

Table C.5 (continued)

Core barrel designs				Coring bits		Rea- ming shells	Kerf width	Kerf area	Core area	Hole area	Core to hole area	Nomi- nal core size	Nomi- nal hole size
WF	WG	WM	WT	Set ID	Set OD	Set OD	mm	cm ²	cm ²	cm ²	%		
	NWG	NWM		54,86 54,61	75,44 75,18	75,82 75,56	10,46	21,46	23,53	44,99	52,20	54,50	76
			NWT	58,88 58,62	75,44 75,18	75,82 75,56	8,46	17,88	27,11	44,99	60,00	58,50	76
HWF	HWG			76,33 76,07	98,98 98,60	99,36 99,11	11,51	31,74	45,61	77,34	59,00	76,00	99
			HWT	81,08 80,82	98,98 98,60	99,36 99,11	9,14	25,88	51,46	77,34	66,50	81,00	99
PWF				92,33 91,95	120,27 119,76	120,78 120,40	14,22	47,53	66,68	114,21	58,40	92,00	121
SWF				112,95 112,57	145,57 145,16	146,18 145,80	16,61	67,52	99,86	167,39	59,70	112,50	146
UWF				140,08 139,57	174,12 173,36	174,75 174,24	17,32	85,59	153,56	239,15	64,20	140,00	175
ZWF				165,48 164,97	199,52 198,76	200,15 199,64	17,32	99,43	214,41	313,84	68,30	165,00	200
Key OD outer diameter ID inner diameter NOTE 1 WT and WG are single tube core barrel types. NOTE 2 WF, WG and WM are double tube core barrel types.													

C.3.3 Core barrels 'metric' series according to ISO 3552-1

Table C.6 — Core barrels 'metric' series according to ISO 3552-1

Core barrel type			Coring bits		Rea- ming shells	Kerf width	Kerf area	Core area	Hole area	Core to hole area
B	T	Z	Set OD	Set ID	Set OD	mm	cm ²	cm ²	cm ²	%
36	36		21,80 21,60	36,10 35,90	36,40 36,20	7,15	6,55	3,80	10,35	36,50
46	46		31,80 31,60	46,10 45,90	46,40 46,20	7,15	8,80	8,04	16,84	47,80
		46	27,80 27,60	46,10 45,90	46,40 46,20	9,15	10,68	6,16	16,84	36,50
56	56		41,80 41,60	56,10 55,90	56,40 56,20	7,15	11,04	13,85	24,89	55,90
		56	33,80 33,60	56,10 55,90	56,40 56,20	11,15	15,81	9,08	24,89	36,50
Key OD Outer diameter ID Inner diameter NOTE 1 B and Z are single tube core barrel types. NOTE 2 T is the double tube core barrel type.										

Table C.6 (continued)

Core barrel type			Coring bits		Rea- ming shells	Kerf width	Kerf area	Core area	Hole area	Core to hole area
B	T	Z	Set OD	Set ID	Set OD	mm	cm ²	cm ²	cm ²	%
66	66		51,80 51,60	66,10 65,90	66,40 66,20	7,15	13,28	21,24	34,52	61,60
		66	43,80 43,60	66,10 65,90	66,40 66,20	11,15	19,31	15,21	34,52	44,10
76	76		61,80 61,60	76,10 75,90	76,40 76,20	7,15	15,53	30,19	45,72	66,70
		76	53,80 53,60	76,10 75,90	76,40 76,20	11,15	22,83	22,90	45,72	50,00
86	86		71,80 71,60	86,10 85,90	86,40 86,20	7,15	17,78	40,71	58,49	69,80
		86	61,80 61,60	86,10 85,90	86,40 86,20	11,15	28,30	30,19	58,49	53,00
101			86,80 86,60	101,10 100,90	101,40 101,20	7,15	21,25	59,45	80,60	72,70
		101	74,80 74,60	101,10 100,90	101,40 101,20	13,15	36,42	44,18	80,60	54,90
116			101,80 101,60	116,10 115,90	116,40 116,20	7,15	24,52	81,71	106,23	76,80
		116	89,80 89,60	116,10 115,90	116,40 116,20	13,15	42,61	63,62	106,23	59,70
131			116,80 116,60	131,10 130,90	131,40 131,20	7,15	27,89	107,51	135,40	79,40
		131	104,80 104,60	131,10 130,90	131,40 131,20	13,15	48,81	86,59	135,40	64,00
146			131,80 131,60	146,10 145,90	146,40 146,20	7,15	31,26	136,85	168,11	81,40
		146	119,80 119,60	146,10 145,90	146,40 146,20	13,15	55,01	113,10	168,11	67,30
Key OD Outer diameter ID Inner diameter NOTE 1 B and Z are single tube core barrel types. NOTE 2 T is the double tube core barrel type.										

C.3.4 Core barrels air flush

Table C.7 — Core barrels air flush

Bit set	HWAF		412 F	
	inch	mm	inch	mm
OD	3,906	99,20	4,220	107,20
ID	2,812	71,40	2,942	74,70

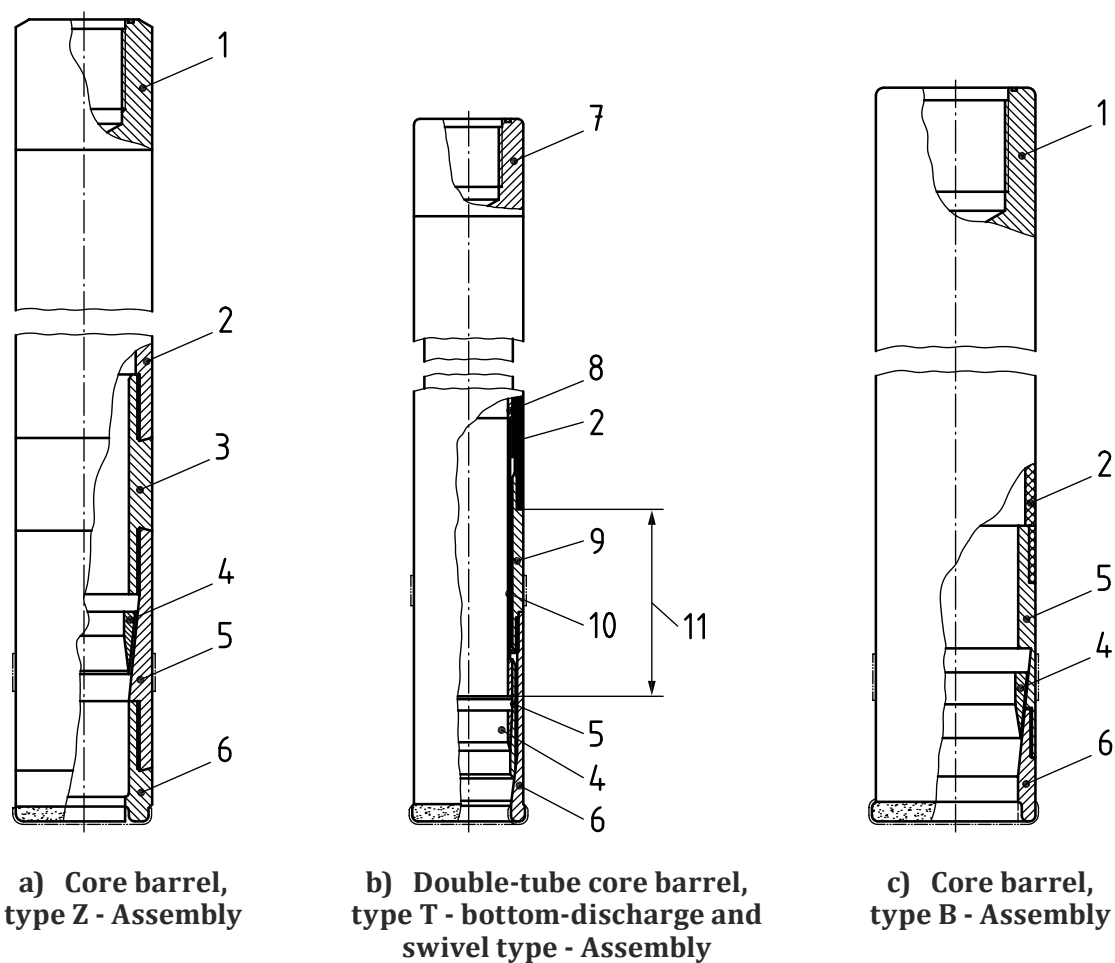
The PWF, SWF, UWF and ZWF Double Tube Swivel type core barrels are also suitable for use with air flush by the incorporation of an air flush type core bit.

Table C.8 — Drill rods and casing

Casing				Core or drilling diameter			Rotary core drilling										
W' series Standard	Metric standard						Double tube barrel		Single tube barrel		Wireline barrel		Drill rods				
OD ID mm	OD mm	ID mm	Weight kg/m				Type	Core Ø mm	Type	Core Ø mm	Type	Core Ø mm	OD Ø mm	OD Ø "	Cplg. inside mm	weight kg/m	
	508	480	101,5	508							PR						
	419	394	126	419									244,0		190,0	80,2	
	343	318	102	343							TS						
	324	299	85,3	324									194,0		90,0	62,6	
	311	286	91,3	311							PR						
	298	273	88,8	298									146,0		127,0	36,0	
	273	248	80,9	273							F-273	248,0		140,0		125,5	26,0
	254	232	74,7	254													
244	223	69,6	246/244					F 246	220,0		140,0		125,5	26,0			
ZW	219	199	51,6	222													
219,1	203	183	47,6	219					F 222	196,0		140,0		125,5	26,0		
203,1				202/199			SF 219	190,0				140,0		125,5	26,0		
UW								F 202	178,0				73,0		32,0	17,0	
193,7	194	174	45,3		198		SF 199	170,0	Z	186,0			140,0		125,5	26,0	
177,7													172,0		151,0	42,0	
													73,0		32,0	17,0	
	178	163	30		182				F 182	158,0			140,0		125,5	26,0	
													172,0		151,0	42,0	
SW	168,3	154	28,3		176/179		SF-179	150,0	Z	146,0			73,0		32,0	17,0	
152,3	168	154	28,3				K3	140,0			SK		140,0		125,5	26,0	
											176,0	132,0	172,0		151,0	42,0	
PW	139,7	134	16,3		146/150		T 6	123,0					73,0		32,0	17,0	
127	143	134	16,3		SQ		T 6 S	116,0	B	132,0			140,0		125,5	26,0	
							K 3	116,0	Z	120,0	SK		140,0		125,5	26,0	
							D	122,0			146,0	102,0					
							T 6	108,0					73,0		32,0	17,0	
	128	119	14,4		131		T 6 S	101,0	B	117,0			HW	88,9	3 1/2	60,3	12,6
							K 3	101,0	Z	105,0							
							D	110,0									
							F	101,0									
HW	114,7	104	12,7		122,6 (PQ/CP)		T 6	93,0					73,0		32,0	17,0	
101	113	104	12,7				T 6 S	86,0	B	102,0							
					116		K 3	86,0	Z	60,0	PQ		117,8		103,2	19,0	
							D	96,0			122,6	85,0					
NW	88,9	89	10,4		101		T 2	84,0					73,0		32,0	17,0	
							T 6	79,0									
							T 6 S	72,0	B	87,0			HW	88,9	3 1/2	60,3	12,6
							K 3	72,0	Z	75,0							
							D	81,0									
	84	77	7		96 HQ						HQ		88,9	3 1/2	60,3	12,6	
					99,2 HW						96,0	63,5					
							HWG				HXB		90,0		76,0	14,3	
							99,2	76,2			92,8	61,2					
	84	77	7		86		T 2	72,0	B	72,0			50,0		22,0	6,9	
							T6	67,0	Z	62,0			88,9	3 1/2	60,3	12,6	
							D	66,0					63,5		25,0	12,0	
BW	73	74	6,1		76		T 2	62,0	B	62,0			50,0		22,0	6,9	
							T6	57,0	Z	54,0			88,7	3 1/2	60,3	12,6	
	60,3	74	6,1				D	56,0					63,5		25,0	12,0	
					75,7 NQ		NWG				NQ	47,6	66,7		34,9	12,5	
					NW		75,8	54,7			NXB	75,7	69,9		60,3	7,7	
													73,0		32,0	17,0	
	64	57	5,2		66		T 2	52,0									
							T6	47,0	B	52,0			53,0		22,0	4,1	
							D	46,0	Z	44,0			50,0		22,0	6,9	
AW	57,4	54	4,4		60 BQ		BWG						51,0		15,0	9,7	
48,4	54	47	4,4		BW		60,0	42,0			BQ		54,0		19,0	9,5	
											60,0	36,3	55,6		46,0	6,0	
	54	47	4,4		56		TT	45,5	B	42,0			53,0		22,0	4,1	
							T2	42,0					50,0		22,0	6,9	
													51,0		15,0	9,7	
EW					AQ		AWG						43,7		15,9	5,7	
46,3	44	37	3,5		48		48,0	30,1			AQ		44,5		34,9	4,7	
38,1					AW						48,0	27,0					
					46		TT	35,6	B	32,0			43,0		22,0	2,5	
							T2	32,0					42,0		22,0	4,4	
													33,0		15,0	1,7	
					37,7	EW							33,5		15,0	3,3	
							EWG	37,7	21,5				HW				
													34,9		11,1	4,5	
RW	36,6				36		T	22,0					33,0		15,0	1,7	
30,2							RWT	29,8	18,6	B	22,0		33,5		15,0	3,3	
													27,7		10,3	2,9	

C.4 Schematic illustrations of single and double-tube core barrels

C.4.1 Core barrels 'metric' series according to ISO 3552-1



Key

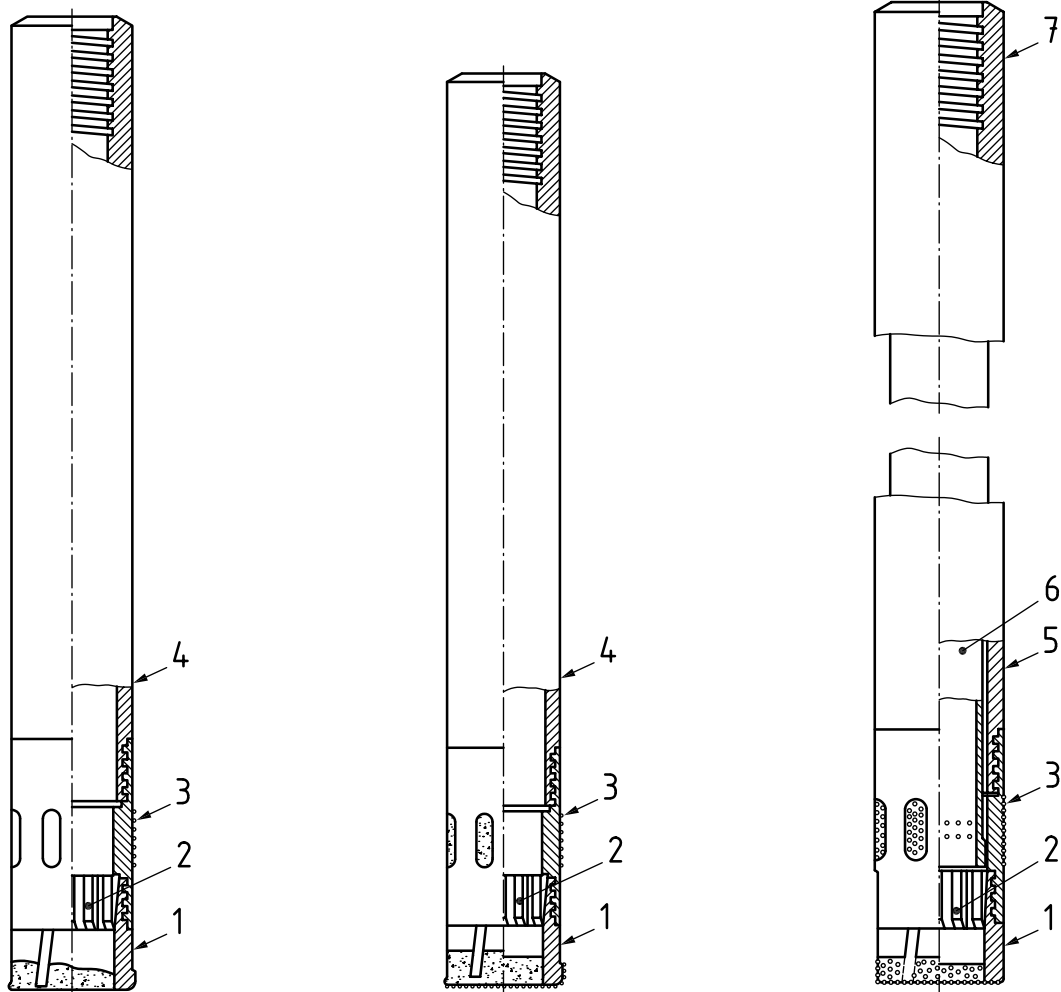
- 1 head
- 2 outer tube
- 3 core-lifter coupling
- 4 core lifter
- 5 core-lifter case
- 6 bit
- 7 core barrel head [only the thread (right-hand thread) for connection to drill rod is standardised]
- 8 inner tube
- 9 reaming shell
- 10 extension tube
- 11 projecting part of inner tube

Figure C.4 — Core barrels 'metric' series according to ISO 3552-1

Table C.9 — Core barrels 'metric' series according to ISO 3552-1

Size	Projection mm ± 0,5
36	117
46	118
56	116,50
66	117,50
76	
86	

C.4.2 Core barrels 'W' series according to ISO 3551-1



a) 'WG' design single-tube core barrel - Assembly^a

b) 'WT' design single-tube core barrel - Assembly^a

c) 'WG' design double-tube core barrel - Assembly^b

Key

- 1 core bit
- 2 core lifter
- 3 reaming shell
- 4 tube
- 5 outer tube
- 6 inner tube
- 7 head (rigid or swivel)

^a Bits and core springs are interchangeable with double-tube barrels.

^b Bits and core springs are interchangeable with single-tube barrels.

Figure C.5 — Core barrels 'W' series according to ISO 3551-1

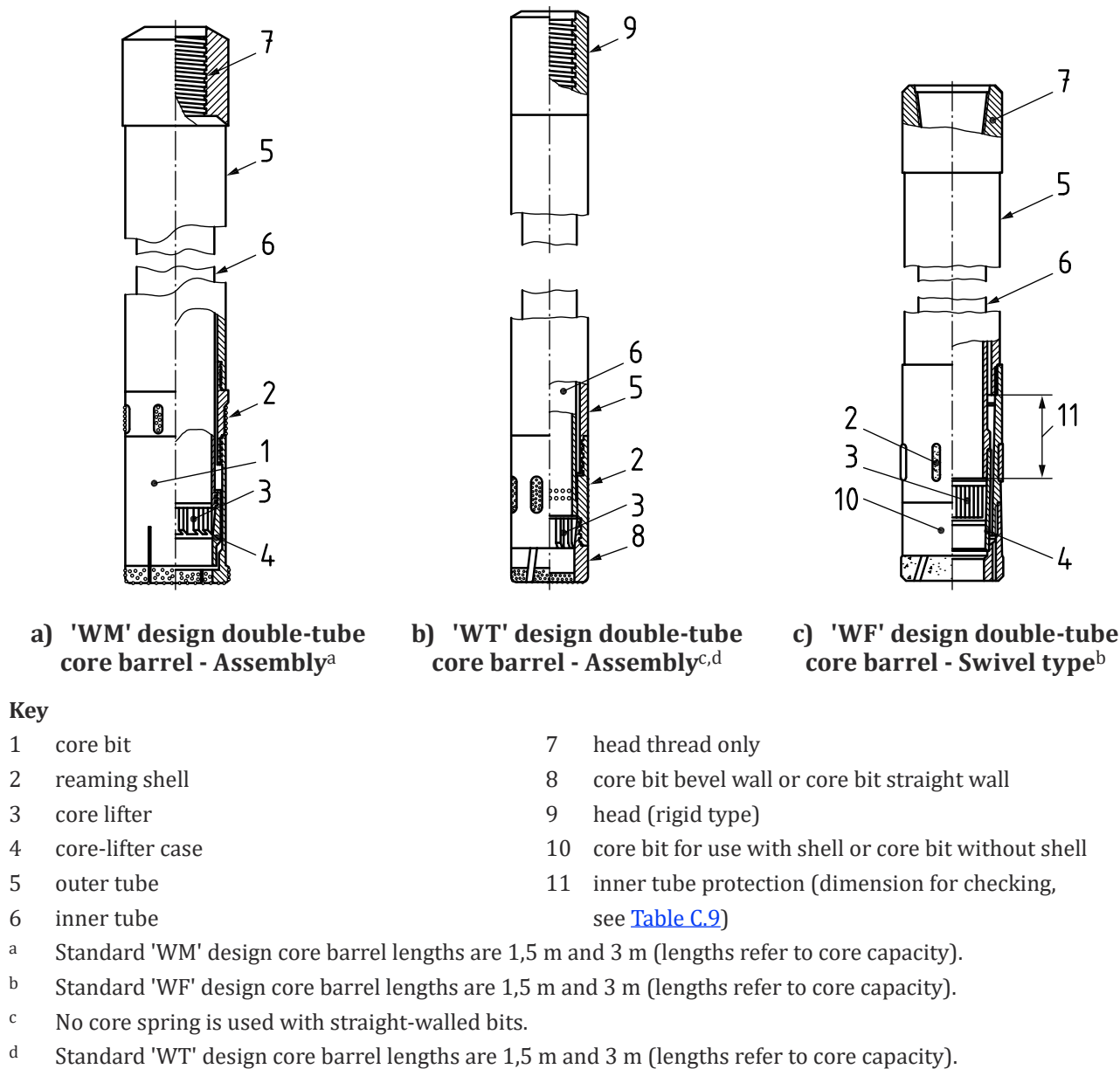
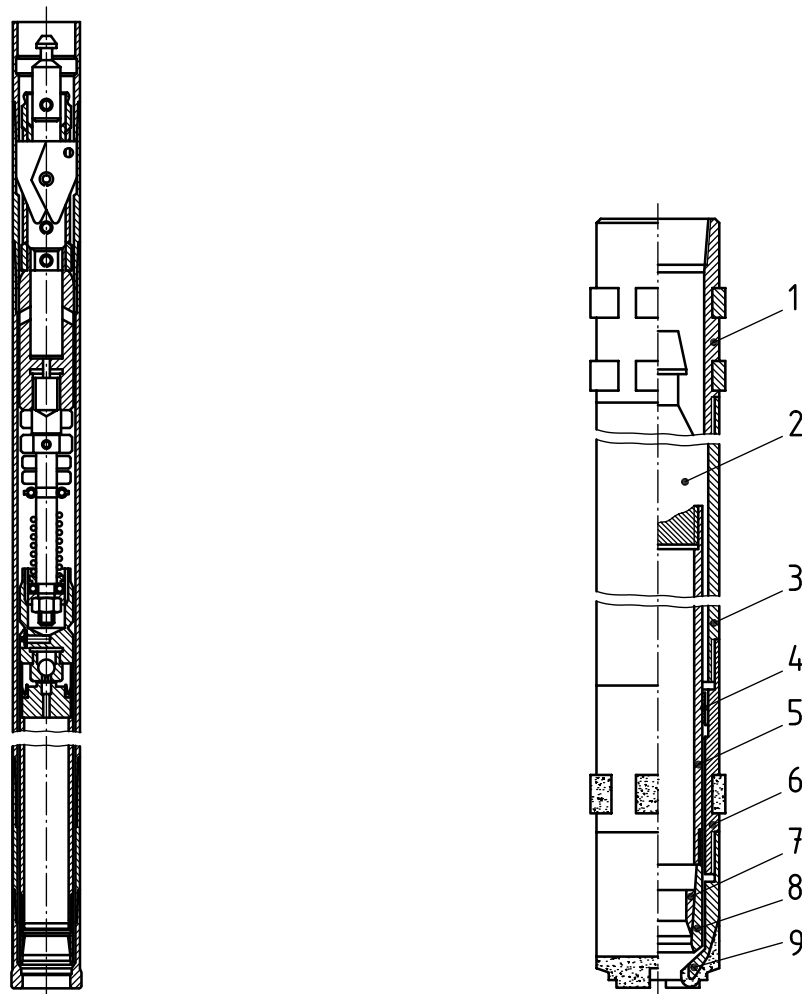


Figure C.6 — Core barrels 'W' series according to ISO 3551-1

C.5 Schematic illustrations of wireline and geotechnical wireline core barrels

C.5.1 Wireline core barrel assembly



a) Typical wireline core barrel

b) Parts standardised in ISO 10097-1^a

Key

- 1 head (not standardised)
- 2 bearing unit (not standardised)
- 3 outer core barrel
- 4 stabiliser (not standardised)
- 5 retractable innertube assembly
- 6 reaming shell
- 7 core lifter
- 8 core-lifter case
- 9 bit

^a For full information regarding standardised dimensions, refer to ISO 10097-1.

Figure C.7 — Wireline core barrel assembly

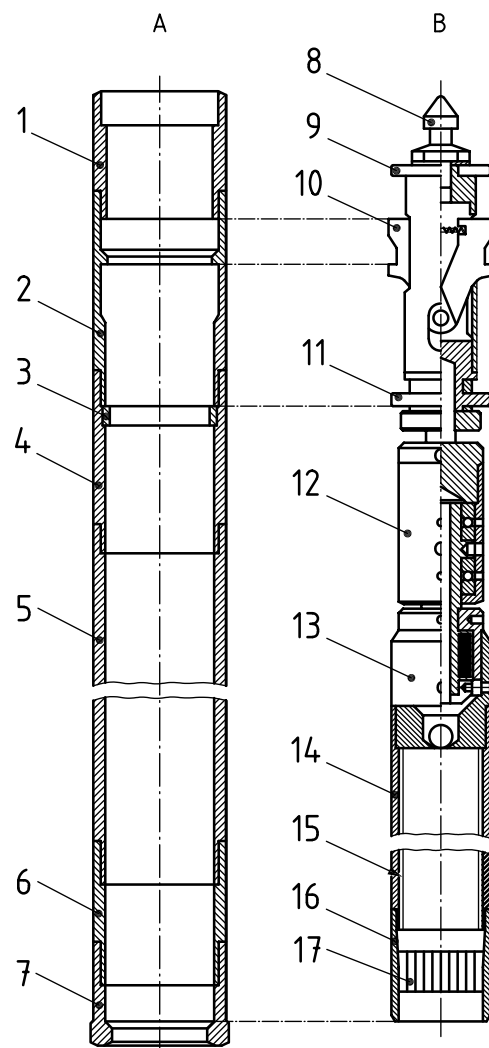
Table C.10 — Wireline drill rod dimensions

Equipment	A size mm	B size mm	N size mm	H size mm	P size mm
Rod OD	44,5	55,6	69,9	88,9	114,3
Rod ID	34,9	46,0	60,3	77,8	103,2
Cplg OD	—	—	—	—	117,5
Cplg. ID	—	—	—	—	103,2
Thds / in.	3	3	3	3	3

Table C.11 — Wireline core barrel dimensions

Equipment	A size mm	B size mm	N size mm	H size mm	P size mm
Core size	27,0	36,5	47,6	63,5	85,0
Hole size	48,0	60,0	75,6	96,1	122,7
Outer tube OD	46,0	57,2	73,2	92,1	117,5
Outer tube ID	36,5	46,0	60,5	77,8	103,2
Inner tube OD	32,5	42,9	55,6	73,0	95,3
Inner tube ID	28,6	38,1	50,0	66,7	88,9

C.5.2 Geotechnical wireline core barrel



Key

A	outer tube assembly	B	Inner tube assembly
1	drill and coupling	8	lifting spear
2	locking coupling	9	upper stabiliser
3	landing ring	10	latches
4	adapter coupling	11	lower stabiliser
5	outer tube	12	bearing assembly
6	blank reaming shell	13	inner tube bung
7	core bit (not included)	14	outer tube
		15	plastic coreliner
		16	core-lifter case
		17	core lifter

Figure C.8 — Geotechnical wireline core barrel (inner and outer tube assembly)