

ZDL Tension-Compression Tie-Rods

Technical Description

Application

Tension-compression tie-rods are designed to maintain the load cells of electronic weighing systems in a plumb position, restrain the load receptor in the horizontal plane, and absorb horizontal (side) forces. Tie-rods may be used in conjunction with load cell mounts of PSL, DSL, DGL, or DHL types. They are, as a rule, applied when larger side forces occur; for instance, to in-line (roller table) scales, scale cars, hopper scales with piping connections, etc. The size of tie-rods is determined according to the maximum occurring side forces.

Description

Tension-compression tie-rods are fitted with two ball joints and capable of taking tension or compression forces occurring in an axial direction. In the vertical direction and sidewise tie-rods are movable.

To restrain the load receptor, as a rule, three tie-rods are provided, arranged such that they are capable of absorbing side forces from any direction and moments in the horizontal plane. See Figs. 1, 2, and 3. Figs. 4 and 5 show how tie-rods are attached.

The horizontal alignment of tie-rods during field assembly must be carried out with special care, to ensure that no vertical weight force components are lost in weighing.

Arrangement Examples for Load Cells and Tie-Rods



FIG. 1

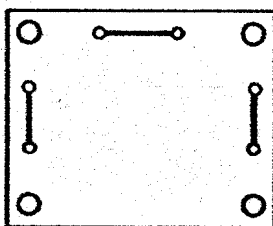


FIG. 2

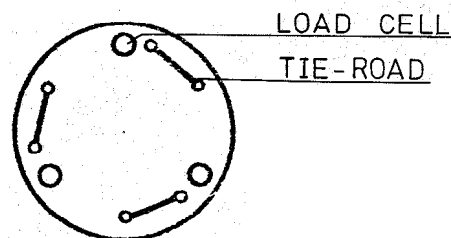
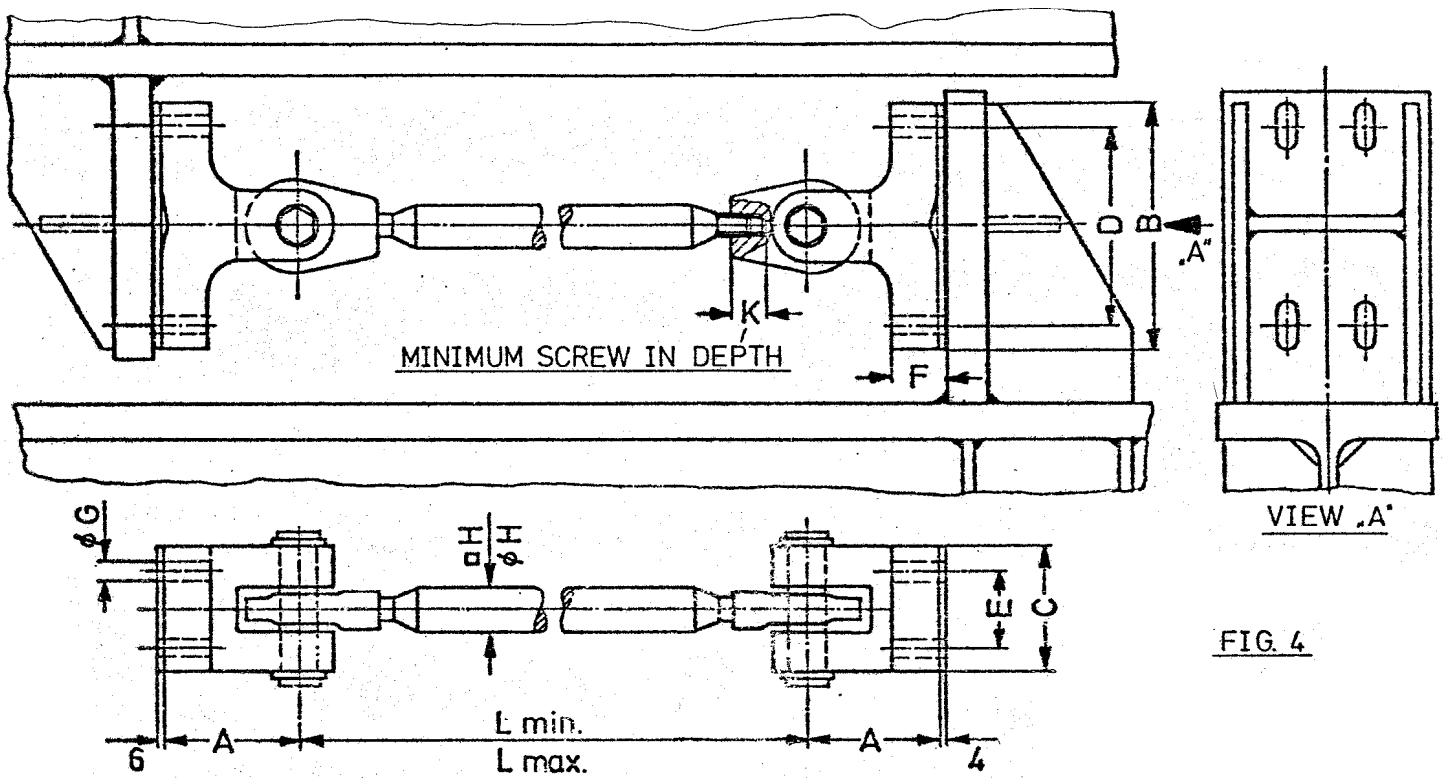


FIG. 3



CAPACITY t	L min.	L max.	A	B	C	D	E	F	φG	H	φH	K	M
0,5	250	1200	45	86	40	70	25	15	9	25		12 ⁺¹⁰	15
0,7		1300	55	100	50	80	30	20	9	30		17 ⁺¹⁰	15
1,25		1400	70	135	60	110	36	25	11	40		23 ⁺¹⁰	30
2,5	350	800	85	160	80	130	52	30	14		30	15 ⁺²	30
4,5		900	100	190	120	150	76	35	18		35	21 ⁺²	60
8	400	1300	130	260	140	210	90	45	26		50	34 ⁺²	60
15	500	1800	155	350	200	280	128	50	33		70	57 ⁺²	60
30	600	2300	180	410	220	330	142	60	39		90	79 ⁺²	100

