Installing 340 Heads on a 273

Also for modified racing, the '68-71 340 cylinder heads can be installed. They will require that the side of the block be notched (See Fig. 21 and 318 Section for further details) for clearance and also should be used with the 340 head gasket. Since the 340 heads have a larger combustion chamber than the standard head, their installation will result in a loss of compression ratio. This situation can be helped by milling the head .060". If the head gasket surface gets too thin, the gasket blowing problem will get worse.

Valve Grinding

When grinding standard valves observe the following specifications: both seat and face angles for intakes and exhausts are 45°; seats should be .050" - .070" wide and kept as close to the outer edge of the valve as possible; seat approach angle is 70°.

Figure 22 - It is very important that the valve seat specifications shown in the illustration be carefully followed. If valve face and seat run-out is less than .0015", it is best to leave the seats alone until 50 to 75 hard runs have been made. Then, touch up valves and seats according to the specs. It must be remembered that the further the valve seats sink into the ports, the less horsepower the engine will produce. Never sink valves to equalize combustion chamber volume. Do not grind the valves or valve seats excessively and do not narrow the valve seats below specs. It is better to leave .0005" valve seat runout than to sink the seats trying to make them perfectly round.

For NHRA stock or super stock valve job, the following rules apply:

The valve must be faced at factory specification angle, and the seat angle must also meet factory specs. The valve seat may be narrowed from the top with any angle less than the seat angle, but not to exceed $\frac{1}{4}$ inch larger than the valve head (see diagram). The seat may be narrowed from the bottom with up to a 70° angle. The maximum width for valve seat and bottom cut may not exceed $\frac{1}{4}$ inch when measured together (top of seat to bottom of cut). See Figure 23.

The 360 Stock and Super Stock head is a special case, under the above NHRA rule. The production valve grinding operation removes metal over $\frac{1}{2}$ inch up into the throat from

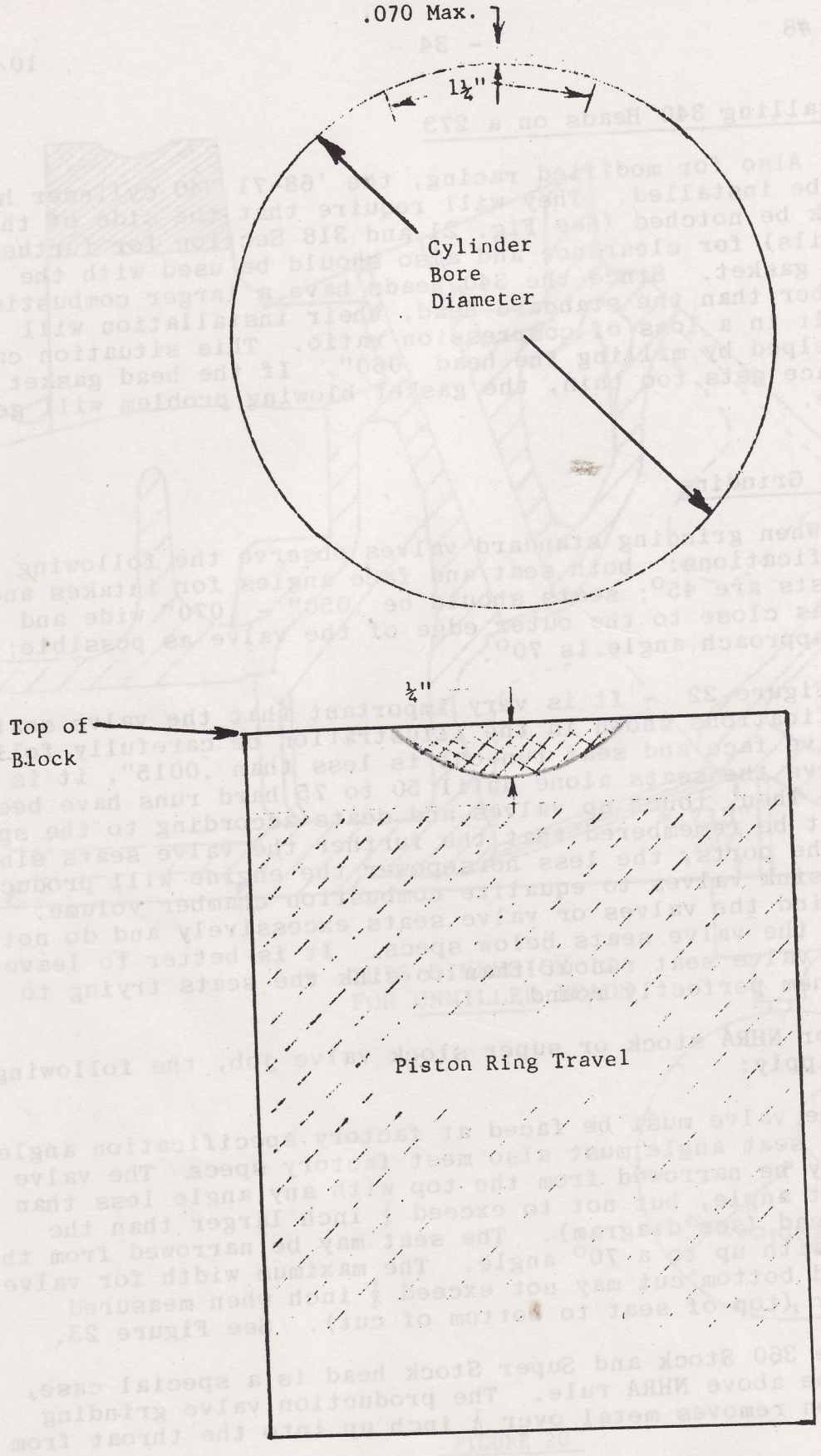
.070 Max.
1¼"
Cylinder
Bore
Diameter
¼"
Top of
Block
Piston Ring Travel

FIGURE 21