



engineering catalogue 2008

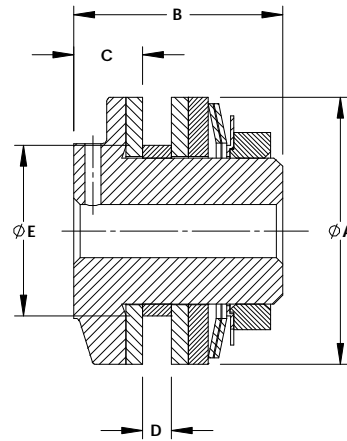
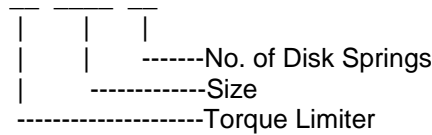
TORQUE LIMITERS
TORQUE LIMITER COUPLINGS

TORQUE LIMITERS

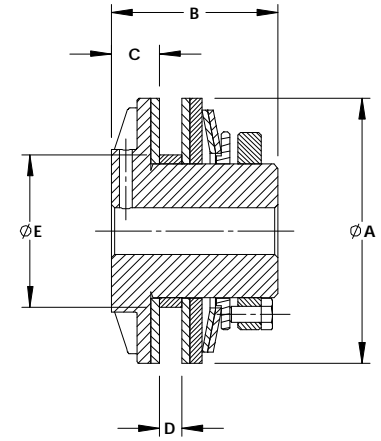
An adjustable friction type overload protection device which can be set to slip at a pre-determined torque loading and will automatically re-engage when the torque is reduced to the appropriate level.

The selected driving plate (i.e. Sprocket, Gear etc.) is mounted on a self lubricating bronze bushing which is carried on the cast iron hub and held between two friction disks. Loading is applied to the pressure plate through the disk spring or springs.

TL 250 - 1



TL200, TL250, TL350



TL500, TL700

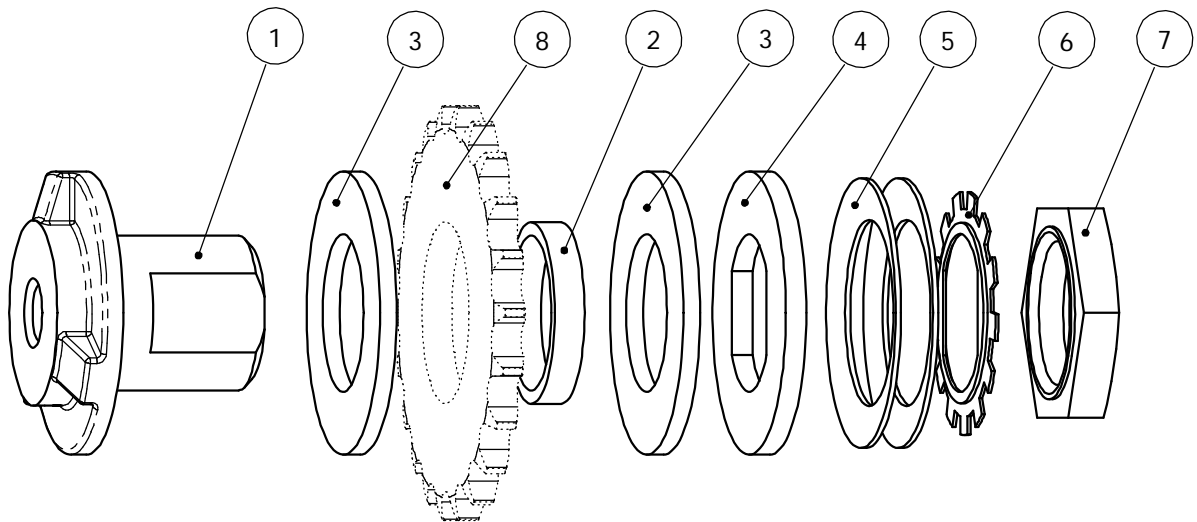
DIMENSIONS AND CAPACITIES FOR TL200-1 TO TL700-2

Model	Torque Range (Nm)	Plain Bore	Max. Bore	'A'	'B'	'C'	'D' Max	'E'	Std. Bush Length	Weight (kg)
TL200-1 TL200-2	3 - 10 7 - 20	7	14	50	29	6.5	7	30.00	3.8	0.2
TL250-1 TL250-2	7 - 27 14 - 54	10	22	65	48	16	9	41.00	4.5	0.5
TL350-1 TL350-2	20 - 75 35 - 150	17	25	89	62	19	16	49.00	6.5	1.2
TL500-1 TL500-2	47 - 210 88 - 420	20	42	127	76	22	16	74.00	6.5	3
TL700-1 TL700-2	116 - 570 224 - 1085	30	64	178	98	24	29	105.00	9.5	6.7

Dimensions in mm.

Maximum bore sizes listed above are for standard parallel keyways placed at 90° to flats on Hub. Driving plates should be bored to Size 'E' -0.00 / +0.05mm.

TORQUE LIMITERS



PARTS LIST FOR TL200-1 TO TL350-2

KEY No.	DESCRIPTION	QTY	TL200	TL250	TL350
1	HUB	1	25S8611	25S8411	25S8461
2	BUSH	1	25S8621	25S8421	25S8472
3	FACING	2	25S8631	25S8431	25S8481
4	PRESSURE PLATE	1	25S8632	25S8432	25S8482
5	DISK SPRING	1 or 2	25S8633	25S8433	25S8483
6	LOCK WASHER	1	25S8635	25S8435	25S8485
7	ADJUSTMENT NUT	1	25S8636	25S8436	25S8486
8	Customer Supplied	1			

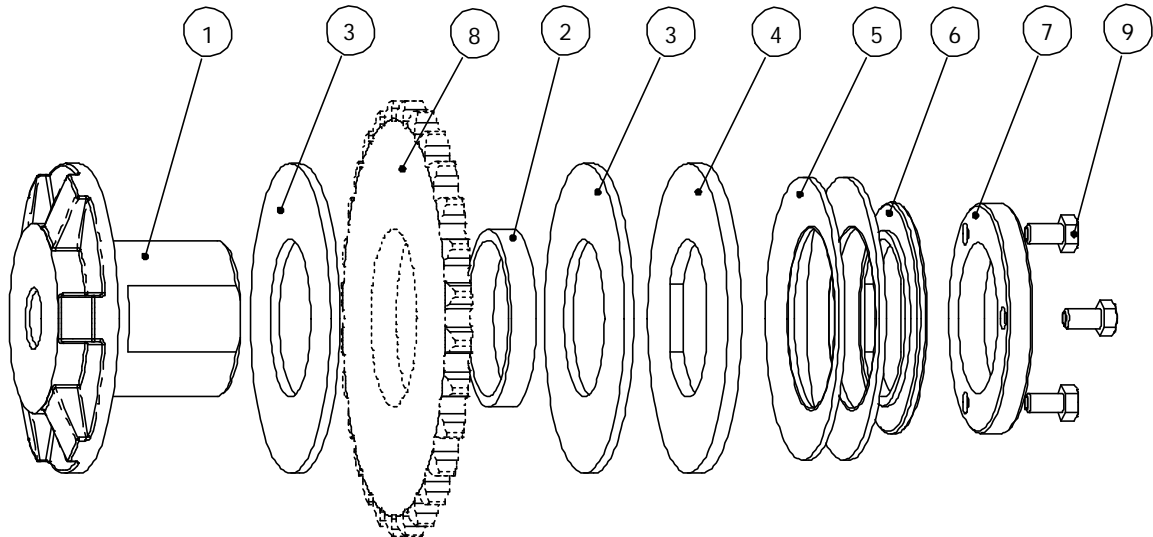
The customer selected driving plate (i.e. Sprocket, Gear etc.) is mounted on a self lubricating bronze bush which in turn is carried on the cast iron hub and held between two friction disks. Loading is applied to the pressure plate through the disk springs.

For TL200 to TL350 Torque Limiters this is achieved by tightening the hexagon adjusting nut by hand until the disk spring makes contact with the plate, then tighten the nut by approximately 60 degrees, secure the nut in place by the use of the tab washer. Final setting of the torque limiter should be done after a run in period of approximately 500 revolutions at 50 – 70 rpm.

The torque ratings for the TL200 to TL350 are:-

One disk spring (item 5)	TL200 3 – 10Nm	TL250 7 – 27Nm	TL350 20 – 75Nm
Two disk springs (item 5)	7 – 20Nm	14 – 54Nm	35 – 150Nm

TORQUE LIMITERS



PARTS LIST FOR TL500-1 TO TL700-2

KEY No.	DESCRIPTION	QTY	TL500	TL700
1	HUB	1	25S8511	25S8561
2	BUSH	1	25S8522	25S8573
3	FACING	2	25S8531	25S8581
4	PRESSURE PLATE	1	25S8532	25S8582
5	DISK SPRING	1 or 2	25S8533	25S8583
6	SPRING PLATE	1	25S8534	25S8584
7	ADJUSTMENT NUT	1	25S8536	25S8586
8	Customer Supplied	1		
9	LOCK SCREW	3	25S8537	25S8587

The customer selected driving plate (i.e. Sprocket, Gear etc.) is mounted on a self lubricating bronze bush which in turn is carried on the cast iron hub and held between two friction disks. Loading is applied to the pressure plate through the disk springs.

For the TL500 and TL700 Torque Limiters the adjustment nut is positioned and the three loading screws are tightened on to the spring plate until their heads lock on the adjustment nut. Final setting of the torque limiter should be done after a run in period off approximately 500 revolutions at 50 – 70 rpm.

The torque ratings for the TL500 and TL700 are:-

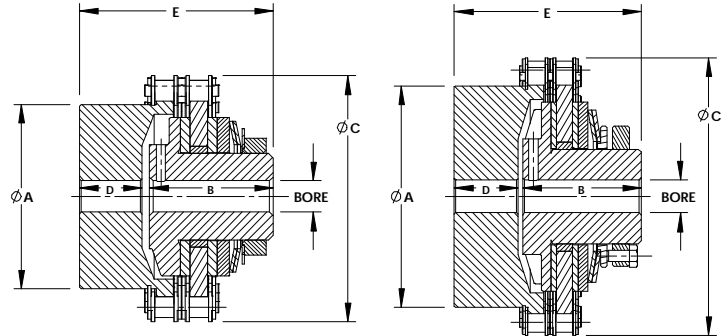
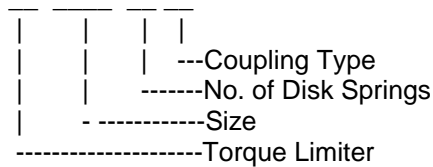
One disk spring (item 5)	TL500 47 – 210Nm	TL700 116 – 570Nm
Two disk springs (item 5)	88 – 420Nm	224 – 1085Nm

TORQUE LIMITER COUPLINGS

These couplings combine the flexibility of a chain coupling with the overload protection features of the torque limiter.

They are made up from a torque limiter fitted with a plate sprocket and a mating hub sprocket, hollowed out to clear the head of the torque limiter. The two sprockets are connected by duplex chain to form the coupling.

TL250-1C



TL200-C, TL250-C, TL350-C

TL500-C, TL700-C

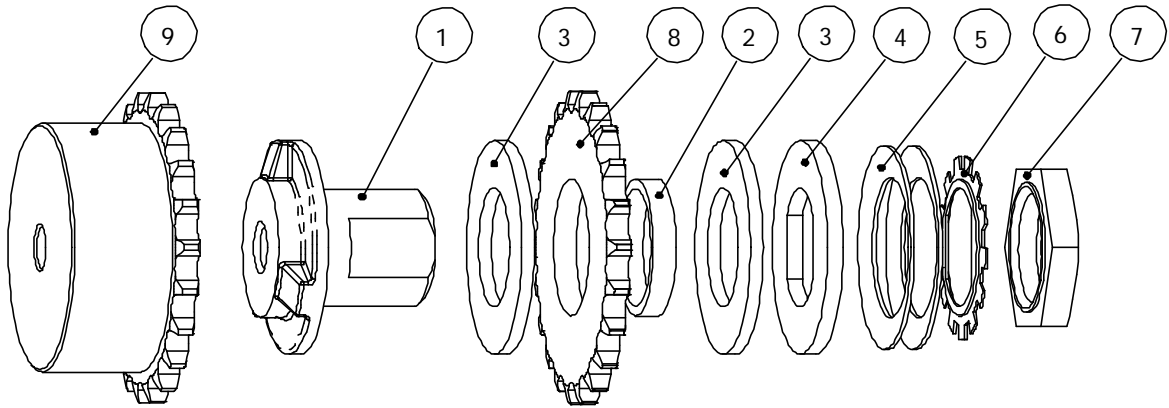
DIMENSIONS AND CAPACITIES FOR TL200-1C TO TL700-2C

Model	Torque Range (Nm)	Max. Running Speed (RPM)	Plain Bore		Max. Bore		Sprocket	'A'	'B'	'C'	'D'	'E'	Weight (kg)
			Coupling Half	TL Half	Coupling Half	TL Half							
TL200-1C	3 – 10	1200	8	7	31	14	RS-40-16T	50	29	76	24	55	1.0
TL200-2C	7 – 20												
TL250-1C	7 – 27	1000	13	10	38	22	RS-40-22T	56	48	102	25	76	2.0
TL250-2C	14 – 54												
TL350-1C	20 – 75	800	13	17	45	25	RS-50-24T	72	62	137	37	103	5.2
TL350-2C	35 – 150												
TL500-1C	47 – 210	500	18	20	65	42	RS-60-28T	105	76	188	40	120	12.3
TL500-2C	88 – 420												
TL700-1C	116 – 570	400	23	30	90	64	RS-80-28T	150	98	251	66	168	31.0
TL700-2C	224 – 1085												

Dimensions in mm.

Maximum bore sizes listed above are for standard parallel keyways placed at 90° to flats on Hub.

TORQUE LIMITER COUPLINGS



PARTS LIST FOR TL200-1C TO TL350-2C

KEY No.	DESCRIPTION	QTY	TL200	TL250	TL350
1	HUB	1	25S8611	25S8411	25S8461
2	BUSH	1	25S8621	25S8421	25S8472
3	FACING	2	25S8631	25S8431	25S8481
4	PRESSURE PLATE	1	25S8632	25S8432	25S8482
5	DISK SPRING	1 or 2	25S8633	25S8433	25S8483
6	LOCK WASHER	1	25S8635	25S8435	25S8485
7	ADJUSTMENT NUT	1	25S8636	25S8436	25S8486
8	PLATE WHEEL	1	25S8641	25S8441	25S8491
9	SPROCKET	1	25S8642	25S8442	25S8492
-	DUPLEX CHAIN	1	25S8643	25S8443	25S8493
-	LINK	1	25S8644	25S8444	25S8494

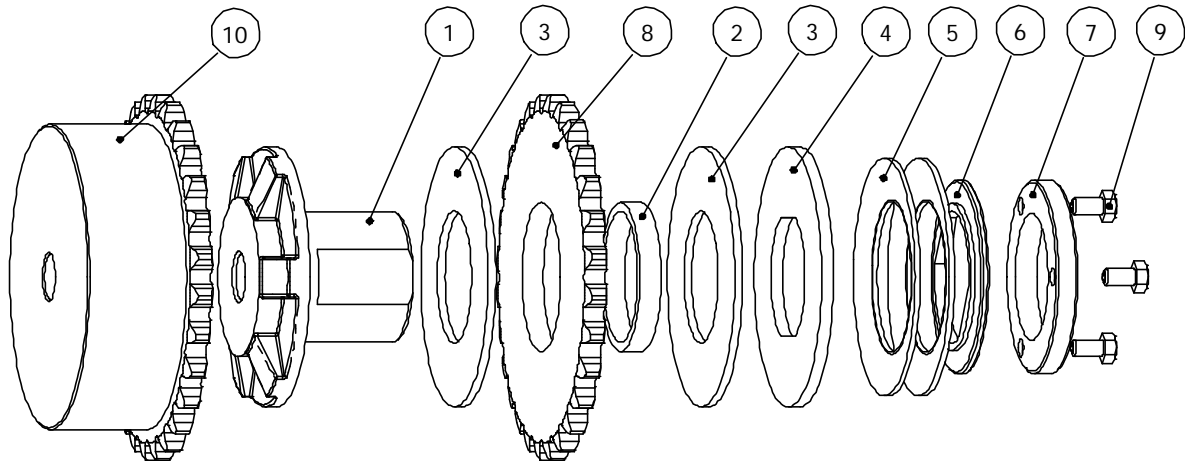
The torque setting of the unit is achieved in the same way as for the torque limiter.

For TL200 to TL350 Torque Limiters this is achieved by tightening the hexagon adjusting nut by hand until the disk spring makes contact with the plate, then tighten the nut by approximately 60 degrees, secure the nut in place by the use of the tab washer. Final setting of the torque limiter should be done after a run in period of approximately 500 revolutions at 50 – 70 rpm.

The torque ratings for the TL200 to TL350 are:-

One disk spring (item 5)	TL200	3 – 10Nm	TL250	7 – 27Nm	TL350	20 – 75Nm
Two disk springs (item 5)		7 – 20Nm		14 – 54Nm		35 – 150Nm

TORQUE LIMITER COUPLINGS



PARTS LIST FOR TL500-1C TO TL700-2C

KEY No.	DESCRIPTION	QTY	TL500	TL700
1	HUB	1	25S8511	25S8561
2	BUSH	1	25S8522	25S8573
3	FACING	2	25S8531	25S8581
4	PRESSURE PLATE	1	25S8532	25S8582
5	DISK SPRING	1 or 2	25S8533	25S8583
6	SPRING PLATE	1	25S8534	25S8584
7	ADJUSTMENT NUT	1	25S8536	25S8586
8	PLATE WHEEL	1	25S8541	25S8591
9	LOCK SCREW	3	25S8537	25S8587
10	SPROCKET	1	25S8542	25S8592
-	DUPLEX CHAIN	1	25S8543	25S8593
-	LINK	1	25S8544	25S8594

The torque setting of the unit is achieved in the same way as for the torque limiter.

For the TL500 and TL700 Torque Limiters the adjustment nut is positioned and the three loading screws are tightened on to the spring plate until their heads lock on the adjustment nut.

Final setting of the torque limiter should be done after a run in period off approximately 500 revolutions at 50 – 70 rpm.

The torque ratings for the TL500 and TL700 are:-

One disk spring (item 5)	TL500 47 – 210Nm	TL700 116 – 570Nm
Two disk springs (item 5)	88 – 420Nm	224 – 1085Nm