

General Specifications

CS, KS, CM, KM & SM Series Tractors

Axle

General Specifications

Model: S-34 or S-40

Type: Single Planetary Drive Wheel Hubs, Spiral Bevel Ring Gear and Pinion

Options: No-Spin Differential - Front only

Oil Capacity: Center Differential - 22 qts (20.8L)
Wheel Hubs - 5 qts (5.76) each

Model: K598 20/30

Type: Inboard and Outboard Planetary Gearing, Spiral Bevel Ring Gear and Pinion

Options: No-Spin Differential - Front only

Oil Capacity: Center Differential - 8.5 qts (8.0L)
Wheel Hubs - 8 qts (7.7L) each

Model: K598 60/70

Type: Dual Outboard Planetary Gearing, Spiral Bevel Ring Gear and Pinion

Oil Capacity: Center Differential - 15.0 US qts (14.4L)

Wheel Hubs - 3.7 US qts (3.5L) each

Axle Lubrication Specifications

Oil Type: Steiger HD API-GL-5 80W-90 gear oil, or other oils that meet the API service classification GL-5 and/or MIL-L-2105B specifications

NOTE: In general 80W-90 is the recommended oil, however, SAE90 is acceptable as an alternative. Axle assemblies are flow-through design; oil is allowed to flow between compartments. Always park the tractor on a level surface when checking fluid levels.

Brakes

General Specifications

Type: Hydraulic Self-Adjusting Dual Caliper, Single Disc

Disc Size: Diameter - 20 in. (50.8 cm)

Thickness - .75 in. (1.9 cm)

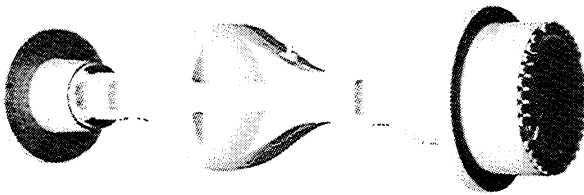
Mounting: Transfer Case lower front output yoke

Park Brake: Integral with one of two service calipers -self-adjusting, foot pedal operated

Master Cylinder: Dual Stage

Fluid Type: SAE-J1703D

Fluid Capacity: 1 qt (0.946L)



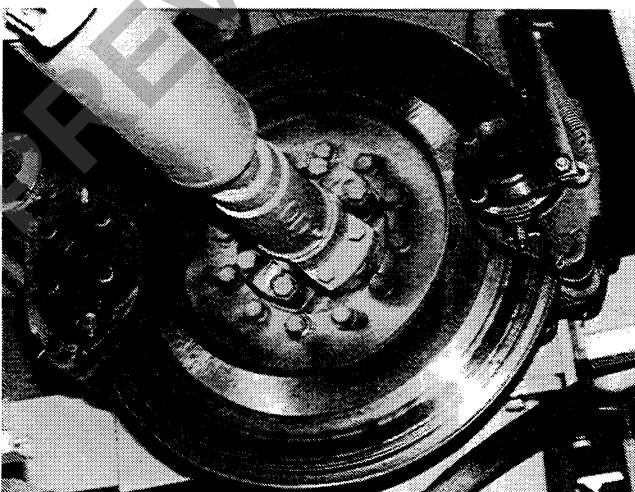
S-34 & S-40



K598 20/30



K598 60/70



COUGAR CLARK AXLE DISASSEMBLY

DISASSEMBLY

The instructions contained herein cover the disassembly and reassembly of the axle assembly in a sequence that would normally be followed after the unit has been removed from the machine and is to be completely overhauled. However, most axle repairs can be made with the assembly in the tractor. When axles are repaired off of the tractor, mount the axles on steel horses or on V-blocks. If axle is mounted on horses, invert it from its normally installed position and allow axle housing mounting pads to rest on crossbars of horses to provide necessary rigidity.

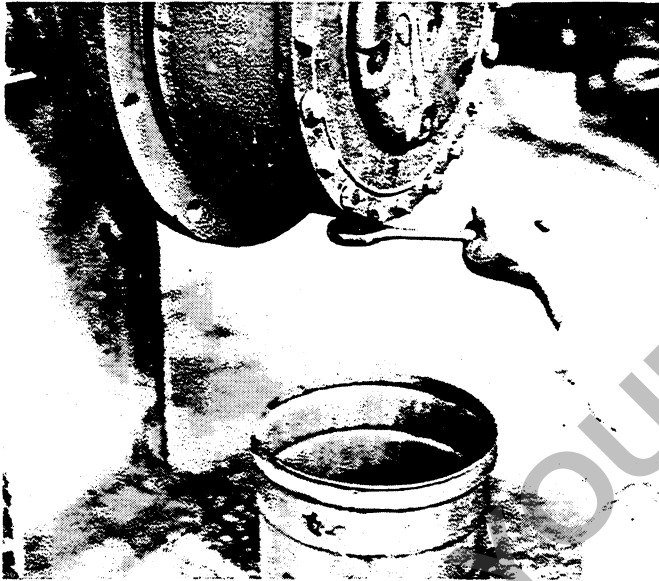


FIGURE 1:

Remove drain plugs from planetary hub and from axle housing to drain axle.

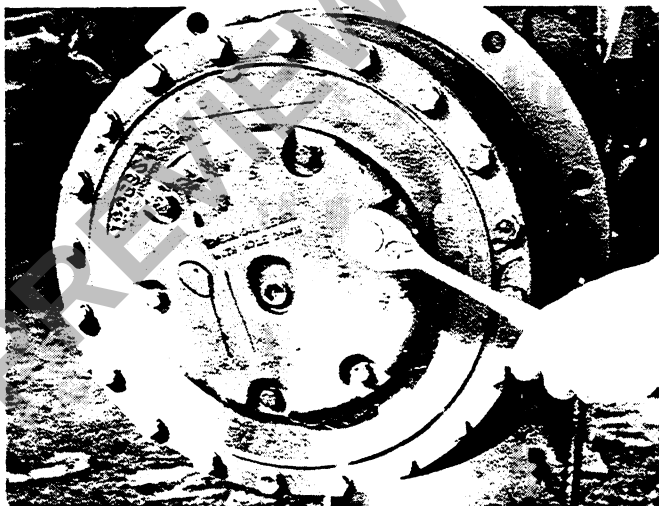


FIGURE 2:

Remove bolts and washers securing sun gear thrust cap.

CAUTION: Cleanliness is of extreme importance in the repair and overhaul of this unit. Before attempting any repairs, the exterior of the unit must be thoroughly cleaned to prevent the possibility of dirt and foreign matter entering the mechanism.

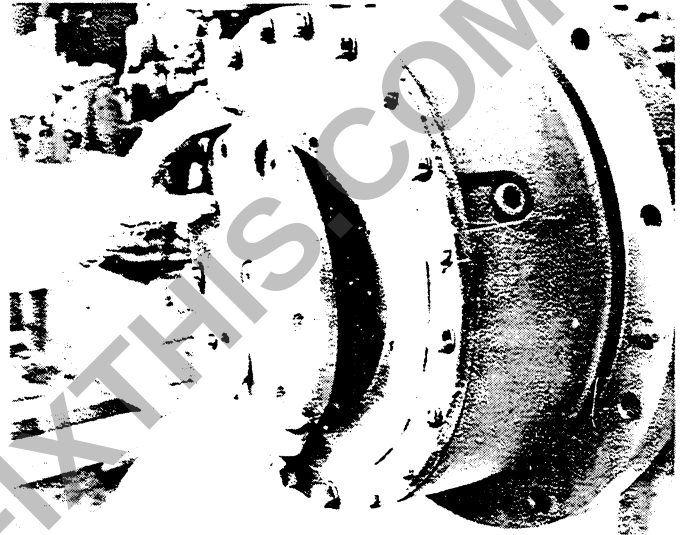


FIGURE 3:

Remove thrust cap. If damaged, remove sun gear thrust cap washer from thrust cap.

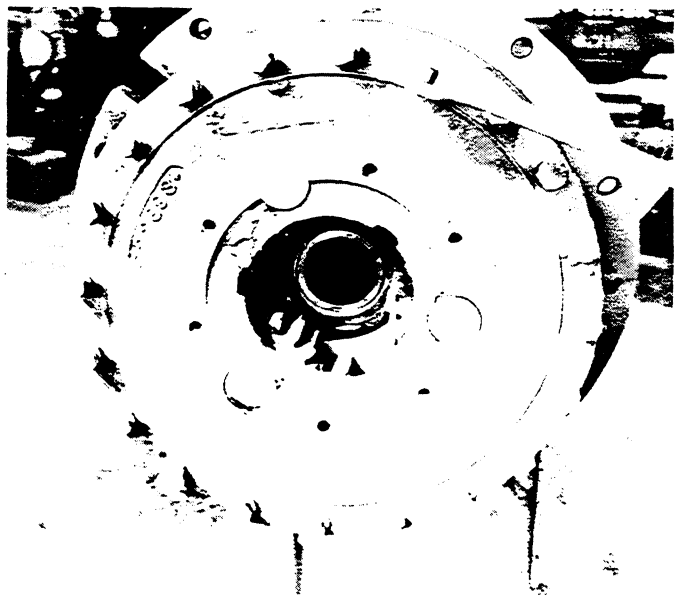


FIGURE 4:

Remove bolts, and washers from planet spider assembly.

REASSEMBLY Cont.

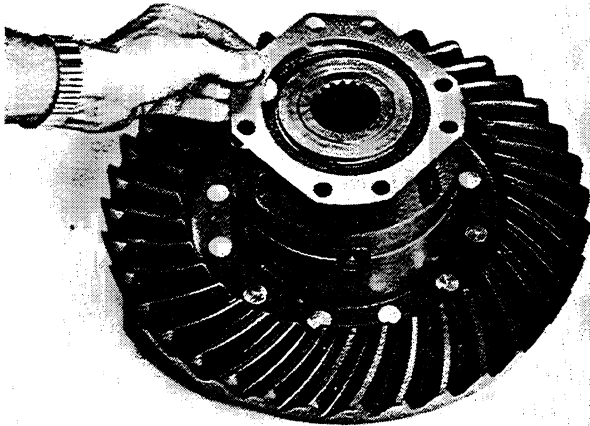


FIGURE 23: Bearing Cap Shim Installation

6. Reinstall any shims originally installed between the differential bearing cap and the case half. Refer to Fig. 23.

NOTE: Normally, the overall width of original and service parts case assemblies is set by the factory, using shims when necessary. If no shims are used, do not install any. If shims are used, reinstall only those originally removed from the case.

The following circumstance is an exception to the above: Should excessive side play be found when the differential is installed, additional shims can be added here to reduce the clearance.

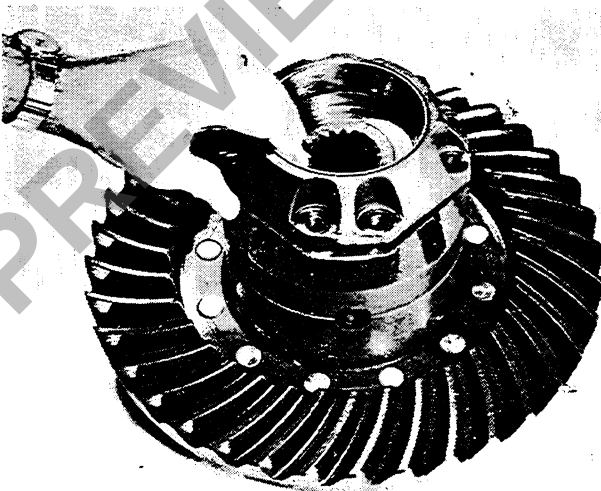


FIGURE 24: Bearing Cap Installation

ISSUED JULY 15, 1976

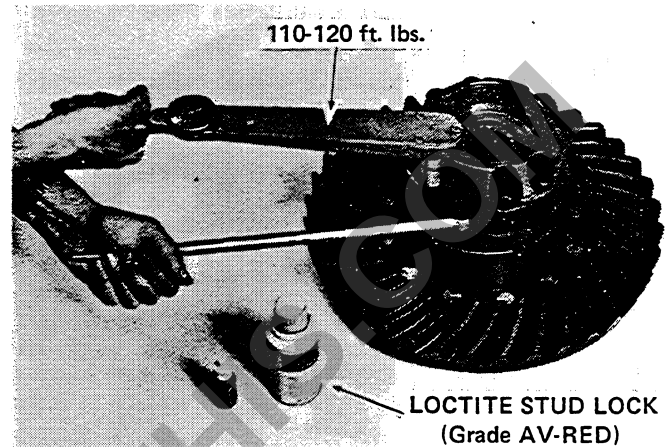


FIGURE 25: Differential Case Bolt Installation

7. Install the bearing adapter. Refer to Fig. 24. Degrease the capscrews and tapped holes, if not previously done ("Loctite" primer may be used). Apply 4 drops of "Loctite" Stud Lock, grade AV (red), to each capscrew. Install and tighten the capscrews to 105-120 ft.-lbs. torque. Refer to Fig. 25.

IMPORTANT: "Loctite" must cure for 1 hour at 72 degrees F. before power is applied to the differential.

Wheel Hub Disassembly

16. Straighten the lock tabs on the internal gear retainers (Fig. 14), and remove the capscrews. Lock tabs and retainers (Fig. 15). Lift the internal gear hub from the internal gear (Fig. 16).

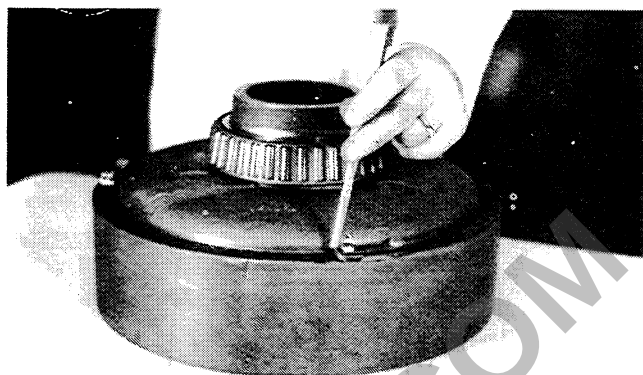


Figure 14:

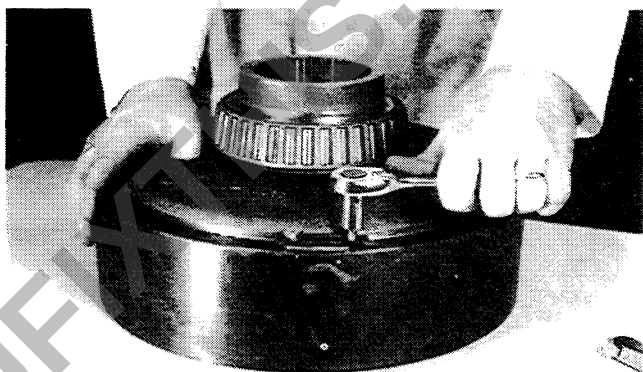


Figure 15:

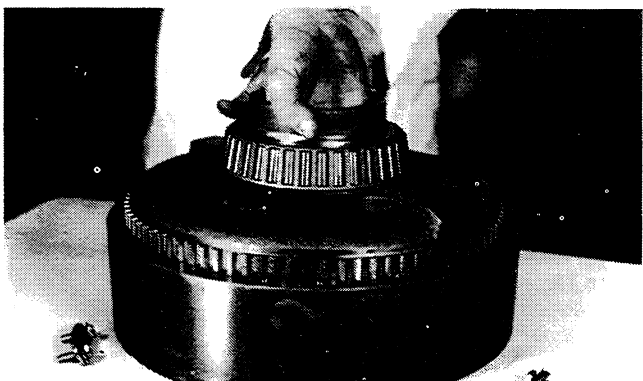


Figure 16:

17. Remove the outboard bearing cone from the internal gear hub (Fig. 17) using a puller arrangement or a bearing separator and a press.



Figure 17:

Using The 58-278 NOK Seal Installation Tool Kit

K598 00/10 & 20/30 Axle

NOK Seal Installation Procedures

1. Remove the wheels and axle hub assembly from the affected axle as outlined in the 598 00/10 -20/30 Axle Repair Manual.
2. Support the hub assembly on a lifting fixture and wood block as shown (Fig. 1).



Figure 1:

3. Install the 58-006 bridge to the hub and install the forcing screw as shown with one nut on each side of the bridge plate, tighten these nuts securely (Fig. 2).
4. On the seal side of the hub, screw a forcing screw nut part way onto the forcing screw and install seal retainer puller bridge from the 58-278 tool kit as shown (Fig. 3).

NOTE: An alternative method is to install the 58-281 forcing plug into the center hole of the puller bridge and use the forcing screw to push directly against the bridge.

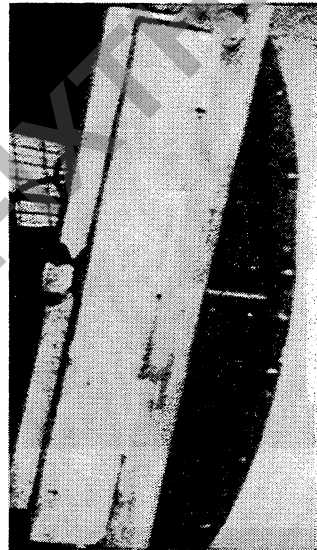


Figure 2:

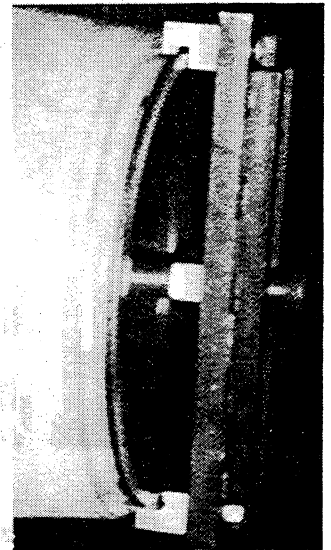


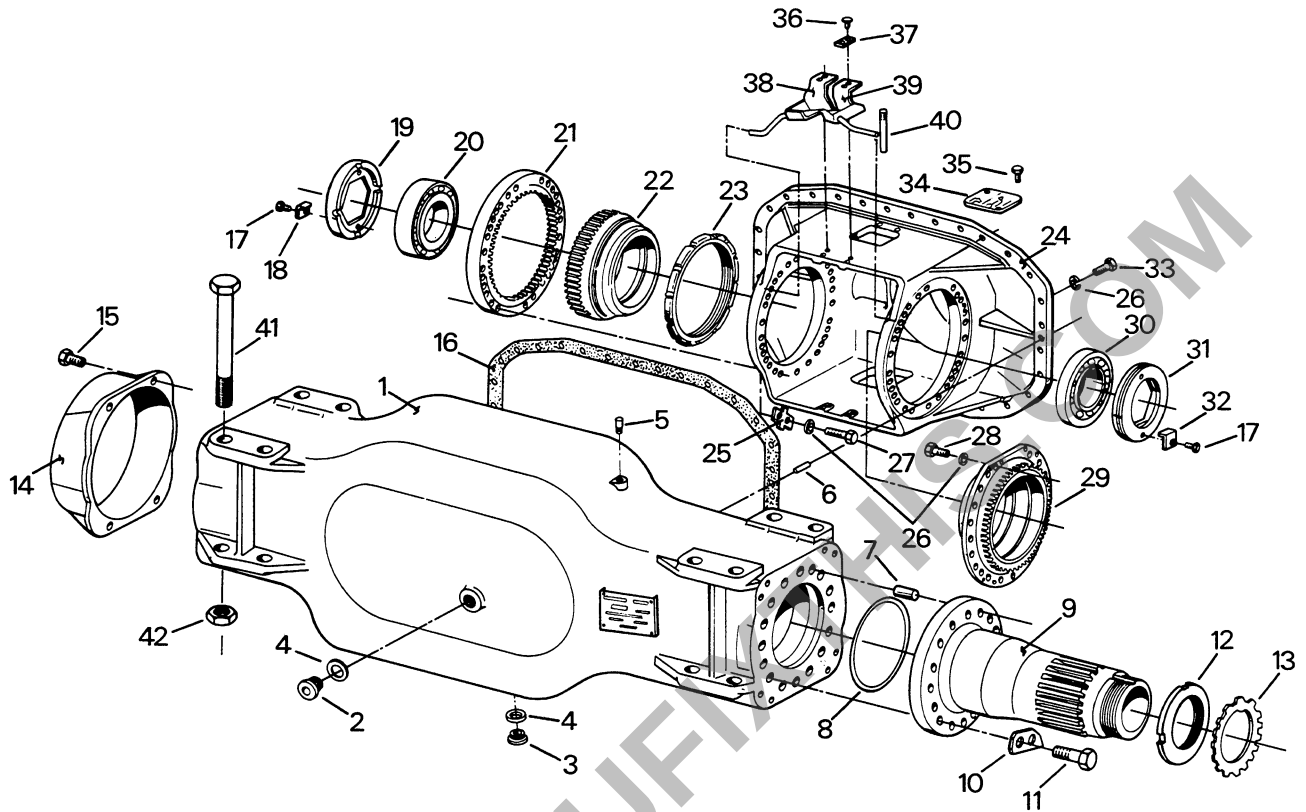
Figure 3:

5. Use an open end wrench to tighten the forcing screw nut against puller bridge as shown to force the seal case assembly from the hub (Fig. 4).



Figure 4:

Model 594 Axle & Drive Housings



Ref.	Description	Qty.	Ref.	Description	Qty.
1	Axle Housing	1	21	Support Ring	1
2	Plug	1	22	Threaded Bearing Support	1
3	Magnetic Plug	1	23	Slotted Nut	1
4	Washer	2	24	Differential Carrier Housing	1
5	Breather	1	25	Lock Plate	1
6	Dowel Pin	2	26	Lock Washer	71
7	Dowel Pin	4	27	Bolt	20
8	O-Ring	2	28	Bolt	19
9	Spindle	2	29	Flanged Bearing Support	1
10	Tab Washer	14	30	Tapered Roller Bearing	1
11	Bolt	28	31	Adjusting Ring	1
12	Adjusting Nut	4	32	Tab Washer	2
13	Tab Washer	2	33	Bolt	32
14	Dust Guard	2	34	Direction Indicator Plate	1
15	Bolt	8	35	Bolt	4
16	Gasket	1	36	Bolt	4
17	Lock Bolt	4	37	Tab Washer	2
18	Tab Washer	2	38	Oil Wiper, Left	1
19	Adjusting Ring	1	39	Oil Wiper, Right	1
20	Tapered Roller Bearing	1	40	Pipe	1

Foreword

General

After the initial 100 hour drain and oil change on a new machine, the axle assemblies require oil level checks every 100 service hours. In normal operating conditions, oil must be drained and new oil of the specified type installed at each 500 hour service intervals.

Wheel Hub Oil Level Check/Fill or Drain

To check wheel hub (final drive) oil level, position the check/fill plug as shown. Remove the check plug, oil level should be within 1/4 - 1/2 in. (6-12 mm) of the lower level of the plug opening.

To drain the wheel hub assemblies, locate the drain plug at the bottom as shown. Each wheel hub will hold approximately 3.7 US qts (3.5L) each.

IMPORTANT: *This axle has a flow-through oil design, oil is allowed to flow to all compartments. The tractor must be parked on a level surface when checking oil levels.*

Differential Oil Check/Fill or Drain

Check the center differential every 100 service hours. To check the center differential oil level, remove the check plug (2). The oil level should be within 1/4 - 1/2 in. (6-12 mm) of the lower level of the plug opening.

To drain the center differential remove the drain plug (3). The differential oil capacity is approximately 15.0 US qts (14.4L).

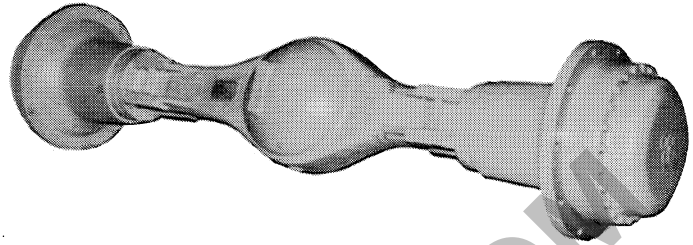
NOTE: *When refilling an axle assembly after a complete drain, fill the wheel hubs to the proper level first. Fill the center differential housing last.*

IMPORTANT: *Axle gear oil must meet or exceed the API Service Classification GL-5 and/or MIL-L-2105B Specifications.*

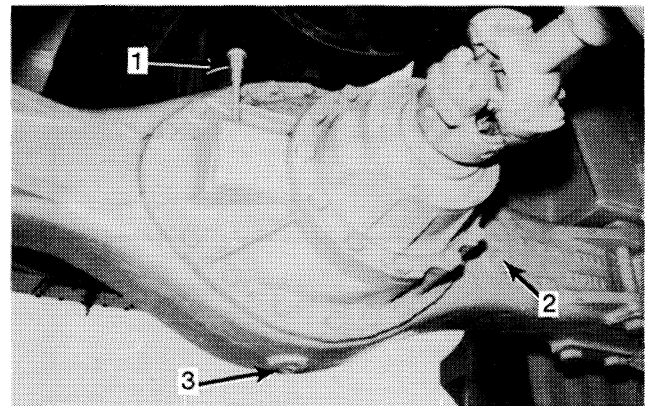
Axle Breather Vent

Remove the breather vent (1) at least every 100 service hours. Wash out in diesel fuel and blow dry with compressed air. Reinstall the vent assembly.

NOTE: *If axle hub seals or pinion seals should suddenly show signs of leakage, suspect that the axle housing may be pressurized due to a plugged vent.*

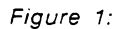


1-Wheel Hub Check/Fill Plug 2-Wheel Hub Drain Plug



1-Axle Vent 2-Differential Fill Plug 3-Differential Drain Plug

P/N 90-4391T91 (S/N 3058 & up)



NOTE: The following steps should be followed prior to any removal or disassembly of the electric shift unit (Ref. Fig. 1).

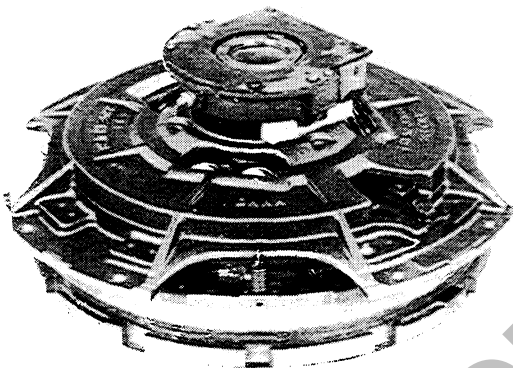
- NOTE:** If the dash indicator light did not illuminate, activate the switch several times. If the light still does not illuminate, check the indicator bulb or the circuit relays, switch, circuit breakers or tractor wiring. Refer to the appropriate tractor wiring schematics. If the light illuminated proceed to the next step.

- Present between the left and center sockets, proceed to the next step.
- Present between the right and center socket, the tractor wiring connections between the connector and shift selector switch are reversed.
- Voltage/continuity present in both the left and right sockets a tractor wiring fault is present.

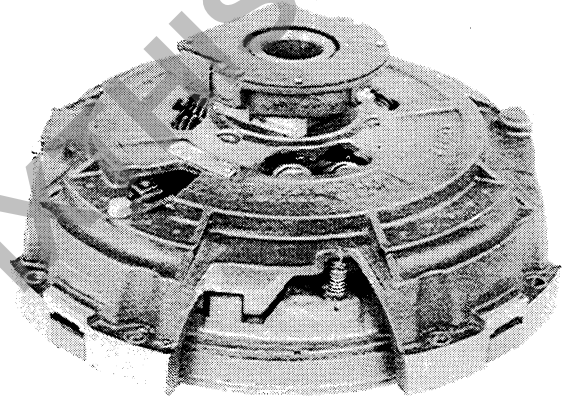
- Download full manual at youfixthis.com



14" 15.5" CLUTCH SERVICE MANUAL



14" 2-Plate Clutch



15.50" 2-Plate Clutch

IMMEDIATE ACTION LETTER REFERENCE:

No/Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

SERVICE BULLETIN REFERENCE:

No/Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

SERVICE NEWS REFERENCE:

No/Date

1 _____ 4 _____ 7 _____

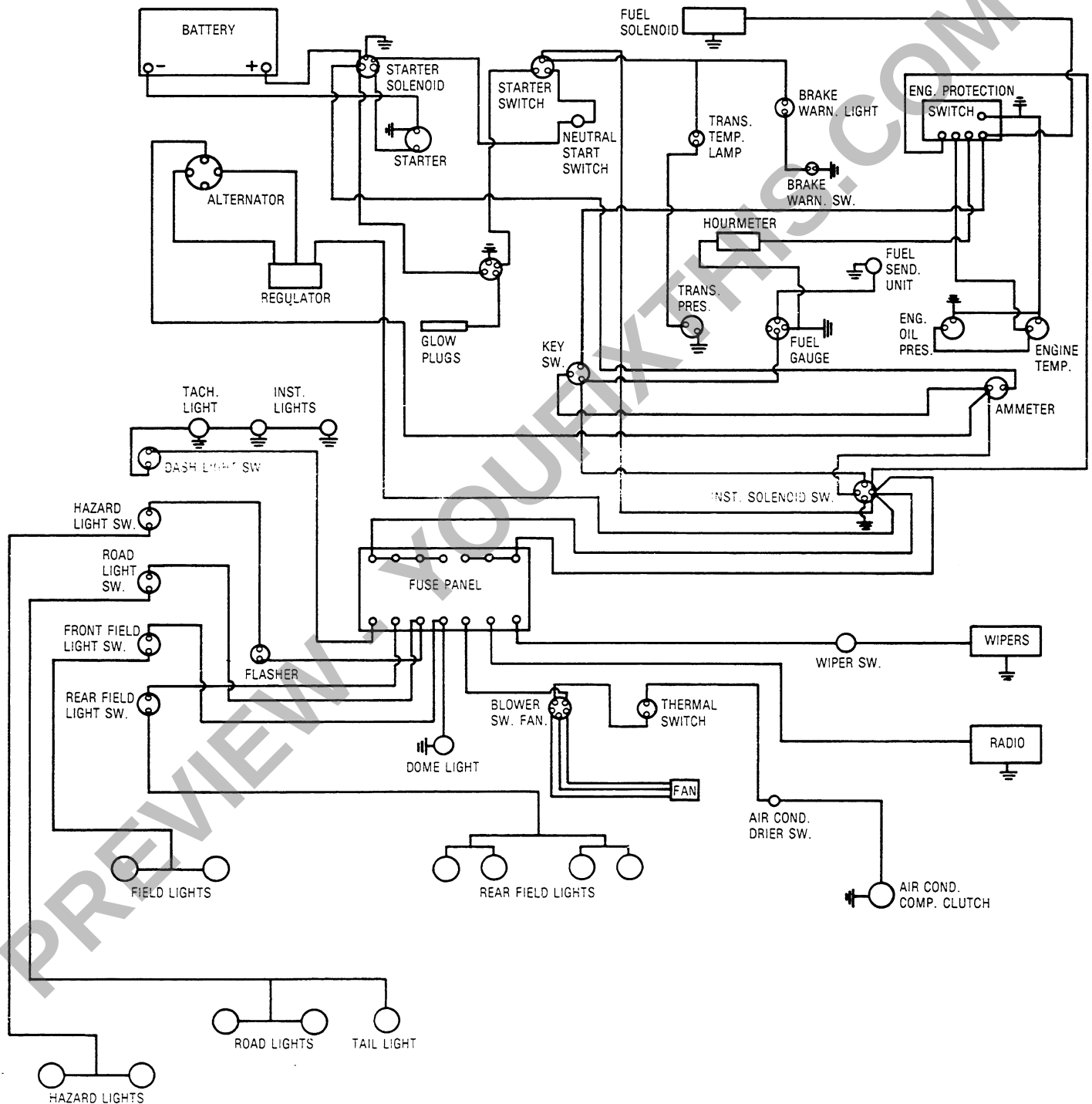
2 _____ 5 _____ 8 _____

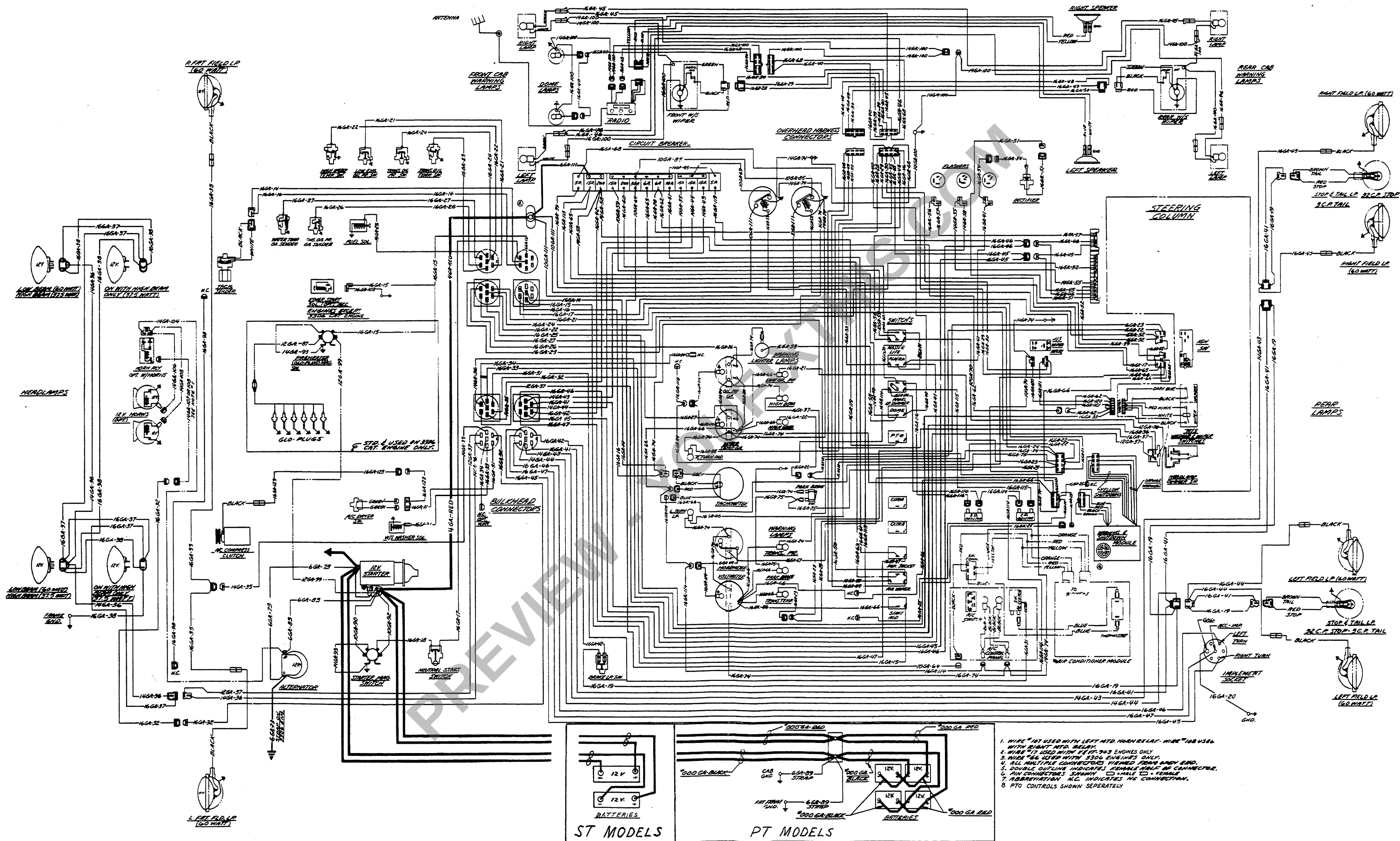
3 _____ 6 _____ 9 _____

37-077 (4-80)

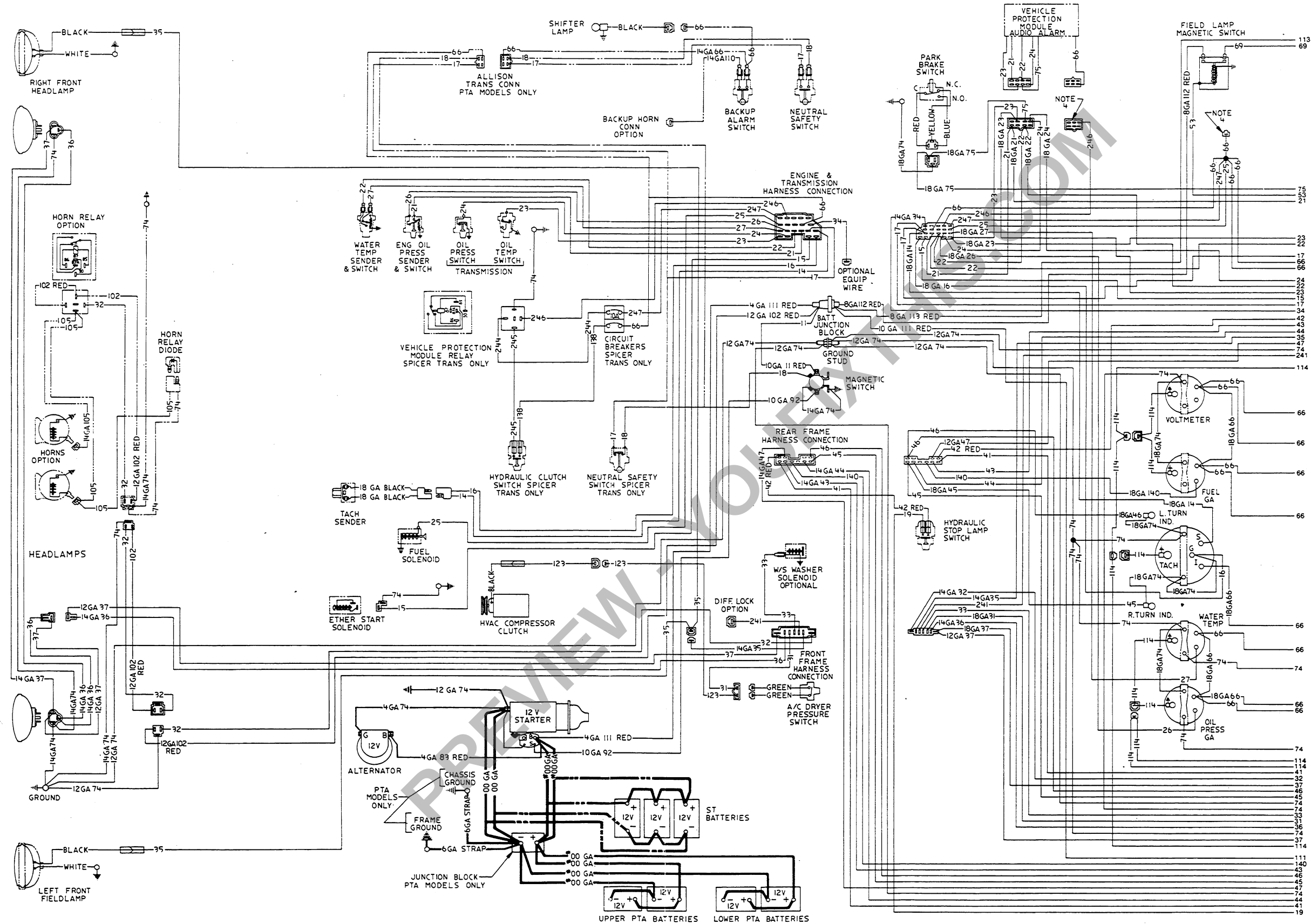
COUGAR II

Electrical Block Schematic





CM/KM & CS/KS Main Wiring Schematic - Sheet 1



CONTINUED
SHEET 2

02-7155

37-134

This manual has been developed to give the Service Technician an understanding on diagnosing complaints and restoring proper performance of the Series III Steiger Tractor electrical system.

Some previous knowledge on electrical systems may be helpful in getting the most from this manual. However, the details and steps that are discussed will be given as simply as possible.

All Series III Steiger tractors have 12 volt negative ground MAIN electrical systems. Shown is an electrical diagram which shows the circuit connections to all electrical components in the form of a drawing. Your Steiger Service Manual should contain the diagrams for the specific model tractor that is being worked on. These are helpful in tracing the path (or circuit) in which electric current should flow.

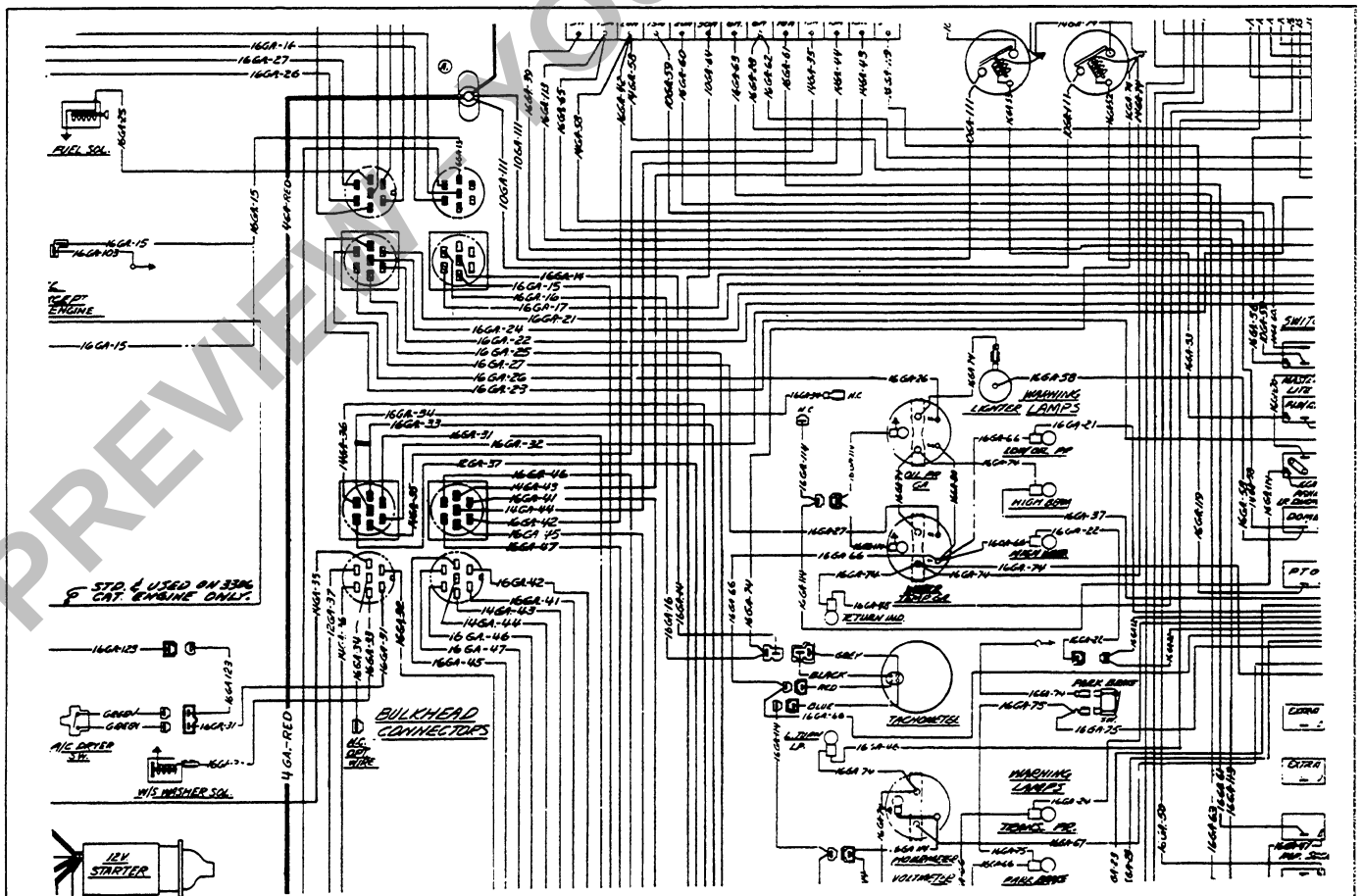
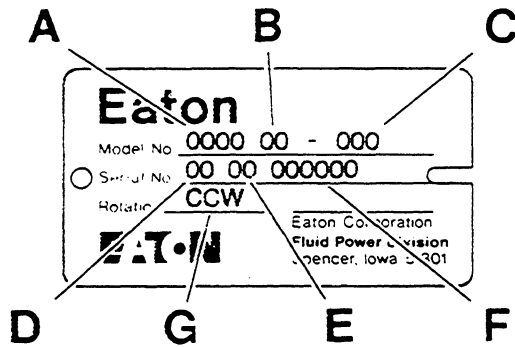


Figure 1:

Model Number System

Refer to specific part listings covering the Hydrostatic motor when ordering replacement parts. Parts listings are available in your PT/PTA Partsbook.



A – Displacement (cu. in./rev.)
0054 = 5.4 CIR

B – Identifies Type of Product
20 = Variable Displacement Pump
30 = Fixed Displacement Motor
40 = Variable Displacement Motor

C – Identifies Specific Unit Configuration

D – Month of Manufacture

E – Year of Manufacture

F – Specific Serial Number of Unit

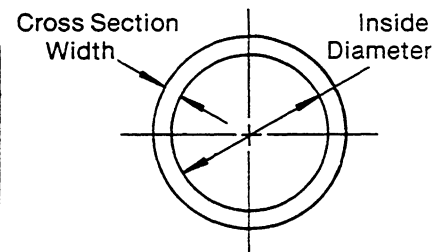
G – Identifies Direction of Input Shaft (Pumps only)
Rotation. (Observed from Shaft End of Unit)
CW = Clockwise
CCW = Counterclockwise

O-Ring Specifications

Item* Number	Location	Durometer Hardness	Inside Diameter	Cross Section Width
			Model 54	Model 54
7	Low & High Press. R.V. Seal	85-95	.799	.103
5	Low & High Press. R.V. Seal	85-95	1.047	.116
48	Rotating Seal O-Ring	65-75	1.674	.103
51	Stationary Seal O-Ring	65-75	1.674	.103
54	Seal Retainer O-Ring	65-75	2.550	.103
55	Retaining O-Ring	85-95	1.364	.070
15	Valve block O-Ring	85-95	.862	.103
14	Valve block Square cut Reg.	85-95	.739	.066

Buna N Material Only

Item		
6	High Pressure R.V. Backup Ring	$\frac{13}{16} \times 1 \times \frac{3}{32}$ Teflon
16	Valve block Backup Ring	Parker Seal Co. Parbak #8-118-N300-9



DROPBOX DISASSEMBLY & REASSEMBLY

DISASSEMBLY

It will be necessary to have a table top press to remove the shafts from the gears.

NOTE: All gears are installed from the same direction

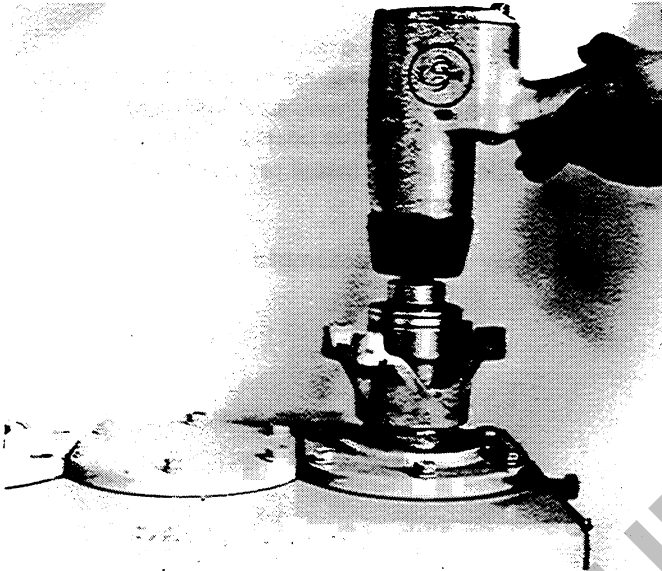


FIGURE 1:

1. (Figure 1) Remove drive yokes from shafts.



FIGURE 2:

2. (Figure 2) Remove all bearing retainer covers.
 - a. On the 14-001 drop box it will also be necessary to remove the inspection plate, and the spiral snap ring on the front side of the gear on the top shaft and rear side of gear on the lower shaft.

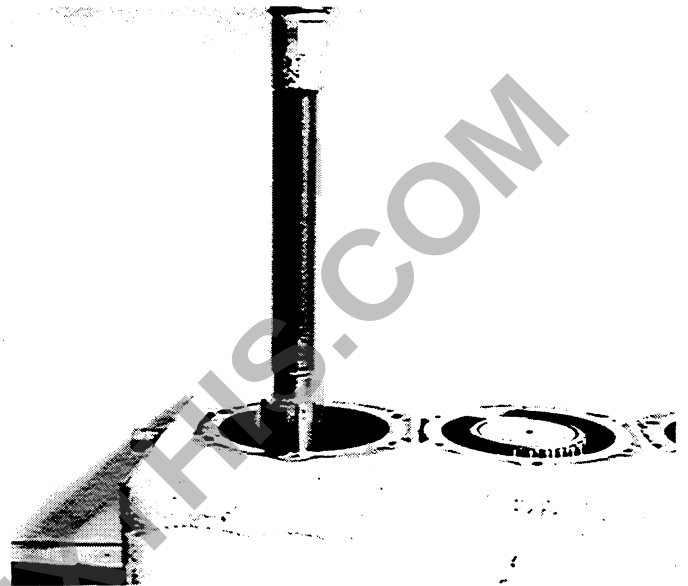


FIGURE 3:

3. (Figure 3) With the drop box set up in the press, push the top shaft out of top gear from the front of box to the rear.
4. Follow the same procedure as in step 3 when removing the middle shaft.
5. Bottom shaft must be pressed from the rear of the box to the front.

NOTE: If the box being repaired has the lighter bearings (determined by the presence of a large lock nut and washer on the middle shaft) you must order both bearings, shaft and spacer.

INSPECTION

Carefully clean and inspect all gears, shafts and bearings, check the condition of shaft keys and shaft key ways. Case should also be thoroughly cleaned. Check bearings in the bores of drop box case for looseness or tightness. Bearings should be an interference fit in the bore. If bore is too tight they may be bored out to fit.

STEIGER

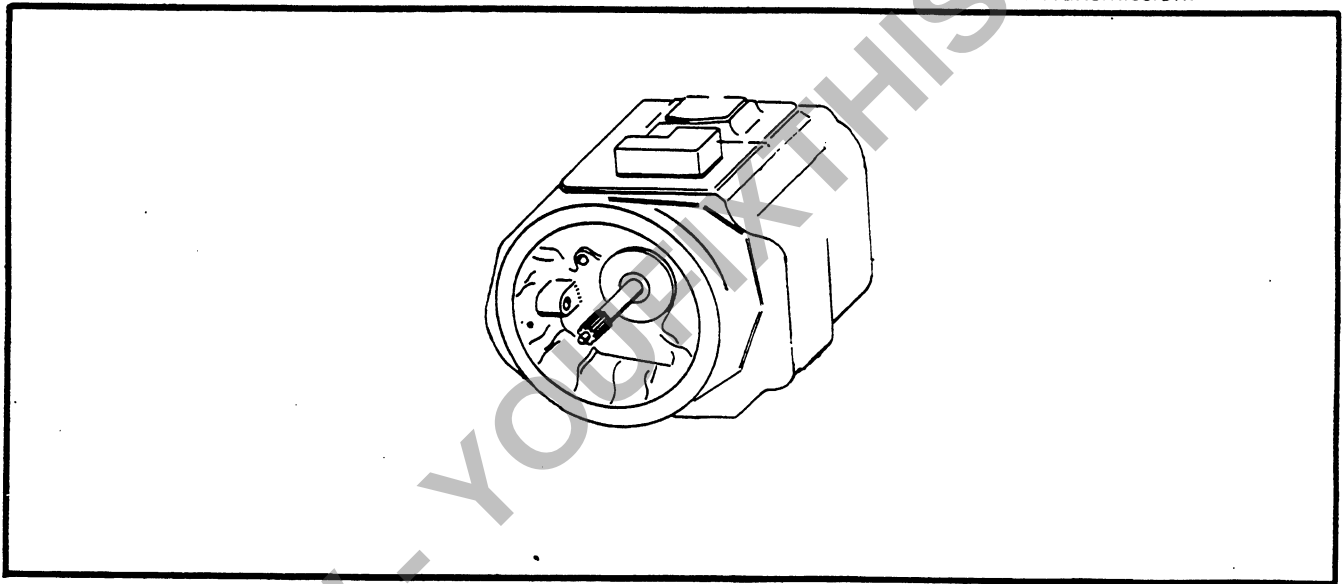
TRANSMISSION

Fuller 4510

All Wildcat I & Super Wildcat I
Bearcat I S/N 20798 & below
All series II RC models

Early Model BC I

NOTE: (Approximately 80) Bearcat I have
the Fuller 910 Transmission.



IMMEDIATE ACTION LETTER REFERENCE:

No/Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

SERVICE BULLETIN REFERENCE:

No/Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

SERVICE NEWS REFERENCE:

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

HT 754CRD Removal Procedures

Removal Procedures

HT 754 CRD Transmission

1. Drain the engine coolant from the block and radiator. Use a container which is clean and free of oil.

2. Drain the transmission and discard (do not reuse) this oil.

NOTE 1: Taking an oil sample is suggested when serious transmission problems are suspected.

3. Disconnect the battery ground cable at the junction block (Fig. 1) inside the left front frame panel.

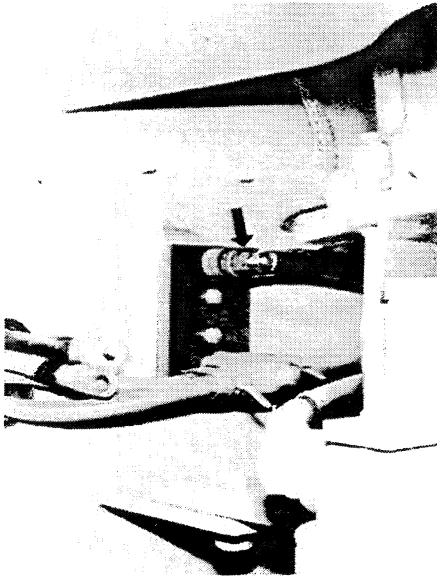


Figure 1: Battery Cable Junction Block

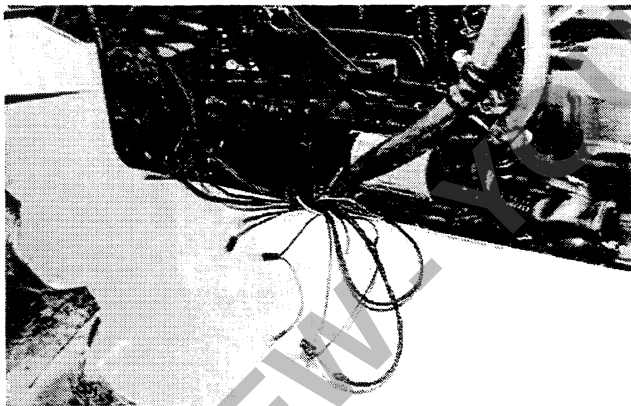


Figure 2:

4. Disconnect the engine and transmission wire harnesses and let them hang outside the frame (Fig. 2). Individual wires must be removed from the engine temperature and pressure senders, fuel solenoid, refrigerant compressor, tachometer generator and start aid coil (if so equipped).

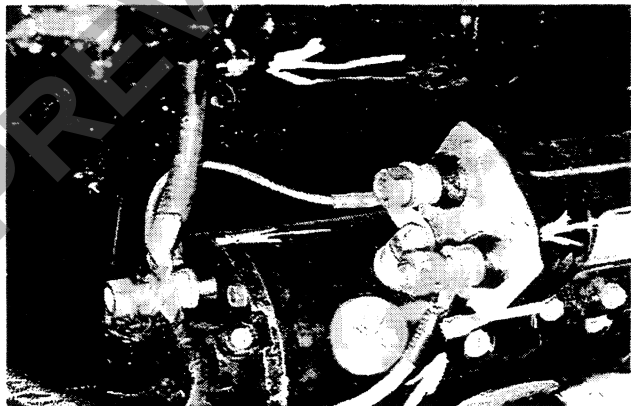


Figure 3:

5. On the starter only the battery cables (Fig. 3), frame ground and slave solenoid wire need disconnecting.

Remove the wires at the trans. oil pressure senders located at the 6 and 10 o'clock position of the transmission when viewed from the front of the convertor housing.

Single Disc Brake System

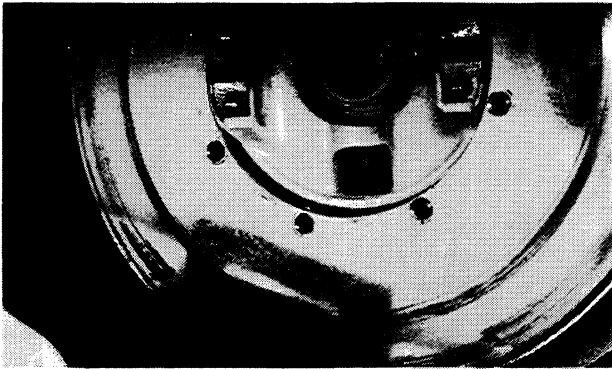


Figure 8:

4. Remove the capscrews that retain the disc to the transmission output yoke. Pull the bottom of the disc rearward then lower it enough to clear the park brake caliper (Fig. 8).

Installation

1. After installation of the brake disc, driveline, brake mount bars and calipers, adjust the park brake (see Park Brake Caliper, Reassembly Installation and Adjusting, step 5).
2. If the brake disc (and/or brake pads) were replaced, the pistons in the hydraulic calipers must be bottomed in their bores. (See Single Piston Hydraulic Brake Caliper section.)



SERIES III ALL MODELS **Hydraulic Test Specifications**

(American Standards)

PREVIEW - YOUFIXTHIS.COM

Hydraulics
M00073-R1

August, 1981

(Supercedes All Previous Specifications)

Download full manual at youfixthis.com

M00073R1

System Principles & Diagnosis

Customers must be made aware that the hydraulic filters require changing at the first "100" hours on a new machine. After that they should follow the recommended 500 hour change interval outlined in the tractor operator manual. (See Fig. 9)

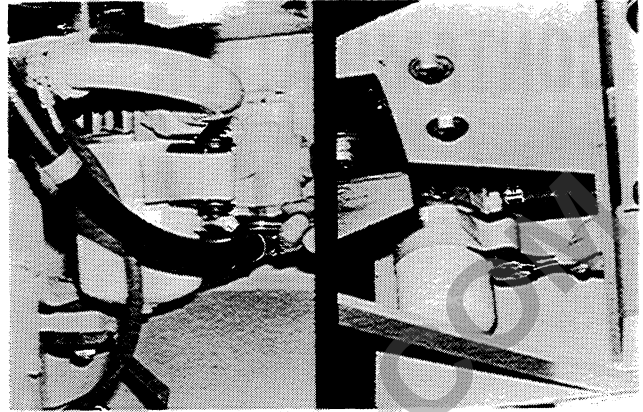


Figure 9:

Hydraulic oil requires draining and new oil installed every 1000 hours. This should be done while the oil is "warm." The cost of scheduled maintenance rarely equals the cost of downtime and repairs. (See. Fig.10)

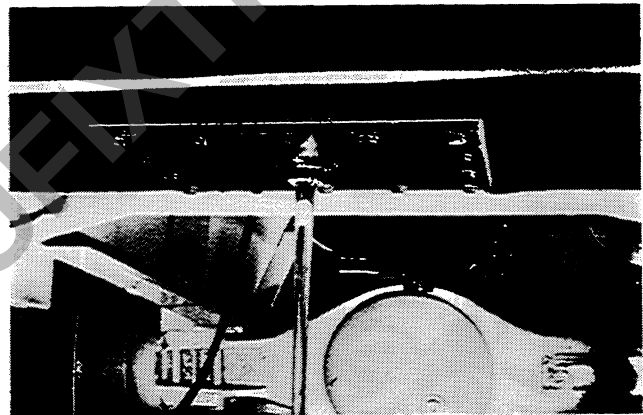


Figure 10:

After the oil is drained, remove the access cover from the reservoir and remove the suction screen for cleaning or replacement. Whenever the access cover is removed for suction screen cleaning or replacement, the floor of the reservoir should be checked for contamination and cleaned with solvent, if necessary, before installing the suction screen. If severe contamination is found, complete system "flushing" may have to be considered. (See Fig. 11)

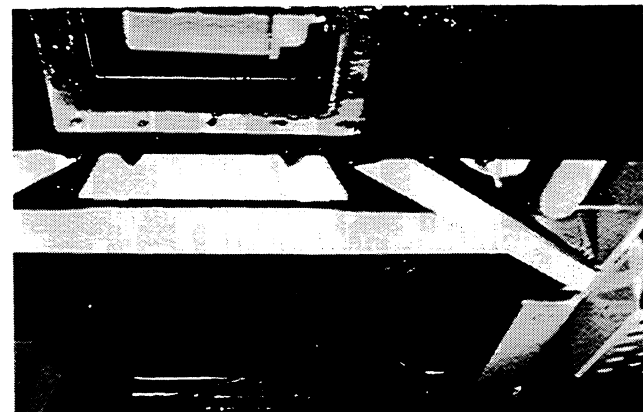


Figure 11:

STEIGER

GENERAL CHASSIS

SERIES I SERIES II

WILDCAT SUPERWILDCAT BEARCAT
COUGAR TIGER



IMMEDIATE ACTION LETTER REFERENCE:

No./Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

SERVICE NEWS REFERENCE:

No./Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____

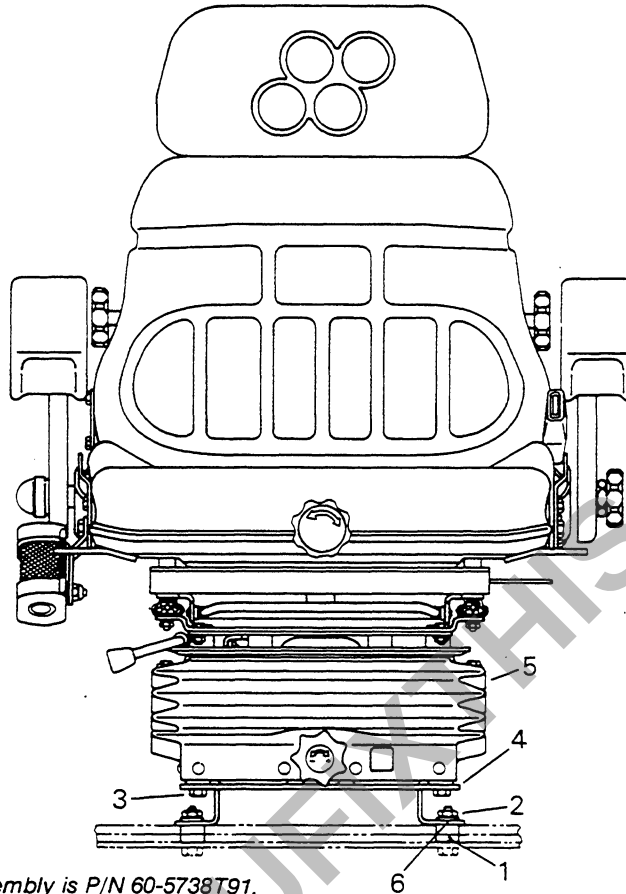
SERVICE BULLETIN REFERENCE:

No./Date

1 _____ 4 _____ 7 _____

2 _____ 5 _____ 8 _____

3 _____ 6 _____ 9 _____



NOTE: Complete Suspension Assembly is P/N 60-5738T91.

Seat & Suspension (Air Seat)

Ref.	Part No.	Description	Qty.
1	60-2286T1	Spacer	4
2	19-082	Lock Nut, 1/2 UNC G-B	4
3	40-1090	Capscrew (metric)	4
4	60-4789T2	Seat Mount	1

Ref.	Part No.	Description	Qty.
5	60-4793T91	Air Seat Assy (see the following 7 pages)	1
6	19-463	Washer, 1/2	4

HAND SIGNALS

Come To Me



Come to me (can also be come to me because I need assistance). Lift your arm vertically over your head with the back of your hand to the rear and turn your arm in large horizontal circles.

Raise Equipment



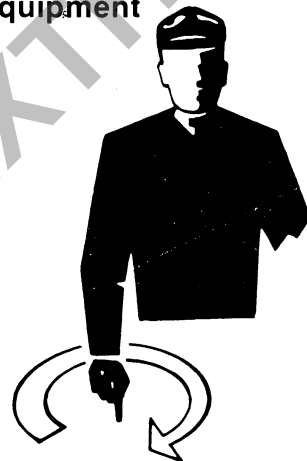
Raise equipment. Point up with one finger and at the same time, move your hand in a circle at head level.

Decrease Speed



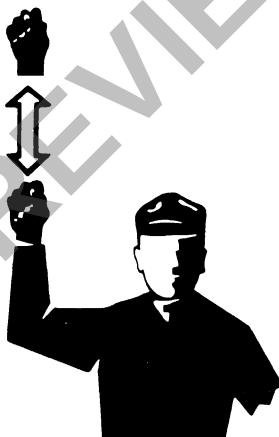
Decrease speed. Put your arm out horizontally with the back of your hand up and then move your arm down about 45 degrees minimum many time. Keep your arm straight and do not move your arm above your shoulder.

Lower Equipment



Lower equipment. Point to the ground with one finger and at the same time move your hand in a circle.

Increase Speed



Increase speed. Lift your hand to shoulder level with your fingers closed. Move your closed hand fully up and then return to shoulder level. Do this fast, many times.

Stop



Stop. Raise your arm fully up with the back of your hand to the rear. Keep this position until the signal is understood.

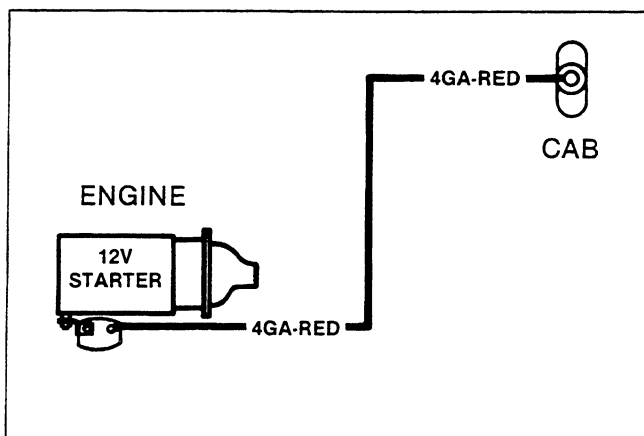


Figure 1:

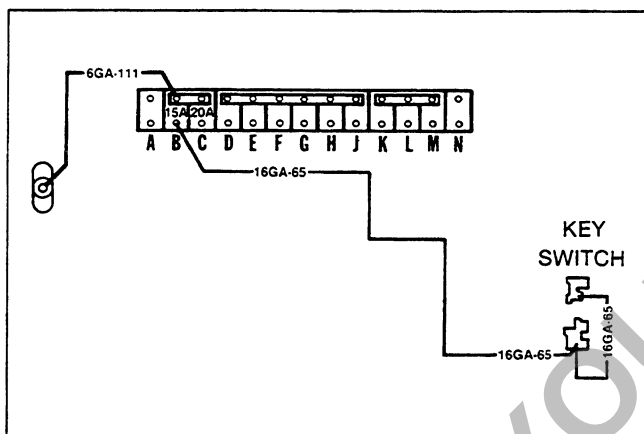


Figure 2:

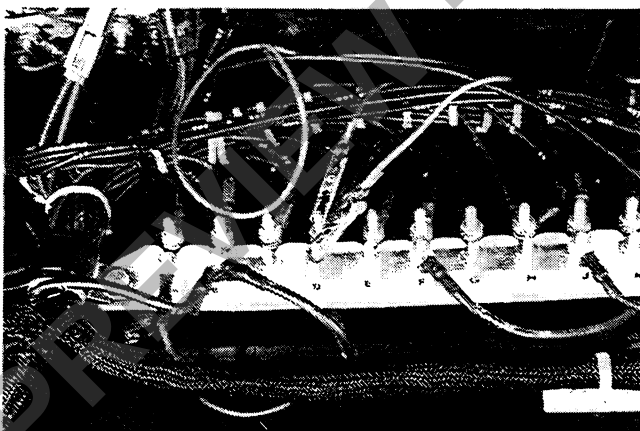


Figure 3:

Troubleshooting The Starting Circuit

The starting circuit begins at the midpoint of the charging circuit, where the positive battery cables connect to the starter solenoid. Here, a feed cable supplies all cab loads through an insulated stud on the front wall of the cab.

Inside the cab current is available from this stud to a buss bar and circuit breakers.

Circuit breaker "B" supplies the master key switch. This circuit is energized from the battery at all times. It is ready to perform when the key switch is asked to transmit electrical current to other functions relating to the switch position.

A simple test can be made on any circuit breaker when its related circuit is energized but does not function.

Connect a test light between the two breaker studs. If the light comes on, then the breaker is faulty.

BEGINNING OF APPLICATION CYCLE

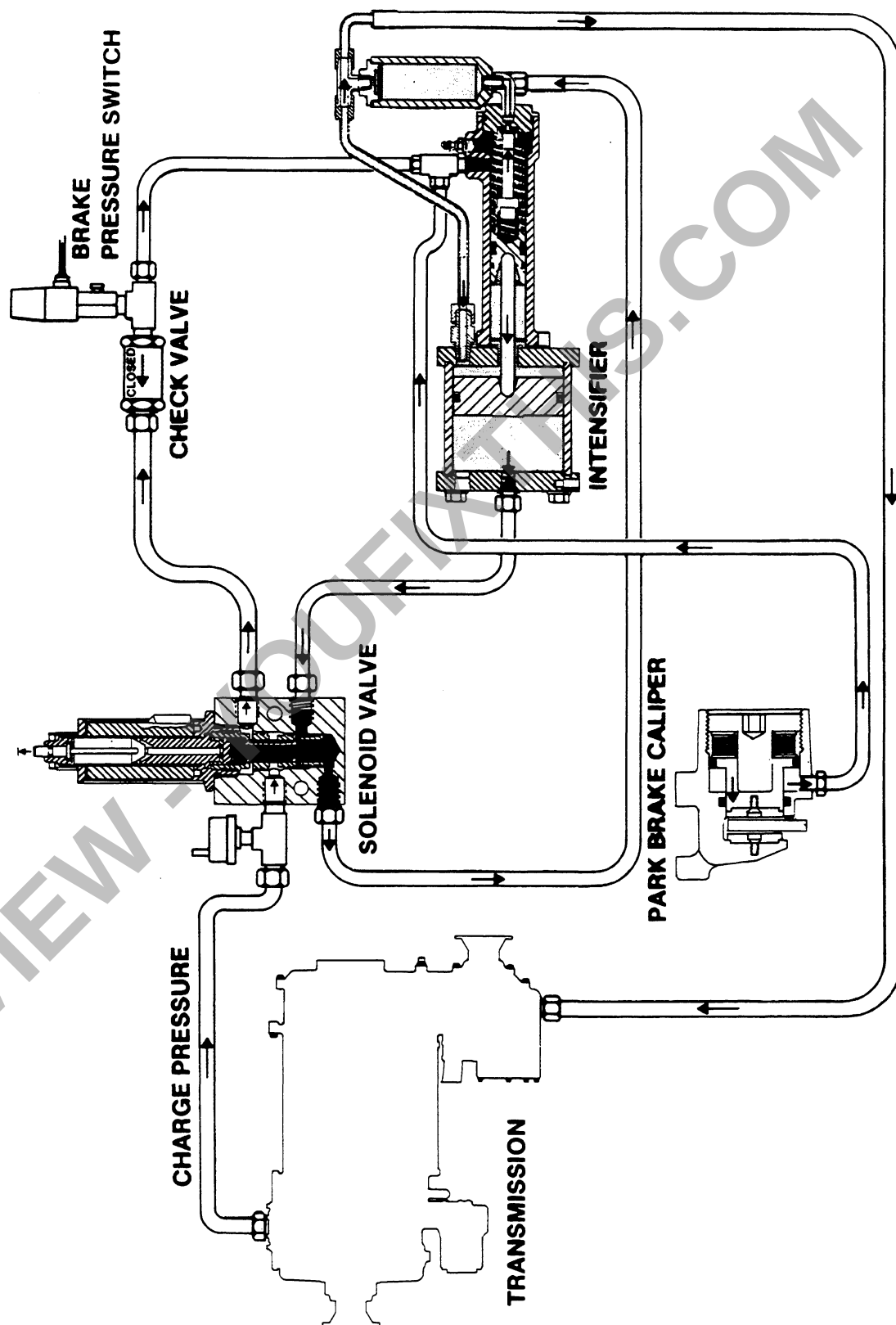


Figure 6:

PREVIEW ONLY

You're viewing 25 of 1474 pages

The full manual includes:

- All 1474 pages, complete
 - Searchable PDF (find any keyword)
 - No watermarks
 - Instant download
 - Print-ready quality
-

GET FULL MANUAL NOW

Steiger Series I-IV Service Manual



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual