DESCRIPTION

The layout of the steering gear is similar to that fitted to vehicles not provided with power assistance. The main differences are the substitution of a steering box with integral power assistance and the addition of a pump, fluid reservoir and the necessary pipework and hoses.

Two types of pump are used on this series of trucks, both types being manufactured by Hobourn Eaton. One is of a sealed 'Can' type construction and cannot be serviced, but the second type can be fully overhauled. Both pumps work on the same basic principle as described below.

A circular carrier is keyed to the pump mainshaft which is driven by the engine. Each slot in the carrier contains a roller which is free to move radially but is confined within the carrier by a cam ring which is mounted eccentrically to the carrier. Due to this eccentricity, the space between the rollers, carrier and cam ring decreases and increases as the carrier revolves, thus displacing fluid from the intake side of the pump to the flow control valve.

The flow control and pressure release valve assembly is incorporated in the pump to maintain a uniform degree of power assistance, irrespective of engine speed. The pressure release valve spring tension is pre-set and must not be tampered with.

A steering box of ZF manufacture, model 8033, is fitted. It is bolted to a mounting bracket which is then bolted to the chassis side member. When the unit requires an overhaul, it must be returned to a ZF agent.

The steering linkage consists of a drop arm splined to the steering box, an adjustable side steering rod (drug link) and track rod. A total of four sealed ball joint assemblies are used, two on the side steering rod and two on the track rod.

Adjustable steering stops are fitted to the stub axle assemblies and these are designed to contact forged stops on the axle beam when the vehicle is on full left or right lock.

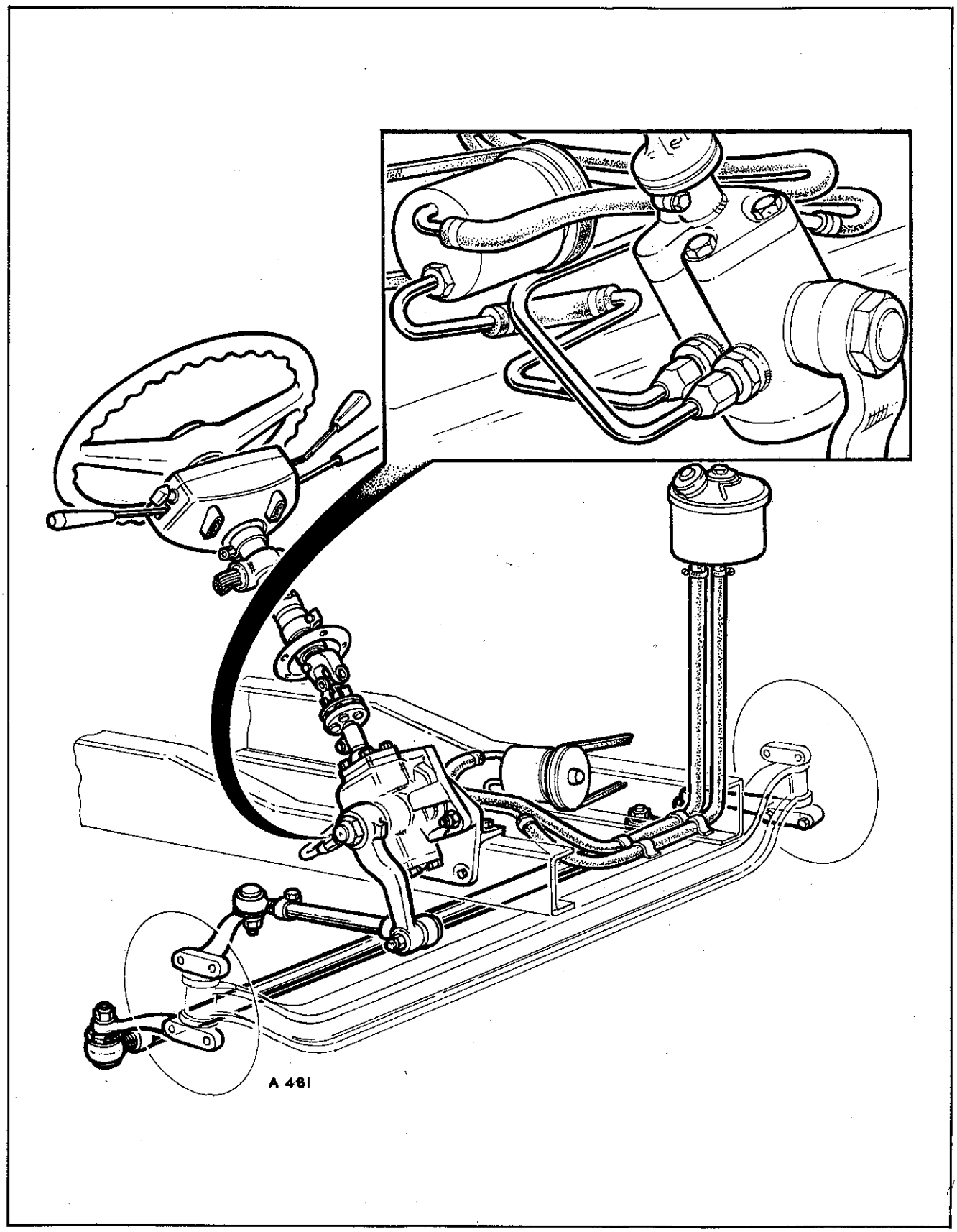

Fig. 1 *Layout of Steering Gear*

MODIFICATIONS

STEERING COLUMN

A steering column of Armstrong manufacture has been specified as an alternative to the Cam Gears unit. The two units are sully interchangeable.

BALL JOINT ASSEMBLIES

Larger ball joint assemblies are fitted to vehicles equipped with power assisted steering. These ball joints are not interchangeable with the equivalent ball joints fitted to manual steering models.