

AGRICULTURAL

Application Profile

DualVee® Helps Hands-Free GPS Assisted Steering Technology to “Lock’n Roll”

Challenge

AutoFarm, a division of Novariant, Inc. located in Fremont, California, was developing a new precision GPS integrated steering system powered by an electro-mechanical drive. They needed a bearing component that would run smoothly across the joints in their Mechanical Drive Unit (MDU), which has a hinged ring design that can easily mount just below the steering wheel of an existing agricultural vehicle. The bearing also had to be capable of handling the MDU’s high torque which controls the steering wheel slippage. Additionally, the bearing had to be quiet, reliable, and withstand a high volume of dust and temperature variations.

Application Description

The OnTrac2™ is a GPS assisted steering system designed for nearly any brand or type of agricultural vehicle including tractors, sprayers, spreaders, and combines. The hands-free device clamps on to the steering wheel and steers the vehicle which allows the vehicle operator to stay on task with more efficiency and greater accuracy while working a field. The OnTrac2™ eliminates skips and overlaps, reduces fuel and material consumption, and reduces the operator stress and fatigue.

Solution

AutoFarm chose Bishop-Wisecarver’s DualVee® guide wheels to provide the motion of the MDU. The wheels ride on the edge of a custom-made ring. DualVee® proved to be the perfect choice for this application because of their quietness, long life capability, and their ability to traverse joints smoothly and perform in harsh environments.



Products Used

DualVee®

- Size 1 and 2 Guide Wheels



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