

Due to acknowledged typesetter errors, this errata sheet lists all known corrections to be applied to the 2011 printing of:

MANUAL *of* SOIL LABORATORY TESTING:

Volume II: Permeability, Shear Strength and Compressibility Tests - Third Edition

by K.H. Head and R.J. Epps

(ISBN: 978-1904445-69-2)

Errata

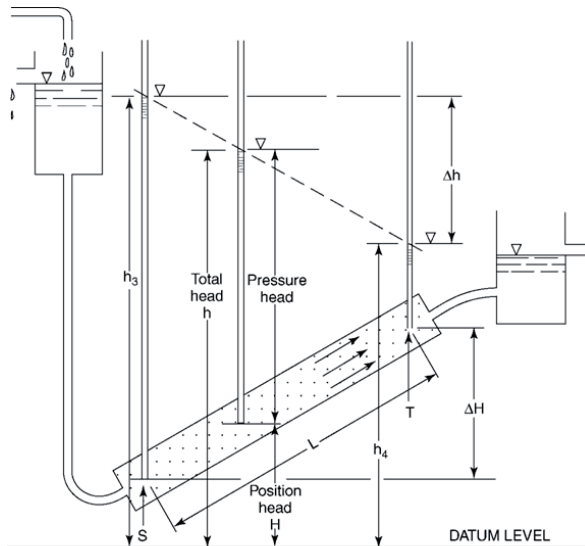
Chapter 9

P57 para 3 line 3 – insert space between ‘accommodated’ and ‘machines’. Initial capital for ‘machines’.

P76 Section 9.5.1 last para line 2 – reference should be to Section 9.5.6 not 9.5.5.

Chapter 10

P88 Figure 10.3 – see revised figure.



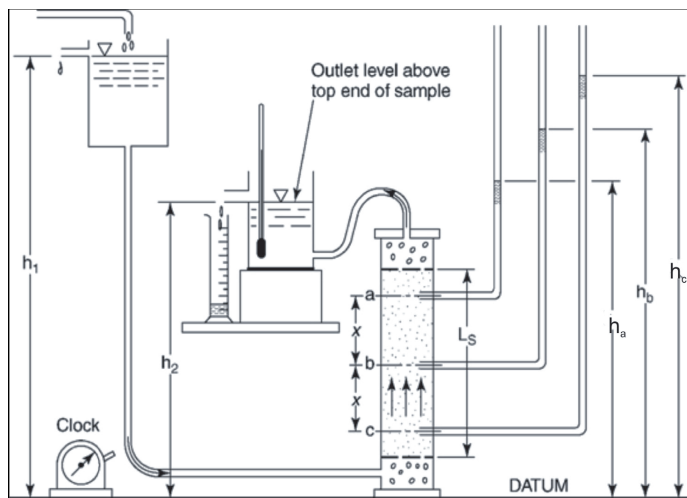
ΔH = difference in 'position head' between S and T

Δh = difference in 'total head' between S and T

Hydraulic gradient $i = \frac{\Delta h}{L}$

P89 – First line of list of units for laboratory work should not be in italics.

P93 **Figure 10.6** – h_a and h_c should be interchanged. See revised figure.



P134 **Figure 10.29** – ‘S.G.’ should be replaced with the words ‘Particle Density’. The date of testing should be November 2009.

Chapter 11

P205 – last line before first equation should read ‘For a known mass of soil m_1 (g):’

P206 **Figure 11.31** – header row for table of results reads CBA % and should read CBR %.

Chapter 12

P214 – insert new heading ‘*Laboratory vane apparatus*’ after the first paragraph of *Ring shear apparatus*.

P219 **Equation (12.5)** – remove minus signs.

P230 **Second line of caption to Figure 12.24** – amend t_{100} to 33.6 minutes. In expression after ‘If $H = 21$ mm’, for C_v read c_v .

P236 **para 1 line 5** – ‘12.32(b)’ should read ‘12.31’.

P240 **Item 4** – for ‘oven’ read ‘open’. **3rd line from bottom** – for ‘present author’ read ‘original author’.

P249 before equation ‘e.g.’ should read ‘i.e.’

P251 **First line** – insert ‘plate’ after ‘porous’.

P252 **Equation** – should read $H = h_1 - (h_2 + t_p + t_3)$ mm and delete the following line of text.

P255 line 4 – ‘kg’ should not be subscript after the equation.

P261 – ‘18.’ should be deleted before heading ‘(b) Coulomb envelope’ and item 19. should be amended to 18.

P265 – last line of text should read ‘Volume of 12 inch shearbox with specimen 6 inches (152.4 mm) thick’.

P267 Figure 12.5.2 caption – should read ‘original author’s design’.

P273 – above last equation r_D should read ρ_D .

P291 Item 2. – line after expression should read ‘where r_1, r_2 (mm) are the outside and inside radii (half diameters), respectively and h is the height of the specimen (mm)’.

P292 Item 7. – Equation should read $D_1 = D - d$ Items 8 & 9 - for t and t_r read τ and τ_r

Section 12.10.2 – first line under Fall Cones should read ‘with masses which vary to cover’

P296 Table 12.7 – in header row, symbol for Shear strength factor should be c_f not cf .

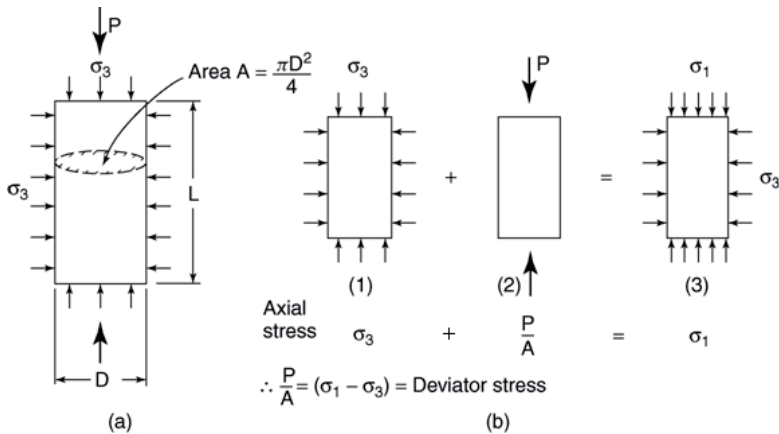
P297 Sections 3 & 4 – first sentence should not be in italics – headings as follows:

3. Releasing Cone

4. Repeat Tests

Chapter 13

P315 Figure 13.12 – see revised image.



P320 Section 13.3.8 – units in Equation (13.8) should be kPa.

P325 Figure 13.18 – caption should read ‘Unconfined compression test on 100 mm diameter specimen in 5 tonne compression frame’.

P329 – bottom line of expression for initial volume should read 4000.

P339 para 3 – penultimate line is $(38/D)^2$

P341 Table 13.2 – header row remove ‘(g)’ after ‘approximate mass’.

P344 Figure 13.29 – caption should read ‘Main features of a typical triaxial cell (reproduced from Figure 10 of BS 1377 : Part 7 : 1990)’.

P352 Figure 13.36 – caption should read ‘Specimen in cell ready for test. Photo courtesy of Newton Technology Geomechanics Laboratory’.

P354 Figure 13.34 – caption should read ‘Use of inclinometer to measure inclination of surface at failure’.

P370 Figure 13.50 – caption should read ‘Apparatus designed by original author.....’

P376 Figure 13.55 – caption should refer to Table 13.5 not 13.6.

Chapter 14

P386 – see revised images showing relative movements

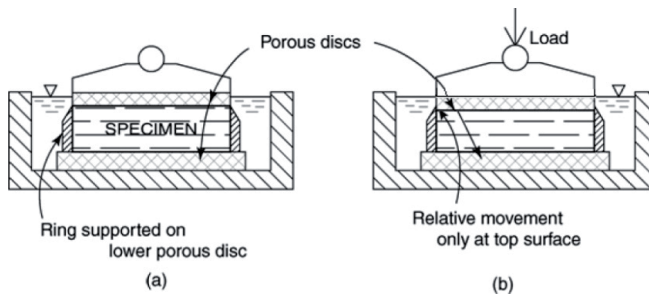


Figure 14.1

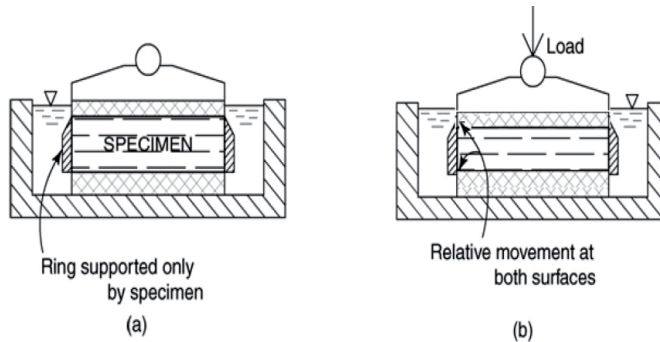


Figure 14.2

P391 – last para, line 2 – ‘Section 14.3.4’ should be deleted.

P392 Table 14.1 – item 4 ‘t’ after time (in both columns) should be in italics.

P405 Section 14.3.9 last para – should refer to Figure 14.40.

- P408** – line following Eqn (14.29) insert full stop after ‘Mg/m³’ and delete ‘then’. Following 2 lines should be placed below Table 14.3.
- P409 Final para** – third line from bottom should refer to Figure 14.9.
- P410 Figure 14.14** – caption should read C_{sec} not Csec.
- P419 Table 14.5** – insert commas after ‘Fluvio-glacial clays’, ‘Lake Clays’ and ‘Boulder Clays’ (column 3 rows 3, 4 and 5).
- P421 Section 14.5.3 first sentence** – remove typesetting instructions.
- P422 Table 14.8** – insert asterisk after ‘beam ratios’ and in column heading. Add footnote ‘* See Section 14.5.3’.
- P425 Table at bottom of page first line** – only ‘Slotted weights’ and ‘Separate weights’ should be in italics. Delete horizontal line beneath this row.
- P427 Section 14.5.4** – After ‘results’ in item 30. Add (see Section 14.5.7).
- P432 First line of text** – remove ‘(see Figure 14.23)’.
- P433 Item 14 line 2** – remove ‘(b)’ after ‘Figure 14.29’.
- P434 Figure 14.29** – See revised figure for more recent dates of testing (see following page).
- P435 Table 14.11** – header row – ‘ \sqrt{t} ’ should be above column 4; headings above columns 6 and 7 should be above columns 5 and 6; and heading for column 7 should be ‘ \sqrt{t} ’. Units for first column should be ‘(hours)’.
- P439 Table 14.12** – $\frac{\partial p}{p}$ should read $\frac{\delta p}{p} = 1$ in header row. Horizontal lines across table beneath 12 and 800 missing.
- P443 Fourth line** – insert ‘(see figure 14.10)’ after ‘find the point q’.
- P449 Figure 14.38** – The date of testing should be November 2009.
- P451 Table 14.2.3** – $H = \frac{1}{2}(H_1 + H_2)$ should be on one line and there should be an asterisk before the footnote.
- P461 Figure 14.45** – caption should read ‘Accelerated expansion tests on multiple samples of slag’.
- P469 Section 14.7.4** – indented line from ‘Pore water pressure.....’ to ‘..... approximately’ should be removed and inserted under Figure 14.51 on p471, above the caption.
- P477 First list line 5** – ‘Specimen thickness’ should be moved to a fresh line.
- P479 Section 14.8.3, line 3** - insert ‘(as seen in Figure 14.23)’ after ‘bench’.

Appendix

- P484 Table B1 Lines 2 and 4** – add an asterisk after the words ‘particle size’ in column 3 and to footnote on p485.
- P485** – Coefficient of volume compressibility (m_v) not (mv). Coefficient of consolidation (c_v) not (cv)
- P486 Table B2** – da for deca not Da.
- P489 Table B4** – where unit of measurement is kN/m² add (kPa) as in Table B5.

6 Figure 14.29

Consolidation Test										Settlement Readings										
Location		Dulston		Date started		17/11/2009		Swelling pressure		Dia. 74.9 mm		Cell no. 3		Ring no 3		Sample no.		3824		
Operator		M.B.J.		Incr. No., Date		(1) 18.11.2009		0 kN/m ²		20.11.2009		21.11.2009		24.11.2009		C2/25				
LOAD & UNLOAD		Load		2.5 kg 50kN/m ²		5 kg 100kN/m ²		10 kg 200kN/m ²		10 kg 200kN/m ²		20 kg 400kN/m ²		70 kg 200kN/m ²		2.5 kg 50kN/m ²				
Elapsed time		Clock		Gauge		AH x		Clock		Gauge		AH x		Clock		Gauge		AH x		
hr min sec		mins		0 0 0		0 0 0		0 10 ³ mm		0 10 ³ mm		0 10 ³ mm		0 10 ³ mm		0 10 ³ mm		0 10 ³ mm		
0	0	0	0	0920	0	0927	124	0912	384	0917	793	0925	1309	0918	1149	1094				
6	1	.32	21		157		452		458		855		1281		1094					
10	.17	.41	23		163		458		463		862		1280		1091					
15	.25	.5	25		167		463		468		870		1278		1090					
30	.5	.71	29		174		468		482		889		1273		1083					
1	1	1.0	35		188		482		498		906		1267		1076					
2	2	1.41	22	41	209		498		518		927		1261		1070					
4	4	2.0	24	49	232		518		546		962		1251		1058					
8	8	2.83	28	58	280		546		573		1003		1237		1045					
15	15	3.9	35	66	284		573		620		1044		1225		1024					
30	30	5.5	50	75	284		620		661		1088		1205		999					
1	60	7.75	1020	86	327		661		707		1017		1183		957					
2	120	11.0	1120	95	349		707				1211		1162		895					
4	142	11.9	1327	107	364						1260		1157		826					
8	283	16.8	1727	115	375		1355	749			1289		1155		783					
24	480	21.9	1720	115	375		1712	768					1725							
48	770	27.7	1727	375	2202	778	2202	778					1725							
3 days	1440	38.0	0915	124	.124	.124	0902	384	.384	0910	793	.793	0915	1149	1.149	0910	0915			
	2880	53.7	1911				2011			2111			2511							
	4320	65.7								2211			2811							
										2411			3111							
										2911			3611							
										3211			3911							
										3511			4211							
										3811			4511							
										4111			4811							
										4411			5111							
										4711			5411							
										5011			5711							
										5311			6011							
										5611			6311							
										5911			6611							
										6211			6911							
										6511			7211							
										6811			7511							
										7111			7811							
										7411			8111							
										7711			8411							
										8011			8711							
										8311			9011							
										8611			9311							
										8911			9611							
										9211			9911							
										9511			1021							
										9811			1051							
										1011			1081							
										1041			1111							
										1071			1141							
										1101			1171							
										1131			1201							
										1161			1231							
										1191			1261							
										1211			1291							
										1241			1311							
										1271			1341							
										1301			1371							
										1331			1401							
										1361			1431							
										1391			1461							
										1421			1491							
										1451			1521							
										1481			1551							
										1511			1581							
										1541			1611							
										1571			1641							
										1601			1671							
										1631			1701							
										1661			1731							
										1691			1761							
										1721			1801							
										1751			1831							
										1781			1861							
										1811			1891							
										1841			1921							
										1871			1951							
										1901			1981							
										1931			2011							
										1961			2041							
										1991			2071							
										2021			2101							
										2051			2131							
										2081			2161							
										2111			2191							
										2141			2221							
										2171			2251							
										2201			2281							
										2231			2311							
										2261			2341							
										2291			2371							
										2321			2401							
										2351			2431							
										2381			2461							
										2411			2491							
										2441			2521							
										2471			2551							
										2501			2581							
										2531			2611							
										2561			2641							
										2591			2671							
										2621			2701							
										2651			2731							
										2681			2761							
										2711			2791							
										2741			2821							
										2771			2851							
										2801			2881							