

LMC

Switch  Plow™

6300 SERIES



OWNER OPERATOR/PARTS MANUAL

MAY 2011

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INTRODUCTION

Before operating the Switch Plow, study this manual carefully to become familiar with the Operation and Safety Procedures. Failure to do so could result in personal injury or damage to the equipment.

All measurements in this manual are in U.S. Standard Units.

The right and left side is determined by facing the direction of travel when in use.

The Warranty Certificate is included in this manual and supplied to owner at time of purchase.

PRE-DELIVERY CHECKLIST

Plow should be assembled and in proper operating condition before delivery to customer.

- Plow has been assembled according to manufacturer's instruction.
- Landslides, mold boards and all other hardware have been installed properly and tightened to specifications.
- All moving parts have been lubricated properly and all grease fittings will take grease.
- All functions of plow are working as designed by manufacturer.
- All safety decals are located in proper places.
- Clean and touchup any scratches in paint.
- Be sure dealer rep has fully explained proper setup operation of plow.**
- Signature and date of technician performing work.

Set-up Technician

Date of Service

DELIVERY CHECKLIST

ADVISE CUSTOMER OF THE FOLLOWING AT THE TIME OF DELIVERY:

- Regular lubrication and maintenance extend life of equipment.
- Always follow safe and proper operating procedures.
- Point out warning decals and safety hazards.
- Keep all bolts tightened to specifications.
- Use safety and warning lights when transporting plow on public roads.
- Fill out delivery and warranty forms, and have customer sign.
- Show and explain to customer how to hitch plow to tractor, make field adjustment and operate correctly accordingly to operator's manual.

Set-Up Technician

Date

When ordering replacement parts, from your dealer, refer to Model No. and Serial No. of your Switch Plow.

Serial No.: _____

Model No.: _____

MODEL 6300 SWITCH PLOW REQUIRED COMPONENTS

MODEL 6305 STANDARD SWITCH PLOW – 5 BOTTOM ON – LAND		
COMPONENT BUNDLE	BUNDLE NO.	NO. REQ'D
Main Frame	84-001-63	1
Tool Bar – 6 Bottom	85-005-63	1
Mold Board with Small Slides	83-003-36	4
Mold Board with Long Slides	83-206-36	1
Front Shank	83-212-36	1
Intermediate Shank	83-213-36	3
Gauge Wheel Arm	84-004-63	1
SMV Warning Sign	83-031-36	1
Rear Gauge Wheel Yoke Assy	84-002-63	1
Front Gauge Wheel	84-003-63	2

MODEL 6306 STANDARD SWITCH PLOW – 6 BOTTOM ON – LAND		
COMPONENT BUNDLE	BUNDLE NO.	NO. REQ'D
Main Frame	84-001-63	1
Tool Bar – 6 Bottom	85-005-63	1
Mold Board with Small Slides	83-003-36	5
Mold Board with Long Slides	83-206-36	1
Front Shank	83-212-36	1
Intermediate Shank	83-213-36	3
Gauge Wheel Arm	84-004-63	1
SMV Warning Sign	83-031-36	1
Rear Gauge Wheel Yoke Assy	84-002-63	1
Front Gauge Wheel	84-003-63	2

MODEL 6307 STANDARD SWITCH PLOW – 7 BOTTOM ON – LAND		
COMPONENT BUNDLE	BUNDLE NO.	NO REQ'D
Main Frame	84-001-63	1
Tool Bar – 6 Bottom	85-005-63	1
1 – Bottom Extension Tool Bar	85-015-63	1
Mold Board with Small Slides	83-003-36	5
Mold Board with Long Slides	83-206-36	1
Front Shank	83-212-36	1
Intermediate Shank	83-213-36	3
Gauge Wheel Arm	84-004-63	1
SMV Warning Sign	83-031-36	1
Rear Gauge Wheel Yoke Assy	84-002-63	1
Front Gauge Wheel	84-003-63	2

MODEL 3600 SWITCH PLOW REQUIRED COMPONENTS

MODEL 3608 STANDARD SWITCH PLOW – 8 BOTTOM ON – LAND		
COMPONENT BUNDLE	BUNDLE NO.	NO. REQ'D
Main Frame	84-001-63	1
Tool Bar – 6 Bottom	85-005-63	1
2 – Bottom Extension Tool Bar	85-014-63	1
Mold Board with Small Slides	83-003-36	5
Mold Board with Long Slides	83-206-36	1
Front Shank	83-212-36	1
Intermediate Shank	83-213-36	3
Gauge Wheel Arm	84-004-63	1
SMV Warning Sign	83-031-36	1
Rear Gauge Wheel Yoke Assy	84-002-63	1
Front Gauge Wheel	84-003-63	2

MODEL 3600 SWITCH PLOW OPTIONAL COMPONENTS		
COMPONENT BUNDLE	BUNDLE NO.	NO. REQ'D
Wear Shin Multi-Life	79-208-36	A/R
Front Shank	83-204-36	1
Intermediate Shank	83-205-36	A/R
1Bottom Extension Kit	72-003-36	1
2Bottom Extension Kit	72-004-36	1
Front Spring Trip Shank	83-218-36	1
Intermediate Spring Trip Shank	83-219-36	A/R
Reverse Intermediate Spring Trip Shank	83-220-36	A/R
Spring Trip Shank Mold Board with Small Slides	83-216-36	A/R
Spring Trip Shank Mold Board with Long Slides	83-217-36	1



SAFETY PRECAUTIONS



1. Always operate plow in a careful, controlled manner.
2. Always lower plow to ground when not in use.
3. Stand clear of Switch Plow when being raised or lowered.
4. Never operate plow from side to side while someone is standing inside main frame.
5. All personnel should stand clear of Switch Plow during preparation for movement of equipment from one location to another.
6. Always stand clear of plow when being operated from side to side.
7. Always place tool bar in center of main frame before unhitching from tractor.
8. Do not park vehicles or place objects within 10 feet of the rear of the Switch Plow.
9. Always park plow on flat, level ground before unhooking from tractor.
- 10.. When transporting plow, always make sure tool bar is in center position and hydraulic cylinder hoses are connected to tractor outlets so plow cannot swing from side to side during transit.
11. Turn on flashing lights when transporting unit on highway, unless prohibited by law.
12. Never check for hydraulic leaks with hands or clothes.
13. Do not operate hydraulic systems when hydraulic leaks are present.
14. Do not operate unit close to high voltage electric lines.

SAFETY SYMBOLS

RECOGNIZE SAFETY INFORMATION

This is the safety symbol. When you see this, it means:

**ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**



Follow recommended precautions and procedures.

UNDERSTAND SIGNAL WORDS

A signal word –**DANGER**, **WARNING**, or **CAUTION** – is used with the safety alert symbol.

DANGER indicates imminently hazardous situations that, if not avoided, will result in serious injury, or death.



DANGER

WARNING indicates potentially hazardous situations that, if not avoided, could result in serious injury, or death.

WARNING may also be used to alert against unsafe practices.



WARNING

CAUTION indicates potentially hazardous situations that, if not avoided, may result in minor or moderate injury.

CAUTION may also be used to alert against unsafe practices.



CAUTION

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Remove missing or damaged safety signs. Contact LMC Bainbridge for replacement parts.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine or ~~disrepair may impair safety, or the machine function.~~

SAFETY INSTRUCTIONS AND RULES

KEEP RIDERS OFF MACHINE

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

OPERATOR'S MANUAL

Do not put this operator's manual away unread. Read the manual carefully regardless of previous experience. Allow yourself this time, it will save time and labor later on.

IMPORTANT: Keep an extra copy of the operator's manual in your office or in the garage in case one gets lost.

An extra copy may be acquired from your dealer for an extra fee.

PREPARE FOR EMERGENCIES

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.

AVOID HIGHPRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before unhooking hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles that eject fluids under pressure. Use a piece of cardboard to search for leaks.

If any fluid is injected into the skin, a doctor familiar with this type injury must surgically remove it within a few hours or gangrene may result.

**SAFETY SIGN LOCATIONS
READ ALL SAFETY DECALS CAREFULLY**



Detaching Decal: Located on Center Mast of Main Frame.



Tool Bar Guide Decal: Located on Right and Left Front Side of Tool Bar Guide



Gauge Wheel Decal: Located on Each Side of Gauge Wheel Arm



Tool Bar Guide Danger Decal: Locate One Decal on Left & Right Front Side of Tool Bar Guide

OPERATIONS

PRE-OPERATIONS CHECKLIST

All tractor preparation should be as recommended in your Tractor Operator's Manual. Tractor should be fully weighted in accordance with Tractor Manufacturer's recommendations.

1. Tractor has been prepared according to Tractor Operator's Manual and Start-Up Procedures on page 8.
2. Tractor Sway Blocks are in position as recommended in section on "Sway Block Positions".
3. The Plow has been prepared and properly attached to tractor and is operating as designed.
4. Adjust both lift links on tractor to same length.
5. Grease main tool bar pivot pin (every 8 hours).
6. Grease gauge wheel yoke pivot (every 8 hours).
7. Check gauge wheel bearings for loose play weekly (tighten or replace if necessary).
8. Check plow shanks for proper spacing (28" center to center for 18" cut).
9. Check all hydraulic hose connections for leaks and operate tool bar back and forth to remove air from lines.
10. Keep all nuts and bolts tight. Check upon delivery and weekly thereafter.

SHEAR BOLT STANDARDS

The Switch Plow is equipped with 3/8" UNC x 4 1/2" Grade 5 shear bolts in each shank. When the bottom hits a hard object, the bolts will shear, permitting the plow bottom to trip and swing backwards. Reset by raising plow and pushing bottom back to operating position and replacing shear bolt.

SWAY BLOCK POSITIONS

Each bottom plow is equipped with a landslide, which helps the plow to run straight. The landslides can be turned upside-down for additional wear time. Side draft control can also be controlled by the position of the tractor sway blocks.

6300 ONLAND SERIES

Install sway blocks in up position to allow side sway when working and to prevent side sway when the plow is raised for turning or transporting.

STARTUP PROCEDURES

IMPORTANT! MAKE SURE CYLINDER IS ADJUSTED PROPERLY SO THAT BEAM TOUCHES BOTH SIDES OF FRAME, OTHERWISE, IT COULD DAMAGE CYLINDER.

NOTE: All tractor preparations should be as recommended in your Tractor Operator's Manual. Tractor should be fully weighted in accordance with Tractor Manufacturer's recommendations.

1. Make sure rear end side duals have water in them.
2. Full set of weights on front of tractor.
3. Make sure the lift arms on the tractor are extended out at least 3 to 4 inches otherwise, front plows will not take the ground. If necessary, extend out more. For on land plows (shear bolt and spring trip) hook lift arms in top or bottom holes and make sure lift arms are extended out enough to make plow go into the ground.
4. Swing plow from side to side and make sure that the tool bar touches both sides of frame. If necessary, adjust clevis on cylinder. It is important that this is done; otherwise, it could damage the cylinder.
5. Swing tool bar to center of frame. Lift off the ground until rear plow barely touches the ground, and then adjust top length until front plow is off the ground by approximately 2 inches. This sets top link on tractor to proper length.
6. Set rear gauge wheel adjusting screw to preferred depth.
7. Adjust front gauge wheel to highest position before starting plowing operation.
8. Stabilizer bars should be turned up.
9. If plow tries to pull tractor around, let top link out 1 to 2 rounds. If plow continues to pull, shim slide on rear plow approximately $\frac{3}{4}$ " to 1", slide to slide mount bracket. If this continues, shim slide on second plow from rear approximately $\frac{3}{4}$ " to 1" and slide to slide mount bracket.
10. Do not use stabilizers on any on-land plow.

REVERSING THE PLOW

Raise plow slowly and reverse tool bar completely to opposite side of main frame. Turn tractor around and slowly lower plow to ground and continue plowing.

CAUTION: NEVER SHIFT PLOW WHILE IN GROUND!!

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTIONS
Plow will not go in ground:	<p>Tractor depth control too shallow</p> <p>Insufficient plow bottom suction.</p> <p>Worn plow shares</p> <p>Incorrect rockshaft setting.</p> <p>Severe hard ground conditions</p> <p>Spring trip shank mold board tilt not set properly.</p> <p>Front gauge wheels not set properly.</p>	<p>Adjust tractor setting.</p> <p>Shorten center link on tractor and extend lift arms outward.</p> <p>Replace with new shares.</p> <p>Adjust on tractor.</p> <p>Tilt gangs forward to rear shear bolt position.</p> <p>Adjust each trip spring shank jam nuts in to move shank and mold board forward to take more ground.</p> <p>Set plowing depth and adjust front gauge wheels to run on top of ground.</p>
Poor depth control:	<p>Too much load response.</p> <p>Worn shares.</p>	<p>Adjust sensitivity lever on tractor.</p> <p>Replace sensitivity lever on tractor</p>
Plow not running straight:	<p>Improper lateral adjustment.</p> <p>Plow running on nose.</p>	<p>Check right and left hand link for the same dimension.</p> <p>Check tractor wheel setting and tire wear.</p> <p>Check for excess land-slide wear.</p> <p>Adjust center link on tractor and/or rear gauge wheel on plow.</p>
Ridging:	<p>Plow not properly level laterally.</p> <p>Plow not level for & aft.</p> <p>Front bottom cutting too wide or too narrow.</p>	<p>Both right and left hand lift links should have the same dimensions.</p> <p>Adjust tractor center link and/or rear gauge wheel adjustment.</p> <p>Check for equidistant wheel settings.</p> <p>Check for incorrect distance of tractor from last water furrow.</p>

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTIONS
High draft:	Plow running on nose.	Adjust center link and/or rear gauge wheel setting.
	Too little load response.	Adjust rockshaft lever.
	Insufficient traction.	Increase tire or tractor weight.
Poor trash covering:	Incorrect tractor speed.	Adjust to proper speed (4-5 mph) in normal soil conditions.
	Too much trash on ground.	A light harrowing or mowing may be necessary.
Standard trip too often for soil conditions:	Improper shear bolt.	Switch to 3/8" x 4 1/2" grade 5 shear bolt.
Spring Trip Shanks trip too often for soil conditions:	Improper setting on Trip tension.	Adjust each shank from front to back by increasing spring tension with jam nuts.

ASSEMBLY INSTRUCTIONS

6300 SERIES SWITCH PLOW

MAIN FRAME AND TOOL BAR (REFER TO FIGURE 2)

The main frame will come completely assembled with the required hydraulics factory installed. The 6-Bottom tool bar will be shipped separate and will require assembly.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any added plow components



Es necesario soportar el armazon principal suficientemente para soportar las armazon tambien con el pest de las otras adiciones del arado.

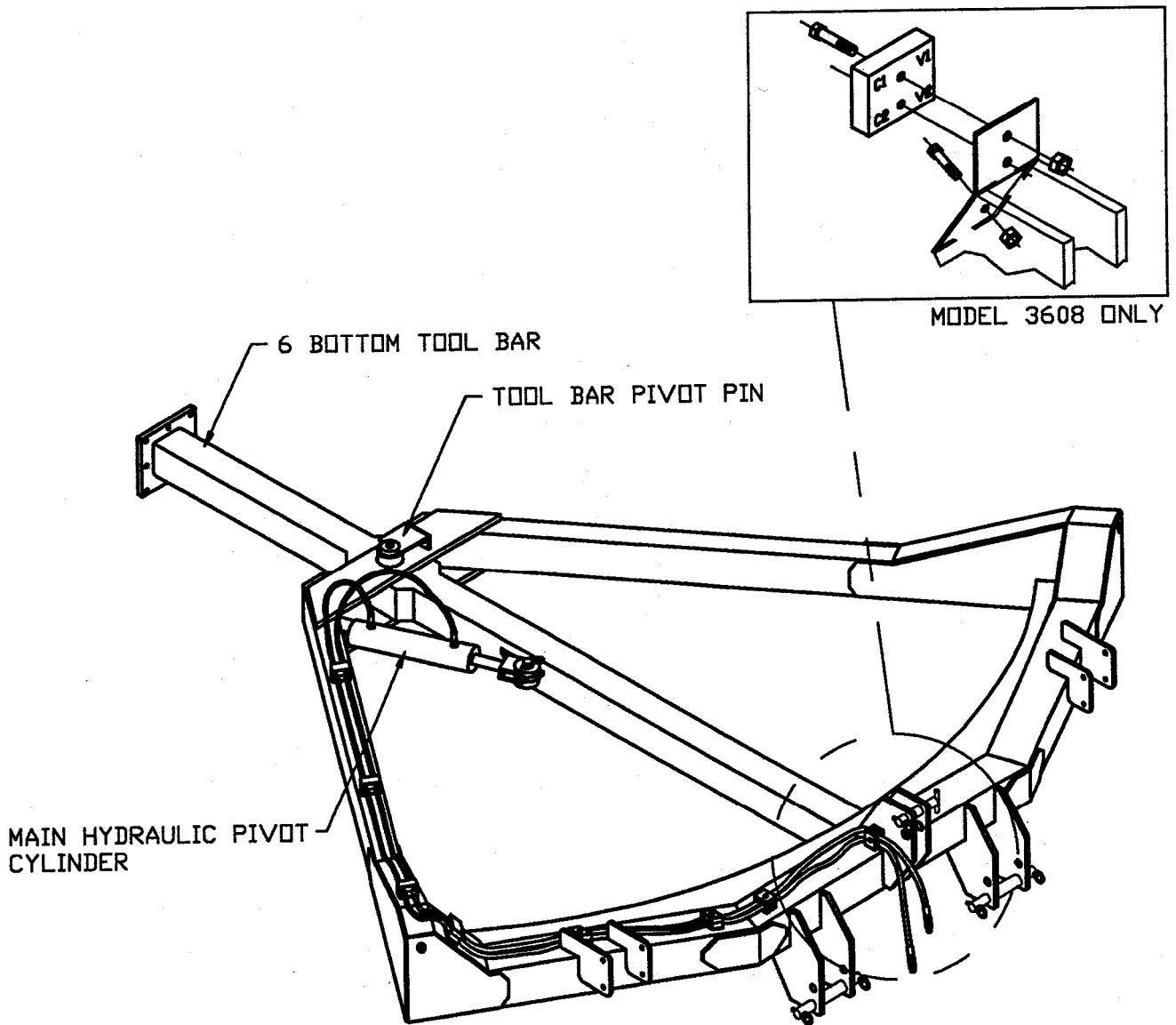
Remove the tool bar pivot pin from the main frame and clean paint from both the pivot pin and pivot hole. Apply a good layer of grease to the pivot pin and pivot hole through main frame.

Insert the tool bar into the main frame and replace the pivot pin. (Refer to Figure 2). Move the tool bar to the center of the main frame and attach the main hydraulic cylinder to the tool bar. The cylinder cap end will come from the factory attached to the main frame and should be checked for proper assembly.

NOTE:

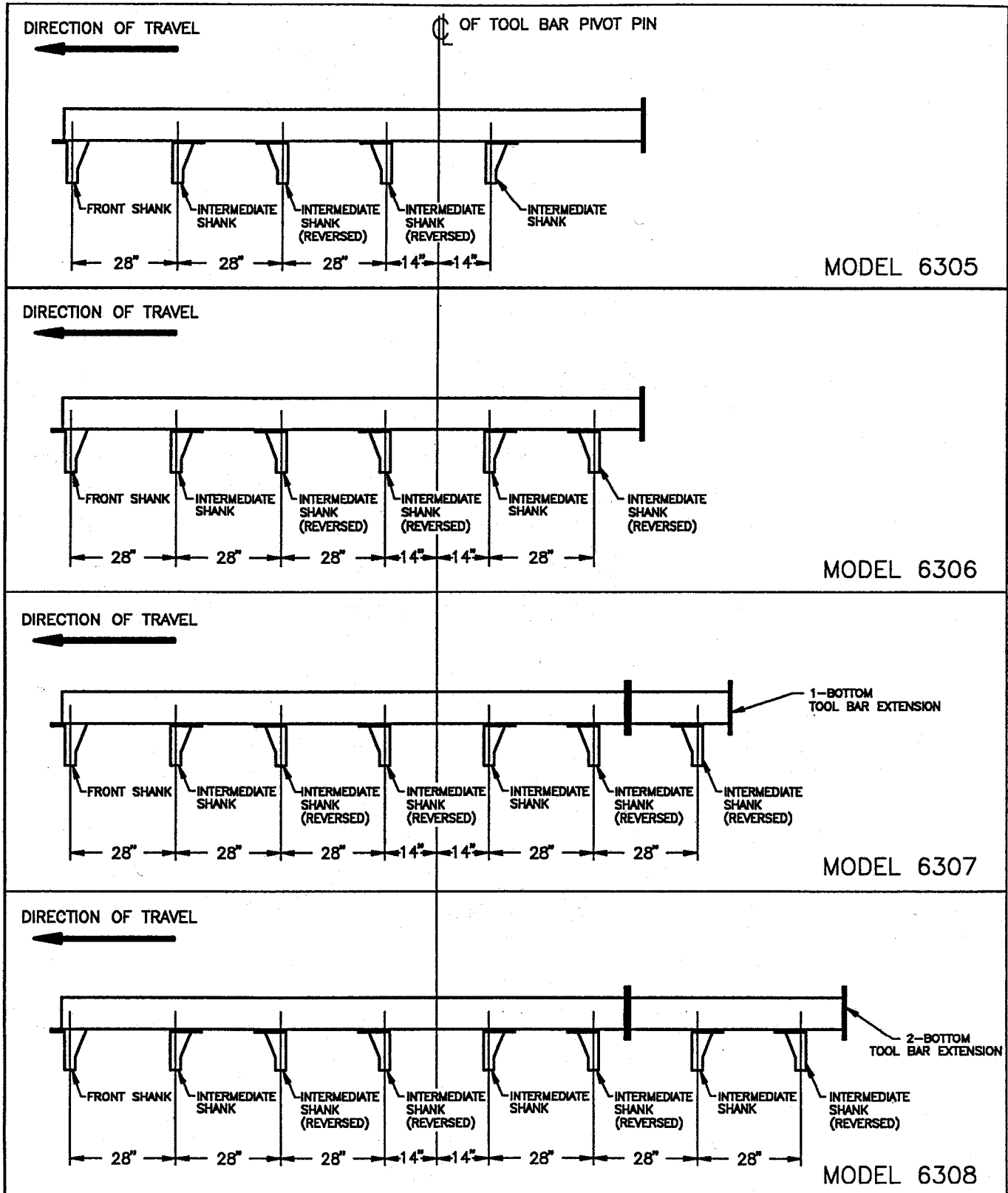
Model 6308 requires the use of a counter-balance valve, which is mounted to the main frame hitch. Connect hoses to the main cylinder and counter balance valve as shown in Figure 2. Install the short hydraulic hose bracket to the tool bar pivot pin using (2) two 3/8 UNC x 1" long hex bolts and attach the hydraulic hoses to the bracket with the hose clamps. Refer to Figure 2.

6300 SERIES MAIN FRAME AND TOOL BAR



(FIGURE 2)

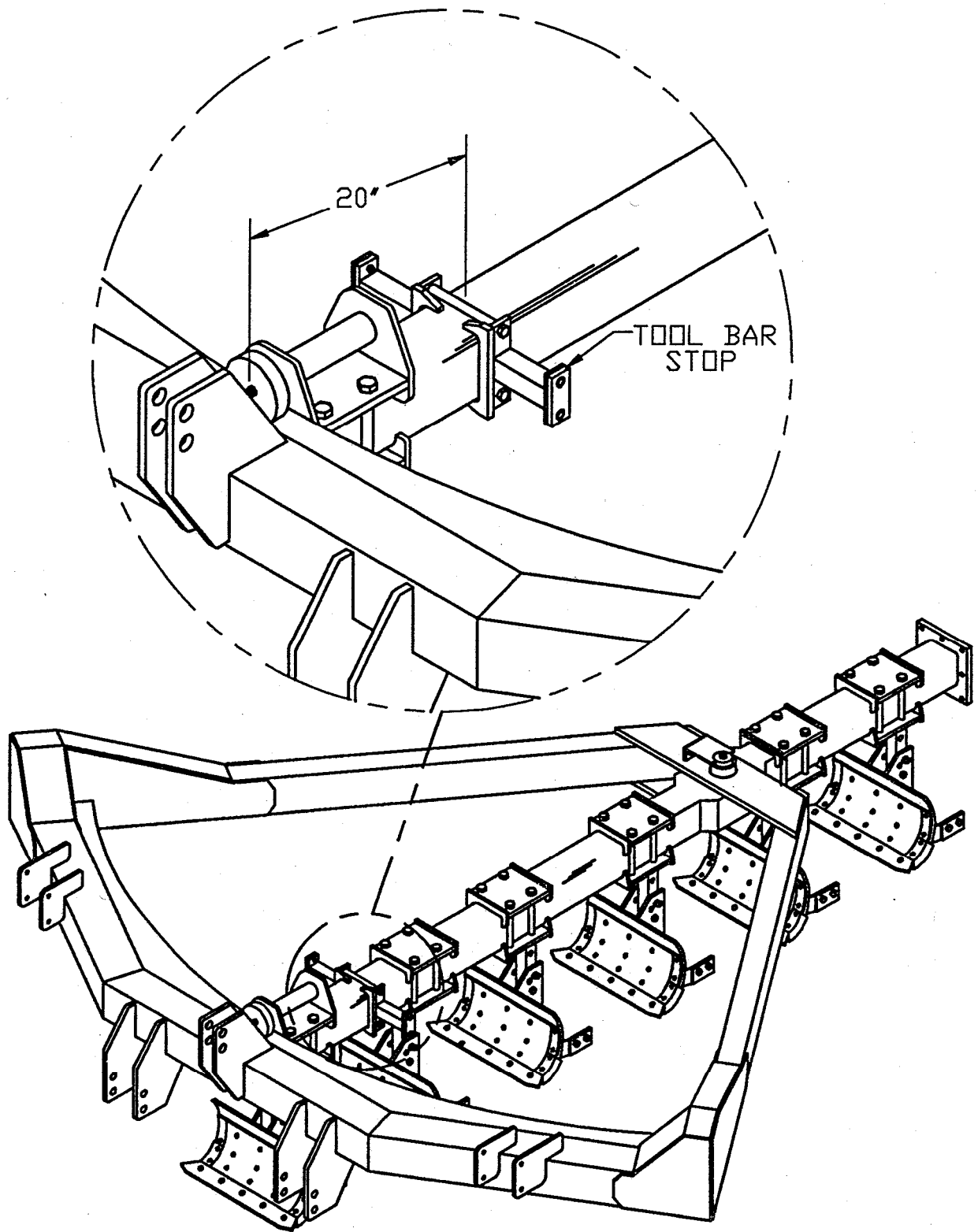
SHANK SPACING AND DIRECTION FOR ALL 6300 SERIES PLOWS



(FIGURE 3)

6300 SERIES TOOL BAR STOPS

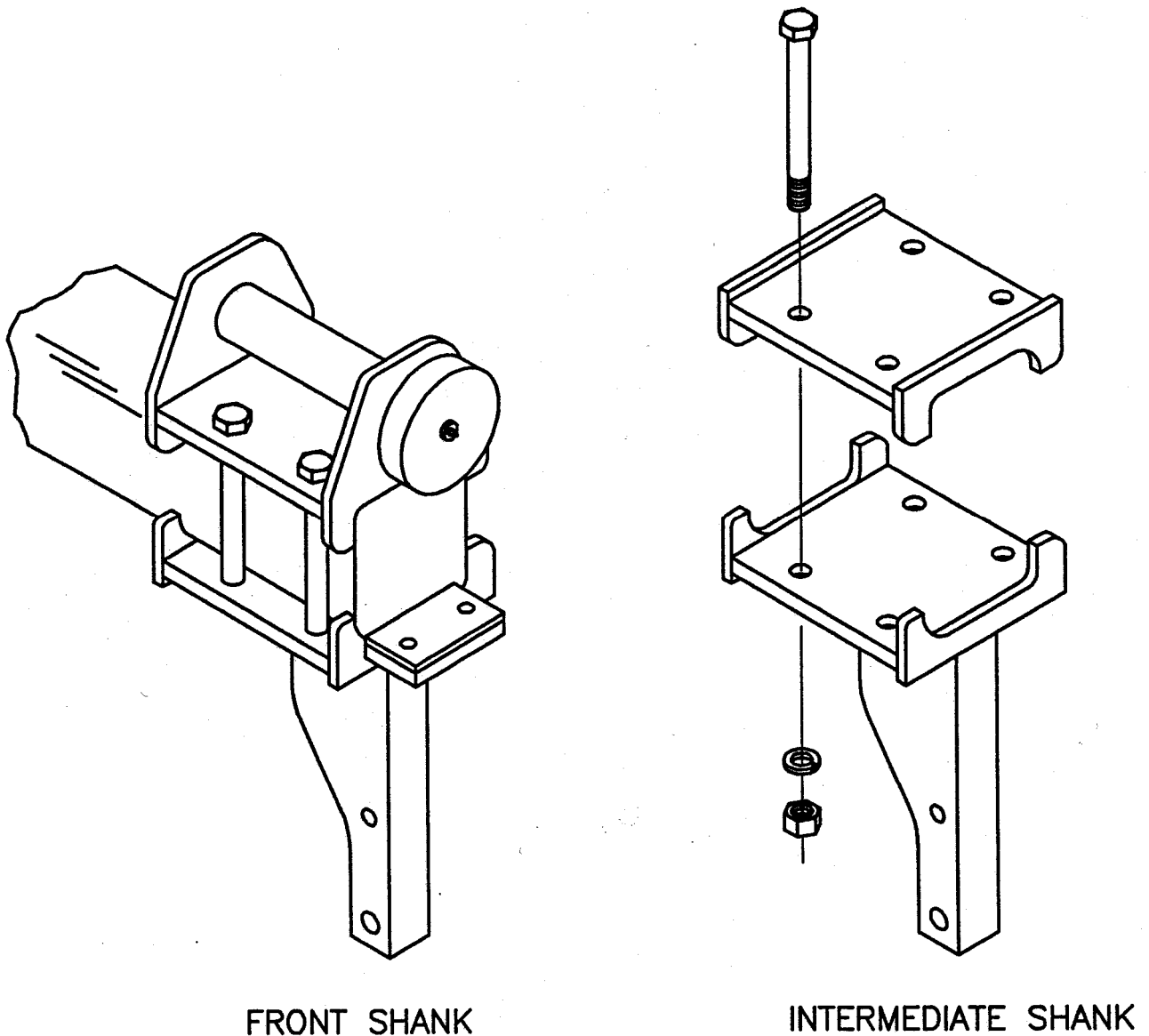
84-005-63



ASSEMBLY OF PLOW SHANKS TO TOOL BAR

Refer to (Figure 3) and position the required shanks for your model switch plow at the 28" spacing shown. Note the position of each shank post and direction the shank post brace.

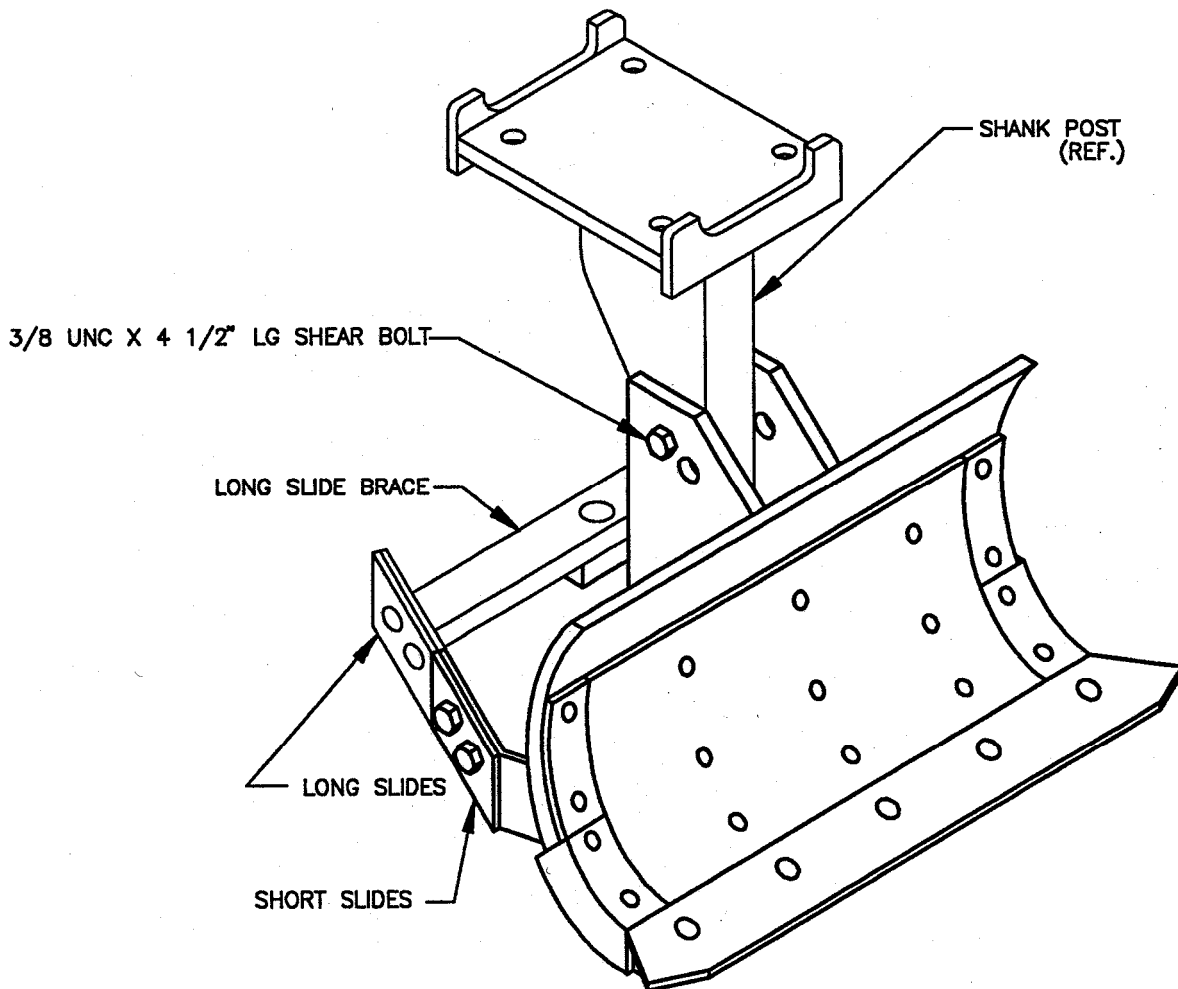
The front shank wear pads must face forward and be positioned flush with front of tool bar as shown in Figure 4. Position the intermediate shanks along the tool bar at the 28" spacing shown in Figure 3. Loosely attach the front shank to the tool bar with (4) four 7/8" x 9" long hex bolts. Loosely attach the intermediate shanks to the tool bar with 7/8" x 9" long hex head bolt. Refer to Figure 4. Note the position and direction of each shank brace as shown in Figure 4. Note the position and direction of each shank brace as shown in Figure 3.



(FIGURE 4)

ASSEMBLY OF MOLD BOARDS TO SHANKS (REFER TO FIGURE 5)

Attach the required number of mold boards to the plow shanks for your model switch plow. Be sure to position the mold boards with the long land slide at the last position in the rear. Attach each mold board to the shank with (1) 3/8" UNC x 4 1/2" long shear bolt in the top hole and (1) 7/8" UNC x 5 1/2" long hex bolt in the bottom hole. Tighten each bolt to the proper torque setting on page 20.



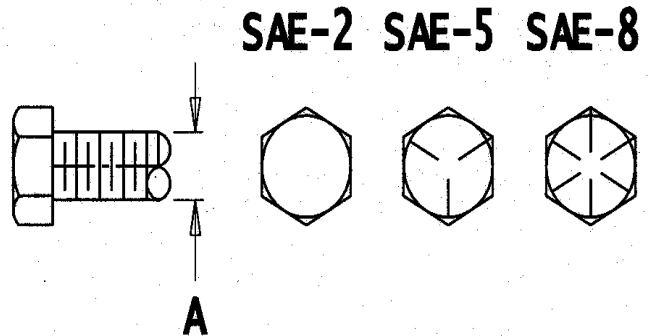
(FIGURE 5)

CHECKING BOLT TORQUE

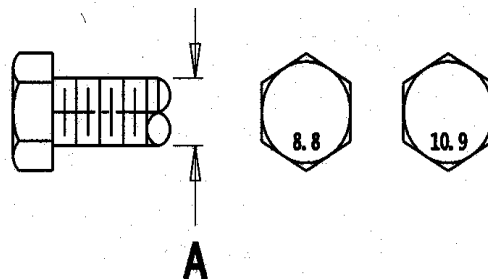
The table shown below gives correct torque values for various bolts and cap screws. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically using bolt torque chart as a guide. Replace hardware with the same strength bolt.

U.S. MEASUREMENT

BOLT DIAMET ER "A"	BOLT TORQUE IN N-M (ft-lb)		
	SAE2	SAE5	SAE8
¼	NOT USED	14 (10)	19 (14)
5/16	NOT USED	27 (20)	41 (30)
3/8	31 (23)	47 (35)	68 (50)
7/16	47 (35)	75 (55)	108 (80)
½	75 (55)	115 (85)	163 (120)
9/16	102 (75)	176 (130)	237 (175)
5/8	142 (105)	231 (170)	325 (240)
¾	217 (160)	407 (300)	576 (425)
7/8	251 (185)	603 (445)	929 (685)
1	339 (250)	910 (670)	1396 (1030)
1-1/4	450 (330)	1235 (910)	1979 (1460)



BOLT DIAMETER "A"	BOLT TORQUE IN N-M (ft-lb)	
	8.8	10.9
5mm	6 (5)	9 (7)
6mm	11 (9)	17 (13)
8mm	28 (20)	40 (30)
10mm	55 (40)	80 (59)
12mm	95 (70)	140 (103)
16mm	235 (173)	350 (258)
20mm	475 (350)	675 (498)
24mm	825 (608)	117 (863)
30mm	1630 (1201)	2320 (1712)



METRIC MEASUREMENT

NOTE: Bolts having locknuts with plated and wax finish should be tightened to approximately 50 percent of amounts shown in chart.

GAUGE WHEEL AND GAUGE WHEEL ARM ASSEMBLY

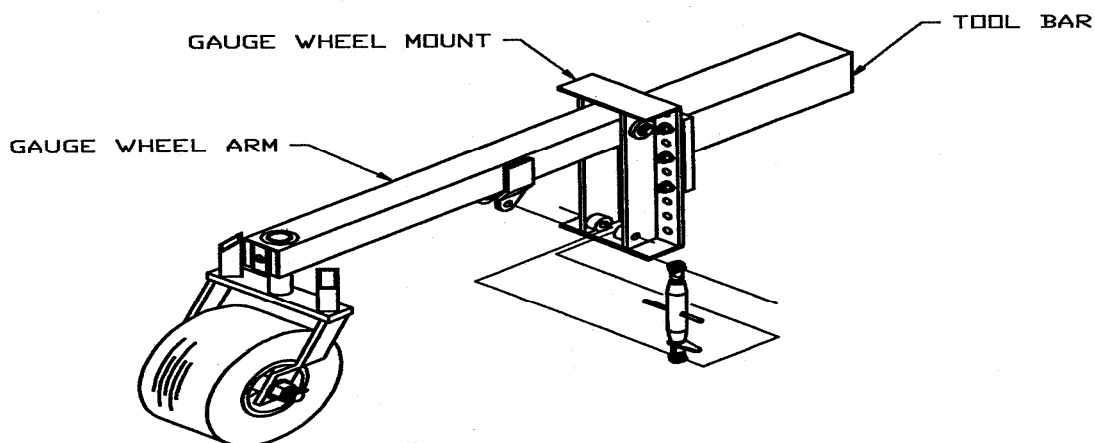
(REFER TO FIGURE 6)

Attach the gauge wheel pivot arm assembly to the gauge wheel mounting plate on the main tool bar with the pivot arm centered on the mounting plate.

Secure with the six (6) $\frac{3}{4}$ " UNC x 3" long hex bolts, lockwashers and hex nuts provided. (Note: The plow depth-adjusting link should be below the pivot arm tube.)

Insert the gauge wheel yoke assembly into the bushing in the pivot arm and secure with hex bolt and cap washer.

The desired depth should be adjusted in the field by moving the adjusting link in or out. The pivot arm may also be moved up or down on the pivot arm mounting plate. (Note: Always align pivot arm so that all six bolts are used to secure arm.)

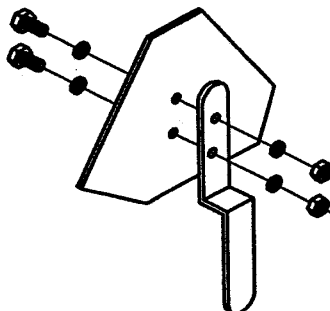


(FIGURE 6)

SMV SIGN ASSEMBLY

(REFER TO FIGURE 7)

Attach the SMV sign mounting bracket with (2) two $\frac{1}{4}$ " UNC x $\frac{3}{4}$ " long hex bolts. Insert the SMV bracket into the slot on the rear of the gauge wheel arm.



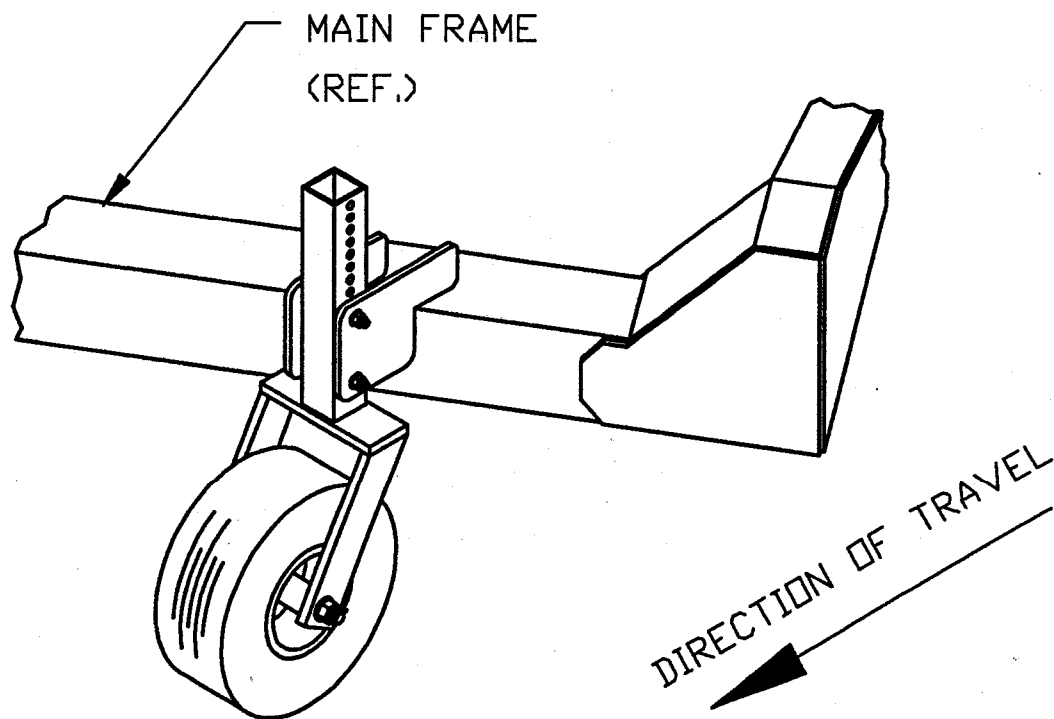
(FIGURE 7)

FRONT GAUGE WHEEL ASSEMBLY

(REFER TO FIGURE 8)

The (2) two front gauge wheels will come from the factory pre-assembled and ready for mounting to the main frame front tool bar. Position the gauge wheel post between the mounting plates on both sides of the main frame and attach with (2) two $\frac{1}{2}$ UNC x 5" long hex bolts, lockwasher and hex nuts. Lift the gauge wheels and mount in the highest position.

NOTE: The front gauge wheels should not be adjusted down until in the field and after plowing depth has been established or damage may occur to the gauge wheels.



(FIGURE 8)

INSTRUCTIONS FOR CHANGING MODEL 6305 TO MODEL 6306

Parts required to convert 5-Bottom Plow (Model 6305) to 6-Bottom (Model 6306):

- One Intermediate mold board unit
- One Intermediate shank
- One 7/8 UNC x 5 1/2" long hex bolt and lock nut
- One 3/8 UNC x 4 1/2" long Grade 5 shear bolt and hex nut

Set-up the main frame on floor supports so the frame is level from side to side and fore to aft. The height of the frame should be supported to allow for the assembly of plow shanks and mold boards under frame.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any additional components.



Es necesario soportar el amazon principal suficientemente para soportar las amazon tambien con el pest de las otras adiciones del arado.

Position the new intermediate shank in the NO. 6 position. Remove the existing rear mold board from the shank at position No. 5 and install to the new rear shank at position No. 6. Install the new mold board to the shank at position No. 5 with one (1) 7/8 UNC x 5 1/2" long hex bolt and lock nut in the bottom hole and (1) one 3/8" UNC x 4 1/2" long shear bolt and hex nut in the top center hole. Tighten all bolts per torque specifications on Page 20.

INSTRUCTIONS FOR CHANGING MODEL 6305 TO MODEL 6307

Parts required to convert 5-Bottom Plow (Model 6305) to 7-Bottom (Model 6307)

- Two Intermediate mold board units
- Two Intermediate shanks
- One 1-Bottom tool bar extension
- Eight ¾ UNC x 3" long hex bolts, lockwashers and lock nuts
- Two 7/8 UNC x 5 ½" long hex bolts and lock nuts
- Two 3/8 UNC x 4 ½" long Grade 5 shear bolts and hex nuts
- Eight 7/8 UNC x 9" long hex bolts, lockwashers and hex nuts

Set-up the main frame on floor supports so that frame is level from side to side and fore to aft. The height of the frame should be supported to allow for the assembly of plow shanks and mold boards under frame.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any additional components.

Es necesario soportar el arazon principal suficientemente para soportar las arazon tambien con el pest de las otras adiciones del arado.

Remove the gauge wheel assembly from the end of the tool bar. Remove the mold board (with long sides) from the rear shank.

Attach the 1-bottom tool bar extension to the end of the main frame tool bar using (8) eight ¾" UNC 3" long hex bolts, lockwashers and hex nuts. Refer to Figure 9.

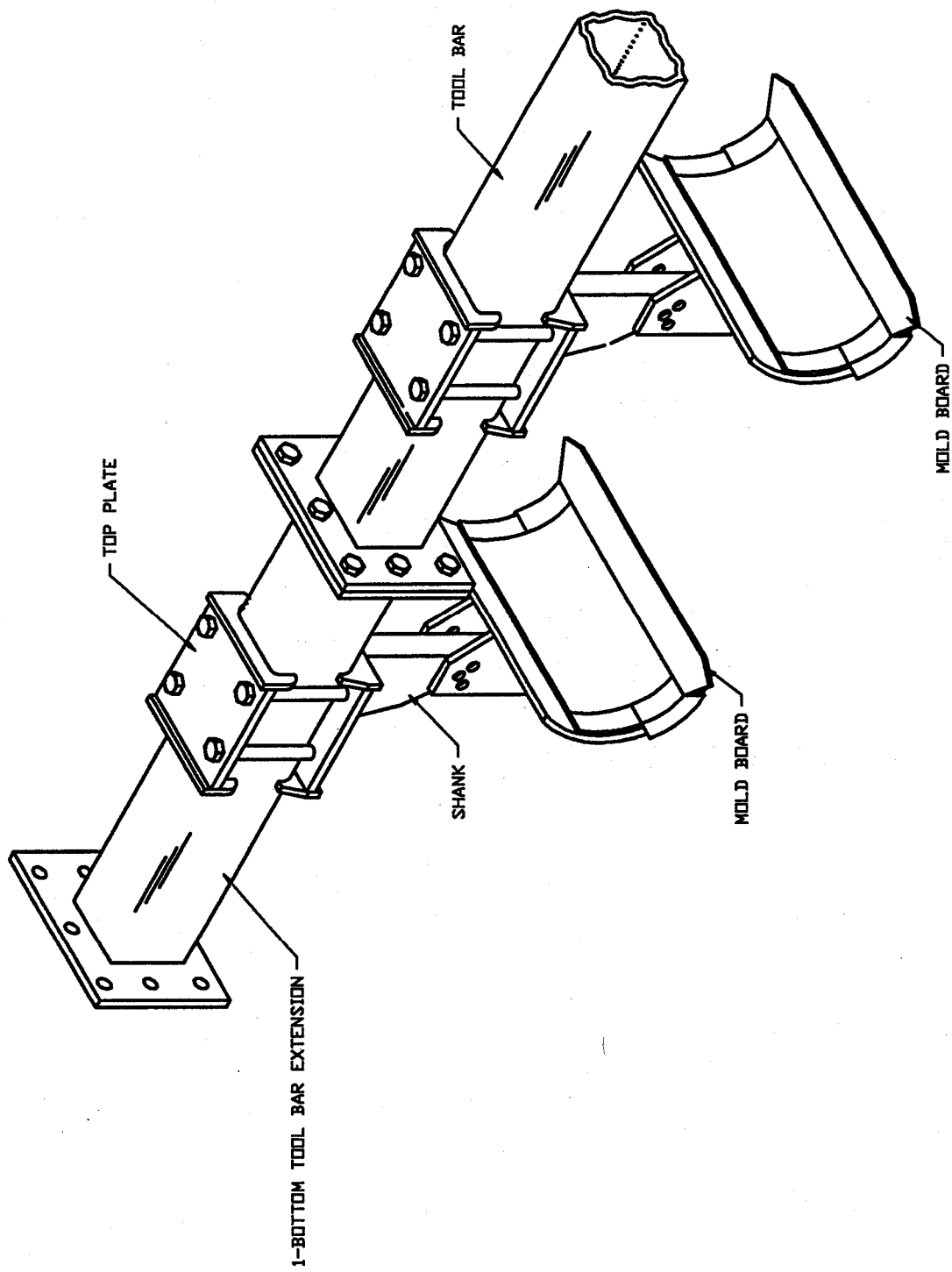
Attach one new intermediate shank in the No. 6 position 28" to the rear of the No. 5 shank, using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts. Next, attach the remaining intermediate shank in the No. 7 position 28" to the rear of the No.6 shank using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts.

Reattach the mold board assembly with long slides to the intermediate shank in the No. 7 position using one(1) 7/8" UNC x 5 ½" long hex bolt and lock nut and one (1) 3/8" UNC x 4 ½" long Grade 5 shear bolt and hex nut.

Next, attach the two remaining mold board assemblies to the No. 5 and No. 6 shanks using one (1) 7/8" UNC x 5 ½" long hex bolt and lock nut and one (1) 3/8" UNC x 4 ½" long Grade 5 shear bolt and hex nut per shank.

Reattach the gauge wheel assembly to the end of the 1-bottom tool bar extension using the four (4) existing ¾" UNC x 3" long hex bolts, lockwashers and hex nuts.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations section before operating plow.



(FIGURE 9)

INSTRUCTIONS FOR CHANGING MODEL 6305 TO MODEL 6308

Parts required to convert 5-Bottom Plow (Model 6305) to 8-Bottom (Model 6308)

- Three Intermediate mold board units
- Three Intermediate shanks
- One 2-Bottom tool bar extension
- Three 7/8 UNC x 5 1/2" long hex bolts and lock nuts
- Three 3/8 UNC x 4 1/2" long Grade 5 shear bolts and hex nuts
- Eight 3/4 UNC x 3" long hex bolts, lockwashers and hex nuts
- Twelve 7/8 UNC x 9" long hex bolts, lockwashers and hex nuts
- One Counter balance valve kit.

Set-up the main frame on floor supports so that frame is level from side to side and fore to aft. The height of the frame should be supported to allow for the assembly of plow shanks and mold boards under frame.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any additional components.

Es necesario soportar el armazon principal suficientemente para soportar las armazon tambien con el pest de las otras adiciones del arado.

Remove the gauge wheel assembly from the end of the tool bar. Remove the mold board (with long sides) from the rear shank.

Attach the 2-bottom tool bar extension to the end of the main frame tool bar using (8) eight 3/4" UNC 3" long hex bolts, lockwashers and hex nuts. Refer to Figure 10.

Attach one new intermediate shank in the No. 6 position 28" to the rear of the No. 5 shank, using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts. Next, attach the remaining intermediate shank in the No. 7 position 28" to the rear of the No.6 shank using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts.

Reattach the mold board assembly with long slides to the intermediate shank in the No. 8 position using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut.

Next, attach the three remaining mold board assemblies to the No. 5 and No. 6 shanks using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut per shank

Reattach the gauge wheel assembly to the end of the 2-bottom tool bar extension using the four (4) existing 3/4" UNC x 3" long hex bolts, lockwashers and hex nuts.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations section before operating plow.

The Model 6308 Switch Plow requires the use of a hydraulic counter balance valve that is mounted to the main frame hitch center mast. Attach the counter balance valve mounting bracket to the hitch center mast in the holes provided. Refer to Figure 2 on page 15.

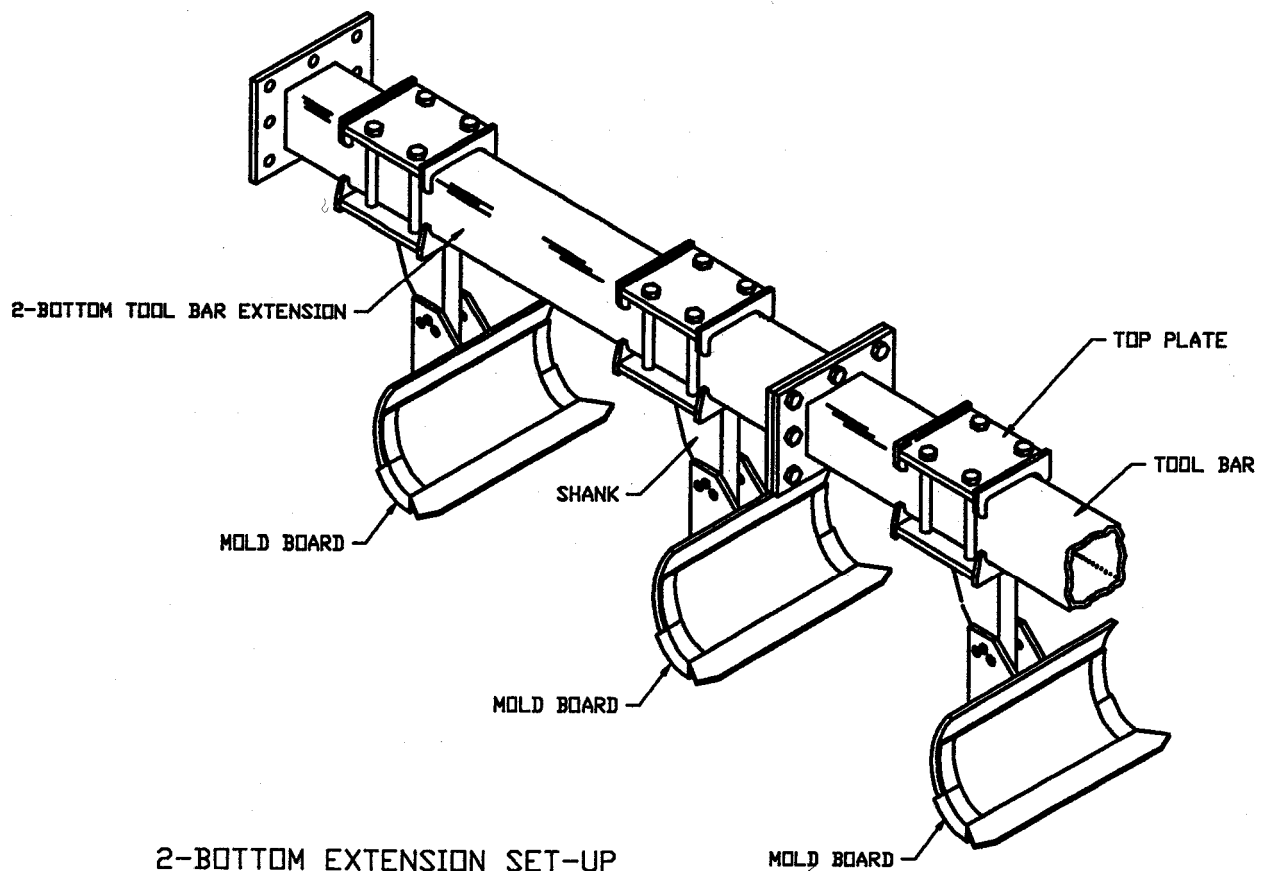
Disconnect the existing hydraulic hoses from the tractor and the hitch mast hose clamps. Remove fluid pressure from both lines.

Cut 52" from each hose and using the proper hydraulic press, install the four (4) hose swivels on each of the cut hose ends. Connect the (2) two hoses from the main pivot cylinder to the C1 and C2 ports on the counter balance valve.

(NOTE: Hose from cap end of main cylinder connects to port C1 and hose from rod end of main cylinder connects to the C2 port.)

Connect the new 52" hoses to the V1 and V2 ports on the counter balance valve and connect to the tractor hydraulic system ports. Secure the hoses to the existing hose clamps making sure there are no kinks or excessive twists.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations sections before operating the plow.



(FIGURE 10)

INSTRUCTIONS FOR CHANGING MODEL 6306 TO MODEL 6307

Parts required to convert 6-Bottom Plow (Model 6306) to 7-Bottom (Model 6307)

- One Intermediate mold board units
- One Intermediate shanks
- One 1-Bottom tool bar extension
- One 7/8 UNC x 5 1/2" long hex bolts and lock nuts
- One 3/8 UNC x 4 1/2" long Grade 5 shear bolts and hex nuts
- Four 7/8 UNC x 9" long hex bolts, lockwashers and hex nuts

Set-up the main frame on floor supports so that frame is level from side to side and fore to aft. The height of the frame should be supported to allow for the assembly of plow shanks and mold boards under frame.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any additional components.



Es necesario soportar el armazon principal suficientemente para soportar las armazon tambien con el pest de las otras adiciones del arado.

Remove the gauge wheel assembly from the end of the tool bar. Remove the mold board (with long sides) from the rear shank.

Attach the 1-bottom tool bar extension to the end of the main frame tool bar using (8) eight 3/4" UNC 3" long hex bolts, lockwashers and hex nuts. Refer to Figure 9.

Attach one new intermediate shank in the No. 7 position 28" to the rear of the No. 6 shank, using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts

Reattach the mold board assembly with long slides to the intermediate shank in the No. 7 position using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut.

Next, attach the two remaining mold board assemblies to the No. 6 shank using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut per shank.

Reattach the gauge wheel assembly to the end of the 1-bottom tool bar extension using the four (4) existing 3/4" UNC x 3" long hex bolts, lockwashers and hex nuts.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations section before operating plow.

INSTRUCTIONS FOR CHANGING MODEL 6306 TO MODEL 6308

Parts required to convert 6-Bottom Plow (Model 6306) to 8-Bottom (Model 6308)

- Two Intermediate mold board units
- Two Intermediate shanks
- One 2-Bottom tool bar extension
- Two 7/8 UNC x 5 1/2" long hex bolts and lock nuts
- Two 3/8 UNC x 4 1/2" long Grade 5 shear bolts and hex nut
- Eight 7/8 UNC x 9" long hex bolts, lockwashers and hex nuts
- One Counter balance valve kit.

Set-up the main frame on floor supports so that frame is level from side to side and fore to aft. The height of the frame should be supported to allow for the assembly of plow shanks and mold boards under frame.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any additional components.

Es necesario soportar el armazon principal suficientemente para soportar las armazon tambien con el pest de las otras adiciones del arado.

Remove the gauge wheel assembly from the end of the tool bar. Remove the mold board (with long sides) from the rear shank.

Attach the 1-bottom tool bar extension to the end of the main frame tool bar using (8) eight 3/4" UNC 3" long hex bolts, lockwashers and hex nuts. Refer to Figure 11.

Attach one new intermediate shank in the No. 7 position 28" to the rear of the No. 6 shank, using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts

Reattach the mold board assembly with long slides to the intermediate shank in the No. 7 position using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut.

Next, attach the three remaining mold board assemblies to the No. 5 and No. 6 shanks using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut per shank

Reattach the gauge wheel assembly to the end of the 1-bottom tool bar extension using the four (4) existing 3/4" UNC x 3" long hex bolts, lockwashers and hex nuts.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations section before operating plow.

The Model 6308 Switch Plow requires the use of a hydraulic counter balance valve that is mounted to the main frame hitch center mast. Attach the counter balance valve mounting bracket to the hitch center mast in the holes provided. Refer to Figure 2 on page 15.

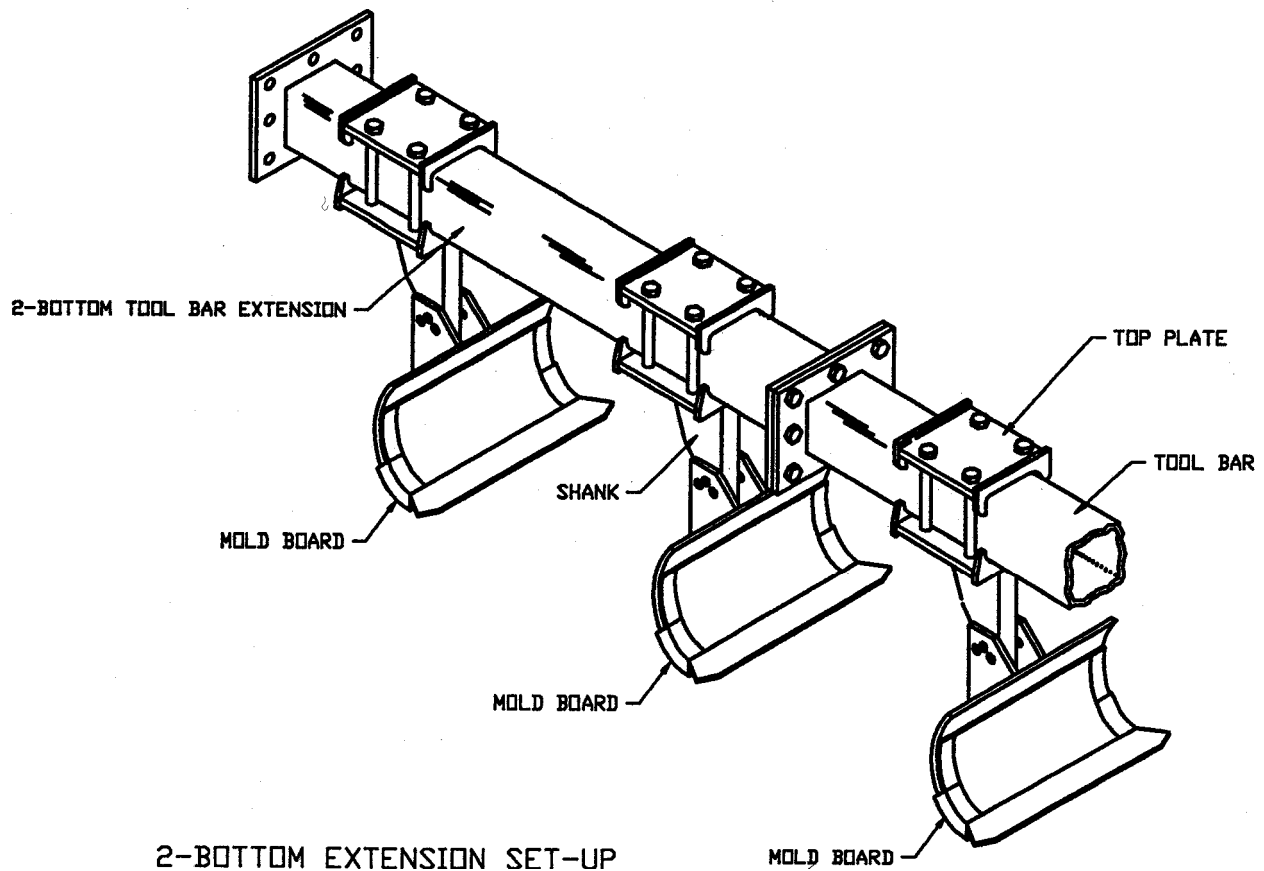
Disconnect the existing hydraulic hoses from the tractor and the hitch mast hose clamps. Remove fluid pressure from both lines.

Cut 52" from each hose and using the proper hydraulic press, install the four (4) hose swivels on each of the cut hose ends. Connect the (2) two hoses from the main pivot cylinder to the C1 and C2 ports on the counter balance valve.

(NOTE: Hose from cap end of main cylinder connects to port C1 and hose from rod end of main cylinder connects to the C2 port.)

Connect the new 52" hoses to the V1 and V2 ports on the counter balance valve and connect to the tractor hydraulic system ports. Secure the hoses to the existing hose clamps making sure there are no kinks or excessive twists.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations sections before operating the plow.



(FIGURE 11)

INSTRUCTIONS FOR CHANGING MODEL 6307 TO MODEL 6308

Parts required to convert 7-Bottom Plow (Model 6307) to 8-Bottom (Model 6308)

- One Intermediate mold board units
- One Intermediate shanks
- One 2-Bottom tool bar extension
- One 7/8 UNC x 5 1/2" long hex bolts and lock nuts
- One 3/8 UNC x 4 1/2" long Grade 5 shear bolts and hex nuts
- Four 7/8 UNC x 9" long hex bolts, lockwashers and hex nuts
- One Counter Balance valve kit

Set-up the main frame on floor supports so that frame is level from side to side and fore to aft. The height of the frame should be supported to allow for the assembly of plow shanks and mold boards under frame.

CAUTION:



The Main Frame should be supported by adequate floor supports that will support the weight of the frame and any additional components.

Es necesario soportar el arazon principal suficientemente para soportar las arazon tambien con el pest de las otras adiciones del arado.

Remove the gauge wheel assembly from the end of the tool bar. Remove the mold board (with long sides) from the rear shank.

Attach the 2-bottom tool bar extension to the end of the main frame tool bar using (8) eight 3/4" UNC 3" long hex bolts, lockwashers and hex nuts. Refer to Figure 10.

Attach one new intermediate shank in the No. 6 position 28" to the rear of the No. 6 shank, using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts. Next, attach the remaining intermediate shank in the No. 7 position 28" to the rear of the No. 6 shank using four (4) 7/8" UNC x 9" long Grade 5 hex bolts, lockwashers and hex nuts.

Reattach the mold board assembly with long slides to the intermediate shank in the No. 8 position using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut.

Next, attach the three remaining mold board assemblies to the No. 5 and No. 6 and No. 7 shanks using one (1) 7/8" UNC x 5 1/2" long hex bolt and lock nut and one (1) 3/8" UNC x 4 1/2" long Grade 5 shear bolt and hex nut per shank.

Reattach the gauge wheel assembly to the end of the 2-bottom tool bar extension using the four (4) existing 3/4" UNC x 3" long hex bolts, lockwashers and hex nuts.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations section before operating plow.

The Model 6308 Switch Plow requires the use of a hydraulic counter balance valve that is mounted to the main frame hitch center mast. Attach the counter balance valve mounting bracket to the hitch center mast in the holes provided. Refer to Figure 2 on page 15.

Disconnect the existing hydraulic hoses from the tractor and the hitch mast hose clamps. Remove fluid pressure from both lines.

Cut 52" from each hose and using the proper hydraulic press, install the four (4) hose swivels on each of the cut hose ends. Connect the (2) two hoses from the main pivot cylinder to the C1 and C2 ports on the counter balance valve.

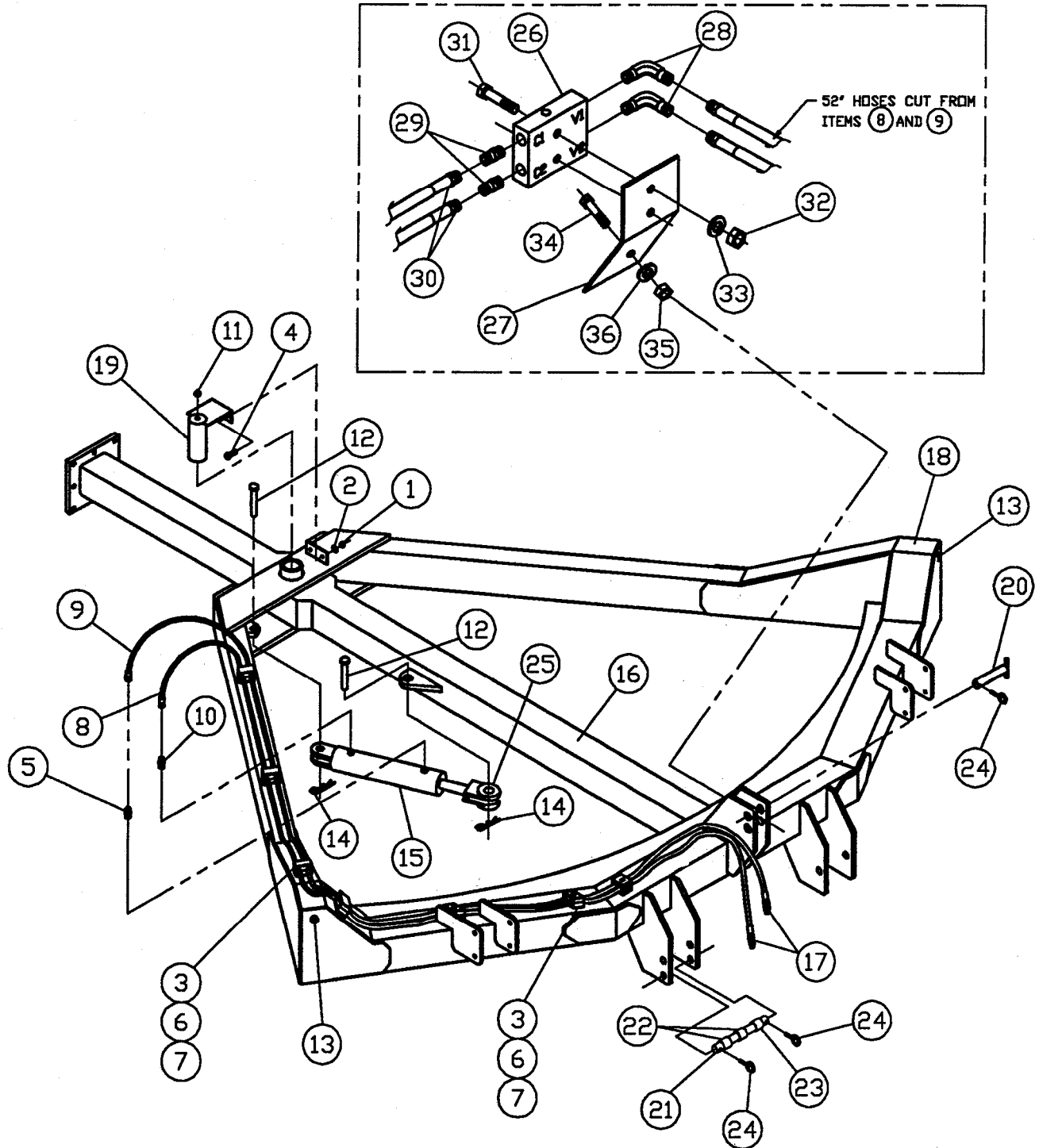
(NOTE: Hose from cap end of main cylinder connects to port C1 and hose from rod end of main cylinder connects to the C2 port.)

Connect the new 52" hoses to the V1 and V2 ports on the counter balance valve and connect to the tractor hydraulic system ports. Secure the hoses to the existing hose clamps making sure there are no kinks or excessive twists.

Raise main frame with tractor hitch and remove floor supports. Provide necessary lubrication and service to all pivot points before operating plow. Refer to pre-operations check list and start-up procedures in the operations sections before operating the plow.

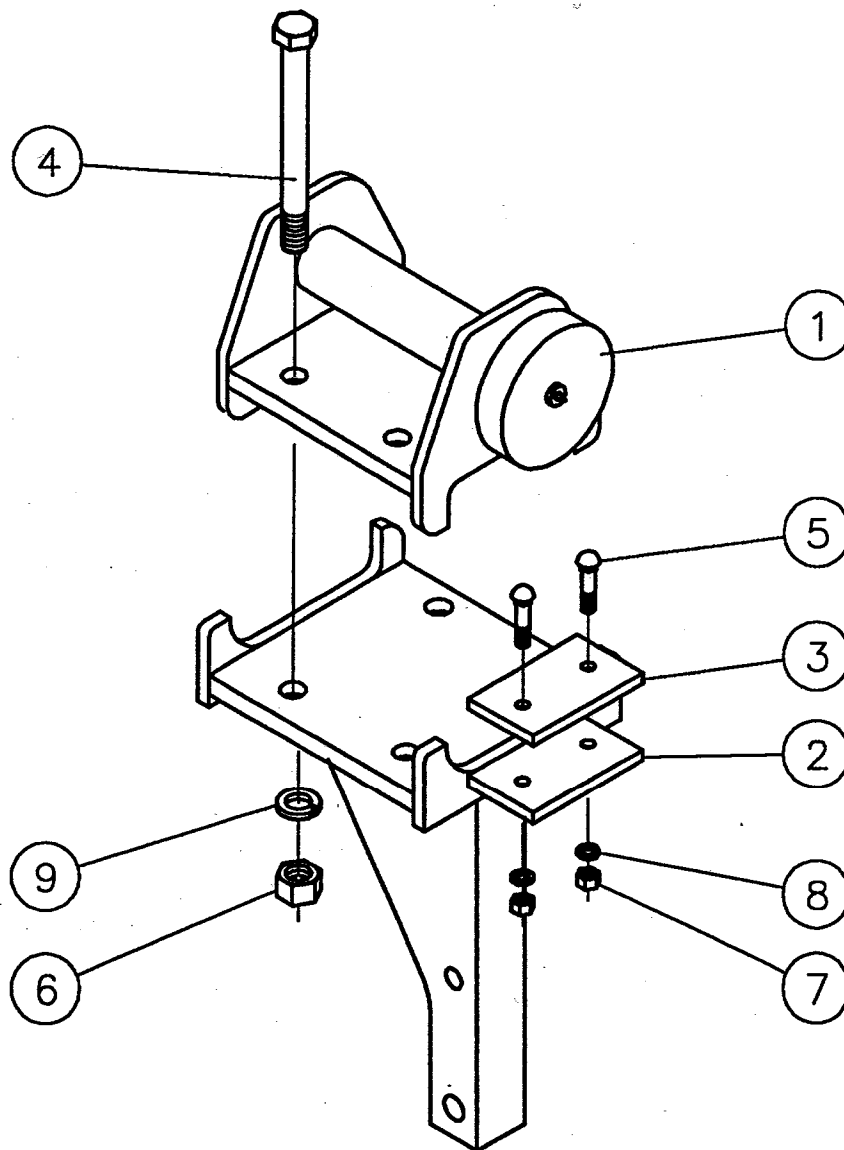
6300 SERIES MAIN FRAME AND TOOL BAR

REQUIRED ON 6308 ONLY



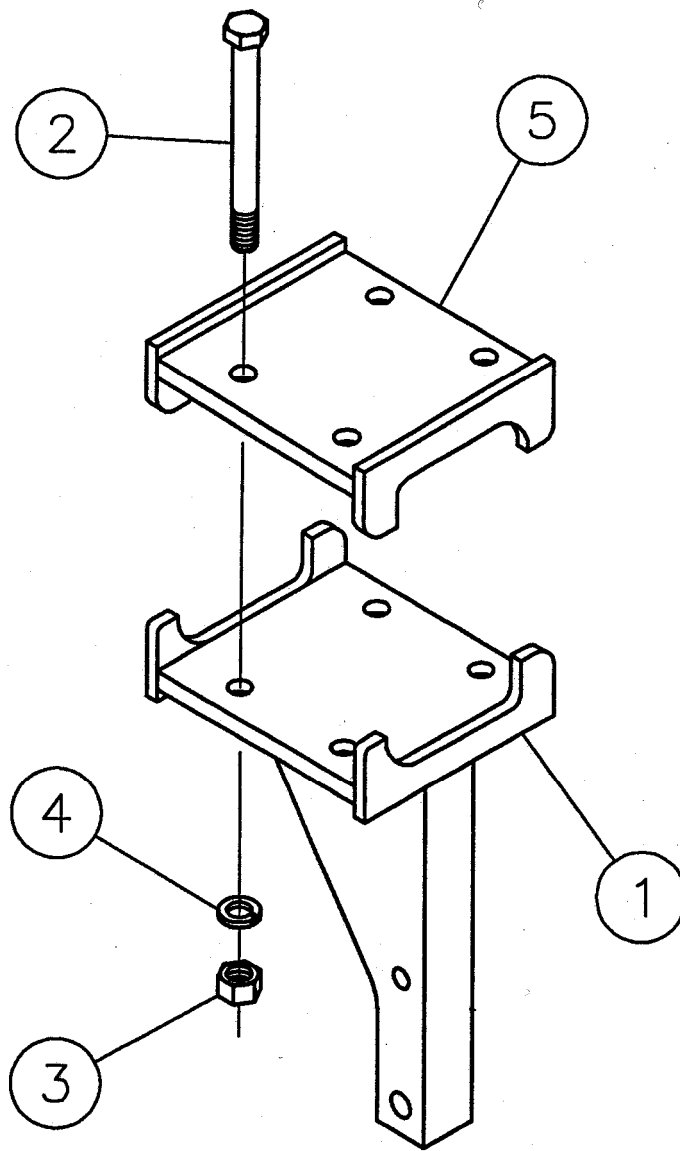
MAIN FRAME
84-001-63

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Hex Nut 3/8" UNC	0812-1200	2
2	Lockwasher 3/8" SAE	1602-1200	2
3	Hex Head Bolt 5/16" UNC x 1 3/8" Long	2816-1013	5
4	Hex Head Bolt 3/8" UNC x 1 1/2" Long	2816-1214	2
5	Male Connector	77-012-36	1
6	Top Plate 1/2" Twin Clamp	77-032-38	5
7	Hose Clamp Section 16mm	77-033-38	10
8	Hose Assembly 268"	79-001-32	1
9	Hose Assembly 280"	79-002-32	1
10	Adapter, Orificed St. Thread Male	79-003-32	1
11	Grease Fitting, 1/8" NPT	79-005-38	1
12	Clevis Pin 1" Dia. X 2 3/4" long	79-006-06	1
13	Reflector, Red Stick On	79-037-36	2
14	Hair Pin 3/16" Dia.	79-043-06	2
15	Cylinder 3 1/2" Bore x 14 1/2" Stroke	79-047-036	1
16	Tool Bar Weldment	85-005-63	1
17	Quick Disconnect Adapter	79-212-36	2
18	Main Frame Weldment	85-001-63	1
19	Tool Bar Pivot Pin	85-006-63	1
20	Upper Hitch Pin	79-1009-86	1
21	Lower Hitch Pin	96-015-36	2
22	Spacer Bushing	94-020-36	4
23	Spacer Bushing	94-021-36	2
24	Lynch Pin 7/16" Dia.	79-061-36	5
25	Adjustable Clevis	77-022-36	1
26	Clevis Pin 1" x 3 1/4"	79-051-36	1
27 N/S	Tool Bar Stop	85-012-63	2
28 N/S	Tool Bar Stop Pad	79-003-63	2
29 N/S	7/16 x 2" Plow Bolt	0315-1420	4
30 N/S	7/16 Nut	0812-1400	4



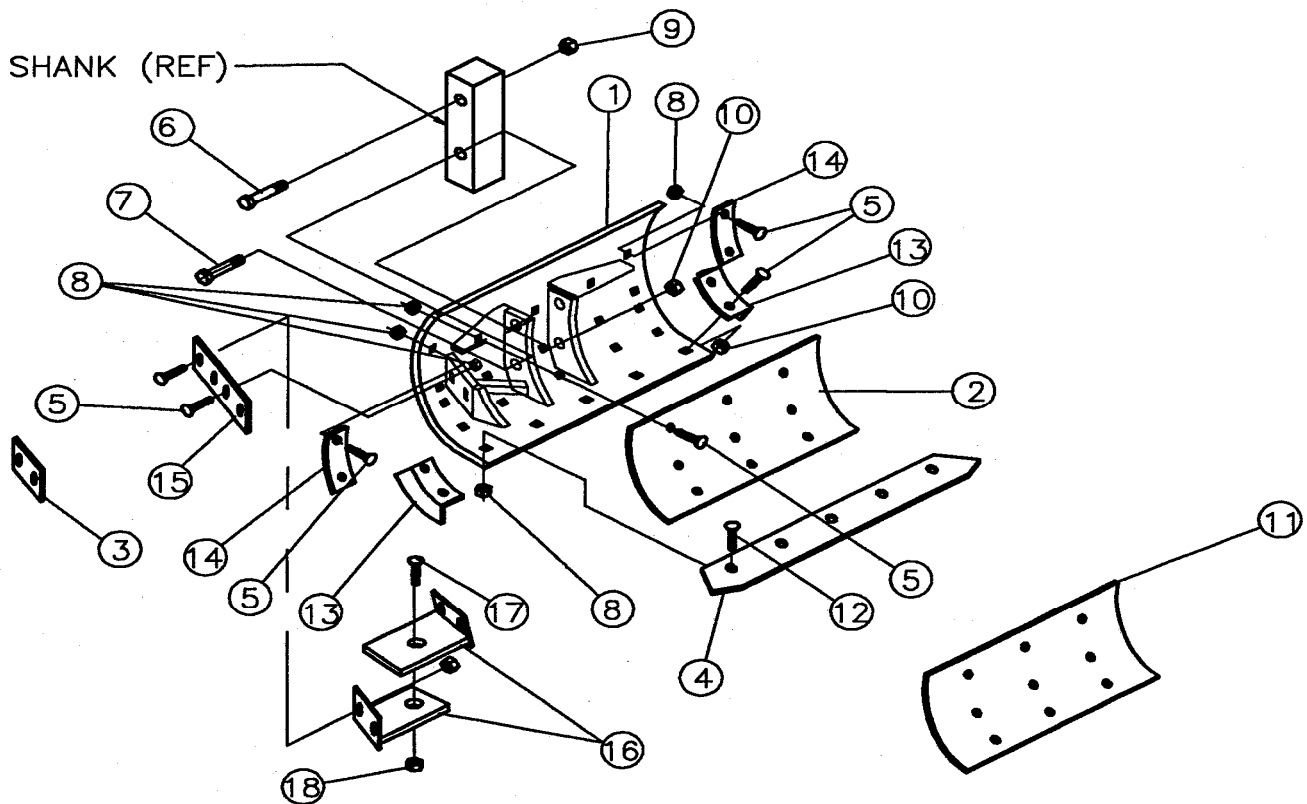
FRONT SHANK

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Tool Bar Pivot Roller	84-214-36	1
2	Lower Shank Section	85-224-36	1
3	Wear Pad – Steel	98-061-36	2
4	Hex Bolt 7/8 UNC x 9” Long Grade 5	2816-2890	4
5	Plow Bolt 7/16 UNC x 1 1/2” Long	0315-1414	2
6	Hex Nut 7/8 UNC	0812-2800	4
7	Hex Nut 7/16 UNC	0812-1400	2
8	Lock Washer 7/16” DIA	1602-1400	2
9	Lock Washer 7/8” DIA.	1620-2800	4



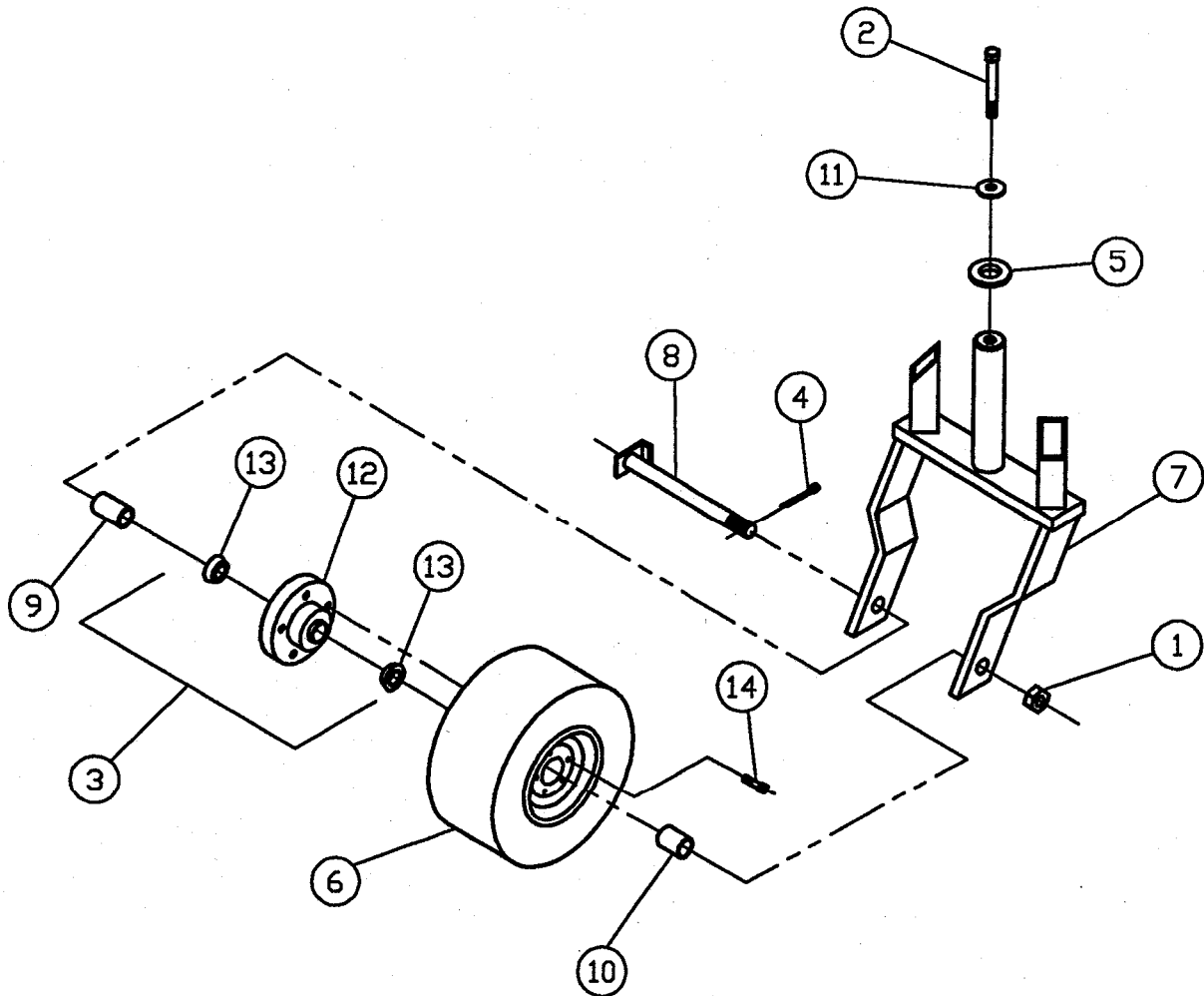
INTERMEDIATE SHANK ASSY

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Lower Shank Section	85-222-36	1
2	Hex Bolt 7/8" UNC x 9" Long Grade 5	2816-2890	4
3	Hex Nut 7/8" UNC	0812-2800	4
4	Lock Washer 7/8" DIA	1602-2800	4
5	Top Mounting Plate	85-017-36	1



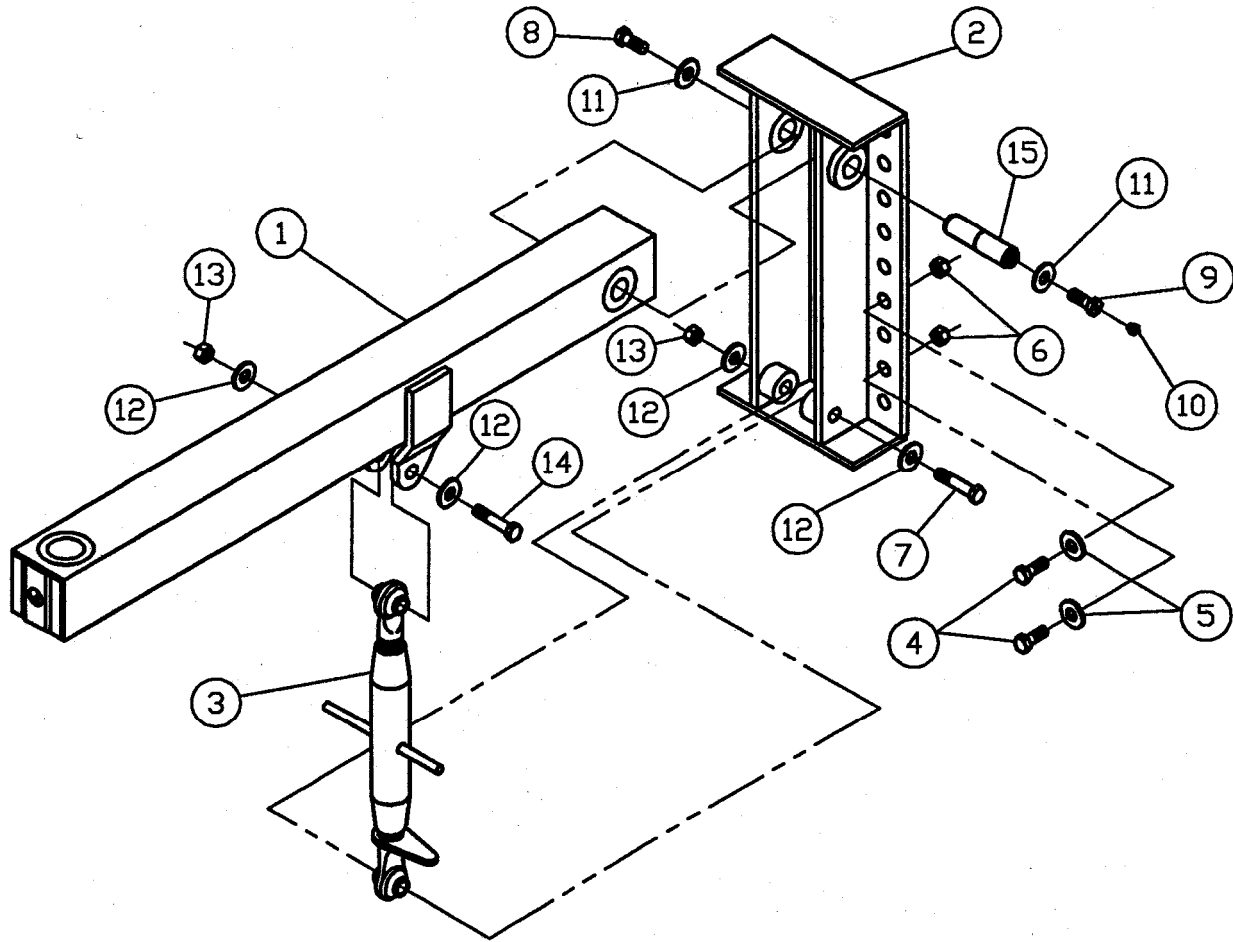
**MOLD BOARD WITH SHORT SLIDES
MOLD BOARD WITH LONG SLIDES**

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Mold Board	85-006-36	1
2	Steel Wing (Optional)	79-217-36	1
3	Small Slide – Standard	79-010-36	2
3	Small Slide – Multi-Life	79-204-36	2
4	Plow Point, Heat Treated (Standard)	79-006-36	1
4	Plow Point, Surface Hardened (Optional)	79-028-36	1
5	Plow Bolt 7/16" UNC x 1 1/2" Long	0315-1414	19
6	Hex Bolt 3/8" UNC x 4 1/2" Long Grade 5	2816-1244	1
7	Hex Bolt 7/8" UNC x 5 1/2" Long Grade 5	2816-2854	1
8	Hex Bolt 7/16" UNC	0812-1400	25
9	Hex Bolt 3/8" UNC	0812-1200	1
10	Hex Lock Nut 7/8" UNC	0912-2800	1
11	Plastic Wing	79-201-36	1
12	Plow Bolt 7/16" UNC x 2" Long	0315-1420	5
13	Wear Shin – Lower (Multi-Life)	79-208-36	2
14	Wear Shin – Upper	98-207-36	2
15	Long Slide – Standard (Steel)	79-206-36	2
15	Long Slide – (Optional) (Multi-Life)	79-205-36	2
16	Long Slide Brace	85-217-36	2
17	Hex Bolt 1/2" UNC x 1 1/2" Long	2816-1614	1
18	Hex Lock Nut 1/2" UNC	0912-1600	1
NS	Plow Bolt 7/16" UNC x 1 1/4" Long	0315-1412	1



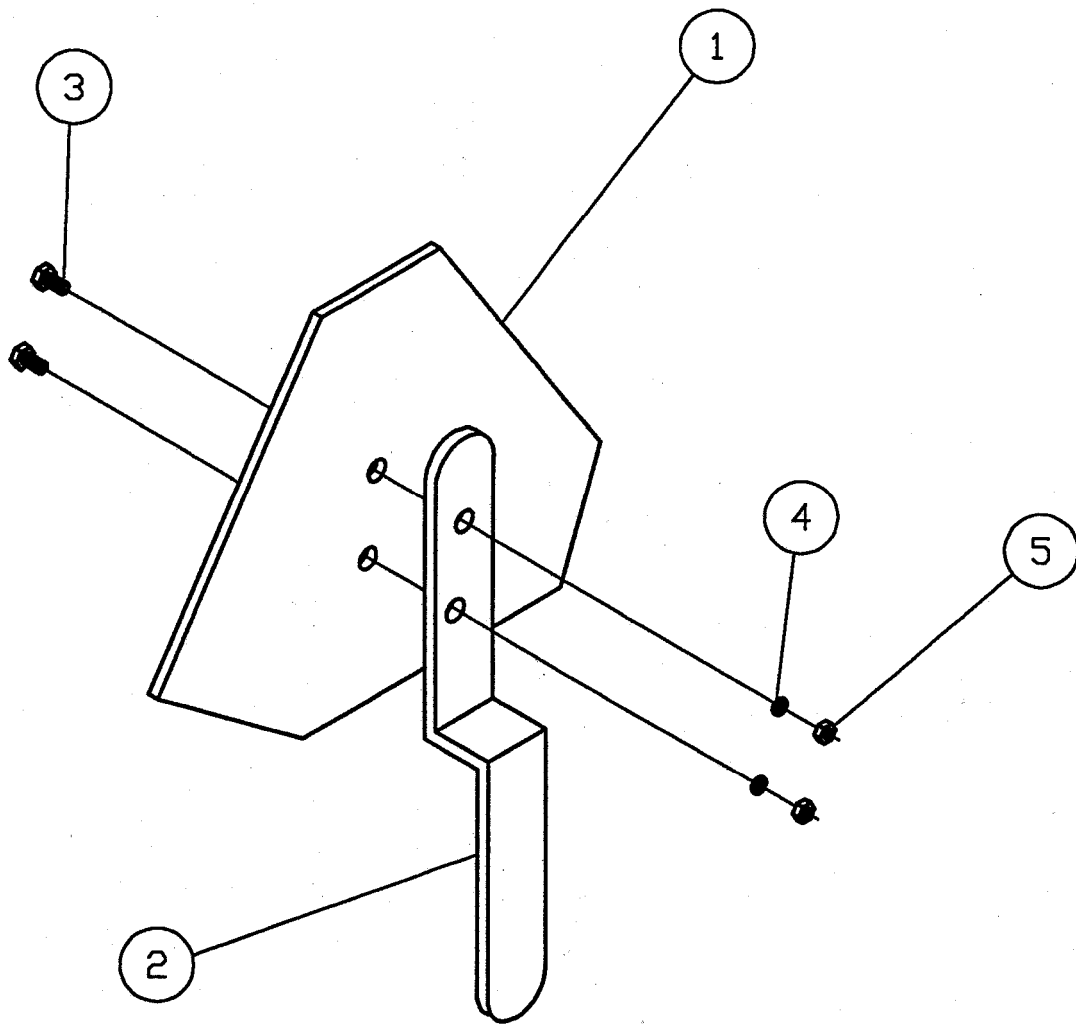
REAR GAUGE WHEEL 84-002-63

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Spindle Nut 1 1/2" UNC Slotted	1511-4800	1
2	Hex Bolt 3/4" UNC x 1 1/2" Long Grade 5	2816-2414	1
3	Hub Assembly w/out Spindle (inc. items 12-14)	79-001-63	1
4	Cotter Pin 5/32" DIA x 2 1/2" Long	79-002-63	1
5	Thrust Washer	79-005-36	1
6	Wheel and Tire Assembly	84-002-01	1
7	Gauge Wheel Yoke	85-003-63	1
8	Spindle Shaft	85-004-63	1
9	Spacer Bushing	94-013-63	1
10	Spacer Bushing	94-014-63	1
11	Cap Washer	96-005-63	1
12	Hub with Cups	77-001-63	1
13	Bearing	77-002-63	2
14	Hub Bolts 9/16" UNF	77-003-63	6



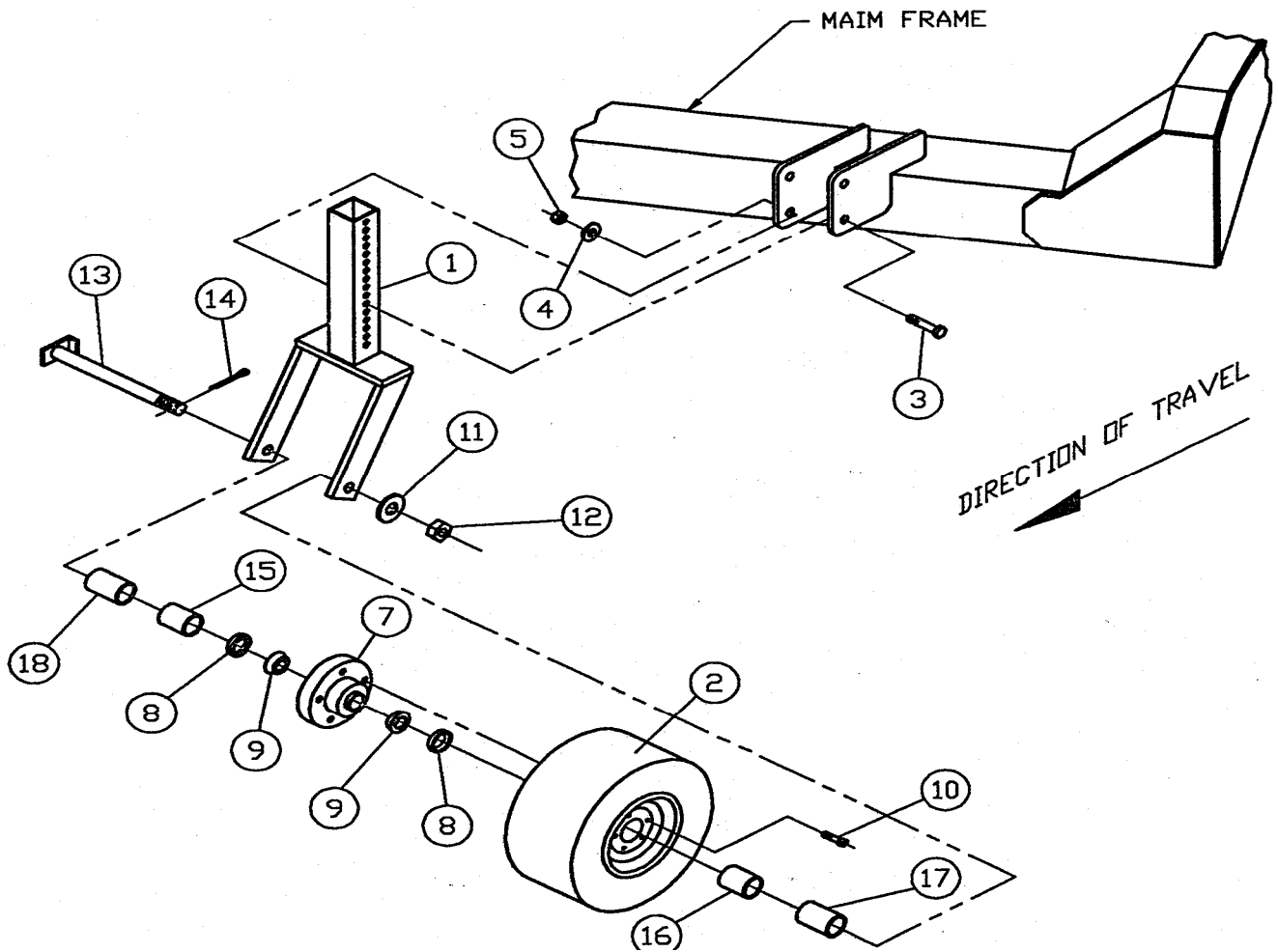
GAUGE WHEEL ARM ASSEMBLY
84-004-63

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Gauge Wheel Arm	85-007-63	1
2	Gauge Wheel Arm Mount	85-008-63	1
3	Gauge Wheel Arm Depth Adjuster	79-022-88	1
4	3/4" UNC x 3" Long Grade 5 Hex Bolt	2816-2430	6
5	3/4" SAE Lockwasher	1602-2400	6
6	3/4" UNC Hex Nut	0812-2400	6
7	3/4" UNC x 6 1/2" Long Grade 5 Hex Bolt	2816-2464	1
8	3/4" UNC x 1 1/2" Long Grade 5 Hex Bolt	2816-2414	1
9	3/4" UNC x 1 1/2" Long Hex Bolt w/Grease Fitting	79-214-28	1
10	Grease Fitting 1/8" NPT	79-005-38	1
11	Cap Washer	96-004-36	2
12	3/4" SAE Flatwasher	1702-2400	4
13	3/4" UNC Nylock Nut	0912-2400	2
14	3/4" UNC x 4" Long Hex Bolt	2816-2440	1
15	Gauge Wheel Pin	96-004-63	1
16	Gauge Wheel Arm Assembly (Inc. Items 1-15)	84-004-63	1



SMV WARNING SIGN

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Slow Moving Vehicle Sign	79-002-01	1
2	Mounting Bracket	98-035-36	1
3	Hex Bolt 1/4" UNC x 3/4" Long	2814-0806	2
4	Flat Washer 1/4" DIA	1702-0800	2
5	Hex Nut 1/4" UNC	0812-0800	2

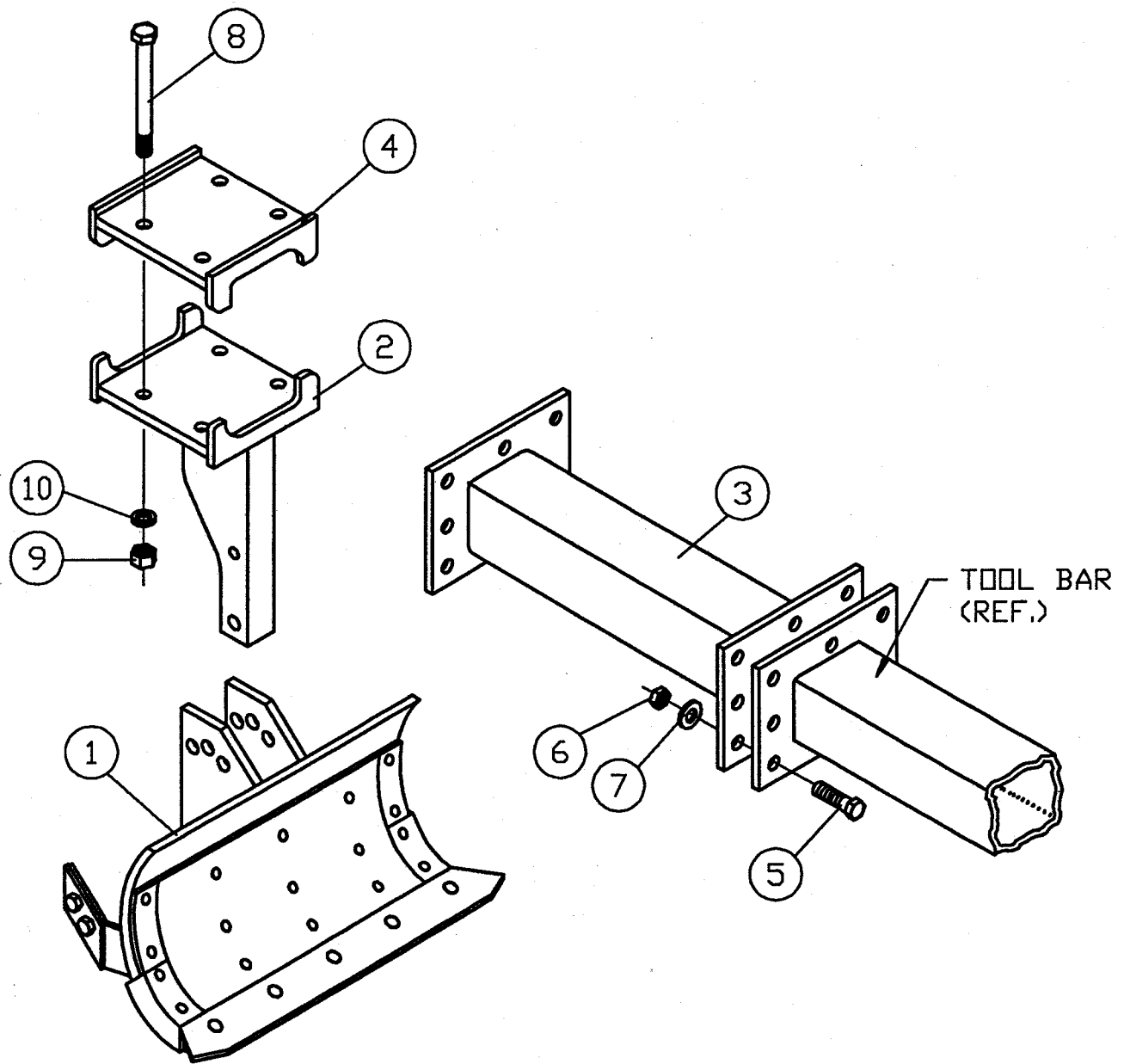


FRONT GAUGE WHEEL

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Yoke Weldment	85-030-63	1
2	Wheel & Tire Assembly	84-001-36	1
3	Hex Head Bolt ½ UNC x 3 ½" Long	2816-1634	2
4	Lock Washer ½" UNC	1602-1600	2
5	Hex Nut ½ UNC	0812-1600	2
6	Hub Assembly – Consisting of Items 7-14	79-027-36	1
7	Hub with Cups	77-001-36	1
8	Grease Seal	77-003-36	2
9	Bearing	77-045-88	2
10	Lug Bolt	77-009-36	5
11	Spindle Washer	77-007-36	1
12	Spindle Nut	1511-3200	1
13	Spindle Shaft	96-013-63	1
14	Cotter Pin	79-042-06	1
15	Seal Retainer	92-002-63	1
16	Seal Retainer	92-001-63	1
17	Bushing	94-019-63	1
18	Bushing	94-018-63	1
19 N/S	Plate, Gauge Wheel, Mounting	98-021-63	1

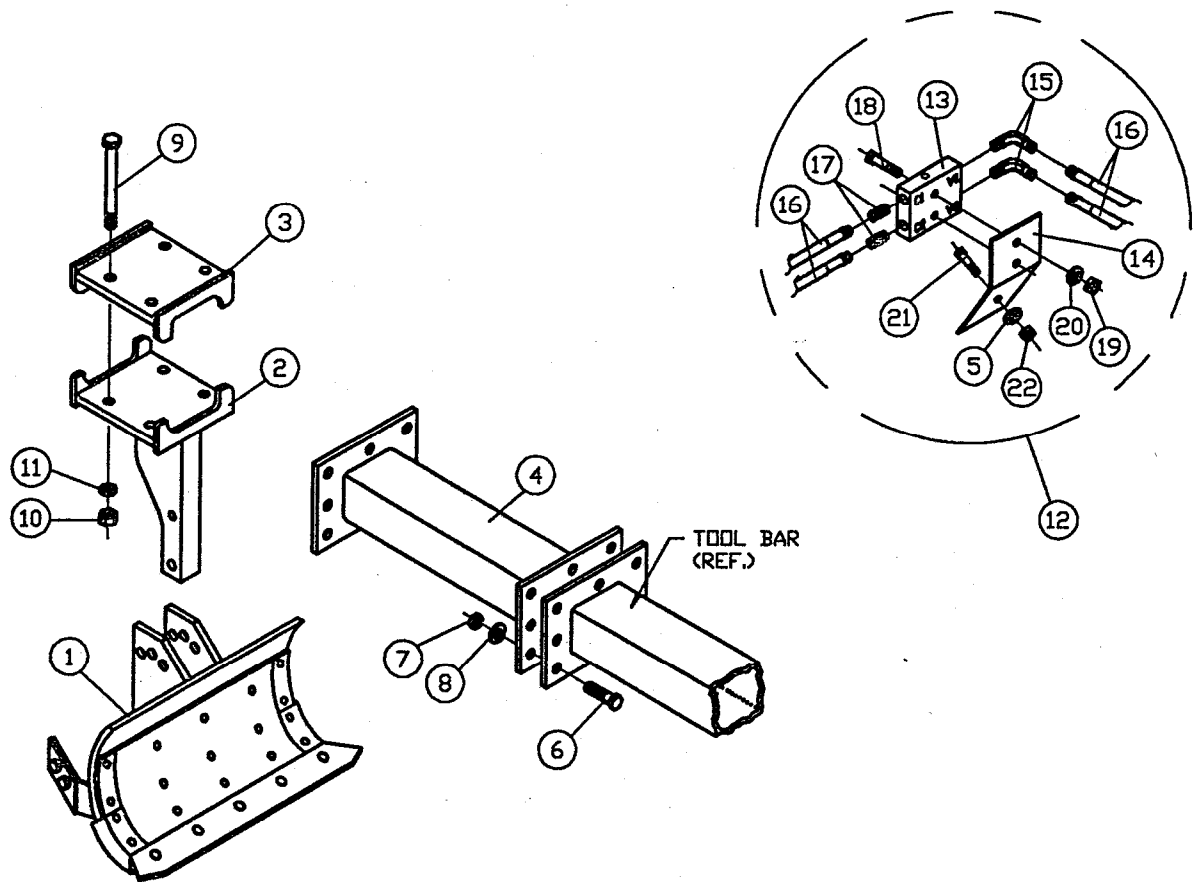
FRONT GAUGE WHEEL CONTINUED

20 N/S	Bolt ½" x 1 ½" Plate Mount	2816-1614	1
21 N/S	Nut ½" NYLOC Plate Mount	0912-1600	1
22 N/S	5/8" x 1 ¼" Bolt Spindle Mount	2816-2012	1



1-BOTTOM EXTENSION KIT

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Mold Board Bundle (Refer TO page 34)	83-003-36	1
2	Intermediate Shank (Refer to Page 40)	85-222-36	1
3	Tool Bar Extension	85-015-63	1
4	Top Mounting Plate	85-017-36	1
5	Hex Bolt $\frac{3}{4}$ " UNC x 3" Long Grade 5	2816-2430	8
6	Hex Nut $\frac{3}{4}$ " UNC	0812-2400	8
7	Lock Washer $\frac{3}{4}$ " UNC	1602-2400	8
8	Hex Head Bolt $\frac{7}{8}$ " UNC x 9" Long Grade 5	2816-2890	4
9	Hex Nut $\frac{7}{8}$ " UNC	0812-2800	4
10	Lock Washer $\frac{7}{8}$ " UNC	1602-2800	4



2-BOTTOM EXTENSION KIT

ITEM NO.	DESCRIPTION	PART NO.	NO. REQ'D
1	Mold Board	83-003-36	2
2	Intermediate Shank	85-222-36	2
3	Top Mounting Plate	85-017-36	2
4	Extension Tool Bar	85-014-63	1
5	Flat Washer 1/2" Dia.	1702-1600	2
6	Hex Bolt 3/4" UNC x 3" Long Grade 5	2816-2430	8
7	Hex Nut 3/4" UNC	0812-2400	8
8	Lock Washer 3/4" Dia.	1602-2400	8
9	Hex Head Bolt 7/8" UNC x 9" Long Grade 5	2816-2890	8
10	Hex Nut 7/8" UNC	0812-2800	4
11	Lock Washer 7/8" Dia.	1602-2800	4
12	Holding Valve Kit (inc. items 13-22)	72-205-36	1
13	Aluminum Block Holding Valve	79-201-28	1
14	Mounting Bracket	98-049-36	1
15	90° Male Elbow with O'Ring	79-209-28	2
16	Hose End Fitting	77-015-36	4
17	Male Adapter	79-211-36	2
18	Hex Bolt 3/8" UNC x 2 1/2" Long	2816-1224	2
19	Hex Nut 3/8" Dia.	0812-1200	2
20	Flat Washer 3/8" Dia.	1702-1200	4
21	Hex Bolt 1/2" UNC x 1 1/2" Long	2816-1614	2
22	Hex Nut 1/2" UNC	0812-1600	2

MACHINE IMPROVEMENTS

The Manufacturer reserves the right to make changes and improvements in the product at any time without notice. The Manufacturer shall not be obligated to incorporate such changes and improvements in products previously sold to any customer, nor shall the Manufacturer be obligated to replace previously sold products with customers incorporating such changes and improvements.

MAINTENANCE RECORD

DATE SERVICED	SERVICE PERFORMED	PARTS REPLACED