Props
According to DIN 4424

Props of steel with extensions to DIN 4424.
The usable resistance, i.e. the normal loading capacities for props are:

For N props (normal type):

perm. $F_N = 40 \cdot \frac{\max l}{l^2}$ in kN

but

perm. $F_N \leq 30$ kN

For G props (heavy type):

perm. $F_G = 60 \cdot \frac{\max l}{l^2}$ in kN

but

perm. $F_G \leq 35$ kN

Where:
l = existing extension length in m
max. l = maximum extension length in m according to prop size (see DIN 4424).

Permissible prop load (kN) according to DIN 4424

Extend. Length l [m]	DS 260N 1.51-2.60	DS 300N 1.71-3.00	DS 350N 1.96-3.50	DS 410G 2.31-4.10	DS 490G 2.71-4.90	DS 550G 3.04-5.50
1.60	30.0					
1.70	30.0	30.0				
1.80	30.0	30.0				
1.90	28.8	30.0				
2.00	26.0	30.0	30.0			
2.10	23.6	27.2	30.0			
2.20	21.5	24.8	28.9			
2.30	19.7	22.7	26.5	35.0		
2.40	18.1	20.8	24.3	35.0		
2.50	16.6	19.2	22.4	35.0		
2.60	15.4	17.8	20.7	35.0		
2.70		16.5	19.2	33.7	35.0	
2.80		15.3	17.9	31.4	35.0	
2.90		14.3	16.6	29.3	35.0	
3.00		13.3	15.6	27.3	32.7	35.0
3.10			14.6	25.6	30.6	34.3
3.20			13.7	24.0	28.7	32.2
3.30			12.9	22.6	27.0	30.3
3.40			12.1	21.3	25.4	28.5
3.50			11.4	20.1	24.0	26.9
3.60				19.0	22.7	25.5
3.70				18.0	21.5	24.1
3.80				17.0	20.4	22.9
3.90				16.2	19.3	21.7
4.00				15.4	18.4	20.6
4.10				14.6	17.5	19.6
4.20					16.7	18.7
4.30					15.9	17.8
4.40					15.2	17.0
4.50					14.5	16.3
4.60					13.9	15.6
4.70					13.3	14.9
4.80					12.8	14.3
4.90					12.2	13.7
5.00						13.2
5.10						12.7
5.20						12.2
5.30						11.7
5.40						11.3
5.50						10.9

Permissible prop load (kN) according to DIN 4424

HL 300 1.71-3.00	HL 410 2.31-4.10	HL 500 2.81-4.95
30		
	30	
		30

The adjusting lengths are approximate values according to manufacturer.