

## **Application of Phased Array Ultrasonic Testing Method to Flaw Detection in Vehicle Bogie Parts**

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An imaging technology by the phased array ultrasonic testing (PAUT) was applied to bogie part inspection, targeting welded parts in bogie frames and wheel seats in axles. Regarding bogie frames, the superiority of PAUT was confirmed in detecting inclined surface flaws, and the effect of paint thickness on the echo height was clarified. When PAUT was applied to an actual bogie frame, the results of flaw detection were visualized clearly, demonstrating the effectiveness of PAUT in bogie frames. Regarding axles, when PAUT was applied to a wheel seat using shear-wave and longitudinal-wave angle beam inspection techniques, flaws on the wheel seat were detected and visualized in a wheel-fitted state.