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National Wildfire
Coordinating Group

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United States
Department of Interior

National Association of
State Foresters

SPARK ARRESTER GUIDE

General Purpose and Locomotive (GP/Loco) Volume 1



Prepared by:
*NWCG Fire Equipment
Working Team*

PMS 430-1

MAY 2000

NFES #1363



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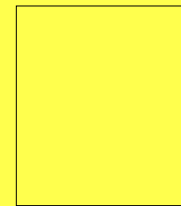
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SPARK ARRESTER GUIDE

General Purpose and Locomotive (GP/Loco) Volume 1

*Prepared by:
NWCG Fire Equipment Working Team*

The National Wildfire Coordinating Group (NWCG) had developed this information for the guidance of cooperating Federal, State, and local agencies, and is not responsible for the interpretation of this information by anyone except its member agencies. The use of trade, firm, or corporation names in this publication is for the information and convenience of the reader and does not constitute an endorsement by the NWCG of any product or service to the exclusion of others that may be suitable.

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FOREWORD

In 1986 the National Wildfire Coordinating Group (NWCG) authorized the Fire Equipment Working Team (FEWT) to establish a subcommittee to improve and update the Spark Arrester Guide (SAG). The subcommittee reduced the size of the previous SAG and redesigned it to improve its effectiveness and expand its applicability to more wildland fire agencies and geographic regions. The SAG is published for the guidance of cooperating Federal, State, and local agencies. Federal and State laws and administrative requirements prescribe when and where spark arresters are required.

Appropriate Standards referenced in this SAG establish the minimum performance and maintenance requirements of spark arresters for internal combustion engines to be operated on or near grass, timber, brush, or other wildland fuels. During periods of very high or extreme fire danger, spark arresters meeting these Standards will not give complete protection against exhaust spark fires. Additional measures, including shutdown of operations, may be required during such periods.

The U.S. Department of Agriculture maintains a spark arrester test facility at the Forest Service, San Dimas Technology and Development Center, 444 East Bonita Avenue, San Dimas, CA 91773. The camera-ready copy for the Spark Arrester Guide was produced at the SDTDC for the NWCG by the following personnel:

Ralph Gonzales—Mechanical Engineer
Janie Ybarra—Visual Information Specialist

GENERAL PURPOSE SPARK ARRESTER INSPECTION PROCEDURES

Standard 5100-1c requires that each arrester shall be permanently marked with the model number and the manufacturer's name or trademark. The model number must match exactly. The identification must be stamped in the metal body or on an attached metal plate. The words "Qualified" or "Approved" are **not** required, and do **not** indicate that the unit is in fact a qualified arrester.

1. If identification of the manufacturer's name and model number is found, then refer to the "Qualified and Rated" list.
2. Check the "Qualified and Rated" list to establish if the arrester is qualified.
3. If not on the "Qualified and Rated" list, be sure to check any SAG update information you have received since the time of the printing of your present SAG. The absence of an arrester from these lists indicates that the arrester has not been qualified.
4. After the arrester has been identified, turn to the Drawing Section and check the spark arrester illustration for an **exact** match on the configuration, dimensions and cleanout devices. The drawing must match the spark arrester you are inspecting.

5. Suggested tools for inspections:

- a. Handtools to open cleanout, screwdriver and pliers.
- b. Flashlight.
- c. 1/8-inch wire rod or stick to probe inside the arrester to determine if stationary fan or vanes are in place.
- d. Tape measure.
- e. 0.024-inch wire gauge to determine screen size.

6. Inspect to ensure that:

- a. The spark arrester is correct for the position of application.
- b. The exhaust system between the engine and the spark arrester is in good order.
- c. The arrester is properly maintained and cleaned out when necessary.
- d. There are no modifications to the exhaust system.

7. More detailed instructions are available in the NWCG video, "Spark Arresters and the Prevention of Wildland Fires".

8. Follow your agency policies when an unqualified spark arrester system is encountered.

Mufflers—Experience and tests have shown that mufflers, in general, are inadequate as spark arresters. Few muffler devices submitted for formal tests meet the requirements of 5100-1c or SAE J350. However, properly maintained baffled mufflers constructed to automotive industry standards, and installed on motor vehicles other than motorcycles are accepted for “on-highway” and “off-road” use in some jurisdictions. Exceptions are for designated areas where a spark arrester is required on cross-country vehicles. Straight-through mufflers, such as glass-pack designs without baffles, are not acceptable. Consult your agency’s policy for more specific guidelines.

Turbochargers qualify as effective spark arresters when 100% of the exhaust gases pass through the turbine wheel. The turbine wheel must be turning at all times and there must be no exhaust bypass to the atmosphere. Depending on design, small enclosed system bypasses that reroute some of the exhaust back through the engine may be allowed. The illustration of the exhaust-driven turbocharger shows the air intake and the exhaust path through the turbine wheel. The action of the rotating turbine wheel causes carbon particles to remain within the confines of the turbo-drive section until they are reduced to a harmless size by attrition.

Superchargers, which are strictly mechanically driven, do not qualify.

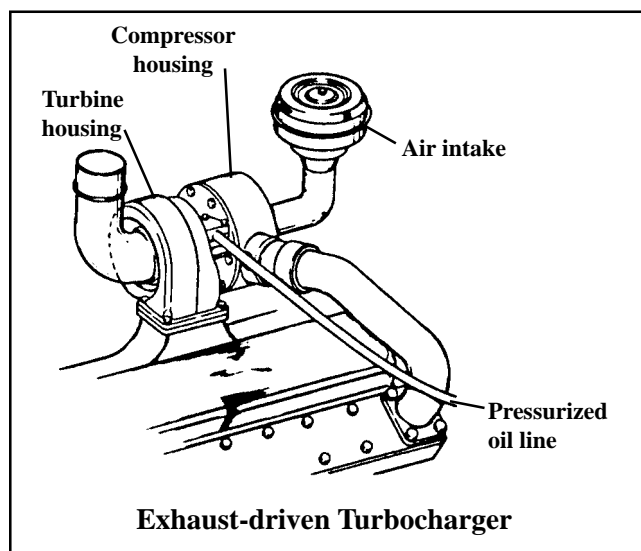
Exhaust System—The exhaust system consists of the manifold (*on multicylinder engines*), muffler or spark arrester or both, an exhaust pipe between the engine cylinder exhaust outlet port, and the end of the exhaust pipe which is open to the atmosphere.

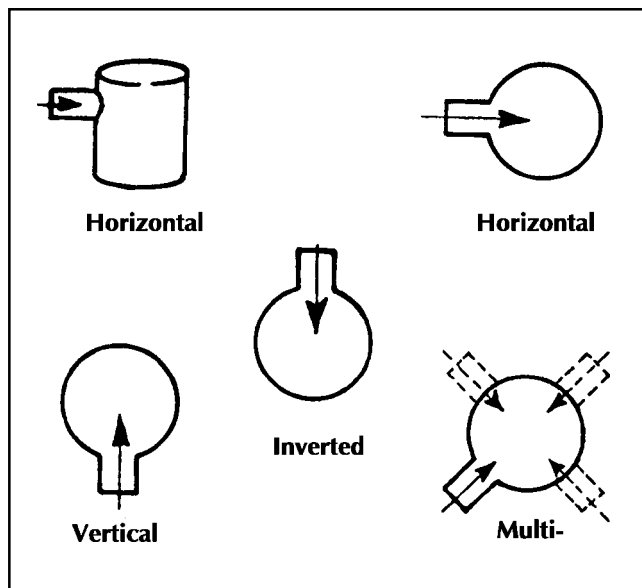
Exhaust Manifold—A chamber into which the exhaust from each of the engine cylinders is collected. The exhaust is then directed out of the manifold to a muffler or spark arrester or both.

Most large locomotive engines have the spark arrester designed into the exhaust manifold. Small, single-cylinder engines do not have manifolds.

Modification—**Any** modification or damage to **any** part of the system as it was presented to SDTDC for testing **voids** the qualifications of the spark arrester on the equipment. Modifications usually consist of removal of or damage to parts, change in exhaust outlets, replacing the fiberglass packing with steel wool, improper mounting, and bypasses.

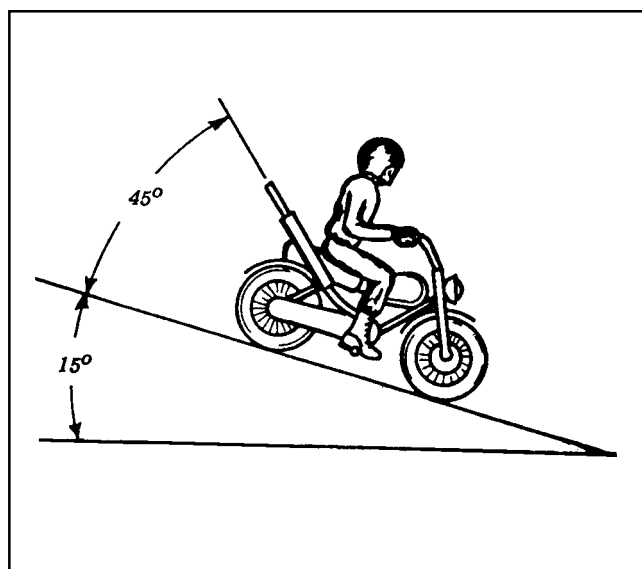
Follow your agency policies when a modified/unqualified spark arrester system is encountered.





The qualified positions listed include only those tested. In some cases, the manufacturer may claim other positions, but test information at this time neither support or refute such claims. An arrester tilted more than 60 degrees from its qualified operating position may not adequately arrest sparks. Therefore, arresters on mobile equipment—other than screen type arresters—shall not be mounted more than 45 degrees from the qualified position. See column marked “Appl Pos.”

Note that USDA Forest Service Standard 5100-1c allows 60 degrees deviation, but at least 15 degrees should be reserved for deviations because of road grade or slope. (See illustration.)



Rated Flow of Arrester is the rate of test gas flow in cubic feet per minute at which the corresponding back pressure is 1 pound per square inch. This is the maximum desirable back pressure for most four-stroke cycle applications. See column marked “Flow.” Note: General Purpose Screen Type Spark Arresters are limited to the listed rated flow, 2 or 4 cycle, and horse power.

Some two-cylinder engines may require a higher back pressure. An arrester may be used above its rated flow—provided it maintains a qualifying arresting effectiveness at all levels of use.

Arresters that do not have an adequate effectiveness above their rated flow will be designated in the “Remarks” column, and are not qualified to operate in applications where they may be ineffective. With this exception, a qualified arrester properly installed and maintained is acceptable legally regardless of size or rated flow. It is the owner’s business if he/she chooses an arrester too large or too small, even though the cost may be excessive or the back pressure too high.

Cleaning—The arrester shall have provision for the easy disposal of the accumulated particles without removal of the clamping or mounting devices from the stack, pipe, or manifold assembly. Screen-type devices shall provide for the easy removal and cleaning or replacement of the screen.

Marking and Labeling—Each arrester shall be permanently marked with the manufacturer’s model number designation and a trademark or other identification of manufacturer. Where an inverted installation is possible, the inlet or outlet shall also be marked. In addition to the above markings, screen-type devices must have the words “Screen Type” clearly imprinted in 1/8-inch or larger letters. The model number must match exactly. The words “Qualified” or “Approved” are **not** required, and **do not** indicate that the unit is in fact a qualified arrester.

Discontinued Models will be called out under “Remarks.”

3. Number of SAG updates which have been issued.

4. Inventory at NIFC. Reprinting will be done to meet supply and demand requirements.

BASIC DEFINITIONS AND TEST STANDARDS

Exhaust Particles—All internal combustion engines produce exhaust particles which are predominately carbon with contaminants. These particles originate from deposits formed on the internal surfaces of the engine or exhaust system and, depending on their exact origin, may be expelled at temperatures in excess of 3,000° F. Depending on the nature of the contaminants, these particles are capable of glowing or sometimes flaming combustion. When expelled through the exhaust system into the atmosphere, the combustion process may continue or even be accelerated during flight. Such particles, if larger than 0.023-inch in diameter and at temperatures of 1,200° F are capable of igniting cellulose materials upon contact.

A Spark Arrester is a device which traps or pulverizes exhaust carbon particles to a size below 0.023-inch in diameter, as they are expelled from an exhaust system. Trap type spark arresters must have a method for removal of accumulated carbon particles. Most spark arresters generally perform in the high 90 percent spark arresting effectiveness range.

General Purpose Spark Arresters are tested against USDA Forest Service Standard 5100-1c or the latest revision of Society of Automotive Engineers (SAE) Recommended Practice SAE J350. Either of these documents establish the minimum performance and maintenance requirements of single-position application general purpose spark arresters. Spark arresting effectiveness shall be at least 80 percent for all flow rates on the cold test which correlates to 90 percent on a hot engine.

Screen-Type Spark Arresters as defined by USDA Forest Service Standard 5100-1c fall into a special category. They are intended for use on small engine applications. All exhaust products must pass through the screen, which has openings of 0.023-inch or less. The effective exhaust area of the screen (*total area of all screen openings*) shall not be less than 200 percent of the engine exhaust port area at its smallest cross-section. Screen material shall be heat and corrosion resistant, and shall provide at least 100 hours of service life. These are originally qualified for all the positions described in the "Application Positions" section.

"Add-On" spark arresters are added onto an existing muffler exhaust system. They are typically used on Off-Highway-Vehicles. Add-on spark arresters must have a method for removal of accumulated carbon particles. Such as a cleanout plug, snap ring, removable end cap or a removable end cleanout. A removable end cleanout is usually secured to the muffler by a retaining band and/or several screws. In order to empty out the accumulated carbon particles with a removable end cleanout, the entire add-on must be removed by loosening the retaining band or screws, to shake out the carbon particles.

The retaining band or screw may not be replaced by welding the removable end cleanout to the existing muffler. This is considered a modification and also does not allow for removal of accumulated carbon particles. Any modification to the spark arrester as compared to the SAG line drawing in this SAG, voids qualification.

Application Positions—Four general positions are considered—vertical, horizontal, inverted, and multiposition. The application is determined by the attitude of the inlet pipe irrespective of the main body position or direction of outlet. *For example:*

GENERAL INSTRUCTIONS FOR USE OF THE SPARK ARRESTER GUIDE (SAG)

The *General Purpose and Locomotive (GP&L) SAG* is a compilation of information, lists, and illustrations of qualified GP&L spark arrester systems and engines—including their identifying markings, design, and assembly.

The intent of the SAG is to provide field inspectors with adequate information to determine if an engine and exhaust system combination have been tested and qualified by the San Dimas Technology and Development Center (SDTDC) as meeting the Standard for spark arresting exhaust systems.

The SAG is printed as two publications. This SAG covers *General Purpose and Locomotive (GP&L)* arresters, and the other SAG covers *Multiposition Small Engine (MSE)* arresters.

In each publication, there is a section for each type of arrester with illustrations of spark arresters listed in alphabetical order by the manufacturer's name, and lists of qualified and rated spark arresters of that type. Inspectors can use these sections to verify qualification status. Specific instructions for use of each section precedes the section.

Use of the SAG is also illustrated in the video "Spark Arresters and the Prevention of Wildland Fires" and may be used as a supplemental instruction tool. The video contains five separate modules titled, "Introduction, Multiposition Small Engine, General Purpose, Off Highway, and Railroad".

The two SAG publications and the video may be ordered, by purchase order or requisition, from:

*National Interagency Fire Center (NIFC)
Attn: Great Basin Cache, Supply Office
3833 S. Development Avenue
Boise, ID 83705*

FAX: 208-387-5573

You will be billed within 30 days of shipping.

Order numbers are:

NFES 2363—Multiposition Small Engine Spark Arrester Guide (MSE) Volume 2, June 1999.

NFES 1363—General Purpose and Locomotive Spark Arrester Guide (GP/LOCO) Volume 1, May 2000.

NFES 2237—Spark Arresters and the Prevention of Wildland Fires, (video) May 1998

When you receive your order, discard the old SAG's.

UPDATES TO THE SAG

Testing of newly submitted spark arresters is an ongoing process at SDTDC. The Center will be responsible for notifying SAG users of newly qualified and rated spark arresters. SDTDC will send the information to appropriate Regional and State offices for their distribution. Users should contact these sources for updated information. SAG Updates are usually mailed in July & December.

For quick reference, updates should be inserted in the publication for the appropriate type arrester. These new qualified arresters will be included with illustrations when the Guides are reprinted. (*See section that follows.*)










REPRINT INFORMATION

SDTDC will determine when adequate information has been compiled to require a reprinting of each publication. The Center will notify the Regional and State offices when a reprinting is available. It is anticipated that a reprinting may be required on odd numbered years for the *Multiposition Small Engine (MSE) Guide* and on even numbered years for the *General Purpose and Locomotive (GP&L) Guide*.

SDTDC will include the following criteria in their reprint decision:

1. Determination of usable life of the SAG.
2. Volume and complexity of questions received from field users. Major users will be contacted periodically for feedback.

TRADEMARKS USED FOR MANUFACTURER IDENTIFICATION

<i>MANUFACTURER</i>	<i>TRADEMARK</i>
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<i>MAREMONT</i>	
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<i>GENERAC</i>	
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K.C.F.D.

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MAXIM

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SUPERTRAPP

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Dreison International
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West Sacramento, CA 95691

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TORQUE

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Ocelot Engineering, Inc.
895 W. Mill Street
San Bernardino, CA 92410

USDA

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San Dimas Technology & Development Ctr
444 E. Bonita Ave.
San Dimas, CA 91773

WACKER

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Milwaukee, WI 53209

WAJAX-PACIFIC

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Seattle, WA 98188

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2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS	
1	Acerbis 035 MFS-2	Horizontal	74	58	Retaining screws loosen easily	
2	Acerbis 035 MFS-5	Horizontal	60	~		
3	Acerbis 035 MFS-6	Horizontal	64	~		
4	ACS D1-508-183-03	Horizontal	34.9	~		
5	Air-Maze 10-FA	Vertical	1,270	60		
6	Air-Maze 146-FA	Horizontal	1,335	60	Flow at 0 psi back pressure. Unit not rated at 1 psi. Horizontal test #387C/Not recommended for flow above 300 cfm-screen type, subject to plugging.	
7	Air-Maze 4-FA	Vertical	625	60		
8	Air-Maze C19035-10	Vertical	640	~		
9	Air-Maze C19035-10	Horizontal	679	~		
10	Air-Maze C19035-3	Horizontal	120	~		
11	Air-Maze C19035-3	Vertical	140	~		
12	Air-Maze C19035-4	Vertical	118	~		
13	Air-Maze C19035-4	Horizontal	126	~		
14	Air-Maze C19035-5	Horizontal	217	~		
15	Air-Maze C19035-5	Vertical	220	~		
16	Air-Maze C19035-6	Vertical	238	~		
17	Air-Maze C19035-6	Horizontal	302	~		
18	Air-Maze C19035-7	Vertical	333	~		
19	Air-Maze C19035-8	Horizontal	332	~		
20	Air-Maze C19035-8	Vertical	333	~		
21	Air-Maze C19035-9	Vertical	640	~		
22	AN Krizman KS650-O	Horizontal	99	~		
23	Answer Products AP650M	Horizontal	156	61		Modified AP650 O & M See Husqvarna-Krizman KS-500D
24	Answer, J&R AP-500-D	Horizontal	91	61		
25	Answer, J&R AP-650	Horizontal	186	61	See J&R Krizman KS-650 Angled Body Modified KS-650-A See J&R Krizman KS-650A Approved as J&R Krizman	
26	Answer, J&R AP-650-0 (Angle)	Horizontal	71	61		
27	Answer, J&R AP-650-4	Horizontal	60	61		
28	Answer, J&R AP-650-A	Horizontal	63	61		
29	Answer, J&R AP-650-C	Horizontal	63	61		
30	Answer, J&R AP-650-C	Horizontal	63	61	Angled body w/insert; band clamp may be replaced with screws With insert; Required on all AP-650 C Angled Body with insert Straight muffler, modified AP-650-O	
31	Answer, J&R AP-650-C	Horizontal	97	61		
32	Answer, J&R AP-650-C (Angle)	Horizontal	83	61		
33	Answer, J&R AP-650-D	Horizontal	67	61		

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
34	Answer, J&R AP-650-D	Horizontal	67	61	AP-650-0 in a polygon shell
35	Answer, J&R AP-650-M	Horizontal	156	61	Straight muffler, modified AP-650-O
36	Answer, J&R AP-650-M	Horizontal	131	61	Angled muffler, modified AP-650-O
37	Answer, J&R AP-650-O	Horizontal	74	61	See J&R Krizman KS-650-0
38	Answer, J&R AP-650-O	Horizontal	63	61	See Answer AP-650-C, KS-650C in an oval muffler.
39	Answer, J&R SA-Pro-2	Horizontal	74	61	Same as J&R 650-0 Krizman may have an outlet stinger angled down.
40	AP Parts 83931893	Horizontal	273	62	See Donaldson FCM06-0037
41	AP Parts 83931893	Vertical	296	62	See Donaldson FCM06-0037
42	AP Parts 83931908	Horizontal	427	62	See Donaldson FCM06-5030
43	AP Parts 83931908	Vertical	436	62	See Donaldson FCM06-5030
44	AP Parts 83931910	Horizontal	597	62	See Donaldson FCM07-0068
45	AP Parts 83931910	Vertical	644	62	See Donaldson FCM07-0068
46	AP Parts 83931921	Horizontal	842	62	See Donaldson FCM07-0069
47	AP Parts 83931921	Vertical	881	62	See Donaldson FCM07-0069
48	AP Parts 83931933	Horizontal	1,177	62	See Donaldson FCM08-0024
49	AP Parts 83931933	Vertical	1,200	62	See Donaldson FCM08-0024
50	AP Parts 83933880	Horizontal	1,630	62	See Donaldson FCM09-0091
51	AP Parts 83933880	Vertical	1,670	62	See Donaldson FCM09-0091
52	AP Parts 83933892	Horizontal	2,480	62	See Donaldson FCM10-0016
53	AP Parts 83933892	Vertical	2,660	62	See Donaldson FCM10-0016
54	Berkeley F70-01MC	Horizontal	65	62	Primer-arrester/Main body of arrester vertical but not inverted.
55	Berkeley F70-02MC	Horizontal	144	62	Primer-arrester/Main body of arrester vertical but not inverted.
56	Bombardier 1980	Horizontal	62	62	22 mm resonator
57	Bombardier 1980	Horizontal	66	62	16 mm resonator
58	Bombardier 1980	Horizontal	66	62	28 mm resonator
59	Bombardier 707 600 066	Multiple	186	62	
60	Bombardier CA-952	Horizontal	100	62	30 mm resonator
61	Bombardier CA-952	Horizontal	66	62	26 mm resonator
62	Bombardier CA-952-1	Horizontal	72	~	
63	Bombardier-Krizman CA-950	Horizontal	186	~	
64	Bombardier-Krizman CA-953	Horizontal	114	62	30 mm resonator
65	Bombardier-Krizman KS-250	Horizontal	17	~	
66	Briggs & Stratton 391911	Multiple	25	63	Screen; 4-cycle, 4 hp or smaller

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
67	Briggs & Stratton 391912	Multiple	25	63	Screen; 4-cycle, 4 hp or smaller
68	Briggs & Stratton 391913	Multiple	50	63	Screen; 4-cycle, 8 hp or smaller
69	Briggs & Stratton 391915	Horizontal	69	63	See Nelson T-14106
70	Briggs & Stratton 392154	Multiple	81	64	Screen; 4-cycle, 16 hp or smaller
71	Briggs & Stratton 392154A	Multiple	99	64	Screen; 4-cycle, 16 hp or smaller, replacement for B&S 391254
72	Briggs & Stratton 396800	Multiple	25	64	Screen; 4-cycle, 4 hp or smaller/Outlet deflector is not permanently attached. (See 391911 or 391912)
73	Briggs & Stratton 802502	Multiple	41	65	Screen; 4-cycle, 4 hp or smaller
74	Briggs & Stratton 494486	Multiple	29	64	Screen; 4-cycle, 5.5 hp or less
75	Burgess-Manning SAT-4	Horizontal	790	65	
76	Burgess-Manning SAT-4	Vertical	795	65	
77	Burgess-Manning SDMC-4	Horizontal	965	66	
78	Burgess-Manning SDMC-4	Vertical	1,069	66	
79	Burgess-Manning SDMC-LP-4	Horizontal	1,070	66	
80	Burgess-Manning SDMC-LP-4	Vertical	1,332	66	
81	Cal Tube 12853	Multiple	74	67	Screen; 4-cycle 14.1hp or smaller
82	Caterpillar 3B5498	Vertical	380	67	Replaced 2F62229
83	Caterpillar 3B7942	Horizontal	597	67	See Donaldson FCM07-0068
84	Caterpillar 3B7942	Vertical	640	67	See Donaldson FCM07-0068
85	Caterpillar 3B7964	Vertical	680	67	
86	Caterpillar 8N7074-1	Horizontal	498	67	See Donaldson FMM 12-0303
87	CEDCO Primer-Arrester No. 1	Horizontal	65	67	Primer-arrester. Main body of arrester vertical but not inverted.
88	CEDCO Primer-Arrester No. 2	Horizontal	144	67	Primer-arrester. Main body of arrester vertical but not inverted.
89	Chiyoda Kinzoku Co., Ltd. 18077-2115	Multiple	29	68	Screen type
90	Clark 6547049	Horizontal	180	68	
91	Clark 6551409	Vertical	205	68	
92	Clark 6552340	Vertical	209	68	
93	Clark CAC-2000	Horizontal	1,584	68	
94	Cone 10-D	Vertical	295	68	
95	Cone 1100	Vertical	310	69	Pulverizer type spark arrester
96	Cone 12-D	Vertical	432	68	
97	Cone 1500	Vertical	350	69	
98	Cone 390	Vertical	275	69	
99	Cone 8-D	Vertical	182	68	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
100	Coop 400A	Horizontal	53	69	
101	Coop 500A	Horizontal	78	69	
102	Coop 500A-for LT 125	Horizontal	90	69	
103	Coop 500B	Horizontal	103	69	
104	Cycle Gear #1	Multiple	225	70	Screen; 4-cycle, 35 HP
105	Davis D-L260	Horizontal	140	70	
106	Discojet; See SUPERTRAPP	~	~		See SUPERTRAPP
107	Dometic 17510-87232	Inverted	32	71	
108	Donaldson 197297A1	Vertical	532	77	
109	Donaldson FMM050132	Vertical	146	78	
110	Donaldson FMM065106	Vertical	213	78	
111	Donaldson FMM090843	Vertical	1423	78	
112	Donaldson 142-8811	Vertical Inlet	177.2	77	
113	Donaldson 142-8845	Vertical Inlet	177	77	See also 142-8811
114	Donaldson 181590A1	Vertical	699	77	
115	Donaldson 252996A1			~	Body Horiz. outlet vertical 1110.5 Inlet modified for horizontal mounting.
116	Donaldson 254334A1	Horizontal	557	~	
117	Donaldson 280811A1	Horizontal	394.7	77	
118	Donaldson 299455A3	Vertical	292.9	~	
119	Donaldson A184241	Vertical	259	72	
120	Donaldson FCM04-5123	Horizontal	131	72	
121	Donaldson FCM04-5123	Vertical	146	72	
122	Donaldson FCM04-5214	Horizontal	131	72	
123	Donaldson FCM04-5214	Vertical	146	72	See Donaldson FCMO4-5123
124	Donaldson FCM04-5220	Horizontal	131	72	See Donaldson FCM04-5123
125	Donaldson FCM04-5220	Vertical	146	72	See Donaldson FCM04-5123
126	Donaldson FCM06-0037 *	Horizontal	273	72	
127	Donaldson FCM06-0037 *	Vertical	296	72	
128	Donaldson FCM06-0038 *	Vertical	120	72	
129	Donaldson FCM06-0038 *	Horizontal	126	72	
130	Donaldson FCM06-5030 *	Horizontal	427	72	
131	Donaldson FCM06-5030 *	Vertical	436	72	
132	Donaldson FCM07-0068 *	Horizontal	597	73	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
133	Donaldson FCM07-0068 *	Vertical	644	73	Flow amended from 1000 to 881 cfm 3/67
134	Donaldson FCM07-0069 *	Horizontal	842	73	
135	Donaldson FCM07-0069 *	Vertical	881	73	
136	Donaldson FCM07-0118	Horizontal	597	73	
137	Donaldson FCM07-0118	Vertical	644	73	
138	Donaldson FCM07-0122	Horizontal	597	73	Modified FCM07-0068
139	Donaldson FCM07-0122	Vertical	644	73	Modified FCM07-0068
140	Donaldson FCM07-0126	Horizontal	597	73	Model class FCM07-0068
141	Donaldson FCM07-0126	Vertical	644	73	Model class FCM07-0068
142	Donaldson FCM07-0139	Horizontal	597	73	Model class FCM07-0068
143	Donaldson FCM07-0139	Vertical	644	73	Model class FCM07-0068
144	Donaldson FCM07-0249-1	Vertical	638	73	Modified FCM07-0068
145	Donaldson FCM07-0304	Horizontal	731	74	
146	Donaldson FCM07-0304	Vertical	821	74	
147	Donaldson FCM07-0305	Vertical	1023	74	
148	Donaldson FCM08-0024 *	Horizontal	1,177	73	See Donaldson FCM09-0091
149	Donaldson FCM08-0024 *	Vertical	1,200	73	
150	Donaldson FCM09-0091 *	Horizontal	1,630	73	
151	Donaldson FCM09-0091 *	Vertical	1,670	73	
152	Donaldson FCM09-1009	Horizontal	1,630	73	
153	Donaldson FCM09-1009	Vertical	1,670	73	See Donaldson FCM09-0091
154	Donaldson FCM10-0016 *	Horizontal	2,480	75	
155	Donaldson FCM10-0016 *	Vertical	2,660	75	
156	Donaldson FMM03-2515	Vertical	27	75	
157	Donaldson FMM05-0073	Vertical	66	75	
158	Donaldson FMM06-0175	Vertical	207	76	
159	Donaldson FMM09-0510	Horizontal	510	76	See Caterpillar 8N7074-1
160	Donaldson FMM09-0638	Vertical	221	76	
161	Donaldson FMM12-0303	Horizontal	498	76	
162	Donaldson M-07-0285	Vertical	512	76	
163	Donaldson M070378	Vertical	292.9	76	
164	Donaldson M090955	Horizontal	212.2	76	See Donaldson FCM06-0038
165	Donaldson SAU01-5068	Horizontal	126	72	
166	Donaldson SAU01-5068	Vertical	120	72	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
167	Donaldson SAU02-0170	Horizontal	273	72	See Donaldson FCM06-0037
168	Donaldson SAU02-0170	Vertical	296	72	See Donaldson FCM06-0037
169	Donaldson SAU02-5113	Horizontal	427	72	See Donaldson FCM06-5030
170	Donaldson SAU02-5113	Vertical	436	72	See Donaldson FCM06-5030
171	Donaldson SAU03-0196	Horizontal	597	73	See Donaldson FCM07-0068
172	Donaldson SAU03-0196	Vertical	644	73	See Donaldson FCM07-0068
173	Donaldson SAU03-5126	Horizontal	842	73	See Donaldson FCM07-0069
174	Donaldson SAU03-5126	Vertical	881	73	See Donaldson FCM07-0069
175	Donaldson SAU04-0369	Horizontal	1,177	73	See Donaldson FCM08-0024
176	Donaldson SAU04-0369	Vertical	1,200	73	See Donaldson FCM08-0024
177	Donaldson SAU05-0366	Horizontal	1,630	73	See Donaldson FCM09-0091
178	Donaldson SAU05-0366	Vertical	1,670	73	See Donaldson FCM09-0091
179	Donaldson SAU06-0467	Horizontal	2,480	75	See Donaldson FCM10-0016
180	Donaldson SAU06-0467	Vertical	2,660	75	See Donaldson FCM10-0016
181	Echo 11620	Multiple	42	79	Screen; 2-cycle, 4.1 hp or smaller
182	EES 0053371	Multi	24	81	Screen, 2-cycle, 2 hp
183	EES 16009	Multiple	110	79	Screen; 4-cycle, 25 hp or smaller
184	EES 56378	Multiple	24	~	
185	EES 89011-9	Multiple	20	80	Screen; 4-cycle, 3 hp or smaller
186	EES 92675	Horizontal	41	80	Screen type, 4-cycle, 35 hp or smaller
187	EES 92675A	Horizontal	41	81	Screen type, 4-cycle, 35 hp or smaller
188	Farr 20B	Vertical	435	82	Not qualified above 435 cfm
189	Farr 30B	Vertical	605	82	
190	Farr 40B	Vertical	1,060	82	
191	Farr 50B	Vertical	1,730	82	
192	Farr Aspirator B16647-1	Vertical	625	82	
193	Farr Aspirator B17345	Vertical	560	82	
194	Farr Aspirator B18854	Vertical	615	82	
195	Farr Aspirator C15626	Vertical	221	82	
196	Farr Aspirator C16085	Vertical	221	82	
197	Farr Aspirator C22001	Vertical	270	82	
198	FMF ISDE Model 1000	Horizontal	186	84	
199	FMF Racing S2000	Multiple	177.5	~	
200	FMF TDS-1	Horizontal	123	84	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
201	FMF TDS-2	Horizontal	123	84	4 inch inlet
202	FMF /Tru-Tec TDS-1	Horizontal	123	83	
203	FMF /Tru-Tec TDS-2	Horizontal	123	84	
204	FMF Racing TDS-3	Horizontal	123	83	
205	Forester 12 x 330	Vertical	1,350	85	
206	Fuji DY 41	Multiple	63	85	Screen; 4-cycle, 8.5 hp or smaller
207	Fuji EH 25	Horizontal	41	85	Screen; 4-cycle, 8.5 hp or smaller
208	Fuji EH 34	Horizontal	51	86	Screen, 4-cycle, 11.0 hp or smaller
209	Fuji EH 43	Multiple	1,057	86	Screen; 4-cycle, 13 hp or smaller
210	Fuji EH 17	Multiple	29	85	Screen, 4 Cycle, 6 HP
211	Fuji EH 25	Multiple	41	85	Screen, 4 Cycle, 8.5 HP
212	Fuji EY 20	Multiple	30	87	Screen; 4-cycle, 5 hp or smaller
213	Fuji EY 20	Horizontal	29	87	Screen; 4-cycle, 6.0 hp or smaller
214	Fuji EY 20-STD	Multiple	31	87	Screen; 4-cycle, 5 hp or smaller
215	Fuji EY 20V	Multiple	27	88	Screen; 4-cycle, 3.5 hp or smaller
216	Fuji EY 28	Multiple	41	88	Screen; 4-cycle, 5.5 hp or smaller
217	Fuji EY 35	Horizontal	58	88	Screen; 4-cycle, 10 hp or smaller
218	Fuji EY 40W	Horizontal	58	88	“Screen; 4-cycle, 10 hp or smaller
219	Fuji RGO 051	Multiple	12	89	Screen; 4-cycle, 1.2 hp or smaller
220	Fuji RGO 120	Horizontal	22	89	Screen; 4-cycle, 3.3 hp or smaller
221	Generac 30699	Inverted	47	89	See Nelson T-11606 NMC T-13304 approved as NMC T-9458
222	Generac 31145	Inverted	24	89	
223	Generac 33232	Horizontal	43	89	
224	Generac 37924	Horizontal	50	89	
225	Generac 37936	Inverted	21	89	
226	Generac 38560	Inverted	33	89	NMC T-13304 approved as NMC T-9458
227	Generac 39081	Inverted	18	89	
228	Generac 39247	Horizontal	50	89	
229	Generac 43951	Inverted	68	89	
230	Generac 43952	Horizontal	74	89	
231	Generac 43953	Inverted	25	89	Screen; 4-cycle, 3 hp or smaller
232	Generac 72082	Multiple	22	90	
233	Generac 72083	Multiple	32	90	
234	Generac 72084	Multiple	48	90	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
235	Generac 72279	Multiple	48	90	Screen; 4-cycle, 8 hp or smaller
236	Generac 72281	Multiple	22	90	Screen; 4-cycle, 3 hp or smaller
237	Generac 75788	Multiple	22	90	Screen; 4-cycle, 3 hp or smaller
238	Generac 83083	Multiple	30	91	Screen; 4-cycle, 6 hp or smaller
239	Generac 83083	Multiple	54	91	Screen type; 4-cycle, 13 hp or smaller
240	Generac 89680	Multiple	36	91	Screen type; 4-cycle, 7.8 hp or smaller
241	Generac A7433	Multiple	63		
242	Gill 3C	Vertical	85	93	
243	Gill 3C (Mod. by FS)	Vertical	103	93	
244	Gill 3C IP	Horizontal	85	93	
245	Gill 4C IP	Horizontal	79	93	
246	Gill 5-C-20A	Inverted	185	93	
247	Gill 5-C-20A	Vert & Hor	240	93	
248	Gill 5-C-20B	Vert & Hor	257	93	
249	Gill 5-C-23B	Vertical	255	93	
250	Gill 5-C-23B	Horizontal	355	93	
251	Gill 5-C-26B	Vertical	315	94	Discontinued
252	Gill 5-CV-20	Vertical	268	93	
253	Gill 5-CV-23	Vertical	300	93	
254	Gill 5-CV-24	Vertical	300	93	
255	Gill 6-C-2030	Vert & Hor	527	94	12 inch inlet
256	Gill 6-C-24	Horizontal	601	94	12 inch inlet
257	Gill 6-C-24	Vertical	615	94	12 inch inlet
258	Gill 6-C-24	Inverted	680	94	12 inch inlet
259	Gill 6-C-24	Vertical	540	94	Discontinued, 9 inch inlet
260	Gill 6-C-26	Horizontal	628	94	
261	Gill 6-C-26	Vertical	655	94	
262	Gill 6-C-30	Vert & Hor	625	94	
263	Gill 6-C-30	Inverted	665	94	
264	Gill 6-C-34	Vertical	660	94	
265	Gill 6-C-34	Horizontal	685	94	
266	Gill 6-C-34	Inverted	808	94	
267	Gill 6-CV-24	Vertical	720	94	
268	Gill 6-CV-26	Vertical	650	94	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
269	Gill 6-CV-30	Vertical	600	94	
270	Gill 6-CV-34	Vertical	625	94	
271	Gill 8-C-40	Hor & Inv	1,170	95	
272	Gill 8-CV-34	Vertical	800	94	
273	Gill 8-CV-40	Vertical	1,285	95	
274	Gill 8-CV-50	Vertical	1,405	95	
275	Gill 8-CV-60	Vertical	1,466	95	
276	Gill GSF-200	Vertical	355	92	
277	Gill GSF-300	Vertical	675	92	Discontinued
278	Gill GSF-400	Vertical	1,050	92	Discontinued
279	Gill GSH-200	Horizontal	340	92	
280	Gill GSH-300	Horizontal	730	92	Discontinued
281	Gill GSO-300	Vertical	1,030	92	Discontinued
282	Gilson 36742	Multiple	81	95	Screen; 4-cycle, 16 hp or smaller
283	Gorman-Rupp 46211-018	Multiple	84	95	Screen; 2-cycle, 10 hp or smaller
284	Hale 108-0230-02	Multiple	80	95	Screen; 4-cycle, 16 hp or smaller
285	Hale 108-0230-06	Multiple	80	95	Screen; 4-cycle, 16 hp or smaller. Is a modified 108-0230-02 for use on one cylinder of an engine. Elbow added/inlet.
286	Hapco 12AC12LP	Vertical	7,000	97	May be used on a round or oval stack
287	Hapco 1AA	Vertical	96	96	
288	Hapco 1AA S.A.M. 13-18	Vertical	94	96	
289	Hapco 1AAXH	Horizontal	76	96	
290	Hapco 2AA	Vertical	167	97	
291	Hapco 2AA S.A.M. 24-112	Vertical	110	97	
292	Hapco 2AAH	Horizontal	112	97	
293	Hapco 3AA	Vertical	205	97	
294	Hapco 3AA S.A.M. 36-2	Vertical	174	97	
295	Hapco 3AAXH	Horizontal	258	97	Not qualified above 258 cfm
296	Hapco 3H	Horizontal	200	97	Discontinued
297	Hapco 4AA	Vertical	395	97	Discontinued
298	Hapco 4AA (Step Design Top)	Vertical	485	97	
299	Hapco 4AA S.A.M. 48-3	Vertical	317	98	
300	Hapco 4AAH	Horizontal	417	98	
301	Hapco 5AA	Vertical	705	98	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
302	Hapco 5AA (Altered 5A)	Vertical	680	98	
303	Hapco 5AA (Step Design Top)	Vertical	660	98	
304	Hapco 5AA S.A.M. 59-3	Vertical	466	98	
305	Hapco 5AAH	Horizontal	620	98	
306	Hapco 5AAH S.A.M. 59-3	Horizontal	527	98	
307	Hapco 6A	Vertical	900	98	Discontinued
308	Hapco 6AA	Vertical	717	99	4 inch outlet
309	Hapco 6AA S.A.M. 69-4	Vertical	678	99	
310	Hapco 6AAH	Horizontal	848	99	
311	Hapco 6AB	Vertical	1,168	99	5 inch outlet
312	Hapco 6H	Vertical	900	98	Discontinued
313	Hapco 7A	Vertical	1,410	99	Discontinued
314	Hapco 7AB	Vertical	1,555	99	
315	Hapco 7AC	Vertical	1,210	99	Modified 7AB
316	Hapco 7AC1	Vertical	1,801	99	
317	Hapco 7AC1	Horizontal	1,944	99	
318	Hapco 7H	Vertical	1,410	99	Discontinued
319	Hapco 8AB	Vertical	2,930	99	
320	Hapco SAM-712	Vertical	1,555	96	AB w/muffler section added
321	Hapco SASR-36H-3AAXH	Horizontal	172	96	AAXH w/muffler section added
322	Hapco SASR-48	Vertical	200	96	
323	Hapco SASR-48H	Horizontal	252	96	
324	Hapco SASR-559	Vertical	880	96	
325	Hapco SASR-59	Vertical	393	96	Inlet may be offset 2 inches
326	Hapco SASR-69H	Horizontal	454	96	AAH w/muffler section added
327	Harley-Davidson 65234-75P	Horizontal	24	100	
328	Harley-Davidson 65241-75P	Horizontal	24	101	
329	Harley-Davidson 65463-75P	Horizontal	24	101	
330	Harley-Davidson-Krizman H.D.-1	Horizontal	24	100	
331	Harley-Davidson-Krizman H.D.-2	Horizontal	24	100	
332	Harley-Davidson-Krizman H.D.-3	Horizontal	24	100	
333	Harley-Davidson-Krizman KS-400	Horizontal	49	101	
334	Hodaka Ace 90D	Horizontal	26	101	Not qualified above 26 cfm
335	Hodaka-Krizman ACE 100	Horizontal	24	101	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
336	Honda S-418	Multiple	15		
337	Honda 1063	Horizontal	12	~	
338	Honda 113	Horizontal	6	~	
339	Honda 175	Horizontal	18	~	
340	Honda 200	Horizontal	14	~	
341	Honda 405	Horizontal	21	~	
342	Honda 405A	Horizontal	21	~	
343	Honda 408	Horizontal	32	~	
344	Honda 503	Horizontal	47	~	
345	Honda 72	Horizontal	25		Not qualified above 25 cfm
346	Honda E-300	Horizontal	10	102	Not qualified above 10 cfm
347	Honda E-400	Horizontal	25	102	
348	Honda E-600	Horizontal	14	102	
349	Honda HM GCF A1	Horizontal	25	105	Screen, 4-cycle, 4.72 hp
350	Honda HM HN1 A1	Multiple	117	102	
351	Honda HM KCE A1	Horizontal	74		Screen type, 4-cycle, 22.4 hp or smaller
352	Honda HM KCY A1	Multiple	116	~	
353	Honda HM KCY A2	Multi	125		Screen, 4-cycle, 34.6 hp
354	Honda HM-KV6-A1	Horizontal	51		Modified Honda Krizman 508
355	Honda HM-MY6-A1	Horizontal	55	~	
357	Honda Nelson 23066	Horizontal	64	~	
358	Honda Nelson 23930	Horizontal	65		Modified Honda Nelson 23066
359	Honda Nelson 24075	Horizontal	52	~	
360	Honda S-350	Multiple	22	106	Screen; 4-cycle, 3.5 hp or smaller
361	Honda S-351	Multiple	22	106	Screen; 4-cycle, 3.2 hp or smaller
362	Honda S-352	Multiple	62	106	Screen; 4-cycle, 10 hp or smaller
363	Honda S-353	Multiple	65	106	Screen; 4-cycle, 11 hp or smaller
364	Honda S-354	Multiple	30	107	Screen; 4-cycle, 5.5 hp or smaller
365	Honda S-355	Multiple	9	107	Screen; 4-cycle, 1.3 hp or smaller
366	Honda S-356	Multiple	30	107	Screen; 4-cycle, 5 hp or smaller
367	Honda S-356A	Multiple	30	108	Screen; 4-cycle, 5 hp or smaller
368	Honda S-357	Multiple	62	108	Screen; 4-cycle, 11 hp or smaller
369	Honda S-358	Multiple	14	109	Screen; 4-cycle, 2.2 hp or smaller
370	Honda S-358	Multiple	15	109	Screen; 4-cycle, 2.2 hp or smaller

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
371	Honda S-359	Multiple	25	110	Screen; 4-cycle, 5.5 hp or smaller
372	Honda S-359	Multiple	30	110	Screen; 4-cycle, 10 hp or smaller
373	Honda S-360	Multiple	62	110	Screen; 4-cycle, 12 hp or smaller
374	Honda S-361	Multiple	54	110	Screen; 4-cycle, 14 hp or smaller
375	Honda S-361	Multiple	96	110	Screen; 4-cycle, 18 hp or smaller
376	Honda S-361A	Multiple	54	111	Screen; 4-cycle, 13 hp or smaller
377	Honda S-361A	Multiple	59	111	Screen; 4 cycle, 13 hp (new Muffler)
378	Honda S-362	Multiple	22	112	Screen; 4-cycle, 5 hp or smaller
379	Honda S-362	Multiple	25	112	Screen; 4-cycle, 5.5 hp or smaller
380	Honda S-363	Multiple	22	112	Screen; 4-cycle, 5 hp or smaller
381	Honda S-363	Multiple	25	112	Screen; 4-cycle, 5.5 hp or smaller
382	Honda S-364	Multiple	36	112	Screen; 4-cycle, 8 hp or smaller
383	Honda S-364	Multiple	41	112	Screen; 4-cycle, 9 hp or smaller
384	Honda S-365	Multiple	51	112,113	Screen; 4-cycle, 11 hp or smaller
385	Honda S-365	Multiple	59	112,113	Screen; 4-cycle, 13 hp (increased hp)
386	Honda S-365-A	Multiple	59	113	Screen; 4-cycle, 13 hp or smaller
387	Honda S-366	Multiple	51	113	Screen; 4-cycle, 11 hp or smaller
388	Honda S-366-A	Multiple	51	113	Screen; 4-cycle, 11 hp or smaller
389	Honda S-366-A	Multiple	59	113	Screen; 4-cycle, 13 hp or smaller
390	Honda S-366-B	Multiple	110	113	Screen in each exhaust port; 4cly, 22 hp
391	Honda S-367	Multiple	13	113	Screen; 2-cycle, 0.9 hp or smaller
392	Honda S-368	Multiple	62	113	Screen; 4-cycle, 9 hp or smaller
393	Honda S-415	Multiple	30	113	Screen type
394	Honda S-417	Multiple	24	113	Screen, 4-cycle, 4.1 hp
395	Honda S-418	Multiple	15	~	
396	Honda-Krizman 103	Horizontal	18	115	Not qualified above 27 cfm
397	Honda-Krizman 104	Horizontal	27	115	
398	Honda-Krizman 105	Horizontal	27	115	
399	Honda-Krizman 106	Horizontal	12	115	
400	Honda-Krizman 107	Horizontal	27	115	
401	Honda-Krizman 108	Horizontal	16	115	
402	Honda-Krizman 109	Horizontal	42	115	
403	Honda-Krizman 111	Horizontal	27	115	
404	Honda-Krizman 112	Horizontal	18	115	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
405	Honda-Krizman 115	Horizontal	19	116	
406	Honda-Krizman 116	Horizontal	15	116	
407	Honda-Krizman 203	Horizontal	27	116	
408	Honda-Krizman 204	Horizontal	27	116	
409	Honda-Krizman 205	Horizontal	27	116	
410	Honda-Krizman 206	Horizontal	27	116	
411	Honda-Krizman 207	Horizontal	20	117	
412	Honda-Krizman 209	Horizontal	27	117	
413	Honda-Krizman 210	Horizontal	35	117	
414	Honda-Krizman 300	Horizontal	27	117	
415	Honda-Krizman 301	Horizontal	22	117	
416	Honda-Krizman 302	Horizontal	27	117	
417	Honda-Krizman 303	Horizontal	31	117	
418	Honda-Krizman 304	Horizontal	46	117	
419	Honda-Krizman 305	Horizontal	33	118	
420	Honda-Krizman 306	Horizontal	38	118	
421	Honda-Krizman 400	Horizontal	42	118	
422	Honda-Krizman 401	Horizontal	42	118	
423	Honda-Krizman 402	Horizontal	33	118	
424	Honda-Krizman 404	Horizontal	42	118	
425	Honda-Krizman 406	Horizontal	48	118	
426	Honda-Krizman 407	Horizontal	80	118	
427	Honda-Krizman 409	Horizontal	69	119	
428	Honda-Krizman 409-A	Horizontal	71	119	Modified 409
429	Honda-Krizman 410	Horizontal	70	119	
430	Honda-Krizman 411	Horizontal	86	119	
431	Honda-Krizman 412	Horizontal	87	119	
432	Honda-Krizman 413		66	119	
433	Honda-Krizman 500	Horizontal	42	119	With or without heat shield
434	Honda-Krizman 501	Horizontal	78	119	
435	Honda-Krizman 502	Horizontal	36	120	
436	Honda-Krizman 504	Horizontal	85	120	
437	Honda-Krizman 505	Horizontal	46	120	
438	Honda-Krizman 506	Horizontal	111	120	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
439	Honda-Krizman 507	Horizontal	58	120	
440	Honda-Krizman 508	Horizontal	97	120	in a muffler shell
441	Honda-Krizman 508	Horizontal	97	120	With curved outlet
442	Honda-Krizman 508	Horizontal	102	120	
443	Honda-Krizman 508	Horizontal	60	120	With diffuser
444	Honda-Krizman 508	Horizontal	153	120	Diffuser fixing screws must be in place
445	Honda-Krizman 508	Horizontal	79	120	installed in a new muffler
446	Honda-Krizman 509	Horizontal	53	121	
447	Honda-Krizman 600	Horizontal	26	121	
448	Honda-Krizman 601	Horizontal	48	121	
449	Honda-Krizman 700	Horizontal	52	121	
450	Honda-Krizman 701	Horizontal	25	121	With diffuser
451	Honda-Krizman 701	Horizontal	281	121	Diffuser fixing screws must be in place
452	Honda-Nelson 26296	Horizontal		122	
453	Hooker 26281	Multiple	230	123	Screen; 2-cycle, 44 hp or smaller
454	Hooker 26282	Multiple	192	123	Screen; 2-cycle, 30 hp or smaller
455	Hooker 26283	Multiple	114	123	Screen; 2-cycle, 15.6 hp or smaller
456	Horstman-Krizman HE	Horizontal	27	124	Types A through E provide various inlet dimensions and shapes.
457	Husqvarna F15-1041	Horizontal	94	124	
458	Husqvarna-Krizman KS-500D	Horizontal	91	125	
459	Hutchins Freflo No. 1	Horizontal	135	~	
460	IHC 1275835C1	Vertical	405	125	See Nelson 19853
461	IHC 561217C92	Vertical	485	125	
462	IHC 563507C91	Vertical	380	125	
463	IHC 677817R91	Vertical	176	125	
464	IHC 70769C1	Vertical	305	125	
465	IHC 829176C91	Inverted	178	125	
466	IHC 829640C91	Inverted	213	125	
467	J&R Answer- SEE Answer	~	~	~	
468	J&R Krizman KS-350	Horizontal	58	126	
469	J&R Krizman KS-500-A	Horizontal	104	126	
470	J&R Krizman KS-500-C	Horizontal	86	126	
471	J&R Krizman KS-650	Horizontal	186	126	
472	J&R Krizman KS-650-0	Horizontal	74	126	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
473	J&R Krizman KS-650-A	Horizontal	63	126	KS-650A in an oval muffler
474	J&R Krizman KS-650-C	Horizontal	63	126	
475	J&R Krizman KS-650-V	Vertical	180	126	
476	J&R Krizman KS-800	Horizontal	122	126	
470	John Deere AH-75693	Horizontal	213	127	
471	John Deere AH-75694	Horizontal	348	127	
472	John Deere AH-75695	Horizontal	394	127	
473	John Deere AH-80388	Vertical	382	127	
474	John Deere AH-84965	Horizontal	505	127	
475	John Deere AH-87289	Horizontal	324	127	
476	John Deere AT-32701	Vertical	148	127	Screen; 4-cycle, 3.2 hp or smaller
477	John Deere AT-33686	Horizontal	148	127	
478	Kawasaki 18077-2110	Multiple	22	~	
479	Kawasaki 3951	Horizontal	32	~	
480	Kawasaki 3951	Multiple	20		
481	Kawasaki 3952	Horizontal	32		Screen; 4-cycle, 7.5 hp or smaller
482	Kawasaki 3952-A	Multiple	20		Screen; 4-cycle, 7.5 hp or smaller
483	Kawasaki 3964	Multiple	46		Screen; 4-cycle, 7.5 hp or smaller
484	Kawasaki 3965	Multiple	46	~	
485	Kawasaki 3966	Multiple	46	~	
486	Kawasaki KD 080N2	Horizontal	21	128	Screen; 4-cycle, 14 hp or smaller Screen; 4-cycle, 8.2 hp or smaller Screen; 4-cycle, 10 hp or smaller
487	Kawasaki KDX200H	Horizontal	62	129	
488	Kawasaki KF-150	Multiple	88	129	
489	Kawasaki KG-4000	Multiple	51	129	
490	Kawasaki KG-5000	Multiple	60	129	
491	Kawasaki KG-550	Horizontal	22	~	Removable outlet tube; 2 cleanout plugs
492	Kawasaki KHI LF 400	Horizontal	38	130	
493	Kawasaki KHI LX 650	Horizontal	19	130	
494	Kawasaki KHI LX 650C	Horizontal	62	130	
495	Kawasaki KHI-KL250	Horizontal	42	~	
496	Kawasaki KLX-250D	Horizontal	17	130	Screen; 4-cycle, 1.7 hp or smaller Screen; 4-cycle, 1.7 hp or smaller
497	Kawasaki X171	Multiple	12	130	
498	Kawasaki X171A	Multiple	12	130	
499	Kawasaki 18077-2110	Multiple	22	~	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
500	Kawasaki DX 200	Horizontal	32	127	
501	Kawasaki DX 250D	Horizontal	79	127	Angled muffler; arrester horizontal
502	Kawasaki FA 130D	Multiple	20	128	Screen; 4-cycle, 2.6 hp or smaller
503	Kawasaki FA 210D	Multiple	30	128	Screen; 4-cycle, 4.5 hp or smaller
504	Kawasaki FA 76D	Multiple	12	127	Screen; 4-cycle, 1.4 hp or smaller
505	Kawasaki FE 290D	Multiple	43	128	Screen; 4-cycle, 9 hp or smaller
506	Kawasaki FE170D	Multiple	29		Screen type
507	Kawasaki FG 200D	Multiple	49	128	Screen; 4-cycle, 6.8 hp or smaller
508	Kawasaki FG 300D	Multiple	49	128	Screen; 4-cycle, 6.8 hp or smaller
509	Kawasaki KL250G	10° Horizontal	46	~	
510	Kawasaki-Krizman DX-200	Horizontal	78	131	
511	Kawasaki-Krizman DX-250	Horizontal	73	131	
512	Kawasaki-Krizman KD-400	Horizontal	42	131	
513	Kawasaki-Krizman KG-250C	Horizontal	91	132	
514	Kawasaki-Krizman KHI KE-250B	Horizontal	45	132	
515	Kawasaki-Krizman KHI-KL6	Horizontal	70	132	
516	Kawasaki-Krizman KS-250	Horizontal	27	132	See Suzuki-Krizman KS-250
517	Kawasaki-Krizman KS-350 KHI-DX080A	Horizontal	46	132	
518	Kawasaki-Krizman KS-350 KHI-DX080C	Horizontal	34	132	
519	Kawasaki-Krizman KS-350 KHI-DX080C1	Horizontal	23	133	
520	Kawasaki-Krizman KS-500 KDX 175	Horizontal	49	~	
521	Kawasaki-Krizman KS-500 KHI KL65	Horizontal	60	133	
522	Kawasaki-Krizman KS-500 KHI-DX200A	Horizontal	64	133	
523	Kawasaki-Krizman KS-500 KHI-DX200C	Horizontal	61	133	
524	Kawasaki-KrizmanKS-500 KHI-KL600	Horizontal	28	133	
525	Kawasaki-Krizman KS-500 KHI-KSF250	Horizontal	38	133	
526	Kawasaki-Krizman KS-500 KHI-LF110	Horizontal	27	134	
527	Kawasaki-Krizman KS-500 KHI-LF220	Horizontal	44	134	
528	Kawasaki-Krizman KS-500 KHI-LF300C	Horizontal	44	134	
529	Kawasaki-Krizman KS-500 KHI-LT110A	Horizontal	27	134	
530	Kawasaki-Krizman KS-500 KHI-LT160	Horizontal	27	134	See KHI LT110A
531	Kawasaki-Krizman KS-500 KHI-LT200A	Horizontal	48	134	See DX200A
532	Kawasaki-Krizman KS-500 KHI-LT250A	Horizontal	50	134	
533	Kawasaki-Krizman KS-500 KHI-XT250	Horizontal	70	134	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
534	Kawasaki-Krizman KS-500 KHI-XT250B2	Horizontal	65	134	
535	Kawasaki-Krizman YS-80	Horizontal	24	134	
536	Kawasaki-Krizman KG-250	Horizontal	18	~	
537	Kawasaki-Krizman KG-250A	Horizontal	23	~	
538	Kerker-Krizman KS-650-K	Horizontal	187	135	
539	Kern County Fire Department 1	Horizontal	65	135	See CEDCO Primer-Arrester No. 1
540	Kittell 1010 HT	Vertical	500	136	
541	Kittell 3510-SA 1-1/4	Horizontal	60	136	
542	Kittell S 1-1/2A	Vertical	146	135	
543	Kittell S 1-1/2A	Vertical	146	135	
544	Kittell S 2-1/2A	Vertical	370	136	
545	Kittell S-2A	Vertical	150	136	
546	Kittell S-3	Vertical	415	136	
547	Kittell S-3A	Vertical	468	136	
548	Kittell S-4	Vertical	935	136	
549	Kittell S-4A	Vertical	1,008	136	Not qualified above 1,150 cfm
550	Kittell S-5	Vertical	1,100	136	
551	Kittell S-5A	Vertical	1,150	136	
552	Kittell S-T-1 1/2	Vertical	136	135	
553	Kittell S-T-2	Vertical	211	135	
554	Kittell S-T-3	Vertical	497	135	
555	Kittell S-T-3 1/2	Vertical	616	135	
556	Kittell S-T-4	Vertical	960	135	
557	Kittell S-T-5	Vertical	1,312	135	
558	Kittell S-T-2 1/2	Vertical	406	135	
559	Kohler 228173	Inverted	27	137	See Nelson 20788 Screen; 4-cycle, 4 hp or smaller
560	Kohler 228218	Multiple	30	137	
561	Kohler 239724	Horizontal	43	137	
562	Kohler 278189	Horizontal	40	137	Modified Kohler 278223
563	Kohler 278218	Horizontal	40	137	
564	Kohler 278223	Inverted	40	137	Modified Kohler 278223 Modified Kohler 278224; Body/arrester Horizontal
565	Kohler 278224	Inverted	44	137	
566	Kohler 278232	Horizontal	40	137	
567	Kohler 278402	Horizontal	44	137	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
568	Kohler 278403	Horizontal	44	137	Modified Kohler 278224; Body/arrester Horizontal Modified Kohler 278224; Body/arrester Horizontal Not qualified above 21 cfm Models that lack the letter "B" are not qualified See J&R Krizman KS-650A
569	Kohler 278416	Horizontal	40	137	
570	Krizman 11-5H.34B	Horizontal	21	138	
571	Krizman KS-650-A	Horizontal	63		
572	Krizman T-H100 or T-H100M	Horizontal	22	138	Modified Krizman KS-650-0
573	Krizman V-H 11	Horizontal	186	138	
574	Krizman V-H-1	Horizontal	92	138	
575	Krizman-Maico KS-500/250.28505.01	Horizontal	~	138	
576	KSI-WIS-Krizman KS-650-K	Horizontal	69	138	
577	KTM K-300	Horizontal	65	139	
578	KTM K-620	Horizontal	83	139	See KTM K-300
579	Kubota 8501A	Horizontal	83	140	Screen; 4-cycle, 3.4 hp or smaller
580	Kubota 8502C	Multiple	14	140	
581	Kubota 8503C	Multiple	21	140	Screen; 4-cycle, 5.2 hp or smaller
582	Kubota 8504C	Multiple	32	140	Screen; 4-cycle, 7.4 hp or smaller
583	Kubota 8505B	Multiple	43	140	Screen; 4-cycle, 4.0 hp or smaller
584	Kubota 8906A	Multiple	30	140	Screen; 4-cycle, 7.87 hp or smaller
585	Kubota 8907A	Multiple	59	140	Screen; 4-cycle, 6.08 hp or smaller
586	Kubota 8908A	Multiple	37	141	Screen; 4-cycle, 8.9 hp or smaller
587	Kubota 8909A	Multiple	49	141	Screen; 4-cycle, 6.6 hp or smaller
588	Kubota 8910A	Multiple	41	141	Screen; 4-cycle, 1.15 hp or smaller
589	Kubota 9001B	Multiple	13	141	Screen; 4-cycle, 8.9 hp or smaller
590	Magnum Krizman KS650-M	Horizontal	90	142	See J&R Krizman 650A
591	Magnum-Krizman KS-650-A	Horizontal	60	142	
592	Maremont 4305	Horizontal	63	142	
593	Maremont 4305	Vertical	273	142	
594	Maremont 4306	Horizontal	296	142	
595	Maremont 4306	Vertical	436	142	
596	Maremont 4307	Horizontal	597	142	
597	Maremont 4307	Vertical	644	142	
598	Maremont 4308	Horizontal	842	142	
599	Maremont 4308	Vertical	881	142	
600	Maremont 4604	Horizontal	1,177	142	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
601	Maremont 4604	Vertical	1,200	142	
602	Maremont 4605	Horizontal	1,630	142	
603	Maremont 4605	Vertical	1,670	142	
604	Maxim 2 MSA1	Horizontal	218	142	
605	McCulloch MPP 1500E	Multiple	21	143	Screen; 4-cycle, 2.7 hp or smaller
606	McCulloch MPP 2300E	Multiple	30	143	Screen; 4-cycle, 5.5 hp or smaller
607	McCulloch MPP 3500E	Multiple	42	143	Screen; 4-cycle, 5.5 hp or smaller
608	McCulloch MPP 600E/800E	Multiple	12	143	Screen; 4-cycle, 1.4 hp or smaller
609	Murphy Muffler MM3S 2.5	Multiple	240		Screen; 2-cycle, 29.4 hp or smaller
610	Nelson 14110	Vertical	435	160	
611	Nelson 14113	Vertical	182	160	Body Horizontal
612	Nelson 14217	Horizontal	186	160	
613	Nelson 14390	Vertical	111	161	
614	Nelson 14572	Horizontal	167	161	
615	Nelson 15064A	Vertical	244	~	
616	Nelson 15514	Inverted	615	162	Two inlets; One outlet
617	Nelson 15567	Inverted	35	162	
618	Nelson 15730	Horizontal	35	162	Modified T-14321
619	Nelson 15731	Horizontal	42	162	
620	Nelson 15818	Vertical	112	162	
621	Nelson 15870	Inverted	99	163	Modified T-14123
622	Nelson 15876	Vertical	348	163	
623	Nelson 15893	Inverted	42	163	See Onan 155-1520
624	Nelson 15934	Horizontal	95	163	Body Horizontal
625	Nelson 15935	Horizontal	71	163	Two inlets; One outlet. Body Horizontal
626	Nelson 15982	Horizontal	63	163	Body Horizontal
627	Nelson 16001	Vertical	750	163	
628	Nelson 16006	Horizontal	112	164	
629	Nelson 16011	Horizontal	50	164	
630	Nelson 16025	Vertical	196	164	Body Horizontal
631	Nelson 16068	Horizontal	325	164	
632	Nelson 16152	Horizontal	148	164	Two inlets; One outlet. Body Horizontal
633	Nelson 16170	Vertical	588	164	Two inlets; One outlet. Body Horizontal
634	Nelson 16297	Horizontal	71	165	Body Horizontal

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
635	Nelson 16300	Horizontal	81	165	Body Horizontal
636	Nelson 16301	Horizontal	59	165	Body Horizontal
637	Nelson 16302	Horizontal	150	165	
638	Nelson 16304	Horizontal	62	165	
639	Nelson 16361	Inverted	43	165	
640	Nelson 16362	Inverted	46	165	
641	Nelson 16460	Inverted	61	165	
642	Nelson 16504	Vertical	640	166	
643	Nelson 16506A	Vertical	258	166	
644	Nelson 16507A	Vertical	440	166	
645	Nelson 16538	Vertical	282	166	
646	Nelson 16547	Vertical	194	166	Body Horizontal
647	Nelson 16572	Horizontal	108	166	Two inlets; One outlet
648	Nelson 16619	Inverted	105	167	Body Horizontal
649	Nelson 16628	Horizontal	105	167	Two inlets; 36 outlet holes/Body Horizontal
650	Nelson 16667	Inverted	35	167	Body Horizontal
651	Nelson 16752	Vertical	75	167	Body Horizontal
652	Nelson 16825	Horizontal	79	167	Body Horizontal
653	Nelson 16828	Horizontal	87	167	Body Horizontal
654	Nelson 16868	Horizontal	206	168	
655	Nelson 16888	Vertical	140	168	Body Horizontal
656	Nelson 16909	Inverted	243	168	
657	Nelson 16932	Horizontal	160	168	Body Horizontal
658	Nelson 16956	Horizontal	108	168	Body Horizontal
659	Nelson 16986	Vertical	102	168	2 vertical inlets; 1 outlet/Body Horizontal
660	Nelson 16988	Horizontal	116	169	Body Horizontal
661	Nelson 16989	Horizontal	54	169	Not qualified above 54 cfm
662	Nelson 16990	Vertical	100	169	Body Horizontal
663	Nelson 16990A	Vertical	100	169	Same as 16990 except for outlet rotational angle length. Body Horizontal
664	Nelson 17005	Vertical	558	169	Body Horizontal
665	Nelson 17043	Horizontal	68	169	Body Horizontal
666	Nelson 17088	Horizontal	57	169	Body Horizontal
667	Nelson 17112	Inverted	31	170	Body Horizontal

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
668	Nelson 17123	Vertical	192	170	Body Horizontal
669	Nelson 17185	Inverted	170	170	Body Horizontal
670	Nelson 17254	Horizontal	386	170	Body Horizontal
671	Nelson 17318	Multiple	81	170	Adapter for Nelson 35347 screen assembly
672	Nelson 17334	Horizontal	122	170	
673	Nelson 17371	Vertical	131	171	Two inlets; One outlet
674	Nelson 17410	Horizontal	95	171	Body Horizontal. Inlet may be smaller
675	Nelson 17470	Horizontal	65	171	Body Horizontal
676	Nelson 17480	Horizontal	420	171	
677	Nelson 17533	Horizontal	69	171	
678	Nelson 17622	Horizontal	89	171	Two inlets; One outlet. Body Horizontal
679	Nelson 17622-C	Horizontal	89		Modified Nelson 17622
680	Nelson 17657	Vertical	226	~	
681	Nelson 17674	Inverted	150		Body Horizontal
682	Nelson 17695	Vertical	143		Body Horizontal
683	Nelson 17701	Horizontal	1,044		Two inlets; One outlet. Body Horizontal
684	Nelson 17746	Vertical	107		Body Horizontal
685	Nelson 17747	Horizontal	89		Body Horizontal
686	Nelson 17749	Horizontal	97		Body Horizontal
687	Nelson 17750	Horizontal	141		Body Horizontal
688	Nelson 17765	Vertical	81		Body Horizontal
689	Nelson 17898	Horizontal	46	~	
690	Nelson 17899	Horizontal	754		Two inlets, One outlet. Body Horizontal
691	Nelson 17973	Vertical	357	~	
692	Nelson 17974	Vertical	454	~	
693	Nelson 17998	Vertical	78	174	Body Horizontal
694	Nelson 18012	Horizontal	94	174	See 17410 for drawing & photo/Body Horizontal
695	Nelson 18018	Vertical	455	174	May have side or bottom clean out plug
696	Nelson 18031	Inverted	110	174	Body Horizontal
697	Nelson 18090	Horizontal	700	174	Two inlets; One outlet. Body Horizontal
698	Nelson 18289	Inverted	75	174	Body Horizontal
699	Nelson 18433	Vertical	165	175	
700	Nelson 18493	Horizontal	94	175	See Nelson 17410 for drawing & photo
701	Nelson 18528	Horizontal	74	175	Body Horizontal

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
702	Nelson 18528A	Horizontal	70	175	Body Horizontal
703	Nelson 18613	Vertical	196	175	Body Horizontal
704	Nelson 18631	Vertical	83	175	Body Horizontal
705	Nelson 18642	Horizontal	576	175	Outlet length may vary. Body Horizontal
706	Nelson 18731	Horizontal	90	175	Two inlets; One outlet. Body Horizontal
707	Nelson 18753	Multiple	81	176	Adapter for Nelson 35347 screen assembly
708	Nelson 18798	Vertical	77	176	
709	Nelson 18875	Horizontal	77	176	
710	Nelson 18885	Vertical	50	176	Body Horizontal
711	Nelson 19005	Vertical	213	176	
712	Nelson 19051	Vertical	225	176	Approved as T-14222
713	Nelson 19052	Vertical	225	176	Approved as T-14222
714	Nelson 19053	Vertical	225	176	Approved as T-14222
715	Nelson 19062	Horizontal	576	176	Approved as T-18642
716	Nelson 19068	Vertical	133	176	
717	Nelson 19125	Vertical	350	177	
718	Nelson 19126	Vertical	238	177	
719	Nelson 19139	Vertical	93	177	Two inlets; One outlet
720	Nelson 19269	Vertical	225	177	Approved as 19053
721	Nelson 19273	Vertical	300	177	Approved as T-14219
722	Nelson 19341	Horizontal	193	177	Body Horizontal
723	Nelson 19382	Vertical	124	177	Body Horizontal
724	Nelson 19383	Vertical	225	177	Approved as 19052, See Nelson T-14222
725	Nelson 19453	Inverted	505	178	
726	Nelson 19578	Horizontal	198	178	
727	Nelson 19705	Vertical	213	178	Body Horizontal
728	Nelson 19773	Vertical	243	178	
729	Nelson 19820	Horizontal	36	178	Also identified as ONAN 155-2048
730	Nelson 19822	Horizontal	38	178	Also identified as ONAN 155-2047
731	Nelson 19825	Horizontal	18	179	Body vertical
732	Nelson 19826	Horizontal	28	179	Body vertical
733	Nelson 19830	Vertical	345	179	Not qualified above 345 cfm
734	Nelson 19853	Vertical	405	179	Also identified as IHC1275825C, Body Horizontal
735	Nelson 19941	Horizontal	94	179	Two inlets; One outlet. Body Horizontal

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
736	Nelson 19973	Horizontal	45	180	Body Horizontal
737	Nelson 19975	Horizontal	95	180	Two inlets; One outlet
738	Nelson 19976	Horizontal	125	180	Two inlets; One outlet. Body Horizontal
739	Nelson 19994	Vertical	94	180	Two inlets; One outlet
740	Nelson 20069	Horizontal	470		Body Horizontal
741	Nelson 20072	Vertical	392	181	Body Horizontal
742	Nelson 20147	Horizontal	78	181	Body Horizontal
743	Nelson 20343	Horizontal	46	181	Same as 17898 except two cleanout plugs
744	Nelson 20490	Horizontal	23	181	Approved as Wacker WM80-58406
745	Nelson 20513	Horizontal	66	181	Also identified as ONAN 155-2098
746	Nelson 20519	Vertical	460	181	Body Horizontal
747	Nelson 20539	Horizontal	207	181	Body Horizontal
748	Nelson 20578	Multiple	30	181	Screen; 4-cycle, 4 hp or smaller
749	Nelson 20578B	Multi	30		Screen; 4-cycle, 4 hp or smaller
750	Nelson 20578-B	Multiple	30		Screen; 4-cycle, 4 hp or smaller
751	Nelson 20608	Vertical	160	182	Body Horizontal
752	Nelson 20665	Horizontal	36	182	Approved as 19820
753	Nelson 20666	Horizontal	38	182	Approved as 19822
754	Nelson 20687	Horizontal	33	182	Not qualified above 32.5 cfm Body Horiz
755	Nelson 20710	Vertical	252	182	
756	Nelson 20710	Horizontal	268	182	
757	Nelson 20788	Inverted	27	182	See Kohler 228173
758	Nelson 20892A	Horizontal	48	182	Same as 19822 except for inlet and outlet rotational angle length/Body Horizontal
759	Nelson 20892B	Horizontal	48	182	Star plug closure cleanout
760	Nelson 20952	Horizontal	111	182	Unit equipped with catalytic converter,/Body Horizontal
761	Nelson 20953	Vertical	166	182	Body Horizontal
762	Nelson 20954	Horizontal	257	183	Body Horizontal
763	Nelson 20965	Horizontal	108		Distance between inlet and outlet maybe 10.2 or 12 inches. Body Horizontal
764	Nelson 20990	Horizontal	64	183	Body Horizontal
765	Nelson 20990B	Horizontal	64	183	Modified Nelson 20990
766	Nelson 21079	Horizontal	40	183	Modified Kohler 278223, Body Horizontal
767	Nelson 21140	Horizontal	267	183	Body Horizontal

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
768	Nelson 21161	Inverted	154	183	Body Horizontal
769	Nelson 21278	Inverted	40	183	See Kohler 278223, Body Horizontal
770	Nelson 21279	Horizontal	49	183	Also identified as ONAN 155-2065
771	Nelson 21315	Horizontal	900	183	Body and outlet vertical
772	Nelson 21341	Inverted	106	183	
773	Nelson 21422	Horizontal	40	184	See Kohler 278218, Body Horizontal
774	Nelson 21423	Inverted	44	184	See Kohler 278224, Body Horizontal
775	Nelson 21423B	Horizontal	44	184	See Kohler 278224:Body of arrester Horizontal
776	Nelson 21517	Vertical	245	184	
777	Nelson 21549	Horizontal	57	184	
778	Nelson 21616	Vertical	107	184	Body Horizontal
779	Nelson 21645	Horizontal	40	184	Modified Kohler 278223, Body Horizontal
780	Nelson 21709	Horizontal	82	184	
781	Nelson 21721	Horizontal	36	185	
782	Nelson 21758	Horizontal	571	185	
783	Nelson 21800	Horizontal	128	185	Horizontal inlet & body; Vertical outlet
784	Nelson 21800A	Horizontal	128	186	Modified Nelson 21800. Body Horizontal
785	Nelson 21800C	Horizontal	128	186	Modified Nelson 21800. Body Horizontal
786	Nelson 21863	Horizontal	255		Inlet & outlet Horizontal; Body vertical
787	Nelson 21884	Vertical	178	186	Body Horizontal
788	Nelson 21928	Horizontal	82	186	Body Horizontal
789	Nelson 21950	Vertical	188	186	Body Horizontal
790	Nelson 21950B	Vertical	188		Modified Nelson 21950
791	Nelson 22157	Inverted	46	186	Modified Nelson 16362. Body Horizontal
792	Nelson 22171B	Horizontal	54	186	See Onan 155-2416
793	Nelson 22255	Vertical	250	187	Outlet vertical, Body Horizontal
794	Nelson 22389	Horizontal	67	187	Body Horizontal
795	Nelson 22416	Vertical	160		Modified Nelson 20608
796	Nelson 22506	Vertical	62	187	Body Horizontal
797	Nelson 22506A	Vertical	62	187	Body Horizontal
798	Nelson 22627	Vertical	111	187	Body Horizontal
799	Nelson 22671	Horizontal	84		Modified Nelson 22672
800	Nelson 22672	Horizontal	84	187	Horizontal inlet, body & outlet
801	Nelson 22737	Horizontal	44	188	See Kohler 278224; Body of arrester Horizontal

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
802	Nelson 22755	Horizontal	43	188	See Kohler 239724
803	Nelson 22777	Horizontal	40	188	See Kohler 278223; Body of arrester Horizontal
804	Nelson 22801A	Horizontal	54	188	Modified Nelson 22171-B
805	Nelson 22807A	Vertical	405	188	
806	Nelson 22823	Horizontal	71	188	
807	Nelson 22836	Horizontal	36	188	Modified Nelson 21721
808	Nelson 22904	Inverted	36	188	Modified Nelson 19820
809	Nelson 22917	Horizontal	55	188	
810	Nelson 22992	Vertical	183	188	Body and outlet Horizontal
811	Nelson 22992A	Vertica	205	188	Vertical inlet, horizontal body
812	Nelson 23069	Horizontal	28	189	Modified Nelson 19826
813	Nelson 23094	Vertical	124	189	Modified Nelson 19382, Body/Arrester Horizontal"
814	Nelson 23096	Vertical	206	189	
815	Nelson 23137	Vertical	64	189	Body Horizontal, outlet down
816	Nelson 23162	Inverted	106	189	Modified N-21341 diff. support bracket
817	Nelson 23259A	Multiple	30	189	Screen; 4-cycle, 4 hp or smaller, Onan 155-2514
818	Nelson 23483	Horizontal	31	189	Modified Nelson 21721
819	Nelson 23511A	Vertical	87	189	Body horizontal, inlet inverted
820	Nelson 23516A	Multiple	30	189	Screen; 4-cycle, 4hp or smaller; see Nelson 20578
821	Nelson 23643	Vertical	112	190	Vertical, body horizontal
822	Nelson 23697	Vertical	127	190	Body Horizontal
823	Nelson 23718	Horizontal	64	~	Modified Nelson 20990
824	Nelson 23726	Horizontal	85	190	Two horizontal inlets, one outlet
825	Nelson 23727	Vertical	92	190	Modified Nelson 38195-A
826	Nelson 23746	Vertical	152	190	
827	Nelson 23843	Horizontal	32	190	
828	Nelson 23852	45° from inv	148	190	Cleanout plug 45 deg. from outlet
829	Nelson 23860	Horizontal	33	190	
830	Nelson 23893	Horizontal	228	191	Body Inverted
831	Nelson 23893	Horizontal	228	191	Body Vertical
832	Nelson 24035	Vertical	159	191	
833	Nelson 24083	Vertical	223	191	
834	Nelson 24108A	Multi	30	~	Screen; 4-cycle, 4.0 hp or smaller
835	Nelson 24148	Horizontal	1,027	192	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
836	Nelson 24180	Horizontal	281	192	Qualified with or without the catalytic converter can in place
837	Nelson 24304	Vertical	131	192	
838	Nelson 24379	Vertical	168	192	
839	Nelson 24459	Vertical	895	192	
840	Nelson 24707	Vertical	177	193	
841	Nelson 24710	Vertical	159	193	Body horizontal
842	Nelson 24711	Vertical	131	193	Body horizontal
843	Nelson 24745	Horizontal	121	193	Body horizontal, qualified with or without the catalytic converter can in place.
844	Nelson 24752	Vertical	168	194	
845	Nelson 24756N	Horizontal	49	194	Body horizontal Body horizontal
846	Nelson 24800	Vertical	117	194	
847	Nelson 24839	Vertical	242.4	195	
848	Nelson 24842	Vertical	280	195	
849	Nelson 24866-B	Inverted	25	195	
850	Nelson 24931	Horizontal	92	195	
851	Nelson 24953	Vertical	69	196	
852	Nelson 25007	Horizontal	52	196	
853	Nelson 25012	Vertical	135	196	
854	Nelson 25026	Vertical	231	196	
855	Nelson 25133	Vertical	894	196	
856	Nelson 25191	Inverted	38	197	
857	Nelson 25237	Horizontal	71	197	
858	Nelson 25239-A	Horizontal	118	197	
859	Nelson 25602A	Horizontal	36	198	
860	Nelson 25640	Vertical	43	198	Screen; 4-cycle, 8 hp or smaller Inlet 49° off vertical
861	Nelson 25766	Multiple	48	199	
862	Nelson 25771	Horizontal	160	199	
863	Nelson 25868N	Horizontal	46.6	200	
864	Nelson 25986	Horizontal	83.5	200	
865	Nelson 26054A	Horizontal	47.7	200	
866	Nelson 26147	Horizontal	113	200	
867	Nelson 26201A	Horizontal	105.2	200	
868	Nelson 26252	Vertical	234	200	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
869	Nelson 26281	Horizontal	82.7	201	
870	Nelson 26294	Horizontal	79.8	201	
871	Nelson 26296	Horizontal	74.5	201	
872	Nelson 26359	Horizontal	101	201	
873	Nelson 26438	Horizontal	66.3		
874	Nelson 26454	Horizontal	88	~	
875	Nelson 26465	Horizontal	177.2		
876	Nelson 26503	Horizontal	46	202	
877	Nelson 26617	Horizontal	13	202	
878	Nelson 26710	Horizontal	66	202	
879	Nelson 26710N	Horizontal	77.3	202	
880	Nelson 26749	Horizontal	69	202	
881	Nelson 26875	Horizontal	435	203	
882	Nelson 26876	Horizontal	1,056	203	
883	Nelson 26897	Horizontal	63.2	203	See Onan 155-3151
884	Nelson 27021	Horizontal	71	203	
885	Nelson 27137	Horizontal	32	~	
886	Nelson 27173	Horizontal	234.4	204	
887	Nelson 27174	Horizontal	67	204	
888	Nelson 27196A	Horizontal	63.4	204	
889	Nelson 27222	Horizontal	73	204	
890	Nelson 27258	Horizontal	72	204	
891	Nelson 27404A	Horizontal	484	205	
892	Nelson 27453	Vertical inlet, horizontal body	258	205	
893	Nelson 27453A	Vertical inlet, horizontal body	234		
894	Nelson 27475	Horizontal	217.5	205	
895	Nelson 27522	Horizontal	89	205	
896	Nelson 27543A	Horizontal	262	206	
897	Nelson 27692	Vertical inlet horizontal body	254	206 206	
898	Nelson 27780	Horizontal	72		
899	Nelson 27890	Horizontal	67		

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
900	Nelson 27901	Horizontal	102.8	206	
901	Nelson 28057N	Horizontal	737.3	206	
902	Nelson 28061N	Horizontal	560	207	
903	Nelson 28070N	Horizontal	608	207	
904	Nelson 28151	Horizontal	75		
905	Nelson 28186	Horizontal	130	207	
906	Nelson 30134	Vertical	298	207	
907	Nelson 30670	Vertical	352	208	
908	Nelson 35347	Multiple	81	208	Screen; 4-cycle, 23 hp for use on Nelson 16184, 16348, 17605, 17814, 18672 and 21146 mufflers.
909	Nelson 38195	Vertical	104	208	Outlet horizontal. Body horizontal
910	Nelson 38196	Horizontal	111	209	2 inlets, body horizontal, outlet inverted
911	Nelson 49013	Multiple	118	209	Screen; 4-cycle, 20 hp or smaller
912	Nelson 49017	Multiple	48	209	Screen; 4-cycle, 8hp 19.44 cu. in. or smaller
913	Nelson 49019	Multiple	48	209	Screen; 4-cycle, 8hp 19.44 cu. in. or smaller
914	Nelson 49020	Multiple	54	210	Screen; 4-cycle, 10hp or smaller
915	Nelson 49021	Multiple	67	210	Screen; 4-cycle, 12.5 hp or smaller
916	Nelson 49022	Multiple	89	210	Screen; 4-cycle, 18hp or smaller
917	Nelson 49022 G	Multiple	95	210	Reverse screen cone
918	Nelson 49024	Multiple	118	210	Screen; 4-cycle, 20 hp or smaller
919	Nelson 49025	Multiple	222	210	Screen; 4-cycle, 35 hp or smaller
920	Nelson 49026	Multiple	222	211	Screen, 4-cycle, 35 hp or smaller
921	Nelson 49110	Horizontal	50		Approved as T-9458
922	Nelson 49110	Vertical	75		Approved as T-9458
923	Nelson 49114	Vertical	105		Approved as T-14123
924	Nelson 49114	Horizontal	99	~	
925	Nelson 49115	Horizontal	123	211	
926	Nelson 49115	Vertical	24	211	
927	Nelson 49115C	Vert & Hor	124	211	49115 with 1 inch pipe inlet, curved outlet
928	Nelson 49119	Horizontal	237	211	
929	Nelson 49119	Vertical	240	211	
930	Nelson 49120	Vertical	255	211	
931	Nelson 49120-F	Vertical	255	211	Inlet may vary 2 inch I.D. to 2- inch I.D.
932	Nelson 49120-F	Horizontal	260	211	Outlet may vary 2 inch O.D. to 2-inch I.D. See Nelson U-49120

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
933	Nelson 49124	Vertical	302	211	
934	Nelson 49125	Vertical	344	212	
935	Nelson 49125	Horizontal	347	212	
936	Nelson 49130	Horizontal	655	212	
937	Nelson 49130	Vertical	663	212	
938	Nelson 49135	Vertical	830	212	
939	Nelson 49135	Horizontal	950	212	
940	Nelson 49140	Vertical	760	212	
941	Nelson 49140	Horizontal	920	212	
942	Nelson 49150	Vertical	1,275	212	
943	Nelson 49150	Horizontal	1,275	212	
944	Nelson 49150U	Horizontal	1,275	212	See also Nelson 49150
945	Nelson 49150U	Vertical	1,275	212	See also Nelson 49150
946	Nelson 49160	Horizontal	2,020	213	
947	Nelson 49160	Vertical	2,040	213	
948	Nelson 613313	Multiple	60	213	Screen; 4-cycle, 12.5 hp or smaller
949	Nelson 614338	Multiple	87	213	Screen, 4-cycle, 20 hp
950	Nelson NM615351	Multiple	125	213	
951	Nelson T-10093	Horizontal	20		Not qualified above 20 cfm
952	Nelson T-10115	Vertical	227	146	
953	Nelson T-10115	Horizontal	232	146	
954	Nelson T-10126	Vertical	122	146	
955	Nelson T-10213	Horizontal	213	146	Body Horizontal
956	Nelson T-10214	Horizontal	348	146	Body Horizontal
957	Nelson T-10215	Horizontal	394	147	Body Horizontal
958	Nelson T-10244	Horizontal	520	147	
959	Nelson T-10291	Horizontal	33	147	
960	Nelson T-10374	Vertical	176	147	Body Horizontal
961	Nelson T-10409	Horizontal	21	147	
962	Nelson T-10705	Horizontal	24	147	
963	Nelson T-10792	Horizontal	67	147	Body Horizontal
964	Nelson T-10860	Horizontal	100	147	
965	Nelson T-10895	Horizontal	18	148	
966	Nelson T-10897	Vertical	112	148	Body Horizontal

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
967	Nelson T-10898	Horizontal	20	148	
968	Nelson T-10956	Inverted	808	148	
969	Nelson T-10968	Vertical	148	148	Body Horizontal
970	Nelson T-11068C	Inverted	47	148	Body Horizontal
971	Nelson T-11145	Vertical	382	149	
972	Nelson T-11159	Inverted	24	149	
973	Nelson T-11336	Horizontal	239	149	Body Horizontal
974	Nelson T-11337	Vertical	308	149	Body Horizontal
975	Nelson T-11424	Inverted	63	149	Body Horizontal
976	Nelson T-11601C	Horizontal	26	149	
977	Nelson T-11606	Horizontal	43	149	See Generac 33232
978	Nelson T-11668	Vertical	164	149	
979	Nelson T-11708	Vertical	31	149	P/N NMC-T-11892, Body horizontal
980	Nelson T-11730H	Horizontal	13	149	
981	Nelson T-11842	Inverted	808	150	Same as T-10956
982	Nelson T-11915	Horizontal	30	150	Body vertical
983	Nelson T-11927	Horizontal	324	150	
984	Nelson T-11976	Vertical	125	150	
985	Nelson T-12499	Horizontal	505	150	Body Horizontal
986	Nelson T-12502	Vertical	227	150	Approved as T-10115
987	Nelson T-12502	Horizontal	232	150	Approved as T-10115
988	Nelson T-12760B	Inverted	21	150	Body Horizontal
989	Nelson T-12761	Inverted	38	150	Body Horizontal
990	Nelson T-12818	Vertical	305	150	
991	Nelson T-12825F	Inverted	28	150	Centerline or offset outlet tube, one or two, clean out plugs. Body Horizontal
992	Nelson T-12863	Horizontal	92	150	
993	Nelson T-13109	Horizontal	210	151	
994	Nelson T-13265	Inverted	23	151	
995	Nelson T-13300	Horizontal	11	151	
996	Nelson T-13304	Horizontal	50	151	Approved as T-9458
997	Nelson T-13376	Horizontal	50	151	Approved as T-9458
998	Nelson T-13473	Horizontal	180	151	Body Horizontal
999	Nelson T-13502	Horizontal	640	151	Two horizontal inlets. Body Horizontal

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1000	Nelson T-13529	Horizontal	69	151	
1001	Nelson T-13559	Horizontal	17	151	Body Horizontal
1002	Nelson T-13572	Inverted	18	151	Body Horizontal
1003	Nelson T-13651	Vertical	485	152	
1004	Nelson T-13716	Vertical	425	152	Body Horizontal
1005	Nelson T-13846	Vertical	176	152	Body Horizontal
1006	Nelson T-13919	Vertical	216	152	Body Horizontal
1007	Nelson T-13933	Inverted	93	152	Body Horizontal
1008	Nelson T-13934	Vertical	206	152	
1009	Nelson T-13935	Vertical	219	152	New Holland No.285187, Body Horizontal
1010	Nelson T-13940	Inverted	125	152	Body Horizontal
1011	Nelson T-13944	Horizontal	33	152	Approved as T-10291
1012	Nelson T-13977	Vertical	205	153	
1013	Nelson T-13978	Vertical	166	153	
1014	Nelson T-13979	Vertical	166	153	
1015	Nelson T-13994	Inverted	213	153	Body Horizontal
1016	Nelson T-13995	Vertical	382	153	
1017	Nelson T-13995	Horizontal	388	153	
1018	Nelson T-13999	Inverted	30	153	Body Horizontal
1019	Nelson T-14000	Inverted	42	153	Two inlets. Body Horizontal
1020	Nelson T-14002	Horizontal	11	154	Body vertical
1021	Nelson T-14005	Vertical	380	154	
1022	Nelson T-14066	Vertical	204	154	Approved as T-9213
1023	Nelson T-14066	Horizontal	208	154	Approved as T-9213
1024	Nelson T-14090	Horizontal	59	154	Body Horizontal
1025	Nelson T-14099	Inverted	178	154	Body Horizontal
1026	Nelson T-14105	Horizontal	169	154	
1027	Nelson T-14106	Horizontal	69	154	Approved as T-1352
1028	Nelson T-14110B	Vertical	421	154	
1029	Nelson T-14116	Horizontal	51	155	Body Horizontal
1030	Nelson T-14123	Horizontal	99	155	Body Horizontal
1031	Nelson T-14125	Inverted	50	155	Body Horizontal
1032	Nelson T-14214	Horizontal	153	155	
1033	Nelson T-14217	Horizontal	183	155	

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1034	Nelson T-14219	Vertical	300	155	Two inlets; one outlet
1035	Nelson T-14220	Vertical	683	155	
1036	Nelson T-14222	Vertical	225	156	
1037	Nelson T-14223	Horizontal	150	156	
1038	Nelson T-14223	Vertical	160	156	
1039	Nelson T-14224	Vertical	170	156	Body Horizontal
1040	Nelson T-14315	Inverted	68	156	
1041	Nelson T-14316	Horizontal	74	156	
1042	Nelson T-14321	Inverted	25	156	
1043	Nelson T-14327	Vertical	505	156	Approved as T-12499
1044	Nelson T-14334	Horizontal	543	156	Body Vertical
1045	Nelson T-14334	Vertical	561	156	With eductor tube, Body Horizontal
1045	Nelson T-14382	Horizontal	520	156	Approved as T-10244
1047	Nelson T-14390	Vertical	111	~	
1048	Nelson T-14402	Horizontal	147	157	
1049	Nelson T-14403	Horizontal	155	157	Approved as T-13529
1050	Nelson T-14406	Horizontal	69	157	
1051	Nelson T-14415	Vertical	205	157	
1052	Nelson T-14425	Horizontal	99	157	
1053	Nelson T-14529	Vertical	275	157	Approved as T-14123
1054	Nelson T-14630	Horizontal	240	157	Body Horizontal
1055	Nelson T-14631	Vertical	315	157	Body Horizontal
1056	Nelson T-14671	Horizontal	147	158	
1057	Nelson T-14688	Horizontal	75	158	Body Vertical
1058	Nelson T-14754	Horizontal	261	158	
1059	Nelson T-14816	Horizontal	210	158	See ONAN 155-1485
1060	Nelson T-14853	Inverted	69	158	
1061	Nelson T-14907	Vertical	209	158	Body Horizontal
1062	Nelson T-15077	Inverted	47	158	
1063	Nelson T-15078	Horizontal	48	159	Body Horizontal
1064	Nelson T-15079	Horizontal	57	159	Body Horizontal
1065	Nelson T-15080	Horizontal	67	159	Body Horizontal
1066	Nelson T-15215	Horizontal	136	159	
1067	Nelson T-15341	Horizontal	92	159	Two inlets; One outlet. Body Horizontal

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1068	Nelson T-15611	Horizontal	65	160	Body Horizontal
1069	Nelson T-15688	Horizontal	513	160	Body Vertical
1070	Nelson T-15689	Horizontal	618	160	Body Vertical
1071	Nelson T-6277	Vertical	154	144	
1072	Nelson T-7033	Vertical	250	144	
1073	Nelson T-7359	Vertical	245	144	
1074	Nelson T-7515	Vertical	335	144	
1075	Nelson T-8680	Vertical	262	144	
1076	Nelson T-8714	Horizontal	417	144	
1077	Nelson T-8714	Vertical	429	144	
1078	Nelson T-9098	Horizontal	141	144	Not qualified above 141 cfm
1079	Nelson T-9099	Horizontal	194	144	
1080	Nelson T-9099	Vertical	196	144	
1081	Nelson T-9213	Vertical	204	145	
1082	Nelson T-9213	Horizontal	208	145	
1083	Nelson T-9219	Vertical	164	145	Body Horizontal
1084	Nelson T-9220	Vertical	170	145	Body Horizontal
1085	Nelson T-9304	Vertical	438	145	
1086	Nelson T-9356	Vertical	450	145	
1087	Nelson T-9356	Horizontal	474	145	
1088	Nelson T-9370	Vertical	198	145	
1089	Nelson T-9457	Horizontal	50	145	
1090	Nelson T-9458	Horizontal	50	145	
1091	Nelson T-9460	Horizontal	37	145	
1092	Nelson T-9489	Inverted	76	145	
1093	Nelson T-9605	Vertical	146	146	See John Deere AT-33686
1094	Nelson T-9605	Horizontal	148	146	See John Deere AT-33686
1095	Nelson T-9932	Horizontal	415	146	
1096	Nelson T-9932	Vertical	426	146	
1097	Nelson T-9995	Vertical	31	146	Body Horizontal
1098	Nelson-Burgess 17AE07	Vertical	213	213	Also identified as 10420A
1099	Nelson-Burgess 17AE08	Vertical	227	213	Also identified as 10250A
1100	Nelson-Burgess 17AE10	Vertical	219	214	Also identified as 10255A
1101	Nelson-Burgess 17AE12	Vertical	226	214	Also identified as 10415A

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1102	Nelson-Burgess 17AE14	Vertical	258	214	Also identified as 10421A Distance between inlet and outlet may be 10.2 or 12 inches. Body Horizontal.
1103	Nelson-Burgess 20965	Horizontal	108	214	
1104	Nelson-Burgess 20965	Horizontal	108	214	
1105	Nelson-Burgess 39616	Horizontal	323	214	Horizontal Inlet, Body & Outlet
1106	O&R 76	Multiple	16	216	Screen; 2-cycle 1 hp or smaller
1107	Onan 0155-3110	Horizontal	46	215	
1108	Onan 155-1254	Horizontal	92	215	See Nelson T-12863
1109	Onan 155-1258	Inverted	28	215	See Nelson T-12825F
1110	Onan 155-1485	Inverted	69	215	See Nelson T-14853
1111	Onan 155-1520	Inverted	42	215	See Nelson 15893
1112	Onan 155-1698	Vertical	75	215	See Nelson 16752
1113	Onan 155-2047	Horizontal	38	215	See Nelson 19822
1114	Onan 155-2048	Horizontal	36	215	See Nelson 19820
1115	Onan 155-2065	Horizontal	49	215	See Nelson 21279
1116	Onan 155-2085	Horizontal	36	215	See Nelson 20665
1117	Onan 155-2086	Horizontal	38	215	See Nelson 20666
1118	Onan 155-2098	Horizontal	66	215	See Nelson 20513
1119	Onan 155-2186	Multi	30	215	Screen; 4-cycle, 4 hp or smaller; Nelson 20578
1120	Onan 155-2186	Multiple	30	215	Screen; 4-cycle, 4 hp or smaller
1121	Onan 155-2262	Horizontal	82	215	See Nelson 21709
1122	Onan 155-2416	Horizontal	54	215	
1123	Onan 155-2514	Multi	30	215	Screen; 4-cycle, 4hp or smaller; Nelson 23295A
1124	Onan 155-2783	Inverted	25	215	Body horizontal
1125	Onan 155-2885	Vertical	43	215	See Nelson 25640
1126	Onan 155-2951	Horizontal	71	215	See Nelson 25191
1127	Onan 155-3151	Horizontal	63.2	215	See Nelson 26897
1128	Pacific Pumper			216	See WAJAX-PACIFIC
1129	PKM II	Special purpose	38	216	For use on 7 hp, 4-cycle engine-driven generator only
1130	Polaris 1206702	Horizontal	44	218	Modified Polaris 1260588
1131	Polaris 1206741	Horizontal	75	218	See Polaris 1260535
1132	Polaris 1260510	Horizontal	41	217	
1133	Polaris 1260520	Horizontal	65	217	
1134	Polaris 1260535	Horizontal	75	217	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1135	Polaris 1260535-5	Horizontal	75	217	Modified Polaris 1260535
1136	Polaris 1260544	Horizontal	75	217	Modified Polaris 1260535
1137	Polaris 1260576	Horizontal	75	217	Modified Polaris 1260535
1138	Polaris 1260588	Horizontal	44	217	
1139	Polaris 1260616	Horizontal	44		Modified Polaris 1260588
1140	Polaris 1260629	Horizontal	61	217	
1141	Polaris 1260702	Horizontal	44	218	Modified Polaris 1260588
1142	Polaris 1260715	Horizontal	55	218	
1143	Polaris 1260741	Horizontal	75	218	See Polaris 1260535
1144	Polaris 1260742	Horizontal	61	218	See Polaris 1260629
1145	Polaris 1260745	Horizontal	85.9	219	
1146	Polaris 1260807	Horizontal	55	219	
1147	Polaris 1260843	Horizontal	55	219	
1148	Polaris 1260869	Horizontal	73.5	220	
1149	Polaris 1260884	Horizontal	100	220	
1150	Polaris 1260891	Horizontal	73	220	
1151	Polaris 1260894	Horizontal	73	220	See Polaris 1260891
1152	Polaris 1260903	Horizontal	73.5	221	See Polaris 1260869
1153	Polaris 1260903	Horizontal	74	221	See Polaris 1260869
1154	Polaris 1260910	Horizontal	75	221	See Polaris 1260535
1155	Polaris 1260930	Horizontal	73.6	221	
1156	Polaris 1260961	Horizontal	73	221	See also 1260977
1157	Polaris 1260968	Horizontal	73	222	
1158	Polaris 1260977	Horizontal	73	222	
1159	Polaris 1260989	Horizontal	55	222	See also 1260715
1160	Polaris 1261006	Horizontal	74	222	
1161	Polaris 1261022	Horizontal	75	~	
1162	Polaris 1261042	Horizontal	55	~	See Polaris 1260715
1163	Powell No. F	Horizontal	27	223	
1164	Pro-Circuit PC-0070-0	Horizontal	89.8	223	
1165	Pro-Circuit PC-007-R	Horizontal	89.8	224	
1166	Reliable M-07-0285	Vertical	512	224	
1167	Riker SA-200	Vertical	208	224	
1168	Riker SA-200	Horizontal	208	224	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1169	Riker SA2009	Horizontal	273		See Donaldson FCM0600037
1170	Riker SA2009	Vertical	296		See Donaldson FCM0600037
1171	Riker SA2059	Horizontal	427		See Donaldson FCM065030
1172	Riker SA2059	Vertical	436		See Donaldson FCM065030
1173	Riker SA-250	Vertical	345	224	
1174	Riker SA-250	Horizontal	369	224	
1175	Riker SA-300	Vert & Hor	400	224	
1176	Riker SA3009	Horizontal	597		See Donaldson FCM070068
1177	Riker SA3009	Vertical	644		See Donaldson FCM070068
1178	Riker SA-350	Vertical	545	224	
1179	Riker SA-350	Horizontal	587	224	
1180	Riker SA-350-1	Vertical	381	224	Modified SA-350
1181	Riker SA3509	Horizontal	842		See Donaldson FCM070069
1182	Riker SA3509	Vertical	881		See Donaldson FCM070069
1183	Riker SA-353	Horizontal	517	224	
1184	Riker SA-400	Vertical	585	224	
1185	Riker SA4009	Horizontal	1,177		See Donaldson FCM080024
1186	Riker SA4009	Vertical	1,200		See Donaldson FCM080024
1187	Riker SA-400A	Horizontal	582	224	
1188	Riker SA-400A	Vertical	600	224	
1189	Riker SA-401	Vertical	680	225	
1190	Riker SA-401	Horizontal	723	225	
1191	Riker SA-408	Horizontal	860	225	
1192	Riker SA-408	Vertical	900	225	
1193	Riker SA-409	Horizontal	809	225	Modified SA-408
1194	Riker SA-500	Vertical	979	225	
1195	Riker SA-500	Horizontal	989	225	
1196	Riker SA5009	Horizontal	1,630		See Donaldson FCM090091
1197	Riker SA5009	Vertical	1,670		See Donaldson FCM090091
1198	Riker SA6009	Horizontal	2,480		See Donaldson FCM100016
1199	Riker SA6009	Vertical	2,660		See Donaldson FCM100016
1200	Riker SA-6762	Vertical	550	225	Modified SA-408 in muffler shell.
1201	Rupp 32004	Horizontal	24	225	
1202	Skyway 1000	Horizontal	40	226	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1203	Skyway 2500	Horizontal	74	226	Body length may vary from 8.5 to 16.5 inches Modified Skyway-Cobra 300 add-on w/angled body Motorcycle
1204	Skyway 300 Series	Horizontal	107	226	
1205	Skyway 510 Series 300	Horizontal	60	226	
1206	Skyway-Cobra 300	Horizontal	176	226	
1207	Skyway-Cobra 300-1	Horizontal	161	226	
1208	Soundmaster 1578	Vertical	296	~	
1209	Soundmaster 21578	Horizontal	273	227	
1210	Soundmaster 21579	Vertical	436	227	
1211	Soundmaster 21579	Horizontal	427	227	
1212	Soundmaster 21580	Horizontal	597	227	
1213	Soundmaster 21580	Vertical	644	227	
1214	Soundmaster 21581	Vertical	881	227	
1215	Soundmaster 21581	Horizontal	842	227	
1216	Soundmaster 21582	Vertical	1,200	227	
1217	Soundmaster 21582	Horizontal	1,177	227	
1218	Soundmaster 21584	Vertical	1,670	227	See Nelson 12825F
1219	Soundmaster 21584	Horizontal	1,630	227	
1220	Soundmaster 21585	Inverted	28	227	
1221	Soundmaster 22005	Horizontal	2,020	227	
1222	Soundmaster 22005	Vertical	2,040	227	
1223	Soundmaster 35807	Horizontal	123	227	
1224	Soundmaster 35807	Vertical	124	227	
1225	Sparester 601	Horizontal	53	228	
1226	Sparester 602	Inverted	47	228	
1227	Sparester 801	Horizontal	97	228	
1228	Sparester SA-100	Horizontal	147	227	
1229	Sparester SA-120	Horizontal	233	227	
1230	Sparester SA-140	Horizontal	285	227	
1231	Sparester SA-160	Horizontal	350	227	
1232	Sparester SA-190	Horizontal	541	228	
1233	Sparester SA-240	Horizontal	669	228	
1234	Sparester SA-280	Horizontal	995	228	
1235	Sparky	Horizontal	176	~	
1236	Stemco 262-1059	Horizontal	273	229	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1237	Stemco 262-1059	Vertical	296	229	See Donaldson FCM06-0037
1238	Stemco 262-1060	Horizontal	427	229	See Donaldson FCM06-5030
1239	Stemco 262-1060	Vertical	436	229	See Donaldson FCM06-5030
1240	Stemco 262-1061	Horizontal	597	229	See Donaldson FCM07-0068
1241	Stemco 262-1061	Vertical	644	229	See Donaldson FCM07-0068
1242	Stemco 262-1062	Horizontal	842	229	See Donaldson FCM07-0069
1243	Stemco 262-1062	Vertical	881	229	See Donaldson FCM07-0069
1244	Stemco 262-1063	Horizontal	1,177	229	See Donaldson FCM08-0024
1245	Stemco 262-1063	Vertical	1,200	229	See Donaldson FCM08-0024
1246	Stemco 262-1064	Horizontal	1,630	229	See Donaldson FCM09-0091
1247	Stemco 262-1064	Vertical	1,670	229	See Donaldson FCM09-0091
1248	Stemco 262-2020	Horizontal	260	229	See Nelson U-49120
1249	Stemco 262-2025	Horizontal	347	229	See Nelson U-49125
1250	Stemco 262-2030	Vertical	633	229	See Nelson U-49130
1251	Stemco 262-2035	Vertical	830	229	See Nelson 49135
1252	Stemco 262-2035	Horizontal	950	229	See Nelson 49135
1253	Stemco 262-2040	Horizontal	920	229	See Nelson 49140
1254	Stemco 262-2050	Horizontal	1,275	229	See Nelson 49150
1255	Stemco 262-2050	Vertical	1,275	229	See Nelson 49150
1256	Stemco 595M	Inverted	675	229	See Stemco 595M
1257	Strader 200	Horizontal	29	229	Not qualified above 46 cu ft/min
1258	Strader 400	Horizontal	46	229	
1259	Supertrapp T-100 **	Multiple	243	230	
1260	Supertrapp T-101 **	Multiple	170	230	
1261	Supertrapp T-102 **	Multiple	64	230	
1262	Supertrapp T-99 **	Multiple	31	230	Screen type
1263	Suzuki HS-050	Multiple	36		
1264	Suzuki HS-1	Horizontal	5	231	
1265	Suzuki HS-10	Multi	68	233	
1266	Suzuki HS-11	Multiple	15	~	
1267	Suzuki HS-2	Multiple	13	231	
1268	Suzuki HS-3	Multiple	51	231	Screen; 4-cycle, 7.8 hp or less
1269	Suzuki HS-4	Multiple	22	231	Screen; 2-cycle, 1.8 hp or less
1270	Suzuki HS-5	Multiple	25	232	Screen; 4-cycle, 4.2 hp or less

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1271	Suzuki HS-5A	Multiple	25	232	Screen; 4-cycle, 3.8 hp or smaller
1272	Suzuki HS-5AB	Multi	30	232	Screen, 4-cycle, 6.0 hp
1273	Suzuki HS-6	Multiple	25	232	Screen; 4-cycle, 4.2 hp or less
1274	Suzuki HS-7	Multiple	41	232	Screen; 4-cycle, 9.0 hp or smaller
1275	Suzuki HS-7A	Multiple	41	233	Screen; 4-cycle, 9.0 hp or smaller
1276	Suzuki HS-7B	Multi	44	~	Screen, 4-cycle, 9.0 hp
1277	Suzuki HS-8	Multiple	22	~	Screen; 2-cycle, 1.8 hp hp or smaller
1278	Suzuki HS-9	Multi	68	233	Screen; 4-cycle, 14 hp or less
1279	Suzuki KS-450	Horizontal	82	234	
1280	Suzuki KS-450-1	Horizontal	42	234	
1281	Suzuki KS-450-2	Horizontal	83	234	
1282	Suzuki KS-450-3	Horizontal	48	234	
1283	Suzuki-Krizman K-15	Horizontal	20	235	
1284	Suzuki-Krizman KS-250	Horizontal	27	235	Additional cross reference 345/419
1285	Suzuki-Krizman KS-250	Horizontal	26	235	For SE 1500 & SE 2500
1286	Suzuki-Krizman KS-250 (for TM 75)	Horizontal	20	235	
1287	Suzuki-Krizman KS-250 (for TS 80)	Horizontal	23	235	
1288	Suzuki-Krizman KS-250 (for Alt 50)	Horizontal	17	235	
1289	Suzuki-Krizman KS-250M	Horizontal	25	236	TM 75&TC 100K Motorcycle cycle muffler
1290	Suzuki-Krizman KS-350-3	Horizontal	39	236	
1291	Suzuki-Krizman KS-350-3	Horizontal	30	236	For LT 185
1292	Suzuki-Krizman KS-350-3	Horizontal	30	236	For LT 250
1293	Suzuki-Krizman KS-351	Horizontal	50	236	
1294	Suzuki-Krizman KS-400	Horizontal	84	236	
1295	Suzuki-Krizman KS-400 (for PE 250)	Horizontal	39	237	
1296	Suzuki-Krizman KS-400-1	Horizontal	47	237	Modified KS-400
1297	Suzuki-Sparester 2-1	Horizontal	72.6	241	
1298	Suzuki-Sparester 2-2	Horizontal	73	241	
1299	Suzuki-Sparester-1 X02C0X	Horizontal	33	242	
1300	Suzuki-Sparester-2-3	Horizontal	69.1	241	Suzuki-Sparester 801 Horizontal 97 ~
1301	Suzuki-Sparester 801 LT500R	Horizontal	73	242	
1302	Suzuki-Sparester 801 X19AOX	Horizontal	97	242	Suzuki LT250RATV
1303	Suzuki-Sparester 801 X19BOX	Horizontal	53	242	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1304	Suzuki-Sparester 801 X22AOX	Horizontal	97	242	On Suzuki LT120SATV, one clean out plug; On Suzuki LT230EATV, two clean out plugs.
1305	Suzuki-Sparester 801-X0523X	Horizontal	46	242	
1306	Suzuki-Sparester-1	Horizontal	81	239	
1307	Suzuki-Sparester-1 DR-400	Horizontal	87	237	
1308	Suzuki-Sparester-1 LT-80	Horizontal	25	237	
1309	Suzuki-Sparester-1 PE-175	Horizontal	87	237	
1310	Suzuki-Sparester-1 PE-250	Horizontal	87	237	
1311	Suzuki-Sparester-1 PE-400	Horizontal	87	~	
1312	Suzuki-Sparester-1-1	Horizontal	61	239	
1313	Suzuki-Sparester-1-2	Horizontal	42	240	Enlarged inlet bell
1314	Suzuki-Sparester-1-3	Horizontal	42	240	
1315	Suzuki-Sparester-2-1	Horizontal	72.6	241	
1316	Suzuki-Sparester-801-1	Horizontal	61	~	
1317	Suzuki-Sparester-850	Horizontal	57	~	
1318	Suzuki-Sparester-850-1	Horizontal	49	~	Muffler body must be labeled screen type
1319	Taga Corporation & Japan Design	Horizontal	370	~	
1320	Taylor 100	Multiple	26	243	Screen; 4-cycle, 4 hp or less
1321	Taylor 200	Multiple	46	243	Screen; 4-cycle, 8 hp or less
1322	Taylor 300	Multiple	46	243	Screen; 4-cycle, 7 hp or less
1323	Taylor 400	Multiple	26	243	Screen; 4-cycle, 4 hp or less
1324	Taylor 400A	Multiple	26	243	Screen; 4-cycle, 4 hp or less
1325	Taylor 750	Multiple	30	243	Screen; 4-cycle, 10 hp or less
1326	Taylor 750A	Multiple	46	243	Screen; 4-cycle, 8 hp or less
1327	Taylor 751	Multiple	61	244	Screen; 4-cycle, 10 hp or less
1328	Taylor 800	Multiple	46	244	Screen; 4-cycle, 8 hp or less
1329	Taylor 80	Multiple	64	~	Screen; 2-cycle, 5.5 hp or less
1330	Taylor 90	Multiple	57	~	Screen; 4-cycle, 10 hp or less
1331	Taylor 95	Multiple	50	~	Screen; 4-cycle, 10 hp or less
1332	Teck 1-6250- C	Vertical	259	248	
1333	Teck SS-860-2	Horizontal	181	248	
1334	Teck SS-860-2	Vertical	204	248	
1335	Teck SS-860-25	Horizontal	205	248	
1336	Teck SS-860-25	Vertical	208	248	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1337	Teck SS-860-3	Vertical	238	248	
1338	Teck SS-860-3	Horizontal	245	248	
1339	Teck SS-860-35	Horizontal	372	248	
1340	Teck SS-860-35	Vertical	377	248	
1341	Teck SS-860-4A	Horizontal	383	248	
1342	Teck SS-860-4A	Vertical	386	248	
1343	Teck SS-860-5	Vertical	532	248	
1344	Tecumseh 35352	Multiple	70	245	Screen; 4-cycle, 12 hp or less
1345	Tecumseh 35352	Multiple	54	245	Screen; 4-cycle, 13 hp or smaller
1346	Tecumseh 36085	Multiple	31	246	Screen; 4-cycl, 5 hp or smaller
1347	Tecumseh 36411	Multiple	110	~	Screen; 4-cycle, 2.5 hp or smaller
1348	Tecumseh 390301A	Multiple	16	246	Screen; 2-cycle, 2 hp or smaller
1349	Tecumseh 390309	Multiple	42	247	Screen; 2-cycle, 4 hp or smaller
1350	Tecumseh 400B	Multiple	26	245	Screen; 4-cycle, 4 hp or less
1351	Tecumseh 751A	Multiple	26	245	Screen; 4-cycle, 5 hp or smaller
1352	Tillery T-134	Multiple	45	249	Screen; 2-cycle, 6.5 hp or less
1353	Tillery T-234	Multiple	26	249	Screen; 4-cycle, 4 hp or less
1354	Toro 36-4750	Multiple	19	249	Screen; 4-cycle, 2.27 hp or less
1355	Toro 56-6730	Multiple	21	249	Screen; 4-cycle, 3.7 hp or less
1356	Toro 81-0200	Multiple	31	249	Screen; 2-cycle, 3.5 hp or less
1357	Torque TQ 1000	Horizontal	24	250	
1358	Torque TQ 2000	Horizontal	34	250	
1359	Torque TQ 3000	Horizontal	43	250	
1360	Torque TQ 3000A	Horizontal	42	250	
1361	Torque TQ 3000B	Horizontal	46	250	
1362	USDA FS-3	Vertical	530	250	Prototype
1363	USDA FS-3	Horizontal	614	250	Prototype
1364	USDA FS-3	Horizontal	622	250	Prototype
1365	USDA FS-4	Horizontal	164	250	Prototype
1366	Wacker WM80-58406	Horizontal	23	~	
1367	Wajax-Pacific PB-1196	Horizontal	69	252	Primer-arrester
1368	Wajax-Pacific PC-1216	Horizontal	56	252	Primer-arrester
1369	Wajax-Pacific Pumper D-4479	Horizontal	57	251	Primer-arrester. Also called Pacific, Pumper or Wajax.
1370	Wajax-Pacific Pumper Model 2	Multiple	103	251	Screen; 2-cycle, 8.5 hp or less. Also called Pacific Pumper or Wajax.

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	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1371	Walker 21578	Vertical	296	252	
1372	Walker 21578	Horizontal	273	252	
1373	Walker 21579	Horizontal	427	252	
1374	Walker 21579	Vertical	436	252	
1375	Walker 21580	Horizontal	597	252	
1376	Walker 21580	Vertical	644	252	
1377	Walker 21581	Vertical	881	252	
1378	Walker 21581	Horizontal	842	252	
1379	Walker 21582	Vertical	1,200	252	
1380	Walker 21582	Horizontal	1,177	252	
1381	Walker 21584	Vertical	1,630	252	
1382	Walker 21584	Horizontal	1,275	252	
1383	Walker 21585	Inverted	28	252	See Nelson T-12825F
1384	Walker 22005	Horizontal	2,020	252	
1385	Walker 22005	Vertical	2,040	252	
1386	Walker 35807	Horizontal	123	252	
1387	Walker 35807	Vertical	124	252	
1388	Washington Iron Works No.3	Vertical	615	252	Discontinued
1389	White Brothers E-Series #2000	Horizontal	300	253	Disc type, closed endcap disc must be in place
1390	Wintec 500	Horizontal	71	253	
1391	Xducer See SUPERTRAPP	~	~	253	See SUPERTRAPP
1392	Xdusor II	Horizontal	155	253	Modified Xdusor X-100
1394	Xdusor X-100	Horizontal	102	253	
1395	Yamaha EG 100A	Horizontal	33	253	
1396	Yamaha EG 100B	Horizontal	26	253	
1397	Yamaha EG 102A	Horizontal	46	253	Not qualified for use above rated flow
1398	Yamaha EG 102B	Horizontal	45	253	Not qualified for use above rated flow
1399	Yamaha EG 103A	Vertical	27	254	
1400	Yamaha EG 103B	Vertical	27	254	
1401	Yamaha EG 104A	Vertical	22	254	Not qualified for use above rated flow
1402	Yamaha EG 104B	Vertical	20	254	
1403	Yamaha EG 105A	Inverted	19	254	Not qualified for use above rated flow
1404	Yamaha EG 106	Horizontal	13	254	
1405	Yamaha EG 107	Horizontal	44	252	

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1406	Yamaha EG 108	Horizontal	29	255	
1407	Yamaha EG 109	Horizontal	25	255	
1408	Yamaha EG 110	Inverted	72	255	
1409	Yamaha EG 111	Horizontal	15	255	
1420	Yamaha EG 113	Multiple	26	255	Screen; 4-cycle, 5 hp or smaller
1421	Yamaha EG 114	Multiple	54	255	Screen; 4-cycle, 11 hp or smaller
1422	Yamaha EG 114	Multiple	54	255	Screen; 4-cycle, 11 hp or smaller
1423	Yamaha EG 116	Multiple	25	256	Screen; 4-cycle, 5 hp or smaller
1424	Yamaha EG 117 A	Multiple	37	256	Screen; 4-cycle, 6.6 hp or smaller
1425	Yamaha EG 118	Multiple	26	256	Screen type, 4-stroke, 4.5 hp or smaller
1426	Yamaha EG 119	Multiple	26	256	Screen type, 4-stroke, 4.5 hp or smaller
1427	Yamaha EG 120	Multiple	54	257	Screen type
1428	Yamaha LG 101	Multiple	60	257	Screen; 4-cycle, 12 hp or smaller
1429	Yamaha LG 102	Multiple	87	257	Screen; 4-cycle, 18 hp or smaller
1430	Yamaha YHM 167A	Horizontal	35	258	
1431	Yamaha YHM 167B	Horizontal	31	258	
1432	Yamaha YHM 200	Horizontal	50	258	
1433	Yamaha YHM 200A	Horizontal	49	258	
1434	Yamaha YHM 200B	Horizontal	64	258	
1435	Yamaha YHM 220	Horizontal	45	258	
1436	Yamaha YHM 220A	Horizontal	44	258	
1437	Yamaha YHM 220B	Horizontal	53	~	
1437	Yamaha YHM 220C	Horizontal	57	~	
1439	Yamaha YHM 238	Horizontal	64	~	
1440	Yamaha YHM 238A	Horizontal	63	~	
1441	Yamaha YHM 238B	Horizontal	41	~	
1442	Yamaha YHM 238C	Horizontal	41	~	
1443	Yamaha YHM 238D	Horizontal	54	~	
1444	Yamaha YHM 238E	Horizontal	72	~	
1445	Yamaha YHM 238G	Horizontal	63	258	See YHM 238A & YHM 238F
1446	Yamaha YHM 270	Horizontal	77	~	
1447	Yamaha YHM 270A	Horizontal	100	259	
1448	Yamaha YHM 270B	Horizontal	100	259	
1449	Yamaha YMS 125	Multiple	62	~	Screen type

2000 QUALIFIED AND RATED LIST—GENERAL PURPOSE SPARK ARRESTER

	MANUFACTURER AND MODEL	APPL POS	FLOW	PAGE	REMARKS
1450	Yamaha YMS 50	Multiple	28	~	Screen; 2-cycle, 5.8 hp or smaller
1451	Yamaha YMS 50A	Multiple	27	~	Screen; 2-cycle, 5.8 hp or smaller
1452	Yamaha YMS 400	Multiple	150	260	Screen type
1452	Yamaha YMS 400A	Multiple	150	260	Screen type
1454	Yamaha-Krizman KS-250	Horizontal	24	261	
1455	Yamaha-Krizman KS-250A	Horizontal	20	261	
1456	Yamaha-Krizman KS-350	Horizontal	58	261	
1457	Yamaha-Krizman KS-350A	Horizontal	54	261	
1458	Yamaha-Krizman KS-350B	Horizontal	32	261	
1459	Yamaha-Krizman KS-350C	Horizontal	23	261	
1460	Yamaha-Krizman KS-375	Horizontal	79	261	Modified KS-400
1461	Yamaha-Krizman KS-375A	Horizontal	75	262	
1462	Yamaha-Krizman KS-375B	Horizontal	55	262	
1463	Yamaha-Krizman KS-375C	Horizontal	70	262	
1464	Yamaha-Krizman KS-375D	Horizontal	71	262	
1465	Yamaha-Krizman KS-375E	Horizontal	63	262	
1466	Yamaha-Krizman KS-375F	Horizontal	54	262	
1467	Yamaha-Krizman KS-375G	Horizontal	47	263	
1468	Yamaha-Krizman YS-80	Horizontal	24	263	Discontinued
1469	Yamaha-Krizman YS-125	Horizontal	42	263	Discontinued
1470	Yamaha-Krizman YS-250	Horizontal	20	263	Discontinued
1471	Yamaha-Krizman YSU-80	Horizontal	24	263	Discontinued
1472	Yamaha-Skyway Series 300 Mod 520	Horizontal	89	264	Not qualified for use above rated flow
1473	Yoshimura YRD-1Q	Horizontal	176	~	Fiberglass packing must be in place for the full length of the perforated tube.
1474	Yoshimura YRD-2L	Horizontal	176	264	Fiberglass packing must be in place for the full length of the perforated tube.
1475	Yuba 8000	Vertical	740	264	

2000 QUALIFIED AND RATED LIST FOOTNOTES—GENERAL PURPOSE SPARK ARRESTER

- * = Donaldson Company, Inc., Early models may carry a "-1" at the end of this number.
- ** = Super Trapp Industries, Units qualify regardless of the number of discs used. The assigned flow rates were obtained using 18 discs. Fewer discs will give a lower flow rate and more discs will give a higher flow rate. Nest discs so dimples interlock and tighten retainer bolt so discs are not loose. Frequent cleaning may be necessary to avoid plugging.

Note: Hapco models were formerly labeled Harco. Model designations may contain a dash followed by number(s) and letters. These signify the inlet size opening, application, and/or thread type. Moderate inlet size differences are acceptable from the dimensions indicated on the drawings for identification in the next section.

A DESCRIPTION OF THE TERMS USED IN THE GENERAL PURPOSE SPARK ARRESTER 1994 QUALIFIED AND RATED LIST FOLLOWS:

Manufacturer	Manufacturer of the spark arrester.
Model	Assigned approved arrester model number, not to be confused with the manufacturer's stock number.
Appl Pos	Only qualified position of application.
Flow	Rated flow of the arrester in cubic feet per minute (cfm).
Remarks	Additional information needed to identify the arrester.
Screen	Screen with openings of 0.023-inch or smaller, should be present if indicated.
Cycle	Number of engine stroke cycles; ie. four cycle engine.

**CHART I EXHAUST FLOW IN CUBIC FEET PER MINUTE AT MAXIMUM RATINGS¹
FOR 4-CYCLE DIESEL ENGINES²**

Engine Displacement cubic cm.	cubic inches	Revolutions Per Minute												RPM ³ Differential
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	
16	1	0	1	1	1	1	1	1	1	1	1	2	2	0
33	2	1	1	1	2	2	2	2	2	3	3	3	3	0
49	3	1	2	2	2	3	3	3	4	4	4	5	5	0
66	4	2	2	3	3	4	4	4	5	5	6	6	7	0
82	5	2	3	3	4	4	5	6	6	7	7	8	8	1
94	6	3	3	4	5	5	6	7	7	8	9	9	10	1
115	7	3	4	5	5	6	7	8	9	9	10	11	12	1
131	8	4	4	5	6	7	8	9	10	11	12	13	13	1
148	9	4	5	6	7	8	9	10	11	12	13	14	15	1
164	10	4	6	7	8	9	10	11	12	13	15	16	17	1
328	20	9	11	13	16	18	20	22	25	27	29	31	34	2
492	30	13	17	20	24	27	30	34	37	40	44	47	51	3
656	40	18	22	27	31	36	40	45	49	54	58	63	67	4
820	50	22	28	34	39	45	51	56	62	67	73	79	84	6
984	60	27	34	40	47	54	61	67	74	81	88	94	101	7
1,148	70	31	39	47	55	63	71	79	87	94	102	110	118	8
1,312	80	36	45	54	63	72	81	90	99	108	117	126	135	9
1,475	90	40	51	61	71	81	91	101	111	121	131	142	152	10
1,639	100	45	56	67	79	90	101	112	124	135	146	157	169	11
3,279	200	90	112	135	157	180	202	225	247	270	292	314	337	22
4,918	300	135	168	202	236	270	303	337	371	404	438	472	506	34
6,557	400	180	225	270	315	360	404	449	494	539	584	629	674	45
8,197	500	224	281	337	393	449	505	562	618	674	732	786	843	56
9,836	600	269	337	405	472	539	606	674	742	809	876	944	1,011	67
11,475	700	314	393	472	550	629	708	786	865	944	1,023	1,101	1,180	79
13,115	800	359	449	540	629	719	809	899	989	1,079	1,169	1,258	1,348	90
14,754	900	404	506	607	708	809	910	1,011	1,113	1,213	1,315	1,415	1,517	101
16,393	1,000	449	562	674	786	899	1,011	1,124	1,236	1,348	1,461	1,573	1,685	112

¹Volumetric efficiency 80%; exhaust temperatures 900°F.

²For 2-cycle engines, multiply value by 2; for 2-cycle supercharged engines, multiply value by 3.25; for 4-cycle supercharged engines, multiply value by 1.25.

³The "RPM Differential" column gives the difference between RPM columns for interpolation purposes. Entries are to the nearest whole number.

General— All chart values are proportional, so a flow can be calculated for a 1000-cubic-inch engine by doubling the flow figure for an identical engine but with 500-cubic-inch displacement. The same rule applies to revolutions per minute. Therefore, a flow can be calculated for a 3000 maximum rpm engine by doubling the flow value of an identical engine but with 1500 maximum rpm.

This chart may also be used like an interest table. If the engine has a cubic inch displacement of 438 at 2600 revolutions per minute select readings from 400, 30, and 8 at 2600 rpm. The sum of these is the flow rate. When revolutions per minute fall between columns, ie., 1600 to 1800, 1800 to 2000, etc., take the next highest rpm column. To be more exact interpolate by using the "RPM Differential" value.

EXAMPLE: A 4-cycle diesel engine has a total displacement of 633 cubic inches. If its maximum rpm is 2600, what is the maximum exhaust flow?

Solution— 600 cu. in. displacement @ 2600 rpm=876; 30=44; and 3=4; Sum=924 cfm.

**CHART II EXHAUST FLOW IN CUBIC FEET PER MINUTE AT MAXIMUM RATINGS¹
FOR 4-CYCLE GASOLINE OR PROPANE NATURALLY ASPIRATED ENGINES²**

Engine Displacement	Revolutions Per Minute												RPM ³ Differential	
	cubic cm.	cubic inches	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400		3600
16	1	1	1	1	2	2	2	2	2	2	2	2	2	0
33	2	2	2	3	3	3	4	4	4	4	5	5	5	0
49	3	3	4	4	5	5	5	6	6	7	7	7	7	0
66	4	4	5	5	6	7	7	8	8	9	10	11	11	1
82	5	5	6	7	8	8	9	10	10	11	12	12	12	1
94	6	7	7	8	9	10	11	12	12	13	14	15	15	1
115	7	8	9	10	11	12	12	13	14	15	16	17	17	1
131	8	9	10	11	12	13	14	15	16	18	19	20	20	1
148	9	10	11	12	14	15	16	17	18	20	21	22	22	1
164	10	11	12	14	15	16	18	19	21	22	23	25	25	1
328	20	22	25	28	30	33	36	38	41	44	47	49	49	3
492	30	33	37	41	45	49	54	58	62	66	70	74	74	4
656	40	44	49	55	60	66	71	77	82	88	93	99	99	6
820	50	55	62	69	75	82	89	96	103	110	117	123	123	7
984	60	66	74	82	90	99	107	115	123	132	140	148	148	8
1,148	70	77	86	96	106	115	125	134	144	153	163	173	173	10
1,312	80	88	99	110	121	132	143	153	164	175	186	197	197	11
1,475	90	99	111	123	136	148	160	173	185	197	210	222	222	12
1,639	100	110	123	137	151	164	178	192	206	219	233	247	247	14
3,279	200	219	247	275	301	329	356	383	411	438	466	493	493	27
4,918	300	329	370	411	452	493	536	575	617	658	699	740	740	41
6,557	400	438	493	548	603	658	712	767	822	877	931	986	986	55
8,197	500	548	617	685	754	822	891	959	1,028	1,096	1,165	1,233	1,233	69
9,836	600	658	740	822	904	986	1,068	1,151	1,233	1,315	1,397	1,479	1,479	82
11,475	700	767	863	959	1,055	1,151	1,247	1,343	1,439	1,534	1,630	1,726	1,726	96
13,115	800	877	986	1,096	1,205	1,315	1,425	1,534	1,644	1,753	1,863	1,973	1,973	110
14,754	900	986	1,110	1,233	1,356	1,480	1,603	1,726	1,850	1,973	2,096	2,219	2,219	123
16,393	1,000	1,096	1,233	1,370	1,507	1,644	1,781	1,918	2,055	2,192	2,329	2,466	2,466	137

¹Volumetric efficiency 80%; exhaust temperatures 1200°F.

²For 2-cycle engines, multiply value by 2 and for 4-cycle supercharged engines, multiply value by 1.25.

³The "RPM Differential" column gives the difference between RPM columns for interpolation purposes. Entries are to the nearest whole number.

General— All chart values are proportional, so a flow can be calculated for a 1000-cubic-inch engine by doubling the flow figure for an identical engine but with 500-cubic-inch displacement. The same rule applies to revolutions per minute. Therefore, a flow can be calculated for a 3600 maximum rpm engine by doubling the flow value of an identical engine but with 1800 maximum rpm.

This chart may also be used like an interest table. If the engine has a cubic inch displacement of 438 at 2600 revolutions per minute select readings from 400, 30, and 8 at 2600 rpm. The sum of these is the flow rate. When revolutions per minute fall between columns, ie., 1600 to 1800, 1800 to 2000, etc., take the next highest rpm column. To be more exact interpolate by using the "RPM Differential" value.

EXAMPLE: A 4-cycle gasoline engine has a total displacement of 133 cubic inches. If its maximum rpm is 3200, what is the maximum exhaust flow?

Solution— 100 cu. in. displacement @ 3200 rpm=219; 30=66; and 3=7; Sum=292 cfm.

**CHART III EXHAUST FLOW IN CUBIC FEET PER MINUTE AT MAXIMUM RATINGS¹
FOR 4-CYCLE GASOLINE OR PROPANE NATURALLY ASPIRATED ENGINES²
SUCH AS MOTORCYCLES, TRAIL BIKES, AND SMALL ENGINES
ENGINE DISPLACEMENT IN CUBIC CENTIMETERS; RPM 3,400 TO 14,000 INCLUDED**

Engine Displacement	cubic cm	cubic inches	Revolutions Per Minute											
			3400	3600	3800	4000	5000	6000	7000	8000	9000	10000	12000	14000
1	.061		0	0	0	0	0	0	0	0	0	0	1	1
2	.122		0	0	0	0	0	1	1	1	1	1	1	1
3	.183		0	0	0	1	1	1	1	1	1	1	2	2
4	.244		1	1	1	1	1	1	1	1	2	2	2	2
5	.305		1	1	1	1	1	1	1	2	2	2	3	3
6	.366		1	1	1	1	1	2	2	2	2	3	3	4
7	.427		1	1	1	1	1	2	2	2	3	3	4	4
8	.488		1	1	1	1	2	2	2	3	3	3	4	5
9	.549		1	1	1	2	2	2	3	3	3	4	5	5
10	.610		1	2	2	2	2	3	3	3	4	4	5	6
16.1	1.00		2	2	3	3	3	4	5	5	6	7	8	9
20	1.22		3	3	3	3	4	5	6	7	8	8	10	12
30	1.83		4	5	5	5	6	8	9	10	11	13	15	18
40	2.44		6	6	6	7	8	10	12	13	15	17	20	23
50	3.05		7	8	8	8	11	13	15	17	19	21	25	30
60	3.66		9	9	10	10	13	15	18	20	23	25	30	35
70	4.27		10	11	11	12	15	18	20	24	26	29	35	41
80	4.88		11	12	13	13	17	20	23	27	30	34	40	47
90	5.49		13	14	14	15	19	23	26	30	34	38	45	53
100	6.10		14	15	16	17	21	25	29	33	38	42	50	59
163.9	10.00		23	25	26	27	34	41	48	54	61	68	82	95
200	12.20		29	30	32	33	42	50	59	67	75	84	101	117
300	18.31		43	45	48	50	63	75	89	100	113	126	151	176
400	24.41		57	61	64	67	84	101	117	134	150	168	201	234
500	30.51		71	76	80	84	105	126	146	167	188	210	251	293
600	36.61		86	91	96	100	126	151	176	201	225	252	302	351
700	42.71		100	106	112	117	147	176	205	234	263	294	352	410
800	48.82		114	121	128	134	168	201	234	267	301	336	402	469
900	54.92		128	136	144	150	189	226	264	301	339	378	453	527
1,000	61.02		143	151	161	167	210	251	293	334	376	420	503	596
1,639	100.00		232	247	261	272	342	410	477	545	612	685	820	955

¹Volumetric efficiency 80%; exhaust temperatures 1200°F.

²For 2-cycle engines, multiply value by 2.

General. —All chart values are proportional, so a flow can be calculated for a 1000-cubic-inch engine by doubling the flow figure for an identical engine but with 500-cubic-inch displacement. The same rule applies to revolutions per minute. Therefore, a flow can be calculated for a 3000 maximum rpm engine by doubling the flow value of an identical engine but with 1500 maximum rpm.

The chart may also be used like an interest table. If a 2-cycle motorcycle has a cubic centimeter displacement of 125 at 7500 revolutions per minute, select readings from 100, 20, and 5 in the 8000 rpm column. The sum of these is the flow rate for a 4-cycle engine. When revolutions per minute fall between columns, ie., 7000 to 8000, etc., take the next highest column. To be more exact, interpolate. For the 2-cycle engine, multiply the chart value by two.