Seats

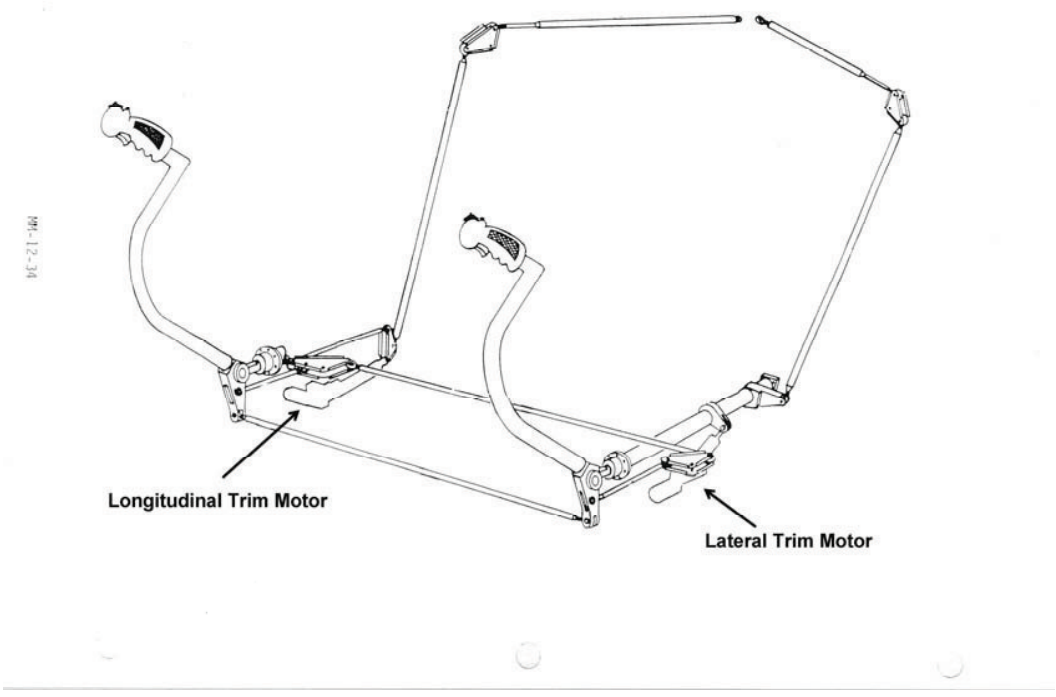
The seats in the piston engine Enstrom Helicopters consist of NASA form fitting type foam that is secured to the fiberglass seat deck with Velcro. To carry three people, the center collective is removed and is replaced by a contoured cushion.

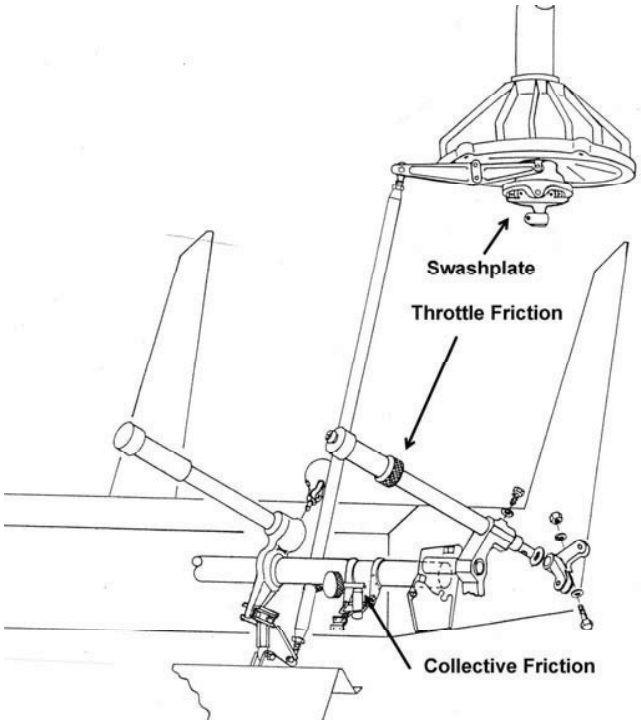
Inertial Reel Shoulder Harness

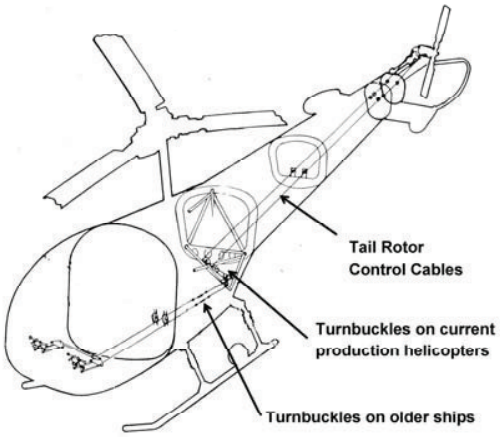
An inertial reel and shoulder harness is used for all seats. With the shoulder straps properly adjusted, the reel strap will extend to allow the occupant to lean forward; however the reel will automatically lock if the helicopter encounters an impact force of 2 to 3 TGYdeceleration. To release the lock, it is necessary to lean back slightly to release tension on the lock.

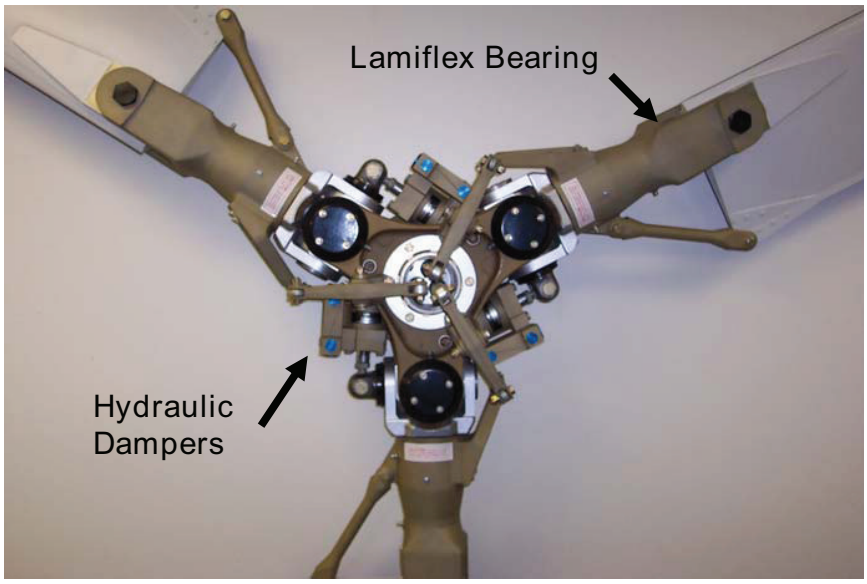
Flight Controls

The flight controls include three primary systems: the collective, cyclic, and anti-torque or directional controls. The aircraft also has fixed horizontal and vertical stabilizers that are mounted on the tail cone to provide additional stability and attitude control during high-speed flight.




Swashplate
Throttle Friction
Collective Friction


Tail Rotor
Control Cables
Turnbuckles on current
production helicopters
Turnbuckles on older ships

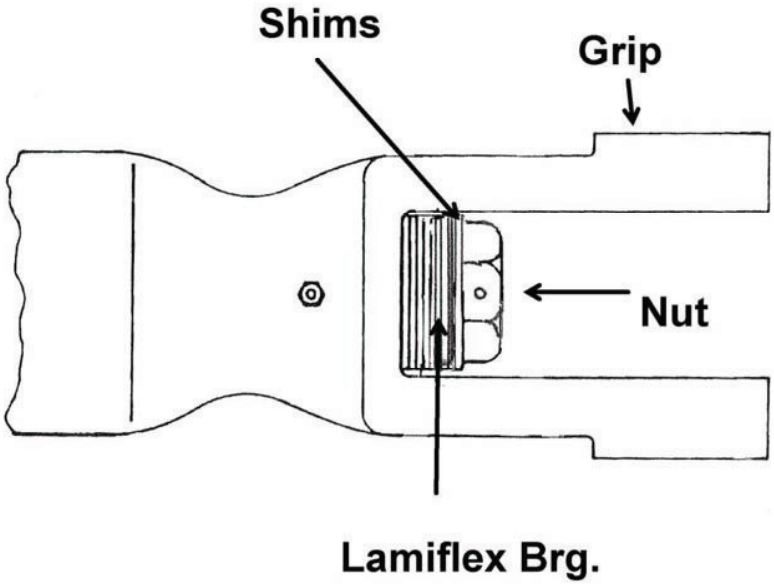


Main Rotor System

The main rotor system is a three bladed, high inertia, fully articulated rotor hub with aluminum blades. The main rotor hub assembly is composed of two opposing forged aluminum hub plates separated by an aluminum cylindrical spacer. Through bolts hold these items together along with steel spline adapters.

Three steel universal blocks are mounted on roller bearing units that permit flapping and lead-lag motions. Laminated phenolic pads are used to limit blade travel in both the lead-lag and flapping axes. A thrust nut on the bottom of each universal block transfers vertical blade forces to both hub plates through the universal block.

The rotor blades are secured to each universal block on the hub through a forged aluminum grip which is in turn secured to a steel spindle assembly through an elastomeric feather bearing (Lamiflex Bearing) and a retention nut.



Closed circuit hydraulic dampers are incorporated between each flapping pin and the rotor hub to limit the lead-lag velocity of the blades. Because the hydraulic dampers have no centering spring, they are quite limber; this, coupled with the large heavy blades causes the ground rock that is often experienced while the helicopter rotor system is spooling up or at high blade RPM.