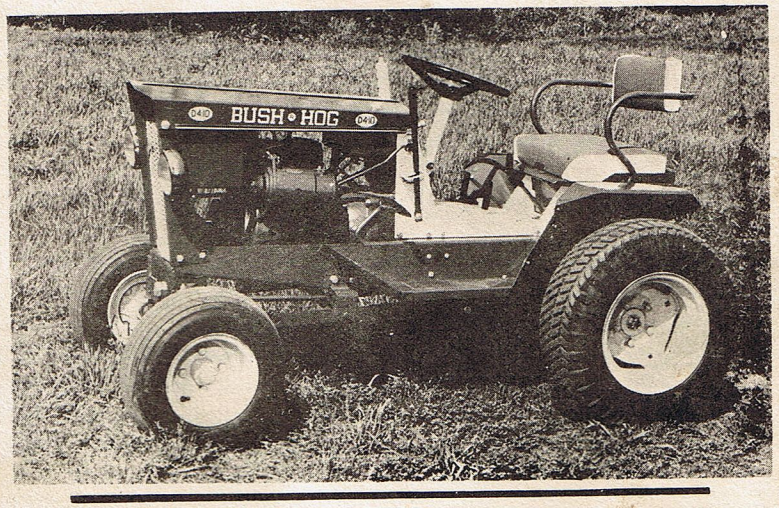
D4-10
Direct Drive



Owner's Manual

BUSH® HOG
INCORPORATED

SHAW MFG. CO. - GALESBURG, KANSAS
Division of Bush Hog, Inc. - Selma, Alabama

Warranty

Bush Hog Tractors are warranted to the original retail purchaser to be free from manufacturing defects under normal use and service for one year from the date of purchase or for 90 days, if the tractor is used for commercial or rental purposes. The Bush Hog Company will replace defective parts free of charge, except items warranted by the original manufacturer such as engines or other products that carry a separate warranty. When defective parts are returned, they must be prepaid.

This warranty will not apply to Bush Hog products repaired or altered outside of a Bush Hog dealer service station. Neither will the warranty apply on any failure resulting from misuse, negligence or accident.

The placing on a Bush Hog product of any part or attachment not approved by the Company shall void the warranty.

INTRODUCTION

The Direct-Drive tractor is manufactured to the traditionally high standards of Bush Hog, Inc. It has many quality features which have been designed with you, the customer, in mind.

Your dealer is sincerely interested in your new tractor and has the desire to help you get the most value from it. After reading this manual thoroughly, you will find that you can do many of the regular service jobs quickly and easily. However, when you are in need of parts or major service, be sure to see your dealer.

When you are in need of parts, be prepared to give your dealer both the tractor and engine serial numbers.

DEALER SERVICES

Your dealer offers complete tractor service. His trained personnel have access to accurate, detailed service information. Some of these dealer services are listed below.

1. Testing battery and electrical components.
2. Cleaning and adjusting carburetor.
3. Cleaning out engine carbon.
4. Testing engine compression.
5. Replacing motor-generator brushes, cleaning Commutator.
6. Adjusting Engine Governor speed.

SPECIFICATIONS

ENGINE

Manufacturer	Wisconsin
Model	TRA10D
Cylinders	One
Cycle	Four
Bore and Stroke	3 1/8 x 2 7/8"
Displacement	22.05 cu. in.
Speeds	1600 to 3600 rpm
Horsepower	10.10 at 3600
Compression Ratio	7.00 to 1
Valve Clearance (Intake) Cold	.006
Valve Clearance (Exhaust) Cold	.012

TRANSMISSION

TYPE TRANSAXLE
4 FWD, 1 Rev.

LUBRICANT
4 pints Shell Micoma No. 72 the equivalent 90 wt. trans. lubricant

CAPACITIES

FUEL TANK
1 US Gal.

CRANKCASE
1 Quart

ELECTRICAL SYSTEM

BATTERY
45 AMP 12 Volt
20 hr. rating

STARTER MOTOR
Delco Remy

IGNITION
Key Type

STARTER SWITCH
Key Type

SPARK GAP
.030

GENERATOR
Delco Remy

BREAKER POINT GAP
.020

DIMENSIONAL DATA - ALL MODELS

	TRACTION TIRES	HIGH FLOTATION TIRES
WHEEL THREAD		
Front	29 inches	29 inches
Rear	24½ or 30½ inches	24½ or 30½ inches
TIRE SIZES		
Front	16 x 6.50 x 8	16 x 6.50 x 8
Rear	23 x 8.50 x 12	23 x 8.50 x 12
TIRE INFLATION		
Front	12 psi	8 psi
Rear	6 psi	5 psi
DIMENSIONS		
Wheel Base	49 inches	49 inches
Overall length	68 inches	68 inches
Overall Height	38¾ inches	38¾ inches
Overall width (max.)	36 inches	39 inches
(min.)	33 inches	33 inches
Weight	700 lbs.	

BRAKES
Double acting foot operated

CLUTCH
Automotive Disc Type

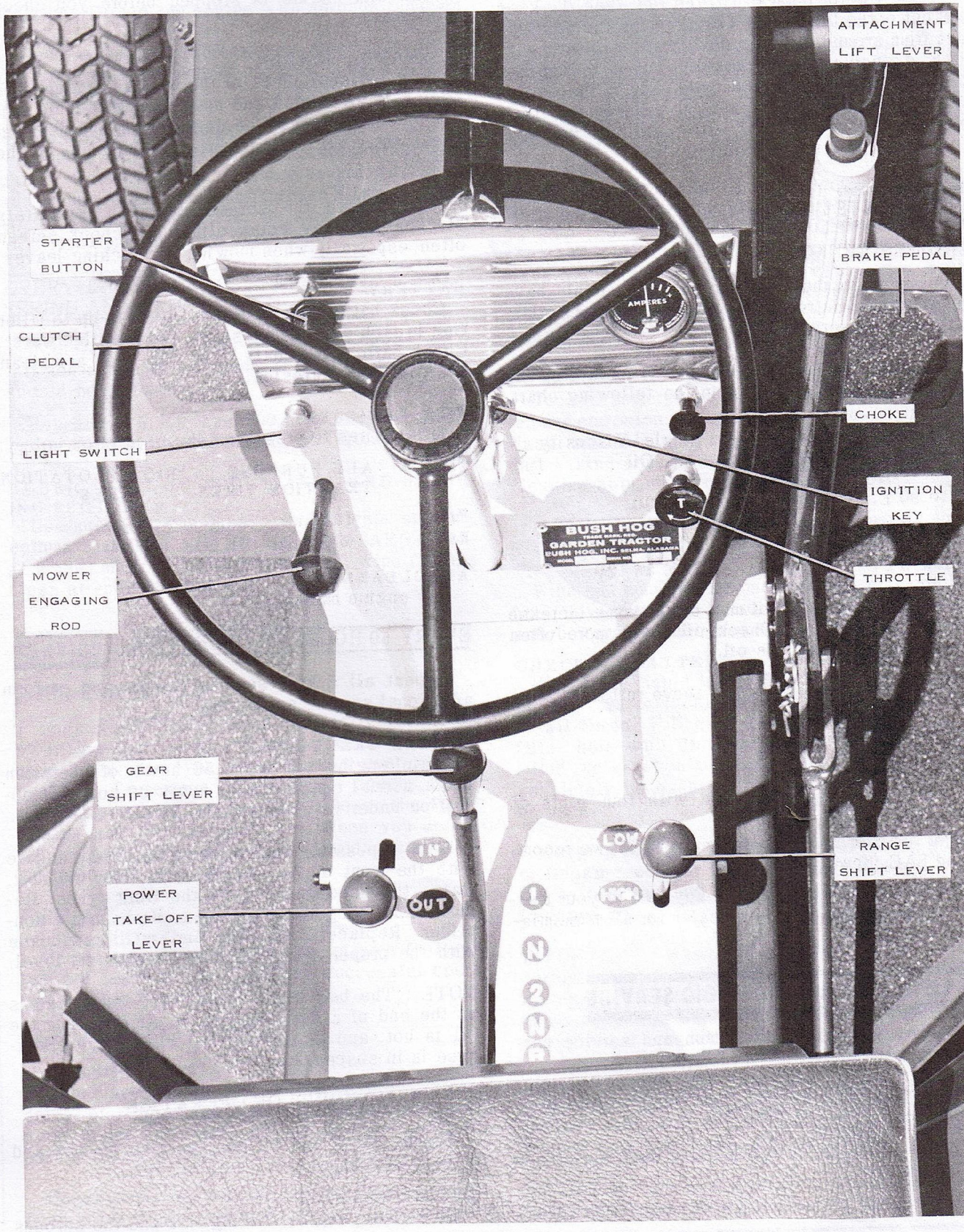
STEERING
Open Gear 6.4 to 1

WHEEL BEARINGS
FRONT - Taper Roller
REAR - Sealed Ball

GROUND SPEEDS MPH

GEAR	ENGINE RPM
1 Low	3600 - 1.99
2 Low	3600 - 3.23
R Low	3600 - 3.89
1 High	3600 - 5.86
2 High	3600 - 9.66
R High	3600 - 9.66

CONTROLS


ATTACHMENT LIFT LEVER
STARTER BUTTON
BRAKE PEDAL
CLUTCH PEDAL
CHOKE
LIGHT SWITCH
IGNITION KEY
THROTTLE
MOWER ENGAGING ROD
GEAR SHIFT LEVER
RANGE SHIFT LEVER
POWER TAKE-OFF LEVER
AMPERES
BUSH HOG
GARDEN TRACTOR
IN
OUT
LOW
HIGH
1
N
2
N
R

IMPORTANT : For all instructions pertaining to the operation of the tractor engine, refer to your instruction book for the Wisconsin Air Cooled Heavy Duty Engine TRA-10D.

FUELS

FILLING FUEL TANK

Raise tractor hood to fill the fuel tank. To keep dirt out of the tank while filling, wipe the dust and dirt from around the tank cover before removing it. Use a regular grade gasoline of a recognized brand. White gas may be used only if the octane rating is at least 75. Never use premium gasoline. NOTE : Do not mix oil with gasoline. Be sure fuel containers are absolutely clean.

LUBRICANTS

ENGINE CRANKCASE

Oil used in the engine crankcase should have an American Petroleum Institute (API) SAE classification of service MS.

According to the prevailing air temperature, use oil of viscosity as shown in the following chart.

Air Temperature Season	Single-Viscosity Oil
30°to 90°F. summer	SAE 30
-0°to 30°F. winter	SAE 10W
Below 0°F.	SAE 5W-20

Use of SAE 5W-20 oil may cause some increase in oil consumption. Check oil level more often when you are using this oil.

Do not fill engine crankcase above full mark.

TRANSMISSION

1. All Transaxles are filled with four pints of Mobil Oil C-90.
2. For refill or make-up oil in the field, we recommend SAE 90 weight oil.

Do not attempt to dismantle any part of your tractor transmission. See your dealer for all transmission service.

LUBRICATION AND PERIODIC SERVICE

The recommended lubrication and service periods for your tractor are as follows :

1. Daily, or every 5 hours of operation
2. Every 50 hours of operation
3. Every 100 hours
4. Every 500 hours of operation or each spring and fall season

The following procedures are in order of frequency.

DAILY OR EVERY 5 HOURS OF OPERATION

ENGINE CRANKCASE OIL LEVEL

Raise tractor hood, wipe off dust and dirt, and unscrew oil dipstick. If necessary, add sufficient oil of the proper viscosity to bring oil level up to the full(F) mark on the dipstick when the dipstick is screwed in tight. NOTE : Oil should not be over the full mark. Be sure the tractor is on level ground and engine is stopped before you check oil level.

FLYWHEEL SCREEN

Make a visual check of the outside screen. The engine is air cooled and must have an ample supply of air to prevent the engine from overheating. Clear away all dirt or debris covering any of the screen.

To be sure the screen is never completely blocked with dry grass clippings, check screen often, especially when mowing or mulching leaves.

BATTERY

Check battery, making sure liquid is up to filler ring in each cell. If necessary, add distilled water. Check battery terminals to be sure they are clean and free from corrosion.

TIRE PRESSURE

Inflate tires to pressures shown in chart below :

TIRE	ALL PURPOSE TRACTION TIRES	HIGH FLOTATION TIRES
Front	12 psi	8 psi
Rear	6 psi	5 psi

AIR CLEANER

See engine manual.

EVERY 50 HOURS OF OPERATION

Repeat all 5 hour service checks and perform additional service as follows :

ENGINE CRANKCASE

Drain engine oil every 50 hours of operation under normal conditions or every 20 hours of operation under very dusty conditions.

If it is possible, park tractor on slight incline with the front of the tractor lower than the rear. Raise the hood and remove the front grille. Remove drain plug and allow oil to drain into a container. Replace drain plug and refill crankcase with the proper grade oil to the proper oil level.

NOTE : The best time to drain the crankcase is at the end of a day's operation. At this time the oil is hot, and all foreign material in the crankcase is in suspension.

EVERY 100 HOURS OF OPERATION

Repeat all 5 and 50 hour service checks and perform additional service as follows :

ENGINE SHROUDS

Be sure the engine cooling fins and the shrouds

which enclose them are clean at all times. Dirt, oil and other debris which may have entered the screens could lodge on coolong fins thereby restricting the normal air flow. This causes serious damage to engine parts because of over heating.

Remove the bolts which hold the engine shroud in place and brush out all dirt from the cooling fins. Clean the inside of the shroud thoroughly. Soak off all oil deposits with a safe solvent. Caution : Do not run engine with shrouds removed.

Remove rotating screen and check for oil or dirty fins on the flywheel. Be sure screen is clean and not damaged.

TRANSMISSION OIL LEVEL

Remove oil level(filler) plug with stick type gauge. When required, use a pressure oil can to add transmission lubricant through filler hole until oil shows on dipstick. Be sure the tractor is on a level surface when checking.

EVERY 500 HOURS OF OPERATION OR EACH SPRING AND FALL SEASON

If the tractor is to be placed in storage, each fall and again in the spring the following service should be performed :

Repeat all 5, 50, and 100 hour service checks and perform additional service as follows-

LUBRICATION OF FRONT AXLE AND STEERING SECTOR

Use pressure gun grease to lubricate steering column and front axle fittings with SAE(seasonal grade) multi-purpose type grease. Wipe fittings clean after lubrication.

SERVICE

HOOD AND GRILLE

Engine and related parts are easily accessible by lifting and raising the hood. The hood will remain open after you raise it to a near vertical position. To remove the grille for access to the ignition points, oil drain, etc., release the spring clamps and lift the grille out. When you are replacing the grille, be sure the guide pins on the grille bottom are in place.

FUEL SYSTEM

Proper inspection and service of your fuel system are important to continued successful operation of your tractor.

ELECTRICAL SYSTEM

ADJUSTING POINTS

Disconnect spark plug cable to prevent accidental starting of the engine. Remove the ignition point cover and rotate engine flywheel until the points are fully open.

Check point gap with a .020 inch Feeler guage. If an adjustment is required, loosen locking screw and move screwdriver in V-slot until the points are properly set.

After tightening the locking screw, recheck the point gap. To replace points, remove screws. Be sure lockwashers are in place before reassembly.

SPARK PLUG GAP

Check spark plug gap and condition of electrodes after every 100 hours of operation. Distance between electrodes should be .025 inch. Bend the outer electrode only for proper gap.

If electrodes have burned short or have become pitted, install a new spark plug. Use a spark plug wrench to replace plug. Always use a new spark plug gasket when replacing plug. Tighten plug to at least 27 ft. - lbs. torque.

BATTERY

Your tractor has a 12 volt electrical system. When you are replacing the battery, use a 12 volt 45 amp- 20 hour rating. CAUTION : To prevent accidental operation of the starter or engine, always disconnect the spark plug cable when working on the electrical system. Also do this when you are making adjustments to the engine or other moving parts.

CLEANING BATTERY

Remove battery cables and use a wire brush to remove corrosion from around the battery terminals. Wash terminals with a solution consisting of one part baking soda to four parts water. Do not allow cleaning solution to run into battery cells.

Connect battery cables and coat terminals with petroleum jelly. Be sure the cables are tight.

Wipe and wash entire battery case, platform and hold down straps with clear water. Be sure top and bottom vent holes in each cell cap are open.

CHECKING BATTERY WATER LEVEL

Check the liquid level of each cell by removing the cap. Water should completely cover the cells at all times. Fill each cell to ring level inside filler hole with distilled water. Use clean distilled water when possible to fill battery. When absolutely necessary, clean drinkable water may be used.

Keeping the liquid at proper level during winter or freezing weather is especially important. Also the battery must be kept fully charged to prevent freezing.

IMPORTANT : When adding water to the battery during freezing weather, be sure the engine is running and continues to run until the water has had a chance to mix thoroughly. This running time should be at least one hour.

Battery connections should be tight at all times, especially when batteries are being charged. Loose cables will cause arcing and pitting of the connections and cause eventual failure.

NOTE ; Be careful not to allow sparks or flames near a charged battery.

TROUBLE SHOOTING

HARD STARTING

A.FAULTY IGNITION

Check for presence of spark by disconnecting high tension wire from the plug and holding the wire close to the cylinder head while cranking the engine with the starter. If there is no spark, check to see if :

1.Breaker point gap is incorrect.
2.Breaker points are worn or pitted. Replace
3.Spark plug gap is incorrect.
4.Spark plug electrodes are pitted or fouled. Replace plug.
5.If the foregoing fails to correct the problem, see your dealer.

B.FAULTY CARBURETION

1.Gasoline may not be getting to the carburetor because of an air lock in the line. Lines may be gummed and plugged.
2.Carburetor may be dirty or out of adjustment.

If the engine can be turned over slowly by hand with little effort, there is a loss of compression. See your dealer or serviceman.

ENGINE MISSING UNDER LOAD

A.Check spark plug for proper gap.
B.Check for lean fuel mixture. Adjust the carburetor high speed screw.
C.Check for dirty(fouled) spark plug or an improper type plug.
D.Pitted or worn Breaker Points should be replaced with a new set.
E.See your serviceman for proper ignition and carburetion adjustments.

BACKFIRING

A.Check carburetor for lean fuel mixture.
B.Check for sticky intake valve or improper ignition. See your serviceman or dealer.

KNOCKING

A.Check fuel supply for low octane rating. Use only quality grade of a regular gasoline.
B.Check engine for overheating. See overheating below.
C.Check crankcase oil level. Fill to (F) mark on dipstick. NOTE: If an engine knock has developed because of lack of crankcase oil, have your dealer check condition of the piston rod and cap.
D.See your serviceman for possible loose connecting rod, improper timing or excessive carbon in combustion chamber.

LOSS OF ENGINE POWER

A.OVERHEATING

1.Check and clean screens and engine shrouds.
2.Using premium gasoline with high octane rating. Use regular gas only.
3.Check carburetor for lean fuel mixture.
4.Check oil dipstick for excessive oil in engine crankcase. Do not fill above oil level mark.
5.Check breaker points for proper gap.

B.DIRTY AIR CLEANER

1.Drain oil from the cleaner.
2.Rinse the cleaner with kerosene.
3.Replace the oil.

C.PARTLY CLOSED CHOKE

1.Check to be sure the choke control cable is not jammed.
2.Choke must be completely open (choke lever down) after engine is warmed up except on extremely cold days.

ENGINE OPERATING ERRATICALLY

Check the following:

A.Carburetor set too lean
B.Clogged fuel line
C.Water in fuel
D.Faulty choke control
E.Loose electrical connections
F.Air leaks in carburetor connections or gasket
G.Carburetor jet clogged
H.Loose throttle cable

ENGINE WILL NOT IDLE

A.Check carburetor adjustments
B.Check for dirty carburetor
C.Check and set spark plug gap
D.Check carburetor for air leaks in gasket
E.See your serviceman for possible leaky valves or faulty condenser.

TRANSMISSION WILL NOT STAY IN GEAR

A.Shift gear firmly without letting gears grind before engaging.
B.See your serviceman to replace worn gears

BRAKES NOT EFFECTIVE

A.Adjust brake linkage
B.Replace brake shoes if they are worn excessively. See your serviceman

IMPROPER STEERING OR EXCESSIVE FRONT TIRE WEAR

Check wheel alignment and toe-in

CLUTCH HARD TO OPERATE

Check linkage control and springs

STARTER INOPERATIVE OR WILL NOT TURN ENGINE

A.Check for discharged battery
B.If rotary mower drive is engaged, disengage. See mower operator's manual
C.Tighten motor-generator belt
D.Check electrical connections

TRACTOR WILL NOT MOVE WITH ENGINE RUNNING

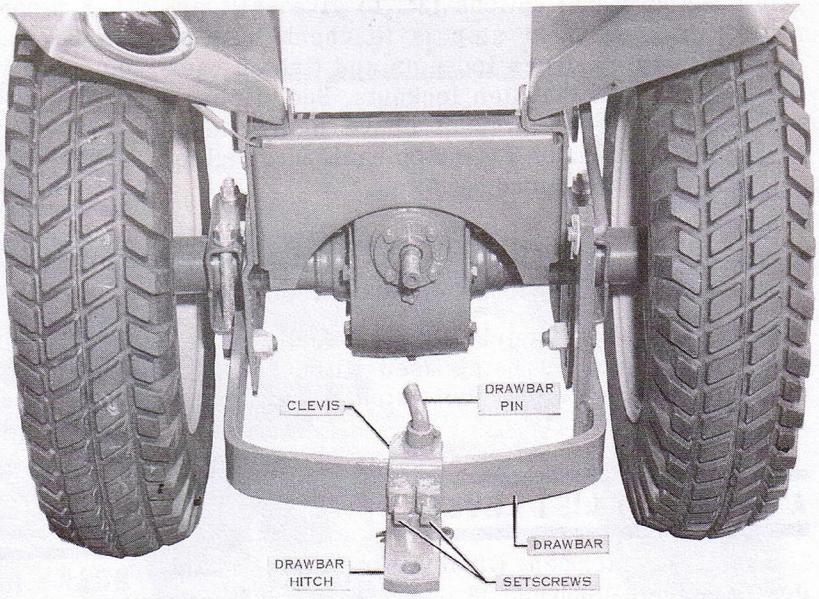
A.Be sure tractor is in gear
B.Check drive coupling
C.Check axles. If they are turning, look for sheared key.

USE OF DRAWBAR HITCH

The dual purpose drawbar hitch can be attached to the drawbar as shown for general use, or it can be reversed on the drawbar with the clevis to the rear for use with a plow or clutivator.

If the hitch is to be used with a plow or cultivator, remove the hitch by loosening the two setscrews and removing the drawbar pin and the spacer. Attach the hitch to the drawbar so that the clevis end of hitch can be used. Tighten the two setscrews. You may also attach the hitch at any point on the drawbar by loosening the setscrews and moving the hitch to the desired position.

Use the attachment lift lever (page 8) to raise and lower all rear mounted attachments.



HITCH FOR REAR ATTACHMENTS

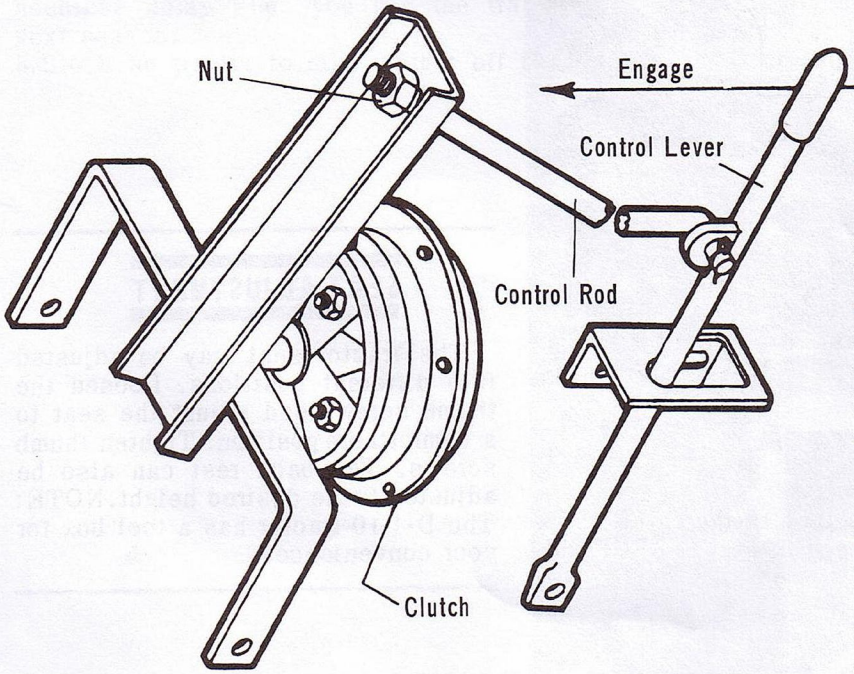
REAR WHEELS

Rear wheels are factory assembled in the narrow (27-inch) tread. Wheels can be turned around on the hubs for a wide (33-inch) wheel tread for greater stability. Remove wheel bolts, turn wheel around with valve stem inward, and reassemble on hub.

FRONT AND REAR TIRE SELECTION

1.Use surburban 8.50 x 12 rear and 16-6.50 x 8 front for travel over soft ground or areas where tire tracks may be objectionable.
2.Use traction tire 16-6.50 x 8 front and 8.50 x 12 rear for greater traction when working heavier loads.

1. 2.



ADJUSTMENT OF IMPLEMENT CLUTCH S2371

The implement clutch on your tractor was set at the factory and should not need adjusting. However, in case of excessive wear, it is easily adjusted.

1.If clutch does not disengage when lever is pulled back, the nut on the control rod needs to be tightened. (Do all work with tractor shut off), With the control lever in the forward position, tighten nut 3 to 4 full turns. Put lever in back position. With your hand turn clutch pulley, if pulley turns freely of drive pan, your clutch is now in adjustment. CAUTION: Do not tighten nut more than necessary.

2.If the above instructions fail to give satisfactory results the next step is to check nuts on front of clutch. Loosen locknuts and tighten back nut one full turn. Tighten locknuts. See if clutch will operate. If not, repeat above instructions. NOTE: A maximum of 5 turns on each nut. Tighten all nuts the same amount of turns.

Should the clutch still fail to operate there is a chance you have a defective or worn part. Take the clutch to your local dealer for servicing.

NOTE: For longer clutch life it is recommended that when tractor is being used without attachments on the clutch that the clutch be engaged at all times.

ATTACHMENT LIFT LEVER

When the attachment lift lever is in the forward position, the attachment is in the raised position. Moving the lever backward lowers the attachment. Press thumb release and move lever until attachment operates at desired height. Removing pressure from the thumb release locks the operating lever and the attachment in desired position.

To set the lever in float position, press thumb release. Lock in position with lock lever.

FRONT WHEEL TOE-IN

Measure distances A and B (page 9). The tractor has proper toe-in or alignment when dimension A is 3/16 inch less than dimension B. When it is necessary, remove ball joint on either end of Rod C and adjust till proper toe-in is obtained. Tighten jamb nut firmly.

TRACTOR CLUTCH ADJUSTMENT

Right and left directions in this adjustment section are determined by looking in the direction of forward travel.

1.Remove the quick pin from the clevis.
2.If gears do not mesh easily, shorten the adjusting rod by turning the clevis to the left. This will raise the clutch pedal and allow the gears to mesh easily.
3.Replace quick pin through clevis as it was before you made the adjustment.

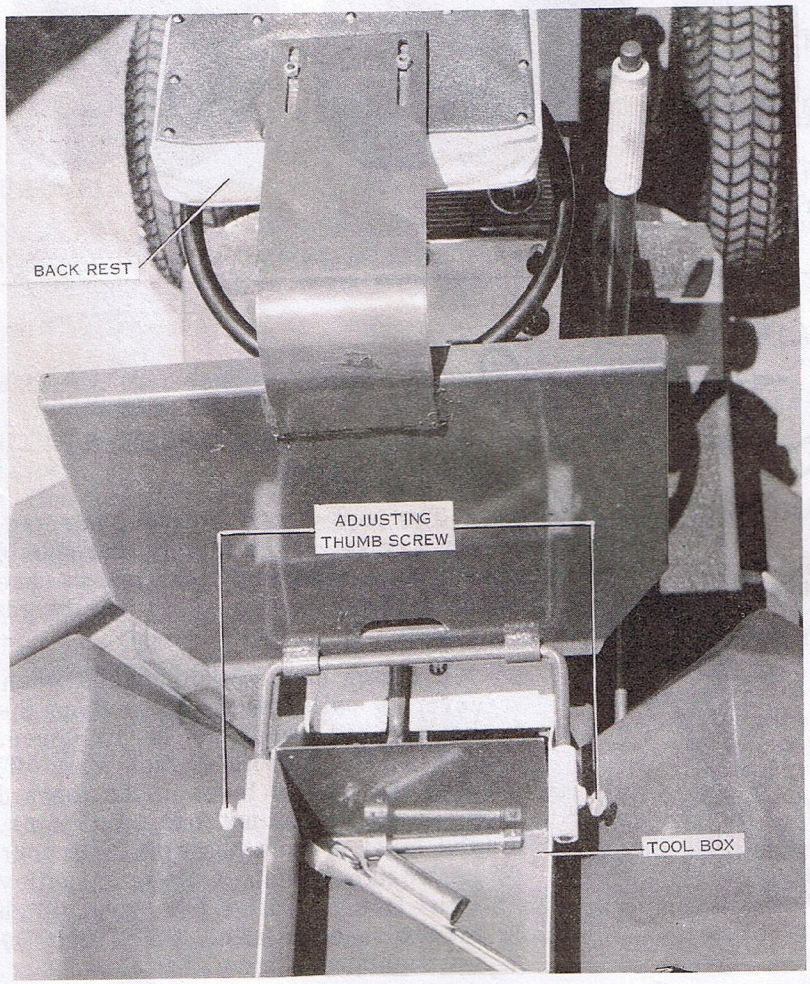
BRAKE ADJUSTMENT

1.The brake cable is attached to the brake pedal by a clevis. To adjust, remove pin form clevis and turn clevis clockwise to tighten.
2.To adjust emergency brake lock turn 1/4" nut on locking knob rod.

SEE YOUR DEALER FOR ADDITIONAL CLUTCH AND BRAKE ADJUSTMENTS.

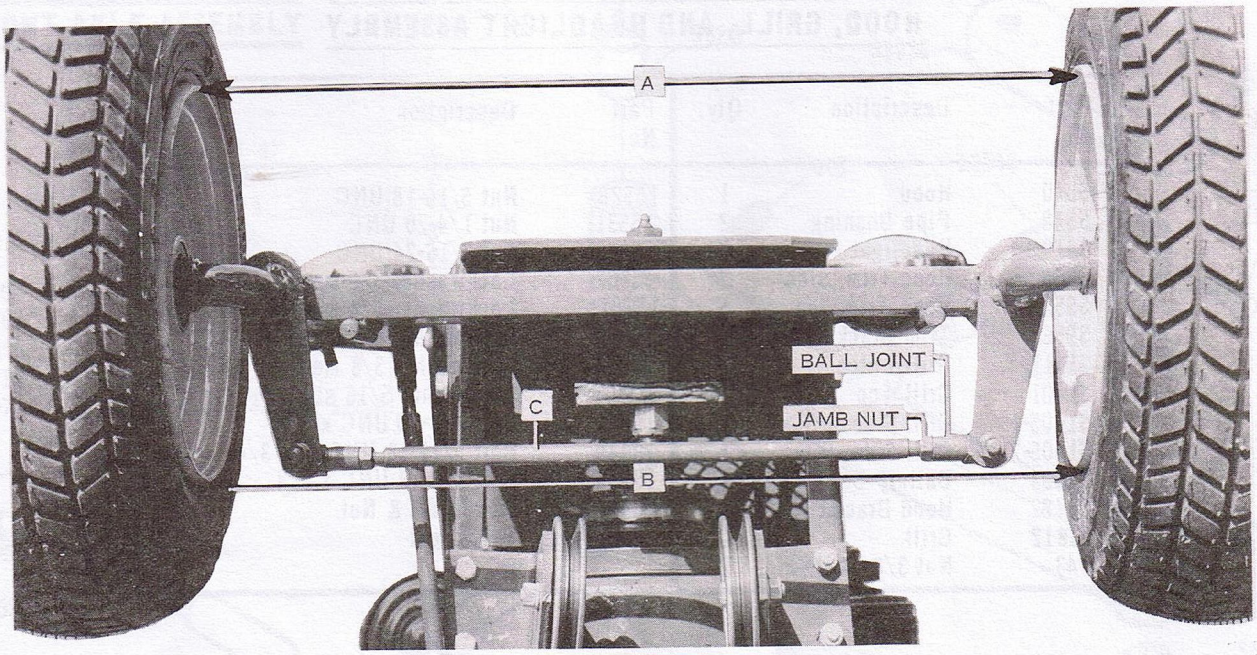
STORAGE

If your tractor will not be used for a period of



SEAT ADJUSTMENT

The tractor seat may be adjusted into different positions. Loosen the thumb screws and adjust the seat to a comfortable position. Tighten thumb screws. The back rest can also be adjusted to the desired height. NOTE: The D-4-10 tractor has a tool box for your convenience.



FRONT WHEEL TOE-IN

time such as through the winter season, perform the following operations:

Drain the gasoline tank and crank the engine to burn gas in carburetor..

Remove spark plug and pour in one tablespoon of SAE 30 oil. Turn engine over manually at least two times and replace spark plug.

1.Remove battery and store it where it will not freeze. Check water level and refill battery if necessary.
2.Clean tractor exterior thoroughly, removing all mud, dirt, grease and other materials.
3.To prevent rust, touch up all unpainted and exposed surfaces with paint.
4.Check all visible moving parts for wear, breakage or damage. Now is the time to order any parts required and make necessary repairs to avoid needless delay when you use the tractor again next season.
5.Block up tractor to take weight off tires. If it is possible, store tractor in a cool, dark place to prevent excessive tire deterioration.
6.Remove belt tension from all belts. Loosen motor generator.

Your dealer is equipped to give your tractor a complete service check and make recommendations for replacing parts which are in need of attention.

PREPARING TRACTOR FOR USE AFTER STORAGE

ENGINE

1.Drain and refill tractor crankcase with proper weight and grade oil.
2.Clean spark plug and set gap.
3.Check ignition point gap.

TRACTOR

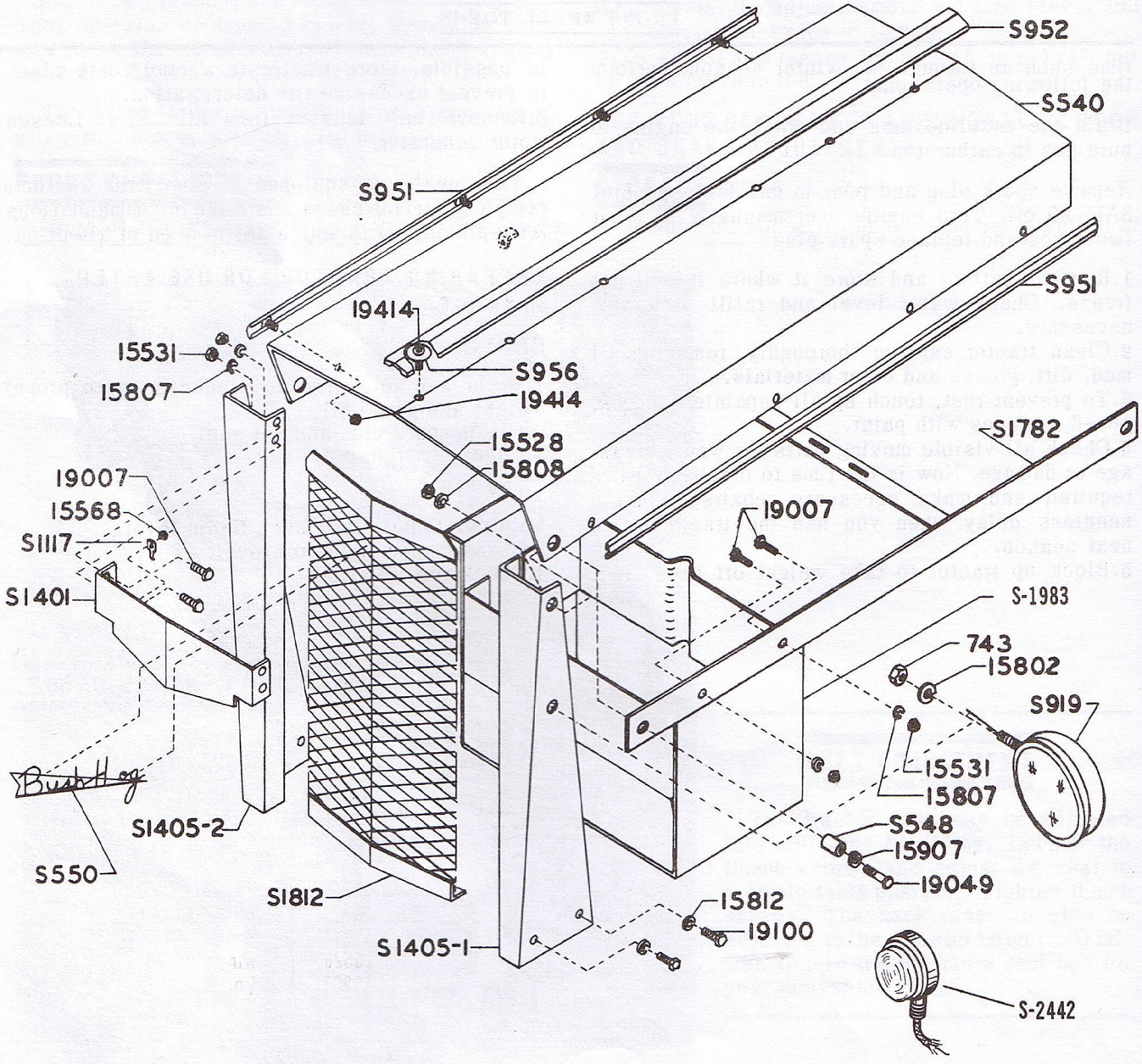
1.Reinstall Battery. Check liquid level.
2.Check transmission oil level.
3.Check tire inflation.

TRANSAXLE S2155

Part No.	Description
S98	Shim, Pinion Adjusting
S592	Key, Woodruff
S1007	Gear
S1008	Gear
S1009	Gear, Cluster
S1013	Collar, Shift
S1014	Shaft, PTO
S1019	Ball, Detent
S1020	Spring
S1036	Cone, Roller Bearing
S1039	Bearing, Ball
S1041	Housing, Differential
S1042	Pin Gear
S1043	Differential Assembly
S1044	Shaft, differential retainer
S1045	Shaft, differential cross
S1046	Pin, Retainer
S1047	Gear, Side
S1048	Gear, Ring
S1049	Gear
S1056	Gear
S1057	Collar, pinion shaft clutch
S1059	Bearing, Ball
S1060	Cup
S1061	Ring, Snap
S1062	Pinion, Bevel
S1069	Bearing, Roller
S1072	Ring, Snap
S1073	Ring, Snap
S1074	Ring, Snap
S1075	Ring, Snap
S1076	Bearing, Ball
S1077	Gear
S1078	Shaft
S1079	Bearing, Ball
S1082	Bearing, Ball
S1083	Dipstick
S1086	Dowell Pin
S1087	Retainer, Pinion Shaft
S1089	Seal, Oil
S1092	Key, Pinion Shaft
S1993	Shaft, Axle
S1996	Housing, Axle
S2013	Key, Woodruff
S2026	Plate, PTO Cover
S2044	Gasket, Shifter
S2045	Gasket, Axle Housing
S2775	Hand Grip
S2046	Gasket, Main Housing
S2047	Gasket, Cover
S2048	Gasket, PTO Cover
S2051	Shaft, Detent
S2052	Bearing, Ball
S3407	Lever Assembly
S2057	Housing, Shift
S2058	Retainer, Shift
S2078	Housing, Main
S2079	Housing, Aux.
S2080	Cover, Aux. Housing
S2081	Ring, Snap
S2082	Ring, Retaining
S2083	Ring, Retaining
S2084	Seal, Oil
S2085	Ring, "O"
S2096	Ring, Quad
S2097	Ring, Snap
S2156	Bolt, Ring Gear
S2182	Seal, Axle
S2237	Bearing, Ball
S2240	Plug, Magnetic Pipe
S2253	Spacer Washer
S2254	Spacer
S2255	Bushing
S2257	Shifter, High-low
S2278	Fork, PTO Shift
S2279	Arm, PTO Shaft
S2280	Arm, High-low
S2446	Roll Pin
S2700	Seal
S2766	Snap Ring
S3324	Shifter Block
S3321	Shifter Plate
S3562	Shifter Assembly
S3563	L.H. Axle Assembly
S3564	R.H. Axle Assembly
296	Cotter Pin
947	Capscrew
1239	Capscrew
15066	Capscrew
15110	Setscrew
15392	Pin, Roll
15523	Nut, Pinion Shaft Bearing
15567	Nut, Slotted
15800	Lockwasher
15801	Lockwasher
15808	Lockwasher
15812	Lockwasher
15903	Lockwasher
15910	Flatwasher
19097	Capscrew

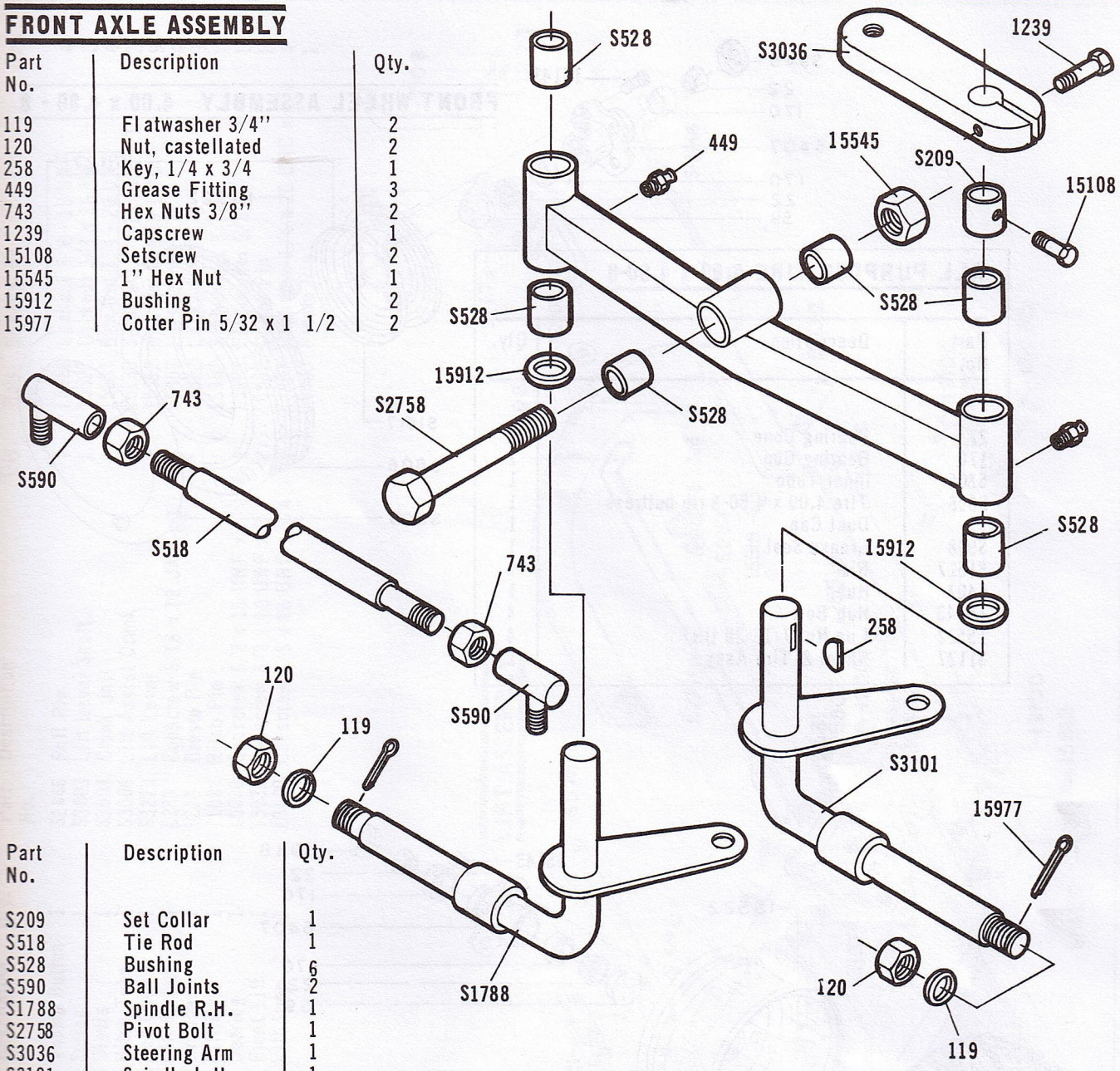
HOOD, GRILL, AND HEADLIGHT ASSEMBLY

Part No.	Description	Qty.	Part No.	Description	Qty.
S540	Hood	1	15528	Nut 5/16-18 UNC	2
S548	Pipe Bushing	2	15531	Nut 1/4-20 UNC	8
S919	Headlight	2	15568	Nut 3/16-24 UNC	1
S951	Hood Trim, side	2	15802	Lockwasher 3/8 med,	1
S952	Hood Trim, top	1	15807	Lockwasher 1/4 med.	8
S956	Trim Bracket	4	15808	Lockwasher 5/16 med.	2
S1117	Grill Latch	1	15812	Lockwasher 3/8 med.	4
S1401	Grill Top	1	15907	Flatwasher 5/16 std.	2
S1405-1	Grill Side, L.H.	1	19007	Bolt 1/4-20 UNC x 3/4	8
S1405-2	Grill Side, R.H.	1	19049	Bolt 5/16-18 UNC x 1 3/4	2
S1983	Battery Box	1	19100	Bolt 3/8-13 UNC x 3/4	4
S1782	Hood Brace	1	19414	Stove Bolt & Nut	14
S1812	Grill	1	S2442	Tail Light	1
743	Nut 3/8-24 UNF	2			



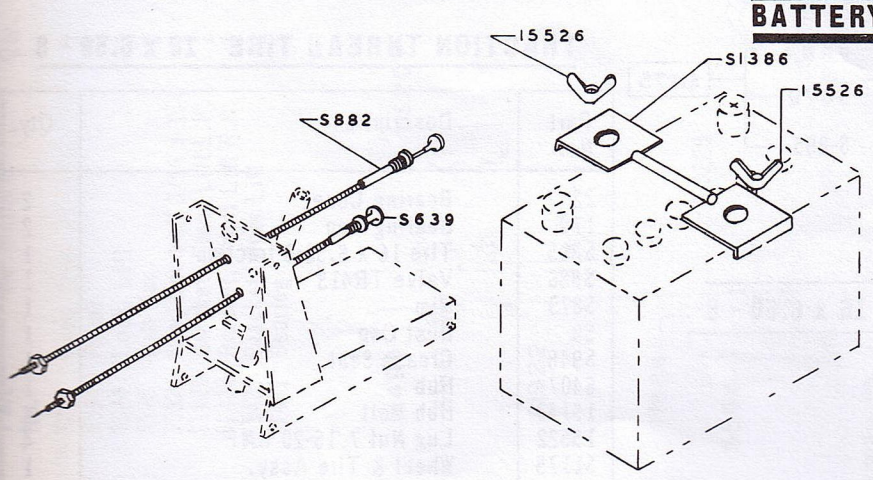
FRONT AXLE ASSEMBLY

Part No.	Description	Qty.
119	Flatwasher 3/4"	2
120	Nut, castellated	2
258	Key, 1/4 x 3/4	1
449	Grease Fitting	3
743	Hex Nuts 3/8"	2
1239	Capscrew	1
15108	Setscrew	2
15545	1" Hex Nut	1
15912	Bushing	2
15977	Cotter Pin 5/32 x 1 1/2	2



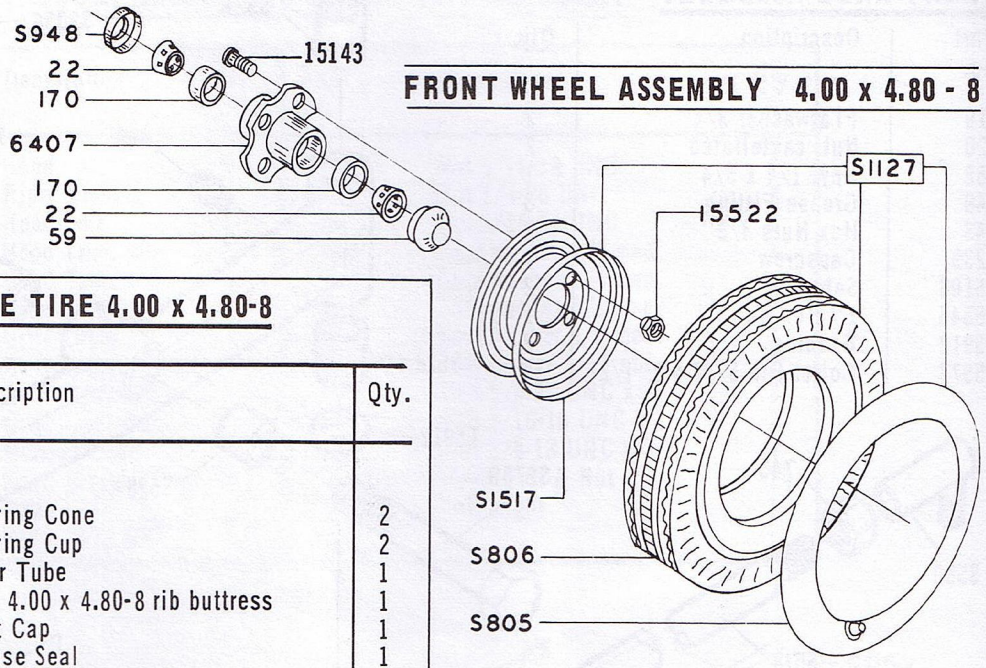
Part No.	Description	Qty.
S209	Set Collar	1
S518	Tie Rod	1
S528	Bushing	6
S590	Ball Joints	2
S1788	Spindle R.H.	1
S2758	Pivot Bolt	1
S3036	Steering Arm	1
S3101	Spindle L.H.	1

BATTERY CLAMP AND CONTROL CABLES



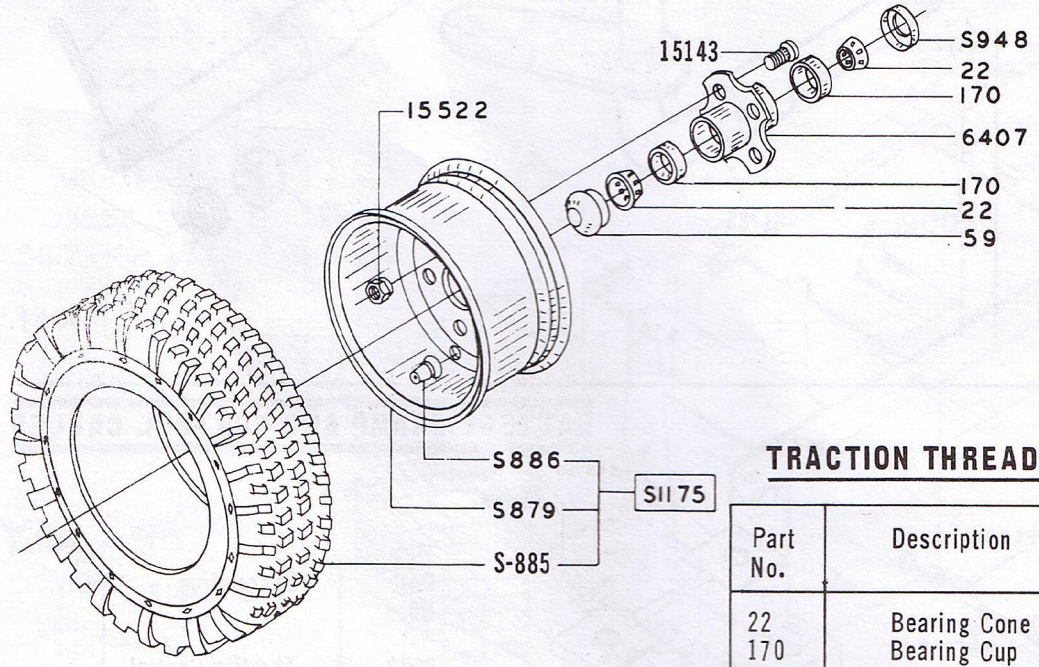
Part No.	Description	Qty.
S639	Throttle Control	1
S882	Choke Control	1
S1386	Battery Clamp	1
15526	Wing Nut	2
15807	Lockwasher	2

FRONT WHEEL ASSEMBLY 4.00 x 4.80 - 8



ALL PURPOSE TIRE 4.00 x 4.80-8

Part No.	Description	Qty.
22	Bearing Cone	2
170	Bearing Cup	2
S805	Inner Tube	1
S806	Tire 4.00 x 4.80-8 rib buttress	1
59	Dust Cap	1
S948	Grease Seal	1
S1517	Rim	1
6407	Hub	1
15143	Hub Bolt	4
15522	Lug Nut 7/16-20 UNF	4
S1127	Wheel & Tire Assy.	1



FRONT WHEEL ASSEMBLY 16 x 6.50 - 8

TRACTION THREAD TIRE 16 x 6.50 - 8

Part No.	Description	Qty.
22	Bearing Cone	2
170	Bearing Cup	2
S885	Tire 16 x 6.50-8 traction	1
S886	Valve TR413	1
S879	Rim	1
59	Dust Cap	1
S948	Grease Seal	1
6407	Hub	1
15143	Hub Bolt	4
15522	Lug Nut 7/16-20 UNF	4
S1175	Wheel & Tire Assy.	1

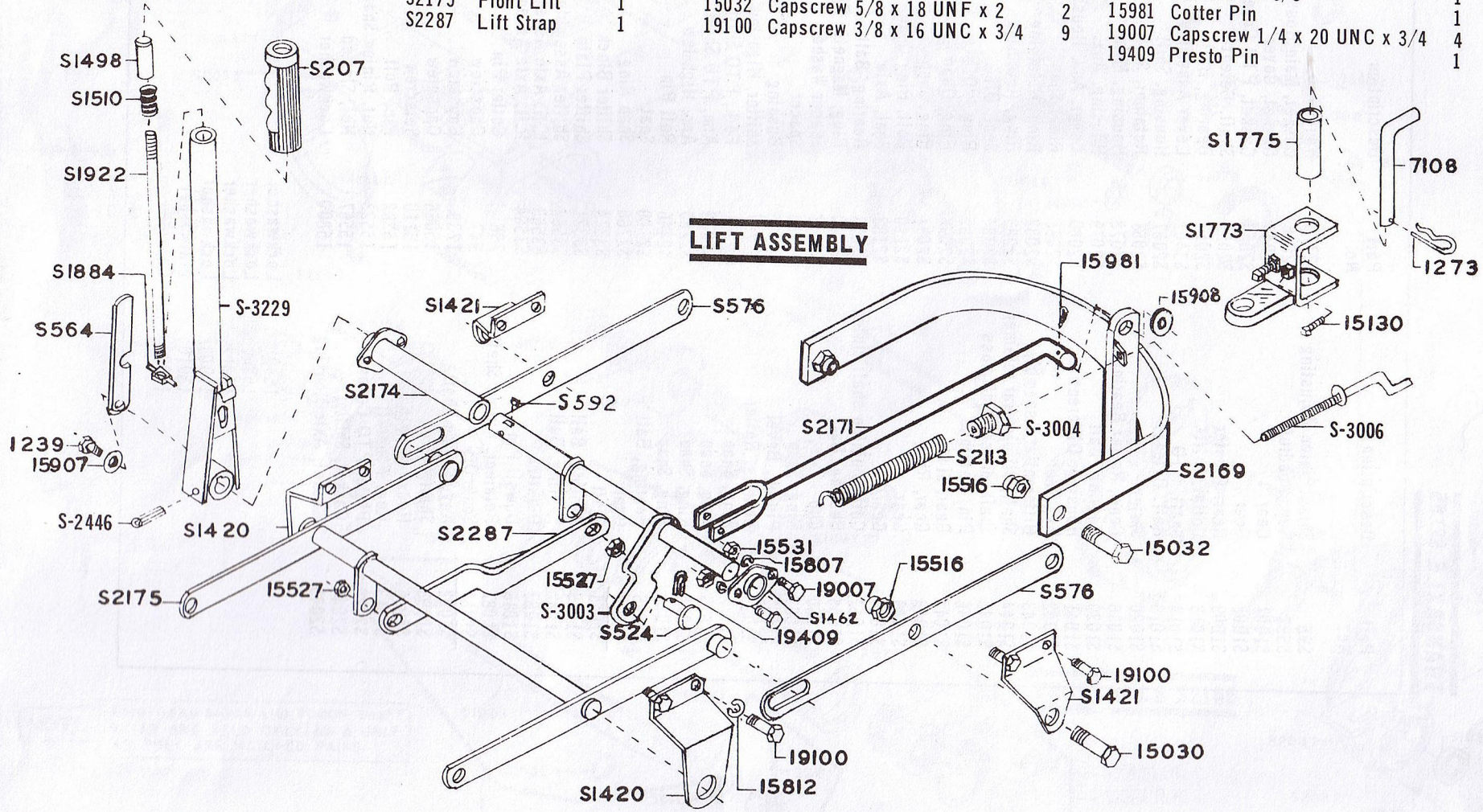
Part No.	Description	Qty.
S207	Hand Grip	1
S524	Rivet	1
S564	Lock, Lift	1
S576	Lift Bar	2
S592	Key, Woodruff 3/16 x 3/4	1
S1420	Bracket, Front Lift L.H.	1
S1420	Bracket, Front Lift R.H.	1
S1421	Bracket, Rear Lift	2
S1462	Bearing	1

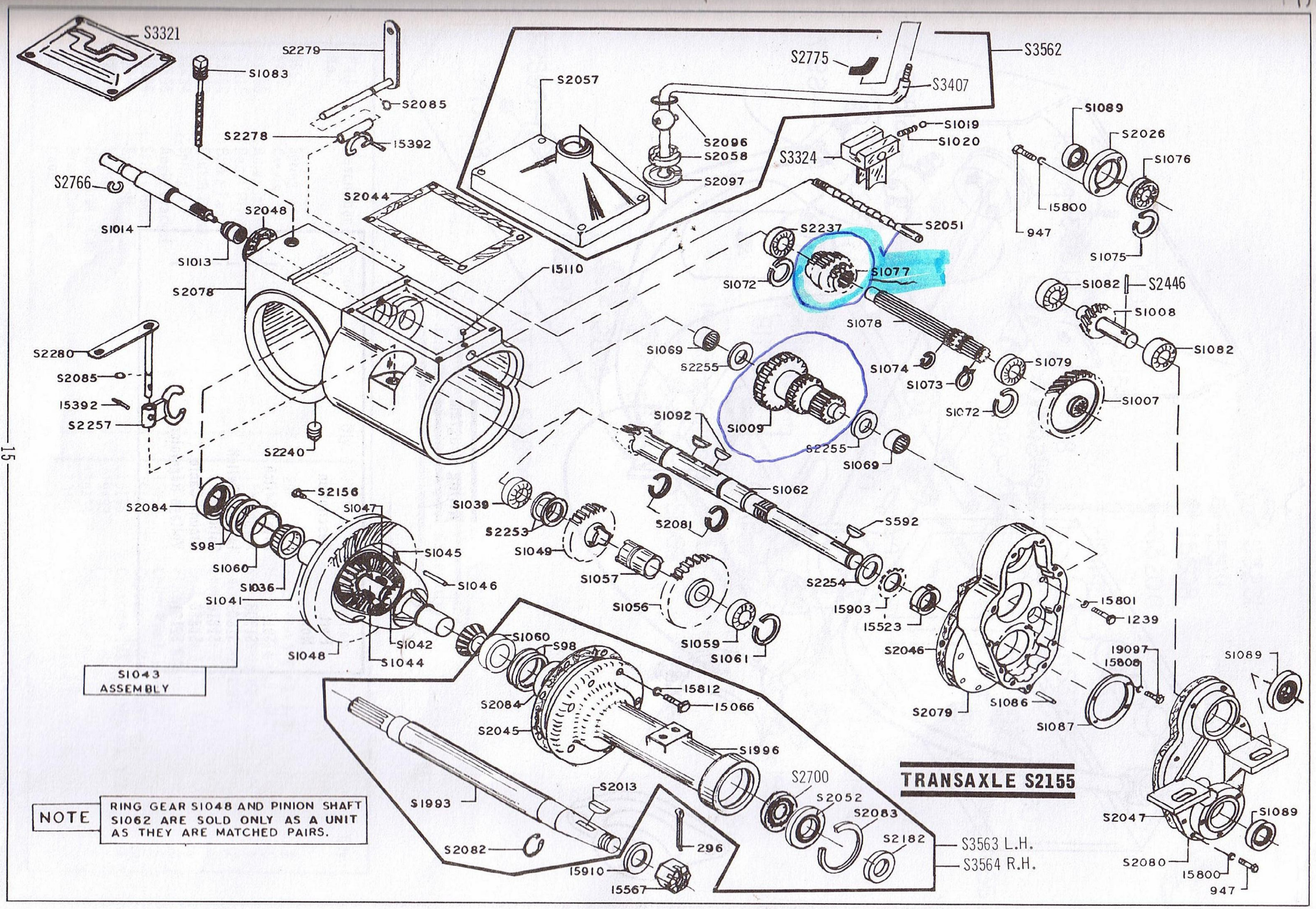
Part No.	Description	Qty.
S1498	Thumb Button	1
S1510	Spring	1
S1773	Clevis	1
S1775	Hitch Tube	1
S1884	Rod Lock	1
S2113	Lift Spring	1
S2169	Drawbar	1
S2171	Lift Rod	1
S2174	Bearing	1
S2175	Front Lift	1
S2287	Lift Strap	1

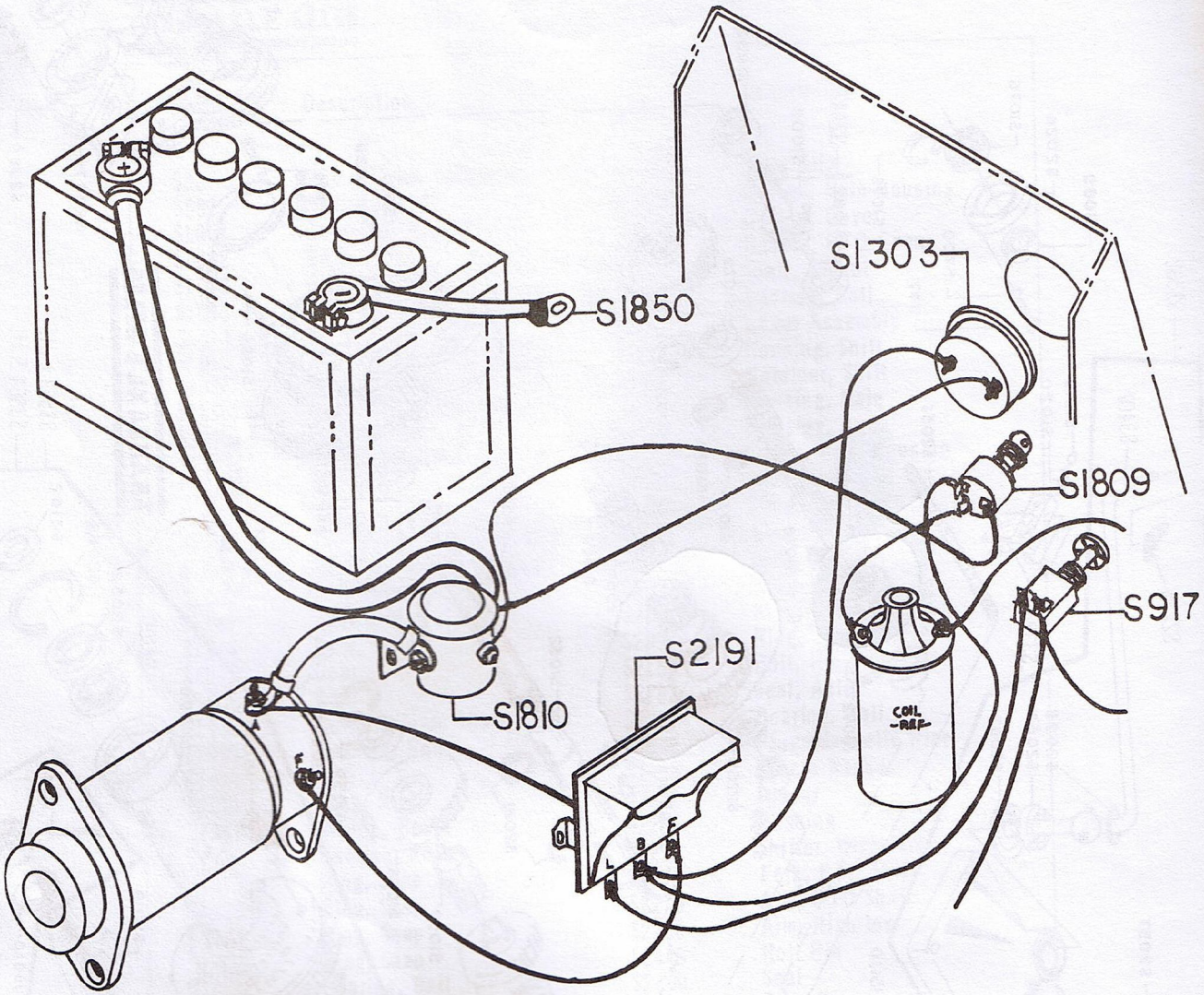
Part No.	Description	Qty.
S2446	Roll Pin	1
S3003	Lift Lever Shaft	1
S3004	Crank Unit	1
S3006	Lift Assist Crank	1
S3229	Lift Lever	1
1239	Capscrew 5/16 x 18 UNC x 1	1
1273	Presto Pin	1
7108	Hitch Pin	1
15030	Capscrew 5/8 x 18 UNF x 1 1/2	2
15032	Capscrew 5/8 x 18 UNF x 2	2
19100	Capscrew 3/8 x 16 UNC x 3/4	9

Part No.	Description	Qty.
15516	Locknut 5/8 - 18 UNF	4
15527	Locknut 3/8 x 16 UNC	2
15531	Hex Nut 1/4 - 20 UNC	4
15130	Setscrew 1/2-13 UNC x 1 1/4	2
15582	Hex Nut 3/8-16 UNC	9
15807	Lockwasher 1/4	4
15812	Lockwasher 3/8	9
15907	Flatwasher 5/16	1
15908	Flatwasher 5/8	1
15981	Cotter Pin	1
19007	Capscrew 1/4 x 20 UNC x 3/4	4
19409	Presto Pin	1

LIFT ASSEMBLY

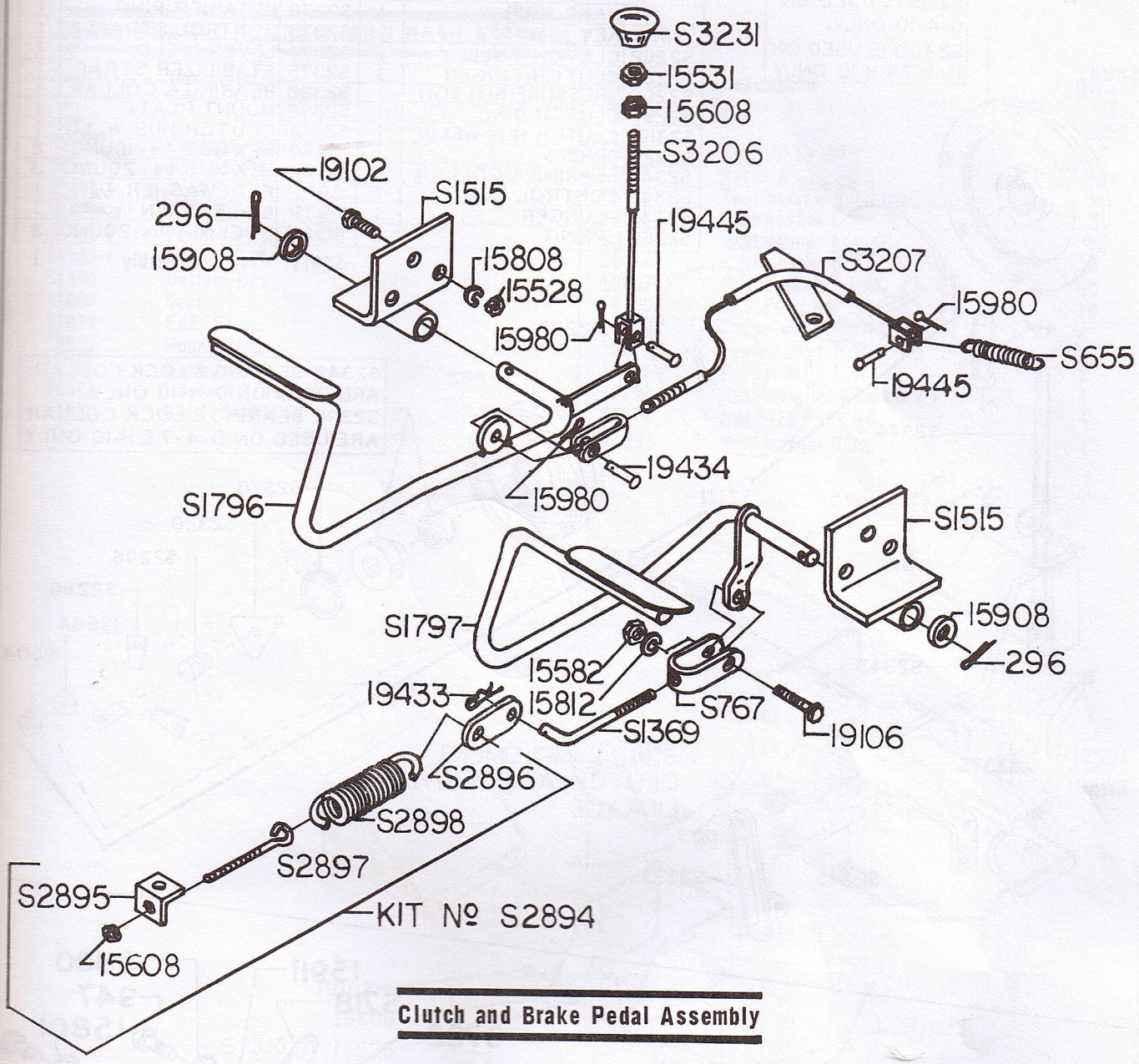



S3321
S1083
S2279
S2085
S2278
15392
S2766
S1014
S1013
S2048
S2078
S2044
S2057
S2775
S3562
S3407
S2096
S2058
S2097
S3324
S1019
S1020
S1089
S2026
S1076
15800
947
S1075
S2051
S2237
S1077
S1072
S1078
S1082
S2446
S1008
S1069
S2255
S1009
S1074
S1073
S1079
S1007
S2280
S2085
15392
S2257
S2240
15110
S1092
S1062
S2081
S2084
S2156
S1047
S98
S1060
S1036
S1041
S1045
S1046
S1042
S1044
S1048
S1043
ASSEMBLY
S1039
S2253
S1049
S1057
S1056
S1059
S1061
S592
S2254
15903
15523
S2046
S2079
S1086
15801
1239
19097
15808
S1087
S1089
S2047
S1089
S2080
15800
947
S1060
S98
15812
15066
S2084
S2045
S1996
S1993
S2013
S2082
296
15910
15567
S2700
S2052
S2083
S2182
S3563 L.H.
S3564 R.H.
TRANSAXLE S2155
NOTE
RING GEAR S1048 AND PINION SHAFT S1062 ARE SOLD ONLY AS A UNIT AS THEY ARE MATCHED PAIRS.



Wiring Diagram

Part No.	Description	Qty.
S917	Light Switch	1
S1303	Ammeter	1
S1809	Ignition Switch	1
S1810	Solinoid	1
S1850	Ground Cable	1
S2191	Voltage Regulator	1



Clutch and Brake Pedal Assembly

Part No.	Description	Qty.
S655	Spring	1
S767	Clevis	1
S1369	Adjusting Rod	1
S1515	Pedal Pivot	2
S1796	Brake Pedal	1
S1797	Clutch Pedal	1
S2894	Spring Kit	1
S2895	Angle Bracket	1
S2896	Spring Anchor	1
S2897	Eye Bolt	1
S2898	Spring	1
S3206	Park Brake Cable	1
S3207	Brake Cable	1
S3231	Knob	1

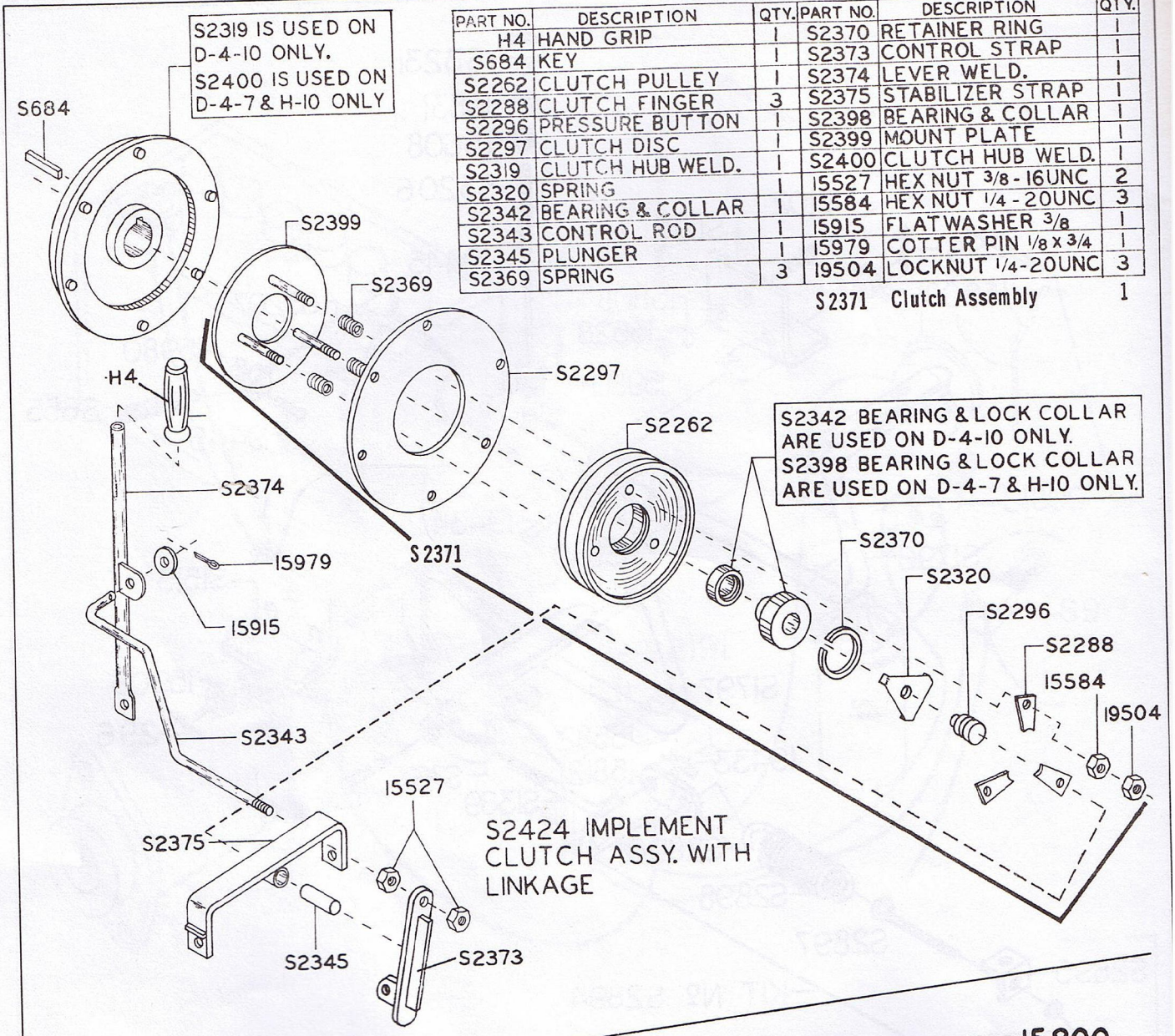
Part No.	Description	Qty.
296	Cotter Pin 1/8 x 1 1/2	2
15528	Hex Nut 5/16 - 18 UNC	6
15582	Hex Nut 3/8-16 UNC	1
15608	Locknut 1/4-20 UNC	2
15808	Lockwasher 5/16	6
15812	Lockwasher 3/8	1
15908	Flatwasher 5/8	2
15980	Cotter Pin 1/16 x 3/4	3
19102	Capscrew 5/16-18 UNC x 1	6
19106	Capscrew 3/8 - 16 UNC x 1 1/2	1
19433	Presto Pin No. 16	1
19434	Clevis Pin 1/4 x 1	1
19445	Clevis Pin 1/4 x 3/4	2

S2319 IS USED ON D-4-10 ONLY.
S2400 IS USED ON D-4-7 & H-10 ONLY

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
H4	HAND GRIP	1	S2370	RETAINER RING	1
S684	KEY	1	S2373	CONTROL STRAP	1
S2262	CLUTCH PULLEY	1	S2374	LEVER WELD.	1
S2288	CLUTCH FINGER	3	S2375	STABILIZER STRAP	1
S2296	PRESSURE BUTTON	1	S2398	BEARING & COLLAR	1
S2297	CLUTCH DISC	1	S2399	MOUNT PLATE	1
S2319	CLUTCH HUB WELD.	1	S2400	CLUTCH HUB WELD.	1
S2320	SPRING	1	15527	HEX NUT 3/8-16UNC	2
S2342	BEARING & COLLAR	1	15584	HEX NUT 1/4-20UNC	3
S2343	CONTROL ROD	1	15915	FLATWASHER 3/8	1
S2345	PLUNGER	1	15979	COTTER PIN 1/8 x 3/4	1
S2369	SPRING	3	19504	LOCKNUT 1/4-20UNC	3

S2371 Clutch Assembly 1

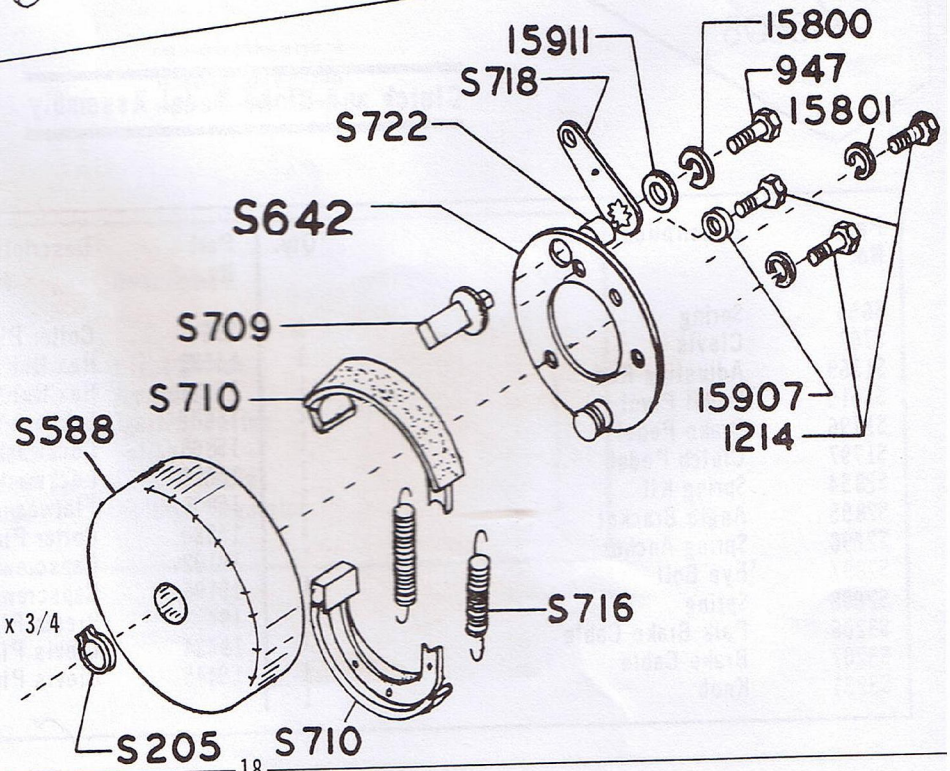
S2342 BEARING & LOCK COLLAR ARE USED ON D-4-10 ONLY.
S2398 BEARING & LOCK COLLAR ARE USED ON D-4-7 & H-10 ONLY.



S2424 IMPLEMENT CLUTCH ASSY. WITH LINKAGE

BRAKE ASSEMBLY

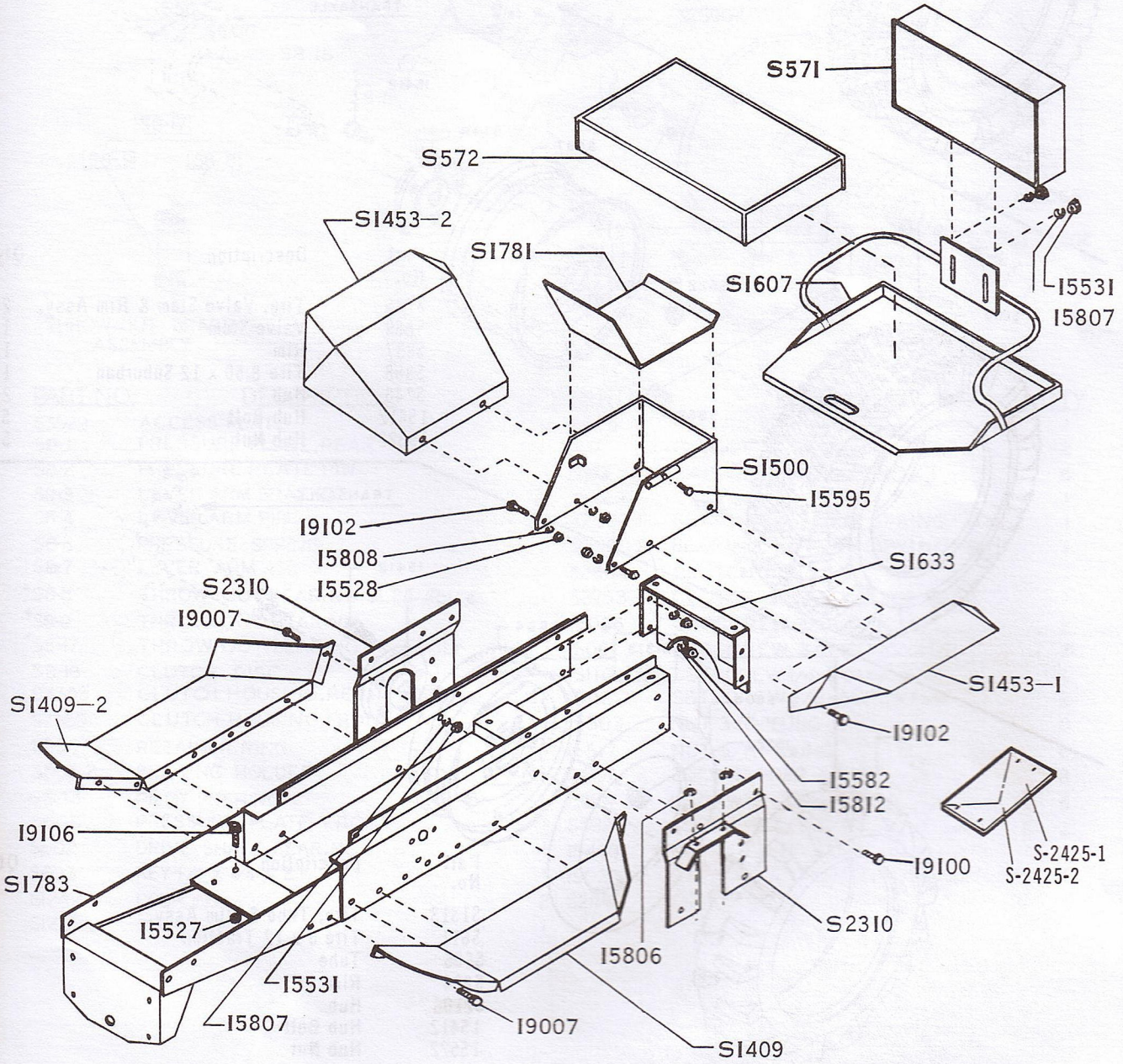
Part No.	Qty.	Description
S205	1	Retaining Ring
S588	1	Brake Drum
S709	1	Brake Cam
S710	2	Brake Shoe
S716	2	Brake Spring
S718	1	Brake Lever
S722	1	Spacer Washer
S642	1	Mounting Plate
947	1	Bolt 1/4-20 UNC x 3/4
1214	3	Capscrew 5/16-18 UNC x 3/4
15800	1	Lockwasher 1/4 med.
15801	2	Lockwasher 5/16 med.
15907	1	Flatwasher 5/16
15911	1	Flatwasher 1/4

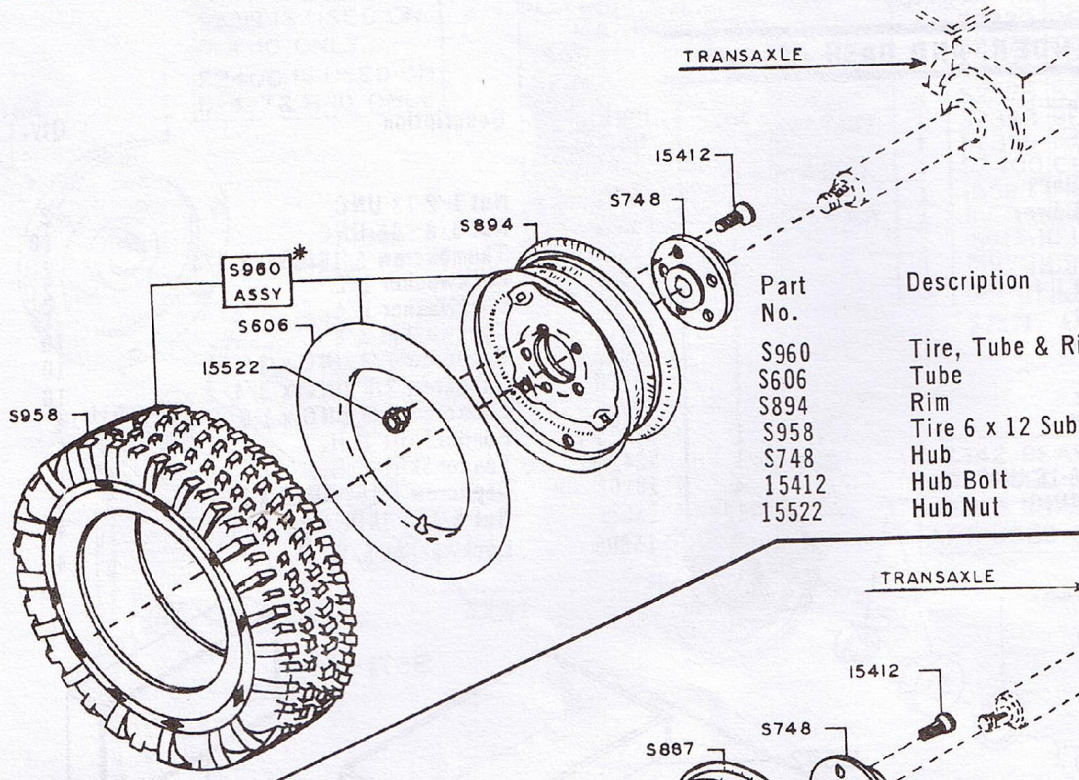


SEAT, FRAME, FENDER, AND DASH ASSEMBLY

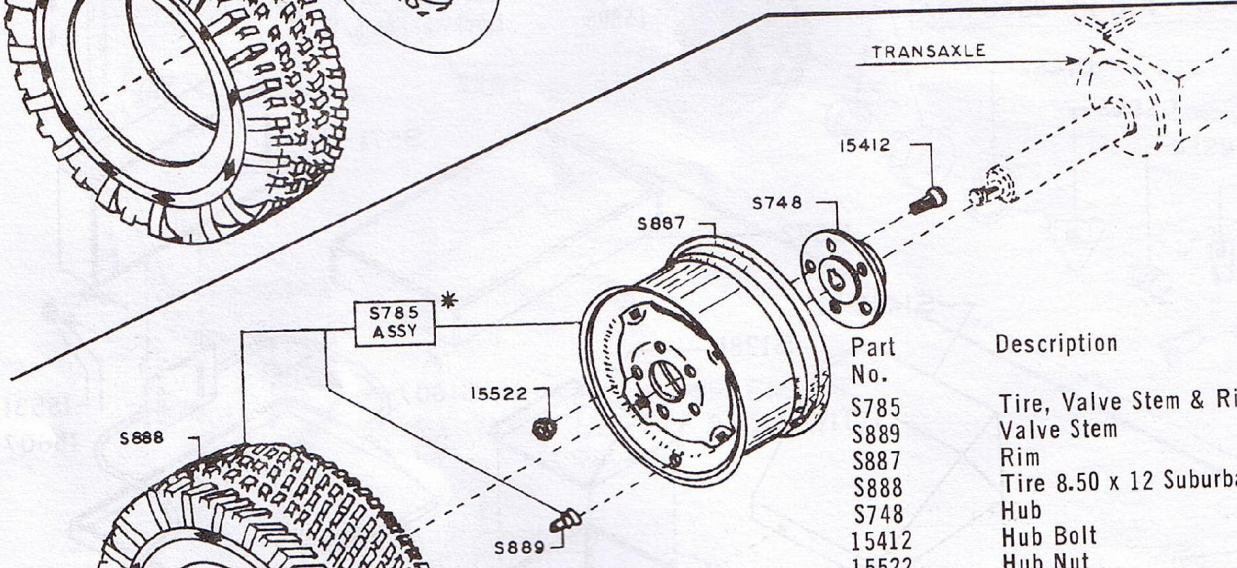
Part No.	Description	Qty.
S571	Cushion - Back	1
S572	Cushion - Lower	1
S1409-1	Foot Rest L.H.	1
S1409-2	Foot Rest R.H.	1
S1453-1	Fender L.H.	1
S1453-2	Fender R.H.	1
S1500	Battery Box	1
S1607	Seat	1
S1633	End, Frame	1
S2310	Mount Plate	1
S1783	Base Frame	1
15527	Locknut 3/8-16 UNC	4
15531	Nut 1/4-20 UNC	12

Part No.	Description	Qty.
15581	Nut 1/2-13 UNC	2
15582	Nut 3/8 - 16 UNC	10
15595	Thumbscrew 5/16 UNC x 3/4	2
15806	Lockwasher 1/2	2
15807	Lockwasher 1/4	12
15812	Lockwasher 3/8	10
19007	Capscrew 1/4 UNC x 3/4	10
19100	Capscrew 3/8 UNC x 3/4	10
19106	Capscrew 3/8 UNC x 1 3/4	4
S2425-1	Fender Skirt R.H.	1
S2425-2	Fender Skirt L.H.	1
19102	Capscrew 5-16" UNC x 1	4
15528	Nut 5/16 - 18UNC	4
15808	Lockwasher 5/16	4

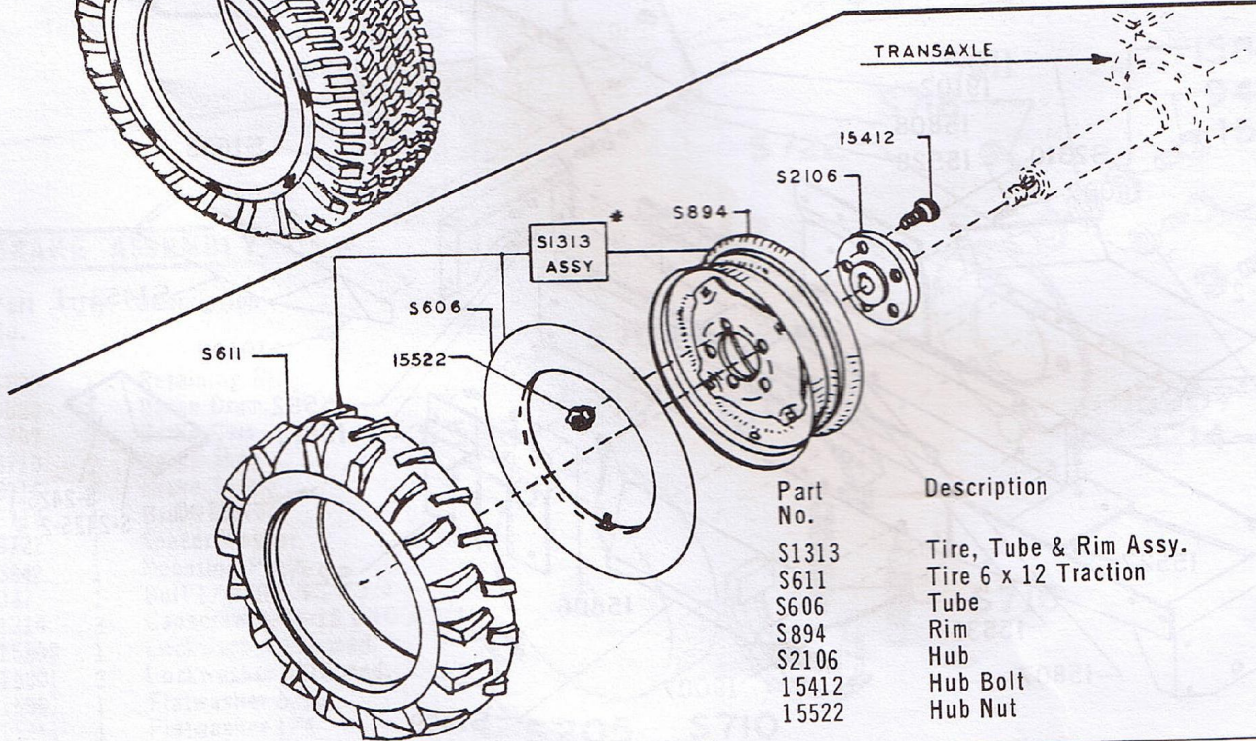




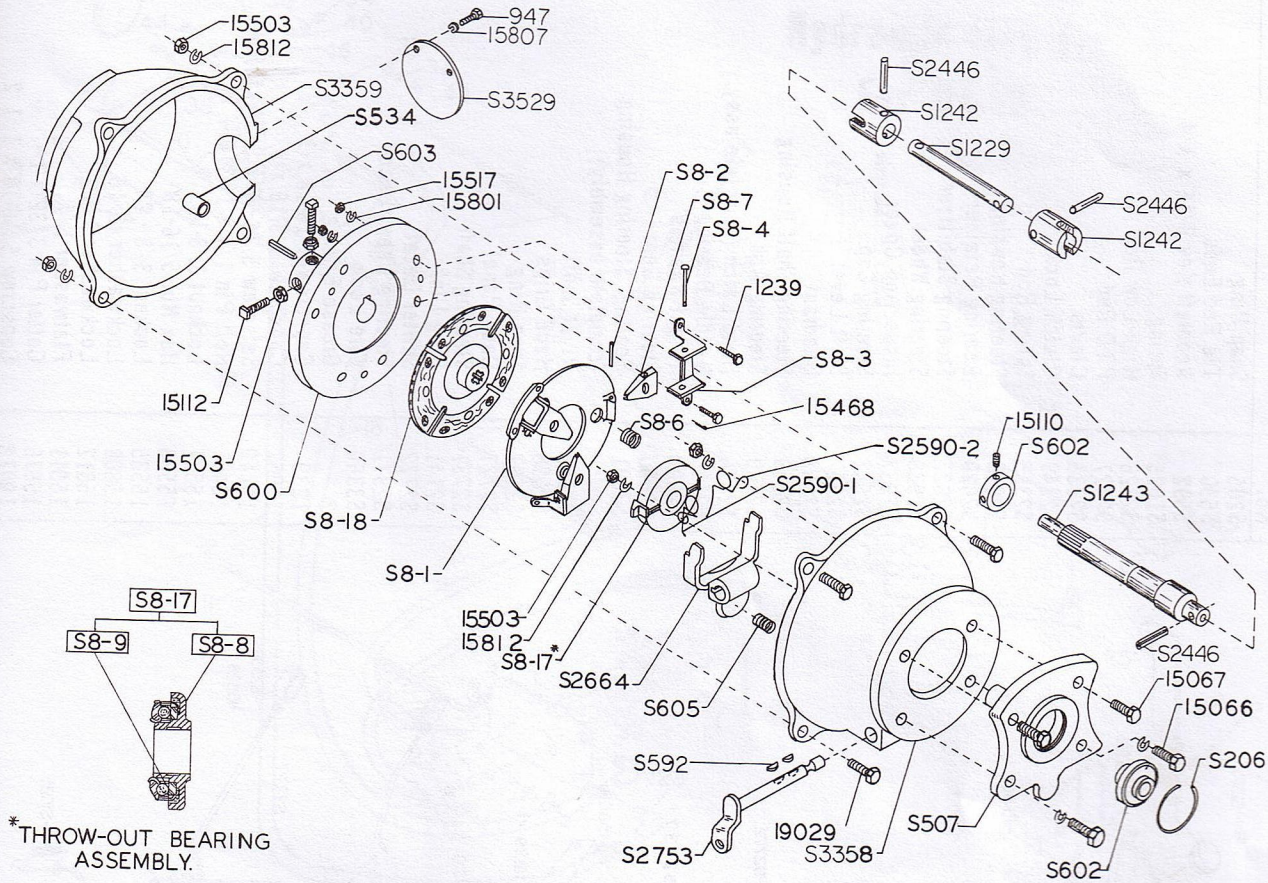
Part No.	Description	Qty.
S960	Tire, Tube & Rim Assy.	2
S606	Tube	1
S894	Rim	1
S958	Tire 6 x 12 Suburban	1
S748	Hub	2
15412	Hub Bolt	5
15522	Hub Nut	5



Part No.	Description	Qty.
S785	Tire, Valve Stem & Rim Assy.	2
S889	Valve Stem	1
S887	Rim	1
S888	Tire 8.50 x 12 Suburban	1
S748	Hub	2
15412	Hub Bolt	5
15522	Hub Nut	5



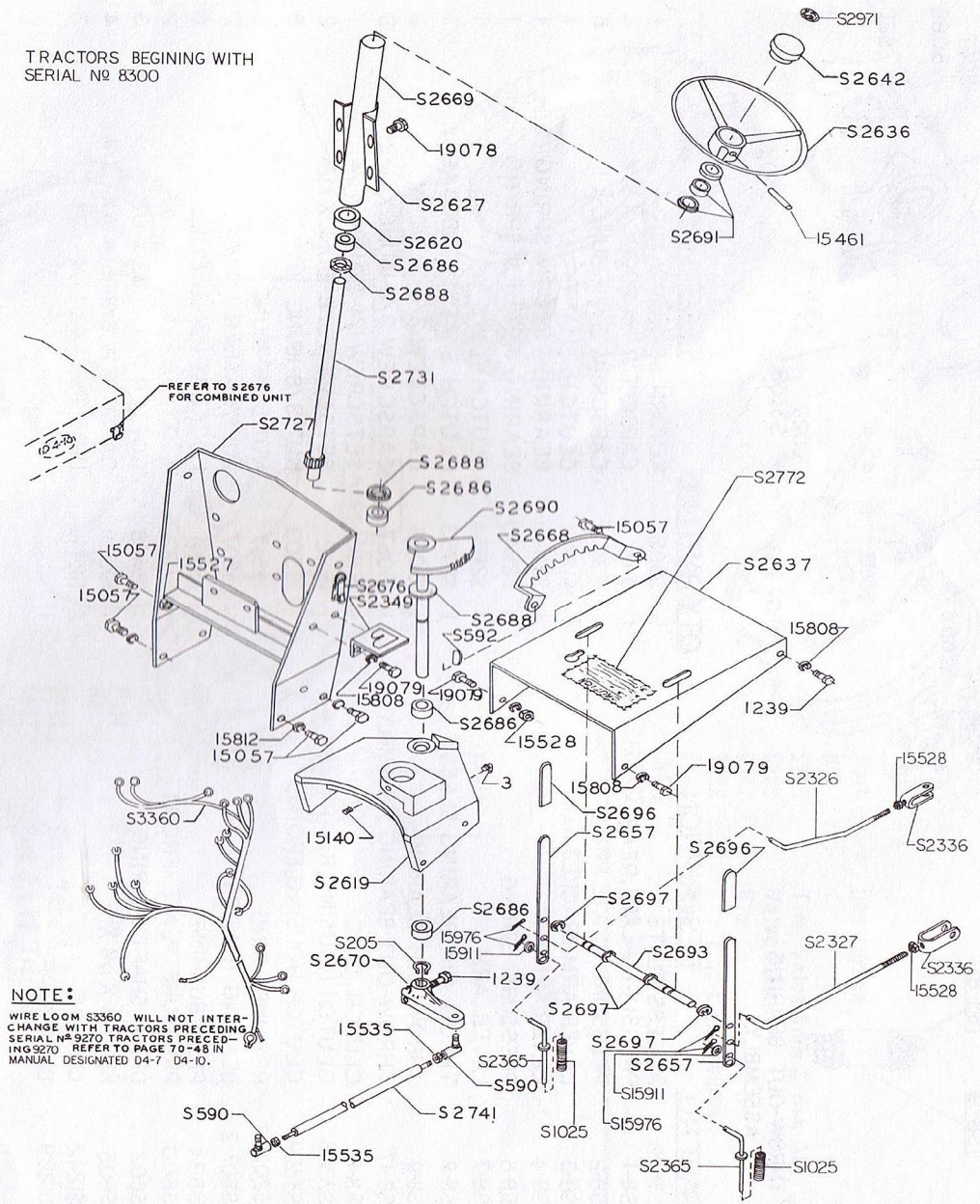
Part No.	Description	Qty.
S1313	Tire, Tube & Rim Assy.	2
S611	Tire 6 x 12 Traction	1
S606	Tube	1
S894	Rim	1
S2106	Hub	2
15412	Hub Bolt	5
15522	Hub Nut	5



*THROW-OUT BEARING ASSEMBLY.

PART NO.	DESCRIPTION
S3529	ACCESS PLATE
S8-1	PRESSURE PLATE, REAR
S8-2	PRESSURE PLATE PIN
S8-3	LEVER ARM BRACKET
S8-4	LEVER ARM PIN
S8-6	PRESSURE SPRING
S8-7	LEVER ARM
*S8-8	THROW-OUT BEARING SLEEVE
*S8-9	THROW-OUT BEARING
*S8-17	THROW-OUT BEARING ASSEMBLY
S8-18	CLUTCH DISC
S3358	CLUTCH HOUSING, REAR
S3359	CLUTCH HOUSING, FRONT
S206	RETAINER RING
S507-2	BEARING HOLDER
S534	PILOT BUSHING
S600	PRESSURE PLATE-FRONT
S602	DRIVE SHAFT BEARING
S603	KEY 1/4 X 1/4 X 2
S1242	COUPLING
S1229	DRIVE SHAFT

QTY.	PART NO.	DESCRIPTION	QTY.
1	S605	RETURN SPRING	1
1	947	CAPSCREW 1/4-20UNC X 3/4	2
3	1239	CAPSCREW 5/16-18UNC X 1	6
3	S1243	CLUTCH SHAFT	1
3	S2590-1	BEARING RETURN SPRING L.H.	1
3	S2590-2	BEARING RETURN SPRING R.H.	1
3	S2664	CLUTCH YOKE	1
1	S2753	CLUTCH SHAFT WELDED ASSY.	1
1	15066	CAPSCREW 3/8-16UNC X 1	2
1	15067	CAPSCREW 3/8-16UNC X 1 1/2	2
1	15110	SETSCREW 1/4-20UNC X 1/4	1
1	15112	SETSCREW 3/8-16UNC X 1 1/4	2
1	15503	NUT 3/8-16UNC	8
1	15517	NUT 5/16-18UNC	6
1	15807	LOCKWASHER 1/4 MED.	2
1	15801	LOCKWASHER 5/16 MED.	6
1	S592	WOODRUFF KEY 3/16 X 3/4	2
1	15468	COTTER PIN 3/32 X 1/2	3
1	19029	CAPSCREW 3/8-16UNC X 1 3/4	4
2	S2446	DRIVE PIN 1/4 X 1 1/4	3
1			

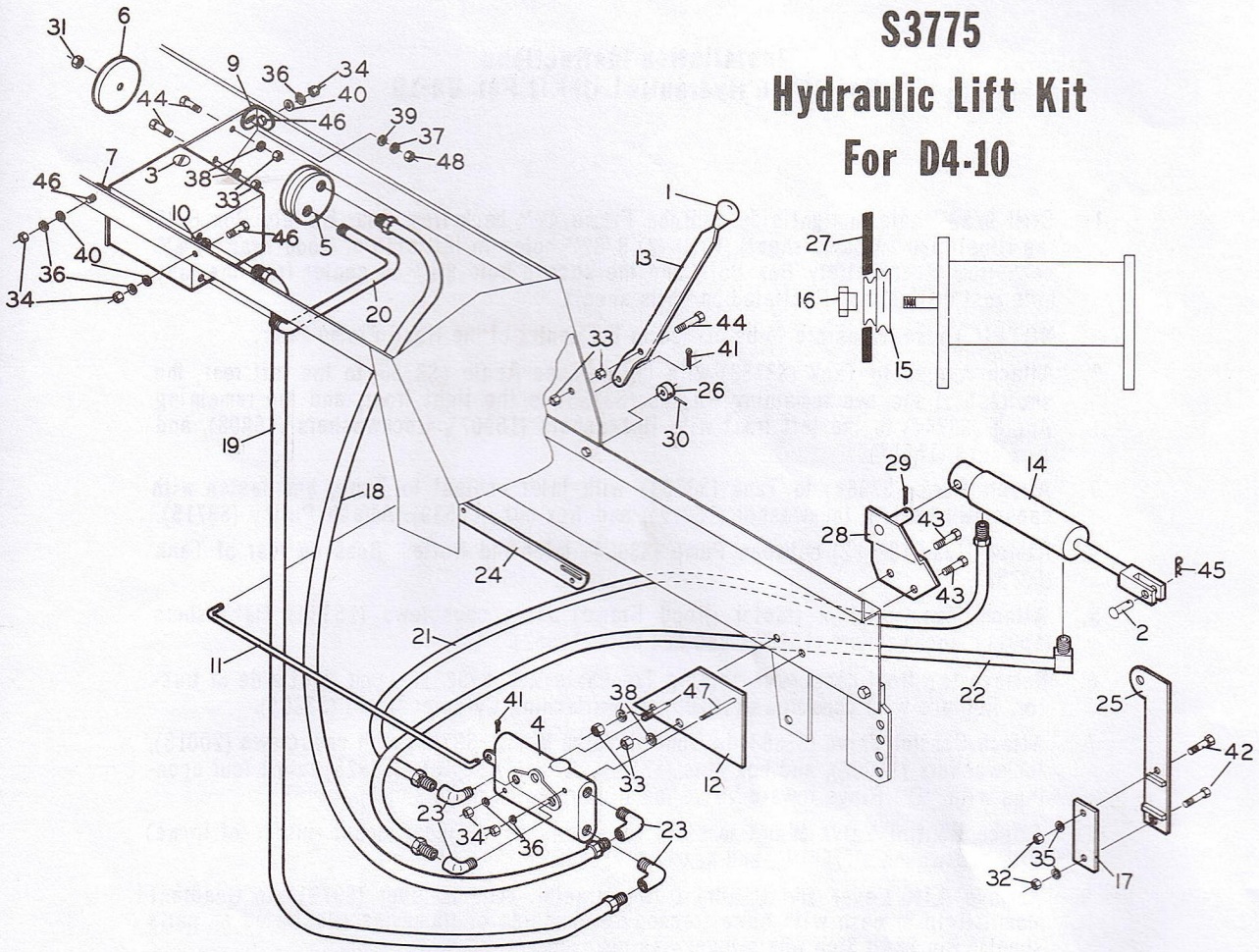


NOTE:

WIRE LOOM S3360 WILL NOT INTERCHANGE WITH TRACTORS PRECEDING SERIAL Nº 9270 TRACTORS PRECEDING 9270 REFER TO PAGE 70-48 IN MANUAL DESIGNATED D4-7 D4-10.

Part No.	Description	Qty.
S205	Snap Ring	1
S590	Tie Rod Ends	2
S592	Woodruff Key 3/16 x 3/4	1
S1025	Spring	2
S2326	High-Low Rod	1
S2327	PTO Rod	1
S2336	Clevis	2
S2349	Clutch Lock	1
S2365	Spring Rod	2
S2619	Steering Housing	1
S2620	Bearing Retainer	1
S2627	Steering Stabilizer	1
S2636	Steering Wheel	1
S2637	Inspection Cover	1
S2642	Steering Cap	1
S2657	Shift Lever	2
S2668	Quadrant	1
S2669	Steering Shaft Housing	1
S2670	Steering Arm	1
S2676	Hood Latch (complete assy.)	2
S2686	Needle Bearing	4
S2688	Thrust Washers	3
S2690	Steering Gear	1
S2691	Bearing, Steering Housing (complete assembly)	1
S2693	Pivot Shaft	1
S2696	Hand Grips	2
S2697	Snap Ring	4
S2727	Dash Panel	1
S2731	Steering Shaft	1
S2741	Drag Link	1
S2772	Shifter Decal	1
S2971	Steering Wheel Decal	1
S3360	Wire Loom	1
3	Grease Fitting	1
1239	Capscrew 5/16-18 x 1	2
15057	Capscrew 3/8-16 x 3/4	4
15140	Setscrew 5/16-18 x 3/8 Skt. Hd.	1
15461	Roll Pin 1/4 x 1 3/4	1
15527	Locknut 3/8-16	1
15528	Hex Nut 5/16-18	2
15535	Locknut 3/8 - 24	2
15808	Lockwasher 5/16	5
15812	Lockwasher 3/8	1
15911	Flatwasher 1/4	2
15976	Cotter Pin 3/32 x 1	4
19078	Capscrew 5/16-18 x 1 1/2	1
19079	Capscrew 5/16-18 x 3/4	3

S3775
Hydraulic Lift Kit
For D4-10



Ref. No.	Part No.	Qty.	Description
1	S586	1	Knob
2	S1960	1	Pin
3	S2125	1	½" Pipe Plug
4	S3663	1	Control Valve
5	S3664	1	Pump
6	S3715	1	Pulley
7	S3744	1	Angle Left Front (Long)
8	S3753	1	Tank Weldment
9	S3755	1	Angle Right (Short)
10	S3756	1	Angle Left Rear (Notched)
11	S3757	1	Control Rod
12	S3758	1	Control Valve Mount
13	S3761	1	Control Lever
14	S3767	1	Cylinder
15	S3790	1	Generator Pulley
16	S3799	1	Generator Nut
17	S3818	1	Clamp
18	S3820	1	Hose 64 5/8" with Spring Guard
19	S3821	1	Hose 52 ½"
20	S3822	1	Hose 11" with Spring Guard
21	S3823	1	Hose 11 ½"
22	S3824	1	Hose 19"
23	S3825	4	Adapters
24	S3834	1	Floating Lift Bar
25	S3840	1	Cylinder Lift Bar
26	S3847	1	Shaft Stop
27	S3855	1	Belt
28	S3864	1	Cylinder Mount Weldment
29	295	1	Cotter Pin 1/8" x 1 ¼"
30	15389	1	Roll Pin ¼" x 1"
31	15501	1	Hex Nut 5/16"-24UNF
32	15508	2	Hex Nut ½"-13UNC
33	15539	5	Hex Nut 3/8"-16UNC
34	15552	5	Hex Nut ¼"-20UNC
35	15806	2	Lockwasher ½"
36	15807	5	Lockwasher ¼"
37	15808	3	Lockwasher 5/16"
38	15812	4	Lockwasher 3/8"
39	15907	3	Flatwasher 5/16"
40	15911	3	Flatwasher ¼"
41	15978	2	Cotter Pin 3/32" x 3/4"
42	19092	2	Capscrew ½"-13UNC x 2"
43	19106	2	Capscrew 3/8"-16UNC x 1 ½"
44	19117	3	Capscrew 3/8"-16UNC x 1"
45	19433	1	Presto Pin
46	20008	3	Capscrew ¼"-20UNC x 1"
47	20015	2	Capscrew ¼"-20UNC x 2 ¼"
48	15528	3	Hex Nut 5/16"-18UNC