

Introducing a New, Improved Shorter Oil Filter

Customers told us the height of a standard oil filter can make it difficult for them to install the filter in certain engine applications. So, operating on the premise that size really does matter, we made our Champion oil filter can 1/2" shorter and, in the process, added design improvements that now make our filters stronger and more effective than ever before.

By-Pass Valve

Meets TCM Specifications

Shorter Installed Height

Shortened can height by approximately 1/2", with no impact to the filter media's performance.

Improved Spring

Replaced old "leaf" spring with an improved coil spring design.

Thicker-Walled Can

Increased wall thickness for improved structural integrity.

Stronger Center Tube

Redesigned center tube for added strength, with collapse pressures more than double the current design.

New Inlet Design

Changed four-hole design to an eight-hole design for approximately 30% greater inlet flow area.

Increased Lid Thickness

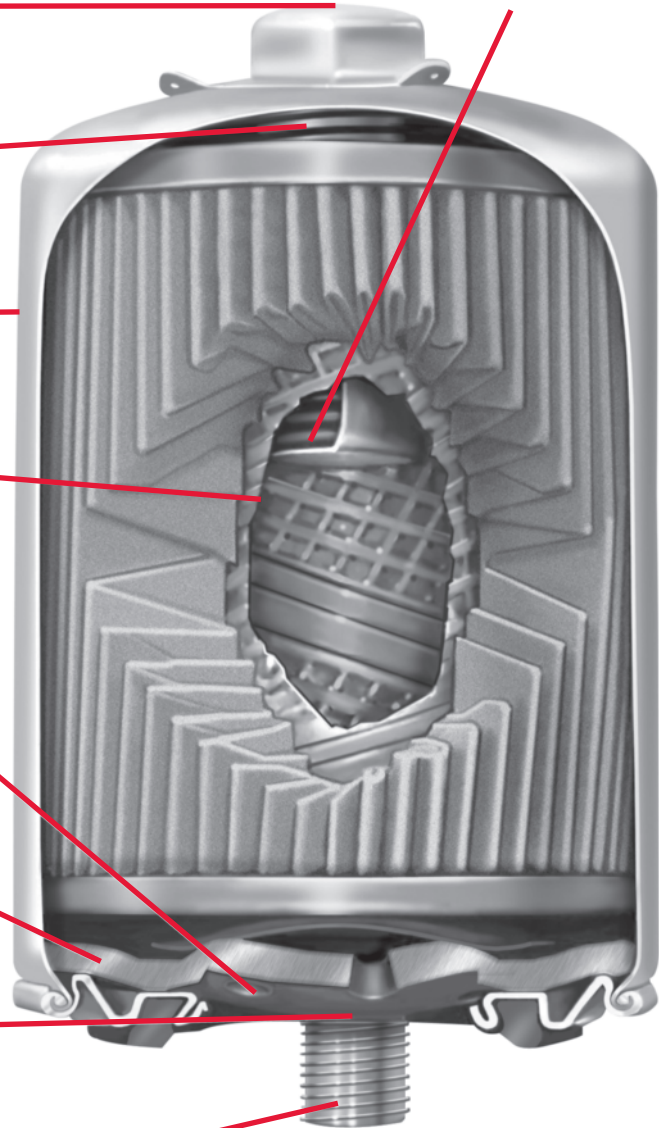
Increased thickness of seaming lid by approximately 35%, which subsequently provided for higher burst and impulse testing.

Improved Baseplate Thread

Replaced cut thread with an improved rolled thread, without affecting tolerances on the thread dimensions.

New Zinc-Plated Stud

Incorporated new zinc-plated stud for increased protection against rust and corrosion (applicable to Champion part numbers CH48110-1 and CH48111-1).



Oil Filters

See what a sizeable difference 1/2" can make in your life. For more information, call, fax, or log onto www.championaerospace.com



Champion Aerospace's full-pleat, resin-impregnated micronic filter media traps all harmful particles, including metallic chips which result from abnormal engine wear. Because the oil flows through many layers of locked-in fibers, there is no migration of fiber material to clog engine oil passages or affect bearing surfaces. According to industry-approved tests, the Champion oil filter traps and holds more dirt and harmful particles during its normal operating time than any other similar filter.



Oil Filters

Full-Flow Spin-On Filters

Champion Replacement Filter Elements



Lycoming

CH48103-1 CH48104-1
(Interchangeable)

CFO-100-1 Short Element

CFO-101-1 Long Element

CFO-205 Element Gasket Kit

Oil Filter Packaging Information

Champion Aerospace spin-on oil filters are packaged in individual boxes, with part numbers displayed prominently. All are equipped with an attached installation gasket. Those with male threaded studs have thread protectors to avoid damage.

All sizes of spin-on filters are packed 12 per case of a single part number, in heavy, reshippable corrugated-board cartons.

Champion oil filter elements are individually boxed, each with a plastic bag containing installation gaskets and instructions. This provides ample protection for these elements in storage and assures availability of necessary items for correct installation.

All sizes of replacement elements are packed 12 per case of a single part number in heavy, reshippable corrugated-board cartons.



Continental

CH48108-1* (TCM No. 649922) CH48109-1* (TCM No. 649923)
(Interchangeable)

Spin-On Oil Filters for Teledyne Continental Motors (TCM) Engines

Champion CH48108-1 and CH48109-1 oil filters have been assigned TCM part numbers 649922 and 649923. Many TCM engines have been modified per TCM service bulletins M74-2, M86-6 (Rev.1), Cessna conversion kits or through local field approval. These modifications may require a different filter part number than the one listed in our application data. Following is a list of filter adapters used on TCM engines with the recommended Champion filter.

Manufacturer	Adapter	Filter
Cessna	1250403-2	CH48110-1
Cessna	1250922-1	CH48110-1
Cessna	1250922-2	CH48110-1
Cessna	1250922-3	CH48110-1
Cessna	1250922-4	CH48109-1
Cessna	1250922-5	CH48108-1
Cessna	0556010-1	CH48110-1
Cessna	0450404-2	CH48110-1
TCM633324	CH48110-1	



Lycoming and Continental

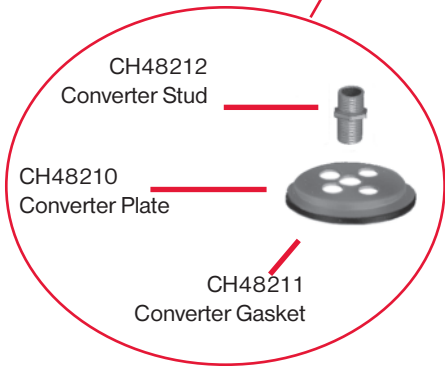
CH48110-1 CH48111-1
(Interchangeable)

The airframe or engine manufacturer should be consulted for filter application data on field modified engines.

* These filters are equipped with an internal bypass valve. They can be used on any TCM engine equipped with or without a bypass valve in the oil filter engine adapter.

Full-Flow Spin-On Filters

For Lycoming and Continental Engines



**CH48922 (54E23093)
Spin-On Oil Filter Converter Kit**

Textron Lycoming now supplies the converter kit, formerly sold under Champion P/N: CH48922. This kit is now available from your Lycoming distributor under P/N: 54E23093.



Oil Filters

Aircraft Engine Applications

Model	Engine Model	Champion Spin-On Filter	Champion Element	Model	Engine Model	Champion Spin-On Filter	Champion Element
AEROSPATIALE (Socata)				NOTE: All Cessna aircraft modified under Cessna Service Bulletin SEB-93-1 or MEB 93-1, require Champion Oil Filter CH48108-1. The CH48109-1 may also be used if clearance permits installation.			
TB9 Tampico	O-320-D2A	CH48110-1	CFO-100-1	CESSNA			
TB10 Tobago	O-360-A1AD	CH48110-1	CFO-100-1	150 A thru M	O-200	CH48108-1	CFO-100-1
TB20 Trinidad	IO-540-C4D5D	CH48103-1	CFO-100-1	F150 F thru M	O-200	CH48108-1	CFO-100-1
TB21 Trinidad TC	TIO-540-AB1AD	CH48103-1	CFO-100-1	A150L	O-200	CH48108-1	CFO-100-1
TB30	AEIO-540-L1B5D	CH48103-1	CFO-100-1	FA150	O-200	CH48108-1	CFO-100-1
AEROSTAR (See Piper)				152	O-235-L2C, H2C	CH48110-1	-
BEECH				162	O-200-D	CH48108-1	-
BONANZA				C-172			
E33A, F33A, F33B, F33C	IO-520	-	CFO-100-1	172 A thru H	O-300	CH48108-1	CFO-100-1
E33A, F33A, F33B, F33C	IO-520B	CH48109-1	-	172 I thru M	O-320	CH48110-1	CFO-100-1
G-33	IO-470N	CH48108-1	-	172N	O-320-H2AD	CH48103-1	-
H-35	O-470	CH48108-1	-	172P	O-320-D2J	CH48111-1	CFO-101-1
J, K, M-35	IO 470-C	CH48108-1	-	F172 D thru H	O-300	CH48108-1	CFO-100-1
N, P-35	IO-470-N	CH48108-1	-	FR172 E thru K	IO-360	CH48108-1	CFO-100-1
S35, V35, V35A, V35B	IO-520	-	CFO-100-1	R172K	IO-360-K	CH48108-1	-
S35	IO-520B	CH48109-1	-	172R and S	IO-360-L2A	CH48110-1	-
V35TC, V35A-TC, V35B-TC	TSIO-520	-	CFO-100-1	172RG	O-360-F1A6	CH48110-1	CFO-100-1
V35TC, V35A-TC, -V35B-TC	TSIO-520D	CH48109-1	-	172S	IO-360-L2A	CH48110-1	-
V35, V35A, V35B	IO-520B	CH48109-1	-	177	O-320	CH48110-1	CFO-100-1
36, A36	IO-520B	CH48109-1	-	177A, B	O-360-A1F6D	CH48103-1	CFO-100-1
A36TC, B36TC	TSIO-520-UB	CH48109-1	-	177RG	IO-360-A1B6D	CH48103-1	CFO-100-1
B36-550	IO-550	CH48109-1	-	180 A thru J	O-470	CH48108-1	CFO-100-1
DEBONAIR/BONANZA				180Q	O-470-U++	CH48108-1	CFO-100-1
C33A, E33A, E33C	IO-520	-	CFO-100-1	180-S/N 53087 & Up	1111O-470-U++	CH48108-1	-
C33A, E33A, F33C	IO-520B	CH48109-1	-	C-182			
MUSKETEER				182 A Thru P	O-470	CH48108-1	CFO-100-1
Sport III	O-320	CH48110-1	CFO-100-1	182Q, R	O-470-U++	CH48108-1	CFO-100-1
23	O-320	CH48110-1	CFO-100-1	182S	IO-540-AB1A5	CH48110-1	-
A23-19, 19A, B19 Sport	O-320	CH48110-1	CFO-100-1	A182 K thru N	O-470	CH48108-1	CFO-100-1
A23, 23, A23A	IO-346	-	CFO-100-1	182-S/N 67042 & Up	O-470-U++	CH48108-1	-
A23, A23A	IO-346A	CH48109-1	-	F182-S/N 00130 & Up	O-470-U++	CH48108-1	-
B23, C23 Sundowner	O-360	CH48110-1	CFO-100-1	R182	O-540-J3C5D	CH48103-1	CFO-100-1
B23	O-360A4JD	CH48103-1	CFO-100-1	T182	O-540-L3C5D	CH48103-1	CFO-100-1
SIERRA				TR182, FTR182	O-540-L3C5D	CH48103-1	CFO-100-1
24, A-24, A-24R, B-24R, C-24R	IO-360, -L2A	CH48110-1	CFO-100-1	185 A thru D	IO-470, IO-520	CH48108-1	CFO-100-1
SKIPPER				A185E, F	IO-470, IO-520	CH48108-1	CFO-100-1
77	O-235-L2C	CH48110-1	-	185-S/N 03852 & Up	IO-520	CH48108-1	-
BEECH				188	O-470, IO-520	CH48108-1	CFO-100-1
BARON				188-S/N 03474 & Up	IO-520D	CH48109-1	-
C55, D55, E55, 58	IO-520	-	CFO-100-1	T188-S/N 03474 & Up	TSIO-520	CH48109-1	-
C55, D55, E55, 58	IO-520C	CH48109-1	-	205A	IO-470	CH48108-1	CFO-100-1
56TC, A56TC	TIO-541-E	CH48104-1	CFO-101-1	C-206	IO-540	CH48110-1	CFO-100-1
Baron 58P	TSIO-520-L++	-	CFO-100-1	206 A thru G	IO-520	CH48108-1	CFO-100-1
Baron 58P, 58TC	TSIO-520-L, -W, -B	CH48108-1	-	206H	IO-540-AC1A5	CH48110-1	-
Baron 58C, 550	IO-550	CH48109-1	-	206-S/N 05030 & Up	IO-520	CH48109-1	-
DUKE				206-S/N 05030 & Up	TSIO-520	CH48109-1	-
60, A60, B60	TIO-541	CH48104-1	CFO-101-1	U206	IO-520	CH48108-1	CFO-100-1
QUEEN AIR				T-206H	TIO540-AJ1A	CH48110-1	-
65, 70	IGSO-480	CH48111-1	CFO-101-1	TU-206	TSIO-520	CH48108-1	CFO-100-1
80, 88, B80	IGSO-540	CH48111-1	CFO-101-1	P206	IO-520	CH48108-1	CFO-100-1
TRAVEL AIR				TP206	TSIO-520	CH48108-1	CFO-100-1
95, B95	O-360	CH48110-1	CFO-100-1	207	IO-520	CH48108-1	CFO-100-1
B95A, D95A, E95	IO-360, L2A	CH48110-1	CFO-100-1	207-S/N 05227 & Up	IO-520	CH48109-1	-
DUCHESS				T207-S/N 05227 & Up	TSIO-520	CH48109-1	-
76	LO-360-A1G6D & O-360-A1G6D	CH48103-1		T207	TSIO-520	CH48108-1	CFO-100-1
BELLANCA				210	IO-470, IO-520	CH48108-1	CFO-100-1
17-31A, 17-31ATC	IO-540-K	CH48110-1	CFO-100-1	210-S/N 63373-63375 & Up	IO-520	CH48109-1	-
17-31A Viking	IO-540-K	CH48110-1	CFO-100-1	T210-S/N 63373-63375 & Up	TSIO-520	CH48108-1	-
17-31A Viking	IO-520-D	-	CFO-100-1	P210-S/N 278 & Up	TSIO-520	CH48108-1	-
17-31ATC Turbo	TIO-540	CH48110-1	CFO-100-1	T210, P210-S/N 1-277	TSIO-520++	CH48108-1	CFO-100-1

Aircraft engines not listed, but equipped with oil filters at overhaul, may accept Champion filters. Contact Aviation Service Department for further information. Please include description of your engine. ++ Reference page 25-26 for other TCM application data. * Requires Lyco (54E23093)



Aircraft Engine Applications

Model	Engine Model	Champion Spin-On Filter	Champion Element	Model	Engine Model	Champion Spin-On Filter	Champion Element
CESSNA				MAULE			
T303	LTSIO-520-AE & TSIO-520-AE	CH48109-1	-	M5-180C, MX7-180	O-360-C, -C1F	CH48110-1	
310 C thru Q	IO-470	CH48108-1	CFO-100-1	M5-210C	IO-360D, -L2A	CH48103-1	
310 R	IO-520-M	CH48108-1	-	M5-210TC	TO-360-C1A6D	CH48103-1	
T310P, Q, R	TSIO-520-B	CH48108-1	CFO-100-1	M5-235C, M6-235, M7-235	O-540-J1A5D	CH48103-1	
320-A	TSIO-470	CH48104-1	-	MX-7-235	O-540-W1A5D	CH48103-1	
320-B, C	TSIO-470	CH48109-1	CFO-101-1	MOONEY AIRCRAFT			
320-D	TSIO-520	-	CFO-100-1	M20A, B, Mark21	O-360	CH48110-1	
320-D, E, F	TSIO-520-B	CH48108-1	-	M20D Master	O-360	CH48110-1	CFO-100-1
335	TSIO-520-EB	CH48109-1	-	M20C Ranger	O-360	CH48110-1	
336	IO-360	CH48108-1	CFO-100-1	M20G Statesman	O-360	CH48110-1	CFO-100-1
337	IO-360	CH48108-1	CFO-100-1	M20E Chaparral	IO-360, -L2A	CH48110-1	CFO-100-1
P337, P337H	TSIO-360	CH48108-1	CFO-100-1	M20F Executive	IO-360, -L2A	CH48110-1	CFO-100-1
T337H	TSIO-360-H	CH48108-1	CFO-100-1	M20J-201	IO-360-A3B6D, -L2A	CH48103-1	-
340	TSIO-520-K	CH48108-1	-	M20K-231	TSIO-360-G, LB	CH48108-1	
340A	TSIO-520-N, -NB	CH48109-1	CFO-100-1	M20M-TLS	TIO-540-AFIA, B	CH48110-1	
401/402	TSIO-520-E	CH48108-1	CFO-100-1	M20R	IO-550	CH48108-1	-
402C	TSIO-520-VB	CH48109-1	CFO-100-1	M22 Mustang	TIO-541	CH48110-1	CFO-100-1
404	GTSIO-520-M	CH48111-1	CFO-101-1	M20K-252 TSE	TSIO-360-MB1	CH48108-1	-
411-S/N 000 thru 0126	GTSIO-520-C	CH48104-1	-	PIPER			
411-S/N 0127 and up	GTSIO-520-C	CH48111-1	CFO-101-1	CUB			
414, 414A	TSIO-520-J, -N	CH48108-1	-	PA-18 "150"	O-320	CH48110-1	CFO-100-1
421A, B	GTSIO-520-D, -H,	CH48111-1	CFO-101-1	TRI-PACER			
421C-S/N 1017 thru 1404	-L, -N, ++	CH48111-1	CFO-101-1	PA-22 "150"	O-320	CH48110-1	CFO-100-1
CIRRUS AIRCRAFT				PA-22 "160"	O-320	CH48110-1	CFO-100-1
SRV, SR20	IO-360ES	CH48108-1		COMANCHE			
SR22	IO-550N	CH48109-1		PA-24 "180"	O-360	CH48110-1	CFO-100-1
COLUMBIA/LANCAIR				PA-24 "250"	O-540 or IO-540	CH48110-1	CFO-100-1
COLUMBIA 300, 350	IO-550N	CH48109-1	CFO-100-1	PA-24B, PA-24C "260"	O-540 or IO-540	CH48110-1	CFO-100-1
COLUMBIA 400	TS10-550	CH48109-1	CFO-100-1	PA-24 Turbo "260"	IO-540	CH48110-1	CFO-100-1
DIAMOND AIRCRAFT				PAWNEE			
DA20-1C	IO-240	CH48108-1	CFO-100-1	PA-25 "150"	O-320	CH48110-1	CFO-100-1
DA40-180	IO-360	CH48110-1	CFO-100-1	A25 "260"	O-540	CH48110-1	CFO-100-1
GULFSTREAM AMERICAN (Single Engine Models)				PA-36 Brave	6-285B	CH48109-1	-
AA-1, 1A, 1B, 1B Trainer, TR	2/Lyco O-235	CH48110-1	CFO-100-1	PA-36-375 Brave	IO-720-D1C	CH48110-1	CFO-100-1
A1C Lynx, T-Cat	Lyco O-235-L	CH48110-1	CFO-100-1	PA-36-400 Brave	IO-720D1CD	CH48104-1	CFO-101-1
AA-5 Traveler	Lyco O-320-E	CH48110-1	CFO-100-1	CHEROKEE, CADET			
AA-5A Cheetah	Lyco O-320-E	CH48110-1	CFO-100-1	PA-28 "140"	O-320	CH48110-1	CFO-100-1
AA-5B Tiger	Lyco O-360-A4K	CH48110-1	CFO-100-1	PA-28 "150"	O-320	CH48110-1	CFO-100-1
Cougar	2/Lyco O-320-D	CH48110-1	CFO-100-1	PA-28 "160", "161"	O-320	CH48110-1	CFO-100-1
COMMANDER				PA-28 "180"	O-360	CH48110-1	CFO-100-1
112, 112A	IO-360-C, -L2A	CH48110-1	CFO-100-1	PA-28 "180", "181"	O-360-A4M	CH48110-1	CFO-100-1
112TC	TO-360-C1A6D	CH48103-1	CFO-100-1	PA-28 "235"	O-540	CH48110-1	CFO-100-1
114	IO-540-T4A5D	CH48103-1	CFO-100-1	PA-28 "151"	O-320	CH48110-1	CFO-100-1
500B, 500U	IO-540	CH48110-1	CFO-100-1	ARROW			
700	TIO-540-R2AD	CH48103-1	CFO-100-1	PA-28R "180"	IO-360, L2A	CH48110-1	CFO-100-1
				PA-28R "180"	IO-360-C1CD, L2A	CH48103-1	CFO-100-1
				PA-28R "200"			
				Arrow II	IO-360, L2A	CH48110-1	CFO-100-1
				PA-284 "200"			
				Turbo Arrow III	TSIO-360	CH48108-1	-
				PA-28-R-201T	TSIO-360-F1	CH48108-1	

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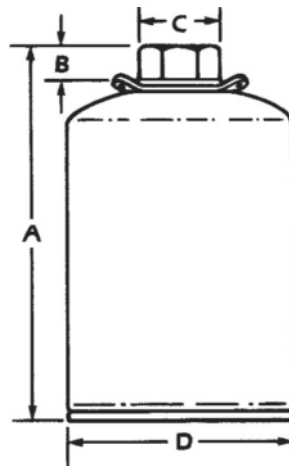


Oil Filters

Aircraft Engine Applications

Model	Engine Model	Champion Spin-On Filter	Champion Element	Model	Engine Model	Champion Spin-On Filter	Champion Element
DAKOTA				TWIN COMMANCHE			
PA-28-235	O-540-J3A5D	CH48103-1*	CFO-100-1	PA-30 "160" Turbo	IO-320	CH48110-1	CFO-100-1
PA-28-201T	TSIO-360-FB	CH48108-1	-	PA-39 "160"	IO-320	CH48110-1	CFO-100-1
					LIO-320	CH48110-1	CFO-100-1
CHEROKEE SIX				PA-39 "160" Turbo	IO-320	CH48110-1	CFO-100-1
PA-32 "260"	O-540	CH48110-1	CFO-100-1		LIO-320	CH48110-1	CFO-100-1
PA-32 "300"	IO-540	CH48110-1	CFO-100-1				
PA-32R "300"	IO-540-K1AD	CH48103-1*	CFO-100-1	NAVAJO			
PA-32R "300"	TIO-540-S1AD	CH48103-1*	CFO-100-1	PA-31 "300"	IO-540	CH48110-1	CFO-100-1
PA-32RT-300T	TIO-540-S1AD	CH48103-1*	CFO-100-1	PA-31 "310" Turbo	TIO-540	CH48110-1	CFO-100-1
PA-32-301	IO-540-K1G5D	CH48103-1*	CFO-100-1	PA-31 "325"	IO-540-F2BD	CH48103-1	CFO-100-1
PA-32-301	TIO-540-S1AD	CH48103-1*	CFO-100-1		LTIO-540-F2BD	CH48103-1	CFO-100-1
PA-32R-301	IO-540-K1G5D	CH48103-1*	CFO-100-1	PA-31 "350" Chieftain	TIO-540-J2BD	CH48103-1	CFO-100-1
PA-32R-301	TIO-540-S1AD	CH48103-1*	CFO-100-1		LTIO-540-J2BD	CH48103-1	CFO-100-1
				PA-31P "425"	TIGO-541	CH48104-1	CFO-101-1
TOMAHAWK				PA-31P "350" Mojave	TIO/LIO-540-V2AD	CH48104-1	
Trainer PA-38-112	O-235-L2C	CH48103-1*	CFO-100-1	SENECA			
MALIBU				PA-34	IO-360C	CH48110-1	CFO-100-1
PA-46-301P	Cont TSIO-520-BE	CH48109-1			LIO-360C	CH48110-1	CFO-100-1
MALIBU MIRAGE				PA-34	IO-360-C1E6D	CH48103-1	CFO-100-1
PA-46-350-P	Lycy TIO-540-AE2A	CH48103-1		Seneca II	LIO-360-C1E6D	CH48103-1	CFO-100-1
APACHE					LTSIO-360-E	CH48108-1	-
PA-23 "150"	O-320	CH48110-1	CFO-100-1	Seneca III	TSIO-360-E	CH48108-1	-
PA-23 "160"	O-320	CH48110-1	CFO-100-1	PA-34-220T	TSIO-360-KB	CH48108-1	
PA-23 "235"	O-540	CH48110-1	CFO-100-1	PIPER AEROSTAR			
AZTEC				PA-60-600, -600A	IO-540-G, -K	CH48110-1	CFO-100-1
PA-23 "250"	O-540	CH48110-1	CFO-100-1	PA-60-604, -601B	IO-540-P, -S	CH48110-1	CFO-100-1
"C" PA-23	IO-540	CH48110-1	CFO-100-1	PA-60-601P	IO-540-S	CH48110-1	CFO-100-1
PA-23 Turbo "250"	IO-540	CH48110-1	CFO-100-1	PA-60-602P	IO-540-AA1A5	CH48110-1	CFO-100-1
"C", "D", "E", "F"				SEMINOLE			
PA-23 Turbo "250"	TIO-540	CH48110-1	CFO-100-1	PA-44-180	O-360-E1AD	CH48103-1*	CFO-100-1
				PA-44-180T	TO-360-E1A6D	CH48103-1*	CFO-100-1
					LTO-360-E1A6D	CH48103-1*	CFO-100-1

Dimensional Data



Popular spin-on oil filters

Champion Part No.	A	B	C	D	Thread (SAE)	Dry Weight Lbs./Kg.
CH48103-1	4.48" (11.4 cm)	0.43" (1.09 cm)	1.00" Hex (2.54 cm)	3.71" (9.4 cm)	13/16-16-UNS-2B	1.32lbs. (0.59kg)
CH48104-1	5.73" (14.6 cm)	0.43" (1.09 cm)	1.00" Hex (2.54 cm)	3.71" (9.4 cm)	13/16-16-UNS-2B	1.41lbs. (0.64kg)
CH48108-1	4.48" (11.4 cm)	0.43" (1.09 cm)	1.00" Hex (2.54 cm)	3.71" (9.4 cm)	3/4-16-UNF-2B	1.40lbs. (0.64kg)
CH48109-1	5.73" (14.6 cm)	0.43" (1.09 cm)	1.00" Hex (2.54 cm)	3.71" (9.4 cm)	3/4-16-UNF-2B	1.51lbs. (0.68kg)
CH48110-1	4.48" (11.4 cm)	0.43" (1.09 cm)	1.00" Hex (2.54 cm)	3.71" (9.4 cm)	3/4-16-UNF-2A	1.38lbs. (0.63kg)
CH48111-1	5.73" (14.6 cm)	0.43" (1.09 cm)	1.00" Hex (2.54 cm)	3.71" (9.4 cm)	3/4-16-UNF-2A	1.47lbs. (0.67kg)

Aircraft engines not listed, but equipped with oil filters at overhaul, may accept Champion filters. Write Aviation Service Department for further information. Please include description of your engine.

* Requires Lycy (54E23093)