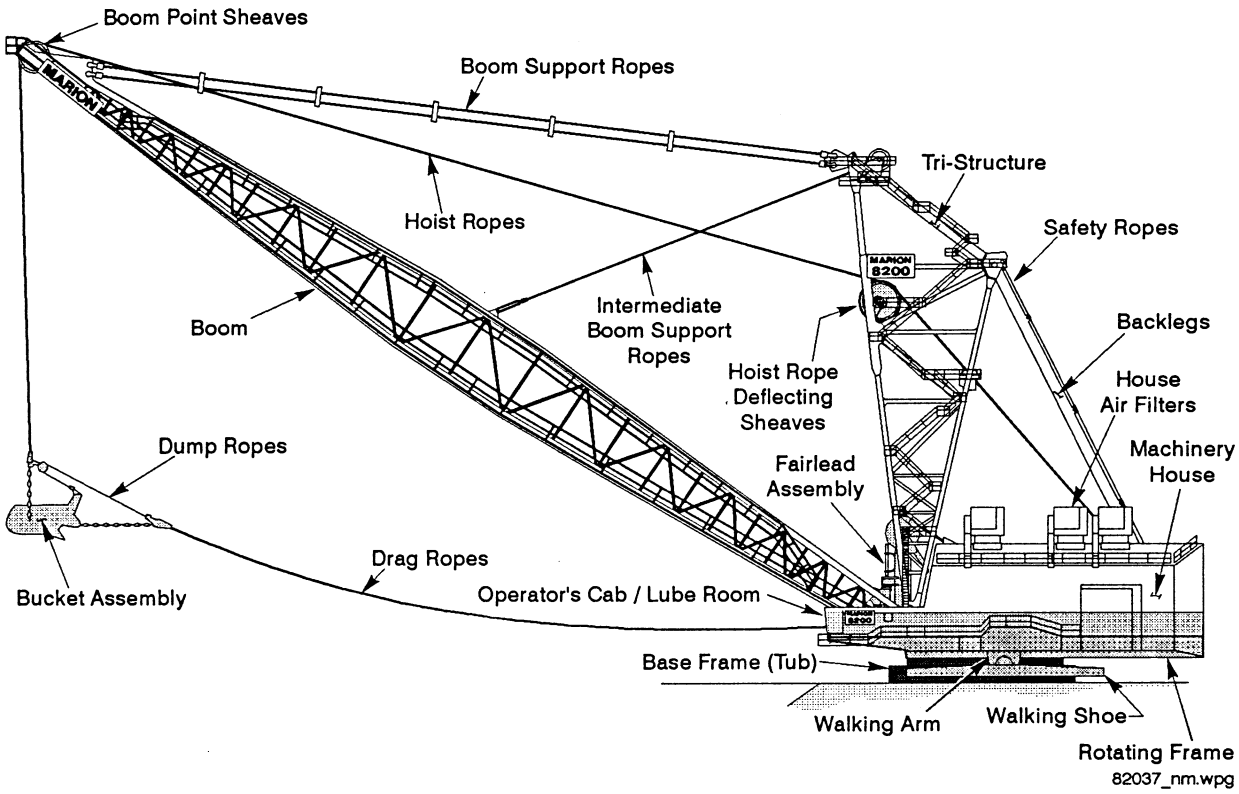
Technical Manual



8200 NOMENCLATURE

The Marion Power Shovel Company

Machine Specifications ~*English*

Model: **8200 WALKING DRAGLINE**
Description: Ward Leonard - Static Control - Independent Propel

Specification: **8200-84B**
No.656050996

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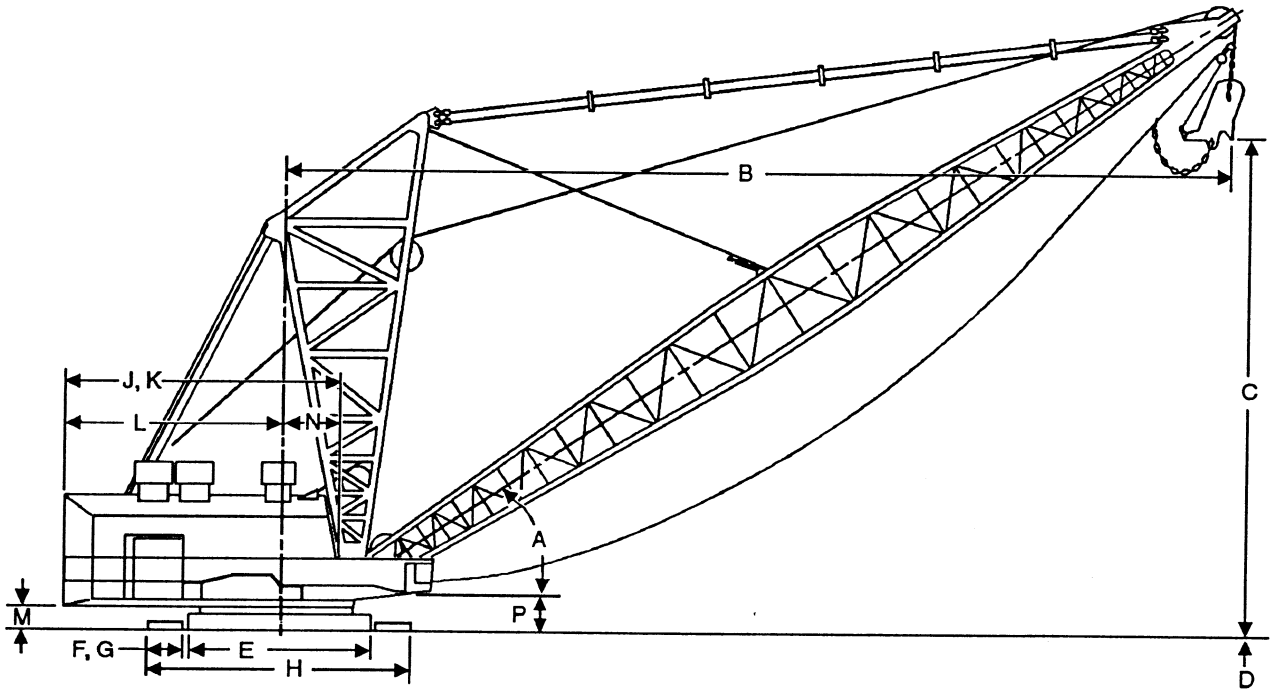

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WORKING RANGES

Boom Length	335'-0"
Boom Point Sheave, Pitch Diameter	132"
A - Boom Angle, Approx.	39°
B - Dumping Radius	287'-0"
C - Dumping Height	167'-0"
D - Depth	197'-0"
Maximum Allowable Load, Lbs.	550,000
Hoist Drum, Pitch Diameter	120"
Hoist Ropes, Twin, Single Hitch, Diameter	4.375"
Drag Drum, Pitch Diameter	120"
Drag Ropes, Twin, Single Hitch, Diameter	4.375"

BASE

E - Outside Diameter, Nominal	68'-6"
Bearing Area, Effective Sq. Ft.	3685
Bearing Pressure, PSI	19.0
Rail Circle, Mean Diameter	50'-0"
Circle Rollers, Mean Diameter	12"
Main Swing Gear, Pitch Diameter, Approx.	40'-5"

WALKING TRACTION

F - Width of Shoe	13'-0"
G - Length of Shoe	70'-0"
H - Width over Both Shoes	97'-0"
Bearing Area of Both Shoes, Sq. Ft.	1820
Bearing Pressure @ 80% of Working Weight, PSI	30.8
Length of Step, Approx.	7'-6"

ROTATING FRAME

J - Width @ Rear End	77'-4"
K - Length	101'-0"
Depth Sill Members	106"
L - Clearance Radius, Rear End	78'-0"
M - Clearance Under Frame	8'-5"
N - Center Rotation to Boom Foot	21'-6"
P - Ground to Boom Foot	15'-6"

ELECTRICAL EQUIPMENT

Hoist Motors, Six, 1300 hp each @ 475 V, Total hp	7,800
Drag Motors, Six, 1300 hp each @ 475 V, Total hp	7,800
Swing Motors, Six, 800 hp @ 475 V, Total hp	4,800
Propel Motors, Two, 1045 hp @ 475 V, Total hp	2,090
AC Driving Motors, Total hp	9,000

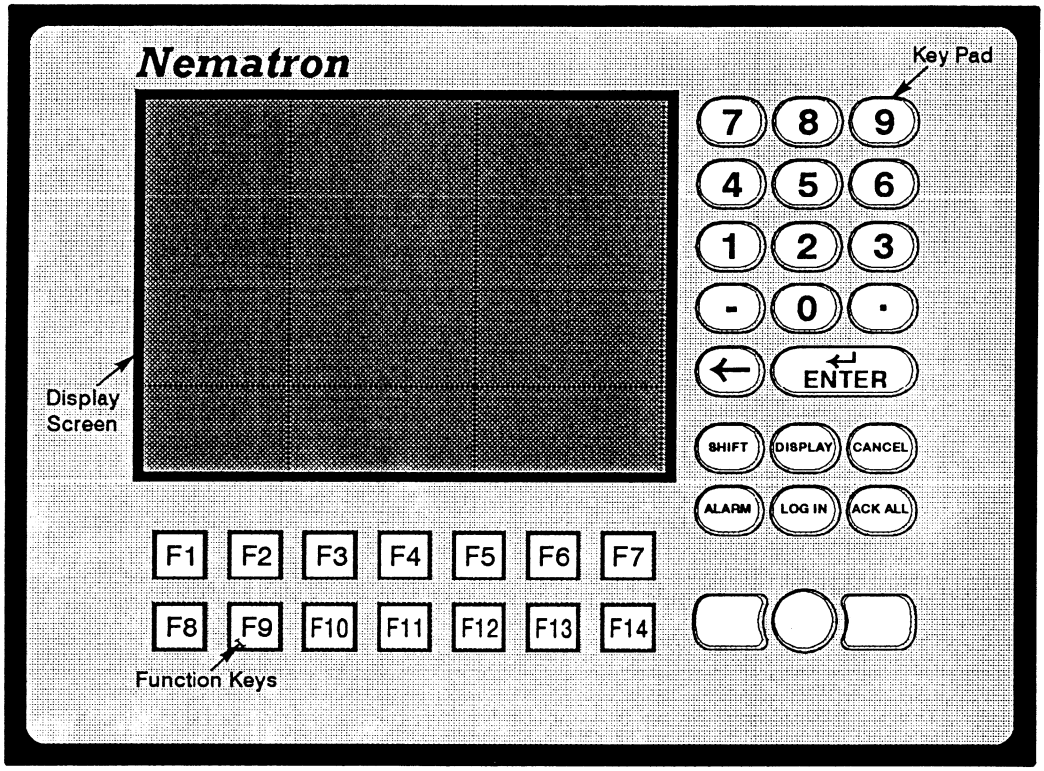
WEIGHTS

Domestic Shipping Weight (Inc. Bucket), Lbs.	9,244,000
Working Weight, Lbs.	10,104,000
Ballast (Furnished by Purchaser), Lbs.	860,000

Shipping Weight Subject to 5% Variation.

INTERFACE TERMINAL

Located in the top portion of the *OPERATOR INTERFACE STAND* is the *OPERATOR INTERFACE TERMINAL* (OIT). This color *Flat Panel Display* screen and its accompanying keys permit operator access to the on-board control, monitoring, and diagnostic computer.



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This computer:

- Contains an annunciator system that monitors selected machine functions and components, and alerts the operator to any detected faults with audible and visual alarms.

NOTE: The propel motion limits, annunciation of faults in the anti-tightline system, or drag/hoist rope limit are integrated into this program. For more information, refer to the *ELECTRICAL SERVICE MANUAL* for this machine.

- Provides the control for the special modes unique to this machine ~Independent Shoe Move and Boom Raise/Lower.

- Can display a fault log listing the last 30 faults experienced.

- Is equipped with a date and time clock and shows the pressure in the on-board compressed air system.

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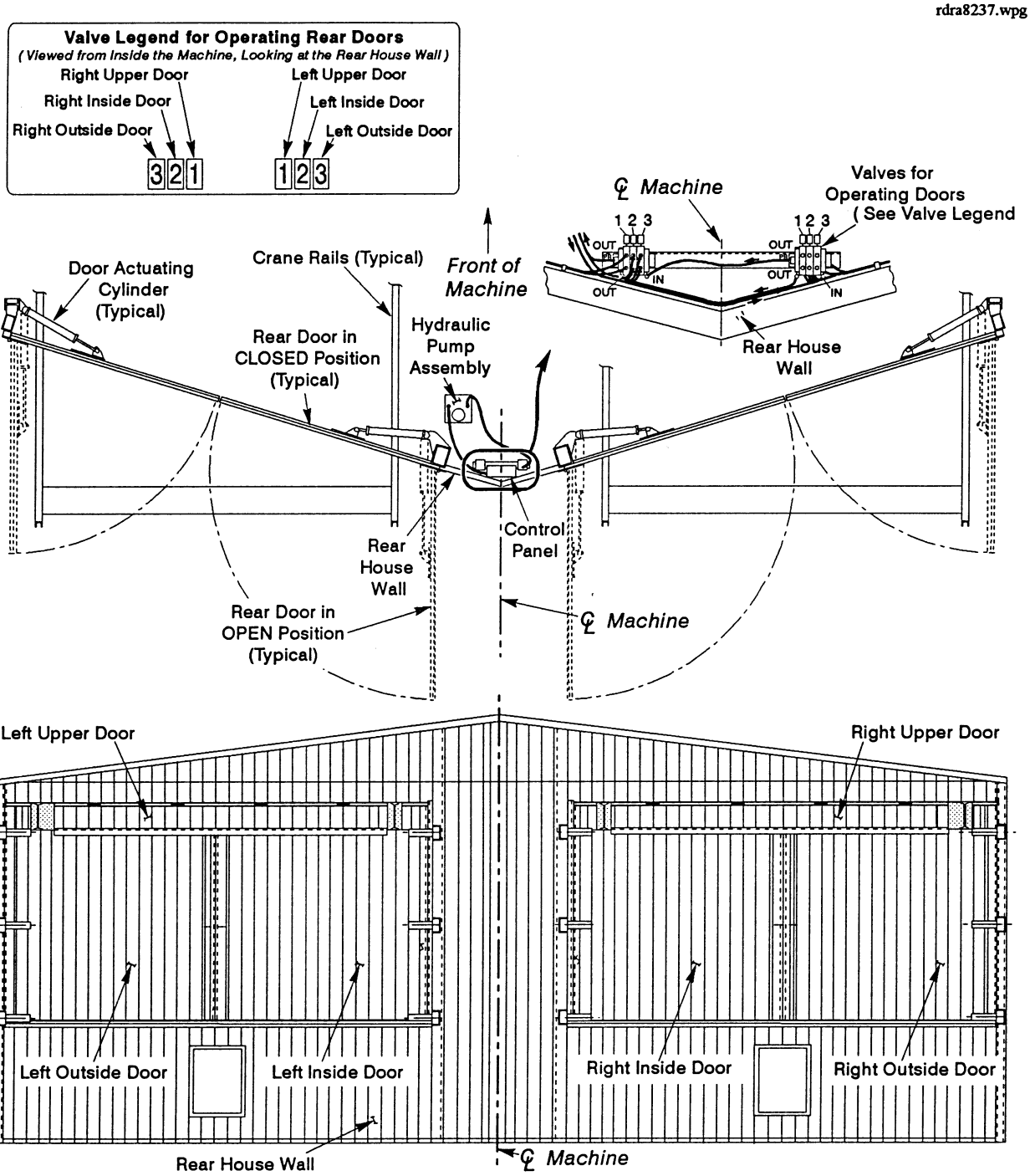
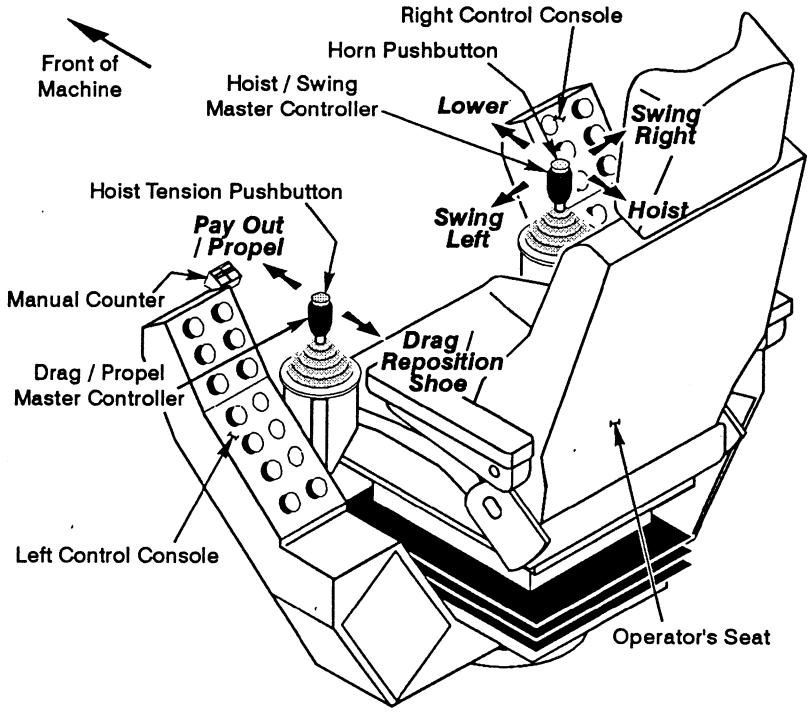


View of the Rear of the Machinery House

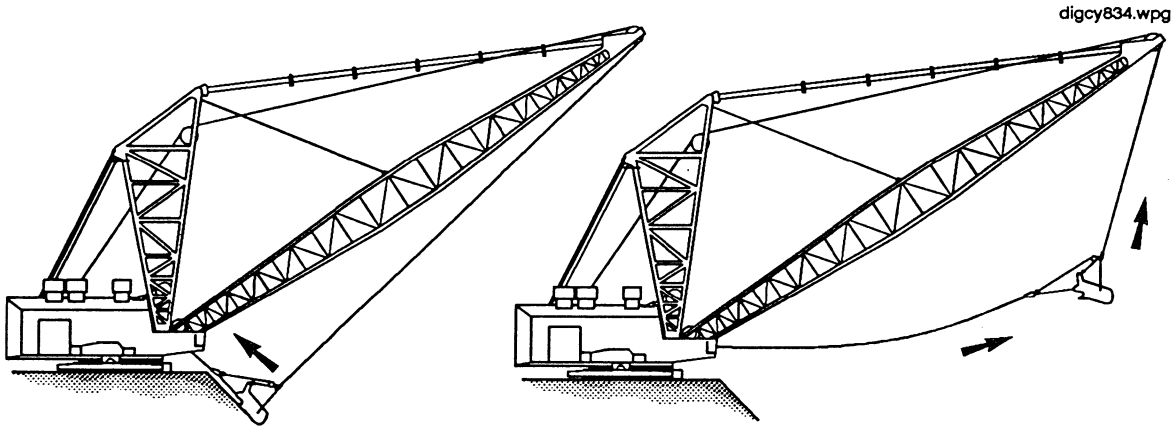
MACHINERY HOUSE REAR DOORS

7 TYPICAL DIGGING CYCLE

Start a digging cycle with the bucket - on the ground, in the pit, and under the boom point. If the machine tends to rotate freely, apply just enough swing effort with the *RIGHT* controller in the opposite the direction of machine movement, to hold the machine steady.



OPERATORS CONTROLS



DRAG IN **LIFT BUCKET**

Begin dragging the bucket in by pulling back on the drag (*left*) controller. The more the controller is moved off its neutral position, the faster the bucket will be pulled toward the machine. As the bucket is drug in, take care to remove any slack from the hoist rigging. Do not allow the spreader bar to rest on the bucket. Additional hoist pull can be applied to reduce the cutting depth and wear on the bucket heel. Do not drag the bucket any further than necessary to fill it. Dragging a full bucket wastes time and energy.