

INFORMATION

**Inland Transport Committee's Working Party on Rail Transport Special Session
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György LENGYEL
Hungary
Ministry of Construction and Transport



MINISTRY OF CONSTRUCTION AND TRANSPORT

INFORMATION

on railway stations and hubs



MINISTRY OF CONSTRUCTION AND TRANSPORT

1. Introduction

- Geographical parameters of Hungary
- Role of NSA HU



2. Authority authorization procedures – main tasks

- Excluding possible accidents
- Additional measures to avoid accidents



2. Authority authorization procedures – scope of activity

- Local and intercity public transport vehicles, special vehicles
- Located machinery
- Passenger traffic and operational areas of tunnels
- Ropeways and their equipment



3. Railway projects

- Projects from a technical point of view
- Projects from a legal point of view
- Projects from a financial point of view



4. Some thoughts on information

- 4.1 Travel Information
- 4.2 Information about commands
- 4.3 Information concerning to restrictions



4.1. Travel information

- System parameters

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13	5.516	71.4	71.36	2.45	876	0	2.45	876	76	115	184	216	252	300	360	420	480	540	600	660	720	780	840	900	960	1020	1080	1140	1200	1260	1320	1380	1440	
14	5.516	71.4	71.36	2.45	876	0	2.45	876	81	125	184	216	252	300	360	420	480	540	600	660	720	780	840	900	960	1020	1080	1140	1200	1260	1320	1380	1440	
15	5.516	71.4	71.36	2.45	876	0.28	2.17	721	76	115	170	200	233	266	300	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
16	5.516	71.4	71.36	2.45	876	0.27	2.18	721	76	116	170	200	234	266	300	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
17	5.516	71.4	71.36	2.45	876	0.28	2.19	722	76	116	171	201	234	266	300	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
18	5.516	71.4	71.36	2.45	876	0.28	2.20	722	77	116	171	201	235	267	300	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
19	5.516	71.4	71.36	2.45	876	0.23	2.20	723	77	117	172	202	236	268	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
20	5.516	71.4	71.36	2.45	876	0.24	2.21	723	77	117	172	203	236	268	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
21	5.516	71.4	71.36	2.45	876	0.24	2.22	723	77	117	173	203	237	269	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
22	5.516	71.4	71.36	2.45	876	0.21	2.23	724	78	118	173	204	238	270	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
23	5.516	71.4	71.36	2.45	876	0.21	2.24	724	78	118	174	204	238	270	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
24	5.516	71.4	71.36	2.45	876	0.21	2.25	725	78	118	174	205	239	271	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
25	5.516	71.4	71.36	2.45	876	0.19	2.26	726	79	119	175	206	240	272	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
26	5.516	71.4	71.36	2.45	876	0.18	2.27	727	79	119	175	206	240	272	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933
27	5.516	71.4	71.36	2.45	876	0.17	2.28	728	79	119	176	207	241	273	301	333	366	400	433	466	500	533	566	600	633	666	700	733	766	800	833	866	900	933

Weather conditions worsening, or failure in brake system:

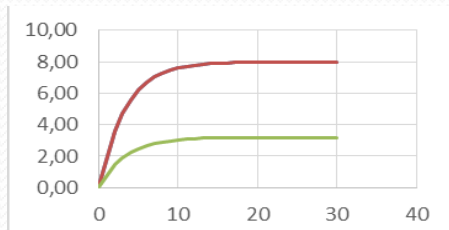
Brake% ↓, Speed ↓, Time ↑, → p.ex. Delay of 10 min., public address system

Further questions: moving blocks, digital automatic coupling



4.2. Modelling of systems

- System saturation models



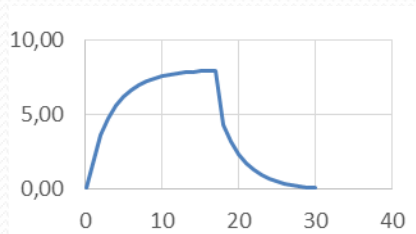
$p(t) = p_0 * \left(\frac{e - e^{-\frac{(T-t)}{T}}}{e} \right)$, where T is time constant, t is the instant, p0 a maximal pressure in the cylinder.

Further questions: correct modelling systems specified to certain stations and hubs



4.2. Modelling of systems

- System releasing models



$p(t) = p_0 * \left(\frac{e^{\frac{(T-t)}{T}}}{e} \right)$, where T is time constant, t is the instant, p0 a maximal pressure in the cylinder.

Further questions: correct modelling systems specified to certain trains and buses



5. Rights and obligations of persons connected with the railway company

- 5.1. Contract affecting passengers
- 5.2. Contract affecting employees

Further questions: creation of international, worldwide contracts, agreements, conventions



5. Tickets

- 5.1.1. Ticket information: travel route, price, validity period, validity area
- 5.1.2. Ticket systems: requirements, types: short, local, regional, interrail, europa pass (idea)

Further questions: multimodality with naval and road transport



6. Functional theory approach

- 6.1 Examples of the functionality of individual components
 - 6.1.1. Functions of the carbody
 - 6.1.2. Functions of windows
- 6.2 Summary of function theory



7. Case studies

- 7.1. Railway systems
- 7.2. Underground systems
- 7.3. Ropeway systems



7.3.1. Sátoraljaújhely



The bridge of national unity



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THANK YOU FOR YOUR ATTENTION



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