

# USER MANUAL OF POWERLIFT

## OVERVIEW

### 1. FUNCTION

Powerlift is one of the most important parts in the Bowling System. It lifts the bowling ball from Ball-return Track up to the Rack.

### 2. STRUCTURE

Powerlift consists of Motor, Upper & Lower Shaft Assembly, Double "V" Belt, Concept 90 Ball Lift Wheel and Upper & Lower Track. (Shown in figure.1)

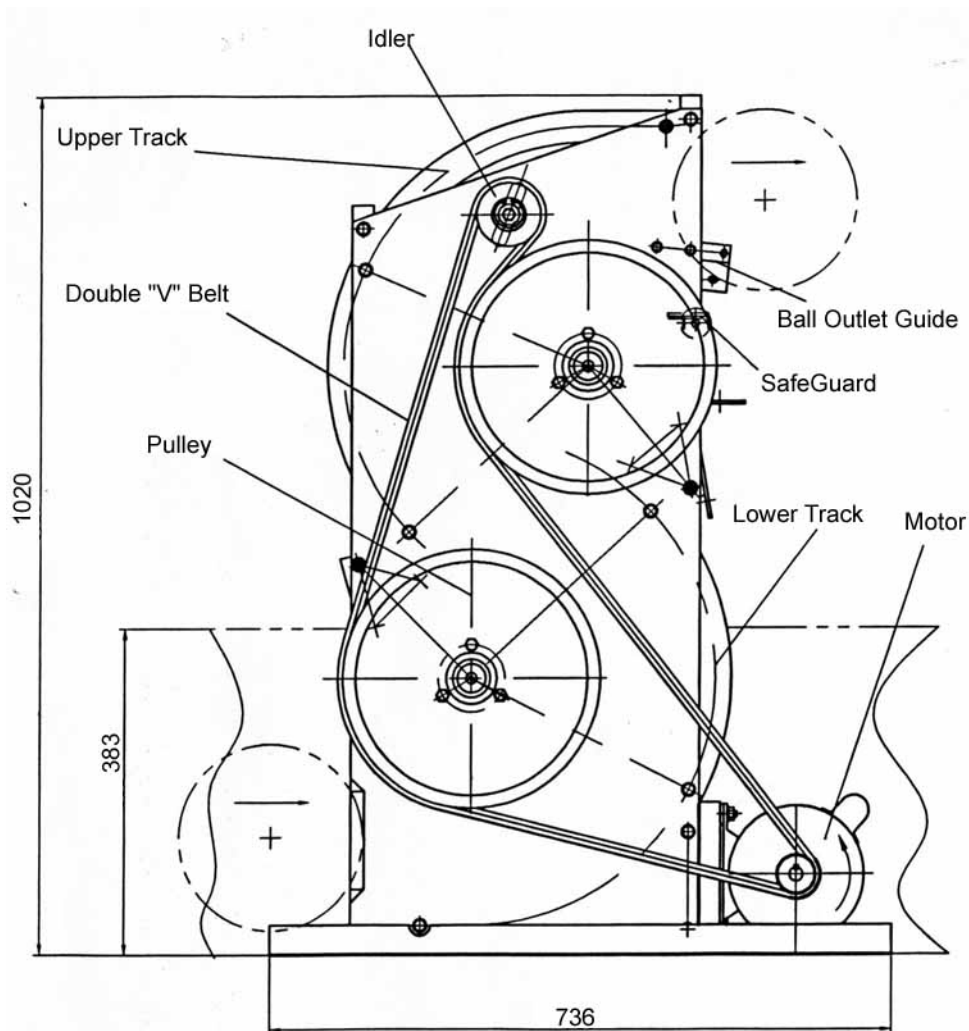


Figure 1

### **3. THEORY**

Motor gives the main power, and the power is transferred to the Pulley by Double “V” Belt. The Pulley Drives the Concept 90 Ball Lift Wheel rotating, which lifts the bowling ball from the track to Rack by friction as a result.

### **4. SAFETY**

The Motor we choose has been C.E. certificated. And due to the safety requirement, there's a movable stop bar near the Ball Lift Wheel at the outlet of the powerlift. When the machine running, the stop bar will keep level. While the power lift need to be maintained temporarily, just put the bar vertically. Then, the motor will stop running. If the maintenance last a little longer, please turn the break to the position “OFF”, where is on the board of the control box.

### **Parameter**

Power: 390W

R/min: 960

Size: 736\*308\*1020

### **Installation and maintenance:**

1. The powerlift must be installed stably and well grounded.
2. The connection between the ball return track and power lift track must be installed smoothly. When the ball rolling from the ball return track to the powerlift track, there cannot be any bounce.
3. The connection between the ball rack and the powerlift: The ball rack should be a little bit lower than the ball outlet guide and make sure that bowling ball can roll smoothly from the powerlift to ball rack.
4. Operation of powerlift: put the break which is located on the board of the control box to the position “ON”. And make sure the stop bar is keeping level, then the machine is able to run normally.
5. Maintenance:
  - 1) After running 1500 hours, the powerlift needs maintenance.

- 2) Power off and take off the hood of the powerlift. And then do some cleanning everywhere.
- 3) Check the intension of the Double V Belt and adjust them properly. The belt will extend after long-time running.
- 4) Check all the hardware and fix the screws and bolts which have been loose.

### Trouble shooting:

Trouble	Possible reasons	Possible ways
The powerlift doesn't run.	<ol style="list-style-type: none"> <li>1. The power leads are not connected properly</li> <li>2. The stop bar is vertical</li> <li>3. The break is off</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the connection of all the power leads.</li> <li>2. Put the stop bar levelly</li> <li>3. Turn the break to the position "ON"</li> </ol>
The bowling balls are failing to be lifted onto the ball rack	<ol style="list-style-type: none"> <li>1. The Double V Belt is loose.</li> <li>2. There's some items on the tracks.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the intension of the belt until the ball can be lifted sucessfully.</li> <li>2. Turn off the powerlift and check the track.</li> </ol>