

CONTROLE

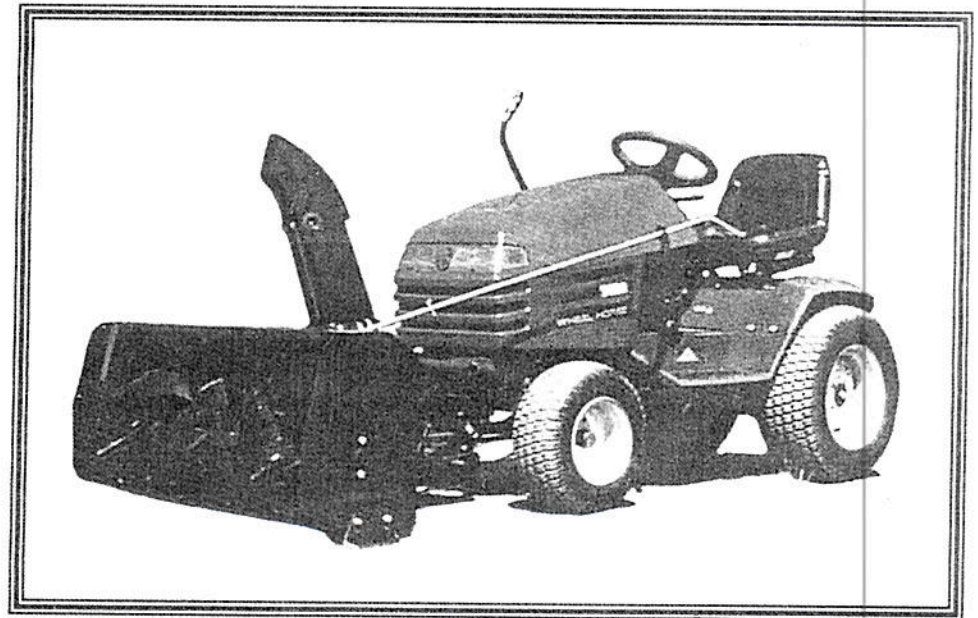


## OWNER'S MANUAL

**MODEL NUMBER**  
**700295**

**Includes:**  
700285  
700284

**CAUTION:**  
Read and Follow  
All Safety Rules  
and Instructions  
Before Operating  
Your Equipment



- \* ASSEMBLY
- \* OPERATION
- \* MAINTENANCE
- \* REPAIR PARTS

**BERCO**  
**compact subframe**  
**& drive mechanism**  
**For TORO YGT Tractors**

103064

## SAFETY PRECAUTIONS

Careful operation is your best insurance against an accident. Read this section carefully before operating the tractor and attachment. All operators, no matter how experienced they may be, should read this and other related manuals before operating the attachment. It is the owner's legal obligation to instruct all operators in safe operation.

### TRAINING



This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on the attachment safety labels to warn of the possibility of personal injury. Please take special care in reading and understanding the safety precautions before operating the attachment or the tractor.

1. Read this Owner's Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
2. Never allow children to operate equipment. Never allow adults to operate equipment without proper instructions.
3. No one should operate the unit while intoxicated or while taking medication that impairs the senses or reactions.
4. Disengage all clutches and shift into neutral before starting engine.
5. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the fuel tank indoors while the engine is running or while the engine is still hot. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
6. Never attempt to make any adjustments while engine is running (except where specifically recommended by manufacturer).

### OPERATION

1. Do not run engine indoors except when starting engine and transporting equipment, in or out of building. Open doors. Exhaust fumes are dangerous.
2. Do not carry passengers on attachment or tractor.
3. Take all possible precautions when leaving the machine unattended. Lower the attachments, shift into neutral, set the parking brake, stop the engine and remove the key.
4. You must use 150 lb. manufacturer approved rear counterweight (model 700240) for better traction and stability at all times when you have an attachment installed in front.
5. Use only manufacturer approved tire chains when you use an attachment for snow clearing.
6. Never operate the equipment without good visibility or light.

## SAFETY PRECAUTIONS

### MAINTENANCE & STORAGE

1. Check mounting bolts at frequent intervals for proper tightness to be sure equipment is in safe working condition.
2. Never store the equipment with fuel in the fuel tank inside a building where ignition sources are present, such as hot water tank and space heaters, clothes dryers and the like. Allow engine to cool before storing in any enclosure.
3. **WARNING:** For your safety, use the attachments Owner's Manual for snowblower, broom and blade installation instructions. Read all the Safety Precautions, Assembly and Operation Instructions.

WHENEVER YOU SEE THIS SYMBOL



IT MEANS:

ATTENTION !

BECOME ALERT !

YOUR SAFETY IS INVOLVED !



# ASSEMBLY

## STEP 1: SUBFRAME INSTALLATION

**NOTE:** You can install this subframe with or without the mower on tractor.

This subframe is equipped with an independant lift arm which allows the use of the mower and the blade at the same time.

This subframe also has a lift arm for tractors equipped with hydraulic lift systems which can be installed only when the mower is removed to allow the use of the snowblower.

**IMPORTANT:** Torque all bolts according to torque specification table on page 16 unless otherwise specified.

**Disconnect spark plug and keep wire away from plug to avoid accidental starting.**

- a) If your tractor is equipped with a hydraulic lift system, remove the support that holds the hydraulic cylinder (fig. 1, item 1). The left support supplied will replace this part.
- b) Install the left support (fig. 2, item 1). Unscrew the second bolt toward the rear (item 2) and use it to secure the front portion of the support. Secure the rear portion with the bolts previously removed when the hydraulic cylinder support was removed. Make sure the cylinder's pin is well placed in the eye of the lift rod (fig. 1, item 3). Do not tighten yet.
- c) If your tractor is not equipped with hydraulic lift, secure the rear portion of the left support (fig. 2, item 1) with two 5/16 x 3/4" hex bolt.
- d) Install the plastic grommet (fig. 2, item 3) on the support (item 4) by inserting it in the hole.
- e) To install the right support you must drill two 11/32" (9mm.) holes in the frame, using the support (fig. 4, item 1) as a template to drill. Unscrew the second bolt on the front right side (item 2) & use this bolt to secure the front portion of the support. Place the rear portion at the same height as the left side and hold in place temporarily using vise grips while you drill the holes. Remove the support.

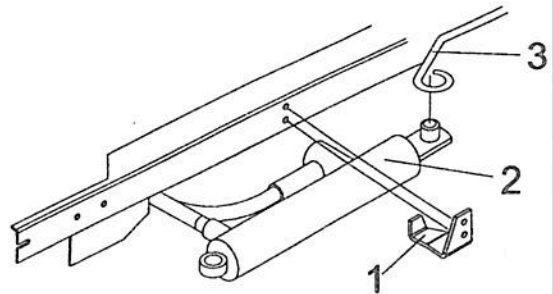


Figure 1

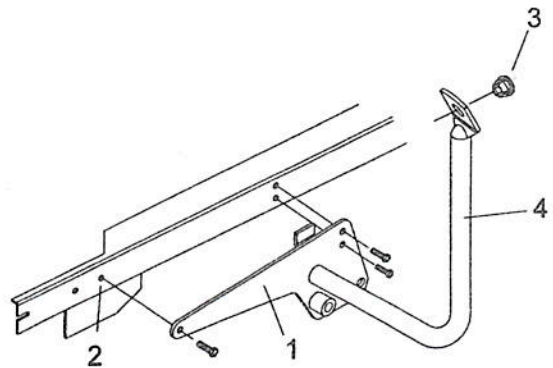


Figure 2

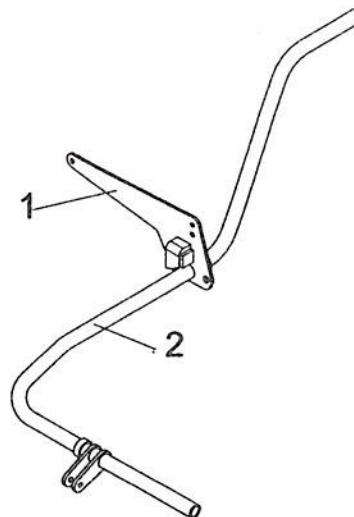


Figure 3

## ASSEMBLY

- f) Assemble the right support (fig. 3, item 1) by sliding it onto the lift arm (item 2) with the side which has the welded stopper in first. You may have to twist the support on the arm to facilitate the insertion.
- g) Install the right support assembled with the arm lift on the tractor by sliding the end of the arm into the sleeve welded on the left support. Attach the support (fig. 4, item 1) to the tractor using the bolts previously removed to secure the front portion. The rear must be installed using two hex. bolts 5/16 x 3/4" and flange nuts. Do not tighten yet.
- h) If your tractor is not equipped with the Toro "Attach-a-matic" (see fig. 5) you must install this part by following the mounting instructions included with the "Attach-a-matic".
- i) Install the front portion of subframe (fig. 6, item 1) into the "Attach-a-matic" (fig. 5, item 1). Attach the rear portion with two pins (fig. 6, item 2) and secure in place with two hair pins (item 3).
- j) Secure all bolts as per torque specification table on page 16.
- k) Install the plastic handle grip ( fig. 6, item 4) on the lift arm (item 5).

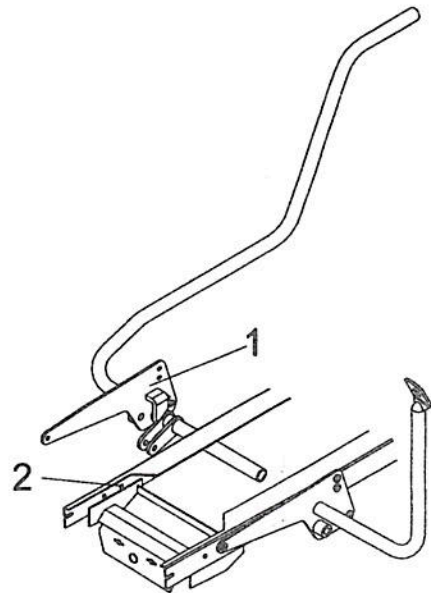


Figure 4

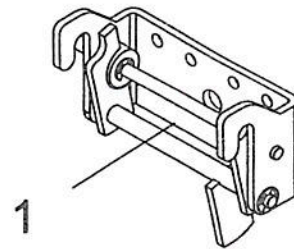


Figure 5

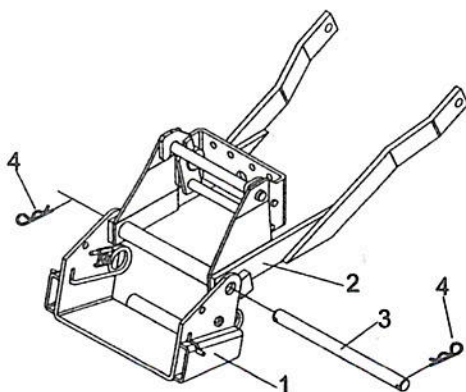


Figure 7

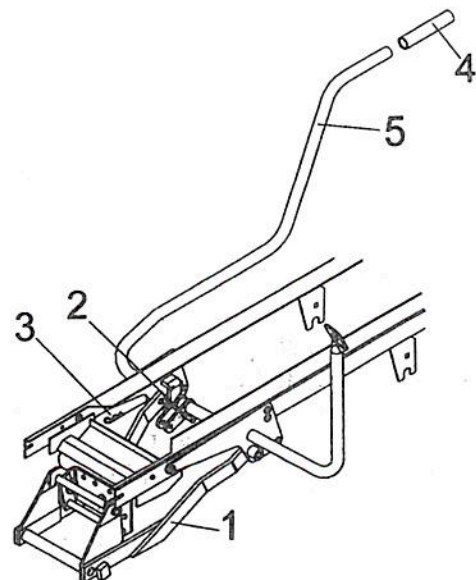


Figure 6



## ASSEMBLY

- l) Install the front pivot support (fig. 7, item 1) to the frame (item 2) using the pin (item 3) and secure in place with hair pin 3 mm. (item 4).

m) Push bar installation to lift attachments:

### Manual Lift:

Slide the push arm (fig. 8, item 2) into the tube welded on the pivot support (item 1). Install the other end to the fork on the lift arm (item 3) and secure in place with pin (item 4) and hair pin 3mm.(item 5).

### Hydraulic Lift:

Install the push bar (fig. 9, item 3) in the hole on the flat bar welded on the lift mechanism cross shaft underneath the tractor (item 2) secure with 2.5mm. hair pin (item 1). Attach the front of the bar to the pivot support tube (item 5) with the pin (item 4) and the cotter pin 5/32 x 1"(item 6).

## STEP 2: DRIVE KIT INSTALLATION

**NOTE:** Remove the mower deck to install the drive kit.

- a) Install the drive kit underneath the tractor (fig. 10, item 1) by hooking the rear portion to the cross shaft of the lift mechanism (item 2). Install the front portion between the supports (item 3 & 4) with the pin (item 5) and secure with hair pin (item 6).
- b) Install the belt on the engine pulley then on the large drive kit pulley.
- c) Make sure the belt does not come in contact with any other parts while in motion especially the belt guide on the tensionner. Verify that the tensionner functions freely.

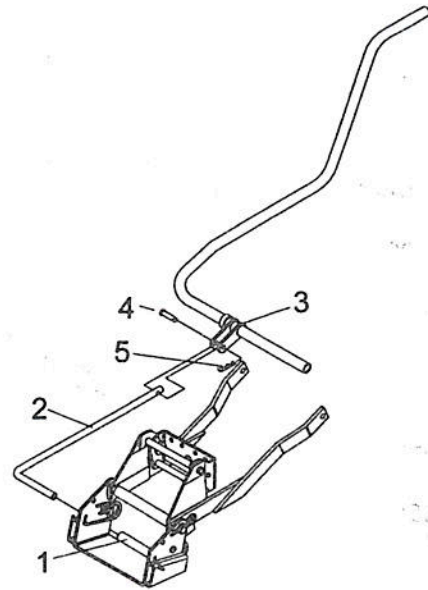


Figure 8

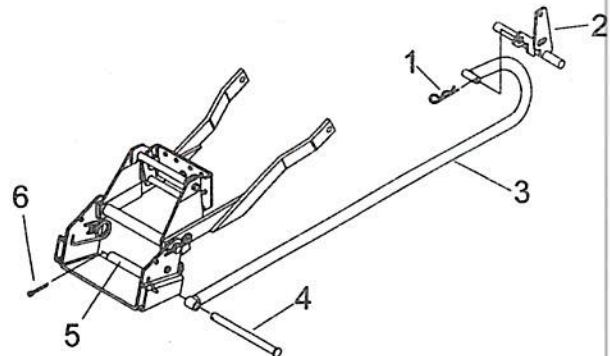


Figure 9

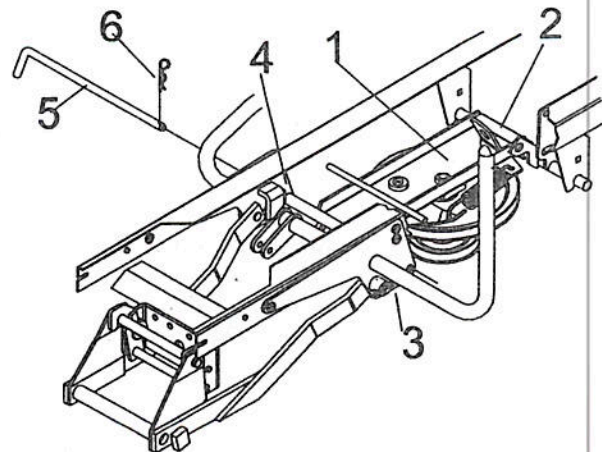


Figure 10

# ASSEMBLY

## STEP 3: SNOWBLOWER MOUNTING



**WARNING:** See Snowblower Owner's Manual for Safety Precautions, Assembly and Operation Instructions.

- a) Attach the snowblower to the tractor subframe by placing the male hitch flat bar (fig. 11, item 2) into subframe's female pivot support hitch (item 3). Be sure the male hitch is entered to its maximum and locked in place by the springs.
- b) remove the belt guard (fig. 11, item 5).
- c) Install the snowblower drive V-belt around the biggest snowblower pulley, route the drive belt under both « V » pulleys and on top of both flat pulleys. Route the V-belt around the drive kit pulley under the tractor. Now pull up the left hand pulleys tension arm. Verify the belt routing, it must be as figure 12.
- d) Install the belt guard (fig. 11, item 5) and secure with a knob.
- e) Install 1/2 x 3" handle grip (fig. 15, item 1) on angling handle (item 2)
- f) Install the rotation handle (fig. 15, item 2) by sliding it through the grommet on support (item 3) and insert on the end of worm (item 5). Secure with 2.5mm hair pin (item 4).

**BELT ROUTING VERIFICATION :** Start tractor engine, engage the snowblower and let it run for a minute with snowblower on the ground. Verify the routing of both belts and make sure they are well inserted in the pulleys. Disengage the blower, stop the engine. If your tractor has a manual P.T.O. clutch, you must verify to make sure the belt does not touch any belt guides or metal parts at any time when the clutch is engaged & disengaged. **DO NOT START ENGINE** for this verification.

### Verify the Skid Shoe Adjustment

**Level Paved Surface:** Adjust skid shoes to allow 3/16 to 1/4" clearance (fig. 13, item 1) between cutting edge and surface.

**Uneven or Gravel Surface:** Adjust skid shoes to allow 1/2" to 5/8" clearance (fig. 13, item 1) between cutting edge and surface.

### Verify the Tire Pressure

For good lift height, check and adjust tractor tire pressure as follows:

Front tires: 20 psi

Rear tires: 7 - 8 psi

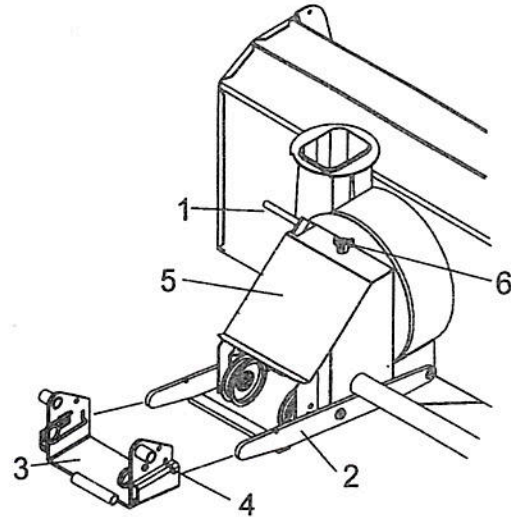


Figure 11

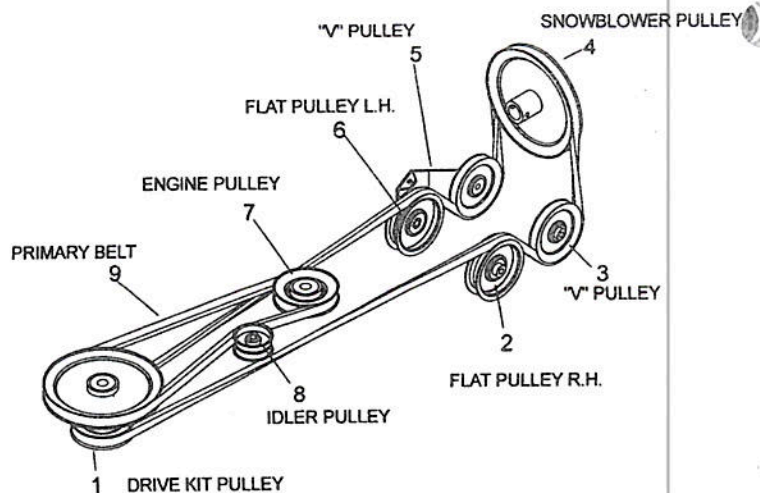


Figure 12

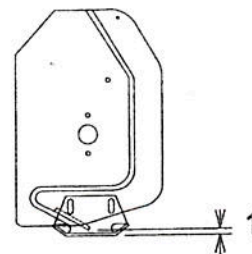


Figure 13



## ASSEMBLY

### STEP 4: BLADE MOUNTING



**WARNING:** See Blade Owner's Manual for Safety Precautions, Assembly and Operation Instructions.

- a) Attach the blade to the tractor subframe by placing the male hitch flat bar into the subframe's female pivot support hitch (fig. 14). Be sure the male hitch is entered to its maximum and is locked in place by the springs.
- b) Install 1/2" X 3" handle grip (fig. 16, item 2) on angle handle (item 1).
- c) Insert angling handle (fig. 16, item 1) through a grommet on the support (item 3) and insert on handle bar (item 4). Secure with 2.5mm hair pin (item 5).
- d) For sufficient lift, check and adjust tractor tire pressure as follows:  
Front tires - 20 psi  
Rear tires - 7- 8 psi  
Tire pressure must be equal on both sides of tractor.

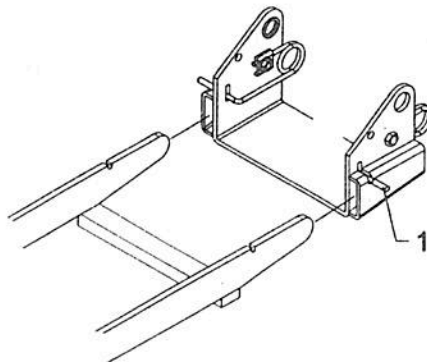


Figure 14

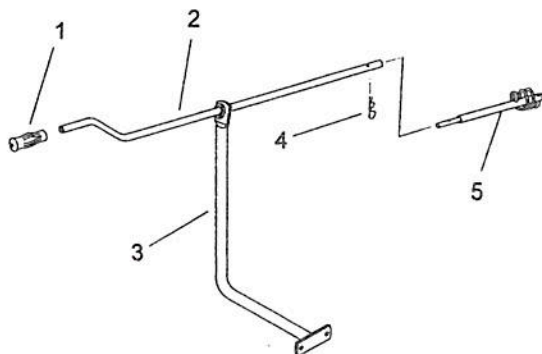


Figure 15

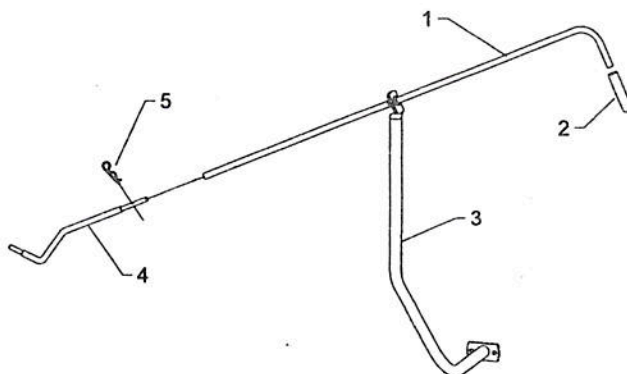


Figure 16



## ASSEMBLY

### STEP 5: BROOM MOUNTING



**WARNING:** See Broom Owner's Manual for Safety Precautions, Assembly and Operation Instructions.

- a) Remove the belt guard from the broom's push frame (fig. 17, item 1).
- b) Remove the 1/4" bolt used as a belt guide (fig. 17, item 2).
- c) Install the belt around the broom's pulley, route the belt on the "V" pulley, the back of the belt on the flat pulley and place the belt on the drive kit pulley. Verify that the belt is routed as shown in figure 18.
- d) Re-install the 1/4" bolt used as a belt guide (fig. 17, item 2).
- e) Install the belt guard supplied with the kit (fig. 17, item 1) by using the 1/4" bolts and flange nuts already in place.
- f) For sufficient lift, check and adjust tractor tire pressure as follows:  
Front tires - 20 p.s.i.  
Rear tires - 7 - 10 p.s.i.  
Tire pressure must be equal on both sides of tractor.
- g) Attach broom to tractor subframe by placing the male hitch flat bar into the subframe pivot support female hitch (fig. 14). Be sure the male hitch is entered to its maximum and is locked in place by the spring.
- h) Install 1/2 x 3" handle grip (fig. 16, item 2) on angling handle (item 1).
- i) Insert handle through the grommet on support (fig. 16, item 3) and insert on handle bar (item 4). Secure with 2.5mm. hair pin (item 5).

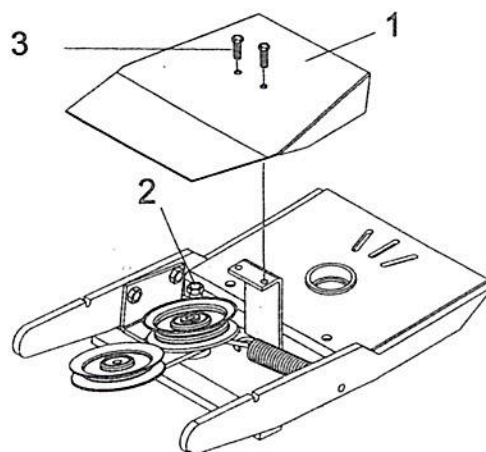


Figure 17

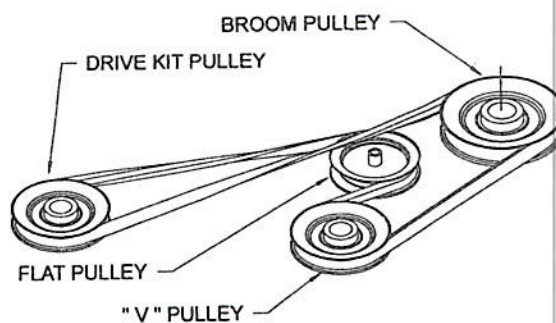


Figure 18

## MAINTENANCE & DISMOUNTING

### MAINTENANCE

1. Check mounting bolts at frequent intervals for proper tightness to be sure equipment is in safe working condition.
2. Apply oil at all pivot points.

### DRIVE KIT DISMOUNTING

SEE: Attachment Owner's Manual for dismounting instructions.

1. Dismount the attachment.
2. Remove the manufacturer approved rear counterweight when you remove the front attachment.
3. Dismount the drive kit by removing the hair pin (fig. 10, item 6) and the front pin (item 5). Carefully lower to the ground. Detach the V-belt from engine pulley.
4. You may leave the subframe on tractor all year long or remove it if preferred.
5. Re-install mower if needed.

### END OF SEASON STORAGE

1. Clean and repaint all parts from which paint has worn.
2. Apply oil at all pivot points.
3. Inspect and replace all defective parts before the next season.

### OPERATION

#### RAISING AND LOWERING THE ATTACHMENT.

The lift arm is located close to tractor's rear right fender.

To raise the attachment pull back the lift arm.

To lower the attachment move the lift arm forward.

#### STARTING AND STOPPING THE ATTACHMENT.

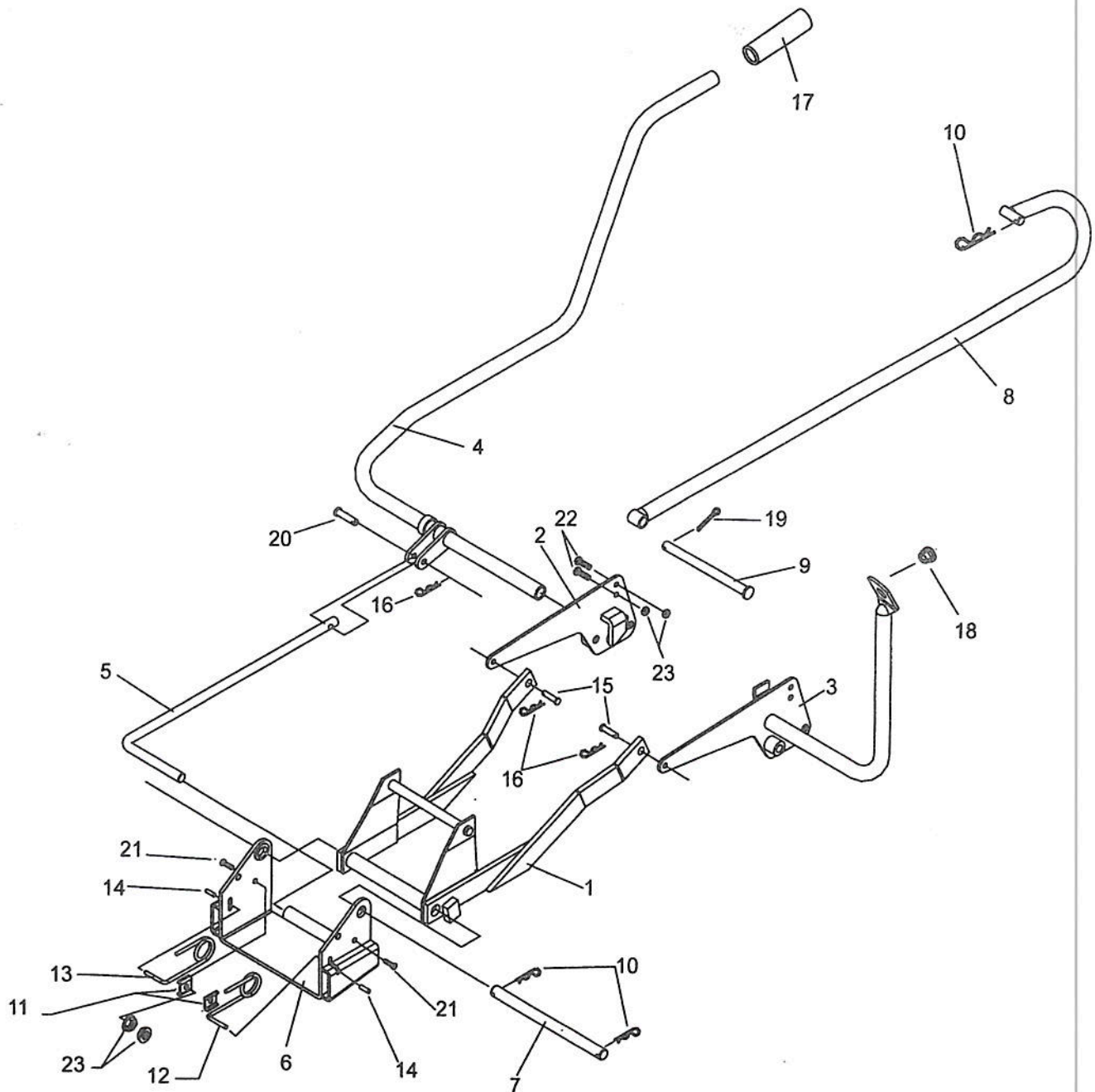
Engage when the engine is running at low R.P.M.

To engage, move the P.T.O. clutch lever located on dashboard forward.

To disengage move the P.T.O. clutch lever located on dashboard backward.



# SUBFRAME



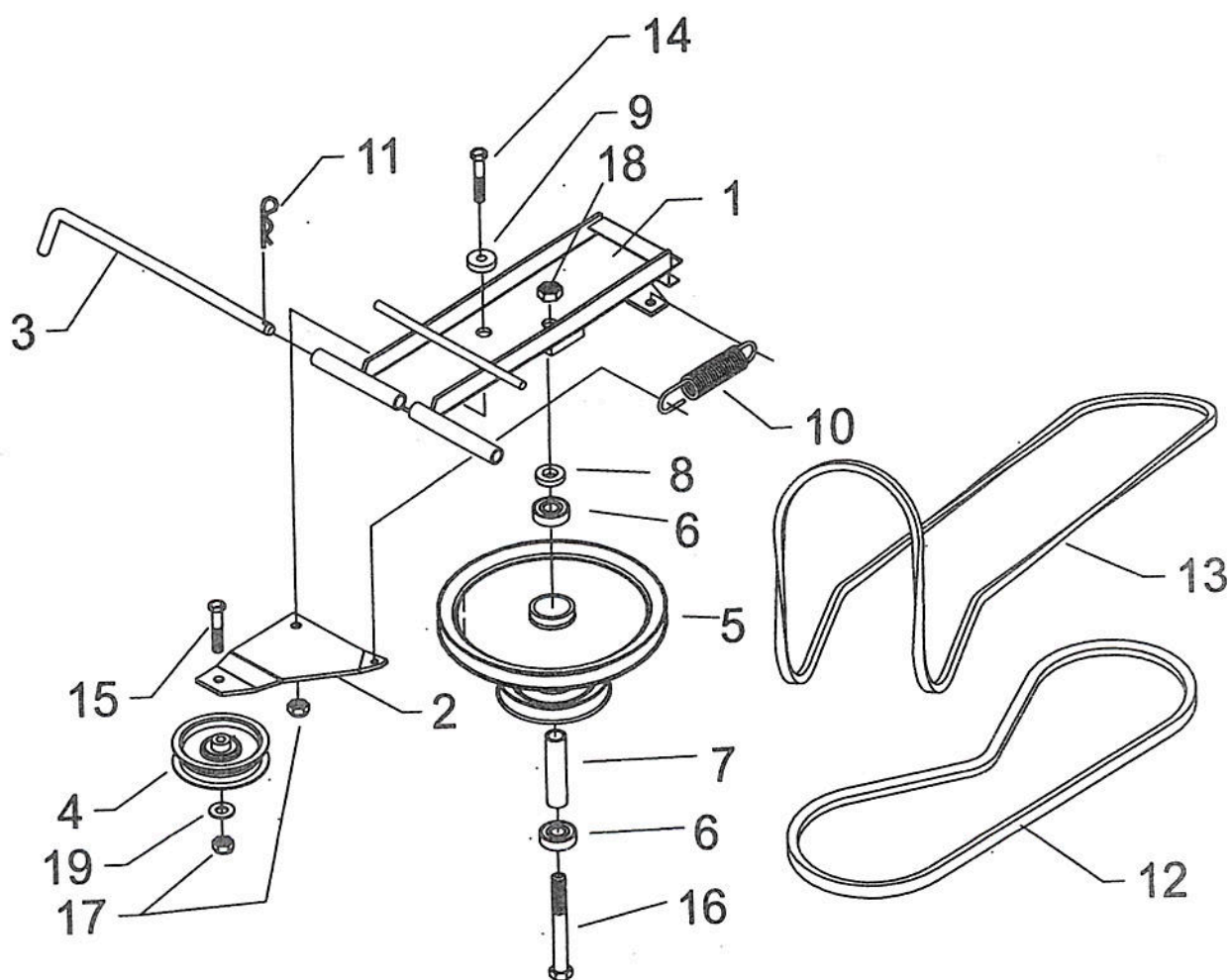
## SUBFRAME

Ref.	Description	Qty.	Part No.
1	Subframe .....	1	103053
2	Right support .....	1	103061
3	Left support .....	1	103060
4	Lift arm .....	1	103056
5	Push bar .....	1	103057
6	Pivot support .....	1	102981
7	Pin .....	1	102976
8	Lift bar .....	1	103054
9	Pin .....	1	103058
10	Hair pin 3mm. ....	3	102617
11	Spring bracket .....	2	102210
12	Left spring lock .....	1	102208
13	Right spring lock .....	1	102209
14	Plastic handle grip .....	2	102248
15	Pin .....	2	102188
16	Hair pin 2.5mm .....	3	102013
17	Handle grip .....	1	102025
18	Plastic grommet .....	1	102063
19	Cotter pin 5/32 x 1" .....	1	O/L
20	Pin .....	1	102772
21	Hex bolt 5/16 x 1" .....	2	O/L
22	Hex bolt 5/16 x 3/4" .....	2	O/L
23	Flange nut 5/16" .....	4	O/L

O/L = Obtain locally



# DRIVE MECHANISM



## DRIVE MECHANISM

Ref.	Description	Qty.	Part No.
1	Drive Frame.....	1	103038
2	Tensionner.....	1	103059
3	Pin.....	1	103063
4	Idler pulley.....	1	102765
5	Double pulley ass. incl. 103035 & 102736.....	1	103040
6	Bearing 6203 RS x 0.625.....	2	102736
7	Sleeve.....	1	103035
8	Spacer.....	1	102753
9	Flange washer.....	1	102081
10	Spring.....	1	102004
11	Hair pin 2.5mm.....	1	102013
12	V-belt B-52.....	1	103045
13	V-belt B-120.....	1	102048
14	Hex bolt 3/8 x 1 1/4".....	1	O/L
15	Hex bolt 3/8 x 1 3/4".....	1	O/L
16	Hex bolt 5/8 x 6 1/2".....	1	O/L
17	Nylon insert lock nut 3/8".....	2	O/L
18	Nyloninsert lock nut 5/8".....	1	O/L
19	Flat washer 7/16" dia. ....	1	O/L

O/L = Obtain locally