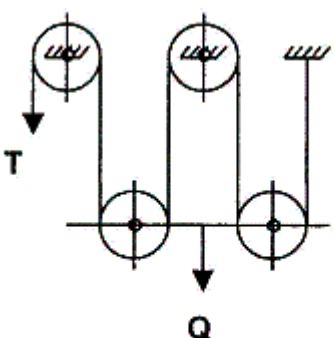
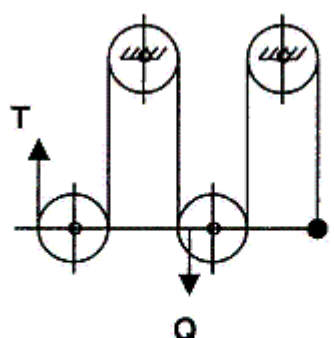
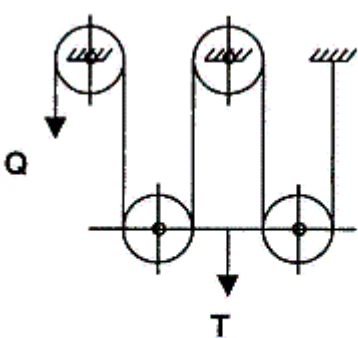
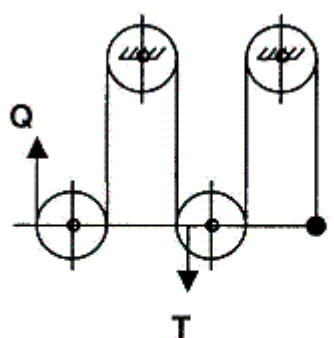


附表六 槽輪效率 $\eta_v$

<p>(1)</p>  <p><math>n = 4</math> <math>i = 4</math></p> $\eta_{v1} = \frac{\epsilon(1-\epsilon^n)}{n(1-\epsilon)}, T = \frac{Q}{n\eta_{v1}}$	<p>(2)</p>  <p><math>n = 4</math> <math>i = 5</math></p> $\eta_{v2} = \frac{1-\epsilon^{n+1}}{(n+1)(1-\epsilon)}, T = \frac{Q}{(n+1)\eta_{v2}}$
<p>(3)</p>  <p><math>n = 4</math> <math>i = \frac{1}{4}</math></p> $\eta_{v3} = \frac{n(1-\epsilon)\epsilon^n}{1-\epsilon^n}, T = \frac{nQ}{\eta_{v3}}$	<p>(4)</p>  <p><math>n = 4</math> <math>i = \frac{1}{5}</math></p> $\eta_{v4} = \frac{(n+1)(1-\epsilon)\epsilon^n}{1-\epsilon^{n+1}}, T = \frac{(n+1)Q}{\eta_{v4}}$

備註：式中之 $n$ 、 $T$ 、 $Q$ 、 $i$ 、 $\epsilon$ 、 $\eta_v$ 分別表示下列之值：

$n$ ：槽輪數

$T$ ：拉力

$Q$ ：荷重

$i$ ： $T$ 與 $Q$ 之速度比 =  $\frac{T\text{之速度}}{Q\text{之速度}}$

$\epsilon$ ：鄰近鋼索與鋼索之張力比

$\eta_v$ ：槽輪效率

滑動軸承 (Slipping bearing) ( $\epsilon=0.96$ )

槽輪數	1	2	3	4	5	6	7	8	9	10	11	12
$\eta_v$												
$\eta_{v1}$	0.960	0.941	0.922	0.904	0.886	0.869	0.852	0.836	0.820	0.804	0.789	0.775
$\eta_{v2}$	0.980	0.961	0.942	0.923	0.905	0.888	0.871	0.854	0.838	0.822	0.807	0.792
$\eta_{v3}$	0.960	0.940	0.921	0.902	0.883	0.865	0.847	0.829	0.811	0.793	0.776	0.758
$\eta_{v4}$	0.980	0.959	0.940	0.920	0.901	0.882	0.863	0.845	0.827	0.809	0.791	0.774

滾珠—滾子軸承 (ball and roll bearing) ( $\varepsilon=0.98$ )

槽輪數	1	2	3	4	5	6	7	8	9	10	11	12
$\eta_v$												
$\eta_{v1}$	0.980	0.970	0.961	0.951	0.942	0.932	0.923	0.914	0.905	0.896	0.888	0.879
$\eta_{v2}$	0.990	0.980	0.970	0.961	0.951	0.942	0.932	0.924	0.915	0.906	0.897	0.888
$\eta_{v3}$	0.980	0.970	0.960	0.951	0.941	0.931	0.922	0.912	0.903	0.893	0.885	0.875
$\eta_{v4}$	0.990	0.980	0.970	0.960	0.950	0.941	0.931	0.921	0.912	0.902	0.893	0.883