

Q&A for Fiscal 2022 First-Half Results Briefing

1. How did airline industry labor shortages affect your civil aero engines business earnings?

- We factored in a 5 billion yen downside impact from a slower recovery in spare parts sales for regional jet engines toward the end of this fiscal year.
- We also took into account a 2.0 billion yen downside impact for spare parts for the GE90, V2500, and other engine models in view of shortages of aircraft maintenance engineers and parts supplies failing to keep pace with demand.

2. What factors contributed to your positive earnings forecast for the civil aero engines business?

- The prime factors were a change in our technique for estimating program-related costs and productivity gains.
- That technique change stemmed from estimates reflecting lower program-related expenses because of improved aero engine performances. While the profit upswing associated with this change was transient, the new estimation setup should contribute to earnings by continuing to cut expenses.
- We factored aero engine business productivity improvements into projections from the start of this fiscal year. We posted profits in progressing through the second quarter, although we have retained our forecasts for the full term.

3. How did your vehicular turbocharger business perform, and what is your outlook for it?

- Despite the lingering impact of semiconductor shortages, unit sales recovered steadily in the first half of this fiscal year to pre-pandemic levels.
- We expect the impact of shortages to gradually dissipate, with unit sales rising through the second half. We have maintained our initial unit sales forecast for the full year.
- At the same time, we have booked in advance cost hikes from surging raw materials prices. In view of such factors as whether we can settle negotiations to pass on cost increases by the end of this fiscal year, we are maintaining the risk buffer we set at the start of the term as a contingency for results changes.

4. What steps will you take in view of a trend toward lighter, electrified aero engines?

- Reducing weight is crucial for cutting carbon dioxide emissions. IHI can tap its strengths in that respect and contribute swiftly to fuel economy gains.
- On the electrification front, the jet engine-embedded electric machine harnesses our prowess in high heat-resistant motor technology. This setup can efficiently use waste heat from aircraft, helping to lower carbon dioxide emissions.
- We aim to contribute to the overall carbon neutrality of air transportation in various ways. These include cutting weight, which would be immediately effective, as well as driving electrification with a view to hybrid engines and developing sustainable aviation fuel technology.

5. What is your ammonia-related business vision?

- As well as undertaking an ammonia co-firing demonstration at a commercial thermal power station, we are tackling a range of issues. Among them are constructing an ammonia supply chain, dealing with international standards, and ensuring economic feasibility.
- We look to overcome those challenges and attain large-scale commercialization by as early as midway through later in this decade.
- We achieved ammonia firing with a proprietary two-megawatt-class gas turbine. We believe that practical application could be possible a little sooner in the form of a demonstration with a view to carbon neutrality.