Properties and Uses of Papua and New Guinea Timbers

Canadian Export Timbers

African Timbers

Efficient Utilization of Red Maple Lumber in Glued-laminated Timber Beams

Timber Characteristics, Properties, and Uses: South-east Asia, northern Australia, and the Pacific

Commercial Timbers of Papua New Guinea

South Commercial Timbers of Thailand; Their Properties and Uses

Canadian Exports Timbers, Their Properties and Uses

The Principal Timbers of New South Wales and Their Uses

Commercial Timbers of India

The Commercial Timbers of the Philippines

Important Commercial Timbers of Australia

British Timbers

Some Commercial Timbers of Thailand

Speciality Timbers

Manual on the Use of Timber in Coastal and River Engineering

West Bengal Commercial Timbers

British Timbers

Building Timbers

Timbers - Their Properties and Uses

Tests of Structural Timbers

Properties and Uses and of 175 Timber Species from Papua New Guinea and West Irian

Indian Woods

Properties and Uses of Papua and New Guinea Timbers

Canadian Export Timbers

Canadian Export Timbers

African Timbers
This manual has been designed to provide guidance on the principal issues surrounding the use of timber in coastal and river engineering. Whilst primarily intended for practising engineers, the manual will also be a useful reference for students, procurement specialists and the general reader interested in the use of timber in coastal and river environments.
Since the sixth edition of this classic text/reference was published in 1981, there have been so many developments in the field that the new seventh edition represents an almost total rewrite of the subject matter. The opportunity has been taken to rearrange the structure and broaden the scope to cover areas of conversion, machining and the application of paints and finishes; the format has also been enlarged to improve readability. Part 1 contains chapters that deal with the structure of wood at the gross, cellular and molecular levels; variability is also covered. Part 2 has five chapters on the properties of wood, with special coverage of elastic behaviour, toughness and the use of structural-sized timber for strength tests. Part 3 on processing has material on several new areas not covered in earlier editions of the book; for example, log conversion, seasoning, and the machining of wood and board. The discussion of grading and grade stresses is fully updated. Part 4 on utilisation examines the latest techniques and standards for the manufacture of wood products. Part 5 examines all aspects of timber in service, including protection and preservation. The book will appeal to a wide readership, both as a student text and reference. Students of wood science and forestry at undergraduate and equivalent level will find it of special value. All institutions with courses in the built environment will wish to make the book available as a reference source.

Commercial Timbers of Papua New Guinea

South Commercial Timbers of Thailand; Their Properties and Uses

Canadian Exports Timbers, Their Properties and Uses

The Principal Timbers of New South Wales and Their Uses

Commercial Timbers of India
Tropical forests usually include a very large number of tree species, and the island of New Guinea is no exception. Some of its timber species, such as klinki pine (Araucaria hunsteinii), kamarere (Eucalyptus deglupta) or taun (Pometia spp.) long ago established themselves on the Australian market, but other useful timbers are relatively unknown. There is now a mounting interest in marketing more of New Guinea’s large variety of hardwood and softwoods, to be sold as individual species, or in parcels of mixed species having generally similar properties. With the purpose of providing information of practical value on the properties of some New Guinea timbers data previously prepared by the author and published (Boyd, 1970) have been updated, extended and presented here in metric units.

**Canadian Export Timbers, Their Properties and Uses**

The feasibility of utilizing cant-sawn hardwood lumber, which would not usually be desired for furniture manufacture, was studied for the manufacture of structural glued-laminated (glulam) timber. Two red maple beam combinations were evaluated: (1) a glulam combination designed with E-rated lumber in 25 percent of the outer laminations (top and bottom) and No. 3 grade lumber in 50 percent of the center laminations and (2) a wide-width glulam combination with laminations made from nominal 2- by 4- and 2- by 6-in. No. 2 grade lumber laid edge-to-edge having staggered end joints (termed 2 by 4/2 by 6 glulam combination). Test results of 42 red maple glulam beams showed that it was feasible to develop structural glulam timber from cant-sawn lumber. The glulam combinations made from E-rated lumber exceeded the target design bending stress of 2,400 lb/in\(^2\) and met the target modulus of elasticity (MOE) of 1.8 \(\times\) 106 lb/in\(^2\). In addition, the 2 by 4/2 by 6 glulam combination exceeded published design stresses for vertically laminated bending strength, MOE in both the horizontally and vertically laminated orientations, and horizontal shear stress in the vertically laminated orientation. Based on the results of the 2 by 4/2 by 6 glulam combination, it was determined that edge gluing the laminations to form wide-width lumber is not required to achieve targeted strength and stiffness levels. Data analysis showed that ASTM D3737 procedures developed for softwood species accurately predict beam stiffness and provide conservative bending and horizontal shear strength estimates for red maple glulam beams. Also, it was shown that results from ASTM D143 shear-block tests could be used to accurately predict horizontal shear strength of 2 by 4 and 2 by 6 red maple glulam beams.
Tropical Timbers of the World

Timber

A Selection of Dominican Timbers

The Manual of Colours and Dye Wares: Their Properties, Applications, Etc

Important Commercial Timbers of the Philippines

The Commercial Timbers of Australia

British Timbers

Some Commercial Timbers of Thailand

Speciality Timbers

Manual on the Use of Timber in Coastal and River Engineering

West Bengal Commercial Timbers

Pergamon Series of Monographs on Furniture and Timber, Volume 8: Timber: Its Mechanical Properties and Factors Affecting its Structural Use focuses on the mechanical and technical properties of timber, including how a tree grows and develops. This book discusses the growth of the
tree, structure of wood, fundamental properties, factors affecting strength, structural grading, and seasoning. The strength properties, assessing strength properties, and testing for strength are also covered. The strength of wood varies almost with every species and factors affecting this in relation to working stresses are fully indicated in this text. This publication is intended as an introductory textbook on the mechanical and technical properties of wood, and as such, will be useful to students, architects, builders, and others requiring knowledge on the subject.

British Timbers

Building Timbers

Timbers - Their Properties and Uses

Commercial Timbers of the United States, Their Structure, Identification, Properties, and Uses

Tests of Structural Timbers

Properties and Uses of 175 Timber Species from Papua New Guinea and West Irian

Timber

Indian Woods