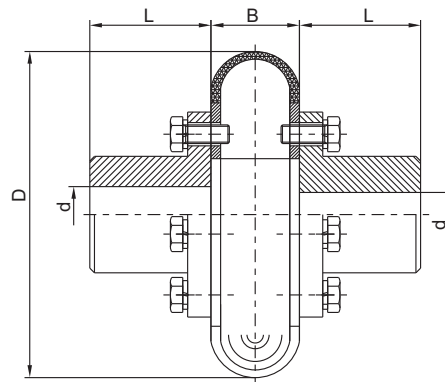


UL型轮胎式联轴器

UL Tyre coupling

◇ 结构特点 Design feature

- 橡胶元件(轮胎体)与金属压板硫化粘结在一起, 装配时用螺栓直接与两半联轴器联结。
- 柔性, 阻尼大, 补偿量大。
- 结构简单, 装配容易。要更换轮胎体时无需轴向移动联轴节。
- 缺点: 随扭转角的增加, 在主从动轴上产生相当大的轴向力。
- Plastic components(tyres) and metal plates made into a whole by sulfurating and felting. Connecting the 2 half-couplings directly by bolts when installing.
- Flexibility, large damping, large compensation dosage.
- Simple designing, easy for assembling and disassembling. The tyres can be replaced without moving 2 half-coupling.
- Disadvantage, large axial power will be brought on the driven end as the rotate angle increasing.



UL 型轮胎式联轴器
UL type tyre shaft coupling



◇ 标记示例 Mark samole

UL联轴器的轴孔、键槽的形式和尺寸符合GB/T3852-1997的规定。

- UI5轮胎式联轴器

主动端: Y型轴孔、A型键槽, d=28mm, L=62mm。

从动端: J1型轴孔、B型键槽, d=32mm, L=60mm。

联轴器: UL5 $\frac{YA28 \times 62}{J_1B32 \times 60}$ GB/T5844-2002

Shaft hole, modes and sizes of the keyway of UL type coupling should accord standard of GB/T3852-1997.

- Sample UI5 tyre shaft coupling

Drive end: Y type shaft hole, A type keyway, d is 28mm, L is 62mm.

Driven ends: J1 type shaft hole, B type keyway, d is 32mm, L is 60mm.

Marked as: UL5 $\frac{YA28 \times 62}{J_1B32 \times 60}$ GB/T5844-2002

◇ UL型轮胎式联轴器的主要尺寸和基本参数(GB/T5844-2002)

Base figure and main size of UL type tyre shaft coupling(GB/T5844-2002)

| 型号 Type | 公称扭矩 Nominal torsion | 瞬时最大转矩 Instant- aneous biggest torque | 许用转速 Limited rotational speed rpm | | 轴孔直径 d | | 轴孔长度L | | D | B | 重量 Weight kg | 转动 惯量 Rotate inertia | 许用补偿量 | | |
|------------|----------------------------|---|---|------|----------------------------|----------|--------------------------|-----|-----|----|--------------------|-------------------------------|-------------|--------------|-------------|
| | | | | | Diameter of the shaft hole | | Length of the shaft hole | | | | | | 轴向 Axial | 径向 Radial | 角向 Angle |
| | | | | | mm | | | | | | | | | | |
| | N.m | N.m | steel | iron | steel | iron | J、J1型 | Y型 | mm | | Kg | Kg.m² | mm | | |
| UL1 | 10 | 31.5 | 5000 | 3500 | 11 | 11 | 22 | 25 | 80 | 20 | 0.7 | 0.0003 | 1.0 | 1.0 | 1° |
| | | | | | 12、14 | 12、14 | 27 | 32 | | | | | | | |
| | | | | | 16、18 | 16 | 30 | 42 | | | | | | | |
| UL2 | 25 | 80 | 5000 | 3000 | 14 | 14 | 27 | 32 | 100 | 26 | 1.2 | 0.0008 | | | |
| | | | | | 16、18、19 | 16、18、19 | 30 | 42 | | | | | | | |
| | | | | | 20、22 | 20 | 38 | 52 | | | | | | | |
| UL3 | 63 | 180 | 4500 | 3000 | 18、19 | 18、19 | 30 | 42 | 120 | 32 | 1.8 | 0.0022 | 1.6 | 2.0 | |
| | | | | | 20、22、24 | 20、22 | 38 | 52 | | | | | | | |
| | | | | | 25 | - | 44 | 62 | | | | | | | |
| UL4 | 100 | 315 | 4300 | 3000 | 20、22、24 | 20、22、24 | 38 | 52 | 140 | 38 | 3 | 0.004 | | | |
| | | | | | 25、28 | 25 | 44 | 62 | | | | | | | |
| | | | | | 30 | - | 60 | 82 | | | | | | | |
| UL5 | 160 | 500 | 4000 | 3000 | 24 | 24 | 38 | 52 | 160 | 45 | 4.6 | 0.0084 | 1.6 | 2.0 | |
| | | | | | 25、28 | 25、28 | 44 | 62 | | | | | | | |
| | | | | | 30、32、35 | 30 | 60 | 82 | | | | | | | |
| UL6 | 250 | 710 | 3600 | 2500 | 28 | 28 | 44 | 62 | 180 | 50 | 7.1 | 0.0164 | | | |
| | | | | | 30、32、35、38 | 30、32、35 | 60 | 82 | | | | | | | |
| | | | | | 40 | - | 84 | 112 | | | | | | | |

◇UL型轮胎式联轴器的主要尺寸和基本参数(GB/T5844-2002)

Base figure and main size of UL type tyre shaft coupling(GB/T5844-2002)

| 型号 Type | 公称扭矩 Nominal torsion | 瞬时最大 转矩 Instant- aneous biggest torque | 许用转速 Limited rotational speed rpm | | 轴孔直径 d Diameter of the shaft hole | | 轴孔长度 Length of the shaft hole | | D | B | 重量 Weight | 转动 惯量 Rotate inertia | 许用补偿量 Limited compensation | | |
|------------|----------------------------|---|--|------|---------------------------------------|---------------------------------------|----------------------------------|------------|-----|-----|--------------|-------------------------------|-------------------------------|--------------|-------------|
| | | | | | | | | | | | | | 轴向 Axial | 径向 Radial | 角向 Angle |
| | | | Steel | Iron | Steel | Iron | J、J1型 | Y型 | | | | | mm | | |
| | N.m | N.m | | | | | | | mm | | Kg | Kg.cm ² | | | |
| UL7 | 315 | 900 | 3200 | 2500 | 32.35.38 | 32.35.38 | 60 | 82 | 200 | 56 | 10.9 | 0.029 | 2.0 | 2.5 | 1° |
| | | | | | 40.42.45.48 | 40.42 | 84 | 112 | | | | | | | |
| UL8 | 400 | 1250 | 3000 | 2000 | 38 | 38 | 60 | 82 | 220 | 63 | 13 | 0.0448 | 2.5 | 3.0 | |
| | | | | | 40.42.45 48.50 | 40.42.45 | 84 | 112 | | | | | | | |
| UL9 | 630 | 1800 | 2800 | 2000 | 42.45.48 50.55.56 | 42.45.48 50.55 | 84 | 112 | 250 | 71 | 20 | 0.0898 | | | |
| | | | | | 60 | - | 107 | 142 | | | | | | | |
| UL10 | 800 | 2240 | 2400 | 1600 | 45*.48* 50.55.56 | 45*.48* 50.55.56 | 84 | 112 | 280 | 80 | 30.6 | 0.1596 | 3.0 | 3.6 | |
| | | | | | 60.63.65.70 | 60.63.65 | 107 | 142 | | | | | | | |
| UL11 | 1000 | 2500 | 2100 | 1600 | 50*.55*.56* 60.63.65 70.71.75 | 50*.55*.56* 60.63.65 | 84 107 | 112 142 | 320 | 90 | 39.0 | 0.2792 | | | |
| | | | | | | | | | | | | | | | |
| UL12 | 1600 | 4000 | 2000 | 1600 | 55*.56* 60*.63*.65* 70.71.75 | 55*.56* 60*.63*.65* 70.71.75 | 84 107 | 112 142 | 360 | 100 | 59 | 0.5356 | 3.6 | 4.0 | |
| | | | | | 80.85 | 80 | 132 | 172 | | | | | | | |
| | | | | | | | | | | | | | | | |
| UL13 | 2500 | 6300 | 1800 | 1600 | 63*.65*.70* 71*.75* | 63*.65*.70* 71*.75* | 107 | 142 | 400 | 110 | 81 | 0.896 | 4.0 | 4.5 | 1° 30' |
| | | | | | 80.85.90.95 | 80.85.90.95 | 132 | 172 | | | | | | | |
| UL14 | 4000 | 10000 | 1600 | 1400 | 75* 80*.85* 90*.95* | 75* 80*.85* 90*.95* | 107 132 | 142 172 | 480 | 130 | 145 | 2.2616 | 5.0 | 5.0 | |
| | | | | | 100.110 | 100.110 | 167 | 212 | | | | | | | |
| | | | | | | | | | | | | | | | |
| UL15 | 6300 | 14000 | 1200 | 1120 | 85*.90*.95* 100*.110* 120*.125* | 85*.90*.95* 100*.110* 120*.125* | 132 167 | 172 212 | 560 | 150 | 222 | 4.6456 | 5.0 | 5.6 | |
| | | | | | | | | | | | | | | | |
| UL16 | 10000 | 20000 | 1000 | 1000 | 100*.110* 120*.125* 130.140 | 100*.110* 120*.125* 130.140 | 167 202 | 212 252 | 630 | 180 | 302 | 8.0924 | 5.0 | 6.0 | |
| | | | | | 120*.125* | - | 167 | 212 | | | | | | | |
| UL17 | 16000 | 31500 | 900 | 850 | 130*.140*.150* 160* | 130*.140*.150* 160* | 202 242 | 252 302 | 750 | 210 | 561 | 20.0176 | 5.0 | 6.7 | |
| | | | | | | | | | | | | | | | |
| UL18 | 25000 | 59000 | 800 | 750 | 140*.150* 160*.170*.180* | - 160*.170*.180* | 202 242 | 252 302 | 900 | 250 | 818 | 43.053 | 5.0 | 8.0 | |
| | | | | | | | | | | | | | | | |

注：1、轴孔直径有*号者为结构允许制成J型轴孔(GB/T3852-1997)《联轴器轴孔和键槽形式及尺寸》

2、联轴器质量和转动惯量是各型号中最大值的计算近似值。

Note: 1. According 《Modes and sizes of coupling hole and keyway》 of GB/T3852-1997, the hole diameter with * can be made into J type structure.

2. It is max calculating approximate value of weight and rotate inertia of all type couplings.