



# Engine Tune Up & Flush

**Bardahl Engine Tune Up & Flush** is a concentrated blend of special solvent, oils and the famous “polar attraction” formula. It will clean up existing engine deposits and help prevent further deposit formation. **Bardahl Engine Tune Up & Flush** frees sticky lifters and rings, chemically “tuning” the engine while you drive.

### The problem

Varnish gums, carbon, and sludge are by-products of engine operation. These deposits are normally kept suspension by the crankcase oil, and drained away at oil changes. However, under certain service conditions or infrequent lubricant drain intervals, these deposits can overwhelm a motor oil causing sticky parts and clogged oil passages. Short trips or infrequent use of an automobile leads to increased sludge and gum formation. High temperature driving such as trailer towing, mountain driving, and stop and go city driving leads to increased varnish and carbon formation. Either of these types of driving can produce more deposit than your motor oil can handle. Once this point is reached, deposits can form on the train, pistons and rings, reducing clearances and binding parts and forcing them out of adjustment. This means erratic engine operation -- the engine is out of tune. The close tolerances of hydraulic filters are especially vulnerable and stuck lifters mean rapid camshaft wear.

### The action

**Bardahl Engine Tune Up & Flush** blend of solvents and light oil dissolve existing deposits, free gummy valve lifters, loosen stuck rings and remove sludge from the valve train, chemically “tuning” the engine. **Bardahl Engine Tune Up & Flush** helps hold these deposits in suspension until they are drained with the oil. Bardahl’s “polar attraction” formula then coats metal surfaces with a tough lubricating film that acts to inhibit further deposit formation.

By removing engine deposits and freeing stuck parts, **Bardahl Engine Tune Up & Flush** helps the engine to run smoother and more efficiently, restoring pep and power. More efficient engine performance means better fuel economy and better overall engine operation.

Used in the crankcase, it cleans away shaft binding deposits. It frees and allows valves to return to adjustment. The engine runs smoother and with less wear.

Added to gas, **Bardahl Engine Tune Up & Flush** helps blast away carbon. It frees sticky valves from the combustion side and cleans gummy rings.

### Directions for use

For best results, add contents of can directly to crankcase at least 300km (200 miles) before next scheduled oil change. As an alternative, add contents to crankcase before oil change and run engine at fast idle 20 - 30 minutes. In both cases being



## Product information

sure to maintain proper oil level, and change filter when oil is changed, then refill crankcase with 10% Bardahl 1 Oil Booster and a good quality motor oil to maintain the engine's optimum performance.

**Bardahl Engine Tune Up & Flush** is primarily designed to use in the crankcase before an oil change and/or a mechanical tune-up.

In the gas tank, use can for each 60 - 80 lt. (15-20 gallons) fuel.

### **LAB REPORT Engine Tune Up & Flush**

**Bardahl Engine Tune Up & Flush** is produced primarily as a product to be used during a tune for the relief of "varnish tension." This is a condition resulting from fuels, which have gotten into the oil and deposited residues on the valves, in the valve guides, hydraulic lifters and between the rocker arms and rocker arm shaft.

When this varnish gets between the rocker arms and shaft it causes a bind that robs valve spring pressure and eventually will build a residual load on the valve stem itself. All mechanics know that pressure applied by screw driver or hammer handle on an exposed, operating valve will cause erratic engine performance and actual engine stalling to take place. This pressure effect is produced on all sixteen valves as varnish bind is produced between the rocker arms and shaft.

Relieving this one condition more than compensates the cost factor of a can of **Bardahl Engine Tune Up & Flush**.

Gums and varnishes (mostly from the fuels) slowly deteriorate an engine by slowing valve and ring action and affecting other vital moving parts. Today's engines seldom have the opportunity of wearing out. The by-products of combustion and oxidized residues cause as much damage as wear and high mileage. Put these two factors together and you have an engine ready for the junkyard.

The time when a tune up is being done is ideal for removal of as much of these varnishes and residues as possible. This, if coupled with a Ring and Valve Wash (previously described), will keep these deposits well below the norm.

If consistent tune-up maintenance is given every ten thousand miles, and correct and consistent use of **Bardahl Engine Tune Up & Flush**, plus Ring and Valve Wash procedures followed, the engine residue problem can be controlled.

**Article number**    04018US  
**Contents**            326 ml