



The Institute of Asphalt Technology
Irish Branch

The (Dark) Art of Achieving Successful Outcomes with HRA Pavements

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Kilsaran
INTERNATIONAL

ideas taking shape

iat Annual Conference 2017

www.instituteofasphalt.org

HISTORY LESSON



Source: IAT Yearbook 2016. Thanks to North East and Cumbria Branch!

2015- Big Advances in all machinesexcept one!!



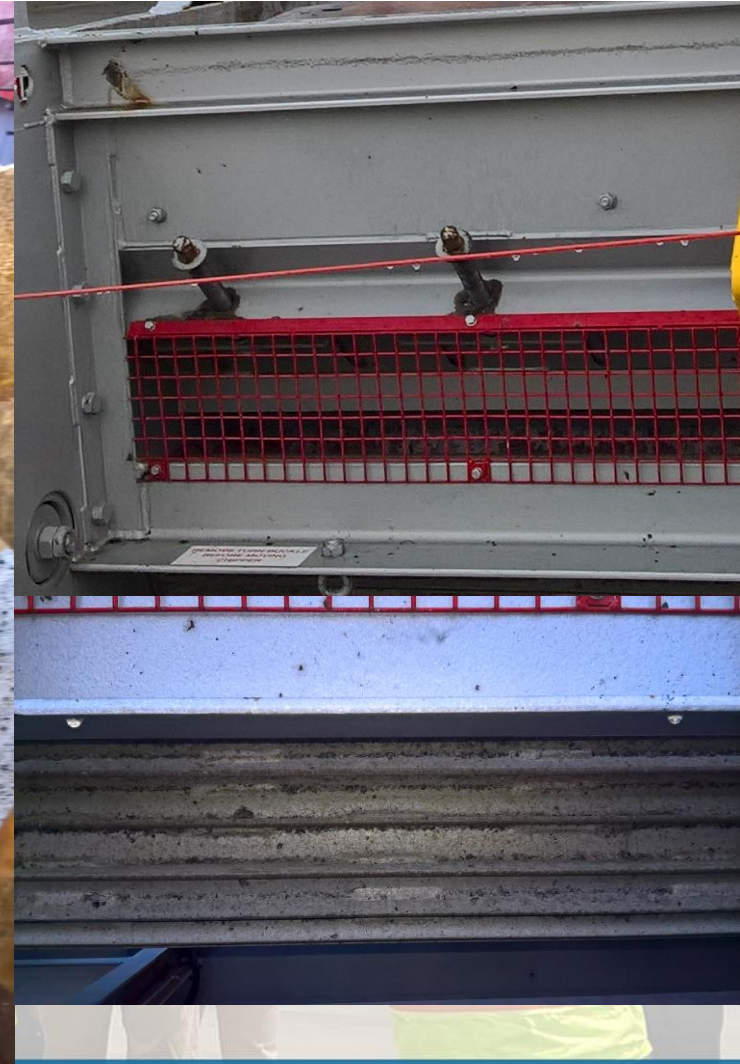
2015.



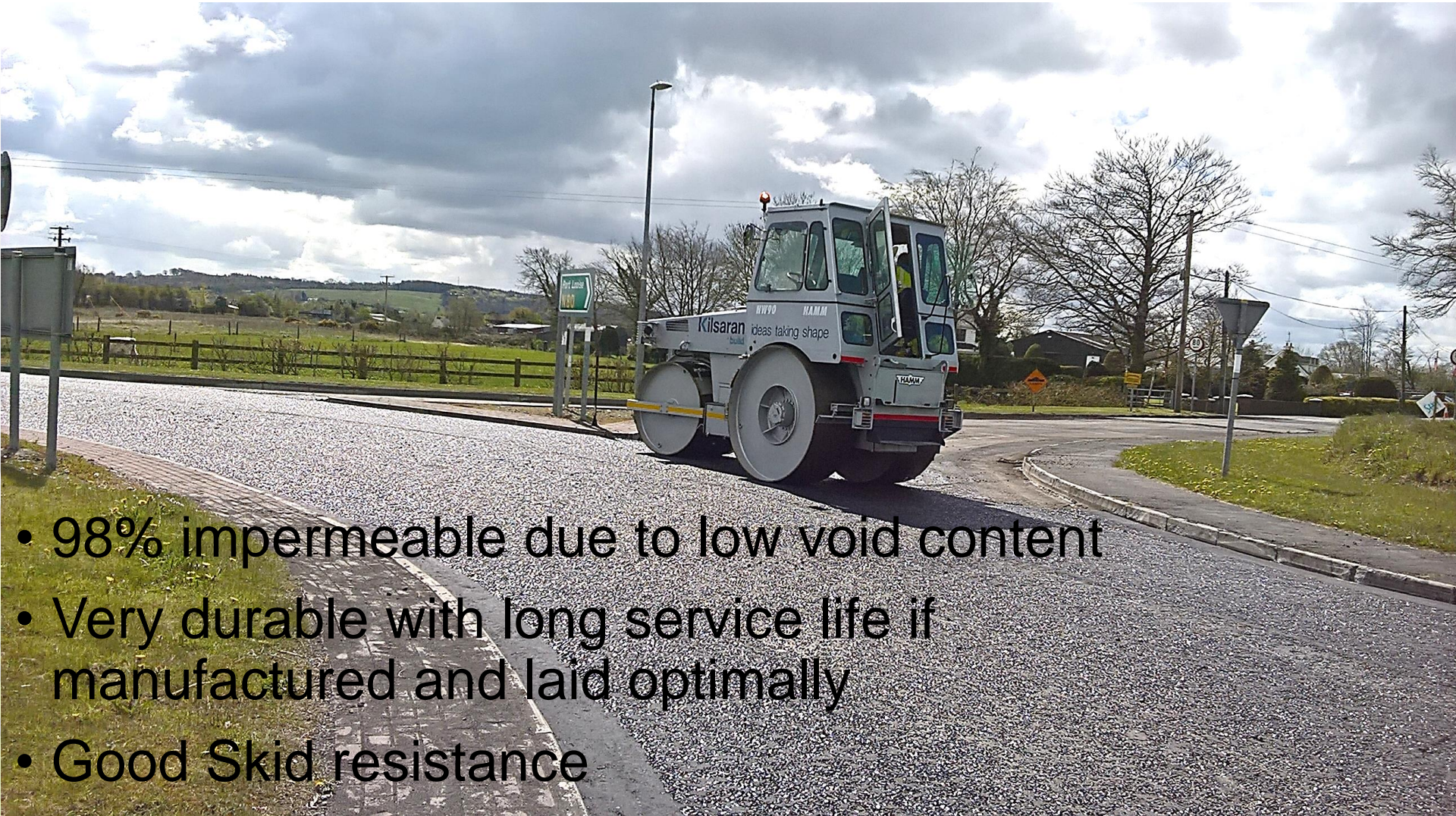
The Machine.



Under the Bonnet-so to speak!



The Material. Good



- 98% impermeable due to low void content
- Very durable with long service life if manufactured and laid optimally
- Good Skid resistance

The Material. Bad

- Unforgiving to errors in manufacture and laying
- Very weather/season dependent
- Noisy
- Very difficult to lay on restricted sites
 - Eg. junctions, low radius roundabouts, rural roads below 8m in width (even with road closures)
- Road Closures required more often than not to lay due to width of chipper
- Remember that in contra-flows the loader has to travel with live traffic!

Common Issues

- Joint Formation
- Compaction Control
- Tack Coat
- Workmanship
- Season/Weather
- Mix Stability
- Sources of Suitable sands
- Storage of Sands
- Binder Content optimisation

Solutions

- Better training of site-management and workforce.
- Realisation of limitation of application
- Co-ordinated approach to laying in the correct season to aid planning

HOW TO ACHIEVE A PERFECT PAVEMENT



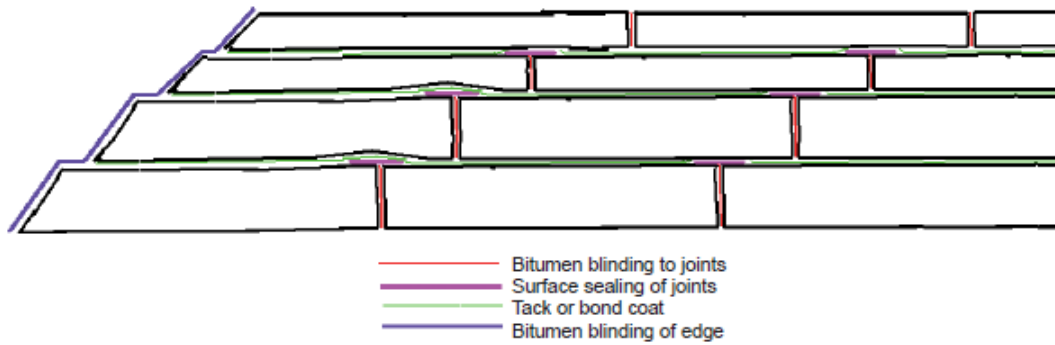
CAUSES OF FAILURE – BOND COAT



CAUSES OF FAILURE - COMPACTION



CAUSES OF FAILURE - JOINTS



Start with This.



Finish with This.



CAUSES OF FAILURE – GUIDANCE



Good Guidance:

- New TII Specification for Road Works 900 Series
- Road Note 42. <https://trl.co.uk/news/prev/3902>



QUESTIONS

THANK YOU FOR YOUR TIME!

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