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# **TROUBLESHOOTING AND TORQUE GUIDE**

***BLISS PELLET MILL 200***

# TORQUE GUIDE

## 200 PELLET MILL

The Brake B-loc	112 series torque	225nm
The Brake b-loc	115 series torque	142nm
Mainshaft nut	3078 on a pull scale	
Drive belt 250 mm	145ftlbs with ¼ inch deflection	
Drive belt 340mm	165ftlbs with ¼ inch deflection	
Roll settings	2108ftlbs	
Gap for brake disc	50 to 65 thousands between disc and pads	

Clearance for pinion bearing set-up is 2 to 2 ½ thousands



# Pioneer 200B PELLET MILL OWNERS MANUAL

## TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Machine will not start	Doors not closed to engage safety switch	Close doors completely
	Low hydraulic pressure	Reset hydraulic pressure (see "Setting the Hydraulic Pressure")
	Main shaft not positioned correctly	Reposition the main shaft so the overload switch is seated in the switch ring groove (see "Hydraulic Brake")
V-belts slipping	V-belts worn out	Replace entire set of v-belts with a matched set of new v-belts
	Sheaves worn excessively	Replace sheaves with matched, machined sheaves
	Low hydraulic pressure	Reset hydraulic pressure (see "Setting the Hydraulic Pressure")
	Foreign object preventing the motor from rising to tension the belt	Remove the foreign object
Grease leak out of the grease distribution block (Fig. 16, Item 7)	Rupture disc is incorrect	Replace with the correct 2050 psi rupture disc (orange color)
	Rupture disc has fatigued	Replace with a new rupture disc
	Obstruction in the line	Clear the obstruction in the line nearest the ruptured disc
Amps on drive motors are not within 10 amps	Ammeter out of calibration	Calibrate ammeter
	V-belts are not a matched set	Replace entire set of v-belts with a matched set of new v-belts
	Sheaves are not a matched set	Replace sheaves with matched, machined sheaves
	Motor rpm stamped on the name plates are not identical	Use motors with identical rpm's
	V-belts are slipping	See above problem "V-belts slipping"
Motor amps have a regular spike pattern	Conditioner picks worn out	Replace with picks
	Conditioner picks out of adjustment	Adjust the pecks to even out the flow of material

# Pioneer 200B PELLET MILL OWNERS MANUAL

Problem	Possible Cause	Solution
Rolls will not maintain their setting	Roll adjustment procedure has not been followed	Follow roll adjustment procedure Torque locking bolts to specification (see "Roll adjustment Procedure")
	Build up of material on either conical end of roll shaft and mating conical pocket	Clean conical mating parts on both ends of roll shafts
	Tramp metal	Eliminate tramp metal
	One or more roll support shafts have come loose	Remove the roll support shafts Clean the threads Apply high heat Loctite to the threads between the shoulder and the groove in the threads Torque the shaft to 1200 ft-lbs
	Die misaligned	Remount the die (see "Mounting the Die")
	Main bearing in the rotor have excessive wear	Consult Bliss Industries, Inc.
Die blocks or fails to produce pellets	Incorrect clearance between the roll and die	Reset the rolls (see "Roll Adjustment Procedure")
	Die face worn or peened	Have die reconditioned or replace with a new die
	Worn rolls	Replace the roll shells
	Rolls seized from material penetrating the seals	Clean and inspect the bearings and seals and replace if necessary.
	Rolls seized from a bearing failure	Replace the bearings and inspect the other components.
	Rolls seized from material packed behind the roll	Remove the material from behind the roll
	Deflectors mounted in the wrong position	Mount the deflectors in the correct position (Figure 5)
	Worn deflectors	Replace all three deflectors
Material frequently builds up behind the main shaft disc	Main shaft disc scrapers worn	Replace main shaft disc scrapers (Fig. 12, Item 19) Replace the scrapers when the clearance between the scrapper and die is greater than $\frac{1}{16}$ "
Excessive wear on the back inch of the Die and rolls	Main shaft disc scrapers worn	Replace main shaft disc scrapers (Fig. 12, Item 19) Replace the scrapers when the clearance between the scrapper and die is greater than $\frac{1}{16}$ "
Pinion bearings fail prematurely	Inadequate lubrication	Grease the bearings as indicated in the Lubrication section
	Bearing internal radial clearance not correct	Reduce the internal radial clearance by the correct amount (see "Installing the Pinion Bearings")

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Problem	Possible Cause	Solution
Abnormal wear on the cog belt teeth	Excessive belt tension	Retension the cog belt (see "Cog Belt Drive")
Cog Belt teeth jump	Insufficient belt tension	Retension the cog belt (see "Cog Belt Drive")
A section of teeth are sheared off the cog belt	One motor has dropped out under a load and the other has kept running, pulling the teeth off the belt	Ensure the two overload heaters are interlocked together
	When using a soft-starter and an across-the-line starter, the second motor starts before the first motor is at full speed	Ensure the second motor timer is started when the secondary contacts are closed and the delay is set for 3 to 5 seconds
	Insufficient belt tension	Retension the cog belt (see "Cog Belt Drive")
Cog belt has "exploded" into several pieces	Extremely excessive belt tension	Retension the cog belt (see "Cog Belt Drive")
Cog belt breaks during a hard plug or when tramp metal hits the die	The hydraulic pressure was too high to allow the brake to slip	Reset the hydraulic pressure (see "Setting the Hydraulic Pressure")
	The brake disc is seized in position	Periodically release the hydraulic pressure and turn the main shaft with the main shaft lever supplied to prevent the disc and pads from seizing together
Cog belt cracks on the top surface of the belt	Extremely low start up temperature Excessively high continuous temperature	Check belt cooling fan
Excessive wear on the pulley	Excessively high belt tension	Retension the cog belt (see "Cog Belt Drive")
	Abrasive material present	Eliminate the abrasive material
Excessive noise	Pulleys out of alignment	Align pulleys
	Excessively high belt tension	Retension the cog belt (see "Cog Belt Drive")