44DH Dual Height Fifthwheel

Maintenance Instructions & Fault Finding

02-12-20 UK5.2.010

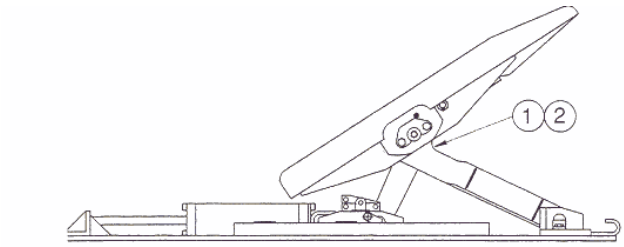


Figure a

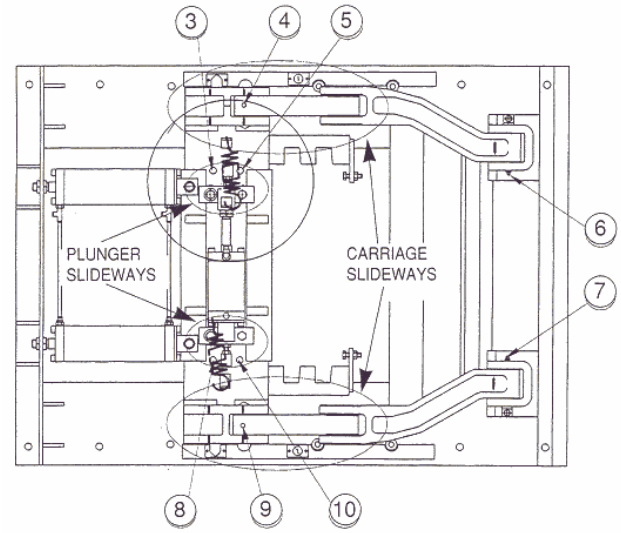


Figure b
Dual height fifthwheel (shown without fifthwheel).

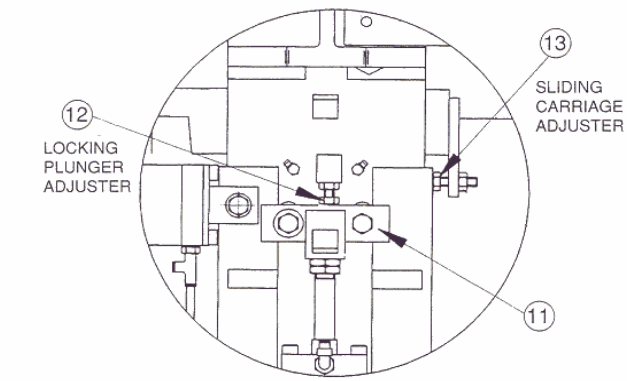


Figure c
(Shown without spring)

1. Maintenance and Inspection

It is important to remember that a fifthwheel is a safety critical item and should be treated as such. Proper pre-ventative maintenence, inspection ansd lubrication are essential for a long, safe and trouble-free service life.

NOTE
It is recommended practice to raise and lower the fifthwheel at least once a week to ensure that the air cylinder piston rods remain clean and to prevent the locking plungers in the sliding carriage from siezing.

2. Lubrication Specification

2.1 Locking Plungers	Use ISO22 Inbibitor OIL only
2.2 All other areas	Use EP2 Lithium grease

3. Initial Lubrication

3.1 Prior to going into operation, the following parts should be well lubricated

A. Fifthwheel Topplate and mechanism
B. All 10 grease points of the lifting mechanism (see figs a & b items 1-10)
C. Carriage slideways, where mechanism slides on baseplate (see fig b)

3.2 The air cylinders are initially lubricated and do not require any additional lubrication under normal operating conditions.

4. Routine Maintenance

4.1 Every 10,000 km (or 1 month)

4.1.1 Uncouple the tractor and ensure that the fifthwheel is in the raised position (label position No 1).
4.1.2 Clean the fifthwheel and lifting mechanism, paying particular attention to the plunger and carriage slideways. (see fig b).
4.1.3 See fifthwheel maintenance instructions for all aspect of fifthwheel maintenance & adjustment.
4.1.4 Inspect the lifting mechanism for damage and defects.
4.1.5 Apply clean grease to the 10 grease points on the lifting mechanism (*see figs a,b*).
4.1.6 Check the torque of all mounting bolts (M16 bolts grade 8.8 should be torqued to 252Nm -185lbsft)
4.1.7 Check that all safety labels (4 position indicators, and control box instruction label and fifthwheel safety clip or Interlock labels) are in position and are legible.
Replace all labels that are missing or damaged.

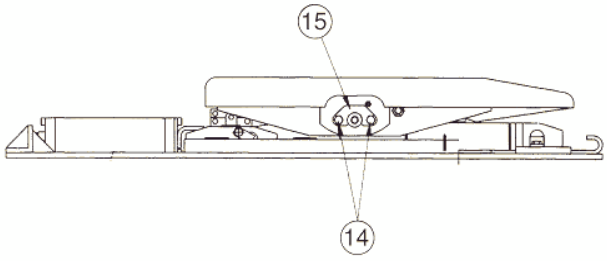


Figure d

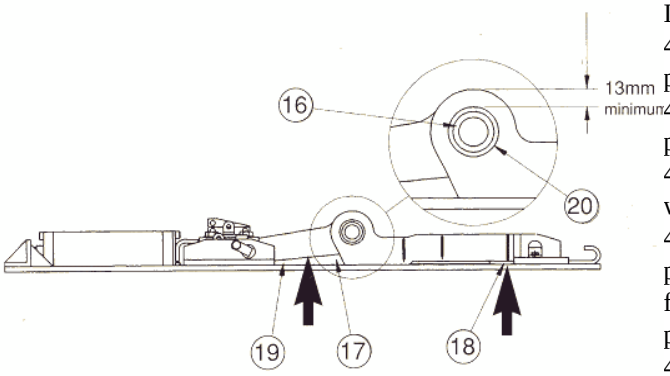
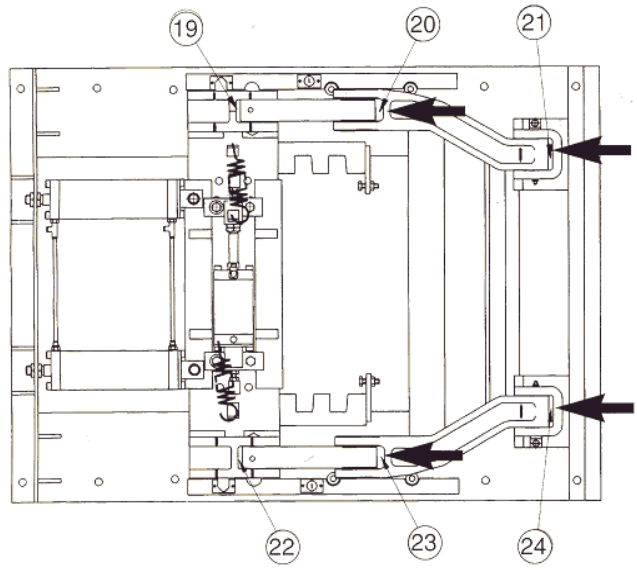


Figure e
(Shown without outer guide)



4.2 Every 50,000 km (or 6 months)

In addition to carrying out the 10,000 km maintenance

4.2.1 Check the operation of the lifting mechnism *(see fig e).*

- The locking plunger brackets (11) should make contact with the adjuster screws (12) on both sides of the sliding carriage in both the raised and lowered positions with the plungers fully engaged.
- When locked in the raised position the sliding carriage stops (13) should just be touching the front crossmember on both sides of the sliding carriage.

4.2.2 Check the sliding carriage for movement. With the unit in the raised position, operate the raise/lower control lever whilst leaving the plunger lock lever in the locked position. There should only be a small amount of horizontal movement visible. Excessive movement can be removed *(see section 5.1).*

4.3 Every 100,000 km (or 12 months)

In addition to carrying out the 50,000 km maintenance

4.3.1 Remove the 4 M10m screws (14) securing the fifthwheel pivot bolts *(see fig d).*

4.3.2 Withdraw the pivot bolts (15) form the fifthwheel using puller tool 59002231) and remove the fifthwheel

4.3.3 Examine the rubberbush (16) inside the pivot bush for wear /damage. replace if necessary.

4.3.4 With the mechanism in the lowered position, lever the pushrod (19) vertically (see fig e no 17) and horizontally (see fig e no 20) checking for signs of wear in the pivot (20) and pushrod bushes (6).

4.3.5 If the movement of the pushrod relative to the crankarm exceeds 1mm withdraw the pivot bush (6) using the service tool (59011310) and examine the upper pushrod bush for signs of wear. If the lining of the bush has worn beyond the levels of the indentations, replace it. Measure the outside diameter of the bush in the centre section. If this is less than 54.5mm at any point, replace it.

4.3.6 Lever the rear frame vertically (see fig e no 18) then horizontally (see fig f no 24) checking for wear in the rear frame pivot pins/bushes.

4.3.7 If the movement of the frame relative to the pivot bracket exceeds 1mm, remove the M10 retaining screw and withdraw the pin. Examine the pins & bushes for wear.

4.3.8 Lever the pushrod vertically (see fig e no 19) and then horizontally to check for wear in the lower pushrod bush and sliding pivot pin. If the movement of the pushrod to the carriage exceeds 1mm, remove the M10 retaining screw and withdraw the pin.

4.3.9 Check the depth of the crankarm journal.(see fig e). If less than 13mm at any point replace the rear frame and pushrods.

4.3.10 Carry out a full visual inspection looking for signs of excessive wear, damage or cracks.

Note: Any fault found should be repaired before returning the vehicle to service.

In case of any doubt consult Technical Dept.

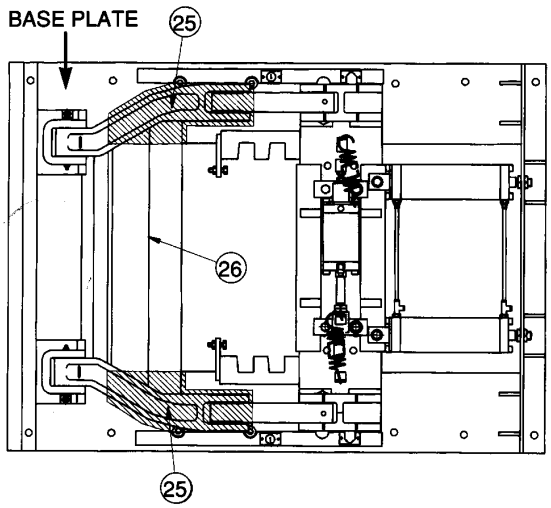


Figure g

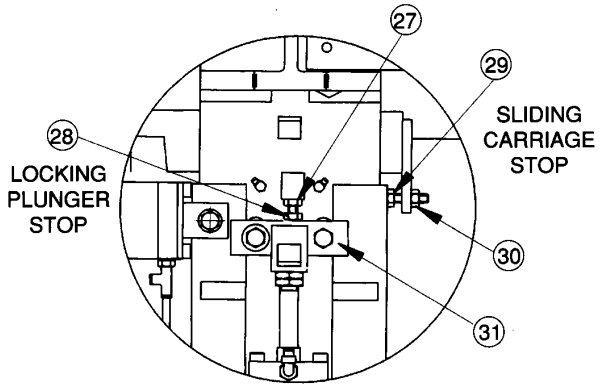


Figure h
(Shown in raised position and without spring).

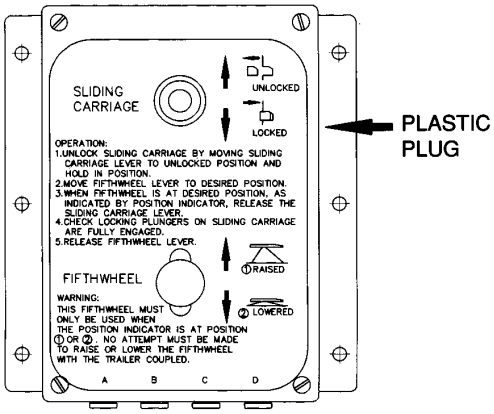


Figure j

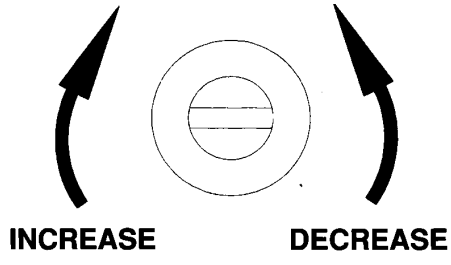


Figure k

4.4 Wear Limits

Pivot Bushes — If the lining of the metal bush is worn past the identations, replace the bush.

Front /Rear Pins — If the diameter of a pivot pin is less than 34.5mm at any point replace the pin.

5. Adjustment Procedures

5.1 Locking Plungers *(see figs. g & h)*

5.1.1 Check that the slots in the slider rail and the areas under the rear frame (25) are free from obstruction and that the rear frame (26) is resting on the base plate with the fifthwheel in the lowered position.

5.1.2 Move the fifthwheel to the raised position and release the locknuts (27) on the adjuster screws on both sides of the sliding carriage.

5.1.3 Wind the adjuster screws away from the air cylinder brackets (31).

5.1.4 Release the locknuts on the sliding carriage stops (30).

5.1.5 Wind the adjuster screws (29) away from the sliding carriage.

5.1.6 Without moving the sliding carriage control lever, move the fifthwheel control lever up & down to ensure that the locking plungers are fully seated in the slots in the slider rail.

5.1.7 Wind out the 2 adjuster screws (28) until they contact the air cylinder brackets (31).

5.1.8 Tighten the 2 locknuts (27).

5.1.9 Wind out the adjuster screws (29) until they touch the sliding carriage.

5.1.10 Tighten the 2 locknuts (30).

5.1.11 Check that the lifting mechnaism operates correctly.

5.2 Sliding Carriage Position *(see figs.g & h)*

5.2.1 Check that the slots in the slider rail and the areas under the rear frame (25) are free from obstruction and that the rear frame (26) is resting on the base plate with the fifthwheel in the lowered position.

5.2.2 Release the locknuts on the sliding carriage stops (30).

5.2.3 Ensure that the locking plungers are fully seated *(see section 5.1.6).*

5.2.4 Wind out the adjuster screws (29) until they touch the sliding carriage.

5.2.5 Tighten the 2 locknuts (30).

5.2.6 Check that the lifting mechnaism operates correctly.

5.3 Fifthwheel Descent Speed *(see fig j)*

The rate at which the fifthwheel descends is preset at the factory (but can be adjusted if necessary).

5.3.1 Remove the plastic plug in the right hand side of the Control Box to reveal the adjuster screw.

5.3.2 Turn the adjuster screw

Clockwise - To slow the rate of descent

Anticlockwise - To increase the rate of descent

5.3.4 Replace the plastic plug

Fault Finding

Problem	Possible Cause	Correction
A. Will not couple to trailer	- Fifthwheel topplate below level of trailer rubbing plate	-Adjust the height of the fifthwheel or trailer. -If height is correct, see Fifthwheel Operating Instructions for further information.
B. Fifthwheel will not raise/lower	- Plungers not released from slider rails	-*See section C below*
	- Air cylinder problem	-Check air pressure at supply port, control box and air cylinders (7 bar minimum required at cylinders). -If pressure correct, check air cylinder function
	- Obstruction on slideways	-Clean slideways thoroughly and relubricate.
	- Lifting mechanism seized	-Lubricate all points on mechanism
C. Locking plungers will not release	- Insufficient air pressure at cylinder	-Check air pressure (7 bar minimum required)
	- Obstruction in plunger slideways	-Clean slideways thoroughly and relubricate
	- Plungers seized in housings or in slider rails	-Remove return springs, plunger air cylinder and remove locking plungers. Clean plungers and housings, relubricate and reassemble. Check that plungers operate correctly after reassembly.
D. Locking plungers will not engage in slots	- Position indicator not aligned with label	-Reposition the carriage using the control box.
	- Obstruction on carriage slideways (restricting carriage movement)	-Clean slideways thoroughly and relubricate
	- Obstruction on plunger slideways (restricting plunger movement)	-Clean slideways thoroughly and relubricate
	-Carriage travel stops incorrectly adjusted (raised position)	-Adjust stops *(see section 5.2)*
	-Return spring(s) broken or missing	-Replace spring(s)
	-Plunger valve faulty	-Check operation of valve and replace if necessary.
	-Obstruction under rear frame (preventing carriage from reaching lowered position)	-Clean area under rear frame and relubricate as necessary.

FONTAINE

Fontaine International Europe Ltd
Enterprise Way, Newton Road
Lowton,
WA3 2AG, United Kingdom
Tel: +44 (0)1942 686000
Fax: +44 (0)1942 686006
e-mail: sales@fifthwheeleurope.com
Website: www.fifthwheeleurope.com