Pomoce do określenia wymiarów podwozia i jego położenia

wg D. Stinton „The Design of the Aeroplane”
Limit of wheel movement caused by shock absorber deflection

*20°

13° max

13° min

30° max

30° best

CG should be confined within this range.

10° to 15°

(about 0° for 0.9 C_Lmax)

trail not less than 1/10 tail wheel diameter.

tail wheel shock-absorber deflection must be confined within this range.

The track of the spitfire is critical in this respect.

wheelbase

track or tread

about 1/4 to 1/3 wingspan

20° min

60° max

The track of the spitfire is critical in this respect.

Stinton
Limit of wheel movement caused by shock absorber deflection

CG should be confined within this range

Spindle axis

Tail wheel shock-absorber deflection must be confined within this range

$10^\circ$ to $15^\circ$

$(\text{about } \alpha^\circ \text{ for } 0.9 C_{L_{\text{max}}})$

Trail not less than $\frac{1}{10}$ tail wheel diameter.

Stinton
The track of the spitfire is critical in this respect.

- CG
- 60° max
- Wheelbase
- 20° min'

Track or tread about 1/4 to 1/3 wingspan

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Aircraft datum

$\theta^\circ$ corresponds with $(\alpha_{0.9} + 3^\circ)$
see Eq (10-1)

10° to 15°

ground line

tail down line

trail not less than $\frac{1}{10}$ nosewheel diameter

wheelbase $n$

$\frac{60^\circ}{\text{max}}$

track

wheelbase

Stinton
Stinton
Front view applicable to a, b and c.
Minimum outrigger loads occur when they are located at the radius of gyration of the aircraft in roll.

If each maingear unit is located at the radius of gyration of the aircraft in pitch, critical loads front and rear will be equal and a minimum.

Stinton