



Coastal
Log
Grading
In B.C.
And
The Need
For Change

8.2 Timber Grading Requirements

In British Columbia, all timber harvested from private or Crown lands or salvaged must be scaled. Grading is an integral component and a legal requirement of the scale.

The legal authority for grading falls under the *Scaling Regulation*. This regulation prescribes two grading schedules; coast and interior. The method of stumpage used in the area where the timber is cut determines which schedule must be used.

- timber cut in areas where a log based appraisal system is used (predominantly coast) must be graded with the *Schedule of Coast Timber Grades*, and
- timber cut in areas where a lumber based appraisal system is used (predominantly interior) must be graded using the *Schedule of Interior Timber Grades*.

This chapter explains how timber is graded in accordance with the schedules of timber grades. The chapter - *Special Forest Products* - describes the scaling and classification of these products and is not contained in the grading chapter.

Historical Background



Old School Model, 1915



Pre 1981, 5 Grades

The Pearse Commission and the Industrial Organization of the British Columbia Forest Industry*

by SCHWINDT

With the assistance of ADRIENNE WANSTALL

The Royal Commission on Forest Resources, chaired by Dr. Peter Pearse submitted its final report, *Timber Rights and Forest Policy in British Columbia*, in September of 1976. Twenty-one months later the Legislative Assembly of British Columbia approved Bill 14, which is simply titled the 'Forest Act'.¹ This legislation, which repealed its predecessor, the Forest Act of 1912, sets the terms under which harvesting rights to Crown timber are granted. In British Columbia, where the Crown holds title to 55 percent of the forest land and where the forestry sector is of preminent economic importance (it accounts directly for about 9 percent of the employed labour force and 14 percent of the Gross Provincial Product), the Act is of some consequence for it defines public policy toward the province's most important sector.

In British Columbia major changes in forest policy have traditionally been preceded by a Royal Commission investigation into the state of the sector. The first, chaired by F. J. Fulton, reported in 1910 and recommended policies to curb the speculative timber staking which characterized the industry at the time. On the basis of a crude inventory the Fulton Commission concluded that sufficient timber had been alienated to satisfy the industry's requirements for some time and therefore advised against further long-term allocations. The advice was incorporated into provincial forest policy and for the next thirty years demands for wood were met with short-term timber sales.

Pearse Royal
Commission
1976



Post 1981, 18 Grades!!

Concieved
In
The
1970's





This Was Computing!



Cascading Grades



5 Recovery Percentages



No Firmwood Deduction



End Product Not Considered In Cubic Volume Scale



“ Logs Are
Virtually
Rescaled
With End
Use In
Mind As
Part Of
The Log
Grading
Procedures
”

1. No heart rot, conk, conk stain, or pocket rot is permitted.
2. There must be no fewer than six annual rings in each 2 cm of diameter.
3. Logs 30 to 37 cm in radius must have the 2.6 m butt block free of knots or knot indications.
4. Logs 38 cm or over in radius must have the 2.6 m butt block free of knots, - indications permitted.
5. No knots over 4 cm are permitted and knots or knot indications 4 cm or less in diameter must be well-spaced. Bunch knots that can be encircled in a 4 cm diameter are permitted.
6. Maximum twist permitted over 30 cm of length is 7 percent of the diameter up to a maximum deviation of 8 cm.
7. Butt rot must not be present in logs less than 8 m in length.
8. The diameter of butt rot in logs 8 m to less than 10.4 m in length must not exceed $33\frac{1}{3}$ percent of the measured butt diameter after excluding flare.

Highly Perscriptive



A Bad Marriage



The Utility Grade



Actually Three New Grades!



The 12.8 metre rule



Changes In Harvesting Methods



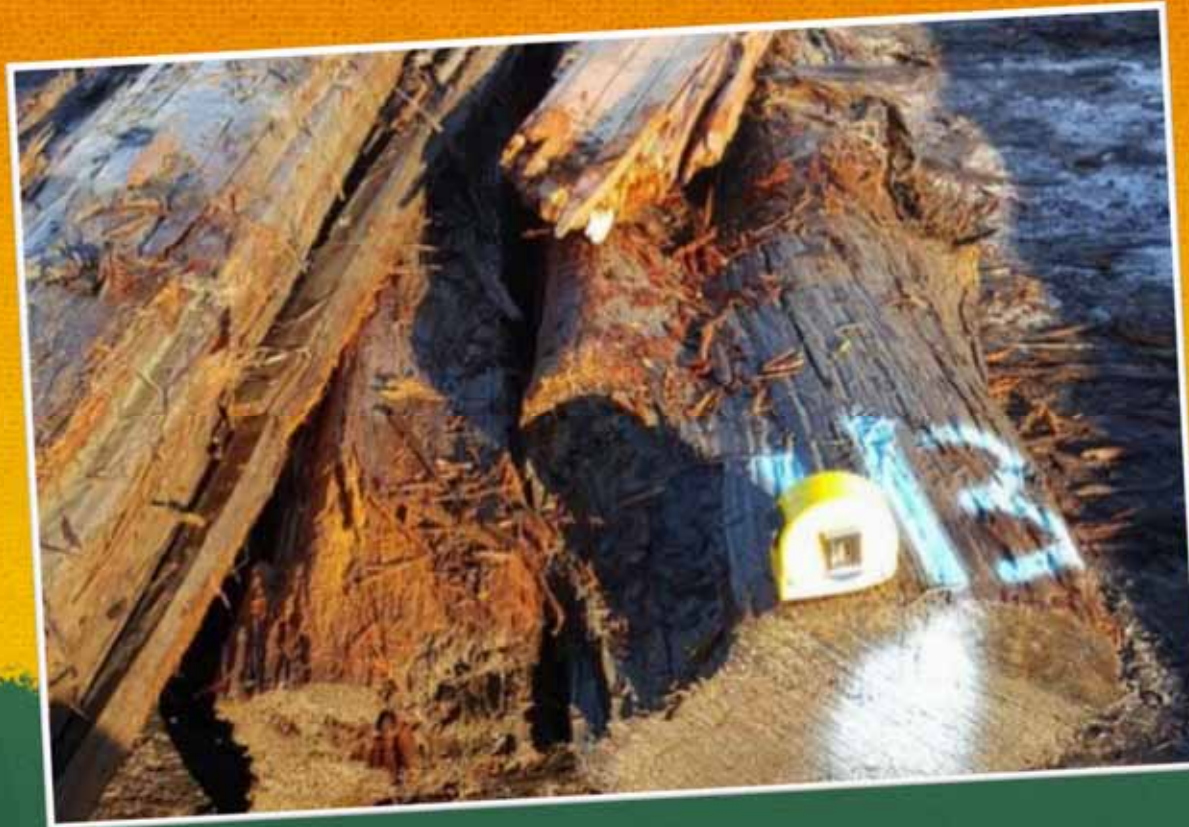
The 5.2 metre rule



Is This 75% Recoverable? 50%?



2014 Log Exam, Port McNeill B.C.



“Those who are not shocked when they first come across quantum theory cannot possibly have understood it.”

— Niels Bohr, Essays 1932-1957 on Atomic Physics and Human Knowledge



Changed Times

Item	Code	Material	QTY	UNIT	DESCRIPTION	PRICE	AMOUNT	TAX	TOTAL	REMARKS
Item	300	300	1	KG	OG Export Highgrade	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	301	301	1	KG	OG Export Lumber	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	302	302	1	KG	OG Export Strip	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	303	303	1	KG	Domestic Highgrade	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	304	304	1	KG	Domestic Lumber	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	305	305	1	KG	Domestic Strip	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	306	306	1	KG	OG Priv 12" x 4" Siding	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	307	307	1	KG	OG Priv 4x 6	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	308	308	1	KG	OG Domestic Standard	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	309	309	1	KG	OG Priv C Gang	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	310	310	1	KG	Domestic Gang	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	311	311	1	KG	Domestic Log Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	312	312	1	KG	Domestic Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	313	313	1	KG	OG Export Highgrade	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	314	314	1	KG	OG Export Lumber	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	315	315	1	KG	Domestic Highgrade	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	316	316	1	KG	Domestic Lumber	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	317	317	1	KG	Domestic Highgrade	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	318	318	1	KG	Domestic Overlaid	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	319	319	1	KG	Domestic Sawable String	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	320	320	1	KG	Domestic 10 Joist Small Log	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	321	321	1	KG	Domestic Timber	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	322	322	1	KG	Domestic OG Merch	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	323	323	1	KG	Domestic OG Gang	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	324	324	1	KG	Domestic String	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	325	325	1	KG	Domestic Utility String	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	326	326	1	KG	Domestic Small Round Bob	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	327	327	1	KG	Domestic Small Round	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	328	328	1	KG	Domestic Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	329	329	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	330	330	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	331	331	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	332	332	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	333	333	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	334	334	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	335	335	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	336	336	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	337	337	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	338	338	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	339	339	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3
Item	340	340	1	KG	Small Poly	12.5	12.5	0.0	12.5	12.5 10.7 9.9 9.3 4.3

Databases And Intensive Sorting



Remake Or Repair?

Grade rules typically include three components:

- minimum and/or maximum gross log dimensions,
- a requirement that a percentage of the log's gross volume must be available to manufacture a given product, and
- a requirement that a percentage of the product manufactured from the log must meet or exceed a given quality.

Application of the grade rules requires the scaler to:

- determine the log's gross dimensions,
- estimate what portion of the log is available to produce a given product, and
- consider the quality of the product which could be produced from the log.

To ensure grading is fair, consistent and reliable, it is premised on some basic principles:

- it is done in strict compliance with the grading rules contained in the schedule of grades,
- it assumes only common end products,

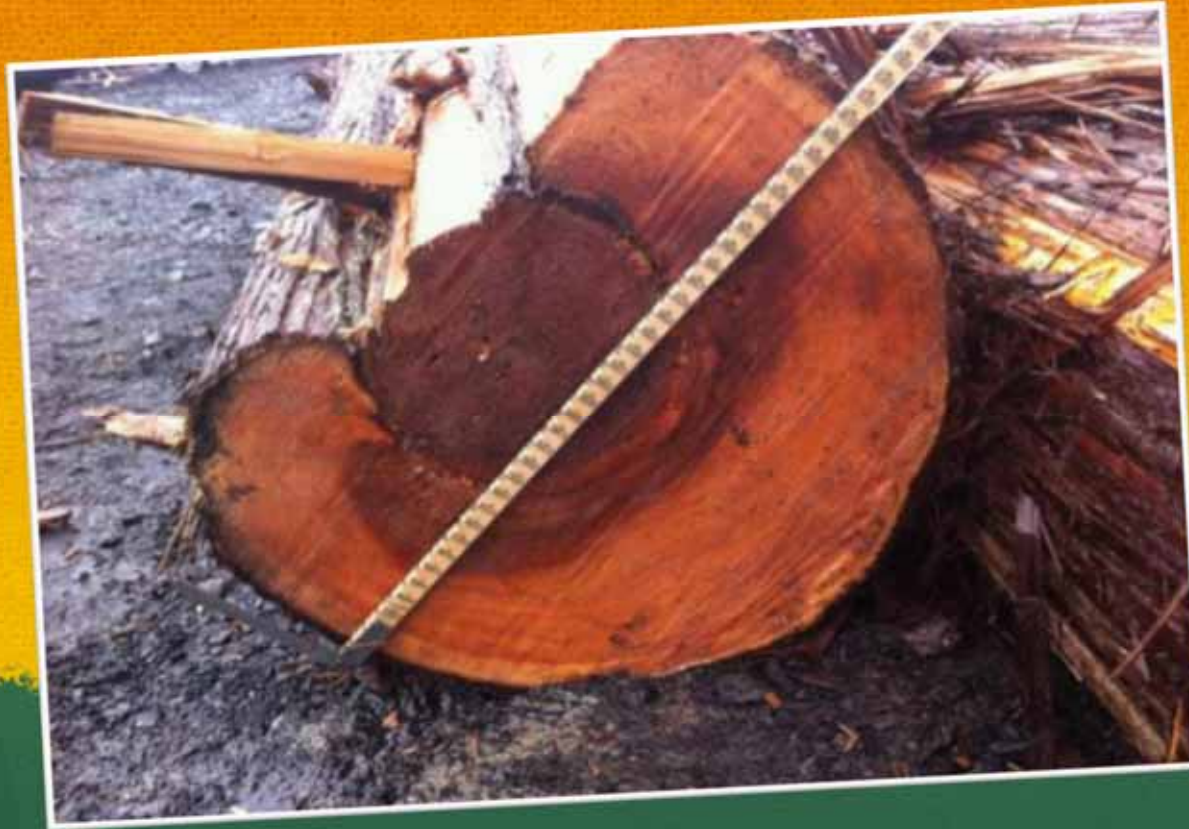
What Works, What Doesn't?



Government Has Expressed an Interest In Moving Forward With New Concepts At A Measured Pace.



New Ideas Or Old Ideas?



Who Needs To Know What?



How Will We Deal With Non Deductible
Defects Like Twist?



What If We Separate Log Type And Recovery?



How Many Grades Do We Need?
What Do We Need To Know?



Can The Rule Be Consistently Applied?



A System That Is Intuitive and Elegant



Thank You
Garrett Log Service Ltd.