



# Vintage Triumph Register

## Maintenance Handbook

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Date published: September 15, 2007

### BRAD PENN® Penn Grade 1® Racing Oils "The Green Oil®"

*This information is provided by the American Refining Group, Inc.*

<http://www.bradpennracing.com/default.asp>

The term "100% Pure Pennsylvania Grade Crude Oil" has long carried with it an industry connotation for being one of the best sources of high quality lubricant base stocks in the world. Our BRAD PENN® refinery, the oldest continuously operating lube oil refinery in the United States, still refines 100% Pennsylvania grade crude oil. PA grade crude oil is a very thermally stable paraffinic crude oil which contains no asphaltic constituents. This makes it an ideal choice from which to refine premium quality base oils. Because we use only one crude stock, our refined products are of consistently high quality and performance.

BRAD PENN® brand products are truly "MADE IN THE U.S.A." American Refining Group's Bradford, PA refinery is the home of "The Green Oil®" that racers, engine builders and enthusiasts alike have all come to know and love! The unique green color and outstanding performance of our Penn Grade 1 Racing oils set them apart from the competition.

BRAD PENN® Penn Grade 1® Racing Oils are formulated using a unique base oil cut from our tower, which gives our PG 1 racing oils exceptional film strength and unsurpassed

metal 'wetting' abilities. This unique base oil causes our PG 1 racing oil to cling tenaciously to engine parts to minimize wear during high engine torque loading and/or periods of heavily stressed operation such as those experienced during competition. This same oil 'cling' helps prevent 'dry-start' conditions to minimize wear even after the engine has been sitting idle for extended periods.

BRAD PENN® Penn Grade 1® Racing Oils also contain highly effective detergent and dispersant additives to guarantee exceptional engine cleanliness as well as oxidation and foam inhibitors that offer protection against thermal degradation and air entrainment.

In addition to our unique base oil cut, increased concentration of "zinc" (zinc dialkyl-dithiophosphate a.k.a. ZDDP) provides outstanding anti-wear/anti-scuffing protection for engines employing either 'flat tappet' or roller cams. BRAD PENN® Penn Grade 1® Racing Oils have been evaluated by a number of premiere camshaft manufacturers with tremendous success. Many are now recommending our PG 1 racing oils to provide outstanding protection for their 'flat tappet' or roller cams.

The American Refining Group, Inc. offers a comprehensive line of BRAD PENN® lubricants such as gear oil, grease and other items to meet the majority of racing needs. We also offer a complete line of lubricants for today's passenger car, fleet, commercial and industrial applications.

BRAD PENN® Penn Grade 1® Racing Oils:

**Penn Grade 1® Break-In Oil**  
SAE 30 mono-grade oil formulated specifi-

cally to meet the critical lubrication needs of new engines during break-in while allowing proper seating of rings and component 'run-in'. Enhanced levels of "zinc" (zinc dialkyl-dithiophosphate a.k.a. ZDDP) and superior oil film strength from Penn Grade™ base oils offer complete anti-wear, anti-scuffing protection for even the most demanding of applications such as those presented by break-in of engines with 'flat tappet' cams.

### **Penn Grade 1® Partial Synthetic SAE 0W-30**

A high-performance, lighter viscosity racing oil specifically designed to maximize horsepower while protecting critical engine parts. Penn Grade™ base oils provide superior film strength while synthetic stocks enhance performance throughout a wide range of operating temperatures and conditions

### **Penn Grade 1® Partial Synthetic SAE 10W-30**

A truly versatile racing oil suitable for engines used both on the street and/or the track. The multi-viscosity grade and synthetic components facilitate cold starting and quicker engine warm-up while insuring adequate engine protection during competition.

### **Penn Grade 1® Partial Synthetic SAE 20W-50**

Designed to offer higher performance racing engines the cold temperature operational benefits of an SAE '20W' engine oil while providing the desired film strength; sealing abilities; bearing, crankshaft, piston ring and valvetrain component anti-wear protection of an SAE 50 weight oil at normal engine operating temperatures.

### **Penn Grade 1® SAE 50**

Heavy viscosity, straight-grade motor oil designed to provide superior lubrication to high-performance competition engines fueled by gasoline, methanol or nitromethane. Superior alcohol separation assures continual lubricant protection to the engine.

### **Penn Grade 1® "Nitro" 70**

High viscosity, high-performance motor

oil engineered for use in nitromethane or methanol fueled competition engines. The heavy viscosity and exceptional film strength provided by the Penn Grade™ base oils helps protect against cylinder 'wash down' and oil 'thinning' from fuel dilution typically encountered in these applications.

### **Penn Grade 1® Full Synthetic Hypoid Gear/Blower Racing Lubricant**

A specially formulated 100% synthetic SAE 75W-90 oil designed for use with self-contained systems where a SAE 75W, SAE 80W-90 or SAE 90 gear oil is recommended. Suitable for use in Roots and Lysholm screw-type superchargers. May also be used in manual transmissions and hypoid differentials.

