

PAYLOADER[®]

**TRACTOR-SHOVEL
WITH
HYDROSTATIC-DRIVE**

**H-25
SERIES "B"**

FEATURES:

Hydrostatic drive
eliminates transmission
and torque converter

Power steering

Faster acceleration

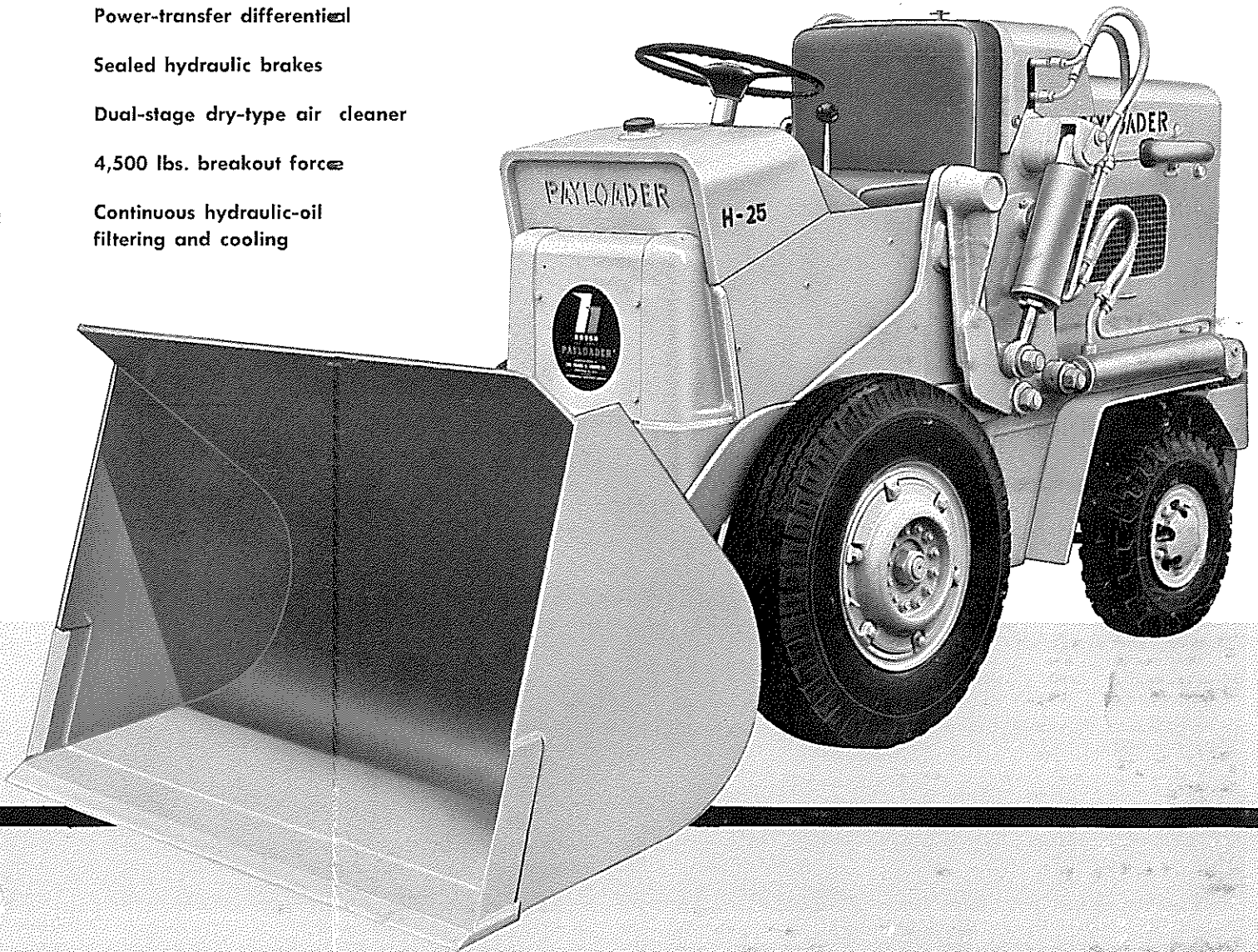
Power-transfer differential

Sealed hydraulic brakes

Dual-stage dry-type air cleaner

4,500 lbs. breakout force

Continuous hydraulic-oil
filtering and cooling



OPERATING CAPACITY

It is Operating Capacity—the load a tractor-shovel can carry in its bucket at normal working speeds—that counts, not its stationary or static Lifting Capacity. This PAYLOADER can carry 2,500 lbs. of material at speeds up to 4 mph. Such capacity has never before been available in a machine with so low a gross weight and so short a turning radius.

HIGH LIFT

The lifting height of this PAYLOADER is unusual for a machine of its capacity and weight. It can easily dump over bin edges up to 6 ft. 7 in. high and the maximum height of the bucket hinge pin is 7 ft. 2 in.

LONG REACH

Forward reach of the bucket lip in highest dumped position is 23 in. ahead of the front tires—up to 26 in. ahead in lower dumping positions.

POWERFUL BREAK-OUT FORCE

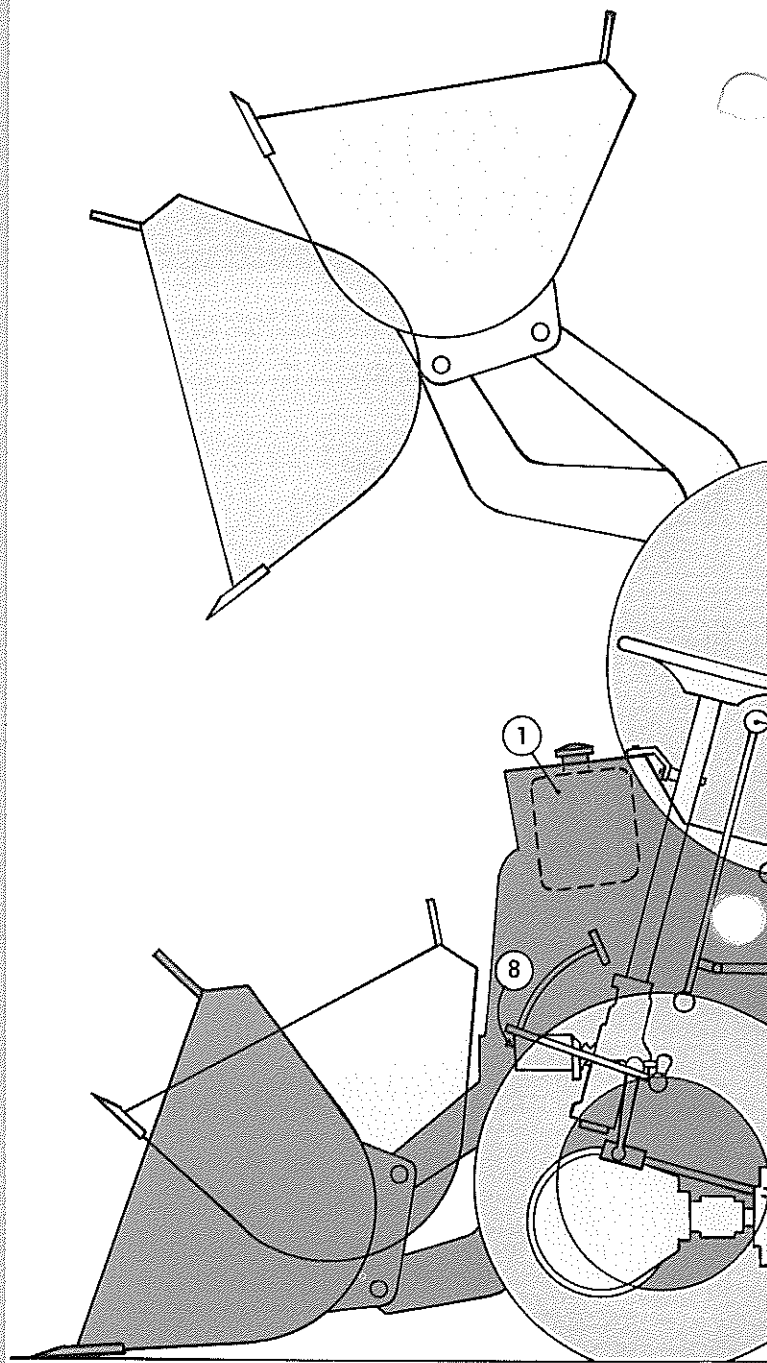
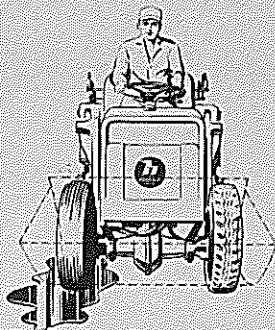
Up to 4,500 pounds of break-out force is provided by the powerful hydraulic bucket tip-back motion when it is needed to pry out big payloads of heavy and lumpy materials. It also gives you 40 degrees of bucket tip-back at ground level—that holds big loads with a minimum of spillage losses while digging and carrying—that carries loads low and close for overall stability and safety—that makes the machine shorter when carrying than when digging, to negotiate shorter turns.

EASE OF OPERATION

The model H-25 is the only loader in its size range that has a hydrostatic drive and power-steering as standard equipment. These two features alone cut driver effort to a minimum. A single lever controls the drive, including reverse, and no down-shifting for digging range or up-shifting for travel range is required as this is fully automatic. In addition there are the comfortable seat and full back rest and sealed self-adjustable hydraulic brakes that are positive and dependable at all times. Your driver never "had it so good" and is encouraged to go "all-out", all day. An optional extra is the hydraulic load-shock-absorber that cushions the loaded bucket, minimizing spillage and smoothing the ride.

POWER TRANSFER DIFFERENTIAL

This is an exclusive feature and greatly increases the effectiveness and reliability of the traction. When poor traction conditions are encountered such as mud, oily floors and other slippery materials the wheel with the better grip automatically gets more power. Wheel-spinning, time-wasting, tire-wearing action is reduced—you get traction instead of inaction.

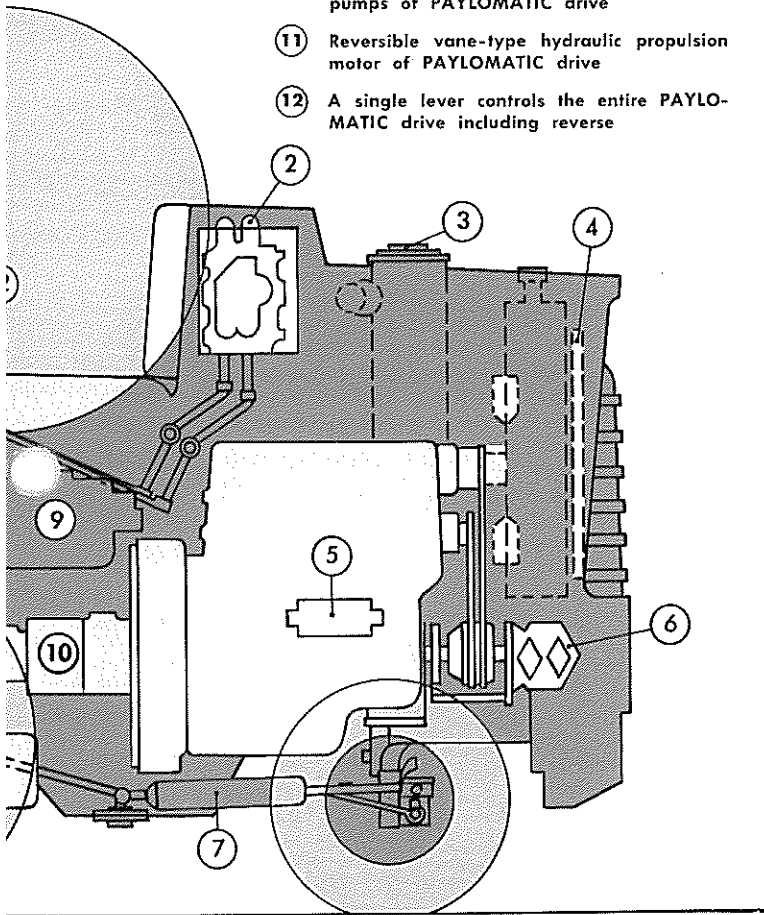


PAYLOMATIC DRIVE — FOR NEW PERFORMANCE

This H-25 Series "B" PAYLOADER is the first loader on the market with hydrostatic drive. This new Hough drive—called the PAYLOMATIC—has been thoroughly field-tested and proven. No manual or power-shifted gear box nor torque-converter is required. Instead two hydraulic pumps directly coupled to the engine and operating singly or in combination power a hydraulic motor driving the differential and front axle. Its big advantages are more dependability, faster acceleration, greater availability and lower maintenance since



- ① 9-gallon fuel tank — full 8-hr. shift capacity
- ② Boom and bucket control valve mounted on hydraulic reservoir
- ③ Efficient 2-stage dry-type air cleaner
- ④ Positive cooling of all hydraulic oil with separate air-cooled radiator
- ⑤ All hydraulic oil circulates through an efficient filter
- ⑥ Hydraulic pump for loader and steering rams has easy access by removing a cover
- ⑦ Hydraulic ram for power steering (exclusive)
- ⑧ Brake master cylinder accessible by removing a cover
- ⑨ Hydraulic control valve for PAYLOMATIC drive
- ⑩ Two double-element-type vane hydraulic pumps of PAYLOMATIC drive
- ⑪ Reversible vane-type hydraulic propulsion motor of PAYLOMATIC drive
- ⑫ A single lever controls the entire PAYLOMATIC drive including reverse



E, DEPENDABILITY AND LOW MAINTENANCE



less than half as many parts are involved in comparison with a conventional transmission. A single lever controls the drive, including reverse, and shifting is automatic between digging and travel ranges, so added benefits are gained through faster cycling and reduced operator fatigue. Should either of the two hydraulic pumps or the hydraulic motor require replacement a cartridge of ring, rotor and vanes can be replaced as a unit in a matter of minutes to further reduce servicing requirements.

OPERATOR SAFETY

Ease of operation alone, by reducing driver fatigue, is a big safety factor. In addition there is the underslung boom arm design that keeps operator hands or limbs out of danger . . . the low, close bucket-carry position for greater balance and stability . . . the full all-around operator visibility available at all times. Bar-type brake pedal can be actuated with either foot.

BIGGER FUEL TANK

The fuel tank holds 9 gallons so that the machine can operate a full 8-hour period without time out for refueling.

CLOSED, PRESSURE-CONTROLLED HYDRAULIC SYSTEM

The entire hydraulic system serving the hydrostatic drive, the boom and bucket rams and power steering is of the closed, pressure-controlled type that prevents the entrance of dust and dirt into the system. To provide additional protection for the hydraulic oil and to minimize hydraulic-system maintenance, an efficient filter is provided through which all the hydraulic oil is circulated.

MECHANICAL PROTECTION

In addition to the hydraulic-system protection described above many other features have been built-in to promote long life and low maintenance. A two-stage dry-type air cleaner system and oil filter on the engine; tight seals on all oil filter and bayonet-gauge openings; special seals on many pivot points; tapered roller bearings on critical main bearings of boom mechanism; needle bearings with large grease capacity on king-pin bearings; sealed hydraulic brakes; special radiator section to cool all the hydraulic oil.

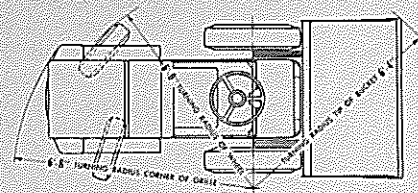
ACCESSIBILITY

Removable side covers give access to both sides of the engine. A removable cover gives access to the main hydraulic pump, a removable cover provides ready access to the master brake cylinder.

ENGINES

The 48 h.p. gasoline engine in this PAYLOADER provides plenty of power, for all operating conditions. It is the overhead valve type to insure better performance and has wet cylinder sleeves for long life and low maintenance. Liquefied petroleum gas (LPG) and Diesel power are also available.

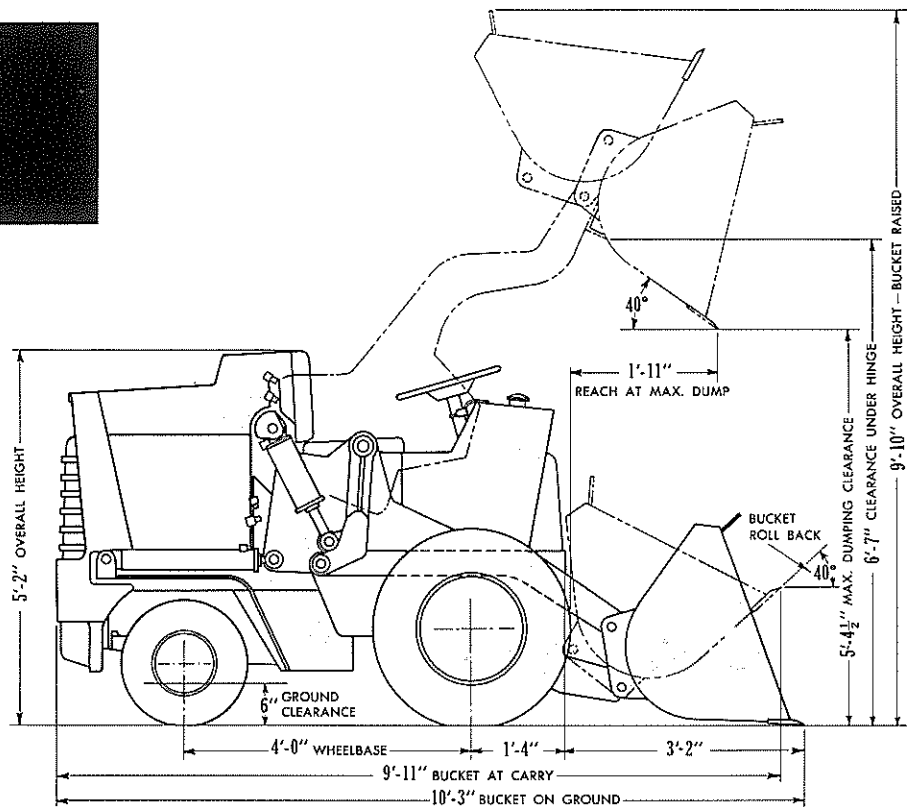
MANEUVERABILITY



This PAYLOADER has a very short turning radius — shorter, in fact, than a smaller-capacity machine. It can go in and out of 6' box car doors to load and unload cars — can operate readily in 6-ft. aisles. Its power-steering and hydrostatic drive make it possible to accomplish these close-quarter maneuvers fast and frequently, without operator fatigue.

H-25

SERIES "B"



DIMENSIONS SHOWN ARE WITH BUCKET 144547

CONVERSION TABLE	
1 Inch = 2.54 Centimeters	1 Sq. Ft. = 929 Sq. Centimeters
1 Foot = 30.48 Centimeters	1 Sq. Yd. = 0.836 Sq. Meters
1 Mile = 1.609 Kilometers	1 U.S. Gallon = 3.785 Liters
1 Sq. In. = 6.452 Sq. Centimeters	1 U.S. Gallon = 0.833 Imp. Gals.

specifications

capacity

Operating Capacity2,500 lbs.
 Standard Bucket (S.A.E. rated)20 cu. ft.
 Optional Bucket Capacities 13 cu. ft. to 1 1/2 cu. yd.

overall dimensions

Width (front tires)4' 1 1/2"
 Width (rear tires)3' 6"
 Steering Axle Oscillation13°
 Maximum Dump Angle at Max. Dump
 Height40°

turning radius

Outside (rear hub or wheel)6' 0"
 Outside corner bucket (carry)6' 4"
 Outside rear corner (grille)6' 8"
 Aisle width (bucket at carry)6' 1"

wheels & tires

Rear (standard)6:00 x 9-6 P.R.
 Front (standard)7:50 x 16-8 P.R.
 Tread, front3' 4 1/2"
 Tread, rear2' 11"
 Optional tires available.

hydraulic system

Closed with pressure-control (15 lbs. per sq. in.) and vacuum relief.
 Boom Rams: Two, single-acting, 3" diameter; chrome-plated piston rods. Raise boom in 5.5 seconds, lower boom in 3 seconds.

Bucket Rams: Two, double-acting, 4" diameter; chrome-plated piston rod. Open bucket in 2 seconds, close bucket in 2 seconds.
 Pump: Direct drive from engine crank shaft.
 Valve: Two-spool with relief valve.
 Reservoir: Electrically welded — with baffles, hand hole for cleaning; oil level dip stick.

engine

	Gasoline	Diesel
Make	Waukesha	Waukesha
Model	180 GKB	180 DLC
Max. h.p. at gov. speed	48	42
Governed R.P.M.	2200	2200
Max torque ft. lbs.	131	101
at R.P.M. of	1400	1800
Bore & Stroke	3 5/8 x 3 3/4"	3 1/2 x 3 3/4"
No. cylinders	4	4
Displacement	155	144
Fuel tank, U.S. gallons ...	9	9
Electrical system	12 volt	12 volt

hydrostatic drive

TypeHOUGH-Built Automatic Shift

	1st	2nd
Speeds forward, mph	1.9	10.8
Speeds, reverse, mph	1.9	10.8

Drive axle: Double reduction with power transfer differential.

brakes

	Service	Parking
Type	Hydraulic	Mechanical
Location	Front Wheels	Drive Shaft

weight (Operating Weight, lbs.)

	Gasoline	Diesel
Front	2,935	2,940
Rear	3,525	3,625
Total	6,460	6,565

fireproofing

Safety accessories such as dry or water cooled flame and spark arrestors and Protecto-Seal gasfiller caps available as extras — assure safe operation — lower insurance rates.

standard equipment

Generator, starter, batteries, horn, voltage regulator, two stage dry-type air cleaner, cartridge-type filters for engine oil and hydraulic oil, engine compartment side panels, quick-access service panels, power steering, hydrostatic drive, disconnect with service brake controller, oil-to-air hydraulic oil cooler, mechanical parking brake, 2-wheel, sealed, hydraulic brakes, muffler.

Gages: Ammeter, engine oil pressure, engine coolant temperature, hourmeter, fuel, hydraulic oil temp., hydrostatic drive, disconnect warning light.

allied equipment

Reversible snow plow; pick-up sweeper with sprinkler attachment; cab; solid or laminated tires; scarifier; fork lift; hydraulic load-shock absorber; no-spill bucket.

The Frank G. Hough Co. reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring obligation as to units already sold.

HOUGH

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 LIBERTYVILLE, ILLINOIS
 SUBSIDIARY INTERNATIONAL HARVESTER COMPANY
 IN CANADA HOUGHCO PRODUCTS LTD. CANADIAN QUE.

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