6	
31·39		184 002·1	17 028·1	11 333·5	8·08	5 931·9	5 861·7	92·3	
30·31		196 179·3	18 120·3	11·333 7	8·13	6 037·1	6 471·5	101 9	
33·35	15·00	150 938·0	10 315·7	7 687·8	6·74	5 313·3	4 525·5	71·3	
32·83		156 412·7	10 576·1	7 687·9	6·75	5 369·7	4 764·2	75·0	
31·87		166 872·3	11 096·9	7 688·1	6·77	5 472·2	5 236·8	82·5	
30·99		176 746·1	11 617·8	7 688 2	6·79	5 563·7	5 702·9	89·8	
34·56	20·00	250 375·1	27 977·3	20 164·4	9·22	7 546·7	7 243·6	114·1	63·5
34·04		275 280·7	29 888·8	20 710·7	9·22	9 018·8	8 088·1	127·4	
33·80		314 274·1	30 892·5	21 803·0	9·22	9 863·7	9 298·5	146·5	
33·54		357 691·1	36 169·5	22 895·4	9·22	10 734·4	10 665·2	168·0	
33·13	17·50	237 298·3	21 473·9	13 661·2	8·28	7 735·2	7 162·1	112·8	
32·51		259 809·6	23 099·7	13 921·7	8·32	8 120·1	7 990·7	125·9	
32·12		294 693·4	25 532 0	14 442·7	8·35	8 799·5	9 174·7	144·5	
31·72		333 342·5	28 237·3	14 963 7	8·38	9 499·9	10 508·6	165·5	
34·07	20·00	184 878·1	22 516·0	17 433·7	9·21	6 652·0	5 426·9	85·5	
33·46		192 173·4	23 062·1	17 433·8	9·21	6 719·9	5 743·0	90·5	
32·35		206 025·4	24 154·4	17 434·0	9·21	6 841·9	6 369·1	100·3	
33·13	17·50	178 422·6	17 441·2	12 359·0	8·25	6 222·0	5 384·9	84·8	
32·52		185 319·0	17 987·3	12 359·1	8·28	6 284·8	5 698·0	89·7	
31·40		198 388·2	19 079·6	12 359·3	8·33	6 397·9	6 317·8	99·5	

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