

Information sheet

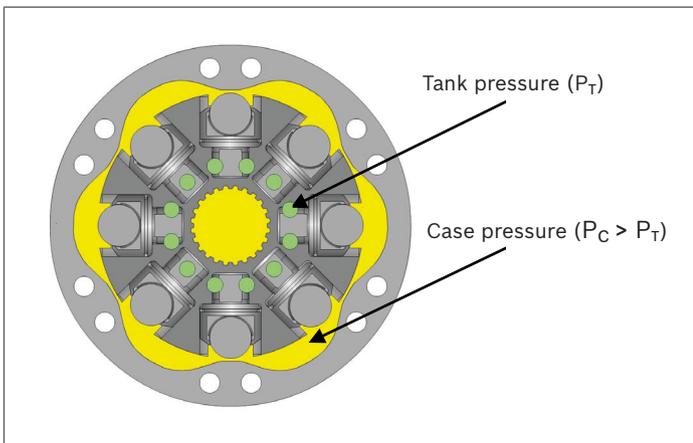
Freewheeling on MCR motors

RE 15225-02

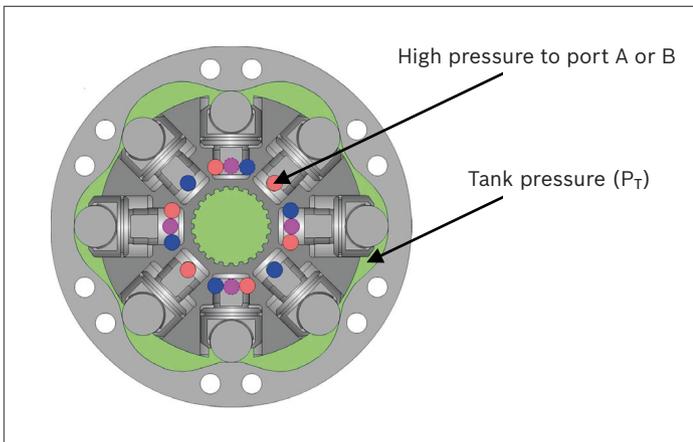
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A motor is said to be in freewheeling mode when the rollers move freely without making contact with the cam. This is achieved by connecting the port A and port B to tank and applying a case pressure (P_C) greater than tank pressure (P_T) via port L. The higher case pressure (< 10 bar) pushes the pistons back into the cylinder block thereby holding the rollers clear of the cam.

The following figure shows a motor running in freewheeling mode:



Disengaging freewheel is achieved by applying system pressure to either A or B port while simultaneously connecting L port to tank. The following figure shows the motor running in motor mode i.e., without freewheeling.



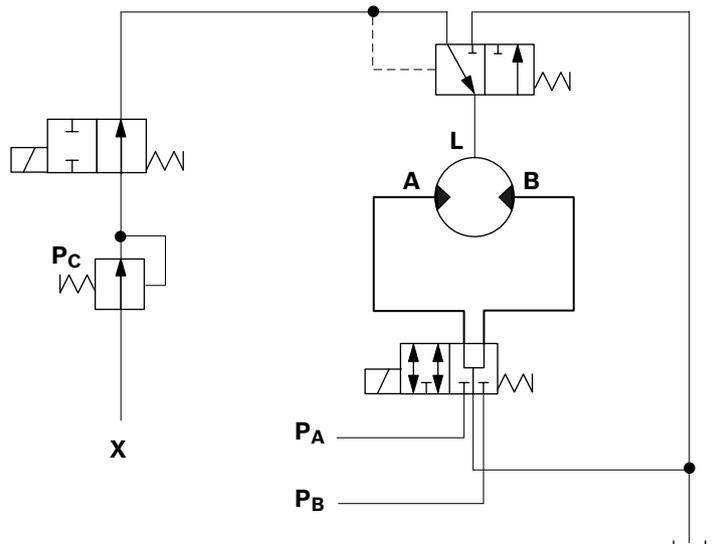
Freewheeling as a permanent feature on the vehicle

Remote operator controls may be installed to engage and disengage freewheeling to conserve fuel i.e., on road, achieve higher speeds or when changing from 2 wheel drive to 4 wheel drive. For shifting whilst on the move certain driving conditions and speed restrictions apply. If the drive motor is complemented with a parking brake (multi disc), a brake release pressure should be simultaneously applied to the brake release port (Z) to ensure that the brake is released completely. See the relevant data sheet for the required brake release pressure.

Note

Hydraulic braking is not possible during freewheeling. For applications requiring brakes on the move please contact Engineering Department in Glenrothes.

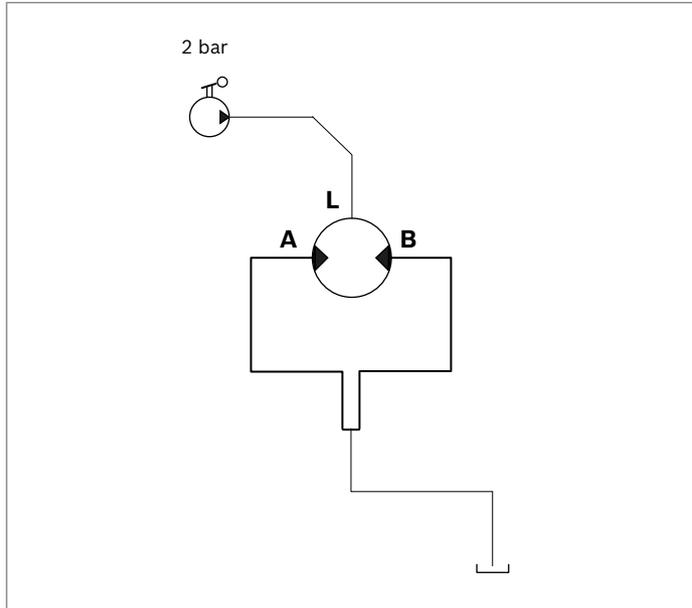
The following schematic explains a system (closed/open) with freewheeling (activated mode illustrated) as a permanent feature in the application.



Manual Freewheeling

There may be a requirement to freewheel a vehicle which is in an un-powered condition (i.e. engine failure). This can be achieved by releasing **A** and **B** port to tank and applying pressure (<10 bar) to the **L** port by hand pump.

▼ Schematic

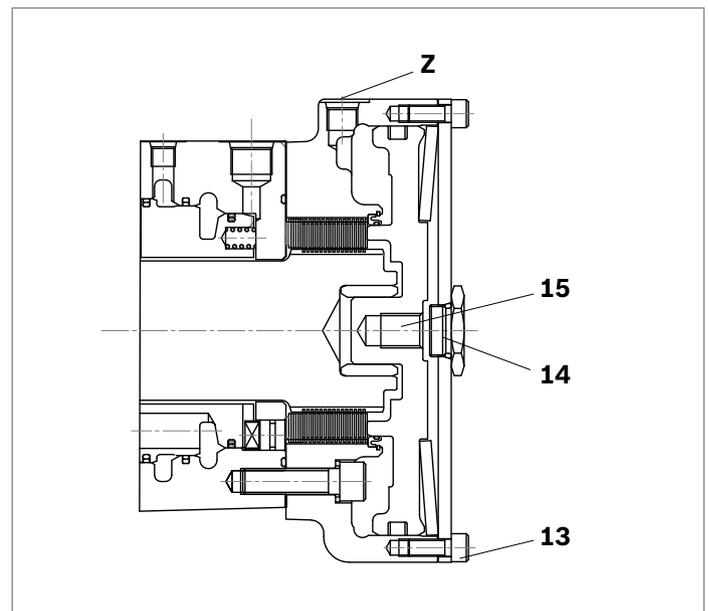


Parking brake

Where a parking (multi disc) brake is fitted a brake release pressure should be applied to brake release port '**Z**' by means of a hydraulic hand pump. See the relevant data sheet for the required brake release pressure. As an alternative the brake release may also be affected by loosening the screws (13) or by removing the plug (14) and inserting a puller into the tapped hole in the brake piston (15).

Note

When loosening screws item 13, loosen each screw in sequence by ½ turn and repeat until cover sits loosely on brake housing.



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