



MAINTENANCE & TECHNOLOGY COUNCIL

TECHNICIAN TRAINING – FIFTH WHEEL

Rob Marsh

*National Sales Manager
JOST International*

Robert D Wurch

*Service Representative
SAF-Holland, Inc.*

Agenda

- Fifth Wheel Identification Model / Serial Number
- Fifth Wheel Lubrication Recommendations and Intervals
- Fifth Wheel Adjustment Intervals and Procedures
- Up shock cushion and Pocket Insert Inspection
- Questions

Fifth Wheel Identification

1. Model Identification

Fifth wheel serial tags are located on the left side of the fifth wheel top plate above the fifth wheel bracket pin, or on the pickup ramps as shown (*Figure 1*).

The part number and serial number are listed on the tag as shown (*Figure 2*).

Figure 1

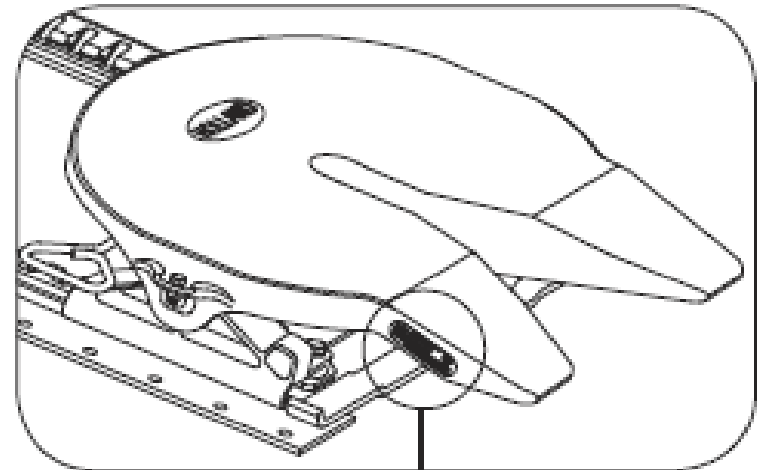
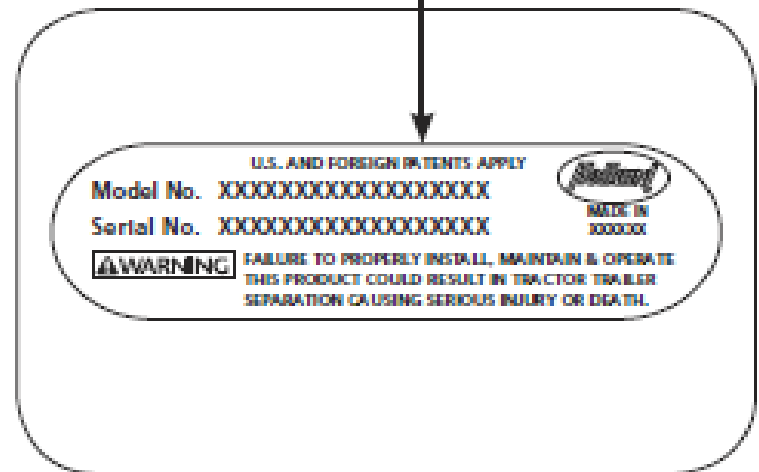


Figure 2



Fifth Wheel Maintenance

- Thoroughly clean the fifth wheel locking mechanism every 6 months or 60,000 miles.
- Inspect for bent, broken or missing parts every 6 months or 60,000 miles.
- Inspect regularly and lubricate as necessary.
- Check the operation by locking and unlocking using a SAF-Holland lock tester (TF-TLN-5001). Verify that the fifth wheel is completely closed.

Seasonal Maintenance Recommendations FW35



3500 SERVICE BULLETIN



Important Seasonal PM for your FW35 Fifth Wheel

October 10, 2001

The two most important items in eliminating fifth wheel operating difficulties are:

1. Proper Fifth Wheel P.M. Procedures (including as needed lubrication)
2. Proper Coupling Procedures



Failure to properly install, operate, or maintain this fifth wheel could result in tractor and trailer separation causing death or serious injury to others.

1. PROPER FIFTH WHEEL P.M.

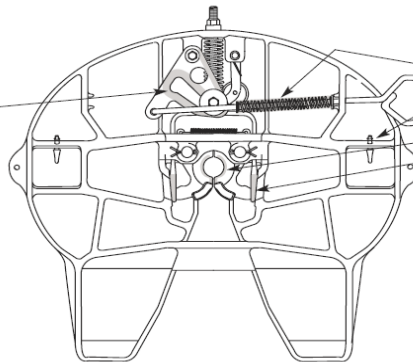
Routine periodic maintenance and lubrication are a necessary part of your 3500 fifth wheel's service life.

To get the maximum service life, perform the steps below at the intervals shown:

- A. Thoroughly clean the locking mechanism every 6 months or 60,000 miles.
- B. Inspect for bent, broken or missing parts every 6 months or 60,000 miles. Replace as necessary (use only genuine Holland parts).
- C. Relube, as shown below. Inspect regularly and relubricate as necessary.
- D. Check the operation by locking and unlocking using a Holland lock tester. Verify that the fifth wheel is completely closed, as shown on opposite side.

CLEAN:
ALL MOVING COMPONENTS
RECOMMENDATION:
Clean with spray WD-40 or CRC

OIL LUBRICATE:
CAM PLATE PROFILE
AND WASHERS
RECOMMENDATION:
Lubricate with SAE 10W or 20W motor oil



GREASE
Release handle and spring
Pocket fittings (right and left sides)
Locks
Yoke tips

RECOMMENDATION:
A "low temp" grade grease for -30°F or lower, such as:
Cato Oil & Grease #5213
Craftsman Chemical Co.
#1TF-2
Mystic 1P-200
or equivalent

XL-SB036-01

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Seasonal Maintenance FW35

2. PROPER COUPLING PROCEDURES

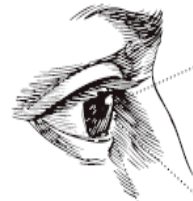
One of the most common causes of coupling difficulties is improper coupling procedures. A visual inspection is the best way to insure proper coupling. Also, it is required by law as part of the pre-trip inspection.

After coupling, look for the following:

Holland's 3500 Coupling Instructions (Publication XL-FW335-XX) highlights the most important steps in proper fifth wheel coupling. For copies of the 3500 Coupling instructions or any other service need, please contact your local Holland representative.

In the US, call 1-888-396-6501. In Canada, call 604-574-7491 for British Columbia, Alberta and Saskatchewan; or 519-537-2366 for Manitoba, Ontario, Quebec and Atlantic Canada. Refer to Holland Publication XL-FW306-XX and XL-FW308-XX for complete operating and maintenance procedures.

Visually check lock



1

NUT AND WASHER SNUG AGAINST FIFTH WHEEL

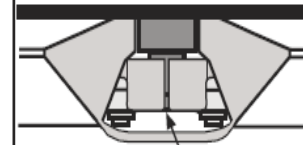


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NO GAP!



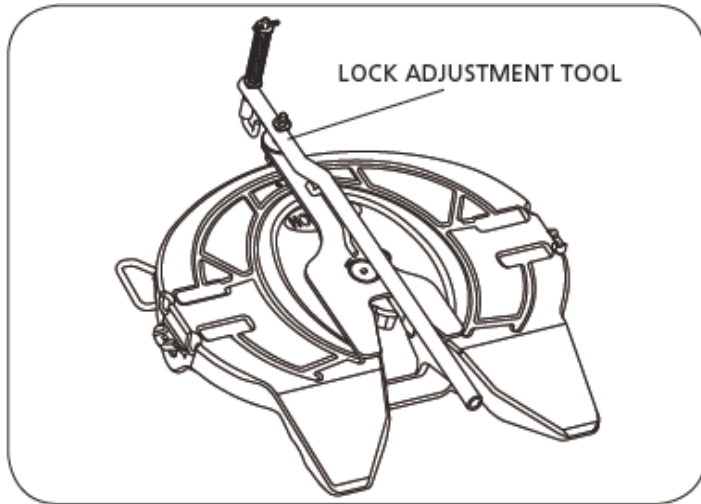
3



LOCKS COMPLETELY CLOSED AROUND KINGPIN

Lock Adjustment Tool

- **SAF-Holland Lock Adjustment Tool**



- **Incorrect Lock Adjustment Tool**



Fifth Wheel Adjustment

■ FW35 Adjustment


Back off adjustment nut 5-6 turns

Insert lock tester into fifth wheel

Tighten adjustment nut until snug

Tighten one additional turn

Verify release handle positions
(unlock, ready-to-lock, locked)



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Maintenance Procedures

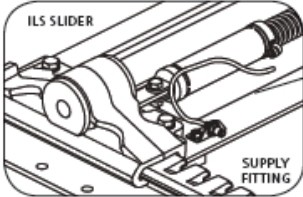
WARNING Failure to maintain proper fifth wheel adjustment could result in loss of vehicle control which, if not avoided, could result in death or serious injury.

NOTE: To obtain proper adjustment SAF-HOLLAND recommends use of Holland lock tester Part No. TF-TLN-5001, available from your local Holland distributor.

1. Back off adjustment nut several turns (*Figure 38*).
2. If fifth wheel is locked, pull release handle to unlock fifth wheel. If equipped with a manual secondary lock, first pull secondary release handle and hook on casting.
3. Set lock tester on fifth wheel top plate (*Figure 36*).
4. To lock fifth wheel, rotate lock tester handle clockwise (*Figure 37*).
5. With locks closed around lock tester, position adjustment nut on yoke shaft so it is slightly compressing rubber washer making it difficult to turn by hand (*Figure 38*).
6. Turn adjustment nut one additional full turn clockwise to further compress rubber washer (*Figure 38*).

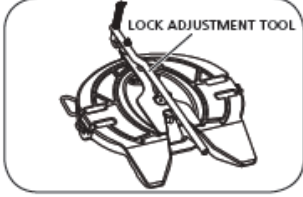
IMPORTANT: Over compressing the bushing with additional turns will take the fifth wheel out of proper adjustment and degrade the performance of the fifth wheel.

Figure 35




ILS SLIDER
SUPPLY FITTING

Figure 36



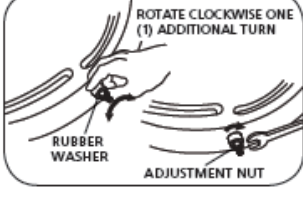
LOCK ADJUSTMENT TOOL

Figure 37



ROTATE HANDLE TO LOCK FIFTH WHEEL

Figure 38



ROTATE CLOCKWISE ONE (1) ADDITIONAL TURN
RUBBER WASHER
ADJUSTMENT NUT

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Fifth Wheel Adjustment

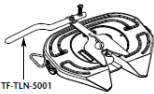
- Verify Lock Adjustment & Function - Every 3 months using a fifth wheel lock tester

MAINTENANCE PROCEDURES *continued*

REQUIRED INSPECTION AND ADJUSTMENT *continued*

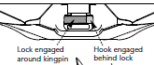
Inspection – Locking Mechanism

- Verify the proper operation of the fifth wheel by locking and unlocking the fifth wheel using a Holland Kingpin Lock Tester TF-TLN-5001.

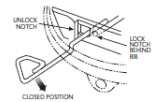


TF-TLN-5001

- Set tool on the fifth wheel and rotate the handle to lock.
- Push down and rotate the "J" hook under the fifth wheel, then pull the handle back to unlock.
- After each attempt, verify that the fifth wheel is properly locked, as shown.
- After unlocking, verify that the handles "kick off" the unlock notch into the ready to couple position.



Lock engaged around kingpin Hook engaged behind lock



UNLOCK NOTCH LOCK NOTCH BEHIND REAR CLOSED POSITION

WARNING: Do not use any fifth wheel that does not operate properly. Failure to properly couple tractor and trailer could cause separation, resulting in property damage, serious injury or death.

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Maintenance Procedures

WARNING: Failure to maintain proper fifth wheel adjustment could result in loss of vehicle control which, if not avoided, could result in death or serious injury.

NOTE: To obtain proper adjustment SAF-HOLLAND recommends use of Holland lock tester Part No. TF-TLN-5001, available from your local Holland distributor.

- Back off adjustment nut several turns (Figure 35).
- If fifth wheel is locked, pull release handle to unlock fifth wheel. If equipped with a manual secondary lock, first pull secondary release handle and hook on casting.
- Set lock tester on fifth wheel top plate (Figure 36).
- To lock fifth wheel, rotate lock tester handle clockwise (Figure 37).
- With locks closed around lock tester, position adjustment nut on yoke shaft so it is slightly compressing rubber washer making it difficult to turn by hand (Figure 38).
- Turn adjustment nut one additional full turn clockwise to further compress rubber washer (Figure 26).

IMPORTANT: Over compressing the bushing with additional turns will take the fifth wheel out of proper adjustment and degrade the performance of the fifth wheel.

Figure 35 ILS SLIDER SUPPLY FITTING

Figure 36 LOCK ADJUSTMENT TOOL

Figure 37 ROTATE HANDLE TO LOCK FIFTH WHEEL

Figure 38 ROTATE CLOCKWISE ONE (1) ADDITIONAL TURN RUBBER WASHER ADJUSTMENT NUT

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Maintenance Procedures

13. Fifth Wheel Adjustment

Fifth wheel adjustment should be checked at a minimum of every 60,000 miles or if excessive movement between kingpin and fifth wheel is noticed when driving the vehicle.

IMPORTANT: Excessive movement between the tractor and trailer can effect vehicle handling.

WARNING: Failure to maintain proper fifth wheel adjustment could result in loss of vehicle control which, if not avoided, could result in death or serious injury.

NOTE: To obtain proper fifth wheel adjustment SAF-HOLLAND recommends use of Holland lock tester Part No. 4000171, available from your local Holland distributor.

- If fifth wheel is locked, lift release handle up, pull all the way out, and up again to hook on casting. If air release equipped, actuate fifth wheel control valve to open lock (Figure 26).
- Ram lock tester into fifth wheel top plate to lock fifth wheel (Figure 27).
- Push the lock tester forward so that it is tight against the fifth wheel's front lock. Ensure the lock tester is pressed flat against the surface of the fifth wheel. Scribe a line on the surface of the fifth wheel face along front edge of lock tester (Figure 28).
- Pull lock tester toward fifth wheel ramps. Ensure the lock tester is pressed flat against the surface of the fifth wheel. Scribe a second line on the surface of the fifth wheel face along front edge of lock tester (Figure 29).

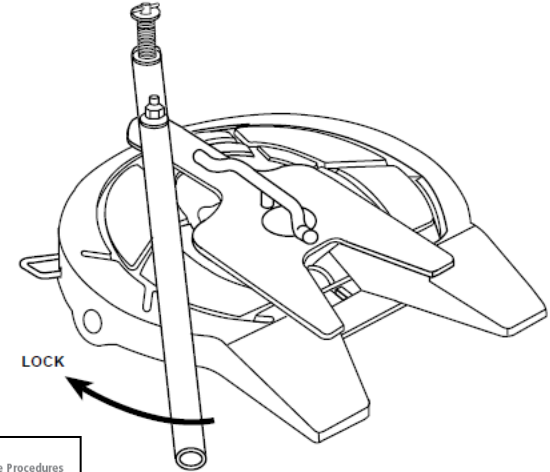
Figure 26

Figure 27

Figure 28 SCRIBE FIRST LINE FIFTH WHEEL FRONT LOCK

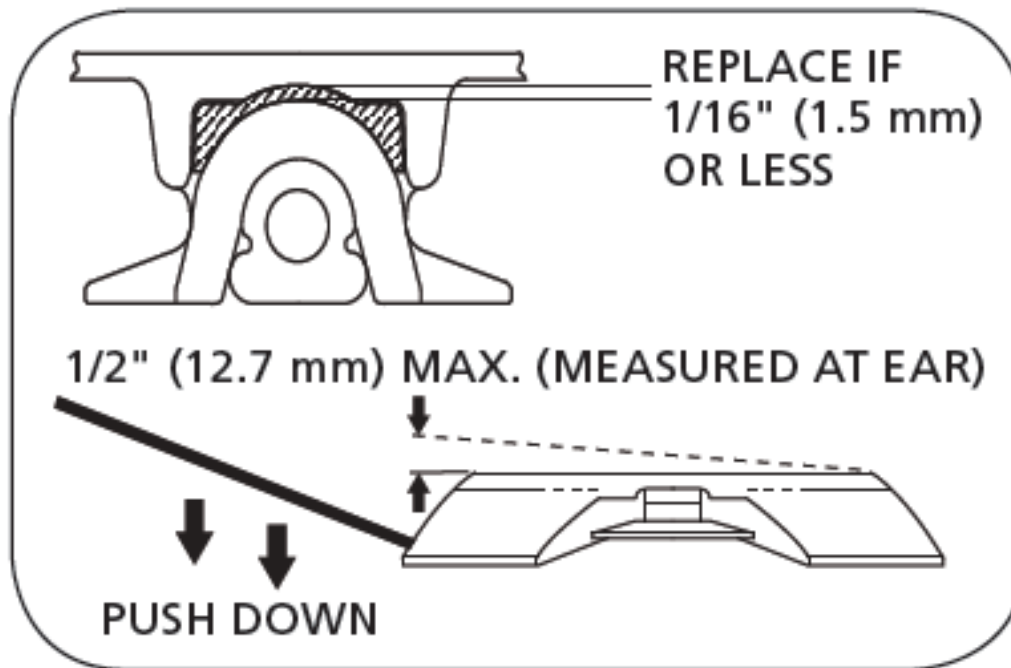
Figure 29 SCRIBE SECOND LINE

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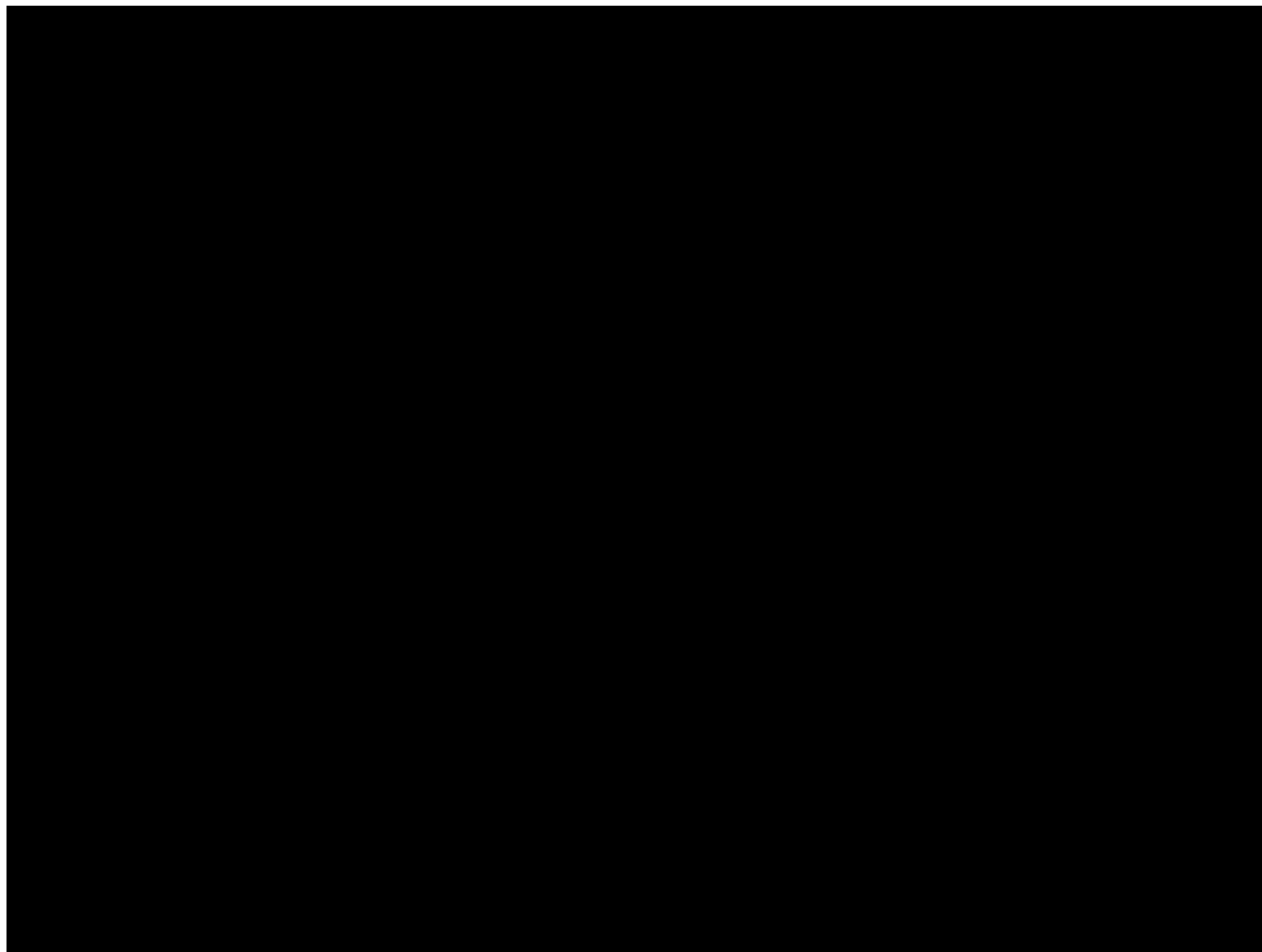


Fifth Wheel Maintenance / Inspection

- Pocket Insert Inspection - Every 6 months



FW35 Adjustment



Questions?

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