

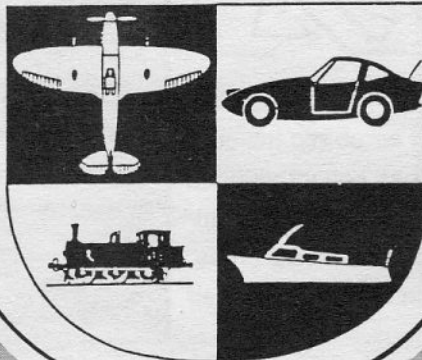


WORLD'S FINEST HELICOPTERS

1979 - 1989

TEN YEAR ANNIVERSARY

SANDOWN PARK
MODEL SYMPOSIUM & EXHIBITION



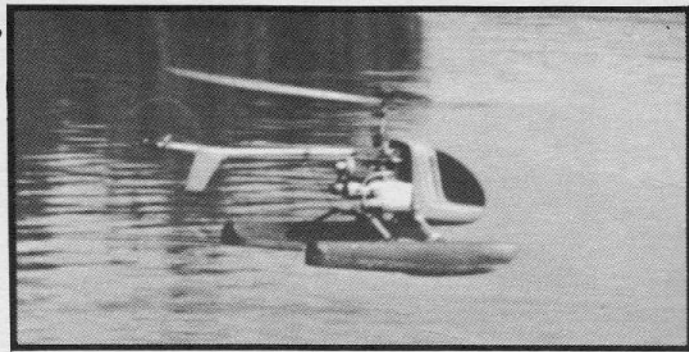
1 9 8 9 C A T A L O G

NEW
and
IMPROVED

CRICKET



Cricket does not require a special helicopter radio. Your four channel airplane radio will work fine.

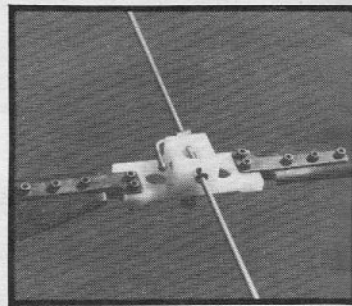


CRICKET'S SPECIFICATIONS

Main Rotor Span	34 inches
Tail Rotor Span	8.5 inches
Length	32 inches
Weight	4 to 4.5 lbs.
Radio	Airplane 4 channel
Engine	0.25 to 0.32 cu. in.

Over 15,000 Crickets Sold Worldwide

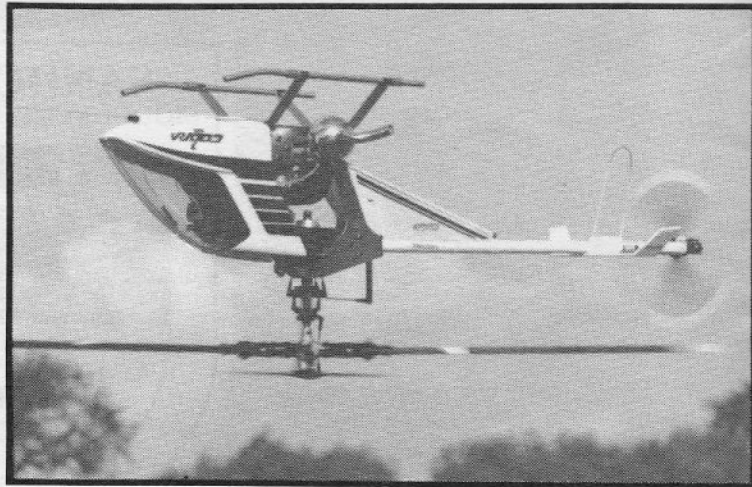
Cricket was first produced in 1980 and has been the world's most popular trainer ever since. Simple to construct and adjust, stable in the hover, yet very aerobatic-no wonder it is still the popular choice for the entry level RC helicopter flier. Just when we wonder if Cricket has "run its course" another surge of popularity commences-letters from very happy learners arrive and Cricket is off again. We don't think we'll ever stop making Cricket. However, some new concepts and materials have arisen over the years and so Cricket now has a new head. Simpler, yet more reliable, Cricket's new rotor head will make it even easier to fly.



COBRA

COBRA 800A

Cobra continues to be America's #1 low cost aerobatic helicopter. Available at a very budget price, Cobra has collective pitch and autorotation. It's contest record includes many local competitive wins and it has also won the US Nationals two times. Simple and durable, with the usual fine standard of machined and steel metal parts for which GMP is famous.



SPECIFICATIONS:

COBRA is a 40-60 powered, fully aerobatic RC helicopter, specifically designed to be suitable for beginner, intermediate and expert fliers. Hovering and forward flight stability is unsurpassed while aerobatic performance is nothing short of breathtaking. COBRA can perform all AMA and FAI aerobatic maneuvers. COBRA is the result of many years of design and development by the world's two top design teams: Hirobo and GMP. The final product exemplifies team development and state-of-the-art production--50% of COBRA in the USA, 50% by Hirobo of Japan.

WEIGHT	7 to 8 lb	(3.5 Kgs.)
ROTORSPAN	50 in	(127cm)
LENGTH	44 in	(112cm)
HEIGHT	18 in	(46cm)

FEATURES:

- Top cone start
- Machined steel clutch with dual ball bearings
- Full collective pitch
- Bell/Hiller mixing
- 30 precision ball bearings
- Factory assembled main rotor head
- Heavy duty 10mm main shaft

- Main blade holders have dual precision ball AND hardened steel thrust bearings
- Tail blade holders fitted with ball AND thrust bearings
- Dual ball bearing tail pitch plate
- Main rotor blades finished and balanced. Advanced design semi-symmetrical
- Top quality ball joints and control rods included
- Space age look-low drag canopy
- 4 or 5 servo installation
- Step-by-step assembly, set-up and flying instructions

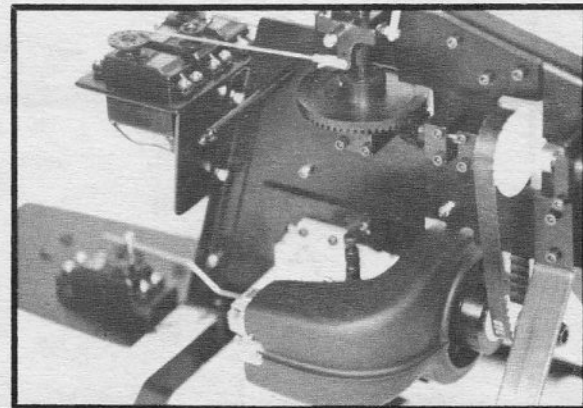
Rebel



Rebel has been designed to provide the new entrant into RC helicopter flying with the lowest initial cost to try the 'challenge' of flying an RC helicopter.

It's Different

The RC helicopter today is a remarkable advance over those available a short fifteen years ago. Then most helicopters were fixed pitch, no autorotation, could use simple airplane style engines and standard 4 channel radios. These helicopters, 'Helibaby', 'Revolution 1' and 'Cricket', although a little harder to fly than the later machines, were simple to build, inexpensive, rugged, low cost to maintain and were the helicopters which most of today's fliers 'teethed' on.



After carefully surveying the needs of today's modelling community, GMP decided the 'new wave' of RC helicopter 'tries and fliers' would best be encouraged by providing a simple, inexpensive machine to allow a low cost 'try' at the RC helicopter challenge. Rebel is GMP's answer to that need. Rebel:

- Uses standard 40 sized standard airplane engines
- Has low initial cost
- Uses standard airplane fuel
- Has low cost replacement parts
- Uses standard low cost airplane radios
- Has simple yet rugged construction
- Uses standard electric airplane 'spinner' starting
- Is very stable and easy to fly

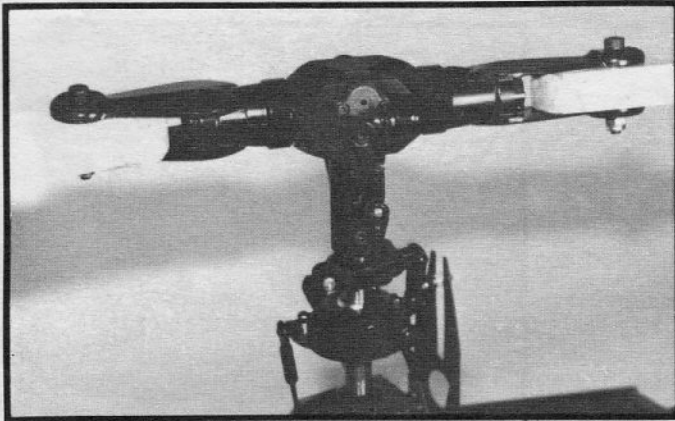
• Plus - Available very low cost:

An 'over the shoulder' video step-by-step building, setting up and how to fly video. (produced specifically for 'Rebel')

REBEL'S SPECIFICATIONS

Main Rotor Span	_____	42 inches
Tail Rotor Span	_____	10 inches
Length	_____	42 inches
Weight	_____	6 to 6.5 lbs.
Radio	_____	Airplane 4 channel
Engine	_____	0.40 to 0.50 cu. in.

LEGEND



LEGEND STATISTICS (Delta 3 flybarless head)

Power	46-61 cu in. 7.5-10cc
Main Rotor Span	55" (140 cms)
Tail rotor span	10" (25.4 cms)
engine to main rotor ratio (9.5 to 1 optional)	8.6 to 1
Main Rotor Speed(recommended)	175 rpm
Tail Rotor to Main Rotor Ratio	4.75 to 1 (belt drive)
Height	18" (45.75 cms)
Length (excluding main rotor blades)	50" (127 cms)
Weight (dry)	8.8 lbs (3.85 kgs)
(with gyro, 1000 ma pack, 61 engine & muffler)	
Radio Installation	5 servos
Gyro	Recommended

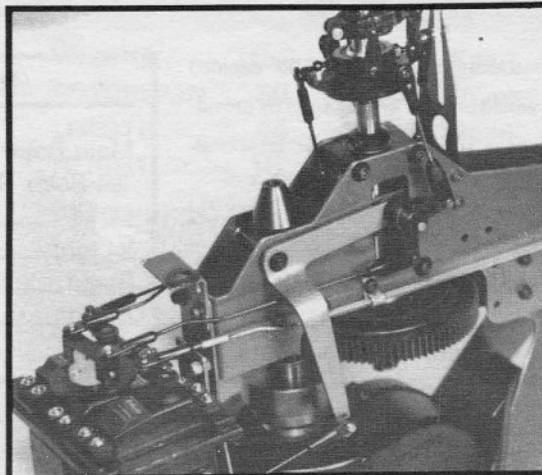
The LEGEND Series

The Multi-Purpose Top Of The Line RC Helicopter From GMP

Legend has been designed and manufactured to be the world's finest RC helicopter. It possesses many advanced features not before used in RC helicopters which provide Legend with a wide range of applications. Legend can be flown as:

900 FTB

A flybarless 'animal' with breathtaking fast and very aerobatic performance. This version has the new, very 'space age' yet reliable, toothed belt tail drive system.



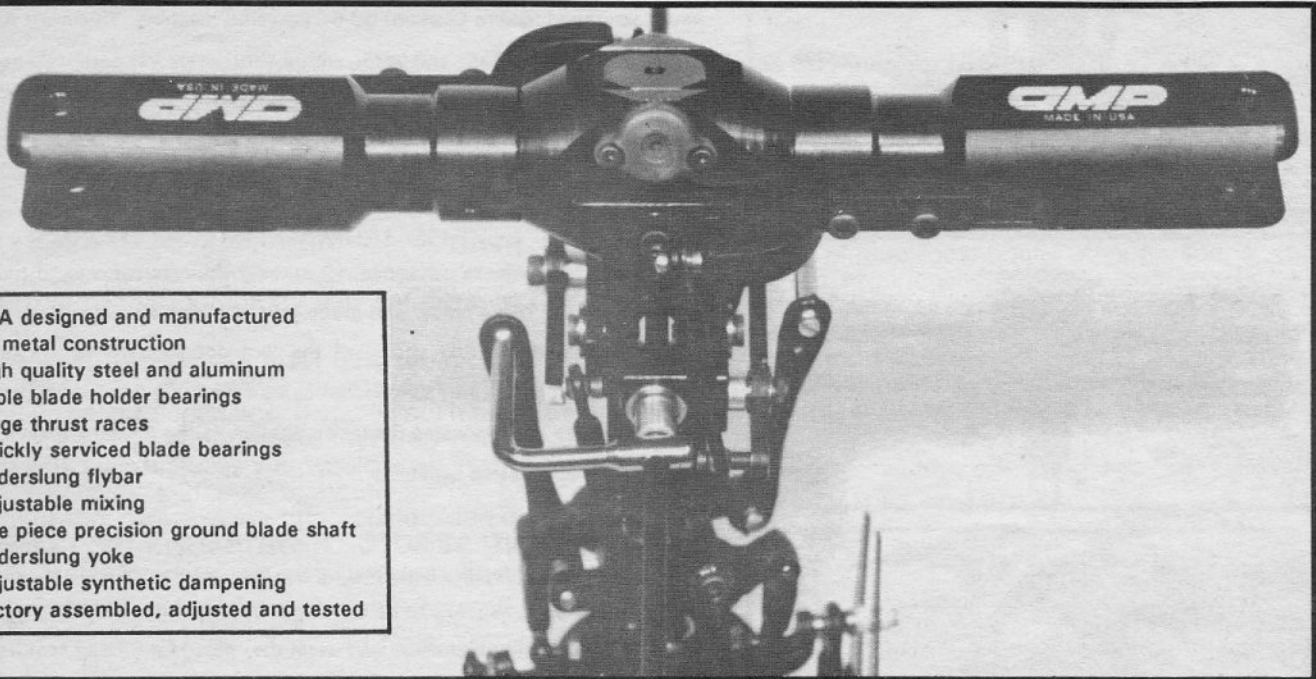
900 UTB

A world class contest pod and boom ship when fitted with GMP's brand new, super performance, contest series rotor head

No Compromise Mechanics

The mechanics for the Legend are contest quality with special alloy heavy duty frames. All control levers and shafts are ball-bearinged with teflon spacer washers. Control rods are short and straight making the Legend the finest helicopter ever produced in the U.S.A.

GMP's NEW WORLD CLASS CONTEST HELICOPTER SERIES



- USA designed and manufactured
- All metal construction
- High quality steel and aluminum
- Triple blade holder bearings
- Large thrust races
- Quickly serviced blade bearings
- Underslung flybar
- Adjustable mixing
- One piece precision ground blade shaft
- Underslung yoke
- Adjustable synthetic dampening
- Factory assembled, adjusted and tested

For ten years GMP has been experimenting with many different rotor head configurations arrived at a design which will satisfy the exact needs of the World Class contest fliers. The fact that a GMP helicopter won the 1987 World Championships is an indication that our research and development has had some success in the past. However, since 1987, the performance standards of the worlds fliers has continued to improve to the point where even very small improvements in rotor head design will provide the 'razors edge' in the right hands.

Since consistency of performance is of paramount importance, GMP elected to use all metal (steel and aluminum) in the construction of their new rotor head instead of plastic which is proved to be less consistent in mechanical characteristics and hence performance especially under temperature variations.

All of GMP's research and development culminated in 1989 with a design incorporating all the results of their (and many top fliers) ideas and flight tests. The outcome is a new contest head with unique construction and quality.

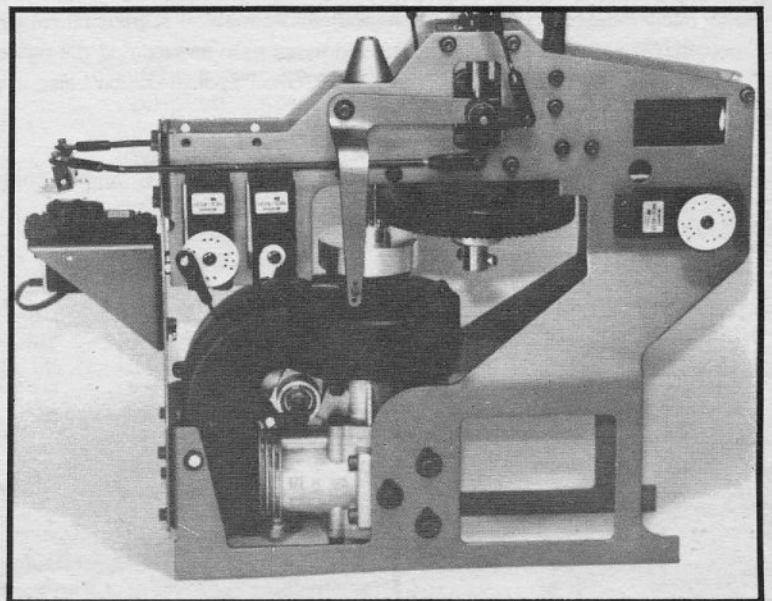
Although designed specifically as a 'top of the line' rotor head for the World class flier, GMP's new head is available to all fliers and can be retrofitted to many GMP's helicopters - Cobra, Competitor and Legend.

Fitted to a Legend, the combination will excel all other pod and boom helicopters in sparkling, accurate and consistent contest performance. The new "Elite" head also provides significantly improved hovering performance in gusty conditions.

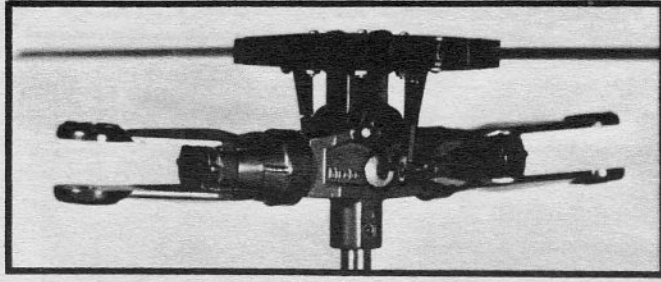
Finally, the "Elite" head is individually assembled and tested before delivery - If you must have top quality performance or just want to own and fly the best, choose GMP "Elite" series.

GMP's NEW 'ELITE' F.A.I. MECHANICS

To ensure the most versatile use of the new contest rotor head, GMP has also produced in limited quantities an "FAI" mechanics set for use in scale fuselages. These mechanics will include all the drive motor components, a special new autorotation gear system which provides tail rotor operation during autorotations and specially designed side frames made from (90 thous) 2.3mm thick 7075 aluminum. The fuel tank is located directly under the main shaft. A spiral gear tail drive takeoff is provided as are all controls including swashplate and 10mm main shaft. The new GMP "Elite" rotor head and precision metal washout unit is also standard feature. Tail drive shaft and tail gear box are optional to allow the contest flier to select his own favorite combination. The "Elite" mechanics with GMP's new rotor head now provide the world level contest flier RC helicopter with the finest available.

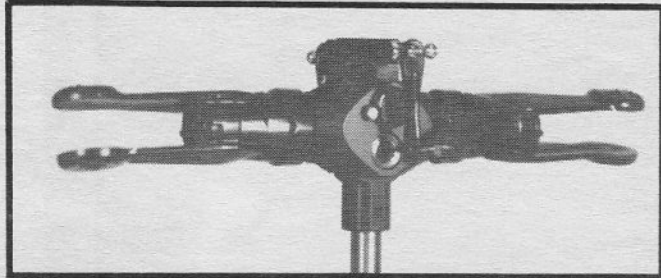


ROTOR HEADS



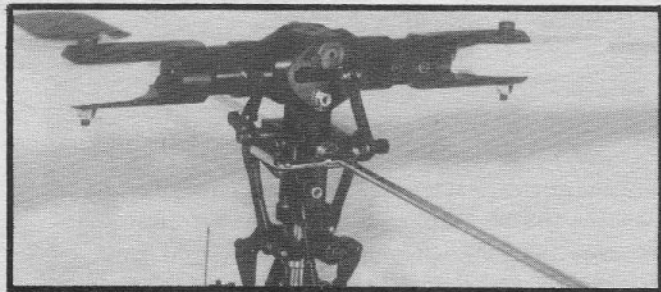
CUSTOM HEAD

GMP's well known and simple Custom head is available on the ever popular and newly upgraded 'Cobra Custom' 50-60 powered machine. This head provides collective pitch, 'Bell-Hiller' feed back, with a very stable yet aerobatic performance. A very good choice for the new fliers first collective pitch machine.



FLYBARLESS HEAD

GMP's new, technically advanced, all metal Flybarless rotor head has three ball bearings in each blade holder and precision machining all over. 'Delta 3' feedback makes this head the first choice of the 'hot dogger', the sports flier and any reasonable competent flier who wants to fly something new and different. GMP's new Flybarless head provides tighter aerobatics, faster forward speeds and 'out of this world' autorotation capability.



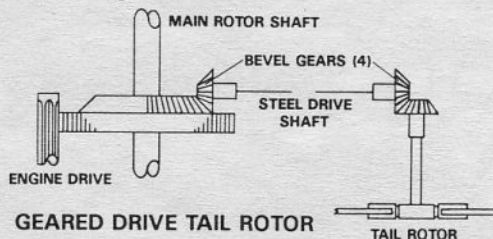
'ELITE' FAI CONTEST ROTOR HEAD (Legend 1000 Series)

After many years of factory flight testing and field experience GMP has finally decided to produce what it believes to be the finest contest rotor head in the world. Made of the highest quality aluminum and steel the 'Elite' rotor head features an under-slung flybar and completely 'slopless' moving parts. Simple, yet very effective, the GMP 'Elite' rotor head is manufactured in the USA for all the world's fliers to use. World Championship class at an affordable price. When you want to move up to the very best, choose GMP's new Legend Series 1000 with the 'Elite' rotor head.

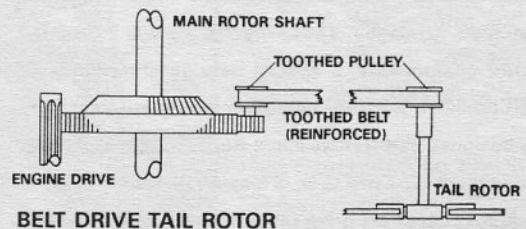
TAIL ROTOR DRIVES

The tail rotor drive on our RC helicopters is a very important part of the whole system. Tail control is notably "skittish", and many pilots use a gyro to help reduce the unwanted activity "back there".

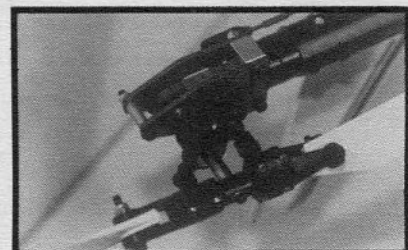
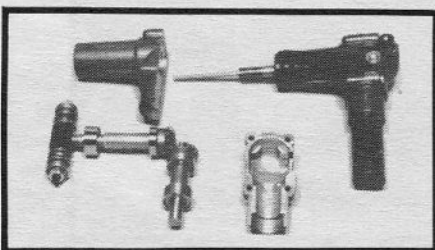
However, an accurate and "slop" free system is needed to enable the flyer to have precise control when needed for the advanced rotational maneuvers which are one of the most colorful and inspiring differences between the flight of a "mere" aeroplane and a helicopter. Advanced helicopter fliers can perform 4 point pirouettes in the hover or even while flying in fast forward flight (see our video). Because of the importance and dependency on good tail rotor control, Hirobo and GMP insist that the very finest design and construction is employed in their tail rotor systems. The standard tail rotor drive gearing on the "front end" of COBRAS and COMPETITORS uses very advanced design spiral hypoid gears—a quiet and efficient method unique to our machines. Compare with the straight spur gear system of other makes. The rear drive uses a very light but beautifully made all-metal gearbox which provides low friction but very precise control, also using dual spiral hypoid gears. This gearbox (shown in the photo) is standard on the GMP -Cricket, Cobra, Competitor and Hirobo Giant Scale. In late 1986, Hirobo startled the model world by reintroducing the belt drive system. A belt drive was used on the early RC helicopters—but with a big difference—the belt was smooth and frequently slipped. Using modern technology to the full, our new tail drive uses a hi-tech composite toothed belt drive developed and used by many industries today as a light and reliable method to transmit rotary motion. The first of this dramatically new system was on the Hirobo SHUTTLE. It was very successful and flyers soon appreciated the tighter tail control (and more accurate maneuvers) which the use of this drive gave to their helicopters. The GMP-STORK "Special Edition" also uses the toothed belt drive on a .60 size machine with the same result—reliability and tighter control.



GEARED DRIVE TAIL ROTOR



BELT DRIVE TAIL ROTOR



IS IT FOR ME ?

Now that you have seen what we have to offer in the field of RC model helicopters we may have inspired you to find out more about this branch of model aeronautics. So we will pose some typical questions and try to provide some realistic answers for you.

DO I HAVE TO BE A MECHANICAL GENIUS?

No, of course not; all the machining and some of the assembly has been done for you - at least in GMP kits it has.

However, you should at least have an appreciation for the need to be reasonably precise and careful in your assembly and adjustments. If you do not have this "feel" for mechanisms and the care that they need, you may not be as successful as you would wish in your efforts. You may even find that trying to fly RC helicopters without this care and attention could result in possible hazard to you or those close to you when you fly.

Having stated the above, we'll assume that you have a positive attitude and enough knowledge and still want to proceed. So the next question could be:

WHAT DO I GET IF I BUY A HELICOPTER KIT?

Here's what you get in any GMP kit:

- A very complete and well illustrated building and flying instruction manual.
- A set of about ten plastic bags, each containing the parts needed to completely assemble one subassembly of your new helicopter. Detailed instructions to build each subassembly are contained in the building instruction manual.
- A set of main rotor blades already sanded and selected for equal weight. They will require the fitting of the blade mounts and covering with the plastic film provided.
- A set of tail rotor blades which will require little work.
- A plastic bag containing all the hardware, nuts, bolts, etc., to build your helicopter.
- A set of plywood parts normally used at the front end of the helicopter to mount the servos, gyro, etc.
- A set of aluminum main frames and an aluminum tail boom.
- Several sundry parts such as piano wire, plastic tubing, etc.

WHAT ELSE WILL I NEED?

Some basic tools - including small and medium screwdrivers, a small phillips head screwdriver, small needle nose pliers, a small tube of screw locking liquid - Loctite is a popular brand, a small container of "10 second" glue, some 100/150 grit sandpaper, a flat working surface, and the resolve to read the instructions at least once very carefully. Although our kits contain the necessary hex or allen wrenches a 3mm nut

driver is very helpful. The best source for the above supplies is your local hobby store; but your local radio, automotive or hardware store would be good places to try also. The new GMP Tool kit contains Loctite and most of the small tools you will need.

You will need a radio control system, a suitable engine and muffler and an electric starter. Ideally again, seek the advice of your local hobby store personnel. If they are not too experienced in RC helicopters check with GMP's technical service and they will advise you. Please make sure that you buy a suitable, good quality radio and engine. Both these items are obtainable in special helicopter versions at reasonable prices and it will make the building and learning tasks so much easier for you.

HOW MUCH WILL IT COST?

Of course your initial cost will depend upon two factors; whether you are already an RC modeler and what class of RC helicopter you will decide upon. Here is at least a guide to give you some idea. RC helicopter kits cost from around \$200 to \$350 for the smaller models such as CRICKET and SHUTTLE, \$350 to \$500 for the larger more sophisticated models like the COBRA range and, hold your breath, between \$1500 to nearly \$2000 for the Hirobo GIANT SCALE models.

Suitable radio equipment will cost around \$250 for a simple system and around \$1000 for a really top-line computerized competition system. A suitable engine will cost between \$75 to \$200. A gyro is also a desirable item - add about \$75. So the entry level cost for a modeler who already has radios and engines can be as low as \$300. The new entrant into RC modeling would expect to pay around \$600 and up if he has to buy everything.

Operating costs will include special model fuel at about 50 cents a flight and replacement parts if you have a very hard landing! GMP stocks ALL parts at costs ranging from \$10 for a pair of CRICKET blades to \$30 for a set of two COBRA main frames. GMP's replacement parts costs are the lowest in the industry and our stock is the most extensive and complete.

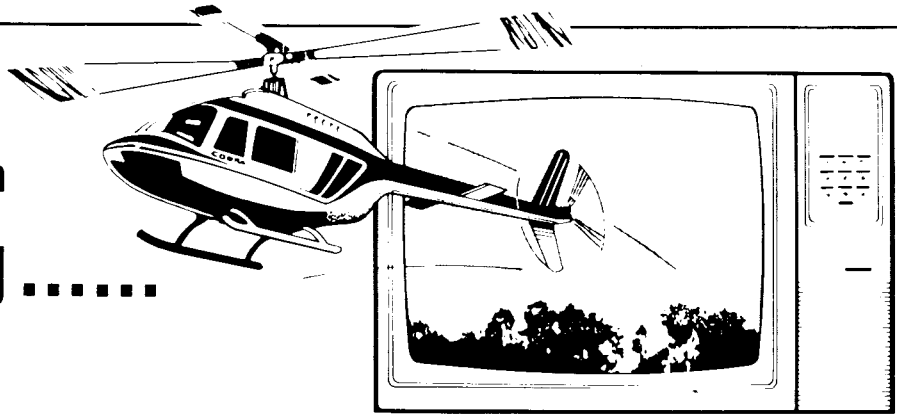
WHAT DO I GET FROM RC HELICOPTERING?

A great sense of personal achievement and pleasure which has to be experienced to be believed. Even to accomplish a steady hover for 10 seconds could make it all worth while. But how about the excitement of doing inverted flight a few inches above the ground? Or landing with a dead engine using autorotation? Then if you get really good - regional, national or even International competition. Maybe in 1989 or 1991 you could "go for the gold" in the World Championships just like the U.S.A's 18 year old Texan did so successfully in 1987. This hobby can be enjoyed almost anywhere (as long as there are no people or property too close) and there is no need to drive to the local flying field to have the use of a runway since your hovering practices can be done in a (unoccupied!) parking lot or other flat surface. Why not at least send for our new video - it will really show you how you may enjoy becoming part of "our wonderful world of RC helicopters"

VIDEO

RC Helicopter Flying

THE VIDEO



Learn to hover and watch the experts fly - all in one great video which was shot in California with a backdrop of the blue Pacific and California beaches. Sit back, relax and watch this 23 minute cassette tape of GMP's RC helicopters flown by beginners and experts over land and sea. Professionally shot and narrated, it brings to life the flying maneuvers an RC modeler especially wants to see. It not only introduces you to the amazing aerobatics of GMP's fine line of helicopters, but it also includes a section which guides the novice step by step in learning how to hover. This is valuable information for the beginner who wants to learn quickly and safely but who does not have an experienced teacher available.

GMP's new video also includes incredible footage of the flying abilities (autorotations, inverted flights, loops and rolls, etc.) of Gorham Model Products entry level up to the competition class models and fliers - PLUS some flying shots of the 1/5 scale Hind D. Don't miss it!

Includes: Cricket, Cobra, Legend, Shuttle, 1/5 scale Hind D, Entry level Rebel and 40 powered heli Rebel

Also available in PALS format

VHS Part# 630
BETA Part#631

COMMENTS

"You make great products, keep up the good work!!!
Mark A. Curtiss
Billings, MT
(Shuttle)

"Overall excellent quality in construction and finish"
Stan E. Zolina
Elmhurst, IL
(Shuttle)

"Very good kit, I love it!!"
Alex Valdes
Jackson Hts., NY
(Competitor)

"After flying my Shuttle for 2 years I decided to buy a new helicopter. My income is rather limited as I am a student so a quality machine was important. I chose a GMP Cobra because of its reputation as a quality helicopter and the fact that it is, at least in part, American made...Thanks and keep up the great work."

Britt Rothman
Gainesville, FL
(Shuttle & Cobra)

"Without question I find GMP products to be exceptional in design, quality and handling. Quite simply you make an excellent helicopter."

Bill Fike
Indianapolis, IN
(Competitor)

"I am a previous " " owner and flyer -- but so long to them. Now with owning a Cricket and a Competitor - I own the best flying machines on the market!"

Merlin Fisher
Fowler, OH
(Cricket & Competitor)

"After completing my Cobra kit I can see why this model is so popular."

Bob Chatigny
Weatherford, OK
(Cobra)

"I cannot begin to tell you how happy I am that I chose your Company to be my first venture into Heli World. You know when you have the right product and Company when you have a problem and that company stands by their product. With that kind of reputation I now own 2 Competitors and a Shuttle, in a very short period of time."

Michael Rotondi
Smithtown, NY
(Competitor & Shuttle)

"I was really impressed with the Stork SE kit as soon as I opened it...I've enjoyed assembling my GMP Stork SE and enjoy flying it even more! Everybody stops to see it fly, its real smooth, goes where I point it and stays in adjustment. I just fly, a real pleasure."

Jim Downey
Destrehan, LA
(Stork SE)

...the GMP Flybarless Legend straight from the box is without a doubt, the best all around helicopter I have ever flown...the Legend was designed for the average guy who was proficient and wanted a helicopter capable of giving more than his trainer or the all-out specialized FAI machines...the Legend is quicker and out turns anything this scribe has ever flown. The Legend makes true pylon turns, Split S's, and Cuban eights, all unreal...if all this performance was 'nt enough, the kit is a dream to put together...So there's my first impression of the Legend kit. Sparkling performance, nice racy appearance, a beautiful kit and easy to build.

Larry Jolly
(Review from Model Aviation - June 1989)

"I purchased the Cricket in November of 1988 and have been working with it as weather permitted. I have now progressed to the point where I can keep the model in the air for 10 to 15 seconds at a time.

When you consider we are learning from scratch with no trained assistance, I think you can see this is a compliment to your design. As I've learned to set it up, it has been very stable. The only problem being the pilot.

I thank you for your assistance and for a basic helicopter model that is allowing us to experience helo operation with no assistance."

Charles Ott
Roscommon, MI
(Cricket)



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