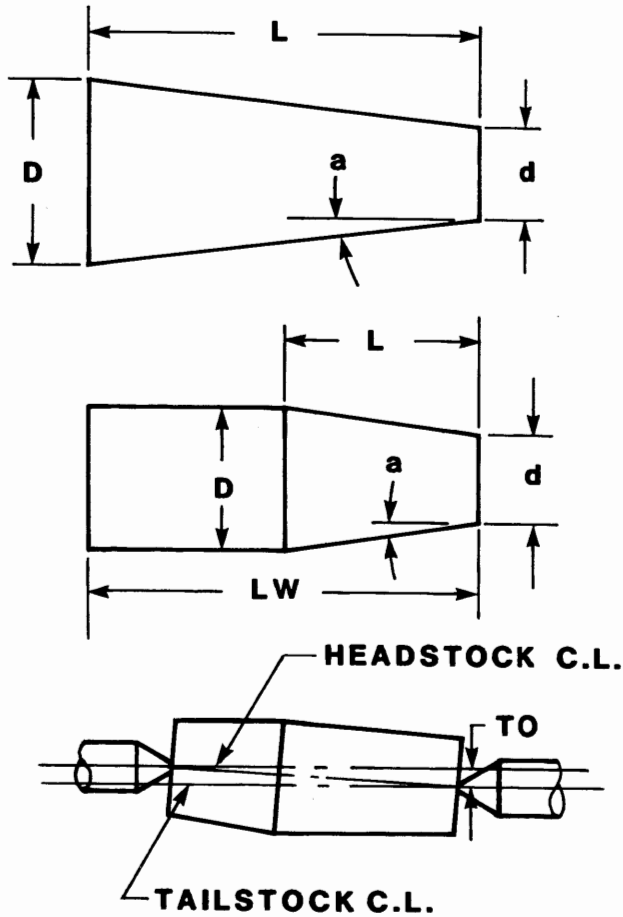


TAPER CALCULATIONS



TO FIND	KNOWN	USE FORMULA
TPI	TPF L, D, d a	$TPI = TPF / 12$ $TPI = (D-d)/L$ $TPI = \tan a \times 2$
TPF	TPI L, D, d a	$TPF = TPI \times 12$ $TPF = 12 \times [(D-d)/L]$ $TPF = 24 \times \tan a$
D	d, L, TPF d, L, TPI a, d, L	$D = d [L \times (TPF / 12)]$ $D = d (L \times TPI)$ $D = d [2 \times (\tan a \times L)]$
d	D, L, TPF D, L, TPI a, D, L	$d = D - [L \times (TPF / 12)]$ $d = D - (L \times TPI)$ $d = D - [2 \times (\tan a \times L)]$
L	D, d, TPF D, d, TPI a, D, d	$L = 12 \times (D-d) / TPF$ $L = D-d / TPI$ $L = [(D-d) / 2] / \tan a$
TO	TPI, L TPF, L	$TO = [(TPI / 2) \times LW]$ $TO = [(TPF / 12) \times LW / 2]$
$\tan a$	TPF TPI	$\tan a = TPF / 24$ $\tan a = TPI / 2$

LEGEND

TPF = TAPER PER FOOT
 TPI = TAPER PER INCH
 d = SMALL DIAMETER
 D = LARGE DIAMETER
 L = LENGTH OF TAPER

LW = LENGTH OF WORKPIECE
 TO = TAILSTOCK OFFSET
 $\tan a$ = TANGENT OF ANGLE a