Ford automated quality checks and veteran engineers

IMPLEMENTED 2023–2026 · MANUFACTURING AND INDUSTRIAL · US · BAND F · REVERSED
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Ford executives said in 2026 that relying more and more on AI and automated quality systems had not delivered the quality they wanted. The company hired about 300 to 350 veteran engineers to review designs, while keeping AI tools in use.

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NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

What went wrong: Weak oversight or controls.

AI and automation used: AI and automated quality systems in vehicle engineering and plants, including AI-powered cameras; how they worked is not reported.

Implemented: 2023–2026. Grade: band F, Failure, Reversed.

Headline result, as reported: Ford hired roughly 300 to 350 veteran engineers after automated quality systems fell short, by its executives' account, June 2026

1 · The case

The facts, as reported by the 5 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

Ford Motor Company. US carmaker. The change sits in Ford's industrial system, which brings vehicle engineering, manufacturing, supply chain and quality teams under its chief operating officer. Canvas block: 5. People and skills. Also 4. Operations and process, 8. Governance and risk.

Business challenge

The challenge. Ford set out to move from what it calls a quality also-ran to leader, by its own account. GoAutoNews reports long-running quality issues, including warranty costs and recall activity that have weighed on earnings in recent years.

How it was addressed. Ford relied more and more on automated quality systems, its chief operating officer Kumar Galhotra told journalists, per Bloomberg as relayed by TechCrunch. In October 2025 he said Ford was deploying AI across its industrial system, including 900 AI-powered cameras in plants, per Tom's Guide. Charles Poon, vice president of vehicle hardware engineering, said Ford had mistakenly thought that introducing AI and ingesting its design requirements would produce a high-quality product. Ford then hired roughly 300 veteran engineers, by its own account, to run mandatory weekly design reviews and hunt for failure points before designs reach the factory. They also train younger staff and help refine the AI tools. [1] [2] [3] [4] [5]

Who implemented it

In-house (In-house): Ford Motor Company: runs the AI and automated quality systems and the veteran engineer reviews.
Suppliers of the AI quality systems: Not reported.

Technology (SEAM pillar E)

SEAM types: T8 Predictive / ML models. Deployment: Not reported. Vendors and products: Not reported.

Where it was built in: AI and automated quality systems in engineering and manufacturing, including AI vision systems on the plant floor and automated software test scenarios, by Ford's account.

What changed

Before: growing reliance on AI and automated quality systems, by executives' account. After: veteran engineers act as internal auditors on designs, alongside AI tools such as AI vision systems in plants and large-scale automated software tests. [1] [2] [3] [4] [5]

Cost of failure

Not reported. The cost of hiring roughly 300 to 350 engineers is not reported, and no source attributes a specific recall or warranty cost to the automated quality systems.

What it saved

Not reported for the AI systems. Ford says improvements in product quality have reduced warranty and recall costs, per AutoGuide; the chief executive described this as "hundreds and hundreds of millions of dollars of a tailwind", per TechCrunch. These are attributed to Ford's wider quality work, not to the AI systems. [1] [2] [3] [4] [5]

Governance and control

Ford's executives reviewed the results of the automated approach, judged them disappointing and changed course, per TechCrunch. Veteran engineers now run mandatory weekly design reviews, by Ford's account. Ford's ranking in the independent JD Power survey followed.

S2 · Accountable owner · Claimed
Quality sits in a unified industrial system led by chief operating officer Kumar Galhotra, by Ford's account. [4]

A1 · Safe use · Not reported
Not reported.

A2 · Human in the loop · Claimed
Roughly 300 veteran engineers run mandatory weekly design reviews before designs reach the factory, by Ford's account. [4]

A3 · Monitoring and assurance · Claimed
Executives judged the results of automated quality systems disappointing and changed course, per TechCrunch's report of Bloomberg. [1]

A4 · Vendor AI · Not reported
Not reported.

A5 · Agent controls · Not reported
No agents described.

A6 · Standards and regulation · Not reported
Not reported.

What worked, what did not, what is unproven

WORKED

– Ford ranked top mainstream brand in the JD Power 2026 US Initial Quality Study and improved by 41 problems per 100 vehicles, by Ford's account of the survey.

– AI continues in use with human oversight, including AI vision systems on the plant floor, by Ford's account.

DID NOT

– Automated quality systems did not deliver the desired quality level, per Ford executives as reported by Bloomberg and relayed by TechCrunch.

– Charles Poon said Ford had mistakenly thought that introducing AI and ingesting its design requirements would produce a high-quality product.

UNPROVEN

– How much of the quality improvement is due to the veteran engineers, the AI tools or Ford's other changes.

– Which AI and automated quality systems were used, and how they performed: Not reported.

Timeline

2023 Ford creates a unified industrial system under the chief operating officer [4]

Oct 2025 Chief operating officer says Ford is deploying AI across its industrial system, including 900 AI-powered cameras in plants [5]

Jun 2026 Ford ranks top mainstream brand in the JD Power Initial Quality Study and says it hired roughly 300 veteran engineers [4]

Jun 2026 Executives tell Bloomberg that automated quality systems fell short and veteran engineers were brought back [1]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: F, Failure. Proof: Reversed. Level of change: Not graded.

No level assessed: band F, a reliance on automated quality checks that the organisation itself said fell short, followed by rebuilt human capacity. The AI tools stayed in use under engineers' review.

Band F: Ford's own executives said reliance on AI and automated quality systems fell short, and the company rebuilt human engineering capacity. The AI tools were not withdrawn; they now work with experienced engineers.

The SEAM view and lessons learnt

The difficulty sat at the join between technology and people: design requirements fed into AI were treated as enough to secure quality, without the judgement of engineers who had seen parts fail. Ford rebuilt that judgement and now uses it to train both staff and tools. For a larger manufacturer, the transferable point is to keep experienced reviewers in the loop until automated checks have proved they catch what those reviewers catch.

1. Keep experienced reviewers alongside automated checks until the checks are proved.
2. Capture expert knowledge before reducing expert capacity.
3. Judge quality tools on defects found, not on adoption.

Evidence

Score 2 of 4. Self-reported: Ford executives' own account, reported by Bloomberg and relayed by TechCrunch and AutoGuide; Ford's release; an independent JD Power survey on later quality.

Evaluation method. Self-reported company statements; independent customer survey (JD Power Initial Quality Study) for overall quality, not for the AI systems.

Sources disagree. Ford says it hired roughly 300 veteran engineers; TechCrunch, relaying Bloomberg, says 350, and GoAutoNews says around 350 were brought back, hired or promoted over three years. Ford's own article gives its 2023 rank as No. 15 in its text and No. 16 in its questions section. Tom's Guide's headline says Ford replaced hundreds of engineers with AI; Ford's account and TechCrunch say some hires were former employees and others came from suppliers.

Status. Ongoing: AI tools remain in use alongside veteran engineers, by Ford's account in June 2026.

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/ford-automated-quality-veteran-engineers

[1] TechCrunch: Ford rehires 'gray beard' engineers after AI falls short (June 2026)
https://techcrunch.com/2026/06/28/ford-rehires-gray-beard-engineers-after-ai-falls-short/

[2] AutoGuide: Ford just learned AI isn't better, especially when it comes to quality (June 2026)
https://www.autoguide.com/auto/manufacturers/ford/ford-just-learned-ai-isn-t-betterespecially-when-it-comes-to-quality-44634634

[3] GoAutoNews: Ford's AI reversal (July 2026)
https://premium.goauto.com.au/fords-ai-reversal/

[4] Ford: Ford is No. 1 mainstream brand in J.D. Power Initial Quality Study for first time since 2010 (June 2026)
https://www.fromtheroad.ford.com/us/en/articles/2026/ford-tops-jd-power-initial-quality-study

[5] Tom's Guide: Ford replaced hundreds of engineers with AI, now it's bringing them back (June 2026)
https://www.tomsguide.com/ai/ford-replaced-hundreds-of-engineers-with-ai-now-its-bringing-them-back-after-quality-problems

Ford Motor Company website: https://www.ford.com

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