

Early Unstyled B Magneto – Why the DRV2B – AB210R?

By Duane Larson

When Deere developed the Model B, the gas tank mounting bracket was ½” closer to the governor box, and there would not be room to insert spark plug wires in the DRV2A if used on the B. So, they had Fairbanks Morse (FM) rotate the body of the DRV2A 90 deg and called it the DRV2B. With the body on the side, it provided adequate clearance for spark plug wires on both the A and B. So they could use the same magneto on both models. And both models, being primarily designed for distillate fuels, would spark at 35° Before Top Dead Center (BTDC).

However, it appears Deere made a mistake when they cast the B flywheels (B133R c/n). On this flywheel, which has LH centered over IMPULSE, drawing a straight line through the center of the crankshaft, and centered with the round holes at the end of the clamping slots, found the line going through the bottom of the letters of the word IMPULSE. Looking at the GP flywheel, the words LEFT HAND were above the word IMPULSE, and there was a cast line between them which was used to line up with the mark on the transmission case. Looking at the Model A flywheel, the letters LH were above the word IMPULSE, and there was a cast mark between them to line up with the case mark. The Models D and G have similar marks and locations. The B flywheel has no casting mark, only the letters LH above the letters IMPULSE, and if one times the B in a manner similar to the other models, using a line between the LH and IMPULSE, the resulting location on the flywheel is ¾” CCW from a mark made by locating TDC of the #1 piston. Thus, using this timing method the flywheel is incorrectly positioned on the crankshaft by ¾” (which corresponds to 5° on this flywheel), and in the direction such that a running timing of 35° would require a lag angle of 30°.

The DRV2B magneto used on the Model A was AB706R, and the part number suggests the assembly was designed for use on the Model B, but first appeared on the Model A. This problem required an interim version, the AB210R, until the flywheel casting problem on the B could be solved.

Apparently Deere must have recognized this problem, as the AB210R magneto has a 30° drive member, which will allow a running timing of 35° using the LH IMPULSE casting on the B133R flywheel in the fashion done for other models. This was a problem, as the A used the FM AB706R magneto, which was identical to the AB210R, except for the impulse drive member lag angle, which was 35°. To fix this problem, Deere chose to move the LH IMPULSE casting letters on the B flywheel a small amount, enough that the line discussed above, lying between the LH and IMPULSE and lining up with the timing mark on the transmission case, now required a 35° drive member, and the same magneto could be used on both the A and B. This change was made on the B at 14038, and the new flywheel was given a casting number B660R.

To add to the confusion, both the early and late unstyled B Instruction and Parts List (owner's manuals) show LH IMPULSE all on one line, which is not the case, and imply there is a cast timing mark, which is not the case.

This is hinted at in FSB57 (1-15-36). The above information was gathered through a careful study of the flywheels on my two unstyled B's, one having the B133R flywheel and the other the B660R flywheel. However, both flywheels have more than one dot near the edge of the flywheel.