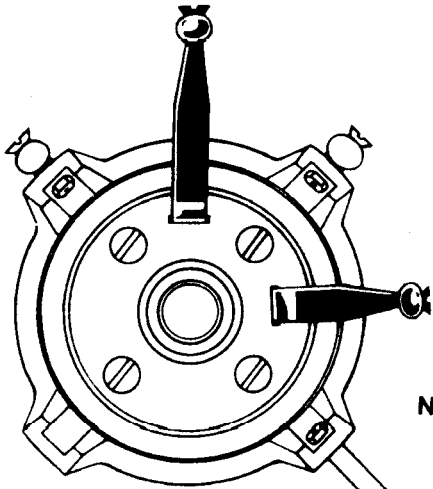
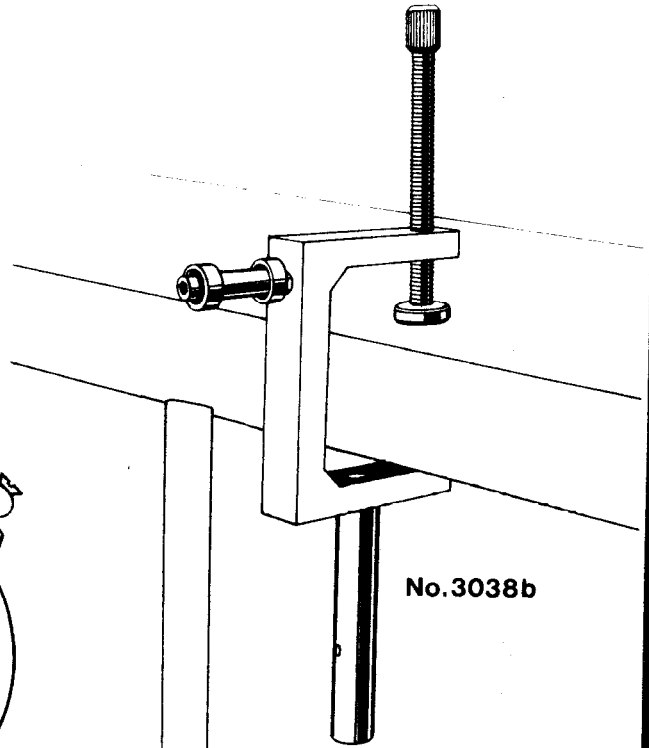
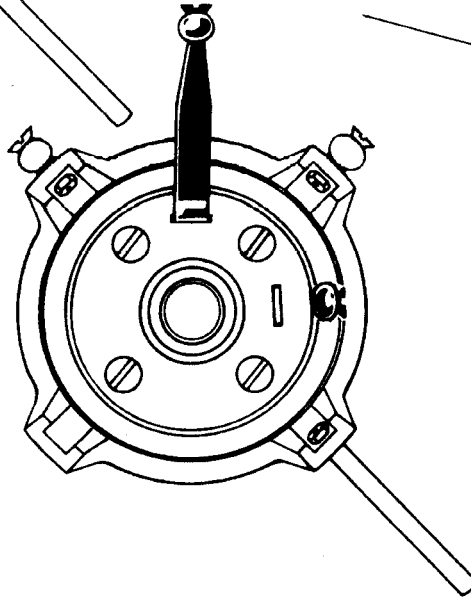


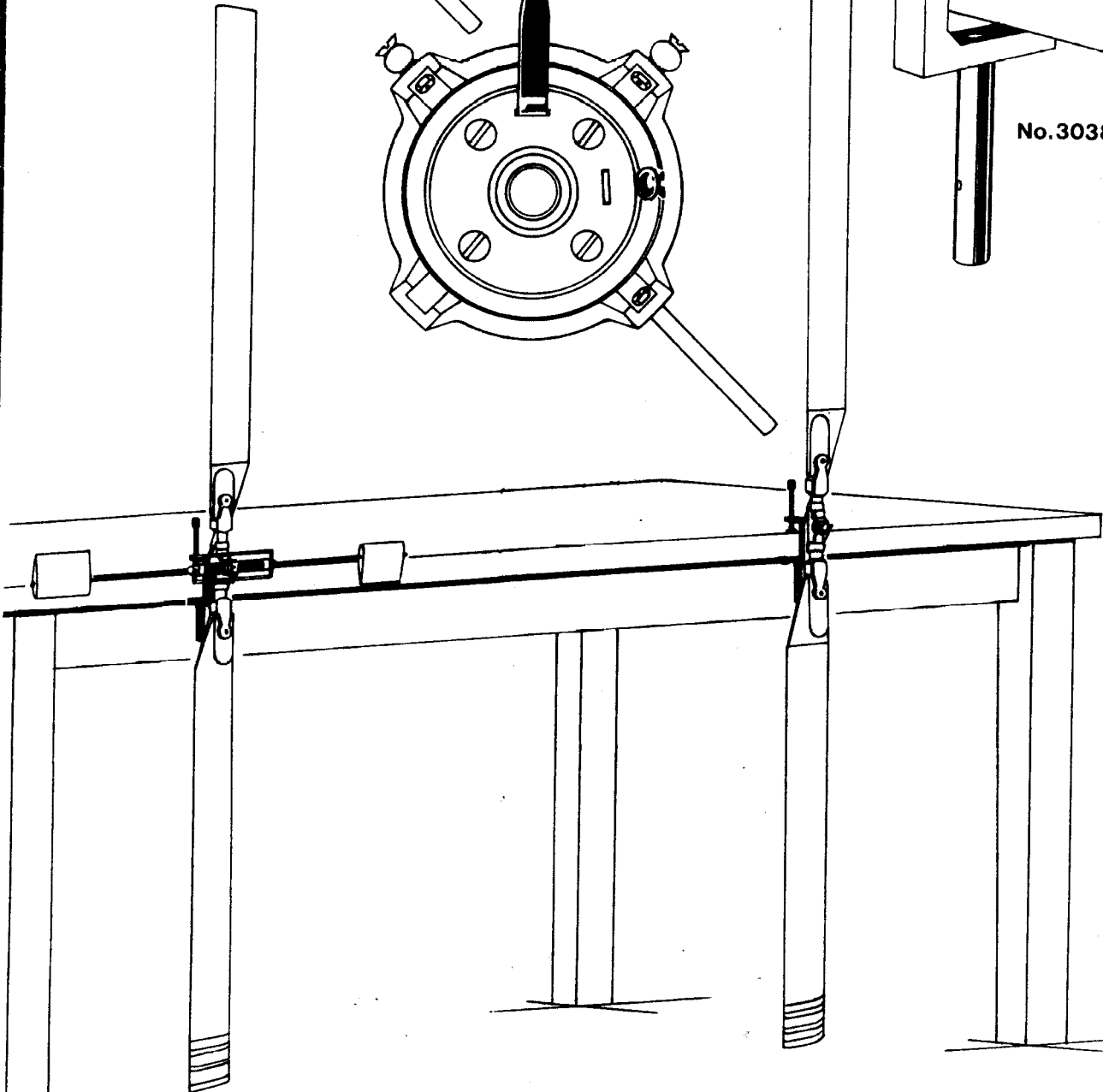
KAVAN alouette 2

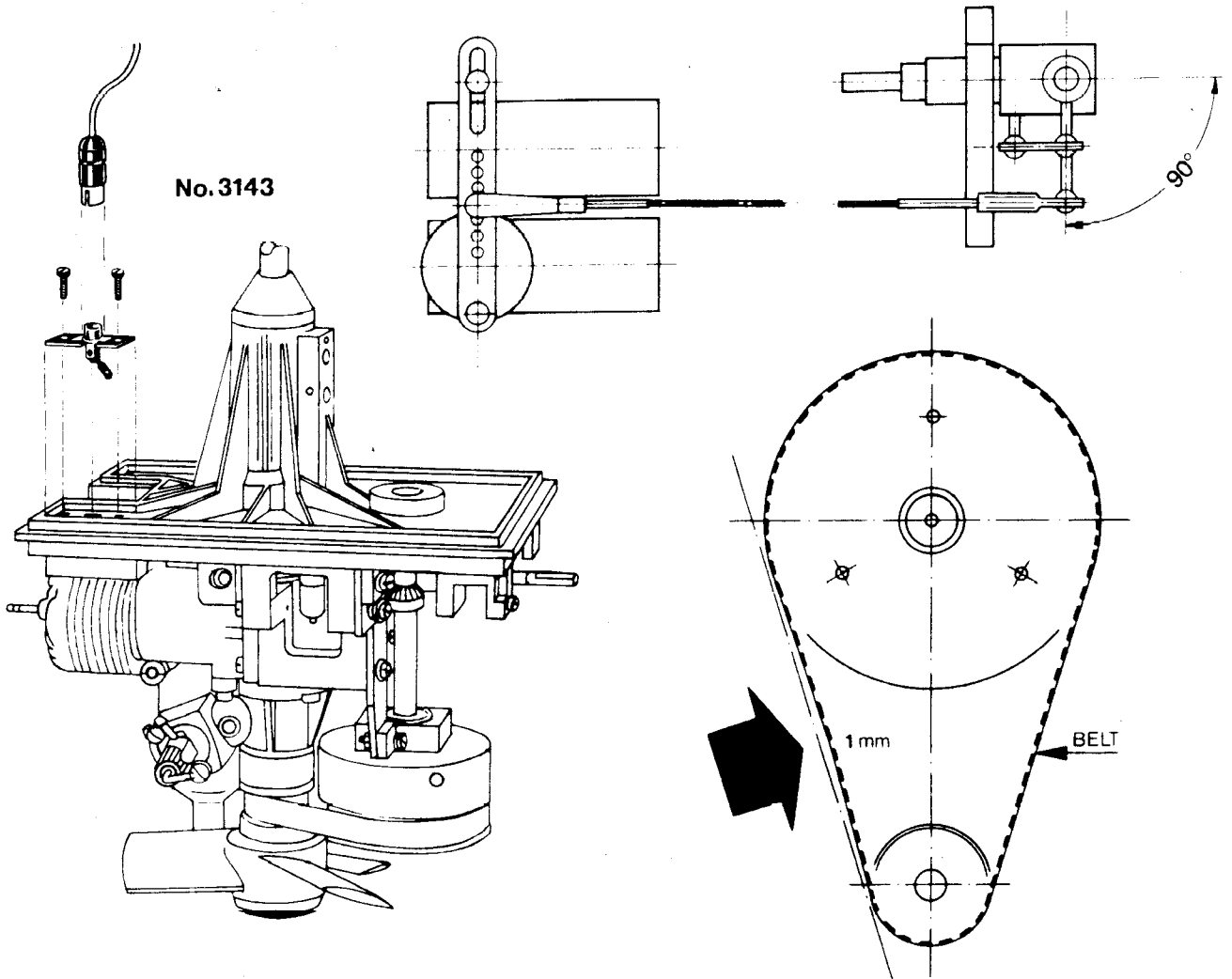


No. 2203b



No. 3038b





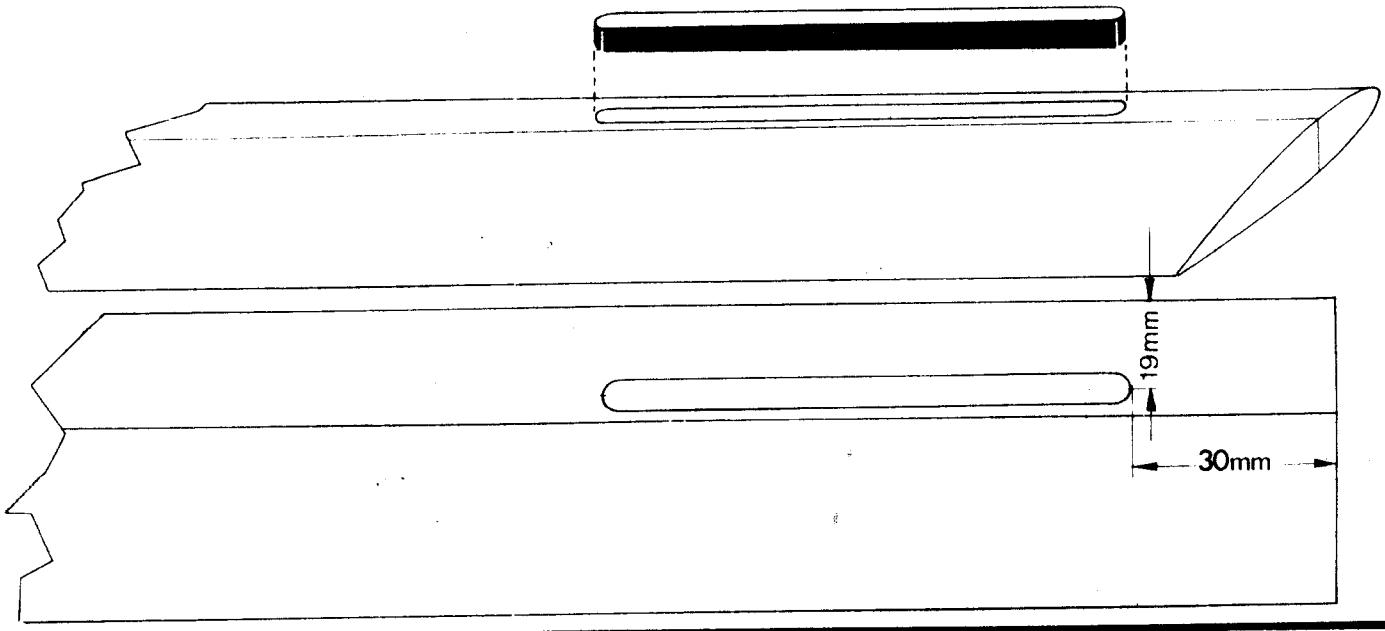
No. 3143

90°

1 mm

BELT

Die richtige Riemen­spannung ist ein Muß. Setzen Sie einen Druck von etwa 1 kg zwischen den Zahnriemen. Der Riemen sollte etwa 1 mm nachgeben (wenn nötig, Beilagscheiben unter den Motor)
 Proper belt tension is a must. Apply force of approx. 2 lbs between pulleys.
 Belt should deflect 1/16th inch. (shim under engine lugs.)



19mm

30mm

We did it again! We proudly present the Alouette 2 with Collective Pitch, art. no. 2500 featuring almost the same outstanding flight characteristics as the famous Jet Ranger. For the fixed pitch Alouette 2 there is a modification kit available, with which the standard model can be modified to collective pitch operation. The Modification Kit, art.no. 2500a consists of those parts shown on the price list enclosed.

Rigid Rotor Head with Fixed Pitch, art.no. 2000 R

Now the standard Alouette 2 with fixed pitch rotor can also be flown rigid and without a stabilizer rod; read the separate instructions.

The fixed pitch Alouette 2, as introduced in 1976, will be continued. By modifying it to the flybar-less rotor system it can be improved by its owner. Its cyclic response becomes quicker, and there is a gain in overall appearance. Since the vulnerable, wide stabilizer is omitted, the model is also easier to store and transport.

Levelling Fixture, art.no. 3038b

Every pilot owning or flying the Jet Ranger or Alouette 2 should have the new levelling fixture. By using this device, the rotor blades can be perfectly adjusted and balanced. Since a slight out-of-balance condition of the main rotor causes vibration and might result in heavy oscillation (due to harmonic frequencies), this device is an indispensable tool.

Rigid Rotor Head with Collective Pitch, art.no. 2500 R

This rotor head also possesses the rigid rotor features, mentioned earlier and additionally exhibits all collective pitch advantages. Like the Jet Ranger's rotor head, it is equipped with thrust bearings, thus withstanding the high centrifugal forces without binding. Lead weights are integrated in the rotor blades for stability and control response. The new Plastic Clamp, art.no. 134 is a must for perfectly adjusting and balancing this rotor. Now, I take the opportunity to mention the new Helicopter Book, art.no. 137 (see special leaflet), covering all the vital "whys" and "hows" of model helicopter flight. Since it is an English edition, it is ideally suited for you.

Clutch Bell Housing, art.no. 2106a

Another item for all Alouettes manufactured up to the present time: the cork lining of the clutch bell tended to catch the shoes in a rough manner and had to be replaced frequently. Recently we found a new Clutch Lining, art.no. 2106g which grips in an even, smooth manner and performs flawlessly. The previous lining has been discontinued. As the new lining is somewhat stronger you have to change the present clutch inside diameter from 47.3 mm to 47.7 mm.

Plastic Clamp for Angle Measurement, art.no. 134

The clamp is ideally suited for measuring blade angles on any helicopter. Included is a spirit level and a plastic angular template of 6°, the hovering angle for most helicopters.

Control Arm for Swash Plate, art.no. 2203b

While flying the Alouette 2 during the last two years, it proved worthwhile to reduce the Hiller portion of the cyclic control by shortening the appropriate swash plate lever. By doing this, the model responds somewhat more docile in certain flight situations and abrupt control deflections.

Glow Plug Connector, art.no. 3143

Removal of the canopy each time the engine is to be started, might be felt troublesome. In this case, install the glow plug connector in your Alouette 2. The connecting wire is to be mounted to the front left corner of the transmission plate. For the same reason, it is advisable to install the receiver switch into the side of the molded lower cabin part.

Tail Rotor Control Lever

For a better understanding, the sketch shows how the control lever should rest in neutral position of the servo.

Main Rotor Blades, art.no. 2220 and 2220a

During the past two years we observed several Jet Ranger pilots - even people claiming to be experts - leaving their main rotor blades swivel freely about the attaching bolts. The same might be imagined with the collective pitch Alouette 2. While this may ease the storage and transportation of the assembled helicopter, it might on the other hand, completely upset the dynamic behaviour of the rotor. Rather than designing lead/lag hinges, we made provisions for super-fine blade adjustments which assure a vibration-free operation rotor system when properly set. Therefore, by all means, set-up your main rotor as described and instructed. Do not pivot your main rotor blades.

The centre of gravity of the main rotor blades was shifted to 17 mm/19 mm (measured backward from the leading edge). Here, a vast range of experimentation is being offered. Taper the blades by removing balsa wood from the trailing edge, to 5 mm at the blade tip at first. Also try 10 mm. Sharpen the now blunt edge again by sanding the upper side only (flat bottom airfoil), the upper and lower side evenly (symmetrical airfoil), or also the effect of sanding the lower side only, forming some wash-out.

Lead Weights, art.no. 2220b

Generally, and not only with rigid rotor heads, experimentation with lead integrated into the main rotor blades can be worthwhile. This improves the flight characteristics of your Alouette 2 according to your own habits and desires.

Bevel Gears, art.no. 2106c and 2300c

Sometimes we ran into prejudice of Alouette 2 owners complaining that we were using second grade quality bevel gears for the less expensive helicopter. This is not true! We use the same bevel gears for the Jet Ranger and the Alouette 2 as well. While we never encountered problems with the Jet Ranger and the Alouette 2 there is admittedly more trouble with those of the Alouette 2. The reason why is simple. By occasional bumping the tail boom to the ground or shaving heavy grass with the low situated tail rotor, some damage of the bevel gears is hardly avoidable. So, keep it off the ground! Beginners should use the Floats, art.no. 2914 for their initial training or enlarge the Tail Skid, art.no. 2009.

Ball Joints, art.no. 3324

We and some of our expert customers check the ball joints and if a ball joint does not move easily enough (too strong) the balls will be polished with the finest sandpaper.

Autorotation

Much information has been learned about autorotation. A widespread opinion is, "a built-in autorotation device would always save the helicopter in case of an in-flight engine failure". In fact, it is not that simple! We have been exploring this problem for years. Besides other measures, we had a freewheel unit installed in the power train, which released the rotor system when the engine started to "sag". More recently, we found a completely cost-free solution: by simply shortening the tension spring (which retains the clutch shoes) by 5 mm to 10 mm, the clutch releases sooner, setting-free the rotor system at an earlier stage of decreasing propulsion. If the rotor blades are also loaded with lead weights, they will even speed-up, exceeding the normal operation RPM. This provides for a controlled descent, leaving sufficient motion energy for recovery near the ground and hopefully, a smooth landing. Prepared like this, future autorotations will be less a matter of luck, and they could even be practiced at will by the experienced pilot.

Helicopter Book, art.no. 137

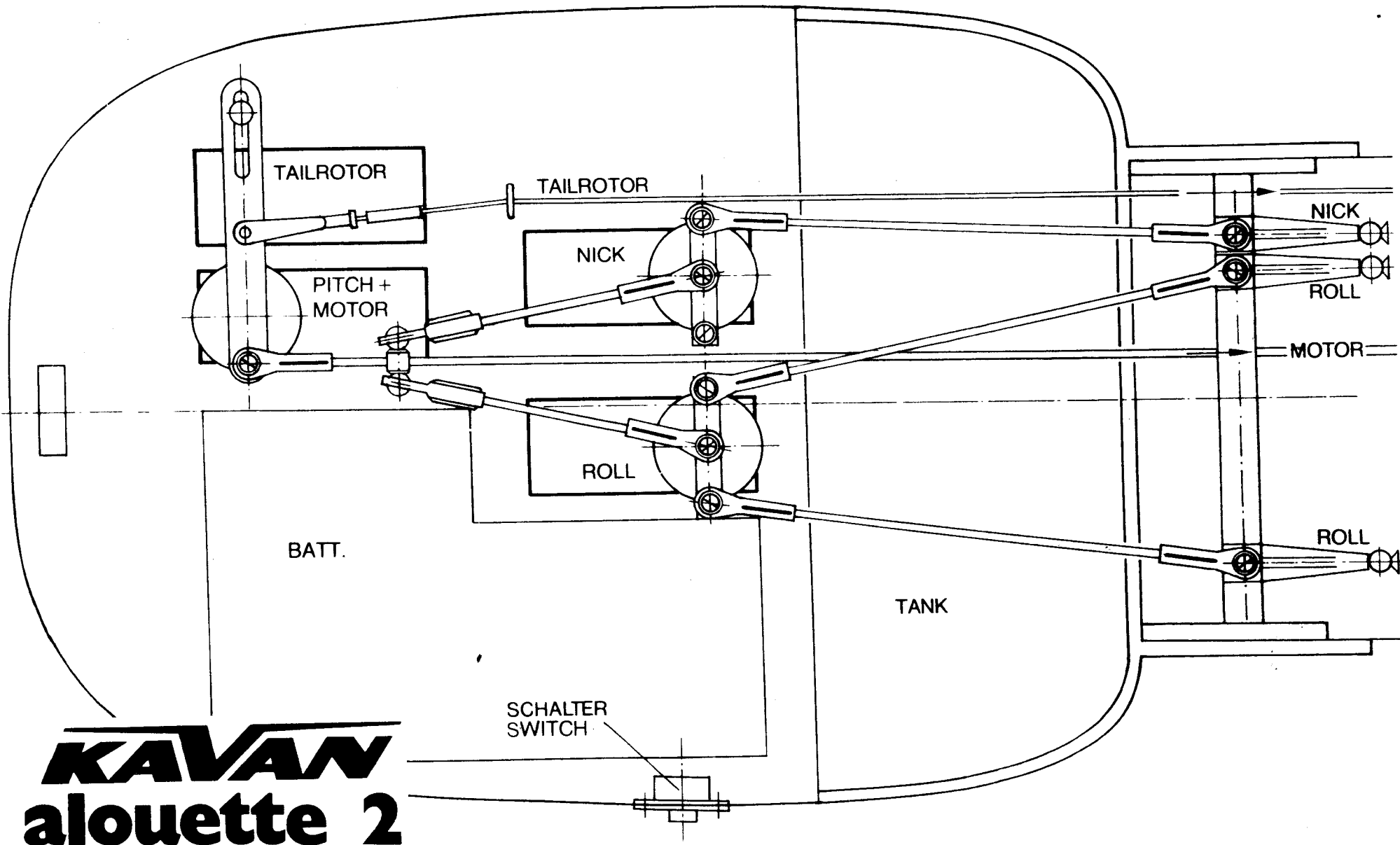
This book is a must for the serious helicopter modeller because it covers the entire area of model helicopter flight, including the aerodynamic principles. Since it was written in English it is just right for you; see special leaflet.

Helicopter Aerobatics

Enclosed you will find a detailed instruction introducing you to loops and rolls with your helicopter. For anyone interested, there is a super 8 mm coloured movie (60 m) available for DM 100.- which shows the Jet Ranger flying loops and rolls as well as the Alouette 2 performing regular helicopter maneuvers.

Gyro, art.no. 3901

Having been well known for quite a long time, the gyro remains a valuable aid in flying helicopters. Many pilots use it, and they appreciate the simplification of control due to gyro stabilization.

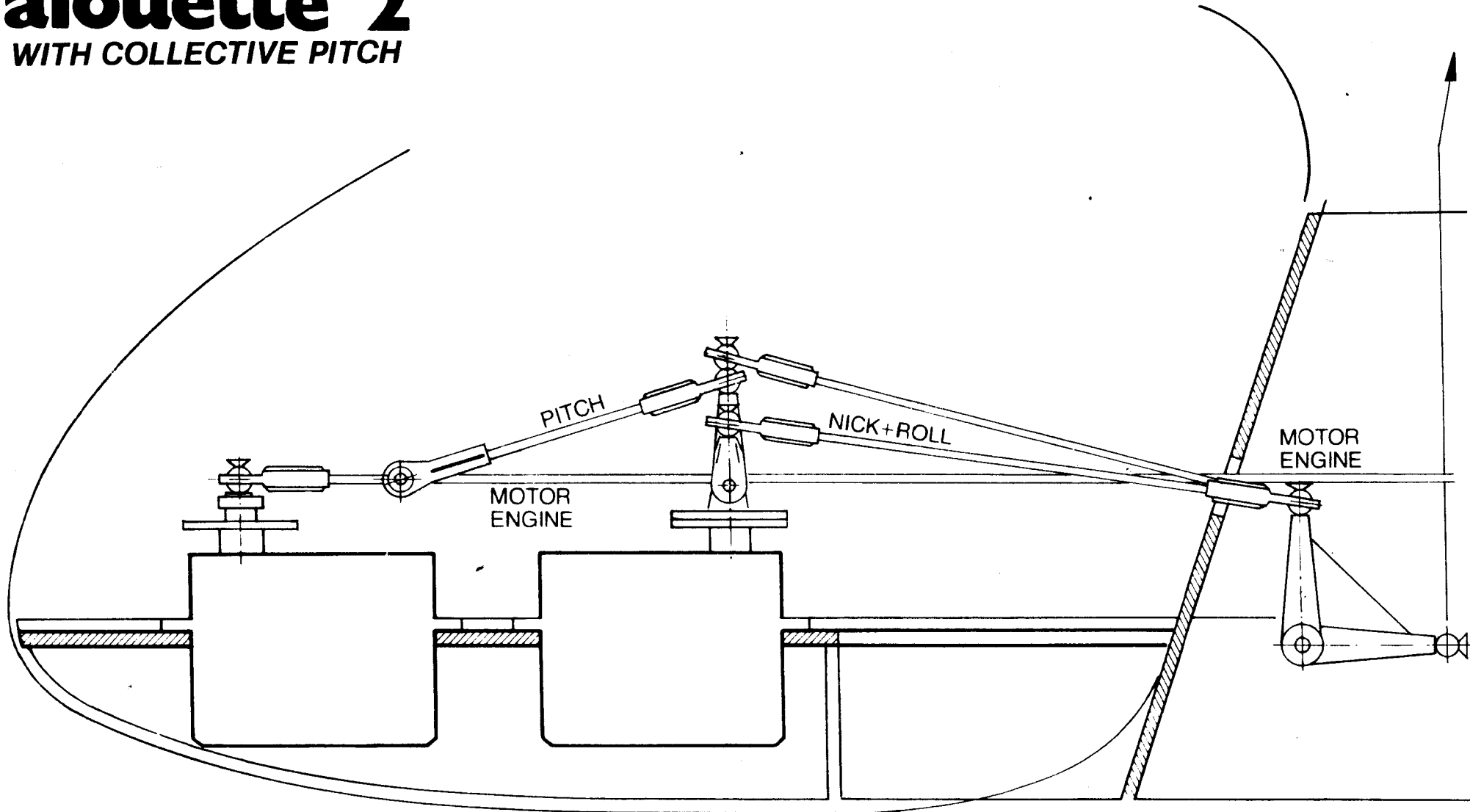


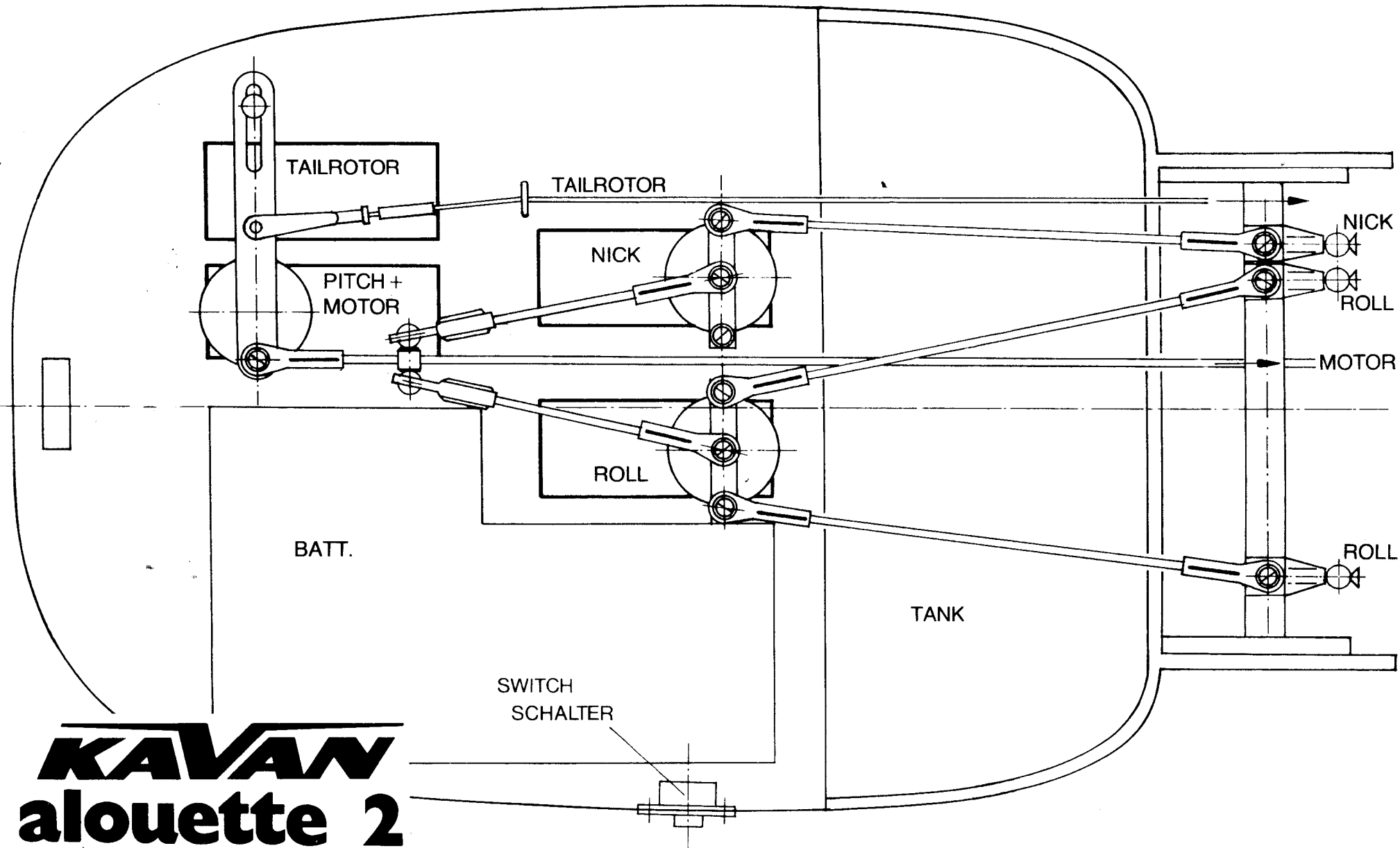
KAVAN
alouette 2
 WITH COLLECTIVE PITCH

KAVAN

alouette 2

WITH COLLECTIVE PITCH



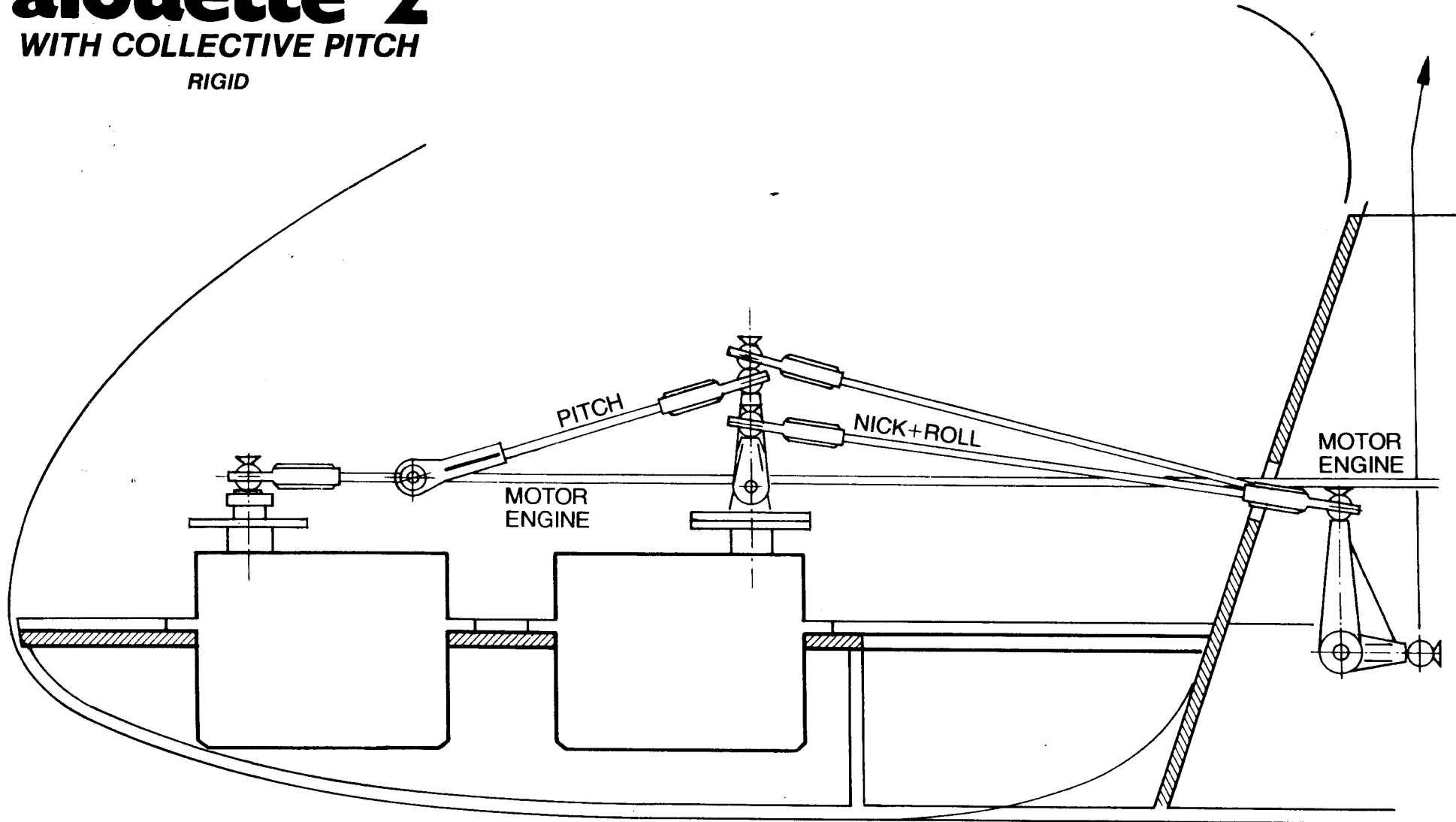


KAVAN
alouette 2
 WITH COLLECTIVE PITCH
 RIGID

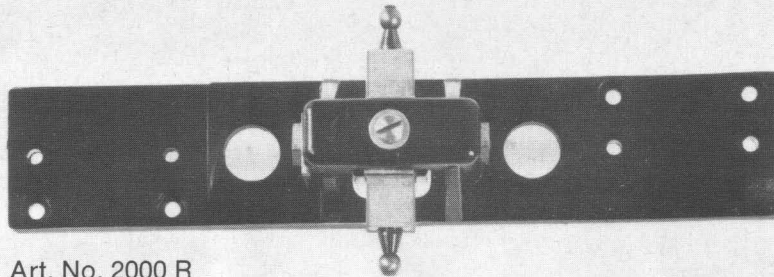
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alouette 2

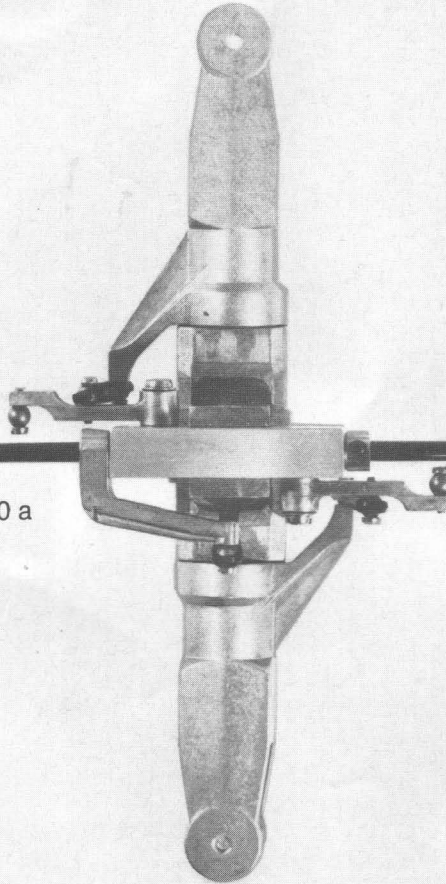
WITH COLLECTIVE PITCH
RIGID



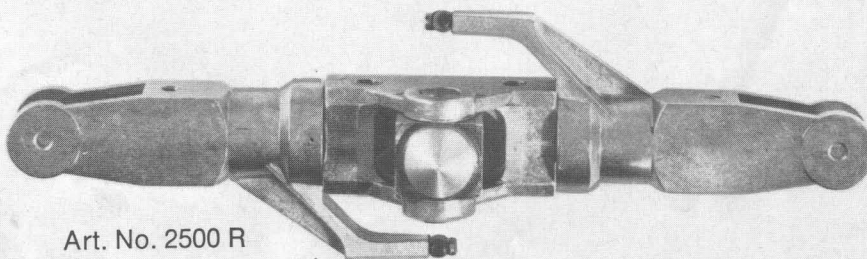
KAVAN alouette 2



Art. No. 2000 R



Art. No. 2500 a



Art. No. 2500 R