



# Installation, Tensioning and Maintenance Instructions

### VL Series VL301-VL317

Safety First - Isolate Equipment as per site procedure.



LLE-008-1124

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### Safety First - Isolate Equipment as per site procedure.

### Installation and Tensioning

Leverlinks have been developed to simplify the changing and re tensioning of Vee Belts.

We recommend the use of a <u>Ratchet</u> which will allow the Vee Belts to be adjusted or changed quickly and efficiently.

### Installation

- 1. Bolt the Leverlink to the support structure in the predetermined position to suit the length of the drive belt(s). Refer to installation positions.
- 2. Bolt the electric motor to the Leverlink.
- 3. Check that the pulley faces are aligned before tightening all fixing bolts. This will ensure that the motor shaft axis is parallel to the driven shaft axis in all planes.
- 4. Remove the locking spanner. Using a 46mm socket, turn the <u>Adjusting Screw</u> in order to move the motor in the appropriate direction to allow the drive belt(s) to be fitted.
- 5. Once again, using the rachet or rattle gun, turn the <u>Adjusting Screw</u> in the opposite direction to tension the belt(s), noting that in doing so, torque is being applied to the rubber torsional spring. Tension the belts to the maximum tension recommended by the belt manufacturer.
- 6. Refit the locking spanner.
- 7. Test run and inspect belt(s).

\*Belts may stretch and settle in during test run. \*\*If belt tension is too low, remove locking cap before repeating step numbers 5 & 6.

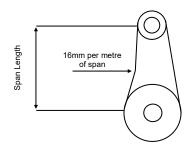
8. Fit Belt Guards.

#### **Special Notes**

- Always fit locking spanner after tensioning or retensioning.
- Do not cut belts while tensioned as motor will spring back and may cause injury.
- Avoid injury to hands, when new belts are being fitted.
- Static drives with fixed centres should be tensioned to belt manufacturer specifications using the force deflection method. Refer to table below or contact your belt manufacturer or supplier.

### **Tensioning Forces**

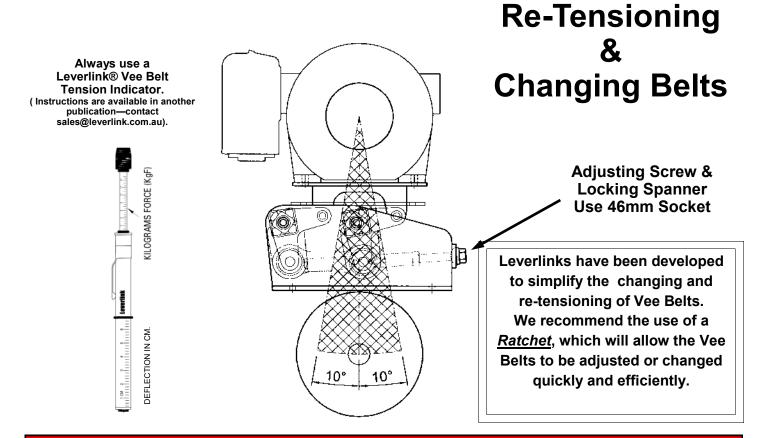
Belt Section	Force required to Deflect Belt 16mm per metre of span.		
	Small Pulley	Newton	Kilogram force
SPZ	56 to 71 75 to 90 95 to 125	16 to 20 18 to 22 20 to 25	1.6 to 2.0 1.8 to 2.2 2.0 to 2.5
XPZ & QXPZ	Over 125	22 to 28	2.2 to 2.8
SPA	80 to 100 106 to 140 150 to 200	22 to 28 30 to 38 36 to 45	2.2 to 2.8 3.0 to 3.9 3.7 to 4.6
SPB	112 to 160 170 to 224 236 to 355	40 to 50 50 to 62 62 to 77	4.0 to 5.1 5.1 to 6.3 6.3 to 7.9
SPC & QXPC	224 to 250 265 to 355 Over 375	70 to 87 92 to 115 115 to 144	7.1 to 8.9 9.4 to 12.0 12.0 to 15.0
8V	335 & above	150 to 190	15.0 to 19.0
Z	56 to 100	5 to 7.5	0.5 to 0.8
A (& HA banded)	80 to 140	10 to 15	1.0 to 1.5
В	125 to 200	20 to 30	2.0 to 3.1
С	200 to 400	40 to 60	4.1 to 6.1
D	355 to 600	70 to 105	7.1 to 10.7



LLE-008-1124







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#### Retensioning - New belts should be checked and if necessary, retensioned after initial stretch has occurred.

- 1. Check Belt Tension via window in guard or remove guard.
- 2. Remove Locking Spanner.
- 3. Turn the <u>Adjusting Screw</u> to tension the belt(s). Tension the belts to the maximum tension recommended by the belt manufacturer.
- 4. Refit the locking spanner.
- 5. Test run and inspect belt(s).
- 6. Fit belt guards.

### Changing - Drive Belts

- 1. Remove belt guard.
- 2. Remove Locking spanner.
- 3. Turn the <u>Adjusting Screw</u> in order to lower the motor to allow the drive belts to be removed.
- **4.** Fit the drive belt(s) to the pulleys, ensuring they are matching brand and length.
- Turn the <u>Adjusting Screw</u> in the opposite direction to tension the belt(s), noting that in doing so, torque is being applied to the rubber torsional spring. Tension the belts to the maximum tension recommended by the belt manufacturer.
- 6. Fit the locking spanner.
- Test run and inspect belt(s).
  \*Belts may stretch and settle in during test run.
  \*\*If belt tension is too low, remove locking cap before repeating step numbers 5 & 6.
- 8. Refit Locking spanner.
- 9. Fit belt guards.





## **Maintenance & Lubrication**

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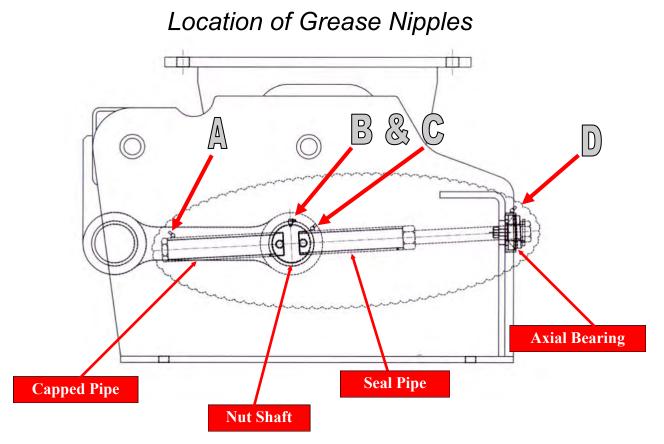
### MAINTENANCE

Leverlinks require very little maintenance. However, the following should be carried out to maximise the life of the product.

- **Protective Coating.** Should the protective coating barrier be damaged or broken exposing raw metal this should be immediately repaired.
- Locking Spanner Fixing Bolt: Apply lubricate to thread (anti-seize) when removed.

### LUBRICATION

Lubrication is required to **prevent seizure of threads and ease of operation**. The following page sets out these requirements.



LLE-008-1124





Grease Nipple A (Capped Grease Nipple B (Nut Shaft) Grease Nipple C (Seal Pipe) Grease Nipples D (Axial Bear-

**GREASE LINES** Remote grease lines may be fitted. These will be on the face of the strongback.



### **LUBRICATION**

Greasing with "EP" type grease should be carried out to ensure free movement of the adjusting screw and the axial bearing located at  $\underline{D}$ .

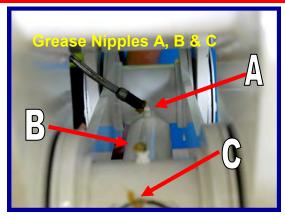
#### NIPPLES A, B & C

Must be greased until the grease purges from the bleed holes in the cover pipes known as **Cap Pipe** and **Seal Pipe**.

# It is recommended this is carried out every 6 months.

### AXIAL BEARING - NIPPLE D

The axial bearing is exposed to the elements and required greasing every time adjustment takes place. This will apply lubricate to the bearing surfaces and reduce friction and the effort required to rotate the adjusting screw. Grease nipples **A**, **B**, **& C** should be lubricated every **6 months** until grease flows freely from <u>BLEED HOLES</u> in pipes.





LLE-008-1124





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