

 **OLDENBURGER** 
PFERDEZUCHTVERBAND E.V.



Linear description in the Oldenburg Studbooks

7th international Workshop on linear Profiling in the Warmblood Horse



Inge Workel,
Peer Eitenmüller


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Linear Profiling

Originally developed in Oldenburg but also used by following breeding associations:

- Westfalen
- Trakehner
- Holsteiner (some deviations)
- Bayern (some deviations)
- Baden-Württemberg
- Rheinland Pfalz-Saar
- Brandenburg-Anhalt
- Sachsen-Thüringen
- Deutsche Reiterliche Vereinigung (FN) → Stallion Performance Tests


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Linear Profiling

Linear profiling of conformation and performance traits is done at:

- Foal shows
- Studbook registrations
- Mare performance tests
- (pre-)Licensings for stallions

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Linear Profiling

- Start in 2012, with a Tablet
- 186 traits in total, we only document the obvious traits




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Linear Profiling

Assessment:

1. Format and front
2. Top line
3. Conformation
4. Correctness of gaits and coordination
5. Moving in hand
6. Free movement incl. loose jumping
7. Movement while ridden/on a lunge

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Linear Profiling


data sheet
conformation
RING ASSESSED

UELN DE 433330139412 don't publish head number 199 studbook 33

format and front part	topline	limbs	correctness / coordination	movement in hand	free movement	movement under rider/on the lunge	
group	area	- extreme -3 -2 -1 0 1 2 3 + extreme					
FORMAT	Breed type	plain					true to type
	Gender expression	weak					strong
	Frame	small-framed					large-framed
	Caliber	light					heavy
	Chest width	narrow					wide
	Barrel	shallow (tucked-up)					deep
	Umbilical thickening						marked umbilical thickening
	Condition	skinny					fat
	Development	poor					much
	Length of legs	short-legged					long-legged
	Harmony of proportions	unharmonious					harmonious




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Data collection

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Data collection

Collected linear profiles:
>34.600 linear profiles in total (2012 – 2022):

21.500 linear profiles of foals


- Ø2.200 foal profiles/year
- collected at about 90 foal shows (GER & EU)

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Data collection

Collected linear profiles:
>34.600 linear profiles in total (2012 – 2022):

12.500 linear profiles of adult horses
- Ø1.300 adult horse profiles/year

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Data collection

Only obvious traits appear in the profile,
except „Type“

Foals: Ø 10 traits
- Conformation: 5,5
- Movement: 4,9

Studbook entry: Ø 11 traits
Mare performance test: Ø 30 traits

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Linear Profiling in practice

Examples – linear profile

OL-Account
Home

My horses My activities

My horses

Active breeding stock	8	Covered mares	3
Foals bred	89	Auction horses	26
Historical breeding stock	6	Other horses	6

My activities

Current events	67	Current Entries	0
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Linear Profiling in practice

Examples – linear profile

OL-Account
Foals bred

My horses My activities

Place of birth	Garrel	Prämie	Fohlenprämie

♀ Feldbiene (Old)
sire: Benicio (Hann)
dam: Feldstern (Old)

+ 11.05.2018
DE 4333303
Ray

Documents


- Breeding/Insemination Certificate 2022
- Breeding/Insemination Certificate 2023
- Breeding information
- Foals Breeding information
- Linear description - Mare performance test - field
- Linear description - Foal registration

Place of birth	Garrel	Prämie	Fohlenprämie, Oldenburger Hauptprämien-Anwärterin

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Linear Profiling in practice

Examples – linear profile





Verband der Züchter des Oldenburger Pferdes e.V. 

Gründerkennz. 5 40777 Neches Germany Tel.: +49 (0) 4441-93 55-0 Fax: +49 (0) 44 41- 93 55 99

Linear Description DE 43333067218

Chp-Nr.: 2760000680193

OLHPiA, 51 Feldbiene (Old)

Sex: mare Year of breeding: 2018 date of birth: 11.06.2018 breed: Oldenburger color: Bay

Sire: H81 Brevin (Hany) Dam: Oldenburger (Old)


CS: H81 Sandro H81 (H)

breeder: Hönigshagen-Altena Christiane GmbH, Garrel, Fuldabergener Str. 12

shown on 20.06.2021 in Vechta for Mare performance test - field Final Score: 7.5

Trait	Characteristic value
Conformation	
Format	
Breed type	plain 0 true to type
Proportions	short-legged 1 long-legged 3
Front	
Eye	small 2 large
Neck	ewe-necked 1 top line dominated neck
Neck	thin 2 thick
Topline	
Back	short 2 long
Limbs	
Stance of front limbs	over at knee 1 back at knee
Hind limb pastern	upright 1 sloping (weak)
Correctness / Special Remarks	
Stance of front limbs	toe-in 2 toe-out
Stance of front limbs	toe-in/toe-out unilateral
Free movement/ free jumping	
Trot	
Mechanics of front limbs	straight forelimb 1 much knee action
Impulsion	a little 2 a lot
Carrying power	pushing 2 carrying
Balance	lack of balance 2 very balanced
Suppleness	stiff 2 supple
Ground covering	a little 1 a lot
Canter	
Balance	lack of balance 1 very balanced


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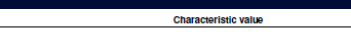



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Linear Profiling in practice

Examples – linear profile





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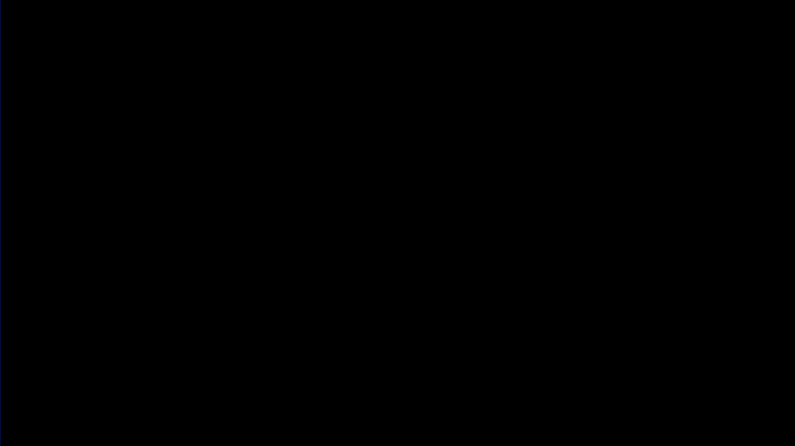
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Linear Profiling in practice

individual presentation



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Linear Profiling in practice

walking ring



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Linear Profiling in practice

walking ring







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Linear Profiling in practice

judging team







Team:

- 1 Main Judge
(from the breeding society)
- 2 Volunteer judges
- 1 Assistant for linear profiling



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Linear Profiling in practice

judging team




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Linear Profiling in practice

Judging team

Judging foals goes very fast




Linear profiling can only succeed if:

1. The main judge knows the traits by hard and is very clear in dictating or:
2. The assistant is experienced in judging as well and has the same way of judging

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Linear Profiling in practice


challenges


Judging foals goes very fast

In small foal shows, the main judge has to do linear profiling without assistant

Multitasking is asked



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Linear Profiling in practice


concerns


Possible overestimation of traits that might be more visible in foals as in adult horses:

Withers: flat/high

Pasterns:

- Length: short/long
- stance: - upright/sloping, weak
- toe-in /toe-out


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Linear Profiling in practice

concerns


Therefore we have to follow the correlations of linear traits between foals and adult horses in a critical way, for each trait.


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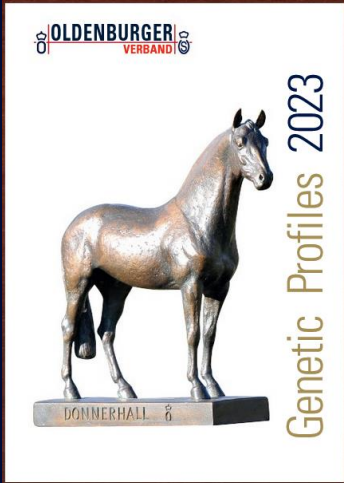
Linear Breeding Values

tools for our breeders

Inheritance profiles	 Pairing Program
to the Inheritance profiles	to the Pairing Program

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Genetic profiles



The image shows the cover of a report titled 'Genetic Profiles 2023'. It features a bronze statue of a horse, identified as 'DONNERHALL', standing on a base. The text 'OLDENBURGER VERBAND' is at the top left, and 'Genetic Profiles 2023' is written vertically on the right side. The Oldenburger logo is at the top right and bottom center.

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Genetic profiles: Background

Traits:

- 46 linear traits
- Heritability of $h^2 > 10\%$


Influencing factors:

- Judge / assistance
- Society (jumping, dressage)
- Age
- Sex

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Genetic profiles

SEZUAN'S DONNERHALL
von Sezuan - Sir Donnerhall I - Don Schufro geb. 2015

Beschriebene Nachkommen: 30, diese können sowohl als Fohlen, als auch 2-jährig und älter linear beschrieben worden sein.
Linearprofile: Fohlen: 30 2-jährig und älter: 0

Exterieur		40	60	80	100	120	140	160	
Rasstyp	wenig	75							vieltypvoll
Gesichtsausdruck	wenig	77							viel
Rahmen	wenig/kleinrahmig						147		viel/großrahmig
Kaliber	leicht						125		schwer
Proportionen	kurzbeinig						122		langbeinig
Kopf	grob, darb	65							fein, edel
Augen	klein	82							groß
Hals	tief angesetzt						107		hoch angesetzt
Hals	Unterhals betont	88							Oberhals betont
Hals	gerade	91							stark geschwungen
Widerrist	kurz						108		lang
Widerrist	flach	96							hoch
Rücken	kurz						106		lang
Oberflanke	weich						106		stramm
Niere	stark						102		stramm
Kruppe	flach/gerade	86							abfallend
Schweifansatz	tief						101		hoch

Fundament

Fessel vorne	kurz						125		lang
Fessel vorne	stark						121		weich
Fessel hinten	stark						109		weich
Sprungelenk	stark/gerade						112		gewinkelt
Gelenke	schwach/fein	98							stark/grob
Stellung Vorhand	zahneng						104		zahnweit
Schweiftonus	kein Tragen	84							spannig/übertragen

Schritt

Raumgriff Vorhand	begrenzt						123		raumgreifend
Raumgriff Hinterhand	wenig untertretend						124		deutlich übertretend

Trab


Raumgriff Vorhand	begrenzt						139		raumgreifend
Vorderhand-Mechanik	gerades Vorderbein						139		viel Knieaktion
Schwung und Elastizität	wenig						150		viel
Schub, Hinterhandaktivität	kräftig, schließend						150		energisch, aktiv
Tragtritt	wenig						139		getragen
Losgelassenheit	fest						125		locker

Conformation

Limb conformation and correctness

Gaits

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Genetic profiles

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von Sezuan - Sir Donnerhall I - Don Schufro geb. 2015

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Kopf	grob, darb	65							fein, edel
Augen	klein	82							groß
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Kruppe	flach/gerade	86							abfallend
Schweifansatz	tief						101		hoch

Fundament

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Schritt

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Tragtritt	wenig						139		getragen
Losgelassenheit	fest						125		locker

Conformation

Limb conformation and correctness

Gaits

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Pairing Program

tools for our breeders

Test Mare OL

Breeding focus: Dressage Show-jumping Show-jumping (EBV-HEX > 120)

Conformation

Breed type	<input type="checkbox"/>																				<input type="checkbox"/>
Gender expression	<input type="checkbox"/>																				<input type="checkbox"/>
Frame	<input type="checkbox"/>																				<input type="checkbox"/>
Caliber	<input type="checkbox"/>																				<input checked="" type="checkbox"/>
Length of legs	<input type="checkbox"/>																				<input type="checkbox"/>
Head shape	<input type="checkbox"/>																				<input type="checkbox"/>
Eye size	<input type="checkbox"/>																				<input type="checkbox"/>
Set of neck	<input type="checkbox"/>																				<input type="checkbox"/>
Neck	<input type="checkbox"/>																				<input type="checkbox"/>
Shape of neck	<input type="checkbox"/>																				<input type="checkbox"/>
Length of withers	<input type="checkbox"/>																				<input type="checkbox"/>
Height of withers	<input type="checkbox"/>																				<input checked="" type="checkbox"/>
Length of back	<input type="checkbox"/>																				<input type="checkbox"/>
Line (strength) of back	<input type="checkbox"/>																				<input type="checkbox"/>
Lines (strength) of topline	<input type="checkbox"/>																				<input type="checkbox"/>
Angle (inclination) of croup	<input type="checkbox"/>																				<input type="checkbox"/>
Set of tail	<input type="checkbox"/>																				<input type="checkbox"/>
Limbs																					
Length of forelimb pastern	<input type="checkbox"/>																				<input type="checkbox"/>
Stance of forelimb pastern	<input type="checkbox"/>																				<input type="checkbox"/>
Stance of hind limb pastern	<input type="checkbox"/>																				<input type="checkbox"/>
Hock angulation	<input type="checkbox"/>																				<input type="checkbox"/>

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Pairing Program

tools for our breeders

The eligible stallions 44

- Adoro
- Baron (DK)
- Best of Gold
- Borsalino
- Charmeur
- Dante's Junior
- Desperados**

Life number (LELN): DE 431310351301
Sire: De Nitro
Dam: Wie Musik
Sire of the dam: Wolkstein II
Date of birth: 2001-04-02
Linear profile (stallion): No
Linear profiles of progeny / foals: 24
Linear profiles of progeny / adult horses: 47

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OLDENBURGER PFERDEZUCHTVERBAND E.V.

Pairing Program

tools for our breeders

Chosen pairing

Mare: **Test Mare OL** x Stallion: **Desperados**

Conformation

Breed type	Blue	Red
Gender expression	Blue	Red
Frame	Blue	Red
Caliber	Blue	Red
Length of legs	Blue	Red
Head shape	Blue	Red
Eye size	Blue	Red
Set of neck	Blue	Red
Neck	Blue	Red
Shape of neck	Blue	Red
Length of withers	Blue	Red
Height of withers	Blue	Red
Length of back	Blue	Red
Line (strength) of back	Blue	Red
Line (strength) of loins	Blue	Red
Angle (inclination) of croup	Blue	Red
Set of tail	Blue	Red

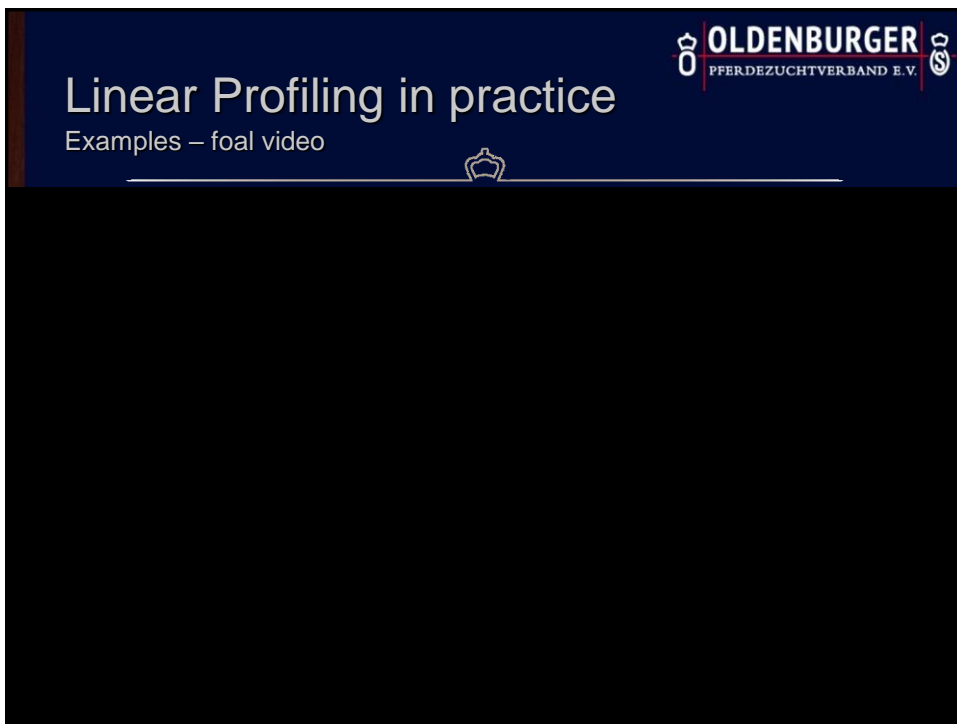
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Linear Profiling in practice

Foal Videos as exercise examples

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Linear Profiling in practice

Examples – linear profile

Linear profile format and front			3 2 1 0 1 2 3								
FORMAT Breed type	plain									1	true to type
FORMAT Caliber	light	1									heavy
FRONT Head shape	coarse									1	fine
FRONT Length of withers	short									1	long


Linear profile feet & legs			3 2 1 0 1 2 3								
LIMBS Length of forelimb pastern	short									1	long
LIMBS Stance of hind limbs	camped under									2	stretched (camped out)
LIMBS Length of hind limb pastern	short									1	long
LIMBS Hind leg										2	round


Movement profile free movement			3 2 1 0 1 2 3								
WALK Suppleness	stiff									2	elastic
WALK Freedom of shoulders	short									2	long
WALK Reach of hind limbs (overstepping)	inactive (short)									2	active (long)
TROT Freedom of shoulders	short									2	long
TROT Mechanics of front limbs	straight forelimb									2	much knee action
TROT Impulsion	weak									1	powerful
TROT Thrust (hind limb activity)	inactive, sluggish									1	active, energetic
TROT Direction of movement	downhill									2	uphill



Linear Profiling in practice


Examples – foal video





Linear Profiling in practice

Examples – linear profile



Linear profile format and front

FORMAT Breed type	plain	2	[Bar chart: 2 units from 2 to 0]					true to type
FORMAT Frame	small-framed		[Bar chart: 2 units from 0 to 2]					2 large-framed
FORMAT Body shape	square		[Bar chart: 1 unit from 1 to 0]					1 (long-)rectangular
FRONT Head shape	coarse	2	[Bar chart: 2 units from 2 to 0]					fine
FRONT Head length	short		[Bar chart: 2 units from 0 to 2]					2 long
FRONT Length of ears	short		[Bar chart: 2 units from 0 to 2]					2 long
FRONT Cheeks (jowl)	heavy	1	[Bar chart: 1 unit from 1 to 0]					light
FRONT Length of withers	short		[Bar chart: 2 units from 0 to 2]					2 long
FRONT Height of withers	flat		[Bar chart: 1 unit from 0 to 1]					1 high


3 2 1 0 1 2 3

Movement profile free movement

TROT Freedom of shoulders	short	1	[Bar chart: 1 unit from 1 to 0]					long
TROT Mechanics of front limbs	straight forelimb	1	[Bar chart: 1 unit from 1 to 0]					much knee action
TROT Impulsion	weak		[Bar chart: 1 unit from 1 to 0]					1 powerful
TROT Thrust (hind limb activity)	inactive, sluggish	2	[Bar chart: 2 units from 2 to 0]					active, energetic
TROT Carrying power	pushing	2	[Bar chart: 2 units from 2 to 0]					carrying


3 2 1 0 1 2 3

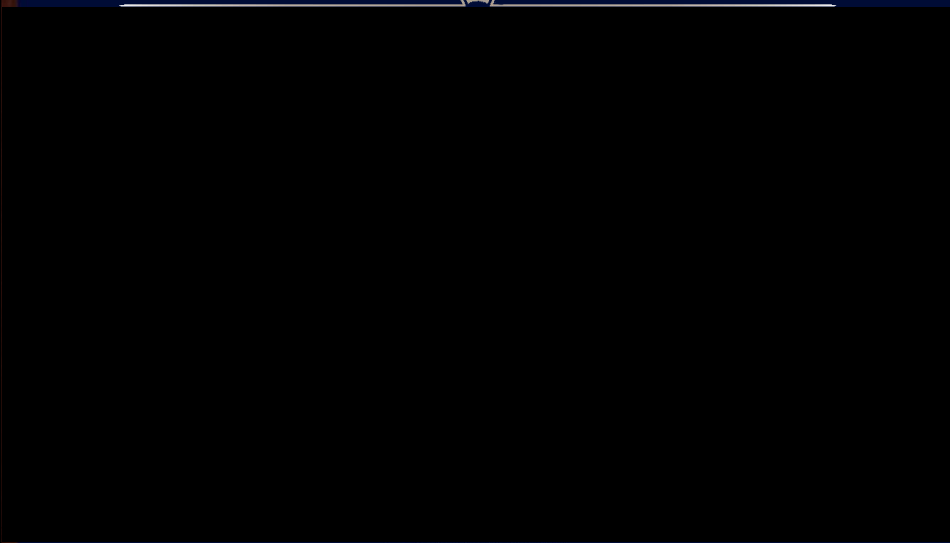
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Linear Profiling in practice


Examples – foal video





Linear Profiling in practice

Examples – linear profile




Linear profile format and front

FORMAT Breed type	plain											1	true to type
FORMAT Caliber	light	1											heavy
FORMAT Length of legs	short-legged											1	long-legged
FORMAT Harmony of proportions	unharmonious											1	harmonious

Movement profile free movement

TROT Freedom of shoulders	short												1	long
TROT Impulsion	weak												1	powerful
TROT Carrying power	pushing	2												carrying
TROT Suppleness	tense												1	supple

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