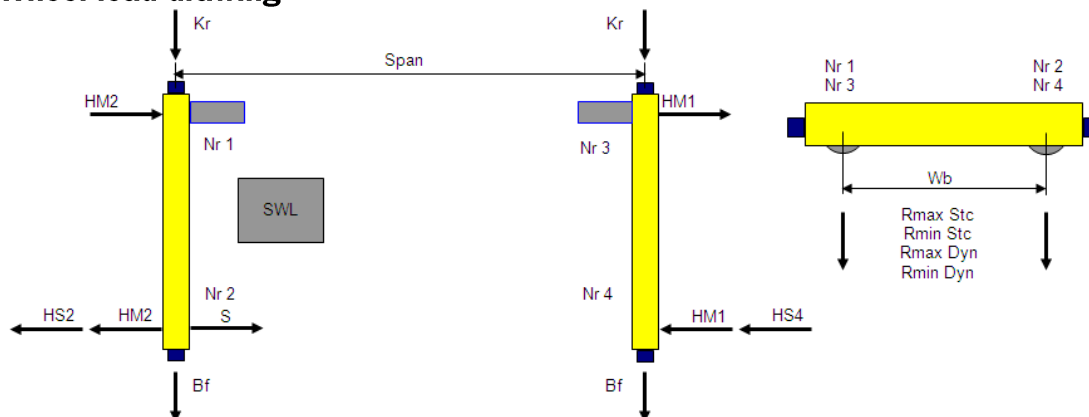


CRANE WHEEL LOAD DATA

1 Wheel load drawing



2 Crane information

Crane type	CXTS1t x 14m Hol:6m	Buffer type	D1801
Span (Spa)	14.000 m	Wheel base (Wb)	2 000 mm
Load (SWL)	1 000 kg	Crane rail in calculation	50*30
Crane group	FEM A3	Wheel groove	60 mm
Crane speed	40 m/min		
Crane weight	2 040 kg	Crane travel limit switch	2-step

3 Hoist information

Hoist	Hoist type	Hoist group	Hoisting speed
Hoist 1 Main	CXT20410016P1	ISO M6	5/0.83 m/min
Hoist 1 Aux			

4 Vertical wheel loads

Wheel	NR1	NR2	NR3	NR4
Rmax Stc	9.9 kN	10.4 kN	-	-
Rmin Stc	-	-	4.2 kN	4.7 kN
Rmax Dyn	11.1 kN	11.6 kN	-	-
Rmin Dyn	-	-	4.6 kN	5.1 kN

5 Horizontal wheel loads (according to DIN 4132 + 15018 and FEM)

5.1 Inertia forces (from driving mechanisms)	HM1 = 0.5 kN	HM2 = 1.2 kN
5.2 Max. Wheel loads along each crane runway		Kr = 0.2 kN
5.3 Buffer force for dimensioning the crane runway end stop		Bf = 19 kN
5.4 Forces coming from skewing		
5.4.1 Guiding (contact) force (S= HS2 + HS4)		S = 4.3 kN
5.4.2 Friction forces due to oblique travel	HS2 = 3.1 kN	HS4 = 1.2 kN

Note! The inertia forces are acting on the crane structure only during acceleration and deceleration of the crane movement. Inertia forces and guiding forces do not act simultaneously. Guiding force S can also locate in wheel NR4.