TROUBLE SHOOTING SPECIFIC FAULTS

FAULT	TROUBLE SHOUTING SPECIFIC TROUBLE AREA	CAUSE
Engine Won't Start, Hard to Start, Cuts Out, Misfires (cont)	Mechanical System	Flywheel key sheared Seals leaking (p. 34)
Engine Floods	Fuel System	Tank not venting (p. 14) Fuel Pump Diaphragm damaged (p. 28) Carburetor (p. 28) Diaphragm damaged Inlet valve damaged Adjustment needle damaged or wrong adjustment Needle seat damaged Welch plugs leaking
Engine Overheats	Fuel System -	Wrong fuel mixture Carburetor (p. 28) Diaphragm damaged Inlet valve damaged Adjustment needle damaged or wrong adjustment (p. 30) Air leaks (p. 14) Filters dirty (p. 15)
	Ignition System	Wrong timing (p. 21) Incorrect spark plug or wrong heat range (p. 16)
	Mechanical System	Sawdust guard dirty or plugged Air leaks (seals & gaskets) (p. 34) Cylinder fins dirty Flywheel vanes broken Muffler dirty or plugged or loose (p. 10) Fan housing loose (p. 11)
Engine Lacks Power	Fuel System	Carburetor adjustment wrong (p. 30) Fuel filter watersoaked or dirty (p. 15)

TROUBLE SHOOTING SPECIFIC FAULTS

FAULT	TROUBLE SHOOTING SPECIFITH TROUBLE AREA	CAUSE
Engine Lacks Power (cont)	Fuel System	Air filter dirty (p. 26)
	Ignition System	Wrong timing (p. 21)
	Mechanical System	Rings worn
		Muffler dirty or plugged (p. 10)
		Exhaust ports plugged
		Cylinder scored
		Piston scored
		Piston rings worn, stuck, or broken
		Oil seals damaged
		Air leaks (p. 14)
Engine Starves On	Fuel System	Filters plugged or dirty (p. 15)
Acceleration, Idles Too Fast		Carburetor (p. 28) Adjustment needle wrong adjustment Inlet valve damaged Inlet control lever bent
	•	Idle adjustment screw wrong setting (p. 30)
		Air leaks (p. 14)
Engine Starts, Runs Briefly,	_ Fuel System	Fuel tank vent partly plugged (p. 14)
Stops		Water in fuel mix
		Air filter dirty or plugged (p. 26)
		Air leaks (p. 14)
		Carburetor (p. 28) Inlet valve dirty or plugged Diaphragm defective Fuel passages dirty
Engine Won't Run Full Speed	Fuel System	Carburetor (p. 28) Diaphragm defective Inlet valve dirty Filters dirty Vent partly plugged Butterfly not fully open Wrong needle adjustment

TROUBLE SHOOTING SPECIFIC FAULTS

Engine Won't Run Full Speed (cont) Ignition System Ignition System Wrong timing (p. 21) Plug breaking down on high RPM Mechanical System Muffler dirty (p. 9) Exhaust ports plugged Filters dirty (p. 15) Rings worn No oil Oil too heavy or stiff Pump dirty (p. 33) Outlet plugged (p. 33) Seals leaking (p. 33) Valve assembly leaking (p. 33) Plunger bore worn Ciutch Slips Mechanical System Shoes worn or stuck (p. 9) Chain filed improperly or too tight on bar Ciutch Drags, Rattles Mechanical System Shoes stuck (p. 9) Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Not Rewind Spring broken (p. 12) Spring broken (p. 12) Spring tension wrong (p. 12) Spring tension wrong (p. 12)		TROUBLE SHOUTING SPECIFIC	I MULIS
Plug breaking down on high RPM Mechanical System Muffler dirty (p. 9) Exhaust ports plugged Filters dirty (p. 13) Rings worn No oil Oil too heavy or stiff Pump dirty (p. 33) Outlet plugged (p. 33) Seals leaking (p. 33) Valve assembly leaking (p. 33) Plunger bore worn Clutch Slips Mechanical System Shoes worn or stuck (p. 9) Chain filed improperly or too tight on bar Clutch Drags, Rattles Mechanical System Shoes stuck (p. 9) Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 9) Starter Slips Mechanical System Pawls broken or worn (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)	FAULT	TROUBLE AREA	· CAUSE
Exhaust ports plugged Filters dirty (p. 15) Rings worn Chain Oiler Won't Work Mechanical System No oil Oil too heavy or stiff Pump dirty (p. 33) Outlet plugged (p. 33) Seals leaking (p. 33) Valve assembly leaking (p. 33) Plunger bore worn Clutch Slips Mechanical System Shoes worn or stuck (p. 9) Chain filed improperly or too tight on bar Clutch Drags, Rattles Mechanical System Shoes stuck (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 9) Shoes excessively worn (p. 9) Ratchet worn (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)	Engine Won't Run Full Speed (cont)	Ignition System	Plug breaking down on high
Chain Oiler Won't Work Mechanical System No oil Oil too heavy or stiff Pump dirty (p. 33) Outlet plugged (p. 33) Seals leaking (p. 33) Valve assembly leaking (p. 33) Plunger bore worn Clutch Slips Mechanical System Shoes worn or stuck (p. 9) Chain filed improperly or too tight on bar Clutch Drags, Rattles Mechanical System Shoes stuck (p. 9) Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 9) Shoes excessively worn (p. 9) Pawl springs broken (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)		Mechanical System	Exhaust ports plugged
Won't Work Oil too heavy or stiff Pump dirty (p. 33) Outlet plugged (p. 33) Seals leaking (p. 33) Valve assembly leaking (p. 33) Plunger bore worn Clutch Slips Mechanical System Shoes worn or stuck (p. 9) Chain filed improperly or too tight on bar Clutch Drags, Rattles Mechanical System Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 9) Shoes excessively worn (p. 9) Pawl springs broken or worn (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)			• •
Clutch Drags, Rattles Mechanical System Shoes stuck (p. 9) Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 9) Starter Slips Mechanical System Pawls broken or worn (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)		Mechanical System	Oil too heavy or stiff Pump dirty (p. 33) Outlet plugged (p. 33) Seals leaking (p. 33) Valve assembly leaking (p. 33)
Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9) Shoes excessively worn (p. 9) Starter Slips Mechanical System Pawls broken or worn (p. 12) Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)	Clutch Slips	Mechanical System	Chain filed improperly
Pawl springs broken (p. 12) Ratchet worn (p. 12) Bushings worn (p. 12) Starter Does Mechanical System Spring broken (p. 12)		Mechanical System	Spring broken, or too weak (p. 9) Drum out-of-round Sprocket bearing worn (p. 9)
37-1 TD	Starter Slips	Mechanical System	Pawl springs broken (p. 12) Ratchet worn (p. 12)
			Spring tension wrong (p. 12)