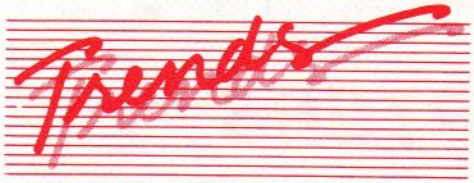

GMP
RC HELICOPTERS
1986
COLLECTION



A MESSAGE FROM JOHN GORHAM

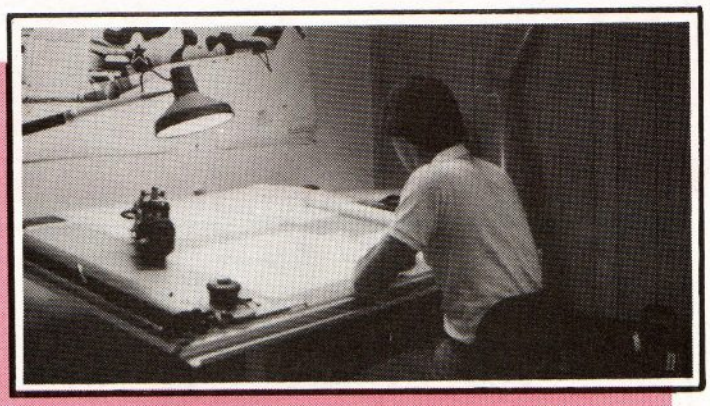
1984 and 1985 were certainly impressive growth years for the RC helicopter movement. We at GMP are proud to have been part of this growth and to have contributed to it with our products and service.

GMP was started in 1980 as a small, family group of three people. The annual sales for the first year were $100,000. Our sales for 1986 should exceed $3,000,000 - a growth of 30:1. This rate of growth has kept all of us at GMP very busy. Our staff is now approaching 30 full time employees and we also utilize many subcontractors to help us to produce our kits and accessories.

Our most exciting helicopters for 1986 will be Cobra (now well proven as a consistent contest winner) and the new Hirobo Shuttle. Shuttle is a brilliant new concept from one of the world's finest RC helicopter companies and will certainly revolutionize our whole attitude and approach to the sport side of RC helicopter flying. Imagine? No, it's actually here - an RC helicopter fully built, painted - virtually ready to go. And it's impact on our hobby? Well, we'll see but whatever happens, we'll be in there pitchin' and supporting and encouraging the further growth in this exciting area of RC heli flying. Our key words for 1986 are innovation and support. See you at the flying field?

DESIGN

Many of GMP's RC helicopters are designed and manufactured in the U.S.A. CRICKET, HUGHES, COMPETITOR and COBRA are either totally or partially designed by us. Joint design efforts with the leading Japanese manufacturer - Hirobo - are proving to be very successful. COBRA is a good example with roughly 50% design and manufacture in each country. GMP's design facilities are in-house and staffed by professionals. Additional efforts as needed are provided by top ranking industry consultants. Apart from continuing efforts to provide the modeler with the finest RC helicopters possible, GMP's talents are now being utilized by the U.S. military to design and build large size target and drone helicopters.



R & D

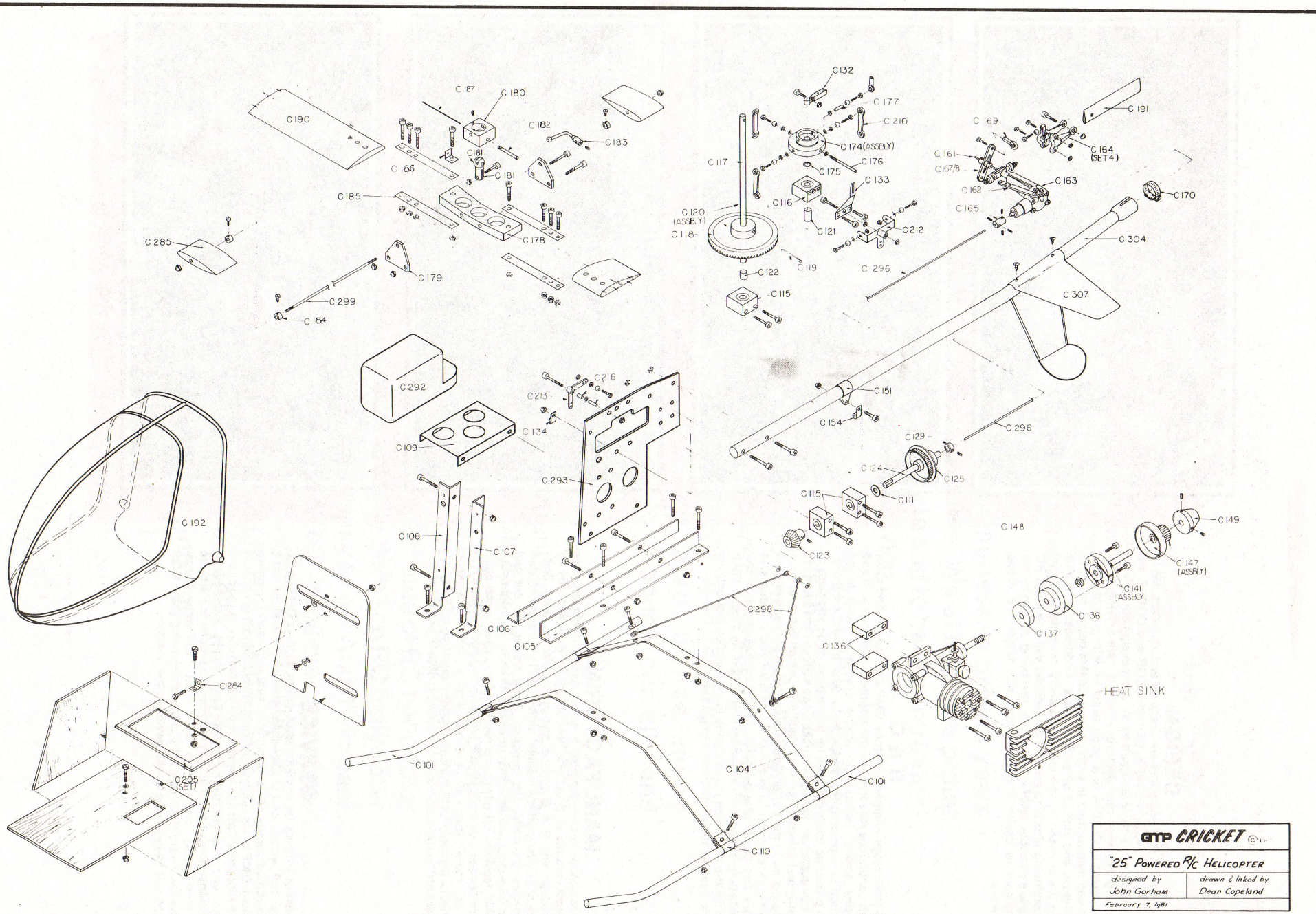
No Hi-technology company such as GMP can survive and grow without continuous research and development. GMP has built and maintains special facilities to enable constant efforts to be expended in improving the design features of current machines and in preparing the prototypes for future production and sales to you - our customer. Problems which arise with our products are evaluated and solved in our R & D facilities. Design improvements are passed on to the design and production departments for the the earliest incorporation in our kits. The GMP R & D group also provides test building and rigorous flight evaluation of all our products before they are released for production. As a result, GMP kits enjoy the reputation of having the finest building instructions and the best flight performance in the industry.

MANUFACTURING

GMP possesses its own complete in-house machine shop facilities and manufactures all prototype helicopters for evaluation by its own design and R & D groups and other selected fliers. Sub-assembly of nearly all mechanical units used in production GMP Helicopters are performed in-house. Rotor blades are cut and drilled from stock. All vacuum formed plastic parts are produced in the GMP facilities. Large volume machined and sheet metal parts are designed and drawn in-house and then sub-contracted out to one of more than 40 sub-contractors which regularly manufacture/supply GMP parts. A double inspection technique is standard on the sub-assemblies and packing of GMP parts and kits.

SERVICE

The seal of success on any kit manufacturer such as GMP is the quality and extent of its after-sales support. A plentiful and uninterrupted supply of parts call for a very large and expensive inventory. GMP holds - inplant - a stock of over $500,000 of parts for all its helicopters. Fast and friendly supply of parts is insured by the Eastern and Western USA depots. Each facility has several technicians/fliers who can quickly answer your problems. Parts are also now widely available in more than 700 hobby stores nationwide. These stocking hobby stores are growing daily. GMP has and will maintain the finest service in the industry.

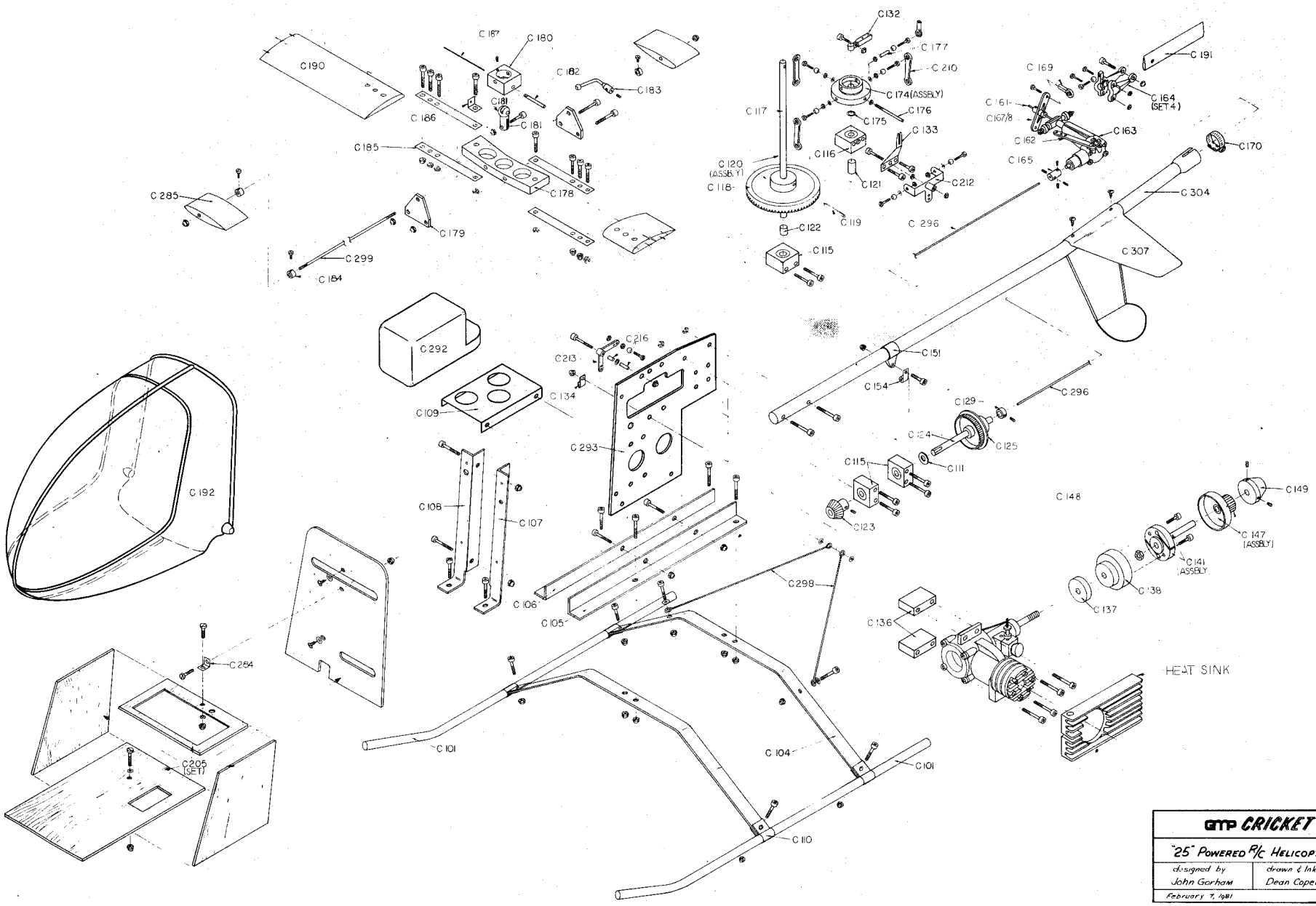


GMP CRICKET ©

"25" POWERED R/C HELICOPTER

designed by	drawn & inked by
John Gorham	Dean Copeland

February 7, 1981



GMP CRICKET ©1981	
"25" POWERED R/C HELICOPTER	
designed by John Gorham	drawn & inked by Dean Copeland
February 7, 1981	

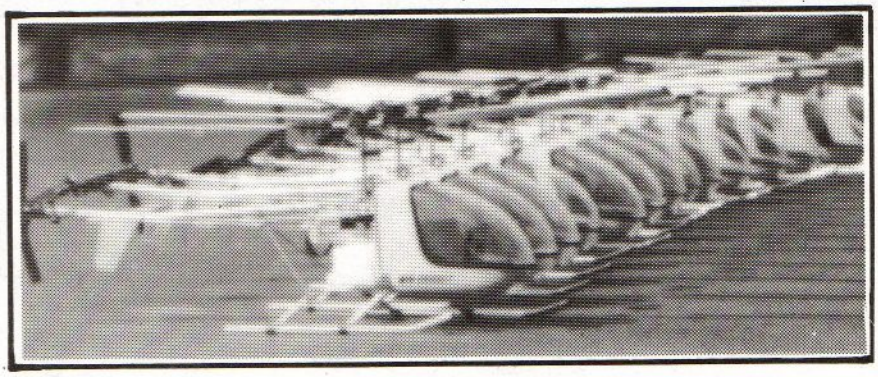
CRICKET

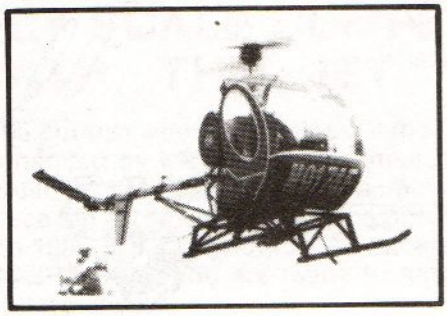
GMP (Gorham Model Products) was started in 1979 as a subsidiary company of Gorham Associates, aircraft design consultants to industry and government. John Gorham, a model airplane enthusiast all his life, discovered (like many others) the RC helicopter challenge in 1970. By 1978 he was convinced that a small, inexpensive, simple RC helicopter was needed if RC helicopter flying was to become widespread. John used the KISS (Keep it simple, stupid!) and the SAAL (simplificate and add lightness) principles in combination with his extensive engineering design experience and background. The result was CRICKET, which was introduced to modelers in 1979.

To summarize, CRICKET is the perfect solution for the beginner who wants to start into RC helicopters but doesn't want to commit too much money. It is also an excellent choice for the expert who wants to have something a little simpler, or a little less costly, to 'mess' around with in his own home or on weekends or when he goes away for a family vacation. We think when you own a CRICKET you will be amazed at its simplicity and performance. We believe this RC 'chopper has set a new standard for small RC helicopters.

Quit apart from its design and manufacturing excellence, CRICKET also comes with two extra features which will enhance its value to you over other similar machines. First CRICKET parts are manufactured in the USA and the materials, tolerances and finishes are equal to those on full sized machines.

Second, and also vital to your successful learning and flying, technical advice is available nationwide. A network of dealers and technical service centers insure the support that the heli flier needs. CRICKET owners also receive service bulletins which cover all the problems which beginners have in learning to fly or in adjusting their machines.





HUGHES 300

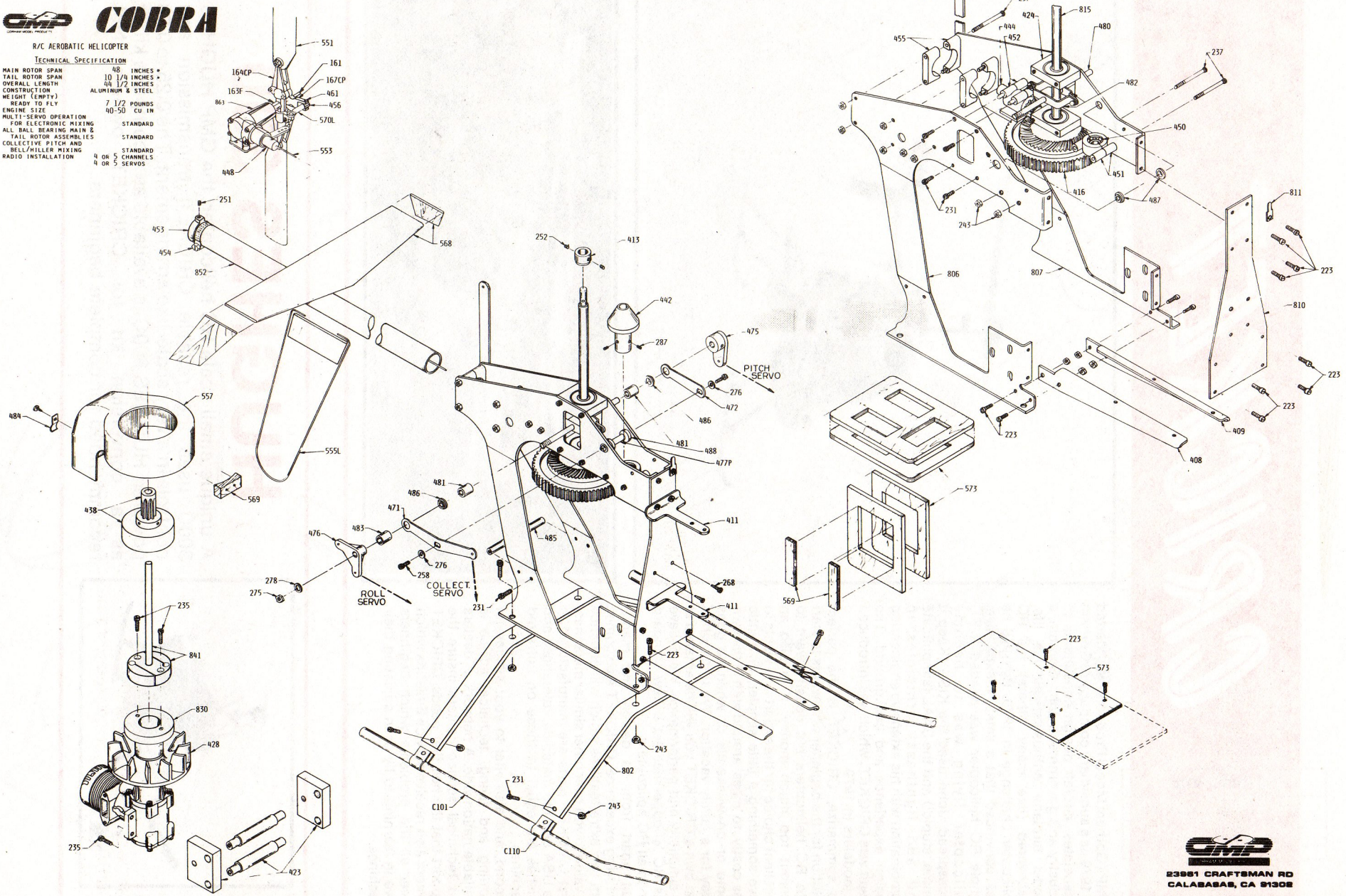
A unique small scale RC helicopter, the GMP HUGHES 300C uses the reliable CRICKET transmission and controls in a very scale-like arrangement. The 0.25 to 0.28 powered HUGHES 300C is available as a complete kit or as a conversion kit for CRICKET owners. Not recommended for complete beginners.

COBRA

R/C AEROBATIC HELICOPTER

TECHNICAL SPECIFICATION

MAIN ROTOR SPAN	48 INCHES *
TAIL ROTOR SPAN	10 1/4 INCHES *
OVERALL LENGTH	44 1/2 INCHES
CONSTRUCTION	ALUMINUM & STEEL
WEIGHT (EMPTY)	
READY TO FLY	7 1/2 POUNDS
ENGINE SIZE	40-50 CU IN
MULTI-SERVO OPERATION	
FOR ELECTRONIC MIXING	STANDARD
ALL BALL BEARING MAIN & TAIL ROTOR ASSEMBLIES	STANDARD
COLLECTIVE PITCH AND BELL/HILLER MIXING	STANDARD
RADIO INSTALLATION	4 OR 5 CHANNELS 4 OR 5 SERVOS



23961 CRAFTSMAN RD
CALABASAS, CA 91302

COBRA

R/C AEROBATIC HELICOPTER

TECHNICAL SPECIFICATION

MAIN ROTOR SPAN	48 INCHES +
TAIL ROTOR SPAN	10 1/4 INCHES +
OVERALL LENGTH	44 1/2 INCHES
CONSTRUCTION	ALUMINUM & STEEL
WEIGHT (EMPTY)	
READY TO FLY	7 1/2 POUNDS
ENGINE SIZE	40-50 CU IN
MULTI-SERVO OPERATION	
FOR ELECTRONIC MIXING	STANDARD
ALL BALL BEARING MAIN &	
TAIL ROTOR ASSEMBLIES	STANDARD
COLLECTIVE PITCH AND	
BELL/HILLER MIXING	STANDARD
RADIO INSTALLATION	4 OR 5 CHANNELS
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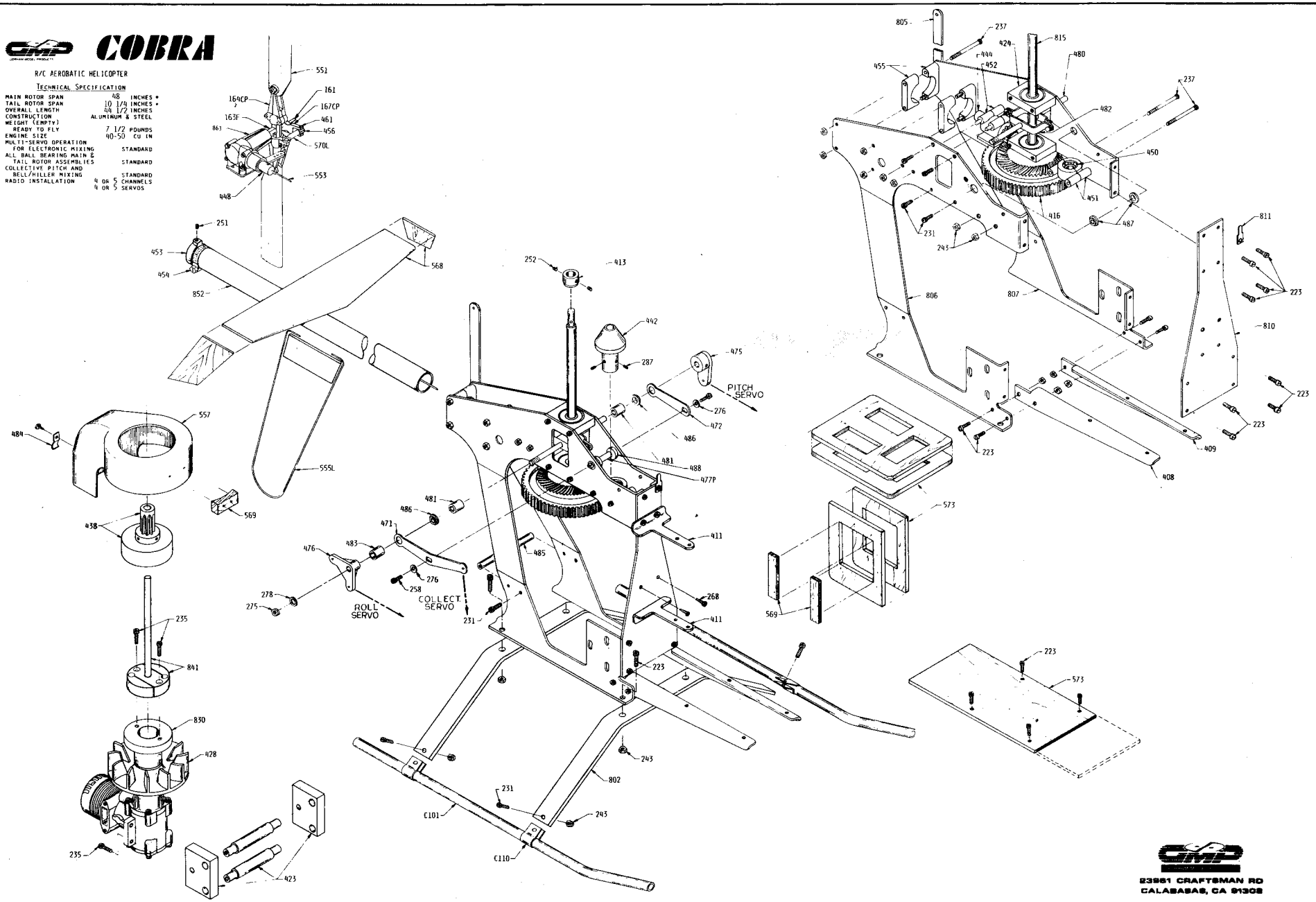


23961 CRAFTSMAN RD
CALABASAS, CA 91302

Winner of the 1985 NATS

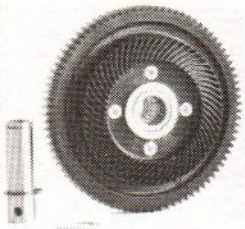
SPECIFICATIONS:
COBRA is a 40-50 powered, fully aerobatic RC helicopter, specifically designed to be suitable for beginner, intermediate and expert fliers. Hovering and forward flight stability is unsurpassed while aerobatic performance is nothing short of breath-taking. COBRA can perform all AMA and 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 in Japan.

WEIGHT	7 Lbs.	(3 Kgs.)
ROTOR SPAN	48 inches	(122cm)
LENGTH	44 inches	(112cm)
HEIGHT	18 inches	(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 high-efficiency aerofoil
- 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

FLY SCALE COMPETITIVELY WITH THE JET RANGER

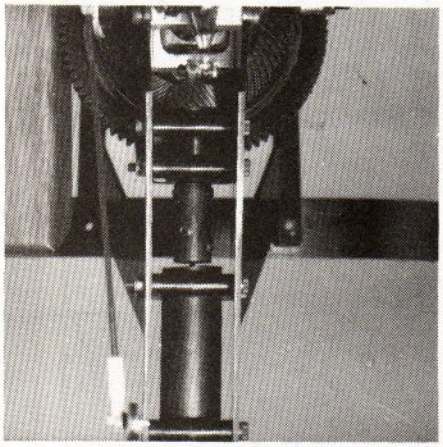
The contest winning qualities of the COBRA is further enhanced by the addition of the superbly scale JET RANGER FUSELAGE. This combination was used to place 5th in the 1985 World Championships, and 1st in the 1985 U.S.A. Nationals. An excellent step-up from COBRA when you are ready to handle it's sparkling performance.



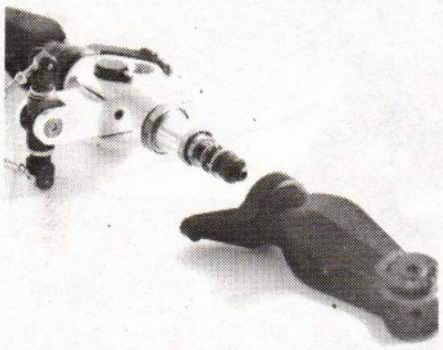
Autorotations are easy with multiple bearing clutch.

Advanced rotor head provides precision aerobatics.

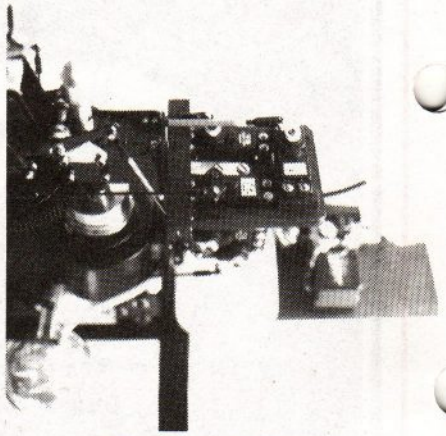
Precision clutch and engine versatility.



Spiral gear drive system for longer life.



Triple, adjustable bearings for control power.



Compact and versatile radio installation.

AUTOROTATIONS ARE EASY WITH MULTIPLE BEARING CLUTCH

The rotor blades of the COMPETITOR have a semi-symmetrical section and are generally heavier than most other 60 model rotor blades available today. This factor helps in ensuring COMPETITOR'S superior autorotation capability. In fact, many flyers have reported the ease with which the COMPETITOR can be landed after an engine failure compared with other RC helicopters fitted with so called "auto-rotation". The GMP COMPETITOR autorotation gear is fitted with three bearings, rather than the single one used in some other 40 and 60 powered helicopters.

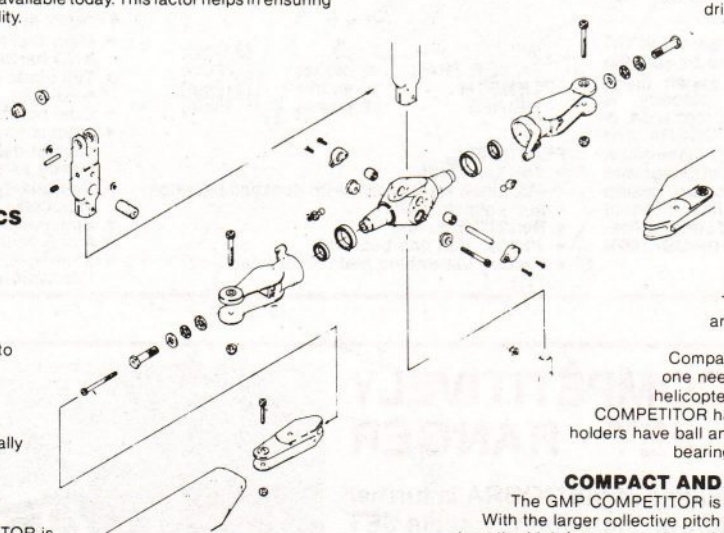
ADVANCED ROTOR HEAD PROVIDES PRECISION AEROBATICS

Because the quality of the controls of any flying machine will dictate the final performance, particular emphasis has been placed on the control system of the COMPETITOR. You will find many more ball and thrust bearings in the COMPETITOR than in other similar RC helicopters. The purpose of this is to provide a very "tight" control system so that all inputs from the transmitter will be immediately and fully available at the control surfaces. This is a prerequisite to fine quality performance in any flying machine, but especially in an RC model helicopter.

PRECISION CLUTCH AND ENGINE VERSATILITY

The standard starting system of the COMPETITOR is the top cone start now demanded by discriminating American modelers. This means extra expense in the design and manufacturing of the helicopter but the inclusion of this feature greatly eases the starting process and eliminates any problems which sometimes arise when starting with a starting belt.

Although the GMP COMPETITORS have been designed to be rugged, they utilise advanced and light construction techniques so they will fly with engines ranging through a .40 to .61 cu. in. Both the CUSTOM and the PROFESSIONAL model give excellent results with a .50 Schneurle or P.D.P. engine but can also be flown with the .45 or .60 size. A good .45 cu. in. Schneurle engine will fly the CUSTOM well and is, in fact, perhaps preferable for the beginner who is just transitioning into his first aerobatic helicopter. Don't forget that you can change the size of your GMP COMPETITOR engine at any time.



The clutch is a classic one-piece design, superior and reliable. This unit is many times more expensive to manufacture than other plastic and two-piece metal clutches available today but it gives smoother engagement and drive performance and will virtually last "forever".

SPIRAL GEAR DRIVE SYSTEM FOR LONGER LIFE

The main plastic drive gear itself is of a very sturdy construction and the tail drive gear track provides a very wide contact area because the tail drive steel pinion is of an advanced spiral hypoid design. This means less likelihood of damage to the gear. Should the gear be damaged, however, a replaceable plastic part can be easily fitted at a very low cost.

TRIPLE, ADJUSTABLE BEARINGS FOR CONTROL POWER

The blade holders and blade arms are integral and each holder rotates on two high quality ball bearings *plus* a thrust bearing (another first!). Compare with helicopters using one ball bearing and one needle bearing only. High centrifugal loads which helicopter blades experience need thrust bearings and COMPETITOR has them. In fact, both main and both tail blade holders have ball and thrust bearings. And, how about double ball bearings in the pitch plate of the tail control system!

COMPACT AND VERSATILE RADIO INSTALLATION

The GMP COMPETITOR is designed for either a 4 or 5 servo installation. With the larger collective pitch helicopters it is an advantage to use 5 servos since the high forces experienced in moving the collective pitch in the helicopter are best handled by a dedicated servo, leaving another one to operate the throttle. This is by no means necessary and, provided the servos are good enough, the COMPETITOR, like any other helicopter of its type, can certainly be flown well with 4 servos. Any of the inexpensive 4 channel radios available today will usually work well. When using one of the new helicopter radios, however, 5 servos are necessary if the full advantages and the features of the radios are to be used.

TECHNICAL SPECIFICATIONS

MAIN ROTOR SPAN	48 - 55 inches	WEIGHT READY TO FLY	8½ pounds
TAIL ROTOR SPAN	10 - 11 inches	RADIO	4 - 5 channels
OVERALL LENGTH	50 inches	ENGINE	.40 - .61 cu. in.

COMPETITOR

AEROBATIC RC HELICOPTER PROFESSIONAL MODEL

DEMANDED BY THE DEMANDING

Far and away the best performer in all helicopter contests since its introduction in 1983, the GMP COMPETITOR 'PRO' offers the utmost in aerobatic performance while preserving a stability and reliability which attracts the beginner. A wide range of 50-61 engines may be used.

COMPETITOR is now offered only in the one version with the top aerobatic rotor head which permits inverted flight - the COMPETITOR 'PRO'. This kit is complete with collective pitch, Bell/Hiller mix and autorotation. More ball and needle bearings for your money than any other RC helicopter, COMPETITOR offers contest winning performance with the highest reliability. COMPETITOR - the choice of champions.

STANDARD FEATURES

- Light weight black anodized main frames
- Rugged anodized landing gear
- Hypoid spiral gear tail drive
- Individually machined clutch bell
- Compact, versatile ratio tray
- Unique in-line swash plate
- Hi-performance, semi-symmetrical rotor blades
- Super aerobatic Hiller paddles
- Sealed main bearings

TECHNICAL SPECIFICATIONS

Performance fully compatible with:

- AMA contest rules
- FAI contest rule
- Inverted flight

Weight-9 lbs. with O.S. 50 engine
Main rotor speed - 1,700 - 1,800 RPM
Engine/Main rotor ration - 8:6 (?)
Radio - 4 - 5 channels
Hardened and ground starting shaft
Hi-quality steel shaft
Triple bearing main rotor blade grips
Dual bearing tail rotor blade grips

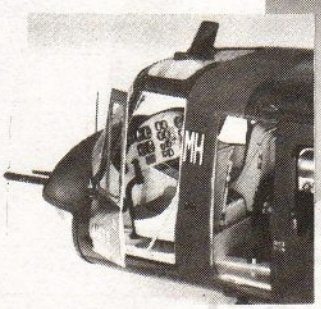
HIROBO GASOLINE ENGINE HELICOPTERS

BELL47G-2

- Main Rotor Span/1.800m/m(70.8")
- Tail Rotor Span/310m/m(12.2")
- Fuselage Length/1,570m/m(62.0")
- Fuselage Width/345m/m(13.6")
- Full-equipped Weight/7,050g(15.5lbs)
- Engine/20cc
- Radio/4ch.5s.(for Helicopter)

iroquois GX-20

- Main Rotor Span/1.800m/m(70.8")
- Tail Rotor Span/310m/m(12.2")
- Fuselage Length/1.580m/m(62.4")
- Full-equipped Weight/6.950g(15.3lbs)
- Engine/20cc
  (Hirobo 20cc Gasoline Engine HGE-20EH)
- Radio/4ch.5s



- Big size perfect 1/7.4 full scale model.
- Hirobo gasoline engine HGE-20EH 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.

These two giant scale powered RC helicopters by Hirobo are the world's finest. GMP is proud to offer these very realistic sounding and looking choppers to the scale enthusiast for many hours of true-to-life exciting helicopter flight.

The trend is now turning to more scale-like but aerobatic RC helicopters. Hirobo offers a choice of the stand-off scale CORVETTE, the JET RANGER, and the all new AGUSTA 109. Each one utilizes a very highest grade of mechanics, together with the world's finest rotor head - the SST-DDF.

DDF-SST Corvette

60 CLASS
SUPER STUNT ORIGINAL HELICOPTER

- Main Rotor Span/1.560m/m(61.4)
- Tail Rotor Span/310m/m(12.2")
- Fuselage Length/1.425m/m(56.1")
- Full-equipped Weight/5,100g(11.2lbs)
- Engine/60-61 class
- Radio/4ch.5s.(for Helicopter)

- Gear Ratio
  Engine: Main Rotor/10.357:1
  Main Rotor: Tail Rotor/1:5 187
- Total Weight/2,500g
  (5.6lbs)
  Including Rotor Head, Engine, 4 Servo & Gyro

DDF-SST Jet Ranger

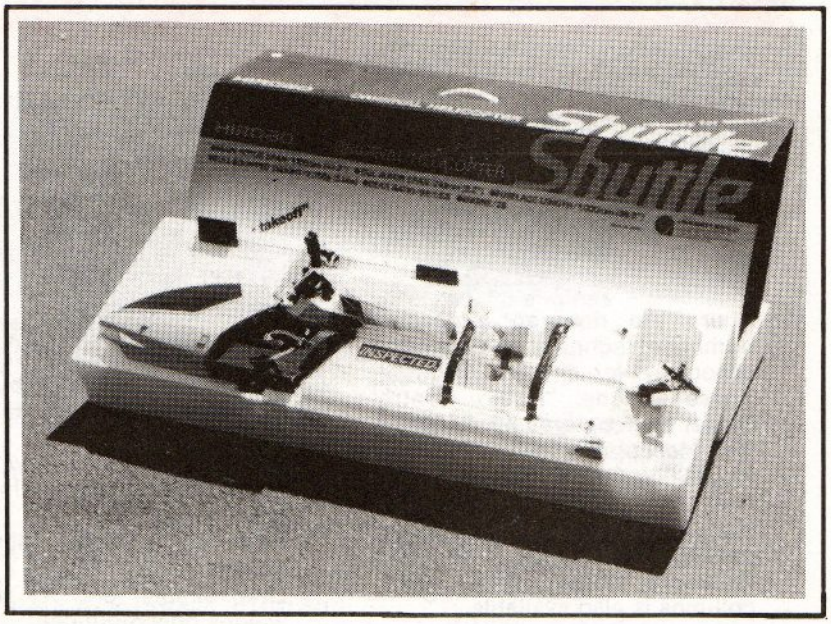
60 CLASS
SUPER STUNT HELICOPTER

- Main Rotor Span 1.560m/m(61.4)
- Tail Rotor Span 310m/m(12.2)
- Fuselage Length 1,410m/m(55.7")
- Full-equipped Weight 4,800g(10.5lbs.)
- Engine 60—61 class
- Radio 4ch.5s (for Helicopter)

HIROBO SUPER STUNT HELICOPTERS

There's a new kid in town!

Shuttle



GMP's latest—a new Hirobo .28 powered heli—built and painted, features collective pitch, Bell-Hiller mix, auto-rotation. Just add radio, engine and fly.

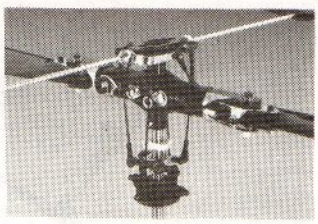
AGUSTA 109

WAY AHEAD OF ITS TIME:

- 60 powered
- Aerobatic - will perform all AMA/FAI maneuvers
- New high tech swashplate and washout controls
- Rear exhaust installation capability
- Metal servo trays
- Superbly detailed fiberglass fuselage
- Mechanics easily removable
- Inverted flight capability
- New "DDF" rotor system with Lead/Lag adjusters included

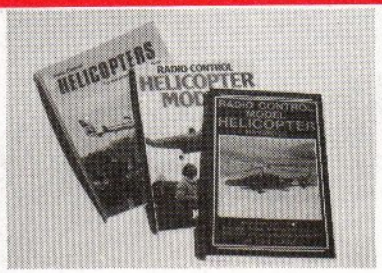
HIGH-TECH AND THEN SOME:

- Most advanced rotor head available in the world
- Adjustable, independent flapping on each rotor blade
- All ball bearings
- Superb CNC machining
- Dampened teetering mode
- Beautiful black anodized and polished aluminum finish



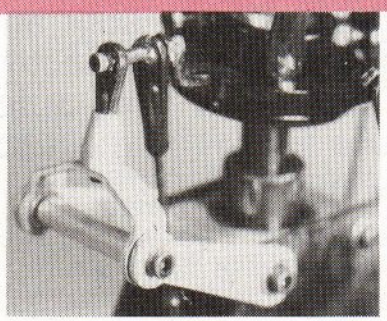
ACCESSORIES

BOOKS • REPRINTS



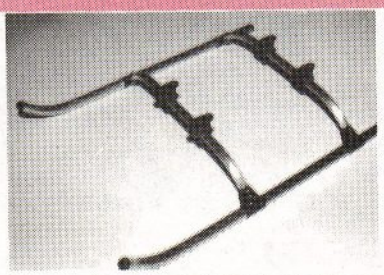
There are now an increasing number of technical books written especially for the RC heli-flier. These include: "Radio Control Model Helicopters" by J. Drake; "RC Helicopters for the Practical Model Flyer" by W. Snitjer, "Radio Control Model Helicopter Handbook" by D. Lodge. A package of reprints of John Gorham's "Give It A Whirl" columns is also available.

RADIUS ARM



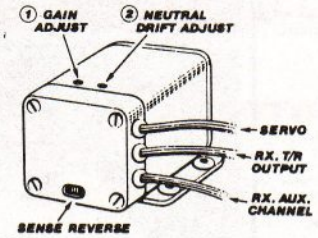
Methods of restraining swashplate rotation vary from machine to machine. Nearly all have the disadvantage of mechanical 'slop' or unwanted rotation of the swashplate as it moves up and down. The new super radius arm eliminates all these qualities and provides the perfect solution.

THE ULTIMATE LANDING GEAR SET

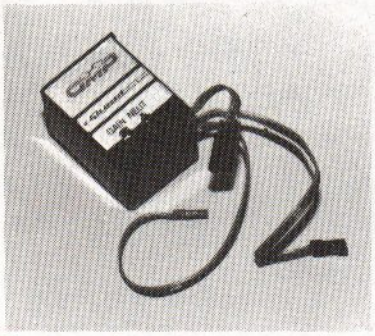


The ultimate landing gear set. Made of hi-grade aluminum and steel, this equipment will enhance either your sports or scale heli. Complete with rubber damping attachments.

THE QUEST GYRO



- Features integral sense reverse switch-no need to cut and re-solder servo wires.
- Variable gain in flight by auxiliary channel on your transmitter.
- Sensitive to slowest yaw movements to give virtual "heading hold" response.
- High quality motor uses only 140mA
- One simple unit to install, weighs only 3 ounces.
- For helicopters ***and*** planes.

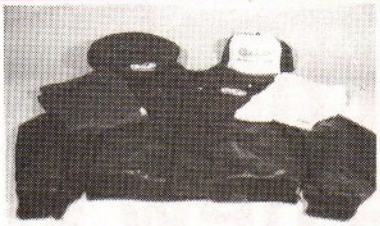


Now nearly everyone uses them. The 'yaw' gyro is widely available and is used by nearly all 'club' and 'expert' helicopter fliers. The yaw rate gyro is inexpensive, simple to fit and certainly helps to control that twitchy tail.

DAMPERS

If you do a lot of hard landings this damper set is for you. The four shock isolaters mount between your landing gear and the main frame. Many experts use these dampers to 'soften' their autorotation landings and increase the life of the rest of the machine. Also shown are rubber skid plugs (set of 4) to dress-up your landing gear.

JACKETS SHIRTS ETC.



GMP's 1986 shirts, field jackets, caps and hats are different - and classy. Black nylon "members only" type jackets, "sports" shirts with collar and pocket, and either "Gatsby" type cap or the standard type hat.

METRIC HARDWARE

Can't find that metric bolt, nut or washer just when you need it most? Reach for the right piece from your own workshop supply with this 340-piece set of socket and pan head bolts, set screws, plain and lock nuts.

CONTROL LEVERS

The control levers on most modern RC helicopters are well made and work well. For the super fastidious builder and fliers we offer 'L' and 'I' levers which are each fitted with dual flanged sealed ball bearings.

SHRINK TUBING

GMP's rotor blade shrink tubing is new and improved - thicker yet more flexible, comes in black, white, yellow, red and in 4 sizes to suit all your helis. Try it.

ACCESSORIES

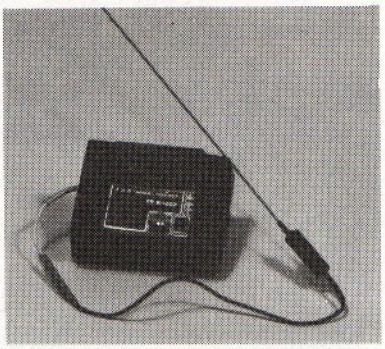
MUFFLERS

Mufflers of many varieties are available from GMP dealers. Special mufflers for rear exhaust engines, the famous and very efficient 'MACS' ball for all engine sizes and a new range of compact mufflers for use in scale ships.

PRECISION ROTOR PITCH GAUGE

Designed and manufactured to be a fine precision measuring tool, the ROTOR PITCH GAUGE eliminates hit-or-miss adjustment as the pitch angles of the rotor blades are set with the chopper in any position. The GMP ROTOR PITCH GAUGE allows precise measurement of collective, roll and pitch adjustments on any RC helicopter. Packaged in a beautiful fitted leatherette hinged box.

WHIP ANTENNA GIVES HIDDEN PERFORMANCE



Gone forever is the nightmare every heli-flier dreads; stepping on a 3 foot antenna and ripping it off the front of your prized chopper just as it's ready to fly.
Base loaded, this short WHIP ANTENNA gives "hidden performance. Less than 7" long, it can be mounted to project in front of any helicopter or inside the canopy where it is virtually invisible.

SCALE FUSELAGES

What's more incredilbe than a range of interchangeable, exact scale fuselages, simple to install on the GMP COBRA, at a price the modeler can afford?
The first one, the JET RANTER, is now available from GMP. This innovation in modeling means consumers don't have to purchase a complete kit for a change of pace.
to match the availability of the new fuselage, GMP now offers a COBRA mechanics kit to help keep costs down.
The JET RANGER fuselage contains a superbly detailed exact 1/7 scale body and tail boom. The fuselage openings are already cut and all plywood formers are die-cut, ready to glue in. The kit also contains a full set of hardware necessary to install the COBRA mechanics and, most important, scale landing gear, complete with rubber damper mounts.

KITS

For the best selection of trainer, sport and contest helicopter kits. go GMP:

For .25-.28 engines
- Cricket Custom
- Cricket Super Custom
- Hughes 300C

For .40-.50 engines
- Cobra Custom
- Cobra Custom w/Autototation

For .50-.61 engines
- Competitor Professional
- Competitor Professional w/Autorotation

Complete kits with fuselage
- GMP Hughes 300C
- GMP Jet Ranger w/Cobra Mechanics
- Hirobo .50-size Lama
- Hirobo .60-size Iroquois
- Hirobo Agusta 109 SST w/DDF Head
- Hirobo Corvette SST w/DDF Head
- Hirobo Jet Ranger SST w/DDF Head

Hirobo Giant Scale
- Bell 47G (1.2 cubic inch engine)
- Iroquois (1.2 cubic inch engine)

Fuselage Kits
- GMP Jet Ranger
- More to come in '85

Scale Mechanics Sets
- Hughes 300C for Cricket Competitor w/Scale Head
- Hirobo w/SST Head
- Cobra/Jet Ranger w/Scale Head

Another New Concept!
- Hirobo Shuttle

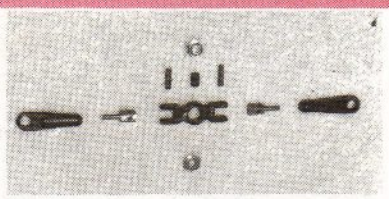
ACCESSORIES

FOR CRICKET

COOLING SYSTEM

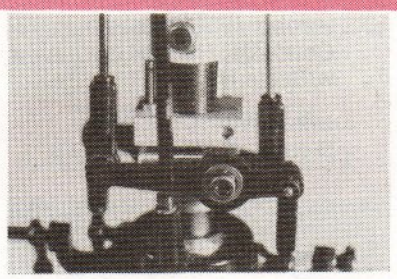
For the CRICKET flier who wants the additional luxury of forced air cooling, the cooling system designed for the GMP HUGHES 300 C is available as a retrofit kit. Easy to install and provides that extra insurance against over-heating on those 'hot' summer days. This cooling system kit can also be used with your own design.

PITCH PLATE



This dual ball bearing tail rotor pitch plate system can up-grade your CRICKET or Hirobo scale helicopter. Tail control is smoother and less likely to become 'sloppy' with wear.

BALL BEARING WASHOUT CONTROL



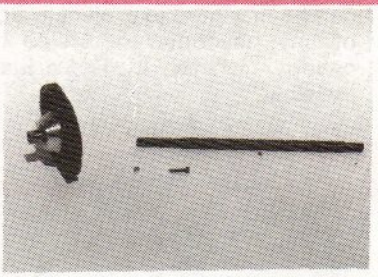
In order to maintain an accurate cyclic pitch 'paddle' position while collective pitch changes are made, a 'washout' mechanism is used. The standard design is made of molded nylon and works well. For the super builder we now offer as an option for competitor and COBRA a fully ball bearinged machined washout unit.

FOR COBRA AND COMPETITOR

IN-LINE SWASH PLATE

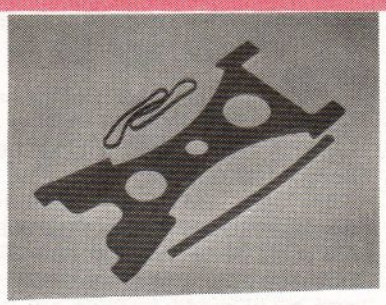
This new "in-line" machined swashplate will fit COMPETITOR and COBRA (and other helis, too) which have 10mm main shafts. The 'super' swashplate precisely aligns input and output movements and thus provides more accurate control.

AUTOROTATION UNIT



This superb triple bearing autorotation unit is available for COMPETITOR and COBRA helicopters. A slightly different version can be fitted to all Hirobo scale helicopters. The use of this unit enables true autorotations to be made by an average flier. In some cases a main shaft change is also required.

ROTOR BLADE STAND



Don't damage your rotor blades and linkages when you transport your RC 'chopper'. Fold your rotor blades back and use a GMP rotor blade holder rack. Made of precision die cut plywood they can be painted or used as they come.

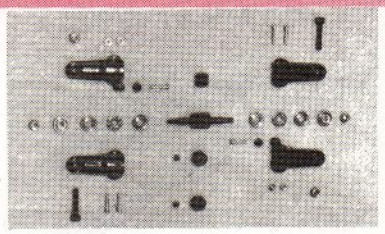
STARTER EXTENSION

Two different starter adapters are manufactured by GMP for use on any/all cone start helicopters. The adapters fit onto the Sullivan starter in place of the one which comes with it. The 'long' starter is for COMPETITOR and COBRA and the short one for CRICKET. The short adapter can also be fitted with a pulley unit for use with boats or helis which have a belt start.

COMPETITOR SIDE PANEL

These stylish side panels are available as an option for your COMPETITOR. They provide improved visability as well as 'dressing up' the appearance of your machine. The 'GMP' COMPETITOR side panels are easily fitted and removed as needed. They add about 6 ounces to the total weight of your machine.

BALL BEARINGS



Any single tail rotor ball bearing GMP helicopter can be upgraded to a dual ball bearing system with this kit. Tail rotor control will be smoother and bearings will last longer.

Why do the leading fliers choose GMP?

EXPERT CLASS RESULTS

1st Robert Gorham
GMP Cobra/Jet Ranger

2nd Ralph Dalusio
GMP Competitor

3rd Curtis Youngblood
GMP Competitor

4th Bill Curtis
GMP Cobra

5th Tom Dalusio
GMP Competitor

6th Dave Youngblood
GMP Competitor

F.A.I. RESULTS

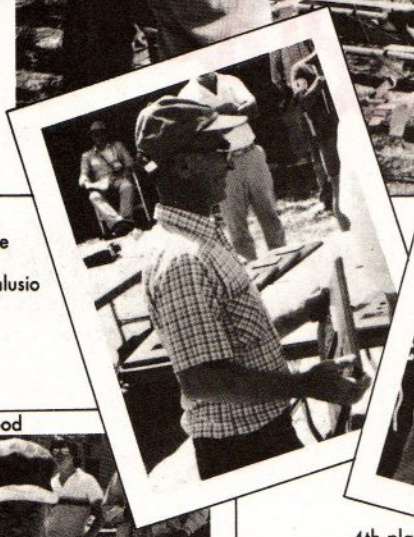
1st Tom Dalusio
GMP Competitor

2nd Robert Gorham
GMP Cobra/Jet Ranger

3rd Curtis Youngblood
GMP Competitor

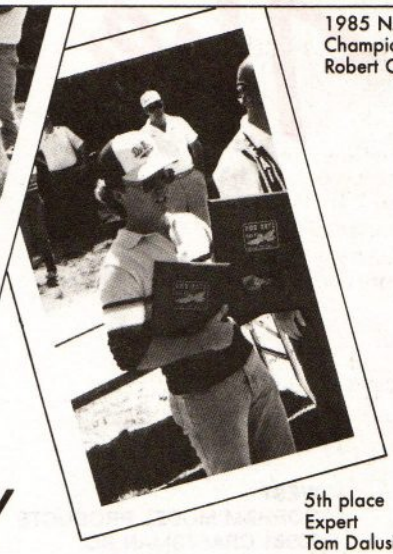
NATS entrants flying GMP choppers

1985 NATS Champion Robert Gorham

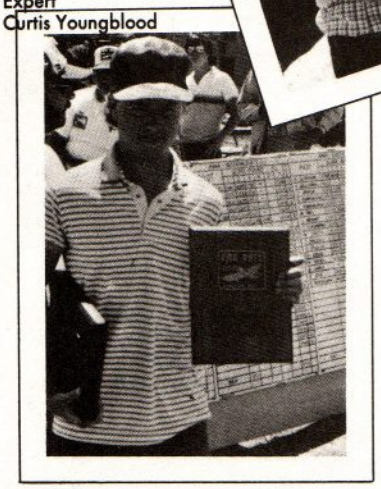


2nd place Expert Ralph Dalusio

4th place Expert Bill Curtis



5th place Expert Tom Dalusio



3rd place Expert Curtis Youngblood

Top performance, outstanding reliability and GMP choppers WIN!

18 of 23 NATS awards taken by pilots flying GMP machines.

Congratulations to top Pilots:

Ralph and Tom Dalusio of Connecticut, Dave and Curtis Youngblood of Texas, Bill Curtis of Pennsylvania, Jack Dunkle of Ohio, Randy King of Connecticut, Derek Corbly of California, Richard Lynch of Virginia, Joe Acosta of Connecticut, Allen and Michael Dye of Virginia, and to the new 1985 U.S. National Champion: Robert Gorham of California. All pilots flew GMP Cobras or Competitors.

Michael Dye won "Best Junior" award and Curtis Youngblood received two "Best Senior" awards.

Congratulations — U.S.A. Team took 2nd place in the '85 World Championships in a 17-nation fly-in. Two of 3 U.S.A. Team members flew GMP. Top-placing Robert Gorham placed 5th in the Individual World Ranking.

GMP
GORHAM MODEL PRODUCTS

WEST: 23961 CRAFTSMAN RD., CALABASAS, CA 91302 (818) 992-0195

EAST: HELICENTER EAST, 218 VERNON RD., GREENVILLE, PA 16125 (412) 588-1321

The Trendsetter

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TEL 412-588-1321