



Service Manual

Chassis & Mast

EC15N, EC18N

A4EC1-10200-up

A4EC1-20200-up

EC20N, EC25N

A4EC2-10200-up

A4EC2-20200-up

EC25EN, EC25LN, EC30N

A4EC3-20200-up

A4EC3-30200-up

A4EC3-40200-up

Suggestions for Disassembly

1. Remove the bevel pinion shaft 6 as follows:

- (1) Using a chisel, cut the staked portion of the nut 4, taking care not to damage the bevel pinion shaft.
- (2) Hold the input gear 15 with the special tool to prevent the bevel pinion 6 from rotating, then remove the nut 4 and shims 5.

Special tool needed

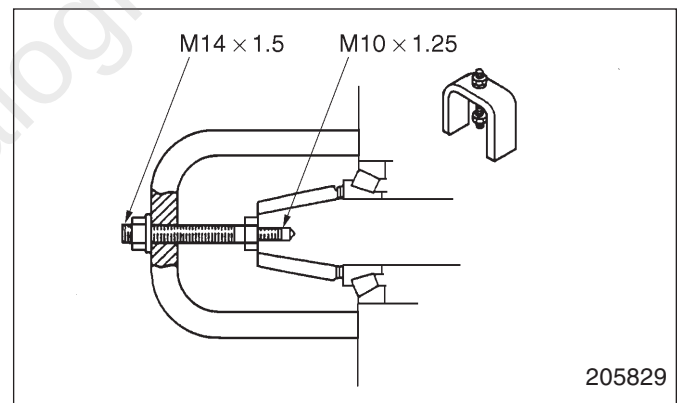
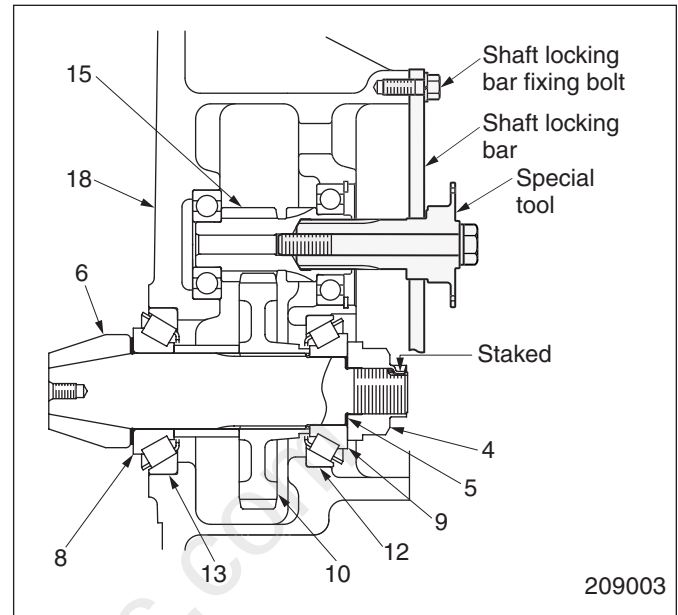
Transfer bearing tool	97E67-00100
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- (3) Using the bevel pinion puller (special tool), pull the bevel pinion 6 out of the bearing cone 9 (See the drawing on the right).

Special tool needed

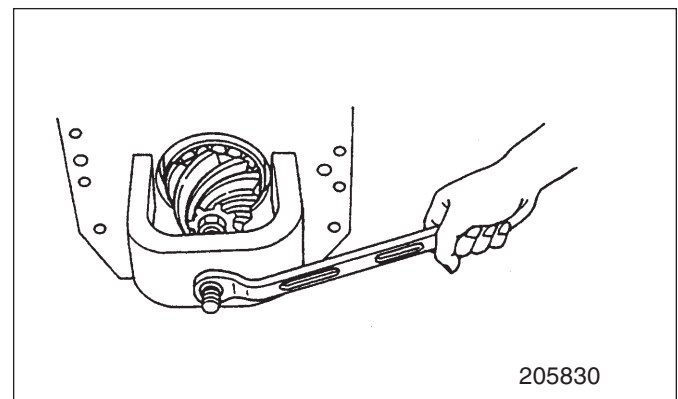
Bevel pinion puller	91268-00300
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- (4) If the bearing cone 8 needs to be removed, use a bearing puller and a press to pull it from the bevel pinion 6.
- (5) If the bearing cups 12 and 13 need to be removed, use a bearing cup puller to pull them out of the transfer case 18.



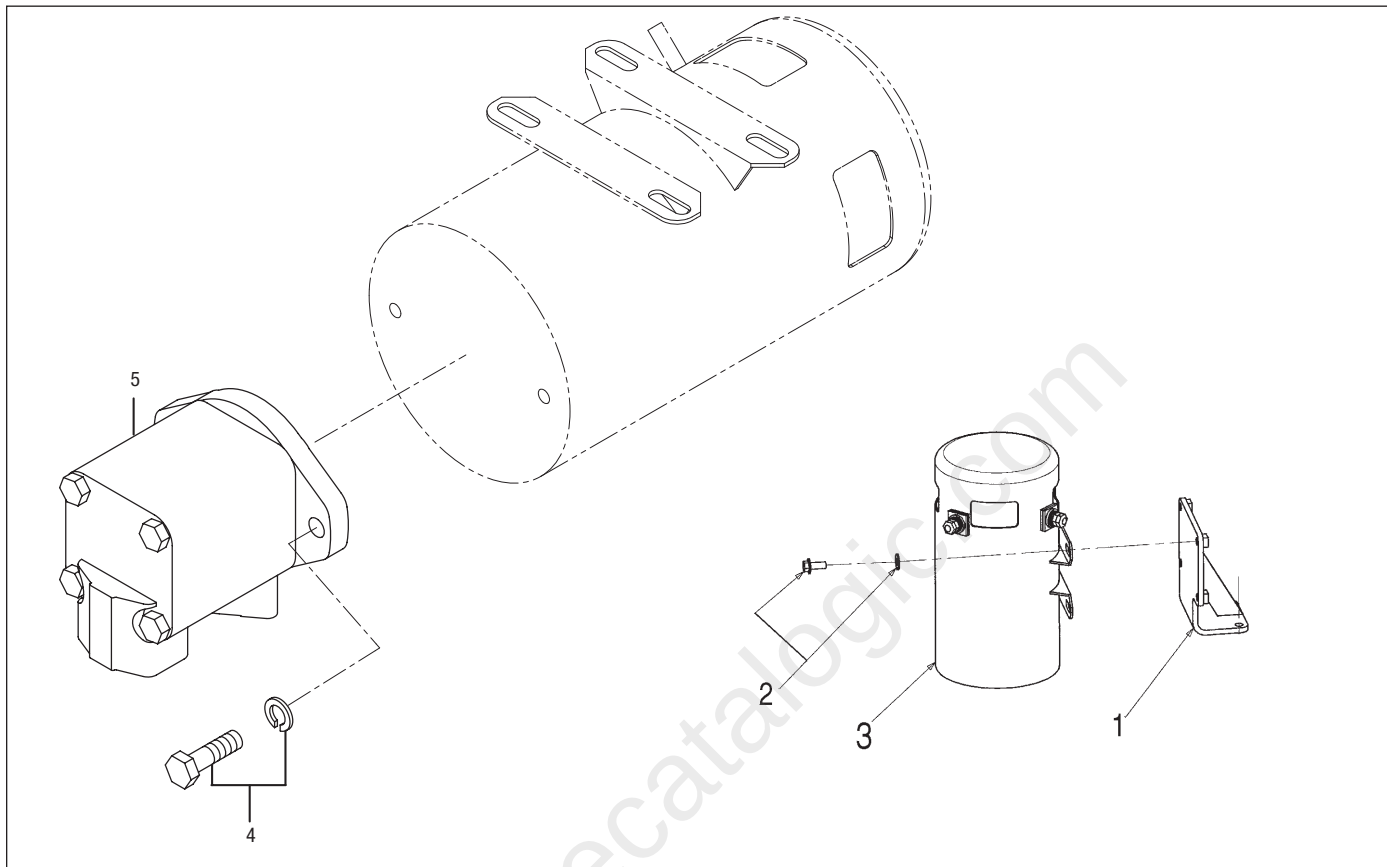
NOTE

- (1) The taper roller bearing cup and cone are an exclusive pair. If either the cup or cone of a pair is faulty, replace them as a set.
- (2) The removed shims should be kept together until they are reinstalled. (This only applies when the bevel pinion and/or taper roller bearing are/is reused.)
- (3) The bevel pinion and bevel gear are an exclusive pair. If either of them is defective, replace them as a set.



Steer Pump

Removal



Sequence

- | | | |
|----------------------------|---------------------------|---------|
| 1. Motor mounting bracket | 3. Motor | 5. Pump |
| 2. Motor mounting hardware | 4. Pump mounting hardware | |

Start By:

1. Remove the battery.
2. Remove the acid tray.
3. Disconnect the cables and wires from the steer pump motor. Mark the wire leads and cables so they can be correctly reconnected.
4. Disconnect the hydraulic lines from the pump.

Steering System

Complaint	Possible Cause		Remedy
Slow steering, hard steering or loss of steering	Worn or malfunctioning pump		Replace
	Malfunctioning relief valve		Readjust or replace
	Worn or malfunctioning steer gear		Replace
	Pipe or tube flattened, or restriction in an oil line		Clean or replace
Truck wanders	Air in system	Low level of oil	Fill as required
		Leaking joint	Tighten joint
		Pinched pipe or hose	Straighten or replace
	Worn steer gear		Replace
Steering slip	Worn steer gear		Replace
	Leakage of cylinder seals or at lines between steer gear and cylinder		Repair
Temporary hang-up in steering	Thermal shock—caused by actuation of hydraulic lift and tilt for long periods of time without actuation of steering system, creating more than a 28°C (50° F) temperature differential between the oil in the tank and the oil in the steer gear.		Correct operating procedure
Erratic steering	Air in system	Low level of oil	Fill as required
		Leaking joint	Tighten joint
		Pinched pipe or hose	Straighten or replace
	Thermal shock damage to steer gear		Replace
	Motor not operating at correct speed		Repair/replace
Spongy or soft steering	Air in system	Low level of oil	Fill as required
		Leaking joint	Tighten joint
		Pinched pipe or hose	Straighten or replace
		Air trapped in cylinder	Bleed air

Full Version Available

Caterpillar EC18N Forklift Service Manual (99759-6K110)

Caterpillar EC18N forklift service manual, covers wiring, hydraulics, drive unit, mast, and controller diagnostics. Downloadable PDF format.

[VIEW THE FULL MANUAL](https://machinecatalogic.com/caterpillar-ec18n-forklift-service-manual-99759-6k110/)

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