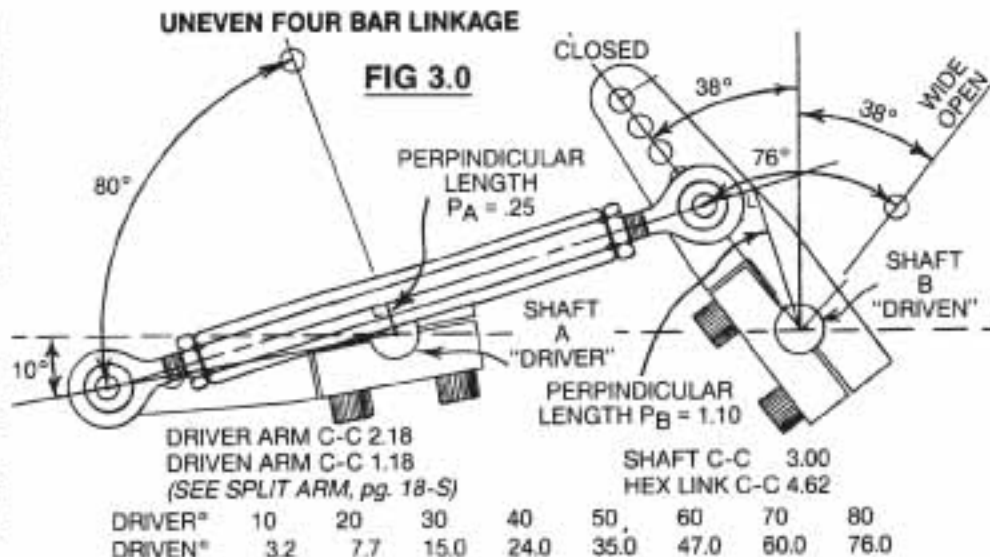


HOW TO SET UP LINKAGE

UNEVEN FOUR BAR LINKAGE

Used to do a special job. Example: A blower hat on the street. The throttle plates are so big that barely touching the throttle pedal makes the vehicle hard to drive at part throttle. Using the linkage in Fig. 3.0, the first 30° of pedal travel only moves the plates 15°. The geometry reverses as it approaches wide open throttle, so at 80° of pedal travel the plates have rotated the required 76°, see Fig. 3.0

CAUTION — The throttle spring must be on the driver shaft. Shaft-A can't be the driven arm as it comes too close to over-center, the condition where the centerline of the hex link goes past the centerline of the driven arm...then the linkage can't be pulled back.



SHAFT ROTATION RATIO

At any instant is determined by the ratio of the lengths of the perpendiculars to the Hex Link that pass through each shaft center. Example: In Fig. 3.0, P_B (1.10") divided by P_A (.250") indicates 4.4° rotation of Shaft A to 1° for Shaft B in this position.

THROTTLE STOP

Fuel injection throttle stops, shafts, etc., are not made to take all the force that can be exerted with the driver's foot at full throttle. A pedal stop should be made, set at approximately 1/16" under the throttle pedal at lightly loaded full opening, to absorb excess force.

THROTTLE LINKAGE ATTACHMENT

The throttle linkage must be attached to the manifold at a point where it will pull directly against a throttle stop at full throttle. Avoid attaching the linkage where the full throttle force would go through a throttle shaft to get to the stop, as this could easily twist the shaft.



CORRECT
Pulling arm installed next to throttle stop



!!! INCORRECT!!!
Pulling arm on the opposite end of the manifold from the throttle stop

For Safety...

TOE STRAP

Make a sturdy strap for the gas pedal that passes over the top of the driver's foot so if the linkage sticks, it can be pulled back.

TOE KILL SWITCH

Mount a spring loaded push-in ignition kill switch where the toe strap will contact it if the driver's foot is pulled way back. Check it every time the vehicle is raced!

CLEARANCE FOR LINKAGE

No one ever got hurt because they had too much clearance! Consider the engine's shifted position due to severe torque and vibration. Also consider body panel flexing.

