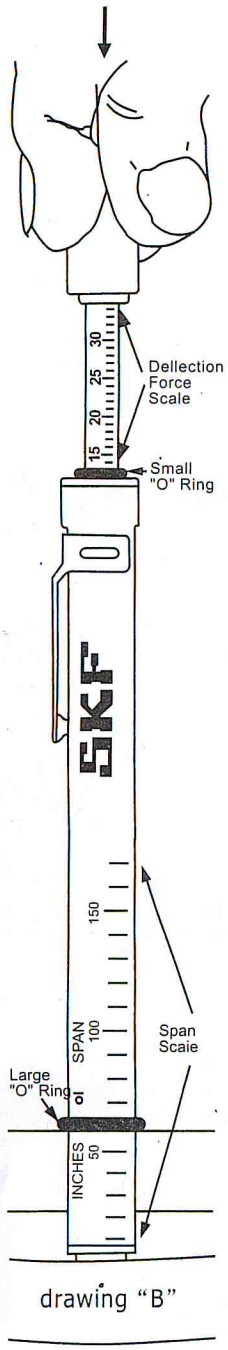
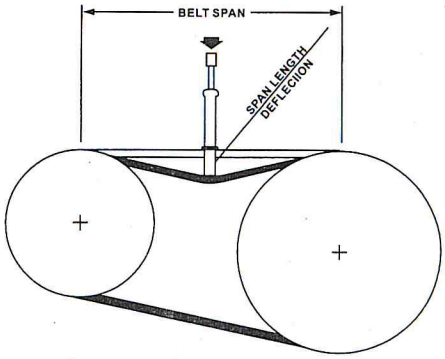
INDUSTRIAL V-BELT TENSION TESTER



drawing "B"

GENERAL RULES OF TENSIONING

1. Ideal tension is the lowest tension at which the belt will not slip under peak load conditions
2. Check the belt tension frequently during the first 24 to 48 hours of operation.
3. Over tensioning will shorten the life of the belt and the bearings.
4. Keep belts free from foreign material which may cause slip.
5. Make V-belt drive inspections periodically and re-tension as required. This will prevent slippage and optimize belt life.
6. SKF does not recommend belt dressing as this will damage the belt and promote premature failures.



drawing "A"

TENSION MEASUREMENT PROCEDURE

1. Measure the belt span (see drawing "A")
2. position the bottom of the large 0 ring on the pen scale at the measured belt span (see drawing "B")
3. Set the small 0 ring on the deflection force scale to zero.
4. Place the tension tester squarely on one belt at the center of the belt span (see drawing "A")apply downward force to the plunger until the bottom of the large 0 ring is even with the next belt or with the bottom of a straight edge laid across the pulleys.
5. Remove the tension tester and read the force applied with the values given in the tables. The force should be between the minmum and the maximum shown. The maximum value shown is for new belts, this will allow for anticipated tension loss. Used belts should be maintained at the minimum value as indicated in the tables.

If the belt span was measured in inches, then use the pounds of force values for comparison. If the belt span was measured in centimeters. Then use the kilograms of force values for comparison.

Note: The ratio of deflection to belt span is 1:64 in either units of measurements.

PULLEY DIAMETER IN INCHES
DEFLECTION FORCE IN LBS

Belt Type	Smallest Pulley Diameter Inches	RPM Range	Belt deflection force LBS			
			Un-Cogged Belts		Cogged Belts	
			Used Belt	New Belt	Used Belt	New Belt
Z, ZX	1.5-2.5	1000-2500	1.2	1.7	1.3	2.0
		2501-4000	1.4	2.1	1.6	2.4
	2.5-over	1000-2500	2.0	2.9	2.2	3.4
		2501-4000	2.0	2.9	2.2	3.4
A, AX	3.0-3.6	1000-2500	3.7	5.5	4.1	6.1
		2501-4000	2.8	4.2	3.4	5.0
	3.8-4.8	1000-2500	4.5	6.8	5.0	7.4
		2501-4000	3.8	5.7	4.3	6.4
	5.0-over	1000-2500	5.4	8.0	5.7	8.4
		2501-4000	4.7	7.0	5.1	7.6
B, BX	3.4-4.2	860-2500	--	--	4.9	7.2
		2501-4000	--	--	4.2	6.2
	4.4-5.6	860-2500	5.3	7.9	7.1	10.5
		2501-4000	4.5	6.7	6.1	9.1
	5.8-over	860-2500	6.3	9.4	8.5	12.6
		2501-4000	6.0	8.9	7.3	10.9
C, CX	7.0-9.0	500-1740	11.5	17.0	14.7	21.8
		1741-3000	9.4	13.8	11.9	17.5
	9.5-over	500-1740	14.1	21.0	15.9	23.5
		1741-3000	12.5	18.5	14.6	21.6
D	12.0-16.0	200-850	24.9	37.0	--	--
		851-1500	21.2	31.3	--	--
	18.0-over	200-850	30.4	45.2	--	--
		851-1500	25.6	38.0	--	--
SPZ,XPZ	1.5-2.5	1000-2500	3.8	5.8	4.1	6.1
		2501-4000	3.0	4.9	3.4	4.9
	2.5-3	1000-2500	4.3	8.1	4.9	7.4
		2501-4000	4.7	7.2	4.7	7.2
	3-over	1000-2500	5.4	8.1	5.6	8.5
		2501-4000	4.8	7.4	5.3	8.1
SPA,XPA	3.8-4.1	1000-2500	6.5	9.8	7.4	11.2
		2501-4000	5.9	8.7	6.7	10.0
	4.1-5.5	1000-2500	7.8	11.7	9.0	13.5
		2501-4000	7.1	10.6	8.1	12.1
	5.5-over	1000-2500	9.8	14.9	11.2	17.1
		2501-4000	9.9	14.8	10.1	15.3
SPB,XPB	3.4-4.2	860-2500	11.0	16.4	12.6	18.9
		2501-4000	10.6	15.9	12.1	18.2
	4.4-5.6	860-2500	14.2	21.1	16.2	24.3
		2501-4000	12.6	18.9	15.0	22.5
	5.8-over	860-2500	16.9	25.2	18.0	27.0
		2501-4000	14.4	21.6	16.4	24.7
SPC,XPC	7.0-9.0	500-1740	22.8	34.1	26.1	39.1
		1741-3000	23.0	34.6	26.3	39.7
	9.5-over	500-1740	26.0	38.8	29.7	44.5
		1741-3000	30.1	45.0	34.4	51.7
3V,3VX	2.2-2.4	1000-2500	--	--	3.3	4.9
		2501-4000	--	--	2.9	4.3
	2.65-3.65	1000-2500	3.6	5.1	4.2	6.2
		2501-4000	3.2	4.4	3.8	5.6
	4.12-over	1000-2500	4.9	7.3	5.3	7.9
		2501-4000	4.4	6.6	4.9	7.3
5V,5VX	4.4-6.7	1000-2500	--	--	9.4	15.2
		2501-4000	--	--	6.2	13.2
	7.1-10.9	500-1740	12.7	18.9	14.8	8.5
		1741-3001	11.2	16.7	13.7	22.1
	11.8-over	500-1740	15.5	23.4	17.1	20.1
		1741-3001	14.6	21.8	16.8	25.5
8V	12.5-17.0	200-850	33.0	49.3	--	--
		851-1500	26.8	39.9	--	--
	18.0-over	200-850	39.6	59.2	--	--
		851-1500	35.3	52.7	--	--

PULLEY DIAMETER IN MILLIMETERS
DEFLECTION FORCE IN NG

Belt Type	Smallest Pulley Diameter Millimeters	RPM Range	Belt deflection force KG			
			Un-Cogged Belts		Cogged Belts	
			Used Belt	New Belt	Used Belt	New Belt
Z, ZX	40-60	1000-2500	0.5	0.8	0.6	0.9
		2501-4000	0.6	1.0	0.7	1.1
	60 over	1000-2500	0.9	1.3	1.0	1.5
		2501-4000	0.9	1.3	1.0	1.5
A, AX	75-90	1000-2500	1.7	2.5	1.9	2.8
		2501-4000	1.3	1.9	1.5	2.3
	91-120	1000-2500	2.0	3.1	2.3	3.4
		2501-4000	1.7	2.6	2.0	2.9
	121-175	1000-2500	2.4	3.6	2.6	3.8
		2501-4000	2.1	3.2	2.3	3.4
B, BX	85-105	860-2500	--	--	2.2	3.3
		2501-4000	--	--	1.9	2.8
	106-140	860-2500	2.4	3.6	3.0	4.8
		2501-4000	2.0	3.0	2.8	4.1
	141-220	860-2500	2.9	4.3	3.9	5.7
		2501-4000	2.7	4.0	3.3	4.9
C, CX	175-230	500-1740	5.2	7.7	6.7	9.9
		1741-3000	4.3	6.3	5.4	7.9
	231-400	500-1740	6.4	9.5	7.2	10.7
		1741-3000	5.7	8.4	6.6	9.8
D	305-400	200-850	11.3	16.8	--	--
		851-1500	9.6	14.2	--	--
	401-510	200-850	13.8	20.5	--	--
		851-1500	11.6	17.0	--	--
SPZ,XPZ	56-79	1000-2500	1.7	2.7	1.9	2.8
		2501-4000	1.3	2.2	1.5	2.2
	80-95	1000-2500	2.0	3.7	2.2	3.4
		2501-4000	2.1	3.3	2.1	3.3
	95 over	1000-2500	2.4	3.7	2.6	3.9
		2501-4000	2.2	3.4	2.4	3.7
SPA,XPA	71-105	1000-2500	2.9	4.4	3.4	5.1
		2501-4000	2.7	4.0	3.1	4.6
	106-140	1000-2500	3.6	5.3	4.1	6.1
		2501-4000	3.2	4.8	3.7	5.5
	141 over	1000-2500	4.5	6.8	5.1	7.8
		2501-4000	4.5	6.7	4.6	6.9
SPB,XPB	107-159	860-2500	5.0	7.5	5.7	8.6
		2501-4000	4.8	7.2	5.5	8.3
	160-250	860-2500	6.4	9.6	7.3	11.0
		2501-4000	5.7	8.6	6.8	10.2
	250 over	860-2500	7.7	11.4	8.2	12.2
		2501-4000	6.5	9.8	7.4	11.2
SPC,XPC	200-355	500-1740	10.4	15.5	11.8	17.7
		1741-3000	10.5	15.7	11.9	18.0
	356 over	500-1740	11.8	17.6	13.5	20.2
		1741-3000	13.7	20.4	15.6	23.5
3V,3VX	55-60	1000-2500	--	--	1.5	2.2
		2501-4000	--	--	1.3	2.0
	61-90	1000-2500	1.6	2.3	1.9	2.8
		2501-4000	1.4	2.0	1.7	2.5
	91-175	1000-2500	2.2	3.3	2.4	3.6
		2501-4000	2.0	3.0	2.2	3.3
5V,5VX	110-170	1000-2500	--	--	4.6	6.9
		2501-4000	--	--	2.5	3.9
	171-275	500-1740	5.8	8.6	6.7	10.0
		1741-3001	5.1	7.6	6.2	9.1
	276-400	500-1740	7.0	30.6	7.8	10.6
		1741-3001	6.6	9.9	7.6	11.3
8V	315-430	200-850	15.0	22.4	--	--
		851-1500	12.2	18.1	--	--
	431-570	200-850	18.0	26.8	--	--
		851-1500	16.0	23.9	--	--