Forklift / Pallet Jack Scales

TABLE OF CONTENTS

CLS-920I® WIRED VERSION **444**
Forklift Scale

CLS-920I® WIRELESS VERSION **447**
Forklift Scale

FORKLIFT QUESTIONNAIRE FOR CLS INSTALLATION **450**

RL-HPJ **452**
Hand Pallet Jack Scale

ESPAÑOL | Visit **ricelake.com/spanish** to see all Rice Lake materials available in Spanish

Product names, logos, brands and other trademarks featured or referred to within this publication are the property of their respective trademark holders.

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CLS-920i® Wired Version

Forklift Scale

Standard Features

Scale Carriage

- Compatible with Class II 16 in (H) or Class III 20 in (H) forklift cleat type carriages
- Out of level NTEP Certified tolerance at seven degrees pitch and roll, three degrees side to side
- 1 1/2 in - thick front and back painted steel plates coupled by four flexures
- Top cleats are welded, pinned and bolted
- Welded centering pin
- Two 5,000 lb s-beam load cells
- Updated iQube²® junction box with inclinometer
- Molded coiled cable, up to 15 ft uncoiled

920i Indicator

- (W x H) 4.6 in x 3.4 in, back lit LCD graphical display (320 pixels x 420 pixels)
- Standard user program with data collection and limited transaction storage. See operators guide for more details.
- Front panel calibration or calibrate through iQUBE²® junction box using Revolution® software
- On/Off switch to conserve forklift battery life
- Painted mild steel enclosure
- Two piece top cage indicator mounting assembly with vibration mounts
- Two available RS-232 ports for added options of scanner, Wi-Fi or printer
- 10-60 VDC power supply for use on propane or electric forklifts

Presale Requirements

- Provide completed forklift questionnaire for quotation. A pre-installed load backrest on the forklift may interfere with flexures or wireless load cell interface option
- Compatible with most Class II and Class III forklift attachments, consult factory

Installation Recommendations

- When installing a forklift scale on an electric forklift, static discharge protection must be present on the forklift and install a chasis mount power conditioner to protect forklift electronics.
- When installing a forklift scale, OSHA requires the end user to de-rate the lift capacity of the forklift; see questionnaire for details.

Contact Rice Lake Weighing Systems sales staff if printing is required

APPROVALS

Specifications

Scale Capacity:
28 in and 34 in: 5,000 lb x 5 lb NTEP Certified
38 in: 8,000 lb x 5 lb non-type approved

Scale Power:
Supplied by indicator through coiled interface cable

Scale Material/Finish:
Painted mild steel

920i Power - DC:
Line voltage: 10 – 60 VDC, DC Input
Power consumption: 1.5 A max fused at 5.0 A

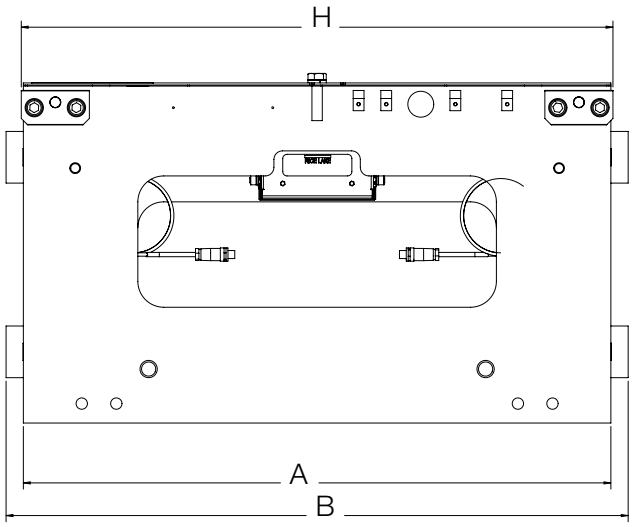
920i Operating Temperature:
Legal: 14° F to 104° F (-10° C to 40° C)
Industrial: 14° F to 122° F (-10° C to 50° C)

Wireless LAN Option:
Contains FCC ID: R68WIPORATG
Range: Up to 328 ft indoors
Operating frequency: ISM 2.4 GHz

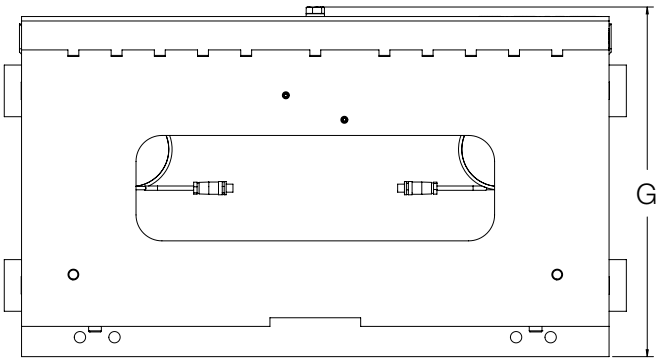
Warranty:
Two-year limited warranty

Approvals:
NTEP CC 06-074 (5,000 lb only) per H-44 at 1,000 divisions

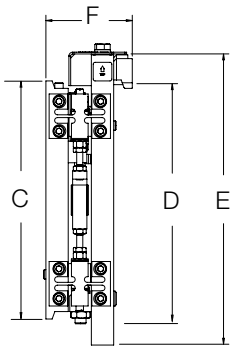
An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.



Front view



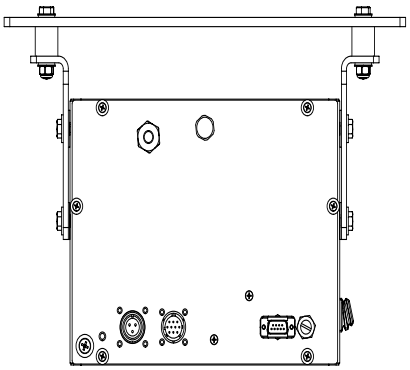
Rear view

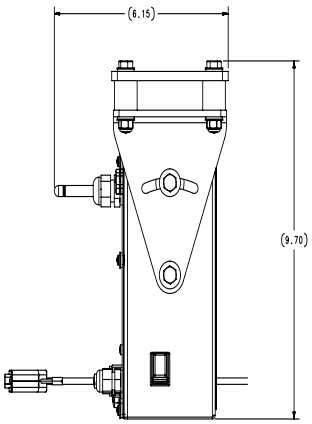


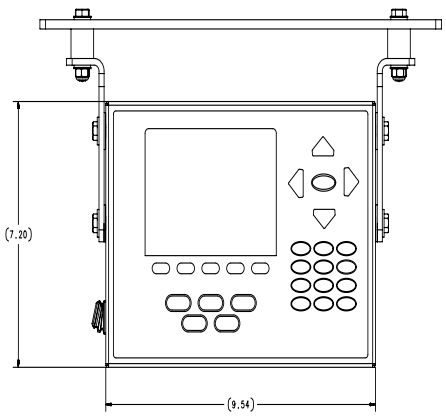
Side view

CLS Dimensions			
28 in, 5,000 lb			
A	28 in (711.2 mm)	E	19.50 in (495.3 mm)
B	30 in (762.2 mm)	F	4.49 in (114 mm)
C	16 in (406.4 mm)	G	21.80 in (553.7 mm)
D	16.29 in (413.8 mm)	H	28.24 in (717.3 mm)
34 in, 5,000 lb			
A	34 in (863.6 mm)	E	19.50 in (495.3 mm)
B	36 in (914.4 mm)	F	4.49 in (114 mm)
C	16 in (406.4 mm)	G	21.80 in (553.7 mm)
D	16.29 in (413.8 mm)	H	34.24 in (869.7 mm)
38 in, 8,000 lb			
A	38 in (965.2 mm)	E	24.50 in (622.3 mm)
B	40 in (622.3 mm)	F	6.04 in (153.4 mm)
C	20 in (508 mm)	G	26.68 in (677.7 mm)
D	20.15 in (511.8 mm)	H	38 in (965.2 mm)

Contact factory for 28 in and 38 in front plate dimensions if adding an attachment.







An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CLS-920i® Wired Version

Forklift Scale

Part Number/Price

Part #	Size, Capacity	Forklift Compatibility	Est. Weight	Price
CLS Forklift Scale, 920i Wired Version				
167420	5,000 lb x 5 lb NTEP Certified	28 in W, Class II 16 in (H) forklift carriage (30 in W with flexures) 10-60 VDC	524 lb	$8,250.00
162282	5,000 lb x 5 lb NTEP Certified	34 in W, Class II 16 in (H) forklift carriage (36 in W with flexures) 10-60 VDC	539 lb	$8,250.00
167412	8,000 lb x 5 lb non-Legal for Trade	38 in W, Class III 20 in (H) forklift carriage (40 in W with flexures) 10-60 VDC	1,144 lb	$10,920.00

**Non-NTEP Certified*
If used with electric forklift, manufacturer recommends adding part number 166161 to protect electronics against static

Options/Accessories

The following options and replacement parts below are available to use for the part numbers referenced above.
To order replacement parts and options for products purchased prior to this catalog, contact the factory for assistance.

Part #	Description	Price
96355	Wireless LAN card 802.11 B/G, requires factory installation	$587.00
167498	6.5 ft straight extension cable to coiled cable	$160.00
188097	5-pin (indicator) to 10-pin (96252) coiled cable adapter	$95.00
96252	10-pin black coiled cable, 25 ft use	$385.00
162321	Cable assy, coiled cable 5-pin to 10-pin converter	$120.00
166161	DC Emi filter, chasis mount, 0–75 VDC input, 100 VDC surge protection	$95.00
166162	DC-DC converter, chasis mount, 18-75 VDC input, 12 VDC output	$140.00
188193	CLS calibration hook set	$245.00
Replacement Parts		
125395	Coiled cable (junction box to indicator), 5-pin yellow	$295.00
96915	Power cable assembly with power fuse cable	$125.00
130129	Power fuse cable assembly	$25.00
166623	RL20000 FLS load cell 5,000 lb 1.5 mV/V 350 ohm with turk connectors	$745.00
166756	RL20000 FLS turk load cell connector	$30.00
164071	CLS-M/920i iQube$^{2®}$, junction box assembly	$695.00

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CLS-920i® Wireless Version
Forklift Scale

Specifications

Scale Capacity:
28 in and 34 in: 5,000 lb x 5 lb NTEP Certified
38 in: 8,000 lb x 5 lb non-type approved

Scale Material/Finish:
Stainless steel

920i Dimensions
(W x L x H): 10.5 in x 11.2 in x 4.5 in
(266 mm x 217 mm x 114 mm)

920i Power - DC:
Line voltage: 10 – 60 VDC, DC input
Power consumption: 1.5 A max fused at 5.0 A

920i Operating Temperature:
Legal: 14° F to 104° F (-10° C to 40° C)
Industrial: 14° F to 122° F (-10° C to 50° C)

Wireless LAN Option:
Contains FCC ID: R68WIPORATG
Range: Up to 328 ft indoors
Operating Frequency: ISM 2.4 GHz

Warranty:
Two-year limited warranty

Approvals:
NTEP CC 06-074 (5,000 lb only) per H-44
at 1,000 divisions

Standard Features

Scale Carriage

- Compatible with Class II 16 in (H) or Class III 20 in (H) forklift cleat type carriages
- Out of level NTEP Certified tolerance at seven degrees pitch and roll, three degrees side to side
- 1 1/2 in - thick front and back painted steel plates coupled by four flexures
- Top cleats are welded, pinned and bolted
- Welded centering pin
- Two 5,000 lb s-beam load cells
- Updated iQube$^{2®}$ junction box with inclinometer

920i Indicator

- (W x H) 4.6 in x 3.4 in, backlit LCD graphical display (320 pixels x 420 pixels)
- Standard user program with data collection and limited transaction storage. See operators guide for more details.
- Front panel calibration or calibrate through iQube$^{2®}$ junction box using Revolution® software
- Painted mild steel enclosure
- Two piece top cage indicator mounting assembly with vibration mounts
- Two available RS-232 ports for added options of scanner, Wi-Fi or printer
- 10-60 VDC power supply for use on propane or electric forklift

802.15 Wireless Load Cell Kit with Rechargeable Smart Lithium Ion Batteries

- 802.15 wireless load cell kit from scale to indicator
- Eliminates coiled cable from junction box to indicator for use with two and three stage masts
- Reinforced battery box welded onto cover plate to withstand harsh forklift environment
- On/Off switch with LED and antenna mounted on the rear of the enclosure
- Battery life, minimum 24 hours constant use with only eight hours to fully charge
- Battery life indication, located on the lithium battery
- Includes two lithium ion smart batteries and charger
- Not intended for outdoor use

Presale Requirements

- Provide completed forklift questionnaire for quotation. A pre-installed load backrest on the forklift may interfere with flexures or wireless load cell interface option.
- Compatible with most Class II and Class III forklift attachments, consult factory

Installation Recommendations

- When installing a forklift scale on an electric forklift, static discharge protection must be present on the forklift and install a chasis mount power conditioner to protect forklift electronics
- When installing a forklift scale, OSHA requires the end user to de-rate the lift capacity of the forklift; see questionnaire for details

Contact Rice Lake Weighing Systems sales staff if printing is required

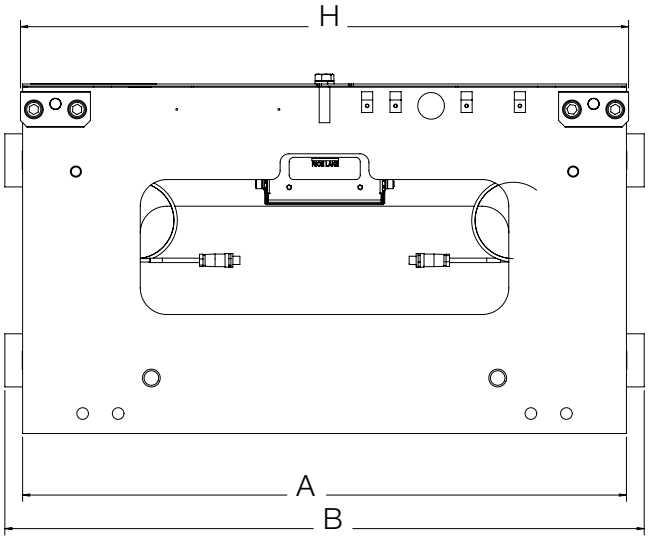
APPROVALS

www.ricelake.com | Phone: 800-472-6703

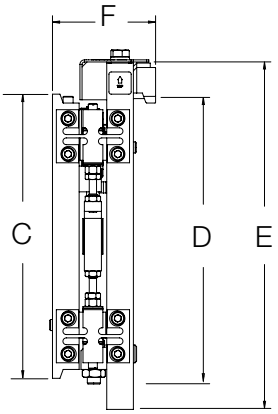
An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CLS-920i® Wireless Version

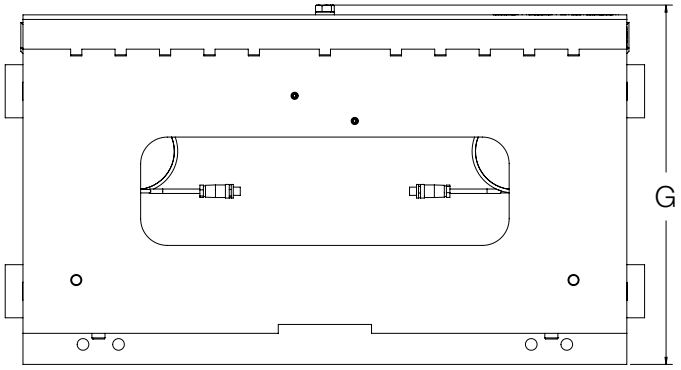
Forklift Scale



Front view



Side view



Rear view

CLS Dimensions			
28 in, 5,000 lb			
A	28 in (711.2 mm)	E	19.50 in (495.3 mm)
B	30 in (762.2 mm)	F	4.49 in (114 mm)
C	16 in (406.4 mm)	G	21.80 in (553.7 mm)
D	16.29 in (413.8 mm)	H	28.24 in (717.3 mm)
34 in, 5,000 lb			
A	34 in (863.6 mm)	E	19.50 in (495.3 mm)
B	36 in (914.4 mm)	F	4.49 in (114 mm)
C	16 in (406.4 mm)	G	21.80 in (553.7 mm)
D	16.29 in (413.8 mm)	H	34.24 in (869.7 mm)
38 in, 8,000 lb			
A	38 in (965.2 mm)	E	24.50 in (622.3 mm)
B	40 in (622.3 mm)	F	6.04 in (153.4 mm)
C	20 in (508 mm)	G	26.68 in (677.7 mm)
D	20.15 in (511.8 mm)	H	38 in (965.2 mm)

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

Part Number/Price

Part #	Size, Capacity	Forklift Compatibility	Est. Weight	Price
CLS Forklift Scale, 920i Wireless Version				
167421	5,000 lb x 5 lb NTEP Certified	28 in W, Class II 16 in (H) forklift carriage (30 in W with flexures) 10-60 VDC	524 lb	$9,895.00
171809	5,000 lb x 5 lb NTEP Certified	34 in W, Class II 16 in (H) forklift carriage (36 in W with flexures) 10-60 VDC	539 lb	$9,895.00
167413*	8,000 lb x 5 lb non-Legal for Trade	38 in W, Class III 20 in (H) forklift carriage (40 in W with flexures) 10-60 VDC	1144 lb	$11,875.00

**Non-NTEP Certified*
If used with electric forklift, manufacturer recommends adding part number 166161 to protect electronics against static

Options/Accessories

The following options and replacement parts below are available to use for the part numbers referenced above.
To order replacement parts and options for products purchased prior to this catalog, contact the factory for assistance.

Part #	Description	Price
96355	Wireless LAN card 802.11 B/G, requires factory installation	$587.00
167498	6.5 ft straight extension cable to coiled cable	$160.00
166161	DC Emi filter, chasis mount, 0-75 VDC input, 100 VDC surge protection	$95.00
166162	DC-DC converter, chasis mount, 18-75 VDC input, 12 VDC output	$140.00
188193	CLS calibration hook set	$245.00
Replacement Parts		
96915	Power cable assembly with power fuse cable	$125.00
130129	Power fuse cable assembly	$25.00
166623	RL20000 FLS load cell 5,000 lb 1.5 mV/V 350 ohm with turk connectors	$745.00
166756	RL20000 FLS turk load cell connector	$30.00
164071	CLS-M/920i iQube$^{2®}$, junction box assembly	$695.00
96344	Battery charger	$595.00
96343	Battery, forklift lithium ion	$295.00

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

Forklift Questionnaire for CLS Installation

RICE LAKE WEIGHING SYSTEMS

Company/End User (full name)_____ Contact_____

Address _____ City _____

Phone _____ State/Zip_____

Sales Organization _____ Sales Person _____

FORKLIFT INFORMATION

Make/Model _____ Capacity _____

Power (Propane/Gas/Electronic) _____ If Electric, what voltage _____

Mast Extension Maximum _____ Wheels (rubber/white poly/other)_____

Cargo Lift Scale Model	❑ CLS-420	❑ CLS-920i
NTEP (Legal-for-Trade) Application Class II = 16″H NTEP Certified Class III = 20″H Non Type Approved	❑ Yes	❑ No
Preferred Scale Connection (scale to indicator)	❑ Wired	❑ Wireless
Optional Wireless LAN Card	❑ Yes	❑ No
Optional Bar Code Scanner (920i model only)	❑ Yes	❑ No
Optional Bar Label Printer	❑ Yes	❑ No
Side Shifting Carriage	❑ Yes	❑ No
Does the forklift have any carriage attachments (fork positioner, side shifter, barrel clamp, etc.)	❑ Yes	❑ No

If yes, list attachments: _____

Notes:

Electric forklifts may need additional external power filtering to protect our indicators from surges and power spikes that may cause damage. Electric forklifts should be properly grounded for static protection. Forklift capacity must be de-rated when attachments are installed, see Capacity Reduction Calculation on page 451.

Reference *Figure. 1* below to complete the following questions:

Height of Carriage: _____ inches

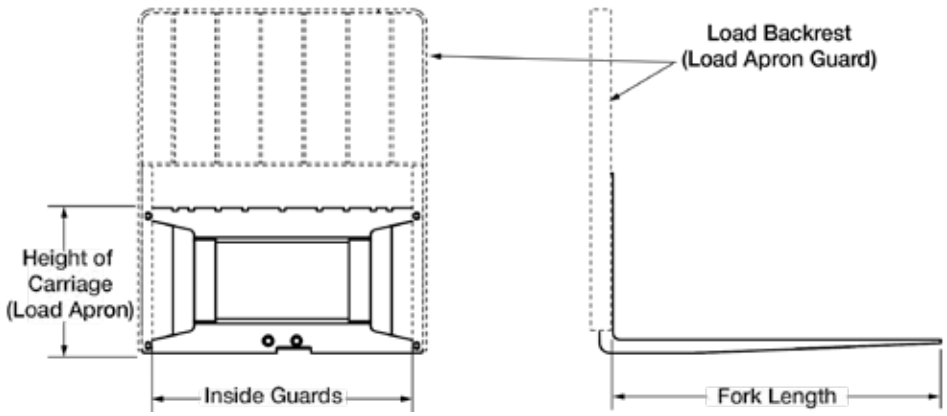
Inside Guards: _____ inches

Fork Length: _____ inches

Load Backrest (indicate load backrest fitting):

Not fitted to carriage:_____ Bolted into side:_____

Bolted into front:_____ Other:_____



An ISO 9001 Registered Company ©2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

CAPACITY REDUCTION CALCULATION

While the forklift scale will fit most typical forklifts, there are considerations that must be taken into account prior to installation. Due to the extra weight of the CLS, the net lifting capacity of the forklift is reduced by approximately 10 percent. Use the formula below to calculate the amount to down-rate the lifting capacity and determine the net capacity of the forklift.

$$\text{Net Capacity} = \frac{A(B + C) - D(E + F)}{E + G + H}$$

Where:

A = Truck capacity in pounds

B = Inches from front wheel center line to fork face

C = Inches from fork face to truck rating point (usually 24 in)

D = Weight of scale in pounds (483 lb)

E = Inches from front wheel center line to carriage face

F = Inches from carriage face to scale Horizontal Center of Gravity (HCG)

G = J + K (inches from carriage face to rear face of load)

H = Inches from fork face to new truck rating point

J = Thickness of fork

K = Thickness of scale

CLS CLASSES AND ID PLATES

During the initial sale or installation of the CLS, remind your customer that they must have an updated ID plate on their forklift stating the new lifting capacity and center of gravity information. This requirement is per OSHA rules and regulations.

	28”	34”	38”
Vertical Center of Gravity (VCG) of Scale =	8.06	8.06	10.15
Horizontal Center of Gravity (HCG) of Scale =	2.09	2.09	2.83
Effective Thickness (ET) of Scale =	4.55	4.55	6.06
Weight of Scale	392	420	987

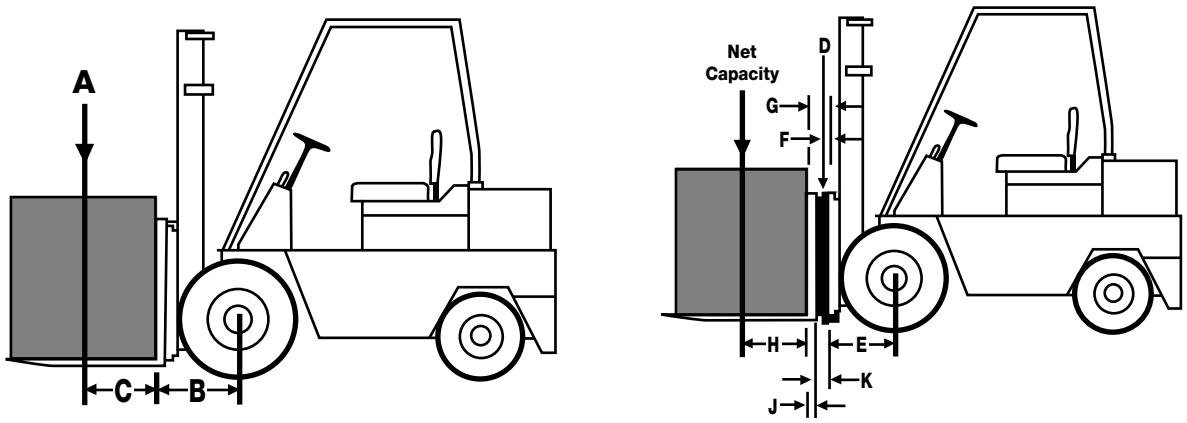


Figure. 1

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

RL-HPJ
Hand Pallet Jack Scale

Specifications

Dimensions:
64.25 in x 26.75 in x 47.25 in
(1,639 mm x 680 mm x 1,200 mm)

Weight:
Approx. 295 lb (134 kg)

Capacity:
Maximum lifting capacity 5,000 lb

Accuracy:
± 0.1% of the maximum capacity

Operating Temperature:
14° F to 104° F (-10° C to 40° C)

Standard Features

- Heavy-gauge steel and powder coated finish
- Steering wheels and double loading polyurethane rollers
- Four stainless steel IP68 load cells
- Weight indicator in IP65 stainless steel water-resistant enclosure
- Large 1 in (25 mm) LCD display high contrast digits, waterproof membrane keyboard, with 17 functional keys
- Configuration, calibration and diagnostics from keyboard
- Rechargeable battery with 80 hours of continuous use
- Zero and tare functions
- High Resolution Weighing x 10
- Net/Gross and lb/kg conversion
- Accumulation
- Formulation
- +/- Checkweighing
- Percentage weighing
- Counting (1,500,000 internal resolution)
- Peak hold
- Includes a 115VAC 50/60 Hz battery charger

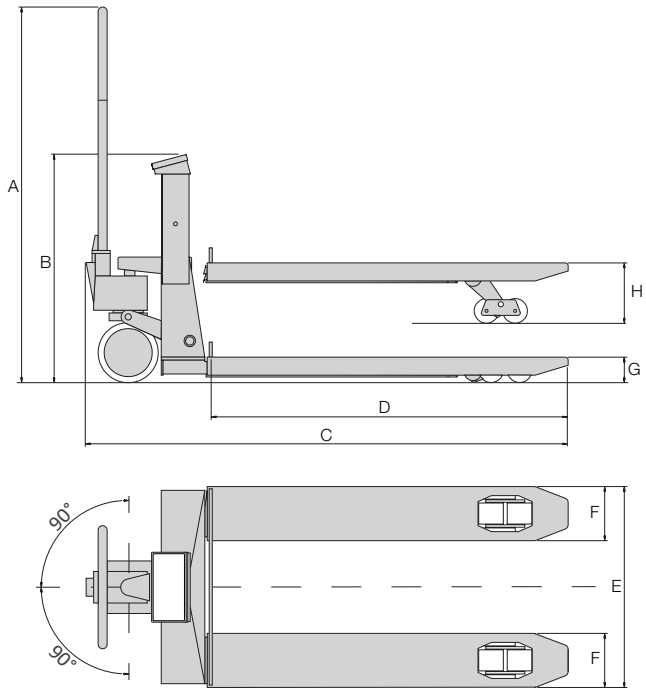
An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

Part Number/Price

Part #	Description	Est. Weight	Price
183592	Pallet Jack Scale RL-HPJ, 5000 x 1 lb	295 lb	$2,495.00

Options/Accessories

Part #	Description	Price
185112	Power supply, 7.2 VDC, 3A SLA battery charger	$125.00
185677	Battery, rechargeable	$125.00
188259	RL-HPJ printer kit	$425.00



Dimensions			
A	47.25 in (1,200 mm)	E	26.75 in (680 mm)
B	30 in (760 mm)	F	7 in (180 mm)
C	64.25 in (1,630 mm)	G	3.125 in (85 mm)
D	45.25 in (1,150 mm)	H	7.75 in (200 mm)

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

An ISO 9001 Registered Company © 2019 Rice Lake Weighing Systems 01/19 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.