



Aktuelle Motoren
Actual engines
Motores actuales
Moteurs actuels

Hatz Service Solutions

04/2024

00090524801 04/24 Printed in Germany

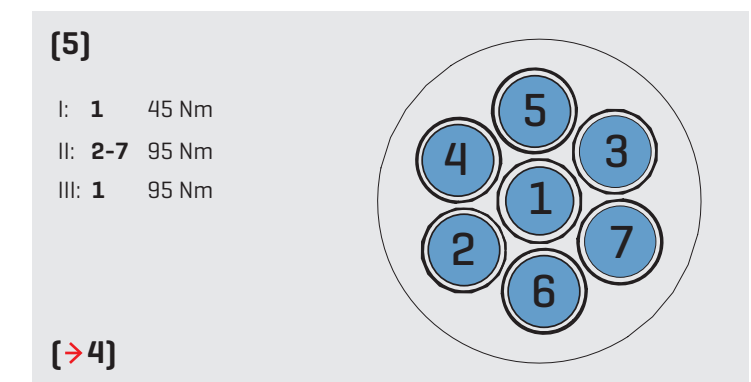
Nm	
B D	25
1 B 20 30 40 50	32.5
1 D 41 42 50 81 90	55
SW=19 mm	25
SW=22 mm	35

1 D 41 42 50	62.5 - 0 - 42.5
1 D 81 90	62.5 - 0 - 42.5

1 B 20 30 40 50	23 - 0 - 23 - 0 - 30

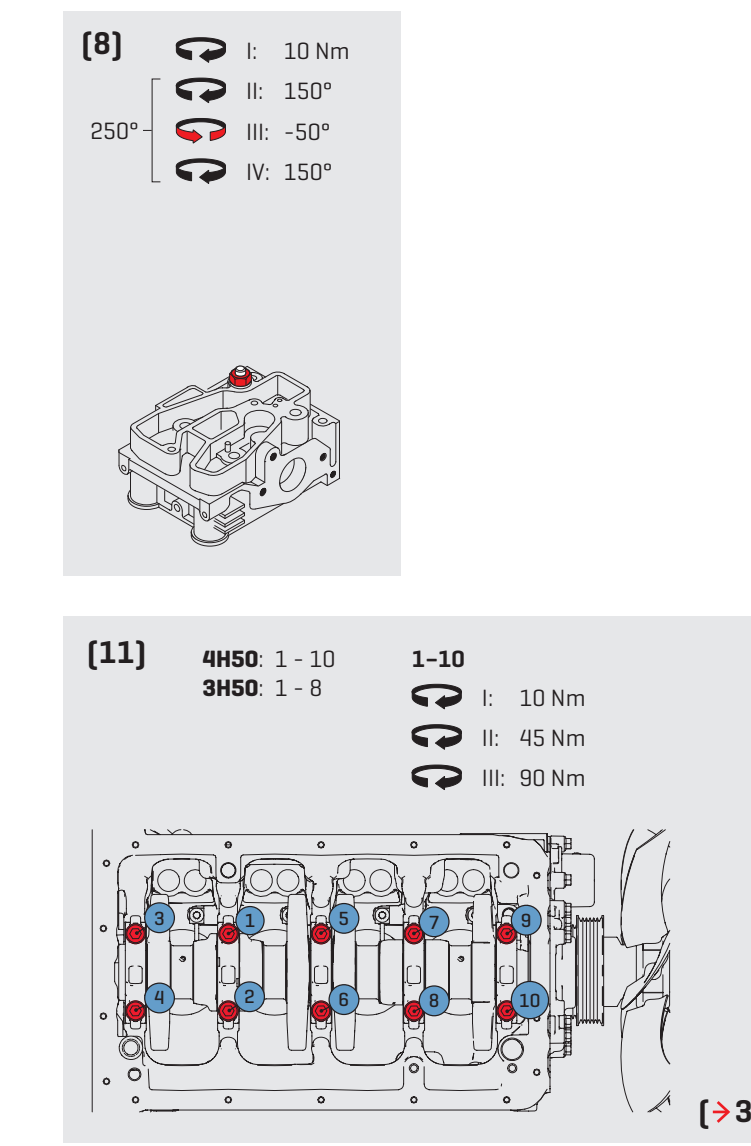
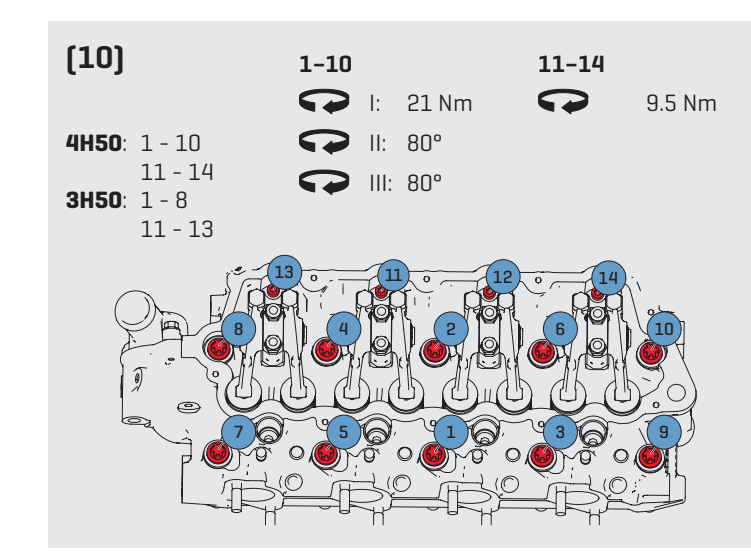
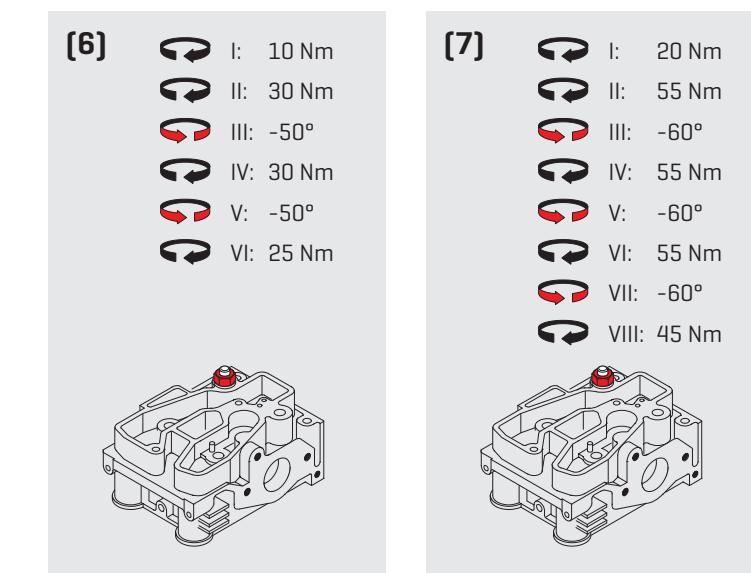
1 B 20 30 40 50	I 80 ⇔ II 150

Nm		Nm					
10 Nm = 1 mkg							
1 B 20 1 B 20 V	25 [6]	—	21.4	—	360	11	—
1 B 30 1 B 30 V 1 B 30 E 1 B 30 VE	45 [7]	—	30	—	360	11	—
1 B 40 1 B 40 V	45 [7]	—	41	—	42	11	—
1 B 50 1 B 50 E 1 B 50 V	10 + +250° [8]	—	42	—	42	11	—
1 D 41 1 D 42 1 D 50	50	—	40	40	68	11	—
1 D 81 1 D 90 1 D 90 V 1 D 90 E 1 D 90 VE	80	—	85	75	M12 (6x): 115 M14 (5x): 190	11	—
3 H 50 T TI TIC TIC-DPF TICD	21 + +160° [10]	23	20 + +65°	—	95 [5]	—	90 [11]
4 H 50 N NO TI TIC TIC-DPF TICD	21 + +160° [10]	23	20 + +65°	—	95 [5]	—	90 [11]



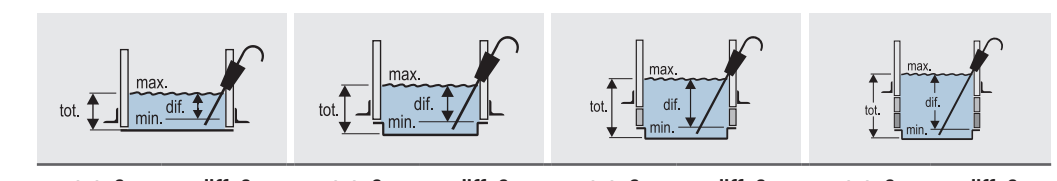
[>4]

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



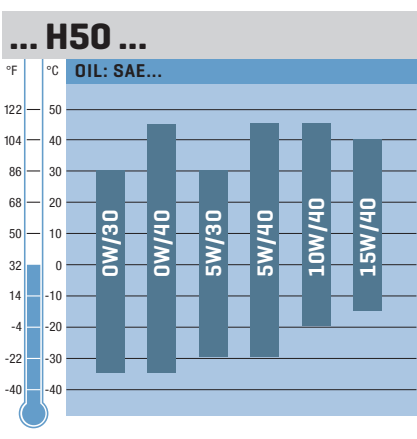
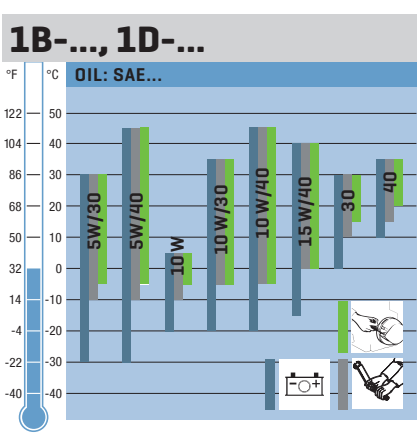
ACEA	API
B3 / E4*	CF / CH-4*
E6 / E8 E9 / E11 C3 / C4	CK-4 CJ-4
E6 / E7 / E9 C1 / C2 C3 / C4	CK-4 CJ-4 CI-4
E6 [recom.] E9 C3 / C4	CK-4 CJ-4

* oder höherwertiger
* or higher quality
* o de mayor calidad
* ou de qualité supérieure



	tot. l	diff. l	tot. l	diff. l	tot. l	diff. l	tot. l	diff. l
1 B 20 1 B 20 V	0.9	0.5	2.4	1.4	—	—	—	—
1 B 30 1 B 30 V	1.1	0.5	2.6	1.6	—	—	—	—
1 B 30 E 1 B 30 VE	1.1	0.5	2.5	1.5	—	—	—	—
1 B 40 1 B 40 V 1 B 50 1 B 50 V	1.5	0.8	3.2	2.2	—	—	—	—
1 B 50 E	1.5	0.8	3.2	2.2	—	—	—	—
1 D 41 1 D 42	—	—	1.2	0.4	2.8	2.0	4.4	3.6
1 D 50	—	—	1.5	0.5	—	—	—	—
1 D 81 1 D 90 1 D 90 E	—	—	1.9	0.9	3.2	2.2	4.5	3.5
1 D 90 V 1 D 90 VE	1.6	0.7	—	—	—	—	—	—
3 H 50 T TI TIC TIC-DPF TICD	5.0	0.8	—	—	—	—	—	—
3 H 50 [55°]**	5.9	1.0	—	—	—	—	—	—
4 H 50 N NO TI TIC TIC-DPF TICD	7.0	1.0	9.0	1.0	—	—	—	—
4 H 50 [50°]**	7.3	1.0	—	—	—	—	—	—

** mit Schräglagenpaket
** with tilt package
** con paquete de inclinación
** avec pack d'inclinaison



Oil Grade	tot. l	diff. l
0W/30	0.9	0.5
0W/40	1.1	0.5
5W/30	1.1	0.5
5W/40	1.5	0.8
10W/40	1.5	0.8
15W/40	—	—

Coolant [OPU]***		
3 H50 T	—	7.2 l
3 H50 TI 3 H50 TIC 3 H50 TICD	12.0 l	12.7 l
4 H50 N NO 4 H50 TI TIC 4 H50 TICD	12.5 l	13.2 l

*** Kühlmittelspezifikation = [1]
*** Coolant specification = [1]
*** Especificación del refrigerante = [1]
*** Spécification du liquide de refroidissement = [1]

<https://dsp.hatz.com/liquids>



Engine-No. / Serial-No.	In.		Ex.		I		II		III		r.p.m. ± 10 %								
	nom. mm	max. mm	nom. mm	max. mm	nom. mm	max. mm	nom. mm	max. mm	nom. mm	max. mm	850		1500		2300		3000		
	nom. mm	max. mm	nom. mm	max. mm	nom. mm	max. mm	nom. mm	max. mm	nom. mm	max. mm	nom.	min.	nom.	min.	nom.	min.	nom.	min.	
1 B 20 1 B 20 V 1 B 20 R	100.10-29 111.10-19 300.28-29 301.18-19	69.00	69.11	62	0.1	0.55-0.65	0±0.10	0.40	0±0.10	0.40									
100.30 111.20 300.30 301.20	0.2				0.45-0.55	0.5 neg. [2]	0.1 neg.	0.5 neg. [2]	0.1 neg.										
1 B 30 1 B 30 V 1 B 30 E 1 B 30 VE	101.10-24 112.10-15 302.24 303.14-15	80.00	80.11	69	0±0.10	0.40	0±0.10	0.40											
101.25-29 112.16-20 174.29 182.01-06 183.03 302.25-26 303.16-17	0.2				0.50-0.55	0.6 neg. [2]	0.2 neg.	0.6 neg. [2]	0.2 neg.										
1 B 40 1 B 40 V	110.10-13 117.10-13 304.12-13 305.12-13	88.00	88.13	76	0.1 [1]	0±0.10	0.40	0±0.10	0.40										
110.14-19 117.14-19 176.19 304.14 305.14	0.2				0.55-0.60	0.6 neg. [2]	0.2 neg.	0.6 neg. [2]	0.2 neg.										
1 B 50 1 B 50 V 1 B 50 E	124.10-16 126.10-16 177.16 184.01-05 190.10 306.10-11 307.10-11	93.00	93.11	76	0.6 neg. [2]	0.2 neg.	0.6 neg. [2]	0.2 neg.											
1 D 41	094.10-20	90.00	90.13	65	0.6±0.1	0.2	0.6±0.1	0.2											
	094.21-22				0.6±0.1neg. [2]	0.2 neg.	0.6±0.1neg. [2]	0.2 neg.											
1 D 42	133.10-11 155.10	90.00	90.13	70	0.6±0.1neg. [2]	0.2 neg.	0.6±0.1neg. [2]	0.2 neg.											
1 D 50	109.10-15	97.00	97.16	70	in. 0.1 +0.05	0.60-0.65	1.0±0.1	1.40	1.0±0.1	1.40									
	109.16-20 156.10 173.10-27				ex. 0.2 +0.05	0.6±0.1neg. [2]	0.2 neg.	0.6±0.1neg. [2]	0.2 neg.										
1 D 81	073.10-27 159.27 160.27 166.27 171.27 179.10 180.10 316.27	100.00	100.16	85	[1]	0.75-0.8	0.1-0.25	0.6	0.40-0.60	0.40-0.60	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 90 1 D 90 V 1 D 90 E 1 D 90 VE	108.10-19 108.20 113.10-17 167.20 169.20 170.17 181.10 185.01-06 188.10 189.06	104.00	104.16	85	0.3 +0.05	0.80-0.85	0±0.10	0.40	0±0.10	0.40	1.2	1.8	0.25-0.45	1.6					
							1D90V/W: 0.05-0.10	0.30-0.45	0.50-0.75										
3 H 50 T TI TIC TIC-DPF TICD	all	84.00	84.03	88	hydro [3]	0.6-0.7	0.6 neg. [2]	0.2 neg.	0.6 neg. [2]	0.2 neg.	0.1-0.2	0.5	0.2-0.35	0.6	0.6-0.8	1.0	0.25-0.5	1.0	2.5 - 4.5
4 H 50 N NO TI TIC TIC-DPF TICD																			



Engine-No. / Serial-No.	bar		psi		bar		psi	
	bar	psi	bar	psi	bar	psi	bar	psi
	bar	psi	bar	psi	bar	psi	bar	psi
1 B 20	100 [10 - 22]							
1 B 20V	111 [10 - 12]	200+12	2900+175					
1 B 20	100 [23 - 29] 300 [28 - 29]	250+12	3625+175					
1 B 20V	111 [13 - 19] 301 [18 - 19]							
1 B 20	100 [30 - 34] 300 [30 - 31]			200+10	2900+145			
1 B 20V	111 [20 - 24] 301 [20 - 24]							
1 B 30	101 [10 - 16]	180+8	2610+115					
1 B 30	101 [17 - 24] 302 [24]	220+12	3190+175					
1 B 30V	112 [10 - 15] 303 [14 - 15]							
1 B 30	101 [25 - 29] 302 [25 - 26]			200+10	2900+145			
1 B 30V	112 [16 - 20] 303 [16 - 17]							
1 B 30 E, VE	182 [01 - 06] 183 [03]							
1 B 30 DOC	174.29	200+10	2900+145					
1 B 40	110 [10 - 13] 304 [12 - 13]	220+12	3190+175					
1 B 40 V	117 [12 - 13] 305 [14]							
1 B 40	110 [14 - 19] 304 [14]			200+10	2900+145			
1 B 40 V	117 [14 - 19] 305 [14]							
1 B 40 DOC	176.19	200+10	2900+145					
1 B 50	124 [10 - 16] 306 [10 - 11]			200+10	2900+145			
1 B 50 V	126 [10 - 16] 307 [10 - 11]							
1 B 50 E	184 [01-05]	225+12	3260+175					
1 B 50 DOC	177.16	200+10	2900+145					
1 D 41 S,Z,T,U,C	094 [10 - 17]	200+8	2900+115					
1 D 41 S,Z,T,U,C	094 [18 - 20]	225+12	3260+175					
1 D 41 S,Z,C	094 [21 - 22]			225+8	3260+115			
1 D 42 S,Z,C	133 [10 - 11] 155 [10] 157 [10]			225+8	3260+115			

[1]

Anleitung zum Dieselmotor
Manual for diesel engine
Manual para el motor diésel
Notice Monteur diesel

[2]

pos. neg.

[3]

Reparaturbuch
Repair Manual
Manual de Reparaciones
Livret de réparation

[4]

VDI/VDE 2862-2
Bitte beachten - Kategorie A-Verschraubung!
Please note - Category A screw connection!
Atención - Conexión roscada de categoría A!
Veillez noter que - Catégorie A - Raccord à vis!