



Gasoline Generator Trouble Shooting

OPTI3500CL(E)

OPTI6800CLE

OPTI8000CLE

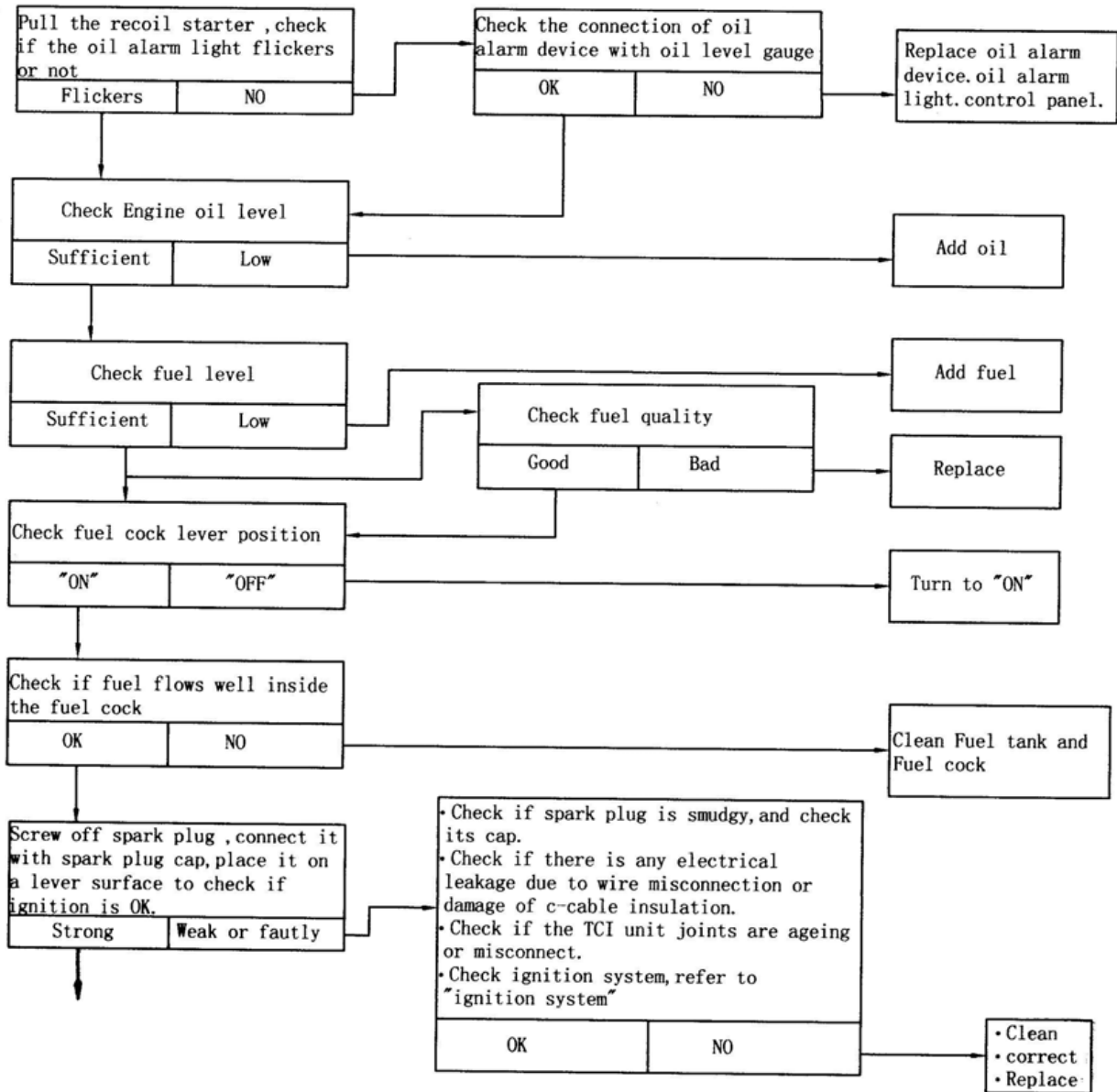
Trouble shooting

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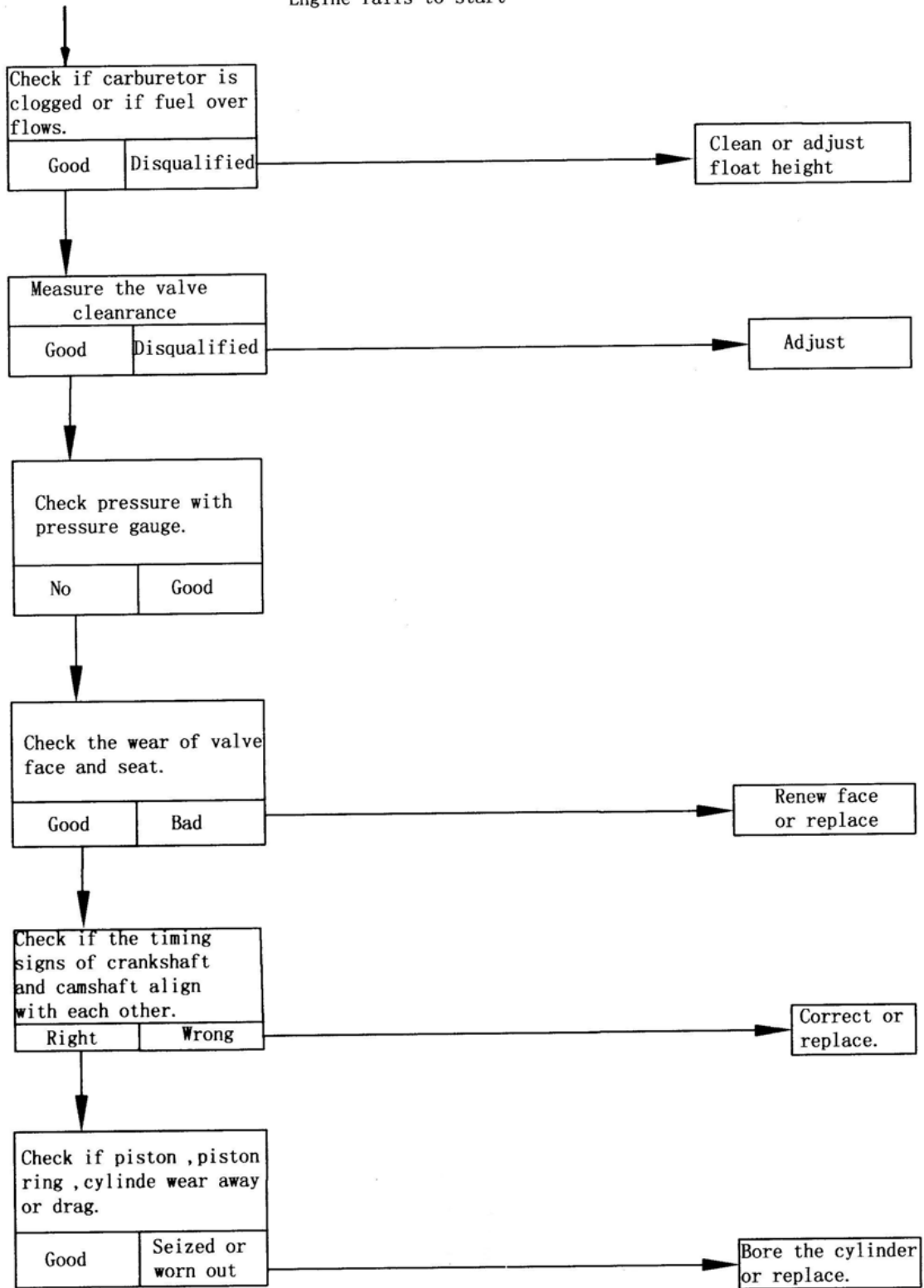
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Trouble shooting

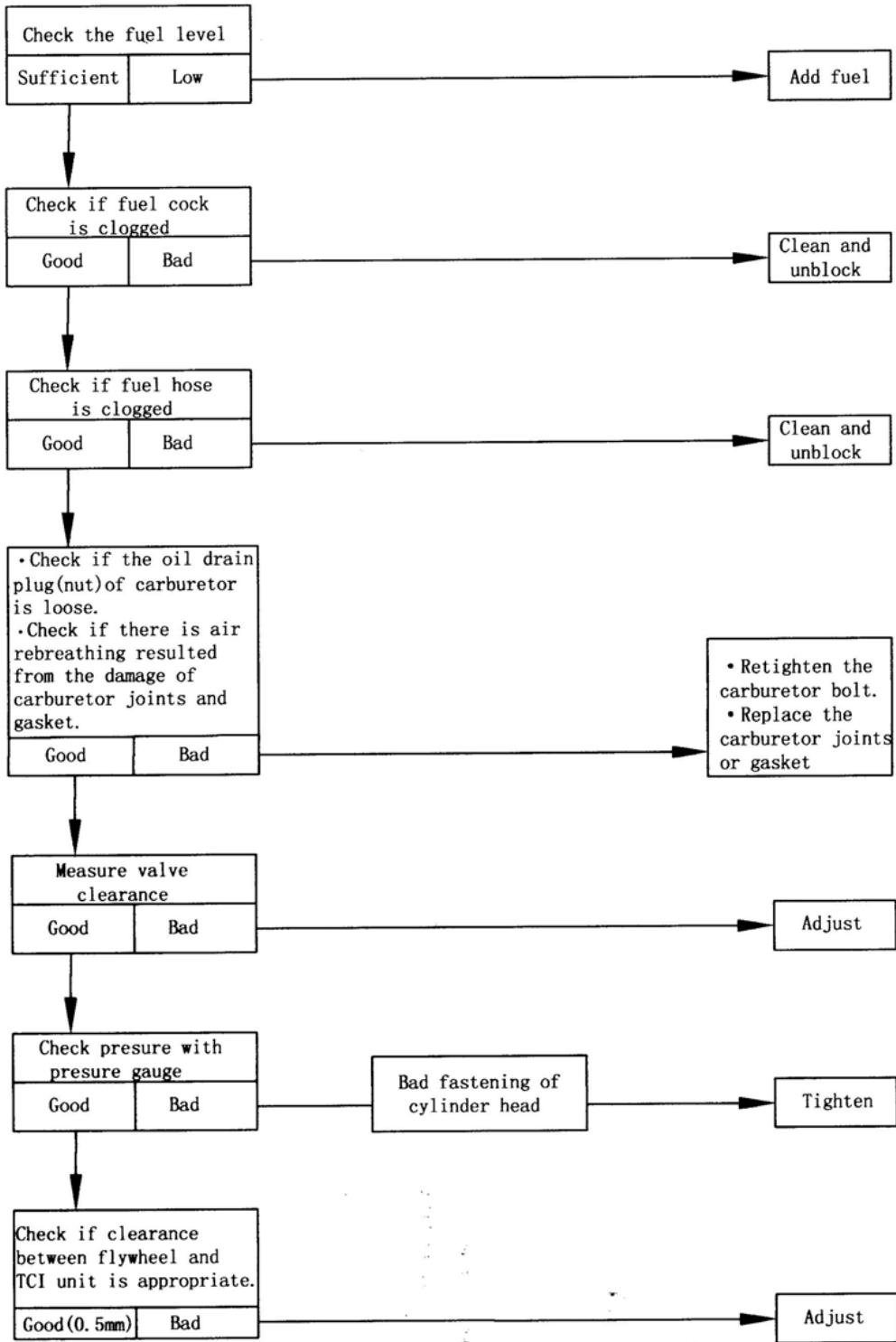
Engine fails to start



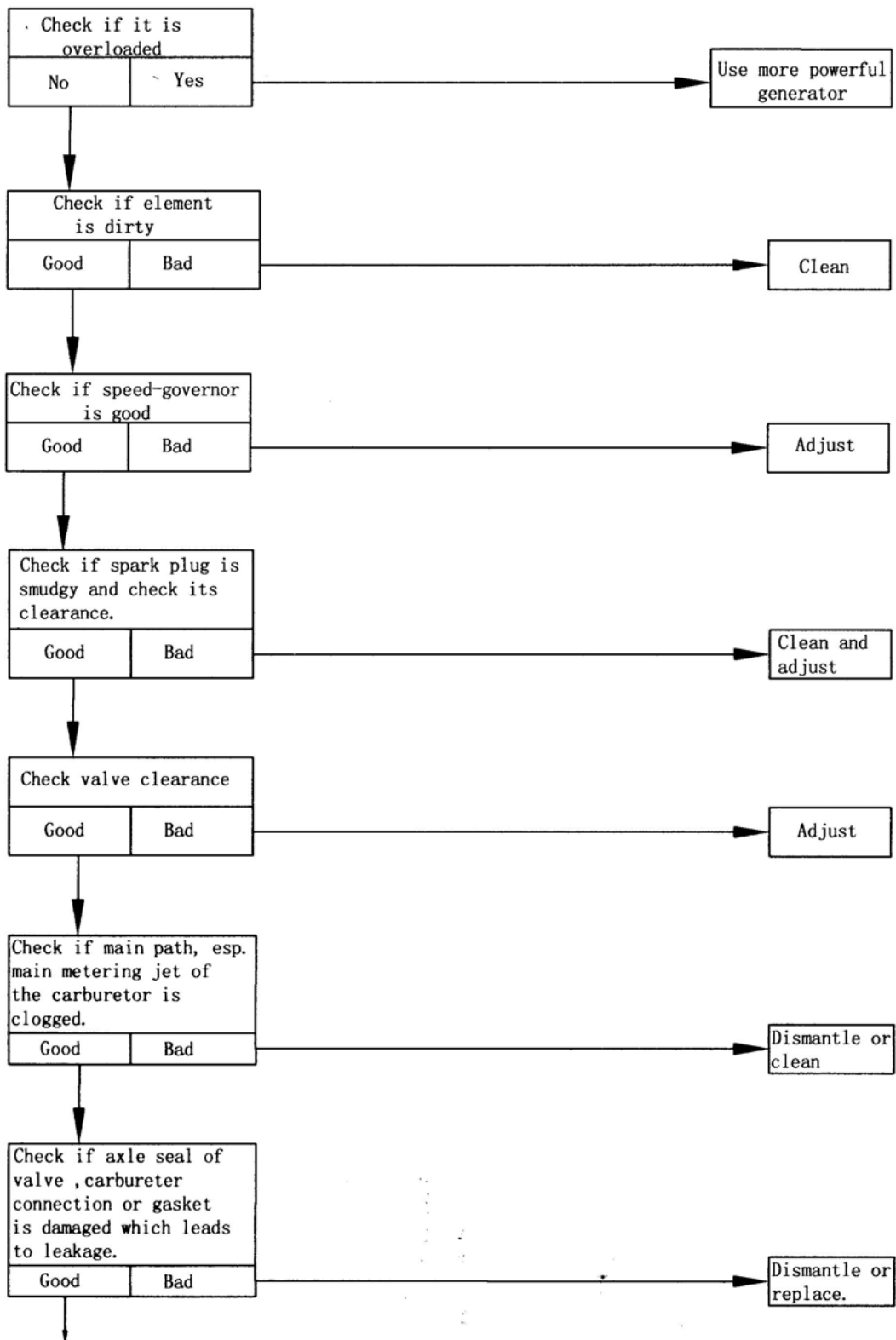
Engine fails to start



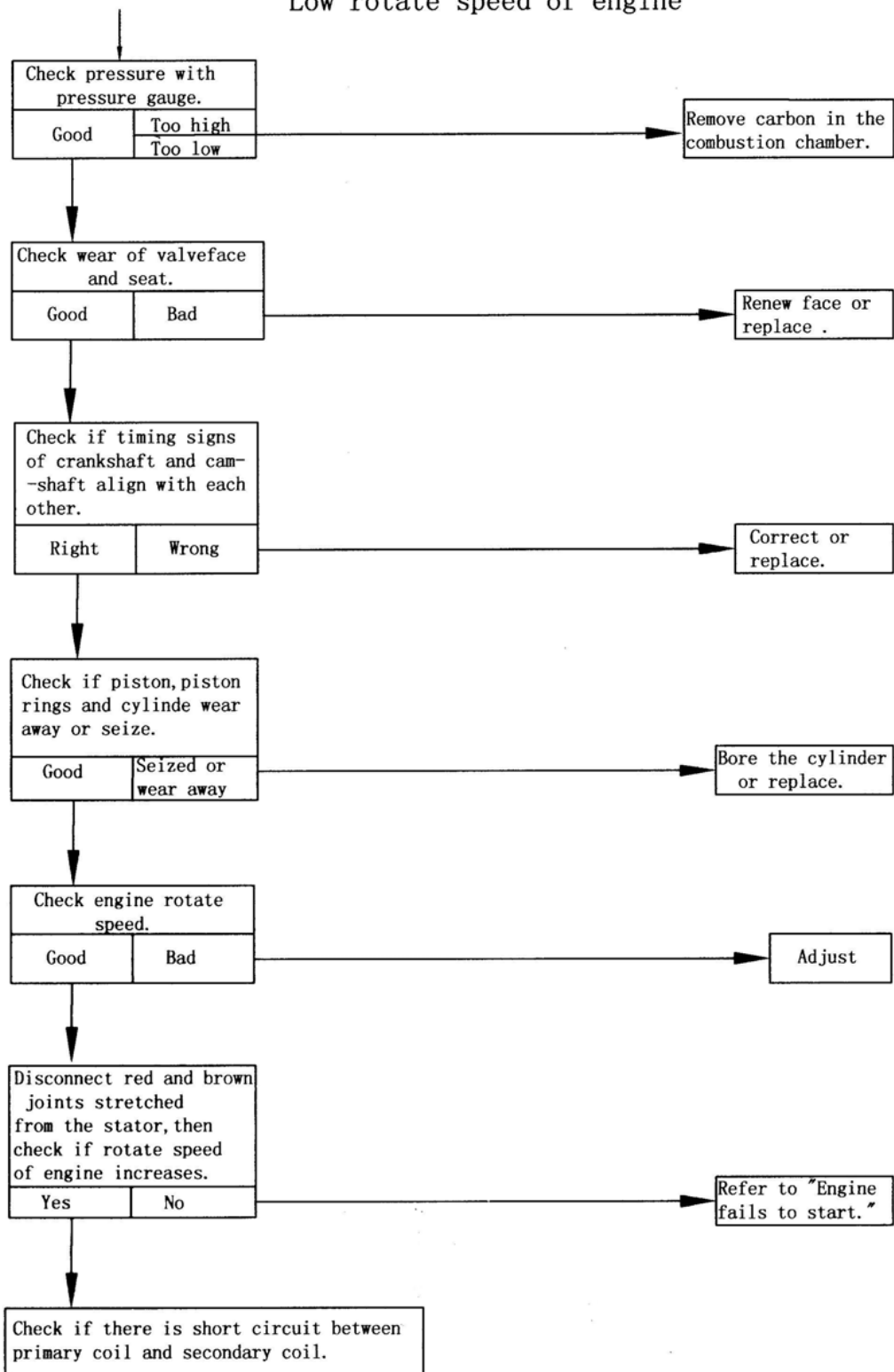
Engine stops after starting



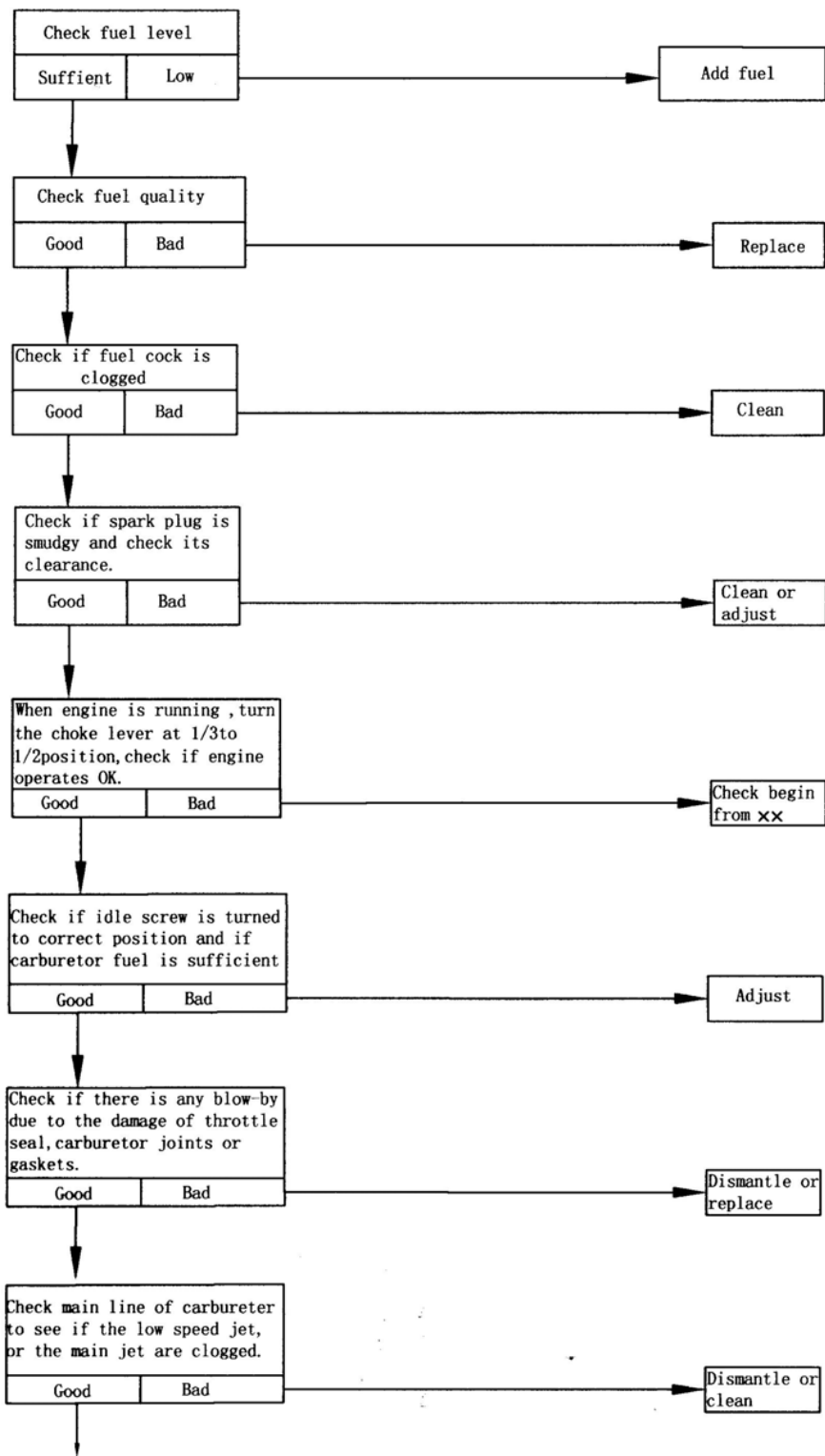
Low rotate speed of engine



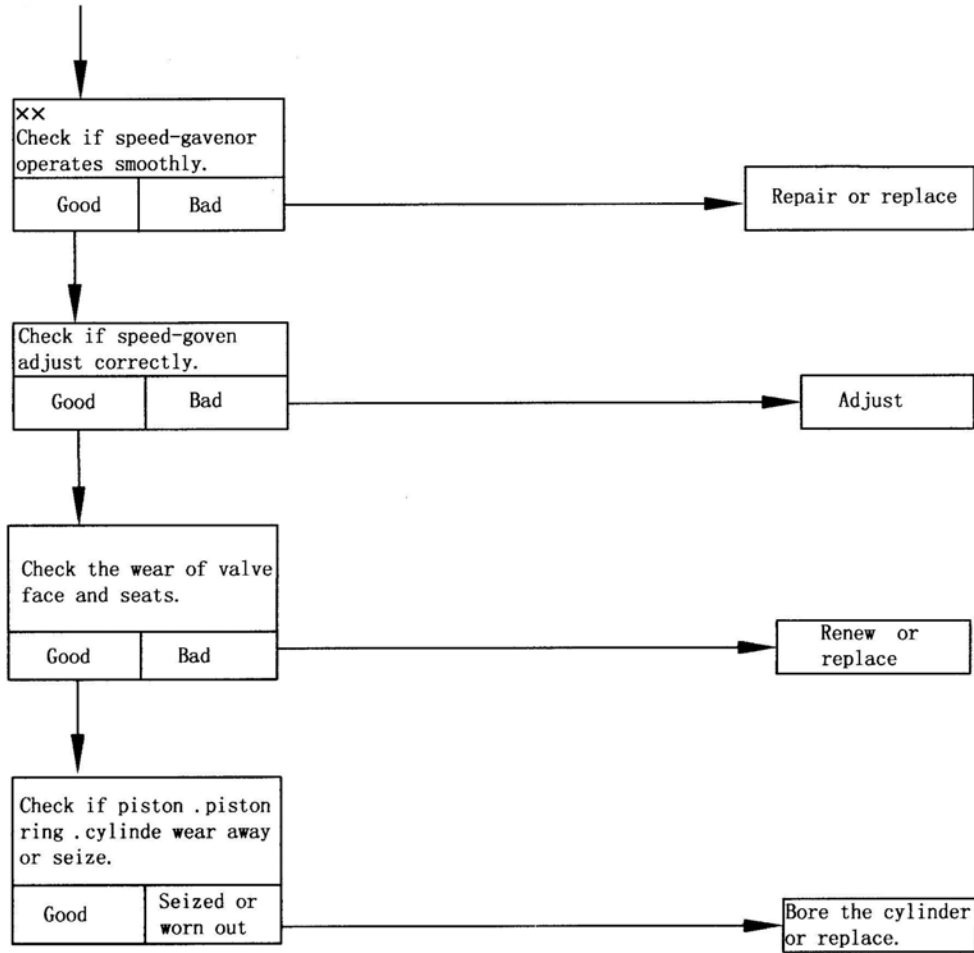
Low rotate speed of engine



Unstable rotate speed of the engine

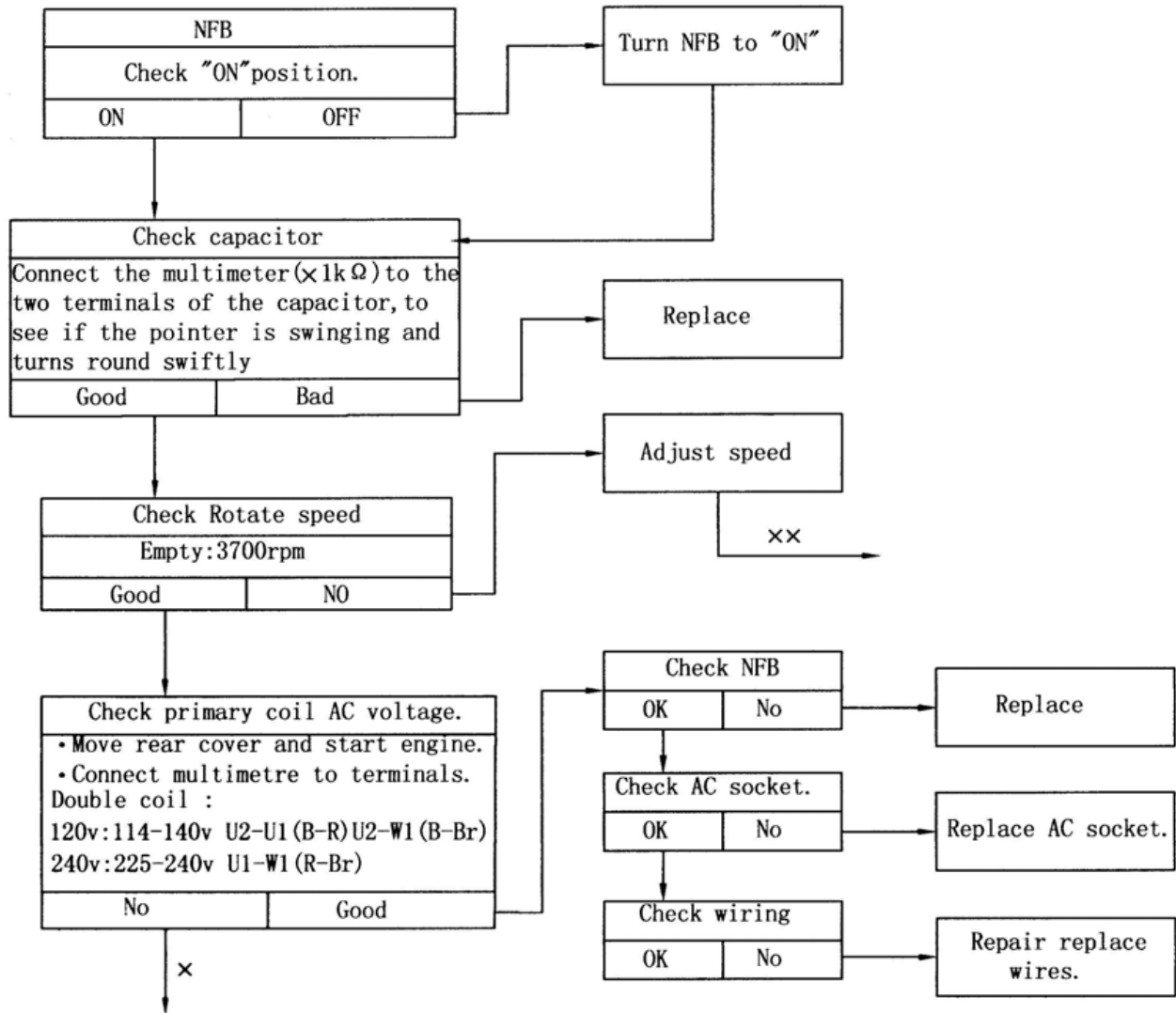


Unstable rotate speed of the engine

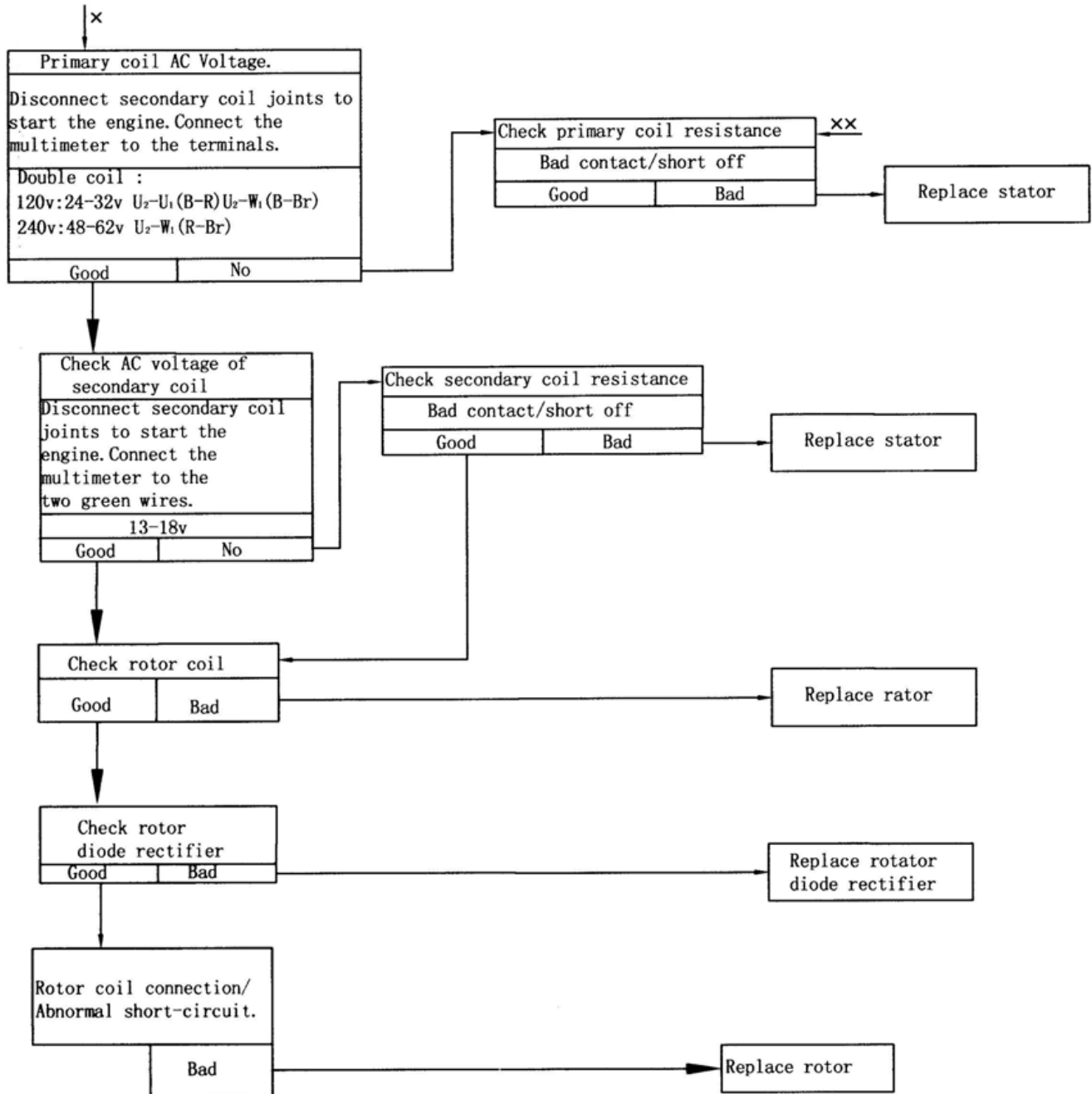


Generator System
 Trouble shooting chart.

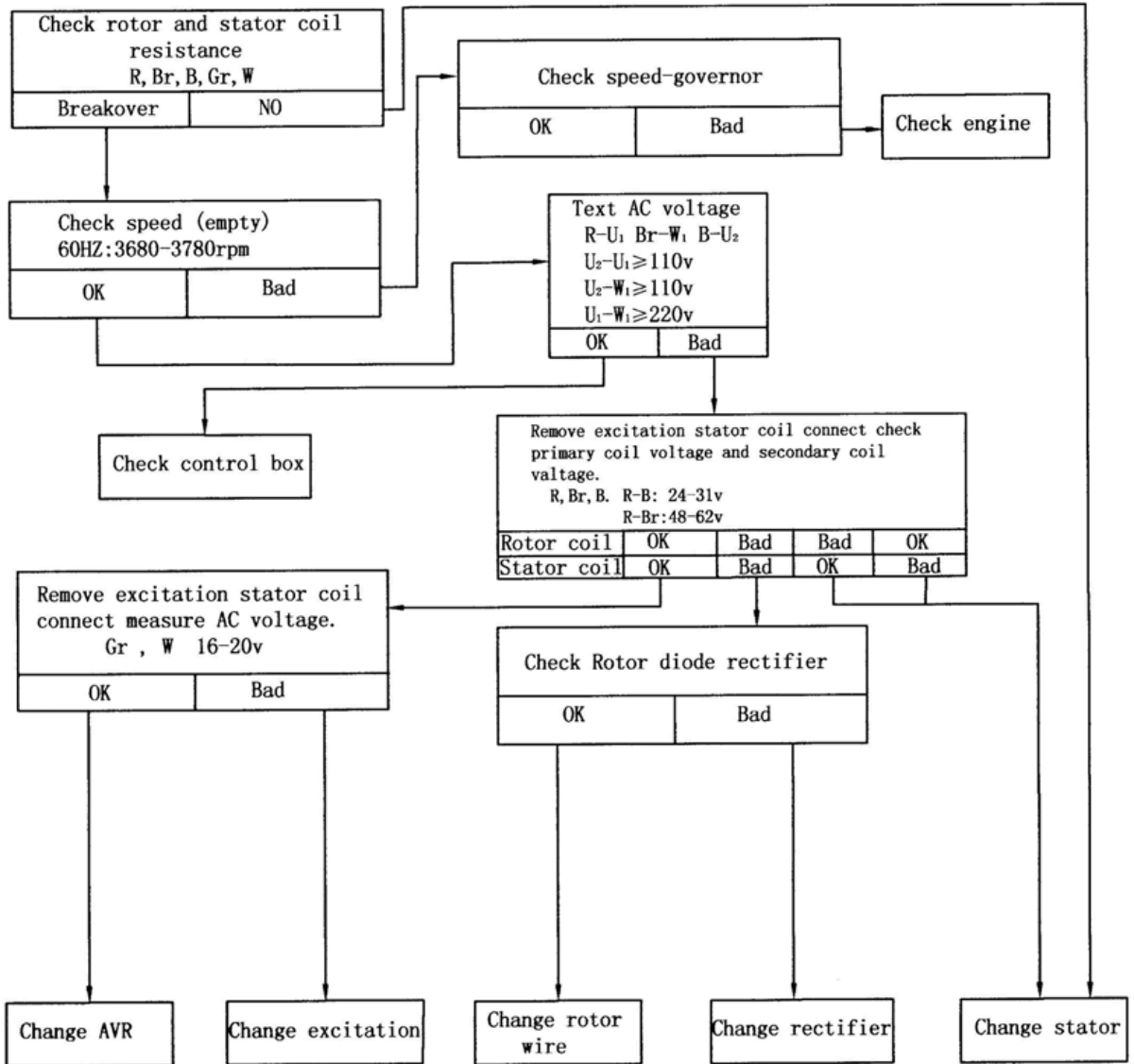
No power is generated.



No power is generated



No power is generated(AVR)



R-Red Br-Brown B-Black
W-white Gr-Green

A: Rotor and stator coil resistance

1. Primary Coil

6600	1	120v	U ₂ -U ₁	0.2 Ω	3600	1	120v	U ₂ -U ₁	0.5 Ω
	2	240v	U ₂ -W ₁	0.3 Ω		2	220v	U ₂ -W ₁	0.9 Ω
	3	12v		0.2 Ω		3	12v		0.2 Ω

2. Secondary Coil

6600	1	G-G 0.6 Ω To capacitor	3600	1.8 Ω
	2	W to AVR W contact with B.Br.R 0.4 Ω		

3. Rotor Coil resistance/Excitation coil resistance

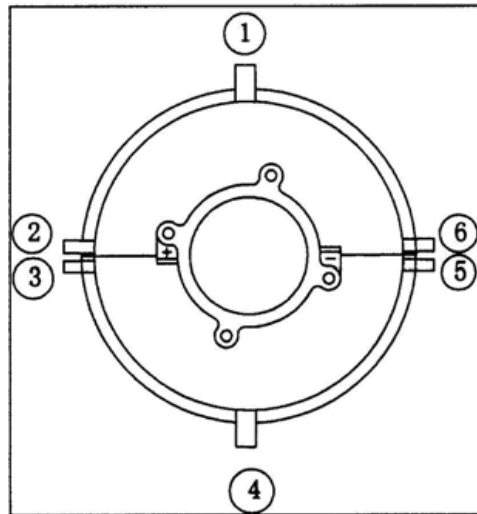
6600	35 Ω /39 Ω
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B: How to check Rotor diode rectifier

1. multimeter (Ω x1) connect terminal. (o: on x: off) Figure 1

I	1-2	x	2-1	o
	1-6	o	6-1	x
II	4-3	x	3-4	o
	4-5	o	5-4	x
good	bad → replace Rotor diode rectifier I or II			

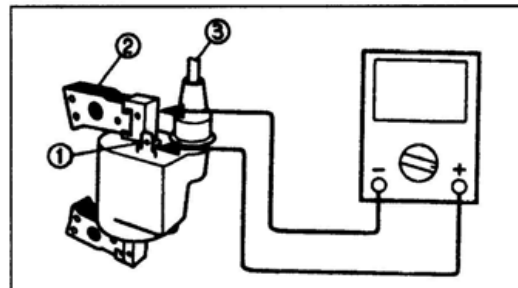
Figure 1



C: How to check TCI

1. multimeter (Ω x1) (+) terminal to 1, (-) terminal to 2.
Reading : 0.5 Ω ± 20% at 20°C (68°F) as good..
 2. multimeter (Ω x1) (+) terminal to 3, (-) terminal to 1
11.5 Ω ± 20% at 20°C (68°F) as good.
If bad ,replace TCI.
- Figure 2

Figure 2



D: How to check spark plug 's cap

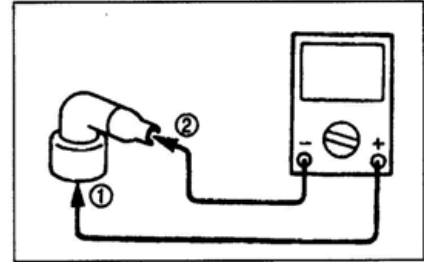
- Remove → turn the spark plug cap counter clockwise.
Reattach → turn the spark plug cap clockwise.

- When fitting on the spark plug cap, check if the spark plug is cracked or ageing.
- Cut short the end of spark plug wire by 5mm, then connect it to the spark plug cap.
- Remove spark plug cap.
- Measure with multi-metre ($\Omega \times 1k$) (+) positive pole → ①
(-) negative pole → ②

Figure 3

Resistance: 4.0-6.0k Ω 20°C (68°F) deemed as good
If not good, replace the cap.

Figure 3



E: How to check oil alarming

device

The trouble of oil alarm device will cause:

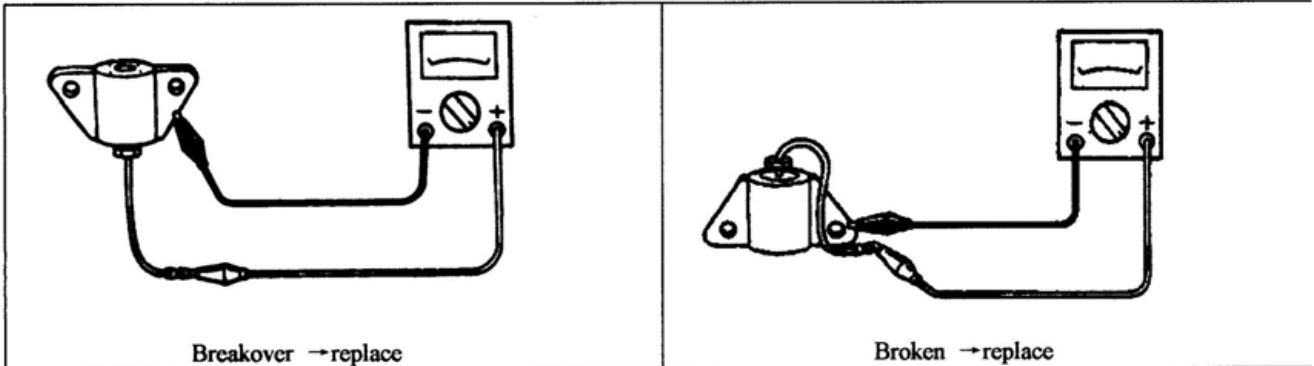
※ Breakover: Fill the oil to the set level, start the engine, the oil alarm light will blink, and the engine is unable to start.

Circuit is broken: the engine does not stop despite the low oil level.

- Drain away engine oil.
- Remove the oil alarm gauge and cable connecting wire.
- Using multi-meter ($\Omega \times 1$),
 - connect the positive pole (+) to the output terminal of the oil alarm gauge.
 - lay the negative pole (-) on to the cylinder block.

If the multimeter does not display: Broken circuit → replace

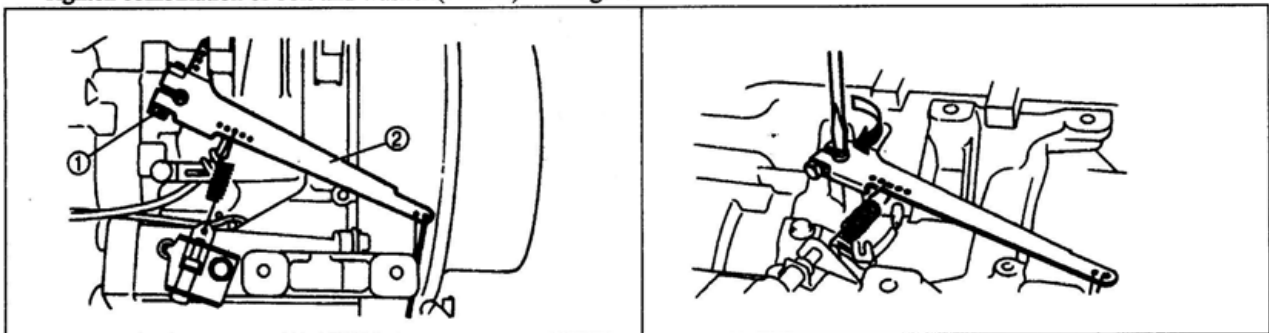
If it shows breakover: → ※ Figure 4



F: How to adjust speed-governor

- Loosen combination of bolt and washer ①.
- Screw regulate speed arm ② clockwise until stop.
- Screw speed-regulate lever clockwise until stop.
- Tighten combination of bolt and washer. (10N.m)

Figure 5



Control function

1. Engine switch
2. Oil alaming light
3. Voltage-meter
4. Choke lever
5. Recoil starter
6. Stator primary coil
7. Stator secondary coil
8. Rear cover
9. Oil alarm device
- 10.TCI
11. Spark plug
- 12.Fly wheel
- 13.Rotor and Excitation rotor
- 14.Excitation stator

