BUILT FOR IT.™

ALASKA ASPHALT SUMMIT
NOVEMBER 2015
Anchorage Alaska

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CAT COMPACTION CONTROL

Developments in soil compaction

- **Two technologies, three options**
  - Compaction Meter Value (CMV) only
  - Machine Drive Power (MDP) only
  - **NEW** Both CMV and MDP
- **Outputs real-time compaction data to integrated LCD display**
- **Flexible options**
  - Scale system capability to needs
  - Wide range of applications

The importance of Compaction…..

What are the top 3 contributors to the inability to achieve density/stiffness on asphalt?

1) Proper machine usage to ensure the highest amount of energy is applied to the asphalt to compress the asphalt mat to create stiffness and load capacity.
2) Consistent compaction coverage of the asphalt.
3) Optimal mat temperature where asphalt compaction can take place.

The answer… Cat Compaction Control

- Auto Adjustable System

CAT COMPACTION CONTROL

Automatic Adjustable Compaction

Auto Adjustable Compaction
Why it's superior…..

Automatic Smart drum

Automatic Smart drum

- Dual adjustable Drums - Consistent compaction
  - Industry first Intelligent Drum Technology on both drums
    - Leading drum always has optimized amplitude – no matter the direction to ensure superior compaction.
    - Dedicated accelerometer and ECM control each drum to deliver the highest performance
    - Industry leading response for min to max amplitude
  - Simple operation at the operators finger tip
    - Allows the operator to focus on the correct pattern
  - Automatic control feature
    - Manual available for highly experienced operators
- Durable – Proven technology
  - Over 3,000 hours of system validation to ensures long life, optimum performance and the highest quality asphalt compaction

Pass 4 lead drum is Automatic

How it functions…..

- The Automatic System
  - Independently on each drum, the eccentric weight generates vibration then transmits this energy via the drum into the asphalt mat. The asphalt mat responds with feedback energy, this energy is measured by an accelerometer.
  - The Automatic Adjustable system then changes the amplitude, by phasing an internal and external eccentric mass, to a near decoupling state.
    - This state represents the highest compaction force the mat is willing to accept on each pass.
    - Maximizing the compaction forces will deliver the quickest density/stiffness growth possible.
  - Automatic amplitude adjustment is performed by phasing an inner to outer eccentric weight with relationship to each other.
  - Industry leading response time min to max amplitude
    - Ensures uniform compaction without damage from over compaction

Minimum Amplitude

Maximum Amplitude

Operation Simplicity…..

- Fully Automatic System
  - Select Frequency set points
    - 42 Hz (2,520 vpm) and 53 Hz (3,180 vpm)
  - Press automatic
    - Automatic – system optimizes compaction efforts for the best results
    - Manual – operator controls the system for customized results
  - Wide Amplitude ranges – used only in manual

The Value…..Simple, Efficient with Quality Results

- Operational Simplicity - Automatic control
  - Ensures the amplitude is optimized
  - Easy to use for all operators – **Simple operation**
  - System value is easy to see, even after using the system for as few as 2 hours
  - Ensures inexperienced operators do not damage the asphalt.
- Increased Productivity - Do More
  - Intelligent compaction next to sensitive structures
  - The system prevents decoupling / damage to asphalt
  - Sensitivity customized for different bitumen stiffness.
- Quality Compaction
  - Homogeneous, uniform compaction creates compaction at lower costs
  - Reduced risk of over-compaction

THANK YOU

QUESTIONS?