**Translate and give the definitions to the terms related to topic Undercarriage:**

undercarriage

airborne

redundant

retraction

spindle

strut

shock absorber

descent

short runway length

steering mechanism

shimmy control

dynamic instability

shaft

wheels

brakes

tires

replace

folding kinematics

hydraulic actuator

electrical motor drive

bogey(bogie) system

support shaft

nose wheel

undercarriage stowage

reliability

maintainability

encompass

streamlined shroud

retain

bicycle-type undercarriage

outrigger support wheel

aircraft with skids

tail wheel

nose wheel-type tricycle undercarriage

fixed undercarriage

visibility

ground looping

telescopic strut

lever suspension

offset pivot

in-line bogey

deformable quadrilateral strut

semi-articulated strut

controlled articulation

rigid axle

CG position

wheel base

wheel tread or wheel track

forwardmost aircraft CG position

over-turn characteristics

overturn angle

tilt

main wheel

ground contact point

lower angle θ

unprepared field

paved runway

airfield surface

rearmost CG

statically stable

dynamically stable

statically unstable

dynamically unstable

caster or rake angle

trail angle

offset

loaded radius

rolling radius

wheel alignment

no retraction

partial retraction (kneeling position)

full retraction

\_ stowage

higher-speed aircraft

twin wheels

extended and retracted positions

wing recess

strut

mounted on the wing

dominant pattern

fuselage underbelly

bulge

under-the-Wing Nacelle

gear

schematic retraction path

Retraction kinematics

tire

centrifugal force

articulated mechanism for retraction

unloaded free position

clearance gap

undercarriage spring

failed/Collapsed Position

free Position

hitting the ground

liftoff

ground clearance

fuselage clearance angle γ

wheel contact point

turning of an Aircraft

steering the nose wheel

pilot’s foot pedal

slip angle

braked wheel

center of the turn

turning radius

pedal-induced turns

forward-momentum component

point of tipping

over-turn angle

tandem

dual tandem

triple tandem

dual twin

dual twin tandem

twin tricycle

Wheel arrangements:



quadruple on a bogey

spring-mass system

Shock absorption

oleo system

damper;

to dissipate kinetic energy

lateral load

ground friction

shock absorber

fully extended

aircraft rotation for liftoff

speed reduction

reacting at the ground contact

on brake application

brake pads

fire hazard

rapid deceleration

load on Wheels

linear distance

force balance

main-wheel load

moment equilibrium

load per strut

forwardmost CG position

equivalent single wheel load (ESWL)

tandem twin wheel

side-by-side twin wheel

tandem triple wheel

side-by-side triple wheel

dynamic load

static load

to cushion the impact

vertical descent rate

structural integrity

load factor

extreme values

maximum landing aircraft mass

\_\_\_\_\_ energy to be absorbed by all the main wheels

energy absorption by strut

efficiency factor

stiffness of the spring

energy absorption by tire

load factor

runway pavement

runway surface

dynamic loading

flotation

unprepared surface??

prepared macadam surface??

prepared concrete surface??

crack

pavement strength

runway reinforcement

runway performance requirements

load classification number

load classification group

tire pressure

load per strut

load-bearing capacity

inflation pressure

unrestricted operation

tire standards

unloaded inflation pressure

ply ratings for holding shape under pressure

maximum static load for the MTOW

maximum aircraft speed on the ground

low-pressure tires

high-pressure tires

footprint

flotation effect

rim diameter

radial tire

load on tire

maximum radius at no load

minimum radius under static load