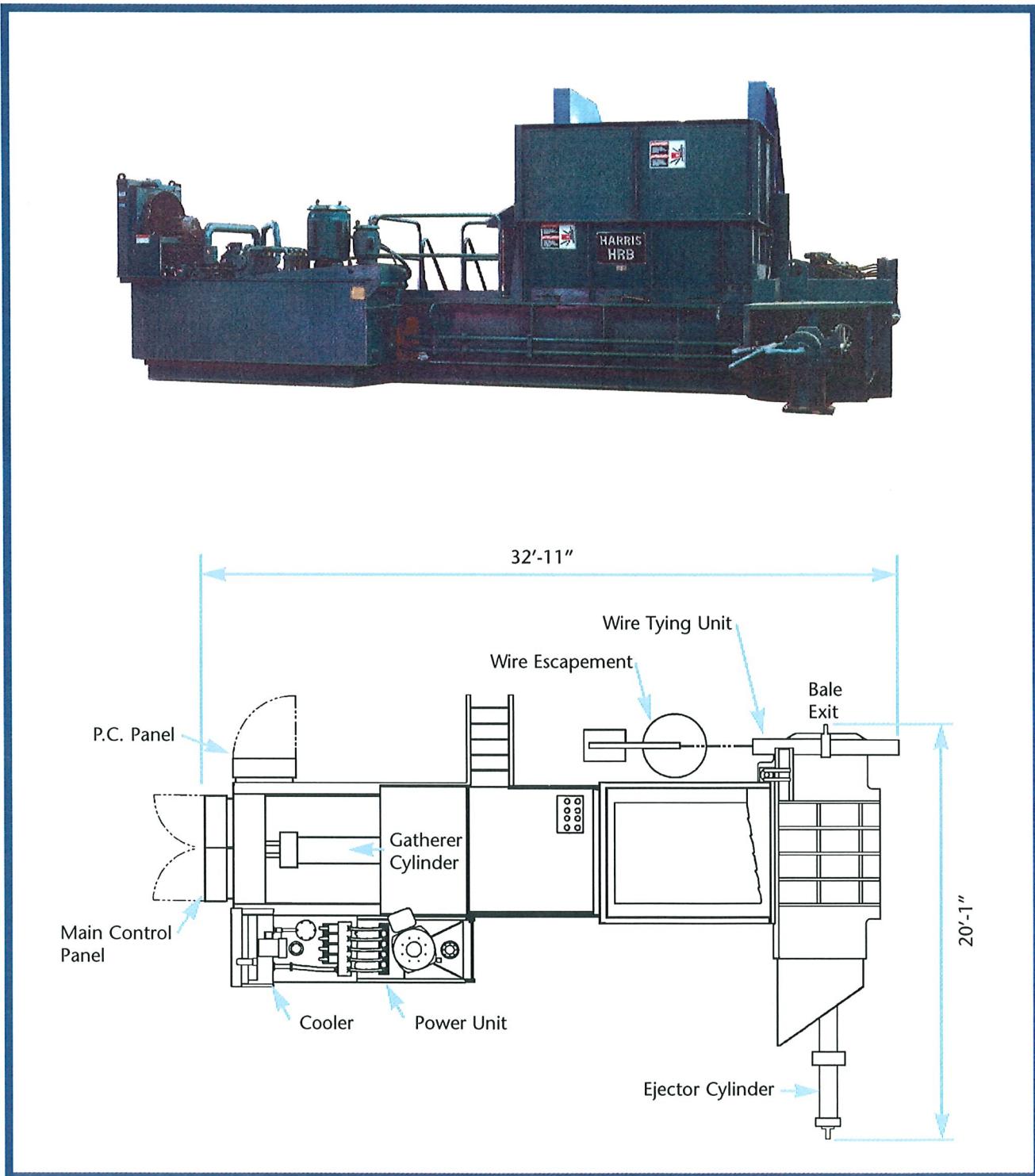


HRB-918W



HARRIS WASTE MANAGEMENT GROUP, INC.

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HRB-918W

GENERAL DESCRIPTION: Metric Specification = ()

Press box dimensions: 60" W x 27½" D x 155¼" L
(1524mm x 699mm x 3943mm)

Charging box opening: 57" W x 96" L
(1448mm x 2438mm)

Hopper opening: 74" W x 109½" L
(1880mm x 2781mm)

Compression chamber size: 40" W x 29" D x 60" L
(1016mm x 737mm x 1524mm)

Approx. expanded bale size: 47" W x 31" D x 64" L
(1194mm x 787mm x 1626mm)

HYDRAULIC SPECIFICATIONS:

Main pumps: One 65 GPM @ 3200 p.s.i.
(246L @ 221 Bars)

One 98 GPM @ 2200 p.s.i.
(371L @ 152 Bars)

One 72 GPM @ 1500 p.s.i.
(273L @ 104 Bars)

One 36 GPM @ 1300 p.s.i.
(136L @ 90 Bars)

Cylinders:

First compression 12" Bore, 181 tons (164 tonne)

Bale ejector 8" Bore, 80 tons (73 tonne)

Shipping weight: Approximately 38 tons

APPLICATIONS:

Paper Stock, secondary fibers and solid waste. Aluminum siding sheet, clips, cans, shapes and skeletons.

STANDARD FEATURES:

- Oil to Air Cooler
- Oil Heater
- Pushbutton/Indicator Lights
- Automatic U.S. Wire Tie System Model 341
- Heat Treated Alloy Steel Liners
- Modem for AB Communications
- Conveyor Controls (up to 10 hp)
- Electrical Voltage -460V -3 Phase -60 Hz (others available - optional)
- 460V across the line voltage starter (others available - optional)
- 46" hopper extension (others available - optional)

OPTIONS:

- Bale Release
- Bale Separation Door
- Bale Release/Bale Separation (BR/BD)
- Bale Runout Table
- Navigator (DTAM) or Navigator Plus (Monitor)
- Electric Eyes (std with navigator)
- Operators Cabin

MATERIALS	BALE WEIGHT LBS (Kg)	PRODUCTION RATE-TONS PER HOUR US STD. (METRIC)	
		100 HP (STD) 60 hz.	200 HP (OPTIONAL) 60 hz.
Bulk Corrugated @ greater than 10% moisture	1000 - 1100 (454 - 499)	11.5/12.5 (10.4/11.3)	12.5/13.5 (11.3/12)
Solid Waste @ greater than 25% moisture	1600 (726)	21.5 (19.5)	24 (21.8)
Aluminum Cans	700 - 900 (318 - 408)	9.5/12 (8.6/10.9)	10.5/13 (9.5/11.8)
Aluminum Siding	1000 - 1400 (454 - 635)	11.5/16 (10.4/14.5)	12.5/17 (11.3/15.4)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

HRB-918W

Additional Information:

Bale Volume: 40 cubic ft. (1.13 cubic m)

Bale Volume expanded: approx: 52 cubic ft. (1.47 cubic m)

Baling cycle: 142 second (25 cycles/hr) corrugated, siding
120 second (30 cycles/hr) solid waste, cans
Four strokes for corrugated paper stock with a loose density of 3 lb/cu. ft. (Corrugated paper materials can vary from 2 lbs. to 15 lbs/cu. ft.)
Three strokes for solid wastes. (Average solid waste loose density is 10 lbs/cu. ft. Material can vary from 2 lbs. to 30 lbs/cu. ft.)
Three strokes for aluminum cans.
Four strokes for aluminum siding with a loose density of 4 lbs/cu. ft. (Material can vary from 2 lbs. to 15 lbs/cu. ft.)

Electric Motors:

Main Motor: One 100 HP, 1750 RPM, 208/220/440 volt, 3φ, 60 Hertz
Protected enclosure

Strapper/
Circulation motor: One 15 HP, 1750 RPM, 208/220/440 volt, 3φ, 60 Hertz
Protected enclosure

Cooler Motor: One 5 HP, 1200 RPM, 208/220/440 volt, 3φ, 60 Hertz
Protected enclosure

Baler Model	Proposal Specification	General Layout Drawing
HRB-918W	960221	4A-9872
HRB-918W-2	960320	4A-10365
HRB-918W-XT	961003	4A-10455

PROPOSAL SPECIFICATION: 960221

AUTOMATIC BALING PRESS MODEL: HRB-918W

GENERAL LAYOUT DRAWING: 4A-9872

APPLICATION:

Paper stock, secondary fibers and solid waste. Aluminum siding sheet, clips, cans, shapes, and skeletons.

A CAPACITY AND RATING:

A1 PRESS BOX DIMENSIONS:	60" wide x 27-1/2" deep x 155-1/4" long
A2 CHARGING BOX OPENING:	57" wide x 96" long
A3 HOPPER OPENING:	74" wide x 109-1/2" long
A4 COMPRESSION CHAMBER SIZE:	40" wide x 29" deep x 60" long
A5 APPROX. EXPANDED BALE SIZE:	47" wide x 31" deep x 64" long
A6 BALE WEIGHT: (AVERAGE)	<ol style="list-style-type: none">1. 1000 to 1100 lbs. bulk corrugated @ greater than 10% moisture2. 1600 lbs. solid waste material @ greater than 25% moisture3. 700 to 900 lbs. (aluminum cans)4. 1000 to 1400 lbs. (aluminum siding)
A7 BALE VOLUME:	40 cubic ft.
A8 APPROX. EXPANDED BALE VOLUME:	52 cubic ft.
A9 BALING CYCLE:	155 seconds (23 cycles/hr) corrugated, siding 130 seconds (27 cycles/hr) solid waste, cans
A10 APPROX. HOURLY CAPACITY:	<ol style="list-style-type: none">1. 11.5/12.5 tons/hr (bulk corr. @ 25%)2. 21.5 tons/hr (solid waste)3. 9.5/12 tons/hr (cans)4. 11.5/16 tons/hr (siding)



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A CAPACITY AND RATING: (Continued)

NOTE:

A9 is based on the following:

1. Four (4) strokes for corrugated paper stock material with loose density of 3 lbs/cu. ft. (Corrugated paper stock materials can vary from 2 lbs. to 15 lbs/cu. ft.)
2. Three (3) strokes for solid waste. (Avg. solid waste loose density is 10 lbs/cu. ft. Material can vary from 2 lbs. to 30 lbs/cu. ft.)
3. Three (3) strokes for aluminum cans.
4. Four (4) strokes for aluminum siding with loose density of 4 lbs/cu. ft. (Material can vary from 2 to 5 lb/cu. ft.)

B COMPONENTS:

B1 ELECTRIC MOTORS:

B1.1 MAIN MOTOR: One (1) 100 HP, 1750 RPM, 208/220/440 volt, 3 ϕ , 60 Hertz, protected enclosure.

B1.2 STRAPPER/ CIRCULATION MOTOR: One (1) 15 HP, 1750 RPM, 208/220/440 volt, 3 ϕ , 60 Hertz, protected enclosure.

B1.3 COOLER MOTOR: One (1) 5 HP, 1200 RPM, 208/220/440 volt, 3 ϕ , 60 Hertz, protected enclosure.

B2 ELECTRIC CONTROL SYSTEM:

B2.1 One (1) NEMA XII control panel to include across-the-line motor starters for 440 to 600 volt power with overload protection, circuit breaker, control circuit transformer and cycle control system wired to terminal strips. Special starting requirements are available at additional cost.

B2.2 One (1) operator's station enclosure to include oil tight control switches and signal lights, wired to terminal strips.

B3 HYDRAULIC SYSTEM:

B3.1 MAIN PUMPS: One (1) 65 GPM @ 3200 p.s.i.
One (1) 98 GPM @ 2200 p.s.i.
One (1) 72 GPM @ 1500 p.s.i.
One (1) 36 GPM @ 1300 p.s.i.



B COMPONENTS: (Continued)

B3 HYDRAULIC SYSTEM: (Continued)

B3.2 VALVES: Harris or equal

B3.2.1 Individual relief valves protect each pump from overload pressure.

B3.2.2 Directional valves are electrically controlled and hydraulically operated.

B3.3 CYLINDERS: Harris or equal

B3.3.1 FIRST COMPRESSION: 12" bore, 181 tons

B3.3.2 BALE EJECTOR: 8" bore, 80 tons

B4 FILTERING AND COOLING SYSTEM:

B4.1 Filtering is by replaceable cartridge type micronic filters.

B4.2 Standard cooling system is oil to air heat exchanger.

B5 AUTOMATIC TIE-OUT: U. S. Wire-Tie System Model 341 series strapping head and system.
Designed for use with U. S. Wire-Tie System 11 gauge SUPER HI-TEN round steel strapping.

C OPERATION:

C1 There are three modes of operation: Manual, semi-automatic and automatic repeat. Manual operation is provided primarily for set up and maintenance purposes. In the semi-automatic mode, material is gathered manually by pushbutton. The gatherer ram is positioned after sufficient material is compressed. The auto-eject function button then indexes the bale through the tie-out chamber. The ejector then retracts fully and machine is ready for next baling cycle. Automatic repeat mode is normally synchronized with conveyor or other automatic methods of charging material and handling finished bales.

The baling sequence is as follows: Loose material brought to the machine by conveyor or overhead surge bin may be charged on top of the first compression if it is forward, or directly in the box if the ram is fully retracted. Loose material which is charged only on top of the first ram falls into the box automatically as a function of the baling cycle.

At the start of a cycle the first compression ram extends fully forward. Any material extending above the ram is sheared off and gets mixed with the next charge of material. The ram continues to compress and retract until a sufficient charge to form a bale is pushed into the compression chamber. The ejector ram indexes the bale through the tie-out chamber. Both rams retract and one baling cycle is complete.

C2 A material selector switch is provided at the operator's control station to change the pressure sensing ranges and short stroke travel to compensate for varying material densities.



D CONSTRUCTION:

- D1 The baler is designed for flat surface, reinforced slab installation.
- D2 Major sub-assemblies are heavy plate and structural weldments of cellular construction, stress relieved before machining to design dimensions.
- D3 Final assembly is bolted and keyed.
- D4 The entire press box and ram wear surfaces are fitted with weld-on wear plates of heat treated alloy steel, except the first compression ram bottom liners which are bolted on. The press box bottom has weld-on grooved liners.
- D5 All rams are box type steel weldments, stress relieved and machined to design dimensions.
- D6 Shear knives are securely seated in press frame and first compression ram. All four edges of knives are designed for shearing.
- D7 All pipe is electrically welded and securely anchored.
- D8 Pipe flanges are steel, bolted type, with "O" ring gaskets.
- D9 The baler is completely assembled, operated and tested before shipment.
- D10 Standard paint is machinery enamel over primer coat.
- D11 SHIPPING WEIGHT: 37 tons, approx.

E GENERAL:

- E1 Layout and foundation prints show above grade dimensions and conditions. Below grade soil conditions, piers, piling, footings and associated components are matters of local determination for which our company can accept no responsibility.
- E2 Our company's technical services are available on a free advisory basis to assist in determining the location and material flow conditions best suited to utilize the high production of our equipment.
- E3 This proposal also includes the services of a qualified installation specialist for two (2) eight-hour working days. He will place the baler in operation and instruct your operator in recommended operating and maintenance procedures. (Transportation and sustenance outside the continental United States is for the purchaser's account.)
- E4 Harris will not accept back charges in connection with installation or start-up of this machine unless prior approval is obtained in writing from authorized Harris personnel.
- E5 Harris will not accept any charges for work performed on this machine during contracted warranty period unless prior approval is obtained in writing from authorized Harris personnel.



F EXPENSES ASSUMED BY THE PURCHASER TO COMPLETE THE MACHINE INSTALLATION:

- F1 Freight from factory to destination.
- F2 Preparation of foundation.
- F3 Unloading and assembling of the baler.
- F4 Wiring from power source to electric control panel.
- F5 Furnishing all fuses.
- F6 Furnishing approximately 700 gallons of hydraulic oil for the hydraulic system.
- F7 STRAPPING: U. S. Wire-Tie System 11 gauge SUPER HI-TEN round steel strapping for use with Model 341 series head.

G LIMITED WARRANTY: 2-Ram Balers Only

G1 This Limited Warranty only applies to products manufactured by Harris Waste Management Group, Inc., its brands labeled as Harris, Selco and/or Mosley.

Subject to the terms and conditions herein, COMPANY warrants to the original PURCHASER hereunder that the EQUIPMENT listed within the agreement attached hereto will be free from manufacturing defects in materials and workmanship performed by COMPANY*, for a period commencing thirty (30) days after shipment of the EQUIPMENT or thirty (30) days after the date it could have been shipped in case shipping is delayed by factors or conditions which are not the responsibility of COMPANY, and extending for a period of one (1) year, or two thousand (2,000) hours use of the EQUIPMENT whichever first occurs.

The foregoing notwithstanding, the following conditions shall void the warranty: (1) The EQUIPMENT, or any part thereof, has been subjected to accident, negligence, improper operation or maintenance, alteration, modification, abuse or misuse, or to damage caused by unauthorized or improper repairs or failure to read, view or follow prescribed or reasonable operation, safety and maintenance instructions, or failure to replace worn parts in a timely manner, (2) The EQUIPMENT has been subjected to operating conditions beyond that for which it was designed or more severe than is normal for the industry; (3) The EQUIPMENT has processed unauthorized materials; (4) PURCHASER fails to notify COMPANY in writing of any alleged defects within the aforementioned warranty period; or (5) In the event the EQUIPMENT is not: (a) operated by fully-trained, competent personnel; (b) maintained in good operating condition using approved COMPANY components and service techniques and instructions applied by competent maintenance personnel, or (c) marked with all warnings and decals attached to the EQUIPMENT.

COMPANY and PURCHASER expressly agree that COMPANY'S obligations are limited solely to COMPANY'S choice of repair or replacement (F.O.B. point of manufacture) of any defective parts or workmanship, or alternatively, refund of the purchase price of any item or parts. Any such refunded parts shall be promptly returned by the PURCHASER to COMPANY, F.O.B. PURCHASER'S site if so requested by COMPANY. It is expressly agreed that the remedies provided in this Limited Warranty are the exclusive remedies for the PURCHASER and that COMPANY shall never be liable nor responsible for any parts or services furnished by PURCHASER or third parties without the ADVANCE written authorization by COMPANY.



G LIMITED WARRANTY - 2-Ram Balers Only (Continued)

IT IS EXPRESSLY AGREED BY THE PARTIES SIGNING THIS AGREEMENT (1) THAT COMPANY MAKES NO GUARANTEES OR WARRANTIES OF ANY NATURE EXCEPT AS STATED IN THIS AGREEMENT, (2) THAT ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY IMPLIED WARRANTIES ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE, ARE HEREBY EXCLUDED AND NEGATED, (3) THAT COMPANY'S LIABILITY IS EXPRESSLY LIMITED TO AND PURCHASER'S SOLE AND EXCLUSIVE REMEDIES ARE THOSE STATED IN THIS AGREEMENT, AND (4) THAT COMPANY SHALL NEVER BE LIABLE FOR INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, INCLUDING, WITHOUT LIMITATION, LOSS OF PRODUCT, LOSS OF OPERATING SUPPLIES, OR LOSS OF REVENUES, PROFITS OR INCOME IN CONNECTION WITH THE PURCHASES, OPERATION, OR USE OF THE EQUIPMENT.

In the event of any diversion of adjustment from the specific written warranty, such diversion shall not alter the specific terms of the warranty. COMPANY reserves the right to make improvements and changes in the design and/or specifications for its products without notification and without incorporating the changes in EQUIPMENT on order or delivered.

*Note: Items, such as the strapping mechanism are warranted directly by their manufacturer.



OPTION ADDENDUM

MODEL: HRB-918W

PROPOSAL SPECIFICATION: 960221

GENERAL LAYOUT DRAWING 4A-10205

BALE SEPARATION DOOR

A CAPACITY AND RATING:

A9 BALING CYCLE: 170 seconds (21 cycles/hr) corrugated, siding
150 seconds (24 cycles/hr) solid waste, cans

A10 APPROX. HOURLY CAPACITY: 1. 10.5/11.5 tons/hr (bulk corr. @ 25%)
2. 19 tons/hr (solid waste)
3. 8.5/11 tons/hr (cans)
4. 10.5/14.5 tons/hr (siding)

B COMPONENTS:

B3.5 CYLINDERS: Harris or equal

B3.5.4 BALE SEPARATION DOOR: 6" bore, 45 tons

C OPERATION:

C3 There are three (3) modes of operation: Manual; automatic without door; and automatic with door. The manual mode is to be used when it is desirable to prevent mixing of material grades during baling. To utilize the door, the bale ejector ram is fully extended to clear the ejection chamber of material. The ejector ram is retracted and the door is closed. Door will remain closed until the first bale is completed. Door will be manually opened and will remain open until next grade is to be baled.

At the start of an automatic standard cycle, the bale door is open. The first compression ram extends fully forward. Any material extending above the ram is sheared off and gets mixed with the next charge of material. The ram continues to compress and retract until a sufficient charge to form a bale is pushed into the compression chamber. The ejector ram indexes the bale through the tie-out chamber. Both rams retract and one baling cycle is complete.

At the start of an automatic cycle with bale door, the sequence is the same as automatic standard cycle except the bale door is closed. When a sufficient charge is pushed into the compression chamber, the bale door opens, the ejector ram indexes the bale through the tie-out chamber. Both rams retract, the door closes, and one baling cycle is complete.

D CONSTRUCTION:

D11 SHIPPING WEIGHT: Add 3 tons, approx.



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OPTION ADDENDUM

MODEL: HRB-918W

PROPOSAL SPECIFICATION: 960221

GENERAL LAYOUT DRAWING 4A-9872

BALE RELEASE

B COMPONENTS:

B3.3 CYLINDERS: Harris or equal

B3.3.3 BALE RELEASE: 6" bore, 45 tons

C OPERATION:

C3 There is only one (1) mode of operation: Manual. The bale release should be used only when an oversize bale has been made. The release mechanism will lift vertically thereby allowing the ejector cylinder to index oversize bale out through strapper and clear of baler.

D CONSTRUCTION:

D11 SHIPPING WEIGHT: Add 2 tons, approx.



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