

Corrigendum on paper published in
Magazine of Concrete Research
 1990, 42, No. 150, Mar., 5–14

Strain and bond stress distributions in tension lap joints

R. C. B. Judge, R. H. Scott and P. A. T. Gill

The full keys to Tables 2 and 3 of this Paper were inadvertently omitted. This makes the tables difficult to interpret, so they are given here in full.

Table 2. Reinforcement strains and loads at crack formation

Specimen	Crack number										
	1	2	3	4	5	6	7	8	9	10	11
125T12/12	23-0 103 1509	27-0 117 1821	32-0 216 —	32-0 — —							
250T12/12	24-0 — —	25-5 112 2089	25-5 L 123 971	25-5 120 1495	42-0 1301 —	42-0 571 —					
500T12/12	22-5 135 1375	22-5 L 117 652	24-0 122 1918	27-0 L 159 1087	35-0 701 1803						
750T12/12	22-0 107 916	23-0 122 1497	26-0 L 121 725	30-0 L 231 1175	34-0 L 228 1099						
250T20/20A	18-0 — —	18-0 — —	18-5 83 138	20-0 97 253	21-0 L 97 174	22-0 121 275	66-0 — —				
500T20/20A	16-0 L 44 173	16-0 64 289	20-0 95 119	20-0 L 91 278	23-0 125 562	29-0 129 565	29-0 — —	66-0 — —			
750T20/20	14-0 59 261	16-0 L 49 222	16-0 L 57 143	20-0 L 69 201	20-0 111 428	25-0 L 98 298	30-0 L 138 299	50-0 L 392 680	78-0 1001 1484	78-0 1183 1375	
250T12/20A	15-0 — —	15-0 62 170	23-0 111 2360	23-0 L 96 546	23-0 — —	25-0 136 592	35-0 617 —				
250T12/20B	18-0 L 56 408	20-0 — —	20-0 112 1437	20-0 69 425	27-0 109 419	38-0 L 1218 2569	38-0 1471 2100				
500T12/20	18-0 — —	19-0 L 88 481	23-0 231 1636	23-0 L 125 530	25-0 118 521						
250T20/20B	12-0 L 81 147	12-0 — —	15-0 88 227	19-0 67 303	19-0 77 464	23-0 — —	23-0 — —	23-0 94 611			
250T20/20C	10-0 — —	18-0 L 114 136	18-0 111 188	22-0 79 317	27-0 132 330	27-0 136 190	27-0 — —	27-0 L 169 212	40-0 386 554	63-0 736 923	
500T20/20B	15-0 — —	15-0 L 48 119	15-0 L 105 139	15-0 L 74 161	15-0 — —	15-0 60 111	15-0 51 109	16-0 L 86 163	18-0 68 323	23-0 — —	74-0 977 1186
125TS12/12A	25-5 — —	25-5 — —									
125TS12/12B	19-0 74 804	19-0 101 821	19-0 121 779								
Key	A B C D	A—load: KN C—pre-crack strain: microstrain				B—L denotes crack within lap D—post-crack strain: microstrain					

Table 3. Bond stresses at crack formation

Specimen	Crack number										
	1	2	3	4	5	6	7	8	9	10	11
125T12/12	312 2.6 4.5	377 3.0 5.6									
250T12/12	— — —	432 — —	201 L 2.6 3.8	309 4.1 6.1	— — —	— — —					
500T12/12	284 4.8 4.2	135 L 2.4 1.4	397 4.2 6.1	225 L 2.9 2.9	373 — —						
750T12/12	190 3.6 4.2	310 7.6 6.8	150 L 2.5 4.1	243 L 2.7 5.8	227 L — 4.8						
250T20/20A	— — —	— — —	29 0.7 1.0	52 2.3 —	36 L 1.4 1.4	57 2.0 2.1	— — —				
500T20/20A	36 L 1.2 1.7	59 2.4 2.1	25 0.8 0.6	58 L 1.8 2.4	116 4.3 3.7	117 2.5 3.4	— — —	— — —			
750T20/20	54 — 1.8	46 L 1.7 2.2	30 L 1.4 1.0	42 L 1.5 1.9	89 3.7 1.9	62 L 2.2 1.7	62 L 1.4 1.2	141 L 0.8 0.8	307 5.9 2.3	284 0.9 —	
250T12/20A	— — —	35 1.2 1.9	489 — —	113 L 2.8 2.1	— — —	123 3.5 3.3	— — —				
250T12/20B	84 L 2.5 2.0	— — —	297 4.7 5.4	88 3.9 5.0	87 2.9 3.3	531 L — —	435 — —				
500T12/20	— — —	100 L 2.6 2.6	339 L 3.3 7.2	110 L 1.8 2.3	108 2.1 4.0						
250T20/20B	30 L 1.8 1.4	— — —	47 2.1 1.7	63 3.1 3.1	96 4.1 4.2	— — —	— — —	126 5.0 5.1			
250T20/20C	— — —	28 L 0.7 0.7	39 1.6 1.3	66 3.1 3.1	68 1.0 2.5	39 1.1 —	— — —	44 L 0.5 2.4	115 1.8 0.9	191 1.2 4.0	
500T20/20B	— 0.8 2.5	25 L 0.9 0.9	29 L 1.2 1.1	33 L — —	— 0.0 0.5	23 0.5 0.0	23 1.0 1.6	34 L 2.6 2.9	67 — —	— — —	246 — —
125TS12/12A	— — —	— — —									
125TS12/12B	167 6.5 7.2	170 4.2 4.4	161 4.2 3.6								
Key	A B C D	A—rod stress: N/mm ² B—L denotes crack in lap C, D—bond stresses each side of crack: N/mm ²									

Italics: bond stress influenced (see text).