

# OWNER'S MANUAL

## and OPERATING INSTRUCTIONS for

# TECUMSEH

MODELS

**OH120**  
**OH140**  
**OH160**

**OH180**  
**HH100**  
**HH120**

**HH100, HH120**

**HORIZONTAL CRANKSHAFT  
CAST IRON • AIR COOLED  
FOUR-CYCLE ENGINE**

**OH120, OH140, OH160, OH180**



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND ANY PROVIDED WITH THE EQUIPMENT ON WHICH THIS ENGINE IS USED BEFORE ATTEMPTING TO OPERATE YOUR TECUMSEH ENGINE.



THESE SYMBOLS MAY APPEAR ON THE ENGINE:



FAST



SLOW



STOP



FULL



OFF

CHOKE

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Rev. 5-1-84

181-226-1

## OIL & FUEL RECOMMENDATIONS

To start and operate your Tecumseh engine, you will need the following:

1. **A CLEAN, HIGH QUALITY DETERGENT OIL.**  
Be sure original container is marked:  
A.P.I. service "SF," "SE," "SD" or "SC."

**DO NOT USE SAE10W40 OIL.**

**FOR SUMMER (ABOVE 32°F) USE SAE 30 OIL.**  
(SAE10W30 is an acceptable substitute).

**FOR WINTER (BELOW 32°F) USE SAE 5W20 or 5W30 OIL.** (SAE10W is an acceptable substitute).  
**(BELOW 0°F ONLY):**

SAE10W OIL diluted with 10% kerosene is an acceptable substitute.

SAEOW30 OIL is an acceptable substitute.

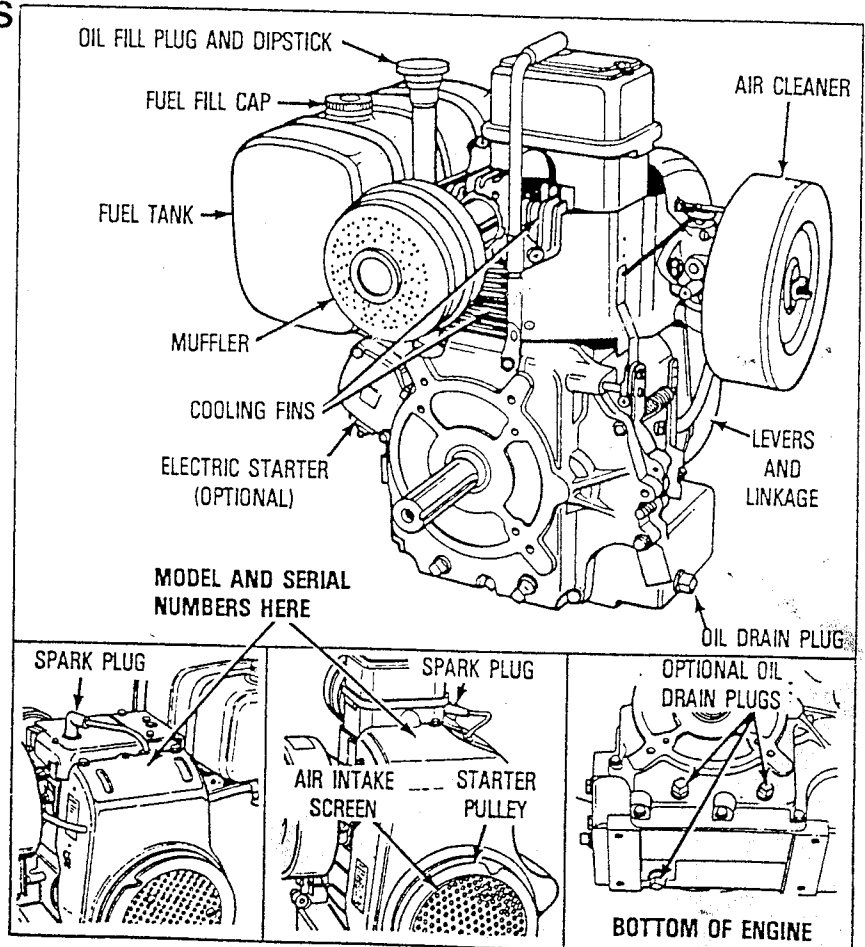
**NOTE:** For severe, prolonged, winter operation of HH120 model, SAE10W oil is recommended.

Oil Sump capacity is approximately 52 ounces (3-1/4 pints).

2. **A FRESH, CLEAN, UNLEADED AUTOMOTIVE GASOLINE.** (Leaded "Regular" grade gasoline is an acceptable substitute).

**NOTE:** DO NOT USE GASOLINE CONTAINING METHANOL (WOOD ALCOHOL). Gasoline containing a maximum of 10% ethanol or grain alcohol (sometimes called "Gasohol") may be used but requires special care when engine is unused for extended periods. See "STORAGE" instructions on Page 5.

**NOTE:** Use clean oil and fuel and store in approved, clean, covered containers. Use clean fill funnels.



(continued on Page 2)

Page 1


Figure 1


# PRE-START INSTRUCTIONS

- ① Read all instructions provided with the equipment on which this engine is used.
- ② **FILL OIL SUMP WITH OIL.** See preceding "OIL & FUEL RECOMMENDATIONS," Item ① (Page 1) for correct oil and Figure 1 for oil fill locations.  
**POSITION EQUIPMENT SO ENGINE IS LEVEL.**  
Remove OIL FILL PLUG and DIPSTICK and place it on a clean surface.  
  
Fill oil sump, slowly, to "full" mark on DIPSTICK. DO NOT OVERFILL. OIL FILL PLUG must be seated fully and tightened and locked securely into oil fill hole when checking oil level.
- ③ Oil level should be checked frequently during initial engine break-in period. OIL FILL PLUG must be seated fully and tightened and locked securely into oil fill hole when engine is running.
- ④ **FILL FUEL TANK** with gasoline as specified in the preceding "OIL & FUEL RECOMMENDATIONS," Item ② (Page. 1).


## NEVER MIX OIL WITH GASOLINE

Never use "stale" gasoline left over from last season or stored for long periods.

 **NEVER FILL FUEL TANK INDOORS. NEVER FILL FUEL TANK WHEN ENGINE IS RUNNING OR WHILE ENGINE IS HOT.**


 **NEVER FILL FUEL TANK COMPLETELY. FILL TANK TO WITHIN 1/4 TO 1/2 INCH OF TOP OF TANK TO PROVIDE SPACE FOR FUEL EXPANSION. WIPE ANY FUEL SPILLAGE FROM ENGINE AND EQUIPMENT BEFORE STARTING ENGINE.**

- ⑤ **CHECK THE FOLLOWING** before attempting to start your engine:

 **A. BE SURE EQUIPMENT IS IN NEUTRAL GEAR WITH CLUTCHES, BELTS, CHAINS, ETC., DISENGAGED. (FOLLOW EQUIPMENT MANUFACTURER'S INSTRUCTIONS.) THIS SHOULD PLACE ANY SAFETY SWITCHES IN SAFE STARTING POSITION.**

- B. Be sure SPARK PLUG WIRE is attached to SPARK PLUG. (see Figure 1)
- C. Be sure any ignition switch on engine or equipment is in ON, RUN or START position.
- D. Be sure FUEL SHUT-OFF VALVE (if so equipped) is open. (see Figure 6)
- E. Be sure FUEL FILL CAP air vent is open.

# STARTING INSTRUCTIONS

 **NEVER RUN ENGINE INDOORS OR IN ENCLOSED POORLY VENTILATED AREAS. ENGINE EXHAUST CONTAINS CARBON MONOXIDE, AN ODORLESS AND DEADLY GAS.**

 **KEEP HANDS, FEET, HAIR AND LOOSE CLOTHING AWAY FROM ANY MOVING PARTS ON ENGINE AND EQUIPMENT.**

 **WARNING — TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150°F (65°C). AVOID THESE AREAS.**

- ① Move CHOKE LEVER on engine (see Figure 3) or remote control on equipment to FULL CHOKE POSITION.
- ② Move remote control on equipment to START position (see equipment manufacturer's instructions).
- ③ **START ENGINE** — Proceed with the following instruction: A. ELECTRIC STARTER, B. ROPE STARTER or C. REWIND STARTER depending on type of starter.

## A. ELECTRIC STARTER — 12 VOLT DC (see Figures 2 & 3)

1. Press starter button or turn IGNITION SWITCH KEY (see Figure 2) per equipment manufacturer's instructions to activate starter motor and crank engine.
2. Crank engine until engine starts, and when engine starts move CHOKE LEVER on engine or remote control on equipment to 1/2 choke and then to NO CHOKE POSITION.

If engine falters, move CHOKE LEVER to 1/2 choke position until engine runs smoothly and then to NO CHOKE POSITION.

NOTE: If engine fires, but fails to start, move CHOKE LEVER to NO CHOKE POSITION and crank engine until engine starts.

## B. ROPE STARTER (see Figures 2 and 3)

1. Insert rope knot into starter PULLEY notch and wind rope, clockwise, around PULLEY.
2. Grasp rope handle and pull rope out, slowly, until it pulls slightly harder.
3. Rewind any excess rope around starter PULLEY and pull rope with a rapid continuous full arm stroke.
4. Repeat preceding Instructions 1, 2 and 3 until engine starts and when engine starts, move CHOKE LEVER on engine or remote control on equipment to 1/2 choke and then to NO CHOKE POSITION.

If engine falters, move CHOKE LEVER to 1/2 choke position until engine runs smoothly and then to NO CHOKE POSITION.

NOTE: If engine fires, but fails to start, move CHOKE LEVER to NO CHOKE POSITION and repeat preceding Instructions 1 thru 4 until engine starts.

**C. REWIND STARTER** (see Figures 2 and 3)

1. Grasp **STARTER HANDLE** (see Figure 2) and pull rope out, slowly, until it pulls slightly harder. Let rope rewind slowly.
2. Pull rope with a rapid continuous full arm stroke. Let rope rewind **SLOWLY**. Don't let **STARTER HANDLE** snap back against starter.
3. Repeat preceding Instructions 1 and 2 until engine starts and when engine starts, move **CHOKE LEVER** on engine or remote control on equipment to 1/2 choke and then to **NO CHOKE POSITION**.

If engine falters, move **CHOKE LEVER** to 1/2 choke position until engine runs smoothly and then to **NO CHOKE POSITION**.

**NOTE:** If engine fires, but fails to start, move **CHOKE LEVER** to **NO CHOKE POSITION** and repeat preceding Instructions 1 and 2 until engine starts.

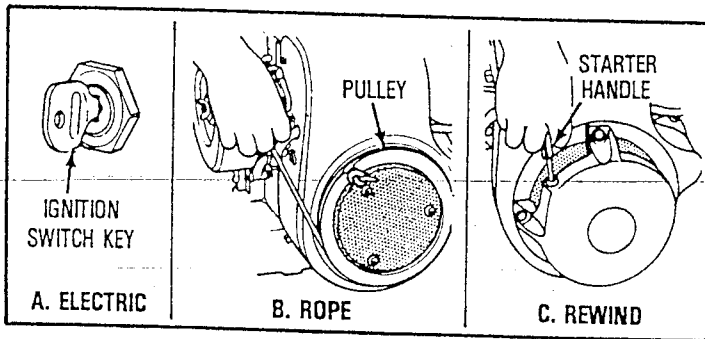


Figure 2

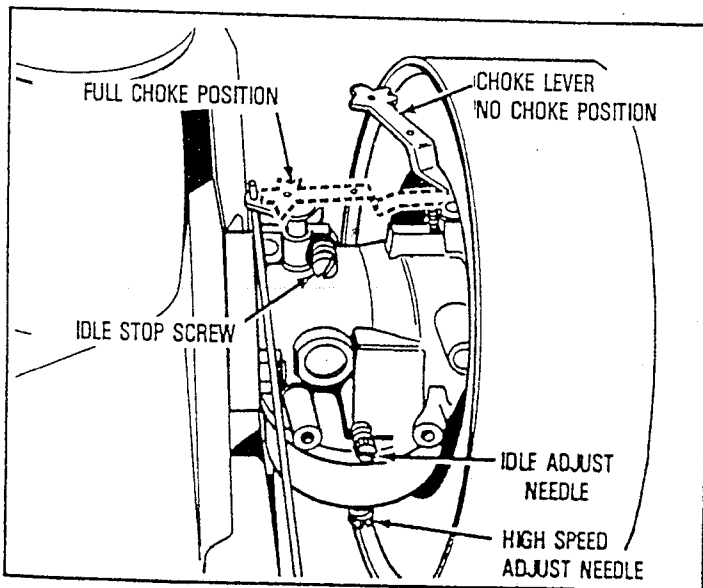


Figure 3

**TO STOP ENGINE**

- ① Move remote control on equipment or any ignition stop switch on engine to **STOP** or **OFF** position (see equipment manufacturer's instructions).
- ② Push **STOP SWITCH** (if so equipped) (see Figure 5) and hold down until engine is completely stopped.
- ③ **AFTER ENGINE IS STOPPED:**

A. Close **FUEL SHUT-OFF VALVE** (if so equipped) (see Figure 6).

B. Close **FUEL FILL CAP** air vent (if so equipped).

**!** C. **DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG AND PLACE IT WHERE IT CAN NOT CONTACT SPARK PLUG.**

**!** D. **TURN IGNITION SWITCH KEY, IF SO EQUIPPED, TO "OFF" POSITION AND REMOVE KEY FROM SWITCH. THIS WILL REDUCE THE POSSIBILITY OF UNAUTHORIZED STARTING OF ENGINE WHILE EQUIPMENT IS NOT IN USE.**

**!** E. **NEVER STORE ENGINE WITH FUEL IN TANK IN DOORS OR IN ENCLOSED, POORLY VENTILATED ENCLOSURES, WHERE FUEL FUMES MAY REACH AN OPEN FLAME, SPARK OR PILOT LIGHT AS ON FURNACE, WATER HEATER, CLOTHES DRYER, ETC**

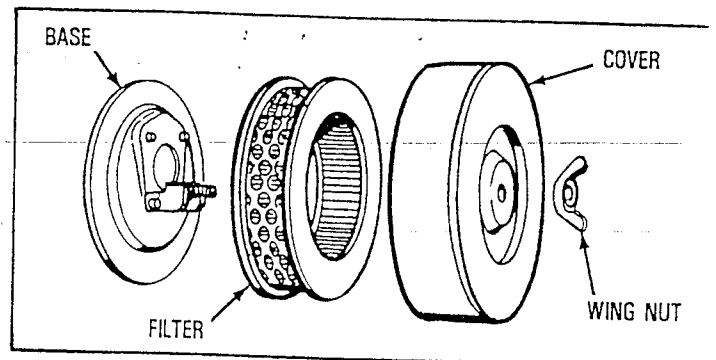


Figure 4

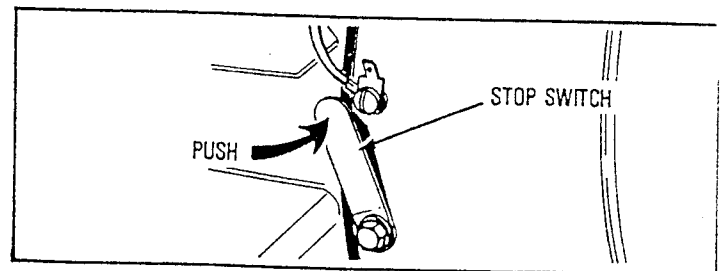


Figure 5

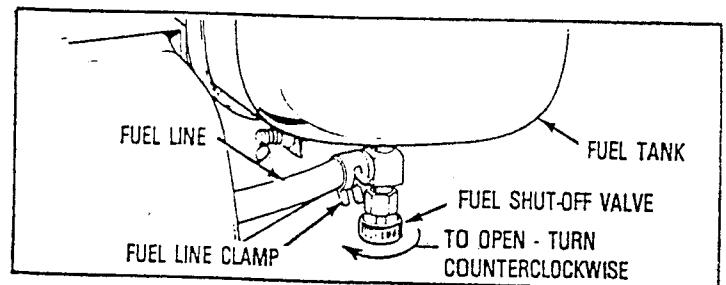


Figure 6

# INTENANCE

**WARNING — TEMPERATURE OF MUFFLER AND NEAR-BY AREAS MAY EXCEED 150°F (65°C). AVOID THESE AREAS.**

## 1 CHECK OIL LEVEL REGULARLY.

### POSITION EQUIPMENT SO ENGINE IS LEVEL.

Check level every five (5) operating hours or each time equipment is used. Always clean area around OIL FILL PLUG (see Figure 1) before removing plug, to avoid contaminating oil with dirt, grass clippings, etc. Add oil as necessary. DO NOT RUN ENGINE UNLESS PROPER OIL LEVEL IS MAINTAINED. LEVEL MUST BE BETWEEN "FULL" AND "ADD" MARK ON DIPSTICK. See Instructions ② and ③ in preceding "PRE-START INSTRUCTIONS" (page 2).

## 2 CHANGE OIL — after first two (2) hours of operation and every twenty-five (25) hours thereafter, or more often if operated in extremely dusty or dirty areas.

**DRAIN OIL** — Position equipment so that engine OIL DRAIN PLUG (see Figure 1) is lowest point on engine. Remove OIL DRAIN PLUG and OIL FILL PLUG (while engine is still warm) and allow oil to drain completely.

Replace OIL DRAIN PLUG and tighten securely. Refill oil sump with new oil of proper viscosity and service classification per preceding "OIL & FUEL RECOMMENDATIONS" (Page 1). Replace OIL FILL PLUG and tighten securely. See Instructions ② and ③ in preceding "PRE-START INSTRUCTIONS" (Page 2).

## 3 SERVICE AIR CLEANER (see Figure 4)

Replace FILTER once a year or more often if used in extremely dusty or dirty conditions.

### DO NOT ATTEMPT TO CLEAN OR OIL FILTER.

Replacement FILTERS are available at any Authorized Tecumseh Service Outlet.

To install new FILTER, proceed as follows:

- A. Remove WING NUT, COVER and FILTER. Discard FILTER.
- B. Clean inside of BASE and COVER thoroughly.
- C. Insert new FILTER into COVER and reassemble to BASE with WING NUT. Tighten WING NUT securely.

**NEVER RUN ENGINE WITHOUT COMPLETE AIR CLEANER INSTALLED ON ENGINE.**

## 4 SPARK PLUG - Check periodically.

- A. Clean area around SPARK PLUG base.
- B. Remove and inspect SPARK PLUG.
- C. Replace SPARK PLUG if electrodes are pitted or burned or if porcelain is cracked. Replace as follows:  
For HH100 and HH120 use Champion J8 or Autolite 356 or equivalent.  
For OH120, OH140 and OH160 use Champion L-82C or L-85 or equivalent.  
For OH180 use Champion N-4C or N-4 or equivalent.

**NOTE:** If engine has a Champion RJ-17LM, RL-82C, RL-85, RN-4C or RN-4 resistor SPARK PLUG it should be replaced with a Champion RJ-17LM, RL-82C, RL-85, RN-4C or RN-4 only. See Page 6 for "CANADIAN RADIO FREQUENCY INTERFERENCE REGULATION COMPLIANCE" information.

- D. If reusing SPARK PLUG clean it by carefully scraping electrodes (Don't wire brush or sand blast). Be sure entire SPARK PLUG is clean.
- E. Check electrodes gap with wire feeler gauge and set gap at .030 if necessary.
- F. Install SPARK PLUG in engine and tighten to 15 foot pounds torque or if lacking torque wrench, tighten securely.

## 5 ALTERNATOR AND BATTERY

### 20 AMP ALTERNATOR

- A. This system is fully automatic and requires no adjustment. Battery voltage is regulated to prevent over-charge.
- B. If electrical malfunctions such as inoperative starter, discharged battery etc., are encountered, see equipment manufacturer's instructions for fuse replacement and other electrical repairs.

### BATTERY SERVICE

- A. When servicing battery, be sure to connect cables to battery exactly as they were before removal (connect ground cable to battery negative [— or neg.] post). If incorrectly connected, alternator will not charge battery, and rectifier-regulator may be damaged.
- B. Never expose engine magneto to battery power. If battery cable or any live wire contacts magneto ground wire, engine ignition system may be damaged.
- C. If an external charger is used on battery, disconnect battery positive (+ or pos.) cable from battery to prevent possible damage.
- D. See Battery manufacturer's instructions for service and storage.

## 6 COOLING SYSTEM - Clean frequently.

Remove any grass clippings, dirt, etc. from COOLING FINS, AIR INTAKE SCREEN and LEVERS AND LINKAGE (see Figure 1). This will help ensure adequate cooling and correct engine speed.

## 7 CHECK ENGINE AND EQUIPMENT FREQUENTLY FOR LOOSE NUTS, BOLTS, ATTACHMENTS, ETC., AND KEEP THESE ITEMS TIGHTENED.

# ADJUSTMENTS

DO NOT MAKE UNNECESSARY ADJUSTMENTS, FACTORY SETTINGS ARE SATISFACTORY FOR MOST APPLICATIONS AND CONDITIONS. IF ADJUSTMENTS ARE NEEDED, PROCEED AS FOLLOWS:

## ① CARBURETOR ADJUSTMENTS (see Figure 7)

A. HIGH SPEED ADJUST NEEDLE (if so equipped) is pre-set at the factory.

HH100, HH120: 1-3/4 turns open.

OH120, OH140, OH160, OH180: 1 turn open.

Readjustment should not be necessary.

NOTE: Some models will not have HIGH SPEED ADJUST NEEDLE.

B. Close IDLE ADJUST NEEDLE by turning clockwise. Close finger tight only. Forcing may cause damage.

C. Open IDLE ADJUST NEEDLE by turning counterclockwise.

For HH100, HH120: 1-1/4 turns open.

For OH120, OH140, OH160, OH180: 1 turn open.

D. Start engine — Follow preceding "STARTING INSTRUCTIONS". Run engine a few minutes to warm it up.

**BE SURE EQUIPMENT IS IN NEUTRAL GEAR WITH CLUTCHES, BELTS, CHAINS, ETC., DISENGAGED (FOLLOW EQUIPMENT MANUFACTURER'S INSTRUCTIONS).**

E. With engine running at high speed (remote control equipment set at RUN, FAST, or HIGH position), adjust IDLE ADJUST NEEDLE 1/8 turn at a time, clockwise or counterclockwise, until engine runs smoothly.

Allow several seconds between each adjustment for engine to adapt to new setting.

F. With engine running at IDLE speed (remote control on equipment set at IDLE, SLOW or LOW position), adjust IDLE STOP SCREW to obtain correct idle speed. If necessary, re-adjust IDLE ADJUST NEEDLE by turning clockwise or counterclockwise as in preceding Instruction E. until engine idles smoothly.

② **NEVER TAMPER WITH ENGINE GOVERNOR WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING ENGINE ABOVE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE GOVERNED HIGH SPEED NEEDS ADJUSTING CONTACT YOUR NEARBY AUTHORIZED TECUMSEH SERVICE OUTLET, WHO HAS THE PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.**

CHANGING OF ENGINE GOVERNED SPEED WILL VOID ENGINE WARRANTY.

# STORAGE

**NEVER STORE ENGINE WITH FUEL IN TANK INDOOR OR IN ENCLOSED, POORLY VENTILATED ENCLOSURES WHERE FUEL FUMES MAY REACH AN OPEN FLAME SPARK OR PILOT LIGHT AS ON A FURNACE, WATER HEATER, CLOTHES DRYER, ETC.**

If engine is to be un-used for 30 days or more, prepare as follows:

① Remove all gasoline from CARBURETOR and FUEL TANK to prevent gum deposits from forming on these parts and causing possible malfunction of engine.

**DRAIN FUEL INTO APPROVED CONTAINER OUTDOORS, AWAY FROM OPEN FLAME.**

A. Run engine until FUEL TANK is empty and engine stops due to lack of fuel.

B. Disconnect FUEL LINE at CARBURETOR or FUEL TANK. Be very careful not to damage FUEL LINE, Fittings or FUEL TANK. Drain any remaining fuel from System.

NOTE: If "Gasohol" has been used, complete preceding Instructions "A" and "B" and then put a small amount of unleaded (or leaded regular) gasoline into fuel tank and repeat preceding Instructions "A" and "B".

② If oil has not been changed recently, this may be a good time to do it. See "CHANGE OIL" instructions in "MAINTENANCE" section.

③ Remove SPARK PLUG and pour one (1) ounce (0,029 Liter) of engine oil into spark plug hole. Crank engine over, slowly, several times.

**AVOID SPRAY FROM SPARK PLUG HOLE WHEN CRANKING ENGINE OVER SLOWLY.**

Replace SPARK PLUG.

④ Clean engine by removing any clippings, dirt, or chaff from exterior of engine.

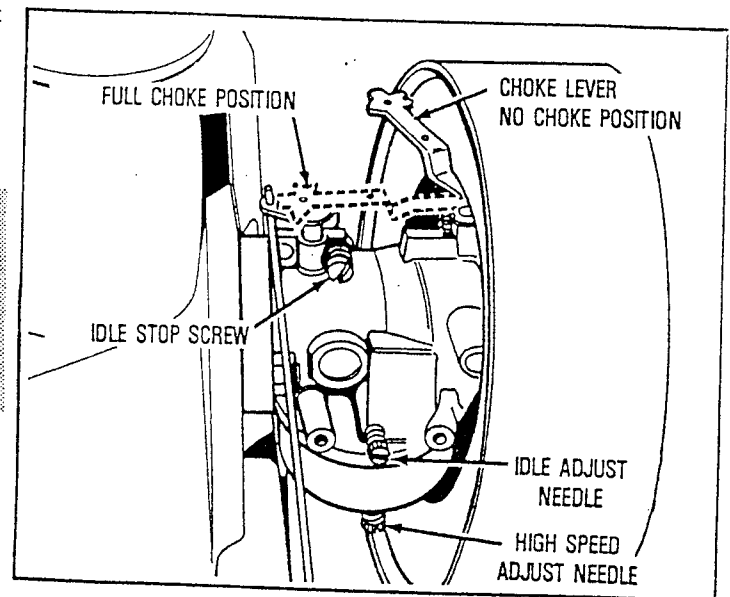


Figure 7

If your engine is equipped with a champion RJ-17LM, RL-82C, RL-85, RN-4C or RN-4 resistor spark plug, it is in compliance with the radio noise limitations order (radio frequency interference) issued by the Ministry of Communications Telecommunications Regulations Branch.

**COMPLIANCE WITH RADIO INTERFERENCE REGULATIONS CERTIFIED.  
CERTIFIÉ CONFORME AU RÈGLEMENT SUR LE BROUILLAGE RADIO ELECTRIQUE.**

To remain in compliance a champion RJ-17LM (for HH100 and HH120), RL-82C or RL-85 (for OH120, OH140, OH160) or RN-4C or RN-4 (for OH180) resistor spark plug must be used for any replacement.



yellow pages

For engine adjustments, repairs, or warranty service not covered in this manual, contact your nearest AUTHORIZED TECUMSEH SERVICE OUTLET. He is listed in your telephone book yellow pages under "Engines, Gasoline."

Tecumseh manufactures and is responsible only for the engine used on this power equipment. If repair or service is needed for unit, other than engine, contact service source as recommended by equipment manufacturer.

## LIMITED WARRANTY FOR NEW TECUMSEH ENGINES

### A. Products Warranted

Tecumseh Products Company ("Tecumseh"), subject to the exclusions and limitations contained below, will, at its option, repair or replace, without charge for parts or labor only, any part of a new Tecumseh engine (EXCEPT any new engine used to power two-wheeled riding type vehicle or chain saw) which is found upon examination by any Tecumseh Authorized Service Outlet or by Tecumseh's factory in Grafton, Wisconsin to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP if received by Tecumseh or a Tecumseh Authorized Service Outlet for such examination within ONE YEAR (TWO years for Snow King, walk-behind snowthrower application engines; 18 months for TVXL105 and TVS105XU) from the date of sale to the original purchaser. New Tecumseh engines used to power two-wheeled riding type vehicles (including, by way of example but not limited to, mini-bikes, trail bikes and scooters) are warranted in the same manner and to the same extent EXCEPT that such new engines are warranted for NINETY (90) DAYS ONLY, and must be received by Tecumseh or a Tecumseh Authorized Service Outlet for such examination within 90 days from the date of sale to the original purchaser. New Tecumseh engines used to power any chain saw are warranted in the same manner and to the same extent EXCEPT that such engines are warranted for THIRTY (30) DAYS ONLY, and must be received by Tecumseh or a Tecumseh Authorized Service Outlet for such examination within 30 days from the date of sale to the original purchaser.

### B. Products And Items Not Warranted

- Engines used in competitive racing or on commercial or rental tracks.  
This warranty does not cover any Tecumseh engine or part(s) thereof used to power any vehicle in competitive racing and/or used on any commercial or rental track.
- Engines or parts not manufactured or sold new by Tecumseh.  
This warranty does not cover any engine or part thereof which was not manufactured or sold, as new, by Tecumseh to the original purchaser.
- Alterations or modifications of new Tecumseh engines or parts.  
All obligations under this warranty shall be terminated if the new Tecumseh engine or part thereof is altered or modified in any way.
- Accidents, normal maintenance, failure to follow the original equipment manufacturer's manual.  
This warranty covers only new Tecumseh engines and parts thereof which are found upon examination by Tecumseh to be defective in material or workmanship as delivered to the original purchaser. This warranty does not cover defects caused by depreciation or damage caused by normal wear, accidents, improper maintenance, improper use or abuse of the product, or failure to follow the instructions contained in an instruction Manual for the operation of the new Tecumseh engine or part. The cost of normal maintenance and replacement of service items which are not defective shall be paid for by the original purchaser.

### C. Securing Warranty Service

Warranty service can be arranged for by contacting either a Tecumseh Authorized Service Outlet (any Tecumseh Registered Service Dealer, Tecumseh Authorized Service Distributor, or Tecumseh Central Warehouse Distributor) or by contacting Tecumseh, c/o Service Manager, Engine and Gear Service Division, 900 North Street, Grafton, Wisconsin 53024. Warranty service can only be performed by a Tecumseh Authorized Service Outlet or by Tecumseh at its factory in Grafton, Wisconsin. At the time of requesting warranty service, evidence must be presented of the date of sale to the original purchaser. The purchaser shall pay any charges for making service calls and/or for transporting the products to and from the place where the inspection and/or warranty work is performed. The purchaser shall be responsible for any damage or loss incurred in connection with the transportation of any engine or any part(s) thereof submitted for inspection and/or warranty work.

### D. Limitation of Damages and Implied Warranties

The foregoing EXPRESSED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. Neither Tecumseh nor any of its affiliates makes any warranties, representations or promises, written or oral, as to the quality of the engine or any of its parts, other than as set forth herein.

ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT THAT EITHER MAY APPLY TO ANY TECUMSEH ENGINE OR PART(S) THEREOF, SHALL BE LIMITED IN DURATION TO THE PERIODS OF THE EXPRESSED WARRANTIES DEFINED IN PARAGRAPH A HEREOF. IN NO EVENT WILL TECUMSEH BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES AND/OR EXPENSES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to you. This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

### E. No Dealer Warranty

Tecumseh neither assumes nor authorizes any other person, natural or corporate, to assume for Tecumseh any other obligations or liabilities in connection with or with respect to any part(s) of a Tecumseh engine. The seller or dealer of part(s) of a Tecumseh engine has no authority, whatsoever, to make any representations or promises on behalf of Tecumseh or to modify the terms or limitations of Tecumseh's warranty in any way.



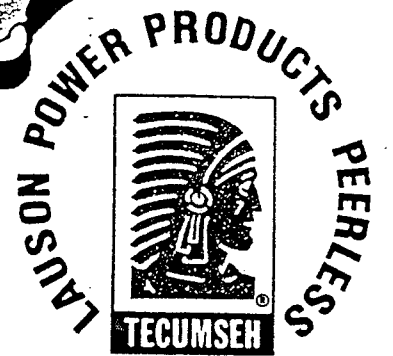
# TECUMSEH PRODUCTS COMPANY

ENGINE AND GEAR SERVICE DIVISION • 900 NORTH STREET • GRAFTON, WISCONSIN, 53024, U.S.A.



**Canada**

# Tecumseh Service Directory



**TECUMSEH PRODUCTS COMPANY**  
**ENGINE AND GEAR SERVICE DIVISION**

**GRAFTON, WISCONSIN 53024**

# CANADA CENTRAL WAREHOUSE DISTRIBUTORS

SUNTESTER EQUIP. (CENTRAL) LTD.  
13315 146th St.  
Edmonton, Alberta, Canada T5L 4S8  
Area Code 403-453-5791

SUNTESTER EQUIP. (CENTRAL) LTD.  
5466 Timberlea Blvd.  
Mississauga, Ontario, Canada L4W 2T7  
Area Code 416-624-6200

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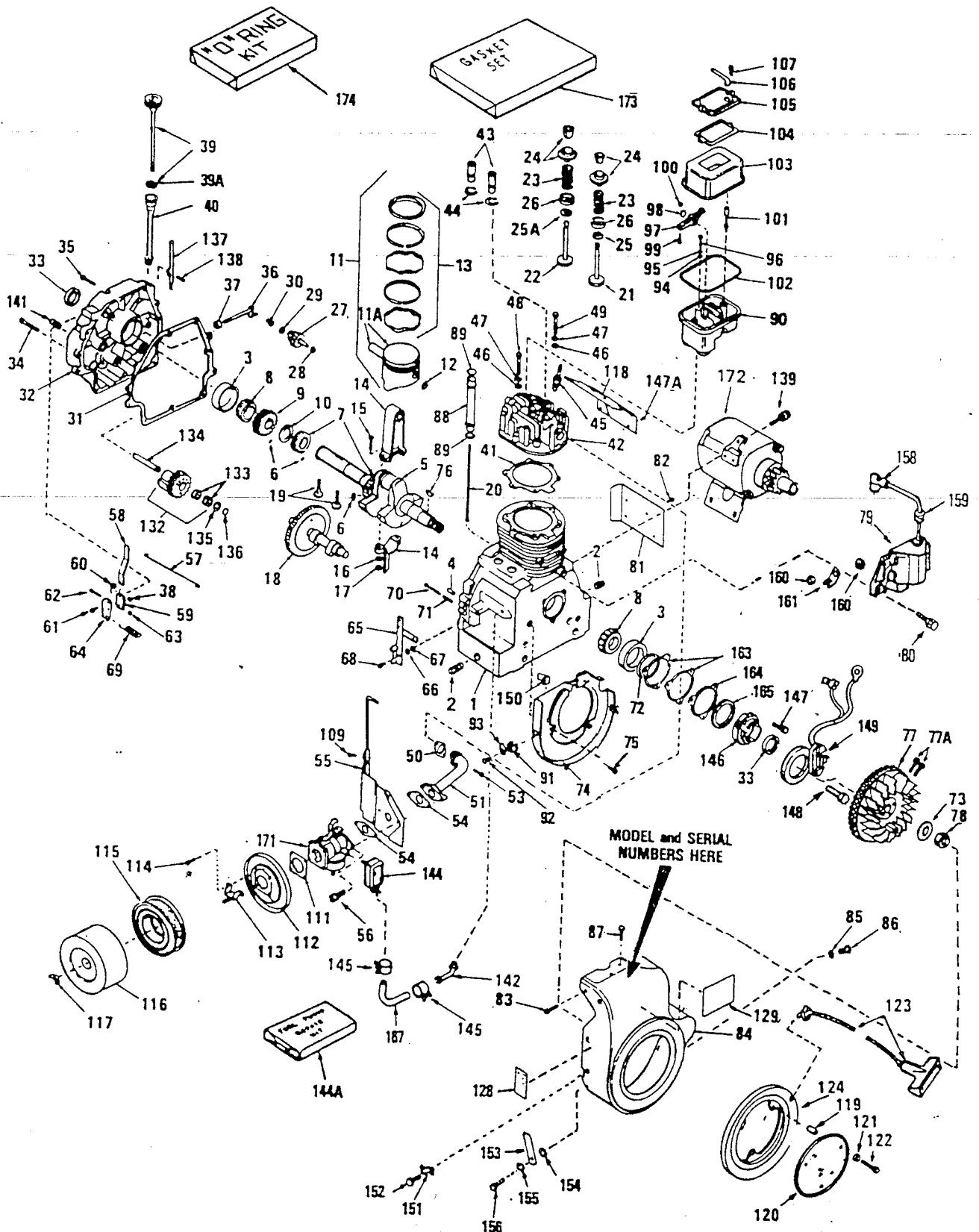


# WOODINGS - RAILCAR LIMITED

P.O. Box 610, Lancaster, Ontario, Canada K0C 1N0  
[613] 347-2483 [514] 879-1129 Telex 05-811567

## TECUMSEH 4-CYCLE ENGINE

MODEL NUMBER: OH160-170124D



# WOODINGS - RAILCAR LIMITED

P.O. Box 610, Lancaster, Ontario, Canada K0C 1N0  
 (613) 347-2483 (514) 879-1129 Telex 05-811567

## TECUMSEH 4-CYCLE ENGINE

MODEL NUMBER: OH160-170124D

Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name
1	33707A	Cylinder Assy. (Incl. Nos. 2, 4 & 33)	39	33984A	Dipstick, Oil fill (Incl. No. 39A)
2	31927	Plug, Pipe (3/8-18, Sq. hd.)	39A	33590	"O" Ring, Dipstick
3	31928	Cup, Bearing	40	33893A	Tube, Oil fill
4	27652	Pin, Dowel	41	*34225	Gasket, Cylinder head
5	34820	Crankshaft Assy. (Incl. Nos. 3 & 6 thru 10)	42	34753	Head, Cylinder
6	29783	Pin, Crankshaft gear	43	730195	Valve Guide Kit (Incl. No. 44)
7	34692	Gear, Crankshaft	44	34315	Ring, Retaining
8	31932	Bearing, Tapered roller	45	33657	Plug, Spark (Champion L-85 or equivalent) <u>Except for Canada</u>
9	33963	Gear, Crankshaft counterbalance	45	34046	Resistor Spark Plug (Canadian Regulations require RL-85 resistor spark plug)
10	33499	Spacer		Canada	
11	34511	Piston, Pin & Ring Assy. (Std.) (Incl. Nos. 11A, 12 & 13)	46	650690	Washer, Belleville
11	34512	Piston, Pin & Ring Assy. (.010 oversize) (Incl. Nos. 11A, 12 & 13)	47	650691	Washer, Flat
11	34513	Piston, Pin & Ring Assy. (.020 oversize) (Incl. Nos. 11A, 12 & 13)	48	650692	Screw, Hex hd., 5/16-18 x 1-3/4
11	34524	Piston, Pin & Ring Assy. (.030 oversize) (Incl. Nos. 11A, 12 & 13)	49	650746	Screw, Hex hd., 5/16-18 x 1-3/8
11	34525	Piston, Pin & Ring Assy. (.040 oversize) (Incl. Nos. 11A, 12 & 13)	50	*33515	Gasket, Intake pipe
11A	32238B	Piston & Pin Assy. (Std.) (Incl. No. 12)	51	33475	Pipe, Intake
11A	32239B	Piston & Pin Assy. (.010 oversize) (Incl. No. 12)	53	792028	Screw, Hex hd. Sems, 5/16-18 x 7/8
11A	32240B	Piston & Pin Assy. (.020 oversize) (Incl. No. 12)	54	33476	Gasket, Carburetor
11A	32621B	Piston & Pin Assy. (.030 oversize) (Incl. No. 12)	55	33477A	Baffle, Air extension
11A	32622B	Piston & Pin Assy. (.040 oversize) (Incl. No. 12)	56	650378	Screw, Fil. hd. Sems, 5/16-18 x 1-1/8
12	31919	Ring, Piston pin retaining	57	33478	Link, Governor lever-to-throttle
13	32241	Ring Set, Piston (Std.)	58	31963	Lever, Governor adjusting
13	32242	Ring Set, Piston (.010 oversize)	59	31964	Clamp, Governor lever
13	32243	Ring Set, Piston (.020 oversize)	60	650518	Lockwasher, No. 10 E.T.
13	32625	Ring Set, Piston (.030 oversize)	61	30312	Screw, Hex washer hd. Sems, 10-32 x 1/2
13	32626	Ring Set, Piston (.040 oversize)	62	650544	Screw, Pan flex hd., 10-24 x 7/8
14	33093A	Rod Assy., Connecting (Std.) (Incl. Nos. 15, 16 & 17)	63	7975	Nut, Square, 10-24
14	34383	Rod Assy., Connecting (.010 under-size) (Incl. Nos. 15, 16 & 17)	64	31965	Plate, Governor spring
14	34384	Rod Assy., Connecting (.020 under-size) (Incl. Nos. 15, 16 & 17)	65	31984A	Lever, Control
15	32077	Bolt, Connecting rod	66	28558	Washer, Spring wave
16	26073	Washer, Connecting rod	67	31966	Bushing, Governor lever
17	28264	Nut, Connecting rod (5/16-24)	68	650597	Screw, Hex washer hd., 10-24 x 5/8
18	34752	Camshaft (Mechanical Compression Release)	69	34021	Spring, Governor
19	33472	Lifter, Valve	70	650591	Screw, Fil. hd., 10-24 x 2
20	33471	Rod, Push	71	33099	Spring, Locking
21	33505	Valve, Intake (Std.)	72	*32599	"O" Ring
21	33645	Valve, Intake (1/32" oversize)	73	650666	Washer, Lock
22	33506	*Valve, Exhaust (Std.)	74	32579	Baffle, Blower housing
22	33646	Valve, Exhaust (1/32" oversize)	75	650561	Screw, Hex washer hd. Durluk, 1/4-20 x 5/8
23	33507	Spring, Valve	76	650592	Key, Flywheel
24	33508	Retainer & Cap Set, Keeper valve	77	610967	Flywheel
25	†33609	"O" Ring (Intake)	77A	730201	Trigger Pin Kit
25A	†34410	"O" Ring (Exhaust)	78	650594	Nut, Flywheel
26	33510	Cap, Valve	79	610906	Magneto, Solid State (Incl. Nos. 158 thru 161)
27	34751	Gear & Shaft Assy., Governor	80	650661	Screw, Fil. hd. w/conical spring lockwasher, 1/4-20 x 3/4
28	650745	Washer, Flat	81	33479	Extension, Blower housing
29	30590A	Washer, Flat	82	30688	Screw, Hex hd. Sems, 1/4-20 x 1/2
30	31948	Spool, Governor	83	650751	Screw, Hex hd. w/conical spring washer, 1/4-20 x 7/16
31	31956A	Gasket, Cylinder cover	84	33775A	Housing, Blower
32	34649	Cover Assy., Cylinder (Incl. Nos. 33, 134 & 141)	85	8274	Lockwasher, Split, 5/16
33	31950	Seal, Oil	86	650595	Screw, Hex hd., 5/16-24 x 3/8
34	30564	Screw, Hex hd. Sems, 1/4-20 x 1	87	650752	Screw, Hex hd. Sems, 1/4-20 x 7/16
35	650492	Screw, Hex hd. Sems, 1/4-20 x 2-1/4	88	33480	Tube, Push rod
36	32425	Rod Assy., Governor	89	†33481	"O" Ring
37	32426	Spacer, Governor rod	90	34754	Housing Assy., Rocker arm
38	29193	Ring, Retaining	91	28545	Grommet, Plastic
			92	650643	Screw, Pan hd. self-tapping, 8-18 x 3/8

\*Indicates Parts Included in Gasket Set, Ref. No. 173.

†Indicates Parts Included in "O" Ring Kit, Ref. No. 174.

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## TECUMSEH 4-CYCLE ENGINE

MODEL NUMBER: OH160-170124D

Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name
93	33356	Terminal, Ground	142	28566	Fitting, Fuel line
94	†*33484	"O" Ring	144	35018	Pump, Fuel
95	650168	Washer, Flat	144A	33010	Repair Kit, Fuel pump
96	32610A	Screw, Flanged hex hd., 1/4-20 x 29/32	145	26460	Clamp, Fuel line
97	33485	Arm, Rocker	146	32577	Cover, Cylinder (See Note 1)
98	33486	Ring, Retaining	147	792028	Screw, Hex hd. Sems, 5/16-18 x 7/8
99	650755	Screw, Spherical Indented Hex hd., 1/4-20 x 3/4	147A	650736	Screw, Pan hd., 10-16 x 3/8
100	650864	Nut, Hex, 1/4-20	148	650399	Screw, Fil. hd. Sems, 10-32 x 5/8
101	650756	Stud, Rocker arm cover	149	610965	Stator Plate Assy.
102	†*33487	"O" Ring	150	29443	Clip
103	33488	Cover, Rocker arm housing	151	27793	Clip, Conduit
104	†*31958	Gasket, Breather	152	28942	Screw, Hex hd. Sems, 10-32 x 3/8
105	33489	Body Assy., Breather	153	32039	Switch, Stop
106	33490	Tube, Breather	154	16645	Washer, Lock, 5/16"
107	†*30102	Screw, Hex washer hd. Sems w/masticwasher, 10-32 x 5/8	155	26073	Washer, Flat
109	650737	Screw, Hex washer hd. tap-tite, 1/4-20 x 1/2	156	650624	Screw, Hex hd., 5/16-24 x 9/16
111	*33492	Gasket, Air cleaner bracket	158	610118	Cover, Spark plug
112	33493	Bracket, Air cleaner	159	610750	Grommet, Lead wire
113	33494	Bracket, Air cleaner	160	610408	Nut, Hex, 8-32
114	650399	Screw, Fil. hd. Sems, 10-32 x 5/8	161	610908	Terminal, Female
115	32008	Element, Air cleaner	163	*31971	Gasket, Shim (.004/.005 thick) (See Note 1)
116	32810	Cover, Air cleaner	164	*31972	Gasket, Shim (.005/.007 thick) (See Note 1)
117	650513	Nut, Wing (1/4-20)	165	*32031	Spacer, Steel (.010 thick) (See Note 1)
118	33495	Cover, Cylinder head	167	29774	Line, Fuel
119	31992	Spacer, Screen	171	632329	Carburetor (Incl. No. 54)
120	33776	Screen, Starter pulley	172	33835	Starter Motor Kit (12 Volt) (Incl. No. 139)
121	27070	Washer, Lock (1/4")	173	33516D	Gasket Set (Incl. items marked *)
122	650680	Screw, Truss hd., 1/4-20 x 1-1/2	174	35075	"O" Ring Kit (Incl. items marked †)
123	32046	Rope Assy., Starter			*Indicates Parts Included in Gasket Set, Ref. No. 173.
124	31980	Pulley, Starter			†Indicates Parts Included in "O" Ring Kit, Ref. No. 174.
128	34346	Decal, Instruction			Note 1: Determine the gap between the cover and the machined surface on the cylinder, which can be from .001" up to .007", in which case <u>no shim gaskets will be required</u> . Use of gaskets must be limited to a combined total of .010" thick. Steel spacers must be used as required to eliminate crankshaft end play.
129	34768	Decal, Name			
132	34651	Weight Assy., Counterbalance (Incl. 2 of No. 133)			
133	33501	Bearing, Needle roller			
134	33502	Shaft, Counterbalance			
135	33503	Washer, Thrust			
136	792017	Ring, Retaining			
137	34650	Tube Extension, Oil fill			
138	650744	Screw, Fil. hd. Sems, 10-24 x 7/8			
139	650781	Screw, Hex hd. Sems, 5/16-18 x 11/16			
141	28534	Pipe Plug, Hex countersunk headless, 1/8-27			

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## CARBURETOR NO. 632329

Ref. No.	Part No.	Part Name
1	632329	Carburetor
	632160	Shaft & Lever Assy., Throttle (Incl. No. 2)
2	650506	Screw, Throttle & Choke shutter
3	631682	Shutter, Throttle
4	631683	Shaft & Lever Assy., Choke (Incl. No. 2)
5	27113	Spring, Choke stop
6	650399	Screw, Throttle adjusting
7	*27112	Needle, idle adjusting
8	27114	Spring, Adjusting
9	31503	Spring, Float shaft
10	631684	Shutter, Choke
11	*27109	Gasket, Bowl-to-body
13	*631687	Valve, Seat & Spring Assy. (Incl. No. 9)
14	27105	Float
15	*27106	Shaft, Float
17	29170	Bowl, Fuel
20	*27110	Gasket, Bowl-to-body
21	*631713	Nut, Float bowl
23	632330	Nozzle, Main
24	632331	Fuel jet, Main
25	632039	Seal, Throttle shaft dust
26	632040	Seal, Choke shaft dust
27	32096	Spring, Throttle return
28	631719	Repair Kit (Incl. items marked *)

## STARTER MOTOR NO. 33835

Ref. No.	Part No.	Part Name
1	33835	Starter Motor, Complete
2	33841	Cover, Dust
3	33842	Ring, Retainer
4	33843	Retainer, Spring
5	33854	Spring, Anti-drift
6	33844	Gear
7	33433	Nut, Engaging
8	33450	Nut, Lock
9	33845	Cap Assy., Drive end
10	33846	Armature
11	33847	Housing
12	33848	Card Assy., Brush (Incl. No. 12)
12	33849	Brush & Spring Kit (Incl. 4 pcs. of No. 13)
13	33850	Spring, Brush
14	590500	Washer, Thrust
15	33851	Bolt, 10-32 x 5-1/4
16	33852	Cap Assy., Commutator end
17	650168	Washer, Flat
18	650723	Nut, Hex



# TECUMSEH 4-CYCLE ENGINE

MODEL NUMBER: OH180-180017C

Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name
1	34648A	Cylinder Assy. (Incl. Nos. 2, 4 & 33)	48	650692	Screw, Hex hd., 5/16-18 x 1-3/4
2	31927	Plug, Oil drain (Sq. hd., 3/8-18)	49	650746	Screw, Hex hd., 5/16-18 x 1-3/8
3	31928	Cup, Bearing	50	*33515	Gasket, Intake pipe
4	27652	Pin, Dowel	51	33475	Pipe, Intake
5	34820	Crankshaft Assy. (Incl. Nos. 3 & 6 thru 10)	53	792028	Screw, Hex hd. Sems, 5/16-18 x 7/8
6	29783	Pin, Crankshaft gear	54	*33476	Gasket, Carburetor
7	34692	Gear, Crankshaft	55	33477A	Baffle, Air extension
8	31932	Bearing, Tapered roller	56	650378	Screw, Fil. hd. Sems, 5/16-18 x 1-1/8
9	33963	Gear, Crankshaft counterbalance	57	33478	Link, Governor lever-to-throttle
10	33499	Spacer	58	31963	Lever, Governor adjusting
11	34624	Piston, Pin & Ring Assy. (Std.) (Incl. Nos. 11A, 12 & 13)	59	31964	Clamp, Governor lever
11	34625	Piston, Pin & Ring Assy. (.010 oversize) (Incl. Nos. 11A, 12 & 13)	60	650518	Lockwasher, No. 10 E.T.
11	34626	Piston, Pin & Ring Assy. (.020 oversize) (Incl. Nos. 11A, 12 & 13)	61	30312	Screw, Hex washer hd. Sems, 10-32 x 1/2
11A	34629	Piston & Pin Assy. (Std.) (Incl. No. 12)	62	650544	Screw, Pan flex hd., 10-24 x 7/8
11A	34630	Piston & Pin Assy. (.010 oversize) (Incl. No. 12)	63	7975	Nut, Square, 10-24
11A	34631	Piston & Pin Assy. (.020 oversize) (Incl. No. 12)	64	31965	Plate, Governor spring
12	34634	Ring, Piston pin retaining	65	31984A	Lever, Control
13	34635	Ring Set, Piston (Std.)	66	28558	Washer, Spring wave
13	34636	Ring Set, Piston (.010 oversize)	67	31966	Bushing, Governor lever
13	34637	Ring Set, Piston (.020 oversize)	68	650597	Screw, Hex washer hd., 10-24 x 5/8
14	34640	Rod Assy., Connecting (Incl. Nos. 15, 16 & 17) (Std.)	69	34021	Spring, Governor
14	35243	Rod Assy., Connecting (Incl. Nos. 15, 16 & 17) (.010 undersize)	70	650591	Screw, Fil. hd., 10-24 x 2
14	35244	Rod Assy., Connecting (Incl. Nos. 15, 16 & 17) (.020 undersize)	71	33099	Spring, Locking
15	32077	Bolt, Connecting rod	72	*32599	"O" Ring
16	26073	Washer, Connecting rod	73	650666	Washer, Lock
17	28264	Nut, Connecting rod	74	32579	Baffle, Blower housing
18	34752	Camshaft (Mechanical Compression Release)	75	650561	Screw, Hex washer hd. Durlok, 1/4-20 x 5/8
19	33472	Lifter, Valve	76	650592	Key, Flywheel
20	33471	Rod, Push	77	610967	Flywheel (Incl. No. 77A)
21	34643	Valve, Intake (Std.)	77A	730201	Trigger Pin Kit
21	34644	Valve, Intake (1/32" oversize)	78	650594	Nut, Flywheel
22	33506	Valve, Exhaust (Std.)	79	610906	Magneto, Solid State (Incl. Nos. 158 thru 161)
22	33646	Valve, Exhaust (1/32" oversize)	80	650661	Screw, Fil. hd. w/conical spring lockwasher, 1/4-20 x 3/4
23	33507	Spring, Valve	81	33479	Extension, Blower housing
24	33508	Retainer & Cap Set, Keeper valve	82	30688	Screw, Hex hd. Sems, 1/4-20 x 1/2
25	†*33509	"O" Ring (Intake)	83	650751	Screw, Hex hd. w/conical spring washer, 1/4-20 x 7/16
25A	†*34410	"O" Ring (Exhaust)	84	33775A	Housing, Blower
26	33510	Cap, Valve	85	8274	Lockwasher, Split, 5/16
27	34751	Gear & Shaft Assy., Governor	86	650595	Screw, Hex hd., 5/16-24 x 3/8
28	650745	Washer, Flat	87	650752	Screw, Hex hd. Sems, 1/4-20 x 7/16
29	30590A	Washer, Flat	88	33480	Tube, Push rod
30	31948	Spool, Governor	89	†*33481	"O" Ring
31	*31956A	Gasket, Cylinder cover	90	34754	Housing Assy., Rocker arm
32	34649	Cover Assy., Cylinder (Incl. Nos. 33, 134 & 141)	91	28545	Grommet, Plastic
33	31950	Seal, Oil	92	650643	Screw, Pan hd. self-tapping, 8-18 x 3/8
34	30564	Screw, Hex hd. Sems, 1/4-20 x 1	93	33356	Terminal, Ground
35	650492	Screw, Hex hd. Sems, 1/4-20 x 2-1/4	94	†*33484	"O" Ring
36	32425	Rod Assy., Governor	95	650168	Washer, Flat, 1/4"
37	32426	Spacer, Governor rod	96	32610A	Screw, Flanged hex hd., 1/4-20 x 29/32
38	29193	Ring, Retaining	97	33485	Arm, Rocker
39	33984A	Dipstick, Oil fill (Incl. No. 40)	98	33486	Ring, Retaining
40	33590	"O" Ring	99	650755	Screw, Adjusting
41	*34641	Gasket, Cylinder head	100	650864	Nut, Hex, 1/4-20
42	34771	Head, Cylinder	101	650756	Stud, Rocker arm housing cover
43	730195	Valve Guide Kit (Incl. No. 44)	102	†*33487	"O" Ring
44	34315	Ring, Retaining	103	33488	Cover, Rocker arm housing
45	34645	Resistor Spark Plug (Champion RN-4 or equivalent)	104	†*31958	Gasket, Breather
46	650690	Washer, Belleville			
47	650691	Washer, Flat			

\*Indicates Parts Included in Gasket Set, Ref. No. 173.

†Indicates Parts Included in "O" Ring Kit, Ref. No. 174.

# TECUMSEH 4-CYCLE ENGINE

MODEL NUMBER: OH180-180017C

Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name
105	33489	Body Assy., Breather	148	650399	Screw, Fil. hd. Sems, 10-32 x 5/8
106	33490	Tube, Breather	149	610965	Stator Plate Assy.
107	*30102	Screw, Hex washer hd. Sems, w/Masticwasher, 10-32 x 5/8	150	29443	Clip
109	650737	Screw, Hex washer hd. taptite, 1/4-20 x 1/2	151	27793	Clip, Conduit
111	*33492	Gasket, Air cleaner bracket	152	28942	Screw, Hex hd. Sems, 10-32 x 3/8
112	33493	Bracket, Air cleaner	153	32039	Switch Stop
113	33494	Bracket, Air cleaner	154	16645	Washer, Lock, 5/16"
114	650399	Screw, Fil. hd. Sems, 10-32 x 5/8	155	26073	Washer, Flat
115	32008	Element, Air cleaner	156	650624	Screw, Hex hd. 5/16-24 x 9/16
116	32810	Cover, Air cleaner	158	610118	Cover, Spark plug
117	650513	Nut, Wing, 1/4-20	159	610750	Grommet, Lead wire
118	33495	Cover, Cylinder head	160	610408	Nut, Hex, 8-32
119	31992	Spacer, Screen	161	610908	Terminal, Female
120	33776	Screen, Starter	163	*31971	Gasket, Shim (.004/.005 thick) (See Note 1)
121	27070	Washer, Lock, 1/4"	164	*31972	Gasket, Shim (.005/.007 thick) (See Note 1)
122	650680	Screw, Truss hd., 1/4-20 x 1-1/2	165	*32031	Spacer, Steel (.010 thick) (See Note 1)
123	31980	Pulley, Starter	167	29774	Line, Fuel
124	32046	Rope Assy., Starter	171	632159A	Carburetor (Incl. No. 54)
128	34346	Decal, Instruction	172	33835	Starter Motor Kit (12 Volt) (Incl. No. 139)
129	34768	Decal, Name	173	33516D	Gasket Set (Incl. items marked *) ✓
132	34651	Weight Assy., Counterbalance (Incl. 2 of No. 133)	174	35075	"O" Ring Kit (Incl. items marked t) ✓
133	33501	Bearing, Needle roller			*Indicates Parts Included in Gasket Set, Ref. No. 173.
134	33502	Shaft, Counterbalance			tIndicates Parts Included in "O" Ring Kit, Ref. No. 174.
135	33503	Washer, Thrust			Note 1: Determine the gap between the cover and the machined surface on the cylinder, which can be from .001" up to .007", in which case <u>no shim gaskets will be required</u> . Use of gaskets must be limited to a combined total of .010" thick. Steel spacers must be used as required to eliminate crankshaft end play.
136	792017	Ring, Retaining			
137	34650	Tube Extension, Oil fill			
138	650744	Screw, Fil. hd. Sems, 10-24 x 7/8			
139	650781	Screw, Hex hd. Sems, 5/16-18 x 11/16			
140	33893A	Tube, Oil fill			
141	28534	Plug, Pipe (Hex countersunk headless, 1/8-27)			
142	28566	Fitting, Fuel line			
144	35018	Pump, Fuel			
144A	33010	Repair Kit, Fuel pump			
145	26460	Clamp, Fuel line			
146	32577	Cover, Cylinder (See Note 1)			
147	792028	Screw, Hex hd. Sems, 5/16-18 x 7/8			
147A	650736	Screw, Pan hd., 10-16 x 3/8			

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## CARBURETOR NO. 632159A

Ref. No.	Part No.	Part Name
1	632159A	Carburetor
	632160	Shaft & Lever Assy., Throttle (Incl. No. 2)
2	650506	Screw, Throttle & Choke shutter
3	631682	Shutter, Throttle
4	631683	Shaft & Lever Assy., Choke (Incl. No. 2)
5	27113	Spring, Choke stop
6	650399	Screw, Throttle adjusting
7	*27112	Needle, Idle adjusting
8	27114	Spring, Adjusting
9	31503	Spring, Float shaft
10	631684	Shutter, Choke
11	*27109	Gasket, Bowl-to-body
13	*631687	Vave, Seat & Spring Assy. (Incl. No. 9)
14	27105	Float
15	*27106	Shaft, Float
17	29170	Bowl, Fuel
20	*27110	Gasket, Bowl-to-body
21	*631713	Nut, Float bowl
23	632330	Nozzle, Main
24	632360	Fuel jet, Main
25	632039	Seal, Throttle shaft dust
26	632040	Seal, Choke shaft dust
27	32096	Spring, Throttle return
28	*631719	Repair Kit (Incl. items marked *)

## STARTER MOTOR NO. 33835

Ref. No.	Part No.	Part Name
1	33835	Starter Motor, Complete
	33841	Cover, Dust
2	33842	Ring, Retainer
3	33843	Retainer, Spring
4	33854	Spring, Anti-drift
5	33844	Gear
6	33433	Nut, Engaging
7	33450	Nut, Lock
8	33845	Cap Assy., Drive end
9	33846	Armature
10	33847	Housing
11	33848	Card Assy., Brush (Incl. No. 12)
12	33849	Brush & Spring Kit (Incl. 4 pcs. of No. 13)
13	33850	Spring, Brush
14	590500	Washer, Thrust
15	33851	Bolt, 10-32 x 5-1/4
16	33852	Cap Assy., Commutator end
17	650168	Washer, Flat
18	650723	Nut, Hex