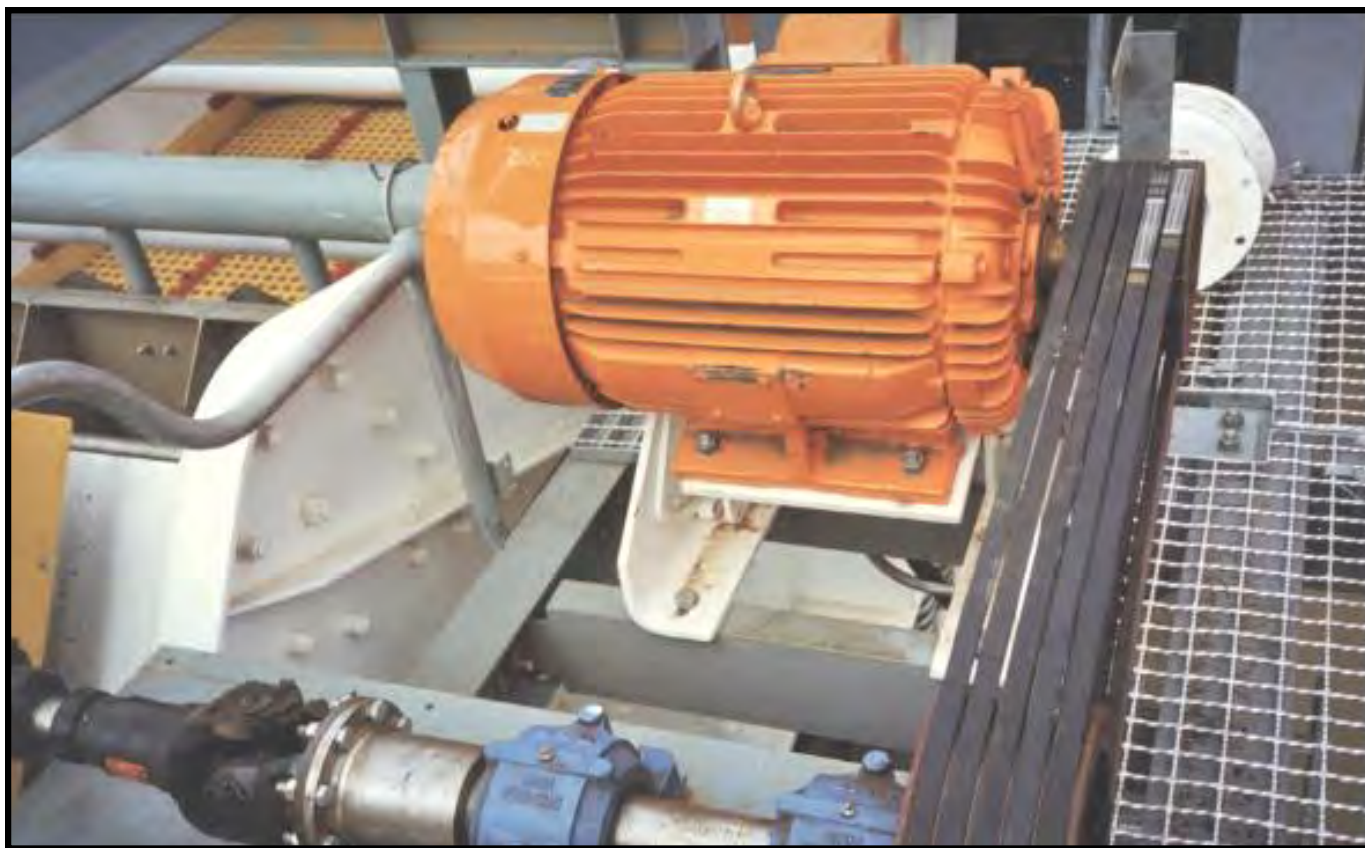




# Installation, Tensioning & Maintenance Manual

4G Series-4G-1 to 4G-5

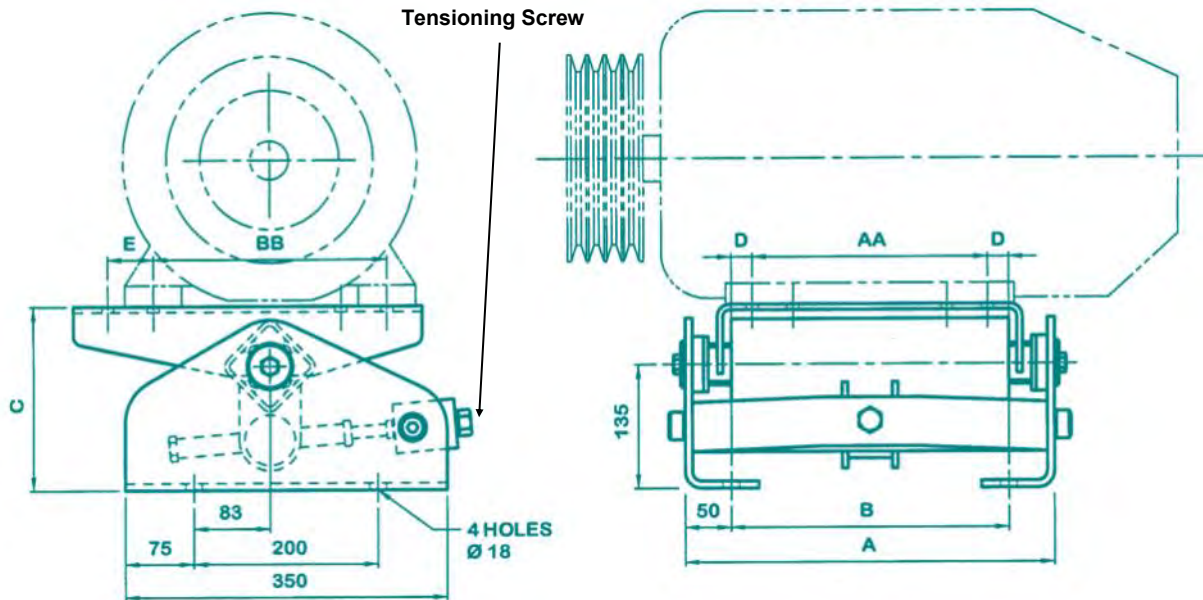


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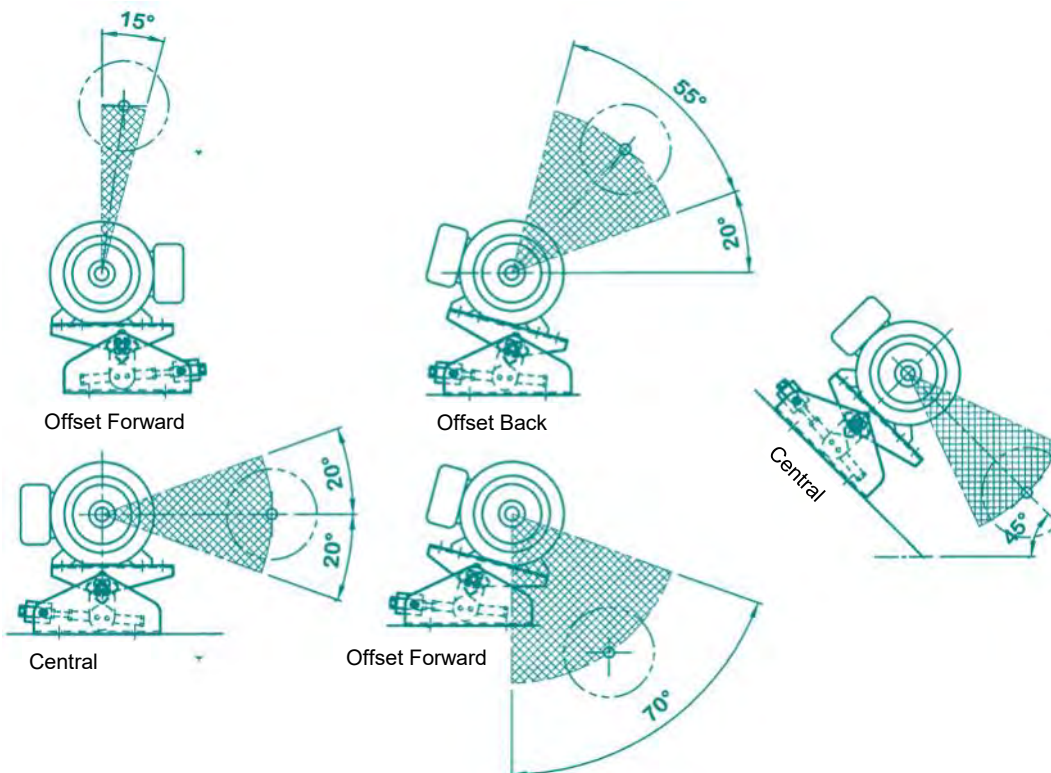
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# Model 4G-1



Mass	Model	Motor Information					Leverlink Dimensions				
		Frame Size	6 Pole kW	4 Pole kW	AA	BB	A	B	C	D	E offset
35kg	4G-1	D132S	3.0	5.5	50	180	350	250	200	51	50
		D132M	4.0 - 5.5	7.5							



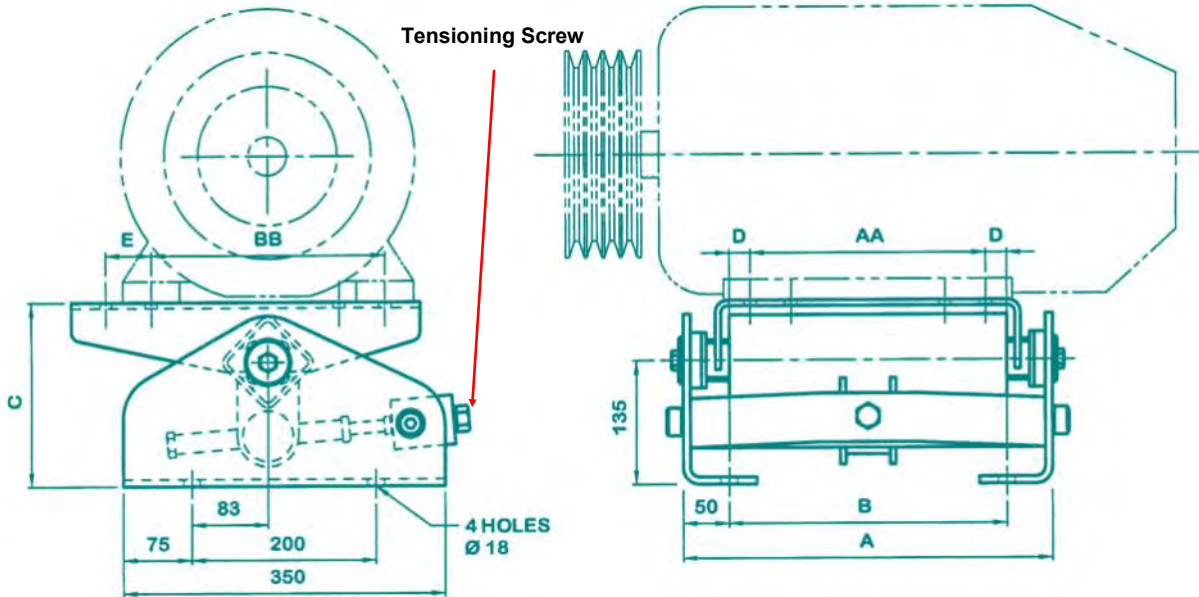
## Installation Positions

All mounting positions are shown.

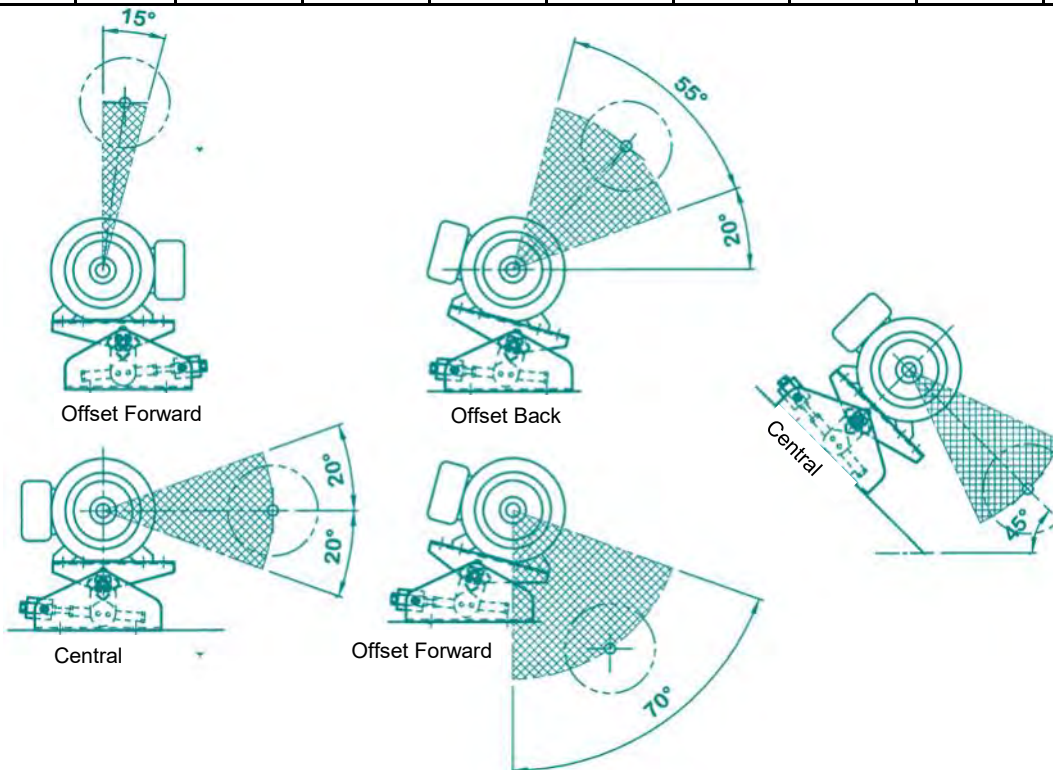
**Note:** OFFSET for some applications.



# Model 4G-2



Mass	Model	Motor Information					Leverlink Dimensions				
		Frame Size	6 Pole kW	4 Pole kW	AA	BB	A	B	C	D	E offset
40g	4G-2	D160M	7.5	11	210	254	400	300	200	23	50
		D160L	11	15	254	254					

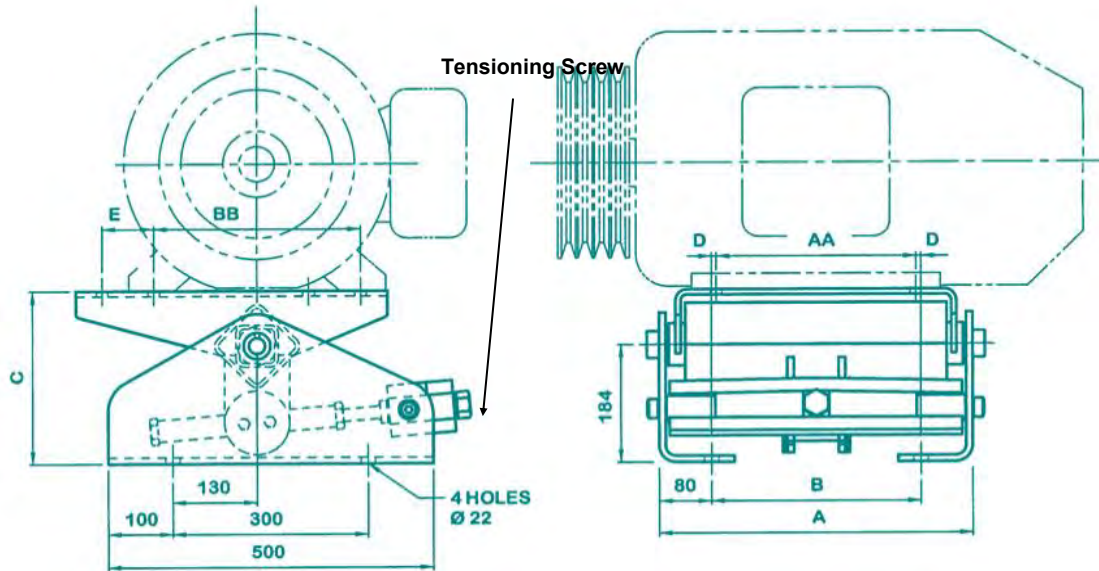


## Installation Positions

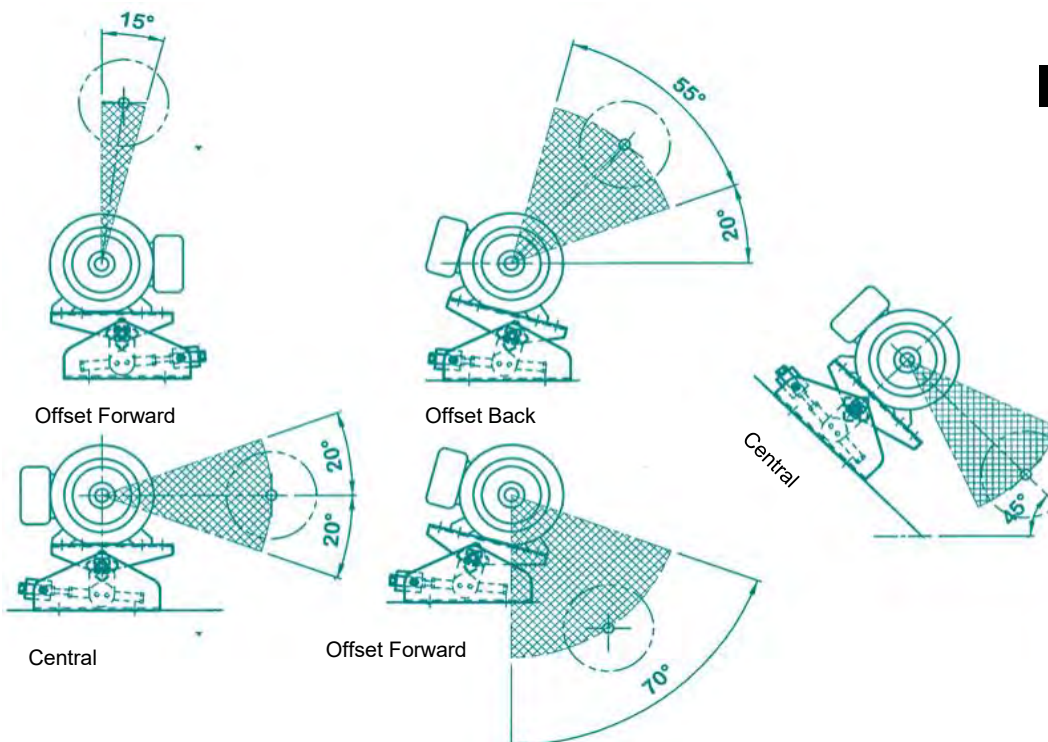
All mounting positions are shown.  
**Note** OFFSET for some applications.



## Models 4G-3, 4 & 5



Mass	Model	Motor Information					Leverlink Dimensions				
		Frame Size	6 Pole kW	4 Pole kW	AA	BB	A	B	C	D	E
60kg	4G-3	D180M	-	18.5	241	279	460	300	270	11	80
80kg	4G-4	D200L	18.5-22	30	305	318	480	320	270	8	80
100kg	4G-5	D225S	-	37	286	356	530	370	270	30	80



## Installation Positions

All mounting positions are shown.  
**Note** OFFSET for some applications.

LI-05-0519



# Installation and Tensioning

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

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

*We recommend the use of a Ratchet 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 ratchet, turn the Adjusting Screw in order to tilt the motor in the appropriate direction to allow the drive belt(s) to be fitted.
5. Once again, using the ratchet, turn the Adjusting Screw 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 spanner before repeating step numbers 5 & 6.
8. Fit Belt Guards.

4G-1 requires 27mm socket  
4G-2 to 4G-5 require 36mm socket

## Special Notes

Always fit locking spanner after tensioning or re-tensioning.

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.

Screen drives differ from pump, fan and other fixed centre drives

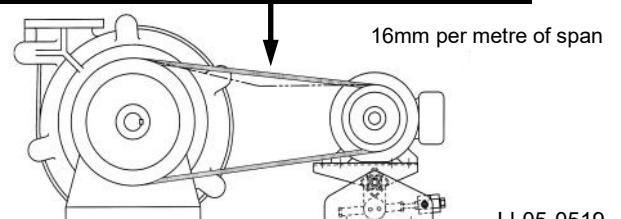
**\*Over tensioning will pull screen on end or skew it sideways.**

**\*\*Under tensioning will cause belt slippage.**

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

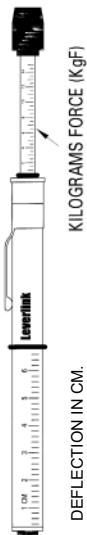
Belt	Force Required to Deflect Belt 16mm. per metre of span		
	Small Pulley	Newton	Kilogram
SPZ	56 to 71	16 to 20	1.6 to 2.0
	75 to 90	18 to 22	1.8 to 2.2
SPA	80 to 100	22 to 28	2.2 to 2.8
	106 to 140	30 to 38	3.0 to 3.9
SPB	112 to 160	40 to 50	4.0 to 5.1
	170 to 224	50 to 62	5.1 to 6.3
SPC & QXPC	224 to 250	70 to 87	7.1 to 8.9
	265 to 355	92 to 115	9.4 to 12.0
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
B	125 to 200	20 to 30	2.0 to 3.1
C	200 to 400	40 to 60	4.1 to 6.1
D	355 to 600	70 to 105	7.1 to 10.7



LI-05-0519

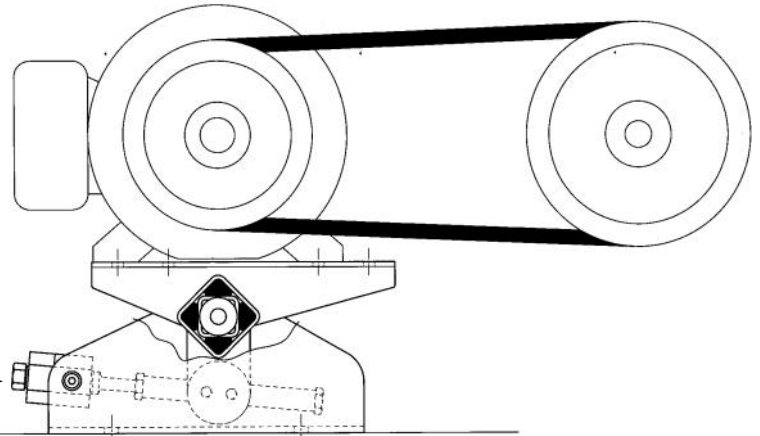


## Re-tensioning & Changing Belts



Always use a  
**Leverlink<sup>®</sup> Vee Belt  
Tension Indicator.**  
( Instructions are available  
in another publication—contact

**Adjusting Screw**

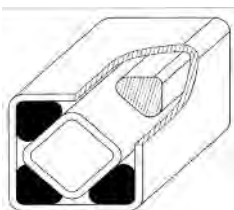


Leverlink Motor Bases have been developed to simplify the  
changing and re-tensioning of Vee Belts.  
We recommend the use of a *Ratchet*, which will allow the Vee Belts to be  
adjusted or changed quickly and efficiently.

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

**Re-tensioning - New belts should be checked and if necessary, re-tensioned after initial stretch has occurred**

1. Check belt tension via window in guard or remove guard.
2. Remove locking spanner.
3. Turn the **adjusting screw** 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 **adjusting screw** in order to tilt the motor in the appropriate direction to allow the drive belts to be removed.
4. Fit the drive belt(s) to the pulleys, ensuring they are matching brand and length.
5. Turn the **Adjusting Screw** in the opposite direction to tension the belt(s), noting that in doing so torque is being applied to the Motor Base rubber torsional spring. Tension the belts to the maximum tension recommended by the belt manufacturer.
6. Fit 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 spanner before repeating step numbers 5 & 6.
8. Refit Locking Cap.
9. Fit belt guards.

LI-05-0519



## Maintenance & Lubrication

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

### MAINTENANCE

Leverlink's 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.

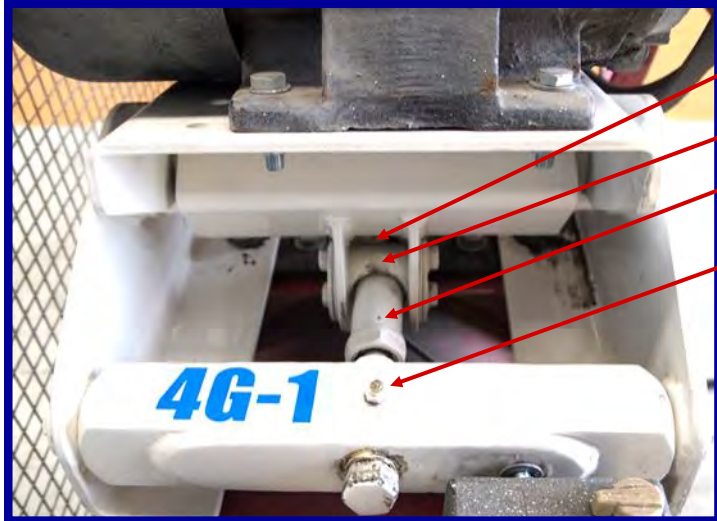
### LUBRICATION

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





# Maintenance & Lubrication



- Grease Nipple A (Capped pipe)
- Grease Nipple B (Nut Shaft)
- Grease Nipple C (Seal Pipe)
- Grease Nipple D ( Axial Bearing).

Grease nipples A, B, & C should be lubricated every 6 months until grease flows freely from **BLEED HOLES** in pipes.



## LUBRICATION

Regular greasing with “EP” type grease should be carried out to ensure free movement of the adjusting screw and the axial bearing located at **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.





# Reducing Operating Costs

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