

REVISION TO AIRCRAFT PUBLICATION: EC 155 B

PUBLICATION CONCERNED: FLIGHT MANUAL, Regulatory and Supplementary parts

Volume 1	Revision No. 22	Date code 20-50	Certification: EASA A
Supplement No. 19	Revision No. 2	Date code 20-50	Certification: EASA A

- The outline of the revision is given below:
 - . Supplements affected (added or modified),
 - . Major points of the revision.
- Check that pages in each supplement are those specified in the list of effective pages.
- Withdraw old and insert new pages affected by this revision.
- Return the acknowledgement card.
- This list of amended pages may be filed (apart from the manual).

**THE CONTENT OF THE FLIGHT MANUAL REVISION
MUST BE BROUGHT TO THE ATTENTION OF FLIGHT CREWS**

OUTLINE OF THE REVISION	SECTION	PAGES
<p><u>FLIGHT MANUAL</u> Regulatory part, EASA A certification NR 22 date code 20-50:</p> <ul style="list-style-type: none"> - The List of approved effective pages and Log of Normal approved Revisions are updated, - The Maximum Takeoff and landing weight limitation is updated, - The paragraph 2 "Center of gravity limits" is shifted from page 1 to page 2, - "EASA APPROVED" and "DGAC APPROVED" are replaced by "APPROVED" in the page footers, 	<p>0.0.P5</p> <p>2.2</p> <p>2.2</p>	<p>1 to 5</p> <p>1</p> <p>1 to 2</p>
<p><u>FLIGHT MANUAL</u> Supplementary part, EASA A certification SUP.19 (Sand Filters installation) NR 2 date code 20-50:</p> <ul style="list-style-type: none"> - "EUROCOPTER" is replaced by "AIRBUS Helicopters", - The List of approved effective pages and Log of Normal approved Revisions are updated, - "DGAC APPROVED" is replaced by "APPROVED" in all page footers, - "completed" is replaced by "supplemented" at the beginning of each section, - The Maximum Takeoff and landing weight limitation is updated, - The paragraph 3 "Emergency procedures" is shifted from page 2 to page 3, - The "Failure with sand-filter OFF" procedure is shifted from page 3 to page 4. 	<p>SUP.19.P1</p> <p>SUP.19.P5</p> <p>SUP.19</p> <p>SUP.19</p> <p>SUP.19</p> <p>SUP.19</p> <p>SUP.19</p>	<p>1</p> <p>1 to 2</p> <p>All pages</p> <p>2, 3, 5 and 10</p> <p>2</p> <p>2-3</p> <p>3-4</p>

UPDATE GUIDE						
	PAGES TO BE DELETED			PAGES TO BE INSERTED		
	SECTION	PAGES	DATE-CODE	SECTION	PAGES	DATE-CODE
FLM REVISIONS STATUS	-	1	<i>Aug 28, 2020</i>	-	1	May 06, 2021
Regulatory part NR22 20-50 White pages	<i>0.0.P5</i>	<i>1 to 5</i>	<i>18-41</i>	0.0.P5	1 to 5	20-50
	<i>2.2</i>	<i>1</i>	<i>04-38</i>	2.2	1	20-50
	<i>2.2</i>	<i>2</i>	<i>98-37</i>	2.2	2	20-50
Supplementary part SUP.19 NR2 20-50 White pages	<i>SUP.19.P1</i>	<i>1</i>	<i>00-07</i>	SUP.19.P1	1	20-50
	<i>SUP.19.P5</i>	<i>1</i>	<i>02-08</i>	SUP.19.P5	1	20-50
	-	-	-	SUP.19.P5	2	20-50
	<i>SUP.19</i>	<i>1 to 4</i>	<i>00-07</i>	SUP.19	1 to 4	20-50
	<i>SUP.19</i>	<i>5</i>	<i>02-08</i>	SUP.19	5	20-50
	<i>SUP.19</i>	<i>6 to 10</i>	<i>00-07</i>	SUP.19	6 to 10	20-50
	<i>SUP.19</i>	<i>11 to 33</i>	<i>02-08</i>	SUP.19	11 to 33	20-50

EC 155 B FLIGHT MANUAL REVISIONS STATUS

EASA CERTIFICATION

This manual must contain the normal revision (RN) and rush revisions (RR) listed under the relevant issue (EDIT).

PRESCRIBED PART		
Volume 1		
SECT. / SUP.	.EDIT	.DATE
0 -> 5	RN22	20-50
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SUP.14	RN7	20-11
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SUP.19	RN2	20-50
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SUP.24	RN2	03-41
SUP.25	RN1	03-41
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SUP.35	RN2	15-28
SUP.36	RN0	01-44

R

R

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SUP.37	RN1	05-14
SUP.40	RN1	14-07
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SUP.53	RN3	12-04
SUP.54	RN1	07-09
SUP.55	RN1	03-18
SUP.56	RN3	06-05
SUP.57	RN4	15-02
SUP.58	RN1	05-32

COMPLEMENTARY PART		
Volume 2		
SECT.	EDIT	DATE
0, 6 -> 10	RN9	14-26

LIST OF APPROVED EFFECTIVE PAGES

EASA CERTIFICATION

(1) Page Revision Code

- R: Revised, to be replaced
- N: New, to be inserted

SECTION	PAGE	DATE	(1)	SECTION	PAGE	DATE	(1)
0.0	P1	1	14-28	2.4	1	12-16	
0.0	P1	2	98-37	2.4	2	04-38	
0.0	P1	3	98-37	2.4	3	04-07	
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1.0	P6	1	98-37	2.5	4	13-48	
1.1		1	98-37	2.5	5	12-16	
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0.0.P5

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5.0	P6	1	04-38				
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5.1		8	04-38				
5.1		9	04-38				
5.1		10	04-38				
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LOG OF NORMAL APPROVED REVISIONS

BASIC RFM REVISIONS

NORMAL REVISION 22 date code 20-50		EASA approval No.10076345 on April 28, 2021
Main Points	Addition of Maximum Take-Off and landing Weight limitation for aircraft with 10 installed passenger seats or more. EASA APPROVED and DGAC APPROVED replaced by APPROVED.	
Revised information	0.0.P5 pages 1 to 5, 2.2 pages 1 to 2.	
Deleted information	None.	
NORMAL REVISION 21 date code 18-41		Approved on December 13, 2018 under the authority of EASA Design Organization Approval No. EASA.21.J.700.
Main Points	Addition of "No stow under an energy-absorbing seat" information.	
Revised information	0.0.P5 pages 1 to 5, 2.0.P6 page 2 and 2.6 page 2.	
Deleted information	None.	
NORMAL REVISION 20 date code 14-40		EASA approved No 10053366 on May 20, 2015
Title	Incorporation of new prohibited maneuvers. Limitation duration of 2 min for high amperage in yellow range. Paragraph "Emergency exit" moved to section 3.3 § 9.	
Revised information	0.0.P5 - 2.0.P6 p.2 - 2.1 p.1 - 2.5 p.6 - 2.7 p.2 - 3.0.P6 p.1 - 3.3 p.10 & 11	
Deleted information	None.	
NORMAL REVISION 19 date code 14-28		Approved on October 28, 2014 under the authority of EASA Design Organization Approval No.21J.056
Title	Incorporation of new brand "Airbus Helicopters" instead of "Eurocopter", Incorporation of customer remarks	
Revised information	0.0.P1 - 0.0.P5 - 3.0.P6 - 3.1 p.2 - 3.2 p.4, 6, 7, 9, 11, 14, 18, 23, 29, 30, 31 - 3.3 p.5 to 11 - 4.3 p.8 - 4.9 p.1	
Deleted information	None.	

LOG OF NORMAL APPROVED REVISIONS (Cont'd)

BASIC RFM REVISIONS

NORMAL REVISION 18 date code 13-48		EASA approval No 10048194 on February 19, 2014
Title	Modification of the authorized fuel	
Revised information	0.0.P5, 2.5 page 4	
Deleted information	None.	
NORMAL REVISION 17 date code 12-16		EASA approval No 10041911 on October 24, 2012
NORMAL REVISION 16 date code 10-42		
NORMAL REVISION 15 date code 09-04		
NORMAL REVISION 14 date code 08-11		
NORMAL REVISION 13 date code 05-32		
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NORMAL REVISION 7 date code 02-08		
NORMAL REVISION 6 date code 01-26		
NORMAL REVISION 5 date code 01-16		
NORMAL REVISION 4 date code 00-27		
NORMAL REVISION 3 date code 00-03		
NORMAL REVISION 2 date code 99-24		
NORMAL REVISION 1 date code 99-09		
NORMAL REVISION 0 date code 98-37		

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0.0.P5

SECTION 2.2

WEIGHT AND CENTER OF GRAVITY LIMITS

1 WEIGHT LIMITS

- Maximum approved gross weight4800 kg (10582 lb).
- Maximum Take-Off and landing Weight:
Depending on outside conditions (altitude and temperature) and on the number of installed passenger seats, the maximum takeoff and landing weight shall be limited as follows:

Aircraft with 9 installed passenger seats or less	Aircraft with 10 installed passenger seats or more
Weight limited by: TWIN ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS (refer to Section 5.1, figure 4) without exceeding 4800 kg (10582 lb)	Weight limited by: TWIN ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS (refer to Section 5.1, figure 4) without exceeding 4800 kg (10582 lb) and TAKEOFF WEIGHTS PERMITTING CLIMB AT 150 ft/min, 1000 ft ABOVE GROUND WITH ONE ENGINE INOPERATIVE (refer to Section 5.1, figure 10) without exceeding 4800 kg (10582 lb)

- Minimum approved gross weightOAT ≥ -5°C: 3000 kg (6614 lb),
 -5°C > OAT ≥ -25°C: 3200 kg (7055 lb),
 -25°C > OAT ≥ -40°C: 3400 kg (7496 lb).

2 CENTER OF GRAVITY LIMITS

2.1 LONGITUDINAL CG POSITION

Figure 1 plots the approved extreme CG positions versus aircraft weight.

The CG datum is located 4 m (157.5 in) forward of the main rotor centerline.

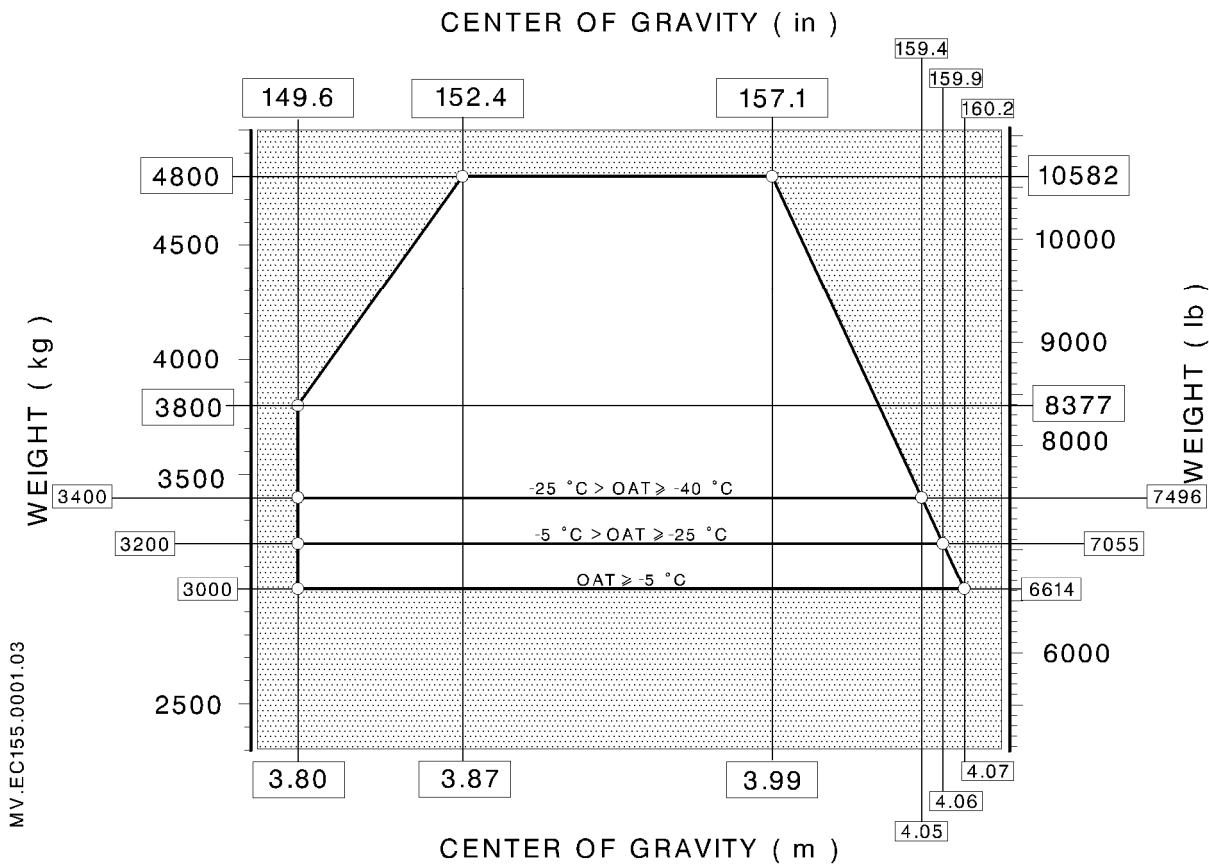


Figure 1 - CG Position Versus Aircraft Weight

2.2 LATERAL CG POSITION

LH limit	- 0.050 m (1.97 in)
RH limit	+ 0.050 m (1.97 in)

The CG datum is the aircraft symmetry plane.



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SUPPLEMENT

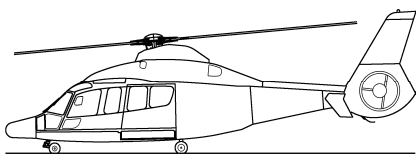
SAND FILTERS INSTALLATION

IMPORTANT NOTE

The information contained herein supplements or supersedes the information given in the basic Flight Manual and/or Supplements listed in Supplement 0.

The effectivity of the Supplement at the latest revision is specified on the List of Approved Effective Pages.

THIS SUPPLEMENT MUST BE INCLUDED IN THE FLIGHT MANUAL WHEN THE EQUIPMENT MENTIONED ABOVE IS INSTALLED ON THE AIRCRAFT.



Airbus Helicopters Direction Technique Support
Aéroport international Marseille-Provence 13725 Marignane Cedex - France

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SUP.19.P1

LIST OF APPROVED EFFECTIVE PAGES
EASA CERTIFICATION

(1) Page Revision Code

- R: Revised, to be replaced,
- N: New, to be inserted.

SUPPLEMENT	PAGE	DATE	(1)	SUPPLEMENT	PAGE	DATE	(1)
SUP. 19 P1	1	20-50	R	SUP. 19	16	20-50	R
SUP. 19 P5	1	20-50	R	SUP. 19	17	20-50	R
SUP. 19 P5	2	20-50	N	SUP. 19	18	20-50	R
SUP. 19	1	20-50	R	SUP. 19	19	20-50	R
SUP. 19	2	20-50	R	SUP. 19	20	20-50	R
SUP. 19	3	20-50	R	SUP. 19	21	20-50	R
SUP. 19	4	20-50	R	SUP. 19	22	20-50	R
SUP. 19	5	20-50	R	SUP. 19	23	20-50	R
SUP. 19	6	20-50	R	SUP. 19	24	20-50	R
SUP. 19	7	20-50	R	SUP. 19	25	20-50	R
SUP. 19	8	20-50	R	SUP. 19	26	20-50	R
SUP. 19	9	20-50	R	SUP. 19	27	20-50	R
SUP. 19	10	20-50	R	SUP. 19	28	20-50	R
SUP. 19	11	20-50	R	SUP. 19	29	20-50	R
SUP. 19	12	20-50	R	SUP. 19	30	20-50	R
SUP. 19	13	20-50	R	SUP. 19	31	20-50	R
SUP. 19	14	20-50	R	SUP. 19	32	20-50	R
SUP. 19	15	20-50	R	SUP. 19	33	20-50	R

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SUP.19.P5

LOG OF APPROVED NORMAL REVISIONS

NORMAL REVISION 2 date code 20-50		EASA approval No.10076345 on April 28, 2021
Main points	Addition of Maximum Take-Off and landing Weight limitation for aircraft with 10 installed passenger seats or more. "DGAC APPROVED" is replaced by "APPROVED", "completed" is replaced by "supplemented".	
Revised information	SUP.19.P1 page 1, SUP.19.P5 pages 1 to 2, SUP.19 pages 1 to 33.	
Deleted information	None.	
NORMAL REVISION 1 date code 02-08		DGAC approval on 30th April, 2002
NORMAL REVISION 0 date code 00-07		

1 GENERAL

The sand filters installation is designed to prevent the ingress of sand into the engines in order to avoid premature wear of turbine blades.

The sand filters assembly comprises:

- a set of removable MGB cowlings complete with filter housing, interchangeable with the standard MGB cowlings,
- a set of removable fairings placed over the standard removable engine cowlings,
- a P2 circuit, feeding the sand exhaust nozzles and provided with an electrically actuated valve,
- a system that automatically closes the P2 circuit valve of either engine in the event of an engine failure (if N1 of remaining engine exceeds OEI 2 min rating).

1.1 PILOT'S CONTROLS AND INDICATORS

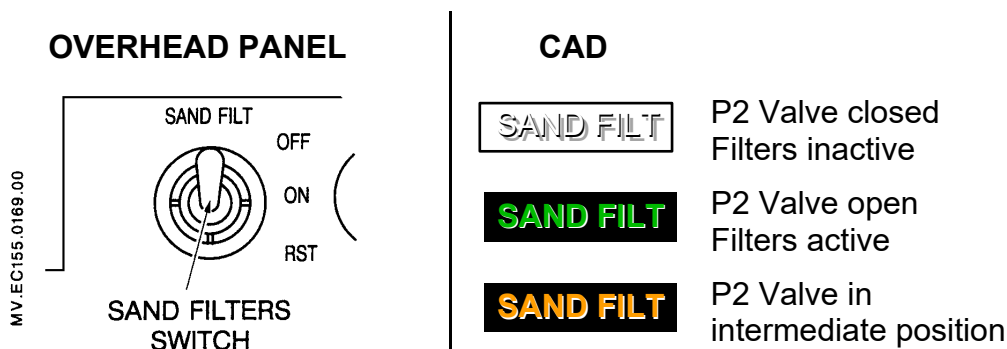


Figure 1 - Pilot's controls and indicators

2 LIMITATIONS

The limitations specified in the Basic Flight Manual and in the Supplements used remain applicable and are supplemented or modified by the following limitations.

2.1 PROHIBITED FLIGHT CONDITIONS

The following are prohibited:

- flight in falling snow,
- switching sand filters on again during takeoff or landing phases following an automatic shutoff,
- simultaneous operation of the cabin heating system and active sand filters in flight.

2.2 WEIGHT LIMIT

Depending on outside conditions (altitude and temperature) and on the number of installed passenger seats, the maximum takeoff and landing weight shall be limited as follows:

Aircraft with 9 installed passenger seats or less	Aircraft with 10 installed passenger seats or more
<p>Weight limited by:</p> <p>TWIN-ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS</p> <p>With sand filters inactive: Refer to Figures 6A and 6B</p> <p>With sand filters active: Refer to Figures 7A and 7B</p>	<p>Weight limited by:</p> <p>TWIN-ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS</p> <p>With sand filters inactive: Refer to Figures 6A and 6B</p> <p>With sand filters active: Refer to Figures 7A and 7B</p> <p style="text-align: center;">and</p> <p>TAKEOFF WEIGHTS PERMITTING CLIMB AT 150 ft/min, 1000 ft ABOVE GROUND WITH ONE ENGINE INOPERATIVE</p> <p>With sand filters inactive: Refer to Figure 16</p> <p>With sand filters active: Refer to Figure 17</p>

2.3 LIMITATIONS OF ENGINES (SAND FILTERS ACTIVE)

The FADEC units AUTOMATICALLY reduce Maximum Takeoff Power N1, Maximum Continuous Power N1 and continuous OEI N1 by 0.31% to comply with T4 limits.

3 EMERGENCY PROCEDURES

The emergency procedures specified in the Basic Flight Manual and in the Supplements used remain applicable and are supplemented or modified by the following emergency procedures.

3.1 ENGINE FAILURE IN CRUISE FLIGHT

NOTE

On engine failure, P2 bleed is automatically switched off when reaching the OEI 2 min rating.

If necessary

- SAND FILT..... RST then ON

3.2 IN-FLIGHT ENGINE RESTARTING PROCEDURE

Before restarting the engine, set the SAND FILT switch to OFF.

3.3 MISCELLANEOUS FAULTS AND INCIDENTS

- With sand filters switched ON:

	CORRECTIVE ACTIONS
<div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">SAND FILT</div> P2 valve closed Sand filters inactive	<ul style="list-style-type: none"> • Avoid flights in sandy atmosphere.
<div style="background-color: black; color: white; padding: 2px; display: inline-block; margin-bottom: 5px;">SAND FILT</div> P2 valve in intermediate position	<ul style="list-style-type: none"> • SAND FILT OFF <div style="text-align: center; margin: 10px 0;"> </div> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">SAND FILT</div> Sand filters are inactive. Avoid flights in sandy atmosphere. CONTINUE THE FLIGHT </div> <div style="width: 45%;"> <div style="background-color: black; color: white; padding: 2px; display: inline-block; margin-bottom: 5px;">SAND FILT</div> For power performance and limitations, sand filters must be considered as active. Avoid flights in sandy atmosphere. CONTINUE THE FLIGHT </div> </div>

- With sand filters switched OFF:

	CORRECTIVE ACTIONS
SAND FILT P2 valve open	<p>NOTE</p> <p>Sand filters are active.</p> <p>CONTINUE THE FLIGHT</p>

3.4 FAILURE OF BOTH VEMD SCREENS

VEMD OFF 1 and OFF 2

The emergency page appears on the CAD. Control the $\Delta N1$ in compliance with the following table:

SAND FILTERS OFF

OAT (°C)

							TOP		
							MCP		
40	0 -2,6	0 -2,2	0 -2,2	0 -2,2	0 -2,2				
30	1,1 -4,1	0 -3	0 -2,2	0 -2,2	0 -2,2	0 -2,2			
20	-2,6 -5,6	-0,7 -4,6	0 -3,1	0 -2,2	0 -2,2	0 -2,2	0 -2,2		
10	-3,9 -7	-2,1 -6	0 -4,6	0 -2,7	0 -2,2	0 -2,2	0 -2,2	0 -2,2	
0	-5,2 -8	-3,3 -7,4	-1,1 -6	0 -4	0 -2,2	0 -2,2	0 -2,2	0 -2,2	
-10	-6,6 -8	-4,7 -8	-2,5 -7,4	0 -5,4	0 -3,1	0 -2,2	0 -2,2	0 -2,2	
-20	-8 -8	6,1 -8	3,9 -8	-1,5 -6,8	0 -4,5	0 -2,2	0 -2,2	0 -2,2	
	-2	-0	2	4	6	8	10	12	14

Hp (ft x 1000)

MV.EC155.0168.00

If sand filters ON, X.X must be increased by 0.3%.

Example: HP = 0 ft - OAT = 10°C: Sand filters OFF, $\Delta N1$ at MCP = - 6.0

If sand filters ON, $\Delta N1 = - 6.0 + 0.3 = - 5.7$

4 NORMAL PROCEDURES

The normal procedures specified in the Basic Flight Manual and in the Supplements used remain applicable and are supplemented or modified by the following normal procedures.

4.1 EXTERIOR CHECKLIST

STATION 1

ADD:

1. Sand filters and ejectors..... Condition
2. Cowlings (Sand filters) Closed

4.2 SPECIAL CHECKS (FIRST FLIGHT OF THE DAY)

ADD:

1. SAND FILTRST then ON
2. SAND FILTOFF
3. SAND FILTAs required

SAND FILT

SAND FILT

4.3 CHECK OF ENGINE POWER MARGIN AND THERMAL MARGIN

Procedure: Refer to basic FLM section 4.9.

- Automatic power and thermal check: The result given by EPC is to be used as follows:
 - TOT °C..... No correction
 - TRQ %..... The displayed result has to be increased by 6%.
- Manual power and thermal check: Use figures 2 to 5 in the following pages.

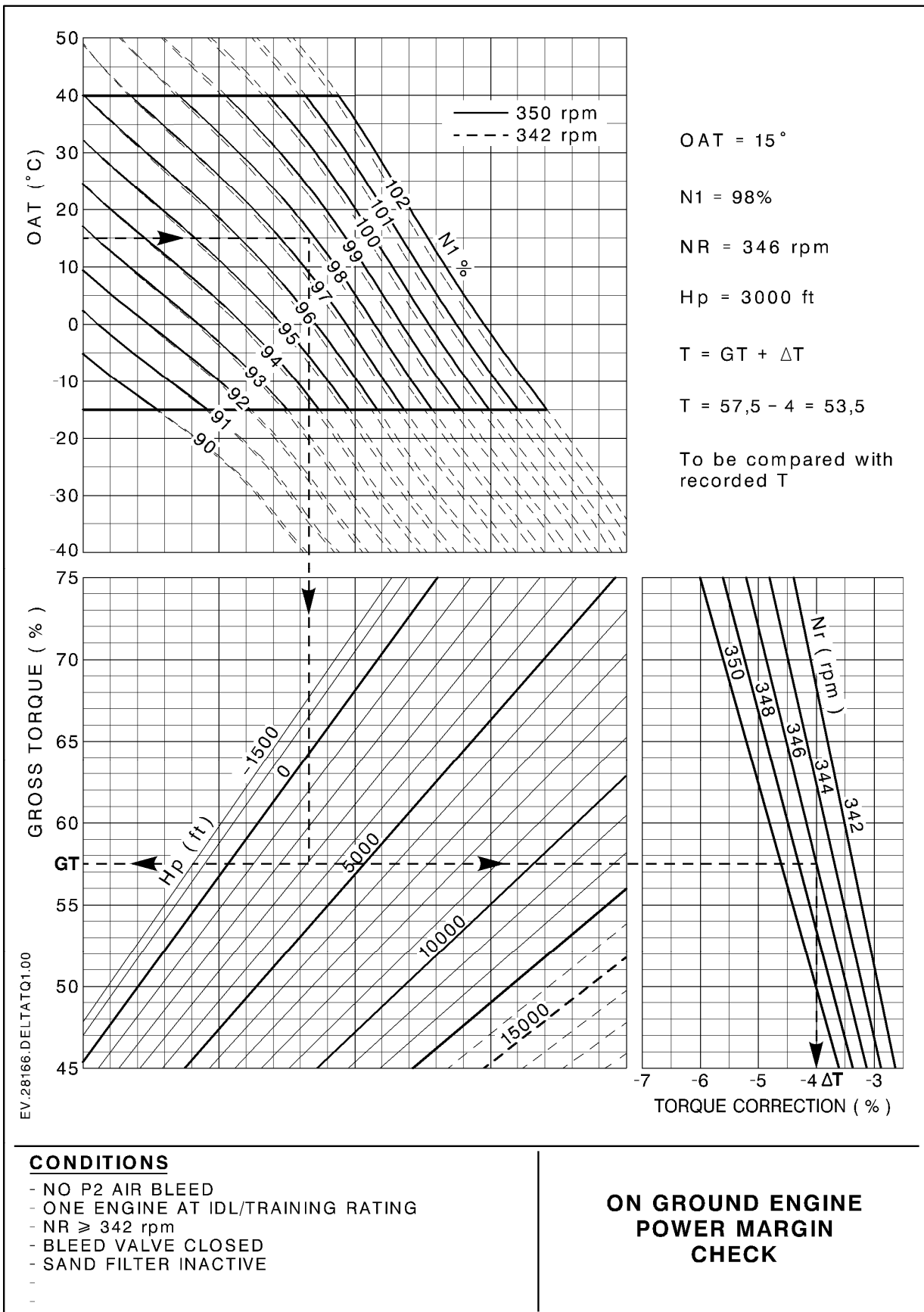


Figure 2

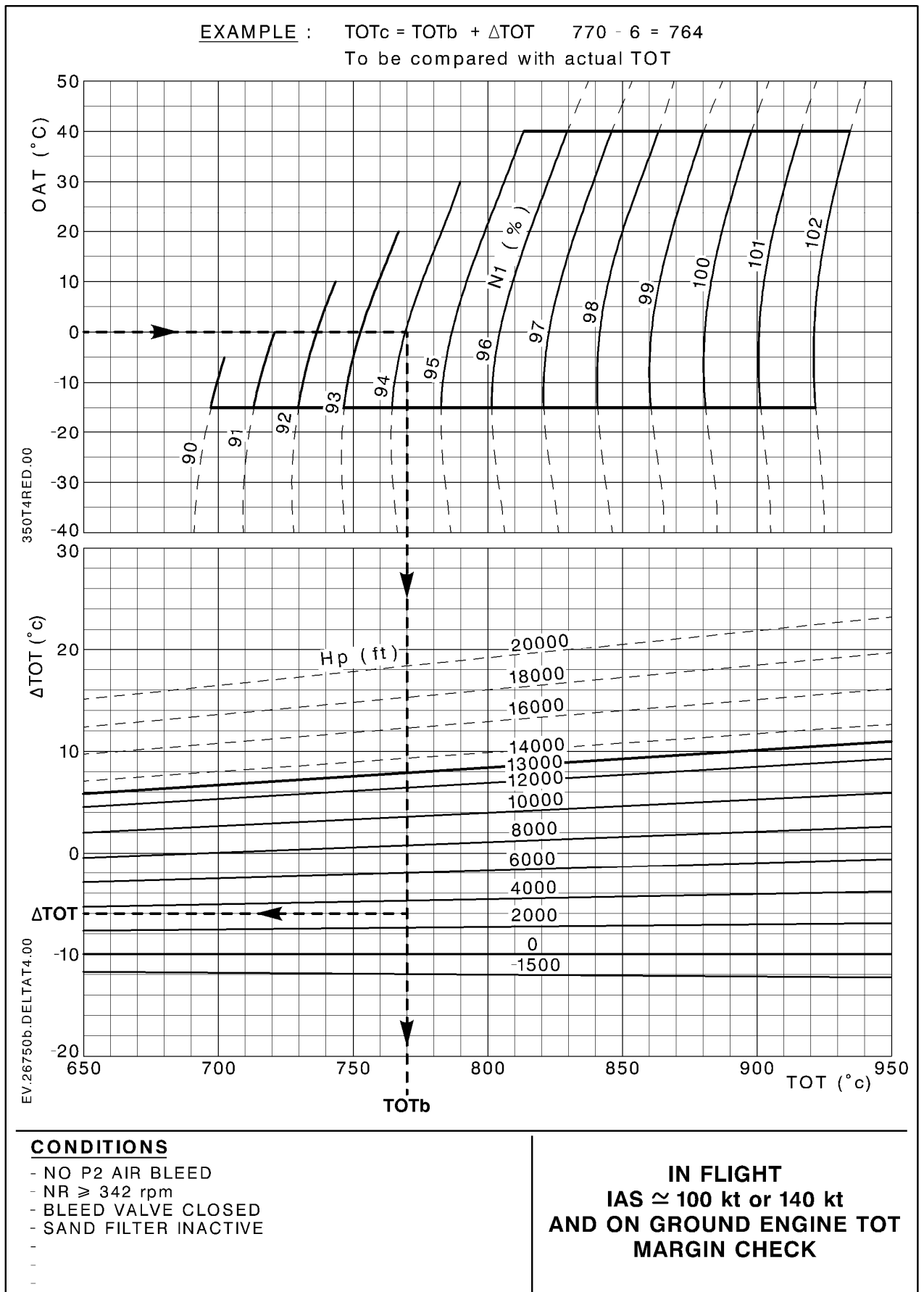


Figure 3

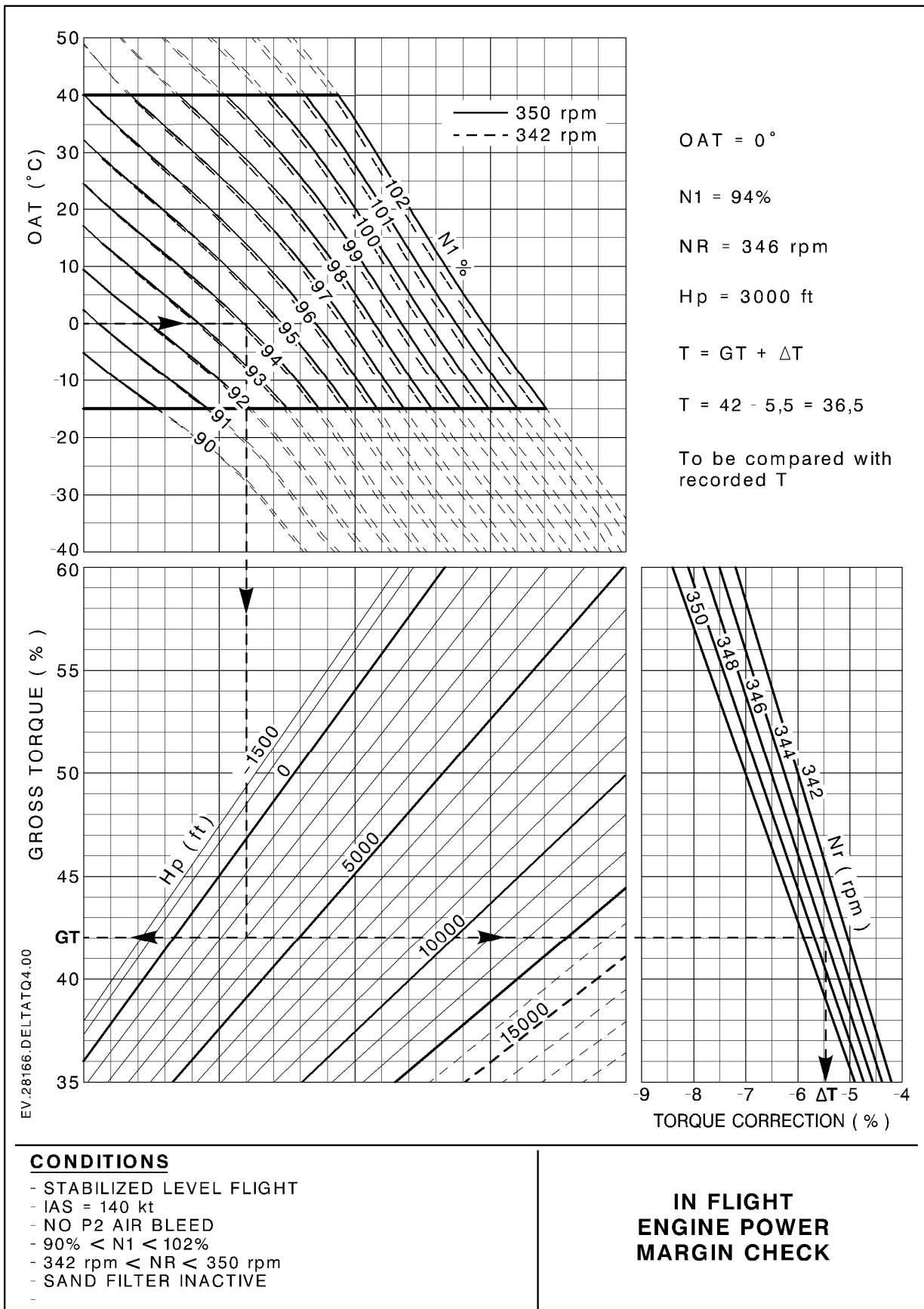


Figure 4

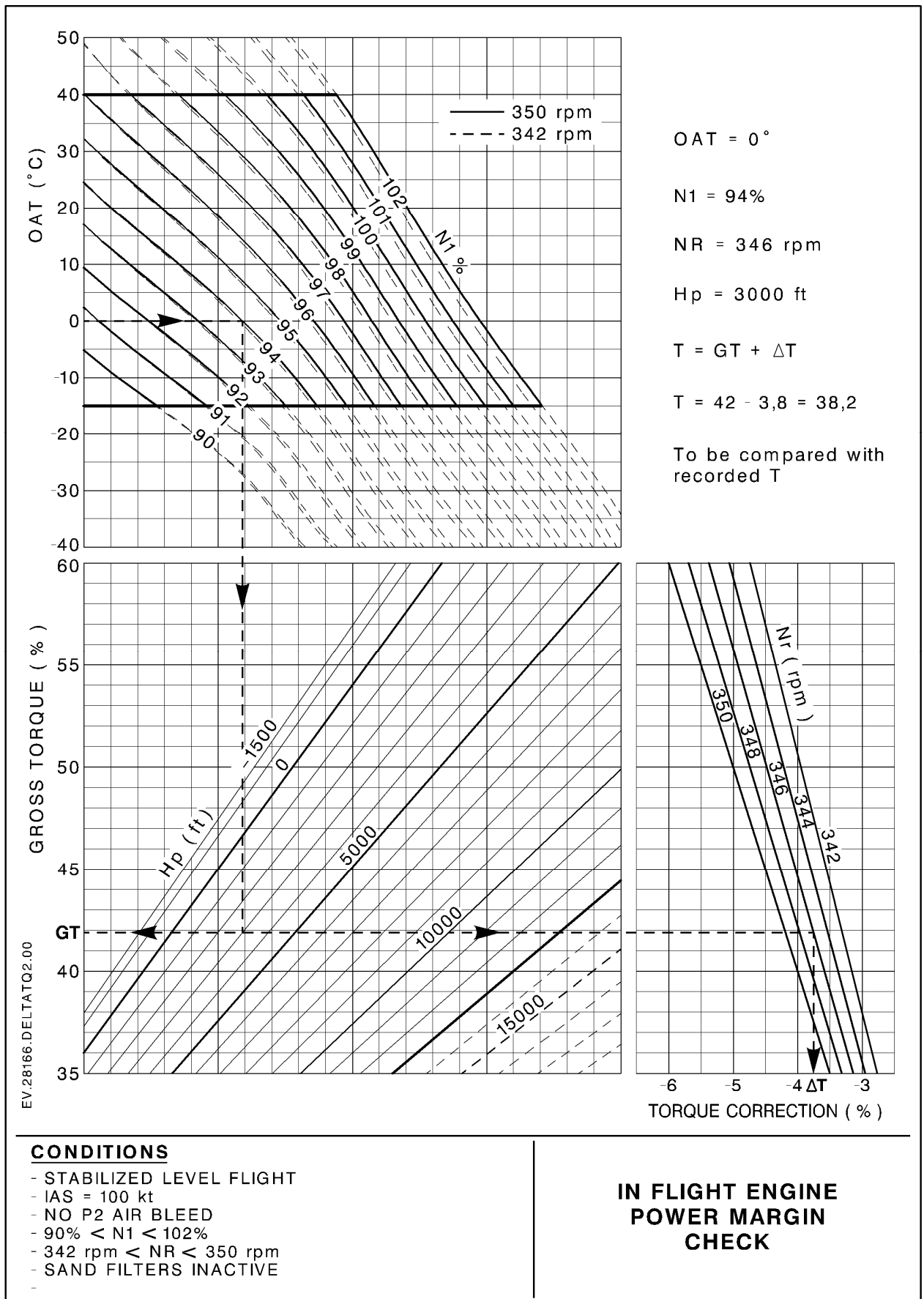


Figure 5

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5 PERFORMANCE

5.1 REGULATORY PERFORMANCE DATA

The regulatory performance data specified in the Basic Flight Manual and in the Supplements used remain applicable and are supplemented or modified by the following regulatory performance data.

<u>TWIN-ENGINE HOVER PERFORMANCE</u>	Figures
- MAXIMUM HOVER IGE WEIGHTS	
• Sand filters inactive	6
• Sans filters active	7
- MAXIMUM HOVER OGE WEIGHTS	
• Sand filters inactive	8
• Sans filters active	9
 <u>CLIMBING PERFORMANCE</u>	
- DETERMINATION OF THE WEIGHT FACTOR.....	10
- TWIN-ENGINE RATE OF CLIMB	
• Sand filters inactive	11
• Sand filters active	12
- ONE ENGINE INOPERATIVE RATE OF CLIMB (OEI CONTINUOUS)	
• Sand filters inactive	13
• Sand filters active	14
- ONE ENGINE INOPERATIVE RATE OF CLIMB (OEI 2 min)	
• Sand filters inactive	15
- TAKEOFF WEIGHTS PERMITTING CLIMB AT 150 ft/min 1000 ft ABOVE GROUND WITH ONE ENGINE INOPERATIVE	
• Sand filters inactive	16
• Sand filters active	17

5.2 NOISE LEVELS

Figures given in basic FLM section 5.2 remain applicable.

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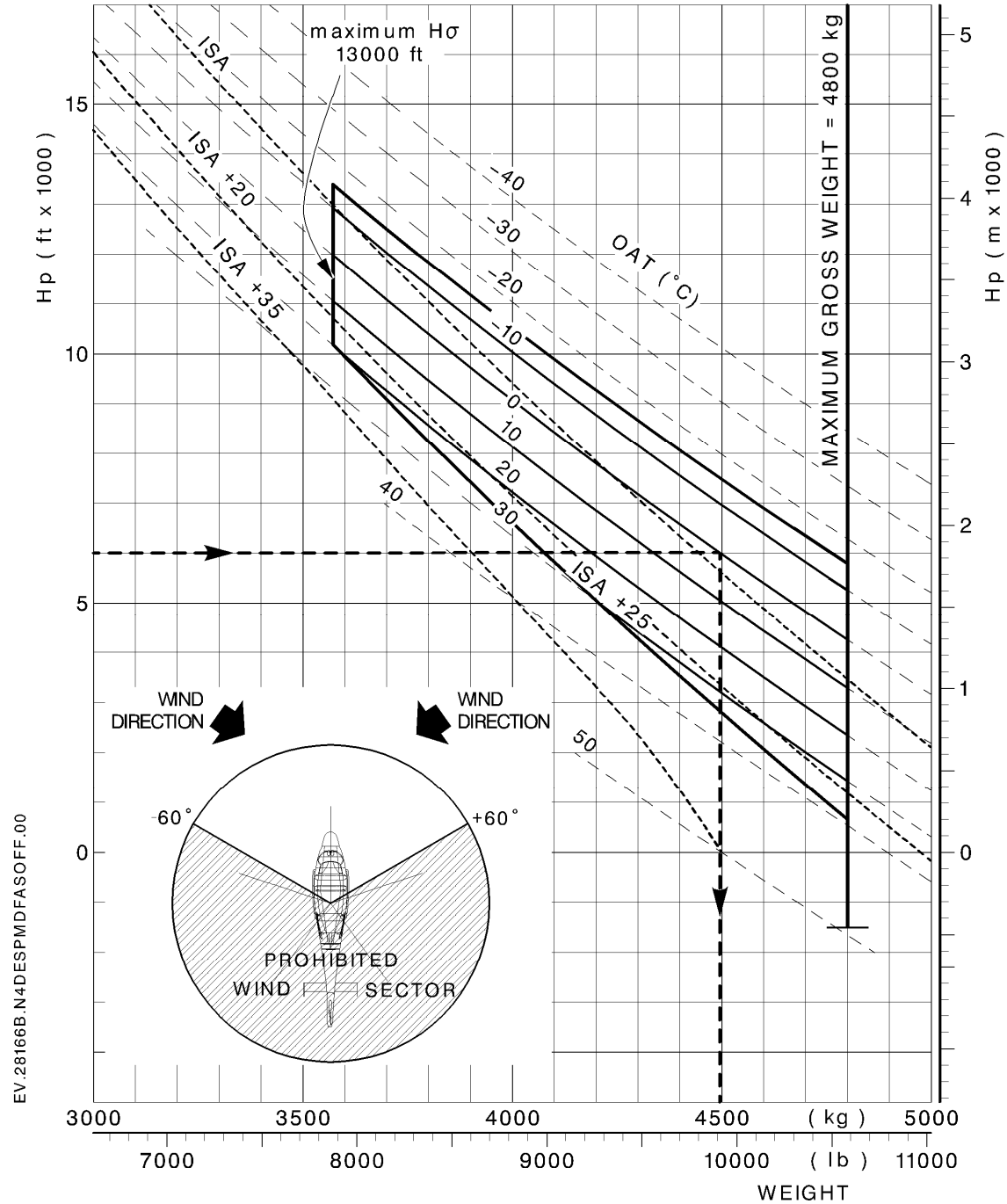
Page 11

CONDITIONS

- HEIGHT : 6 ft
- BOTH ENGINES AT TAKEOFF RATING
- NR NORM
- SAND FILTER INACTIVE

CAUTION
HEADWIND ± 60°

**TWIN-ENGINE HOVER
PERFORMANCE IGE
MAXIMUM WEIGHTS**



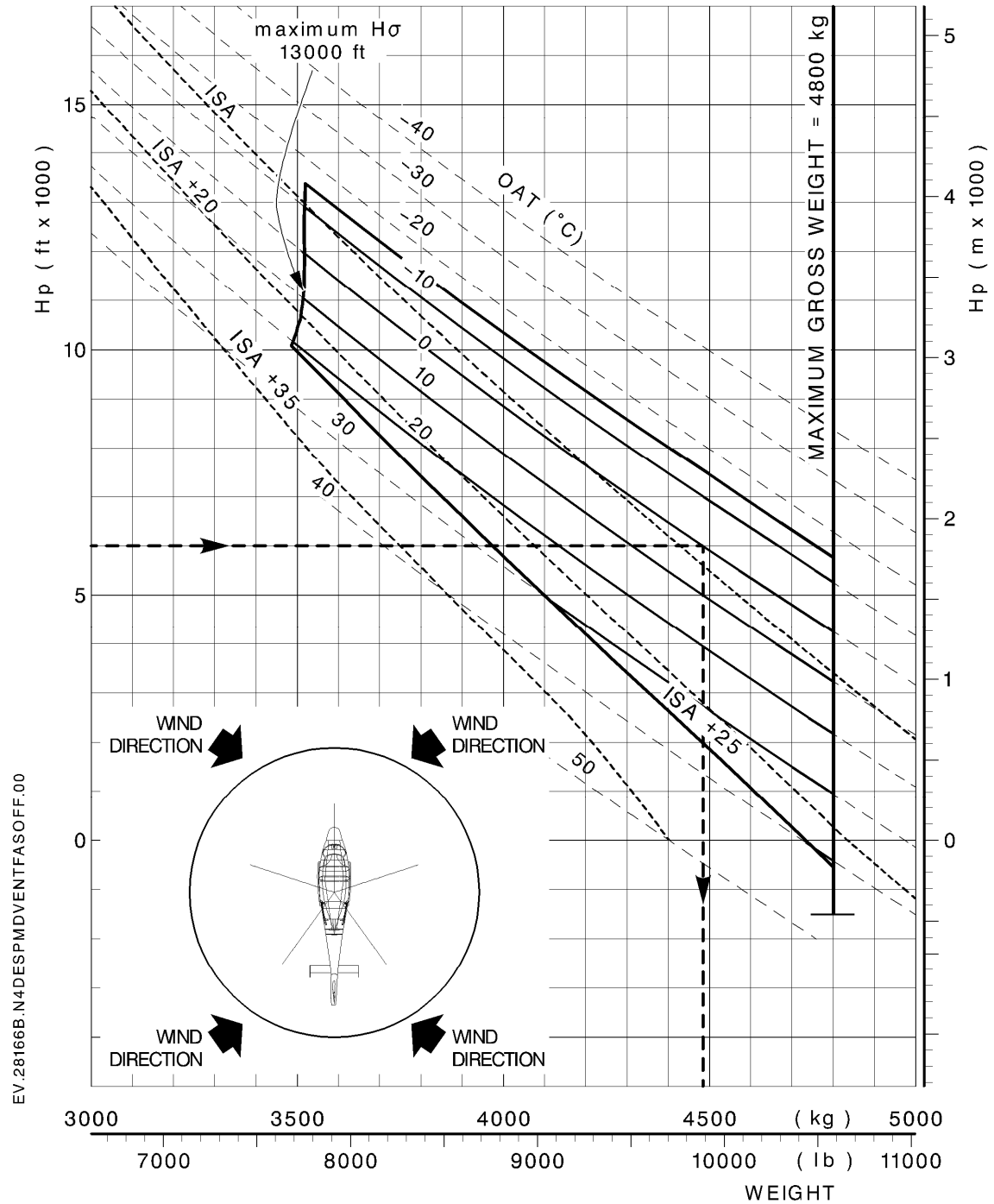
EXAMPLE : Hp = 6000 ft
OAT = 0 °C
WEIGHT = 4500 kg

Figure 6A

CONDITIONS

- HEIGHT : 6 ft
- BOTH ENGINES AT TAKEOFF RATING
- NR NORM
- SAND FILTER INACTIVE

**TWIN-ENGINE HOVER
PERFORMANCE IGE
MAXIMUM WEIGHTS**



EXAMPLE :

Hp = 6000 ft

WEIGHT = 4490 kg

OAT = 0 °C

Figure 6B

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EC 155 B

SUP.19

A

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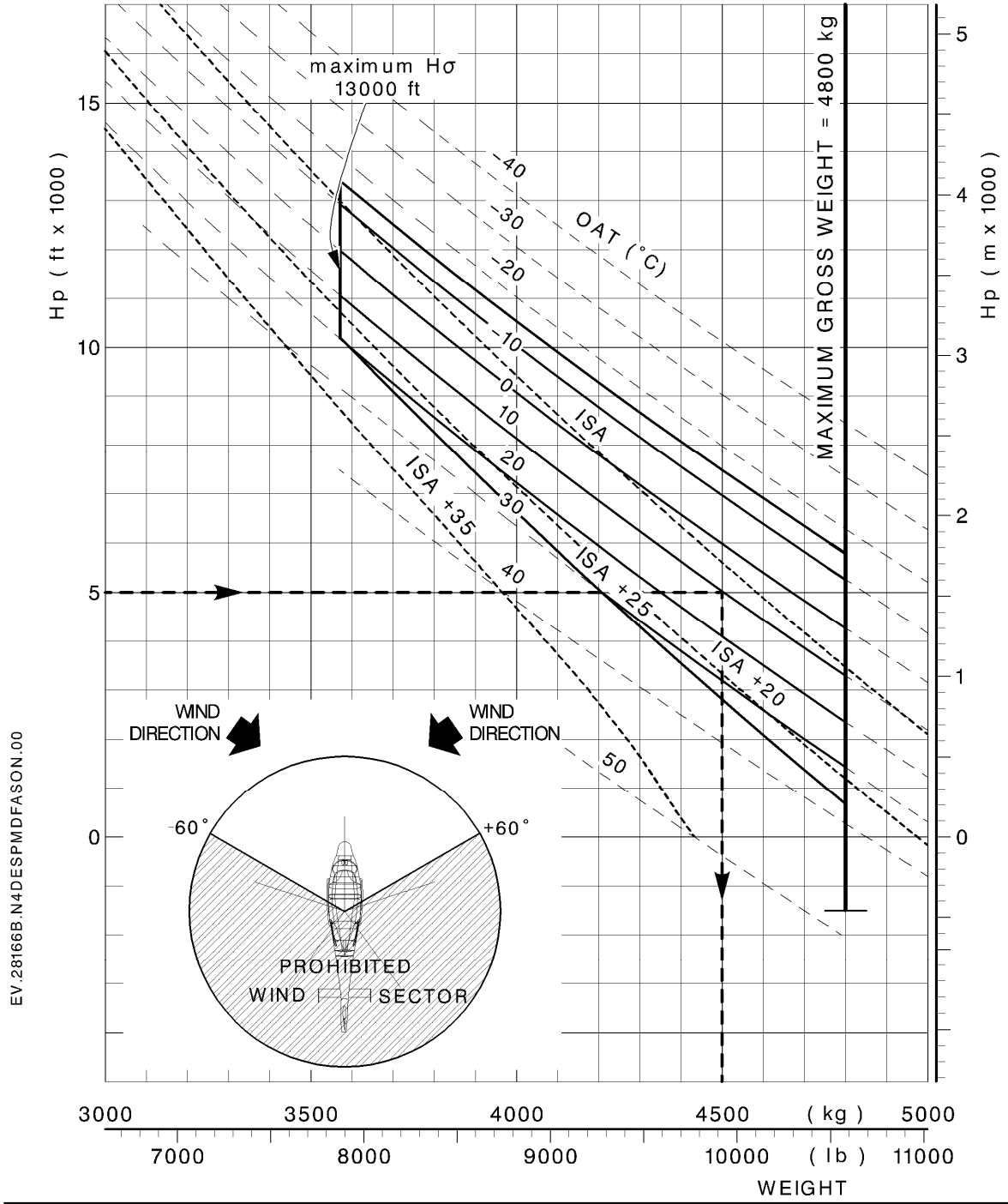
Page 13

CONDITIONS

- HEIGHT : 6 ft
- BOTH ENGINES AT TAKEOFF RATING
- NR NORM
- SAND FILTER ACTIVE

CAUTION
HEADWIND $\pm 60^\circ$

**TWIN-ENGINE HOVER PERFORMANCE IGE
MAXIMUM WEIGHTS**



EV.28166B.N4DESPMDFASON.00

EXAMPLE :

Hp = 5000 ft
OAT = 10 °C
WEIGHT = 4500 kg

Figure 7A

APPROVED

EC 155 B

SUP.19

A

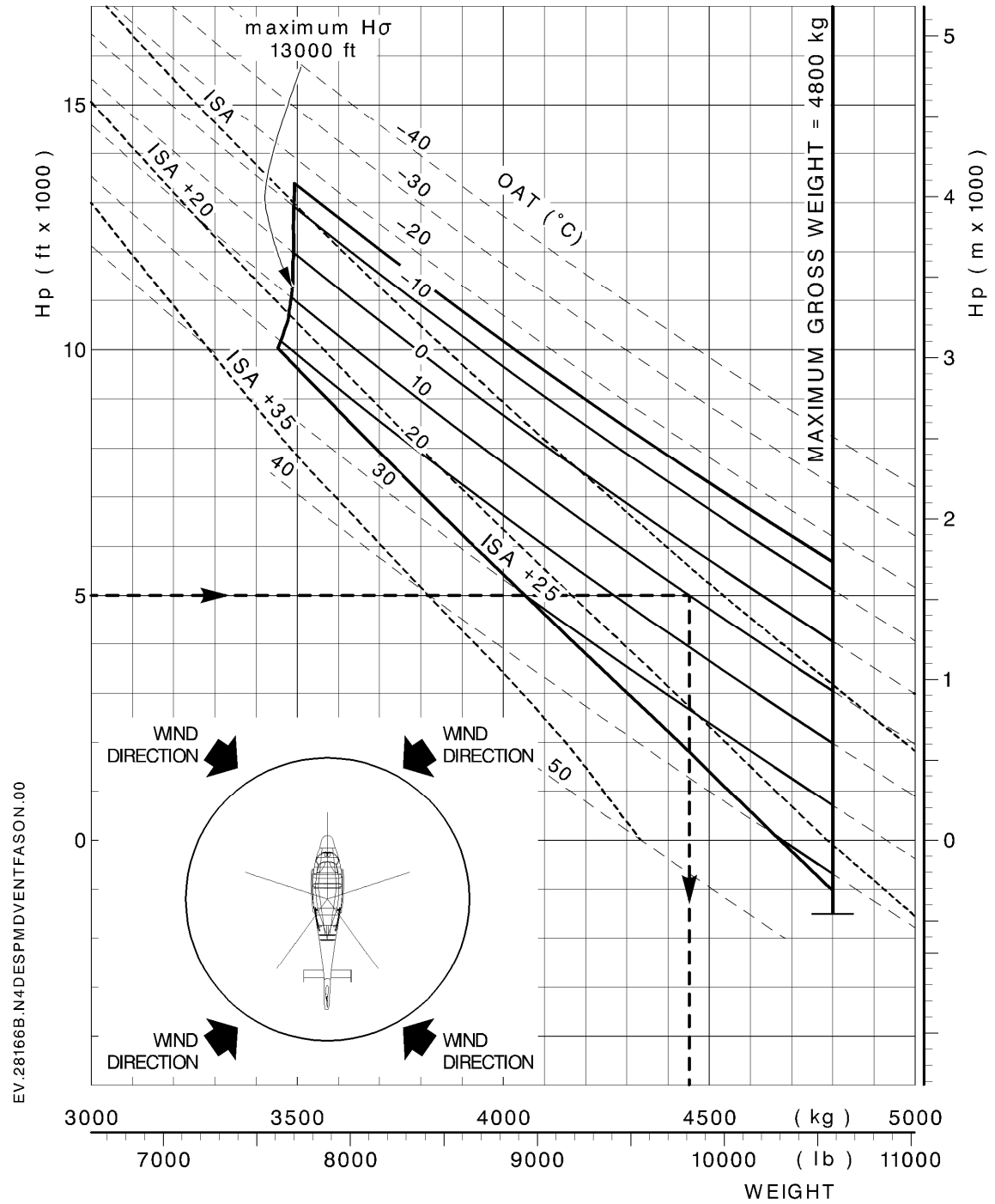
20-50

Page 14

CONDITIONS

- HEIGHT : 6 ft
- BOTH ENGINES AT TAKEOFF RATING
- NR NORM
- SAND FILTER ACTIVE

**TWIN-ENGINE HOVER
PERFORMANCE IGE
MAXIMUM WEIGHTS**



EXAMPLE :

Hp = 6000 ft

WEIGHT = 4450 kg

OAT = 10 °C

Figure 7B

APPROVED

EC 155 B

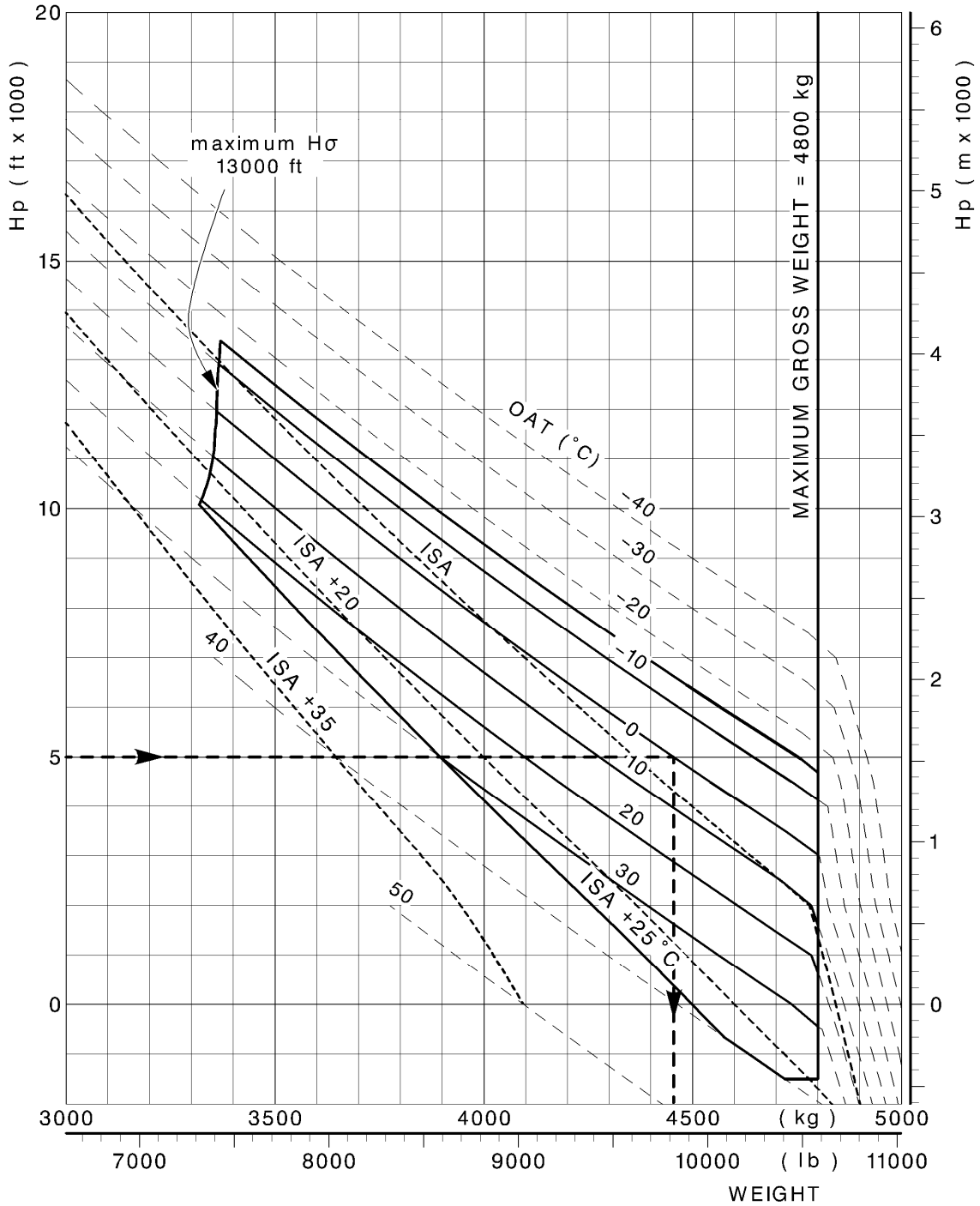
SUP.19

A

CONDITIONS

- BOTH ENGINES AT TAKEOFF RATING
- ZERO WIND
- NR NORM
- SAND FILTERS INACTIVE

**TWIN-ENGINE HOVER PERFORMANCE OGE
MAXIMUM WEIGHTS**



EV.28166B.N4HESPMDFASOFF.00

EXAMPLE : Hp = 5000 ft
OAT = 0 °C
WEIGHT = 4450 kg

Figure 8

APPROVED

EC 155 B

SUP.19

A

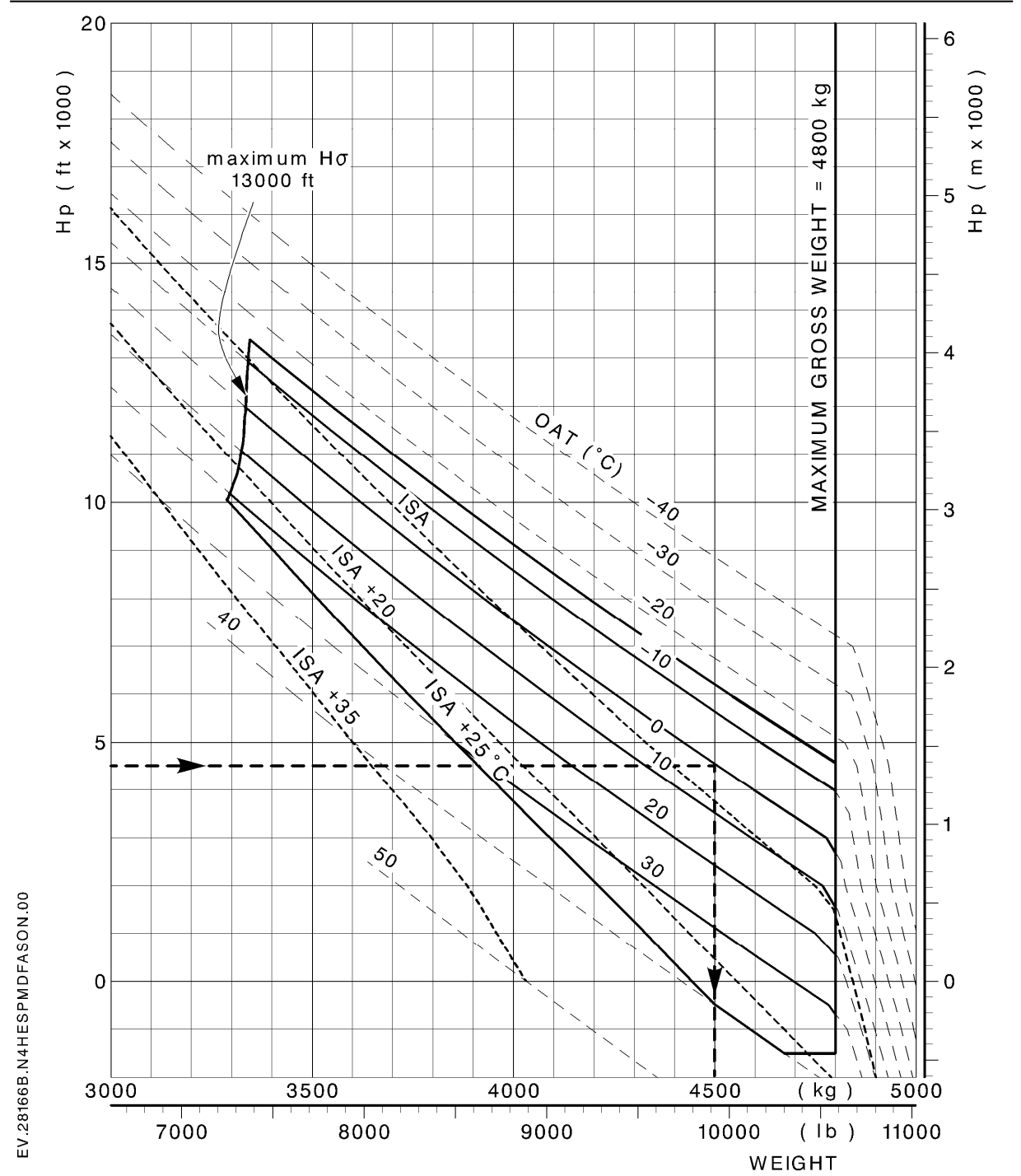
20-50

Page 16

CONDITIONS

- BOTH ENGINES AT TAKEOFF RATING
- ZERO WIND
- NR NORM
- SAND FILTERS ACTIVE
- .
- .
- .

**TWIN-ENGINE HOVER
PERFORMANCE OGE
MAXIMUM WEIGHTS**



EV.28166B.N4HESPMDFA50N.00

EXAMPLE :

Hp = 4500 ft
OAT = 0 °C

WEIGHT = 4500 kg

Figure 9

APPROVED

EC 155 B

SUP.19

A

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EC 155 B

SUP.19 |

A

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Page 18

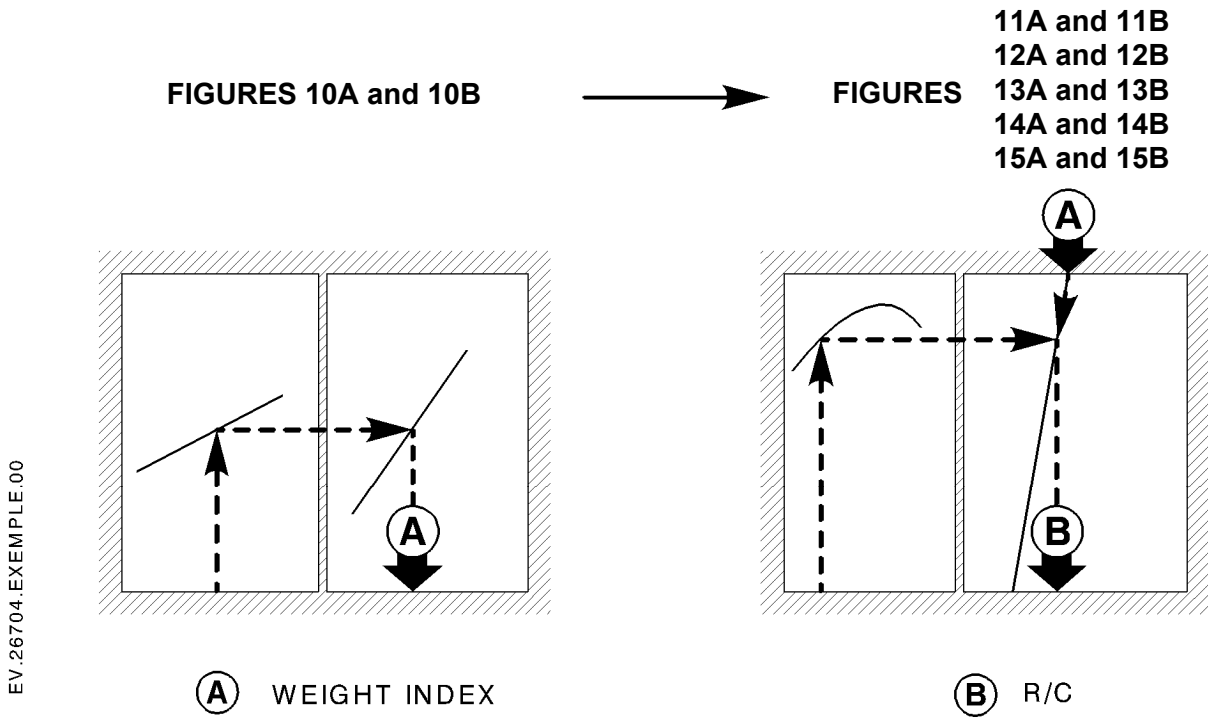
CLIMB PERFORMANCE

The determination of the R/C requires the use of reduced weights (W/σ).

In order to simplify the figures and not to confuse "reduced weight" for "actual weight", the W/σ parameter is converted into a dimensionless parameter known as "WEIGHT FACTOR" (W/σ in kg divided by 1000).

DETERMINATION OF RATE OF CLIMB

4 curves are necessary to determine the R/C. The first two curves are used to determine the weight factor (Figures 10A and 10B).

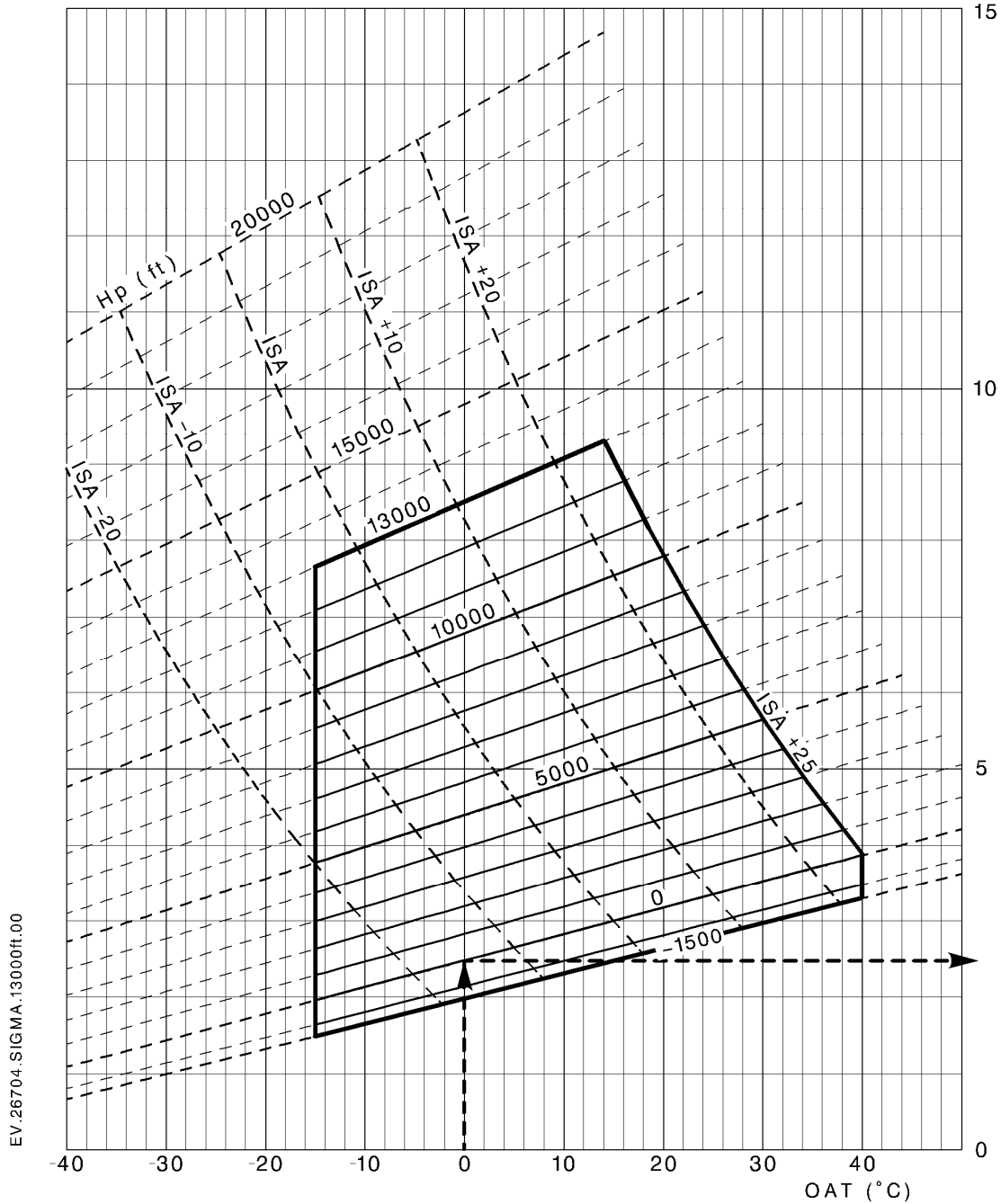


CONDITIONS

- NO CONDITION

.....

**INDEX OF WEIGHT
FOR DETERMINING
RATE OF CLIMB**



EV.26704.SIGMA.13000ft.00

EXAMPLE : OAT = 0 °C
Hp = 0 ft

TRANSFER SCALE = 2.5

Figure 10A

APPROVED

EC 155 B

SUP.19

A

20-50

Page 20

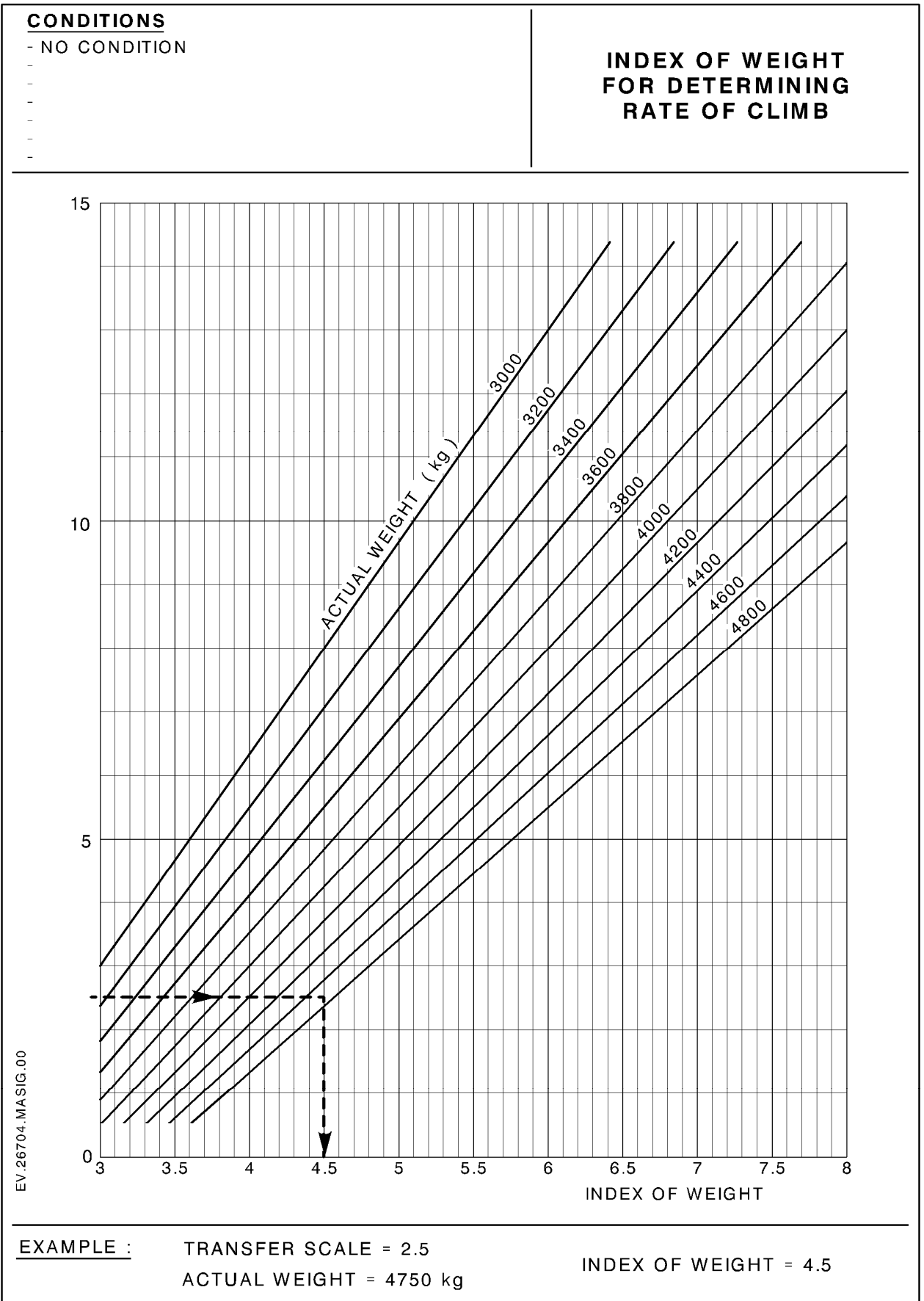


Figure 10B

APPROVED

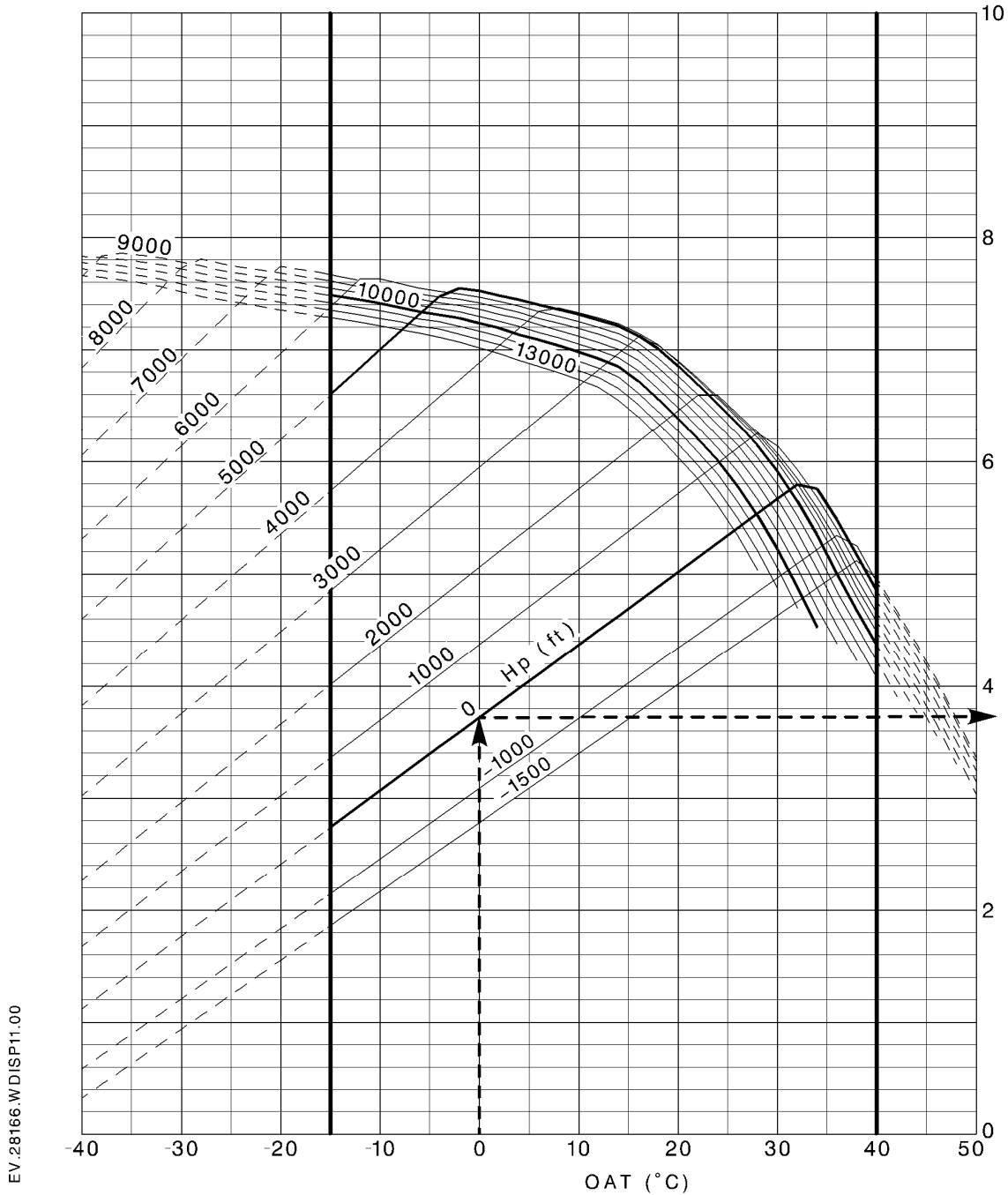
EC 155 B

SUP.19

CONDITIONS

- BOTH ENGINES AT MAX CONTINUOUS RATING
- L/G UP
- NR NORM
- SAND FILTERS INACTIVE
-
-

**TWIN-ENGINE
RATE OF CLIMB V_y**



EV.28166.W/DISP11.00

EXAMPLE : OAT = 0 °C
Hp = 0 ft

TRANSFER SCALE = 3.7

Figure 11A

APPROVED

EC 155 B

SUP.19

A

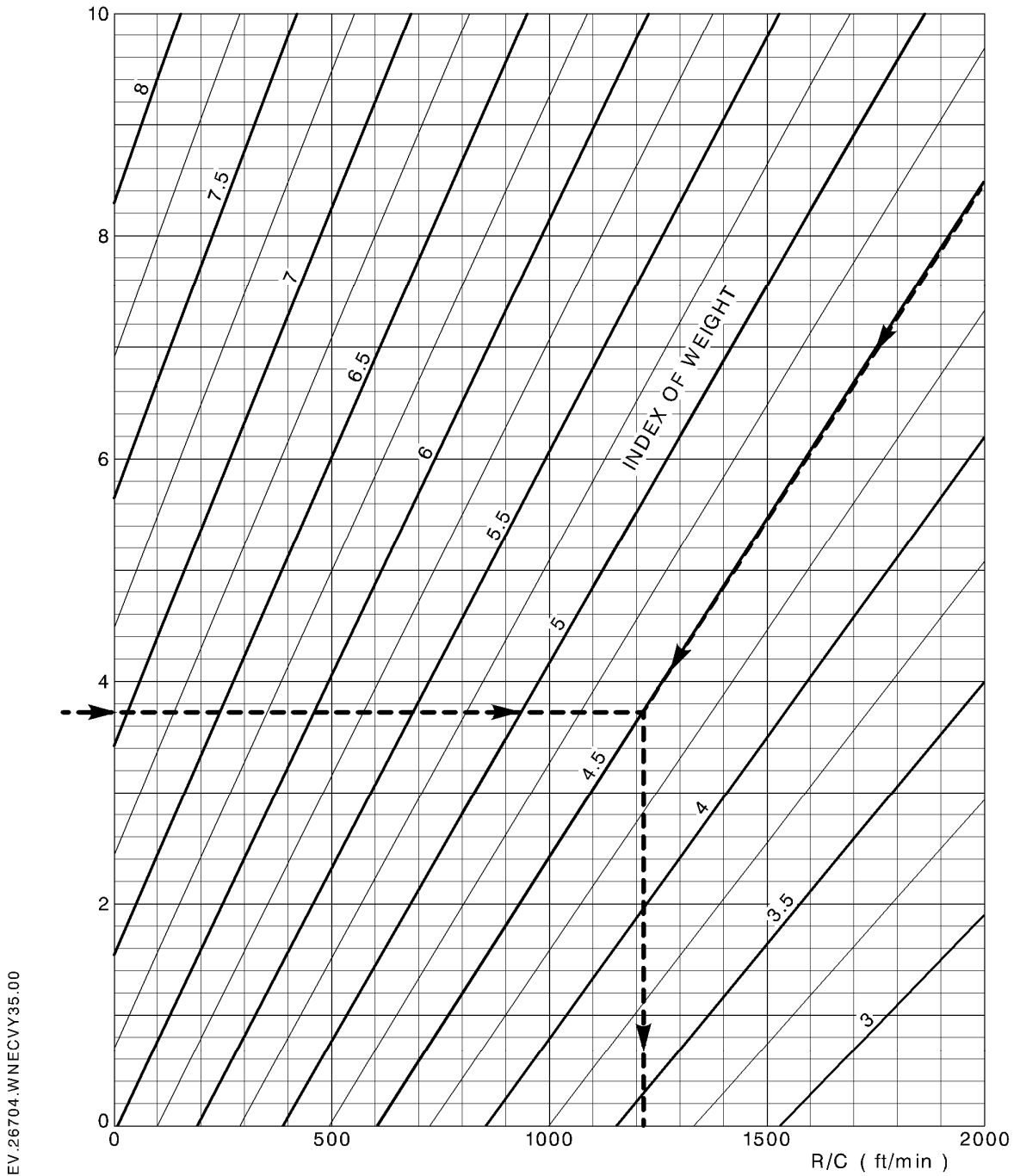
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CONDITIONS

- BOTH ENGINES AT MAX CONTINUOUS RATING
- L/G UP
- NR NORM
- SAND FILTER INACTIVE
-
-
-

**TWIN-ENGINE
RATE OF CLIMB Vy**



EV.26704.WNECVY35.00

EXAMPLE : TRANSFER SCALE = 3.7 R/C = 1210 ft/min
 INDEX OF WEIGHT = 4.5

Figure 11B

APPROVED

EC 155 B

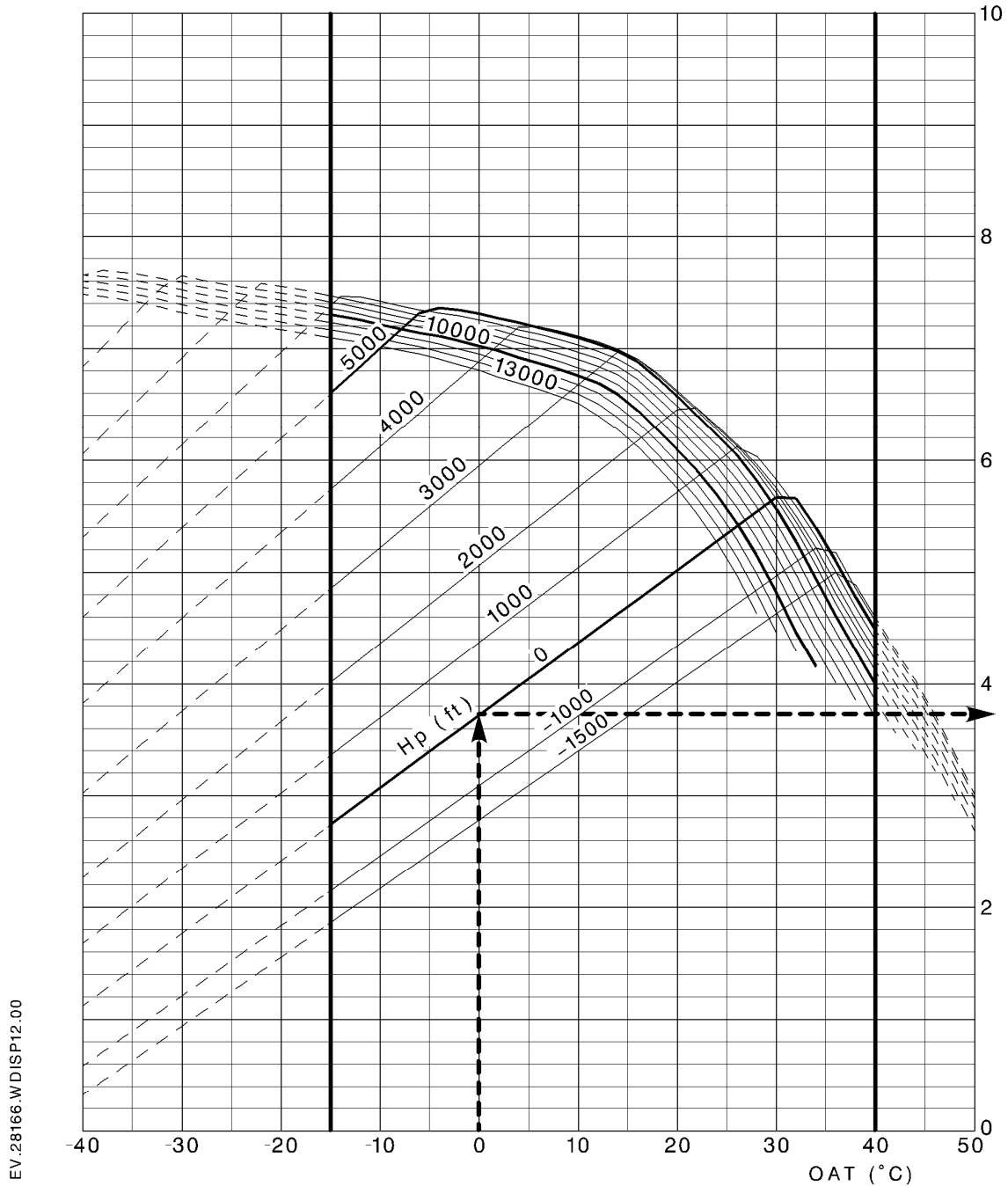
SUP.19

A

CONDITIONS

- BOTH ENGINES AT MAX CONTINUOUS RATING
- L/G UP
- NR NORM
- SAND FILTERS ACTIVE
-
-

**TWIN-ENGINE
RATE OF CLIMB Vy**



EV.28166.WD/ISP12.00

EXAMPLE : OAT = 0 °C
Hp = 0 ft

TRANSFER SCALE = 3.7

Figure 12A

APPROVED

EC 155 B

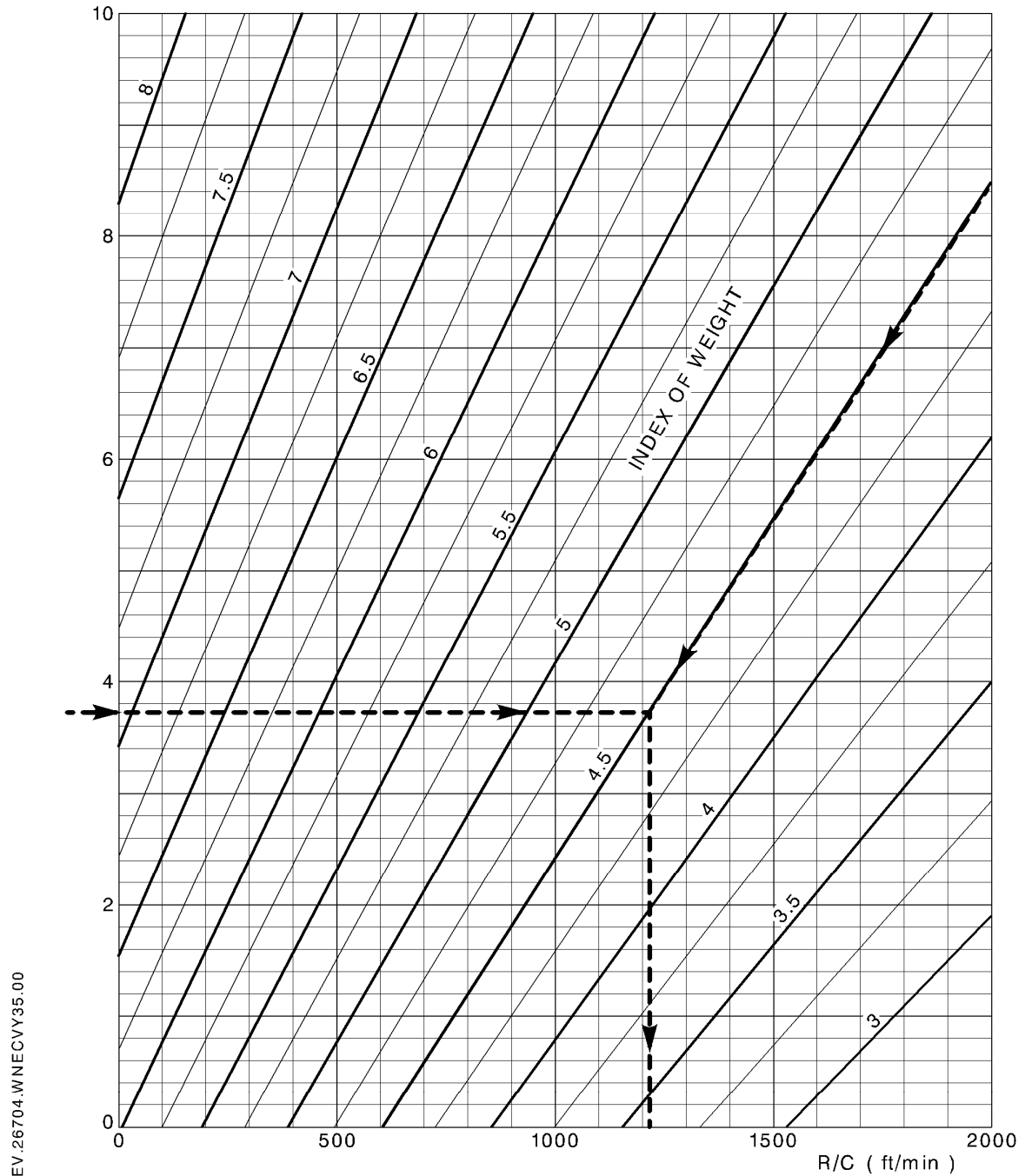
SUP.19

A

CONDITIONS

- BOTH ENGINES AT MAX CONTINUOUS RATING
- L/G UP
- NR NORM
- SAND FILTER ACTIVE
-
-
-

**TWIN-ENGINE
RATE OF CLIMB Vy**



EV.26704.WNECVY35.00

EXAMPLE : TRANSFER SCALE = 3.7 R/C = 1210 ft/min
 INDEX OF WEIGHT = 4.5

Figure 12B

APPROVED

EC 155 B

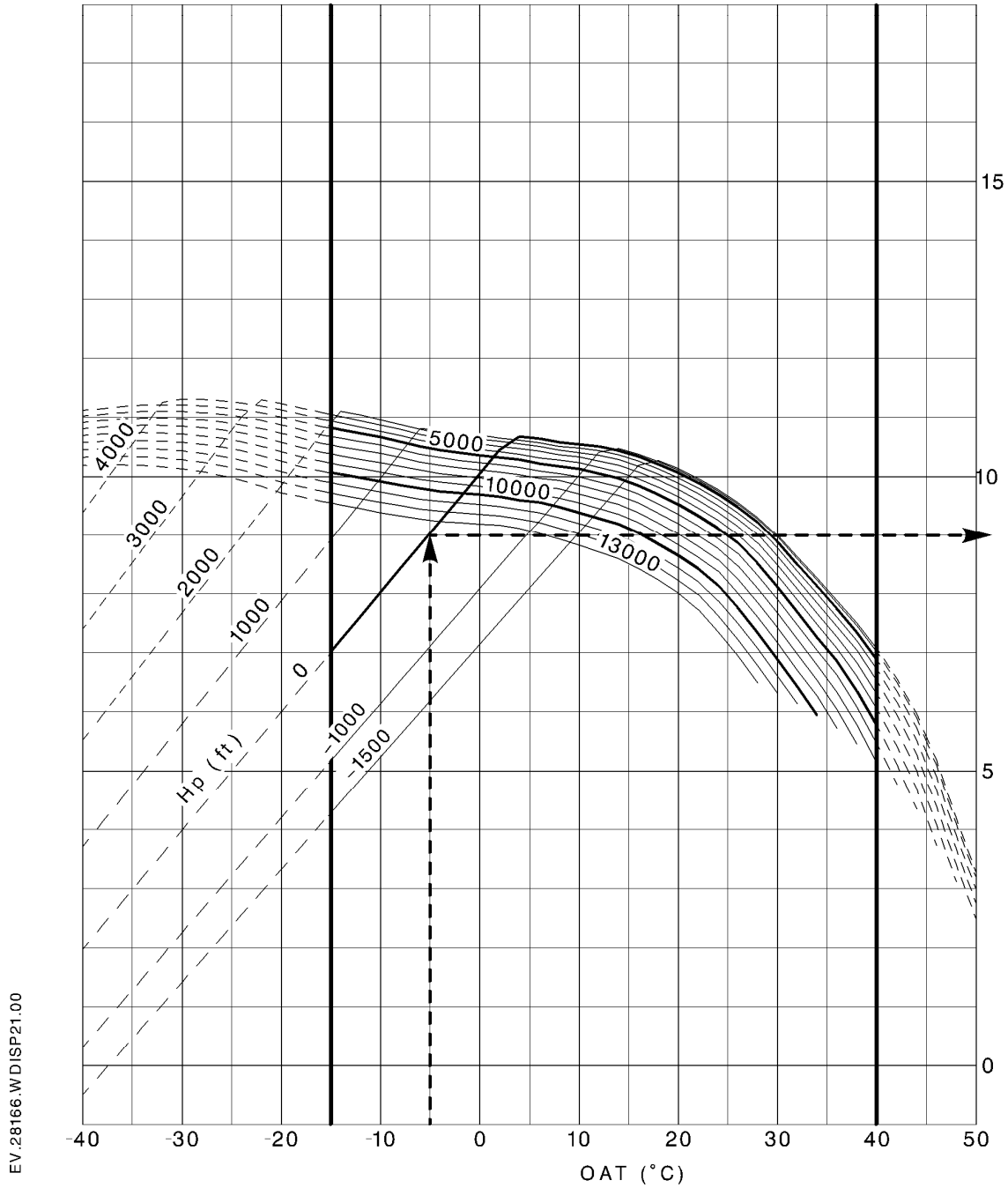
SUP.19

A

CONDITIONS

- ONE ENGINE AT CONTINUOUS POWER RATING
- L/G UP
- NR = 330 rpm
- SAND FILTERS INACTIVE
-
-
-

**ONE ENGINE INOPERATIVE
RATE OF CLIMB V_y**



EV.28166.WDISP21.00

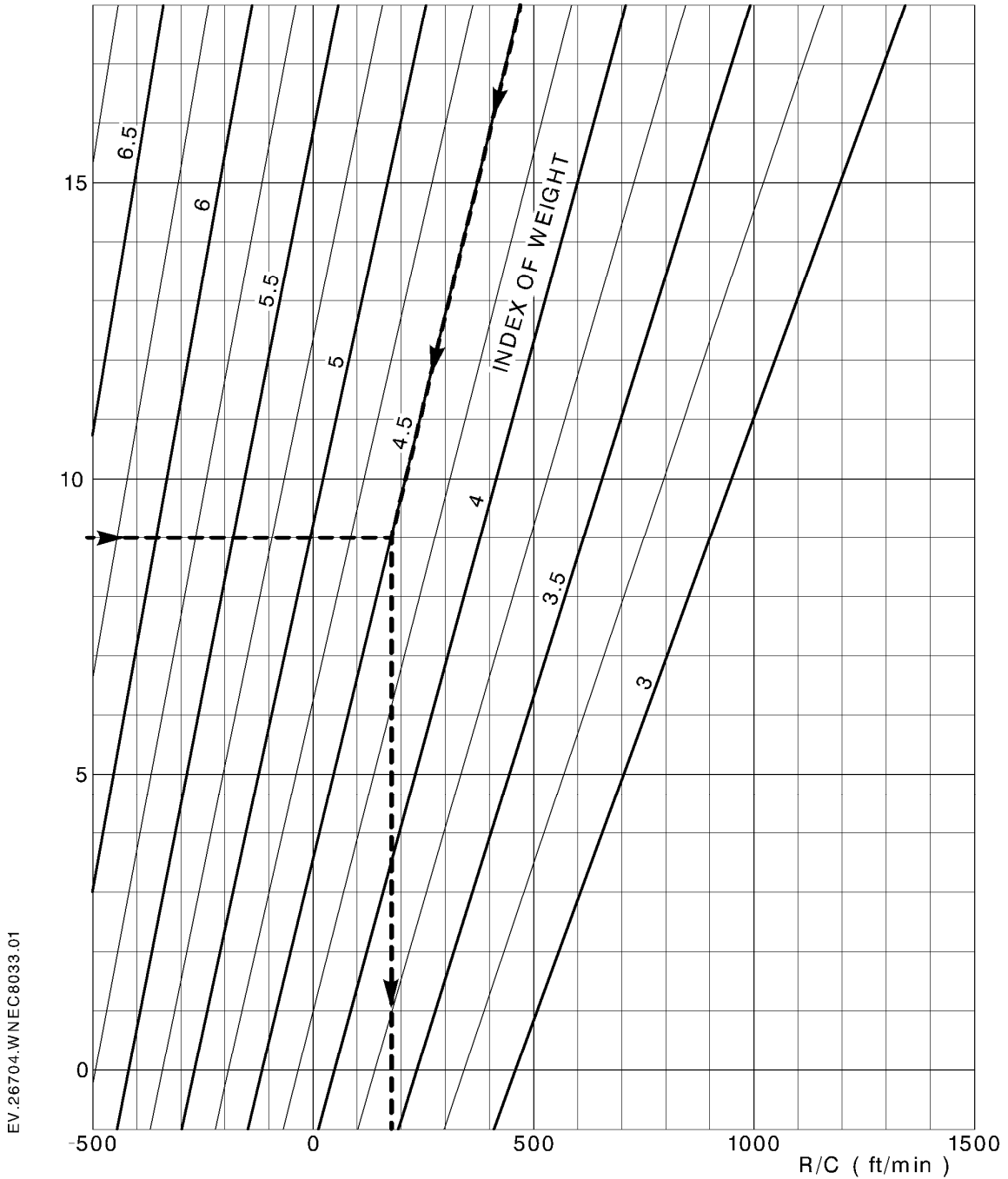
EXAMPLE : OAT = -5 °C TRANSFER SCALE = 9
 Hp = 0 ft

Figure 13A

CONDITIONS

- ONE ENGINE AT CONTINUOUS POWER RATING
- L/G UP
- NR = 330 rpm
- SAND FILTERS INACTIVE

**ONE ENGINE INOPERATIVE
RATE OF CLIMB V_y**



EV.26704.WNEC8033.01

EXAMPLE :

TRANSFER SCALE = 9
INDEX OF WEIGHT = 4.5

R/C = 170 ft/min

Figure 13B

APPROVED

EC 155 B

SUP.19

A

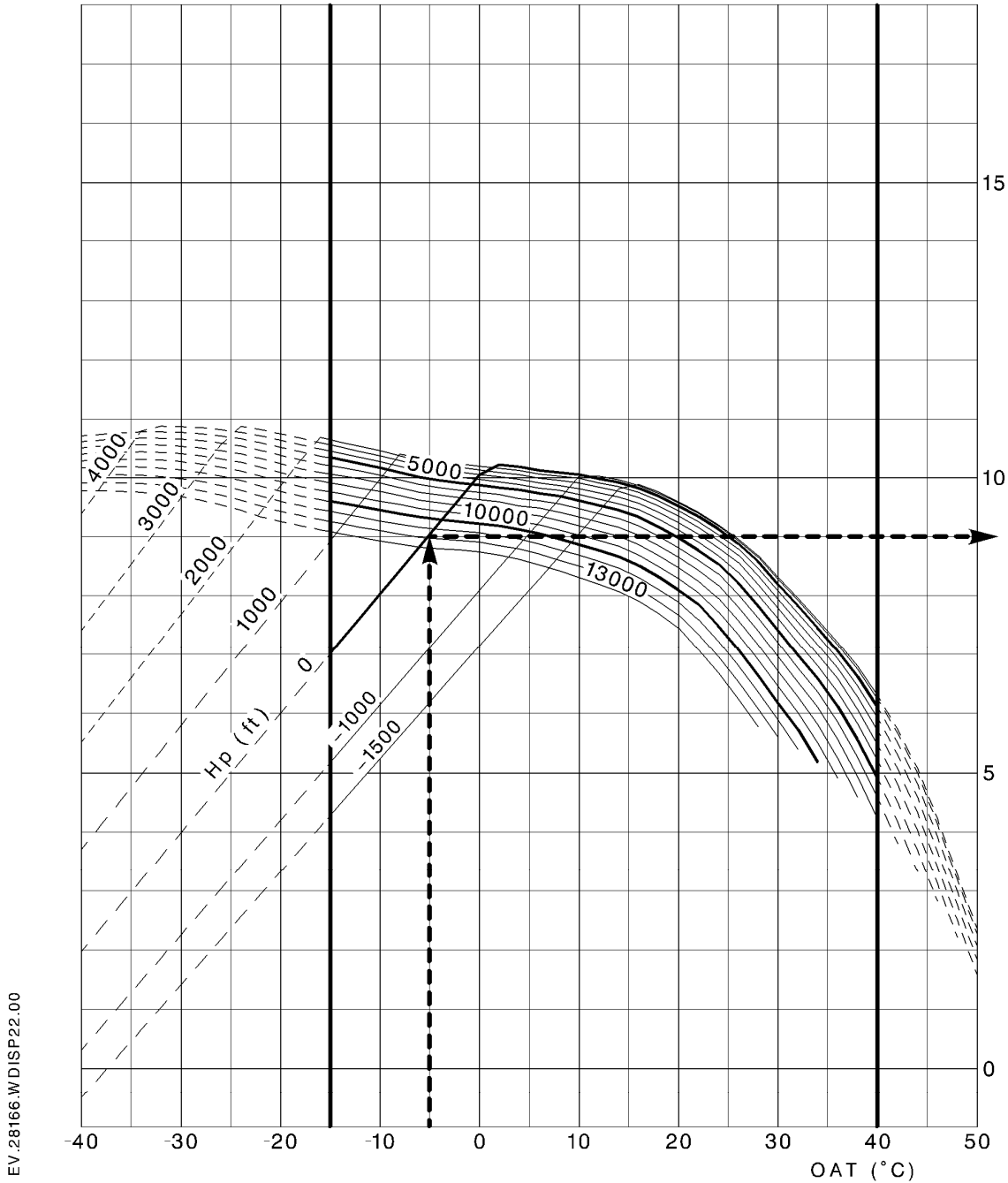
20-50

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CONDITIONS

- ONE ENGINE AT CONTINUOUS POWER RATING
- L/G UP
- NR = 330 rpm
- SAND FILTERS ACTIVE
-
-
-

**ONE ENGINE INOPERATIVE
RATE OF CLIMB V_y**



EXAMPLE : OAT = -5 °C
Hp = 0 ft

TRANSFER SCALE = 9

Figure 14A

APPROVED

EC 155 B

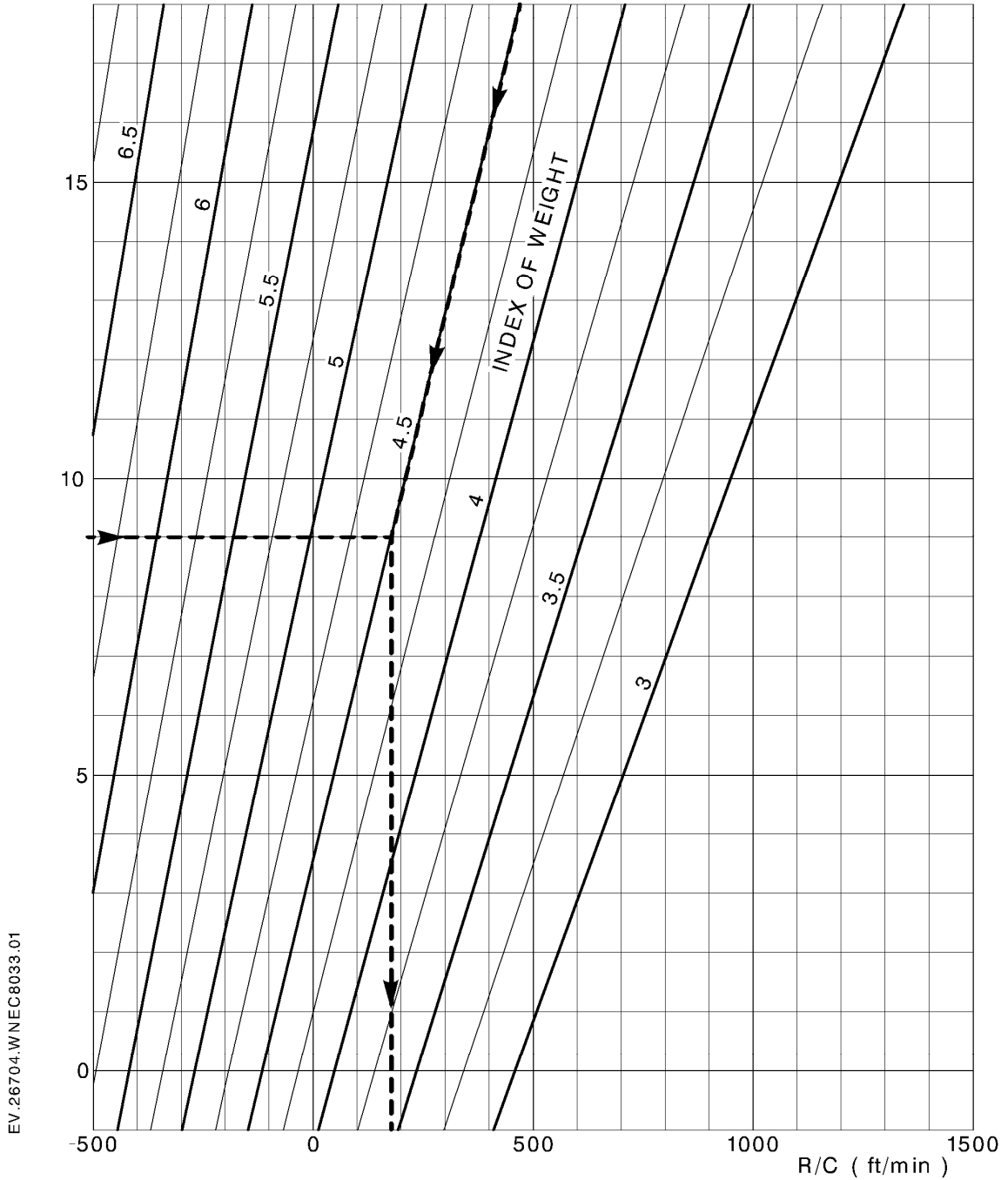
SUP.19

A

CONDITIONS

- ONE ENGINE AT CONTINUOUS POWER RATING
- L/G UP
- NR = 330 rpm
- SAND FILTERS ACTIVE

**ONE ENGINE INOPERATIVE
RATE OF CLIMB V_y**



EV.26704.WNEC8033.01

EXAMPLE :

TRANSFER SCALE = 9

INDEX OF WEIGHT = 4.5

R/C = 170 ft/min

Figure 14B

APPROVED

EC 155 B

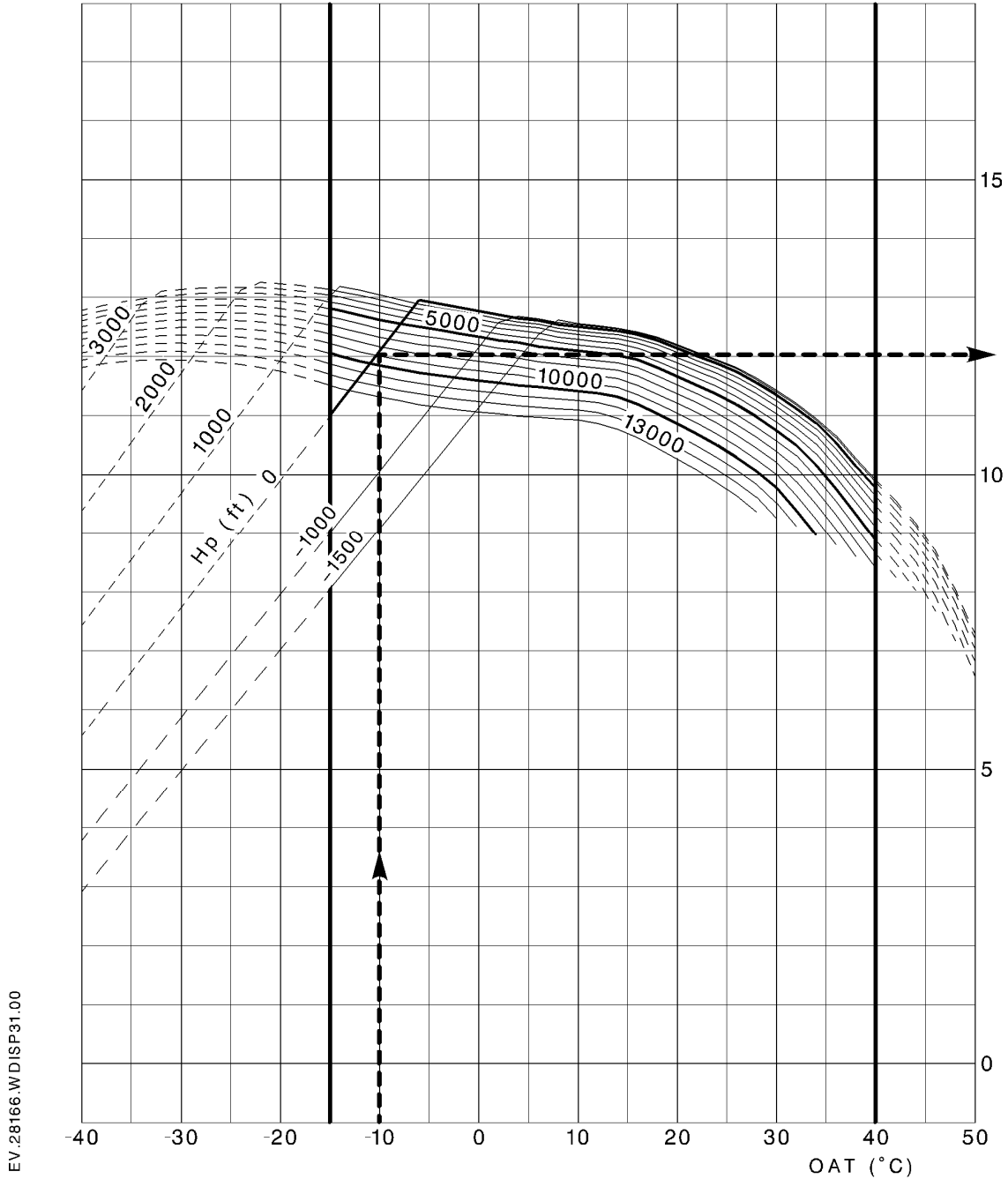
SUP.19

A

CONDITIONS

- ONE ENGINE AT 2 min POWER RATING
- L/G UP
- NR = 330 rpm
- SAND FILTER INACTIVE
-
-
-

**ONE ENGINE INOPERATIVE
RATE OF CLIMB V_y**



EV.28166.WDISP31.00

EXAMPLE : OAT = -10 °C
 H_p = 0 ft

TRANSFER SCALE = 12

Figure 15A

APPROVED

EC 155 B

SUP.19

A

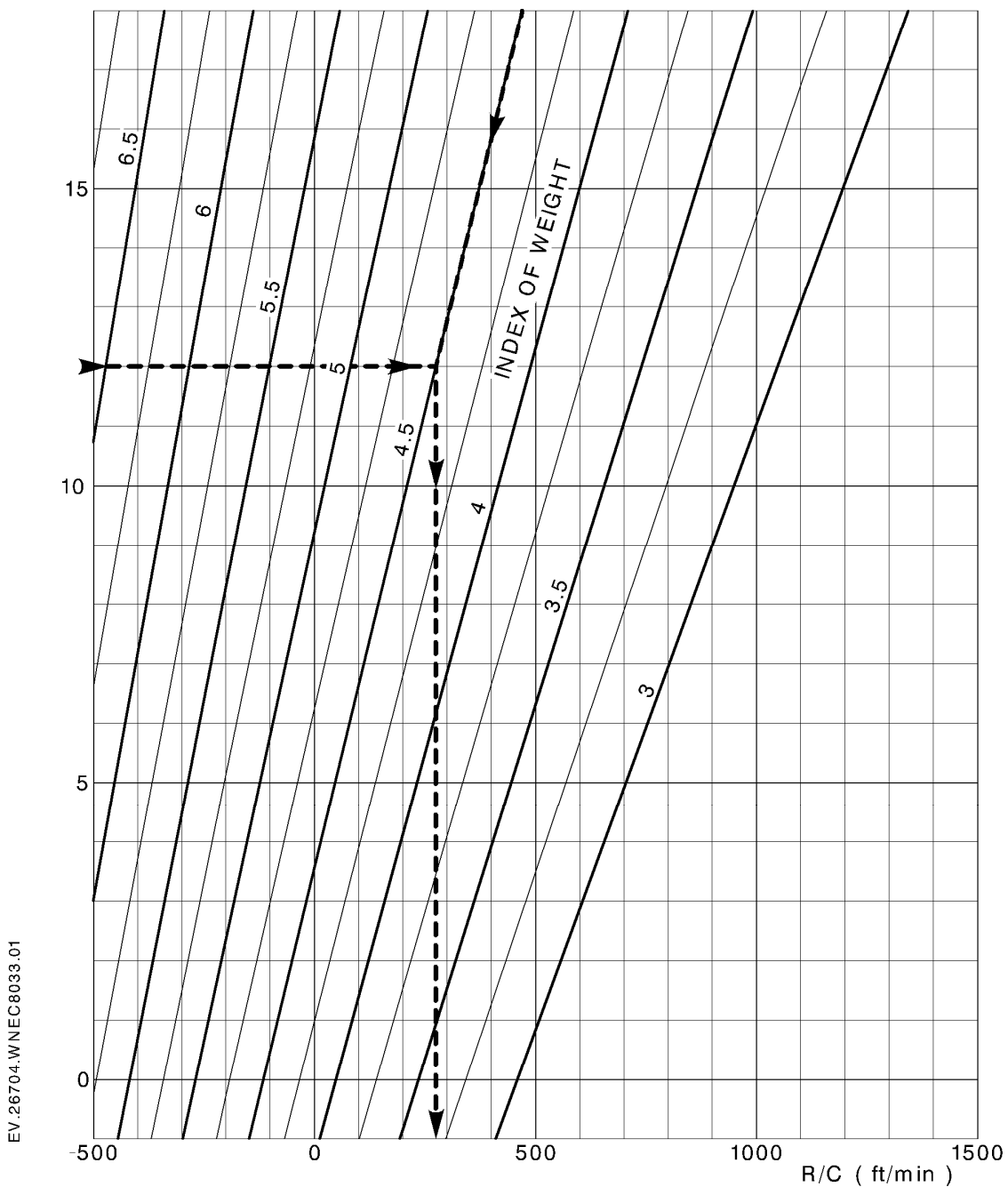
20-50

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CONDITIONS

- ONE ENGINE AT 2 min POWER RATING
- L/G UP
- NR = 330 rpm
- SAND FILTER INACTIVE

**ONE ENGINE INOPERATIVE
RATE OF CLIMB V_y**



EV.26704.WNEC8033.01

EXAMPLE :

TRANSFER SCALE = 12
INDEX OF WEIGHT = 4.5

R/C = 270 ft/min

Figure 15B

APPROVED

EC 155 B

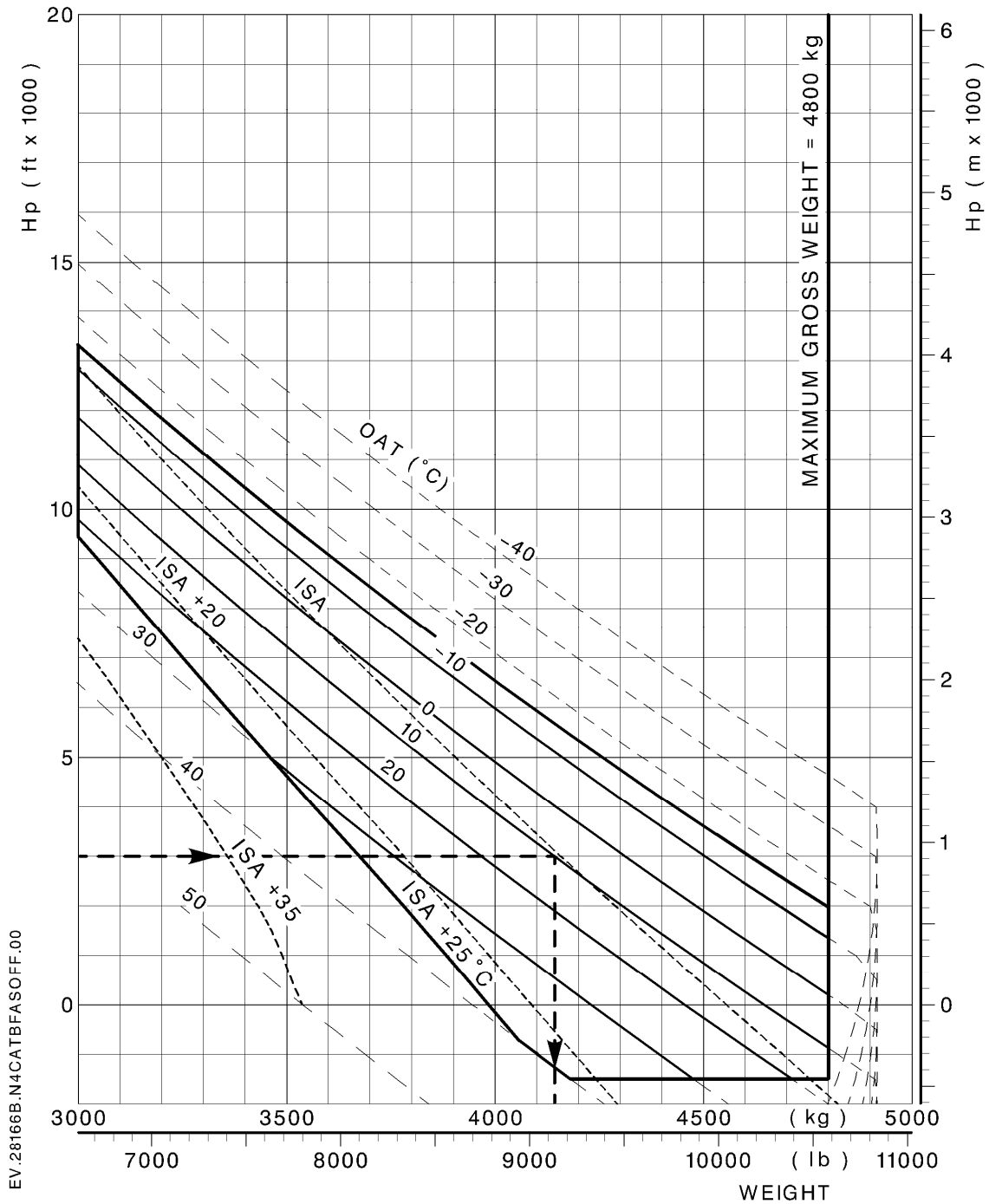
SUP.19

A

CONDITIONS

- ONE ENGINE AT CONTINUOUS POWER RATING
- L/G UP
- TAS = V_y
- SAND FILTERS INACTIVE
- NR = 330 rpm

**TAKEOFF WEIGHTS PERMITTING
CLIMB AT 150 ft/min 1000 ft
ABOVE GROUND WITH
ONE ENGINE INOPERATIVE**



EXAMPLE : Hp = 3000 ft WEIGHT = 4140 kg
OAT = 10 °C

Figure 16

APPROVED

EC 155 B

SUP.19

A

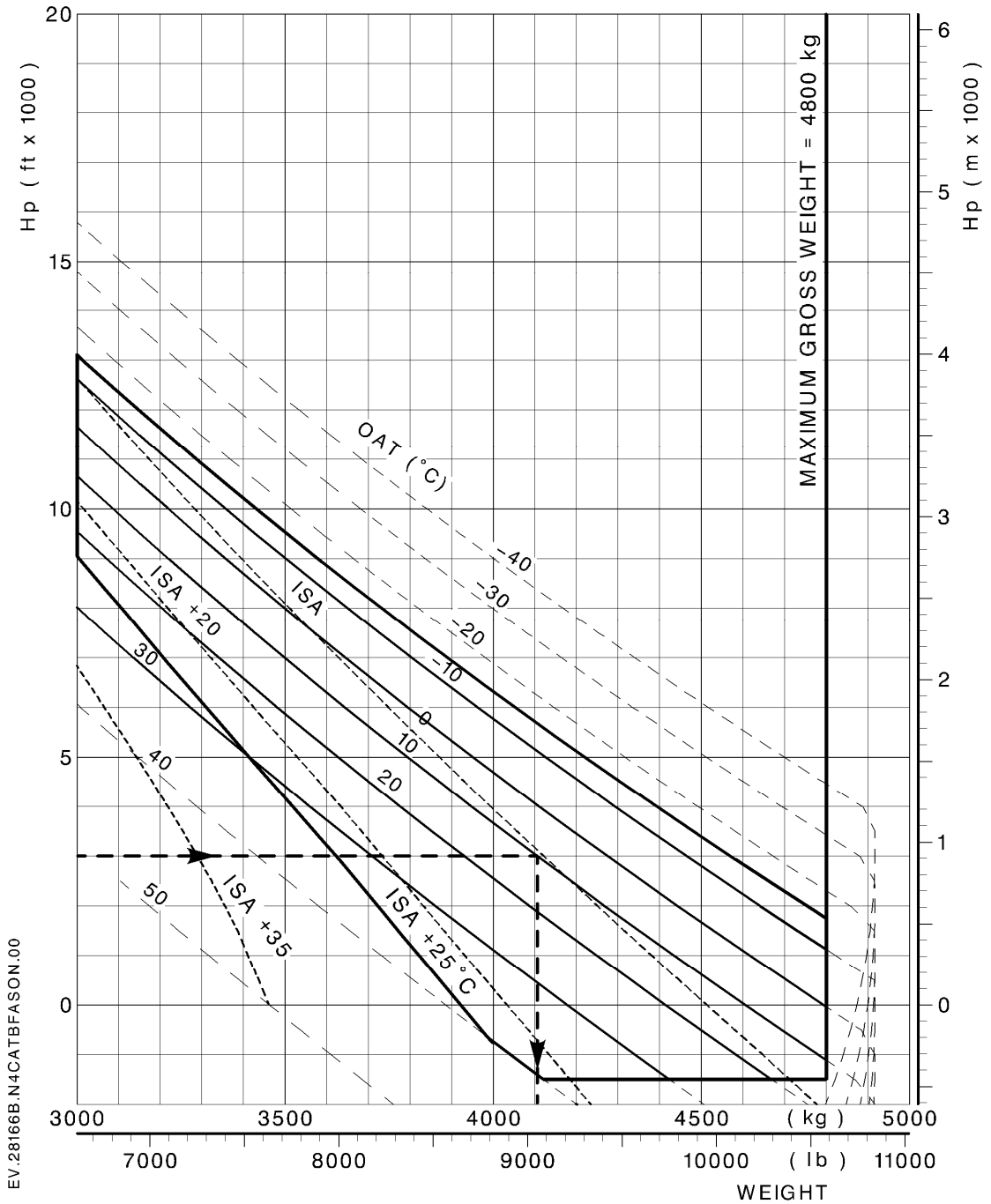
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CONDITIONS

- ONE ENGINE AT CONTINUOUS POWER RATING
- L/G UP
- TAS = Vy
- SAND FILTERS ACTIVE
- NR = 330 rpm

**TAKEOFF WEIGHTS PERMITTING
CLIMB AT 150 ft/min 1000 ft
ABOVE GROUND WITH
ONE ENGINE INOPERATIVE**



EXAMPLE :

Hp = 3000 ft
OAT = 10 °C

WEIGHT = 4100 kg

Figure 17

APPROVED

EC 155 B

SUP.19

A

