

FAULT DIAGNOSIS**CLUTCH UNIT**

<i>Symptom</i>	<i>Possible Cause</i>	<i>Remedy</i>
<i>Slipping Clutch</i>	<i>Worn facings</i> <i>Oil or grease on facings</i> <i>Warped or scored pressure plate</i>	<i>Renew driven plate</i> <i>Renew driven plate and check for oil leaks</i> <i>Renew clutch unit</i>
<i>Dragging Clutch</i>	<i>Oil or grease on facings</i> <i>Worn or broken facings</i> <i>Distorted driven plate</i> <i>Disc hub binding on pinion shaft</i> <i>Fault in hydraulic system</i> <i>Sticking release bearing sleeve</i> <i>Warped pressure plate</i>	<i>Renew driven plate and check for oil leaks</i> <i>Renew driven plate</i> <i>Renew driven plate after checking to determine cause of distortion</i> <i>Check shaft for burrs or gummed splines</i> <i>Refer to "Clutch Hydraulic System"</i> <i>Free off sticking sleeve and examine mating surfaces for scoring or rough spots</i> <i>Renew clutch unit</i>
<i>Chattering or Grabbing Clutch</i>	<i>Oil or grease on facings</i> <i>Loose universal joint flange</i> <i>Worn splines on transmission shaft</i> <i>Binding pressure plate</i> <i>Glazed facings</i>	<i>Renew driven plate. Check for oil leaks</i> <i>Check universal joint flange and tighten as recommended</i> <i>Replace worn transmission drive shaft</i> <i>Renew parts as required</i> <i>Renew driven plate after checking pressure plate and flywheel for possible scoring. If these parts are badly scored or worn, renew.</i>

CLUTCH**Fault Diagnosis**

<i>Symptom</i>	<i>Possible Cause</i>	<i>Remedy</i>
	<i>Distorted driven plate</i> <i>Scored pressure plate</i> <i>Worn pressure plate or flywheel</i> <i>Engine loose in frame</i>	<i>Renew driven plate</i> <i>Renew clutch unit and driven plate if damaged</i> <i>Renew defective parts</i> <i>Check engine mountings for loose bolts. Tighten as required.</i>
<i>Rattling Clutch</i>	<i>Damaged pressure plate</i> <i>Worn splines on pinion shaft</i> <i>Worn release bearing</i> <i>Dry or worn pilot bushing or bearing</i> <i>Warped driven plate</i> <i>Loose fulcrum rings or rivets</i>	<i>Renew clutch unit</i> <i>Renew pinion shaft</i> <i>Replace worn release bearing. Examine the tips of release levers for excessive wear. Replace levers if necessary.</i> <i>Replace pilot bushing or bearing</i> <i>Renew driven plate. Check pressure plate for excessive wear. Renew clutch unit if required</i> <i>Fit new clutch assembly</i>
<i>Squeaking Clutch</i>	<i>Lack of lubrication in release sleeve</i> <i>Worn release sleeve</i> <i>Dry pilot bushing (Petrol engines)</i> <i>Pilot bushing turning in crankshaft (Petrol engines)</i> <i>Improper alignment of transmission</i>	<i>Lubricate with white Keenomax L2 grease</i> <i>Renew sleeve and bearing</i> <i>Renew pilot bushing</i> <i>Renew pilot bushing</i> <i>Check clutch housing alignment</i>

Fault Diagnosis

<i>Symptom</i>	<i>Possible Cause</i>	<i>Remedy</i>
<i>Whirring Clutch</i>	<i>Dry release bearing</i>	<i>Renew bearing</i>
	<i>Worn or dry pilot bushing (Petrol engines)</i>	<i>Renew worn or dry pilot bushings</i>
<i>Heavy Stiff Clutch Pedal</i>	<i>Sticking release bearing sleeve</i>	<i>Check release bearing sleeve for burrs, roughness or contamination of mating surfaces</i>
	<i>Fault in hydraulic system</i>	<i>Refer to "Clutch Controls" section</i>
<i>Broken Diaphragm Spring</i>	<i>Overstroking</i>	<i>Renew clutch unit. Check release bearing</i>
<i>Worn Fingers</i>	<i>Damaged, worn or seized released bearing</i>	<i>Renew clutch unit. Check release bearing</i>
<i>Heat Affected Pressure Plate</i>	<i>Slip — oil or grease on facings</i>	<i>Renew clutch unit. Check for oil leaks</i>

HYDRAULIC SYSTEM

<i>Symptom</i>	<i>Possible Cause</i>	<i>Remedy</i>
<i>Pedal feels spongy as though pressing against a spring</i>	<i>Air in the system</i>	<i>Check fluid level in reservoir. Check all pipe unions for tightness. Bleed the system. Refer to section E200 'Bleeding the Hydraulic System'.</i>
<i>Pedal can be depressed slowly without disengaging the clutch, and the fluid level is reduced each time the pedal is depressed.</i>	<i>Fluid leak in system</i>	<i>With an assistant continually pushing and releasing the pedal, check fluid line for damage and all pipe unions for leaks. Detach rubber boot from master cylinder and check for leak. Repeat with slave cylinder.</i>
<i>Pedal requires heavy pressure</i>	<i>Partially seized piston in hydraulic cylinder</i> <i>Clutch fault. Refer to clutch diagnosis</i>	<i>Remove withdrawal lever clevis pin and gently depress pedal. If only light pressure is now required the clutch is faulty. If heavy pressure is still evident slacken off the slave cylinder bleed valve and try the pedal again. If only light pressure is now required the slave cylinder is defective, or, if pedal is still heavy, the master cylinder is at fault. In very rare circumstances, the pressure pipe may be severely kinked, or the flexible pipe could be obstructed.</i>
<i>Clutch drag causing noisy engagement of gears</i>	<i>Defective rubber seals in master or slave cylinders</i>	<i>Dismantle cylinder for inspection of seals</i>
	<i>Air in the hydraulic system</i>	<i>Bleed system</i>