



SPECIFICATIONS DATA SHEET

MODEL KDC-84 Gen2 Known Distance Target Carriage

Dimensions: Overall Height: 107.5" (Std.)
 Overall Width: 20"
 Overall Length: 74"

Weight: 650#

Carriage Finish: Galvanized
 Optional Double Urethane Polyester Powder-Coat – Desert Tan or OD Green

Maintenance: User Maintenance Free / No grease - No oil required for operation

Unique full length chain safety guarding built into frame guidance....no separate shield required.

Drive System:

- 304L SS chain drive. Size 2050 with replaceable links/passivized and silicon treated
- 304L SS Drive Sprockets/170 Brinell Minimum/ Passivized and silicon treated.
- Thermal conductivity = 16 W/m*K
- Drive-Chain Full-Length Steel Chain Guards for operator safety on front/side/back of chain.
- Full hand-sweep guarding for operator safety during carriage actuation
- Non Ferrous, Spherical ball Self Aligning drive axle bushings with minimum 13,000 life hours with maximum wear life of .010"
- *Independent dual drive axle drive system*
- No metal ball bearing style bearings anywhere on carriage.
- No bronze style bearings anywhere on carriage.

Guidance:

- "Dura-Glide" door guidance system / 12 guide points (No wheels that are subject to freezing and Butts increased noise levels by rattle.
- Self-Aligning *independent axle drive system* for increased operator ease of use

Target Door Carrier Frame:

- Target doors guidance system safety guarded to prevent operator injury
- Target legs locate outside of and forward of carriage frame, not between carriage frames, as wood target legs will warp and hit carriage and cause potential operator injury.
- Free-float design for temperature fluctuations
- Target leg clamps are aluminum round hand wheel type, no lever style to prevent operator injury.
- Heavy Duty 3"x3" molded rubber bumper stops on bottom of door carriers to maximize impact absorption.

- Heavy Duty 3"x3" molded rubber bumper stops on top of frame for door carrier impact absorption.

Counterweight System:

- Transfer style weight pack
- Weights must be solid steel, no plastic coating or cast steel or cast iron to prevent breakage and injury to operator.
- Weights secured with anti-theft device to prevent loss.
- Only Range Control has ability to use anti-theft device for complete control
- UV resistant rubber bumpers between weights for noise reduction
- Weight Pack storage station internal of door frame, no exterior location for safety issues so weight pack cannot strike, hit or trip personnel while in use.

General Data Characteristics:

- Manual operation lifting (automation option available)
- The carriage is uniquely designed to allow the operator an advantaged mechanical balanced lift. The direct weight of the framed target for instance is not the actual dead lifting weight required to operate the carriage.

Carriage Operation Empty (No Target Frame)

Lift Force to Operate with Zero Counterbalances – 12# +/-

Typical 2x4 Wood Target Frame

Frame Weight – 65# +/-

Lift Force to Operate with Zero Counterbalances – 50# +/-

Lift Force to Operate with 6 Weights Counterbalance – 20# +/-

Patriot ButtsBoard Target Frame

Frame Weight – 58# +/-

Lift Force to Operate with Zero Counterbalances – 45# +/-

Lift Force to Operate with 6 Weights Counterbalance – 15# +/-

- There are no minimum or maximum numbers of lifts that will affect the operation of the carriage throughout a typical year of operation. The bi-annual inspection to be performed is for visual recognition of wear items, i.e. sprocket, chain, Dura Glide rail guides.
- Wear characteristics of the sprocket will be the accumulation of a burr on the tooth form, or the tooth itself wearing to a sharp point. This will take many years to wear to this condition and still continue to operate fully.
- Chain wear can be identified by grooves becoming apparent in the barrel of the chain link where it mates with the sprocket, or an audible popping noise can be heard.
- The Dura Glides will take many years of heavy and abrasive use and can continue to be fully functional and used until the Range Maintenance determines the aggregated clearance is affecting the stability of the target in full up position in wind for example.
- Wear on the co-polymer self-aligning bearing is rated at 1.4 million pulls before .010" wear is achieved with a total wear of over .040" allowable.