PIAB DYNAMOMETERS (MADE IN SWEDEN)

The PIAB Dynamometer is excellent for measurement and control of tension forces, where accuracy, reliability and safety in all conditions is required.

The PIAB Dynamometer is extremely robust and reliable instrument and is an all-weather instrument.

TECHNICAL DATA

ACCURACY: ±0.6% of the max. capacity
WORKING TEMPERATURE: Max.+60°C
TAREING: The dynamometer can be tarred to approx.10% of the full scale.

To obtain best accuracy the dynamometer should be supplied calibrated for a known tare.

SCALE: White lacquered with black graduation.
PROTECTION CLASS: IP 67, IEC 529 NEMA 4X

Range of Application

The PIAB Dynamometer is an all-weather instrument, equally suitable for use in the laboratory as out in the field for weighing and measuring mechanical forces.

Function

The pull rod movement operates the scale drum through a square thread stem.

The power-absorbing element consists of specially made Belleville type spring washers, designed to be entirely free from wear. The spring washers cannot be overloaded.

Safety

Safety factor 5:1, guaranteed to withstand a load of 5 times full scale reading before rupture.

The resistance to rupture is tested by the National Swedish Institute for Materials Testing.

The PIAB Dynamometer may be overloaded by 100% without impairing the accuracy.

The PIAB Dynamometers, types M-G, have drop-forged steel eye brackets (SIS 2174, St 52-3N acc. to DIN 17100, 50 D acc. to BS 4360); giving a guaranteed impact resistance to -20°C.

The O-ring of the pull rod is protected by a neoprene rubber membrane.

On instantaneous unloading, e.g. breaking test, the return movement of the pull rod is retarded by a specially made spring washer. The PIAB Dynamometer is approved by the National Board of Occupational Safety and Health for integral connection in the carrying system of a lifting device and for weighing of test loads in connection with inspection.

Dynamometer for remote reading

The PIAB Dynamometer used for remote reading is supplied with a built-in precision potentiometer. The potentiometer is directly connected to the scale mechanism of the PIAB instrument.

The electrical resistance of the potentiometer varies in proportion to the load on the dynamometer.

The resistance is indicated on a receiving instrument, calibrated individually and marked with the same serial number as the dynamometer.

The electrical connections are made on a connection block in a surface mounted connection box.

Contact function

The PIAB Dynamometer can be equipped with a built-on adjustable Switch Head. Using a Microswitch, which is directly influenced by the pull rod, the PIAB Dynamometer gives an electrical contact function at a preset value. For further technical specifications please refer to PIAB Info 9116-1 PIAB Switch Head Dynamometer.

Protection against corrosion

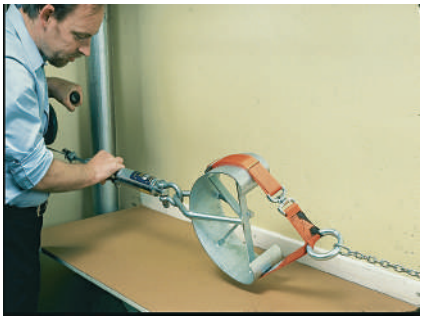
The PIAB Dynamometer is fully pressure tight and each instrument is pressure tested.

The external surfaces are zinc plated with clear chromate passivation.

If the PIAB Dynamometer is to be used in a very corrosive atmosphere, it can be polyester lacquered.

APPLICATIONS FOR THE PIAB DYNAMOMETER

In line construction it is important to control the installed tension of conductors according to type and conditions. For field work light and robust equipment is especially important. The PIAB Dynamometers are used for this duty all over the world.



Obligatory standards of control for occupational safety and health require that safety ropes and belts are regularly and properly checked.

This electrical overhead traveling crane is protected against overload by a PIAB Dynamometer in the hook line anchorage, giving the crane operator the actual load on the hook together with overload warnings and power shunt.

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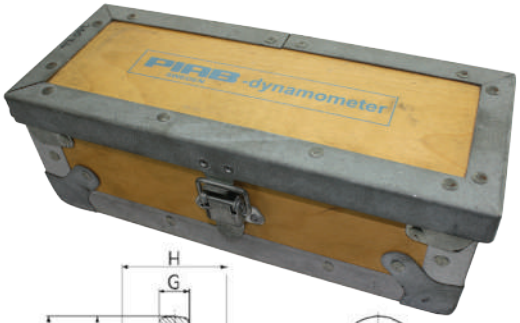
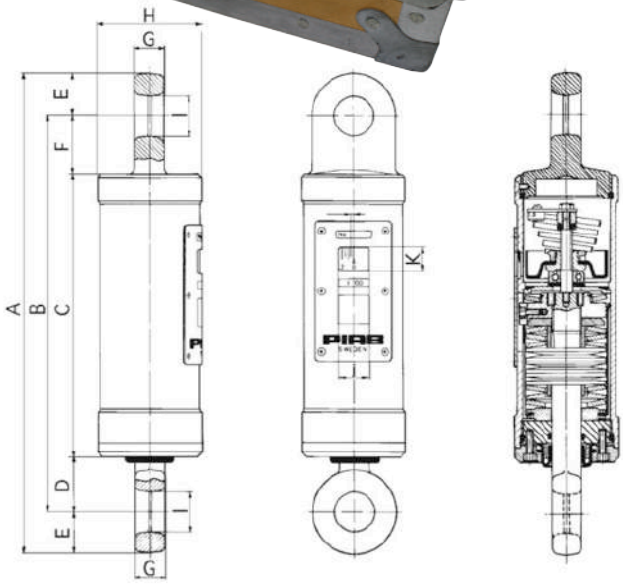
Darwin (08) 8984 4453 Melbourne (03) 9761 4199 Perth (08) 9354 8544 Port Hedland (08) 9172 1113 Tasmania 0427 423 217

PIAB DYNAMOMETER FUNCTION

The pull rod movement operates the scale drum through a square thread stem. The power-absorbing element consists of specially made Belleville type spring washers, so designed as to be entirely free from wear. The spring washers cannot be overloaded. The PIAB Dynamometer can be overloaded with 100% without affecting the accuracy.

- Can temporarily be overloaded by 100% without affecting the accuracy.
- Fully pressure tight, and each instrument is pressure tested.
- The PIAB Dynamometer can be equipped for remote reading or contact functions (micro switches).
- Available with polyester lacquering for use in very corrosive environment (optional).





Model No.	TYPE	Capacity	Graduations	Weight	Measurements in mm									
		kg/N	1	Mm	Kg	A	B	C	D	E	F	G	H	I	J x K
300015 **300016**	K NK	250kg 2,500N	5 50N	2.2	1.9	266	230	165	42	18	23	20	50	17	24 x 20
300020 **300021**	A NA	500kg 5,000N	10 100N	2											
300025 **300026**	B NB	1,000kg 10kN	20 200N												
300230 **300231**	B x 1.5 NB x 1.5	1,500kg 15kN	50 250N	1.6	2.3	292	256	191	42	18	23	20	50	17	
300030 **300031**	M NM	2,000kg 20kN	25 500N	2.3	7.8	395	327	234	45	34	48	25	86	33	26 x 20
300035 **300036**	O NO	3,000kg 30kN	50 500N	2.5											
300040 **300041**	Q NQ	5,000kg 50kN	50 500N	2.5	15	413	329	230	45	42	55	30	122	40	
300045 **300046**	S SQ	10,000kg 100kN	100 1kN	3.5	26.5	495	385	260	60	55	65	45	149	56	
300050 **300051**	U NU	20,000kg 200kN	200 2kN	4.2	78	675	505	300	102	85	103	70	228	81	65 x 23
300055 **300056**	G NG	25,000kg 250kN	200 2.5kN												
300060 **300061**	E NE	50,000kg 500kN	250 2.5kN	2.7	115	831	631	387	123	100	121	95	231	115	