

ENGINE COMPRESSOR

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72-01. COMPRESSOR STALLS (SURGES)

Compressor surges occur when airflow through the engine is disturbed reducing the aerodynamic effect of blades, stators and vanes. Stators and vanes are carefully engineered to guide and accelerate airflow for the optimum impingement upon the blades in-

creasing the efficiency of the engine.

Table 72-1. provides just such a sequenced trouble shooting guide.

Table 72-1. Troubleshooting

Item	Trouble	Probable Cause	Remedy
1	Compressor surge during starting or near the idle speed	Dirty compressor Foreign object damage (FOD), eroded blades, vanes and/or plastic coating New compressor case misaligned at installation Excessively rich gas producer fuel control Bleed control valve stuck closed	Clean compressor and bleed valve. Replace the case or compressor assembly if damaged or erosion exceeds the acceptable limits. If noise monitoring indicates rub, remove and reinstall the case. Replace gas producer fuel control. Replace bleed control valve.
2	Compressor surge during starting	Bleed control valve stuck closed Foreign object damage (FOD), eroded blades, vanes and/or plastic coating Excessively rich gas producer fuel control	Replace bleed control valve. Replace the case or compressor assembly if damage or erosion exceeds acceptable limits. Adjust start/acceleration adjuster CCW one detent. Monitor start to make sure proper start temperatures are maintained. A second one detent adjustment may be made if proper start temperatures can be maintained. If surge continues after adjustment or acceptable start time start temperatures cannot be maintained, then replace gas producer fuel control.

72-02. ENGINE RINSE

Engine rinses will be performed after the last flight of the day with distilled water.

CAUTION

Mandatory engine cool down of 45 minutes after last engine operation is required prior to starting engine rinse procedure.

