

# 249 (248) Product Overview

## 249 (248) VERSATILE FINE BORING

### Compact design. Precision boring.

The Wohlhaupter® 249 (248) compact boring head allows for higher spindle speeds and achieves long-reach boring jobs. Its cylindrical shank provides variable length adjustments up to 10xD.

Test this *compact design* for finish machining today.

- Diameter range: 0.118" - 1.189" (3.00 mm - 30.20 mm)
- Length adjustment up to 10xD
- Coolant-through boring tool
- 0.0005" (0.01mm) adjust on diameter
- Max spindle speed: 20,000 RPM



**IMPORTANT:** Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.  
ext: 7611 | email: [appeng@alliedmachine.com](mailto:appeng@alliedmachine.com)



249 (248) Head



Insert Holder  
Ø 0.626" - 1.189"  
(Ø 15.90 mm - 30.20 mm)



Adapter



Adapter



Boring Bar  
Ø 0.146" - 0.630"  
(Ø 3.70 mm - 16.00 mm)



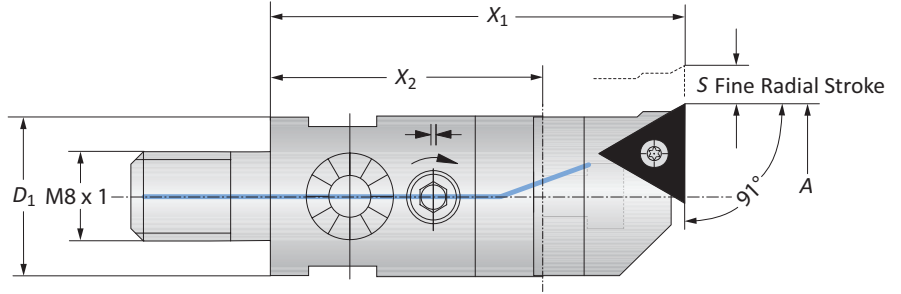
Mini Boring Bar  
Ø 0.118" - 0.236"  
(Ø 3.00 mm - 6.00 mm)

## OPERATION **VERSATILITY**

from **0.118"** to **1.187"** (3.00 mm to 30.20 mm)

## Boring Heads

Diameter Range: 0.626" - 1.189" (15.90 mm - 30.20 mm)



Boring Connection	Boring Range	Boring Head					Weight	Insert Form	Part No.	
		A	X <sub>1</sub>	X <sub>2</sub>	D <sub>1</sub>	S			Insert Holder	Boring Head
i	M8 x 1	0.626 - 0.791	1.654	1.024	0.591	0.025	0.132 (lbs)	20*	248051	249001
	M8 x 1	0.626 - 0.791	1.654	1.024	0.591	0.055	0.132 (lbs)	101	248054	249001
	M8 x 1	0.783 - 0.976	1.811	1.181	0.709	0.071	0.198 (lbs)	20*	248052	249002
	M8 x 1	0.783 - 0.976	1.811	1.181	0.709	0.071	0.198 (lbs)	101	248055	249002
	M8 x 1	0.965 - 1.189	1.811	1.181	0.906	0.091	0.287 (lbs)	20*	248053	249003
	M8 x 1	0.965 - 1.189	1.811	1.181	0.906	0.091	0.287 (lbs)	101	248056	249003
m	M8 x 1	15.90 - 20.10	42.00	26.00	15.00	1.40	0.06 (kg)	20*	248051	248001
	M8 x 1	15.90 - 20.10	42.00	26.00	15.00	1.40	0.06 (kg)	101	248054	248001
	M8 x 1	19.90 - 24.80	46.00	30.00	18.00	1.80	0.09 (kg)	20*	248052	248002
	M8 x 1	19.90 - 24.80	46.00	30.00	18.00	1.80	0.09 (kg)	101	248055	248002
	M8 x 1	24.50 - 30.20	46.00	30.00	23.00	2.30	0.13 (kg)	20*	248053	248003
	M8 x 1	24.50 - 30.20	46.00	30.00	23.00	2.30	0.13 (kg)	101	248056	248003

\*Not suitable for indexable inserts with a radius of 0.031" (0.80 mm)

B10-M: 12-15

B10-A: 34

B10: vi-vii

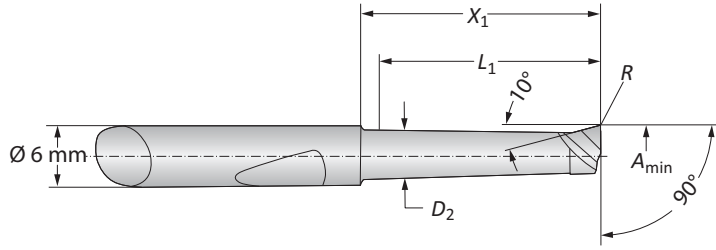
Key on B10-A: 1

i = Imperial (in)  
m = Metric (mm)

**IMPORTANT:** Max spindle speed refers to maximum possible speed for an individual boring head and is not a recommended parameter. Refer to page B10-M: 12 for recommended application-specific parameters. Factory technical assistance is available for your specific applications through our Application Engineering department.  
ext: 7611 | email: [appeng@alliedmachine.com](mailto:appeng@alliedmachine.com)

### Mini Boring Bars

WHC05 | WHW04 | WBN150 | Diameter Range: 0.118" - 0.236" (3.00 mm - 6.00 mm)

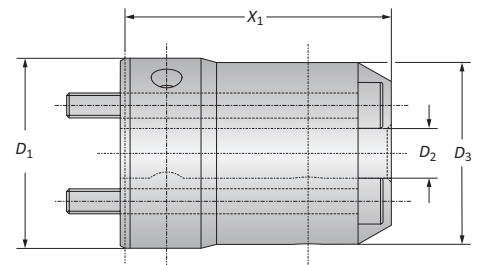


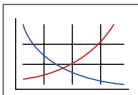
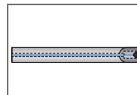
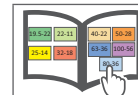
#### Mini Boring Bars

Boring Range	Boring Bar						Part No.		
	A <sub>min</sub>	D <sub>1</sub>	D <sub>2</sub>	X <sub>1</sub>	L <sub>1</sub>	R	Coated Carbide	Uncoated Carbide	CBN
i	0.118	0.236	0.102	0.452	0.393	0.003	081306WHC05	-	081322WBN150
	0.118	0.236	0.102	0.649	0.590	0.003	081307WHC05	081307WHW04	-
	0.157	0.236	0.141	0.472	0.393	0.007	081308WHC05	-	081317WBN150
	0.157	0.236	0.141	0.669	0.590	0.007	081309WHC05	-	081341WBN150
	0.157	0.236	0.141	0.866	0.787	0.007	081310WHC05	081310WHW04	-
	0.196	0.236	0.181	0.472	0.393	0.007	081311WHC05	-	081318WBN150
	0.196	0.236	0.181	0.866	0.787	0.007	081312WHC05	-	081319WBN150
	0.196	0.236	0.181	1.259	1.181	0.007	081313WHC05	081313WHW04	-
	0.236	0.236	0.220	0.866	0.787	0.007	081314WHC05	-	081320WBN150
	0.236	0.236	0.220	1.259	1.181	0.007	081315WHC05	-	081321WBN150
0.236	0.236	0.220	1.653	1.574	0.007	081316WHC05	081316WHW04	-	
m	3.00	6.00	2.60	11.50	10.00	0.10	081306WHC05	-	081322WBN150
	3.00	6.00	2.60	16.50	15.00	0.10	081307WHC05	081307WHW04	-
	4.00	6.00	3.60	12.00	10.00	0.20	081308WHC05	-	081317WBN150
	4.00	6.00	3.60	17.00	15.00	0.20	081309WHC05	-	081341WBN150
	4.00	6.00	3.60	22.00	20.00	0.20	081310WHC05	081310WHW04	-
	5.00	6.00	4.60	12.00	10.00	0.20	081311WHC05	-	081318WBN150
	5.00	6.00	4.60	22.00	20.00	0.20	081312WHC05	-	081319WBN150
	5.00	6.00	4.60	32.00	30.00	0.20	081313WHC05	081313WHW04	-
	6.00	6.00	5.60	22.00	20.00	0.20	081314WHC05	-	081320WBN150
	6.00	6.00	5.60	32.00	30.00	0.20	081315WHC05	-	081321WBN150
6.00	6.00	5.60	42.00	40.00	0.20	081316WHC05	081316WHW04	-	

#### Adapter

Boring Head	Adapter				Part No.
	X <sub>1</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	
i 249003	1.260	0.906	0.236	0.866	248071
m 248003	32.00	23.00	6.00	22.00	248071



B10-M: 12-15  B10-A: 34  B10: vi-vii 

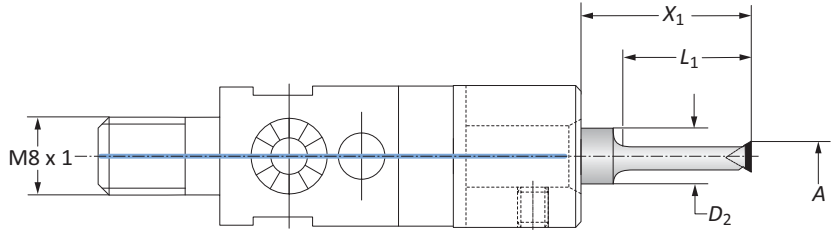
Key on B10-A: 1

i = Imperial (in)  
m = Metric (mm)

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B  
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INDEX

## Boring Bars

Diameter Range: 0.146" - 0.630" (3.70 mm - 16.00 mm)



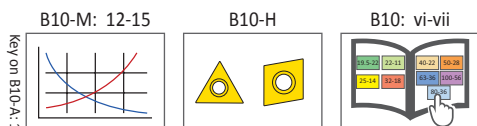
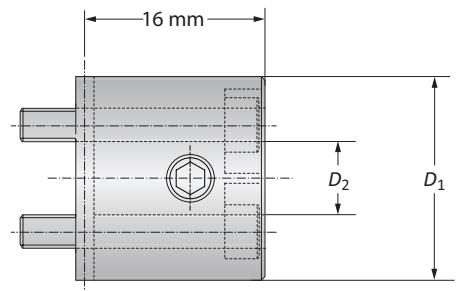
### Boring Bars

Boring Range	Boring Bar				Insert Form	Part No.
	A	D <sub>2</sub>	X <sub>1</sub>	L <sub>1</sub>		
0.146 - 0.197	0.315	0.819	0.709	325*	218074	
0.193 - 0.236	0.315	1.024	0.906	47*	218075	
0.232 - 0.315	0.315	1.063	0.984	211*	218076	
0.311 - 0.394	0.315	1.201	1.181	211*	218077	
0.390 - 0.472	0.315	1.378	1.378	20*	218079	
0.390 - 0.472	0.315	1.378	1.378	101	218082	
0.469 - 0.551	0.394	1.772	1.772	20*	218080	
0.469 - 0.551	0.394	1.772	1.772	101	218083	
0.547 - 0.630	0.394	1.969	1.968	20*	218081	
0.547 - 0.630	0.394	1.969	1.968	101	218084	
<hr/>						
3.70 - 5.00	8.00	20.80	18.00	325*	218074	
4.90 - 6.00	8.00	26.00	23.00	47*	218075	
5.90 - 8.00	8.00	27.00	25.00	211*	218076	
7.90 - 10.00	8.00	30.50	30.00	211*	218077	
9.90 - 12.00	8.00	35.00	35.00	20*	218079	
9.90 - 12.00	8.00	35.00	35.00	101	218082	
11.90 - 14.00	10.00	45.00	45.00	20*	218080	
11.90 - 14.00	10.00	45.00	45.00	101	218083	
13.90 - 16.00	10.00	50.00	50.00	20*	218081	
13.90 - 16.00	10.00	50.00	50.00	101	218084	

\*Not suitable for indexable inserts with a radius of 0.031" (0.80 mm)

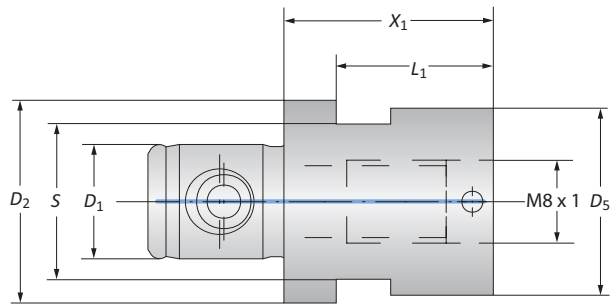
### Adapters

Boring Head	Adapter		Part No.
	D <sub>1</sub>	D <sub>2</sub>	
249002	0.709	0.315	248063
249003	0.906	0.394	248064
249003	0.906	0.394	248065
<hr/>			
248002	18.00	8.00	248063
248003	23.00	8.00	248064
248003	23.00	10.00	248065



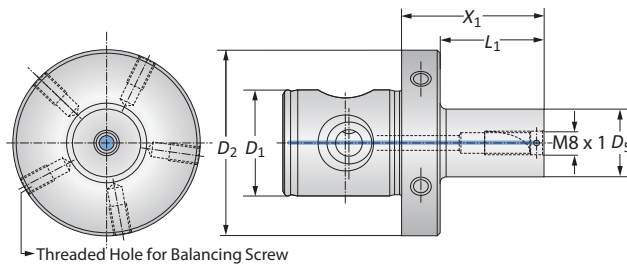
i = Imperial (in)  
m = Metric (mm)  
Inserts sold separately

## Adapters



### Adapters

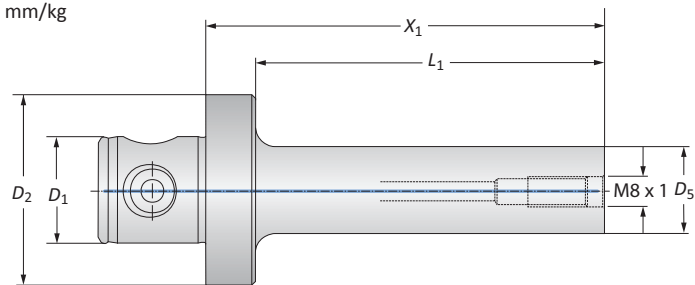
	MVS Connection		Adapter				Weight	Service Key	Part No.
	D <sub>2</sub>   D <sub>1</sub>	Boring Connection	X <sub>1</sub>	L <sub>1</sub>	S	D <sub>5</sub>			
i	19.5 - 11	M8 x 1	0.787	0.590	15/P	0.708	0.110 (lbs)	15 S / P	219168
	23 - 11	M8 x 1	0.787	-	19/P	0.905	0.154 (lbs)	19 S / P	219169
m	19.5 - 11	M8 x 1	20.00	15.00	15/P	18.00	0.05 (kg)	15 S / P	219168
	23 - 11	M8 x 1	20.00	-	19/P	23.00	0.07 (kg)	19 S / P	219169



### Balanced Adapters

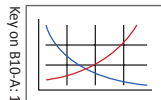
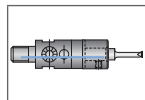
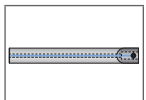
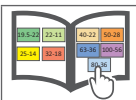
	MVS Connection		Adapter			Weight	Balancing Screw	Part No.
	D <sub>2</sub>   D <sub>1</sub>	Boring Connection	X <sub>1</sub>	L <sub>1</sub>	D <sub>5</sub>			
i	50 - 28	M8 x 1	1.259	0.748	0.590	0.771 (lbs)	M6 x 1 x 10	219185
	50 - 28	M8 x 1	1.890	1.377	0.708	0.881 (lbs)	M6 x 1 x 10	219176
	50 - 28	M8 x 1	1.890	1.377	0.905	0.992 (lbs)	M6 x 1 x 10	219177
m	50 - 28	M8 x 1	32.00	19.00	15.00	0.35 (kg)	M6 x 1 x 10	219185
	50 - 28	M8 x 1	48.00	35.00	18.00	0.40 (kg)	M6 x 1 x 10	219176
	50 - 28	M8 x 1	48.00	35.00	23.00	0.45 (kg)	M6 x 1 x 10	219177

NOTE: Balance refers to a specific residual imbalance of ≤ 10 g mm/kg



### Vibration Reducing Heavy Metal Adapters

	MVS Connection		Adapter			Weight	Part No.
	D <sub>2</sub>   D <sub>1</sub>	Boring Connection	X <sub>1</sub>	L <sub>1</sub>	D <sub>5</sub>		
i	50 - 28	M8 x 1	2.677	2.165	0.590	1.763 (lbs)	248147
	50 - 28	M8 x 1	3.307	2.795	0.748	2.204 (lbs)	248148
	50 - 28	M8 x 1	4.094	3.582	0.905	2.866 (lbs)	248149
m	50 - 28	M8 x 1	68.00	55.00	15.00	0.80 (kg)	248147
	50 - 28	M8 x 1	84.00	71.00	19.00	1.00 (kg)	248148
	50 - 28	M8 x 1	104.00	91.00	23.00	1.30 (kg)	248149

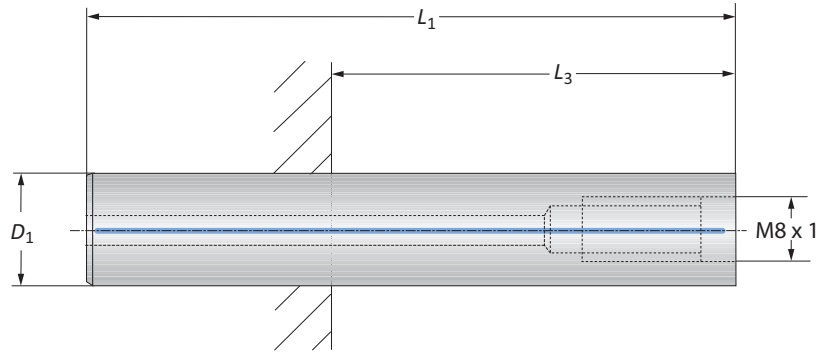





i = Imperial (in)  
m = Metric (mm)

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## Shanks

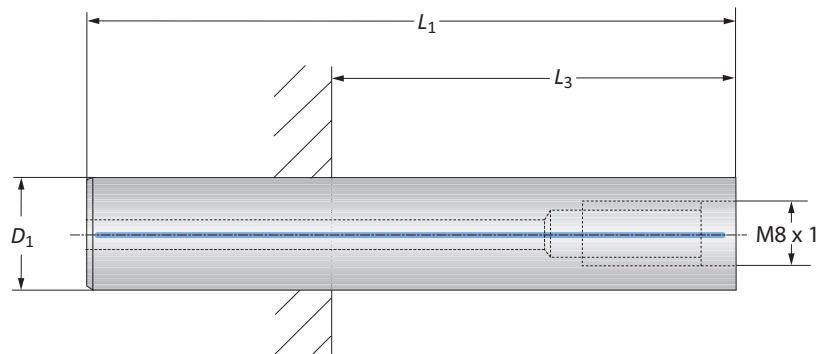
Steel | Carbide



### Steel Shanks

Connection	Shank			$L_3$ min*			Weight	Part No.
	$D_1$	$L_1$	$L_3$ max*	SK 40+50	HSK-A 63	HSK-A 100		
i	M8 x 1	0.591	3.346	1.456	-	-	0.220 (lbs)	248136
	M8 x 1	0.709	3.937	2.047	-	0.196	0.440 (lbs)	248137
	M8 x 1	0.906	4.606	2.716	-	0.866	0.881 (lbs)	248138
m	M8 x 1	15.00	85.00	37.00	-	-	0.10 (kg)	248136
	M8 x 1	18.00	100.00	52.00	-	5.00	0.20 (kg)	248137
	M8 x 1	23.00	117.00	69.00	-	22.00	0.40 (kg)	248138

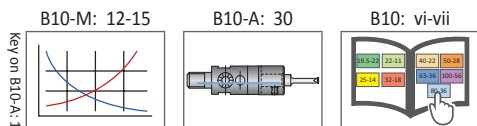
\* $L_3$  dimensions apply to collet chucks



### Carbide Shanks

Connection	Shank			$L_3$ min*				Weight	Part No.	
	$D_1$	$L_1$	$L_3$ max*	SK 40	SK 50	HSK-A 63	HSK-A 100			
i	M8 x 1	0.591	5.118	3.228	0.787	0.787	1.377	1.653	0.661 (lbs)	248142
	M8 x 1	0.709	6.102	4.212	1.535	0.826	2.362	2.637	1.322 (lbs)	248143
	M8 x 1	0.906	7.086	5.196	2.519	1.811	3.346	3.622	2.425 (lbs)	248144
	M8 x 1	0.906	9.527	7.637	4.960	4.251	5.787	6.062	3.086 (lbs)	248145
m	M8 x 1	15.00	130.00	82.00	20.00	20.00	35.00	42.00	0.30 (kg)	248142
	M8 x 1	18.00	155.00	107.00	39.00	21.00	60.00	67.00	0.60 (kg)	248143
	M8 x 1	23.00	180.00	132.00	64.00	46.00	85.00	92.00	1.10 (kg)	248144
	M8 x 1	23.00	242.00	194.00	126.00	108.00	147.00	154.00	1.40 (kg)	248145

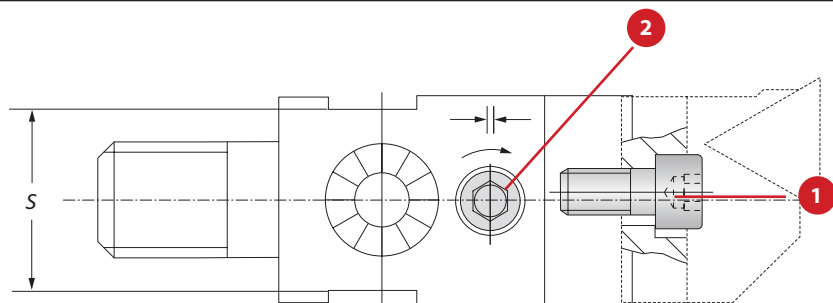
\* $L_3$  dimensions apply to collet chucks



i = Imperial (in)  
m = Metric (mm)

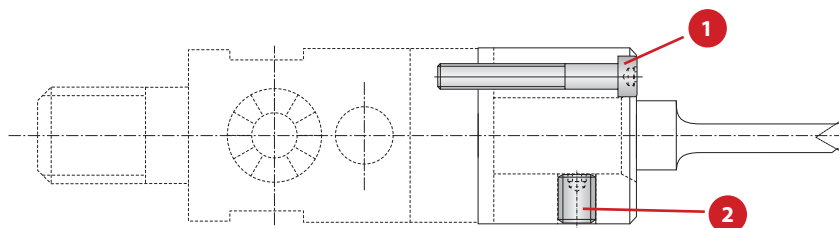
## Accessories

### Clamping Elements



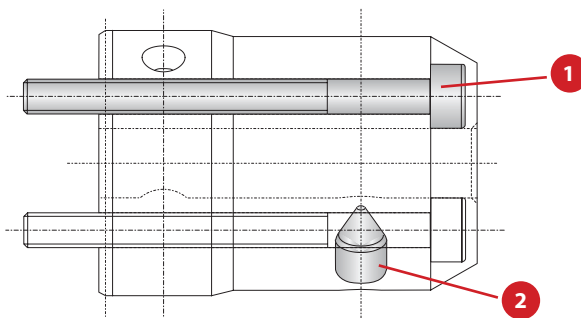
#### Clamping Elements for Boring Heads

Boring Head	Service Key S / Type	1 Cap Screw		2 Set Screw		
		Part No.	Service Key	Part No.	Service Key	
i	249001	13 S / P	315631	s3 / A	315629	s2 / A
	249002	15 S / P	315631	s3 / A	315684	s2 / A
	249003	19 S / P	315631	s3 / A	315687	s2 / A
m	248001	13 S / P	315631	s3 / A	315629	s2 / A
	248002	15 S / P	315631	s3 / A	315684	s2 / A
	248003	19 S / P	315631	s3 / A	315687	s2 / A



#### Clamping Elements for Adapters

Adapters	1 Cap Screw		2 Set Screw		
	Part No.	Service Key	Part No.	Service Key	
m	248063	315801	S 2.5 / A	115136	S 2.5 / A
	248064	315801	S 2.5 / A	031141	S 2.5 / A
	248065	315801	S 2.5 / A	031141	S 2.5 / A



#### Screws for Adapter

Adapters	1 Cap Screw		2 Set Screw	
	Part No.	Service Key	Part No.	Service Key
m	248071	515166	415244	S 3 / A

i = Imperial (in)  
m = Metric (mm)

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