

## PETIT HELICOPTER







Easy control by bell/Hiller mix main rotor system.



Totally new power train & swashplate control systems by further advanced Hirobo's helicopter technology.



Super strong engineering plastic main side frames.
The pictures above are not production type.



Reliable cocked belt tail drive system.

- Factory assembled, almost ready to fly.
- Heavy duty landing skids durable to harder landing.
- Light weight ABS scale fuselage.



Model	MH-10/BK-117 (Powered by OS. MAX-CZ-H Engine.)	
Body Length	850mm	
Overall Width	190mm	
Overall Height	300mm	
Main Rotor Dia.	900mm	
Tail Rotor Dia.	185mm	
Gear Ratio	9.7:1:5	
Flight Weight	about 2,000g with scale body. (about 1,700g with canopy)	
Југо	Recommended.	bt.
Radio	4ch 5S (Mini size)	
Part No. Price	0408-901	

## SPORTS FLIGHT HELICOPTERS



- All new lightweight FFZ rotorhead designed with high stability and aerobatic capability in mind.
- High strenght, lightweight, landing gear
- High reliability, low noise, lightweight belt type tail drive system.

  O.S. EX46VF engine included with special cooling
- fan system.
- Cone starter system can be used (optional parts)
- Newly designed cabin for better aerodynamics and lighter weight.
- Most spare/option parts interchangeable with SST-CONDOR and SST-EAGLE.
- One piece in line clutch shaft ensures perfect align-

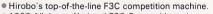


- All new lightweight FFZ rotorhead enables super aerobatics and excellent hovering stability.
- High strenght, lightweight landing gear.
  High reliability, low noise, light weight belt type tail drive system.
- C.G. balanced stabilizer paddle for maximam aerobatic performance.
- Weighted main rotor blader for higher stability and improved C.G. location.
- Main frame, drive and control mechanism identical to SST-EAGLE.
- One piece in line clutch shaft ensures perfect alignment.
- Many options parts available.
- Fully interchangeable with all SST-EAGLE spares/ option parts.



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- Main frame, drive and control mechanism identical to SST-EAGLE.
- One piece in line clutch shaft ensures perfect alignment.
- Cone starter standard equipment.
- Many options parts available.
- Fully interchangeable with all SST-EAGLE spares/ option parts.



- 1988 All Japan National F3C Competition winner.
  1989 F3C world championship winner.
- Various high precision option parts available.







## OPTIONAL SCALE BODY

\*Exclude skid foot Assy



Wider & broad opening for easy maintainance.
Storong tail boom pipe reducing rudder vibration.
Use for: SST-EAGLE, #BBL-HAWK, #SST-CONDOR





\* Use for: SST-EAGLE, \*BBL-HAWK, \*BBC-STORK, \*SST-CONDOR,





0404-904

Use for: SST-EAGLE, \*BBL-HAWK, \*BBC-STORK, **#SST-CONDOR**, **#BBZ-STORK** 

15095

VERTOL KV-107 II 32/46



Multi Rotor Brade Fly-barless head bring realistic smooth flight. Tooth belt drive system brings an excellent mechanism of light-weight and high rigidity.

Fuselage is made of F.R.P.

Decal for U.S. MARINE and Japan Self-defense Foeces are included.

You can use any Radio sets for Heli. by mechanical mixing system.

Rear mast has a tensioner for drive belt.

Gear ratio/Engine: F. rotor: R. rotor/9.625:1:1

Direction of main rotor/F. rotor...Clock wise, R. rotor...Counter clock wise

Gyro/1~3 (Elevator⊚, Rudder⊚, Aileron⊙)
 It's necesary to use "Gyro" for elevator

(pitch control)



IWAKUNI

- Big size perfect 1/7.4 full scale model.
- Hirobo gasoline engine HGE-25EH with autorotation built-in new main transmission gear box.
- Totally new flexible spiral shaft for tail gear drive.
- Utmost realistic cockpit instrument panel, sliding side doors, pull open cockpit doors.



- Scale model of most popular full size helicopter.
  Stable flight peculiar to large sized models.
- Enough power by big span main rotor.
- Powerful 25cc ignition engine HGE-25EH.
- Scale rotor head to control stable and smoothly.



## SHUTTLE WORLD



- Fully completed ready to fly.High power QS MAX 32F-H engine.
- New one piece feathering spindle, easy replacing for maintenace.
- XX model: All ball bearings (18 pcs) in control linkage



- New FZ rotorhead increase both aerobatic performance
- and stability.

  Includes Shuttle option parts Weighted Long Main Blades, Long tail boom and Long tail drive belt as standard equipment.
- New tail pitch control system increase rudder control and precision.
- Enlarged fuel tank now holds 230 c.c. iastead of 190 c.c.
- Includes C.G. balanced stabilizer paddle for extra aerobatic performance.
- TX model includes 20 ball bearings for precise and smooth operation. ZX model includes All-Metal clutch as standard equip-
- ment. ZX model includes slanted metal landing gear and tail
- boom brace.
- Conversion Set 0402-218
  Shuttle ZX Assembly kit 0402-968



- Fully completed kit with R/C system installed. • High power O.S. 32-FHX recoil starter engine included.
- 1000mAh receiver nicad battery with changer included.
- Engine starting accessories included-Mars 1.5V battery, battery cord, fuel pump.

MODEL	Radio	Servo	Gyro	Price
SHUTTLE SUPREME	FUTABA challenger FM5NH	FP-S148	FP-G154	
SHUTTLE XX SUPREME	FUTABA FF7	S-3001	FP-G154	,
SHUTTLE Z SUPREME	FUTABA FF7	S-3001	FP-G154	



















SST-EAGLI		HAWK	SST-CONDOR
BBC-STOR			BBZ-STORK
Model	NOVA(M)	ECUREUIL(M)	JESS
SST-FAGIF			

Model	NOVA(M)	ECUREUIL(M)	JESS
SST-EAGLE	0	0	0
SST-CONDOR	Δ	Δ	Δ
BBL-HAWK	Δ	Δ	Δ
BBZ-STORK	Δ	Δ	×
BBC-STORK	Δ	Δ	×

Model	BBZ-STORK	SST-CONDOR EX	SST-EAGLE	VERTOL KV-107 II 32/46	IROQUOIS GX-25	BELL 47G-2
Main rotor dia.	1,340mm	1,500mm	1,500mm	Front 1,050mm	1,800mm	1,800mm
Tail rotor dia.	250mm	280mm	280mm	Rear 1,050mm	310mm	310mm
Body lenght	1,250mm	1,340mm	1,330mm	970mm 1,570mm		1.580mm
Overall weight	3,700g	4,500g	4,600g	4,350~4,800g	7,150g	7,150g
Engine	EX46VF-H	60~61 class	60-61 class	32-46 class	HGE-25EH	HGE-25EH
R/C unit (for heli)	4ch. 5 servo	4ch. 5 servo	4ch. 5 servo	5ch. 5 servo	4ch. 5 servo	4ch. 5 servo
Part No. Price	0403-907	0404-928	0404-901 0404-902 0404-922 DDF Head Non-Head SSR Head	0406-901	0405-903	0405-902

Model		SHUTTLE	SHUTTLE WITH RECOIL STARTER	SHUTTLE XX	SHUTTLE XX WITH RECOIL STARTER	SHUTTLE Z	SHUTTLE Z WITH RECOIL STARTER	SHUTTLE ZX	SHUTTLE ZX WITH RECOIL STARTER	SHUTTLE SUPREME	SHUTTLE XX SUPREME	SHUTTLE Z SUPREME
Lenght wit	h rotor	1,320mm	1,320mm	1,320mm	1,320mm	1,458mm	1,458mm	1,458mm	1,458mm	1,320mm	1,320mm	1,450mm
Overall lenght		1,005mm	1,005mm	1,005mm	1,005mm	1,070mm	1,070mm	1,070mm	1,070mm	1,005mm	1,005mm	1,070mm
Overall wi	dth (at skid)	220mm	220mm	220mm	220mm	220mm	220mm	198mm	198mm	220mm	220mm	220mm
Overall hei	ght	395mm	395mm	395mm	395mm	395mm	395mm	385mm	385mm	395mm	395mm	395mm
Main rotor	dia.	1,100mm	1,100mm	1,100mm	1,100mm	1,240mm	1,240mm	1,240mm	1,240mm	1,100mm	1,100mm	1,240mm
Tail rotor dia.		215mm	215mm	215mm	215mm	215mm	215mm	215mm	215mm	215mm	215mm	215mm
Rotordisk area	Main rotor	95dm <sup>2</sup>	95dm <sup>2</sup>	95dm <sup>2</sup>	95dm <sup>2</sup>	120dm <sup>2</sup>	120dm <sup>2</sup>	120dm <sup>2</sup>	120dm <sup>2</sup>	95dm <sup>2</sup>	95dm <sup>2</sup>	120dm <sup>2</sup>
	Tail rotor	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>	3.8dm <sup>2</sup>
Gear	Main rotor: Engine	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625	1:9.625
ratio	Main rotor: Tail rotor	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5	1:5.5
Overall we	ight	2,300g	2,300g	2,300g	2,300g	2,300g	2,300g	2,350g	2,350g	2,300g	2,300g	2,300g
ngine		OS.MAX32F-H	OS.MAX32F-HX	OS.MAX32F-H	OS.MAX32F-HX	OS.MAX32F-H	OS.MAX32F-HX	OS.MAX32F-H	OS.MAX32F-HX	OS.MAX32F-HX	OS.MAX32F-HX	OS.MAX32F-HX
Part No. Price.		0402-953	0402-958	0402-956	0402-963	0402-959	0402-972	0402-961	0402-973	0402-955	0402-966	0402-964



# MANUAL WAR CACAMANAZANZA A BURNERANANAZANAN DURANCA

### **ACCESSORIES**



#### SSZ Rotor Head

ullet Quick & sharp responce. Applicable to all Hirobo helicopter with  $10\phi$  main mast.

0404-220



#### FFZ ROTOR HEAD Assy

This new resin-made rotor head has been accomplished a high performance with low cost.

0402-215



#### **DDF ROTOR HEAD Assy**

This rotor head assembly is of an epochmaking mechanism by which both static and kinetic performance has been accomplished.

0404-079



#### SSR ROTOR HEAD Assy

- This SSR rotor head assembly is of seesaw type in which sharp response of steering has been pursued.

  Self-stability has been much enhanced with the coning angle of 1° degree.

0404-084



#### SHUTTLE FZ ROTOR HEAD Assy

This mechanism contributes to enhancing the flying performance and the stant ability. It is available in all the conventional types of SHUTTLE.

0402-214



#### SHUTTLE MRBIII ROTOR HEAD **CONVERSION SET**

 This conversion set includes MRB rotor head, main blade, swash plate, etc. which are used for remodelling SHUTTLE to three-rotor type.

0402-135

\*Many other optional extras are avail-



#### PITCH GAUGE

This pitch gauge is of a pendulum type which is very easy huse and can be used for measuring the pitch of various kinds of blade up to 70mm wide at maximum.

2513-019



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\*Specifications are subject change without notice improvement and modification