



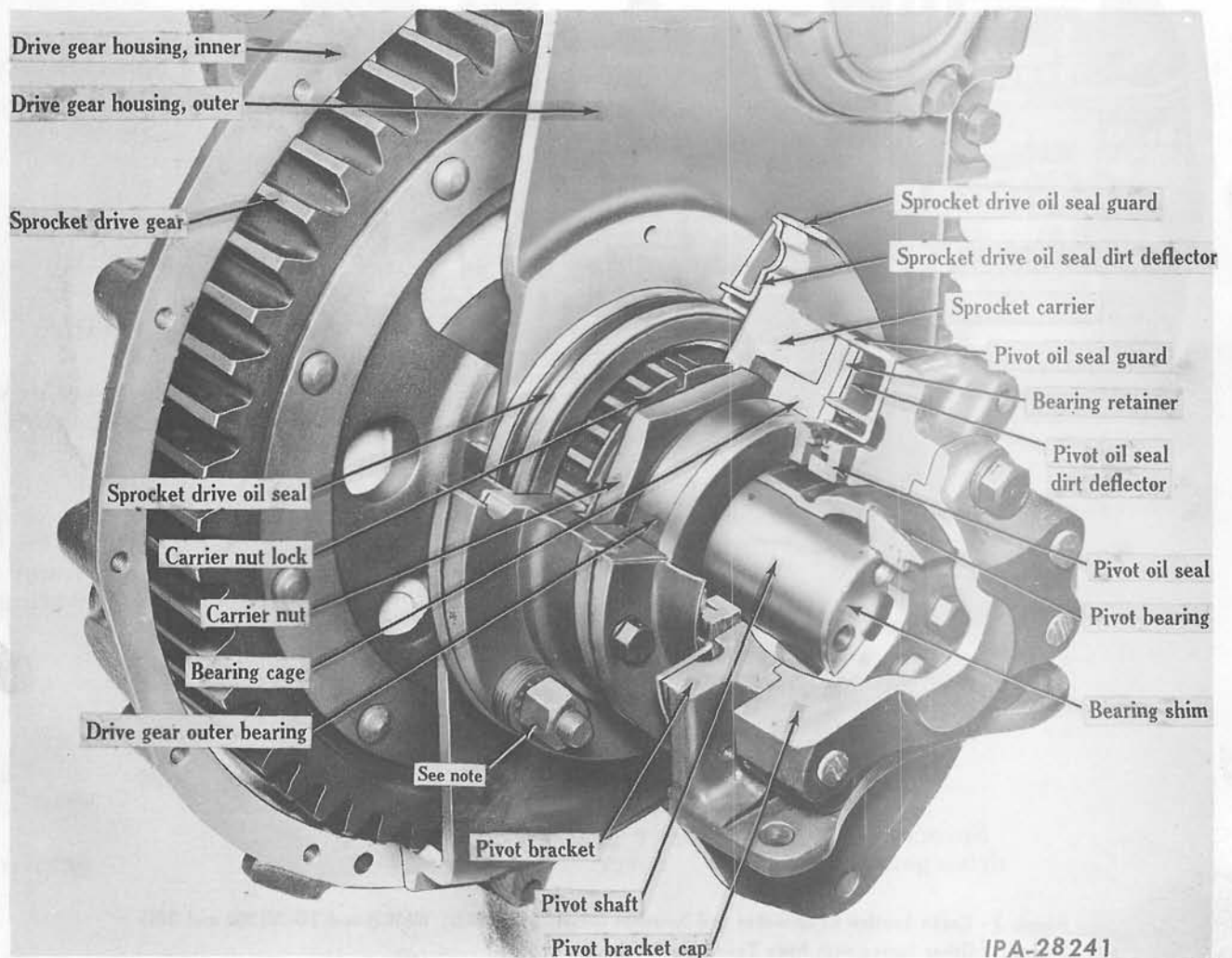
1. DESCRIPTION

The sprocket and sprocket drive assembly on these crawler tractors consists of a set of spur gears located in separate gear cases, one on each side at the rear of the tractor. Engine power is transmitted from the bevel drive gear through the steering clutches to the sprocket drives. The sprockets, which are attached to the sprocket carriers transmit power to the tracks. The sprocket drives and sprockets are ball and roller bearing mounted on the stationary pivot shaft.

The sprocket drive pinion is driven by a splined shaft (extending from the steering clutch).

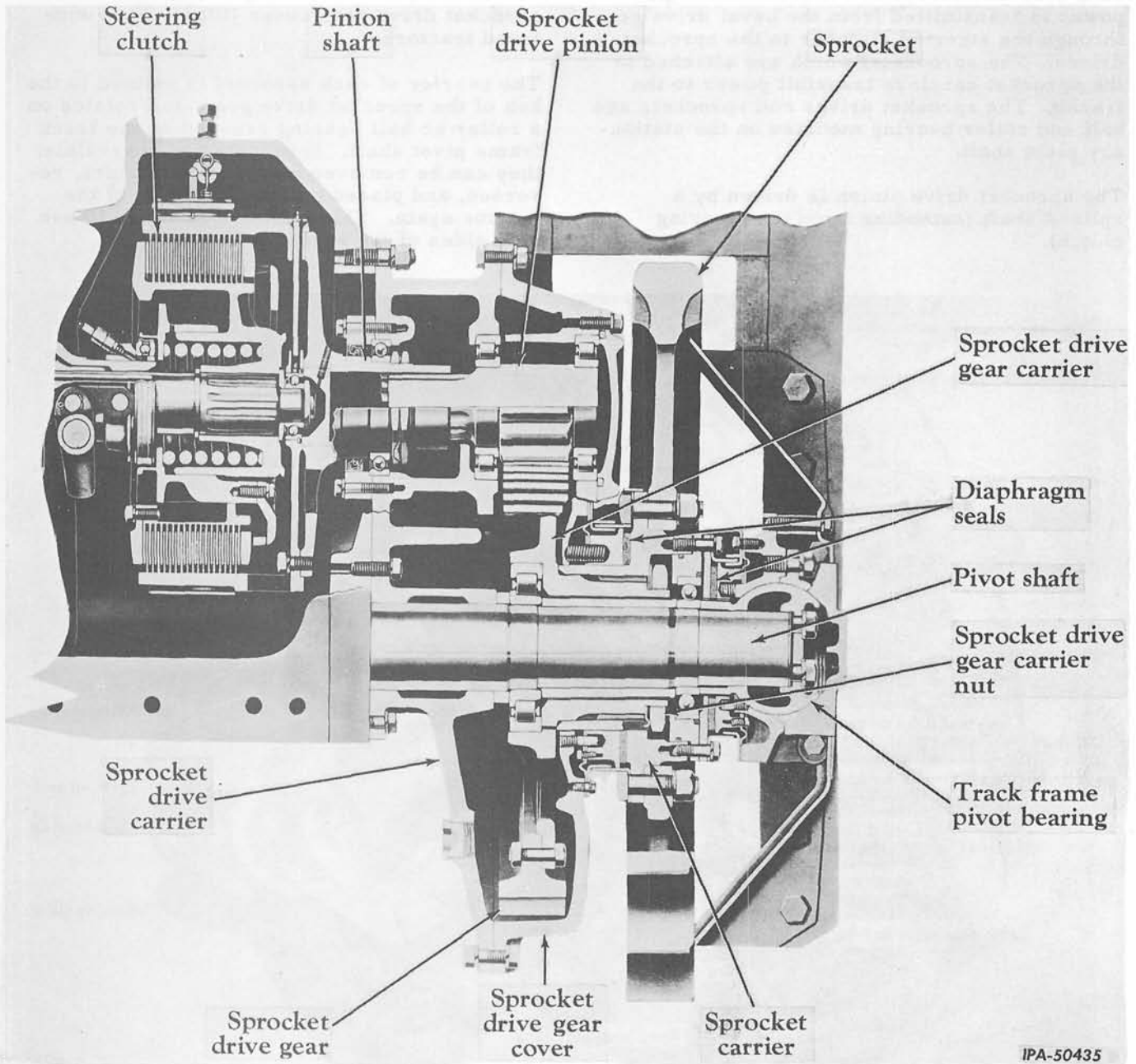
A large sprocket drive gear (driven by the pinion) drives the carrier and sprocket. Each sprocket drive is completely enclosed in a gasket sealed compartment between the inner and the outer drive gear housings (Illust. 1) or between the sprocket drive gear carrier and the sprocket drive gear cover (Illust. 2) on wide tread tractors.

The carrier of each sprocket is splined to the hub of the sprocket drive gear, and rotates on a roller or ball bearing pressed on the track frame pivot shaft. Sprockets are reversible; they can be removed from their carriers, reversed, and placed on the same side of the tractor again. This makes it possible to use both sides of the sprocket teeth.



Illust. 1 - Cutaway View of Sprocket Drive on Regular Tread Tractors.
(14, 18 and old 18A Series)

NOTE: The sprocket is not shown above; if it were shown, it would be installed on the sprocket carrier under the nut indicated.



Illust. 2 - Cross Section of Sprocket and Sprocket Drive. (18A(181), 18(182) and TD-20(200 and 201) Series. Other Series with Wide Tread are Similar.)



2. SPECIFICATIONS

Description	14 and 15 Series	18 and 20 Series
NUMBER OF TEETH:		
Sprocket	27	29
Sprocket Drive Pinion:		
Regular and Wide Tread		
Serial No. TDF-501 to 3886	14	
Serial No. TDR-501 to 3717		14
Serial No. TDF-3887 to TD-141-40600	13	
Serial No. TDR-3718 to TD-181-34549		13
Serial No. TD-141-40601 up and TD-142-41551 up	12	
Serial No. TD-150-501 to TD-150-1788 (regular tread only)	12	
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread only)	11	
Wide Tread Only		
Serial No. TD-142-43666 up	11	
Serial No. TD-150-501 up and TD-151-4001 up	11	
Wide Tread Became Regular		
Serial No. TD-181-34550 to TD-182-38639		12
Serial No. TD-182-38640 up		11
Serial No. TD-200-501 up and TD-201-3001 up		11
Sprocket Drive Gear:		
Serial No. TDF-501 to 3886	67	
Serial No. TDR-501 to 3717		73
Serial No. TDF-3887 to TD-141-40600	62	
Serial No. TDR-3718 to TD-181-34549		68
Serial No. TD-141-40601 up and TD-142-41551 up	61	
Serial No. TD-150-501 to TD-150-1788 (regular tread only)	61	
Serial No. TD-142-43666 up (wide tread only)	60	
Serial No. TD-150-501 up and TD-151-4001 up (wide tread only)	60	
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread only)	60	
Serial No. TD-181-34550 to TD-182-38639		70
Serial No. TD-182-38640 up		69
Serial No. TD-200-501 up and TD-201-3001 up		69
OUTPUT REDUCTION:		
Serial No. TDF-501 to 3886	4.78 to 1	
Serial No. TDR-501 to 3717		5.21 to 1
Serial No. TDF-3887 to TD-141-40600	4.75 to 1	
Serial No. TDR-3718 to TD-181-34549		5.23 to 1
Serial No. TD-141-40601 up and TD-142-41551 up	5.00 to 1	
Serial No. TD-150-501 to TD-150-1788 (regular tread only)	5.00 to 1	
Serial No. TD-142-43666 up (wide tread only)	5.45 to 1	
Serial No. TD-150-501 up and TD-151-4001 up (wide tread only)	5.45 to 1	

continued on next page



2. SPECIFICATIONS - Continued

Description	14 and 15 Series	18 and 20 Series
OUTPUT REDUCTION - Continued		
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread only)	5.45 to 1	
Serial No. TD-181-34550 to TD-182-38639		5.83 to 1
Serial No. TD-182-38640 up		6.27 to 1
Serial No. TD-200-501 up and TD-201-3001 up		6.27 to 1
BACKLASH (inches):		
Serial No. TD-141-40601 up, TD-142-41551 up, and TD-150-501 to 1788 (regular tread only)016 - .024	
Serial No. TD-181-34550 to TD-182-38639016 - .024
Serial No. TD-142-43666, TD-150-501 up and TD-151-4001 up (wide tread only)014 - .020	
Serial No. TD-182-38640 up, TD-20-501 up and TD-201-3001 up013 - .021
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread only)014 - .020	
SPECIAL TORQUE DATA (foot pounds): (All threads lubricated with SAE-30 engine oil)		
Sprocket carrier bolt nut	280 - 320	440 - 490
Sprocket drive gear carrier nut	630 - 700	630 - 700
Sprocket drive pinion shaft bearing nut (wide tread, TD-14, 14A, 15, 18 and 18A only)	280 - 320	280 - 320
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread only)	280 - 320	
Pivot bracket bolts (top and side)	660 - 740	660 - 740
Sprocket drive gear dowel bolt nuts	255 - 285	255 - 285
BEARINGS:		
Sprocket drive pinion, inner and outer	Ball	Ball
Serial No. TD-142-43666 up (wide tread only)	Roller	
Serial No. TD-150-501 up and TD-151-4001 up (wide tread only)	Roller	
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread)	Roller	
Serial No. TD-181-34550 up and TD-20-501 up		Roller
Sprocket drive pinion shaft (wide tread)	Ball	Ball
Serial No. TD-150-1789 up and TD-151-4001 up (regular tread)	Ball	
Sprocket drive gear, inner and outer	Ball	Ball
Serial No. TD-141-40601 up (inner)	Roller	
Serial No. TD-150-501 up and TD-151-4001 up (inner)	Roller	
Serial No. TD-181-34550 up, TD-20-501 up and TD-201-3001 up (inner)		Roller

3. CHECKING MECHANICAL PROBLEMS

PROBABLE CAUSE

REMEDY

Sprocket Drives Overheating

- | | |
|---|---|
| 1. Improper or insufficient lubrication | Use proper grade and amount of lubricant.
Check for leaks. |
|---|---|



PROBABLE CAUSE

REMEDY

- | | |
|------------------------------|---|
| 2. Bearing seizure | Remove the sprocket drive and inspect for damaged bearings. Replace if necessary. |
|------------------------------|---|

Sprocket Drive Gear Noisy

- | | |
|---|---|
| 1. Misaligned or damaged gears | Inspect the gears and replace if necessary. |
| 2. Improper, dirty or insufficient lubricant. . . | Use proper grade and amount of lubricant. |

Lubricant Leakage

- | | |
|-------------------------------|---|
| 1. Faulty gasket | Oil leaks may occur at sprocket drive gear cover gasket or at other gaskets. Replace gaskets. |
| 2. Faulty oil seals | Replace oil seals. |

Excessive Backlash

- | | |
|---|---|
| 1. Sprocket drive or pinion shaft worn or damaged | Replace worn or damaged parts if necessary. |
|---|---|

Excessive Wear on Sprockets

- | | |
|--|---|
| 1. Tracks run too loosely | Adjust the tracks. (Refer to Section 9.) |
| 2. Tracks worn excessively | Install new tracks. (Refer to Section 9.) |
| 3. Track frame out of alignment or damaged . | Repair, or install new frame. |