

ARMOR

THE ONLY FIFTH WHEEL DESIGNED SPECIFICALLY FOR YARD TRUCKS

Faster repairs • Greater uptime • Lowest total cost of ownership

Spring Replacement Instructions

Spring Replacement Kit (ARMORSRK)



Spring Kit

Part # **ARMORSRK**

Standard Repair Time:

1 Hour



Spring Replacement Kit Video available at:
fifthwheel.com/armor

Choose "Training" then "Spring Replacement"

Item	Description	Quantity
⑤	Torsion spring	1
⑥	Spring tensioner	1
⑦	Main spring	1

See video at fifthwheel.com/maintenance/
Choose "Spring Kit Replacement"



Two bolts with cotter pin

Torsion Spring

Main Spring

Spring Tensioner

Tools Required

Crowbar
Pliers
3/4" deep well socket with 2" extension
9/16" socket
11/16" socket
1/4" allen wrench
Kingpin tool

Personal Protective Equipment

Safety glasses
Work gloves
Steel toe boots



Warning!

- Keep hands away from throat of operating fifth wheel
- Wear Personal Protective Equipment (PPE)
- Make sure the wheel is disarmed before maintenance
- Follow all instructions
- Read operating manual before use
- Use proper procedures
- Use proper tools



For instructional video scan or go to
www.fifthwheel.com/maintenance/



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PARTS CONNECTION

fifthwheel.com • 800.874.9780

All kits include hardware

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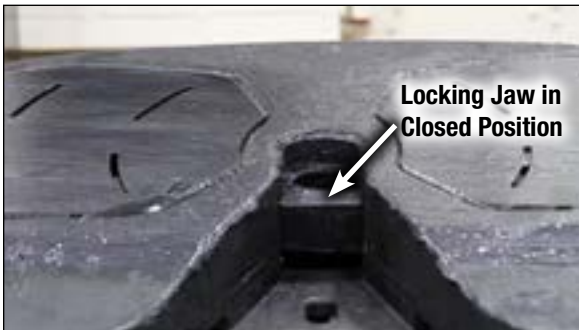
Disassembly

Hint: If you need help with parts identification see pages 10-12.

1

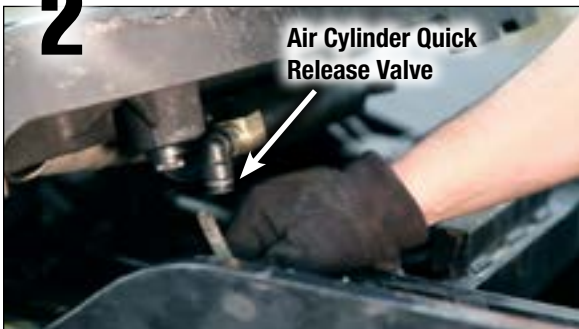


Trip the wheel closed using a crowbar. **NEVER use hands to trip an activated fifth wheel.**



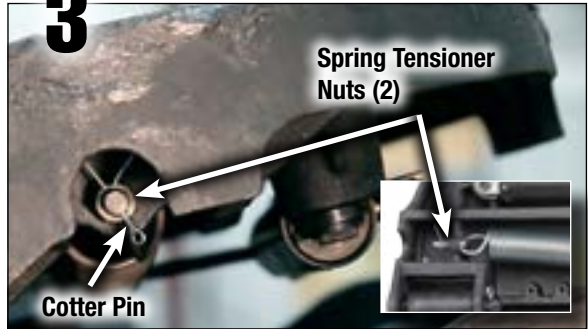
Hint: A fifth wheel is closed when the locking jaw is completely across the throat of the fifth wheel.

2



Raise the yard truck boom for easy access, then remove the air hose from the air cylinder quick release valve.

3

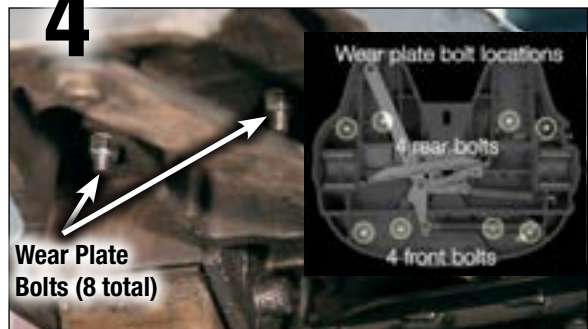


Remove two spring tension by removing the cotter pin with pliers. Then remove the two spring tensioner nuts. **Hint:** You can place a screwdriver in the main spring loop to prevent spring from rotating when unbolting nuts (see video).



This deactivates the fifth wheel and allows the user to perform maintenance.

4



Tilt the top plate down to access the two front bolts from the opposite side of the top plate. Remove the eight wear plate nuts and washers. Note all eight nut locations in photo.

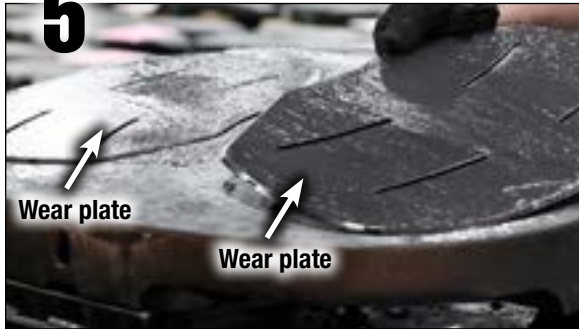
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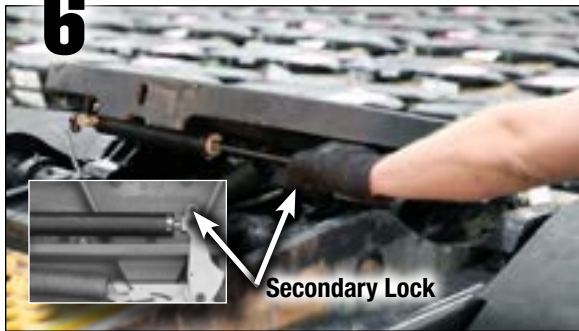
Disassembly

5



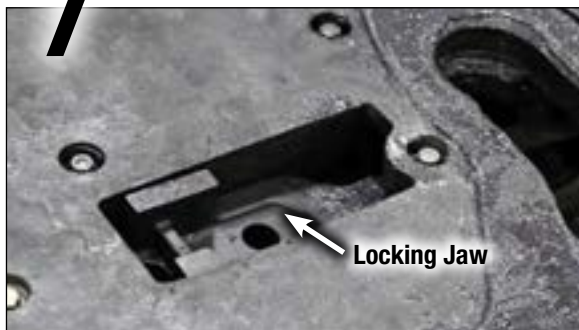
Remove both wear plates.

6



Tilt wheel down in rear to access secondary lock.
Pull the secondary lock to open the fifth wheel.

7

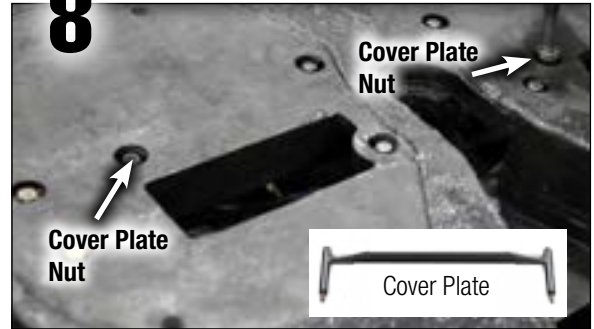


Notice locking jaw is now visible because wear plate is off
and fifth wheel is in open position.



Pull the locking jaw out of the top surface of the wheel.

8



Remove both cover plate nuts.



Push up cover plate to access the two cover plate nuts.



Remove cover plate from below.

9



Remove operating handle nut and bolt.

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Disassembly

10



Remove operating handle nut and bolt.

11



Remove air cylinder/secondary lock bolt.

12



Remove trigger assembly.



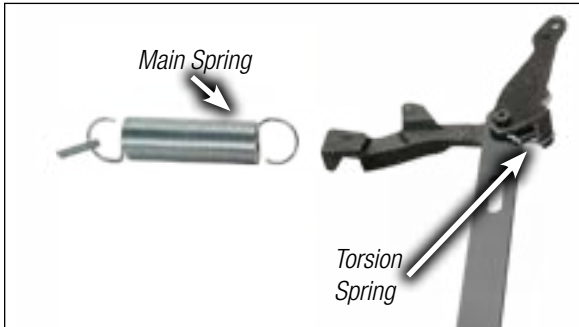
Trigger Assembly

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Spring Replacement



Now you can install a new torsion spring and main spring onto the trigger assembly.



First remove torsion spring.



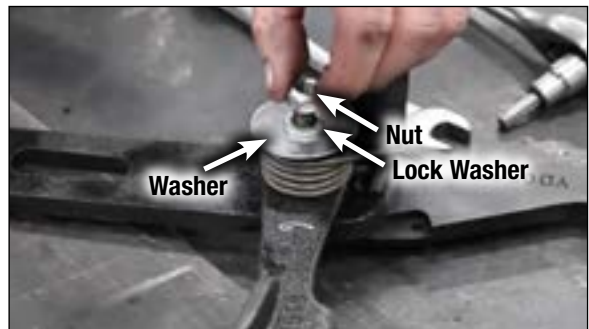
Remove torsion spring nut, lock washer and washer.



Remove torsion spring.



Install new torsion spring.



Install torsion spring nut, lock washer and washer.



Make sure torsion spring is secured in the notch on the operating handle before installing onto secondary lock.



Warning!

Wear protective equipment and use a tool to attach the torsion spring onto the secondary lock.

Secure the area, exercise extreme caution and keep fingers and hands from harm's way.

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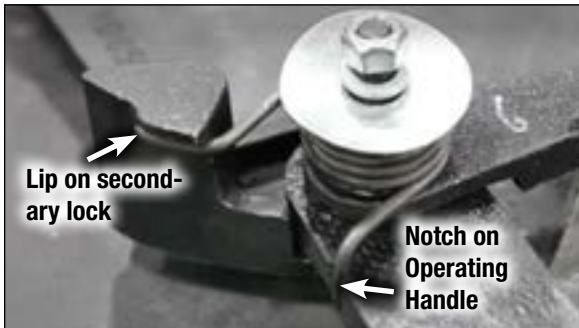
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Spring Replacement



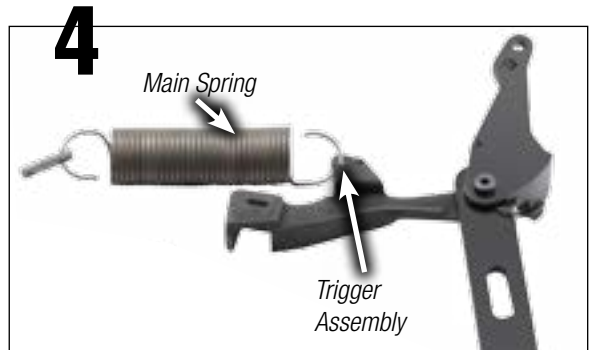
Use a tool to install torsion spring onto secondary lock,



Properly attached, the spring is secured by a lip on the secondary lock and a notch in the operating handle.



Tighten torsion spring nut.



Install main spring onto trigger assembly oriented as shown.



Make sure to add the spring tensioner before installing the trigger assembly into the top plate.



The trigger assembly is now ready to be inserted into the top plate.

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Assembly

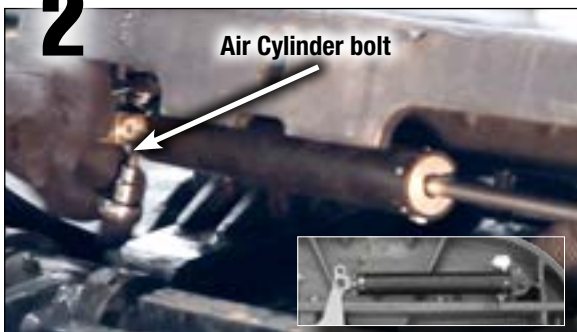
1



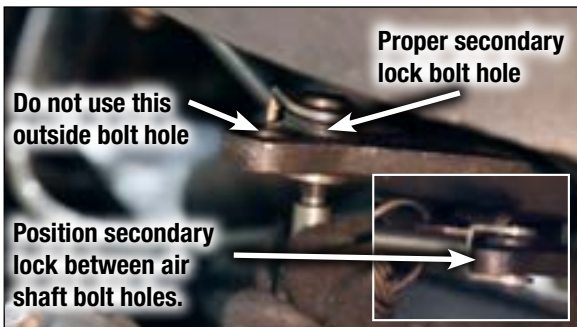
Insert trigger assembly into top plate.



2



Fasten air cylinder bolt and tighten nut.



Fasten air cylinder to the correct secondary lock bolt hole. Outside hole in secondary lock is for manual operation. Inside hole is for the air cylinder bolt.

3



Install operating handle bolt.

4



Install lock washers before installing new cover plate.



Make sure cover plate is orientate properly with the angled side pointing towards you.

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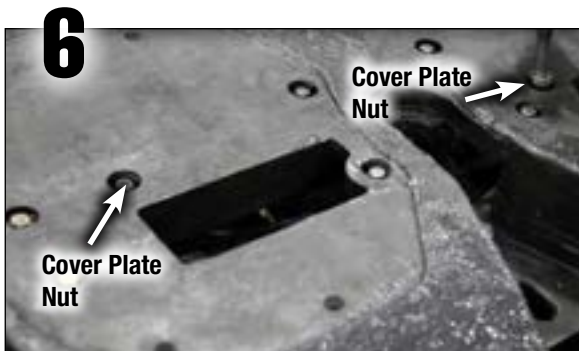
Assembly



Install lock washers before installing new cover plate.



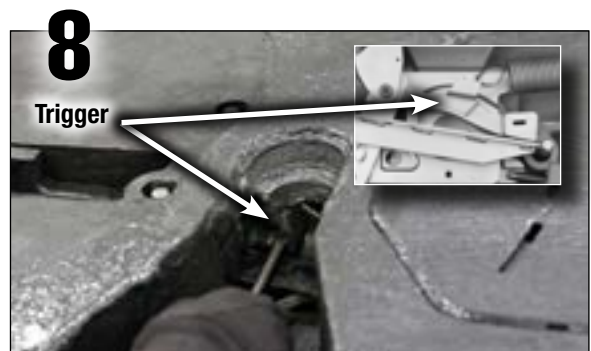
Make sure cover plate is orientate properly with the angled side pointing towards you.



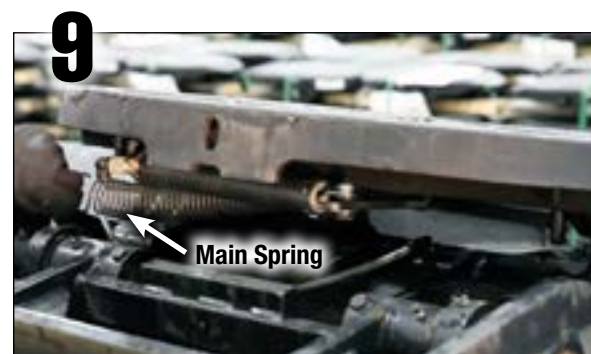
Fasten the two cover plate nuts and bolts.



Position the jaw pin into the slot of the operating handle.



Trip the trigger off the stationary jaw stop. It pushes in.



Close the fifth wheel by pulling the main spring.

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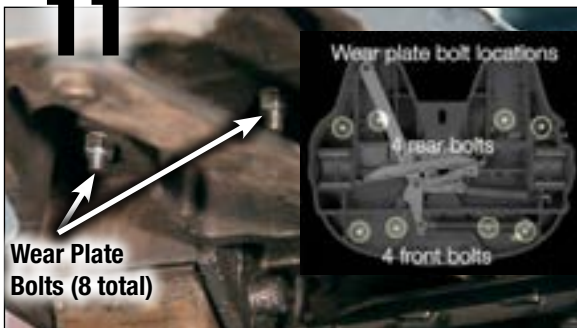
Assembly

10



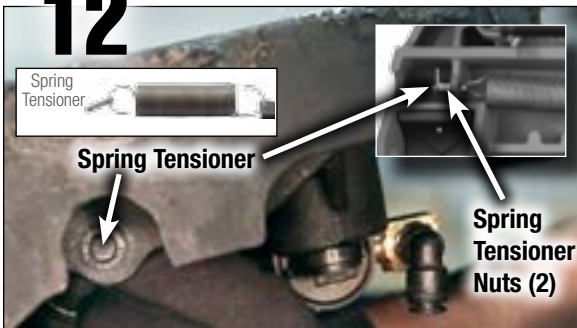
Install both wear plates.

11



Install the eight wear plate nuts and washers. You can tilt fifth wheel up and down for easy access. Note all bolt locations in photo.

12



Insert the spring tensioner through the hole. Install the TWO spring tensioner nuts. **Hint:** You can place a screwdriver in the main spring loop to prevent spring from rotating when bolting on nuts (see video).

13



Install the cotter pin.

14



Connect the air hose to the air cylinder quick release valve.

15



Tilt the fifth wheel down and lower the yard truck boom. Test the wheel using the Fontaine kingpin tool (ARMORKPK) by frequently opening and closing the fifth wheel (see video).

Test Kingpin Tool
Part # **ARMORKPK**



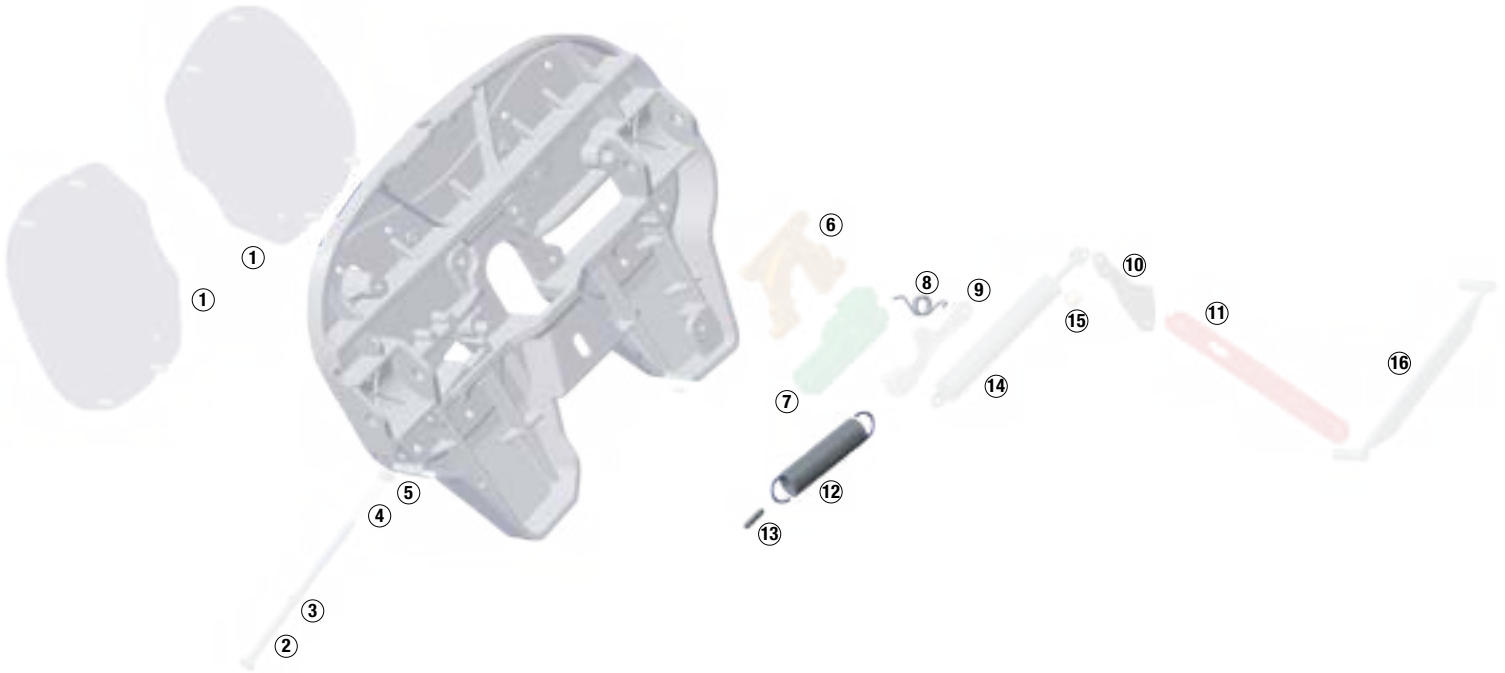
Test Kingpin Tool

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Part Identification



Item	Description	Quantity	Included in kit
①	Wear plate	2	ARMORWPK
②	Knockout rod	1	ARMORKRK
③	Knockout rod clip	1	ARMORKRK
④	Knockout rod spring	1	ARMORKRK
⑤	Knockout rod nut	1	ARMORKRK
⑥	Stationary jaw	1	ARMORSJK, ARMORLAK
⑦	Locking jaw	1	ARMORJRK, ARMORLAK
⑧	Torsion spring	1	ARMORTAK, ARMORLAK, ARMORSRK
⑨	Trigger	1	ARMORTAK, ARMORLAK
⑩	Secondary lock	1	ARMORTAK, ARMORLAK
⑪	Operating handle	1	ARMORTAK, ARMORLAK
⑫	Main spring	1	ARMORTAK, ARMORLAK, ARMORSRK
⑬	Spring tensioner	1	ARMORTAK, ARMORLAK, ARMORSRK
⑭	Air cylinder	1	ARMORACK
⑮	3-way air valve	1	ARMORACK
⑯	Cover plate	1	ARMORTAK, ARMORLAK, ARMORCPK



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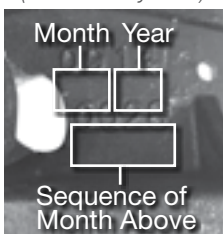
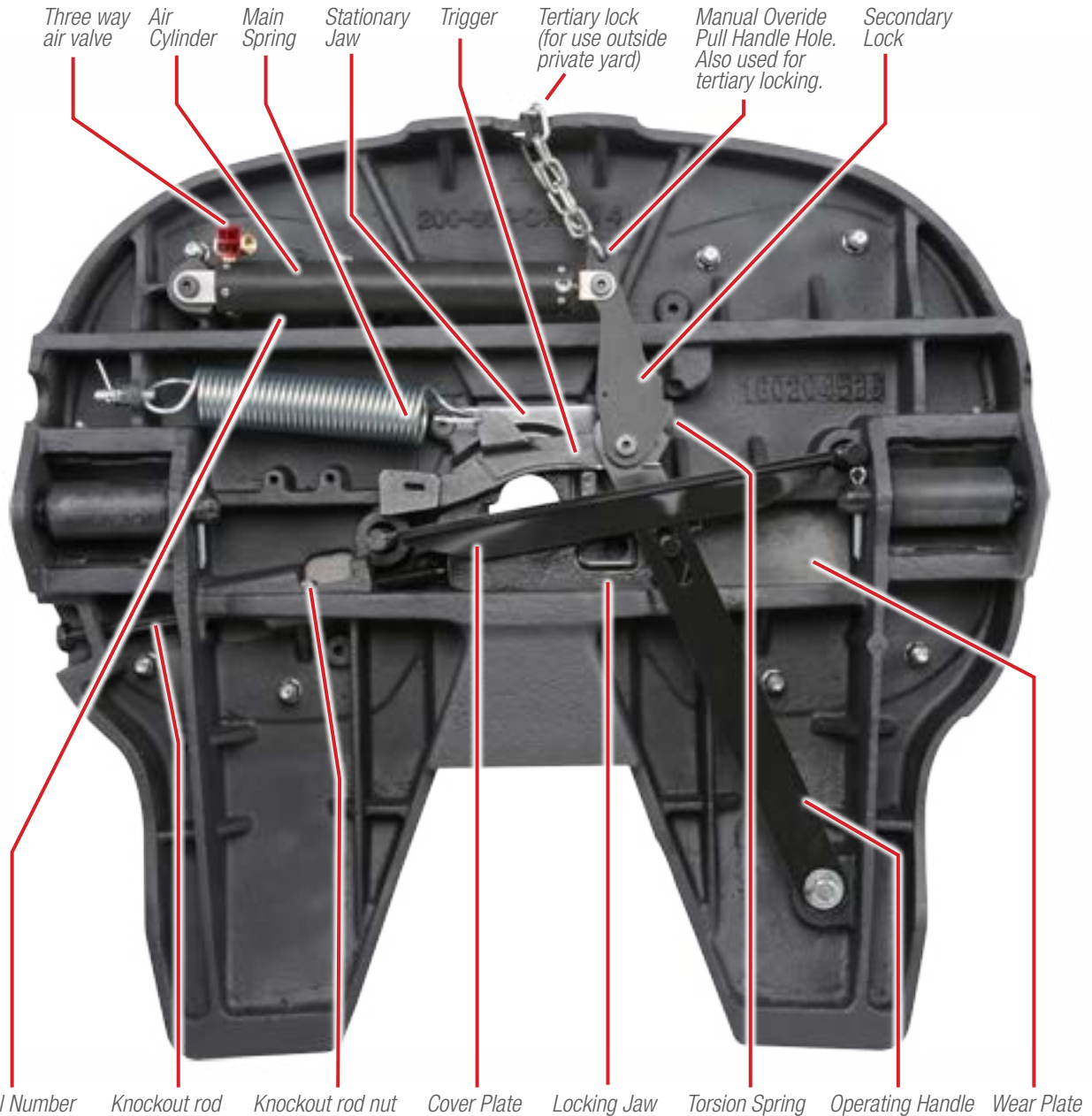
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Part Identification – Bottom View



28th fifth wheel
manufactured in
September, 2014

Example serial number
09140028



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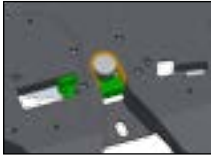
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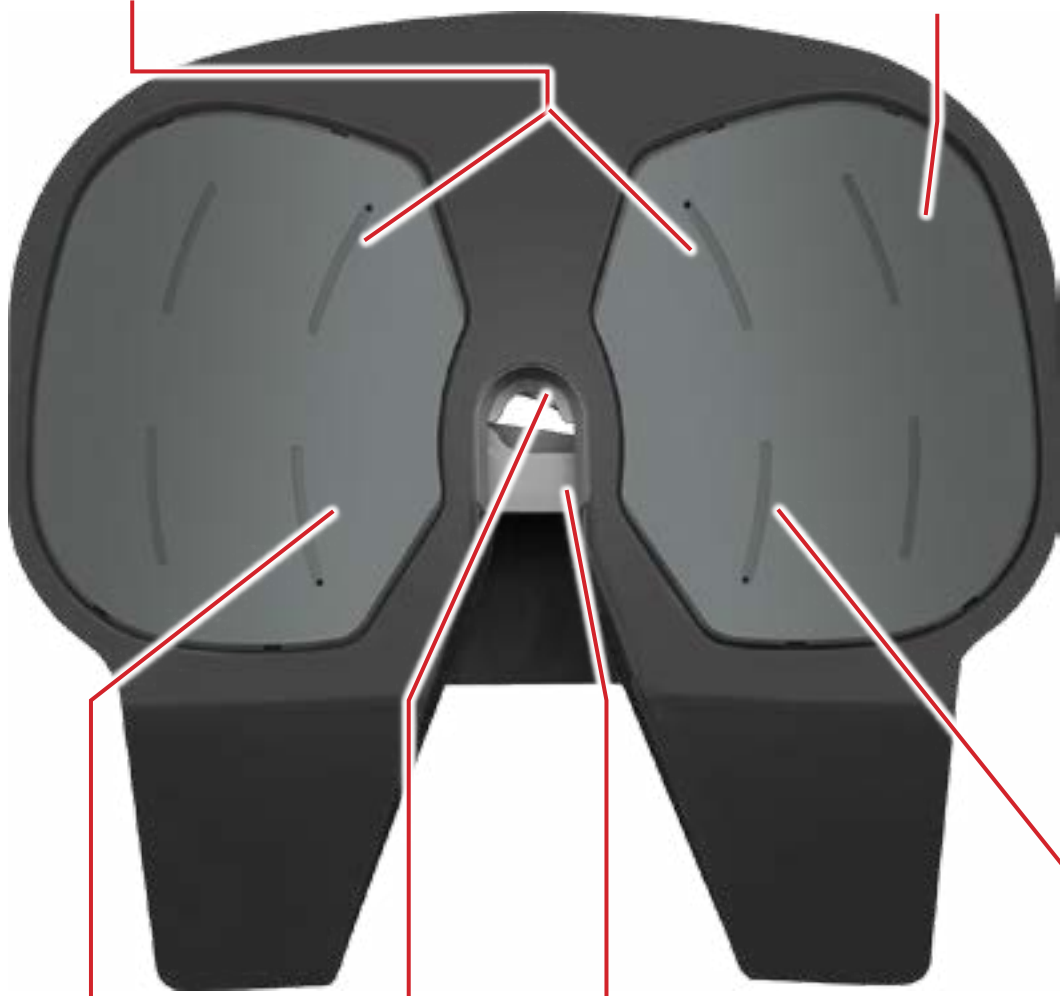
Part Identification – Top View



Wear Plates (removable for easy maintenance)



Air cylinder bolt access (under wear plate)



Locking jaw access (under wear plate). Locking jaw slides in for easy maintenance.



Stationary Jaw

Locking Jaw

Knockout rod access (under wear plate). Slot for easy knockout rod maintenance.



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