

## OFFSET - WHEELS

1) a) an increase in the offset moves the outer lip IN. b) a decrease in the offset moves the outer lip OUT.

2) a) Reducing the width of the wheel moves the outer lip IN. b) Increasing the width of the wheel moves the outer lip OUT. The change in the outer lip is one half of the change in the total width of the wheel.

Example: replacing an original 129 wheel with a TireRack 8 hole wheel.

Original – 16 x 8", 34 mm offset

TireRack 8 hole – 16 x 7.5" 23 mm offset.

### TireRack formula – comparison of respective distance from outer lip to mounting face

One half of the wheel width is 4 inches, or 101.6mm (4 x 25.4mm). Subtract 34 mm offset and the distance from the mounting face of the wheel to the outside lip of the wheel is 67.6mm.

For the TireRack replacement wheel one half of the wheel width is 3.75" or 95.25mm (3.75" x 25.4mm). Subtract 23 mm offset and the distance from the mounting face of the wheel to the outside lip of the wheel is 72.25mm.

So therefore the outside lip of the wheel has moved out 4.65mm (72.25 – 67.6) or .1831 inches, about 3/16 inch.

### Shortcut formula – change in offset plus change in one half the wheel width

The reduction in the offset, 23 versus 34, has moved the outer lip OUT by 11mm (rule 1.b above). Reducing the width of the wheel by .5 inch has moved the outer lip IN .25 inches, or 6.35mm (rule 2.a). Therefore the outer lip has moved OUT by a net of 4.65 mm. (11mm OUT and 6.35 mm IN). 4.65 mm change is equal to .183 inches, or a little less than 3/16 of an inch.