LANDOLL
MARYSVILLE, KANSAS
Material Handling Products Group

Productivity of the Bendi B3/30AC

Bendi forklifts are safe and legal to transport pallets in a straight line while lifting or lowering them. The Bendi operates under the same OHSA regulations as a man-up turret truck which allows lifting while traveling. The Bendi and man-up turrets have chassis stability far in excess of rated capacity when traveling in straight line with the load in front. They both derate to their rated capacity only when the load is held off to the side in the pallet put away position.

The lift/lower and travel speeds of a Bendi B3/30AC are very comparable to today's reach trucks. The Bendi arrives at the pallet location with the load already lifted and spends 15 seconds or less to put the pallet away or to remove the pallet and leave. Reach and counterbalanced trucks cannot legally or safely do this. They are required by OSHA to keep loads about 24" off the floor, complete the turn in front of the rack position, then lift their load to the desired beam level. When removing a pallet, the load is to be lowered to the 24" off the floor position before the truck can get under way, per OSHA. This gives the Bendi a very significant productivity advantage.

The Bendi mast is marked for beam heights that indicate the height required to put the load away or to insert the forks into the pallet on the load beam regardless of the beam height. This speeds production and eliminates pallet and product damage. If desired (because of many random beam heights), a camera can be placed between the forks and the operator can get a face on view of fork entry into a pallet on a TV monitor in the operator compartment.

The Bendi operates like a car with front wheel steering, an accelerator pedal and a foot brake. This makes the unit very easy to learn to drive for anyone who can drive a car. New Bendi operators can routinely be trained to pull or put away a pallet in a very small aisle in 15 to 20 minutes. People who have never been exposed to the very uncarlike operation of a reach truck take far longer than that to that to learn to control that reach truck. This is a huge productivity advantage in the event of employee replacement. A new Bendi driver is far more productive, far sooner than a reach truck driver, and usually without all the associated product damage. The Bendi has no rear "tail swing" for the operator to worry about.

The Bendi provides a wide open view to the work zone in the pallet rack without a mast in the field of view. The reach truck mast and pantograph always interfere with vision when working in the rack. If you can see what you are doing, you can do it easier and faster.

A seated driver in a comfortable custom fitted work station will be more likely to stay with a truck and work longer with his piece of equipment than one who stands. The Bendi has a very comfortable seat and an operator compartment that adjusts to the operator body size. Operators tend to stay with a Bendi more than with a reach truck because the seat on the Bendi is the most comfortable place in the building for the operator to be. It certainly beats standing and being thrown around in the operator compartment of a reach truck. Reach truck operators tend to take more and longer breaks than Bendi operators.

The Bendi B3/30AC has 3 large wheels that will last a long time regardless of floor condition or housekeeping practices. Any little piece of debris can "trig" a reach truck load wheel, cause it to skid, and create a "flat spot" that will require wheel replacement. This will never happen on a Bendi.

Wide open access to mechanical or electric components on the Bendi compared to any reach truck, speed any repair process so less downtime is created.

The Bendi AC drive and AC pump motors (only two) don't have motor brushes that need to be replaced. The AC controllers (only two) don't use contactors so downtime is reduced.

The Bendi also eliminates the complicated "single function control handle" that reach trucks employ. That means that the Bendi does not have all those tiny switches and springs that frequently cause trouble in those control handles.

The Bendi has far better access to the battery than a reach truck which should promote better battery maintenance and more frequent battery inspection. Proper battery care has increased as an issue as the cost of batteries has doubled in the last 2 or 3 years.

No pantograph and no outriggers on the Bendi compared to the reach truck, save rack and pallet damage and eliminate further repair costs and associated downtime.

Overall productivity of a Bendi is far superior to a reach truck and the Bendi provides a 15% to 20% increase in building storage capacity with selective pallet rack. The Bendi B3/30AC works in aisles as small as 6 feet wide with standard 48" deep pallets compared to the 9 foot wide aisles that reach trucks usually require. That is a 50% increase in wasted aisle space that the reach truck needs.

If order picking is done with man-up orderpickers, the narrow Bendi aisle will increase picking productivity because all products can be accessed from top to bottom on both sides of the aisle by just driving down the center of the aisle. When aisles are 9 feet wide this does not work. The narrow aisle "encloses" the work space of the person on the picker so he or she is more comfortable in the elevated position and they can work faster. We have seen a 30% increase in picking performance after Bendi units are installed compared to previous methods. This is a huge productivity advantage for overall warehouse operations because 80% of effort can be directed to picking cases at a time compared to the 20% of effort to put full pallets away.

We recently had a customer, a large 3PL company in California, do a productivity comparison between the B3/30AC with a driver that had only been operating the truck for a week, and a Toyota reach truck with an operator that had been on that reach truck for at least 5 years. The beam level in the rack was at 25 feet and the pallets were standard GMA 40"W X 48" D X 48" H and they weighed up to 2000 pounds.

The Bendi units operated in aisles that were specially sized at 74" wide (fit the building column spacing) and the reach trucks operated in aisles that were 108" to 114" wide.

They found after several days of operating that the Bendi units were 10% to 15% more productive than the reach trucks. They found that the advantages came from being able to safely lift a load while traveling so that pallet put away was very quick (average time in front of a pallet position is only 15 seconds or less regardless of height) and the Bendi was far more nimble at the dock area when it went there to retrieve or replace a pallet. The driver tended to stay with the Bendi for a longer time frame between breaks which they attributed to the comfortable seated position verses the standing position on the reach truck. Lift/lower and travel speeds between the Bendi and the reach truck were very close to each other.

Bendi 4 wheel AC trucks are even more productive than the B3/30AC because they are able to load and unload trucks (B3/30AC is too tall for dockwork) as well as work in aisles down to 78" wide. This allows users to go direct from trailer to rack and actually eliminate the need for dockworker type forklifts and operators as well as the need for reach trucks and reach truck operators. A forklift and a reach truck together, are likely to cost more than a Bendi and it certainly costs more for fuel and parts and maintenance for two machines than it does for one. They drop from two machines and two operators to one machine and one operator to perform the complete. The frequent "waiting" times that one operator has for the other are eliminated when one driver can perform any pallet movement task at any time. He stays busy and the Bendi truck pays back its investment cost quickly because it is always active. Since it costs about $40,000 to employ a single operator with all benefits, if you eliminate the need for one operator that money could be diverted to provide the lease payments on nearly 3 Bendi units that would then be **FREE.**

Note: 15% added productivity over 7 years of truck life on a single shift operation is worth over $55,000 to a company that keeps its forklifts active.