

SAITO SEISAKUSHO CO., LTD.

22-7, TOKAGI 3-CHOME, ICHIKAWA-SHI, CHIBA KEN 272-0024 JAPAN
PHONE: 047137814155 FAX: 047137814155

Date : June 04, 2021.

REPAIR SHEET

Customer: aeronaut

Engine	FG-90R3 (REQUEST # 624)										
Symptom reported from aeronaut.	<p>Repair number 624, FG90R3: run-in phase with a 1:15 mixture of: Stihl HP Ultra and Aral Ultimate, Airscrew: 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, airscrew 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?</p>										
Matter (Cause of Trouble)											
Repair detail	• Replaced damaged and broken parts with new ones. • Bench test run from break-in.										
Repair parts	<table border="1"> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table>										
Test condition	<table border="1"> <tr><td>Prop</td><td>Mejzlic 24x12</td></tr> <tr><td>Plug</td><td>CM-6</td></tr> <tr><td>Oil/Fuel</td><td>20:01</td></tr> <tr><td>Attitude</td><td></td></tr> </table>		Prop	Mejzlic 24x12	Plug	CM-6	Oil/Fuel	20:01	Attitude		
Prop	Mejzlic 24x12										
Plug	CM-6										
Oil/Fuel	20:01										
Attitude											
rpm	<table border="1"> <tr><td>Max</td><td>Approx. 6,400rpm.</td></tr> <tr><td>Min</td><td>Approx. 1,200rpm.</td></tr> </table>		Max	Approx. 6,400rpm.	Min	Approx. 1,200rpm.					
Max	Approx. 6,400rpm.										
Min	Approx. 1,200rpm.										
Needle adjustment	<table border="1"> <tr><td>Main</td><td>Approx. 2-2/3 turns open from full close.</td></tr> <tr><td>Regulator</td><td></td></tr> <tr><td>Slow</td><td>Approx. 4-2/3 turns open from full close.</td></tr> </table>		Main	Approx. 2-2/3 turns open from full close.	Regulator		Slow	Approx. 4-2/3 turns open from full close.			
Main	Approx. 2-2/3 turns open from full close.										
Regulator											
Slow	Approx. 4-2/3 turns open from full close.										
Request for customer	<p><i>setten zustand</i></p> <p>Run the engine for 1 tank in rich condition after receiving the engine from us. Rich condition means as follows; X 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. XX 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. XXX 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. XXXX 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.</p>										
Remarks											