



Ford UREA sensor

Missing glue between piezo and upper contact

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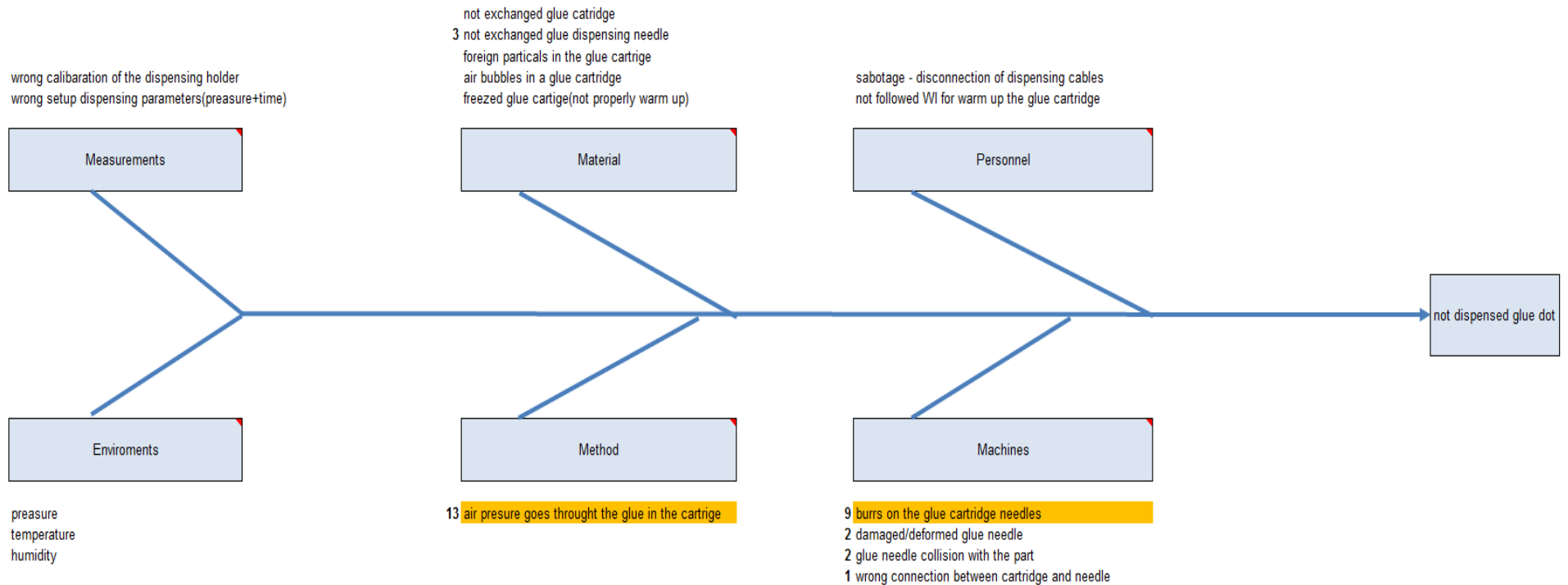
- a) The faulty part was produced on 12.10.2016.
- b) The analyse result – missing conductive glue between piezo and upper contact
- c) During investigation and proper line setup checking we have found the AOI control after glue dispensing was modified = turned off (the setup of the camera was changed).
- d) Last fell out parts from the device on 31.9.2016 => supposed time period since 1.10.2016
- e) ICA – the camera has been set into proper mode and the setup has been locked by a password known only by technician – done on 3.1.2016
- f) Risk assesment shows 1-8 faulty parts (based on the 3 months production and 1 warranty issue and supposed 0km claim)
- g) Sorting at Continental started on 5.1.2017 by X-ray – the visibility of the glue on the piezo is not properly visible => the parts will be sorted by temperature test – the test needs to be defined (adjustment of the test will be based of some samples production with simulation of no glue/no control) – the production of the samples will be known on 6.1.2017

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Process controls

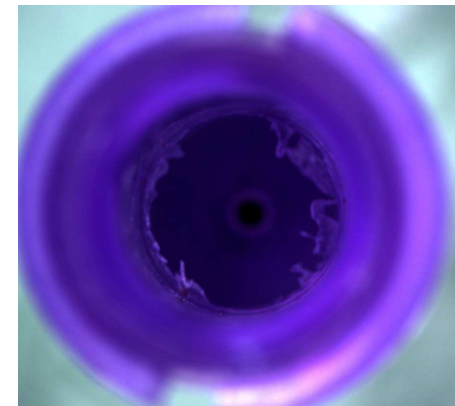
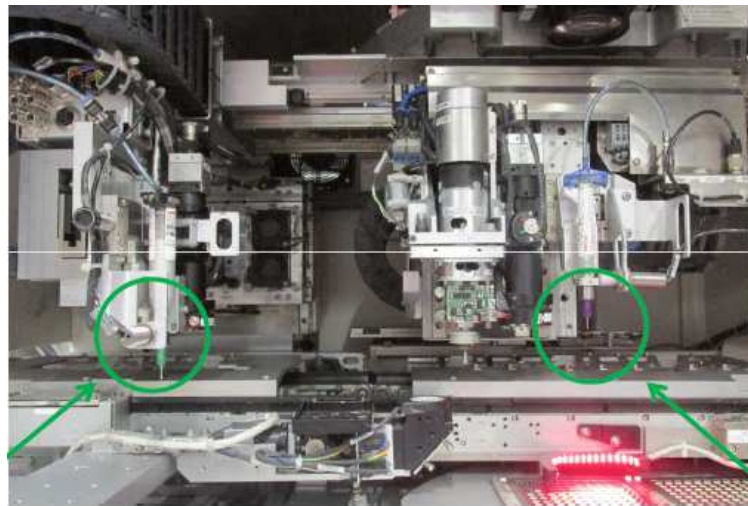
- exchange of glue cartridge and glue needle every 250 parts(500x dispense)
- gluing process release(every shift/cartridge change) – shear test(3 parts) + gluing weight measurement(10 parts)
- maintenance of the gluing system
 - weekly: visual check of any damage or pollution; cleaning of the tools, check of any tightening releasee
 - monthly: cleaning+lubrication of moving parts + optical wiring; any cable + cable covers damage check; check of movement's backstops, check all ventilators

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- Permanent corrective actions proposals:
 - cartridge plug
 - full metal needles
 - camera release – some samples needs to be created



Thank you for your attention...