

Description and Modifications

DESCRIPTION

The steering gear consists of a steering column assembly mounted at two points within the cab and connected to the steering box by a universal joint. The steering box drop arm is connected to a side steering rod (drag link) which in turn is connected to an upper steering arm bolted to the stub axle assembly. A similar lower steering arm transmits the movement to the opposite stub axle assembly through a track rod.

The steering column consists of an inner shaft and tubular outer column. The inner shaft is splined and tapered at the upper end to accept a two spoked steering wheel, the lower end being similarly splined to accept a universal joint. The upper end of the shaft is supported by a ball bearing assembly. The lower end is supported in a resilient bearing fitted with a metal bush insert.

A key operated steering lock is incorporated in the steering column and secured by two shear bolts. The key is of the double entry type having a minimum of one thousand different combinations.

The universal joint assembly is pre-lubricated and sealed and requires no attention in service apart from checking the pinch bolts for security.

A Burman re-circulating ball steering box is fitted to a mounting bracket which is bolted to the chassis side member. The steering box consists of a casing with a detachable side plate, lower closing plate and an upper seal housing/bearing cover. A worm shaft, worm nut, twenty-four re-circulating balls and a cross shaft transmits the movement of the steering wheel to the drop arm. The worm shaft is supported at each end by ball bearings in a pre-loaded condition. The pre-load is controlled by the thickness of the shims fitted between the upper seal housing/bearing cover and the casing.

The drop arm is a forged component providing a connection between the steering box and side steering rod and operates through an arc of 62°. Each end of the arm is bored and tapered, the larger bore accommodating the cross shaft. Concentric splines are provided to mate with the cross shaft splines.

The side steering rod and track rod are of tubular construction and of similar appearance. Each end of the rod is threaded internally to accept a ball joint assembly and provided with a clamp and pinch bolt assembly to maintain the desired setting.

All ball joint assemblies are sealed and require no further lubrication in service.

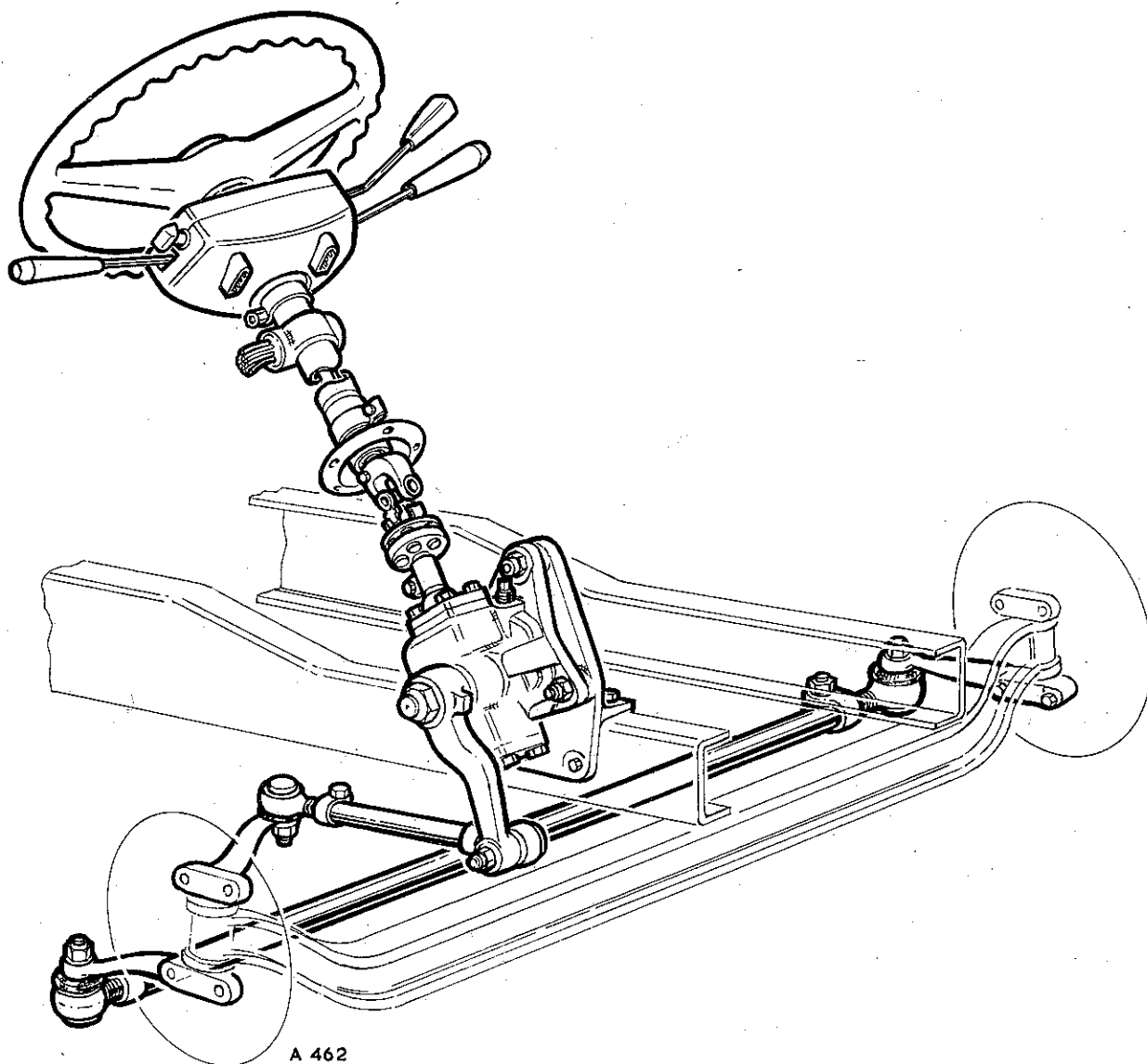


Fig. 1 *Layout of steering gear*

MODIFICATIONS

STEERING COLUMN

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