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MANUAL PREVIEW

Hough
Operator's Manual
HA Payloader
S/n 23500 & up

Operator's Manual

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HO-O-HA LATE

OPERATING MANUAL

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MODEL HA PAYLOADER

BEGINNING WITH SERIAL NUMBER 23500



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or Call 800-443-0625

MANUFACTURED BY

THE FRANK G. HOUGH CO.

LIBERTYVILLE, ILLINOIS

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FORM HA-50

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AVOID ACCIDENTS

Most accidents, whether they occur in industry, on the farm, at home, or on the highway, are caused by the failure of some individual to follow simple and fundamental safety rules or precautions. For this reason most accidents can be prevented by recognizing the real cause and doing something about it before the accident occurs.

Regardless of the care used in the design and construction of any type of equipment, there are many conditions that can not be completely safe guarded against without interfering with reasonable accessibility and efficient operation.

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT.

THE COMPLETE OBSERVANCE OF ONE SIMPLE RULE WOULD PREVENT MANY THOUSAND SERIOUS INJURIES EACH YEAR. THAT RULE IS:

"Never attempt to clean, oil or adjust a machine while it is in motion!"

"National Safety Council"

CONDENSED SPECIFICATIONS & SERVICE DATA

ENGINE:

No. Cylinders	4
Bore	3-1/4"
Stroke	4"
Displacement	133 cu. in.
Speed (Governed)	1800 R.P.M.
Horse Power	29

Complete with electrical starting equipment, oil bath air cleaner with centrifugal type precleaner and engine oil filter.

TRANSMISSION:

Two speeds forward and two speeds reverse, completely equipped with anti-friction bearings.

FINAL DRIVE:

Heavy duty double reduction spiral bevel and spur gear design. First reduction spiral bevel with differential ahead of final drive. Full floating axle shafts. Completely equipped with ball and roller bearings.

GEAR RATIO: 22 to 1

PAYLOADER SPEEDS, MILES PER HOUR (ENGINE AT 1800 R.P.M.)

TRAVELING SPEEDS:	FORWARD	REVERSE
Low	2.9	4.75
High	6.3	10.0

CAPACITIES:

Cooling System	3-1/2 gal.
Fuel Tank System	6-1/2 gal.
Transmission Case	4-1/2 pints
Final Drive Differential Case	5-1/2 pints
Crankcase	5-quarts
Hoist Reservoir	6 gal. approx.

BUCKET: STANDARD:

Width	48
Capacity, Volume	12 cu. ft.
Capacity, Weight	1000 lbs.

CLUTCH:

12" Spring Loaded, Single Plate Dry Disc.

BRAKES:

12" x 1-3/4" - INTERNAL EXPANDING HYDRAULIC BRAKES ON BOTH FRONT DRIVE WHEELS.

STEERING:

Heavy Duty Truck Recirculating Ball Type Steering Mechanism.

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OPERATING THE PAYLOADER

DRIVING THE PAYLOADER

This Payloader is equipped with a two speed forward and a two speed reverse transmission.

The speed and direction desired is selected by shifting a RANGE LEVER and a DIRECTIONAL LEVER, located next to the steering column - see picture "Operating Controls".

RANGE LEVER

The RANGE lever is the shorter lever located on the right hand side of the steering column. This lever is in NEUTRAL when it is in a vertical position. When pulled backward from neutral the transmission has been shifted to LOW range. When pushed forward from neutral the transmission has been shifted to HIGH range.

The low speed range is used for working conditions where more power is needed.

The high speed range is used primarily for transporting loads to various locations.

Always place this lever in neutral position when leaving the operator's seat.

DIRECTIONAL LEVER

The DIRECTIONAL lever is the longest lever located on the left hand side of the range lever. When pulled backward the transmission is in REVERSE gear. When pushed forward the transmission has been shifted to FORWARD gear. Keep this lever in either forward or reverse position at all times, even when idling the engine, as no neutral position is provided for this lever.

FOOT PEDALS

The CLUTCH pedal is located on the left side of the floorboard. When pushed down the transmission is disengaged from the engine. Always keep the clutch pedal depressed when shifting either the range lever or the directional lever. DO NOT engage the clutch suddenly thus allowing the Payloader to jerk with the load. Release the pressure on this pedal slowly allowing the clutch to engage gradually.

CAUTION: DO NOT ATTEMPT TO SHIFT GEARS WHILE THE PAYLOADER IS IN MOTION. DO NOT DRIVE THE PAYLOADER WITH THE FOOT RESTING ON THE CLUTCH PEDAL; THIS WILL CAUSE UNDUE WEAR ON THE CLUTCH FACINGS AND THROWOUT BEARING.

The BRAKE PEDAL is located on the right side of the floorboard and is used to bring the Payloader to a STOP. Depress the brake firmly when braking. It is good practice to keep the clutch engaged until the Payloader has been slowed down and nearly brought to a halt by depressing the brake. Then disengage the clutch and stop the motion of the Payloader completely. This allows the engine compression to assist the brake and saves wear on the brake linings.

The ACCELERATOR pedal is located to the right of the brake pedal. Applying pressure on this pedal increases the flow of fuel to the cylinders by opening the carburetor intake. This increases the engine speed thus accelerating the motion of the Payloader. Apply a slight increasing pressure on the accelerator pedal while slowly releasing pressure on the clutch pedal. This allows the Payloader to start evenly, without jerking. The raising and lowering speed of the booms and bucket is also governed by the accelerator.

DASH INSTRUMENTS

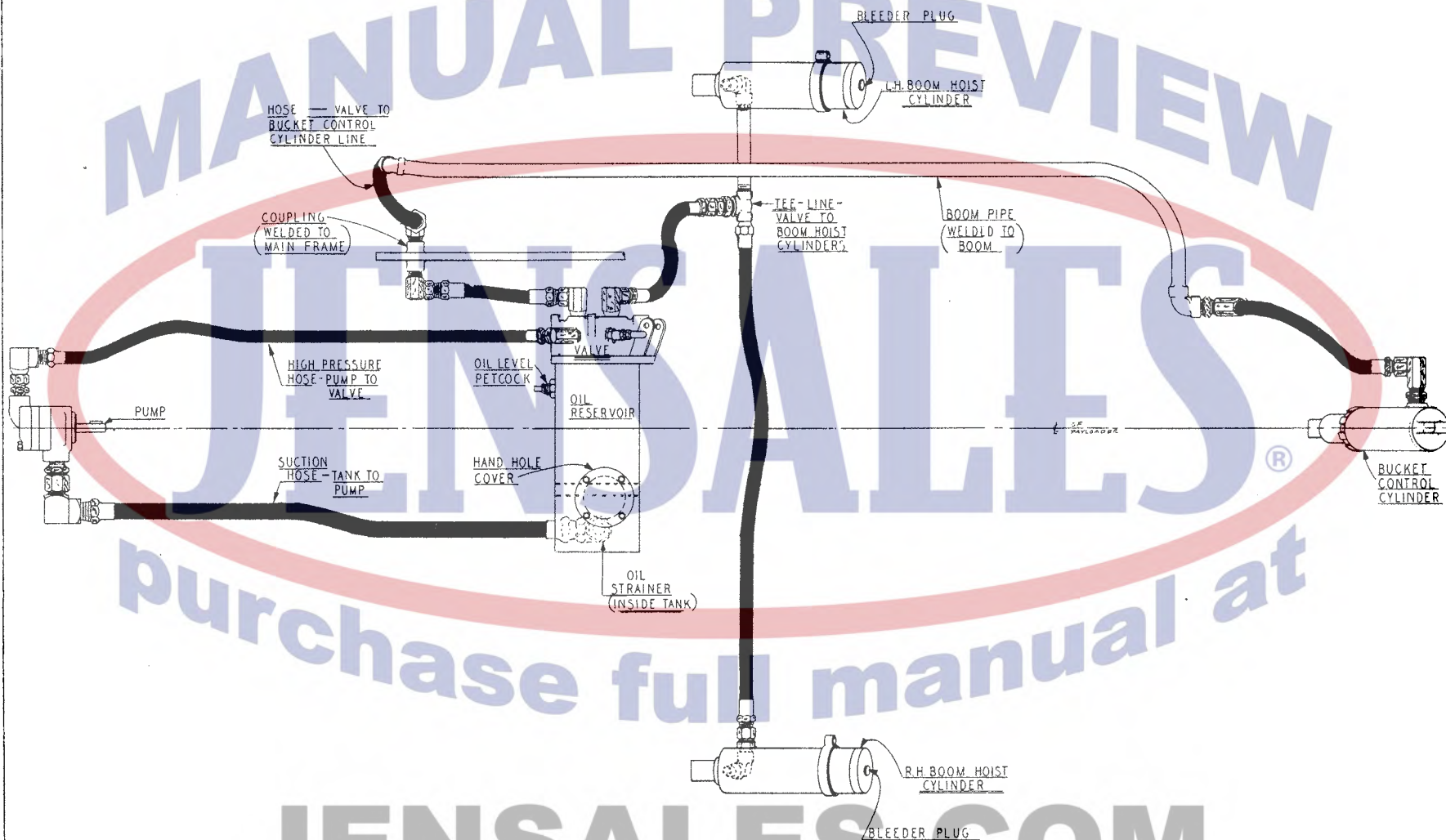
IGNITION SWITCH is located on the extreme left side of the dash and controls the current to the dash instruments, and horn. Pull out this switch before pressing the starter button when starting the engine. Push in to stop the engine.

AMMETER indicates whether the battery is being charged or discharged. The needle should be in the "charge" range during operation. If in "discharge" range continuously, the cause should be investigated to avoid completely discharging the battery.

TEMPERATURE GAGE indicates the temperature of the liquid in the cooling system. The gage should register in the vicinity of 160° F. for normal operation. Temperature may indicate as high as 200° F. when operating in confined quarters.

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Fig. 2
Hydraulic Diagram



HYDRAULIC DIAGRAM (SCHEMATIC)

FOR HA PAYLOADERS BEGINNING WITH SERIAL
NOS. 23500

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