Famous Full-Function Upper Design
Exclusive Speed-o-Matic Power Hydraulic Controls

The unique machinery power train is ideal for powering the tower crane attachment. All functions are independent and gear driven.

**TOWER HOIST DRUM:**
1. Drum brake, spring-loaded, power hydraulically released, interlocked with tower hoist lowering function.
2. Mechanical drum locking pawl.
3. Planetary reduction tower lowering unit.
4. Planetary reduction tower lowering unit.

**BOOM HOIST DRUM:**
5. Drum brake, spring-applicated, power hydraulically released, interlocked with boom hoist lowering function.
6. Mechanical drum locking pawl.
7. Planetary reduction boom lowering unit.
8. 2-speed boom lowering clutch. (Grapple drum only visible.)
9. 2-speed boom lowering clutch.

**LOAD ROPE DRUMS:**
10. Hold up to 1,000' of rope.

**DRUM BRAKES:** Mechanically operated by foot pedals. Separated from clutches, eliminating wear transistor, extending lining life.

**LOAD LIFTING CLUTCHES:** Completely independent 2-stage clutches; for operating clean tight loads and controlled lowering of heavier loads.

**LOAD HOIST CLUTCHES:** Brake, separated from drum brakes. (Crutch drums only visible.)

**HIGH-SPEED HOIST PUP:**
12. TARY DRIVE UNIT: Optional on front and rear hoist drums. Gear ratio: 1st speed up to 304 t.p.m. on 1st layer, 410 t.p.m. on 7th layer.

**SWING:** 2-speed swing clutches control power rotation is to the vertical swing shaft. (Dirty fight side swing clutches is visible.)

**ENGINE:** Diesel engine with torque converter.

**TRANSmission:** Engine power to machinery through chain enclosed in chain case.

**UPPER FRAME:** All welded and press-braked for strength and flexibility. Fire proofed for proper shaft and gear alignment.

**POWER PACKAGE FOR POWER HYDRAULIC CONTROLS:**
13. Vane-type pump, belt driven from engine.
14. Planetary speed control and pump tank, heated system operating pressure, 200 to 1,050 p.s.i.

**CONTROL CONSOLE:**
15. Speed-o-Matic power hydraulic controls, time-tested and proven throughout the world.

With an extended drum shaft, planetary is mounted between the drum gear and clutch drum; provides up to 75% increased hoist speed (up to 456 t.p.m. on 7th layer of rope on drum). Engaging standard 2-speed clutch provides standard rope speed; planer- taries are controlled by push button located on hoist drum control lever.

The tower and boom hoist rope drum brakes are automatically spring applied and power hydraulically released. The swing brake is automatically applied and power hydraulically released and can be set manually to hold crane upper and lower attachment at any swing position, or can be set manually to engage partially for a slight drag when making precision lifts. Swing brake is controlled from operator's position. The HC-218 also features a swing lock as standard equipment.
Carrier-Mounted Tower Crane

145' Tower + 130' Boom + 50' Jib Gives

7,050 lb. Lifting Capacity at 285' Height
1,700 lb. Lifting Capacity at 180' Reach

The model HC-210 truck crane with Link-Belt Speeder exclusive Full-Function Design upper machinery is ideally suited for adaptation to tower crane attachment. Four rope drums permit independent tower hoist, boom hoist, main road hoist, and jib load hoist. Machine functions are controlled by power hydraulics - super smooth for acceleration and deceleration.

The tower attachment is designed for fast erection from the straight-out position. The boom peak and jib peak are each equipped with wire and tilt. As the tower is raised, the boom and jib travel along the ground. When the tower has been raised to vertical position, the planetary tower hoist unit (page 4, item 11) is stopped and a spring-applied brake holds the rope drum in position. Also, a manually controlled rope drum locking pawl should be engaged. The boom live mast, mounted to the top of the tower, maintains proper angle between boom and pendants both when boom and jib are being raised and when in the working position.

An electronic boom angle indicator is standard and shows the boom angle to horizontal. This mechanism consists of a transducer mounted on the boom base, plus control unit and readout unit in the operator's cab.

Rope-Type Boom Stops

Hi-Lite Tubular Boom

Hi-Lite Tubular Jib

Jib Pendant

Jib Stage

Jib Hoist Brackets

Cushioned Lever-Type Tower Stops

Tower Pendant

Boom Hoist Brackets

Boom Line Mast

Boom Line Pendants

Transducer

Rope-Type Boom Stops

between boom and pendants both when boom and jib are being raised and when in the working position. An electronic boom angle indicator is standard and shows the boom angle to horizontal. This mechanism consists of a transducer mounted on the boom base, plus control unit and readout unit in the operator's cab.

Tower Hoist Kick-Out Device

A tower hoist kick-out device is standard. Should the operator neglect to shut off the tower hoist, as the tower approaches the vertical position, this kick-out device activates a mechanism that automatically disengages the tower hoist and applies the spring-applied rope drum brake.

Standard boom peak is equipped with two sheaves. Jib peak is equipped with one sheave. Boom is equipped with hoist line deflector rollers. Cushioned, lever-type tower stops and rope-type boom stops are standard.

The tubular Hi-Lite tower, boom, and jib are outstanding in design and are precision built, using special automatic machine tools and fixtures.

Special 10' tower section with sheave is available to permit use of 50' tower as a boom for assembling the tower attachment.

This tower is especially designed to perform its functions in supporting the boom, jib, and load. Tower chords are square tube with round tubular lattice. Tower sections are pin-connected to facilitate the insertion or removal of sections. Minimum tower length is 70', maximum, 150' (refer to flysheet for available tower/boom/jib lengths.) Tower section butt plates are precision machined for full-face mating of sections. Male and female connecting lug arrangement aids in proper assembly.

Pin-connected boom and jib have round aluminum tubing chords. Machine skid (lattice) ends match the contour of the chords and are carefully welded in place with 360° welds. The method of welding the lattice pin lugs to the round chord tube is an exclusive development of Link-Belt Speeder engineering/manufacturing technology. Tapered end pins are held in place with latch pins.

Link-Belt Speeder Custom-Designed Carrier

For Mobility And On-The-Job Durability

The alloy steel carrier frame has the strength for tower crane operation. The carrier features diesel engine, 8-wheel service axles, oversize and parking brakes, power hydraulic steering, levels, cab heater and defroster, load indicator, bucket seat with safety belt, ash tray, door handrail, bus-type mirrors, back-up alarm and light.

Hydraulic outriggers are powered by carrier engine. A pilot-operated check valve, fixed to the jack cylinder, "locks" the oil in the cylinder.