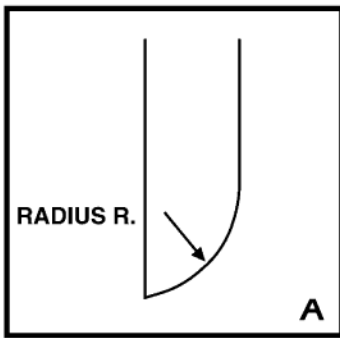


ESCAPE WHEEL & RATCHET CUTTERS

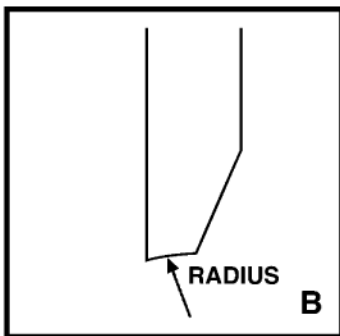
FINE TOOTH



A. RECOIL ESCAPE WHEEL CUTTERS

Ø 26mm. Bore 7.00mm. No. of teeth on cutter - 60.

Size	Radius R. mm.	Pitch of escape wheel less Tooth Tip thickness mm.	Cutter thickness mm.
No.			
1E	3.28	1.31	1.64
2E	4.10	1.64	2.05
3E	5.12	2.05	2.56
4E	6.40	2.50	3.20
5E	8.00	3.20	4.00
6E	10.00	4.00	4.50
7E	12.25	5.00	5.80

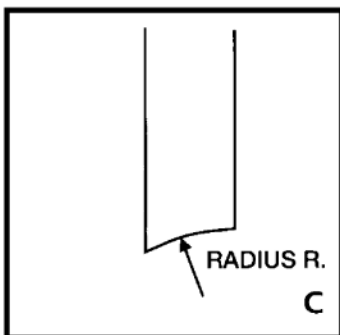


B. DEAD BEAT ESCAPE WHEEL CUTTERS

Ø 30mm. Bore 7.00mm. No. of teeth on cutter - 60. These cutters are designed for a 30 tooth escape wheel, but pitch and number of teeth may be varied up to about 9%.

Size	Ø Escape Wheel Inches.	Pitch of Escape Wheel less Tooth Tip Thickness Inches.	Calculation of Escape Wheel Tooth Pitch to select cutter
Letter.			Example:
A	1.75	0.183	Tip Diameter D = 1.375 inches
B	1.42	0.148	No. of Teeth N = 29
C	1.08	0.113	Pitch $P = \frac{T.T.D}{N} = \frac{3.142 \times 1.375}{29}$
D	0.75	0.078	= 0.148 inches

Use Cutter size B Dead Beat.



C. RADIUSSED TOOTH RATCHET CUTTERS

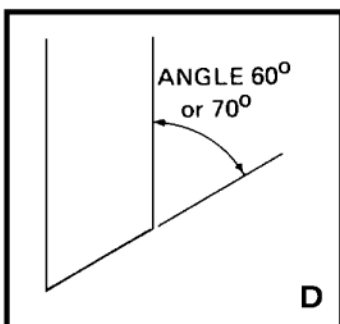
Ø 26mm. Bore 7.00mm. No. of teeth on cutter - 60.

Radius R. mm.	Diameter of Ratchet 2R. mm.	Thickness / Pitch mm.
4	8	3
6	12	4
9	18	6
13.5	27	9

For quantity production, form relieved cutters with 12 teeth can be supplied to special order, and extra price, for profiles above in sketches A, B and C.

RATCHET & MUSICAL BOX CUTTERS

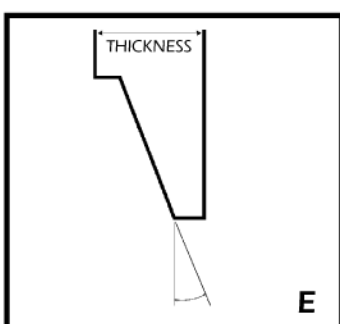
FORM RELIEVED



D. STRAIGHT TOOTH RATCHET CUTTERS

Ø 28mm. Bore 7.00mm. No. of teeth on cutter - 12. Cutter thickness 7.0 (nominal)

Angles 60° and 70°



E. MUSICAL BOX WORM WHEEL CUTTERS

Ø 25mm. Bore 7.00mm. No. of teeth on cutter - 12.

Size No	Standard Pitch mm	Standard Depth mm	Tip Width of Cutter mm	Cutter Thickness (nominal)
00	0.63	0.52	0.20	2.00
0	0.82	0.67	0.26	3.00
1	1.10	0.90	0.35	3.00
2	1.40	1.15	0.45	3.00
3	1.80	1.47	0.57	3.00
4	2.30	1.88	0.73	3.25