



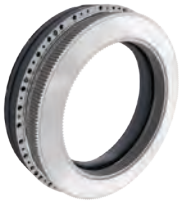
BRAKE SYSTEMS FOR AGRICULTURAL APPLICATIONS

Carlisle Brake & Friction has been a significant brake system and friction component supplier to the agriculture and forestry industry for over thirty years. Our customer base is comprised of an extensive list of industry leaders including John Deere, CNH, Same Deutz-Fahr, Clark Hurth, Claas and Mahindra.

Carlisle products are engineered to deliver high performance solutions to the agricultural industry's most demanding equipment applications. Strength, durability and continuous equipment uptime are critical to agricultural business. Carlisle brake, friction and hydraulic control products are hard at work on farming and harvesting projects all over the world and require minimum maintenance hassle in order to keep your equipment up and running.

At Carlisle, our advanced brake system solutions increase the functional reliability, performance and safety of agricultural equipment. Our design engineers develop, improve and innovate motion control products for a broad range of harvesting and land tilling machinery to help today's growers meet agricultural challenges and remain in the fields longer.

WET FRICTION MATERIALS



Brake Materials

Carlisle has developed a variety of friction materials with high energy absorption capability and smooth engagement characteristics.

- High heat capability
- Ability to withstand high unit loading
- Smooth engagement characteristics
- Resists glazing from oil abuse
- Comprehensive material technology coverage
- Manufactured in ISO certified facilities



Power Transmission & PTO Clutch Friction

Carlisle has developed a wide range of friction materials for powershift and counter shaft transmission applications.

- Oil cooled friction materials with high energy capacity
- Tolerance to operate under very high unit loading
- High dynamic and static coefficients of friction
- Available in a range of thicknesses and oil groove patterns
- High power
- Minimizes "hot spotting" of opposing plates
- Smooth engagement characteristics

HYDRAULIC ACTUATION



Master Cylinder

Proven brake cylinder design for light construction vehicles where low cost and high reliability are required.

- Small compact form factor
- Mineral oil or Brake (DOT) fluid versions available
- Range of bore sizes available allowing for optimization of vehicle performance
- Available in step bore configurations for increased fluid volume
- Single, twin, tandem or custom designs available



Trailer Brake Valve

Hydraulic control valve for synchronizing hydraulic trailer braking with the main hydraulic tractor braking.

- EU Regulation Compliant
- Automatic protection for line rupture and disconnection
- Options for manual and electronic secondary brake
- Options for proportional secondary braking
- Hydraulic Pilot Pressure Ratio 1.8 to 13.3

PARK & EMERGENCY BRAKES



Ball & Ramp Brake

Highly efficient, low cost mechanical braking solution available in a number of diameters and can be actuated with a slave cylinder or manual lever.

- Dry and oil-immersed braking systems available
- High efficiency and low cost
- Simple mechanical brake/park brake solution
- Available with manual apply lever
- Available in diameters ranging from 100mm to 350mm



SA Series SAHR Brake

Spring-applied hydraulically released park brakes.

- Open caliper for easy access and serviceability
- Simple lining adjustment
- Lining retraction spring eliminates drag
- Organic or sintered metallic linings available
- Low release pressure options available



To learn more about Carlisle's agricultural vehicle braking systems contact one of our sales offices or visit www.carlislecbf.com

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