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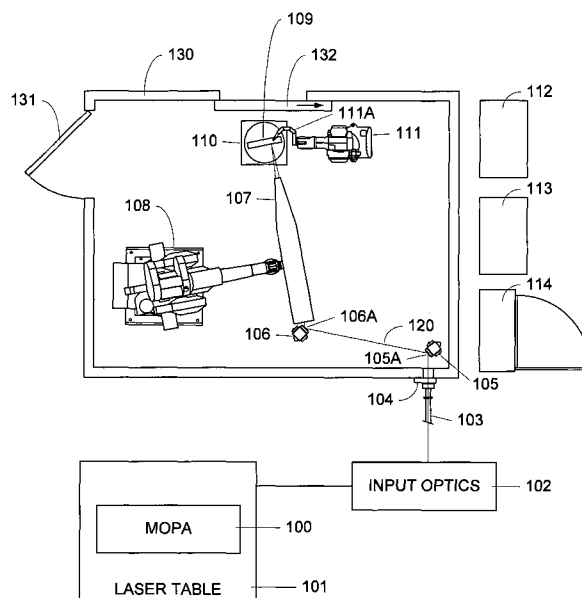
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(54) Title: ACTIVE BEAM DELIVERY SYSTEM WITH IMAGE RELAY



(57) Abstract: An active laser energy delivery system includes a relay imaging system. Input optics arranged to receive the laser energy, a transmitting mirror having adjustable angle of incidence relative to the input optics, and a robot mounted processing head including an optical assembly are configured to direct laser energy toward the movable target image plane. The laser energy follows an optical path including an essentially straight segment from the transmitting mirror to the receiving mirror, having a variable length and a variable angle relative to the input optics. Diagnostics on the processing head facilitate operation.

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B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 219/121.74, 121.73, 121.79, 121.85, 121.6 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) US OCR, US PAT, US PG, Derwent, JPO, EPO												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	US 5,986,234 (MATTHEWS et al.) 16 November 1999 (16.11.1999) see complete text	19-34										
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Y		1-18										
Y	US 6,881,925 B1 (SATO et al.) 19 April 2005 (19.04.2005) see complete text	1-18										
Y	US 5,022,033 (HACKELL) 4 June 1991 (04.06.1991) see complete text	15										
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