

Tecumseh 3 to 11 HP 4-Cycle L-Head General Information

Tecumseh engine model, specification, and serial numbers or (date of manufacture, DOM) are stamped into the blower housing or located on a decal on the engine in locations as illustrated (diag. 1 & 2).

NOTE: On some LEV engines, a cover bezel must be removed to provide access to the identification decal (diag 1xdddff).

The engine identification decal also provides the applicable warranty code and oil recommendations (diag. 3).

Emissionized engines that meet the California Air Resource Board (C.A.R.B.) or the Environmental Protection Agency (E.P.A.) standards will include additional required engine information on the engine decal (diag. 3).

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Interpretation of Model Number [Edit](#)

The first letter designation in a model number indicates basic type of engine.

- ECH - Exclusive Craftsman Horizontal
- ECV - Exclusive Craftsman Vertical
- H - Horizontal Shaft
- HH - Horizontal Heavy Duty (Cast Iron)
- HHM - Horizontal Heavy Duty (Cast Iron) Medium Frame
- HM - Horizontal Medium Frame
- HS - Horizontal Small Frame
- HSK - Horizontal Snow King
- HMSK - Horizontal Medium Frame Snow King
- LAV - Lightweight Aluminum Vertical
- LEV - Low Emissions Vertical
- TNT - Toro N'Tecumseh
- TVM - Tecumseh Vertical (Medium Frame)
- TVS - Tecumseh Vertical Styled
- TVXL - Tecumseh Vertical Extra Life
- V - Vertical Shaft
- VH - Vertical Heavy Duty (Cast Iron)
- VM - Vertical Medium Frame
- VSK - Vertical Snow King

The number designations following the letters indicate the horsepower or cubic inch displacement.

The number following the model number is the specification number. The last three numbers of the specification number indicate a variation to the basic engine specification.

The serial number or D.O.M. indicates the production date.

Using model **LEV115-57010B**, serial **8105C** as an example, interpretation is as follows:

- **LEV115-57010B** is the model and specification number
- **LEV** Low Emissions Vertical
- **115** Indicates a 11.5 cubic inch displacement
- **57010B** is the specification number used for properly identifying the parts of the engine
- **8105C** is the serial number or D.O.M. (Date of Manufacture)
- **8** first digit is the year of manufacture
- **105** indicates calendar day of that year (105th day or April 15, 1998)
- **C** represents the line and shift on which the engine was built at the factory.
- **Engine Family:** Engine Tracking Information

Short Blocks [Edit](#)

New short blocks are identified by a tag marked S.B.H. (Short Block Horizontal) or S.B.V (Short Block Vertical). Original model identification numbers of an engine should always be transferred to a new short block for correct parts identification (diag. 4).



This symbol points out important safety instructions which if not followed could endanger the personal safety of yourself and others. Follow all instructions.



Diagram 2



Diagram 3

Fuel [Edit](#)

Tecumseh strongly recommends the use of fresh clean unleaded regular gasoline in all engines. Unleaded gasoline burns cleaner, extends engine life and promotes better starting by reducing combustion chamber deposits.

Reformulated and Oxygenated Fuels [Edit](#)

Reformulated fuels containing no more than 10% Ethanol, 15% MTBE, 15% ETBE or premium gasoline can be used if unleaded regular gasoline is not available. Leaded fuel may be used in countries where unleaded fuel is not available. **Never Use Fuel Containing Methanol.**

Engine Oil [Edit](#)

Use a clean, high quality **detergent** oil. Be sure original container is marked: A.P.I. service SF thru SJ. The use of multigrade oil may increase oil consumption under high temperature, high load applications.

NOTE: Do not use SAE10W40 Oil.

For summer (above 32°F, 0°C): Use SAE 30 oil part #730225 (1 quart, .946 liter container) in high temperature, high load applications.

S.A.E. 10W30 is an acceptable substitute.

For winter (below 32°F, 0°C): Use Tecumseh synthetic oil part #730263 (1 quart, .946 liter container) approved for use in all winter temperature ranges, or S.A.E. 5W30 oil part #730226 (1 quart, .946 liter container).

S.A.E. 10W is an acceptable substitute.

S.A.E. 0W30 should only be used when ambient temperature is below 0°F, -18°C.

Capacities [Edit](#)

| Engine Model | Oz. | mL. |
|--------------------------------|-----|------|
| LAV30-50, TVS75-120, LEV80-120 | 21 | 630 |
| ECV100-120, TNT100-120 | 21 | 630 |
| V & VH50, 60, 70 | 27 | 810 |
| TVM 125, 140 | 27 | 810 |
| TVM & TVMXL 170, 195, 220 | 32 | 960 |
| VM70, 80, 100 | 32 | 960 |
| VH100 | 50 | 1500 |
| H & HSK30, 35, HS & HSSK40, 50 | 21 | 630 |
| H, HH & HSK50, 60, 70 | 19 | 570 |
| HM & HMSK70, 80, 100, HMXL70 | 24 | 720 |
| VSK90-100 | 21 | 630 |
| HHM80 | 34 | 1006 |

| Europa Models | Oz. | mL. |
|-----------------------|-----|-----|
| Vantage | 21 | 630 |
| Prisma | 21 | 630 |
| Synergy | 21 | 630 |
| Synergy "55" | 27 | 810 |
| Spectra | 21 | 630 |
| Futura | 21 | 630 |
| Centura | 21 | 630 |
| HTL | 21 | 630 |
| BVS | 21 | 630 |
| BH Series | 21 | 630 |
| Geo Tech Series 30-50 | 21 | 630 |



Oil Change Intervals. Change the oil after the first two (2) hours of operation and every 25 hours thereafter, or more often if operated under dusty or dirty conditions, extreme temperature, or high load conditions.

Oil Check. Check the oil each time the equipment is used or every 5 hours. Position the equipment so the engine is level when checking the oil.



CAUTION: Remove the spark plug wire before doing any service work on the engine.

Oil Change Procedure: Locate the oil drain plug. On some units this plug is located below the deck through the bottom of the mounting flange. Other units drain at the base of the engine above the deck or frame. If access to the drain plug is restricted by the equipment it may be necessary to drain the oil by tipping the mower in a position that would allow the oil to drain out of the fill tube.

On units that the drain plug is accessible, remove the plug and allow the oil to drain into a proper receptacle. Always make sure that drain oil is disposed of properly.

Once the oil is drained, reinstall the plug and fill the engine with new oil to the proper capacity.

Tune-Up Procedure [Edit](#)

The following is a minor tune-up procedure. When this procedure is completed, the engine should operate properly. Further repairs may be necessary if the engine's performance remains poor.

CAUTION: Remove the spark plug wire before doing any service work on the engine.



1. Service or replace the air cleaner as needed.
2. Inspect the level and conditions of the oil and change or add oil as required.
3. Remove the blower housing and clean all dirt, grass or debris from the intake screen, cylinder head, cylinder cooling fins, carburetor, governor levers and linkage.
4. When replacing the spark plug, consult the parts breakdown for the proper spark plug to be used in the engine being serviced. Set the spark plug gap to .030" (.762 mm) and install the spark plug in the engine. Tighten the spark plug to 15 foot pounds of torque (20.4 Nm). If a torque wrench isn't available, screw the spark plug in as far as possible with hand, and use a spark plug wrench to turn the spark plug 1/8 to 1/4 turn further if using the old spark plug, or 1/2 turn further if using a new spark plug.
5. Make sure all ignition wires are free of abrasions or breaks and are properly routed so they will not rub on the flywheel.
6. Properly reinstall the blower housing, gas tank, fuel line and air cleaner assembly if removed.
7. Make sure all remote cables are properly adjusted for proper operation. See chapter 4 under "Speed Controls and Linkage".
8. Reinstall the spark plug wire, add fuel and oil as necessary, and start the engine.

Storage [Edit](#)

Drain all fuel from the machine to,keep fuel from degrading and causing damage to fuel related parts of the machine.*(If the engine is to be unused for 30 days or more)*

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