## LOCATION AND REMEDY OF FAULTS

## STARTER MOTOR TROUBLE

Symptoms	Possible Causes	Remedy
	Stiff engine, indicated by inability to turn by hand.	Locate and remedy cause of stiffness.
	If engine can be turned by hand then trouble may be due to:—	
	Battery discharged.	Start by hand. Charge battery either by a long period of day-time running or from independent electrical supply.
Starter motor lacks power or fails to turn engine	Broken or loose connection in starter circuit.	See that connections to battery, starter and starter switch are tight, and that cables connecting these units are not damaged.
	Starter commutator or brushes dirty.	Clean.
	Brushes worn, or not fitted correctly.	Replace worn brushes. See that brushes "bed" correctly.
	Starter pinion jammed in mesh with flywheel.	Rotate squared end of starter shaft with spanner.
Starter operates, but does not crank engine	Pinion of starter drive does not engage with flywheel, due to dirt on screwed sleeve.	Clean sleeve with paraffin.
Starter pinion will not disengage from flywheel when engine is running	Starter pinion iammed in mesh with flywheel.	Rotate squared end of starter shaft with spanner.