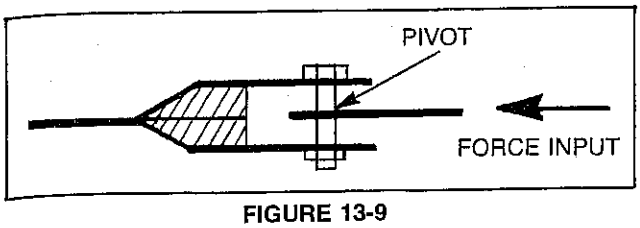

FIGURE 13-9
DOUBLE SHEAR PIVOT

C. Installation of Special Steel Bellhousing

When a special steel bellhousing like Lakewood is installed, the clutch fork should be checked for proper operation throughout its travel. The torque shaft should be mounted straight across from frame to bellhousing in any view. If it is not straight across when located in the car, the bellhousing pivot end should be relocated so that it is straight across from the frame pivot.

D. Fabrication of Clutch Linkage

If the clutch linkage is being fabricated, a serious attempt should be made to put all the linkage pivots in *double shear*. This means that the force input to the pivot through one rod should be received by a rod or arm with support on both sides of the input rod. See Figure 13-9. This method of construction is much stronger and "bind" free. This is not required using a production car linkage as discussed earlier.

IV. FLYWHEELS

Up through 1969, flywheels were fairly straightforward — how much does it weigh; 10½" or 11"? In 1970 the externally balanced engines were first introduced and the flywheel area got much more complicated. The 1970-1972 440 and the 360 are the main trouble spots because they have externally balanced flywheels (i.e. part of the engine's dynamic balance is machined into the flywheel).

For the moment, ignoring the external balance, there are three basic types of production flywheels, one for the 10½" and 11" scalloped clutches, and two for the older 11" clutches. For usage refer to the clutch section. All 426 Hemi flywheels are 8-bolt, while all the 318, 340, 360, 383, 400 and 440's have 6-bolt flywheels. The slant six also uses 6 attaching bolts but the pattern is different from the V8's. Also the hemi flywheels are made of high strength alloy cast iron for increased burst resistance at high engine speeds. These pieces are obviously not interchangeable and must go with the crankshaft flange that they were designed for. The "A" engine (318, 340) and the "B" engine (383, 440-4 BBL) use common flywheels, but the "RB" engine (440-6 BBL) in 1970-1971 uses a different flywheel, although it is similar in appearance to the others. This difference in the 440-6 BBL flywheel is because the "RB" 440-6 BBL engine in 1970 and 1971 is externally balanced. Also, the 1971-1980 360 "A" engine is externally balanced which affects its flywheel. However only the 1974 360 had the 4-speed transmission in passenger car production. This externally balanced flywheel for the 360 is PN3410916. The 318 is not externally balanced and the 340 and 400 (1972-1974) were overlapping years for cast and forged cranks in these engines. The 4-speed transmissions got the forged cranks which do not require any external balance. The problem arises if any of these cast-crank engines are converted from automatic to manual.

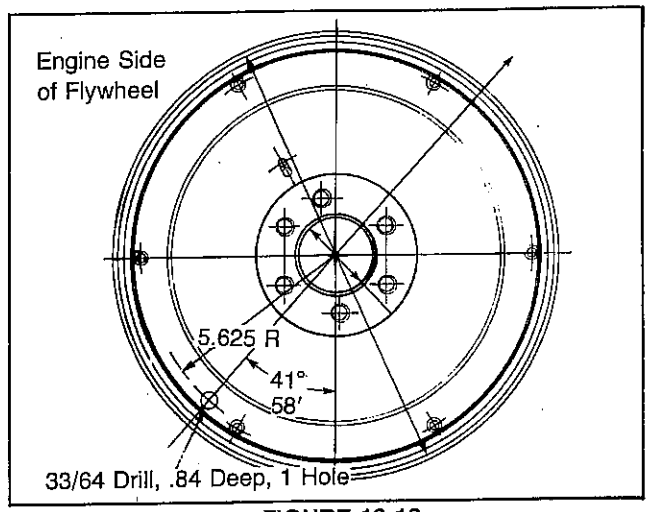

FIGURE 13-10
340 CAST CRANK 4.22 IN.-OZ.

Engine	Amount of Unbalance Added to Flywheel
340 Cast Crank	4.22 in. - oz.
440-6 BBL	6.5 in. - oz.
383-400 Cast Crank	12.9 in. - oz.
440 Cast Crank	12.9 in. - oz.
360	19.79 in. - oz.

Notes

All 360 engines have a cast crank.

The 383-400-440 cast crank engines can be identified by an "E" stamped on the engine numbering pad following the date built. Example, a cast crank 400 engine built on May 15 would have a number like H400-0515 *E*.

The 1970-1972 440-6 BBL and 4 BBL H.P. engines used a H.D. connecting rod forging which required external balance, but they do not have a cast crank. They do not have the "E" at the end of the number stamped on their number pad. They can be identified by an off-center weight cast in the vibration damper hub.

All 1978-1982 engines have a cast crank.

The 318 cast crank engines do not require external balance.

To convert a standard, symmetrically balanced flywheel to use with any of the externally balanced engines listed above, refer to figures 13-10, 13-11, 13-12 and 13-13. The holes are drilled on the engine block side of the flywheel. For proper location of the balance holes, be sure to orient the flywheel by its crank flange bolt pattern as shown in Figure 13-15. This modification is only recommended for cast-iron and steel flywheels *NOT* aluminum.

An approximate weight for the standard 10½" flywheel is 30# while the 11" weighs about 38#.

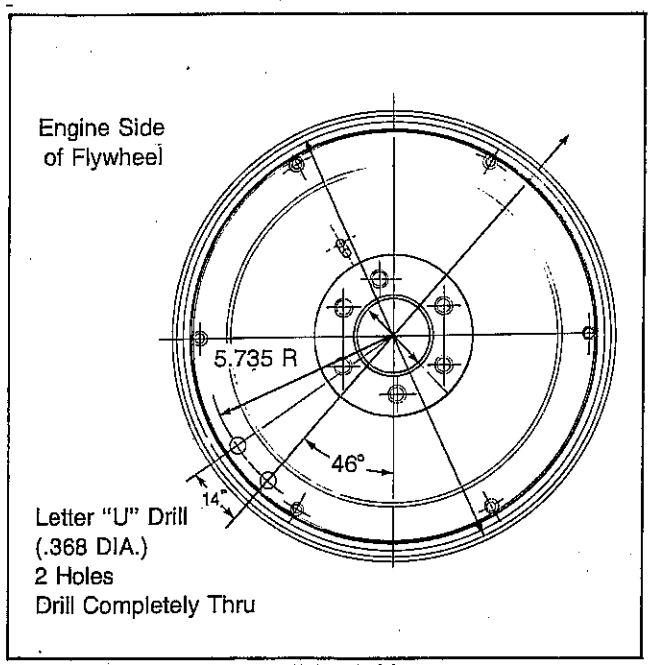

FIGURE 13-11
440 HEAVY ROD (6 BBL) 6.5 IN.-OZ.

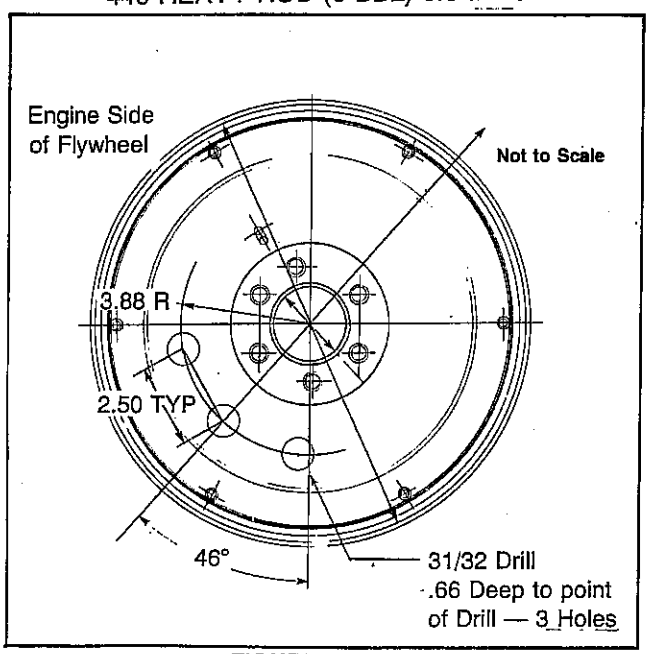

FIGURE 13-12
383-400 CAST CRANK 12.9 IN:-OZ.
440 CAST CRANK 12.9 IN.-OZ.

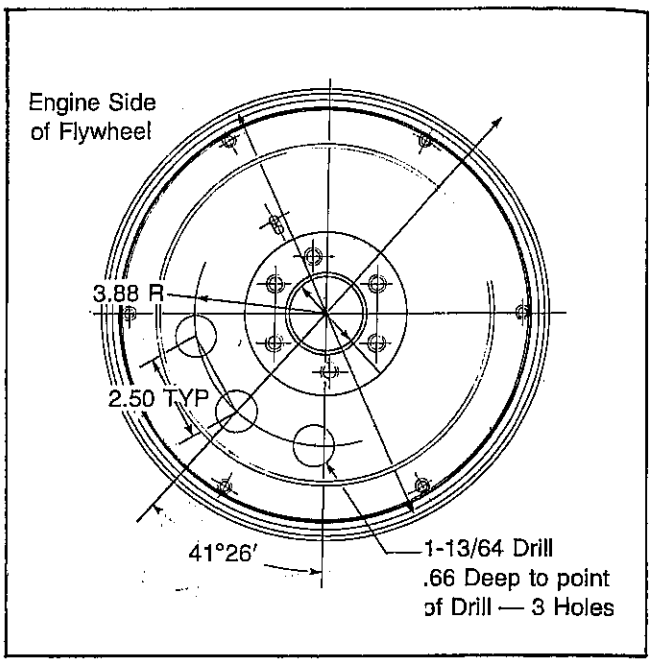

FIGURE 13-13
360 CAST CRANK 19.79 IN.-OZ.

Special Flywheels

45# Cast Steel 10½" Dia. PN P3690725
58# Cast Steel 10½" Dia. PN P3412022
21# Steel Plate 10½" Dia. PN P3412062
33# Steel Plate 11" Dia. PN P3412063

The above flywheels listed have an 8-bolt crank flange. The 45# and 58# flywheels require special 1⅜ attaching bolts (PN P3690418).

Aluminum Flywheels

11# — 10½" Clutch, 8-bolt PN P3690897
11# — 10½" Clutch, 6-bolt PN P3690469

For aluminum flywheel — see Figure 13-14.