1984 - 1996 Corvette: Shocks: Oil Film on Bilstein Shocks

Below is an explanation for the oil film that is often seen on the exterior of Bilstein shock absorbers:

Bilstein Corporation of America

Bilstein Gas Pressure Shock Absorbers, due to the extremely high pressures exerted on the oil chamber, must use a seal which is extremely tight. To prevent deterioration of this rod seal due to high temperatures and wear resulting from the friction between the piston rod and seal, a self-lubricating seal is used. By design, a small amount of the shock absorber oil is allowed to pass by the seal onto the piston rod, thus creating a constant film of oil on the rod. In fact, approximately 10% of the total oil capacity of the shock absorber is intended for this purpose.
After long periods of service, this oil will create a film on the shock absorber body. The appearance of this film of oil is normal and should not be taken to indicate a defective Bilstein Shock Absorber. This gradual oil loss will not affect the performance of the shock absorber over its service life.

Bilstein Gas Pressure MacPherson Strut Cartridges operate in a completely unique manner compared to standard types. The large diameter, metal portion visible inside the dust cover of an installed cartridge is actually the body of the shock absorber, not the piston rod as on standard types. This part of the Bilstein cartridge passes through sliding bearings thus requiring very high quality grease between the sliding bearings inside the cartridge.

This grease is, of course, picked up by the moving body chamber. The appearance of this lubricant is normal, and in fact essential for the proper operation of the shock absorber cartridge. This should not be misconstrued as oil on a piston shaft, as is the case with the standard cartridge designs. This also should serve to stress the importance of proper installation of the supplied dust covers, as contamination of the lubricating grease by road dirt or water will seriously affect the proper performance of the cartridge.

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