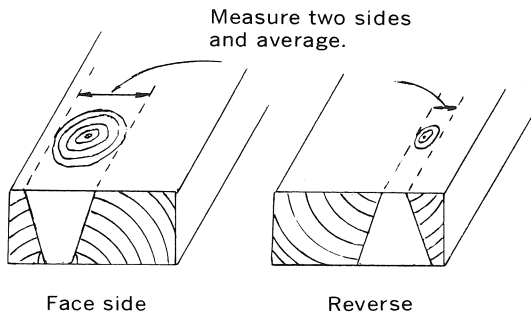
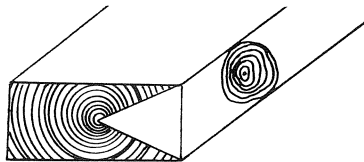


# KNOTS AND HOW TO MEASURE



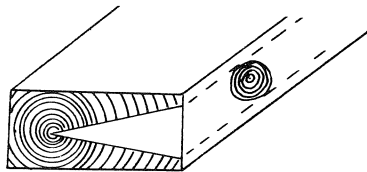
## GRADER'S POCKET GUIDE FOR 2" DIMENSION

GRADE	KNOT SIZE ON NARROW FACE	KNOT MAY EXTEND INTO PIECE
No. 1	1-1/2" 1"	1/2 of width (Fig. 1) 3/4 of width (Fig. 2)
No. 2	1-1/2"	Slightly less than 3/4 of width.
No. 3	1-1/2"	Slightly less than width



**Figure 1**

1-1/2" Narrow face knot extending 1/2 of width.



**Figure 2**

1" Narrow face knot extending 3/4 of width.

SOUTHERN PINE INSPECTION BUREAU  
PENSACOLA, FLORIDA



# GRADING RULES FOR 2-INCH DIMENSION

CHARACTERISTICS	SEL STR	NO.1	NO.2	NO.3											
COMPRESSION WOOD	← NOT ALLOWED IN DAMAGING FORM FOR THE GRADE CONSIDERED →														
SLOPE OF GRAIN	1" in 12"	1" in 10"	1" in 8"	1" in 4"											
DECAY	Not Permitted	Not Permitted	Heart center, 1/3 thickness X 1/3 width	Heart Center, 1/3 cross section. Must not destroy nailing edge. See para. 710(e)											
HOLES	Same as unsound knots	Same as unsound knots	See chart below	See chart below											
KNOTS	Unsound		Unsound												
	Edge	Centerline	Knots	Edge	Centerline	Holes	Edge	Centerline	Holes						
	2x4	3/4"	7/8"	3/4"	1"	1-1/2"	1"	1-1/4"	2"	1-1/4"	1-3/4"	1-3/4"	2-1/2"	3"	1-7/8"
	2x5	1"	1-1/2"	7/8"	1-1/4"	1-7/8"	1-1/8"	1-5/8"	2-3/8"	1-3/8"	2-1/4"	3"	1-7/8"		
	2x6	1-1/8"	1-7/8"	1"	1-1/2"	2-1/4"	1-1/4"	1-7/8"	2-7/8"	1-1/2"	2-3/4"	3-3/4"	2"		
	2x8	1-1/2"	2-1/4"	1-1/4"	2"	2-3/4"	1-1/2"	2-1/2"	3-1/2"	2"	3-1/2"	4-1/2"	2-1/2"		
	2x10	1-7/8"	2-5/8"	1-1/4"	2-1/2"	3-1/4"	1-1/2"	3-1/4"	4-1/4"	2-1/2"	4-1/2"	5-1/2"	3"		
2x12	2-1/4"	3"	1-1/4"	3"	3-3/4"	1-1/2"	3-3/4"	4-3/4"	3"	5-1/2"	6-1/2"	3-1/2"			
	Sound, firm, encased, pith, tight & well spaced. One hole or equivalent smaller holes per 4 lin. ft.		Sound, firm, encased, pith, tight & well spaced. One hole or equivalent smaller holes per 3 lin. ft.		Well spaced knots of any quality. One hole or equivalent smaller holes per 2 lin. ft.			Well spaced knots of any quality. One hole or equivalent smaller holes per 1 lin. ft.							

SHAKES	← Ends: same as splits Elsewhere: 2' surface; none through →		← Ends: same as splits Elsewhere: surface 3' or 1/4 length; 2' through →		1/6 length if through at edges or ends, elsewhere through shakes 1/3 length								
CHECKS	← Surface seasoning checks not limited Through checks at ends limited as splits →												
SKIPS	← Hit and miss in 10% of the pieces. See para. 720(f) →		← Hit and miss. 5% of the pieces may be hit or miss or heavy skip for 2'. See para. 720(e, f, and g) →		Hit or miss. 10% of the pieces may have heavy skip. See para. 720(e and g)								
SPLITS	← Equal to the width →		← Equal to 1-1/2 times the width →		Equal to 1/6 length								
WANE	← 1/4 thickness x 1/4 width x full length or equivalent; must not exceed 1/2 thickness x 1/3 width for up to 1/4 length. Also see para. 750. →		← 1/3 thickness x 1/3 width x full length or equivalent; must not exceed 2/3 thickness x 1/2 width for up to 1/4 length. Also see para. 750. →		1/2 thickness x 1/2 width x full length or equivalent; must not exceed 7/8 thickness or 3/4 width for up to 1/4 length. Also see para. 750.								
BOW	← 10' /1-3/8"; 12' /1-1/2"; 14' /2"; 16' /2-1/2" →		← 10' /1-1/2"; 12' /2"; 14' /2-1/2"; 16' /3-1/4" →		10' /2-3/4"; 12' /3"; 14' /4"; 16' /5"								
CROOK	Size	10'	12'	14'	16'	10'	12'	14'	16'	10'	12'	14'	16'
	2x4	3/8"	1/2"	5/8"	3/4"	1/2"	11/16"	7/8"	1"	3/4"	1"	1-1/4"	1-1/2"
	2x6	5/16"	7/16"	9/16"	11/16"	7/16"	5/8"	3/4"	7/8"	5/8"	7/8"	1-1/8"	1-3/8"
	2x8	1/4"	13/32"	1/2"	9/16"	3/8"	1/2"	5/8"	3/4"	1/2"	13/16"	1"	1-1/8"
	2x10	7/32"	3/8"	7/16"	1/2"	1/4"	7/16"	1/2"	5/8"	7/16"	3/4"	7/8"	1"
2x12	3/16"	9/32"	3/8"	7/16"	3/16"	3/8"	3/8"	1/2"	3/8"	9/16"	3/4"	7/8"	

DENSE GRAIN: Requires 6 rings/inch & 1/3 summerwood or 4 rings/inch & 1/2 summerwood.

EXCEPTIONALLY LIGHT WEIGHT PIECES: Should not be placed in No.2N and higher grades (Exceptionally light weight pieces have less than 15% summerwood).

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