



AEROFLEX

Aerodynamic and Flexible Trucks for Next Generation of Long Distance Road Transport

EUROPEAN COMMISSION

**Horizon 2020 | GV-09-2017 | Aerodynamic and Flexible Trucks
GA - 769658**

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Publishable Executive Summary

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Vehicle classification	Configuration	Name	Role
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	n		n		n		n	
Zero-case	Ref.1		Ref.2		Ref.3		Ref.4	
Adv. Ref. AEMPT vs MAN Zero-case	2.1%		9.1%		-4.2%		-4.6%	
EMS 1 Ref. AEMPT vs MAN Zero-case	-17.5%		-10.2%		-13.1%		-8.8%	
Ref. Aeroload vs MAN Zero-case	-10.2%		-4.8%		-7.7%		-5.5%	
Adv. Ref. Aeroload vs MAN Zero-case	-13.6%		1.0%		-5.8%		5.5%	
EMS 1 Ref. Aeroload vs MAN Zero-case	-22.4%		-16.4%		-16.2%		-13.0%	

Table 2. Test use case 1 and 2. Fuel consumption zero case comparative (l/tonne km)

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Zero-case	74.5	---		73.7	---	
Adv. Ref. AEMPT vs MAN Zero-case	76.1	2.1%		75.3	2.2%	
EMS 1 Ref. AEMPT vs MAN Zero-case	73.3	-1.7%		71.9	-2.4%	
Ref. Aeroload vs MAN Zero-case	74.9	0.6%		73.4	-0.4%	
Adv. Ref. Aeroload vs MAN Zero-case	74.9	0.5%		73.8	0.2%	
EMS 1 Ref. Aeroload vs MAN Zero-case	74.9	0.5%		73.5	-0.3%	

Table 3. Test use-case 2. Average speed comparative

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ñ n m o dñ y o s dko y o y a dñ o
dñ o n o

Zero-case	o o dñ o y n	
	n	
Ref.1		
Adv. Ref. AEMPT vs MAN Zero-case	-4.1%	
EMS 1 Ref. AEMPT vs MAN Zero-case	20.9%	
Adv. Ref. Aero 1 vs MAN Zero-case	-11.0%	
Adv. Ref. Aero 2 vs MAN Zero-case	-20.6%	
Adv. Ref. Aero 3 vs MAN Zero-case	-23.8%	
EMS 1 Ref. Aeroload vs MAN Zero-case	5.3%	

Table 4. Test use-case 3. Airdrag comparative

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n dko o

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D o n o s S o s dñ y o y o dñ dñ o
o dñ dñ dñ o m S y dñ a dñ y dñ y
s o dñ dñ y dñ y dñ o dñ dñ o o dñ dñ dñ o

Key Performance Indicators	Average performance achieved	PBS Level achieved
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dñ])		
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n o o) <i>TS</i> _{entry} [])		
N s s s) <i>SPW</i> [:) []))dñ])		
sn dñ o) <i>RA</i> [])		dñks dñ
s o o dñ o) <i>HSTO</i> [:) [y]))dñ o])		
s o dñ dñ o) <i>YD</i> [])		dñks dñ
dñ m y n) <i>SRT</i> [])		dñks dñ



Table 5: Test use-case 4. Dynamic results

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y n ck					
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Acknowledgement

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		Y D
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		S
		DY
D	O D NN	
Y	Y D DY	
		N Y
		O D
O	O S O O N	
D	D s DYD S N	
NO	NO N D	
N	O N O Y	
	NN Y	
	NY O O	
	O Y N	
N	NN O Y N D O	
ON	S O DN N Y Y	
	N Y S SS N	
O	O N Y	
	N S OD N N	
D N	D O Y DY	
D	D OD	



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