BARCO MANUFACTURING COMPANY \bigcirc shaft. The bolting lugs are suitable for gears interchangable for either bracket. the usual four if desired.

BARCO

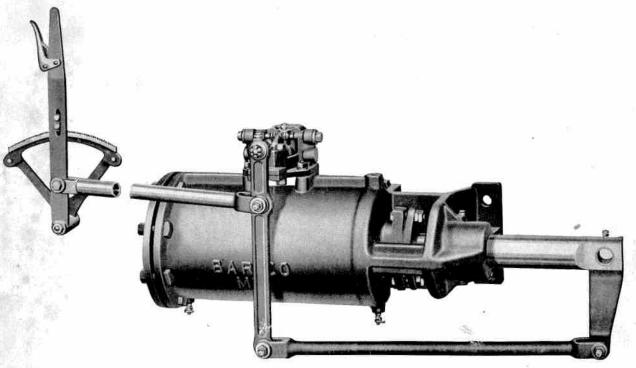
DUAL CONTROL

POWER REVERSE GEAR

TYPE M-1 and M-2

THE BARCO TYPE M-1 and M-2 POWER REVERSE GEARS incorporate several new features that make for simplicity, few parts, dependability, and lower cost of maintenance as well as low first cost.

Operation is provided through an entirely new design of valve, incorporating the combination of rotary admission valve with poppet exhaust valves, giving a very fine adjustment at any speed desired and maintaining the selected point of cut off.



Patents Pending

The cost of maintaining crosshead and guides has been entirely eliminated by supporting the piston rod in a bearing cast integral with the cylinder, keeping all strain and wear away from the piston rod packing gland and packing.

BARCO-

MANUFACTURING

COMPANY

THE HOLDEN CO., LTD., In Canada MONTREAL TORONTO 1801-1815 Winnemac Ave. CHICAGO, ILL. THE HOLDEN CO., LTD., In Canada WINNIPEG VANCOUVER

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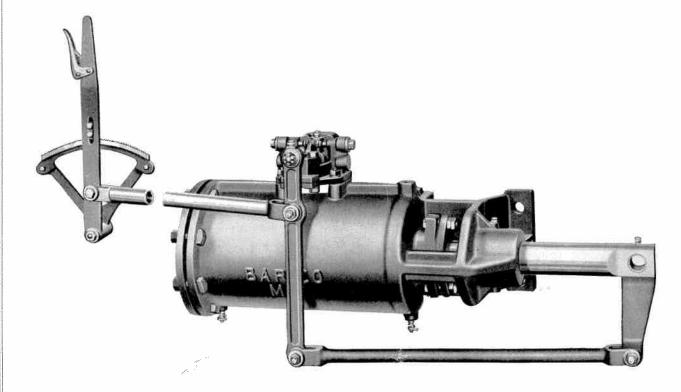
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BARCO MANUFACTURING COMPANY

The Barco type M-1 and M-2 Power Reverse Gears will provide fine adjustment of and accurate control of the locomotive valve motion with extremely low cost of maintenance and require a minimum of attention.

The bolting lugs are so arranged that these gears may be bolted to any standard bracket with either $8'' \times 16''$ or $7\frac{1}{2}'' \times 28\frac{1}{4}''$ bolting centers. They are furnished for application either in back or in front of the valve motion tumbling shaft.

The Barco M-1 and M-2 Reverse Gears are the same and the parts are interchangeable, excepting that the M-2 gear has a 10" cylinder and piston using standard cup packing, while the more powerful type M-1 gear is provided with $10\frac{1}{2}$ " cylinder and piston.



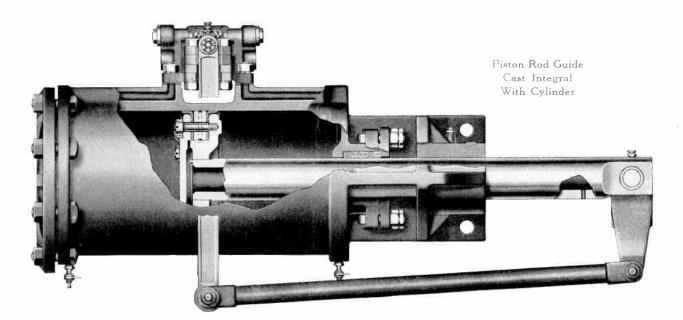
There is only one cylinder head and no guides or crosshead and the bearing that guides the piston rod is cast integral with the cylinder, ahead of the rod packing, relieving the rod packing and packing gland of all strain and insuring perfect alignment.

The hollow steel piston rod is provided with a tell-tale hole, giving a quick and easy method of inspection, and preventing pressure building up between packing cups.

The valve control mechanism may be used on either side of the gear, allowing the most direct hook-up to the operating lever in the cab.

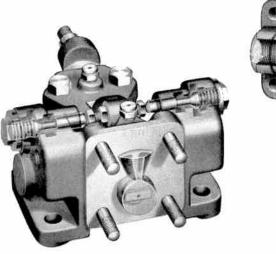
The Barco type M-1 and M-2 Reverse Gears are, we believe, the best air-cushioned Power Reverse Gears obtainable.

BARCO MANUFACTURING COMPANY

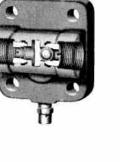


Control is provided through an entirely new type of valve, which combines a small rotary admission valve with two poppet exhaust valves. This design provides an extremely selective and accurate adjustment of the locomotive valve gear and the instantaneous action of the poppet valves and low valve friction insures the valve gear being held exactly at the point selected.

With this valve design a selection of over ninety different positions of the locomotive valve gear is obtainable, so that the engineman may operate the locomotive at the most efficient and economical point of cut-off. This valve is also furnished for other types of Power Reverse Gears.







Exterior View of Dual Control Valve

Patents Applied For