

Aircraft Component Overhaul Test Benches

CAPABILITY SHEET - ACCEPTANCE SCHEDULES & TEST FACILITIES - ENGINEERED TO ORDER

THE PROBLEM

WHAT ENDS	When manufacturer support for a component ends, the hardware is still repairable. What has gone is the authority to declare that component serviceable.
THE MISSING DOCUMENT	The acceptance test schedule - parameters, conditions, limits, sequence - is the manufacturer's own property, and it does not arrive with the component.
THE CONSEQUENCE	A shop can rebuild a component perfectly and still have no basis on which anyone may sign the release. That gap is what this class of work fills.

DERIVE THE SCHEDULE

FOUR SOURCES	Rejection criteria surviving in the maintenance data; the component's function in the aircraft system; measurement across known-condition articles; real failure modes.
EVERY LIMIT DEFENDED	The output is a schedule with a stated rationale behind each limit - which is what makes it reviewable, and therefore capable of being approved.
THE WRONG ORDER	Commission a capable rig first and decide later what it should measure, and you finish with impressive data and no acceptance decision anybody will sign.

PROVE THE BENCH

THE ONLY CALIBRATION	There is no reference artefact for a serviceable actuator. So run articles of known condition - fresh, time-expired, failed in service - and show separation.
REPEATABLY	One article proves nothing: it shows neither separation nor repeatability. Each is run more than once, refitted between runs, because mounting dominates scatter.
AGAINST THE BAND	Bench uncertainty must be small beside the acceptance band. Comparable, and it scraps serviceable parts and releases marginal ones - neither visible.

SPEAK ITS LANGUAGE

BOUNDARY CONDITIONS	Supply pressure and its ripple, return-line back pressure, electrical quality, the right load and inertia, the right ambient - reproduced, not idealised.
A CLEANER SUPPLY LIES	Give a valve a smoothed laboratory supply and a sluggish response looks acceptable, because the bench is doing work the aircraft would never do for it.
ENGAGEMENT	Send the component list, surviving data, throughput and approval route to sales@neometrixgroup.com for a compliance matrix in two working days.

DEFENCE PROGRAMMES DESK

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