Link-Belt HT-450 Stripdown 
A Matter Of Minutes
Hydraulic Counterweight Lowering

Hydraulic track crane job-to-job transportability was not overlooked in the design of the HT-450. Fast stripdown of counterweight and outriggers was a design consideration. Removal of two pins each frees the front and rear outrigger assembly from the carrier. Hydraulic lines are equipped with quick-disconnects. The retracted boom may be used to handle the outriggers.

The counterweight is one piece and held in place by a hydraulically raised and lowered strut. To lower the counterweight to the carrier deck, simply position the direction valve lever (A) and turn the control lever (B) directing oil to the lowering cylinder. The entire job is completed in 10 seconds. Hydraulic power for the raising/lowering cylinder is from the piston-type, engine-driven pump. The contoured counterweight allows the operator to swing away from the counterweight and remove it from the carrier deck with the retracted boom. Hydraulic counterweight lowering is a standard feature on the HT-450.

For reduced rear axle loadings for job to job travel, counterweight may be stored on the carrier deck, held in place with special brackets.

Rear Outrigger — Pin-Connected
Front Outrigger — Pin-Connected
Counterweight Stored On Carrier Deck
Direction Valve And Control Lever

Counterweight Hydraulically Lowered/Raised

We are constantly improving our products and therefore reserve the right to change designs and specifications.
Continuous Innovation....Designed Versatility

The new ATC-822 with 121' (36.88 m) of on board tip height and 22 ton (20 mt) capacity is specifically designed to give you a best equipment value in the 22 ton (20 mt) all terrain class.

Unparalleled Roadability and Job Site Maneuverability

Now from the ground up, the ATC-822 provides the highway transportability of a truck crane and the job site maneuverability of a rough terrain crane. A combination of highway speed capability, low axle loadings and full power shift automatic transmission make it easy to maneuver the ATC-822 on the job site.

Piston-Motor Hydraulic Hoist System

Delivers superior hoisting to the 22 ton (20 mt) all terrain class

Model 1M main winch with single speed motor and automatic brake. Power up/down mode of operation with hoist drum cable follower. Bi-directional piston-type hydraulic motor driven through a double planetary reduction unit provides precise, smooth load control with minimal engine r.p.m.

Multi-function Control

For greater productivity and control, simultaneous function of boom hoist, winch and swing sets the standard in the 22 ton (20 mt) class.

Tow Winch

A hydraulic winch, recessed in the rear of the carrier, is available to provide a variety of job site options to the operator. Conveniently operated from the lower cab, the winch can be used to pull equipment towards the crane or assist in pulling other equipment that may have become stuck.

Computer-aided Design

Link-Belt has pursued a course of continuous innovation to set new standards for all terrain crane design...design original that improve reliability and performance.

Advanced, high speed computer-aided, state-of-the-art designs are measured by their reliable performance through extensive testing and re-testing before Link-Belt endorses a new idea, assuring the customer of real user value...maximum on-the-job performance.

Simplified Routings

All Link-Belt hydraulic cranes incorporate well thought out routings for easy access. Fittings and connections are staggered where necessary for quick and easy servicing.

Serviceability

Standard quick disconnects installed at various locations in the hydraulic system allows the hydraulic pressure to be quickly and easily checked with Link-Belt's exclusive diagnostic gauge kit.

State-of-the-Art Wire Harness

The ATC-822 has Packard XL automotive-type wire harnesses throughout for outstanding long term reliability.

Carrier Cab

The acoustically treated carrier cab assures the operator of highway comfort and control with the standard tilt/telescoping steering wheel connected to rack and pinion power assisted steering. Additional comfort and safety features include dash mounted comprehensive instrumentation with lighted gauges, rear sliding and roll-down door windows for excellent ventilation, fully adjustable fabric seats, aluminum non-skid "diamond plate" floor, suspended pedals, rear view mirrors and automotive type fuses.

Carrier

The Link-Belt design incorporates 100,000 psi steel in a parallel box design to achieve maximum rigidity and torsional strength while reducing weight for roadability. Proven drive train components are matched for reliability and excellent travel speeds of over 65 mph (104 kph).

Link-Belt's 4 x 4 x 4 carrier also features inter-axle differential locks for maximum traction effort, a 6 speed power shift automatic transmission, aluminum "diamond plate" fenders and large engine access doors for serviceability.

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The Link-Belt Model HT-450 hydraulic crane is equipped with the full-power 4-section telescoping boom. For additional reach, manual boom and jib extensions are available. The boom sections are constructed of alloy steel for greater strength. The method of welding the boom sections is a development of FMC Crane and Excavator Division's engineering and manufacturing technology. The boom is hydraulically extended and retracted with an exclusive 3-cylinder arrangement. The cylinders are double acting with the cylinder rods remaining stationary and the cylinder case extending/retracting. This 3-cylinder arrangement eliminates the need for long rods and hose reels.

The boom extend-retract design allows the power boom to extend in sequence. From 10 (red) fully extended to second section (blue) fully extended to third section (yellow) fully extended. This is accomplished by means of an exclusive latch-lock arrangement. The latch (C) locks the center sections (B) and (D) in the fully retracted position. At the end of the tip section stroke, block (E), fixed to the top of the tip section (A) will engage the base of latch (C), unlocking the section (B) and allowing the third section to extend.
Carrier Designed For Mobility And On-The-Job Durability
Carrier Engine Furnishes Hydraulic Power For Crane

The 45-ton Model HT-450 is one of a line of Link-Belt carrier mounted, hydraulic cranes. The HT-450 incorporates a proven hydraulic crane concept with a durable 4-axle carrier especially designed for hydraulic crane duty. The box-type, high-strength alloy steel frame (100,000 psi min. yield strength steel) gives a desirable weight-to-strength ratio — an important consideration in axle loadings for machine transportability.

Functional carrier styling is an important design consideration. The carrier cab is mounted forward of the front axles for easier operator entrance. It also reduces overall cab height. The cab interior provides a touch of luxury for the operator. All side panels are upholstered with pleated vinyl. Floor surface is carpeted to reduce road noise. Bucket seat with safety belt, tachometer, ash tray, lighter, outside handrail, right and left hand bus-type mirrors, windshield wiper, horn, windshield washer, heater, defroster, back-up alarm and lights are all standard equipment.

The HT-450 carrier features an 8 x 4 drive with 12.00 x 20-H 16-ply tires on the tandem rear axles and super single 16.00 x 22.5-H 16-ply tires on the tandem front axles for excellent load carrying capacity and machine flotation.

Power for travel is from the carrier diesel engine into a 15-speed main transmission for negotiating steep grades, maneuvering through traffic, or travelling at highway speeds up to 48 m.p.h. Mounted behind the main transmission, ahead of the rear axles, is a 2-speed range (direct and low) auxiliary transmission. The low speed range is for on-the-job precision travel movements as low as .61 m.p.h.

The tandem rear axles are equipped with planetaries. Power steering and hydraulically actuated service brakes with Maxi brakes on both sides of rear tandem wheels are standard. Service brakes may be set with a brake lock when operating the crane on tires. Maxi brakes provide parking and emergency braking in addition to the service brake function. Tandem front axles are tubular with equalizer beams.

The crane is furnished with a hydraulic power system to operate the crane. The hydraulic oil reservoir is mounted to the carrier by a turntable bearing with integral swing gear.

Hydraulic oil is supplied and returned to the oil reservoir. Oil is filtered and strainer is located in the right front corner of the carrier. A large capacity oil cooler in front of the engine radiator maintains proper oil operating temperature for increased hydraulic component life.

Hydraulic power is from the front of the engine through a universal drive tube (A) into the enclosed gear drive (B) powering pump (C) and (D).

One section of tandem gear-type pump (E) supplies power to hoist and boom hoist. One section supplies power for swing and boom extend retract. The variable volume piston-type pump (D) supplies power for outrigger cylinders, counterweight lowering cylinder, and 2-xle clutches located in the rope drum circuit.

For long distance or full speed over-the-road travel, a cab-controlled pump disconnect clutch is provided to avoid unnecessary wear and overspeed on the pump and drive assembly.

Oil from the pump, driven by carrier engine, flows through a rotating joint mounted in the center of rotation which leads into the upper frame. From the rotating joint, oil is directed into the control valves.