



***ski-doo***<sup>®</sup>  
Snowmobiles

LONG TRACK KIT (MACH 1)  
(P/N 861 7540 00)

**◆ WARNING**

For safety reasons, this kit must be installed by an authorized Bombardier Ski-Doo snowmobile dealer. Should removal of a locking device be required when undergoing disassembly/assembly, always replace with a new one. This instruction sheet should be given to the purchaser after modification. This kit is designed for specific applicable models only. It is not recommended for snowmobiles other than those for which it was sold.

NOTE: Installation time is approximately 3.0 hours.

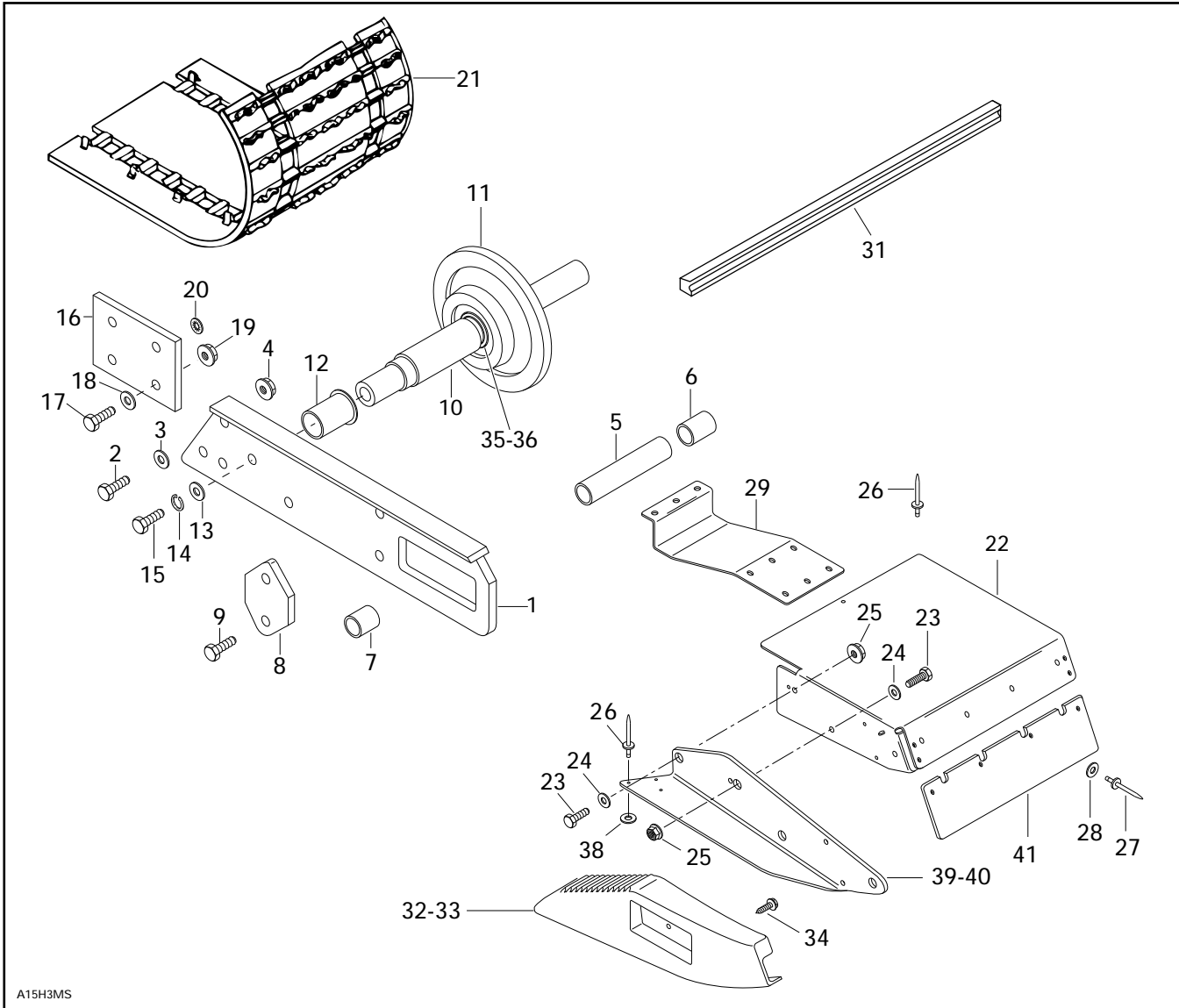
**▼ CAUTION**

This kit is designed for deep snow application only. It is not recommended for vehicles other than those for which it was sold.

**◆ WARNING**

Do not carry passengers or cargo in this area.

# PARTS TO BE INSTALLED



A15H3MS

- |                                |                                       |
|--------------------------------|---------------------------------------|
| 1. Rail Extension (2)          | 22. Tunnel Extension                  |
| 2. Bolt M8 x 30 (6)            | 23. Bolt M8 x 20 (4)                  |
| 3. Flat Washer (6)             | 24. Flat Washer M8 (4)                |
| 4. Flanged Elastic Nut M8 (6)  | 25. Flanged Elastic Nut M8 (4)        |
| 5. Long Spacer                 | 26. Rivet (27)                        |
| 6. Short Spacer                | 27. Rivet (4)                         |
| 7. Exterior Spacer (2)         | 28. Flat Washer (4)                   |
| 8. Spacer Plate (2)            | 29. Extension Protector               |
| 9. Bolt M8 (4)                 | 30. Extension Decal (Not Illustrated) |
| 10. Center Axle                | 31. Heat Exchanger Protector (2)      |
| 11. Idler Wheel (2)            | 32. Moulding (Right Side)             |
| 12. Spacer (2)                 | 33. Moulding (Left Side)              |
| 13. Flat Washer M10 (2)        | 34. Self-Tapping Screw (6)            |
| 14. Lock Washer (2)            | 35. Ball Bearing (2)                  |
| 15. Bolt M10 x 45 (2)          | 36. Circlip (2)                       |
| 16. Stopper Extension (2)      | 37. Warning Label (Not Illustrated)   |
| 17. Bolt M5 x 25 (4)           | 38. Flat Washer (6)                   |
| 18. Flat Washer M5 (4)         | 39. Reinforcement Plate (Left Side)   |
| 19. Flanged Elastic Nut M5 (4) | 40. Reinforcement Plate (Right Side)  |
| 20. Push Nut (4)               | 41. Snow Guard Reinforcement          |
| 21. Track (15 x 136 in)        |                                       |

# VEHICLE PREPARATION

## Tunnel and Body

**NOTE:** Refer to your *Ski-Doo Shop Manual* for additional information. The following procedures mostly give instructions to assemble one side of the vehicle at a time. Proceed the same way to assemble the other side.

### ▼ CAUTION

Apply Loctite 242 (P/N 4137030 00) on fasteners when reassembling and tighten with proper torques.

Raise rear of vehicle and block safely.

Remove rear suspension, track, seat and rear mouldings.

Lower vehicle and support it safely. Remove rear bumper and snow guard.

Discard track, rear mouldings and screws.

Remove reflectors and screws, **DO NOT DISCARD**, they will be reused.

### **Models with standard rivets**

Use a 5 mm (13/64 in) drill bit and drill out rivets retaining rear cap then remove it from tunnel.

### **Models with self-piercing rivets**

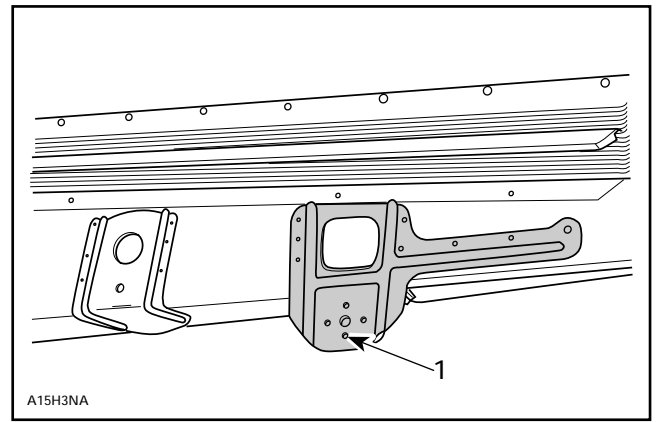
Grind the rivet end (side opposite of head) then removed with a punch. For tight areas, drill rivets with a 5 mm (3/16 in) cobalt drill bit (P/N 414 9614 00).

**NOTE:** Always place a backing plate surrounding the rivet head prior to punching out rivet. Omitting to do so may damage the aluminum area surrounding the rivet hole.

## PROCEDURE

Using the pre-drilled LOWER hole of suspension rear bracket as a guide, drill a 10 mm (25/64 in) hole from inside the tunnel.

Remove burrs from drilled holes.

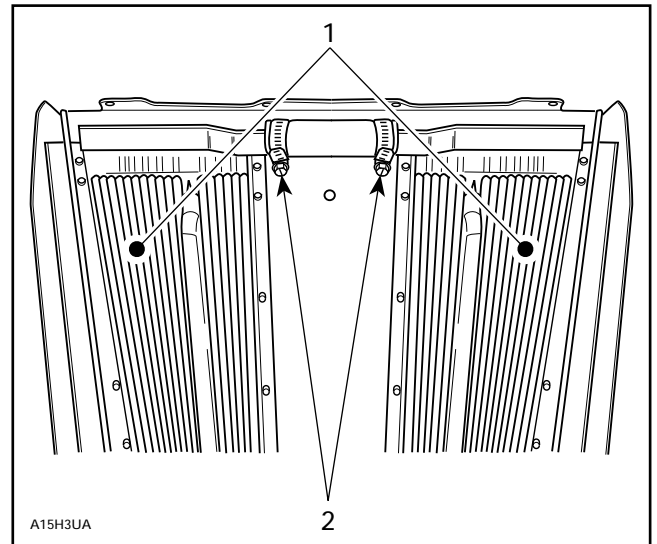


**RIGHT SIDE VIEW OF TUNNEL**

1. Drill this pilot hole to 10 mm (25/64 in)

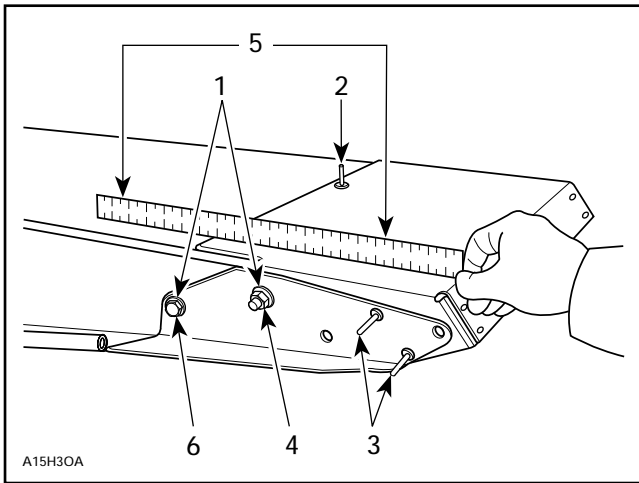
From underneath tunnel, ensure that the gear clamp screw heads securing the hose between the heat exchangers are pointing toward the front of vehicle. Reposition as necessary. To avoid disconnecting hose, unscrew collar completely, remove and rotate. Reinstall and tighten firmly. This is necessary to properly install the heat exchanger protectors.

Install heat exchanger protectors **no. 31**.



1. Heat exchangers
2. Screw heads must be facing this direction

Position top part of tunnel extension **no. 22** over tunnel and side parts inside tunnel. Position reinforcement plates **no. 39** and **no. 40** on outer side of tunnel. Secure with bolts **no. 23**, flat washers **no. 24** and flanged elastic nuts **no. 25**. Pass bolts through extension, tunnel and plates. Ensure to place bolt head and nut as per illustration. Temporarily insert rivets **no. 26** into rear holes for proper alignment. Tighten bolts.



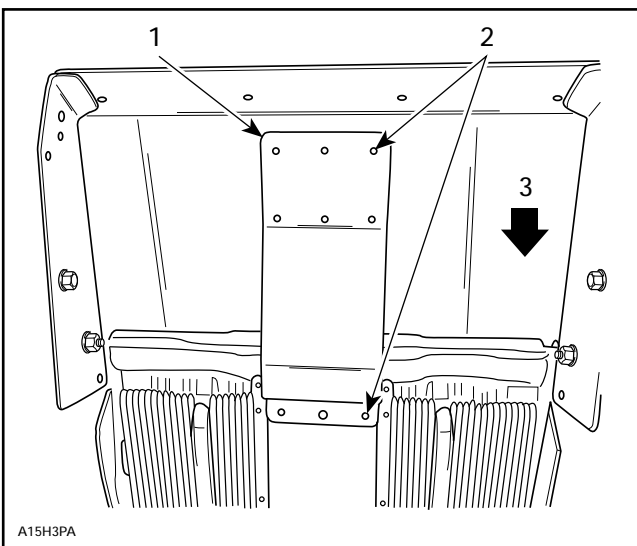
1. M8 bolts, washers and nuts
2. Insert a first rivet here
3. Temporary rivets for alignment purposes only
4. Nut on this side
5. Parallel
6. Bolt head on this side

**NOTE:** Using a 5 mm (3/16 in) drill bit, enlarge the front/center hole on the extension protector.

From underneath tunnel, install extension protector **no. 29** from top of tunnel, insert a rivet **no. 26** in FRONT CENTER hole of extension. Center protector from left to right, then retain rear of protector on tunnel extension with a C-clamp. Secure front rivet **no. 26** and drill other holes with a 5 mm (13/64 in) drill bit.

Using a straight edge, ensure that extension is parallel with tunnel on each side. Reposition parts as necessary.

Using protector holes as a guide, drill rear holes in tunnel. Install rivets **no. 26**.



1. Extension protector
2. Use these holes as a drilling guide
3. Front

Using tunnel as a guide, drill holes in extension. Do not drill holes in rear corners of extension yet. **DO NOT** drill side rear holes of tunnel.

Remove burrs then rivet rear part of protector and extension using rivets **no. 26** to tunnel in the following sequence:

- Top front of extension.
- Sides of extension.
- Drill rear corners of extension and rivet.

Remove C-clamp.

Using reinforcement plates as a guide, drill foot-board. Rivet making sure to use rivets **no. 26** and washers **no. 38**. Position washers beneath foot-board.

Drill a 6 mm (15/64 in) hole close to rear bolt of reinforcement plates. This is required for rear moulding attachment.

Reinstall rear bumper using existing fasteners.

Reuse reflectors and screws. Install new rear mouldings **no. 32** and **no. 33** using new self-tapping screws **no. 34**.

Round exterior front corner of mouldings.

Reinstall seat.

Install new track **no. 21** paying close attention to the direction of rotation.

Refill chaincase with Bombardier synthetic chaincase oil (P/N 413 8028 00).

## Rear Suspension

To ease the job, raise rear arm and secure with an appropriate locking tie.

Remove the rear rubber stoppers and discard push nuts.

Remove rear axle and components.

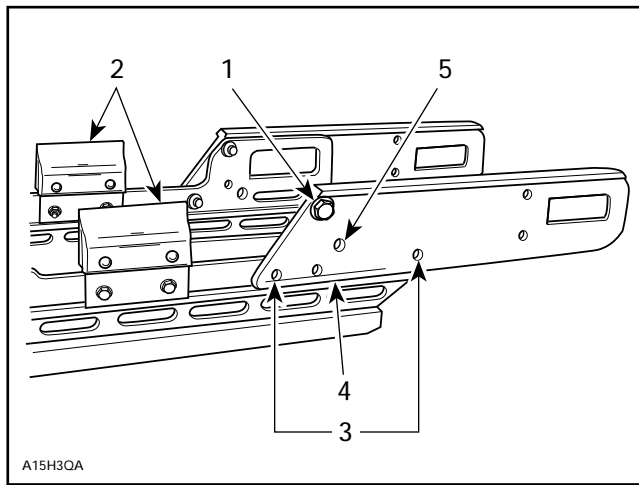
Discard the 4 bushings on rear axle and the 4 M8 x 25 bolts (track tension adjuster).

Install stopper extensions **no. 16** inside groove of stoppers. Reuse pins and secure with new push nuts **no. 20**.

Secure stopper extensions to runners with bolts **no. 17**, flat washers **no. 18** and flanged elastic nuts **no. 19**, making sure to position extensions on outer side of runners.

Position rail extension **no. 1** outside of rail. Secure to upper front hole using bolts **no. 2**, flat washers **no. 3** and flanged elastic nuts **no. 4**. Ensure that rail extension is touching all along rail.

Using an 8 mm (5/16 in) and 10 mm (13/32 in) drill bits, drill holes in rail using extension as a guide. drill the smallest holes first.



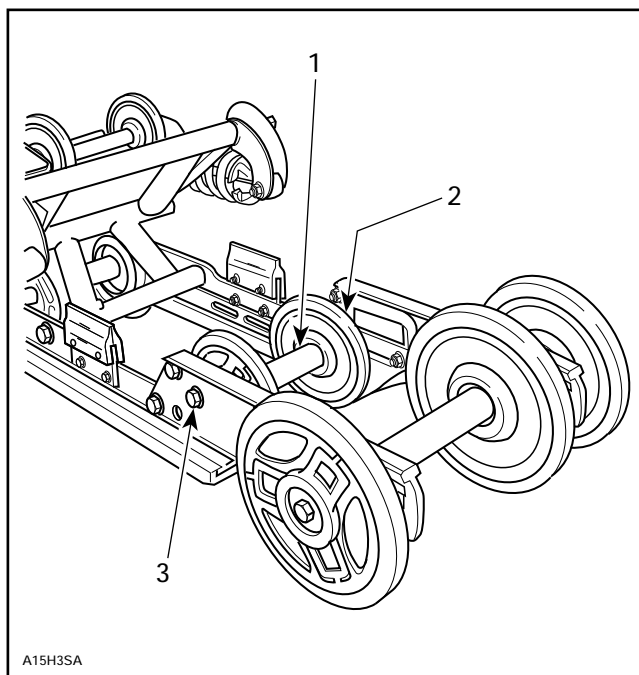
1. Secure here with bolts no. 2, washers no. 3 and nuts no. 4
2. Stopper extension
3. Drill 8 mm (5/16 in) holes first
4. Must touch all along
5. Drill 10 mm (13/32 in) hole last

Secure extension to rail with remaining bolts no. 2, washers no. 3 and nuts no. 4, then tighten.

Slacken track tension adjuster bolt and insert spacer plate no. 8 between rail extension and adjuster. Use new bolts no. 9 and existing nuts to secure.

Install ball bearings no. 35 into idler wheels no. 11, retain bearings using circlips no. 36.

Install center axle no. 10, idler wheels no. 11 and spacers no. 12 in front of rear axle location. Secure with M10 bolts no. 15, lock washers no. 14 and flat washers no. 13.

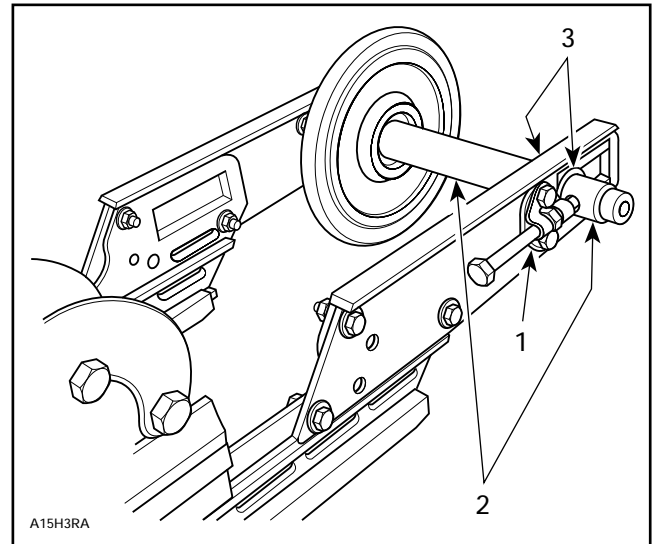


1. Center axle
2. Spacer
3. M10 bolt no. 15, lock washer no. 14 and flat washer no. 13

**NOTE:** Install bolt in highest hole.

Reinstall rear axle with new spacers. Long spacer no. 5, short spacer no. 6 and exterior spacer no. 7. Reuse other components. Apply Loctite 242 (blue) to bolt threads).

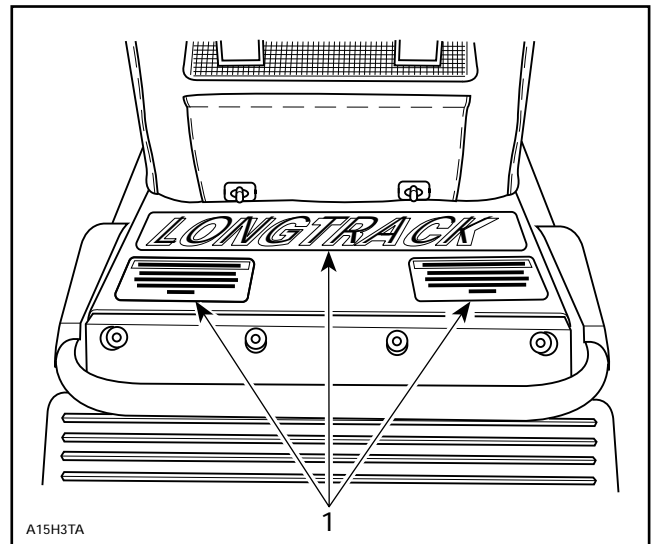
Ensure to reinstall thin shims to each side of rails.



1. Spacer plate
2. New spacers here no. 5, no. 6 and no. 7, each side
3. Thin shim (each side)

Reinstall rear suspension in tunnel. Pay attention to secure rear suspension attachment in LOW-EST hole which was drilled earlier.

Apply (LONGTRACK) extension decal no. 30 and warning label no. 37 on top of tunnel extension.



1. Decals

Install snow guard reinforcement no. 41 and snow guard with new rivets no. 27 and flat washers no. 28.

Perform chain tension adjustment as well as track tension and alignment.

Test snowmobile.

## 861 7540 00

1.	503 1697 00	Rail Extension (2)	Rallonge de porte-glissière (2)
2.	222 0830 65	Bolt M8 x 30 (6)	Boulon M8 x 30 (6)
3.	224 0812 01	Flat Washer (6)	Rondelle plate (6)
4.	228 7810 45	Flanged Elastic Nut M8 (6)	Écrou à épaulement élastique M8 (6)
5.	503 1567 00	Long Spacer	Entretoise (longue)
6.	503 1568 00	Short Spacer	Entretoise (courte)
7.	503 1566 00	Exterior Spacer (2)	Entretoise (extérieure) (2)
8.	503 1565 00	Spacer Plate (2)	Plaque d'écartement (2)
9.	222 0830 65	Bolt M8 (4)	Boulon M8 (4)
10.	503 1403 00	Center Axle	Essieu central
11.	570 0452 02	Idler Wheel (2)	Roue de support (2)
12.	503 1404 00	Spacer (2)	Entretoise (2)
13.	224 0012 11	Flat Washer M10 (2)	Rondelle plate M10 (2)
14.	224 7011 88	Lock Washer (2)	Rondelle-frein (2)
15.	222 0045 65	Bolt M10 x 45 (2)	Boulon M10 x 45 (2)
16.	503 1572 00	Stopper Extension (2)	Rallonge de butée (2)
17.	222 0525 65	Bolt M5 x 25 (4)	Boulon M5 x 25 (4)
18.	224 0511 11	Flat Washer M5 (4)	Rondelle plate (4)
19.	228 7510 45	Flanged Elastic Nut M5 (4)	Écrou à épaulement élastique M5 (4)
20.	389 8043 00	Push Nut (4)	Écrou à pression (4)
21.	570 2086 00	Track (15 x 136 in)	Chenille (15 x 136 po)
22.	503 1571 00	Tunnel Extension	Rallonge de tunnel
23.	222 0820 65	Bolt M8 x 20 (4)	Boulon M8 x 20 (4)
24.	224 0811 71	Flat Washer M8 (4)	Rondelle plate M8 (4)
25.	228 7810 45	Flanged Elastic Nut M8 (4)	Écrou à épaulement élastique M8 (4)
26.	390 4036 00	Rivet (27)	Rivet (27)
27.	390 9096 00	Rivet (4)	Rivet (4)
28.	517 2259 00	Flat Washer (4)	Rondelle plate (4)
29.	503 1570 00	Extension Protector	Protecteur de rallonge
30.	414 9365 00	Extension Decal (Not Illustrated)	Autocollant de chenille allongée (non illustré)
31.	415 0123 00	Heat Exchanger Protector (2)	Protecteur d'échangeur de chaleur (2)
32.	572 0495 00	Moulding (Right Side)	Enjoliveur droit
33.	572 0494 00	Moulding (Left Side)	Enjoliveur gauche
34.	365 9011 00	Self-Tapping Screw (6)	Vis à tôle (6)
35.	405 4045 00	Ball Bearing (2)	Roulement (2)

861 7540 00

36.	371 9017 00	Circlip (2)	Circlip (2)
37.	414 9366 00	Warning Label (Not Illustrated)	Étiquette d'avertissement (non illustré)
38.	517 2259 00	Flat Washer (6)	Rondelle plate (6)
39.	518 3119 00	Reinforcement Plate (Left Side)	Plaque de renfort (gauche)
40.	518 3120 00	Reinforcement Plate (Right Side)	Plaque de renfort (droite)
41.	517 2852 00	Snow Guard Reinforcement	Renfort pour garde-neige