
spinlock
RIG-sense

RIG SENSE

Rig Tension Gauge

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Rig Tension gauge for repeatable rig settings - aids race set up and preparation.

Features

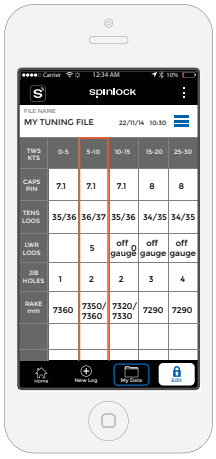
Loads on both wire and fibres
Diameter range 2-5mm ($^{3}/_{32}$ -$^{13}/_{64}$")
Direct Scale with Tension output
Composite calibrated leaf spring
Stainless steel contact points
Ergonomic Robust body
Compact size, durable and light
Easy one handed operation
Carry bag included

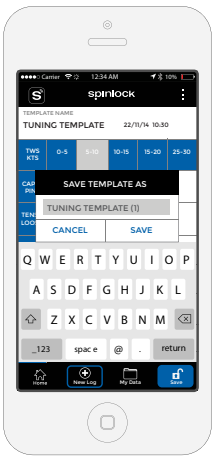
Part. No.	Description
RGS/0205	Rig Sense 2-5mm wire/cable

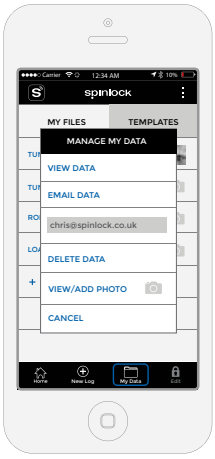
Rig Sense App

Rig Sense App (iOS and Android) allow users to work efficiently with their gauge, store and manage their data in a single place on smart phones and tablets.

Rig-Sense App – Using the Rig Sense, record data of critical settings to ensure repeatable race settings over differing conditions. Create custom templates to build settings from, add images and share and export data for later analysis with your class.





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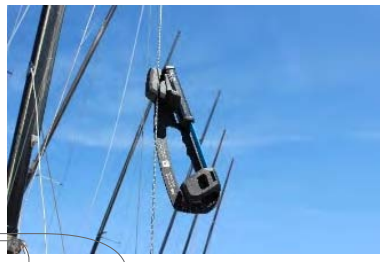
HOW TO USE

Rig-Sense is simple to use, but requires a procedure to get a consistent and accurate measurement.

1. Pull the top slider down fully.
2. Attach the Rig-Sense to the wire or cable making sure the slider is pushed fully up to connect with the wire. At this point, the Rig-Sense will be able to hang on the rig unsupported.
3. Now, using your thumb, push the bottom of the leaf spring so the wheel hooks on to the wire.
4. Your measurement can be read in KG from the pointer on the leaf spring.

Please refer to conversion charts at the back of this document to convert from Loos or LBS.



CAUTION

- Do not push the leaf spring beyond the scale.
- Do not leave out in direct sun light for prolonged periods.
- Wash the Rig-Sense off in fresh water if in contact with salt water.
- Do not leave Rig-Sense attached to a rig for long periods (i.e. days).
- Do not disassemble the Rig-Sense due to calibration.

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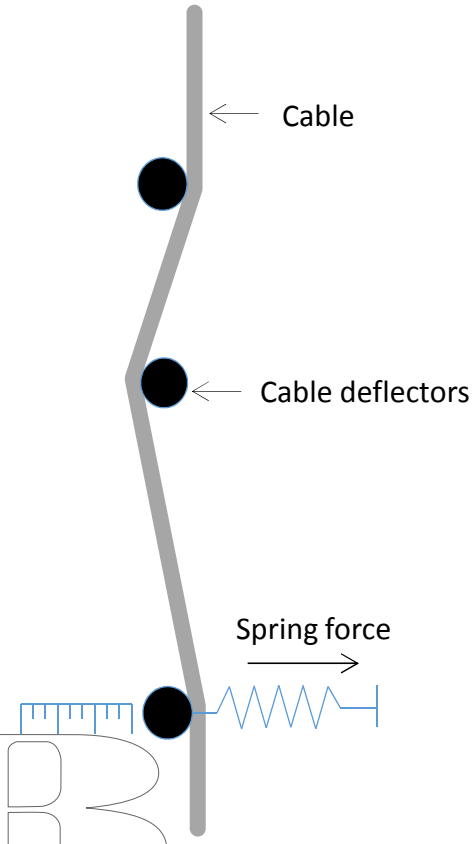
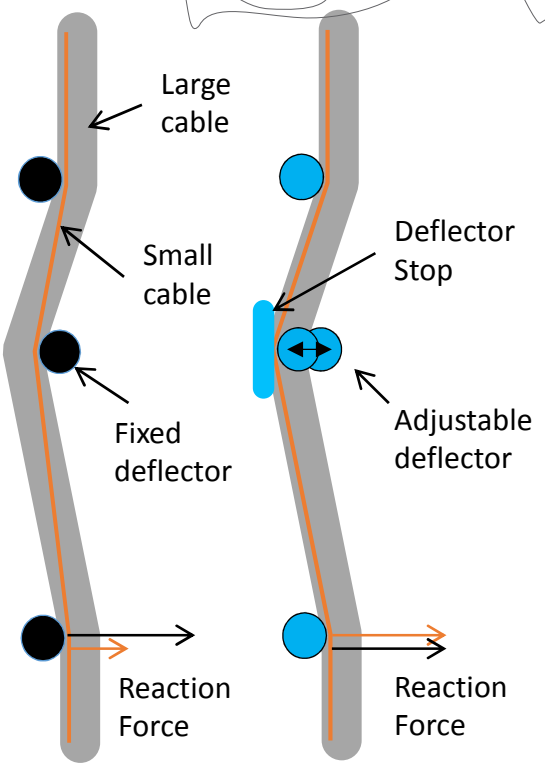
BACKGROUND

Cable tension gauges generally operate using the same principle; bend the cable between three points and measure the reactive force on one of those points:

- Mechanically with a spring
- Electronically with strain

Rig-Sense uses a mechanical principle similar to a Loos gauge, but with four distinct improvements to achieve the key features.





1. ADJUSTABLE CABLE DEFLECTOR

Rig-Sense uses an adjustable central deflector, same deflection for all cable sizes. So output does not vary with cable size.

The other rig tension gauges have a fixed central deflector which means larger diameter cable will have larger deflection than smaller cable diameter, so output varies with cable size.

2. WHY MEASURE IN KG?

With the **Rig-Sense** scale, we've kept the scale true, so there's no need for conversion. We believe it's important not hide this as rig tuning can be massively effected.

All cable sizes use the whole scale and works with both imperial and metric cable, fibre and even rope The Loos Gauge scale looks linear, but it is misleading.

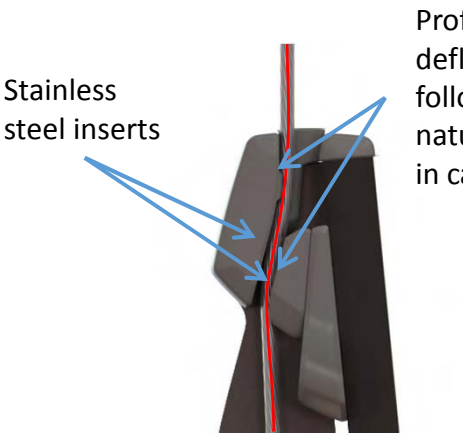
- At bottom of scale 3mm, 1 increment = 5kg
- At top of scale 3mm, 1 increment = 35kg

Also, each cable size only uses half of the scale.

3. PROFILED STAINLESS STEEL DEFLECTORS

Rig-Sense uses large radius stainless steel deflectors which follows the natural bend in cable. This cancels out differences in cable bending stiffness. Tension will measure the same for different sizes and materials.

Hard material supports cable over larger area – with no indentation and consistent repeatable output.



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4. COMPOSITE LEAF SPRING

Rig-Sense uses a composite leaf spring. The advantages are:

- High precision control of spring rate
- Compact shape allows slender design less likely to be damaged
- Cannot over-stretch
- Allows for calibration during assembly
- No corrosion.

SS Coil spring

Composite leaf spring

Other gauges use stainless steel coil springs. There are a number of disadvantages to this:

- Makes it difficult to keep consistent spring rate over production runs.
- No way to adjust or calibrate.
- Can over-stretch without knowing.
- Friction.

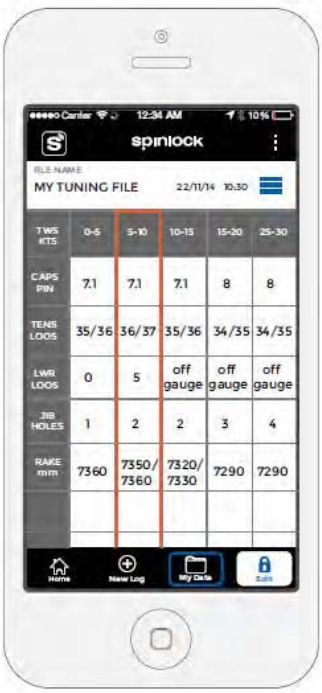
THE RIG-SENSE APP

The Rig-Sense App is a simple mobile application for logging rig settings. By using the App you can store multiple settings, for multiple boats and share with the crew, training partners, clubs, classes, coaches or the rest of the world.

The intuitive and easy-to-use interface of the App makes it simple to use and understand. You can log many types of information including shroud settings, type of spinnaker and the wind range you choose. The App allows you to customise any aspect of your Tuning Guide and save it as a 'Template' and from there you can create any number of 'Files' for different boats.
All the information is stored on your Phone or Tablet.

If you are sailing a boat for the first time you can go to the class or sailmakers website to input directly to the Spinlock RIG App. You always have the information at your fingertips so you can focus sailing the boat!

Available on Android and iOS devices.



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CONVERSION TABLE – LOOS TO KG

Wire Dia.	2.5mm		3mm		4mm		5mm	
Loos Gauge	Model A	PT1	Model A	PT1	Model A	PT1	Model B	PT2
5	36							
6								
7								
8		50						
9		54						
10	50	58					109	
11		62						95
12		66						110
13		70						120
14		75						140
15	68	82	54	70			145	150
16		90		75				170
17		100		82				180
18		110		90			172	200
19		120		100				220
20	91	130	73	110			190	240
21		140		120		70		260
22	104		82	130		76	218	280
23				140		83		310
24	113		91	150		90	245	340
25				160		100		370
26	127		100	170		115	281	400
27				180		127		440
28	141		109	190		140	336	490
29				210		150		550
30	159		118	220		160	400	620
31				235		170		
32	181		136	250	91	180	490	
33						195		
34			154		110	210	635	
35						225		
36			177		127	240		
37						260		
38			204		145	280		
39						320		
40			250		164	360		
41								
42			317		191			
43								
44					236			
45					273			
46					318			
47					364			
48					432			

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CONVERSION TABLE – LBS TO KG

KG	LBS
35	77
40	88
45	99
50	110
55	121
60	132
65	143
70	154
75	165
80	176
85	187
90	198
95	209
100	220
105	231
110	243
115	254
120	265
125	276
130	287
135	298
140	309
145	320
150	331
155	342
160	353
165	364
170	375
175	386
180	397
185	408
190	419
195	430
200	441

KG	LBS
205	452
210	463
215	474
220	485
225	496
230	507
235	518
240	529
245	540
250	551
255	562
260	573
265	584
270	595
275	606
280	617
285	628
290	639
295	650
300	661
305	672
310	683
315	694
320	705
325	717
330	728
335	739
340	750
345	761
350	772
355	783
360	794
365	805
370	816

KG	LBS
315	694
320	705
325	717
330	728
335	739
340	750
345	761
350	772
355	783
360	794
365	805
370	816
375	827
380	838
385	849
390	860
395	871
400	882
405	893
410	904
415	915
420	926
425	937
430	948
435	959
440	970
445	981
450	992
455	1003
460	1014
465	1025
470	1036
475	1047
480	1058

KG	LBS
485	1069
490	1080
495	1091
500	1102
505	1113
510	1124
515	1135
520	1146
525	1157
530	1168
535	1179
540	1190
545	1202
550	1213
555	1224
560	1235
565	1246
570	1257
575	1268
580	1279
585	1290
590	1301
595	1312
600	1323
605	1334
610	1345
615	1356
620	1367
625	1378
630	1389
635	1400
640	1411
645	1422
650	1433

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