

LUBRICATION

Proper lubrication of roller chains is a very important factor in getting their best possible performance and longer lifetime. No matter how well a transmission system is designed, if it is not properly lubricated, its service life will be shortened.

Abrasion between the pin and bushing causes roller chains to stretch. Therefore, these parts should be well lubricated.

The gap between the pin-link plate and roller-link plate on the slack side of the chain should be filled with lubricant.

The oil forms a film which minimizes wear of the pin and bushing thus increasing the chain service life.

It also reduces noises and cools down the chain running at high speed.

POINTS OF LUBRICATION

- 1) Fill and change oil periodically.
- 2) Generally, heavy oil and grease are not suitable as a lubricant.
- 3) Avoid mix of oil with another kind or other maker's.
- 4) Adequate lubrication quantity is also essential for a chain's longer service life.

| Type | Method | Amount |
|------|--|---|
| A | Manual lubrication | <ul style="list-style-type: none"> Periodically to keep chain joints from drying |
| | Dripping lubrication | <ul style="list-style-type: none"> Usually 4-20 drops of oil per minute. Excess oil should be reserved in a simple case. |
| B | Oil bath lubrication | <ul style="list-style-type: none"> Effective at medium and low speeds. To be dipped 6~12 mm. |
| | Lubrication by slinger disc For large speed ratio | <ul style="list-style-type: none"> Effective at rather high speeds. To be dipped 12~25mm at about 200m/min. circumferential speed of slinger disc. |
| | Lubrication by slinger disc For small speed ratio | <ul style="list-style-type: none"> Case should be cleaned to remove impurities. |
| C | Forced lubrication | <ul style="list-style-type: none"> Effective for heavy load, high power and high speed. Ab 4lt/min. should be filled without oil shortage or heating up. Closed circulating lubrication system needs a clean tank or case. |

| SY Chain No. | Temperature [°C] | | | | | | | |
|------------------|------------------|--------|--------|--------|--------|--------|--------|--------|
| | -10 | 0 | 40 | 50 | -10 | 0 | 40 | 50 |
| | | | | | | | | |
| | 0 | 40 | 50 | 60 | 0 | 40 | 50 | 60 |
| Lubrication Type | TYPE A-B | | | | TYPE C | | | |
| -SY50 | SAE 10 | SAE 20 | SAE 30 | SAE 50 | SAE 10 | SAE 20 | SAE 30 | SAE 40 |
| SY60-80 | 20 | 30 | 40 | 50 | 10 | 20 | 30 | 40 |
| SY100 | 20 | 30 | 40 | 50 | 20 | 30 | 40 | 50 |
| SY120~ | 30 | 40 | 50 | 50 | 20 | 30 | 40 | 50 |