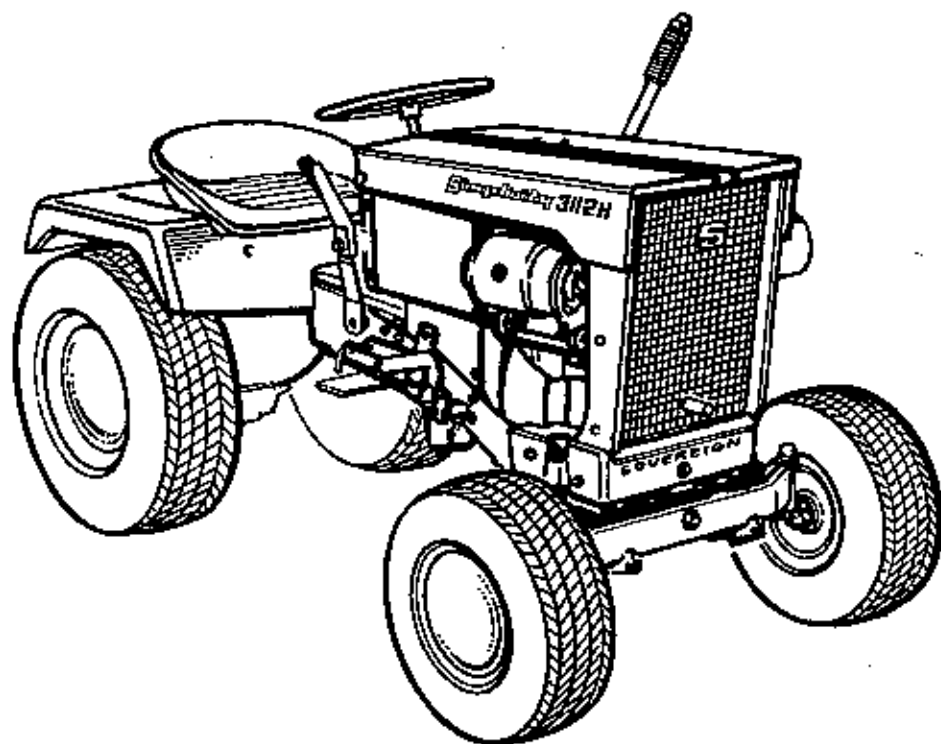


**Simplicity**  
MANUFACTURING, INC.

**SOVEREIGN** > **HYDROSTATIC DRIVE**  
RIDING TRACTORS



**Mfrs. No. 499-312H MANUAL LIFT**  
**Mfrs. No. 500-312H POWER LIFT**

# 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, Lodi, 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 NOWARRANTIES 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. \_\_\_\_\_

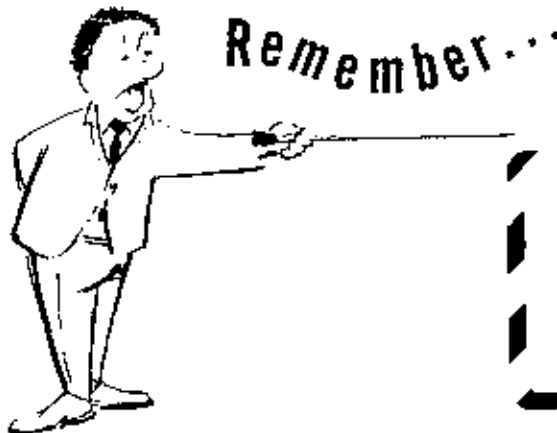
Date Purchased \_\_\_\_\_

Purchased From \_\_\_\_\_

Address \_\_\_\_\_

Engine Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_ Type No. \_\_\_\_\_

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



Remember...

## 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

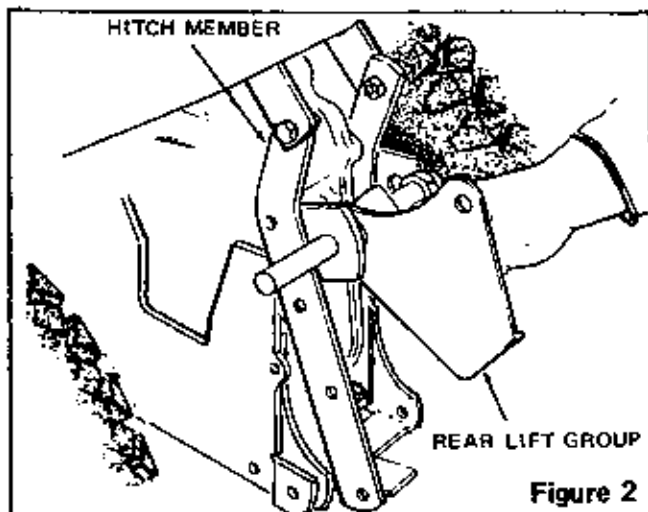
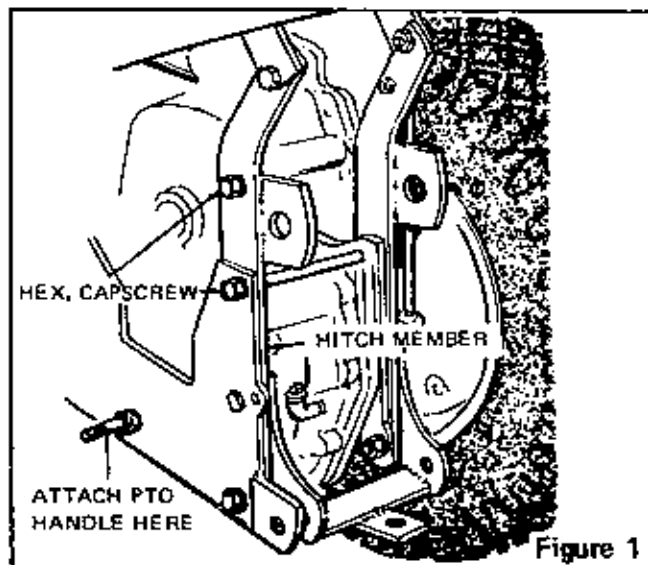
Remove battery from tractor. Service as stated in the battery instructions. Replace and secure battery in tractor.

## 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.



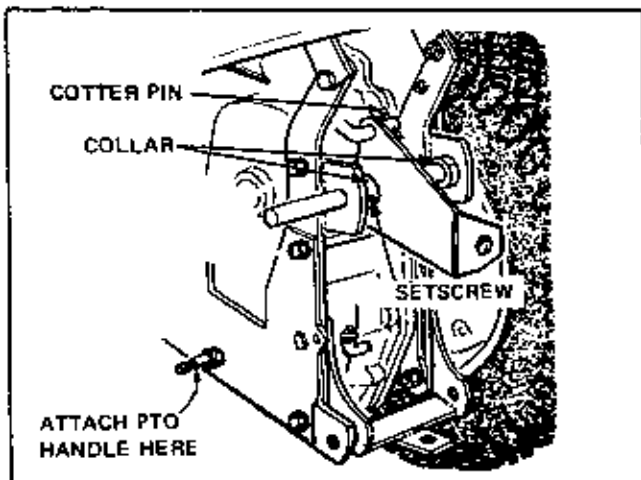


Figure 3

### 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 level 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 qts. 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.

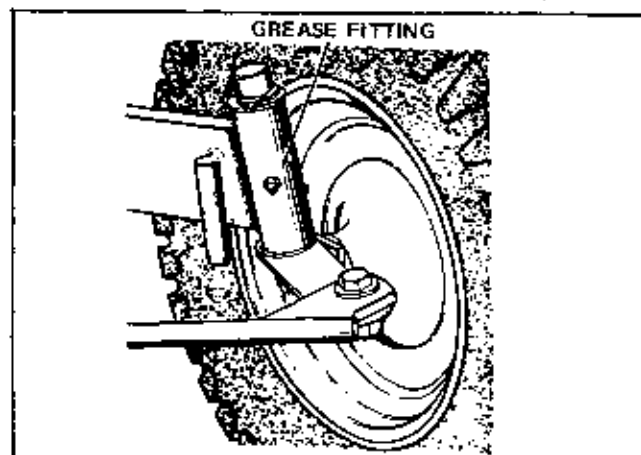


Figure 4

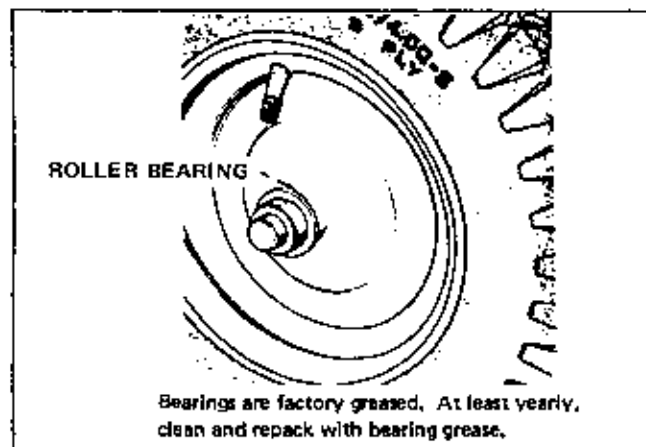


Figure 5

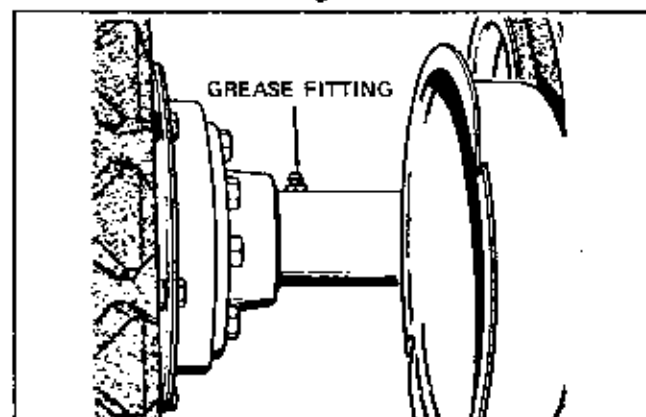


Figure 6

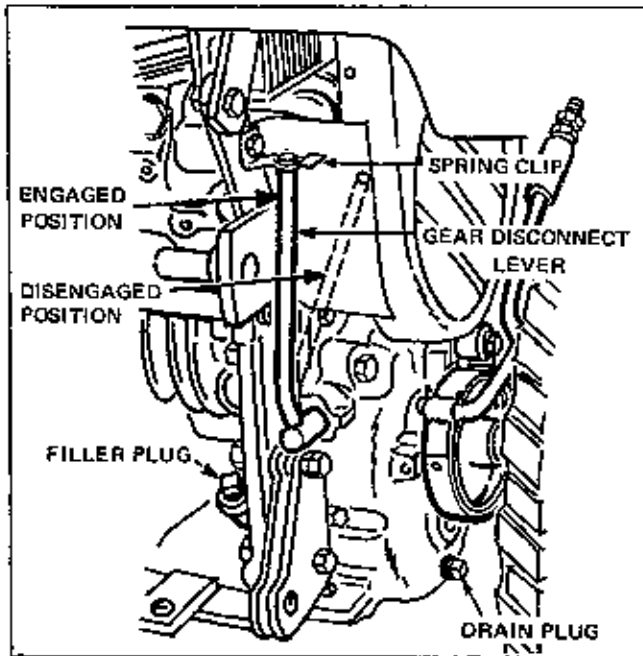


Figure 7

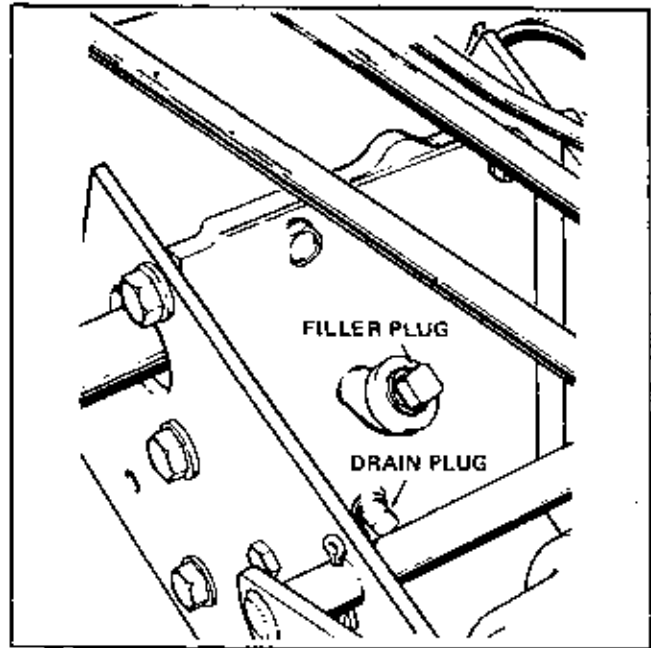


Figure 8

## STARTING ENGINE

1. Move the gear disconnect lever, located on the rear of the transmission to a vertical position to engage the transmission. See Figure 7.

2. Move the hydrostatic control lever to neutral position. See Figure 9. (Note: The engine will not start if this lever is not in neutral).

3. Depress the clutch and brake pedal as far as it will go. See Figure 11.

4. Pull choke knob out as necessary.

5. Turn the key to start the engine.

## TO STOP ENGINE

Depress the clutch and brake pedal and move the hydrostatic control lever to neutral position. The trigger on the control lever must be squeezed against the lever to pull the lever back to neutral.

With hydrostatic control lever in neutral, the brake is engaged. Turn the ignition key to vertical (off) position and remove key for safekeeping. Apply parking brake.

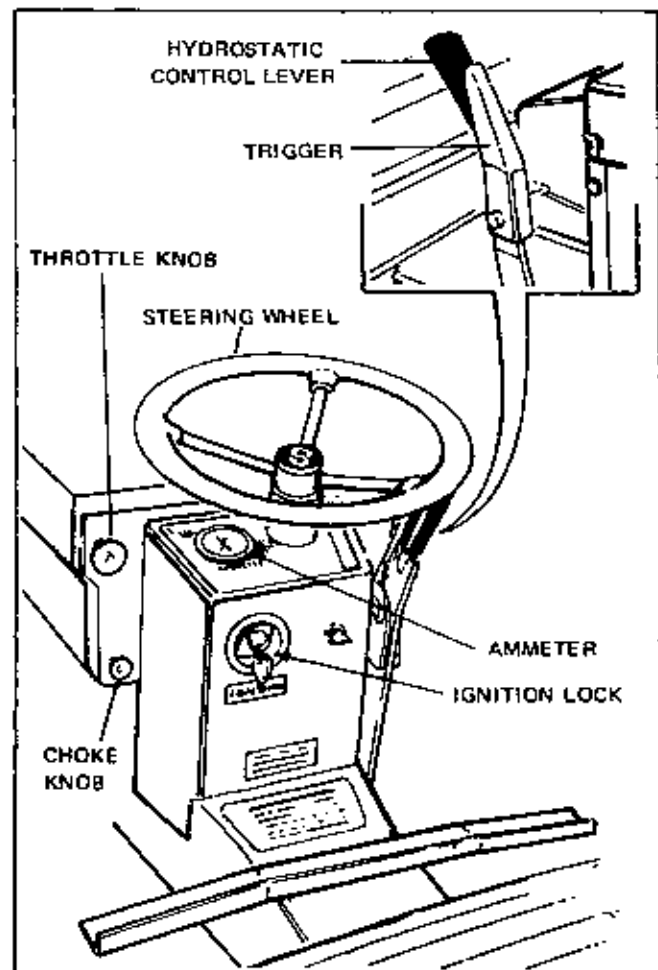


Figure 9

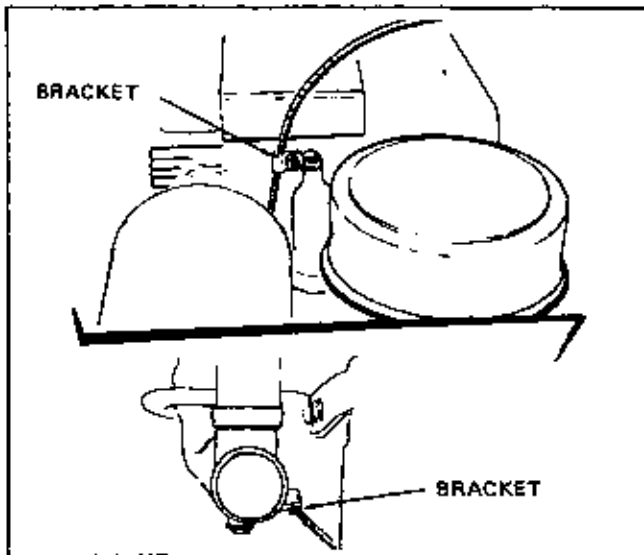


Figure 10

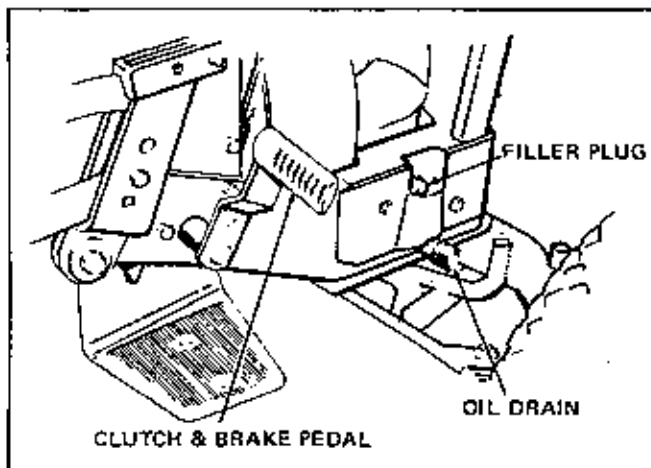


Figure 11

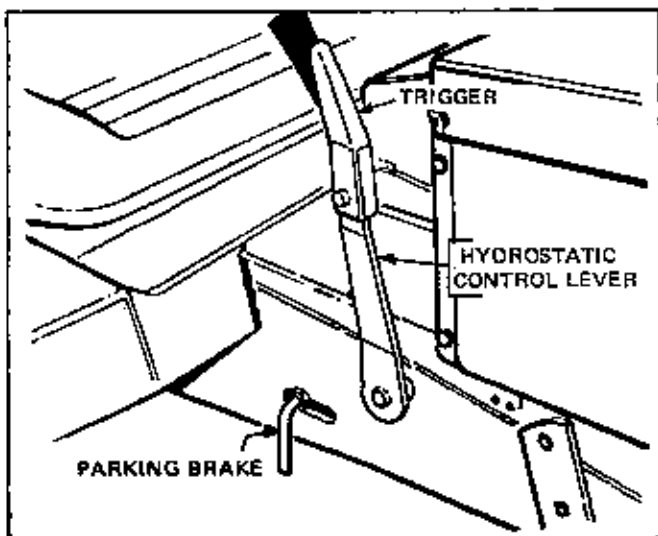


Figure 12

## GEAR DISCONNECT LEVER

This lever is used to engage the transmission for running and to disengage the transmission if the tractor has to be moved without engine power. See Figure 7.

### CAUTION

When gear disconnect lever is moved to disengage position, no brakes can be engaged. Never disengage disconnect lever when tractor is on an incline unless tires are properly blocked.

1. To engage transmission, be sure hydrostatic control lever is in neutral position and move the gear disconnect lever to vertical position until it snaps into the spring clip.

2. To disengage the transmission, pull the gear disconnect lever out of the spring clip and move the lever to the right as far as possible.

## OPERATION OF TRACTOR

With the gear disconnect lever engaged and the engine running, move the hydrostatic control lever forward to go forward and pull it back to go in reverse. Set throttle lever to obtain desired speed. To inch forward or back, place the control lever in forward or reverse position and depress and release the clutch and brake pedal. The hydrostatic control lever can also be used for this but it is better to use the clutch and brake pedal as both hands are then free to steer the tractor.

To stop tractor movement, depress the clutch and brake pedal or move the hydrostatic control lever to neutral position.

## CLUTCH ADJUSTMENT

If the tractor creeps forward or back when the hydrostatic control lever is in neutral, the turnbuckle on the control linkage should be adjusted. See Figure 13.

Loosen the locknuts at each of the turnbuckles and rotate the turnbuckle clockwise or counter-clockwise as necessary until the tractor does not creep.

Retighten the locknuts using two wrenches so turnbuckle will not be moved and observe tractor to be sure it does not creep. Readjust if necessary.

## BRAKE ADJUSTMENT

The brake should be adjusted to provide full braking when the clutch brake pedal is completely depressed.

Place the hydrostatic control lever in neutral position. Depress clutch brake pedal completely and turn the brake band adjusting nut until the brake band is tight against the brake drum. See Figure 13.

## HYDRAULIC SYSTEM MAINTENANCE

To be sure of satisfactory performance it is important that the hydraulic oil is kept absolutely clean and that the level of oil in the oil reservoir be maintained. See Figure 13.

Before checking the hydraulic oil level, be sure the outside of the hydraulic oil reservoir is clean and no debris will enter the reservoir.

Check hydraulic oil level by removing the inspection plug on the side and near the top of the reservoir. If oil runs out of the hole, the reservoir is full and the plug should be replaced. If oil does not run out of the hole, replace the inspection plug, remove the nut and cover from top of the reservoir and add oil to the reservoir until it reaches the level

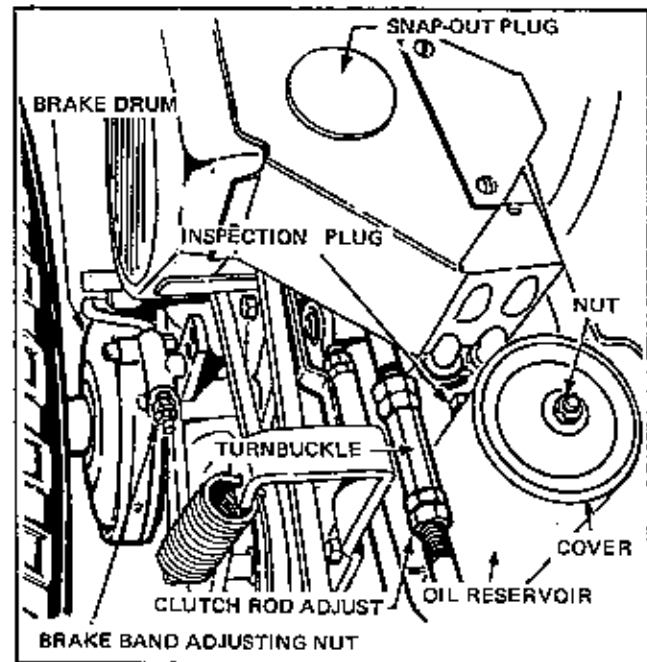


Figure 13

of the inspection plug. Use only Dexron A.T.F. (Automatic Transmission Fluid) which is available locally from several major oil companies.

Capacity of the system is 1-3/4 quarts.

After every five (5) hours of operation (more often in dusty conditions) remove the snap-out plug from the fan and oil cooler housing and clean fan and housing with air or water under pressure. Replace the plug by pressing it unto the hole.

The hydraulic oil filter in the bottom of the reservoir has to be changed only when dirt gets into the hydraulic oil in the reservoir. To change the filter, remove the nut and cover from top of reservoir. Have a container ready to catch the oil and disconnect one of the hoses at the bottom of the oil reservoir. Raise the end of the hose and tie it up so oil will not run out of the transmission.

Drain the oil from the reservoir into the container.

Remove the filter and replace with a new one. Add Dexron Automatic Transmission Fluid to the reservoir up to the level of the inspection plug. Replace the cover and nut on the reservoir.

## DIFFERENTIAL

The tractor is equipped with a controlled traction differential. Tightening the hex head capscrews in the right hand wheel hub (See Figure 14.), 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).

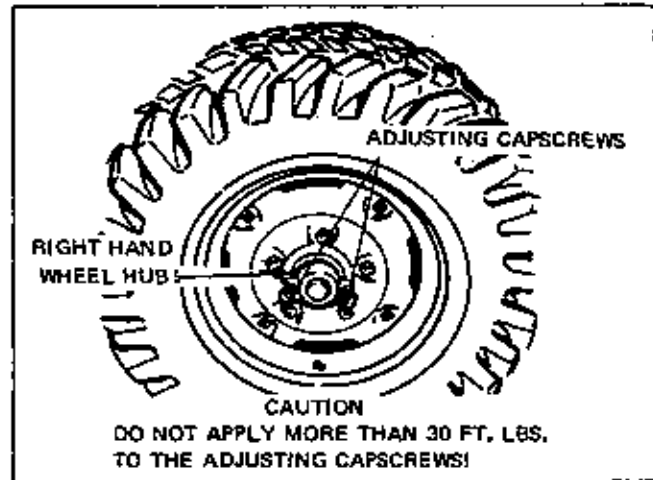


Figure 14

## 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 15. 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 15 shows clutch lever in drive position.



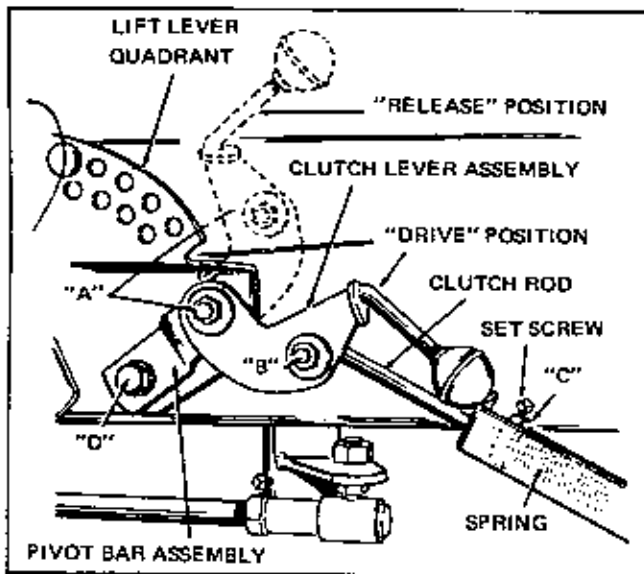


Figure 15

### ADJUSTMENT

At points "A" and "B" of Figure 15, 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 15) and end of bracket. When implement is attached to tractor, this clearance should normally be approximately  $\frac{3}{4}$ ". At this setting the idler pulley should be snugly against the drive belt. If additional tension is required, release clutch lever and loosen set screw 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 lbs. per square inch is attained for Front Tires and 7 lbs. per square inch is attained for Rear Tires. Maintain tires at these pressures.

### 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.

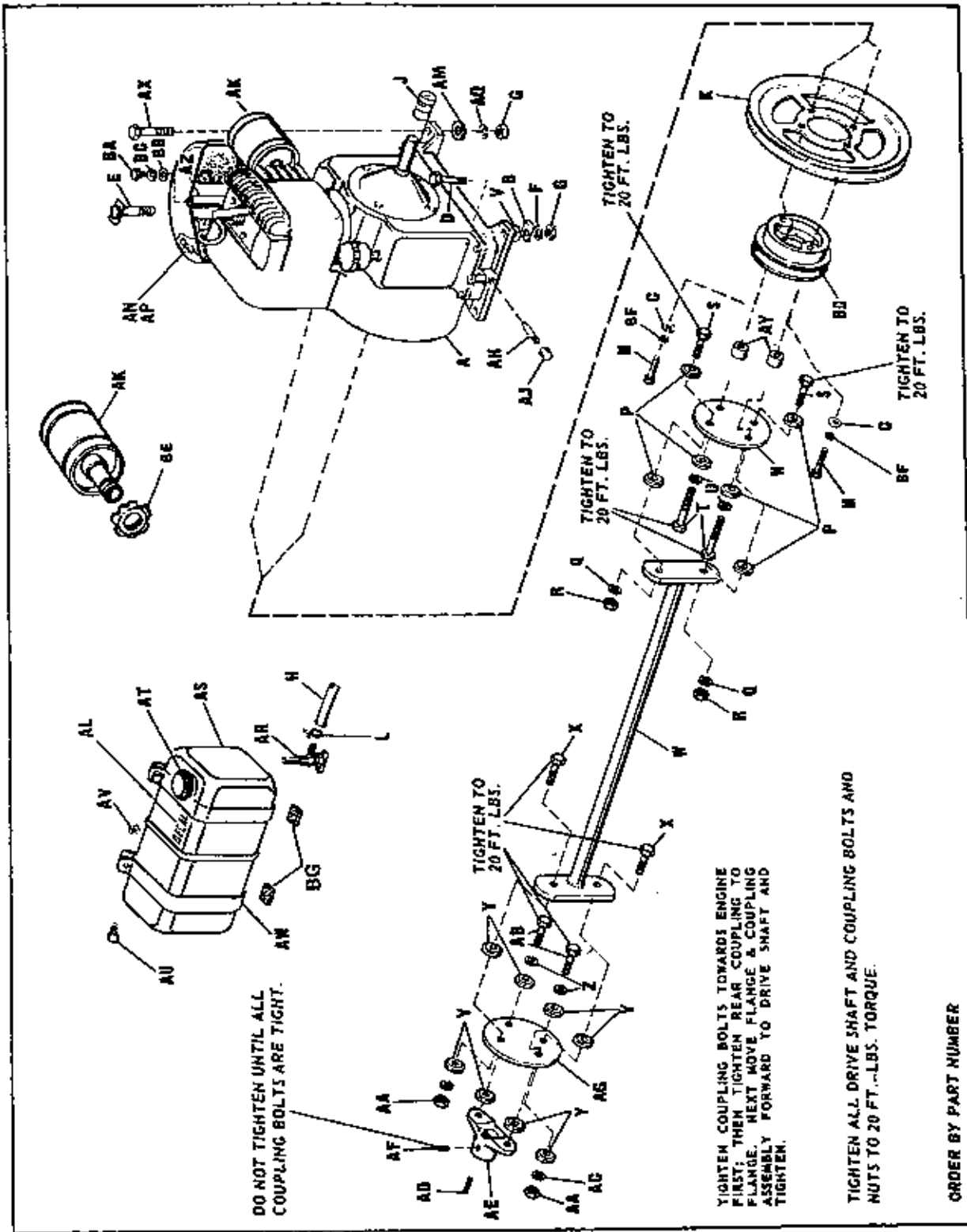
The index tabs at each end of the quadrant serve as lock points for the "float" position which allows an attachment such as a dozer blade, grader blade or snow thrower to follow ground contours freely.

### 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.

# ENGINE AND DRIVE SHAFT

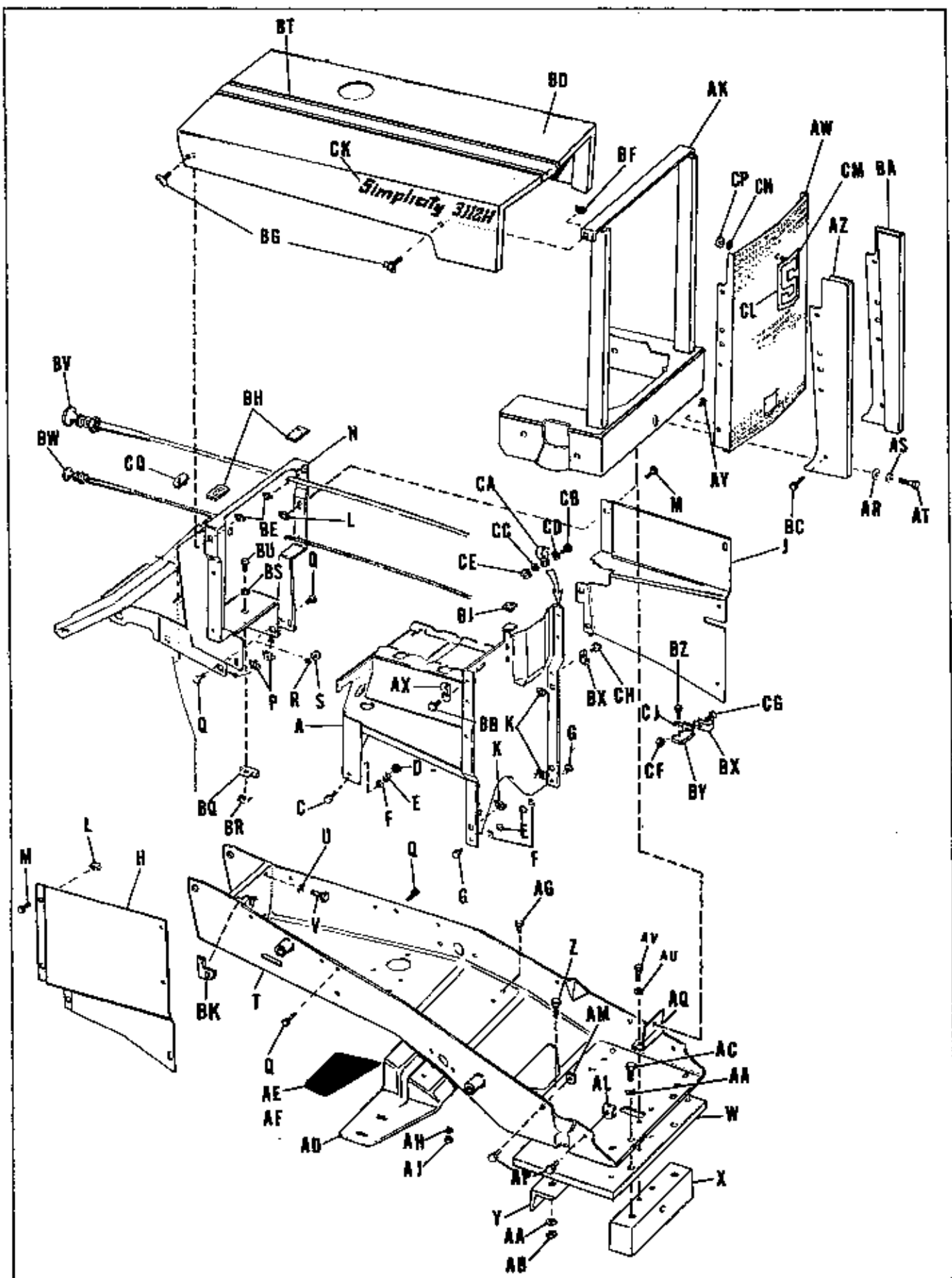


# ENGINE AND DRIVE SHAFT

ORDER BY PART NUMBER

| Ref.<br>Let. | Part<br>No. | Description                                     |
|--------------|-------------|---|
| A            |             | Engine, Briggs & Stratton                       |
| B            | 157144      | Stop Axle                                       |
| C            | 720002      | Lock Washer, 3/8"                               |
| D            | 705010      | Hex. Cap Screw, 3/8"-16 x 1-3/4" lg.            |
| E            | 157556      | Screw Assembly, Engine, L.H. Rear               |
| 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            | 154372      | Hose Clamp (FOR SERVICE ONLY)                   |
| 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" lg.            |
| T            | 715043      | Hex. Capscrew, 3/8-16x2-1/2"lg.                 |
| 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" lg.            |
| 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           | 154194      | Drive Shaft Flange                              |
| AF           | 715049      | Cup Point Socket Head Set Screw, 3/8"-24 x 5/8" |
| AG           | 157422      | Coupling  |
| AH           | 157497      | Pipe Nipple, 3/8 x 1"lg.                        |
| AJ           | 726501      | Pipe Cap, 3/8"                                  |
| AK           | 157634      | Exhaust Muffler                                 |
| AL           | 157096      | Decal, Fuel Tank                                |
| AM           | 719001      | Plain Washer, 3/8"                              |
| AN           | 157185      | Film, Air Cleaner                               |
| AP           | 157131      | Film, Air Cleaner                               |
| AQ           | 720002      | Lock Washer, 3/8"                               |
| AR           | 156176      | Shut-Off Valve                                  |
| AS           | 157006      | Fuel Tank                                       |
| AT           | 156175      | Fuel Tank Cap                                   |
| AU           | 705053      | Hex. Hd. Capscrew, 1/4"-20 x 1-3/4"             |
| AV           | 717005      | Full Hex. Nut, 1/4"-20                          |
| AW           | 162060      | Tank Strap                                      |
| AX           | 705006      | Hex. Hd. Capscrew, 3/8"-16 x 2" lg.             |
| AY           | 157081      | Spacer  |
| AZ           | 157126      | Air Cleaner Spacer                              |
| BA           | 715018      | Hex. Hd. Capscrew, 1/4"-20 x 5/8"               |
| BB           | 719006      | Plain Washer, 1/4"                              |
| BC           | 720003      | Lock Washer, 1/4"                               |
| BD           | 164282      | Pulley  |
| BE           | 154378      | Lock Nut  |
| BF           | 720001      | Lock Washer, 5/16"                              |
| BG           | 106582      | Felt Pad  |

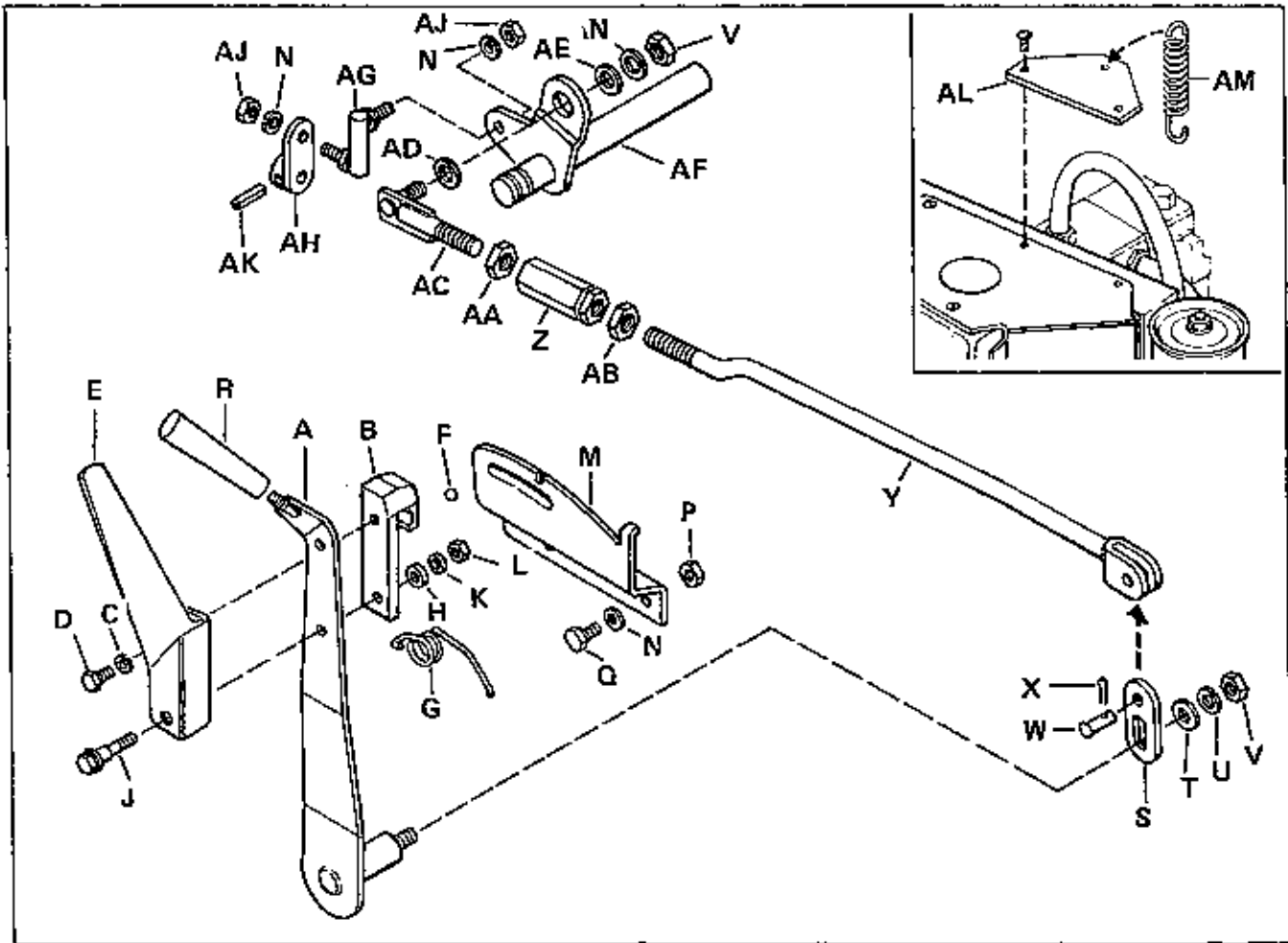
# FRAME, HOOD, GRILL, & INST. PANEL



# FRAME, HOOD, GRILL, & INST. PANEL

| Ref. Let. | Part No. | Description                                 |
|-----------|----------|---|
| A         | 164003   | Support Assembly, Fuel Tank & Battery       |
| B         |          |   |
| 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         | 164117   | Nut Retainer                                |
| M         | 715018   | Hex. Cap Screw, 1/4"-20 x 5/8"              |
| N         | 164232   | Inst. Panel Assembly                        |
| P         | 718032   | Nut Retainer (Frame Cover)                  |
| Q         | 715093   | Hex. Cap Screw, 1/4"-20 x 1/2"              |
| 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   | Hex. Screw, Whit-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, 3/16"                          |
| AV        | 705018   | Hex. Cap Screw, 5/16"-18 x 1-1/2"           |
| AW        | 164009   | Grille                                      |
| 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"lg.         |
| 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        | 166200   | Rod Guide                                   |
| BL        |          |   |
| BM        |          |   |
| BN        |          |   |
| BP        |          |   |
| 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        | 122196   | 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        | 166107   | Simplicity & Number 3112H Film              |
| CL        | 164135   | Plate, Assy.                                |
| CM        | 164137   | Emblem "S"                                  |
| CN        | 720007   | Washer Lock                                 |
| CP        | 717023   | Hex Nut #10-24                              |
| CQ        | 164191   | Plug Button                                 |

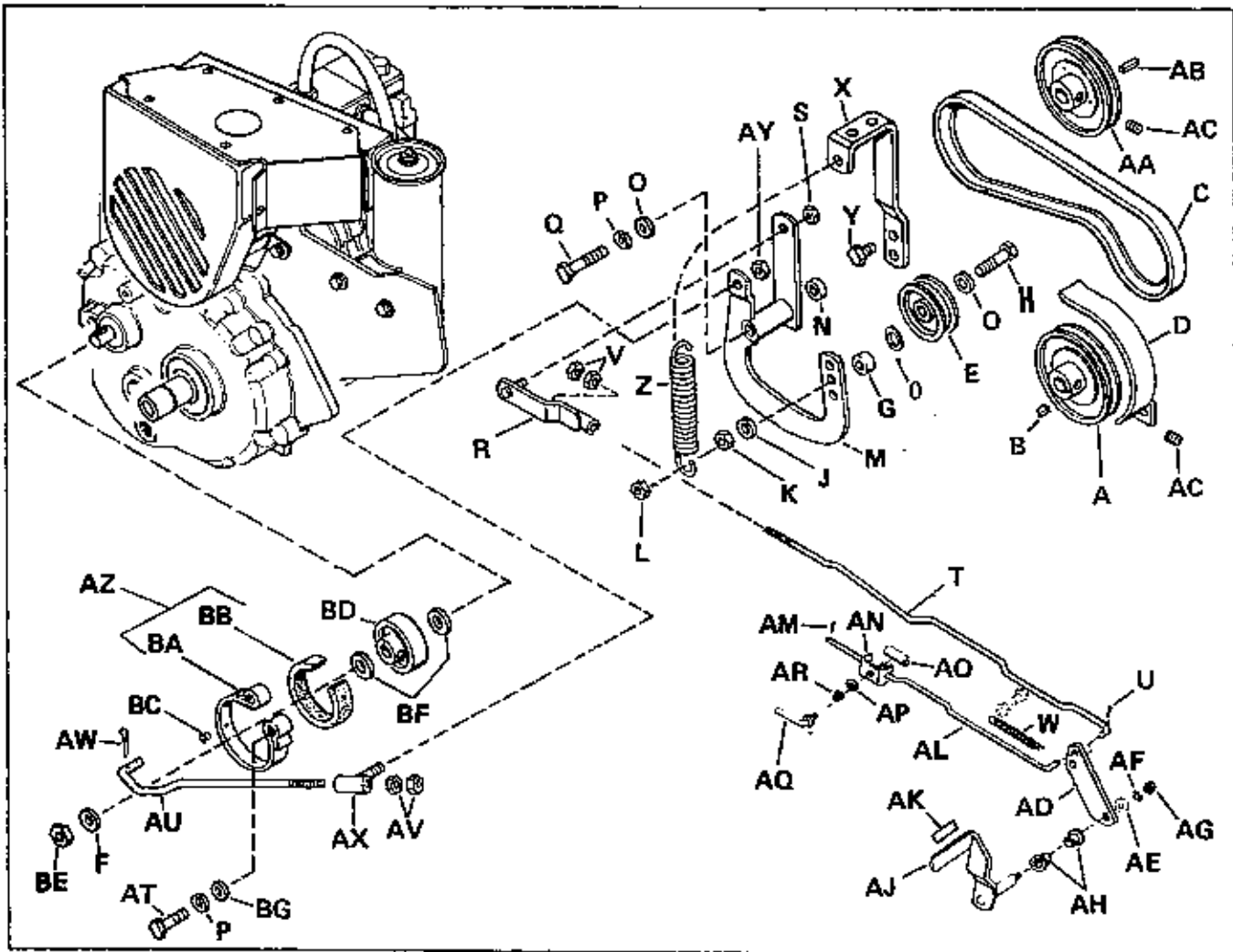
# HYDROSTATIC CONTROL GROUP



| Ref. Let. | Part No. | Description                       |
|-----------|----------|-----------------------------------|
| A         | 166036   | Lever Assembly                    |
| B         | 166038   | Stop Clamp                        |
| C         | 720003   | Lock Washer, 1/4" Std.            |
| D         | 705002   | Hex Capscrew, 1/4"-20 N.C. x 1/2" |
| E         | 166050   | Handle                            |
| F         | 166178   | Shift Ball Handle, 5/16"          |
| G         | 166047   | Spring                            |
| H         | 166063   | Spacer                            |
| J         | 166051   | Shoulder Bolt                     |
| K         | 719006   | Plain Washer, 1/4"                |
| L         | 717513   | Full Hex Lock Nut, 1/4"- 20       |
| M         | 166087   | Support Plate                     |
| N         | 720001   | Lock Washer, 5/16"                |
| P         | 717001   | Full Hex Nut, 5/16"-18            |
| Q         | 705012   | Hex Capscrew, 5/16"-18 N.C.x 5/8" |
| R         | 164180   | Handle                            |
| S         | 164123   | Link,                             |
| T         | 719001   | Plain Washer, 3/8"                |

| Ref. Let. | Part No. | Description                 |
|-----------|----------|-----------------------------|
| U         | 720002   | Lock Washer, 3/8"           |
| V         | 717003   | Full Hex Nut, 3/8"-16       |
| W         | 153058   | Pin                         |
| X         | 722001   | Cotter Pin, 3/32" x 3/4"    |
| Y         | 166083   | Rod Assy., Control, Front   |
| Z         | 166088   | Turn Buckle                 |
| AA        | 718046   | Full Hex Nut, 7/16"-14 L.H. |
| AB        | 717022   | Full Hex Nut, 7/16"-14 R.H. |
| AC        | 166089   | Rod Assy., Rear Control     |
| AD        | 166078   | Spacer                      |
| AE        | 719002   | Plain Washer, 5/16"         |
| AF        | 166095   | Shaft Assy., Control        |
| AG        | 166079   | Ball Joint, Double End      |
| AH        | 166092   | Link Assy., Control         |
| AJ        | 717002   | Full Hex Nut, 5/16"-24      |
| AK        | 723008   | Roll Pin, 1/4" x 1-1/4"     |
| AL        | 166160   | Spring Clip,                |
| AM        | 107135   | Spring                      |

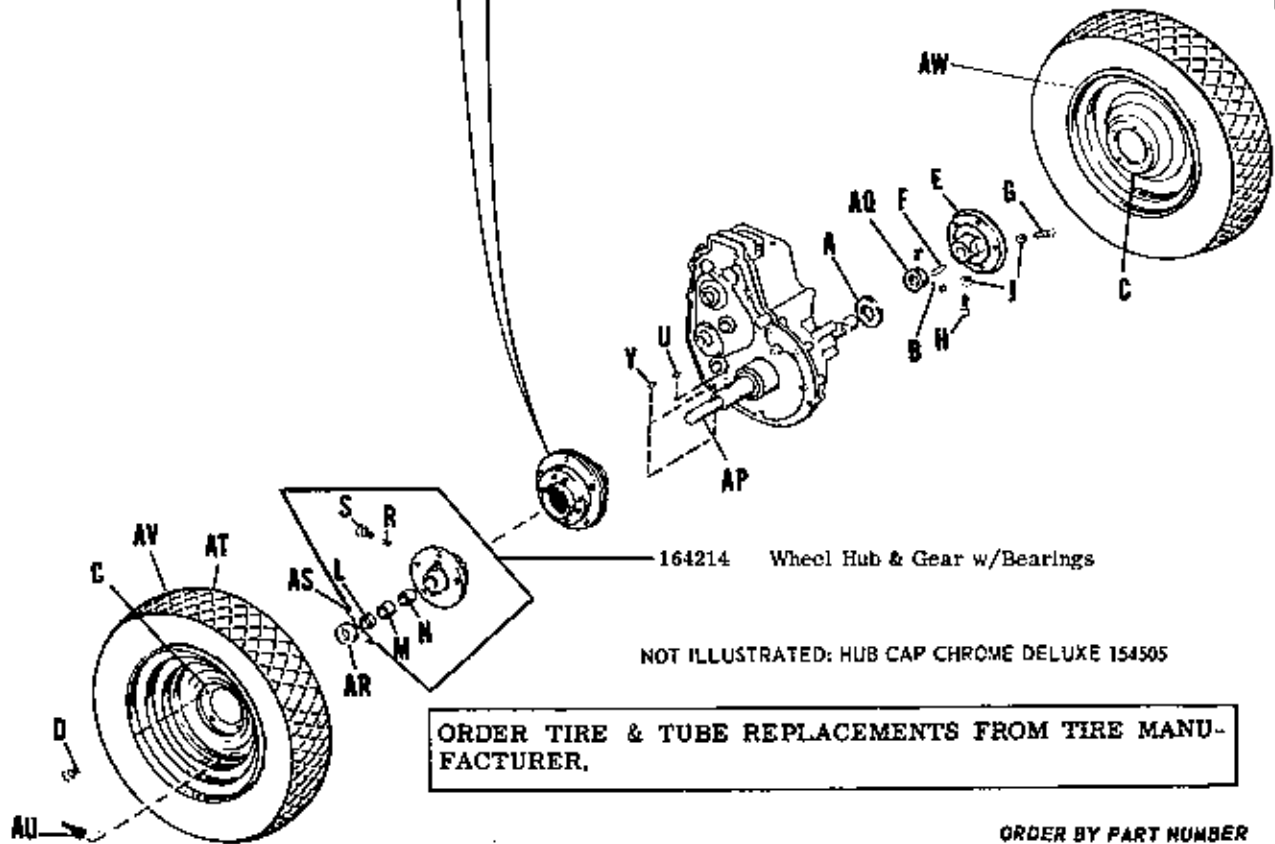
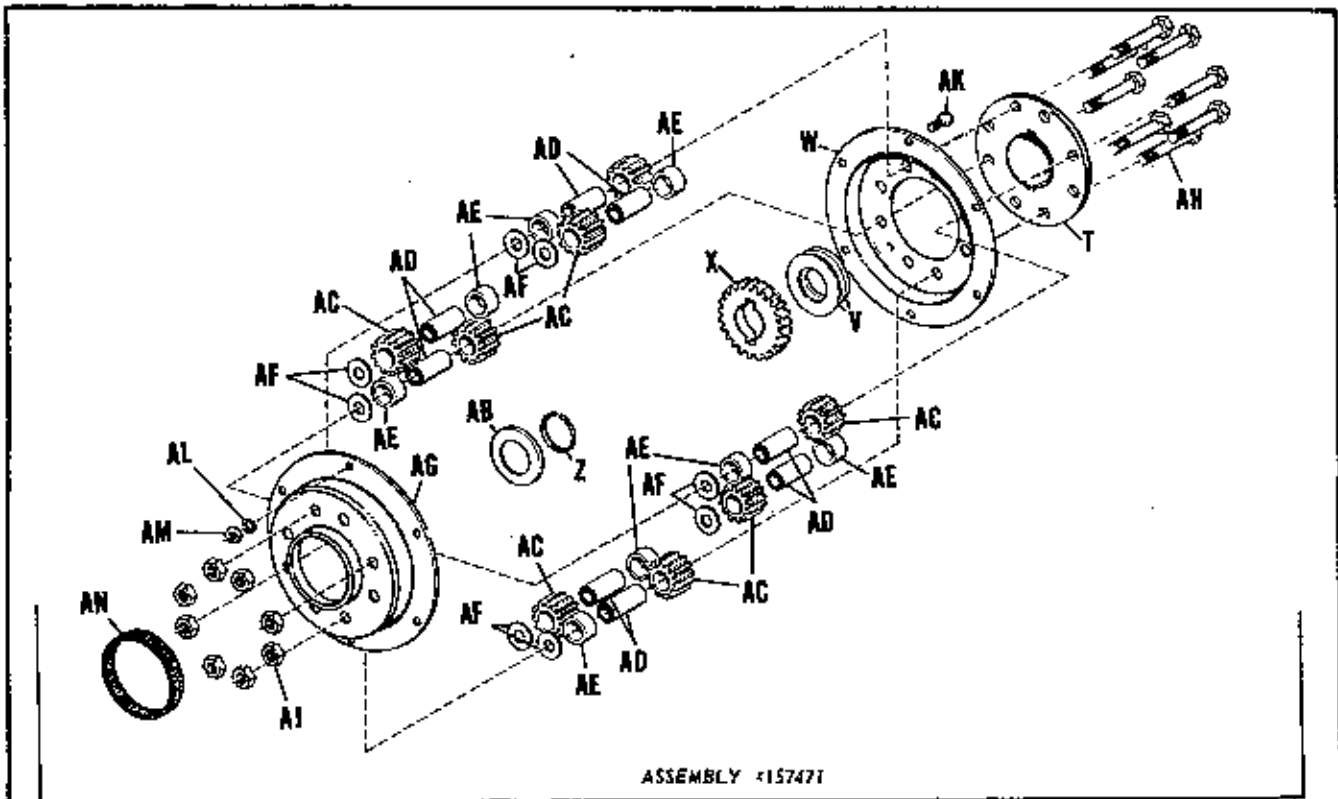
# CLUTCH AND BRAKE GROUP



| Ref. Let. | Part No. | Description                         |
|-----------|----------|-------------------------------------|
| A         | 154308   | Driver Pulley                       |
| B         | 725003   | Woodruff Key, 3/16" x 3/4"          |
| C         | 166172   | "V" Belt                            |
| D         | 166122   | Belt Guard Assembly                 |
| E         | 184268   | Idler Pulley                        |
| F         | 719001   | Plain Washer, 3/8"                  |
| G         | 157081   | Spacer                              |
| H         | 705003   | Hex. Capscrew, 3/8-16 x 2-1/4" lg.  |
| J         | 720002   | Lock Washer, 3/8"                   |
| K         | 717003   | Full Hex. Nut, 3/8" - 16 N.C.       |
| L         | 717524   | Jam Hex. Lock Nut, 3/8" - 16 N.C.   |
| M         | 166126   | Idler Lever Assembly                |
| N         | 168130   | Spacer                              |
| O         | 719001   | Plain Washer, 3/8"                  |
| P         | 720002   | Lock Washer, 3/8"                   |
| Q         | 715063   | Hex. Capscrew, 7/16" - 14 x 3-3/4"  |
| R         | 168157   | Rod Guide Assembly                  |
| S         | 717511   | Full Hex. Lock Nut, 5/16" - 18 N.C. |
| T         | 166131   | Clutch & Brake Rod                  |
| U         | 722009   | Cotter Pin, 1/8" x 3/4" lg.         |
| V         | 717001   | Full Hex. Nut, 5/16" - 18 N.C.      |
| W         | 159106   | Front Tension Spring                |
| X         | 166156   | Spring Bracket, 1/4 x 1 x 11-1/4"   |
| Y         | 714027   | Hex. Hd. Capscrew, 3/8 x 3/4"       |
| Z         | 154389   | Idler Pulley Spring                 |
| AA        | 166173   | Driven Pulley                       |
| AB        | 157332   | Key                                 |

| Ref. Let. | Part No. | Description                                   |
|-----------|----------|---|
| AC        | 713503   | Cup Pt. Socket Hd. Set Screw, 5/16-18 x 5/16" |
| AD        | 157300   | Food Pedal Arm, 1/4 x 1-3/4 x 5-7/8"          |
| AE        | 719001   | Plain Washer, 3/8"                            |
| AF        | 720002   | Lock Washer, 3/8"                             |
| AG        | 717003   | Full Hex. Nut, 3/8" - 16 N.C.                 |
| AH        | 108419   | Bushing                                       |
| AJ        | 157280   | Foot Pedal Assembly                           |
| AK        | 162098   | Pedal Pad                                     |
| AL        | 164210   | Parking Brake Rod                             |
| AM        | 722001   | Cotter Pin, 3/32" x 3/4" lg.                  |
| AN        | 104143   | Parking Brake Bracket Assy.                   |
| AO        | 157287   | Spacer  |
| AP        | 719003   | Plain Washer, 7/16"                           |
| AQ        | 164142   | Parking Brake Lock                            |
| AR        | 157127   | Conical Spring                                |
| AS        |          |   |
| AT        | 705010   | Hex. Capscrew, 3/8"-16 x 1-3/4" lg.           |
| AU        | 166058   | Brake Rod                                     |
| AV        | 717003   | Full Hex. Nut, 3/8" - 16 N.C.                 |
| AW        | 722001   | Cotter Pin, 3/32" x 3/4" lg.                  |
| AX        | 168119   | Rod Guide Assembly                            |
| AY        | 717511   | Full Hex. Lock Nut, 5/16" - 18 N.C.           |
| AZ        | 166057   | Brake Band & Lining Assembly                  |
| BA        | 166056   | Brake Band                                    |
| BB        | 166055   | Brake Lining                                  |
| BC        | 724502   | Rivet No. 7 x 1/4" lg.                        |
| BD        | 166176   | Brake Drum                                    |
| BE        | 717519   | Lock Nut, 7/16" - 14                          |
| BF        | 158186   | Washer  |
| BG        | 719002   | Plain Washer, 5/16"                           |

# REAR WHEELS AND AXLE





# REAR WHEELS AND AXLE

ORDER BY PART NUMBER

| Ref.<br>Let. | Part<br>No. | Description                              |
|--------------|-------------|--|
| A            | 105050      | Washer                                   |
| B            | 713002      | Set Screw, 5/16"-18 x 3/8"lg.            |
| C            | 157644      | 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            | 153088      | Bearing                                  |
| R            | 152042      | Nylong 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                           |
| AB           | 154277      | Axle Washer                              |
| AC           | 121311      | Differential Pinion                      |
| AD           | 121083      | Pinion Differential Spindle              |
| AE           | 121084      | Differential Spacer                      |
| AF           | 719002      | Plain Washer                             |
| AG           | 164220 *    | Differential Cover                       |
| AH           | 715048      | 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           | 157637      | Tire 10-1/2 x 12                         |
| AU           | 157029      | Valve Stem                               |
| AV           | 157636      | Wheel & Tire Ass'y.                      |
| AW           | 157638      | Tube (For Service Only)                  |

**CAUTION**

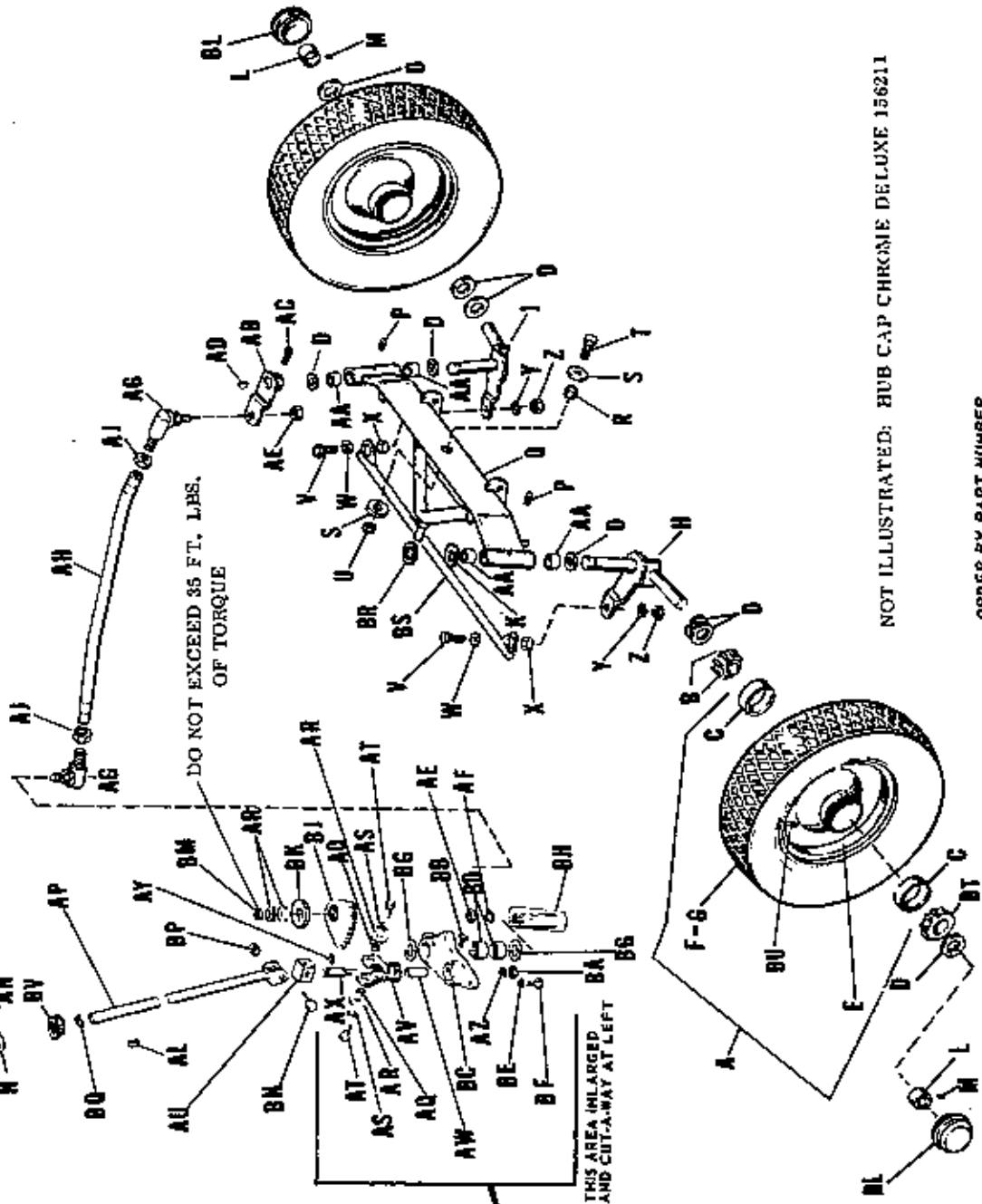
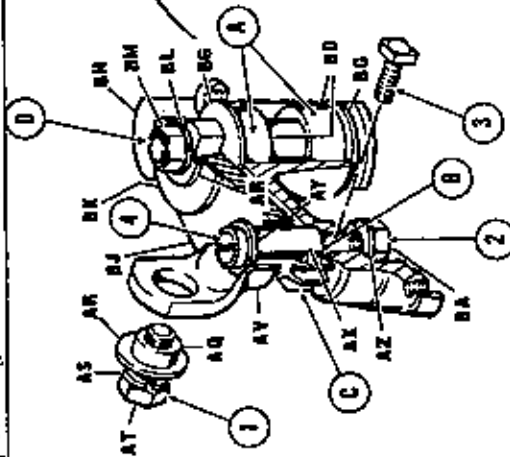
**DO NOT EXCEED 25ft. POUNDS OF TORQUE ON PART NUMBER 713508,  
REFERENCE LETTER (S), CONTROL TRACTION BOLTS.**

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

165097 - STEERING CAP — 165098 - DECAL

**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. Turn Eccentric 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 interferes with steering.
- E. Tighten the Hex. Nut (No. 2) and Set Screw (No. 3).
- F. Replace the Capscrews (No. 1) and R.H. Side Panel.
- G. Grease Needle Bearings, (A) Bushing (B) and Gear Teeth (C) before reassembly.
- H. To grease Needle Bearings (A) remove attaching hardware (D) and remove Steering Arm Assembly.



NOT ILLUSTRATED: HUB CAP CHROME DELUXE 156211

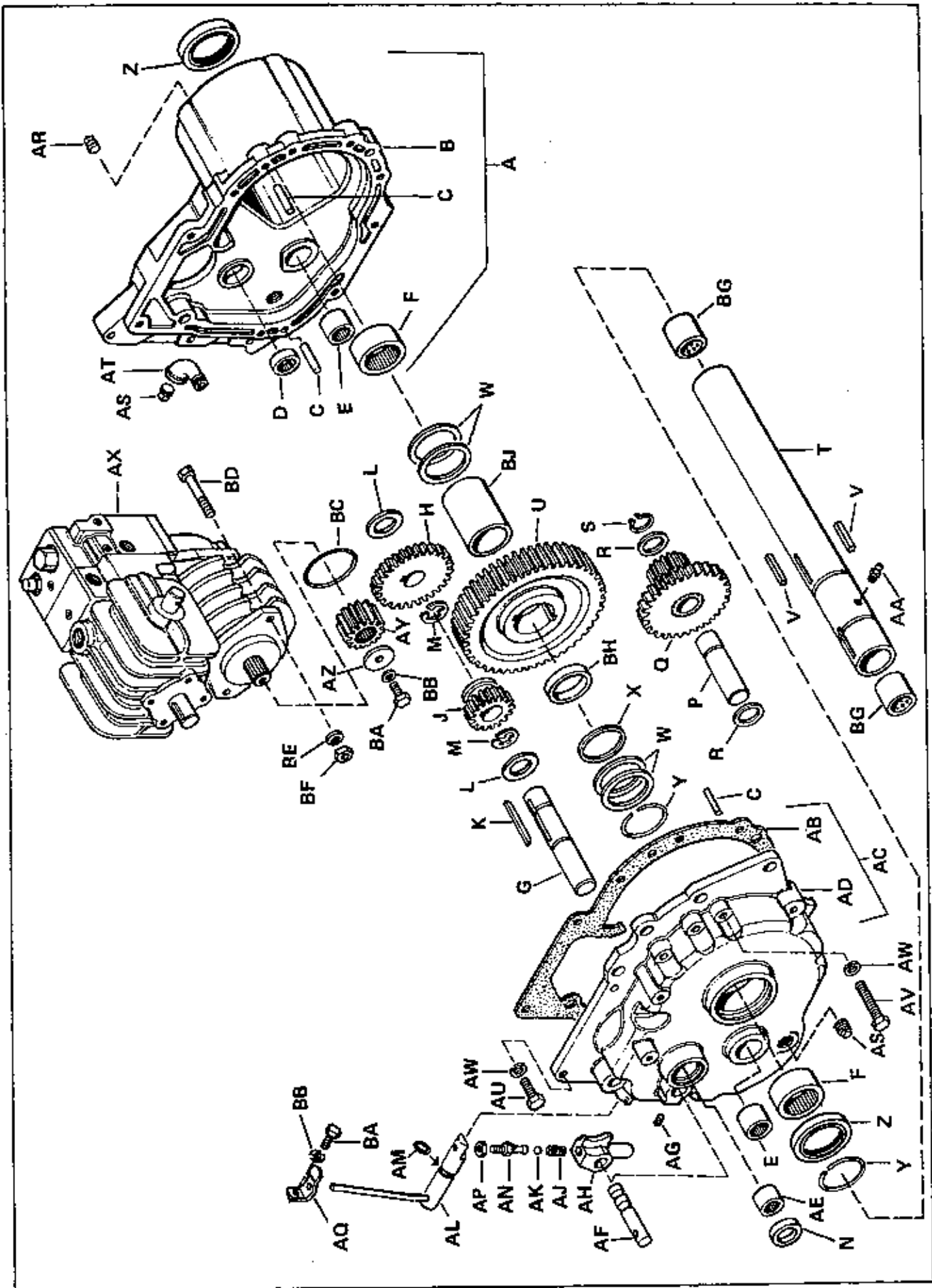
ORDER BY PART NUMBER

**FRONT WHEELS, AXLE, TIE ROD & STEERING**

# FRONT WHEELS, AXLE, TIE ROD & STEERING

— ORDER BY PART NUMBER

| Ref.<br>Let. | Part<br>No. | Description   |
|--------------|-------------|---|
| A            | 157505      | Wheel and Tire Assembly                                 |
| B            | 154397      | Bearing Cone, w/seal                                    |
| C            | 154390      | Bearing Cup   |
| D            | 108181      | Washer  |
| E            | 157506      | Wheel w/Bearing Cup                                     |
| F            | 157490      | Tire,   |
| G            | 164247      | 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            | 9021010     | Set Collar  |
| P            | 727002      | 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 1" 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           | 165078      | Steering Wheel  |
| AL           | 723003      | Woodruff Key, #9  |
| AM           | 713503      | Socket Head Cup Point Set Screw, 5/16"-18 x 5/16" lg.   |
| AN           | 713502      | Socket Hd. 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   |
| BA           | 717003      | Full Hex. Nut, 3/8" -16                                 |
| BB           | 713012      | Sq. Hd. Set Screw, 1/4"-20 x 3/4" lg.                   |
| 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                                   |
| RJ           | 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   |
| BU           | 157305      | Valve Stem  |
| BV           | 157077      | Steering Bushing  |

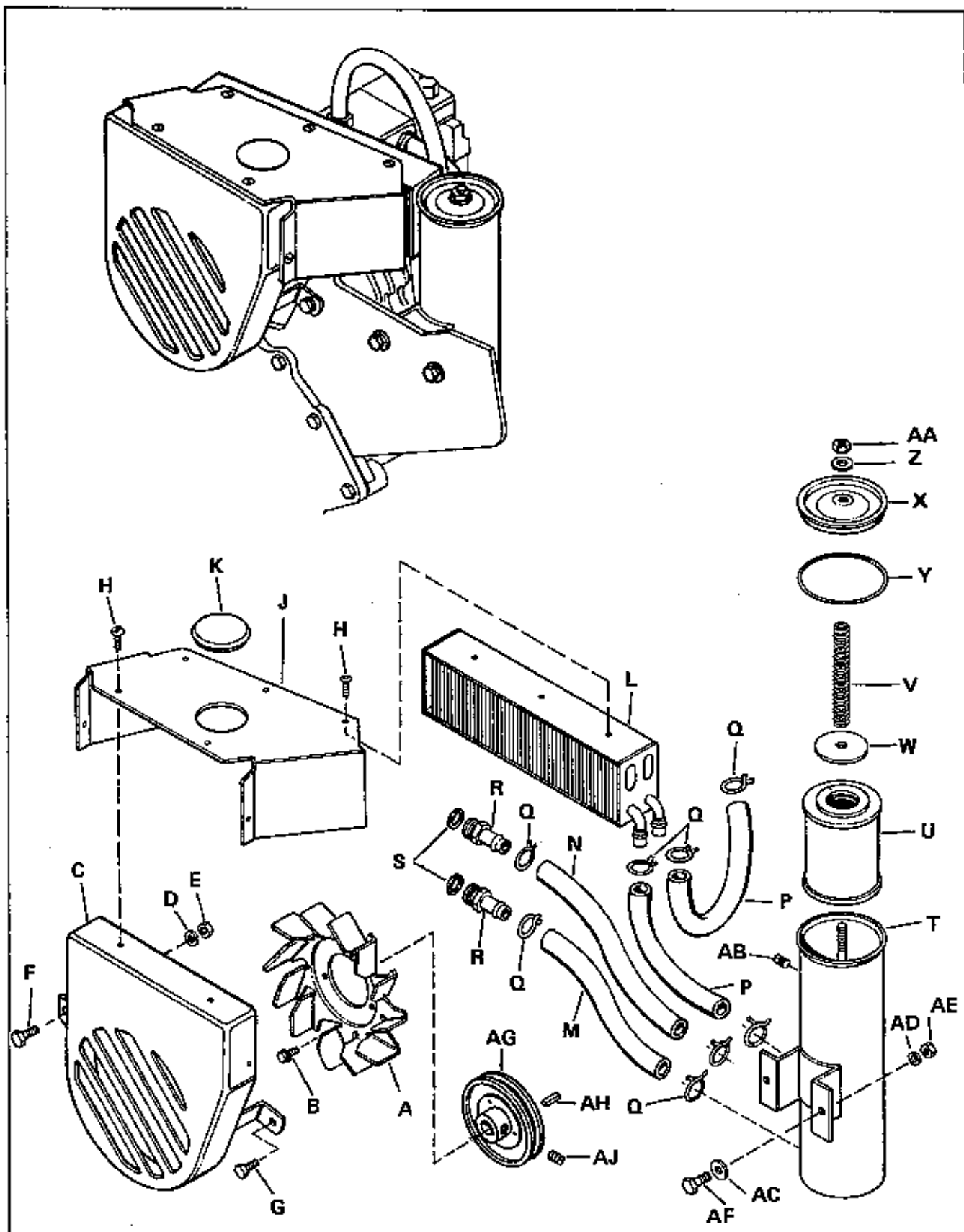


TRANSMISSION GROUP

## TRANSMISSION GROUP

| Ref. Let. | Part No. | Description   | Ref. Let. | Part No. | Description                                       |
|-----------|----------|---|-----------|----------|---|
| A         | 166106   | Gear Case Complete (includes B thru F)                | AE        | 166019   | Needle Bearing                                    |
| B         | 166001   | Gear Case   | AF        | 166028   | Shifter Shaft                                     |
| C         | 723018   | Roll Pin, 3/8" x 1-1/4"                               | AG        | 715019   | Cone Pt. Setscrew, Hollow Hd.,<br>5/16"-18 x 1/2" |
| D         | 154271   | Needle Bearing  | AH        | 166027   | Shift Fork  |
| E         | 166018   | Needle Bearing  | AJ        | 154323   | Spring  |
| F         | 157519   | Needle Bearing  | AK        | 154262   | Shift Lock Ball                                   |
| G         | 166011   | Brake Shaft   | AL        | 166164   | Shift, Shaft Assembly                             |
| H         | 166004   | Gear - 1st Interm.                                    | AM        | 166023   | "O" Ring  |
| J         | 166005   | Sliding Pinion  | AN        | 166029   | Shift Stem  |
| K         | 166014   | Key   | AP        | 717029   | Hex. Jam Nut, 5/16"-24                            |
| L         | 166013   | Washer  | AQ        | 166162   | Lift Lever Latch                                  |
| M         | 166015   | Retainer Ring   | AR        | 726002   | Pipe Plug, 1/4"                                   |
| N         | 166021   | Oil Seal  | AS        | 726003   | Pipe Plug, 3/8"                                   |
| P         | 166012   | Shaft, Interm.  | AT        | 728501   | Street Elbow, 3/8" x 90°                          |
| Q         | 166010   | Pinion & Gear Assembly                                | AU        | 705007   | Hex. Capscrew, 5/16-18 x 1"                       |
| R         | 166016   | Washer  | AV        | 705020   | Hex. Capscrew, 5/16-18 x 2"                       |
| S         | 166017   | Retaining Ring  | AW        | 720001   | Lock Washer, 5/16"                                |
| T         | 166066   | Axle Tube Assembly                                    | AX        | 166097   | Hydrostatic Pump & Motor Unit                     |
| U         | 166006   | Drive Gear  | AY        | 166003   | Motor Shaft Pinion                                |
| V         | 154096   | Key   | AZ        | 123144   | Washer  |
| W         | 154097   | Washer  | BA        | 715103   | Hex. Capscrew, 5/16-24 x 5/8"                     |
| X         | 166167   | Washer  | BB        | 720001   | Lock Washer, 5/16"                                |
| Y         | 154268   | Snap Ring   | BC        | 166026   | "O" Ring  |
| Z         | 154269   | Seal  | BD        | 715064   | Hex. Capscrew, 7/17-14 x 4"                       |
| AA        | 727002   | Grease Fitting  | BE        | 720006   | Lock Washer, 7/16"                                |
| AB        | 166043   | Gear Case Gasket                                      | BF        | 717022   | Hex. Nut, Full, 7/16"-14                          |
| AC        | 166103   | Gear Case Cover Sub. Assy. (includes<br>AD, AE, E, F) | BG        | 164224   | Bushing   |
| AD        | 166002   | Gear Case Cover                                       | BH        | 166040   | Spacer (R.H.Side)                                 |
|           |          |   | BJ        | 166041   | Spacer (L.H.Side)                                 |

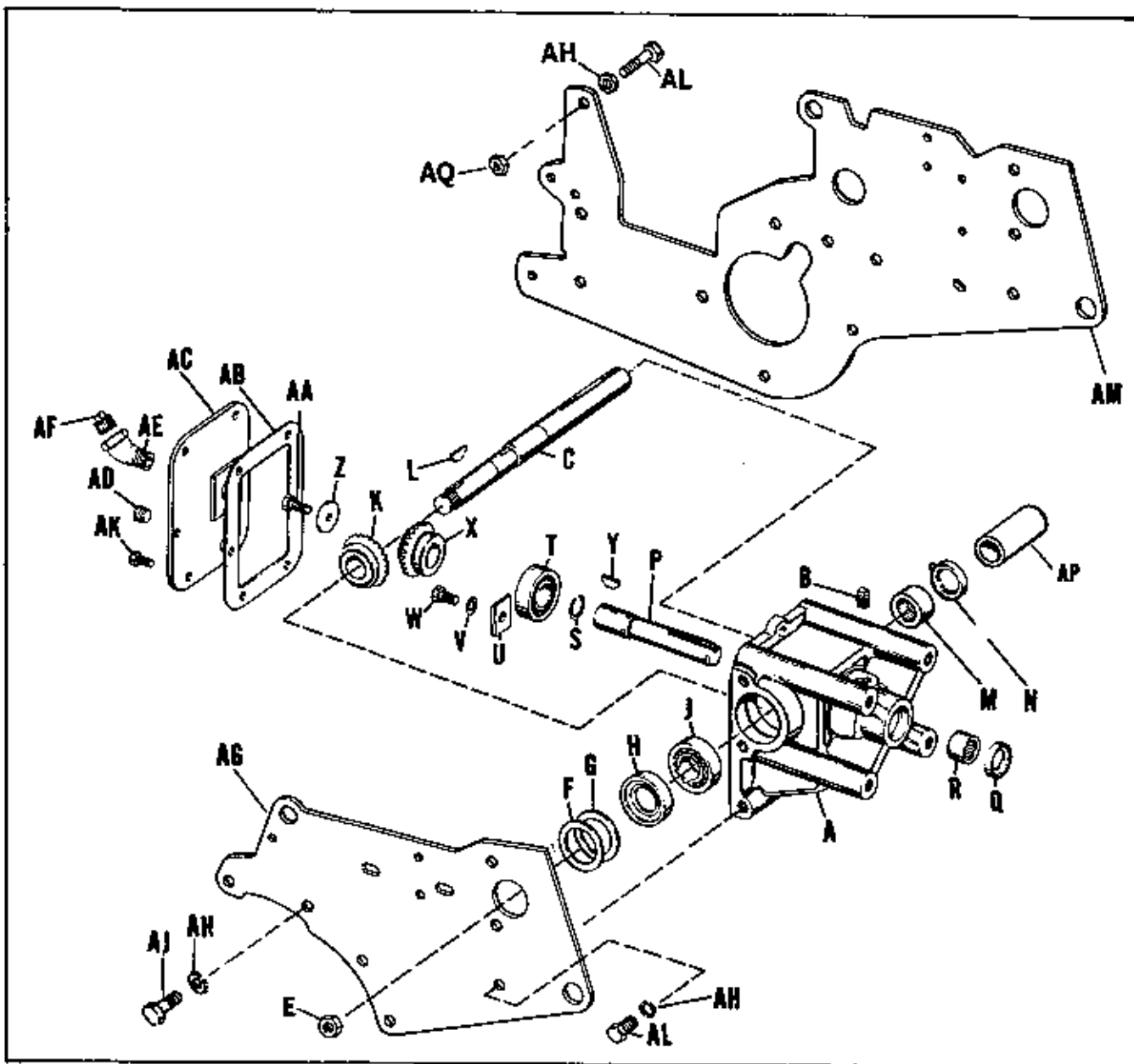
# HYDROSTATIC COOLING GROUP



# HYDROSTATIC COOLING GROUP

| Ref. Let. | Part No. | Description                                      |
|-----------|----------|--|
| A         | 166022   | Pulley Fan                                       |
| B         | 715090   | Hex. Screw, Washer Hd.                           |
| C         | 166114   | Fan Shroud Assembly                              |
| D         | 720001   | Lock Washer, 5/16"                               |
| E         | 717001   | Full Hex. Nut                                    |
| F         | 705017   | Hex. Capscrew                                    |
| G         | 714026   | Hex. Screw, Thd.                                 |
| H         | 714004   | Tap screw, Round hd. slot                        |
| J         | 166134   | Cooler Deflector                                 |
| K         | 166165   | Caplug   |
| L         | 166135   | Oil Cooler                                       |
| M         | 166136   | Hydraulic Hose                                   |
| N         | 166137   | Hydraulic Hose                                   |
| P         | 166138   | Hydraulic Hose                                   |
| Q         | 166044   | Hose Clamp                                       |
| R         | 166139   | Beaded Insert                                    |
| S         | 166024   | "O" Ring   |
| T         | 166140   | Reservoir Assembly                               |
| U         | 166147   | Filter Element                                   |
| V         | 166171   | Spring   |
| W         | 166150   | Washer   |
| X         | 166080   | Reservoir Cover                                  |
| Y         | 166020   | "O" Ring   |
| Z         | 166161   | Nylon Washer                                     |
| AA        | 717525   | Elastic Stop Nut                                 |
| AB        | 726253   | Pipe Plug  |
| AC        | 719002   | Plain Washer, 5/16"                              |
| AD        | 720001   | Lock Washer, 5/16"                               |
| AE        | 717001   | Full Hex. Nut, 5/16 - 18"                        |
| AF        | 705017   | Hex. Capscrew, 5/16-18 x 3/4"                    |
| AG        | 166173   | Driven Pulley                                    |
| AH        | 157332   | Key  |
| AJ        | 713503   | Cup Pt. Socket Hd. Set Screw,<br>5/16-18 x 5/16" |

# BEVEL GEAR HOUSING

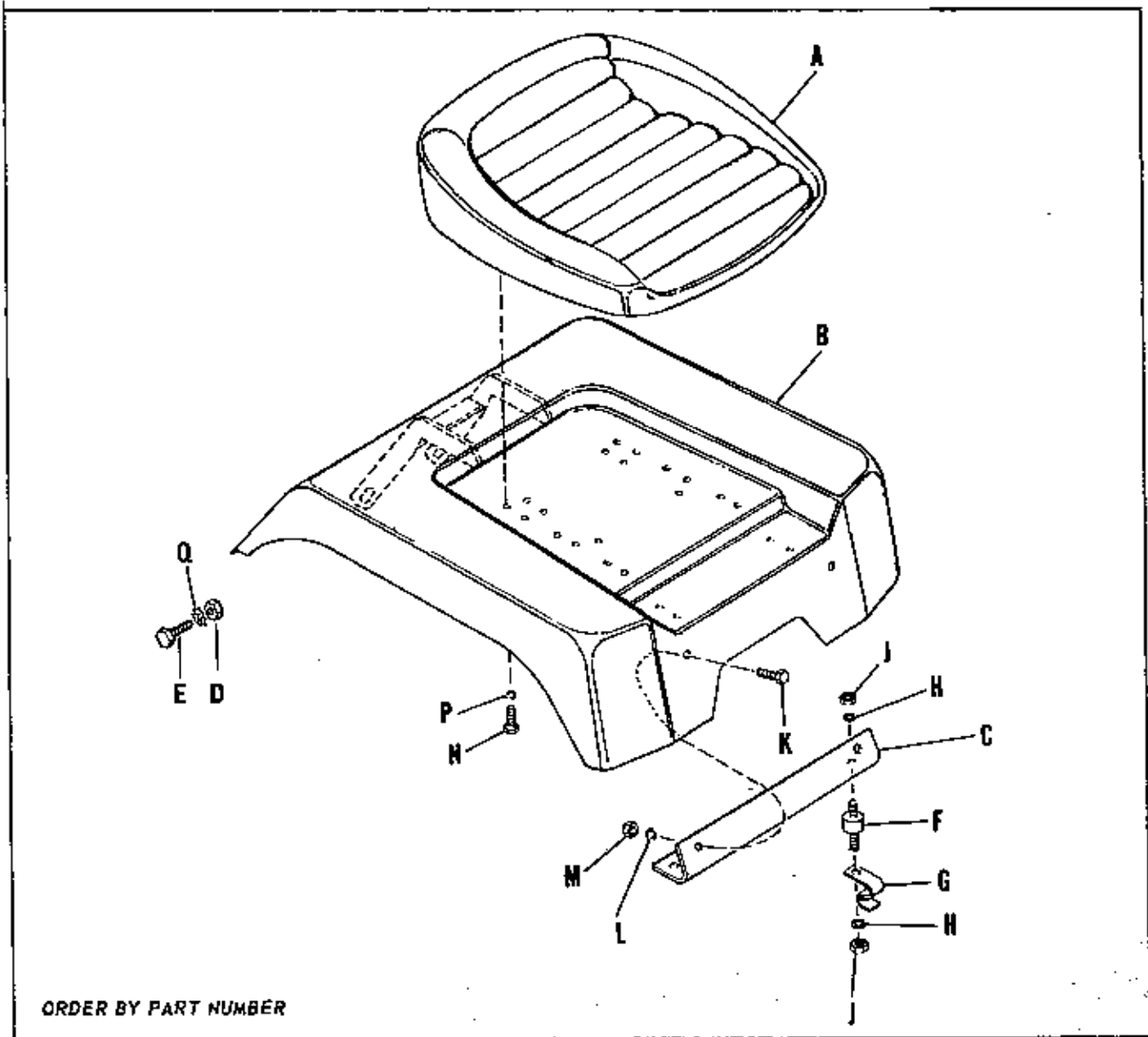


| Ref. Let. | Part No. | Description                    |
|-----------|----------|--------------------------------|
| A         | 154082   | Bevel Gear Housing, W/Bearings |
| B         | 154326   | Pipe Plug                      |
| C         | 154135   | Drive Shaft                    |
| E         | 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       | 166049   | R, H, Side Plate                    |
| AH       | 720005   | Lock Washer, 7/16"                  |
| AJ       | 705041   | Hex Cap Screw, 7/16"-14 x 1" lg.    |
| AK       | 707003   | Hex Cap Screw, 1/4"-20 x 5/8" lg.   |
| AL       | 705042   | Hex Capscrew, 7/16"-14 x 1-1/4" lg. |
| AM       | 166054   | L, H, Side Plate                    |
| AN       |          |                                     |
| AP       | 166077   | Spacer                              |
| AQ       | 717022   | Full Hex Nut, 7/16"-14              |

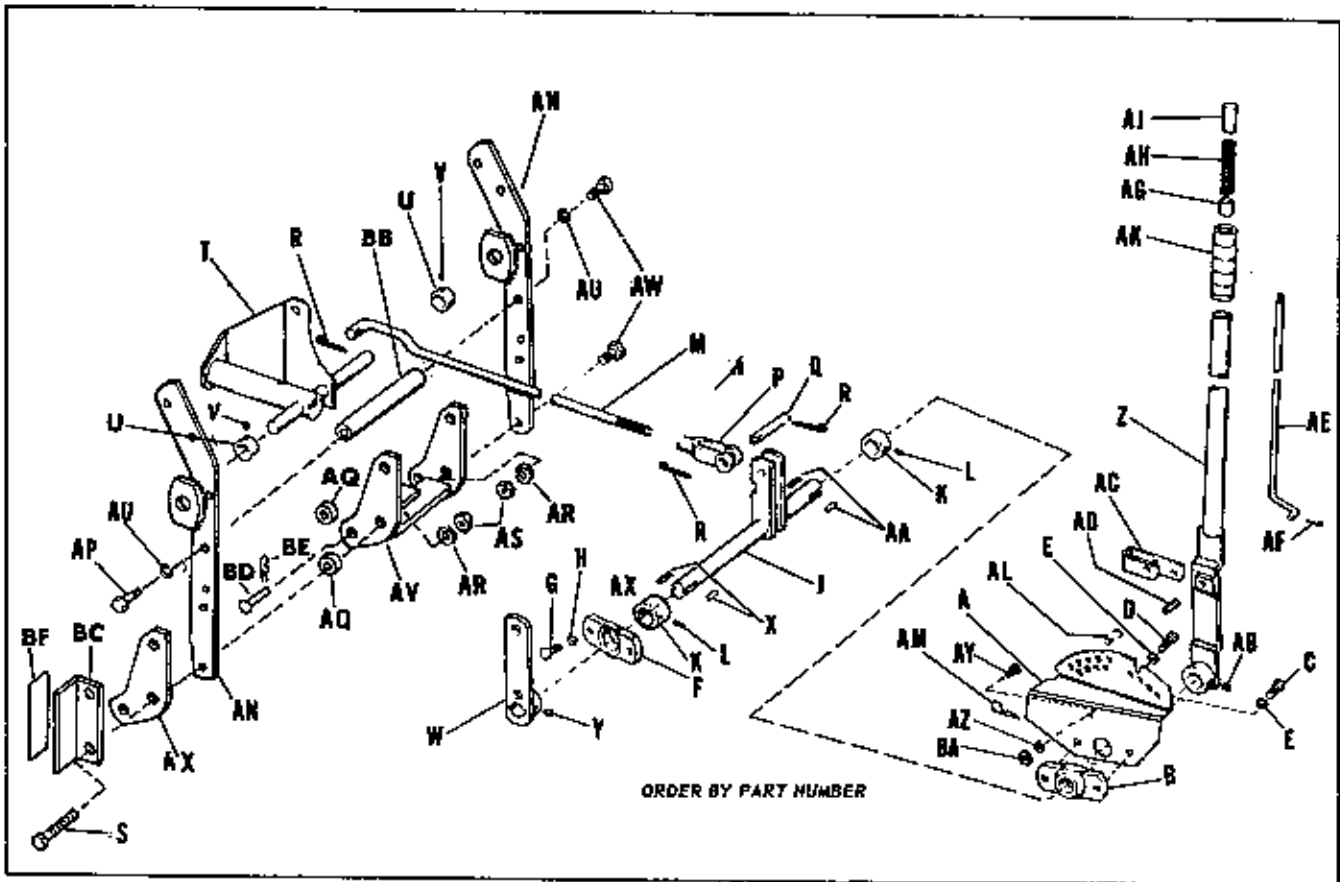


## SEAT AND FENDERS



| Ref.<br>Let. | Part<br>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            | 721601      | Lockwasher                              |

# REAR LIFT DRAW BAR GROUP

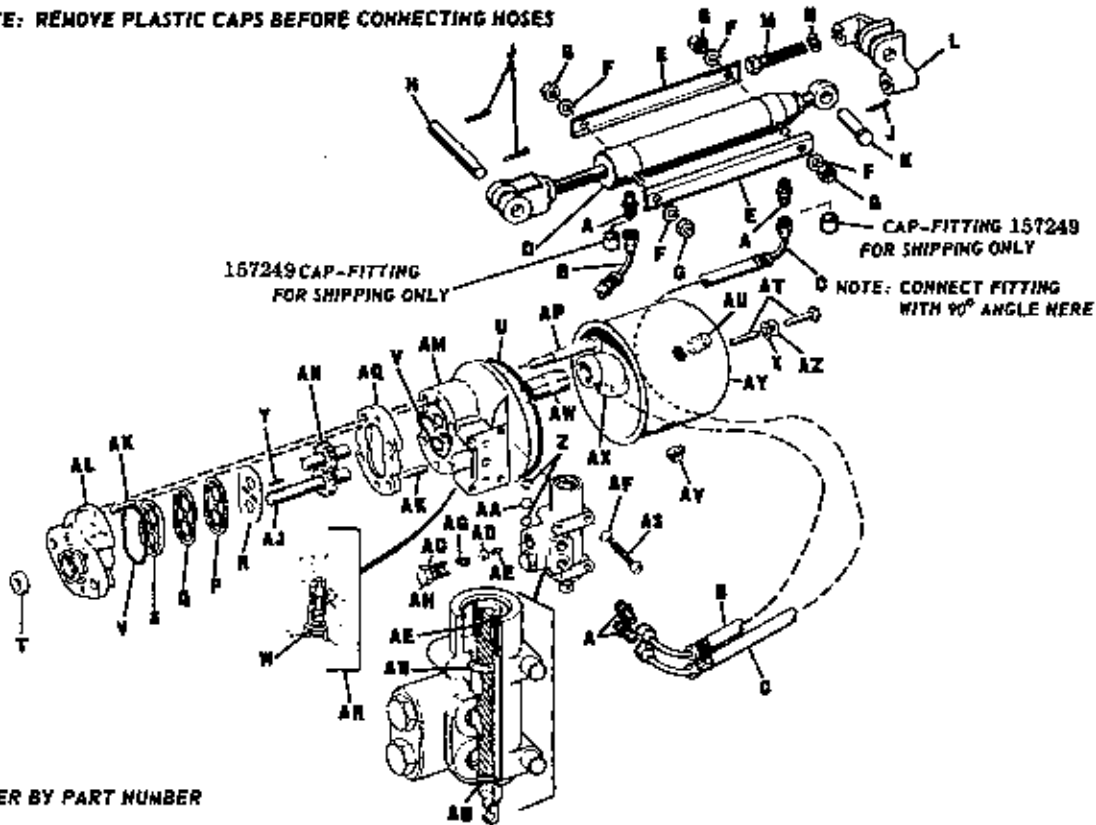


| Ref. Let. | Part No. | Description                       |
|-----------|----------|-----------------------------------|
| A         | 154209   | Lift Lever Quadrant               |
| B         | 157620   | Lift Lever Bearing                |
| C         | 705031   | Hex. Cap Screw, 3/8"-16 x 7/8"    |
| D         | 705016   | Hex. Cap Screw, 3/8"-16 x 1-1/4"  |
| E         | 720002   | Lock Washer, 3/8"                 |
| F         | 154210   | Lift Lever Bearing                |
| G         | 705031   | Hex. Cap Screw, 3/8"-16 x 7/8"    |
| H         | 720002   | Lock Washer, 3/8"                 |
| J         | 157640   | Lift Shaft Assembly               |
| K         | 157624   | Set Collar                        |
| L         | 713503   | Set Screw 5/16"-18 x 5/16"        |
| M         | 164122   | Rear Lift Rod                     |
| N         |          |                                   |
| P         | 154631   | Adj. Yoke End                     |
| Q         | 157225   | Pin                               |
| R         | 722006   | Cotter Pin, 1/8" x 1"             |
| S         | 705052   | Hex. Cap Screw, 7/16"-14 x 2-1/2" |
| T         | 154214   | Tiller Lift Assembly              |
| 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, 5/16"-18 x 1/4"        |
| Z         | 157628   | Lift Lever Assembly               |
| AA        | 157120   | Key                               |
| AB        | 713502   | Set Screw, 5/16"-18 x 1/4"        |
| AC        | 154224   | Lift Lever Latch                  |
| AD        | 723007   | Roll Pin                          |

| Ref. Let. | Part No. | Description                       |
|-----------|----------|-----------------------------------|
| AE        | 157013   | 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        | 166072   | Arm Assembly                      |
| AP        | 705047   | Hex. Capscrew, 7/16"-14 x 1-3/4   |
| AQ        | 166076   | Spacer                            |
| AR        | 720006   | Lock Washer, 3/8"                 |
| AS        | 717022   | Full Hex. Nut, 7/16"              |
| AT        | 705041   | Hex. Cap Screw, 7/16"-14 x 1"     |
| AU        | 720006   | Lock Washer, 7/16"                |
| AV        | 168074   | Draw Bar Assembly                 |
| AW        | 705042   | Hex. Cap Screw, 7/16"-14 x 1-1/4" |
| AX        | 166075   | Draw Plate                        |
| AY        | 715018   | Hex Cap Screw, 1/4-20 x 5/8" lg.  |
| AZ        | 720003   | Lock Washer, 1/4"                 |
| BA        | 717005   | Hex Nut, 1/4-20                   |
| BB        | 166110   | Spacer                            |
| BC        | 166198   | Plate, Decal                      |
| BD        | 155037   | Round Head Pin                    |
| BE        | 8161045  | Spring Clip                       |
| BF        | 166197   | Film, Safety                      |

# POWER LIFT GROUP

NOTE: REMOVE PLASTIC CAPS BEFORE CONNECTING HOSES

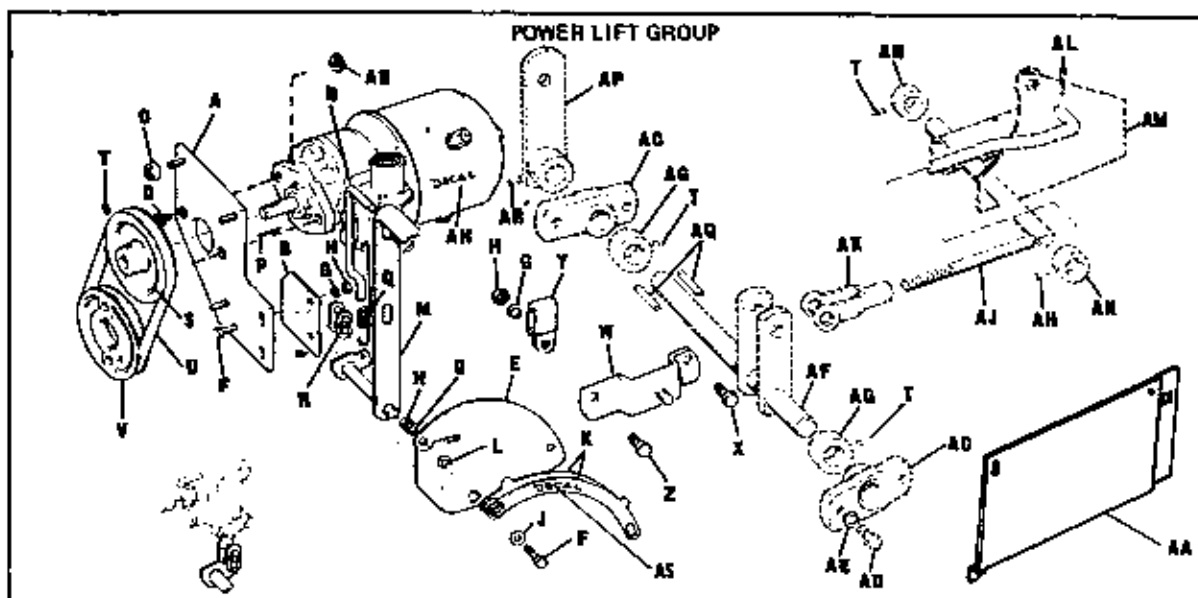


ORDER BY PART NUMBER

| Ref. Let. | Part No. | Description                         |
|-----------|----------|-------------------------------------|
| A         | 164277   | Fitting                             |
| B         | 157210   | Hose Assembly                       |
| C         | 157311   | 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<br>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 Cap                  |
| 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"lg. |
| 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                                |
| T         | 713503   | Set Screw, 5/16"-18 x 5/16"                |
| U         | 157230   | "V" Belt                                   |
| V         | 157484   | Drive Pulley                               |

| Ref. Let. | Part No. | Description                    |
|-----------|----------|--------------------------------|
| 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        | 164044   | Panel, Side L, H.              |
| AB        | 718035   | Nut, Whiz-Lock Flange 3/8"-16  |
| AC        | 157520   | Lift Lever Bearing             |
| AD        | 705031   | Hex. Cap Screw, 3/8"-16 x 7/8" |
| AE        | 720002   | Lock Washer, 3/8"              |
| AF        | 157621   | Lift Shaft Assembly            |
| AG        | 157624   | Set Collar                     |
| AH        | 157242   | Decal                          |
| AJ        | 164122   | Lift Rod                       |
| AK        | 157631   | Adj. Yoke End                  |
| AL        | 722006   | Cotter Pin, 1/8" Dia. x 1"     |
| AM        | 154214   | Tiller Lift Assembly           |
| AN        | 8021010  | Set Collar                     |
| AP        | 157625   | Front Lift Lever Assembly      |
| AQ        | 157120   | Key                            |
| AR        | 713502   | Set Screw, 5/16"-18 x 1/4"     |
| AS        | 157232   | Film                           |

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

Attach pump to pump support assembly #157587. Then attach support assembly to fuel tank and steering post support. Attach lever with connecting link to valve spool shaft.

Place the lever #157200 with the latch rod #157206 in the exact middle of the two hex cap screws "F" located in the quadrant #157199. This is done by adjusting the angle bracket #157428 and quadrant #157199 up or down on the support #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 #157206 and secure capscrew (F) furthest from handle. Repeat procedure to the other extreme for other stop plate.

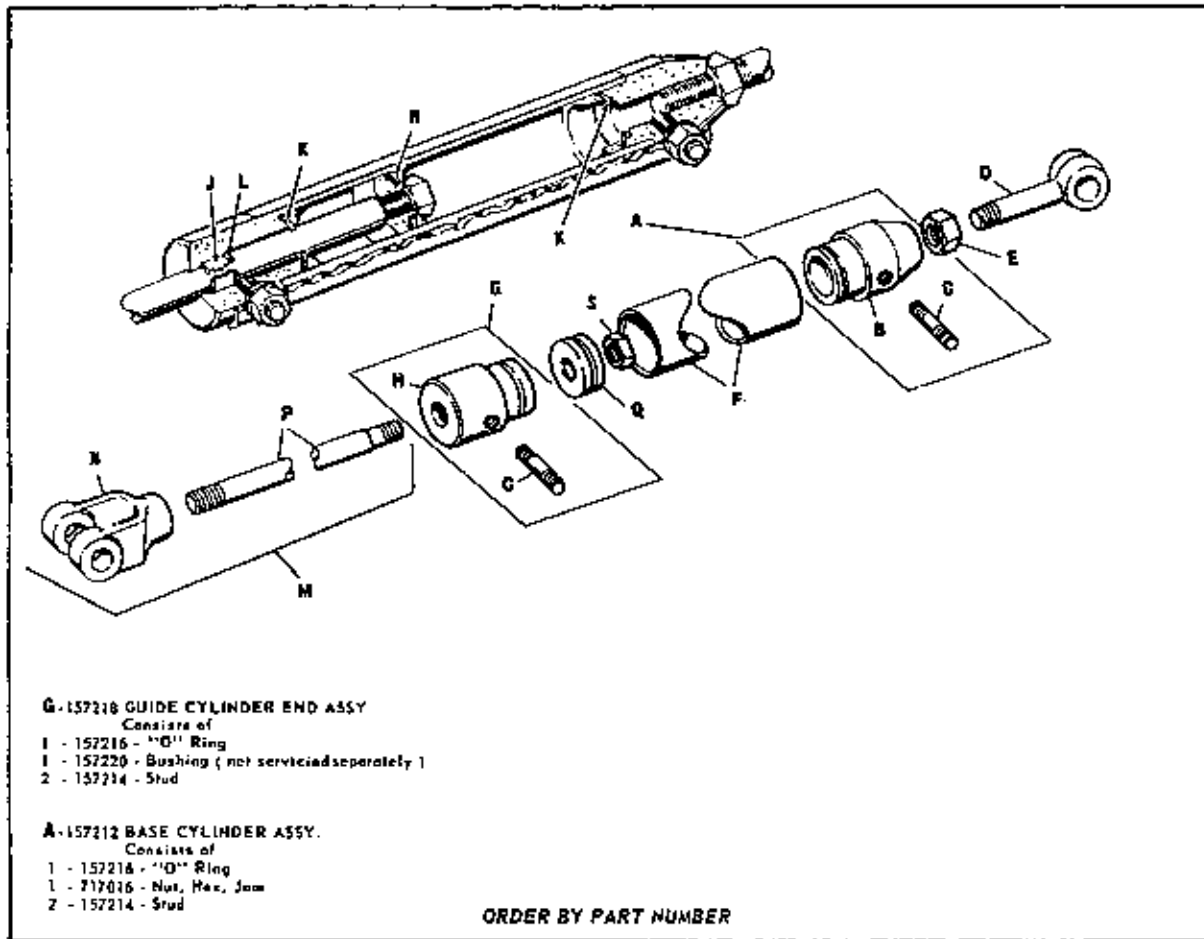
Check rod #157206 in both positions. This rod is not to have ANY FREE MOVEMENT when in front or rear float position. Excessive play at this point increases back pressure on the pump and may cause overheating of the pump. If pump is moved to lift position (front or rear) and then drops the load before 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.

**CAUTION DO NOT OVERFILL**

**CAUTION DO NOT OVERFILL**

# POWER LIFT GROUP



| 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

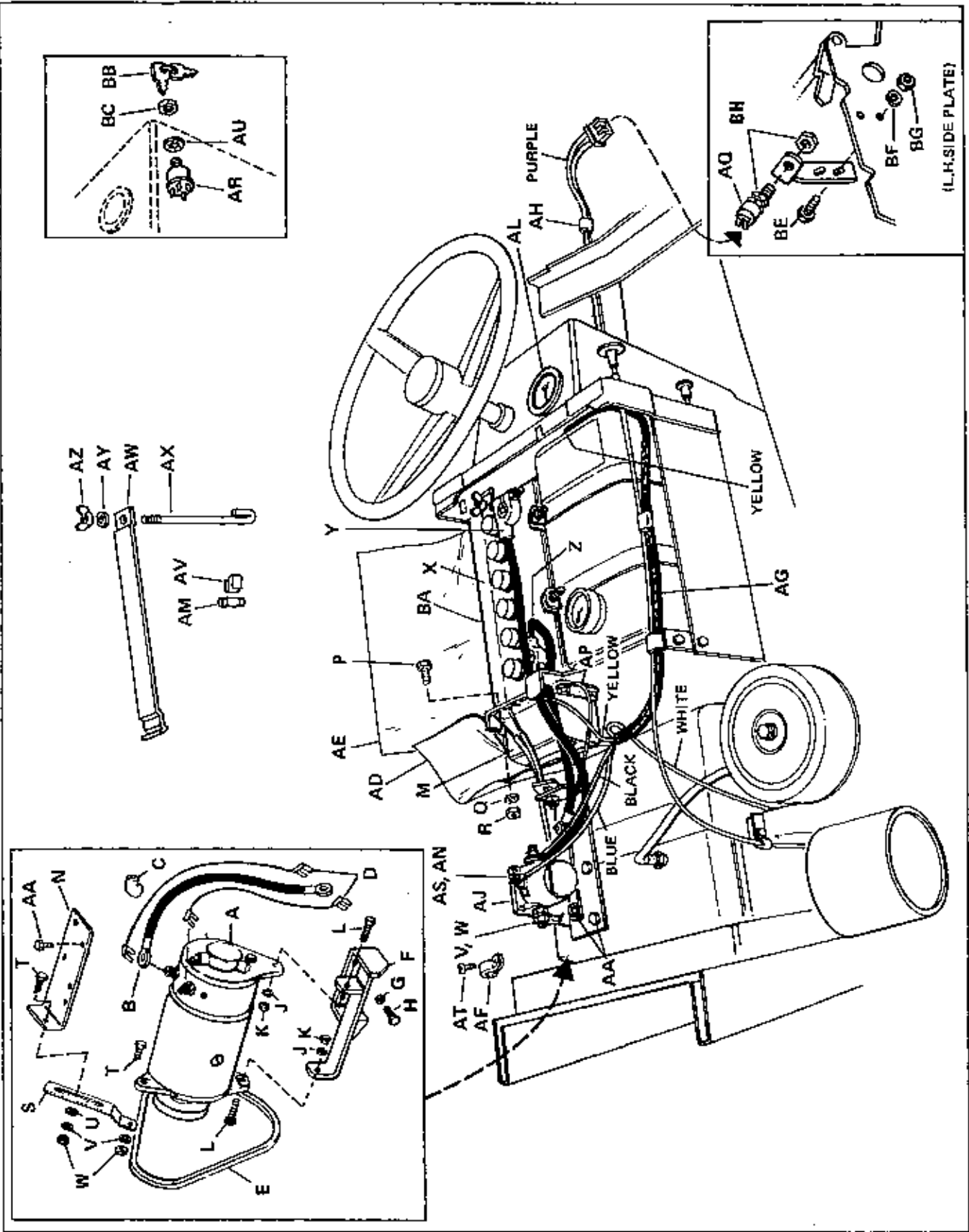
IT IS VITALLY IMPORTANT THAT THE HYDRAULIC FLUID AND ALL INTERNAL PARTS OF THIS UNIT BE KEPT COMPLETELY CLEAN AND FREE OF FOREIGN MATTER OF ANY TYPE.

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**

# ELECTRIC STARTER-GENERATOR SYSTEM

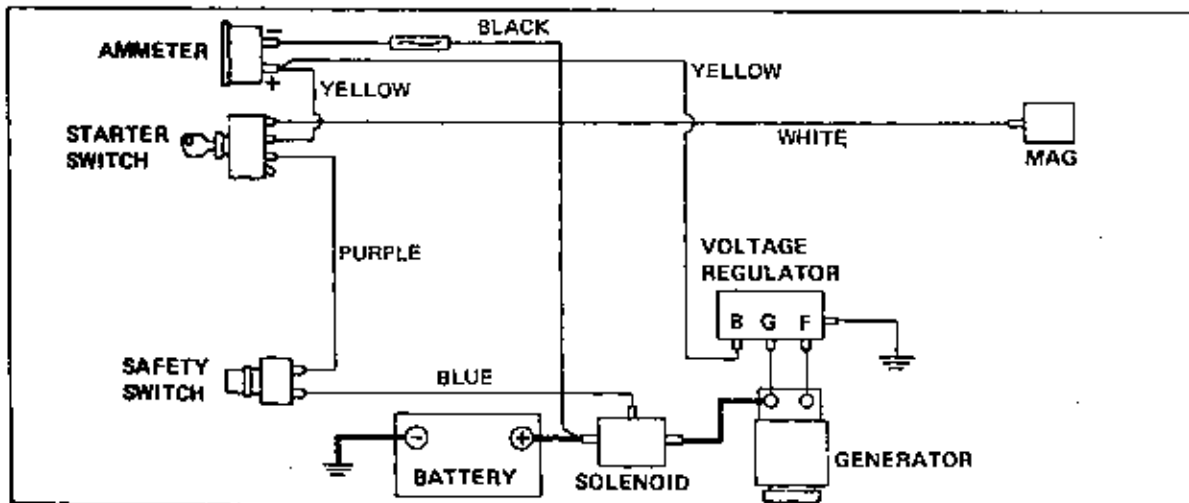


## ELECTRIC STARTER-GENERATOR SYSTEM

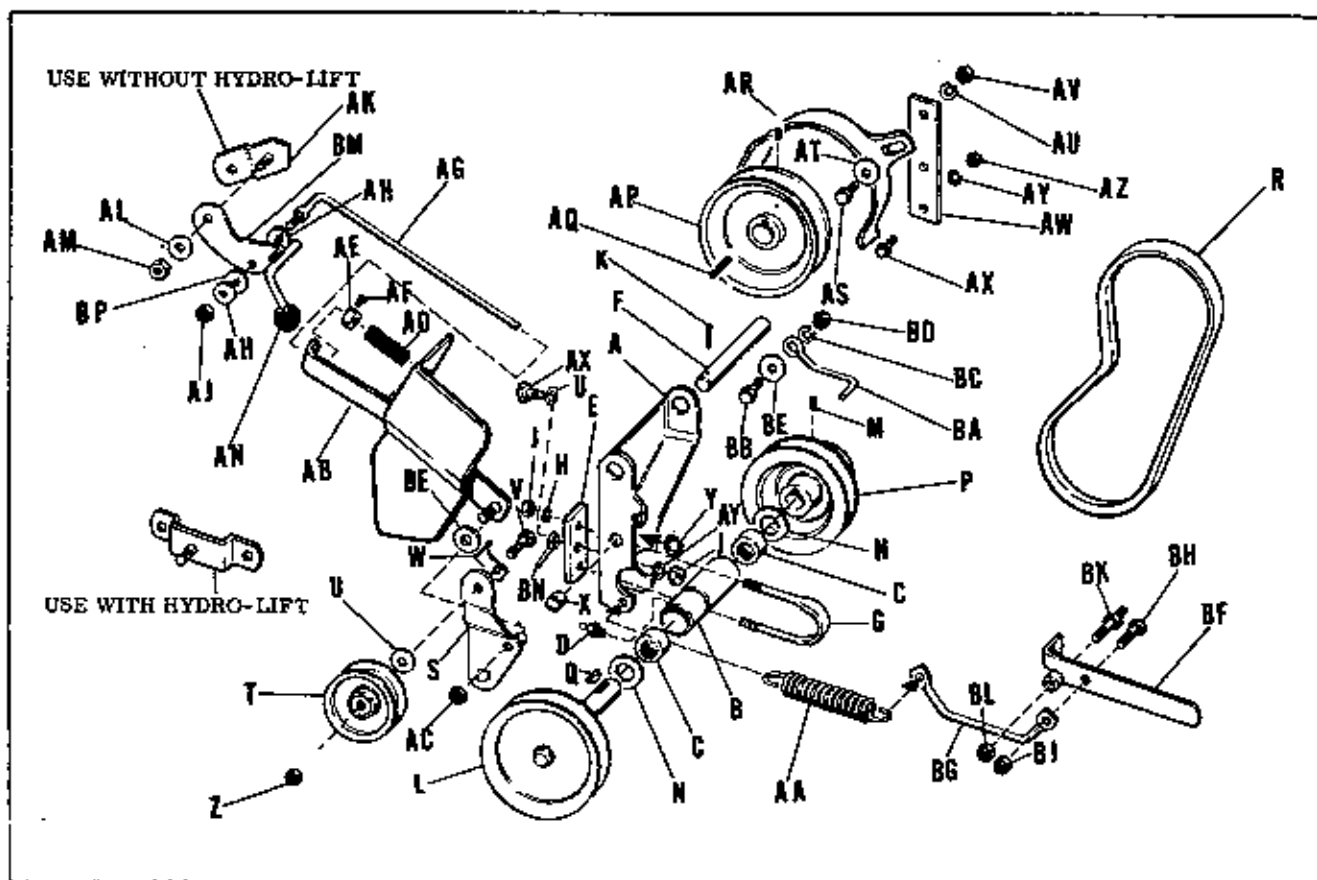
| Ref. Let. | Part No.  | Description                                     |
|-----------|-----------|---|
| A         | 122236 ** | Motor - Generator                               |
| B         | 122213    | Generator Start Cable                           |
| C         | 122023    | Terminal Cover                                  |
| 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<br>1/4"-20 x 1/2" lg. |
| AD        | 122142    | Battery Insulation                              |

| Ref. Let. | Part No. | Description                   |
|-----------|----------|-------------------------------|
| AE        | 122143   | Fuel Tank Insulation          |
| AF        | 122185   | 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        | 122173   | 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             |
| BD        | 166174   | Switch Support                |
| BE        | 705017   | Hex Capscrew, 5/16"-18 x 3/4" |
| BF        | 720001   | Lock Washer, 5/16"            |
| BG        | 717001   | Full Hex Nut, 5/16"-18        |
| BH        | 122234   | Nut                           |

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



## POWER TAKE-OFF

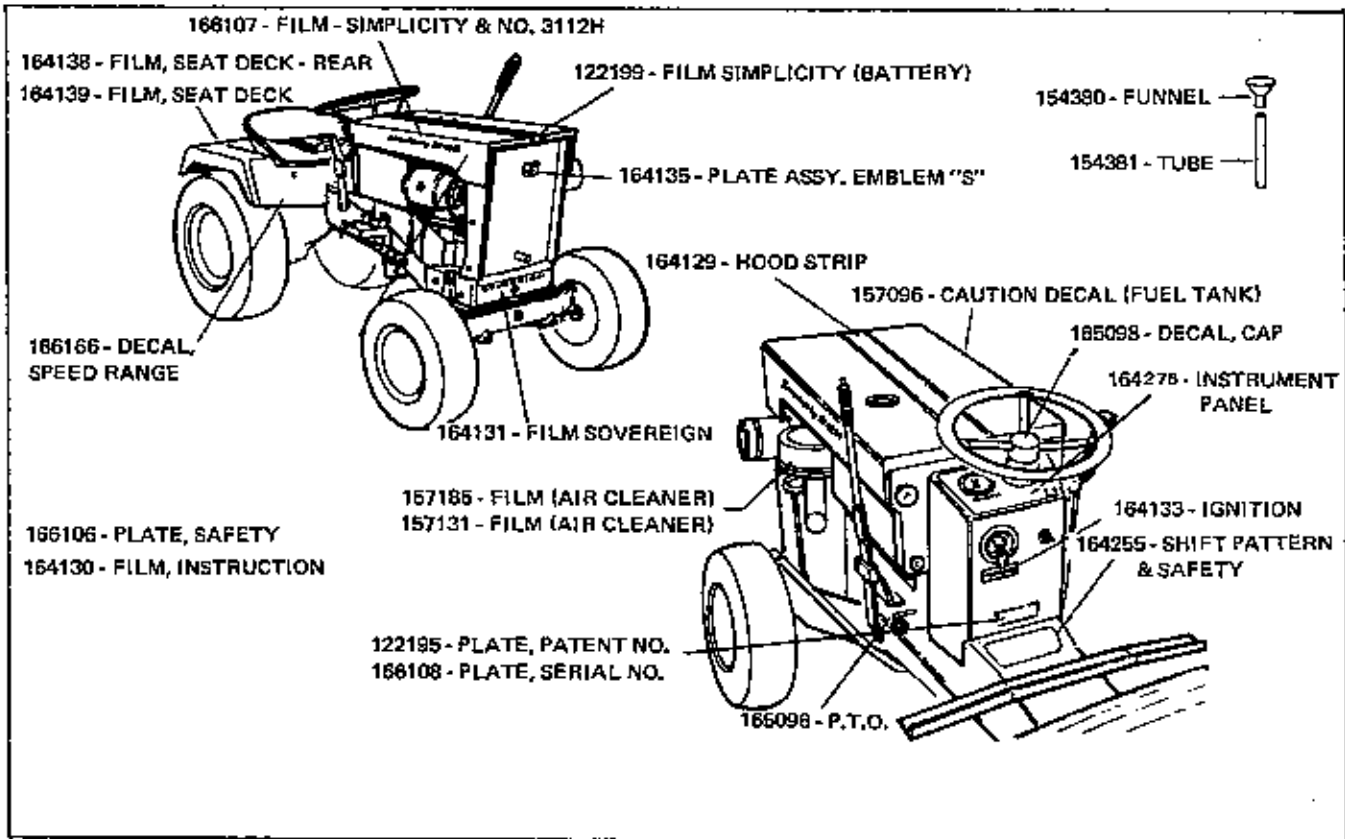


| Ref. Let. | Part No. | Description                      |
|-----------|----------|----------------------------------|
| A         | 157285   | P.T.O. - Bracket                 |
| B         | 157269   | Bearing Housing                  |
| C         | 154258   | Needle Bearing                   |
| D         | 727001   | Grease Fitting                   |
| E         | 157645   | Support Plate                    |
| F         | 154233   | Pivot Rod, 5/8" Dia. x 6-13/16"  |
| G         | 157270   | "U" Bolt                         |
| H         | 720001   | Lock Washer, 5/16"               |
| J         | 717001   | Full Hex. Nut, 5/16"-18          |
| K         | 722007   | Cotter Pin, 3/16" Dia. x 1-1/2"  |
| L         | 157266   | Shaft Assembly, P.T.O.           |
| M         | 713503   | Set Screw, 5/16"-18 x 5/16"      |
| N         | 9061012  | Washer                           |
| P         | 157116   | P.T.O. Pulley                    |
| Q         | 725003   | Woodruff Key #9-3/16" x 3/4"     |
| R         | 164146   | "V" Belt                         |
| S         | 157263   | Idler Lever Assembly             |
| T         | 154534   | Idler Pulley                     |
| U         | 719002   | Plain Washer, 5/16"              |
| V         | 705016   | Hex. Cap Screw, 3/8"-16 x 1-1/4" |
| W         | 157423   | Stop                             |
| X         | 157272   | Spacer                           |
| Y         | 157288   | Retaining Ring                   |
| Z         | 717510   | Full Hex. Nut, 3/8"-16           |
| AA        | 157262   | Tension Spring                   |
| AB        | 164153   | Rod Guide Assembly               |
| AC        | 717510   | Full Lock Hex. Nut, 3/8"-16      |
| AD        | 8191045  | Spring                           |
| AE        | 8191022  | Set Collar                       |
| AF        | 713001   | Set Screw, 1/4"-20 x 3/8"        |
| AG        | 164149   | Clutch Rod Assembly              |

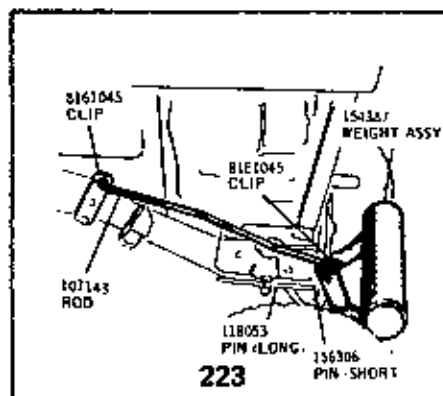
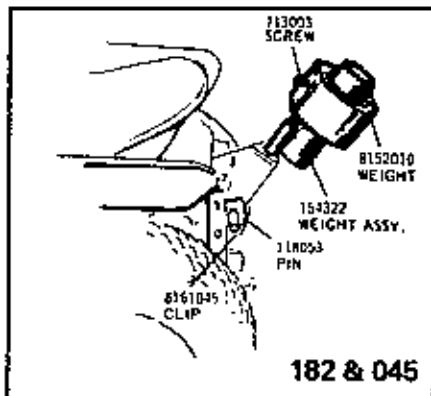
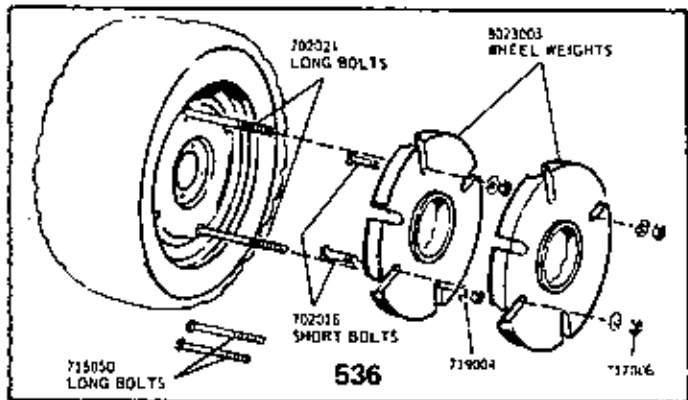
| Ref. Let. | Part No. | Description                       |
|-----------|----------|-----------------------------------|
| AH        | 719002   | Plain Washer, 5/16"               |
| AJ        | 717525   | Elastic Stop Nut, 5/16-18         |
| AK        | 154362   | Pivot Bar Assembly                |
| AL        | 719001   | Plain Washer, 3/8"                |
| AM        | 717510   | Full Lock Hex. Nut, 3/8"-16       |
| AN        | 122005   | Knob                              |
| AP        | 157121   | Pulley                            |
| AQ        | 8061081  | Key                               |
| AR        | 164152   | Belt Guard Assembly               |
| AS        | 705005   | Hex. Cap Screw, 3/8"-16 x 1"      |
| AT        | 719001   | Plain Washer, 3/8"                |
| AU        | 720002   | Lock Washer, 3/8"                 |
| AV        | 717003   | Full Hex. Nut, 3/8"-16            |
| AW        | 157050   | Belt Guard Support                |
| AX        | 705007   | Hex. Cap Screw, 5/16"-18 x 1"     |
| AY        | 720001   | Lock Washer, 5/16"                |
| AZ        | 717001   | Full Hex. Nut, 5/16"-18           |
| BA        | 161080   | Belt Stop                         |
| BB        | 705007   | Hex Capscrew, 5/16-18 x 1"lg.     |
| BC        | 720001   | Lock Washer, 5/16                 |
| BD        | 717001   | Hex Nut, 5/16-18                  |
| BE        | 719002   | Plain Washer, 5/16                |
| BF        | 164155   | Handle Assembly                   |
| BG        | 164047   | Spring Tension Rod                |
| BH        | 705019   | Hex. Cap Screw, 5/16"-18 x 1-1/4" |
| BJ        | 717511   | Full Lock Hex. Nut, 5/16"-18      |
| BK        | 157273   | Stud                              |
| BL        | 717519   | Full Lock Hex. Nut, 7/16"-14      |
| BM        | 154356   | Clutch Lever Assembly             |
| BN        | 121044   | Belt Guide                        |
| BP        | 159134   | Special Washer                    |



# DECALS

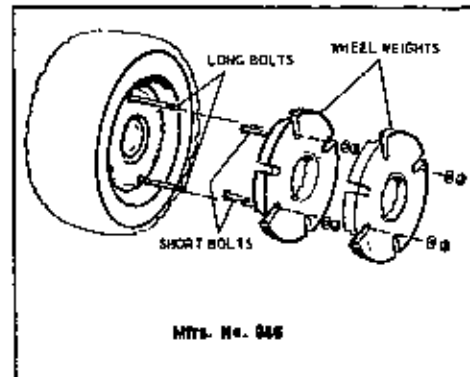
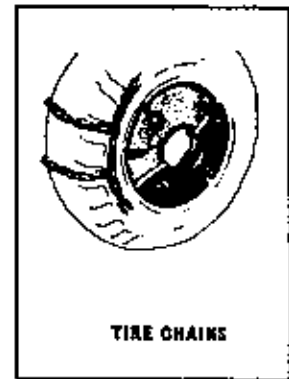
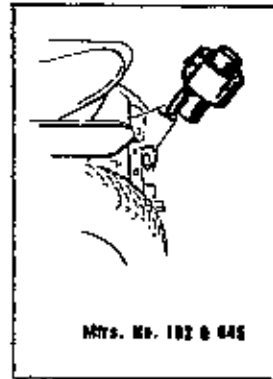
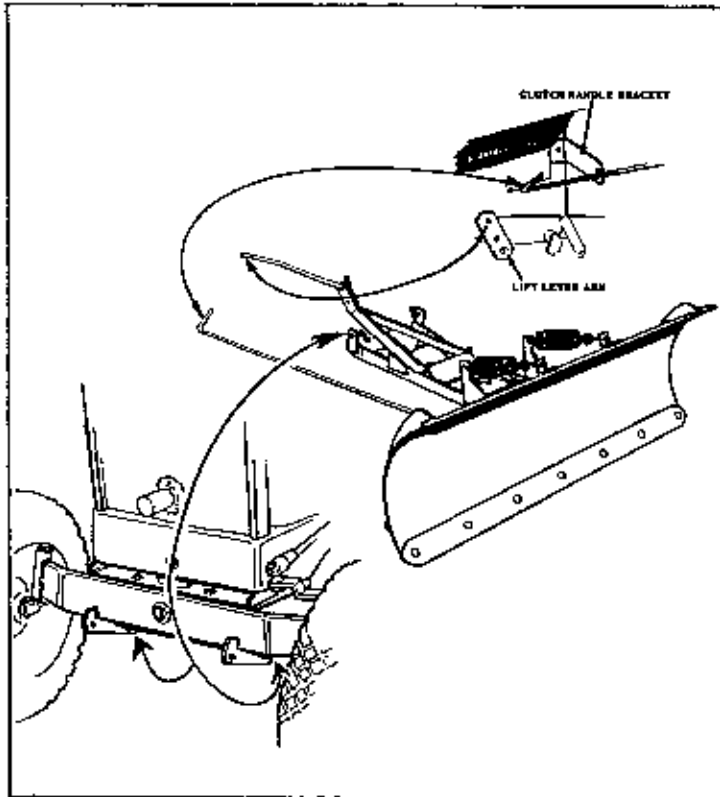


- FRONT COUNTER WEIGHT . . MFR. NO. 223
- REAR COUNTER WEIGHT . . MFR. NO. 182
- WEIGHT (USE WITH 182) . . . MFR. NO. 045
- WHEEL WEIGHT . . . . . MFR. NO. 536



# 46" DOZER BLADE

Mfrs. No. 356



The 46" Snow plow and Dozer blade can be used without 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 Hydraulic 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 Hydraulic 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.

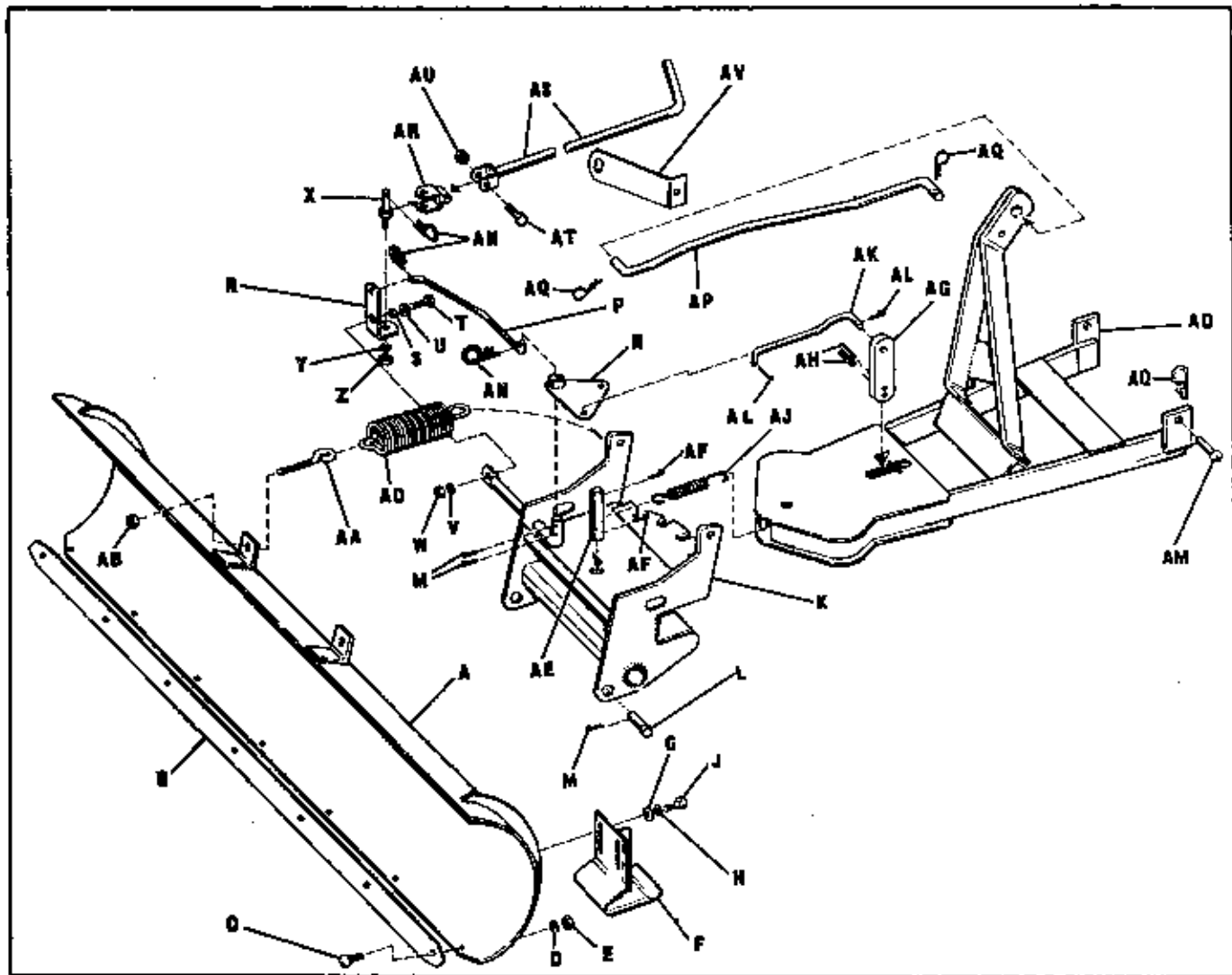
## PACKING

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 for 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

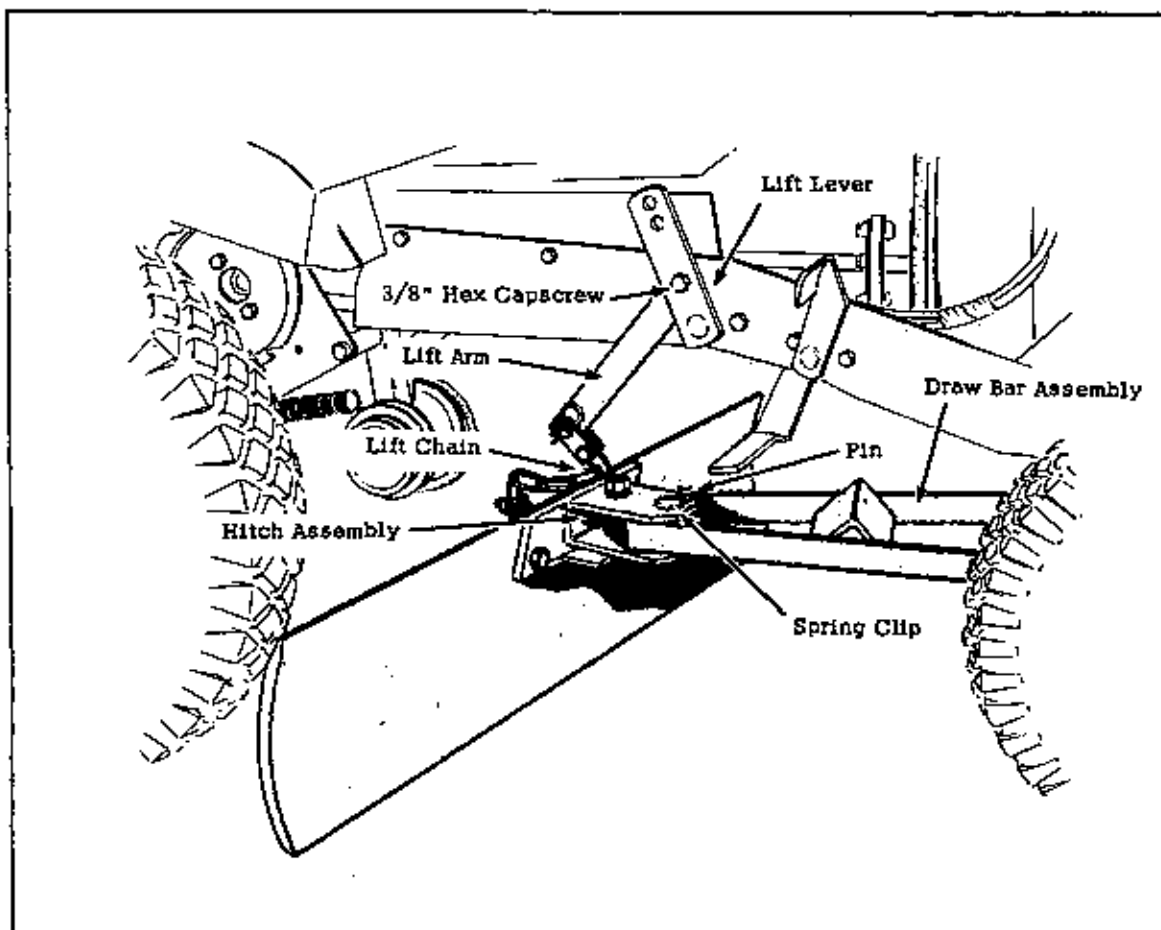


| Ref. Let. | Part No. | Description                     |
|-----------|----------|---------------------------------|
| A         | 107096   | Blade Ass'y                     |
| B         | 107105   | Wear Plate                      |
| C         | 702002   | Carriage Bolt, 3/8"-16 x 1" lg. |
| D         | 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         | 107118   | 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"              |
| V         | 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      |

# 42" GRADER BLADE

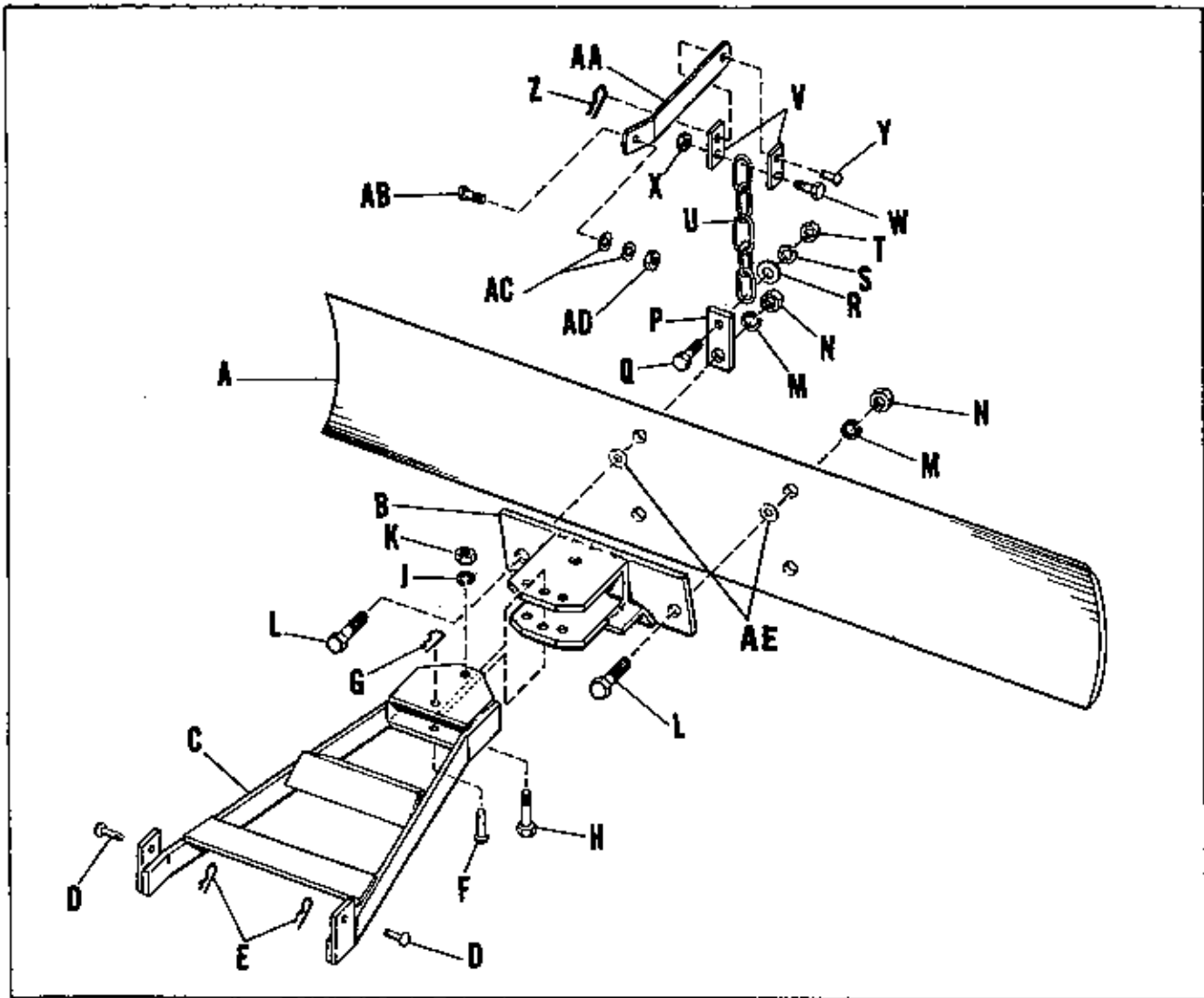
Mfr's. No. 237



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

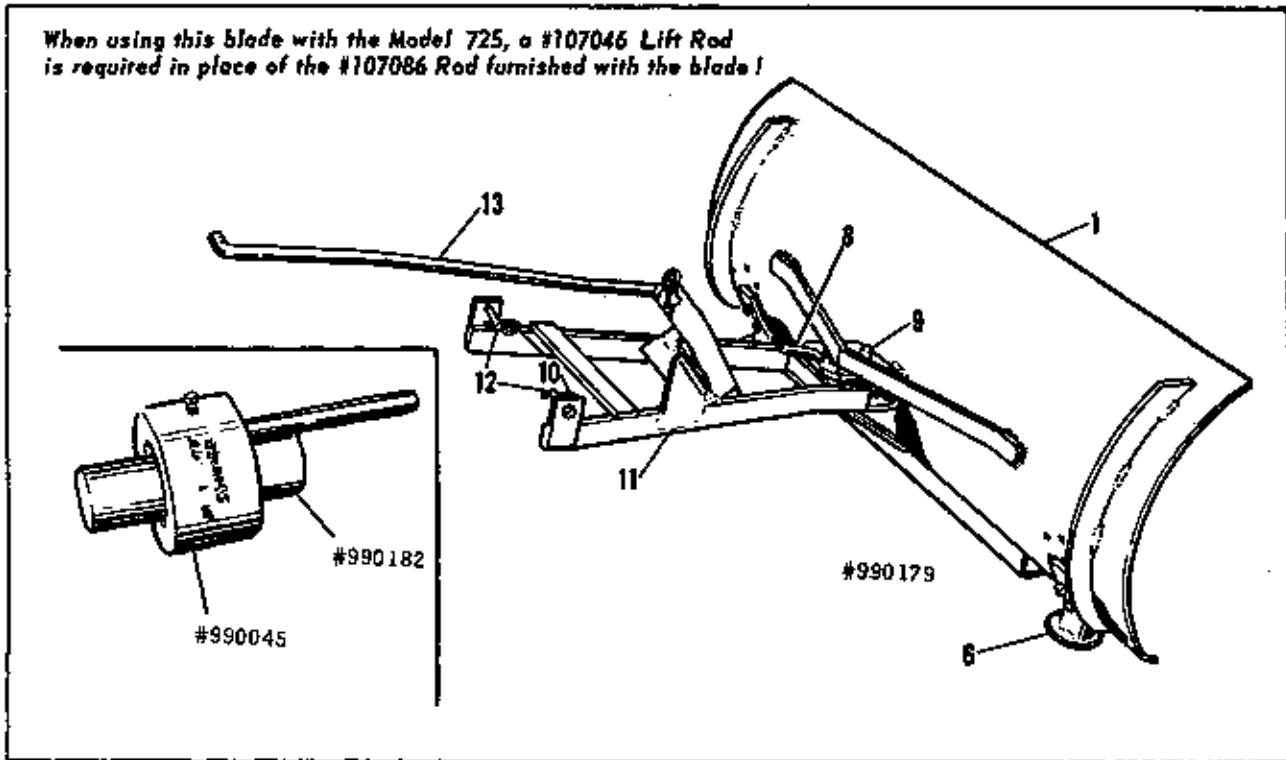
| Ref. Letter | Part No. | Description                                    |
|-------------|----------|--|
| A           | 107056   | Blade, Grader, 42"                             |
| B           | 107058   | Hitch Assembly                                 |
| C           | 107062   | Draw Bar Assembly                              |
| D           | 118053   | Pin  |
| E           | 8161045  | Spring Clip                                    |
| F           | 8181008  | Pin  |
| G           | 8021024  | Spring Clip                                    |
| H           | 705056   | Capscrew, Hex Head,<br>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,<br>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,<br>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,<br>3/8"-16 NC x 1 1/4" lg. |
| X           | 717510   | Nut, Hex, Full, Lock,<br>3/8"-16 NC            |
| Y           | 153058   | Pin  |
| Z           | 8161045  | Spring Clip                                    |
| AA          | 108198   | Lever  |
| AB          | 705016   | Capscrew, Hex Head,<br>3/8"-16 NC x 1 1/4" lg. |
| AC          | 719001   | Plain Washer, 3/8"                             |
| AD          | 717510   | Nut, Hex, Full, Lock,<br>3/8"-16 NC            |
| AE          | 121210   | Flat Washer, 1-1/16"                           |

# 42" SNOW PLOW & DOZER

NFR'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 tractor's 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

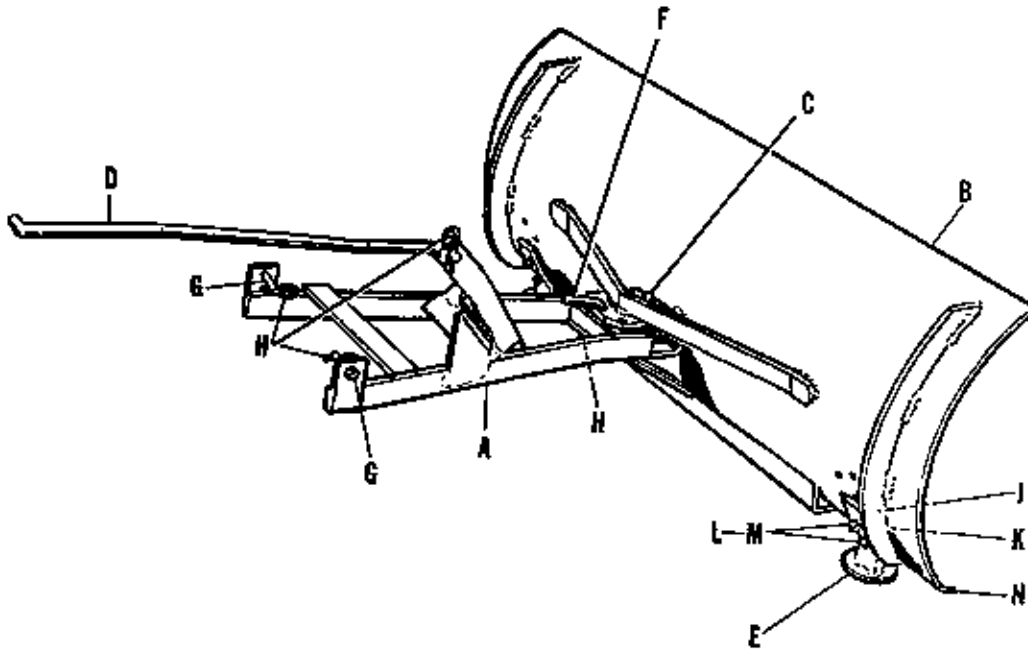


Fig. No. 12

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                               |

## 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 suspected, 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° - 100° 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 thoroughly 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 escape of gases formed in the battery. Care should be exercised 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.