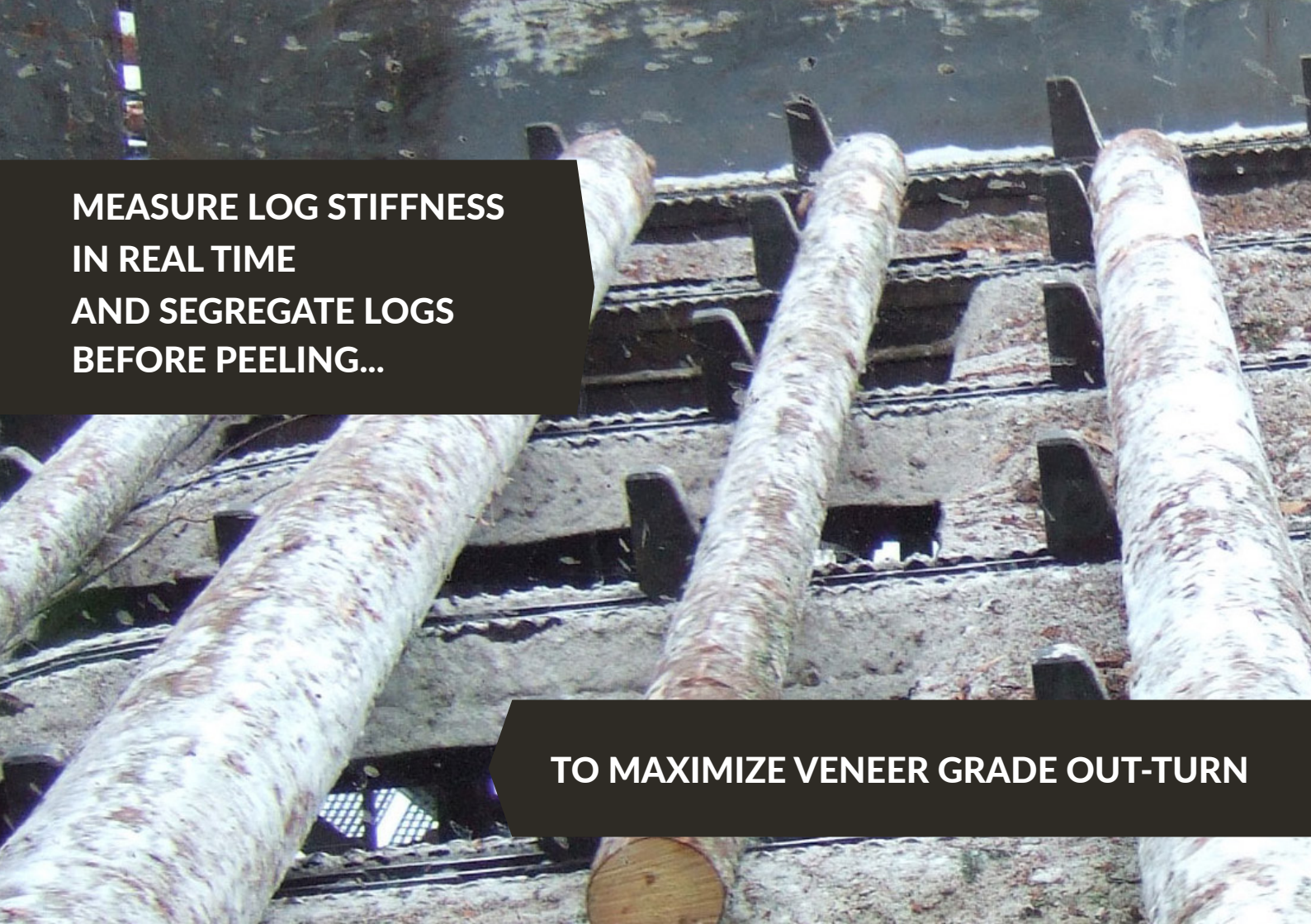




fibre-gen

**HITMAN LG640**





**MEASURE LOG STIFFNESS  
IN REAL TIME  
AND SEGREGATE LOGS  
BEFORE PEELING...**

**TO MAXIMIZE VENEER GRADE OUT-TURN**

speed of sound through  
wood provides a direct  
measure of stiffness

$$\text{MOE (stiffness)} = \text{density} \times (\text{sonic velocity})^2$$

TREE BREEDING | FOREST MANAGEMENT  
HARVESTING | LOG MAKING  
WOOD PROCESSING

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ALL REGIONS | ALL SPECIES



**Today, the precision of acoustic technology has been improved to the point where tree quality and intrinsic wood properties can be predicted and correlated to the performance of final products.**

Wood and Timber Condition Assessment Manual  
USDA – Second Edition – Chapter 8 - Wang and  
Carter July, 2015

# OPTIMIZE RETURNS



**E**nable automatic measurement of infeed log stiffness for batch sorting or custom processing



**P**rovide quality audit on delivered logs



**S**elect veneer thickness to maximize grade out-turn



**P**redict veneer grade out-turn from incoming logs



**E**liminate manual log testing for improved health and safety in forest and log yard

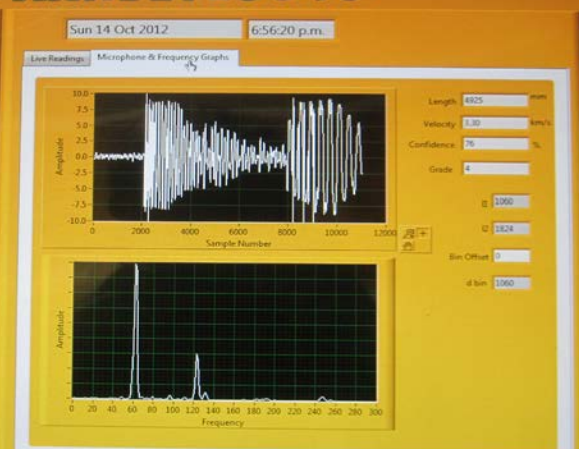
“

Within a few weeks of installing the LG640, we knew the structural grade output we could expect from any log sonic input. Based on sonic velocity, we can immediately advise log suppliers of the true value of their logs supplied. Thus we plan a scale rule that shows suppliers that if they supply an average sonic of, say 3.1 km/sec, we know this will yield a specific amount of structural grade product, and thus we can afford to pay an appropriate price.

Source:  
Kent Gibbons, Waimea Sawmillers  
Nelson, New Zealand



## HITMAN LG640



# maximize your high strength LVL veneer out-turn using log sonic information

**T**he Hitman LG640 automatic log grader is typically installed downstream of the debarker and measures the sonic velocity of a log, billet or block prior to peeling in order to assess the average wood stiffness. Using a swinging hammer to hit the end of each log passing through the Hitman LG640, a microphone records the acoustic signal. By analysing the resonant frequency of the longitudinal acoustic wave signals and calculating the acoustic velocity of the sound wave along the log, the Hitman LG640 is able to provide data to the mill optimiser about the stiffness of the wood. Log suitability for structural or non-structural veneer can be assessed in real-time. This enables logs to be batch-sorted prior to steaming and peeling, optimizing veneer thickness to maximize structural veneer grade out -turn.



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## YOUR BENEFITS



**A**utomatically test logs in the yard at mill processing speed



**A**void processing logs into veneer that won't meet structural grade



**B**atch or sort to process logs of similar stiffness for specific products



**M**atch the product breakdown to log stiffness and maximize the yield of structural product



**Q**uick, efficient, reliable and cost effective



# HITMAN LG640

## FOR LVL VENEER MILLS

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**H**itman LG640 is an in-line automated tool which tests log stiffness prior to processing. Hitman LG640 enables real-time management of infeed log supplies, verifies acoustic log specifications and builds knowledge of external resources for future log buying decisions. Logs can be sorted for the best processing option and improved profitability.



- Automatic testing at mill operating speeds
- Non-stop log, billet or block measurement system to allow log line to continue at full operating speed
- Longitudinal or transverse conveyed logs
- Data capture and interface with mill automation for real time monitoring and log sorting
- Simple maintenance and ease of operation
- Data-basing of results
- Robust, industrial strength design and construction





## FURTHER BENEFITS

Ongoing costs of manually measuring acoustic velocity are eliminated, and logistics constraints of log making and segregating upstream in the production process are avoided.

Structural quality of log supplies are monitored, highlighting sources which provide highest yields and providing data for supplier log price negotiation.

**INCREASE PROFIT BY MEASURING  
AND MANAGING STIFFNESS**

# HITMAN LG640

THE GOLD STANDARD

IN WOOD STIFFNESS MEASUREMENT

**fibre-gen**

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