

# CAMMING THE JETBOAT

Jetboaters make more mods to their rides than any other segment of the boating community. Our expert tells you how to deal with cams, from "reading" them to selecting the right one for you.

by Timm Jurincie

**Y**our last cam change probably went pretty smoothly and straightforward—assuming you haven't done one in the last couple of years. Well, since then, the Environmental Protection Agency (EPA) has gotten in on that too. As you would expect, your chances for cam change success have gotten worse. We will tell what has changed and what the new fixes are.

What changed? The engine oil that's what! In the good old days all factory engines used either a flat tappet, hydraulic or mechanical cam. Engine oil was formulated with extreme pressure additives to assist cam break-in from the new car factory and aid in keeping the cam/lifter interface well protected for the engine's normal lifespan. Gradually, through the years, starting with the performance engines and then later spreading to virtually all gaso-

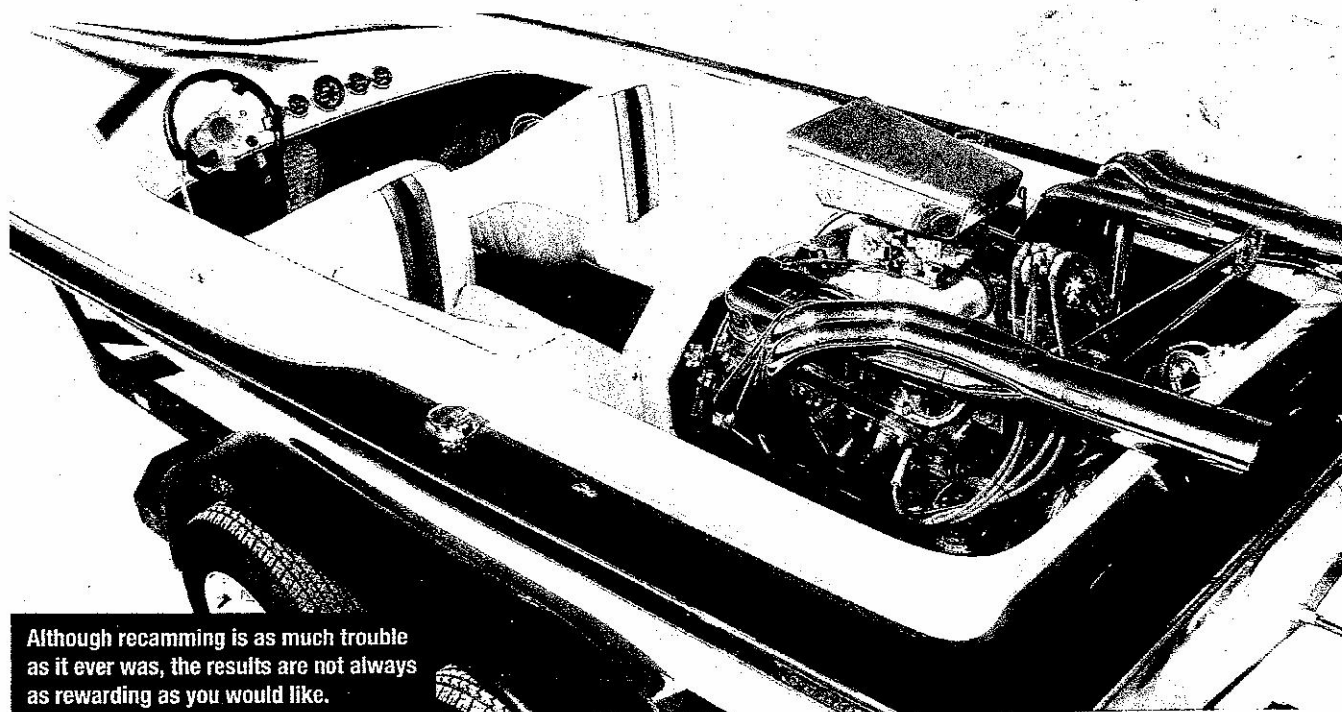
line car and truck engines, the hydraulic roller cam became the new standard.

How does all of this smog-era stuff affect me? In several ways. By and large, jetboaters make more modifications to their rides than any other segment of the boating community. There have been very few jetboats manufactured with hydraulic roller motors, and jetboat engines contain cams that are too small for what we consider reasonable speeds. Back to the oil thing: with the elimination of the flat tappet cam, the EPA decided to mandate lowering the allowable amount of manganese, zinc, and phosphates in engine oils.

These additives are claimed to shorten the life of the catalytic converters in old high-mileage cars and trucks. Excessive oil leakage past the rings and valve guides allows these compounds into the exhaust stream where they then contaminate the catalytic

converter, reducing its efficiency, that's the claim anyway. The flat tappet cam/lifter interface has the highest per unit loading of any bearing in the engines. Remove the extreme pressure additives and bye-bye cam. This is why cam companies have reported more cam failures in the last few years than ever before. Even the distributor gear/cam gear interface has become a problem.

Fortunately, there are some alternatives; the expensive one is to buy a roller cam, the cheaper one is to use a diesel-grade motor oil, which still contains more EP additives than car oil ever had. We use Shell Rotella "T" straight weight diesel oil, and for break-in we add GM "EOS" (Engine Oil Supplement) for the first two oil changes. Our favorite cam break-in lube is ARP Moly lube. We know it's used for bolt and stud assembly, but it is a high-quality moly lube that seems to stay slippery for a longer time



Although recamming is as much trouble as it ever was, the results are not always as rewarding as you would like.