



LIFTECH



Volume 1, Issue 2 July - September 2009

Foreword

Dear Reader,

Continuing the development news about our electric forklifts, we are proud to introduce our high performance package for these forklifts. We're also excited to bring you news of the new RR 5700 series reach trucks recently launched by Crown.

Industrial cleaning is another important but often neglected area. We hope to bring our readers more insight into this subject through Liftech.

You will also read about how the new control handle we've started fitting on our pedestrian warehouse trucks contributes to safety and productivity in your warehouse. In a new section we're starting on special applications, we begin with the humble side-shift and fork positioner attachments.

The business climate still leaves a lot to be desired but we're seeing a small uptick in customer mood. Since we're in the business of lifting, we've continued to help lift our customers' profits with new offers that make a lot of sense in economically chaotic times. Do call your nearest Godrej Material Handling office to know more.

As always, we welcome your suggestions and comments to tell us what you like about Liftech, or wish to see something different.

Cheers!!!

C. N. Dumasia
Chief General Manager
(Marketing & Sales)

High performance package for electric forklifts

- Are energy costs a major concern and do you wish to avoid every possible waste of power from your forklift's traction battery?
- Are you searching for new technologies that make life easier and more comfortable for your forklift operators so that they in turn deliver their best and most productive performance?
- Do you handle delicate cargo that could get damaged while handling and feel that your forklift's lifting and tilting operations ought to be much smoother and gentler to protect your goods?
- Are you running a tight ship and constantly need the highest possible handling speeds from your electric forklift?

If you've answered "Yes" to even one of these questions, you are likely to find an effective solution in our high performance package for Godrej electric counterbalanced forklifts to give that extra edge to your material handling operations.

Electric counterbalanced forklifts are conventionally operated by 3 motors:

- a. A traction motor to drive the truck
- b. A pump motor that powers a hydraulic pump for performing lift and tilt operations
- c. A steering motor that drives a smaller hydraulic pump exclusively for the

steering operation

While this is an economical arrangement and has been used by lift truck manufacturers all over the world for decades, it has a few drawbacks:

- a. The pump and steering motors operate in an ON/OFF manner i.e. they either deliver the full oil flow or none. When full flow is not required by the valve the excess is returned to the tank. This is a waste of energy, besides resulting in avoidable wearing of the motor and pump
- b. Smoothness of the lifting and tilting operations depends to a large extent on the operator's skills.

We are happy to announce the introduction of this new technology on Godrej electric counterbalanced forklifts with a **high performance package**. In this package, the lifting, tilting and steering operations are governed by an electronic controller to deliver oil flow according to the needs of the operation performed.

Here's how it works. The electronic controller regulates the voltage supplied to the motor and consequently controls the pump rpm and oil flow rate depending on what operation the operator performs. While steering, the controller supplies about 30% of full voltage and the pump is driven at 30% of full rpm. If the tilt lever is pushed the pump is driven at about 75% of full rpm and if

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the forks are lifted the controller supplies full voltage to the motor to generate maximum flow.

The main benefits of the high performance package are:

- a. You consume only the amount of energy required to perform the specific function. This gives you more run time between battery charges and reduces your power bills
- b. Battery life is prolonged and eventually defers your battery replacement expenditure
- c. Smooth lift and tilt operations protect the product being handled, essential if you handle delicate goods
- d. The operator gains superior control over all hydraulic functions. This confidence translates into greater productivity and less product damage

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High performance package for electric forklifts

What's more, incorporation of a programmable electronic controller makes it possible for us to customize the performance of lifting, tilting and steering functions to your application. If smoothness of operation to handle delicate goods is your priority, or throughput is what you're after, you tell us

and we will program the controller according to your request.

If you're willing to invest just 3% more on your new electric forklift, this high performance package saves you money throughout the life of the truck.

Now in case you're wishing we had developed the high performance package when you purchased your Godrej electric forklift, don't despair. The whole system can be retrofitted and integrated into your existing forklifts so you can still take advantage of this

development.

It has always been our endeavour to bring you affordable technology advances that help you compete more effectively in your markets. This is one more step on that path.

Introducing the new RR 5700 series Reach Trucks from Crown

We're very excited about the launch of the RR 5700 series Crown Reach Truck which replaces the RR 5200 series. The considerable success of the RR 5200 in India bear testimony to the way Crown RR reach trucks have found their way into the hearts of Indian customers, who can now look forward to the next level of experience with the RR 5700 series.



Besides being simply beautiful to look at and a sheer delight to operate, Crown packs its warehouse trucks with a host of features, utilities and options. But here's what we think sets it apart from its predecessor and the competition.

AC technology. Traction and lift functions are powered by AC motors. What's really unique about Crown though, is that they are the only lift truck manufacturer in the world who design and manufacture their own motors. Each motor is thus designed and tuned to deliver optimum performance and energy efficiency for the specific truck and application it is built for. For the user, it translates into unbelievable smoothness of operation and energy conservation.

Stand / sit / lean. The RR

5700 can be delivered with a stand up position for the operator or a sit down version. In cases where the operator is required to get in and out of the truck frequently, the stand up version is most suited. For long hours on the truck, the sit down type is ideal. What's more, this is not only for operator comfort, the stand up version is more comfortable on your pocket too.

Zero deration with double deep stacking. This guarantee comes with Crown's one-of-a-kind pantograph design. For instance, the RD 5700 can stack a 1.35 tonne pallet load at a fork height of 8.9m in the front rack as well as in the one behind. Virtually every other reach truck in the world uses telescopic forks for double deep stacking. The main disadvantages of this system are: (i) 50% capacity deration

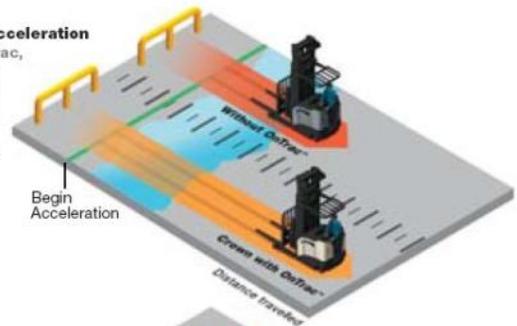
when you need to reach the inner rack, and (ii) after a period of use, the forks tend to tip forward when extended. So

the pallet either hits the inner rack or if the operator plays it safe and lifts it high, the top of the load hits the rack above. Both problems are eliminated with Crown's unique double deep reach mechanism on the RD 5700.

Guaranteed traction control with OnTrac™. Wet floors, dusty floors, oil on the floor, sudden acceleration – all of these cause loss of traction and drive wheel spin. Besides wasting energy and some loss of productivity, it is a distinctly unsafe situation. Crown's On-

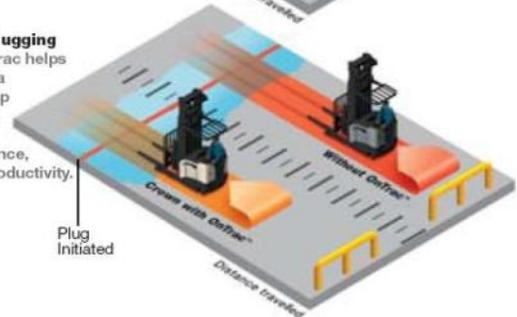
Wet Floor Acceleration

Without OnTrac, reach trucks lose traction accelerating through wet, slippery areas.



Wet Floor Plugging

Crown's OnTrac helps bring you to a complete stop and reverses travel in a shorter distance, improving productivity.





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Introducing the new RR 5700 series Reach Trucks from Crown

Trac™ system monitors truck speed and ensures that irrespective of floor or operating conditions, the truck retains a firm grip on the floor. This greatly reduces wheel spin and also prolongs tyre life.

The RR 5700 comes in 1.6 and 2 tonne capacities (at 600 mm load center) with lift heights up to 11.25 m (37 ft)

We can go on about the S

Class version of the RR 5700 that offers more operator position options, the rack height selector, tilt position assist which makes sure your forks are horizontal when you enter the pallet or rack, the capacity monitor that displays the ac-

tual load on the forks, etc. But it would be so much easier for you to just call us over to know more. We're always happy to meet you, understand what you need and find the right truck for your job.

Cleanliness is next to Godliness... and more profits

We were all taught "Cleanliness is next to Godliness" in school. What applies to our personal hygiene and our homes, applies in equal measure to our factories, warehouses and offices.

One of the most persistent problems we all face at work is dust, dirt and debris. So we have small or large armies of people to clean the factory or warehouse floor, swab offices, canteens and labs, daily. But does this bring about real cleanliness? And can a lack of true cleanliness make your profits dip? Let's see how.

Depending on the kind of business you're in, your factory, warehouse and canteen will suffer an ingress of air borne dust and carbon particles, dirt brought in by vehicle tyres and shoes, metal scrap, shards of glass or wood, plastic, oil, grease, cotton waste, paper, nails, tiny metal or plastic



Large Ride-On Sweeper

parts, chemicals, food, con-

crete dust, flakes of wall paint and what not.

Worker health and safety are the most primary concerns. Clean floors, clean machinery, clean air and proper lighting, all contribute to a healthier work environment. Its no secret that workers who stay healthy turn out more production.

Tennant cleaning machines can trap and pick up dust as fine as 0.5 microns (that's smaller than the particles of cigarette smoke)

Dirt, sand and grit get tracked into every shop or warehouse floor – its unavoidable. When run over repeatedly by traffic, the continuous abrasion gradually wears away floor and road surfaces. Ruts and pits appear and the concrete dust created accelerates wearing. Dust and dirt find their way into your production machinery, making you spend more time and money on frequent maintenance.

Poor flooring and road conditions have an adverse effect on the tyres of all vehicles used in your facility including lift trucks, transport equipment and even personal cars, increasing tyre maintenance and replacement costs. Lift

truck drivers tend to get cautious on rough, uneven floors. They drive slowly and carry smaller loads on each trip. This directly reduces productivity besides the higher chances of an accident due to a bumpy ride.

Dust gathering on raw material and finished product inventories needs to be brushed off before consumption or shipment. This is a non-value adding expense we're sure you would like to avoid.

Some Tennant machines can scrub floors without the use of detergent, directly reducing the cost of cleaning operations

On the other hand, if the floor is smooth and clean, material handling can take place at a faster clip to support production, machinery needs less maintenance, vehicle tyres last longer and you can in fact move larger loads safely, boosting productivity further. Large expenses on repairing or relaying the floor can be deferred by years, benefitting your company.

In an India which is becoming more globally integrated by the day, many companies are visited by buyers, sellers and partners from advanced mar-

kets. For these companies, clean factories, warehouses and campuses are an essential marketing investment.



Walk Behind Scrubber

Perhaps the total impact of unclean, worn flooring and roads is not fully captured and understood because the various costs involved are allocated to, budgeted for and sanctioned by different departments in an organization. If the impact dust, dirt and debris have on the costs of health care, machinery, flooring and vehicle maintenance, product damage, loss of productivity, etc. were to be

Tennant machines consume less water than manual cleaning for the same floor area, conserving our most precious resource

measured, we're sure you will see the strong link between



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Cleanliness is next to Godliness... and more profits

cleanliness and profits.

While cleanliness is important, like most other aspects of industrial life, the preference is to employ manual labour. What appears to be the most cost effective technique does not really create a truly clean and safe working environment. Besides the low productivity, which means you or your contractor has to engage more people, the main drawback of manual cleaning is that it tosses dust up into the air and nearly half of it simply settles elsewhere.

Mechanized industrial cleaning is an area where Godrej Material Handling can come to your aid. Our partner, Tennant Co. of USA, is a world leader in industrial cleaning equipment. Whether its your canteen floor, warehouse, production shop, or your campus, Godrej and Tennant will have an appropriate solution for you. Tennant's wide range of battery and engine powered cleaning equipment allows us to address the specific needs of logistics companies, distribution centers, airports, hospitals, railway stations, univer-

sities, manufacturing plants of chemicals, plastics, pharmaceuticals, food and beverages, metal products, consumer goods, engineering items and even large industrial complexes for automobiles, cement, steel, non-ferrous metals, etc.

While investing money in industrial cleaning equipment appears to be one more expense, we can show you that it will actually save you money compared to what you are currently spending on manual cleaning. The total cost of ownership of Tennant

cleaning equipment makes a lot of commercial sense and adding to it the saving achieved from a cleaner floor, it directly adds to your profits.

To know more about how Godrej and Tennant can help you, please call your Godrej Material Handling representative. We will be delighted to discuss your specific cleaning needs and offer a suitable solution.

Evolution of the operator interface on Godrej pedestrian equipment

Older pedestrian warehouse trucks like powered pallet trucks and electric stackers typically had the lift and auxiliary functions like side-shift or tilt operated by levers mounted on the truck body while the travel function was controlled from the steering handle. A lever directly operating the valve spool is definitely a low cost solution (perhaps that is why a few Indian manufacturers have stayed with this technology even today), its main drawback is that the operator has to manage two separate interfaces which are not ergonomically located in relation to each other.

The operator has to manage the travel function provided on the control handle close to

his body with one hand and use the other hand to operate the hydraulic function levers on the equipment body which is further away and at a different height. This can distract him from his most important task – focusing on safe handling of the truck and load. In the best case, distraction leads to lower productivity and operator fatigue. In the worst case, a wrong operation may cause an accident.

Safety and productivity are paramount to Godrej. So right from the time we started building pedestrian warehouse trucks, we've used what are called "Full function control handles". These handles place the switches required for all operations of the truck on the control and steering handle itself. So there is only one interface the operator has to manage.

And continuous improvement towards a better tomorrow is equally dear to us. So when we found a superior control



handle, we immediately introduced it on all our pedestrian equipment like powered pallet trucks, straddle stackers, etc. The new control handle is also a 'full function' handle. But it is distinctly superior to the earlier model.

- a. You can see the modern, appealing looks of the full fibre body, which has antistatic properties besides simply looking good
- b. It uses rocker switches so there's only one switch for lift-and-lower and one switch for back / front tilt (the tilt switch is only for counterbalanced stackers)
- c. Once his finger is on a switch, tactile feel tells the operator whether to

press down on the upper half or the lower half. This minimizes the chances for error.

- d. Since the rocker design halves the number of switches, there's two sets of switches on the handle so an operator can use either his left or right hand depending on his comfort and habit

The new full function control handle brings down chances of any accidental activation of a wrong switch to nearly zero. And from the numbers we've supplied in the field, we can vouch for its superior reliability.

There's more good news! If you're a customer of one of our older electric stackers, you would be happy to know that the new handle can be retrofitted on your stacker along with a change of a small wiring harness and the handle mounting. So for a small cost you can upgrade your truck to a more contem-





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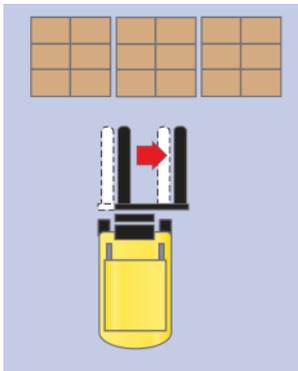
Special Applications

In this edition of *special applications* we discuss two simple and basic but very effective attachments used on forklifts

Side shift attachment

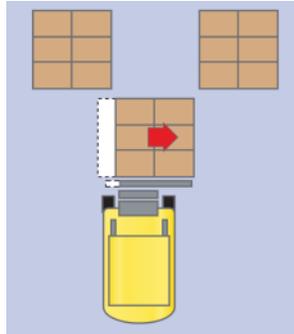
Let's say your operations need to handle a few hundred pallets every day. Each time the forklift approaches a pallet, the operator has to align the forks with the pockets on the pallet. If the alignment is not proper, an operator may choose to push forward anyway and force the forks through by dragging the pallet along for a bit. Such handling practices result in pallet and product damage. Pallets on higher levels or placed on racking cannot be handled even in this crude way.

To do the right thing, the operator has to back up, realign the truck and approach the pallet again. Even experienced operators need to back up at times while picking up pallets but with less experienced operators, a couple of attempts are often required with most pallets to get it right. In either case, this wastes time and fuel or battery power.



tery power.

Both these precious commodities, time and energy, can be saved by investing in a side-shift for your forklifts. In



many countries, virtually all forklifts up to 3 tonne capacity are delivered with a side-shift attachment as a standard fitment. Though not a device which stands out prominently (actually you hardly notice it) its an amazing time and money saving device.

As the name suggests, the attachment allows the forklift operator to hydraulically shift the forks together, to the left or right of center by 100 mm (about 4 inches), to align them correctly with fork pockets on the pallet. So even if the operator is slightly off the mark while approaching the pallet, all he does is push a lever to move the forks together to the required side and lines them up with the fork pockets. Once rightly aligned, he simply drives forward and smoothly picks up the pallet. There's no pallet damage and no waste of time and fuel in backing up and realigning the truck.

It is safe, fast and easy. Godrej Material Handling manufactures and supplies side-shifts on all forklifts from 1.5 to 20 tonne capacity.

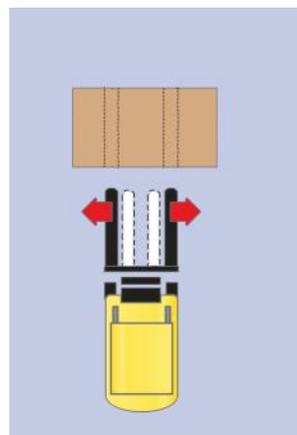
Fork positioner attachment

If all the pallets you have to handle in a day have their fork pockets with the same space in between, you are

very lucky. With the variety of pallet dimensions out there, each with differently spaced fork pockets, all of which need to be handled on a normal working day, it can become a nightmare for operators and warehouse managers.

Imagine what would happen if your operator has to jump off the forklift and adjust the fork spacing every 10 minutes or so to handle a different set of pallets. Besides the obvious loss of time and productivity, each time the operator gets off the truck and adjusts the forks, he is exposed to the danger of a back injury or getting his fingers pinched between the forks and carriage. Even if he is safe and cautious, he would be quite tired before the shift is out.

These losses can be eliminated by investing in a hydraulic fork positioner attachment for your forklifts. Unlike a side-shift which moves both forks to one side together, the fork positioner simultaneously moves the forks in **opposite** directions about the carriage center i.e. varies the distance

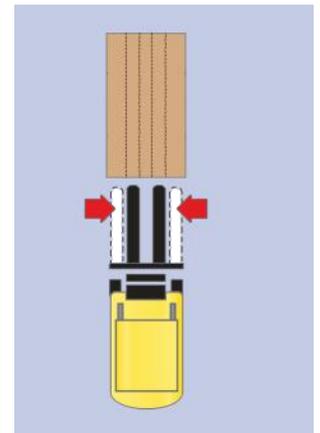


between the forks.

Adjusting the forks to suit the

fork pocket spacing on your pallets becomes an activity lasting only seconds, does not in any way tire your operator (he does not even have to leave his seat) and does not expose him to any danger.

It is safe, fast and easy. Godrej Material Handling manufactures and supplies fork positioners on all forklifts



from 1.5 to 20 tonne capacity.

Combined side-shift and fork positioner

This one kills two birds with one stone. The forks can be either side-shifted to line up with the pallet pockets or positioned to suit the different spacing on your pallets. Both functions are hydraulically operated by pushing the right lever.



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Saurabh Gupta of Godrej Material Handling shines in Jaipur round of Tata Crucible Quiz 2009



- Reliance Retail
- State Bank of India

The first few rounds of the final were even with all teams scoring. By end of the second round it seemed like a battle that would go on with all teams neck-to-neck. The buzzer rounds began and that started separating a few teams from the others.

While all teams made valiant efforts to move forward in the penultimate round it was team Godrej that took the initiative and pressed forward to establish a good lead. Team SBI which was just behind them with Henkel and ICICI Bank also moved up.

In the final round of the quiz it was Godrej with a score of 60 that won a place in the national finals with some truly well timed answers. Team SBI finished runner up (scoring 35) while ICICI Bank came in third.

Saurabh Gupta (extreme right) - Godrej Material Handling, Jaipur Branch and Kumar Vaibhav (extreme left) - Godrej Interio, Delhi Branch, won Jaipur Edition of Tata Crucible Quiz 2009

minds in India to take on the heat of the toughest business quiz in India. Tata Crucible Corporate Quiz 2009 was held in 2 parts: Two back-to-back tracks—separately for Tata Corporates and Non-Tata Corporates followed by National Finals. The quiz was conducted in 18 different cities.

There were around 55 teams participating in this quiz at the regional level. The six teams that qualified to the regional final were :

- Godrej and Boyce
- Henkel India Ltd
- Make My Trip
- ICICI Bank

'Tata Crucible - The Business Quiz' seeks to bring together the sharpest young

We hope that this issue was of value to you. If you have any queries or questions about our products, feel free to get in touch with us. You can click on the email address below to ask for information or visit our website by clicking on the URL.

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