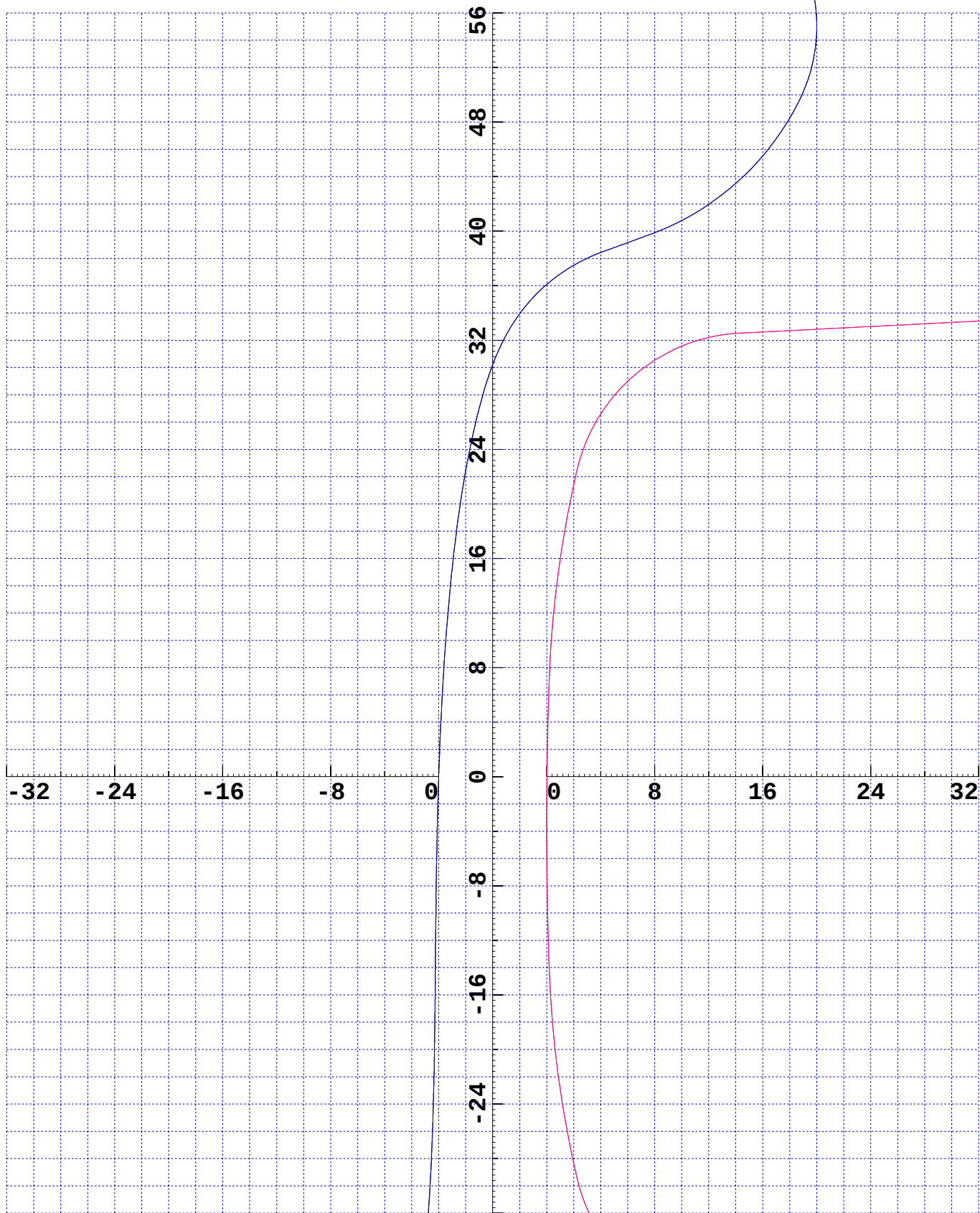
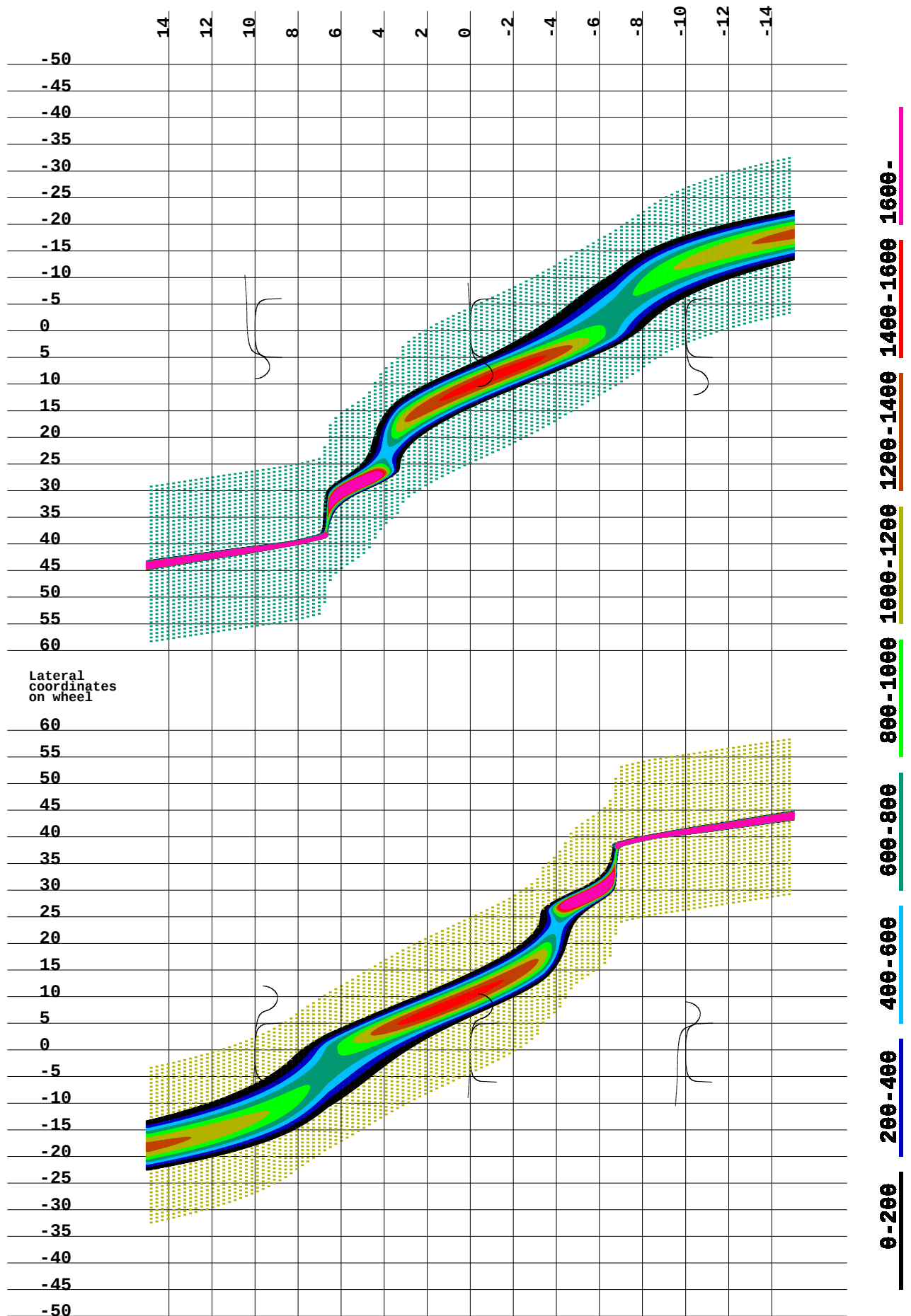


- Right wheel
- Left wheel
- Right rail
- Left rail



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel WRGEOM
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013

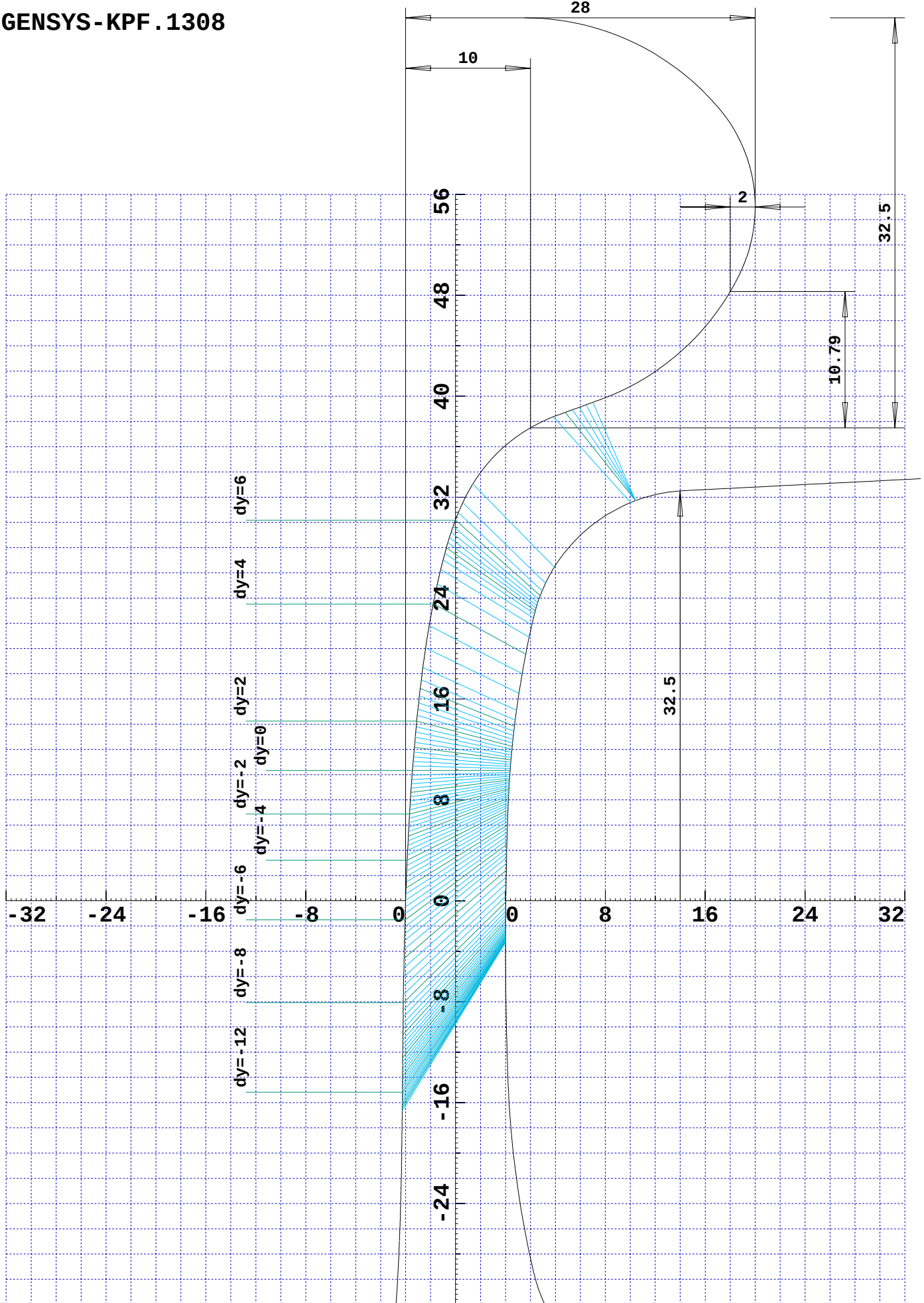


Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel

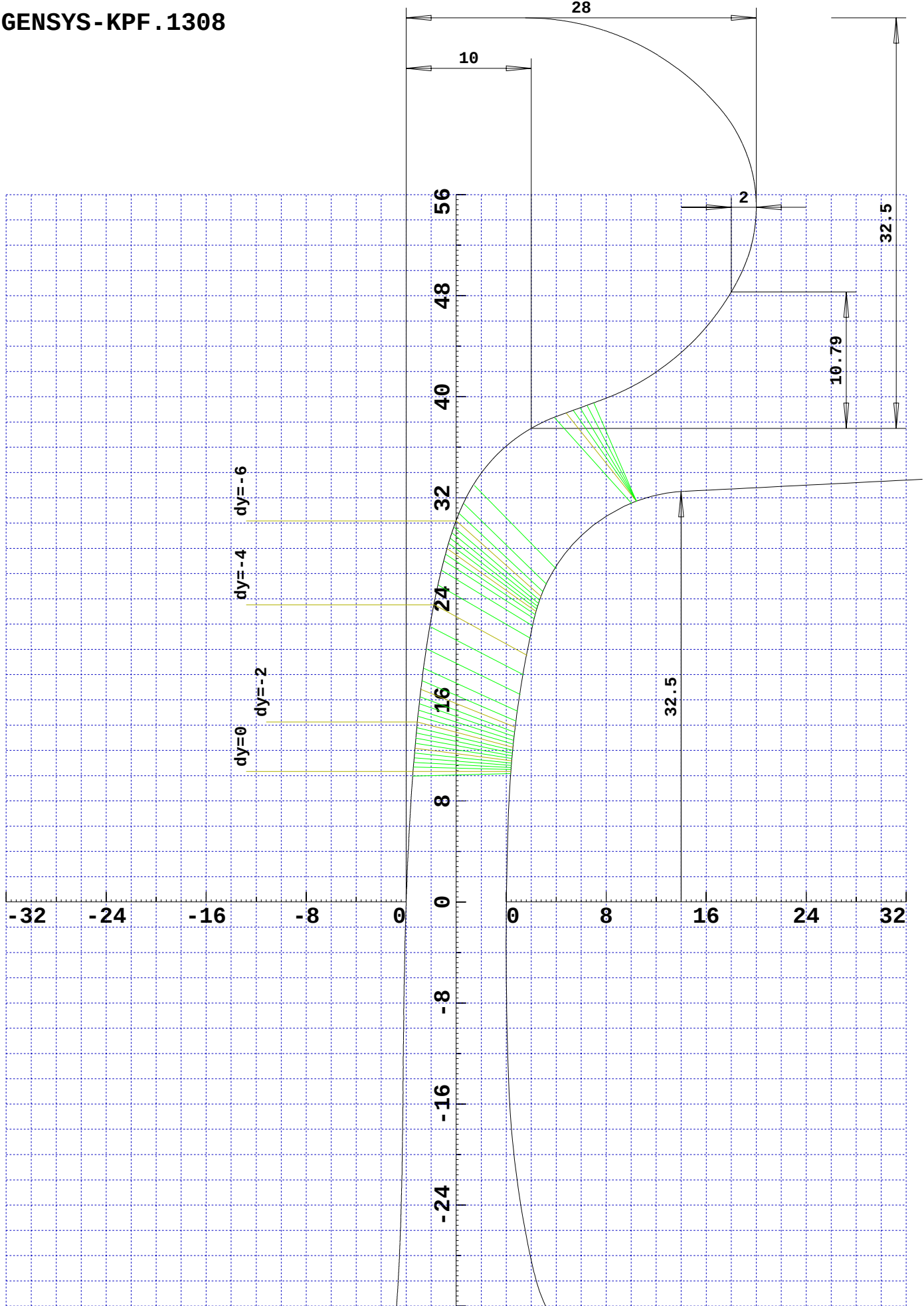
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.sho

Wprof_lat_shift= 0 Gauge= 1425-1441

Contact Pressure

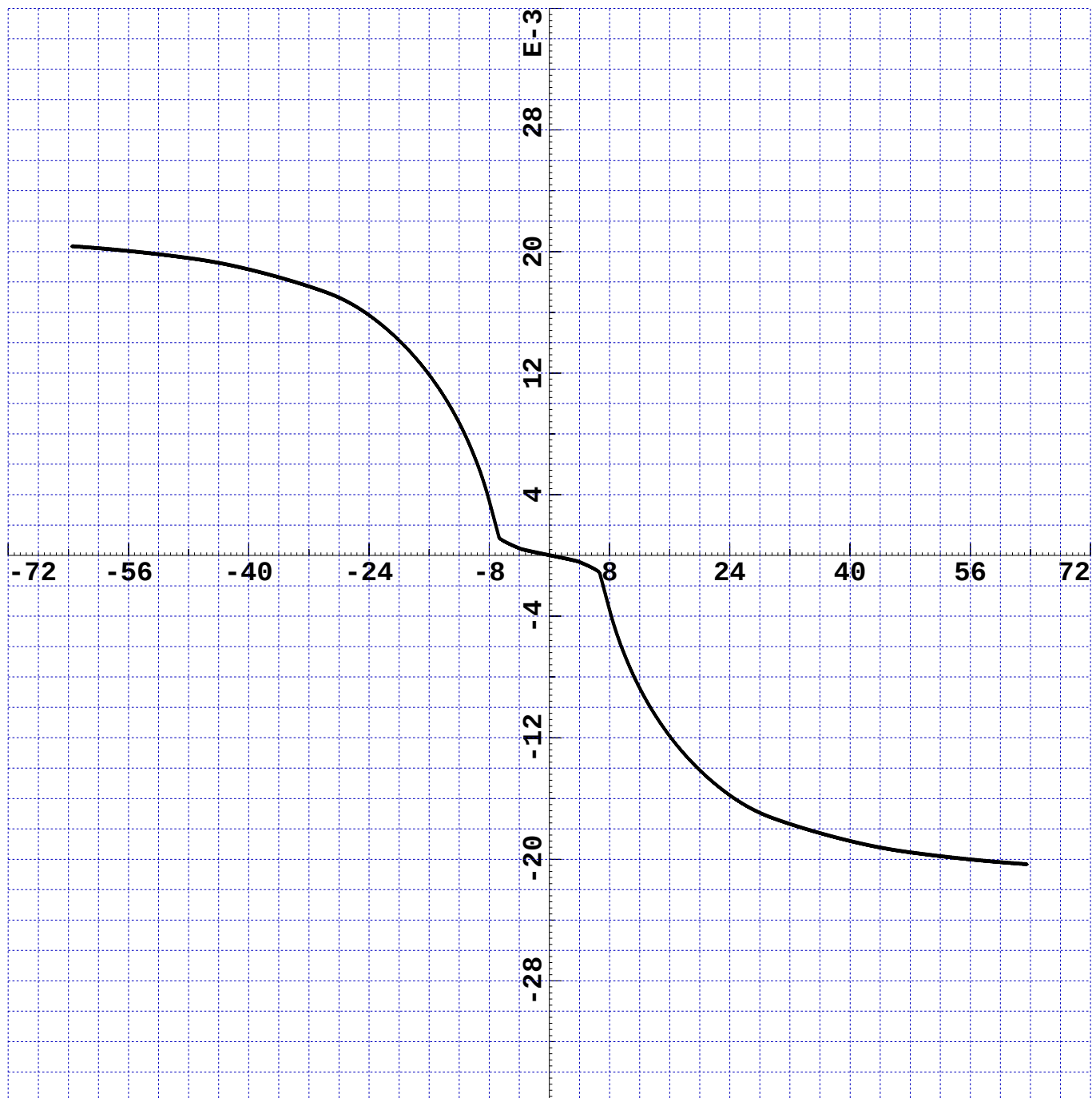
**CONNr**

Ident: kpfr_013



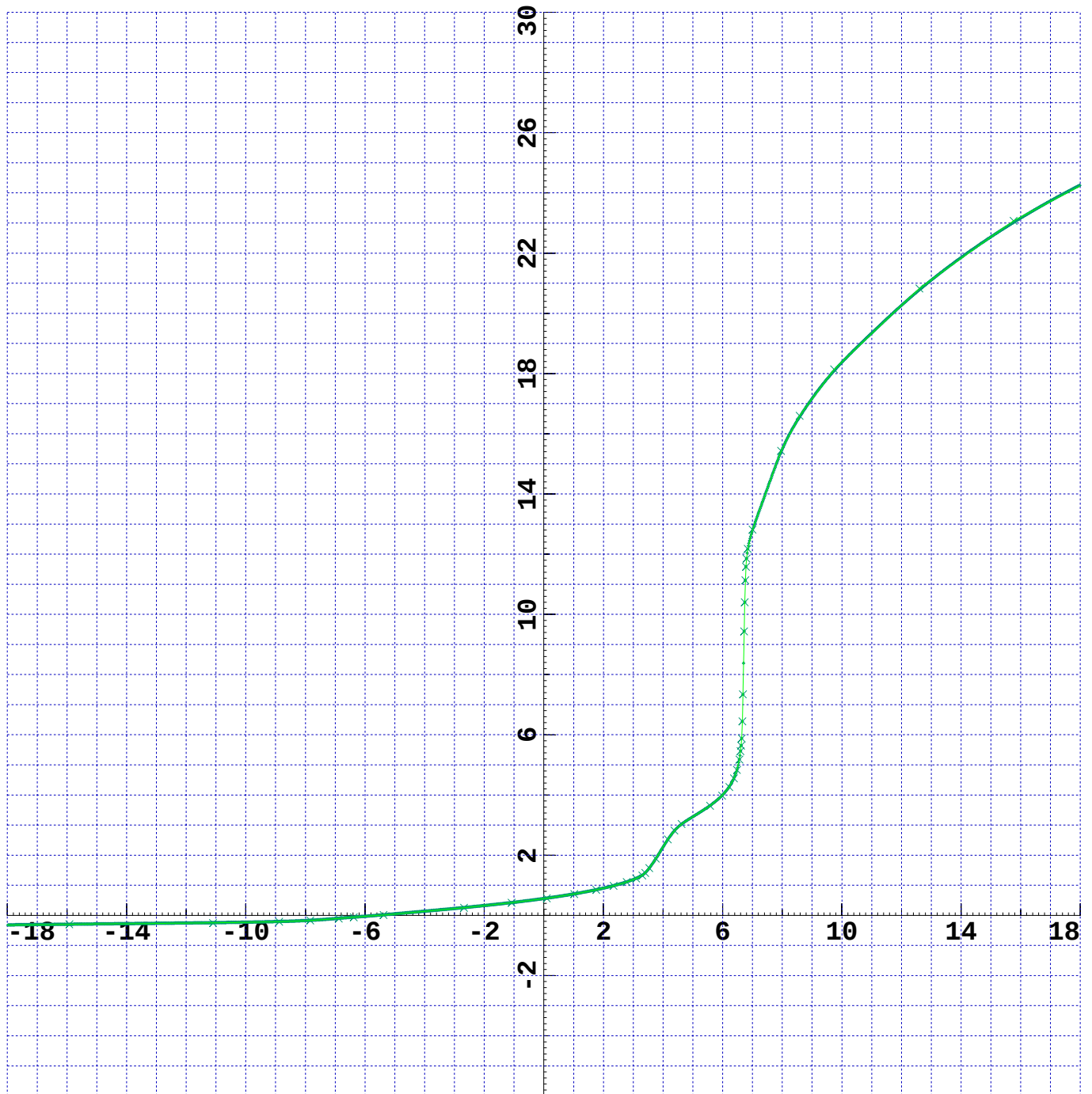
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **CONN1**
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **Flax1**
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

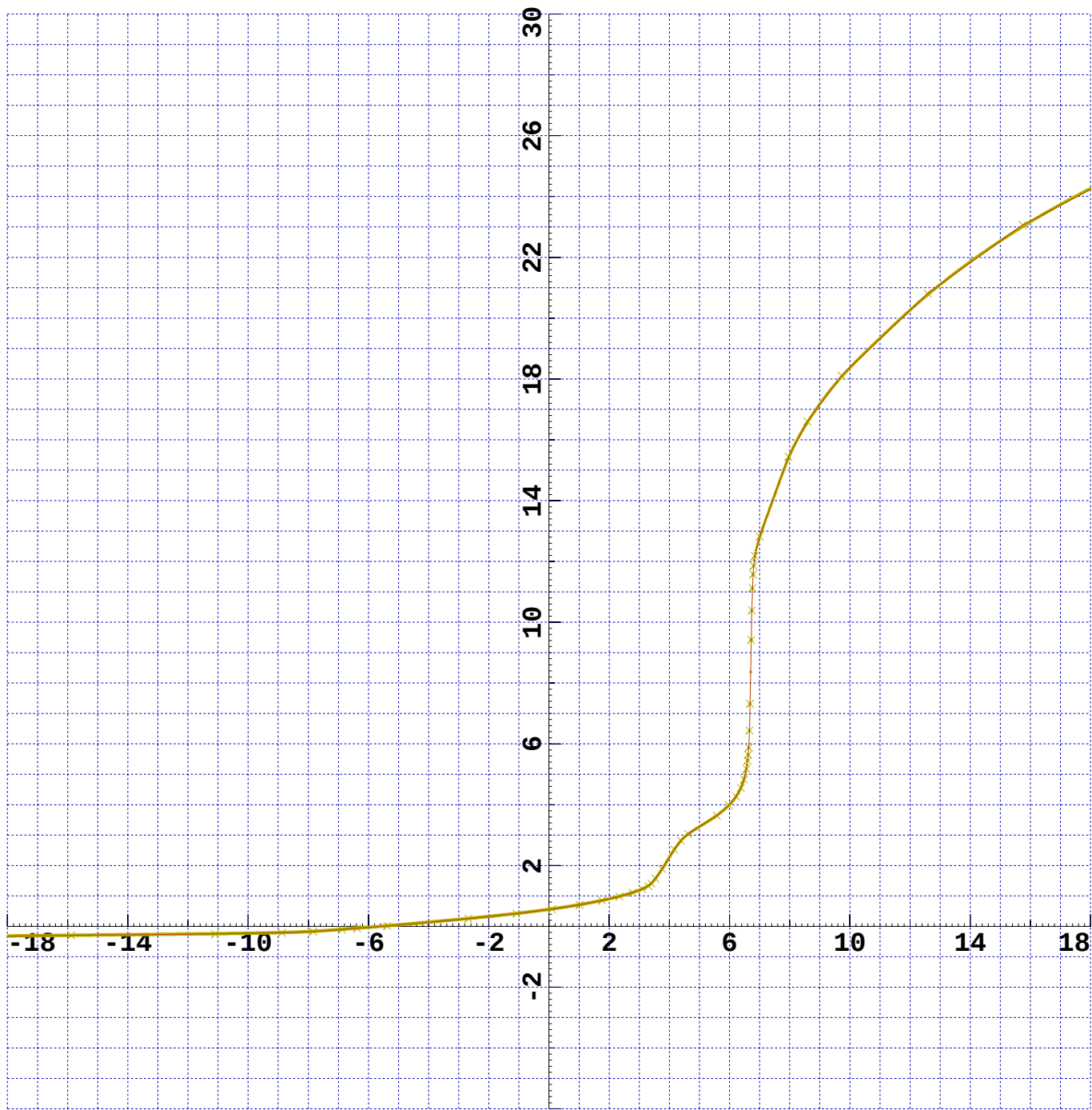
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

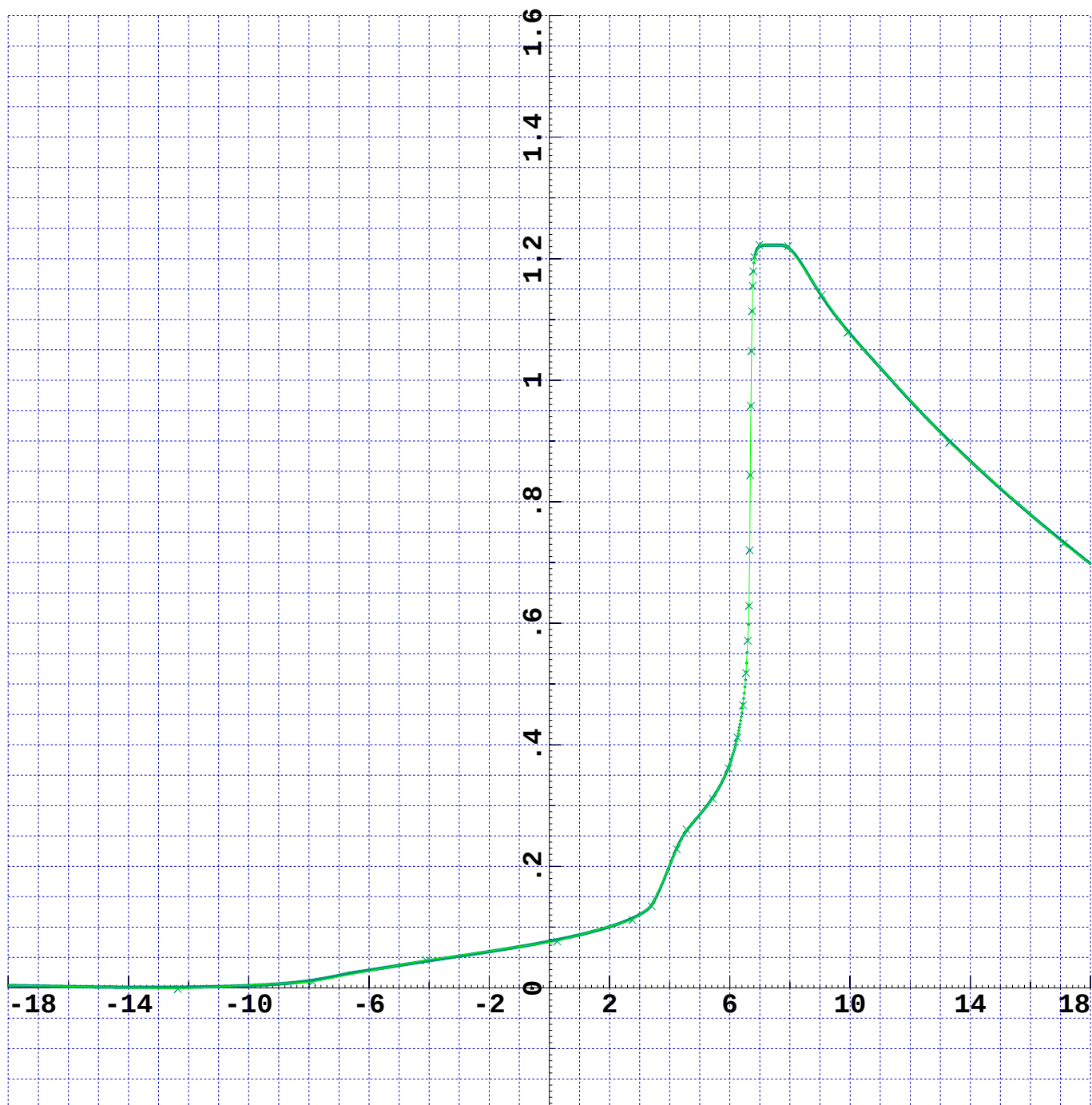
DRFNr

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **DRFN1**
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



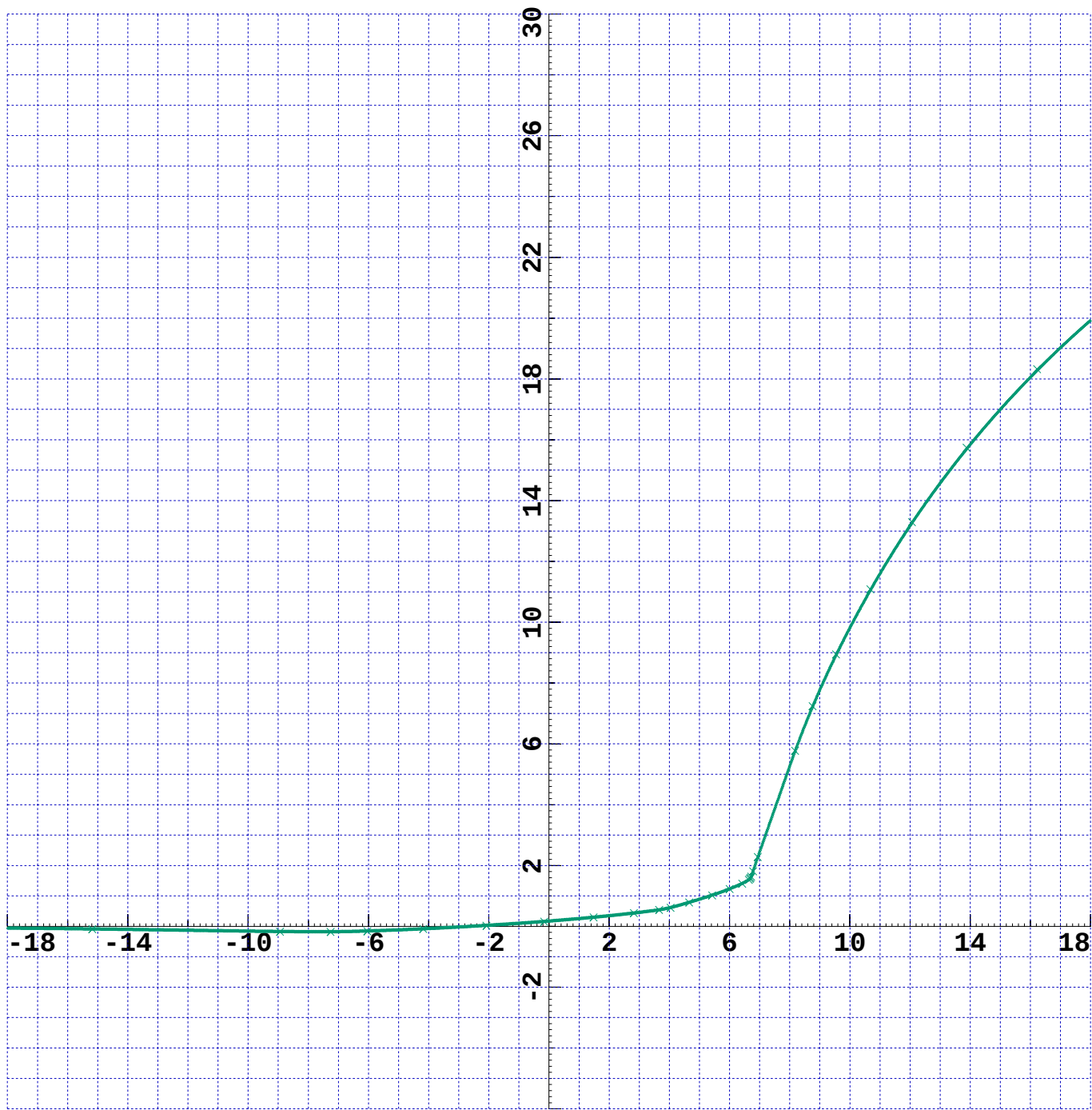
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel GAMFNR
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



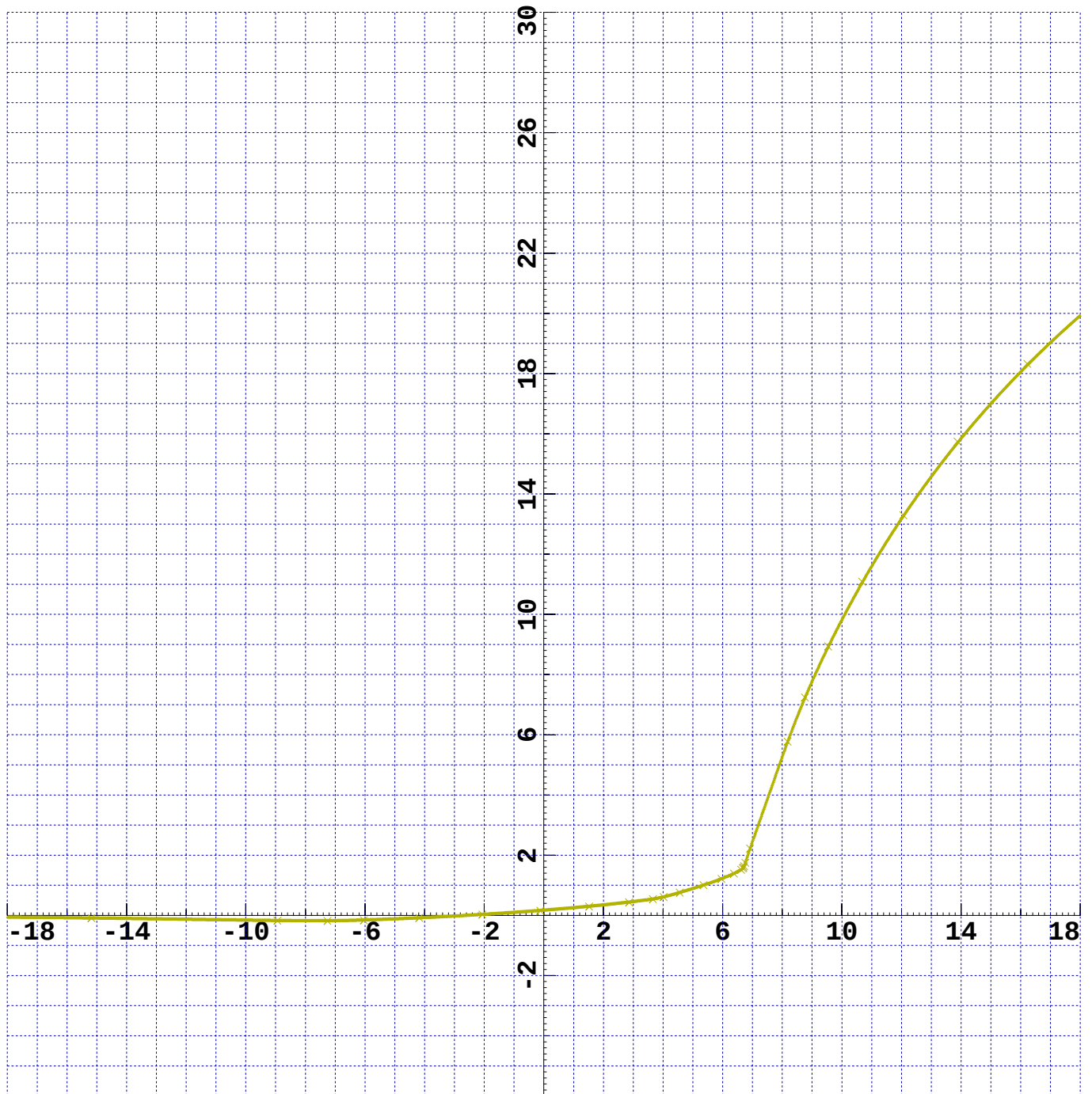
Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel GAMFN1
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel ZFNr
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZFN1

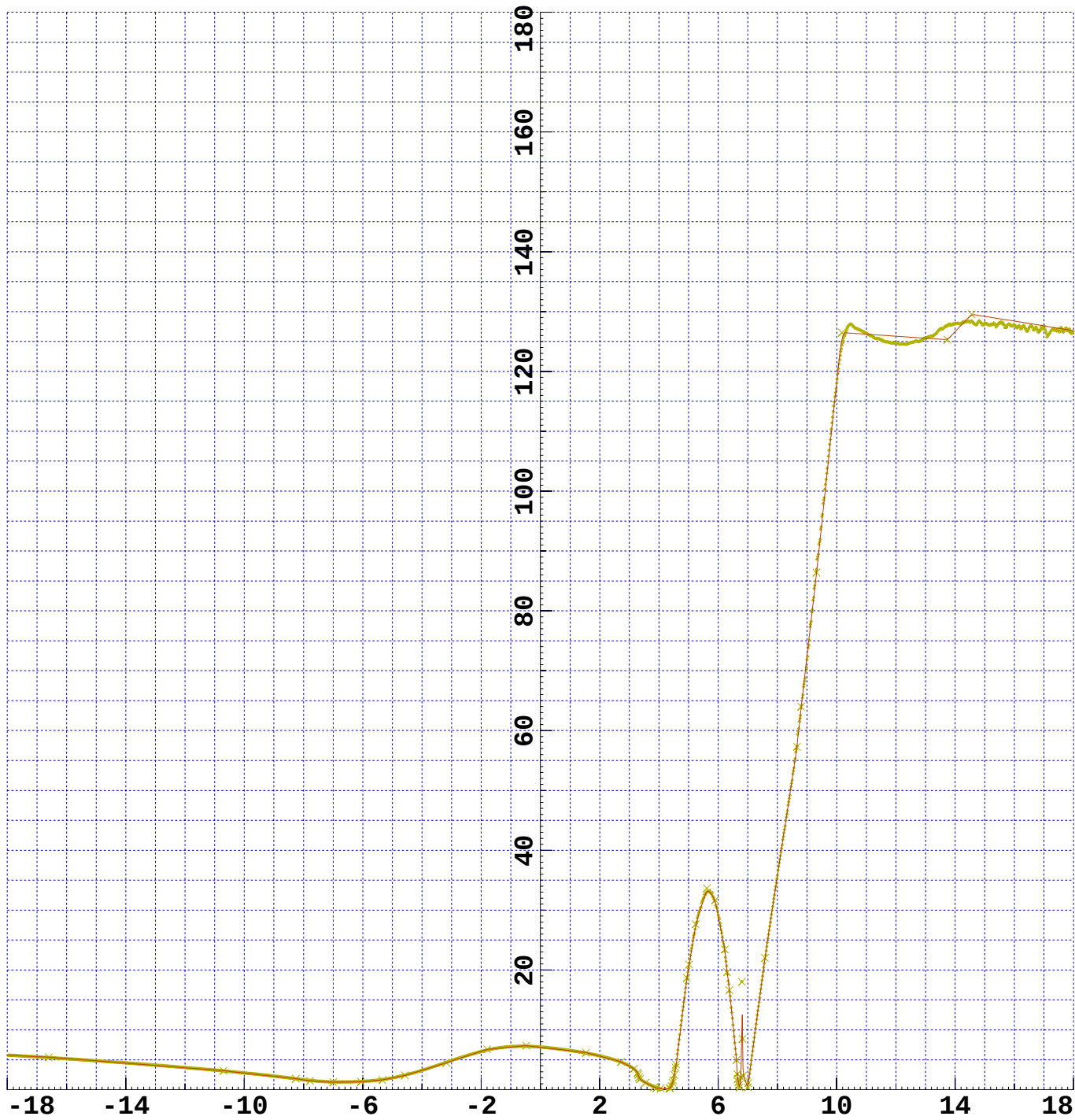
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

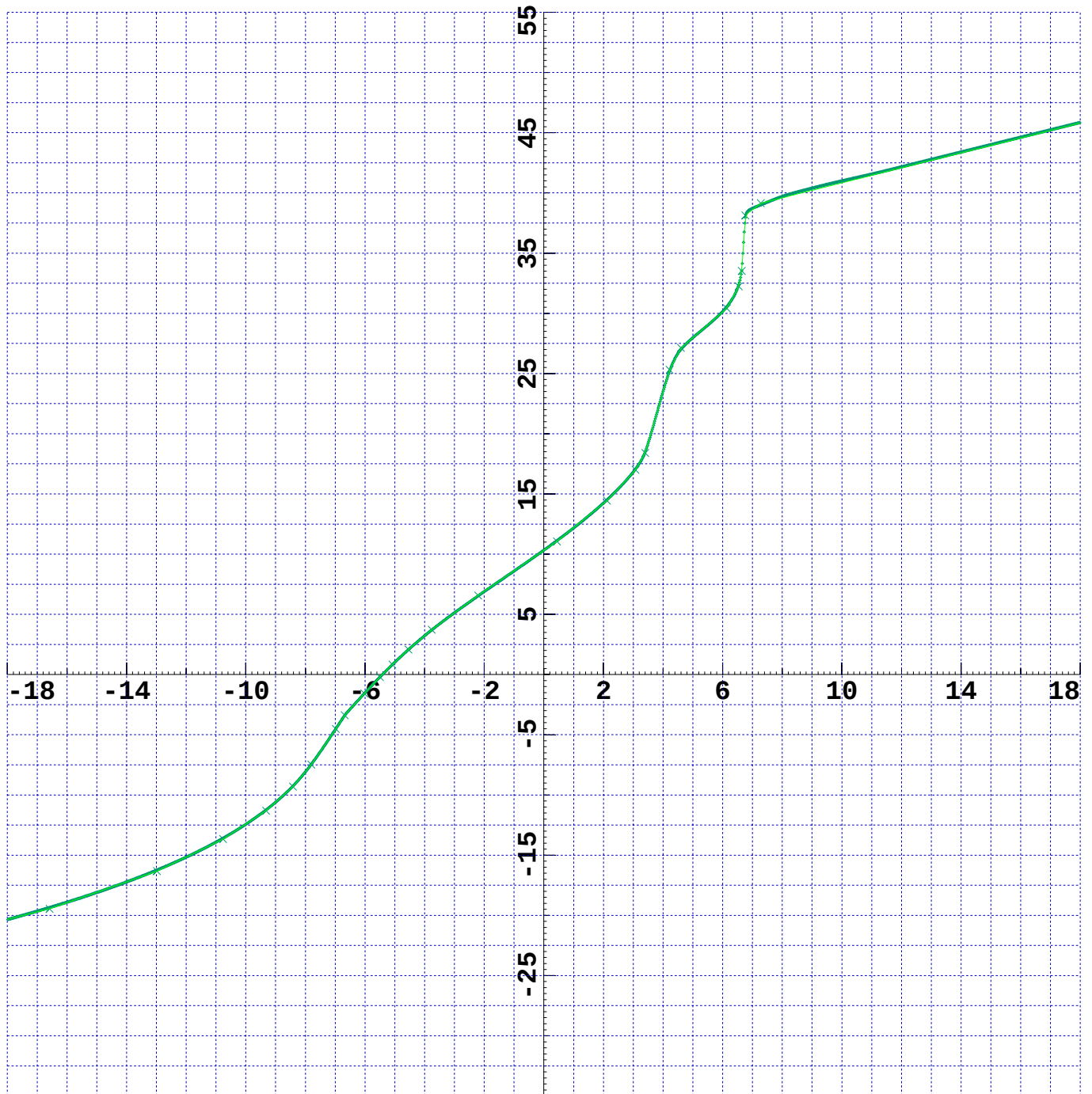
ROFNr

Ident: kpfr_013



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel **ROFN1**
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
Wprof_lat_shift= 0 Gauge= 1425-1441

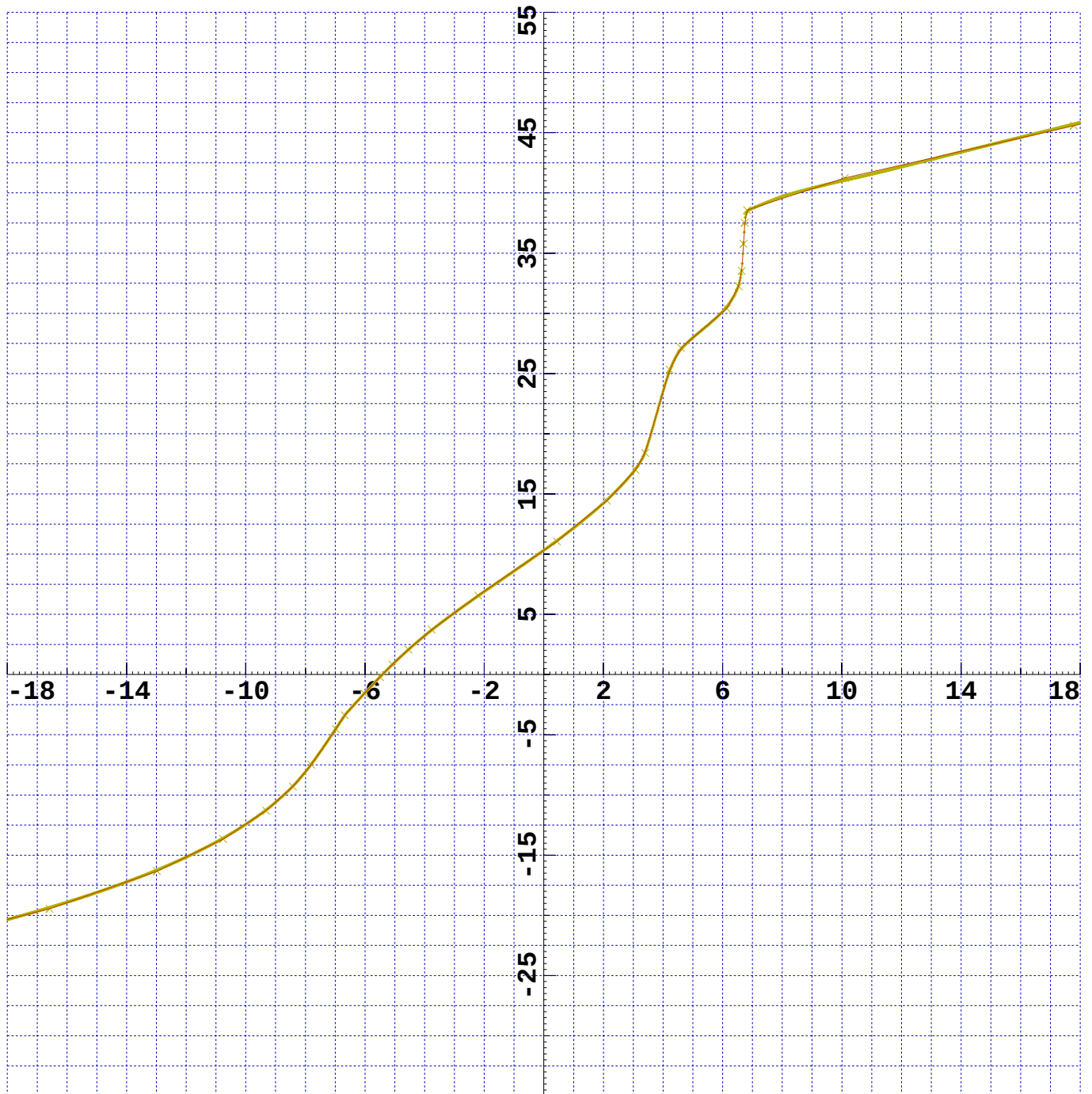
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

POSWr

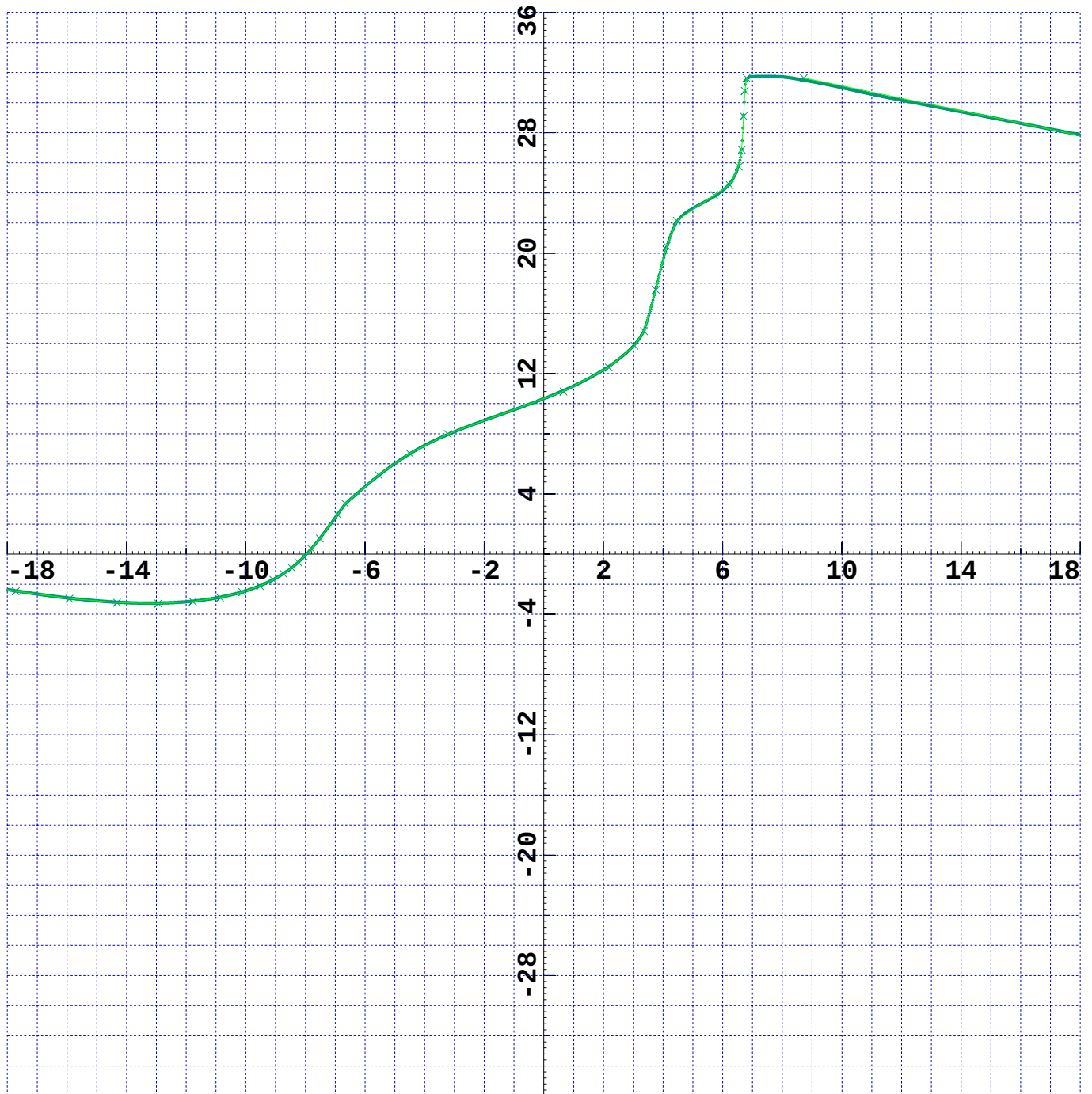
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

POSW1

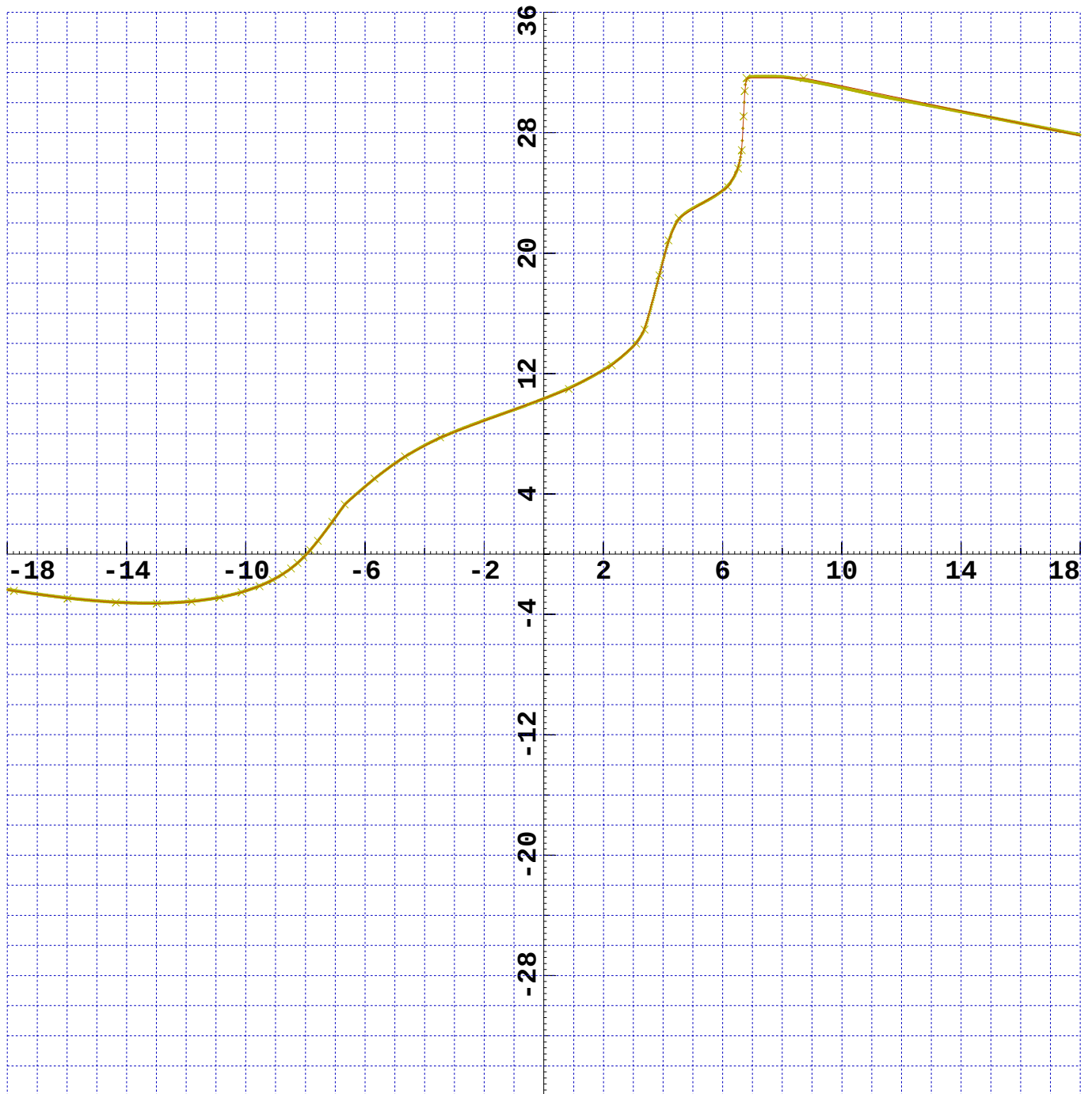
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

POSRR

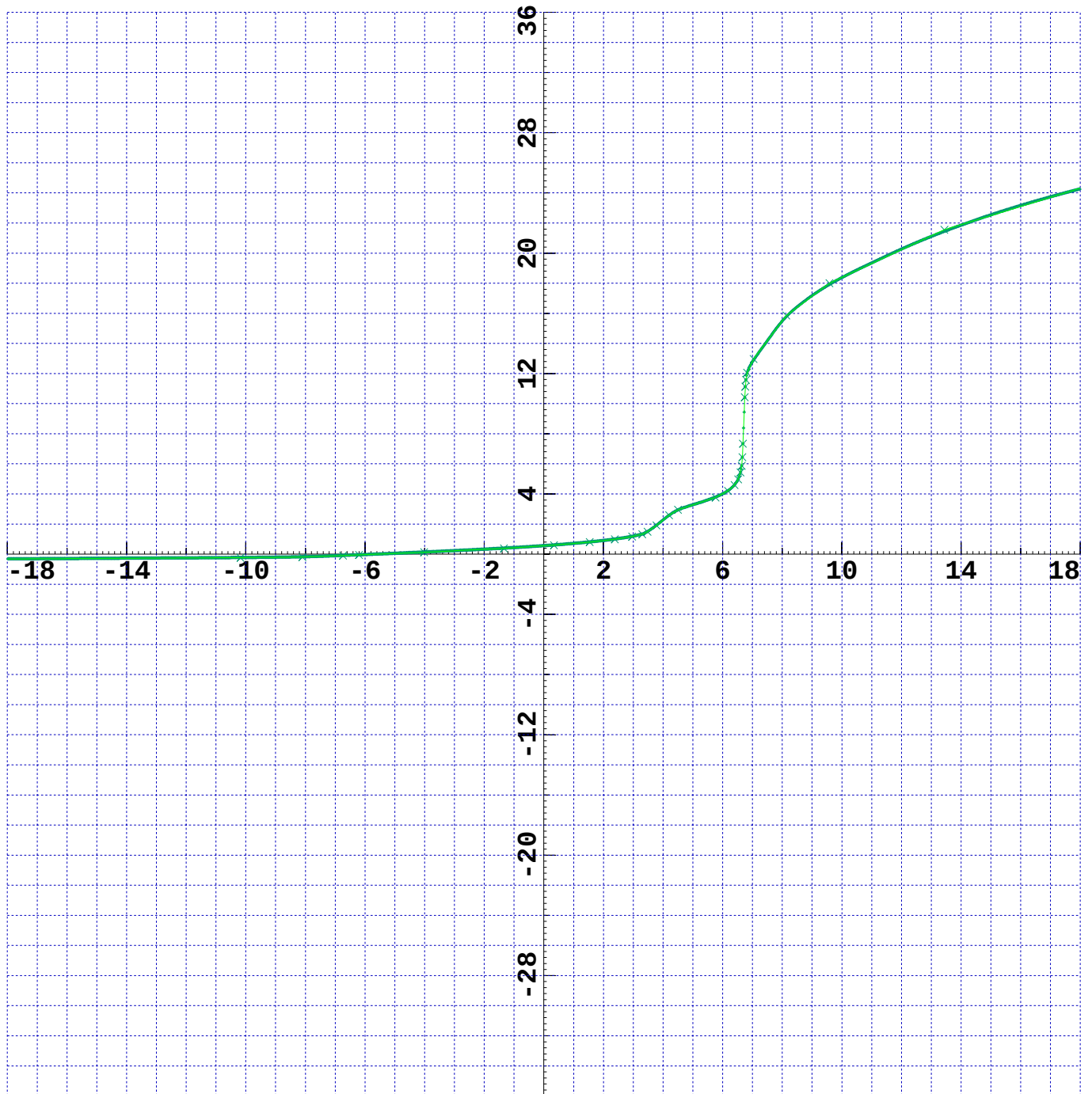
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

POSR1

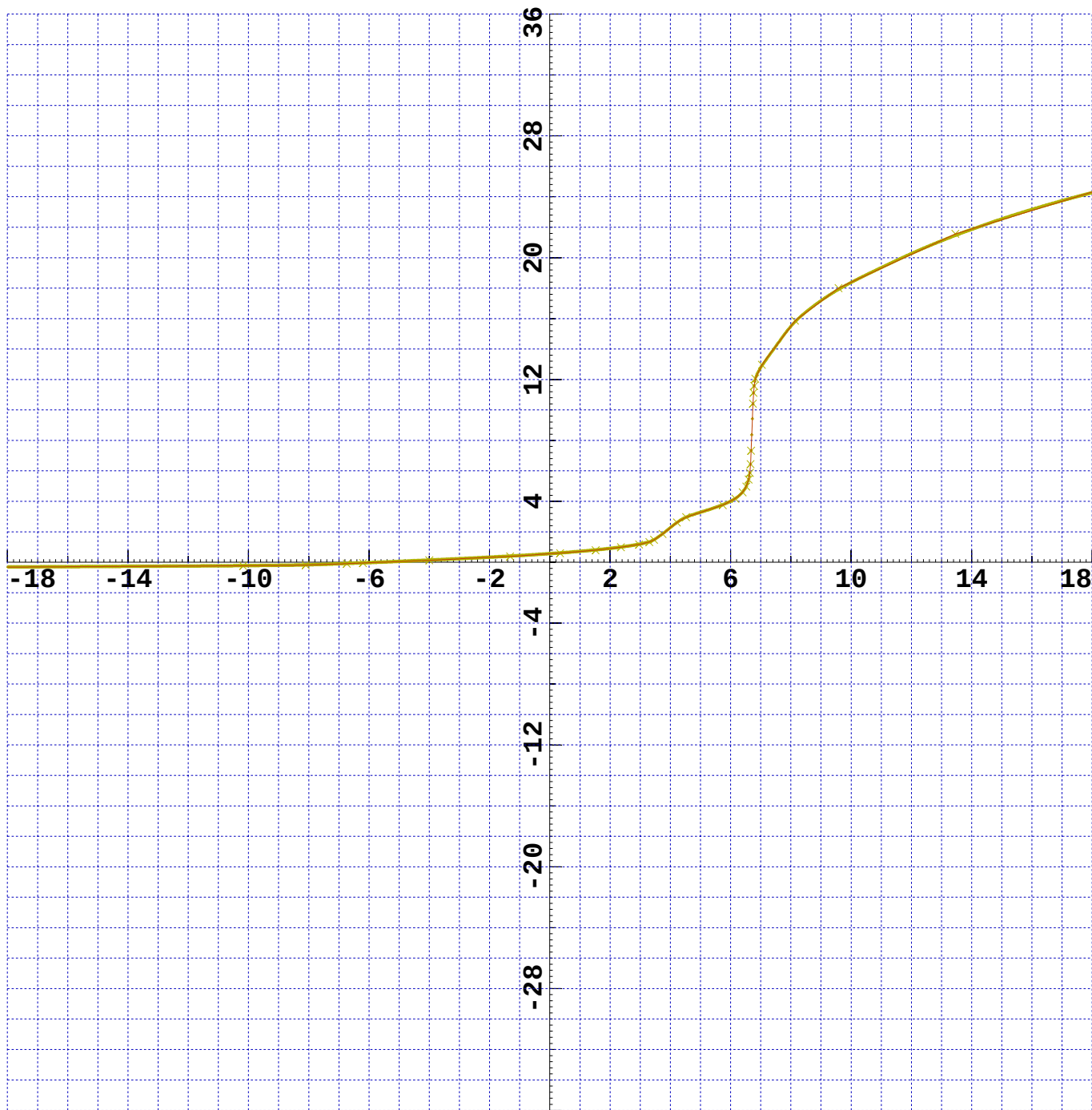
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZWr

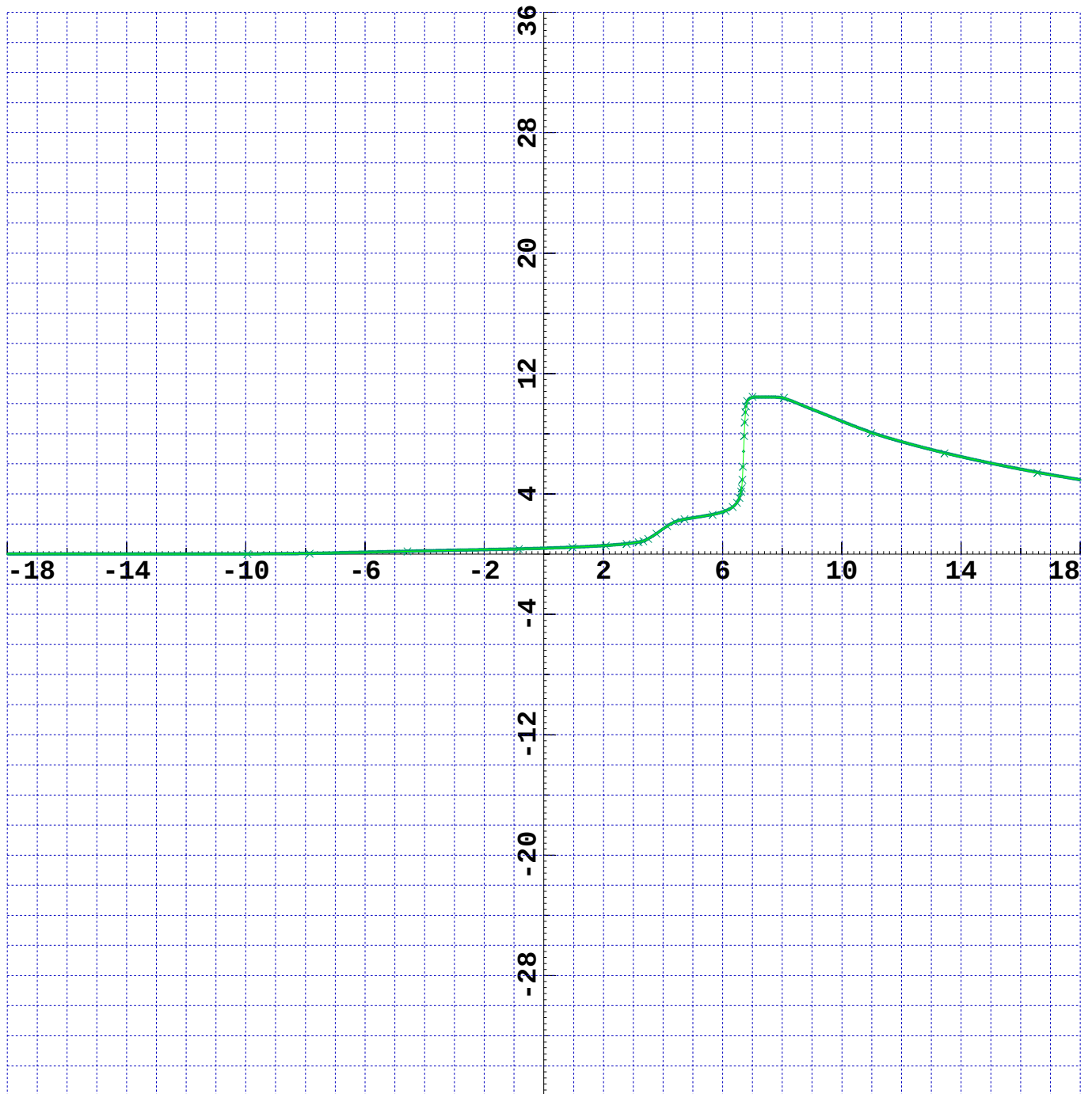
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZW1

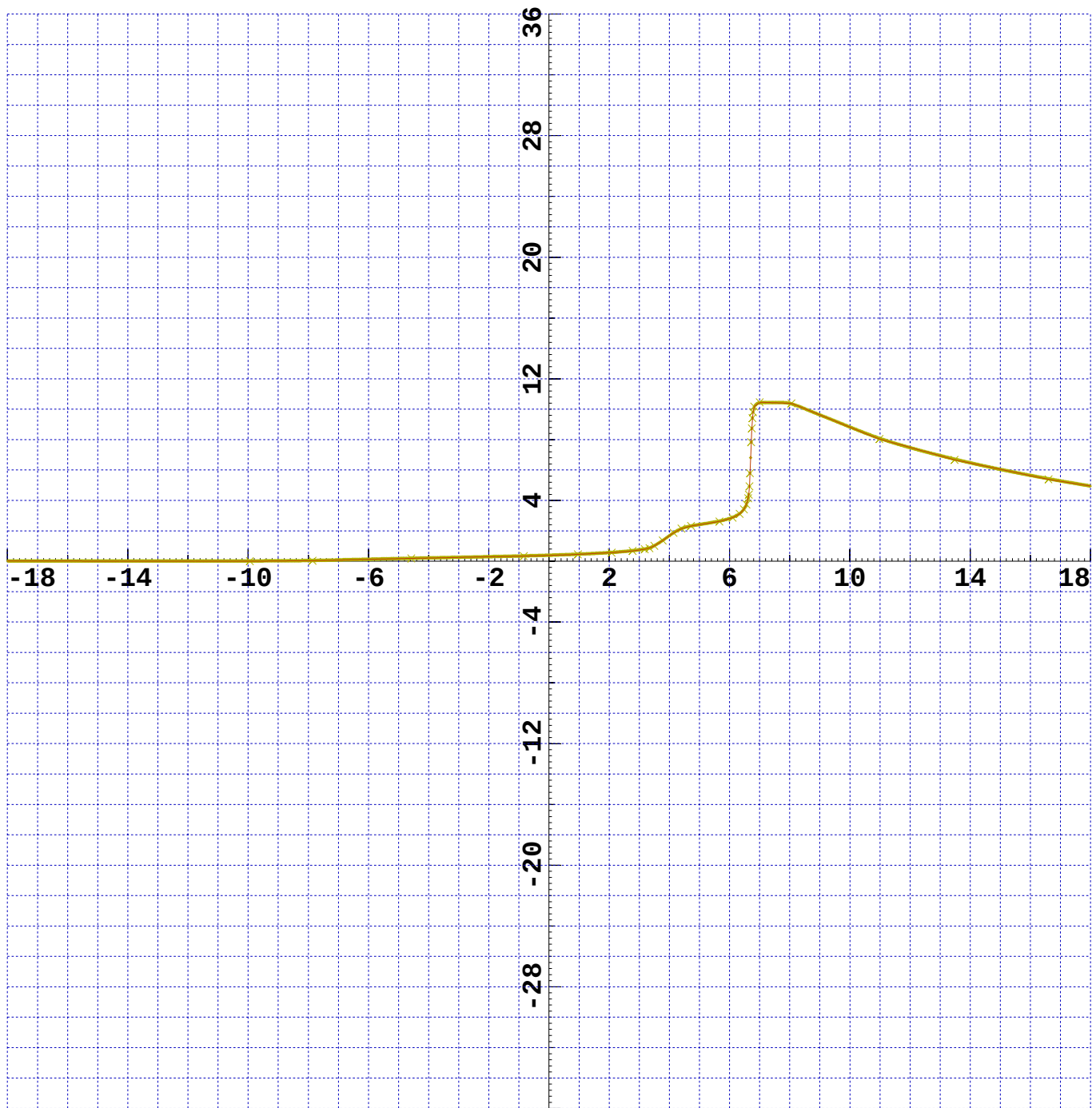
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZRr

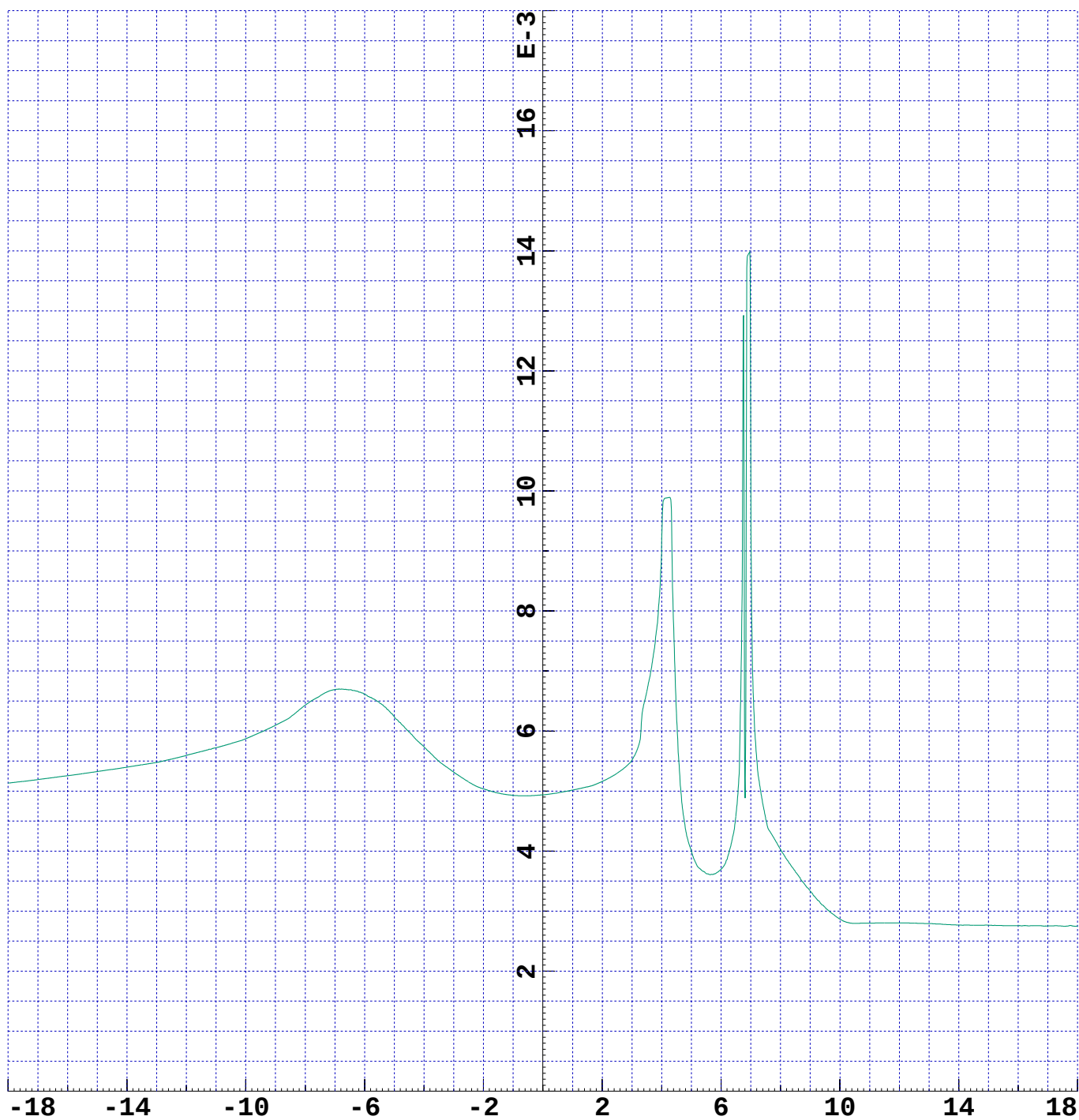
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZR1

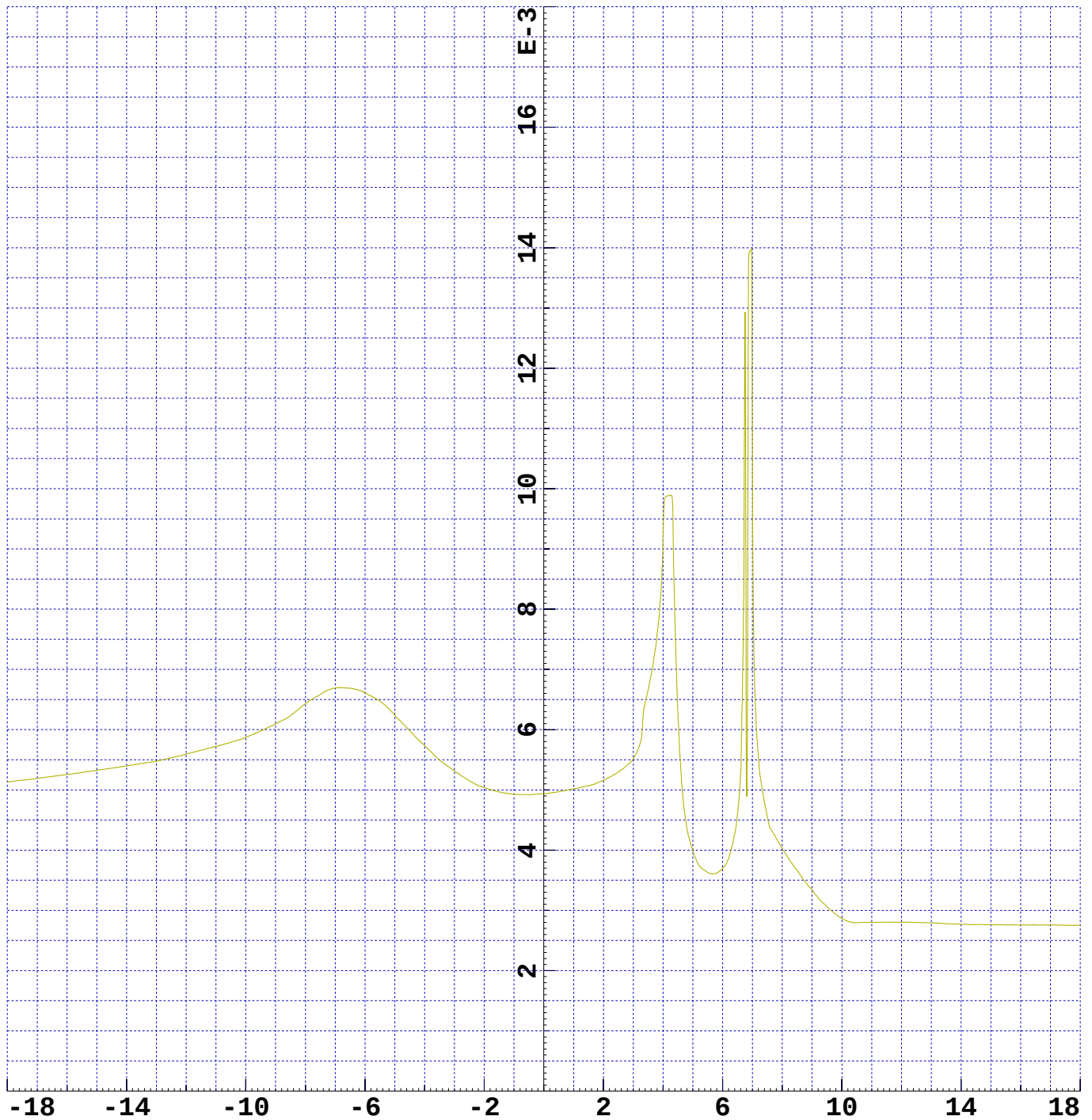
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
 Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
 Wprof_lat_shift= 0 Gauge= 1425-1441

C_r

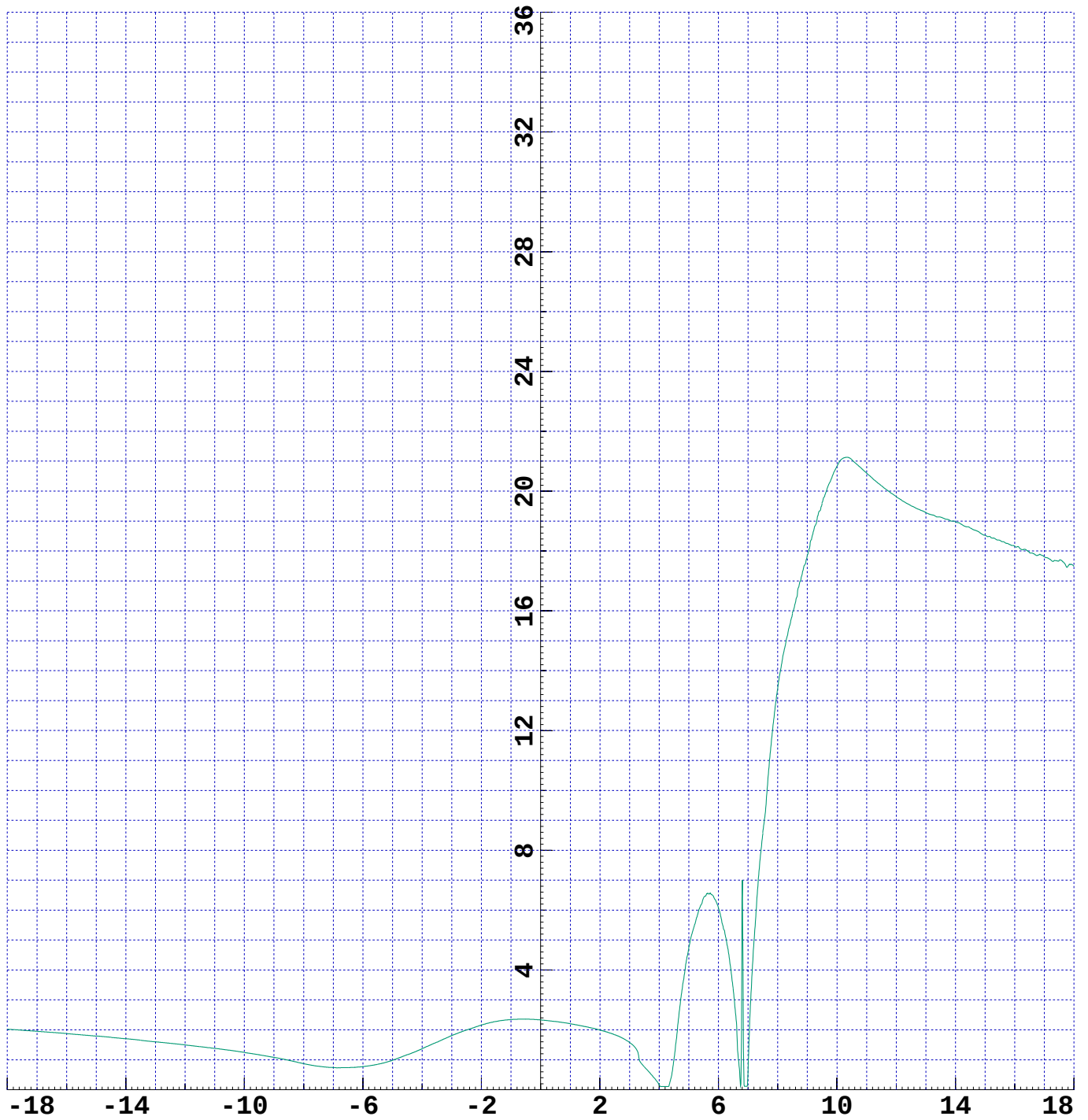
Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

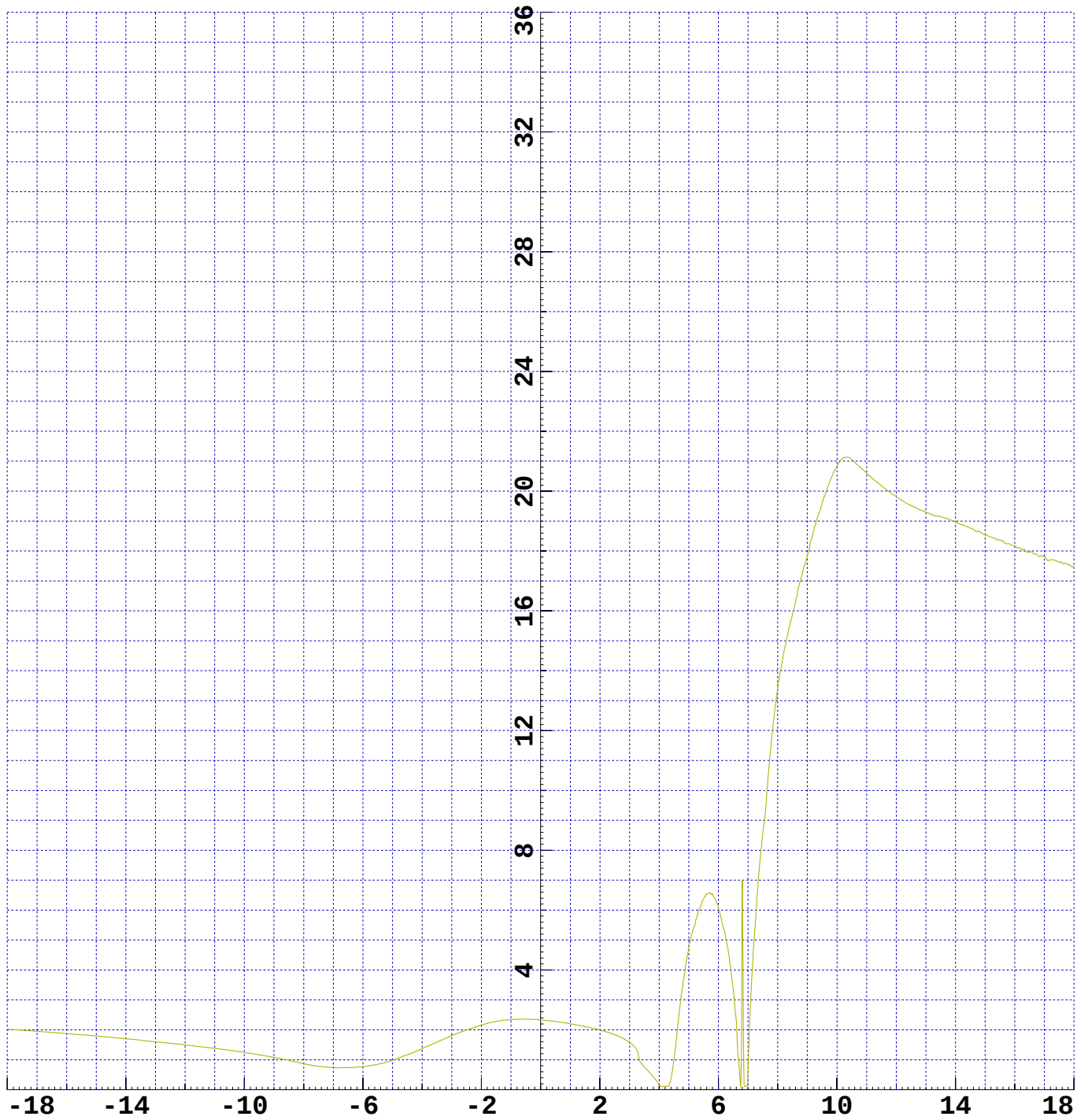
C_1

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel A/B_r
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

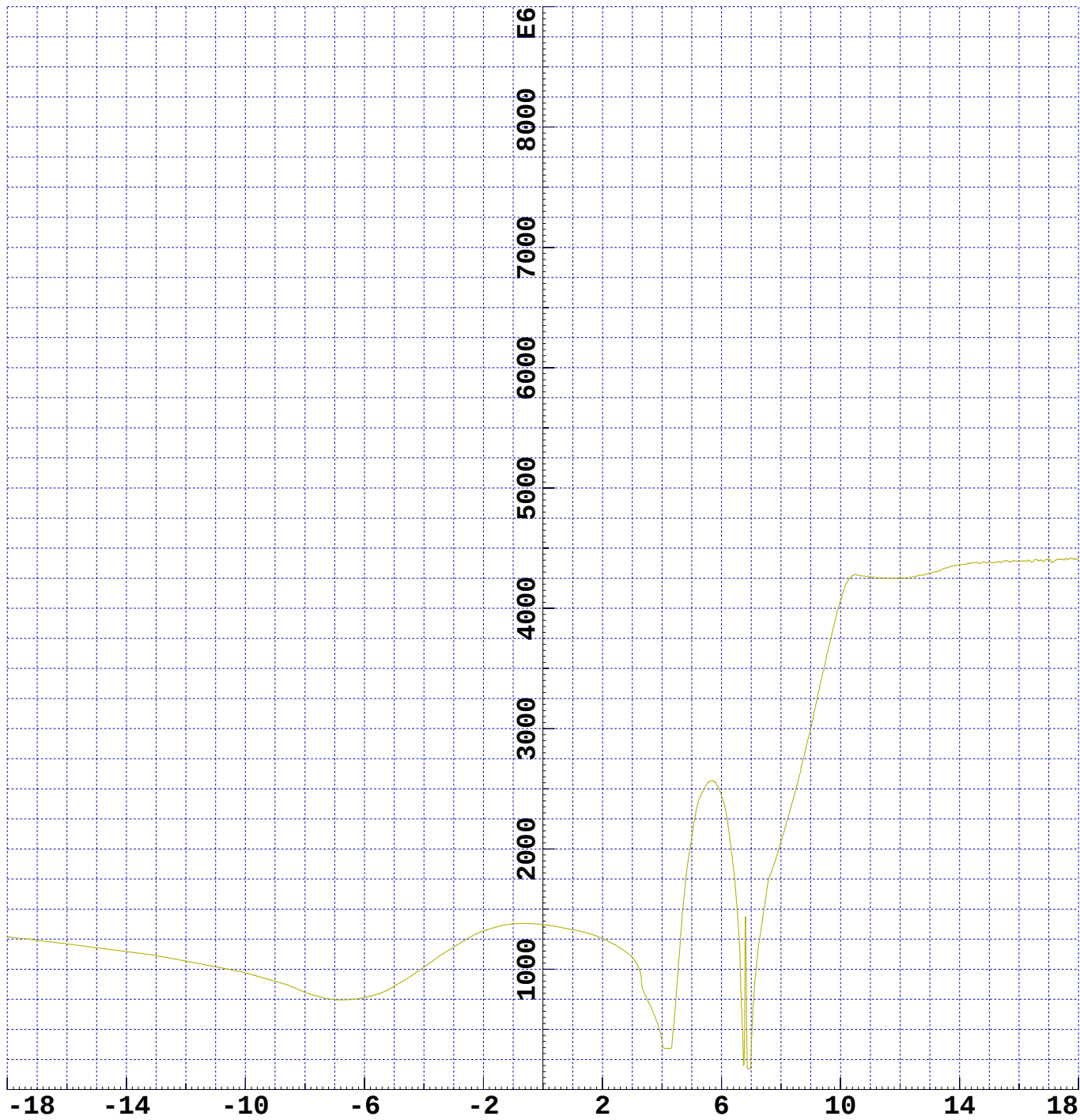
A/B_1

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **SIGMAR**
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **SIGMA1**
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013

Gauge= 1425 —
 1427 —
 1429 —
 1431 —
 1433 —
 1435 —
 1437 —
 1439 —
 1441 —

Radial Steering Index

× = $\Delta r_E = 3.67$ left curve

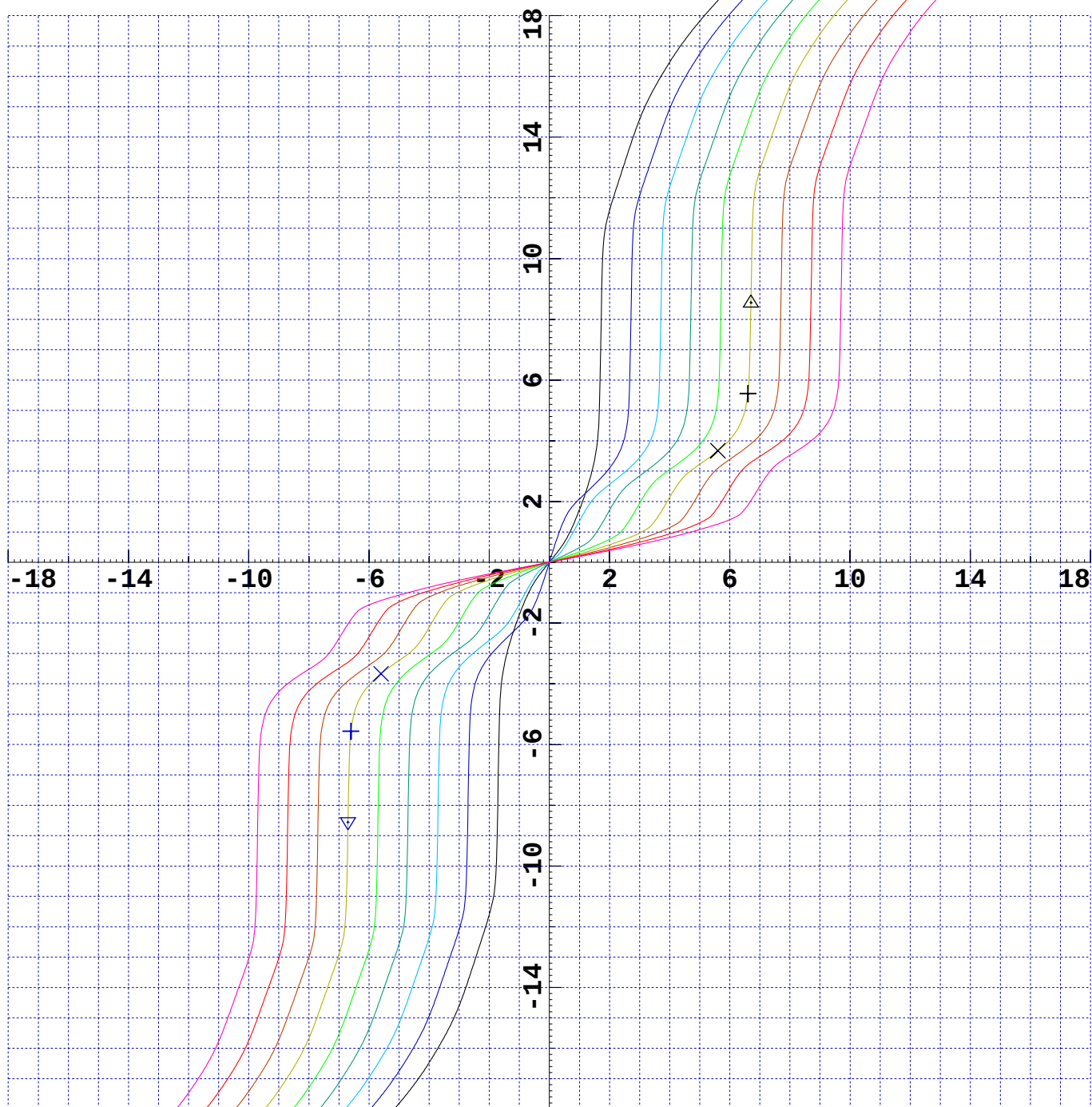
× = $\Delta r_E = 3.67$ right curve

+ = $A0r = 6.60$ 5.55

+ = $A0l = -6.60$ -5.56

possibility of
rolling without
slip

discontinuity
point



△ = 0.1mm right of +discontinuity
 ▽ = 0.1mm left of -discontinuity

Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel

Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail

wprof_lat_shift=0 Gauge= 1425-1441

rr-rl

Ident: kpfr_013

GENSYS-KPF.1308

Delta_Y=

.1

.5

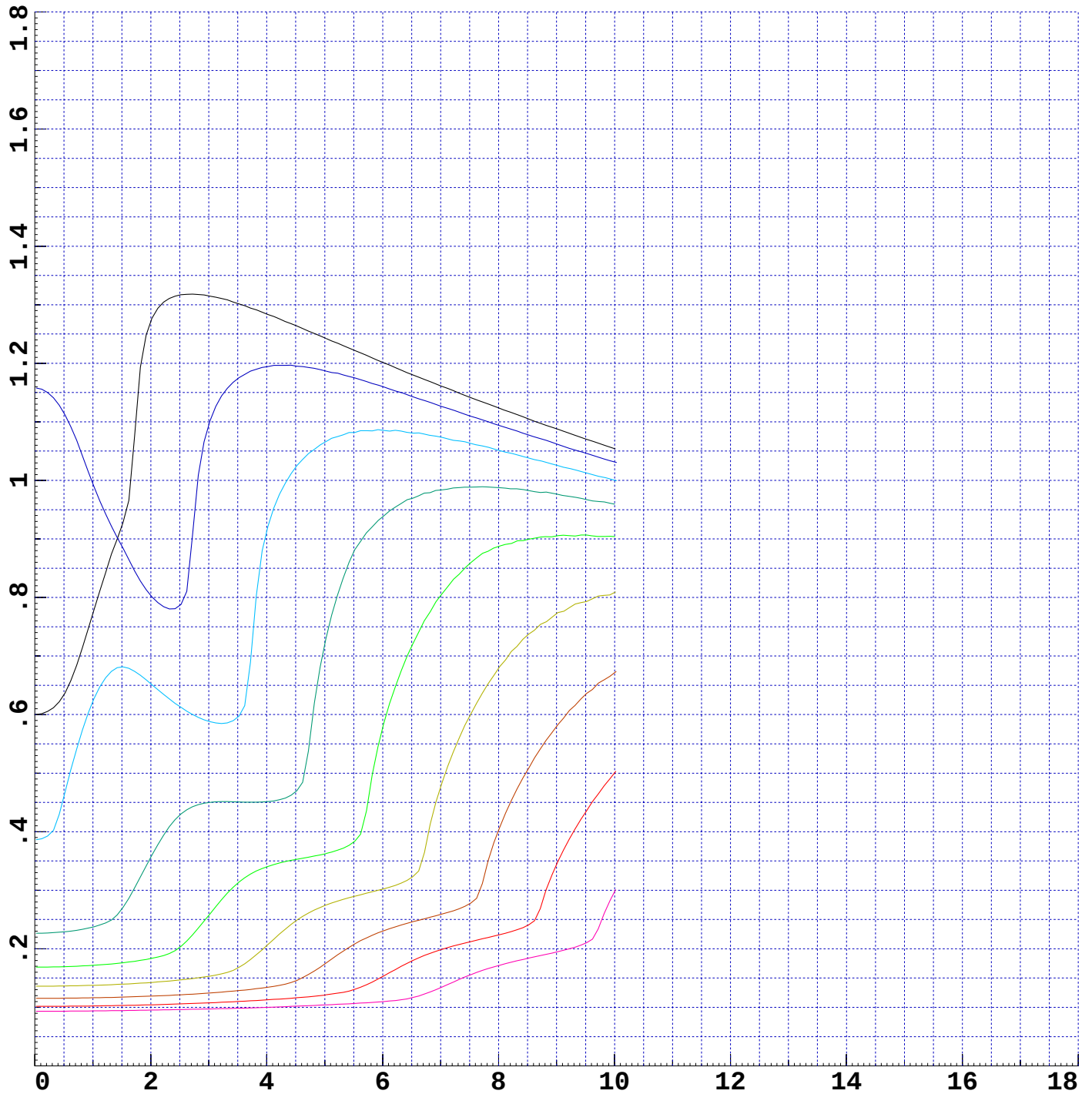
2

3

4

6

Gauge=	1425	—	.602	.634	1.271	1.315	1.284	1.202
	1427	—	1.156	1.115	.804	1.094	1.194	1.160
	1429	—	.388	.460	.653	.588	.913	1.086
	1431	—	.227	.229	.356	.450	.451	.938
	1433	—	.169	.170	.184	.257	.340	.577
	1435	—	.136	.137	.143	.153	.205	.302
	1437	—	.116	.116	.119	.124	.134	.230
	1439	—	.102	.102	.104	.108	.113	.153
	1441	—	.093	.093	.095	.097	.100	.110



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel

Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail

wprof_lat_shift= 0 Gauge= 1425-1441

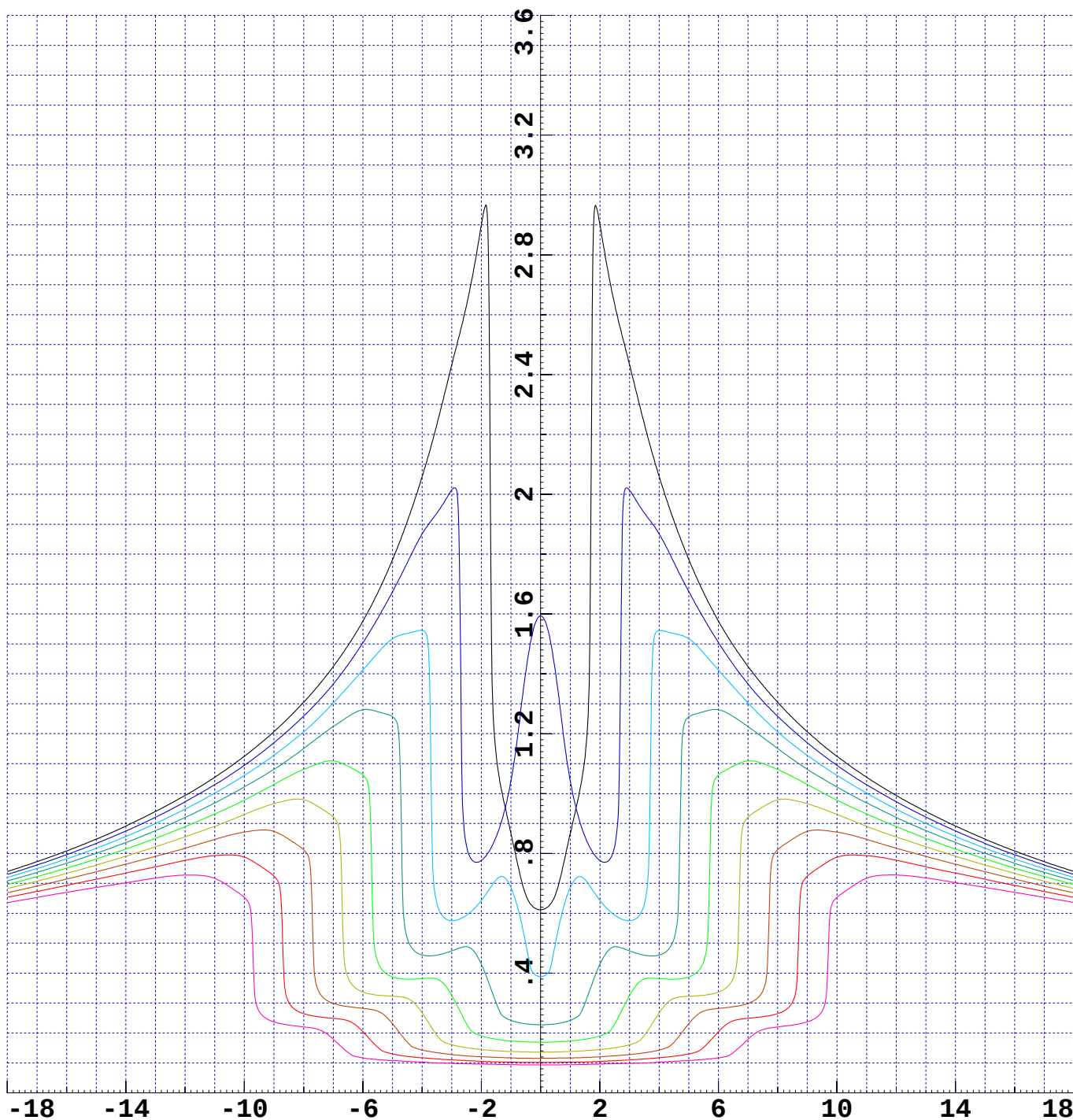
UIC519

Ident: kpfr_013

GENSYS-KPF.1308

Delta_Y=

		.1	.5	2	3	4	6
Gauge=	1425	.613	.661	2.900	2.432	2.059	1.576
	1427	1.586	1.407	.776	2.014	1.867	1.504
	1429	.390	.499	.643	.575	1.545	1.413
	1431	.227	.230	.430	.474	.461	1.280
	1433	.169	.170	.190	.325	.382	1.062
	1435	.136	.137	.145	.161	.267	.337
	1437	.116	.116	.121	.128	.143	.282
	1439	.102	.102	.105	.110	.117	.204
	1441	.093	.093	.096	.098	.102	.117



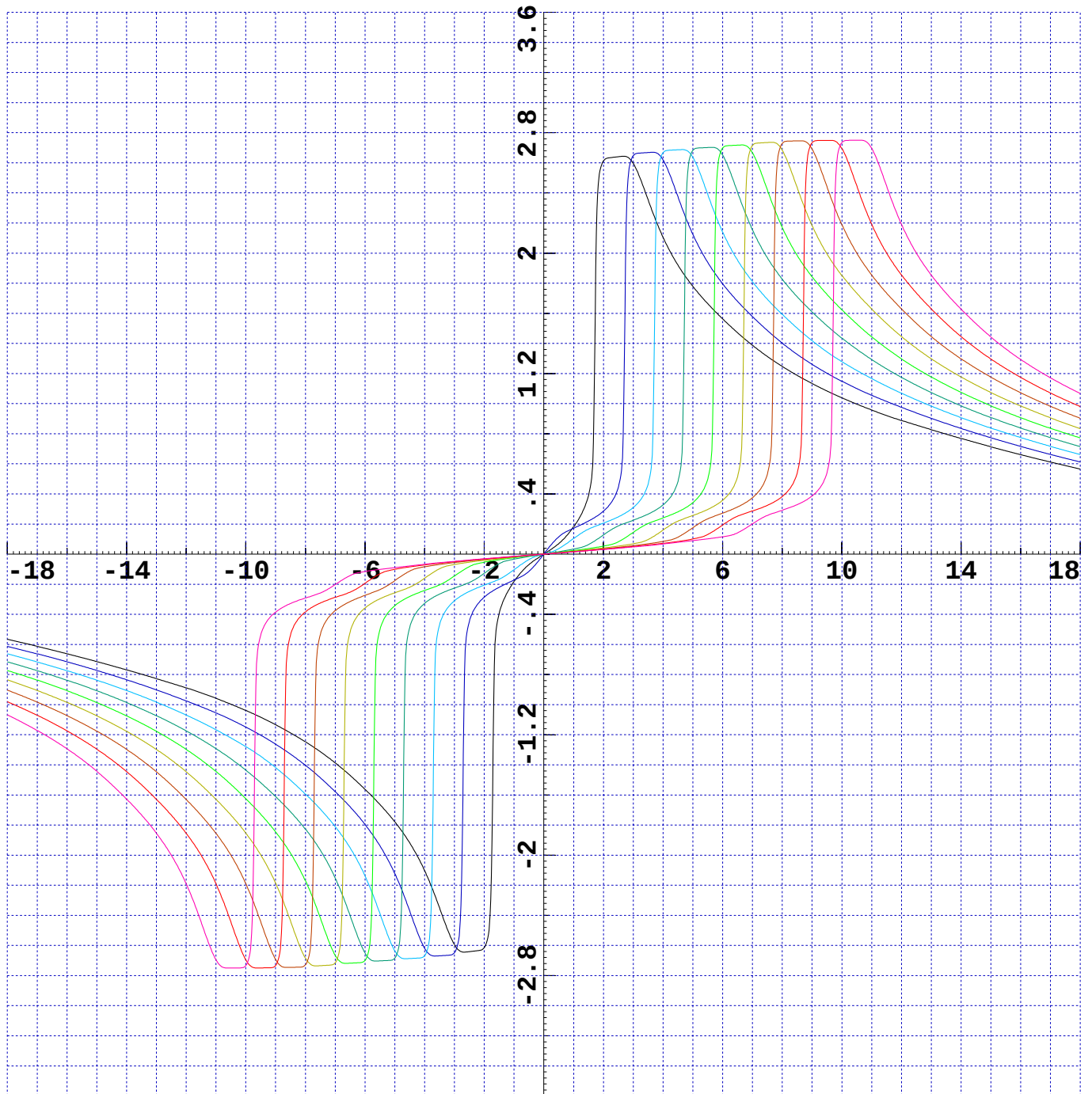
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
 Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
 wprof_lat_shift= 0 Gauge= 1425-1441

lambda

Ident: kpfr_013

GENSYS-KPF.1308

Gauge= 1425 —
 1427 —
 1429 —
 1431 —
 1433 —
 1435 —
 1437 —
 1439 —
 1441 —

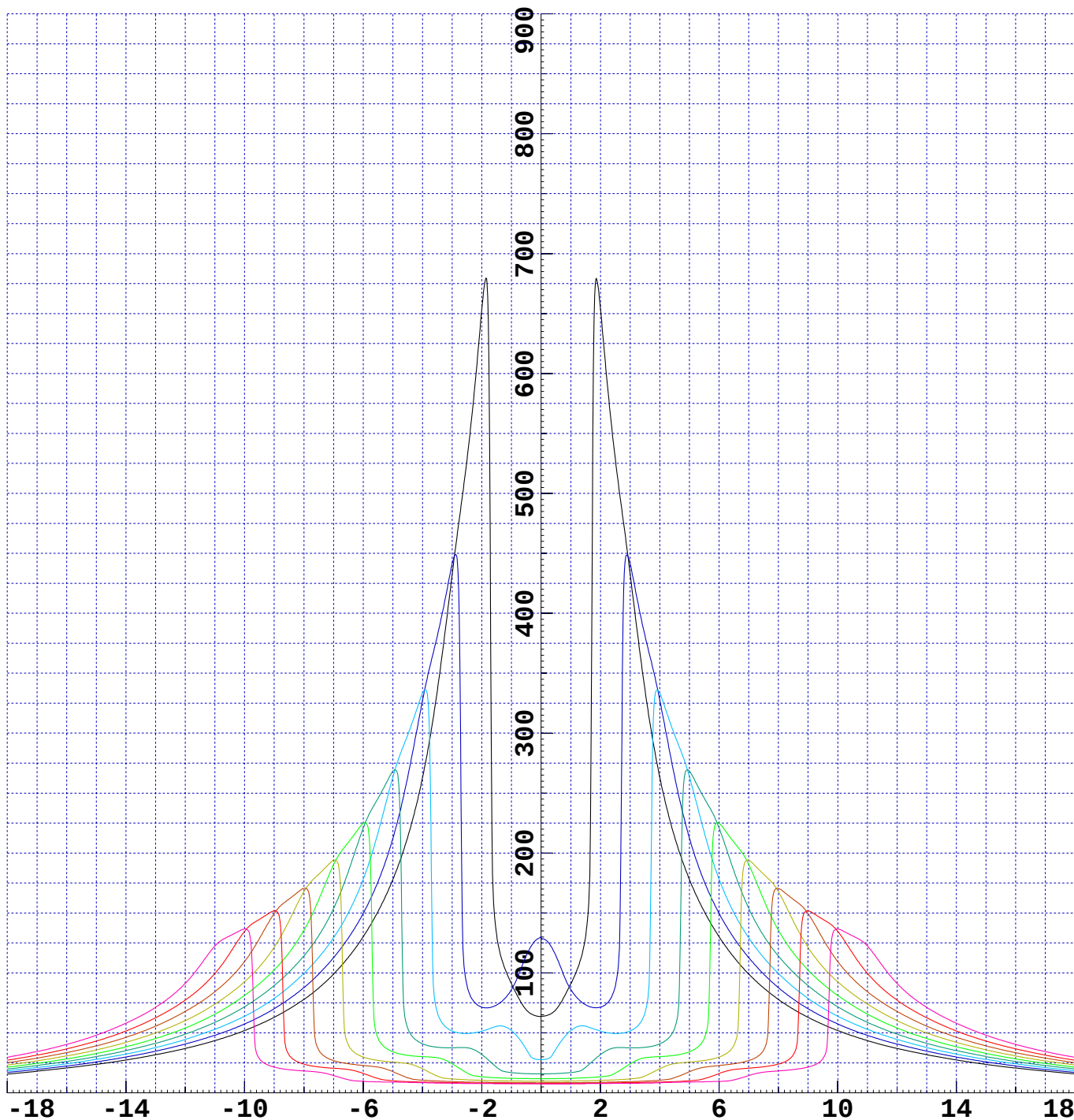


Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel $\tan_Ga$
 Left rail: $r_prof/SEC013_l.short.rail$ Right rail: $r_prof/SEC013_r.short.rail$
 Wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_013

GENSYS-KPF.1308

Delta_Y=		.1	.5	2	3	4	6
Gauge= 1425	—	63.89	69.28	653.50	432.53	263.01	130.21
1427	—	128.17	114.24	71.44	441.31	327.42	149.64
1429	—	27.79	36.28	51.49	51.66	333.44	178.28
1431	—	15.81	16.04	32.01	37.60	40.88	220.95
1433	—	11.81	11.88	13.37	24.18	30.15	224.86
1435	—	9.69	9.72	10.31	11.51	20.01	29.81
1437	—	8.44	8.46	8.81	9.38	10.54	22.75
1439	—	7.73	7.75	8.01	8.41	8.99	16.11
1441	—	7.43	7.44	7.71	7.95	8.37	9.57



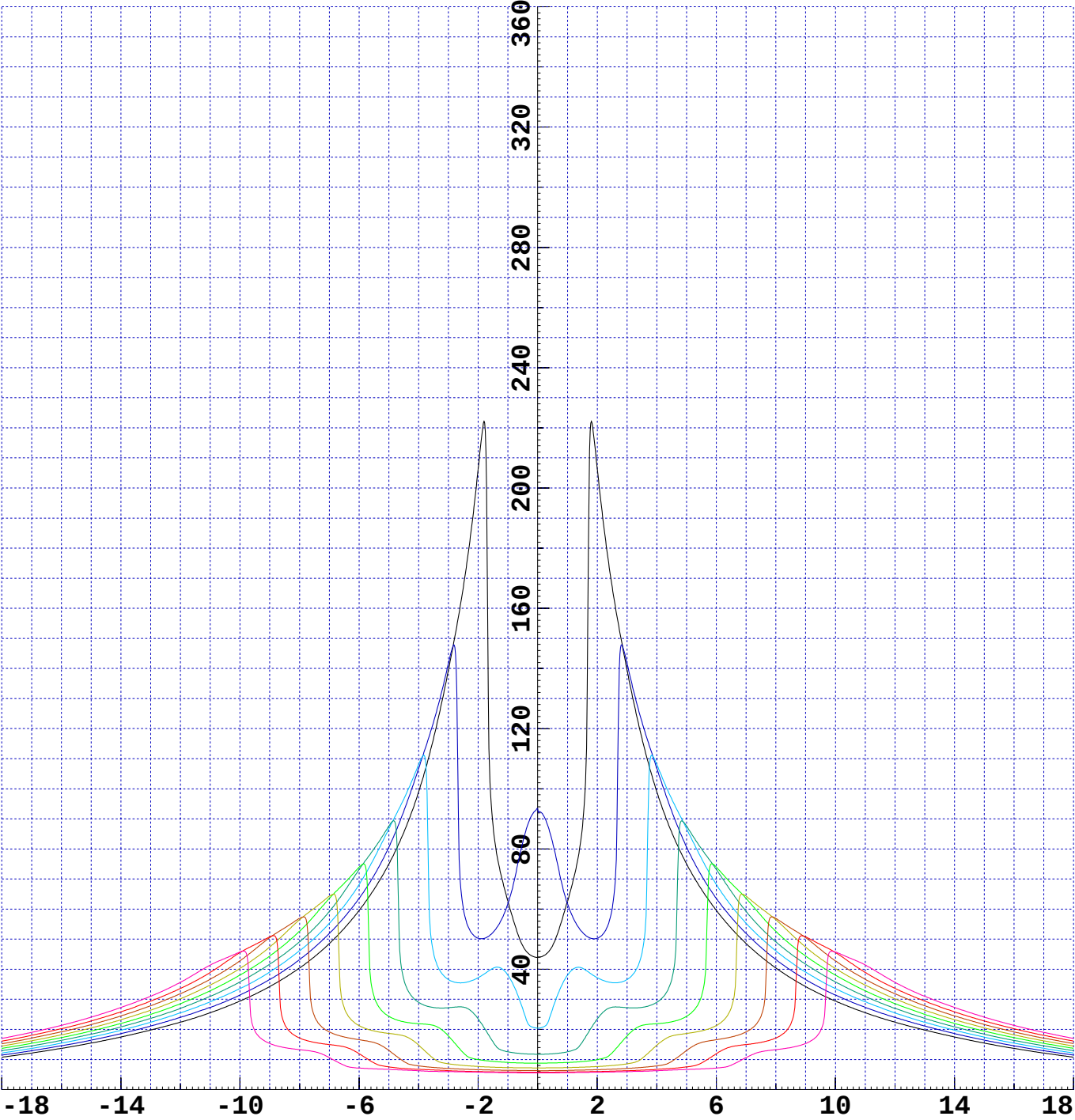
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
 Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
 wprof_lat_shift= 0 Gauge= 1425-1441

KAPPA

Ident: kpfr_013

GENSYS-KPF.1308

Delta_Y=		.1	.5	2	3	4	6
Gauge= 1425	—	44.12	47.79	206.22	139.40	98.97	59.57
1427	—	92.26	82.22	50.33	141.66	106.80	63.56
1429	—	20.54	26.77	37.16	36.55	108.08	68.17
1431	—	11.74	11.91	23.52	27.22	29.01	73.20
1433	—	8.79	8.84	9.94	17.80	21.87	73.97
1435	—	7.22	7.24	7.68	8.57	14.75	21.25
1437	—	6.30	6.32	6.58	6.99	7.85	16.56
1439	—	5.78	5.79	5.99	6.28	6.71	11.91
1441	—	5.56	5.57	5.76	5.95	6.26	7.14



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel
Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

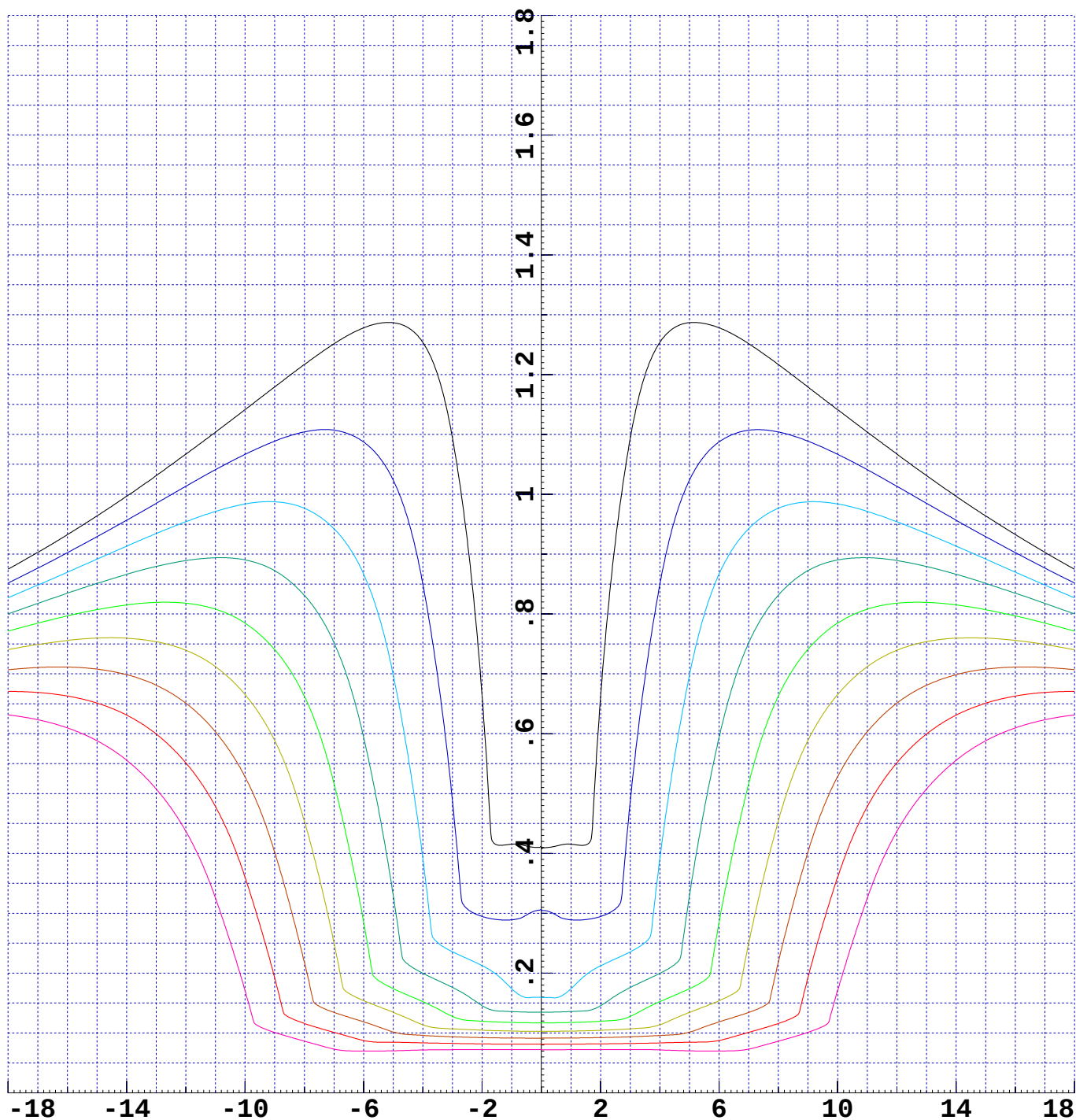
EPS

Ident: kpfr_013

GENSYS-KPF.1308

Delta_Y=

		.1	.5	2	3	4	6
Gauge=	1425	.41	.41	.66	1.09	1.25	1.28
	1427	.30	.30	.29	.49	.85	1.09
	1429	.16	.16	.21	.24	.39	.87
	1431	.13	.13	.15	.18	.20	.59
	1433	.12	.12	.12	.13	.15	.29
	1435	.10	.10	.10	.11	.11	.15
	1437	.09	.09	.09	.09	.10	.12
	1439	.08	.08	.08	.08	.08	.09
	1441	.07	.07	.07	.07	.07	.07



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel

Left rail: r_prof/SEC013_l.short.rail Right rail: r_prof/SEC013_r.short.rail

wprof_lat_shift= 0 Gauge= 1425-1441

RollAC

Ident: kpfr_013