TROUBLESHOOTING

GEAR UNITS

COMPLAINT	PROBABLE CAUSE	REMEDY
NOISY Rattles or Whines	Backlash should be .006/.012	Rattle – remove gasket(s) Whine – add gasket(s) Usually one .020" gasket is required A Chelsea .010" thick gasket will change backlash approximately .006" and a Chelsea .020" thick gasket will change backlash approximately .012"
Clicking	Worn, nicked, or burred gear	Worn or nicked gears must be replaced, while burrs can be removed with a hand grinder.
	Bearing has a damaged race from improper installation	Install new bearing using arbor press and appropriate diameter tube. Press on inner race if over shaft and on outer race if into housing.
Grinding	Bearing has foreign material in it.	Install new bearing. Clean inside of P.T.O. thoroughly and change transmission oil.
Noisy	Improper housing or gear for P.T.O. Model needed.	Change to correct housing or gear
P.T.O. becomes noisy after installation of driveline	Driveline out of phase at excessive angle, bent, or worn.	Consult Driveline manufacturer's specifications and correct or repair.
HEATING	P.T.O. installed too tight-not enough backlash	Add gasket(s) to obtain .006"/.012" backlash (see noisy complaint)
	Low transmission oil level	Fill transmission to proper level. If P.T.O. is below oil level, approximately one quart will be needed. Power take-offs mounted on automatic transmissions require pressure lubrication except for P.T.O.'s mounted on the lower opening of a Sundstrand model DMT-25. (see the 6 & 8 Bolt Side Mounted P.T.O. Installation Instruction in the "Service Techniques" section of this book.)
	Prolonged stationary use	Artificial cooling needed. Example: this would be for a split shaft P.T.O. Application and you should use an Auxiliary Transmission Cooler.
	P.T.O. near exhaust or other heat source	Relocate P.T.O. if possible or shield from heat source

COMPLAINT	PROBABLE CAUSE	REMEDY
VIBRATION	P.T.O. loose on transmission	Torque 6 bolts to 30-35 lb. ft. (4.14-4.84kg-meters) Torque 8 bolts to45-50 lb. ft. (6.22-6.91 kg-meters) For severe vibration applications, use lock wire and self-retaining stud kits.
	P.T.O. driveline out of phase at excessive angle, bent, or worn	Check driveline manufacturer's specifications and correct or repair.
	Drive equipment loose or high Vibration running, such as a piston Type air compressor.	Tighten or consult equipment manufacturer for dampening information.
WORK RATE NOT AS EXPECTED	P.T.O. and driven equipment mismatched	Consult equipment manufacturer's specifications for proper speed and rotation.
EXTERNAL OIL LEAK	Shaft seal	Replace shaft seal-make sure shaft and housing are clean and free of nicks and burrs.
	Dirt or high temperature above 250 degrees F, deteriorate seals	Check operating speeds and specs. of P.T.O. and driven equipment. Might have to change application or add auxiliary cooling device.
	"A" series end cap gasket improperly aligned	Install new gaskets being careful to align properly. Check shaft and housing for dirt and burrs.