

The "BIG ONE"
from ... **P&H**

RH-25



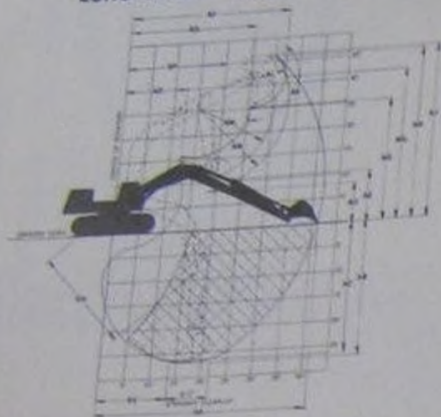
HEAVY DUTY FULLY HYDRAULIC EXCAVATOR

More Digging Power Behind the Bucket Plus Faster Working Speeds

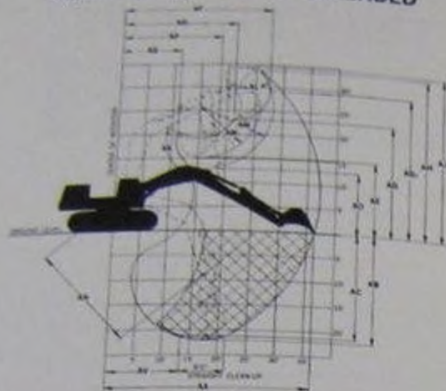
- Most advanced high-pressure hydraulic system — over 4,000 p.s.i. — field proven on thousands of demanding jobs around the world.
- Exclusive — variable volume piston pumps — engine can't be lugged. Precision-manufactured pumps, valves and cylinders.
- Sealed, lifetime lubricated crawler rollers.
- More than 2-ft. ground clearance.
- Joy stick controls — with power assist for easiest, effortless operation, infinite metering action.
- Exclusive — self-regulating pumps which sense requirements of each function and automatically adjust their output. Engine is protected against overloading.
- Adjustable boom lengths, plus two stick lengths, for optimum digging capabilities.
- Readily convertible to a shovel.



LONG STICK — BOOM EXTENDED



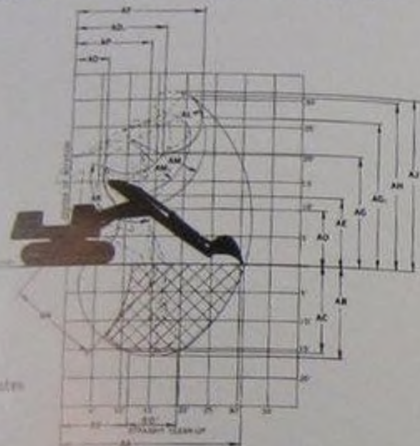
SHORT STICK — BOOM EXTENDED



LONG STICK — BOOM RETRACTED



SHORT STICK — BOOM RETRACTED



Model R420L-7, 7.7, 8.0, 8.5
Straight Clearance

WORKING RANGES

1. Ascent at Grapple Limit

2. Digging Depth (1st Cut)

3. Depth of Cut (2nd Cut) - Teeth Retract 1/2 Dipper Arm

4. Depth of Cut (3rd Cut) - Teeth Retract 1/2 Dipper Arm

5. Max. Dipper Teeth at Max. Boom Extension - Dipper Arm & Dipper Swing Fully on

6. Max. Dipper Teeth at Max. Boom Extension - Dipper Arm & Dipper Swing Fully on

7. Vertical Clearance at Bottom of Dipper with Load at Max. Boom Extension

8. Clearance Radius of Dipper Teeth at Max. Boom Extension

9. Vertical Clearance of Dipper Teeth with Attachment at Max. Height

10. Clearance of Dipper Teeth Relative to Dimension "W"

11. Teeth Distance from Grapple at End of Highest Dump

12. Teeth at Attachment

13. Sweep Angle

14. Sweep Radius

15. Sweep Radius Over Teeth — Extended

16. Sweep — Retracted

17. Lift from Boom Foot Pin to Boom Foot Pin

18. Clearance for Highest Dumping Sweep of Dipper Teeth

19. Minimum Radius with Boom at Max. Elevation & Arm & Dipper Swing Fully on

20. Lift of 2 Ft. Level Bottom at Max. Depth

	LONG BOOM ARM		SHORT BOOM ARM	
	BOOM EXTENDED	BOOM RETRACTED	BOOM EXTENDED	BOOM RETRACTED
1. Ascent at Grapple Limit	42'5"	35'4"	35'5"	30'8"
2. Digging Depth (1st Cut)	27'0"	21'5"	22'1"	16'5"
3. Depth of Cut (2nd Cut) - Teeth Retract 1/2 Dipper Arm	26'0"	21'0"	21'6"	15'10"
4. Depth of Cut (3rd Cut) - Teeth Retract 1/2 Dipper Arm	32'5"	7'4"	11'3"	6'2"
5. Max. Dipper Teeth at Max. Boom Extension - Dipper Arm & Dipper Swing Fully on	22'7"	20'5"	21'3"	16'1"
6. Max. Dipper Teeth at Max. Boom Extension - Dipper Arm & Dipper Swing Fully on	10'8"	7'8"	15'5"	12'7"
7. Vertical Clearance at Bottom of Dipper with Load at Max. Boom Extension	32'0"	26'11"	27'8"	22'7"
8. Clearance Radius of Dipper Teeth at Max. Boom Extension	15'0"	22'6"	23'3"	20'3"
9. Vertical Clearance of Dipper Teeth with Attachment at Max. Height	31'7"	28'7"	29'3"	26'3"
10. Clearance of Dipper Teeth Relative to Dimension "W"	16'1"	33'1"	33'9"	30'9"
11. Teeth Distance from Grapple at End of Highest Dump	26'5"	33'5"	34'1"	31'1"
12. Teeth at Attachment	143"	143"	143"	143"
13. Sweep Angle	6'1"	6'1"	6'1"	6'1"
14. Sweep Radius	18'2"	18'2"	13'0"	13'0"
15. Sweep Radius Over Teeth — Extended	15'2"	15'2"	10'0"	10'0"
16. Sweep — Retracted	22'3"	17'1"	22'3"	17'1"
17. Lift from Boom Foot Pin to Boom Foot Pin	8'0"	5'0"	12'9"	9'11"
18. Clearance for Highest Dumping Sweep of Dipper Teeth	20'9"	14'11"	18'10"	13'9"
19. Minimum Radius with Boom at Max. Elevation & Arm & Dipper Swing Fully on	13'4"	11'6"	13'9"	11'9"

A TRUE PIPELINER

With the RH-25 you get a fresh burst of power where others quit . . . automatically increasing up to 4250 p.s.i. as a special circuit senses digging requirements. But, as digging resistance lessens, speed automatically increases.

It's a rugged hoe with a heavy duty crawler system. Features include tractor-type crawlers with sealed, lifetime lubricated rollers. And there's more than 2 feet of

under-carbody clearance.

Adjustable boom lengths plus choice of sticks means you get optimum capability every foot of the way. Cycling is made even faster with 7 r.p.m. swing speed and power assist controls. You move up swiftly with big propel power.

If your profit statement depends on hoers . . . look to the RH-25, the high performance pipeliner.

GENERAL DIMENSIONS



	W/24" shoes	W/30" shoes	W/36" shoes
A — Width of superstructure	9'-8"	9'-8"	9'-8"
B — Overall height	10'-11"	11'-0"	11'-0"
C — Swing clearance	10'-8"	10'-8"	10'-8"
D — Boom foot pin to rotation	2'-3"	2'-3"	2'-3"
E — Boom foot pin height	7'-9"	7'-10"	7'-10"
G — Revolving frame height	4'-10"	4'-11"	4'-11"
J — Overall length of crawler	16'-3"	16'-5"	16'-5"
K — Overall width of crawler	11'-0"	11'-6"	12'-0"
L — Width of shoes	24"	30"	36"
M — Crawler tread belt height	4'-0"	4'-2"	4'-2"
N ₁ — Ground clearance (drive Assy.)	0'-11"	1'-0"	1'-0"
N ₂ — Ground clearance (carbody)	2'-2"	2'-3"	2'-3"

SPECIFICATIONS

UPPER MACHINERY

POWER PLANT: Cummins: V-785 C, 8 cyl. 220 net hp at 2300 rpm.

FUEL TANK: 120 gal. capacity.

THROTTLE: Morse Model "S" — hand lever control.

FAN: 6 blade — 28" dia. — suction type.

GAUGE CLUSTER (ENGINE): Fuel tank, oil pressure, voltmeter, water temperature.

STANDARD ACCESSORIES: Variable speed governor, solenoid shut down, hour meter, tachometer, hydraulic oil temperature gauge, starter button, autopanic dry type air cleaner, 24 volt electrical system with alternator, master key switch.

PUMP DRIVE ASSEMBLY: Mounted on hydraulic reservoir, 3 station drive with two main pumps inside reservoir and single servo pump on outside. Direct driven from engine flywheel through elastic coupling & universal joint.

HYDRAULIC OIL COOLER: Connected in return circuit between main valves and reservoir.

HYDRAULIC PUMPS: Two self-regulating axial piston pumps, 1800 rpm at gov. eng. speed, 59 G.P.M. at 2250 P.S.I., in fixed displacement, non-regulating stage, 26 G.P.M. minimum at 4250 P.S.I. maximum in variable displacement, self-regulating stage. Front pump: LH propel, swing & stick have priority with flow being available to dipper or boom (dipper has priority over boom) if not being used by any of the other functions in this circuit.

Rear pump: RH propel, boom & optional shovel dipper have priority, with flow being available to the dipper & stick (dipper has priority over stick) if not being used by any of the other functions in this circuit. NOTE: Boom, dipper & stick may utilize flow of both pumps simultaneously if no other function is being performed at the same time . . . thus doubling the working speed.

Rear outside pump: Servo control system — 7 G.P.M. at 570 P.S.I. — gear type.

HYDRAULIC CONTROL VALVES:

Main Control Valves: Sliding spool, 4 way, pilot operated, servo controlled. Large valve for boom dipper and stick. Small 3-spool valve for swing RH & LH propel, and single spool valve for optional shovel.

Servo Control Valves: Constant pressure, manually controlled. One for boom & stick; one for swing & dipper; one for swing brake; one for propel; two for optional shovel dipper.

CONTROL: Servo control valves manually operated. 2 joystick type hand control levers — one for boom & stick, one for swing and

dipper. 2 hand control levers for RH & LH propel. One foot pedal for swing brake. 2 foot pedals for optional shovel dipper opening — closing.

OPERATOR'S CAB: All weather, full vision cab, with safety glass windows.

SWING DRIVE: Hydraulic motor driving thru gear reducer — 360° continuous rotation up to 7.2 rpm.

SWING BRAKE: Internal, expanding shoe type, mounted on shaft extension from swing reducer. Hydraulically actuated with foot pedal control or manually controlled with hand lever.

SWING GEAR: Internal cut teeth — 54° P.D.

TYPE OF FASTENING TO LOWER: Ball bearing Swing Control. Swing gear integral.

COUNTERWEIGHT: Removable — 15,000 lbs.

WORKING WEIGHT: With 30" std. shoes and 2 ft. of counterweight.

LOWER MACHINERY

CRAWLER DRIVE: Two independent, self-aligning, self-cleaning, hydraulic motors (powered from separate pumps) drive the upper through triple reduction gear reduction to the lower drive.

STEERING: Independently controlled crawler drive for pivot turning.

TRAVEL SPEED: Single speed, 1.2 mph.

CRAWLERS: Tractor type — with compression spring adjustment, 52 shoes, wear strips, 30" dia. rollers (lower) and 36" dia. rollers (upper) each frame.

CRAWLER SHOES: 30" dia. (upper) and 36" dia. (lower) semi-grouser (opt.)

ATTACHMENTS

HOE DIPPERS: Available in 30", 36" and 42" sizes.

SHOVEL DIPPERS: Consult factory.

BOOM CYLINDER: 2 double acting — 10" dia. x 12" stroke.

STICK CYLINDER: 1 double acting — 10" dia. x 12" stroke.

DIPPER CYLINDER: 1 double acting — 4.25" dia. x 120" P.S.I. pilot relief.



THE HIGH PERFORMANCE EXCAVATOR



NOTE: In furtherance of our policy of continual product improvement, all designs and specifications are subject to change without advance notice. Data published herein is informational in nature and shall not be construed to warrant suitability of the machine for any particular purpose as performance may vary with the conditions encountered. The only warranty applicable is our standard written warranty for this machine. Manufactured and sold in conformance with U. S. Department of Commerce Commercial Standard CS-90-58.

Address inquiries to:



HARNISCHFEGER



Milwaukee, Wisconsin 53246

P&H

RH-25

3 CU. YD. HEAVY DUTY HYDRAULIC SHOVEL



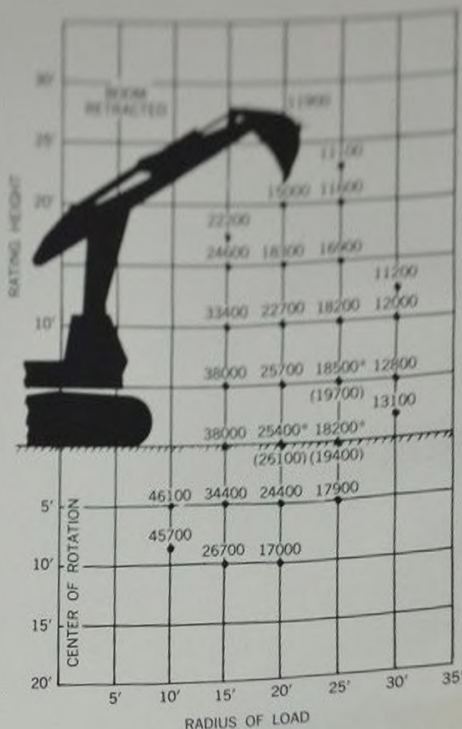
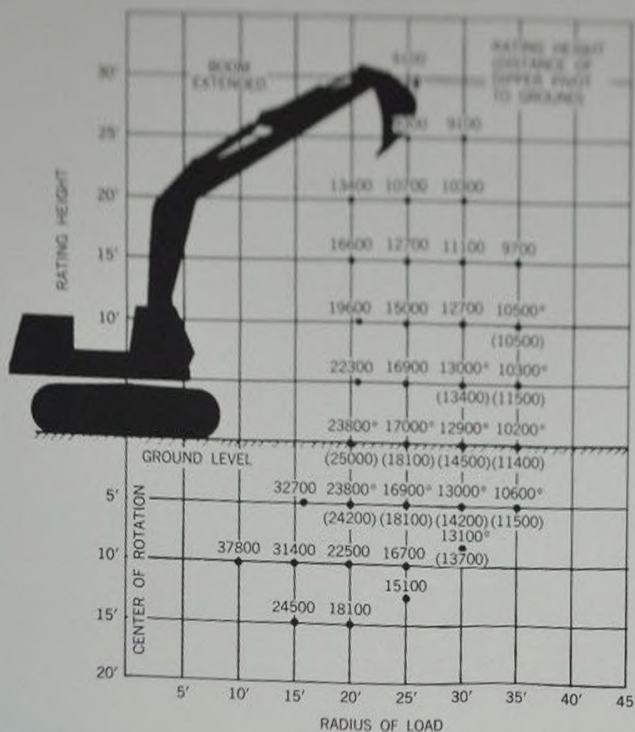
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RH-25

FULLY HYDRAULIC EXCAVATOR

LOAD RATING CHART—HOE LIFTING CAPACITY WITH SHORT STICK

Ratings are based on 75% of the tipping load as determined by the PCSA.
Add 13% to all ratings to obtain 85% of tipping.



Ratings based on the machine standing on a firm, level, uniformly supporting surface with a bucket weight not exceeding 3600#. Ratings based on hydraulic system capabilities (115% of rated load) or 75% of the tipping load over the side of tracks (indicated by *), whichever is lower, per PCSA standards. Numbers shown thus (xxxx) indicate the hydraulic capability rating over the front of the machine. The net load is determined by subtracting weight of slings, hooks and

all other load handling accessories from the rating. Practical working loads for a particular job shall be established by the user with due allowance for operating conditions such as ground support, outside factors affecting stability, hazardous surroundings, experience of personnel, etc.
NOTE: OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOAD AND DISREGARD OF INSTRUCTIONS VOIDS THE WARRANTY.