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**SUPPLEMENT NO. 2 TO THE  
AIRPLANE FLIGHT MANUAL  
FOR THE POWERED SAILPLANE  
HK 36 TTS**

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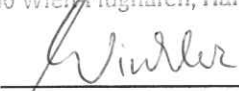
**DIFFERENTIAL BRAKING SYSTEM**


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The Powered Sailplane is to be operated in compliance with the information and limitations contained herein.

Prior to operating the Powered Sailplane, the Pilot must take notice of all the information contained in this Airplane Flight Manual.

## 0.1 LIST OF EFFECTIVE PAGES

Section	Pages	Date
0	9 - 2 - 1	03 Mar 1997
	9 - 2 - 2	03 Mar 1997
	9 - 2 - 3	03 Mar 1997
1, 2	ACG-appr. 9 - 2 - 4	03 Mar 1997
3, 4	ACG-appr. 9 - 2 - 5	03 Mar 1997
5, 6	9 - 2 - 6	03 Mar 1997
7	9 - 2 - 7	03 Mar 1997
8	9 - 2 - 8	03 Mar 1997

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 2

## 0.2 TABLE OF CONTENTS

0.1	LIST OF EFFECTIVE PAGES .....	9 - 1 - 2
0.2	TABLE OF CONTENTS .....	9 - 1 - 3
<b>1. GENERAL</b>		
1.1	INTRODUCTION .....	9 - 2 - 4
1.5	DESCRIPTIVE DATA .....	9 - 2 - 4
<b>2. LIMITATIONS</b>		
2.14	OTHER LIMITATIONS .....	9 - 2 - 4
<b>3. EMERGENCY PROCEDURES</b>		
3.9	OTHER EMERGENCIES .....	9 - 2 - 5
<b>4. NORMAL PROCEDURES</b>		
4.5	NORMAL PROCEDURES	
	4.5.1 Taxiing With Differential Braking System .....	9 - 2 - 5
<b>5. PERFORMANCE</b>		
	[Omitted.]	
<b>6. MASS (WEIGHT) AND BALANCE / EQUIPMENT LIST</b>		
6.9	EQUIPMENT LIST .....	9 - 2 - 5
<b>7. POWERED SAILPLANE AND SYSTEMS DESCRIPTION</b>		
7.5	LANDING GEAR .....	9 - 2 - 6
7.14	PLACARDS / INSCRIPTIONS .....	9 - 2 - 6
<b>8. POWERED SAILPLANE HANDLING, CARE AND MAINTENANCE</b>		
8.2	POWERED SAILPLANE INSPECTION PERIODS	
	8.2.1 Inspection Periods For The Differential Braking System ..	9 - 2 - 6

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 3

# SECTION 1

## GENERAL

### 1.1 INTRODUCTION

Pages 9 - 2 - 1 through 9 - 2 - 8 constitute Supplement No. 2 of the Airplane Flight Manual for the Powered Sailplane HK 36 TTS and are valid only for the operation of the Powered Sailplane with the differential braking system installed.

### 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 (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 minimum turning radius of the airplane on the ground.

## SECTION 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!

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 4

## SECTION 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.

## SECTION 4

# NORMAL PROCEDURES

### 4.5 NORMAL PROCEDURES

#### 4.5.1 Taxiing with Differential Braking System

When the system is switched on, deflection of 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   ON
- Amber 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 completing the maneuver: .. ON/OFF-switch OFF

#### Prior to take-off

- Differential braking system   ..... check if OFF.

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 5

## SECTION 5

# PERFORMANCE

[Omitted.]

## SECTION 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

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 6

## SECTION 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 which runs 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 ON/OFF-switch, circuit breaker and caution light of the differential braking system:

Differential  
Braking

On the instrument panel, left hand section:

The differential braking  
system may only be used  
during taxiing.

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 7

## SECTION 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.

Doc. No.	Issue	Rev. No.	Date	Source	Page No.
3.01.15-E	03 Mar 1997				9 - 2 - 8