Corrections

page	instead	right
27, 1. sentence	1+6+(6+6)+12	1+7+(7+7)+14 = 36
68, equ. (229)	$\dfrac{}{\sum(\ \sum\ \dfrac{\cos^2\alpha}{})}$	$\dfrac{\cdot S}{\sum(\ \sum\ \dfrac{\cos^3\alpha}{})}$
126, 1. sentence	According to..... .....wires is	With the abbreviation $A_{i,1} = z_{i,1}\cdot\cos\alpha_{i,1}\cdot\delta_{i,1}^2\cdot\pi/4$ and $A_1 = \sum A_{1,i}$ is according to (2.97e)
126, equations	n_S	n_W
178/179	figures 3.4 and 3.5 are inverted	
274, equ. (3.55)		$b_3 = -0.32$
274, Tab. 3.14a,	for Warr.Seale, column: sZ	
FC,	$b_0(\overline{N}) =$ -0.858	o.858
IWRC	$b_0(\overline{N}) =$ -1.327	1.327
276, Tab. 3.15	$f_{N3} \approx .....\left(\dfrac{S/d^2}{D/d}\right)$	$f_{N3} \approx .....\left(\dfrac{S/d^2}{D/d}\right)^2$
276, Tab. 3.15	supplementation	
	Multi-layer rope spooling	$f_{N3} = 0.0008\cdot S/d^2$ with S/d² in N/mm² (Briem & Weiskopf)
284	$\lg N_{A10com}$ = 4.2887	= 4.2668
285	B_{A30} =20	= 22
286	S_G = 51,000 N	= 58,400 N = 58.4 kN
284	f_{S5} = 1.584	= 1.494

New version of the equation (3.55) and of Table 3.14

The available number of rope bending cycles is

$$\lg N = a_0 + \left(a_1 + a_3 \cdot \lg\frac{D}{d}\right) \cdot \left(\lg\frac{S}{d^2} - 0.4 \cdot \lg\frac{R_0}{1770}\right) + a_2 \cdot \lg\frac{D}{d} + \lg f_d + \lg f_l \,. \qquad (3.55)$$

With

d	in mm	nominal rope diameter for $d \geq 6$ mm
D	in mm	sheave diameter $D = D_0 + d$ with D_0 for the sheave diameter related to the groove ground
S	in N	rope tensile force
R_0	in N/mm²	nominal tensile strength
l	in mm	rope bending length for $l \geq 10\ d$

The wire rope is well-lubricated with viscous oil or vaseline. The sheaves have steel grooves, r = 0,53d. The constants a_i are listed in the following Table 3.14.

In the equation (3.55) have to be set in:

- the bending factor for the influence of the rope diameter

$$f_d = \frac{0.52}{-0.48 + (d/16)^{0.3}}$$

- and the bending factor for the Influence of the rope bending length

$$f_l = \frac{1.54}{2.54 - \left(\frac{l/d - 2.5}{5.5}\right)^{-0.14}} \,.$$

Table 3.14 Constants for calculating the number of bending cycles

a) Breaking number of bending cycles N

Rope class		a_0 for $\bar{N}$		a_0 for N_{10}		a_1	a_2	a_3
		sZ	zZ	sZ	zZ			
cross lay 6x19	FC	-0.809	-	-1.338	-	0.875	6.480	-1.850
		-	-0.658	-	-1.132	0.562	6.430	-1.628
Seale 8x19		-1.949	-1.726	-2.279	-2.056			
Filler 8x(19+8F)	FC	-1.728	-1.505	-2.058	-1.835	1.280	8.562	-2.625
Warr. 8x19		-1.728	-1.505	-2.058	-1.835			
Warr.-Seale 8x36		0.809	0.917	0.479	0.587	0.096	7.078	-1.920
Seale 8x19		-1.772	-1.712	-2.131	-2.071			
Filler 8x(19+6F)	IWRC	-1.684	-1.624	-2.043	-1.983	1.290	8.149	-2.440
Warr. 8x19		-1.684	-1.624	-2.043	-1.983			
Warr.-Seale 8x36		1.278	1.332	0.919	0.973	0.029	6.241	-1.613
Spiral round-	18x7	- 2.541		-2.837		1.566	9.084	-2.811
strand rope	34x7	-1.063		-1.574		1.351	7.652	-2.485

b) Discarding number of bending cycles N_A

Rope class		a_0 for $\bar{N}_A$		a_0 for N_{A10}		a_1	a_2	A_3
		sZ	zZ	sZ	zZ			
Seale 8x19		-2.660	*-2.437*	-3.040	*-2.817*			
Filler 8x(19+6)	FC	-2.525	*-2.302*	-2.905	*-2.682*	1.887	8.567	-2.894
Warr. 8x19		-2.525	*-2.302*	-2.905	*-2.682*			
Warr.-Seale 8x36		-1.351	*-1.243*	-1.731	*-1.623*	1.322	8.070	-2.649
Seale 8x19		-2.197	*-2.137*	-2.647	*-2.587*			
Filler 8x(19+6)	IWRC	-2.064	-2.004	-2.514	-2.454	1.588	8.056	-2.577
Warr. 8x19		-2.064	*-2.004*	-2.514	*-2.454*			
Warr.-Seale 8x36		0.584	*0.638*	0.134	*0.188*	0.377	6.232	-1.750
Spiral round	18x7	-2.821		-3.215		1.834	8.991	-2.948
strand rope	34x7	-1.432		-1.792		1.619	7.559	-2.622

The discarding numbers of bending cycles for lang lay ropes and for spiral round strand ropes are valid

- if the ropes will be inspected by magnetic methods
- or if the for the considered rope have been established by tests that outside wire breaks occur indicating the discard,