

2.4 Landing gear

Nose wheel landing gear:

The nose wheel landing gear comprises the sprung nose wheel fork, the axle bolt, the nose wheel, the nose wheel spar and the steering bar. Up until 2003, a steel compression spring was used. However, since 2003 spring elements made of polyurethane have replaced the pressure spring. The nose wheel fork is stored in the nose wheel spar which passes through the fuselage tube and the engine mount and is attached to the engine mount by means of a mounting bracket.

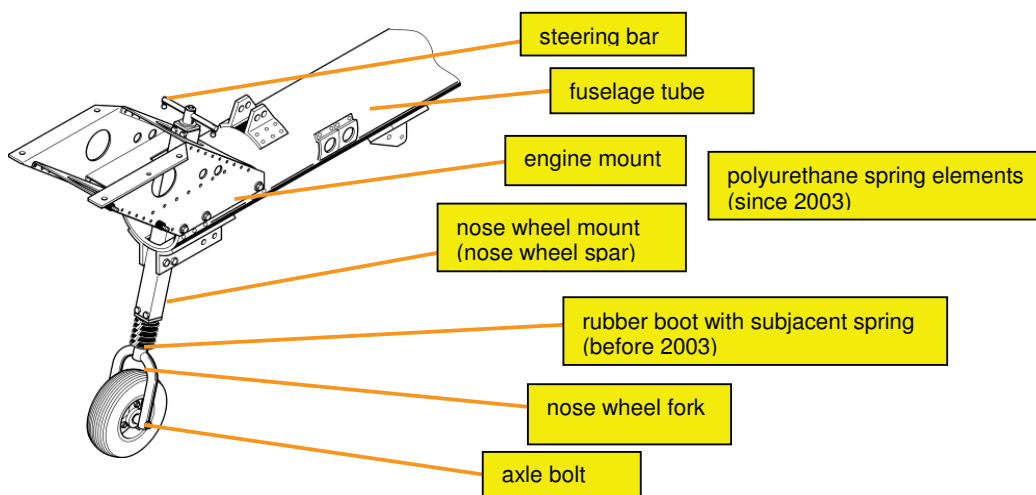


Figure 18: Nose wheel landing gear

2.4.1 Main landing gear:

The main landing gear comprises the cross beam, joists, axle tubes, shock absorbers, trailing arms and spar struts as well as wheel axles and main wheels. The individual elements of the landing gear are connected to each other by screws.

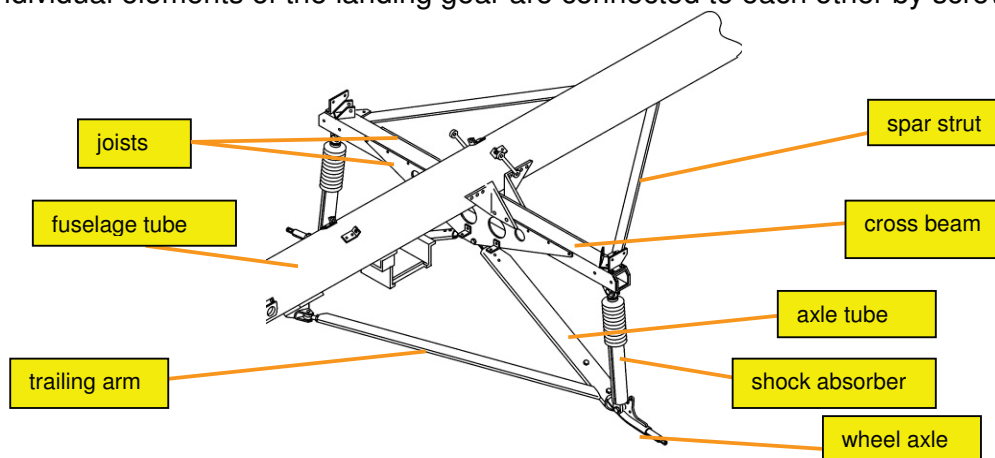


Figure 19: Main landing gear



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5.2.1 Fuselage

A 165 mm diameter aluminium tube runs from nose to tail and carries all the major assemblies: engine, seats, undercarriage, fuel tank, and tail empennage. The cockpit structure, consisting of a thin walled aluminium tube frame, includes a welded aluminium box-section frame at its top to which the wing spars' roots attach, and which provides compression load carry-through for both spars.

The composite seats are supported around their edges by attachment to the cockpit frame. Around the outboard edges of the seats, some of these loads are passed via the composite lower fairing to a lateral beam consisting of a 56mm reinforced box section. The ends of this beam accommodate the wing struts and withstand tension loads from them.

All load carrying (structural) members of the airframe are aluminium alloy tubes; most of which terminate in spherical bearings.

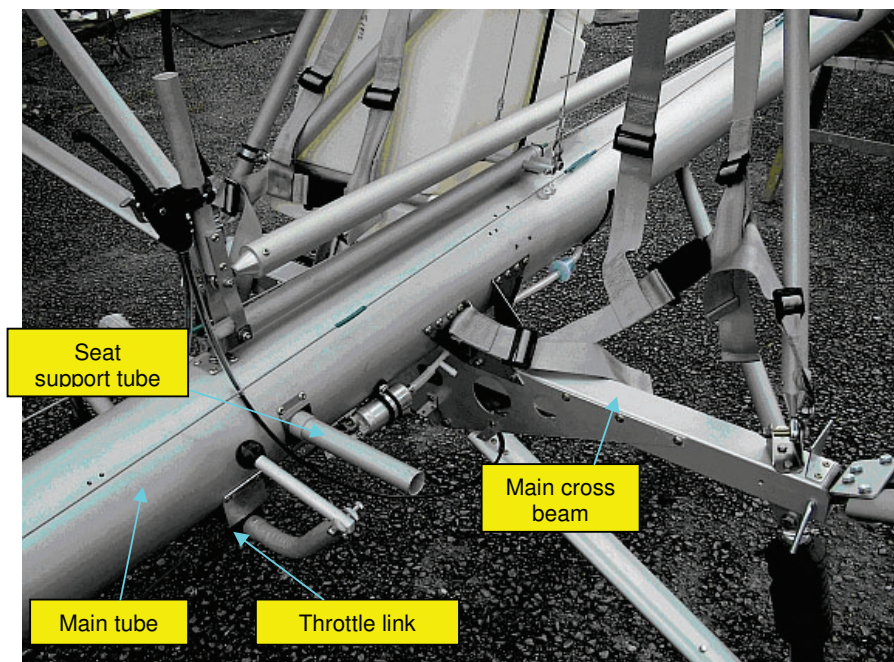


Figure 77: Main fuselage tube