



(12) **United States Patent**  
**Hon**

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(54) **MACHINE TOOL HAVING ONBOARD MEASURING DEVICE**

(71) Applicant: **FANUC Corporation, Yamanashi (JP)**

(72) Inventor: **Yonpyo Hon, Yamanashi (JP)**

(73) Assignee: **FANUC CORPORATION, Yamanashi (JP)**

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See application file for complete search history.

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*Primary Examiner* — Mohammad Ali

*Assistant Examiner* — Yuhui R Pan

(74) *Attorney, Agent, or Firm* — Hauptman Ham, LLP

(57) **ABSTRACT**

A machine tool having an onboard measuring device automatically carries out various works which include ultra precision machining, washing and onboard measuring, by a numerical controller, without any interposition of a worker. For achieving this, an operation region of drive axes of the machine tool is previously divided into a machining region, a washing region and a measuring region. Positions of the drive axes are always monitored by the numerical controller, and when the drive axes enter each of the regions, a work allocated to each of the regions is automatically started and the work is continuously carried out until drives axes exit the region.

**3 Claims, 9 Drawing Sheets**

