The wood-mechanising company

Developments in Log Merchandising, Board Handling and Trimming Systems in the Sawmill

SAWTECH 2009 – Rotorua(NZL) / Melbourne(AUS)

Agenda

• SPRINGER group
• SPRINGER movie and product range
• Developments in
  – Log handling
  – Board trimming
  – Lumber sorting
• Questions and discussion
SPRINGER Group

- an international operating family-run business
- was founded in 1952
- has 5 sites
- Europe’s no. 1 in high-performance plants (8 of 10 plants since 2002)
- employs more than 350 people
- had a turnover of 75 mio. EUR in 2008
- exports 75%

SPRINGER Group
business structure and sites
SPRINGER Group

our mission

- Individual solutions
- Turn-key plants
- Innovative spirit
- Technological creativity
- Reliability
- Service orientation

Product range

- log merchandising and saw in-feed plants
- sawn timber plants
- further processing systems
- electronic and scanning solutions

Technology partners

VIDEO
Log handling innovation

Problem statement on log handling

- High level of pollution material (bark, stones, branches)
- Difficult disposal and cleaning in cross transport
- Worn out or broken chains / driving dogs
- Easily defects by crane handling of logs
- Short maintenance rates
- High maintenance costs
- High level of noise

Log handling innovation

Screw unscrambler and feeder

Technical data:

- Log length: 3.0 – 6.5m (22m)
- Log diameter: 100-850mm (1200mm)
- Performance: up to 45 logs/minute (4.8 m log length)

- Storing & unscrambling
- Even ending
- Separating & feeding
- Speeding up in longitudinal direction
Log handling innovation  
screw unscrambler and feeder

**Advantages:**

- Continuous feeding / movements of logs
- Longer maintenance rates
- No hydraulic necessary
- No chains, no sprockets = higher life expectancy
- Smooth continuous movements
- Simple electric – simple handling
- Little / no noise
- Easy waste disposal
- Speed up function

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Installation:

- Heggenstaller/Lauterbach (GER) – 1,000,000 m³ logs / year (3 shifts)
- Hasslacher/Sachsenburg (AUT) – 500,000 m³ logs / year (2 shifts)
- Schweighofer/Radauti (ROM) – 850,000 m³/year (2 shifts)
- Schweighofer/Sebes (ROM) – 780,000 m³/year (2 shifts)
Board trimming innovation
problem statement on trimmer systems

- High risk of damages due to uncontrolled trim ends
- Up to 80 kg of movement (hydraulic, motor, ..)
- Bad cutting accuracy on high speed
- Problematic of quality on the cutting surface
- High maintenance rates and costs
- Difficult disposal and cleaning

Board trimming innovation
flying trimmer with pre-trimmer system
Board trimming innovation
flying trimmer with pre-trimmer system

**Pusher 04**
[0 or 200mm]

**Pusher 03**
[0 or 200mm]

**Pusher 02**
[0 or 200mm]

**Pusher 01**
[0 – 300mm]

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Board trimming innovation
flying trimmer with pre-trimmer system – pusher 01

**MODULE CHANNELS**
**MM CHANNEL**
**GLIDING ROLL**

**MECH. AIR VALVE**
**FOR FIXATION**

**FLAPS**
**DRIVING DOG**

**LINEAR CYLINDER**
**FOR POSITIONING**

**LINEAR DRIVE**
Board trimming innovation
flying trimmer with pre-trimmer system – pusher 02-04

Board trimming innovation
flying trimmer with pre-trimmer system
Board trimming innovation
flying trimmer with pre-trimmer system
Board trimming innovation
flying trimmer with pre-trimmer system
**Board trimming innovation**

flying trimmer with pre-trimmer system

**Advantages:**

- no heavy movement on equipment – only weight of the boards
- high speed on mixed dimensions
- up to 240 boards/minute
- much better cutting accuracy
- smooth and gentle board treatment
- perfect cutting surface
- no flying trim-ends – easy waste disposal
- longer maintenance rates
- low maintenance costs

**Installation:**

- 3 x Offner/Wolfsberg (AUT) - 450,000 m³/year (2 shifts)
- 2 x Moelven/Karlskoga (SWE) – 400,000 m³/year (2 shifts)
- 1 x SCA Timber AB/Tunadal (SWE) – 650,000 m³/year (3 shifts)
**Lumber sorting innovation**

**New lug loader**

**Installation:**
- 6 x Heggenstaller/Lauterbach (GER) - 650,000 m³/year (3 shifts)
- 2 x Moelven/Karlskoga (SWE) – 400,000 m³/year (2 shifts)
- 1 x SCA Timber AB/Tunadal (SWE) – 650,000 m³/year (3 shifts)

**Advantages:**
- Up to 220 lugs/minute
- High availability
- Less off-track running (thin boards)
- Mixed thickness of boards (max. 60mm)
- More control on the board
- Smooth and gentle board treatment
Lumber sorting innovation
New lug loader

- Speed up arm with rubber chain
- Guiding belt
- Adjustment cylinder for board thickness
- Adjustment cylinder for speeding up
- Feeding flap lower/liftable

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Thank you for your attention!