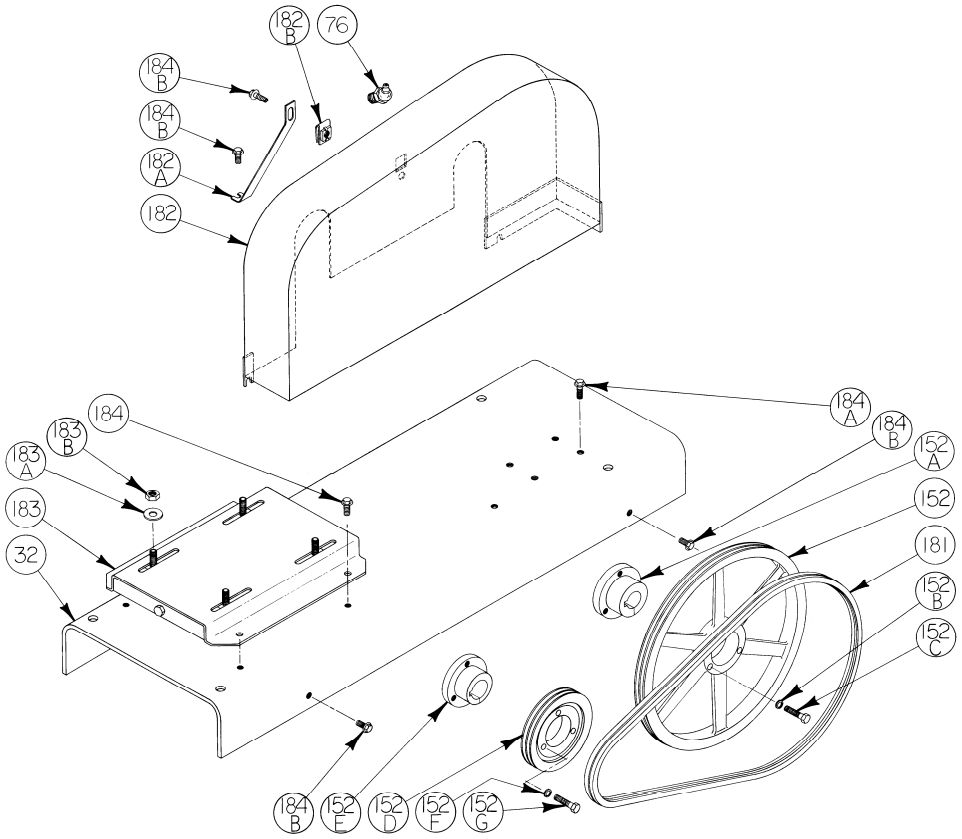
BLACKMER V-BELT DRIVE - STYLE VB
PUMP MODELS: LGLD4B, CRL4B, SGLD4B

Parts List with Installation, Operation and Maintenance Instructions
* Page Numbers 701-G00 & 801-E00 also apply



PARTS LIST

Ref. No.	Description	Parts Per Unit	Part No.	Ref. No.	Description	Parts Per Unit	Part No.
32	Pump Base	1	901943	181	V-Belt	4	902003
76	Grease Fitting	1	317809	182	V-Belt Guard (3)	1	804062
152	Pump Sheave	1	902412	182A	V-Belt Guard Brace	1	804076
152A	Pump QD Hub Assembly	1	902458	182B	Speed Nut	1	922407
152B	Lockwasher	3	(1)	183	Motor Base Assembly – Includes:	1	See Table
152C	Capscrew	3	(1)		183A Washer	4	
152D	Motor Sheave	1	See Table		183B Nut	4	
152E	Motor QD Hub Assembly	1	See Table	184	Capscrew - Motor Base	4	See Table
152F	Lockwasher	3	(1)	184A	Capscrew - Pump	4	920951
152G	Capscrew	3	(1)	184B	Capscrew - Guard	4	920955

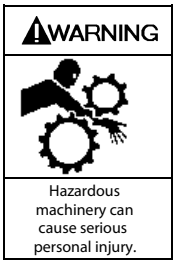
(1) Included with QD Hub Assembly. (3) Consult Factory for ATEX Compliant (Non-Sparking) Guards.

V-BELT DATA - 3V TYPE BELTS

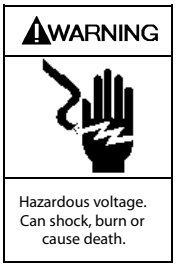
Pump Speed with 1750 RPM Motor		330	330	410	410	515	515	630	630	630	
Pump Speed with 1450 RPM Motor		275	275	340	340	425	425	525	525	525	
Speed Ratio		5.26	5.26	4.26	4.26	3.41	3.41	2.77	2.77	2.77	
Motor Frame Size		213T	215T	215T	254T	254T	256T	254T	256T	284T	
Ref. No.	**Part Name**										
152D	Motor Sheave	902414	902	414	902	410	902	410	902	411	902
152E	Motor QD Hub Asy.	902453	902	453	902	454	902	459	902	459	902
183	Motor Base Asy.	905083	905	084	905	084	905	085	905	085	905
184	Capscrews - Motor Base	920957	920	957	920	957	920	958	920	958	920

Pump Speed with 1750 RPM Motor		411	902	411	902	413	902	413	902	413	
Pump Speed with 1450 RPM Motor		459	902	459	902	460	902	460	902	461	
Speed Ratio		459	902	459	902	460	902	460	902	461	
Motor Frame Size		256T	254T	256T	284T	286T	284T	286T	324T	326T	
Ref. No.	**Part Name**										
152D	Motor Sheave	411	902	411	902	413	902	413	902	413	902
152E	Motor QD Hub Asy.	459	902	459	902	460	902	460	902	461	902
183	Motor Base Asy.	086	905	085	905	086	905	086	905	087	905
184	Capscrews - Motor Base	958	920	958	920	958	920	958	920	958	920

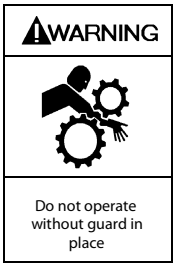
INSTALLATION AND MAINTENANCE



Failure to disconnect and lockout electrical power or engine drive before attempting maintenance can cause severe personal injury or death



Failure to disconnect and lockout electrical power before attempting maintenance can cause shock, burns or death



Operation without guards in place can cause serious personal injury, major property damage, or death.

These units must only be installed in systems which have been designed by those qualified to engineer these systems. The system must be in accordance with all applicable regulations and safety codes.

ASSEMBLY

Mount the pump and the motor base to the unit base. Mount the motor on the motor base, but do not draw the motor mounting nuts down tight.

Wipe the cone surface of the pump QD hub and the inside of the pump sheave hub with a clean cloth moistened with a light grade of machine oil. This will allow a more uniform draw and prevent the cone surfaces from "freezing" before being tightened.

With the shaft key in place, align the key seat and slide the QD hub on the shaft, flange end first. Slide the large end of the sheave bore over the taper on t he QD hub. Insert the three (3) sheave capscrews through the clearance holes in the sheave, and start them into the tapped holes of the QD hub. Repeat this procedure to assemble the motor QD hub and sheave.

To install the belts, shorten the center distance of the drive by moving the motor towards the pump, until the belts can be put on the sheaves without forcing.

Align the sheaves so that the faces are parallel, then snug up the sheave capscrews.

Measure the span length as shown in Figure 1.

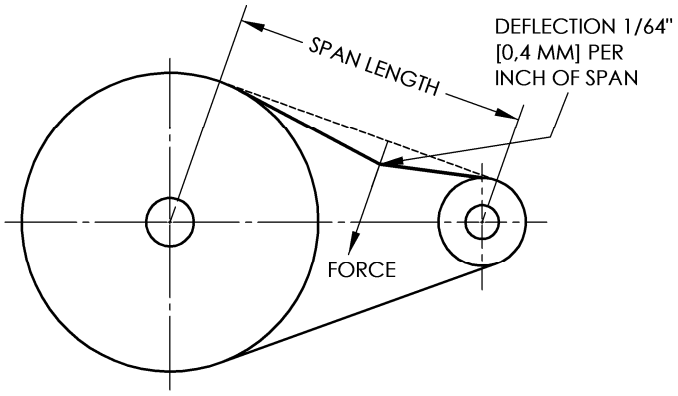


Figure 1

Adjust the motor base then apply a force at the center of the belt span, so that the belt is deflected 1/64 inch for every inch of span. For example, the deflect ion of a 20 inch span would be 20/64 or 5/16 inch. The force required should be within the range given in Table 1. A new set of belts should initially be tensioned to the upper limit. Check again to see that the sheaves are parallel and then tighten the sheave capscrews, the motor mounting nuts and the adjusting screw locknut. Assemble the belt guard and belt guard brace to the unit base.

DEFLECTION FORCE PER BELT

Small Sheave Outside Diameter	Belt Deflection Force Range
2.5 - 4.5" (63.5 - 114.3 mm)	3. 0 – 4.75 Lb (1.4 - 2.2 Kg)
4.75 - 7" (120.7 - 177.8 mm)	4.0 – 6.0 Lb (1.8 -2.7 Kg)

Table 1

Check the belt tension after 24 - 48 hours run-in. Recheck the tension periodically, and tighten the belts as required. Avoid over-tightening belts, which can shorten bearing and belt life. Belts should be inspected periodically for signs of excessive wear and replaced if necessary.

For information on system installation and pump maintenance refer to the Installation and Maintenance Instructions provided with the pump.

DISASSEMBLY

Remove the belt guard and guard brace. Loosen the adjusting screw locknut on the motor base and the motor mounting nuts. Ease the tension on the belts by moving the motor towards the pump to shorten the center distance of the drive. Remove the belts by sliding them over the sheaves. Do not force the belts over the grooves.

To remove the sheave from the hub, first remove the three sheave capscrews, then screw two of them into the threaded holes in the sheave hub. If the cone grip is hard to break loose, tap the end of the shaft or t he QD hub with a lead hammer, while maintaining pressure on the screw.

The QD hub should slide smoothly o ff the shaft. If it is tight on the shaft, pry it loose with a screwdriver or a small wedge placed in the split part of the flange.

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