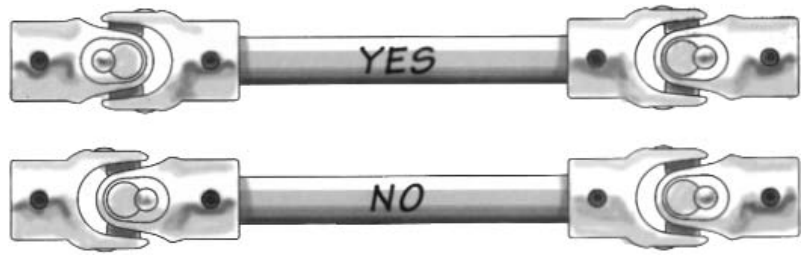


STEERING U-JOINT INSTALLATION

The yokes at opposite ends of any shaft segment should be aligned with their bores parallel, at least within reason. Phasing or "clocking" of the universal joints is especially important when welding u-joints directly to the shaft, since it will be impossible to reposition them once you've done it. Any back-to-back pair should be aligned like the ends of a driveshaft, as in the picture at the right. Please study it closely; the difference is not obvious unless you are looking for it. The more acute the operating angle, the



more critical the phasing. At around 45 degrees out of phase, the shaft will react to applied torque with a wobble, with the condition being most pronounced at 90 degrees. A badly out-of-phase setup makes excessive ujoint angles act even worse, and cannot be improved by retiming the steering wheel. For reference, most stock car steering layouts will tolerate joints 20 degrees out of phase, and will not likely cause noticeable problems in steering, but 45 degrees out will be noticeable, and 90° will almost certainly cause problems.