

STANDARD ENGINE -  
CRANKSHAFT GEARS

14L03 20 Dec 14

Rbf.

Pinion 12T 8DP Gear 9T

MEASURED C.D. 2.225" RATIO 1.3333/1

REF. JONES & RYFFEL  
Pg 82

$$\text{GEAR } \eta = 2 \times C \times P_N \times \cos A_N \times \cos A_n \quad \text{Assume } N = 35^\circ \quad n = 55^\circ$$

$$= \frac{2 \times 2.225 \times 8 \times .8195 \times .5735}{1.3333 \times .5735 + .8195} = \frac{16.7314}{1.584} = 10.56 T$$

$$\text{Try } N = 30^\circ \quad n = 60^\circ$$

$$= \frac{35.6 \times .866 \times .5}{1.3333 \times .5 + .866} = \frac{15.415}{1.5327} = 10.5 T$$

$$\text{Try } N = 25^\circ \quad n = 65^\circ$$

$$= \frac{35.6 \times .9063 \times .4226}{1.3333 \times .4226 + .9063} = \frac{13.635}{1.4691} = 9.28 T$$

$$\text{Try } N = 23^\circ \quad n = 67^\circ$$

$$= \frac{35.6 \times .9205 \times .3907}{1.3333 \times .3907 + .9205} = \frac{12.803}{1.4414} = 8.88 T$$

$$\text{Try } N = 23.5^\circ \quad n = 66.5^\circ$$

$$= \frac{35.6 \times .9171 \times .3987}{1.3333 \times .3987 + .9171} = \frac{13.07}{1.4487} = 8.99 T$$

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