



Asphalt Laydown Technician Training Summary Report

Tom Gamblin, Industrial Learning Resources Ltd.

April 12, 2013

Description

Asphalt Laydown Technician Program was sponsored by the *Nova Scotia Road Builder Association* in partnership with *Atlantic Cat*.

Training took place at the NSCSA facilities, and Atlantic Cat. This year, a session at Cat Rentals was conducted on small power tools and portable equipment used in paving operations.

The program was a four week program from March 18 thru April 12, 2013.

Participants

Nine participants representing three companies participated in the training program of 120 hours. Participants represented a variety of experience in the paving industry, including crew foremen, MTV operators, paver operators, asphalt production, and screed operator

*“Keep building the program,
this is great...
Get this to as many people in
asphalt as possible.”*

Company	Name
Basin	James Butler
Dexter	Colin Clarke Jeff Drew Tyler Euloth Thomas Lowe Brad Reeves Paul Smith Jason Whynot
Miller	Harold Smith

Trainers

The following trainers presented the program:

Tom Gamblin	Industrial Learning Resources Inc.
Howard Chandler	Dexter
Leonard Doucette	Dexter

Mark Medeiros	Caterpillar Global Paving
Steve Hourscht	Caterpillar Global Paving
Daniel Dougherty	Atlantic Cat
Josh Visser	Weiler
Bryan Gerard	Tremble
Harold Reilly	Sitec Atlantic
Chris Mitchell	Cat Rentals
Gary Wright	Dexter

Contributors

Thank you to the following for their support and contribution to the success of the ALT training:

Bob Trainor	Atlantic Cat
Chris Chaisson	Atlantic Cat
Leanne Hines	Atlantic Cat
Carol Ingraham	NSRBA

Participant feedback

The following are examples of some of the feedback received from the course participants:

“...have this course for the whole crew.”

“...have supervisors and foreman in this course.”

“...the whole course will change the way I do things on the job.”

“All of the information was valuable.”

“There is too much information from the training that will change the way I will do things to write down.”

“I think the most valuable information was learning about the screed and running the tail end. I had no idea how it worked until this training.”

“It was good to see the history of paving and how it has changed. It gives us insight to where it is going and what training is needed to survive in the business.”

“Able to do more effective spread rates and able to pass on more information to my roller operating staff.”

Previous Knowledge Assessment

1. Participants indicated their perceived level of knowledge prior to the training session.
2. Participants indicated their perceived knowledge after the training.
3. Each area is representative of the Learning Outcomes for the training program.
4. Percentage growth represents the participants' perceived growth in knowledge for the outcome.

Before Training		Self-assessment of Your Knowledge	After Training			
Total	Avg/5	and Skills Related to:	Total	Avg/5	Growth	Growth %
25	2.8	Paving industry in Canada and in Nova Scotia	39	4.3	14	56%
19	2.1	History of paving and future trends	38	4.2	19	100%
27	3.0	Basic asphalt road construction	44	4.9	17	63%
20	2.2	Asphalt production and production plants	36	4.0	16	80%
26	2.9	Five processes of placing asphalt	40	4.4	14	54%
28	3.1	Quality control	37	4.1	9	32%
36	4.0	Your rights and responsibilities under the OHS Act	43	4.8	7	19%
36	4.0	Asphalt safety and work site safety	45	5.0	9	25%
28	3.1	Hazard recognition and control hierarchy	40	4.4	12	43%
36	4.0	Heat stress and heat stroke	43	4.8	7	19%
34	3.8	Responsibilities of paving crew members	45	5.0	11	32%
36	4.0	Safety warnings and labels	45	5.0	9	25%
26	2.9	Inspecting hydraulic hoses and connections	44	4.9	18	69%
30	3.3	General maintenance of paving machines	43	4.8	13	43%
24	2.7	Read and interpret ISO symbols	42	4.7	18	75%
31	3.4	Paver factors that influence mat thickness	43	4.8	12	39%
32	3.6	Screed factors that influence mat quality	43	4.8	11	34%
27	3.0	<i>Adjusting and setting up the screed</i> *	44	4.9	17	63%
26	2.9	Rolling longitudinal joints	38	4.2	12	46%
28	3.1	Rolling transverse joints	37	4.1	9	32%
15	1.7	Milling machines and operation	31	3.4	16	107%
26	2.9	MTV operation.	37	4.1	11	42%
37	4.1	Handwork – Raking, luting and shoveling	43	4.8	6	16%
35	3.9	<i>Other small equipment used in paving</i> *	43	4.8	8	23%
28	3.1	Recognition of mat defects	42	4.7	14	50%
26	2.9	Prevention and correction of mat defects	41	4.6	15	58%
25	2.8	Segregation; causes, prevention and controls	41	4.6	16	64%
33	3.7	Paving by the numbers - 14 Steps	44	4.9	11	33%
26	2.9	TopCon paving	39	4.3	13	50%
16	1.8	<i>Importance and calculation of spread rates</i> *	36	4.0	20	125%
16	1.8	Machine guidance control for paving	31	3.4	15	94%
28	3.1	<i>Setting up of screed</i> *	42	4.7	14	50%
12	1.3	Milling by the numbers	31	3.4	19	158%
16	1.8	<i>Calculating spread rates</i> *	31	3.4	15	94%
36	4.0	<i>Operation of small power tools</i> *	43	4.8	7	19%
			* control questions			

Recommendations

The following recommendations are offered for consideration:

1. NSRBA should consider sharing the course content with Caterpillar Global Paving instructors. There is still a significant amount of repetition between the three week classroom course and what Cat does in the classroom. The Global paving instructors would be able to cut out some of their classroom training and offer more time on the machines for the participants. Some of the repetition was a result of the weather, but there are still areas that can be improved on. By sharing the ALT Learning Outcomes and ALT content with Cat Global Paving instructors we can become more efficient with our training time and offer more instructor led hands-on training at Atlantic Cat.
2. Continue with the present format with the four days at Atlantic Cat. The paving scenarios offered by the Global Paving instructors were very valuable in the participants learning.
3. Consider completion of some of the competency skill check-offs in the participants book during the Cat training. For example, safety and pre-op competencies can be accomplished at Cat. This can add more consistency and control to the certification process and decrease the time to do the check-offs on the job.
4. Work with Chris Mitchell at Cat Rentals to expand the small equipment training session to include skill competency check-offs during the session.
5. All participants offered suggestions to add further knowledge and skill development to the training. NSRBA or individual companies may want to consider skill specific training for participants to continue their development or an advanced level training program. It is important that NSRBA remain cognizant of the purpose of the current training program.
6. NSRBA needs to consider the possibility of including foreman and possibly supervisors in the ALT training. Participants have concerns about their ability to return to the job and utilize the knowledge and skills attained in the ALT training. The concept of “all on the same page” with the updated knowledge and skills would improve the asphalt paving product.
7. It is important to keep the training program current to the changing knowledge and technology in the asphalt industry.
8. Solutions need to be found that will encourage broader participation of NSRBA member companies. A sharing of how the current participant companies manage to accomplish this may be needed.