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LOGITUDINAL AND TRANSVERSE IMAGE SCANNER TUB STIFFENING FEATURES

HP INC

Longitudinal and Transverse Image Scanner Tub Stiffening Features

Abstract: Stiffness of the tub of a flatbed image scanner is improved by incorporating longitudinal and transverse metal stays.

This disclosure relates to the field of image scanners.

A technique is disclosed that stiffens the tub of a flatbed image scanner.

Many flatbed image scanners have a tub under the scanner glass onto which documents to be imaged are laid or fed. The elements of the scan engine reside in the tub. Some such scanners also include a control panel that protrudes from a front surface of the scanner. In the industrial design of some flatbed image scanners, customers have potential to use the ISA as an additional handle for moving or carrying the scanner. However, if used as a handle the tub has potential to deform. This deformation, in addition, may damage the scanner engine in the tub.

According to the present disclosure, and as understood with reference to the Figure, sheet metal ribs 30, 40 are added to the tub 20 of a flatbed scanner 10 in order to stiffen the tub 20. These tub-stiffening features hold the tub 20 flat and give it a more robust feel.

Sheet metal pieces - metal stays 30 and 40 - run longitudinal and transverse in the area 50 underneath the control panel bezel. Fastened with screws, these stays 30, 40 hold the tub 20 flat, and strengthen the attachment of the tub 20 to the scanner engine. They also prevent warping of the tub 20.

The disclosed technique advantageously provides protection for the tub if it is used incorrectly as a handle for the image scanner.

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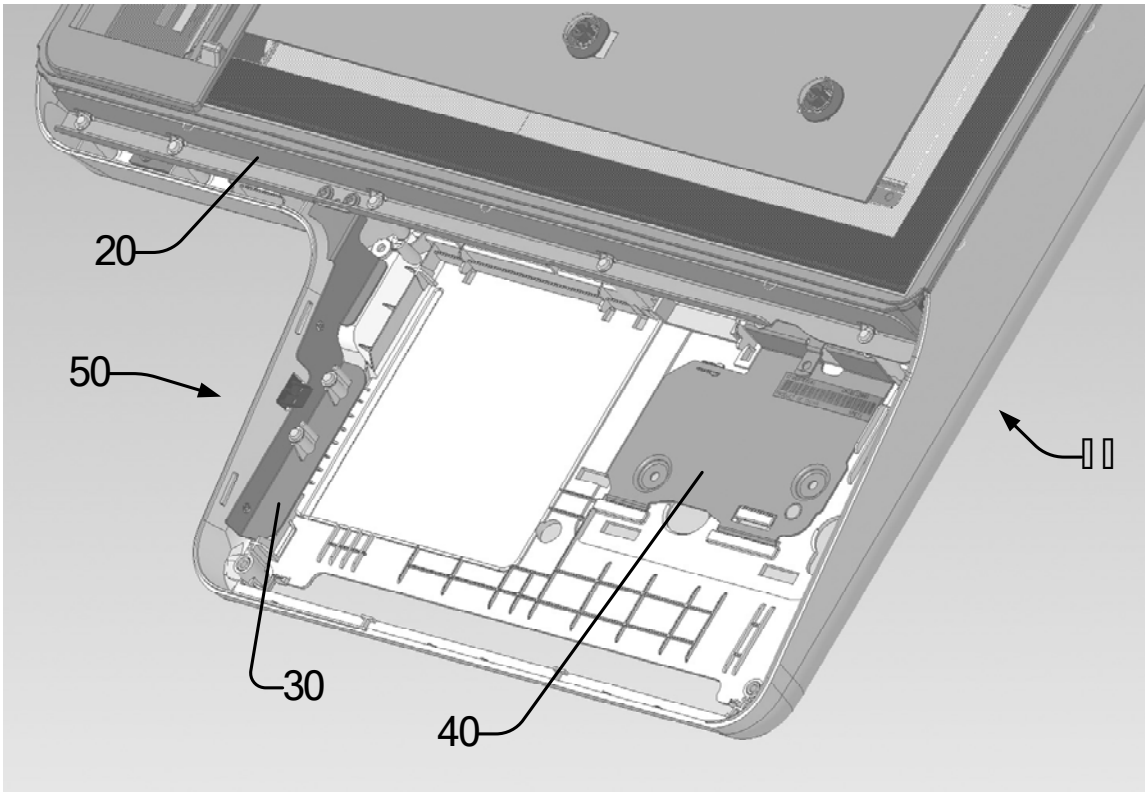
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