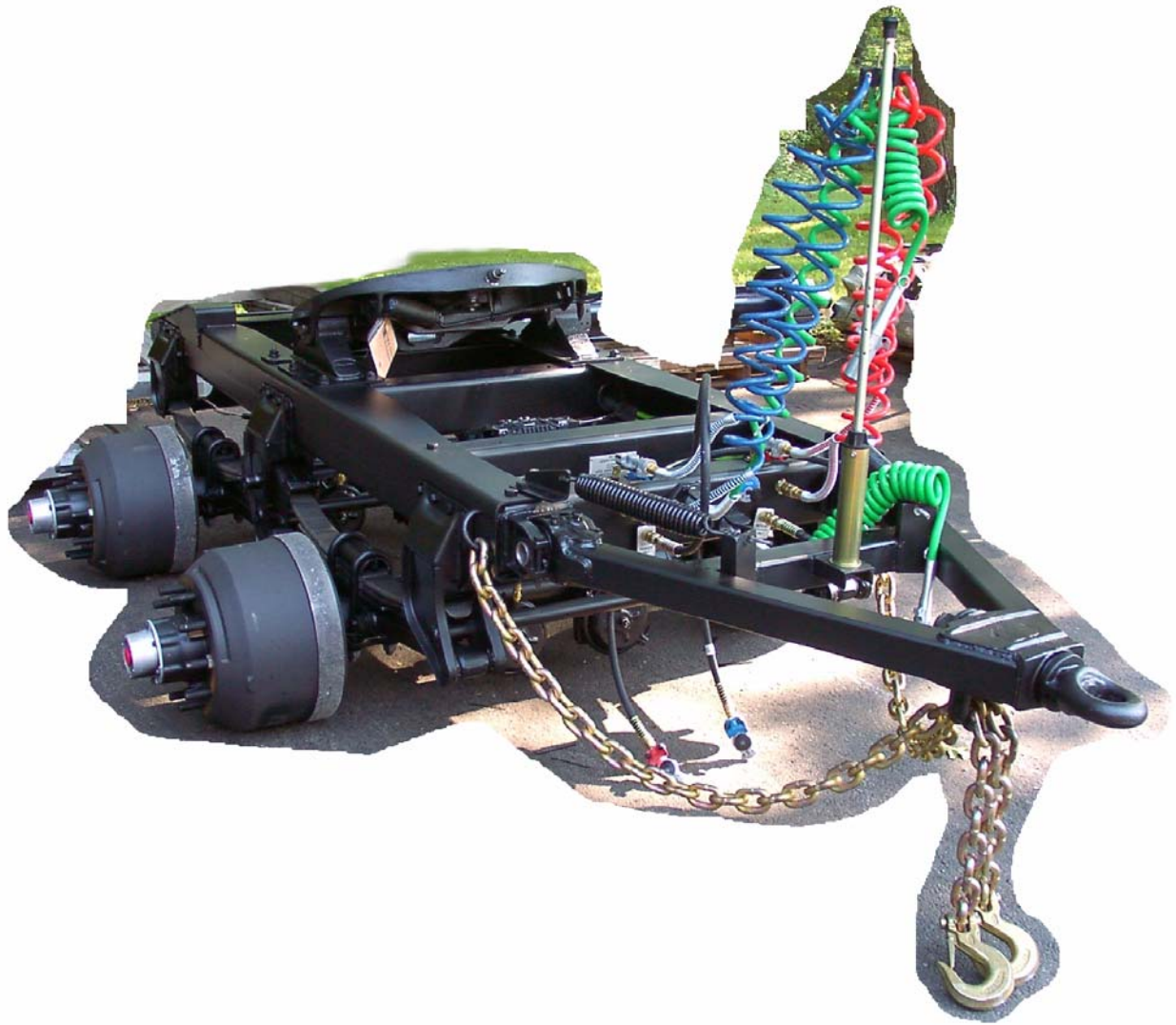
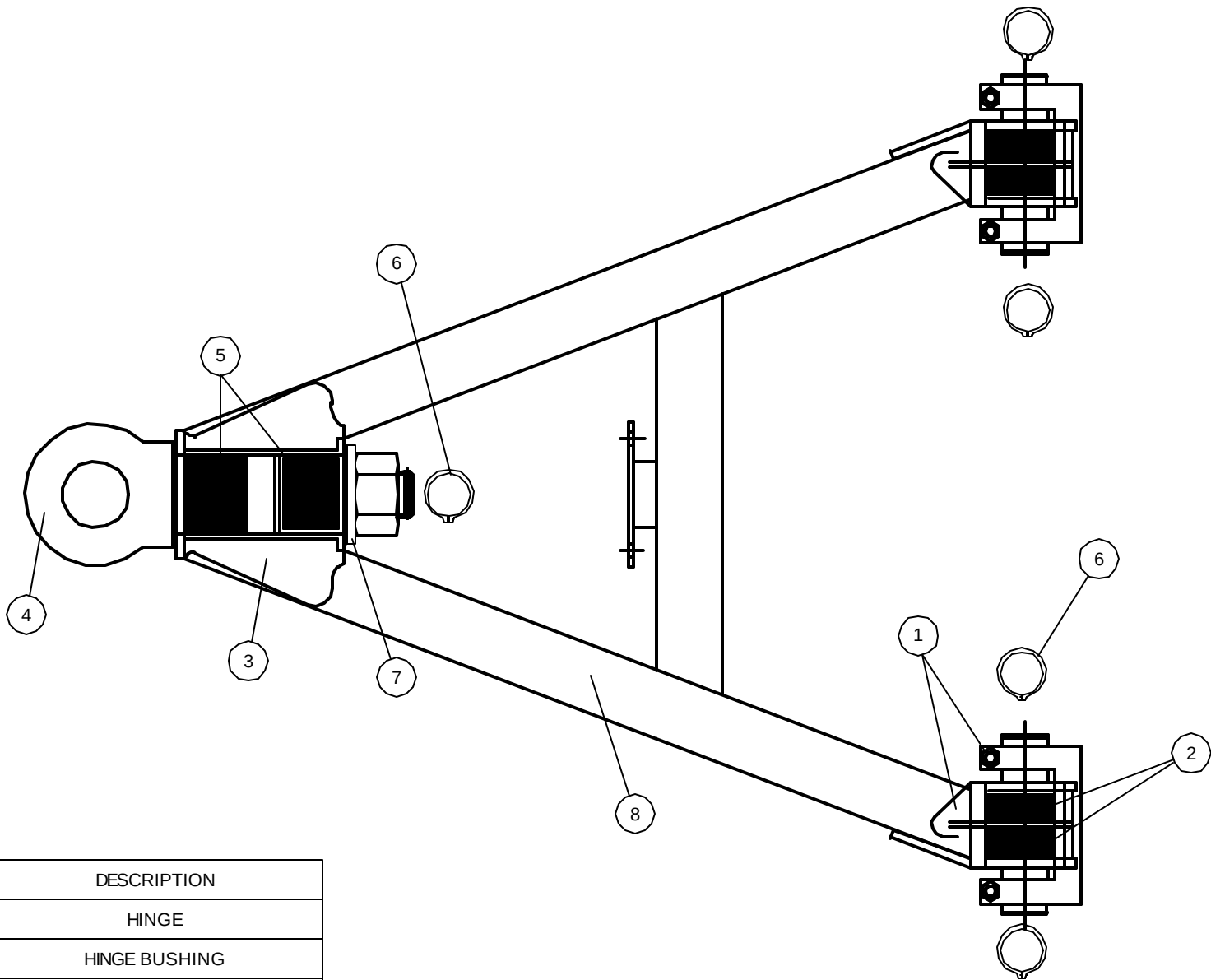


KWIK-LOC TANDEM DOLLIE PARTS MANUAL CRAFTSMEN TRAILER, LLC. 2007





ITEM	QTY.	PART NO.	DESCRIPTION
1	2	662300	HINGE
2	4	662308	HINGE BUSHING
3	1	662301	FRONT END
4	1	662302	EYE
5	2	662304	EYE BUSHING
6	5	662310	SNAP RING
7	1	662304	EYE BUSHING
6	5	662310	SNAP RING
7	1	662314	WASHER

1

DRAWBAR ASSEMBLY

KWIK LOC

SIZE	DATE	DWG NO	REV
	03/15/2005	662312	A

WARNING

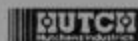
SAFETY ALERT! (1) FOLLOW ALL TORQUE REQUIREMENTS. (2) DO NOT USE ANY COMPONENT WITH VISIBLY WORN OR DAMAGED THREADS. FAILURE TO FOLLOW THESE SAFETY ALERTS CAN LEAD TO LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH.

Hutchens Suspension Torque Requirements 9600-9700 Series (Decal Part Number 16086-01 Rev. G)

After an initial break in period, approximately 1000 miles, and at least every 4 months periodically thereafter, ALL bolts and nuts should be checked to insure that recommended torque values are being maintained.

Oiled torque values listed are for new fasteners with lubricated threads. It is recommended that new installations be performed with oiled fasteners. For dry threads which have been in service, use the higher torque values which are noted below.

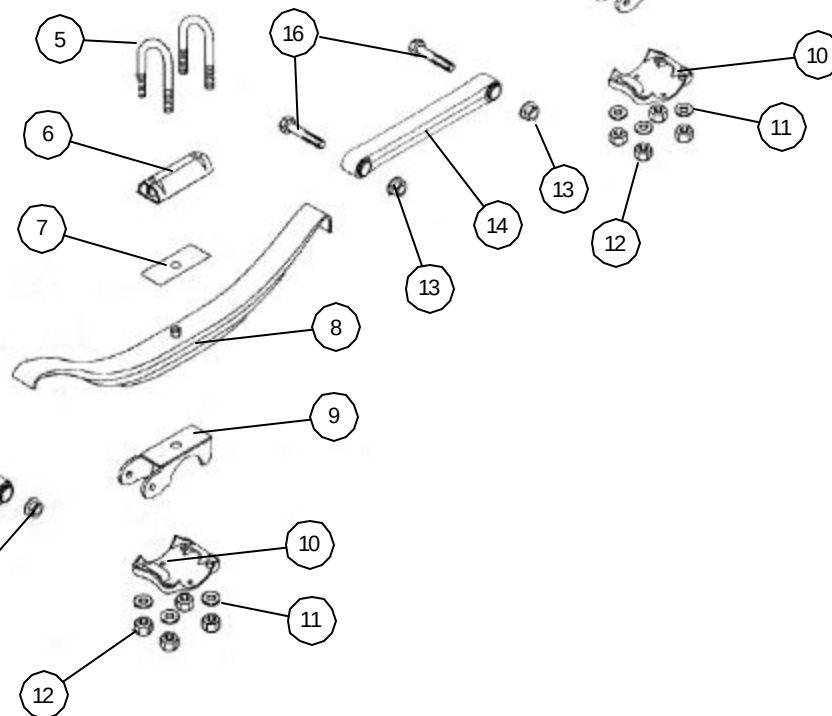
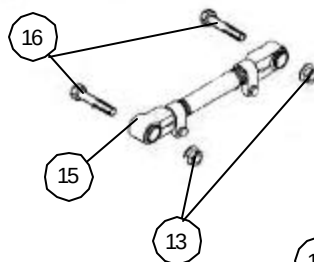
	OILED	DRY
1 1/8-7 (9600 / 9700 Rocker Bolt)	590 lb-ft	790 lb-ft
1-14 or 1-8 (9700 Radius Rod Bolt)	540 lb-ft	720 lb-ft
7/8-14 (Axle U-Bolts & 9600 Radius Rod Bolt)	350 lb-ft	470 lb-ft
3/4-16 (Axle U-Bolts)	310 lb-ft	420 lb-ft
5/8-18 (Radius Rod Clamp Bolt)	130 lb-ft	170 lb-ft
5/8-18 (Spring Retainer Bolt)	35 lb-ft	50 lb-ft



Hutchens Industries, Inc., P.O. Box 1427, Springfield, Missouri 65801-1427 Toll Free 1 (800) 654-8824

1

ITEM	QTY.	PART NO.	DESCRIPTION
1	1		TORQUE SPEC. DECAL
2	1	7701-07	LH FORWARD HGR. ASSM.
-	1	7701-08	RH FORWARD HGR. ASSM.
3	2	16319-07	CENTER ROCKER ASSM.
4	1	7703-07	LH REAR HGR. ASSM.
-	1	7703-08	RH REAR HGR. ASSM.
5	8	7040-08	U-BOLT 10 3/4"
6	4	471371	TOP PLATE
7	4	471551	WEAR PAD
8	4	355-00	SPRING #355, 3 LEAF MID
9	4	471451	SEAT 3/4"
10	4	471421	LOWER PLATE
11	16	471431	FLAT WASHER, U-BOLT
12	16	471441	NUT, 7/8" U-BOLT
13	8	471411	FLANGE LOCKNUT 1"
14	2	471391	TORQUE ARM, FIXED
15	2	471381	TORQUE ARM, ADJ.
16	8	471401	BOLT, TORQUE ARM



2

SUSPENSION, TANDEM, H9700 SERIES

KWIK LOC

SIZE	FSCM NO	DWG NO	REV
		660971	
SCALE	NONE	G30018	SHEET 1 OF 1

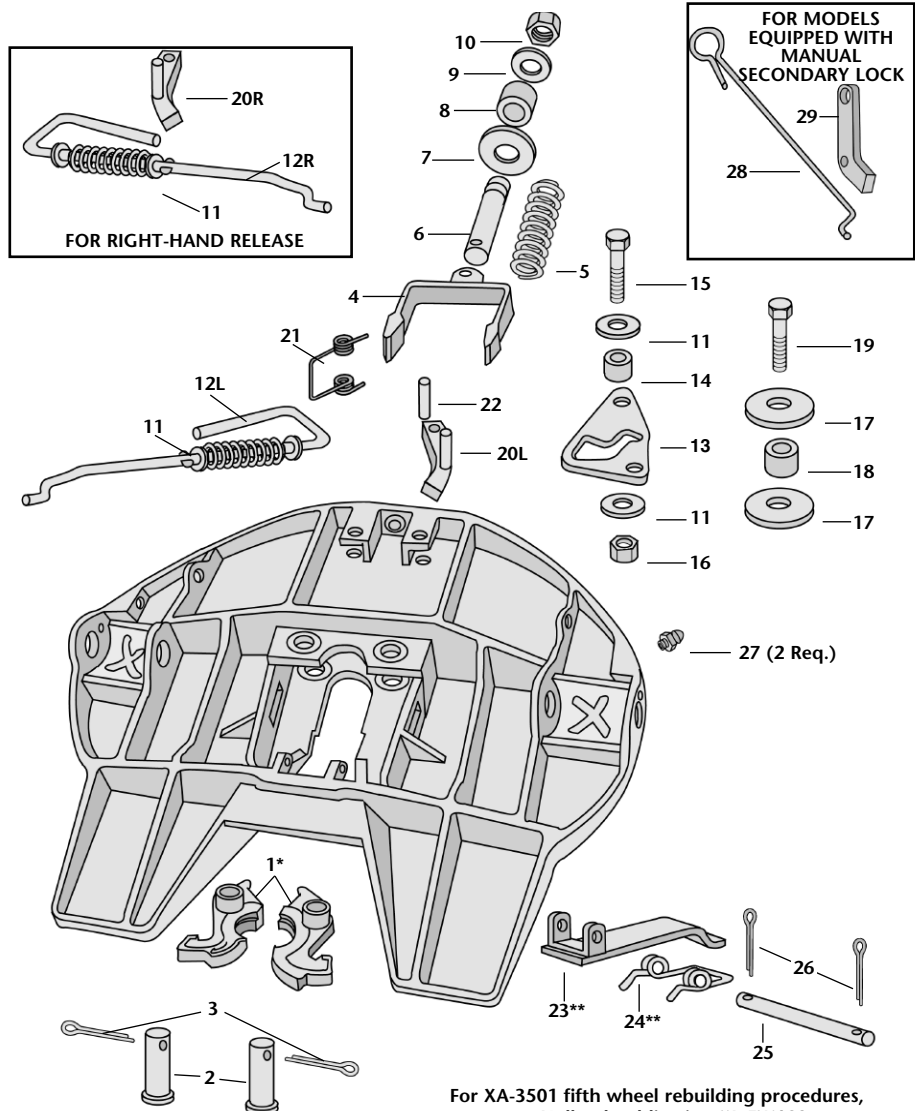
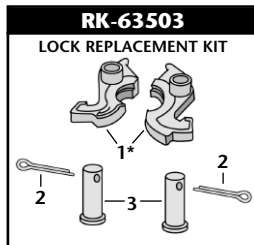
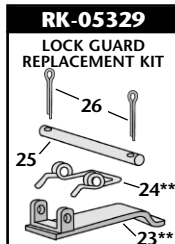
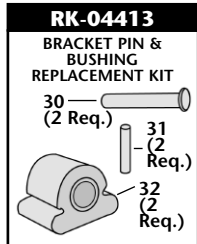
FW3500 SERIES EXPLODED VIEW - Yokeshaft in front, No "ears"



XA-3501 Rebuild Kit

RK-63500: Right-hand Release

RK-63501: Left-hand Release



XA-3501 SERIES PARTS LIST

ITEM	PART NO.	NO. REQ'D.	PART NAME
1	XA-1704*	1	Lock Jaws
2	XA-1313	2	Lock Pin
3	XB-5	2	Cotter Pin 1/4" x 2"
4	XA-1703-F	1	Yoke Sub-Assembly
5	XB-1505	1	Spring
6	XA-1706	1	Yoke Shaft
7	XB-02312	1	Lock Adjustment Tag
8	XB-1127	1	Rubber Washer
9	XB-PW-1316-112	1	Washer 1-1/2" OD x 13/16" ID
10	XB-HNH-34-F	1	Locknut 3/4"-16
11	XB-T-49	3	Washer 1-3/4" OD x 9/16" ID
12L	RK-1707-M	1	Left-Hand Release Handle S/A (Part No. (11) must be installed on handle for complete assembly.)
12R	RK-1707-6	1	Right-Hand Release Handle S/A (Part No. (11) must be installed on handle for complete assembly.)
13	XA-1705	1	Cam Plate
14	XA-1029	1	Roller

ITEM	PART NO.	NO. req'd.	PART NAME
15	XB-2083	1	Bolt 1/2"-20 x 1-3/4"
16	XB-T-69-A	1	Locknut 1/2"-20
17	XB-1030-1	2	Washer
18	XA-1507	1	Roller
19	XB-CX-58-F-134	1	Bolt 5/8"-18 x 1-3/4"
20L	XA-3542-L	1	Secondary Lock, Left-Hand
20R	XA-3542-R	1	Secondary Lock, Right-Hand
21	XB-2149	1	Torsion Spring
22	XB-21-S-500-2750	1	Roll Pin
23	XA-3514**	1	Lock Guard
24	XB-1044**	1	Torsion Spring
25	XA-1055	1	Pin
26	XB-16	2	Cotter Pin 1/8" x 1"
27	XB-H-38	2	Grease Fitting
28	XA-3542-M	1	Manual Secondary Lock Handle
29	XA-3528	1	Manual Secondary Lock
30	XA-2016	2	Bracket Pin
31	XB-21-S-375-1750	2	Roll Pin
32	XB-0011-2	2	Rubber Bushing

* Not available individually; order RK-63503

** Not available individually; order RK-05329

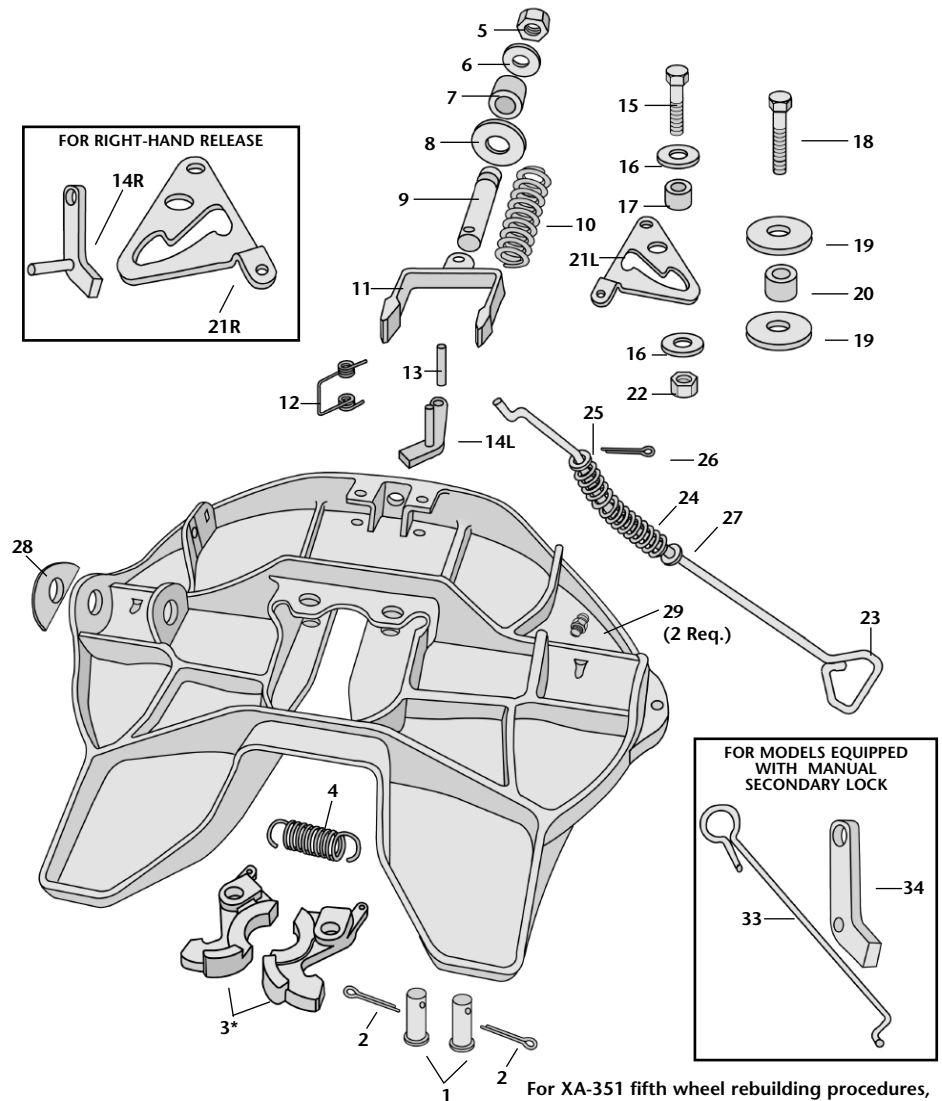
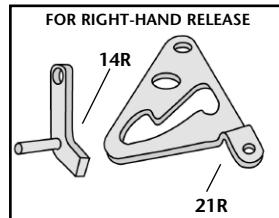
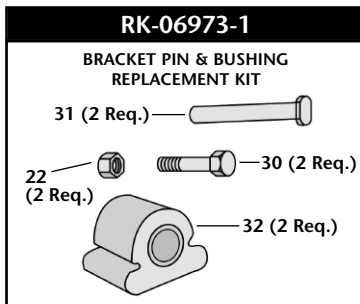
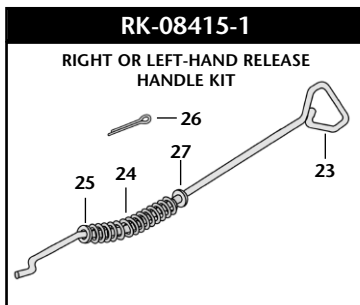
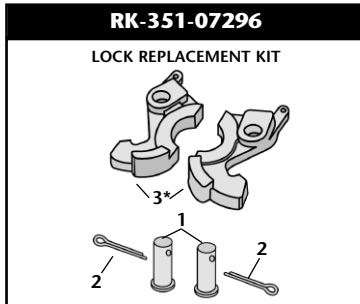
FIFTH WHEEL FW35 SERIES PARTS EXPLOSION - Yokeshaft in front, With "ears"



XA-351 Rebuild Kit

RK-351-A: Right-hand Release

RK-351-A-L: Left-hand Release



For XA-351 fifth wheel rebuilding procedures, see Holland publication XL-FW290

XA-351 SERIES PARTS LIST

ITEM	PART NO.	NO. REQ'D.	PART NAME
1	XA-07292-T	2	Lock Pin
2	XB-5	2	Cotter Pin (1/4" x 2")
3	XA-07296*	1	Lock Jaw Set
4	XB-07628	1	Extension Spring
5	XB-HNH-34-F	1	Locknut (3/4"-16)
6	XB-PW-1316-112	1	Washer (11/2" O.D. x 13/16" I.D.)
7	XB-1127	1	Rubber Washer
8	XB-02312	1	Lock Adjustment Tag
9	XA-1706	1	Yoke Shaft
10	XB-1505	1	Compression Spring
11	XA-07295	1	Yoke
12	XB-2149	1	Torsion Spring
13	XB-21-S-500-2750	1	Roll Pin (1/2" x 23/4")
14L	XA-3542-L	1	Secondary Lock (left-hand)
14R	XA-3542-R	1	Secondary Lock (right-hand)
15	XB-2083	1	Hex Head Cap Screw (1/2"-20 x 1-3/4")
16	XB-08559	2	Washer (13/4" O.D. x 9/16" I.D.)
17	XA-1029	1	Roller (1/2" I.D.)
18	XB-CX-58-F-134	1	Hex Head Cap Screw (5/8"-18 x 1-3/4")

ITEM	PART NO.	NO. REQ'D.	PART NAME
19	XB-07431	2	Washer (2-5/8" x 21/32")
20	XA-1507	1	Roller (5/8" I.D.)
21L	XA-07150-L	1	Cam Plate (left-hand)
21R	XA-07150-R	1	Cam Plate (right-hand)
22	XB-T-69-A	1	Locknut (1/2"-20)
23	XA-07151-1	1	Release Handle (universal for both left and right)
24	XB-07291	1	Compression Spring
25	XB-PW-1732-1-116	1	Washer (11/16" O.D. x 1/2" I.D.)
26	XB-07508	1	Cotter Pin (1/8" x 1-1/4")
27	XB-T-49	1	Washer (1-3/8" O.D. x 9/16" I.D.)
28	XB-07610	1	Operation Tag
29	XB-H-38	2	Grease Zerk
30	XB-C-95	2	Hex Head Cap Screw (1/2"-20 x 1-1/4")
31	XE-06356	2	Bracket Pin
32	XB-0011-2	2	Rubber Bushing
33	XA-3542-M	1	Manual Second. Lock Release Handle
34	XA-3528	1	Manual Secondary Lock

* Not available individually; order RK-351-07296

FIFTH WHEELS

LUBE PLATE AND POCKET INSERT REPLACEMENT



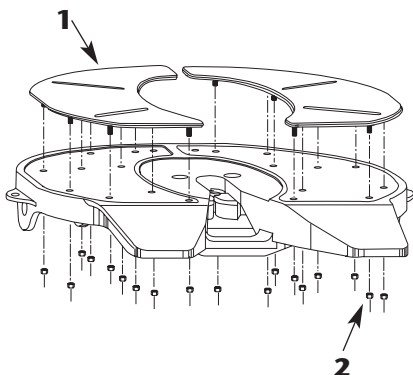
**3500 LowLube and NoLube
XA-311 and XA-331 Series Top Plates
used on FW31 and FW33 Series Fifth Wheels**

This manual contains procedures to replace the lube plates and pocket inserts on the XA-311 and XA-331 Series Fifth Wheel Top Plate. To rebuild the fifth wheel top plate locking mechanism, refer to Holland publication XL-FW290 Rebuild Procedures for XA-351 and XA-331 Series Fifth Wheel Top Plates, and XL-FW442 for the XA-311 Series.

RK-331-1

LUBE PLATE REPLACEMENT KIT

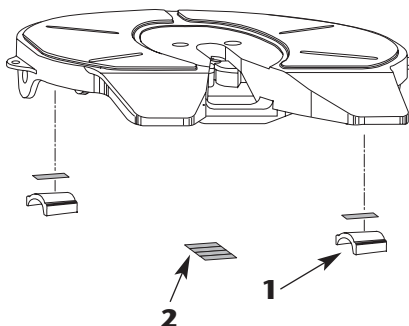
Item	Part No.	# Req'd.	Part Name
1	XA-08125-L&R	1	Lube Plate Set
2	XB-08931	18	Locknut



RK-PKT-2

POCKET INSERT REPLACEMENT KIT

Item	Part No.	# Req'd.	Part Name
1	XD-08908	2	Pocket Insert
2	XB-09422	1*	Tape Pad

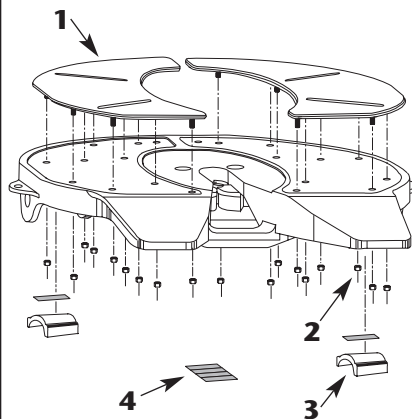


*2 tape strips required; 2 provided as spares.

RK-331-3

LUBE PLATE AND POCKET INSERT REPLACEMENT KIT

Item	Part No.	# Req'd.	Part Name
1	XA-08125-L&R	1	Lube Plate Set
2	XB-08931	18	Locknut
3	XD-08908	2	Pocket Insert
4	XB-09422	1*	Tape Pad



*2 tape strips required; 2 provided as spares.

LUBE PLATES AND POCKET INSERTS ARE SOLD IN PAIRS ONLY

⚠ WARNING

Before attempting any replacement procedures you must read and understand the following:

- DO NOT attempt to replace components on any fifth wheel without following the instructions contained in this manual.
- DO NOT modify, change, or add to the product. Use only genuine Holland parts.
- Perform all procedures in a lighted area clear of obstacles and other personnel.

- Always wear safety goggles during removal, installation, or service procedures. **DO NOT** strike any part of the product with a steel hammer.
- Observe standard precautions when lifting.
- Always verify proper operation and adjust the fifth wheel following the procedures contained in this manual before placing back in service.

U.S. Patent #5,522,613. Other patents pending.

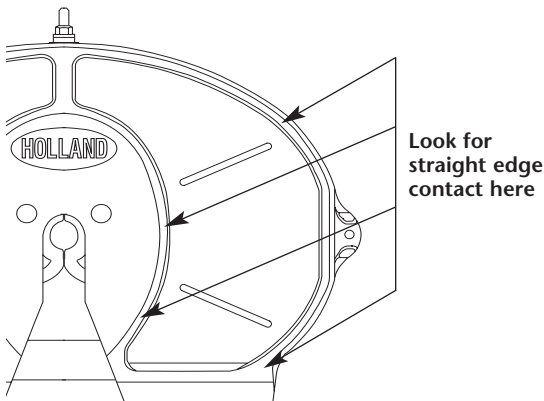
BEFORE REPLACING THE LUBE PLATES OR POCKET INSERTS

Review the guidelines below. You may find that component replacement is unnecessary. If component replacement is required, check the front page of these instructions to be sure you have the correct components for your fifth wheel.

LUBE PLATES

Thoroughly steam clean the top surface of the fifth wheel and replace the lube plates if:

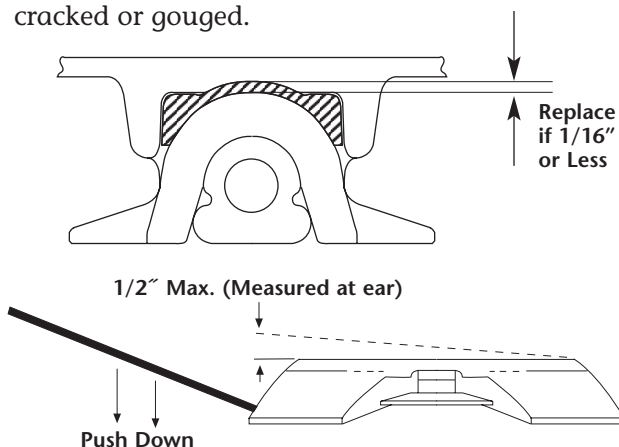
- ❑ One or both lube plates is missing; or
- ❑ A straight edge laid on the lube plate contacts any portion of the fifth wheel other than the lube plates themselves; or
- ❑ The lube plates are severely chipped, worn, cracked, gouged, bent; or
- ❑ 20% (40 sq. in.) or more of the lube plate coating is missing from one or both plates due to normal wear or damage



POCKET INSERTS

Replace the pocket inserts if:

- ❑ The pocket insert thickness is 1/16" or less.
- ❑ The free vertical movement of the top plate on the bracket is 1/2" or greater, without compressing the rubber bushings.
- ❑ The pocket inserts are severely chipped, cracked or gouged.



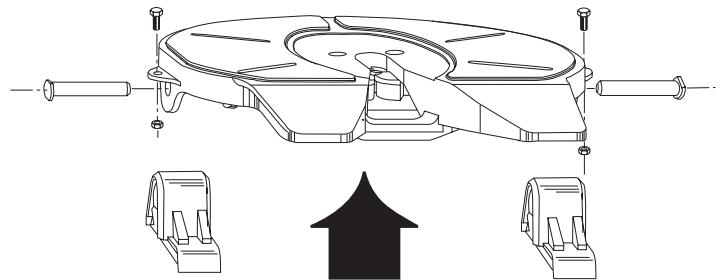
LUBE PLATE REPLACEMENT

⚠CAUTION

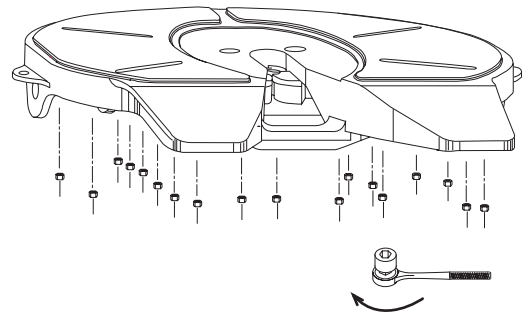
When removing the fifth wheel, the pocket inserts maybe loose in the pockets and may fall out causing personal injury when handling. Be sure to pry out and remove loose pocket inserts prior to moving.

1. Remove the fifth wheel from the tractor.

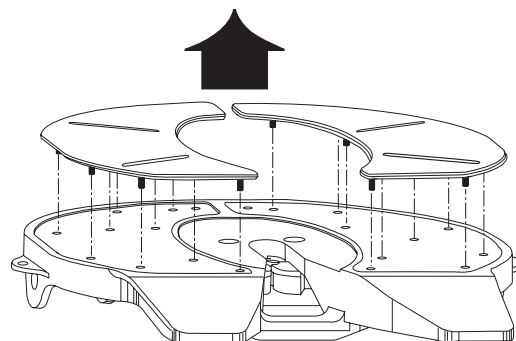
NOTE: It may not be necessary to remove the fifth wheel from the tractor depending on mounting style, cross members, etc. For most situations, removal of the fifth wheel will be necessary.



2. Remove and **discard** the (18) 5/16" lock nuts that secure the lube plates.

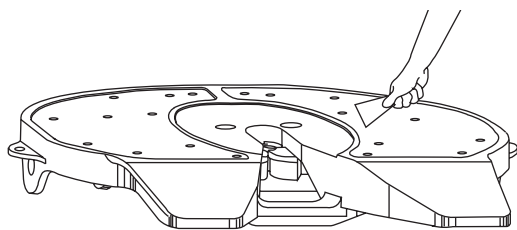


3. Remove the lube plates from the fifth wheel and discard.



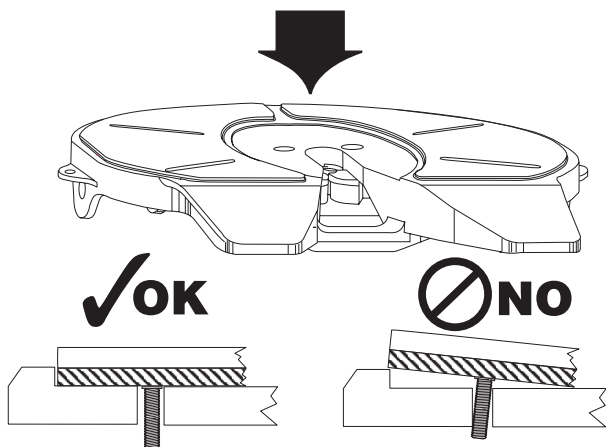
4. Steam clean or use a putty knife to remove dirt, grease, debris, etc. from top plate recess.

NOTE: If steam cleaning, allow to dry or remove excess moisture before next step.

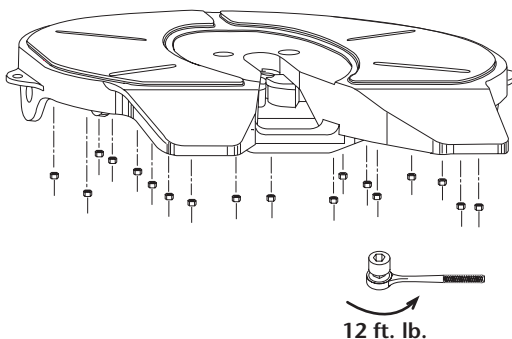


5. Install the new lube plates. Make sure that the lube plates are seated flat against the recess in the fifth wheel top plate.

NOTE: Allow bowed lube plates to warm to room temperature before installation.



6. Install the new (18) 5/16" lock nuts onto the lube plate studs. Tighten to 12 ft. lbs.



DO NOT LUBRICATE OR OVERTIGHTEN!

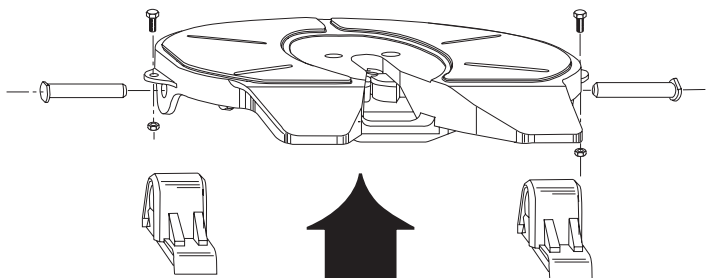
Check to see that the lube plates are pulled tight against the recess in the fifth wheel top plate. Reinstall the fifth wheel back onto the tractor.

POCKET INSERT REPLACEMENT

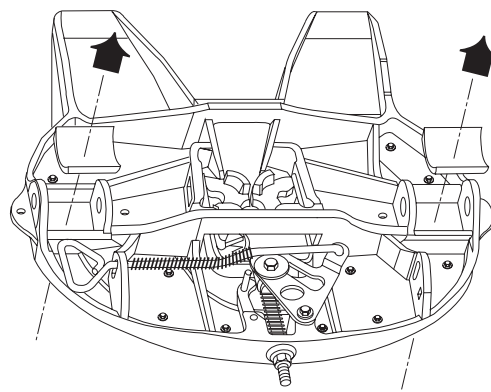
⚠CAUTION

When removing the fifth wheel, the pocket inserts maybe loose in the pockets and may fall out causing personal injury when handling. Be sure to pry out and remove loose pocket inserts prior to moving.

1. Remove the fifth wheel from the tractor.

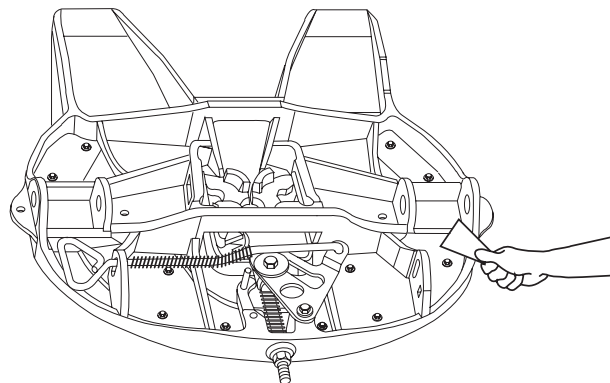


2. Pry out both pocket inserts and discard.



3. Using a putty knife, remove dirt and debris from pockets.

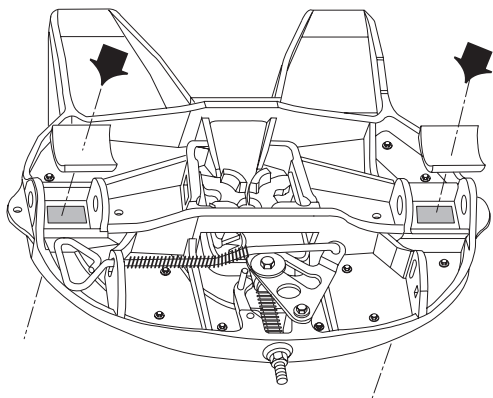
Use suitable grease free cleaner to clean pockets as needed.



4. Attach strip of double face tape in bottom of pockets. Install pocket inserts by pressing down into pockets.

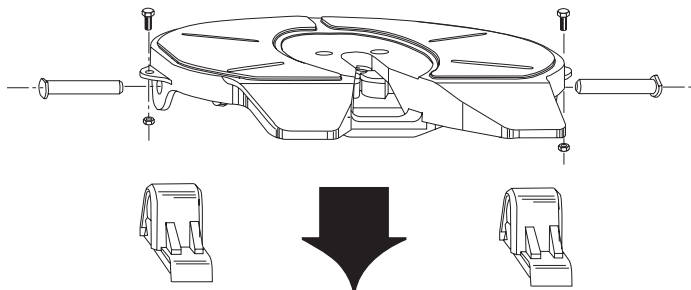
⚠ WARNING

Do not ship fifth wheel top plate with taped in pocket inserts. Pocket inserts could become loose, fall out, and become projectiles causing serious personal injury or death during open trailer or truck transport.



INSTALL TOP PLATE

1. Prior to installing top plate, lubricate all lock parts and pivot points per Holland Publication XL-FW309.
2. Reinstall the fifth wheel onto the tractor. Check for free and proper articulation. Make sure fifth wheel does not bind.



3. Check operation of fifth wheel using Holland Kingpin Lock Tester TF-TLN-5001.



GO THE DISTANCE.

HOLLAND USA, INC.
1950 Industrial Blvd. • P.O. Box 425 • Muskegon, MI 49443-0425
Phone 888-396-6501 • Fax 800-356-3929
www.thehollandgroupinc.com

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Holland USA, Inc. Facilities:

Dumas, AR Warrenton, MO
Holland, MI Wylie, TX
Muskegon, MI

Ph: 888-396-6501 Fax: 800-356-3929

Holland International, Inc.

Holland, MI
Phone: 616-396-6501
Fax: 616-396-1511

Holland Hitch of Canada, Ltd.

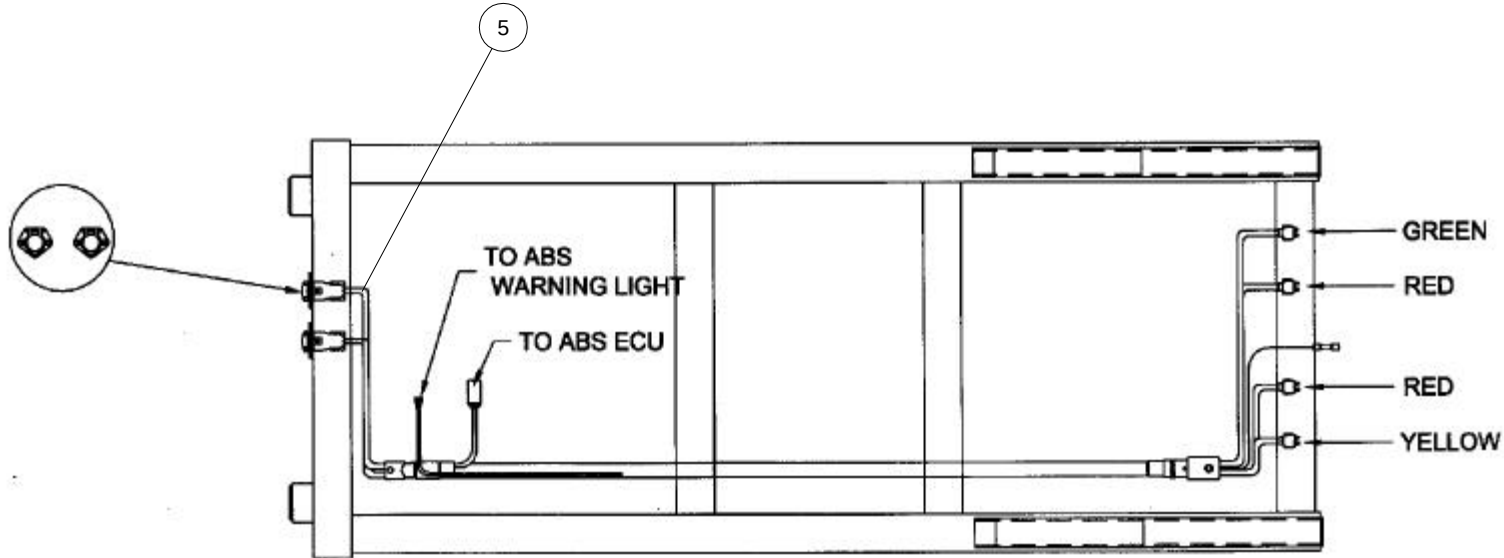
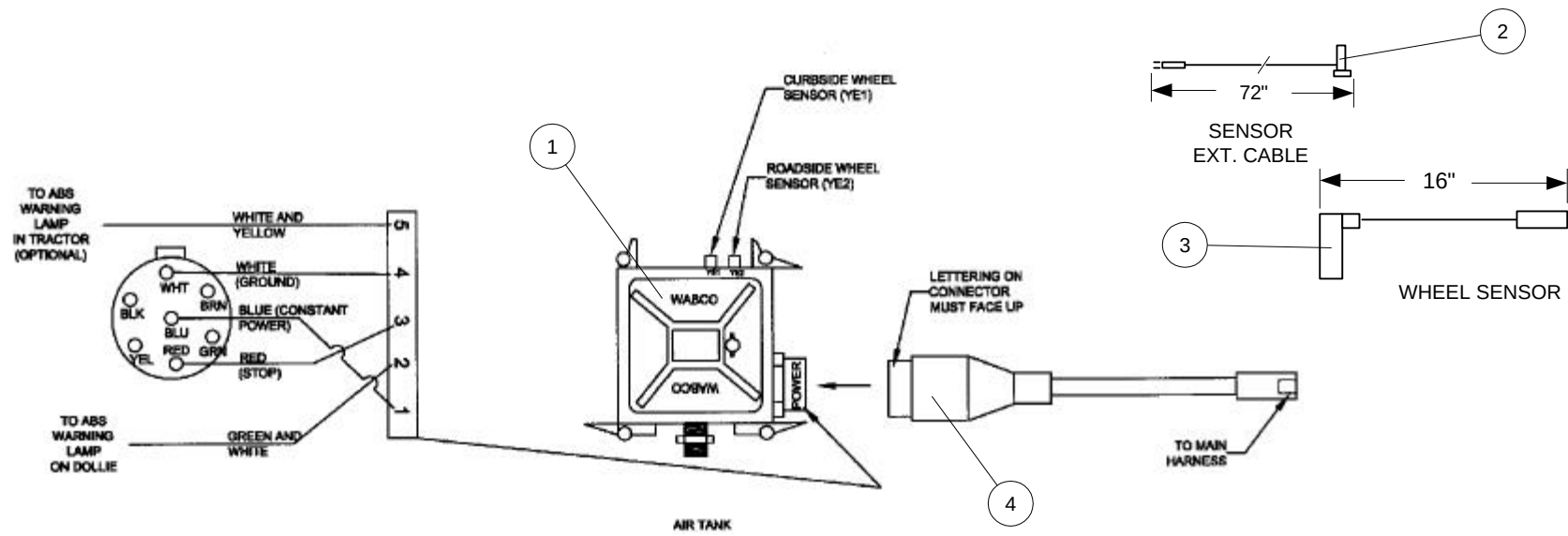
Woodstock, Ontario • Canada
Phone: 519-537-3494
Fax: 800-565-7753

Holland Equipment, Ltd.

Norwich, Ontario • Canada
Phone: 519-863-3414
Fax: 519-863-2398

Holland Hitch Western, Ltd.

Surrey, British Columbia • Canada
Phone: 604-574-7491
Fax: 604-574-0244

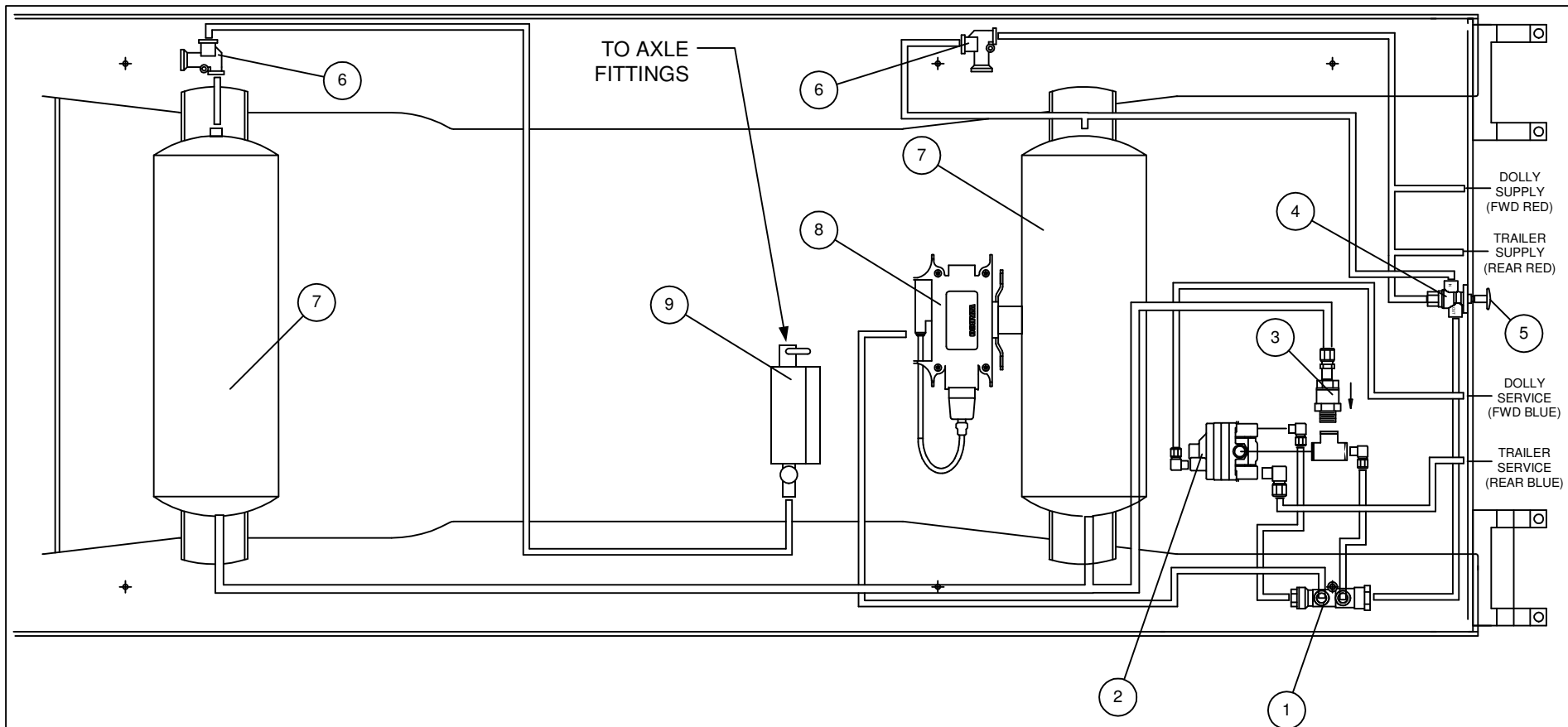


ITEM	QTY.	PART NO.	DESCRIPTION
5	1	660120	WIRING HARNESS W/ABS
4	1	660116	POWER CABLE
3	4	660115	WHEEL SENSOR
2	2	660114	SENSOR EXT. CABLE
1	1	660119	ECU ASSEMBLY

9

WIRING DETAILS KWIK LOC

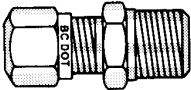
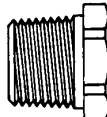
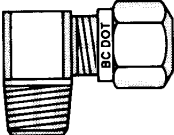
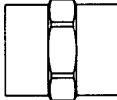
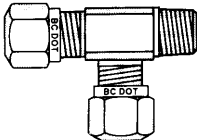
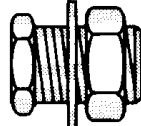
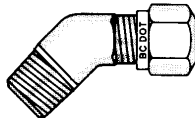
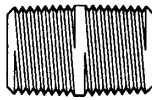
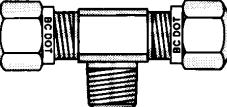
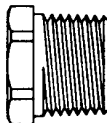
SIZE	FSCM NO	DWG NO	REV
SCALE	1 : 1	G30019	SHEET 1 OF 1



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	659990	EMERG. CONTROL VALVE
2	1	660158	CONTROL LINE VALVE
3	1	660010	CHECK VALVE
4	1	509217	BRAKE RELEASE VALVE
5	-	509211	KNOB KIT BRAKE RELEASE VLV
6	1	660009	PROTECTION VALVE
7	2	606517	AIR TANK
8	1	660012	ECU ASSM. ABS
9	1	662322	TIRE INFL. CONTROL UNIT

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PLUMBING, TANDEM, EAST MFG.			
KWIK LOC			
DATE		FILENAME	REV
3/30/2010		662320	B

TUBE SIZE			3/8"	1/2"	5/8"	REDUCER	SIZE	PART #	
	N P T	1/4"	70014-686	70014-6884		 BUSHING	3/8"-1/4"	70032-2064	
		3/8"	70014-6866	70014-6868	70014-68106		1/2"-1/4"	70032-2084	
		1/2"	70014-688	70014-6888	70014-6810		1/2"-3/8"	70032-2086	
	N P T	1/4"	70014-696	70014-6984		 TERMINAL	3/4"-1/2"	70032-20128	
		3/8"	70014-6966	70014-698	70014-69106		1/2"	70033-008	
		1/2"	70014-6968	70014-6988	70014-6910		3/4"	70033-0012	
	N P T	1/4"	70014-716			 BOLT	SMALL	510017	
		3/8"	70014-71666				LARGE	508517	
	N P T	1/4"	70014-806	70014-8084		 NIPPLE	1/2"	70033-268	
		3/8"	70014-8066	70014-808			3/4"	70033-2612	
	N P T	1/4"	70014-806	70014-8084		 PLUG	1/8"	70031-522	
		3/8"	70014-8066	70014-808			1/4"	70031-524	
		1/2"		70014-8088	70014-8010		3/8"	70031-526	
	N P T	1/4"	70014-726	70014-72884		AIR FITTINGS			
		3/8"	70014-72666	70014-718					
						KWIK LOC			
		SIZE	FSCM NO		DWG NO		REV		
SCALE		1 : 1		G30015		SHEET		1 OF 1	

NUTS AND BOLTS

PLEASE SPECIFY GRADE (GR5 OR GR8)

	¾" L	1"L	1 ¼"L	1 ½"L	1 ¾"L	2"L	2 ¼"L	2 ½"L	2 ¾"L	
¼-20	81420-12	81420-16	81420-20	81420-24	81420-28	81420-32	81420-36	81420-40		¼-20
5/16-18	851618-12	851618-16	851618-20	851618-24	851618-28	851618-32	851618-36	851618-40		5/16-18
3/8-16	83816-12	83816-16	83816-20	83816-24	83816-28	83816-32	83816-36	83816-40	83816-44	3/8-16
½-13		81213-16	81213-20	81213-24	81213-28	81213-32	81213-36	81213-40	81213-44	½-13
½-20										½-20
5/8-11			85811-20	85811-24	85811-28	85811-32	85811-36	85811-40	85811-44	5/8-11
¾-10				83410-24	83410-28	83410-32	83410-36	83410-40	83410-44	¾-10
¾-16										¾-16
7/8-9					8789-28					7/8-9
1-8								818-40		1-8

	3 ½"L	4 ½"	5"	HEX NUT	LOCK NUT	FLANGE LOCK NUT	SPLIT LOCK WASHER	SAE FLAT WASHER	
¼-20					81420-03			81400-02	¼-20
5/16-18		851618-72			851618-04			85160-02	5/16-18
3/8-16				83816-01	83816-04		83800-03	83800-02	3/8-16
½-13		81213-72		81213-01	81213-03		81200-03	81200-02	½-13
½-20							81200-03	81200-02	½-20
5/8-11					85811-03	85811-04		85800-02	5/8-11
¾-10						83410-04			¾-10
¾-16				83416-01					¾-16
7/8-9					87809-04				7/8-9
1-8	818-56		818-80	81008-01	81008-04			81000-02	1-8

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FASTENERS

KWIK LOC

SIZE	FSCM NO	DWG NO	REV
SCALE	1 : 1	SHEET	1 OF 1

USE THIS CHART FOR ZINC PLATED NUTS ONLY*

Size- Thread Per Inch	GRADE C LOCK NUT			GRADE G FLANGE LOCK NUT		
	Clamp Load (lb)	Assembly Torque		Clamp Load (lb)	Assembly Torque	
		Max	Min		Max	Min
1/4-20	2,850	10.4	7.1	2,850	12.5	8.3
5/16-18	4,700	15.8	10.8	4,700	20	12.9
3/8-16	6,950	28	20	6,950	32	21
7/16-14	9,600	43	31	9,600	51	34
1/2-13	12,800	62.5	45	12,800	85	55
9/16-12	16,400	95	70	16,400	120	80
5/8-11	20,300	122.5	90	20,300	143	95
3/4-10	30,100	210	155	30,100	240	160
7/8-9	41,600	312.5	225	-	-	-
1-8	54,600	462.5	360	-	-	-

THESE TORQUE-TENSION VALUES ARE GENERAL VALUES ONLY AND ARE BASED ON FASTENERS USED BY OR OBTAINED FROM KWIK LOC CORPORATION. FASTENERS OBTAINED FROM OTHER SOURCES MAY HAVE DIFFERENT TORQUE REQUIREMENTS PLEASE CONTACT THE THE DISTRIBUTOR OR MANUFACTURER FOR MORE INFORMATION.
IMPROPER INSTALLATION CAN LEAD TO CATASTROPHIC FAILURE OF FASTENERS.

USE THIS CHART FOR CADMIUM PLATED NUTS ONLY*

Size- Thread Per Inch	GRADE C LOCK NUT			GRADE G FLANGE LOCK NUT		
	Clamp Load (lb)	Assembly Torque		Clamp Load (lb)	Assembly Torque	
		Max	Min		Max	Min
1/4-20	2,850	14.7	10	2,850	17.6	11.7
5/16-18	4,700	22.3	15.2	4,700	28.1	18.2
3/8-16	6,950	39	28	6,950	45	30
7/16-14	9,600	60	44	9,600	72	48
1/2-13	12,800	88	63	12,800	120	77
9/16-12	16,400	134	98	16,400	169	113
5/8-11	20,300	172	127	20,300	201	134
3/4-10	30,100	295	218	30,100	338	225
7/8-9	41,600	440	317	-	-	-
1-8	54,600	651	506	-	-	-

*** IF UNCERTAIN OF PLATING TYPE CONTACT THE DISTRIBUTER OR MANUFACTURER**

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DATA OBTAINED FROM THE INDUSTRIAL FASTENER INSTITUTE
PUBLICATION IFI-101
ISSUED JAN 10, 1967
REVISED FEB. 1997

TORQUE VALUES

KWIK LOC

SIZE	FSCM NO	DWG NO	REV
SCALE	1 : 1	SHEET	1 OF 1