

# First of 99 GE F404-IN20's delivered to HAL



On 25 March 2025, we were excited to deliver the first of 99 F404-IN20 engines to our valued customer Hindustan Aeronautics Limited (HAL) for the Tejas Light Combat Aircraft Mk.1A fight jet. It is an important milestone in our 40 year relationship with HAL and in our efforts to ensure a strong future for India's military by developing next generation fighters while enhancing the country's defence manufacturing capabilities.

GE Aerospace has a strong history of military jet propulsion collaboration in India. After collaborating with the Aeronautical Development Agency in the 1980s, GE Aerospace's F404-IN20 engine was selected for the single-engine Tejas in 2004. This was an important breakthrough for both India and GE Aerospace.

Our F404 engine family, one of the most successful in military aviation history, powers thousands of combat aircraft worldwide. The F404-IN20 engine is a tailored design for India's single engine fighter with the highest thrust within F404 family and a higher-flow fan, unique single crystal turbine blades, and numerous special components. GE Aerospace and Tejas teams collaborated closely for several years to customise it for the needs of Indian Air Force. The F404 demonstrated it was an excellent fit for the Tejas LCA. On its first test flight in 2008, the aircraft climbed to numerous mission altitudes and achieved Mach 1.1 speed.

By 2016, GE Aerospace fulfilled its commitment to HAL and delivered 65 F404-IN20 engines for the Tejas LCA. With no additional engine orders on the horizon, the

production line for F404-IN20 was shut down. However, when HAL ordered an additional 99 engines in 2021 for the Tejas Mk.1A LCA, our team began the complex task of restarting the F404-IN20 production line, which had been dormant for five years, and re-engaging the engine's global supply chain.



Restarting a jet engine production line is a challenging process. Restarting the F404-IN20 engine line during the COVID pandemic was even more challenging. With a high focus on safety and quality, and a remarkable commitment from our supply chain teams and our suppliers and partners, we have managed to restart the line. Our proprietary lean operating model, Flight Deck, helped us alleviate bottlenecks and identify solutions to improve manufacturing processes and turnaround time. Today, we are working closely with our suppliers to ramp up production on parts and materials for the F404-IN20.

We will continue to work together with our suppliers to keep the production line efficient, maintain the highest standards of safety and quality, and deliver to our customer. This week's first engine delivery is a testament to what we have accomplished with HAL over the past 40 years, and a symbol of our combined potential to ensure a strong future for India's military. ➡

**By Shawn Warren, General Manager, Combat & Trainer Engines, GE Aerospace**

