High-production concrete pouring is made to order for Magnetrump® systems — fast and smooth cycling with never an adjustment.

P&H 670-TC
70-TON TRUCK CRANE

Only Harnischfeger builds as much high-performance into a 70-ton Truck Crane.

Your investment in the P&H 670-TC will return more high-profit production to you than any 70-ton truck crane ever built... by P&H or anyone else. Only in a P&H can you get a 70-tonner like this one...

- An super working structure that will handle any select load with power, speed, precision and safety. The all-welded, rigid frame encloses all gearing in an oil bath, keeps oil shifting in perfect alignment. Controls act independently — with Full Flow Power Hydraulic drum controls, ultra-smooth Magnetrump® swing, power up- and down-boom hoist. Maintenance is minimum.
- A powerful 8 x 4 P&H-built carrier that travels where you want it to — perfectly matched to the upper. P&H double-acting hydraulic outriggers set up fast and provide a stable-steel stance over twenty feet wide for a rock-steady working platform or flat on uneven ground. Twenty-speed transmission, air brakes on all wheels. Maxi-safety brakes at the rear, planetary drive wheels with inter-axis differentials are all standard equipment.
- The finest, strongest construction steel available, with 100,000 lb. tensile strength, gives superb strength without excess weight to the center frame, outrigger beams and tubular booms. This is unmatched anywhere in the industry.

Fast set ups on all types of terrain make quick work of most erecting jobs for the 670-TC.

Full Flow Power Hydraulic Controls and power down Boom Hoist spots all loads accurately and safely.

NOTE: All designs, specifications and components of the equipment described above are subject to change at the manufacturer’s sole discretion at any time without notice. Errors published herein is informational in nature and shall not be construed in any manner to limit the liability of the manufacturer for any particular purpose or performance may vary with the conditions encountered. The only warranty applicable to our standard written warranty for this machine. Manufactured and sold in accordance with U.S. Department of Commerce Commercial Standard 25-95-58.

Harnischfeger
P&H

TX-497
265-977, Little Rock, U.S.A.
THE POWERFUL P&H UPPER — ALL-WELDED STRENGTH — FAST — SMOOTH

The one-piece, unitized upper frame is all-welded rolled alloy steel, line-bored for perfect shaft alignment. All gears, chains and shafts run in a continuous oil bath in sealed sealant bearings. The machinery arrangement is compact, scientifically positioned for balance with a minimum of counterweight. Involute spline shafts and anti-friction bearings are used throughout.

From engine to clutch, this upper is virtually maintenance-free, runs at peak efficiency at all times.

POWER UP, POWER DOWN BOOM HOIST

The safest, most reliable boom hoist design is standard on all P&H Cranes and Excavators. The operator has full control, up and down, under power. He never has to use the dangerous practice of lowering a live boom by gravity against a brake. Safety clamps are engaged at all times.

1. When the boom hoist control lever is in the neutral position, the cable drum is locked in position by a wide, pull-wrap spring-set brake band and automatic boom hoist pawl.

Huge Cable Drums Have Added Capacity

Full-wrap hoist drum brake bands provide extra load handling safety; have spring loaded brakes with double hydraulic cylinders. Power controlled lead lowering through planetary gears is available for both hoist drums for precise, safe control of heavy loads.

2. The boom is raised by the boom hoist clutch (not shown). Brake is released by a hydraulic cylinder, but the boom hoist pawl remains engaged to prevent a sudden lowering of the boom should the clutch slip.

3. The boom is lowered by engaging power through planetary gears. Hydraulic cylinder at left releases drum brake; lower cylinder shifts pawl arrangement so that hoist pawl is disengaged and planetary pawl is engaged. This prevents the lowering boom from overrunning engine speed. Cylinder at right sets planetary brake band which reverses drum direction through planetary gears.

This is a sight seldom seen by owners of a P&H. Continuous oil bath runs over and through hardened gearing and heavy-duty roller chain. Heavy, bolted-on and gasketed plates seal out grit and contaminants that cause wear. This is the ideal machinery environment and trouble is a rare thing indeed. Oil changes are infrequent — seasonal, at the most, where oil viscosity must be changed to meet climate conditions. We recommend a change every six months, but many P&H owners in warm and dry climates leave oil in the gear case for much longer periods and never have occasion to lift the lid.

3-SPEED TRANSMISSION

Multiple speed transmission is standard on all P&H construction equipment. Second gear is the normal range for most operations, but when slower or faster gear ratios are more convenient and efficient, heavy lifts that must be handled slowly and precisely will be controlled more easily in low gear. Use high gear for fast, light duty.
EXCLUSIVE MAGNETORQUE® SWINGERS!

replace friction clutches

Model 670-TC on all medium to large P&H truck cranes have
Magnetorque® swing clutches—the fastest accelerating smoothest,
most trouble-free swing units yet devised. Magnetorque® is
exclusive with Harshbarger and can be found only on a P&H.

The operator has precise control of his swing motion through an
infinite variable range of speeds. With finger tip control, he can
shrink it 9' or jam on full power. Swings are absolutely
smooth through the full range of speed and power.

Magnetorque® is an electromagnetic coupling, with driving
and driven members connected by magnetic force through an
air gap. It has no rubbing or wearing parts, no clutch shear or
linings, no disc, no hydraulic lines, cylinders or brake
connections, no moving mechanical linkage, nothing to adjust.

Magnetorque® doesn't jerk, grab, bind or chatter. For draging
or diagonal work, it swings 25% faster than friction type
swing clutches giving you 7 work cycles where other machines
give you 6. It is one of the main reasons you get highest pro-
duction with a P&H.

Here's the reason for the silken smooth swings you get
from Magnetorque®. There is no contact between the
driving and driven members. They are separated
by an air gap. Power is transmitted by a rotating
magnetic field which can be infinitely varied.

FULL-FLOW POWER HYDRAULIC CONTROLS

SELF-PURGING — SELF-ADJUSTING — EXTRA SAFE

Instant-acting control, maximum load-holding safety are the
main features of exclusive P&H Full-Flow Power Hydraulic
controls. The operator has smooth and precise control of
every load.

The system is self-adjusting and self-purging. An unlimited
supply of hydraulic fluid is constantly circulated. Trapped
air is compressed and eliminated through the reservoir. Fluid is
double filtered.

Twin safety features prevent sudden loss of a load in the
case of oil pressure loss. If the pump output should ever
drop, the accumulator will hold sufficient pressure to lower the
load safely to the ground. If you should accidentally cut a
hydraulic line, spring-loaded drum brakes set automatically
and hold until pressure is restored.

The system uses standard automatic transmission fluids.

Engine-driven alternator supplies power for the units.
Magnetorque®. The operator controls the power, in
infinite variation, with a simple hand lever.

Both hoist drums have automatic brakes that set when-
ever pressure is off—whether the engine is not running
or fluid pressure drops. Heavy springs set brakes and release
by hydraulic cylinders which operate only when full control system
pressure is reached. Second cylinder is controlled by
operator to apply brakes during normal operations.

Constant running piston pump is driven by the engine.
The pump takes fluid from the reservoir and delivers it
to the accumulator, which stores it under pressure.
When the accumulator is charged to full system pres-
sure, the automatic unloading
g-valve returns pump out-
put to the reservoir, and back
again to the accumulator when the pressure lowers.

Illustration shows hydraulic fluid reservoir, accumulator,
filter and unloading valve arranged for easy servicing.

Greatest Strength to Weight Ratio

THE P&H ROUND TUBULAR BOOM

Handle bigger loads higher up...farther out.
This is the way the P&H tubular boom is constructed to lift bigger
loads per foot of boom—straight up or far out.
The chords are fabricated of drawn seamless 100,000 lb. tensile
strength steel tubing, the strongest construction steel available. The
round cross section is best suited to resist torsional or bending stresses
from any direction.

Very important to the rigidity of the boom is the way P&H ties the
chords together with tubular linkages. Each linkage is precisely precut
with the ends center-fitted to match the exact curvature of the chords
to provide maximum bearing surface. Full fillet welds are made com-
pletely around and MAGNA-WELDED in spot tacks before the boom leaves
the factory.
Crimped, one-piece linkages with thin-line welded joints still found on
other crane booms, do not pass Harshbarger standards.
Individually Set Outriggers

All four outriggers are positioned by control switches on either side of the carrier. Entire machine is easily leveled with the help of double gauges.

Wide Range — Double Action

HYDRAULIC OUTRIGGERS

Hydraulic outriggers — the way only P&H builds them — quickly set up the 670-TC carrier into a solid working platform on flat or uneven ground with a minimum of positioning or shoring under foots. Two hydraulic cylinders position each beam where you want it — out and down — to a maximum 20 feet 6 inch spread.

1:1 steel gives the outrigger beams superior strength. Each beam and housing is hinged at the opposite side of the carrier for greatest stability.

Removable Outrigger Frame

A pin-connected rear frame containing the entire outrigger structure is standard where extra weight reduction is required. The frame is quickly and easily handled with the crane hook.

Husky vertical cylinders mounted on carrier frame move beams up and down and provide extra range at the end of the beams. Steel-on-steel cam locks assure double safety and prevent outriggers from backing down. Operator merely flips the lever after outriggers are set.

P&H HEAVY-DUTY CARRIER

Solid Support for Big Lifts or Long Booms

The 670-TC Carrier has the strength and ruggedness to provide a firm, stable base for the 20-ton lifts or the 240-foot boom reaches of the matched upper. Yet, its strength is without excessive weight.

From the ground to the boom point, extensive use of the finest conventional steel available, with a tensile strength in excess of 160,000 lbs., makes the 670-TC "all working machine." Without dead weight, it is "all working machine," too. The 670-TC carrier gets to the job, on or off the highway, maneuvering in close and safe, too.

There is as much high-performance built into the 670-TC carrier as there is in its superb upper.

Exceptional lifts on rubber and minimal side tipping action are assured with front and rear solid bogie mounting with torque rods. Dual power steering cylinders ease handling and maneuvering.