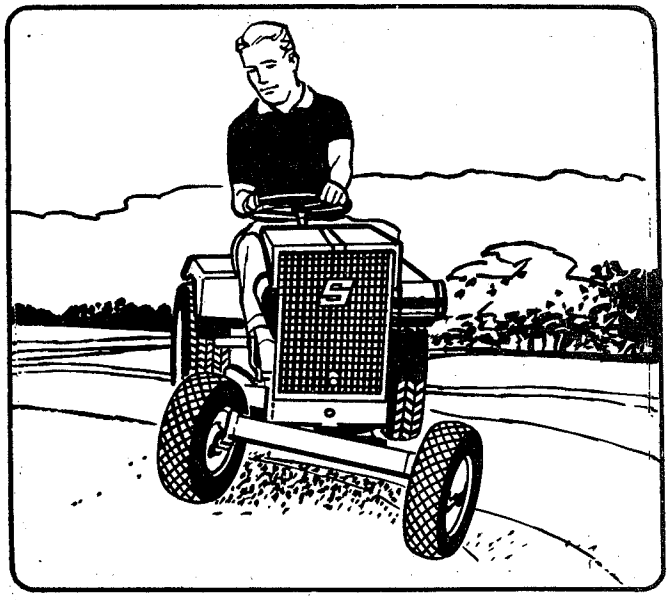
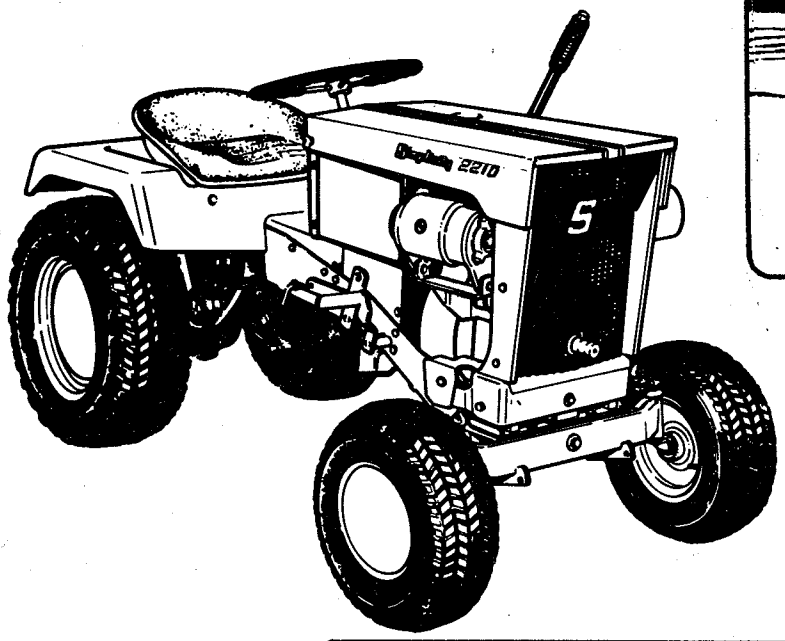
Simplicity®





Mfrs. No. 568-3210 MANUAL LIFT
Mfrs. No. 569-3210 POWER LIFT

LANDLORD
RIDING TRACTORS

12345678910

SIMPLICITY MANUFACTURING COMPANY, INC.

LITHO IN U.S.A.

WARRANTY

The company warrants Simplicity Products to be free from defects in material and workmanship except the company makes no warranty express or implied with respect to tires, engines and engine accessories which generally are warranted by their respective manufacturers. Any part covered by this warranty which is proven defective within one year, under normal use, from date of purchase, will be replaced free of charge, f.o.b. Port Washington, Wisconsin, provided such part is returned to factory transportation charges prepaid and is found to be defective upon examination at the factory. The company is not obligated under this warranty to bear cost of labor or delivery charges in replacement of defective parts. This warranty does not apply to any Simplicity Products altered outside of Simplicity's factory. Such replacement of defective parts shall be the exclusive remedy and in no event shall Simplicity be liable for consequential damages. EXCEPT AS SPECIFICALLY PROVIDED HEREIN, THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON ANY SIMPLICITY PRODUCT.

Should warranty service be necessary, the information below should be presented to the authorized SIMPLICITY Dealer.

Customer's Name _____

Address _____

Mfg. No. _____ Serial No. _____

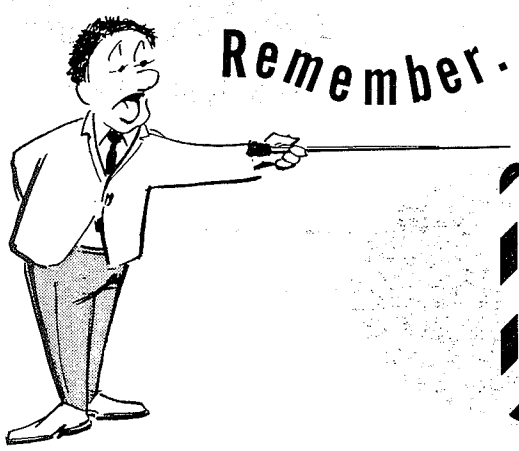
Date Purchased _____

Purchased From _____

Address _____

Engine Model No. _____ Serial No. _____ Type No. _____

To obtain replacement parts from dealer, advise quantity, part number and description.



FOR YOUR SAFETY

1. ALWAYS STOP ENGINE BEFORE LEAVING MACHINE
2. ALWAYS STOP ENGINE BEFORE SERVICING OR ADJUSTING MACHINE OR EQUIPMENT
3. ALWAYS KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER-DRIVEN PARTS

PACKING

This tractor is delivered complete in one carton. The carton contains:

1 - Tractor Assembly
1 - Hood Assembly
1 - Steering Wheel (secured to side of tractor)
1 - Hardware Pack

Should any shortages of the above items occur, advise by stating packers number listed on green packing slip, serial number of tractor, part number and description of items missing.

ASSEMBLY

REAR LIFT GROUP

The Rear Lift Group is to be installed in the following manner:

1. Remove 3 hex capscrews from left side of tractor as shown in Figure 1.

2. Swing hitch member outward and install lift assembly as shown. Return hitch member to original position and replace hex capscrews. See Figure 2.

3. Insert right end of lift assembly into hole in right hitch member and position lift assembly so that collar is flush against right hitch member. Position collar on left side of lift assembly so it is flush against left hitch member. Tighten socket head setscrew with Allen wrench. See Figure 3.

4. Connect lift assembly to rear lift group. Secure with cotter pin. See Figure 3.

5. Adjust rear lift rod so that there is clearance between the gear case and the lift assembly when the lift lever is in the forward, latched position. Also adjust rod so that the lift assembly will strike the gear case before the lift lever strikes the air cleaner on engine when lift lever overtravels forward.

BATTERY

Remove battery from tractor. Service as stated in the battery instructions. Replace and secure battery in tractor.

STEERING WHEEL

Remove steering wheel from side of tractor. Assemble steering wheel on the steering shaft using the woodruff key and setscrew which is provided in the hardware pack. Assemble steering cap over hub of steering wheel.

HOOD

Remove the hood assembly from its container. Mount hood on the tractor using the (4) thumb screws provided in the hardware pack.

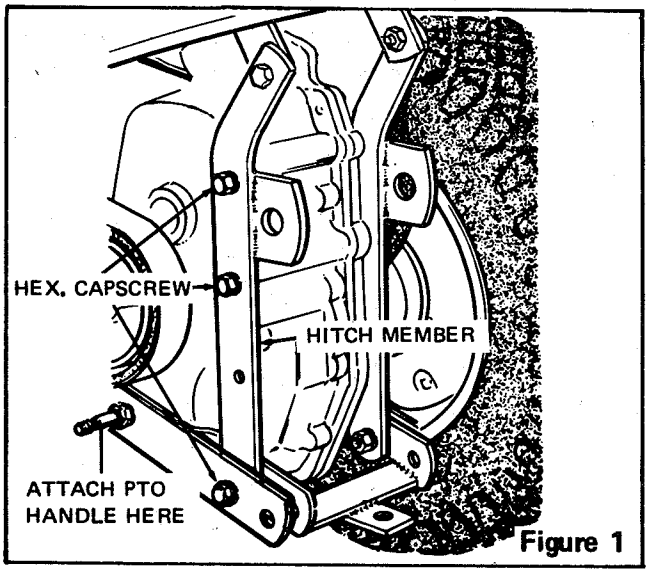


Figure 1

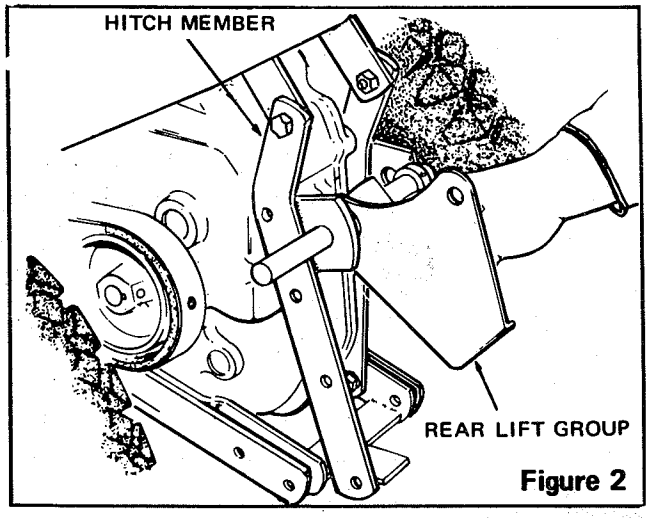


Figure 2

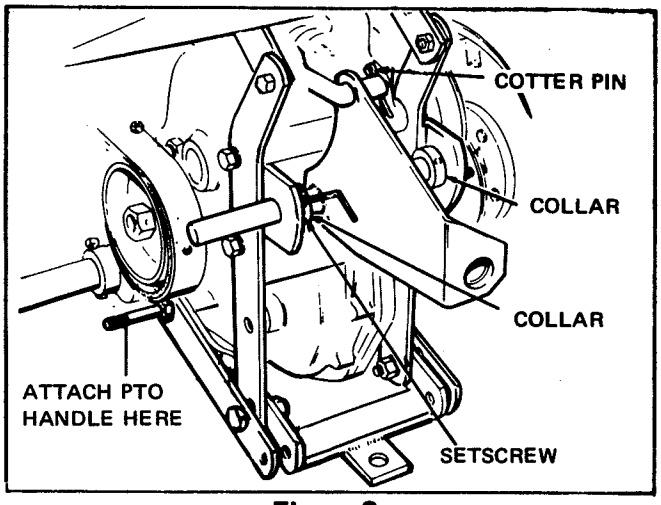


Figure 3

ENGINE LUBRICATION

Service air cleaner and crankcase as recommended in Engine Service Manual. Be sure air cleaner is maintained in clean condition. Never use oil in crankcase for more than 25 hours of operation. See Figure 11. CLEAN AIR AND CLEAN ENGINE OIL WILL GIVE LONG TROUBLE FREE OPERATION. DIRT WILL RUIN YOUR ENGINE IN A SHORT TIME. A funnel and extension are included with the tractor for use in changing oil.

The bevel gear housing has a capacity of one pint of SAE 90 oil and is filled at the factory. It will not normally require replenishment, but occasionally check drain plug for tightness and oil seals for leakage. Keep oil up to lever of filler plug. See Figure 8.

TRACTOR LUBRICATION

The tractor has a total of 3 grease fittings which require lubrication with general purpose automotive grease. Use a standard grease gun for the following fittings:

(2) Front Spindles - Figure 4
(1) Rear Axle Tube - Figure 7

Before lubricating, wipe each grease fitting with a rag to prevent grit and dirt from being carried into bearings with new grease.

The transmission has a capacity of 1-1/2 qt. of SAE 90 oil and is filled at the factory. It will not normally require replenishment, but occasionally check drain plug for tightness and axle tube oil seals for leakage. Maintain oil level at lower edge of filler plug hole. Remove vent plug from top of transmission and allow oil to settle to normal level before checking. See Figure 7.

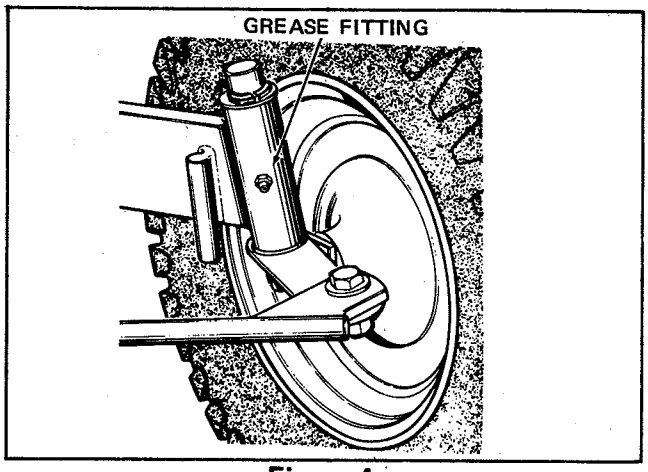


Figure 4

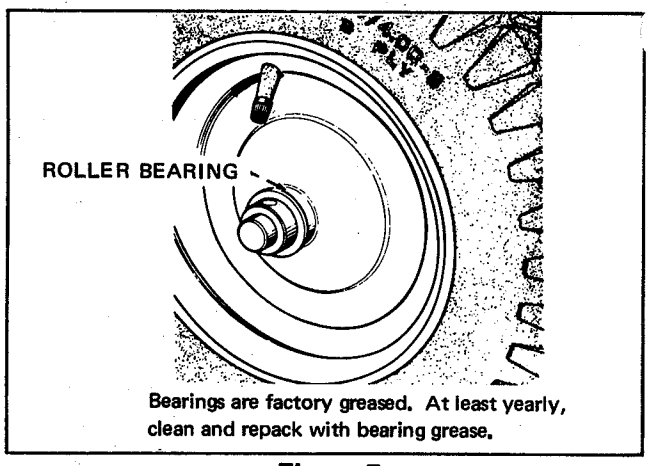


Figure 5

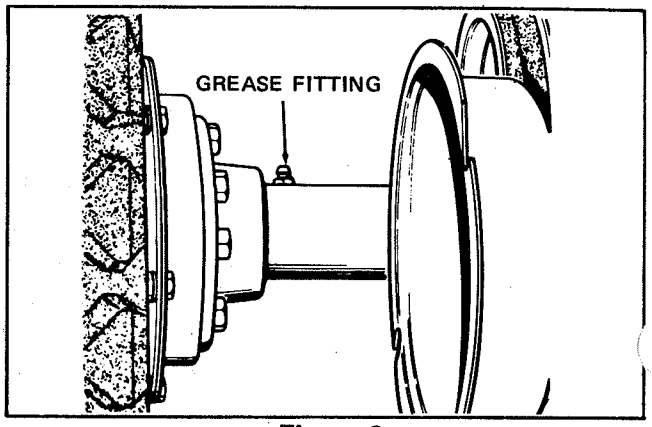


Figure 6

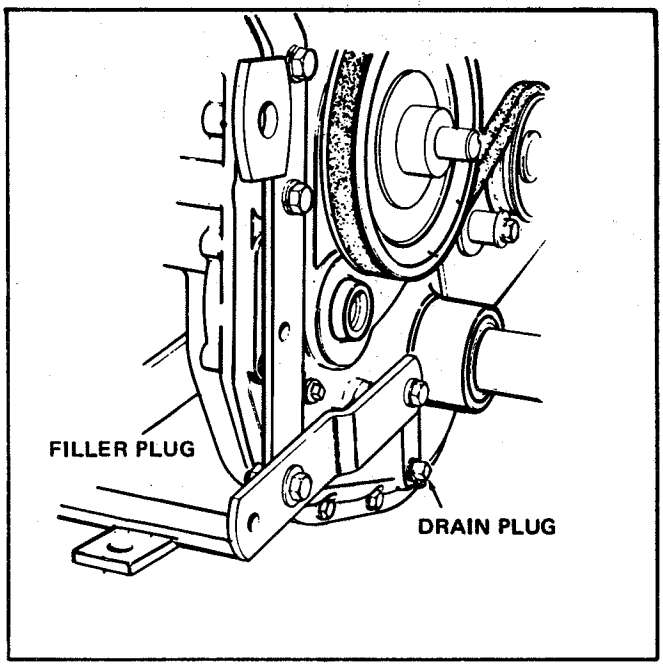


Figure 7

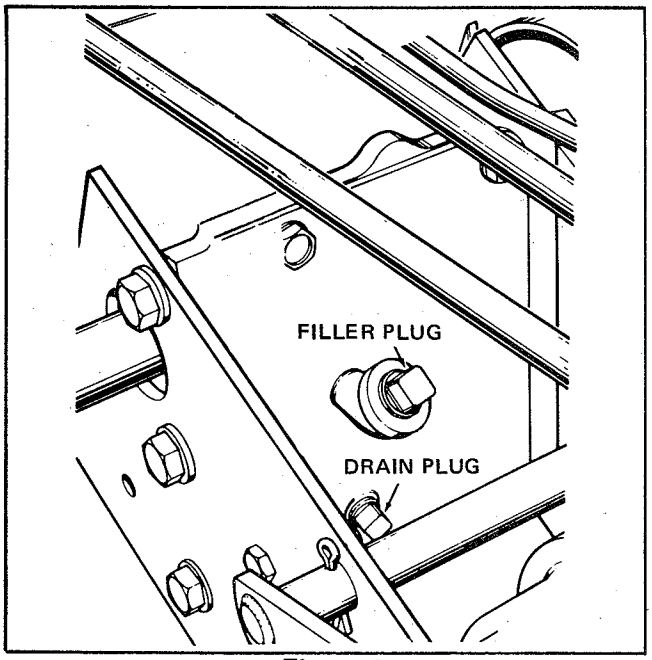


Figure 8

STARTING ENGINE

1. Place gear shift lever in **neutral** position. See Figure 9. (Be sure tractor is on **level ground** and will not roll away in neutral. Apply parking brake).

2. Pull choke knob out. See Figures 9 & 10.

3. Set throttle lever in mid position and turn ignition key clockwise to start engine and release. See Figure 9. As engine warms up, push choke knob in. Pull throttle knob out to desired position and turn to lock.

TO STOP ENGINE

With clutch disengaged, place gear shift in any gear and turn ignition key counterclockwise to vertical (Off) position. Engage clutch to hold tractor in parked position and remove ignition key for safekeeping. Apply parking brake.

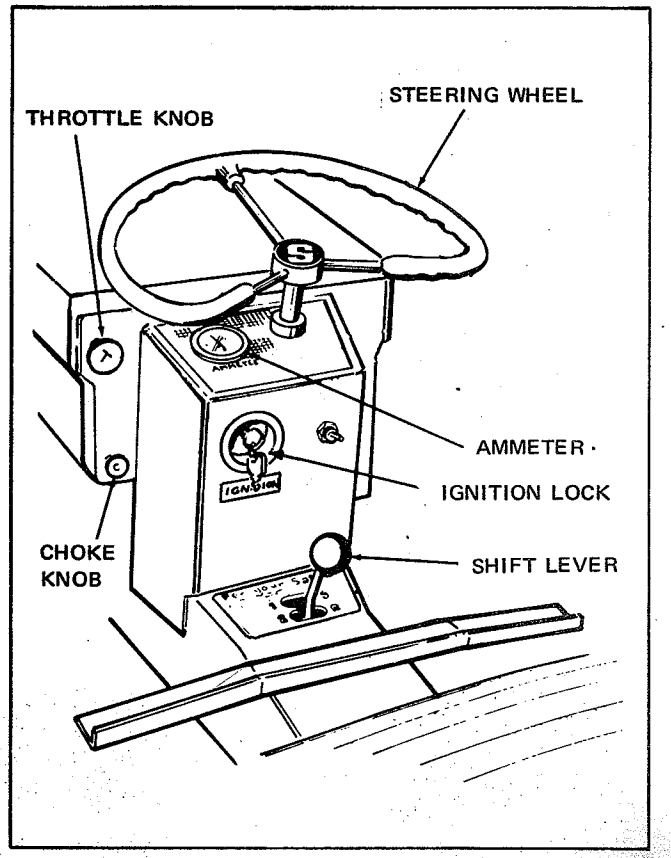


Figure 9

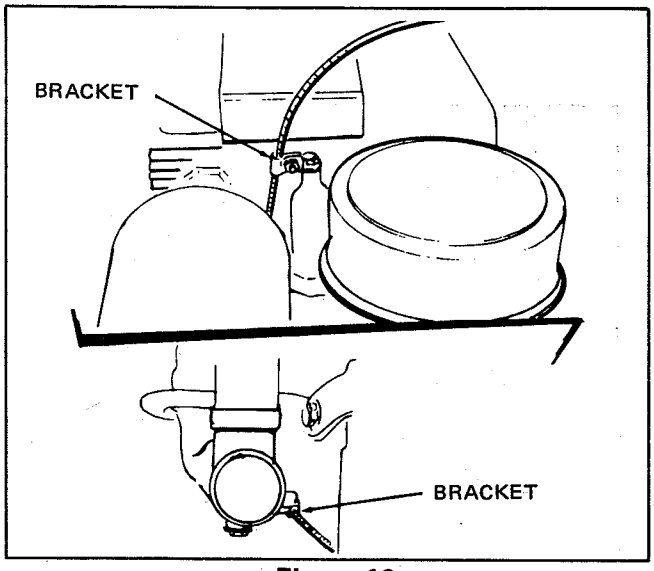


Figure 10

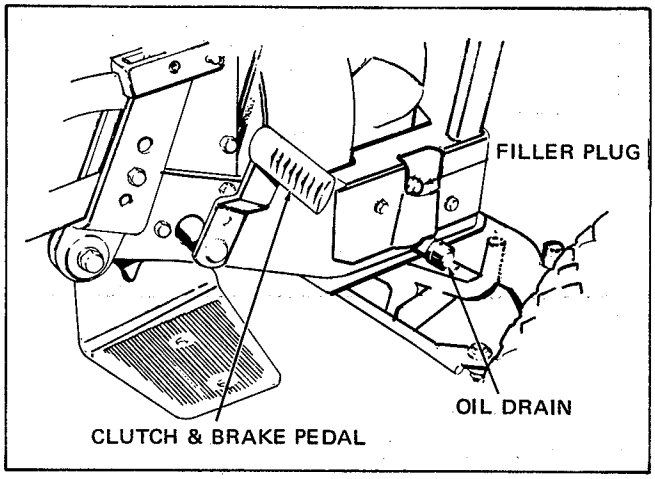


Figure 11

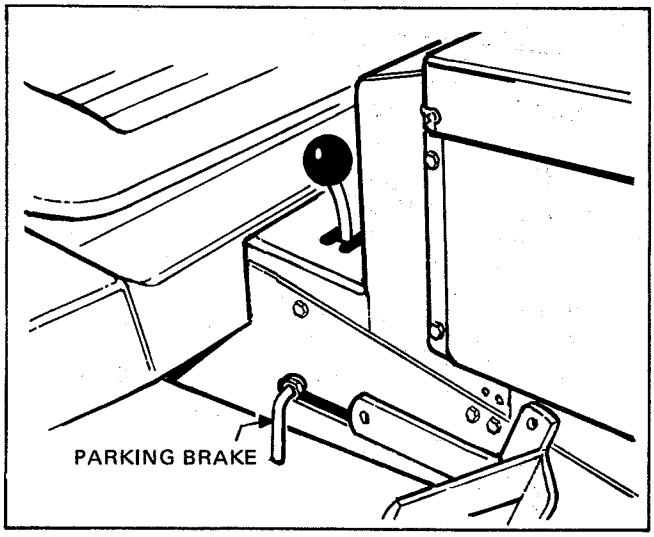


Figure 12

OPERATION OF TRACTOR

To place gear shift in desired gear range, depress the combination brake and clutch pedal located on right hand side of tractor. See Figure 11. When pedal is depressed, move shift lever to desired position (See Figure 9) and gradually release pedal until clutch is engaged. When shifting from one range to another, pause briefly in neutral before completing shift. Set throttle lever to obtain desired speed. See Figure 9.

PARKING BRAKE

To operate the parking brake, hold the brake pedal depressed and slide the parking brake lever all the way to the rear of its slot and turn the lever in a clockwise direction until it is tight. Refer to Figure 12.

To release the parking brake, turn the parking brake lever in a counterclockwise direction until the brake pedal is released.

CLUTCH ADJUSTMENT

Position the locknuts to leave a space of about 11/16" between them and the end of the rod guide.

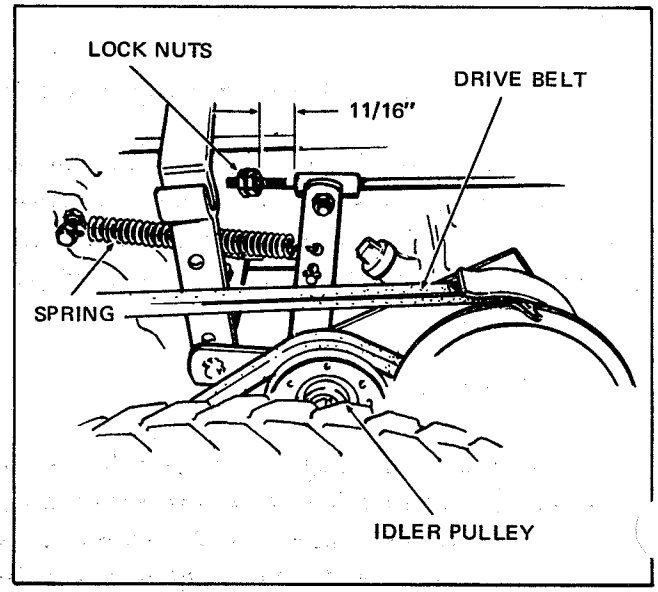


Figure 13

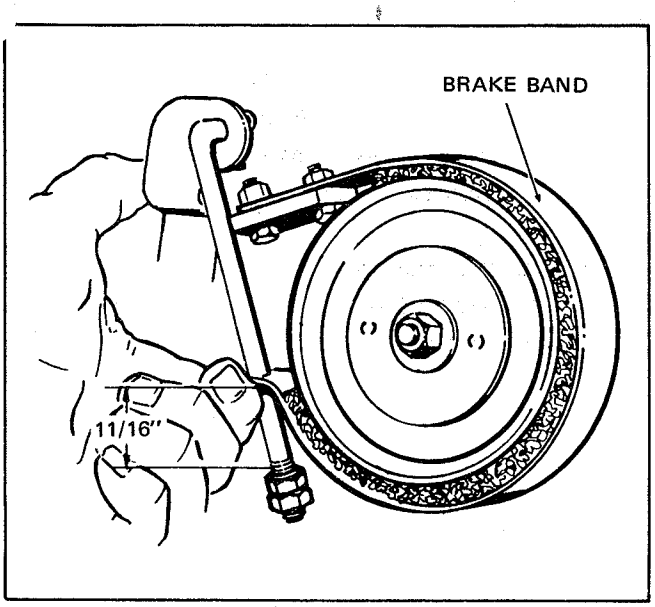


Figure 14

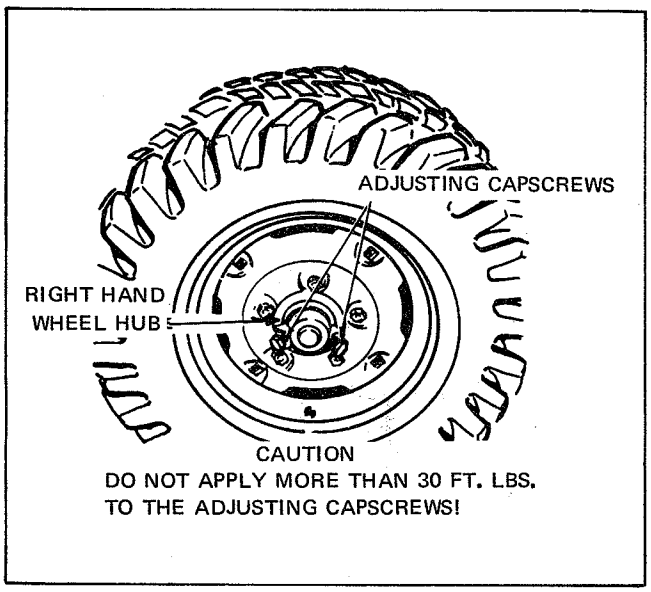


Figure 15

BRAKE ADJUSTMENT

Pull the brake band up by hand so that it is tight around the brake drum. Adjust the nut to give a clearance of about 11/16" between the brake band and nut. Then check to see that the idler pulley releases the belt properly before the brake is applied. If the brake does not hold properly when the pedal is pushed all the way forward, reduce slightly the spacing between the nut and the brake band. Now recheck the clutch rod adjustment for proper idler release. Refer to Figure 14.

DIFFERENTIAL

The tractor is equipped with a controlled traction differential. Tightening the hex head capscrews in the right hand wheel hub (See Figure 15), provides pressure against a nylon plug and sleeve around the tractor axle and prevents excessive wheel slippage when the tractor is being used under abnormal conditions. The adjusting capscrews are set at the factory to a torque of 25 ft. lbs. As the nylon sets itself through use, it may be necessary to readjust the capscrews a few times to maintain 25 ft. lbs. of torque (25 lbs. weight on wrench 1 ft. long).

POWER TAKE-OFF

LUBRICATION

The power take-off is lubricated by means of one grease fitting located on the bottom front of the drive bracket assembly. Occasionally apply grease by means of a standard grease gun loaded with automotive type grease. Be sure to wipe dirt and grit from grease fitting before applying grease gun. Lubricate all pivot points and idler pulley bearings with SAE 20 oil every few hours of operation.

OPERATION

Operation of the power take-off is controlled by movement of the clutch lever assembly. See Figure 16. When the clutch lever is in the forward raised position, the clutch rod releases the tension holding the idler pulley against the drive belt and power will not be transmitted to the driven pulley of the power take-off assembly. When the clutch lever is in the back, depressed position, the clutch rod applies tension to the idler pulley and as the idler pulley takes up the slack in the drive belt, power is transmitted from the drive pulley on bevel gear box shaft to the driven pulley of the power take-off. Figure 16 shows clutch lever in drive position.

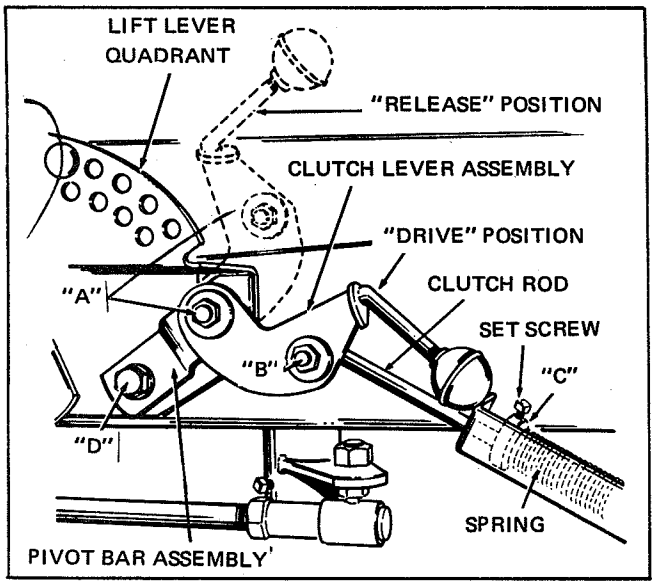


Figure 16

ADJUSTMENT

At points "A" and "B" of Figure 16, check tightness of hex nut to be sure that clutch lever assembly and clutch rod are free to pivot without binding.

Place clutch lever in "Drive" position and observe clearance between collar "C" (Figure 16) and end of bracket. When implement is attached to tractor, this clearance should normally be approximately 3/4". At this setting the idler pulley should be snugly against the drive belt. If additional tension is required, release clutch lever and loosen setscrew on collar and slide collar farther back on clutch rod. Retighten setscrew in collar and put clutch lever in "Drive" position. Recheck clearance. The tension of the idler pulley against the drive belt must be sufficient to operate whichever tractor attachment is being used. Any additional tension is unnecessary and will only cause premature failure of belts and idler pulley bearings.

TIRES

The tires of the tractor are inflated with air pressure in excess of the normal amount for shipment. For comfort of operation, release some of the pressure until a pressure of 10 to 12 lbs. per sq. in. for both front and rear tires. Maintain tires at this pressure.

OPERATION – POWER LIFT KIT

The Power Lift Kit which is an optional feature on the Landlord & Sovereign Tractors is used to raise and lower various attachments with finger-tip pressure applied to the control lever.

To raise a front mounted attachment, pull the power lift lever backward. When the desired height is reached, release the lever and it will return to the "hold" position. To lower a front mounted attachment, push the lever to the front, then release when desired depth is reached.

A rear mounted attachment is raised by pushing forward on the lever and is lowered by pulling the lever backward.

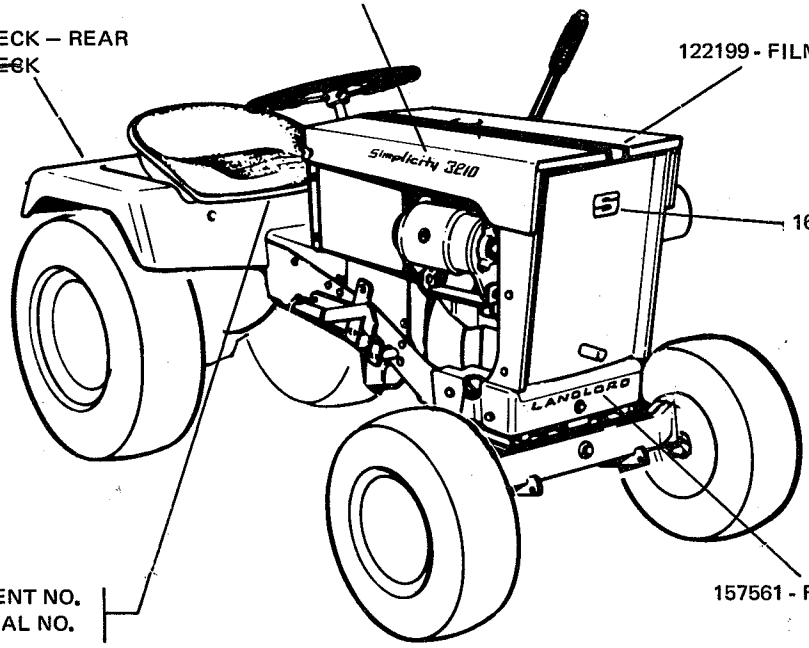
The index tabs at each end of the quadrant serve as lock points for the "float" position which allows an attachment such as a dozer blade, grader blade or snow thrower to follow ground contours freely.

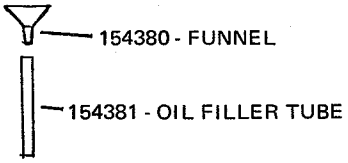
NOTE

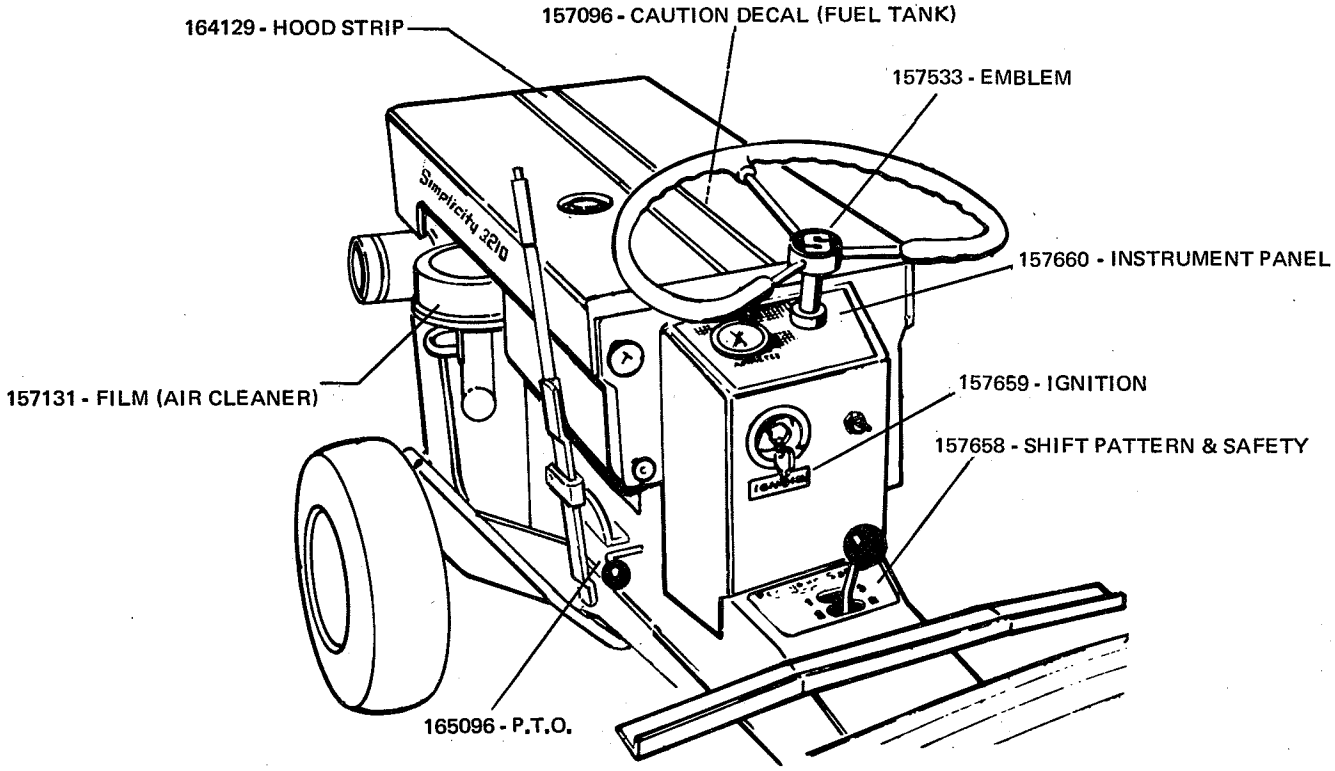
The Rear Mounted Tiller Attachment should be operated only in the rear "float "position. Do not operate the tiller in the "hold " position, as difficulty will result if an obstacle is encountered. This would raise the rear wheels off the ground and propel the tractor forward at a dangerous rate. To get in or out of either "float " position, squeeze the release bar handle upward to clear the index tab.

Front mounted attachments such as the snow thrower and dozer blade may be operated with the power lift lever in the "hold" position. However, downward pressure will be exerted on the attachment thus preventing the snow thrower or blade from following the contour of the ground.

DECALS

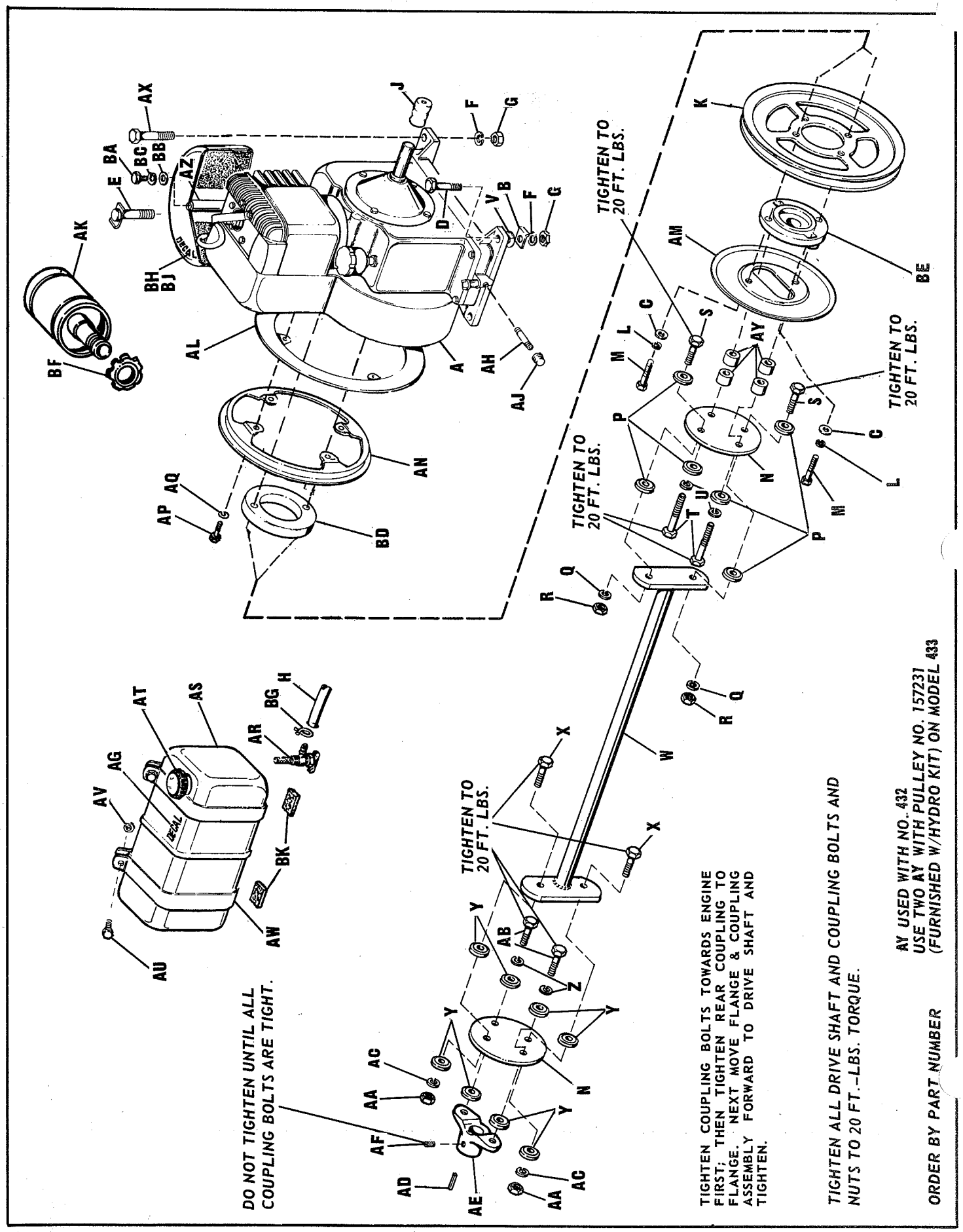

157666 - SIMPLICITY - 3210 FILM R.H.
157667 - SIMPLICITY - 3210 FILM L.H.
157663 - FILM, SEAT DECK – REAR
~~164139 - FILM, SEAT DECK~~
122199 - FILM SIMPLICITY (BATTERY)
164137 - EMBLEM "S"
122195 - PLATE, PATENT NO.
164253 - PLATE, SERIAL NO.
157561 - FILM LANDLORD
Simplicity 3210
LANDLORD


154380 - FUNNEL
154381 - OIL FILLER TUBE


164129 - HOOD STRIP
157096 - CAUTION DECAL (FUEL TANK)
157533 - EMBLEM
157660 - INSTRUMENT PANEL
157131 - FILM (AIR CLEANER)
157659 - IGNITION
157658 - SHIFT PATTERN & SAFETY
165096 - P.T.O.
Simplicity 3210

ENGINE AND DRIVE SHAFT

FOR MODEL 3210

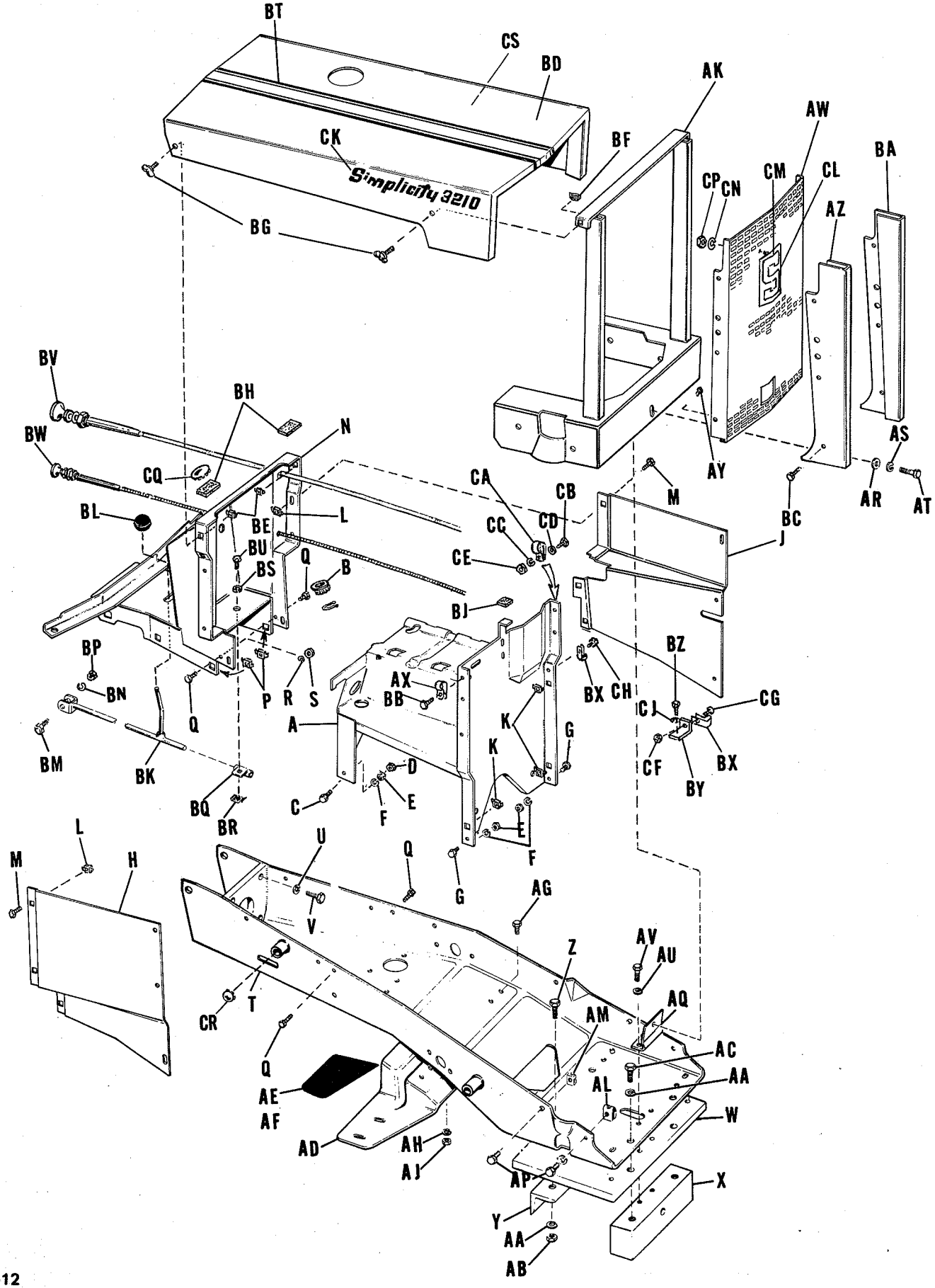


ENGINE AND DRIVE SHAFT

Ref. Let.	Part No.	Description
A		Engine, Briggs & Stratton Model 243431, Type 0123
B	157144	Stop Axle
C	719002	Plain Washer, 5/16"
D	705010	Hex. Cap Screw, 3/8"-16 x 1 3/4"
E	170277	Rect. Hd. Screw
F	720002	Lock Washer, 3/8"
G	717003	Full Hex. Nut, 3/8"-16
H	157316	Fuel Hose (Flexible)
J	154327	Crankshaft Extension Guard
K	157305	Engine Pulley
L	720001	Lock Washer, 5/16"
M	715068	Hex. Cap Screw, 5/16"-18 x 2"
N	157422	Coupling
P	157424	Special Washer
Q	720002	Lock Washer, 3/8"
R	717003	Full Hex. Nut, 3/8"-16
S	705016	Hex. Cap Screw, 3/8"-16 x 1 1/4"
T	705006	Hex. Hd. Cap Screw, 3/8"-16 x2"
U	720002	Lock Washer, 3/8"
V	719001	Plain Washer, 3/8"
W	157016	Drive Shaft Assembly
X	705016	Hex. Cap Screw, 3/8"-16 x 1 1/4"
Y	157424	Special Washer
Z	720002	Lock Washer, 3/8"
AA	717003	Full Hex. Nut, 3/8"-16
AB	705016	Hex. Cap Screw, 3/8"-16 x 1 1/4"
AC	720002	Lock Washer, 3/8"
AD	157427	Key
AE	154198	Drive Shaft Flange

Ref. Let.	Part No.	Description
AF	715049	Cup Pt. Socket Hd. Set Screw,
AG	157096	Decal (CAUTION)
AH	157497	Pipe Nipple, 3/8" x 1"
AJ	726501	Pipe Cap, 3/8"
AK	157634	Exhaust Muffler
AL	157099	Flywheel Shroud
AM	157308	Engine Screen
AN	157306	Shroud
AP	705002	Hex. Cap Screw, 1/4"-20 x 1/2"
AQ	720003	Lock Washer, 1/4"
AR	156176	Shut-Off Valve
AS	157006	Fuel Tank
AT	156175	Fuel Tank Cap
AU	705053	Hex. Hd. Cap Screw, 1/4"-20 x 1 3/4"
AV	717005	Full Hex. Nut, 1/4"-20
AW	162060	Tank Strap
AX	705006	Hex. Hd. Cap Screw, 3/8"-16 x 2"
AY	157081	Spacer
AZ	157126	Air Cleaner Spacer
BA	715018	Hex. Hd. Cap Screw, 1/4"-20 x 5/8"
BB	719006	Plain Washer, 1/4"
BC	720003	Lock Washer, 1/4"
BD	157355	Flywheel Spacer
BE	157307	Drive Hub
BF	154378	Nut
BG	154372	Hose Clamp (For Service Only)
BH	106582	Gasket
BJ	157131	Film (Air Cleaner)
BK	106582	Gasket

FRAME, HOOD, GRILL, & INST. PANEL



FRAME, HOOD, GRILL, & INST. PANEL

Ref. Let.	Part No.	Description
A	164003	Support Assembly, Fuel Tank & Battery
B	157077	Steering Bushing
C	705019	Hex. Cap Screw, 5/16"-18 x 1 1/4"
D	717511	Full Lock Hex. Nut, 5/16"-18
E	717001	Full Hex. Nut, 5/16"-18
F	720001	Lock Washer, 5/16"
G	705012	Hex. Cap Screw, 5/16"-18 x 5/8"
H	164014	R.H. Side Panel
J	164013	L.H. Side Panel
K	718032	Nut Retainer
L	718043	Nut Retainer
M	715018	Hex. Cap Screw, 1/4"-20 x 5/8"
N	~~164259~~	Inst. Panel Assemlby 164232
P	718032	Nut Retainer (Frame Cover)
Q	715018	Hex. Cap Screw, 1/4"-20 x 5/8"
R	720003	Lock Washer, 1/4"
S	717005	Full Hex. Nut, 1/4"-20
T	164010	Frame Assembly
U	720006	Lock Washer, 7/16"
V	705039	Hex. Cap Screw, 7/16"-14 x 1 1/2"
W	157057	Base Weight
X	157060	Front Support, 1 3/4" x 2 1/2" x 8 5/8"
Y	157482	Angle Assembly (Frame Rear)
Z	715080	Hex. Cap Screw, 7/16"-14 x 1 1/2"
AA	720006	Lock Washer, 7/16"
AB	717022	Full Hex. Nut, 7/16"-14
AC	706003	Hex. Cap Screw, 7/16"-20 x 1 1/2"
AD	157065	Foot Rest
AE	157090	L.H. Foot Rest Pad
AF	157089	R.H. Foot Rest Pad
AG	705004	Hex. Cap Screw, 3/8"—16 x 3/4"
AH	720002	Lock Washer, 3/8"
AJ	717003	Full Hex. Nut, 3/8"-16
AK	164008	Cover & Tube Assembly
AL	718022	Retainer Nut (Front)
AM	718030	Retainer Nut (Rear)
AP	715082	Nut-Hex., Whiz-Lock Flange, 5/16"-18 x 3/4"
AQ	157488	Bracket Assembly
AR	719002	Plain Washer, 5/16"
AS	720001	Lock Washer, 5/16"
AT	705019	Hex. Cap Screw, 5/16"-18 x 1 1/4"
AU	720001	Lock Washer, 5/16"
AV	705018	Hex. Cap Screw, 5/16"-18 x 1 1/2"
AW	164009	Grille

Ref. Let.	Part No.	Description
AX	122195	Clamp
AY	714003	Self Tapping Screw, 10 x 1/2"
AZ	164028	R.H. Side Plate
BA	164027	L.H. Side Plate
BB	714005	Self Tapping Screw, 10-24 x 1/2"
BC	714003	Self-Tapping Screw, 10 x 1/2"
BD	164011	Hood
BE	718041	Nut Retainer (Rear)
BF	718024	Nut Retainer (Front)
BG	715037	Thumb Screw
BH	164120	Felt Pad
BJ	164121	Felt Pad
BK	164118	Shifter Rod Assembly
BL	164180	Ball
BM	705018	Hex. Cap Screw, 5/16"-18 x 1 1/2"
BN	720001	Lock Washer, 5/16"
BP	717001	Full Hex. Nut, 5/16"-18
BQ	157020	Shift Rod Guide Assembly
BR	718032	Retainer Nut
BS	720003	Lock Washer, 1/4"
BT	164129	Hood Strip
BU	715018	Hex. Cap Screw, 1/4"-20 x 5/8"
BV	164042	Throttle Control
BW	164019	Choke Control
BX	158475	Bowden Wire Clip
BY	157315	Throttle Cable Bracket
BZ	714021	Self Tapping Screw, 1/4"-20 x 5/8"
CA	122186	Clamp
CB	705015	Hex. Cap Screw, 1/4"-20 x 5/8"
CC	720003	Lock Washer, 1/4"
CD	719006	Plain Washer, 1/4"
CE	717005	Full Hex. Nut, 1/4"-20
CF	717007	Full Hex. Nut, 10-32
CG	710004	Mach. Rd. Hd. Screw, 10-32 x 3/8"
CH	714005	Self Tapping Rd. Hd. Screw, 10-24 x 1/2"
CJ	720003	Lock Washer
CK	157666	Simplicity & No. 3210 Film R.H.
CL	164135	Plate, Assembly
CM	164137	Emblem "S"
CN	720007	Washer Lock
CP	717023	Hex. Nut, 10-24
CQ	164191	Plug Button
CR	156279	Plug Button
CS	157667	Simplicity & No. 3210 Film L.H.

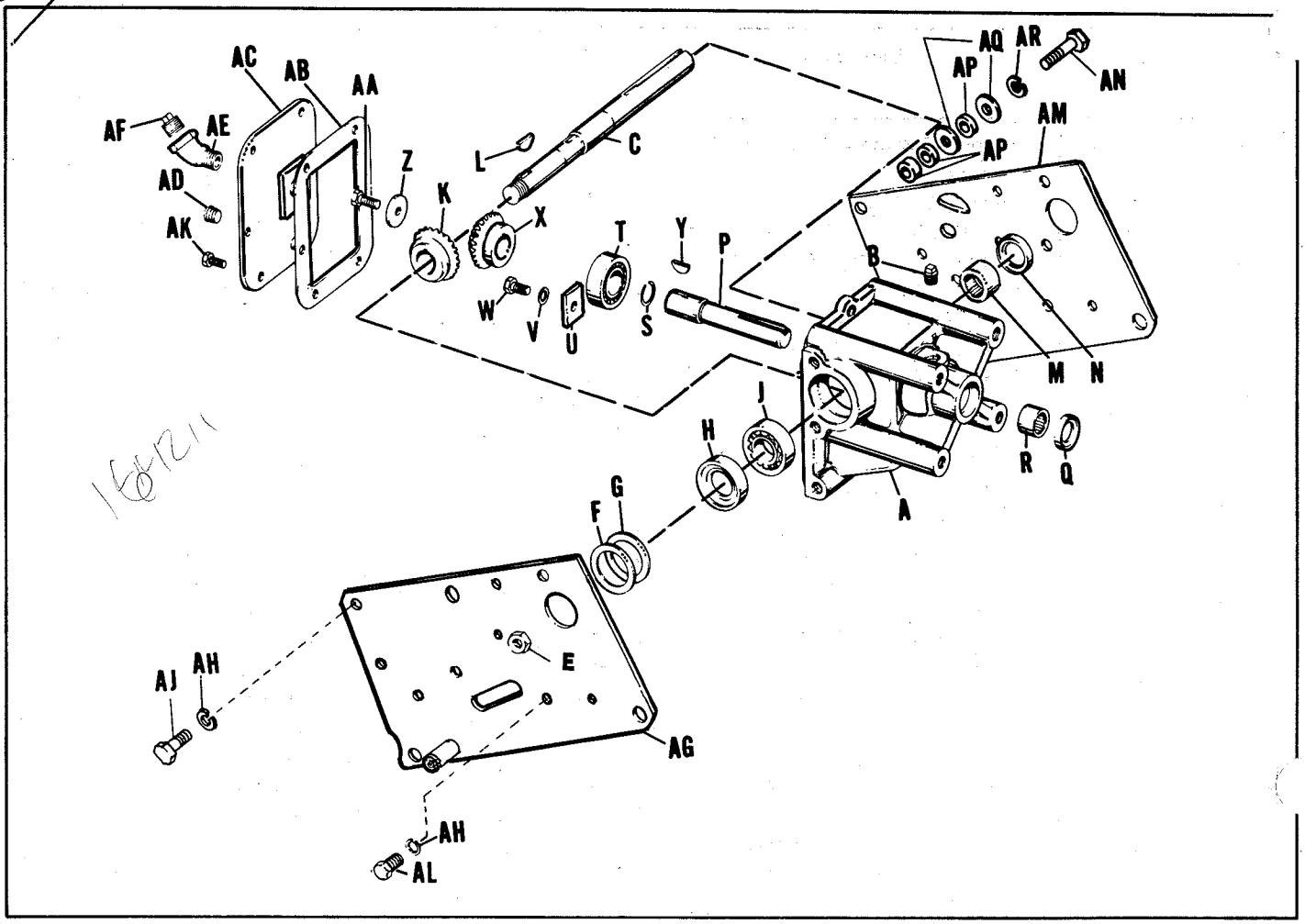
DECALS

157658	Film, Shift Pattern
157659	Film, Ignition
157660	Film, Instrument Panel
157662	Film, Emblem, Landlord

165096	Film, P.T.O.
121195	Plate, Patent No.
164253	Plate, Serial No.

840869

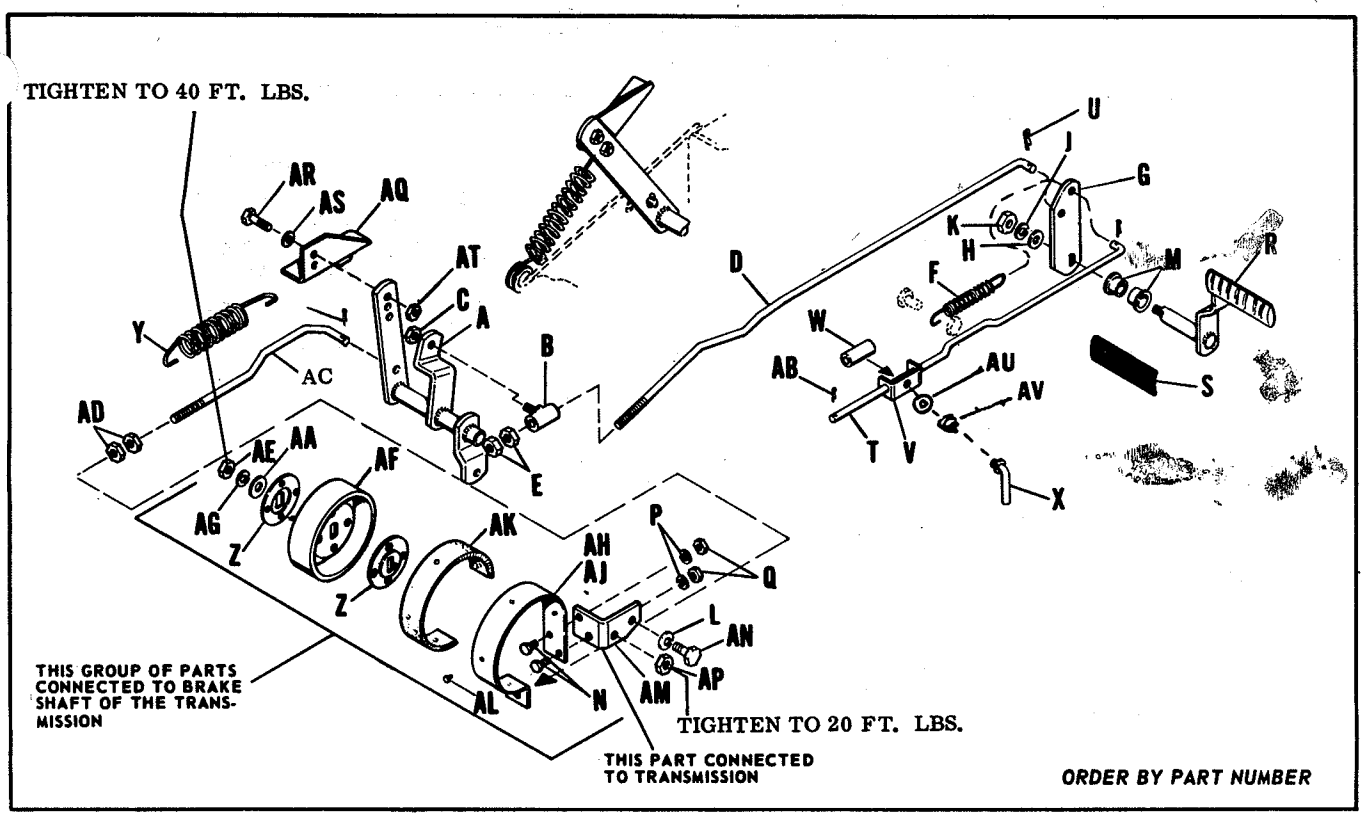
BEVEL GEAR HOUSING



Ref. Let.	Part No.	Description
A	154062	Bevel Gear Housing, W/Bearings
B	154326	Pipe Plug
C	164114	Drive Shaft
E	717517	Hex Jam Nut
F	154137	Shim (As Required)
G	154138	Shim
H	157669	Oil Seal
J	118011	Ball Bearing
K	154139	Bevel Driven Gear
L	725003	Key
M	154279	Needle Bearing
N	118117	Oil Seal
P	157426	Driven Shaft
Q	154263	Oil Seal
R	154258	Needle Bearing
S	118134	Retaining Ring
T	118011	Ball Bearing
U	154040	Bearing Clamp Plate
V	720001	Lock Washer, 5/16"

Ref. No.	Part No.	Description
W	705012	Hex Capscrew, 5/16"-18 x 5/8" lg.
X	154121	Bevel Driven Gear
Y	725003	Key
Z	154026	Washer
AA	154281	Hex Capscrew, 5/16"-18 x 3/4" lg.
AB	154282	Gasket
AC	164249	Housing Cover Assembly
AD	726002	Pipe Plug
AE	728501	Street Elbow
AF	726003	Pipe Plug
AG	164177	R. H. Side Plate
AH	720006	Lock Washer, 7/16"
AJ	705041	Hex Capscrew, 7/16"-14 x 1" lg.
AK	707003	Hex Capscrew, 1/4"-20 x 5/8" lg.
AL	705042	Hex Capscrew, 7/16"-14 x 1-1/4" lg.
AM	164179	L. H. Side Plate
AN	705064	Hex Capscrew, 7/16"-14 x 2" lg.
AP	157168	Spacer
AQ	719003	Washer, 7/16"
AR	720006	Lock Washer, 7/16"

CLUTCH AND BRAKE GROUP

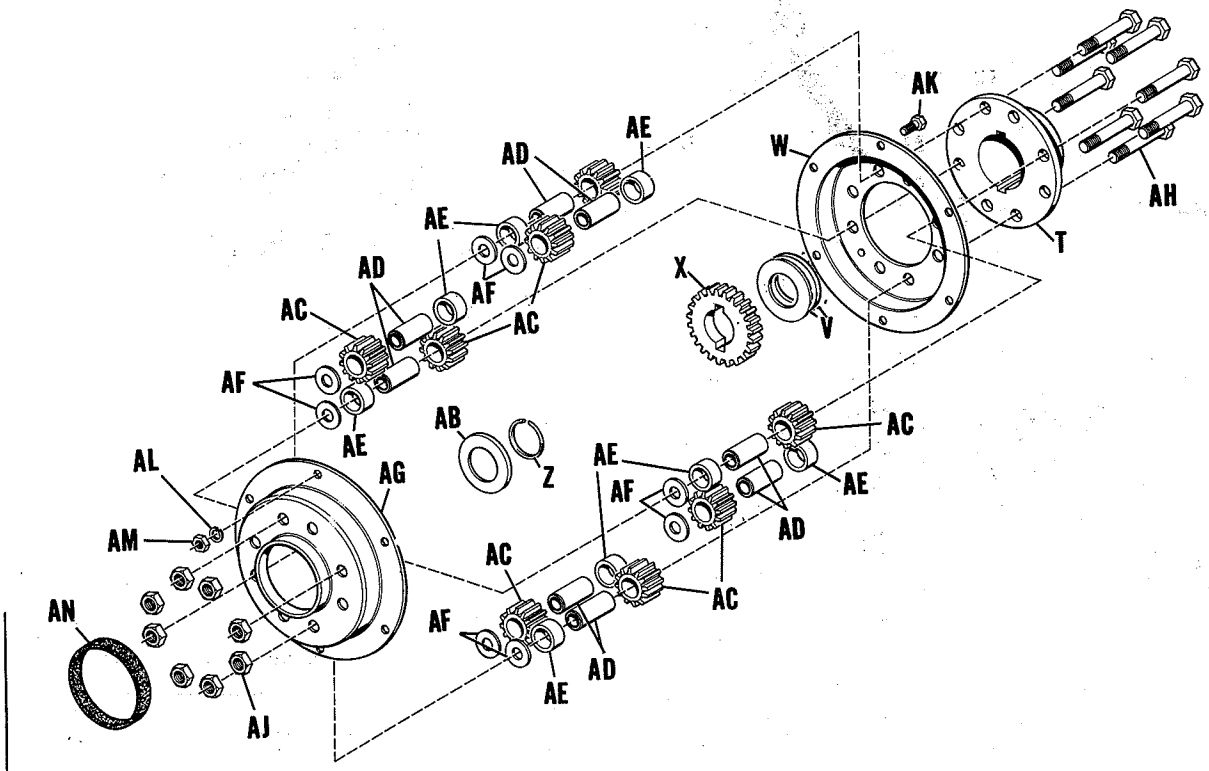


Ref. Let.	Part No.	Description
A	164089	Pivot Lever Assembly
B	164094	Rod Guide Assembly
C	717511	Hex Lock Nut, 5/16"-18
D	164096	Brake and Clutch Rod
E	717001	Hex Nut, 5/16"-18
F	159106	Tension Spring
G	157300	Foot Pedal Arm
H	719001	Washer, Plain, 3/8"
J	720002	Lock Washer, 3/8""
K	717003	Hex Nut, 3/8"-16
L	720002	Lock Washer, 3/8"
M	108419	Bushing
N	705030	Hex Capscrew, 1/4"-20 x 3/4" lg.
P	720003	Lock Washer, 1/4"
Q	717005	Hex Nut, 1/4"-20
R	170304	Foot Pedal Assembly
S	162098	Pedal Pad
T	164210	Parking Brake Rod
U	722009	Cotter Pin, 1/8" x 3/4" lg.
V	164143	Parking Brake Bracket Assy.
W	157287	Spacer
X	164142	Parking Brake Lock
Y	164213	Tension Spring

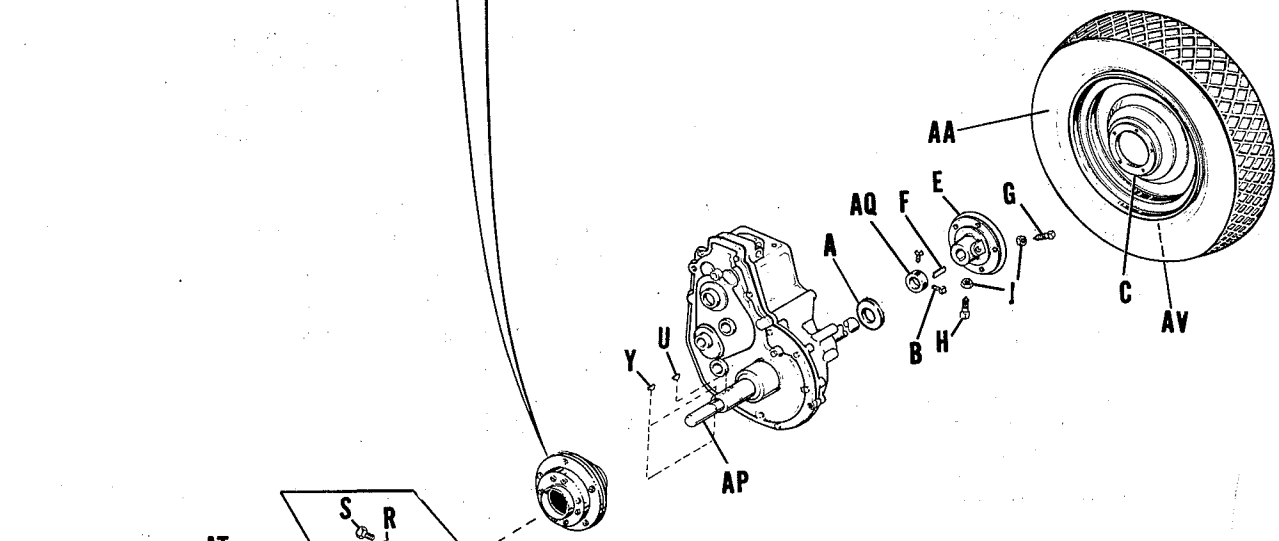
Ref. Let.	Part No.	Description
Z	158196	Special Washer
AA	719001	Washer, Plain, 3/8"
AB	722001	Cotter Pin, 3/32" x 3/4" lg.
AC	164189	Brake Rod
AD	717003	Hex Nut, 3/8"-16
AE	717022	Hex Nut, 7/16"
AF	157282	Brake Drum
AG	720006	Lock Washer, 7/16"
AH	164111	Brake Band Assembly
AJ	164112	Brake Band
AK	154133	Brake Lining
AL	724501	Rivet
AM	164113	Brake Band Bracket
AN	705005	Hex Capscrew, 3/8"-16 x 1" lg.
AP	717003	Hex Nut, 3/8"-16
AQ	164212	Spring Bracket
AR	705017	Hex Capscrew, 5/16"-18 x 3/4" lg.
AS	720001	Lock Washer, 5/16"
AT	717001	Hex Nut, 5/16"-18
AU	719003	Plain Washer, 7/16"
AV	157127	Spring

REAR WHEELS AND AXLE

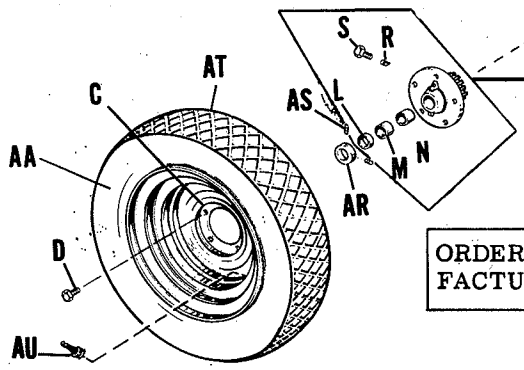
FOR MODEL 3210



ASSEMBLY #157471



164214 Wheel Hub & Gear w/ Bearings



NOT ILLUSTRATED: HUB CAP CHROME DELUXE 154505

ORDER TIRE & TUBE REPLACEMENTS FROM TIRE MANUFACTURER.

ORDER BY PART NUMBER

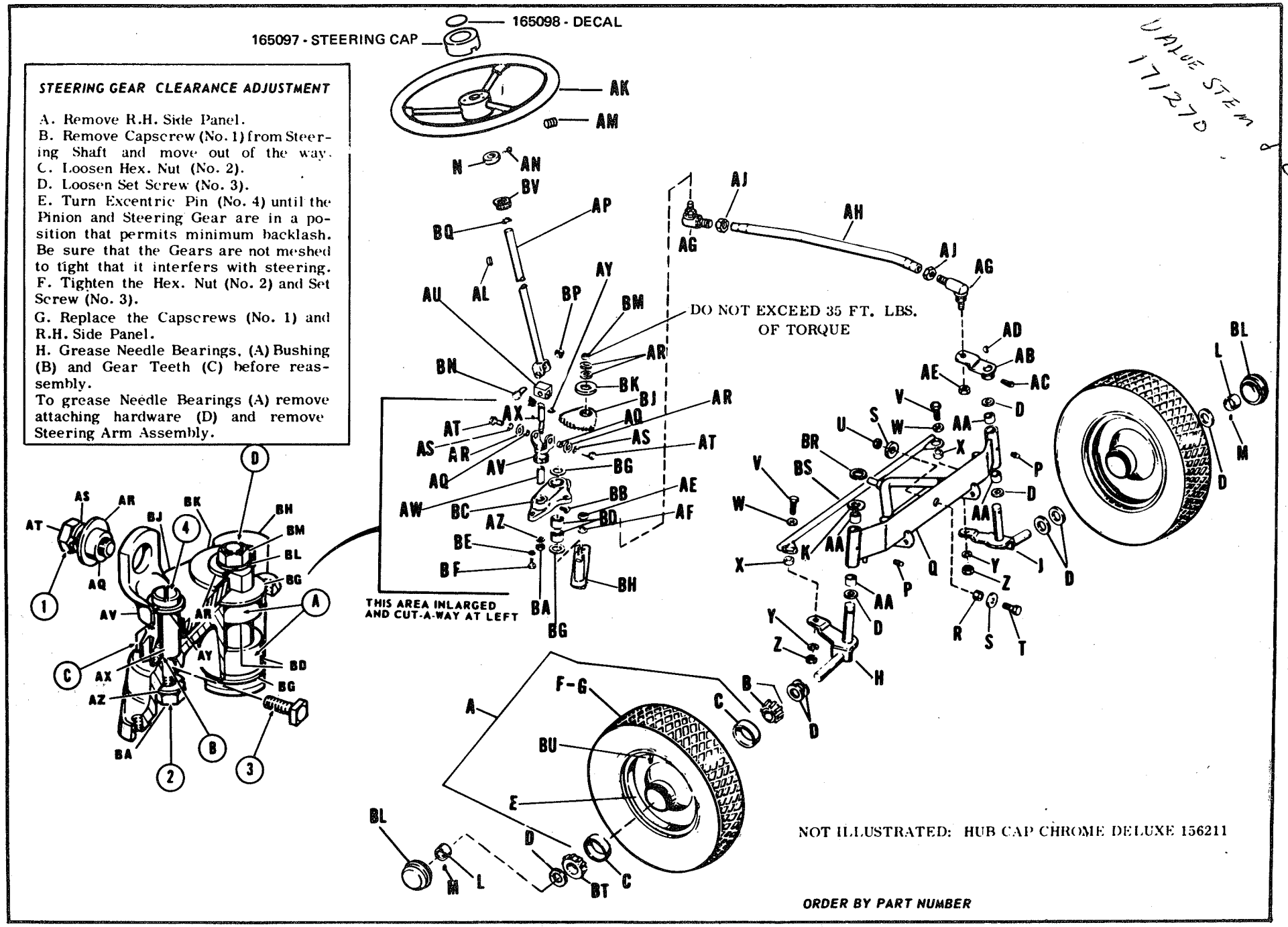
REAR WHEELS AND AXLE

Ref. Let.	Part No.	Description
A	105050	Washer
B	713002	Set Screw, 5/16"-18 x 3/8" Lg.
C	170278	Wheel Drive
D	8261100	Hub Bolt
E	154208	L.H. Wheel Hub
F	159129	Key
G	715022	Set Screw, 3/8"-16 x 1 1/2" Lg.
H	713004	Set Screw 3/8"-16 x 1" Lg.
J	717021	Hex. Jam Nut, 3/8"-16
L	105058	Bearing
M	152041	Nylon Bearing
N	153068	Bearing
R	152042	Nylon Plug
S	713508	Control Traction Bolt, 7/16"-20 x 1/2" Lg.
T	164217	Differential Carrier
U	157120	Drive Key
V	154035	Axle Washer
W	164218*	Differential Cover
X	164219	Differential Gear
Y	725501	Hi-Pro Key
Z	154291	Retaining Ring
AA	157602	Tube (For Service Only)
AB	154277	Axle Washer
AC	121311	Differential Pinion 157579
AD	121083	Pinion Differential Spindle
AE	121084	Differential Spacer
AF	719002	Plain Washer
AG	164220*	Differential Cover
AH	715043	Hex. Cap Screw, 3/8"-16 x 2 1/2"
AJ	717510	Full Lock Hex. Nut, 3/8"-16
AK	705015	Hex. Cap Screw, 1/4"-20 x 5/8"
AL	720003	Lock Washer, 1/4"
AM	717005	Full Hex. Nut, 1/4"-20
AN	121190	Differential Cover Seal
AP	164221	Rear Axle
AQ	154065	Axle Collar
AR	154065	Axle Collar
AS	713002	Set Screw, 5/16"-18 x 3/8"
AT	157024	Tire
AU	157029	Valve Stem
AV	170279	Wheel & Tire Assy.

CAUTION

DO NOT EXCEED 25ft. POUNDS OF TORQUE ON PART NUMBER 713508, REFERENCE LETTER (S), CONTROL TRACTION BOLTS.

* Reference letters "W" and "AG" must be replaced in pairs.



NOT ILLUSTRATED: HUB CAP CHROME DELUXE 156211

STEERING GEAR CLEARANCE ADJUSTMENT

A. Remove R.H. Side Panel.
B. Remove Capscrew (No. 1) from Steering Shaft and move out of the way.
C. Loosen Hex. Nut (No. 2).
D. Loosen Set Screw (No. 3).
E. Turn Excentric Pin (No. 4) until the Pinion and Steering Gear are in a position that permits minimum backlash. Be sure that the Gears are not meshed to tight that it interfers with steering.
F. Tighten the Hex. Nut (No. 2) and Set Screw (No. 3).
G. Replace the Capscrews (No. 1) and R.H. Side Panel.
H. Grease Needle Bearings, (A) Bushing (B) and Gear Teeth (C) before reassembly.
To grease Needle Bearings (A) remove attaching hardware (D) and remove Steering Arm Assembly.

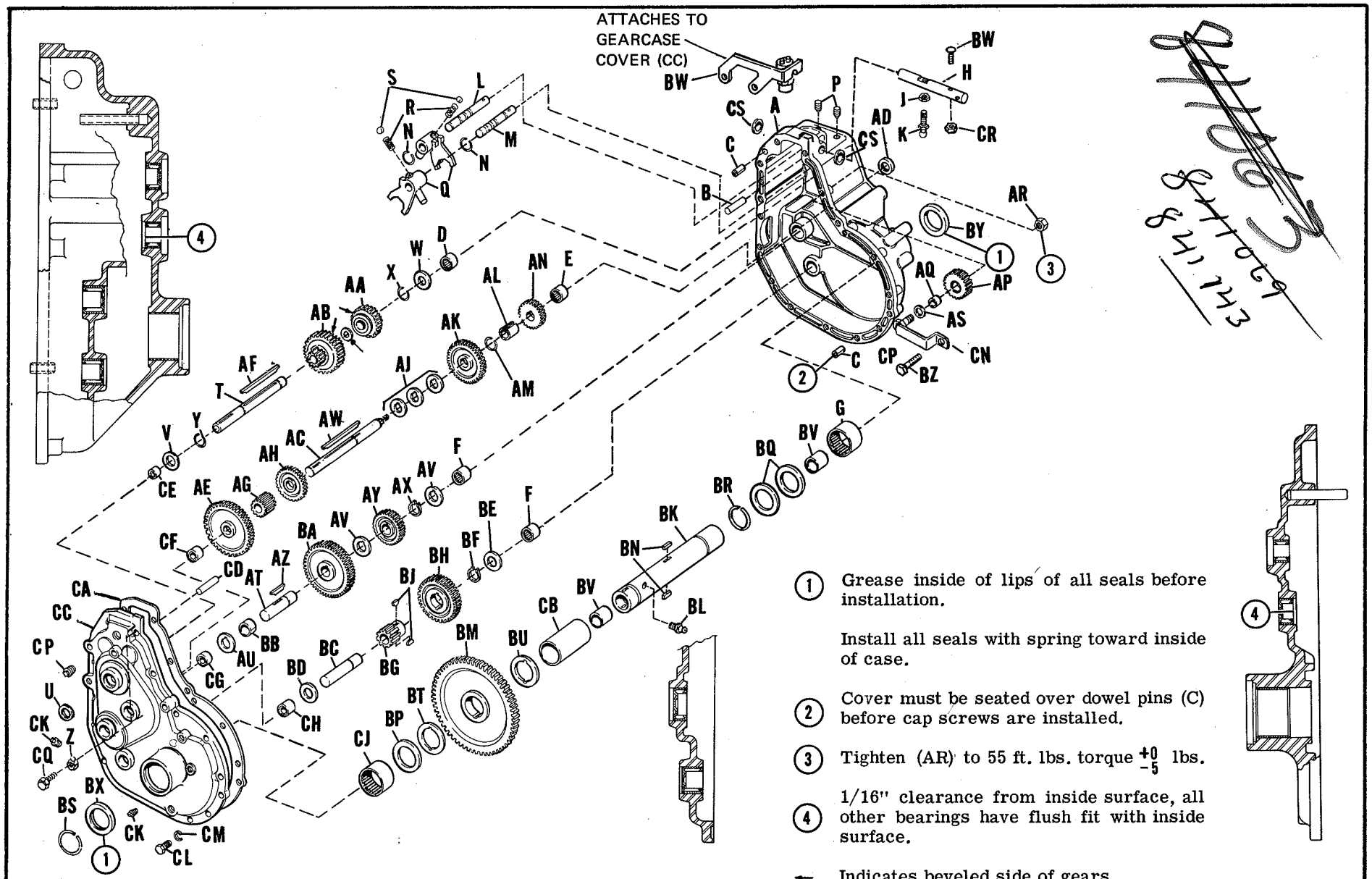
ORDER BY PART NUMBER

FRONT WHEELS, AXLE, TIE ROD & STEERING

FRONT WHEELS, AXLE, TIE ROD & STEERING

Ref. Let.	Part No.	Description
A	154395	Wheel and Tire Assembly
B	154397	Bearing Cone w/seal
C	154393	Bearing Cup
D	108181	Washer
E	154427	Wheel w/Bearing Cup
F	153037	Tire
G	153038	Tube
H	157494	Spindle Assembly, R.H.
J	157611	Spindle Assembly, L.H.
K	8061012	Washer
L	8021010	Set Collar
M	713503	Cup Point Socket Head Set Screw, 5/16"-18 x 5/16" Lg.
N	8021010	Set Collar
P	727001	Grease Fitting
Q	157616	Axle Assembly, Front
R	157618	Spacer
S	719004	Plain Washer, 1/2"
T	705037	Hex. Cap Screw, 1/2"-13 x 3 1/4" lg.
U	717518	Full Lock Hex. Nut, 1/2"-13
V	705016	Hex. Cap Screw, 3/8"-16 x 1 1/4" Lg.
W	719001	Plain Washer, 3/8"
X	154177	Spacer
Y	720002	Lock Washer, 3/8"
Z	717003	Full Hex. Nut, 3/8"-16
AA	154289	Bearing
AB	157613	Arm Assembly, Steering, L.H.
AC	713006	Screw, Set Cup Point, Square Head, 5/16"-18 x 1/2" Lg.
AD	157427	Key
AE	717528	Full Hex. Lock Nut, 1/2"-20
AF	720004	Lock Washer, 1/2"
AG	164272	Ball Joint
AH	164271	Tie Rod
AJ	717016	Nut, 1/2"-20 N.F.
AK	157702	Steering Wheel
AL	725003	Woodruff Key No. 9

Ref. Let.	Part No.	Description
AM	713503	Socket Head Cup Point Set Screw, 5/16"-18 x 5/16" Lg.
AN	713502	Socket Head Set Screw, 5/16"-18 x 1/4" Lg.
AP	157259	Steering Shaft Assembly
AQ	153081	Spacer
AR	719001	Plain Washer, 3/8"
AS	720002	Lock Washer, 3/8"
AT	715030	Hex. Cap Screw, 3/8"-16 x 3/4" Lg.
AU	154153	Universal Joint Pin
AV	157254	Bushing Assembly
AW	157258	Bushing
AX	157253	Pin Eccentric
AY	158399	Retainer Ring
AZ	720002	Lock Washer 3/8"
BA	717003	Full Hex. Nut, 3/8"-16
BB	713012	Sq. Hd. Set Screw, 1/4"-20 x 3/4"
BC	157302	Steering Bracket
BD	154258	Needle Bearing
BE	720001	Lock Washer, 5/16"
BF	705012	Hex. Cap Screw, 5/16"-18 x 5/8"
BG	8061012	Washer
BH	164263	Steering Arm Assembly
BJ	164235	Gear Steering
BK	108182	Arbor Washer
BL	154487	Hub Cap
BM	717519	Gripco Center Lock 7/16"-14
BN	715026	Hex Cap Screw
BP	717511	Full Hex. Nut, 5/16"-18
BQ	154264	Snap Ring
BR	157286	Retaining Ring
BS	157499	Drag Link
BT	154486	Outside Bearing
BV	157077	Steering Bushing

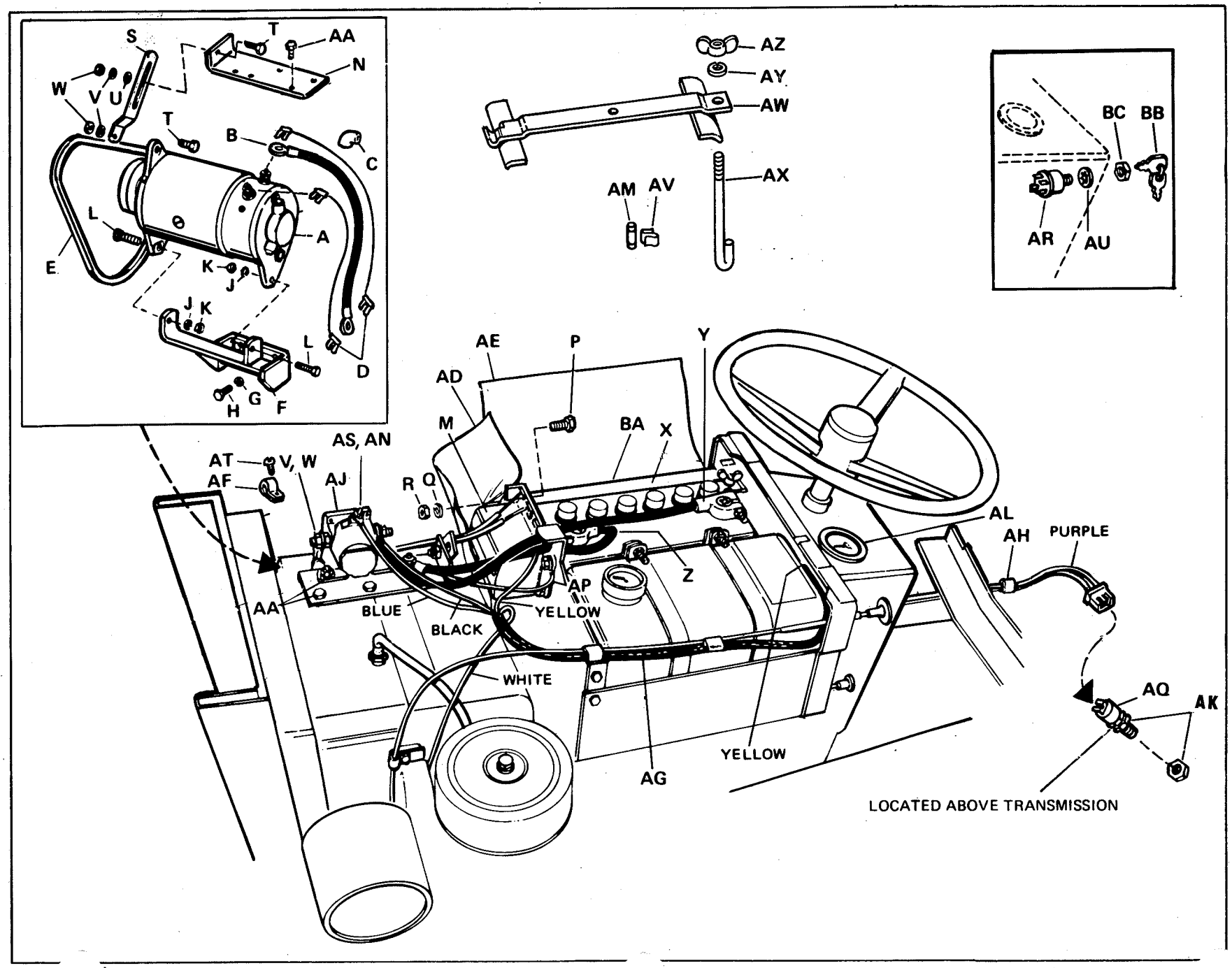


FOR MODEL 3210

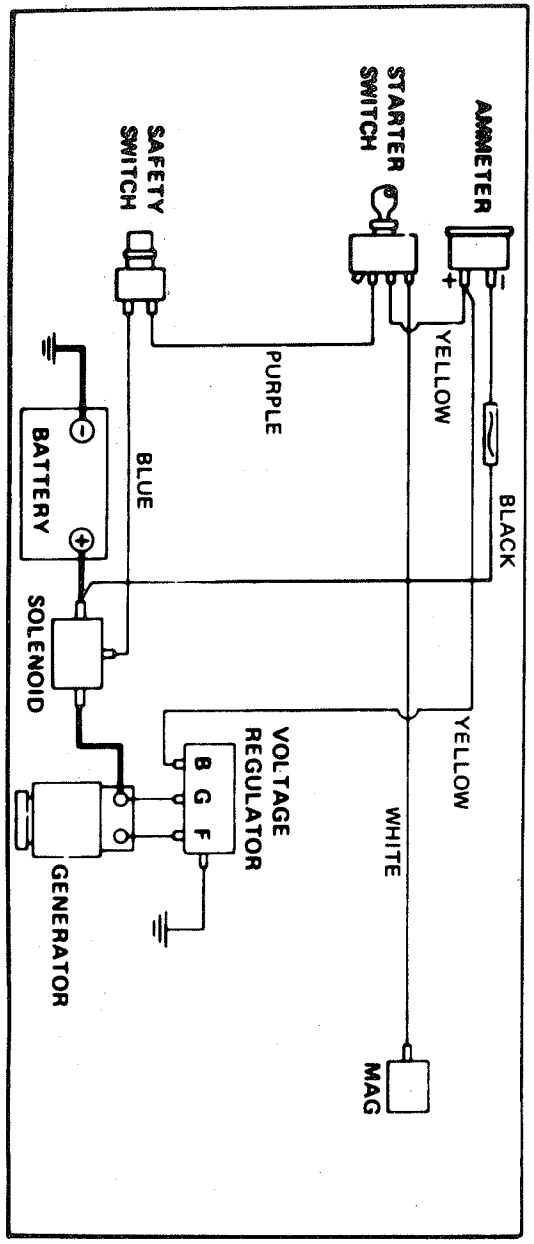
TRANSMISSION GROUP

Ref. Let.	Part No.	Description
A	157516	Case, Gear, Complete w/bearings and dowel pins (Includes "B" thru "G")
B	154538	Roll Pin
C	723007	Roll Pin
D	154257	Needle Bearing
E	154258	Needle Bearing
F	154259	Needle Bearing
G	157519	Needle Bearing
H	164250	Shift Rod
J	154261	Shift Stem
K	717010	Full Hex. Nut, 3/8"-24 N.F.
L	154067	Shifter Shaft Rev., Med.
M	154068	Shifter Shaft High, Low
N	8061048	Retaining Ring
P	715019	Set Screw, Hollow Hd.Cone Pt., 5/16"-18 x 1/2"
Q	154069	Shift Fork
R	154323	Spring
S	154262	Shift Lock Ball
T	164293	Pulley Shaft
U	164060	Flinger
V	154264	Retaining Ring
W	164251	Switch Support
X	157619	Oil Seal
Y	118134	Retaining Ring
Z	717011	Hex. Nut Jam, 5/16"-18
AA	154072	Pinion Assembly Rev. II
AB	154075	Pinion Assembly I and III
AC	157290	Shaft, 1st Intm.
AD	154263	Oil Seal
AE	154078	Driven I, Gear
AF	164294	Key
AG	154079	Pinion, 1st Intm.
AH	154080	Pinion, Driven, III
AJ	8061012	Trans. Gear Spacer
AK	154081	Driven II Gear
AL	154082	Spacer
AM	154264	Retaining Ring
AN	154083	Reverse Pinion
AP	154087	Reverse Gear
AQ	154084	Rev. Gear Spacer
AR	717516	Lock Nut, 1/2"-20 N.F.
AS	154325	Washer
AT	154086	Shaft, 2nd. Intm.
AU	154038	Washer
AV	154038	Washer
AW	154354	Key
AX	154266	Retaining Ring
AY	164062	Pinion, 2nd. Intm.
AZ	154267	Key
BA	154089	Gear, 2nd. Intm.
BB	154090	Spacer
BC	154091	Shaft, 3rd. Intm.
BD	154038	Washer
BE	154038	Washer
BF	154266	Retaining Ring
BG	154092	Pinion, 3rd. Intm.
BH	164051	Gear, 3rd. Intm.
BJ	725002	Key Woodruff
BK	164223	Axle Tube w/bushing
BL	727002	Grease Fitting
BM	154095	Drive Gear
BN	154096	Key
BP	154097	Washer
BQ	154097	Washer
BR	154268	Snap Ring
BS	154268	Snap Ring
BT	154130	Axle Tube Washer
BU	154130	Axle Tube Washer
BV	164224	Bearing
BW	703010	Carriage Bolt, 5/16"-18 x 1"
BX	154269	Seal
BY	154269	Seal
BZ	705016	Hex. Cap Screw, 3/8"-16 x 1 1/4"
CA	164234	Gear Case Gasket
CB	154098	Axle Tube Spacer
CC	164226	Gear Case Cover, Complete w/Bearings
CD	154537	Roll Pin
CE	108202	Ball Bearing
CF	154257	Needle Bearing
CG	154271	Needle Bearing
CH	154259	Needle Bearing
CJ	157520	Needle Bearing
CK	726003	Pipe Plug, 3/8"
CL	705007	Hex. Cap Screw, 5/16"-18 x 1"
CM	720001	Lock Washer, 5/16"
CN	154352	Rev. Gear Pin Assembly
CP	726003	Pipe Plug, 3/8"
CQ	705019	Hex. Cap Screw, 5/16"-18 x 1 1/4"
CR	717011	Hex Jam Nut, 5/16"-18
CS	154462	Washer

ELECTRIC STARTER-GENERATOR SYSTEM



ELECTRIC STARTER-GENERATOR SYSTEM

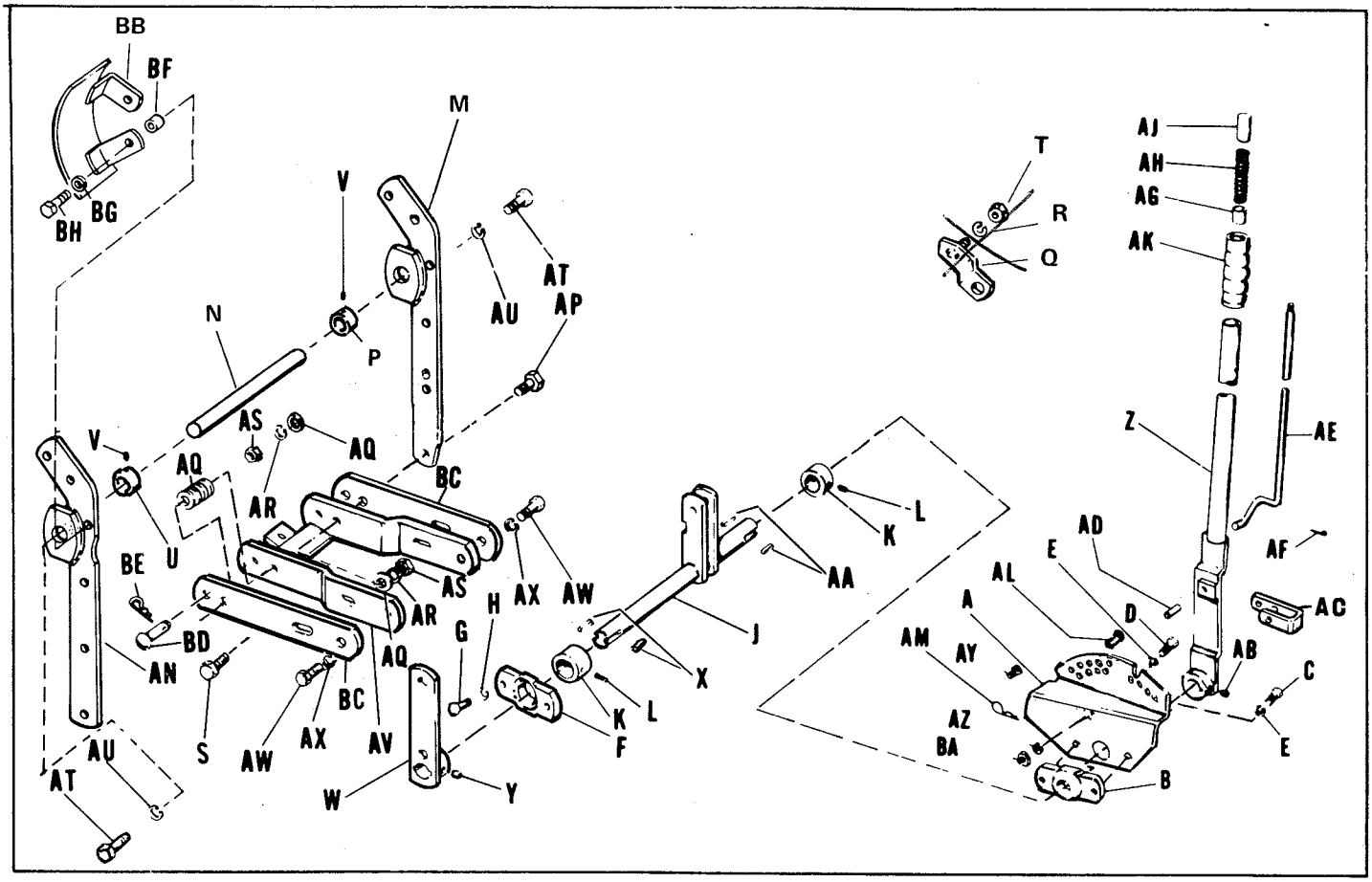


Ref. Let.	Part No.	Description
A	122236 **	Motor - Generator
B	122213	Generator Start Cable
C	122023	Terminal Cover
D	122140	Reg. Gen. Wire
E	157524	"V" Belt
F	157654	Support Assembly
G	720001	Lock Washer, 5/16"
H	715048	Hex. Capscrew,5/16-18 x 3/4" lg.
J	720001	Lock Washer, 5/16"
K	717001	Full Hex. Nut, 5/16" - 18
L	705019	Hex. Capscrew,5/16"-18 x 1-1/4"
M	122193 **	Voltage Regulator
N	164254	Bracket
P	705030	Hex.Capscrew,1/4-20 x 3/4" lg.
Q	720003	Lock Washer, 1/4"
R	717005	Full Hex.Nut, 1/4"-20
S	157102	Belt Tightener
T	705017	Hex.Capscrew,5/16-18 x 3/4" lg
U	719002	Plain Washer, 5/16"
V	720001	Lock Washer, 5/16"
W	717001	Full Hex.Nut, 5/16"-18
X	122190	Battery
Y	122204	Cable (Battery to Solenoid)
Z	122138	Cable (Battery to Ground)
AA	715090	Screw Hex. Thread Forming 1/4"-20 x 1/2" lg.
AD	122142	Battery Insulation

Ref. Let.	Part No.	Description
AE	122143	Fuel Tank Insulation
AF	122195	Wire Clamp (Generator Cable)
AG	164256	Harness Assembly
AH	165073	Speed Clip
AJ	122216	Solenoid
AK	717005	Full Hex. Nut, 1/4"-20
AL	122131	Ammeter
AM	122172	Fuse, 20 AMP
AN	717007	Full Hex. Nut, 10-32
AP	122147	Wire (Ground to Ground)
AQ	122233	Safety Switch
AR	122201	Starter Switch w/Keys
AS	721003	Lock Washer, ext. No. 10
AT	714005	Rd.Hd.Screw 10-24 x 1/2"
AU	721509	Lock Washer Int. 9/16"
AV	122183	Clip Fuse
AW	170321	Battery Bracket
AX	122174	"J" Bolt
AY	720003	Lock Washer, 1/4"
AZ	718042	Wing Nut
BA	122199	Film (SIMPLICITY)
BB	122203	Keys
BC	122235	Hex Nut - Special

** FOR SERVICE CONTACT YOUR LOCAL UNITED MOTOR SERVICE DEALER (DELCO-REMY)

REAR LIFT DRAW BAR GROUP

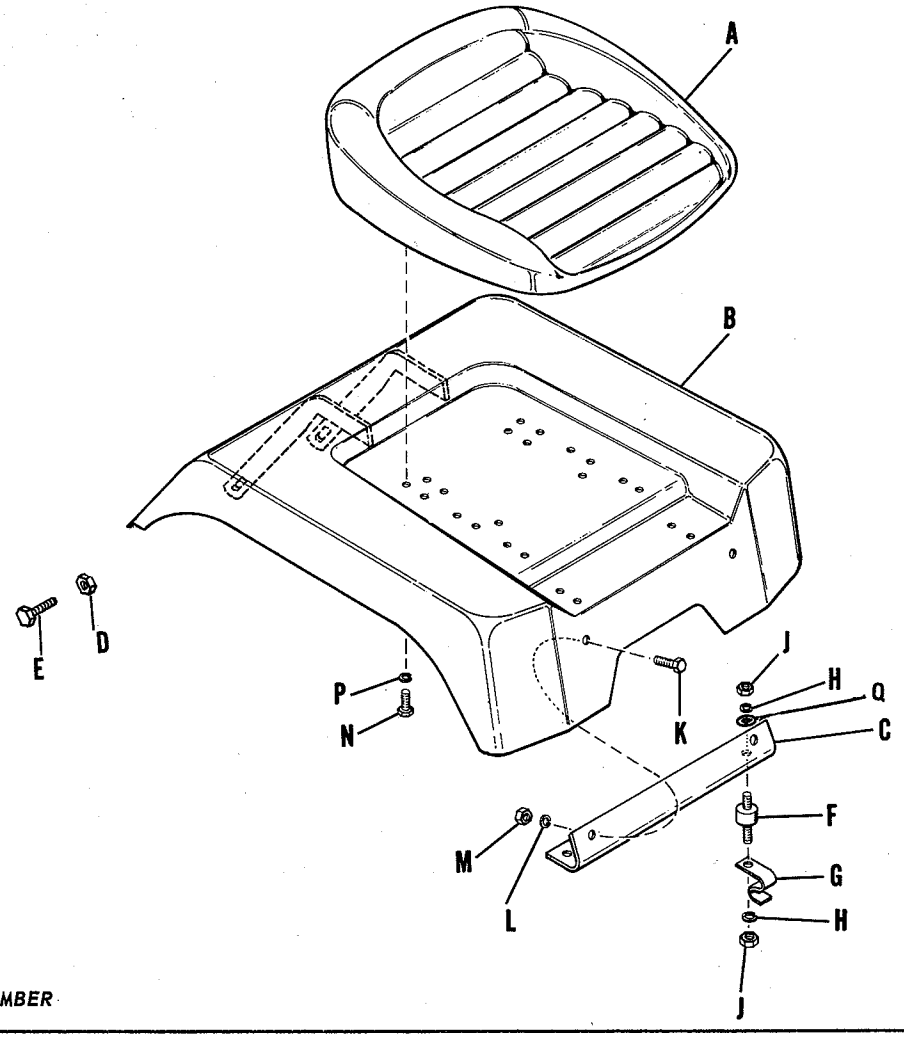


Ref. Let.	Part No.	Description
A	154209	Lift Lever Quadrant
B	157620	Lift Lever Bearing
C	705031	Hex. Cap Screw, 3/8"-16 x 7/8"
D	705016	Hex. Cap Screw, 3/8"-16 x 1 1/4"
E	720002	Lock Washer, 3/8"
F	157620	Lift Lever Bearing
G	705031	Hex. Cap Screw, 3/8"-16 x7/8"
H	720002	Lock Washer, 3/8"
J	157640	Lift Shaft Assemlby
K	157624	Set Collar
L	713503	Set Screw, 5/16"-18 x 5/16"
M	164304	Arm Assembly
N	154216	Lift Shaft
P	157695	Set Collar
Q	154362	Pivot Bar Assembly
R	719001	Plain Washer, 3/8"
S	705047	Hex. Cap Screw, 7/16"-14 x 1 3/4"
T	717510	Hex. Nut, 3/8"-16
U	8021010	Set Collar
V	713503	Set Screw, 5/16"-18 x 5/16"
W	157625	Front Lift Lever Assembly
X	157120	Key
Y	713502	Set Screw,
Z	157696	Lift Lever Assembly
AA	157652	Key
AB	713502	Set Screw, 5/16"-18 x 1/4"
AC	157700	Lift Lever Latch
AD	723007	Roll Pin

Ref. Let.	Part No.	Description
AE	157701	Latch Rod
AF	722001	Cotter Pin, 3/32" x 3/4"
AG	154226	Spacer
AH	152006	Spring
AJ	154227	Thumb Button
AK	156209	Handle Grip
AL	153058	Pin
AM	8161045	Spring Clip
AN	164284	Arm Assembly
AP	705039	Hex. Cap Screw, 7/16"-14 x 1 1/2"
AQ	719001	Plain Washer, 3/8"
AR	721601	Lock Washer
AS	717022	Full Hex. Nut, 7/16"
AT	705041	Hex. Cap Screw, 7/16"-14 x 1"
AU	720006	Lock Washer, 7/16"
AV	154202	Draw Bar Assembly
AW	705042	Hex. Cap Screw, 7/16"-14 x 1 1/4"
AX	720006	Lock Washer, 7/16"
AY	715018	Hex. Cap Screw, 1/4"-20 x 5/8"
AZ	720003	Lock Washer, 1/4"
BA	717005	Hex Nut, 1/4-20
BB	164285	Pulley Guard Assembly
BC	157091	Pull Bar
BD	155037	Round Head Pin
BE	8161045	Spring Clip
BF	164288	Spacer
BG	720006	Lock Washer, 7/16"
BH	705039	Hex. Cap Screw, 7/16"-14 x 1 1/2"

SEAT AND FENDERS

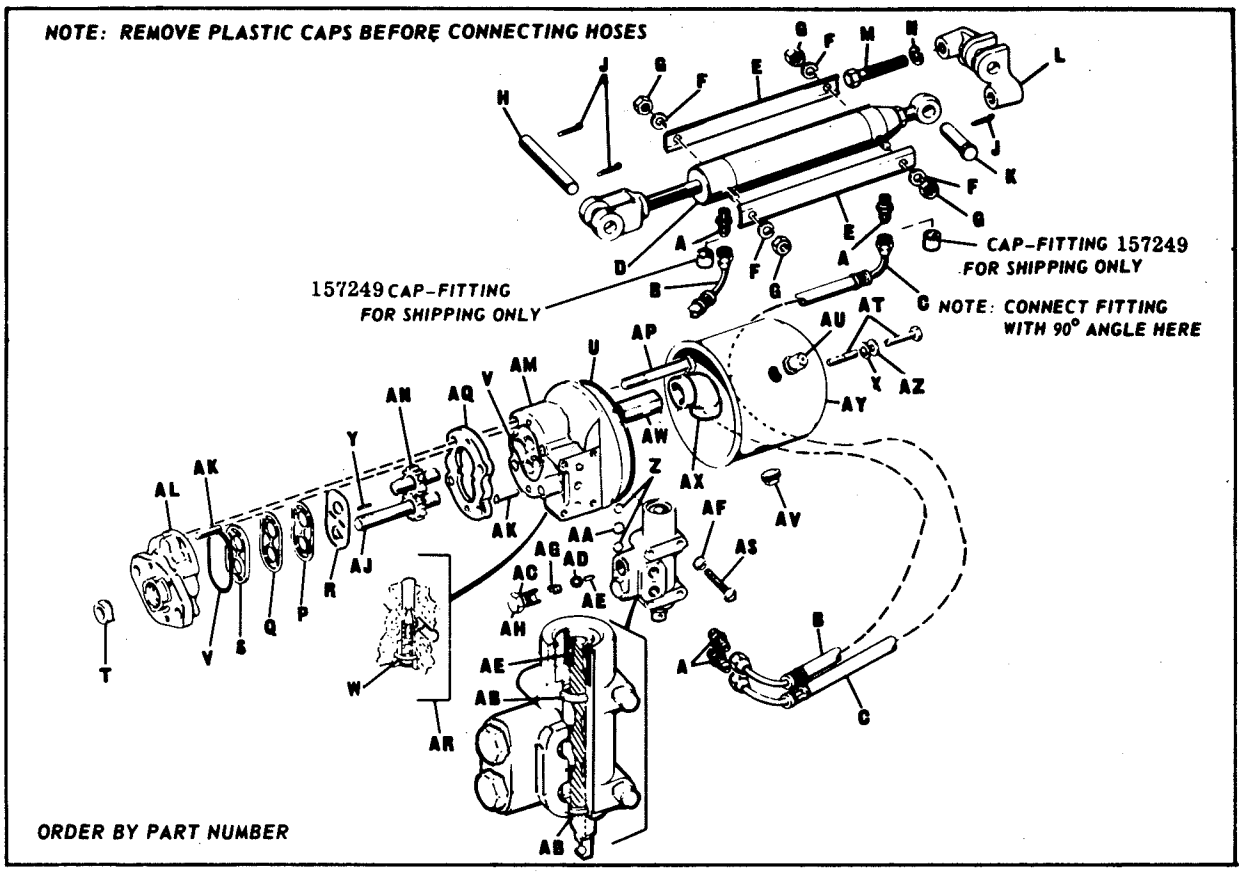
FOR MODEL 3210



ORDER BY PART NUMBER

Ref. Let.	Part No.	Description
A	156203	Seat Assembly
B	166111	Seat Deck Assembly
C	164029	Seat Deck Bracket, Front
D	717510	Hex. Locknut, Full, 3/8"-16
E	705016	Hex. Head Capscrew, 3/8"-16 x 1-1/4"
F	159085	Cushion Connector, Front
G	164145	Spring Clip
H	720001	Lock Washer, 5/16"
J	717001	Hex. Nut, Full, 5/16"-18
K	705012	Hex. Head Capscrew, 5/16" 18 x 5/8" lg.
L	720001	Lockwasher, 5/16"
M	717001	Hex. Nut, Full, 5/16"-18
N	705012	Hex. Head Capscrew, 5/16"-18 x 5/8" lg.
P	720001	Lockwasher, 5/16"
Q	719006	Plain Washer, 1/4"

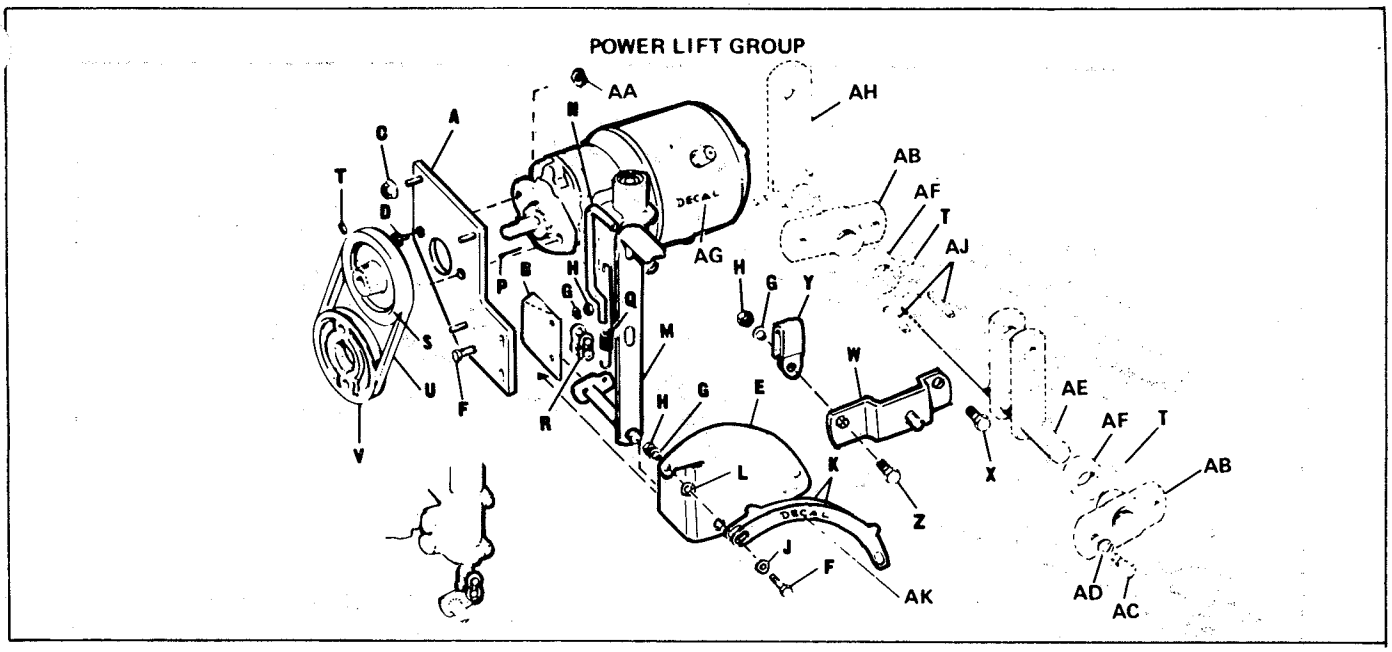
POWER LIFT GROUP



Ref. Let.	Part No.	Description
A	164277	Fitting
B	157210	Hose Assembly
C	157211	Hose Assembly
D	157236	Cylinder Assembly
E	157228	Side Bar
F	720001	Lock Washer, 5/16"
G	717001	Full Hex. Nut, 5/16"-18
H	157225	Pin
J	722009	Cotter Pin, 1/8" x 3/4"
K	157194	Ram Bracket Pin
L	157001	Ram Bracket
M	705052	Hex. Cap Screw 7/16"-14 x 2 1/4"
N	720006	Lock Washer, 7/16"
P	157433	Heat Shield (for service only)
Q	157434	Gasket
R	157435	Wear Plate
S	157436	Seal
T	157437	Rotary Seal
U	157438	"O" Ring
V	157439	"O" Ring
W	157404	"O" Ring
X	157441	Stat-O-Seal
Y	157442	Shaft Drive Key
Z	157406	"O" Ring

Ref. Let.	Part No.	Description
AA	157407	"O" Ring
AB	157405	"O" Ring
AC	157444	"O" Ring
AD	157445	Ball
AE	157446	Pin Cam
AF	720003	Lock Washer, 1/4"
AG	157448	Spring
AH	157449	Cage
AJ	157450	Drive Gear Assembly
AK	157451	Dowel Pin
AL	157452	Front Cover Assembly
AM	157453	Back Cover Assembly
AN	157454	Driven Gear Assembly
AP	157455	Bolt
AQ	157456	Center, Section Machined
AR	157457	Relief Valve Assembly
AS	157459	Screw
AT	157460	Screw
AU	157462	Filler Cap Plug
AV	157463	Drain Plug
AW	157464	Inlet Nipple
AX	157465	Inlet Elbow
AY	157461	Tank Assembly
AZ	719006	Flat Washer, 1/4"

POWER LIFT GROUP



Ref. Let.	Part No.	Description
A	157587	Pump Support Assembly
B	157428	Angle Bracket
C	718033	Hex. Nut, Whiz Lock, 5/16"-18
D	709002	Machine Screw, Flat Hd., 3/8"-16 x 1 1/4"
E	157199	Quadrant
F	715057	Hex. Cap Screw, 1/4"-20 x 3/4"
G	720003	Lock Washer, 1/4"
H	717005	Full Hex. Nut, 1/4"-20
J	719006	Plain Washer, 1/4"
K	157204	Stop Plate
L	157205	Spacer
M	157200	Lever Assembly
N	157206	Latch Rod
P	722016	Cotter Pin, 3/32" x 5/8"
Q	157207	Spring
R	157208	Connecting Link
S	157430	Pump Pulley

Ref. Let.	Part No.	Description
T	713503	Set Screw, 5/16"-18 x 5/16"
U	157230	"V" Belt
V	157484	Drive Pulley
W	157233	Pivot Bar Assembly
X	705007	Hex. Cap Screw, 5/16"-18 x 1"
Y	157245	Hose Clamp
Z	705021	Hex. Cap Screw, 1/4"-20 x 1"
AA	718035	Nut, Whiz-Lock Flange, 3/8"-16
AB	157620	Lift Lever Bearing
AC	705031	Hex. Cap Screw, 3/8"-16 x 7/8"
AD	720002	Lock Washer, 3/8"
AE	157621	Lift Shaft Assembly
AF	157624	Set Collar
AG	157242	Decal
AH	157625	Front Lift Lever Assembly
AJ	157120	Key
AK	157232	Film

INSTRUCTIONS FOR ADJUSTING HAND LEVER AND FLOAT STOPS OF QUADRANT ON POWER LIFT UNIT

Attach pump to pump support assembly No. 157587. Then attach support assembly to fuel tank and steering post support. Attach lever with connecting link to valve spool shaft.

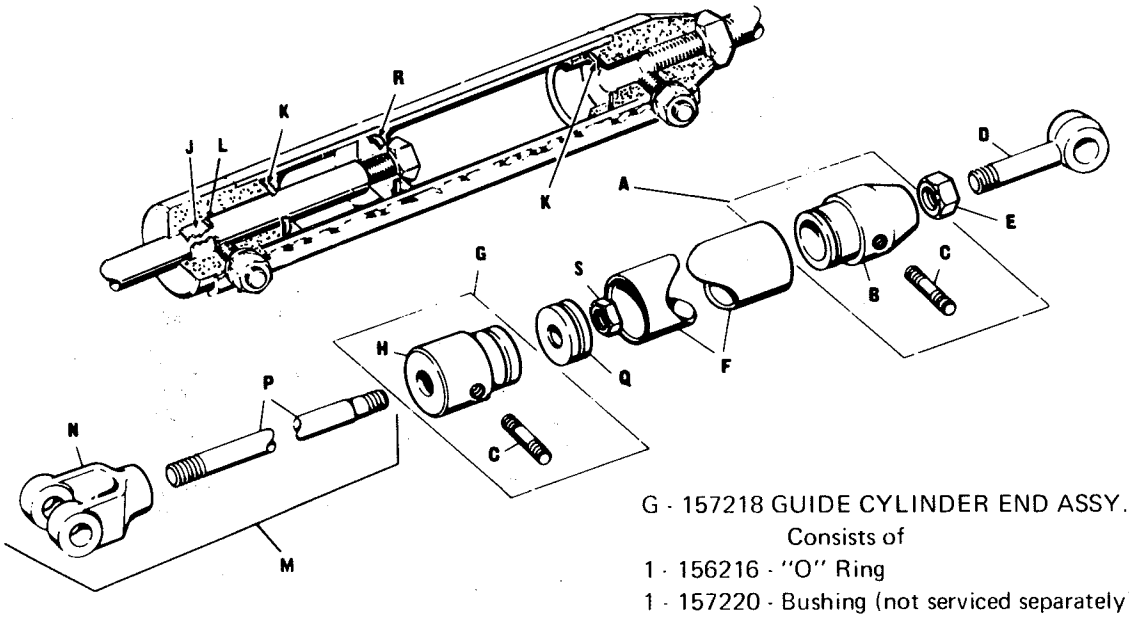
Place the lever No. 157200 with the latch rod No. 157206 in the exact middle of the two hex cap screws "F" located in the quadrant No. 157199. This is done by adjusting the angle bracket No. 157428 and quadrant No. 157199 up or down on the support No. 157587. Tighten the capscrews securing the bracket and quadrant to the support.

Move lever to most extreme position (front or rear). Bring stop plate up so notch is striking rod No. 157206 and secure capscrew "F" furthest from handle. Repeat procedure to the other stop plate.

Check rod No. 157206 in both positions. This rod is not to have ANY FREE MOVEMENT when in front or rear float position. Excessive play at this point increases back pressure on the pump and may cause overheating of the pump. If pump is moved to lift position (front or rear) and then drops the load before entering float position, readjust the hand lever to center of quadrant as described above. Oil lever and rod to insure free movement.

The bolts holding the pump and tank together should be checked and tightened to torque or 50-60 INCH POUNDS.

POWER LIFT GROUP



G - 157218 GUIDE CYLINDER END ASSY.
Consists of
1 - 156216 - "O" Ring
1 - 157220 - Bushing (not serviced separately)
2 - 157214 - Stud

A - 157212 BASE CYLINDER ASSY.
Consists of
1 - 157216 - "O" Ring
1 - 717016 - Nut, Hex, Jam
2 - 157214 - Stud

ORDER BY PART NUMBER

Ref. Let.	Part No.	Description
A	157212	Cylinder Base Sub-Assembly
B	157213	Cylinder Base
C	157214	Stud Bolt, 5/16"-18 x 7/8"
D	157215	Bolt Eye
E	717016	Jam Hex. Nut, 1/2"-20
F	157217	Cylinder
G	157218	Sub Assembly Guide
H	157219	Cylinder End Guide
J	157220	Bushing

Ref. Let.	Part No.	Description
K	157216	"O" Ring
L	157670	"O" Ring
M	157222	Yoke & Rod Sub-Assembly
N	157223	Yoke
P	157224	Piston Rod
Q	157226	Piston
R	157668	"O" Ring
S	717009	Full Hex. Nut

CAUTION

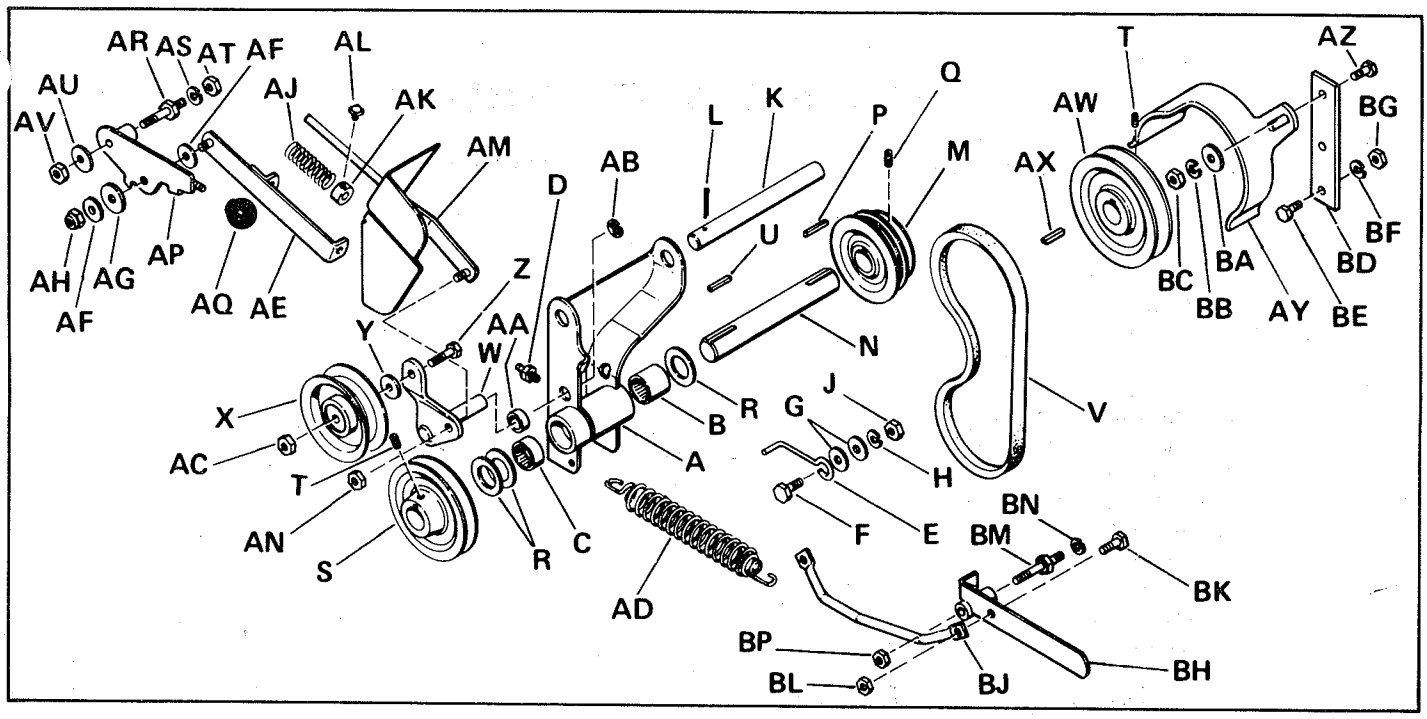
IT IS VITALLY IMPORTANT THAT THE HYDRAULIC FLUID AND ALL INTERNAL PARTS OF THIS UNIT BE KEPT COMPLETELY CLEAN AND FREE OF FOREIGN MATTER OF ANY TYPE.

USE UTMOST CARE IN ADDING OR CHECKING FLUID AND IN PERFORMING ANY SERVICE ON INTEGRAL PARTS.

(For instance if a fitting or other part is dropped on a contaminated surface, the part must be carefully washed and dried before re-using.)

REMEMBER-HYDRAULICS DEMAND CLEANLINESS

POWER TAKE-OFF



Ref. Let.	Part No.	Description
A	157675	Bracket, P.T.O. Ass'y.
B	157678	Bearing, Roller
C	157679	Bearing, Roller
D	727001	Grease Fitting
E	161080	Stop Belt
F	~~705007~~ 705019	Hex. Hd. Cap Screw, 5/16" - 18 N.C. x 1" Lg. 705019
G	719002	Plain Washer, 5/16"
H	720001	Lock Washer, 5/16"
J	717001	Full Hex. Nut, 5/16" - 18 N.C.
K	154233	Rod Pivot, 5/8" Dia. x 6 - 13/16"
L	722007	Cotter Pin
M	157680	Pulley
N	157681	Shaft, P.T.O.
P	157332	Key, Hi-Pro
Q	713502	Cup Pt. Skt. Hd. Screw Set, 5/16" 18 N.C. x 1/4" Lg.
R	118252	Washer
S	157682	Pulley, P.T.O.
T	713503	Cup Pt. Skt. Hd. Screw Set, 5/16" 18 N.C. x 5/16" Lg.
U	157332	Key, Hi-Pro
V	157683	"V" Belt, P.T.O.
W	164241	Idler Lever Ass'y.
X	164268	Idler Pulley
Y	719002	Plain Washer, 5/16"
Z	705016	Hex. Cap Screw, 3/8" - 16 N.C. x 1 - 1/4"
AA	164244	Spacer
AB	157288	Retaining Ring
AC	717510	Full Lock Hex. Nut, 3/8" - 16 N.C.
AD	157262	Spring, Tension
AE	157684	Rod Guide Ass'y.
AF	719002	Plain Washer, 5/16"

Ref. Let.	Part No.	Description
AG	159134	Washer, Special
AH	717525	Elastic Stop Nut, 5/16" - 18 N.C.
AJ	163103	Spring
AK	8191022	Set Collar
AL	713001	Cup Pt. Sq. Hd. Screw Set, 1/4"-20 N.C. x 3/8" Lg.
AM	164302	Rod Guide Ass'y.
AN	717510	Full Lock Hex. Nut, 3/8"-16 N.C.
AP	157690	Clutch Lever Ass'y, P.T.O.
AQ	122005	Knob, P.T.O.
AR	106771	Stud
AS	720002	Lock Washer, 3/8"
AT	717003	Full Hex. Nut, 3/8"-16 N.C.
AU	719002	Plain Washer, 5/16"
AV	717524	Stop Center Lock Jam Nut, 3/8"-16
AW	157694	Pulley
AX	8061081	Key
AY	164152	Guard Belt
AZ	705005	Hex. Cap Screw, 3/8"-16 N.C. x 1"
BA	719001	Plain Washer, 3/8"
BB	720002	Lock Washer, 3/8"
BC	717003	Full Hex. Nut, 3/8"-16 N.C.
BD	157050	Guard Belt Support, 3/16" x 1 1/4" x 5 7/16" Lg.
BE	705007	Hex. Cap Screw, 5/16"-18 N.C. x 1"
BF	720001	Lock Washer, 5/16"
BG	717001	Full Hex Nut, 5/16"-18 N.C.
BH	164155	Handle Ass'y.
BJ	164279	Spring Tension Rod
BK	705017	Hex. Cap Screw, 5/16" 18 N.C. x 3/4"
BL	717511	Full Lock Hex. Nut, 5/16"-18 N.C.
BM	157273	Stud
BN	720006	Lock Washer, 7/16"
BP	717519	Full Lock Hex. Nut, 7/16"-14 N.C.

VARIABLE SPEED PULLEY

CLUTCH – BRAKE & BELT ADJUSTMENT

The variable speed mechanism is adjusted at the factory under "no load" conditions. In most instances, this adjustment should provide satisfactory operation. If, however, under load or after the "break-in" period, erratic or improper operation is noted, follow the procedures outlined below to make the necessary adjustments.

NOTE

All Adjustments Require The Variable Speed Lever To Be Placed In The "High" Or "Low" Position. Carefully Observe Which Position The Variable Speed Lever Should Be Placed In Before Making Each Adjustment. DO NOT ATTEMPT TO MOVE VARIABLE SPEED LEVER WHEN ENGINE IS NOT RUNNING OR WHEN CLUTCH PEDAL IS DEPRESSED.

CHECK THE FOLLOWING ASSEMBLY ADJUSTMENTS:

1. Check bolt and locknut holding arm assembly to rocker arm. (See No. 1). (This adjustment to be made in "High" speed position).
2. Check for proper clearance on front belt guard. (See No. 2). (This adjustment to be made in "High" speed position).
3. Check for proper clearance of idler pulley belt stop. (See No. 3). (This adjustment to be made in "Low" speed position).
4. Check for proper clearance between the nuts on the clutch rod and the set collar. (See No. 4). (This adjustment to be made in "Low" speed position).
5. With variable speed lever in the "Low" speed position, the belt in the large, rear pulley should be approximately 1/8" below the top of the pulley. (See No. 5).
6. Check brake adjustment. (See No. 6). (This adjustment to be made in "Low" speed position).

OPERATING INSTRUCTIONS

1. Do not attempt to move variable speed lever when tractor engine is not running or when clutch pedal is depressed.
2. Insure that parking brake is fully disengaged before placing tractor in motion.
3. Occasionally check and remove foreign objects and debris from variable speed belt and pulleys.

GEAR RANGE AND SPEED SELECTIONS

1. To obtain the most desirable results with various attachments on the Sovereign Tractor, it is recommended the tractor engine be operated at 3/4 to full throttle setting.
2. When operating attachments such as the 10" Plow, Spring Tooth Harrow or Cultivator, which place a heavy draw-bar load on the tractor, it is preferable to operate tractor in I or II speed rather than III speed, low range.

BELT SLIPPAGE

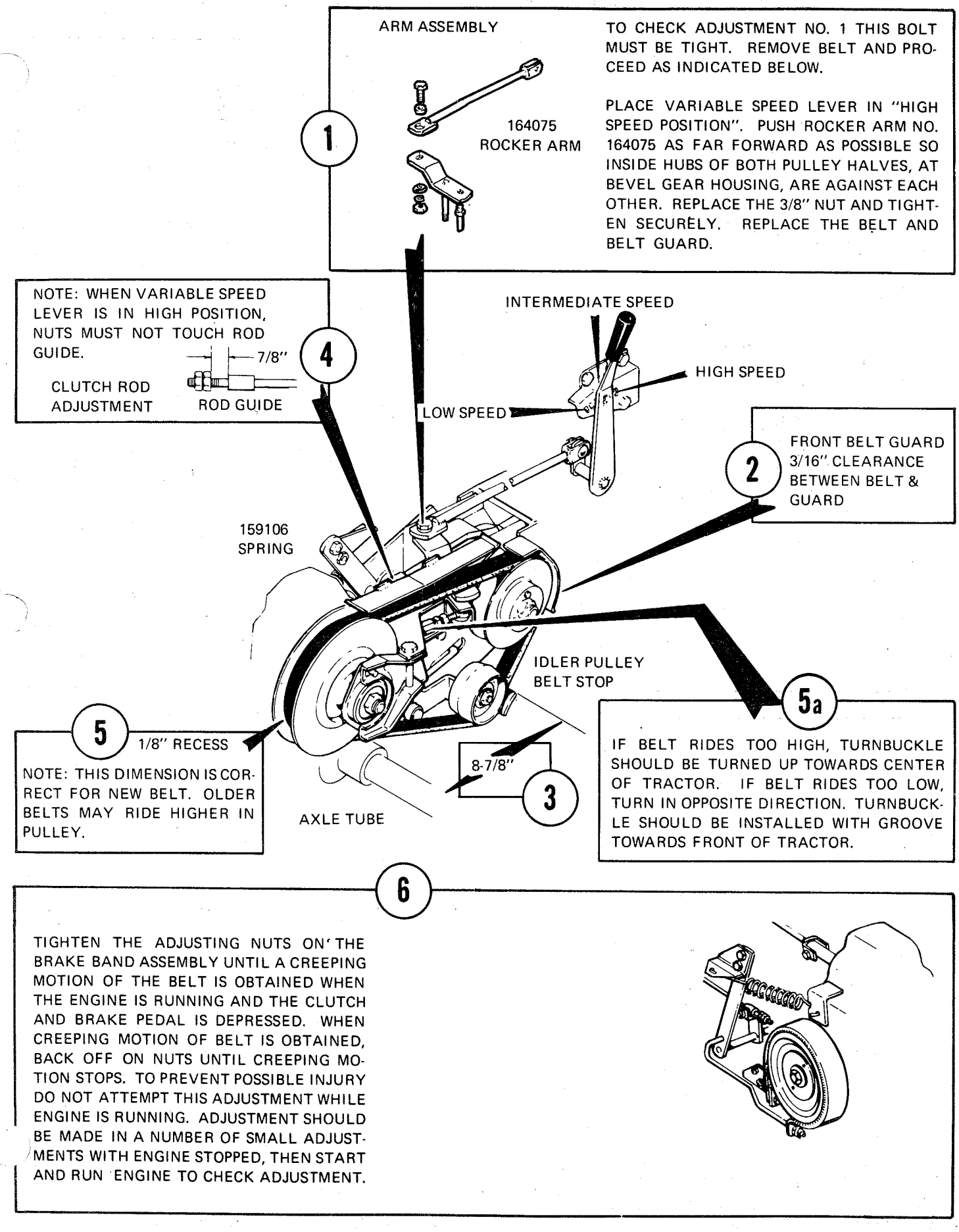
If belt slippage is noted, check the following:

1. Check to insure the parking brake is fully disengaged.
2. Check No. 4 under Assembly Adjustments.
3. Check No. 5 under Assembly Adjustments.
4. On early production models the Spring No. 159106 is normally in the top hold. If less spring tension is desired, move spring to next lowest hole of pivot lever assembly. Less tension can be used when mowing on level terrain and if clutch pedal is found to be uncomfortably hard for the operator to depress. (See Figure 2). Greater belt tension is necessary to prevent variable speed belt from slipping when tractor and attachment are under heavy load. A slight chattering of the variable speed belt on the pulleys will be noticeable until the belt loses its stickiness and becomes smooth.

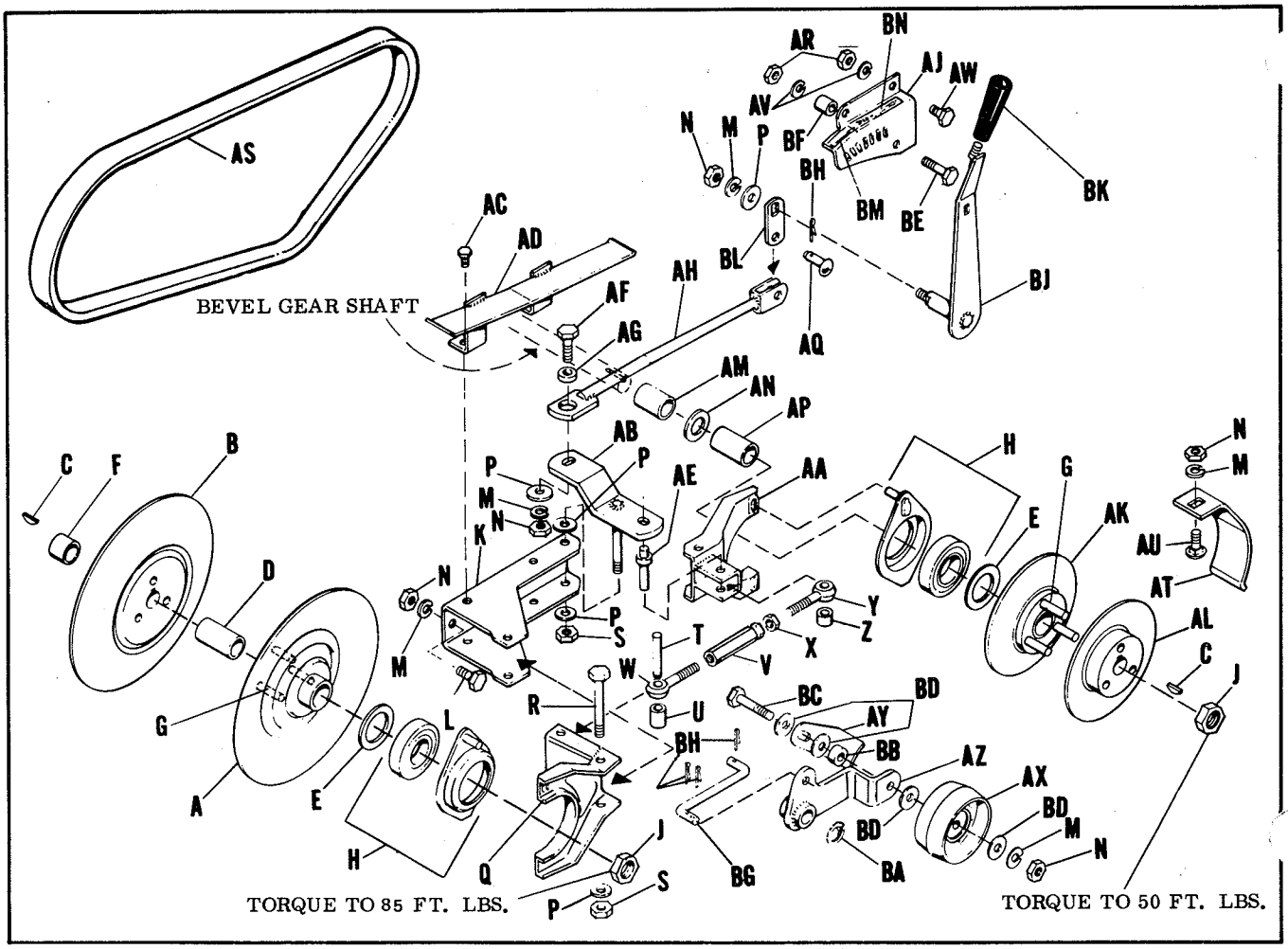
On later production models no further spring adjustment necessary.

LUBRICATION

If sliding pulley halves stick, lubricate bushing on which pulley rides lightly with a few drops of oil. Excessive lubrication will tend to collect dirt and dust and tend to hamper operation. Also lubricate all clutch and brake lever pivot points and all places where pull rods or links join levers.


ARM ASSEMBLY
164075
ROCKER ARM
1
TO CHECK ADJUSTMENT NO. 1 THIS BOLT MUST BE TIGHT. REMOVE BELT AND PROCEED AS INDICATED BELOW.
PLACE VARIABLE SPEED LEVER IN "HIGH SPEED POSITION". PUSH ROCKER ARM NO. 164075 AS FAR FORWARD AS POSSIBLE SO INSIDE HUBS OF BOTH PULLEY HALVES, AT BEVEL GEAR HOUSING, ARE AGAINST EACH OTHER. REPLACE THE 3/8" NUT AND TIGHTEN SECURELY. REPLACE THE BELT AND BELT GUARD.
NOTE: WHEN VARIABLE SPEED LEVER IS IN HIGH POSITION, NUTS MUST NOT TOUCH ROD GUIDE.
7/8"
CLUTCH ROD ADJUSTMENT
ROD GUIDE
4
INTERMEDIATE SPEED
HIGH SPEED
LOW SPEED
2
FRONT BELT GUARD 3/16" CLEARANCE BETWEEN BELT & GUARD
159106
SPRING
IDLER PULLEY
BELT STOP
5a
IF BELT RIDES TOO HIGH, TURNBUCKLE SHOULD BE TURNED UP TOWARDS CENTER OF TRACTOR. IF BELT RIDES TOO LOW, TURN IN OPPOSITE DIRECTION. TURNBUCKLE SHOULD BE INSTALLED WITH GROOVE TOWARDS FRONT OF TRACTOR.
5
1/8" RECESS
NOTE: THIS DIMENSION IS CORRECT FOR NEW BELT. OLDER BELTS MAY RIDE HIGHER IN PULLEY.
8-7/8"
3
AXLE TUBE
6
TIGHTEN THE ADJUSTING NUTS ON THE BRAKE BAND ASSEMBLY UNTIL A CREEPING MOTION OF THE BELT IS OBTAINED WHEN THE ENGINE IS RUNNING AND THE CLUTCH AND BRAKE PEDAL IS DEPRESSED. WHEN CREEPING MOTION OF BELT IS OBTAINED, BACK OFF ON NUTS UNTIL CREEPING MOTION STOPS. TO PREVENT POSSIBLE INJURY DO NOT ATTEMPT THIS ADJUSTMENT WHILE ENGINE IS RUNNING. ADJUSTMENT SHOULD BE MADE IN A NUMBER OF SMALL ADJUSTMENTS WITH ENGINE STOPPED, THEN START AND RUN ENGINE TO CHECK ADJUSTMENT.

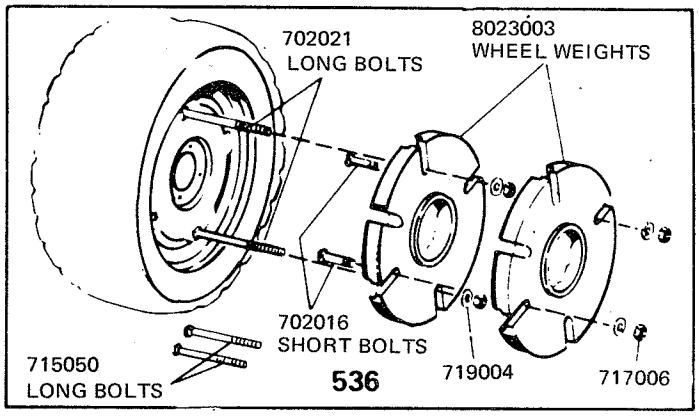
VARIABLE SPEED PULLEY

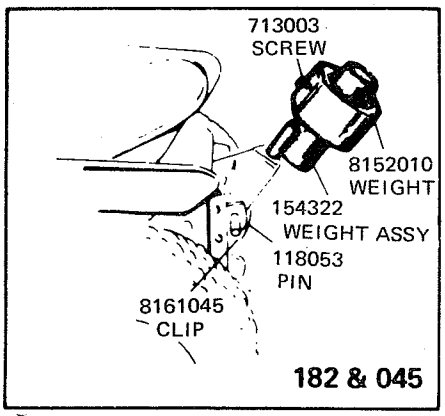


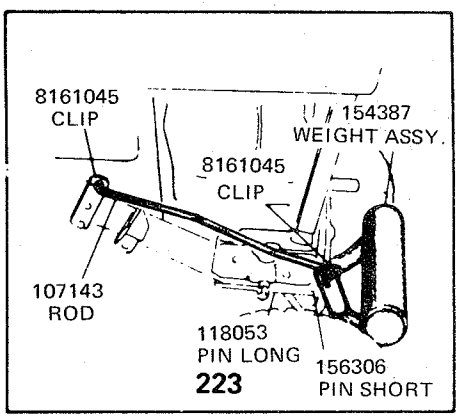
Ref. Let.	Part No.	Description
A	164166	Pulley-Half Assembly
B	164301	Pulley-Half & Bushing Assy.
C	725504	Key
D	164067	Driven Slide Spacer
E	164181	Washer
F	164068	Spacer
G	164066	Pins
H	164211	Retainer Ring/Bearing Assembly
J	717517	Hex Jam Nut, Lock
K	164157	Variable Speed Bracket
L	705031	Hex Capscrew, 3/8"-16 x 7/8" lg.
M	720002	Lock Washer, 3/8"
N	717003	Hex Nut, 3/8"-16
P	719001	Plain Washer, 3/8"
Q	164035	Transmission Fork Assembly
R	164069	Special Screw
S	717510	Hex Nut, 3/8"-16 Lock
T	164070	Pivot Pin
U	164071	Spacer
V	164072	Turnbuckle Body
W	164073	Eyebolt, R. H.
X	717010	Hex Nut, 3/8"-24
Y	164074	Eyebolt, L. H.
Z	164176	Spacer
AA	164033	Bevel Gear Housing Fork Assy.
AB	164075	Fork, Rocker Assy.
AC	715077	Screw, Taptite, 1/4"-20 x 5/8"
AD	164106	Belt Guard Assembly
AE	164078	Rod
AF	705016	Hex Capscrew, 3/8"-16 x 1-1/4" lg.
AG	164105	Spacer 171575

Ref. Let.	Part No.	Description
AJ	164124	Quadrant
AH	164101	Arm Assembly
AK	164171	Pulley-Half Assembly
AL	164300	Pulley-Half & Bushing Assy.
AM	164174	Spacer
AN	164175	Stop Washer
AP	164173	Slide Spacer (Teflon Coated)
AQ	153058	Pin
AR	717001	Hex Nut, 5/16"-18
AS	164080	"V" Belt
AT	164082	Belt Guard
AU	703004	Carriage Bolt, 3/8"-16 x 3/4" lg.
AV	720001	Lock Washer, 5/16"
AW	705012	Hex Capscrew, 5/16"-18 x 5/8" lg.
AX	164083	Idler Pulley
AY	164190	Idler Belt Stop
AZ	164084	Idler Lever Assembly
BA	118240	Retaining Ring
BB	154177	Spacer
BC	705006	Hex Capscrew, 3/8"-16 x 2" lg.
BD	719002	Plain Washer, 5/16"
BE	705018	Hex Capscrew, 5/16"-18 x 1-1/2" lg.
BF	164125	Spacer
BG	164088	Clutch Link
BH	722001	Cotter Pin
BJ	164097	Lever Assembly
BK	164180	Handle
BL	164123	Link
BM	164128	Film Quardrant
BN	164130	Film Instruction

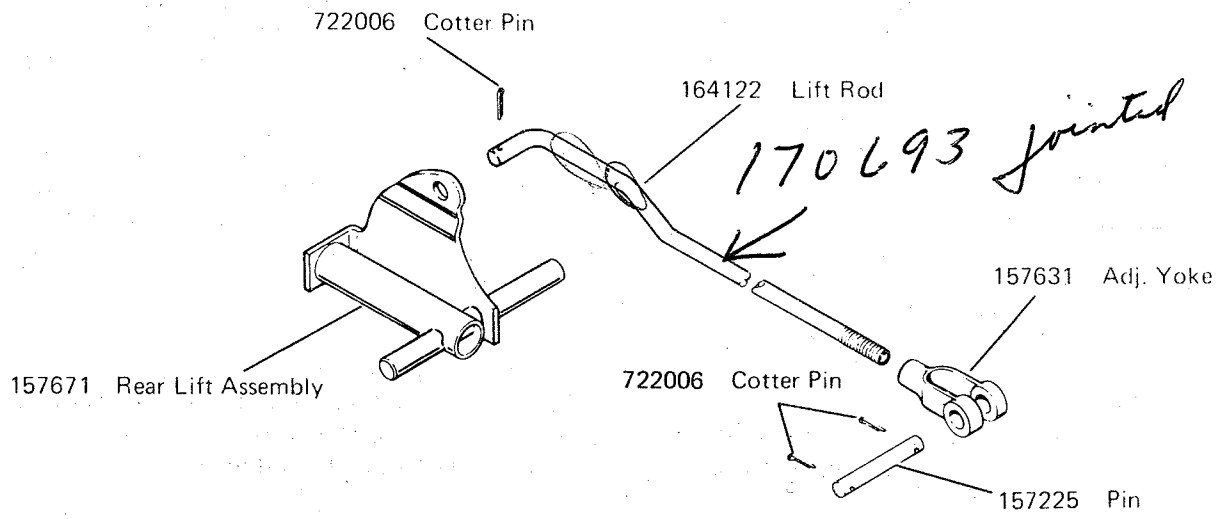
FRONT COUNTER WEIGHT . . MFR. NO. 223
REAR COUNTER WEIGHT . . MFR. NO. 182
WEIGHT (USE WITH 182) . . . MFR. NO. 045
WHEEL WEIGHT . . . . . MFR. NO. 536





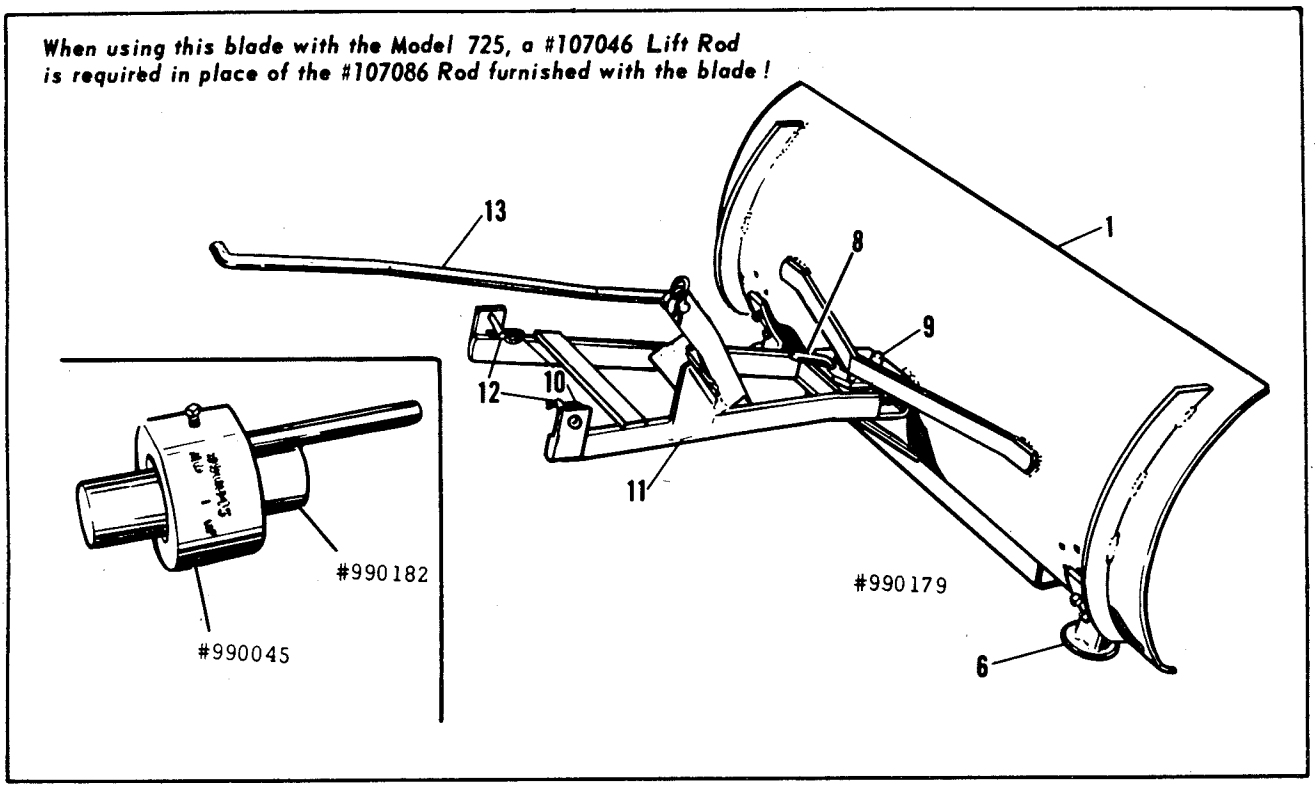


REAR LIFT KIT Mfrs. No. 622



42" SNOW PLOW & DOZER

MFR'S. NO. 179



PACKING

The 42'' snow plow and dozer comes packed complete in one bundle.

ASSEMBLY

Attach push bar (11) to blade (1) using king pin (9) and install a spring clip through the king pin. Attach the front lift rod (13) to the push bar as shown. Drop the pivot pin (8) thru the blade assembly bracket and push bar.

ATTACHMENT

To attach the 42'' snow plow and dozer to the LANDLORD Riding Tractor, all that is required is to connect pins (12) to the tractor front hitch and safety clip (10); and to connect the front lift rod (13) to the tractors lift arm.

OPERATION

Alternate holes are provided to permit adjustment of the shoe assemblies (6) for raising or lowering the blade when cleaning gravel drives or walks. When cleaning concrete it is desirable to allow the blade to scrape the surface.

The angle of the blade is adjustable to permit plowing to the left or right by moving pivot pin (8) to the desired hole in the blade mounting bracket.

For ease of lifting equipment, it is well to use the counterweight (990182) and additional weight (990045) when using the 42'' snow plow and grader on the LANDLORD Riding Tractor. These counterweights are mounted on the rear lift assembly.

When using this equipment it is recommended that chains and wheel weights be installed on the tractor. Loose mounting of the chains will make them self-cleaning.

42" SNOW PLOW AND GRADER

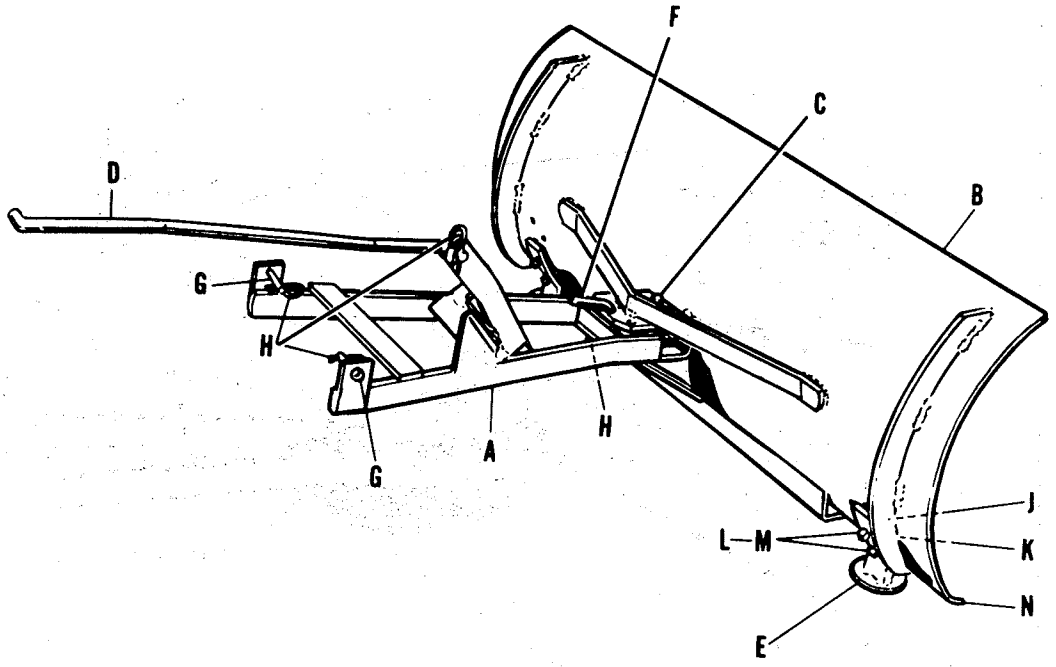


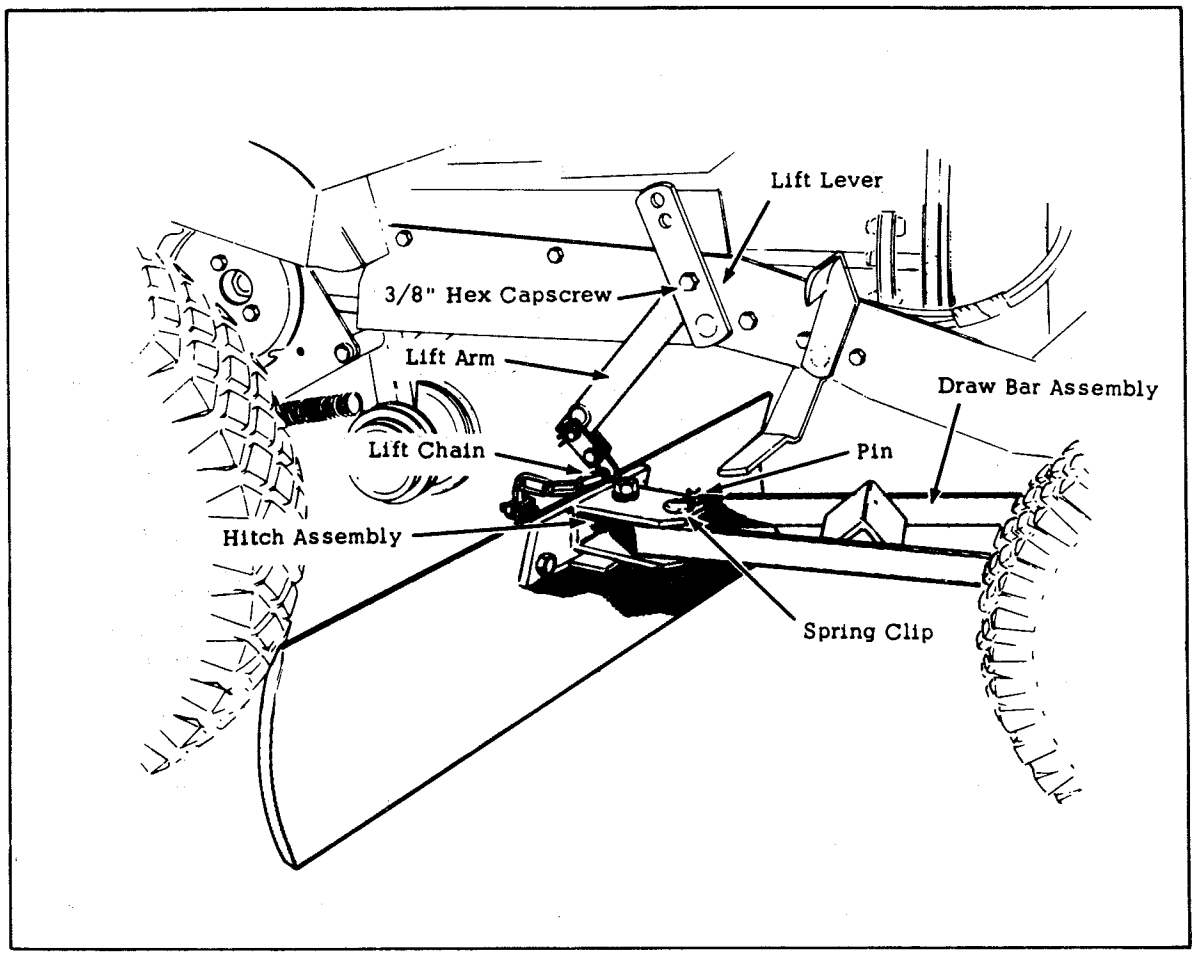
Fig. No. 12

Order by Part Number

Reference Letter	Part No.	Description
A	107049	Push Bar Assembly
B	107047	Blade Assembly, 42"
C	8181008	Pin, King, 1/2" dia. x 2-1/2" lg.
D	107143	Rod, Front Lift
E	107024	Shoe Assembly
F	8181003	Pin, Pivot
G	118053	Pin
H	106788	Clip, Spring
J	702002	Bolt, Carriage, 3/8" - 16 N.C. x 1" lg.
K	702003	Bolt, Carriage, 3/8" - 16 N.C. x 3/4" lg.
L	720002	Washer, Lock, 3/8"
M	717003	Nut, Hex., Full, 3/8" - 16 N.C.
N	107045	Plate, Wear

42" GRADER BLADE

Mfr's. No. 237



The 42" Grader Blade is attached to the tractor as shown in the above illustration by following the sequence of steps as outlined below.

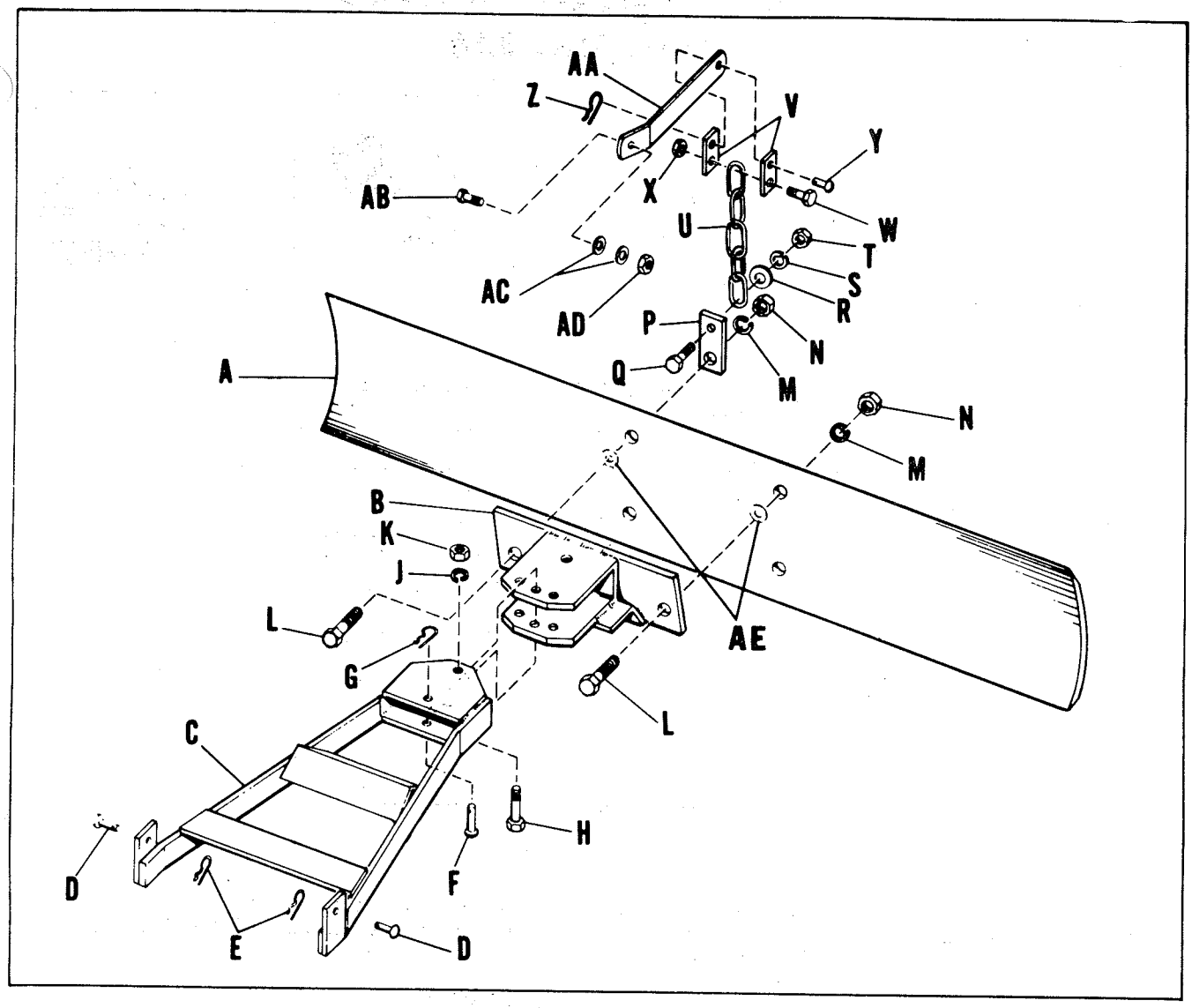
1. Position the grader blade under the tractor so that the draw bar assembly may be connected to the front hitch brackets of the tractor. Secure in place with 2 pins and spring clips.

2. Attach the lift lever to the lift arm of the tractor as shown, placing 2 plain washers between the lift lever and lift arm. Fasten securely with a 3/8" hex head capscrew and lock nut.

3. Attach the lift chain and links to the lift lever with a pin and spring clip so that the blade can be lifted high enough to clear the ground when transporting from one location to another.

4. When desired, the blade may be angled to the left or right by removing the pin and spring clip from the center hole in the hitch assembly. Lock the blade in desired position by replacing the pin and spring clip when the alternate holes in the hitch assembly line up with the hole in the draw bar.

42" GRADER BLADE



Order by Part Number

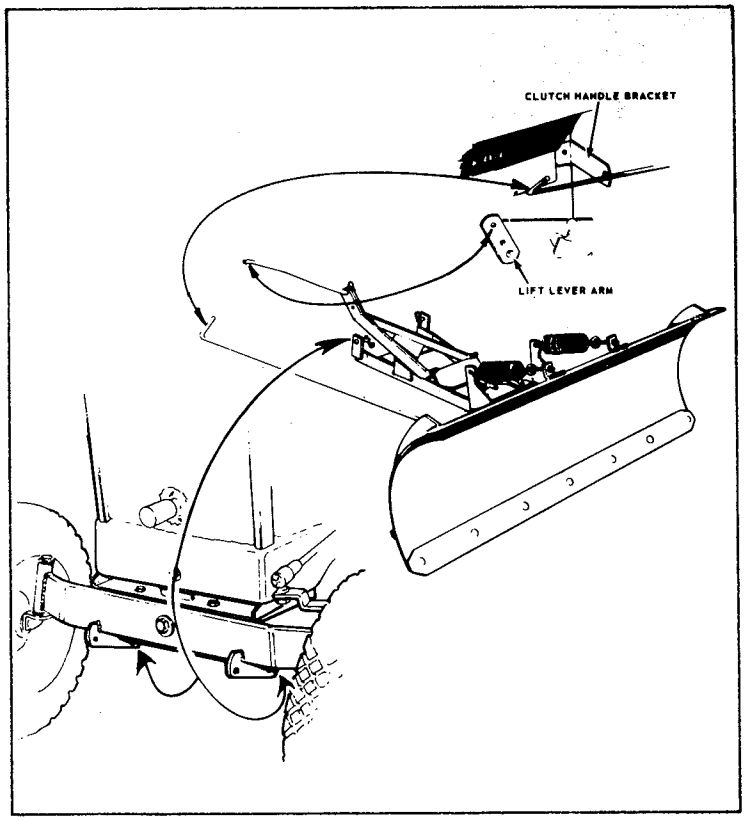
Ref. Letter	Part No.	Description
A	107056	Blade, Grader, 42"
B	107058	Hitch Assembly
C	107062	Draw Bar Assembly
D	118053	Pin
E	8161045	Spring Clip
F	8181008	Pin
G	8021024	Spring Clip
H	705056	Capscrew, Hex Head, 5/8"-11 NC x 3 " lg.
J	720005	Lockwasher, 5/8"
K	717004	Nut, Hex, Full, 5/8"-11 NC
L	705055	Capscrew, Hex Head, 5/8"-11 NC x 2" lg
M	720005	Lockwasher, 5/8"
N	717004	Nut, Hex, Full, 5/8"-11 NC
P	107057	Link
Q	705005	Capscrew, Hex Head, 3/8"-16 NC x 1 1/4" lg.

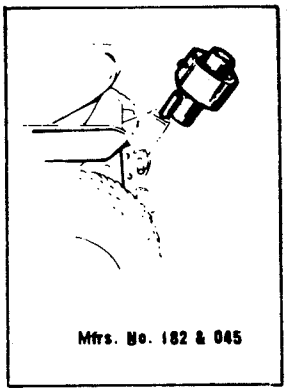
Order by Part Number

Ref. Letter	Part No.	Description
R	719001	Plain Washer, 3/8"
S	720002	Lock Washer, 3/8"
T	717003	Nut, Hex, Full, 3/8"-16 NC
U	107031	Chain
V	108199	Link
W	705005	Capscrew, Hex Head, 3/8"-16 NCx 1 1/4" lg.
X	717510	Nut, Hex, Full, Lock, 3/8"-16 NC
Y	153058	Pin
Z	8161045	Spring Clip
AA	108198	Lever
AB	705016	Capscrew, Hex Head, 3/8"-16 NC x 1 1/4" lg.
AC	719001	Plain Washer, 3/8"
AD	717510	Nut, Hex, Full, Lock, 3/8"-16 NC
AE	121210	Flat Washer, 1-1/16"

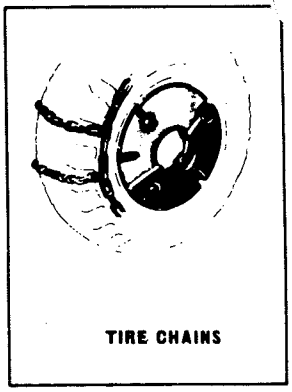
46" DOZER BLADE

Mfrs. No. 356

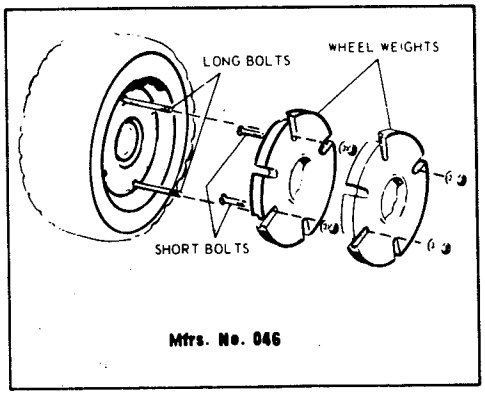




Mfrs. No. 182 & 045



TIRE CHAINS



Mfrs. No. 046

The 46'' Snow plow and Dozer blade can be used with out any weights or chains. HOWEVER, by using these items, plowing and dozing will be done more effectively and efficiently.

Using the rear counter weight (Mfg. # 182 with # 045) will ease lifting of the front mounted attachments. This is mounted on the rear lift assy. Using wheel weights (1 or 2 on either side) will provide more traction. By adding chains with the wheel weights additional traction will be experienced. Loose mounting of the chains will assist in their self cleaning.

OPERATION

There are five operating positions for this blade. The position can be changed by the operator without leaving the seat. Turn the control rod clockwise to unlatch the blade. Push or pull rod to the desired position. For ease of changing positions, raise blade slightly from the ground.

By adjusting the shoe assembly, various blade heights can be achieved. Increased height adjustment can be done by adjusting the stop pin in the lift lever quadrant.

If the blade is used with the Hydralic unit, front or rear float position can be utilized. Using the front float position will provide a downward pressure on the blade. Rear float will give an upward pressure. HOWEVER in either position the blade will follow the ground. The Hydralic Unit can be used for a stationary position also.

The wear plate is reversable. When one side is worn, remove the bolts turn plate around and reinstall bolts.

LUBRICATION

Lubricate all joints where rods enter holes. Also lubricate pivot points. Periodic lubrication will assist in ease of operation.

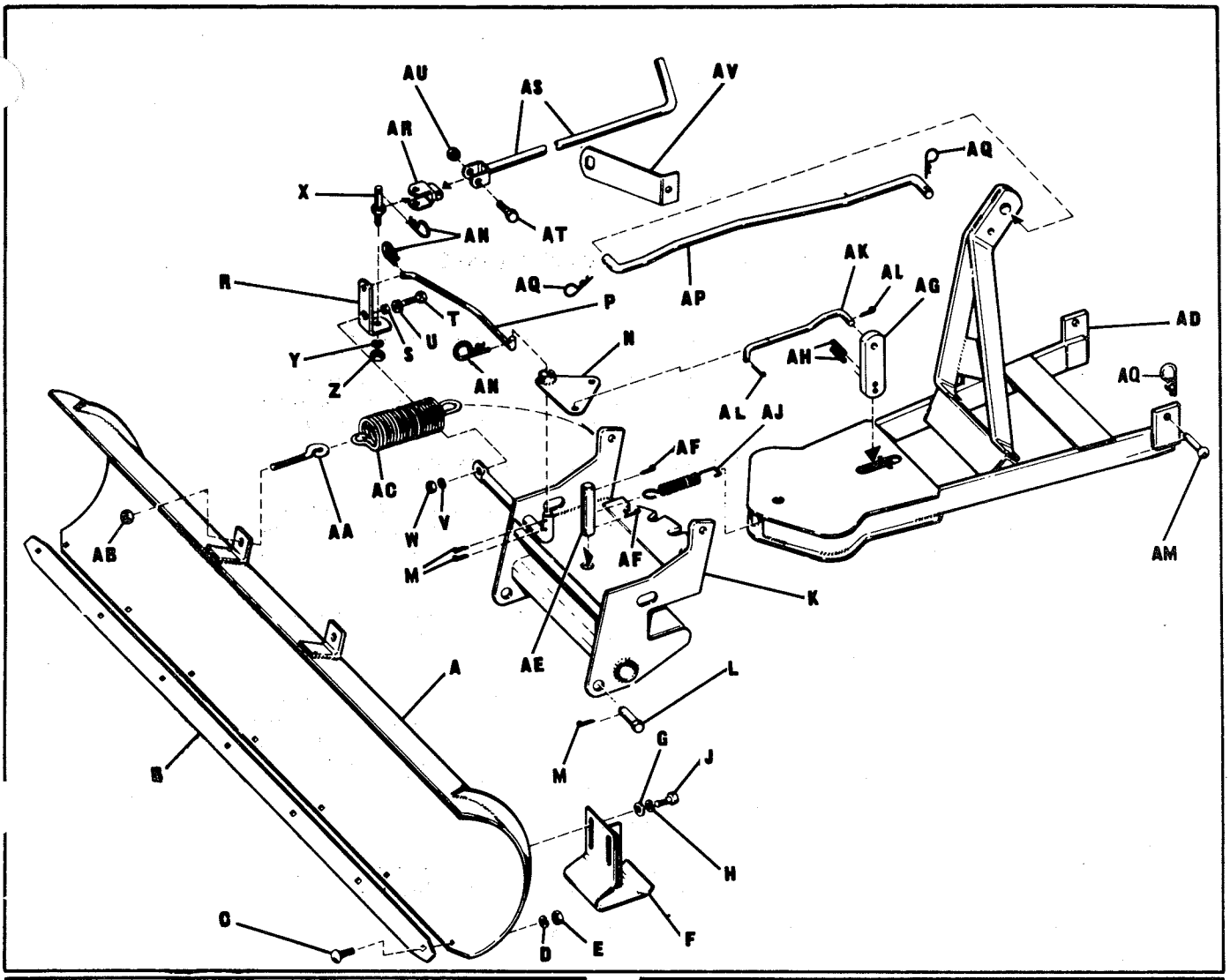
PACKING

The 46'' Snow Plow and Dozer Blade comes in one carton with all necessary hardware.

ASSEMBLY

Attach hitch assembly to blade assembly, using the two yoke pins and cotter pins provided. Using the two eye bolts, attach spring from hitch to blade. Allow 1/2'' of thread to show thru nuts. Attach to tractor as indicated in Fig. 1 with the two pins and spring clips. Attach blade direction rod bracket to top screw on right hand side of the Fuel Tank & Steering Post Support Assembly. See Fig. 1. (If this bracket has been installed in usage with another implement, it need not be removed). Attach lift rod to tractor lift lever (top Hole) and to plow. Fig. 1. Insert blade direction rod thru bracket and attach to blade. Secure in place with spring clips.

46" DOZER BLADE



Ref. Let.	Part No.	Description
A	107096	Blade Ass'y
B	107105	Wear Plate
C	702002	Carriage Bolt, 3/8"-16 x 1" lg.
D	720002	Lock Washer 3/8"
E	717003	Full Hex Nut 3/8"-16 N.C.
F	107106	Shoe Ass'y.
G	719001	Flat Washer 3/8"
H	720002	Lock Washer 3/8"
J	705004	Hex. Cap Screw 3/8" - 16 x 3/4"
K	107109	Pivot Frame Ass'y
L	154305	Yoke Pin
M	722006	Cotter Pin 1/8 Dia. x 1"
N	107116	Pivot Plate Ass'y
P	107118	Pivot Rod
Q	106687	Bracket
R	107119	Pivot Arm
S	156150	Spacer
T	705007	Hex Cap Screw 5/16"-18 x 1" lg.
U	719002	Plain Washer 5/16"
	720001	Lock Washer 5/16"
W	717001	Full Hex. Nut 5/16"-18 N.C.
X	107120	Pivot Stud

Ref. Let.	Part No.	Description
Y	720001	Lock Washer 5/16"
Z	717001	Full Hex. Nut 5/16"-18
AA	107121	Eyebolt
AB	717001	Full Hex. Nut 5/16"-18
AC	101126	Spring
AD	107122	Push Bar Ass'y
AE	107133	Pivot Pin 5/8" Dia. x 3-3/8" lg.
AF	722003	Cotter Pin 3/16 x 1-1/4" lg.
AG	107134	Latch
AH	723002	Roll Pin 7/32" Dia. x 1" lg.
AJ	107135	Latch Spring
AK	107136	Latch Rod
AL	722016	Cotter Pin 3/32" Dia. x 5/8"
AM	118053	(Hitch) Pin
AN	106787	Spring Clip
AP	107143	Front Lift- Rod
AQ	106788	Spring Clip
AR	106131	Fork Ass'y
AS	107137	Handle Ass'y
AT	705018	Hex. Cap Screw 5/16"-18 x 1-1/2"
AU	717511	Full Lock Hex. Nut 5/16"-18

BATTERY INSTRUCTIONS

With proper care this battery should give the long service life built into it.

A battery which does not function properly is not necessarily worn out or defective. It may only need a good recharge. Therefore, if battery trouble is uspected, a full recharge and test by a competent battery man is recommended.

PUTTING DRY-CHARGED BATTERIES IN SERVICE

Remove wicks or tape covering from vent hole in filler caps. Make sure vent holes are open so battery gases produced when battery is charging can escape. If necessary, run a fine wire in vent hole to be sure it is open and free of all obstructions.

Fill battery with 1.265 specific gravity electrolyte or acid to proper level or 3/16 inch above plates and separators assuming room, battery, and electrolyte temperature is 70^{O} - 100^{O} Fahrenheit.

Allow battery to set for 20 minutes. Battery can then be installed but to obtain best results and maximum capacity, place battery on charge after the 20-minute setting period at 6 amperes until gravity reading is 1.265 - 1.275. If room, battery and electrolyte temperatures are below normal a longer charging period will be mandatory to bring the specific gravity up to 1.265 - 1.275.

WARNING

Under no conditions should battery be filled more than 3/16" over the plates. We cannot be responsible for damages if this warning is not observed.

CARE IN SERVICE

A hydrometer test of the battery solution should be made monthly. If the specific gravity tests 1.225 or less, the battery should be removed and thoroughly recharged. At the same time the solution level should be examined and distilled water added when necessary to retain the level of 3/16" over the plates. When necessary to add distilled water it should always be done just prior to recharging to mix the added water thorougly into the solution.

When recharging is necessary and user does not have his own charging equipment, he should request service station to slow charge the battery at a rate of 4 to 6 amperes.

Any collection of grease or any other substance should be kept removed from the top of the battery and the top kept dry and clean at all times. The battery should be kept snug in its cradle and not permitted to get loose. If removed for charging, it should be fastened back in snugly enough to prevent any movement when in use. Vent caps should be kept tight and the small vent holes in top or side of cap be kept open at all times to permit escapage of gases formed in the battery. Care should be exercises not to overfill the battery at any time and to always retain 3/16" of solution above the plates.

WINTER CARE

If battery will not be used during the winter months it should be removed and stored in a cool, dry place. Any collection of grease or other substance should be removed from the top of the battery.

The battery must be recharged monthly or whenever the hydrometer reads less than 1.225. Before reinstalling the battery in the spring, it should always be given a thorough recharge.