

# OWNER'S MANUAL

**MODEL NUMBER  
700219**

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



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

**BERCO SUBFRAME**  
FOR JOHN DEERE TRACTORS  
SERIES LX, GT, 200, 320, 325, 345

102459



# WARRANTY

## LIMITED ONE YEAR ON BERCO TRACTOR ATTACHMENTS

For one year from date of purchase, Bercomac Limitée will repair or replace free of charge at Bercomac's option, any parts which are defective as a result of material or workmanship.

### COMMERCIAL OR RENTAL USE:

Warranty on Berco Attachments used for commercial or rental purposes is limited to 90 days.

### This warranty does NOT cover:

- \* Wear items, such as shear pins and belts.
- \* Repairs due to customer abuse or neglect
- \* Pre-delivery set-up
- \* In Home service

Warranty service is available by returning the "Berco" attachment to the authorized dealers or shipped prepaid to Bercomac Limitée.

**BERCOMAC Limitée**  
**46 Fortin N., St.Méthode de Frontenac, Québec, Canada**

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# 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, 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.

## BEFORE OPERATING



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. Never attempt to make any adjustments while engine is running (except where specifically recommended by manufacturer).
4. Take all possible precautions when leaving the machine unattended. Disengage the power take-off, lower the attachments, shift into neutral, set the parking brake, stop the engine and remove the key.
5. Never operate the attachment without good visibility or light.

6. Do not run the engine indoors except when starting engine and transporting attachment in or out of building. Do not operate or idle engine in a non-ventilated area. Carbon monoxide gas is colorless, odourless and deadly.



**WARNING:** For your safety, read the Owner's Manual for tractor attachments (snowblower, broom and blade). Read attentively all the Safety Precautions, Warnings, Assembly and Operating Instructions.

**WHENEVER YOU SEE THIS SYMBOL:**



**IT MEANS:**

**ATTENTION!**

**BE ALERT!**

**YOUR SAFETY IS INVOLVED!**

# INTRODUCTION

## TO THE PURCHASER

This new equipment was carefully designed to give years of dependable service. This manual has been provided to assist in the safe operation and service of your attachment.

**NOTE** All photographs and illustrations in the manual may not necessarily depict the actual models or equipment, but are intended for reference only and are based on the latest product information available at the time of publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who work with you.



**THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE IT, BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY AND CAREFULLY READ THE MESSAGE THAT FOLLOWS.**

Record your attachment model and serial number (there is none with subframe). Your Dealer requires this information to give you prompt, efficient service when ordering parts or attachments. Service with original parts when replacement parts are required.

If warranty repairs are required please present this registration booklet and original sales invoice to your selling dealer for warranty service.

Right hand and left hand are determined by sitting on the tractor seat facing forward.

MODEL .....

SERIAL NUMBER .....

DATE PURCHASED .....

## ASSEMBLY

**IMPORTANT:** Torque all bolts according to torque specification table on page 11, unless otherwise specified.

### STEP 1: SUBFRAME PREPARATION

#### LX & GT TRACTOR MODEL

- a) Install the two rear support brackets (fig.1, items 4 & 5) on the rear portion of the subframe outside the flat bars (item 3), the brackets towards the outside and the higher slot towards the rear. Secure with four bolts  $3/8 \times 1\ 1/4$ " and nuts. Do not tighten yet.
- b) Insert the spring tension lever (fig.1, item 11) through the hole on the right support (item 4), in the spring hook (item 6) and through the hole on the left support (item 5). Secure with a  $5/32 \times 1$ " cotter pin.
- c) Install  $1/2 \times 3$ " handle grip (fig.1, item 12) on spring tension lever (item 11).
- d) Install the bolt used as a stopper for the tension lever (fig.1, item 7). Screw a  $1/4$ " nut on the  $1/4 \times 1\ 1/4$ " bolt and screw the bolt on the right support on the outside (item 4) until it is equal with the other side. Tighten the nut securely.
- e) Adjust the overall length of push arm (fig.1, item 8) to  $40\ 1/4$ " by turning the adjusting rod (item 9). Insert the push arm between the idler pulleys, place the adjusting rod (item 9) on its hole in the pivot support (item 10). Secure it with a 4mm hair pin.
- f) Remove the two bolts which retain the tractor lifting arm and replace with the mounting pin (fig.2, item 3). Install the pin on outside and the nut on inside. Be sure you replace the lifting arm, the sleeve and the flatwasher in the original position. Tighten securely.

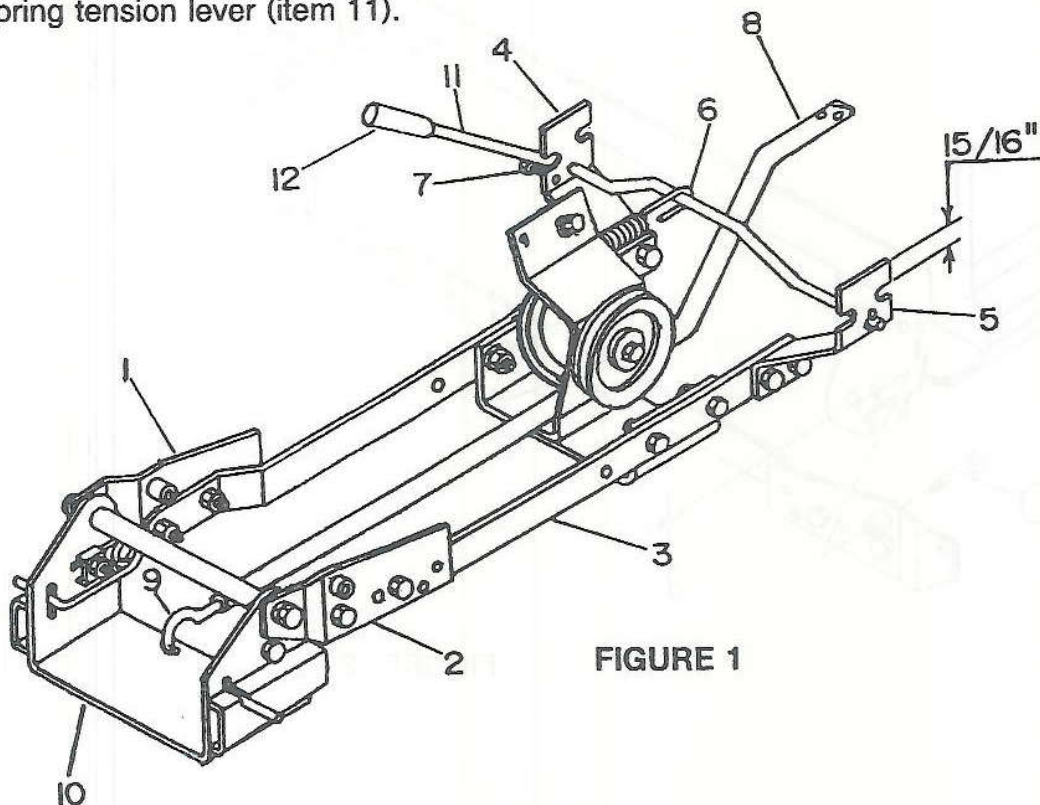


FIGURE 1

## ASSEMBLY

- g) Install the lifting adaptor attachment (fig.3, item 1) to the tractor lift mechanism by sliding the adaptor between the two parts of tractor lift. Secure with a  $5/16 \times 1 \frac{1}{4}$ " bolt and a nut. Tighten securely.
- h) Install the rotation support bracket (fig.8, item 1) on the left hand side of subframe using the  $3/8 \times 1 \frac{1}{4}$ " bolt (item 3) already in place and a  $3/8 \times 1$ " bolt (item 2) and nut. Tighten securely. Insert the plastic grommet (item 4) in the support bracket (item 1).
- i) Go to STEP 2 for subframe installation.

### 320 & serie 200 TRACTOR MODEL

- a) Extend the subframe by unscrewing the two bolts on each side which retain the front supports (fig.4, item 4) to the subframe flat bar (item 2). Reinstall in the most extended position with the attaching support (item 3) on each side. Use the bolts & nuts you have already removed. Line up and tighten securely.
- b) Install the two rear support brackets (fig.1, items 4 & 5) on the rear portion of the subframe outside the flat bars (item 3), the brackets towards the outside and the higher slot towards the rear. Secure with four  $3/8 \times 1 \frac{1}{4}$ " bolts and nuts. Do not tighten yet.

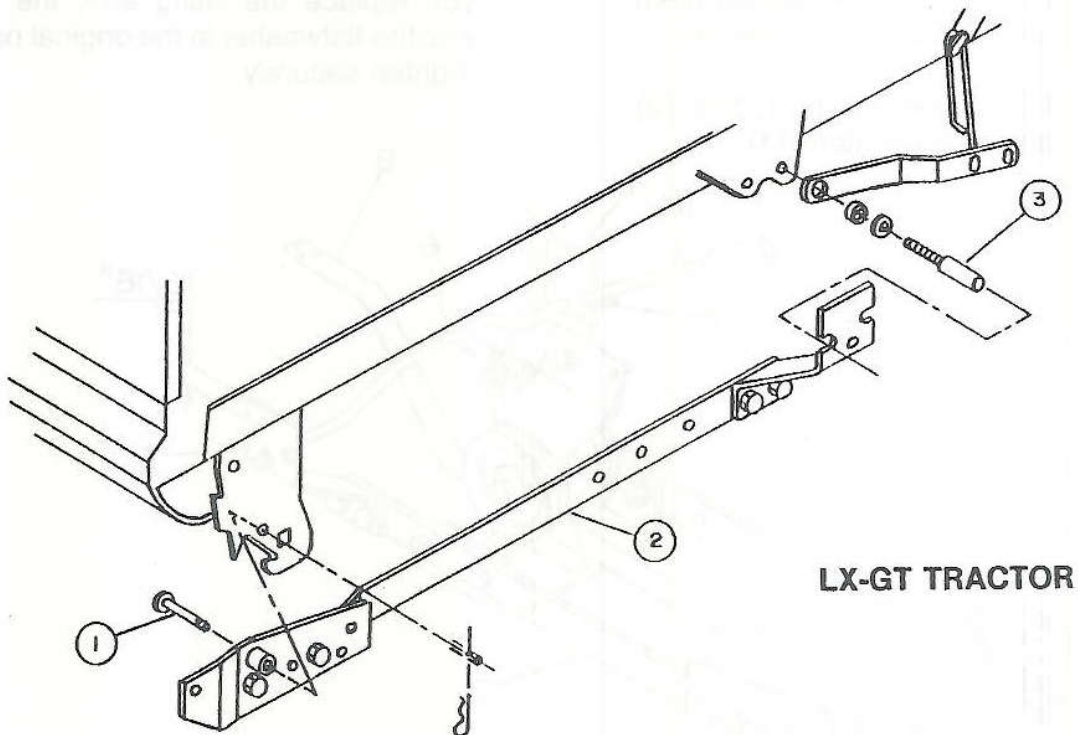


FIGURE 2



## ASSEMBLY

- c) Insert the spring tension lever (fig.1, item 11) through the hole on the right support (item 4), in the spring hook (item 6) and through the hole on the left support (item 5). Secure with a 5/32 X 1" cotter pin.
- d) Install 1/2 X 3" handle grip (fig. 1, item 12) on spring tension lever (item 11).
- e) Install the bolt used as a stopper for the tension lever (fig.1, item 7). Screw a 1/4" nut on the 1/4 X 1 1/4" bolt and screw the bolt on the right support from outside (item 4) until it is equal with the other side. Tighten the nut securely.
- f) Adjust the overall length of push arm (fig.1, item 8) to 40 3/4" by turning the adjusting rod (item 9). Insert the push arm between the idler pulleys, place the adjusting rod (item 9) in its hole in the pivot support (item 10). Secure with a 4mm hair pin.
- g) Install the attachment lifting adaptor (fig.6, item 3) to the tractor lift mechanism by sliding the adaptor between tractor lift mechanism parts. If the lift mechanism shaft is too big, remove the U welded in the adaptor. Secure with a 1/2 X 1 3/4" bolt, lock nut (stover), the head toward outside and the nut inside. Tighten securely.

- h) Install the rotation support bracket (fig. 8, item 1) on the left hand side of subframe using the 3/8 X 1 1/4" bolt (item 3) already in place and 3/8 X 1" bolt (item 2) and nut. Tighten securely. Insert the plastic grommet (item 4) in the support bracket (item 1).

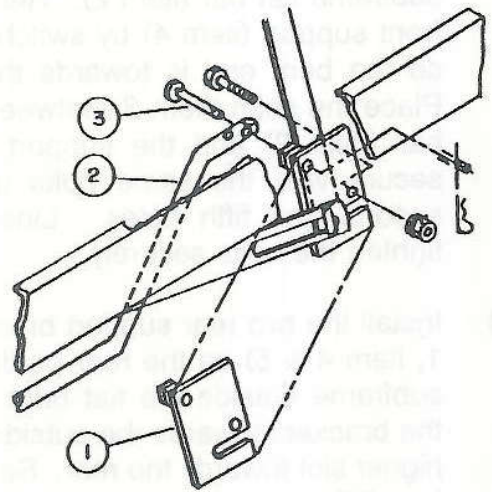
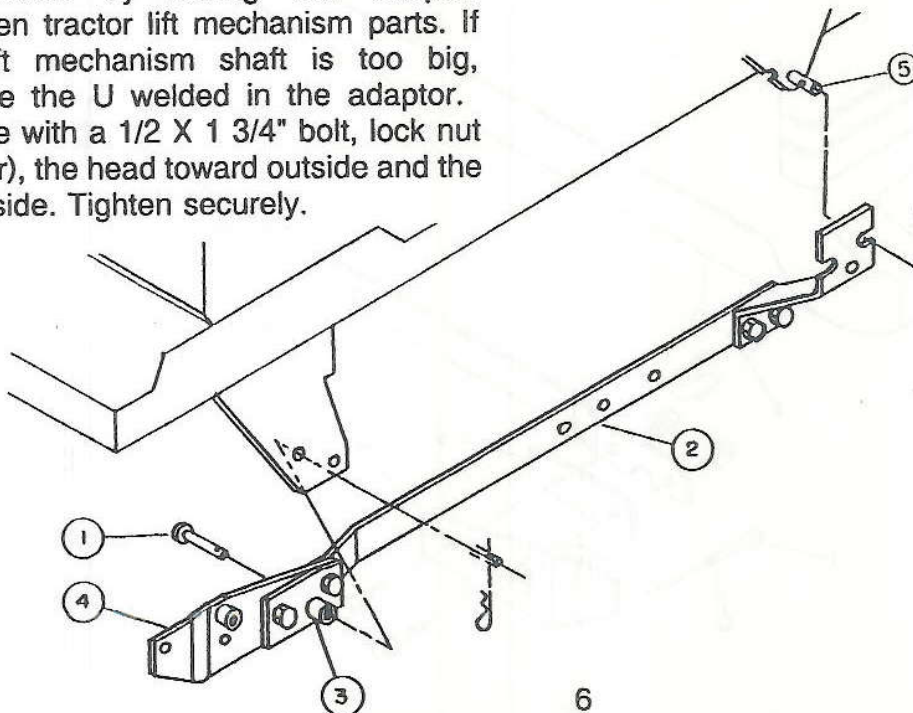


FIGURE 3



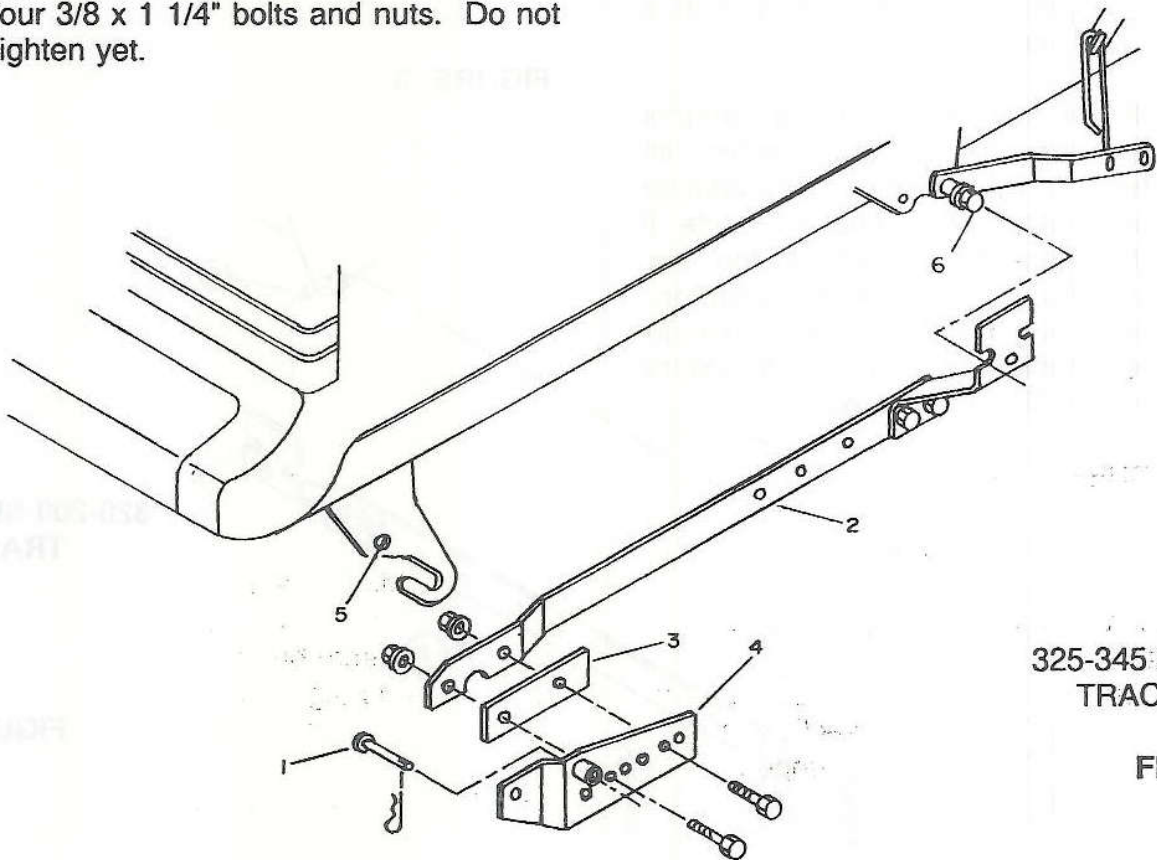
320-200 SERIES  
TRACTOR

FIGURE 4

# ASSEMBLY

## 325 - 345 TRACTOR MODEL

- a) Extend the subframe by unscrewing the two bolts on each side which retain the front support (fig. 5 item 4) to the subframe flat bar (item 2). Reinstall the front support (item 4) by switching them so the bent end is towards the inside. Place the shim (item 3) between the flat bar (item 2) and the support (item 4) secure with the same bolts using the second and fifth holes. Line up and tighten the bolts securely.
- b) Install the two rear support brackets (fig. 1, item 4 & 5) on the rear portion of the subframe outside the flat bars (item 3), the brackets towards the outside and the higher slot towards the rear. Secure with four  $3/8 \times 1 \frac{1}{4}$ " bolts and nuts. Do not tighten yet.
- c) Insert the spring tension lever (fig. 1, item 11) through the hole on the right support (item 4), in the spring hook (item 6) and through the hole on the left support (item 5). Secure with a  $5/32 \times 1$ " cotter pin.
- d) Install  $1/2 \times 3$ " handle grip (fig. 1, item 12) on spring tension lever (item 11).
- e) Install the bolt used as a stopper for the tension lever (fig. 1, item 7). Screw a  $1/4$ " nut on the  $1/4 \times 1 \frac{1}{4}$ " bolt and screw the bolt on the right support from outside (item 4) until it is equal with the other side. Tighten the nut securely.



325-345 SERIES  
TRACTOR

FIGURE 5

## ASSEMBLY

- f) Install the push arm extension (fig. 7 item 4) in the second hole and secure with a 1/2 x 1 3/4" bolt and "stover" lock nut. Tighten securely.
  - g) Install the two lift extension plates (fig. 7 item 2 & 3) to the tractor's hydraulic cross shaft weldment (item 1) the bent end towards the inside against the weldment and the flat bar's triangular end without holes behind the shaft (item 1). Secure with 1/2 x 1 3/4" bolt and stover lock nut. Tighten lightly.
  - h) Adjust the overall length of push arm (fig. 1, item 8) to 42" by turning the adjustment rod (item 9), insert the push arm between the idler pulleys, place the adjusting rod (item 9) in it's hole in the pivot support (item 10). Secure with a 4mm. hair pin.
  - i) Install the rotation support bracket (fig. 8, item 1) on the left hand side of subframe using the 3/8 x 1 1/4" bolt (item 3) already in place and 3/8 x 1" bolt (item 2) and nut. Tighten securely. Insert the plastic grommet (item 4) in the support bracket (item 1).
- item 3) by the front slot. Lift the front subframe carefully and hold in place with two 1/2 X 2 1/2" pins (item 1). Secure with two 4mm hair pins.
- b) Hook the pushing arm (fig.3, item 2) to the lifting mechanism (item 1) with a 17/32 X 2 1/8" pin (item 3) in top hole for hydrostatic transmission and in bottom hole for standard gear transmission and secure with a 4mm hair pin. Adjust the rear supports (fig.1, items 4 & 5) against the pin and tighten the bolt securely.

Go directly to STEP 3.

### 320 & serie 200 TRACTOR MODEL

- a) Slide the subframe (fig.1) under the tractor, on the left side between the wheels and center under the tractor. Carefully lift the rear section of the subframe and hook the support (fig.1, items 4 & 5) on the mounting pins (fig.4, item 5) by the rear slot. Lift the front subframe carefully and hold in place with two 1/2 X 2 1/2" pins (item 1) and secure with two 4mm hair pins.

### STEP 2: SUBFRAME INSTALLATION

#### LX & GT TRACTOR MODEL

- a) Slide the subframe (fig.1) under the tractor, on the left side between the wheels and center under the tractor. Carefully lift the rear section of the subframe and hook the support (fig.1, items 4 & 5) on the mounting pin (fig. 2,

- b) Hook the pushing arm (fig.6, item 2) to the lifting mechanism (item 3) with a 17/32 X 2 1/8" pin (item 1) and secure with a 4mm hair pin. Adjust the rear supports (fig.1, items 4 & 5) against the pin and tighten the bolt securely.

Go directly to step 3.

# ASSEMBLY

## 325 - 345 TRACTOR MODEL

- a) Slide the subframe (fig. 1) under the tractor, on the left side between the wheels and center under the tractor. Carefully lift the rear section of the subframe and hook the support (fig. 1, items 4 & 5) on the mounting pins (fig. 5, item 6) by the front slot. Lift the front subframe carefully and hold in place with two  $1/2 \times 2 1/2$ " pins (item 1) and secure with two 4mm hair pins.
- b) Hook the push arm (fig. 7, item 7) to the lifting mechanism (item 1) in the lowest hole of the lift adaptor plate (item 2 & 3) with a  $17/32 \times 2 1/8$ " pin (item 6) and secure with a 4mm hair pin. Adjust the rear supports (fig. 1, items 4 & 5) against the pin and tighten the bolt securely.

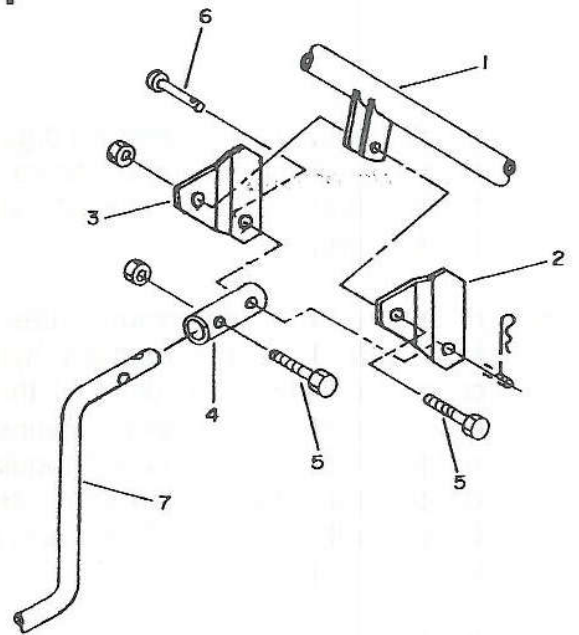


FIGURE 7

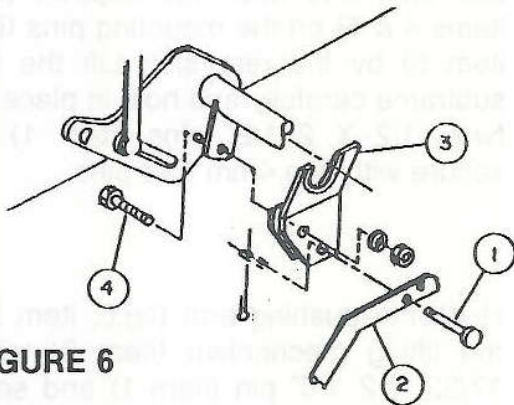


FIGURE 6

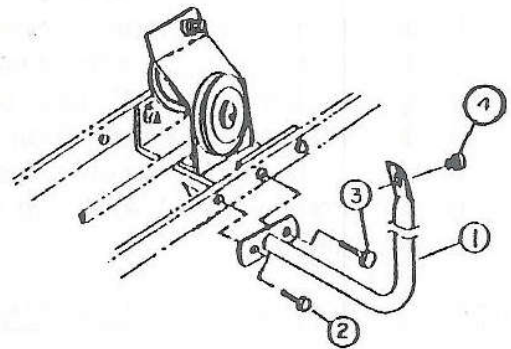


FIGURE 8

# ASSEMBLY


## STEP 3: ATTACHMENTS MOUNTING INSTRUCTIONS

**NOTE:** If attachment does not raise appx. 3" (76mm) above ground level, check and adjust tractor tire pressures as follows:

Front tires: 14-15 psi

Rear tires: 7-8 psi

### SNOWBLOWER

- a) Install the idlers support (fig. 9, item 5) on snowblower male hitch (item 4) using two 5/16 X 1" bolts and nuts.
  - b) Remove the idler guard (item 1). Place the bottom section of the V-belt on top of the bottom idlers (item 3) and the top section of the V-belt under the top idler (item 2). Reinstall the guards, using 3/8" nuts, tighten securely.
  - c) Attach the snowblower to the tractor subframe by placing the male hitch flat bar into the subframe's female channel hitch (fig. 10). Be sure the male hitch is entered to its maximum and is locked by the springs.
-  **WARNING:** Set the parking brake, stop the engine, and remove tractor ignition key. Disconnect engine spark plug wire and keep away from plug to prevent accidental starting.
- d) Loosen the belt tensioner (fig.1, item 11) by moving the lever toward the rear. Put tension on the V-belt after it is installed by moving the lever toward the front.
  - e) Route the snowblower drive belt around the "V" idler pulley (fig.11, item 1) around the "V" idler pulley (item 2) and around the tractor drive pulley (item 3).
- NOTE:** Be careful the left V-belt section between the two pulleys (fig.11, item 6 and 1) is not twisted.
- f) Reconnect engine spark wire and close tractor hood.
  - g) Install 1/2 X 3" handle grip (fig.12, item 1) on chute rotation handle (item 2) and place handle through grommet in rotation support (item 3).

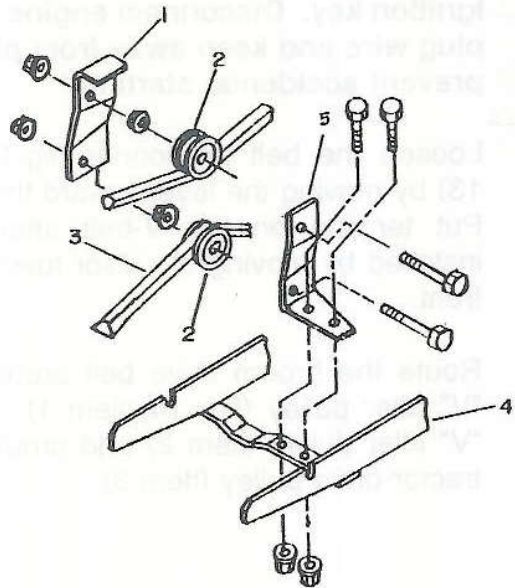


FIGURE 9

## ASSEMBLY

- g) Install hook (fig.12, item 4) on rotation worm (item 5). Insert hook in rotation handle and lock in place with a 2.5mm hair pin (item 6).
- h) Go to STEP 4 for V-belt adjustment.



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

### BROOM

- a) Attach broom to the tractor subframe by placing the male hitch flat bar into the subframe's female channel hitch (fig.10). Be sure the male hitch is entered to its maximum and is locked by the springs.



**WARNING:** Set the parking brake, stop the engine, and remove tractor ignition key. Disconnect engine spark plug wire and keep away from plug to prevent accidental starting.

- b) Loosen the belt tensionner (fig.1, item 13) by moving the lever toward the rear. Put tension on the V-belt after it is installed by moving the lever toward the front.
- c) Route the broom drive belt around the "V" idler pulley (fig. 14, item 1) around "V" idler pulley (item 2) and around the tractor drive pulley (item 3).

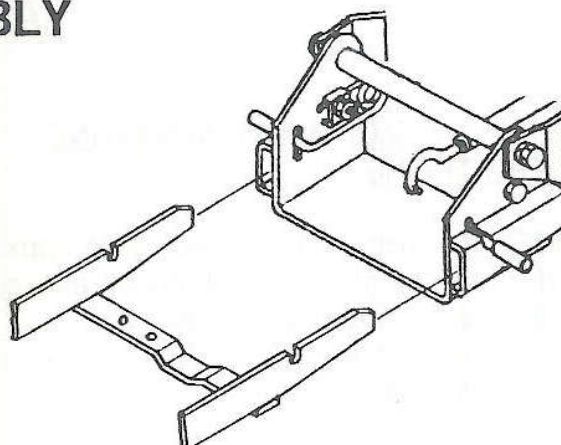


FIGURE 10

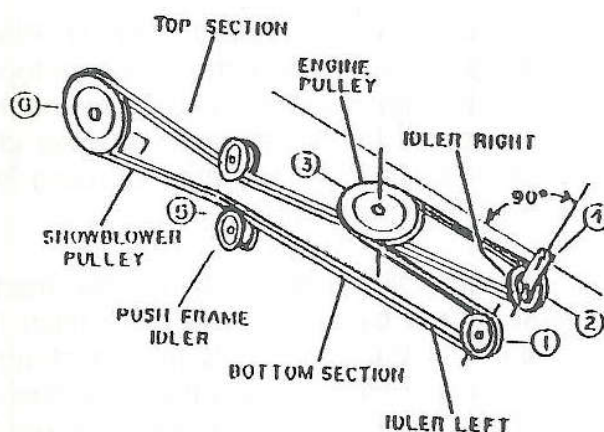


FIGURE 11

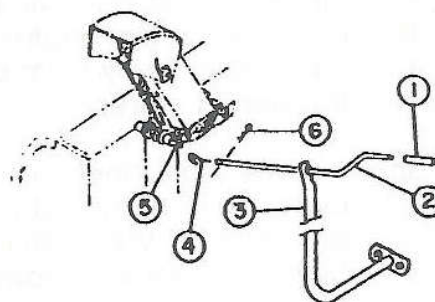


FIGURE 12

## ASSEMBLY

- d) Reconnect engine spark plug wire and close tractor hood.
- e) Install 1/2 X 3" handle grip (fig. 15, item 2) on angle handle (item 1).
- f) Insert handle through the grommet on support (fig.15, item 3) and insert on handle extension (item 4). Secure with a 2.5mm hair pin (item 5).
- g) Go to STEP 4 for V-belt adjustment.



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

### BLADE

- a) Attach the blade to the tractor subframe by placing the male hitch flat bar into the subframe's female channel hitch (fig.10). Be sure the male hitch is entered to it's maximum and it is locked by the springs.
- b) Install 1/2 X 3" handle grip (fig.15, item 2) on angle handle (item 1).
- c) Insert handle through a grommet on the support (fig.15, item 3) and insert on handle extension (item 4). Secure with a 2.5mm hair pin (item 5).



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

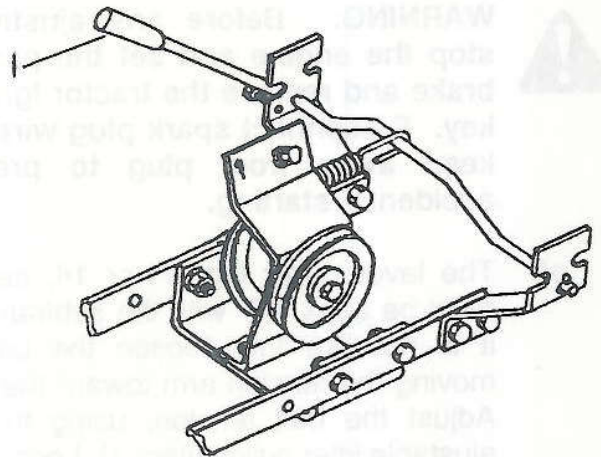


FIGURE 13

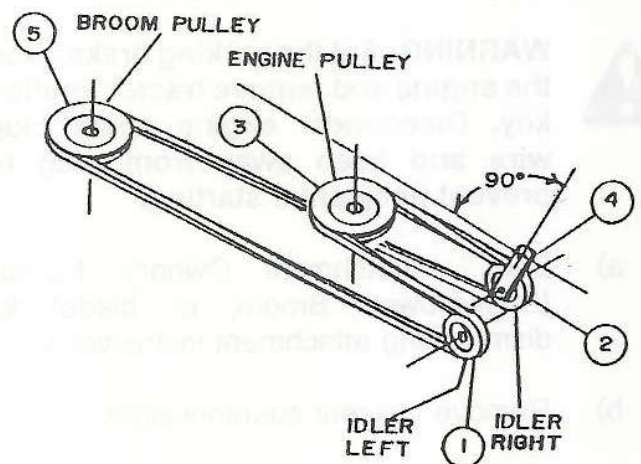


FIGURE 14

# ASSEMBLY

## ETAPE 4: V-BELT AJUSTMENT



**WARNING:** Before any adjustment, stop the engine and set the parking brake and remove the tractor ignition key. Disconnect spark plug wire and keep away from plug to prevent accidental starting.

- a) The lever puller (fig. 11 or 14, item 4) must be appx. 90° with the subframe. If it is not like this, loosen the belt by moving the tension arm toward the rear. Adjust the belt tension, using the left ajustable idler pulley (item 1). Loosen the middle bolt, slide the idler in the slot and retighten the bolt. Retighten the V-belt by moving the tension arm toward the front. Check to be sure the spring has between 3/4 to 7/8" length. The pulley lever angle should be appx. 90° to the subframe.

## STEP 5: SUBFRAME DISMOUNTING



**WARNING:** Set the parking brake, stop the engine and remove tractor ignition key. Disconnect engine spark plug wire and keep away from plug to prevent accidental starting.

- a) See: Attachment Owner's Manual (Snowblower, Broom, or blade) for dismounting attachment instructions.
- b) Remove the rear counterweight.
- c) Dismount subframe by removing the pin which retains the arm lift under the tractor. Remove the two pins which retain the front of the subframe and lower carefully. Lift up the back of the subframe, unhook and lower carefully.

- d) Carefully pull the subframe from the middle of tractor by left hand side between the front and rear wheels.

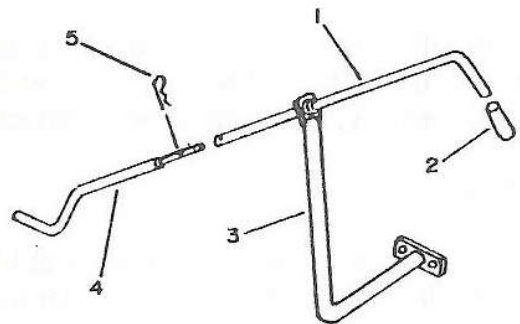
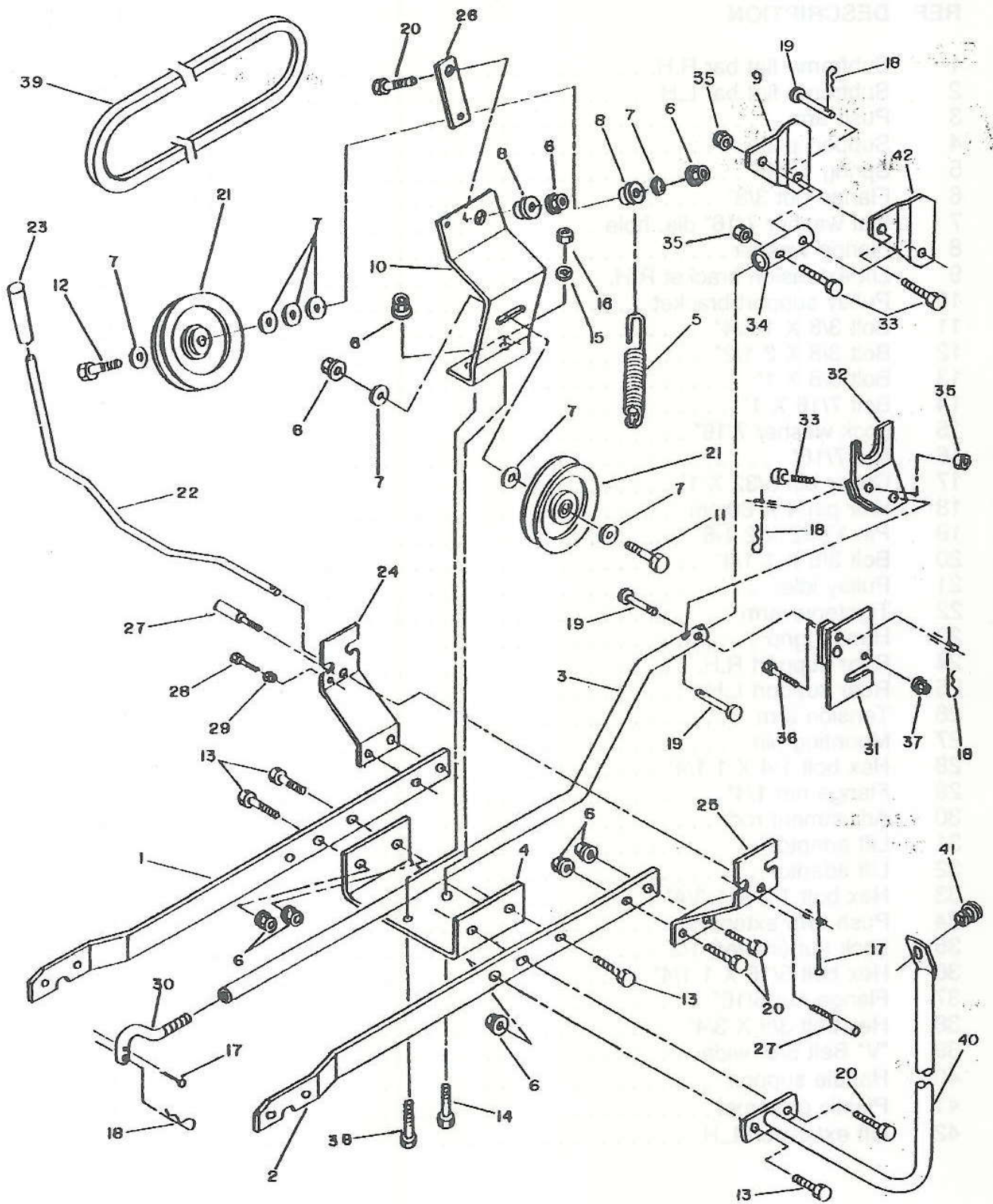


FIGURE 15



# DRIVE MECHANISM

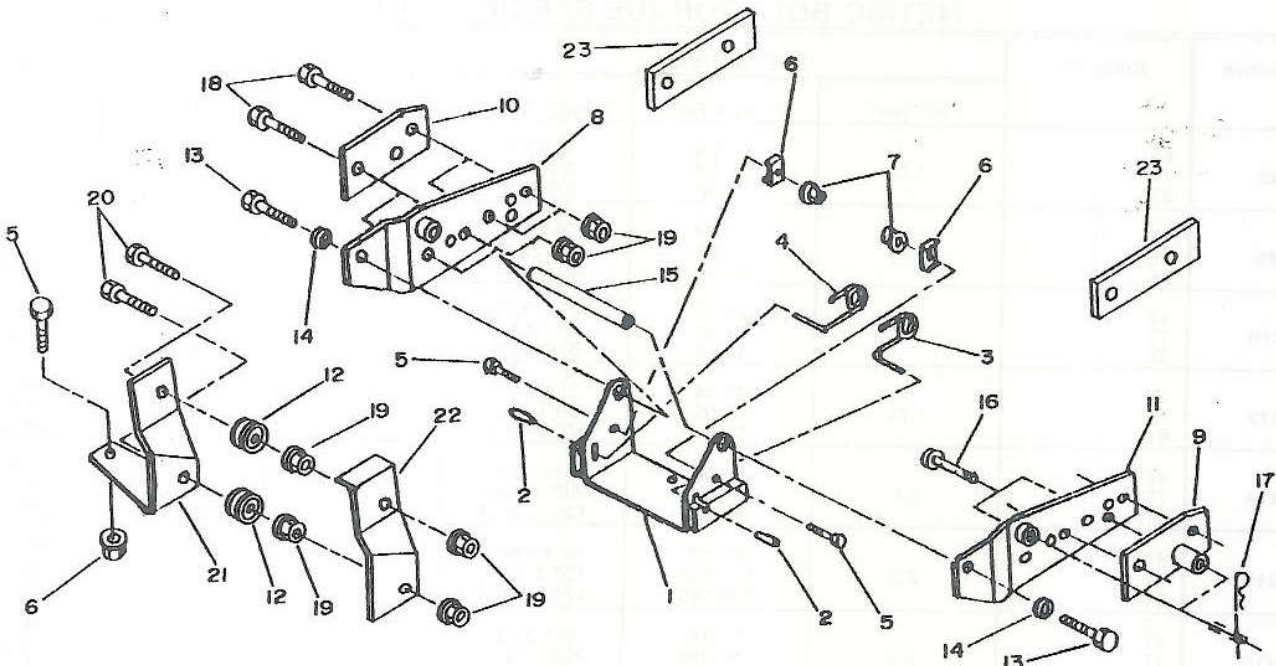


## DRIVE MECHANISM

REF	DESCRIPTION	QTY	PART NO
1	Subframe flat bar R.H. ....	1	102263
2	Subframe flat bar L.H. ....	1	102262
3	Push arm ....	1	102266
4	Support plate ....	1	102070
5	Spring 1 1/8" ....	1	102004
6	Flange nut 3/8" ....	13	O/L
7	Flat washer 7/16" dia. hole ....	8	O/L
8	Flange washer ....	2	102081
9	Lift extension bracket R.H. ....	1	102572
10	Pulley support bracket ....	1	102082
11	Bolt 3/8 X 1 3/4" ....	1	O/L
12	Bolt 3/8 X 2 1/2" ....	1	O/L
13	Bolt 3/8 X 1" ....	4	O/L
14	Bolt 7/16 X 1" ....	1	O/L
15	Lock washer 7/16" ....	1	O/L
16	Nut 7/16" ....	1	O/L
17	Cotter pin 5/32 X 1" ....	2	O/L
18	Hair pin 4 X 80mm ....	2	102054
19	Pin 17/32 X 2 1/8" ....	1	102079
20	Bolt 3/8 X 1 1/4" ....	6	O/L
21	Pulley idler ....	2	102086
22	Tightener arm ....	1	102259
23	Handle grip ....	1	102062
24	Rear support R.H. ....	1	102264
25	Rear support L.H. ....	1	102265
26	Tension arm ....	1	102089
27	Mounting pin ....	2	102257
28	Hex bolt 1/4 X 1 1/4" ....	1	O/L
29	Flange nut 1/4" ....	1	O/L
30	Adjustment rod ....	1	102073
31	Lift adaptor ....	1	102267
32	Lift adaptor ....	1	102270
33	Hex bolt 1/2 X 1 3/4" ....	2	O/L
34	Push arm extension ....	1	102570
35	Lock nut (stover) 1/2" ....	2	O/L
36	Hex bolt 5/16 X 1 1/4" ....	1	O/L
37	Flange nut 5/16" ....	1	O/L
38	Hex bolt 3/8 X 3/4" ....	1	O/L
39	"V" Belt 5/8" wide ....	1	102048
40	Handle support ....	1	102243
41	Plastic grommet ....	1	102063
42	Lift extension L.H. ....	1	102571

## PUSH FRAME

REF	DESCRIPTION	QTY	PART NO
1	Pivot support female hitch	1	102206
2	Plastic hand grip	2	102248
3	Left spring lock	1	102208
4	Right spring lock	1	102209
5	Hex bolt 5/16 X 1"	4	O/L
6	Spring fixation	2	102210
7	Flange nut 5/16"	4	O/L
8	Front support bracket R.H.	1	102255
9	Attaching bracket L.H.	1	102260
10	Attaching bracket R.H.	1	102261
11	Front support bracket L.H.	1	102256
12	Idler pulley	2	102057
13	Bolt hex. 1/2 X 1"	2	O/L
14	Lock washer 1/2"	2	O/L
15	Pivot pin	1	102258
16	Pin 1/2 X 2 1/2"	2	102189
17	Hair pin 4mm X 80mm	2	102054
18	Hex bolt 3/8 X 1 1/2"	4	O/L
19	Flange nut 3/8"	8	O/L
20	Hex bolt 3/8 X 2"	2	O/L
21	Idler support	1	102409
22	Idler guard	1	102410
23	Shim	2	102573



# TORQUE SPECIFICATION TABLE

## GENERAL TORQUE SPECIFICATION TABLE (Revised 2-74)

**USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN**  
 NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

SEE Grade No		2				5				8 *			
		TORQUE				TORQUE				TORQUE			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE - NOTE: MANUFACTURING MARKS WILL VARY		POUNDS FEET		NEWTON METERS		POUNDS FEET		NEWTON METERS		POUNDS FEET		NEWTON METERS	
		Inches	Millim	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57.0	45	54	61.0	73.2
7/16"	11.11	30	25	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.70	45	52	61.0	70.5	80	96	108.5	130.2	110	132	149.2	179.0
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179.0	160	192	217.0	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1	25.40	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1 1/8"	25.58	-	-	-	-	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1 1/4"	31.75	-	-	-	-	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1 3/8"	34.93	-	-	-	-	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1 1/2"	38.10	-	-	-	-	1940	2200	2630.6	2983.20	3160	3560	4285.0	4827.4

THICK NUTS MUST BE USED WITH GRADE 8 BOLTS

## METRIC BOLT TORQUE SPECIFICATIONS

Size screw	Grade no.	COARSE THREAD			FINE THREAD		
		Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	4T	1.0	3.6-5.8	4.9-7.9	-	-	-
	7T		5.8-9.4	7.9-12.7		-	-
	8T		7.2-10	9.8-13.6		-	-
M8	4T	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	7T		17-22	23-29.8		19-27	25.7-36.6
	8T		20-26	27.1-35.2		22-31	29.8-42
M10	4T	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	7T		34-40	46.1-54.2		35-47	47.4-63.7
	8T		38-46	51.5-62.3		40-52	54.2-70.5
M12	4T	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	7T		51-59	69.1-79.9		56-68	75.9-92.1
	8T		57-66	77.2-89.4		62-75	84-101.6
M14	4T	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	7T		81-93	109.8-126		90-106	122-143.6
	8T		96-109	130.1-147.7		107-124	145-168
M16	4T	2.0	67-77	90.8-104.3	1.5	69-83	93.5-112.5
	7T		116-130	157.2-176.2		120-138	162.6-187
	8T		129-145	174.8-196.5		140-158	189.7-214.1
M18	4T	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	7T		150-168	203.3-227.6		177-199	239.8-269.6
	8T		175-194	237.1-262.9		202-231	273.7-313
M20	4T	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	7T		186-205	252-277.8		206-242	279.1-327.9
	8T		213-249	288.6-337.4		246-289	333.3-391.6