



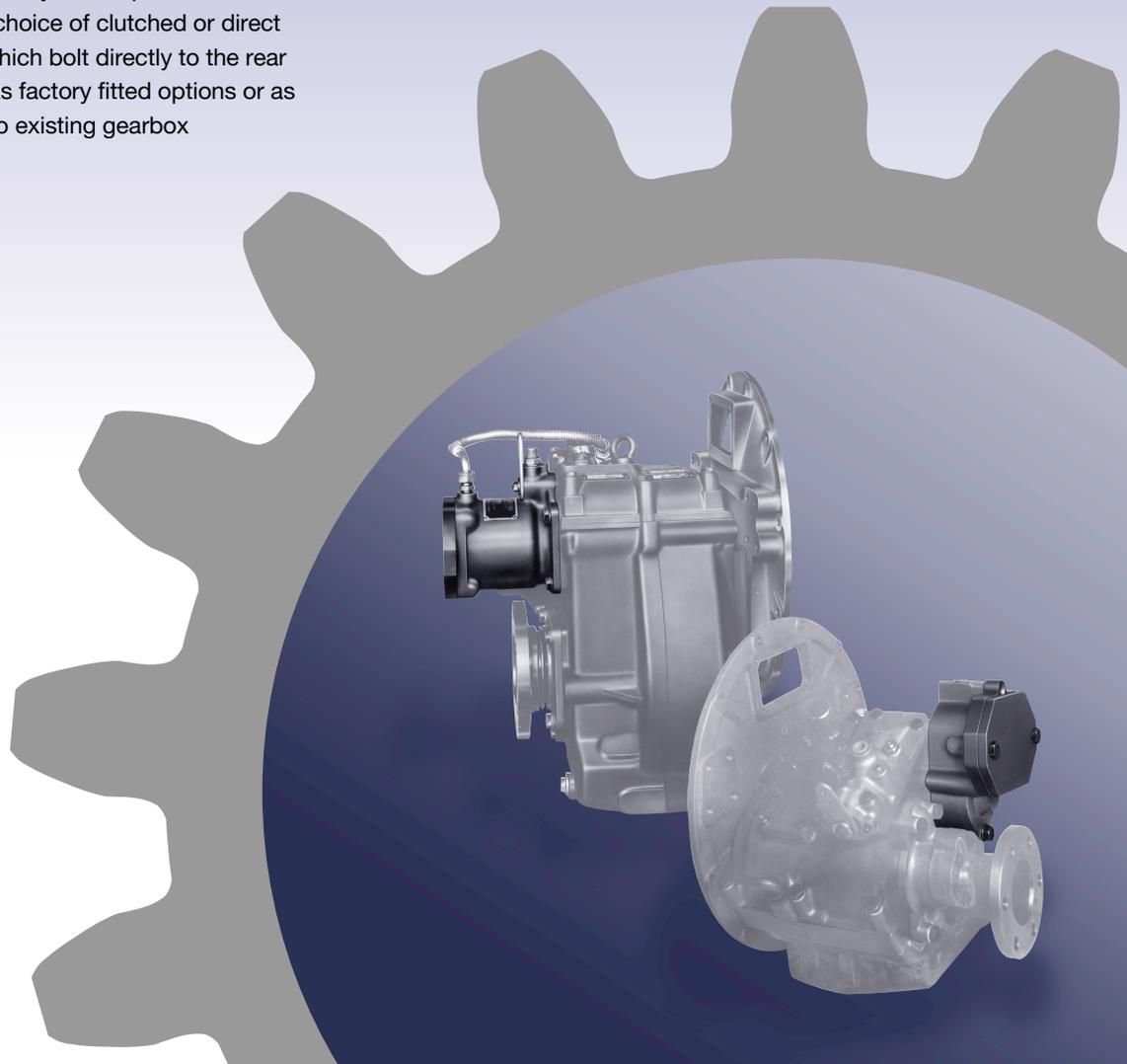
Marine Transmissions

Power Take-Offs

Modern boats, not just fishing craft and workboats but also pleasure craft, increasingly demand auxiliary power for driving on-board machinery such as winches, pumps or compressors. The traditional method of meeting these requirements has been to take an auxiliary drive from the front of the main propulsion engine, which involves expensive and space consuming vee-belt installations.

Newage PRM500, PRM750, PRM1000 and PRM1500 marine transmissions now offer you compact, low cost and efficient alternatives: a choice of clutched or direct drive power take-off units which bolt directly to the rear face of the gearbox, either as factory fitted options or as assemblies for retro-fitting to existing gearbox installations.

Both versions are specifically designed to drive hydraulic pumps, whether of the gear, vane or piston type; they are not intended to be adapted for driving an outrigger pulley since the mounting provided is not designed to handle the side loads which this would entail.



CLUTCH POWER TAKE-OFF

The Newage clutched power take-off is available on the PRM1000 and PRM1500 marine gearbox; its clutch is of the multi-disc type, similar in design to those used in the main gearbox, and is suitable for remote control from the bridge or wheel house using a proprietary cable-operated remote control.

Operation - Clutched Power Take-off

When the operating lever is moved to the engaged position, oil pressure is taken from the gearbox control valve via the $\frac{1}{8}$ " BSP tapping provided for the oil pressure gauge; this causes the power take-off clutch to be engaged, thus providing drive to the pump.

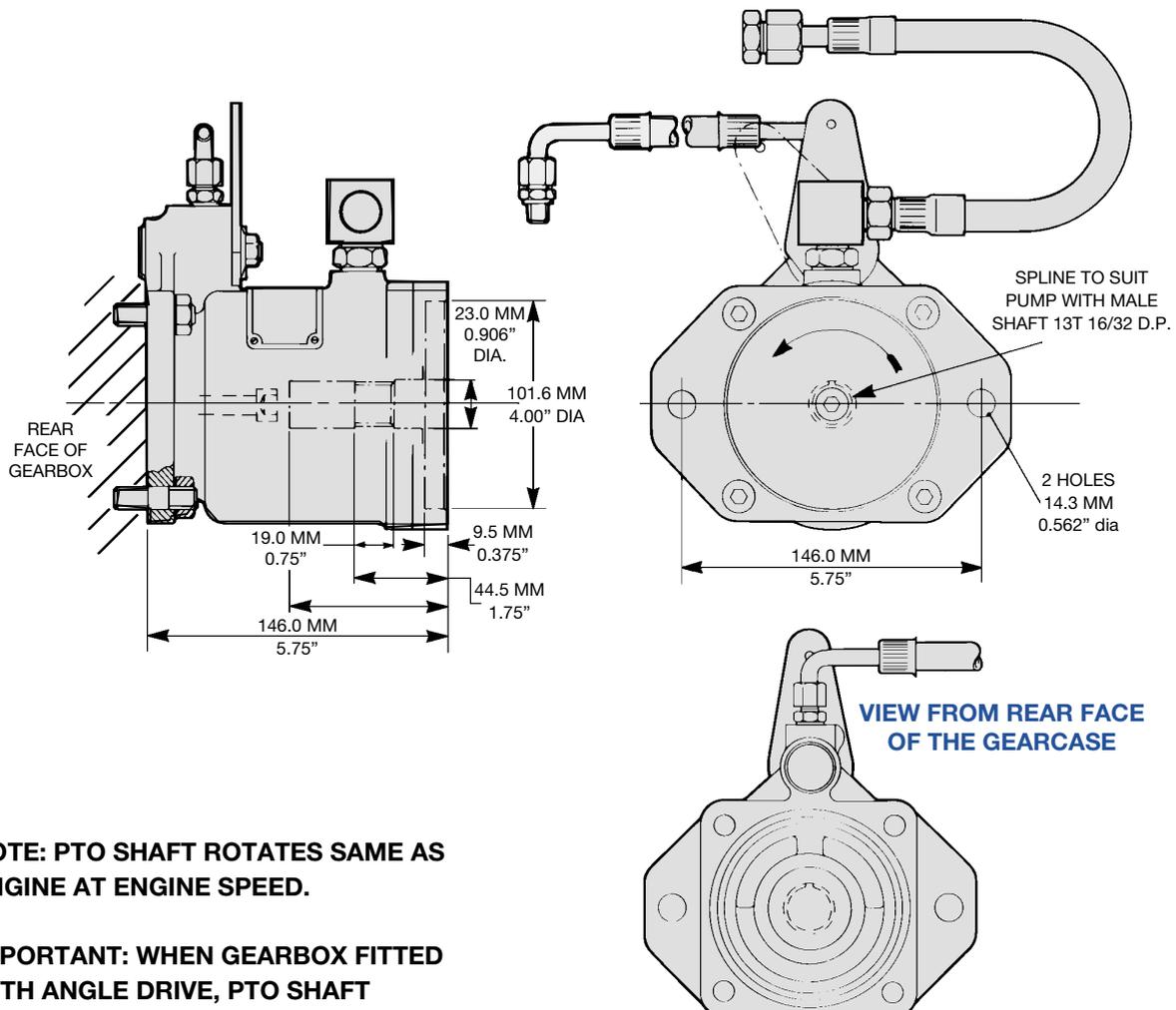
When the lever is in the disengaged position there is no hydraulic pressure on the clutch, which therefore remains disengaged; consequently there is no drive to the pump.

Lubrication of the power take-off system is provided by oil directed at low pressure from the return line from the oil cooler.



INSTALLATION DETAILS -

PRM 1000 & PRM1500



DIRECT DRIVE POWER TAKE-OFF

Available on the PRM500 and PRM 750 the direct drive power take-off is driven directly from the gearbox input shaft; consequently it will operate at all times when the engine is running, and since there is no clutch for disengagement of the hydraulic pump, provision must be made in the auxiliary hydraulics circuits for pressure bypass to the reservoir when power to the pump is not required.

A pair of 1:1 ratio gears, providing sufficient offset between the gearbox output shaft and the centreline of the power take-off to ensure there is sufficient clearance between the hydraulic pump and propeller shaft coupling.

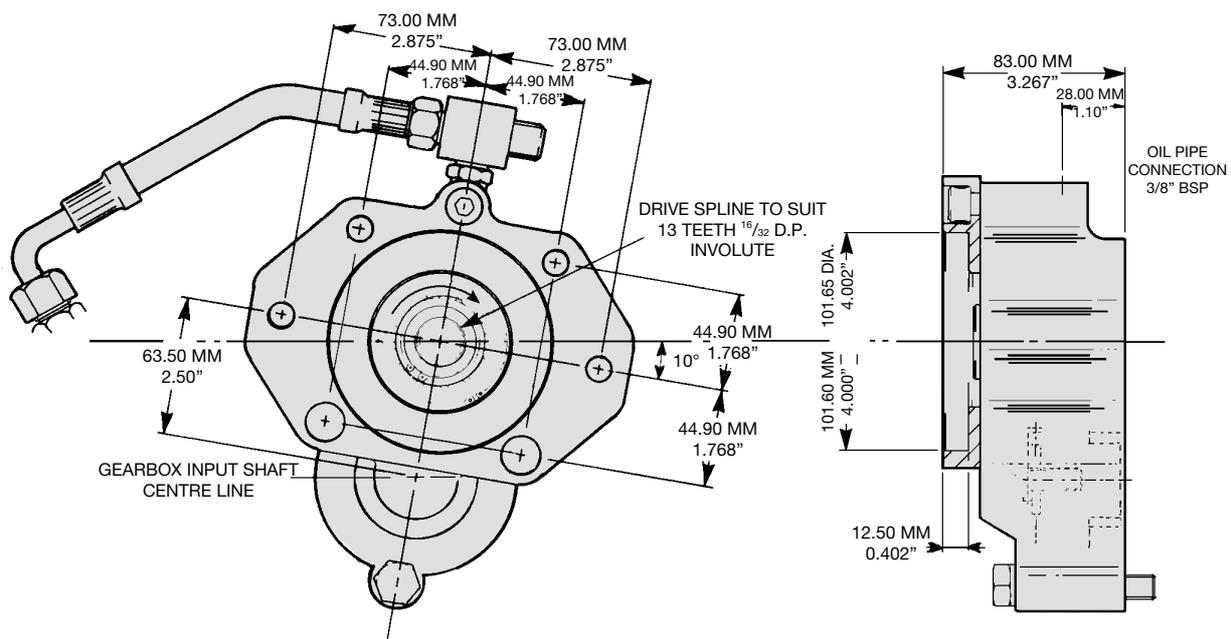
IMPORTANT NOTE

All information given in this leaflet is correct at the time of going to press. However, in the interests of technical progress, design specifications are subject to change without notice. Accordingly, data given herein should be regarded as a general guide only and does not form part of any contract. Any specific performance requirements must be made known to us in writing with customer orders for goods. Illustrations are approximate only and do not form part of any contract with us; certified installation drawings are available on request. All goods are supplied in accordance with our standard terms and conditions of sale.



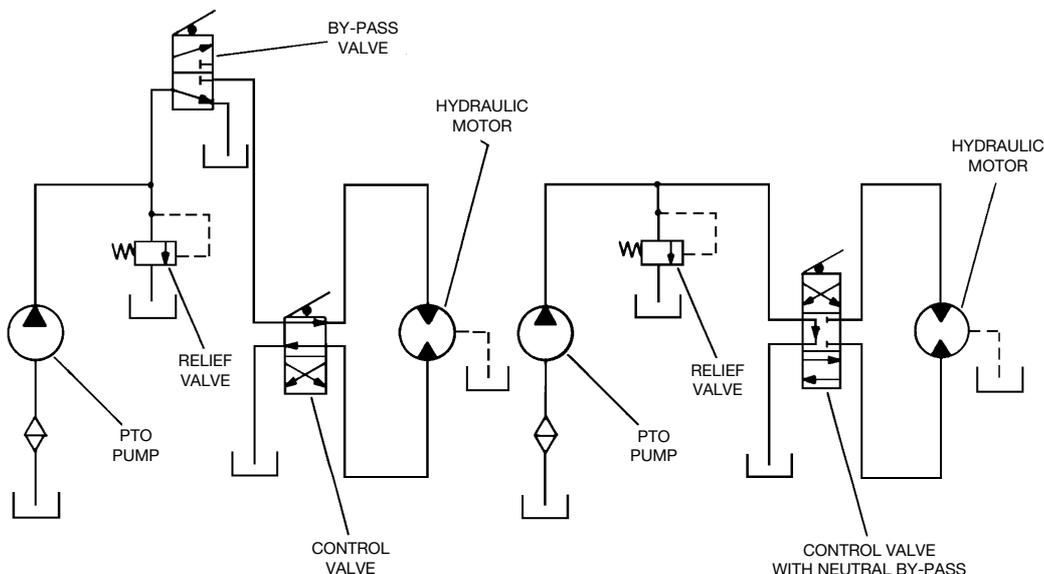
INSTALLATION DETAILS -

PRM 500 & PRM750



NOTE: PTO SHAFT ROTATES OPPOSITE TO ENGINE AT ENGINE SPEED.

IMPORTANT: WHEN GEARBOX FITTED WITH ANGLE DRIVE OF INLINE UNIT, PTO SHAFT ROTATES THE SAME AS ENGINE



CAPACITY

All power take-offs are specifically designed for driving hydraulic pumps to SAE J744C series 'B' specification with splined input shaft and either two-bolt or four-bolt fixing.

The maximum power which can be transmitted is 22 KW (29.5 bhp) per 1000 rev/min operating speed; this equates to a torque of 209 Nm (155 lbf.ft. - 21.33 kgm.).

For PRM1000 and PRM1500 the clutched power take-off gives pump rotation the same as the engine, where as the direct drive power take-off for the PRM500 and PRM750 will give opposite rotation. Power to the pump is not affected by the normal use of the gearbox for propulsion duties.

All ancillary power circuits driven by Newage power take-offs should be designed in accordance with the recommendations of the hydraulic equipment manufacturer, and should be properly safeguarded against overloading.

INSTALLATION

PRM power take-off units fit on the rear face of the main gearcase and are driven by the input shaft; consequently they can be operated at all times whilst the engine is running. The power take-off replaces the end cover which is normally fitted and performs the functions of the end cover by sealing the gearbox against loss of oil and correctly positions the input shaft rear bearing. Power take-off units also provide the link between the gearbox and the hydraulic pump.

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