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**SUBJECT: TPE 331-12 ENGINE GROUND OPERATION**

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**EFFECTIVITY: C-212 S-400**

**TYPE OF INFORMATION:**

GENERAL [ ]

FLIGHT OPERATIONS [ ]

MAINTENANCE INSTRUCTIONS [X]

**CHAP. ATA: 72**

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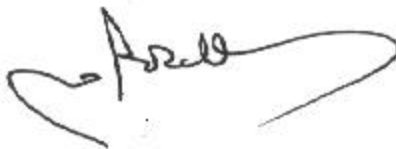
The technical information in revision 01 of this COM. is exactly the same as the one in revision 00.  
The only change refers to heading and signs.

The values to be reached by the different engine parameters when performing an engine Ground Run Up, are given in GARRETT TPE-331-12 Maintenance Manual.

We have prepared the enclosed table "TPE-331-12 Engine Run Up Check" in order to gather the obtained results, giving instructions and values, (previously taken from the mentioned Manual) to always be considered when performing engine ground tests.

The personnel in charge of performing these tests must be familiarized with the normal practices in the airplane, in special with the Airplane Flight Manual.

Any doubt or clarification required when interpreting this Communication may be directed to EADS-CASA, Military Transport Aircraft Division, Integrated Customer Services, Technical Services, Avda. de Aragón 404, 28022- MADRID, SPAIN. Phone 34-91-585-5620; Fax 34-91-585-5505, E-mail: ics@casa.eads.net.



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**GARRETT TPE 331-12 ENGINE RUN-UP CHECK  
FOR C-212 AIRPLANES S-400**

AIRPLANE S/N \_\_\_\_\_  
 LEFT ENGINE S/N \_\_\_\_\_  
 RIGHT ENGINE S/N \_\_\_\_\_  
 OUTSIDE AIR TEMP. \_\_\_\_\_  
 ALTITUDE PRESSURE \_\_\_\_\_  
 LH ENGINE RUN-UP TIME. \_\_\_\_\_  
 RH ENGINE RUN-UP TIME. \_\_\_\_\_  
 DATE \_\_\_\_\_

- Airplane facing the wind.
- Max. residual EGT 200° C.
- Max. cont. oil temp. (Type II) at ground 127°C.
- Check of propeller Governor: Oil temperature within green arch.
- Never exceed 106% RPM nor 100% Torque nor 650°C when SRL ON.
- Cool for 3 minutes min. prior to engine shut down.
- Maximum generator load 50 Amps.

CHECKS	ENGINE CONTROLS		NORMAL READING	E	R.P.M.	TORQUE	E.G.T.	F/F	OIL TEMP.	OIL PRESS
	POWER	R.P.M.								
(1) START	G.I.	LOW	TIME FROM LIGHT ON TO 65 % RPM	L	Secs:		(8)			
				R	Secs:					
(2) OVERSPEED	MAX.	HIGH	104 % TO 105 %	L						
				R						
(6) FLIGHT IDLE(F/F)	F.I.	LOW		L						
				R						
DISENGAGE PROPELLER START LOCKS	REV.	LOW		L						
				R						
(6) FLIGHT IDLE	F.I.	LOW	89 % TO 90 %	L						
				R						
MIN. STOP USG	(4) G.I.	LOW	64 % TO 66%	L						
				R						
MAX. STOP USG (7)	(4) G.I.	HIGH	96% TO 97 %	L						
				R						
(3) PROPELER GOVERNOR MAX. STOP	500 ° C	HIGH	99.0 % TO 101 %	L						
				R						
PROPELER GOVERNOR MIN. STOP	500° C	HIGH TO LOW (5)	95.5 % TO 96 %	L						
				R						
PROPELER COVERNOR USG SEPARATION	(4) 500° C	96 %	93.5 % MAX	L						
				R						
USG RESET	MAX. REV.	LOW	87.5 % TO 92.5 %	L						
				R						
MAX. REVERSE	MAX. REV.	HIGH	94.5 % MIN TO 97%MAX	L						
				R						
MAX. POWER	MAX.	HIGH	99.0 % TO 101 %	L						
				R						
ADJUSTMENT OF EGT LIMITER	MAX.	96 %	650 EGT	L						
				R						

1. Check ignition Light 10-60% RPM
2. Check SRL.
3. Check Torque and EGT limiter and APR.
4. Move Power Lever toward reverse until minimum F/F is indicated.
5. Retard RPM Lever slowly until RPM does not drop further with reduction in RPM setting.
6. See Technical Communication Nº 212-262.
7. Flameout check.
8. Peak value during engine start.

- ABORT ENGINE START IF:**
- No Light-On at 10%RPM within 10 secs.
  - No Oil Press indication within 10 secs. from Light-On or at 30% RPM.
  - No Light-On at 18% RPM.
  - Engine dwells between 18 and 28% RPM.
  - EGT approach 770° C too fast.
  - 0 a 10% RPM takes more than 10 secs.