Cub Pediatric Crib

Maintenance Manual

REF FL19H (1900)

EN

1900-009-002 Rev AC.0 2024-11

Table of Contents

Warning/Caution/Note Definition

The words **WARNING**, **CAUTION**, and **NOTE** carry special meanings and should be carefully reviewed.

WARNING

Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

CAUTION

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

Note - Provides special information to make maintenance easier or important instructions clearer.

Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

WARNING

- Always replace the two bolts. The Scotch-Grip™ coating is less effective after you tighten or remove the bolts.
- Always have only Stryker service technicians or service personnel trained by Stryker perform this procedure. Failure to comply can result in serious damage to the bed or severe injury to users or patients.
- Always use part number 19-0381 to replace the rail assist cable to avoid injury to the patient and damage to the product.

CAUTION

- Always use electrostatic discharge (ESD) protective equipment before you open antistatic bags and service electronic parts.
- Do not place unprotected circuit boards on the floor.
- Do not use hydraulic fluids other than the recommended Mobil™ Aero HFA to avoid the risk of jack damage.
- Do not overtighten the P.C. valve to avoid damage to the P.C. valve, O-ring seal, or jack base.
- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
- Always use 1.5 VDC alkaline batteries.
- Always remove the batteries from the product during long periods of disuse.
- Always make sure that the sawhorses can support at least 200 lb (91 kg).
- Do not apply too much force to the bolts or they may break.

Introduction for service

This manual assists you with the service of your Stryker product. Read this manual to service this product. This manual does not address the operation of this product. See the Operations Manual for operating and use instructions. To view your Operations Manual online, see https://techweb.stryker.com/.

Expected service life

The Cub pediatric crib has a 10 year expected service life under normal use conditions and with appropriate periodic maintenance.

Contact information

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

Stryker Medical
3800 E. Centre Avenue
Portage, MI 49002
USA

To view your operations or maintenance manual online, see https://techweb.stryker.com/.

Have the serial number (A) of your Stryker product available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

Serial number location

You can find the serial number (A) on the right foot end of the litter frame (Figure 1).

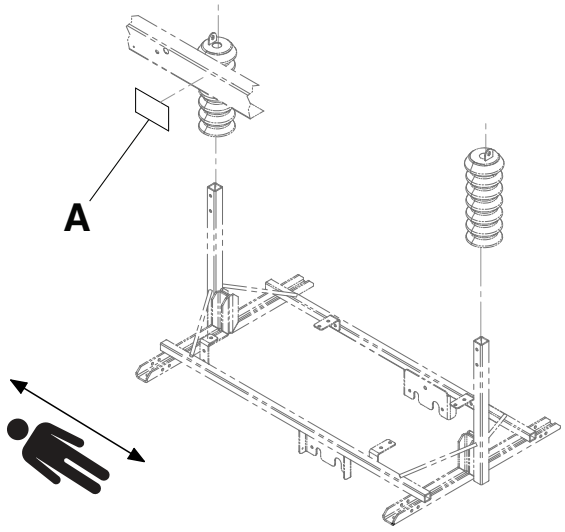


Figure 1 – Serial number location

Fixed endrail installation

Always verify proper operation of all components before you return the product to service. Some products are equipped with one or both fixed endrails. Products ship with all four rails down. Complete this procedure before you place the product into service. See instructions provided in the fixed endrail positioning kit. The instructions are in a plastic envelope on the mattress.

Note - Products equipped with a fixed endrail are packaged with the endrail down to prevent damage during transportation. Complete the procedure below to permanently mount the endrail in the upper position.

Tools required:

- None

Procedure

1. Raise the endrail. Hold the endrail in the upper position.
2. Raise the barrel covers.
3. Insert the lock rods in the provided holes.
4. Insert the cotter pins to hold the lock rods in position.
5. Remove any white powder from the barrels and reinstall the barrel covers.
6. Verify the endrail is secure before you place the product into service.

Siderail/endrail verification – for adjustable rails only

Inspect the following items:

_____ Siderail/endrail handles, handle triggers, and rotational movement operate

_____ Siderails/endrails lock in the 9 in., 14 in., and upper positions when you raise or lower the rails

_____ Siderails/endrails automatically stop at the 9 in. position and lower from the 9 in. position to its lowest position under the mattress surface (handle kept rotated to the left or right while you lower the rail)

Note - The 9 in. double safety lock may not be present on some products.

Access door verification – for moving access doors only

Inspect the following items:

_____ Release knobs operate

_____ Access doors open, close, and lock

_____ Both release knobs open and close

_____ Indicators are yellow when the door is open

_____ Indicators are green when the door is closed and locked (verify that the access doors are closed and locked when both indicators are green)

Scale system calibration

Note - A weight of known amount is required to calibrate the scale system. Use a 100 lb (45 kg) or two 50 lb (22.6 kg) weights to complete this procedure. The weight(s) must be ± 0.5 lb (0.2 kg) at 50 lb (22 kg) or less or ± 1.0 lb (0.4 kg) at ≥ 50 lb (22 kg) when flat to verify scale system precision. If the weight(s) do not have the required tolerance, a controlled weighing must be made to determine their weight is within the ± 0.5 lb (0.2 kg) at 50 lb (22 kg) or less or ± 1.0 lb (0.4 kg) at ≥ 50 lb (22 kg) when flat tolerance.

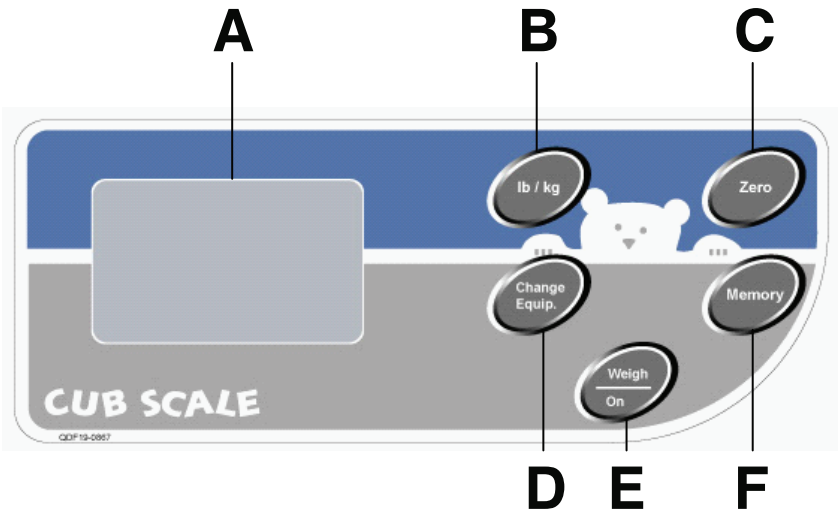


Figure 2 – Scale control panel

Procedure

1. Press and hold **lb/kg** (B), **Change Equip.** (D), and **Weigh/On** (E) at the same time for at least two seconds and then release.
2. In order, press **lb/kg** (B), **lb/kg** (B), **Weigh/On** (E), **Change Equip.** (D), and **lb/kg** (B). The display (A) should read "**Cbr?**".
3. Press **Weigh/On** (E). "**F**" or "**H**" appears on the display.
4. Press **lb/kg** (B) to toggle between "**F**" and "**H**". Select the proper setting for the base style of the product. F is for fixed base and H is for hydraulic base.
5. Press **Weigh/On** (E) to confirm the selection.

   Note - Fixed base products only require the four load cells to be calibrated (steps 6 to 12). Once step 12 is completed, "**Cbr?**" appears on the display. Press **Zero** (C) for at least two seconds to return the scale to normal operation.
6. The previous calibration weight appears on the display. Enter the new weight value to be calibrated. Press **lb/kg** (B) or **Change Equip.** (D) for at least two seconds to quickly increase or decrease the weight. Round the value to the nearest 0.1 lb. Example: 100.58 lb rounds to 100.6 lb; 100.54 lb rounds to 100.5 lb.
7. Press **Weigh/On** (E) to confirm the calibration weight value.
8. Bring the litter to the flat (0° ±0.5°) position and make sure that there is no weight on the product. Wait five seconds and press **Weigh/On** (E). The analog-to-digital converter (ADC) is now calibrated.

   Note - The messages "**Movement**" or "**Error**" may appear on the display when you calibrate the scale. This indicates the product moved too much during the process or that the measurement taken is in error. If this occurs, perform calibration again.
9. "**F-L**" appears on the display. Place the weight(s) on the foot left corner of the litter and wait five seconds. Press **Weigh/On** (E).
10. "**R-r**" appears on the display. Place the weight(s) on the foot right corner of the litter and wait five seconds. Press **Weigh/On** (E).
11. "**H-r**" appears on the display. Place the weight(s) on the head right corner of the litter and wait five seconds. Press **Weigh/On** (E).
12. "**H-L**" appears on the display. Place the weight(s) on the head left corner of the litter and wait five seconds. Press **Weigh/On** (E). If calibrating a fixed base product, the procedure ends here and "**Cbr?**" appears on the display. See the note following step 5.
13. Make sure that the litter is in the flat (0° ±0.5°) position and that there is no weight on the product.

14. "10° 0 lb" appears on the display. Move the product to the maximum Trendelenburg position (+10°, head down, foot up), with no weight on the product and wait five seconds. Press **Weigh/On** (E).
15. "10° ((⊤))" appears on the display. With the product still in the maximum Trendelenburg position, place the weight(s) at the foot end of the litter, in the center, and wait five seconds. Press **Weigh/On** (E).
16. "-10° ((⊤))" appears on the display. With the weight(s) still at the foot end of the product, in the center, move the product to the maximum reverse Trendelenburg position (-10°, head up, foot down), and wait five seconds. Press **Weigh/On**.
17. "-10° ((⊤))" appears on the display. With the product still in the maximum reverse Trendelenburg position, remove the weight(s) and wait five seconds. Press **Weigh/On**.
18. "**Cbr?**" appears on the display. Press **Zero** (C) for at least two seconds to return the scale to normal operation.
19. Check the scale system calibration by using a known weight with a tolerance of ± 0.5 lb (0.2 kg) at 50 lb (22 kg) or less or ± 1.0 lb (0.4 kg) at ≥ 50 lb (22 kg) when flat. Place the weight in the center of the litter and take measurements in the flat (0°), maximum Trendelenburg (+10°), and maximum reverse Trendelenburg (-10°) positions. Make sure that the measurements taken are within the ± 0.5 lb (0.2 kg) at 50 lb (22 kg) or less or ± 1.0 lb (0.4 kg) at ≥ 50 lb (22 kg) tolerance.

Scale system verification

Complete the procedure below to verify proper operation of the scale system.

1. Press and release **Weigh/On** (E). A weight will appear on the scale display four to ten seconds later.

   Note - The ((⊤)) icon may appear at any time when you use the scale. This icon indicates that the scale is unable to take a reading of the patient's weight because the product is unstable. Stabilize the product and repeat the step.
2. Press and hold **Zero** for at least two seconds. A 0.0 lb/kg weight should appear on the display four to ten seconds later.
3. Press **Weigh/On** (E) to reactivate the scale. The scale automatically shuts off after 30 seconds of inactivity, except during the Change Equipment procedure where the delay is three minutes.
4. Press **lb/kg** (B) to switch from one unit of measurement to the other. You can display the weight reading in pounds (lb) or kilograms (kg).

   Note - You can deactivate **lb/kg** (B) to prevent inadvertent use of the key. Press and hold **lb/kg** (B) and **Memory** (F) for at least two seconds. Repeat to reactivate.
5. Place a known weight on the mattress and press **Weigh/On**. A weight reading will be displayed four to ten seconds later. Make sure that the product is flat and the weight displayed is accurate to ± 0.5 lb. (0.2 kg) at 50 lb. (22 kg) or less and ± 1.0 lb. (0.4 kg) at ≥50 lb. (22 kg) of the actual weight. If not, perform the *Scale system calibration* (page 6) procedure.
6. Press **Weigh/On** (E) to store a weight reading. Press and hold **Memory** (F) for at least two seconds. Release the button when "Memory" appears on the display. The previous load weight should now be stored in memory.
7. Press **Weigh/On** (E) to erase a stored weight. Press and hold **Memory** (F) and **Zero** for at least two seconds. The value stored is zeroed when the keys are released and "0.0 lb/kg" appears on the display.
8. To add or remove equipment when a patient is on the product, press **Weigh/On** (E). A weight reading appears on the display four to ten seconds later.
9. Press **Change Equip.** (D). "Change Equipment" appears on the display four to ten seconds later. Add or remove the extra equipment and press **Change Equip.** (D). The weight of the initial load should display within ± 0.5 lb. (0.2 kg) at 50 lb. (22 kg) or less and within ± 1.0 lb. (0.4 kg) at ≥ 50 lb. (22 kg) when flat.

Preventive maintenance

Remove product from service before you perform the preventive maintenance inspection. Check all items listed during annual preventive maintenance for all Stryker Medical products. You may need to perform preventive maintenance checks more often based on your level of product usage. Service only by qualified personnel.

Note - Clean and disinfect the exterior of the mattress before inspection, if applicable.

Inspect the following items:

_____ All welds

_____ All fasteners are secure

_____ Casters lock with brake pedal applied

_____ Casters are secure and swivel

_____ Casters are free of wax and debris

_____ Brake mechanism works

_____ Steer function works

_____ Check skins for cracks

_____ Fowler raises, lowers, and latches in place

_____ Trendelenburg and reverse Trendelenburg operate

_____ Hydraulic jacks are holding

_____ No leaks at hydraulic connections

_____ Hydraulic jack oil level sufficient

_____ Lubricate where required

_____ IV pole option is intact and adjusts and latches in all positions

_____ Oxygen bottle holder option is intact

_____ No rips or cracks in the mattress cover

_____ Accessories and mounting hardware are in good condition

_____ Display housing is intact and not damaged (scale system option)

_____ Load cells are intact and not damaged (scale system option)

_____ Calibrate scale (scale system option)

_____ Replace siderail assist cable every five years

_____ Replace siderail central column spring every four years

_____ Siderail/endrail handle triggers and rotates

_____ Siderails/endrails raise, lower, and lock in the 9 in., 14 in., and 26 in. position

_____ Siderails/endrails stop at the 9 in. position when lowered (option)

_____ Access doors open, close, and lock (option)

_____ Foot prop intact and operable

_____ Foley bag hooks intact

_____ Ground chain is clean, intact, and has at least two links touching the floor

Product serial number:
Completed by:
Date:

Grease points

1. Apply OG2 grease (M0027) to the brake bar rod surface (A) (Figure 3).

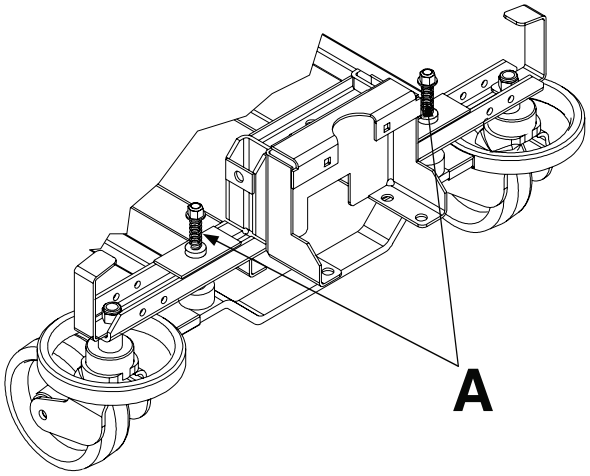


Figure 3 – Brake bar rod

2. If dry, apply a thin layer of OG2 grease (M0027) to the jack springs (B) (Figure 4).

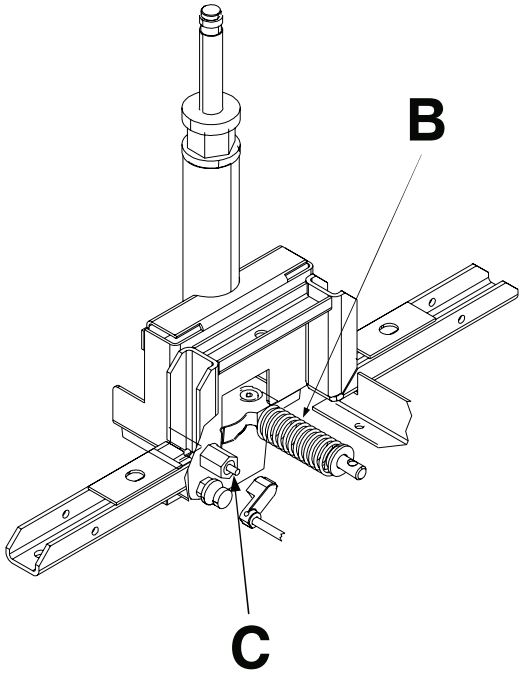


Figure 4 – Jack springs and descent valve pins

3. Apply OG2 grease (M0027) to the descent valve pins (C) (Figure 4).

Scale system error codes

Error code	Error definition	Recommended action
Error - E01	Load detected does not match the calibration procedure step. This error may occur during the individual load cell calibration.	• Verify the calibration weight is in the proper corner for the calibration step. • Verify the load cell cables are connected to the control board.
Error - E02	Load cell is installed upside down. This error may occur during the individual load cell calibration.	• Verify the load cell is installed. The error will be where the weight is currently located on the litter. See *Load cell replacement* (page 30).
Error - E03	At least one load cell gives an impossible reading. This error may occur during normal scale system operation.	• Verify the load cell cable is not cut or severed. • Verify the load cell cables are connected to the control board. • Contact Technical Support if the problem persists.
Error - E05	Weight on the scale exceeds the maximum capacity. This error may occur during normal scale system operation.	• Do not use the scale system when the patient weight exceeds 100 lb (54.4 kg).
Error - E10	Angle sensor not detected. This error may occur during normal scale system operation.	• Verify the angle sensor connection to the control board. • Verify the cable is not cut or severed. • Contact Technical Support if the problem persists.
Error - E11	Measured angle values are outside target range. This error may occur when calibrating the scale in relation to the litter angle.	• Make sure that the position of the weight corresponds to the position detailed in the procedure. • Verify the angle sensor connection to the control board. • Restart the calibration process. • Contact Technical Support if the problem persists.
Error - E12	Weight measurement taken does not correspond to the current angle reading. This error may occur during normal scale system operation.	• Verify the angle sensor connection to the control board. • Recalibrate the scale system.
Error - E13	Angle reading has the wrong sign. Trendelenburg is positive and reverse Trendelenburg is negative. This error may occur during the calibration of the scale system.	• Verify the angle sensor is installed in the proper location. • Make sure that the angle sensor is installed in the proper location.

Error code	Error definition	Recommended action
Error - E15	The analog-to-digital converter (ADC) response timed out. This error may occur during the calibration of the ADC.	• Restart the calibration process. • Contact Technical Support if the problem persists.
Error - E16	The analog-to-digital converter (ADC) response timed out or the measurement exceeds the capacity of the ADC. This error may occur during normal scale system operation. If this error did not occur in conjunction with Error - E03, a defective control board or load cell may the cause of the error.	• Verify the load cell cables are connected to the control board. • Verify the load cell cables are not cut or severed. • Contact Technical Support if the problem persists.
Error - E17	The weight measurement taken exceeds 999.9 lb or kg. A defective control board or load cell may be the cause of this error. This error may occur during normal scale system operation.	• Verify the load cell cables are connected to the control board. • Verify the load cell cables are not cut or severed. • Contact Technical Support if the problem persists.

Note - Location of the cells in relation to the number it is associated with in the cell verification module:

- Cell 0 - foot right
- Cell 1 - head right
- Cell 2 - head left
- Cell 3 - foot left

Service

Protecting against electrostatic discharge (ESD)

CAUTION

- Always use electrostatic discharge (ESD) protective equipment before you open antistatic bags and service electronic parts.
- Do not place unprotected circuit boards on the floor.

Note - Always ship the circuit boards back to Stryker. Use the antistatic bag that the new board was originally shipped in.

The electronic circuits in the product are completely protected from static electricity damage when factory assembled. Always use adequate static protection when you service the electronic systems of the product. All service personnel must use static protection whenever they touch wires.

Sample antistatic protection equipment includes:

- Antistatic wrist strap
- Grounding plug
- Test lead with a banana plug on one end and an alligator clip on the other end

Make sure that you follow the ESD manufacturer's instructions for appropriate protection against static discharge.

Caster replacement, fixed base

Tools required:

- Floor jack
- 3/4" socket
- (2) Bungee cords (or equivalent)
- Stryker special key (19-0803Z)

Procedure:

1. Raise all siderails to the highest position.
2. Lift the base hood.
3. Separate the **Velcro®** fasteners that secure the base hood to the base.
4. Using bungee cords, support the base hood.
5. Using a floor jack, raise the end of the product near the caster that needs repair approximately 9 in. off the floor.
6. Using a Stryker special key (19-0803Z) and a 3/4" socket, remove the locknut and washer (A) that secure the caster (B) to the base (Figure 5). Discard the caster. Save the locknut and washer.

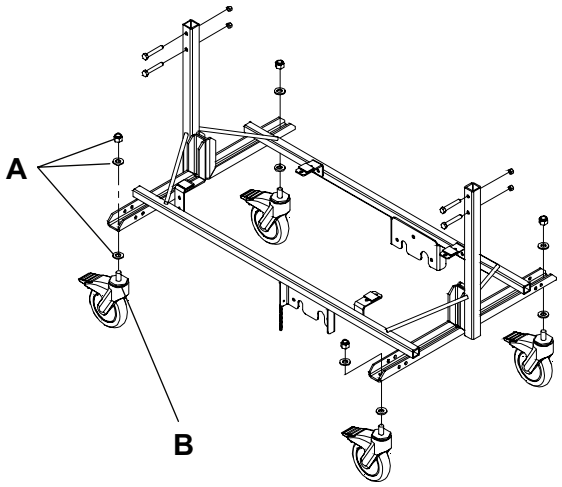


Figure 5 – Caster replacement

7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Caster replacement, hydraulic base

Tools required:

- Floor jack
- 3/4” socket
- 11/16” socket
- 3/4” combination wrench
- 5/8” combination wrench
- (2) Bungee cords (or equivalent)

Procedure:

1. Raise all siderails to the highest position.
2. Lift the base hood.
3. Separate the **Velcro®** fasteners that secure the base hood to the base.
4. Using bungee cords, support the base hood.
5. Using a floor jack, raise the end of the product near the caster that needs repair approximately 9 in. off the floor.
6. Using a 5/8” combination wrench and 11/16” socket, remove the nut and bolt that secure the caster to the caster horn (A) (Figure 6). Save the nut and bolt.
7. Using a 3/4” socket and 3/4” combination wrench, remove the locknut (B), base hood support (C), caster adjusting socket, washer, and bolt that secure the caster to the base (Figure 6). Discard the caster. Save all other parts.

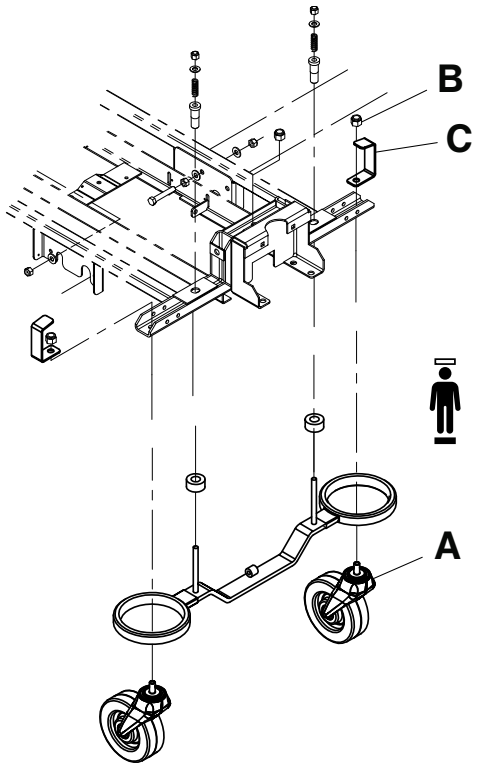


Figure 6 – Caster assembly replacement

8. Reverse steps to reinstall.
9. Verify proper operation before you return the product to service.

Arm assembly replacement, fifth wheel, fixed base

Tools required:

- (2) 1/2” combination wrench
- 1/2” socket
- 3/16” Allen wrench
- (2) Bungee cords (or equivalent)

Procedure:

1. Raise the litter and the rails to the highest position.
2. Apply the brakes.
3. Lift the base hood.
4. Separate the **Velcro**® fasteners that secure the base hood to the base.
5. Using bungee cords, support the base hood.
6. Using a 1/2” combination wrench and 1/2” socket, remove the four locknuts (B) and four bolts (A) that secure the fifth wheel assembly to the support plates (C, M) (Figure 7). Lower the assembly to the ground and remove the assembly from underneath the base frame. Save the locknuts and bolts.
7. Using two 1/2” combination wrenches, remove the locknut and bolt (D) that secure the caster to the wheel arms (E) (Figure 7). Remove and save the caster. Save the locknut and bolt.
8. Move the left support plate toward the brake/steer pedal (F) to disengage the swing arm and torsion lever assembly from the support plates (Figure 7).

9. Using a 1/2” combination wrench, remove the locknut (G) that secures the spring hook to the bolt (Figure 7). Save the locknut.
10. Using two 1/2” combination wrenches, remove the two locknuts (J), four shoulder spacers, and two bolts (H) that secure the top part of the counter lever to both fifth wheel torsion levers (Figure 7). Save the locknuts, spacers, and bolts.
11. Using a 1/2” combination wrench and a 3/16” Allen wrench, remove the two locknuts (L) and two bolts (K) that secure the torsion levers to both ends of the fifth wheel shaft (Figure 7). Save the locknuts and bolts.

    Note - Mark the positions of the torsion lever and the fifth wheel shaft relative to each other for reinstallation.

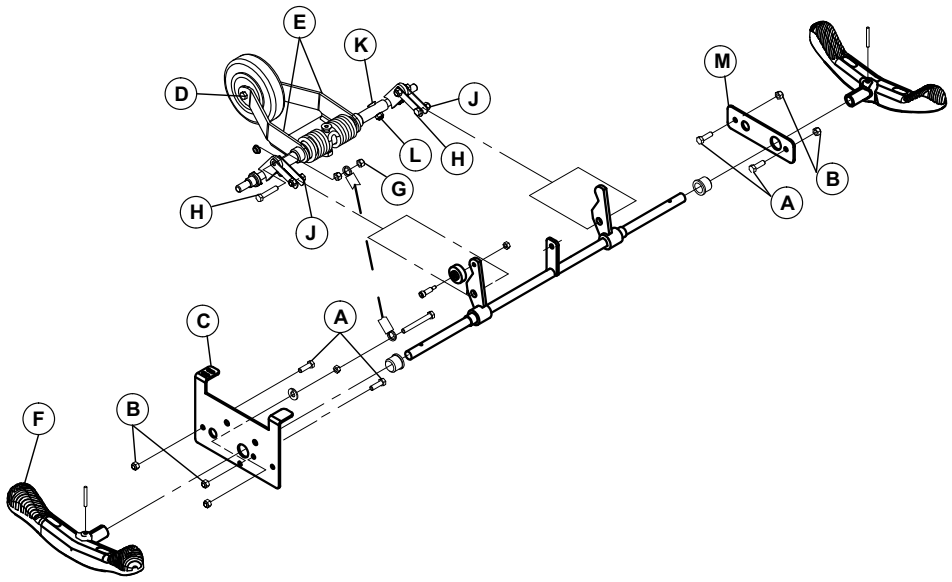


Figure 7 – Fifth wheel arm assembly replacement, fixed base

12. Remove and discard the wheel arm assembly.
13. Install the fifth wheel on the new wheel arm assembly.
14. Reverse steps to reinstall.
15. Verify proper operation before you return the product to service.

Arm assembly replacement, fifth wheel, hydraulic base

Tools required:

- (2) 1/2” combination wrench
- 1/2” socket
- 3/16” Allen wrench
- (2) Bungee cords (or equivalent)

Procedure:

1. Raise the litter and the rails to the highest position.
2. Apply the brakes.
3. Lift the base hood.
4. Separate the **Velcro**® fasteners that secure the base hood to the base.
5. Using bungee cords, support the base hood.
6. Using two 1/2” combination wrenches, remove the locknut (N), nylon shoulder spacer (P), washer (R), and bolt (S) that secure the connecting rod to the brake pedal shaft (Figure 8). Save the locknut, spacer, washer, and bolt.

7. Using a 1/2” combination wrench and 1/2” socket, remove the four locknuts (B) and four bolts (A) that secure the fifth wheel assembly to the support plates (C, M) (Figure 8). Lower the assembly to the ground and remove the assembly from underneath the base frame. Save the locknuts and bolts.
8. Using two 1/2” combination wrenches, remove the locknut and bolt (D) that secure the caster to the wheel arms (E) (Figure 8). Remove and save the caster. Save the locknut and bolt.
9. Move the left support plate toward the brake/steer pedal (F) to disengage the swing arm and torsion lever assembly from the support plates (Figure 8).
10. Using a 1/2” combination wrench, remove the locknut (G) that secures the spring hook to the bolt (Figure 8). Save the locknut.
11. Using two 1/2” combination wrenches, remove the two locknuts (J), four shoulder spacers, and two bolts (H) that secure the top part of the counter lever to both fifth wheel torsion levers (Figure 8). Save the locknuts, spacers, and bolts.
12. Using a 1/2” combination wrench and a 3/16” Allen wrench, remove the two locknuts (L) and two bolts (K) that secure the torsion levers to both ends of the fifth wheel shaft (Figure 8). Save the locknuts and bolts.

    Note - Mark the positions of the torsion lever and the fifth wheel shaft relative to each other for reinstallation.

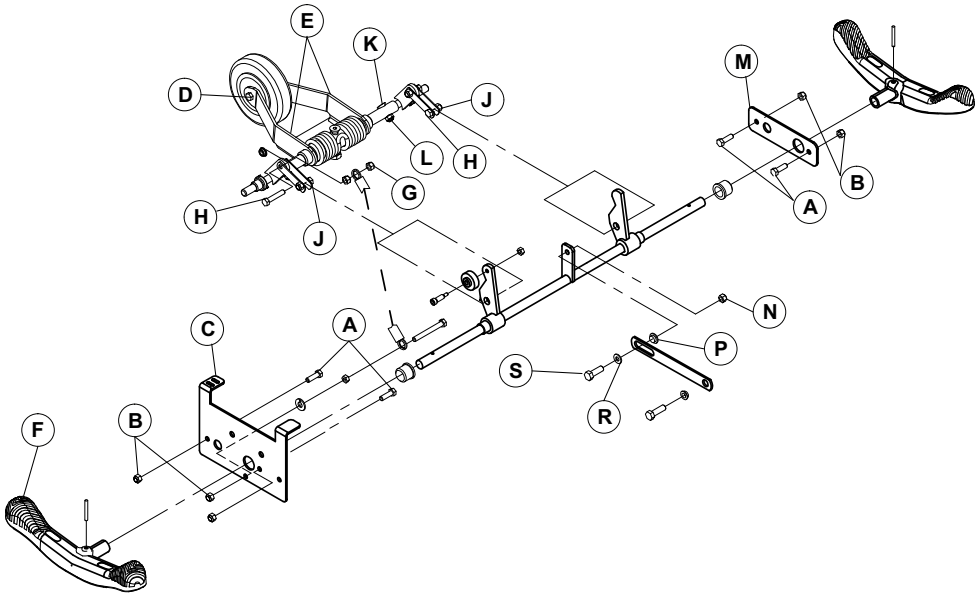


Figure 8 – Fifth wheel arm assembly replacement, hydraulic base

13. Remove and discard the wheel arm assembly.
14. Install the fifth wheel on the new wheel arm assembly.
15. Reverse steps to reinstall.
16. Verify proper operation before you return the product to service.

Caster replacement, fifth wheel

Tools required:

- (2) 1/2” combination wrench
- (2) Bungee cords (or equivalent)

Procedure:

1. Raise the litter and the rails to the highest position.
2. Apply the brakes.
3. Lift the base hood.

4. Separate the **Velcro**® fasteners that secure the base hood to the base.
5. Using bungee cords, support the base hood.
6. Using two 1/2” combination wrenches, remove the locknut (C) and bolt (B) that secure the caster (A) to the wheel arms (Figure 9). Discard the caster. Save the locknut and bolt.

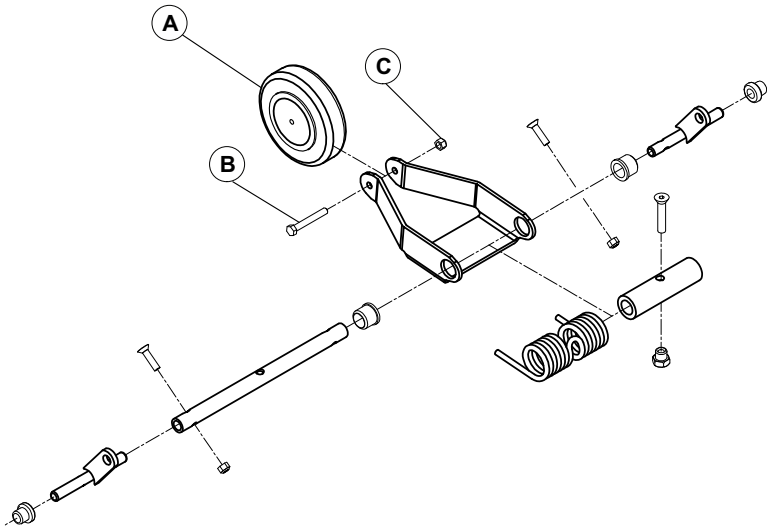


Figure 9 – Fifth wheel caster replacement

7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Neutral guide plate replacement

Tools required:

- 3/8” combination wrench
- #2 Phillips screwdriver
- (2) Bungee cords (or equivalent)

Procedure:

1. Raise the litter and the rails to the highest position.
2. Apply the brakes.
3. Lift the base hood.
4. Separate the **Velcro**® fasteners that secure the base hood to the base.
5. Using bungee cords, support the base hood.
6. Using a #2 Phillips screwdriver and a 3/8” combination wrench, remove the two locknuts (B) and two screws (E) that secure the neutral guide plate (C) to the left support plate (D) (Figure 10). Save the locknuts and screws.

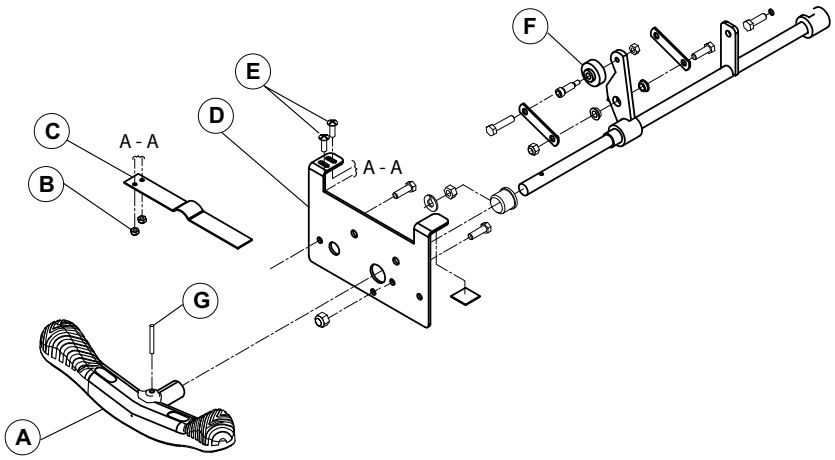


Figure 10 – Neutral guide plate replacement

7. Remove and discard the guide plate.
8. Install the new guide plate. To adjust the guide plate mounting position, move the steer pedal to the neutral position and align the guide plate cavity with the neutral guide wheel. Tighten the fasteners.
9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

Brake/steer pedal replacement

Tools required:

- 3/16” punch
- Hammer

Procedure:

1. Raise the litter and the rails to the highest position.
2. Position the brake/steer pedal (A) to the neutral position (Figure 10).
3. Using a 3/16” punch and a hammer, remove the spring pin (G) that secures the pedal to the pedal shaft (Figure 10). Save the spring pin.
4. Remove the pedal from the pedal shaft. If necessary, tap the pedal with a hammer to ease removal. Discard the pedal.
5. Align the holes of new brake/steer pedal to hole on the pedal shaft. Fit the new pedal to the shaft.
6. Using a hammer, drive the spring pin in until it is flush to the top of the pedal.
7. Verify proper operation before you return the product to service.

Brake bar replacement, hydraulic base

Tools required:

- Floor jack
- 3/4” socket
- 11/16” socket
- (2) 1/2” combination wrench
- 9/16” combination wrench
- 3/4” combination wrench
- 5/8” combination wrench

- (2) Bungee cords (or equivalent)
- OG2 grease (M0027)

Procedure:

1. Raise the litter and the rails to the highest position.
2. Lift the base hood.
3. Separate the **Velcro®** fasteners that secure the base hood to the base.
4. Using bungee cords, support the base hood.
5. Using a floor jack, raise the end of the product near the caster(s) that need repair approximately 9 in. off the floor. Casters should be about 2-1/2 in. off the floor.
6. Using a 5/8” combination wrench and 11/16” socket, remove the nut and bolt that secure the caster to the caster horn (A) (Figure 11). Save the nut and bolt.
7. Using a 3/4” socket and 3/4” combination wrench, remove the locknut (B), base hood support (C), caster adjusting socket, washer, and bolt that secure the caster to the base (Figure 11). Remove and save both casters. Save all other parts.
8. Using a 9/16” combination wrench, remove the two locknuts (E), two washers (F), two compression springs (G), two brake rod guides (H), and two stoppers (J) that secure the brake bar rods to the base frame (Figure 11). Save all parts.

   Note - Apply OG2 grease to the brake bar before installation.
9. Using two 1/2” combination wrenches, remove the locknut (K), two shoulder spacers (L), and bolt (M) that secure the brake levers to the brake bar bushing (Figure 11). Remove and discard the brake bar. Save all other parts.

   Note - Do not lubricate the shoulder spacers. Replace the shoulder spacers if worn.

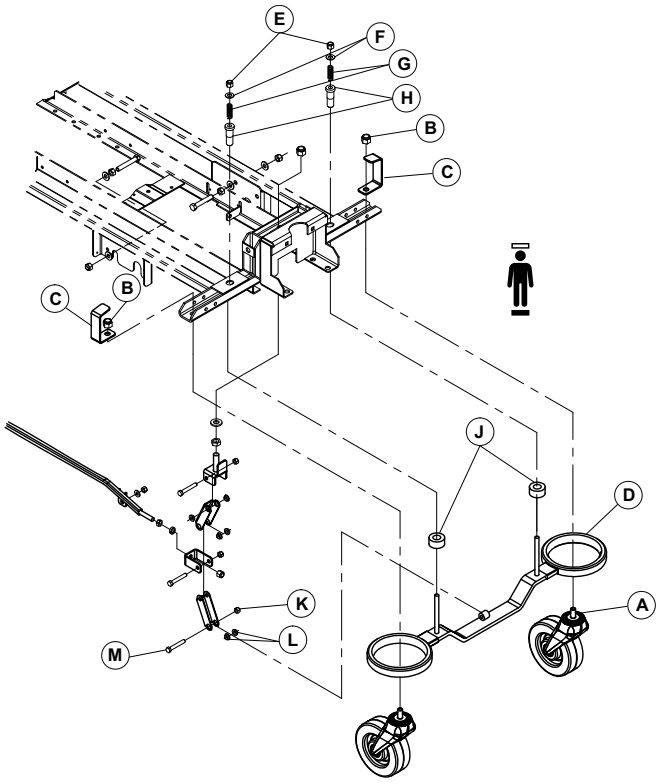


Figure 11 – Brake bar replacement

10. Reverse steps to reinstall.
11. If brake adjustment is required, see *Brake adjustment, hydraulic base* (page 21).
12. Verify proper operation before you return the product to service.

Brake adjustment, hydraulic base

Tools required:

- 3/4” socket
- 3/4” combination wrench
- (2) Bungee cords (or equivalent)

Procedure:

1. Raise the litter and the rails to the highest position.
2. Lift the base hood.
3. Separate the **Velcro®** fasteners that secure the base hood to the base.
4. Using bungee cords, support the base hood.
5. Using a 3/4” combination wrench and 3/4” socket, loosen the jam nut (A) (Figure 12).
6. Using a 3/4” socket, screw in the locknut (B) and test the brakes (Figure 12). Repeat until a proper brake adjustment is found.
7. Using a 3/4” combination wrench and 3/4” socket, tighten the jam nut (A) (Figure 12).

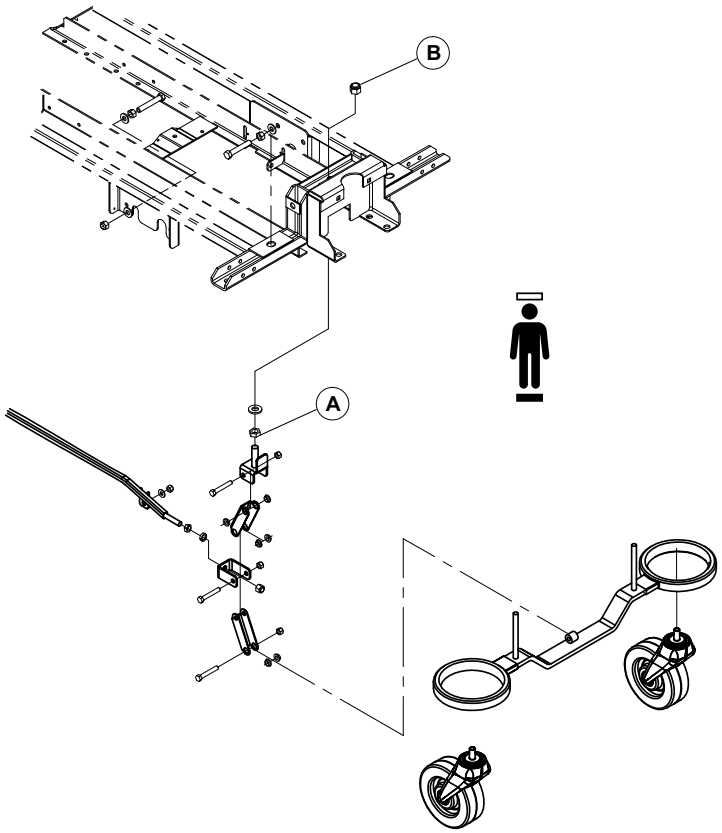


Figure 12 – Brake adjustment

8. Remove the bungee cords and replace the base hood.
9. Verify proper operation before you return the product to service.

Hydraulic jack replacement, hydraulic base

Tools required:

- 1/2” socket

- 9/16” socket
- 1/2” combination wrench
- 9/16” combination wrench
- Spring compression tool (1210-001-003)
- OG2 grease (M0027)

Procedure:

1. Remove the litter. See *Litter removal, hydraulic base* (page 38).
2. Lower the jacks to the lowest position using the appropriate release pedal.
3. Move the base from underneath the supported litter to an appropriate work area.
4. Lift the base hood.
5. Separate the **Velcro®** fasteners that secure the base hood to the base.
6. Using a 1/2” combination wrench and 1/2” socket, remove the locknut and bolt that link the activation bar to the pump piston. Save the locknut and bolt.
7. Using a spring compression tool, compress the pump spring of the jack that needs replacement.
8. Remove the spring and shoulder socket from the pump piston. Save the spring and shoulder socket.

   Note - Apply OG2 grease to the spring before installation.
9. Using a 1/2” combination wrench and 1/2” socket, remove the two locknuts and two bolts that secure the jack clamp to the frame. Save the locknuts and bolts.
10. Using a 9/16” combination wrench and 9/16” socket, remove the four locknuts, four washers, and four bolts that secure the jack base to the base frame. Support the jack base before you remove the fasteners. Save all parts.
11. Remove and discard the jack. Use caution as the release valve pin is still connected to the descent lever.
12. Install the spring holder and safety stop on the new jack.
13. Reverse steps to reinstall.
14. Adjust the jack descent rate. See *Constant flow jack descent rate adjustment, hydraulic base* (page 24).
15. Verify proper operation before you return the product to service.

Hydraulic fluid level check, hydraulic base

CAUTION - Do not use hydraulic fluids other than the recommended Mobil™ Aero HFA to avoid the risk of jack damage.

Tools required:

- (2) Bungee cords (or equivalent)
- 3/4” socket
- Mobil™ Aero HFA hydraulic fluid (2020-070-475)

Procedure:

1. Raise the rails to the highest position.
2. Lower the litter to the lowest height.
3. Apply the brakes.
4. Make sure that there are no hydraulic fluid leaks. If leaks are present, replace the jack. See *Hydraulic jack replacement, hydraulic base* (page 21).
5. Remove the bottom part of the bellows from the base hood.
6. Using bungee cords, support the bottom part of the bellows to gain access to the fill plug.

7. Using a 3/4” socket, slowly turn the fill plug (located on the side of the reservoir) counter-clockwise to allow excess system pressure to vent. Remove and save the fill plug.
8. The hydraulic fluid should be visible at the bottom of the hole. If the fluid cannot be seen, add Mobil™ Aero HFA hydraulic fluid until the fluid level reaches the bottom of the hole.
9. Replace the fill plug.
10. Verify proper jack operation before you reinstall the bellows and return the product to service.

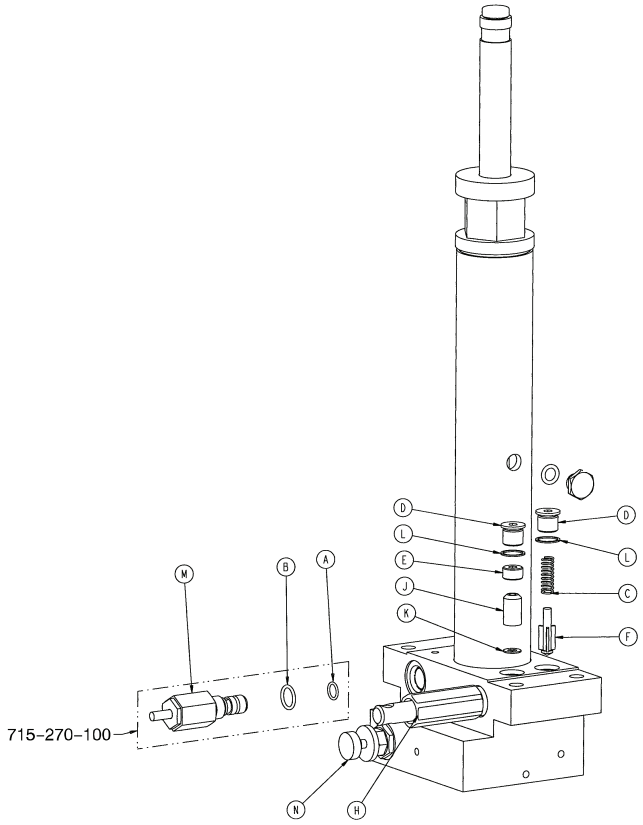


Figure 13 – Descent rate adjustment

Item	Number	Name
A	0045-966-000	O-ring
B	0045-967-000	O-ring
C	0390-002-134	Conical compression spring
D	0715-001-301	Base plug
E	0715-001-309	Valve plug
F	0715-001-341	Poppet
H	0715-100-325	Pump replacement assembly
J	0926-020-153	Check valve
K	0926-020-154	Seal
L	0926-020-156	Seal
M	2025-700-026	Valve assembly
N	5050-070-050	P.C. valve

Constant flow jack descent rate adjustment, hydraulic base

Tools required:

- (2) Bungee cords (or equivalent)

Procedure:

Note - The jack descent rate is present from the factory to lower the foot end slightly faster than the head end. It is recommended to have the foot end lower faster to avoid patient disorientation.

1. Raise the litter and rails to the highest position.
2. Apply the brakes.
3. Lift the base hood.
4. Separate the **Velcro**® fasteners that secure the base hood to the base.
5. Using bungee cords, support the base hood.
6. Using the blue knob on the end of the P.C. valve (N), adjust the valve so the foot end jack descends slightly faster than the head end jack (Figure 13). To adjust, loosen the silver locking ring by turning it counterclockwise.

   Note - Turn the blue knob clockwise to increase the rate of litter descent and turn it counterclockwise to decrease the rate of litter descent.
7. Remove the bungee cords and replace the base hood.
8. Verify proper operation before you return the product to service.

Removing excess air from the hydraulic system, hydraulic base

Tools required:

- None

Procedure:

1. Raise the litter to the highest position.
2. Continue to actuate the system several times. This will force the air through the system and allow the jack to function.

Poppet valve replacement, hydraulic base

Tools required:

- Small needle nose pliers
- (2) Bungee cord (or equivalent)
- 1/4” Allen wrench
- 1/4” hex bit socket

Procedure:

1. Raise the rails to the highest position.
2. Lower the litter to the lowest height.
3. Apply the brakes.
4. Lift the base hood.
5. Separate the **Velcro**® fasteners that secure the base hood to the base.
6. Using bungee cords, support the base hood.

   Note - Lower the jack to the lowest position to relieve the pressure on the pump piston side of the jack.
7. Using a 1/4” Allen wrench, remove the base plug (D) and the seal (L) (Figure 13). Save the base plug and seal.

8. Remove and save the compression spring (C) (Figure 13).
9. Using small needle nose pliers, remove the poppet valve (F) (Figure 13). Discard the poppet valve.
10. Install the new poppet valve.
11. Reinstall the compression spring, seal, and base plug.
12. Using a 1/4” hex bit socket, torque the base plug to 10 ft-lb (13.5 N-m).
13. Pump the jack to the highest height. Apply weight to the product and make sure that the jack holds. Verify there are no hydraulic leaks.
14. Remove the bungee cords and replace the base hood.
15. Verify proper operation before you return the product to service.

Check valve replacement, hydraulic base

Tools required:

- (2) Bungee cord (or equivalent)
- 1/4” Allen wrench
- 1/4” hex bit socket
- Stiff wire with bent, pointed end
- 1/2” diameter rod

Procedure:

1. Raise the rails to the highest position.
2. Lower the litter to the lowest height.
3. Apply the brakes.
4. Lift the base hood.
5. Separate the **Velcro®** fasteners that secure the base hood to the base.
6. Using bungee cords, support the base hood.

   Note - Lower the jack to the lowest position to relieve the pressure on the pump piston side of the jack.
7. Using a 1/4” Allen wrench, remove the base plug (D) and the seal (L) (Figure 13). Save the base plug and seal.
8. Using a 1/4” Allen wrench, remove the valve plug (E) (Figure 13). Save the valve plug.
9. Using a stiff wire, with a bent, pointed end, remove the check valve (J) and seal (K) (Figure 13). Discard the check valve. Save the seal.
10. Using a 1/2” diameter rod, reinstall the seal flat in the bottom of its hole.
11. Install the new check valve with the beveled end up.
12. Using a 1/4” hex bit socket, torque the valve plug to 10 ft-lb (13.5 N-m).
13. Reinstall the valve plug and seal.
14. Using a 1/4” hex bit socket, torque the valve plug to 10 ft-lb (13.5 N-m).
15. Pump the jack to the highest height. Apply weight to the product and ensure the jack holds. Verify there are no hydraulic leaks.
16. Remove the bungee cords and replace the base hood.
17. Verify proper operation before you return the product to service.

Adjustable pressure compensated (P.C.) valve replacement, hydraulic base

CAUTION - Do not overtighten the P.C. valve to avoid damage to the P.C. valve, O-ring seal, or jack base.

Tools required:

- 13/16” combination wrench
- (2) Bungee cord (or equivalent)

Procedure:

1. Raise the rails to the highest position.
2. Lower the litter to the lowest height.
3. Apply the brakes.
4. Lift the base hood.
5. Separate the **Velcro®** fasteners that secure the base hood to the base.
6. Using bungee cords, support the base hood.

   Note - Lower the jack to the lowest position to relieve the pressure on the pump piston side of the jack.
7. Using a 13/16” combination wrench, remove the adjustable P.C. valve (N) (Figure 13). Discard the P.C. valve.
8. Check for any contaminants in the valve and in the jack base.
9. Install the new P.C. valve. Moisten the O-ring seal with hydraulic fluid to ensure a tight seal.
10. Tighten the valve by hand. Using a 13/16” combination wrench, turn the valve 1/8” - 1/4”.
11. Pump the jack to the highest height. Apply weight to the product and make sure that the jack holds. Verify there are no hydraulic leaks.
12. Adjust the jack descent rate. See *Constant flow jack descent rate adjustment, hydraulic base* (page 24).
13. Remove the bungee cords and replace the base hood.
14. Verify proper operation before you return the product to service.

Pump pedal replacement, hydraulic base

Tools required:

- 3/16” punch
- Hammer

Procedure:

1. Raise the litter and the rails to the highest position.
2. Using a 3/16” punch and hammer, remove the spring pin (A) that secures the pump pedal to the pedal rod (Figure 14). Save the spring pin.

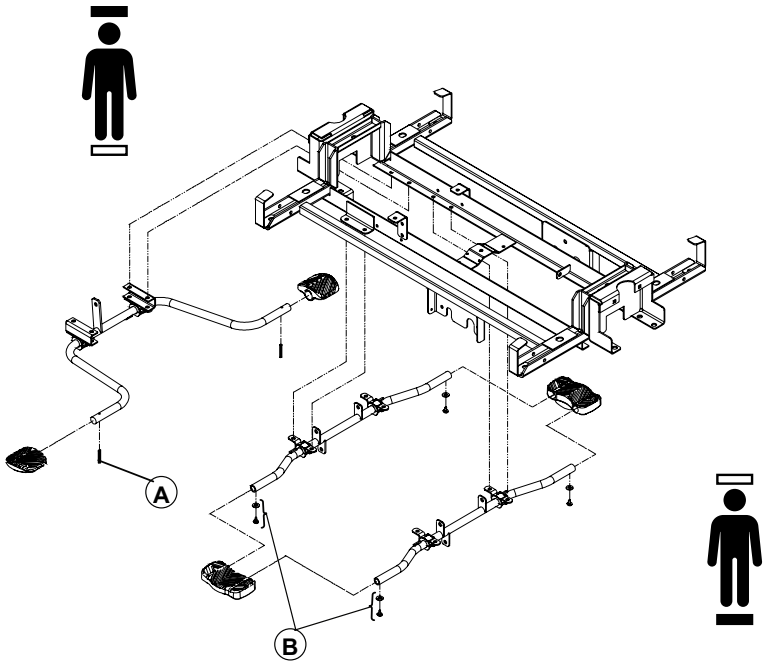


Figure 14 – Pump pedal replacement

3. Remove the pump pedal from the pedal rod. If necessary, tap the pump pedal with a hammer to ease removal. Discard the pump pedal.
4. Align the holes on the new pump pedal and the pedal rod. Fit the pump pedal on the pedal rod.
5. Using a hammer, drive the spring pin in until it is flush with the top of the pedal.
6. Verify proper operation before you return the product to service.

Uni-lower pedal replacement, hydraulic base

Tools required:

- Drill with 3/16” drill bit
- Floor jack
- Pop rivet tool

Procedure:

1. Raise the litter and the rails to the highest position.
2. Apply the brakes.
3. Using a floor jack, raise the side of the product with the pedal that needs repair approximately 4 in. off the floor.
4. Using a drill with a 3/16” drill bit, remove the two rivets and two washers (B) that secure the pedal to the pedal rod (Figure 14).
5. Align the holes on the new pump pedal and the pedal rod. Fit the pump pedal on the pedal rod.
6. Using a pop rivet tool, install the new uni-lower pedal.
7. Verify proper operation before you return the product to service.

Scale membrane replacement

Tools required:

- Small slotted screwdriver

- Isopropyl alcohol

Procedure:

1. Slide a small slotted screwdriver under the membrane (A) and lift to remove (Figure 15). Use caution when you insert the screwdriver under the membrane to avoid scratching the plastic cover.

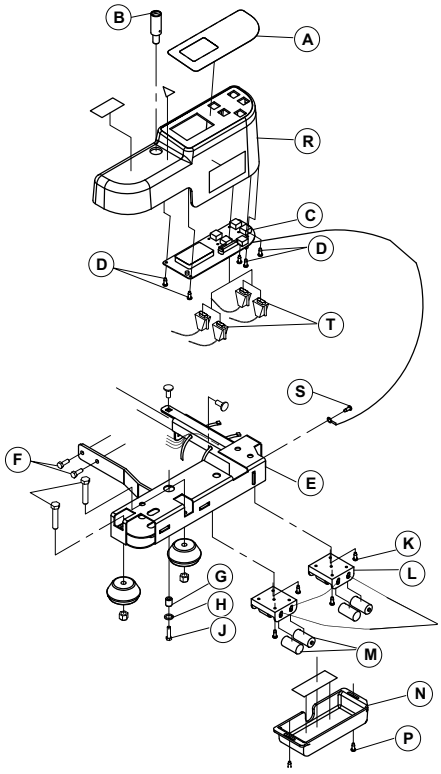


Figure 15 – Scale membrane replacement

2. Using isopropyl alcohol, remove any glue residue.
3. Remove the protective film on the backside of the new membrane and place it on the cover. Position the membrane before you permanently adhere it to the cover.
4. Verify proper operation before you return the product to service.

Accessory bracket cover replacement, scale option

Tools required:

- #2 Phillips screwdriver
- 9/16” combination wrench
- Diagonal pliers
- ESD system

Procedure:

CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
- Do not place unprotected circuit boards on the floor.

1. Lower the endrail at the foot end to the lowest position. If it is a fixed rail, see *Fixed endrail installation* (page 6) to temporarily lower the rail.
2. Raise the siderails to the highest position.

3. Lift the foot section and fold it toward the head end of the product.
4. Using a #2 Phillips screwdriver, remove the seven screws that secure the foot cover plate to the litter frame (Figure 16). Remove and save the cover plate. Save the screws.
5. Using a 9/16” combination wrench, remove the bolt (J), washer (H), and spacer (G) that secure the fixed top socket (B) to the accessory bracket (Figure 15). Save the bolt, washer, and spacer.
6. Ground yourself. See *Protecting against electrostatic discharge (ESD)* (page 13).
7. Using diagonal pliers, cut the cable ties that secure the cable to the lower plate and the accessory bracket.
8. Lift the accessory bracket cover while you slowly pull on the cables. Turn the accessory bracket cover toward you until the inner side of the cover is accessible.
9. Using a #2 Phillips screwdriver, remove the five screws (D) that secure the control board (C) to the cover (Figure 15). Remove and save the control board. Save the screws. Discard the cover.
10. Reverse steps to reinstall.

    Note - The new accessory bracket cover includes the membrane and all applicable labels.
11. Verify proper operation before you return the product to service.

Scale control board replacement

Tools required:

- #2 Phillips screwdriver
- Small slotted screwdriver
- 9/16” combination wrench
- Diagonal pliers
- ESD system

Procedure:

CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
- Do not place unprotected circuit boards on the floor.

1. Lower the endrail at the foot end to the lowest position. If it is a fixed rail, see *Fixed endrail installation* (page 6) to temporarily lower the rail.
2. Raise the siderails to the highest position.
3. Lift the foot section and fold it toward the head end of the product.
4. Using a #2 Phillips screwdriver, remove the seven screws that secure the foot cover plate to the litter frame (Figure 16). Remove and save the cover plate. Save the screws.
5. Using a 9/16” combination wrench, remove the bolt (J), washer (H), and spacer (G) that secure the fixed top socket (B) to the accessory bracket (Figure 15). Save the bolt, washer, and spacer.
6. Ground yourself. See *Protecting against electrostatic discharge (ESD)* (page 13).
7. Using diagonal pliers, cut the cable ties that secure the cable to the lower plate and the accessory bracket (E) (Figure 15).
8. Lift the accessory bracket cover while you slowly pull on the cables. Turn the accessory bracket cover toward you until the inner side of the cover is accessible.
9. Using a small slotted screwdriver, remove the load cell cable connectors (T) from the control board (Figure 15).
10. Disconnect the remaining cable connected to the control board. Note the position of the cables for reinstallation.
11. Using a #2 Phillips screwdriver, remove the screw that secures the control board grounding wire to the accessory bracket. Save the screw.

12. Using a #2 Phillips screwdriver, remove the five screws (D) that secure the control board (C) to the accessory bracket cover (Figure 15). Remove and discard the control board. Save the screws.
13. Reverse steps to reinstall.

    Note - For load cell cable connections to the control board, see Figure 17.

14. Calibrate the scale system. See *Scale system calibration* (page 6).
15. Verify proper operation before you return the product to service.

Load cell replacement

Tools required:

- #2 Phillips screwdriver
- Small slotted screwdriver
- 9/16” socket
- 9/16” combination wrench
- Diagonal pliers
- Sawhorse
- 0.036 in. shim
- Floor jack
- Torque wrench (in-lb)

Procedure:

1. Raise the litter and the siderails to the highest position. Lower the endrail on the side of the load cell to be replaced. If it is a fixed rail, see the *Fixed endrail installation* (page 6) to temporarily lower the rail.
2. Lift the foot section and fold it toward the head end of the product.
3. Using a #2 Phillips screwdriver, remove the seven screws (A) that secure the foot cover plate (B) to the litter frame (Figure 16). Remove and save the cover plate. Save the screws.

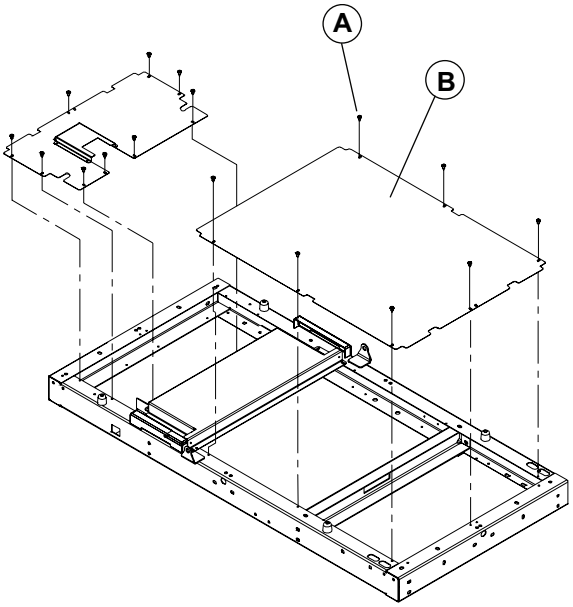


Figure 16 – Foot cover removal

4. Place a sawhorse under the corner of the litter frame on the side of the load cell to be replaced. For hydraulic bases, make sure that the sawhorse does not interfere with lowering the litter. For fixed bases, use a floor jack to raise the base onto the sawhorse.
5. Lower the litter onto the sawhorse. Make sure that the litter frame is free of any tension.
6. Using a 9/16” combination wrench and a 9/16” socket, remove the two bolts and two locknuts (B) that secure the load cell to the frame support (Figure 17). Save the bolts and locknuts.

   Note - Using a torque wrench, torque the bolts to 450 in-lb when you reinstall.

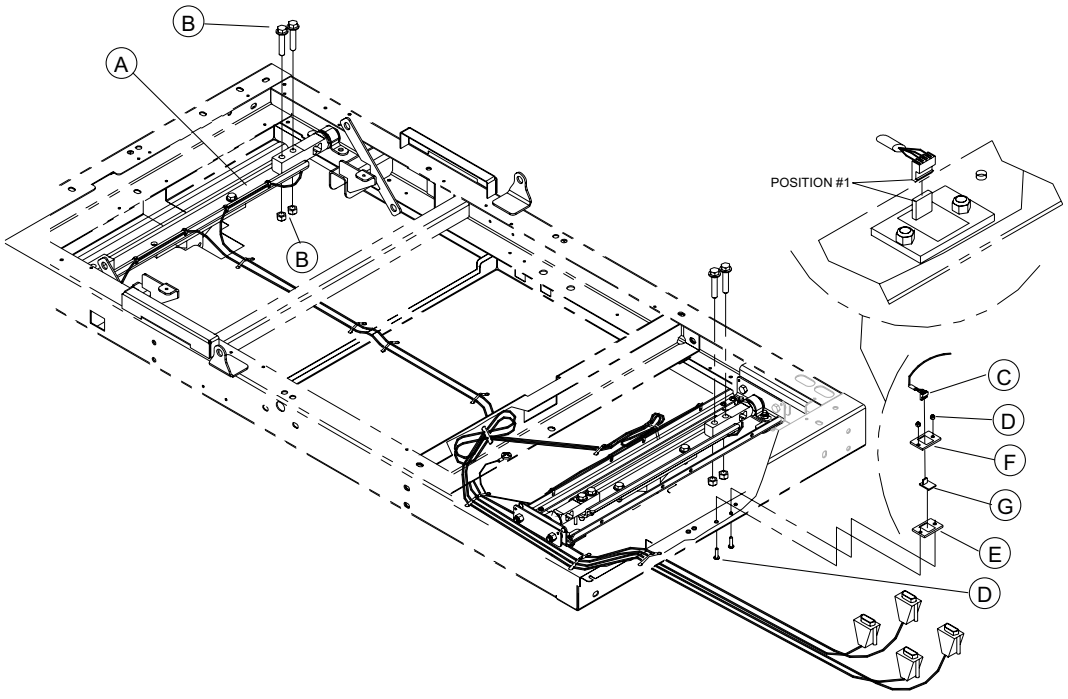


Figure 17 – Load cell

7. Turn the load cell to disconnect the cable. Slide the load cell out.
8. Using diagonal pliers, cut cable ties that secure the load cell cable to the litter frame.

Note

- Pay attention to the position of the cable ties and the slack of the cable between each cable tie.
- Make sure that the load cell has a 1 in. radius curve at the first point where it is secured when you install new cable ties on the load cell cable. Leave a small amount of slack in the cable while you install the remainder of the cable ties. This allows for product movement.

9. Using a 9/16” combination wrench, remove the bolt (D), washer (C), and spacer (B) that secure the fixed socket (A) to the accessory bracket (Figure 18). Save the bolt, washer, and spacer.

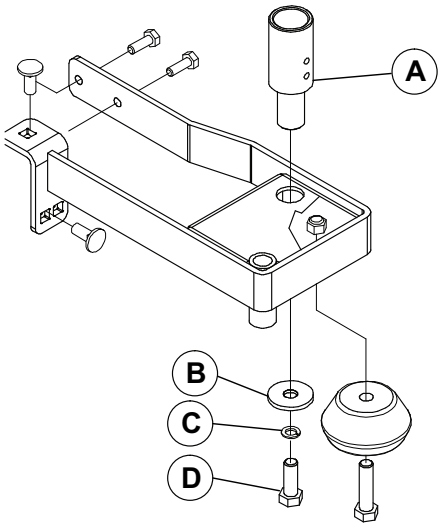


Figure 18 – Fixed socket

10. Using a small slotted screwdriver, remove the load cell cable from the control board.
11. Pass the connector through the opening in the lower cover plate. Remove and discard the load cell.
12. Reverse steps to reinstall.

    Note - Use a 0.036 in. shim to create a gap between the new load cell and the nylon support.

13. Calibrate the scale system. See *Scale system calibration* (page 6).
14. Verify proper operation before you return the product to service.

Angle sensor replacement, scale option

Tools required:

- #2 Phillips screwdriver
- 3/8” combination wrench

Procedure:

1. Raise the endrail at the foot end to the highest position and lower the siderails to the lowest position.
2. Lift the foot section and fold it toward the head end of the product.
3. Using a #2 Phillips screwdriver, remove the seven screws that secure the foot cover plate to the litter frame. Remove and save the cover plate (Figure 16). Save the screws.
4. Disconnect the cable that connects the angle sensor to the control board from the angle sensor. When you reconnect the cable, make sure that the cable maintains the same orientation.
5. Using a #2 Phillips screwdriver and a 3/8” combination wrench, remove the two screws and the two nylon nuts that secure the angle sensor support and the retaining plate to the frame. Remove and discard the angle sensor. Save the screws and nuts.

   Note - If the angle sensor is glued to the support and retaining plate, the replacement part number is 80-5001.

6. Reverse steps to reinstall.
7. Calibrate the scale system. See *Scale system calibration* (page 6).
8. Verify proper operation before you return the product to service.

Battery replacement, scale option

CAUTION

- Always use 1.5 VDC alkaline batteries.
- Always remove the batteries from the product during long periods of disuse.

The icon will display when the scale batteries need to be replaced.

Tools required:

- #2 Phillips screwdriver

Procedure:

1. Use a #2 Phillips screwdriver to remove the two screws (A) that secure the battery cover (B) to the enclosure (Figure 19).

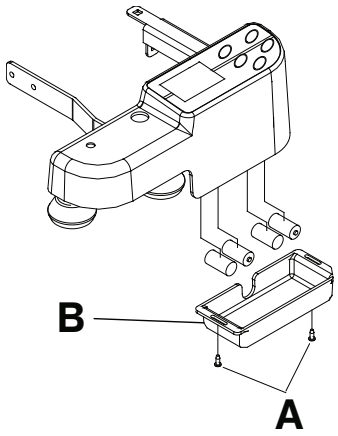


Figure 19 – Battery replacement

2. Discard the batteries.

   Note - Do not dispose of as unsorted municipal waste. See your local distributor for return or collection systems available in your country.
3. Reverse steps to reinstall.
4. Calibrate the scale system. See *Scale system calibration* (page 6).
5. Verify proper operation before you return the product to service.

Head section replacement

Tools required:

- (2) 1/2” combination wrench

Procedure:

1. Raise the head section to the highest position.
2. Lower the rails to the lowest position.

3. Apply the brakes.
4. Using two 1/2” combination wrenches, remove the four locknuts (C), four shoulder spacers (H), four washers (J), and four bolts (B) that secure the head section to the two coupling bars (Figure 20). Remove the head section. Save the locknuts, spacers, washers, and bolts.

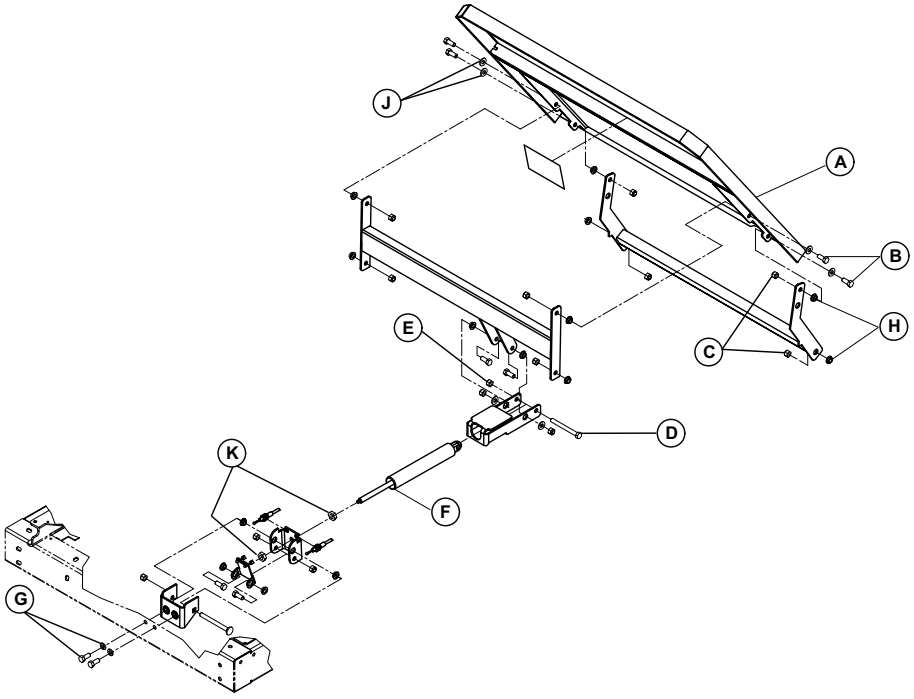


Figure 20 – Head section

5. Reverse steps to reinstall.
6. Verify proper operation before you return the product to service.

Head section pneumatic cylinder replacement

Tools required:

- (2) 1/2” combination wrench
- 11/16” combination wrench
- #2 Phillips screwdriver
- Medium strength thread locker (or equivalent)

Procedure:

1. Raise the head section to the highest position.
2. Lower the rails to the lowest position.
3. Apply the brakes.
4. Using two 1/2” combination wrenches, remove the four locknuts (C), four shoulder spacers (H), four washers (J), and four bolts (B) that secure the head section to the two coupling bars (Figure 20). Remove and save the head section. Save the locknuts, spacers, washers, and bolts.
5. Using a #2 Phillips screwdriver, remove the nine screws that secure the protective plate to the litter frame (Figure 16). Save the screws.
6. Using two 1/2” combination wrenches, remove the locknut (E) and bolt (D) that secure the cylinder end to the bracket (Figure 20). Save the locknut and bolt.

7. Using a 1/2” combination wrench, remove the two bolts and two washers (G) that secure the cylinder bracket to the litter frame (Figure 20). Save the bolts and washers.
8. Move the whole assembly slightly toward the center of the product.
9. Using an 11/16” combination wrench, remove the two nuts (K) that secure the threaded end of the cylinder to the bracket (Figure 20). Remove the pneumatic cylinder. Save the nuts.

   Note - Apply medium strength thread locker to the two bolts and the two nuts before installation.
10. Reverse steps to reinstall.
11. Verify proper operation before you return the product to service.

Head section assist cable replacement

Tools required:

- (2) 7/16” combination wrench
- #2 Phillips screwdriver

Procedure:

1. Raise the head section to the highest position.
2. Lower the rails to the lowest position.
3. Apply the brakes.
4. Using a #2 Phillips screwdriver, remove the nine screws that secure the protective plate to the litter frame (Figure 16). Remove and save the protective plate. Save the screws.
5. Using two 7/16” combination wrenches, loosen the two nuts (A) at the ends of the defective cable. Take note of the cable path and how the ends are mounted at their tie points (Figure 21). Remove the cable.

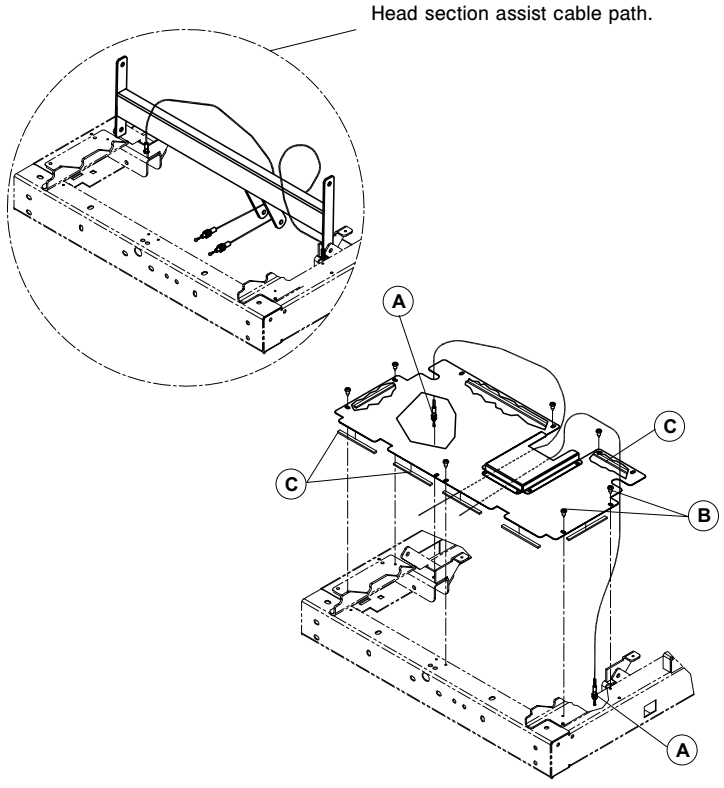


Figure 21 – Head section assist cable

6. Install the new cable.

7. Adjust the two nuts at each cable end. Make sure that the adjustment at the activation lever end is tight and the adjustment at the activation flap end presses the activation flap against the cylinder release pin without activating the cylinder release pin.
8. Reverse steps to reinstall.
9. Verify proper operation before you return the product to service.

Head section support arm replacement

Tools required:

- Long needle nose pliers
- Bungee cords (or equivalent)

Procedure:

1. Lower the rails to the lowest position.
2. Apply the brakes.
3. Raise the head section.
4. Using bungee cords, support the raised head section.
5. Using long needle nose pliers, remove the two inner cotter pins (A) that secure the support arm (B) in place (Figure 22). Save the cotter pins.
6. Remove the support arm and the nylon shoulder bushings (C) (Figure 22). Inspect the nylon shoulder bushings and replace if needed. Discard the support arm.

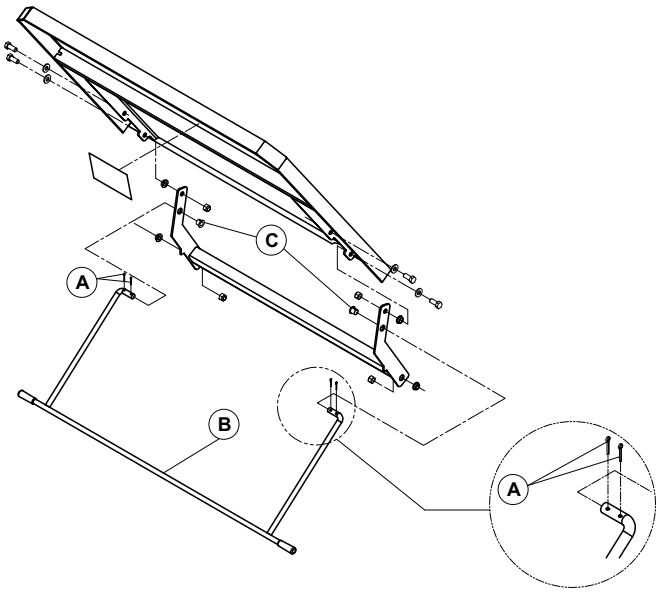


Figure 22 – Head section support arm

7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Head section activation lever replacement

Tools required:

- (2) 7/16” combination wrench
- #2 Phillips screwdriver

- 5/32” Allen wrench

Procedure:

1. Raise the head section to the highest position.
2. Lower the rails to the lowest position.
3. Apply the brakes.
4. Using a #2 Phillips screwdriver, remove the nine screws (B) that secure the protective plate (A) to the litter frame (Figure 23). Save the screws.
5. Using two 7/16” combination wrenches, loosen the two nuts that secure the cable to the activation lever (D) (Figure 23). Remove the cable from the activation lever. Save the cable and nuts.
6. Using a 5/32” Allen wrench and a 7/16” combination wrench, remove the locknut, washer, and shoulder screw (C) that secure the activation lever to the litter frame (Figure 23). Remove and discard the activation lever. Save the locknut, washer, and screw.

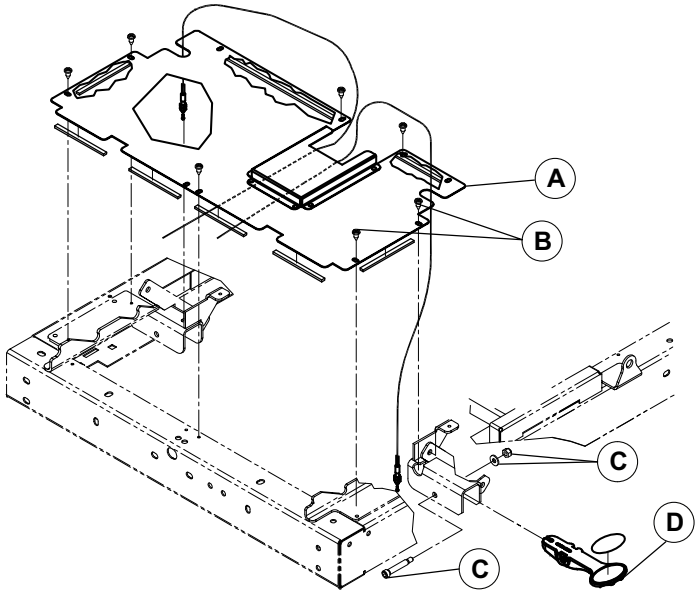


Figure 23 – Head section activation lever

7. Install the new activation lever and reconnect the cable end to the lever.
8. You must adjust the cable end nuts for the head section to function. Make sure that the activation lever is secure after adjustment.
9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

Litter removal, fixed base

Tools required:

- #2 Phillips screwdriver
- (2) 1/2” combination wrench
- (2) Bungee cords (or equivalent)
- (4) Sawhorses (or equivalent)

Procedure:

1. Raise the rails to the highest position.
2. Apply the brakes.

3. Using sawhorses, support each end of the litter frame.

CAUTION - Always make sure that the sawhorses can support at least 200 lb (91 kg).

4. Using a #2 Phillips screwdriver, remove the 18 screws (A) that secure the lower head (B) and foot (C) cover plates (Figure 25). Remove and save the cover plates. Save the screws.
5. Lift the black bellows (C).
6. Using bungee cords, support the lifted black bellows.
7. Using two 1/2” combination wrenches, remove the four bolts (A) and four locknuts (B) that secure the litter support tubes to the two base posts (Figure 24). If the bolts are stuck, raise the end of the litter slightly to ease removal. Save the bolts and locknuts.

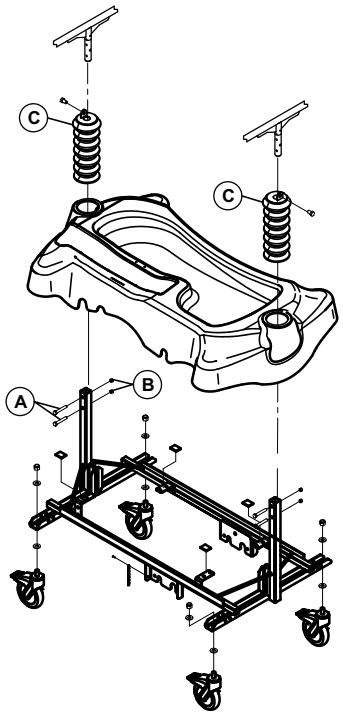


Figure 24 – Litter removal - fixed base

8. With the assistance of another person, lift off the litter and set the litter aside on a second set of sawhorses.
9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

Litter removal, hydraulic base

Tools required:

- #2 Phillips screwdriver
- Rubber hammer
- 1/2” combination wrench
- (4) Sawhorses (or equivalent)

Procedure:

1. Raise the rails to the highest position.
2. Apply the brakes.

3. Using a #2 Phillips screwdriver, remove the 18 screws (A) that secure the lower head (B) and foot (C) cover plates (Figure 25). Remove and save the cover plates. Save the screws.

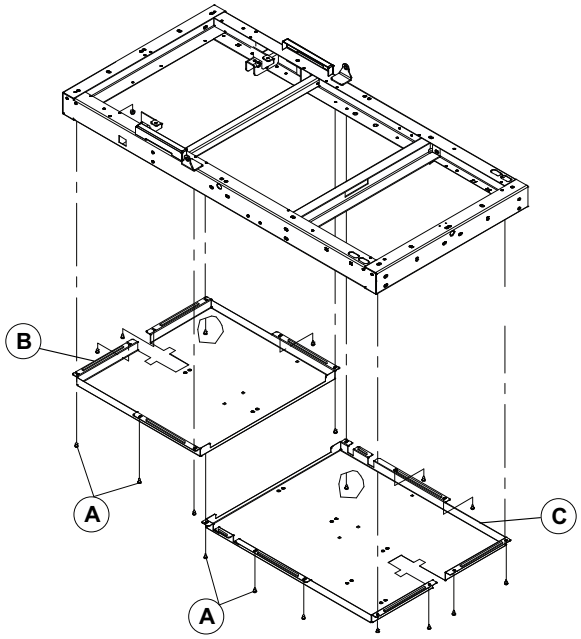


Figure 25 – Litter removal - hydraulic base

4. Using sawhorses, support each end of the litter frame.

CAUTION - Always make sure that the sawhorses can support at least 200 lb (91 kg).

5. Using a 1/2” combination wrench, loosen and remove the bolt that secures the litter support to the jack actuator rod on both ends of the product. Use a rubber hammer to remove the actuator rod from the litter frame, if necessary.

CAUTION - Do not apply too much force to the bolts or they may break.

6. Discard the bolts. Replace the bolts with part number VB15A1O24-S.

WARNING - Always replace the two bolts. The Scotch-Grip™ coating is less effective after you tighten or remove the bolts.

7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Siderail/endrail handle assembly replacement

Tools required:

- 3/32” Allen wrench

Procedure:

1. Raise the siderail/endrail that needs repair to the upper position.
2. Apply the brakes.
3. Using a 3/32” Allen wrench, remove the set screw (A) that secures the handle assembly to the shaft (Figure 26). Remove and discard the handle assembly.

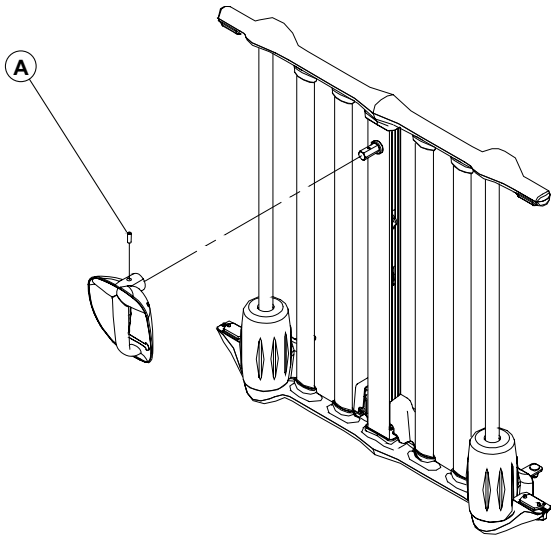


Figure 26 – Handle replacement

4. Reverse steps to reinstall.
5. Verify proper operation before you return the product to service.

Endrail central column assembly replacement

WARNING - Always have only Stryker service technicians or service personnel trained by Stryker perform this procedure. Failure to comply can result in serious damage to the bed or severe injury to users or patients.

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 1/2” socket
- 3/8” combination wrench
- 3/32” Allen wrench
- Cordless drill
- #2 Phillips bit
- Adjustable supports (or equivalent)

Procedure:

Note - Always specify if the product is equipped with the double safety lock when you order a central column assembly. Proper warning labels are affixed to assemblies without the double safety lock.

1. Remove the mattress.
2. Raise the rails to the highest position.
3. Apply the brakes.
4. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (C) (Figure 27). Save the screws.
5. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins.

6. Using a #2 Phillips screwdriver, remove the two screws (D) that secure the lower end of the central column to the lower structural member (E) (Figure 27). Save the screws.
7. Using a #1 Phillips screwdriver, remove the eight screws (F) that secure the top half of the upper plastic cover (G) to the bottom half of the upper plastic cover (H) (Figure 27). Save the screws.
8. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins.
9. Lower the rail to the 14 in. locking position.
10. Position adjustable supports under the siderail to support the siderail when you remove the central column.
11. Using a cordless drill and a #2 Phillips bit, remove the 14 screws (J) that secure the upper end of the posts and the central column to the upper structural member (Figure 27). Save the screws.
12. Using a 1/2” socket, remove the two bolts and two washers (L) that secure the upper end of the two guide posts to the structural member (K) (Figure 27). Save the bolts and washers.
13. Remove and save the lower plastic cover.
14. Lift and remove the central column. Use caution to avoid damaging the seal. Discard the central column.

    Note - You must replace the seal if it is damaged during the procedure. Do not install a damaged seal.
15. Using a 3/32” Allen wrench, remove the set screw (A) that secures the handle to the central column shaft (Figure 26). Save the screw. Remove the handle and install it on the new central column.
16. Install the new column. Insert the bottom end of the central column into the brake shoe and slide the column until the bottom is seated in the cavity (W) of the lower plastic cover. Use caution to avoid damaging the seal while you insert the column into the lower plastic cover. While the column slides through the brake shoe, rotate the handle to open the lock stops (N) when the column reaches each of the fixed stops (Figure 27).

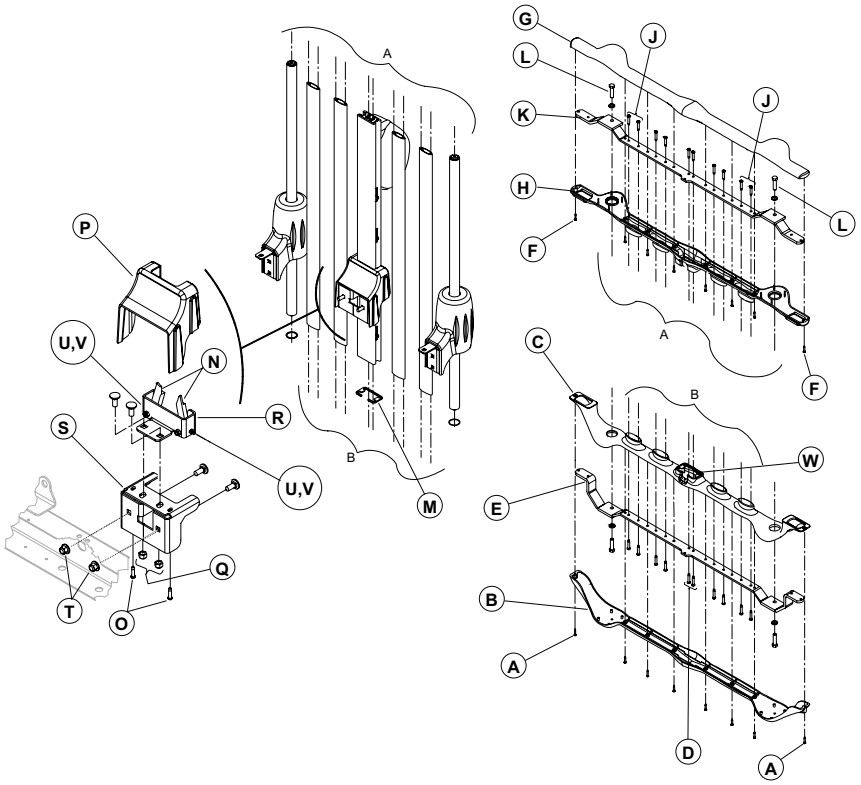


Figure 27 – Endrail central column replacement

17. Reverse steps to reinstall.
18. Check the stop catch positions and complete steps 18-23 if adjustments are needed.

    Note - Proper adjustment centers the stop catches and evenly distributes the load of the rail. If the stop catches are not centered, they will rub against the plastic extrusion.

19. Raise the siderail to the upper position.
20. Using a #2 Phillips screwdriver, remove the two screws (O) that secure the brake shoe cover (P) to the brake shoe support (S). Remove and save the cover (Figure 27).
21. Using a 1/2” socket, loosen the two locknuts (Q) that secure the brake shoe (R) to the brake shoe support (S). Remove the two locknuts (T) that secure the brake shoe support to the frame (Figure 27).
22. Move the brake shoe back and forth (head end to foot end) and the brake shoe support left to right to position the stop catches (N) (Figure 27). Tighten the locknuts.
23. If the stop catches still rub on the plastic extrusion, loosen the locknut (U) using a 3/8” combination wrench. Turn the adjustment screw (V) using a 3/32” Allen wrench until the proper alignment is achieved (Figure 27).
24. Verify proper operation of the handle and four siderail positions (lower, 9 in., 14 in., upper) before you reinstall the brake shoe cover.
25. Verify proper operation before you return the product to service.

Endrail central column spring replacement

WARNING - Always have only Stryker service technicians or service personnel trained by Stryker perform this procedure. Failure to comply can result in serious damage to the bed or severe injury to users or patients.

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 1/2” socket
- 3/8” combination wrench
- 3/32” Allen wrench
- Cordless drill
- #2 Phillips bit
- Adjustable supports (or equivalent)

Procedure:

Note - Always specify if the product is equipped with the double safety lock when you order a central column assembly. Proper warning labels are affixed to assemblies without the double safety lock.

1. Remove the mattress.
2. Raise the rails to the highest position.
3. Apply the brakes.
4. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (C) (Figure 27).
5. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins.
6. Using a #2 Phillips screwdriver, remove the two screws (D) that secure the lower end of the central column to the lower structural member (E) (Figure 27).
7. Using a #1 Phillips screwdriver, remove the eight screws (F) that secure the top half of the upper plastic cover (G) to the bottom half of the upper plastic cover (H) (Figure 27).
8. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins.
9. Lower the rail to the 14 in. locking position.

10. Position adjustable supports under the siderail to support the siderail when you remove the central column.
11. Using a cordless drill and a #2 Phillips bit, remove the 14 screws (J) that secure the upper end of the posts and the central column to the upper structural member (Figure 27).
12. Using a 1/2” socket, remove the two bolts and two washers (L) that secure the upper end of the two guide posts to the structural member (K) (Figure 27).
13. Remove and save the lower plastic cover.
14. Lift and remove the central column. Use caution to avoid damaging the seal. Save the central column.

    Note - You must replace the seal if it is damaged during the procedure. Do not install a damaged seal.
15. Using a 3/32” Allen wrench, remove the set screw (A) that secures the handle to the central column shaft (Figure 26). Remove and save the handle.
16. Remove and discard the spring from the endrail central column.
17. Reverse steps to reinstall.
18. Check the stop catch positions and complete steps 18-23 if adjustments are needed.

    Note - Proper adjustment centers the stop catches and evenly distributes the load of the rail. If the stop catches are not centered, they will rub against the plastic extrusion.
19. Raise the siderail to the upper position.
20. Using a #2 Phillips screwdriver, remove the two screws (O) that secure the brake shoe cover (P) to the brake shoe support (S). Remove and save the cover (Figure 27).
21. Using a 1/2” socket, loosen the two locknuts (Q) that secure the brake shoe (R) to the brake shoe support (S). Remove the two locknuts (T) that secure the brake shoe support to the frame (Figure 27).
22. Move the brake shoe back and forth (head end to foot end) and the brake shoe support left to right to position the stop catches (N) (Figure 27). Tighten the locknuts.
23. If the stop catches still rub on the plastic extrusion, loosen the locknut (U) using a 3/8” combination wrench. Turn the adjustment screw (V) using a 3/32” Allen wrench until the proper alignment is achieved (Figure 27).
24. Verify proper operation of the handle and four rail positions (lower, 9 in., 14 in., upper) before you reinstall the brake shoe cover.
25. Verify proper operation before you return the product to service.

Siderail central column assembly replacement – for rails with moving access doors

WARNING - Always have only Stryker service technicians or service personnel trained by Stryker perform this procedure. Failure to comply can result in serious damage to the bed or severe injury to users or patients.

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 1/2” socket
- 3/8” combination wrench
- 3/32” Allen wrench
- 5/32” Allen wrench
- Medium strength thread locker (or equivalent)
- Adjustable supports (or equivalent)

Procedure:

Note - Always specify if the product is equipped with the double safety lock when you order a central column assembly. Proper warning labels are affixed to assemblies without the double safety lock.

1. Remove the mattress.
2. Raise the siderails to the highest position.
3. Apply the brakes.
4. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (C) (Figure 28). Open the access doors to reach the two screws located at the ends of the top half of the lower plastic cover. Save the screws.
5. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins.
6. Using a #2 Phillips screwdriver, remove the two screws (D) that secure the lower end of the central column to the lower structural member (E) (Figure 28). Save the screws.
7. Using a #1 Phillips screwdriver, remove the eight screws (F) that secure the top half of the upper plastic cover (G) to the bottom half of the upper plastic cover (H) (Figure 28). Open the access doors to reach the two screws located at the end of the bottom half of the upper plastic cover. Save the screws.
8. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins.
9. Lower the rail to the 14 in. locking position.
10. Position adjustable supports under the siderail to support the siderail when you remove the central column.
11. Using a #2 Phillips screwdriver, remove the ten screws (J) that secure the upper end of the posts and the central column to the upper structural member (K) (Figure 28). Save the screws.
12. Using a 1/2” socket, remove the two bolts and two washers (L) that secure the upper end of the two guide posts to the structural member (K) (Figure 28). Save the bolts and washers.
13. Using a 5/32” Allen wrench, remove the two Allen screws (Q) that secure the spacer (R) and the hinge (H) of both access doors to the upper structural member (S) (Figure 32). Remove and save the structural member and the spacer.

    Note - Apply medium strength thread locker to the Allen screws before installation.
14. Remove and save the lower plastic cover. The access doors will move sideways and lean on the endrails.
15. Lift and remove the central column. Use caution to avoid damaging the seal. Discard the column.

    Note - You must replace the seal if it is damaged during the procedure. Do not install a damaged seal.
16. Using a 3/32” Allen wrench, remove the set screw (A) that secures the handle to the central column shaft (Figure 26). Remove the handle and install it on the new central column.
17. Install the new column. Insert the bottom end into the brake shoe and slide the column until the bottom is seated in the cavity (W) of the lower plastic cover (Figure 28). Use caution to avoid damaging the seal while inserting the column into the lower plastic cover. See the note following step 15. While the column slides through the brake shoe, rotate the handle to open the lock stops (N) when the column reaches each of the fixed stops (Figure 28).

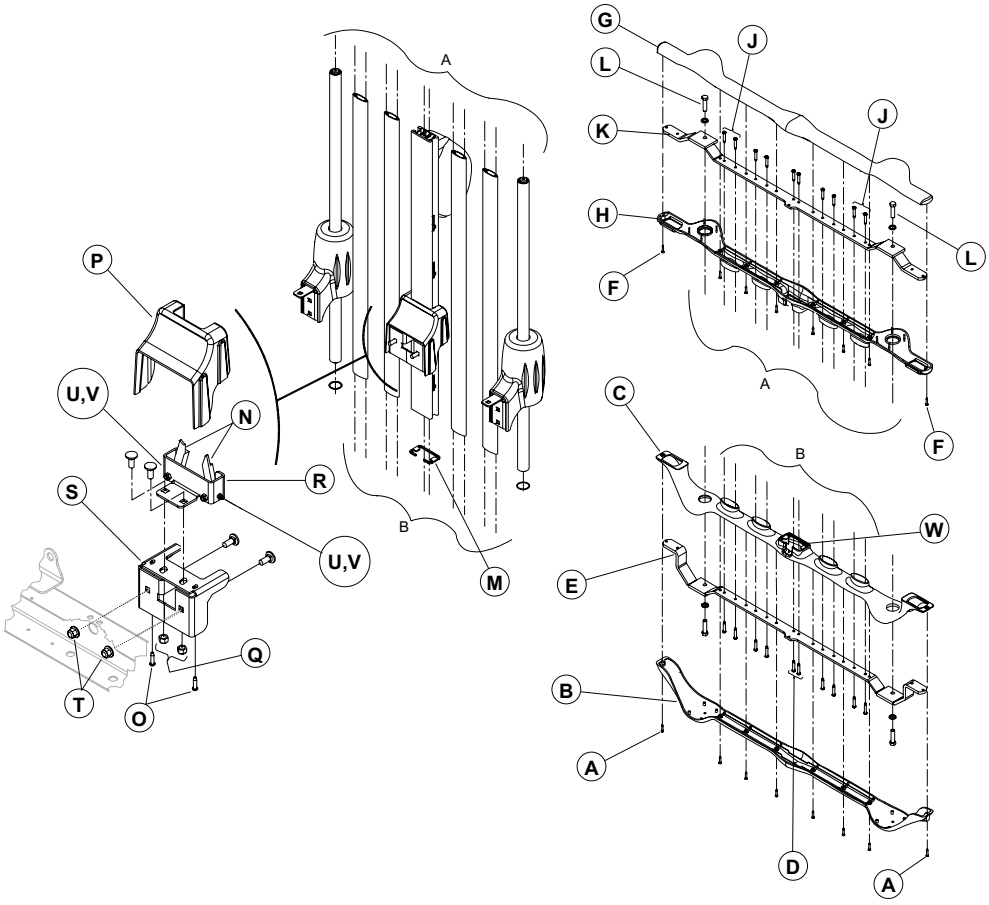


Figure 28 – Siderail central column replacement (moving access doors)

18. Reverse steps to reinstall.
19. Check the stop catch positions and complete steps 19-24 if adjustments are needed.

    Note - Proper adjustment centers the stop catches and evenly distributes the load of the rail. If the stop catches are not centered, they will rub against the plastic extrusion.
20. Raise the siderail to the upper position.
21. Using a #2 Phillips screwdriver, remove the two screws (O) that secure the brake shoe cover (P) to the brake shoe support (S) (Figure 28). Remove and save the cover. Save the screws.
22. Using a 1/2” socket, loosen the two locknuts (Q) that secure the brake shoe (R) to the brake shoe support (S). Remove the two locknuts (T) that secure the brake shoe support to the frame (Figure 28).
23. Move the brake shoe back and forth (head end to foot end) and the brake shoe support left to right to position the stop catches (N) (Figure 28). Tighten the locknuts.
24. If the stop catches still rub on the plastic extrusion, loosen the locknut (U) using a 3/8” combination wrench. Turn the adjustment screw (V) using a 3/32” Allen wrench until the proper alignment is achieved (Figure 28).
25. Verify proper operation of the handle and four rail positions (lower, 9 in., 14 in., upper) before you reinstall the brake shoe cover.
26. Verify proper operation before you return the product to service.

Siderail central column spring replacement – for rails with moving access doors

WARNING - Always have only Stryker service technicians or service personnel trained by Stryker perform this procedure. Failure to comply can result in serious damage to the bed or severe injury to users or patients.

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 1/2” socket
- 3/8” combination wrench
- 3/32” Allen wrench
- 5/32” Allen wrench
- Medium strength thread locker (or equivalent)
- Adjustable supports (or equivalent)

Procedure:

Note - Always specify if the product is equipped with the double safety lock when you order a central column assembly. Proper warning labels are affixed to assemblies without the double safety lock.

1. Remove the mattress.
2. Raise the siderails to the highest position.
3. Apply the brakes.
4. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (C) (Figure 28). Open the access doors to reach the two screws located at the ends of the top half of the lower plastic cover. Save the screws.
5. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins.
6. Using a #2 Phillips screwdriver, remove the two screws (D) that secure the lower end of the central column to the lower structural member (E) (Figure 28). Save the screws.
7. Using a #1 Phillips screwdriver, remove the eight screws (F) that secure the top half of the upper plastic cover (G) to the bottom half of the upper plastic cover (H) (Figure 28). Open the access doors to reach the two screws located at the end of the bottom half of the upper plastic cover. Save the screws.
8. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins.
9. Lower the rail to the 14 in. locking position.
10. Position adjustable supports under the siderail to support the siderail when you remove the central column.
11. Using a #2 Phillips screwdriver, remove the ten screws (J) that secure the upper end of the posts and the central column to the upper structural member (K) (Figure 28). Save the screws.
12. Using a 1/2” socket, remove the two bolts and two washers (L) that secure the upper end of the two guide posts to the structural member (K) (Figure 28). Save the bolts and washers.
13. Using a 5/32” Allen wrench, remove the two Allen screws (Q) that secure the spacer (R) and the hinge (H) of both access doors to the upper structural member (S) (Figure 32). Remove and save the structural member and the spacer. Save the screws.

    Note - Apply medium strength thread locker to the Allen screws before installation.
14. Remove and save the lower plastic cover. The access doors will move sideways and lean on the endrails.
15. Lift and remove the central column. Use caution to avoid damaging the seal.

    Note - You must replace the seal if it is damaged during the procedure. Do not install a damaged seal.
16. Using a 3/32” Allen wrench, remove the set screw (A) that secures the handle to the central column shaft (Figure 26). Save the handle and screw.
17. Remove and discard the spring from the siderail central column.
18. Reverse steps to reinstall.

19. Check the stop catch positions and complete steps 19-24 if adjustments are needed.

    Note - Proper adjustment centers the stop catches and evenly distributes the load of the rail. If the stop catches are not centered, they will rub against the plastic extrusion.

20. Raise the siderail to the upper position.
21. Using a #2 Phillips screwdriver, remove the two screws (O) that secure the brake shoe cover (P) to the brake shoe support (S). Remove and save the cover (Figure 28).
22. Using a 1/2” socket, loosen the two locknuts (Q) that secure the brake shoe (R) to the brake shoe support (S). Remove and save the two locknuts (T) that secure the brake shoe support to the frame (Figure 28).
23. Move the brake shoe back and forth (head end to foot end) and the brake shoe support left to right to position the stop catches (N) (Figure 28). Tighten the locknuts.
24. If the stop catches still rub on the plastic extrusion, loosen the locknut (U) using a 3/8” combination wrench. Turn the adjustment screw (V) using a 3/32” Allen wrench until the proper alignment is achieved (Figure 28).
25. Verify proper operation of the handle and four rail positions (lower, 9 in., 14 in., upper) before you reinstall the brake shoe cover.
26. Verify proper operation before you return the product to service.

Siderail central column assembly replacement – for rails with fixed access doors

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 1/2” socket
- 3/8” combination wrench
- 3/32” Allen wrench
- 5/32” Allen wrench
- Medium strength thread locker (or equivalent)
- Adjustable supports (or equivalent)

Procedure:

1. Remove the mattress.
2. Raise the siderails to the highest position.
3. Apply the brakes.
4. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (C) (Figure 29). Save the screws.
5. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins.
6. Using a #2 Phillips screwdriver, remove the two screws (E) that secure the lower end of the central column to the lower structural member (Figure 29). Save the screws.
7. Using a 5/32” Allen wrench, remove the two Allen screws (A) that secure the spacer (B) and the hinge (C) of both access doors to the lower structural member (D) (Figure 32). Remove and save the structural member and the spacer. Save the screws.

   Note - Apply medium strength thread locker to the Allen screw threads before installation.

8. Move the lower end of the access door to the left or right and disengage it from the upper hinge (H) (Figure 32). Remove and save the access door. Save the spacer and hinge.
9. Using a #1 Phillips screwdriver, remove the eight screws (G) that secure the top half of the upper plastic cover (H) to the bottom half of the upper plastic cover (Figure 29). Save the screws.

10. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins.
11. Lower the rail to the 14 in. locking position.
12. Position adjustable supports under the siderail to support the siderail when you remove the central column.
13. Using a #2 Phillips screwdriver, remove the ten screws (J) that secure the upper end of the posts and the central column to the upper structural member (K) (Figure 29). Save the screws.
14. Using a 1/2” socket, remove the two bolts and two washers (L) that secure the upper end of the two guide posts to the structural member (K) (Figure 29). Save the bolts and washers.
15. Remove and save the lower plastic cover.
16. Lift and remove the central column. Use caution to avoid damaging the seal. Discard the column.

    Note - You must replace the seal if it is damaged during the procedure. Do not install a damaged seal.
17. Using a 3/32” Allen wrench, remove the set screw (A) that secures the handle to the central column shaft (Figure 26). Remove the handle and install it on the new central column.
18. Install the new column. Insert the bottom end into the brake shoe and slide the column until the bottom is seated in the cavity (W) of the lower plastic cover. Use caution to avoid damaging the seal while you insert the column into the lower plastic cover. See the note following step 16. While the column slides through the brake shoe, rotate the handle to open the lock stops (N) when the column reaches each of the fixed stops (Figure 29).

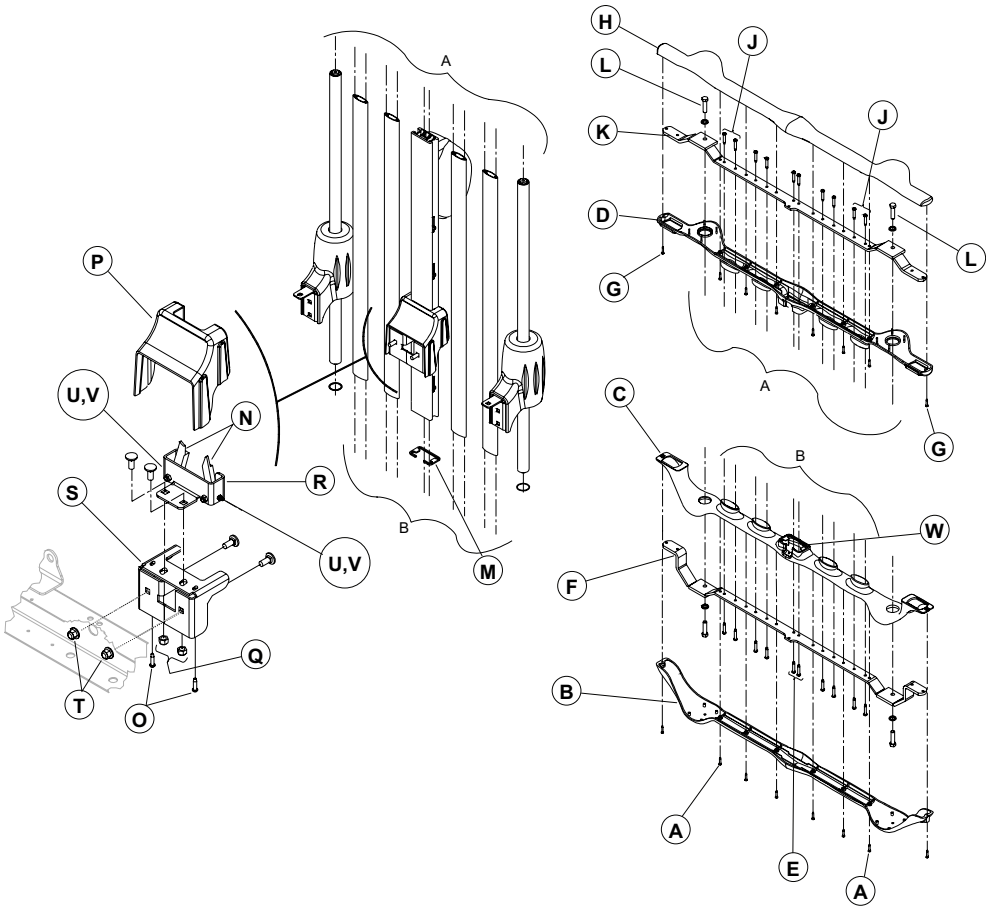


Figure 29 – Siderail central column replacement (fixed access doors)

19. Reverse steps to reinstall.
20. Check the stop catch positions and complete steps 20-25 if adjustments are needed.

    Note - Proper adjustment centers the stop catches and evenly distributes the load of the rail. If the stop catches are not centered, they will rub against the plastic extrusion.

21. Raise the siderail to the upper position.
22. Using a #2 Phillips screwdriver, remove the two screws (O) that secure the brake shoe cover (S) to the brake shoe support. Remove and save the cover (Figure 29).
23. Using a 1/2” socket, loosen the two locknuts (Q) that secure the brake shoe (R) to the brake shoe support (S). Remove and save the two locknuts (T) that secure the brake shoe support to the frame (Figure 29).
24. Move the brake shoe back and forth (head end to foot end) and the brake shoe support left to right to position the stop catches (N) (Figure 29). Tighten the locknuts.
25. If the stop catches still rub on the plastic extrusion, loosen the locknut (U) using a 3/8” combination wrench. Turn the adjustment screw (V) using a 3/32” Allen wrench until the proper alignment is achieved (Figure 29).
26. Verify proper operation of the handle and four rail positions (lower, 9 in., 14 in., upper) before you reinstall the brake shoe cover.
27. Verify proper operation before you return the product to service.

Upper plastic cover replacement – for endrails or siderails with moving access doors

Tools required:

- #1 Phillips screwdriver
- Small slotted screwdriver

Procedure:

1. Raise the rail that needs repair to the highest position.
2. Apply the brakes.
3. Using a #1 Phillips screwdriver, remove the eight screws (F) that secure the top half of the upper plastic cover (G) to the bottom half of the upper plastic cover (H) (Figure 28). If repairing a siderail, open the access door to reach the two screws located at the end of the bottom half of the upper plastic cover. Save the screws.
4. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins. Remove and discard the upper plastic cover.
5. Reverse steps to reinstall
6. Verify proper operation before you return the product to service.

Upper plastic cover replacement – for endrails or siderails with fixed access doors

Tools required:

- #1 Phillips screwdriver
- Small slotted screwdriver
- 5/32” Allen wrench
- Medium strength thread locker (or equivalent)

Procedure:

1. Raise the rail that needs repair to the highest position.
2. Apply the brakes.
3. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (D) (Figure 29). Save the screws.
4. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins. Remove and save the lower cover.

5. Using a 5/32” Allen wrench, remove the two Allen screws (A) that secure the spacer (B) and the hinge (C) of the two access doors to the lower structural member (D) (Figure 32). Save all parts.

   Note - Apply medium strength thread locker to the Allen screw threads before installation.

6. Move the lower end of the access door to the left or right and disengage it from the upper hinge (H) (Figure 32). Remove and save both access doors. Save the spacers and hinges.
7. Using a #1 Phillips screwdriver, remove the eight screws (G) that secure the top half of the upper plastic cover (H) to the bottom half of the upper plastic cover (D) (Figure 29). Save the screws.
8. Insert a small slotted screwdriver between the two halves of the upper plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the lower cover snap pins. Remove and discard the upper plastic cover.
9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

Lower plastic cover replacement

Tools required:

- #1 Phillips screwdriver
- Small slotted screwdriver

Procedure:

1. Raise the rail that needs repair to the highest position.
2. Apply the brakes.
3. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the lower plastic cover (B) to the top half of the lower plastic cover (C). If repairing a siderail, open the access doors to reach the two screws located at the ends of the top half of the lower plastic cover (Figure 28 or Figure 29). Save the screws.
4. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins. Remove and discard the lower cover.
5. Reverse steps to reinstall.
6. Verify proper operation before you return the product to service.

Rail support rolling bearing replacement

Tools required:

- Slotted screwdriver
- Needle nose pliers
- 1/8” punch
- Bungee cords (or equivalent)

Procedure:

1. Apply the brakes.
2. Raise the head or foot section as needed and support using bungee cords. If the endrails need repair, remove the accessory brackets.
3. For upper rolling bearings, raise the rail to the highest position. For lower rolling bearings, lower the rail to the 9 in. position.
4. Alternately lift each side of the rail support cover (A) to lift it off the rail support (Figure 30).
5. Using bungee cords, secure the rail support.
6. Using a slotted screwdriver, press and lift the two locking tabs through the holes (B) on either side of the rail support to disengage the rolling bearing support (C) (Figure 30).

7. Using needle nose pliers, remove the spring pin (D) that secures the rolling bearing (E) (Figure 30). Remove and discard the rolling bearing. Save the spring.
8. Using a 1/8” punch as a guide, insert the spring pin (D) and the new rolling bearing (E) into the support holes (Figure 30). Center the spring pin so the rolling bearing assembly will fit into the rail support.

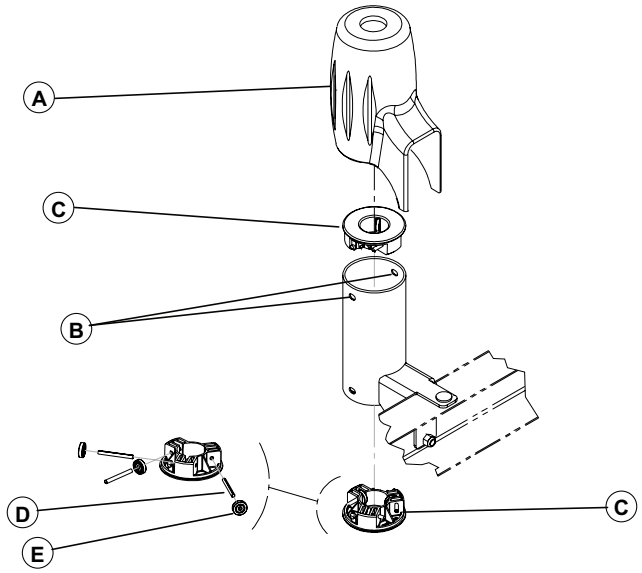


Figure 30 – Rolling bearing replacement

9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

Rail assist cable replacement

WARNING - Always use part number 19-0381 to replace the rail assist cable to avoid injury to the patient and damage to the product.

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- (2) Vise grips

Procedure:

1. Raise the rail that needs repair to the highest position.
2. Apply the brakes.
3. Lift the foot section and fold it toward the head end of the product or remove the head section to access the rail assist mechanism. See *Head section replacement* (page 33).
4. Using a #2 Phillips screwdriver, remove the screws that secure the protective plates to the litter frame (Figure 16). Save the screws.
5. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom of the lower plastic cover (B) to the top half of the cover (C) (Figure 29). Open the moving access door, if equipped, to reach the screws on each end of the top half of the cover (Figure 28). Save the screws.
6. Insert a small slotted screwdriver between the two halves of the lower plastic cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the upper cover snap pins. Remove and save the lower cover.

7. Using a #2 Phillips screwdriver, remove the two screws (O) that secure the brake shoe cover (P) to the brake shoe support (S). Remove and save the cover (Figure 28). Save the screws.
8. Cut the cable and slowly release the tension on the spring. Remove and discard the cable.

   Note - The cable path begins underneath the lower structural member. See *Siderail assist system* (page 84) or *Endrail assist system* (page 86) for reference to the complete cable path.

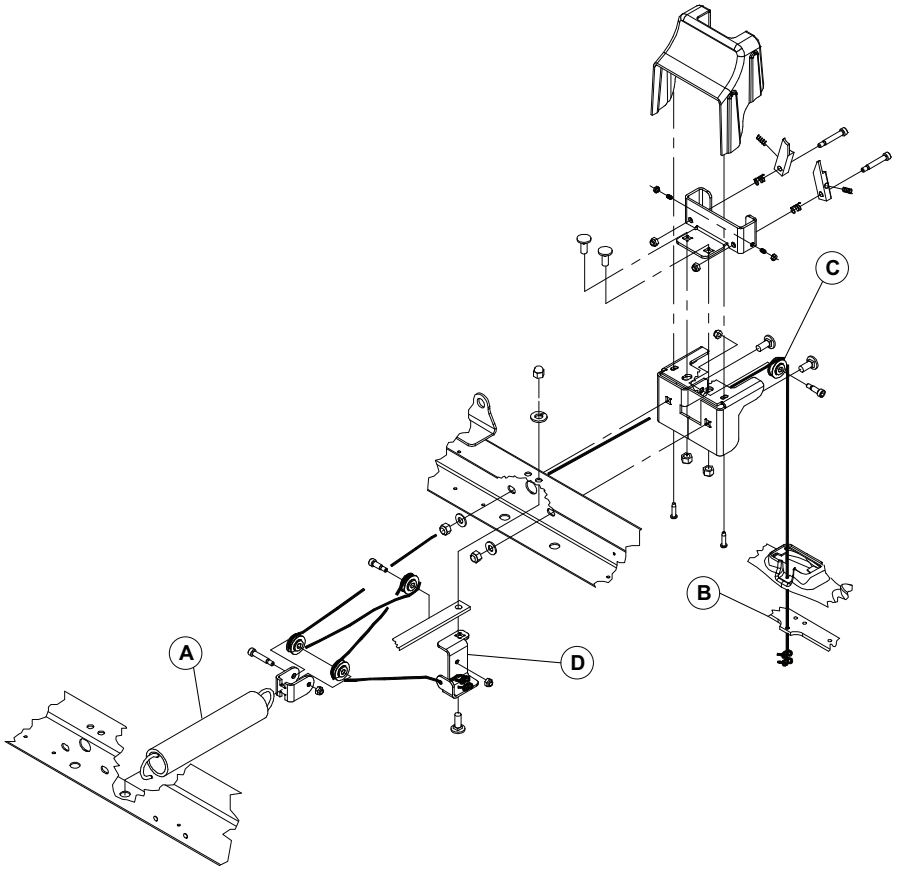


Figure 31 – Rail assist cable

9. Make two solid knots at one end of the new cable. Pass the other end through the hole in the lower structural member. Lower the rail slightly to route the cable through the first pulley.
10. Raise the rail to the highest position.
11. Route the cable through the remaining pulleys and into the fixed pulley support.
12. Using vise grips, secure the cable in place.
13. Grasp the vise grips firmly and lower and raise the rail several times to stretch the cable. When the cable no longer stretches, raise the rail to the highest position.
14. Lower the rail to the 14 in. position. Mark the cable where it enters the fixed cable support. Make a knot in this location.
15. Use the release handle to raise the rail to the highest position the lower the rail to the 14 in. position several times. Make sure that the rail latches smoothly. Adjust the knot if necessary, otherwise tighten the knot, and make a second knot next to the first. Cut the excess cable.
16. Reverse steps to reinstall.
17. Verify proper operation before you return the product to service.

Access door replacement

Tools required:

- #1 Phillips screwdriver
- Small slotted screwdriver
- 5/32” Allen wrench
- Medium strength thread locker (or equivalent)

Procedure:

1. Raise the siderail that needs repair to the highest position.
2. Apply the brakes.
3. Using a #1 Phillips screwdriver, remove the eight screws (A) that secure the bottom half of the siderail lower plastic cover (B) to the top half of the siderail lower plastic cover (C) (Figure 29). Open the moving access doors, if equipped, to access the two screws located at the ends of the top half of the lower plastic cover (see *Siderail central column assembly replacement - for rails with moving access doors* (page 43)). Save the screws.
4. Insert a small slotted screwdriver between the two halves of the siderail lower cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the snap pins. Remove and save the lower cover.
5. Using a 5/32” Allen wrench, remove the two Allen screws (A) that secure the spacer (B) and the bottom half of the lower hinge mechanism (C) to the access door (Figure 32). Save the spacer, hinge mechanism, and screws.

   Note - Apply medium strength thread locker to the Allen screw threads before installation.

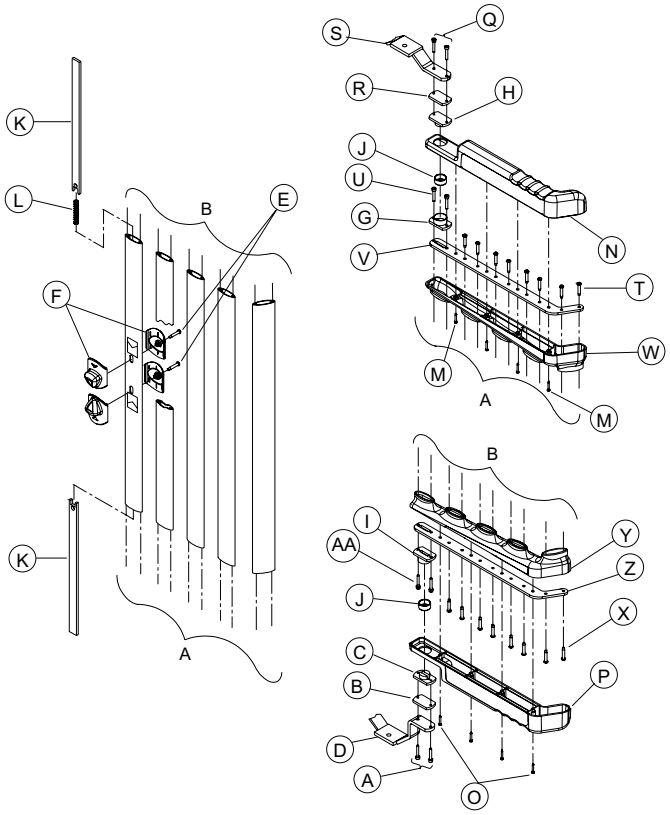


Figure 32 – Access door replacement

6. Move the lower end of the access door to the left or right and disengage it from the upper hinge. Remove and discard the access door.
7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Access door upper cover replacement

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 5/32” Allen wrench

Procedure:

1. Remove the access door. See *Access door replacement* (page 53).
2. Remove the colored label affixed to the outside of the upper cover of the access door.
3. Using a #1 Phillips screwdriver, remove the four screws (M) that secure the top half of the upper cover (N) to the bottom half of the upper cover (W) (Figure 32). Save the screws.
4. Insert a small slotted screwdriver between the two halves of the upper cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the snap pins.
5. Using a #2 Phillips screwdriver, remove the eight screws (T) that secure the upper end of the posts to the upper structural member (V) (Figure 32). Save the screws.
6. Using a 5/32” Allen wrench, remove the two Allen screws (U) that secure the hinge (G) and the last post to the upper structural member (V) (Figure 32). Remove and discard the upper cover.
7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Access door lower cover replacement

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 5/32” Allen wrench

Procedure:

1. Remove the access door. See *Access door replacement* (page 53).
2. Remove the colored label affixed to the outside of the lower cover of the access door.
3. Using a #1 Phillips screwdriver, remove the four screws (O) that secure the bottom half of the lower cover (P) to the top half of the lower cover (Y) (Figure 32). Save the screws.
4. Insert a small slotted screwdriver between the two halves of the lower cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the snap pins. Remove and save the access door upper cover.
5. Using a #2 Phillips screwdriver, remove the eight screws (X) that secure the lower end of the posts to the lower structural member (Z) (Figure 32). Save the screws.
6. Using a 5/32” Allen wrench, remove the two Allen screws (A) that secure the hinge (I) and the last post to the lower structural member (Z) (Figure 32). Remove and discard the lower cover. Save the screws.
7. Reverse steps to reinstall.
8. Verify proper operation before you return the product to service.

Access door hinge replacement

Tools required:

- #1 Phillips screwdriver
- Small slotted screwdriver
- 5/32” Allen wrench
- OG2 grease (M0027)

Procedure:

1. Remove the top half of the siderail upper plastic cover. See *Upper plastic cover replacement - for endrails or siderails with moving access doors* (page 49) or *Upper plastic cover replacement - for endrails or siderails with fixed access doors* (page 49).
2. Remove the access door. See *Access door replacement* (page 53).
3. Remove the colored label affixed to the outside of the lower cover of the access door.
4. Using a #1 Phillips screwdriver, remove the four screws (O) that secure the bottom half of the lower cover (P) to the top half of the lower cover (Y) (Figure 32). Save the screws.
5. Insert a small slotted screwdriver between the two halves of the lower cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the snap pins. Remove and save the bottom half of the access door lower cover.
6. Using a 5/32” Allen wrench, remove the two Allen screws (A) that secure the top half of the lower hinge mechanism (I) to the siderail lower structural member (Figure 32). Discard the halves of the lower hinge mechanism.
7. Remove the colored label affixed to the outside of the upper cover of the access door.
8. Using a #1 Phillips screwdriver, remove the four screws (M) that secure the top half of the upper cover (N) to the bottom half of the upper cover (W) (Figure 32). Save the screws.
9. Insert a small slotted screwdriver between the two halves of the upper cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the snap pins. Remove and save the top half of the access door upper cover.
10. Using a 5/32” Allen wrench, remove the two Allen screws (U) that secure the bottom half of the upper hinge mechanism (G) to the siderail upper structural member (Figure 32). Save the screws.
11. Using a 5/32” Allen wrench, remove the two Allen screws (Q) that secure the spacer (R) and the top half of the upper hinge mechanism (H) to the siderail upper structural member (S) (Figure 32). Discard the upper hinge mechanism. Save the spacer and screws.

    Note - Apply OG2 grease to the new hinges before installation.
12. Reverse steps to reinstall.
13. Verify proper operation before you return the product to service.

Access door release knob replacement

Tools required:

- #2 Phillips screwdriver

Procedure:

1. Raise the siderail that needs repair to the highest position.
2. Apply the brakes.
3. Open the access door that needs repair.
4. Using a #2 Phillips screwdriver, remove the two screws (E) from the release knob (F) (Figure 32). Discard the release knob. Save the screws.
5. Reverse steps to reinstall.
6. Verify proper operation before you return the product to service.

Access door latch replacement

Tools required:

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- Small slotted screwdriver
- 5/32” Allen wrench
- OG2 grease (M0027)

Procedure:

1. Remove the access door. See *Access door replacement* (page 53).
2. Remove the colored label affixed to the outside of the upper cover of the access door.
3. Using a #1 Phillips screwdriver, remove the four screws (M) that secure the top half of the upper cover (N) to the bottom half of the upper cover (W) (Figure 32). Save the screws.
4. Insert a small slotted screwdriver between the two halves of the upper cover. Separate the two halves. Use caution to avoid scratching the covers or damaging the snap pins. Remove and save the access door upper cover.
5. Using a #2 Phillips screwdriver, remove the eight screws (T) that secure the upper structural member (V) to the four posts (Figure 32). Save the screws.
6. Using a 5/32” Allen wrench, remove the two Allen screws (G) that secure the hinge and structural member to the last post (Figure 32). Save the screws.
7. Remove and save the hinge and upper structural member. Do not remove the lower cover.
8. Using a #2 Phillips screwdriver, remove the two screws (E) from the release knob (F). Remove the two locking bars (K) and compression spring (L) from the post (Figure 32). Discard the locking bars and compression spring. Save the screws.
9. Reverse the above steps to reinstall.

   Note - Apply OG2 grease to the new compression spring before installation.
10. Verify proper operation before you return the product to service.

Fixed IV pole replacement

Tools required:

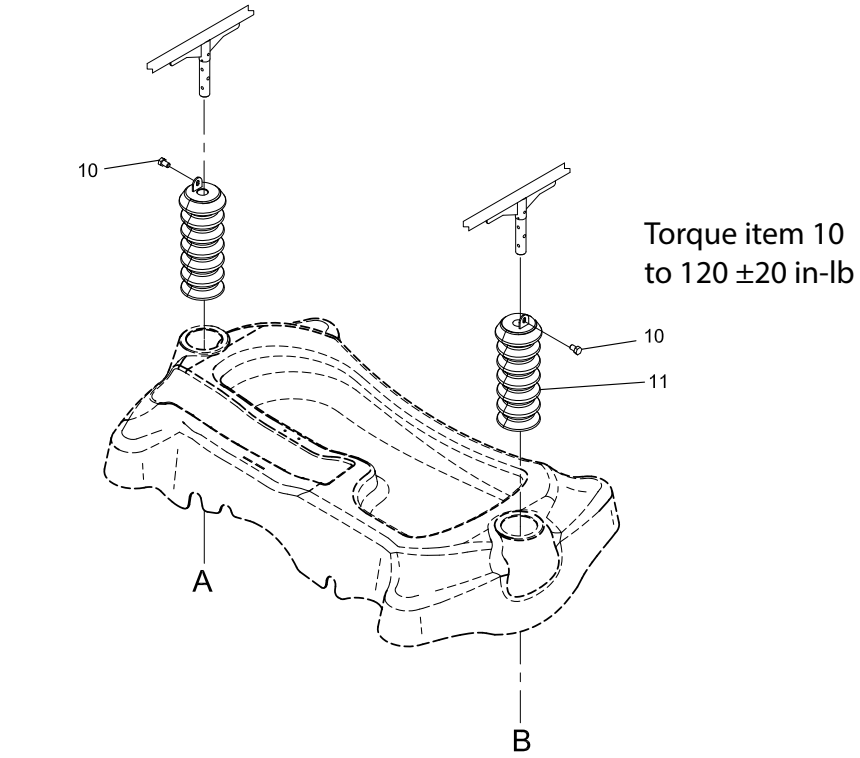
- 1/2” hex wrench
- Slotted screwdriver

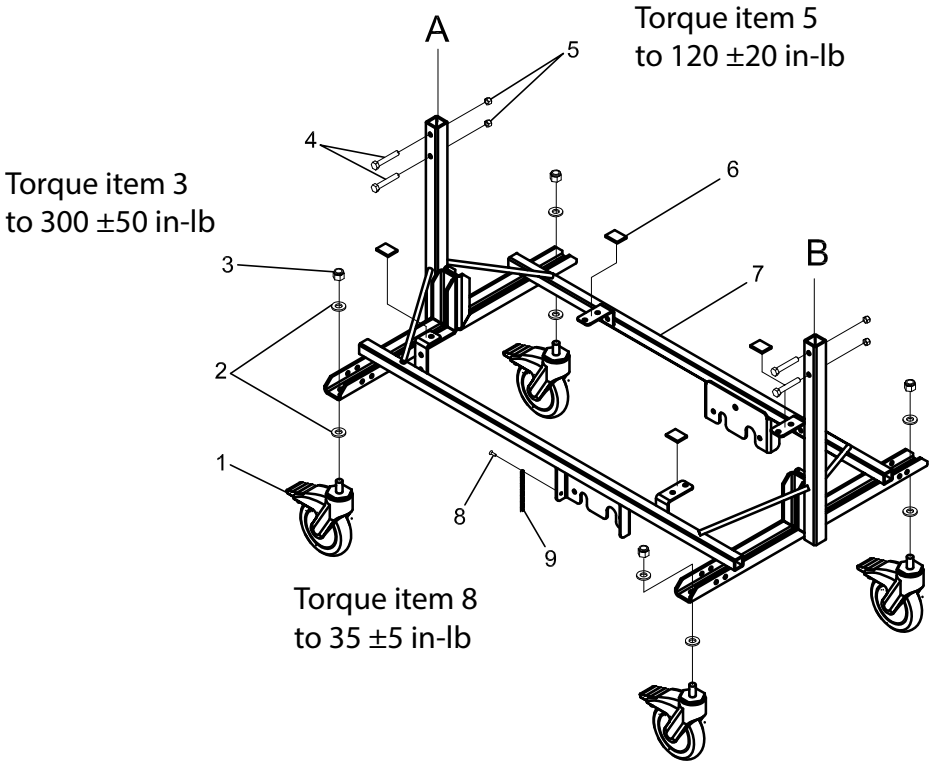
Procedure:

1. Using a 1/2” hex wrench, remove the bolt and the lock washer from the bottom of the IV pole. Save the bolt and lock washer.
2. Remove the hook and loop fasteners that secure the accessory bracket cover. Remove the accessory bracket cover and save all parts.
3. Using a slotted screwdriver, remove the black plastic cap from the accessory bracket. Save the plastic cap.
4. Reverse steps to install the supplied IV pole.

Fixed height base

OL190247 Rev B (Reference only)



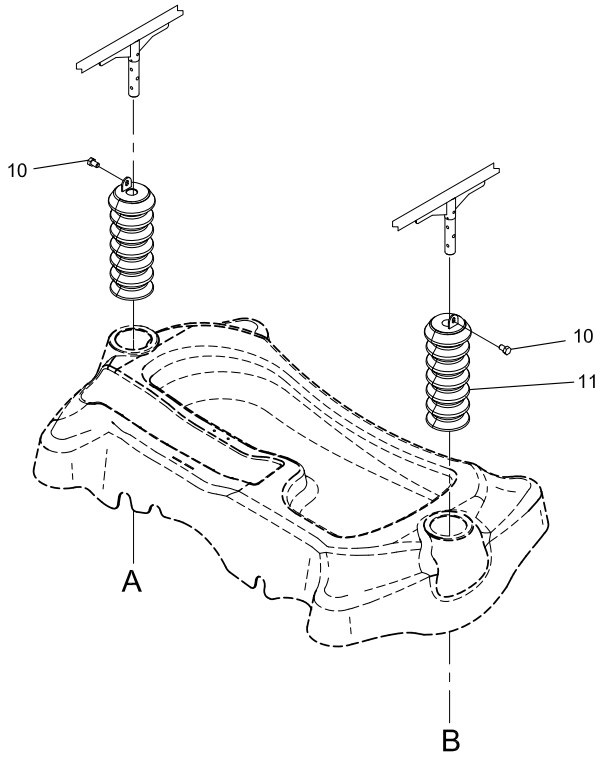


Item	Number	Name	Quantity
1	RT5TF	5 in. caster with brake	4
2	VW10A16	Washer	8
3	VE30A1R	Nylon hex locknut	4

Item	Number	Name	Quantity
4	VB15A1O44FT	Hex bolt	4
5	VE30A1O	Nylon hex locknut	4
6	19-0634	Hood **Velcro**® fastener	4
7	19-0658P	Fixed base	1
8	VV81A9E16	Flat head tapping screw	1
9	19-0527	Ground chain	1
10	VB15A1O24-S	Hex bolt	2
11	QDF5053	Black bellow	2

Fixed height base with scale option

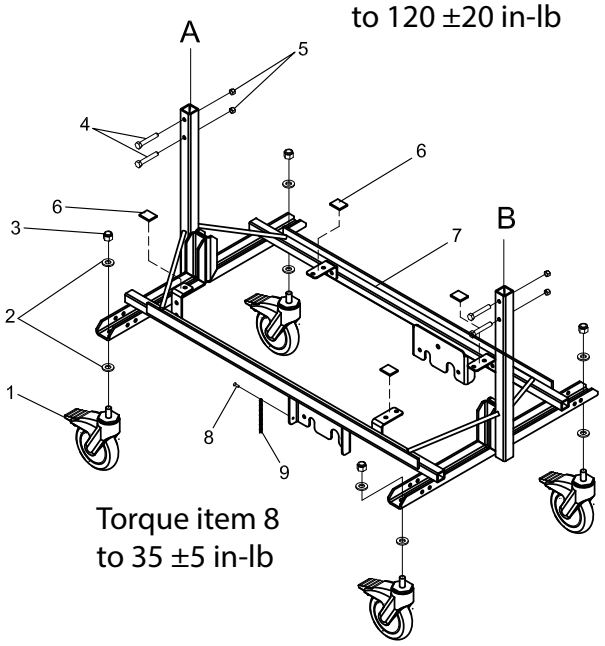
OL190246 Rev B (Reference only)



Torque item 10
to 120 ±20 in-lb

Torque item 5
to 120 ±20 in-lb

Torque item 3
to 300 ±50 in-lb



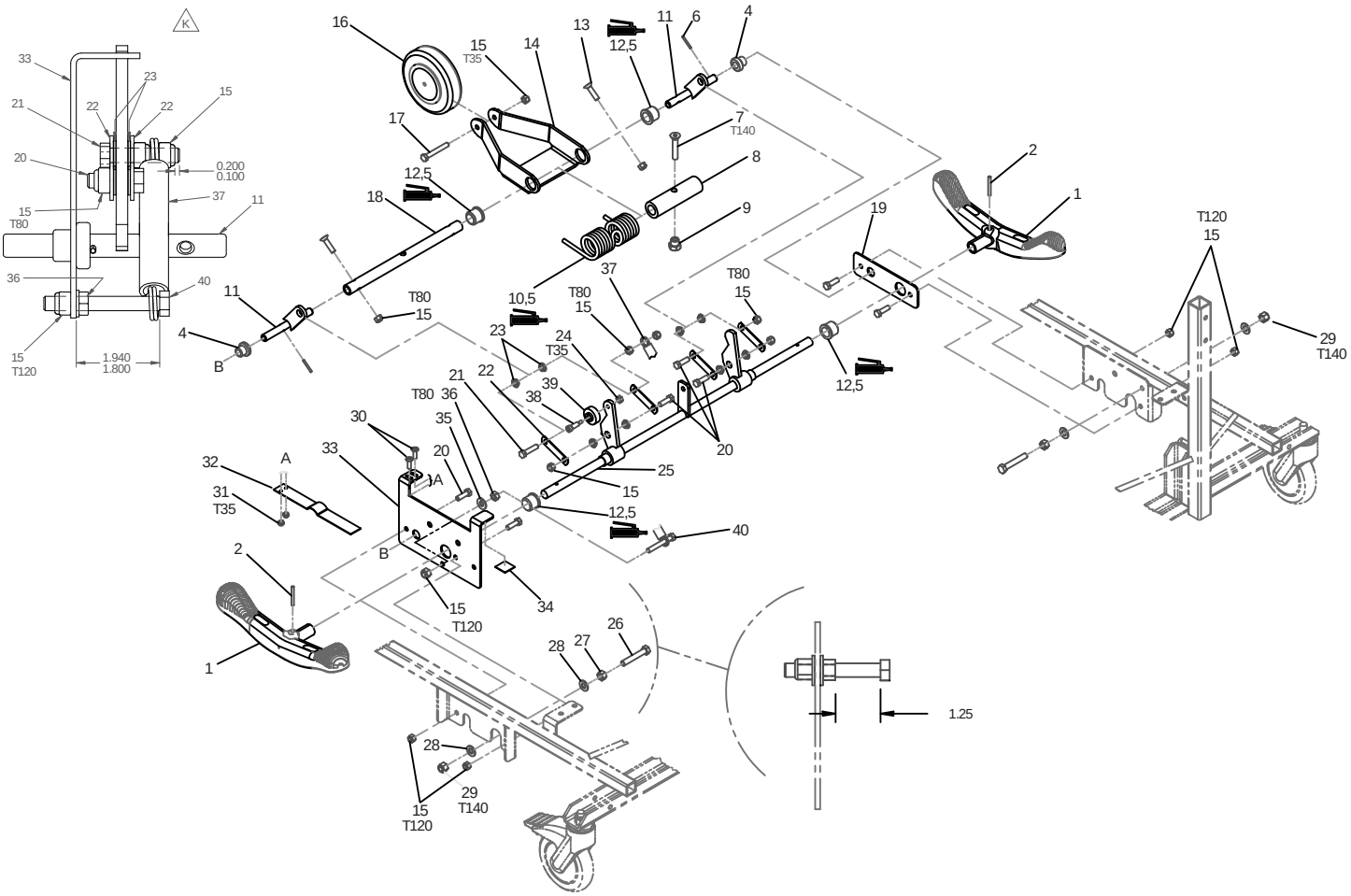
Torque item 8
to 35 ±5 in-lb

Item	Number	Name	Quantity
1	RT5TF	5 in. caster with brake	4
2	VW10A16	Washer	8
3	VE30A1R	Nylon hex locknut	4
4	VB15A1O44FT	Hex bolt	4
5	VE30A1O	Nylon hex locknut	4

Item	Number	Name	Quantity
6	19-0634	Hood **Velcro**® fastener	4
7	19-0956W	Reinforced fixed base	1
8	VV81A9E16	Flat head tapping screw	1
9	19-0527	Ground chain	1
10	VB15A1O24-S	Hex bolt	2
11	QDF5053	Black bellow	2

Fifth wheel assembly option, fixed base

OL190007 Rev K (Reference only)

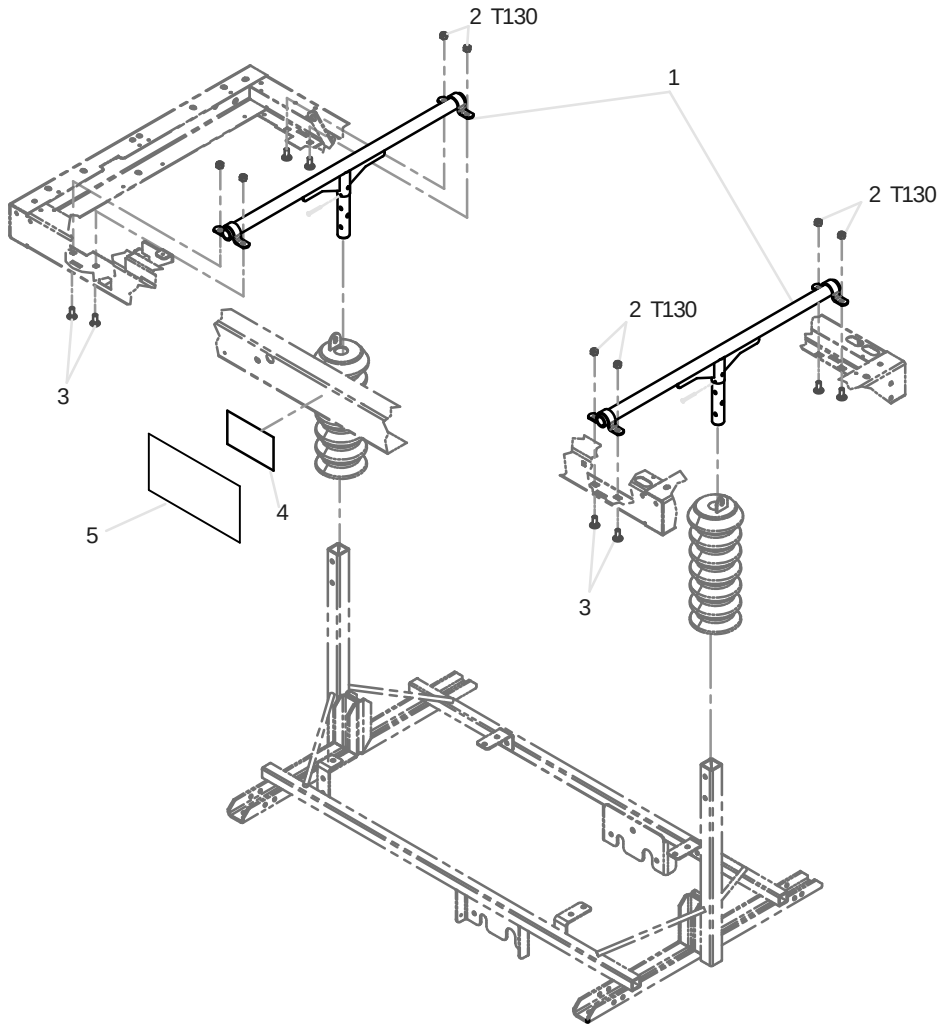


Item	Number	Name	Quantity
1	QDF5059	Butterfly brake pedal	2
2	VG10B0642	Spring pin	2
4	QPN-13-0159	Nylon bushing	2
5	M0019	Petro Canada OG2 grease	0.16 kg
6	VG10B0432	Spring pin	2
7	VV11B1P48	Flat head hex socket cap screw	1
8	17-0243	Fifth wheel bushing	1
9	17-0104Z	Fifth wheel support	1
10	17-0124W	Fifth wheel spring	1
11	17-0083Z	Torsion lever	2
12	QPN-18315	Nylon bushing	4
13	VV11A1O36	Flat head hex socket cap screw	2
14	17-0061W	Clearance arm	1
15	VE30A1O	Nylon hex locknut	13
16	RL5	Fifth wheel	1
17	VB15A1O50	Hex bolt	1
18	19-0272Z	Fifth wheel shaft	1

Item	Number	Name	Quantity
19	19-0624Z	Right support plate	1
20	VB15A1O32	Hex bolt	7
21	VB15A1O40	Hex bolt	1
22	28-0150Z	Counter lever	4
23	QDF17-0020	Shoulder spacer	8
24	VE50A1N	Two-ways hex locknut	1
25	19-0268W	Brake pedal shaft	1
26	VB15A1P52	Hex bolt	2
27	VE10A1P	Hex nut	2
28	VW10A12	Washer	4
29	VE30A1P	Nylon hex locknut	2
30	VV33A0G16	Pan head machine screw	2
31	VE30A0G	Nylon hex locknut	2
32	QR19-0812	Neutral guide plate	1
33	19-0810Z	Left support plate	1
34	QDB7812	Anti-resilient grey strip	0.833 ft
35	VW20A10	Spring washer	1
36	VE10A1O	Hex nut	1
37	QREB-690	Spring	1
38	VD60A1N2410	Shoulder bolt	1
39	19-0811	Neutral wheel	1
40	VB15A1O52	Hex bolt	1

Fixed base frame support without scale option

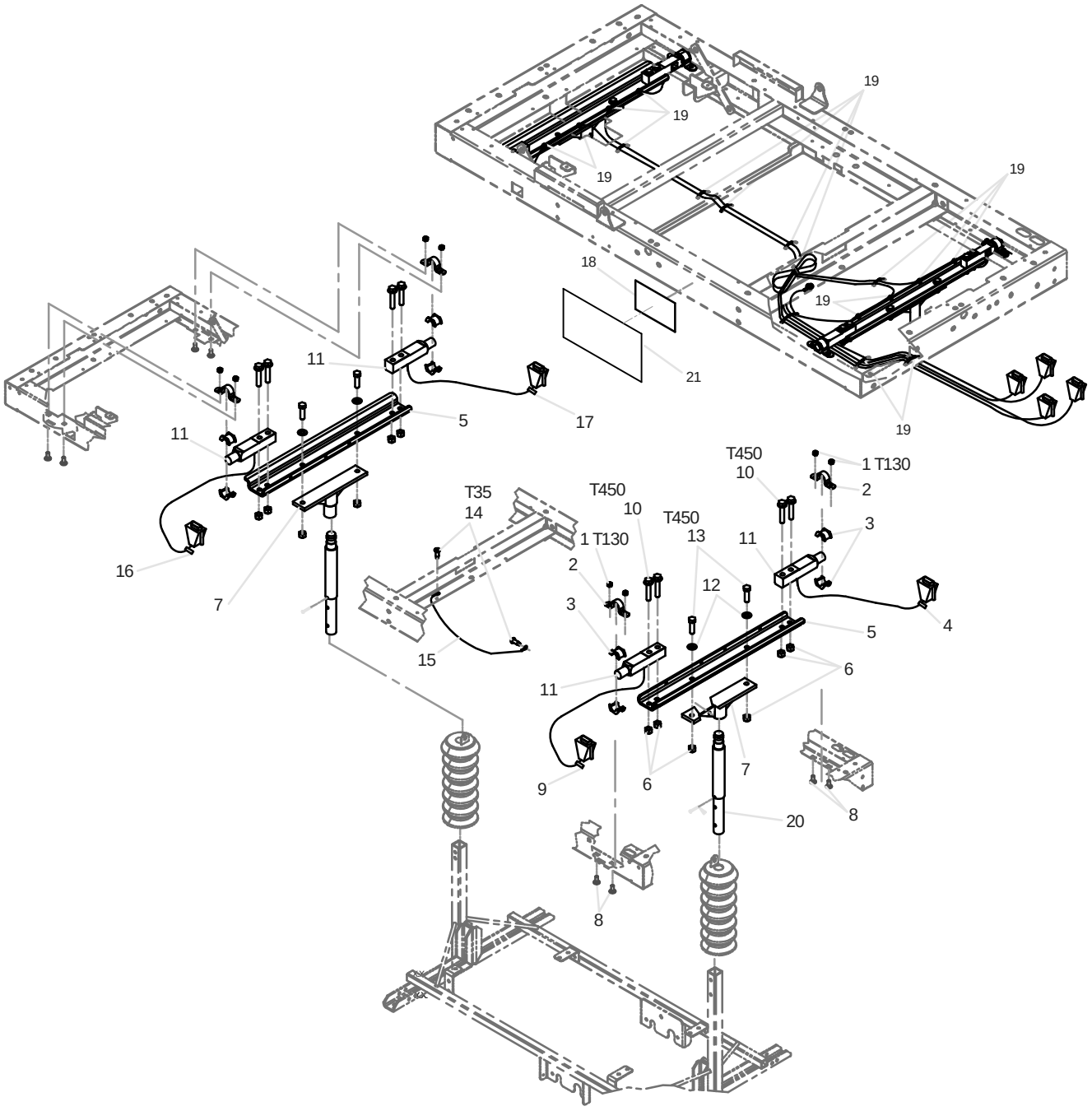
OL190149-XXX Rev E (Reference only)



Item	Number	Name	Quantity
1	19-0940P	Frame support - fixed height base	2
2	VE30A1O	Nylon hex locknut	8
3	VB35A1O24	Carriage bolt	8
4	QE71-0516-XXX	Label, manufacturer	1
5	QE71-1368	Label, CSA overlaminate	1

Fixed base frame support with scale option

OL190148 Rev H (Reference only)

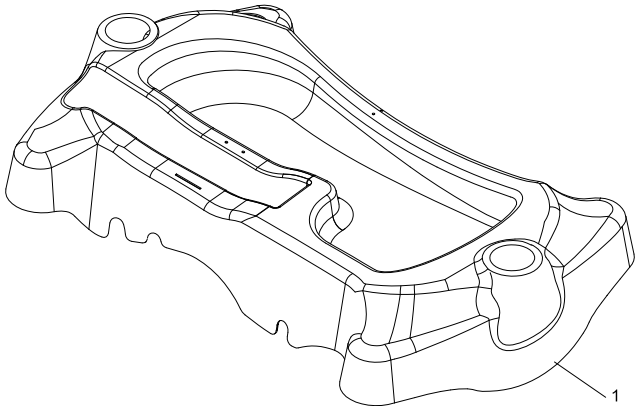


Item	Number	Name	Quantity
1	VE30A1O	Nylon hex locknut	8
2	14662Z	Lever clamp	4
3	QP19-0270	Shaft support bushing	8
4	QE71-0675-F	Label, load cell position, foot end, left	1
5	19-0952P	Frame support plate, head end	2
6	VE32A1P	Nylon hex locknut	12
7	19-0883P	Frame support mounting plate	2

Item	Number	Name	Quantity
8	VB35A1O24	Carriage bolt	8
9	QE71-0676-F	Label, load cell position, foot end, right	1
10	VB98A1P48	Ribbed neck bolt	8
11	QDF19-0977	Load cell	4
12	VW10A12	Washer	4
13	VB18A1P36	Hex bolt	4
14	VV83A9G16	Pan head tapping screw	2
15	QDF17-0138	PC board ground wire	1
16	QE71-0674-F	Label, load cell position, head end, right	1
17	QE71-0673-F	Label, load cell position, head end, left	1
18	QE71-0667-T	Label, manufacturer	1
19	QDF9518	Cable tie	17
20	19-0976P	Frame support	2
21	QE71-1368	Label, CSA overlaminate	1

Base hood without IV caddy

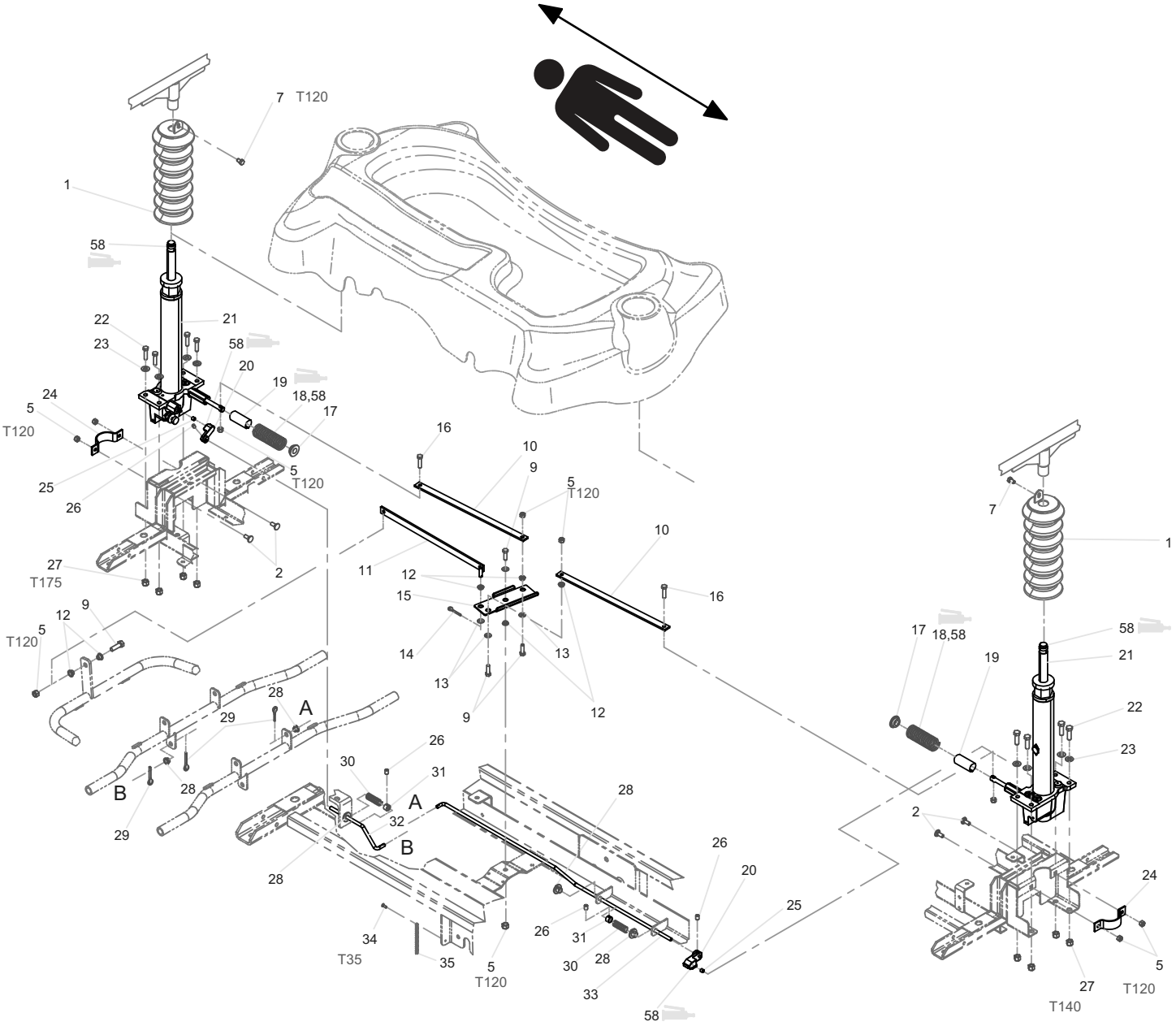
OL190235 Rev 0 (Reference only)

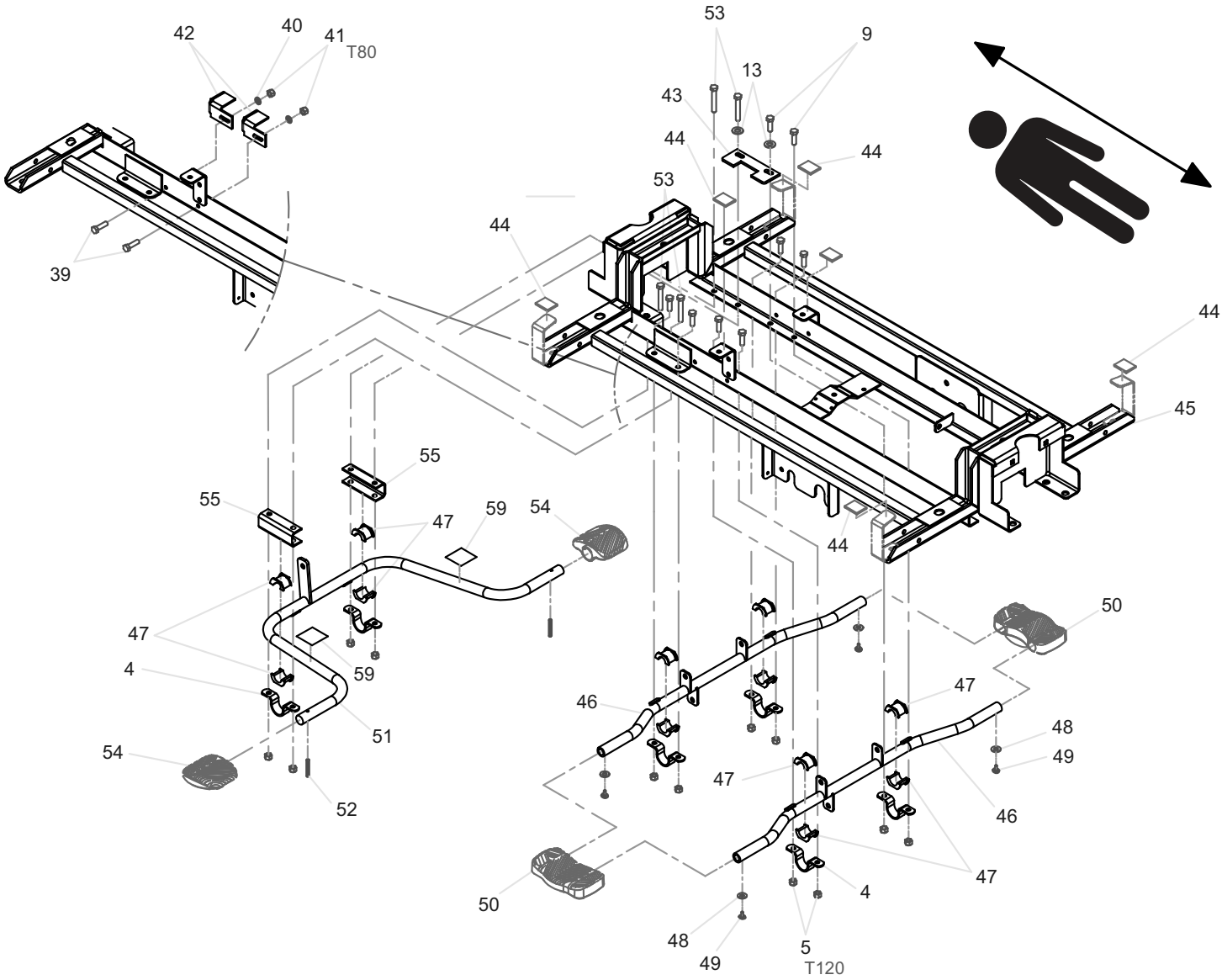


Item	Number	Name	Quantity
1	QP19-0359	Base hood	1

Hydraulic base assembly

L19-014 Rev C (Reference only)



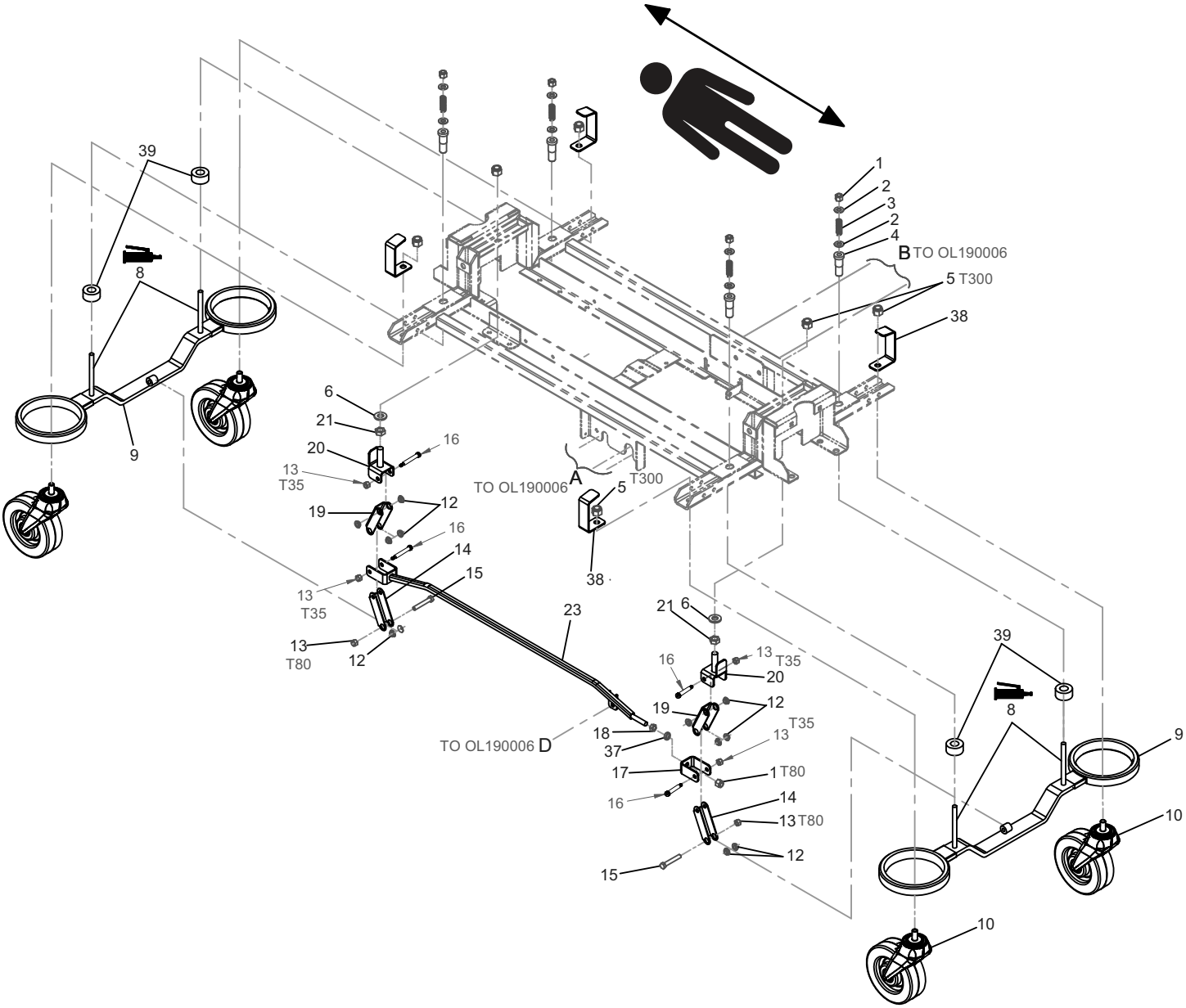


Item	Number	Name	Quantity
1	QDF5053	Black bellow	2
2	VB35A1O24	Carriage bolt	4
4	14662Z	Lever clamp	6
5	VE30A1O	Nylon hex locknut	22
7	VB15A1O24-S	Hex bolt	2
9	VB15A1O32	Hex bolt	12
10	19-0346Z	Cylinder activation bar	2
11	19-0345Z	Activation bar	1
12	QDF17-0020	Shoulder spacer	6
13	VW10A10	Washer	6
14	VG40B0332	Cotter pin	1
15	19-0344P	Pivot plate	1
16	VB18A1O36	Hex bolt	2
17	19-0349Z	Shoulder socket	2
18	QRC763001015	Jack spring	2
19	QDF5058	Spring holder	2

Item	Number	Name	Quantity
20	QDF5055	Descent lever	2
21	QDF5060	Constant descent hydraulic jack	2
22	VB18A1P36	Hex bolt	8
23	VW10A12	Washer	8
24	QDF5054	Jack clamp	2
25	QDF5077	Safety stop	2
26	VV60A0G08-S	Hex socket set screw	4
27	VE30A1P	Nylon hex locknut	8
28	QPNI2402	Nylon bushing	5
29	VG40B0316	Cotter pin	3
30	QRC17363	Compression spring	2
31	19-0478Z	Adjustable stopper	2
32	19-0387Z	Short lowering rod	1
33	19-0386Z	Long lowering rod	1
34	VV81A9E16	Flat head tapping screw	1
35	19-0527	Ground chain	1
39	VB15A1N24	Hex bolt	2
40	VW10A08	Washer	2
41	VE30A1N	Nylon hex	2
42	19-0670Z	Single stopper	2
43	19-0671Z	Dual stopper	1
44	19-0634	Hood **Velcro**® fastener	6
45	19-0441P	Base	1
46	19-0351P	Litter lowering pedal	2
47	QP19-0270	Shaft support bushing	12
48	VW10A06	Washer	4
49	VR11H64	Pop rivet	4
50	QDF5061	Hydraulic lowering pedal	2
51	19-0233P	Litter raising pedal	1
52	VG10B0642	Spring pin	2
53	VB15A1O50	Hex bolt	4
54	QDF5056	Hydraulic raising pedal	2
55	19-0483P	Activation pedal support	2
58	M0019	Petro Canada OG2 grease	0.24 kg
59	QDB7812	Grey anti-slip tape	0.167 ft

Hydraulic base brake assembly

L19-002 Rev H (Reference only)

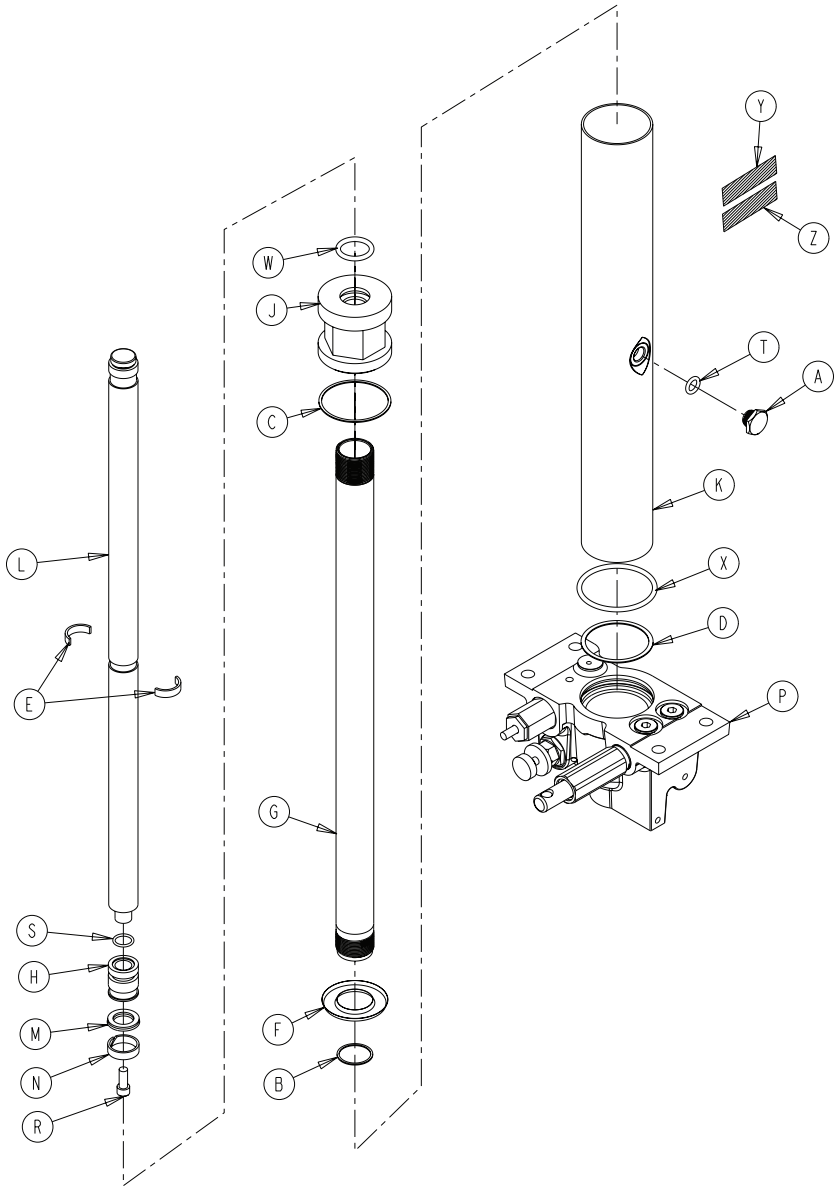


Item	Number	Name	Quantity
1	VE30A1P	Nylon hex nut	4
2	VW10A12	Washer	8
3	19-1001	Compression spring	4
4	19-0248	Brake bar guide	4
5	VE30A1R	Nylon hex nut	6
6	VW10A16	Washer	2
8	M0019	Petro Canada OG2 grease	0.032 kg
9	QDF19-0382	Brake bar	2
10	RD46-B-100	6” caster	4
12	QDF17-0020	Shoulder spacer	12

Item	Number	Name	Quantity
13	VE30A1O	Nylon hex nut	6
14	19-0485Z	Lower brake lever	2
15	VB15A1O44	Hex bolt	2
16	VVB0B1N1044	Hex bolt	4
17	19-0323Z	Harness	1
18	VE20A1P	Hex jam nut	1
19	19-0484Z	Upper brake lever	2
20	19-0384Z	Brake lever support	2
21	VE20A1R	Hex jam nut	2
23	19-0310Z	Brake connecting rod	1
37	VW20A12	Lock washer	1
38	19-0802Z	Base hood support	4
39	QPCR5105	Stopper	4

Constant descent jack assembly - QDF5060

0719-000-683 Rev D (Reference only)

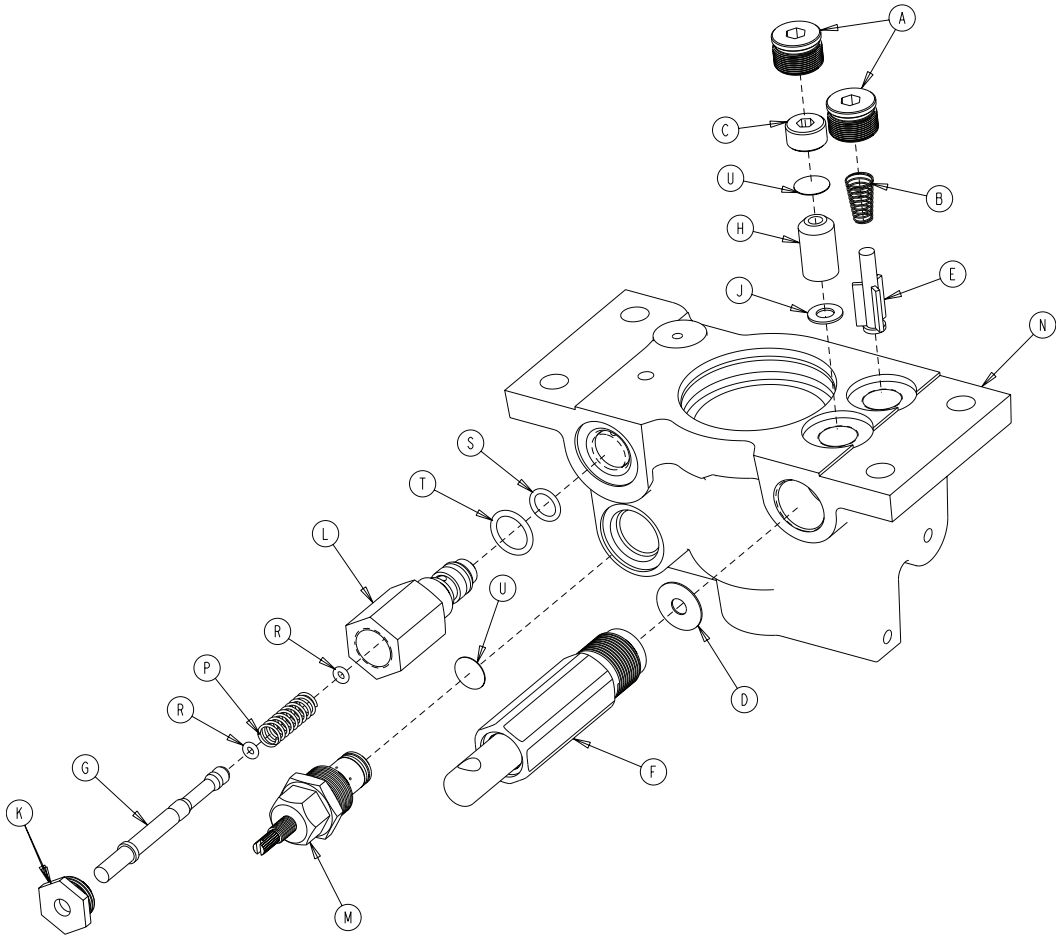


Item	Number	Name	Quantity
A	0388-100-039	Plug	1
B	0390-001-238	Gasket - actuator	1
C	0390-001-243	Gasket	1
D	0390-001-244	Base gasket	1
E	0390-002-139	Retaining ring	2
F	0715-001-320	Jack screen	1
G	0719-001-323	Actuator cylinder	1
H	0715-001-331	Piston end	1
J	0715-001-340	Jack cap assembly	1
K	0719-001-422	Reservoir	1
L	0719-101-325	Actuator rod	1

Item	Number	Name	Quantity
M	0926-020-161	Parker packing	1
N	0926-020-162	Wear ring	1
P	5050-370-100	Jack base assembly	1
R	0004-014-000	Socket head cap screw	1
S	0045-014-000	O-ring	1
T	0045-015-001	O-ring	1
W	0045-904-000	O-ring	1
X	0045-978-000	O-ring	1
Y	0719-070-211	Label, jack assembly	1
Z	0921-001-252	Label, serial number	1

Jack base assembly

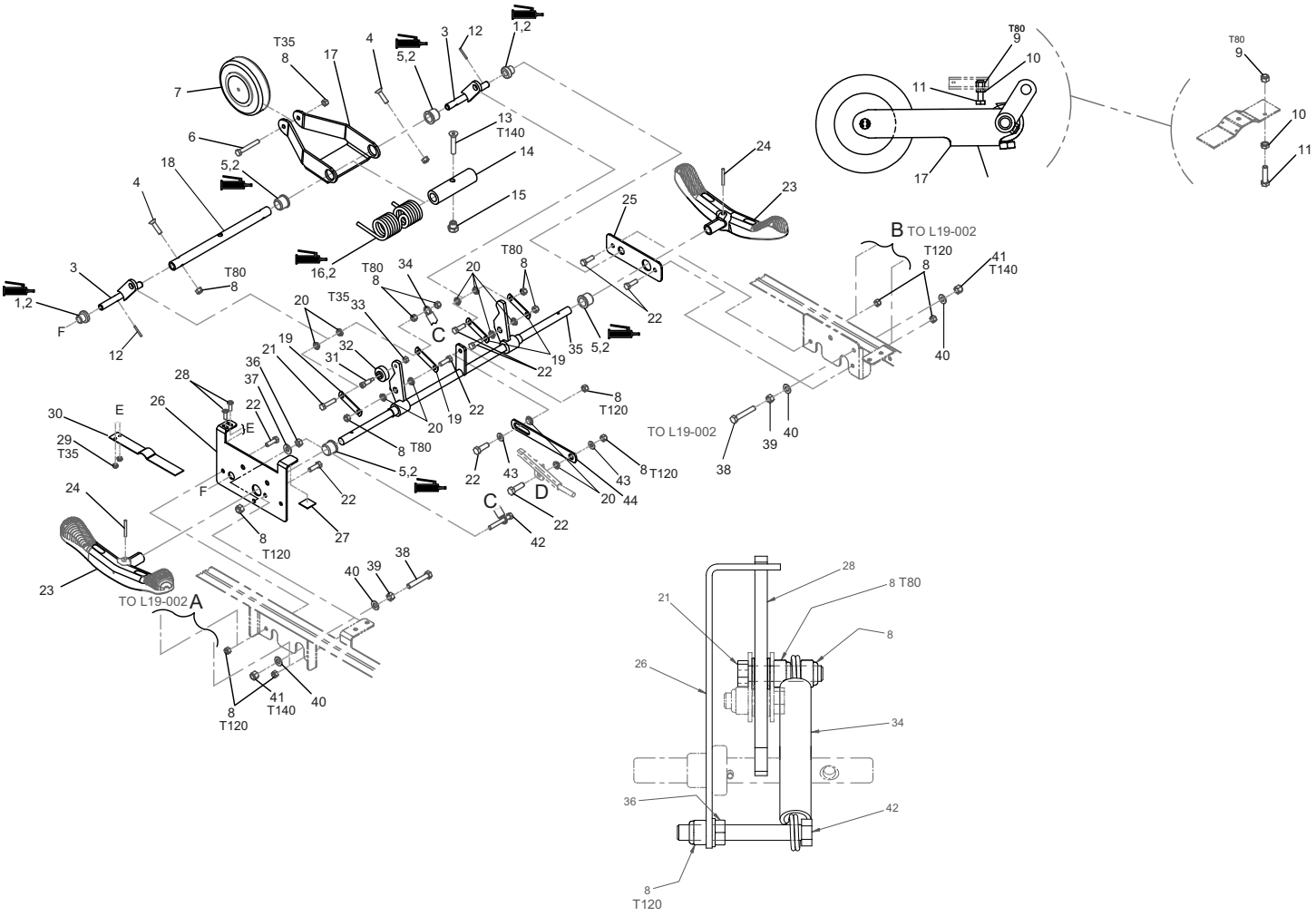
5050-370-100 Rev C (Reference only)



Item	Number	Name	Quantity
A	0048-147-000	Hex head o-ring plug	2
B	0390-002-134	Conical compression spring	1
C	0715-001-309	Valve plug	1
D	0715-001-329	Pump seal	1
E	0715-001-341	Poppet	1
F	0715-201-325	Pump piston assembly	1
G	0715-270-001	Pin	1
H	0926-020-153	Check valve	1
J	0926-020-154	Seal	1
K	1210-170-013	Base plug	1
L	2025-075-087	Pin housing	1
M	5050-170-050	Adjustable PC valve cartridge	1
N	5050-370-110	Jack base	1
P	0038-311-000	Compression spring	1
R	0045-006-000	O-ring	2
S	0045-966-000	O-ring	1
T	0045-967-000	O-ring	1
U	0715-001-321	Check valve screen	2

Fifth wheel assembly option, hydraulic base

OL190006 Rev H (Reference only)

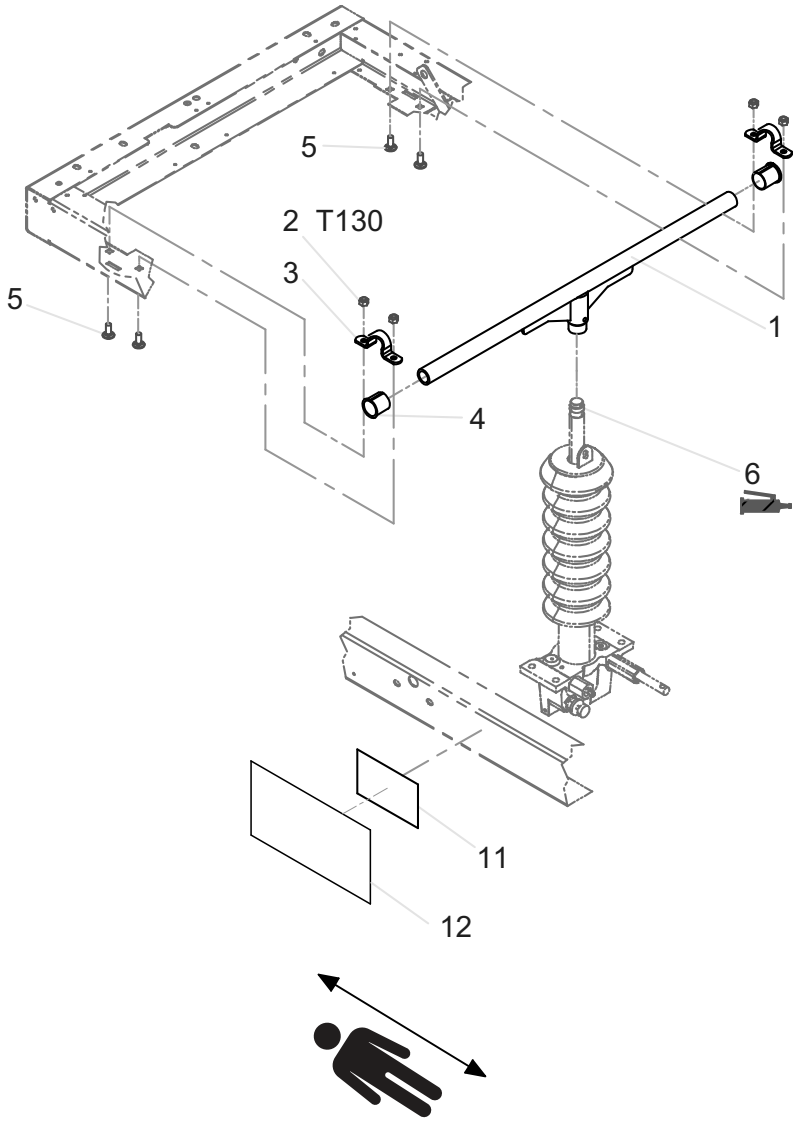


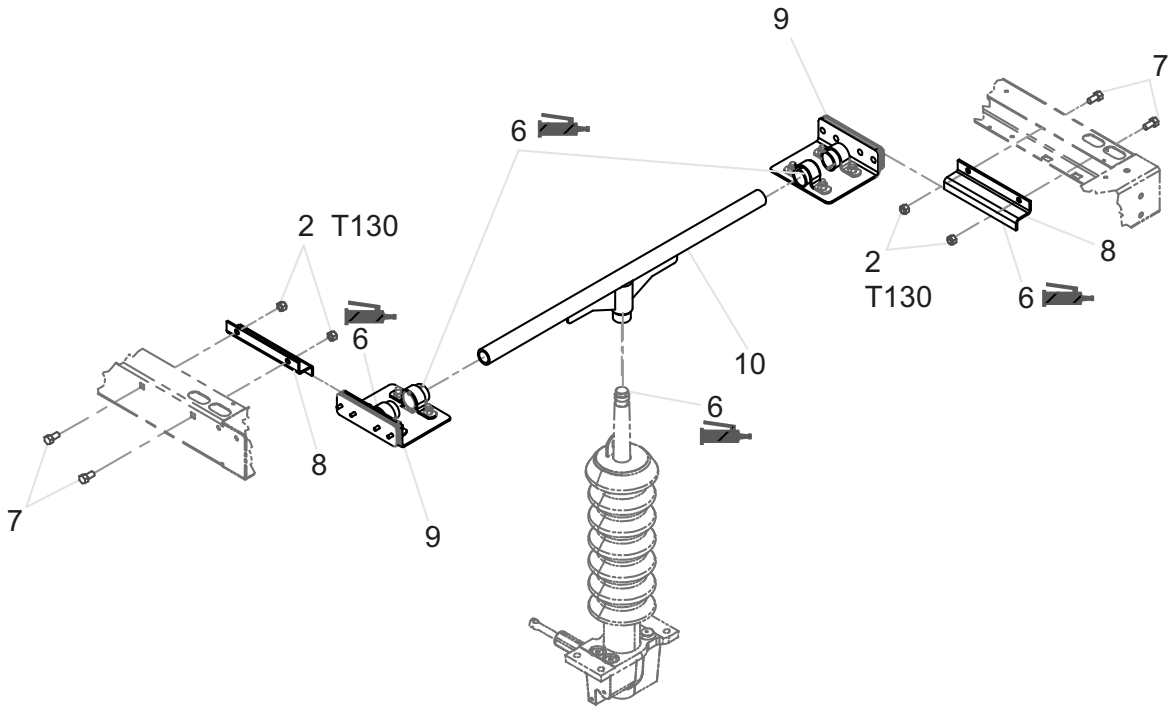
Item	Number	Name	Quantity
1	QPN-13-0159	Nylon bushing	2
2	M0019	Petro Canada OG2 grease	0.28 kg
3	17-0083Z	Torsion lever	2
4	VV11A1O36	Flat head hex socket cap screw	2
5	QPN-18315	Nylon bushing	4
6	VB15A1O50	Hex bolt	1
7	RL5	Fifth wheel	1
8	VE30A1O	Nylon hex locknut	15
9	VE30A1N	Nylon hex locknut	1
10	VE20A1N	Hex locknut	1
11	VB15A1N32	Hex bolt	1
12	VG10B0432	Spring pin	2
13	VV11B1P48	Flat head hex socket cap screw	1
14	17-0243	Fifth wheel bushing	1
15	17-0104Z	Fifth wheel support	1
16	17-0124W	Fifth wheel spring	1

Item	Number	Name	Quantity
17	17-0061W	Clearance arm	1
18	19-0272Z	Fifth wheel shaft	1
19	28-0150Z	Counter lever	4
20	QDF17-0020	Shoulder spacer	10
21	VB15A1O40	Hex bolt	1
22	VB15A1O32	Hex bolt	9
23	QDF5059	Butterfly brake pedal	2
24	VG10B0642	Spring pin	2
25	19-0624Z	Right support plate	1
26	19-0810Z	Left support plate	1
27	QDB7812	Grey anti-slip tape	0.833 ft
28	VV33A0G16	Pan head machine screw	2
29	VE30A0G	Nylon hex locknut	2
30	QR19-0812	Neutral guide plate	1
31	VD60A1N2410	Shoulder bolt	1
32	19-0811	Neutral wheel	1
33	VE50A1N	Two-way hex locknut	1
34	QREB-690	Spring	1
35	19-0268W	Brake pedal shaft	1
36	VE10A1O	Hex nut	1
37	VW20A10	Spring washer	1
38	VB15A1P52	Hex bolt	2
39	VE10A1P	Hex nut	2
40	VW10A12	Washer	4
41	VE30A1P	Nylon hex nut	2
42	VB15A1O52	Hex bolt	1
43	VW10A10	Washer	2
44	19-0486Z	Connecting rod	1

Hydraulic base frame support without scale option

OL190146-XXX Rev H (Reference only)

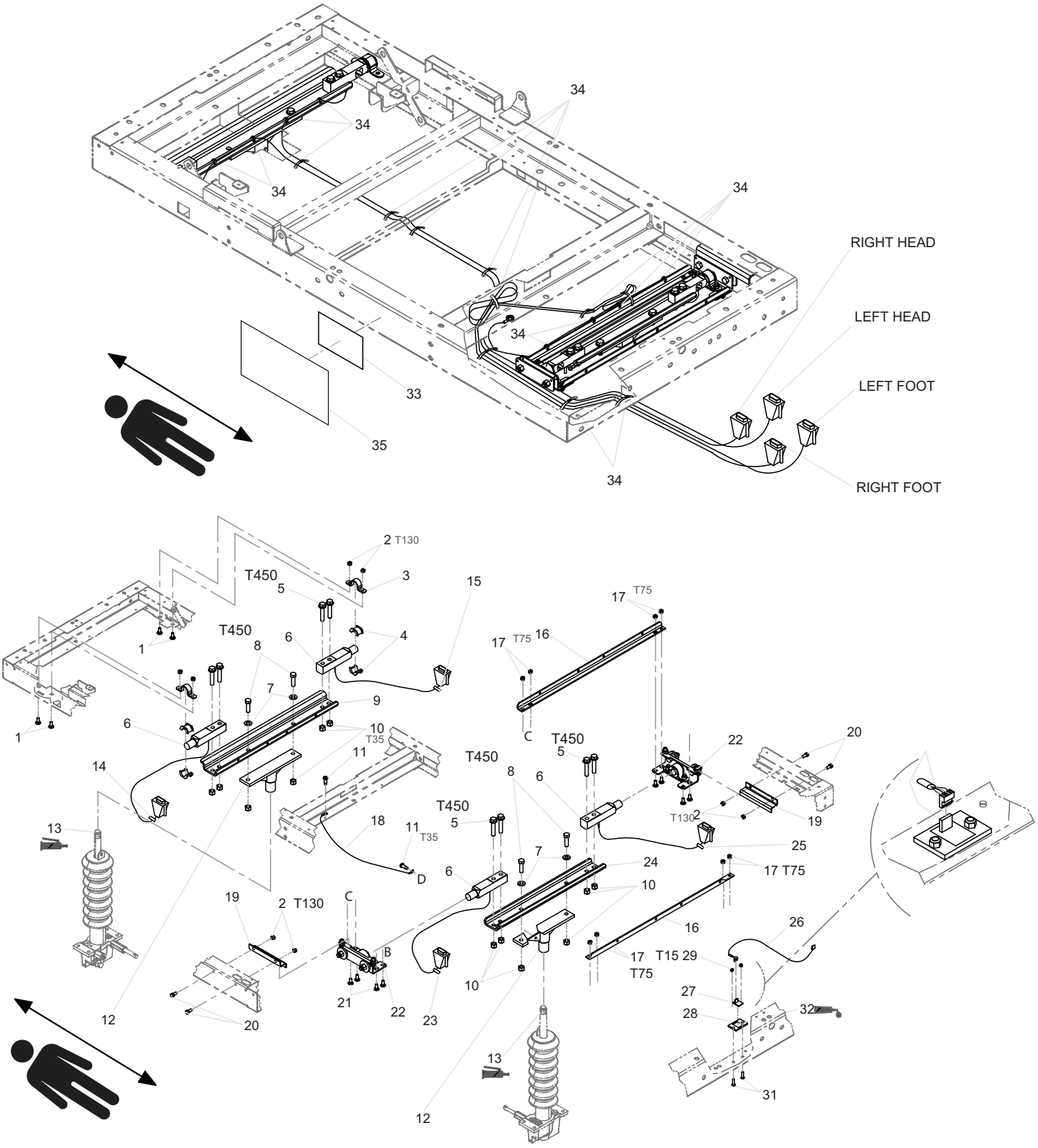




Item	Number	Name	Quantity
1	19-0937P	Head end frame support	1
2	VE30A1O	Nylon hex locknut	8
3	14662Z	Lever clamp	2
4	QPN-18121	Molded frame bushing	2
5	VB35A1O24	Carriage bolt	4
6	M0019	Petro Canada OG2 grease	0.240 kg
7	VB15A1O24	Hex bolt	4
8	19-0156Z	Slider rail	2
9	19-0482P	Foot section glider	2
10	19-0938P	Frame support, foot end	1
11	QE71-0516-XXX	Label, manufacturer	1
12	QE71-1368	Label, CSA	1

Hydraulic base frame support with scale option

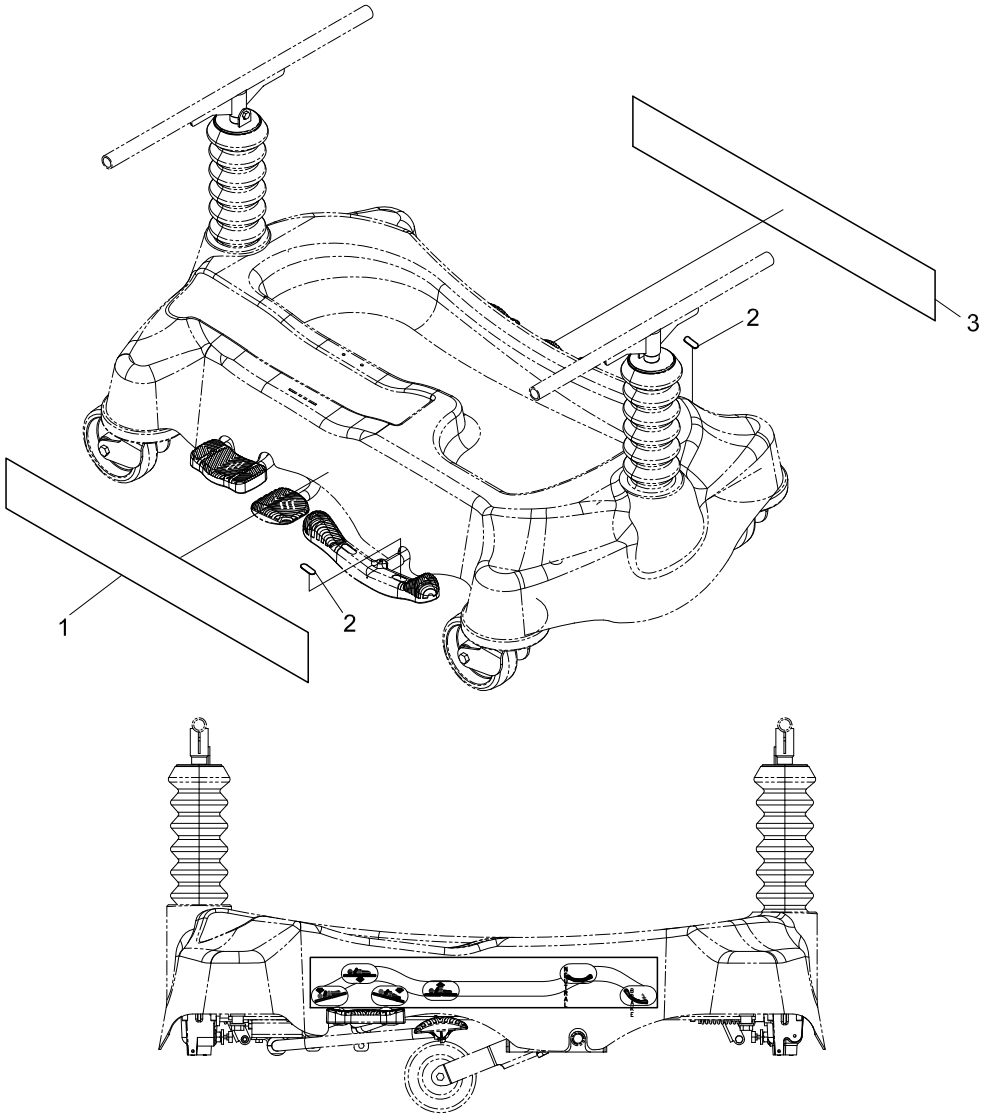
OL190145 Rev N (Reference only)



Item	Number	Name	Quantity
1	VB35A1O24	Carriage bolt	4
2	VE30A1O	Nylon hex locknut	8
3	14662Z	Lever clamp	2
4	QP19-0270	Shaft support bushing	4
5	VB98A1P48	Ribbed neck bolt	8
6	QDF19-0977	Load cell	4
7	VW10A12	Washer	4
8	VB18A1P36	Hex bolt	4
9	19-0952P	Frame support plate, head end	1
10	VE32A1P	Nylon hex locknut	12
11	VV83A9G16	Pan head tapping screw	2
12	19-0883P	Frame support mounting plate	2
13	M0019	Petro Canada OG2 grease	0.240 kg
14	QE71-0674-F	Label, load cell position, head end, right	1
15	QE71-0673-F	Label, load cell position, head end, left	1
16	19-0892P	Frame support reinforcement, foot end	2
17	VE30A1N	Nylon hex locknut	8
18	QDF17-0138	PC board ground wire	1
19	19-0156Z	Slider rail	2
20	VB15A1O24	Hex bolt	4
21	VB35A1N24	Carriage bolt	8
22	19-0979	Glider	2
23	QE71-0676-F	Label, load cell position, foot end, right	1
24	19-0953P	Frame support plate, foot end	1
25	QE71-0675-F	Label, load cell position, foot end, left	1
26	QDF19-0941	Angle sensor wire	1
27	QDF75-0470	Angle sensor card	1
28	19-0943	Angle sensor support	1
29	VE30A0G	Nylon hex locknut	2
31	VV33A0G24	Pan head machine screw	2
32	M0005	Glue	0.100 kg
33	QE71-0667-T	Label, manufacturer	1
34	QDF9518	Black cable tie	17
35	QE71-1368	Label, CSA	1

Hydraulic base labels

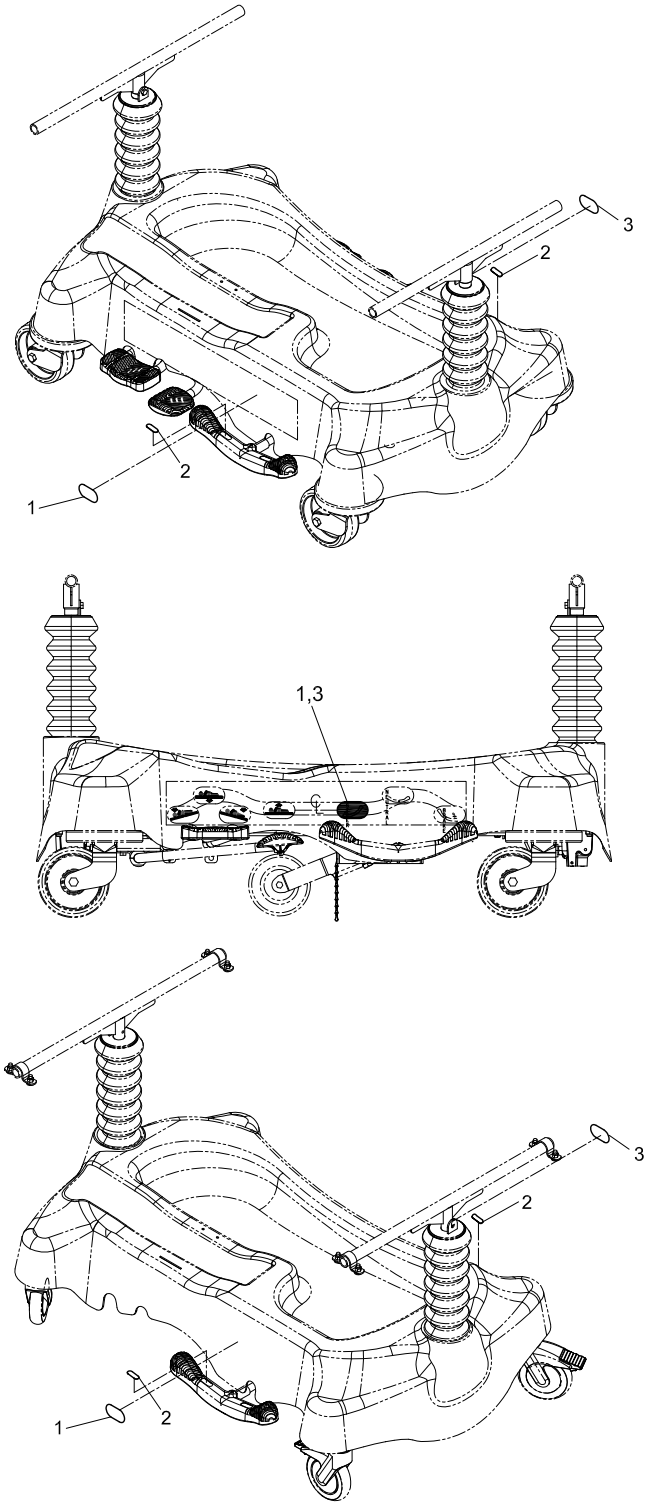
OL190078-XXX Rev 2 (Reference only)



Item	Number	Name	Quantity
1	QE71-0447-XXX	Label, hydraulic base, left	1
2	QE71-0511	Label, brake	2
3	QE71-0459-XXX	Label, hydraulic base, right	1

Fifth wheel option labels

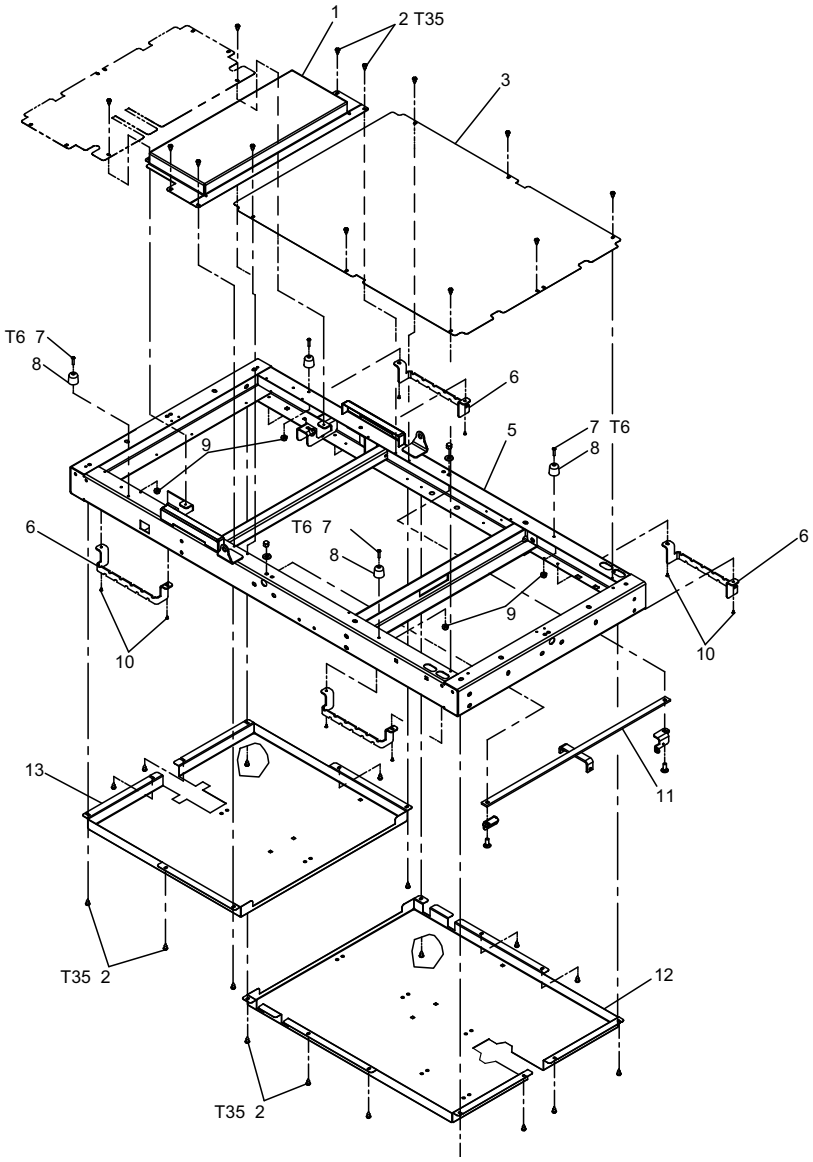
OL190081-XXX Rev 2 (Reference only)



Item	Number	Name	Quantity
1	QE71-0512-XXX	Label, Fifth wheel, right	1
2	QE71-0496	Label, Fifth wheel, green	2
3	QE71-0497-XXX	Label, Fifth wheel, left	1

Litter frame

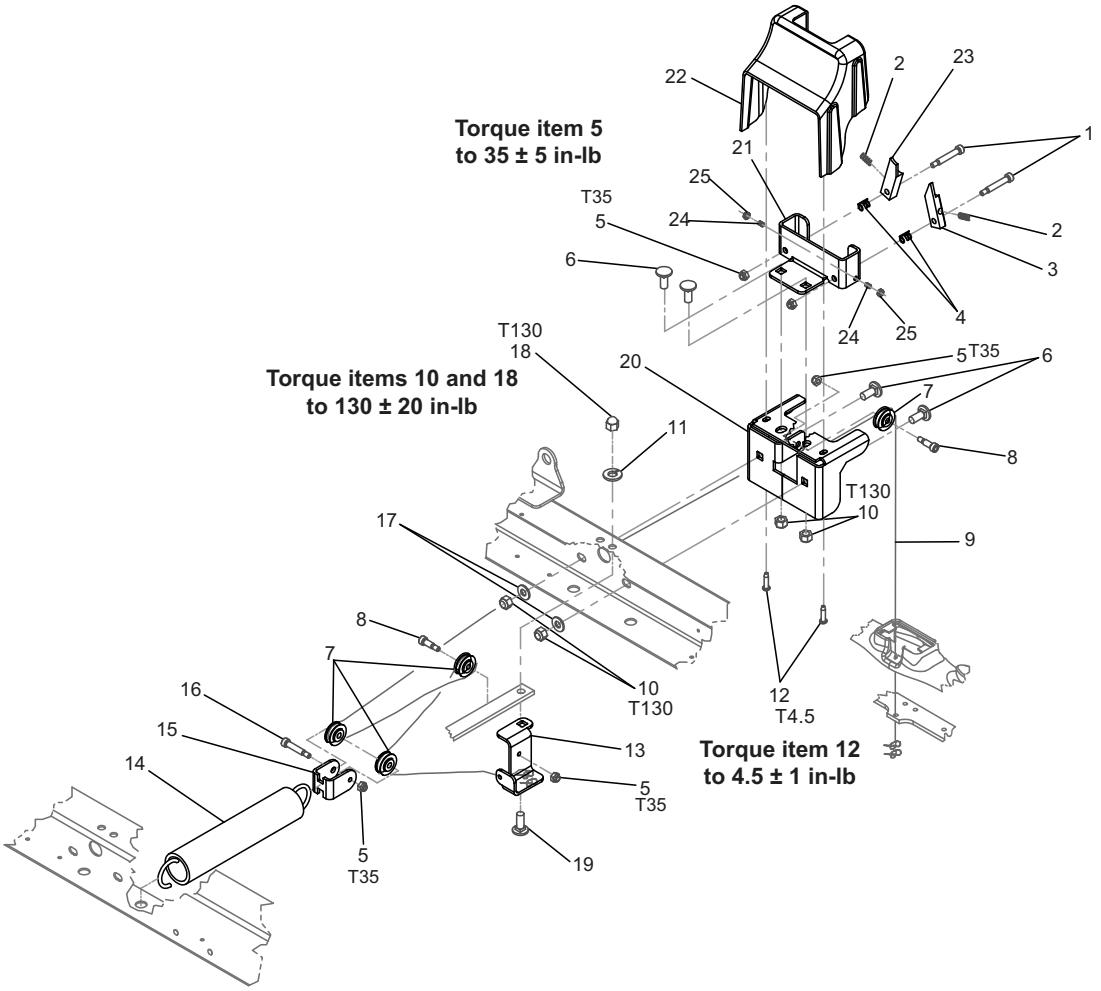
L19-006 Rev F (Reference only)



Item	Number	Name	Quantity
1	19-0984P	Litter center section	1
2	VV83A9G16	Pan head tapping screw	31
3	19-0577P	Top cover plate, foot end	1
5	19-0149P	Frame	1
6	19-0324P	Foley bag hook	4
7	VV33A1E24	Pan head machine screw	4
8	QPCD0903	Rubber bumper	4
9	VE30A1E	Nylon hex locknut	4
10	VR11H64	Pop rivet	8
11	19-0715Z	Spring hitch plate	1
12	19-0578P	Lower cover plate, foot end	1
13	19-0579P	Lower cover plate, head end	1

Siderail assist system

OL190019 Rev L (Reference only)

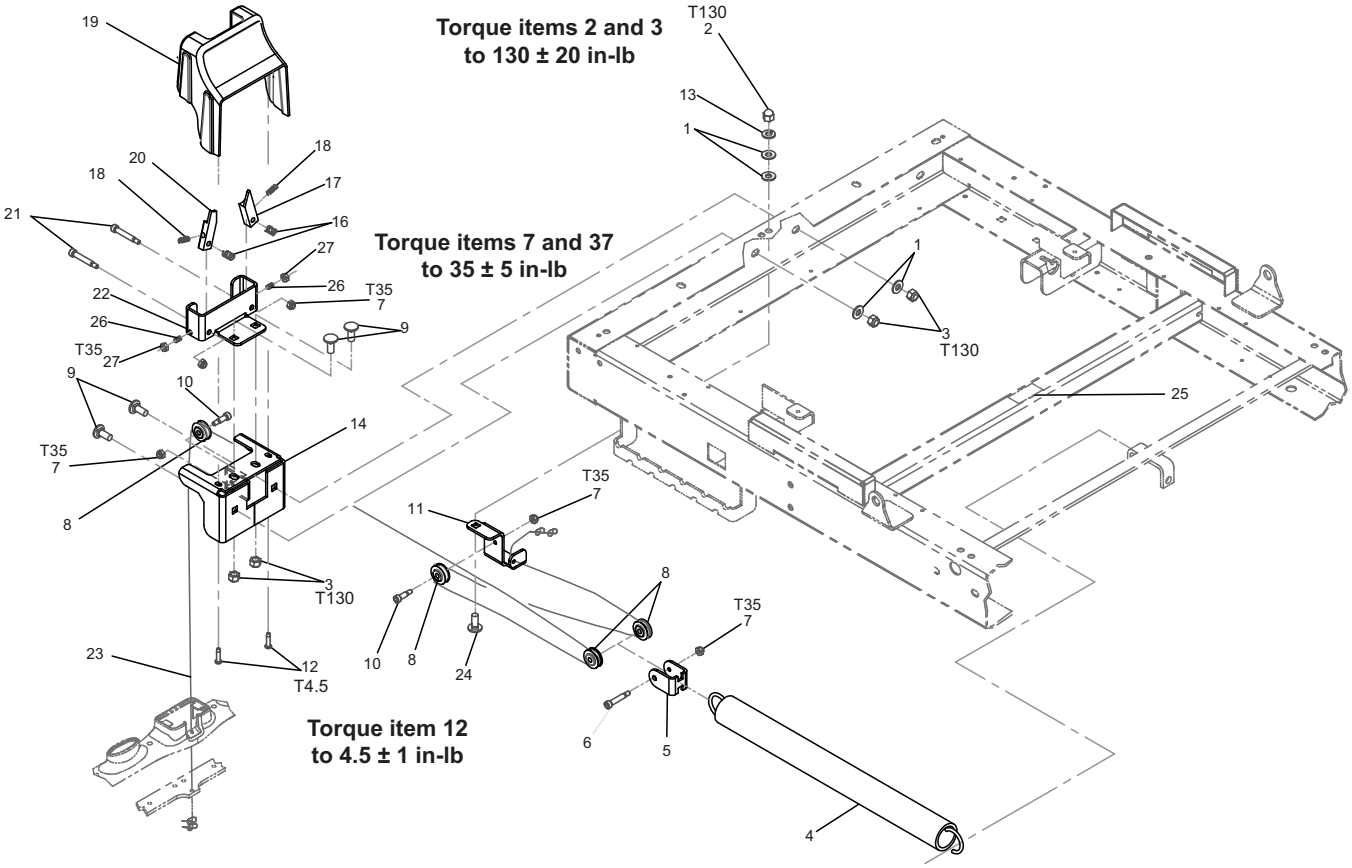


Item	Number	Name	Quantity
1	VD60B1N36	Shoulder screw	2
2	QRC9793	Compression spring	2
3	QDF19-0368ZN	Left stop catch	1
4	QRCB-640	Endrail compression spring	2
5	VE30A1G	Nylon hex locknut	5
6	VB35A1O24	Carriage bolt	4
7	QP19-0196	Assist system pulley	4
8	VD60B0G0816	Shoulder screw	2
9	19-0997	Assist system cable	1
10	VE30A1O	Nylon hex locknut	4
11	VW20A10	Spring washer	1
12	VV83A9E16	Pan head tapping screw	2
13	19-0857Z	Fixed roller support	1
14	QRE19-0608	Siderail spring	1
15	19-0187Z	Pulley bracket	1
16	VD60B0G0832	Shoulder screw	1

Item	Number	Name	Quantity
17	VW10A10	Washer	2
18	VE40A1O	Cap nut	1
19	VB35A1O24-S	Hex bolt	1
20	19-0452W	Brake shoe support	1
21	19-0364Z	Brake shoe	1
22	QP19-0411-10	Brake shoe cover	1
23	QDF19-0374ZN	Right stop catch	1
24	VV60B0G12	Set screw	2
25	VE80A0G	“K-lok” locknut	2

Endrail assist system

OL190020 Rev L (Reference only)

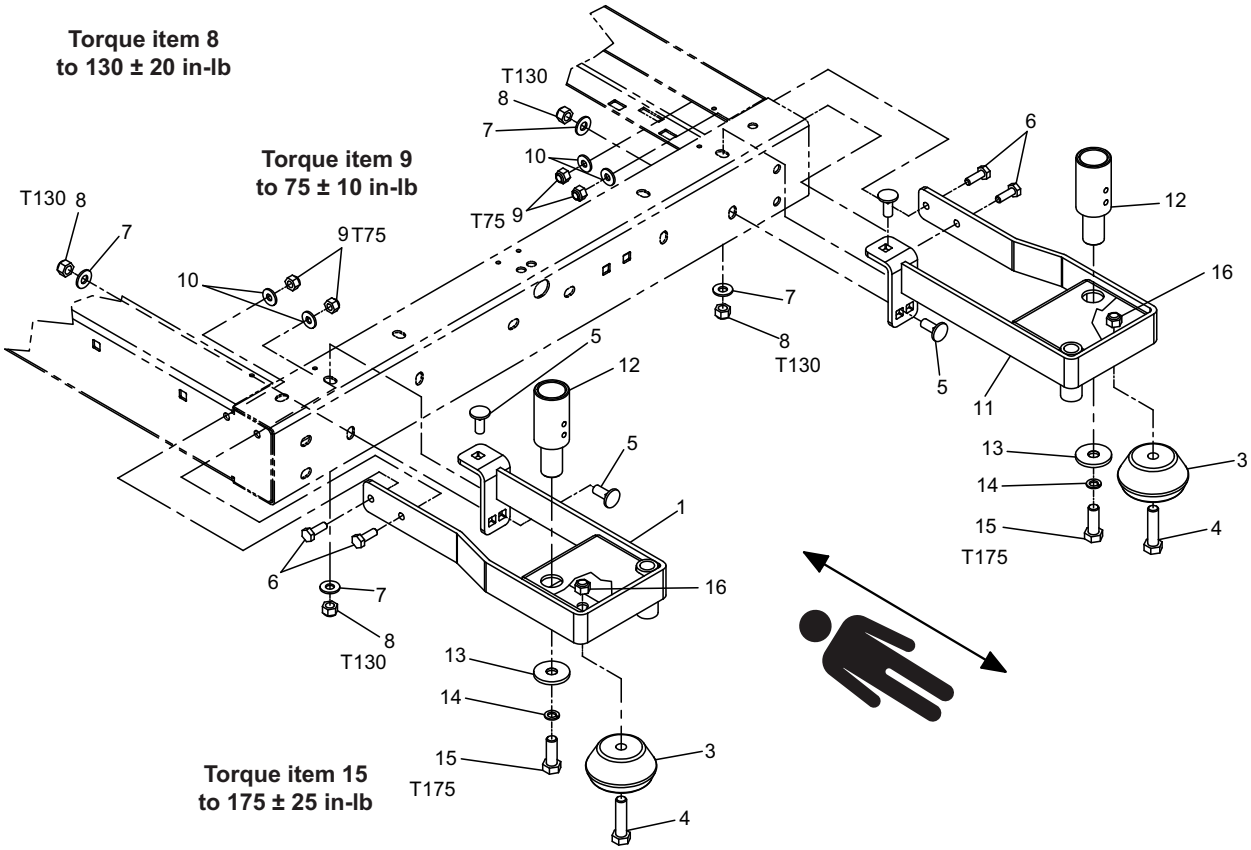


Item	Number	Name	Quantity
1	VW10A10	Washer	4
2	VE40A1O	Cap nut	1
3	VE30A1O	Nylon hex locknut	4
4	QRE19-0219	Endrail spring	1
5	19-0187Z	Pulley bracket	1
6	VD60B0G0832	Shoulder screw	1
7	VE30A1G	Nylon hex locknut	5
8	QP19-0196	Assist system pulley	4
9	VB35A1O24	Carriage bolt	4
10	VD60B0G0816	Shoulder screw	2
11	19-0857Z	Fixed roller support	1
12	VV83A9E16	Shoulder screw	2
13	VW20A10	Spring washer	1
14	19-0452W	Brake shoe support	1
16	QRCB-640	Endrail compression spring	2
17	QDF19-0368ZN	Left stop catch	1
18	QRC9793	Compression spring	2
19	QP19-0411-10	Brake shoe cover	1
20	QDF19-0374ZN	Right stop catch	1

Item	Number	Name	Quantity
21	VD60B1N36	Shoulder screw	2
22	19-0364Z	Brake shoe	1
23	19-0997	Assist system cable	1
24	VB35A1O24-S	Hex bolt	1
25	QDB7812	Grey anti-slip tape	0.1667 ft
26	VV60B0G12	Set screw	2
27	VE80A0G	K-lok locknut	2

Head end standard accessory brackets

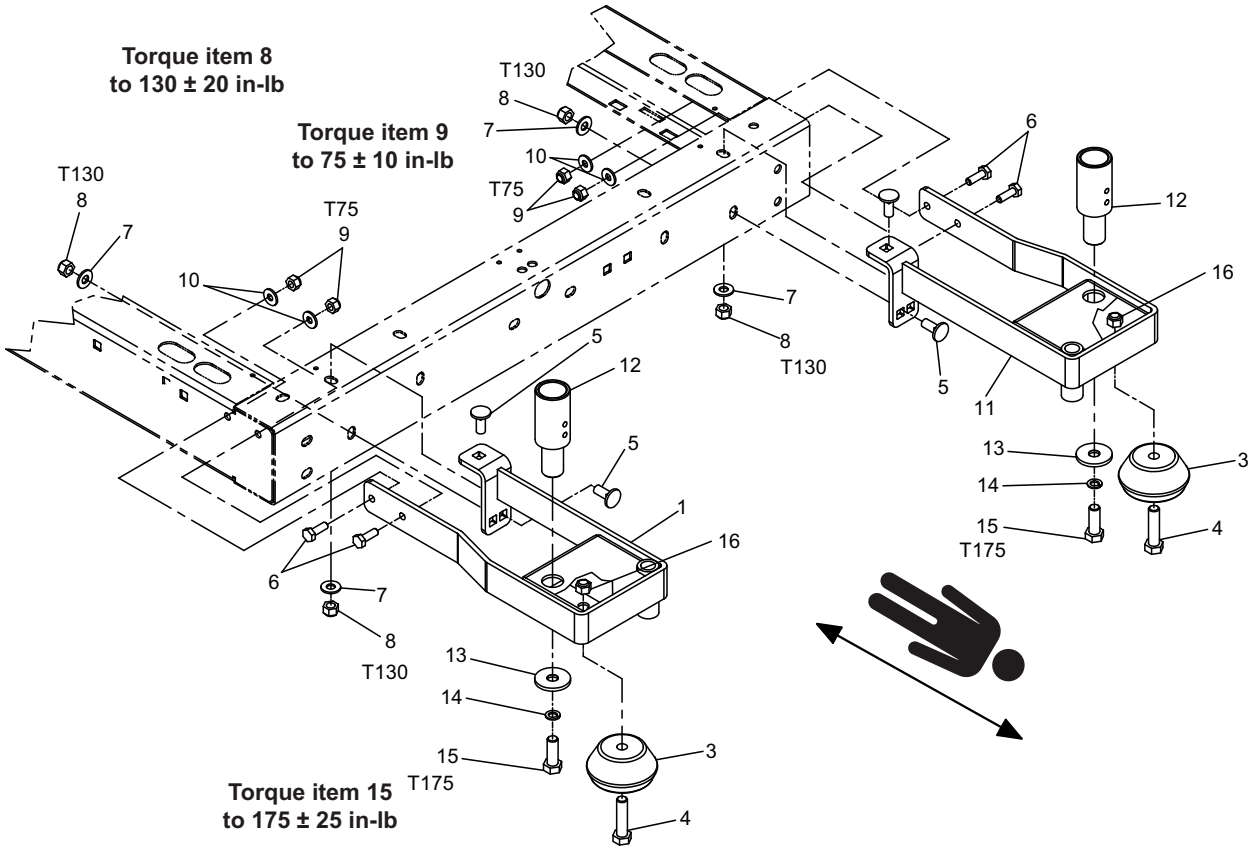
OL190089 Rev K (Reference only)



Item	Number	Name	Quantity
1	19-0832W	Standard support, right	1
3	QDF5072	Corner bumper	2
4	VB15A1P40	Hex bolt	2
5	VB35A1O24	Carriage bolt	4
6	VB15A1N24	Hex bolt	4
7	VW10A10	Washer	4
8	VE30A1O	Nylon hex locknut	4
9	VE30A1N	Nylon hex locknut	4
10	VW10A08	Washer	4
11	19-0833W	Standard support, left	1
12	19-0973C	Fixed socket for standard accessory bracket	2
13	VW11A12	Washer	2
14	VW20A12	Lock washer	2
15	VB15A1P24	Hex bolt	2
16	VE30A1P	Nylon hex locknut	2

Foot end standard accessory brackets

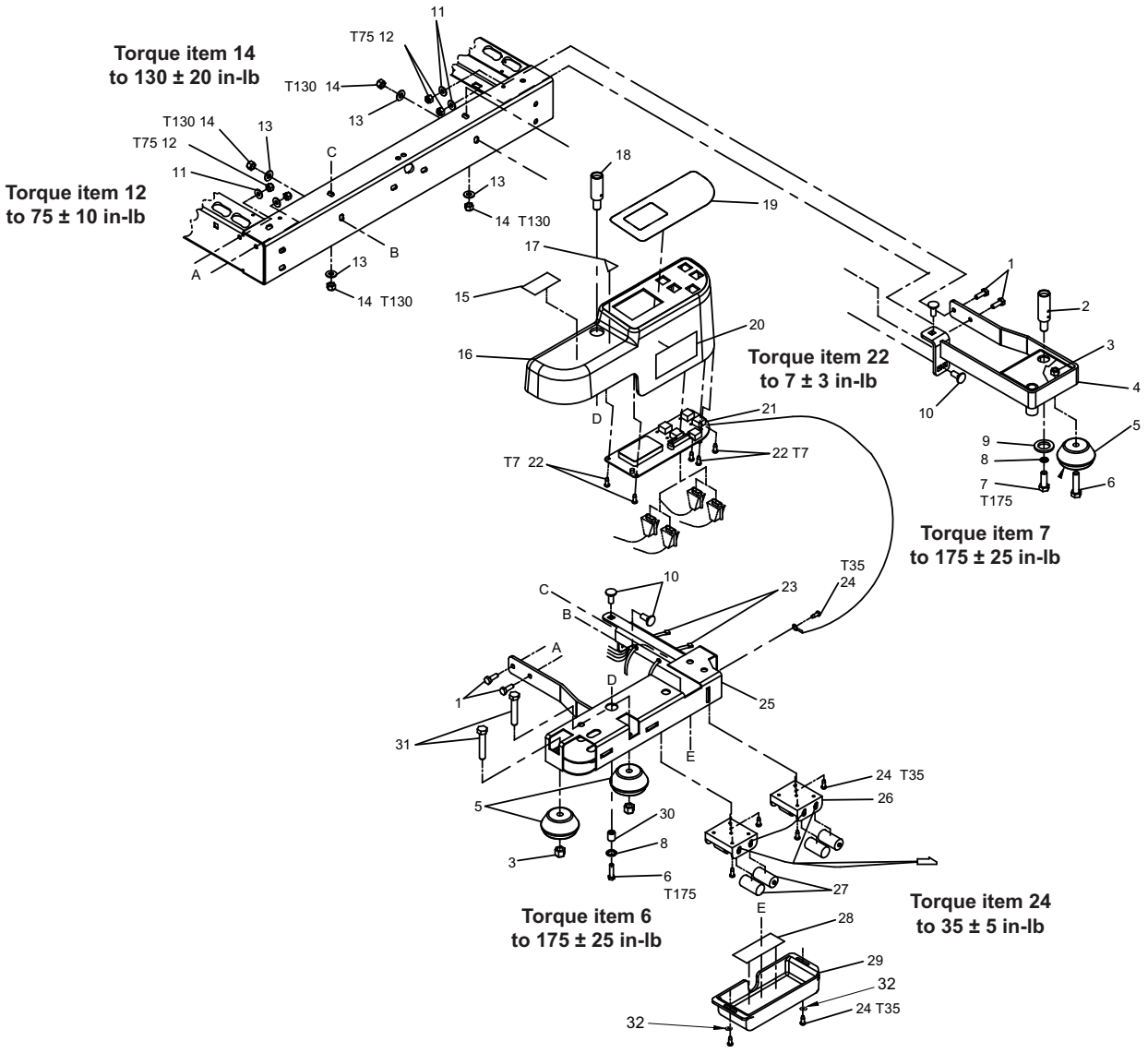
OL190091 Rev K (Reference only)



Item	Number	Name	Quantity
1	19-0832W	Standard support, right	1
3	QDF5072	Corner bumper	2
4	VB15A1P40	Hex bolt	2
5	VB35A1O24	Carriage bolt	4
6	VB15A1N24	Hex bolt	4
7	VW10A10	Washer	4
8	VE30A1O	Nylon locknut	4
9	VE30A1N	Nylon locknut	4
10	VW10A08	Washer	4
11	19-0833W	Standard support, left	1
12	19-0973C	Fixed socket for standard accessory bracket	2
13	VW11A12	Washer	2
14	VW20A12	Lock washer	2
15	VB15A1P24	Hex bolt	2
16	VE30A1P	Nylon hex locknut	2

Standard accessory brackets with scale option

OL190186 Rev E (Reference only)

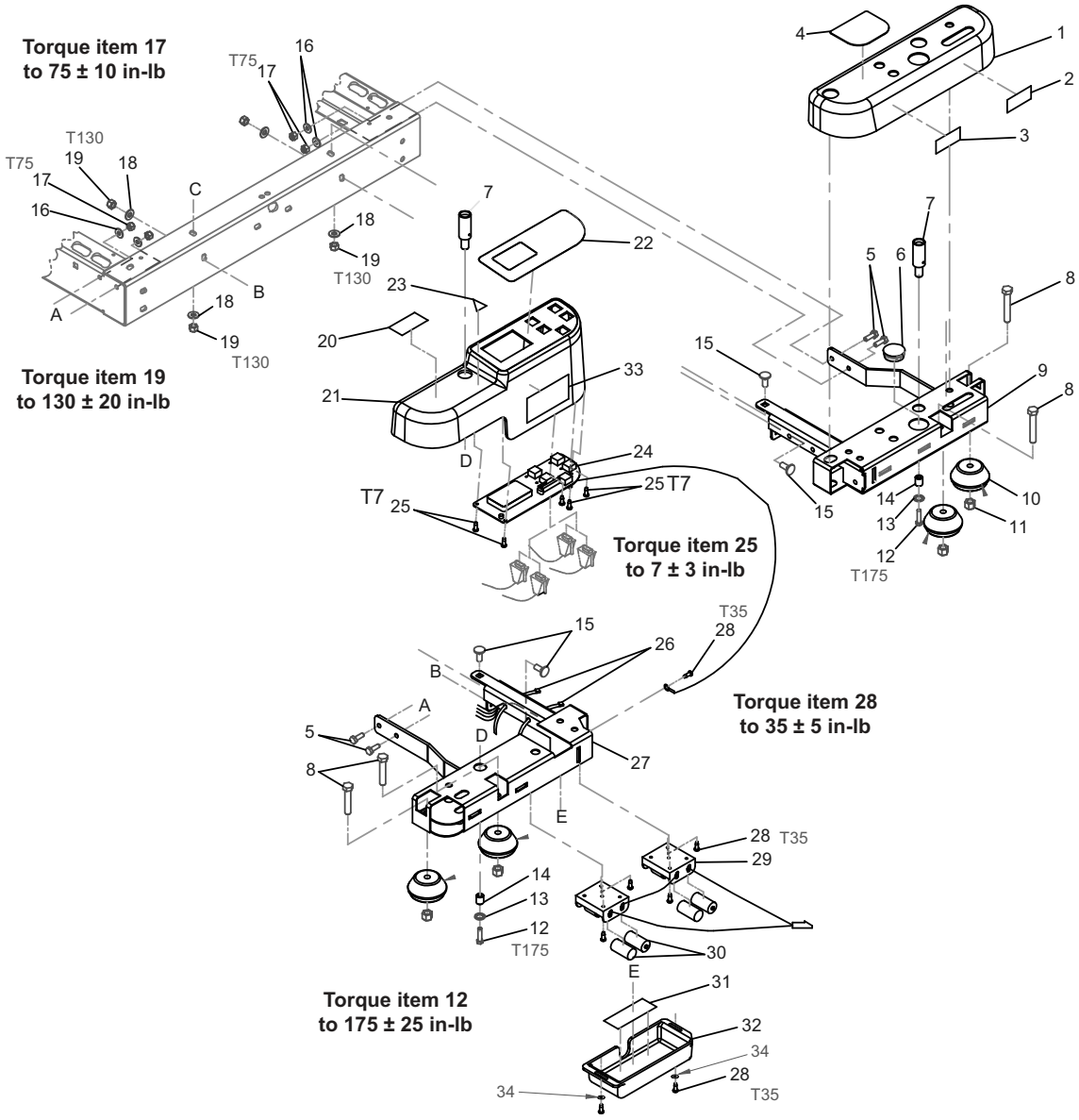


Item	Number	Name	Quantity
1	VB15A1N24	Hex bolt	4
2	19-0973C	Fixed socket standard bracket	1
3	VE30A1P	Nylon locknut	3
4	19-0833P	Standard support, left	1
5	QDF5072	Corner bumper	3
6	VB15A1P40	Hex bolt	2
7	VB15A1P24	Hex bolt	1
8	VW20A12	Nylon hex locknut	2
9	VW11A12	Nylon hex locknut	1
10	VB35A1O24	Carriage bolt	4
11	VW10A08	Washer	4
12	VE30A1N	Nylon hex locknut	4
13	VW10A10	Washer	4

Item	Number	Name	Quantity
14	VE30A1O	Nylon hex locknut	4
15	QE71-0654-F	Label, electronic component	1
16	QP19-0868	Bracket cover with scale	1
17	QE18545	Label, refer to manual	1
18	19-0777C	Fixed socket	1
19	QDF19-0867	Scale membrane	1
20	QE71-0680-F	Label, weighing zone	1
21	QDF19-0888	Scale pc board	1
22	VV83A9E08	Pan head tapping screw	5
23	QDF9518	Black cable tie	2
24	VV81A9E16	Flat head tapping screw	7
25	19-0879P	Standard bracket for scale	1
26	QDF19-0933	Battery to pc board lead	1
27	QDF7909	C type battery	4
28	QE71-0656-F	Label, battery type	1
29	QP19-0887	Battery housing cover	1
30	19-0778Z	Fixed socket spacer	1
31	VB15A1P50	Hex bolt	2
32	VW11A9E	Flat washer	2

Premium accessory brackets with scale option

OL190143 Rev F (Reference only)

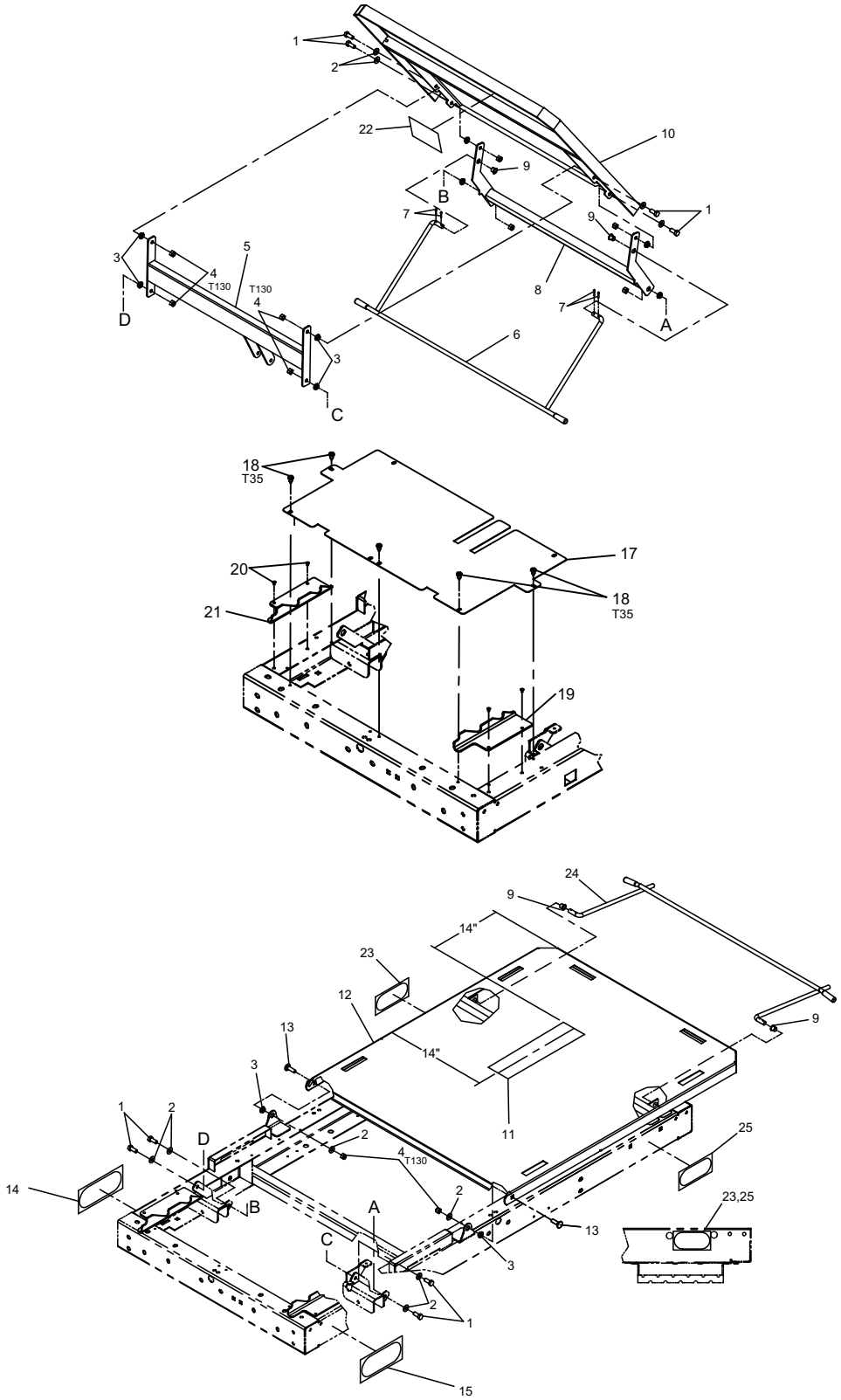


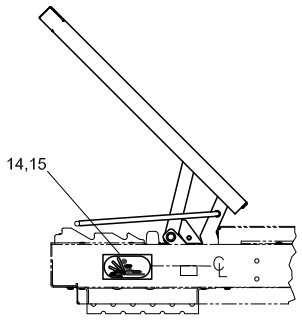
Item	Number	Name	Quantity
1	QP19-0357	Bracket cover, left	1
2	QE71-0346	Label, Stryker	1
3	QE71-0655-F	Label, IV pole	1
4	QE71-0534-BIL	Label, oxygen bottle and IV pole	1
5	VB15A1N24	Hex bolt	4
6	QDFP1514	Domed cap	1
7	19-0777C	Fixed socket	2
8	VB15A1P50	Hex bolt	4
9	19-0392W	Accessory bracket, left	1
10	QDF5072	Corner bumper	4
11	VE30A1P	Nylon hex locknut	4
12	VB15A1P40	Hex bolt	2

Item	Number	Name	Quantity
13	VW20A12	Washer	2
14	19-0778Z	Fixed socket spacer	2
15	VB35A1O24	Carriage bolt	4
16	VW10A08	Washer	4
17	VE30A1N	Nylon hex locknut	4
18	VW10A10	Washer	4
19	VE30A1O	Nylon hex locknut	4
20	QE71-0654-F	Label, electronic component	1
21	QP19-0868	Bracket cover with scale	1
22	QDF19-0867	Scale membrane	1
23	QE18545	Label, refer to manual	1
24	QDF19-0888	Scale pc board	1
25	VV83A9E08	Pan head tapping screw	5
26	QDF9518	Black cable tie	2
27	19-0879W	Standard bracket for scale	1
28	VV83A9E16	Pan head tapping screw	7
29	QDF19-0933	Battery to pc board lead	1
30	QDF7909	C type battery	4
31	QE71-0656-F	Label, battery type	1
32	QP19-0887	Battery housing cover	1
33	QE71-0680-F	Label, weighing zone	1
34	VW11A9E	Flat washer	2

Head section with support arm

OL190025 Rev G (Reference only)

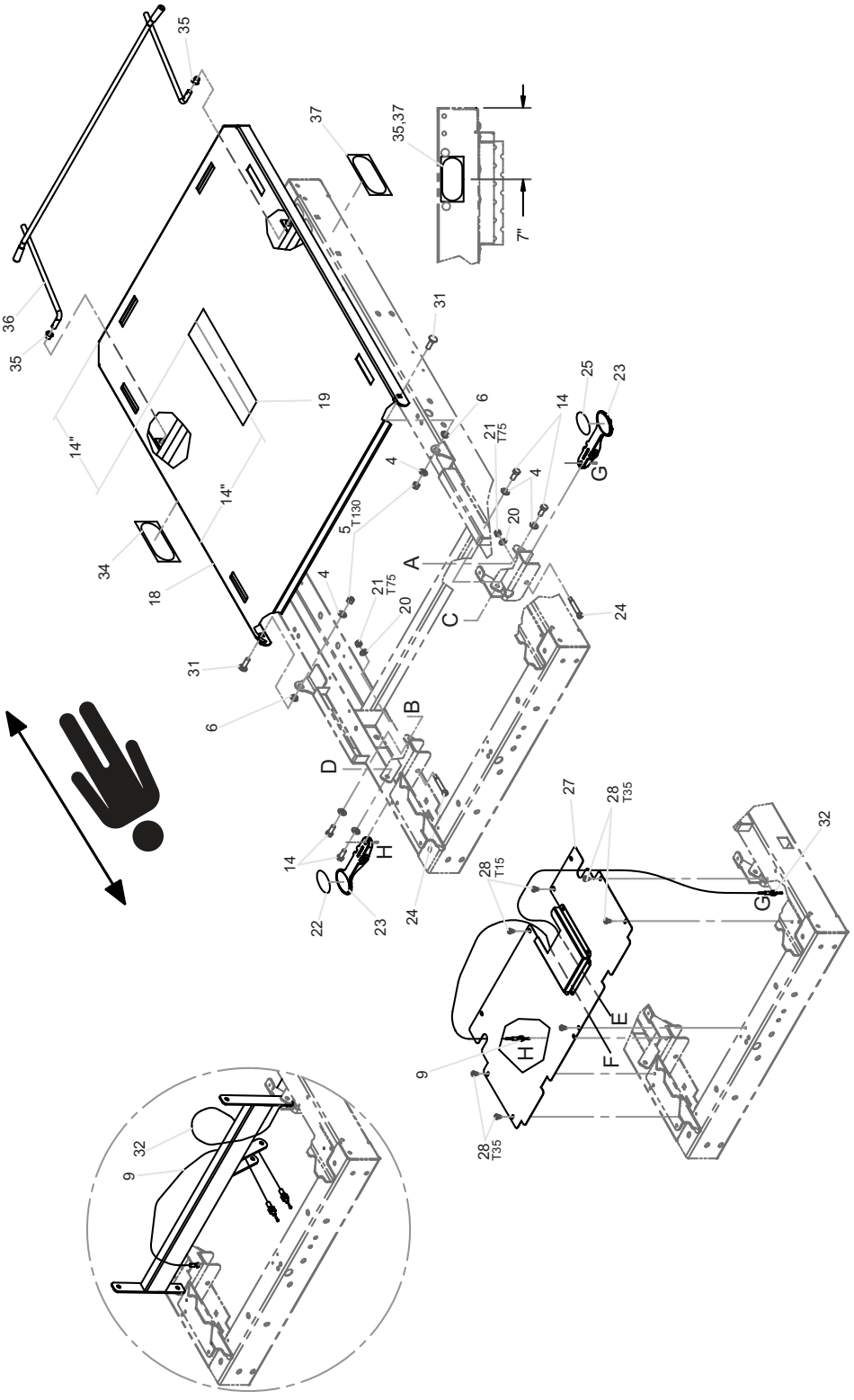


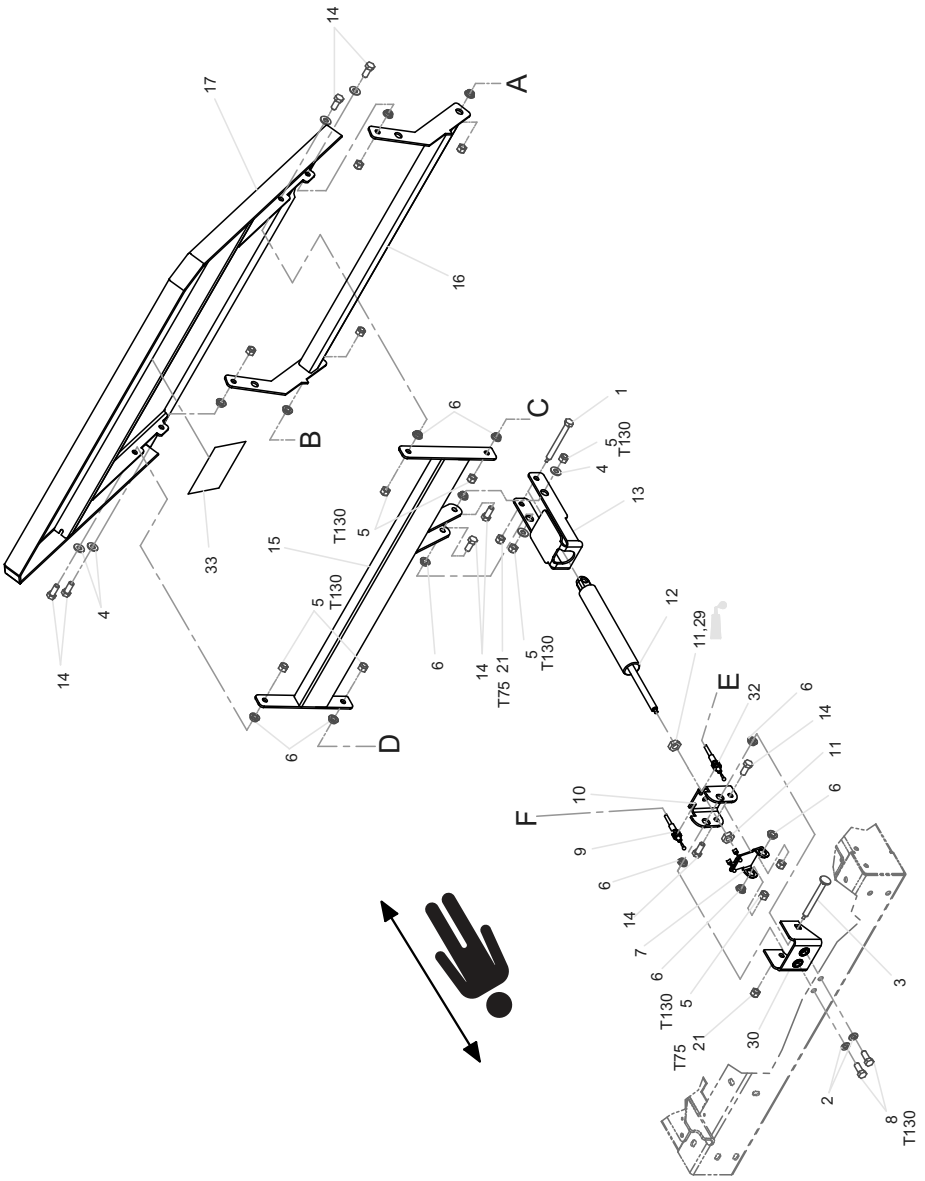


Item	Number	Name	Quantity
1	VB15A1O32	Hex bolt	8
2	VW10A10	Washer	10
3	QDF17-0020	Shoulder spacer	10
4	VE30A1O	Nylon locknut	12
5	19-0598P	Coupling bar, short	1
6	19-0761P	Head support arm with caps	1
7	VG40B0240	Split pin	4
8	19-0599P	Coupling bar, long	1
9	QPNI2404	Nylon shoulder bushing	4
10	19-0052P	Head section	1
11	19-0135	Velcro mattress fastener	1
12	19-0053P	Foot section	1
13	VB35A1O32	Carriage bolt	2
14	QE71-0508	Label, Fowler elevation, right	1
15	QE71-0507	Label, Fowler elevation, left	1
17	19-0788P	Head cover plate	1
18	VV83A9G16	Pan head tapping screw	5
19	19-0615P	Head section stop notch, left	1
20	VR11H64	Pop rivet	4
21	19-0652P	Head section stop notch, right	1
22	QE71-0538-F	Label, inspection	1
23	QE71-0451	Label, foot section elevation, left	1
24	19-0749P	Foot section support with caps	1
25	QE71-0452	Label, foot section elevation, right	1

Head section with lift assist

OL190024 Rev L (Reference only)



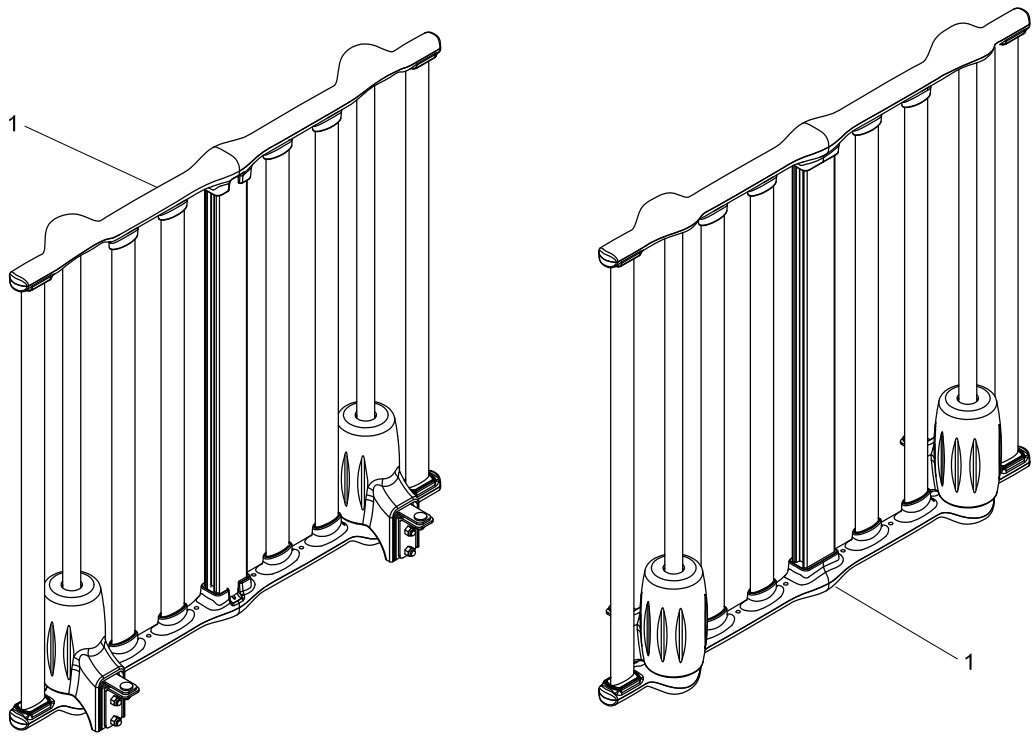


Item	Number	Name	Quantity
1	VVB0B1N1052	Shoulder screw	1
2	VW20A10	Spring washer	2
3	VVB0B1N1054	Shoulder screw	1
4	VW10A10	Washer	12
5	VE30A1O	Nylon hex locknut	13
6	19-0999	Shoulder spacer	16
7	19-0138Z	Cylinder activation flap	1
8	VB15A1O24-S	Hex bolt	2
9	QDF19-0354	Head section cable	1
10	19-0049Z	Cylinder bracket	1
11	VE20A80	Locknut	2
12	QDF5087	Gas cylinder	1
13	19-0729P	Gas cylinder bracket	1
14	VB15A1O32	Hex bolt	12
15	19-0598P	Coupling bar, short	1

Item	Number	Name	Quantity
16	19-0599P	Coupling bar, long	1
17	19-0052P	Head section	1
18	19-0053P	Foot section	1
19	19-0135	Velcro mattress fastener	1
20	VW10A08	Washer	2
21	VE30A1N	Nylon hex locknut	4
22	QE71-0458	Label, Fowler activation, right	1
23	QP19-0210	Head section activation lever	2
24	VD60B1N1040	Shoulder screw	2
25	QE71-0448	Label, Fowler activation, left	1
27	19-0787P	Protective plate	1
28	VV83A9G16	Pan head tapping screw	7
29	M0008	Medium strength thread locker	0.08 mL
30	19-0790	Cylinder bracket	1
31	VB35A1O32	Carriage bolt	2
32	QDF19-0815	Head section cable, short	1
33	QE71-0538-F	Label, inspection	1
34	QE71-0451	Label, foot section elevation, left	1
35	QPNI2404	Nylon shoulder bushing	2
36	19-0749P	Foot section support with caps	1
37	QE71-0452	Label, foot section elevation, right	1

Fixed endrails

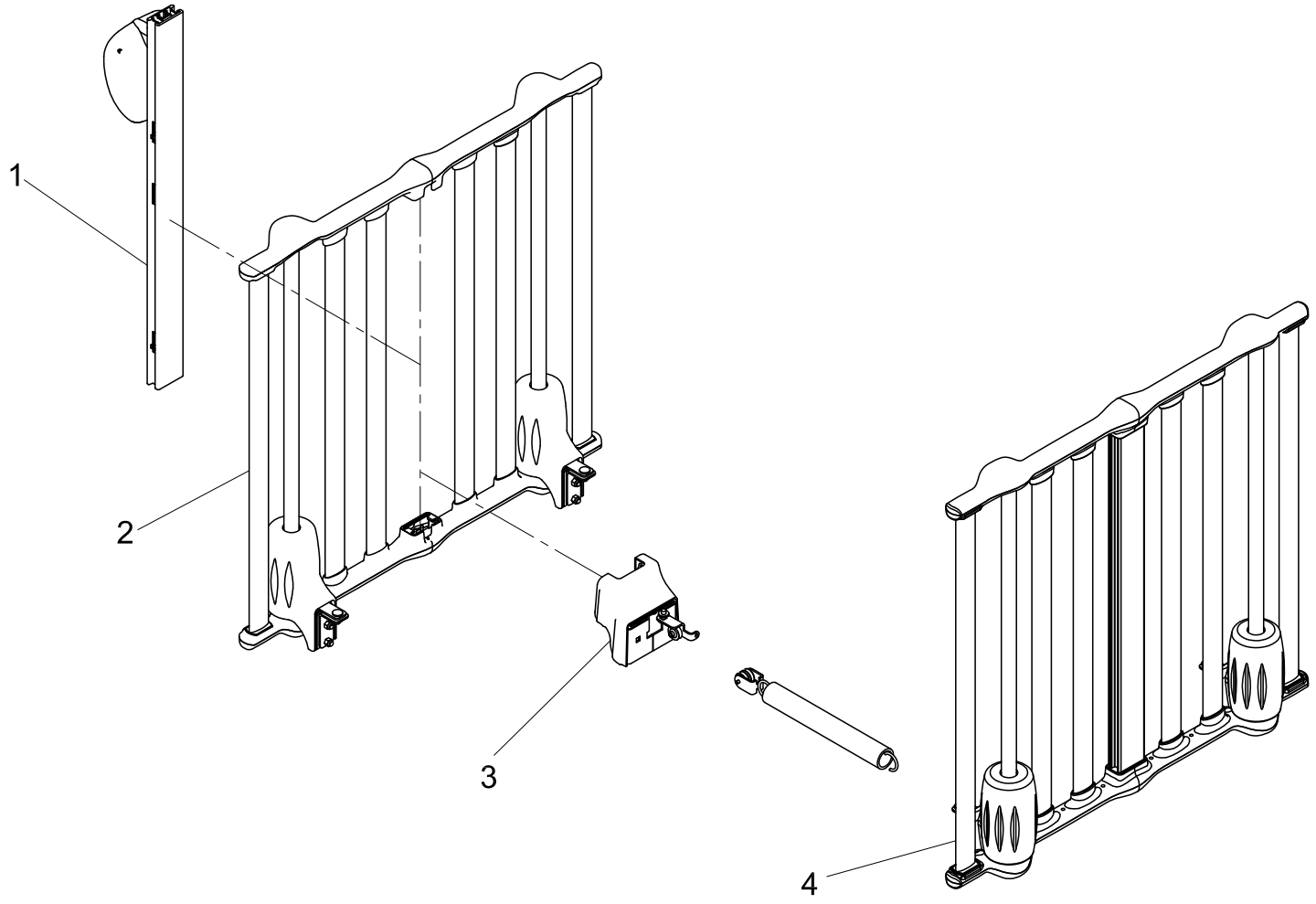
19-0799 Rev -/OL190027W Rev - (Reference only)



Item	Number	Name	Quantity
1	OL190015W	Fixed endrail	2

Fixed footrail, adjustable headrail without 9 in. double safety lock

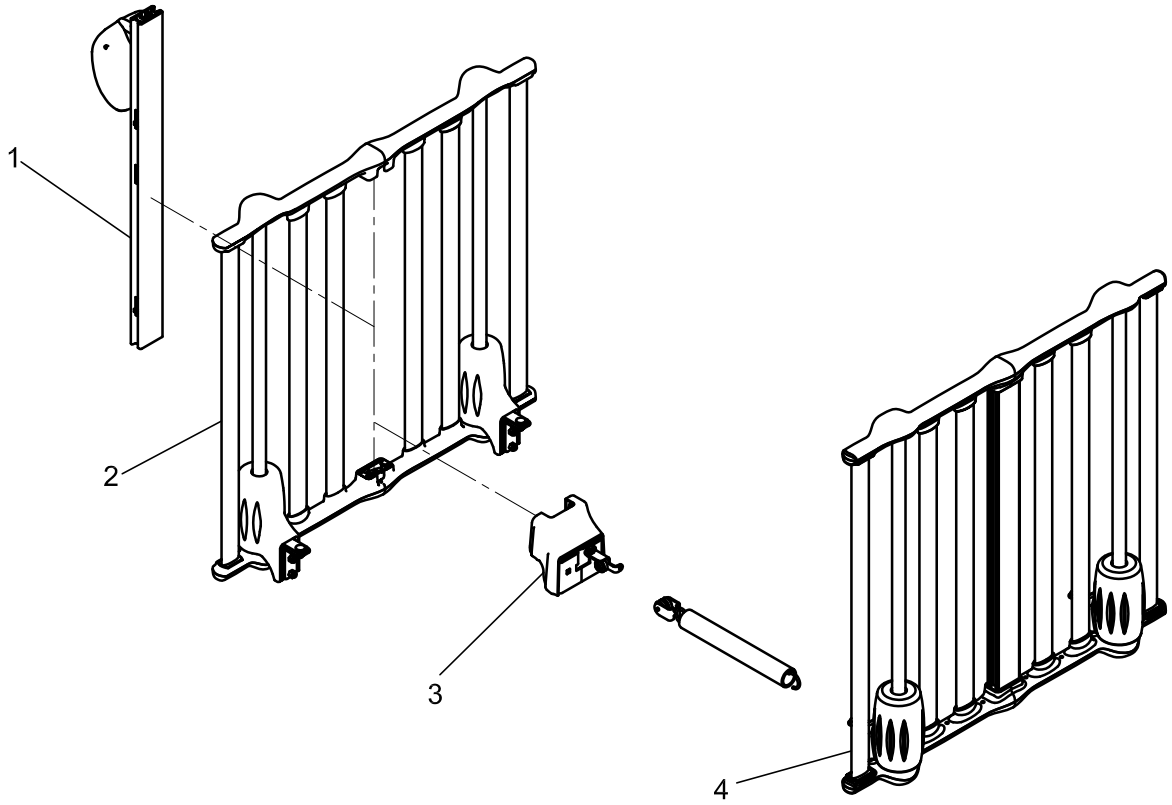
OL190142-XXX Rev 11 (Reference only)



Item	Number	Name	Quantity
1	OL190141-XXX	Central locking column without 9 in. double safety lock	1
2	OL190010	Adjustable endrail	1
3	OL190020	Endrail assist system	1
4	OL190015	Fixed endrail	1

Fixed footrail, adjustable headrail with 9 in. double safety lock

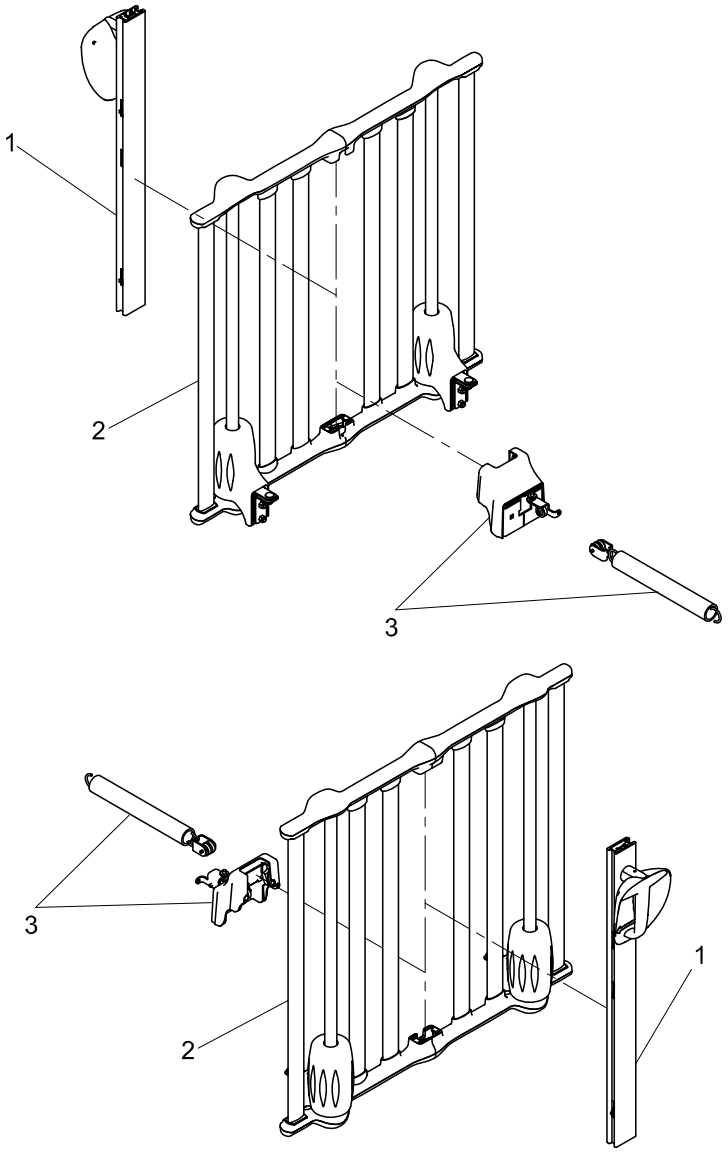
19-0782 Rev 01 (Reference only)



Item	Number	Name	Quantity
1	OL190026W	Central locking column with 9 in. double safety lock	1
2	OL190010W	Adjustable endrail	1
3	OL190020W	Endrail assist system	1
4	OL190015W	Fixed endrail	1

Adjustable endrails without 9 in. double safety lock

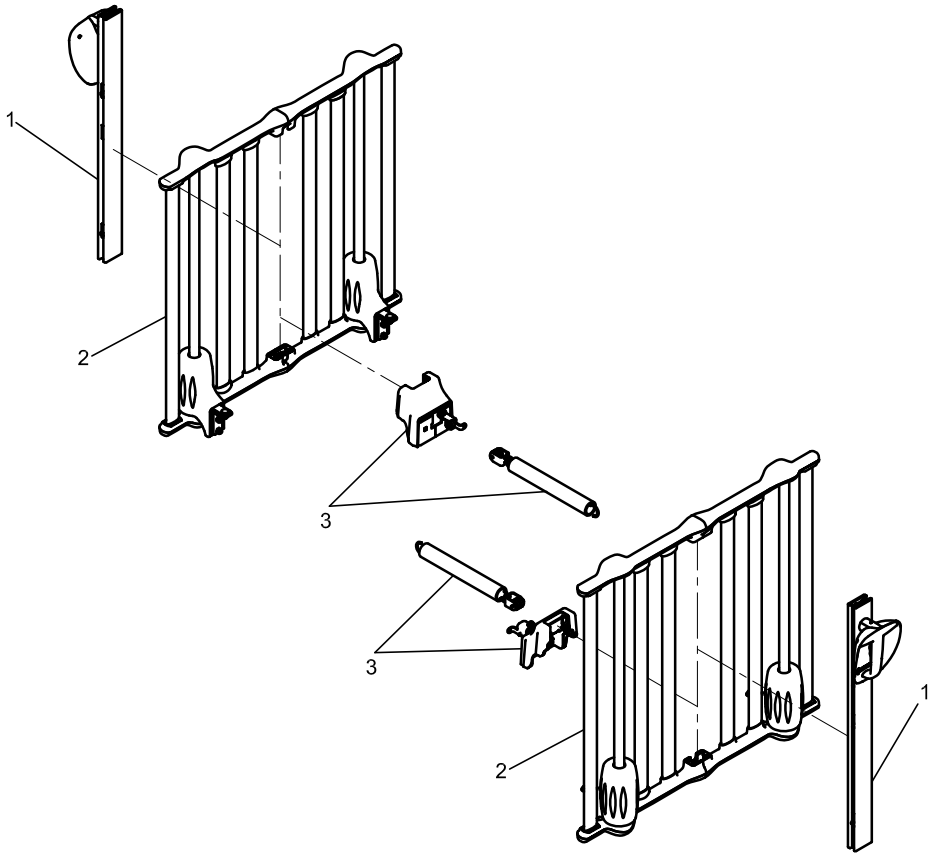
OL190138-XXX Rev 02 (Reference only)



Item	Number	Name	Quantity
1	OL190141-XXX	Central locking column without 9 in. double safety lock	2
2	OL190010	Adjustable endrail	2
3	OL190020	Endrail assist system	2

Adjustable endrails with 9 in. double safety lock

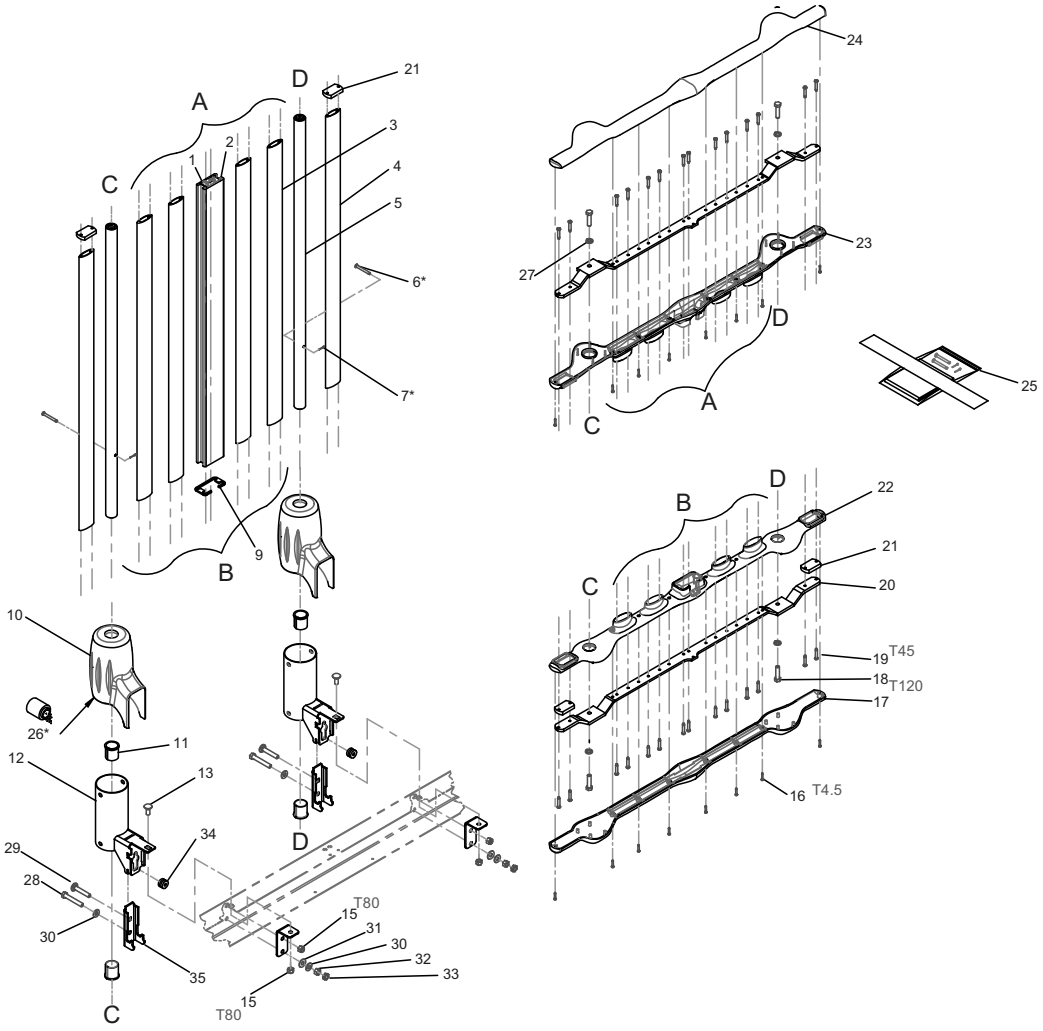
19-0783 Rev 01/OL190021W Rev - (Reference only)



Item	Number	Name	Quantity
1	OL190026W	Central locking column with 9 in. double safety lock	2
2	OL190010W	Adjustable endrail	2
3	OL190020W	Endrail assist system	2

Fixed endrail assembly

OL190015 Rev V (Reference only)

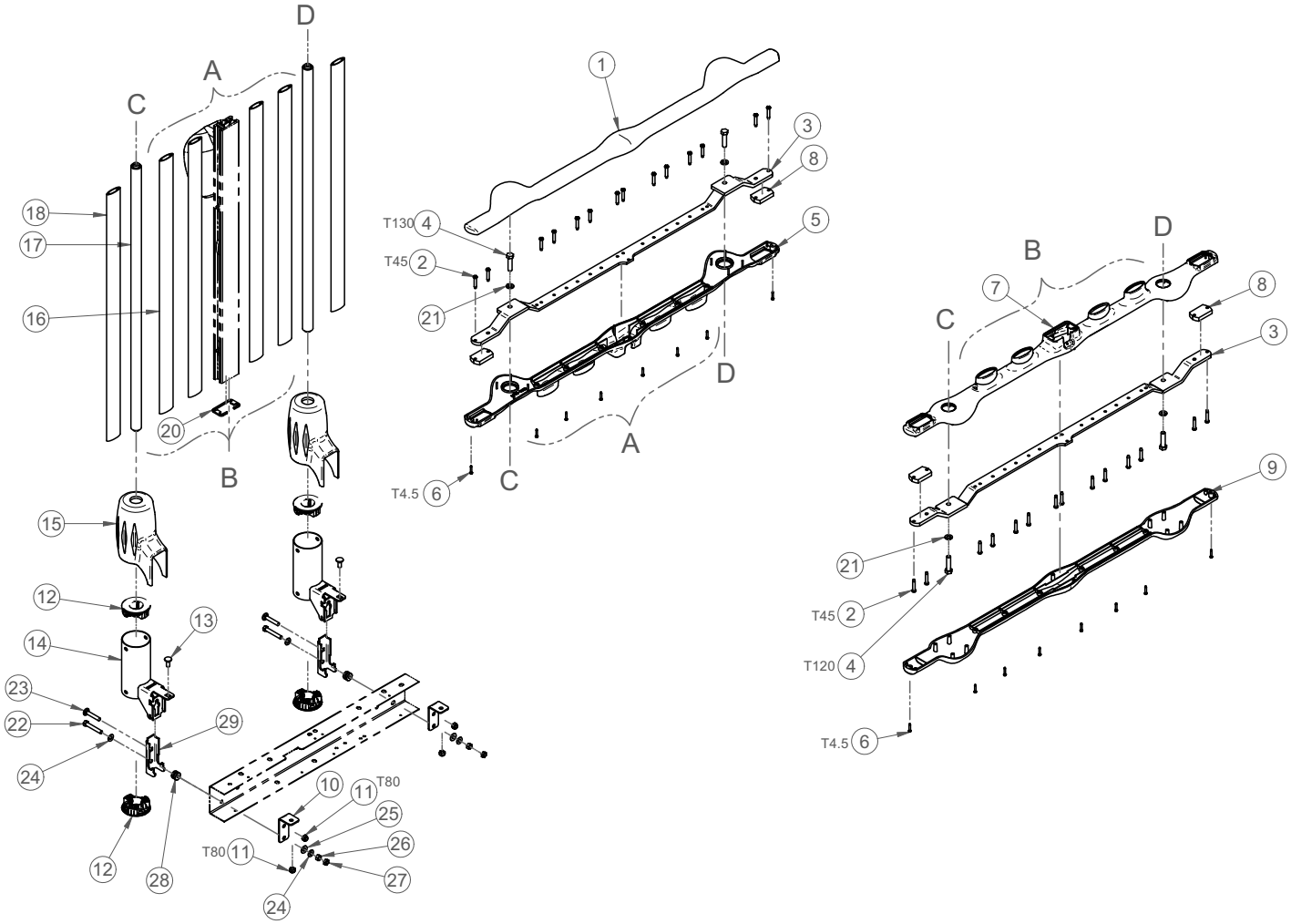


Item	Number	Name	Quantity
1	19-0630W	Fixed central column	1
2	QP19-0519	Column cover	1
3	19-0263W	Inner oval post	4
4	19-0264W	End oval post	2
5	19-0632W	Fixed guide post	2
6	VG50B0642	Clevis pin	2
7	VG40B0316	Cotter pin	2
9	QPN-19-0647	Seal	1
10	QP19-0256-10	Barrel cover	2
11	QPN-18121	Molded frame bushing	4
12	19-0870Z	Fixed endrail support	2
13	VB35A1O24	Carriage bolt	2
14	19-0548Z	Frame reinforcement plate	2
15	VE30A1O	Nylon hex locknut	4
16	VV83A9A20HL	Pan head tapping screw	16

Item	Number	Name	Quantity
17	19-0649	Perforated siderail cover	1
18	VB18A1O36	Hex bolt	4
19	VVZ7A1E32	Pan head tapping screw	28
20	19-0507Z	Siderail structural member	2
21	19-0487Z	Access door spacer	4
22	QP19-0466-10	Siderail cover	1
23	19-0650	Perforated siderail cover	1
24	QP19-0465-10	Siderail cover	1
25	L70-268	Fixed parts bag (not shown)	1
26	M0029	Baby powder	1 g
27	VW20A10	Spring washer	4
28	VB15A1O48FT	Hex bolt	2
29	VB30A1O44	Carriage bolt	2
30	VW10A10	Washer	4
31	VW10C241002	Nylon washer	2
32	VE10A1O	Hex nut	2
33	VE20A1O	Hex jam nut	2
34	19-0869Z	Floating nut	2
35	19-0861W	Adjustment support	2

Adjustable endrail assembly

OL190010 Rev V (Reference only)

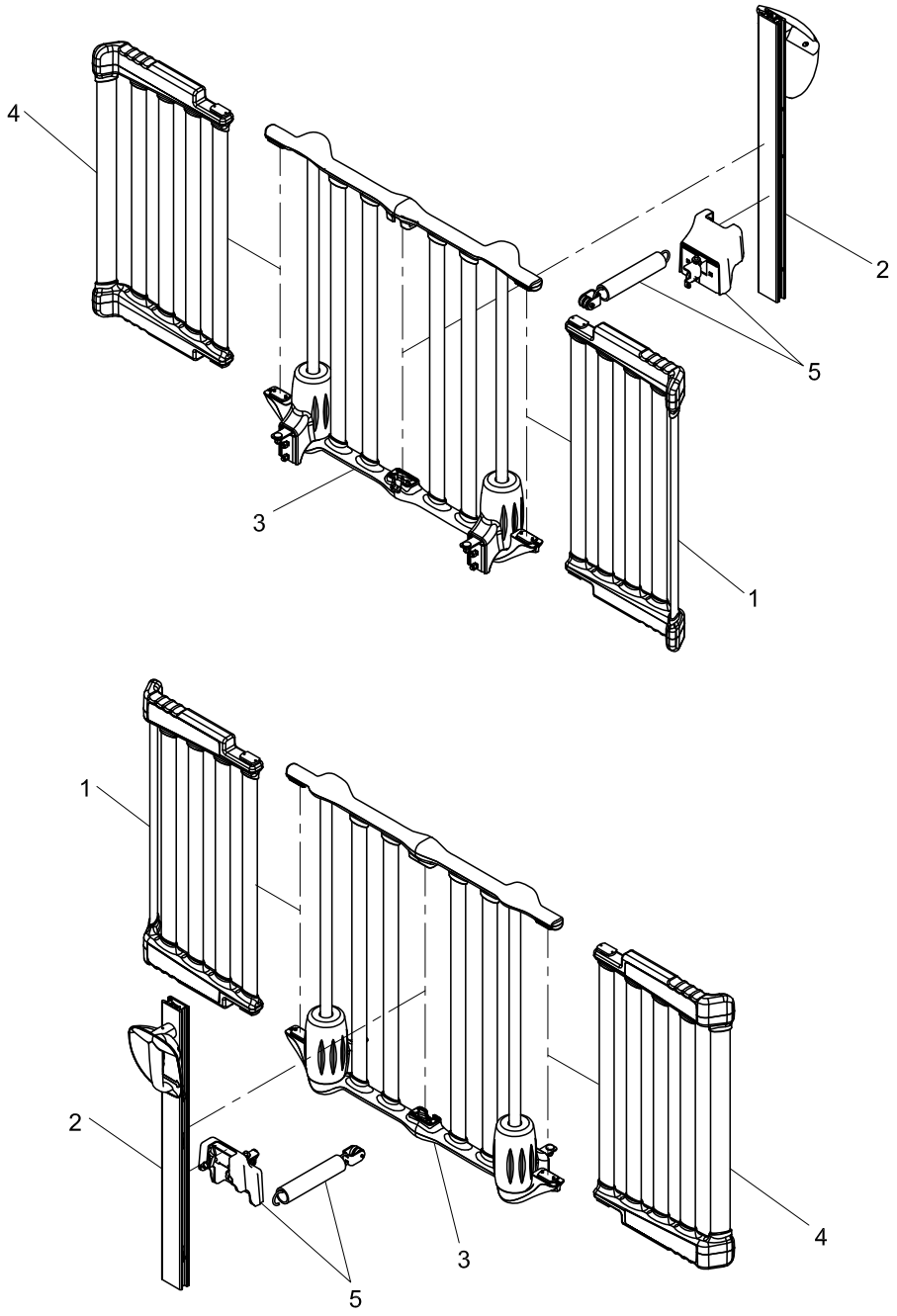


Item	Number	Name	Quantity
1	QP19-0465	Siderail cover	1
2	VVZ7A1E32	Pan head tapping screw	28
3	19-0507Z	Siderail structural member	2
4	VB18A1O36	Hex bolt	4
5	19-0650	Perforated siderail cover	1
6	VV83A9A20HL	Pan head tapping screw	16
7	QP19-0466	Siderail cover	1
8	19-0487Z	Access door spacer	4
9	19-0649	Perforated siderail cover	1
10	19-0548Z	Frame reinforcement plate	2
11	VE30A1O	Nylon hex locknut	4
12	19-0305	Rolling bearing support	4
13	VB35A1O24	Carriage bolt	2
14	19-0859Z	Moving siderail support	2
15	QP19-0256-10	Barrel cover	2
16	19-0263P	Inner oval post	4

Item	Number	Name	Quantity
17	19-0513C	Sliding guide post	2
18	19-0264P	End oval post	2
20	QPN-19-0647	Seal	1
21	VW20A10	Spring washer	4
22	VB15A1O48FT	Hex bolt	2
23	VB35A1O44	Carriage bolt	2
24	VW10A10	Washer	4
25	VW10C241002	Nylon washer	2
26	VE10A1O	Hex nut	2
27	VE20A1O	Hex jam nut	2
28	19-0869Z	Floating nut	2
29	19-0861P	Adjustment support	2

Siderails without access doors and 9 in. double safety lock

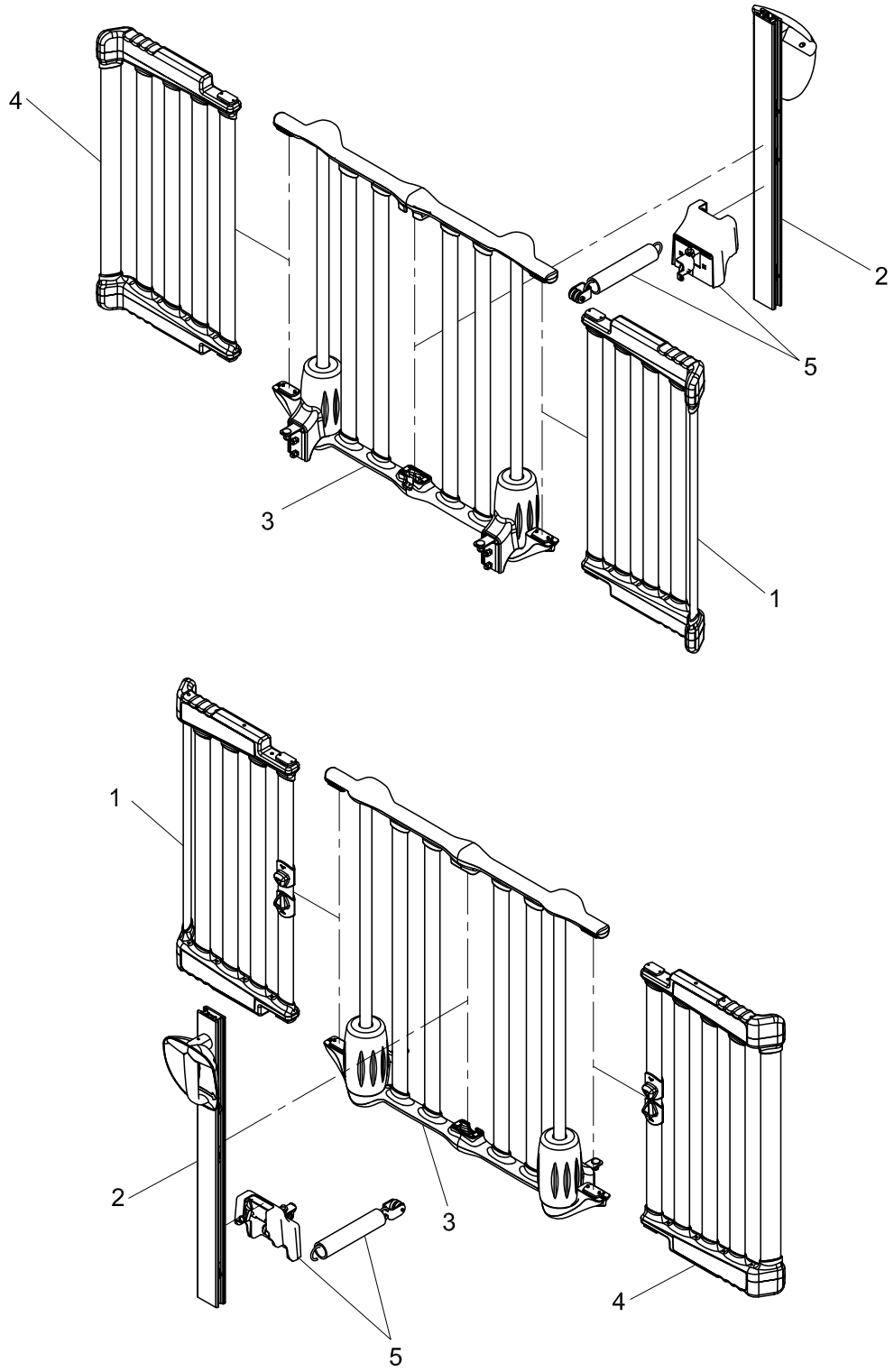
OL190139-XXX Rev 02 (Reference only)



Item	Number	Name	Quantity
1	OL190022	Fixed access door, left	2
2	OL190141-XXX	Central locking column without 9 in. double safety lock	2
3	OL190014	Siderail common components	2
4	OL190018	Fixed access door, right	2
5	OL190019	Siderail assist system	2

Siderails with access doors and without 9 in. double safety lock

OL190140-XXX Rev 02 (Reference only)

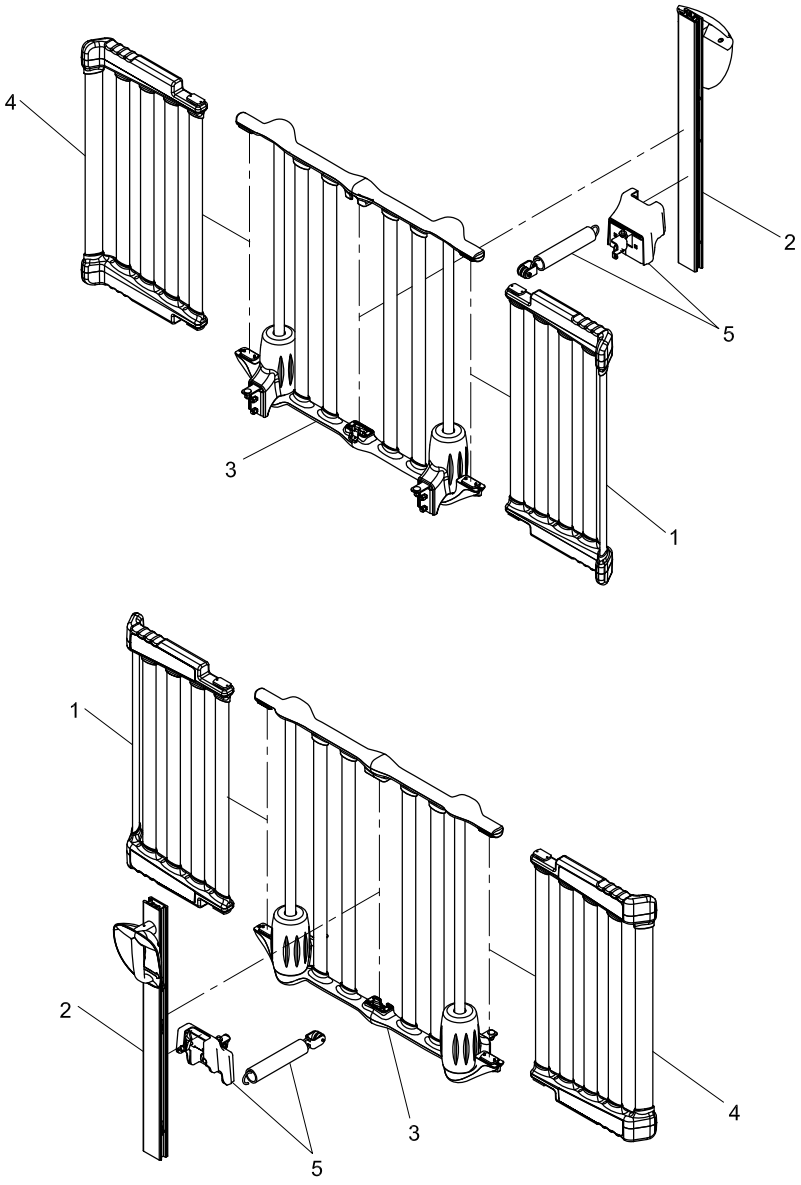


Item	Number	Name	Quantity
1	OL190016	Access door, left	2
2	OL190141-XXX	Central locking column without 9 in. double safety lock	2
3	OL190014	Siderail common components	2

Item	Number	Name	Quantity
4	OL190018	Fixed access door, right	2
5	OL190019	Siderail assist system	2

Siderails without access doors and with 9 in. double safety lock

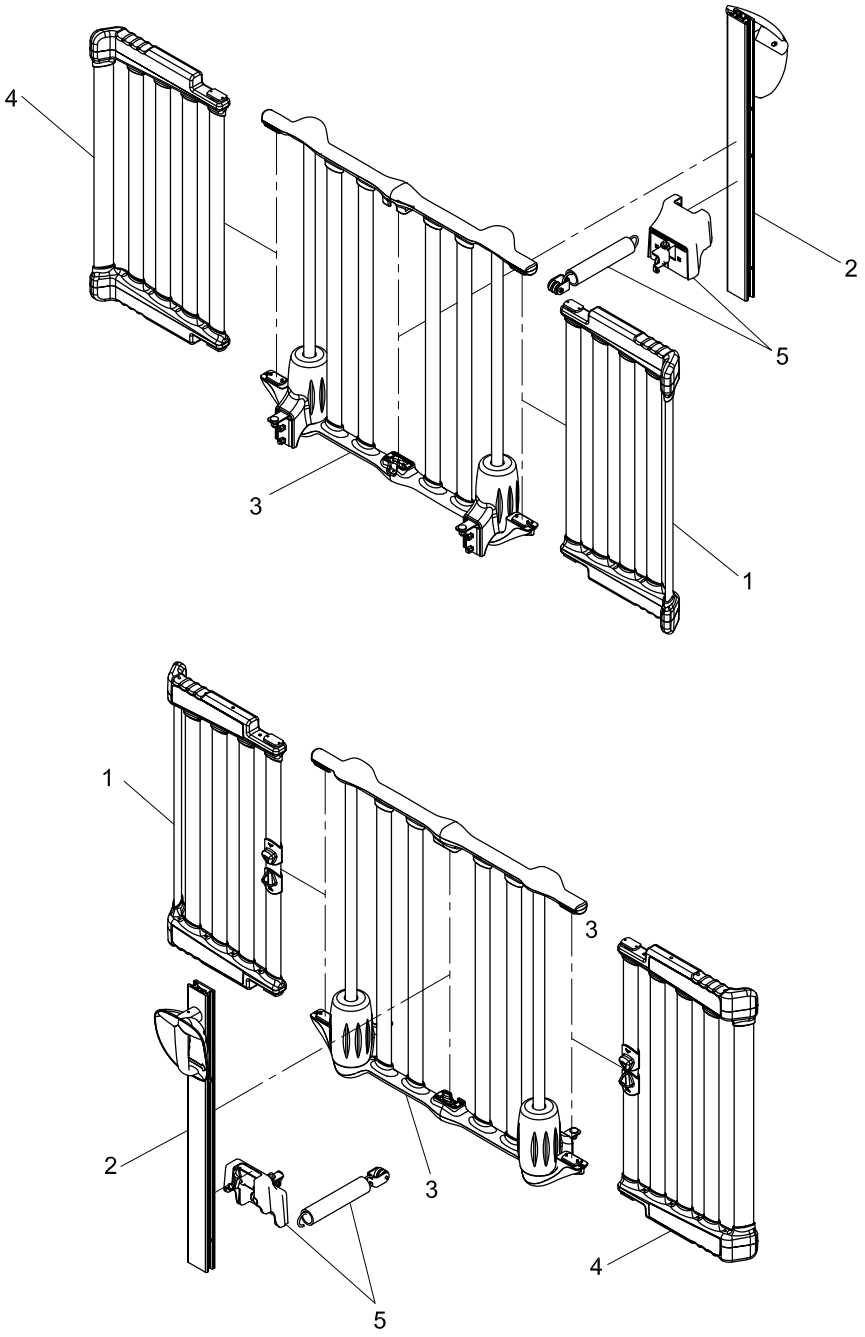
19-0780 Rev 01 (Reference only)



Item	Number	Name	Quantity
1	OL190018	Fixed access door, right	2
2	OL190026W	Central locking column with 9 in. double safety lock	2
3	OL190014W	Siderail common components	2
4	OL190022W	Fixed access door, left	2
5	OL190019W	Siderail assist system	2

Siderails with access doors and with 9 in. double safety lock

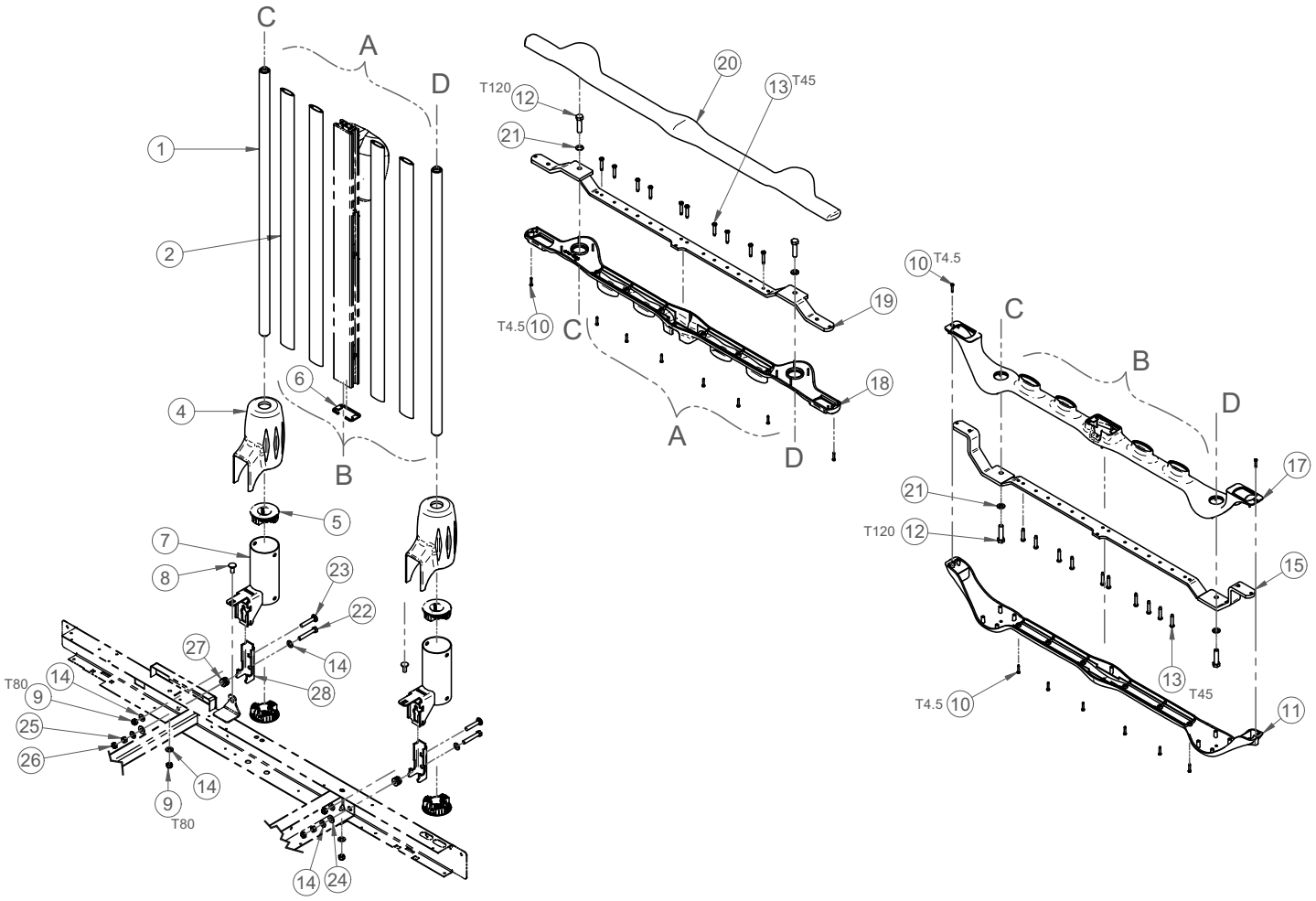
19-0781 Rev 01/OL190012W Rev - (Reference only)



Item	Number	Name	Quantity
1	OL190016W	Access door, left	2
2	OL190026W	Central locking column with 9 in. double safety lock	2
3	OL190014W	Siderail common components	2
4	OL190017W	Fixed access door, right	2
5	OL190019W	Siderail assist system	2

Siderail common components

OL190014 Rev U (Reference only)

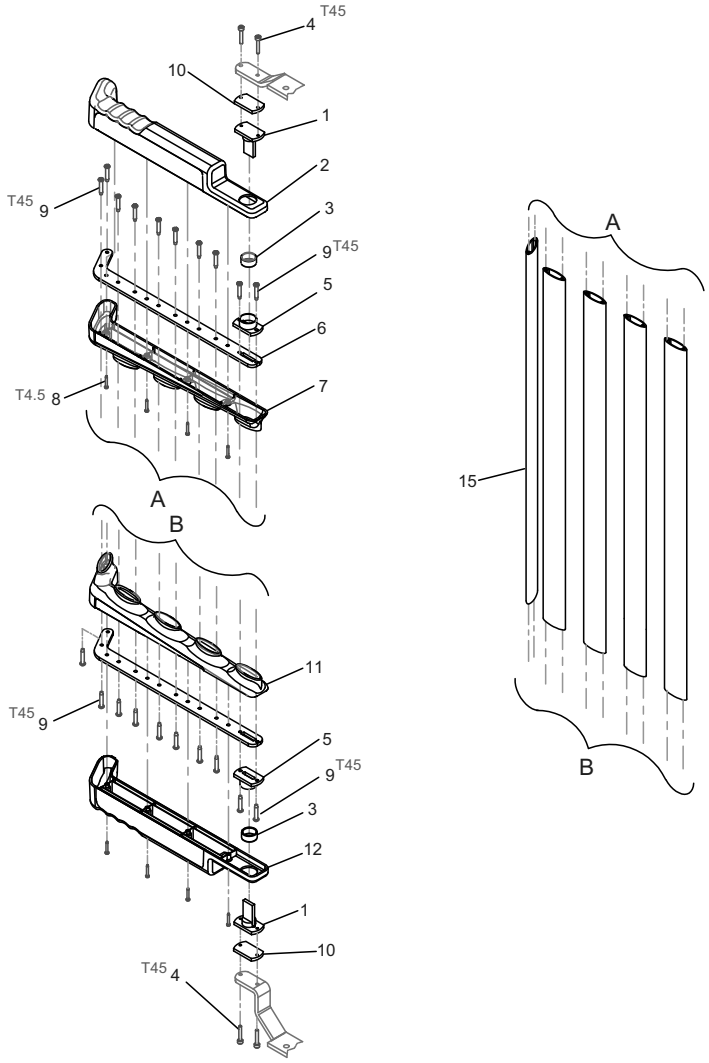


Item	Number	Name	Quantity
1	19-0513C	Sliding guide post	2
2	19-0263P	Inner oval post	4
4	QP19-0256	Barrel cover	2
5	19-0305	Rolling bearing support	4
6	QPN-19-0647	Seal	1
7	19-0859Z	Moving siderail support	2
8	VB35A1O24	Carriage bolt	2
9	VE30A1O	Nylon hex locknut	4
10	VV83A9A20HL	Pan head tapping screw	16
11	QP19-0468	Siderail cover	1
12	VB18A1O36	Hex bolt	4
13	VVZ7A1E32	Pan head tapping screw	20
14	VW10A10	Washer	8
15	19-0509Z	Siderail structural member	1
17	QP19-0469	Siderail cover	1
18	19-0650	Perforated siderail cover	1
19	19-0507Z	Siderail structural member	1

Item	Number	Name	Quantity
20	QP19-0465	Siderail cover	1
21	VW20A10	Spring washer	4
22	VB15A1O48FT	Hex bolt	2
23	VB35A1O44	Carriage bolt	2
24	VW10C241002	Nylon washer	2
25	VE10A1O	Hex nut	2
26	VE20A1O	Hex jam nut	2
27	19-0869Z	Floating nut	2
28	19-0861P	Adjustment support	2

Fixed access door, right

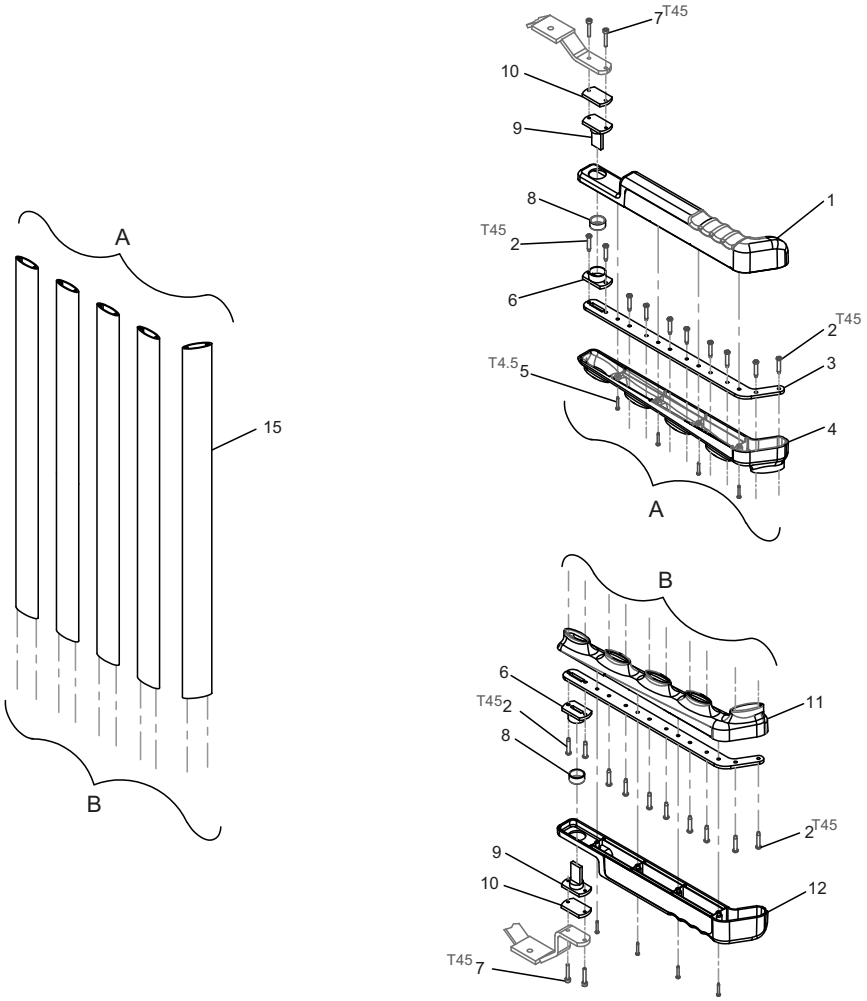
OL190018 Rev - (Reference only)



Item	Number	Name	Quantity
1	19-0791Z	Access door hinge	2
2	QP19-0637-10	Access door cover	1
3	19-0622	Hinge sleeve	2
4	VV10A1G24-S	Hex socket head cap screw	4
5	19-0403Z	Inner hinge	2
6	19-0288Z	Access door structural member	2
7	19-0656	Access door perforated cover	1
8	VV83A9A24HL	Truss head tapping screw	8
9	VVZ7A1E32	Pan head tapping screw	20
10	19-0487Z	Access door spacer	2
11	QP19-0554-10	Access door cover	1
12	19-0653	Access door perforated cover	1
15	19-0283P	Access door post	5

Fixed access door, left

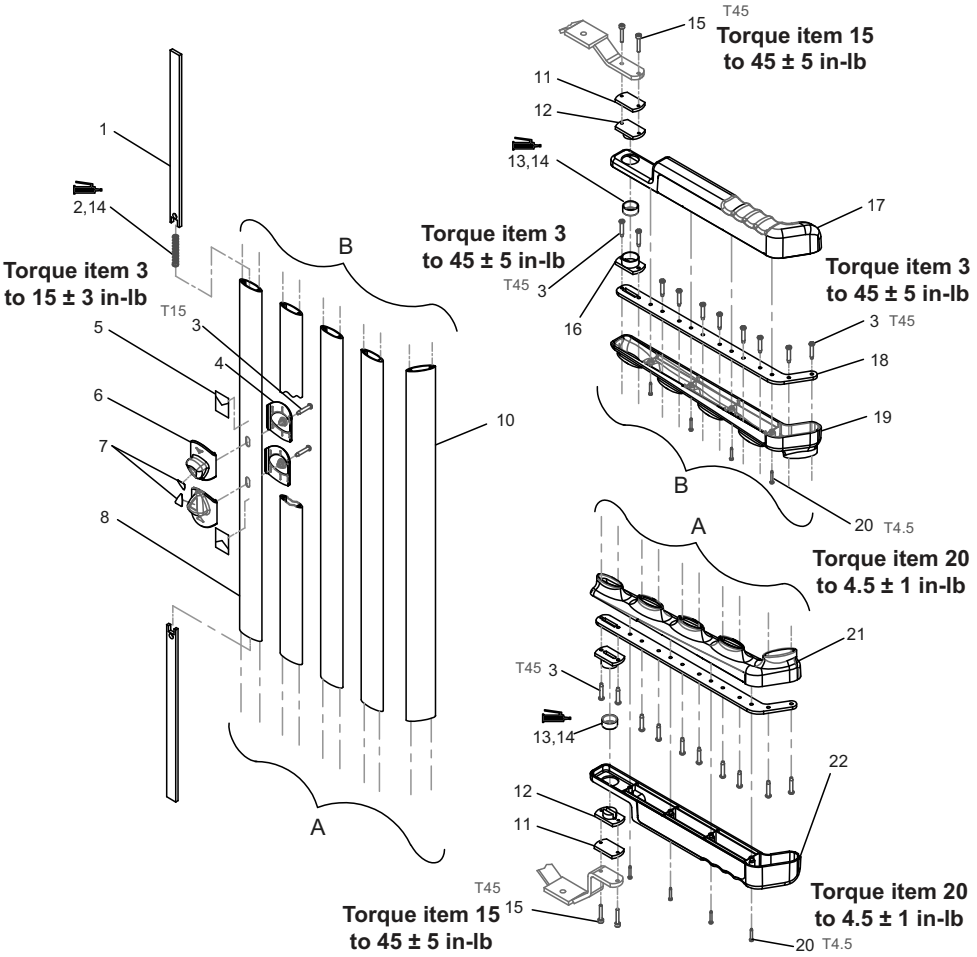
OL190022 Rev - (Reference only)



Item	Number	Name	Quantity
1	QP19-0553-10	Access door cover	1
2	VVZ7A1E32	Pan head tapping screw	20
3	19-0288Z	Access door structural member	2
4	19-0654	Access door perforated cover	1
5	VV83A9A24HL	Truss head tapping screw	8
6	19-0403Z	Inner hinge	2
7	VV10A1G24-S	Hex socket head cap screw	4
8	19-0622	Hinge sleeve	2
9	19-0791Z	Access door hinge	2
10	19-0487Z	Access door spacer	2
11	QP19-0638-10	Access door cover	1
12	19-0655	Access door perforated cover	1
15	19-0283P	Access door post	5

Access door, left

OL190016W Rev AB (Reference only)

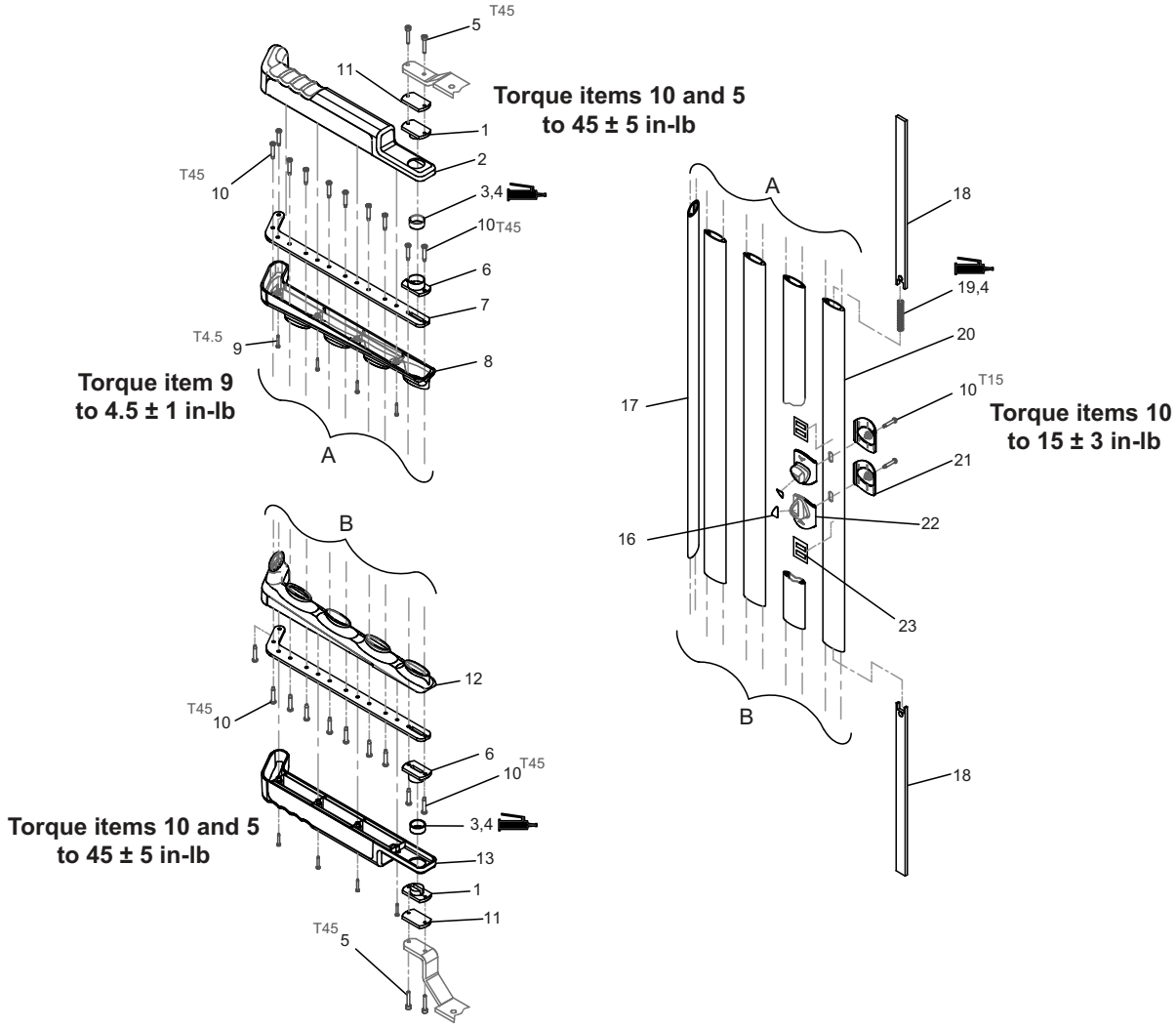


Item	Number	Name	Quantity
1	19-0335Z	Locking mechanism bar	2
2	QRC19-0336	Compression spring	1
3	VVZ7A1E32	Pan head tapping screw	22
4	QP19-0546	Release knob, inner	2
5	QE71-0456	Label, latch release knob, green	2
6	QP19-0545	Release knob, outer	2
7	QE71-0498	Access door perforated cover	2
8	19-0282W	Locking mechanism post	1
10	19-0283W	Access door post	4
11	19-0487Z	Access door spacer	2
12	19-0402Z	Outer hinge	2
13	19-0622	Hinge sleeve	2
14	M0019	Petro Canada OG2 grease	0.16 kg
15	VV10A1G24-S	Hex socket head cap screw	4
16	19-0403Z	Inner hinge	2
17	QP19-0553-10	Access door cover	1
18	19-0288Z	Access door structural member	2

Item	Number	Name	Quantity
19	19-0654	Access door perforated cover	1
20	VV83A9A24HL	Truss head tapping screw	8
21	QP19-0638-10	Access door cover	1
22	19-0655	Access door perforated cover	1

Access door, right

OL190017W Rev AB (Reference only)

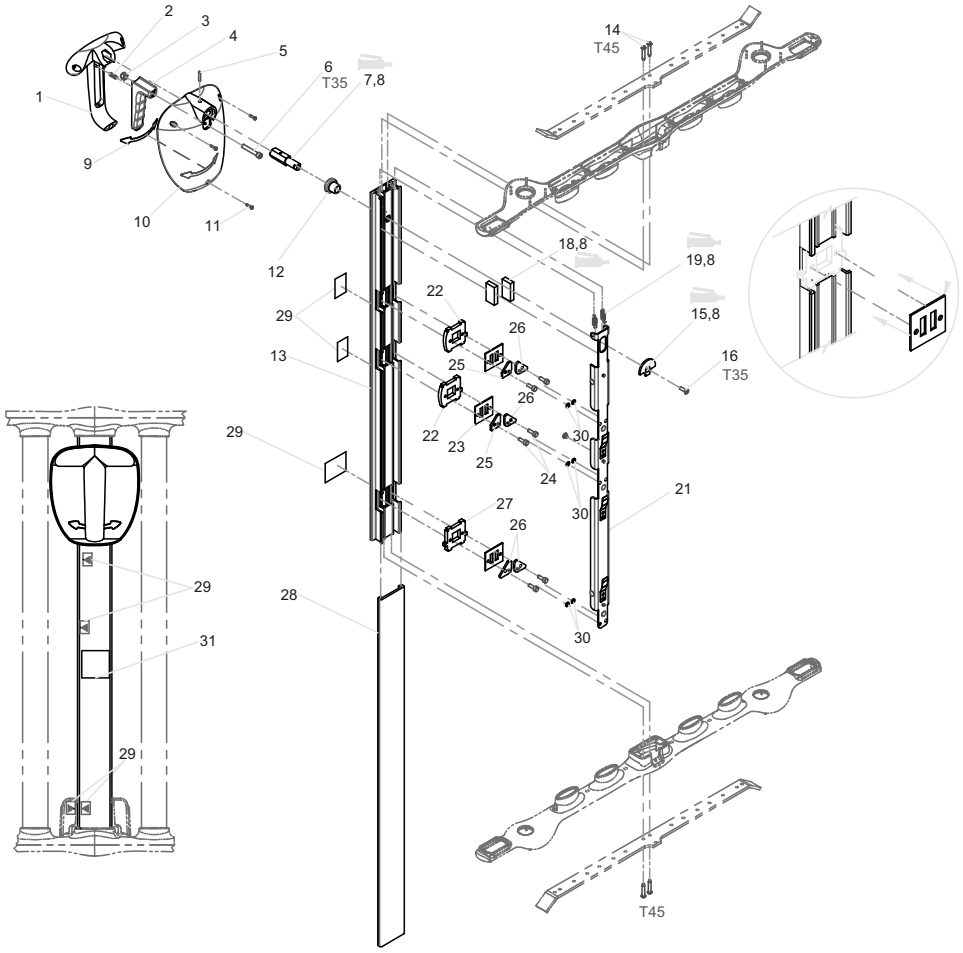


Item	Number	Name	Quantity
1	19-0402Z	Outer hinge	2
2	QP19-0637-10	Access door cover	1
3	19-0622	Hinge sleeve	2
4	M0019	Petro Canada OG2 grease	0.08 kg
5	VV10A1G24-S	Hex socket head cap screw	4
6	19-0403Z	Inner hinge	2
7	19-0288Z	Access door structural member	2
8	19-0656	Access door perforated cover	1
9	VV83A9A24HL	Truss head tapping screw	8
10	VVZ7A1E32	Pan head tapping screw	22
11	19-0487Z	Access door spacer	2
12	QP19-0554-10	Access door cover	1
13	19-0653	Access door perforated cover	1
16	QE71-0498	Label, release knob, orange	2
17	19-0283W	Access door post	4

Item	Number	Name	Quantity
18	19-0335Z	Locking mechanism bar	2
19	QRC19-0336	Compression spring	1
20	19-0282W	Locking mechanism post	1
21	QP19-0546	Release knob, inner	2
22	QP19-0545	Release knob, outer	2
23	QE71-0456	Label, latch release knob, green	2

Central column without 9 in. double safety lock

OL190141-XXX Rev M (Reference only)

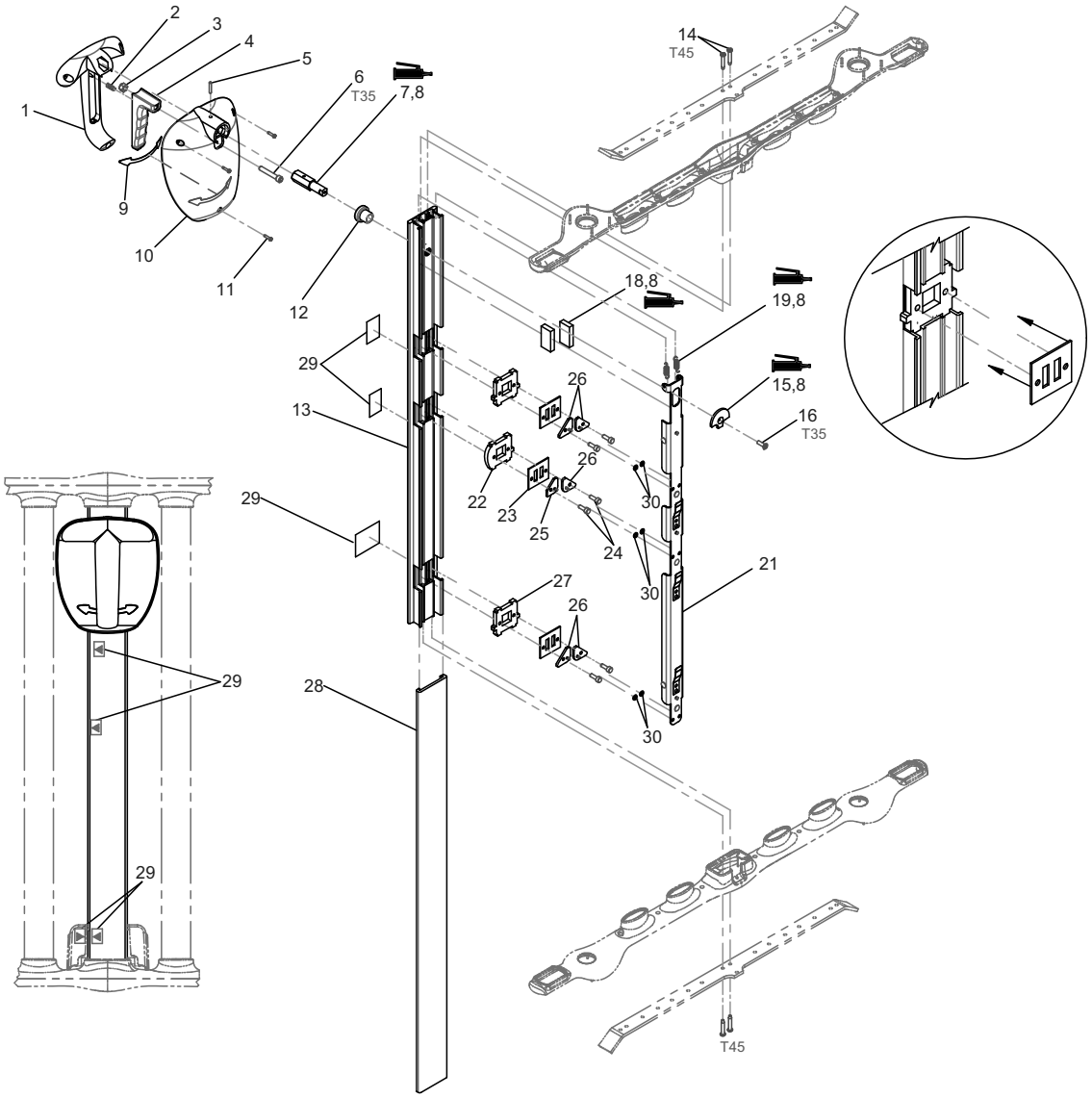


Item	Number	Name	Quantity
1	QP19-0529-09	Handle	1
2	QRC9793	Compression spring	1
3	VE30A1N	Nylon hex locknut	1
4	QP19-0054	Trigger	1
5	VV60A1G20	Set screw	1
6	VV10A1N40	Hex socket head cap screw	1
7	19-0806Z	Handle shaft	1
8	M0019	Petro Canada OG2 grease	.100 kg
9	QE71-0502	Label, handle left/right	1
10	QP19-0530-10	Handle guard	1
11	VV23A9A16	Pan head tapping screw	3
12	QPN-13-0159	Nylon bushing	1
13	19-0515P	Central locking column	1
14	VVZ7A1E32	Pan head tapping screw	4
15	19-0807Z	Handle cam	1
16	VV31K0G20	Machine screw	1
18	19-0491Z	Push bar	2

Item	Number	Name	Quantity
19	QRE19-0500	Spring, outer	2
21	19-0929	Bolt activation plate	1
22	19-0793Z	Truncated fixed stopper	2
23	19-0494	Nylon spacer	3
24	19-0814Z	Locking pivot	6
25	19-0517	Truncated latch release	2
26	19-0499	Latch release	4
27	19-0792Z	Fixed stopper	1
28	QP19-0519	Column cover	1
29	QE71-0503	Label, siderail 26 in. position	4
30	VW10A05	Washer	6
31	QE71-0624-XXX	Label, without 9 in. double safety lock	1

Central column with 9 in. double safety lock

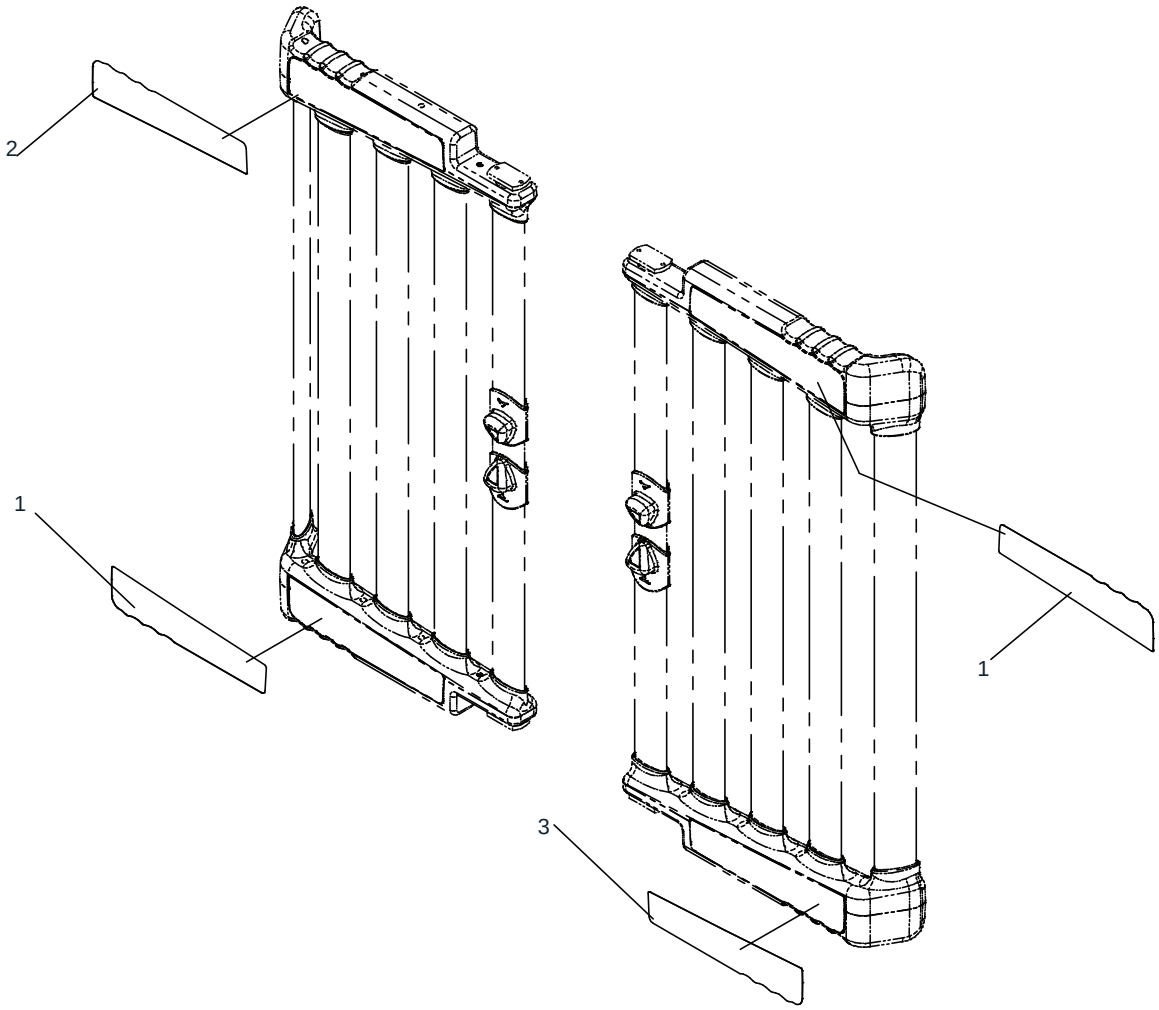
OL190026 Rev U (Reference only)



Item	Number	Name	Quantity
1	QP19-0529-09	Handle	1
2	QRC9793	Compression spring	1
3	VE30A1N	Nylon hex locknut	1
4	QP19-0054	Trigger	1
5	VV60A1G20	Set screw	1
6	VV10A1N40	Hex socket head cap screw	1
7	19-0806Z	Handle shaft	1
8	M0019	Petro Canada OG2 grease	0.10 kg
9	QE71-0502	Label, handle left/right	1
10	QP19-0530-10	Handle guard	1
11	VV23A9A16	Pan head tapping screw	3
12	QPN-13-0159	Nylon bushing	1

Item	Number	Name	Quantity
13	19-0515W	Central locking column	1
14	VVZ7A1E32	Pan head tapping screw	4
15	19-0807Z	Handle cam	1
16	VV31K0G20	Machine screw	1
18	19-0491Z	Push bar	2
19	QRE19-0500	Spring, outer	2
21	19-0929	Bolt activation plate	1
22	19-0793Z	Truncated fixed stopper	1
23	19-0494	Nylon spacer	3
24	19-0814Z	Locking pivot	6
25	19-0517	Truncated latch release	1
26	19-0499	Latch release	5
27	19-0792Z	Fixed stopper	2
28	QP19-0519	Column cover	1
29	QE71-0503	Label, siderail 26 in. position	4
30	VW10A05	Washer	6

Access door label color options, U.S. only

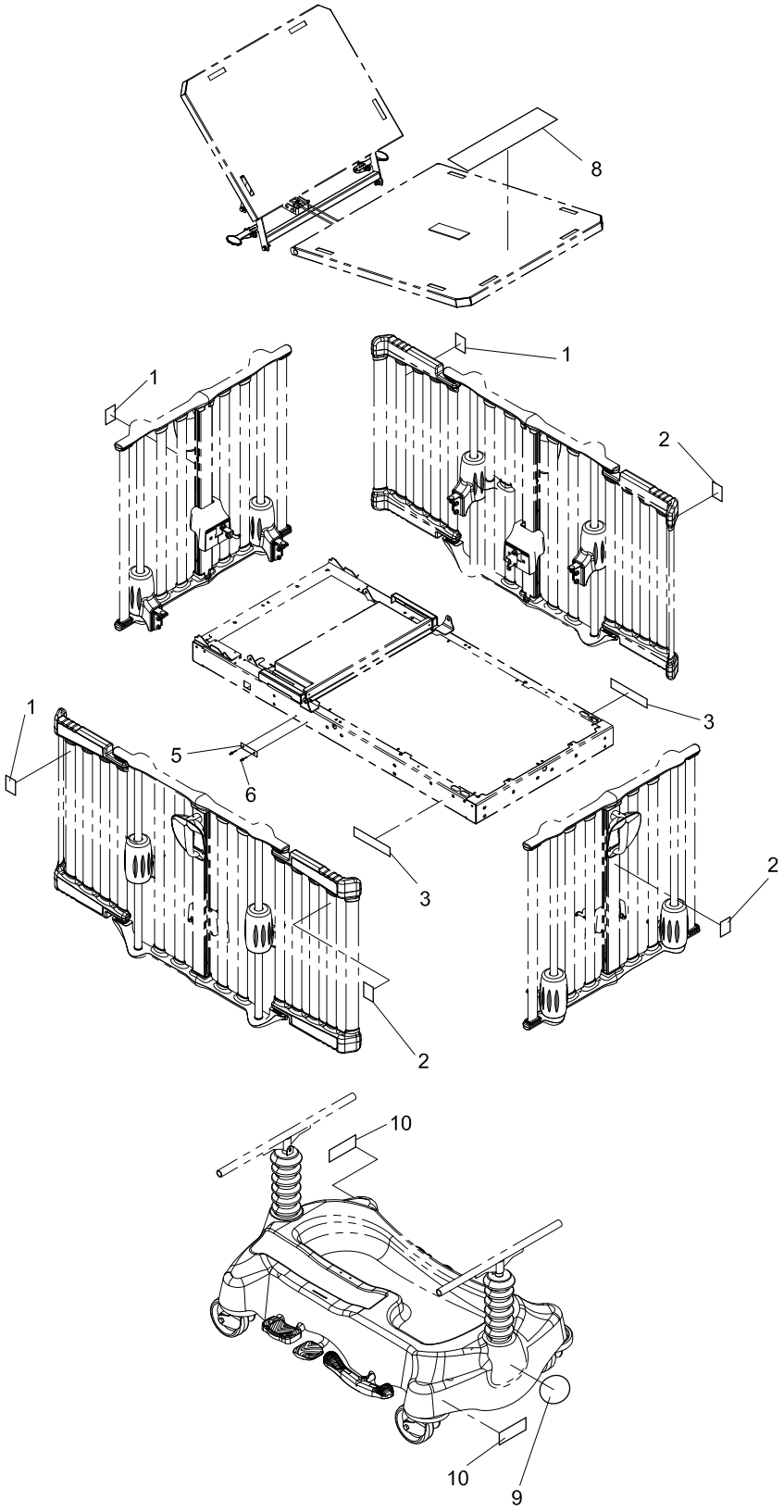


Color option	Item	Number	Name	Quantity
OL190250 (Reference)	1	QE71-0501-3	Label, right, red	4
	2	QE71-0500-3	Label, left, red	2
	3	QE71-1394	Label, access door warning	2
OL190251 (Reference)	1	QE71-0501-4	Label, right, violet	4
	2	QE71-0500-4	Label, left, violet	2
	3	QE71-1394	Label, access door warning	2
OL190252 (Reference)	1	QE71-0501-1	Label, right, blue	4
	2	QE71-0500-1	Label, left, blue	2
	3	QE71-1394	Label, access door warning	2
OL190253 (Reference)	1	QE71-0501-5	Label, right, green	4
	2	QE71-0500-5	Label, left, green	2
	3	QE71-1394	Label, access door warning	2
OL190254 (Reference)	1	QE71-0501-6	Label, right, burgundy	4
	2	QE71-0500-6	Label, left, burgundy	2
	3	QE71-1394	Label, access door warning	2
OL190255 (Reference)	1	QE71-0501-2	Label, right, grey	4
	2	QE71-0500-2	Label, left, grey	2

Color option	Item	Number	Name	Quantity
	3	QE71-1394	Label, access door warning	2

Stretcher labeling

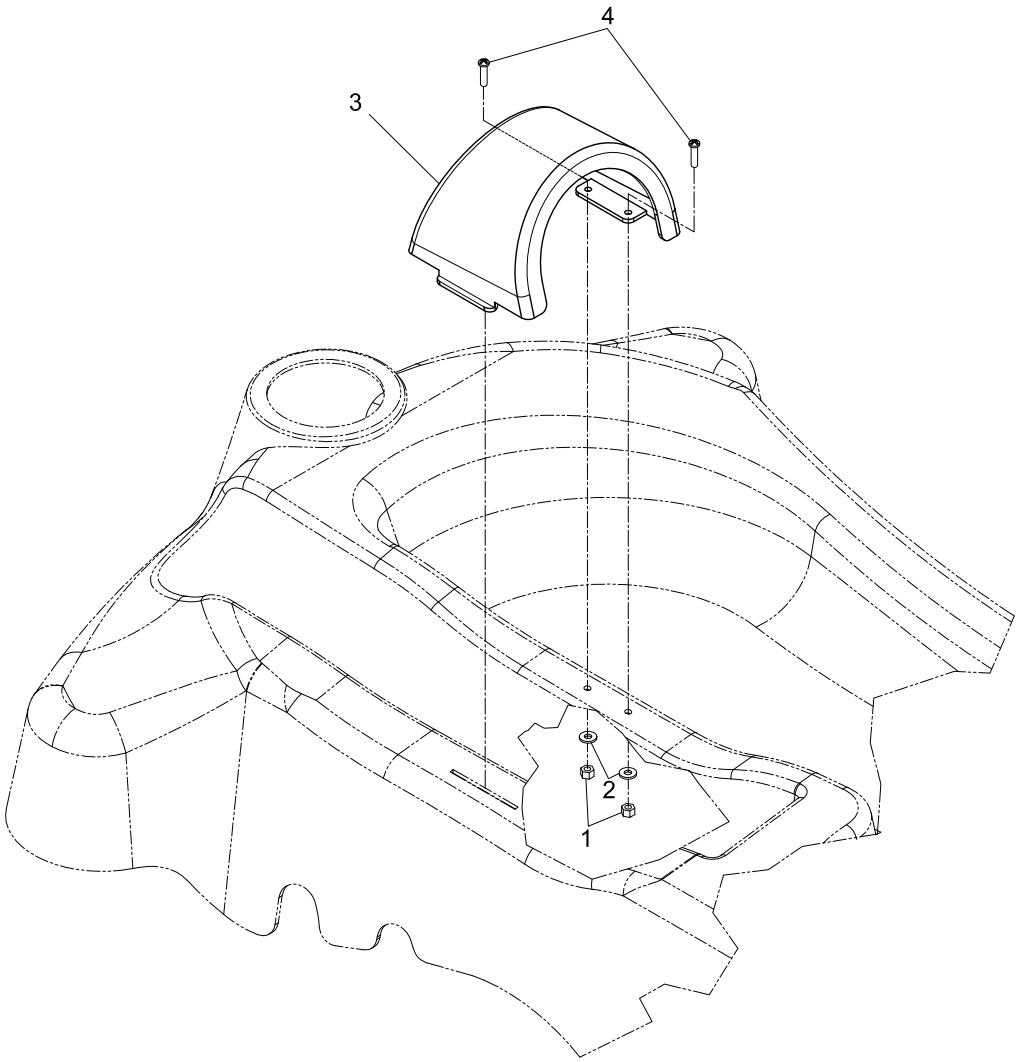
OL190234-XXX Rev D (Reference only)



Item	Number	Name	Quantity
1	QE71-0449	Label, head end	3
2	QE71-0450	Label, foot end	3
3	QE71-0521-XXX	Label, warning	2
5	QE71-0480	Serial number plate	1
6	VR11H43	Pop rivet	2
8	QE71-0446-XXX	Label, warning message	1
9	QE71-0462	Label, product name	1
10	QE71-0346	Label, Stryker	2

Oxygen bottle retaining collar - OL190045

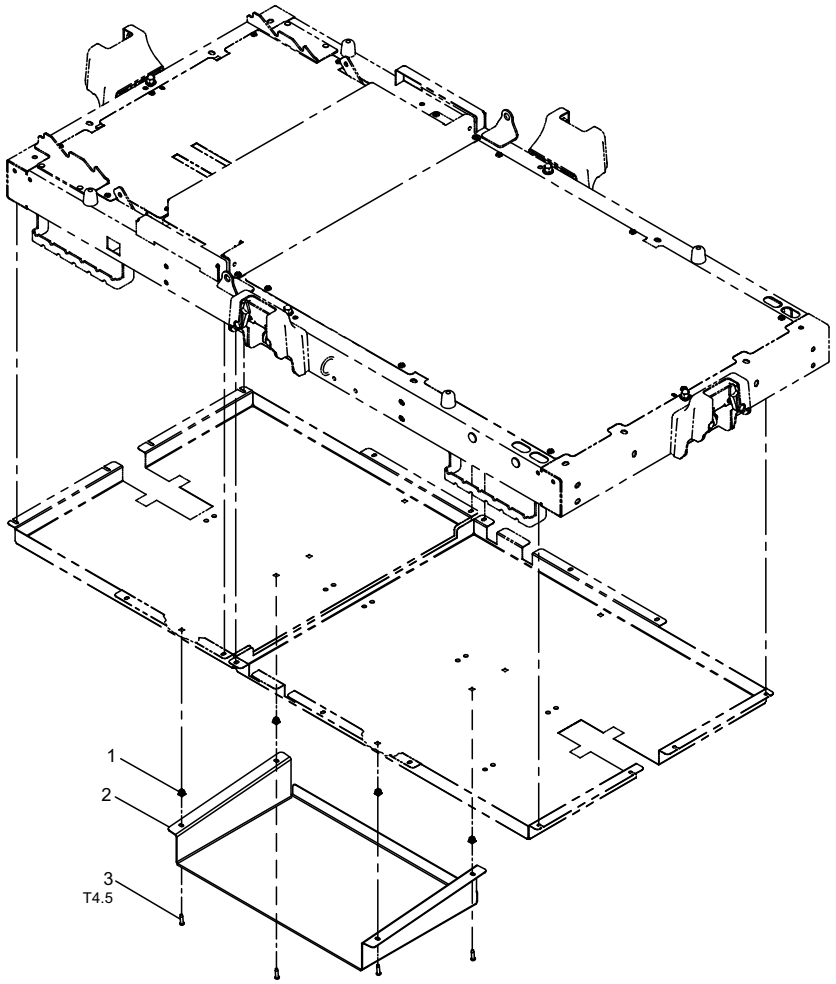
Rev - (Reference only)



Item	Number	Name	Quantity
1	VE30A0G	Nylon hex locknut	2
2	VW10A06	Washer	2
3	QP19-0797-05	Retaining collar	1
4	VV33A0G24	Pan head machine screw	2

Chart holder 2 in. - OL190098, right/OL190099, left

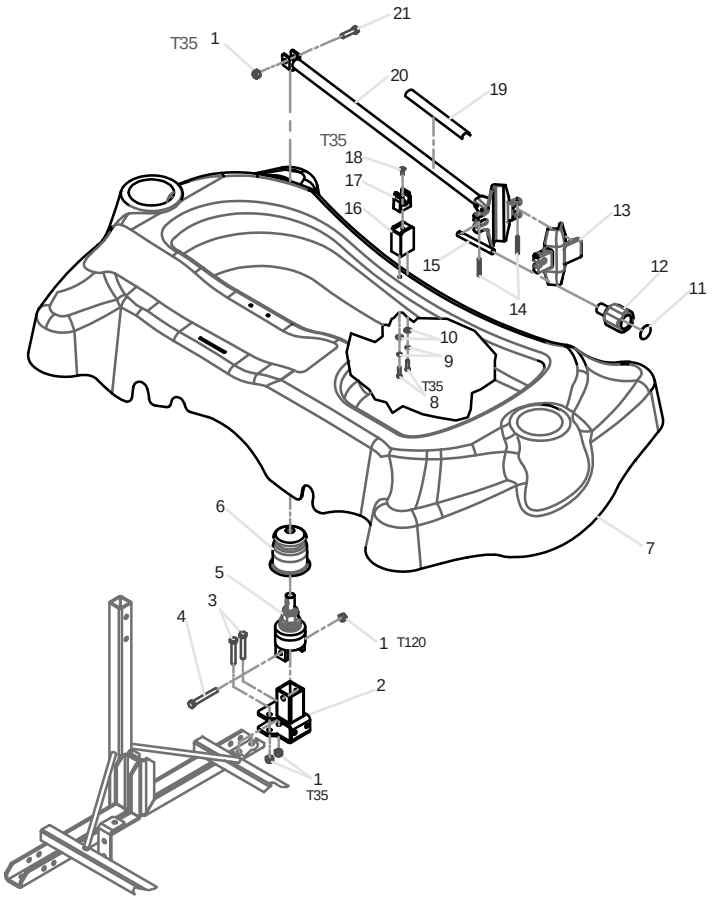
Rev C/Rev C (Reference only)



Item	Number	Name	Quantity
1	VE9C	Plastic expansive nut	4
2	19-0648P	2” chart holder	1
3	VV83A9G24	Pan head tapping screw	4

IV caddy, fixed height base - OL190047-XXX

Rev J (Reference only)

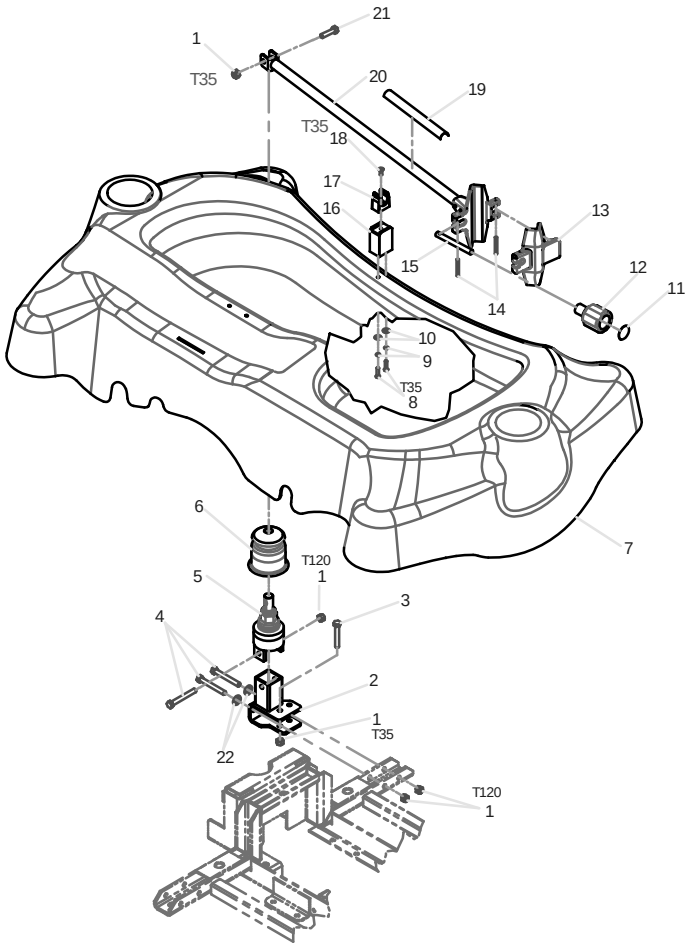


Item	Number	Name	Quantity
1	VE30A1O	Nylon hex locknut	4
2	19-0989P	Mounting adaptor	1
3	VB15A1O48	Hex bolt	2
4	VB15A1O52	Hex bolt	1
5	QDF5065	Clutch assembly	1
6	QDF5076	Rubber boot	1
7	19-0532	Base hood adapted for IV pole caddy	1
8	VV33A0G24	Pan head machine screw	2
9	VW20A06	Spring washer	2
10	VW10A06	Flat washer	2
11	QE71-0510	Label, IV caddy direction	1
12	QDF5066	Grip assembly	1
13	QDF5069	Half clamp	1
14	VG10B0640	Spring pin	2
15	QDF5082	Threaded rod	1
16	QDF5084	Storage clip support	1
17	QDF5083	Storage clip	1
18	VV10A0G16	Hex socket head cap screw	1
19	QE71-0504-XXX	Label, IV caddy	1

Item	Number	Name	Quantity
20	19-0641	Connecting arm assembly	1
21	VB15A1O40	Hex bolt	1

IV caddy, hydraulic base - OL190046-XXX

Rev J (Reference only)

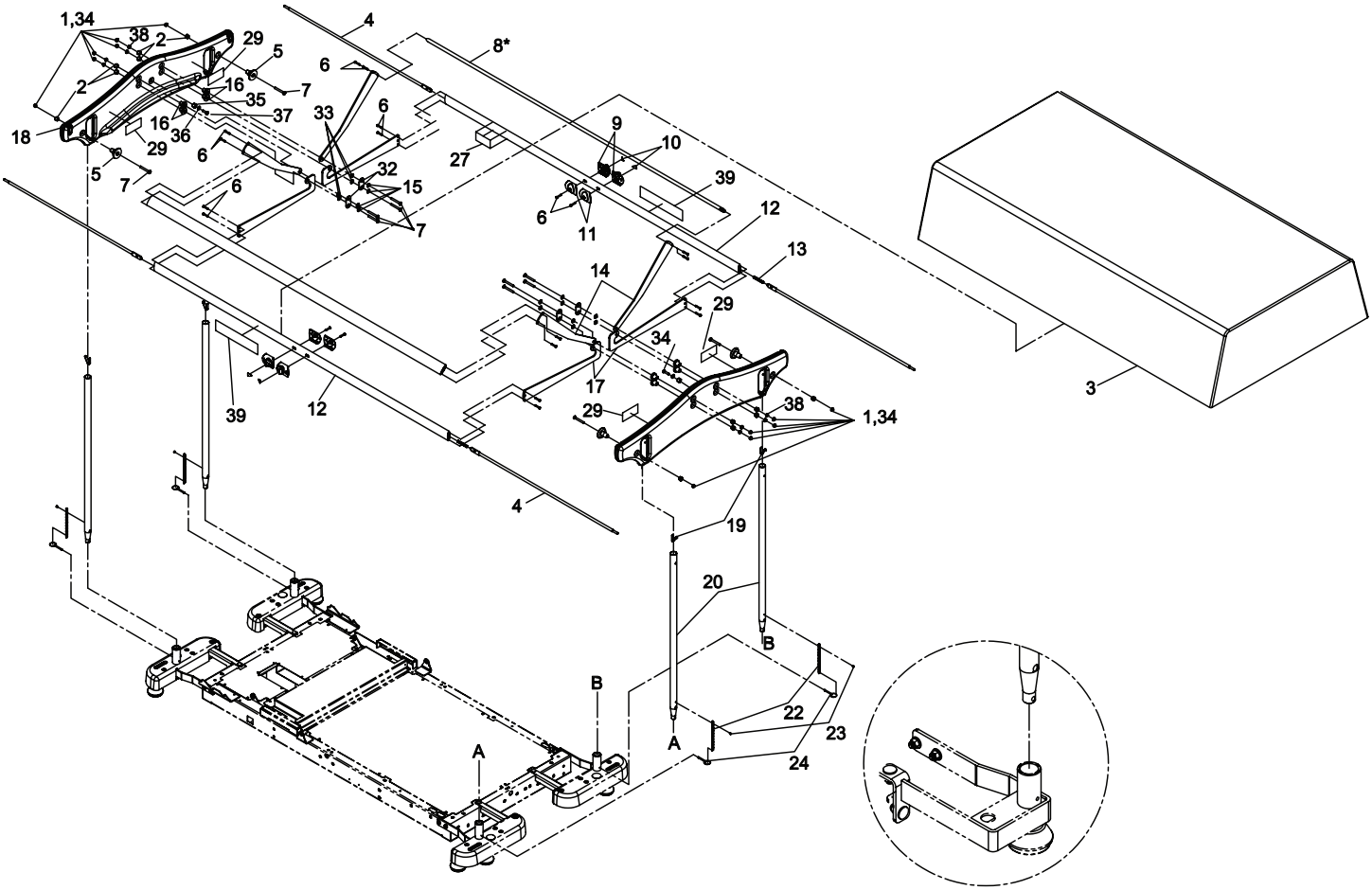


Item	Number	Name	Quantity
1	VE30A1O	Nylon hex locknut	5
2	19-0989P	IV caddy mounting adaptor - hydraulic base	1
3	VB15A1O48	Hex bolt	1
4	VB15A1O52	Hex bolt	3
5	QDF5065	Clutch assembly	1
6	QDF5076	Rubber boot	1
7	19-0532	Base hood adapted for IV pole caddy	1
8	VV33A0G24	Pan head machine screw	2
9	VW20A06	Spring washer	2
10	VW10A06	Flat washer	2
11	QE71-0510	Label, IV caddy direction	1
12	QDF5066	Grip assembly	1
13	QDF5069	Half clamp	1
14	VG10B0640	Spring pin	2
15	QDF5082	Threaded rod	1
16	QDF5084	Storage clip support	1
17	QDF5083	Storage clip	1

Item	Number	Name	Quantity
18	VV10A0G16	Hex socket head cap screw	1
19	QE71-0504-XXX	Label, IV caddy	1
20	19-0641	Connecting arm assembly	1
21	VB15A1O40	Hex bolt	1
22	VW10A10	Flat washer	2

Retracting protective top - FA64074-XXX

L64-0041-XXX Rev N (Reference only)

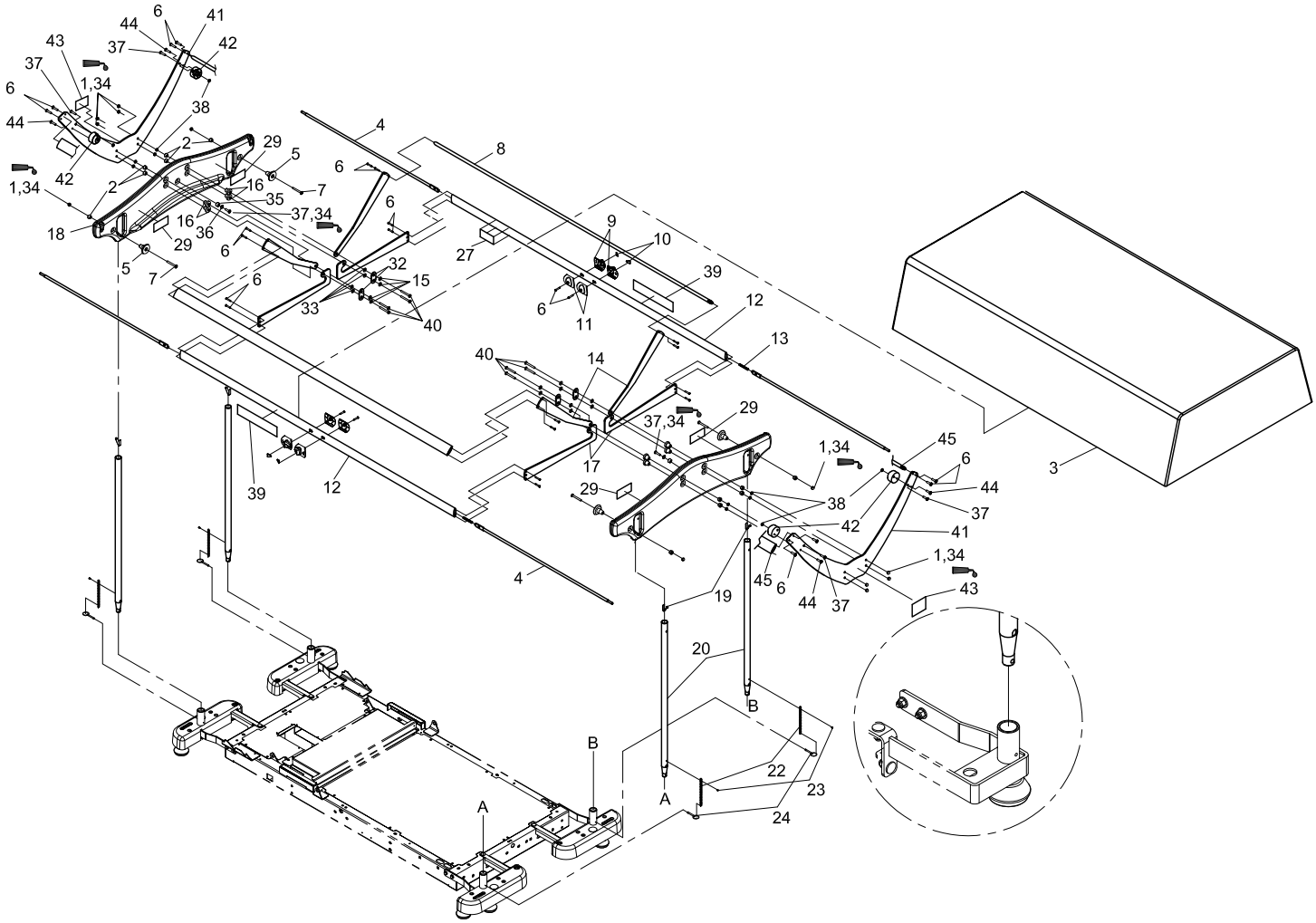


Item	Number	Name	Quantity
1	VE40A1N	Cap nut	12
2	19-0723	Outer support	12
3	QDF19-0725	Protective top membrane	1
4	19-0748Z	Protective top bolt	4
5	19-0820	Protective top guide	4
6	VVZ7A1E32	Pan head tapping screw	20
7	VV33A1N50	Pan head machine screw	12
8	19-0677W	Protective top upper rail	2
9	QP19-0545	Release knob, outer	4
10	QE71-0498	Label, release knob, orange	4
11	QP19-0546	Release knob, inner	4
12	19-0676W	Protective top lower rail	2
13	QRC19-0839	Protective top spring	2
14	19-0680W	Upper hinge arm	4
15	VW30A0816	Spring washer	8
16	19-0724	Inner support	8
17	19-0679W	Lower hinge arm	4
18	QP19-0719	Mounting structure	2

Item	Number	Name	Quantity
19	QDF5092	Snap button	4
20	19-0684W	Protective top post, left	4
22	19-0527	Ground chain	4
23	VR11H42	Pop rivet	4
24	VG50A0632	Hitch pin	4
27	71-1339	Label, manufacturer	1
29	QE71-0533	Label, protective top	4
32	19-0795Z	Friction plate	4
33	QDF9540	Brake washer	8
34	M0008	Medium strength thread locker	0.16 mL
35	VEX3A1N	Hex nut insert	2
36	VW10C081802	Nylon washer	2
37	VV33A1N24	Pan head machine screw	2
38	VE30A1N	Nylon hex locknut	8
39	QE71-0560-XXX	Label, warning	2

Protective top with support - FA64183-XXX

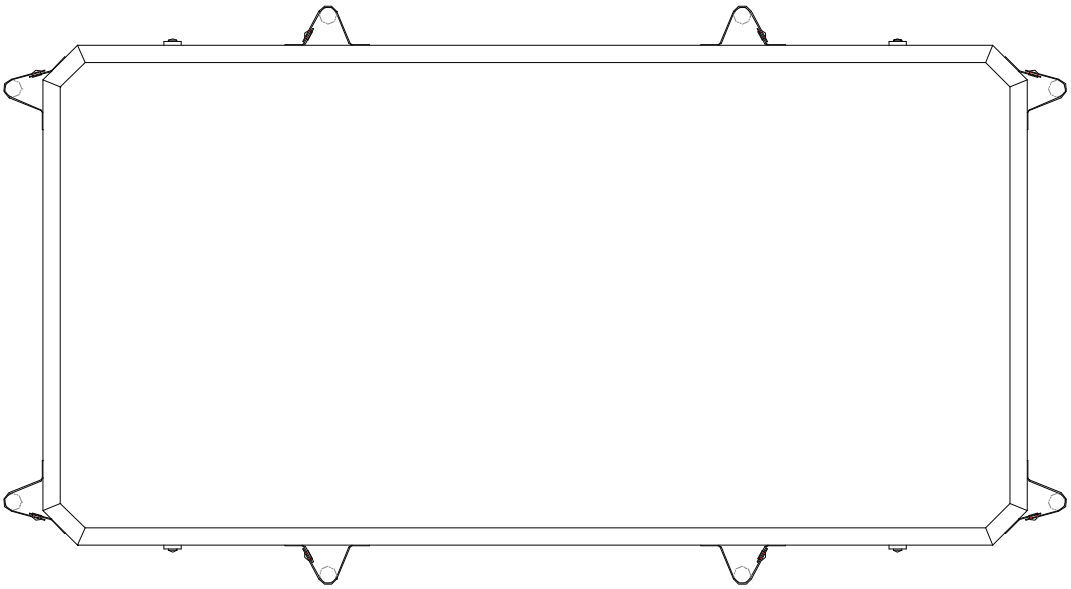
L64-109-XXX Rev G (Reference only)



Item	Number	Name	Quantity
1	VE40A1N	Cap nut	12
2	19-0723	Outer support	12
3	QDF19-0725	Protective top membrane	1
4	90-1478Z	Protective top bolt	4
5	19-0820	Protective top guide	4
6	VVZ7A1E32	Pan head tapping screw	28
7	VV33A1N50	Pan head machine screw	4
8	19-0677W	Protective top upper rail	2
9	QP19-0545	Release knob, outer	4
10	QE71-0498	Label, release knob, orange	4
11	QP19-0546	Release knob, inner	4
12	19-0676W	Protective top lower rail	2
13	QRC19-0839	Protective top spring	2
14	19-0680W	Upper hinge arm	4
15	VW30A0816	Spring washer	8
16	19-0724	Inner support	8

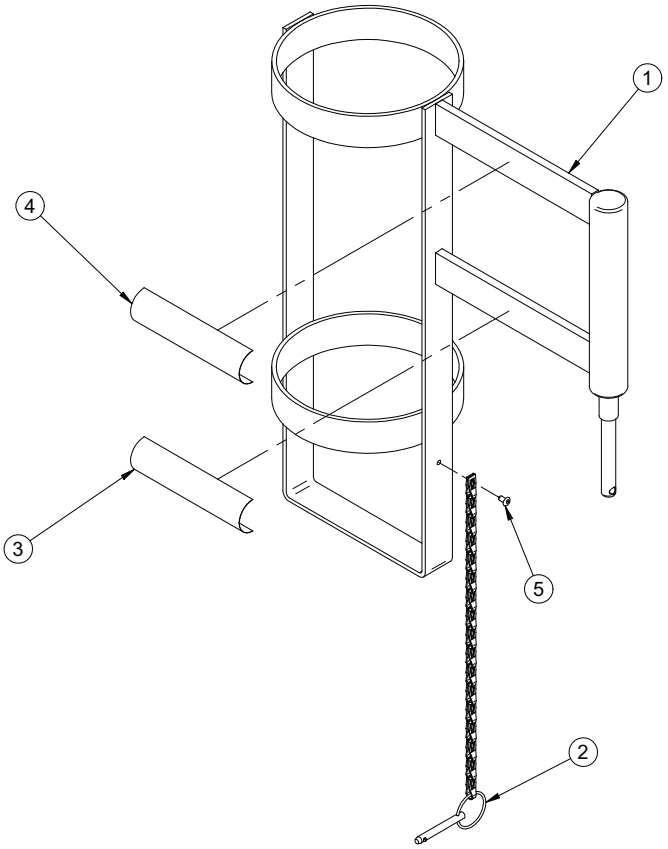
Item	Number	Name	Quantity
17	90-1494W	Lower hinge arm	4
18	QP19-0986-05	Mounting structure	2
19	QDF5092	Snap button	4
20	19-0684W	Protective top post, left	4
22	19-0527	Ground chain	4
23	VR11H42	Pop rivet	4
24	VG50A0632	Hitch pin	4
27	71-1339	Label, manufacturer	1
29	QE71-0533	Label, protective top	4
32	19-0795Z	Friction plate	4
33	QDF9540	Brake washer	8
34	M0008	Medium strength thread locker	0.32 mL
35	VEX3A1N	Hex nut insert	2
36	VW10C081802	Nylon washer	2
37	VV33A1N24	Pan head machine screw	6
38	VE30A1N	Nylon hex locknut	12
39	QE71-0560-XXX	Label, warning	2
40	VV33A1N52	Pan head machine screw	8
41	90-1440W	Protective top support	2
42	90-1441C	Locking bushing	4
43	QE-71-0780-XXX	Label, move CUB	2
44	VV83A9G16	Pan head tapping screw	4

Siderail pad, full perimeter - DM64085



Upright oxygen bottle holder - FA64086

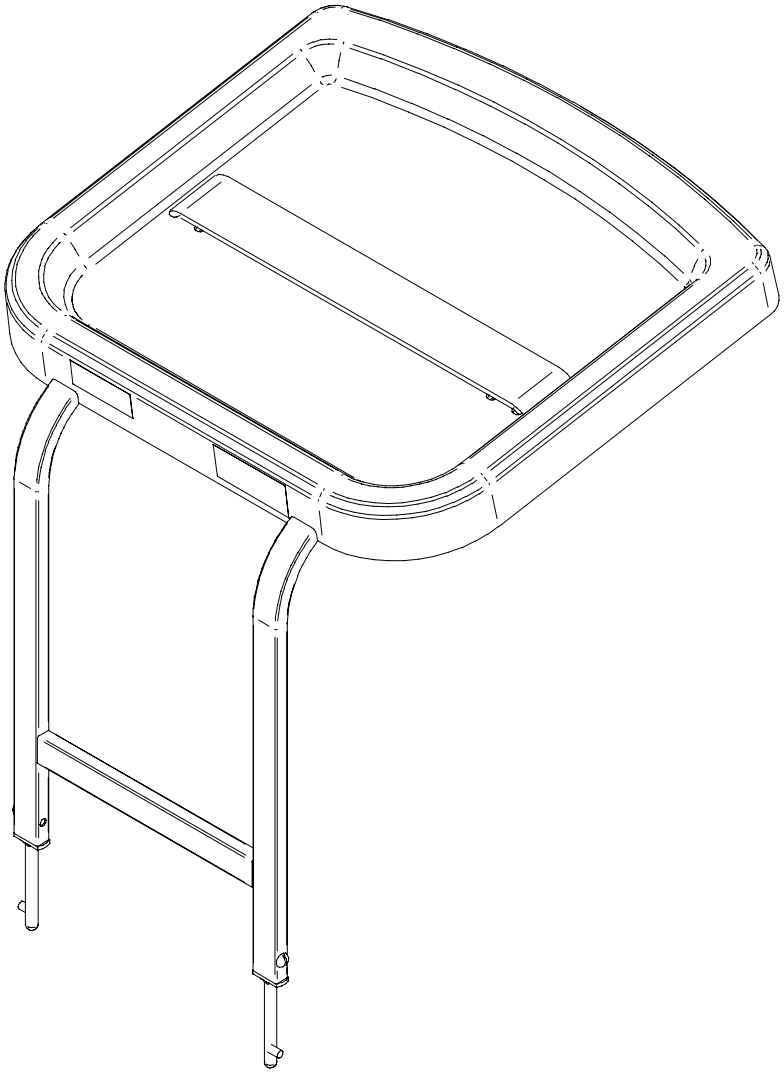
L64-0051 Rev 03 (Reference only)



Item	Number	Name	Quantity
1	QDF64-1007	Oxygen bottle support	1
2	64-0647	Security chain	1
3	QE14399-T	Label, manufacturer	1
4	QE71-0601	Label, maximum load	1
5	VR11H42	Pop rivet	1

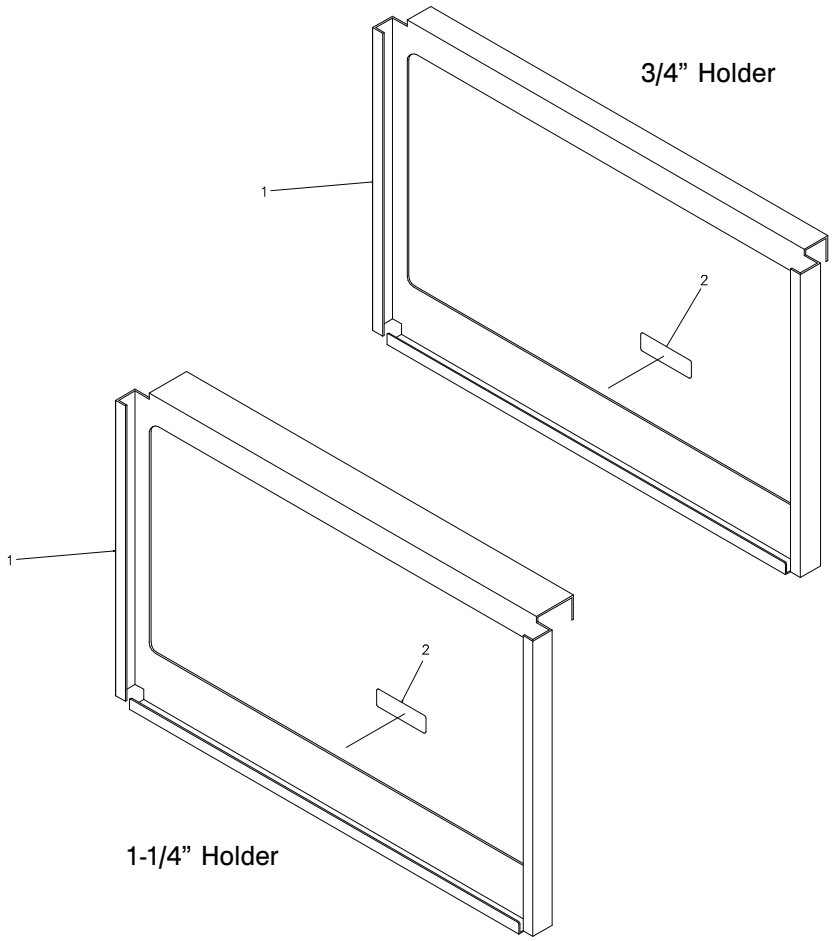
Defibrillator tray - FA64102

L64-0056 Rev E (Reference only)



Item	Number	Name	Quantity
1	0785-045-200	Defibrillator tray	1
2	QE14399-T	Label, manufacturing	1

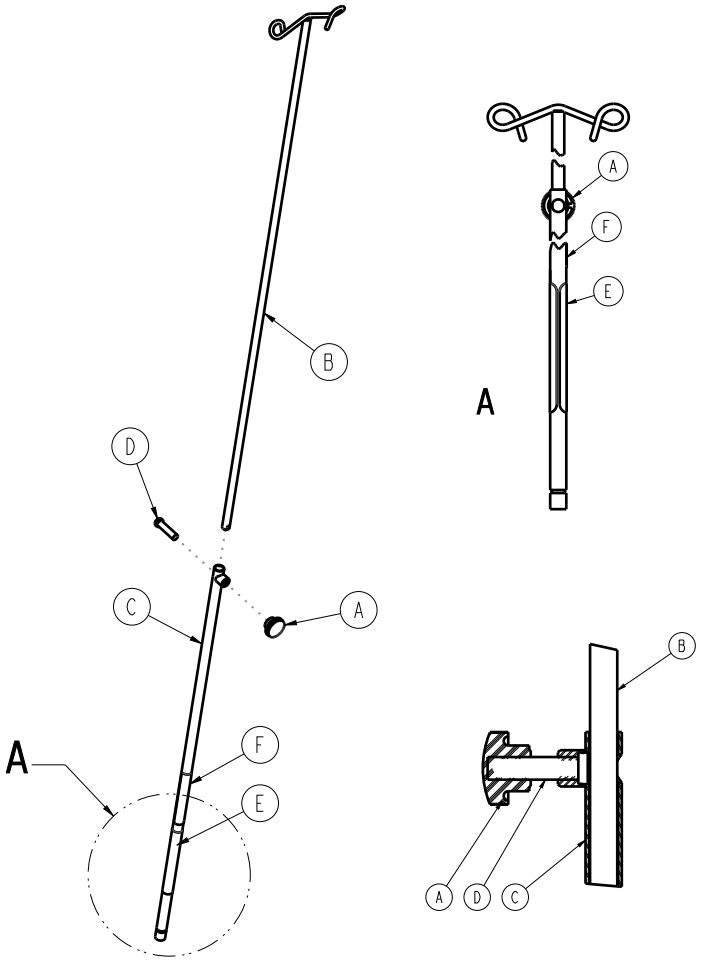
X-ray cassette holders - FA64069, 3/4 in./FA64076, 1-1/4 in.



Item	Number	Name	Quantity
1	64-0537W	3/4 in. X-ray cassette holder	1
	64-0544W	1 1/4 in. X-ray cassette holder	1
2	QE-14399-T	Label, manufacturing	1

Havasu IV pole, removable, 1/2 in. - FA64135

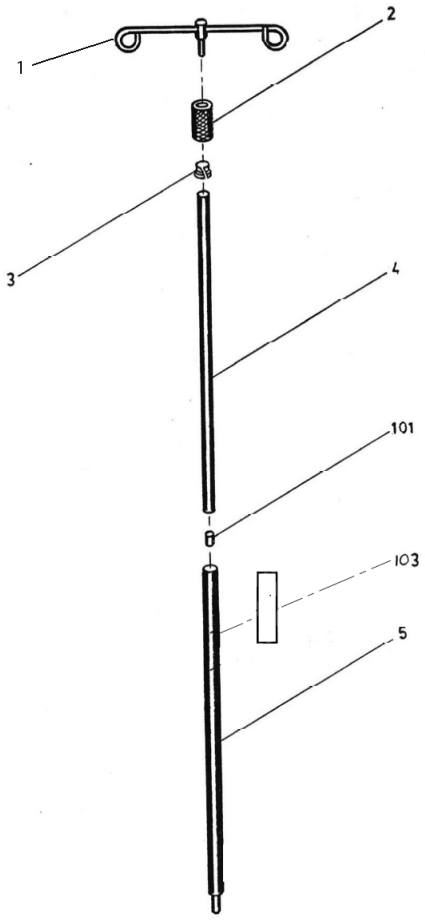
0390-025-000 Rev AA (Reference only)



Item	Number	Name	Quantity
A	0390-003-056	Knob	1
B	0390-003-053	Double IV assembly	1
C	0393-003-043	Tube assembly	1
D	0004-496-000	Socket head cap screw	1
E	0390-125-011	Label, IV pole, removable	1
F	108900350901	Label, EAR	1

Havasu IV pole, removable, 1/2 in. - FDTSH

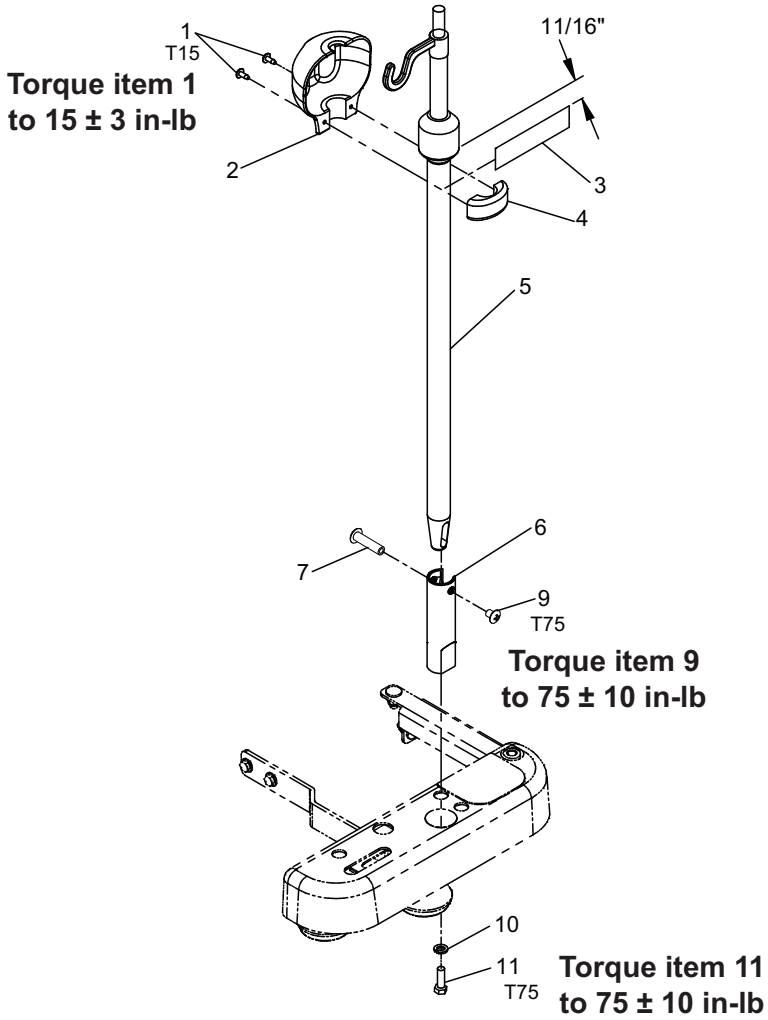
LC-7300 Rev AA (Reference only)



Item	Number	Name	Quantity
1	L-2113	Crochet/hook	1
2	2111A	Tightening sleeve	1
3	2109	Compression socket	1
4	2107A	Top tube, anodized	1
5	2105A	Bottom tube, anodized	1
101	QPCE1206	Rubber cap	1
103	QE71-1398	Label, specification	1

Havasu IV pole, two-stage, fixed - FA64083

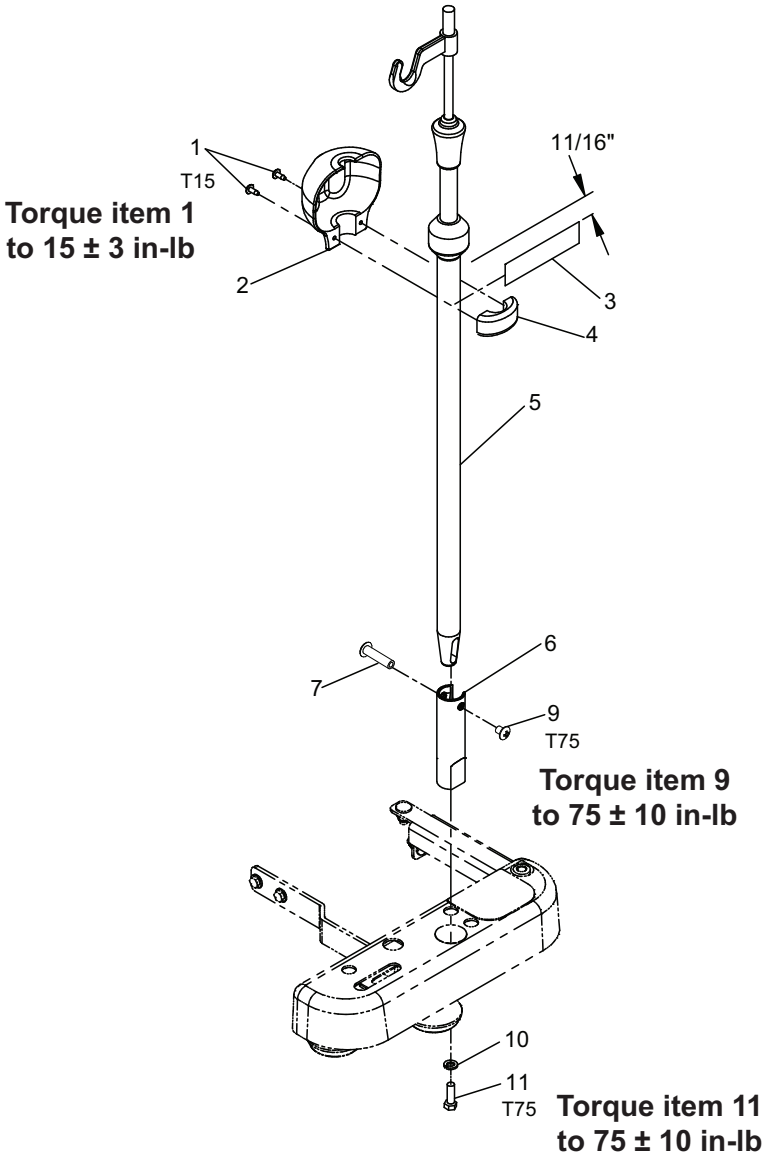
OL190093-XXX (head left) Rev AA/OL190094-XXX (foot right) Rev AA (Reference only)



Item	Number	Name	Quantity
1	VV83A9E12	Pan head tapping screw	2
2	QP19-0740-05	IV pole guard	1
3	QDF7826	3M™ adhesive tape	0.300 ft
4	QDB19-0741	IV pole guard support	1
5	QDF64-0613	Two-stage IV pole	1
6	19-0211C	Adaptor	1
7	VE42A9036	Barrel nut	1
9	VV33A1N10-S	Pan head Phillips machine screw	1
10	VW20A08	Lock washer	1
11	VB15A1N24	Hex bolt	1

Havasu IV pole, three-stage, fixed - FA64084

OL190095-XXX (head left) Rev AA/OL190096-XXX (foot right) Rev AA (Reference only)

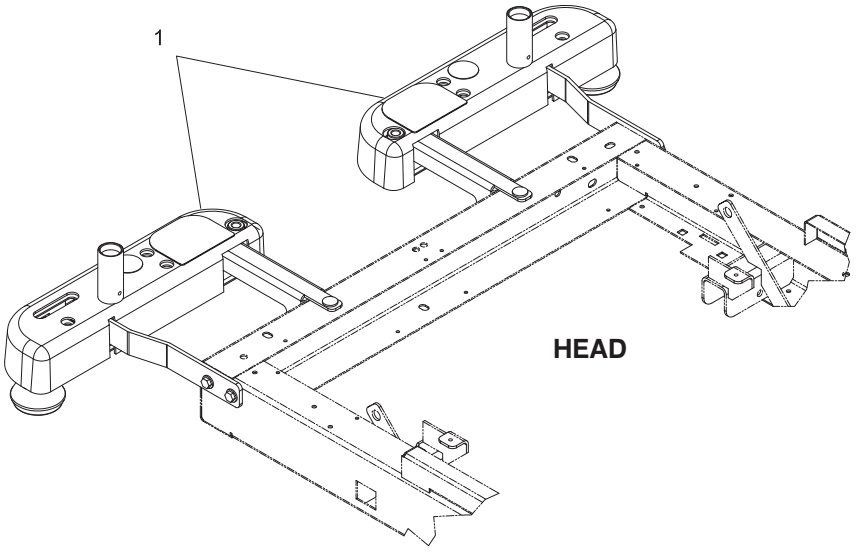


Item	Number	Name	Quantity
1	VV83A9E12	Pan head tapping screw	2
2	QP19-0740-05	IV pole guard	1
3	QDF7826	3M™ adhesive tape	0.300 ft
4	QDB19-0741	IV pole guard support	1
5	QDF64-0614	Three-stage IV pole	1
6	19-0211C	Adaptor	1
7	VE42A9036	Barrel nut	1
9	VV33A1N10-S	Pan head Phillips machine screw	1
10	VW20A08	Lock washer	1
11	VB15A1N24	Hex bolt	1

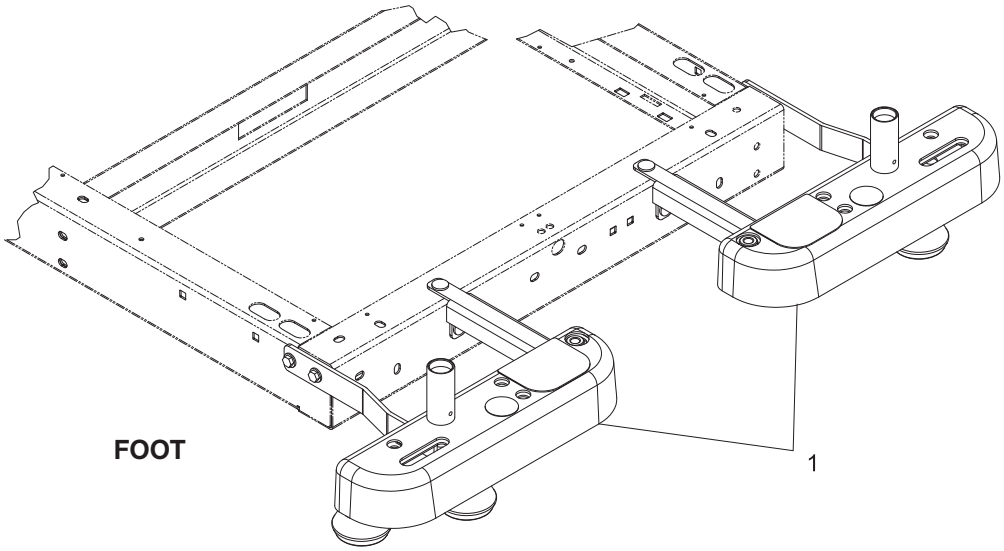
Premium accessory brackets, head end, foot end - FA64107

OL190084-XXX (head) Rev 02/OL190085-XXX (foot) Rev 02 (Reference only)

Head End Only - FA64105 (OL190084-XXX)



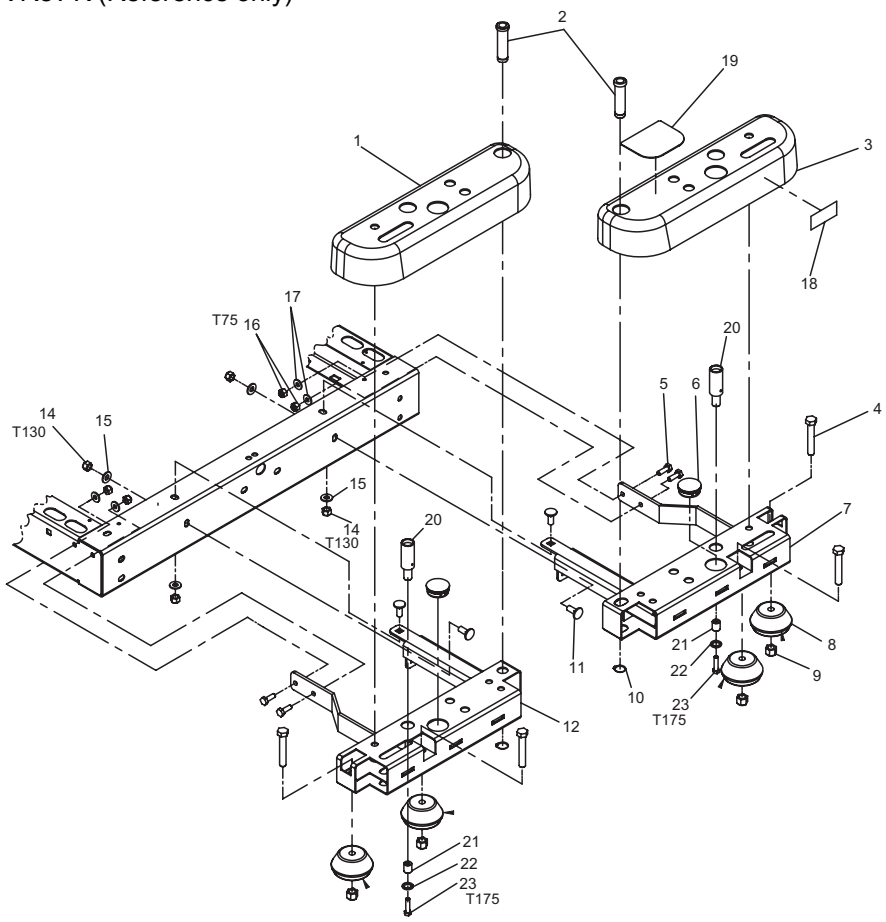
Foot End Only - FA64106 (OL190085)



Item	Number	Name	Quantity
1	OL190040-XXX	Premium accessory bracket	1

Premium accessory brackets

OL190040-XXX Rev K (Reference only)



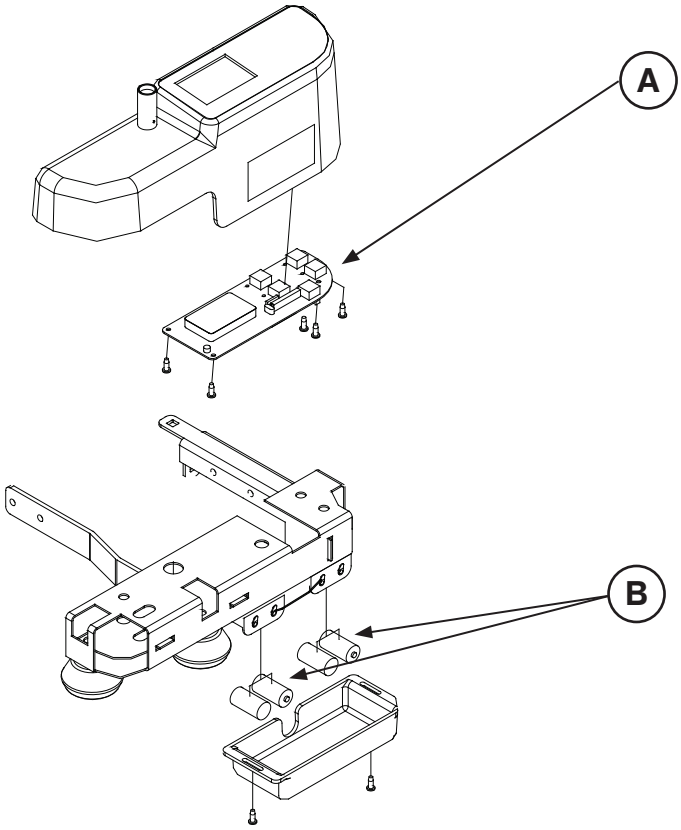
Item	Number	Name	Quantity
1	QP19-0357	Accessory bracket cover, left	1
2	QDF5057	Accessory support socket	2
3	QP19-0358	Accessory bracket cover, right	1
4	VB15A1P50	Hex bolt	4
5	VB15A1N24	Hex bolt	4
6	QDFP1514	Domed cap	2
7	19-0392P	Accessory bracket, left	1
8	QDF5072	Corner bumper	4
9	VE30A1P	Nylon hex locknut	4
10	QDF7893	Outer snap ring	2
11	VB35A1O24	Carriage bolt	4
12	19-0391P	Accessory support, right	1
14	VE30A1O	Nylon hex locknut	4
15	VW10A10	Flat washer	4
16	VE30A1N	Nylon hex locknut	4
17	VW10A08	Flat washer	4
18	QE71-0346	Label, Stryker	1
19	QE71-0534-XXX	Label, oxygen bottle and IV pole	1
20	19-0777C	Fixed socket	2

Item	Number	Name	Quantity
21	19-0778Z	Fixed socket spacer	2
22	VW20A12	Lock washer	2
23	VB15A1P40	Hex bolt	2

Recycling passport

OL190186W

Rev -



Item	Recyclable part number	Material code	Important information	Quantity
A	QDF19-0888	Scale PC board		1
B	QDF7909	C battery		4

Stryker Medical
3800 E. Centre Avenue
Portage, MI 49002
USA

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WCR: AC.4