

AFM Hydraulic Wing Unlock Assembly Instructions



For AFM4211, AFM4214, AFM4216, & AFM4522

Manual No. 315-731M

Before You Start



When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Before you begin, read these instructions and check to be sure all parts are accounted for. Please retain these installation instructions for future reference and parts ordering information.

The **315-722A Hydraulic Wing Unlock Kit** is exclusively designed for Land Pride's All-Flex Mower Models AFM4214, and AFM4216.

The **315-736A Hydraulic wing Unlock Kit** is exclusively designed for Land Pride's All Flex Mower Model AFM4522. This Kit will require the tractor to have a second duplex outlet for the hydraulic hoses.

Please read these installation instructions and your All-Flex Mower Operator's Manual thoroughly before beginning. Especially read information relating to safety concerns.

A separate Parts Manual for replacement parts can be purchased from your nearest Land Pride dealer or downloaded free of charge from our web site at www.landpride.com. Have model and serial numbers handy when placing an order.

Manual Part Numbers:

AFM4211

- Operator's Manual 315-507M
- Parts Manual 315-507P

AFM4214

- Operator's Manual 315-587M
- Parts Manual 315-627P

AFM4216

- Operator's Manual 315-587M
- Parts Manual 315-587P

AFM4522

- Operator's Manual 315-360M
- Parts Manual 315-360P

General Information

These assembly instructions apply to the Hydraulic Wing Unlock Kits listed below:

- 315-732A AFM4211 HYDRAULIC WING UNLOCK KIT**
- 315-722A AFM4214, & AFM4216 HYDRAULIC WING UNLOCK KIT**
- 315-736A AFM4522 HYDRAULIC WING UNLOCK KIT**

Tools required:

- Safety glasses
- Work gloves
- Pencil
- Tape Measure
- Side diagonal cutters
- Center punch
- Hammer
- Electric drill with 13/32" drill bit
- Extension cord (if required)
- Set of box end or open end wrenches
- Spray bottle with soapy water

Further Assistance

Your dealer wants you to be satisfied with your new Hydraulic Wing Unlock Kit. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure that person is aware of any problems you may have and has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem, and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060

E-mail address
lp servicedept@landpride.com

Assembly Instructions

A detailed listing of parts for the accessory kit is provided on page 7. Use the list as a checklist to inventory parts received. Please contact your local Land Pride dealer for any missing hardware.

Initial Preparations

The steps listed below must be followed before installing this kit:

1. Park the All-Flex Mower on a flat surface, move gear shift lever to neutral, set park brake, lower wings and center deck until folding cylinders are fully extended.
2. Turn off engine and remove switch key.

Disassembly of Existing Parts

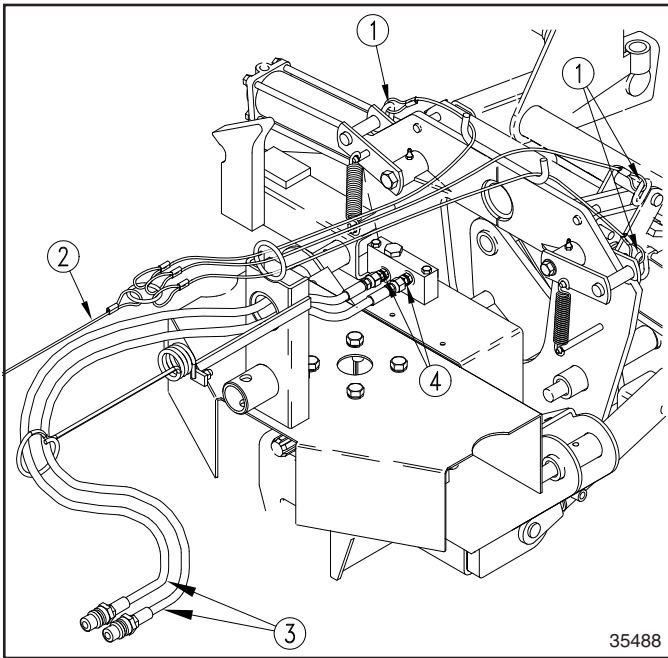
Refer to Figure 1:

1. Remove pull ropes (#2) from transport locks (#1) and discard.

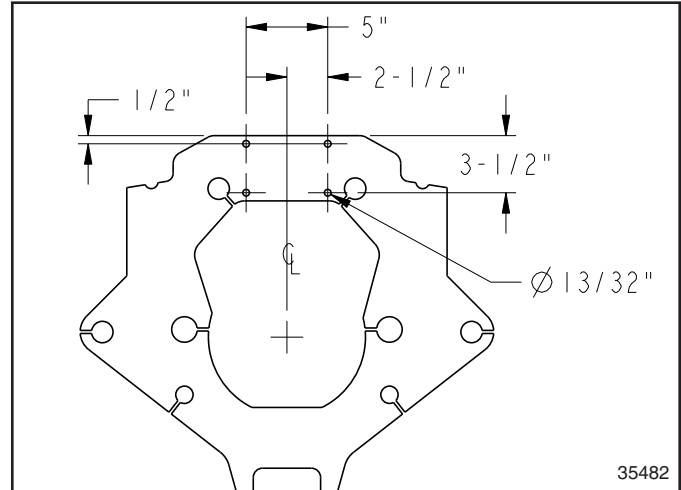
NOTE: Do not disconnect hydraulic hoses (#3) from straight adapter fittings (#4) when installing this kit on Model AFM4522 mower.

AFM4211, AFM4214, & AFM4216 Only:

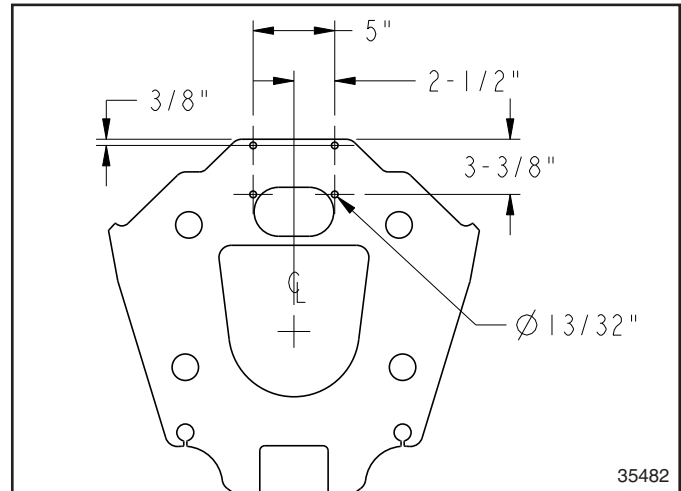
2. Disconnect hydraulic hoses (#3) from straight adapter fittings (#4). Keep hoses for reattaching to the hydraulic fittings later.



Disassembly of Existing Parts
Figure 1



Hole Pattern for AFM4211
Figure 2



Hole Pattern for AFM4214 & AFM4216
Figure 3

Locate & Drill Mounting Holes

Older models will not have mounting holes and will need to be drilled. The mounting holes are located differently depending on which model the kit is attached to.

Model AFM4211

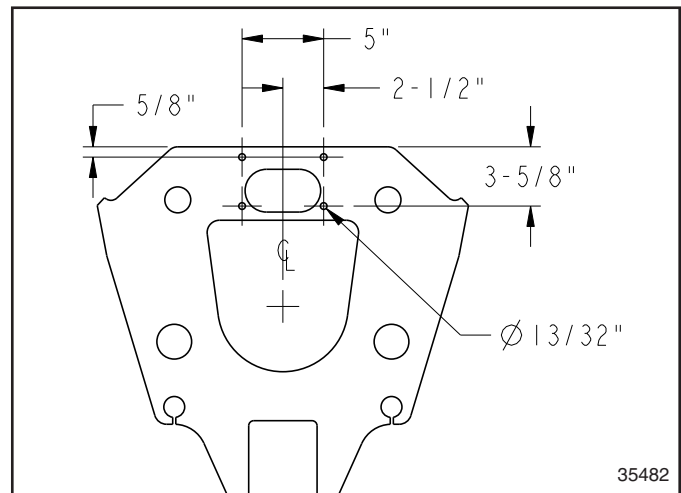
Locate and drill four 13/32" diameter holes in the toolbar lock-up plate as shown in Figure 2.

Models AFM4214 & AFM4216

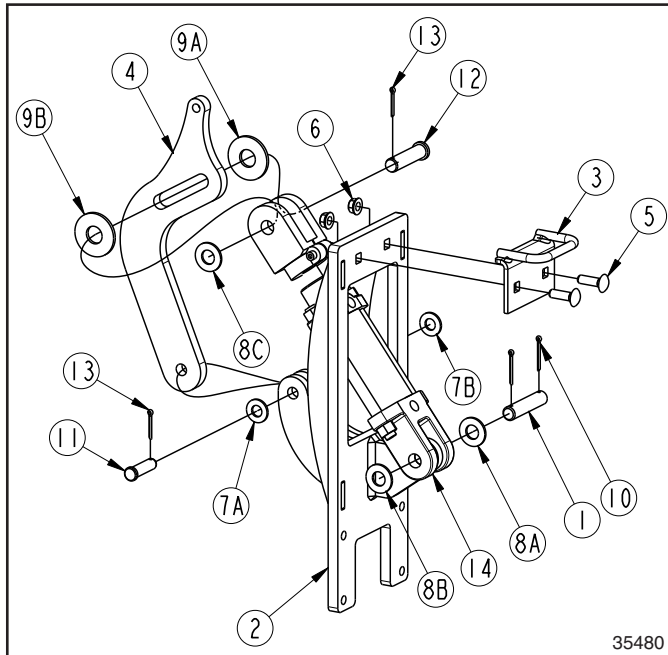
Locate and drill four 13/32" diameter holes in the toolbar lock-up plate as shown in Figure 3.

Model AFM4522

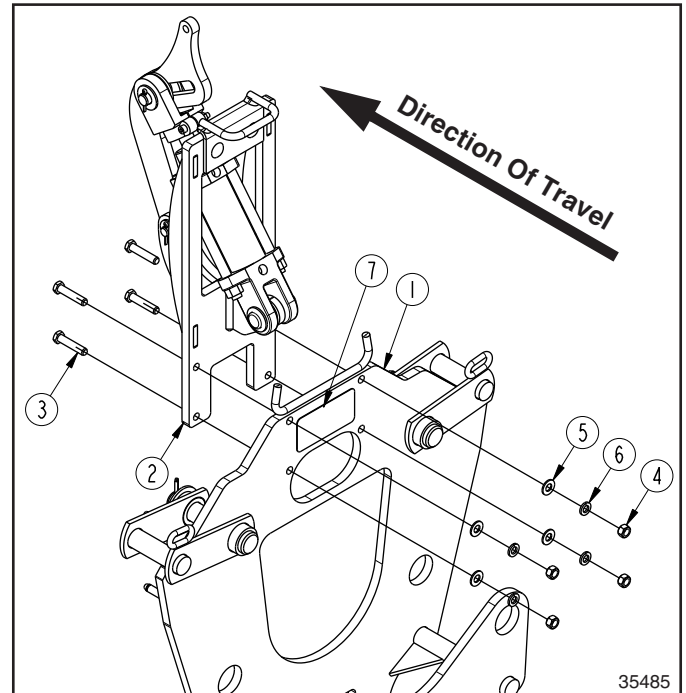
Locate and drill four 13/32" diameter holes in the toolbar lock-up plate as shown in Figure 4.



Hole Pattern for AFM4522
Figure 4



Hydraulic Mount Assembly
Figure 5



Attach Hydraulic Mount Assembly
Models AFM4214 & AFM4216 Shown
Figure 6

Hydraulic Mount Assembly

Refer to Figure 5:

1. Attach wire guide (#3) to hydraulic mount (#2) with 3/8"-16 x 1 1/4" GR5 carriage bolts (#5) and hex flange nuts (#6). Tighten hex flange nuts to the correct torque.
2. Attach hydraulic linkage (#4) to hydraulic mount (#2) with 1/2" x 1 1/2" usable length clevis pin (#11) and two 1/2" SAE flat washers (#7A & #7B) as shown.
3. Secure clevis pin with 1/8" x 1" cotter pin (#13). Bend both legs of cotter pin around clevis pin (#11) to keep cotter pin from falling out.
4. Attach base end of transport locking cylinder (#14) to hydraulic mount (#2) with clevis pin (#1) and two 5/8" SAE flat washer (#8A & #8B) as shown.
5. Secure clevis pin with two 1/8" x 1 1/4" cotter pins (#10). Bend both legs of each cotter pin around clevis pin to keep cotter pins from falling out.
6. Attach rod end of transport locking cylinder (#14) to hydraulic linkage (#4) with 5/8" x 2 3/16" usable length clevis pin (#12), two 3/4" USS flat washers, and one 5/8" SAE flat washer (#8C) as shown.
7. Secure clevis pin with 1/8" x 1" cotter pin (#13). Bend both legs of cotter pin around clevis pin to keep cotter pin from falling out.

Attach Hydraulic Mount Assembly

Refer to Figure 6:

1. Attach hydraulic mount assembly (#2) to toolbar lock-up plate (#1) with 3/8"-16 x 1 3/4" GR5 bolts (#3), 3/8" flat washers (#5), 3/8" lock washers (#6), and hex nuts (#4).
2. Tighten hex nuts (#4) to the correct torque.

WARNING

To prevent serious injury or death, stay clear of moving parts and keep others away from moving parts.

3. See warning above. Do not attach warning decal (#7) until step 4 below. Locate decal (#7) on toolbar lock-up plate as follows:
 - **Models AFM4211, AFM4214, & AFM4216:**
Centered decal between mounting holes in the location shown on.
 - **Model AFM4522:**
Locate decal just to the left or right of the mounting holes.
4. Attach decal to toolbar lock-up plate as follows:
 - a. Clean area where decal is to be placed.
 - b. Spray soapy water on the surface where decal is to be placed.
 - c. Peel backing from decal and press decal firmly onto the surface.
 - d. Squeeze out all air bubbles with edge of a credit card or with a similar type straight edge.

Assembly of Hydraulic Hoses

Refer to Figure 8 on page 5:

Model AFM4211:

1. Replace lower center adapter (#22) in port (E) with new orifice adapter in the parts bag. Tighten orifice adapter to port (E). Tighten existing hydraulic hose to orifice adapter.

Models AFM4211, AFM4214, & AFM4216:

2. Unscrew hydraulic hoses (#16) from adapters (#15) and attach tee fittings (#6A & #6B) to adapters (#15) as shown and tighten.
3. Reattach hydraulic hoses (#16) to tee fittings (#11) as shown and tighten.
4. Attach 28" long hydraulic hose (#12) to tee fitting (#6A) and tighten.
5. Attach 32" long hydraulic hose (#13) to tee fitting (#6B) and tighten.
6. Thread hydraulic hoses (#12 & #13) thru hole (C) on Models AFM4214 and AFM4216 and hole (D) on Model AFM4211.

Model AFM4522:

7. Attach quick release couplers (#21) to hydraulic hoses (#19 & #20) and tighten.
8. Thread opposite end of hydraulic hoses (#19 & #20) through hole (E) and then hole (C).

All Models:

9. Attach nut end of 90° elbows (#14) to hydraulic cylinder ports (A & B) in transport locking cylinder. Do not tighten at this time.
10. Attach short hydraulic hose (#12 or #19) to elbow (#14) in port (B) and tighten hose to elbow.
11. Attach long hydraulic hose (#13 or #20) to elbow (#14) in port (A) and tighten hose to elbow.
12. Tighten elbows (#14) to transport locking cylinder ports (A & B).

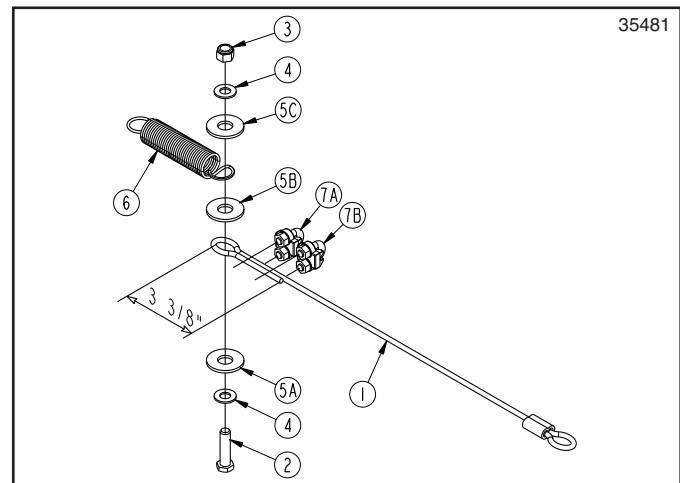
Air Craft Cable & Spring Assembly

Refer to Figure 7:

There are two short aircraft cables (#1) and one long aircraft cable (#1). The shorter cables attach to the wing transport locks and the longer cable attaches to the center deck transport lock.

1. Insert 3/8"16 x 1 1/2" GR5 bolt (#2) through SAE flat washer (#4), 1/2" USS flat washers (#5A & #5B), spring loop (#6), 1/2" USS flat washer (#5C), and 3/8" SAE flat washer (#4).
2. Start nylock nut (#3) on end of bolt (#2). Do not tighten nylock nut at this time.
3. Loop free end of 3/16" aircraft cable (#1) around bolt (#2) and between flat washers (#5A & #5B).
4. Secure free end with cable clamps (#7A & #7B). Do not tighten cable clamps at this time.

5. Adjust end of cable to be approximately 3 3/8" back from inside of loop as shown in Figure 7.
6. Use cable clamp (#7A) closest to the spring to create a loop about 1 1/4" in diameter. The loop should be big enough to allow rotation around the spring but small enough not to come off washers (#5A & #5B).
7. Tighten cable clamp (#7A) closest to the spring.
8. Secure excess cable with remaining clamp (#7B) and then tighten clamp (#7B).
9. Draw nylock nut (#3) up until all washers are snug. Spring (#6) should swivel easily around bolt (#2).
10. Repeat steps 1 thru 9 for the other two assemblies.

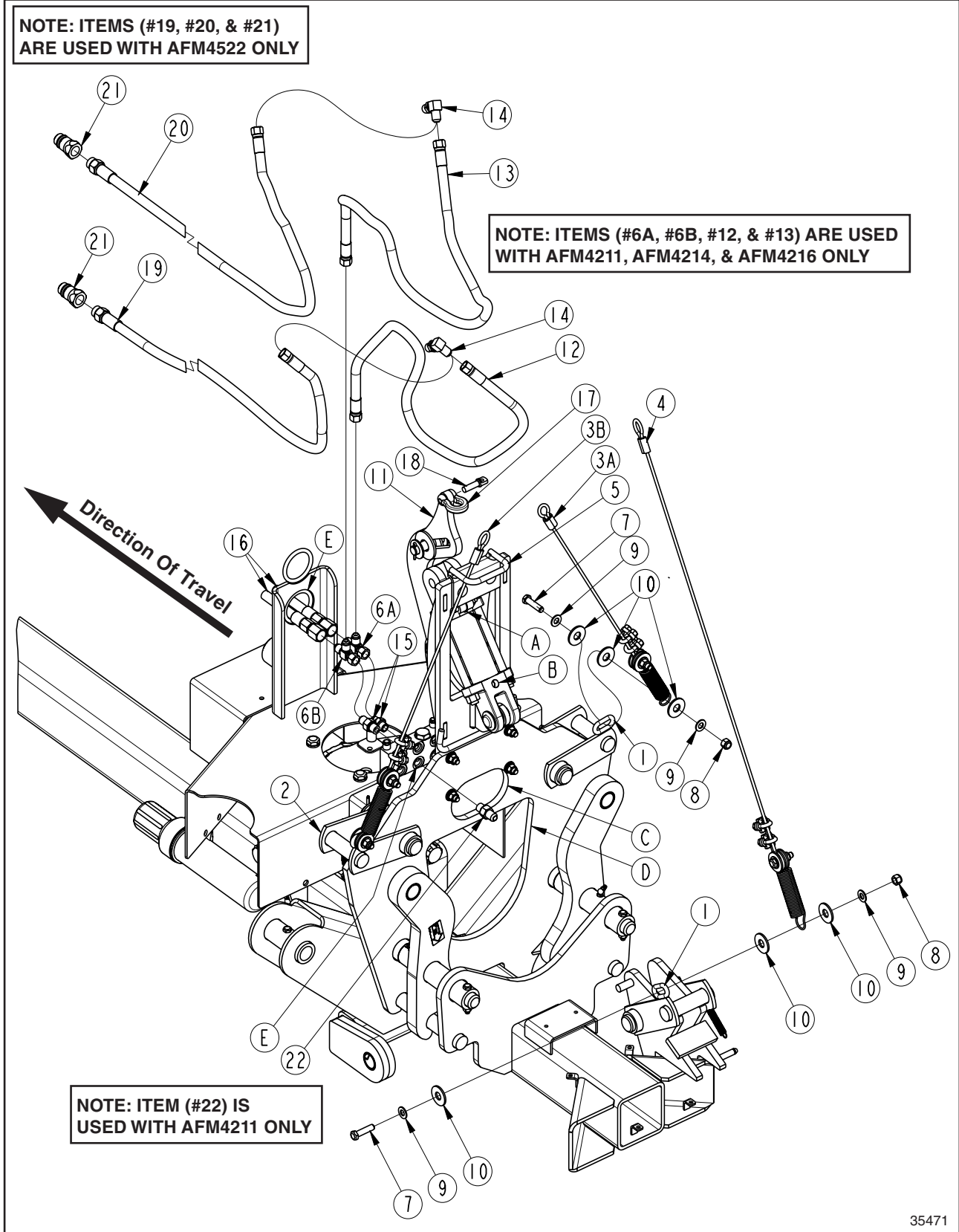


Aircraft Cable & Spring Assembly
Figure 7

Attach Aircraft Cable Assemblies

Refer to Figure 8 on page 5:

1. Attach the long rear cable assembly (#4) to center transport lock chain loop (#1) with 3/8"-16 x 1 1/2" GR5 bolt (#7), two 3/8" SAE flat washer (#9), three 1/2" USS flat washers (#10), and nylock nut (#8) in the order shown in Figure 8.
2. Draw nylock nut (#8) up until all washers are snug. The spring should swivel easily around bolt (#7).
3. Attach the short right wing cable (#3A) to the right transport lock chain loop (#1) with 3/8"-16 x 1 1/2" GR5 bolt (#7), two 3/8" SAE flat washer (#9), three 1/2" USS flat washers (#10), and nylock nut (#8) in the order shown in Figure 8.
4. Draw nylock nut (#8) up until all washers are snug. The spring should swivel easily around bolt (#7).
5. Repeat steps 3 & 4 for the left wing cable (#3B).
6. Thread cable assemblies (#3A, #3B, & #4) through wire guide (#5) as shown with cable assembly (#3B).
7. Attach loop end of cable assemblies (#3A, #3B, & #4) to utility clevis (#17). Make sure cable (#4) is located between cables (#3A & #3B).
8. Attach clevis (#17) to hydraulic linkage (#11) with clevis pin (#18). Tighten clevis pin.



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Hydraulic Hoses & Aircraft Cable Assemblies (Model AFM4214 Shown)
Figure 8

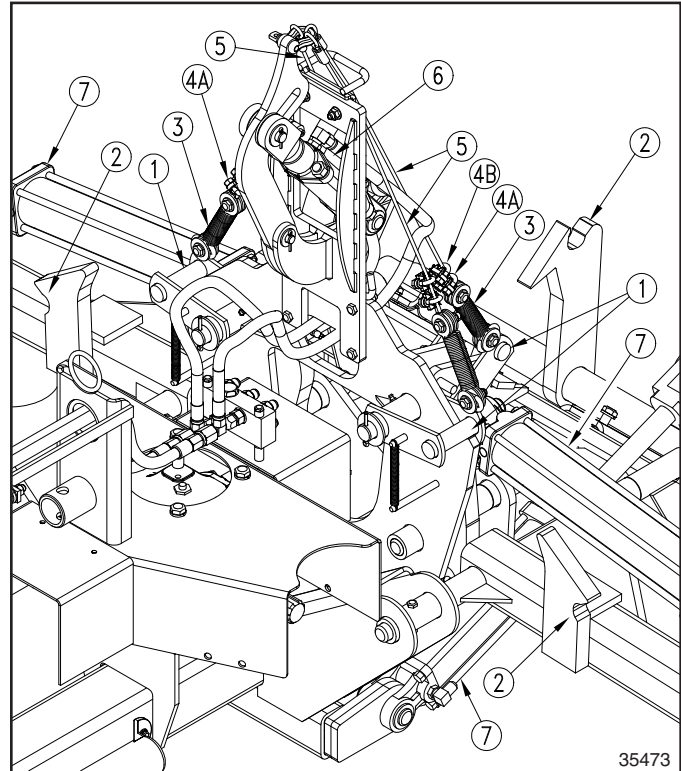
Adjust Hydraulic Transport Locks

Refer to Figure 9:

With transport locking cylinder (#6) fully retracted, transport locks (#1) should be fully seated in tool bar locking lugs (#2) with slight slack in aircraft cables (#5). If needed, shorten or lengthen cables (#5) as follows:

NOTE: Figure 9 is shown with mower decks down for clarity. Mower decks will need to be folded up and locked in the transport locks to check for adjustment of aircraft cable assemblies (#5).

1. Fully retract deck lifting cylinders (#7) and transport lock cylinder (#6).
2. Check slack in all three aircraft cables (#5):
 - a. They should have slight slack and not be tight.
 - b. They should not be too slack or cables (#5) will not be able to pull transport locks (#1) out of tool bar locking lugs (#2).
3. If needed, adjust aircraft cables (#5) as follows:
 - a. Loosen cable clamps (#4A & #4B) and pull or let out aircraft cable (#5) to create slight slack in cable.
 - b. Use cable clamp (#4A) closest to the spring to create a loop about 1 1/4" in diameter. The loop should be big enough to allow rotation around the spring but small enough not to come off the washers.
 - c. Tighten cable clamp (#4A).
 - d. Secure excess cable with remaining clamp (#4B) and then tighten clamp (#4B).



Operating Hydraulic Transport Locks
Figure 9

Unfolding Mower Decks

Refer to Figure 9:

IMPORTANT: Make sure deck floating pins are removed and stored before unfolding the AFM4216 mower or deck lock bars are unlatched and stored before unfolding the AFM4522 mower.

IMPORTANT: When unfolding mower, fully extend cylinders to utilize maximum flexibility. Damage to mower may occur if cylinders are not fully extended.

Folding Mower Decks

Refer to Figure 9:

1. Using tractor's hydraulic control lever, raise all three mower decks to transport position by retracting all three hydraulic cylinders (#7) completely.
2. As the mower decks are raising, the three transport locks (#1) will automatically lock in place. Make sure they have locked in place before transporting.
3. If equipped, lock decks in place with deck float pins (AFM4216 only) or deck lock bars (AFM4522 only).

1. Using the tractor's hydraulic control lever, fully retract all hydraulic cylinders (#7) to remove weight from transport locks (#1).
2. After hydraulic cylinders (#7) have fully retracted, extend hydraulic cylinders (#7). The transport lock hydraulic cylinder (#6) will extend first and will open all three transport locks (#1) before hydraulic cylinders (#7) start to extend.
3. Continue extending hydraulic cylinders (#7) to their maximum stroke to utilize maximum flexibility of the decks as they float over the terrain.

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315-732A AFM4211 HYDRAULIC WING UNLOCK KIT Items #1, #2, & #3
 315-722A AFM4214 & AFM4216 HYDRAULIC WING UNLOCK KIT Items #1 & #2

Item	Part No.	Part Description	Qty
1	315-729L	HYDRAULIC WING UNLOCK MOUNTING ASSEMBLY	1
		MOUNTING ASSEMBLY CONSIST OF THE FOLLOWING:	
	315-723H	HYD WING UNLOCK MOUNT	1
	315-728H	WIRE GUIDE	1
	332-009D	WING UNLOCK LINKAGE	1
	802-023C	HHCS 3/8-16X1 3/4 GR5	4
	802-155C	RHSNB 3/8-16X1 1/4 GR5	2
	803-014C	NUT HEX 3/8-16 PLT	4
	803-068C	NUT HEX FLANGE 3/8-16 PLT	2
	804-012C	WASHER FLAT 3/8 SAE PLT	4
	804-013C	WASHER LOCK SPRING 3/8 PLT	4
	804-016C	WASHER FLAT 1/2 SAE PLT	2
	804-021C	WASHER FLAT 5/8 SAE PLT	4
	804-024C	WASHER FLAT 3/4 USS PLT	2
	805-127C	PIN CLVS .50X1.52 USBL	1
	805-141C	PIN CLVS .63X2.19 USBL	1
	805-363C	PIN COTTER 1/8 X 1	2
	810-555C	CYL 1.5X2.5X.75 ROD W/CLEVIS	1
	818-798C	DECAL WARNING PINCH POINT GEN	1
2	315-730K	HYDRAULIC WING UNLOCK BAG KIT	1
		BAG KIT CONSIST OF THE FOLLOWING:	
	315-731M	HYD WING UNLOCK MANUAL	1
	315-724S	WING UNLOCK WING CABLE ASSY (See breakdown of 315-724S below)	2
	315-725S	WING UNLOCK REAR CABLE ASSY (See breakdown of 315-725S below)	1
	811-061C	TE 9/16MJIC 9/16MJIC 9/16FJIC	2
	811-065C	EL 9/16MJIC 9/16MORB	2
	811-442C	HH1/4R2 028 9/16FJIC	1
	817-753C	10X16 PLASTIC MANUAL BAG	1
	841-345C	HH1/4R2 032 9/16FJIC	1
	890-018C	5/16 x 1 1/4 UTILITY CLEVIS WITH CLEVIS PIN	
		EACH 315-724S CONSIST OF THE FOLLOWING:	
	315-726V	AIRCRAFT CABLE WITH CRIMP	1
	802-022C	HHCS 3/8-16X1 1/2 GR5	2
	803-078C	NUT LOCK 3/8-16 NYLON INSERT	2
	804-012C	WASHER FLAT 3/8 SAE PLT	4
	804-017C	WASHER FLAT 1/2 USS PLT	6
	807-236C	SPRING EXT. 1.0ODX5.OLX.095MW	1
	890-672C	U-BOLT WIRE ROPE CLP 3/16 GAL	2
		315-725S CONSIST OF THE FOLLOWING:	
	315-727V	AIRCRAFT CABLE W/ CRIMP, LONG	1
	802-022C	HHCS 3/8-16X1 1/2 GR5	2
	803-078C	NUT LOCK 3/8-16 NYLON INSERT	2
	804-012C	WASHER FLAT 3/8 SAE PLT	4
	804-017C	WASHER FLAT 1/2 USS PLT	6
	807-236C	SPRING EXT. 1.0ODX5.OLX.095MW	1
	890-672C	U-BOLT WIRE ROPE CLP 3/16 GAL	2
3	AFM4211 ONLY		
	811-694C	ORAD 1/32 9/16 MORB 9/16 MJIC	1

315-736A AFM4522 HYDRAULIC WING UNLOCK KIT (Items #1 & #2)

Item	Part No.	Part Description	Qty	
1	315-729L	HYDRAULIC WING UNLOCK MOUNTING ASSEMBLY	1	
	MOUNTING ASSEMBLY CONSIST OF THE FOLLOWING:			
		315-723H	HYD WING UNLOCK MOUNT	1
		315-728H	WIRE GUIDE	1
		332-009D	WING UNLOCK LINKAGE	1
		802-023C	HHCS 3/8-16X1 3/4 GR5	4
		802-155C	RHSNB 3/8-16X1 1/4 GR5	2
		803-014C	NUT HEX 3/8-16 PLT	4
		803-068C	NUT HEX FLANGE 3/8-16 PLT	2
		804-012C	WASHER FLAT 3/8 SAE PLT	4
		804-013C	WASHER LOCK SPRING 3/8 PLT	4
		804-016C	WASHER FLAT 1/2 SAE PLT	2
		804-021C	WASHER FLAT 5/8 SAE PLT	4
		804-024C	WASHER FLAT 3/4 USS PLT	2
		805-127C	PIN CLVS .50X1.52 USBL	1
		805-141C	PIN CLVS .63X2.19 USBL	1
		805-363C	PIN COTTER 1/8 X 1	2
		810-555C	CYL 1.5X2.5X.75 ROD W/CLEVIS	1
		818-798C	DECAL WARNING PINCH POINT GEN.	1
	2	315-735K	HYDRAULIC WING UNLOCK BAG KIT	1
BAG KIT CONSIST OF THE FOLLOWING:				
		315-731M	HYD WING UNLOCK MANUAL	1
		315-724S	WING UNLOCK WING CABLE ASSY (See breakdown of 315-724S below)	2
		315-734S	WING UNLOCK REAR CABLE ASSY XL (See breakdown of 315-734S below)	1
		811-065C	EL 9/16MJIC 9/16MORB	2
		811-394C	CP 3/4FORB MALE QD POPPET TYPE	2
		817-753C	10X16 PLASTIC MANUAL BAG	1
		851-505C	HH1/4R2 115 9/16FJIC 3/4 MORB	1
		851-506C	HH1/4R2 120 9/16FJIC 3/4 MORB	1
		890-018C	5/16 x 1 1/4 UTILITY CLEVIS	1
EACH 315-724S CONSIST OF THE FOLLOWING:				
		315-726V	AIRCRAFT CABLE WITH CRIMP	1
		802-022C	HHCS 3/8-16X1 1/2 GR5	2
		803-078C	NUT LOCK 3/8-16 NYLON INSERT	2
		804-012C	WASHER FLAT 3/8 SAE PLT	4
		804-017C	WASHER FLAT 1/2 USS PLT	6
		807-236C	SPRING EXT. 1.0ODX5.OLX.095MW	1
		890-672C	U-BOLT WIRE ROPE CLP 3/16 GAL	2
315-734S CONSIST OF THE FOLLOWING:				
	315-733V	AIRCRAFT CABLE W/ CRIMP, XL	1	
	802-022C	HHCS 3/8-16X1 1/2 GR5	2	
	803-078C	NUT LOCK 3/8-16 NYLON INSERT	2	
	804-012C	WASHER FLAT 3/8 SAE PLT	4	
	804-017C	WASHER FLAT 1/2 USS PLT	6	
	807-236C	SPRING EXT. 1.0ODX5.OLX.095MW	1	
	890-672C	U-BOLT WIRE ROPE CLP 3/16 GAL	2	



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