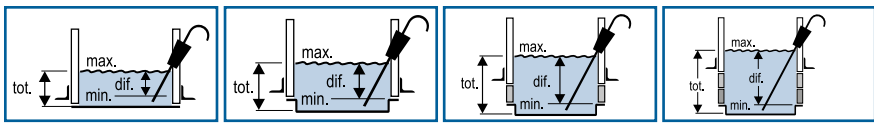


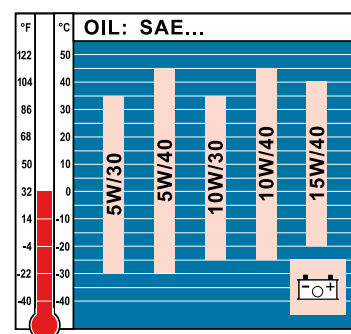
API: CD | CE | CF | CF-4 | CG-4  
ACEA: B2 | E2

2G40 / L/M...  
API: CF | CH-4  
ACEA: B3 | E4

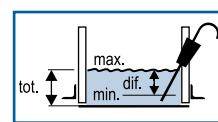
L/M43:  
ACEA E6 (recom. „Low Saps“)  
ACEA E9  
ACEA C3 | C4 [HTHS ≥ 3,5 mPas]  
API CJ-4



	tot.	diff.	tot.	diff.	tot.	diff.	tot.	diff.
E 80   85   88   89	2.6	0.6	—	—	—	—	—	—
E 572   672   573   673	1.0	0.6	—	—	—	—	—	—
E 950	3.0	—	—	—	—	—	—	—
E   ES 71   75   79	1.2	0.7	—	—	—	—	—	—
E   ES 780	2.0	1.0	—	—	—	—	—	—
E   ES 785   786	1.8	0.8	—	—	—	—	—	—
E 108	3.0	1.4	—	—	—	—	—	—
Z 108	5.5	2.0	5.8	3.0	—	—	—	—
D 108	7.5	3.0	9.0	4.8	—	—	—	—
V 108	9.0	4.0	11.5	5.8	—	—	—	—
Z 788   789   790	—	—	4.2	2.5	5.5	3.8	—	—
1 B 27 (V)	0.9	0.5	2.6	1.6	—	—	—	—
1 D 30   31   35   40   42 C	—	—	1.2	0.4	2.8	2.0	4.4	3.6
1 D 60   80	—	—	1.9	0.9	3.2	2.2	4.5	3.5
2 G 30   2 G 40	2.5	0.8	3.0	0.8	—	—	—	—
2 L   M 30   31   40   41 S	5.5 <sup>A</sup>	2.5	8.5 <sup>D</sup>	5.0	—	—	—	—
2 L   M 30   31   40   41 C   Z	4.5 <sup>A</sup>	2.0	7.5 <sup>C</sup>	4.5	—	—	—	—
3 L   M 30   31   40   41 S	8.5 <sup>A</sup>	3.5	11.0 <sup>D</sup>	6.5	—	—	—	—
3 L   M 30   31   40   41 C   Z	8.0 <sup>A</sup>	3.0	10.5 <sup>D</sup>	6.0	—	—	—	—
3 M 43 S	—	—	11.0 <sup>D</sup>	6.5	—	—	—	—
3 L   M 41 C   Z	—	—	10.5 <sup>D</sup>	6.0	—	—	—	—
4 L   M 30   31   40   41   42   43 C   Z	—	—	13.0 <sup>D</sup>	8.0	—	—	—	—
4 L   M 30   31   40   41   42   43 S	—	—	14.0 <sup>D</sup>	9.0	—	—	—	—



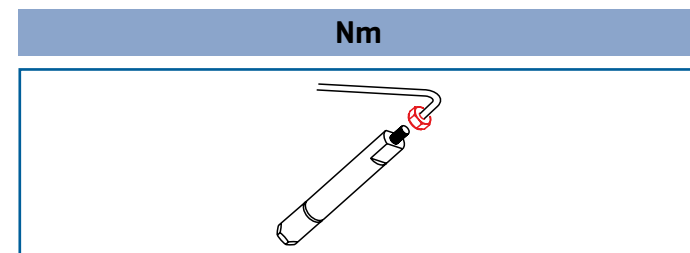
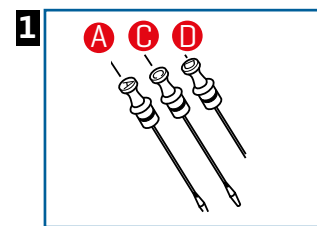
2 W 35  
3 W 35 (T)  
4 W 35 (T)



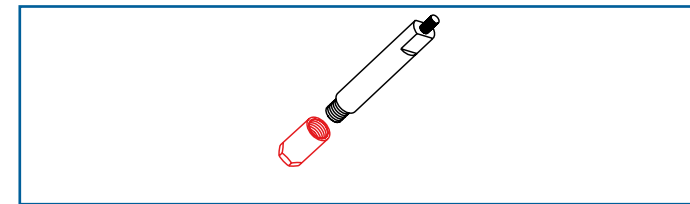
tot.	diff.
2.5	1.2
3.4	1.4
4.4	1.6

3 | 4 W 35T:  
API: CF | CF-4 | CG-4  
ACEA: B3 | E2

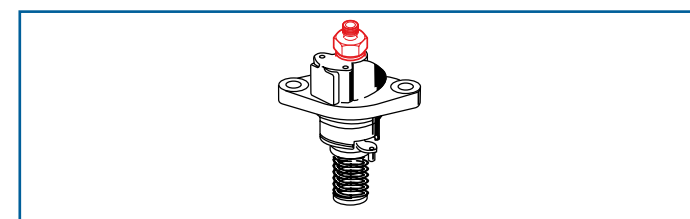
2 | 3 | 4 W 35:  
API: CF | CF-4 | CG-4  
ACEA: B2 | E2



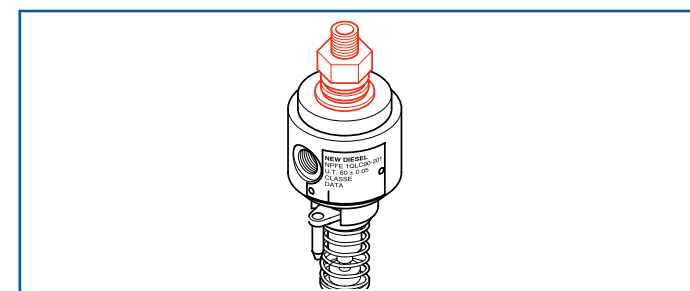
B | D | G 25



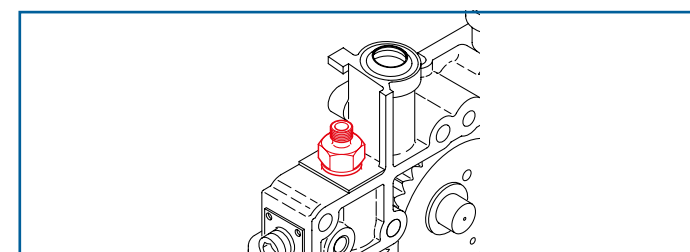
1 B 27 32,5  
1 D 30 | 31 | 35 | 40 | 42 C 55  
1 D 60 | 80 55  
L/M 41 | 42 | 43 60  
2 G 30 | 2 G 40 60



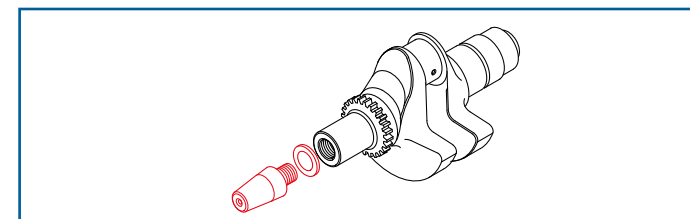
SW=19 mm 25  
SW=22 mm 35



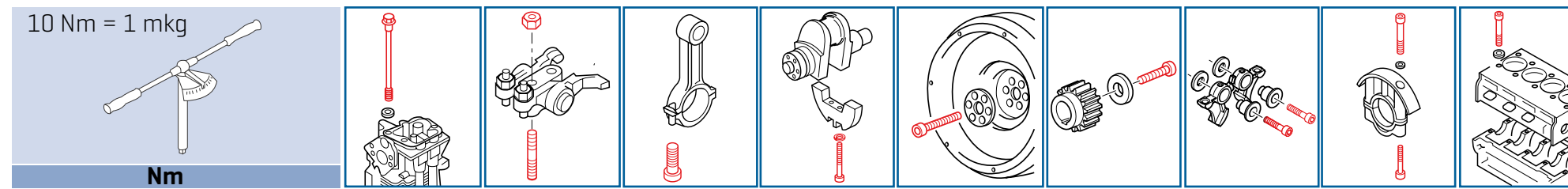
SW=17 mm SW=22 mm  
1 D 42 C 62,5 - 0 - 42,5  
L/M 41 | 42 | 43 62,5



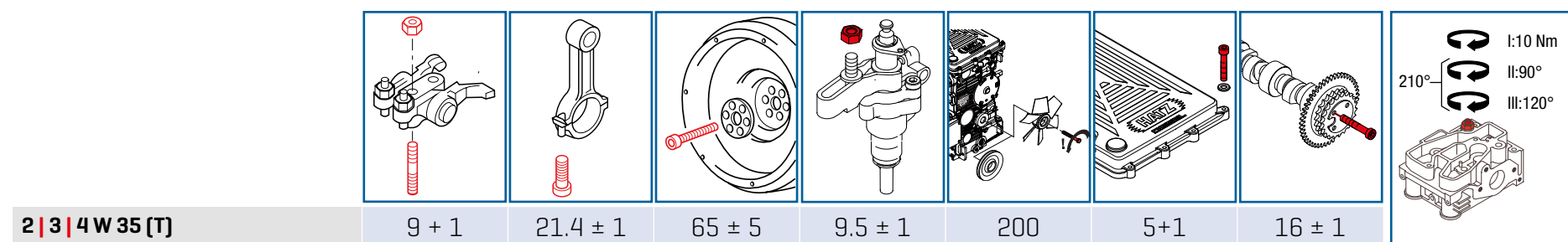
1 B 27 23 - 0 - 23 - 0 - 30



1 B 27 I 80 d II 150



10 Nm = 1 mkg									
E 80   85   88   89	65	—	60	65	325	—	—	—	—
E 572   672   573   673	35	35	40	22	70	—	—	—	—
E 950	80	—	60	65	145	90	—	—	—
E   ES 71   75   79   780	50	—	60	65	325	60	60	—	—
E   ES 785   786	60	—	60	65	325	60	60	—	—
E   Z   D   V 108	50	45	75	110	145	360	—	110	—
Z 788   789   790	50	M8: 25 M9: 50	60	65	145	190	—	110	—
1 B 27   1 B 27 V	10+ +210° <sup>7</sup>	—	22	—	360	—	9.6	—	—
1 D 30   31   35   40   42 C	50	—	40	40	68	—	11	—	—
1 D 60   80	80	—	85	75	M12(6x):115 M14(5x):190	—	11	—	—
2 G 30   2 G 40	55	23	40	—	I: 30 II: 280 *(max.300°)	—	—	—	10
2   3   4 L 30	50	—	60	65	135	30	—	—	90
2   3   4 L   M 31   40   41   42   43	65	—	M10: 60 M11: 115	65	200	30	—	—	90



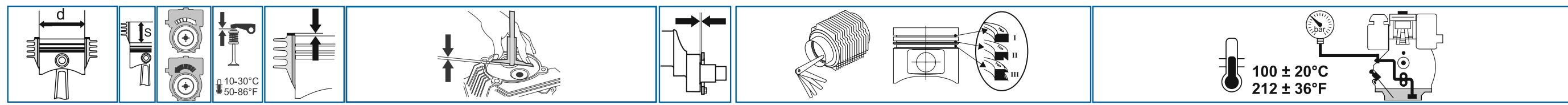
	8.8	10.9	12.9		8.8	10.9	12.9
M 3	1.3	1.8	—	M 12	80.0	110.0	140.0
M 4	2.9	4.2	5.0	M 14	130.0	180.0	220.0
M 5	5.5	7.8	9.3	M 16	190.0	270.0	330.0
M 6	9.5	13.0	16.0	M 18	270.0	380.0	450.0
M 8	23.0	33.0	39.0	M 20	380.0	530.0	640.0
M 10	46.0	65.0	78.0	M 22	510.0	720.0	860.0



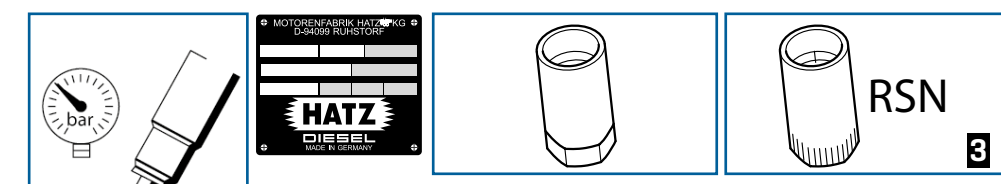
Historische Motoren  
Historical engines  
Motores históricos  
Moteurs historiques

Hatz Service Solutions

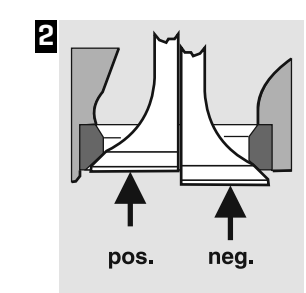
04/2024



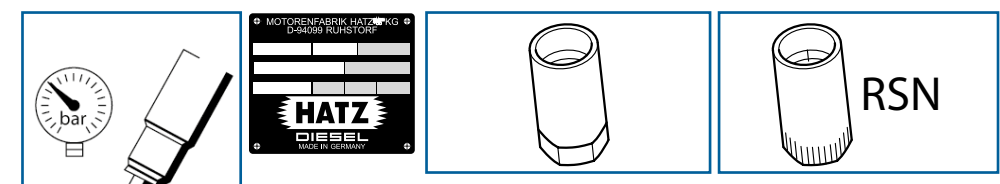
Engine-No. / Serial-No.	nom. mm	max. mm	mm	In.			Ex.			r.p.m. ± 10 %																
				mm	mm	mm	mm	mm	mm	850				1500				2300				3000				
				nom. mm	max. mm	mm	nom. mm	max. mm	mm	nom. mm	max. mm	nom. mm	max. mm	nom. mm	min.	nom. mm	min.	nom. mm	min.	nom. mm	min.	nom. mm	min.	nom. mm	min.	
E 80	80.00	80.13	100				0.30-1.10	1.40	0.30-1.10	1.40	0.10-0.50	0.30-0.50	0.8	0.30-0.50	1.4	0.25-0.50	1.2	1.1-1.6	0.6	1.8-2.6	1.2	3.3-4.0	2.2	—	—	
E 85	85.00	85.13				0.80-0.90																				
E 88 / 89	90.00	90.13	105				0.50-1.50	1.80	0.50-1.50	1.80		0.40-0.65	1.0	0.40-0.65	1.6	0.30-0.60	1.4									
E 572			57																							
E 672	71.00	71.11	67			0.55-0.65	0.45-0.90	1.1	0.45-0.90	1.1	0.30-0.80	0.25-0.45	0.7	0.25-0.45	1.2	0.20-0.45	1.0	—	—	—	—	—	—	—	—	
E 573 / E 673	73.00	73.11																								
E   ES 71 / 75	75.00	75.11	80			0.65-0.75	0.25-0.55 neg.	0.0	0.25-0.55 neg.	0.0	0.10-0.30															
E   ES 79	82.00	82.11	100			0.80-0.90	2		2			0.30-0.50	0.80	0.30-0.50	1.0	0.25-0.50	1.2	—	—	—	—	—	—	—	—	
E   ES 780			110			0.85-0.95	0.7-0.2 neg.		0.7-0.2 neg.		0.10-0.80															
E   ES 785	85.00	85.13					0.1-0.6	0.9	0.7-1.2	1.5																
E   ES 786																										
Z 788			90																							
Z 789	90.00	90.13	100			0.85-0.95	0.50-0.90	1.20	0.50-0.90	1.20	0.30-0.50	0.40-0.65	1.0	0.40-0.65	1.6	0.30-0.60	1.4	1.5-2.8	0.6	2.5-4.5	1.4	3.5-5.2	2.0	4.0-5.8	2.5	
Z 790																										
1 B 27	125.10-14	74.00	74.11	65		0.45-0.55	0.5 neg. 2	0.1 neg.	0.5 neg. 2	0.1 neg.	—	0.25-0.45	0.8	0.25-0.45	1.4	0.20-0.45	1.2	—	—	1.5-2.6	1.0	2.0-3.2	1.5	3.0-4.0	2.0	
1 D 30							0.90-1.45	1.80	0.90-1.45	1.80																
1 D 31		86.00	86.13	65		0.65-0.75	0.50-0.70	1.00	0.50-0.70	1.00																
1 D 35							0.90-1.45	1.80	0.90-1.45	1.80	0.1-0.25	0.30-0.45	0.8	0.30-0.45	1.4	0.25-0.40	1.2	0.8-1.9	0.6	1.5-2.5	1.2	2.5-3.5	1.8	3.5-4.5	2.5	
1 D 40																										
1 D 60		88.00	88.13	85		0.65-0.75	0.90-1.45	1.80	0.90-1.45	1.80																
1 D 80		100.00	100.16									0.35-0.55	1.2	0.35-0.55	1.8		1.6									
1 D 42	157.10	90	90.13	70		0.60-0.65	0.6±0.1neg. 2	0.2 neg.	0.6±0.1neg. 2	0.2 neg.	0.1-0.25	0.30-0.45	1.0	0.25-0.40	1.6	0.30-0.60	1.4	1.3-2.6	0.6	1.6-4.0	1.0	2.6-5.0	1.6	3.4-5.0	2.2	
2 G 30		88.00	88.13	75		0.1+0.05	0.60-0.65	0.90-1.50	1.80	0.90-1.50	1.80	0.10-0.20	0.40-0.65	1.0	0.40-0.65	1.6	0.30-0.60	1.4	1.3-2.6	0.6	1.6-4.0	1.0	2.6-5.0	1.6	3.4-5.0	2.2
2 G 40	091.10-18 091.19-23	92.00	92.13	75		0.1+0.05	0.65-0.70	0±0.10	0.4	0±0.10	0.4	0.10-0.20	0.40-0.65	1.0	0.40-0.65	1.6	0.30-0.60	1.4	1.3-2.6	0.6	1.6-4.0	1.0	2.6-5.0	1.6	3.4-5.0	2.2
2   3   4   L 30		95.00	95.16	100																						
2   3   4   L   M 31		102.00	102.17	90		0.1+0.05	1.00-1.10	0.85-1.70	2.1	0.85-1.70	2.1	0.15-0.7	0.40-0.65		0.40-0.65	1.6	0.30-0.60	1.4	1.0-1.8	0.6	1.6-2.5	1.2	2.0-2.8	1.6	2.3-3.0	1.8
2   3   4   L   M 40				105																						
2   3   4   L   M 41	10-14					0.1+0.05	0.85-0.95	0.15-0.00 neg. 2	—	0.15-0.00 neg. 2	—															
4 L   M 42	10	102.00	102.17	105		0.1+0.05	0.85-0.90	—	—	—	0.15-0.7	0.40-0.65	1.2	0.40-0.65	1.8	0.30-0.60	1.6	1.0-1.8	0.6	1.6-2.5	1.2	2.0-2.8	1.6	2.3-3.0	1.8	
3   4   L   M 43	10						0.85-0.90	—	—	—																
E   Z   D   V 108		108.00	108.16	110		0.1	1.10-1.30	0.70-1.50	1.9	0.70-1.50	1.9	0.20-0.40	0.40-0.65	1.2	0.40-0.65	1.8	0.30-0.60	1.6	0.9-1.5	0.6	1.5-2.8	1.0	2.0-3.5	1.4	2.2-3.8	1.6
2   3   4 W 35 (T)		70.00	70.11	90		0.1	0.55-0.65	0±0.10	—	0±0.10	—	—	0.25-0.45	0.8	0.25-0.45	1.4	0.20-0.45	1.2	—	—	3.0-4.0	2.0	3.0-4.0	2.0	3.5-4.5	2.5



Engine-No. / Serial-No.	bar	psi	bar	psi
E 80	110+8	1600+110		
E 85	110+8	1600+110		
E 88 / 89	150+8	2150+110		
E 572 / 672				
E 573 / 673	135+8	1950+110		
E 950	250+8	3600+110		
E   ES 71 / 75	110+8	1600+110		
E   ES 79	110+8	1600+110		
E   ES 780 / 785				
E   ES 786	250+8	3600+110		
E   Z   D   V 108	180+8	2600+110		
Z 788 / 789	180+8	2600+110		
Z 790	180+8	2600+110		
1 B 27	125 [10 - 14]		200+10	2900+145
1 D 30 S,Z,T,U,C	[10 - 18]			
1 D 31 S,Z,T,U,C	[10 - 17]	200+8	2900+110	
1 D 35 S,Z	[10 - 16]			
1 D 40 S,Z,T,U,C	[10 - 19]			
1 D 60 S,Z,T,U,C	[10 - 26]			
1 D 80 S,Z,T,U,C	[10 - 24]	250+8	3600+110	
1 D 42 C	157 [10]		225+8	3250+110
2 G 30	[10 - 17]	250+12	3600+175	
2 G 40	091 [10-20]	250+12	3600+175	
2 G 40	091 [23]		250+12	3600+175



4 h = Betriebsstunden Einspritzdüse  
Operating hours injection nozzle  
Heures de service injecteur  
Horas de servicio del inyector



Engine-No. / Serial-No.	bar	psi	bar	psi
2   3   4 L 30				
2   3   4 L   M 31				
2 L 40	[10 - 22]	250+8	3600+110	
3   4 L 40	[10 - 22]			
2   3   4 M 40	[10 - 19]			
2   3   4 L   M 41	102 [10 - 12] 105 [10 - 12] 103 [10 - 12] 106 [10 - 12] 104 [10 - 12] 107 [10 - 12]	230+12	3300+175	
4 L   M 42	[10]			
3   4 L   M 43	[10]	260+12	3740+175	250+5 3600+70

Serial-No.	h 4	bar	psi
2   3   4 W 35 (T)	[10 - 15]	h≤100	300+12 4350+175
		h>100	250+12 3600+175