

# Blackreef — AxiomIQ Fleet Overview

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Coverage: 2026-01-01 -> 2026-01-03 | Samples: 360 | Engines: 6

## Run Configuration

Version: 0.1.0

## Key Changes Since Last Report

- No material fleet changes detected since last report.

## Fleet Verdict

DG6 shows degradation and should be scheduled for inspection. DG2, DG1, DG3, DG5, DG4 remains healthy.

This page ranks generator sets by operational priority using health score, drift severity, and estimated time-to-limit.

Engine	Trend	Health	Top Risk	Reason	Action	ETA	Pri
DG6		80.6	charge_air_pressure_bar	ETA 10.0d to limit (charge_air_pressure_bar).	Sched ≤2w	10.0d	MED
DG2		79.3	htcw_engine_outlet_temp_c	ETA 71.8d to limit (htcw_engine_outlet_temp_c).	Monitor (30d)	71.8d	LOW
DG1		79.5	lo_inlet_temp_c	ETA 175.2d to limit (lo_inlet_temp_c).	Monitor (30d)	175.2d	LOW
DG3		80.6	lo_inlet_temp_c	ETA unavailable; monitor (lo_inlet_temp_c).	Monitor (30d)	N/A	LOW
DG5		80.6	htcw_engine_outlet_temp_c	ETA unavailable; monitor (htcw_engine_outlet_temp_c).	Monitor (30d)	N/A	LOW
DG4		81.3	lo_inlet_temp_c	ETA unavailable; monitor (lo_inlet_temp_c).	Monitor (30d)	N/A	LOW

# Blackreef — AxiomIQ Analytics Report

## Executive Summary

Engine DG6 is currently operating within defined limits, with an overall health score of 80.6 out of 100. Analysis indicates developing drift patterns rather than immediate failure conditions.

## Key Developing Risk Indicators

### - charge\_air\_pressure\_bar (Air Intake / Turbocharging) Trend: ↑

Observed trend suggests: A sustained decline in charge air pressure may indicate intake restriction, air filter fouling, or reduced turbocharger efficiency.

Risk classification: Performance degradation leading to thermal stress

Estimated time to limits: min=N/A | max=10.0d

### - htcw\_engine\_outlet\_temp\_c (High Temperature Cooling Water) Trend: ↓

Observed trend suggests: Increasing HT cooling water outlet temperature may indicate reduced heat transfer, cooler fouling, or elevated engine thermal load.

Risk classification: Thermal stress and reduced margin

Estimated time to limits: min=N/A | max=N/A

### - tc\_lo\_inlet\_pressure\_bar (Turbocharger Lubrication) Trend: ↑

Observed trend suggests: Declining turbocharger lube oil pressure may suggest filter restriction or pump performance issues.

Risk classification: Turbocharger bearing wear

Estimated time to limits: min=N/A | max=9.7d

### - engine\_lo\_inlet\_pressure\_bar (Main Lubrication System) Trend: ↓

Observed trend suggests: A gradual drop in lube oil inlet pressure can indicate filter loading, pump wear, or internal leakage.

Risk classification: Loss of lubrication margin

Estimated time to limits: min=9.5d | max=N/A

### - lo\_inlet\_temp\_c (Lubrication Oil) Trend: →

Observed trend suggests: Rising lube oil inlet temperature can indicate reduced cooling efficiency, oil cooler fouling, or increased engine friction.

Risk classification: Accelerated wear and oil breakdown

Estimated time to limits: min=N/A | max=N/A

## **Operational Recommendations**

- No immediate shutdown or load reduction is recommended at this time.
- Prioritize inspection of the highest-risk subsystem during the next planned maintenance opportunity.
- Monitor key lubrication and cooling parameters for continued drift over the next 72 hours.
- Re-run AxiomIQ analysis after additional data is collected (ideally 7–14 days).