

OFF ROAD

■ Automated maintenance

Automated maintenance and safety



Special off road edition

Operational safety, day in, day out

- TWIN Heavy Duty greasing system
- Greensight
- BreakAlube

Off road machines perform better with Groeneveld.



YOUR EFFICIENCY IS OUR CHALLENGE



Twin

TWIN | Developed for the toughest off road conditions

Groeneveld developed the TWIN greasing system in 1994 for the most arduous off road operating conditions and is now a proven and extremely reliable product.

TWIN keeping machines operational

Manual greasing of off road machines in accordance with manufacturers' instructions is not a straightforward task. Greasing points are often hard to reach and intermediate greasing in the field is often postponed in order to optimise machine operating hours. In the meantime the chance of metallic contact or contamination and thus mechanical damage to costly machine parts becomes correspondingly greater. As a one off investment, a Twin Heavy Duty greasing system pays back through lower operating costs and greater availability of the machine, at the same time as protecting the equipment through its whole service life.

Superior Technology

TWIN uses standard EP2 grease that is delivered to the greasing points under pressure. This occurs at the correct interval in small metered quantities after machine start-up. Resulting in optimum distribution of the grease over the whole bearing surface, ensuring an excellent seal against dirt ingress and reducing grease consumption. Operationally efficient greasing is ensured under all circumstances due to the robust construction of the dual mainline, H.D. steel pipe and the dedicated metering units to each greasing point. TWIN thus reduces unnecessary wear / tear and machine breakdowns.

User Friendly

With the TWIN Heavy Duty greasing system the grease supply is matched to a machine's grease requirement. The system is practically maintenance free and easy to adjust. An in-cab display shows a variety of information eg : low grease level and empty reservoir. The system can be filled within a few minutes with a hand or pneumatic pump. The greasing process is continuously monitored by the integrated management system in the TWIN pump. Operational information for control and diagnosis is stored in the PCB and is fully available via a laptop or partially via the in-cab display.

Economical for people and the environment

The action of continuously greasing moving parts maintains them in optimum condition. TWIN thus helps to prevent downtime as a consequence of mechanical damage and the associated safety risks. Operators are freed from greasing tasks that are often dirty and time consuming. Grease consumption is reduced considerably with TWIN and use of biodegradable greases is also possible, thus helping protect our environment.

Accepted as the standard worldwide

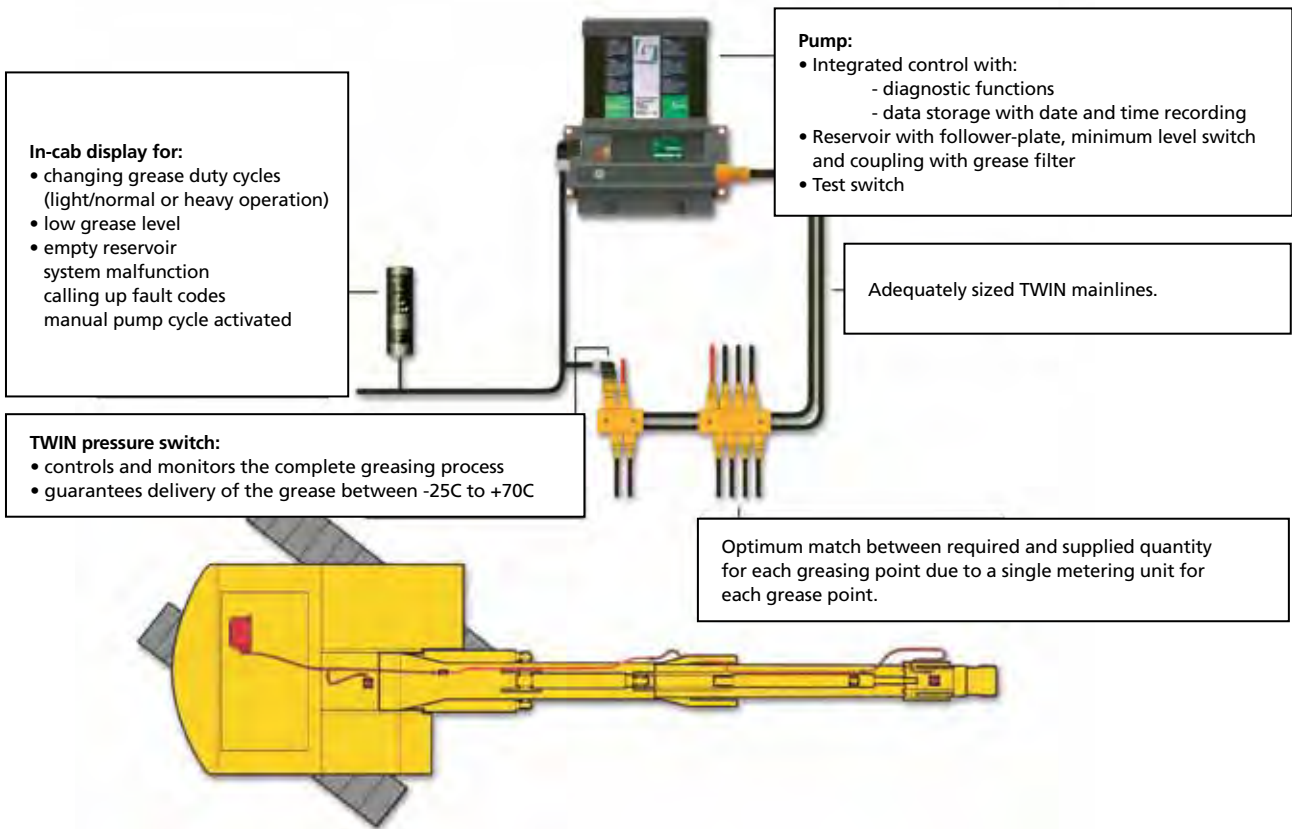
The worlds ten largest machine manufacturers endorse the TWIN Heavy Duty greasing system and fit it either as standard or special order. Groeneveld also supplies aftermarket kits with comprehensive fitting instructions and all the necessary parts for a specific manufacturer and machine type.

For more information about the TWIN Heavy Duty greasing system: go to www.groeneveld-group.com





TWIN keeps you going off road



TWIN Heavy Duty greasing systems are equipped with the following as standard:

- 4 litre reservoir with follower plate
- Minimum level switch
- Coupling with grease filter
- Main line pipe-work monitored
- Digital electronic control with data readable via a laptop
- In-cab display



Greensight

Safety around the machine

Off road machines operate continuously on terrain that is often obscure. This means operators don't just require the necessary skill but also nerves of steel. Blind corners around the machine mean there is a high risk of collisions, injury or damage. All good reasons to use Greensight from Groeneveld.

Thanks to the modular set up with a colour monitor, cameras and ultrasonic sensors, Greensight can be supplied as a tailored application for each machine. The user can choose a cab monitor with one or more cameras but an ultrasonic detection system with a warning display in the cab is also available.

The optimum in the area of safety is reached by combining Greensight cameras and ultrasonic sensors. This configuration is known as the 'active camera system' because the operator receives both optical and acoustic warnings of imminent danger. The camera image, which matches the current operation, appears automatically on the monitor: reverse (rear camera), go forward (front view camera) or turn (side cameras).

Significant advantages of Greensight

- colour monitor for a maximum of 4 cameras, also in split screen
- only relevant data supplied to the operator, not "information overload"
- superior combination of ultrasonic and camera technologies
- smart alarm warns people in the danger area
- Greensight is the only system which is DIN/ISO certified



BreakAlube

Automatic greasing for hydraulic hammers

Hydraulic hammers are continuously under heavy load and can suffer costly mechanical damage unless greased regularly. Fitting a Groeneveld BreakAlube heavy duty greasing system is proof against these extreme operating conditions and provides the ideal answer to protecting this valuable asset from damage.

BreakAlube is ready for the heaviest work. The heavy duty pump element develops a working pressure up to 275 bar and it is suitable for greases up to NLGI classification 2, additives such as graphite and copper can also be tolerated.

BreakAlube is equipped with a programmable and readable digital control unit. While the hammer is in use the control starts a greasing cycle after each minute, in which an adjustable a metered quantity of grease is delivered to the hammer. The operator is warned via a light in the cab if overpressure or low pressure is present in the system or the grease level is low / empty. If required, BreakAlube can switch off the hammer in the event that correct greasing is not guaranteed.

Choose BreakAlube, because operational efficiency is a valuable commodity.

Indonesia Authorized Groeneveld Dealer :

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