

Detailed TrailRider Preparation and Placing Instructions

Prior to paving

- 1. Talk with the concrete supplier and discuss the critical importance of slump range allowed. 4" slump +/- $\frac{1}{4}$ " for best results.
- 2. Talk with batch plant loader operator. Make sure they know to only load aggregates with consistent moisture content. Don't scoop up water, or switch from wet to dry rock without telling the batch operator.
- 3. Make sure batch operator knows the importance of slump control. It will mean the difference between unloading each truck in 10 minutes if correct or 30 minutes or more if wet or dry. Use the following tips to reduce water variables:
 - a. Require all drivers to quickly rinse out their drum and empty all water before each load.
 - b. Require drivers that a legitimate 4" slump (as it would be tested) not a 6" slump that many contractors refer to as a 4" slump on non-slipform jobs.
 - c. Drivers must not leave the plant if the mix is too wet or too dry to reach the job at a 4" slump.
- 4. If every load leaves the plant with water content that results in a 4" slump on the job, production with be dramatically better than adding water on the job or making the truck sit to dry out before unloading.
- 5. The chute operator on the paver will be instructed to NEVER fill the box with wet or dry concrete. Non-consistent slump control reduces production speed and will dramatically increase the work load on the finishing crew who will have to fix wet and dry pavement placement. Wet loads will float paver and affect steering. Dry loads will tear the surface leaving lots of hard work for finishers.
- 6. When in comes time to fill the paver, use full discharge and rev the engine to quickly fill the paver. Slow discharge just wastes time.

Paver Preparation prior to filling the hopper with concrete

- 1. Confirm the screed surface of paver is clean. This is the finishing surface so it must be completely free of any cement build up before and during paving. Use a circle grinder with wire brush if necessary to remove any film or build up. Clean with pressure washer at least once per day.
- Adjust side-slope stabilizers to approximately ½" below the bottom of the skid. Without these, even with the hopper is full, the paver can slip sideways and that will cause edge problems. But don't lower any farther than necessary to keep paver from slipping on side slopes.
- 3. Spray the inside of the paving hopper with any legal form release. Some use diesel oil if legal.

- 4. **SAFETY WARNING!** NEVER STAND BETWEEN PAVER WHILE TRUCK IS BACKING. WAIT UNTIL THE TRUCK HAS STOPPED, APPLIED ITS DYNAMITE PARKING BRAKE AND TURNED THE ENGINE OFF BEFORE ATTACHING CHAINS!
- 5. Aligned the truck with the hopper, for at least one full length of the truck before attaching. In other words, don't allow the driver to make a large steering adjustment just as they pull up to the paver. The steering axle and truck frame need to be aligned with the path to make sure the tow chains are attached evenly and the paver follows without jerking sideways once the truck starts towing. *If pavement does get and unintended kink, immediately use 2 x 4 lumber to push it straight.*
- 6. If the tow attachment at the front of the paver has more than one hole on each side, ALWAYS attach shackles to the BOTTOM hole. *New machines only have the lower hole. This helps keep the paver skids flat on the surface.*
- 7. Use a separate chain on each side of the paver to connect the truck **Do not loop a** chain through the truck tow ring to the other side. Doing so will allow the chain to slip and end up no longer being parallel to the towing vehicle.
- 8. When attaching the chain, make sure someone is behind the paving hopper who confirms the paver is exactly in line with the tow vehicle. *Tighten the chain to confirm box is straight before adding concrete.*
- 9. Mark the chain link with spray paint to help quickly reattach chain to truck each time.
- 10. Confirm the Side-slope stabilizers are set approximately 1/2" below skid.

Filling the TrailRider hopper.

- 1. The hopper with hold .40 cubic yards per lineal foot of paver. A 10-foot paver holds 4cubic yards when level full.
- 2. When paving steep slopes, if there is adequate traction, it may be necessary to pave up hill. This is because concrete may not discharge from the mixer if the cab is substantially lower than the discharge chute.
- 3. At 10' wide you will need a chute operator and a person on each side of them shoveling the mix to the outside edges of the hopper.
- 4. Keeping the edges full is critical to maintaining a good edge.
- 5. For the first few loads, do not fill a 10-foot paver full so you can confirm the grade is stable enough for the tow vehicle to pull a 20,000 pound sled.
- Never fill the paver with wet or dry concrete! It is designed for a 4" slump, plus or minus ¼". With fibermesh treated mixes, there is a larger margin of error on slump, but for best results, stay very close to 4" slump.
- 7. If the mix is too dry, it will tear as it is extruded. That will require you to manually fill the torn surface before continuing your pavement.
- 8. If the mix is too wet, it will float the paver slightly which results in loss of grade control and elevate the skids off the side-slope stabilizers. When stabilizers are not touching the ground, the paver will slide sideways if there is any side-slope.
- 9. Both dry and wet loads add lots of extra work to placing the concrete so NEVER load the hopper with wet or dry mix. It is much better to adjust the water in the load prior to filling the hopper by adding water or pulling the truck off the pathway and spinning the drum until it has dried to a 4" slump.

Towing

- 1. As mentioned, on wide pavements, make sure the tow vehicle is heavy enough and has enough traction to tow the hopper before filling it completely.
- 2. If the tow vehicle loses traction, you can try adding counterbalance to the front of the tow vehicle. Example if towing with large Skid Steer or backhoe, full the bucket with weight enough to maintain traction.
- 3. You will have to tell each driver to put the drum in full discharge and rev the engine to quickly fill the hopper. There is no reason to slowly discharge.
- 4. Tell driver to use the lowest gear, with interlock differentials engaged. When instructed by the designated ground person, pull forward with a slow steady pace.
- 5. Make sure they understand, they must aim the truck down the path. Looking forward to stay centered. Warn against trying to adjust steering through the mirror. The ground person behind the paver must watch the direction the truck is headed for the first few loads to make sure drivers are headed down the middle of the path.
- 6. and once the paver starts its initial move (breakout force), the sled will slide easily.
- 7. Unless you know there are more trucks close by, tow until either the hopper is nearly empty or an edge is being starved of concrete.
- 8. If you know there will be a delay of 15 minutes or more (use of hydration stabilizers can extend this time slightly), tow the paver empty to a point where the paved area just passes the end of the screed. Install a header there.
- 9. If a known delay is expected to be enough the screed surface gets a buildup of dried concrete, tip the paver so you can thoroughly flush the screed surface.
- 10. Restarting after delays that required a header. The screed is 30" front to back. So when you refill the hopper and start towing there will be a gap. You can choose to hand shovel this before towing again, but I recommend pulling the TrailRider ahead far enough to put a second header in, which leaves a squared off gap that you can easily form and finish later. Taking too long to shovel in a 10' gap 30" wide takes too long. Letting your perfect 4" slump sit in the hopper for 15 minutes may result in it taking up enough to tear when you restart. Faster to come back and fill later.

Fixing problems as you go

- 1. If the pavement is not as straight as you desire due to failure to hook the chains evenly or the driver not paying attention, keep some form boards and stakes close by so you can push kinks out.
- 2. If the slump was too high and the paver "floats", you the paver can float off course so you will need to straighten kinks. This must be done immediately!
- 3. Have equipment to hand screed areas that are too thick from floating.
- 4. If the mix in the hopper is too dry either from filling too dry or from sitting in the hopper too long, and the surface has gaps, torn edges or other defects, run the hopper and screed completely empty. Do not refill until you have fallen back and filled the gaps and fixed the edges. NEVER leave mix in the hopper for more than 15 minutes. A large mass of concrete will generate heat quickly and even a perfect four-inch slump will dry out.
- Another, less appealing option is the bring in equipment to remove the bad section. If you choose to go this way, DO IT BEFORE IT DRIES! (cont'd)

6. So you can see, maintaining a 4" slump and paving immediately after filling the hopper will save you a tremendous amount of hand labor!

Cleaning

- 1. The screed section is a concrete finishing tool. And like all finishing tools the surface must be shiny clean!
- 2. Before you start each pour, examine the hopper and screed surfaces. Especially the screed surface will need to be concrete and concrete fill free for the paver to give you a smooth finish.
- 3. During the pour, it may be necessary to pressure wash the inside of the hopper and especially the screed surface. If you are filling the paver with a 4" slump and the surface of the pavement starts to tear or give you unsatisfactory results, you can almost bet the screed needs to be thoroughly cleaned. Pressure washers are ideal for fresh mixes. Wire grinders will be necessary if you let it dry too much.
- 4. Keeping the hopper clean is not as critical as the screed but it is still very important to help the flow of concrete to the screed. Clean often and thoroughly!

Changing the depth

- 1. Using a bottle jack (not included), placed in middle of the side-panel structure, slightly lift pressure so you can remove the pins.
- 2. Once removed, adjust up or down and reinsert the pins.
- 3. Depth spacing allows 3.5" to 8" depths. We recommend not paving more than 6" deep.