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ELIMINATION OF TOOTH INTERFERENCE IN
HARMONIC DRIVE DEVICES

Abstract of the Disclosure

The present invention relates to an extended tooth
5 contact harmonic drive gearing apparatus for
transmitting rotary motion from an input drive to an
output drive through mating contact between the gear
teeth of a flexspline and a rigid circular spline, the
flexspline being rotated into non-circular shape by a
10 wave generator. The profile of the flexspline teeth are
generated to cause the teeth of the flexspline to
contact more than one tooth of the circular spline by
forming a face profile on the flexspline teeth in
accordance with a predetermined equation while the flank
15 tooth profile of the circular spline is formed of a
known arc segment, such as, a circle, ellipse or
parabola.

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