

Worlds largest Manufacturer of model airplane parts presents to his friends

Kavan News

1 Ed

KAVAN

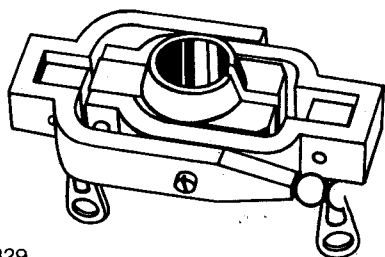
.25¢

Some time ago we informed you that a wind tunnel test was conducted. The experiences have enabled us to improve the Jet Ranger's features. This proves that we are still occupied with the further development of the Jet Ranger.

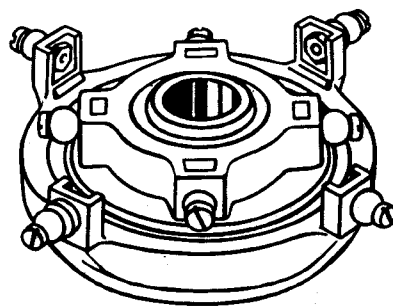


Wash-Out Control, item No. 3329

Our new article, "Wash-Out Control", order No. 3329, has the task of keeping the aerodynamic damping blades horizontal, regardless of the pitch position. This means that the disadvantageous influence of the damping blades (to the main rotor blades) will be eliminated. Further advantages are: better hovering and smaller air resistance in forward flight, which produces flight with more speed and maneuverability. The former guide is no longer necessary since the "Wash-Out Control" guides the swash plate. The push rod to the damping blade assembly can be installed on either the inner or the outer ball. It is necessary that a fourth ball be fixed to the centre ring of the swash plate if not already attached. Your old swash plate will be exchanged for a new one at an additional price of DM 10,-. For the past few months, we have only delivered swash plates with 4 couplers on the centre ring, order No.3213a.



No.3329



No.3213a

Expert's Rotor Blades, item No. 3040a

These blades have the same structure as the standard blades, but are 10 mm wider, so that their width is not 55 mm, but 65 mm now. Further, they are 2 mm thicker and 5 cm shorter. The blade axle remains the same, 17 mm from the front edge. The expert's blades give a greater lift, therefore relieves the engine which improves the entire power of the Jet Ranger. The blades have many other advantages but it would be too voluminous to go into all details. We recommend them highly to all Jet Ranger owners.



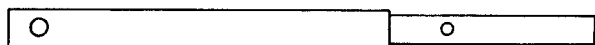
Aerodynamic Damping Blades - Wood, item No. 3318a

After long tests not only in size but also in weight, new damping blades have been developed. Their effect is, that the Jet Ranger (respective to the movement of the rudder) will be more direct and sensitive and therefore, the maneuverability will be improved greatly. The wooden damping blades will be mounted exactly like the aluminium blades. The wooden blades must be glued to the stabilizer rod.

Tail Rotor Shaft With Bevel Gear And Ball Bearing, Mounted, Heavy Duty, item No. 3404b

Based on requests of many Jet Ranger pilots we have developed a new tail rotor shaft, shown on drawing No. 3404b. You will notice that the new tail rotor shaft is not stepped anymore, and needs a new special bearing, so that with the first order the complete shaft must be ordered; later on, if necessary, only the replacement shaft, item No. 3404c. This shaft has been tested during the past months and really proved to be of advantage. For comparison of the two shafts, see drawing 3404.

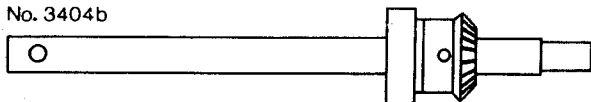
No. 3404



No. 3404c

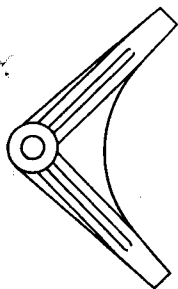


No. 3404b

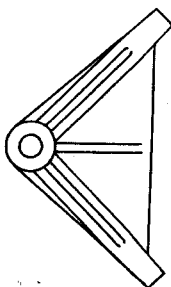


Bell Crank, item No. 3505 a

These pitch arms have been strengthened, as shown on the drawing. Due to the reinforcement the springiness is eliminated, so that all controls are more positive.



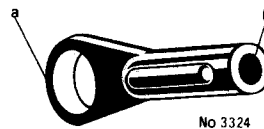
No. 3505



No. 3505a

Ball Joint, item No. 3324

The outer rings on these new ball joints have been strengthened and the hole for the push rod has been tightened. These modifications have improved the ball joint considerably.

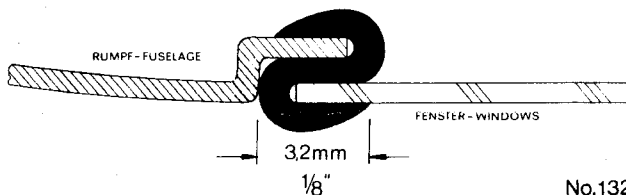


No 3324



Window Mounting Channel, item No. 132

This window mounting channel makes the gluing of the windows into the fuselage unnecessary, see drawing below. This of course is a great help on mounting and changing the windows. Contents of one bag are 5 meters. The price is DM 6.25.

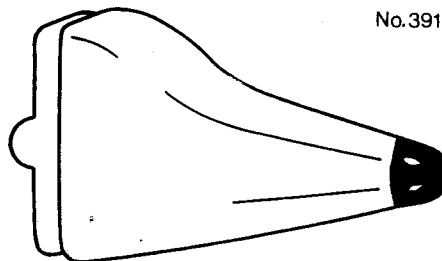


No.132



Plastik Tail Cone, item No. 3913

This plastic tail cone is supplied with a cap for the bulb (see drawing) and saves you the effort of making it yourself out of wood.



No.3913

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2 Ed

KAVAN

1979

Lieber Freund,

wir bedauern, daß wir so lange nichts von uns hören ließen und hoffen, daß Sie daraus nicht den Schluß gezogen haben, wir seien nachlässig geworden. Ganz im Gegenteil, wir haben fortlaufend nach Verbesserungsmöglichkeiten der Flugeigenschaften unserer Hubschrauber gesucht in der Bemühung, die Entwicklung weiter zu fördern.

Im Vergleich zur ersten Generation von ferngesteuerten Hubschraubern erwachsen immer mehr moderne Begriffe und weitere Verbesserungen des Flugverhaltens wurden zwingend. Zusätzlich zu neuen Konzepten und Techniken ist es auch notwendig, die Konstruktionsmerkmale unserer bestehenden Hubschrauber zu verbessern. Wir sind der einzige Hersteller, der sich derart mit der Hubschrauber-Materie befaßt und haben daher unsere Hubschrauber ausführlich in einem Windkanal getestet unter der Aufsicht von Herrn Sonneborn, einem Entwicklungsingenieur der Bell Helicopter Firma in Dallas, Texas. Das Ergebnis dieser Tests und die daraus gewonnenen Erfahrungen haben zu erheblichen Verbesserungen geführt. Verschiedene Untersuchungen und technischer Fortschritt haben zu unserer Entscheidung geführt, den Jet Ranger und die Alouette 2 noch weiter zu verbessern. Ein Meilenstein in der Geschichte von ferngesteuerten Hubschraubern wurde gesetzt durch die Entwicklung des Rigid Rotor ohne Stabilisator. Nun können unsere beiden Hubschrauber in verschiedenen Versionen geflogen werden, wodurch spezielle Voraussetzungen für Flugeigenschaften gegeben sind, die selbst den höchsten Ansprüchen eines Experten genügen.

Wir haben uns in der letzten Zeit hauptsächlich mit der Verbesserung unserer Hubschrauber befaßt, haben aber trotzdem nicht auf unser Standard-Artikel-Programm vergessen. Die Qualität mancher Komponenten wurde verbessert, andere Artikel und Vorrichtungen wurden neu entwickelt. Aus den vorhergegangenen Erfahrungen haben wir sehr viel gelernt, was wir in Form von Tips an Sie weitergeben möchten.

Wenn Sie sich die Zeit nehmen, dieses Rundschreiben zu lesen, so sind wir sicher, daß Sie einiges finden werden, was für Sie von besonderem Interesse sein könnte. Es spielt hierbei keine Rolle, ob Sie vorhaben, Ihren Hubschrauber zu modifizieren und dem neuesten Stand anzupassen, oder durch die neue Version zu ersetzen. Wir sind in der Lage, Ihnen den nötigen Service zu bieten. Selbst Modellflieger, die sich bisher noch nicht mit Hubschraubern befaßt haben, werden in unserem Neuheiten-Angebot viele Dinge finden, die das Modellfliegen einfacher und noch attraktiver gestalten.

Dear friend,

we truly regret having kept silent for so long and we apologize for this, hoping that you have not come to the conclusion that we have been negligent. Quite to the contrary, we have continued to research our standards of performance in an effort to promote the further evolution of our helicopters.

In comparison to the first generation of RC helicopters, more modern concepts have grown considerably and continuous advances in performance have become mandatory. In addition to introducing new concepts and technologies it is also necessary to improve upon the design features of our existing models. Being the only manufacturer doing so, we have extensively tested our model helicopters in a full scale wind-tunnel, under the supervision of Mr. Sonneborn, chief engineer at the Bell Helicopter Company in Dallas, Texas. The results of these tests and the knowledge gained have lead to numerous modifications. Test studies and technological advances have strongly influenced our decision to improve the jet ranger and the alouette 2 even more. One of the most significant milestones may be considered the introduction of the flybar-less rigid rotor. Both, the Jet Ranger and the Alouette 2 can now be flown in different versions, thus meeting special requirements in performance even those of the most demanding expert.

In spite of our concentrated efforts to raise the standard of our helicopters, we have not forgotten about our accessoires and have improved both the quality of design components as well as producing other accessories and devices. Additionally, our past experience has taught us many lessons and provided us with hints we would like to pass on to you.

After taking time to read the following newsletter we are certain that you will find many items of special interest. It makes no difference whether you plan to adapt your existing helicopter to more modern standards or even to replace it with the latest kit version. We at Kavan are in a position to provide you with the necessary service. Even the non-helicopter modeler will find many 'goodies' in our 1979 newsletter to make model flying easier and much more attractive.

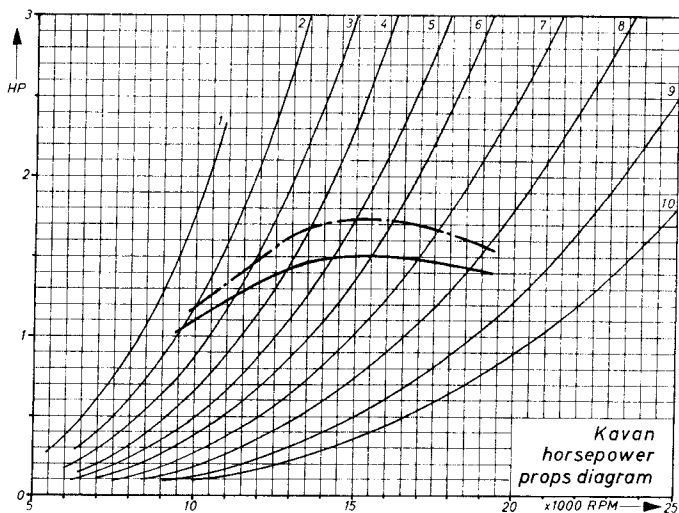
MOTOR-TEST – ENGINE TEST

Nach längerer Pause entschloß ich mich im Juni 1978, alle populären 40er und 60er Motore auf ihre Leistung hin zu testen: zur Ermittlung dieser Leistung wurde der KAVAN Aluminium-Bremsluftschraubensatz und der reguläre FAI Treibstoff verwendet (Tagestemperatur: 22 Grad Celsius).

Außer dem Super Tigre X60F, der zusätzlich mit dem Resonanzrohr getestet wurde, wurden die Motore mit dem dazugehörigen Schalldämpfer geprüft.

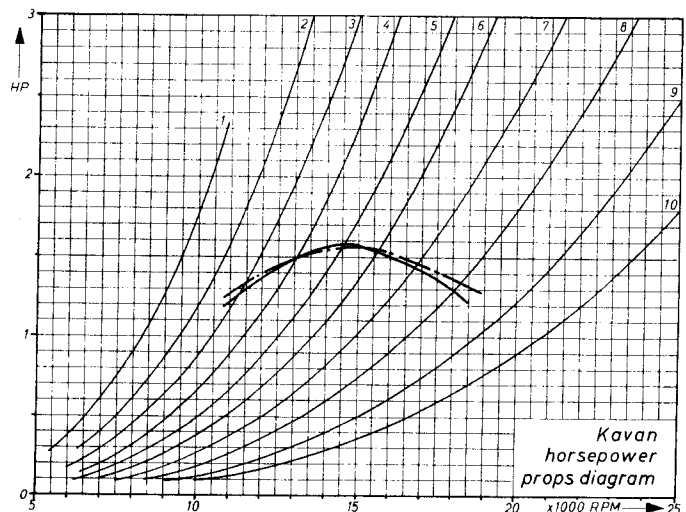
In Juni 1978 I decided to put all popular 40 cu.in. and 60 cu.in. engines to the test in order to get new readings about power output and performance; the KAVAN Aluminium Brake Horse Power Props and the regular FAI fuel were used for the investigation (at a temperature of 22 degrees celsius = 70 degrees Fahrenheit).

Beside the Super Tigre additionally tested with a Tuned Pipe the engines were put to the test with the muffler supplied.



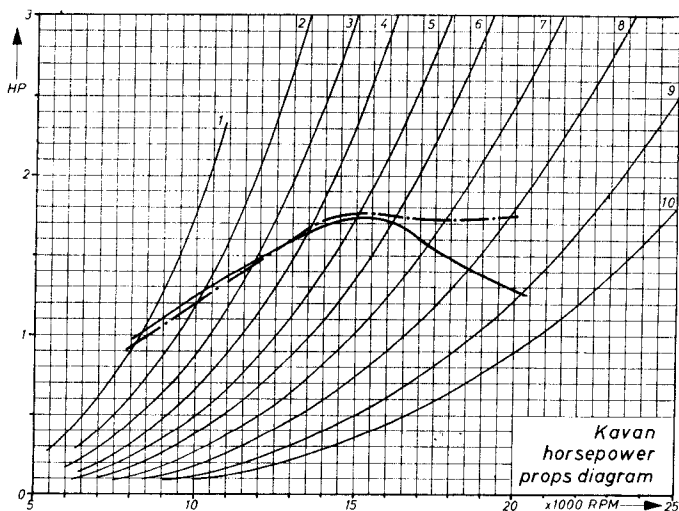
Webra Speed 61

— Orig. Carburetor
- - - Kavan Carburetor No 107



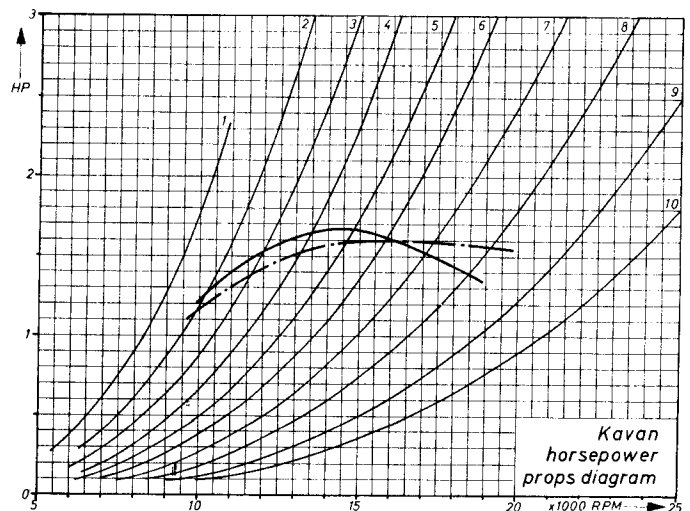
OS Max 60 FSR

— Orig. Carburetor
- - - Kavan Carburetor No 107



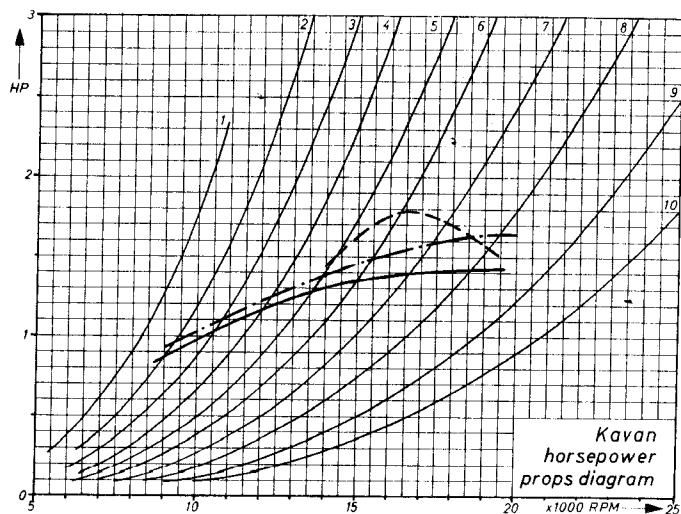
Enya 60 X

— Orig. Carburetor
- - - Kavan Carburetor No 107



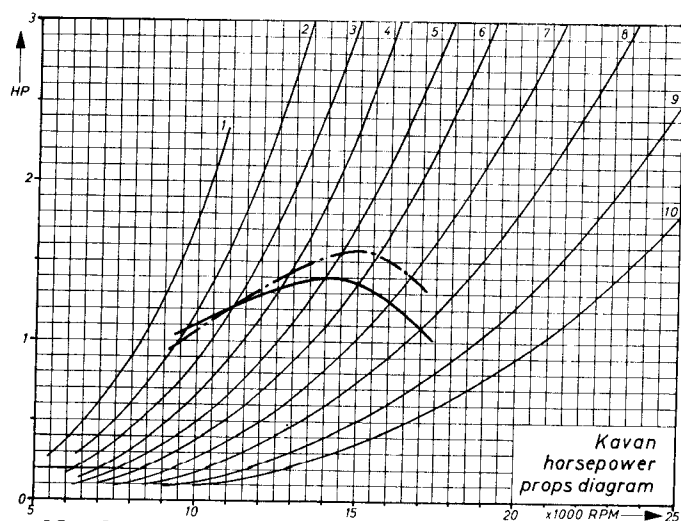
HB 61 PDP

— Orig. Carburetor
- - - Kavan Carburetor No 107



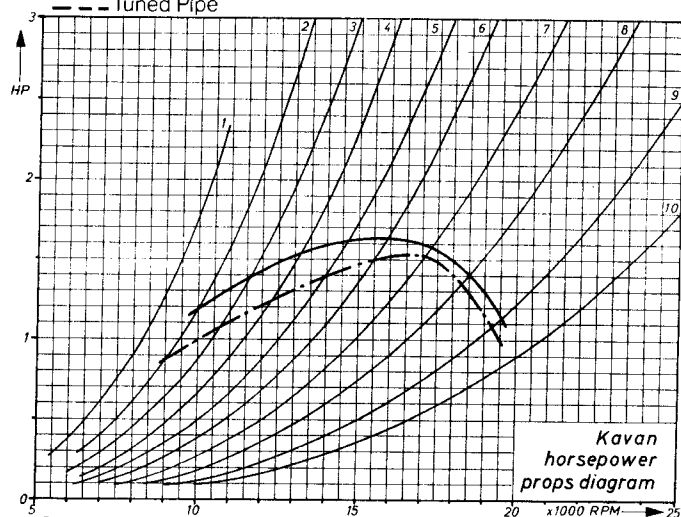
Super Tigre 60 X

- Orig. Carburetor
- - - Kavan Carburetor No 107
- · - Tuned Pipe



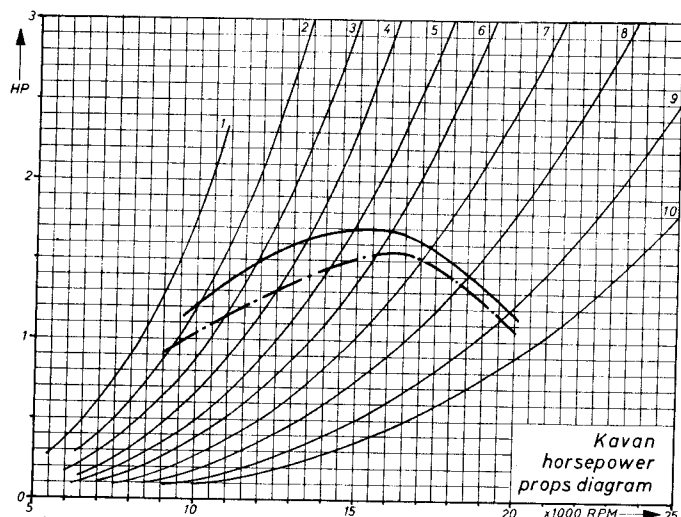
Kraft. 61

- Orig. Carburetor
- - - Kavan Carburetor No 107



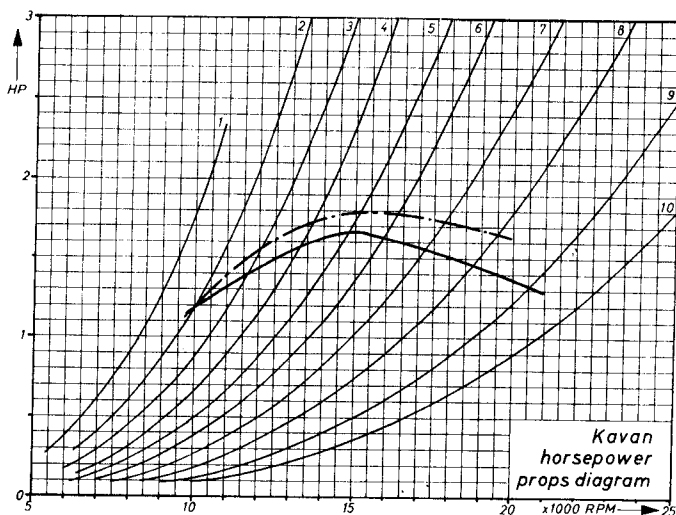
HP 61 FS-Silver Star

- Orig. Carburetor
- - - Kavan Carburetor No 107



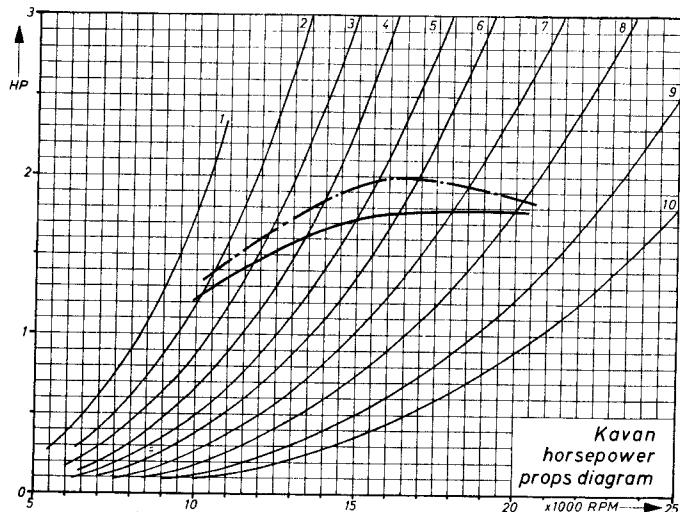
HP 61 FS-Gold Cup

- Orig. Carburetor
- - - Kavan Carburetor No 107



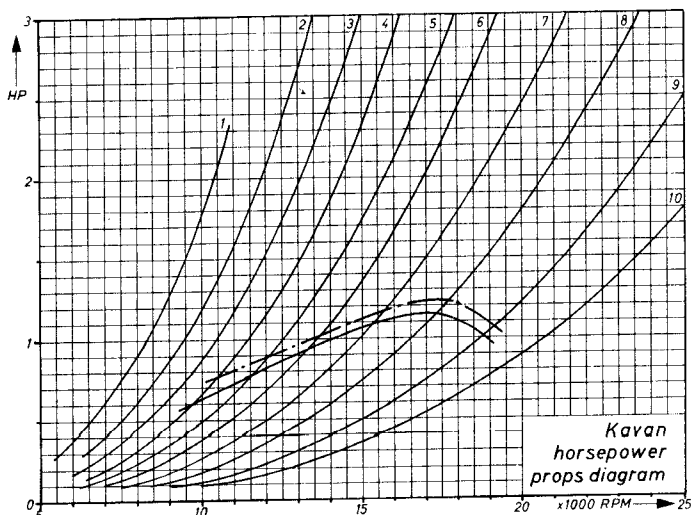
Rossi 60

- Orig. Carburetor
- - - Kavan Carburetor No 107



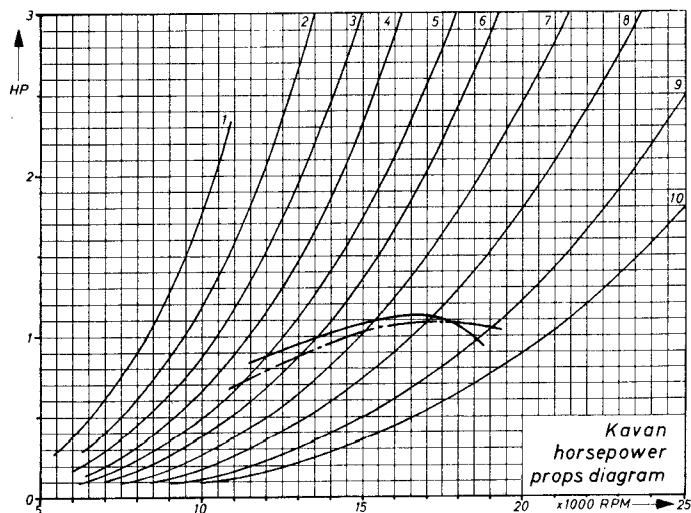
OPS 60 Ursus

- Orig. Carburetor
- - - Kavan Carburetor No 107



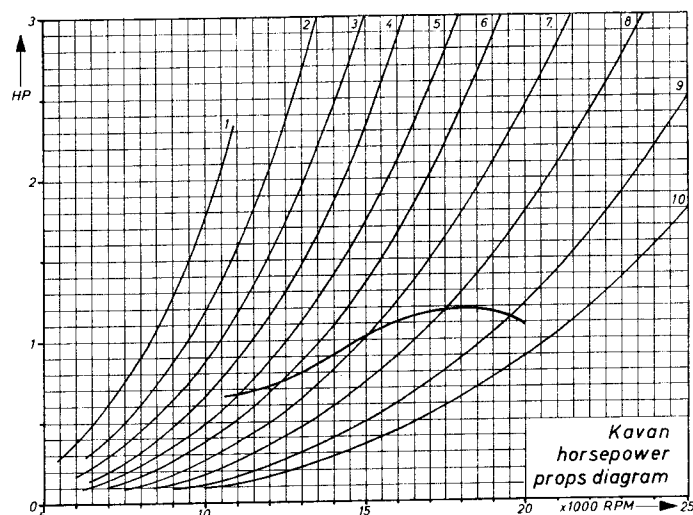
Webra Speed 40

— Orig. Carburetor
 - - - Kavan Carburetor No 107



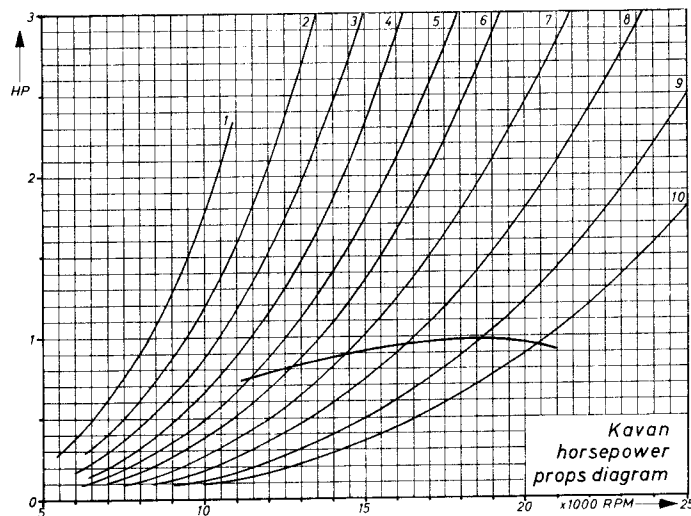
OS Max 40 FSR

— Orig. Carburetor
 - - - Kavan Carburetor No 107



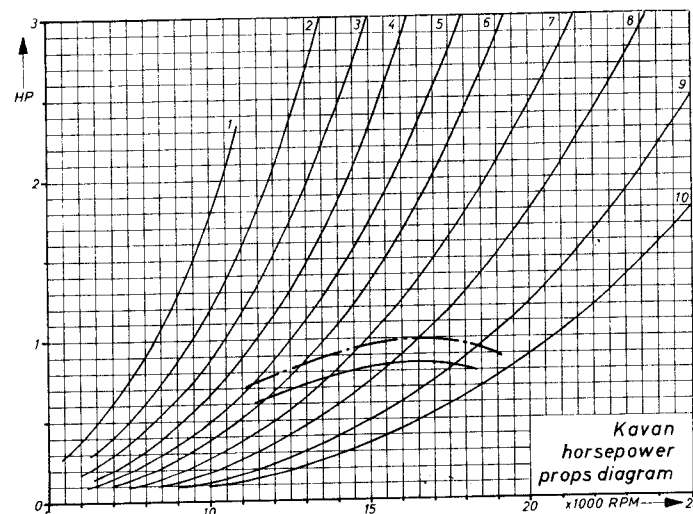
Super Tigre 40 X

— Orig. Carburetor



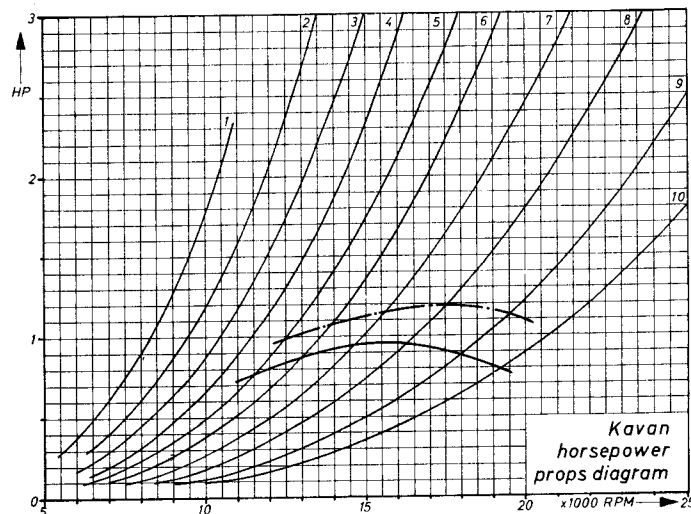
HP 40 F

— Orig. Carburetor



Irvine 40

— Orig. Carburetor
 - - - Kavan Carburetor No 107



Fuji 40 SS

— Orig. Carburetor
 - - - Kavan Carburetor No 107

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Kavan News

NOVELTIES 1980

Dear Modeler,

We are proud to introduce two new KAVAN top quality helicopter kits: The RANGER (a basic training model, attractive in design) and the LOCKHEED 289 L (a very sophisticated scale model helicopter that will satisfy even the most demanding modeler - collective/rigid rotor head, retractable landing gear, autorotation clutch, and a 40 degrees bevel gear tail rotor transmission are standard features. - For further details, refer to the enclosed leaflet describing all our helicopters in more detail.

RADIO CONTROL FOR INVERTED FLIGHT

The latest addition to our assortment of QUALITY PRODUCTS is the Simprop SSM Contest 8-H System, modified by us also for inverted flight. In the enclosed picture you can see our factory pilot Mr. Heid hovering his KAVAN Jet Ranger in inverted position. This radio is engineered to the latest standard of development and technique and built for the discriminating pilot.

The complete unit consists of: 8 channel dual-stick transmitter with module, receiver with module, 4 Tiny servos, 1 Contest servo (for pitch), ni-cad battery pack (500 mA), switch harness, dual charger (with 2 cables), servo arms, wheels and grommets.

Retail price DM 1,870.-.

HELICOPTER INVERTED FLIGHT MOVIE

On the occasion of the Nuremberg Toy Fair in February of this year the popular model helicopter flyer, Mr. Ernie Huber, has made a spectacular show - a helicopter flying upside down is still an incredible sight. So we have made a Super 8 movie showing Mr. Huber performing these outstanding maneuvers; it is available for purchase of DM 100.-.

AUTOROTATION CLUTCH, NO. 3204d

Many helicopter pilots have been waiting for this item which enables the helicopter to autorotate, ensuring safe landings even with engine failure.

This innovative design features a unique and simplified cam-action clutch which permits the main rotor system to freewheel in autorotation (with engine or other failure). It has been manufactured after extensive research specifically for the RANGER, JET RANGER and LOCKHEED 286 L, and is also adaptable to many other main rotor systems - Installation requires the use of special plastic spur gear (no. 3204b or 3204c) into which the clutch is fitted. Price: DM 50.-.

GLOW PLUG CONNECTOR, SPECIAL, COMPLETE, NO. 3143a

The advantage of this device is the permanent internal connection for the glow plug. It is ideal for helicopters where the engine is often to reach. Simply plug the male jack into the female plug which is mounted through the fuselage side. Price: DM 12.-.

RETRACTABLE LANDING GEARS, NO. 4600

Used for establishing optimum speed and performance on your helicopter by retracting the landing gear skids deeply into the fuselage. - The self-locking mechanism requires the use of a 180 degrees servo. Designed specially for the KAVAN LOCKHEED 286 L, it can be also be fitted into most helicopter fuselages with ease. Price: DM 200.-.

TRANSMISSION TAIL HOUSING 40 DEGREES, NO. 4406

With this precision bevel gear transmission the high mounted tail of the LOCKHEED 286 L may be driven with straight drive shafts, no more flexible cables and sleeves. It eliminates the need to curve the shaft up through the tail. The 40 degrees angle accommodates most R/C helicopters with upper mounted tail rotors. - Also available for other drive applications. Price: DM 150.-.

MUFFLER ADAPTER 90 DEGREES, NO. 3037a

With this special adapter your KAVAN muffler can also be mounted in rearward position to direct the flow of exhaust gas and noise. It can be fitted to most engines with our adapter no. 110. Price: DM 20.-.

RACK AND PINION ASSEMBLY, NO. 144

Mainly for retractable landing gears and flaps. By eliminating one rack, the unit can also be used to control the elevators in gliders. This assembly is completely adjustable (notched) adjustments every 10 degrees. Price: DM 10.-.

CLEARANCE SALE OF JET RANGER FUSELAGES

This is an offer for bargain hunters: We have a limited number of new fuselages in stock that have been slightly damaged during shipping but could easily be repaired by the modeler himself. We offer them to you at DM 100.- compared to the current retail price of DM 250.-.

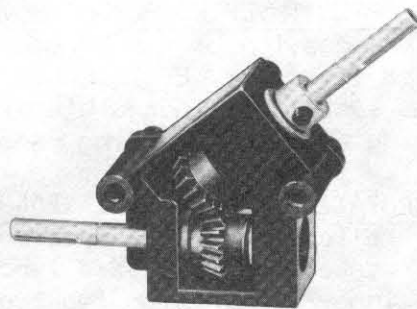
SPARE PARTS - ACCESSORIES

In case you should not be able to obtain spare parts at your dealers you may order directly from us.

We wish you success and fun in building and flying our helicopters.

With best regards,


KAVAN



Helicopter prices

Alouette 2, fixed pitch	DM 500.-
Alouette 2, collective pitch	DM 750.-
Ranger, collective pitch	DM 720.-
Jet Ranger, collective pitch	DM 1200.-
Lockheed, rigid, coll. pitch	DM 1800.-