

MAINTENANCE & OPERATING INSTRUCTIONS

For DIXON "BAYCO"

LGH5000 SERIES Guard Bar Hinge

Model Numbers

LGH5000 HORIZONTAL AIR INTERLOCK
LGH5000-001 VERTICAL AIR INTERLOCK
LGH5000API MOUNT TO API FLANGE

For Sales & Service Contact

USA:

Dixon Bayco USA
Chestertown, Maryland
Phone: 410-778-2000
Fax: 410-778-4702
Toll Free: 800-355-1991
E-mail: dixonbayco@dixonvalve.com
www.dixonbayco.com

Canada:

Dixon Group Canada Limited
Innisfil (Barrie), Ontario
Phone: 705-436-1125
Fax: 705-436-6251
Toll Free: 877-963-4966
E-mail: jsales@dixongroupcanada.com
www.dixongroupcanada.com

Mexico:

Dixva, S. de R.L. de C.V.
Monterrey, N.L.
Phone: 01-800-00-DIXON (34966)
Fax: 01-81-8354-8197
E-mail: contactenos@dixonvalve.com.mx
www.dixonvalve.com

Europe:

Dixon Group Europe Ltd
Preston, England
Phone: +44 (0)1772 323529
Fax: +44 (0)1772 314664
E-mail: enquiries@dixoneurope.co.uk
www.dixoneurope.co.uk

Asia Pacific:

Dixon (Asia Pacific) Pty Ltd
Wingfield, South Australia
Phone: +61 8 8202 6000
Fax: +61 8 8202 6099
E-mail: enquiries@dixonvalve.com.au
www.dixonvalve.com.au

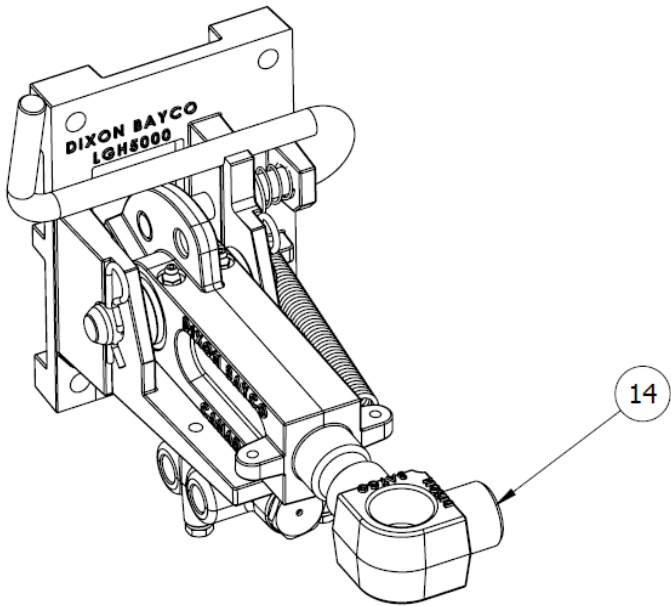


The Right Connection®

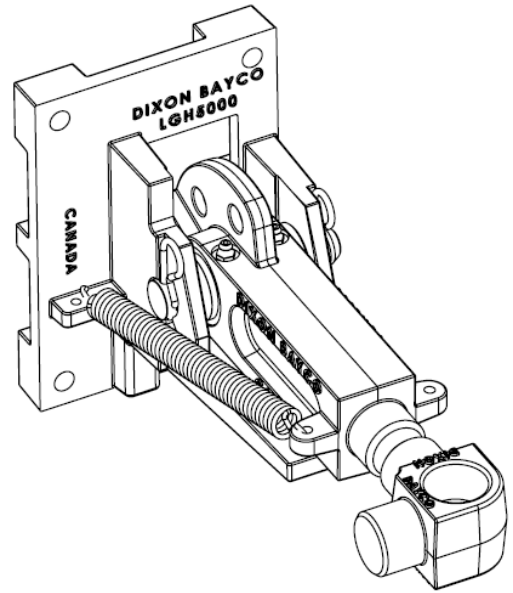
Bill of Materials			Q'ty of Components per Unit			Q'ty of Components per Kit			
Item #	Description	Part #	LGH5000	LGH5000-001	LGH5000API	LGH5000K1	LGH5000K2	LGH5000K3	LGH5000K4
1A	Left Bracket	341830	1	-	-				
1B	Left Bracket	341922	-	1	-				
1C	Left Bracket	341923	-	-	1				
2A	Left Arm	341828	1	1	-			1	
2B	Left Arm	341925	-	-	1				
3A	Right Bracket	341831	1	1	-				
3B	Right Bracket	341824	-	-	1				
4A	Right Arm	341829	1	1	-				1
4B	Right Arm	341926	-	-	1				
5	Locking Spring	112273	1	1	1				
6	Washer	112274	1	1	1				
7	Slotted Pin	112275	1	1	1				
8	Shaft	391851	2	2	2				
9	Spacer	391861	4	4	4				
10	Tension Spring	112276	2	2	2				
11	Hitch Pin Clip	112278	4	4	4				
12	Roller	391852	1	-	1		1	1	
13	Nylon Locknut	112279	1	-	1		1	1	
14A	Elbow	242047	2	2	-			1	1
14B	Elbow	242128	-	-	2				
15	Shoulder Bolt	112250	1	-	1		1	1	
16	Wave Washer	112251	1	-	1		1	1	
17	Washer	112252	1	-	1		1	1	
18	Bearing	111557	4	4	4	4		4	4
19	Grease Fitting	111561	4	4	4	4		4	4
20	O-Ring	110697	4	4	4	4		4	4
21	Locking Rod	112272	1	1	1				
22	AI Bracket	391873	-	1	-				
23	Screw	110793	-	4	-				
24	Lock Washer	110928	-	6	-				
25	Flat Washer	110927	-	6	-				
26	Hex Head Screw	112553	-	2	-				
27	Hex Nut	NUT.25HX-SS	-	2	-				

Repair Kits

Part #	Description
LGH5000K1	Bearing Set for all models
LGH5000K2	Roller Set for LGH5000 and LGH5000API
LGH5000K3	Left Arm Set for LGH5000
LGH5000K4	Right Arm Set for LGH5000 and LGH5000-001



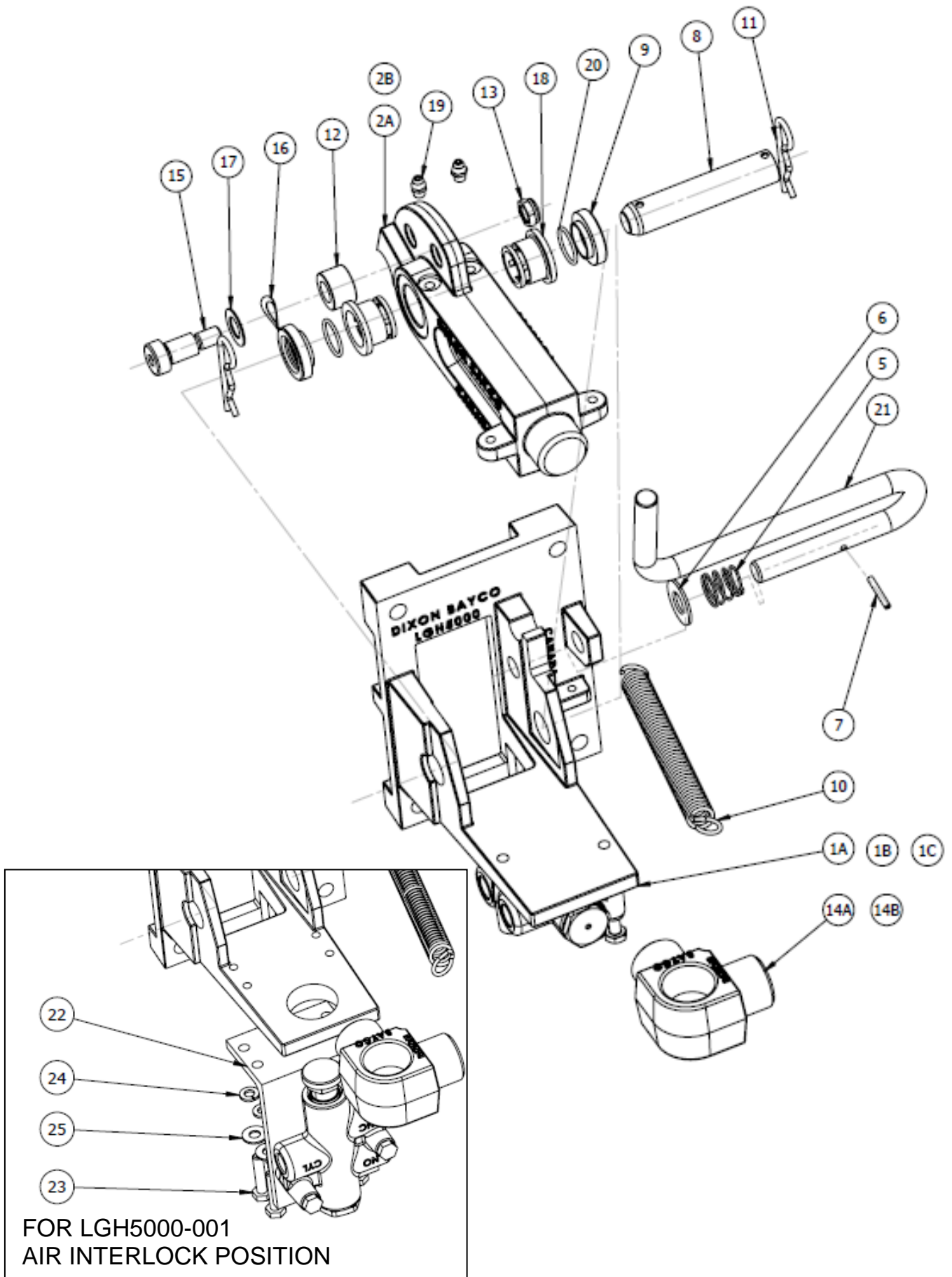
LEFT
SUBASSEMBLY



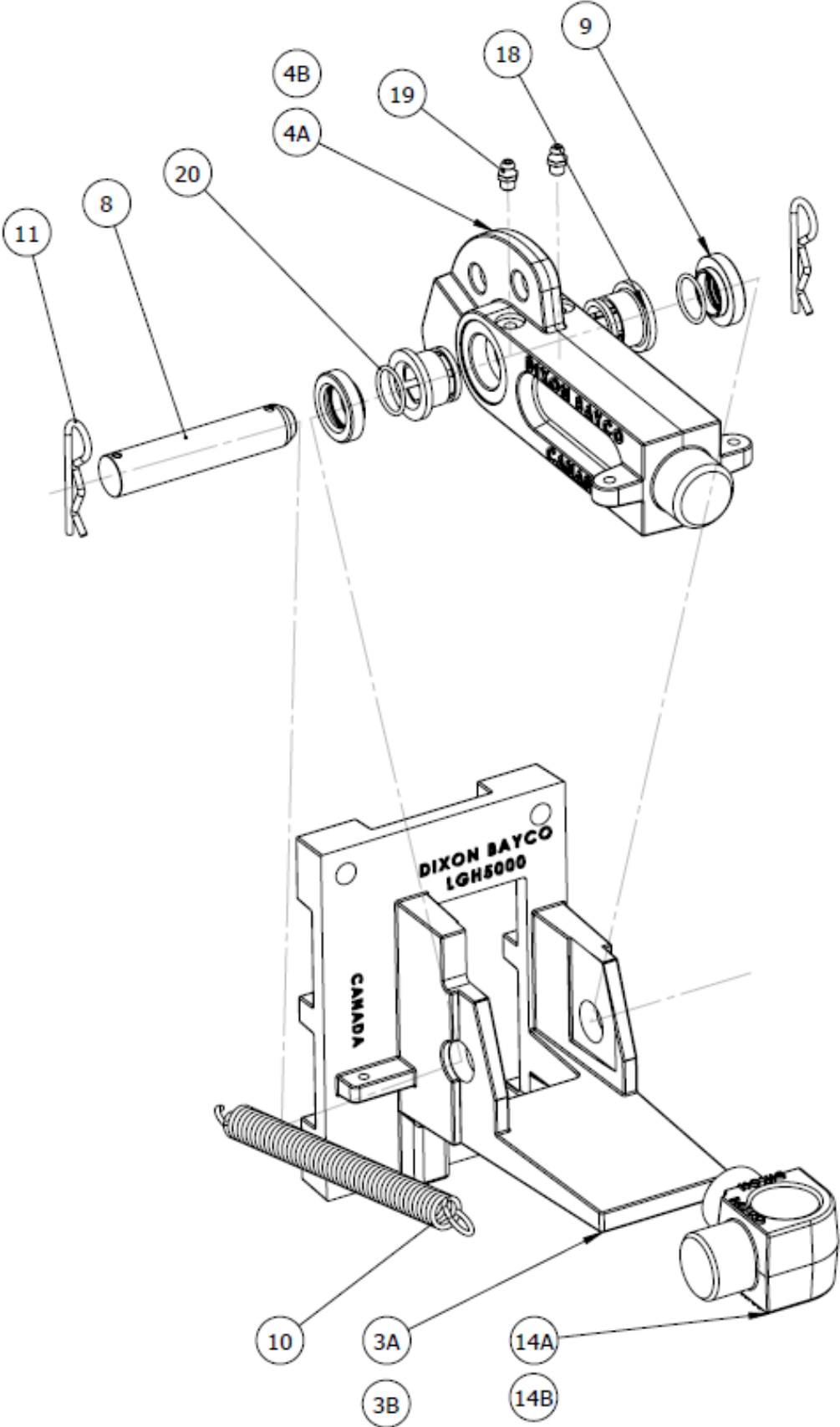
RIGHT
SUBASSEMBLY

LGH5000 GUARD BAR HINGE – COMPLETE SET
(The 5000AIHD valve and fasteners must be ordered separately.)

LEFT SUBASSEMBLY WITH ELBOW (14)



RIGHT SUBASSEMBLY WITH ELBOW (14)



These instructions and recommendations are provided to ensure proper operation and long service life of the Dixon “Bayco” guard bar hinge. Parts are identified by the item numbers on the assembly drawings and parts list.

The Dixon “Bayco” guard bar hinge set includes a left subassembly and a right subassembly, which are pre-assembled in the factory. The guard bar hinge set includes two elbows (14) that can be welded onto the guard bars or tubes. The guard bars or tubes are supplied and welded on site by the customer.

The Dixon “Bayco” 5000AIHD is a high flow air interlock valve. It is to be used with the Dixon “Bayco” guard bar hinge to provide a pneumatic control signal when the guard bar is raised. The 5000AIHD valve is to be mounted underneath the left bracket (1). For model LGH5000 and LGH5000API, the plunger of the 5000AIHD is horizontal and slightly downward to prevent the water and debris from getting into the valve. For LGH5000-001, the 5000AIHD is mounted vertically and will switch the air as soon as the guard bar is lifted. ***The 5000AIHD and mounting fasteners are sold separately.***

Please check all parts before installation. Contact Dixon Sales & Service if there are any missing or damaged parts.

DISASSEMBLING AND ASSEMBLING:

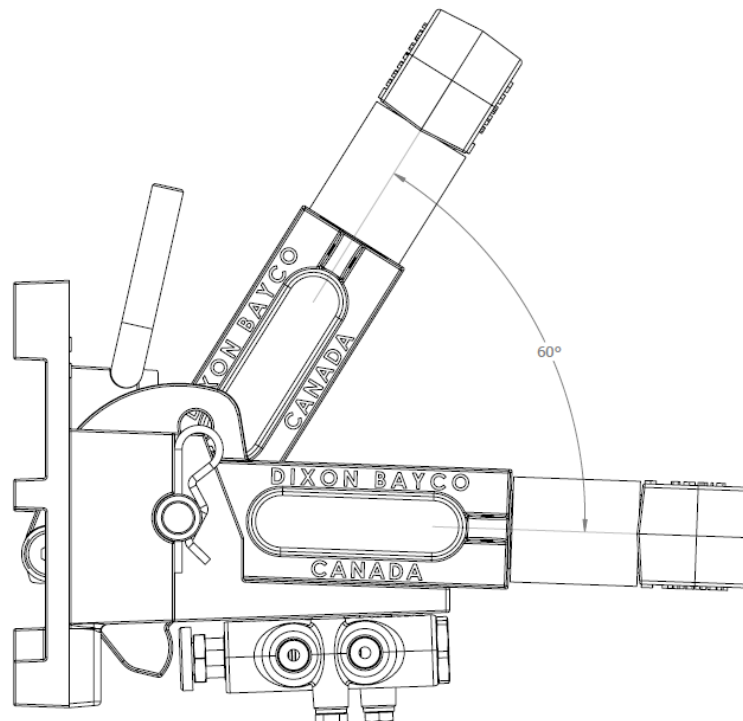
1. Remove the tension springs (10) from the left assembly and right subassembly. Remove the hitch pin clips (11) from the shafts (8). Remove the shafts (8) from the left bracket (1) and the right bracket (3). Remove the arms (2 and 4) from the brackets (1 and 3). Push and hold the locking rod (21) to unlock the left arm (2) when removing the left arm (2). Remove the spacers (9), the O-rings (20) and the bearings (18) from the arms (2 and 4). For the left arm (2) of LGH5000 and LGH5000API, remove the Nylon locknut (13), the shoulder bolt (15), the roller (12), the wave washer (16) and the flat washer (17). Collect all loose parts for re-installation.
2. Mount the brackets (1 and 3) onto the tanker structure or API flange. Weld the guard bars or tubes onto the arms (2 and 4). The customer is responsible for selecting and installing the proper guard bar tube size, and hinge alignment during drilling, welding and installation.
3. For the left arm (2) of LGH5000 and LGH5000API, install the roller (12), the shoulder bolt (15), the wave washer (16), the flat washer (17) and the Nylon locknut (13). Apply grease to the roller (12) and the shoulder bolt (15). Tighten the Nylon locknut (13) by wrenches. For all models, install and tighten the grease fittings (19) onto both arms (2 and 4) by a wrench. Install the bearings (18), the spacers (9) and the O-rings (20) back into the arms (2 and 4). Install the arms (2 and 4) back onto the brackets (1 and 3) through the shafts (8). Install the hitch clip pins (11). Charge the arms (2 and 4) with bearing grease through the 4 grease fittings (19). A 3/8” OD charging fitting should be used.

4. For LGH5000 and LGH5000API, install the 5000AIHD (purchased separately) horizontally onto the bottom of the left bracket (1) through the threaded holes on the left bracket (1). The button of the 5000AIHD should face the roller (12) on the left arm (2). For LGH5000-001, install the 5000AIHD vertically onto the AI bracket (22) and install the AI bracket (22) with the 5000AIHD to the left bracket (1). The button of the 5000AIHD should face up.
5. Install the tension springs (10) to link the arms (2 and 4) to the brackets (1 and 3). Check the swing action to make sure there are no obstructions. Check and operate the locking rod (21) to make sure that it can properly lock and unlock the left arm (2), when the guard bar is up and down.

OPERATION:

To open the guard bar for hose connection, push and hold the locking rod (21) out of the locking hole on the left arm (2) and lift the guard bar. Release the locking rod (21). The locking rod (21) will retract into the other hole on the left arm (2). The guard bar will be locked in place.

After the hoses are disconnected, hold the guard bar, push and hold the lock rod (21) out of the locking hole on the left arm (2). Swing the guard bar back so the arms (2 and 4) rest on the brackets (1 and 3). Release the locking rod (21) and it will retract into the other hole on the left arm (2). The guard bar will be locked in place.



MAINTENANCE:

Examine the threaded connections regularly to make sure all fasteners are tight. Visually check the parts, for signs of wear and tear. Using a grease gun, apply grease on regular basis to the grease fittings (19) on both hinges. If the guard bar does not swing smoothly, disassemble the hinges to check the condition of the bearings (18) and O-rings (20). Replace any worn or damaged parts.

DIXON WARRANTY:

For Warranty Information, please refer to the inside back cover of the latest Dixon Catalogue.