



# 2011 Filter and Fluid Application Guide

4th Edition

**CAT®**

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## Cat Filters and Fluids Provide Superior Protection and Lower Owning & Operating Costs

### Cat® Filters

Maintaining system cleanliness is an important part of reducing owning and operating costs. Cat Filters are designed for Cat Engines and component systems and provide the highest levels of cleanliness and performance. This protection reduces wear and maximizes component life.

### Cat Filter Benefits

- Consistent Quality
- Reliable Protection
- Long Life

### Cat® Oil

Cat Oil is specially developed to maximize component life by resisting oxidation, preventing buildup, and maintaining proper viscosity. Each type of oil undergoes extensive testing processes to demonstrate long service life. Oil drain intervals may be extended with the Cat S•O•ST™ Services Oil Analysis Program and Cat® filters.

### Cat Oil Benefits

- Consistent high performance oils formulated for the needs of Cat machines and engines
- Superior wear protection
- A complete line of Oils for every application and environment

### Cat® Grease

Cat Grease is specially designed for Cat Machines to greatly reduce pin and bushing wear issues, such as galling and scaring, and to help prevent seizing. Cat Grease is also corrosion resistant and resists water/salt water washout.

### Premium Cat Grease - For the ultimate performance in moderate and extreme climates

- Ultra 5Moly (Moderate Climates)
- Desert Gold (Extreme Hot Climates)
- Arctic Platinum (Extreme Cold Climates)

### Multi-Purpose Cat Grease - For general lubrication in moderate climates

- Multi-Purpose
- Advanced 3Moly
- White Assembly

### Specialty Greases

- High Speed Ball Bearing and Electric motor grease
- Ultra Synthetic Generator grease
- Hammer Paste
- Multipurpose Marine grease

### Cat® Coolant

Cat Coolant is formulated to provide excellent protection against boiling and freezing, while preventing corrosion.

### Cat Coolant Benefits

- High boiling temperature
- Freeze Protection
- Superior corrosion protection
- Non-foaming
- Scale and deposit prevention
- Organic Base Chemistry
- Lower Cost 40-50% less than conventional



## Measuring Filter Quality

Caterpillar is committed to providing customers with high quality, cost-effective filtration products designed to meet specific performance requirements. Cat® Filters have the same consistent high quality no matter when or where they are purchased.

Testing has demonstrated that competitive “will-fit” filter suppliers offer products that vary widely in quality. Because of this, competitors often promote their filters based on comparative tests that do not represent actual field performance. Most troubling is the inconsistent use of absolute and nominal “micron ratings” than can be confusing and easily manipulated.

Caterpillar does not publish the micron ratings of our filters.\* Instead Cat Filters undergo a wide range of testing to demonstrate that they provide both the top level filtration and a superior construction that ensures excellent filtration is provided with each Cat Filter, even in the toughest conditions.

\*Caterpillar does not publish micron ratings, but will provide filter test data as requested.

## Understanding Micron Ratings

Micron ratings are generated by the ISO 16889 laboratory test that was designed as a research and development tool. Instead, manufacturers of competitive filters are using this micron metric in their marketing to create an artificial impression of filtration quality.

The problem with this lies in the nature of the test. The ISO 16889 laboratory test inserts a concentrated stream of artificial contaminants under a predetermined constant flow and other steady-state conditions to progressively load the filter until a specified pressure drop is reached. During the test, particles entering and exiting the filter are electronically counted. A comparison of the particle count on each side of the filter being tested is called the filtration ratio or Beta Ratio.

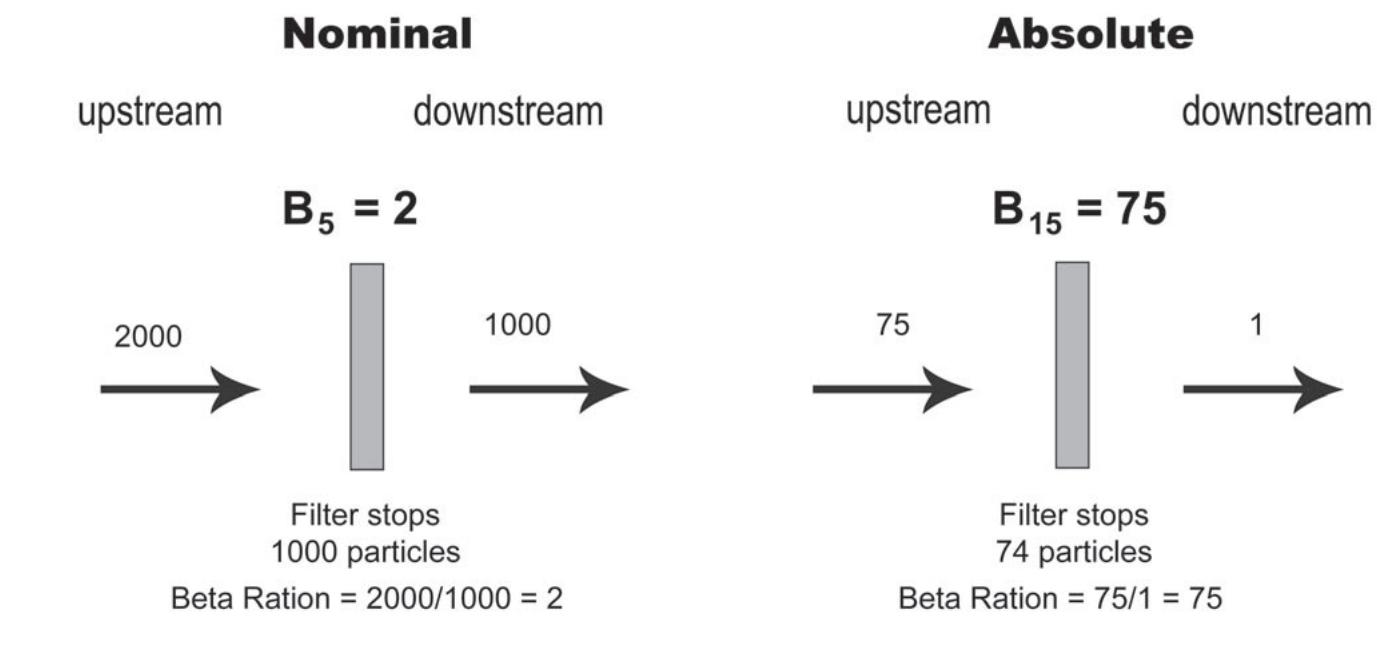
The micron rating only demonstrates the ability of filters to capture particles in a laboratory setting, and no claim is made that these particles will be retained within the media during real world working conditions. This means that a filter with a high laboratory Beta Ratio could allow particles to pass back into the clean side of the filter causing premature component wear.

Many competitors will use a “nominal” and an “absolute” micro rating. For example, a filter may be labeled as having a low nominal rating with particles of 5 microns in size, while showing a high absolute rating for particles 15 microns in size. What this means is that ISO 16889 shows that the filter is able to capture nearly all of the larger particles, while letting roughly half of the smaller particles through to damage fuel injectors and other components.

The illustration below demonstrates the difference between the nominal and absolute ratings. The data on the left (for particles 5 microns and larger) is said to indicate a “Beta Ratio of 2,” while the data on the right (for particles 15 microns and larger) indicates a “Beta Ratio of 75.” The particle size (or microns at which the Beta ratio is calculated) is shown as a subscript to the Beta symbol.

# Use Of Micron Ratings In The Filter Industry

## Understanding Micron Ratings (Continued)



For example, if 2,000 particles 5 microns or greater are counted upstream and 1,000 particles 5 microns or greater are counted downstream in the oil, the Beta Ratio equals 2.  $B_5 = 2$  means that a 5-micron filter can remove 50% of all particles that are 5 microns or larger.

## What Does This All Really Mean?

A better way of understanding micron rating is using a Lab Efficiency metric. A Beta Ratio can be converted into a Lab Efficiency number using this equation:

$$\% \text{ Efficiency} = 1 - (1/\text{Beta Ratio}).$$

When this conversion is performed it is clear to see that ratios above 75 do not represent a significant improvement in performance. A Beta of 200 only improves lab test efficiency by 0.8%, or within the variability introduced through the sampling and testing process.

Beta Ratios : Efficiency %	
Beta Ratio	Efficiency (%)
2	50%
75	98.7%
200	99.5%

## Consistent Quality is the Key to Reducing Component Wear

### Summary

Do not be misled by claims based upon unrepresentative lab tests or ambiguous micron ratings. A similar Beta Ratio summary can be found in the marketing materials of most will-fit suppliers, but little mention is made of the most critical filter aspects: Structural Integrity and Consistent Quality.

Caterpillar's highly automated manufacturing processes and robust designs virtually eliminate many of the inconsistencies that occur on many conventional filter assembly lines. Examples of problems arising from these inconsistencies are metallic process contamination and end-cap/media-seam leak paths. Caterpillar clearly recognizes that automation and strict quality control are the keys to minimizing part-to-part variation. The best measure of a filter must include metrics that capture field performance, quality, and consistency.

## Summary (Continued)

	Standard	Advanced	UHE
Air Filter - Engine	Initial Efficiency Rating minimum 99.6% (SAE J726)	Not Available	Not Applicable (99.9% efficient)
Breathers	>50 µm absolute	10 - 50 µm absolute	< 10 µm absolute
Engine Oil Filter	30 - 40 µm absolute	15 - 30 µm absolute	< 15 µm absolute
Fuel Filter	>10 µm absolute	4 - 10 µm absolute	< 4 µm absolute
Fuel / Water Separator	>20 µm absolute	10 - 20 µm absolute	< 10 µm absolute
Hydraulic Filter	27 - 40 µm absolute	10 - 27 µm absolute	< 10 µm absolute
Power Train Filter	27 - 40 µm absolute	10 - 27 µm absolute	< 10 µm absolute



## Coolants

Cat Recommended Coolants		
Engine Type	Coolant Type	Service Life {1}
Natural Gas	Cat NGEC	Three Years {4} {5}
Diesel	Cat ELC	12,000 Service Hours or Six Years {2} {3}
Diesel	Cat DEAC	3,000 Service Hours or Three Years {3} {4}
Natural Gas	Cat SCA	Two years {4} {5}
Diesel	Cat ELI	12,000 service hours or Six Years {2} {3}
Diesel	Cat SCA	3,000 service hours or Two Years {2} {3}

{1} Use the interval that occurs first.

{2} Add Cat ELC Extender at 6,000 service hours or one half of the service life for the ELC.

{3} These coolant change intervals are only possible with annual S-O-S Level 2 coolant sampling and analysis.

{4} These coolant change intervals are only possible with annual S-O-S Level 2 coolant sampling and Level 1 sampling every 500 hours.

{5} The service life is limited by use (service hours). Refer to the specific engine Operation and Maintenance Manual



## Lubricants - Engine Crankcase

The product(s) listed below are the Caterpillar preferred product. For additional options, please consult the Caterpillar Machine Fluids Recommendations (SEBU6250, SEBU6400 and SEBU7003).

Engine Type	Oil Type and Category	Oil Viscosities	Min °C	Max °C	Min °F	Max °F
Natural Gas						
	Cat NGEO EL350	SAE 40	-10	40	14	104
Diesel						
	Cat DEO	SAE 15W-40	-9.5	50	15	122
	Cat DEO	SAE 10W-30	-18	40	0	104
	Cat DEO-ULS	SAE 15W-40	-9.5	50	15	122
	Cat DEO-ULS	SAE 10W-30	-18	40	0	104
	Cat DEO-ULS Cold Weather	SAE 0W-40	-40	40	-40	104

## Greases

Cat Recommended Grease	
Grease Type	Part Number
Cat Generator Set Grease	108-8611
High Speed Ball Bearing	2S-3230

## Filters

The “Part Number” column represents the “As Shipped” filters. As Shipped filters are the minimum recommendations for filter efficiency for that particular system. Higher efficiency filters may be used, but to prevent damage do not use lower efficiency options.

## Generator Sets

### C2.2

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Cat Engines

Description	Qty.	Part Number	STND
<b>C4M1-UP, G7M1-UP</b>			
Air	1	247-1380	247-1380
Air Primary	1	130-4678	130-4678
Air Primary	1	198-5314	198-5314
Air Secondary	1	130-4679	130-4679
Engine Oil	1	220-1523	220-1523
Engine Oil	1	269-8325	269-8325
Fuel	1	150-4142	150-4142
Fuel	1	183-4322	183-4322
Fuel	1	276-1806	276-1806
Fuel	1	033-7854	033-7854
Fuel - FWS	1	308-7298	308-7298
Fuel - UHE	1	299-8229	--
Fuel Primary	1	309-0860	309-0860
<b>C6M1-UP, G7L1-UP</b>			
Air	1	247-1380	247-1380
Engine Oil	1	220-1523	220-1523
Fuel	1	296-0888	296-0888
Fuel	1	276-1806	276-1806
Fuel	1	150-4142	150-4142
Fuel	1	033-7854	033-7854
<b>C8Y1-UP</b>			
Air	1	247-1380	247-1380
Engine Oil	1	220-1523	220-1523
Fuel	1	033-7854	033-7854
<b>C8Z1-UP, SAG1-UP</b>			
Engine Oil	1	220-1523	220-1523
Fuel	1	033-7854	033-7854
<b>E2M1-UP (Engine)</b>			
Air	1	247-1380	247-1380
Air	1	266-2793	266-2793
Air Primary	1	198-5314	198-5314
Engine Oil	1	220-1523	220-1523

### C3.3

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND
<b>1131-UP</b>			
Fuel	1	258-8538	258-8538
<b>E3H1-UP, E3J1-UP (Engine)</b>			
Fuel - FWS	1	1R-1803	1R-1803
<b>E3K1-UP</b>			
Fuel - FWS	1	252-6338	252-6338
Fuel - FWS	1	1R-1803	1R-1803

(Continued)

Description	Qty.	Part Number	STND
<b>E2M1-UP (Engine) (Continued)</b>			
Fuel	1	276-1806	276-1806
Fuel	1	033-7854	033-7854
<b>E6K1-UP (Engine)</b>			
Air	1	247-1380	247-1380
Engine Oil	1	220-1523	220-1523
Fuel	1	276-1806	276-1806
Fuel	1	033-7854	033-7854
<b>GBE1-UP, XYE1-UP</b>			
Air	1	266-2793	266-2793
Fuel	1	276-1806	276-1806
<b>JAW1-UP</b>			
Air Primary	1	198-5314	198-5314
<b>NCB1-UP</b>			
Air	1	246-5011	246-5011
Air	1	266-2793	266-2793
Fuel	1	276-1806	276-1806
<b>TAG1-UP</b>			
Air Primary	1	198-5314	198-5314
Engine Oil	1	220-1523	220-1523
Fuel	2	236-6057	236-6057
Fuel	1	210-6787	210-6787
Fuel	1	206-6910	206-6910
Fuel	1	033-7854	033-7854

**C3.3 (Continued)**

Description	Qty.	Part Number	STND
<b>N3X1-UP, X3B1-UP</b>			
Air	1	266-2793	266-2793
Air Primary	1	267-6398	267-6398
Air Secondary	1	267-6399	267-6399

Description	Qty.	Part Number	STND
<b>N3X1-UP, X3B1-UP (Continued)</b>			
Fuel	1	258-8538	258-8538

**C4.4**

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>
<b>4441-4885</b>				
Air	1	307-2807	307-2807	--
Air	1	321-2413	321-2413	--
Air Primary	1	206-5234	206-5234	--
Air Primary	1	321-2411	321-2411	--
Air Secondary	1	321-2412	321-2412	--
Air Secondary	1	206-5235	206-5235	--
Engine Oil	1	7W-2326	7W-2326	--
Fuel	1	346-0523	346-0523	--
Fuel	1	311-1110	311-1110	--
Fuel - FWS	1	308-7298	308-7298	--
Fuel - UHE	1	299-8229	--	--
<b>4444886-UP</b>				
Air	1	307-2807	307-2807	--
Air	1	321-2413	321-2413	--
Air Primary	1	206-5234	206-5234	--
Air Primary	1	321-2411	321-2411	--
Air Secondary	1	321-2412	321-2412	--
Air Secondary	1	206-5235	206-5235	--
Engine Oil	1	7W-2326	7W-2326	--
Engine Oil	1	269-8325	269-8325	--
Fuel	1	346-0523	346-0523	--
Fuel	1	311-1110	311-1110	--
Fuel - FWS	1	308-7298	308-7298	--
Fuel - UHE	1	299-8229	--	--
<b>D1K1-UP (Engine)</b>				
Air Primary	1	123-2367	123-2367	--
Engine Oil	1	7W-2326	7W-2326	--
Engine Oil	2	081-4661	081-4661	--
<b>D4B1-UP</b>				
Air	1	322-0551	322-0551	--
Air	1	322-0552	322-0552	--
Filter As - Air	1	299-4053	299-4053	--
<b>D4D1-UP</b>				
Air	1	307-2807	307-2807	--
Air	1	322-0551	322-0551	--
Air	1	322-0552	322-0552	--
Air Primary	1	206-5234	206-5234	--
Air Secondary	1	206-5235	206-5235	--

Description	Qty.	Part Number	STND	ADV <sup>1</sup>
<b>D4D1-UP (Continued)</b>				
Filter As - Air	1	299-4053	299-4053	--
Fuel	1	258-8538	258-8538	--
<b>E3N1-UP (Engine)</b>				
Engine Oil	1	7W-2326	7W-2326	--
Fuel - FWS	1	252-6338	252-6338	--
Fuel - FWS	1	1R-1804	1R-1804	--
<b>E4M1-UP (Engine)</b>				
Engine Oil	1	7W-2326	7W-2326	--
Fuel - FWS	1	1R-1804	1R-1804	--
<b>E5M1-UP (Engine)</b>				
Engine Oil	1	7W-2326	7W-2326	--
Fuel - FWS	1	308-7298	308-7298	--
Fuel - UHE	1	299-8229	--	--
<b>GLD1-UP</b>				
Air Primary	1	110-6326	110-6326	--
Air Primary	1	270-7368	270-7368	--
Fuel - FWS	1	1R-1804	1R-1804	--
<b>GLE1-UP</b>				
Air Primary	1	110-6326	110-6326	--
Fuel - FWS	1	1R-1804	1R-1804	--
<b>J1Z1-UP (Engine)</b>				
Air Primary	1	233-5182	233-5182	--
Air Primary	1	212-4478	212-4478	--
Engine Oil	1	7W-2326	7W-2326	--
Fuel	2	287-6052	287-6052	--
<b>L1K1-UP</b>				
Air Primary	1	123-2367	123-2367	--
Air Primary	1	233-5182	233-5182	--
Air Primary	1	212-4478	212-4478	--
Air Secondary	1	233-5184	233-5184	--
Air Secondary	1	123-2368	123-2368	--
Engine Oil	2	081-4661	081-4661	--
Fuel	1	250-6527	250-6527	--
Fuel	2	287-6052	287-6052	--

(Continued)

# Generator Sets

## C4.4 (Continued)

Cat Engines

Description	Qty.	Part Number	STND	ADV <sup>1</sup>
<b>MMC1-UP</b>				
Air Primary	1	233-5182	233-5182	--
Air Secondary	1	233-5184	233-5184	--
Fuel Secondary - ADV	1	1R-0750	--	1R-0750
<b>N4D1-UP, NCD1-UP</b>				
Air Primary	1	110-6326	110-6326	--
Air Primary	1	270-7368	270-7368	--
<b>N4E1-UP, NCE1-UP</b>				
Air Primary	1	233-5182	233-5182	--
<b>N4X1-UP</b>				
Air Primary	1	110-6326	110-6326	--
Air Primary	1	270-7368	270-7368	--
Fuel	1	258-8538	258-8538	--
<b>S1M1-UP</b>				
Air Primary	1	123-2367	123-2367	--
Air Primary	1	110-6326	110-6326	--
Air Primary	1	233-5182	233-5182	--
Air Secondary	1	123-2368	123-2368	--

<sup>1</sup>Please see the Filter Upgrade information at the end of this section for additional details.

## C6.6

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>6661-1</b>					
Air	1	344-0919	344-0919	--	--
Air	1	246-5011	246-5011	--	--
Air Primary	1	130-4678	130-4678	--	--
Air Primary	1	289-2348	289-2348	--	--
Air Primary	1	221-1170	221-1170	--	--
Air Secondary	1	221-1174	221-1174	--	--
Air	1	289-2349	289-2349	--	--
Air Secondary	1	130-4679	130-4679	--	--
Engine Oil	1	220-1523	220-1523	--	--
Engine Oil	1	7W-2326	7W-2326	--	--
Engine Oil	1	269-8325	269-8325	--	--
Fuel	1	346-0523	346-0523	--	--
Fuel	1	033-7854	033-7854	--	--
Fuel	1	311-1110	311-1110	--	--
Fuel - FWS	1	1R-0770	1R-0770	--	--
Fuel - FWS	1	308-7298	308-7298	--	--
Fuel - UHE	1	299-8229	--	--	299-8229
Fuel Primary	1	309-0860	309-0860	--	--
Fuel Primary	1	313-7111	313-7111	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199

Description	Qty.	Part Number	STND	ADV <sup>1</sup>
<b>S1M1-UP (Continued)</b>				
Air Secondary	1	233-5184	233-5184	--
Air Secondary	1	110-6331	110-6331	--
Engine Oil	2	081-4661	081-4661	--
Fuel	1	250-6527	250-6527	--
<b>XYC1-UP</b>				
Air Primary	1	233-5182	233-5182	--
Fuel	1	258-8538	258-8538	--
<b>XYD1-UP</b>				
Air Primary	1	110-6326	110-6326	--
Air Primary	1	270-7368	270-7368	--
Fuel	1	258-8538	258-8538	--
Fuel - FWS	1	1R-1804	1R-1804	--

(Continued)

**C6.6 (Continued)**

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>6663226-UP</b>					
Air	1	344-0919	344-0919	--	--
Air	1	246-5011	246-5011	--	--
Air Primary	1	130-4678	130-4678	--	--
Air Primary	1	289-2348	289-2348	--	--
Air Primary	1	221-1170	221-1170	--	--
Air Secondary	1	221-1174	221-1174	--	--
Air	1	289-2349	289-2349	--	--
Air Secondary	1	130-4679	130-4679	--	--
Engine Oil	1	7W-2326	7W-2326	--	--
Engine Oil	1	269-8325	269-8325	--	--
Fuel	1	346-0523	346-0523	--	--
Fuel	1	311-1110	311-1110	--	--
Fuel	1	309-6653	309-6653	--	--
Fuel - FWS	1	1R-0770	1R-0770	--	--
Fuel - FWS	1	308-7298	308-7298	--	--
Fuel - UHE	1	299-8229	--	--	299-8229
Fuel Primary	1	309-0860	309-0860	--	--
Fuel Primary	1	313-7111	313-7111	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199
<b>C6T1-UP</b>					
Air	1	326-8644	326-8644	--	--
Engine Oil	2	081-4661	081-4661	--	--
<b>E6M1-6394 (Engine)</b>					
Air Primary	1	289-2348	289-2348	--	--
Air Primary	1	221-1170	221-1170	--	--
Air Primary	1	130-4678	130-4678	--	--

<sup>1</sup>Please see the Filter Upgrade information at the end of this section for additional details.

**C9**

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>9DG1-UP</b>						
Coolant	1	9N-6123	9N-6123	--	--	--
Fuel - FWS ADV	1	326-1643	--	326-1643	--	--
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel - FWS	1	133-5673	133-5673	--	--	--
Fuel Secondary - ADV	1	1R-0750	--	1R-0750	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>E6M1-6394 (Engine) (Continued)</b>					
Air Secondary	1	221-1174	221-1174	--	--
Air Secondary	1	130-4679	130-4679	--	--
Air	1	289-2349	289-2349	--	--
Engine Oil	1	269-8325	269-8325	--	--
Fuel - FWS	1	308-7298	308-7298	--	--
Fuel - UHE	1	299-8229	--	--	299-8229
<b>E6M6395-UP (Engine)</b>					
Air	1	344-0919	344-0919	--	--
Air Primary	1	289-2348	289-2348	--	--
Air Primary	1	221-1170	221-1170	--	--
Air Primary	1	130-4678	130-4678	--	--
Air Secondary	1	221-1174	221-1174	--	--
Air	1	289-2349	289-2349	--	--
Air Secondary	1	130-4679	130-4679	--	--
Engine Oil	1	269-8325	269-8325	--	--
Fuel - FWS	1	308-7298	308-7298	--	--
Fuel - UHE	1	299-8229	--	--	299-8229
<b>SAX1-UP (Engine)</b>					
Engine Oil	1	269-8325	269-8325	--	--
<b>SDA1-UP</b>					
Air Primary	1	289-2348	289-2348	--	--
Air	1	289-2349	289-2349	--	--

# Generator Sets

## C9 (Continued)

Cat Engines

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>C9E1-UP</b>						
Air	1	262-5194	262-5194	--	--	--
Air Primary	1	220-0454	142-1340	--	220-0454	--
Air Secondary	1	142-1403	142-1403	--	--	--
<b>C9J1-UP, C9Y1-UP, C9Z1-UP (Engine)</b>						
Air Primary	1	4L-9852	4L-9852	--	--	--
Air Primary	1	243-6350	243-6350	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0750	--	1R-0750	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>C9S1-UP</b>						
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
Hydraulic - UHE	1	126-1817	--	--	126-1817	134-3014
<b>CKP1-30, SRB1-UP</b>						
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>CKP31-42</b>						
Engine Oil	1	211-4359	211-4359	--	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>CKP43-UP</b>						
Engine Oil	1	211-4359	211-4359	--	--	--
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>KLW1-UP</b>						
Air Primary - UHE	1	132-7167	--	--	132-7167	--
Air Secondary	1	6I-2510	6I-2510	--	--	--
Coolant	1	9N-3718	9N-3718	--	--	--
Coolant	1	9N-6123	9N-6123	--	--	--
Coolant	1	9N-3717	9N-3717	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel - FWS ADV	1	326-1643	--	326-1643	--	--
Fuel - FWS ADV	1	326-1644	--	326-1644	--	--
Fuel Secondary - ADV	1	1R-0762	--	1R-0762	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--

<sup>1</sup> Please see the Filter Upgrade information at the end of this section for additional details.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>LFE1-UP</b>						
Engine Oil	1	211-4359	211-4359	--	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>LFR1-UP</b>						
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>MFF1-UP</b>						
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>MTB1-UP</b>						
Coolant	1	9N-6123	9N-6123	--	--	--
Coolant	1	9N-3718	9N-3718	--	--	--
Fuel - FWS	1	133-5673	133-5673	--	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>P9L1-UP</b>						
Air Primary - UHE	1	132-7167	--	--	132-7167	--
Air Secondary	1	6I-2510	6I-2510	--	--	--
Coolant	1	9N-3367	9N-3367	--	--	--
Coolant	1	9N-3368	9N-3368	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel - FWS ADV	1	326-1643	--	326-1643	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>S9L1-UP (Engine)</b>						
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel - FWS ADV	1	326-1644	--	326-1644	--	--
Fuel Secondary - ADV	1	1R-0762	--	1R-0762	--	--
<b>SJB1-UP</b>						
Air Primary	1	4L-9852	4L-9852	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0750	--	1R-0750	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>X3R1-UP</b>						
Air Primary	1	220-0454	142-1340	--	220-0454	--
Air Secondary	1	142-1403	142-1403	--	--	--

**C15**

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>B5R1-UP</b>						
Air	1	299-7553	299-7553	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>BXS1-UP</b>						
Coolant	1	9N-3367	9N-3367	--	--	--
Coolant	1	9N-3717	9N-3717	--	--	--
Coolant	1	9N-6123	9N-6123	--	--	--
Coolant	1	9N-3718	9N-3718	--	--	--
Coolant	1	9N-3368	9N-3368	--	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>C5E1-UP</b>						
Air Primary	1	246-5009	246-5009	--	--	--
Air Primary	1	151-7737	151-7737	--	--	--
Air Primary	1	9Y-3879	9Y-3879	--	--	--
Air Primary	1	1W-3637	1W-3637	--	--	--
Air Secondary	1	1W-3636	1W-3636	--	--	--
Air Secondary	1	246-5010	246-5010	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
Engine Oil - ADV	1	1R-1807	--	1R-1807	257-9344	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>C5H1-UP, CYY1-UP, STG1-UP, ZKA1-UP</b>						
Air Primary	1	246-5009	246-5009	--	--	--
Air Primary	1	9Y-3879	9Y-3879	--	--	--
Air Primary	1	151-7737	151-7737	--	--	--
Air Secondary	1	246-5010	246-5010	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
<b>C5L1-UP</b>						
Air Primary	1	246-5009	246-5009	--	--	--
Air Primary	1	9Y-3879	9Y-3879	--	--	--
Air Primary	1	151-7737	151-7737	--	--	--
Air Secondary	1	246-5010	246-5010	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>FFH1-UP (Engine)</b>						
Air Primary	1	246-5009	246-5009	--	--	--
Air Secondary	1	246-5010	246-5010	--	--	--
Fuel - FWS	1	133-5673	133-5673	--	--	--
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel Secondary - ADV	1	1R-0762	--	1R-0762	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>FFJ1-UP, P1K1-UP, P1Z1-UP (Engine)</b>						
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484	--
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>FSE1-UP (Engine)</b>						
Engine Oil - ADV	1	1R-1807	--	1R-1807	257-9344	--
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel - FWS	1	133-5673	133-5673	--	--	--
Fuel Secondary - ADV	1	1R-0762	--	1R-0762	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
Fuel Secondary - ADV	1	1R-0751	--	1R-0751	306-9199	--
<b>JDK1-UP</b>						
Air Primary	1	106-3969	106-3969	--	132-7168	--
Air Primary	1	6I-2509	6I-2509	--	132-7167	--
Air Secondary	1	6I-2510	6I-2510	--	--	--
Air Secondary	1	106-3973	106-3973	--	--	--
Coolant	1	9N-3718	9N-3718	--	--	--
Coolant	1	9N-3717	9N-3717	--	--	--
Coolant	1	9N-3367	9N-3367	--	--	--
Coolant	1	9N-6123	9N-6123	--	--	--
Fuel - FWS ADV	1	326-1643	--	326-1643	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--

# Generator Sets

## C15 (Continued)

Cat Engines

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>JEP1-UP, KRA1-UP, MHP1-UP, TRB1-UP</b>						
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>JJF1-UP (Engine)</b>						
Oil - ADV	2	249-2347	--	249-2347	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>LDN1-UP</b>						
Fuel - FWS ADV	1	326-1643	--	326-1643	--	--
<b>MXS1-UP</b>						
Coolant	1	9N-6123	9N-6123	--	--	--
Coolant	1	9N-3717	9N-3717	--	--	--
Coolant	1	9N-3367	9N-3367	--	--	--
Coolant	1	9N-3718	9N-3718	--	--	--
Coolant	1	9N-3368	9N-3368	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>NKL1-UP, X4R1-UP</b>						
Air Primary	1	246-5009	246-5009	--	--	--
Air Primary	1	151-7737	151-7737	--	--	--
Air Secondary	1	246-5010	246-5010	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
<b>NXS1-31372, RKS1-UP</b>						
Coolant	1	9N-3718	9N-3718	--	--	--
Coolant	1	9N-6123	9N-6123	--	--	--
Coolant	1	9N-3717	9N-3717	--	--	--
Coolant	1	9N-3367	9N-3367	--	--	--
Coolant	1	9N-3368	9N-3368	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel - FWS	1	133-5673	133-5673	--	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>NXS31373-UP</b>						
Coolant	1	9N-3718	9N-3718	--	--	--
Coolant	1	9N-6123	9N-6123	--	--	--
Coolant	1	9N-3367	9N-3367	--	--	--
Coolant	1	9N-3717	9N-3717	--	--	--
Coolant	1	9N-3368	9N-3368	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--

<sup>1</sup> Please see the Filter Upgrade information at the end of this section for additional details.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>NXS31373-UP (Continued)</b>						
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel - FWS	1	133-5673	133-5673	--	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
<b>PEC1-UP, PET1-UP</b>						
Air Primary	1	151-7737	151-7737	--	--	--
Air Primary	1	1W-3637	1W-3637	--	--	--
Air Secondary	1	1W-3636	1W-3636	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
<b>SDP1-UP</b>						
Air	1	299-7553	299-7553	--	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	--
Fuel - ADV, Cartridge	1	276-3641	--	276-3641	--	--
Fuel - FWS	1	256-8753	256-8753	--	--	--
Fuel - FWS ADV	1	326-1641	--	326-1641	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
Hydraulic - UHE	1	126-1817	--	126-1817	134-3014	
OCV	1	328-6272	328-6272	--	--	--
<b>T4A1-UP</b>						
Air Primary	1	9Y-3879	9Y-3879	--	--	--
Air Primary	1	151-7737	151-7737	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
<b>X5M1-UP</b>						
Air Primary	1	151-7737	151-7737	--	--	--
Air Secondary	1	189-0202	189-0202	--	--	--
Oil - ADV	2	249-2347	--	249-2347	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--	--
OCV	1	326-4690	326-4690	--	--	--

**C32**

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>																																																																																																																																																																																																																																																																																																																																																																																																																														
<b>B2C1-112, SMP1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																									
Air Primary	1	4P-0710	4P-0710	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Primary	1	8N-6309	8N-6309	--	185-8786	Fuel - FWS	1	133-5673	133-5673	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Secondary	1	8N-2556	8N-2556	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Secondary	1	4P-0711	4P-0711	--	--	<b>RNE1-UP, RNX1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																			
Coolant	1	9N-3367	9N-3367	--	--	Coolant	1	9N-3368	9N-3368	--	--	Air Primary	1	269-7041	269-7041	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Air Primary	1	207-6870	207-6870	--	--	Fuel - FWS ADV	1	326-1642	--	326-1642	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Fuel - FWS	1	316-9954	316-9954	--	--	<b>B2C113-UP</b>												Air Primary	1	4P-0710	4P-0710	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Air Primary	1	8N-6309	8N-6309	--	185-8786	<b>SXC1-UP</b>												Air Secondary	1	8N-2556	8N-2556	--	--	Air - Panel	1	128-1112	128-1112	--	--	Air Secondary	1	4P-0711	4P-0711	--	--	Air Primary	1	226-2779	226-2779	--	--	Coolant	1	9N-3367	9N-3367	--	--	Air Secondary	1	208-9066	208-9066	--	--	Coolant	1	9N-3368	9N-3368	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Fuel Primary	1	4P-7384	4P-7384	--	--	Fuel - FWS	1	299-1893	299-1893	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	<b>SYC1-UP (Engine)</b>												<b>JSJ1-UP</b>												Air - Panel	1	128-1112	128-1112	--	--	Air Primary	1	226-2779	226-2779	--	--	Air Primary	1	226-2779	226-2779	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Air Primary	1	142-1339	142-1339	--	220-0453	Fuel - FWS	1	133-5673	133-5673	--	--	Air Secondary	1	208-9066	208-9066	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	<b>KNM1-UP</b>												Air Primary	1	226-2779	226-2779	--	--	<b>WDR1-UP</b>												Air Secondary	1	208-9066	208-9066	--	--	Air - Panel	1	128-1112	128-1112	--	--	Fuel - FWS	1	133-5673	133-5673	--	--	Air Primary	1	226-2779	226-2779	--	--	<b>MED1-UP</b>												Air Primary	1	226-2779	226-2779	--	--	Air Primary	1	227-7448	227-7448	--	--	Air Secondary	1	208-9066	208-9066	--	--	Air Secondary	1	227-7449	227-7449	--	--	Fuel - FWS	1	133-5673	133-5673	--	--	Air Secondary	1	208-9066	208-9066	--	--	Fuel Primary	1	4P-7384	4P-7384	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	<b>MTH1-UP (Engine)</b>												Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Fuel - FWS	1	133-5673	133-5673	--	--	Fuel - FWS	1	133-5673	133-5673	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Fuel Secondary - ADV	1	326-1641	--	326-1641	--	<b>XMJ1-UP</b>												Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484
Coolant	1	9N-3368	9N-3368	--	--	Air Primary	1	269-7041	269-7041	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Air Primary	1	207-6870	207-6870	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel - FWS ADV	1	326-1642	--	326-1642	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Fuel - FWS	1	316-9954	316-9954	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
<b>B2C113-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																									
Air Primary	1	4P-0710	4P-0710	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Primary	1	8N-6309	8N-6309	--	185-8786	<b>SXC1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																			
Air Secondary	1	8N-2556	8N-2556	--	--	Air - Panel	1	128-1112	128-1112	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Secondary	1	4P-0711	4P-0711	--	--	Air Primary	1	226-2779	226-2779	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Coolant	1	9N-3367	9N-3367	--	--	Air Secondary	1	208-9066	208-9066	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Coolant	1	9N-3368	9N-3368	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484																																																																																																																																																																																																																																																																																																																																																																																																																														
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Fuel Primary	1	4P-7384	4P-7384	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel - FWS	1	299-1893	299-1893	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	<b>SYC1-UP (Engine)</b>																																																																																																																																																																																																																																																																																																																																																																																																																																			
<b>JSJ1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																									
Air - Panel	1	128-1112	128-1112	--	--	Air Primary	1	226-2779	226-2779	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Primary	1	226-2779	226-2779	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Primary	1	142-1339	142-1339	--	220-0453	Fuel - FWS	1	133-5673	133-5673	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Secondary	1	208-9066	208-9066	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--																																																																																																																																																																																																																																																																																																																																																																																																																														
<b>KNM1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																									
Air Primary	1	226-2779	226-2779	--	--	<b>WDR1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																			
Air Secondary	1	208-9066	208-9066	--	--	Air - Panel	1	128-1112	128-1112	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel - FWS	1	133-5673	133-5673	--	--	Air Primary	1	226-2779	226-2779	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
<b>MED1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																									
Air Primary	1	226-2779	226-2779	--	--	Air Primary	1	227-7448	227-7448	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Air Secondary	1	208-9066	208-9066	--	--	Air Secondary	1	227-7449	227-7449	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel - FWS	1	133-5673	133-5673	--	--	Air Secondary	1	208-9066	208-9066	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel Primary	1	4P-7384	4P-7384	--	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484																																																																																																																																																																																																																																																																																																																																																																																																																														
<b>MTH1-UP (Engine)</b>																																																																																																																																																																																																																																																																																																																																																																																																																																									
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484	Fuel - FWS	1	133-5673	133-5673	--	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel - FWS	1	133-5673	133-5673	--	--	Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--																																																																																																																																																																																																																																																																																																																																																																																																																														
Fuel Secondary - ADV	1	326-1641	--	326-1641	--	<b>XMJ1-UP</b>																																																																																																																																																																																																																																																																																																																																																																																																																																			
Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484																																																																																																																																																																																																																																																																																																																																																																																																																														

<sup>1</sup>Please see the Filter Upgrade information at the end of this section for additional details.

# Generator Sets

## C175-16

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Cat Engines

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>A7B1-UP</b>						
Engine Oil	1	295-4343	295-4343	--	--	--
<b>M6A1-UP</b>						
Air Primary	1	280-4180	280-4180	--	--	--
Air Secondary	1	208-9066	208-9066	--	--	--
Engine Oil	3	249-2340	--	249-2340	--	--
<b>M6B1-UP</b>						
Engine Oil	3	249-2340	--	249-2340	--	--
<b>P6L1-UP</b>						
Air Primary	1	280-4180	280-4180	--	--	--
Air Secondary	1	208-9066	208-9066	--	--	--
Engine Oil	1	295-4343	295-4343	--	--	--
Engine Oil	3	249-2340	--	249-2340	--	--
Fuel - ADV	4	1R-0766	--	1R-0766	--	--
Fuel - FWS	1	316-9954	316-9954	--	--	--

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>	Fire Res. <sup>1</sup>
<b>WYB1-UP</b>						
Air Primary	1	280-4180	280-4180	--	--	--
Air Primary	1	269-7041	269-7041	--	--	--
Air Primary	1	105-9741	105-9741	--	--	--
Air Secondary	1	281-7246	281-7246	--	--	--
Engine Oil	3	249-2340	--	249-2340	--	--
Engine Oil	1	295-4343	295-4343	--	--	--
Fuel	1	264-7727	264-7727	--	--	--
Fuel - ADV	4	1R-0766	--	1R-0766	--	--
Fuel - FWS	1	264-7726	264-7726	--	--	--
Fuel - FWS	1	316-9954	316-9954	--	--	--
Fuel Secondary - ADV	1	1R-0755	--	1R-0755	--	--
Hydraulic - ADV	1	1G-8878	--	1G-8878	102-2828	156-0214

<sup>1</sup>Please see the Filter Upgrade information at the end of this section for additional details.

## G3306

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>07Y1-1833</b>					
Air Primary	1	6I-2501	6I-2501	--	128-2686
Air Primary	1	4L-9852	4L-9852	--	--
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2500	6I-2500	--	--
Air Secondary	1	6I-2502	6I-2502	--	--
Coolant	1	9N-3718	9N-3718	--	--
Coolant	1	9N-6123	9N-6123	--	--
Coolant	1	9N-3717	9N-3717	--	--
Engine Oil	1	1R-0739	1R-0739	1R-1807	257-9344
Engine Oil - ADV	1	275-2604	--	275-2604	244-4484
Fuel	1	4P-4719	4P-4719	--	--
<b>07Y1834-UP</b>					
Air Primary	1	6I-2501	6I-2501	--	128-2686
Air Primary	1	4L-9852	4L-9852	--	--
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2500	6I-2500	--	--
Air Secondary	1	6I-2502	6I-2502	--	--
Coolant	1	9N-3718	9N-3718	--	--
Coolant	1	9N-6123	9N-6123	--	--

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>07Y1834-UP (Continued)</b>					
Coolant	1	9N-3717	9N-3717	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484
Engine Oil - ADV	1	275-2604	--	275-2604	244-4484
Fuel	1	4P-4719	4P-4719	--	--
<b>3CF1-UP</b>					
Air Primary	1	7W-5495	7W-5495	--	--
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484
Engine Oil - ADV	1	1R-1807	--	1R-1807	257-9344
<b>4DL1-38</b>					
Engine Oil - ADV	1	1R-1807	--	1R-1807	257-9344
<b>CNR1-UP</b>					
Air Primary	1	6I-2501	6I-2501	--	128-2686
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2502	6I-2502	--	--
Air Secondary	1	6I-2500	6I-2500	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484
Fuel	1	4P-4719	4P-4719	--	--
<b>CTT1-UP, HCC1-UP (Engine)</b>					
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484

(Continued)

**G3306 (Continued)**

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>D4X1-UP</b>					
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2500	6I-2500	--	--
<b>G6X1-UP</b>					
Air Primary	1	6I-2501	6I-2501	--	128-2686
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2500	6I-2500	--	--
Air Secondary	1	6I-2502	6I-2502	--	--
Coolant	1	9N-3718	9N-3718	--	--
Coolant	1	9N-6123	9N-6123	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484
Fuel	1	4P-4719	4P-4719	--	--
Gas	1	322-4981	322-4981	--	--

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>H6D1-UP</b>					
Air Primary	1	6I-2501	6I-2501	--	128-2686
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2502	6I-2502	--	--
Air Secondary	1	6I-2500	6I-2500	--	--
Coolant	1	9N-6123	9N-6123	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484
<b>JCA1-UP</b>					
Air Primary	1	6I-2501	6I-2501	--	128-2686
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary	1	6I-2499	6I-2499	--	132-7164
Air Secondary	1	6I-2500	6I-2500	--	--
Air Secondary	1	6I-2502	6I-2502	--	--
Engine Oil - ADV	1	1R-1808	--	1R-1808	244-4484
Fuel	1	4P-4719	4P-4719	--	--
Gas	1	322-4981	322-4981	--	--

<sup>1</sup>Please see the Filter Upgrade information at the end of this section for additional details.

**G3406**

Filter needs differ between machine arrangements. Filters for engines are listed separately from machine arrangements. Engine filters are designated by "(Engine)" following the model. Please review both machine and engine arrangements carefully before finalizing filter selection.

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>1RK1-UP</b>					
Air Primary	1	7W-5313	7W-5313	--	--
Air Primary- Radial Seal	1	6I-2505	6I-2505	--	122-1675
Air Secondary	1	1P-8482	1P-8482	--	--
Air Secondary- Axial Seal	1	6I-2506	6I-2506	--	--
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484
Engine Oil	14	4P-3631	4P-3631	--	--
Fuel	1	4P-4719	4P-4719	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--
Gas	1	322-4981	322-4981	--	--
Hydraulic	1	108-7980	108-7980	--	--
<b>4FD1-UP</b>					
Air Primary	1	7W-5313	7W-5313	--	--
Air Primary	1	7W-5495	7W-5495	--	--
Air Primary- Radial Seal	1	6I-2505	6I-2505	--	122-1675
Air Secondary	1	1P-8482	1P-8482	--	--
Air Secondary	1	6N-6444	6N-6444	--	--
Air Secondary- Axial Seal	1	6I-2506	6I-2506	--	--
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484

Description	Qty.	Part Number	STND	ADV <sup>1</sup>	UHE <sup>1</sup>
<b>4FD1-UP (Continued)</b>					
Engine Oil	14	4P-3631	4P-3631	--	--
Fuel	1	4P-4719	4P-4719	--	--
Fuel Secondary - ADV	1	1R-0749	--	1R-0749	--
Gas	1	322-4981	322-4981	--	--
Gas	1	322-4984	322-4984	--	--
Hydraulic	1	108-7980	108-7980	--	--
<b>5NW1-UP</b>					
Air Primary	1	7W-5313	7W-5313	--	--
Air Primary- Radial Seal	1	6I-2505	6I-2505	--	122-1675
Air Secondary	1	1P-8482	1P-8482	--	--
Air Secondary- Axial Seal	1	6I-2506	6I-2506	--	--
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484
Engine Oil	14	4P-3631	4P-3631	--	--
Hydraulic	1	108-7980	108-7980	--	--
<b>CRE1-UP, CTS1-UP (Engine)</b>					
Engine Oil	1	1R-0716	1R-0716	1R-1808	244-4484