

# Torque Limiters

## Centre Member

The centre member should be machined on its rubbing surface to obtain the rated torque and be flat, parallel, square with the bore and free from rust, scale and oil. Surface finish recommended is Ra1.6. If the centre member is not in accordance with these specifications, the slip torque will be erratic.

The Max. Bore of the centre member is listed below. Also shown is the Min. number of sprocket teeth to be used and the bushing length.

Size	Bore of Centre Member (mm)	9.525-06B		12.7-08B		15.875-10B		19.05-12B		25.4-16B		31.75-20B		38.1-24B	
		Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)
RTL50	30	20	3.8	16	6	-	-	-	-	-	-	-	-	-	-
RTL65	41	-	-	20	6	17	8	-	-	-	-	-	-	-	-
RTL89	49	-	-	26	6	21	8	18	9.5	15	14.5	-	-	-	-
RTL127	74	-	-	35	6	29	8	25	9.5	19	14.5	-	-	-	-
RTL178	105	-	-	-	-	39	8	33	9.5	26	14.5	21	17	18	22

## Torque Settings

The torque setting of the Torque Limiter is manipulated by tightening or loosening the adjustment nut and/or the adjustment bolts. RTL 50 – RTL 89 use an adjustment nut, RTL 127 – RTL 178 use adjustment bolts.

The torque setting is adjusted after the Torque Limiter is mounted on the shaft, once the Torque Limiter is mounted:

### RTL 50 – RTL 89

First, rotate the adjustment nut tightly by hand so that the disk spring fits the plate. Then tentatively tighten the nut by about 60 degrees with a wrench.

### RTL 127 – RTL 178

First, rotate the nut for fixing the disk spring to the plate, and then tighten each adjustment bolt by about 60 degrees. Then, if the Torque Limiter slips under normal loading conditions, tighten the bolts gradually until the Torque Limiter stops slipping. Always tighten or loosen the bolts evenly. You may have to make several adjustments to find the appropriate setting for the machine. For your guidance the below chart shows the relation between the effective rotated angle and preset torque.

For precise torque setting, run-in of the Torque Limiter is recommended, eg: 500 revolution at 50~60rpm with a rotated angle of 45 degrees of the adjustment bolts.

