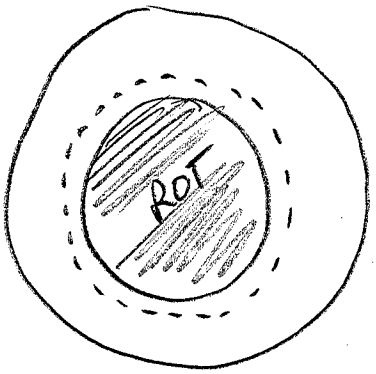
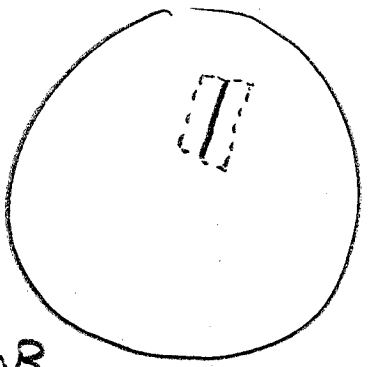
HINTS FOR CALC. % Lumber (%L)

NOTES

① Add 1 Rad around internal defect eg heartrot check



Log A



Log B

If log A has T = 20, R_T = 8, B = 24, R_B = 12, L = 9.0m

Net measures are calc. as usual, BUT to determine %L we need to add trim allowance of 1R around the rot

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METHOD A ("Correct method")

① Calc vol of ROT + TRIM ALLOW = 10R/9.0m = 141
14R/9.0m = 277
418 dm^3

② vol of log 20R/9.0m = 628
24R/9.0m = 814
1442 dm^3

③ % vol NOT lumber = $\frac{418\ dm^3}{1442\ dm^3}$ = 0.29 = 29%

④ %L = 71%

METHOD B – use "area of the circles"

Remember 2m ½ vol = 1m full vol = area of circle

TOP

Gross 20R/2m = 126
NOT L 10R/2m = 31

Lumber 95

BUTT

Gross 24R/2m = 181
NOT L 14R/2m = 62

Lumber 119

$$\frac{\text{area of Lumber}}{\text{gross area of log}} = \%\,L$$

Top $\frac{95}{126} = 0.75$ Butt $\frac{119}{181} = 0.66$

average

$0.70 \Rightarrow 70\%$

(very close to "correct")

What about Log B?

Log B has no rot ∴ gross measures equal net measures. BUT, we still need a %L calculation.

If the check measures 10 RADS, then use $10R \times 2R \times 0.4$

↓ Equation for rectangle

Then proceed as usual.

What about TWIST??

- If no rot then gross measures = net measures
- Calc % twist = $\frac{\text{offset}}{\text{Top}}$, determine if % twist exceeds max for utility lumber.

If so then 100% pulp, if not 100% L (but crappy L)

What about "conk"?

Remember it runs 2.4m up & 3.6m down

If one conk then 6m of rot

- but only 50% rot ∴ 3m ded^n

- <u>BUT</u> entire 6m not avail for Lumber.

- <u>ALSO</u> if remaining section of log < 2.5m then you cannot cut L from that portion either as it is too short.

What about surface checks?

- No vol Ded^n
- No "extra rad" trim allowance
- just determine the core of solid, "unchecked" wood.