

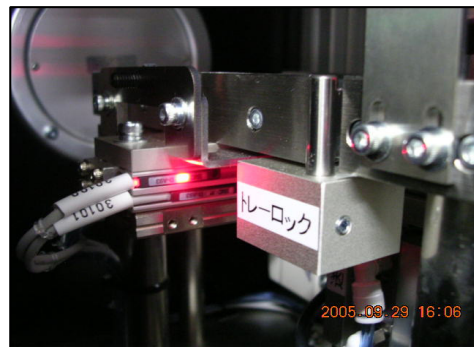
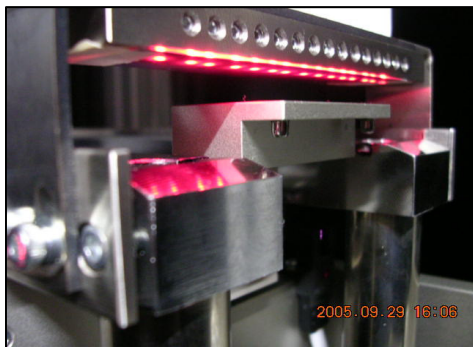
## New Machine Setup Report

Machine	: Laser Marking	Reference No.	: CMR-S1609-902-003
Section	: CP PX Line	Report By	: Zulhisham Tan
Control No.	: -	Date	: 30th Sept '2005
Subject	: Control Point	Sheets	: 1

### Background/Feedback

The machine was designed in order to operate at fully Auto condition. The additional item were added with compare to the previous machine such as :

1. Magazine Loader Unit
2. Transport Unit
3. Tray Lock Unit
4. Workpiece detection sensor



However, with the additional features comes with the new design, there are several critirial which may cause Marking Shift / No Marking which I would hereby to highlight as below.

### Details / Finding

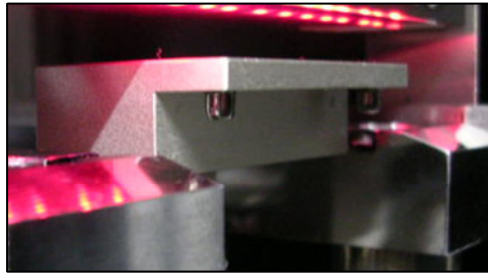
1. **Magazine Unit** - Cause Marking Shift  
The operators are require to have proper handling when loading the Tray into the Magazine due to the gap exist between the workpiece and the tray.



2. **Transportation Unit** - Cause Marking Shift

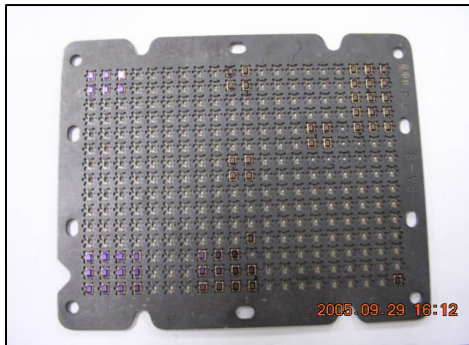
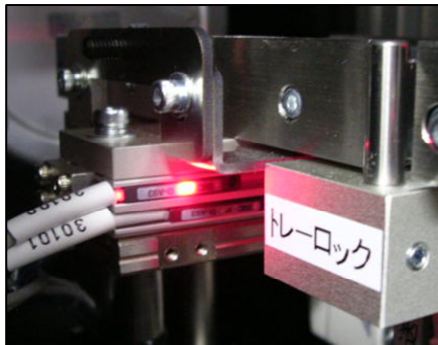
The operator were required to fully load the tray into the magazine unit. Otherwise, the Puller unit may hit the Tray and cause the workpiece shift at the Tray.

The speed of the Air Cylinder is another factor.



3. **Tray Lock Unit** - Cause Marking Shift

The Alignment and the Air Cylinder Speed adjustment is critical issue since the unit having direct contact to the tray.

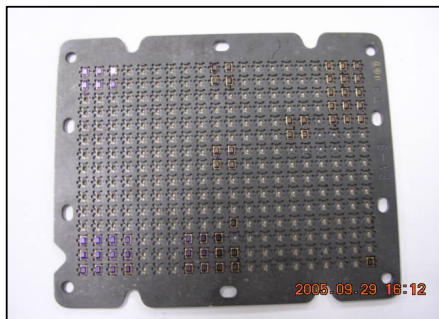
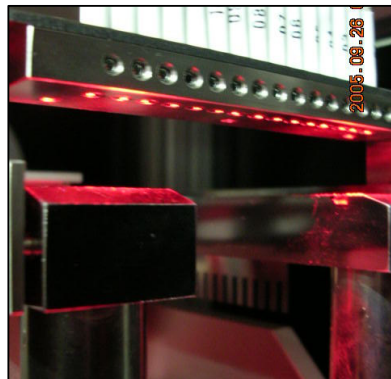


4. **Workpiece detection sensor** - Cause No Marking

The sensor are used to detect the workpiece at the Tray. The idea is, the Shutter of the Laser will not 'ON' when there is no workpiece at the Tray.

However, thing was not happened as expected. The Laser is shooting in random sequence.

The cause of the problem was not identified yet.



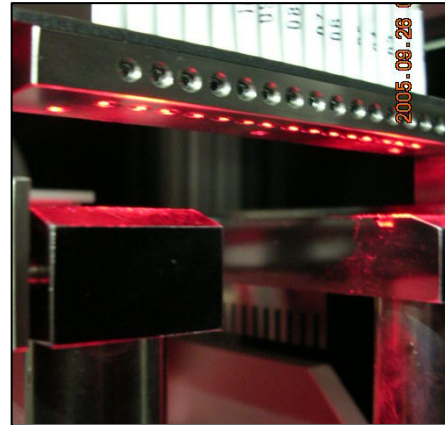
The sensitivity of the sensors and the Sensor CAM Adjustment may cause miss detection.

Miss detection will cause no marking, the operators are required to do 100% re-inspection and re-do marking for miss detected work piece.



**Action Taken :**

**The Sensor has been bypassed.**



### Conclusion

In order to address the item No. 1 ~ No. 3. The Tray tolerance needed to be reduce in order to prevent Marking Shift without additional care on human handling.

### Proposal

- 1.) Special Tray for Laser Marking Machine.
- 2.) Modify the machine in order to operate in Semi-Auto mode.
- 3.) Modify the machine in order to add in the Work Piece Aligner unit.

