

## Shopsmith Set Screws









Part No.	Ref. No.	Qty. Req.	Parts List Description (Location) per web site in 12/2014 AS DESCRIBED ON SHOPSMITH ORDER FORM <b>Generic Description (Allen Wrench/Screwdriver)</b>	Photo
102388	221 237 12	1 1 2	Allen Setscrew (Rip Fence Assembly, Model 500) Set Screw (Rip Fence Assembly, Model 505/510) Setscrew (Bandsaw, Fence Assembly) <b>SCR-5/16-18X1/2 SOC SET O</b> 5/16"-18 x 1/2" Black Oxide Alloy Steel Oval Point Socket Set Screw (5/32" Allen Wrench)	
102569			Special Setscrew <b>SP-SET SCREW</b> <b>Discontinued</b>	N/A
102581	66 289	1 2	Allen Setscrew (Headstock, Quill Spindle Knob) Setscrew, 3/8" Long (Lathe, Tailstock Upper) <b>SCR-5/16-18 X 3/8 SOC SET</b> 5/16"-18 x 3/8" Black Oxide Alloy Steel Cup Point Socket Set Screw w/Nylon Patch (5/32" Allen Wrench)	
102582	5	2	Allen Setscrew 5/16-18 (Bandsaw, Eccentric Mounting Tubes) <b>SCR-5/16-18X1/2 SOC SET K</b> 5/16"-18 x 1/2" Black Oxide Alloy Steel Knurled Cup Point Socket Set Screw (5/32" Allen Wrench)	
102585	297	1	Setscrew, 7/8" Long (Lathe, Tool Rest) <b>SCR-5/16-18X7/8 SOC SET K</b> 5/16"-18 x 7/8" Black Oxide Alloy Steel Knurled Cup Point Socket Set Screw (5/32" Allen Wrench)	
115321	75	2	Setscrew 5/16-18 x 5/16 (Belt Sander) <b>SCR-5/16-18X5/16 SCOC SET</b> 5/16"-18 x 5/16" Black Oxide Alloy Steel Knurled Cup Point Socket Set Screw (5/32" Allen Wrench)	
145709	85	1	Allen Screw (Headstock, Speed Control Handle) <b>SCR-10-24X1/4 SOC ST OVL</b> #10-24 x 1/4" Black Oxide Alloy Steel Oval Point Socket Set Screw w/Nylon Patch (3/32" Allen Wrench)	

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222458	215 263 286 292 304 319 53 76 100 80 63 116 31	2 1 1 2 2 1 1 2 2 1 1 1 1	Allen Setscrew (Rip Fence Assembly, Model 500) Set Screw (Miter Gauge & Safety Grip) Setscrew, 1/4" Long (Lathe, Drive Center) Setscrew, 1/4" Long (Lathe, Tail Stock) Setscrew, 1/4" Long (Coupler, Idler Hub & Spindle Hub) Setscrew, 1/4" Long (Saw Blade & Arbor) Allen Setscrew (Bandsaw, Drive Hub) Allen Setscrew (Bandsaw, Upper Blade Guide Block Bracket) Allen Setscrew (Bandsaw, Lower Blade Guide Block Bracket) Allen Setscrew (Belt Sander, Accessory Drive Hub) Allen Setscrew (Jointer, Accessory Drive Hub) Setscrew (Scroll Saw, MARK V Mounted) Allen Setscrew (Strip Sander, Accessory Drive Hub) <b>SCR-5/16-18X1/4 SOC SET F</b> 5/16"-18 x 1/4" Black Oxide Alloy Steel Flat Point Socket Set Screw (5/32" Allen Wrench)	
222460	299 325 10 8 103 40	1 1 4 2 2 2	Setscrew, 3/8" Long (Drill Chuck) Flat Point Setscrew, 3/8" long (Sanding Disc) Setscrew 5/16"-18 x 3/8" (Belt Sander) Setscrew 5/16"-18 x 3/8" (Jointer) Base Setscrew (Scroll Saw, MARK V Mounted) Setscrew 5/16"-18 x 3/8" (Strip Sander) <b>SCR-5/16-18X3/8 SOC SET F</b> 5/16"-18 x 3/8" Black Oxide Alloy Steel Flat Point Socket Set Screw (5/32" Allen Wrench)	
501401	279	1	Taper Screw (Miter Gauge & Safety Grip) <b>SCR-1/8-27X5/32 SOC JAM B</b> 1/8"-27 x 5/32" NPTF (National Pipe Taper Fine) Black Oxide Socket Jam Screw (5/32" Allen Wrench)	
501407	145 272 45	2 3 3	Trunnion Stop Screw (Worktable, Model 500) Headless Stop Screw (Miter Gauge & Safety Grip) Headless Stop Screw (Jointer) <b>SCR-10-32X3/4 SS CUP NYLK</b> #10-32 x 3/4" Black Oxide Alloy Steel Cup Point Socket Set Screw w/Nylon Patch (3/32" Allen Wrench)	
501634	44	1	Setscrew (Headstock, Quill Housing Guide) <b>SCR-5/16-18X3/8 SOC ST 1/</b> 5/16"-18 x 3/8" Black Oxide Alloy Steel Half Dog Point Socket Set Screw w/Nylon Patch (5/32" Allen Wrench)	
501635	281	2	Machine Screw (Miter Gauge & Safety Grip) <b>SCR-8-32X1/2 PHIL FLT HD</b> #8-32 x 1/2" Flat Head Phillips Machine Screw (#2 Phillips)	



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502051	26 27 14	2 2 1	Cup Point Setscrew (Bench & Base Assembly, Way Tube Tie Bar) Cup Point Setscrew (Bench & Base Assembly, Base Arm) Setscrew (Table Feed & Cutter Head Assembly, MARK V Mounted) <b>SCR-5/16-18X1/4 SOC SET K</b> 5/16"-18 x 1/4" Black Oxide Alloy Steel Knurled Cup Point Socket Set Screw (5/32" Allen Wrench)	
502552	68	2	Headless Slot Setscrew 5/16 (Bandsaw, Retaining Bracket) <b>SCR-5/16-18X3/4 SLT SET F</b> 5/16"-18 x 3/4" Alloy Steel Cup Point Socket Set Screw (5/32" Allen Wrench)	
504153	9	1	Hex Socket Setscrew (Bench & Base Assembly, Headrest) <b>SCR-1/2-13X5/8 SOC ST FLT</b> 1/2"-13 x 5/8" Black Oxide Alloy Steel Cup Point Socket Set Screw w/Nylon Plug (5/32" Allen Wrench)	
513056	45 118	1 1	Allen Setscrew (Headstock, Spring Housing) Allen Setscrew (Headstock, Fan Sheave) <b>SCR-5/16-18X3/8 SOC ST KN</b> 5/16"-18 x 3/8" Black Oxide Alloy Steel Knurled Cup Point Socket Set Screw (5/32" Allen Wrench)	
514746	45 44	3 1	Setscrew (Lathe Duplicator) Setscrew (Strip Sander) <b>SCR-5/16-18X1 SOC SET CUP</b> 5/16"-18 x 1" Black Oxide Alloy Steel Cup Point Socket Set Screw (5/32" Allen Wrench)	
515426	129 225	4 2	Pan Head Setscrew (Headstock, Motor Mount) Pan Head Sems Screw (Rip Fence Assembly, Models 505/510) <b>SCR-1/4-20X1/2 PH PAN INT</b> 1/4"-20 x 1/2" Phillips Pan Head Sems Screw w/Internal Tooth Washer (#3 Phillips)	
515587	115	1	Setscrew (Scroll Saw, Stand Mounted) <b>SCR-1/4-20X1/4 SS W/PTCH</b> 1/4"-20 x 1/4" Black Oxide Alloy Steel Knurled Cup Point Socket Set Screw w/Nylon Patch (1/8" Allen Wrench)	
516571	91	1	Socket Head Screw 5/16-18x1 (Bandsaw) <b>SCR-5/16-18X1-1/4</b> 5/16"-18 x 1-1/4" Black Oxide Alloy Steel Cup Point Socket Set Screw (5/32" Allen Wrench)	
517089	11	1	1/4 20x1/4 Screw (Bandsaw, Circle Cutter) <b>SCR-1/4-20X1/4 SOC SET FL</b> 1/4"-20 x 1/4" Black Oxide Alloy Steel Flat Point Socket Set Screw (5/32" Allen Wrench)	

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518017	16	4	Socket Head Screw, 10-24 x 1" (Bandsaw, Fence Assembly) <b>SCR-10-24X1 SOCHD CAP</b> #10-24 X 1" Black Oxide Alloy Steel Cup Point Socket Set Screw (5/32" Allen Wrench)	
518155	13	2	Setscrew (Scroll Saw) <b>SCR-1/4-20X1/4 SET HALF D</b> 1/4"-20 x 1/4" Black Oxide Alloy Steel Half Dog Point Socket Set Screw (1/8" Allen Wrench)	
51398901	29C 52 70	4 1 4	Setscrew (Table Feed & Cutter Head Assembly, MARK V Mounted) Adjuster Screw (Jointer) Setscrew (Table Feed & Cutter Head Assembly) <b>SCR-1/4-20X1/4 SOC ST OVA</b> 1/4"-20 x 1/4" Black Oxide Alloy Steel Oval Point Socket Set Screw (1/8" Allen Wrench)	
51398905	94	1	Setscrew (Headstock, Speed Control Assembly) <b>1/4-20X1-1/8" HEX SOC CUP</b> 1/4"-20 x 1-1/8" Black Oxide Alloy Steel Cup Point Socket Head Set Screw (1/8" Allen Wrench) (Older version was a slot head screw)	
51399401	29 62	4 4	Setscrew (Table Feed & Cutter Head Assembly, MARK V Mounted) Setscrew (Table Feed & Cutter Head Assembly) <b>SCR-10-24X1/4 SOC SET CON</b> #10-24 x 1/4" Black Oxide Alloy Steel Cone Point Socket Set Screw w/Nylon Patch (3/32" Allen Wrench)	

### Types of Socket Set Screw Points

<b>FLAT</b>		Used frequently as an adjusting screw on a hardened surface, ground for better contact with point. Preferred for thin wall applications and soft plugs.
<b>KNURLED CUP</b>		Counter clockwise knurls prevent setscrew from loosening CUP under severest of vibrations even in a hole that has been poorly tapped. Used as a quick and permanent locking method in gears, collars and knobs. The design of the knurl in conjunction with the cup point create the ultimate in holding power.
<b>INTERNAL KNURLED CUP</b>		
<b>OVAL</b>		Used when frequent adjustments will be made, or for permanent setting on splined or grooved shafts. This point will not damage the surface it bears against. For longitudinal adjustment or rotational adjustment, grooves are ground into the shaft to correspond to curvature to the oval point.
<b>HALF DOG</b>		Used for permanent location often instead of a dowel pin. A DOG closely fitted hole must be drilled in the shaft or use on a milled flat. Preferred for hardened materials.
<b>CUP</b>		This is the preferred point. Used against hard shafts and also in soft materials where high torque tightening is impractical and cutting in of cup edge is not objectionable.
<b>CONE</b>		Used for permanent positioning on soft or hardened shafts. Deep penetration of point gives the highest axial and torsional holding power over all other points.
<b>FULL DOG</b>		Full dog requires a deep hole in shaft. Very similar to half-dog in style. Inactive design, see half-dog for applications.

### Types of Socket Set Screw Drives

<b>HEX SOCKET</b>		Most commonly used; allows for ultimate tightening with convenient hex keys. Occasionally used as tamperproof screw.
<b>SLOTTED DRIVE</b>		Used to eliminate the need for special tooling. These screws may be installed with a standard slotted screwdriver.
<b>FLUTED SOCKET</b>		Allows for tightening with less chance of reaming the socket area. It is a less readily available drive especially when coupled with various points other than the standard cup point.
<b>SQUARE HEAD</b>		This head design provides extra strength in minimizing the possibility of the head popping off under torque overloads.

### SEMS Screws

A Sems screw is a screw with an attached washer. The washer may be an internal tooth, external tooth, split, etc.



### National Pipe Size & Thread

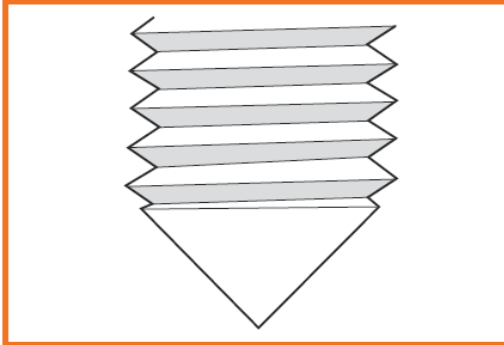
Size	Pipe Size	NPT (National Pipe Taper)/ NPS (National Pipe Straight)
1/16"-27	1/16"	27
1/8"-27	1/8"	27
1/4"-18	1/4"	18
3/8"-18	3/8"	18
1/2"-14	1/2"	14
3/4"-14	3/4"	14
1"-11-1/2	1"	11-1/2

### Allen Wrench with Machine Screw Diameter & Thread

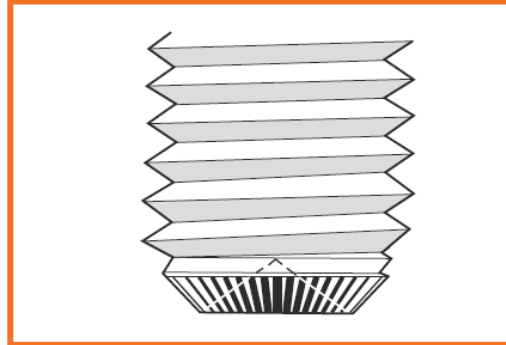
Allen Wrench	Screw Diameter & Thread (Coarse Thread)	Screw Diameter & Thread (Fine Thread)
.028"		#0-80
.035"	#1-64	#1-72
.035"	#2-56	#2-64
.050"	#3-48	#3-56
.050"	#4-40	#4-48
1/16"	#5-40	#5-44
1/16"	6-32	6-40
5/64"	8-32	8-36
3/32"	10-24	10-32
3/32"	12-24	12-28
1/8"	1/4"-20	1/4"-28
5/32"	5/16"-18	5/16"-24
3/16"	3/8"-16	3/8"-24
7/32"	7/16"-14	7/16"-20
1/4"	1/2"-13	1/2"-20
5/16"	5/8"-11	5/8"-18
3/8"	3/4"-10	3/4"-16
1/2"	7/8"-9	7/8"-14
9/16"	1"-8	1"-12



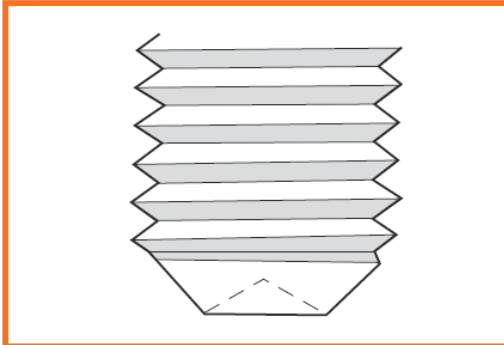
## SOCKET SET SCREWS



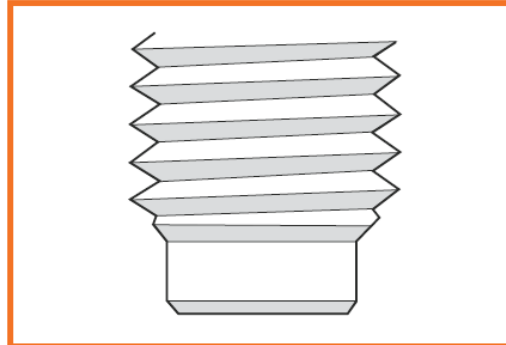
**Cone Point** - Use for permanent location of parts. Deep penetration gives highest axial and torsional holding power. Unbrako cone point set screws are ideally suited for use as pivots and for applications where fine adjustments are necessary.



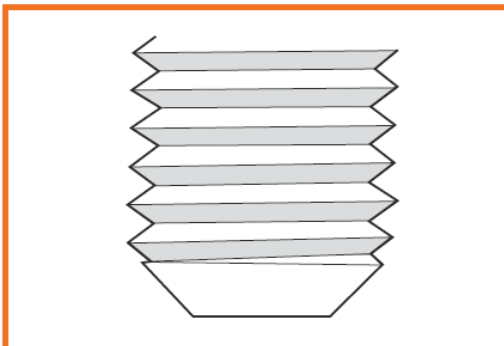
**Knurled Cup Point** - Use for quick, permanent location of gears, collars, and pulleys on shafts. Exclusive counter-clockwise knurl prevents Unbrako screws from loosening even in poorly tapped holes. Resists severe vibration. On all set screws over  $\frac{1}{4}$ " the cup is counterbored to provide maximum holding power.



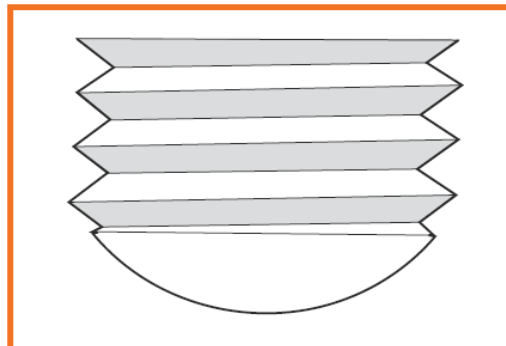
**Plain Cup** - Use against hardened shafts, in zinc, die castings and other soft materials where high tightening torques are impractical.



**Half and Full Dog Point** - Use for permanent location of one part to another. The point is usually spotted in a hole drilled in a shaft or on a flat surface milled on the shaft.



**Flat Point** - Use where parts must be frequently re-set, as it causes little or no damage to the part it bears against. Can be used against hardened shafts (usually with ground flat for better contact) and as adjusting screw. Preferred for thin wall thickness and on soft plugs.



**Oval Point** - Use for frequent adjustment without deformation of the part it bears against, also for seating against an angular surface. Circular U-grooves or axial V-grooves sometimes put in shaft to permit rotational or longitudinal adjustment.