

# GS-BARON

## INSTRUCTION MANUAL



- Become thoroughly familiar with this manual, all parts and components prior to beginning construction or opening packages.

Construction of the GS BARON differs in several areas to that the 50 BARON. Refer to the following instructions for the GS BARON.

Step 7 Omit

Step 11 Add four M3 Plate Washers.

## Group 3 Power Unit Assembly

- Bolt the cooling shroud mounting plate to the front of the engine.

[ M5 × 8 ⊕ Screw .....	4 ]
[ M5 Serrated Washer .....	4 ]

- Attach the cooling fan to the engine and secure firmly with spring washer.

[ M6 × 25 Cap B. ....	1 ]
[ M6 Spring Washer .....	1 ]

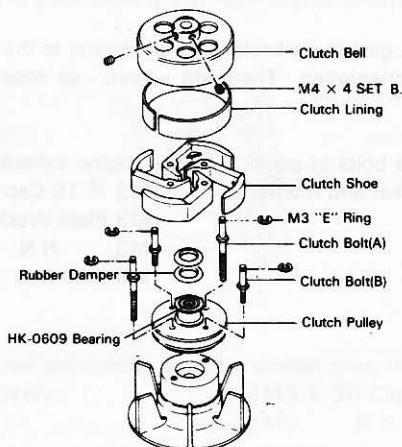
- Install pulley to the cooling fan with two clutch bolts (A), then add the two clutch bolts (B) to the clutch pulley.

Notice : Do not tighten bolts too firmly or they will break.

- Put a rubber damper on the pulley as shown. Use a number 1 or 2. This four way clutch is adjusted for engagement by use of these dampers. If high RPM engagement is desired, use a higher numbered damper or multiple dampers ; however, do not delay engagement of clutch to too high RPM as the clutch lining could burn and be defaced.

- Add a little grease to the damper then attach the four clutch shoes to the clutch bolts. The rubber damper must be placed on the upper side of the pulley.

- Secure clutch shoes to bolts with the M3 "E" rings.



This illustration is showing a trailing assembly.

- Bolt cooling shroud to cooling shroud mounting plate.

M3 × 10 Tapping Screw	.....3
M3 Serrated Washer	.....3

- Bolt cross member (F) to bottom side of the engine. Fasten back plate to engine with M4 × 30 cap bolts.

M4 × 30 Cap B.	.....2
M4 × 35 Cap B.	.....2
M4 N.N.	.....4

- Remove Spark Plug, Carbretor, and Insulator from engine. Put starting belt over clutch bell, and install engine to the main frame.

M3 × 12 Cap B.	.....2
M4 × 15 Cap B.	.....2
M3 Plate Washer	.....2
M4 Plate Washer	.....2
M3 N.N.	.....2

- Bolt cross member (F) to the main frame and fasten engine head.

M3 × 10 Cap B.	.....2
M4 × 10 Cap B.	.....2
M3 Plate Washer	.....4
M4 Serrated Washer	.....1
M3 N.N.	.....2

- Add a ball joint to the throttle lever and install to the Carbretor.

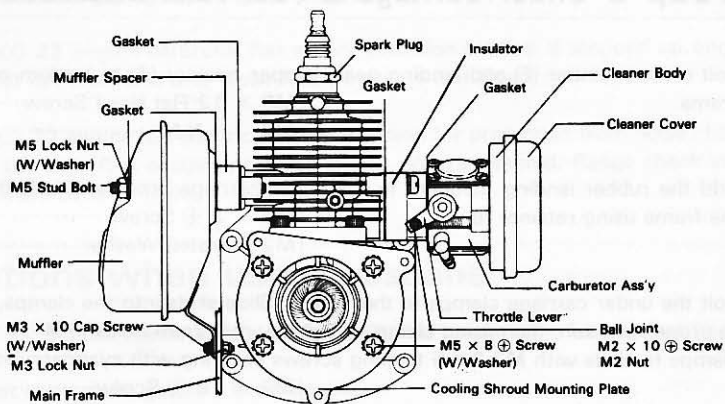
M3 × 4 Set B.	.....1
M2 × 10 ⊕ Screw	.....1
M2 Nut	.....2
Ball joint	.....1

- Install the insulator, gasket, carbretor and air cleaner to the engine paying attention to carburetor orientation. Then add screen, air filter and cleaner cover to the cleaner body.

- Screw the M5 stud bolts in position to the engine exhaust outlet, and add the muffler spacer, gasket and muffler.

M3 × 10 Cap B.	.....1
M3 Plate Washer	.....2
M3 N.N.	.....1
M5 Stud Bolt	.....2

- Screw Spark Plug into engine. Do not overtighten.



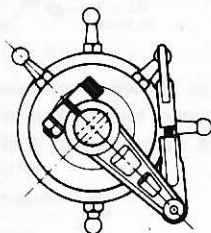
## Group 4 Main Shaft, Drive Gear & Swash Plate Ass'y

Following step 24

- Attach a ball joint to the upper plate lock.

M2 x 10 ⊕ Screw	1
Ball Joint	1

- Connect the upper plate lock and the arm of the swash plate with M2.3 x 35 threaded rod and two universal links. Adjust tie rod length so that the upper plate lock and swash plate arms are at right angles to each other, as shown.



Step 25 This kit does not contain an auto rotation gear, therefore the main gear spacer is not necessary.

M3 x 20 Cap B.	1
M3 N.N.	1

## Group 5 Under Carriage & Fuel Tank Installation

- Bolt cross member (E) and landing gear damper retainer (A) to bottom of main frame.

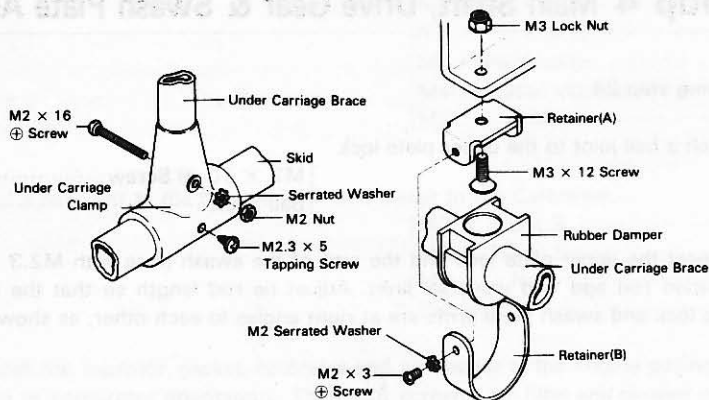
M3 × 12 Flat Head Screw	4
M3 N.N.	4

- Add the rubber landing dampers to the under carriage brace and bolt them to the frame using retainer (B).

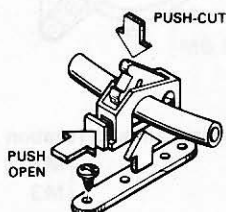
M2 × 3 ⊕ Screw	8
M2 Serrated Washer	8

- Bolt the under carriage clamps to the brace. Slide skids into the clamps, adjust to proper position, then using clamp as a guide, drill 2mm holes in skids. Screw clamps to skids with M2.3 × 5 tapping screws securing with cyanoacrylate glue.

M2 × 16 ⊕ Screw	4
M2 Nut	4
M2 Serrated Washer	4
M2.3 × 5 Tapping Screw	4



- Assemble the fuel tank cap as shown, then insert it into tank and secure with M4 × 22screw. Place completed fuel tank into the main frame. Connect up tank to the engine using black rubber tubing, fuel filter and fuel stopper.



**Notice :**

- When attaching plug cap to spark plug, push on firmly.
- The KG 22 engine carbretor has a very precision bypass. If stopped up, engine will not run well. Use only clean fuel, through a fuel filter.
- The KG 22 engine has electric spark supression for protection from noise ; however, use only R/C equipment which is also noise protected. Range check your equipment prior to flight.

## Cautions when using gasoline

- Gasoline is more volitile than glow fuels. Do not handle near fire or open flame.
- Do not carry more gasoline than necessary.
- Do not burn trash or rubbish by pouring gasoline on it.
- Do not handle gasoline, nor operate engine except in a well ventilated area.
- Use a strong steel container for transporting gasoline, and keep it away from batteries. Do not use a plastic container, as it is subject to bursting due to expansion.
- Keep a fire extinguisher handy for emergencies.

## GS BARON Parts List

No.	Name	Quan.
B50-1-01	Sub Frame (L, R)	1ea.
GS-1-02	Servo Plate Retainer	2
B50-1-03	Cross Member (A)	1
B50-1-04	Body Mounting Bolt (F)	1
GS-1-05	Front Bed	1
GS-1-06	Main Frame (L, R)	1ea.
B50-1-07	Body Mounting Bolt(R)	2
B50-1-08	Radius Support Arm	1
GS-1-S	No. 1 Screw Set	1
B50-2-01	Slide Ring Assembly	1
GS-2-02	Pinion Gear	1
4WAY-01	Clutch Bell (W/Lining)	1
B50-2-04	626 Ball Bearing(W/Housing)	1
B50-2-05	1910 ZZ Ball Bearing(W/Housing)	1
B50-2-06	1970 Ball Bearing(W/Housing)	1

No.	Name	Quan.
GS-2-S	No.2 Screw Set	1
	KG-22 Engine Unit	1
GS-3-11	Cooling Shroud Mounting Plate	1
B50-3-03	Cooling Fan	1
4WAY-02	Pulley	1
4WAY-03	Clutch Bolt (A, B)	2ea.
4WAY-04	Clutch Damper	1
4WAY-05	Clutch Shoe	4
4WAY-06	"E" Ring	4
GS-3-12	Cooling Shroud	1
GS-3-13	Cross Member(F)	1
B50-3-09	Starting Belt	1
GS-3-14	Cross Member(G)	1
GS-3-15	Throttle Lever	1
GS-3-16	Muffler Bolt, Nut, Washer	1set
GS-3-17	Muffler Spacer	1
GS-3-18	Muffler (W/Gasket)	1
GS-3-S	No.3 Screw Set	1
B50-4-01	605 Ball Bearing (W/Housing)	2
B50-4-02	Bevel Pinion Gear (Assy'ed)	1
B50-4-03	Main Shaft	1
B50-4-09	Upper Plate Lock (Plastic)	1
B50-4-05	Swash Plate, Swash Plate Collar	1ea.
B50-4-06	Pitch Control Rod	1
B50-4-10	Main Gear, Gear Ring	1ea.
GS-4-S	No.4 Screw Set	1
GS-5-01	Cross Member(E)	2
B50-5-08	Under Carriage Brace	2
B50-5-03	Under Carriage Skid	2
B50-5-09	Under Carriage Clamp	4
B50-5-05	Skid Cap	4
B50-5-10	Under Carriage Retainer(A)	4
B50-5-11	Under Carriage Retainer(B)	4
B50-5-12	Rubber Damper	4
GS-5-07	Fuel Tank	1set
GS-5-08	Fuel Tubing (Gasoline proof)	1
	Fuel Filter	1
	Fuel Stopper	1set
GS-5-S	No.5 Screw Set	1
K-620	Main Rotor Blade	1set
	Pitch Gauge (Plywood)	1

No.	Name	Quan.
B50-6 }	Same as 50 BARON	
B50-8		
	50 BARON Instruction Manual	1
	50 BARON Construction Drawing	1
	GS BARON Side View Plan	1
	Rotor Head Instruction Manual	1
	KG-22 Engine Instruction Manual. . .	1
	Accessories of KG-22 Engine	
	Starting Rope	1
	Tools	1set
	Fuel Mixing Cup	1

## GS BARON Screw Set Contents List

No.	Name & Size	Quan.
No. 1	M3 × 8 Cap B.	10
	M3 × 10 Cap B.	3
	M3 × 12 ⊕ Bolt	4
	M2 × 10 ⊕ Bolt	2
	M3 N.N.	10
	M3 Nut	4
	M2 Nut	2
	M3 Plate Washer	4
	1.5 Hex. Wrench	1
	2 Hex. Wrench	1
	2.5 Hex. Wrench	1
3 Hex. Wrench	1	
5 Hex. Wrench	1	
No. 2	M3 × 8 Cap B.	1
	M3 × 30 Cap B.	6
	M2 × 10 ⊕ Bolt	4
	M4 × 4 Set B.	2
	M3 N.N.	6
	M2 Nut	7
	M3 Plate Washer	4
	M3 × 10 × 1 Plate Washer	1
Ball Joint	4	
No. 3	M3 × 10 Cap B.	3
	M3 × 12 Cap B.	2
	M4 × 10 Cap B.	1
	M4 × 15 Cap B.	2



No.	Name & Size	Quan.	
No. 3	M4 × 30 Cap B.	2	
	M4 × 35 Cap B.	2	
	M6 × 25 Cap B.	1	
	M3 × 10 Tapping Bolt	3	
	M5 × 8 ⊕ Bolt	4	
	M3 N.N.	5	
	M4 N.N.	4	
	M3 Serrated Washer	3	
	M4 Serrated Washer	1	
	M5 Serrated Washer	4	
	M3 Plate Washer	8	
	M4 Plate Washer	5	
	M6 Spring Washer	1	
	M2 × 10 ⊕ Bolt	1	
	M3 × 4 Set B.	1	
	M2 Nut	2	
	Ball Joint	1	
No. 4	M3 × 22 Cap B.	1	
	M3 × 30 Cap B.	2	
	M3 N.N.	4	
	M3 × 15 Cap B.	1	
	M3 Spring Washer	1	
	M2 × 10 ⊕ Bolt	1	
		M2.3 × 35 Threaded Rod	1
		Ball Joint	1
	Universal Link	2	
No.5	M2 × 3 ⊕ Bolt	8	
	M2 × 16 ⊕ Bolt	4	
	M3 × 12 Flat Head Screw	4	
	M2 Nut	4	
	M3 N.N.	4	
	M2 Serrated Washer	12	
	M2.3 × 5 Tapping Bolt	4	
No.6	M3 × 8 Cap B.	4	
	M3 × 10 Cap B.	2	
	M3 × 15 Cap B.	2	
	M3 × 30 Cap B.	4	
	M3 × 12 ⊕ Bolt	6	
	M2 × 10 ⊕ Bolt	11	
	M2.3 × 8 ⊕ Bolt	6	
	M3 × 4 Set B.	4	
	M4 × 4 Set B.	8	
	M3 N.N.	14	

No.	Name & Size	Quan.
No. 6	M2 Nut	8
	M2.3 Nut	4
	M3 Plate Washer	6
	M2 Plate Washer	1
	Ball Joint	2
	Universal Link	2
No. 7	M3 × 8 Cap B.	4
	M3 × 10 Cap B.	3
	M3 × 12 Cap B.	4
	M3 × 25 Cap B.	2
	M3 N.N.	13
	M3 Nut	4
	M3 Plate Washer	6
	M2.6 × 10 ⊕ Bolt	20
	M2.6 Flange Nut	20
	M2.3 × 17 Threaded Rod	4
	Universal Link	11
Quick Link	2	
No. 8	M3 × 12 Cap B.	3
	M3 Plate Washer	6
	M2.3 × 5 Tapping Screw	3
	Rubber Grommet	3

## Rotor Head Installation Parts List

No.	Name	Quan.
K-121 K-122	K-1 SB Head Assembly	1set
	Control Lever	1
	Rotor Blade Reinforcement	2
	Stabilizer Bar	1
	Stabilizer Blade	2
	Stabilizer Retainer	2
	M4 × 28 Cap B.	2
	M4 N.N.	2
	M3 × 18 Cap B.	2
	M3 × 20 Cap B.	1
	M3 × 4 Set B.	4
	M4 × 4 Set B.	1
	M3 N.N.	3
	M2.3 × 17 Threaded Rod	2
	M2.3 × 85 Threaded Rod	2
	M2.3 × 120 Threaded Rod	1
Universal Link	10	