

SUPPLEMENT NO. 2

to the Flight Manual  
for the Powered Sailplanes

HK 36 TS

Differential Braking System

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The powered sailplane is to be operated in compliance with the information and limitations contained herein.

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## 1. GENERAL

### 1.1 INTRODUCTION

Pages 9-2-1 through 9-2-8 constitute Supplement No. 2 to the Flight Manual for the Powered Sailplane Model HK 36 TS and are valid only for the operation of the powered sailplane with the differential braking system.

### 1.5 DESCRIPTIVE DATA

The differential braking system is designed to increase maneuverability during taxiing on the ground.

The system is operated through an ON/OFF-switch, a position switch unit which is coupled with the rudder controls and the airbrake levers. It enables the individual braking of the main wheels using shut-off valves, thus significantly reducing the airplane's minimum curve radius on the ground.

## 2. LIMITATIONS

### 2.14 OTHER LIMITATIONS

The differential braking system may only be activated for taxiing on the ground.

### CAUTION

During take-off, flight, and landing, the differential braking system must be switched off!

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### 3. EMERGENCY PROCEDURES

#### 3.9 OTHER EMERGENCIES

Should unusual behavior of the differential braking system be observed, it must be switched off. The conventional brake system will still be available.

### 4. NORMAL PROCEDURES

#### 4.5 NORMAL PROCEDURES

##### 4.5.1 Taxiing with Differential Braking System

When the system is switched on, deflecting the rudder to the stop causes the valve to shut off the brake line to the outer main wheel. Thus only the inner main wheel brake is activated when the air brake lever is pulled.

Procedure:

- \* ON/OFF switch for differential braking system (installed in center section of instrument panel) - ON.
- \* Caution light - check if on.
- \* Rudder - deflect to stop using rudder pedals.
- \* Air brake lever - pull to activate brake on inner main wheel.
- \* Engine RPM - increase if required.
- \* After taxiing: ON/OFF-switch - OFF

##### Prior to take-off

- \* Differential braking system - check if OFF.

### 5. PERFORMANCE

[Omitted.]

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## 6. MASS (WEIGHT) AND BALANCE / EQUIPMENT LIST

### 6.9 EQUIPMENT LIST

#### Additional Equipment for the Differential Braking System

- 1 ON/OFF-switch for the differential braking system
- 1 Caution light
- 1 Circuit breaker
- 1 Position switch unit
- 2 Shut-off valves for brake lines

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## 7. POWERED SAILPLANE AND SYSTEMS DESCRIPTION

### 7.5 LANDING GEAR

Differential Braking System:

An electrically operated shut-off valve is installed in each brake line running to the left and right main wheel. These valves are activated by a position switch unit coupled with the rudder controls. When the rudder is fully deflected, the valve on the outer side is shut, and only the inner main wheel brake is activated when the air brake lever is pulled.

### 7.14 PLACARDS / INSCRIPTIONS

The following additional placards are installed if the differential braking system is installed:

Between the circuit breaker, caution light, and ON/OFF-switch for the differential braking system:

Differential Braking
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On the instrument panel, left hand section:

The differential braking system may only be activated during taxiing.
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## 8. POWERED SAILPLANE HANDLING, CARE AND MAINTENANCE

### 8.2 POWERED SAILPLANE INSPECTION PERIODS

#### 8.2.1 Inspection Periods for the Differential Braking System

At each 100 hour inspection, the system must be checked for poor condition and improper operation.

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