



Reverse Circulation Hammers & Bits

Reverse Circulation Service Guide

When breaking a Hammer down, avoid placing breakout tools in the mid section of the cylinder (barrel). Recommended breakout points are 130mm from each end of cylinder. Wrap around chain type breakouts are recommended. (See diagram). When holding bits for breakout, use a secure plate or pot to grab the bit head, but never on the gauge row buttons.

This information is included with every Hammer purchase.



DO NOT APPLY HEAT OR DIRECT IMPACT TO HAMMER WHEN CRACKING JOINTS AS THIS TYPICALLY DAMAGES THE HAMMER.

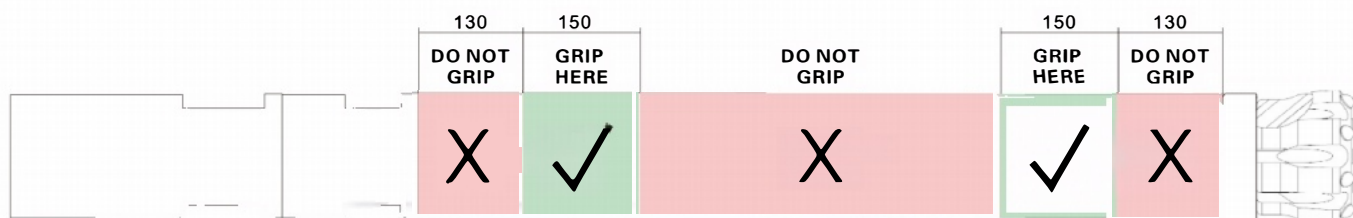


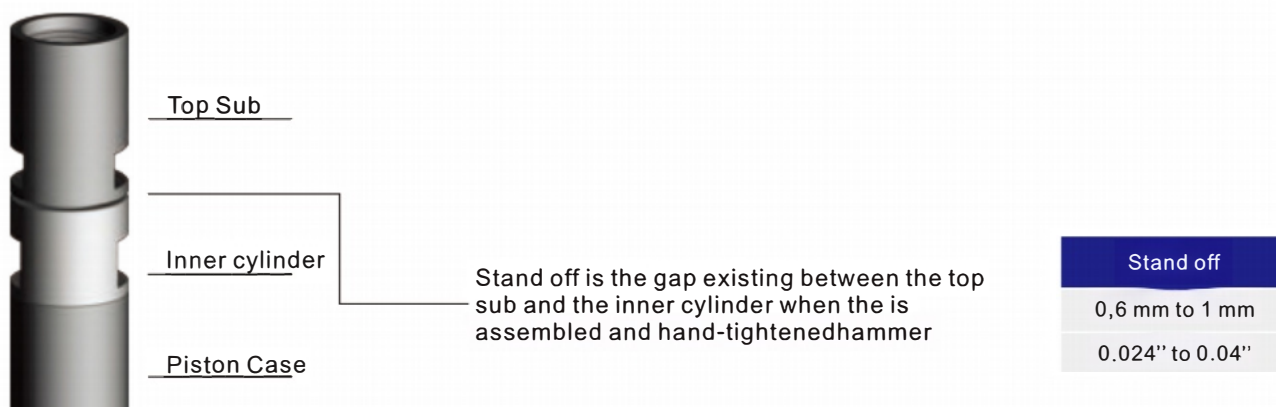
Figure1:Gripping Locations For FsiKon DRILL Reverse Circulation Hammer

Lubrication

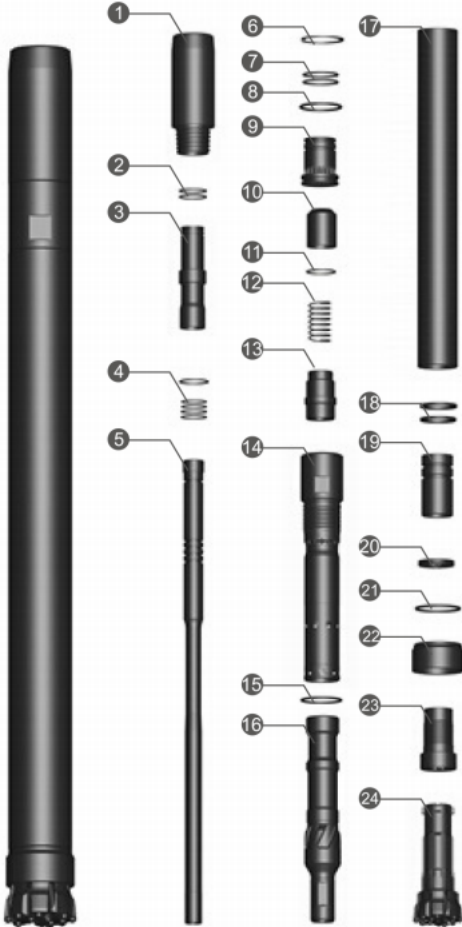
Correct lubrication is critical to the performance and longevity of the hammer.

Recommends:

- Oil Grade: SAE 320 Hammer Oil for most operating conditions
- Rate: 2 liter/hour minimum via an automatic feeder
- Double the rate when injecting fluids such as water, foam & polymers
- Clean and relubricate the hammer each day after use to prevent corrosion and premature failure



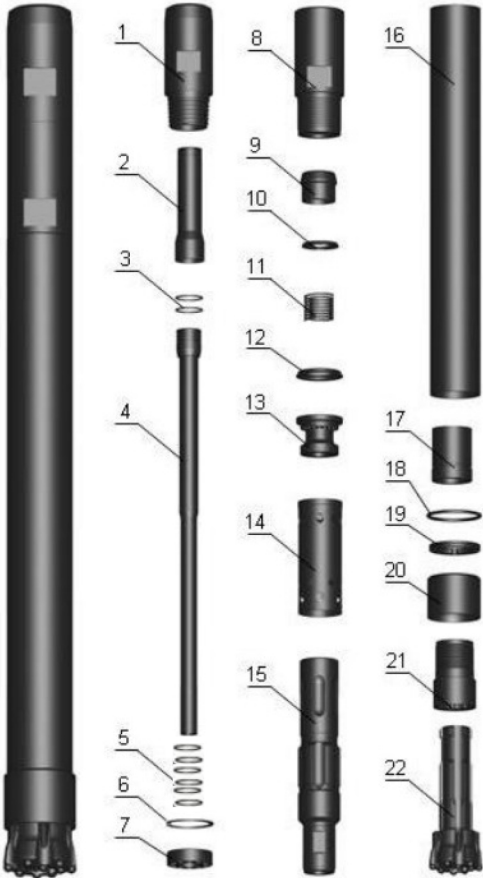
FS531 R.C. HAMMER

3" R.C. Hammers		Item Description	Weight (Kg)	Part Number
	1	Top Sub-Remet 3"	3.76	FS531-TSUB-R3
		O ring (Adaptor Tube Remet 3") x 2	0.01	FS531-SK-TSUB-R3
	3	Adaptor Tube Remet 3"	1.85	FS531-ASCREENR3
	4	O ring (Sample Tube) x 4	0.01	FS531-SK-STUBE
	5	Sample Tube	1.97	FS531-STUBE
	6	Circlip	0.04	FS531-CIRCLIP
	7	O ring (Distributor 1) x2	0.01	FS531-SK-DIST-1
	8	O ring (Distributor 2) x1	0.01	FS31-SK-DIST-2
		Distributor	0.37	FS531-DIST
	10	Check Valve/Plunger	0.08	FS531-CVALVE
	11	O ring (Check Valve) x 1	0.01	FS531-SK-CVALVE
	12	Spring	0.1	FS531-SPRING
	13	Mount Sample Tube	0.49	FS531-STUBE-MOUNT
		Inner Cylinder/Top Barrel	3.4	FS531-ICYL
		O ring (Inner Cylinder) x 1	0.01	FS531-SK-ICYL
	16	Piston	4.69	FS531-PISTON
	17	External Cylinder/Barrel/Piston Case	9.2	FS531-ECYL
	18	Seal Cover/O ring (Bearing Bush) x 2	0.02	FS531-SCOVER
	19	Bearing Bush	1.03	FS531-BUSH
		Bit Stop Ring	0.08	FS531-SRING
		O ring (Bit Stop Ring) x 1	0.01	FS531-SK-SRING
	22	Shroud	0.45	FS531-SHROUD-85/83
		Drive Sub	1.6	FS531-DSUB
		Drill Bit	4.2	FS531-85DC-TV
		Seal Kit (Item 2+4+7+8+11+18+21)	0.2	FS531-SK

Technical Data

Length(Less bit)	Veigth(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1069mm	29.0kg	Φ81	BD531	Φ84-Φ100	3 " Remet
Box Size	Impact rate at 2.4Mpa	Recommended rotation speed		Air Consumption	
				200-500 (PSI)	
1100x110x120mm	30HZ	25-40r/min		300-1200 (CFM)	

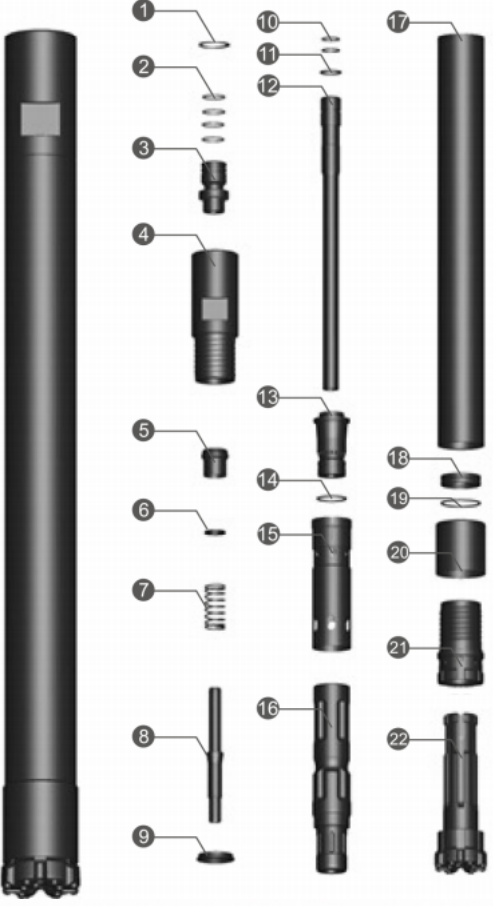
RC3.5 R.C. HAMMER

3.5" R.C. Hammers	Item Description	Weight (Kg)	Part Number
	① Top Sub-Remet 3"	6.13	RC3.5-TSUB-R3
	② Adaptor Tube Remet 3"	1.49	RC3.5-ASCREEN-R3
	③ O ring (Adaptor Tube Remet 3") x 2	0.01	RC3.5-SK-ASCREEN-R3
	④ Sample Tube	3.31	RC3.5-STUBE
	⑤ O ring (Sample Tube) x6	0.01	RC3.5-SK-STUBE
	⑥ Circlip	0.01	RC3.5-CIRCLIP
	⑦ Distributor	0.3	RC3.5-DIST
	⑧ Top Barrel(Sub)	5.38	RC3.5-TBARREL
	⑨ Check Valve/Plunger	0.28	RC3.5-CVALVE
	⑩ Y ring (Check Valve)	0.01	RC3.5-SK-CVALVE
	⑪ Spring	0.05	RC3.5-SPRING
	⑫ Compression Buffer/Make up ring steel	0.28	RC3.5-MUR-STEEL
	⑬ Mount Sample Tube	0.87	RC3.5-STUBE-MOUNT
	⑭ Inner Cylinder	1.26	RC3.5-ICYL
	⑮ Piston	8.33	RC3.5-PISTON
	⑯ External Cylinder/Barrel/Piston Case	10.8	RC3.5-ECYL
	⑰ Bearing Bush (Cold Pressed)	1.47	RC3.5-BUSH
	⑱ O ring (Bit Stop Ring) x 1	0.01	RC3.5-SK-SRING
	⑲ Bit Stop Ring	0.17	RC3.5-SRING
	⑳ Shroud	1.1	RC3.5-SHROUD-104/102
	㉑ Drive Sub	2.9	RC3.5-DSUB
	㉒ Drill bit	8	RC3.5-104DC-TV
	㉓ Seal Kit(3+5+10+18)	0.2	RC3.5-SK

Technical Data

Length(Less bit)	Weigth(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1184mm	44.0kg	Φ94	RC3.5Y	Φ100-Φ110	3 " Remet
Box Size	Impact rate at 2.4Mpa	Recommended rotation speed	Air Consumption		
			200-500 (PSI)		
1230x120x150mm	30HZ	25-40r/min	300-1200 (CFM)		

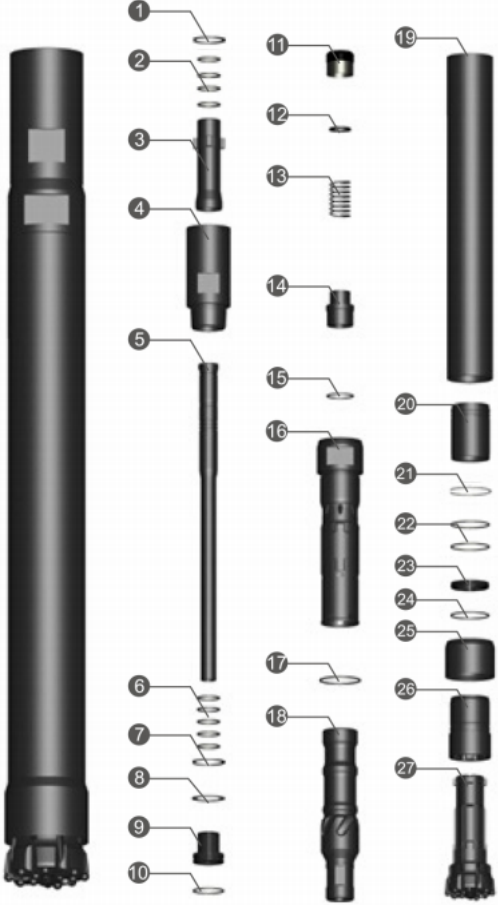
FS004 R.C. HAMMER

4" R.C. Hammers		Item Description	Weight (Kg)	Part Number
		A Top sub Assy Remet 3.5"		
		1 Circlip	0.02	FS004-CIRCLIP
		2 O ring Adaptor Tube Remet 3.5" x 4	0.02	FS004-SK-ASCREENR3.5
		3 Adaptor Tube Remet 3.5"	1.06	FS004-ASCREEN-R3.5
		Top Sub-Remet 3.5"	7.79	FS004-TSUB-R3.5
		B Top sub Assy Remet 4"		
		1 Circlip	0.02	FS004-CIRCLIP
		2 O ring Adaptor Tube Remet 4" x 4	0.02	FS004-SK-ASCREENR4
		3 Adaptor Tube Remet 4"	1.06	FS004-ASCREEN-R4
		Top Sub-Remet 4"	7.79	FS004-TSUB-R4
		C Top sub Assy Metzke 4"		
		1 Circlip	0.02	FS004-CIRCLIP
		2 O ring Adaptor Tube Metzke 4" x 2	0.02	FS004-SK-ASCREENM4
		3 Adaptor Tube Metzke 4"	1.06	FS004-ASCREEN-M4
		4 Top Sub-Metzke 4"	7.79	FS004-TSUB-M4
		Parts List		
		5 Check Valve/Plunger	0.51	FS004-CVALVE
		6 Y ring (Check Valve)	0.01	FS004-SK-CVALVE
		7 Spring	0.06	FS004-SPRING
		8 Sample Tube Upper	0.74	FS004-STUBE-U
		9 Make Up Ring, Steel	0.17	FS004-MUR-STEEL
		10 O ring (Sample Tube) x2	0.02	FS004-SK-STUBE1
		11 O ring (Sample Tube) x1	0.02	FS004-SK-STUBE2
		12 Sample Tube Lower	2.38	FS004-STUBE
		13 Distributor	1.75	FS004-DIST
		O ring (Distributor)	0.02	FS004-SK-DIST
		15 Inner Cylinder	2.45	FS004-ICYL
		Piston	10.45	FS004-PISTON
		17 Piston Case with Bush (cold press)	17.95	FS004-ECYL
		18 Bit Stop Ring	0.29	FS004-SRING
		19 O ring (Bit Stop Ring)	0.02	FS004-SK-SRING
		Shroud	1.05	FS004-SHROUD-115/113
		Drive Sub	3.13	FS004-DSUB
		Drill Bit	11.7	FS004-115DC-TV

Technical Data

Length(Less bit)	Weigth(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1252mm	52.0kg	Φ107	BD004	Φ111-Φ127	3.5" -4 " Remet 4 " Metzke
Box Size	Impact rate at 2.4Mpa	Recommended rotation speed	Air Consumption		
			200-500 (PSI)		
1300x150x180mm	30HZ	25-40r/min	300-1200 (CFM)		

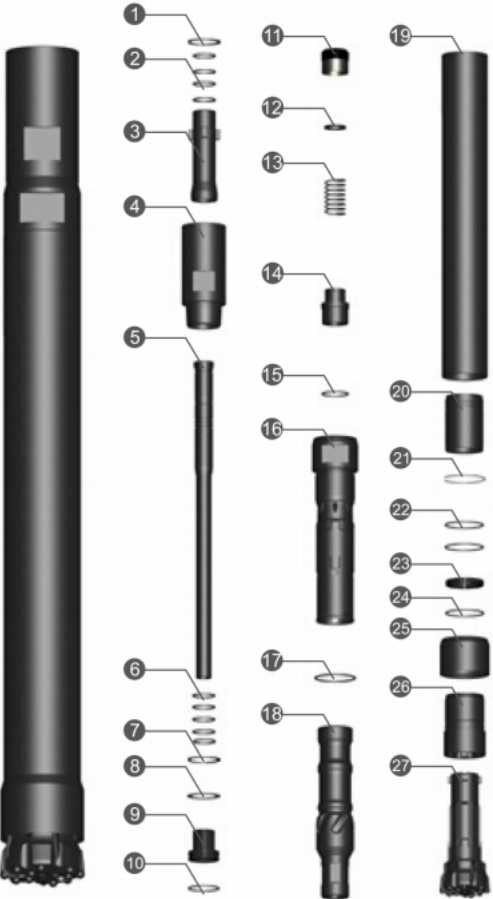
FS542 R.C. HAMMER

4.5" R.C. Hammers		Item Description	Weight (Kg)	Part Number
		A Top sub Assy Remet 3.5"		
		1 Circlip A	0.04	FS543/542-CIRCLIP-R3.5
		2 O ring (Adaptor Tube Remet 3.5")x 4	0.02	FS543/542-SK-ASCREENR3.5
		3 Adaptor Tube Remet 3.5"	2.55	FS543/542-ASCREEN-R3.5
		4 Top Sub-Remet 3.5"	8.52	FS543/542-TSUB-R3.5
		B Top sub Assy Remet 4"		
		1 Circlip A	0.02	FS543/542-CIRCLIP-4
		2 O ring (Adaptor Tube Remet 4") x 4	0.02	FS543/542-SK-ASCREENR4
		3 Adaptor Tube Remet 4"	2.55	FS543/542-ASCREEN-R4
		4 Top Sub-Remet 4"	8.52	FS543/542-TSUB-R4
		C Top sub Assy Metzke 4"		
		1 Circlip A	0.02	FS543/542-CIRCLIP-4
		2 O ring (Adaptor Tube Metzke 4") x 2	0.02	FS543/542-SK-ASCREENM4
		3 Adaptor Tube Metzke 4"	2.55	FS543/542-ASCREEN-M4
		4 Top Sub-Metzke 4'	8.52	FS543/542-TSUB-M4
		Parts List		
		5 Sample Tube	3.5	FS543/542-STUBE
		6 O ring (Sample Tube) x 5	0.02	FS543/542-SK-STUBE
		7 Circlip B	0.02	KFS543/542-CIRCLIP-4
		8 Air Screen	0.04	FS543/542-AIRSCREEN
		9 Distributor	0.56	FS543/542-DIST
		10 O ring (Distributor)	0.02	FS543/542-SK-DIST
		11 Check Valve/Plunger	0.5	FS543/542-CVALVE
		12 Y ring (Check Valve)	0.02	FS543/542-SK-CVALVE
		Spring	0.08	FS543/542-SPRING
		14 Mount Sample Tube	0.86	FS543/542-STUBE-M
		15 Y Ring (Mount Sample Tube)	0.02	FS543/542-SK-STUBEM
		16 Inner Cylinder/Top Barrel	7.26	FS542-ICYL
		17 O ring (Inner Cylinder)	0.02	FS543/542-SK-ICYL
		Piston	11.64	FS543/542-PISTON
		19 External Cylinder/Barrel/Piston Case	19.17	FS542-ECYL
		Bearing Bush	0.05	FS543/542-PRING
		Bush Retaining Ring	2.35	FS543/542-BUSH
		O ring (Bearing Bush) x 2	0.02	FS543/542-SK-BUSH
		Bit Ring	0.26	FS543/542-SRING
		O ring (Bit Ring)	0.02	FS543/542-SK-SRING
		Shroud	2.21	FS543/542-SHROUD-127/125
		Drive Sub	2.94	FS543/542-DSUB
		Drill Bit	10.96	FS543/542-127DC
		Seal Kit (Item 2+6+10+12+15+17+22+24)	0.3	FS543/542-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1191mm	57.0kg	Φ109.5	BD542	Φ113-Φ130	3.5" -4 " Remet 4 " Metzke
Box Size	Impact rate at 2.4Mpa	Recommended rotation speed	Air Consumption		
			200-500 (PSI)		
1230x140x170mm	35HZ	25-40r/min	300-1200 (CFM)		

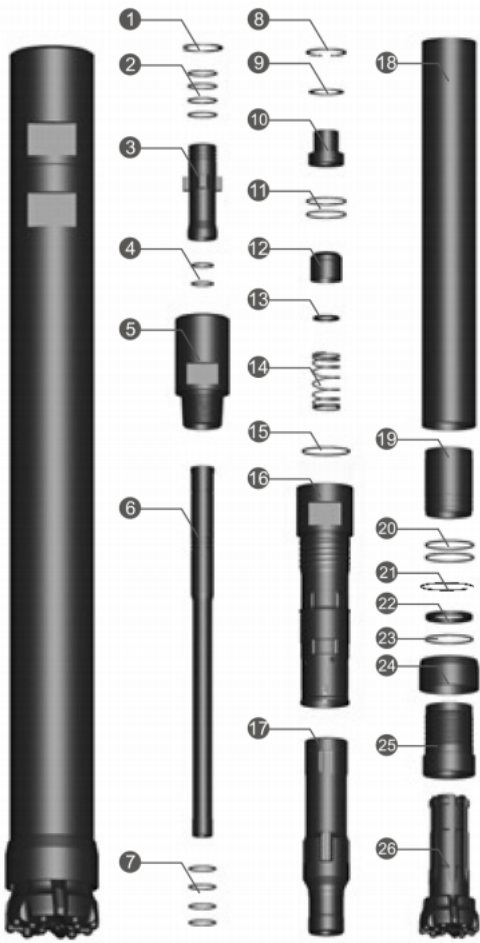
FS543 R.C. HAMMER

4.5" R.C. Hammers		Item Description	Weight (Kg)	Part Number
		A Top sub Assy Remet 4"		
		1 Circlip A	0.04	FS543/542-CIRCLIP-4
		2 O ring (Adaptor Tube Remet 4") x 4	0.02	FS543/542-SK-ASCREENR4
		Adaptor Tube Remet 4"	2.55	FS543/542-ASCREEN-R4
		4 Top Sub-Remet 4"	8.52	FS543/542-TSUB-R4
		B Top sub Assy Metzke 4"		
		1 Circlip A	0.02	FS543/542-CIRCLIP-4
		2 O ring (Adaptor Tube Metzke 4") x 2	0.02	FS543/542-SK-ASCREENM4
		3 Adaptor Tube Metzke 4"	2.55	FS543/542-ASCREEN-M4
		4 Top Sub-Metzke 4"	8.52	FS543/542-TSUB-M4
		Parts List		
		5 Sample Tube	3.50	FS543/542-STUBE
		6 O ring (Sample Tube) x 5	0.02	FS543/542-SK-STUBE
		7 Circlip B	0.02	FS543/542-CIRCLIP-4
		8 Air Screen	0.04	FS543/542-AIRSCREEN
		Distributor	0.56	FS543/542-DIST
		10 O ring (Distributor)	0.02	FS543/542-SK-DIST
		11 Check Valve/Plunger	0.50	FS543/542-CVALVE
		12 Y ring (Check Valve)	0.02	FS543/542-SK-CVALVE
		13 Spring	0.08	FS543/542-SPRING
		14 Mount Sample Tube	0.86	FS543/542-STUBE-M
		15 Y Ring (Mount Sample Tube)	0.02	FS543/542-SK-STUBEM
		16 Inner Cylinder/Top Barrel	7.26	FS543-ICYL
		17 O Ring (Inner Cylinder)	0.02	FS543/542-SK-ICYL
		Piston	11.64	FS543/542-PISTON
		19 External Cylinder/Barrel/Piston Case	19.17	FS543-ECYL
		Bearing Bush	0.05	FS543/542-PRING
		21 Bush Retaining Ring	2.35	FS543/542-BUSH
		O ring (Bearing Bush) x 2	0.02	FS543/542-SK-BUSH
		Bit Ring	0.26	FS543/542-SRING
		O ring (Bit Ring)	0.02	FS543/542-SK-SRING
		Shroud	2.21	FS543/542-SHROUD-127/125
		Drive Sub	2.94	FS543/542-DSUB
		Drill Bit	10.96	FS543/542-127DC
		Seal Kit (Item 2+6+10+12+15+17+22+24)	0.30	FS543/542-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1191mm	62.0kg	Φ116	BD543	Φ113-Φ133	3.5" -4 " Remet 4 " Metzke
Box Size	Impact rate at 2.4Mpa	Recommended rotation speed		Air Consumption	
				200-500 (PSI)	
1230x140x170mm	35HZ	25-40r/min		300-1200 (CFM)	

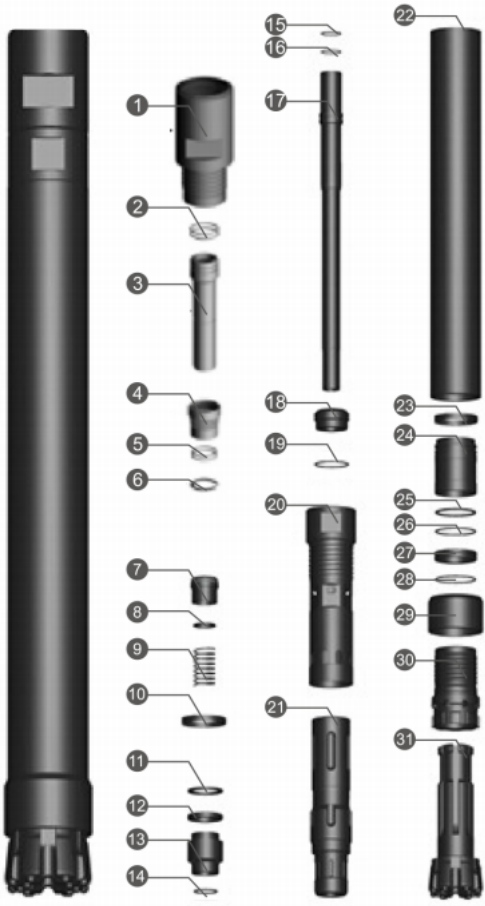
FS545 R.C. HAMMER

5" R.C. Hammers		Item Description	Weight (Kg)	Part Number
		A Top sub Assy Metzke 4.5"		
		1 Circlip A	0.04	FS545-CIRCLIP-R4.5
		2 O ring Adaptor Tube Remet 4.5" x 4	0.02	FS545-SK-ASCREENR4.5
		3 Adaptor Tube Remet 4.5"	2.95	FS545-ASCREEN-R4.5
		O ring Adaptor Tube x 2	0.02	FS545-SK-ASCREENMR
		Top Sub-Remet 4.5"	6.98	FS545-TSUB-R4.5
		B Top sub Assy Metzke 4.5"		
		1 Circlip A	0.04	FS545-CIRCLIP-M4.5
		2 Adaptor Tube Metzke 4.5"	2.95	FS545-ASCREEN-M4.5
		3 O ring Adaptor Tube x 2	0.02	FS545-SK-ASCREENMR
		4 Top Sub-Metzke 4.5'	6.98	FS545-TSUB-M4.5
		Parts List		
		6 Sample Tube	4.61	FS545-STUBE
		7 O ring (Sample Tube) x 4	0.02	FS545-SK-STUBE
		8 Circlip B	0.02	FS545-CIRCLIP-4
		Air Screen	0.04	FS545-AIRSCREEN
		10 Distributor	0.48	FS545-DIST
		11 O ring (Distributor) x 2	0.02	FS545-SK-DIST
		12 Check Valve/Plunger	0.53	FS545-CVALVE
		Y ring (Check Valve)	0.02	FS545-SK-CVALVE
		Spring	0.12	FS545-SPRING
		5 O ring (Inner Cylinder)	0.02	FS545-SK-ICYL
		6 Inner Cylinder/Top Barrel	10.2	FS545-ICYL
		17 Piston	15.1	FS545-PISTON
		External Cylinder/Barrel/Piston Case	17.2	FS545-ECYL
		Bearing Bush	0.05	FS545-PRING
		O ring (Bearing Bush) x 2	2.95	FS545-BUSH
		Bush Retaining Ring	0.02	FS545-SK-BUSH
		22 Bit Ring	0.26	FS545-SRING
		O ring (Bit Ring)	0.02	FS545-SK-SRING
		Shroud	1.6	FS545-SHROUD-127/125
		25 Drive Sub	3.41	FS545-DSUB
		Drill Bit	12.6	FS545-133DC
		27 Seal Kit (Item 2+4(3)+7+11+13+15+21+223)	0.3	FS545-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1261mm	65.0kg	Φ117.5	BD545	Φ123-Φ140	4" -4 .5" Remet 4 " - 4 .5" Metzke
Box Size	Impact rate at 2.4Mpa	Recommended rotation speed	Air Consumption		
			200-500(PSI)		
1260x150x180mm	35HZ	25-40r/min	300-1200(CFM)		

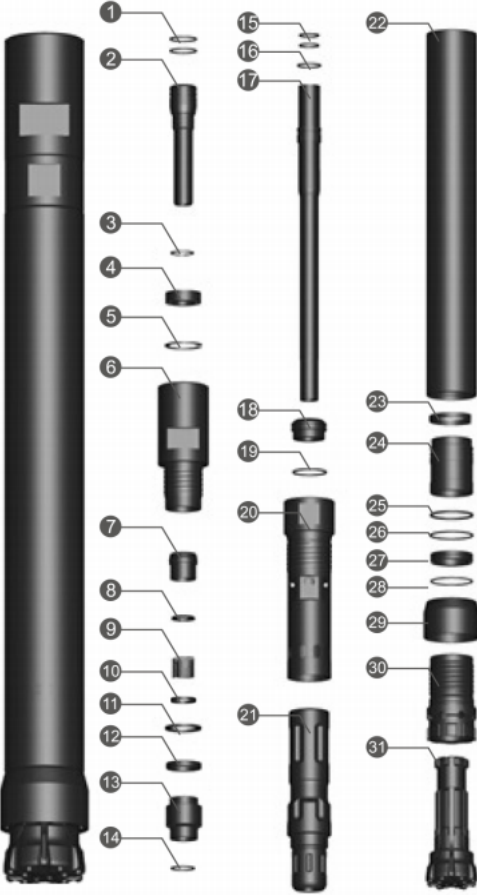
FS040 R.C. HAMMER

5" R.C. Hammers		Item Description	Weight (Kg)	Part Number
		7 Check Valve/Plunger	0.63	FS040/52-CVALVE
		8 Y ring (Check Valve)	0.01	FS040/52-SK-CVALVE
		Spring	0.12	FS040/52-SPRING
		9 Spring Seat	0.12	FS040/52-SSEAT
		11 Make Up Ring, Steel	0.09	FS040/52-MUR-STEEL
		12 Make Up Ring, Viton	0.06	FS040/52-MUR-VITON
		Distributor	1.75	FS040/52-DIST
		O ring (Distributor) x 1	0.02	FS040/52-SK-DIST
		15 O ring (Sample Tube) x2	0.02	FS040-SK-STUBE1
		16 O ring (Sample Tube) x 1	0.02	FS040-SK-STUBE2
		17 Sample Tube Lower	4.32	FS040-STUBE
		18 Mount Sample Tube	1	FS040-STUBE-MOUNT
		19 O ring (Mount Sample Tube)x1	0.02	FS040-SK-STUBE-M
		Inner Cylinder	7.69	FS040-ICYL
		Piston	13.63	FS040-PISTON
		22 External Cylinder/Barrel/Piston Case	24.14	FS040-ECYL
		23 Piston Retaining Ring	0.1	FS040-PRING
		Bearing Bush	1.89	FS040-BUSH
		O ring (Bearing Bush) x 1	0.02	FS040-SK-BUSH1
		O ring (Bearing Bush) x 1	0.02	FS040-SK-BUSH2
		Bit Stop Ring	0.31	FS040-SRING
		O ring (Bit Stop Ring)x 1	0.02	FS040-SK-SRING
		Shroud	2.2	FS040-SHROUD-136/134
		30 Drive Sub	3.67	FS040-DSUB
		Drill Bit	15.09	FS040-136DC-TV
		32 Seal Kit (Item 2(1)+5(4)+8+14+15+16+19+25+26+28)	0.2	FS040-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1362mm	80.5kg	Φ120.5	BD040	Φ124-Φ142	3.5 " -4.5 " Remet 3.5 " -4.5 " Metzke
Working Pressure	Impact rate at 2.4Mpa	Recommended rotation speed		Air Consumption	
				200-500(Psi)	
1.5-3.5Mpa	35HZ	25-40r/min		300-1200(CFM)	

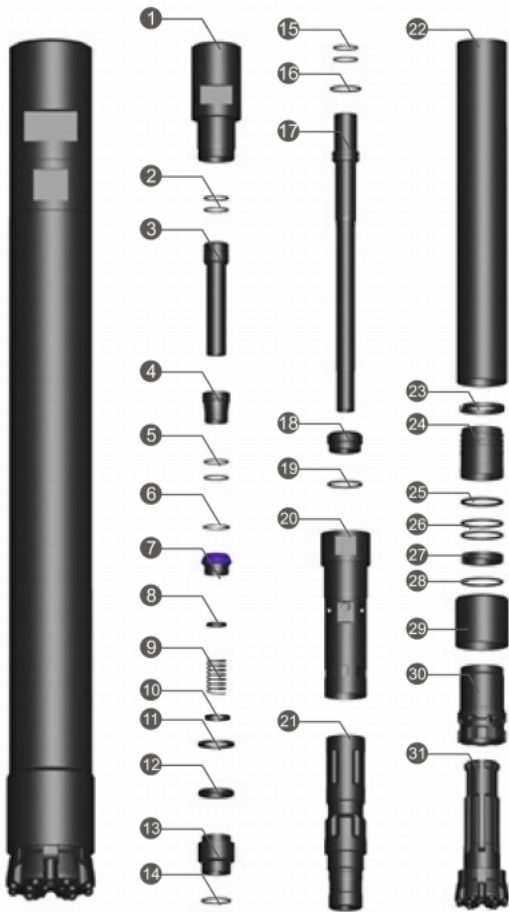
FS52 R.C. HAMMER

5.5" R.C. Hammers		Item Description	Weight (Kg)	Part Number
		A Top Sub Assy Metzke 4.5"		
		2 Adaptor Tube Metzke 4.5"	2.19	FS52-ASCREEN-M4.5
		3 Circlip B	0.03	FS52-CIRCLIP
		4 Air Screen	0.42	FS52-AIRSCREEN-M4.5
		5 Circlip A	0.03	FS52-CIRCLIP
		6 Top Sub-Metzke 4.5"	8.92	FS52-TSUB-M4.5
		B Top Sub Assy Remet 4.5"		
		1 O Ring Adaptor Tube Remet 4.5" x 2	0.02	FS040/52-SK-ASCREEN-R4.5
		2 Adaptor Tube Remet 4.5"	2.19	FS040/52-ASCREEN-R4.5
		3 Circlip B	0.03	FS040/52-CIRCLIP
		4 Air Screen	0.42	FS040/52-AIRSCREEN-R4.5
		5 Circlip A	0.03	KFS040/52-CIRCLIP
		6 Top Sub-Remet 4.5"	8.92	FS52-TSUB-R4.5
		Parts List		
		7 Check Valve/Plunger	0.63	FS040/52-CVALVE
		8 Y Ring (Check Valve)	0.03	FS040/52-SK-CVALVE
		9 Spring	0.12	FS040/52-SPRING
		10 Spring Seat	0.12	FS040/52-SSEAT
		11 Make Up Ring, Steel	0.1	FS040/52-MUR-STEEL
		12 Make Up Ring, Viton	0.05	FS040/52-MUR-VITON
		Distributor	1.31	FS040/52-DIST
		O Ring (Distributor)	0.02	FS040/52-SK-DIST
		5 O Ring (Sample Tube) x2	0.02	FS52-SK-STUBE1
		6 O Ring (Sample Tube) x1	0.02	FS52-SK-STUBE2
		17 Sample Tube Lower	4.52	FS52-STUBE
		18 Mount Sample Tube	0.8	FS52-STUBE-MOUNT
		19 O Ring (Mount Sample Tube)	0.02	FS52-SK-STUBE-M
		Inner Cylinder	7.39	FS52-ICYL
		Piston	14.63	FS52-PISTON
		External Cylinder/Barrel/Piston Case	18.86	FS52-ECYL
		Piston Retaining Ring	0.13	FS52-PRING
		Bearing Bush	1.89	FS52-BUSH
		25 O Ring (Bearing Bush) x 1	0.02	FS52-SK-BUSH1
		O Ring (Bearing Bush) x 1	0.02	FS52-SK-BUSH2
		Bit Stop Ring	0.31	FS52-SRING
		O Ring (Bit Stop Ring)	0.02	FS52-SK-SRING
		Shroud (Retaining Option)	1.86	FS52-SHROUD-136/134 or FS52R-SHROUD-136/134
		Drive Sub (Retaining Option)	4.17	FS52-DSUB or BD52R-DSUB
		Drill Bit (Retaining Option)	11.01	FS52-136DC or BD52R-136DC
		Seal Kit (Item 1+8+14+15+16+19+25+26+28)	0.30	FS52-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1227mm	68.5kg	Φ121	BD52	Φ126-Φ142	4" - 4.5" Remet 4" - 4.5" Metzke
Working Pressure	Impact rate at 2.4Mpa	Recommended rotation speed	Air Consumption		
			200-500(Psi)		
1.5-3.5Mpa	35HZ	25-40r/min	300-1200(CFM)		

FS54 R.C. HAMMER

5.5" R.C. Hammers	Item Description	Weight (Kg)	Part Number
	A Top sub Assy Remet 4"		
	1 Top Sub-Remet 4.5"	11.61	FS54-TSUB-R45
	2 O Ring (Adaptor Tube Remet 4.5") x 2	0.02	FS54-SK-ASCREEEN-R45
	3 Adaptor Tube Remet 4.5"	2.35	FS54-ASCREEEN-R45
	4 Air Screen	0.50	FS54-AIRSCREEN
	5 O Ring (Air Screen) x 2	0.02	FS54-SK-AIRSCREEN
	6 Circlip	0.04	FS54-CIRCLIP
	B Top sub Assy Metzke 4"		
	1 Top Sub-Metzke 4.5"	11.61	FS54-TSUB-M45
	2 Adaptor Tube Metzke 4.5"	2.35	FS54-ASCREEEN-M45
	3 Air Screen	0.5	FS54-AIRSCREEN
	4 O Ring (Air Screen) x 2	0.02	FS54-SK-AIRSCREEN
	5 Circlip	0.04	FS54-CIRCLIP
	Parts List		
	7 Check Valve/Plunger	0.58	FS54-CVALVE
	Y Ring (Check Valve)	0.02	FS54-SK-CVALVE
	9 Spring	0.12	FS54-SPRING
	10 Spring Seat	0.12	FS54-SSEAT
	11 Make Up Ring, Steel	0.14	FS54-MUR-STEEL
	12 Make Up Ring, Viton	0.06	FS54-MUR-VITON
	13 Distributor	1.54	FS54-DIST
	O Ring (Distributor)	0.02	FS54-SK-DIST
	15 O Ring (Sample Tube) x2	0.02	FS54-SK-STUBE1
	16 O Ring (Sample Tube) x1	0.02	FS54-SK-STUBE2
	17 Sample Tube Lower	6.47	FS54-STUBE
	18 Mount Sample Tube	1.00	FS54-STUBE-MOUNT
	19 O Ring (Mount Sample Tube)	0.02	FS54-SK-STUBE-M
	Inner Cylinder	8.54	FS54-ICYL
	Piston	17.2	FS54-PISTON
	External Cylinder/Barrel/Piston Case	23.44	FS54-ECYL
	Piston Retaining Ring	0.2	FS54-PRING
	Bearing Bush	1.89	FS54-BUSH
	O Ring (Bearing Bush) x 1	0.02	FS54-SK-BUSH1
	O Ring (Bearing Bush) x 2	0.02	FS54-SK-BUSH2
	Bit Stop Ring	0.43	FS54-SRING
	O Ring (Bit Stop Ring)	0.02	FS54-SK-SRING
	Shroud (Retaining Option)	2.35	FS54-SHROUD-143/141 or FS54R-SHROUD-136/134
	Drive Sub (Retaining Option)	4.9	FS54-DSUB or BD54R-DSUB
	Drill Bit (Retaining Option)	18.33	FS54-143DC or BD54R-143DC
	Seal Kit (Item 2+4+8+14+15+16+19+25+26+28)	0.3	FS54-SK

Technical Data

Length(Less bit)	Weight(Less bit)	External Diameter	Bit Shank	Hole Range	Connection Thread
1294mm	84.5kg	Φ130	BD54	Φ136-Φ150	4.5 " Remet 4.5 " Metzke
Working Pressure	Impact rate at 2.4Mpa	Recommended rotation speed	Air Consumption		
			200-500(PSI)		
1.5-3.5Mpa	35HZ	25-40r/min	300-1200(CFM)		