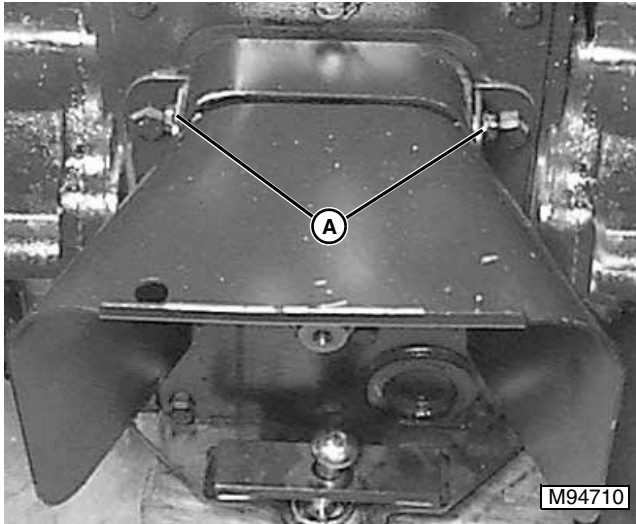


## PTO REPAIR

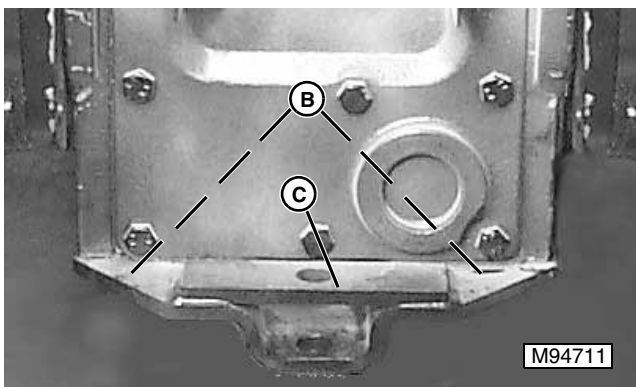
REAR PTO SHAFTS AND GEARS  
REMOVAL AND INSTALLATION

## Removal:

1. Park tractor on a level surface, shut off engine, and set park brake.
2. If necessary, remove center lift link, draft arms, and adjustable draft links.



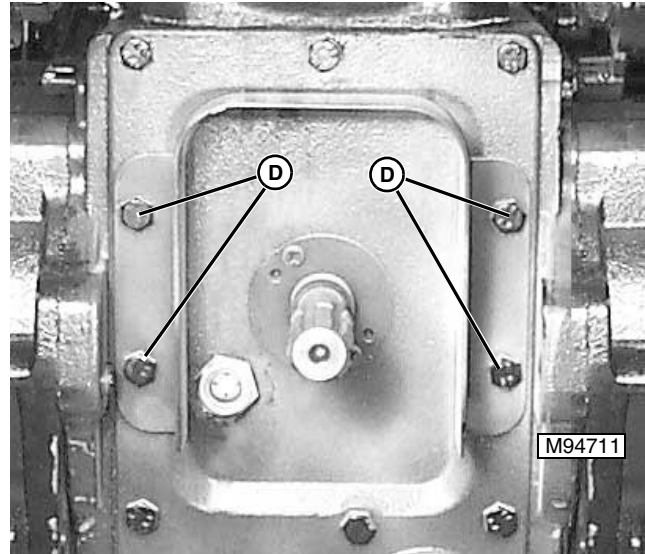
3. Remove two cap screws (A), spacers, nuts, and rear PTO shield assembly.



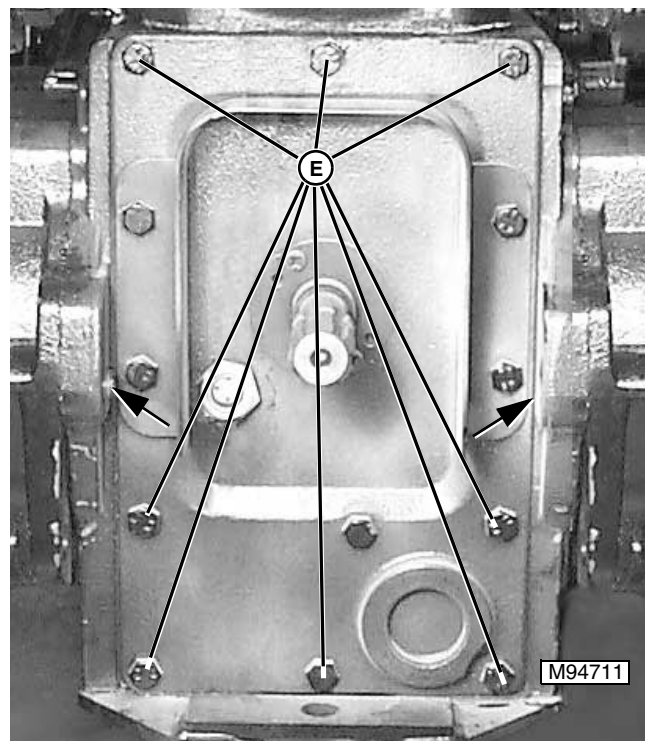
4. Remove two cap screws (B) and rear draw bar bracket (C).

**NOTE:** Capacity of the hydraulic system is approximately **26 liters (6.8 gal)** for **HST models**; or **24 liters (6.3 gal)** for **CST, SST and SRT models**.

5. Drain hydraulic oil from reservoir.



6. Remove four cap screws (D) and rear PTO shield support bracket.



**NOTE:** Top center and bottom center cap screws in rear cover are longer.

7. Remove eight cap screws (E).
8. If necessary, loosen two rearmost cap screws attaching final drive housings to differential housing (arrows).
9. Gently pry around edges of cover to break sealant. Wobble shaft and pull at the same time to remove rear cover, shafts and gears as a unit.

*NOTE: If equipped, mid PTO shaft may come out of differential housing with rear cover, or may fall into differential housing.*

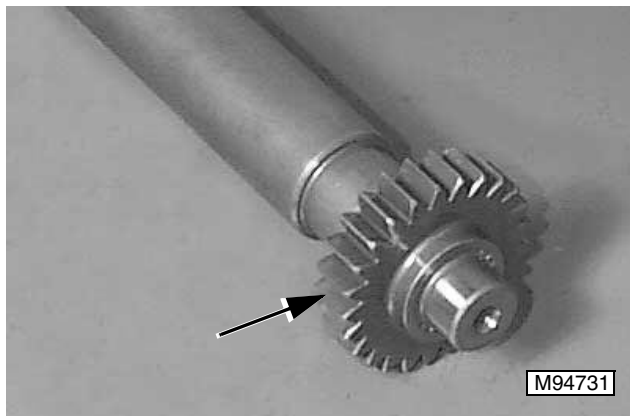
## Installation:

Installation is the reverse of removal.

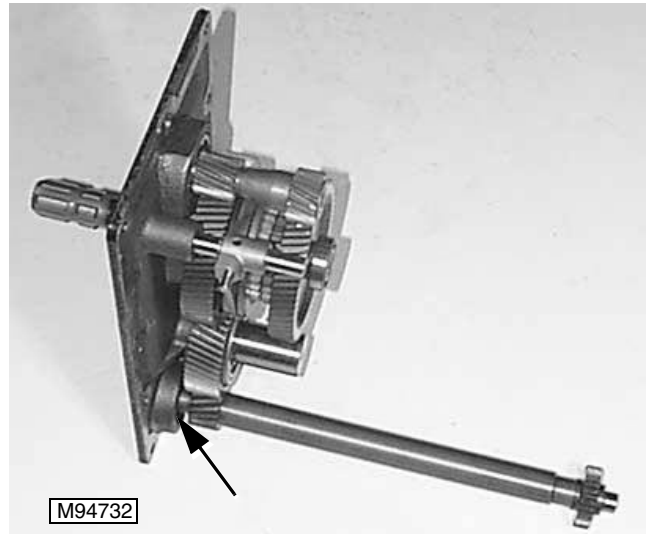
**IMPORTANT: Replace all O-rings, gaskets, and seals. Used or damaged O-rings, gaskets and seals will leak.**

- Thoroughly clean mating surfaces of rear cover and transmission housing to remove all traces of old gasket material.
- If tractor is equipped with two speed PTO, place shift arm in forward position when installing. Make sure shift fork pin engages shift arm yoke.
- Lay a bead of TY16021 Sealant on flange surfaces of differential housing.
- Two longer cap screws are placed in the top center and bottom center holes.
- If tractor is equipped with a mid PTO, follow steps outlined below.
- Tighten cap screws retaining rear cover to **40 N•m (30 lb-ft)**.

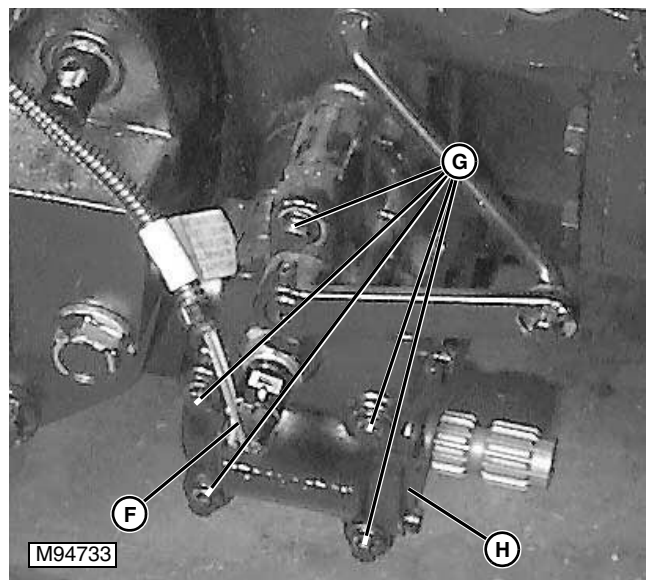
## Mid PTO equipped tractors:



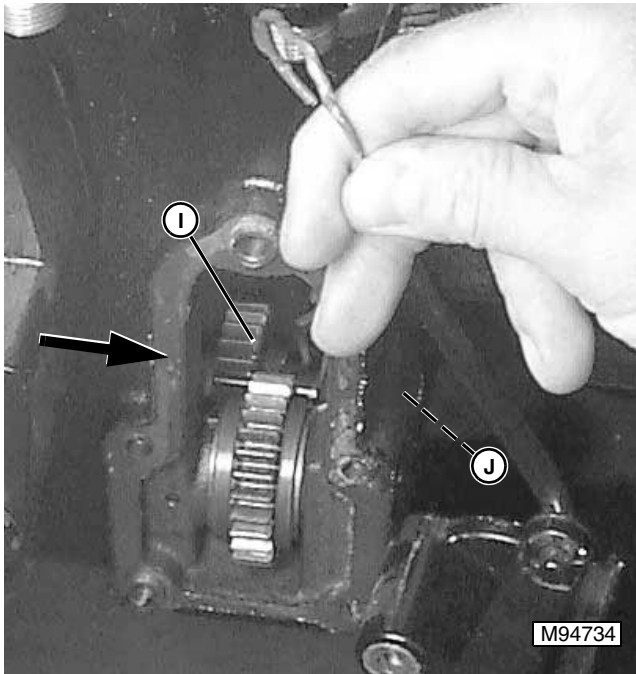
1. Remove mid PTO shaft from bottom of differential housing. When shaft is removed, gear may fall into differential housing. Retrieve gear and install on front end of shaft.



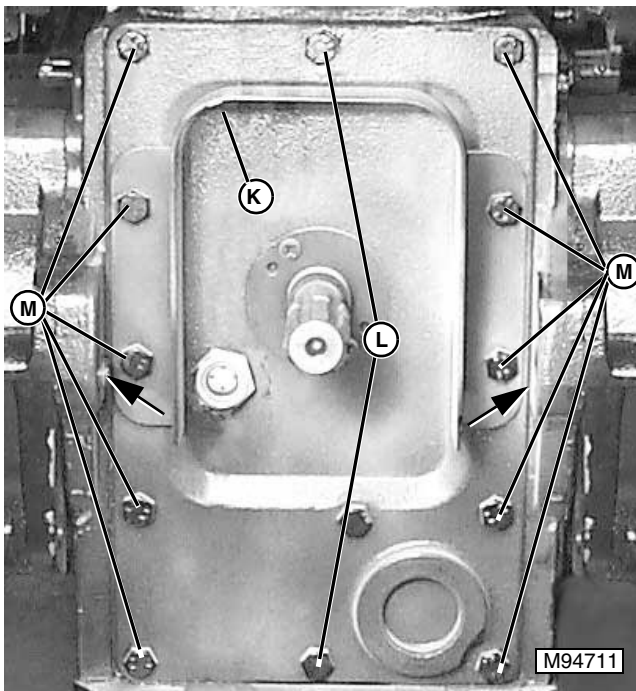
2. Install shaft and gear into roller bearing in rear cover.



3. If equipped, disconnect wiring harness connector (F) from mid PTO switch.
4. Remove five cap screws (G) and mid PTO gear box (H) from right side of differential housing.
5. Install cover with shafts and gears as an assembly into differential housing. Do not install cap screws at this time.



6. Slide gear (I) on mid PTO shaft forward slightly to make sure it will mesh with gear in differential housing.
7. Using a piece of stiff wire formed into a hook or other suitable tool, lift mid PTO shaft slightly to align end of shaft with bearing (J) in front of differential housing. Install cover with shafts and gears into differential housing. If equipped with a 2-speed PTO, check to make sure that shift fork engages shift lever and linkage.

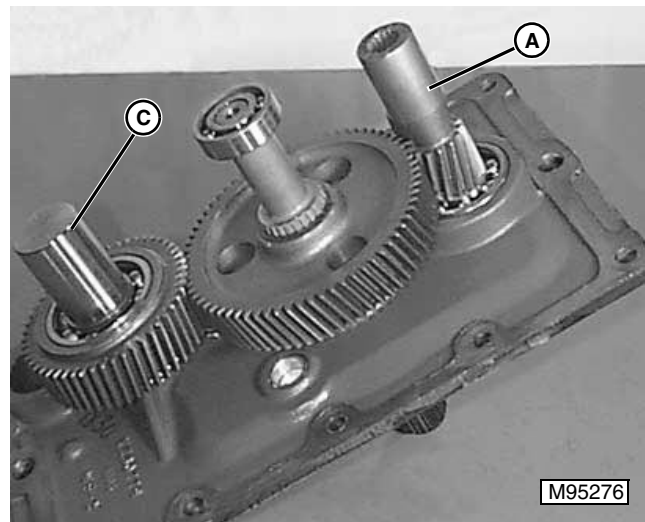


8. Install PTO guard support (K) and ten cap screws (M). Install the two longer cap screws (L) in the location shown. Tighten all cap screws to **40 N•m (30 lb-ft)**.
9. If loosened, tighten two rearmost cap screws attaching final drive housings to differential housing (arrows).
10. Clean mating surfaces of mid PTO gear case and differential housing.
11. Lay a bead of TY16021 Sealant on flange surfaces of differential housing.
12. Install mid PTO gear case to differential housing, and retain with five cap screws. Tighten cap screws to **55 N•m (40 lb-ft)**.
13. If equipped, connect mid PTO wiring harness.

## REAR PTO SHAFTS & GEARS DISASSEMBLY AND ASSEMBLY

*NOTE: For 2-speed PTO disassembly procedure, (See 2 SPEED PTO SHAFTS AND GEARS DISASSEMBLY.)*

1. Remove rear PTO drive shaft and gears as an assembly. (See "REAR PTO SHAFTS AND GEARS REMOVAL AND INSTALLATION").



2. Remove pinion shaft (A).