



FIFTH WHEELS

INSTALLATION INSTRUCTIONS ILS SLIDER



Holland Eurohitch Fifth Wheels

Installation Instructions Covering ILS Lightweight Slider Mountings

GENERAL INFORMATION



WARNING

Failure to read, understand and follow the important information contained in these instructions may result in a hazardous condition or cause a hazardous condition to develop



WARNING

When welding, use a procedure which assures a sound, good quality weld and which protects operators and others. Overwelding may cause distortion and damage, and underwelding may not develop sufficient strength.

Welding procedures EN499-E 42 0 RR 1 2 (electrode) or EN440-G 42 0 G3Si1 (gas) are recommended. Take precautions to ensure that the tractor electrical system is not damaged during the welding process.

FIFTH WHEEL DESIGN AND INTENDED USE

Holland Fifth Wheels are Designed and Intended to be Used :

1. For pulling trailers with standard ISO king pins which are in good condition and securely mounted or locked in position in the trailer
2. Within the capacities stated in Holland literature
3. As recommended in Holland literature (available from Holland and/or Holland distributors)

Holland Fifth Wheels are NOT Designed or Intended For :

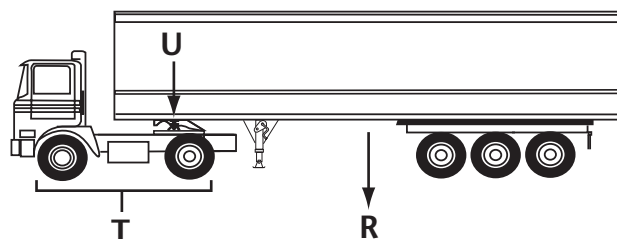
1. Use with non-ISO king pins, such as king pins which are bent, improper size or dimensions, not secured to maintain ISO configuration, or which are installed in warped trailer skidplates
2. Tow-away operations which damage or interfere with the proper operation of the fifth wheel
3. The attachment of lifting devices
4. The transportation of loads in excess of rated capacity
5. Applications other than recommended

RATINGS AND CAPACITIES

The tractor/trailer combination to be operated must be within the Gross Combination Weight, Vertical Load and D-Value Capacities given in the Holland specification for the fifth wheel concerned.

To calculate the D-value for a tractor and semi-trailer combination use the following formula

$$D = g \times \frac{0.6 \times T \times R}{T + R - U} \quad (\text{kN})$$



T = Weight of towing vehicle including the vertical load on the fifth wheel

R = Total weight of the loaded semi-trailer

U = Vertical load on the fifth wheel

g = Acceleration due to gravity (assumed to be 9.81 m/s²)

Example calculation :

T = 17 (Tractor weight 7t plus vertical load 10t)

R = 33 (10t imposed on fifth wheel and 23t

U = 10 on rear bogie)

g = 9.81

$$D = 9.81 \times \frac{0.6 \times 17 \times 33}{17 + 33 - 10} \quad (\text{kN})$$

D-Value = 82.55 kN

The above calculation represents a 2 axle tractor with tri-axle trailer operating at a GCW of 40000 kg

For safe operation the D-value calculated must not exceed the D-value rating of the Fifth Wheel and/or King Pin

GENERAL RECOMMENDATIONS

1. Every user and installer using Holland products either recommended or not recommended by Holland, must thoroughly satisfy himself that the installation procedure used is appropriate for the vehicle, product and application
2. Consult the Holland literature for fifth wheel capacities and applications
3. Consult the tractor manufacturers instructions and any applicable government and/or transport department guidelines and regulations where the vehicle is to be registered and/or operated
4. Determine the range of proper fifth wheel positions which are important for weight distribution, swing clearance and handling characteristics. consult the tractor manufacturers recommendations



With the sliding fifth wheel in its rearmost position the centre of the king pin locks must always be positioned on or ahead of the tractor rear axle or bogie centre line

5. Bolt holes can be 2 mm larger in diameter than the bolt fastener. Bolts must be adequately tightened using charted torque ranges in Nm for the recommended grade and size of bolts used

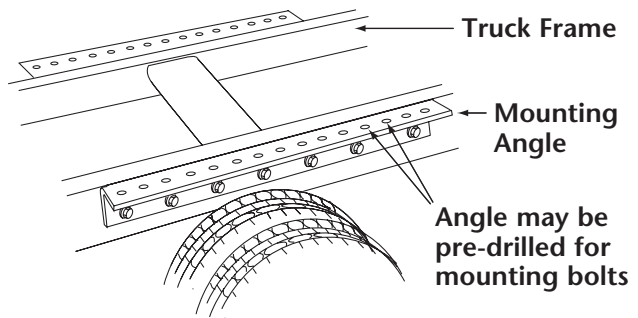
INSTALLATION



WARNING

The installation of the fifth wheel and mounting plate on the vehicle must conform to EC regulation 94/20 EG appendix VII, (see appendix I, No. 5.10)

NOTE: These instructions are based on the tractor unit being fitted with outboard 'L' profile mounting angles (fitch plates). Please contact Holland if your tractor unit is not fitted with mounting angles



WARNING

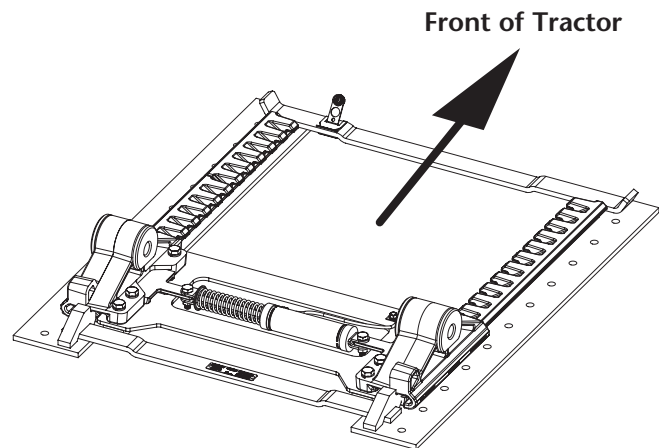
In addition to these recommendations, all fifth wheel mounting plate installations must be made in accordance with all applicable government regulations where the vehicle is registered and/or operated.

SLIDE PLATE MOUNTING

1. The ILS series slide plates are designed for bolting directly on to the truck chassis mounting angles and are available with different hole patterns and hole sizes to suit all European tractor units. Ensure that the hole pattern on the slider supplied is compatible with the chassis.
2. The slider should be bolted to the chassis using the size of bolt to suit the pre-drilled hole pattern in the slide plate. The bolts used should be grade 8.8 minimum and all holes in the slide plate must be used.
3. The chassis mounting angles on some tractor units may not be pre-drilled. In this case ensure that the hole pattern on the slider is compatible with the mounting angles and give will required edge distance, etc. when holes are drilled in the mounting angle. Position slider in correct position on mounting angles, clamp in position and use as template to mark / drill pilot holes in mounting angle.

Note: Where it is necessary to weld on the slide plate, for example to attach a subframe to raise the installation height of the slider, this must be done in accordance with the welding instructions on the front page of these instructions. **DO NOT** weld on the tractor unit chassis and/or mounting angles without consultation and agreement with the truck manufacturer

Note: The attachment of an additional subframe and/or lifting frame to this slider may affect the type approval.

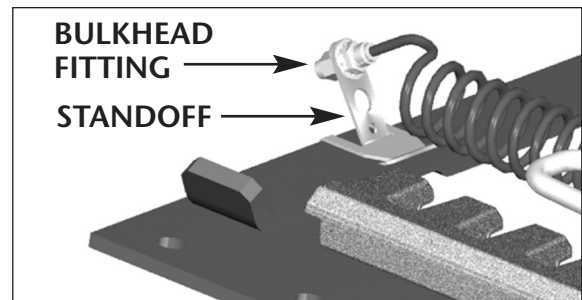
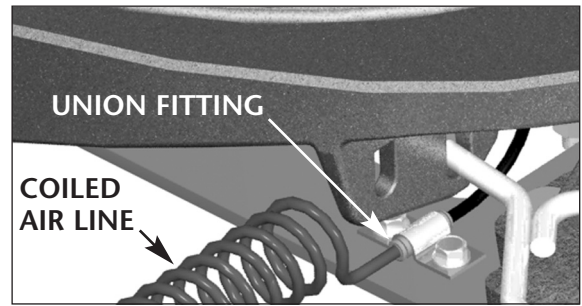


INSTALLATION OF AIR RELEASE

1. Mount the cab control valve in accordance with the instructions provided. It should be readily accessible to the driver, but protected to prevent accidental activation
2. Attach an air line, using appropriate fittings to the 'air' or 'in' port of the valve. Use an air source recommended by the tractor manufacturer
3. Make sure that the air supply to the fifth wheel and slide base is turned off
4. Remove any masking that may be present on the bulkhead and union fittings
5. Connect the coiled air line by pushing it into the union fitting as shown opposite
6. Connect the other end of the coiled air line by pushing it into the bulkhead fitting on the standoff bracket as shown

NOTE: If there are any undesired line interferences, there is an optional hole in the standoff bracket that the bulkhead fitting can be mounted in

7. Turn on the air supply to the fifth wheel and slide base and check for proper function



INSPECTION AND LUBRICATION

The fifth wheel must be given a final inspection and be fully lubricated before going into service.

1. Review the installation. Be sure that all nuts and bolts are in place and properly tightened. Be sure that all necessary steps were followed and that any components removed to facilitate installation are reinstalled
2. Check the fifth wheel locking mechanism with a Holland lock tester and examine for proper locking as described in the *Fifth Wheel Operating Manual* supplied with your fifth wheel. This must be done to ensure that the fifth wheel has not been damaged during shipment or installation
3. Lubricate all moving parts with a light oil.
4. Apply grease to bearing surface of mounting bracket where applicable and where a grease fitting is provided on the fifth wheel pocket. The top plate should be lifted up to relieve weight on the bracket while the grease is applied. (not required on fifth wheels fitted with pocket inserts)
5. On standard fifth wheels apply a generous coating of grease to the top surface of the fifth wheel where it will contact the trailer skidplate. (not required on LowLube or NoLube fifth wheels)

CHECK OPERATION



WARNING

The fifth wheel locking mechanism must be checked prior to use. Do not use any fifth wheel which does not operate properly

IMPORTANT NOTE : PLEASE ENSURE THAT THE FIFTH WHEEL OPERATING MANUAL SUPPLIED WITH THE FIFTH WHEEL IS PASSED ON TO THE OPERATOR AND THAT IT IS READ AND UNDERSTOOD BY THE OPERATOR AND DRIVERS

Contact Holland for additional copies if required

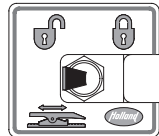
OPERATING INSTRUCTIONS

Fifth Wheel Slide Adjustment

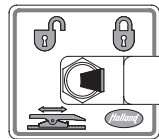
1. Position tractor and trailer in a straight line and on level ground
2. Lock the trailer brakes

Note: The trailer must be stopped and the trailer brakes locked to prevent damage to the tractor or trailer by uncontrolled sliding of the fifth wheel

3. Move cab switch to unlock position to release slide lock plungers
4. Slowly drive the tractor forward or backward to position the fifth wheel
5. Re-engage the slide locking plungers by moving cab switch to lock position



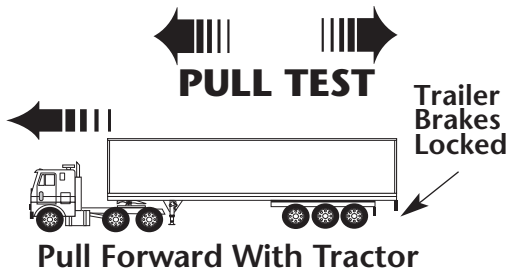
Move cab switch to unlock position.



Move cab switch to lock position.

Note: Retract landing gear if lowered

6. Do a pull test to make sure that the plungers are properly engaged and locked into the slide base



Note: Do not operate the vehicle if the plungers are not engaged and landing gear fully retracted, as damage to the tractor, trailer and landing gear may occur

MAINTENANCE PROCEDURES

Note: Failure to follow all of the important maintenance procedures contained in these instructions may result in a hazardous condition or cause a hazardous condition to develop. All maintenance must be performed by a qualified person using proper tools and safe procedures. All maintenance must be performed while the tractor is uncoupled from the trailer

Perform the following every 3 months or 50000 km whichever comes first

1. Inspect the slider mounting. Check torque and replace any missing or damaged bolts
2. Check the slider assembly for any broken, worn or damaged parts and replace as needed, use only Genuine Holland Parts
3. Release and slide fore and aft to assure that the entire mechanism functions correctly
4. Apply an aerosol spray lubricant or light oil to the slide path
5. Apply Never-Seez to the plunger and its moving parts
6. Reposition and lock mechanism



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The Holland Group, Inc.
Holland, MI 49423
United States
Phone: (616) 396-6501
Fax: (616) 396-1511

Holland Europe GmbH

Altenkamp 9
D-33758
Schloss Holte-Stukenbrock
Germany

Phone: +49 (0) 5207-89560
Fax: +49 (0) 5207-895656

EN ISO
9001:2000



Certified
Company

Holland Eurohitch Ltd.

Hoo Farm Industrial Estate
Worcester Road
Kidderminster
Worcestershire
DY11 7RA

Phone: +44 (0) 1562-732010
Fax: +44 (0) 1562-732020

Holland Hitch (Aust.) Pty. Ltd.

Melton, Victoria, Australia
Phone: 61-(0)3-9743-6799
Fax: 61-(0)3-9747-9617

Holland Transtrade

(Thailand) Company, Ltd.
Bangkok, Thailand
Phone: 66 (0)2-513-8758
Fax: 66 (0)2-513-8757

Nippon Holland, Ltd.

Tokyo, Japan
Phone: 81-(0)3-3461-9130
Fax: 81-(0)3-3463-1407

Holland Transtrade

Far East SDN BHD
Shah Alam, Malaysia
Phone: 60 (0)3 734-2888
Fax: 60 (0)3 736-5588