SERVICE MANUAL

TC5070
Combine

Part Number N° 84465927
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1st Edition

NEW HOLLAND
AGRICULTURE

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MAINTENANCE AND LUBRICATION SCHEMATICS

Adequate maintenance is the best insurance for a trouble free operation. This schematic is a recommendation guide for service intervals.

NOTE: *Also see the Operator Manual for complementary information to that provided here.*

⚠ CAUTION ⚠

Always stop the engine before executing maintenance services and observe the following procedures:

- *Turn off all controls switches (basic unit and cutting platform).*
- *Lower the platform to the ground or raise it and lock with the safety lock.*
- *Shut off the engine, engage the parking brake and remove the key before leaving the operator platform.*

Service to be executed	Maximum interval in hours for normal service								
	Before starting the first time	10 or daily	50	100	200	300	400	600 or annually	1200 or every two years
Check the wheel tightening torque	X	X	X		X				
Perform lubrication *	X								
Check fuel level in reservoir	X	X							
Check coolant level	X	X							
Check engine lubricant oil level	X	X							
Check air compressor lubricant oil level	X	X							
Check hydraulic oil level	X	X							
Check pneumatic lubricator	X	X							
Clean out radiator fins		X							
Check tension on all belts and chains		X							
Drain sludge filter **		X							
Clean out stone trap		X							
Execute the 10-hour lubrication program *		X							
Lubricate all chains		X							

* See lubrication plans.

** Water should be drained preferably in the morning, before any fuel movement.

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TESTING PROCEDURE

Test Procedure Nº 1

Problem / Cause: Rear drive slow / Excessive internal leakage or inadequate charge pressure

1. First make sure that the outside of the Equa-Trac II valve (E-T II) is clean, free of dust or grease. Dust **MUST NOT** penetrate the valve during the removal of any component.
2. Install 600 bar (8,500 psi) gauges in the test ports for forward and reverse gear. Install 40 bar (570 psi) gauges at the pilot pressure test ports of the traction drive spool (engage and disengage).
3. With the rear drive **TURNED OFF**, record the pressures read with the machine advancing and then retreating. Slow (weak) performance of the machine may occur when the charge pressure falls below 7 bar (100 psi). When this happens, the system pressure cannot increase enough to keep the machine in motion. See the Table on page 53 for the ranges of correct values of test pressures.
4. The probable cause of charge pressure falling below 7 bar (100 psi) is an excessive internal hosuing leak in the hydrostatic system. This excessive leak may be occurring in the rear drive as well as the hydrostatic transmission of the machine. The following specifications will determine if the problem is in the rear drive system.
5. Internal leakage in the wheel motors must not exceed 5.7 l/min (1.5 gpm) with the machine moving at system pressure. The internal leakage of the E-T II valve must not exceed 3.8 l/min (1.0 gpm). If there is excessive leakage, see Section E of this Manual for servicing instructions of the wheel motors. If the leakages are inside the specification, then components in the hydrostatic transmission of the machine may have excessive leakage. See the Service Manual of the machine.
6. In the Fluidrive systems, the procedure below must be followed to conduct the leakage test.
   - Disconnect the motor drain hose on the E-T II valve and close the connection with a plug. Place the end of the hose in a suitable container.
   - Allow the oil to escape from the hose in the container during the operation of the machine will the rear drive TURNED ON.

IMPORTANTE: *Always maintain clean and safe conditions.*

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SECTION 55 – ELECTRICAL SYSTEM

Chapter 4 – Troubleshooting Diagram

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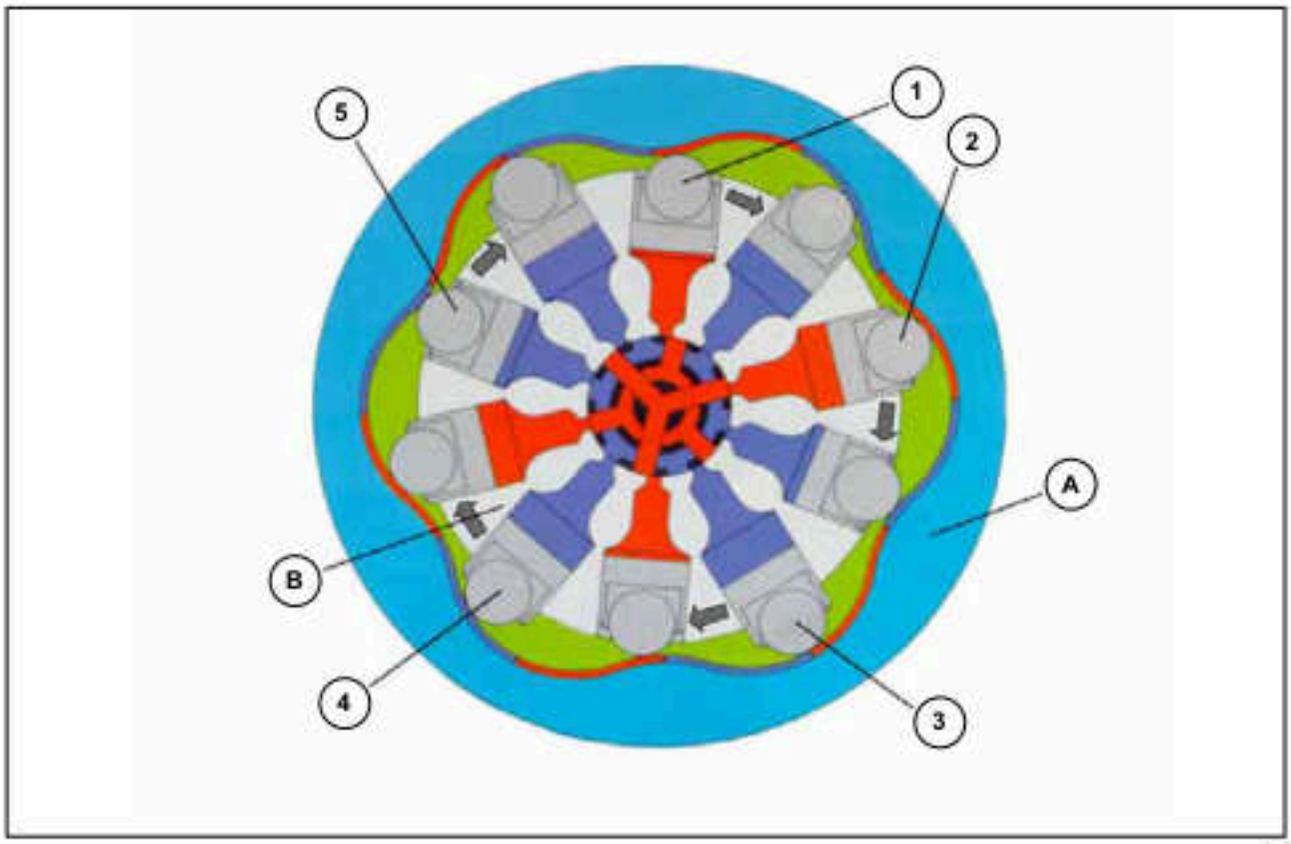
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WHEEL MOTOR OPERATION

General Information

Description

1. The hydraulic wheel motors used in the Fluidrive auxiliary drive system are of radial piston type with eccentric race, using pressurized hydraulic oil to force the pistons and their corresponding rollers against the machined race to produce mechanical power under total displacement.
2. The components of the wheel motor that transform the hydraulic power (pressure, flow) into mechanical power (torque, rotation) consist of a cylinder block and eccentric race ring.
3. The cylinder block houses 8 or 10 radially spaced pistons (and their rollers). The block is mounted on the splined axle of the wheel and is positioned internally to the race ring. The pistons inside the block are mounted with piston rings to offer high volumetric efficiency.
4. The hydraulic oil that supplies the pistons is driven through a distributor which supplies pressurized oil to the pistons in an adequate time sequence. A rubber bladder type accumulator mounted internally to the cylinder opening of the distributor absorbs any high pressure peaks that may occur inside the wheel motor.



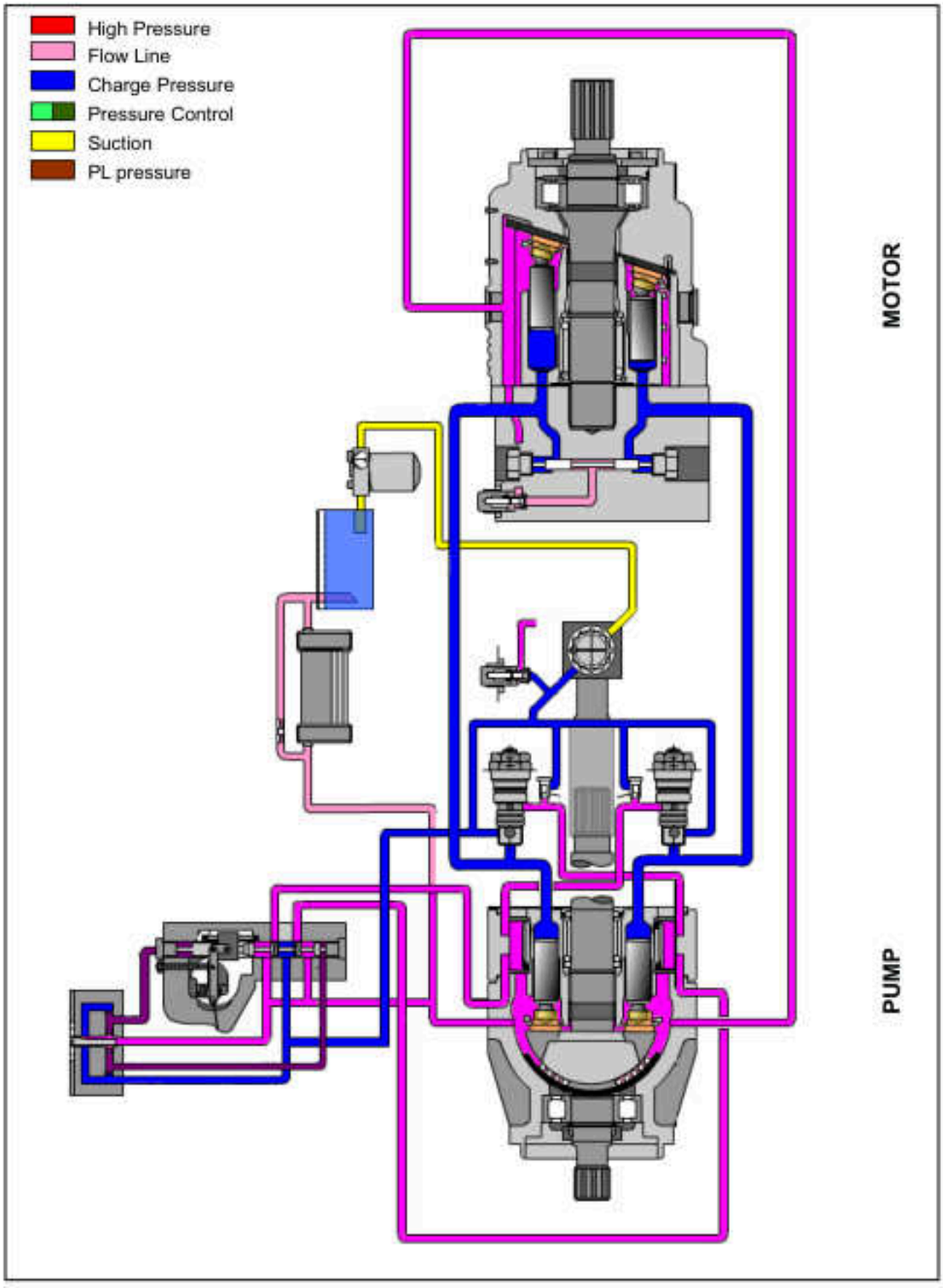
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A. Eccentric race
B. Cylinder block

NOTE: *1 and 2 advance; 3 in neutral; 4 and 5 return.*

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HYDROSTATIC CIRCUIT AND COMPONENTS

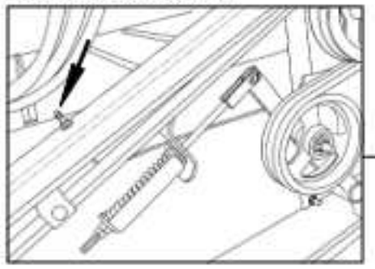


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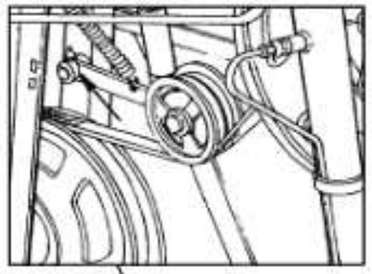
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50 H EVERY 50 HOURS – LH SIDE

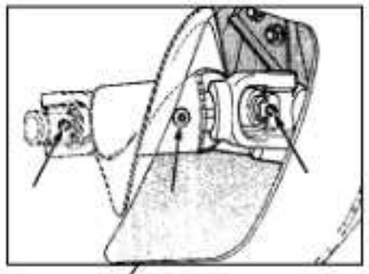
Straw elevator bushing.



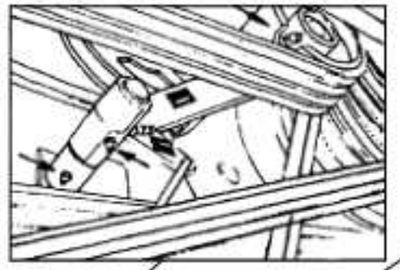
Straw elevator drive tensioner.



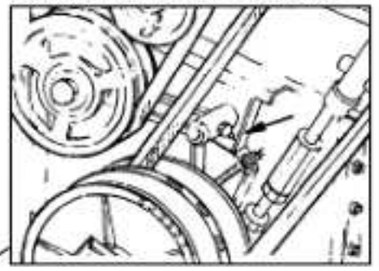
Unloading auger.
Access through the opening, external cover.



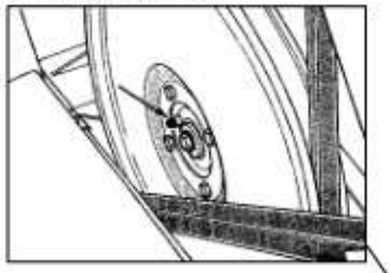
Main drive belt tensioner pulley hub and tensioners.



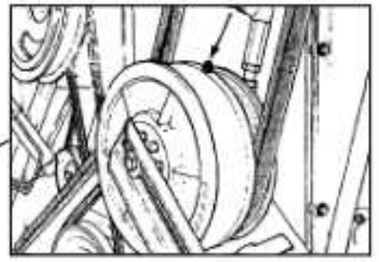
"Rotary Separator" drive tensioner.



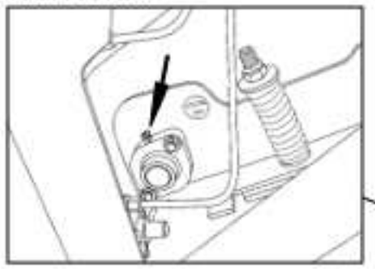
Tappet shaft bearing.



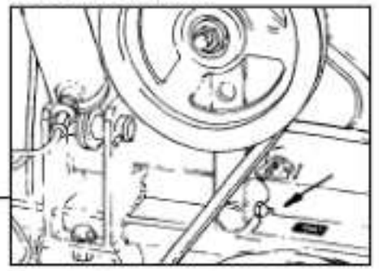
Drive variator pulley.

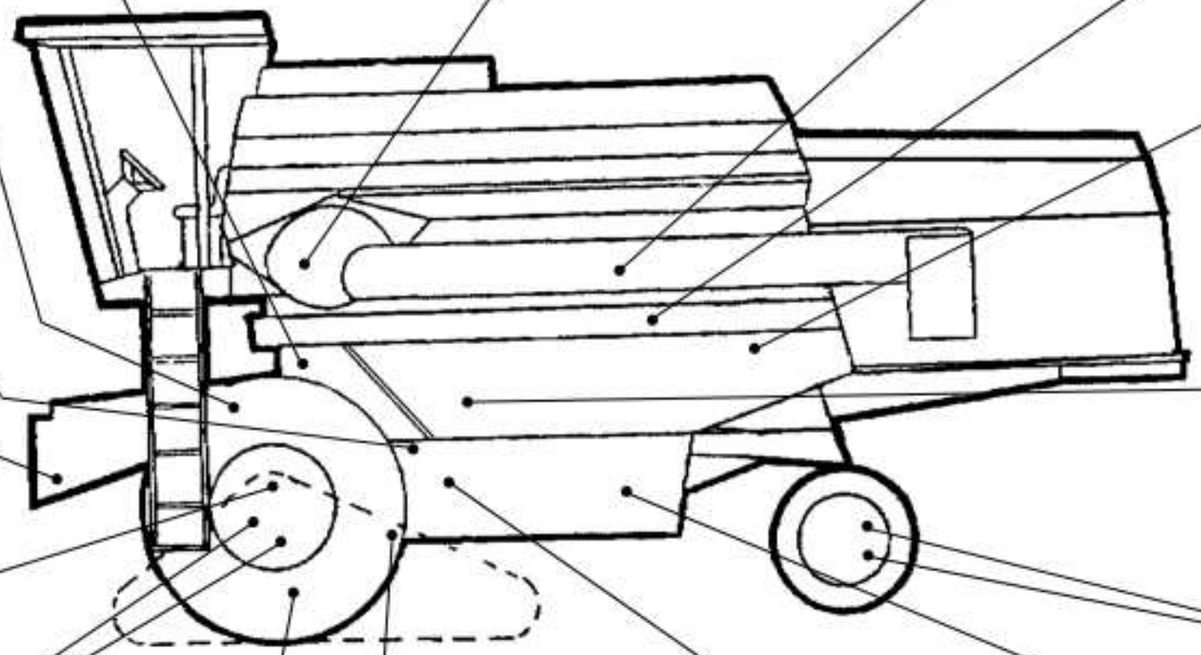


Inner track arm.

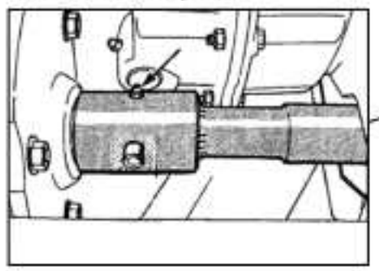


Sieve drive tensioner.

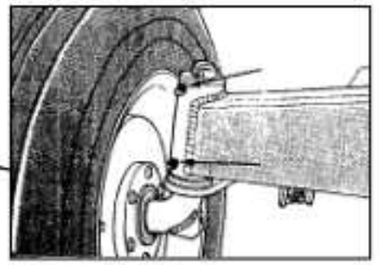




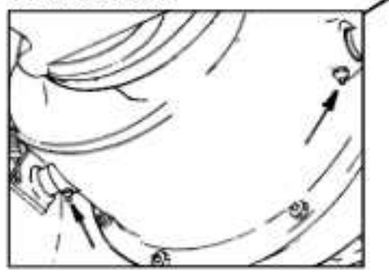
Drive semi-shaft splines.



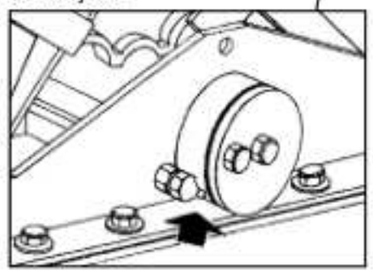
Rear shaft master pin.



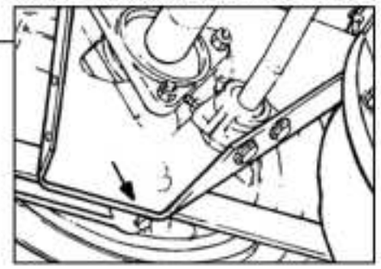
Clutch drive shaft.



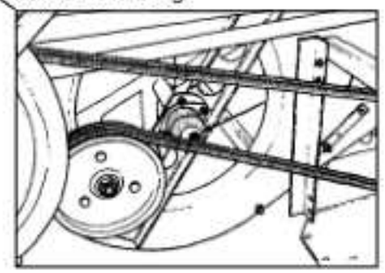
Track. (if installed).
Center joint.



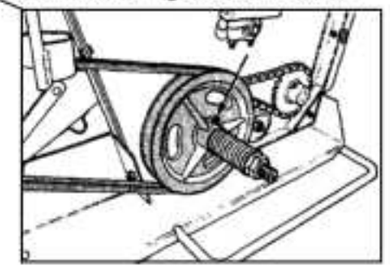
Grain and tailings elevator drive tensioner.



Fan shaft bearing.



Grain and tailings elevator ratchet.



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