APEX DRAW FRAME TOP ROLLER LOAD GAUGE
USER'S MANUAL

In the brief case, you will find

1. Two dial blocks - one for left and one for the Right
2. Adaptors for your machines and
3. Nylon Rollers to suit your rubber cots

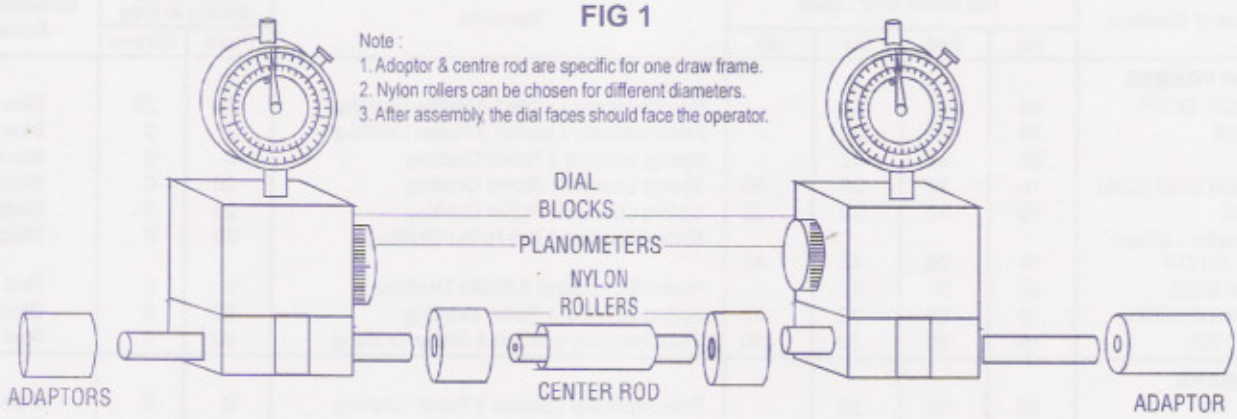
ASSEMBLY

1. Take the dial blocks from the box after releasing and place it on a table. Remove the protective plastic covers on ends.
2. Now, for the machine to be checked (e.g RSB, DO 6 etc) take the two appropriate end adaptors supplied. Slide them on to the lengthier rod side and push them till they touch the face.
3. Now, take the centre rod for the machine. Take also the Nylon rollers equal or nearly equal to the top roller cot on the machine. Push the rollers onto the ends of the centre rod.

Note : For RSB, VOUK, RETER D 30, HARA 500 etc only one roller is given. In these systems the centre rod and rollers have equal lengths.

4. This centre rod roller assembly is first slid on to the other smaller rod end of the left dial block. The other end of the centre rod fits with the right dial block. On completion, both the load dials will face the operator and there will be no gaps between dial block and centre rod. Keep the full assembly on the table gently.

FIG 1



ASSEMBLY

PREPARATION FOR MEASUREMENT

1. Check whether the pointers are showing zero. If not, slightly tap the gauges with the fingers. If still not, loosen the locknut of the dial and rotate the legal clockwise or anticlockwise to achieve zero, tap again when zero is set, tighten the locknut. This is the standard procedure for zero setting before every measurement. (See Fig 2)

Note :

- If zero is not coinciding with pointer slightly tap the dial with finger.
- If still not, loosen the dial lock nut and adjust the bezel to achieve pointer and zero coincidence. Tap again fine tune, Tighten.

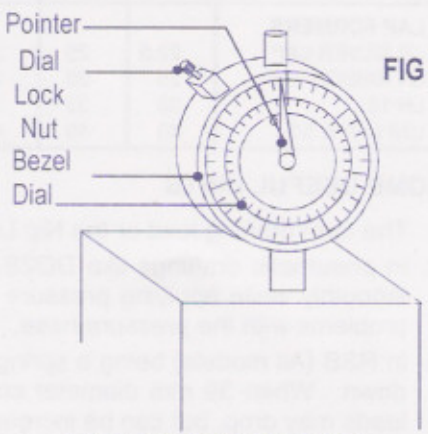


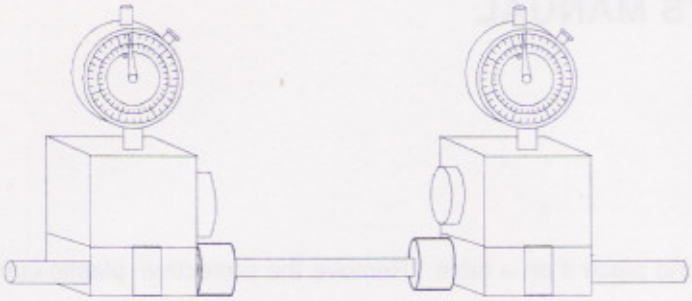
FIG 2

DIAL CONSTRUCTION & ZERO ADJUSTMENT

2. In the draw frame whose top roller loads are to be measured, remove the first top roller alone. Clean the bottom roller of all slivers and fluffs. Place the gauge in the saddle of the drafting as you will place the top roller. Hold gauge by hand. Now, apply the top arm load (Pneumatic of spring load). The pointer will deflect while checking, the planometer readings are to be kept at the appropriate angle of the stand inclination (For eg.) since RSB is a flat bed drafting, the planometer should read 0°. You will notice that swinging the gauge to and fro about the axis will change readings in planometer. Swing twice, and then steady at the correct angle. The reading in each load dial is the end load of the drafting for that end. (See fig. 3) Repeat step 1 and 2 for all rollers of the machine.

FIG 3

GUAGE ASSEMBLY ON MACHINE



CLOSE UP VIEW OF PLANOMETER

Note :

1. Swing the gauge about its axis to and fro
2. Adjust the gauge to the stand angle (The planometer reading and the roller stand angle should be equal). Both the planometers should read equally.

Note :

The pointer moves up or down according to the swing or inclination of the gauge assembly.

Selection of Scales : for various machines

Blue Scale : DO2S, DO6, E7/4, SLIVER LAP E2/4A, RIBON LAP E4/1A, RIETER UNILAP E5/3

Black Scale : RSB, HOWA DFK2CD, LK 250, PADMATEX, 4/3, 5/3, ZINSER 720, 730, RETER D30, LK 54, LH 10

Red Scale : Vouk, 802E, VS4, Hara 500, 600, Trutschler HSR 900, 1000

LOAD SETTING VALUES IN POPULAR DRAW FRAMES

Name of Machine	Top Roller End Loads				Remarks	Planometer Setting in Deg		Selection of Scale
	1st	2nd	3rd	4th		Front	Others	
DRAW FRAMES								
LR DO2, DO2S	40	40	40	-	Pneumatically Loaded 3 Roller Drafting	20	20	Blue
LR D06	20	20	20	-	Pneumatically Loaded 3 Roller Drafting	0	0	Blue
RSB	32	32	32	-	Spring Loaded 3 Roller Drafting	0	0	Black
RIETER D 30 (D35)	15	30	30	30	Spring Loaded 4 Roller Drafting	20	0	Black
LD A/2	15	32	32	32	Spring Loaded 4 Roller Drafting	20	0	Black
Padmatex / Zinser 4/3 & 5/3 D/F	14	26	40	40	Spring Loaded 4 & 5 Roller Drafting	20	0	Black
VOUK 802E	32	32	32	-	Hydraulic Loaded 3 Roller Drafting	0	0	Red
HOWA DFK2CD	10	35	35	35	Spring Loaded 4 Roller Drafting	20	0	Black
HSR 1000	15	30	30	30	Pneumatically Loaded 4 Roller Drafting	20	0	Red
COMBERS								
LR E 7/4	30	30	30	-	Pneumatically Loaded 3 Roller Drafting	0	0	Blue
LK 250	30	30	30	-	Spring Loaded 3 Roller Drafting	30	30	Black
LK 54	25	25	25	-	Pneumatically Loaded 3 Roller Drafting	60	60	Black
LAP FORMERS								
LR SILVER LAP	22.5	25	22.5	25	Pneumatically Loaded 4 Roller Drafting	0	0	Blue
LR RIBBON LAP	25	20	20	-	Pneumatically Loaded 3 Roller Drafting	0	0	Blue
LH 10	33	33	33	33	Spring Loaded 4 Roller Drafting	30	30	Black
UNI LAP E 5/3	40	50	60	-	Pneumatically Loaded 3 Roller Drafting	45	45	Blue

SOME USEFUL HINTS

1. The term drafting load or the Nip Load of a top roller is always the sum of the end loads.
2. In pneumatic draftings like DO2S, DO6, E7/4, E2/4A, E4/1A, while measuring, the pointer may not move up smoothly while applying pressure and may not release smoothly when air is cut off. This may be because of problems with the pressure hose. New hose replacement or the hook set will solve the problem.
3. In RSB (All models) being a spring loading system the end loads can be equalised by moving the hooks up and down. When 39 mm diameter cots are used the user may get 32.5 kg per end. As the size decreases, the loads may drop, but can be increased equally by using the hooks.
4. For Padmatex machines 4/3, 5/3

   The adapter for 5/3 and 4/3 are same for 1st, 2nd and last rollers. For 3rd roller it is different. The loads may be varied by using the tightening nut in the spring loading assembly at each end. If, after full tightening of the nut, the load is not reached, new springs may be used.

APEX

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