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Date : June 04, 2021.

REPAIR SHEET

Customer: aeronaut

Engine	FG-90R3 (REQUEST # 624)	
Symptom reported from aeronaut.	Repair number 624, FG90R3: run-in phase with a 1:15 mixture of: Stihl HP Ultra and Aral Ultimate, Aircscrew. Menz 24x12, Let 2 liters run through with a very rich setting. Installation into the model: mixture rearranged with the same components to 1:20, aircscrew Biela 3-blade 23x10, carburetor installed. After 3 minutes in the Air he heard a loud noise and the engine did stop immediately. The screw couldn't be moved anymore. → What was his mistake?	
Matter (Cause of Trouble)		
Repair detail	• Replaced damaged and broken parts with new ones. • Bench test run from break-in.	
Repair parts		
Test condition	Prop	Mejzlic 24x12
	Plug	CM-6
	Oil/Fuel	20:01
	Attitude	
rpm	Max	Approx. 6,400rpm.
	Min	Approx. 1,200rpm.
Needle adjustment	Main	Approx. 2-2/3 turns open from full close.
	Regulator	
	Slow	Approx. 4-2/3 turns open from full close.
Request for customer	Run the engine for 1 tank in rich condition after receiving the engine from us. Rich condition means as follows: ✓ After starting the engine, returns main-needle several times while opening throttle valve by approx. 1/2. Get the RPM be approx. 3000rpm returning slow needle several time. And then, if the RPM remains 3000-3500 even if opening the throttle valve by approx. 2/3, it is the rich condition. Be sure to put more than 20cc oil into crankcase before the said 1st run.	
	✕✕ After finishing for 1 tank, start the engine again setting the slow needle at the reference value we tested, and achieve the complete peak closing main-needle only at full throttle. And then, adjust idling and response.	
	✕✕✕ Once the set is decided, returns main-needle approx. 1/2 turns. This is the reference value during flight. And then, tune-up depending on the conditions in the air.	
	✕✕✕✕ We use Mejzlic 24x12 carbon propeller. Tune-up in accordance with your specifications because that RPM and set value change if the material and shape of propeller are different even if the size is the same.	
Remarks		