

## Delivery optimizers

*Tag-along forklifts improve customer service and help producers get the most out of their delivery truck fleets*

Just as you can't judge a book by its cover, you definitely shouldn't read too much into two nicknames the construction world has welded onto truck-mounted forklifts: tag-alongs and piggybacks. Unlike the two children's activities, these machines do anything but slow down adults.

Called the world's fastest-growing type of wheeled construction equipment by one manufacturer, tag-alongs are turning producers of concrete block and clay brick into true delivery specialists. Here's why:

■ **Customer service.** "We decided to go with tag-alongs to become more competitive," says Tony Pickens, fleet manager at Basic Ready-Mix, Calhoun, Ga., a ready-mixed concrete company that recently bought two for its block-distribution business. "We decided we could give a lot better service and get a lot more sales. Our business has picked up tremendously."

Tag-alongs create a win-win situation, improving productivity for producer and contractor. Producers can use tag-alongs to place product almost anywhere masons want it. That's a big improvement over dropping off pallet loads on a curbside with a truck-mounted crane, or, worse yet, waiting for masons—who face major labor shortages—to unload a truck.

John Gregory, sales director for Chrisman Manufacturing, Long Beach, Miss., notes that tag-alongs are quickly becoming standard equipment for masonry unit producers. If they don't use tag-alongs, "their customers will buy from someone else. That's what I see every single day," says Gregory, add-



CHRISMAN MFG.



K-D MANITOU

Besides relieving contractors of unloading trucks, tag-along forklifts are interchangeable and are still available when a flatbed truck needs maintenance. While most models have straight masts, a few offer front-to-back load movement (left).

ing that the machines also allow drivers to load their own trucks. "My customers' customers are calling and asking, 'Do you have booms or piggybacks? How will the truck be unloaded?'" he says.

■ **Truck utilization.** "We had some big jobs, some big, open shopping centers where we could get flatbeds in, and relying on the masons to unload our trucks was taking a while," says Donny Schaefer, fleet coordinator for Midwest Block in Jefferson City, Mo. Midwest Block addressed the problem by purchasing its first tag-along forklift in 1989. "You can just leave the machine at the site," Schaefer says. "If we sent in eight or nine truckloads, one forklift could unload all of them. They're great when you've got a large quantity of block going to the same place and you've got a big, open area you can get into."

"By unloading the truck quickly, the driver can go back and pick up another load," says Del White, senior territory manager with Sellick Equipment Ltd. in Harrow, Ontario, Canada. "Ultimately, you can deliver more block or brick in a day."

Boom trucks are still the equipment of choice for congested or particularly rough sites where the producer can do no more than place product over obstructions. However, tag-along forklifts' interchangeability increases truck utilization. "Your truck's not down if your forklift's down," notes Pickens.

■ **Reduced fleet-wide maintenance.** "We don't take a chance on getting a trailer stuck because we can park it on the road and carry materials a long way," says Pickens. Reduced maintenance increases truck utilization. By allowing trailers to stay on the road, tag-alongs can reduce truck maintenance in the long run.

### Standard features and options

Almost invariably, tag-along forklifts use a straight mast and three wheels, the latter for maneuverability. They sacrifice lifting capacity and lift height for light weight during transport. Another trade-off with the three-wheel design is that counterbalancing an extended load becomes more of a

## Guide to tag-along forklifts

Manufacturer	Lifting Capacity (lbs)	Standard Features	Web site	Circle No.
Cargotec (Moffett Mounty)	4000-5500	Smooth Ride mounting kit, all-wheel drive, stabilizers	<i>cargotec.com</i>	1
Chrisman Mfg	5000	Stabilizers, power steering, continuous posi-traction	<i>chrisman manufacturing.com</i>	2
Eagle-Picher	5000	Pantograph-reach mechanism, Electronic Engine Management System, self-lubricating mast & pantograph, on-demand traction control	<i>ced.epcorp.com</i>	3
K-D Manitou	5500	Telescopic boom operation, Quick Hitch mounting system, stabilizers	<i>kdmanitou.com</i>	4
Kesmac	4500-5000	Retractable front wheels (R model), see-through mast, posi-traction, theft/vandalism deterrence	<i>kesmac.com</i>	5
LiftKing Industries	5000	Differential lock, flip-up engine cover, all-wheel drive	<i>liftking.com</i>	6
Northwestern Motor Co-Swinger	1600	Articulated steering, easy-access service points, vibration reduction, independent front/rear frames, high-visibility mast	<i>nmc-wollard.com</i>	7
Palfinger North America	5500	Side shift, clear view, service-free guide bearings, patented moving ballast, tilt canopy		8
Sellick Equipment	5500	Stabilizers, deadhead mount, see-through mast, inching control, on-demand two- or three-wheel drive	<i>mnsi.net/~sellick</i>	9
Terex Princeton	3300-4500	Clear-view mast, scissor reach, three-wheel drive with Super Trac Loc	<i>piggy-back.com</i>	10
Web-Lift Inc	4500-5500	Rack-and-pinion steering, four-wheel design, all-wheel drive, hydraulic steering, articulating front legs for safe mounting, forward/reverse foot pedal		11



All-wheel drive for rough terrain, clear-view masts, and load side shift are common tag-along features. More and more manufacturers are also voluntarily meeting ANSI standards for the machines.

concern with tag-alongs. The benefit of a machine that extends loads outward with a less-common telescoping boom or scissors-like pantograph mechanism is the ability to unload the entire truck bed from one side. However, stability is a concern unless the operator keeps an extended load as low as possible.

Maximum lifting capacity at a 24-inch load center is typically 5,500 pounds, compared with a conventional rough-terrain forklift that might lift 8,000 pounds. Capacity also decreases as lift height increases. Manufacturers provide load charts that show rated capacity at various mast extensions.

Some manufacturers offer a standard 6-foot, one-section mast, which creates a higher profile during transport than multisection masts that extend to common heights of up to 12 feet. The cylinder on multistage masts lifts and collapses multiple carriages, and the profile is lower in the down position during transport.

Mast tilt, nearly always a standard feature, not only keeps loads level on rough terrain but also creates a lower profile during transport. Side shift, a time-saving feature that allows operators to move loads a few inches to either side without moving the entire machine, also is usually standard. Several manufacturers also offer clear-view, or see-through, masts.

Other features include, but are not limited to, two- or all-wheel drive to

suit varying terrain, hydrostatic operation for smooth movement, wheel stabilizers and counterweights for tipover prevention, rack-and-pinion steering for increased maneuverability, and an ergonomically designed cab.

Increasingly, manufacturers are conforming their tag-alongs to sections B56.1 and B56.6 of the American Society of Mechanical Engineers' American National Standard for low lift and high lift trucks and for rough terrain forklift trucks, respectively. The standards require manufacturers to meet criteria in rated capacity, stability, brake-system performance, overhead guards, and wheel guards, among others.

### Mounting is a key consideration

In recent years, manufacturers have looked at alternatives to hanging tag-alongs by their masts, which were easily damaged by the vibration of the truck bed, particularly on an unloaded truck. "Piggybacks aren't ruined by being used in the field; their demise comes from riding on the back of that truck," says Gregory.

To keep the weight off the mast, manufacturers have devised different mounting configurations. Many mounting kits have a drop deck below the trailer bed, so the full weight of the machine rests on the wheels while ratchet straps or chains are attached to the rear of the machine. Some manufacturers offer



mounting hooks, and others use chains. Using a two-way lift cylinder on the mast, drivers try to lower the forks, locked into the mounting mechanism, which instead raises the machine.

One manufacturer offers a "dead-head mount" consisting of bars affixed transversely to the truck bed into which forks fit. Although this costs some truck-bed space, Schaefer says drivers like this configuration and rear mounting for different reasons. "They like putting it on the back because they don't have to climb up so high," he says. "Then again, when they're driving down the road, they like having the weight on top of the trailer."

—Don Talend

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