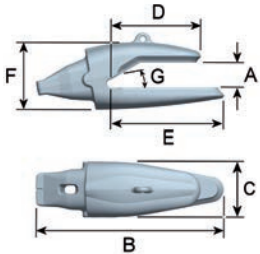
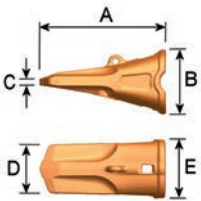


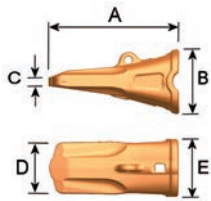
W10 SPECIFICATIONS Teeth, Adapters, Accessories



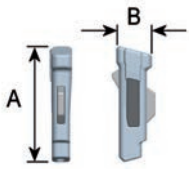
BE 



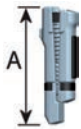
GPE 



AE 



SL-lock



ML-lock











T-tool



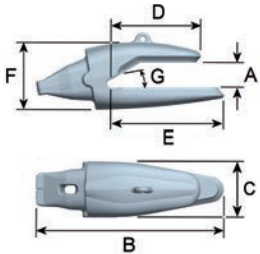
Typical machine weight - Excavator
Maximum breakout force in HD/XHD

25-50 MT
232 kN

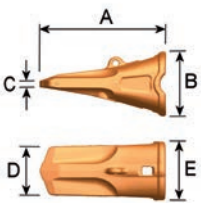
Type	Part. no		Weight kg	Lip thickness mm	A mm	B mm	C mm	D mm	E mm	F mm	G nose angle°
BE	710010		*	50							
BE	710011		24.4	60	62	457	132	184	280	158	10
GPE	710100		12.9		324	153	15	120	128		
AE	710110		15.1		334	153	19	129	134		
SL-lock	710301		0.4		124	38					
ML-lock*	710302										
T-tool	700700		1.5								

* not yet available

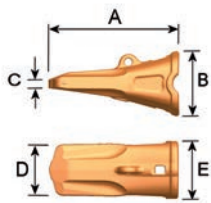
W20 SPECIFICATIONS Teeth, Adapters, Accessories



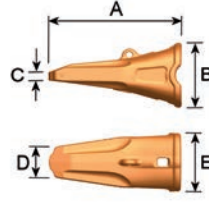
BE 



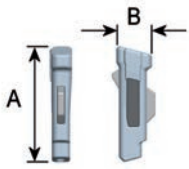
GPE 



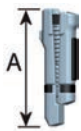
AE 



PE 



SL-lock



ML-lock



T-tool












Typical machine weight - Excavator
Maximum breakout force in HD/XHD

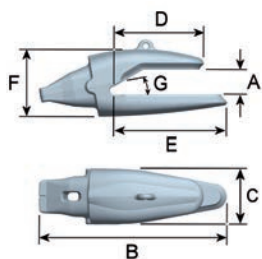
40-60 MT
326 kN

Typical machine weight - Face shovel
Maximum breakout force in HD/XHD

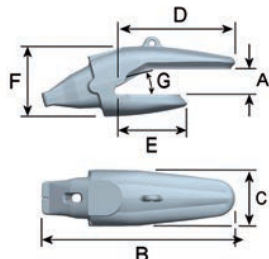
40-80 MT
408 kN

Type	Part. no		Weight kg	Lip thickness mm	A mm	B mm	C mm	D mm	E mm	F mm	G nose angle°
BE	720010		41.2	70	72	545	157	227	329	186	10
BE	720011		42.1	60	62	545	157	227	329	186	10
GPE	720100		21.4		376	189	18	139	169		
AE	720110		25.0		387	189	26	148	169		
PE	720120		23.2		404	189	25	87	169		
SL-lock	720301		1.0		146	51					
ML-lock	720302		0.8		146						
T-tool	700700		1.5								

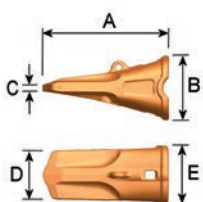
W25 SPECIFICATIONS Teeth, Adapters, Accessories



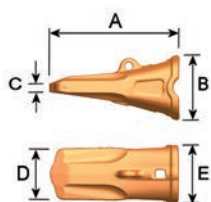
BE 



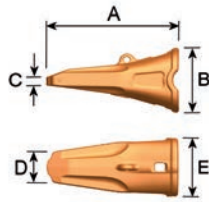
TL 



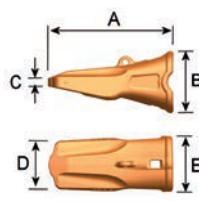
GPE 



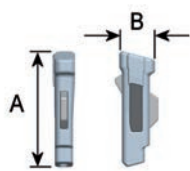
AE 



PE 



AL 



SL-lock



ML-lock



T-tool



Typical machine weight - Excavator
Maximum breakout force in HD/XHD












50-70 MT
412 kN

Typical machine weight - Face shovel
Maximum breakout force in HD/XHD

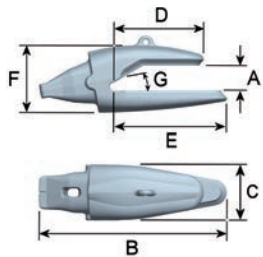
50-100 MT
515 kN

Typical machine weight - Loader
Maximum breakout force in HD/XHD

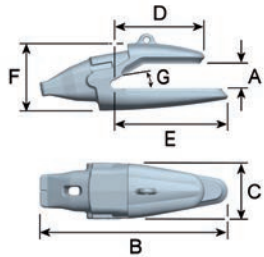
50-100 MT
736 kN

Type	Part. no		Weight kg	Lip thickness mm	A mm	B mm	C mm	D mm	E mm	F mm	G nose angle°
BE	725010		52.0	80	82	605	177	204	367	205	10
BE	725011		57.0	70	72	605	177	289	367	207	10
TL	825026		60.5	75	77	619	177	379	216	214	15
GPE	725100		28.0		413	201	20	157	180		
AE	725110		33.5		426	213	28	168	192		
PE	725120		31.5		445	213	28	99	192		
AL	825110		39.0		434	213	28	167	192		
SL-lock	725301		1.2		160	58					
ML-lock	725302		1.0		160						
T-tool	700700		1.5								

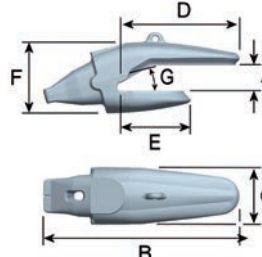
W30 SPECIFICATIONS Teeth, Adapters, Accessories



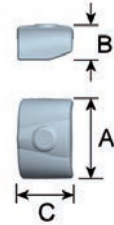
BE



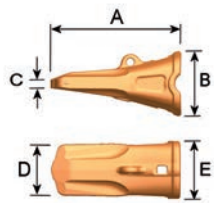
BME



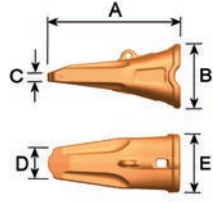
TL



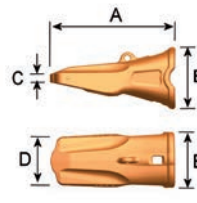
CM



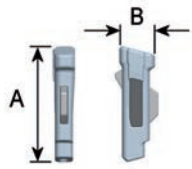
AE



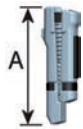
PE



AL



SL-lock



ML-lock



T-tool



Typical machine weight - Excavator
Maximum breakout force in HD/XHD

70-120 MT
506 kN

Typical machine weight - Face shovel
Maximum breakout force in HD/XHD

100-120 MT
633 kN

Typical machine weight - Loader
Maximum breakout force in HD/XHD

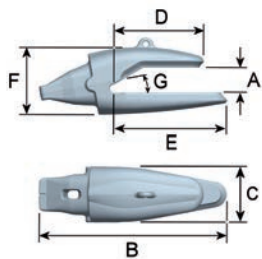
100-205 MT
904 kN

Type	Part. no		Weight kg	Lip thickness mm	A mm	B mm	C mm	D mm	E mm	F mm	G nose angle°
BE	730010		85.5	90	92	678	202	317	408	243	10
BME	730012		79.0	90	92	678	202	317	408	238	10
TL	830024		91.0	75	77	695	202	420	244	249	15
TL	830026		91.0	90	92	695	202	420	244	252	15
CM	730501		7.6		213	88	142				
AE	730110		47.3		469	236	31	190	215		
PE	730120		45.5		481	236	30	115	215		
AL	830110		54.5		478	236	31	188	215		
SL-lock	730301		1.5		179	68					
ML-lock*	730302										
T-tool	700700		1.5								

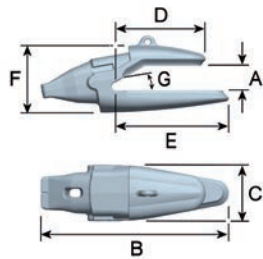
* not yet available

Combi Wear Parts AB
Hantverkargatan 3, Box 205
SE-681 24 Kristinehamn, Sweden
Tel: +46 550 410 550. Fax: +46 550 410 589
www.combiwearparts.com

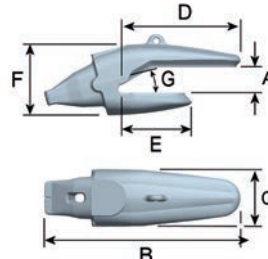
W40 SPECIFICATIONS Teeth, Adapters, Accessories



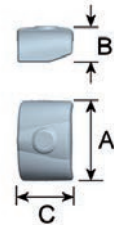
BE



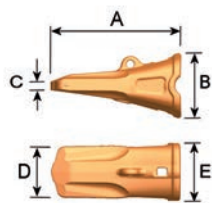
BME



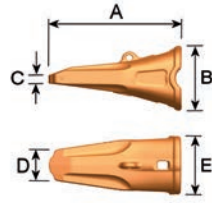
TL



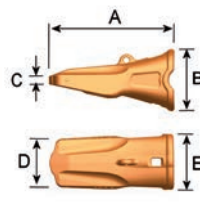
CM



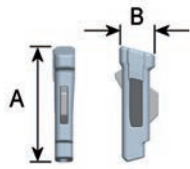
AE



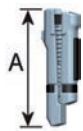
PE



AL



SL-lock



ML-lock



T-tool



Typical machine weight - Excavator
Maximum breakout force in HD/XHD

120-200 MT
623 kN

Typical machine weight - Face shovel
Maximum breakout force in HD/XHD

120-300 MT
779 kN

Typical machine weight - Loader
Maximum breakout force in HD/XHD

>205 MT
1113 kN

Type	Part. no		Weight kg	Lip thickness mm	A mm	B mm	C mm	D mm	E mm	F mm	G nose angle °
BE	740010		122.0	100	102	760	226	364	457	274	10
BME	740012		114.0	100	102	760	226	364	457	274	10
BE	740014		145.0	120	123	814	226	394	498	301	10
BME	740015		136.0	120	123	814	226	394	498	301	10
TL	840026		127.0	100	103	774	226	463	273	281	15
CM	740501		12.9		238	100	161				
AE	740110		64.3		521	262	34	210	238		
PE	740120		59.5		534	262	33	129	238		
AL	840110		74.0		531	262	34	208	238		
SL-lock	740301		2.0		200	75					
ML-lock*	740302										
T-tool	700700		1.5								

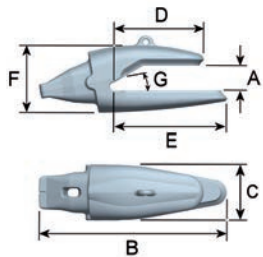
* not yet available

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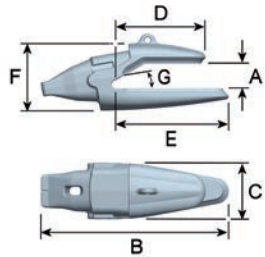


combi wear parts
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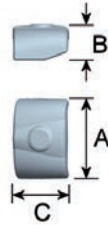
W50 SPECIFICATIONS Teeth, Adapters, Accessories



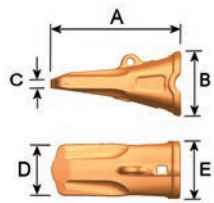
BE 



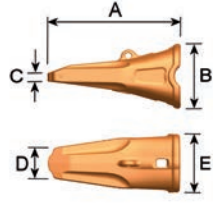
BME 



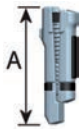
CM 



AE 



PE 



ML-lock



T-tool











Typical machine weight - Excavator
Maximum breakout force in HD/XHD

180-250 MT
761 kN

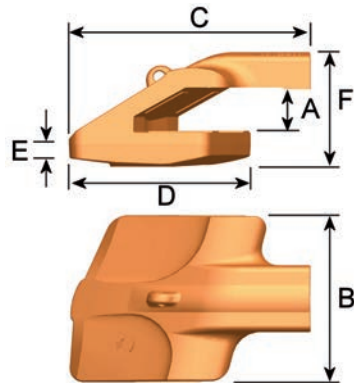
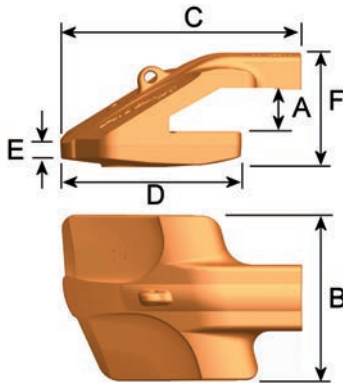
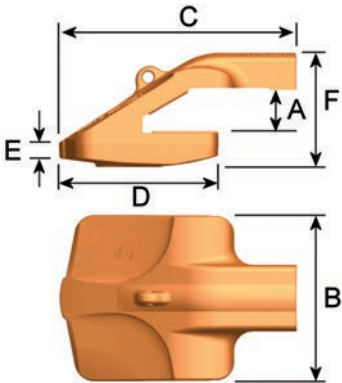
Typical machine weight - Face shovel
Maximum breakout force in HD/XHD

180-360 MT
951 kN

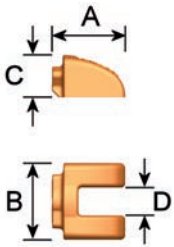
Type	Part. no		Weight kg	Lip thickness mm	A mm	B mm	C mm	D mm	E mm	F mm	G nose angle°
BE	750010		167	120	123	836	248	399	503	302	10
BME	750012		155	120	123	836	248	399	503	302	10
CM	750501		20		261	110	177				
AE	750110		88		573	289	37	231	262		
PE	750120		81		587	289	36	142	262		
ML-lock*	750302										
T-tool	700700		1.5								

* not yet available

Lip Shroud 75 mm SPECIFICATIONS

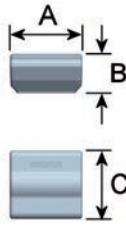


MSCL



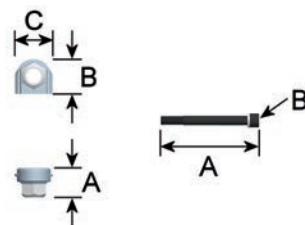
MSP

MSLL



WSR

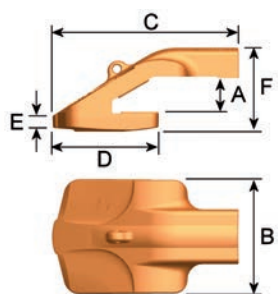
MSRL



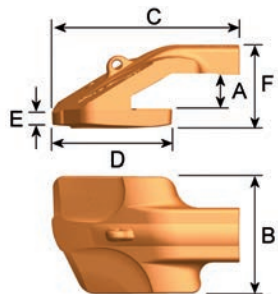
SL, Washer, Bolt

Type	Part. no		Angle °	Weight kg	A mm	B mm	C mm	D mm	E mm	F mm
MSCL	800401		0°	121,2	77	370	527	354	34	238
MSLL	800402		15°	121,2	77	370	532	354	34	238
MSRL	800403		15°	121,2	77	370	532	354	34	238
MSP	700424			6,5	140	148	54	54		
WSR	700413			3,3	110	60	105			
SL	700303			0,4	51	60	68			
Washer	700330									
Bolt	700350			1,3						

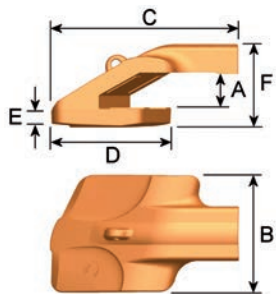
Lip Shroud 90 mm SPECIFICATIONS



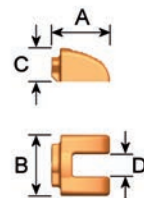
MSCE



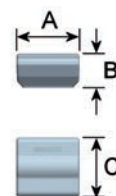
MSLE



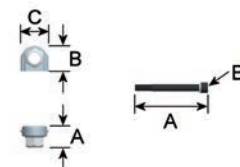
MSRE



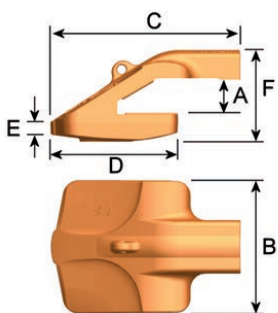
MSP



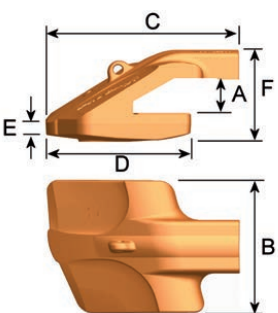
WSR



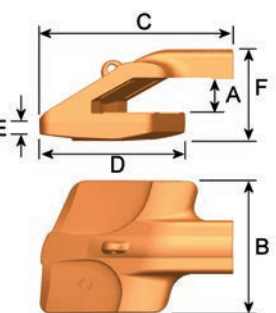
SL, Washer, Bolt



MSCL



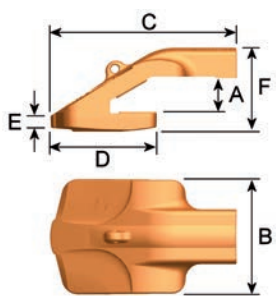
MSLL



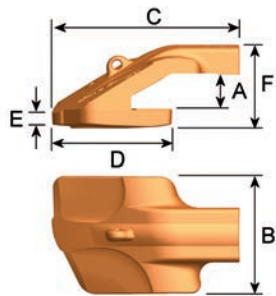
MSRL

Type	Part. no		Angle °	Weight kg	A mm	B mm	C mm	D mm	E mm	F mm
MSCE	700404		0°	80.0	92	320	506	288	32	228
MSLE	700405		15°	80.0	92	320	511	288	32	228
MSRE	700406		15°	80.0	92	320	511	288	32	228
MSCL	800404		0°	118.5	92	370	527	354	34	253
MSLL	800405		15°	118.5	92	370	532	354	34	253
MSRL	800406		15°	118.5	92	370	532	354	34	253
MSP	700424			6.5	140	148	82	54		
WSR	700413			3.3	110	60	105			
SL	700303			0.4	51	60	68			
Washer	700330									
Bolt	700350			1.3	260					

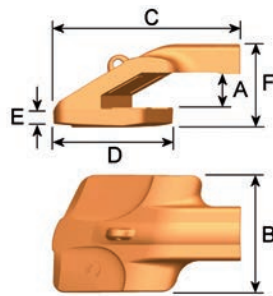
Lip Shroud 100 mm SPECIFICATIONS



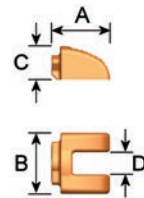
MSCE



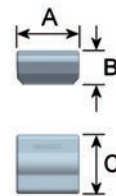
MSLE



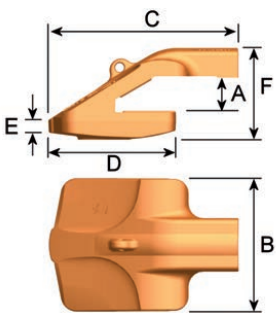
MSRE



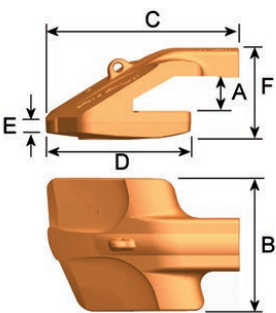
MSP



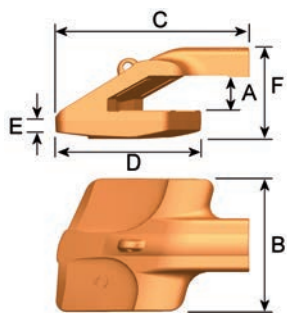
WSR



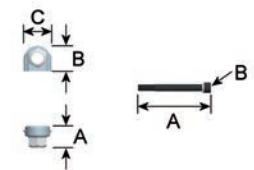
MSCL



MSLL



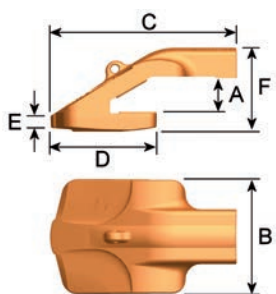
MSRL



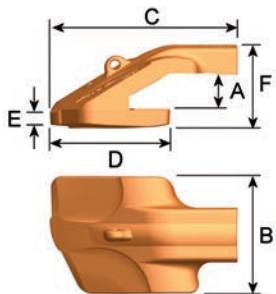
SL, Washer, Bolt

Type	Part. no		Angle °	Weight kg	A mm	B mm	C mm	D mm	E mm	F mm
MSCE	700407		0°	110	103	350	565	323	36	256
MSLE	700408		15°	110	103	350	571	323	36	256
MSRE	700409		15°	110	103	350	571	323	36	256
MSCL	800407		0°	169	103	420	596	402	38	283
MSLL	800408		15°	169	103	420	604	402	38	283
MSRL	800409		15°	169	103	420	604	402	38	283
MSP	700425			9.2	158	166	92	60		
WSR	700414			4.8	124	67	120			
SL	700304			0.4	56	66	72			
Washer	700331									
Bolt	700351			1.8	290					

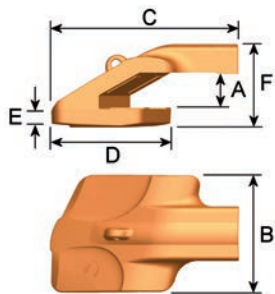
Lip Shroud 120 mm SPECIFICATIONS



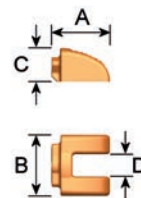
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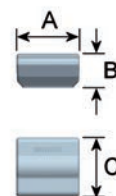
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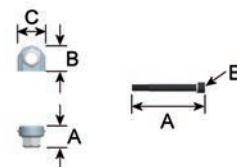
MSRE 












MSP 



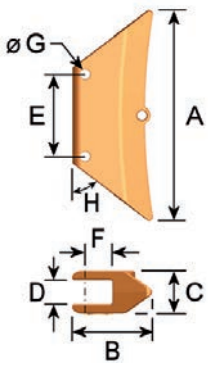
WSR 



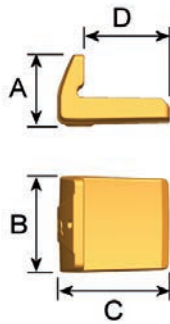
SL, Washer, Bolt

Type	Part. no		Angle °	Weight kg	A mm	B mm	C mm	D mm	E mm	F mm
MSCE	700410		0°	153	123	395	645	355	56	292
MSLE	700411		15°	153	123	395	651	355	56	292
MSRE	700412		15°	153	123	395	651	355	56	292
MSP	700426			13.4	174	183	102	66		
WSR	700415			7.0	146	74	133			
SL	700304			0.4	56	66	72			
Washer	700331									
Bolt	700352			2.0	320					

Shroud SPECIFICATIONS



Side shroud
SSM

























Heel shroud
WHS



Pin and ring



Type	Part. no	 	Plate thickness mm	Weight kg	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H °
SSM ^{*1}	700602	 	50.0	28.0	500	189	98	52	190	64	23	53
SSM ^{*2}	700601	 	63.5	41.0	564	215	115	65	220	75	27	53
SSM ^{*2}	700603	 	60.0	41.0	564	215	115	63	220	75	27	53
Pin	700321	 	50.0									
Pin	700320	 	60.0/63.5									
Ring	700360	 	50									
Ring	700361	 	60.0/63.5									
WHS	700651	 		15.0	130	180	210	160				
WHS	700652	 		20.0	150	180	240	180				
WHS	700653	 		37.0	199	250	300	236				

^{*1} used together with 700321 and 700360.

^{*2} used together with 700320 and 700361.

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EXCAVATOR TEETH AND ADAPTERS

ADAPTER

BE

Standard bottom leg adapter. Low profile design, improved flow of material in and out of bucket.

BME

Bottom leg adapter with a mechanical wear cap. The top of the adapter is well protected against excess wear.

WEAR CAP

CM

Mechanical wear cap protects the adapter top side in high abrasion and impact applications.

LOCK

SL

Standard lock provides easy and secure tooth replacement. The vulcanized rubber core provides a strong and tight fit.

ML

Mechanical lock for safer mounting and dismounting procedure

TOOTH

AE

Abrasion tooth for highly abrasive soils and rocks such as granite, basalt and sandstone. The design provides maximal wear material with maintained good penetration.

PE

Penetration tooth with added body mass and narrow tip combines penetration with impact and abrasion resistance.

GPE

Standard tooth with slim design for optimal penetration and durability in general purpose applications.

TOOL

T

Tool for mounting and dismounting the locking device. Simplifies the change of teeth and is recommended for safety reasons.

LOADER TEETH AND ADAPTERS

ADAPTER		LOCK	
TL	SL	ML	
Standard top leg adapter. Low profile design, improved flow of material in and out of bucket.	Standard lock provides easy and secure tooth replacement. The vulcanized rubber core provides a strong and tight fit.	Mechanical lock for safer mounting and dismounting procedure	
TOOTH		TOOL	
AL	T		
Abrasion tooth for highly abrasive soils and rocks such as granite, basalt and sandstone. The design provides maximal wear material with maintained good penetration.	Tool for mounting and dismounting the locking device. Simplifies the change of teeth and is recommended for safety reasons.		

SHROUDS EXCAVATOR & LOADER

LIP SHROUD

MSC	MSL	MSR	MSP
<p>Mechanical lip shroud Center For straight edges and for use in combination with MSL & MSR on spade nose buckets. Provides full lip protection between adapters in abrasive applications.</p>	<p>Mechanical lip shroud Left* 15° angle for delta and spade nose buckets. * Left from excavating direction.</p>	<p>Mechanical lip shroud Right* 15° angle for delta and spade nose buckets. * Right from excavating direction.</p>	<p>Mechanical shroud protector designed to protect the locking device and the backside of the shrouds.</p>

RAIL	LOCKING PARTS	SIDE SHROUD	PIN AND RING
<p>WSR Welded on shroud rail holds the lip shrouds in secure position.</p>	<p>Shroud Lock, Bolt and Washer Self tightening lock, bolt and washer for the mechanical shroud.</p>	<p>SSM Mechanical side shroud is used to protect the bucket side plates and fastened with pin and ring.</p>	<p>PIN AND RING Locking pin and ring for the side shroud.</p>

HEEL SHROUD

WHS
<p>Welded on heel shroud provides excellent wear protection of the lower outside corner of all types of buckets.</p>

APPLICATION TABLE

APPLICATION TABLE Based on DIN 18300 ground classification			
Ground classification	Description of ground conditions	Working conditions	Application
Class 1 Top soil without stones	Top layer of soil.	Very little wear. Very little penetration resistance. No impact resistance.	GP
Class 2 Wet ground	Sludge, mud, peat.	Little wear. Very little penetration resistance. No impact resistance.	GP
Class 3 Light ground	Sand, fine gravel, sandy soil. Stone size up to approx. 60 mm	Moderate wear. Little penetration resistance. No impact resistance.	GP
Class 4 Moderately heavy ground	Very stony ground, gravel, stones. Stone size above 60 mm.	Considerable wear. Some penetration resistance. Moderate impact resistance.	GP / HD
Class 5 Dense, moderately heavy ground	Till, rigid clay, sand-clay mix, moraine, marl.	Considerable wear. Moderate penetration resistance. Little impact, some break through resistance.	HD
Class 6 Dense, heavy ground	Hard marl and clay, hard sandy ground, hard stony soil. Stone size up to approx. 200 mm.	Considerable wear. Considerable penetration resistance. Considerable impact and break through resistance.	HD
Class 7 Lighter rock	Loose rock, crumbled rock, slate. Very hard ground with stones, approx. 200 mm or bigger.	Usually considerable wear. Considerable penetration resistance. Considerable impact and break through resistance.	XHD
Class 8 Heavy rock	Blasted rock, size over 0,1 m ³ .	Very significant wear. Considerable penetration resistance. Very significant impact and break through resistance.	XHD

For further information on welding, assembly and maintenance, see welding and assembly instructions.

Breakout force diagram – Backhoe

HD/XHD class 6-8	W50	761 kN
	W40	623 kN
	W30	506 kN
	W25	412 kN
	W20	326 kN
	W10	232 kN

GP/HD class 1-5	W50	951 kN
	W40	779 kN
	W30	633 kN
	W25	515 kN
	W20	408 kN
	W10	290 kN

Breakout force diagram – Face shovel

HD/XHD class 6-8	W50	951 kN
	W40	779 kN
	W30	633 kN
	W25	515 kN
	W20	408 kN

GP/HD class 1-5	W50	1188 kN
	W40	973 kN
	W30	791 kN
	W25	643 kN
	W20	509 kN

Breakout force diagram

HD/XHD class 6-8	W40	1113 kN
	W30	904 kN
	W25	736 kN

GP/HD class 1-5	W40	1390 kN
	W30	1130 kN
	W25	919 kN