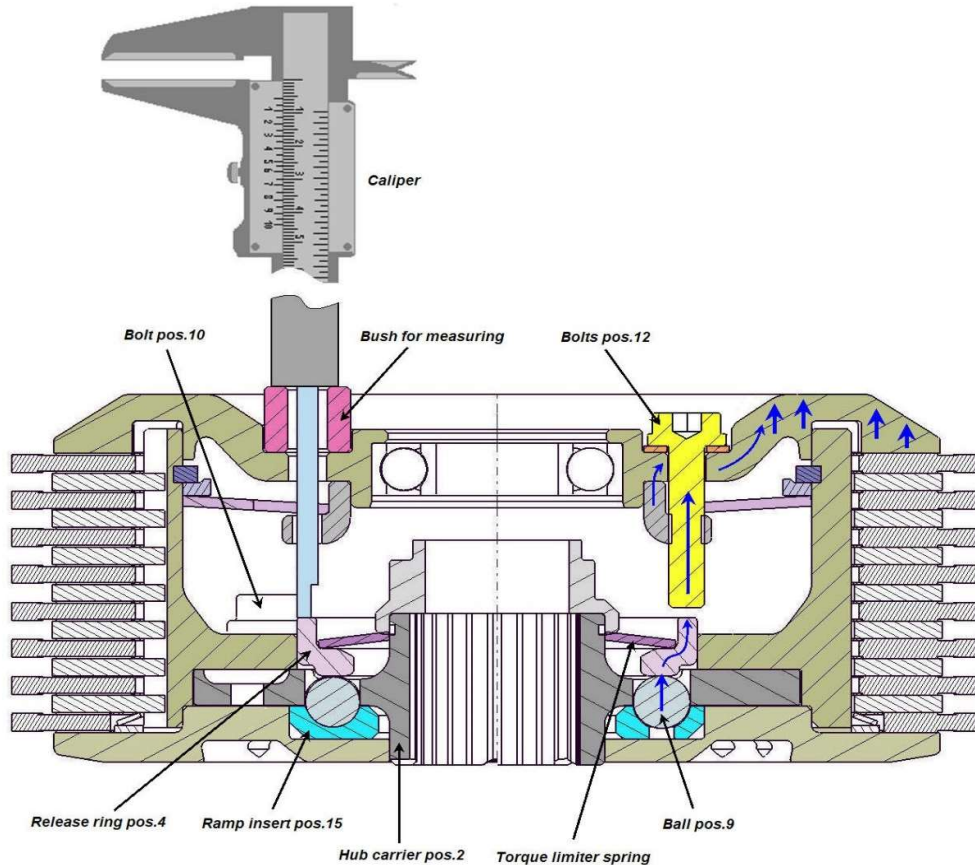


## 1 System operation



The engine brake torque causes the hub carrier pos. 2 to rotate relative to the inner basket and thus the balls are being forced up the ramps (pos.15). These balls push against the release ring pos.4 resulting in an axial lift.

The torque limiter spring (pos. 8) works against this axial lift and hence determines at which braking torque the clutch disengages.

When the release ring passed a predefined gap it presses directly onto the bolts pos.12 which results in disengaging of the clutch.

The behavior of the clutch can be changed by three parameters:

- Gap between bolts and release ring
- Force of the limiter spring
- Ramp angle

The gap is defined by the thickness of the clutch package (disks) and the thickness of the distance washers you put under the bolts.

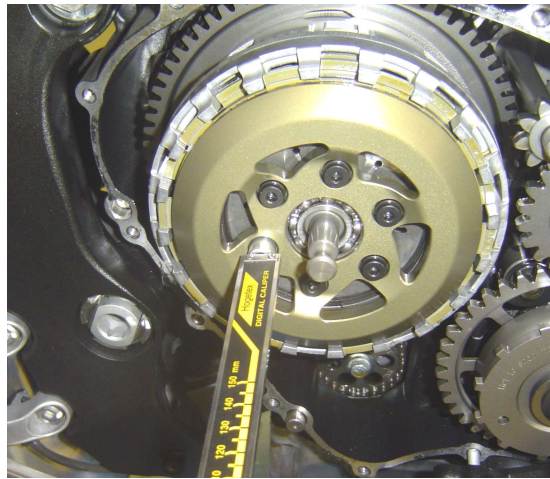
## 2 Gap measuring

As explained before the size of the gap is important for a perfect working clutch. The axial lift of the release ring is limited and therefore the gap must not be too big otherwise the clutch doesn't work!

The clutch has a theoretical factory default gap when it's brand new, but wear on the different clutch parts and also production tolerances result in some variations.

Therefore we recommend by having problems, that you always measure and calculate the effective gap as below:

1. Install the clutch in your bike and tighten all bolts pos.12 expect one with the correct torque of 5[Nm].
2. Use a measuring bush to measure with a caliper the distance from the contact surface of the bolts up to the release ring pos.4



### Example 1: Correct Gap (Ramp Angle 30°)

30.53mm	-	10.00mm	-	19.66mm	<b>= 0.87mm Gap</b>
(measured)		(bush)		(bolt length)	

### Example 2: Gap must be corrected (Ramp Angle 30°)

30.00mm	-	10.00mm	-	19.66mm	+	0.5mm	<b>= 0.84mm Gap</b>
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(distance washer): **Gap must be adjusted using the supplied distance washers**

The ideal gap size depends on the ramp angle and has been determined in different test rides. The ramp angle of your clutch is written on the part list of the assembly drawing. You will find it at the part "Back Plate" or "Ramp insert".

Ramp angle	Recommended Gap
27.5°	0.8-1.0 mm
30°	0.8-1.0 mm
32.5°	1.0-1.2 mm
35°	1.2-1.4 mm
37.5°	1.3-1.5 mm
40°	1.5-1.7 mm