Rolling 10 Years on
By Paul Herbison
Rolling 10 years on Where are we

- Internationally
  - 400 to 1200 walk rolls
  - 15,000,000 km graded and rolled
  - Over 1,500,000km per year
- NZ
  - Rolling in 1 region, now rolling in every region
  - Rolling in 2 council areas, now over 20
  - 0 to 32 walk’n’rolls in NZ
  - 500,000km graded and rolled around 50k per year
Rolling 10 years on Results

• Geographically
  • Working from Northern Alaska to Invercargill
  • Americas, Canada, Alaska, China, Fiji, Australia, NZ
  • All soil types
  • All climatic conditions
  • All geographic areas
  • From Ancient continental soils to our young soils
Rolling 10 years on Results

• Lets look at what's common
  • Unsealed pavement
  • Grading
  • Compaction
  • Water
Why does it work

Continuous Compaction

How many remember the lecture on the three enemies of a road

Water Water and Water
When we build sealed roads we:

- water
- grade and compact
- Let them dry back
- We test them
- We seal them to waterproof the surface

When we build an unsealed road:

- we do the same except for the sealing, we just slurry the surface get a crust and leave it.
Let's digress for a moment

- Cut to Fill
- Always taught two basic rules
- Rule 1: to dry fill material disc and turn regularly
- Rule 2: always seal fills off at night
• Rule 1: disc to dry
• Why
  – Self explanatory we are trying to get moisture out.
  – Typically average summers day 3% reduction in MC
  – Windy day 6%+
So what you might ask

• That’s what we are doing with our roads when we grade them.
• We open them up
Rule 2: always seal the fills at night

• Why
  – Stops dew and rain wetting the fill down
  – Saves time and money
  – One hour sealing off a fill can save a week’s lost production
So what you might ask

- By rolling immediately after grading we seal the moisture in and we seal the moisture out
Woodcocks Road After 6 weeks of traffic

4 Track Road
Woodcocks Road After 6 weeks of traffic
Tight Surface
6 weeks on
Substantially less Dust
Fulton Hogan Hiway JV FIJI
Some of the challenges
Fulton Hogan Hiway JV FIJI – Some of the challenges
Fulton Hogan Hiway JV FIJI
Fulton Hogan Hiway JV FIJI
Results with Continuous compaction as part of a targeted maintenance strategy

Less Hard shaping required
Longer length of road graded per day
Locals very happy – they can drive to town
Case Study 6: Fulton Hogan Hiway JV FIJI

The results

Less frequent grading required
And I thought we had challenges in NZ
Building Roads in China
A road like this in china can service 10s of thousands
First Ripper Run

First time rippers had been used on a cat grader in China
Some of the challenges
Finally – A cross fall and rolled
Continuous compaction

- Over 900 clients
- 3 continents and a number of islands (including NZ)
- Materials vary
- Climates vary
- Topographical conditions vary
- The same results are achieved with continuous compaction
Benefits Of Continuous Compaction

- Reduction in grading, users are saying up to 60%
- Reduction in metal application on roads again up to 30%
- 4 Track road - cars drive either side
- Reduced moisture impact on road, road is sealed up again immediately after grading
- Less reactive maintenance, potholes, rutting, wash-boarding
- Less complaints
- Happy communities