

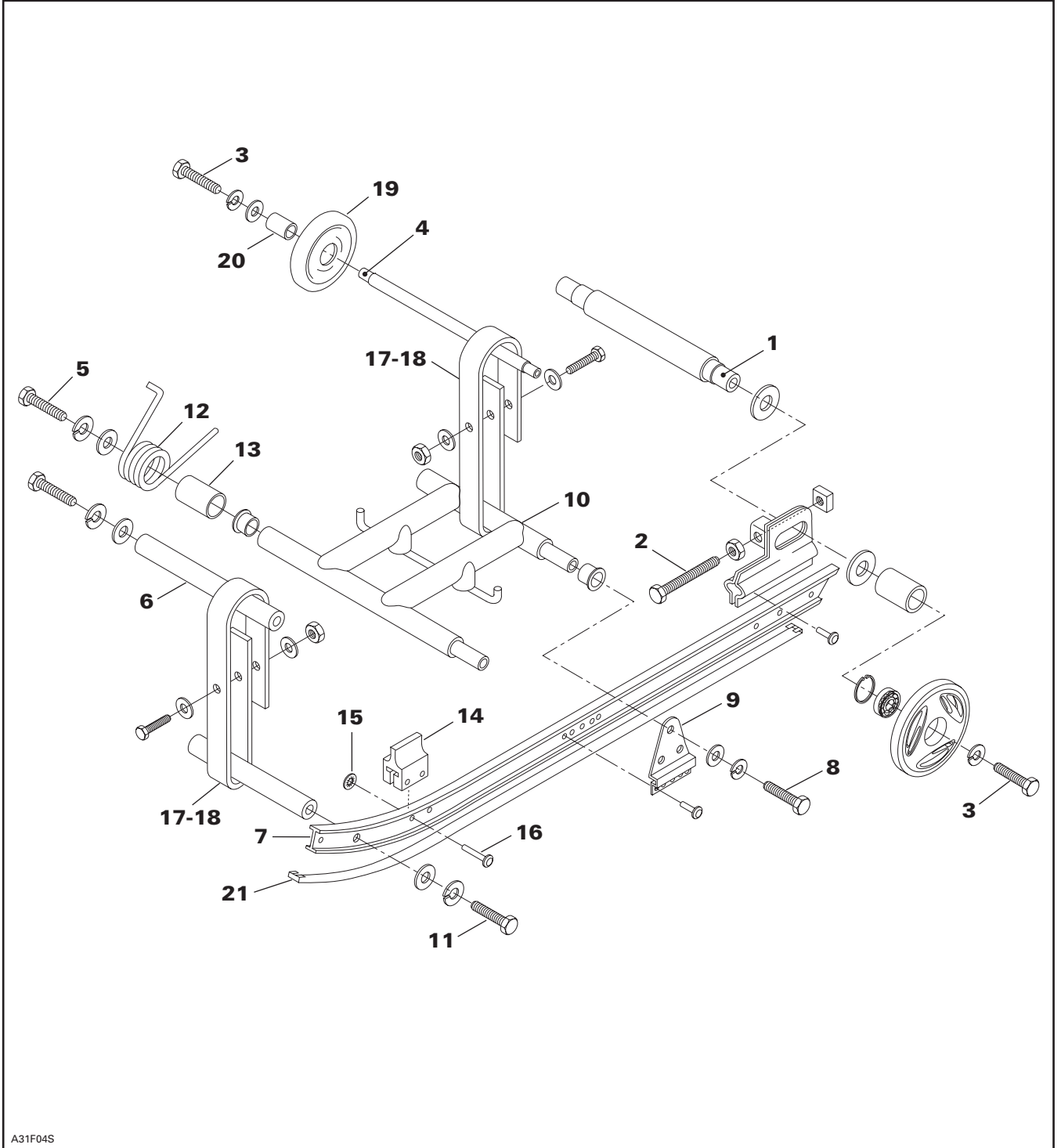
TABLE OF CONTENTS

REAR SUSPENSION	07-02-1
REMOVAL	07-02-2
DISASSEMBLY AND ASSEMBLY.....	07-02-3
INSPECTION	07-02-5

DRIVE AXLE	07-03-1
REMOVAL.....	07-03-2
DISASSEMBLY AND ASSEMBLY.....	07-03-3
INSTALLATION	07-03-3

TRACK	07-04-1
GENERAL	07-04-1
INSPECTION	07-04-1
REMOVAL.....	07-04-1
INSTALLATION	07-04-1

REAR SUSPENSION



Section 07 REAR SUSPENSION

Subsection 02 (REAR SUSPENSION)

NOTE: The following is the complete procedure to remove rear suspension ass'y. However some suspension components can be removed without removing suspension ass'y. See DISASSEMBLY AND ASSEMBLY procedure.

REMOVAL

Lift rear of snowmobile and support it off the ground.

1, Rear Axle

NOTE: Removing rear axle first will ease rear suspension ass'y removal.

Completely release track tension by loosening adjustment screws **no. 2**.

Unscrew one rear idler wheel screw **no. 3**.

Pull out rear axle **no. 1** from opposite side of offset inner wheel.

Rear Suspension

Position a small block below track.

Lower snowmobile so that track sits on block.



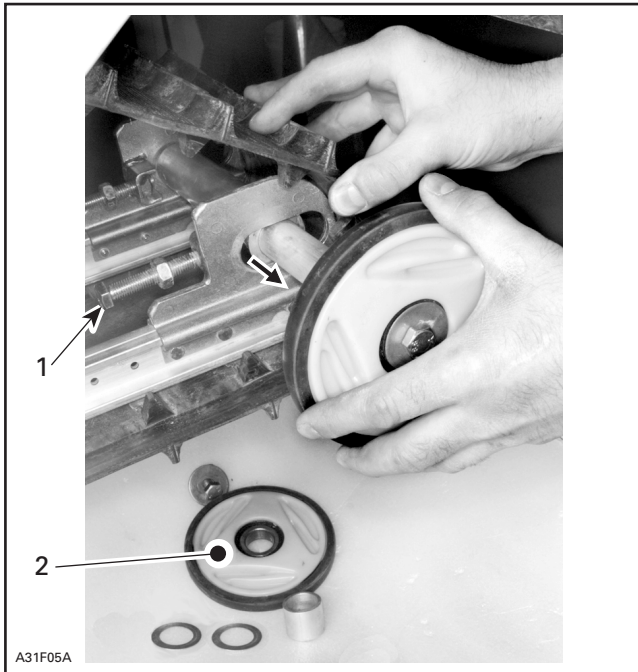
POSITION A SMALL BLOCK BELOW TRACK

Lean on snowmobile seat then unscrew upper idler wheel axle **no. 4** from tunnel.



1. Unscrew upper idler wheel axle

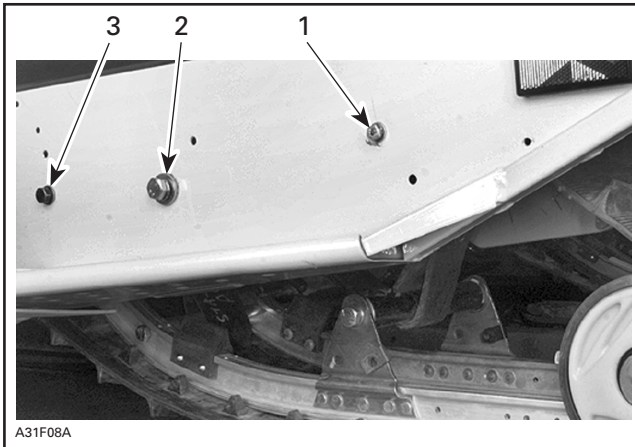
Remove both screws **no. 5** retaining front arm to tunnel.



PULL OUT REAR AXLE

- 1. Loosen this adjustment screw on both sides to release track tension**
- 2. Idler wheel previously removed**

Unscrew front retainer axle **no. 6** (retaining front strap) from tunnel. See the following photo.



1. Upper idler wheel screw
2. Front arm screw
3. Front retainer axle screw

Lift rear of snowmobile.

Pull out suspension ass'y.

DISASSEMBLY AND ASSEMBLY

Inspect track thoroughly before reinstalling suspension. Refer to TRACK 07-04.

7, Runner

NOTE: Runner **no. 7** can be removed without removing suspension assembly, as described in the following procedure.

Lift rear of snowmobile.

Completely release track tension.

Remove rear axle **no. 1** with idler wheels.

Remove screws **no. 8** retaining runner support **no. 9** to front arm **no. 10**, as shown in the following photo.



REMOVE SCREW

Remove front axle screw **no. 11**, as shown in the following photo.



REMOVE SCREW

Section 07 REAR SUSPENSION

Subsection 02 (REAR SUSPENSION)

Pull out runner from track, as shown in the next photo.



PULL OUT RUNNER

To reinstall runner, reverse removal procedure.

12, Torsion Spring

NOTE: Torsion springs can be replaced without completely removing rear suspension ass'y, as described in the following procedure.

Lift rear of snowmobile.

Completely release track tension.

Remove rear axle **no. 1** with idler wheels.

Lower snowmobile.

Lean on snowmobile seat then unscrew upper idler wheel axle **no. 4** from tunnel.



1. Unscrew upper idler wheel axle

Remove both screws **no. 5** retaining front arm to tunnel.

Lift rear of snowmobile so that rear suspension ass'y comes out of tunnel.

Remove torsion spring **no. 12**, as shown in the next photo.



REMOVE TORSION SPRING

Section 07 REAR SUSPENSION
Subsection 02 (REAR SUSPENSION)

Remove bushing no. 13, as shown in the next photo. Clean all surfaces and check for excessive wear.



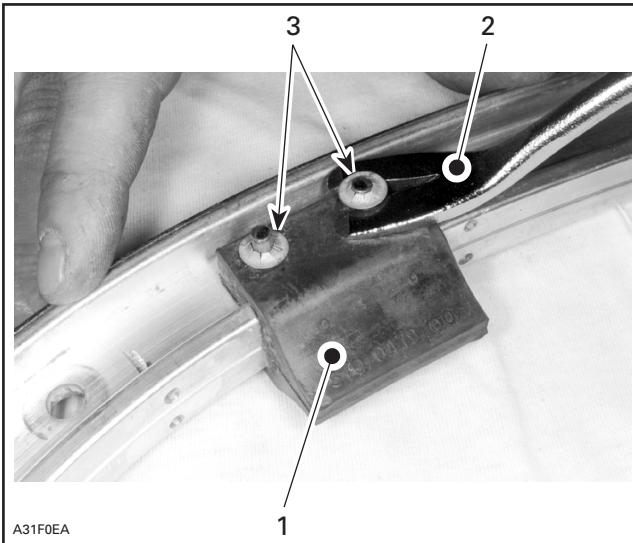
REMOVE AND CLEAN BUSHING

To reinstall, reverse removal procedure.

14,15,16, Rubber Stopper

NOTE: Rubber stopper no. 14 can be replaced with runner and suspension ass'y in place.

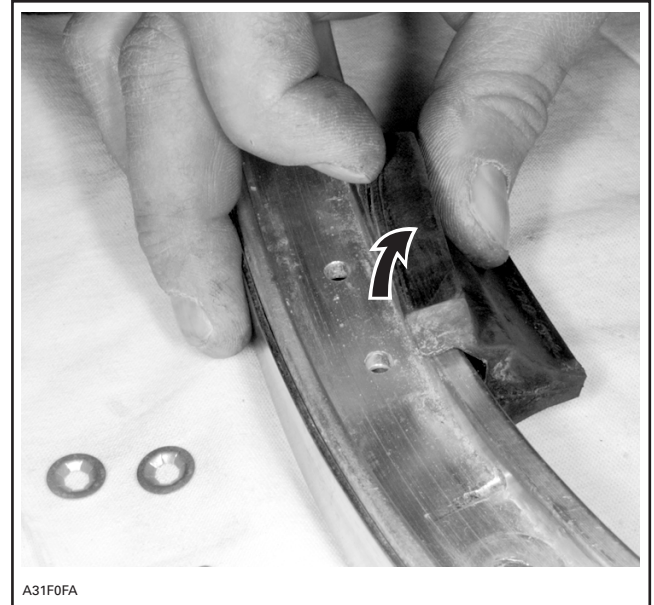
Using special tool Snap-on A161B, remove push nuts no. 15 as shown in the next photo.



1. Rubber stopper
2. Special tool Snap-on A161B
3. Push nuts

Remove retaining pins no. 16.

Lift rubber stopper tab and remove it.



REMOVE RUBBER STOPPER

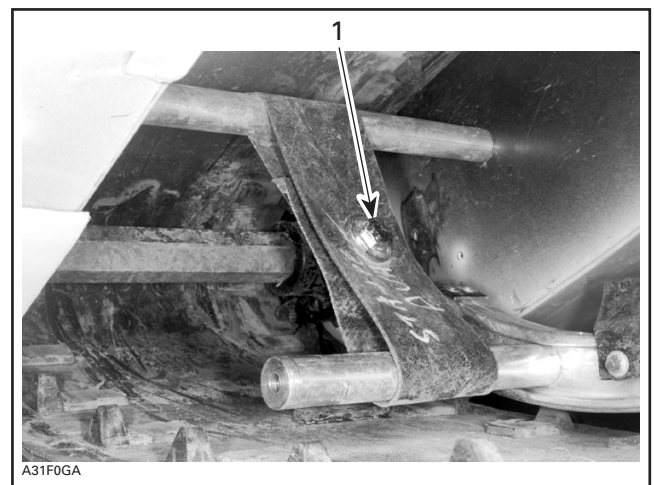
Reinstall rubber stopper no. 14 with retaining pins no. 16 and push nuts no. 15.

CAUTION: When reusing original push nuts, ensure that they are in good condition. If not, replace with new push nuts.

INSPECTION

17,18, Stopper Straps

Inspect straps for wear or cracks, bolts and nuts for tightness. If nuts are loose, inspect hole for deformation. Replace as required.



TYPICAL — FRONT STRAP SHOWN

1. Inspect bolts and nuts for tightness

Section 07 REAR SUSPENSION

Subsection 02 (REAR SUSPENSION)

19,20, Upper Idler Wheels

Remove bushing no. 20 and idler wheel no. 19 from shaft no. 4, as shown in the next photo.

Clean parts and check for wear and bearing condition.



CHECK BUSHING, WHEEL AND SHAFT CONDITION

21, Slider Shoe

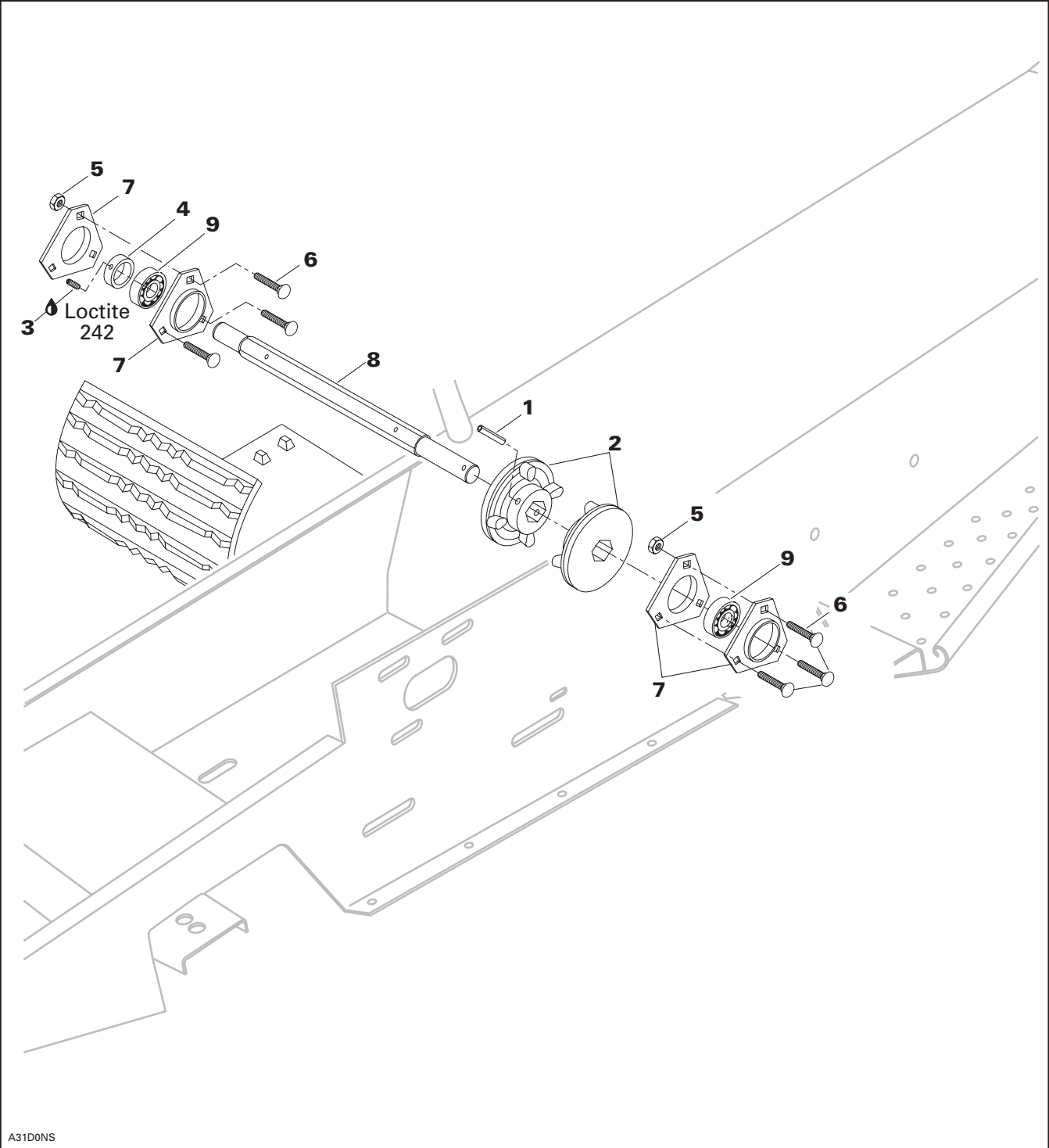
Inspect slider shoes no. 21 for wear.

CAUTION: Even if only one slider shoe needs to be replaced, always replace both ones. Slider shoes must always be replaced in pairs.

To replace slider shoes:

- Remove left side runner.
- Bend tabs from used slider shoe then remove it.
- Install new slider shoe on one end of the runner, then clip second end.
- Secure slider shoe by bending tabs onto runner.
- Repeat procedure on right side.

DRIVE AXLE



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Section 07 REAR SUSPENSION

Subsection 03 (DRIVE AXLE)

REMOVAL

Remove chain guard.

Remove drive chain then remove driven sprocket.

NOTE: To ease driven sprocket and drive axle removal, it may be useful to remove left side foot-rest.

Remove rear suspension. Refer to REAR SUSPENSION 07-02 of this manual.

Sprocket

From inside tunnel, remove spring pin **no. 1** from right side sprocket using a hammer and a punch, as shown.



REMOVE SPRING PIN

Using a prybar and a piece of wood (to protect tunnel), slide right side sprocket **no. 2** (38 mm (1-1/2 in)). See the next photo.

NOTE: Apply BOMBARDIER LUBE (P/N 293 600 016 — 12 x 14 oz) on drive axle to ease sliding sprocket.

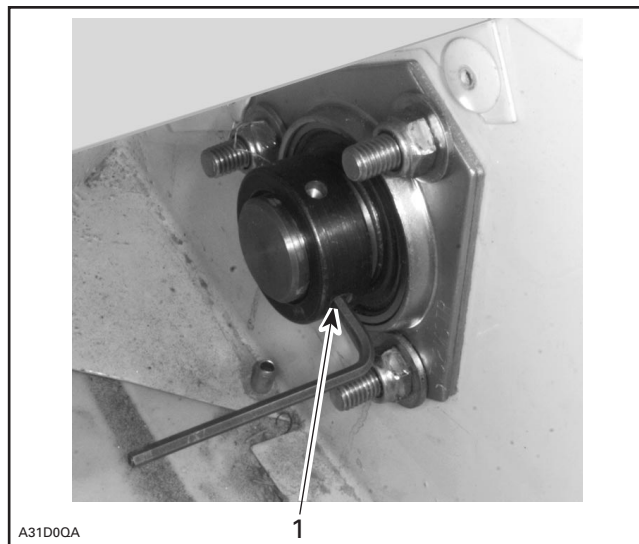
CAUTION: When using prybar, ensure not to apply too much pressure on tunnel wall in order to avoid damaging tunnel.



SLIDE RIGHT SIDE SPROCKET INSIDE

Bearing Holder

Using Allen key loosen set screw **no. 3** from bearing lock sleeve **no. 4**, as shown in the next photo.



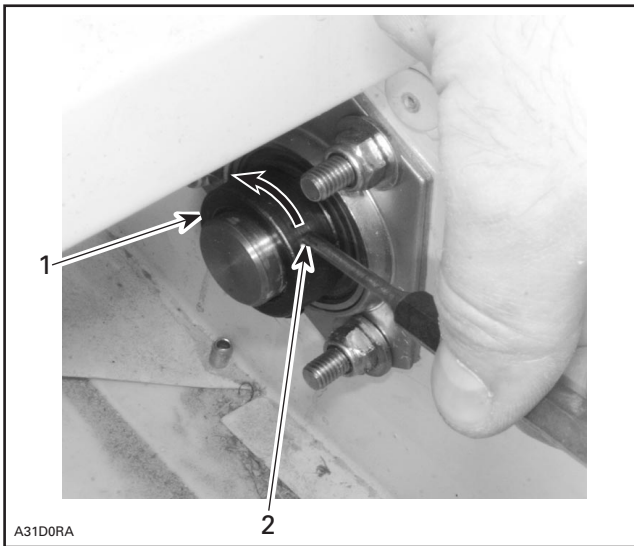
RIGHT SIDE SHOWN

1. Loosen set screw

Using a hammer and a punch, turn CCW to unlock bearing lock sleeve as shown.

Section 07 REAR SUSPENSION

Subsection 03 (DRIVE AXLE)



1. Lock sleeve
2. Position punch in this hole

Remove 3 bearing holder nuts **no. 5** and screws **no. 6** then detach both halves **no. 7** using a flat screwdriver. See the following photo.

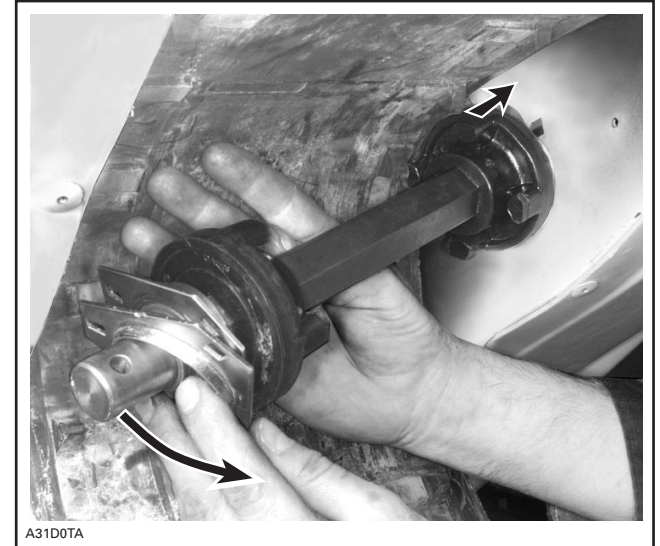


DETACH BEARING HOLDER HALVES

Repeat procedure for left side bearing, except for lock sleeve.

Drive Axle Ass'y

Pull out drive axle ass'y **no. 8**, as shown in the next photo.



PULL OUT DRIVE AXLE ASS'Y

DISASSEMBLY AND ASSEMBLY

Bearing and Sprocket

To remove or to install bearings **no. 9** and sprockets **no. 2**, use a press.

CAUTION: Ensure that bearings and sprockets are properly supported near hub and that spring pins have been removed from sprockets, before removal.

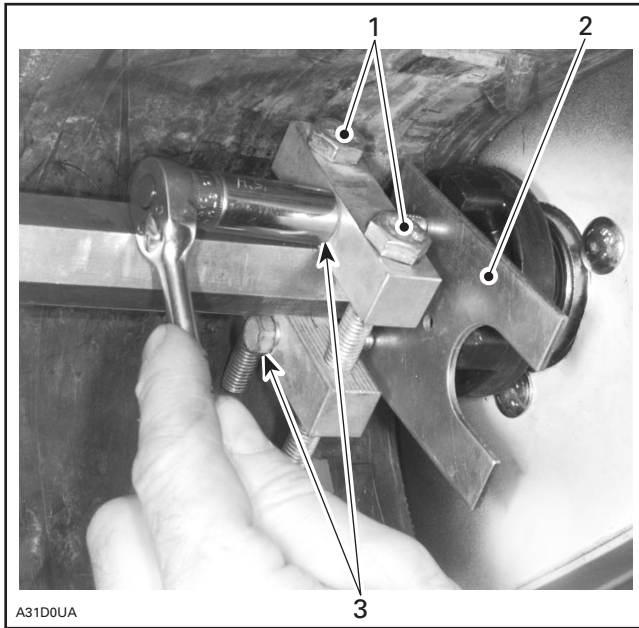
INSTALLATION

Reverse the removal procedure and pay a special attention to the following points.

Sprockets can be positioned with drive axle in place. In that case use drive axle sprocket adjuster (P/N 861 725 700), as shown in the following photo.

Section 07 REAR SUSPENSION

Subsection 03 (DRIVE AXLE)



1. Tighten tool on drive axle with these screws
2. Install plate to protect sprocket
3. Use these screws to move sprocket

Reinstall spring pins as shown in the next photo.

CAUTION: Ensure that drive axle spring pin hole is properly aligned with sprocket hole.

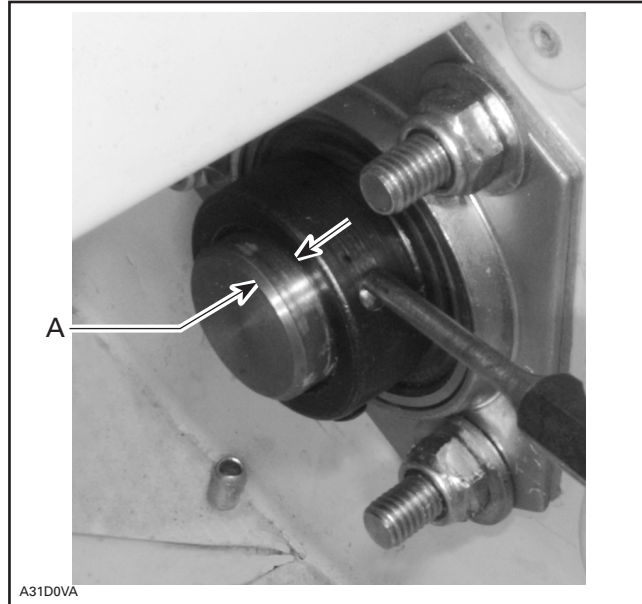


REINSTALL SPRING PIN

Drive Axle Alignment

To ensure that drive axle sprockets are properly aligned with track guides, measure right side drive axle end.

Drive axle must exceed bearing locking sleeve by 4 mm (5/32 in), as shown in the next photo. If not, realign drive axle.



A. 4 mm (5/32 in)

Tighten (clockwise) bearing lock sleeve and secure with set screw. Apply Loctite 242 on set screw threads.

TRACK

GENERAL

This section gives guidelines for track removal. Some components require more detailed disassembly procedures. In these particular cases, refer to the pertaining section in this manual.

INSPECTION

Visually inspect track for:

- cuts and abnormal wear
- missing or defective inserts or guides

If track is damaged, replace track.

WARNING

Do not operate a snowmobile with a cut, torn or damaged track.

REMOVAL

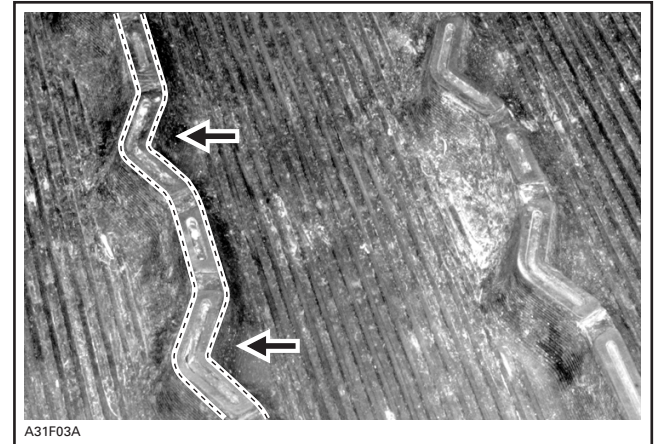
Remove the following items:

- chainguard
- drive chain and driven sprocket
- rear suspension
- end bearing housing
- drive axle
- track

INSTALLATION

Reverse the removal procedure.

NOTE: When installing the track, respect rotation direction indicated by shaped arrows on track thread.



TRACK ROTATION

Track Tension and Alignment

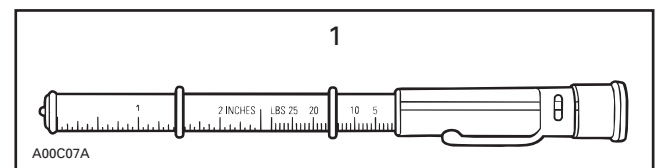
Track tension and alignment are interrelated. Do not adjust one without checking the other. Track tension procedure must be carried out prior to track alignment.

Tension

Lift the rear of vehicle and support with a mechanical stand. Allow the suspension to extend normally. Check the gap 60 mm (2-3/8 in) from rear idler wheel bracket.

Deflection should be 35 mm (1-3/8 in) between slider shoe and bottom inside of track, when exerting a downward force of 7.3 kg (16 lb).

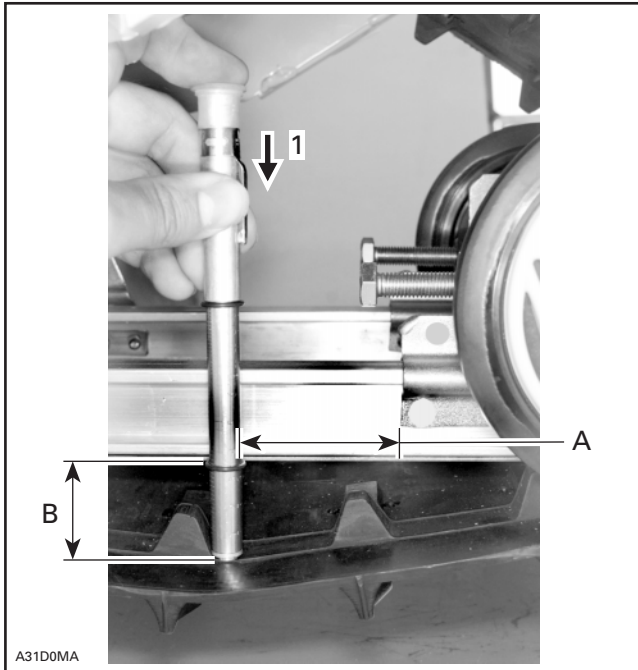
Use tension tester (P/N 414 348 200) to measure deflection as well as force applied.



1. Belt tension tester

Section 07 REAR SUSPENSION

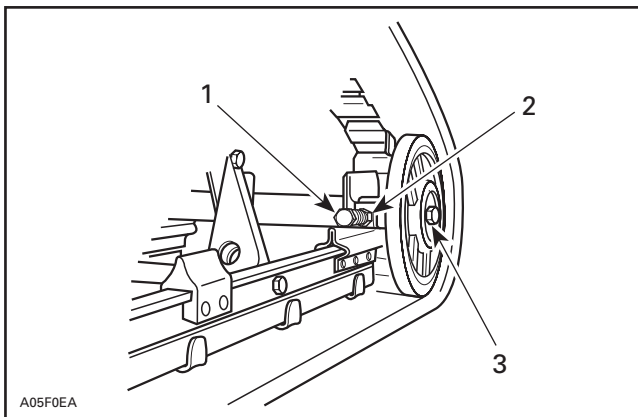
Subsection 04 (TRACK)



1. 7.3 kg (16 lb)
- A. 60 mm (2-3/8 in)
- B. 35 mm (1-3/8 in)

CAUTION: Too much tension will result in power loss and excessive stress on suspension components. If too loose, the track will have a tendency to thump.

To adjust, loosen the rear idler wheel retaining screws and the adjustment screw lock nuts; then loosen or tighten the adjustment screws located on the inner side of the rear idler wheels.



TYPICAL

1. Adjustment screw
2. Lock nut
3. Retaining screw

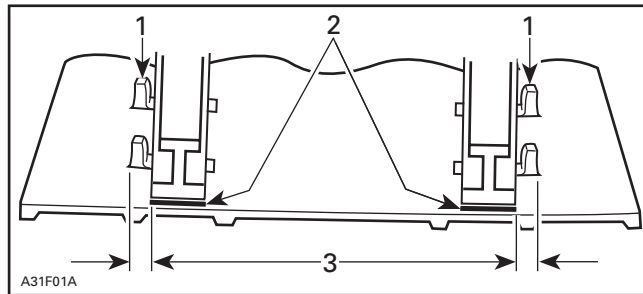
Alignment

WARNING

Before checking track tension, ensure that the track is free of all particles which could be thrown out while it is rotating. Keep hands, tools, feet and clothing clear of track. Ensure no one is standing in close proximity to the vehicle.

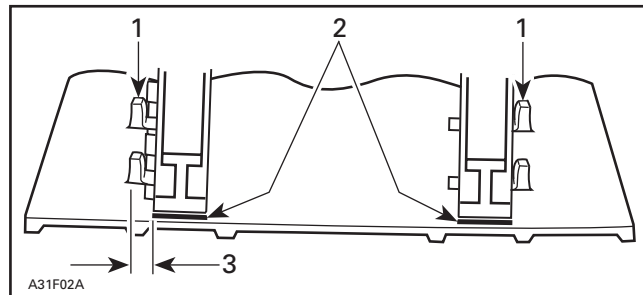
With rear of vehicle supported off the ground, start engine and allow the track to rotate **slowly**.

Check that the track is well centered; equal distance on both sides between edges of track guides and slider shoes.



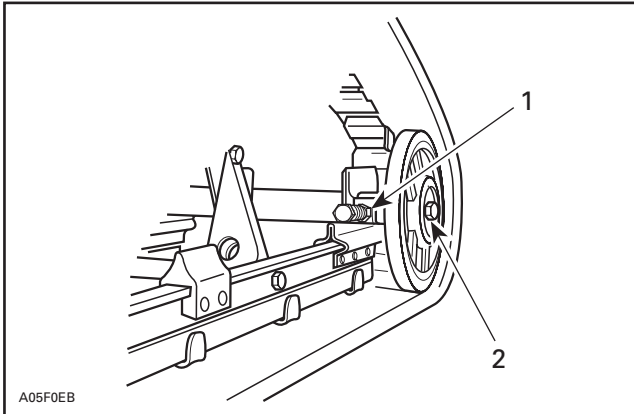
1. Guides
2. Slider shoes
3. Equal distance

To correct, stop engine then loosen the lock nuts and tighten the adjustment screw on side where guides are farthest to runner. Tighten lock nuts and recheck alignment.



1. Guides
2. Slider shoes
3. Tighten on this side

Tighten lock nuts and the idler wheel retaining screws.



TYPICAL

1. *Retighten lock nuts*
2. *Retighten rear idler wheel retaining screws*

Restart engine, rotate track **slowly** and recheck alignment.