



PTO TROUBLESHOOTING GUIDE

	Problem	Reason	Solution	Precaution
Mechanic PTO	Difficulty while engaging to transmission; Hard Shifting	Cable inner member frozen	Thaw in garage	Route cable away from road spray and seal end from moisture
		The cable can be tilted or cut. Sharp bend in cable	Straighten inner member or replace cable	Keep bends larger than the minimum bend radius. Avoid short cable runs
		Improper shifting	Make sure vehicle clutch is adjusted to allow the PTO drive gear to stop before shifting or that the proper shift procedure is followed	Always follow up the operating instructions.
		Worn or damaged shift control.	Replace or repair.	Do not connect lever rods to cable shifters.
	Delayed or partial engagement	Loose linkage or attachment. Loose or missing cable clamps	Replace or repair.	Routine maintenance
Pneumatic PTO	PTO doesn't engage	Contaminated air lines	Clear up the air channel. Remove contaminants from air cylinder.	Check out air channel in case of cracking or puncture. Bleed air system more often
		Air pressure not high enough	Wait until system pressure is above 65 PSI before engaging PTO	Systems are designed with a pressure protection valve which does not allow air to the PTO until the system pressure exceeds 65 PSI
		Improper method of shifting causing damage to the PTO shift collar	Make sure vehicle clutch is adjusted to allow the PTO drive gear to stop before shifting or that the proper shift procedure is followed	Always follow up the operating instructions.
		Worn or damaged shift control.	Replace or repair.	
		Shift fork is out of shift collar	Reassemble onto PTO correctly.	
	PTO doesn't disengage	Faulty air valve	Replace or repair.	Usually a result of contamination or dirty valve. Keep air system bled and valves free of dirt.
		Worn or damaged shift control.	Replace or repair.	
		Shift fork is out of shift collar	Reassemble onto PTO correctly.	



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Electric shift PTO	PTO doesn't engage	Loose connection	Review wiring	Make sure wires are properly supported and connections are properly made
		Poor/improper grounding of electrical circuit	Make all grounds to the vehicle battery	Control module is very sensitive to proper ground
		Blown fuse	Replace fuse with proper rating	Make proper connections
		Improper shifting	Make sure vehicle clutch is adjusted to allow the PTO drive gear to stop before shifting or that the proper shift procedure is followed	Always follow up the operating instructions.
		Worn or damaged shift control.	Replace or repair.	
Clutch shift PTO	PTO doesn't engage	Contaminated air lines	Remove contaminants from air cylinder.	Bleed air system more often
		Air pressure not high enough	Wait until system pressure is above 65 PSI before engaging PTO or 80 PSI for the Electric/Air system.	Electric/Air systems are designed with a pressure protection switch which does not allow current to the PTO valve until system pressure exceeds 80 PSI
		Air lines are too long	Re-route lines directly to air tanks	
		Hydraulic line connected to wrong port	Review installation	
		Burned or extremely worn clutch pack	Replace worn components	
	PTO doesn't disengage	Hydraulic or air lines connected to wrong ports on valve control	Re-route lines	
		Faulty air or hydraulic valve	Replace or repair.	Usually a result of contamination or dirty valve. Keep air system bled and valves free of dirt.
		Burned or extremely worn clutch pack	Replace or repair.	