



# POWERSHIELD® Engine Assembly Lube & Oil Booster

## Two Products in One

Champion PowerShield Engine Assembly Lube & Oil Booster provides outstanding resistance to scuffing, wear and friction during hard break-in of new or rebuilt engines. Champion PowerShield is recommended for use on rocker arm fulcrum balls, needle bearings, roller tips or rocker shafts, timing chain sprockets and gears, roller lifters and roller camshafts, engine bearing surfaces, and outer surface of hydraulic or mechanical lifter bodies.

Champion® PowerShield can also be used as an oil booster to replace the critical anti-wear additives that current API rated engine oils leave out. PowerShield® is highly concentrated with zinc-thiophosphates, sulfonates, and phenates that super-boost engine oil protection that prevent sludge formation and keep high performance engines running efficiently.

### Engine Assembly Lube

Failure to clean and lubricate parts properly during engine assembly is among the top reasons for premature engine failure in a newly rebuilt engine or low mileage failure. Camshaft lobes require a high-pressure engine assembly lube that will provide a tough film barrier until the engine is started and oil reaches the cam. Bearings and cylinders must be well coated to prevent a dry start.

Champion® Power Shield Engine Assembly Lube & Oil Booster is favored by professional mechanics for assembling valvetrain components. It provides outstanding resistance to scuffing, wear and friction during critical break-in. Recommended for use on several different engine components, such as: rocker arm fulcrum balls, needle bearings, roller tips or rocker shafts; timing chain sprockets and gears; roller lifters and roller camshafts; engine bearing surfaces; outer surface of hydraulic or mechanical lifter bodies.

### Directions:

**Crank & Cam Bearings:** Apply directly and liberally to bearings and journals prior to installing camshaft and crank.

**Lifters:** Apply to camshaft lobes. Dip base of lifters into product.

**Oil Pump:** Fill oil pump cavity with product to facilitate priming.

**Engine Bores:** Liberally coat engine bore with product prior to piston installation.

**Piston, Ring & Wrist Pin Assembly:** liberally coat piston sidewall, ring, and piston/rod wrist pin prior to piston installation.



### Engine Oil Booster

Motor oils are carefully formulated lubricants that perform many important functions including cooling engine parts, keeping them clean and protecting them against rust, corrosion and wear. Unfortunately, some of the most important ingredients providing engine oil its ability to form a cushion between moving parts has been significantly reduced in past years. Motor oil today is designed to meet the needs of the family car and falls short of the protection needs of high revving/horsepower engines.

Champion® Power Shield Engine Assembly Lube & Oil Booster is highly concentrated with anti-wear agents sought after by engine enthusiasts seeking high doses of zinc-thiophosphates, sulfonates, and phenates to super-boost engine oil protection, prevent sludge formation, keep high performance engine running efficient.

### Directions:

Add one 12-ounce bottle in up to 6 quarts of quality motor oil and increase anti-wear additives and increase API / SN gasoline engine oil by 50% and in API / CJ-4 diesel engine oil by 35%. Increases zinc anti-wear over 420 parts per million.

Typical Properties	
Part #	4281K
MSDS #	100
Specific Gravity	.9986
Lbs./Gal.	8.32
API Gravity	10.2
Viscosity @ 100°C, cSt	20.3
Anti-wear Elements	
Zn,	(6270 ppm)
Ca,	(54220 ppm)
P,	(4820 ppm)
Flash Pt., °C (°F)	252 (485)
Pour Pt., °C (°F)	-37 (-35)

Part No. 4281K -12-ounce PVC container

FOR MORE INFORMATION, CALL (800) 821-5693

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