

Benz Aviation – TailwheelTransition Syllabus

Aircraft: _____

Instructor: _____ Student: _____

Course Overview

Module	Included	Duration
Ground: Tailwheel Transition Lecture	✓	2 hours
TW1: Tailwheel Familiarization	✓	2 hours
TW2: Takeoff & Landing Variations	✓	2 hours
TW3: Crosswind & Emergency Operations	✓	2 hours
TW4: Advanced Tailwheel Operations	✓	2 hours
TW5: Tailwheel Endorsement Evaluation	✓	2 hours

Training sequence: Ground lecture → TW1 → TW2 → TW3 → TW4 → TW5 (Endorsement Evaluation). Total course: 6 lessons × 2 hours = 12 hours.

Ground Lesson: Tailwheel Transition Lecture

Section 1 – FAA Regulation: 14 CFR 61.31(i)

- Required training and logbook endorsement
- Competency-based; no minimum hours

Section 2 – Advantages / Disadvantages of Tailwheel Airplanes

- Advantages and disadvantages

Section 3 – Types of Tailwheels

- Full swiveling, steerable, and locking tailwheels

Section 4 – Forces and Moments: Tricycle vs. Tailwheel

- CG location relative to the main gear
- Stabilizing vs. destabilizing moments; momentum
- Ground attitude and angle of attack

Section 5 – Tailwheel Hazards

- Ground loop: causes and prevention
- Prop strike: causes and prevention
- Nose-over: causes and prevention
- Pilot induced oscillation (pitch and yaw): causes and prevention

Section 6 – Tailwheel Operations

- Taxiing aerodynamics and taxi operations
- Takeoffs and heavy braking
- 3-point, wheel, and crosswind landings
- Bounce recovery and go-arounds

Section 7 – Keys to Success

- Staying calm, smooth control inputs, minimal braking, and keeping the airplane straight

Completed: _____ Instructor initials: _____

Flights:

TW1

1. Aircraft preflight inspection – tailwheel-specific items (tailwheel/tailspring, tail surface clearances)
2. Cockpit familiarization – forward visibility differences, sight picture from tailwheel attitude
3. Engine start and runup procedures – directional tendencies under power
4. Taxi technique – S-turns for forward visibility, differential braking, adverse winds
5. Ground Handling – ZigZags, Figure 8's, Pivots, Ground Loop Demo, Highspeed Taxi
6. Normal takeoff – elevator position, power application, tail raise, liftoff
7. Airwork/Maneuvers – Dutch Rolls, Slow Flight, Stalls, Steep Turns, Roll Stability Demo, Slips
8. Traffic pattern procedures – sight pictures and pattern geometry
9. Three-point landing – approach, flare, touchdown, rollout directional control
10. Touch-and-go practice – multiple circuits to build landing consistency
11. Go-around procedure – recognition of need, prompt execution
12. Full-stop landing, taxi back, and post-flight debrief

Completed: _____ Instructor initials: _____

TW2

1. Review of TW1 skills – normal takeoff and three-point landings
2. Wheel landing introduction – airspeed management, touchdown technique
3. Wheel landing practice – multiple circuits to build consistency
4. Transition landing – wheel landing transition to three-point landing
5. Touch-and-go practice with varied landing techniques

Completed: _____ Instructor initials: _____

TW3

1. Normal takeoff procedures – elevator position, power application, tail raise, liftoff
2. Three-point landings – approach, flare, touchdown, rollout directional control
3. Wheel landings – airspeed management, touchdown technique
4. Transition landings – wheel landing transition to three-point landing
5. Crosswind takeoffs – aileron input, directional control, liftoff
6. Crosswind landing – sideslip (wing-low) method, upwind main wheel first
7. Crosswind landing practice in varying crosswind components
8. Go-around discipline – decision-making triggers, prompt and committed execution

Completed: _____ Instructor initials: _____

TW4

1. Normal takeoff proficiency – practice to develop consistent technique
2. Three-point landing proficiency – practice to develop consistent technique
3. Wheel landing proficiency – practice to develop consistent technique
4. Crosswind operations in stronger or gusty conditions
5. Soft field operations – introduction to soft field takeoff and landing procedures
6. Simulated engine out landing (power off 180) – approach/line up, flare, landing, directional control

Completed: _____ Instructor initials: _____

TW5

1. Preflight inspection – aircraft airworthiness and tailwheel system check
2. Normal takeoff and three-point landing – show consistent proficiency
3. Crosswind takeoff and landing – sideslip method
4. Wheel landings – show consistent proficiency
5. Soft field operations – review for proficiency
6. Short field operations – Introduce short field takeoff and landings procedures
7. Emergency procedure – simulated engine failure response
8. Debrief, performance review, and endorsement

Completed: _____ Instructor initials: _____

