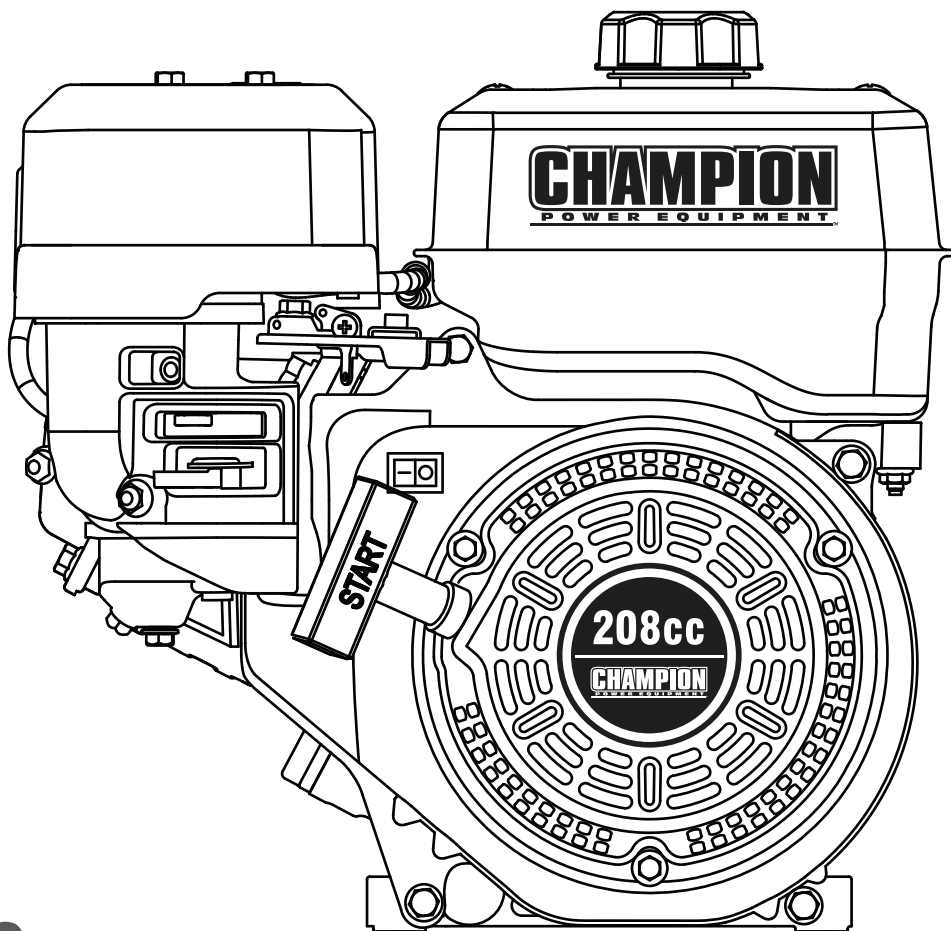


CHAMPION

POWER EQUIPMENT™

OWNER'S MANUAL & OPERATING INSTRUCTIONS



208cc

REPLACEMENT ENGINE



MODEL NUMBER

60701

SAVE THESE INSTRUCTIONS
Important Safety Instructions
are included in this manual.

MADE IN CHINA
REV 60701-20131218

10006 Santa Fe Springs Road
Santa Fe Springs CA 90670
USA / 1-877-338-0999
www.championpowerequipment.com

AN IMPORTANT MESSAGE ABOUT TEMPERATURE:

Your Champion Power Equipment product is designed and rated for continuous operation at ambient temperatures up to 40°C (104°F). When your product is needed your product may be operated at temperatures ranging from -15°C (5°F) to 50°C (122°F) for short periods. If the product is exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and other vents.

Have questions or need assistance?

Do not return this product to the store!

WE ARE HERE TO HELP!

Visit our website:

www.championpowerequipment.com

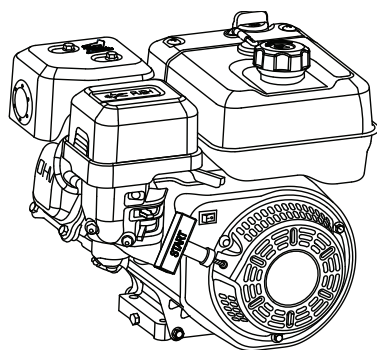
for more info:

- Product Info & Updates
- Tech Bulletins
- Frequently Asked Questions
- Product Registration

– or –

Call our Customer Care Team Toll-Free at:

1-877-338-0999



208cc REPLACEMENT ENGINE

TABLE OF CONTENTS

Introduction	1	Specifications	11
Introduction	1	Engine Specifications	11
Replacement Engine	1	Fuel	11
Accessories	1	Oil	11
This Booklet	1	Spark Plugs	11
Manual Conventions	2	Maintenance Valve Clearance	11
Safety Rules	3	Keyway Shaft	11
Controls and Features	5	Dimensions	12
Replacement Engine	5	Engine Parts Diagram	13
Parts Included	5	Engine Parts List	14
Assembly	6	Troubleshooting	15
Remove the Engine from the Shipping Carton	6	Warranty	16
Add Engine Oil	6	Warranty Qualifications	16
Add Engine Fuel	7	Repair/Replacement Warranty	16
Operation	8	Do Not Return The Unit To The Place Of Purchase	16
Engine Location	8	Warranty Exclusions	16
Starting the Engine	8	Normal Wear	16
Stopping the Engine	8	Installation, Use and Maintenance	16
Maintenance and Storage	9	Other Exclusions	16
Engine Maintenance	9	Limits of Implied Warranty and Consequential Damage	16
Oil	9	Contact Information	16
Spark Plugs	9	Address	16
Air Filter	9	Customer Service	16
Cleaning	9	Technical Service	16
Maintenance Schedule	10		
Engine Maintenance	10		
Storage	10		
Engine Stored for Less than 30 Days	10		
Engines Stored for Over 30 Days	10		

INTRODUCTION

Introduction

Congratulations on your purchase of a Champion Power Equipment engine. CPE designs and builds engines to strict specifications. With proper use and maintenance, this engine will bring years of satisfying service.

Replacement Engine

This unit is a gasoline driven, key-way shaft replacement engine. It is designed to supply power for air compressors, pumps, pressure washers, reel-type lawn mowers, go-carts, agricultural and construction equipment and other pulley-style applications.

Accessories

Champion Power Equipment manufactures and sells accessories designed to help you get the most from your purchase. To find out more, please visit our web site at:
→ www.championpowerequipment.com

This Booklet

Every effort has been made to ensure the accuracy and completeness of the information in this manual. We reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

Champion Power Equipment Support	
1-877-338-0999	
Model Number	
60701	
Serial Number	
Date of Purchase	
Purchase Location	
For Oil Type see "Add Engine Oil" section. For Fuel Type see "Add Fuel" section.	

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

 **DANGER**

DANGER indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

 **WARNING**

WARNING indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

 **CAUTION**

CAUTION indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **may** result in property damage.

 **NOTE**

If you have questions regarding your engine, we can help. Please call our help line at **1-877-338-0999**

SAFETY RULES

WARNING

Read this manual thoroughly before operating your engine. Failure to follow instructions could result in serious injury or death.

WARNING

The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

DANGER

Engine exhaust contains carbon monoxide, a colourless, odourless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get to fresh air immediately.

Operate engine outdoors only in a well ventilated area.

DO NOT operate the engine inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the engine compartment of a recreational vehicle.

DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

DANGER CARBON MONOXIDE: using a engine indoors **CAN KILL YOU IN MINUTES.**

DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories. Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts. Tie up long hair and remove jewelry. Operate equipment with guards in place. DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

DANGER

Sparks can result in fire or electrical shock.

When servicing the engine:

Disconnect the spark plug wire and place it where it cannot contact the plug. DO NOT check for spark with the plug removed. Use only approved spark plug testers.

WARNING

Running engines produce heat. Severe burns can occur on contact.
Combustible material can catch fire on contact.

DO NOT touch hot surfaces.

Avoid contact with hot exhaust gases.

Allow equipment to cool before touching.

Maintain at least 3 ft. (91.4 cm) of clearance on all sides to ensure adequate cooling.

Maintain at least 5 ft. (1.5 m) of clearance from combustible materials.

⚠ WARNING

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go. Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.

⚠ CAUTION

Improper treatment or use of the engine can damage it, shorten its life and void your warranty.

Use the engine only for intended uses. Operate only on level surfaces. DO NOT expose engine to excessive moisture, dust, or dirt.

DO NOT allow any material to block the cooling slots. DO NOT use the engine if:

- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

⚠ WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation.

A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

⚡ DANGER

Fuel and fuel vapours are highly flammable and extremely explosive. Fire or explosion can cause severe burns or death. Unintentional startup can result in entanglement, traumatic amputation or laceration.

When adding or removing fuel:

Turn the engine off and let it cool for at least two minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank. Only fill or drain fuel outdoors in a well-ventilated area. DO NOT pump gas directly into the engine at the gas station. Use an approved container to transfer the fuel to the engine. DO NOT overfill the fuel tank. Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition. DO NOT light or smoke cigarettes.

When starting the engine:

DO NOT attempt to start a damaged engine. Make certain that the gas cap, air filter, spark plug, fuel lines and exhaust system are properly in place. Allow spilled fuel to evaporate fully before attempting to start the engine. Make certain that the engine is resting firmly on level ground.

When operating the engine:

DO NOT move or tip the engine during operation. DO NOT tip the engine or allow fuel or oil to spill.

When transporting or servicing the engine:

Make certain that the fuel shutoff valve is in the off position and the fuel tank is empty. Disconnect the spark plug wire.

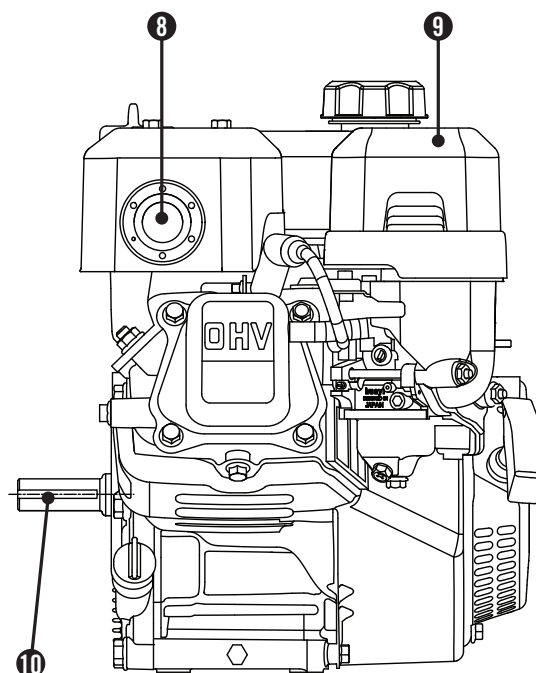
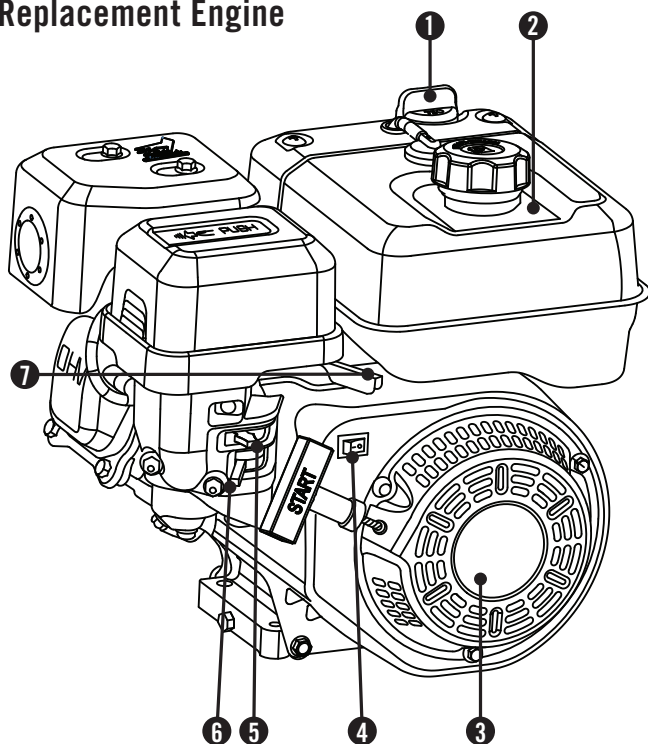
When storing the engine:

Store away from sparks, open flames, pilot lights, heat and other sources of ignition.

CONTROLS AND FEATURES

Read this owner's manual before operating your engine. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

Replacement Engine



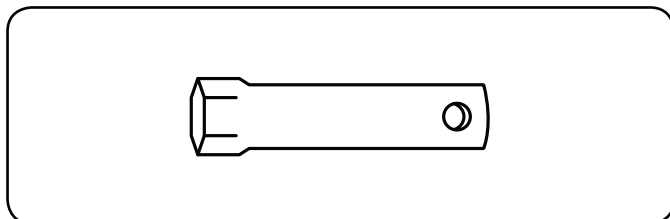
- (1) **Oil Filler Cap** – Check and fill engine oil level.
- (2) **Fuel Tank** – 0.5 gallon (2 L) capacity fuel tank.
- (3) **Recoil Starter** – Used to start the engine.
- (4) **Engine Switch**
- (5) **Choke Lever** – Used to start the engine.
- (6) **Fuel Valve** – Turn this valve to the “On” position to supply fuel to the engine.
- (7) **Throttle** – Controls the engine speed.
- (8) **Muffler**
- (9) **Air Filter** – Protects the engine by filtering dust and debris from the intake air.
- (10) **Crank Shaft**

Parts Included

Your 60701 Gasoline Powered Engine ships with the following parts:

Other

- Spark Plug Socket 1



This unit ships from our factory without oil. It must be properly serviced with fuel and oil before operation. If you have any questions regarding the assembly of your engine, call our help line at 1-877-338-0999. Please have your serial number and model number available.

Remove the Engine from the Shipping Carton

1. Set the shipping carton on a solid, flat surface.
2. Remove everything from the carton except the engine.
3. Carefully cut each corner of the box from top to bottom. Fold each side flat on the ground.

Add Engine Oil

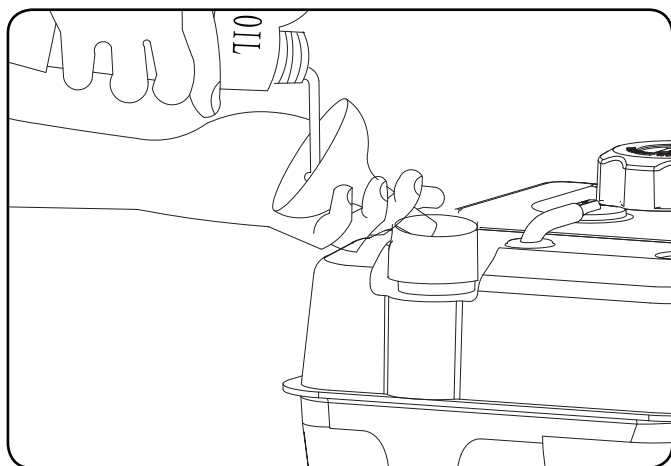
! CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the engine as a result of failure to follow these instructions will void your warranty.

NOTE

The recommended type of oil for use in the engine is 10W-30 automotive oil.

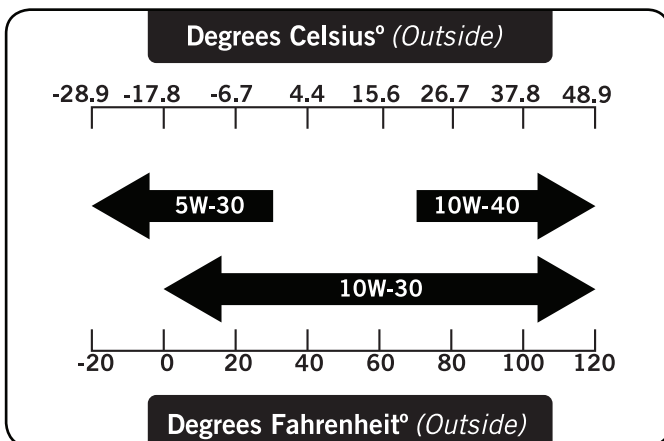
1. Place the engine on a flat, level surface.
2. Remove oil fill cap/dipstick to add oil.
3. Add 0.6 qt. (0.6 L) of oil and replace oil fill cap/dipstick. DO NOT OVERFILL.
4. Check engine oil level daily and add as needed.



Add Engine Oil Cont'd.

CAUTION

The engine is equipped with a low oil shut-off and will stop when the oil level in the crankcase falls below the threshold level.



NOTE

Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

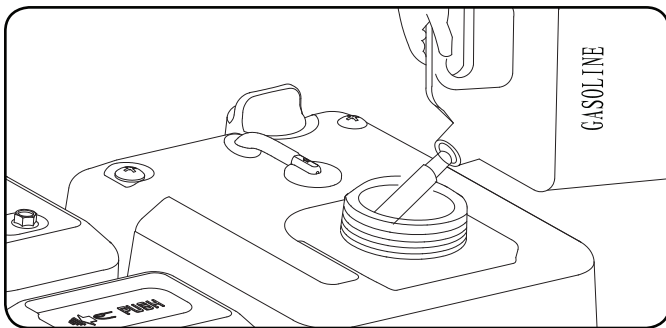
NOTE

The engine rotor has a sealed, pre-lubricated ball bearing that requires no additional lubrication for the life of the bearing.

ASSEMBLY

Add Fuel

1. Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.
2. DO NOT mix oil with fuel.
3. Clean the area around the fuel cap.
4. Remove the fuel cap.
5. Slowly add fuel to the tank. DO NOT OVERFILL. Fuel can expand after filling. A minimum of $\frac{1}{4}$ in. (6.4 mm) of space left in the tank is required for fuel expansion, more than $\frac{1}{4}$ in. (6.4 mm) is recommended. Fuel can be forced out of the tank as a result of expansion if it is overfilled, and can affect the stable running condition of the product. When filling the tank, it is recommended to leave enough space for the fuel to expand.
6. Screw on the fuel cap and wipe away any spilled fuel.



WARNING

Pouring fuel too fast through the fuel screen may result in blow back of fuel at the operator while filling.

CAUTION

Use regular unleaded gasoline with a minimum octane rating of 85.

Do not mix oil and gasoline.
 Fill tank to approximately $\frac{1}{4}$ in. (6.4 mm) below the top of the tank to allow for fuel expansion.
 DO NOT pump gas directly into the engine at the gas station. Use an approved container to transfer the fuel to the engine.
 DO NOT fill fuel tank indoors.
 DO NOT fill fuel tank when the engine is running or hot.
 DO NOT overfill the fuel tank.
 DO NOT light cigarettes or smoke when filling the fuel tank.

Add Fuel Cont'd.

NOTE

Our engines work well with 10% or less ethanol blend fuels. When using blended fuels there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol blend fuels.
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/or improperly formulated stabilizers, are not covered by manufacture's warranty.

It is advisable to always shut off the fuel supply, run the engine to fuel starvation and drain the tank when the equipment is not in use for more than 30 days.

Engine Location

NEVER operate the engine inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the engine compartment of a recreational vehicle. Engines used at construction sites may be subject to additional rules and regulations. Engines should be on a flat, level surface at all times. (Even while not in operation) Engines must have at least 5 ft. (1.5 m) of clearance from all combustible material. In addition to clearance from all combustible material, engines must also have at least 3 ft. (91.4 cm) of clearance on all sides to allow for adequate cooling, maintenance and servicing. Engines should never be started or operated in the back of a SUV, camper, trailer, in the bed of a truck (regular, flat or otherwise), under staircases/stairwells, next to walls or buildings, or in any other location that will not allow for adequate cooling of the engine and/or the muffler. DO NOT contain engines during operation. Allow engines to properly cool before transport or storage.

Place the engine in a well-ventilated area. DO NOT place the engine near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning engine.

Failure to follow proper safety precautions may void manufacturer's warranty.

WARNING

During operation the muffler and exhaust fumes produced will become hot. If adequate cooling and breathing space are not supplied, or if the engine is blocked or contained, temperatures can become extremely heated and may lead to fire.

Starting the Engine

1. Make certain the engine is on a flat, level surface.
2. Press the engine switch to "ON" position.
3. Move the fuel valve to the "ON" position.
4. Move the throttle lever to the "Fast" position.
5. Move the choke lever to the "Choke" position.
6. Pull the starter cord slowly until resistance is felt and then pull rapidly. **SEE NOTE.**

Starting the Engine Cont'd.

NOTE

Keep choke lever in "Choke" position for only 1 pull of the recoil starter. After first pull, move choke lever to the "Run" position for up to the next 3 pulls of the recoil starter. Too much choke leads to spark plug fouling/engine flooding due to the lack of incoming air. This will cause the engine not to start.

7. As engine warms up, move the choke lever to "Run" and adjust the throttle as needed.

NOTE

If the engine starts, but does not run, make certain that the engine is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

Stopping the Engine

1. Turn the fuel knob to the "Off" position.
2. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
3. Press the engine switch to the "Off" position.

Important: Always ensure that the Fuel Valve and the Engine Switch are in the "OFF" position when the engine is not in use.

NOTE

If the engine will not be used for a period of two (2) weeks or longer, please see the Storage section for proper engine and fuel storage.

MAINTENANCE AND STORAGE

The owner/operator is responsible for all periodic maintenance.

WARNING

Never operate a damaged or defective engine.

WARNING

Improper maintenance will void your warranty.

NOTE

For service or parts assistance, contact our help line at **1-877-338-0999**.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the engine.

Engine Maintenance

To prevent accidental starting, remove and ground spark plug wire before performing any service.

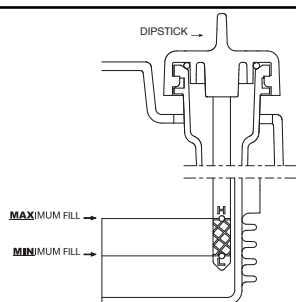
Oil

Change oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.

1. Remove the oil drain plug with a 10 mm socket and extension.
2. Allow the oil to drain completely.
3. Replace the drain plug.
4. Remove oil fill cap/dipstick to add oil.
5. Add 0.6 qt. (0.6 L) of oil and replace oil fill cap/dipstick. **DO NOT OVERFILL.**
6. Dispose of used oil at an approved waste management facility.

NOTE

Once oil has been added, use the dipstick to check oil level, **DO NOT** screw in the dipstick while checking.

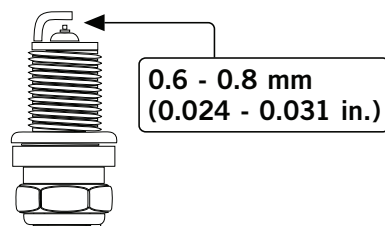


WARNING

Used oil is a hazardous waste product and must be disposed of properly. Do not discard with household waste. Check with your local authorities, service center, or dealer for safe disposal/recycling facilities.

Spark Plugs

1. Remove the spark plug cable from the spark plug.
2. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
3. Make certain the spark plug gap is 0.6 - 0.8 mm (0.024 - 0.031 in.).



4. Refer to the spark plug recommendation chart when replacing the plug.
5. Carefully thread the plug into the engine.
6. Use the spark plug tool to firmly install the plug.
7. Attach the spark plug wire to the plug.

Air Filter

1. Using your fingers, press and slide the top of the air filter housing to remove.
2. Remove the plastic outer casing.
3. Remove the foam element.
4. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
5. Saturate in clean engine oil.
6. Squeeze in a clean, absorbent cloth to remove all excess oil.
7. Place the filter in the assembly.
8. Reattach the air filter cover.

Cleaning

CAUTION

DO NOT use a garden hose to clean the engine.

Water can contaminate the fuel system and can enter the engine through the cooling slots and damage the engine.

Clear the debris from the beam, wedge and endplate. Use a damp cloth to clean exterior surfaces of the engine and engine.

Use a soft bristle brush to remove excess dirt and oil. Use an air compressor (25 PSI) to clear dirt and small debris. Wipe all metal parts with an oily rag to help prevent rust and corrosion.

Maintenance Schedule

Follow the service intervals indicated in the schedule below. Service your engine more frequently when operating in adverse conditions. Contact our help line at **1-877-338-0999** to locate the nearest Champion Power Equipment authorized service dealer for your engine or engine maintenance needs.

Every time of use or daily	
	Check engine oil levels
	Clean around air intake and muffler
	Check air filter
First 5 Hours	
	Change engine oil
Every 25 Hours or per 1 month	
	Change engine oil
	Clean air filter
Every 50 hours or per 6 months	
	Clean and adjust spark plug
	Check cooling fan
Every 100 hours or per 1 year	
	Check/adjust valve clearance*
	Clean fuel tank and filter*
Every 200 hours	
	Clean combustion chamber
Every 200 hours or per 2 years	
	Check/replace fuel line
	Change spark plug

*To be performed by knowledgeable, experienced owners, any small engine repair shop, or Champion Power Equipment certified dealers.

Engine Maintenance

Make certain that the engine is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapours.

Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

Check and tighten all bolts and nuts before operating the engine.

Storage

Refer to the Maintenance section for proper cleaning instructions.

Engine Stored for Less than 30 Days

1. Allow the engine to cool completely before storage.
2. Clean engine according to the Maintenance section.
3. To extend the fuel storage life add a properly formulated fuel stabilizer to the tank.
4. Ensure the fuel valve is in the "OFF" position.

Engines Stored for Over 30 Days

1. Add a properly formulated fuel stabilizer to the tank.
2. Run the engine for a few minutes so the treated fuel cycles through the fuel system and carburetor.
3. Turn the fuel valve to the "Off" position.
4. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
5. The engine needs to cool completely before cleaning and storage.
6. Clean the engine according to the maintenance section.
7. Change the oil.
8. Remove the spark plug and pour about 1/2 oz. (14.8 mL) of oil into the cylinder. Using the Recoil, crank the engine slowly to distribute the oil and lubricate the cylinder.
9. Reattach the spark plug.

WARNING

Never store the engine inside next to appliances where there is a source of heat or open flame, spark or pilot light because they can ignite gasoline vapors.
DO NOT store a engine near fertilizer or any corrosive material.
Even with an empty gas tank, gasoline vapors could ignite.

SPECIFICATIONS

Engine Specifications

- Model 170F
- PTO Rotation Counterclockwise
- Ignition Mode Transistorized Magneto
- Displacement 208 cc
- Type 4-Stroke OHV
- Start Type Recoil
- Torque (max) 8.1 ft-lb at 2600 RPM
- Compression 8.5:1
- Crank Shaft 0.7 in. x 2.4 in. (1.9 cm x 6.2 cm)
- End Hole 5/16-24 TPI
- Fuel Capacity 0.5 gallons (2 L)
- Gross Weight 39.9 lb. (18.1 kg)
- Net Weight 35.3 lb. (16 kg)
- Height 13.9 in. (35.3 cm)
- Width 12.5 in. (31.8 cm)
- Length 14.3 in. (36.3 cm)

Fuel

Fuel capacity is 0.5 gallons (2 L). Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.

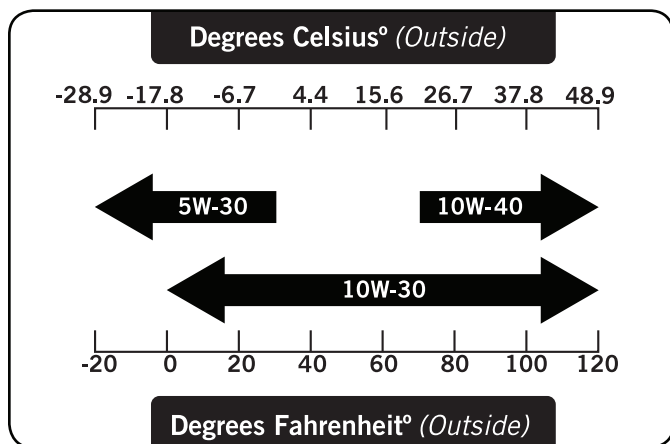
Oil

Use 10W-30 automotive oil.

Oil capacity is 0.6 qt. (0.6 L).

DO NOT OVERFILL.

Please reference the following chart for recommended oil types for use in the engine.



Spark Plugs

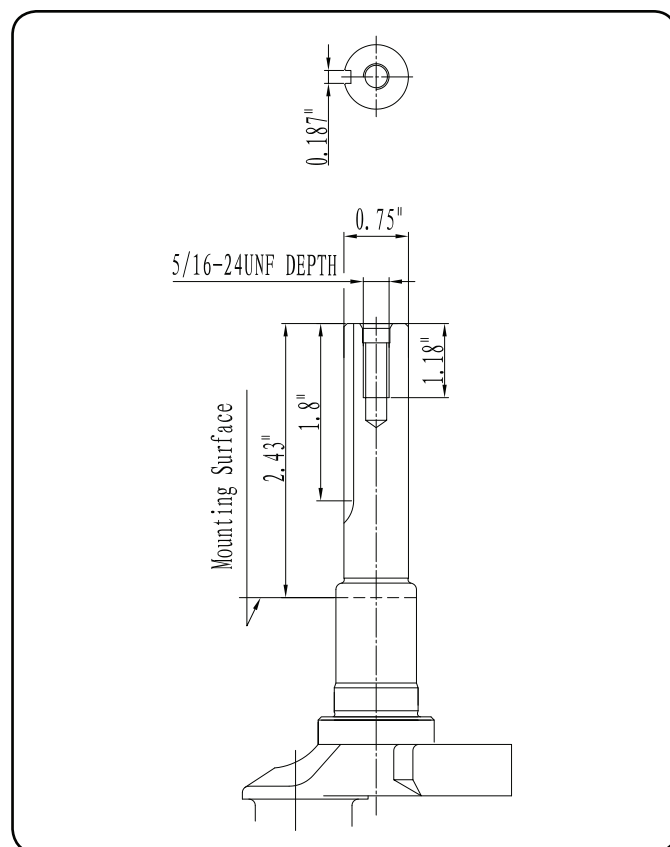
OEM spark plug: NHSP F6RTC

Replacement spark plug: NGK BPR6ES or equivalent
 Make certain the spark plug gap is 0.6 - 0.8 mm or (0.024 - 0.031 in.).

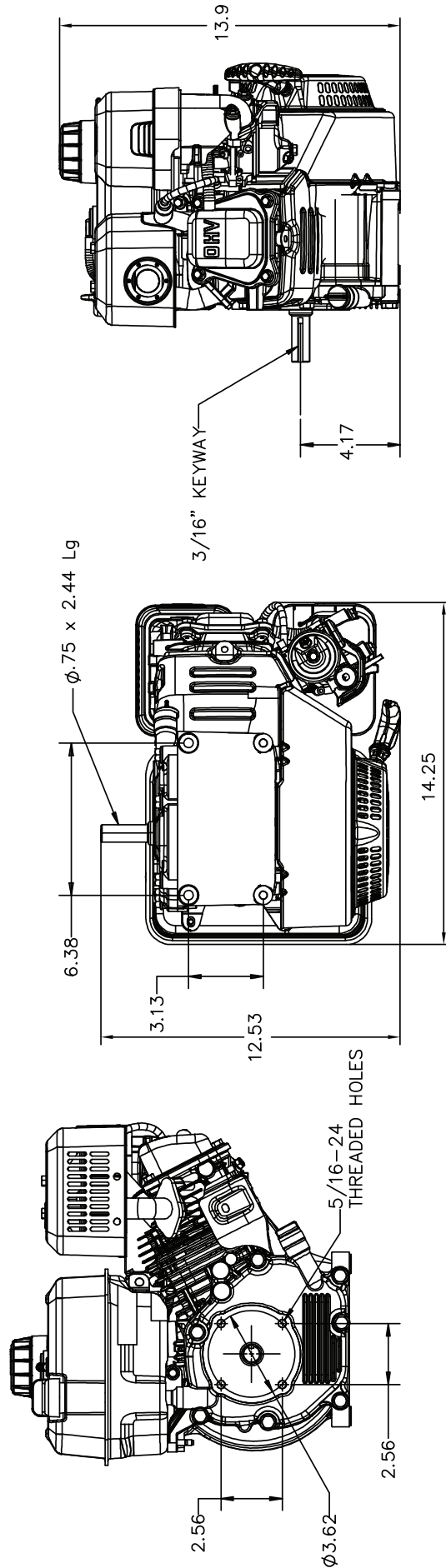
Maintenance Valve Clearance

- Intake: 0.10 – 0.15 mm (0.004 – 0.006 in.)
 - Exhaust: 0.15 – 0.20 mm (0.006 – 0.008 in.)
- Note: Tech bulletin regarding the valve adjustment procedure is on www.championpowerequipment.com.

Keyway Shaft

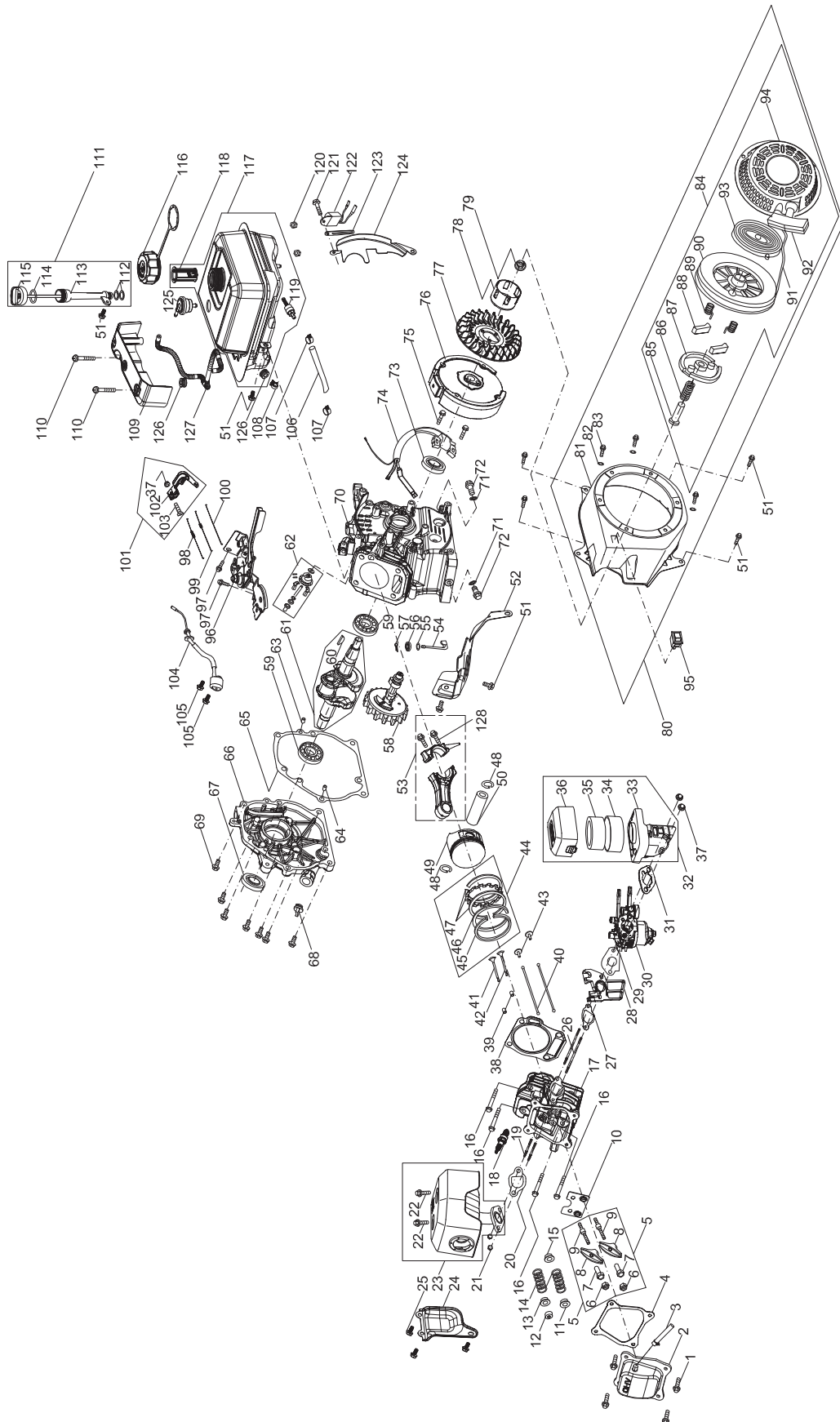


Dimensions



SPECIFICATIONS

Engine Parts Diagram



#	Part Number	Description	Qty
1	B057890006001670X	Flange Bolt M6x16,White	4
2	11221-LC90-0500	Valve Cover	1
3	12104-KB01-0200	Breather Hose Assembly	1
4	90229-KB01-0400	Valve Cover Gasket	1
5	15400-LC90-0001	Rocker Arm Assembly	2
6	15414-KB01-0000	Nut,Pivot Locking	2
7	15403-KB01-0000	Adjusting Nut,Valve	2
8	15401-LC90-0001	Rocker Arm	2
9	15415-KB01-0000	Bolt,Pivot	2
10	15406-KB01-0000	Push Rod Guide	1
11	15711-KB01-0000	Valve Spring Retainer (Intake)	1
12	15713-KB01-0000	Exhaust Lash Cap	1
13	15712-KB01-0000	Valve Spring Retainer (Exhaust)	1
14	15703-KB01-0000	Valve Spring	2
15	1572B-JD45-0000	Valve Seal (Intake)	1
16	1122R-LC90-0000	Flange Bolt M8x60,White	4
17	1122B-LC90-0300	Cylinder Head	1
18	81300-KB01-0400	Spark Plug/F6Rtc	1
19	91138-KB03-0000	Stud M8x34	2
20	18066-LC90-0000	Exhaust Pipe Gasket	1
21	B061700008000060X	Nut,M8	2
22	B0578900060010702	Flange Bolt M6x10,Steel	2
23	18000-LZ4A-0000	Muffler Assembly	1
24	18016-LZ4A-0000	Exhaust Pipe Guard	1
25	B057890006000870H	Flange Bolt M6x8,Black	3
26	91127-KB01-0000	Stud M6x113	2
27	17107-LC90-0100	Carburetor Insulator Gasket	1
28	17112-KB01-0000	Carburetor Insulator	1
29	17182-KB01-0300	Carburetor Gasket	1
30	17100-LC90-2900	Carburetor Assembly	1
31	17113-KB01-0000	Carburetor Gasket Plate	1
32	16100-LZ4A-0100	Air Cleaner Assembly	1
33	16180-LZ4A-0100	Air Cleaner Housing	1
34	16104-IC77-0000	Sponge Filter	1
35	16101-IC77-0000	Air Cleaner Filter Assembly	1
36	16105-LZ4A-0000	Air Cleaner Cover	1
37	B06177P106000090X	Flange Nut M6,flat	3
38	9022B-LC90-0200	Gasket,Cylinder Head	1
39	91521-10001600000	Dowel Pin Ø10x16	2
40	15321-LC90-0000	Push Rod	2
41	15702-LC90-0000	Exhaust Valve	1
42	15701-KC67-0000	Intake Valve	1
43	15002-LC90-0000	Tappet	2
44	1310A-LZ4A-0000	Piston Ring Set	1
45	13103-LZ4A-0000	1St Piston Ring	1
46	13104-LZ4A-0000	2Nd Piston Ring	1
47	13120-LZ4A-0000	Oil Ring	1
48	13105-KB01-0000	Piston Pin Snap Ring	2
49	13101-LC90-0100	Piston	1
50	13102-LC90-0000	Piston Pin	1
51	B057890006001270X	Flange Bolt M6x12,White	8
52	19113-Z6H-0000	Air Shield	1
53	13220-LC90-0000	Connecting Rod Assembly	1
54	24605-LC90-0000	Governor Arm Shaft	1
55	90101-10052000190	Washer Ø5.2x1.9	1
56	T1105006001100400	Governor Seal	1
57	24606-KB01-0000	Cotter Pin	1
58	15100-LC90-0000	Camshaft Assembly	1
59	92102-00000006205	Radial Ball Bearing,6205	2
60	91601-IB84-0000	Woodruff Key	1
61	13230-LC90-1400	Crankshaft Assembly	1
62	24620-LC90-0200	Governor Gear/Shaft Assembly	1
63	91521-07001400000	Dowel Pin Ø7x14	1
64	91521-09001400000	Dowel Pin Ø9x14	1
65	90208-LC90-0100	Crankcase Cover Gasket	1
66	12301-LC90-0002	Crankcase Cover	1
67	T1107025004125600	Oil Seal,Ø25xØ41.25x6	1

#	Part Number	Description	Qty
68	14311-LC90-0000CD	Dipstick Assembly	1
69	B057890008003270X	Flange Bolt M8x32,White	7
70	12007-LG10-0700	Crankcase	1
71	91302-91001516000	Washer	2
72	91103-KB01-0000	Oil Drain Plug	2
73	T1105025004125600	Oil Seal Ø25xØ41.25x6	1
74	81200-LD29-0600	Ignition Coil Assembly	1
75	B057890006002570X	Flange Bolt M6x25,White	2
76	82150-LC90-1400	Flywheel	1
77	19102-KB01-0100	Cooling Fan	1
78	21520-KB01-0700	Starter Cup	1
79	B06177F014000090X	Flange Nut,Special,M14x1.5	1
80	21500-LZ4A-0600CD	Recoil Starter Assembly	1
81	21530-Z6H-0200CD	Blower Housing	1
82	B0009500060000J0X	Gasket Ø6	3
83	B16674A006001070X	Flange Bolt M6x10,White	3
84	21510-LC90-14006X	Recoil Starter	1
85	21521-KB01-0000	Alignment Bolt	1
86	21518-KB01-0000	Spring	1
87	21513-KB01-0000	Guide Plate	1
88	21512-KB01-0000	Starter Pawl	2
89	21515-KB01-0000	Return Spring, Starter Pawl	2
90	21511-KB01-0000	Starter Reel	1
91	21517-KB01-0100	Starter Rope	1
92	21516-IB84-0000	Starter Handle	1
93	21514-LC90-0100	Recoil Spring	1
94	21519-LC90-07006X	Blower Housing	1
95	72380-IB84-0200	Ignition Switch	1
96	24610-KB01-2300	Primer Bracket	1
97	B057870006001270X	Flange Bolt M6x12,White	2
98	24602-LC90-1100	Governor Spring	1
99	24603-KB01-0300	Throttle Linkage Spring	1
100	24604-KB01-0000	Throttle Linkage	1
101	24640-LC90-0000	Governor Arm Assembly	1
102	24607-LC90-0000	Governor Arm	1
103	91121-1060-02120X	Governor Arm Bolt,White	1
104	87400-LC90-0200	Oil Sensor	1
105	B057870006001670X	Flange Bolt M6x16,White	2
106	T2999404001000108	Fuel Hose Ø4xØ10x108	1
107	17020-KB01-0400	Fuel Hose Clamp Ø9.5x8	2
108	10061-LZ4A-0000	Wire Clamp	1
109	14304-LZ4A-0100	Dipstick Decoration Cover	1
110	24681-LC90-0000	Panel Bolt	2
111	14301-LC90-0500MV	Dipstick Assembly	1
112	90101-10155000150	Oil Filler Tube O-Ring Ø15.5x1.5	2
113	14313-LC90-0100	Oil Filler Tube	1
114	90101-30210000277	Oil Filler Tube O-Ring Ø21x2.77	1
115	14312-LC90-0100MV	Oil Filler Plug	1
116	61120-JC79-0700	Fuel Tank Cap	1
117	61100-LZ4A-04006X	Fuel Tank Assembly	1
118	61137-LC90-0300	Fuel Level Indication	1
119	61195-IB71-1300	Fuel Tank Nipple	1
120	B061770106000090X	Flange Nut M6	2
121	B057890006002070X	Flange Bolt M6x20,White	1
122	87420-KB01-0000	Isolators	1
123	10008-9999-0100	Line Clamp	1
124	19112-LC90-0100	Blower Housing Shield	1
125	6114M-LC90-0000	Check Valve	1
126	61182-QD03-0000	Rubber Pad	2
127	61101-LZ4A-0100	Fuel Hose,375mm	1
128	13215-KB01-0000	Connecting Rod Bolt M7X32	2

TROUBLESHOOTING

Problem	Cause	Solution
Engine will not start	No fuel	Add fuel
	Faulty spark plug	Replace spark plug
Engine will not start; Engine starts but runs roughly	Low oil level	Fill crankcase to the proper level; place engine on a flat, level surface
	Choke in the wrong position	Adjust choke
	Spark plug wire loose	Attach wire to spark plug
Engine shuts down during operation	Out of fuel	Fill fuel tank
	Low oil level	Fill crankcase to the proper level; place engine on a flat, level surface
Engine cannot supply enough power or overheating	Insufficient ventilation	Check for air restriction; move to a well ventilated area
Engine gallops	Engine governor defective	Contact the help line

For further technical support:

Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)

Toll Free: 1-877-338-0999

tech@championpowerequipment.com

WARRANTY

CHAMPION POWER EQUIPMENT
2 YEAR LIMITED WARRANTY

Warranty Qualifications

Champion Power Equipment (CPE) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of CPE's retail locations as proof of purchase.

Please submit your warranty registration and your proof of purchase within ten (10) days of the date of purchase.

Repair/Replacement Warranty

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of one year (parts and labour) and two years (parts) from the original date of purchase (90 days (parts and labour) and 180 days (parts) for commercial & industrial use). Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Engines need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labour if this engine is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the engine's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance such as spark plugs, air filters,

Installation, Use and Maintenance Cont'd.

adjustments, fuel system cleaning and obstruction due to buildup is not covered by this warranty.

Other Exclusions

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as filter elements, o-rings, etc.
- Accessory parts such as starting batteries, and storage covers.
- Failures to due acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.

This warranty does not apply to engines used for prime power in place of a utility.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this engine. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information**Address**

Champion Power Equipment, Inc.
Customer Service
10006 Santa Fe Springs Rd.
Santa Fe Springs, CA 90670
www.championpowerequipment.com

Customer Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)
Toll Free: 1-877-338-0999
info@championpowerequipment.com
Fax no.: 1-562-236-9429

Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)
Toll Free: 1-877-338-0999
tech@championpowerequipment.com
24/7 Tech Support: 1-562-204-1188

**Champion Power Equipment, Inc (CPE),
Emission Control System Warranty**

Your Champion Power Equipment (CPE) engine complies with Environment Canada (EC) emission regulations.

YOUR WARRANTY RIGHTS AND OBLIGATIONS:

CPE is pleased to explain the Emission Control Systems Warranty on your 2014 small off-road engine. New engines must be designed, built and equipped, at the time of sale, to meet EC regulations for small non-road engines. CPE must warrant the emission control system on your small off-road engine for the period of time listed below, provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your small off-road engine.

Your emission control system may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter and fuel lines. Also included may be hoses, belts, connectors and other emission related assemblies. Where a warrantable condition exists, CPE will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:

This emission control system is warranted for two years, subject to provisions set forth below. If, during the warranty period, emission related part on your engine is defective in materials or workmanship, the part will be repaired or replaced by CPE.

OWNER WARRANTY RESPONSIBILITIES:

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine, but CPE cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine owner, you should however be aware that CPE may deny you warranty coverage if your small, off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to an Authorized CPE service outlet, CPE dealer or CPE, Santa Fe Springs, CA., USA as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact:

Champion Power Equipment, Inc.
Customer Service
10006 Santa Fe Springs Road
Santa Fe Springs, CA 90670
USA
Tel: 1-877-338-0999
tech@championpowerequipment.com

EMISSION CONTROL SYSTEM WARRANTY

The following are specific provisions relative to your Emission Control System Warranty Coverage.

Emission Control System Warranty (ECS Warranty):

1. APPLICABILITY: The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.

2. GENERAL EMISSIONS WARRANTY COVERAGE

CPE warrants to the original, end-use purchaser of the new engine or equipment and to each subsequent purchaser that each of its small off-road engines is:

a. Designed, built and equipped so as to conform at the time of sale with applicable regulations under the Canadian Environmental Protection Act, 1999 (CEPA 1999).

b. Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturer's application for certification for a period of two years.

3. THE WARRANTY ON EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:

a. Any warranted part that is not scheduled for replacement as required maintenance in the Owners Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by CPE according to Subsection "d" below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.

b. Any warranted, emissions-related part which is scheduled only for regular inspection as specified in the Owners Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

c. Any warranted, emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by CPE according to Subsection "d" below. Any such emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.

d. Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a CPE Authorized Service Outlet.

e. The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.

f. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.

g. Throughout the ECS Warranty Period, CPE shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.

h. Any CPE Authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.

i. Unapproved add-on or modified parts may not be used to modify or repair a CPE engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

EMISSION-RELATED PARTS INCLUDE THE FOLLOWING: (using those portions of the list applicable to the engine)

Systems covered by this warranty	Parts Description
Fuel Metering System	Fuel regulator, Carburetor and internal parts
Air Induction System	Air cleaner, Intake manifold
Ignition System	Spark plug and parts, Magneto ignition system
Exhaust System	Exhaust manifold, catalytic converter
Miscellaneous Parts	Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems.

TO OBTAIN WARRANTY SERVICE:

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during his normal business hours. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call Customer Service at Champion Power Equipment, Inc.

**Champion Power Equipment, Inc.
10006 Santa Fe Springs Road
Santa Fe Springs, CA 90670
USA
1-877-338-0999
Attn: Customer Service
tech@championpowerequipment.com**