The president's platform

Solving John Deere starter puzzles

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Being in the auto electric business we come across a lot of challenging issues. A customer recently came to us in need of a starter for a John Deere 730 diesel. Some John Deere 720 and 730 come with pony motors that can be converted to electric start. This 730 came with factory electric start. After his help and a lot of research we came up with a 3798 starter, however it was 24V. The tractor had been converted to 12V but he had no starter. No problem, we could supply him with a 12V version of a 3798. But the drive end housing is a 1947922 that is no longer available.

After more research and making a trip out to look at the tractor I came up with a drive end housing that would work—a 1977803. This housing was available. The basic difference was that the 1947922 DE housing has half-inch mounting holes and one mounting hole is treaded. The 1977803 DE housing has 5/8 mounting holes and no treaded mounting hole. We used 76-1200 mounting hole bushings.

After installing the starter it was discovered that the bolt that treaded into the 1947922 housing had enough length to accept a nut, so the conversion worked great. We also used two GP31 post batteries with 900 CCA each. This made for enough CCA to crank the engine.

One word of caution when switching from 24V to 12V on John Deere systems: The early John Deere tractors 3010, 3020, 4000, 4010, and 4020 were 24V. They had two long thin 12V battery 3ET, one on each side of the floorboard. These batteries only came with less than 500 CCA. When they are converted to 12V that is only about a thousand CCA. The 30 series John Deere is a 4-cylinder diesel and the 4000 are a 6-cylinder diesel. Because no other battery will fit in the battery box the 3ET must be used. It's just not enough CCA for a 6-cylinder engine in the cold weather, so in these cases we recommend staying with a 24V system.

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