



# 2015-16 MASTER PARTS CATALOG

# GENUINE PARTS

for the latest engines



- Engine Parts & Accessories
- Retail Parts & Accessories
- Engines
- Service Tools

- Power Products Parts
- Murray® Parts
- Dealer Merchandise
- Reference

Engine Parts

Engine Accessories

Retail Parts & Accessories

Engines

Service Tools

Power Products Parts

Murray® Parts

Dealer Merchandise

Reference

BRIGGS & STRATTON MASTER PARTS CATALOG 2015-16

BRIGGS&STRATTON MASTER PARTS CATALOG

---



Briggs & Stratton Corporation is the world's largest producer of gasoline engines for outdoor power equipment and has been providing power for consumers and professionals for over a century now.

Briggs & Stratton, through its subsidiary Briggs & Stratton Power Products Group, LLC, is also a leading designer, manufacturer and marketer of generators (portable and standby), pressure washers, snow throwers, lawn and garden equipment and related accessories. With that kind of market breadth, a strong service network is necessary to provide customers with the service they deserve.

The Briggs & Stratton Dealer Network provides this superior service and support. Our dealers represent the crucial human link between Briggs & Stratton and our end customers. With the increasingly important focus on the consumer, we need to make certain our dealers are equipped with the necessary tools to exceed consumer expectations.

This latest revised edition of Briggs & Stratton's Master Parts Catalog was developed as one of those essential tools, and is designed to help you find exactly what you're looking for quickly and easily. The catalog has been revised to be a functional resource for all of your part and accessory needs.

Inside, you'll find Briggs & Stratton's broad selection of genuine parts that make a Briggs & Stratton® engine run at its best. Additionally, the Dealer Merchandise section includes all of Briggs & Stratton's merchandising options to make your dealership stand out as a Briggs & Stratton dealer and also an efficient place to shop. Individuals interested in acquiring information regarding the Briggs & Stratton dealer programs should contact the Integrated Distributor (IDN) in their area ([See Authorized Distribution Network map on page 16-3](#)).

Briggs & Stratton Dealers may log on to [www.ThePowerPortal.com](http://www.ThePowerPortal.com) for a wealth of information exclusively available to our business partners. The site saves you time and money by meeting your training needs. Also accessible through The Power Portal is the Custom Marketing program designed for you to easily market your products and services. If you do not have a current user name and password, please contact your IDN sales representative or call 1-800-480-9403.

All of us at Briggs & Stratton wish you the best of luck in your business and future sales. Thank you for your commitment to high quality parts and service!

# ii LEGEND

The icons used next to each part represent the packaging available for that part.

**EXAMPLE:**



Red Box - individually packaged part (most dealers stock)



Display Packaged Parts - displayed on the Briggs & Stratton Merchandise Displays, pg. 17-1



Shop Pack - multiple quantity packaged


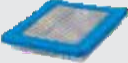



Mega Pack - bulk quantity packaged (The Mega Pack is marked individually, see below)

- Under each icon column is the part number of the packaged part.

**EXAMPLE:**



	<b>Air Filter Cartridge</b>	Intek™ V-Twin Engines, Uses 273638S Pre-Cleaner	499486S	5063 w/273638S Pre-cleaner	4223 Qty. 6
	<b>Air Filter Cartridge</b>	625-1575 Series™, 3.5-6.5 Gross HP† Quantum® Engines, Uses 491435S or 493537S Pre-cleaner	491588S	5043	 491588B Qty. 336

- The air filter cartridge in the normal Red Box Package is part number 499486S. It can also be ordered in the Display Parts Package under part number 5063. It can also be ordered in the Shop Pack Package under part number 4223 with a quantity of 6 filters in the box. Parts can be ordered in the Mega Pack Package if you see the mega pack icon in the last column as in the example above as part number 491588B with a quantity of 336 filters in the box.

If you would like to see a photograph of a Display Parts Package, refer to the Retail Parts & Accessories section, pg. 9-2.



Úvod.....	i
Legenda.....	ii
Obsah.....	iii, iv
<b>Díly motoru</b>	
<b>Karburace .....</b>	<b>1-1</b>
Vzduchové filtry – Pěnové .....	1-1
Vzduchové filtry – Papírová vložka .....	1-2
Předfiltry.....	1-7
<b>Komprese .....</b>	<b>2-1</b>
Sací a výfukové ventily .....	2-1
<b>Výfukové systémy.....</b>	<b>3-1</b>
Výfuky. ....	3-1
Tlumiče výfuku - lapače jisker .....	3-4
<b>Palivové systémy.....</b>	<b>4-1</b>
Palivové filtry – sponky vedení.....	4-1
Palivové vedení - uzavírací ventily .....	4-2
Víčka palivových nádrží .....	4-3
<b>Systémy zapalování .....</b>	<b>5-1</b>
Armatury - kondenzátory – spínače .....	5-1
Pera setrvačnicku - zapalovací svíčky.....	5-2
Kolínka zapalovací svíčky.....	5-3
Spínače zapalování .....	5-4
<b>Mazání.....</b>	<b>6-1</b>
Olejové filtry - Různé .....	6-1
<b>Startování.....</b>	<b>7-1</b>
Rukojeti startování .....	7-1
<b>Příslušenství Motorů.....</b>	<b>8-1</b>
Deflektory – Pojistné matice - Výfukové potrubí .....	8-1
Výfuk .....	8-2
Vzduchové filtry.....	8-25
Mazání .....	8-26
Elektrické startéry .....	8-28
Různé .....	8-29
<b>Servisní Nářadí .....</b>	<b>12-1</b>
Údržba hlavního ložiska .....	12-1
Údržba ložiska vačkové hřídele .....	12-2
Údržba karburátoru.....	12-3
Elektrická měření.....	12-4
Stahovák / blokace setrvačnicku .....	12-5
Zapalování .....	12-6
Těsnění – Vnější údržba .....	12-7
Údržba pístu a pístních kroužků .....	12-8
Testování těsnosti tlaku .....	12-9
Otáčky – Rozměry - Točivý moment - Měření .....	12-10
19300 Základní sada nářadí.....	12-12
Startéry - Elektro / Ruční .....	12-13
Údržba ventilů / komprese .....	12-14
Různé .....	12-19
<b>Náhradní díly Murray .....</b>	<b>14-1</b>
Řemeny .....	14-1
Nože .....	14-2
Díly pro Sekačky / traktory / sněžové frézy.....	14-3
<b>Reklamní Předměty pro Dealery .....</b>	<b>15-1</b>
Cedule, bannery, vlajky .....	15-2
<b>Odkaz.....</b>	<b>16-1</b>
Význam modelového čísla motoru.....	16-1

# AIR FILTERS – FOAM 1-1



	<b>Air Filter Foam Element</b>	2-5 Gross HP <sup>†</sup> Horizontal	27987S		4108 Qty. 5
	<b>Air Filter Foam Element</b>	3 & 3.5 Gross HP <sup>†</sup> Vertical	270579S	5099	4104 Qty. 5
	<b>Air Filter Foam Element</b>	Vertical Models 82500-92900 w/Automatic Choke	270251		
	<b>Air Filter Foam Element</b>	450-600Series™, 4.5-6 Gross Torque <sup>‡</sup> , 3-3.75 Gross HP <sup>†</sup> Vertical Classic™ & Sprint™, 4 Gross HP <sup>†</sup> Quattro™	272235S	5047	4107 Qty. 6
	<b>Air Filter Foam Element</b>	4 Gross HP <sup>†</sup> (10 CID) Vertical	270067		
	<b>Air Filter Foam Element</b>	4 Gross HP <sup>†</sup> Vertical	270848		
	<b>Air Filter Foam Element</b>	5 Gross HP <sup>†</sup> Vertical	270447		
	<b>Air Filter Foam Element</b>	7 & 8 Gross HP <sup>†</sup> Vertical	270528S		4133 Qty. 4
	<b>Air Filter Foam Element</b>	7-14 Gross HP <sup>†</sup> (Early Style)	270093		
	<b>Air Filter Foam Element</b>	8-11.5 Gross HP <sup>†</sup> Vertical	272922		
	<b>Air Filter Foam Element</b>	10 & 11 Gross HP <sup>†</sup> Vertical	270843S		4134 Qty. 4

† All power levels are stated gross torque at 2600 rpm per SAE J1940.  
‡ All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 1-2 AIR FILTERS – CARTRIDGE



	<b>Air Filter Foam Element</b>	450-600Series™, 4.5-6 Gross Torque†, 3.5-4.5 Gross HP‡ Q™45, Classic™, Sprint™, Quattro™ Engines, w/plastic air cleaner housings	698369	5088+5099	4216 Qty. 6
	<b>Air Filter Foam Element</b>	6 Gross HP‡ Europa™ Vertical, 6 Gross HP‡ Vanguard™ Vertical, 7.5 Gross HP‡ Vanguard™ Horizontal	691315		
	<b>Air Filter Foam Element</b>	6.5-6.75 Gross HP‡ Quantum® Engines	794071		
	<b>Air Filter Foam Element</b>	675-875 Series™	797301	5433	4249 Qty. 5
	<b>Air Filter Foam Element</b>	450e -500e Series™ with foam filter	799579	5434	4248 Qty. 5
	<b>Air Filter Foam Element</b>	Fource™	696923		
	<b>Air Filter Foam Element</b>	Horizontal 750 Series™	591717		
	<b>Air Filter Upgrade Kit</b>	Replaces all Briggs & Stratton® foam filters, 300-550 Series™, 3.0-5.5 Gross Torque†, Classic™, Sprint™, Quattro™, and Q™45 3-5 Gross HP‡ Engines		5099	
	<b>Air Filter Cartridge</b>	Europa™ (9CID) OHV Vertical, Uses 273185S Pre-cleaner Quantum®, 12U, 12V, 12W800	497725S	5055 w/273185S Pre-cleaner	4197 Qty. 4
	<b>Air Filter Cartridge</b>	7 & 8 Gross HP‡ Vertical	393406		
	<b>Air Filter Cartridge</b>	7, 8 & 11 Gross HP‡ Horizontal, Uses 271939 Pre-cleaner	399968		
	<b>Air Filter Cartridge</b>	8.5, 10.5 & 11 Gross HP‡ Vertical Uses 272477S Pre-cleaner	691667	5075 w/273356S Pre-cleaner	4166 Qty. 5

# AIR FILTERS – CARTRIDGE 1-3

					
	<b>Air Filter Cartridge</b>	12.5-15 Gross HP <sup>†</sup> Vertical Uses 272403S Pre-cleaner	496894S	5053 w/273356S Pre- cleaner	4139 Qty. 4
	<b>Air Filter Cartridge</b>	L-Head Twin Vertical Uses 272490S Pre-Cleaner	394019S	5052 w/273356S Pre- cleaner	4136 Qty. 4
	<b>Air Filter Cartridge</b>	Intek™ 5.5-6.75 Gross HP <sup>†</sup> Engines, Uses 273356 Pre-Cleaner	697029	5059 w/273356S Pre- cleaner	4207 Qty. 4
	<b>Air Filter Cartridge</b>	475-525 Series™, 3.5-4 Gross HP <sup>†</sup> Engines	790166	5404	
	<b>Air Filter Cartridge</b>	2-5 Gross HP <sup>†</sup> Horizontal & Vertical, Uses 271466 Pre-cleaner	392308S		
	<b>Air Filter Cartridge</b>	2-5 Gross HP <sup>†</sup> Horizontal & Vertical, Uses 271466 Pre-cleaner	396424S		4137 Qty. 4
	<b>Air Filter Cartridge</b>	5.5 Gross HP <sup>†</sup> (10CID) Vertical Vanguard™, Uses 272218 Pre-cleaner	491950		
	<b>Air Filter Cartridge</b>	6-6.5 Gross HP <sup>†</sup> Intek™ Vertical Highmount Metal End Cap	692446		4224 Qty. 4
	<b>Air Filter Cartridge</b>	Intek™ 5.5-6.75 Gross HP <sup>†</sup> Engines, Uses 695303 Pre-Cleaner	695302		
	<b>Air Filter Cartridge</b>	7 & 8 Gross HP <sup>†</sup> Horizontal (Early Style)	390492		
	<b>Air Filter Cartridge</b>	10, 11 & 12 Gross HP <sup>†</sup> Horizontal	392286		

† All power levels are stated gross HP at 3600 rpm per SAE J1940.


# 1-4 AIR FILTERS – CARTRIDGE



	<b>Air Filter Cartridge</b>	7-18 Gross HP <sup>†</sup> Horizontal Uses 271794S Pre-cleaner	393957S		4106 Qty. 4
	<b>Air Filter</b>	Use on 500e, 550ex, 6.25ex, 6.75exi, and 7.25exi Series™ with paper filter	593260	5432	4247 Qty. 5
	<b>Air Filter Cartridge</b>	6 Gross HP <sup>†</sup> (14 CID) Vertical & Horizontal	496047		
	<b>Air Filter Cartridge</b>	L-Head Twin Horizontal & V-Twin Vanguard, Uses 272490S Pre-Cleaner	394018S	5050 w/272490S Pre- cleaner	4135 Qty. 4
	<b>Air Filter Cartridge</b>	Models 540000 & 610000	841497		4235 Qty. 4
	<b>Air Filter Cartridge</b>	Single Cylinder 20-21 Gross HP <sup>†</sup> Engines and most Model 33 Engines. Uses 793685S Pre-Cleaner	793569	5415 w/793569 Pre- cleaner	
	<b>Air Filter Cartridge</b>	5.50 Gross Torque <sup>‡</sup> , 550 Series™	796970		
	<b>Air Filter Cartridge</b>	Model 44 & 49 Cyclonic Filter	798897		
	<b>Air Filter Cartridge</b>	Vanguard V-Twin™, Uses 692520 Pre-cleaner	692519		4232 Qty. 5
	<b>Air Filter Cartridge</b>	Used on engine model #385777 & 3L/C	820263		4234 Qty. 4
	<b>Air Filter Cartridge</b>	Models 540000 & 610000	821136		4236 Qty. 4



# AIR FILTERS – CARTRIDGE 1-5

					
	<b>Air Filter Cartridge</b>	10.5-11.5 Gross HP <sup>†</sup> Intek™ Vertical Shaft 212900, 214900, 217900 Green Filter	698973		
	<b>Air Filter Cartridge</b>	7.0 Gross Torque <sup>†</sup> , Vertical and 700 Series™ DOV® Engines	792038		
	<b>Air Filter Cartridge</b>	6.5 Gross HP <sup>‡</sup> Vanguard™/Model 13 Vanguard™, Uses 798513 Pre-cleaner	797033		4101 Qty. 5
	<b>Air Filter Cartridge</b>	Intek™, I/C® OHV Gross HP <sup>†</sup> , Vanguard™ OHV 19 Gross HP <sup>†</sup> , and Extended Life Series™ Engines	591338		
	<b>Air Filter Cartridge</b>	Professional Series™ 7.75, 8.5, 8.75, Uses Pre-cleaner 796254	795066	5419 w/796254 Pre-cleaner	
	<b>Air Filter Cartridge</b>	13.5 Gross HP <sup>†</sup> Intek™, I/C® OHV, Vanguard™ OHV 19.0 Gross HP <sup>†</sup> Engines. Includes sealing gaskets	797032		
	<b>Extended Life Series™ Air Filter Cartridge</b>	V-Twin 16-27 Gross HP <sup>†</sup> Engines, Uses Pre-cleaner 276890	792105	5405 w/276890 Pre-cleaner	4233 Qty. 4
	<b>Air Filter Cartridge</b>	Model 31 Cartridge Filter	591334		
	<b>Air Filter Cartridge</b>	625-1575 Series™, 3.5-6.5 Gross HP <sup>†</sup> Quantum® Engines, Uses 491435S or 493537S Pre-cleaner	491588S	5043	 491588B Qty. 336
	<b>Air Filter Cartridge</b>	3.5 Gross HP <sup>†</sup> Quantum® (10 CID)	399877S		4103 Qty. 5
	<b>Air Filter Cartridge</b>	12.5-16 Gross HP <sup>†</sup> Horizontal & Vertical V-Twin Vanguard™, Uses 805267S pre-cleaner	805113		4140 Qty. 5















† All power levels are stated gross torque at 2600 rpm per SAE J1940.  
‡ All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 1-6 AIR FILTERS - CARTRIDGE



	<b>Air Filter Cartridge</b>	7-11 Gross HP <sup>†</sup> Single Cylinder Industrial Plus™ Engines	691643		4195 Qty. 5
	<b>Air Filter Cartridge</b>	Intek™ V-Twin Engines, Uses 273638S Pre-Cleaner	499486S	5063 w/273638S Pre-cleaner	4223 Qty. 6
	<b>Air Filter Cartridge</b>	3.5 & 4 Gross HP <sup>†</sup> Max Series & 2-Cycle, Uses 399039 Pre-cleaner	397795S	5027	4102 Qty. 5
	<b>Air Filter Cartridge</b>	9-15 Gross HP <sup>†</sup> Single Cylinder Vanguard™ Engines, Uses 710268 Pre-cleaner	710266		4152 Qty. 4
	<b>Air Filter Cartridge</b>	3.5 & 5 Gross HP <sup>†</sup> Industrial Plus™, Uses 492889 Pre-cleaner	494511S		4145 Qty. 4
	<b>Air Filter Cartridge</b>	4 Gross HP <sup>†</sup> (8 CID), Uses 710267 Pre-cleaner	710265		4154 Qty. 4
	<b>Air Filter Cartridge</b>	9 Gross HP <sup>†</sup> (16 CID) Vanguard™, Uses 492889 Pre-cleaner	491384		4155 Qty. 4
	<b>Air Filter Cartridge</b>	Model 050000	711459		4156 Qty. 4
	<b>Extended Life Series™ Air Filter Cartridge</b>	18-26 Gross HP <sup>†</sup> Intek™ V-Twin Engines, Extended Life Series™ Version of 499486S/5063	698754	5069 w/273638S Pre-cleaner	
	<b>Extended Life Series™ Air Filter Cartridge</b>	14-18 Gross HP <sup>†</sup> I/C®, Intek™, OHV, Extended Life Series™ & AVS®. Extended Life Series™ Version use 697153/5078. Uses Pre-cleaner 697015	795115	5078	4214 Qty. 6
	<b>Air Filter Cartridge AVS®</b>	14-18 Gross HP <sup>†</sup> I/C®, Intek™, OHV & AVS® Engines, For Extended Life Series™ Version use 697153/5078, Uses Pre-cleaner 697015	797008	5077	4214 Qty. 6

# PRE-CLEANERS 1-7

					
	<b>Air Filter Cartridge</b>	8-13.5 Gross HP <sup>†</sup> Power Built™ OHV I/C® OHV & AVS® Engines, Uses Pre-cleaner 697292	797007	5079 w/697293 Pre-cleaner	4213 Qty. 6
	<b>Air Filter Cartridge</b>	Intek™ V-Twin 16-27 Gross HP <sup>†</sup> Engines, Uses Pre-cleaner 273635S	792101	5408 w/273638S Pre-cleaner	
	<b>Pre-Cleaner</b>	Europa (9CID) OHV Vertical, Quantum®, 12U, 12V, 12W800, Pre-cleaner for 497725S	273185S		
	<b>Pre-Cleaner</b>	12.5 & 14 Gross HP <sup>†</sup> (26 CID) Vertical Vanguard™, Pre-cleaner for 491021	492947		
	<b>Pre-Cleaner</b>	2-5 Gross HP <sup>†</sup> Horizontal & Vertical Pre-cleaner for 396424S & 392308S	271466		4109 Qty. 4
	<b>Pre-Cleaner</b>	7-18 Gross HP <sup>†</sup> Horizontal Pre-cleaner for 393957S	271794S		4141 Qty. 5
	<b>Pre-Cleaner</b>	L-Head Twin Vertical, L-Head Twin Horizontal & V-Twin Vanguard™ Pre-cleaner for 394018 & 19S	272490S		4111 Qty. 6
	<b>Pre-Cleaner</b>	7, 8 & 11 Gross HP <sup>†</sup> Horizontal Pre-cleaner for 399968	271939		
	<b>Pre-Cleaner</b>	Pre-cleaner for 399806S	271962S		4110 Qty. 4
	<b>Pre-Cleaner</b>	Intek™ V-Twin Pre-cleaner for 499486S	273638S		
	<b>Pre-Cleaner</b>	12.5 & 14 Gross HP <sup>†</sup> (26 CID) Vertical Vanguard™ Pre-cleaner (Heavy Duty) for 491021	272444		

† All power levels are stated gross HP at 3600 rpm per SAE J1940.


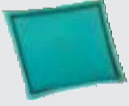




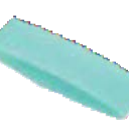


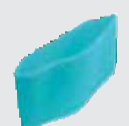


# 1-8 PRE-CLEANERS



	<b>Pre-Cleaner</b>	Intek™ 5.5-6.75GrossHP†Engines Pre-cleaner for 697029	273356S		4201 Qty. 5
	<b>Pre-Cleaner</b>	5.5 Gross HP† (10CID) Vertical Vanguard™, Uses 491950 Pre-cleaner	272218		
	<b>Pre-Cleaner</b>	Pre-cleaner for 691667	272477S		4199 Qty. 5
	<b>Pre-Cleaner</b>	Pre-cleaner for 496894S	272403S		4142 Qty. 5
	<b>Pre-Cleaner</b>	6.5 Gross HP† Vanguard™ Pre-cleaner for 798513	798513		
	<b>Pre-Cleaner</b>	Pre-cleaner for 491588S	491435S		4146 Qty. 5
	<b>Pre-Cleaner</b>	Pre-cleaner for 397795S	399039		
	<b>Pre-Cleaner</b>	Pre-cleaner for 491384, 494511S, 691643	492889		4148 Qty. 5
	<b>Pre-Cleaner</b>	Pre-cleaner for 491588S Wire mesh version - Selected Models	493537S	5064	4147 Qty. 5
	<b>Pre-Cleaner</b>	Pre-cleaner for 710265	710267		
	<b>Pre-Cleaner</b>	Used on model 050000 Pre-cleaner for 711459	711460		

# PRE-CLEANERS 1-9



	<b>Pre-Cleaner</b>	Pre-cleaner for 710266	710268		
	<b>Pre-Cleaner</b>	Pre-cleaner for 805113	805267S		4143 Qty. 5
	<b>Pre-Cleaner</b>	Pre-cleaner for 689413	697292		4215 Qty. 5
	<b>Pre-Cleaner</b>	Pre-cleaner 698083	697015		
	<b>Pre-Cleaner</b>	Pre-cleaner 695302	695303		
	<b>Pre-Cleaner</b>	Professional Series™ 7.75, 8.5, 8.75, Pre-cleaner for 795066	796254		
	<b>Pre-Cleaner</b>	Pre-cleaner for 793028	793676		
	<b>Pre-Cleaner</b>	Single Cylinder 20-21 Gross HP† Used with 793569	793685		
	<b>Pre-Cleaner</b>	Pre-cleaner for 692519	692520		
	<b>Pre-Cleaner</b>	Pre-cleaner for 798897	593217		
	<b>Filter Pre-Cleaner</b>		590602		
	<b>Filter Pre-Cleaner</b>		798911		

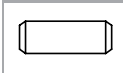
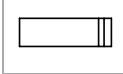

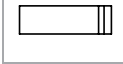
† All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 2-1 INTAKE & EXHAUST VALVES

Compression

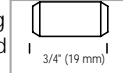
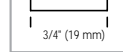
## 5/16" VALVE GUIDES L-HEAD ENGINES OVER 5 HP

Use GuideNumbers

Bushing removed from cylinder		Sintered Guide Gray or Copper Colored <b>261961</b>
		Brass Guide 1 or 2 Grooves <b>231218</b>
		Brass Guide No Grooves <b>230655</b>
		Aluminum Guide or Cast Iron Cylinder <b>231218</b>

## 1/4" VALVE GUIDES L-HEAD ENGINES OVER 5 HP & UNDER

Use GuideNumbers

Bushing removed from cylinder		Sintered Guide Gray or Copper Colored <b>262001</b>
		Brass Guide 1 or 2 Grooves <b>231348</b>
		Brass Guide 1 or 2 Grooves <b>231349</b>
		Brass Guide No Grooves <b>63709</b>
		Aluminum Guide or Cast Iron Cylinder <b>63709</b>









For valve guide part number(s) on OHV engines, consult Repair Instruction Handbook for respective engine(s).

# MUFFLERS - LO-TONE™ 3-1



Engine Parts

Exhaust Systems

	<b>Lo-Tone™</b>	5.0 Gross HP <sup>†</sup> Horizontal & Vertical engines	390918S		
	<b>Lo-Tone™</b>	3.0-4.0 Gross HP <sup>†</sup> Vertical (1/2" NPT)	394569S		
	<b>Lo-Tone™</b>	2-4 Gross HP <sup>†</sup> (11 CID) Horizontal (1/2" NPT)	493288		
	<b>Lo-Tone™</b>	Selected Model 28 Verticals	496022S		
	<b>Lo-Tone™</b>	5.0-8.0 Gross HP <sup>†</sup> Horizontal & Vertical (3/4" NPT)	393010S		
	<b>Lo-Tone™</b>	9-18 Gross HP <sup>†</sup> Horizontal Remote Mount	399635		
	<b>Lo-Tone™</b>	Selected Model 28 Verticals	495805S		
	<b>Lo-Tone™</b>	10.0 & 11 Gross HP <sup>†</sup> Horizontal	497470		
	<b>Lo-Tone™</b>	10.0-12.5 Gross HP <sup>†</sup> Horizontal & Vertical engines Special RAF Reduced Noise Design	691874		
	<b>Lo-Tone™</b>	625-675 Series™ engines 6.0 Gross HP <sup>†</sup> Quantum® engines	692038		
	<b>Lo-Tone™</b>	6.5 Gross HP Vanguard™ engines	798515		

† All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 3-2 MUFFLERS - SUPER LO-TONE™ - STANDARD



	<b>Super Lo-Tone™</b>	Europa™ (9 CID) OHV Vertical	494717		
	<b>Super Lo-Tone™</b>	5.0 Gross HP† Horizontal	496892		
	<b>Super Lo-Tone™</b>	3.0 & 4.0 Gross HP† (11CID) Horizontal	691360		
	<b>Super Lo-Tone™</b>	3.0-4.0 Gross HP† Vertical	692307		
	<b>Super Lo-Tone™</b>	7.0 & 8.0 Gross HP† Horizontal & Vertical	494222		
	<b>Super Lo-Tone™</b>	8.0 & 11.0 Gross HP† Horizontal 18.0 Gross HP† Opposed Twin Horizontal Selected Models OHV Twins - (Horizontal & Vertical C/S Models/ Remote Mount) Special RAF Reduced Noise Design	498984S		
	<b>Super Lo-Tone™</b>	5.0 Gross HP† Horizontal Special RAF Reduced Noise Design	691969		
	<b>Super Lo-Tone™</b>	3.0-5.0 Gross HP† Industrial Plus™	692365		
	<b>Muffler</b>	850 Series™ engines 6.0 Gross HP† Intek™ engines	693593		
	<b>Standard</b>	2 & 3 Gross HP† Horizontal (1/2" NPT)	89966		
	<b>Standard</b>	8-16 HP† Horizontal Cast Iron Models (7" Pipe Length, 1" NPT)	299477S		



# MUFFLERS - STANDARD - VANGUARD™ 3-3








	<b>Standard</b>	9-16 Gross HP† Single Cylinder (Less Pipe Extension)	392989		
	<b>Muffler</b>	850 Series™ engines 6.0 Gross HP Intek™ engines	694429		
	<b>Standard</b>	10-12 Gross HP† 8" Pipe Length	391569S		
	<b>Standard</b>	16 Gross HP† Horizontal Cast Iron Models (11" Pipe Length, 1" NPT)	393232S		
	<b>Standard</b>	Professional Series™ 8.50-8.75 Gross Torquet	796495		
	<b>Lo-Tone™</b>	4.0 Gross HP Vanguard™ engines OHV Horizontal engines	715487		
	<b>Lo-Tone™</b>	5.5 & 6.0 Gross HP Vanguard™ engines OHV Horizontal engines	715435		
	<b>Super Lo-Tone™</b>	12.5, 16, 18 Gross HP† Vanguard™ V-Twin Horizontal	690931		
	<b>Super Lo-Tone™</b>	Horizontal Vanguard™ V-Twin 29, 30, 35 High Mount (Oil Filter Side Outlet)	807799		
	<b>Super Lo-Tone™</b>	Horizontal Vanguard™ V-Twin 29, 30, 35 High Mount (Starter Side Outlet)	807831		
	<b>Muffler</b>	Model 118400	711239		


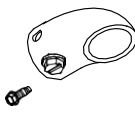




† All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 3-4 MUFFLER DEFLECTORS - SPARK ARRESTERS



	<b>Muffler</b>	Model 543400 & 613100	841680		
	<b>Muffler</b>	Model 50032	715948		
	<b>Muffler</b>	Model 543400 & 613400	843741		
	<b>Muffler</b>	Model 543400 & 613100	809983		
	<b>Muffler</b>	Model 124600 Outboard Engine	699769		

The items listed below are for use on the engine series shown, when equipped with mufflers designed for use with either a deflector or spark arrester.

	Side Out	Side Out 2	Direct Out	Louvered	Louvered	Spark Arrester
						
60000, 80000, 90000, 94200, 100000, 110000, 120000	393760		397931	None	396548	398067
99700	None		None	None	None	
*85400, 115400, 117400, 138400, 185400, 110400		None	None	None	715491	
130000, 170000			395700	393758	None	399541
190000						817483
93400, 133400, 134400, 121S00, 121Q00		692010	None	None	None	690813
250000						817483
280000			396903	795038	None	794945
311700			396903	795038	None	794945
400000, 420000			396903	795038	None	794945
290000, 300000, 311700, 350000			396903	795038	None	794945
83100	797352					
50000, 85400, 86400, 115400, 117400, 138400, 185400	715230					












# FUEL FILTERS - LINE CLAMPS 4-1

					
	<b>Fuel Filter</b>	40 Micron (For Selected Engines w/ Fuel Pump, See-through)	691035	5065	4129 Qty. 5
	<b>Fuel Filter Assembly</b>	Fuel Filter 394358S (75 Micron)	394358S	5098	4112 Qty. 5  394358B Qty. 100
	<b>Fuel Filter</b>	150 Micron (For Engines without Fuel Pump)	298090S	5018	4105 Qty. 5
	<b>Fuel Filter</b>	Vanguard™ V-Twins, Horizontal w/9 Quart Fuel Tank	808116S		
	<b>Fuel Strainer</b>	"InTank" Strainer for 4, 5.5 & 9 Gross HP† Vanguard™ and Models 85400, 115400 & 18540. For Models 190000, 235400, 245400 & V-Twin Engines w/9-Quart Fuel	710065 691370		
	<b>Fuel Line Display Pack</b>	(Replaces 395051 and 499472) - 25', ¼" ID x 7/16" OD Universal Fit (Not for low perm applications) Cut to Fit 499742 Refill for Display Pack (25')	395051R		
	<b>Fuel Filter</b>	3/LC Gas	821026		
	<b>Extended Life Series™ Fuel Filter</b>	30 Micron (For Selected Engines w/Fuel Pump)	695666		
	<b>Fuel Line Clamp</b>				<b>710075 ID 10.5 mm .413"</b> 4228 Qty. 100 4262 Qty. 50 <b>691038 Black ID .460"</b> 4230 Qty. 100 4264 Qty. 50 <b>791850 Green ID .490"</b> 4229 Qty. 100 4263 Qty. 50 4171 Qty. 5 <b>710067 ID 13.2mm .519"</b>

† All power levels are stated gross torque at 2600 rpm per SAE J1940.  
‡ All power levels are stated gross HP at 3600 rpm per SAE J1940.






## 4-2 FUEL LINES - SHUT-OFF VALVES



	<b>Fuel Filter</b>	Glass Sediment Bowl Fuel Filter Assembly	690612		
	<b>Fuel Line</b>	3.5 & 5 Gross HP† Industrial Plus™ (Molded)	791857		
	<b>Fuel Line</b>	4, 5.5 & 9 Gross HP† Vanguard™ (Shut-off Valve to Tank) 4 mm OD x 220 mm (8-5/8") Cut to Fit	716122		
	<b>Fuel Line</b>	23" (1/2" OD x 1/4" IN) Cut to Fit	791745		
	<b>Fuel Shut-off Valve</b>	Selected Models	698182		
	<b>Fuel Shut-off Valve</b>	5 Gross HP† Vertical Vanguard™ OHV	698184		
	<b>Fuel Shut-off Valve</b>	6.5 Gross HP† Vanguard™	798634		
	<b>Fuel Shut-off Valve</b>	In-Line Valve (Quantum® & Selected Models)	698183	5091	
	<b>Fuel Shut-off Valve</b>	3.5 & 5 Gross HP† Industrial Plus™ 90 Degree Valve	698181		
	<b>Fuel Shut-off Valve</b>	4, 5.5 & 9 Gross HP† Vanguard™	716111		
	<b>Fuel Shut-off Valve</b>	625-675 Series™ For Quantum® Engines	698180		

# FUEL TANK CAPS 4-3



	<b>Tygon® Bulk Fuel Line</b>		695540 3/32" ID, 50' 695541 1/8" ID, 50' 695542 .080" ID, 50'		
	<b>Fuel Shut-off Valve</b>	For Vanguard™ Engines 2.4 Gross HP‡	715901		
	<b>Fuel Tank Cap</b>	4-11 Gross HP‡	394818S		
	<b>Fuel Tank Cap</b>	135200 & 136200 Horizontal Series/ Selected Models	498156		
	<b>Fuel Tank Cap</b>	5-11 & 13 Gross HP‡ Horizontal	791545		
	<b>Fuel Tank Cap</b>	2-4 Gross HP‡ Horizontal & Vertical, Quattro™	493982S		
	<b>Fuel Tank Cap</b>	6 Gross HP‡ Intek™	792647		
	<b>Fuel Tank Cap</b>	3-5 Gross HP‡ Horizontal, Selected Models	494559		
	<b>Fuel Tank Cap</b>	4, 5.5 & 9 Gross HP‡ Vanguard™	710490		
	<b>Fuel Tank Cap</b>	Vanguard™ OHV (10 & 16 CID) & V-Twins	491367S		
	<b>Fuel Tank Cap</b>	625-675 Series™ & 700-800 Series™, Intek™ Model Series 121600 Vertical 3.5-6.75 Gross HP‡ Vertical Max, Quantum® & Europa™	692046	5044	4227 Qty. 5

‡ All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 4-4 FUEL TANK CAPS



	<b>Fuel Tank Cap</b>	Fource™	696921		
	<b>Fuel Tank Cap</b>	134400 L-Head, 7-12.5 Gross HP† Vertical, 3.5, 5 & 9 Gross HP† Industrial Plus™ & 5.5 Gross HP† Intek™ & 8 Gross HP†, 197400, 110400, 121400	795027		
	<b>Fuel Tank Cap</b>	450-600 Series™, 3.5 & 3.75 Gross HP† Classic™ & Sprint™ and 4 Gross HP† Quattro™	497929S	5057	4132 Qty. 5
	<b>Fuel Tank Cap</b>	Quantum® Engines	794793		
	<b>Gas Cap</b>	400 & 500 Series™ (9000 & 10,000) L-Head engines	792878		
	<b>Fuel Tank Cap</b>	Professional Series™ 8.50-8.75 Gross Torque†	796577		
	<b>Fuel Tank Cap</b>	450e, 500e, 550e & 550ex, 625ex, 675ex & 725ex Series™, 950-1000 Series™, Professional Series™ 7.75-8.75	799585	5436	
	<b>Fuel Tank Cap</b>	675exi, 725exi Series™	594061	5445	

# ARMATURES - CONDENSERS - BREAKERS 5-1

## ARMATURES



Engine Model/Gross Horsepower†	Style	Red Box #
2-4 Gross HP‡ Horizontal & Vertical	Breaker Points	793281
5 Gross HP‡ Horizontal & Vertical	Breaker Points	397358
7-16 Gross HP‡ Horizontal & Vertical Single Cylinder	Breaker Points	298968
L-Head Twins	Breaker Points	394891
2-4 Gross HP‡ Horizontal & Vertical	Magnetron®	793281
Quantum® (10 CID), Series™ 625-675	Magnetron®	490748
5 Gross HP‡ Horizontal & Vertical, Series™ 550	Magnetron®	397358
7-16 Gross HP‡ Horizontal & Vertical Single Cylinder	Magnetron®	398811
13, 14 & 15 Gross HP‡ (28 CID) OHV Vertical	Magnetron®	492341
L-Head Twins	Magnetron®	394891
2-Cycle, Quantum® (12 CID) & Europa™ (9 CID)	Magnetron®	802574
4, 5.5 & 6 Gross HP‡ Vanguard™ (8 & 11 CID)	Magnetron®	715023
5 Gross HP‡ Vanguard™ Vertical (10 CID)	Magnetron®	802574
9 Gross HP‡ Vanguard™ (18 CID)	Magnetron®	715118
9, 12.5 & 14 Gross HP‡ Vanguard™ (V-Twin 2 used)	Magnetron®	492341
10-13 Gross HP‡ (28 CID) L-Head	Magnetron®	492341
11 & 13 Gross HP‡ Vanguard™ Horizontal	Magnetron®	492341
6 Gross HP‡ Intek™ Vertical (12 CID)	Magnetron®	802574
5.5-6.5 Gross HP‡ Intek™ (11 & 12 CID), Series™ 825-850	Magnetron®	802574
Vanguard™ V-Twin	Magnetron®	492341
Intek™ v V-Twin	Magnetron®	691060
3/LC Ignition Coil (3 used)		820037
6.5 Gross HP‡ Vanguard™	Magnetron®	796964
5.50 Gross Torque†, 550 Series™	Magnetron®	797684
5-7 Gross HP‡ 2 Cylinder Snow Engines	Magnetron®	801268
2.4 Gross HP‡ Vanguard™	Magnetron®	711526
7.00 Gross Torque†, 700 Series™	Magnetron®	793449

## CONDENSERS - BREAKERS



Engine Model	Condensers	Breakers
8-16 Gross HP‡ Horizontal Cast Iron Models	298060	298185
10 & 11 Gross HP‡ Horizontal & Vertical	29861	391284
Twin Cylinder L-Head Engines	392912	394891

## CONDENSERS - BREAKER ASSEMBLY



Engine Model	Red Box #	Display Parts #
2-8 Gross HP‡ Horizontal & Vertical	294628	
2-8 Gross HP‡ Horizontal & Vertical (w/Plug & Plunger)		

† All power levels are stated gross torque at 2600 rpm per SAE J1940.  
‡ All power levels are stated gross HP at 3600 rpm per SAE J1940.

# 5-2 FLYWHEEL KEYS - SPARK PLUGS



	<b>Ignition Point Plunger</b>	2-11 Gross HP <sup>†</sup> horizontal & vertical	65704S		
	<b>Ignition Point Plunger</b>	9-16 Gross HP <sup>†</sup> horizontal cast iron models	298125S		
	<b>Ignition Cable Terminal</b>	Selected engines	493880S		
	<b>Magnetron® Kit</b>	Used to retrofit most 2-legged ignition armatures w/breaker points	394970		
	<b>Flywheel Key</b>	4, 5.5, 6 & 9 HP <sup>†</sup> Vanguard™	710037		
	<b>Flywheel Key</b>	2-Cycle (9 CID)	800036		
	<b>Flywheel Key</b>	All V-Twin Vanguard™	808095		
	<b>Flywheel Key</b>	Most engines	222698S		4181 Qty. 10 4144 Qty. 50
	<b>RC14YC, RC12YC Spark Plug</b>	Selected engines	496018S		496018T Qty. 500
	<b>RC12YC Spark Plug</b>	Selected engines - 3/LC gas	491055S (.030 gap)		491055T Qty. 500
	<b>RJ19LM Spark Plug</b>	Selected engines	796112S		796112 Qty 300



# SPARK PLUG ELBOWS 5-3

					
	<b>Extended Life Series™ Platinum Spark Plug</b>	Selected L-head engines Extended Life Series™ version of 802592S/5095K	796560		4175 Qty. 24
	<b>Extended Life Series™ Platinum Spark Plug</b>	Selected OHV engines Extended Life Series™ version of 496018S/5092K	696202		4173 Qty. 24
	<b>BPRGHS Spark Plug</b>	Models 118400 & 050000	711252		
	<b>QC12YC Spark Plug</b>	Selected engines	691043		
	<b>Spark Plug</b>	Model 9 OHV vertical	692051		
	<b>RJ19LMC Spark Plug</b>	625e, 625ex, 725ex Series™, 625-675 Series™ and Quantum™ 3.5-6.75 Gross HP† engines	591868		
	<b>Spark Plug Elbow</b>	Most engines	66538S		
	<b>Spark Plug Elbow</b>	4, 5.5 & 9 Gross HP† Vanguard™	710634		
	<b>Spark Plug Elbow</b>	3/LC gas	820084		

† All power levels are stated gross HP at 3600 rpm per SAE J1940.

## 5-4 IGNITION SWITCHES

	Part #	Description
	298590	Toggle switch
	692303	Push button starter switch
	496590	Toggle switch
	691959	Indak ignition key set for 690646
	392833	Key switch for key 691959
	692318	Key switch assembly - used on engines equipped w/carburetor solenoid
	697854	Rocker switch (with light) Note: Rocker switch without light is 795333
	695747	Key switch used on selected snow engines
	794696	Key used on selected snow engines
	690646	Key switch
	695951	Touch-N-Mow® Key
	798182	Key switch for 2 cyl snow engine
	798177	Key set for 2 cyl snow engine
	495098S	Stop switch

# OIL FILTERS - MISCELLANEOUS 6-1







	Oil Filter	Height 3-3/8" For pressure lubrication For 3/LC Gas	491056		4153 Qty. 12
	Oil Filter	Height 2-1/4" (smaller version of 491056), For Extended Life Series™ version use 696854/5076K/4206	492932S	5049	4154 Qty. 12
	Extended Life Series™ Oil Filter	Extended Life Series™ version of 492932S/5049K/4154	696854	5076	4206 Qty. 12
	Oil Filter	3/LC Gas & Diesel	820314		
	Oil Filter Intek™ Pro	Selected models pressure lubrication	692513		
	Oil Gard Kit	9 Gross HP <sup>†</sup> Vanguard™ engines	492697		
	Oil Fill Plug	Selected engines with angled oil fill neck	281658S		
	Oil Fill Cap	3/LC	825024		
	Dipstick Tube Seal	12 & 13 Gross HP <sup>†</sup> (28CID) Vertical & Vanguard™ V-Twin Horizontal engines, 7 & 11 Gross HP <sup>†</sup> Horizontal engines	281370S		4203 Qty. 5
	Oil Gard Kit	5-11 Gross HP <sup>†</sup> Horizontal engines	398182		
	Oil Filter	BIG BLOCK™ engines	842921		4237 Qty. 12,  MEGA PACK - 842921B Qty. 60

† All power levels are stated gross HP at 3600 rpm per SAE J1940.







## 6-2 OIL FILTERS - MISCELLANEOUS



	Oil Filter	Professional Series™ 8.50 & 8.75 gross torque†	795990		
	Oil Filter	Models: 31Q000, 400000, 440000, 490000	798576		
	Dipstick/Fill Plug	Vanguard™ 13H300 6.5 Gross HP‡	798503		
	Dipstick/Fill Plug	83100 550 Series™ 5.5 Torque†	797325		

# STARTER GRIPS 7-1








	<b>Starter Grip</b>	All vertical pull starters 2-5.5 Gross HP <sup>†</sup> engines Quantum <sup>®</sup> & Europa <sup>™</sup> engines (9CID) engines	393152		4119 Qty. 5
	<b>Starter Grip</b>	For selected models	281434S		
	<b>Starter Grip</b>	2.4 Gross HP <sup>†</sup> Vanguard <sup>™</sup> engines Size #4, 56' Long	711540		
	<b>Starter Grip</b>	3.5-10GrossHP <sup>†</sup> single cylinder Vanguard <sup>™</sup> horizontal engines	490652		
	<b>Starter Grip</b>	Mitten grip/Sno Gard engines	699334		
	<b>Starter Grip</b>	6 Gross HP <sup>†</sup> Intek <sup>™</sup> engines	691915	5042, 5054 includes rewind tool	

<sup>†</sup> All power levels are stated gross HP at 3600rpm per SAE J1940.




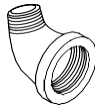
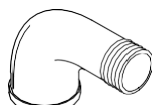
# DEFLECTORS - LOCKNUTS - EXHAUST ELBOWS 8-1

## Standard Muffler Deflectors

Engine Models	 Side out Deflector	 Direct out Deflector	 Louvered Deflector	 Louvered Deflector	 Side out Deflector
60000, 80000, 90000, 100000, 110000, 120000	393760	397931	None	396548	393756
85400, 110400, 111400, 115400, 117400, 120400, 121400, 123400, 138400, 185400	796956	395700	393758	None	None
*130000, 170000, 190000	796956	395700	393758	None	None
220000, 230000, 235400, 240000, 245400, 250000, 280000, 290000, 300000, 311700, 320000, 350000, 380000, 400000, 420000	795036	396903	795038	None	None

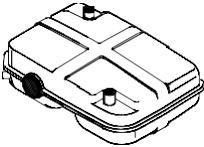
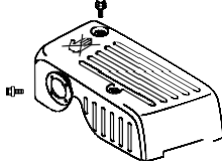

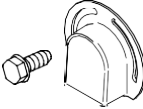
\*Shallow side out deflector 494423 required with some model 130000 guards (see page 10-8, 10-9).  
Deflectors will not fit over spark arrester.

## Standard Muffler Locknuts & Exhaust Elbows

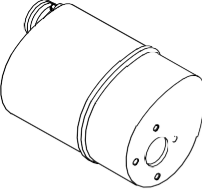
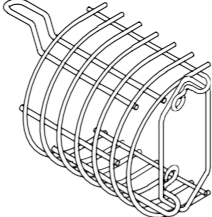




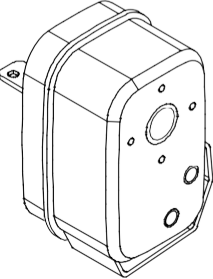
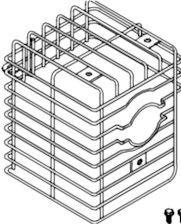
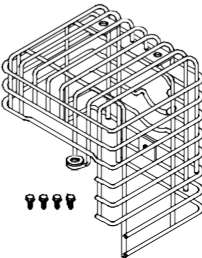


Engine Models	National Pipe Thread	 Locknut	 45°	 90°	 45° Street Elbow	 90° Street Elbow
60000, 80000, 90000, 110000	1/2" (13 mm)	691720	None	None	None	91943
					690291	(60000 only) 91943
100000, 130000, 170000, 190000, 400000, 420000	3/4" (19 mm)	690453	None	692835	94089	94092
220000, 230000, 240000, 250000, 280000, 320000	1" (25 mm)	691808	91415	91296	None	690281

# 8-2 EXHAUST


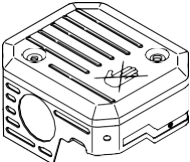


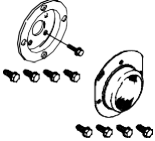
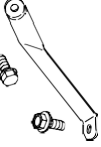
## Vanguard™ model 50032

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>715948</b></p>	 <p><b>711532</b></p> <p> <b>710074</b></p>	 <p><b>715230</b></p>	<b>Not Available</b>	<b>Not Available</b>

## Models 60000, 80000, 90000 & 110000 horizontal crankshaft (1/2" or 13 mm NPT)

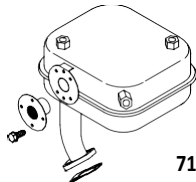
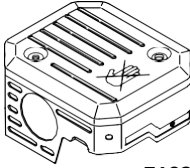
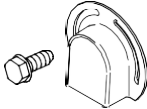
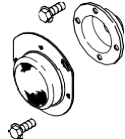
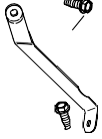
Muffler	Guard	Deflector	Spark Arrester
 <p><b>493288</b> <b>Oval Lo-Tone™</b></p>	<p>TUV</p>  <p><b>690789</b></p> <p> <b>690664</b></p> <p> <b>691186</b></p> <p> <b>691194</b></p> <p> <b>690367</b></p>	(see page 10-3)	
 <p><b>691360</b> <b>Super Lo-Tone™</b></p>	<p>TUV</p>  <p><b>398160</b> (model 82000 with float carburetor)</p>  <p><b>490571</b> (model 82000 with pulsa-jet carburetor)</p>	 <p><b>397931</b> (this deflector only with these guards)</p>	 <p><b>398067</b></p>

## Vanguard™ model 85400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>715487</b> <b>Lo-Tone™</b></p>	 <p><b>710332</b></p> <p> <b>710074</b></p>	 <p><b>715230</b></p>	 <p><b>715491</b></p>	 <p><b>715287</b></p>

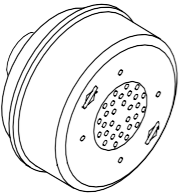
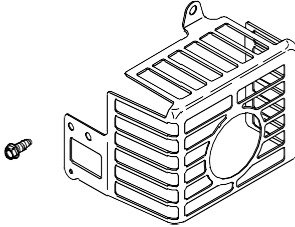
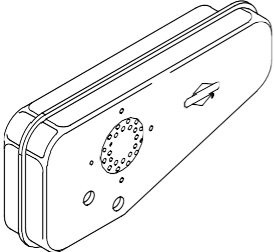
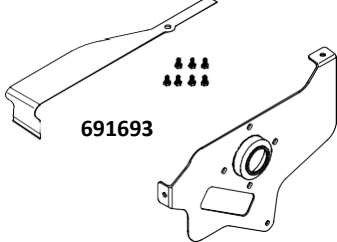
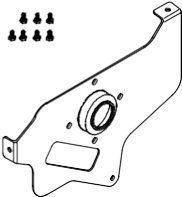



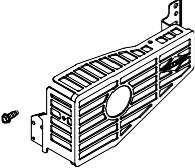
NOTE: Muffler brackets are for optional use on high vibration applications.

## Vanguard™ models 115400 & 117400 horizontal crankshaft



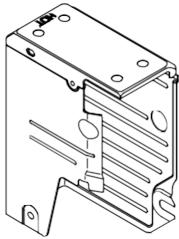


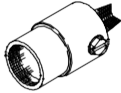
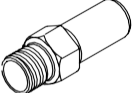
Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>715435</p>	 <p>710333</p>	 <p>715230</p>	 <p>715491</p>	 <p>715319</p>

Engine  
Accessories  
Exhaust

## Models 90000, 10A900 & 110000 vertical crankshaft (1/2" or 13 mm NPT)

Muffler	Guard	Deflector	Spark Arrester
 <p>394569S Round Lo-Tone™</p>	<div style="border: 1px solid black; padding: 2px;">TUV</div>  <p>699670</p>	<p>(see page 10-3)</p>	
 <p>692307 Super Lo-Tone™</p>	<div style="border: 1px solid black; padding: 2px;">TUV</div>  <p>691693</p>  <p>493967</p>	 <p>396548</p>  <p>397931</p>	 <p>398067</p>
	<div style="border: 1px solid black; padding: 2px;">TUV</div>  <p>699299</p>		

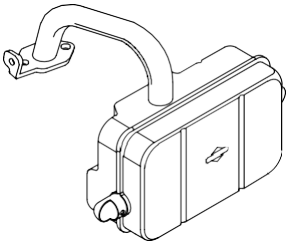
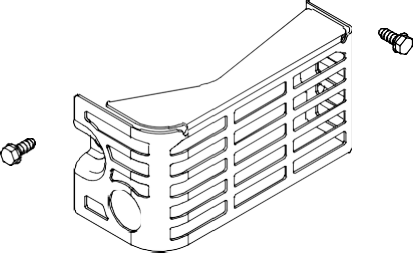
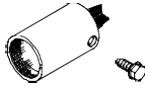
## Model 93400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>692365 Super Lo-Tone™</p>	<div style="border: 1px solid black; padding: 2px;">TUV</div>  <p>691693</p>  <p>692368</p>  <p>691685</p>	 <p>692010</p>	 <p>690813</p>	 <p>690526</p>

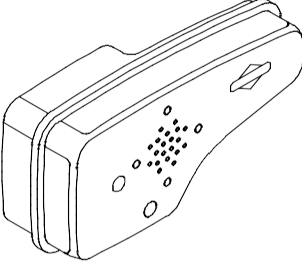
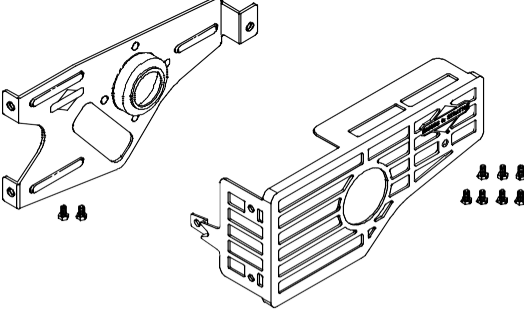
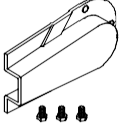

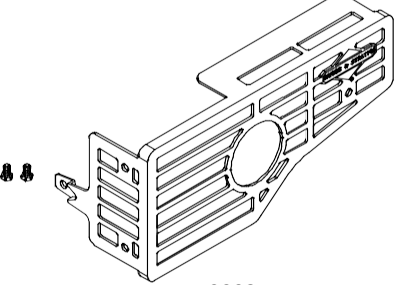
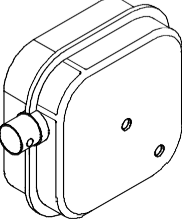
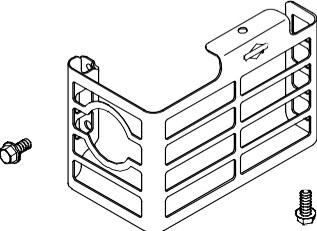

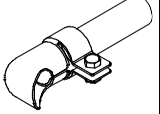


# 8-4 EXHAUST

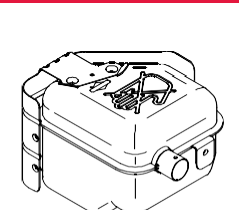
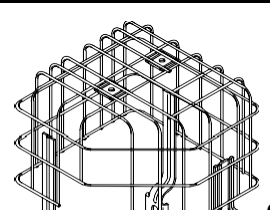

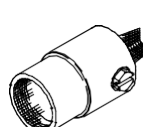

## Model 99700 vertical crankshaft

Muffler	Guard	Deflector	Spark Arrester
 <p><b>494717</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>494719</b></p>	<p>(Not Available)</p>	 <p><b>493662</b></p>

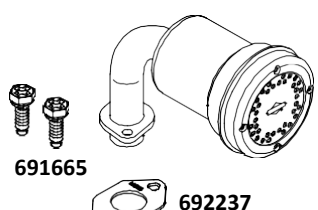



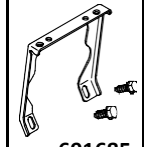
## Quantum® models 100000 & 120000 vertical crankshaft

Muffler	Guard	Deflector	Spark Arrester
 <p><b>692038</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>494224</b></p>	 <p><b>493871</b></p>	 <p><b>398067</b></p>
	<p>TUV</p>  <p><b>499034</b></p>		
 <p><b>494343S</b> Square Lo-Tone™</p>	<p>TUV</p>  <p><b>691424</b></p>	 <p><b>697915</b></p>	 <p><b>692957</b></p>

## Intek™ models 110400, 111400, 121400 & 123400 (single cylinder) horizontal crankshaft

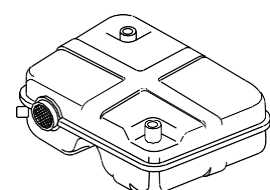
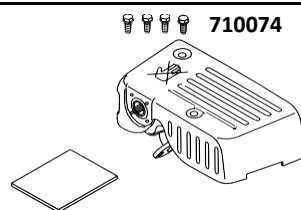
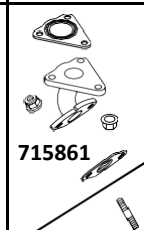
Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>694460</p> <p>7/8" Opening</p> <p>691108 694429</p>	 <p>691665 691003</p> <p>697818</p>	 <p>692010</p>	 <p>690813</p>	 <p>699204 691893 691665 692237 699232</p>

## Intek™ models 110400, 111400, 120400 & 121400 AFTER DATE CODE 98071900 & 123400 (single cylinder) horizontal crankshaft

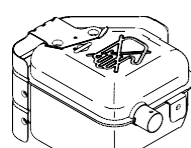
Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>691665 692237</p> <p>693593</p>	 <p>693624 690661</p> <p>693583</p>	 <p>796956 395700</p>	 <p>691685 692595</p>	 <p>691685 699229</p>

## Vanguard™ model 118400 (single cylinder) horizontal crankshaft

NOTE: Muffler brackets are for optional use on high vibration applications.

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>711239</p>	 <p>710074 711243 insulator 711241</p>	(not available)	(not available)	 <p>715861 710099</p>

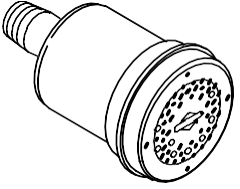
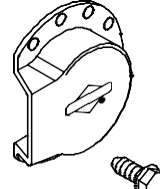
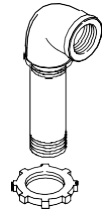
## Intek™ models 121400, 123400, 124400, 126400, 127400 & 128400 (single cylinder) horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>1-3/8" Opening</p> <p>699231</p>	(not available)	697816	790153	(not available)

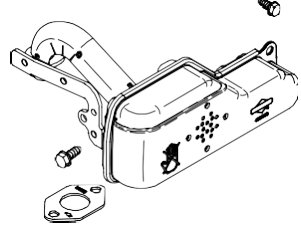
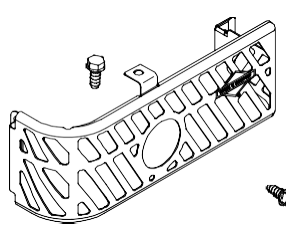


# 8-6 EXHAUST

Engine Accessories  
Exhaust

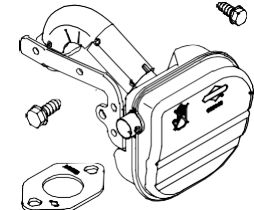
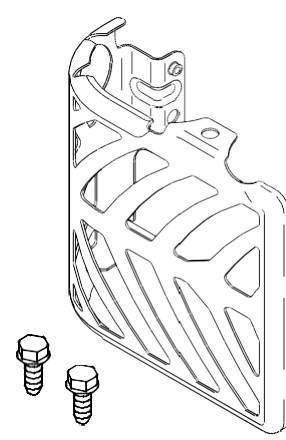

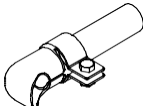
## Intek™ models 121400 (single cylinder) horizontal crankshaft (before date code 98072000)

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>692580</p>	(not available)	 <p>796956</p>	(not available)	 <p>692548</p>

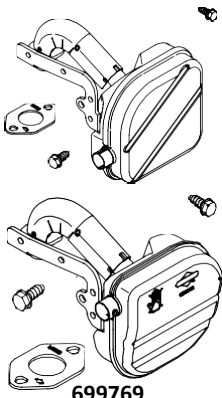
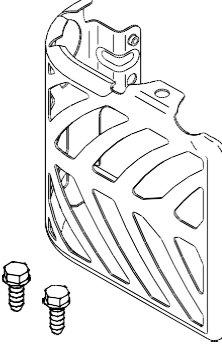
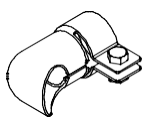
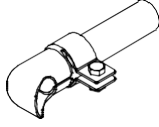
## Intek™ models 110600 & 126600 (single cylinder) vertical crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>694248 Muffler (Used After Code Date 99030700). Note: 692275 Muffler (Used Before Code Date 99030800).</p>	 <p>691466 Muffler Guard (Used After Code Date 99030700). Note: 692984 Muffler Guard (Used Before Code Date 99030800).</p>	 <p>497682 697915</p>	 <p>398067</p>	(not available)

## Intek™ models 111600 & 121600 vertical crankshaft

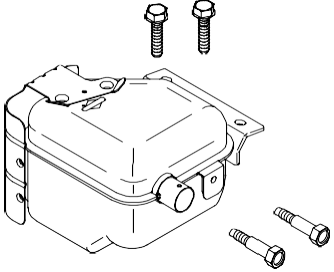
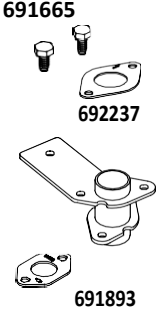
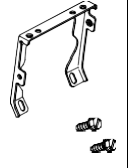
Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>699769</p>	 <p>695593</p>	 <p>397931</p>	 <p>692957</p>	(not available)

## Intek™ models 111600 & 121600 vertical crankshaft (continued)

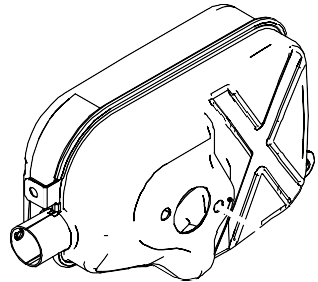
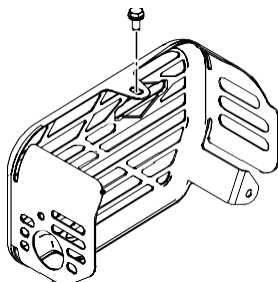

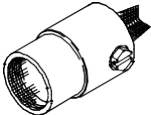
Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>699769</p>	 <p>695593</p>	 <p>397931</p>	 <p>692957</p>	(not available)

Engine  
Accessories  
Exhaust

## Intek™ models 12A400, 12B400, 12C400 & 12D400 (single cylinder snow engine) horizontal crankshaft

Muffler	Guard	Adapter	Spark Arrester	Bracket
 <p>699511</p>	(not available)	 <p>691665 692237 691893 699232</p>	(not available)	 <p>691685 695734</p>

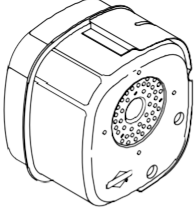
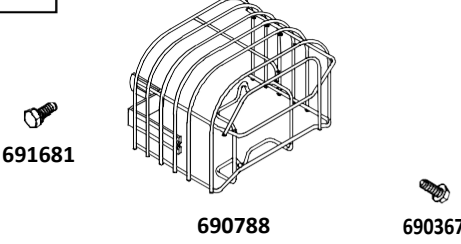
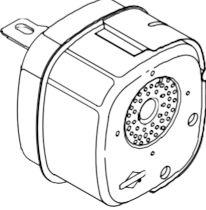
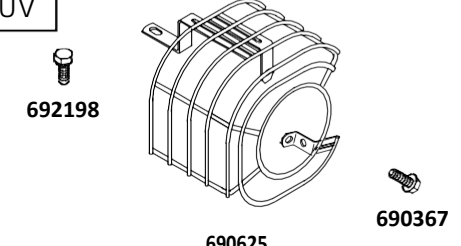
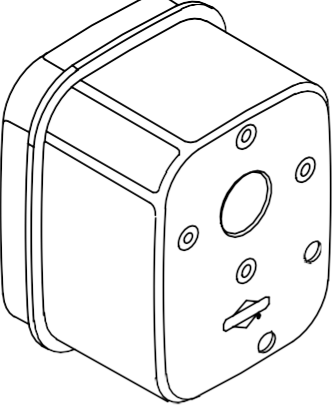
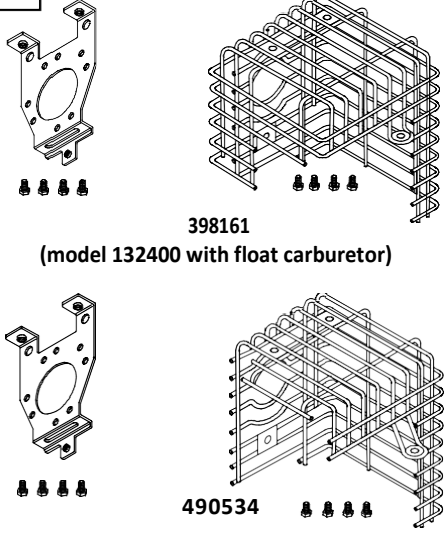
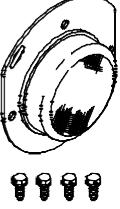
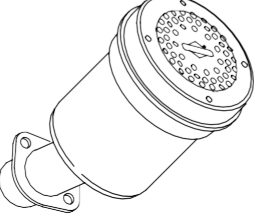
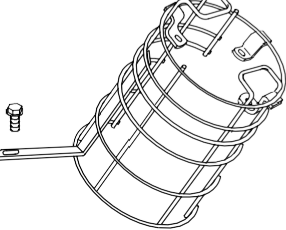
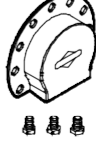
## Professional Series™ models 121Q00, 121S00

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p>796495</p>	 <p>796494</p>	 <p>692010</p>	 <p>690813</p>	(not available)

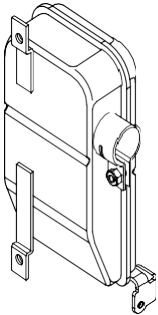
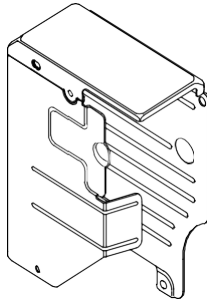

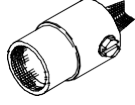

# 8-8 EXHAUST

Model 130000 horizontal & vertical crankshaft (3/4" or 19 mm npt)

Engine Accessories  
Exhaust


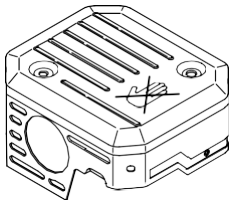


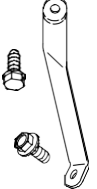
Muffler	Guard	Deflector	Spark Arrester
 <p><b>3909185</b> Lo-Tone™</p>	<p>TUV</p>  <p><b>691681</b>      <b>690788</b>      <b>690367</b> (vertical shaft)</p>	<p>(see page 10-3)</p>	
 <p><b>692304</b> Lo-Tone™</p>	<p>TUV</p>  <p><b>692198</b>      <b>690625</b>      <b>690367</b> (model 130000 with pulsa-jet carburetor)</p>		
 <p><b>Sup 691969 e™</b> er Lo-Ton</p>	<p>TUV</p>  <p><b>398161</b>      <b>490534</b> (model 132400 with float carburetor) (model 130000 with pulsa-jet carburetor)</p>	<p>(these deflectors only with these guards)</p>  <p><b>494423</b> (shallow side out deflector)</p> <p><b>399541</b></p> <p><b>494423</b> (shallow side out deflector)</p> <p><b>395700</b></p>	
 <p><b>496892</b> Round Lo-Tone™</p>	<p>TUV</p>  <p><b>498257</b></p>	 <p><b>493662</b> (this deflector only with this guard)</p>	

## Model 133400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Adapter
 <p><b>692006</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>691693</b></p> <p><b>690811</b> (691432 for Type No. 0700)</p>	 <p><b>692010</b></p>	 <p><b>690813</b></p>	 <p><b>691689</b></p> <p><b>690812</b></p> <p><b>692237</b></p>

Engine  
Accessories  
Exhaust

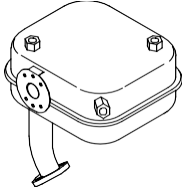
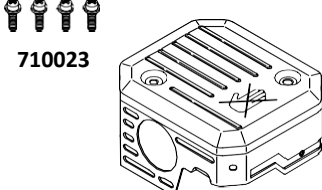


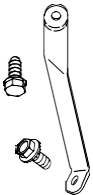
## Vanguard™ model 138400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>715487</b> Lo-Tone™</p>	 <p><b>710074</b></p> <p><b>710332</b></p>	 <p><b>715230</b> (Also see Page 10-4)</p>	 <p><b>715491</b></p>	 <p><b>715287</b></p>

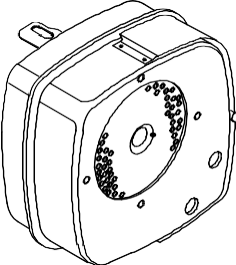
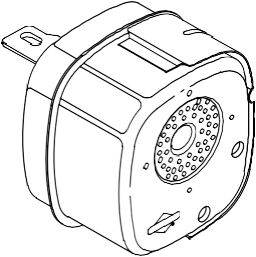
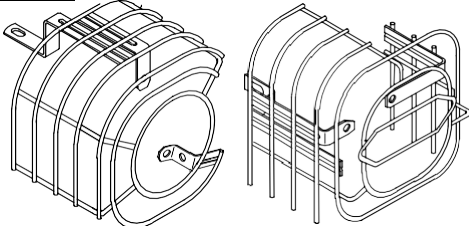

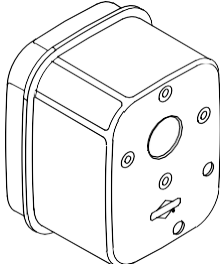
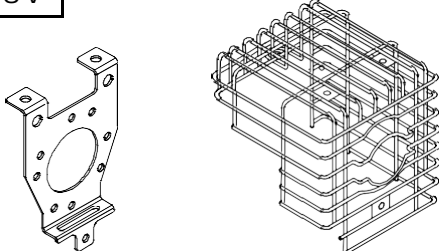
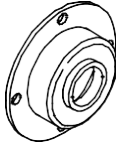
# 8-10 EXHAUST

## Model 185400 horizontal crankshaft

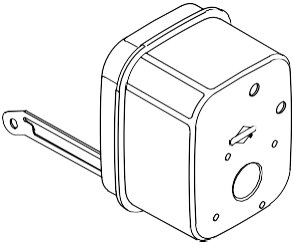
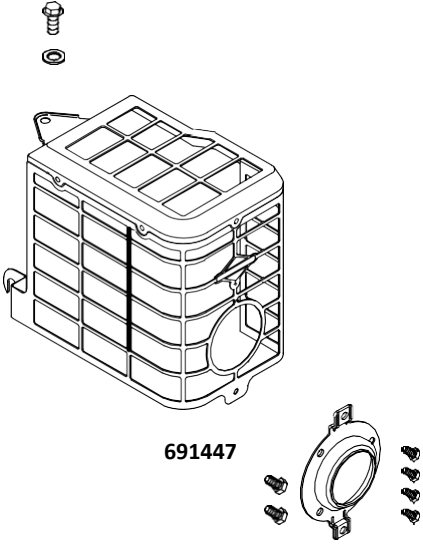



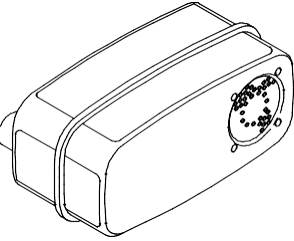
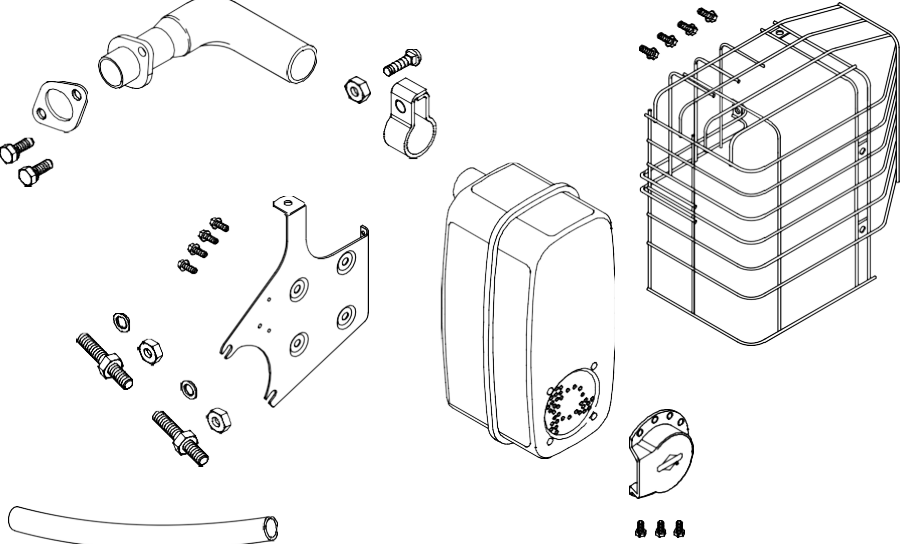
Engine Accessories  
Exhaust

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>71523</b> Lo-Tone™</p>	 <p><b>710023</b></p> <p><b>710334</b></p>	 <p><b>715230</b> (Also see Page 10-4)</p>	 <p><b>715491</b></p>	 <p><b>715495</b></p>

## Models 170000 & 190000 horizontal & vertical crankshaft (3/4" or 19 mm npt)

Muffler	Guard	Deflector	Spark Arrester	Adapter
 <p><b>691951</b> Lo-Tone™ (remote)</p>	(not available)			
 <p><b>692304</b> Lo-Tone™</p>	<p>TUV</p>  <p><b>691988</b> (horizontal shaft)      <b>690858</b> (vertical shaft)</p>	(see page 10-3)	 <p><b>399541</b></p>	(not required)
 <p><b>494221</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>494868</b> (horizontal shaft)</p>	 <p><b>395700</b> (this deflector only with this guard)</p>		

Model 190000 horizontal crankshaft (3/4" or 19 mm npt)

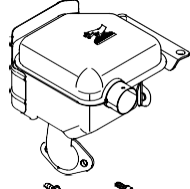
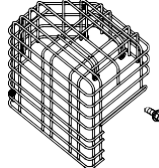
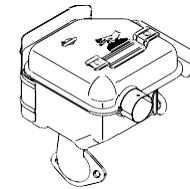
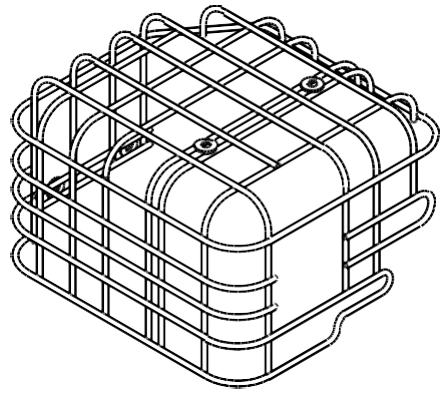
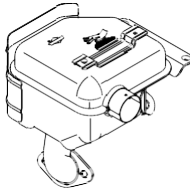
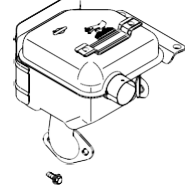
Muffler	Guard	Deflector	Spark Arrester	Adapter
 <p><b>497141</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>691447</b></p>	 <p><b>395700</b> (this deflector only with these guards)</p>	 <p><b>817483</b></p>	 <p><b>497140</b></p>
 <p><b>498984S</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>494500</b> Super Lo-Tone™ Kit (horizontal shaft – includes special RAF reduced after fire muffler, guard and all mounting hardware – this 393761 deflector only with this guard)</p>			



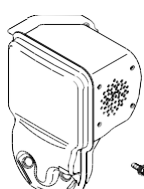
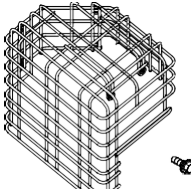
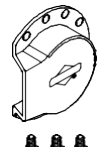

# 8-12 EXHAUST

Engine Accessories  
Exhaust

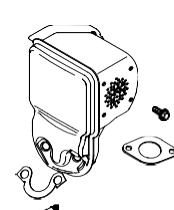
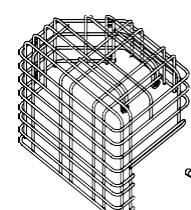
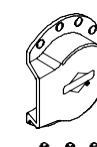

Intek™ models 20A400, 20B400, 20C400, 20D400, 20E400, 20F400 & 20G400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester
 794694	 795035		
 698160	 698135	(not available)	(not available)
 698134			
 794695			

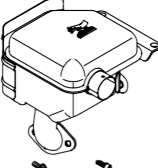
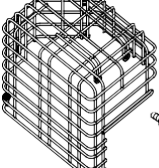
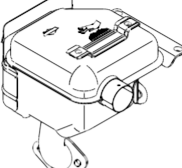
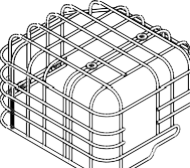

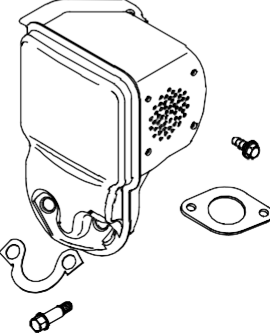
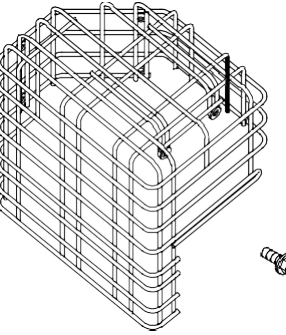

Intek™ models 201400, 202400, 203400, 204400, 205400, 206400 & 207400 (single cylinder) horizontal crankshaft; all after date code 020120XX

Muffler	Guard	Deflector	Spark Arrester
 794949	 795035	 795036	 794945

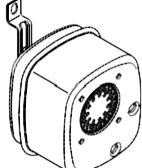

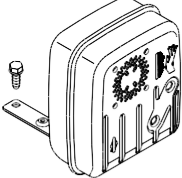

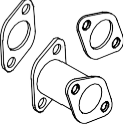
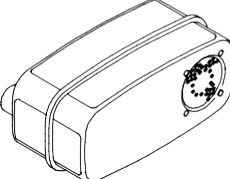
Intek™ models 201400, 202400, 203400, 204400, 205400, 206400 & 207400 (single cylinder) horizontal crankshaft; all before date code 020121

Muffler	Guard	Deflector	Spark Arrester
 794949	 795035	 795036	 794945

## Models 21A400 & 210400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bucket
 <b>794694</b>	 <b>795035</b>			
 <b>698160</b>	 <b>698135</b>	 <b>795036</b>	(not available)	(not available)
 <b>794949</b>	 <b>795035</b>	 <b>795036</b>		

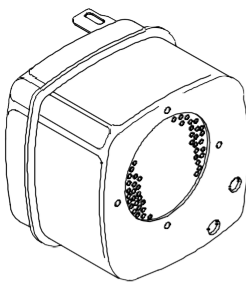
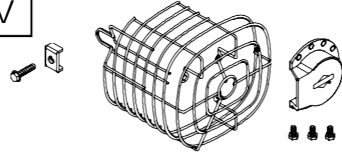
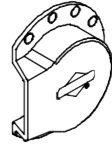

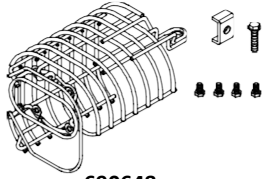
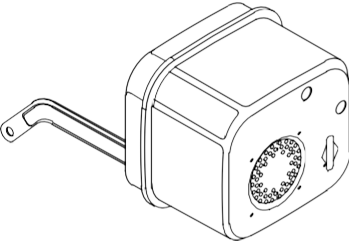
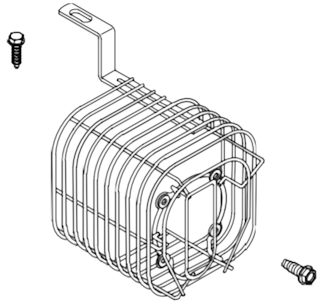
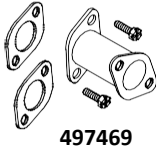
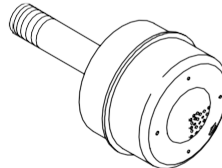
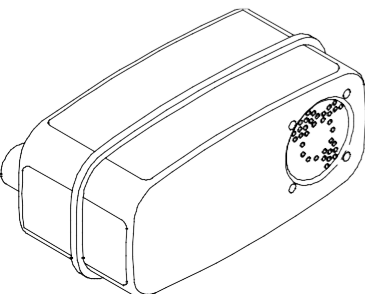
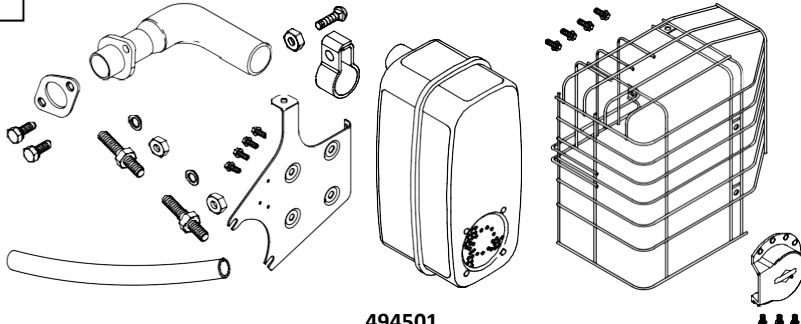
## Models 21A800, 21A900, 21B900, 212700 and 212900 vertical crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <b>796000</b>				 <b>698941</b>
 <b>795997</b>	(not available)	 <b>795036</b>	(not available)	 <b>794661</b>
 <b>498984S</b>				(not available)

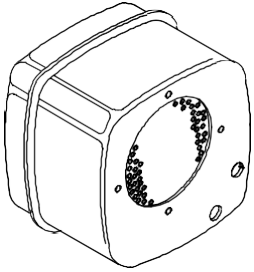
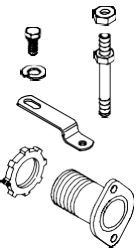
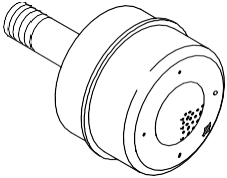

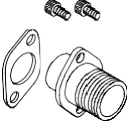
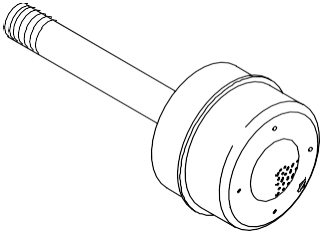
# 8-14 EXHAUST

Models 220000 & 250000 horizontal & vertical crankshaft (1" or 25 mm npt)

Engine Accessories

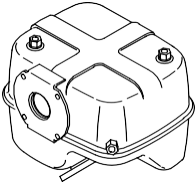
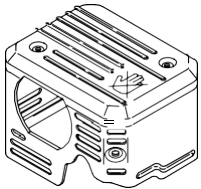

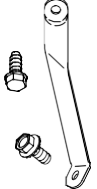
Muffler	Guard	Deflector	Spark Arrester	Adapter
 <p><b>691874</b> Square Lo-Tone™</p>	<p>TUV</p>  <p><b>691874</b> Square Lo-Tone™</p>	 <p><b>795036</b> (this deflector only with these guards)</p>	 <p><b>794945</b></p> <p>For Model 25 use 817483</p>	<p>(not required)</p>
	<p>TUV</p>  <p><b>690648</b> (horizontal shaft)</p>			
 <p><b>497470</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>691404</b></p>	<p>(see Page 10-4)</p>	<p><b>497469</b></p>	 <p><b>497469</b></p>
 <p><b>391569S</b> Standard (8" Length)</p>	<p>(not available)</p>			
 <p><b>498984S</b> Super Lo-Tone™</p>	<p>TUV</p>  <p><b>494501</b> Super Lo-Tone™ Kit (horizontal shaft – includes special RAF reduced after fire muffler, guard and all mounting hardware – this 795036 deflector only with this guard)</p>			

## Models 230000, 240000 & 320000 (cast iron) horizontal crankshaft (1" or 25 mm npt)

Muffler	Guard	Deflector	Spark Arrester	Adapter
 <p><b>399635</b> Square Lo-Tone™ (remote)</p>				 <p><b>394584</b></p>
 <p><b>299477S</b> Standard (7" Length)</p>	(not available)	(see page 10-3)	 <p><b>794945</b></p>	 <p><b>392700</b></p>
 <p><b>393232S</b> Standard (11" Length)</p>				

Engine  
Accessories  
Exhaust

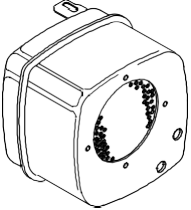
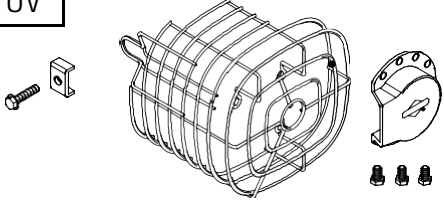
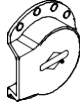

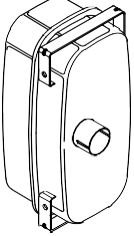

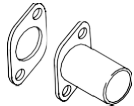
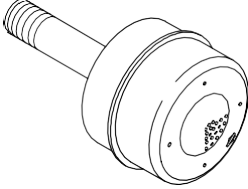
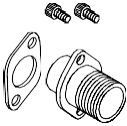
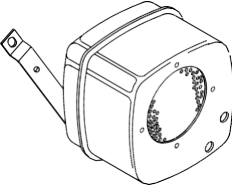

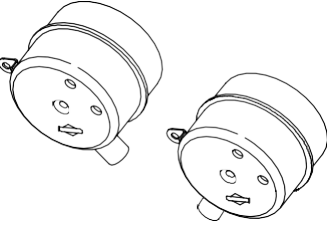
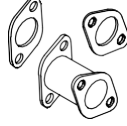
## Vanguard™ models 235400 & 245400 horizontal crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>715894</b> Lo-Tone™</p>	 <p><b>710586</b></p>	(not available)	 <p><b>794945</b></p>	 <p><b>715422</b></p>

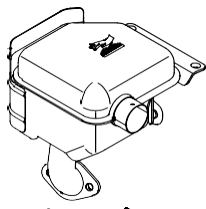
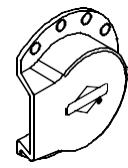
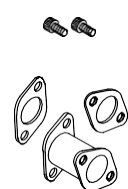
# 8-16 EXHAUST

Model 280000 L-Head vertical crankshaft (1" or 25 mm npt)

Engine Accessories  
Exhaust

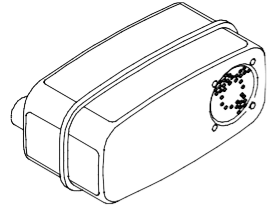


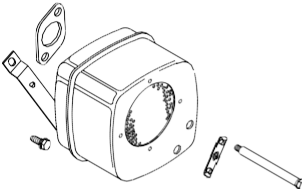
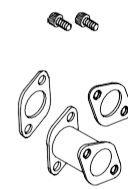
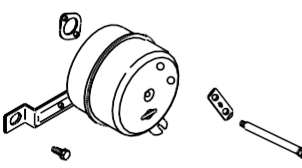
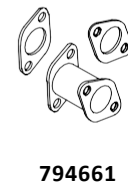
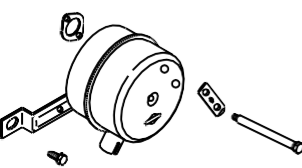
Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>691874</b> Square Lo-Tone™</p>	<p>TUV</p>  <p><b>692361</b> (includes deflector)</p>	 <p><b>795036</b></p>	 <p><b>794945</b></p>	<p>(not required)</p>
 <p><b>690850</b> Super Lo-Tone™</p>	<p>(not available)</p>	<p>(See Page 10-4)</p>	<p>(not available)</p>	 <p><b>698941</b></p>  <p><b>496750</b></p>
 <p><b>391569S</b> Standard (8" Length)</p>				 <p><b>392700</b></p>
 <p><b>496022S</b> Super Lo-Tone™</p>				 <p><b>698941</b></p>
 <p><b>495882</b> Super Lo-Tone™</p>				 <p><b>794661</b></p>

## Models 28AH00, 28CH00 & 31G700 OHV vertical crankshaft

Muffler	Guard	Muffler Bracket	Deflector	Spark Arrester	Adapter
 <p>794694</p>	(not available)	(not available)	 <p>795036</p>	(not available)	 <p>794661</p>

Engine  
Accessories  
Exhaust

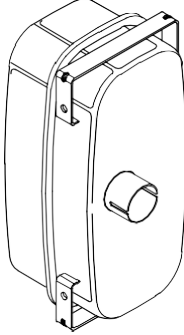
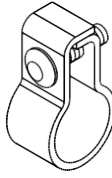
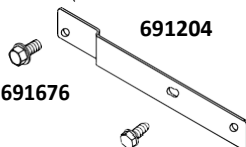


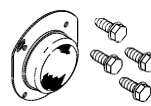

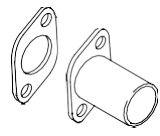
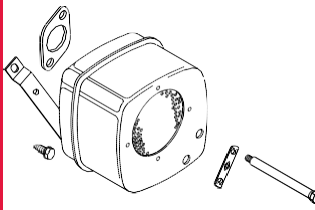

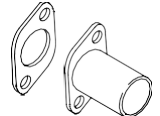
## Model 28N700 OHV vertical crankshaft

Muffler	Guard	Muffler Bracket	Deflector	Spark Arrester	Adapter
 <p>498984S</p>	(not available)	(not available)	 <p>795036</p>	 <p>794945</p>	(not available)
 <p>496022S</p>	(not available)	(not available)			 <p>794661</p>
 <p>495882</p>	(not available)	(not available)	(not available)	(not available)	 <p>794661</p>
 <p>495805S</p>	(not available)	(not available)	(not available)	(not available)	

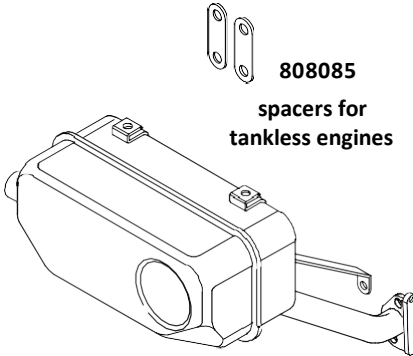
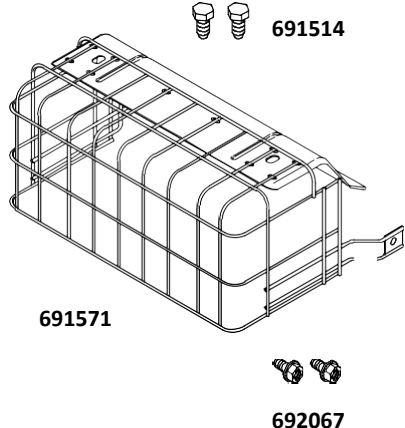
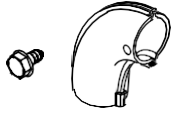
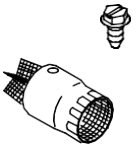
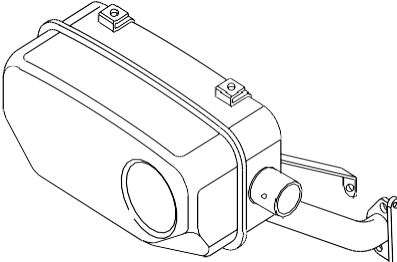
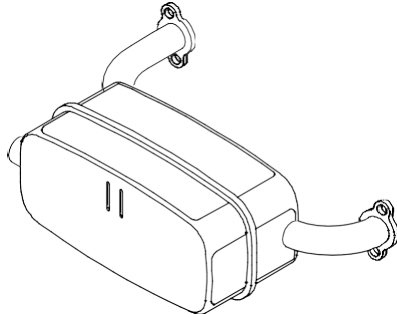

# 8-18 EXHAUST

Models 28P700, 28Q700, 311700 & 312700 OHV vertical crankshaft (1" or 25 mm npt)

Engine Accessories

Muffler	Guard	Muffler Bracket	Deflector	Spark Arrester	Adapter
 <p><b>690850</b> Super Lo-Tone™</p>  <p><b>690853</b></p>	(not available)	 <p><b>691204</b></p>  <p><b>691676</b></p>  <p><b>690297</b></p> <p><b>691678</b></p>	(see page 10-3)	 <p><b>794945</b></p>	 <p><b>698941</b></p>  <p><b>496750</b></p>
 <p><b>496022S</b></p>	(not available)	(not available)	(see page 10-3)	(not available)	 <p><b>698941</b></p>  <p><b>794661</b></p>

## Vanguard™ models 290000, 300000 & 350000 horizontal crankshaft

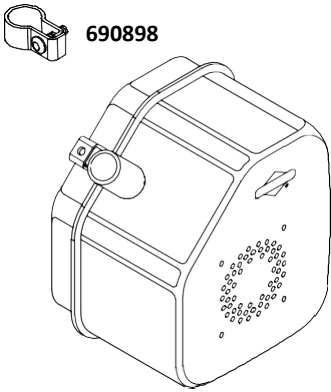
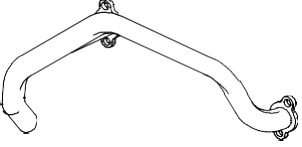
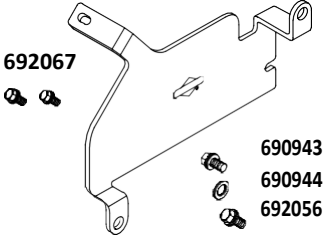
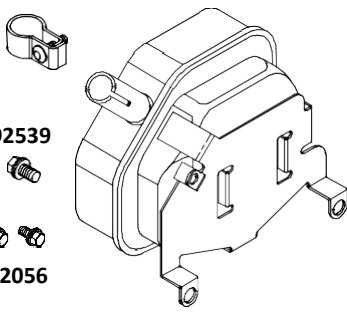
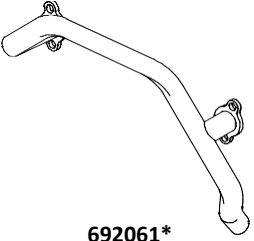
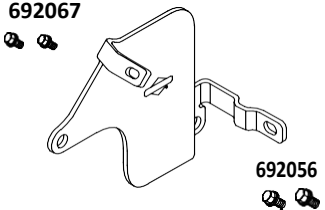

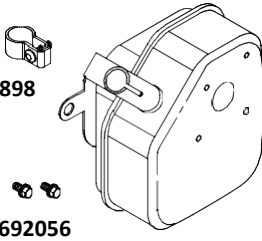
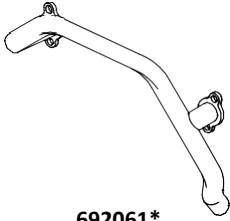
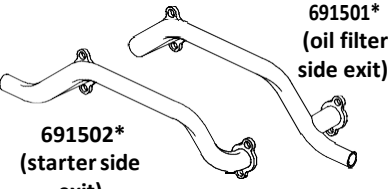
Muffler	Guard & Heat Shield	Deflector	Spark Arrester
 <p>808085 spacers for tankless engines</p> <p>69096 (cyl #1 side outlet, starter motor side)</p>	<p>TUV</p>  <p>691514</p> <p>691571</p> <p>692067</p>	 <p>495518</p>	 <p>808361</p>
 <p>691562 (cyl #2 side outlet, oil filter side)</p>			
 <p>690931 (cyl #1 side outlet, starter motor side)</p>	<p>(not available)</p>	 <p>808393</p>	<p>(not available)</p>



# 8-20 EXHAUST

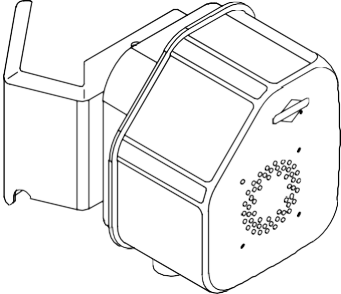
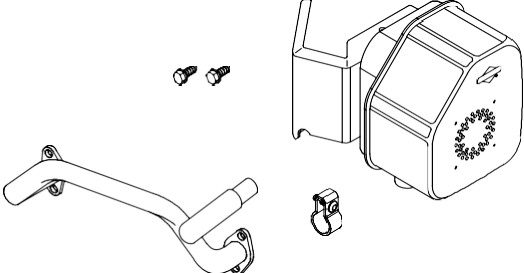
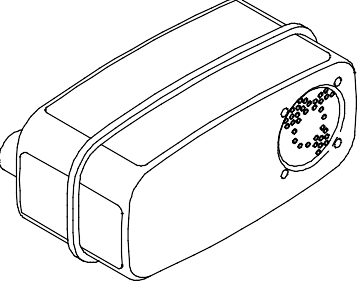
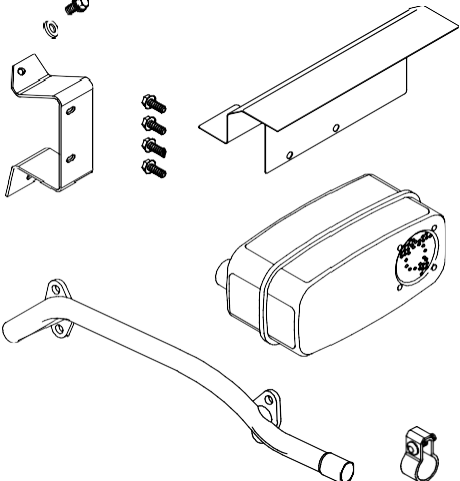

Vanguard™ models 290000, 300000 & 350000 horizontal crankshaft

Engine Accessories  
Exhaust

Muffler	Manifold	Muffler Bracket	Spark Arrester
 <p>690898</p> <p>692099</p>	 <p>691499*</p> <p>(starter motor side – cannot be installed on engine equipped with starter motor because of interference)</p>	 <p>692067</p> <p>690943 690944 692056</p> <p>690756</p>	<p>Deflector (see page 10-3)</p>
 <p>690898</p> <p>692539</p> <p>692056</p> <p>692099 (do not use on models 351400 or 351700)</p>	 <p>692061*</p> <p>(oil filter side – if oil filter interferes, install 808033 oil filter adapter kit)</p>	 <p>692067</p> <p>692056</p> <p>691513 (oil filter side)</p>	 <p>794945</p>
 <p>690898</p> <p>692056</p> <p>807742 (do not use on models 351400 or 351700)</p>	 <p>692061*</p> <p>(oil filter side – if oil filter interferes, install 808033 oil filter adapter kit)</p>	<p>(integral to muffler)</p>	
<p>OEM supplied</p>	 <p>691501* (oil filter side exit)</p> <p>691502* (starter side exit)</p>	<p>(not available)</p>	

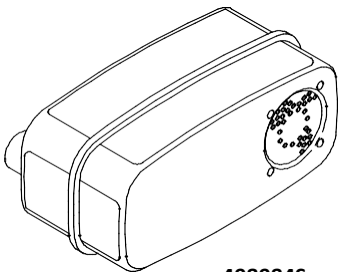
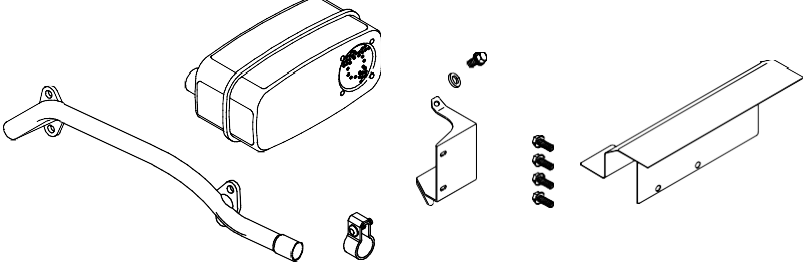
\*Note: Manifolds on this page require (2) 691613 gaskets and (4) 691902 mounting screws. No guards are available.

## Vanguard™ models 290000, 300000 & 350000 horizontal & vertical crankshaft

Muffler	Kits	Deflector	Spark Arrester
 <p><b>807953</b> Super Lo-Tone™</p>	 <p><b>807969</b> Super Lo-Tone™ Kit (vertical shaft – oil filter side only)</p>		
 <p><b>498984S</b> Super Lo-Tone™</p>	 <p><b>807752</b> Super Lo-Tone™ Kit (horizontal and vertical shaft – oil filter side only)</p>	(see page 10-3)	 <p><b>794945</b></p>

NOTE: Manifolds on this page require (2) 691613 gaskets and (4) 691902 mounting screws.

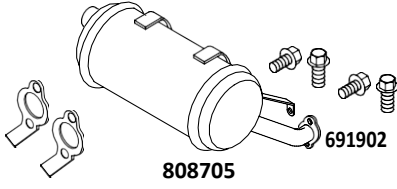
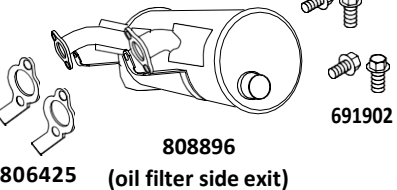
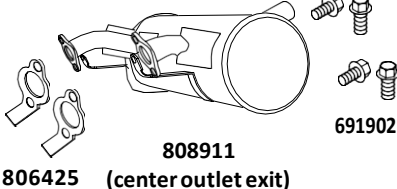
## Vanguard™ models 380000 vertical & horizontal crankshaft

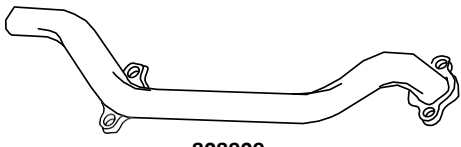
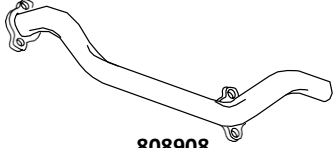
Muffler	Kits
 <p><b>498984S</b></p>	 <p><b>808738 Super Lo-Tone™ Kit</b> (horizontal and vertical shaft – oil filter side only)</p>

# 8-22 EXHAUST

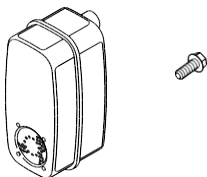
## Vanguard™ models 380400 & 381400 horizontal crankshaft

Engine Accessories  
Exhaust

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>808705</b> 806425 (starter motor side exit)</p>	(not available)	(not available)	(not available)	(Integral to muffler)
 <p><b>808896</b> 806425 (oil filter side exit)</p>	(not available)	(not available)	(not available)	(Integral to muffler)
 <p><b>808911</b> 806425 (center outlet exit)</p>	(not available)	(not available)	(not available)	(Integral to muffler)

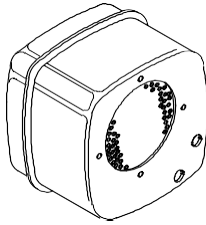



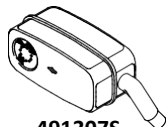
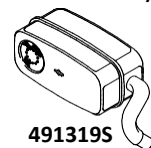
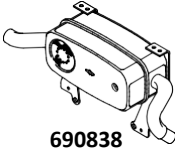

Muffler	Manifold	Deflector	Spark Arrester	Bracket
OEM supplied	 <p><b>808909</b> (starter motor side exit)</p>	(not available)	(not available)	(not available)
OEM supplied	 <p><b>808908</b> (oil filter side exit)</p>	(not available)	(not available)	(not available)

## Vanguard™ models 380700 & 381700 vertical crankshaft



# EXHAUST 8-23

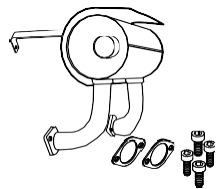
Models 400000 & 420000 vertical & horizontal crankshaft (3/4" or 19 mm npt)

Muffler	Guard	Deflector	Spark Arrester	Adapter
 <p><b>399635</b> Square Lo-Tone™ (remote)</p>	(not available)	(see Page 10-4)	 <p><b>794945</b></p>	 <p><b>691975</b> (#1 cyl.)</p>  <p><b>691365</b> (#2 cyl.)</p>
 <p><b>4913075</b> (horizontal shaft)</p>  <p><b>491319S</b> (vertical shaft)</p>  <p><b>690838</b> (vertical shaft – ducted) Super Lo-Tone™</p>				 <p><b>691970</b> (2 required)</p>

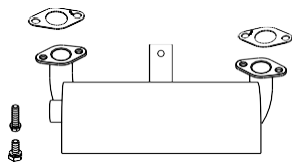
Engine Accessories

Exhaust

Intek™ models 405700, 406700 & 407700 vertical crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>692120</b></p>	(not available)	(not available)	(not available)	(Integral to muffler)

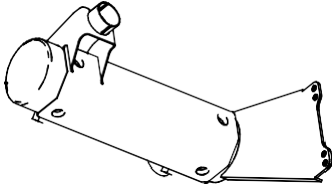
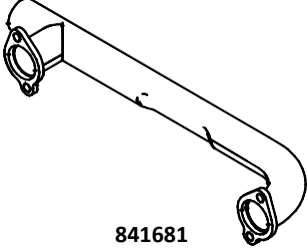
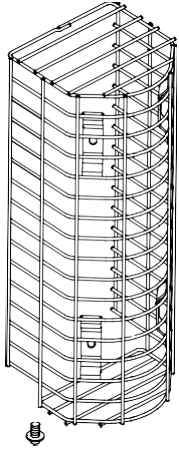
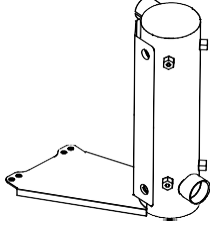
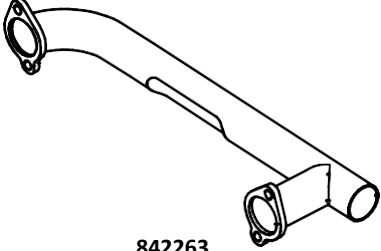
Intek™ models 445700 & 446700 vertical crankshaft

Muffler	Guard	Deflector	Spark Arrester	Bracket
 <p><b>696226</b></p>	(not available)	(not available)	(not available)	(not available)

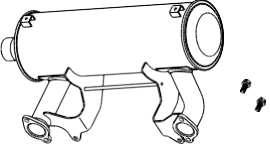
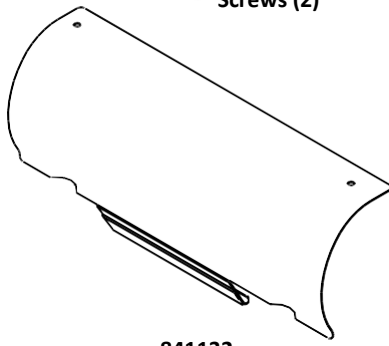
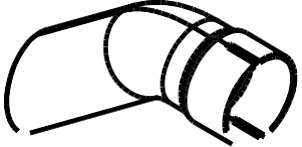
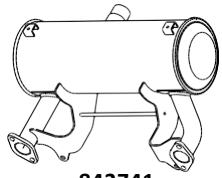
# 8-24 EXHAUST

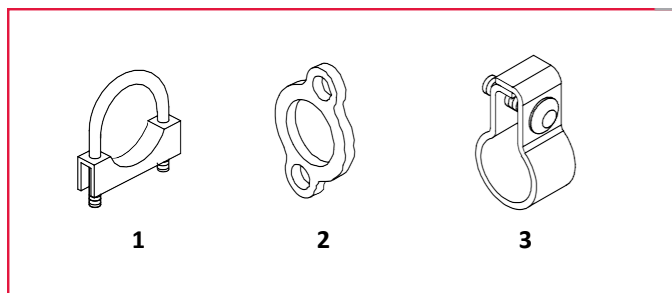
## Vanguard™ model 540000 low mount muffler

Engine Accessories  
Exhaust

Muffler	Manifold	Guard
 <p><b>841680</b> oil filter side</p>	 <p><b>841681</b></p>	 <p><b>841682</b></p>
 <p><b>842262</b> starter motor side</p>	 <p><b>842263</b></p>	

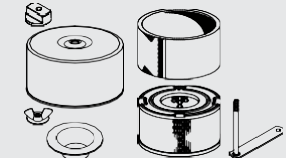
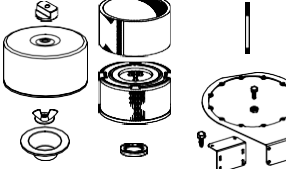
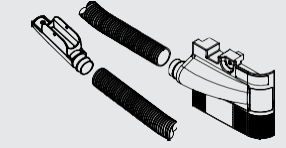

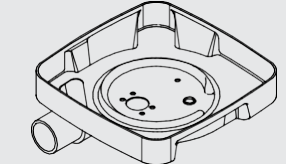



## Vanguard™ model 543400

Muffler	Manifold	Guard
 <p><b>809983</b> High mount muffler, oil filter side outlet</p>	 <p><b>841132</b></p> <p>692067 Screws (2)</p>	 <p><b>841518</b> 4"</p>
 <p><b>843741</b> High mount muffler, center outlet</p>		



### Muffler Clamps

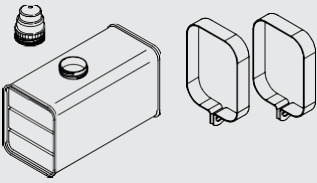
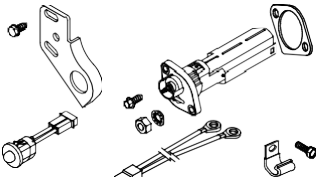
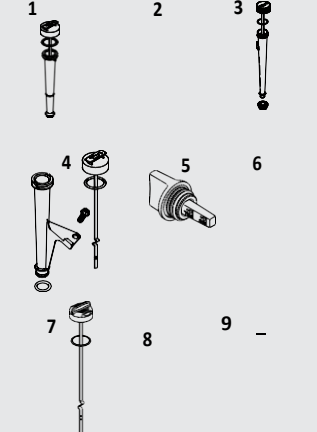
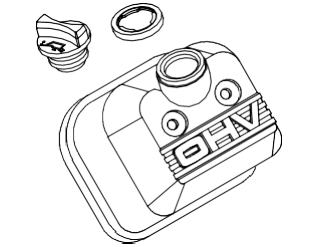
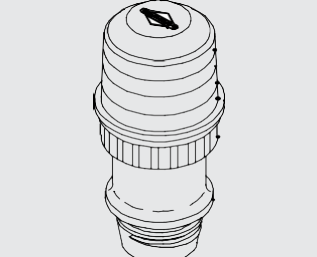
1. Used on Models 540000 & 610000, ID 1.62", Part # 841968
2. Used on Models 3504, 3507, 3514, 3517, ID 29MM, Part # 690898
3. Used on Models 19, 25, 35 Horizontal, ID 1.25", Part # 691956

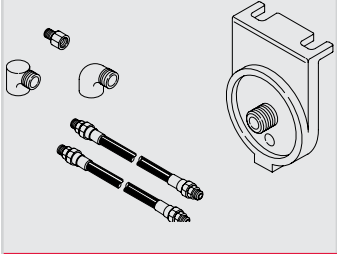
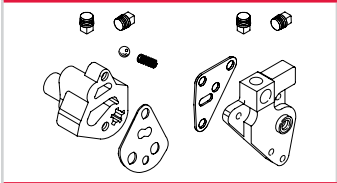
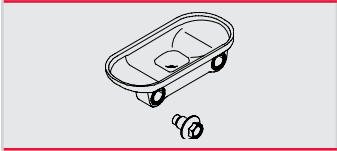
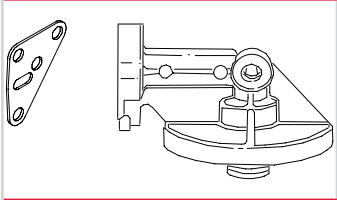
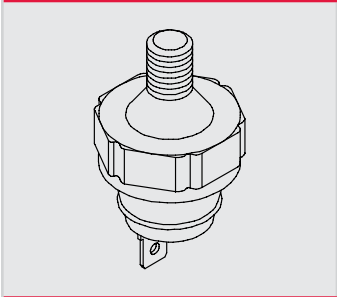
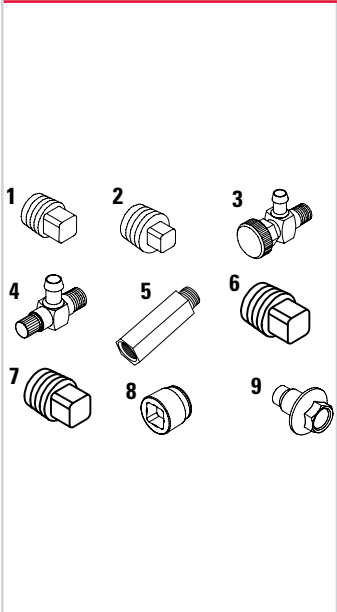
	<p><b>Dual Element Air Cleaner Kit</b></p>	<p>For 7 and 8 Gross HP<sup>†</sup> horizontal crankshaft engines with 2-piece flo-jet carburetors only,</p>	<p>393459</p>
	<p><b>Dual Element Air Cleaner Kit</b></p>	<p>For 10 and 11 Gross HP<sup>†</sup> vertical crankshaft engines with 1-piece flo-jet carburetors (pre world class carburetors only). Features larger capacity automotive type paper cartridge and oil-foam pre-cleaner for extended life. NOTE: Stud in this kit has a #10-32 UNF-2A thread.</p>	<p>399644</p>
	<p><b>Remote Air Intake Kits</b></p>	<p>For Quantum<sup>®</sup> power engines (including mounting hardware). Mount intake head at a remote location, e.g., handle bar. (Does not include air cleaner element), NOTE: Do not use these remote air intake kits on engines built after code date 95073100.</p>	<p>498204</p>
	<p><b>Remote Air Intake Kit Parts</b></p>	<p>Tubing kit (3 ft/.9m hose and 2 hose clamps, part #94489).</p>	<p>494345</p>
	<p><b>Air Cleaner Base</b></p>	<p>Models 294400, 303400 and 350400 Vanguard<sup>™</sup> V-Twin engine remote air cleaner. (Remote parts not supplied by Briggs &amp; Stratton.) NOTE: Do not use these remote air intake kits on engines built after code date 95073100.</p>	<p>842830</p>
	<p><b>Two Stage Centrifugal Air Cleaners</b></p>	<p>Housing &amp; filter assembly, 90 degree end, for 2 &amp; 3 cylinder L/C engines, Part # <b>825118</b> Housing &amp; filter assembly, straight end, for 2 &amp; 3 cylinder L/C engines, Part # <b>825117</b> Filter only for assemblies 825117 and 825118, Part # <b>820263</b> Housing &amp; filter assembly for 31 Gross HP<sup>†</sup> (540000) air-cooled V-Twin, Part # <b>809670</b> Filter for 809670, Part # <b>841497</b> Safety filter for 809670, Part # <b>821136</b></p>	<p>825118</p>
	<p><b>Air Filter Restriction Indicator</b></p>	<p>For all Vanguard BIG BLOCK<sup>™</sup>, small block, that use the Donaldson<sup>®</sup> Air Filtration System and 3 cylinder L/C diesel engines.</p>	<p>843024</p>
	<p><b>Rain Cap</b></p>		<p>809907</p>

Engine Accessories  
 Air Cleaners

<sup>†</sup> All power levels are stated gross HP at 3600rpm per SAE J1940.

# 8-26 LUBRICATION

	<p><b>Fuel Tanks for Remote Mounting</b></p>	<p>Fuel Tank Capacity Fuel Tank and Cap Mounting Straps (2 Required)          4 qt. (3.8 L) Part # <b>290816</b> (metal) Part # <b>291367</b> or Part # <b>691993</b> (plastic)          6 qt. (5.7 L) Part # <b>291488</b> (metal) Part # <b>691937</b> (H 6.2", W 5.45", L 10.75")          8 qt. (7.5 L) Part # <b>292415</b> (metal) Part # <b>691937</b> (H 6.2", W 5.45", L 14.37")</p>	
	<p><b>Oil Gard Kits</b></p>	<p>Oil Gard automatically stops the engine if the oil level is too low. It can be added to I/C® and Vanguard™ engines equipped to receive it.  <b>Models (horizontal crankshaft)</b>          For 5 Gross HP† thru 11 Gross HP equipped to receive Oil Gard, Part # <b>398182</b>          For 9 Gross HP† Vanguard™, Part # <b>492697</b>          NOTE: Magnetic oil drain plug recommended with Oil Gard</p>	
	<p><b>Dipsticks</b></p>	<p>Be sure dipsticks fit on your application</p> <ol style="list-style-type: none"> <li>Models 110400, 121400, 123400, Part # <b>693617</b></li> <li>Models 110600, 111600, 120600, 121600, 122600, 126600, Part # <b>692047</b></li> <li>Models 310700, 311700, Part # <b>496415</b></li> <li>Models 405600, 406700, 445700, Part # <b>499602</b></li> <li>Models 120400, 204400, 205400, Part # <b>697689</b></li> <li>Models 303400, 350400, 381400 (after 98053100), Part # <b>693175</b></li> <li>Models 310000, Part # <b>699908</b></li> <li>Models 50032, Part # <b>715588</b></li> <li>Models 121Q00, 121S00, Part # <b>796501</b></li> </ol>	
	<p><b>Valve Cover Oil Fill</b></p>	<p>Valve cover oil fills are available for Vanguard™ V-Twin Models 30, 35, and 38 horizontal crankshaft engines.          Valve cover oil fill, if engine is not equipped with fuel pump, Part # <b>843749</b>          Valve cover oil fill, if engine is equipped with fuel pump, Part # <b>690910</b>          Oil fill cap (before assembly, cut dipstick from cap, if equipped), Part # <b>809500</b></p>	
	<p><b>Oil Minders</b></p>	<p>Gives visual indication of "safe" oil level with a touch of a finger.          Most 3 Gross HP thru 12 Gross HP† vertical crankshaft engines, Part # <b>692939</b>          Most 2 Gross HP thru 8 Gross HP† horizontal crankshaft engines, Part # <b>298858</b>          Most 9 Gross HP thru 16 Gross HP† cast iron cylinder horizontal crankshaft engines. Part # <b>298860</b></p>	<p>592239</p>

	<p><b>Remote Mounting Oil Filter Kits</b></p>	<p>For Vanguard™ V-Twin engines and Opposed Twin II™ engines equipped with full pressure lubrication.          Length of Hoses: 18" (48 cm), Part # <b>492061</b>          30" (76 cm), Filter not included, Part # <b>492062</b>          To order parts separately: (2) 18" hoses, Part # <b>494724</b>          (2) 30" hoses, Part # <b>494725</b>          Oil filter kit without hoses, Part # <b>495244</b>          NOTE: Opposed Twin II™ requires adapter kit <b>492675</b>.          Vanguard™ requires adapter kit <b>492687</b></p>	
	<p><b>Oil Filter Adapter Kits</b></p>	<p>Opposed Twin II™ engines (includes spacer), Part # <b>492675</b>          Vanguard™ V-Twin engines, Part # <b>492687</b>          NOTE: Adapter has provision to receive oil pressure switches.</p>	
	<p><b>Oil Drip Tray</b></p>	<p>Models 540000 and 61000          Bolts for drip tray, Part # 807435</p>	<p>809334</p>
	<p><b>Oil Filter Adapter</b></p>	<p>Oil filter adapter kit re-locates oil filter on Vanguard™ V-Twin horizontal crankshaft engines when muffler is mounted on oil filter side of engine (see page 10-20). Use mounting hardware from original adapter.          NOTE: Adapter has provision to receive oil pressure switches.</p>	<p>808033</p>
	<p><b>Oil Pressure Switch</b></p>	<p>Oil pressure switches activate a warning light if oil pressure drops to an unsafe level. Available for V-Twin engines and Opposed Twin II™ cylinder engines equipped with full pressure lubrication and oil filter. This is a normally closed switch.          2 PSI, Part # <b>690233</b>          3-5 PSI, Part # <b>491657S</b>          9-13 PSI, Part # <b>694115</b>          All Switches are 1/8 x 27 NPTF.</p>	
	<p><b>Oil Drain Plugs &amp; Fittings</b></p>	<p>A magnetic oil drain plug is recommended with Oil Gard. 1/2 turn oil drain fitting makes oil changes easier.          Models (horizontal crankshaft)          1. 5 Gross HP†, 1/4 x 18 NPTF, Part # <b>691663</b>          2. 7 Gross HP† thru 11 Gross HP, 3/8 x 18 NPTF (magnetic), Part # <b>690289</b>          3. 5 Gross HP† and under, 1/4 x 18 NPTF (1/4" I.D. Dia.), Part # <b>492030</b>          4. Above 5 Gross HP†, 3/8 x 18 NPTF (1/2" I.D. Dia.), Part # <b>492031</b>          5. Vanguard™ single cylinder oil drain extension, Part # <b>715715</b>          6. Vanguard™ Twin, 3/8 x 18 NPTF, Part # <b>690946</b>          7. Model 12 horizontal, 1/4 x 18 NPTF, Part # <b>691686</b>          8. Intek™ V-Twin, 1/2" 3/8 x 18 NPTF recessed square, Part # <b>691680</b>          9. 2 cylinder liquid-cooled Vanguard™ 540000 &amp; 610000, M14 x 1.5 thread, Part # <b>807392</b></p>	

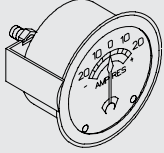
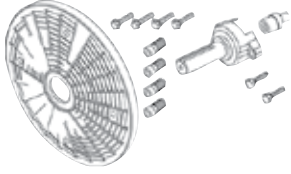

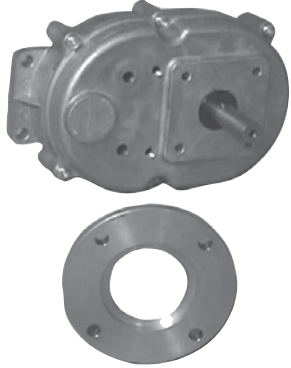
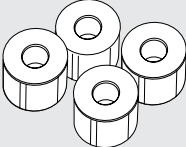
† All power levels are stated gross HP at 3600 rpm per SAE J1940.



## 8-28 ELECTRIC STARTERS

Engine Accessories  
Electric Starters

	<b>Electric Starter</b>	Single cylinder starter for aluminum ring gear	497595
	<b>Electric Starter</b>	Opposed twin cylinder tractor starter	497596
	<b>Electric Starter</b>	Fits Model 21 & 28 single cylinder starter for steel ring gear	593934
	<b>Electric Starter Kit</b>	Used on Model 15 Snow horizontal engines which are already equipped to receive an electric starter	796238
	<b>Electric Starter Kit</b>	Used on Model 20/21 Snow horizontal engines which are already equipped to receive an electric starter	795909
	<b>Electric Starter Kit</b>	Used on model 12/15 Snow engines.	798884
	<b>Electric Starter Kit</b>	Used on model 12/15 Snow engines.	799038
	<b>Electric Starter Kit</b>	Used on Model 11 (175cc) Vertical 775/Professional Series™ engines, Model 12 (190cc) Vertical 850/875/Professional Series™ engines, Model 14 (223cc) Vertical 950-1000 Series™ engines	799241

	<p><b>Ammeter &amp; Hour Meter</b></p>	<p>Ammeter by Stewart Warner, scale: 20-0-20 amps, Part # <b>295158</b> Hour meter by Hobbs, requires 12V battery, Part # <b>100025</b> NOTE: Both meters include mounting hardware.</p>																									
	<p><b>Stub Shaft Kit</b></p>	<p>For models 290000 and 380000, horizontal shaft Vanguard™ twin cylinder engines Kit includes: (1) Stub shaft (4) Screen Spacers, Part # 691500 (1) Alignment Pin, Part # 841581 (1) Rotating Screen, Part # 841582 (1) Hex Nut, Part # 690887 (1) Rotating Screen, Part # 494439 (2) Hex Head Screw, Part # 691088 (4) Recess Screw, Part # 841441 (4) Pan Head Screw, Part # 691647</p>	<p>841580</p>																								
	<p><b>Stub Shaft Kit</b></p>	<p>For model 540000 and 61000 V-Twin. Rotating screen, Part # 843429 Stub shaft: diameter 1-1/8", length 148 mm.</p>	<p>841304</p>																								
	<p><b>Noram™ Reduction Gearboxes</b></p>	<table border="1"> <thead> <tr> <th>Engine Model #</th> <th>Noram™ Adapter Kit #</th> <th>Noram™ Gearbox #</th> </tr> </thead> <tbody> <tr> <td>196400</td> <td>13500024</td> <td>61100 / 21100+</td> </tr> <tr> <td>235400</td> <td>13500015</td> <td>61100 / 21100+</td> </tr> <tr> <td>245400</td> <td>13500015</td> <td>61100 / 21100+</td> </tr> <tr> <td>138400</td> <td>1" dia. 12800010</td> <td>61100 6-1+</td> </tr> <tr> <td>138400</td> <td>12800010</td> <td>21100 2-1+</td> </tr> <tr> <td>185400</td> <td>N/A</td> <td>61100 6-1+</td> </tr> <tr> <td>185400</td> <td>N/A</td> <td>21100 2-1+</td> </tr> </tbody> </table> <p>NOTE: All engines must have a flange mount side cover. Noram output shaft size: diameter-1", length-3", keyway-1/4". + 1" dia. keyway crankshaft. <b>Contact your Briggs &amp; Stratton Integrated Distributor to order</b> NORAM: 4360 N. Green Bay Road Milwaukee, WI 53209 (414) 267-4000</p>	Engine Model #	Noram™ Adapter Kit #	Noram™ Gearbox #	196400	13500024	61100 / 21100+	235400	13500015	61100 / 21100+	245400	13500015	61100 / 21100+	138400	1" dia. 12800010	61100 6-1+	138400	12800010	21100 2-1+	185400	N/A	61100 6-1+	185400	N/A	21100 2-1+	<p>196400</p>
Engine Model #	Noram™ Adapter Kit #	Noram™ Gearbox #																									
196400	13500024	61100 / 21100+																									
235400	13500015	61100 / 21100+																									
245400	13500015	61100 / 21100+																									
138400	1" dia. 12800010	61100 6-1+																									
138400	12800010	21100 2-1+																									
185400	N/A	61100 6-1+																									
185400	N/A	21100 2-1+																									
	<p><b>Adapter Spacer Kit</b></p>	<p>For raising all Models 20 and 21 crankshaft height to the level of Model 190000 and 250000, adapters are 1" high and 1-1/8" wide.</p>	<p>695154</p>																								

# 8-30 MISCELLANEOUS

## Stub Shaft And Alignment Pin Combinations\*\*

### Standard Length 4.750 Stub Shaft

#### Standard Vanguard™ V-Twin

Model #	Stub Shaft Kit Service Part #	Alignment-Pin Part #	Comments
<b>Currently (old stub shaft)</b>			
2904, 2944, 3034, 3044(GF)	841580	841581	
3504, 3544(GF), 3804, 3814, 3844(GF)	841580	none	No alignment pin used because it will not allow stub shaft to seat on flywheel properly.
<b>Replacing 262949 &amp; 805613 when available (new stub shaft)</b>			
2904, 2944, 3034, 3044(GF)	841580	841581	This combination must be used together. This set up insures better alignment than the old stub shaft and alignment pin listed above.
3504, 3544(GF), 3804, 3814, 3844(GF)	841580	none	No alignment pin because it will not allow stub shaft to seat on flywheel properly.
<b>Cooler Cleaner Vanguard™ V-Twin</b>			
Currently (old stub shaft)			
2954, 3054, 3094(GF)	841580	841581	
3564, 3594(G), 3854, 3864, 3894(GF)	841580	841581	Cooler cleaner flywheel mounting boss was eliminated therefore alignment pin needed.
<b>Replacing 262949 &amp; 805613 when available (new stub shaft)</b>			
2954, 3054, 3094(GF)	841580	841581	This combination gives better alignment than old set up.
3564, 3594(GF), 3854, 3864, 3894(GF)	841580	841581	This combination gives better alignment than old set up.

### Longer Stub Shaft 5.439" Long - Currently Now Available

(Primarily used on 35/38 cooler cleaner due to deeper blower housing)

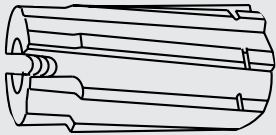

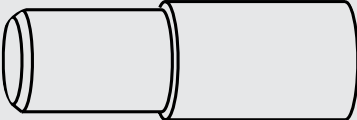
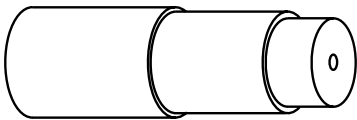
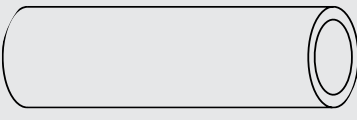


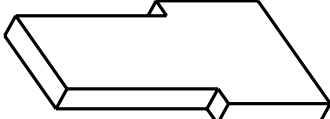
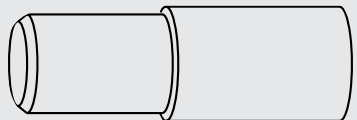
#### Cooler Cleaner Vanguard™ V-Twin

Model No.	Stub Shaft Kit Service Part #	Alignment-Pin Part #	Comments
3564, 3594(GF), 3854, 3864, 3894(GF)	842655	841581	Longer stub shaft

\*Available as kit only

\*\*As of 8-9-05

# BEARING (MAIN) SERVICING 12-1

	<b>Reamer - Counterbore</b>	For installing DU bearing in PTO bearing: Horizontal Crankshaft Models 140000, 170000, 190000. For installing DU bearing in MAG. bearing: Vertical Crankshaft Engine Models 171000, 191000.	19281*
	<b>Reamer Guide Bushing "MAGNETO"</b>	Use with 19096 pilot, 19179 bushing driver and 19227 cylinder support.	19282*
	<b>Bearing Driver</b>	For replacing magneto side main bearing on V-Twin Vanguard™ engines built before 97050100. Use with 19227 Cylinder Support Tool.	19349
	<b>Bearing Driver</b>	For replacing magneto side main bearing on Vanguard™ engine Model 161400, 330000 V/Shaft. Use with 19351 Cylinder Support Tool.	19350
	<b>Cylinder Support</b>	For replacing magneto side main bearing on Vanguard™ engine Model 161400, 330000 V/Shaft.	19351
	<b>Main Bearing Plug Gauge</b>	Checking magneto bearing for wear - Vanguard™ engine Model 161400.	19377*
	<b>Main Bearing Plug Gauge</b>	Checking magneto and PTO bearing for wear - Vanguard™ engine Models 260700, 261700.	19378*
	<b>Main Bearing Plug Gauge</b>	Checking magneto and PTO bearing for wear - V-Twin Vanguard™ engines.	19380
	<b>Bearing Driver</b>	For replacing magneto side main bearing on V-Twin Vanguard™ engines built after 97043000. Use with 19227 Cylinder Support Tool.	19450

\* Subject to remaining factory inventory





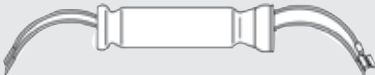
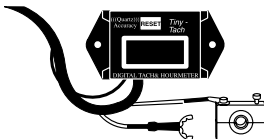




# 12-2 CAM GEAR BEARING SERVICING

Service Tools

Bearing (Main) Servicing

	<p><b>Main Bearing Tool Kit</b></p>	<p>For Servicing Engine Models 85400, 115400, 185400, 245400. Kit Includes:</p> <table border="0"> <tr> <td>19139 Puller Nut</td> <td>19398 Puller Stud</td> </tr> <tr> <td>19318 Puller Screw</td> <td>19401 Driver</td> </tr> <tr> <td>19454 Support</td> <td>19406 Puller Nut</td> </tr> <tr> <td>19320 Driver</td> <td>19408 Puller Stand Off</td> </tr> <tr> <td>19394 Support Driver</td> <td>19440 Support Driver</td> </tr> <tr> <td>19395 Pilot Nut</td> <td>94814 Nut</td> </tr> <tr> <td>19396 Pilot</td> <td>690582 Washer</td> </tr> <tr> <td>19397 Adapter/Driver</td> <td></td> </tr> </table> <p>Note: Each tool part number can also be ordered separately.</p>	19139 Puller Nut	19398 Puller Stud	19318 Puller Screw	19401 Driver	19454 Support	19406 Puller Nut	19320 Driver	19408 Puller Stand Off	19394 Support Driver	19440 Support Driver	19395 Pilot Nut	94814 Nut	19396 Pilot	690582 Washer	19397 Adapter/Driver		<p>19407</p>
19139 Puller Nut	19398 Puller Stud																		
19318 Puller Screw	19401 Driver																		
19454 Support	19406 Puller Nut																		
19320 Driver	19408 Puller Stand Off																		
19394 Support Driver	19440 Support Driver																		
19395 Pilot Nut	94814 Nut																		
19396 Pilot	690582 Washer																		
19397 Adapter/Driver																			
	<p><b>Cam Bearing Plug Gauges</b></p>	<p><b>19164</b> Checking cam gear bearings for wear - most engine models. <b>19383*</b> Checking cam gear bearings for wear - Vanguard™ engine Models 161400, 260700, 261700. <b>19384</b> Checking cam gear bearing for wear - Mag. side V-Twin Vanguard™ engines. <b>19386</b> Checking cam gear bearing for wear - PTO side V-Twin Vanguard™ engines. <b>19387*</b> Checking cam gear bearings for wear - Engine Models 97700, 99700.</p>	<p>19164</p>																
	<p><b>Puller, Camshaft Bearing</b></p>	<p>For removing camshaft bearing on Vanguard™ 3-cylinder liquid-cooled engines.</p>	<p>19421</p>																
	<p><b>Driver, Camshaft Bearing</b></p>	<p>For installing camshaft bearing on Vanguard™ 3-cylinder liquid-cooled engines.</p>	<p>19422</p>																
	<p><b>Magneto Bearing Puller/Installer</b></p>	<p>This tool is designed for Magneto main bearing removal and reinstallation of the 54 and 61 cubic inch Big Block™ engines. It is essentially a hand operated press. The bearing is pulled into the block as it is staked from the inside. Installation is the reverse, as an oil groove needs to be aligned from the inside. To use, a mandrel locks into the bearing. The bolt acts as a lead screw and pulls the mandrel and the bearing into a cup machined into a threaded fixture that straddles the bearing recess. For installation, another threaded fixture is substituted for the cup and the new bearing is pulled into position. Simply tighten all the way and the bearing will be brought to the proper recess by the design of the tool.</p>	<p>19592</p>																

# CARBURETOR SERVICING 12-3





	<b>Screwdriver - Carburetor Jet - small</b>	For removing most carburetor jets.	19061
	<b>Screwdriver - Carburetor Jet - large</b>	For removing most carburetor jets.	19062
	<b>Torx® E5 Socket</b>	For removing and installing carburetor mounting studs on engines equipped with Torx® drive intake manifolds such as the Intek™ V-Twin engines.	19455
	<b>Torx® Driver</b>	For installing tamper-proof screws in governor paddle for Vanguard™ 3-cylinder liquid-cooled gasoline engines.	19445
	<b>Tachometer Adaptor</b>	When attached to ignition module, permits use of Digital Tachometer, 19389 on Vanguard™ 3-cylinder liquid-cooled gasoline engines.	19456
	<b>Digital Tachometer &amp; Hourmeter</b>	For use with Vanguard™ 3-cylinder liquid-cooled diesel engines with 6mm diameter fuel lines. This also includes a permanent transducer (not pictured) to be attached to the 6mm fuel line.	795195
	<b>16mm Carburetor Socket</b>	Remove and install main jet housing on Intek™ V-Twin engines, Extended Life Series™ for Model 440000	19459
	<b>Primer Bulb Removal Tool</b>	For quick and easy removal of primer bulb and retainer on engines equipped with Pulsa-Prime carburetors	19461
	<b>Primer Bulb Installation Tool</b>	Easily installs new primer bulb and retainer on Pulsa-Prime carburetors.	19462
	<b>Fuel Line Removal Tool</b>	This tool is essentially a pry bar for removing fuel line from barbed fittings. The bar is carefully formed, machined, hardened and plated to ensure a long life. To use, remove fuel line clamps. Push fork at end of tool behind the end of the fuel line. Carefully leverage the tool against some existing engine component as a fulcrum and pry fuel line from fitting. Use caution to prevent damage to linkage or fuel system controls. Inspect all removed fuel lines for damage or hardening and replace as necessary.	19620

Service Tools  
Cam Gear Bearing Servicing






\* Subject to remaining factory inventory



# 12-4 CARBURETOR SERVICING - ELECTRICAL TESTING

	<p><b>Screwdriver Set</b></p>	<p>The Briggs &amp; Stratton Power Products 7.0 kW Standby Generator comes from the factory with provisions to change the mixer jet to allow use with natural gas or liquid propane. All that is required to make the conversion is the provided jet and this 19570 screwdriver set. Not just any screwdriver will do. The blade must be thin to fit the jet slot - approximately .040" (1mm) - but wide enough to reach across the jet. At the same time it cannot be too wide or it will shave the peaks off the threads of the jet cavity. Also makes an excellent handle for 19442 star bits.</p>	<p>19570</p>
	<p><b>T40 Plus Torx® Bit</b></p>	<p>This Plus Torx® bit design is to be used for the Model 31 &amp; 33 rod bolts. If the technician tries using a standard T40 Torx bit on these rod bolts, they will have a real potential of stripping the head of the bolt.</p>	<p>19608</p>
	<p><b>Otoscope</b></p>	<p>The use of the otoscope offers the technician the ability to see into small passages and jetting of carburetors. The otoscope offers 2X minimum magnification and a push button switch to activate the bulb to ensure that the technician will not forget to turn off the light causing the battery to be drained.</p>	<p>19607</p>
	<p><b>Amp Fuses</b></p>	<p>19449 15 Amp Fuse 19571 11 Amp Fuse Recently, our Fluke® Digital Multimeter supplier substituted a Model 73 Series III for the Model 73 Series II meter we'd been buying for years. The meter specifications were the same so the change passed our quality audit with no problem. What came as a surprise a short time later is the Series III meter uses an 11 amp fuse instead of the 15 amp used by the Series II. It is never a good idea to replace a fuse with one that is incorrectly rated for the meter and damage may result. If you have a Fluke Series II Multimeter, you need a 15 amp fuse, part number 19449. If you have a Series III Multimeter, you need an 11 amp fuse, part number 19571.</p>	<p>19449 19571</p>

# FLYWHEEL HOLDER/PULLER 12-5

	<p><b>400 Amp AC/DC Clamp Style Digital Multi-Meter</b></p>	<p>This new Multi-Meter is feature packed and safer to use for amperage testing than standard probe style meters. It has the following capabilities for measuring:</p> <ul style="list-style-type: none"> <li>• AC/DC Volt - with a Cat III 600 Volt Safety Rating</li> <li>• AC/DC Current (Amp)</li> <li>• Resistance (Ohms <math>\Omega</math>)</li> <li>• Continuity &amp; Diode Testing - with audible signal</li> <li>• Capacitance &amp; Frequency (Hz) or % Duty Cycle</li> <li>• Temperature <math>^{\circ}\text{C}</math> or <math>^{\circ}\text{F}</math> (-22 to 572<math>^{\circ}\text{F}</math>/-30 to 300<math>^{\circ}\text{C}</math>),</li> </ul> <p>Additional features:</p> <ul style="list-style-type: none"> <li>• Auto Off</li> <li>• Auto/Manual Ranging</li> <li>• Data Hold</li> <li>• Backlight</li> <li>• Zero Button</li> <li>• Overload protection for all ranges</li> <li>• Over range and low battery indicators</li> </ul> <p>Comes complete with test leads, type K bead wire thermocouple probe, case, two AAA batteries and instruction booklet.</p>	<p>19602</p>
	<p><b>PowerLink<sup>®</sup> Test Box</b></p>	<p>Use with 19602, 19581, 19464 Digital Multimeters for testing AC output on the PowerLink<sup>®</sup> Stators</p>	<p>19528*</p>
	<p><b>Capacitance-Frequency Meter</b></p>	<p>Used for checking the frequency (Hz) on a running generator. Flip switch on meter to "FREQ", use plug-in, and plug into AC outlet on generator. Compatible with 50 or 60 Hz generators</p> <p>To test a capacitor, flip switch to "CAP" and touch probes to terminals on capacitor and the capacitance will be displayed. Capacitance range is 10 to 99 microfarads.</p>	<p>19602*</p>
	<p><b>DC AMP Shunt</b></p>	<p>An improved version of a valuable diagnostic tool. Color coded receptacles hold digital multimeter leads securely while testing. This tool works with any digital multimeter with a millivolt scale.</p>	<p>19468</p>
	<p><b>Flywheel Pullers</b></p>	<p><b>19069</b> - small, hole distance 1-5/8" or 1.630" (41.275 mm)  <b>19165</b> - medium, hole distance 2" or 2.010" (50.8 mm)  <b>19203</b> - large, hole distance 2-13/16" or 2.820" (71.4375 mm)</p>	

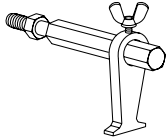






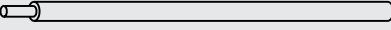


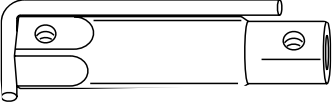
Service Tools  
Carburetor Servicing

\* Subject to remaining factory inventory


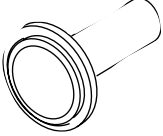
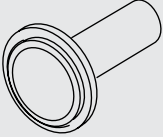






## 12-6 FLYWHEEL HOLDER/PULLER - IGNITION

	<b>Flywheel Holder</b>	For removing and installing flywheel on Vanguard™ 3-cylinder liquid-cooled engines.	19418
	<b>Flywheel Strap Wrench</b>	For holding flywheel while removing and torquing flywheel nut on all engine models. Note: Replacement strap is available separately. Order Part # 19448	19433
	<b>Flywheel Puller - Micro Engine</b>	For removing flywheels on Micro engine. Includes driver and an adapter for clutch drive engines	19538*
	<b>Flywheel Puller - Motor Sports</b>	This flywheel puller is designed to work specifically with Billet aluminum motor sports flywheels only	19584
	<b>Rotor Puller</b>	This tool is designed to remove the rotor from the engine crankshaft taper on the new 18/20kW Standby Generator System <ul style="list-style-type: none"> <li>• Use repair manual 277528GS for detailed instructions on how to safely remove the rotor with this pulley kit</li> </ul>	19590
	<b>Flywheel Puller - Powerlink®</b>	Required when removing and installing flywheel on engines equipped with the PowerLink® systems. Also works on most other flywheels	19534*
	<b>Plug Gauge</b>	Servicing breaker point plunger hole	19055
	<b>Bushing Driver</b>	Servicing breaker point plunger hole	19057
	<b>Ignition Tester</b>	Used to test all ignition coils except Vanguard™ 3 L/C gas engines. For the Vanguard™ 3 L/C gas engines, please see 19400 Spark Tester.	19368
	<b>Spark Tester</b>	Special Air Gap of .400" (10 mm) for use on Vanguard™ 3-cylinder liquid-cooled engines.	19400
	<b>Spark Plug Wrench</b>	For removing 13/16" and 3/4" hex head spark plugs. Wrench length 5-1/2" (14 cm).	89838S

# OIL SEAL - OUTBOARD SERVICING 12-7




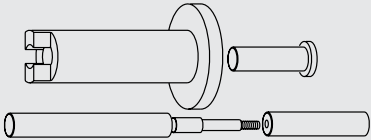


	<p><b>Spark Plug Wrench</b></p>	<p>The 19576S spark plug wrench has been modified to fit a wider variety of applications. The wrench, sized to fit 13/16" spark plugs on one side and 5/8" spark plugs on the other has been stretched from 5-1/2" to a full 8" (14 cm-20 cm). This change was driven by the longer reach needed to access spark plugs on many overhead valve engines. To gain better torque in removing the plug, the handle is longer as well. The blister pack part number is 5402.</p>	<p>19576S</p>
	<p><b>Driver, Oil Seal</b></p>	<p>For installing timing gear cover oil seal on Vanguard™ 3-cylinder liquid-cooled engines.</p>	<p>19423</p>
	<p><b>Driver, Oil Seal</b></p>	<p>For installing rear oil seal on Vanguard™ 3-cylinder liquid-cooled engines.</p>	<p>19424</p>
	<p><b>Prop Shaft Fixture</b></p>	<p>Holds propeller shaft securely for easy removal of sliding clutch roll pin. For replacement pins order 19558.</p>	<p>19555*</p>
	<p><b>Tapered Socket</b></p>	<p>1-1/4" tapered hex. For removing and installing carrier nut on outboard gear case. Holds securely without damaging nut.</p>	<p>19557*</p>

Service Tools  
Electrical Testing

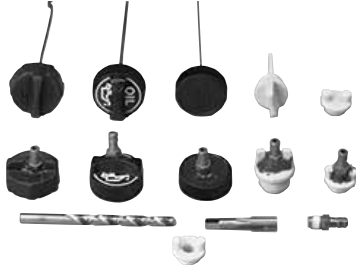




\* Subject to remaining factory inventory



# 12-8 PISTON & PISTON RINGS SERVICING

	<p><b>Piston Ring Compressor</b></p>	<p>For engines 5 HP<sup>‡</sup> and below, such as Model 6, 8, 9, 10, 12, 13</p>	<p>19070</p>
	<p><b>Piston Ring Compressor</b></p>	<p>For engines above 5 HP<sup>‡</sup>.  <b>Instructions for Operating Piston Ring Compressors</b>            After placing rings in grooves on piston, enclose piston and rings in compressor. Make certain rings are FULLY entered IN GROOVES. Tighten compressor by turning handle to right until rings are compressed sufficiently to enter cylinder. After tightening compressor the handle may be removed. The automatic friction brake holds the compressor at the desired tension. Friction brake may be adjusted by turning the screws on the side of the compressor. Turn right to increase. Turn left to reduce tension. In loosening compressor turn handle SLOWLY to left. If loosening too rapidly tension band may be damaged. Keep compressor clean. Dirt or grit between the tension band and compression band will damage the former.            USE PLENTY OF OIL.            NOTE: positioning the ring compressor on the cylinder with the 3 dimples</p>	<p>19230</p>
	<p><b>Ring Expander</b></p>	<p>For removing and installing piston rings. Minimized ring distortion and breakage. All engine models.</p>	<p>19340</p>
	<p><b>Piston Pin Fixture</b></p>	<p>For removing and installing piston pin on Vanguard™ 3-cylinder liquid-cooled gasoline engines.</p>	<p>19419</p>
	<p><b>Mity Vac Pressure/Vacuum Pump</b></p>	<p>Check carburetor inlet needles and seats for leakage. Check pressure switches. Check dash pot pull of on 3 L/C choke.</p>	<p>19493</p>
	<p><b>Digital Crankcase Vacuum Tester</b></p>	<p>Extremely accurate and simple tool for measuring crankcase vacuum, or natural gas and LP fuel pressure for home generators. Check crankcase vacuum with engine running at top no load speed.</p>	<p>19495</p>

# PRESSURE/VACUUM TESTING 12-9

	<p><b>Engine Test Fittings</b></p>	<p>What you need now is a quick and easy way to firmly attach these tools to an engines crankcase. All you need to do is gather an assortment of various engine fill caps and dipsticks and an equal number of 691764 barbed fuel fittings. Listed below is an assortment of dipstick and oil fill cap part numbers. First, if using a dipstick remove it from the cap. Determine the best location to drill a hole using a letter "Q" drill bit. Since you're working with plastic it may also be possible to use a 21/64" or 5/16" bit. Next, tap the hole with a 1/8" NPT tap, install the barb, epoxy in place and you're finished.</p> <p>Part Number</p> <ol style="list-style-type: none"> <li>1. - 499621 Dipstick</li> <li>2. - 807985 Dipstick</li> <li>3. - 495230 Dipstick</li> <li>4. - 715588 Dipstick</li> <li>5. - 281658 Fill Cap</li> <li>6. - 691764 Hose Connector</li> </ol>	<p>499621</p>
	<p><b>Hand-Held Tiny-Tach Diagnostic Tool</b></p>	<p>Part number 795163 is a pulse operated, hand-held tachometer designed more as a diagnostic tool than other Tiny-Tachs. This tach is set up as a wireless device but comes equipped with a plug in wired antenna for those occasions where a stable rpm reading is hard to get. It features an auto off feature to extend battery life. Accuracy is +/- 10 rpm and the display is updated every 1/2 second. Besides the standard rpm display, the tach can be programmed to display MAX rpm reached during each session. This is a nice, handheld wireless tachometer!</p>	<p>795163*</p>
	<p><b>Digital Tachometer &amp; Hourmeter</b></p>	<p>Meter displays rpm while engine is running. When engine is stopped, meter displays elapsed time. The maximum speed is 20,000 rpm and it updates 1-2 times per second.</p>	<p>19598</p>
	<p><b>Quick Clamp Transducer</b></p>	<p>Use with 19457 Digital Tachometer and Hourmeter. Quick clamp design with spring loaded post terminal for easy installation and removal.</p>	<p>19463*</p>
	<p><b>Adjustment Gauge</b></p>	<p>For adjusting secondary governor spring, V-Twin Vanguard™ engines. It is required for adjusting the governing on M29, M30, M35, M38 engines for generator applications, which can be challenging. On many of the applications the governor lever area is obscured by the exhaust system or that application, so trying to measure the distance between the governor arm and the control bracket without the gauge would be very difficult.</p>	<p>19385</p>

Service Tools  
Ignition & Related Parts Servicing

\* Subject to remaining factory inventory



# 12-10 SPEED - SIZE - TORQUE - MEASURING



**Diesel Tachometer**

This tachometer uses the trigger module from the 3/LC gas engine as a sensor to monitor crankshaft motion. Most diesel engines sold since 2007 are equipped with this sensor. If not, it will have to be added. Order 825009 for the trigger module and 820013 for an attachment screw. The tachometer is powered by the pulses from the trigger module so it does not require an external battery. Besides a tachometer function, this unit also has 2 service countdown circuits, a max rpm circuit and a timer function that can be used to time specific jobs.

795195



**Commercial Tachometer**

Part number 795163 is a new commercial Tiny-Tach that has the same 20k rpm limit and refresh rate as the improved version mentioned previously. According to Tiny-Tach, the ... commercial Gas Model can be used as a complete Service Tracking device for any spark ignited engine. It is programmable for different firing orders as well as for tracking two different service intervals." This is way more than a tachometer. Features include

- Captures total time in hours and minutes up to 200 hours, and hours only thereafter
- Displays any time the engine is running, up to 20,000 RPM
- Displays maximum RPM recorded. Resettable.
- Job length of time. A resettable timer displayed in hours and minutes up to 200 hours
- Programmable "time till service" counter 0 to 50 hours
- Programmable "time till service" counter 0 to 250 hours

795193

# SPEED - SIZE - TORQUE - MEASURING 12-11

	<p><b>Tachometer (Treysit Sirometer)</b></p>	<p>This sirometer measures from 800 to 25,000 revolutions per minute (rpm). It can be used for measuring engine rpm and by making this bracket measuring starter motor rpm as stated in the repair manuals.</p>	<p>19200</p>
	<p><b>Tang Bender</b></p>	<p>For all engines. Used for setting top no load and governed idle speeds.</p>	<p>19480</p>
	<p><b>Dial Caliper</b></p>	<p>Range: 0" to 6" (0 to 152.4 mm) and reads to .011"</p>	<p>19609*</p>
	<p><b>Micrometer Set</b></p>	<p>1" to 3" micrometer set in blow-molded case.</p> <ul style="list-style-type: none"> <li>• Stainless steel thimble and barrel in brushed satin finish</li> <li>• Frame finished in industrial Hammertone paint</li> <li>• Ratchet stop to aid measurement consistency</li> <li>• 10 thousandths vernier scale</li> <li>• Lock lever to lock spindle in position</li> <li>• Carbide faced anvil and spindle</li> <li>• Standards included</li> </ul>	<p>19611</p>
	<p><b>Torque Wrench - 3/8" Drive</b></p>	<p>Range: 0 to 300 Inch Pound (0 to 346.8 Kgcm) (0 to 34.0 Nm)</p>	<p>19393</p>

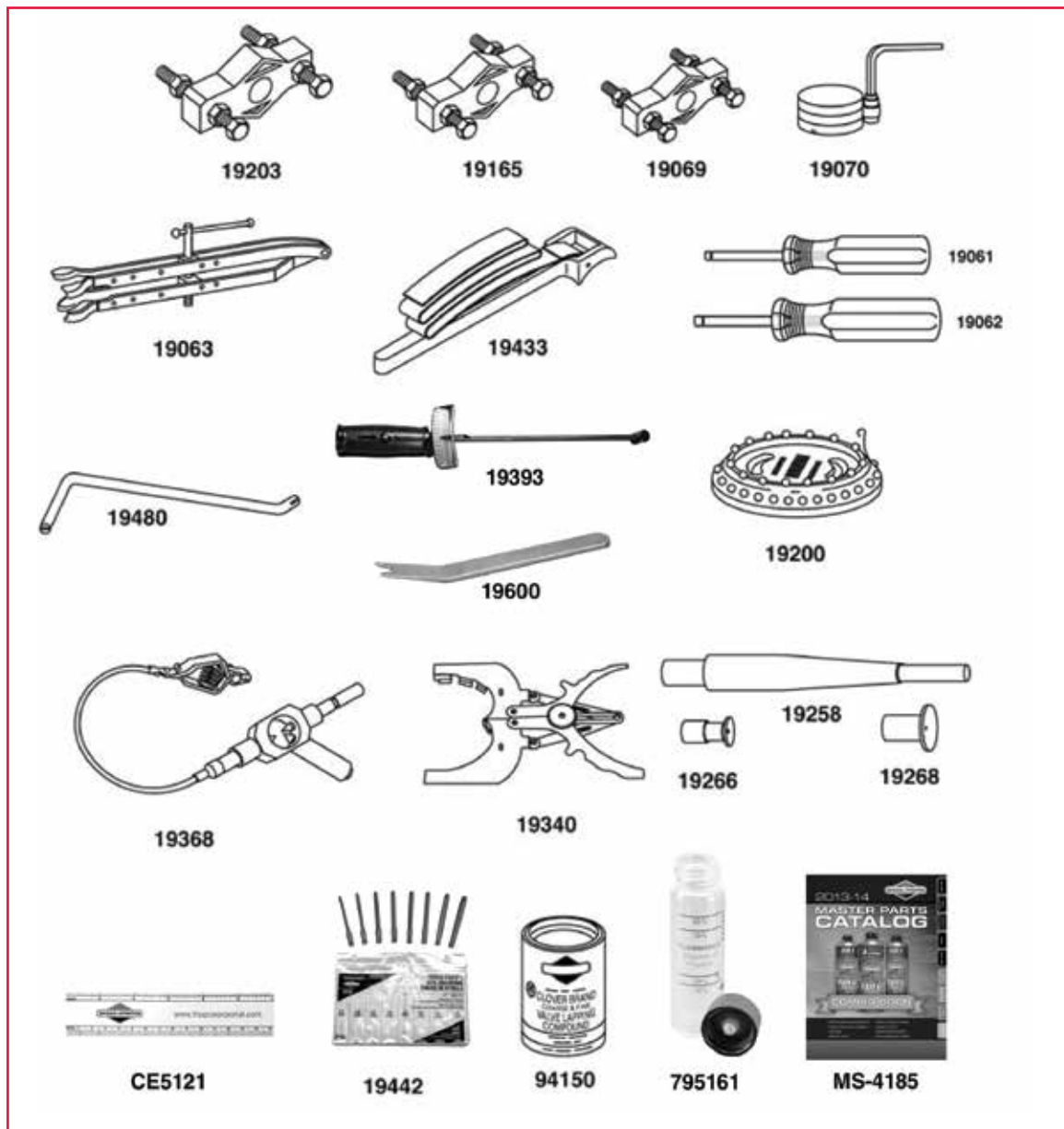
Service Tools  
Pressure/Vacuum Testing

\* Subject to remaining factory inventory



# 12-12 BASIC TOOL KIT

## 19300 Basic Tool Kit



### KIT INCLUDES:

19061	Carburetor Jet Screwdriver, Small Jets	19368	Tester - Ignition
19062	Carburetor Jet Screwdriver, Large Jets	19393	Torque Wrench
19063	Valve Spring Compressor	19433	Flywheel Holder <sup>1</sup>
19069	Flywheel Puller - small, hole distance 1-5/8"	19442	Torquex Start Bits <sup>3</sup> in handy pouch
19070	Piston Ring Compressor (5 HP <sup>†</sup> & below)	19480	Tang Bender
19165	Flywheel Puller - medium, hole distance 2"	19600	Fuel Line Removal Tool
19200	Tachometer (Treysit Sirometer)	795161	Alcohol Fuel Tester
19203	Flywheel Puller - large, hole distance 2.13/16	94150	Clover <sup>®</sup> Valve Lapping Compound
19258	Valve Lapper <sup>2</sup> (includes 19266 & 19268)	CE5121	Air Gap Gauge .010" (.254 mm)
19340	Piston Ring Expander	MS-4185	Master Parts Catalog

**Note:** Each tool part number can also be ordered separately.

<sup>1</sup>For replacement strap, order 19489

<sup>2</sup>To order replacement suction cups, specify: 19266 - 3/4" (19.1 mm) 19268 - 1-1/4" (31.8 mm)

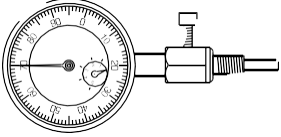


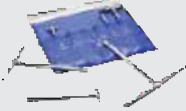





<sup>3</sup>To order replacement bits, specify: 19510 (T-10) - 19511 (T-15) - 19512 (T-20) - 19482 (T25) - 19513 (T-27) - 19514 (T-30) - 19515 (T-40) - 19516 (T-45)



\* Subject to remaining factory inventory

† All power levels are stated gross HP at 3600 rpm per SAE J1940.

# STARTERS - ELECTRIC/MANUAL REWIND 12-13

	<b>Dial Indicator</b>	For timing injector on Vanguard™ 3-cylinder liquid-cooled diesel engines.	19441
	<b>Telescoping Gauge</b>	Twelve inch (304 mm) length handle will reach the bottom of any cylinder bore. Range: 1.960" - 6.185"	19485*
	<b>Dial Bore Gauge</b>	Fast, accurate method of checking cylinder bore size, taper and out of round. Range: 1.960" - 6.185".	19487*
	<b>Telescoping Gauge Set</b>	6 gauges. Range from 5/16" to 6.0"	19610
	<b>6" Digital Caliper</b>	<ul style="list-style-type: none"> <li>• Measures steps, internal, external and depth measurements</li> <li>• Large, easy to see numerals</li> <li>• Reads in inches or millimeters</li> <li>• Packaged in hard case with extra battery</li> </ul>	19609
	<b>Six-Inch Stainless Steel Scale</b>	This tool is almost a requirement for the shirt pocket of any technician. Made of flexible stainless steel, this 6-inch scale is equipped with a T-square. Pocket clip that functions as a depth gauge. One side of the scale is metric and displays millimeters. The other side is graduated in inches and displays 64ths. The reverse side features a handy decimal equivalent chart.	CE5005
	<b>Air Gap Gauge</b>	Disguised as a flexible 6-inch polymer ruler, this tool's hidden purpose is a reusable, armature air gap gauge. To use, back the armature out of it's widest clearance and snug it down. Line the flywheel magnet up with the armature, insert the gauge between the two and loosen the armature screws. The magnet will pull the armature down to the gauge. Tighten and torque the screws and remove the gauge. Sized at .010 to .012 inch, this setting can be used for all Briggs & Stratton engines.	CE5121
	<b>Tachometer Adaptor</b>	When attached to ignition module, permits use of Digital Tachometer, 19389 on Vanguard™ 3-cylinder liquid-cooled gasoline engines.	19456*
	<b>Starter Repair Kit</b>	For replacing rewind spring and starter ropes. For use on engines equipped with ratchet style starter clutches.	5054

Service Tools

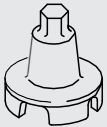
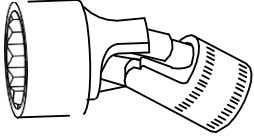

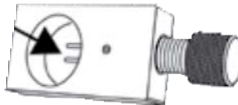




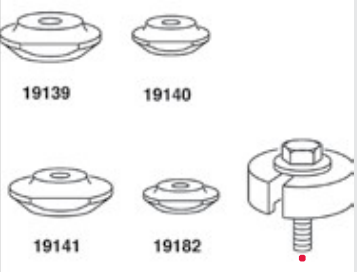
Speed - Size - Torque - Measuring

\* Subject to remaining factory inventory





# 12-14 VALVE COMPRESSION SERVICING

	<b>Starter Clutch Wrench</b>		19244
	<b>Universal Socket</b>	13 mm, 12 point, 1/4" Drive. For removing electric starter mounting screws. All V-Twin Vanguard™ engines.	19353
	<b>C-Ring Installation Tool</b>	Installing new C-ring on starter motor when replacing starter motor drive.	19435
	<b>Replacement Drive Pins</b>	Replacement drive pins for the C-ring removal tool	19447
	<b>Universal Socket</b>	12 mm 6 point, 1/4" drive socket for removing and installing starter motors on current Vanguard™ V-Twin engines, and 3/LC diesel injection pumps.	19497
	<b>C-Ring Removal Tool</b>	For removing C-ring on starter motor when replacing starter motor drive. All Models. Replaces 19436.	19522
	<b>Torx® Driver</b>	Designed to help remove the tamper-proof fasteners of the Touch-N-Mow starter system.	19524
	<b>Valve Spring Compressor</b>		19063
	<b>Valve Seat Puller Kit</b>	Kit includes: 19139* Puller Nut 19140* Puller Nut 19141* Puller Nut 19182* Puller Nut • Note: Not available separately	19138

Service Tools

Speed - Size - Torque - Measuring



\* Subject to remaining factory inventory

# VALVE COMPRESSION SERVICING 12-15




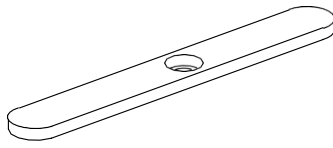
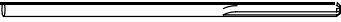



	<p><b>Valve Guide Repair Kit</b></p>	<p>For servicing 5/16" valve guides. Kit Includes: 19151 Plug Gauge 19204 Bushing Driver 19231 Reamer - Counterbore 19233 Reamer - Finish 19234 Reamer Guide 19238 Puller Bolt 19239 Nut 19240 Washer 19264 9 mm Tap Note: Each tool part number can also be ordered separately.</p>	<p>19232</p>
	<p><b>Valve Lapper</b></p>	<p>(includes 19266 and 19268) To order replacement suction cups, specify: 19622 - 3/4" (19.1mm) 119268 - 1-1/4" (31.8mm).</p>	<p>19258</p>
	<p><b>Valve Guide Repair Kit</b></p>	<p>For servicing 1/4" valve guides. Kit Includes: 19064 Reamer - Counterbore 19066 Reamer - Finish 19122 Plug Gauge 19191 Reamer Guide 19270 Washer 19271 Puller Bolt 19272 Nut 19273 7 mm Tap 19367 Bushing Driver  Note: Each tool part number can also be ordered separately.</p>	<p>19269</p>
	<p><b>Valve Seat Cutter Repair Kit</b></p>	<p>3 blades - use on either side of cutter head. 3setscrews and 3wedges</p>	<p>19302</p>
	<p><b>Reamer Guide</b></p>	<p>For guiding the 19346 reamer while finish reaming valve guide bushing in Vanguard™ engines.</p>	<p>19345</p>

Service Tools  
Starters - Electric / Manual Rewind







\* Subject to remaining factory inventory



# 12-16 VALVE COMPRESSION SERVICING

	<b>Valve Guide Reamer</b>	For finish reaming single cylinder Vanguard™ engine models 104700, 161400, 260700, 261700 valve guide bushing after installation.	19346
	<b>Valve Spring Compressor</b>	For compressing valve springs, most Vanguard™ engine models.	19347
	<b>Valve Guide Plug Gauge</b>	Checking valve guides for wear - Models 20, 21, 31, 33 Vanguard™, engine models 104700, 161400, 260700, 261700, and single cylinder OHV model 280000.	19381
	<b>Valve Guide Plug Gauge</b>	Checking valve guides for wear - Vanguard™ V-Twin engines. Also single cylinder Vanguard™ engine models 85400, 115400, 185400, 235400 and 245400	19382
	<b>Valve Guide Driver</b>	For installing guide bushings on Vanguard™ 3-cylinder liquid-cooled engines.	19416
	<b>Valve Spring Compressor</b>	For removing and installing valves on Vanguard™ 3-cylinder liquid-cooled engines.	19417
	<b>Compression Test Adaptor</b>	For testing compression on Vanguard™ 3-cylinder liquid-cooled diesel engines.	19443
	<b>Valve Guide Reamer</b>	For finish reaming Vanguard™ V-Twin valve guides after installation. Also used for cleaning valve guides on Vanguard™ 3-cylinder liquid-cooled engines. Use with 19345 Reamer Guide.	19444
	<b>Neway Valve Seat Cutter Kit</b>	For reconditioning 30° and 45° angle valve seats on Vanguard™ 3-cylinder liquid-cooled engines. Includes 15° cutter for top cutting 30° angle seats. Includes 6.0 and 6.02 mm pilots.	19547*
	<b>Valve Adjustment Set</b>	For adjusting valves on Vanguard™ and Intek™ V-Twin engines. Offset 13 mm wrench with 5 mm hex and T-40Torx® drivers.	19465
	<b>Orifice</b>	Calibrated specifically for use with the older 19475 Leakdown Tester on 3/LC engines.	19478*

# VALVE COMPRESSION SERVICING 12-17

	<b>Leakdown Tester</b>	Used to test the sealing capabilities of the compression components of all engines. Comes with crankshaft clamp and case.	19545
	<b>Easy Turn Wrench</b>	Spring loaded body maintains an even pressure when cutting valve seats. Rotating handle allows continuous turning for faster seat cutting and minimizing chatter.	19549
	<b>Seat Cutter Upgrade Kit</b>	This kit will upgrade the basic 19237 seat cutter kit to the level of 19547 master seat cutter kit.	19547*
	<b>Master Seat Cutter Kit</b>	This kit will service all older and existing Briggs & Stratton® engines.	19547
	<b>Clover® Valve Lapping Compound</b>	4 oz. (113 g) duplex can contains coarse (120 grit) and fine (280 grit) compound.	94150
	<b>Diesel Compression Tester</b>	The 19566 3/LC Diesel Compression tester includes: <ol style="list-style-type: none"> <li>1. High pressure hose</li> <li>2. Parker – “ST series 1” mini quick disconnect fitting</li> <li>3. 19443 glow plug adapter</li> <li>4. Pneumatic gauge protector</li> <li>5. Injection molded storage case</li> </ol> NOTE: Do not try to use an automotive type gasoline engine compression gauge on a diesel engine. They don't normally have the range necessary for diesel engines and there may be an issue with the hose bursting. Normal compression for the Briggs & Stratton 3/LC diesel engine is as high as 500 psi (35 bar). The 19566 3/LC Diesel Compression Tester is capable of reading 1000 psi (70 bar).	19566


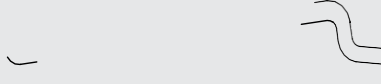
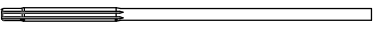



Service Tools




Valve Compression Servicing

\* Subject to remaining factory inventory



# 12-18 VALVE COMPRESSION SERVICING

	<p><b>3/LC Diesel Leakdown Adapter</b></p>	<p>This adapter kit allows the 19545 Leakdown Tester to be used to diagnose compression problems with the 3/LC diesel engine line. This kit includes the following:</p> <ul style="list-style-type: none"> <li>• A quick disconnect fitting that attaches to the high pressure supply side of the leakdown tester</li> <li>• A hose quipped with a mini quick disconnect fitting that attaches to the low pressure side</li> <li>• A 19443 diesel compression tester adapter that screws into the glow plug hole.</li> </ul> <p><b>NOTE:</b> Remove the Shrader Valve from the 19443 adapter when performing leakdown testing. Once the adapter parts are installing, the tester is used in the normally fashion.</p> <ol style="list-style-type: none"> <li>1. Standard "M" style fitting with orifice drilled in the end of fitting</li> <li>2. Standard "M" style quick release fitting</li> <li>3. Adapter properly attached to the leakdown tester</li> <li>4. Parker – "ST Series I" mini quick disconnect</li> </ol>	<p>19559</p>
	<p><b>Brake Adjustment Gauge</b></p>	<p>For adjusting band brakes</p>	<p>19256</p>
	<p><b>Governor Bushing Reamer</b></p>	<p>For finish reaming 1/4" (6.35 mm) governor shaft bushing, after installation. 3 HP† to 16 HP† single cylinder mechanical governor engines.</p>	<p>19333</p>
	<p><b>Puller, Crankshaft Pulley</b></p>	<p>For removing crankshaft pulley on Vanguard™ 3-cylinder liquid-cooled engines.</p>	<p>19420</p>
	<p><b>Alternator Wrench</b></p>	<p>For use on 3/LC engines. Holds alternator pulley nut when removing and installing alternator pulley. Also handy when rotating crankshaft when adjusting valve clearance.</p>	<p>19491</p>
	<p><b>Torquex Star Bits</b></p>	<p>To remove and install Torx® screws. In handy pouch. T-10, T-15, T-20, T-25, T-27, T-30, T-40, T-45 bit length 3.75 inches. These Torquex star bits are not to be used with pneumatic hand tools. Replacement bits: 19510 (T10), 19511 (T15), 19512 (T20), 19513 (T27), 19482 (T25), 19514 (T30), 19515 (T40), 19516 (T45)</p>	<p>19442</p>

	<p><b>Injector Tester</b></p>	<p>If you service and repair diesel engines on a regular basis, a diesel injector tester is a must have tool. This test from US Diesel in Fort Worth, Texas is what we use so we know it's tough enough for everyday use. This tool is part number U470/600B and is supplied with a 12 mm and 14 mm injector line.</p>	
	<p><b>Pressure Washer Tester Gauge</b></p>	<p>This pressure gauge is installed between the pump head and high pressure hose to check pump output pressure. It has a M22 X M22 connection that will allow quick installation on hoses with those fittings. With the gauge installed in this position, gauge readings will be approximately 200 psi (13-14 bar) lower than the rated pump pressure due to pressure loss across the unloader</p>	<p>196682GS</p>
	<p><b>Alcohol Fuel Tester</b></p>	<p>Briggs &amp; Stratton introduced a tester to determine the alcohol content in gasoline almost three decades ago. At that point we were concerned about the damage fuel containing more than 10% alcohol could do to fuel systems. Fuel in some parts of the world is being marketed with 75 to 85% alcohol. Because this fuel is not suitable for use in our engines, you may need to have a method to determine what the actual content is. This tester is marked with a calibration line at 10%, 20% 70% and another at 85%. This provides the technician with visual cues as to the alcohol content.</p> <p>Fill tester with water to the fill line first. Then add gasoline needed to be tested all the way to the top. Read the side of the tester where it shows the gasoline and water separation point.</p>	<p>795161</p>
	<p><b>Heavy Duty Shop Towels</b></p>	<p>These all-purpose wipers are great for keeping the work bench and shop clean.</p>	<p>100054</p>
	<p><b>Aerosol Spray Paint for Engines</b></p>	<p>Fast drying, lacquer base, gasoline and heat resistant, 13 ounce (369g) spray can. Available colors, order separately: 271400 (gloss black), 271405* (ice white), 271403 (satin black), 271675 (American red)</p>	<p>271400</p>
	<p><b>Grease Gun</b></p>	<p>Well crafted from quality materials and chrome-plated to extend its life, these use the standard Briggs &amp; Stratton 14 oz. (379g) long grease tubes. A short stroke lever-action makes it easy to use in tight spaces. 14 oz. grease tube part number - 100059</p>	<p>100110</p>

Service Tools  
Valve Compression Servicing

\* Subject to remaining factory inventory



# 12-20 MISCELLANEOUS





Service Tools  
Valve Compression Servicing

	<p><b>High-Performance Grease</b></p>	<p>14 oz. (397g) cartridge. Moly/graphite provides maximum anti-wear protection. Ideal for industrial, automotive, &amp; outdoor power equipment</p>	<p>100059</p>
	<p><b>Fix-A-Thread Kits</b></p>	<p>For repairing damaged and stripped threads. 100024 Master Thread Repair Kit includes: 100007 (thread repair kit 10-32), 100008 (thread repair kit 1/4-20), 100009 (thread repair kit 5/16-18), 100010 (thread repair kit M5x.8), 100011 (thread repair kit M8x1.25), 100013 (thread repair kit 14 mm Spark Plug). Threadinsert refills: 4185- 10-32refill- 10</p>	<p>100024</p>
	<p><b>Quick Fuel Line Disconnects</b></p>	<p>These fuel line quick disconnects allow the fuel line to be separated without fuel leakage. When servicing or testing equipment that frequently needs to have the engine or fuel tank separated from the equipment, these fittings offer you a spill-proof method. The male end is part number 192695GS and the female end is part number 189117GS. Both are available as a Briggs &amp; Stratton Power Products part number.</p>	<p>192695GS 189117GS 189117GS</p>
	<p><b>Grease Gun Kit- Simple one-Handed Operation</b></p>	<p>Contains steel grease gun, application tube &amp; one 3 oz. grease cartridge.</p>	<p>100057</p>
	<p><b>Grease Gun Refill Kit</b></p>	<p>Grease Refill Cartridges for Grease Gun Kit 100057</p>	<p>100058</p>
	<p><b>Pen Light</b></p>	<p>Featuring a black ink refill on one side and an LED flashlight on the other, you're ready to peer into poorly lighted spaces such as carburetor jets or fuel tanks and record your findings on a shop ticket. Flashlight uses 3 LR41 button cells (included)</p>	<p>CE5004</p>
	<p><b>Hydraulic Hose Disconnect</b></p>	<p>For use on Conquest and Prestige power steering</p>	<p>1686997SM</p>
	<p><b>Caliper</b></p>	<p>Takes the guesswork out of leveling mower decks. Calibrated from 1.5" to 3.25"</p>	<p>1686997SM</p>
	<p><b>Flow Meter Kit</b></p>	<p>For testing and troubleshooting hydraulic systems.</p>	<p>1687102SM</p>



\* Subject to remaining factory inventory

# MISCELLANEOUS 12-21

	<p><b>Quick Connect Coupling</b></p>	<p>Use this as an add on to flow meter 1687102SM to allow flow meter to plug into hydraulic. Requires use of a Male Pipe X Male JIC Adaptor</p>	<p>2173359SM</p>
	<p><b>Drive Disc Adjustment Tool</b></p>	<p>Used to adjust the drive disc on the rear engine rider.</p>	<p>7060601YP</p>
	<p><b>Spanner Wrench</b></p>	<p>Use this tool to adjust the rear shocks on select models.</p>	<p>5022853SM</p>
	<p><b>Repower Terminal Kit</b></p>	<p>The Engine Repower Terminal Kit will equip you to handle almost any electrical connector or terminal service work on nearly any air-cooled engine equipment repower that comes your way. The generous selection of connectors and terminals provides you with the necessary component to perform equipment repower by removing the old worn out non-Briggs &amp; Stratton engine and replacing it with a new modern Briggs &amp; Stratton engine. This Repower Kit is designed to work on virtually all pieces of equipment manufactured globally.</p>	<p>19615</p>

























**BRIGGS & STRATTON<sup>®</sup>**  
**GENUINE**  
**PARTS**

**WARRANTY**  
**APPROVED.**  
**PERIOD.**

# BELTS 14-1

	<b>Drive Belt</b>	30-38 & 40 gear & 50 gear drive LT pan frame tractors 30-40-42-46 & 48 decks w/ Peerless hydro drives	037X61MA
	<b>Blade Belt</b>	38" deck, new models since 1989	037X63MA
	<b>Blade Belt</b>	42" cut decks 1993	037X75MA
	<b>Drive Belt</b>	Fits Model 42516X92B	037X87MA
	<b>Blade Belt</b>	42" cut decks 1993	037X89MA
	<b>Blade Belt</b>	40" cut LT tractors, new models since 1989 w/side discharge	037X62MA
	<b>V-Belt (Deck)</b>	Blade drive belt, fits 42" hydro tractor	037X88MA
	<b>Blade Drive Belt</b>		37X111MA
	<b>Drive Belt</b>		742552MA
	<b>Auger Belt</b>		742550MA
	<b>21" Blade</b>	Combination blade, 21" mower deck, replaces 71584E701, 71584-853, 71161E701	2028
	<b>20" Blade</b>	20" Mulching blade, center hole round (.406")	471548MA

# 14-2 BLADES

		<b>40" Blade</b>	Combination 2 blade set. Replaces 95103E701, 56251E701, 92544E701, 456251, 95103-853	2029	
		<b>20" Blade</b>	Combination blade, replaces 672763E701, 671921E701	2031	
		<b>30" Blade</b>	Combination Mulch/Bag/Discharge Blade, replaces 1401079	77010793MA	
		<b>36" Blade Set</b>	Combination Mulch/Bag/Discharge, 2 blade set, replaces 54390E701, 54390HT, 24116HT, 2090HT	454390MA	
		<b>46" Blade Set</b>	Combination 3-Blade set, mulching blade, replaces 056631E701, 656631	2053	
		<b>22" Blade</b>	Combination blade, 22" mower deck, replaces 1101120E701, 672735E701, 71849E701, 71499E701, 71113E701, 671849-853	2030	
		<b>42" Blade</b>	2 blade set, replaces 95100E701, 95100-853, 56252E701, 92545E701, 456252	2027	
		<b>38" Blade</b>	Combination Mulch/Bag/Discharge, 2 blade set, replaces 95104E701, 92543E701, 56250E701 Round hole (.852")	4951043MA	
		<b>30" Blade</b>	Combination Mulch/Bag/Discharge blade, replaces 56217E701	4562173MA	
		<b>Blade Adapter Kit</b>	Assembly for Murray riding mowers with splined mandrel(s)	491926MA	Case pack Qty. - 20
		<b>Idler Pulley</b>	For Murray blade and motion drive idler systems, 42 Series Motion Drive Assembly	420613MA	Case pack Qty. - 24







Murray Parts

Blades










# MOWER/TRACTOR/SNOW THROWER PARTS 14-3

		<b>Idler Pulley</b>	Packaged part same as Murray 91891. For belt engagement pulley: 28, 40, 42 & 46	774089MA	Case pack Qty. - 10
		<b>Shear Bolt Kit</b>	For 22"-29" snow throwers with 10"-12" augers	500026MA	Case pack Qty. - 10
		<b>Shear Bolt Kit</b>		1501216MA	Case pack Qty. - 100
		<b>Splined Mandrel Kit</b>	Assembly for Murray riding mowers, 7.03" splines jackshaft	774091MA	Case pack Qty. - 10
		<b>Blade Adapter</b>	For riders	690411MA	Case pack Qty. - 100
		<b>Idler Pulley Kit</b>	Flat/backside idler pulley	421409MA	Case pack Qty. - 10
		<b>Jackshaft Assembly (Mandrel Housing)</b>	Assembly for all Murray riding mowers using a blade adapter	492574MA	Case pack Qty. - 10
		<b>Shear Bolt Kit</b>	For 27"-33" snow throwers with 16" augers	500027MA	Case pack Qty. - 10
		<b>Splined Mandrel Kit (Long-Fine Splines)</b>	Assembly for Murray riding mowers, 7.89" jackshaft threaded and splined	491922MA	Case pack Qty. - 10
		<b>Flat/Backside Idler Pulley</b>	Replaces 23238	423238MA	Case pack Qty. - 14
		<b>Shear Pin Kit</b>	Fits most snowthrowers, dual stage models from 2009 and prior.	742551MA	Case Pack Qty - 5

# 14-4 MOWER/TRACTOR/SNOW THROWER PARTS

		<b>Solenoid</b>	For all Murray electric start riders 1979 to present; replaces 24285, 9924285, 21261, 24466, 54743, 91291, 94613, 1002004	7701100MA	Case Pack Qty - 10
		<b>Wheel Bearing Set</b>		491334MA	Case Pack Qty - 10
		<b>Wheel, 8" x 2"</b>		1101433MA	Case Pack Qty - 10
		<b>Wheel, 8" x 2"</b>		774011MA	Case Pack Qty - 5
		<b>Wheel, 8" x 2"</b>	Drive wheel - front wheel drive mowers	672441MA	

# 15-2 SIGNS - BANNERS - FLAG - COUNTER MAT

	<b>Briggs &amp; Stratton® Aluminum Sign</b>	Size 36" x 24", available for all service accounts	AM-9873A
	<b>Briggs &amp; Stratton® Authorized Service Center Aluminum Sign</b>	Size 36" x 24", available for all authorized sales & service accounts	AM-9951
	<b>Briggs &amp; Stratton® Commercial Power, Aluminum Sign</b>	Size 36" x 24"	AM-9954
	<b>The Power Within™ Banner</b>	Size 48" x 28"	AM-3006A
	<b>Commercial Power Banner</b>	Size 48" x 28"	AM-9855
	<b>Flag</b>	Size 60" x 36"	AM-9903A
	<b>Repower Snow Banner</b>	Size 48" x 28"	AM-5003
	<b>Repower Green Banner</b>	Size 48" x 28"	AM-5004
	<b>Commercial Power Counter Mat w/Insert</b>	Size 21" x 16", can display an 8.5" x 11" special advertising offer, counter mat is made of scratch resistant vinyl, non-skid backer	AM-9856

Dealer  
Merchandise



# ENGINE MODEL NUMBER KEY 16-1

## YOUR KEY TO THE WORLD'S FINEST ENGINES

This chart explains the unique Briggs & Stratton numerical model designation system. It is possible to determine most of the important mechanical features of the engine by merely knowing the model number. Here is how it works:

- The first one or two digits indicate the approximate CUBIC INCH DISPLACEMENT.
- The first digit after the displacement indicates the BASIC DESIGN SERIES, relating to cylinder construction, ignition, general configuration, etc.
- The second digit after the displacement indicates ORIENTATION OF CRANKSHAFT.
- The third digit after the displacement indicates TYPE OF BEARINGS, and whether or not the engine is equipped with REDUCTION GEAR or AUXILIARY DRIVE.
- The last digit indicates the TYPE OF STARTER.

### BRIGGS & STRATTON MODEL NUMBERING SYSTEM

A	FIRST DIGIT AFTER DISPLACEMENT	SECOND DIGIT AFTER DISPLACEMENT	THIRD DIGIT AFTER DISPLACEMENT	FOURTH DIGIT AFTER DISPLACEMENT
	B	C	D	E
CUBIC INCH DISPLACEMENT	BASIC DESIGN SERIES	CRANKSHAFT ORIENTATION	PTO BEARING, REDUCTION GEAR, AUXILIARY DRIVE, LUBRICATION	TYPE OF STARTER
2	0	0 to 4 – Horizontal Shaft	0 – Plain Bearing/DU Non-Flange Mount	0 – Without Starter
5	1	5 to 9 – Vertical Shaft	1 – Plain Bearing Flange Mounting	1 – Rope Starter
6	2	A to G – Horizontal Shaft	2 – Sleeve Bearing Flange Mounting Splash Lube	2 – Rewind Starter
8	3	H to Z – Vertical Shaft	3 – Ball Bearing Flange Mounting Splash Lube	3 – Electric Starter Only 110 or 230 Volt Gear Drive
9	4		4 – Ball Bearing Flange Mounting Pressure Lubrication	4 – Electric Starter/110 or 230 Volt Gear Drive with Alternator
10	5		5 – Plain Bearing Gear Reduction (6 to 1) CCW Rotation Flange Mounting	5 – Electric Starter Only 12 or 24 Volt Gear Drive
11	6		6 – Ball Bearing Gear Reduction (2 to 1) CCW Rotation	6 – Alternator Only
12	7		7 – Plain Bearing Pressure Lubrication	7 – Electric Starter 12 or 24 Volt Gear Drive with Alternator
13	8		8 – Plain Bearing Auxiliary Drive (PTO) Perpendicular to Crankshaft	8 – Vertical Pull Starter or Side Pull Starter
15	9		9 – Plain Bearing Auxiliary Drive Parallel to Crankshaft	9 – Mechanical Starter
16	A to Z		A – Plain Bearing Pressure Lubrication Without Oil Filter	A – Electric Starter 12 or 24 Volt Gear Drive with Alternator and Inverter
18				B – Lithium Ion Battery
19				
20				
21				
22				
23				
24				
25				
28				
29				
30				
31				
32				
35				
38				
40				
42				
43				
44				
46				
47				
49				
52				
54				
58				
61				

EXAMPLE – To identify Model 303447:

<u>30</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>7</u>
30 Cubic Inch	Design Series 3	Horizontal Shaft	Ball Bearing Flange Mounting Pressure Lubrication	Electric Starter 12 or 24 Volt Gear Drive with Alternator

TYPE 1234-01, The type number identifies the engines mechanical parts, color of paint, decals, governed speed, and Original Equipment Manufacturer.

CODE 01061201, The code is the manufacturing date and is read as follows:

YEAR	MONTH	DAY	ASSEMBLY LINE AND MANUFACTURING PLANT
01	06	12	01



MS-4185-1/16

BRIGGS&STRATTON CORPORATION

POST OFFICE BOX 702  
MILWAUKEE, WI 53201 USA  
414 259 5333  
©2016 Briggs & Stratton Corporation



THE POWER WITHIN™