

CPR: BUILT TO LAST



Bristol Motor Speedway, Bristol, TN

>>> PROGRESSIVE BANKING REMOVAL WITH DIAMOND GRINDING

BRISTOL MOTOR SPEEDWAY is a NASCAR short track venue located in Bristol, Tenn. Constructed in 1960, it held its first race on July 30, 1961. Despite its short length, it is known as one of the most popular tracks on the NASCAR schedule because of its extraordinarily steep banking, an all concrete surface, two pit roads and stadium-like seating. In response to fan feedback, the owner devised a plan to modify the progressive banking applied when the current track surface was constructed in the summer of 2007. Diamond grinding was implemented to reduce the degree of banking in the upper track groove.

The project involved removing approximately 1.5 inches of the existing concrete surface on each corner of the race track. More than 80 tons of concrete pavement used in the progressive banking were removed. Work began in late April, with a tight schedule of 12-hour days, six

days per week. Following the removal of the existing concrete surface, rotary grinding was performed to smooth out the surface texture and prepare the track for racing.

With slope variations of 15 to 30 degrees at each corner, the primary challenge during construction was to prevent the grinding unit from sliding down the surface. Workers had to secure the machine on the bank to keep it steady and avoid tipping. Because of the grinding unit's tall and narrow height and high center of gravity, keeping equal downward pressure on the cutting head from one side of the unit to the other was also key. Additional challenges included providing adequate lubrication to the engine at multiple angles, getting fuel to the engines, and handling the resulting slurry from the grinding operation.

While the intricate grinding process encoun-

TEAM MEMBERS

- Speedway Motor Sports, Inc. (Owner)
- Penhall Company (Prime contractor)
- Burton Smith, CEO
- Scott Hatcher, VP Operations and Development
- Jerry Caldwell, General Manager, Bristol Motor Speedway

tered and overcame many obstacles, Bristol Motor Speedway general manager Jerry Caldwell said speedway officials are pleased with the results.

The total project value was \$1,000,000. The grinding was accomplished in time for the scheduled Goodyear Tire test the week of June 11. The first official race at the new Bristol Motor Speedway track will be held in August 2012.