

OTTO LIFTER

The Smartest Autonomous Forklift

Built for dynamic environments, OTTO Lifter reduces material handling costs of pallet transport workflows, all while increasing workplace safety. Backed by 4 million hours in production and 400,000 deliveries completed monthly, OTTO Motors' autonomous driving capabilities are trusted in mission-critical operations.

LOWERS OPERATING COSTS

Increase efficiency with predictable performance and consistent throughput. For as low as \$9 per hour, OTTO Lifter offers one of the fastest paybacks in the industry.

INTELLIGENTLY MOVE MATERIAL

OTTO Lifter detects obstacles and reroutes to reliably deliver goods. Its intelligent pallet detection system picks skewed pallets even those with notches covered by stretch wrap.

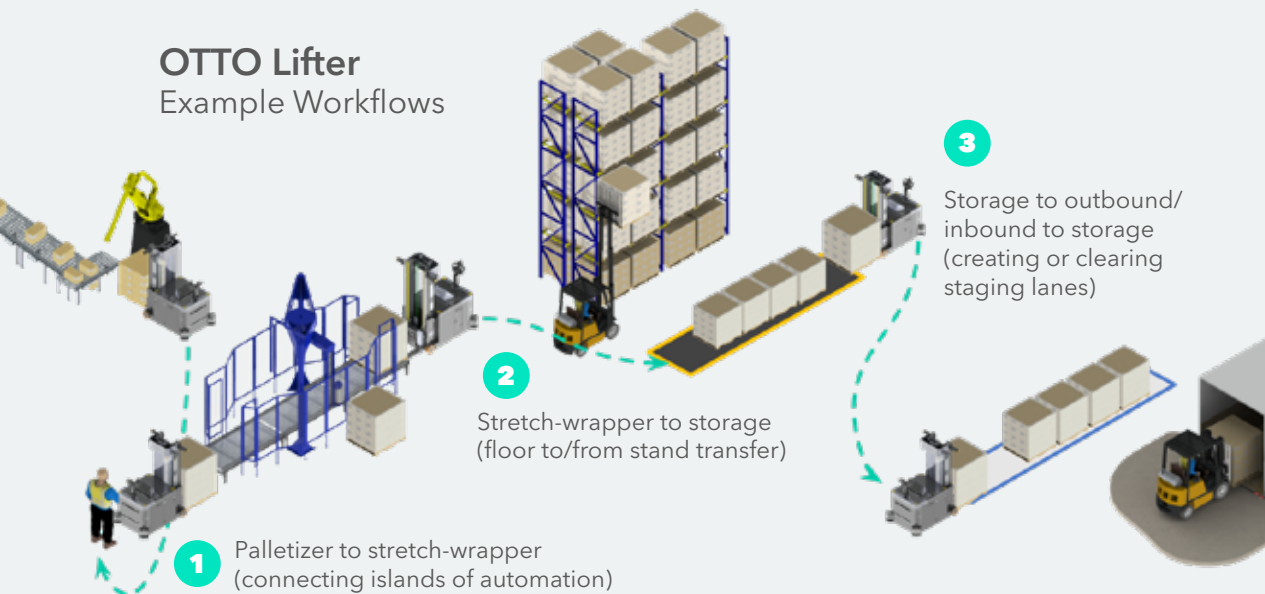
IMPROVE WORKPLACE SAFETY

With advanced safety sensors and class-leading autonomous driving capabilities, OTTO Lifter works safely alongside people, existing infrastructure and other vehicles.

OPTIMIZE YOUR WORKFORCE

Remove operators from repetitive and dangerous tasks. Your team can quickly dispatch deliveries and add new workflows from a workstation or tablet—all while minimizing downtime.

OTTO Lifter Example Workflows



KEY FEATURES

Intelligent pallet detection for skewed, off-centred pallets and stretch-wrap covered entry notches

One-touch autonomous lane clearing

Adaptive Fieldset Technology maximizes speed while maintaining safety

Single Fleet Manager for all OTTO vehicles

Continuous re-mapping of zones for dynamic environments

Technical Specifications

PERFORMANCE

Max. Total Payload ¹	1200 kg (2640 lbs)
Load Center	623 mm (24.5 in)
Max. Speed	1.5 m/sec (3.3 mph)
Turning Radius	1420 mm (56 in) – Manual mode 1985 mm (78 in) – Autonomous mode
Max. Lift Height	2.7 m (106 in); 1.0m (39 in) in autonomous mode
Docking Accuracy	+/- 50 mm (2.0 in)

Docking Accuracy – Raised Drop-offs with Docking Target X = +/- 13 mm (.5 in); Y = +/- 10mm (.4 in)
Yaw= +/- 1.0 degrees

Min. aisle width (One Way)¹ 3152 mm (10 ft 4 in) at speed, full speed
2300 mm (7 ft 7 in) reduced speed

Min. aisle width (Two Way)¹ 5391 mm (17 ft 9 in), full speed
4113 mm (13 ft 6 in) reduced speed

Min. width for 90 degree turn-in¹ 4268 mm (14 ft 0 in)

Min. space around pallet (single layer) 200 mm (8 in)

Gradeability No slopes > 1 degree / 1.7% grade

CHASSIS

Dimensions	Length: 2841 mm = 1607 mm veh + 1234 mm forks (112 in = 64 in + 48 in) Width: 1201 mm (47 in) Height: 2155 mm (85 in)
Wheelbase	1150 mm (45.3 in)
Fork Width	142 mm (5.6 in)

Width Across Forks 592mm (23.3 in)

Mast Height 2155 mm (84.8 in)
with forks at lowest position

Ground Clearance 45 mm (1.8 in)

Mass 2521 kg (5558 lb)

ENERGY SYSTEM²

Nominal Battery Voltage	24 V lead acid battery 25.6 V lithium battery
Battery Capacity	Lead acid: 375 Ahr Lithium: 270 Ahr
Battery Dimensions	850 x 219 x 627 mm (33.5 x 8.6 x 24.7 in)
Battery Charging	Lead-acid: Easily swappable batteries or opportunity charging between shifts Approximately 3 hrs from 20% to 80% Lithium: Autonomous supercharger (200 A) Approximately 1 hr from 20% to 80% Manual trickle charger

CONTROL SYSTEM

Sensors and Cameras	5x Intel RealSense Cameras 3x SICK Microscan3 (360° FOV)
Blue Lights	Two, front and back; Shows direction of movement
Lights and Emergency Stopping	270° LED lighting, 4 emergency stop buttons
Communication	802.11 a/b/g/n/ac/ax, 2.4 Ghz & 5 Ghz 2x Long-range Omnidirectional Antennae
Standards Compliance	ISO 12100, ISO 13849-1 ANSI/ITSDF B56.5, EN 60204-1, EN 1175-1 FCC Part 15 Subpart B, ICES-003, ICES-002

LOAD REQUIREMENT

Pallet Types ²	Wood, Grade A pallets: CHEP, PECO, Block and/or GMA Orbis HDMC 48-45
Pallet Sizes ¹	1019 x 1219 mm (40 x 48 in)
Max. Height ¹	At 1000 kg (2200 lbs): 183 cm (72 in) At 1200 kg (2640 lbs): 134 cm (53 in)



For more information visit www.ottomotors.com
or call us toll-free at **1-844-733-6886**

¹ For 40" x 48" pallets only.

² Must be specified at time of order, further details available upon request.